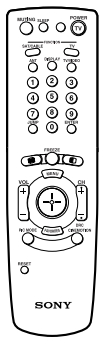


SERVICE MANUAL

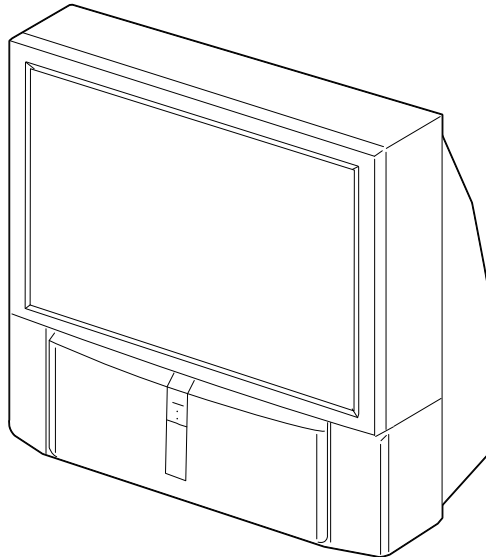
RA-6 CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
<i>KP-HR432K90</i>	<i>RM-Y909K</i>	<i>Korean</i>	<i>SCC-P73B-A</i>
<i>KP-HR532K90</i>	<i>RM-Y909K</i>	<i>Korean</i>	<i>SCC-P73A-A</i>
<i>KP-HR532N90</i>	<i>RM-Y908</i>	<i>Taiwan</i>	<i>SCC-P74A-A</i>
<i>KP-HW572K90</i>	<i>RM-Y909K</i>	<i>Korean</i>	<i>SCC-P73C-A</i>

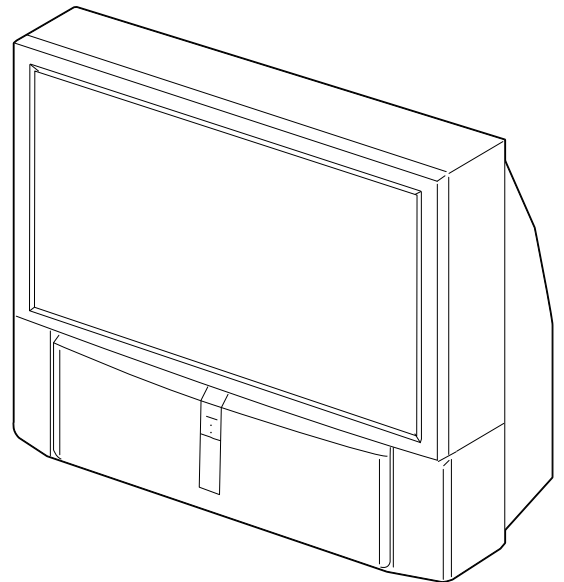
<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>



RM-Y908/Y909K



KP-HR432K90/HR532K90/HR532N90



KP-HW572K90

Specifications

Projection System	3 picture tubes, 3 lenses, horizontal in-line system	
Picture Tube	7-inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system	
Projection Lenses	High performance, large diameter hybrid lens F1.1	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard	
Screen Size (measured diagonally)	43 inches (KP-HR432N90) 53 inches (KP-HR532K90/HR532N90) 57 inches (KP-HW572K90)	
Channel Coverage		
VHF	2-13	
UHF	14-69	
CATV	1-125	
Power Requirements	110 V AC, 60 Hz (KP-HR532N90) 220 V AC, 60 Hz (KP-HR432K90/HR532K90/HW572K90)	
Number of Inputs/Outputs		
Video (IN)	4	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	6	500 mVrms (100% modulation) Impedance: 47 kilohms
AUDIO (VAR/FIX)	1	500 mVrms at the maximum volume setting (Variable) 500 mVrms (Fixed) Impedance (output): 2 kilohms
TV Out	1	Video: 1 Vp-p 75 ohms unbalanced, Sync negative Audio: 500 mVrms (100% modulation) Impedance (output): 1 kilohms
CONTROL S (IN/OUT)	1	Minijacks
Component Video Input	2 (Y, P _B , P _R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative P _B : 0.7 Vp-p, 75 ohms P _R : 0.7 Vp-p, 75 ohms
RF Inputs	2	
Converter	1	
Speaker Output	20 W x 2	
Dimensions (W x H x D)	966 x 1,072 x 570 mm (KP-HR432K90) 1,180 x 1,430 x 626 mm (KP-HR532K90) 1,180 x 1,417 x 632 mm (KP-HR532N90) 1,326 x 1,377 x 690 mm (KP-HW572K90)	
Mass	56 kg (KP-HR432K90) 71 kg (KP-HR532K90) 71.2 kg (KP-HR532N90) 89 kg (KP-HW572K90)	
Power Consumption		
In Use	280 W (KP-HR532N90) 230 W (KP-HR432K90/HR532K90/HW572K90)	
In Standby	1 W (KP-HR532N90) 1.2 W (KP-HR432K90/HR532K90/HW572K90)	
Supplied Accessories		
Remote Control	RM-Y908 (KP-HR532N90) RM-Y909K (KP-HR432K90/HR532K90/HW572K90)	
AA (R6) Batteries	2 supplied for remote control	

Design and specifications are subject to change without notice.

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ! ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

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SECTION 1

SELF DIAGNOSIS FUNCTION

1. Summary of Self-Diagnosis Function

- This device includes a self-diagnosis function.
- In case of abnormalities, the STAND BY indicator automatically blinks. It is possible to predict the abnormality location by the number of blinks. The Instruction Manual describes blinking of the /STAND BY indicator.
- If the symptom is not reproduced sometimes in case of a malfunction, there is recording of whether a malfunction was generated or not. Operate the remote command to confirm the matter on the screen and to predict the location of the abnormality.

2. Diagnosis Items and Prediction of Malfunction Location

- When a malfunction occurs the STAND BY indicator only blinks for one of the following diagnosis items. In case of two or more malfunctions, the item which first occurred blinks. If the malfunctions occurred simultaneously, the item with the lower blink count blinks first.
- The screen display displays the results regarding all the diagnosis items listed below. The display “ 0 ” means that no malfunctions occurred.

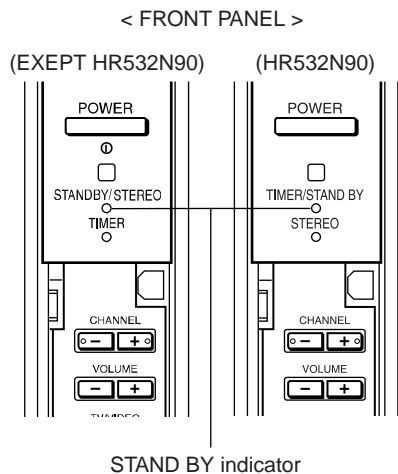
Diagnosis Item	No. of times STANDBY indicator blinks	Probable Cause Location	Detected symptoms
Power does not turn on	0	•Power cord is not plugged in. • Fuse is burned out (F6001) (G board)	• Power does not come on. • No power is supplied to the unit. • AC power supply is faulty.
+B overcurrent (OCP) (See Note 1)	2 times	• H. OUT (Q8024) is shorted. (D board) • +B PWM (Q8035, 8038) is shorted. (D board)	• Power does not come on. • Load on power line is shorted.
+B overvoltage (OVP)	3 times	• IC501 is faulty (G board) • IC5002 is faulty (G board)	• Has entered standby mode.
Vertical deflection stopped	4 times	• + 15V is not supplied. (D board) • IC8003 is faulty. (A board)	• Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
White balance failure (Not balanced)	5 times	• Video out (IC7101, 7201, 7301) is faulty. (CR, CG, CB board) • CRT drive (IC309) is faulty. (A board) • G2 is improperly adjusted. (See Note 2)	• No raster is generated. • CRT cathode current detection reference pulse output is small.
LOW B OCP/OVP (Overcurrent/over voltage) (See Note 3)	6 times	• +5 line is overloaded. (A, B boards) • +5 line is shorted. (A, B boards)	• No picture • No picture
Horizontal deflection stopped	7 times	• Q8035, 8038 is shorted. (D board)	
High voltage error	8 times	• T8005 is faulty. (D board)	
Audio error	9 times	• + 19V line is shorted. (A, B boards) • IC708 is faulty. (A board) • PS701 or PS702 is opened. (A board)	• No sound

Note 1: If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on screen.

Note 2: Refer to Screen (G2) Adjustment in Section 3-1, 2 of this manual.

Note 3: If STANDBY indicator blinks six (6) times, unplug the unit and wait 10 minutes before performing the adjustment.

3. Blinking count display of STAND BY indicator

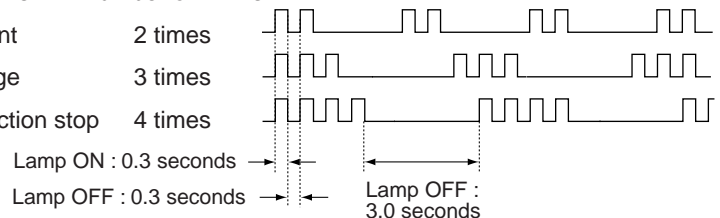


* One blink is not used for self-diagnosis.

•EXAMPLE

<Diagnosis Items> <Number of Blinks>

- +B overcurrent 2 times
- +B overvoltage 3 times
- Vertical deflection stop 4 times



Release of STAND BY indicator blinking.

- The STAND BY indicator blinking display is released by turning OFF the power switch on the TV main unit or removing the plug from the power.

4. Self-diagnosis screen displays

- In cases of malfunctions where it is not possible to determine the symptom such as when the power goes off occasionally or when the screen disappears occasionally, there is a screen display on whether the malfunction occurred or not in the past (and whether the detection circuit operated or not) in order to allow confirmation.

<Screen Display Method>

- Quickly press the remote command button in the following order from the standby state.



Be aware that this differs from the method of entering the service mode (volume +).

Self-diagnosis screen display

SELF DIAGNOSIS		
2 : +B OCP	N/A	Numerical "0" means that no fault was detected.
3 : +B OVP	N/A	
4 : V STOP	0	Numerical "1" means a fault was detected one time or more
5 : AKB	1	
10 : WDT	24	

5. Self-Diagnosis Screen Display

- The results display is not automatically cleared. In case of repairs and after repairs, check the self-diagnosis screen and be sure to return the results display to "0".
- If the results display is not returned to "0" it will not be possible to judge a new malfunction after completing repairs.

<Method of Clearing Results Display>

1. Power off (Set to the standby mode)
2. DISPLAY → Channel 5 → VOL + → POWER (Service Mode)
3. Channel 8 → ENTER (Test reset = Factory preset condition)

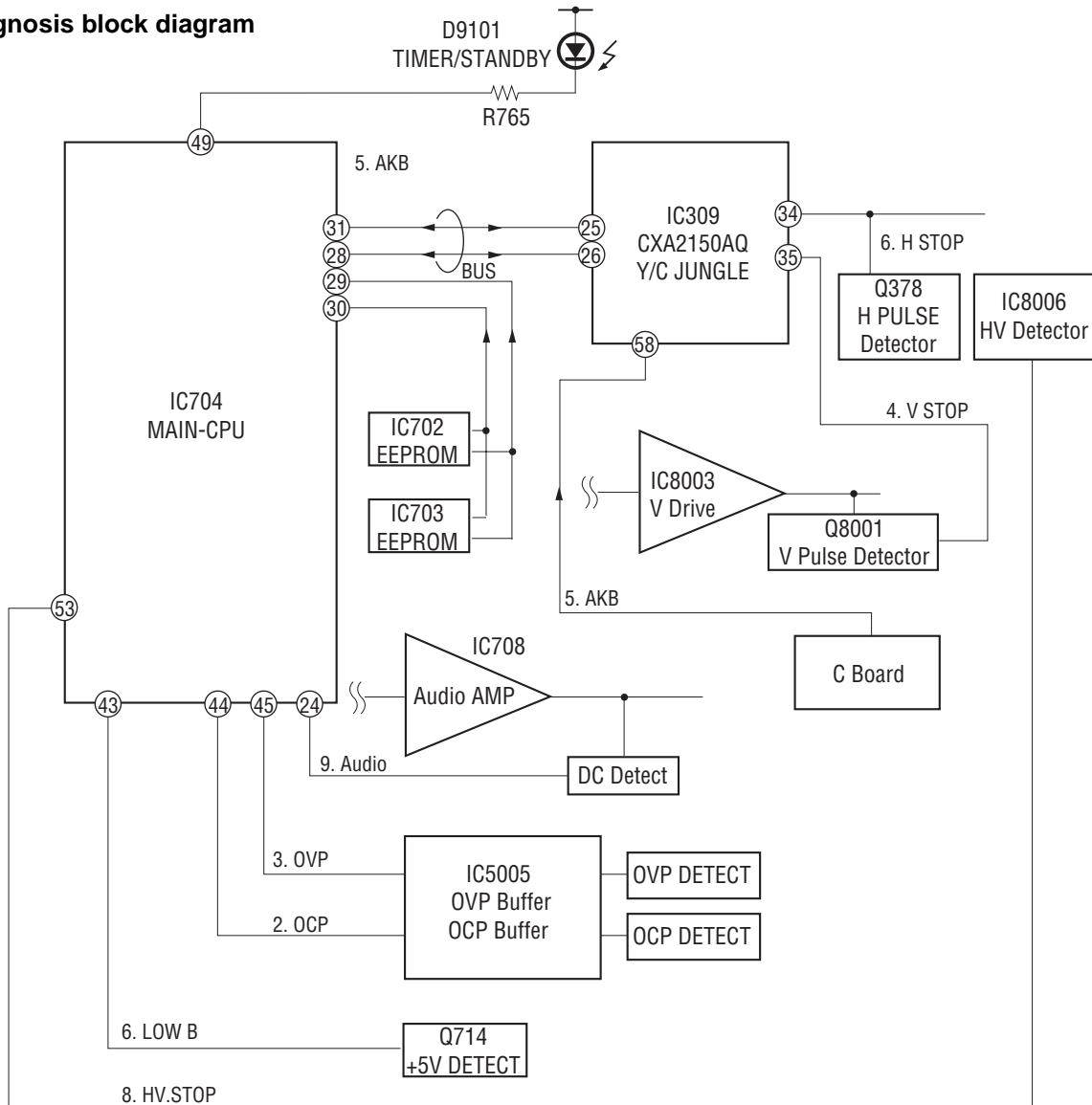
<Method of Ending Self Diagnosis Screen>

- When ending the self-diagnosis screen completely, turn the power switch OFF on the remote commander or the main unit.

6. Self-diagnosis function operation

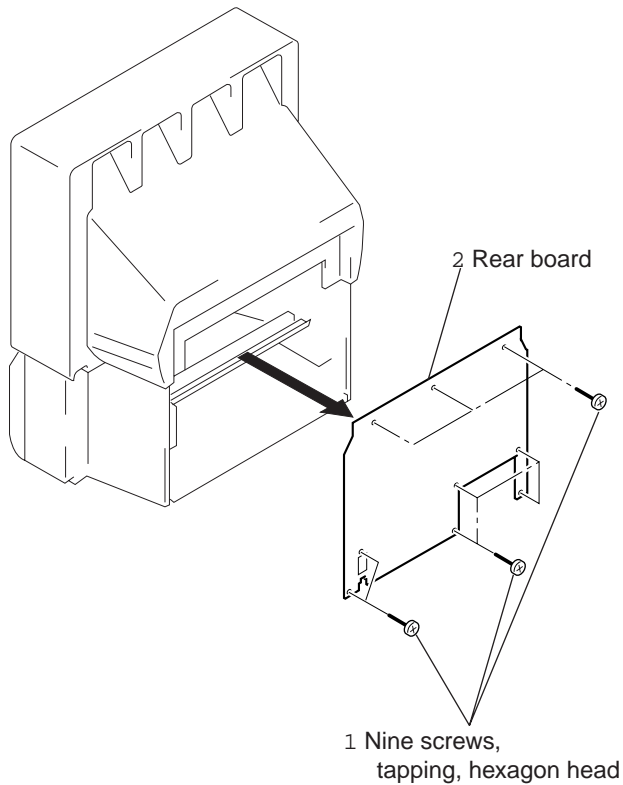
- OCF** Low B and +B line detect DET SHORT, and shut-down POWER ON RELAY.
 Reset by turning power on/off.
 In case of +B is loaded approx. 1.5A or more, microcomputer detects it via IC5005
- OVP** In case of +B becomes approx. 150V or more, POWER ON RELAY shuts down and microcomputer detects it via IC5005.
 Reset by turning power on/off just the same as OCP.
- Low B** Occurs when set +5V is out
- V Stop** In case of V Drive disappeared, Q8001 detects it and shut-down POWER ON RELAY. Microcomputer detects it and makes LED blinking.
- AKB** IK detection. Makes LED blinking in case of microcomputer doesn't detect IK returns of IC309 (CXA2150AQ) 20 seconds or more.
- H Stop** In case of H DRIVE is disappeared, Q378 detects it and shut-down POWER ON RELAY shuts down.
 Microcomputer receives H Stop data from Q378 and makes LED blinking.
- HV Stop** In case of HV becomes 33KV or more. IC8006 detects it and shut-down POWER ON RELAY. Microcomputer makes LED blinking.
- Audio** In case of DC component overlaps the output of Audio Amp., POWER ON RELAY shuts down.
 Microcomputer detects it and makes LED blinking.

Self-diagnosis block diagram

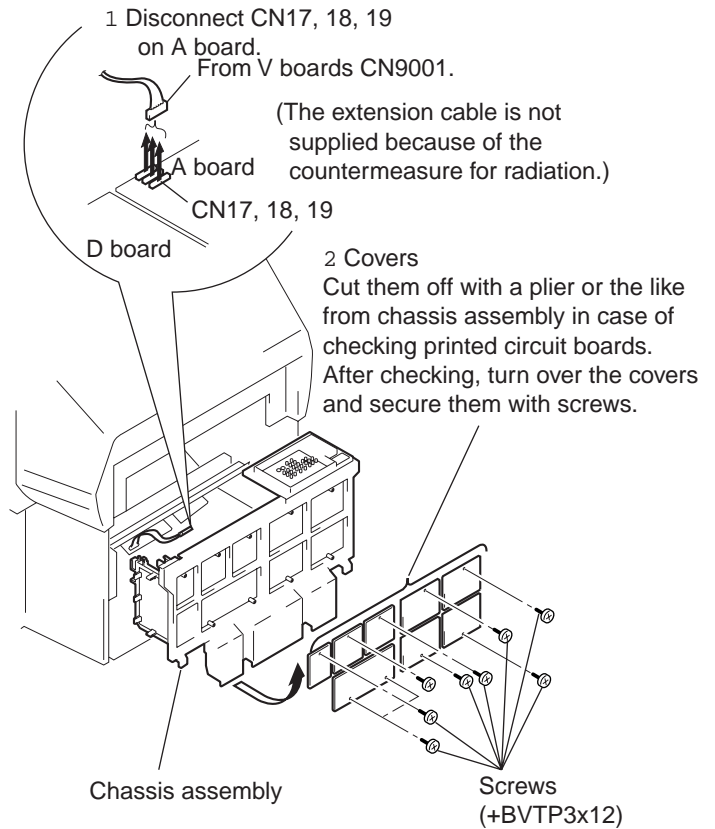


SECTION 2 DISASSEMBLY

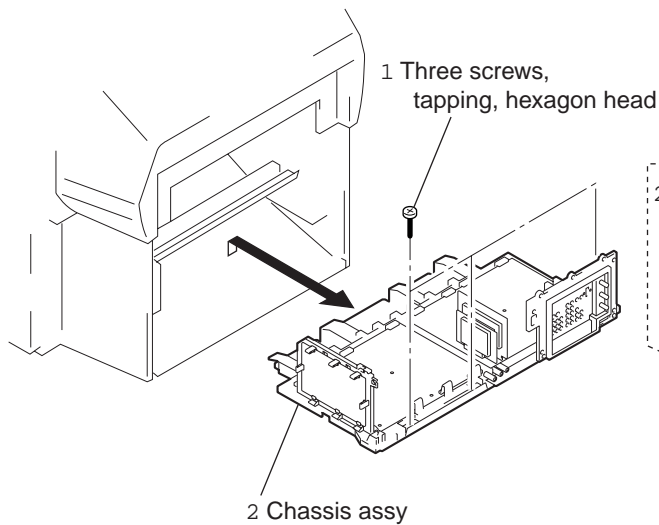
2-1. REAR BOARD REMOVAL



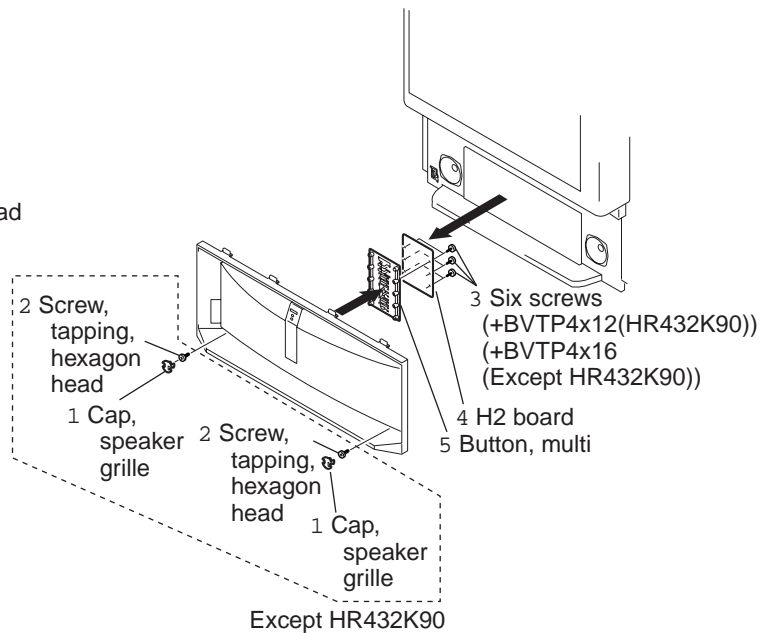
2-3. SERVICE POSITION



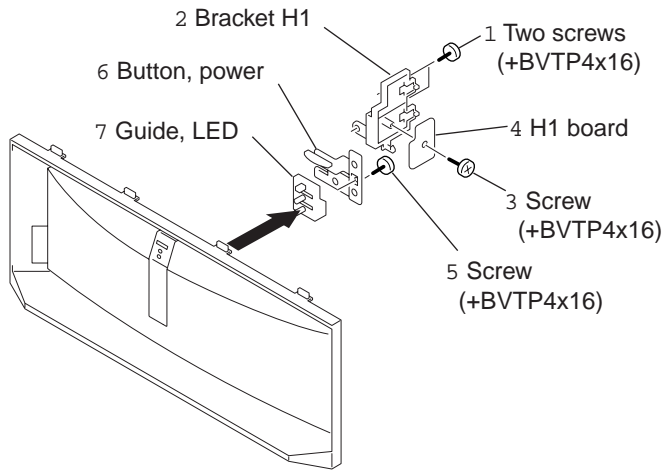
2-2. CHASSIS ASSY REMOVAL



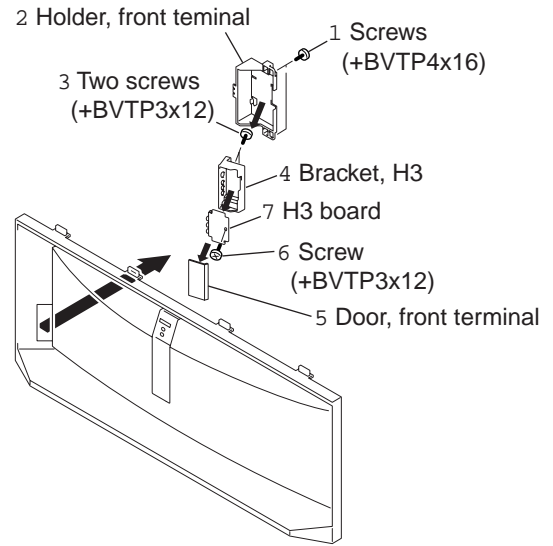
2-4. H2 BOARD REMOVAL



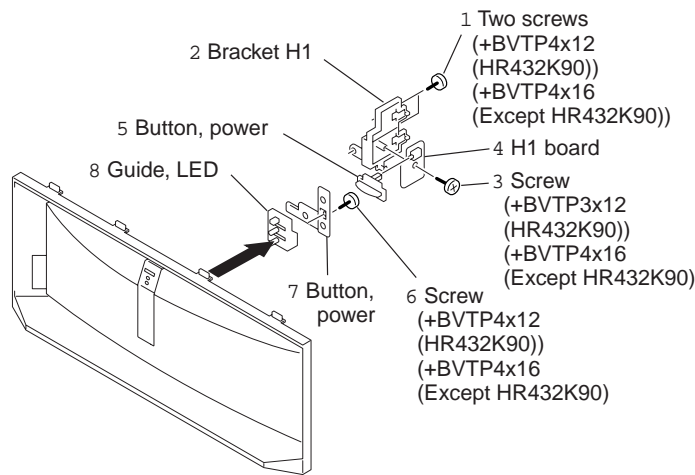
2-5. H1 BOARD REMOVAL (HR532N90)



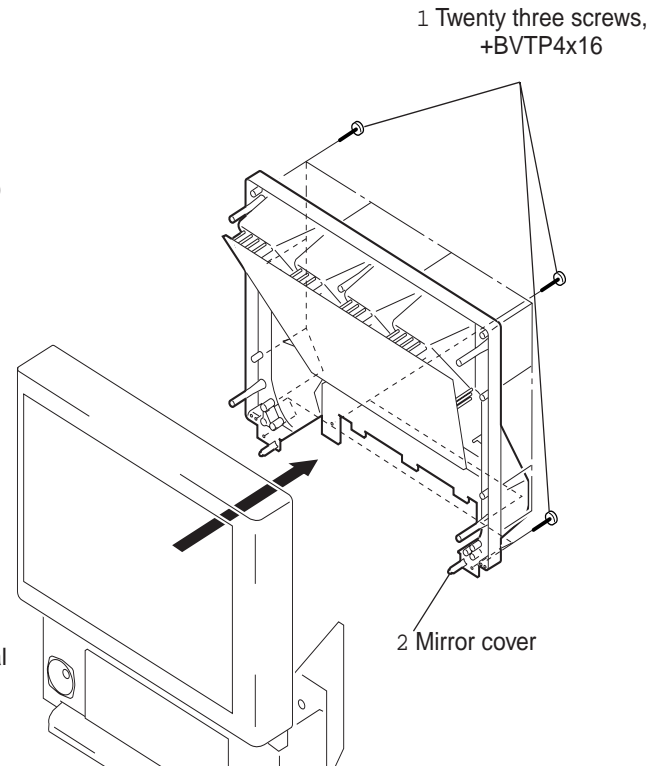
2-8. H3 BOARD REMOVAL (EXCEPT HR432K90)



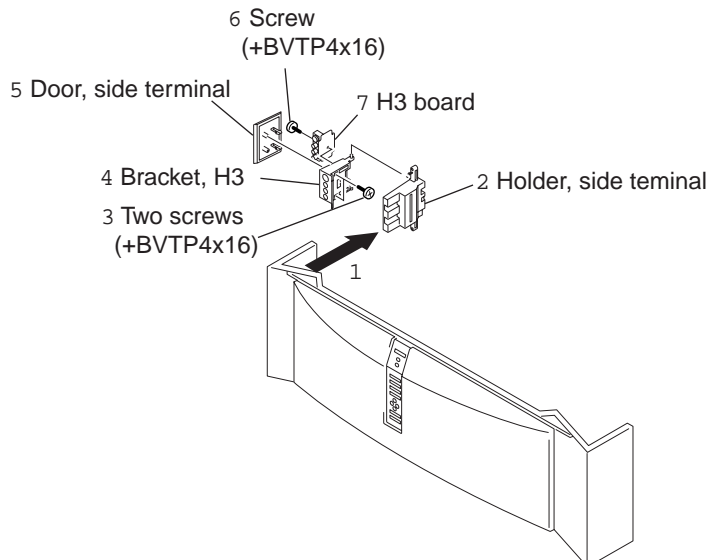
2-6. H1 BOARD REMOVAL (EXCEPT HR532N90)



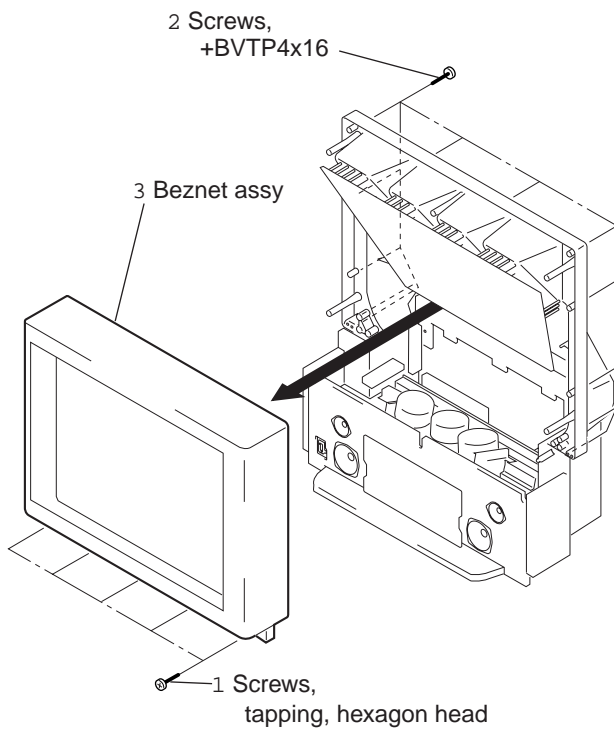
2-9. MIRROR COVER REMOVAL



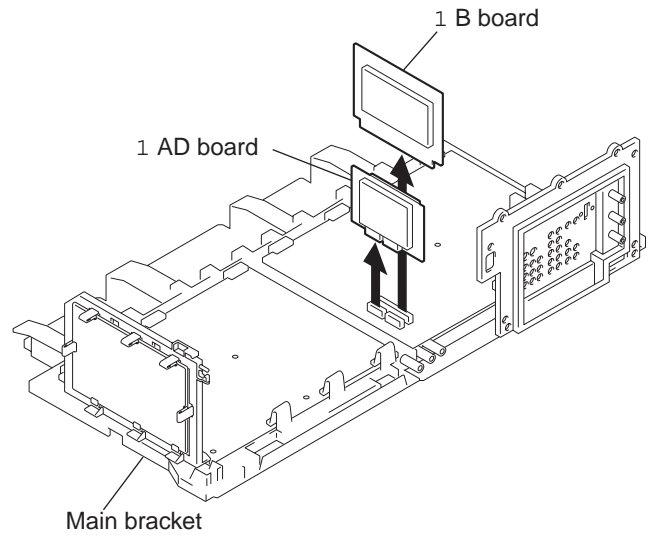
2-7. H3 BOARD REMOVAL (HR432K90)



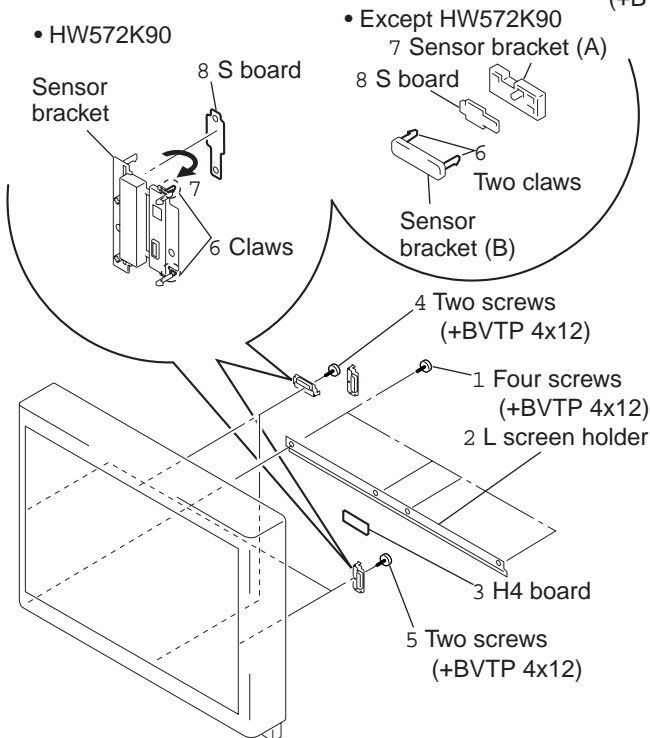
2-10. BEZNET ASSY REMOVAL



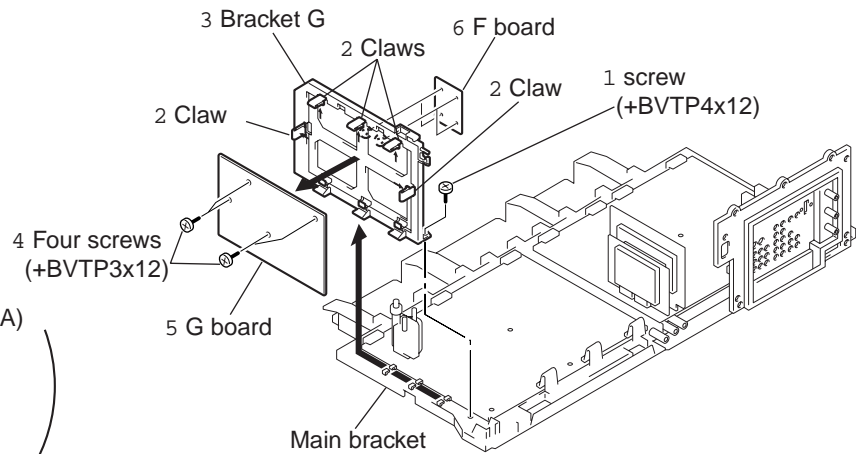
2-12. AD BOARD AND B BOARD REMOVAL



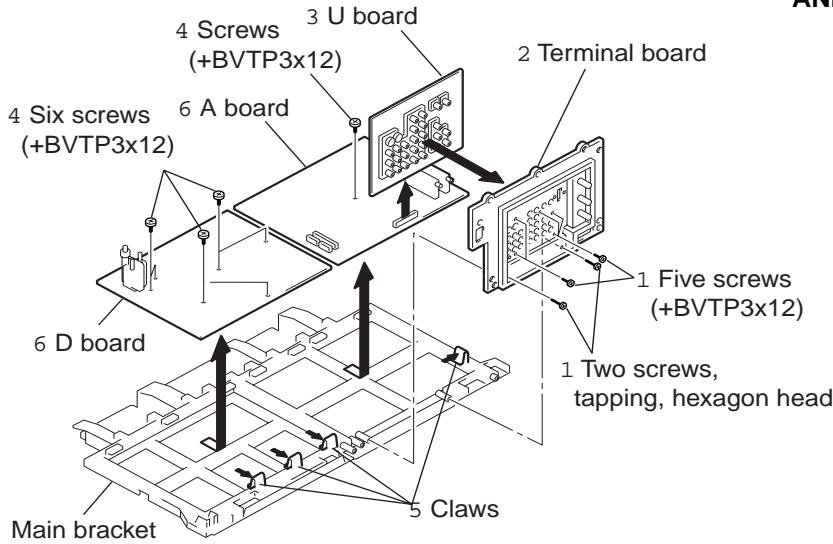
2-11. H4 BOARD (EXCEPT HW572K90) AND S BOARD REMOVAL



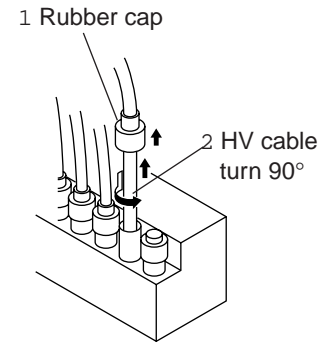
2-13. F BOARD (EXCEPT HR532N90) AND G BOARD REMOVAL



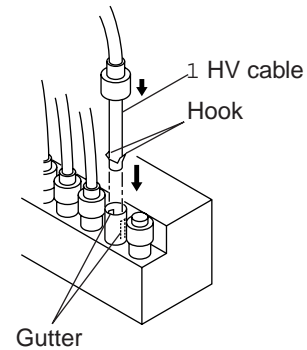
2-14. A BOARD, D BOARD AND U BOARD REMOVAL **2-16. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL**



(1) Removal

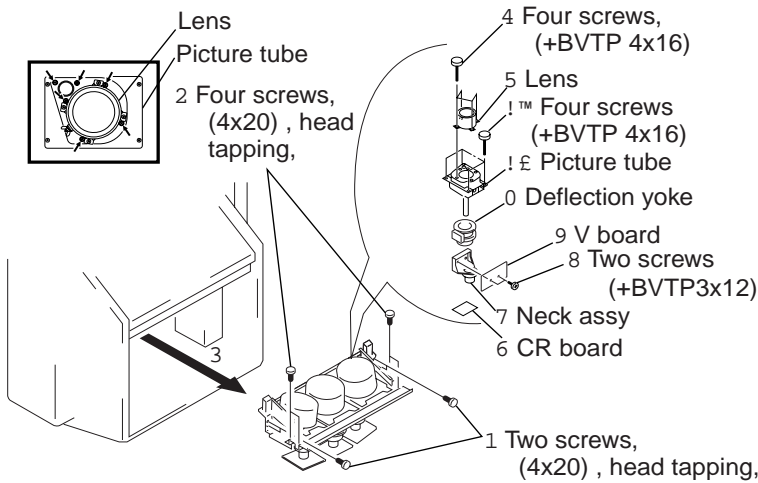


(2) Installation



2-15. PICTURE TUBE REMOVAL

CAUTION: Removing the arrow-marked screws is strictly prohibited. If removed, it may cause liquid spill.

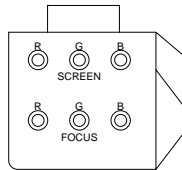


SECTION 3

SET-UP ADJUSTMENTS

3-1. SCREEN VOLTAGE ADJUSTMENT (COARSE ADJUSTMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.



FOCUS block

Fig. 3-1

3-2. SCREEN (G2) ADJUSTMENT (FINE ADJUSTMENT)

Fine Mode is recommended to set screen controls to their optimal condition. It is necessary to build the simple jig, illustrated below, using 3-watt resistors. Please note, that if the proper voltage is not obtained with their listed values, resistors, then please increase or decrease one of the values in the resistor network to obtain the correct voltage.

1. Select VIDEO1 mode without signals.
2. Connect G2 JIG.
3. SW on JIG.
4. Connect an oscilloscope to the TP7101(KR), TP7202(KG) and TP7301(KB) of CR board, CG board and CB board.
5. Adjust R, G and B screen voltage to $170 \pm 0.5V$ with screen VR on the Focus block.

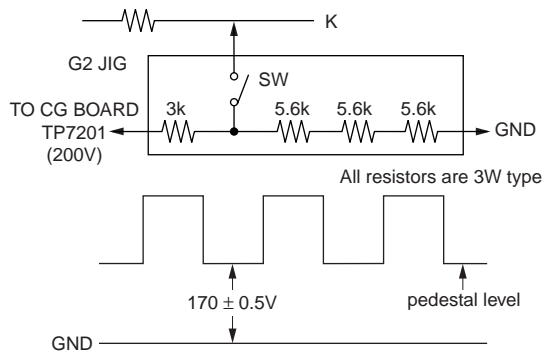


Fig. 3-2

3-3. DEFLECTION YOKE TILT ADJUSTMENT

1. Connect the color bar generator monoscope pattern to Video 1 input.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Loosen the deflection yoke set screw and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal.
4. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
5. The tilt of the deflection yoke for red is aligned in the mode Cover the both green and blue picture lenses with the lens caps and the tilt of the deflection yoke for blue is aligned with in

the mode Cover the both green and red picture lenses with the lens caps is aligned the same as was done for green.

Note: Instead of items 2 and 5, you can cut off the unnecessary color beams by controlling the service mode CXA2150P-2 0 RGBS.

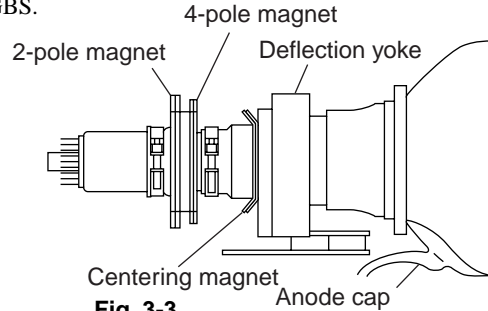


Fig. 3-3

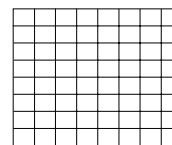
3-4. FOCUS LENS ADJUSTMENT

In this adjustment, use the remote commander in the service mode.

For details of the usage of the service mode and the remote commander, please refer the item 3-9. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER.

1. Loosen the lens screw.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green lens to adjust to the optimum focus point with the crosshatch signal.
4. Tighten the lens screw.
5. Cover the both green and blue picture lenses with the lens caps to show only the red color.
6. Adjust red CRT lens just the same as green.
7. Cover the both green and red picture lenses with the lens caps to show only the blue color.
8. Adjust blue CRT lens just the same as green.
9. After adjusting the items 3-5. Focus VR Adjustment, 3-6. 2-Pole Magnet Adjustment and 3-7. 4-Pole Magnet Adjustment, adjust again to the optimum focus point.

*: Every time you press 6, the test signal changes to "crosshatch+video signal" - "crosshatch+borderline(black)" - "crosshatch(black)" - "dots(black)" - off.



Test signal

Fig. 3-4

Note: Instead of items 2, 5 and 7, you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-5. FOCUS VR ADJUSTMENT

1. Set generator to crosshatch.
2. Cover the both red and blue picture lenses with the lens caps to show only the green color.
3. Turn the green focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
4. Cover the both green and blue picture lenses with the lens caps to show only the red color.
5. Turn the red focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
6. Cover the both green and red picture lenses with the lens caps to show only the blue color.
7. Turn the blue focus VR on the focus block to adjust to the optimum focus point with the crosshatch signal.
8. After adjusting the items 3-4. Focus Lens Adjustment, 3-6. 2-Pole Magnet Adjustment and 3-7. 4-Pole Magnet Adjustment, adjust again to the optimum focus point.

Note: Instead of items 2, 4 and 6, you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

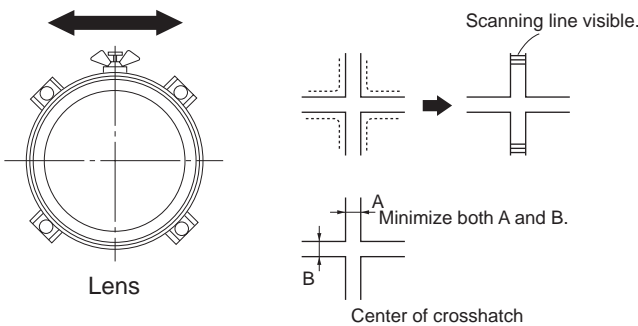


Fig. 3-5

Fig. 3-6

3-6. 2-POLE MAGNET ADJUSTMENT

1. Set the picture mode to "Pro" and picture to MAX.
2. Receive the Dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus block to the left and set to overfocus to enlarge the spot.
5. Adjust 2-pole magnet so that the bright spot should be centered.
6. Align the green focus VR and set for just (precise) focus.
7. Perform the same alignment for red and blue.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

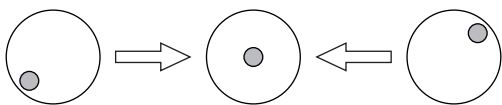


Fig. 3-7

3-7. CENTERING MAGNET ADJUSTMENT

1. Set the picture mode to "Pro".
2. Receive the monoscope signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Adjust the green centering magnet to put the center of the monoscope signal to the center of the screen.
5. Adjust the red centering magnet in the same way.
6. Adjust the blue centering magnet in the same way.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-8. 4-POLE MAGNET ADJUSTMENT

1. Set the picture mode to "Pro" and picture to MAX.
2. Receive the Dot signal.
3. Cover the both red and blue picture lenses with the lens caps to show only the green color.
4. Turn the green focus VR on the focus block to the right and set the spot will become smaller.
5. Adjust the 4-Pole Magnet so that the spot becomes round for green and red.
6. Adjust blue spot to an oval shape X:Y=1:1.4 ~ 1.5.

Note: Instead of item 2 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

Use the center dot

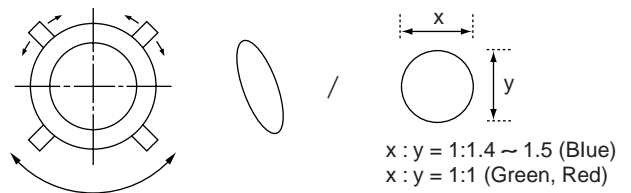


Fig. 3-8

3-9. DEFOCUS ADJUSTMENT (BLUE)

Note: Please adjust the blue dot to be slightly larger than red and green dots. This adjustment provides a more pleasing picture to the customer.

1. Select the picture mode to "Pro".
2. Receive the Dot signal.
3. Cover the both red and green picture lenses with the lens caps to show only the blue color.
4. Turn the blue focus VR on the focus block to right to make the round dot elipical.
5. Check flare with high luminance signal, make sure flare is minimal while dot shape is elipical.
6. Set generator to all white signal and check uniformity.

Note: Instead of item 3 you can cut off the unnecessary color beams by controlling the service mode 2150P-2 1 RGBS.

3-10.ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

By using Remote Commander (RM-Y908/Y909K),all circuit adjustments can be made.

NOTE : Test Equipment Required.

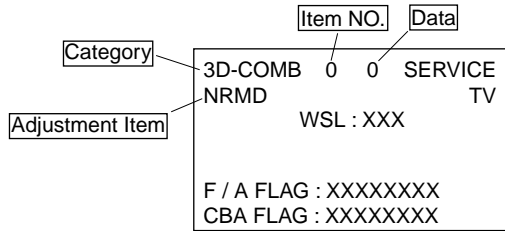
1. Pattern Generator (with component outputs)
2. Frequency counter
3. Digital multimeter
4. Audio oscillator

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

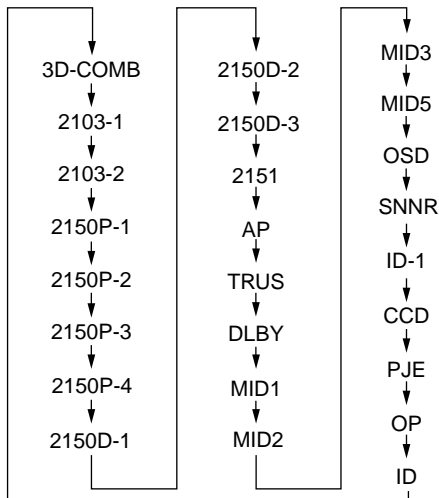
1. Standby mode. (Power off)
2. **DISPLAY** n **5** n **VOL (+)** n **TV POWER** on the Remote Commander.
(Press each button within a second.)

SERVICE MODE ADJUSTMENT



3. The SCREEN displays the item being adjusted.
4. Press **1** or **4** on the Remote Commander to select the adjustment item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. Press **2** or **5** on the Remote Commander to select the category.

Every time you press 2(Category up), Service mode changes in the order as shown below.



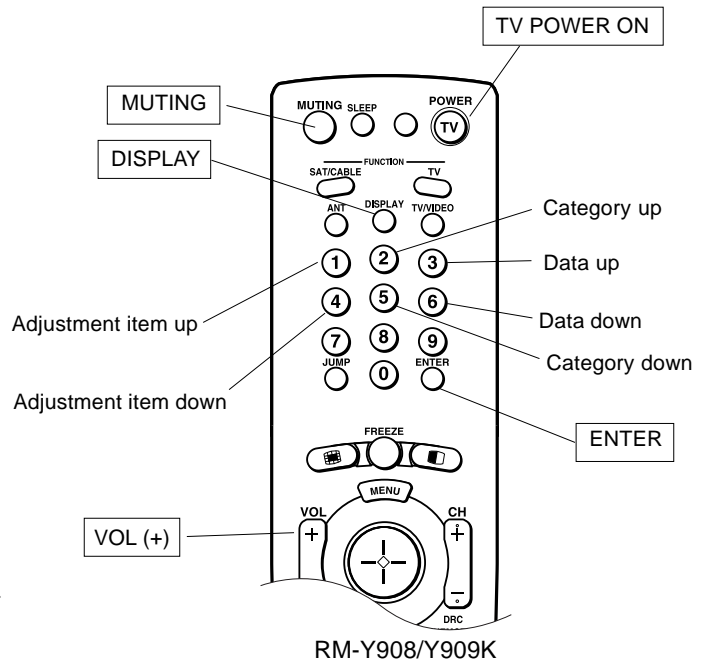
7. If you want to recover the latest values press **-** then **[ENTER]** to read the memory.
8. Press **[MUTING]** then **[ENTER]** to write into memory.
9. Turn power off.

Note: Press **8** then **[ENTER]** on the Remote Commander to initialize or turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, turn power off with the remote commander.
2. Turn power on and set to Service Mode.
3. Call the adjusted items again and confirm they were adjusted.

3. ADJUSTING BUTTONS AND INDICATOR



Note : When the PJE mode is activated, which displays an internally generated signal, several buttons on the remote commander will have different functions than listed above. Therefore, when in the PJE mode, refer to page 28 for button functions.

4. SERVICE MODE LIST

Note: • [shaded] items are fixed. There is no need to change data. Others are different a little in the sets individually. Basically, there is no need to change data, too.

3D-COMB uPD64082 ():HW572K90

Reg.No & Name	FUNCTION	UHF/VHF & Video		Video	
		Standard	Non-standard	Standard	Non-standard
0	NRMD	0	1	3	3
1	YAPS	3	*		
2	CLKS	1	*		
3	NSDS	0	*		
4	MSS	0	*		
5	KLS	1	*		
6	CDL	3	3		
7	DYCO	NRMD=0	NRMD=1	NRMD=2	NRMD=3
8	DYGA	2	2	2	2
9	DYCA	10	10	10	10
10	DCGA	5	5	5	5
11	YNRL	5	5	5	5
12	CNRL	1	*		
13	VTRH	UHF/VHF	Video L-4	Video5&6	
14	VTRR	1	1	1	
15	LDSR	1	1	1	
16	VAPG	VM=off	VM=Low	VM=Mid	VM=High
17	VAPI	0	0	0	0
18	YPET	0	0	0	0
19	YPPG	3	SNNR=0	SNNR=1	SNNR=2
20	YHCO	9 (8)	0	1	2
21	YHCG	SNNR=0	SNNR=1	SNNR=2	SNNR=3
22	HSSL	1	1	1	1
23	VSSL	12	*		
24	ADCL	8	*		
25	D2GA	NRMD=0	NRMD=1	NRMD=2	NRMD=3
26	KLR	4	4	4	4
		3	*		

Note: * shows common data.

Note: YHCO & YHCG are defined directly by SNNR data.

3D-COMB uPD64082

Reg.No & Name	FUNCTION	UHF/VHF		Video		SVideo		CVideo		CVideo	
		Standard	Non-standard	Standard	Non-standard	Standard	Non-standard	Standard	Non-standard	Standard	Non-standard
27	OP	Option: Selection of comb filter/deconvulsive n. reduction bytes.									
28	NR1	UHF/VHF	CVideo	SVideo1	CVideo2	SVideo3	CVideo4				
29	NR2	Noise reduction on/off	0	1	0	0	0	0	0	0	0
30	NR3	SNNR control on/off	0	*							
31	HPLL	Noise level detection level data	0-255								
32	BPPL	HP-PLL filter	1	*							
33	FSCF	Burst PLL filter	1	*							
34	PLLF	Burst extraction gain	0	*							
35	CC3N	PLL loop gain	1	*							
36	HDP	Selection if a line-comb filter C separation filter characteristic	UHF/VHF	Video L-4	Video5&6						
37	BGPS	Fine adjustment of the system H-phase	5	*							
38	BGPW	Internal	4	*							
39	TEST	Test bit (0:Normal mode 1:Test mode) * forbidden setting	10	*							
40	WSC	Amount of noise detection coring	0	*							
41	LIND	DRC-M line-doubling setting for non-standard signals UHF/VHF&Video L-4	UHF/VHF & Video L-4	Video5&6							
42	YPPG	YPPG offset at GR onp * Not used	3	*							
#16	VAPG		SNNR=0	SNNR=1	SNNR=2	SNNR=3					

NTSC-YCT (Chroma Decoder) CXA2103-1 (Main) () :HW572K90

Reg.No & Name	FUNCTION	UV & Video		YCBCr-480i	
		(M)-DRC	P&P Left	(M)-DRC	P&P Left
0	YLEV	34	40		
1	CLEV	27	46		
2	SCON	ADI (7)	ADI (7)		
3	SCOL	ADI (7)	ADI (7)		
4	SHUE	ADI (7)	ADI (7)		
5	YDLY	0	0		
6	SHAP	UHF/VHF	Video	SVideo	YCBCr-480i
7	SHFO	6 (5)	4	4	4
8	PREQ	3	3	3	3
9	BPFO	3	0	0	0
10	BPFO	0	3	3	3
11	BPFW	1	0	0	0
12	TRAP	0	0	0	0
13	LPF	1	1	1	1
14	AFCG	UHF/VHF	Video	YCBCr	YCBCr
15	CDMD	1	0	0	0
16	SSMD	3	3	3	3
17	HMSK	0	0	0	0
18	HALI	1	1	1	1
19	PPHA	0	0	0	0
20	CBOF	7	7	7	7
21	CROF	UHF/VHF	YCBCr-480i		
		P&P Left	P&P Left		
		(M)-DRC	(M)-DRC		
		34	34		
		32	32		

NTSC-YCT (Chroma Decoder) CXA2103-2 (Sub) () :HW572K90

Reg.No & Name	FUNCTION	UV & Video		P&P & Favorite	
		UBLK-0	UBLK-1	UBLK-2	UBLK-3
0	YLEV	34	38		
1	CLEV	27	31		
2	SCON	ADI (7)	ADI (7)		
3	SCOL	ADI (7)	ADI (7)		
4	SHUE	ADI (7)	ADI (7)		
5	YDLY	0	0		
6	SHAP	UHF/VHF	Video	SVideo	YCBCr-480i
7	SHFO	4	4	4	4
8	PREQ	3	3	3	3
9	BPFO	3 (0)	0	0	0
10	BPFO	0	0	0	0
11	BPFW	0	0	0	0
12	TRAP	0	0	0	0
13	LPF	0	0	0	0
14	AFCG	UHF/VHF	Video	Video	Video
15	CDMD	1	0	0	0
16	SSMD	3	3	3	3
17	HMSK	0	0	0	0
18	HALI	1	1	1	1
19	PPHA	0	0	0	0
20	CBOF	7	7	7	7
21	CROF	UHF/VHF	YCBCr-480i		
		P&P Right	P&P Right		
		(S)-DRC	(S)-DRC		
		32	32		
		31	31		

Note: Reg.No 14 to 19 are the same data as CXA2103-1. (the same NVM address)

Note: Reg.No 22 and 23 are the same data as CXA2103-1. (the same NVM address)

CRT Driver CXA2150P-1 (Picture Controls:P1) ():HW572K90

Reg.No & Name	FUNCTION	UHF/VHF	CV	SV	YCbCr480i	YCbCr480P	YCbCr1080i	P&P
0	SBOF Offset for SBRT	0	0	0	0	0	0	0
1	YOFF Y OFFSET: DC-offset for Y signal	0	0	0	0	0	0	0
2	CB OFF CB OFFSET:DC-offset for Cb signal	35	35	35	37	40	31	35
3	CR OFF CR OFFSET:DC-offset for Cr signal	36	36	36	39	41	31	36
4	SBRT SUB_BRT: Sub Bright	ADJ (24)	*	*	*	*	*	*
5	RDRV R_DRIVE: R output drive	ADJ (31)	*	*	*	*	*	*
6	GDRV G_DRIVE: G output drive	41 (31)	*	*	*	*	*	*
7	BDRV B_DRIVE: B output drive	ADJ (31)	*	*	*	*	*	*
8	RCUT R_CUTOFF: R output cutoff	ADJ (31)	*	*	*	*	*	*
9	GCUT G_CUTOFF: G output cutoff	31 (63)	*	*	*	*	*	*
10	BCUT B_CUTOFF: B output cutoff	ADJ (31)	*	*	*	*	*	*
11	WBSW WB SW	Vivid (Cool) 0 (no memory)	Std (Neutral) 0 (no memory)	Movie (Warm) 0 (no memory)	Pro 0 (no memory)			
12	SBOF Offset for SBRT	63	63 (no memory)	63	63 (no memory)			
13	RDOF Offset for RDRV	63	63 (no memory)	66 (65)	63 (no memory)			
14	GDOF Offset for GDRV	63	63 (no memory)	63	63 (no memory)			
15	BDOF Offset for BDRV	68 (66)	63 (no memory)	56 (54)	63 (no memory)			
16	RCOF Offset for RCUT	63 (62)	63 (no memory)	64 (63)	63 (no memory)			
17	GCOF Offset for GCUT	63	63 (no memory)	63	63 (no memory)			
18	BCOF Offset for BCUT	64 (67)	63 (no memory)	63 (62)	63 (no memory)			

CRT Driver CXA2150P-2 (Picture Controls:P2)

Reg.No & Name	FUNCTION	UHF/VHF	CV	SV	YCbCr480i	YCbCr480P	YCbCr1080i	P&P
0	ALBK PIC ON	1	*	*	*	*	*	*
1	RGBB R_ONG ON/B_ON: R/G/B outputs on/off	7	*	*	*	*	*	*
2	BLKB BLK_BFM: RGB output bottom limit level (Black level)	3	*	*	*	*	*	*
3	LIML PLIMIT_LEV: Threshold level for excessively high inputs	0	*	*	*	*	*	*
4	PABL P_ABL: DC-level in RGB output detection for PEAK ABL	15	*	*	*	*	*	*
5	SABL S_ABL: S ABL gain	0	*	*	*	*	*	*
6	AGING AGING_W/AGING_B: AGING W/AGING B modes on/off	0	*	*	*	*	*	*
7	AKROF AKROFF: Automatic/Manual = Cut off setting	0	*	*	*	*	*	*
8	SYPH SYNC PHASE: Hsync delay with respect to Video (100% H-period)	0	0	0	0	0	0	0
9	CLPH CLP PHASE: Internal clamp pulse phase (100% H-period)	3	3	3	3	3	3	3
10	CLGA CLP GATE: Switch for the gated internal clamp pulse with Hsync	0	0	0	0	0	0	0
11	JAXS JAXIS: color axis switch	0	*	*	*	*	*	*
12	BLKO BLKO: Blanking switch	0	*	*	*	*	*	*

CRT Driver CXA2150P-3 (Picture Controls:P3) (Part1)

Reg.No & Name	FUNCTION	Vivid	UHF/VHF	CV	SV	YCbCr480i	YCbCr480P	YCbCr1080i	P&P
0	SYSM SYSTEM: Signal bandwidth setting	1	1	1	1	1	1	2	2
1	UVML VM_LEV: VM OUT level	3	3	3	3	2	2	3	3
2	VMMO System Micro pin#40	1	1	1	1	1	1	1	0
3	VMCR VM_COR: VM OUT coring level	0	0	0	0	1	1	3	3
4	VMLM VM_LMT: VM OUT limit level	3	3	3	3	3	3	3	3
5	VMFO VM_F0: VM F0	2	2	2	2	2	2	2	2
6	VMDI VM_DLYVM_OUT: phase defined by phase difference from R_OUT	2 (1)	2	2	2	2	2	1 (0)	1
7	SHOF Offset for USHP-SHOF x 4	0	2 (1)	2 (1)	2 (1)	3 (2)	3	3	3
8	SHFO SHF_F0: Sharpness circuit f0	1	1	1	1	1	1	0	0
9	PROV PREOVER: Y signal pre-over-shoot ratio	1 (0)	0	0	0 (3)	2 (3)	0 (3)	0 (3)	0 (3)
10	FLV SHF_F1: Sharpness for higher f0 (42.5.6MHz @NORMAL mode)	3 (0)	3 (0)	3 (0)	3 (0)	1	3	3	3
11	CDSP SHF_CD: Sharpness in part of high color saturation	3	3	3	3	3	3	3	3
12	LTLV LTI_LEV: Luminance transient improvement (LTI)	3	3	3	3	3	3	3	3
13	LTM0 LTI MODE: LTI mode setting	0 (1)	0 (1)	0 (1)	0 (1)	0	0	1 (0)	1
14	CTLV CTI_LEV: Chrominance transient improvement (CTI)	0	0	0	0	0	0	0	0
15	CTMD CTI MODE: CTI mode setting	0	0	0	0	0	0	0	0
16	UBOF Offset for UBERT (Picture clarity adjustment)	0	0	0	0	0	0	0	0
17	UCOF Offset for UCOL=UCOF x 2 (Picture clarity adjustment)	3	3	3	3	3	3	3	9 (7)
18	UHOF Offset for UHUE (Picture clarity adjustment)	0	0	0	0	0	0	0	0
19	MIDE MID enhancement setting	3	1.5	1.5	1.5	7	11	0	0

() : HW572K90

Reg.No & Name	FUNCTION				Standard				Movie				Pro			
	UHF VHF	CV	SV	YCBCr 480P	YCbCr 1080i	YCbCr 480P	YCbCr 1080i	P&P	UHF VHF	CV	SV	YCBCr 480i	YCbCr 1080i	YCbCr 480P	YCbCr 1080i	P&P
#0	SYSTEM	1	1	1	1	1	1	2	2	1	1	1	1	1	2	2
#1	LUMIN	2	2	2	2	2	3(2)	3	1	1	1	1	1	1	0	0
#2	VMAM	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0
#3	VMCR	0(1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#4	VMML	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
#5	VMFO	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
#6	VMDL	2(0)	2	2	2	2	2	2	2(1)	2	2	2	2	2	2	2
#7	SHOF	1	1(0)	1(0)	2	2	2	2	1	1	1	1	1	1	1	1
#8	SHFO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
#9	PROV	1(0)	0(3)	0	0	0	0	0	3	3	3	3	3	3	3	3
#10	FLY	3(0)	3(0)	3(0)	0	1	3	3	3(0)	3(0)	1	2	3	3	3(0)	3
#11	CDSP	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0
#12	LTLV	2	2	2	2	2	2	2	0	0	0	0	0	0	0	0
#13	LTMID	1	1	1	1	1	1(0)	1	1	1	1	1	1	1	1	1
#14	CTLV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#15	CTMID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#16	UBOF	7	7	7	7	7	9	7	7(10)	7(10)	7(10)	7(10)	7(10)	7	7	7
#17	UCOF	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0
#18	UHOF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
#19	MIDE	2	14	14	6	10	-	-	1	13	13	5	9	-	-	-

CRT Driver CXA2150P-3 (Picture Controls:P3) (Part3)

Reg.No & Name	FUNCTION	SNNR=0	SNNR=1	SNNR=2	SNNR=3
#1	UVABL	0	0	0	0
#3	VMCR	0	+1	+2	+3
#10	FLY	0	-1	-2	-3
#11	CDSP	0	0	0	0
#12	LTLV	0	0	0	0
#14	CTLV	0	0	0	0
#15	CTMID	0	0	0	0
#16	UBOF	7	7	7	9
#17	UCOF	1	1	1	1
#18	UHOF	0	0	0	0
#19	MIDE	2	14	14	6

CRT Driver CXA2150P-4 (Picture Controls:P4)

() : HW572K90

Reg.No & Name	FUNCTION	Vivid	Standard	Movie	Pro
0	UPIC	63	44	31	31
1	UBRT	26	31	31	31
2	UCOL	31	31	31	31
3	UHUE	31	31	31	31
4	USHP	32	40	31	31
5	UTMP	2	1	0	1
6	UDCL	2	2	0	0
7	AXIS	UHF/VHF V1-4	YCBCr480i	YCBCr480P	YCbCr1080i
8	UGAM	5	4	4	5
9	AGAM	-	-	-	-
10	GSRO	0	0	0	0
11	GCOC	0	0	0	0
12	GHFO	0	0	0	0
13	UBLK	7(6)	6	6	6
14	ABLK	UBLK0	UBLK1	UBLK2	UBLK3
15	DCTR	1	1	1	2
16	DPIC	0	1	2	1
17	DSRO	7	7	7	7
18	ABL1	0	0	0	0
19	ABL2	Full	Vcomp 1 & 2		
20	EPOF	0	15		
21	SPOF	UHF/VHF V1-4	YCBCr480i	YCBCr480P	YCbCr1080i
22	SCON	12(8)	9(8)	9(8)	8(7)
23	CLOF	9	9	9	9
24	HUOF	5	5	5	5
25	UDSW	Not used			
26*	DATA*	Full	Vcomp1	Vcomp2	

*EXCEPT HW572K90
 Note: Full: 4:3
 Vcomp1 : 480p-960i, 16:9
 Vcomp2 : 1080i, 16:9

CRT Driver CXA2150P-4 (Picture Controls:P4) () : HW572K90

Reg.No & Name	FUNCTION	SNNR	SNNR	SNNR	SNNR
#4	USHP	0	1	3	4

Reg.No & Name	FUNCTION	Picture Mode : Standard				Picture Mode : Movie				Picture Mode : Pro						
		UHF	YCBCr	YCBCr	YCBCr	P&P	UHF	YCBCr	YCBCr	YCBCr	P&P	UHF	YCBCr	YCBCr	YCBCr	P&P
#8	UGAM	2	2	2	1	1	0	0	0	0	0	0	0	0	0	0

Reg.No & Name	FUNCTION	Picture Mode : Standard				Picture Mode : Movie				Picture Mode : Pro						
		UHF	YCBCr	YCBCr	YCBCr	P&P	UHF	YCBCr	YCBCr	YCBCr	P&P	UHF	YCBCr	YCBCr	YCBCr	P&P
#13	UBLK	3	3	3	3	3	2	0	0	0	0	0	0	0	0	0

CRT Driver CXA2150D-1 (Deflection Controls:D1)

Reg.No & Name	FUNCTION	HW572K90				EXCEPT HW572K90						
		1080i	Full	Normal	WideZoom	Full	Vcomp1	Vcomp2	Vcomp2			
0	V POSI: Vertical position (V DRV signal DC bias)											
1	VSZ: V SIZE: Vertical size (V DRV signal gain)											
2	VSZO: V SIZE OFFSET											
3	V LIN: V LINEARITY: Vertical linearity											
4	VSCO: S CORRECTION: Vertical S-correction											
5	VCCN: VSAW0 DCH/SAW0 DCL: Vertical center adjustment											
6	V PIN: VSAW0 AMP: Vertical PIN adjustment											
7	NSCO: NSAW1 DC: Rotation											
8	HITZ: NSAW1 AMP: Horizontal trapezoid											
9	ZOOM: ZOOM SW: Zoom switch											
10	ASPSW: ASP SW: Aspect switch											
11	ASPT: V ASPECT: Aspect ratio											
12	SCRLL: V SCROLL: Vertical scroll											
13	UVLIN: UP VLIN: Upper vertical linearity											
14	LVLIN: LO VLIN: lower vertical linearity											

CRT Driver CXA2150D-2 (Deflection Controls:D2)

Reg.No & Name	FUNCTION	HW572K90				EXCEPT HW572K90						
		1080i	Full/Normal	Zoom	WideZoom	Full	Vcomp1	Vcomp2	Vcomp2			
0	HCPV: HC PARA DC: Horizontal center											
1	HPOS: H POSITION: Horizontal position											
2	HSIZ: H SIZE: Horizontal size											
3	SLIN: MP PARA DC: Horizontal S-correction											
4	MPIN: MP PARA AMP: Horizontal middle pin											
5	PIN: PIN AMP: Horizontal pin											
6	PIN0: UP CPIN: Upper corner pin											
7	UCP: LO CPIN: Lower corner pin											
8	UCP: LO UCG: Upper extra corner pin gain											
9	UCG: LO LCG: Lower extra corner pin gain											
10	UXCP: UP UXP: Upper extra corner pin position											
11	UXCP: LO LXP: Lower extra corner pin position											
12	XCPC: UC POL: Extra corner pin polarity											
13	XCPC: PIN PHASE: Pin phase											
14	VANG: AFC ANGLE: AFC angle											
15	LANG: HC PARA PHASE: Linearity angle											
16	VBOV: AFC BOW: AFC bow											
17	LBOW: HC PARA AMP: Linearity bow											
18	CPY1: Cap function 1: (Set CPY1=1, then press MUTE/Enter) * Not used											
19												

CRT Driver CXA2150D-3 (Deflection Controls:D3)

Reg.No & Name	FUNCTION	HW572K90				EXCEPT HW572K90			
		1080i	Full	Normal	Zoom	WideZoom	Full	Vcomp1	Vcomp2
0 HBLK	HBLK SW: Horizontal blanking switch								
1 LBLK	LEFT BLK: Left blanking	56		56			56	56	
2 RBLK	RIGHT BLK: Right blanking	25		25			25	25	
3 VBLK	VBLK SW: Vertical blanking switch	1		1	0	0	1	1	
4 TBLK	UP BLK: Top blanking	4	15	15	15	15	14	12	
5 BBLK	LO BLK: Bottom blanking	5	15	15	15	15	15	13	
6 VCOMP	V COMP: Vertical compensation	0	0	0	0	0	3	3	
7 HCOMP	H COMP: Horizontal compensation	0	0	0	0	0	0	0	
8 ACMP	AFC COMP: AFC compensation	0	0	0	0	0	0	0	
9 PCMP	PIN COMP: Pin compensation	0	0	0	0	0	0	0	
10 AFCM	AFC MODE: AFC compensation	2		3			3	2	
11 VFRQ	V FREQ: Vertical frequency	1		1			1	1	
12 VON	V ON: Vertical drive on	1		1			1	1	
13 JUMP	JMP SW: Reference pulse jump switch	1	1	1	1	1	1	1	
14 VDIR	VDRV SW: Vertical drive start switch	0	0	0	0	0	0	0	
15 VDST	RST SW: Vertical drive start switch	0	0	0	0	0	0	0	
16 EWDC	EW DC: Pin DC level shift	0	0	0	0	0	0	0	
17 AKBT	AKBTM: AKB timing	9	9	9	9	9	9	9	9

Component IF & Sync Separation CXA2151

Reg.No & Name	FUNCTION	HW572K90				EXCEPT HW572K90			
		480i	480P	1080i	720P	480i	480P	1080i	720P
0 MTRX	MAT OUT	15.75kHz	31.50kHz	33.75kHz	48kHz	15.75kHz	31.50kHz	33.75kHz	45kHz
1 GAIN	GAIN SEL	0	0	1	1	0	0	1	1
2 GBGN	GBGAIN	9			9				
3 VTC	V TC	1			1				
4 HWID	H WIDTH	1			1				
5 HSEP	HSEP SEL	0	0	0	0	0	0	0	0
6 TEST	TEST	0			0			0	0
7 PRGB	PRGB	0			0			0	0
8 HMASK	Hsync masking in vertical retrace	1080i	ELSE			Full	Vcomp1	Vcomp2	0

Audio Processor (AP) BH3868FS

Reg.No & Name	FUNCTION	HW572K90		EXCEPT HW572K90	
		0	SVOL	0	7
0 SVOL	Volume Offset for Volume	0	0	0	0
1 SBAL	Balance Offset for Balance	7	7	7	7
2 SBAS	Bass Offset for Bass	10	7	7	7
3 STRE	Treble Offset for Treble	7	7	7	7
4 BBLP	BBE low pass filter	0	0	0	0
5 BBHP	BBE high pass filter	2	2	2	2
6 SREF	Surround effect	11	11	11	11
7 AGC	Auto gain control	0	0	0	0
8 BBE	BBE on/off	0	0	0	0

TruSurround (TRUS) NJM2180

Reg.No & Name	FUNCTION	0	2
0 TRSD	TruSurround effect selection	0	2
1 ATT		0	0

DLBY NJM1106 (HW572K90)

Reg.No & Name	FUNCTION	0
0 DBMD		0
1 SCH		0
2 ADSW		0
3 CECH		0
4 DELY		7
5 SSEL		0

MID-1 (Display Data : Output) (EXCEPT HW572K90)

Reg.No & Name	FUNCTION	(for 4:3)
0	(A) Display Data (Only One) DHPP H active display area phase	110
1	DVPH V active display area phase	20
2	DHAR H active display area size	240
3	DVAR V active display area size	135
4	DHPW display H pulse width	55
5	DVPW display V pulse width	5
22	DPSW display PLL switch	1 (fixed)
23	MDL model select (16/9/4:3)	1
	(B) Misc. Common Data	Data
6	DYCD display output Y-C delay correction	2
7	DYSD display output Y-S signal delay select	1
	(C) Favorite / Other	Favorite Others
8	MDHP main display picture H position	9
10	MDHS main display picture H size	160
	(D) Single (Input Signal Format) / Favorite	Single 720P Single 480i/480P Favorite
9	MDVP main display picture V position	30
11	MDVS main display picture V size	120
	(E) Index / Others	Index Others
12	MLHP multi picture mode H position	47
13	MLVP multi picture mode V position	32
	(F) Favorite	Favorite
14	SDHS sub display picture H position	171
15	SDVS sub display picture V position	27
	(G) Favorite	Favorite
16	SDHS sub display picture H size	59
17	SDVS sub display picture V size	29
	(H) PinP Position (Not Used)	-
18	PDHP (PinP Large mode H position)	-
19	PDVS (PinP Large mode V position)	-
	(I) PinP Size (Not Used)	-
20	PDHS (PinP Large mode H size)	-
21	PDVS (PinP Large mode V size)	-
	(J) Single / Others	Single Others
24	BCOL Background Y level	0 5

MID-1 (Display Data : Output)(HW572K90)

Reg.No & Name	FUNCTION	(for 4:3)
0	(A) Display Data (Only One) DHPP H active display area phase	110
1	DVPH V active display area phase	20
2	DHAR H active display area size	240
3	DVAR V active display area size	135
4	DHPW display H pulse width	55
5	DVPW display V pulse width	5
22	DPSW display PLL switch	1 (fixed)
23	MDL model select (16/9/4:3)	0
	(B) Misc. Common Data	Data
6	DYCD display output Y-C delay correction	2
7	DYSD display output Y-S signal delay select	1
	(C) Favorite / Other	Normal Favorite Others
8	MDHP main display picture H position	154
10	MDHS main display picture H size	162
	(D) Single (Input Signal Format) / Favorite	Single 480i/480P Favorite
9	MDVP main display picture V position	30
11	MDVS main display picture V size	120
	(E) Index / Others	Index Others
12	MLHP multi picture mode H position	36
13	MLVP multi picture mode V position	31
	(F) Favorite	Favorite
14	SDHS sub display picture H position	166
15	SDVS sub display picture V position	20
	(G) Favorite	Favorite
16	SDHS sub display picture H size	44
17	SDVS sub display picture V size	29
	(H) PinP Position (Not Used)	-
18	PDHP (PinP Large mode H position)	-
19	PDVS (PinP Large mode V position)	-
	(I) PinP Size (Not Used)	-
20	PDHS (PinP Large mode H size)	-
21	PDVS (PinP Large mode V size)	-
	(J) Single / Others	Single Others
24	BCOL Background Y level	5

MID-2 (Active Data for DRC : INPUT/EXCEPT HW572K90)

Reg.No. & Name	FUNCTION		FUNCTION	
	(A) MID Mode, Wide mode, Input Signal Format		Single	
	DRHP	DRH	RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	111	110
1	DRHS	DRC H active area size	178	178
2	DRVP	DRC V active area position	37	37
3	DRVS	DRC V active area size	120	120
			Twin, Favorite	
			RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	132	131
1	DRHS	DRC H active area size	166	162
2	DRVP	DRC V active area position	54	58
3	DRVS	DRC V active area size	112	110
			Index	
			RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	139	138
1	DRHS	DRC H active area size	164	166
2	DRVP	DRC V active area position	50	54
3	DRVS	DRC V active area size	114	112
			Index-Small	
			RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	142	141
1	DRHS	DRC H active area size	162	162
2	DRVP	DRC V active area position	37	37
3	DRVS	DRC V active area size	120	120

MID-2 (Active Data for DRC : INPUT)(HW572K90)

Reg.No. & Name	FUNCTION		FUNCTION	
	(A) MID Mode, Wide mode, Input Signal Format		Single(Normal)	
	DRHP	DRH	RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	142	141
1	DRHS	DRC H active area size	162	178
2	DRVP	DRC V active area position	37	37
3	DRVS	DRC V active area size	120	120
			Twin, Favorite	
			RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	132	131
1	DRHS	DRC H active area size	166	162
2	DRVP	DRC V active area position	54	58
3	DRVS	DRC V active area size	112	110
			Index	
			RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	139	138
1	DRHS	DRC H active area size	164	166
2	DRVP	DRC V active area position	50	54
3	DRVS	DRC V active area size	114	112
			Index-Small	
			RF, Video, YC	YPbPr
0	DRHP	DRC H active area position	142	141
1	DRHS	DRC H active area size	162	162
2	DRVP	DRC V active area position	37	37
3	DRVS	DRC V active area size	120	120

MID-3 (Active Data for A/D (VDO) : INPUT)

Reg.No. & Name	FUNCTION			
	(A) MID mode, Wide mode, Input Signal Format			
	480P	Single	720P	YPhPt No Signal
0 VDHP	109	95	205	205
1 VDH8	166	108	226	226
2 VDVE	37	24	37	37
3 VDVS	120	180	56	56
	Twin, Favorite			
	480P	1080i	720P	YPhPt No Signal
0 VDOH	128	94	111	179
1 VDOH	155	150	99	199
2 VDVE	53	37	50	24
3 VDVS	112	126	168	56
	Memo			
	480P	1080i	720P	YPhPt No Signal
0 VDHP	136	102	115	179
1 VDH8	152	147	98	199
2 VDVE	57	44	58	24
3 VDVS	110	123	164	56
	Index			
	480P	1080i	720P	YPhPt No Signal
0 VDHP	132	99	112	166
1 VDH8	154	149	99	187
2 VDVE	51	34	48	24
3 VDVS	113	128	169	56
	RF, Video, S-Video, YPhPt-480i			
4 VDVO	0	0	0	0
5 VCPO	95	70	40	40
6 VCWD	3	3	3	3
7 VYCD	0	0	0	0
8 VSTP	-	119	160	146
9 VSTT	-	4	0	0
10 VHSC	130	-	-	-

MID-5 (Picture Data) (A) Enhance Table Data Setting () : HW572K90

Reg.No.	Function	0	1	2	3	4	5	6	7
0	Table select	0	1	2	3	4	5	6	7
1	MHL Y Coefficient select	1	1	1	1	1	1	1	1
2	MHL C Coefficient select	3	3	3	3	3	3	3	3
3	MVL Y Coefficient select	0	0	0	0	0	0	0	0
4	MVL C Coefficient select	0	0	0	0	0	0	0	0
5	MHYR Y Coefficient select	0(1)	0(1)	1(2)	0	0	0	0	0
6	MHYL Y Coefficient select	1	1	1	1	1	1	1	1
7	MHYE Y Coefficient select	7	7	3	3	7	7	3	5
8	MHCR Y Coefficient select	1	1	1	1	1	1	1	1
9	MHCL Y Coefficient select	0	0	0	0	0	0	0	0
10	MHCE Y Coefficient select	1	1	1	1	1	1	1	1
11	MHCO Y Coefficient select	0	0	0	0	0	0	0	0
12	MVYR Y Coefficient select	0	0	2	2	0	0	2	2
13	MVYL Y Coefficient select	1	1	1	1	1	1	1	1
14	MVYE Y Coefficient select	1	1	1	1	1	1	1	1
15	MVCR Y Coefficient select	0	0	2	5	0	0	2	5
16	MVCL Y Coefficient select	0	0	0	0	0	0	0	0
17	MVCE Y Coefficient select	1	1	1	1	1	1	1	1
18	MVCO Y Coefficient select	0	0	0	0	0	0	0	0
0	Table select	8	9	10	11	12	13	14	15
1	MHL Y Coefficient select	0	0	0	0	1	1	1	1
2	MHL C Coefficient select	3	3	3	3	3	3	3	3
3	MVL Y Coefficient select	0	0	0	0	0	0	0	0
4	MVL C Coefficient select	0	0	0	0	0	0	0	0
5	MHYR Y Coefficient select	0	0	0	0	0	0	0	0
6	MHYL Y Coefficient select	1	1	1	1	1	1	1	1
7	MHYE Y Coefficient select	7	7	3	3	7	7	3	3
8	MHCR Y Coefficient select	1	1	1	1	1	1	1	1
9	MHCL Y Coefficient select	0	0	0	0	0	0	0	0
10	MHCE Y Coefficient select	1	1	1	1	1	1	1	1
11	MHCO Y Coefficient select	0	0	0	0	0	0	0	0
12	MVYR Y Coefficient select	0	0	2	2	0	0	2	2
13	MVYL Y Coefficient select	1	1	1	1	1	1	1	1
14	MVYE Y Coefficient select	1	1	1	1	1	1	1	1
15	MVCR Y Coefficient select	0	0	2	5	0	0	2	5
16	MVCL Y Coefficient select	0	0	0	0	0	0	0	0
17	MVCE Y Coefficient select	1	1	1	1	1	1	1	1
18	MVCO Y Coefficient select	0	0	0	0	0	0	0	0

* No. 19 - No.36 data is all "0" not to use.

On-Screen Display (OSD)

Reg.No. & Name	FUNCTION				
0 HPOS	OSD horizontal position				14
1 HPOF	Horizontal position for Favorite mode				37
2 VPOS	OSD vertical position				4
3 VPOT	Vertical position for P&P (Twin) mode				40

SNNR

Reg.No. & Name	FUNCTION				
0 SNNR	SNNR data setting				3
1 SNFX	Selection of SNNR data setting				0
2 WSLT	Noise level detection data thresholds for SNNR data (read data)		31-62	63-126	127-255
	SNNR Settings based on WSL Data				
SNNR=0/1/2/3					
3 CPTG	Related to 3D-COMB (upD64802) / #19 YPRG settings		1	2	3
4 CPTT	Related to 3D-COMB (upD64802) / #18 YPFT settings		0	0	0
5 CCCR	Related to 3D-COMB (upD64802) / #20 VHCO settings		1	1	1
6 CHCG	Related to 3D-COMB (upD64802) / #21 VHCC settings		1	1	1
7 CARG	Related to 3D-COMB (upD64802) / #16 VARG settings		0	0	0
8 SHP	Related to CXA2103 / #6 SHAP settings		1	2	3
9 MIDD	Related to CXA2150P-3 / #19 MIDE settings		0	0	0
10 SHP	Related to CXA2150P-4 / #4 USHP settings		1	3	4
11 SYFI	Related to CXA2150P-3 / #10 FILY settings		0	1	2
12 SCDS	Related to CXA2150P-3 / #11 CDSP settings		0	0	0
13 SLTI	Related to CXA2150P-3 / #12 LTLV settings		0	0	0
14 SCTL	Related to CXA2150P-3 / #14 CTVL settings		0	0	0
15 SVML	Related to CXA2150P-3 / #1 UVML settings		0	0	0
16 SVMC	Related to CXA2150P-3 / #3 VMCR settings		0	1	2

SNNR data is used for the () offset setting.

SNNR data is used for the direct setting.

SNNR data is used for the () offset setting.

SNNR data is used for the () offset setting.

ID-1 Detection

Reg.No. & Name	FUNCTION				
0 XGKL	XGKL: Setting for memorizing or not the ID-1 detection status				0
1 LNTI	LNTI: Setting for the multisingle-line ID-1 detection				0

Closed Caption Display & Parental Control (CCD&VCHIP)

Reg.No. & Name	FUNCTION				
0 HPRM	Horizontal position of CCD (Main)				49
1 HPRS	Horizontal position of CCD (Sub)				49
2 RND	OSD rounding control				1
3 CCDI	Interruption control				3
4 GRIP	CRI count & parity count				4
5 GRIT	Charge/Discharge timing control for slice voltage level				0
6 CHMK	Horizontal mask width				42
7 FPOL	Field polarity selection				1
8 LANG					0
9 DATA	Switch for CCD servetest data				0
10 VCHP	Selection of Vchip controls				1

OPTIONS

Reg.No. & Name	FUNCTION				
0 DLY1	Power-On to RLY timing = DLY1 x 50ms				2
1 DLY2	Power-On Mute timing = DLY2 x 50ms				12
2 DLY3	Relay-On to start Bus communication				255
3 AGC					63
4 PCMX					63
5 BRMX					63
6* RAMW*					0

*HW572K90

ID

Reg.No. & Name	FUNCTION				
0 ID0	Selection of OSD languages & color system				91
1 ID1	Selection of composite & s-video inputs				127
2 ID2	Selection of audio-related controls				259
3 ID3	Selection of basic system settings				66
4 ID4	Selection of basic system settings				203
5 ID5	Selection of advanced system settings				177
6 ID6	Selection of sub picture related settings				54
7 ID7	Selection of some reserved settings				24

*1 HR432K90, HR532K90, HW572K90,217
 HR532N90,89

PJ Engine (EXCEPT HW572K90)

ITEM No.	ITEM Name	Contents	min	max	init (4:3)
					Normal V.Comp HD
67	VLOM	Auto Regi. Pattern Lower middle vertical position	0	2047	0
68	VLOW	Auto Regi. Pattern Lower vertical position	0	2047	43:975 53:975
69	FLB	Auto Regi. Pattern left horizontal position	0	4095	43:90 53:90
70	FLBM	Auto Regi. Pattern left middle horizontal position	0	4095	0
71	HMID	Auto Regi. Pattern middle horizontal position	0	4095	43:655 53:655
72	HRM	Auto Regi. Pattern right middle horizontal position	0	4095	0
73	HRV	Auto Regi. Pattern right horizontal position	0	4095	43:1220 53:1220
74	SFTF	Switch of shift fast	0	1	0
75	ACTL	Account timer counter lower byte	0	-	0
76	ACTH	Account timer counter upper byte	0	-	0
77	SLSW	Auto Regi. adjustment item select	0	3	43:3 53:3

			min	max	4:3
					Blue Red
78	CENT		-512	511	ADJ +35, +20 ADJ -35, -20
79	SKEW		-512	511	ADJ 0, 0 ADJ 0, 0
80	SIZE		-512	511	ADJ -100, -75 ADJ -100, -75
81	LIN		-512	511	ADJ 0, 0 ADJ -410, 0
82	KEY		-512	511	ADJ x, 0 ADJ x, -120
83	PRN		-512	511	ADJ 0, 300 ADJ 0, 300
84	MLIN		-512	511	ADJ 0, x ADJ 145, x
85	MSIZ		-512	511	ADJ 0, x ADJ 100, x

Note: 4:3 has Normal, V.Comp, HD separately

PJ Engine (EXCEPT HW572K90)

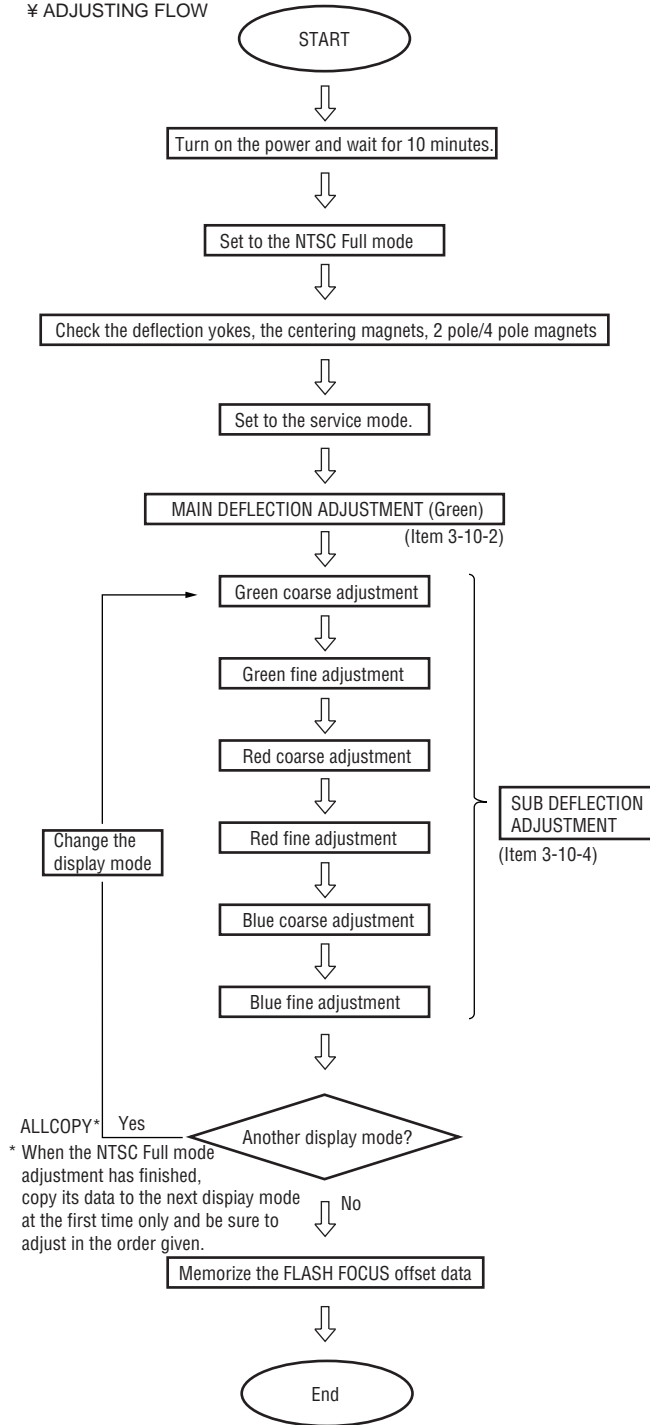
ITEM No.	ITEM Name	Contents	min	max	init (4:3)
					Normal V.Comp HD
0	FDIS	Switch of display for fine adjustment data	0	1	-
1	COPY	Service copy adjustment	0	1	-
2	ALCP	Service all copy adjustment	0	1	-
3	OSDH	Old horizontal position of PJED service menu	1	255	22
4	OSDV	Old vertical position of PJED service menu	1	255	100 100 100
5	FVSL	Start position of fine adjustment	0	15	0 1 1
6	FVSP	Start line of fine adjustment	0	255	3 25 73
7	VIDL	Value of V1 delay	0	255	1 1 1
8	VTCU	Value of V1 count up	0	2095	454 337 292
9	VTOH	Value of V1 offset upper data	0	4095	5 134 185
10	VLOL	Value of V1 offset lower data	0	2095	0 0 0
11	OEVP	Odd/Even select position	0	4095	1056
12	COHP	Horizontal phase for rough adjustment	0	4095	0
13	34CS	Start center clamp position of H3 and H4 pulse	0	31	14
14	34CW	Width center clamp position of H3 and H4 pulse	0	31	0
15	FHP	Horizontal phase for fine adjustment	0	4095	1082
16	THPP	Horizontal phase for test pattern	0	4095	66
17	TPVP	Vertical phase for test pattern	0	255	55 53 17
18	DPHP	Horizontal phase for dynamic focus	0	4095	270
19	DPHG	Value of horizontal parabola wave for dynamic focus	-128	127	-65 -65 -65
20	DPVG	Value of vertical parabola wave for dynamic focus	-128	127	-90 -90 -90
21	DFPC	Value of center for dynamic focus	-128	127	127 127 127
22	DFV1	Value of V1 saw wave for dynamic focus	-128	127	-50 -50 -50
23	SDHP	Compensation of horizontal phase for shading	0	4095	444
24	SDH1	Value of horizontal saw wave for dynamic focus	-128	127	63 127 127
25	RVCS	Start position of Red vertical clamp	0	31	0
26	RVCW	Width of Red vertical clamp	0	31	0
27	GVCS	Start position of Green vertical clamp	0	31	0
28	GVCW	Width of Green vertical clamp	0	31	0
29	BVCS	Start position of Blue vertical clamp	0	31	0
30	BVCW	Width of Blue vertical clamp	0	31	0
31	RHCS	Start position of Red horizontal clamp	0	31	0
32	RHCW	Width of Red horizontal clamp	0	31	0

PJ Engine (EXCEPT HW572K90)

ITEM No.	ITEM Name	Contents	min	max	init (4:3)
					Normal V.Comp HD
33	GHCS	Start position of Green horizontal clamp	0	31	0
34	GHCW	Width of Green horizontal clamp	0	31	0
35	BHCS	Start position of Blue horizontal clamp	0	31	0
36	BHCW	Width of Blue horizontal clamp	0	31	0
37	BDVU	Vertical position for boiler line 1	0	2047	23 1 1
38	BDVL	Vertical position for boiler line 2	0	2047	905 1079
39	BDHL	Horizontal position for boiler line 1	0	2047	148
40	BDHR	Horizontal position for boiler line 2	0	2047	1262
41	HBLD	Horizontal phase for output of HBlank out	0	4095	0
42	HBLW	Width for output of HBlank out	0	4095	0
43	PWM2	PWM2 output width setting of Regi IC	0	4095	43:500 53:345
44	COGV	Green vertical center offset data for Auto Regi.	-128	127	-
45	COBV	Red vertical center offset data for Auto Regi.	-128	127	-
46	COBV	Blue vertical center offset data for Auto Regi.	-128	127	-
47	COGH	Green horizontal center offset data for Auto Regi.	-128	127	-
48	COBH	Red horizontal center offset data for Auto Regi.	-128	127	-
49	COBH	Blue horizontal center offset data for Auto Regi.	-128	127	-
50	SOGV	Green vertical skew offset data for Auto Regi.	-128	127	-
51	SORV	Red vertical skew offset data for Auto Regi.	-128	127	-
52	SORV	Blue vertical skew offset data for Auto Regi.	-128	127	-
53	SOGH	Green horizontal skew offset data for Auto Regi.	-128	127	-
54	SORH	Red horizontal skew offset data for Auto Regi.	-128	127	-
55	SOBH	Blue horizontal skew offset data for Auto Regi.	-128	127	-
56	ZOGH	Green horizontal size offset data for Auto Regi.	-128	127	-
57	ZORH	Red horizontal size offset data for Auto Regi.	-128	127	-
58	ZOBH	Blue horizontal size offset data for Auto Regi.	-128	127	-
59	LOGH	Green horizontal linearity offset data for Auto Regi.	-128	127	-
60	LORH	Red horizontal linearity offset data for Auto Regi.	-128	127	-
61	LOBH	Blue horizontal linearity offset data for Auto Regi.	-128	127	-
62	ERR	Auto Regi. Error code	0	-	-
63	ADTM	A/D data input timing of Auto Regi.	0	127	43:144 53:144
64	VUP	Auto Regi. Pattern Upper vertical position	0	2047	43:50 53:50
65	VUPM	Auto Regi. Pattern Upper middle vertical position	0	2047	0
66	VMID	Auto Regi. Pattern Middle vertical position	0	2047	43:515 53:515

3-11. REGISTRATION ADJUSTMENT

¥ ADJUSTING FLOW

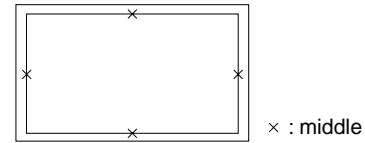


3-11-1. Setup for Adjustment

1. Marking

1) At the 4 insides of the screen, locate the middle. Use a tape measure to identify the middle.

2. Data Setting



- 1) Set NTSC Full mode.
- 2) Enter the Service mode, and select "PJE".

Note : When you replaced printed circuit boards or devices or CRTs, and when correction is drastically necessary, press "Ⓞ" + "ENTER" buttons to initialize the data in the Projector Engine mode.

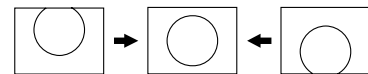
Press "MUTING" + "ENTER" buttons on the commander to write the data.

3-11-2. Main Deflection Adjustment

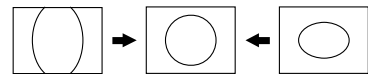
Note : Before this adjustment, input the data of PJE item No. 78-85, (See page 25 or 26).

1. Place the caps on the red and blue lenses so that only the green color is displayed.
2. Enter the monoscope signal and set to NTSC Full mode .
3. Enter the Service mode, and select "2150D-1" .
4. Adjust "0 VPOS" and "1 VSIZ" so that the picture is displayed in the center of screen.
5. Adjust "2 VSZO" for 1080i vertical size adjustment.

0 VPOS



1 V-Size



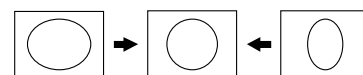
6. Select "2150D-2" and adjust "2 H-Size" so that the picture size is within the specification.

SPEC

Overscan Spec. = 9%

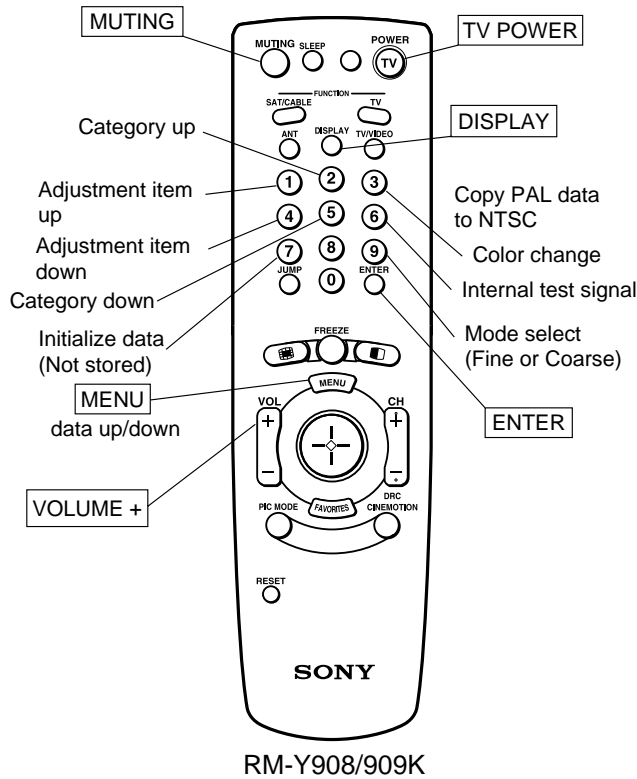
Input Signal	H SIZE	V SIZE
Monoscope	15.6 ± 0.2 sq.	11.5 ± 0.2 sq.

2 H-Size



7. Copy the data of NTSC Full mode to the other display mode and adjust in the other mode as the occasion demands.

3-11-3. Operation Method for Projector Engine Mode



1. Functions of Keys on Commander

- ① : Changes adjustment item. (item No. moves up)
: Marker moves clockwise from center to outside. (in fine adjustment mode)
- ④ : Changes adjustment item. (item No. moves down)
: Marker moves counterclockwise from outside to center. (in fine adjustment mode)
- ② : Changes adjustment category. (category No. moves up)
- ⑤ : Changes adjustment category. (category No. moves down)
- Joystick : Changes data value. (up or down)
: Marker moves up, down, or to the left or right. (in fine adjustment mode)
- ③ : Changes adjustment color.
GRN → BLU → RED
- ⑥ : Displays or changes internal test signals.
: crosshatch + external signal → crosshatch + borderline → crosshatch only → dot only → off
- ⑨ : Switches adjustment mode.
Coarse adjustment mode → fine adjustment mode

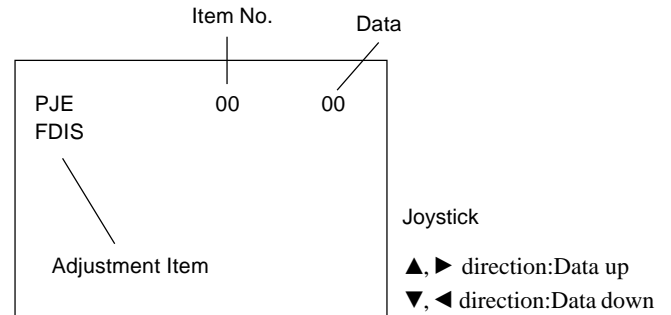
- Press joy stick : Switches marker moving method.
stick (in fine adjustment mode)
joystick (▲, ▼, ◀, ▶) keys → ① and ④ buttons

Commander Function

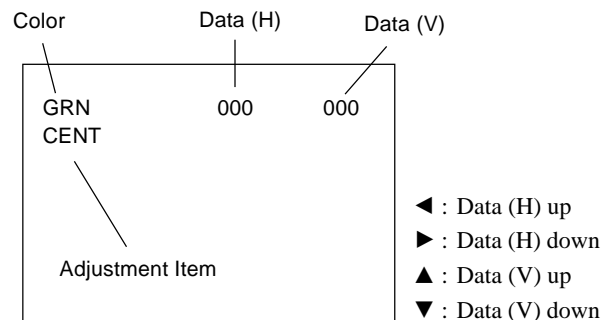
Buttons	Mode	Description
① + ENTER	READ	Writes data to NVM.
MUTING+ENTER	WRITE	Reads data from NVM.
⑦ + ENTER	PJE INITIAL	Service data initialization. Not stored. (Be sure not to use usually)

2. Operation Method for Coarse Adjustment

- 1) Enter the Service mode, and select "PJE".
- 2) Press "①" or "④" button on the commander to select the item, and use the joystick to change the data.



- 3) Select "GRN CENT". When BLU or RED is displayed, press "③" button on the commander to change the adjustment color in the order of GRN → BLU → RED.
- 4) In the GRN, BLU, or RED mode, move ▲, ▼ direction the joystick can change the data in vertical direction, or ◀, ▶ direction in horizontal direction.

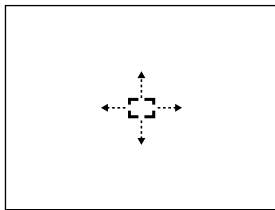


- 5) Before returning to the Service mode, press "MUTING" + "ENTER" buttons on the commander to write the data. (Omission of this operation causes the set data to be returned to the data before adjustment)

3. Operation Method for Fine Adjustment

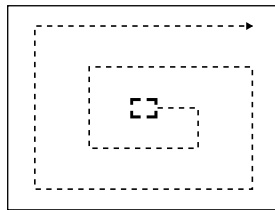
- 1) Select the PJE mode.
- 2) Select FDIS so that the data at each position can be displayed in the fine adjustment mode, and set the data to "01".
- 3) Press "⑨" button on the commander, and the fine adjustment mode will be active where a green marker appears in the center of screen (in the case of GRN mode).
- 4) Press joystick, and the marker color will be switched between green (GRN mode) and white alternately.
- 5) Use "①" or "④" button on the commander, or the joystick to move the marker to the position to be adjusted, where fine adjustment can be made.

- When marker color is white.
(in this case, fine adjustment is disabled)



Operating the joystick can move the marker up, down, or to the left or right freely.

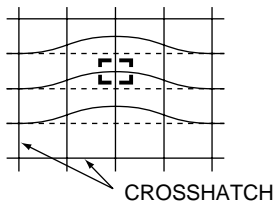
- When marker color is green. (GRN mode)



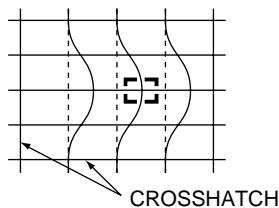
- ① : moves the marker clockwise from center to outside.
- ④ : moves the marker counterclockwise from outside to center.

- Fine adjustment can be made on the basis of marker position using ▲, ▼, ◀, ▶ direction of the joystick.

Move joystick ▲ direction



Move joystick ▶ direction



- 6) Press "⑨" button on the commander to return to the coarse adjustment mode.

3-11-4. PJE Adjustment (Sub Deflection Adjustment)

Adjustment ○ : Yes - : No

Adjustment Item	Adjustment Type		
	GRN	RED	BLU
	H / V	H / V	H / V
CENT	○ / ○	○ / ○	○ / ○
SKEW	○ / ○	○ / ○	○ / ○
SIZE	○ / ○	○ / ○	○ / ○
LIN	○ / ○	○ / ○	○ / ○
KEY	- / ○	- / ○	- / ○
PIN	○ / ○	○ / ○	○ / ○
MLIN	○ / -	○ / -	○ / -
MSIZ	○ / -	○ / -	○ / -

Note: If the value of over the limit value, adjust these in the fine adjustment .

Coarse Data Limit Valune.

Cent H 35±170 V 20±170, Size H-75max, Lin H Blu -425min, H Red 425max.

<Adjustment for NTSC Full Mode>

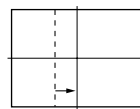
- The adjustment should be done in the numerical order given.

1. Green Adjustment

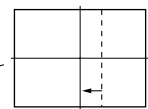
- 1) Place the caps on the red and blue lenses so that only the green color is displayed.
- 2) Enter the monoscope signal to set.
- 3) Select the PJE mode.
- 4) Press "⑥" button on the commander to display internal test signal (crosshatch).
- 5) Select "GRN CENT", and adjust so that the picture coincide in the center of screen.

- GRN CENT (horizontally/vertically)

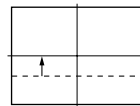
Push the joystick to ▶



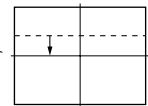
Push the joystick to ◀



Push the joystick to ▲

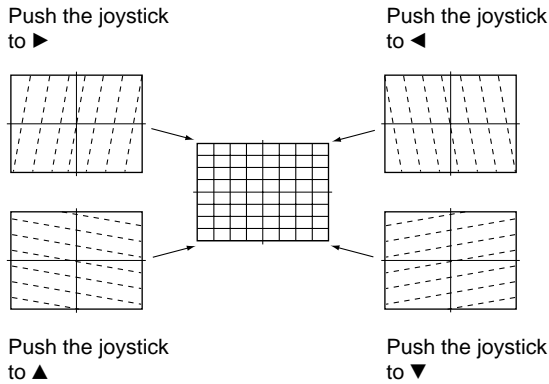


Push the joystick to ▼



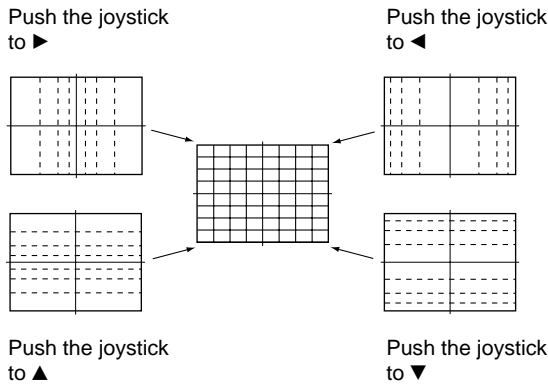
7) Select “GRN SKEW”, and correct the tilt of horizontal lines and vertical lines.

• GRN SKEW (horizontally/vertically)



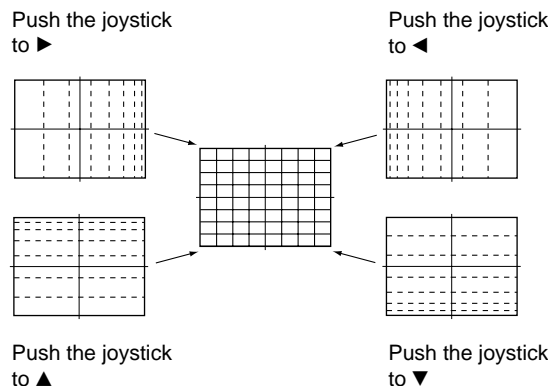
8) Select “GRN SIZE”, and adjust so that each distance from center to left end and to right end is equal. Adjust so that each distance from center to top and to bottom is equal.

• GRN SIZE (horizontally/vertically)



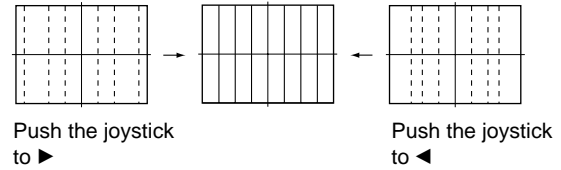
9) Select “GRN LIN”, and adjust so that each space at the right end and at the left end of screen is equal. Adjust so that each space at the top and at the bottom of screen is equal.

• GRN LIN (horizontally/vertically)



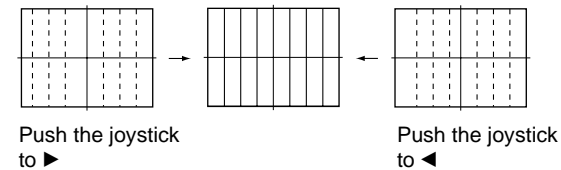
10) Select “GRN MSIZ”, and correct the space intervals for the horizontal section of the screen are equal.

• GRN MSIZ (horizontally)



11) Select “GRN MLIN”, and correct the sizes of the horizontal line at the center of the screen are symmetrical left and right.

• GRN MLIN (horizontally)

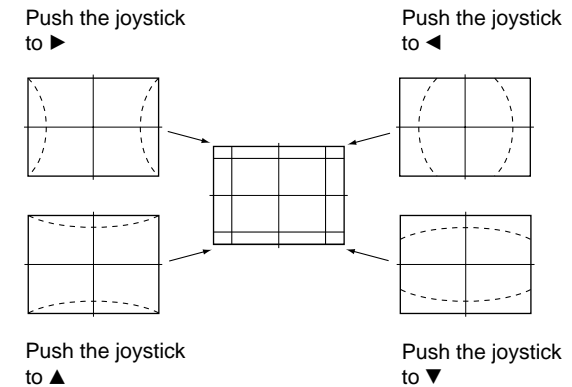


Note: The SIZE and LIN, MSIZ and MLIN adjustments are affected each other.

So adjust these mutually if necessary.

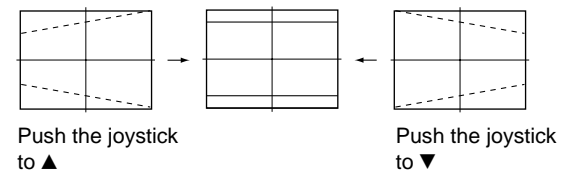
12) Select “GRN PIN”, and adjust so that right and left vertical lines on the screen become straight. Adjust so that upper and lower horizontal lines on the screen become straight.

• GRN PIN (horizontally/vertically)



13) Select “GRN KEY”, and adjust so that upper and lower horizontal lines on the screen become parallel.

• GRN KEY (vertically)



Note: The VPIN and KEY adjustments are affected each other. So adjust these mutually if necessary.

- 14) Press “⑨” button on the commander to enter the fine adjustment mode.
- 15) Make fine adjustment so that horizontal lines and vertical lines become straight.
- 16) Press “⑨” button on the commander to return to the coarse adjustment mode.

2. Red Adjustment

- 1) Place a cap on the blue lens so that green and red colors are displayed.
- 2) Press “③” button on the commander to select RED mode.
- 3) Adjust the following items so that red lines overlap with green lines.

- RED CENT (horizontally/vertically)
- RED SKEW (horizontally/vertically)
- RED SIZE (horizontally/vertically)
- RED LIN (horizontally/vertically)
- RED MSIZ (horizontally)
- RED MLIN (horizontally)
- RED PIN (horizontally/vertically)
- RED KEY (vertically)

- 4) Press “⑨” button on the commander to enter the fine adjustment mode.
- 5) Make fine adjustment so that horizontal lines and vertical lines overlap with green lines.
- 6) Press “⑨” button on the commander to return to the coarse adjustment mode.

3. Blue Adjustment

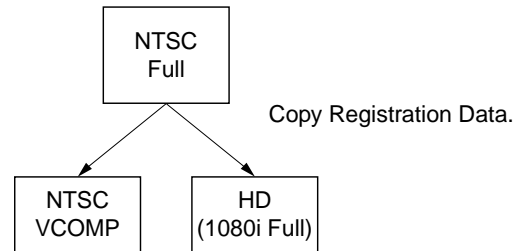
- 1) All colors are displayed.
- 2) Press “③” button on the commander to select BLU mode.
- 3) Hereinafter, use same manner as that of red adjustment to adjust so that the blue lines overlap with green and red lines.

4. Registration Data Writing

- 1) After each adjustment of green, blue, and red for the NTSC Full mode finished, press “MUTING”+ “ENTER” buttons on the commander to write registration data to the NVM.

<Copy All Registration Data to Other modes>

1. Make sure that the adjustment for NTSC Full mode finished and the data have already been written.
2. Select the PJE mode.
3. Select ALCP and set the data to “01”, and press “MUTING”+“ENTER” buttons on the commander.
4. The data of NTSC Full mode are copied to all other modes.



5. Check in the other mode and adjust as the occasion demands. Be sure to write data in each mode.

3-12. AUTO CONVERGENCE OFFSET

This adjustment must be performed after the registration adjustment was made or after readjustment was made by any reason.

1. Darken the periphery of this set.
2. Enter the monoscope signal to set the NTSC Full mode.
3. Select the PJE mode.
4. Press “FLASH FOCUS” button on the front panel of the set. (The offset value is now automatically stored)
5. Select “ ERR” of PJE mode. Confirm ERR is “00”. If ERR is not “00”, recheck. (Refer to 3-12.)
6. Exit the service mode.

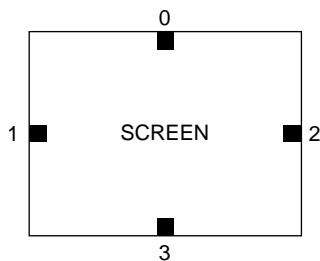
3-13. AUTO REGISTRATION ERROR CODE LIST

If an error code is displayed after the set has been fully adjusted, correctly, please check the following items : position, tilt and sizing. If either of these adjustments are off, even slightly, the auto registration pattern will not hit the four sensors properly. This occurs when the internal generator patterns is being flashed on the screen for the sensor to read. Therefore, auto registration (called auto convergence) cannot operate properly causing an error code to be displayed. In order for this function to operate properly, correct position, tilt and size must be adjusted properly.

ERROR CODE LIST

ERROR CODE	DESCRIPTION	REMEDY
00	No Error	
10	Sensor 0 low output	Check sensor 0, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust "64 VUP" if necessary.
11	Sensor 1 low output	Check sensor 1, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust "69 HLB" if necessary.
12	Sensor 2 low output	Check sensor 2, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust "73 HRIV" if necessary.
13	Sensor 3 low output	Check sensor 3, connection/wiring, circuit, and pattern position (Is pattern over sensor ?) Adjust "68 VLOW" if necessary.
20	Sensor 0 high output	Check sensor 0 and circuit.
21	Sensor 1 high output	Check sensor 1 and circuit.
22	Sensor 2 high output	Check sensor 2 and circuit.
23	Sensor 3 high output	Check sensor 3 and circuit.
30	V CENT or SKEW adjustment loop overflow	Check "66 VMID" data and check registration condition.
31	H CENT or SKEW adjustment loop overflow	Check "71 HMID" data and check registration condition.
32	H LIN or SIZE adjustment loop overflow	Check "71 HMID" data and check registration condition.
40	V CENT regi data overflow	Check "66 VMID" data and confirm V CENT data (all mode) is not near 511.
41	H CENT regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
42	V SKEW regi data overflow	Check "66 VMID" data and confirm V SKEW data (all mode) is not near 511.
43	H SKEW regi data overflow	Check "71 HMID" data and confirm H SKEW data (all mode) is not near 511.
44	H LIN regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
45	H SIZE regi data overflow	Check "71 HMID" data and confirm H CENT data (all mode) is not near 511.
50	V CENT regi data overdraw	Check "66 VMID" data and confirm V CENT data (all mode) is not near -512.
51	H CENT regi data overdraw	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
52	V SKEW regi data overdraw	Check "66 VMID" data and confirm V SKEW data (all mode) is not near -512.
53	H SKEW regi data overdraw	Check "71 HMID" data and confirm H SKEW data (all mode) is not near -512.
54	H LIN regi data overdraw	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
55	H SIZE regi data overdraw	Check "71 HMID" data and confirm H CENT data (all mode) is not near -512.
60	H or V CENT offset overflow	Check "71 HMID" data and check "66 VMID" data.
61	H or V SKEW offset overflow	Check SKEW adjustment.
62	H SIZE or LIN offset overflow	Check "71 HMID" data, check "66 VMID" data and check SIZE and LIN adjustment.
70	H or V CENT offset overdraw	Check "71 HMID" data and check "66 VMID" data.
71	H or V SKEW offset overdraw	Check SKEW adjustment.
72	H SIZE or LIN offset overdraw	Check "69 HLB" data, check "73 HRIV" data and check SIZE and LIN adjustment.
80	SIZE limit error	Check that H SIZE is negative and not near zero.

[SENSOR POSITION]

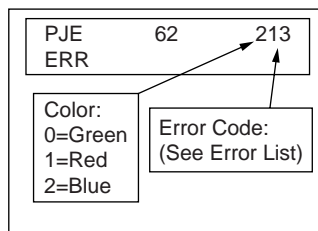


- 0 : UPPER SENSOR
- 1 : LEFT SENSOR
- 2 : RIGHT SENSOR
- 3 : LOWER SENSOR

Error codes in normal (customer) mode are not displayed. You must enter PJED service mode to see to the error code.

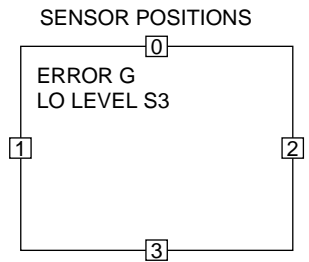
AUTO REGI ERROR CODE FORMAT

ERROR EXAMPLE



Example: Blue low Level Sensor 3
 0-Green
 1-Red
 2-Blue

When executing flash focus in service mode, the error will be displayed in text format (see below).



SECTION 4

CIRCUIT ADJUSTMENTS

4-1. P & P SUB CONTRAST ADJUSTMENT

(VIDEO) (SCON) ():HW572K90

- Receive the signal.
TV terminal (sub) : Color-bar (white-75%, No setup)
VIDEO terminal (main) : Color-bar (white-75%, No setup)
- VIDEO MODE : Pro
PICTURE : maximum
COLOR : minimum
RGB Signal : off
- Set to P & P mode, and set to service mode.
- Connect an oscilloscope between the check point and ground.
Check points : CN5 pin 6 (G) (A Board)
- Select “2103-1-02”(Main scon), and adjust so that the waveform level of VWB is $2.00 (1.67) \pm 0.04V_{p-p}$.
- Select “2103-2-02”(Sub scon), and adjust so that the waveform level of VWB is $2.00 (1.67) \pm 0.04V_{p-p}$.
- Write the data into memory.

MUTING n **ENTER**

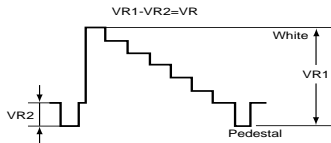


Fig. 4-1

4-2. P & P SUB CONTRAST ADJUSTMENT (RF) (SCON)

():HW572K90

- Receive the signal.
TV terminal (main) : Color-bar (white-75%, No setup)
VIDEO terminal (sub) : Color-bar (white-75%, No setup)
- VIDEO MODE : Pro
PICTURE : maximum
COLOR : minimum
RGB Signal : off
- Set to P & P mode, and set to service mode.
- Connect an oscilloscope between the check point and ground.
Check points : CN5 pin 6 (G) (A Board)
- Select “2103-1-02”(Main scon), and adjust so that the waveform level of VWB is $2.00 (1.67) \pm 0.04V_{p-p}$.
- Select “2103-2-02”(Sub scon), and adjust so that the waveform level of VWB is $2.00 (1.67) \pm 0.04V_{p-p}$.
- Write the data into memory.

MUTING n **ENTER**

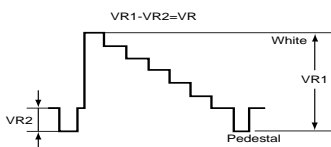


Fig. 4-2

4-3. P & P SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)

- Receive the signal.
TV terminal (sub) : Color-bar (white-75%, No setup)
VIDEO terminal (main) : Color-bar (white-75%, No setup)
- VIDEO MODE : Pro
PICTURE : maximum
COLOR : center
RGB Signal : on
- Set to P & P mode, set to service mode.
- Connect an oscilloscope between pin 7 (B) of CN5 (A board) connector and ground.
- Select “2103-1-03 SCOL, -04 SHUE”(Main), and adjust them to have $VB1 \leq VB4$ and $VB2 \leq VB3$ in the waveform levels.
- Select “2103-2-03 SCOL, -04 SHUE”(Sub), and adjust them to have $VB1 \leq VB4$ and $VB2 \leq VB3$ in the waveform levels.
- Write the data into memory.

MUTING n **ENTER**

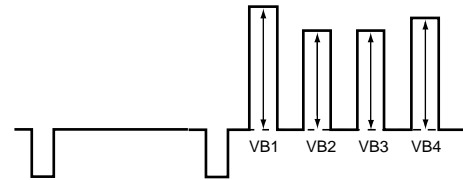


Fig. 4-3

4-4. P & P SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)

- Receive the signal.
TV terminal (main) : Color-bar (white-75%, No setup)
VIDEO terminal (sub) : Color-bar (white-75%, No setup)
- VIDEO MODE : Pro
PICTURE : maximum
COLOR : center
RGB Signal : on
- Set to P & P mode, set to service mode.
- Connect an oscilloscope between pin 7 (B) of CN5 (A board) connector and ground.
- Select “2103-1-03 SCOL, -04 SHUE”(Main), and adjust them to have $VB1 \leq VB4$ and $VB2 \leq VB3$ in the waveform levels.
- Select “2103-2-03 SCOL, -04 SHUE”(Sub), and adjust them to have $VB1 \leq VB4$ and $VB2 \leq VB3$ in the waveform levels.
- Write the data into memory.

MUTING n **ENTER**

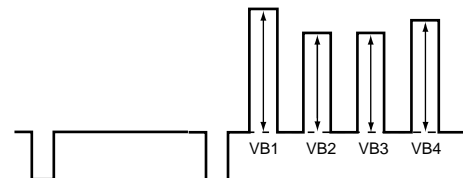


Fig. 4-4

4-5. BLUE OFFSET ADJUSTMENT (HW572K90)

1. Receive the all black (1080i, component) signal with VIDEO 5 input, and set VIDEO MODE to pro and PICTURE to maximum.
2. Connect an oscilloscope between CN5 pin 7 (B) on the A board and ground.
3. Set in the service mode and select the category “ 2150D-2 ”.
4. Adjust “ 3 SLIN ” so that the waveform level is $2.20 \pm 0.05 \text{Vp-p}$.
5. After adjustment finished, press “ **MUTING** ” + “ **ENTER** ” buttons on the commander to write the data to the NVM.
6. Receive the RF signal and change the wide to mode to “ Wide Zoom ” copy the same data to “ 3 SLIN ”.

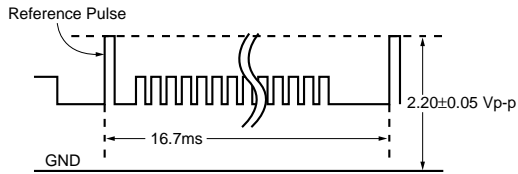


Fig. 4-5

SAFETY RELATED ADJUSTMENTS

[D BOARD]

5-1. HV REGULATION CIRCUIT CHECK AND ADJUSTMENT

When replacing the following components marked with \blacksquare on the schematic diagram always check HV regulation, and if necessary re-adjust.

- \blacksquare : VR8001
- \blacksquare : C8079, C8083, C8090, C8129, D8013, D8015, D8038, D8043, IC8006, Q8021, R8055, R8099, R8102, R8128, R8129, R8131, R8139, R8140, R8142, R8153, R8163, R8223, R8230, T8004 (LOT), T8005 (FBT), HV block, D board

OPERATION CHECK

1. Receive the all white signal.
2. Set PIC MAX/BRT CENT.
3. Confirm that the voltage between CN8015 1 PIN and GND is less than 7.80VDC.

HV REGULATION ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Repeat steps 1 and 2 as above.
4. Confirm that the static voltmeter reading is $31.0 \pm 0.4V$.
5. If not, adjust with VR8001 to the specified value.
6. After adjustment, put the VR cover on VR8001 as shown below and apply sufficient amount of epoxy resin around VR8001.

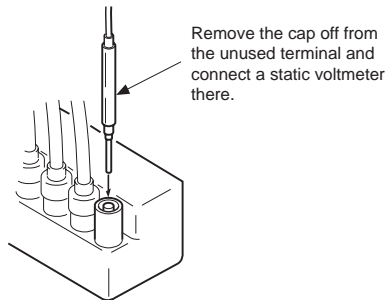


Fig. 4-1

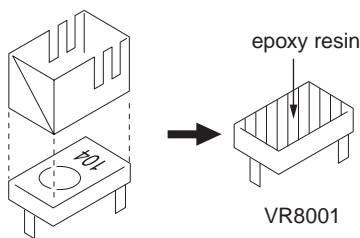


Fig. 4-2

5-2. HV HOLD DOWN CIRCUIT OPERATION CHECK AND ADJUSTMENT

When replacing the following components marked with \blacksquare on the schematic diagram always check hold-down voltage and if necessary re-adjust.

- \blacksquare : VR8002
- \blacksquare : C8054, C8086, C8088, C8100, C8104, C8118, C8123, C8124, D8019, D8020, D8022, D8028, D8036, FB8001, IC8008, Q8035, Q8038, R8035, R8043, R8159, R8166, R8171, R8196, R8201, T8004 (LOT), T8005 (FBT), HV block, D board

OPERATION CHECK

1. Receive the dot signal.
2. Set PIC MIN/BRT MIN.
3. Confirm that the voltage between cathode of D8038(JW171) and GND is more than 23.0V DC.
4. Using an external DC Power supply, apply the voltage shown below between cathode of D8038(JW171) on "D" and GND, then confirm that the HV-Prot circuit works.(Raster disappears.)
Apply DC voltage: Less than 29.05V DC.

HV HOLD-DOWN ADJUSTMENT

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Connet an external 10k Ω VR at CN8015 and adjust this VR so that the high voltage is 34.50kV.
4. Adjust VR8002 to the point that the HV-Prot circuit works (Raster disappears) at $34.50 \pm 0.50kV$ reading on the static voltmeter.
5. After adjustment, put the VR cover on VR8002 and apply sufficient amount of epoxy resin around VR8002 as the same manner for VR8001.

[G BOARD]

5-3. +B MAX VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC501, R5032.

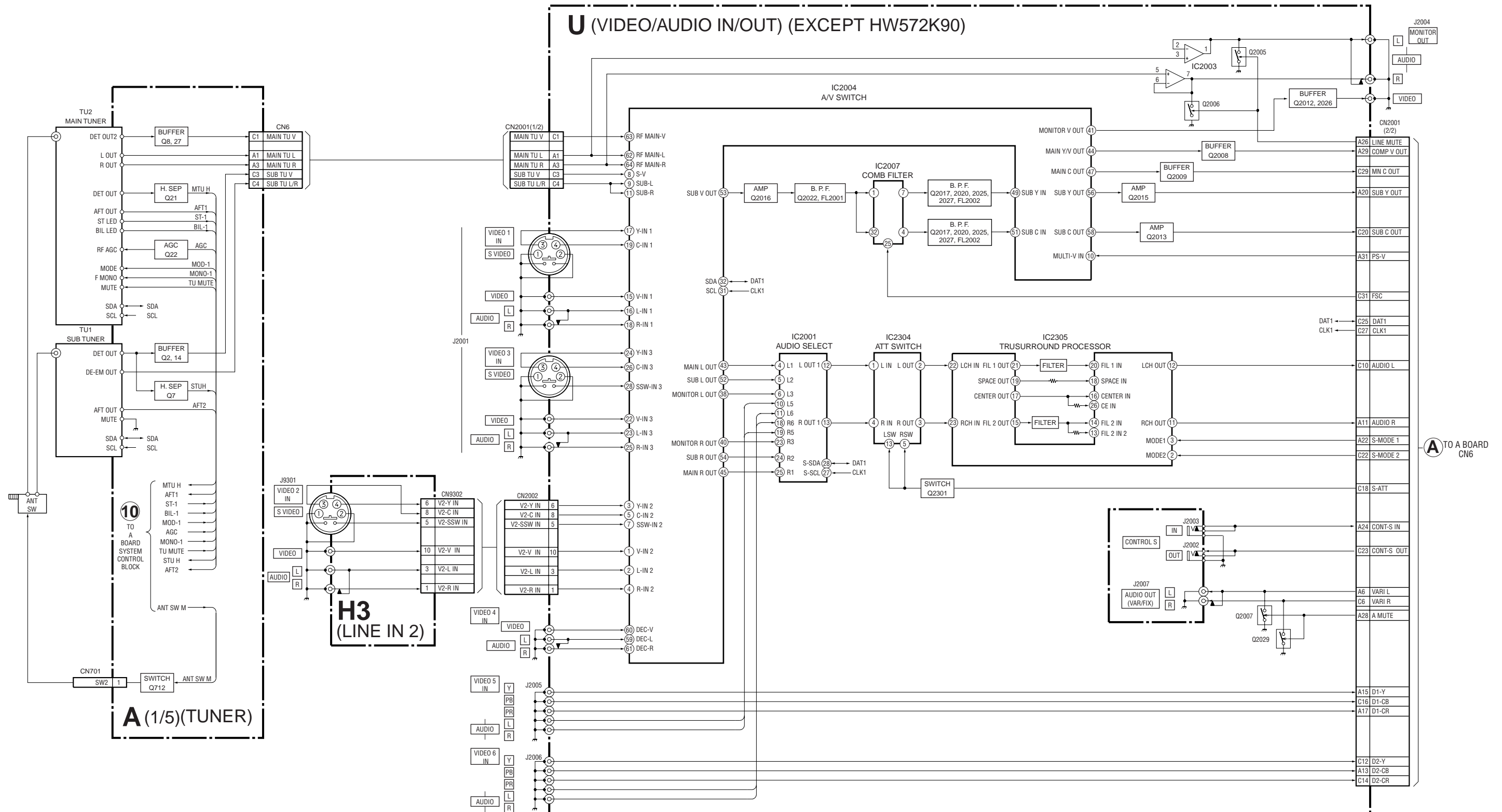
1. Supply 130VAC to variable autotransformer.
2. Receive dot signal pattern and set the PICTURE and BRIGHTNESS settings to their minimum.
3. Confirm the voltage of TP +B 135V is less than 137.0Vdc.
4. If step 4 not satisfied, replace IC501 and repeat above steps.

5-4. +B OVP CONFIRMATION

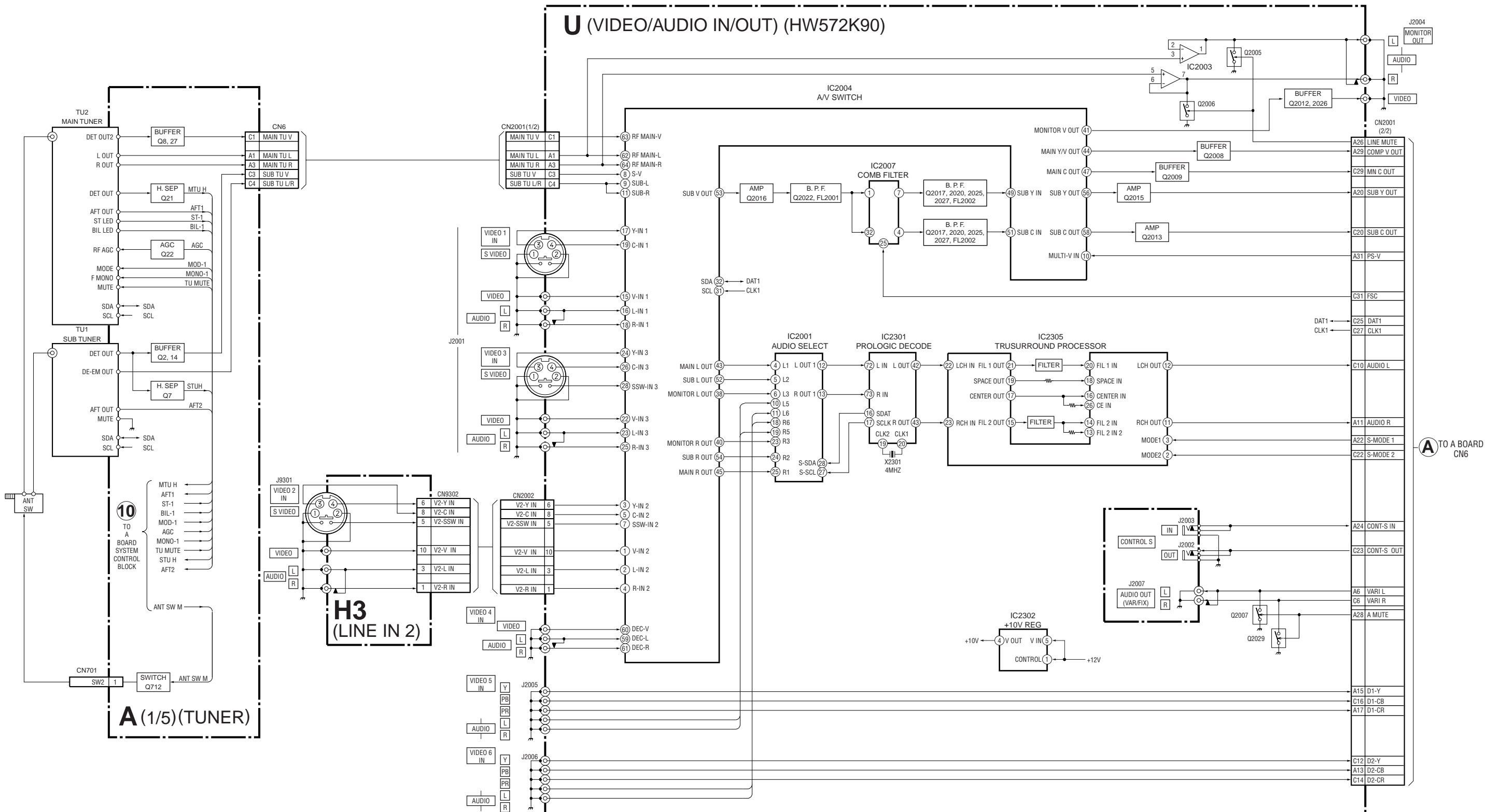
1. Add to low voltage power supply between to TP. 5001 and ground.
2. Supply 120VAC to variable autotransformer.
3. Power on the Set and receive dot signal pattern.
4. Set the PICTURE and BRIGHTNESS settings.
5. Check the OVP is activated.
Operate :less than 2.50V

SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM (1) (EXCEPT HW572K90)

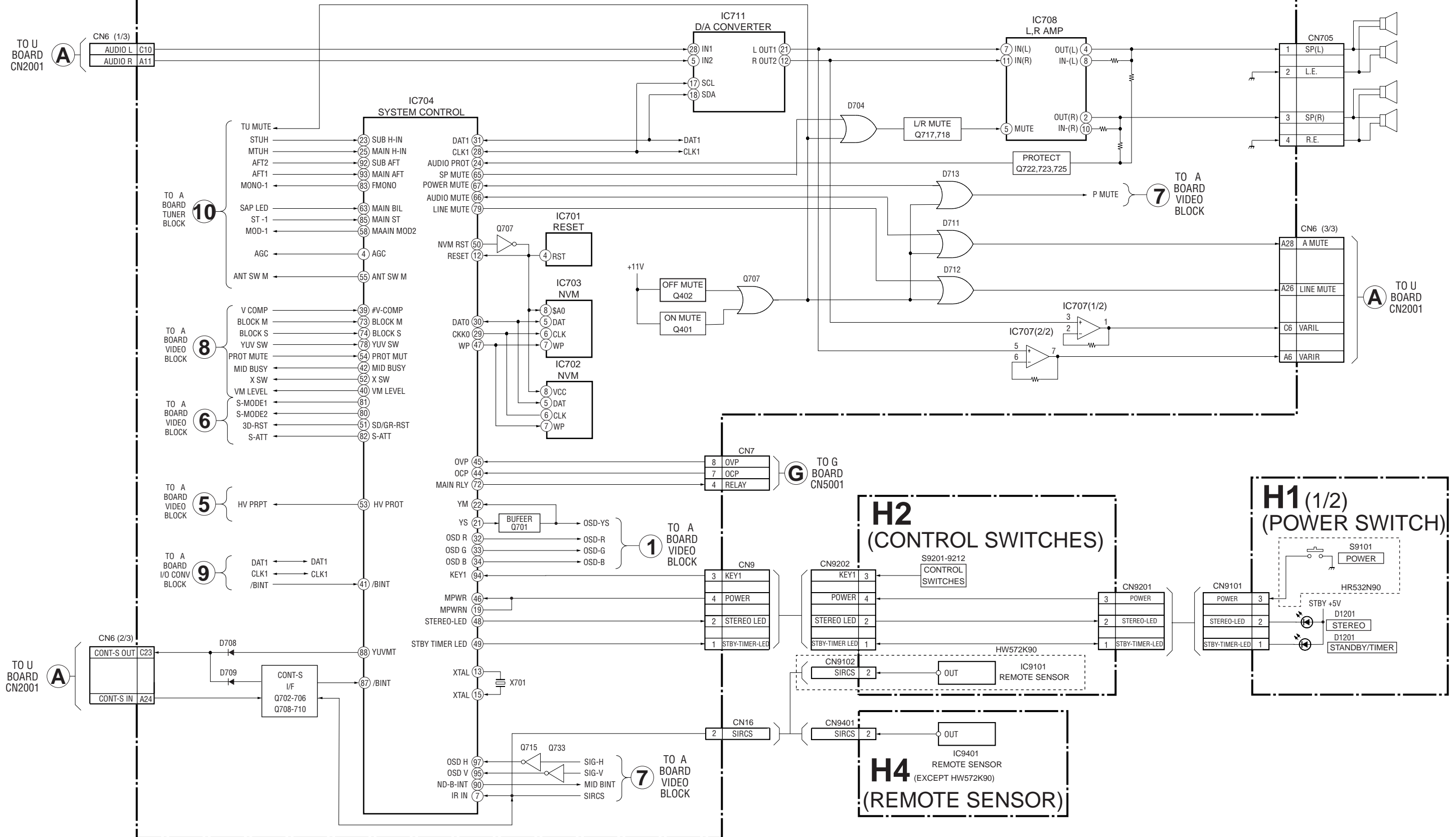


BLOCK DIAGRAM (2) (HW572K90)



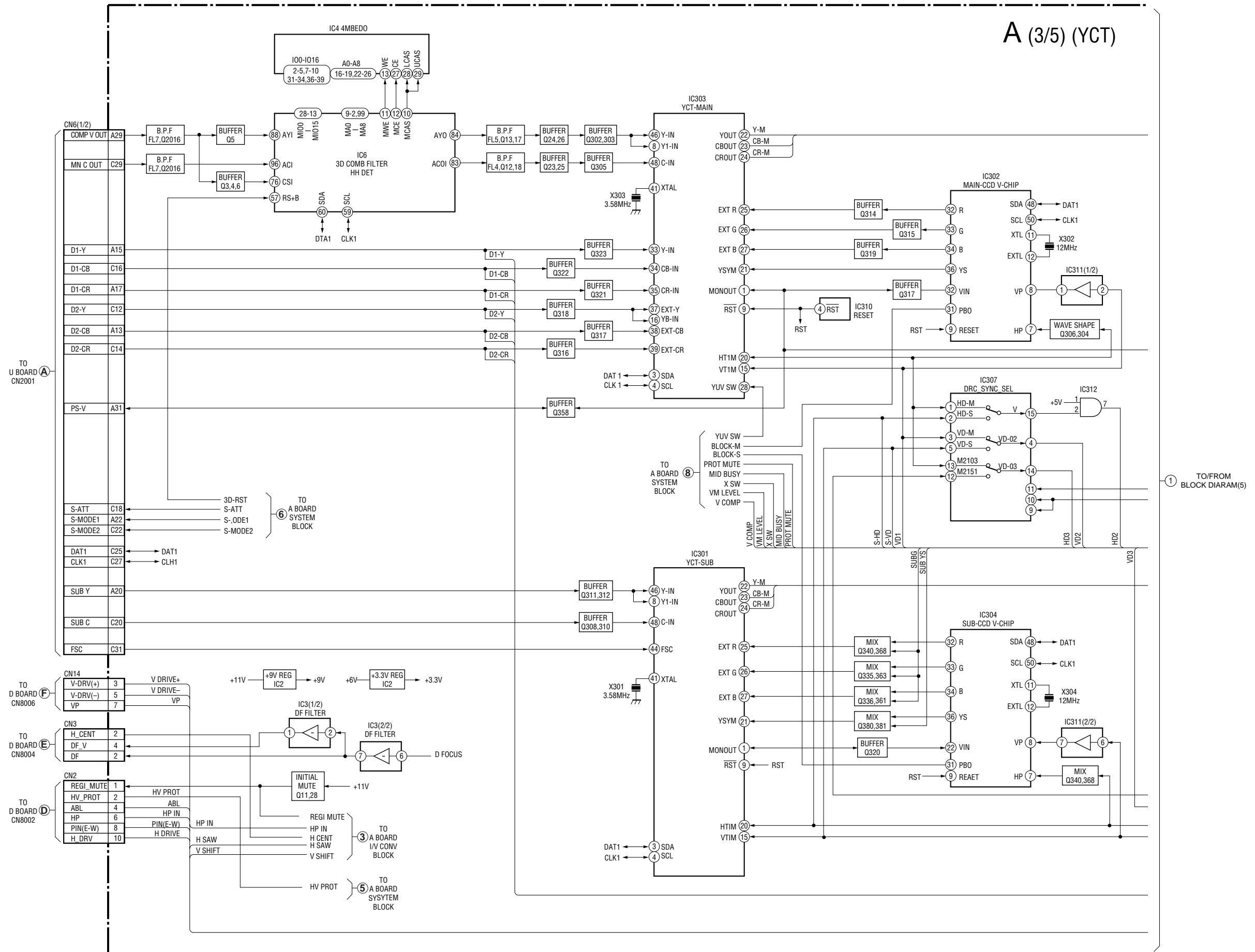
BLOCK DIAGRAM (3)

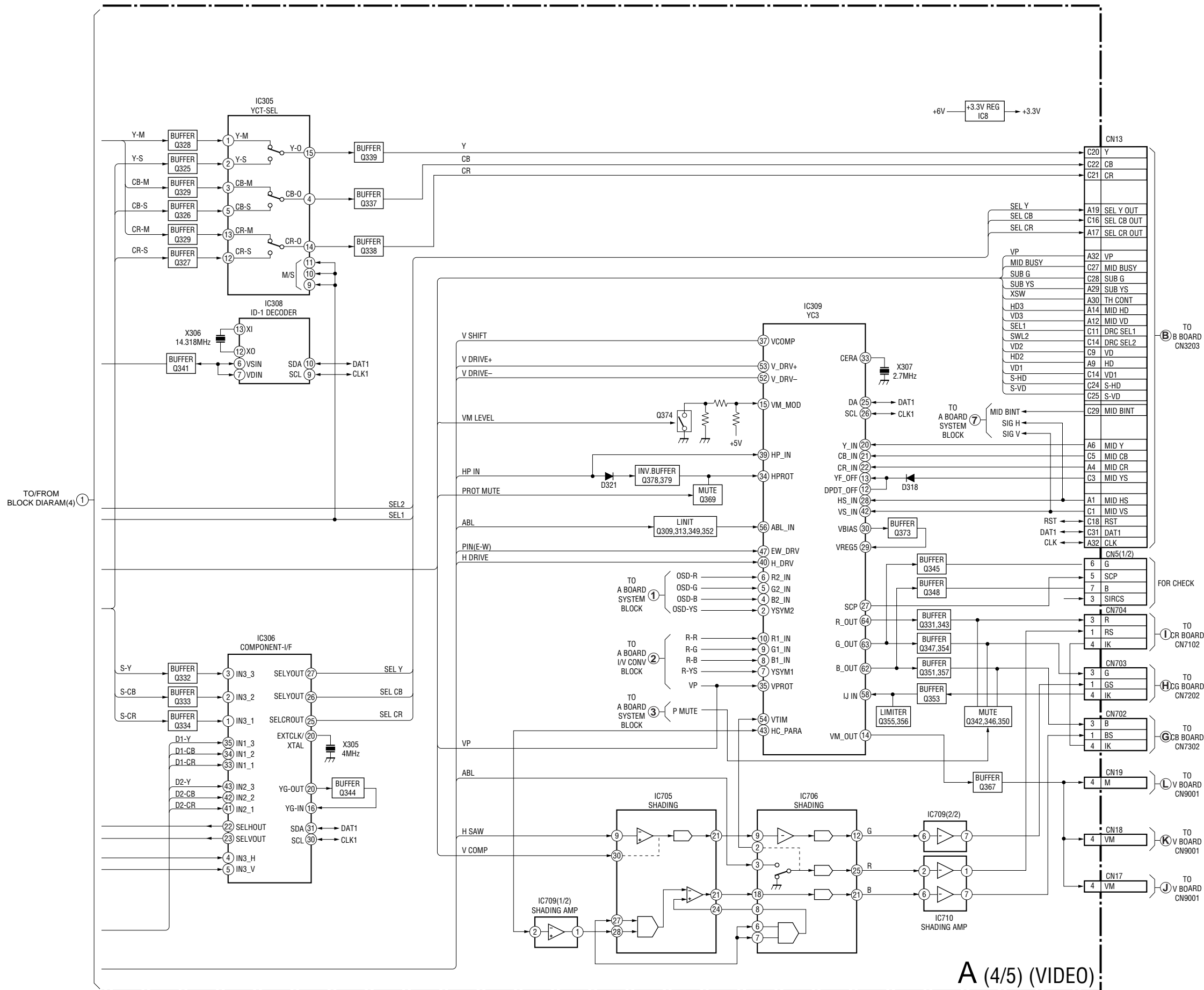
A (2/5)(AUDIO, SYSTEM CONTROL)



BLOCK DIAGRAM (4)

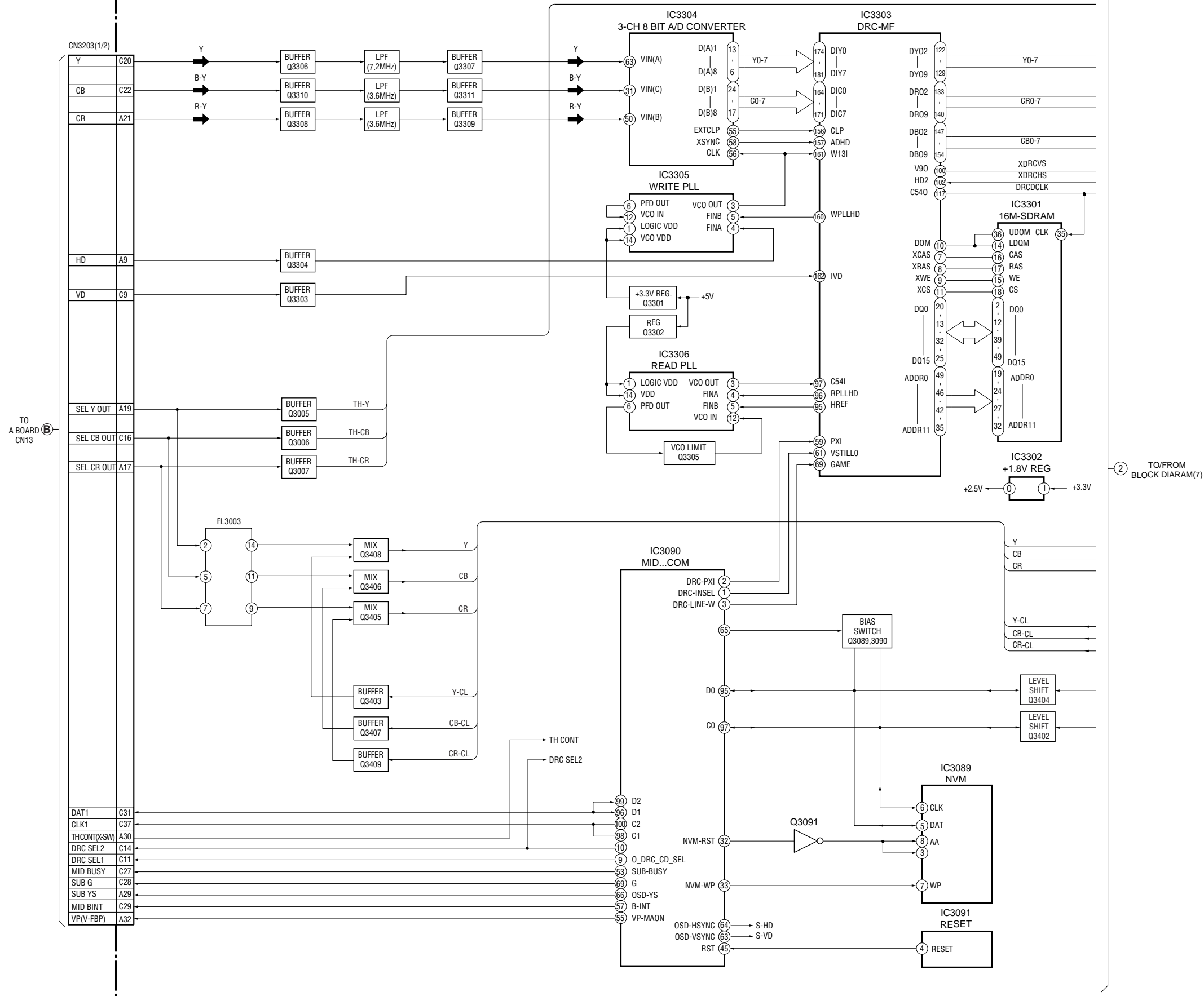
A (3/5) (YCT)

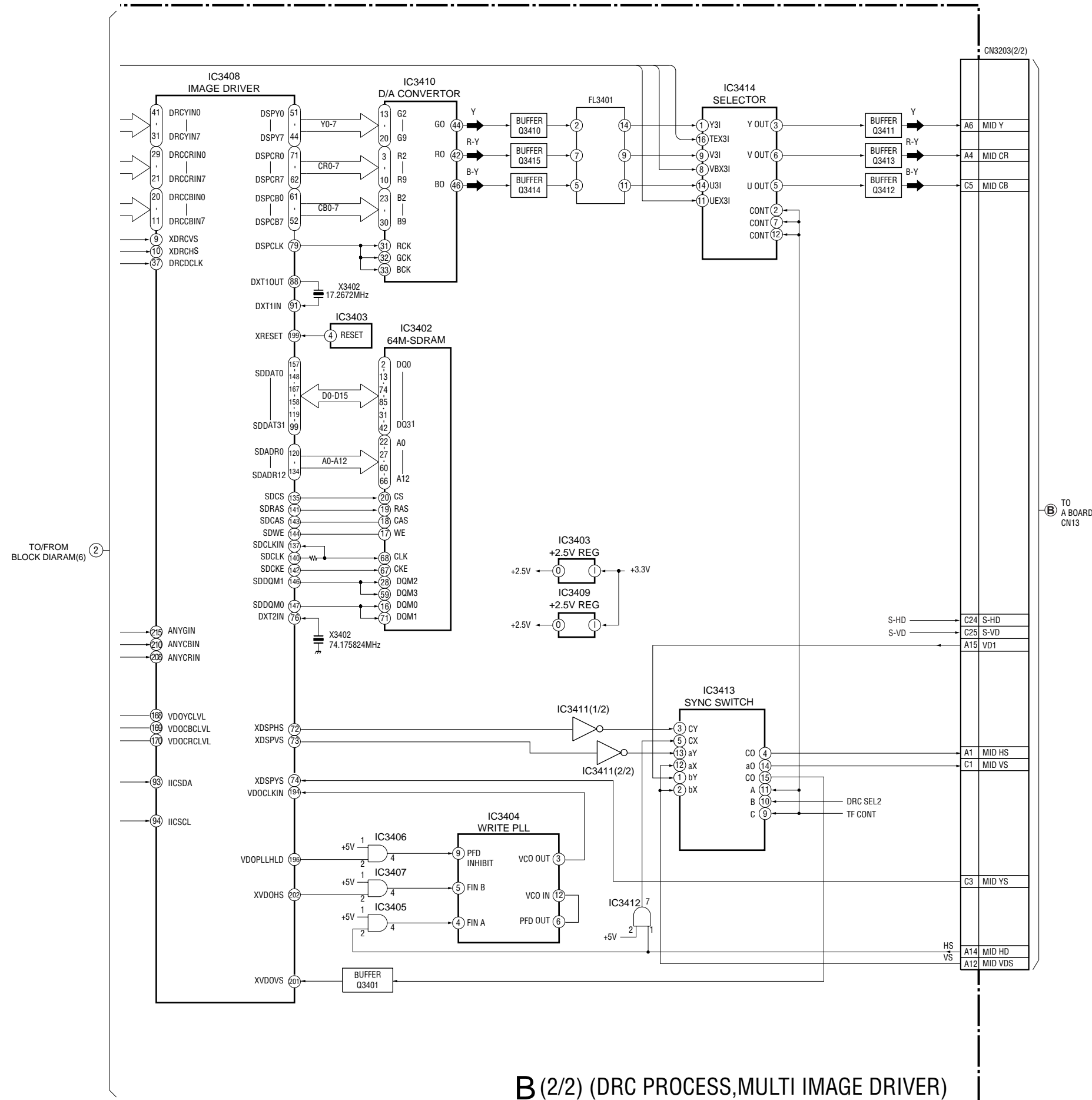




A (4/5) (VIDEO)

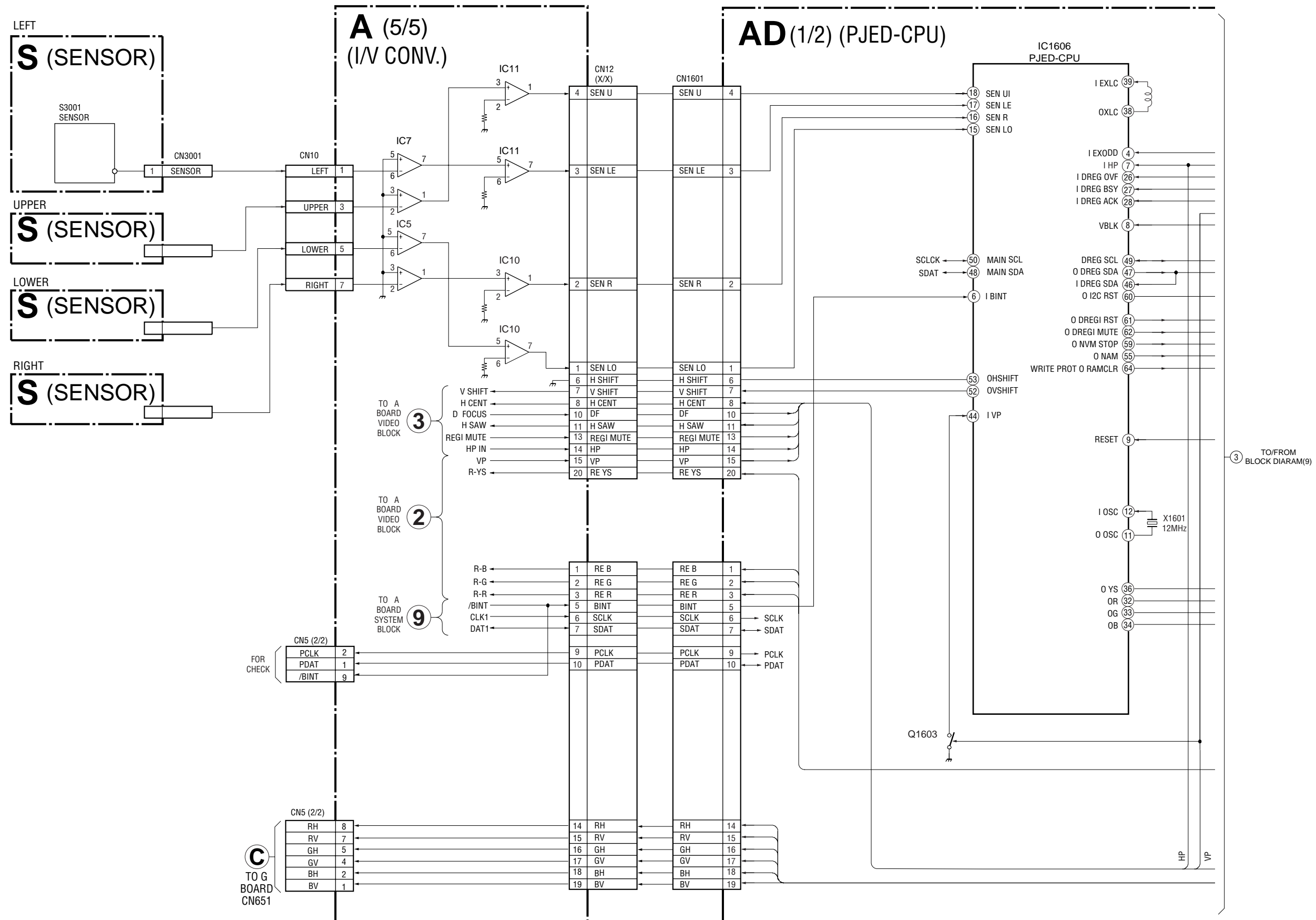
B (1/2) (DRC-MF)



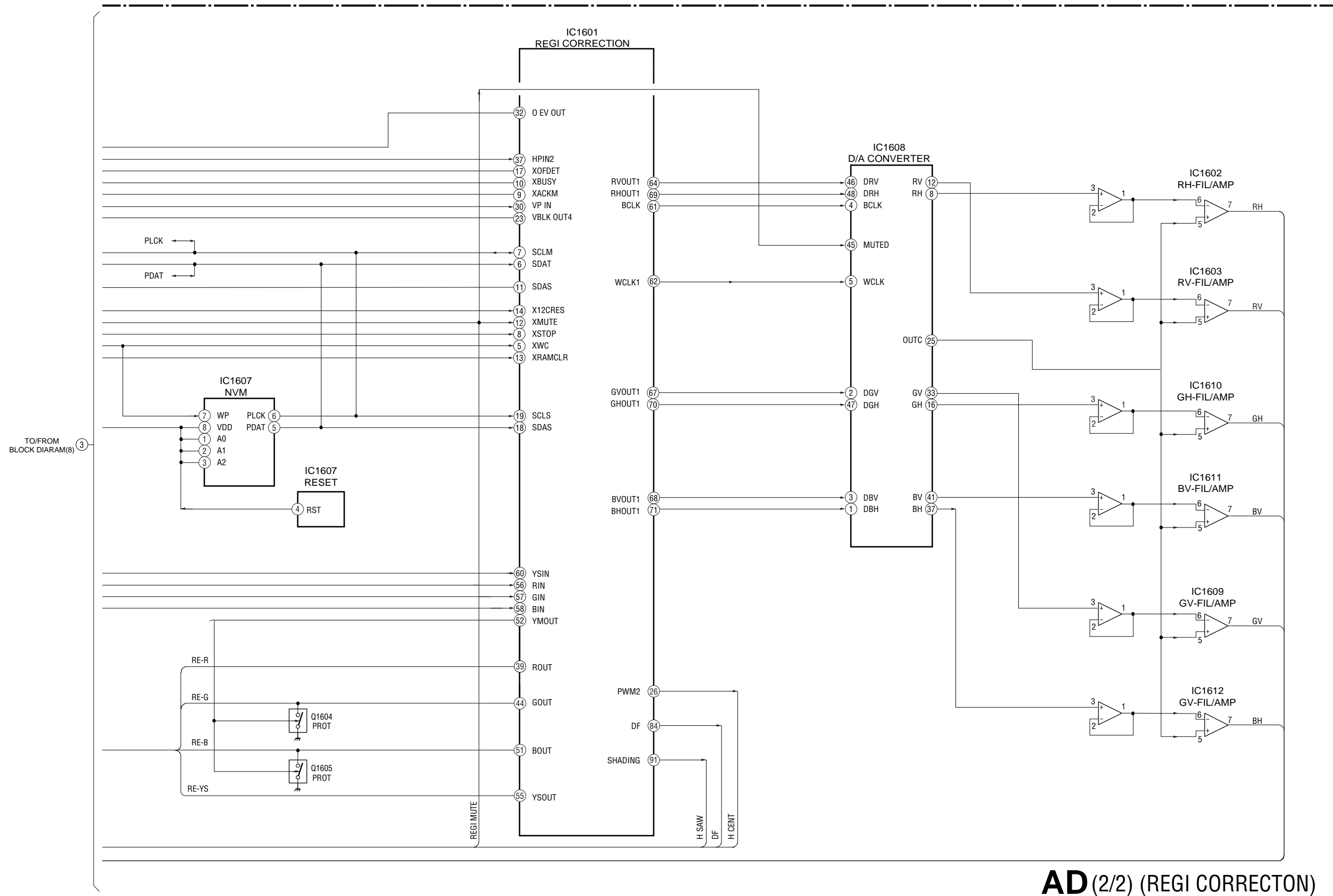


B (2/2) (DRC PROCESS, MULTI IMAGE DRIVER)

BLOCK DIAGRAM (8)

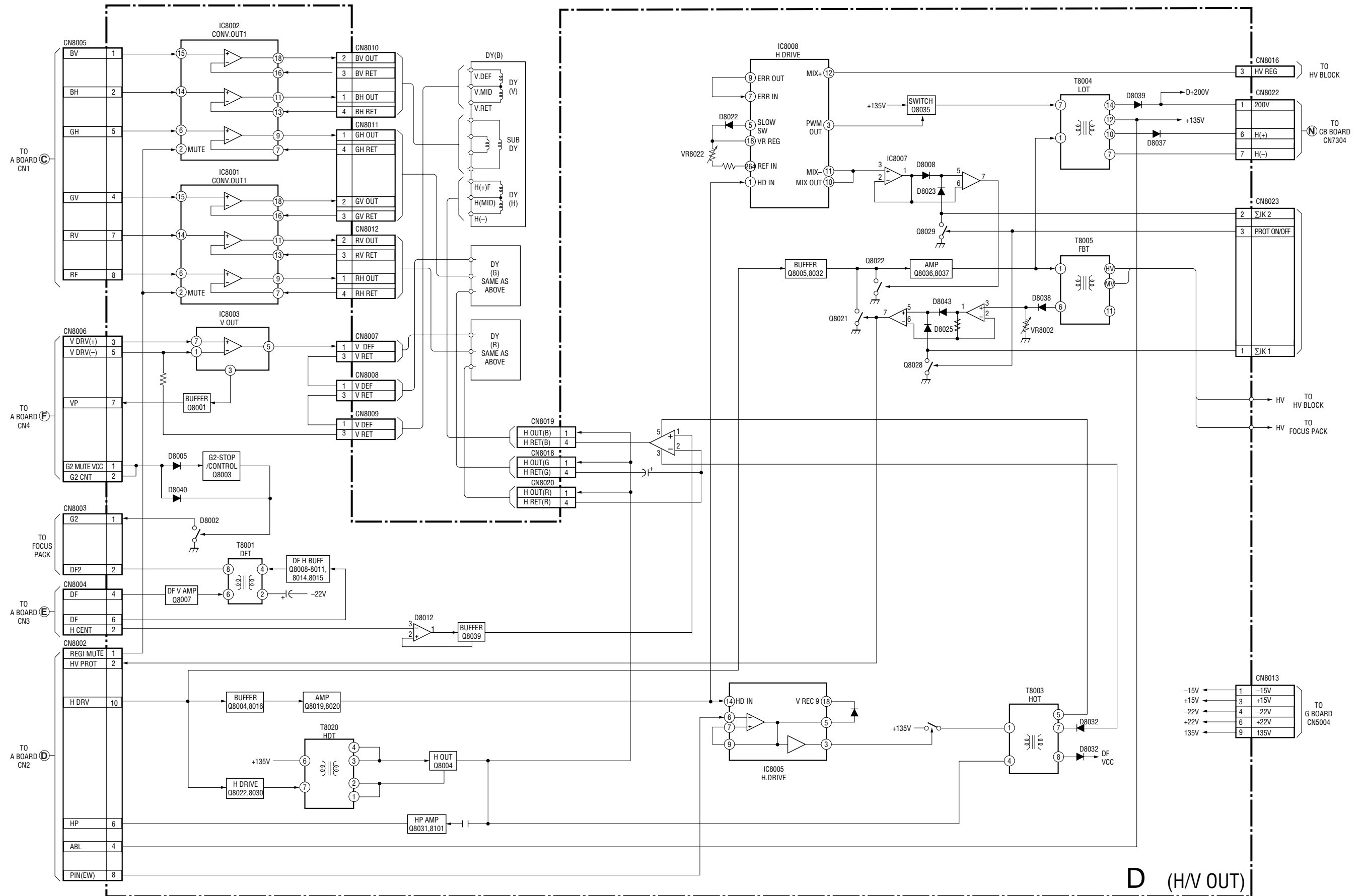


BLOCK DIAGRAM (9)



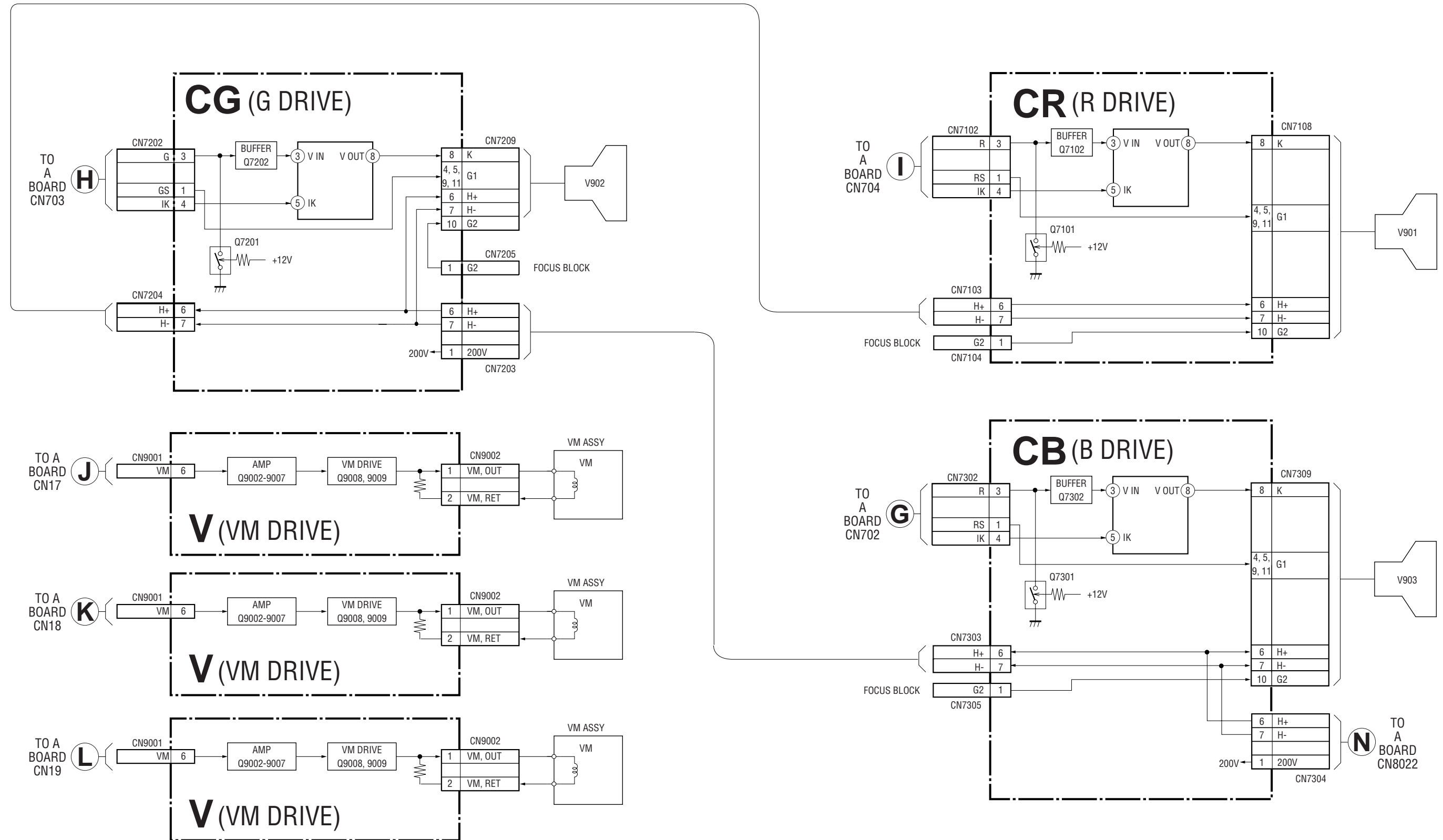
AD (2/2) (REGI CORRECTON)

BLOCK DIAGRAM (10)

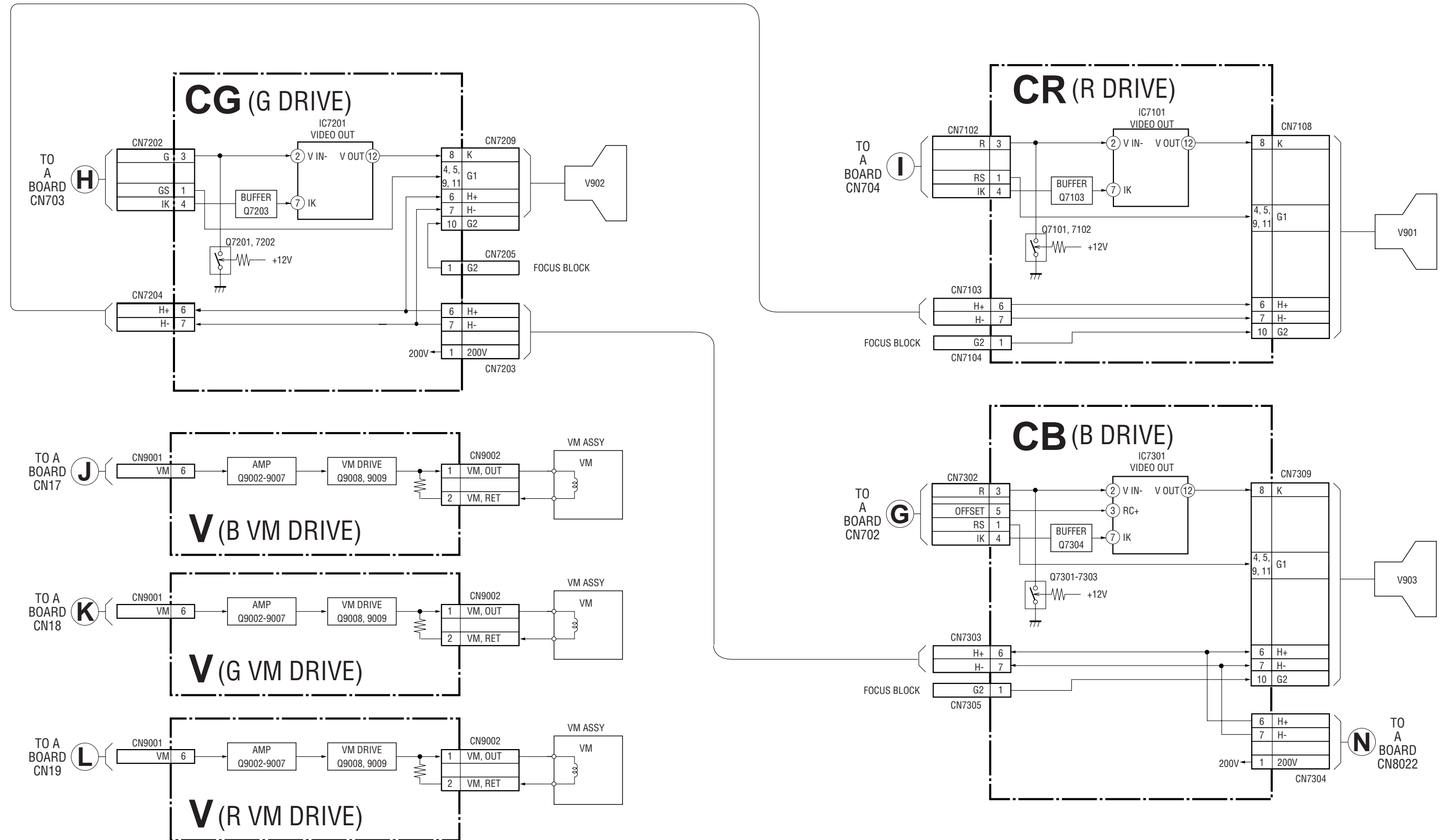


D (HV OUT)

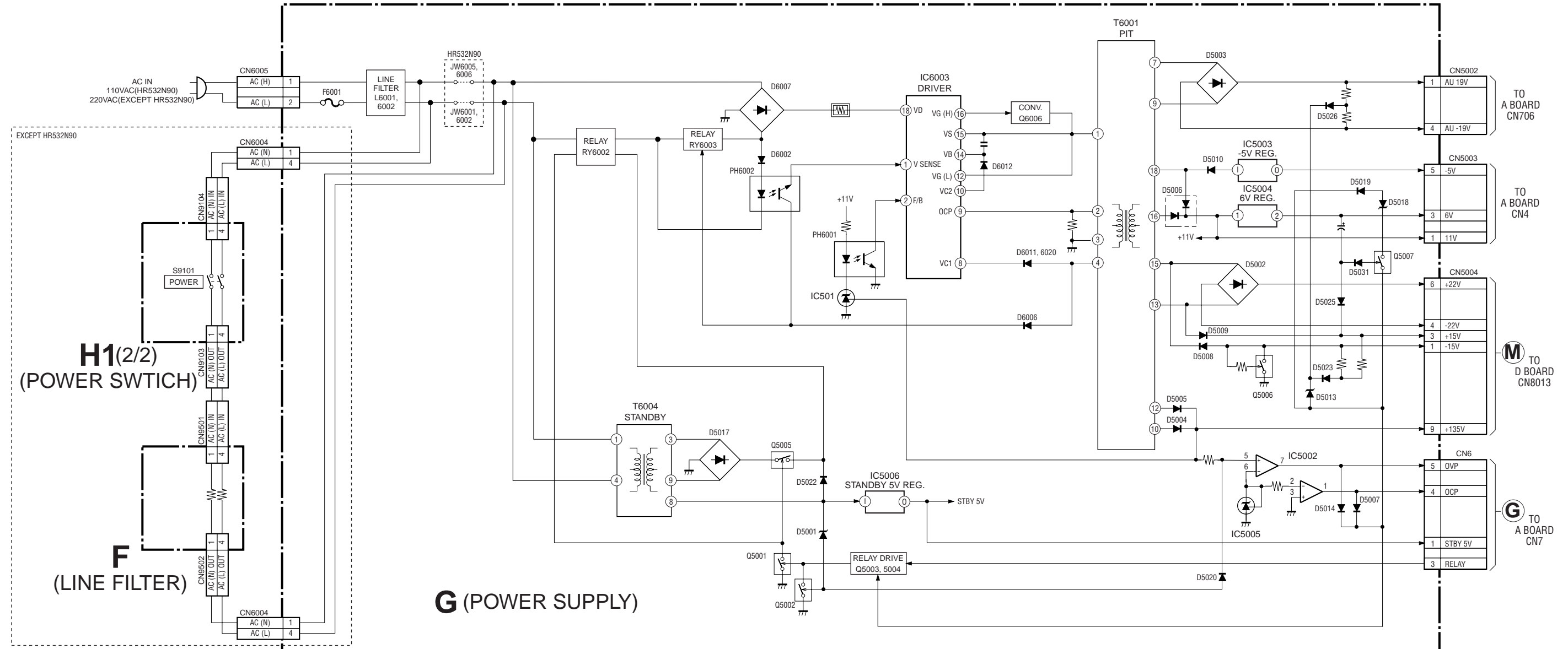
BLOCK DIAGRAM (11) (EXCEPT HW572K90)



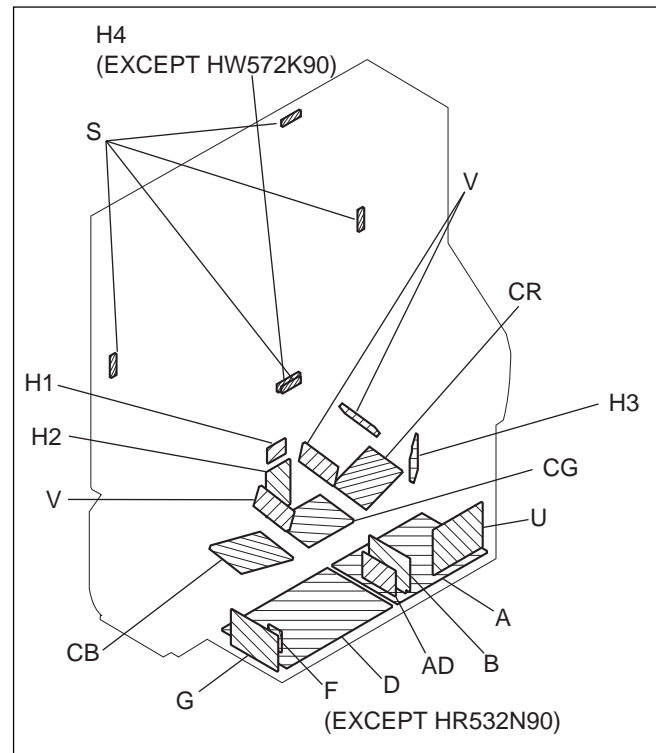
BLOCK DIAGRAM (12) (HW572K90)



BLOCK DIAGRAM (13)



6-2. CIRCUIT BOARDS LOCATION



Note: The symbol display is on the component side.

The components identified by shading and mark are critical for safety. Replace only with part number specified.

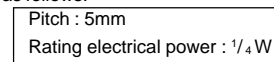
The symbol indicate fast operating fuse. Replace only with fuse of same rating as made.

Note: Les composants identifiés per un tramé et une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Le symbole indique une fusible a action rapide. Doit être remplacée par une fusible de meme valeur, comme maque.

6-3. SCHEMATIC DIAGRAMS

- Note:
- Capacitors without voltage indication are all 50V.
 - All resistors are in ohms. kΩ=1000Ω, MΩ=1000kΩ
 - Indication of resistance, which dose not have one for rating electrical power, is as follows.



- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-chassis.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
- Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to VR8001 and VR8002 adjustment on Page 35.)

- Readings are taken with a NTSC color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- * : Measurement impossibility.

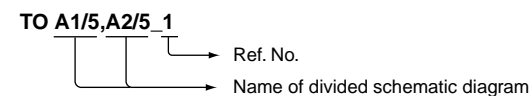
- Circled numbers are waveform references.
- : B+ bus.
- : B- bus.
- : signal path.(RF)

- Reference information
- RESISTOR : RN METAL FILM
: RC SOLID
: FPRD NONFLAMMABLE CARBON
: FUZE NONFLAMMABLE FUSIBLE
: RW NONFLAMMABLE WIREWOUND
: RS NONFLAMMABLE METAL OXIDE
: RB NONFLAMMABLE CEMENT
: ※ ADJUSTMENT RESISTOR
- COIL : LF-8L MICRO INDUCTOR
- CAPACITOR : TA TANTALUM
: PS STYROL
: PP POLYPROPYLENE
: PT MYLAR
: MPS METALIZED POLYESTER
: MPP METALIZED POLYPROPYLENE
: ALB BIPOLAR
: ALT HIGH TEMPERATURE
: ALR HIGH RIPPLE

Divided schematic diagram

Schematic diagrams of A, AD, B, D, G, and U boards are divided into several pieces. Information to where the line is to be connected is printed at the end of each.

For example, [TO A1/5,A2/5_1] means the line is connected to Ref. No. 1 of A(1/5) and A(2/5) schematic diagrams.

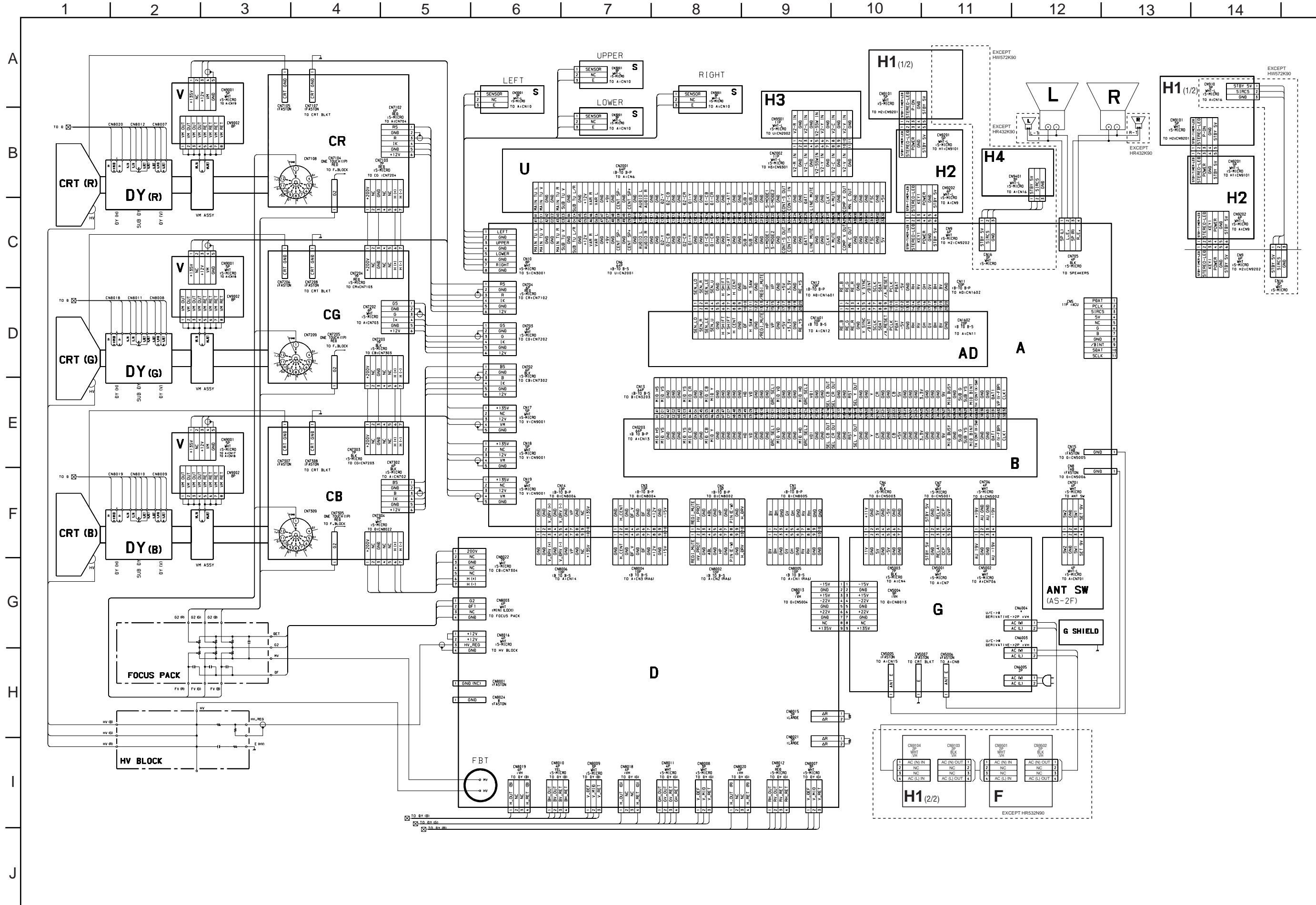


Terminal name of semiconductors in silk screen printed circuit (*)

Device	Printed symbol	Terminal name	Circuit
① Transistor		Collector Base Emitter	
② Transistor		Collector Base Emitter	
③ Diode		Cathode Anode	
④ Diode		Cathode Anode (NC)	
⑤ Diode		Cathode Anode (NC)	
⑥ Diode		Common Anode Cathode	
⑦ Diode		Common Anode Cathode	
⑧ Diode		Common Anode Anode	
⑨ Diode		Common Anode Anode	
⑩ Diode		Common Cathode Cathode	
⑪ Diode		Common Cathode Cathode	
⑫ Diode		Anode Anode Cathode Anode	
⑬ Transistor (FET)		Drain Source Gate	
⑭ Transistor (FET)		Drain Source Gate	
⑮ Transistor (FET)		Source Drain Gate	
⑯ Transistor		Emitter Collector Base	
⑰ Transistor		C2(B1)E1 E2(B2)C1	
⑱ Transistor		C1(B2)E2 E1(B1)C2	
⑲ Transistor		C1 B2 E2 E1 B1 C2	
⑳ Transistor		C1 B2 E2 E1 B1 C2	
㉑ Transistor		E2 B1 E1 C2 C1(B2)	
㉒ Transistor		(B2) B1 E1 E2 C1 C2	
㉓ Transistor		(B2) E2 E1 B1 C2 C1	
-	-	Discrete semiconductor	-

(Chip semiconductors that are not actually used are included.)

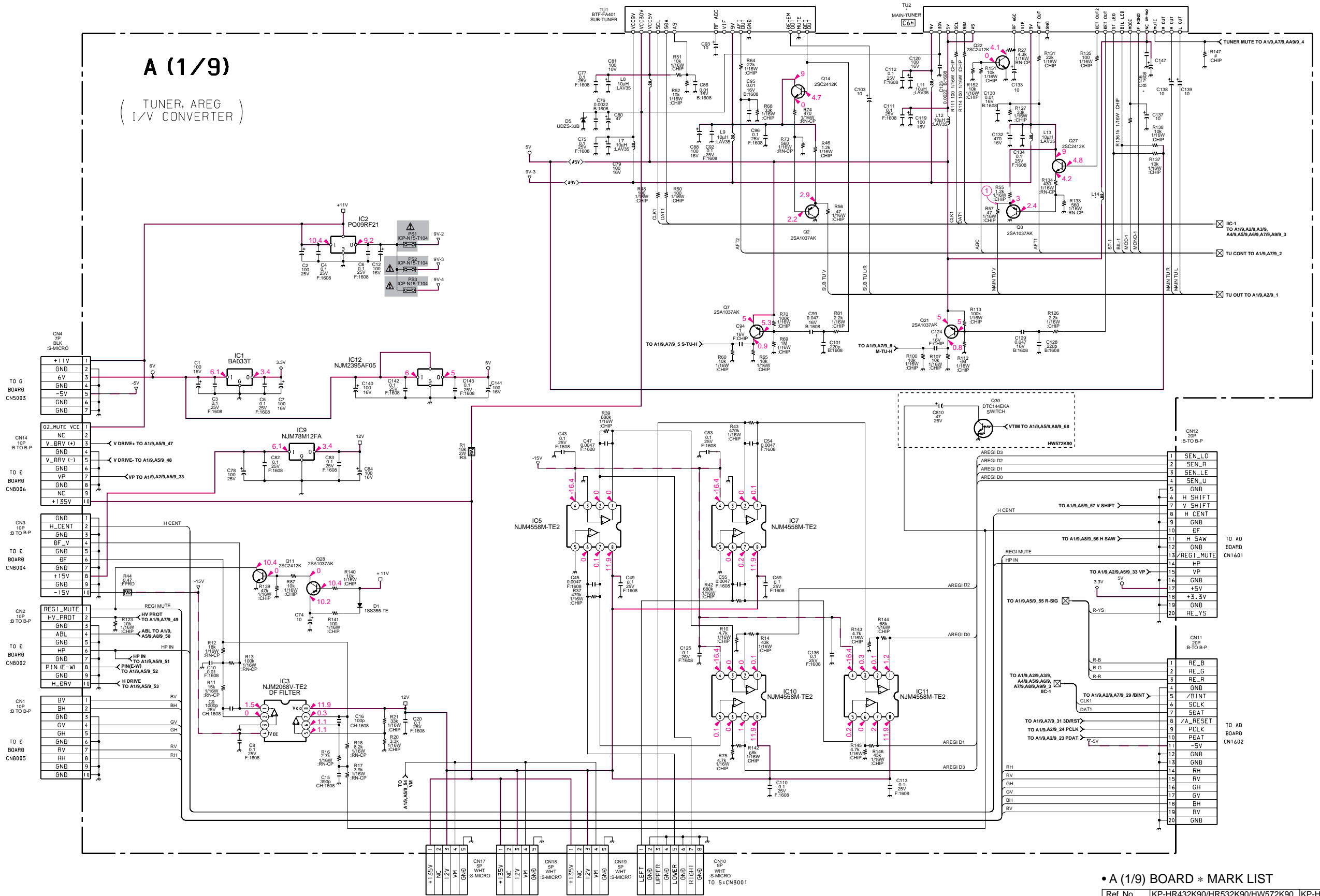
Ver.1.5



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

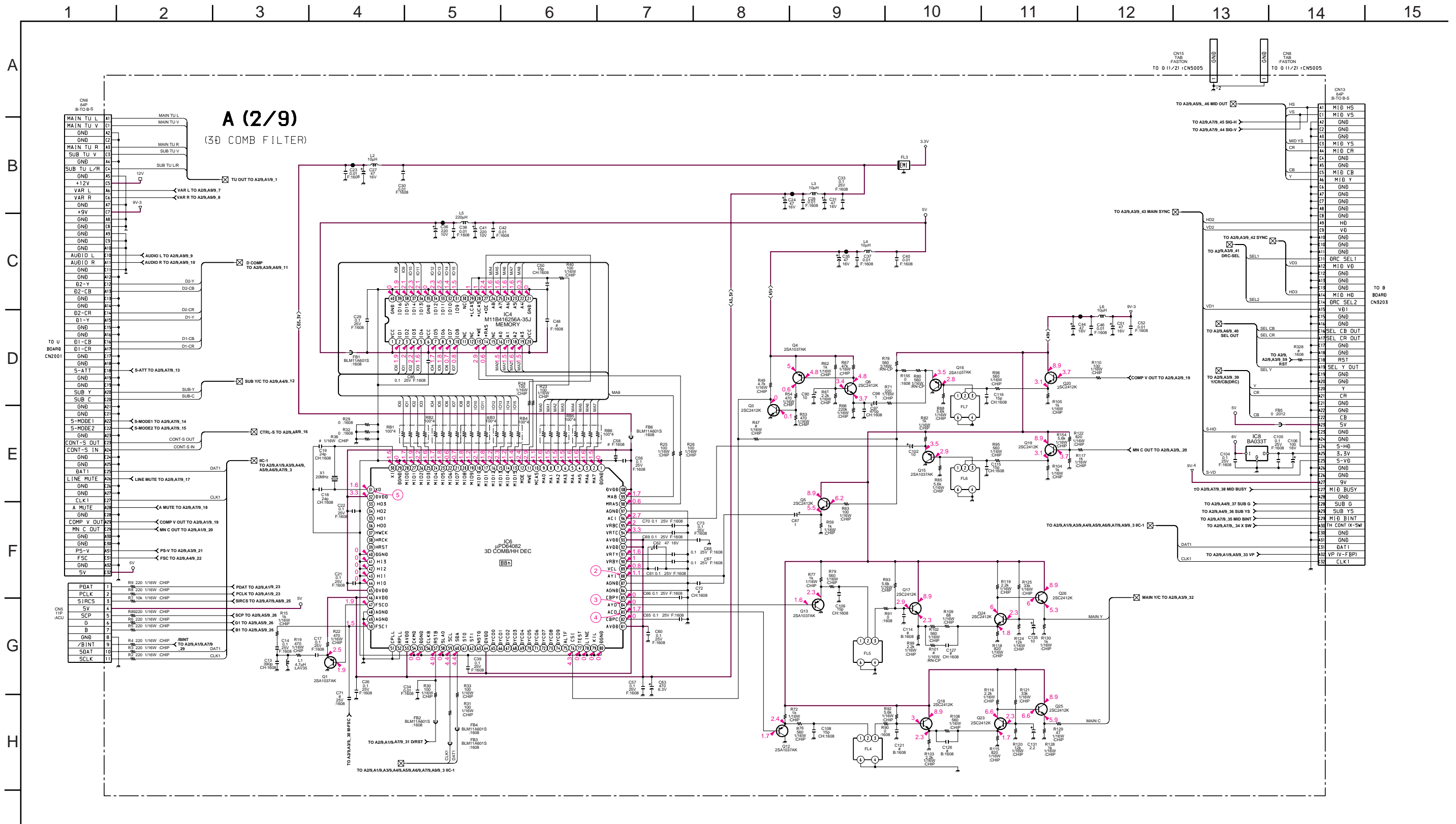
A
B
C
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I
J

A (1/9)
(TUNER, AREG
I/V CONVERTER)



• A (1/9) BOARD * MARK LIST

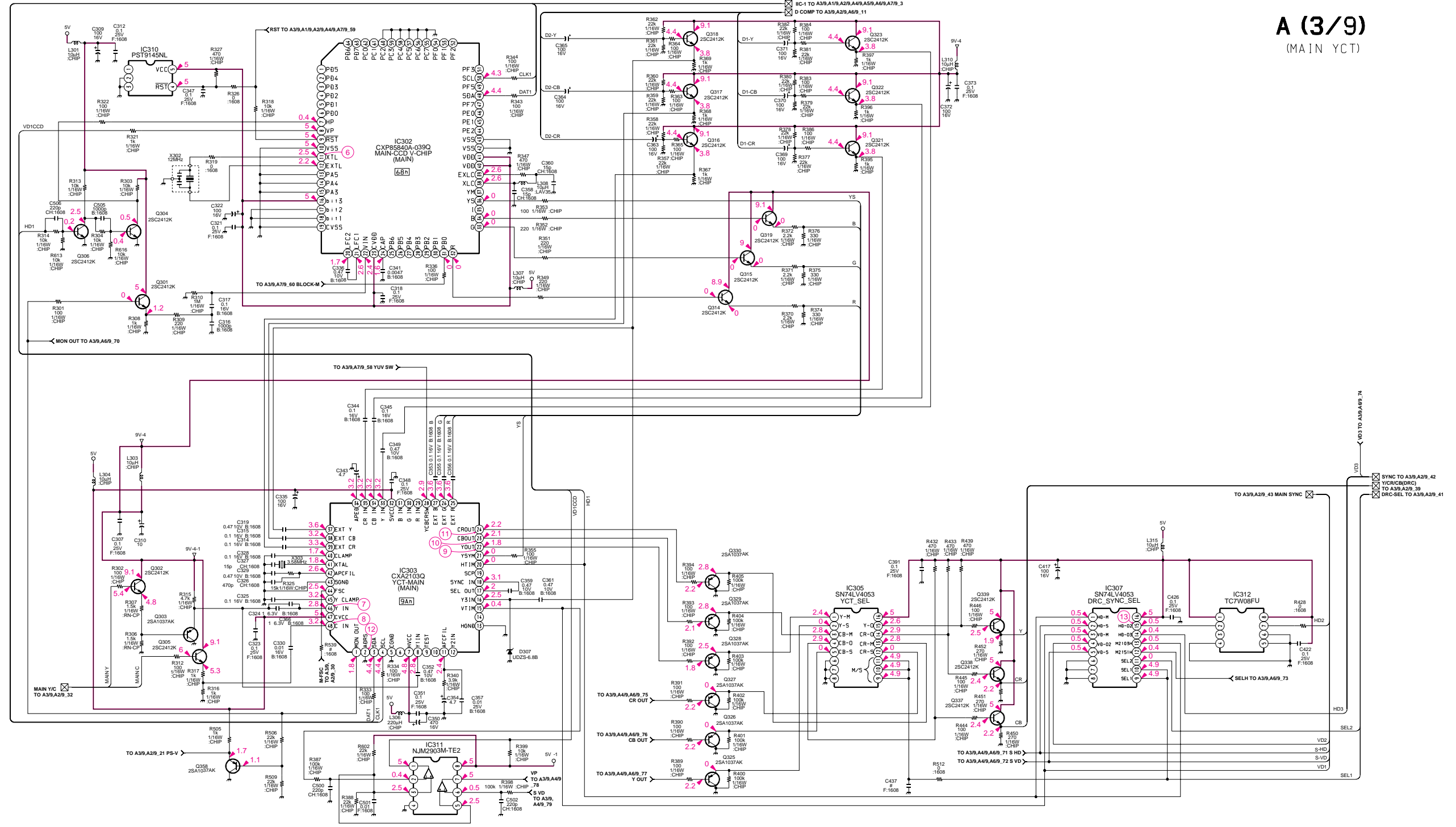
Ref. No.	KP-HR432K90/HR532K90/HW572K90	KP-HR532N90
C146	0.01uF 16V B: CHIP	-
C147	0.01uF 16V B: CHIP	-
L14	10uH: LAV35	-
TU2	BTF-WL411	BTF-WA412

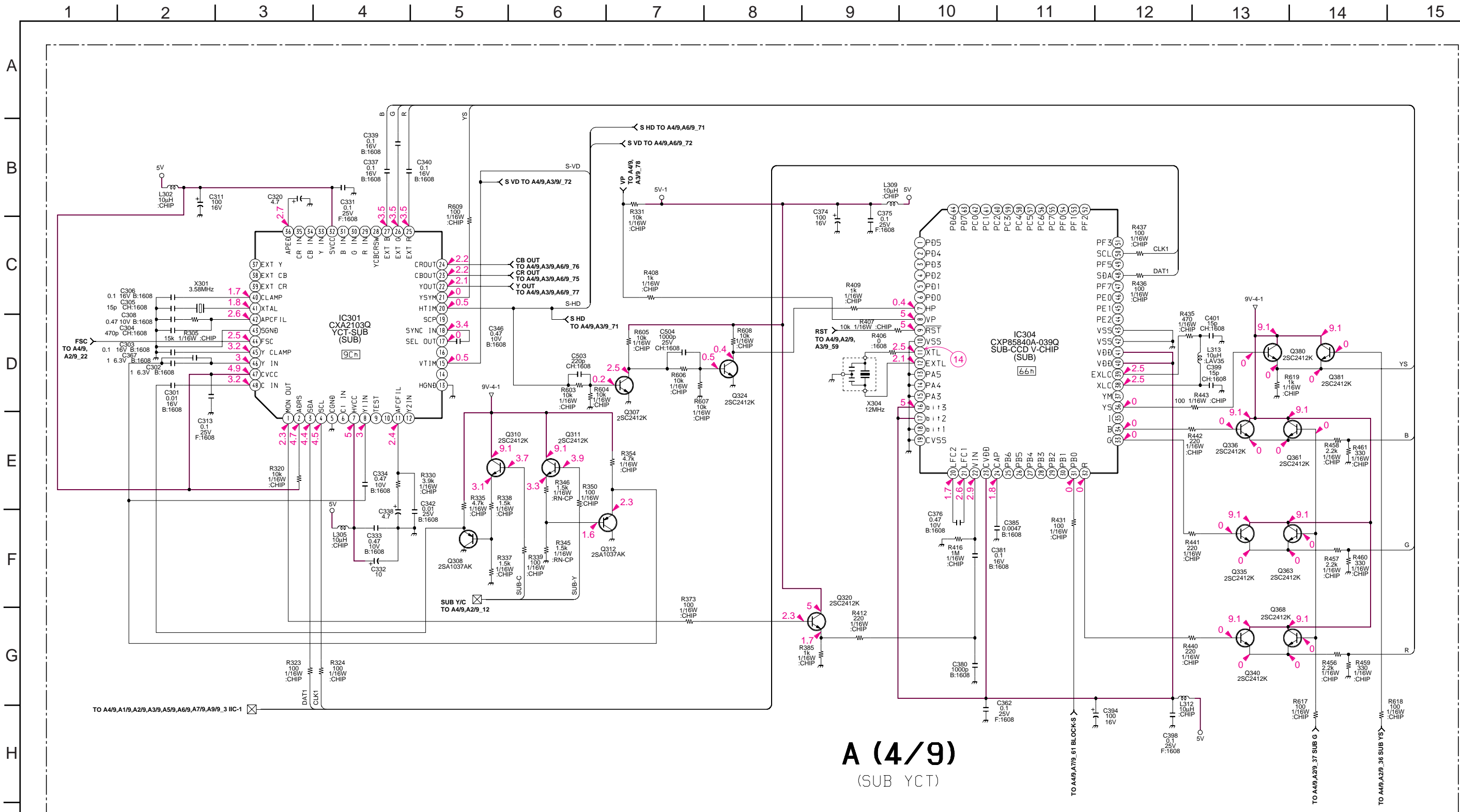


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A B C D E F G H

A (3/9)
(MAIN YCT)

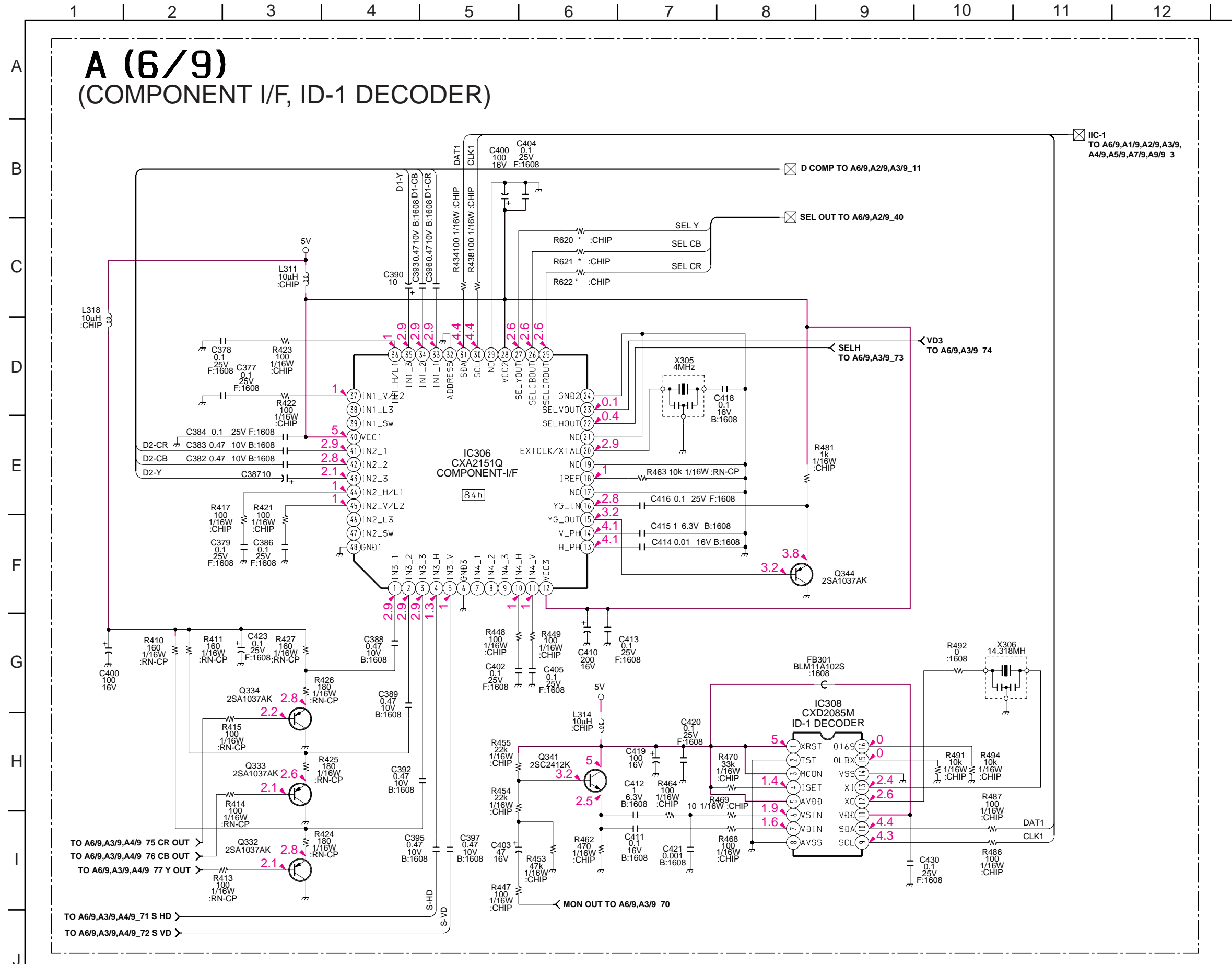




A (4/9)
 (SUB YCT)

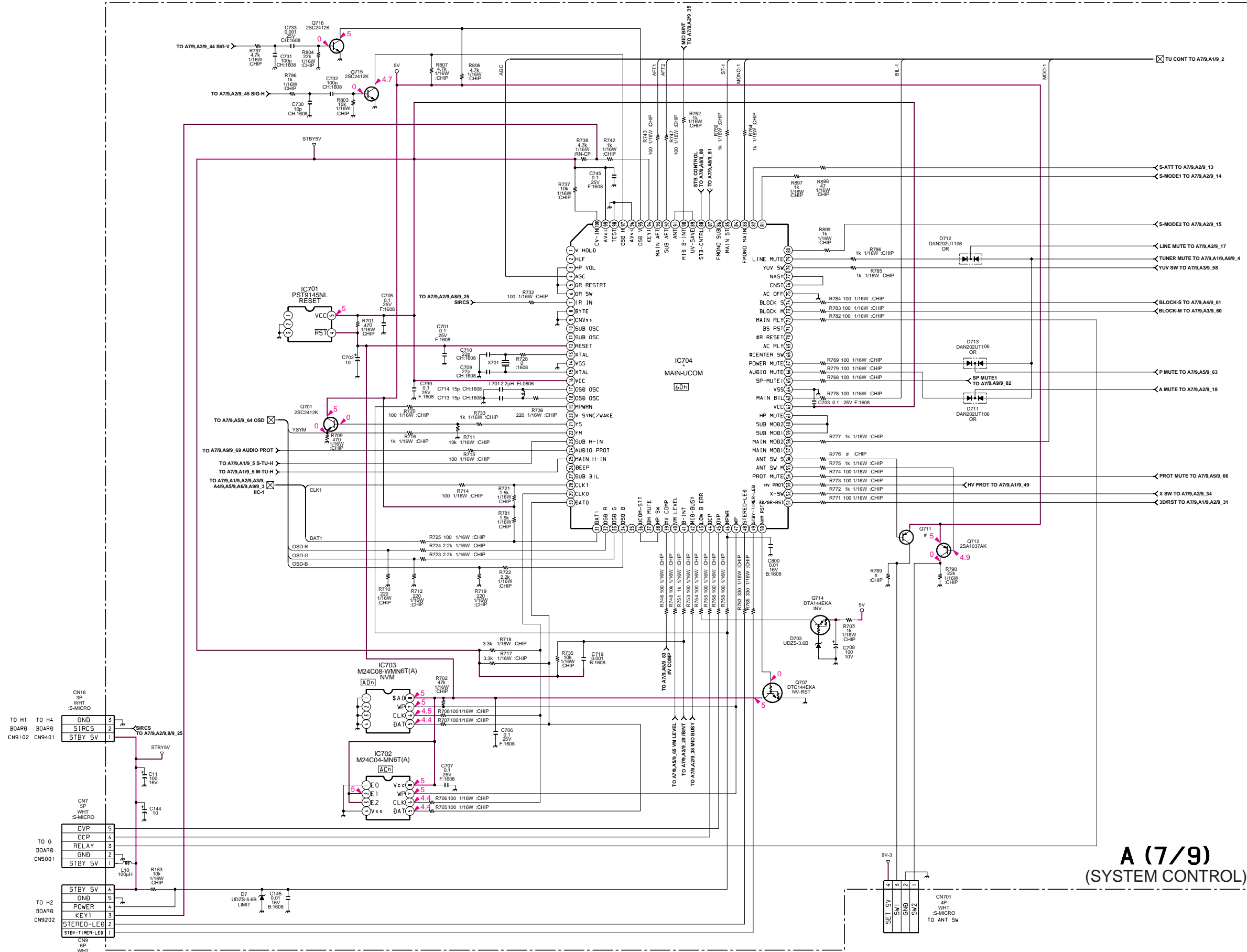
• A (6/9) BOARD * MARK LIST

Ref. No.	KP-HR432K90/HR532K90/HR532N90	KP-HW572K90
R620	68: CHIP	22: CHIP
R621	68: CHIP	22: CHIP
R622	68: CHIP	22: CHIP



1 2 3 4 5 6 7 8 9 10 11 12 13

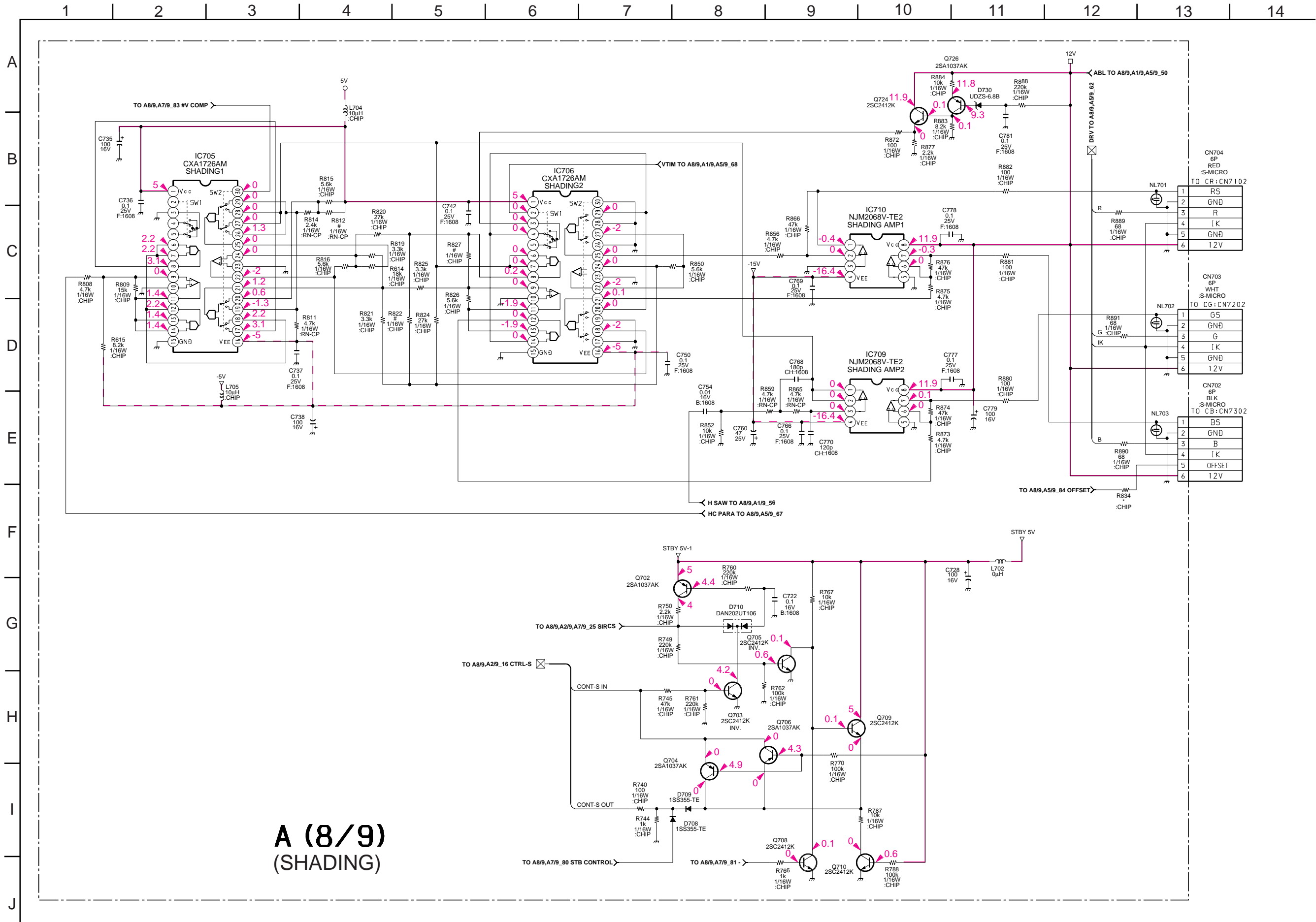
A B C D E F G H I J



A (7/9)
(SYSTEM CONTROL)

• A (8/9) BOARD * MARK LIST

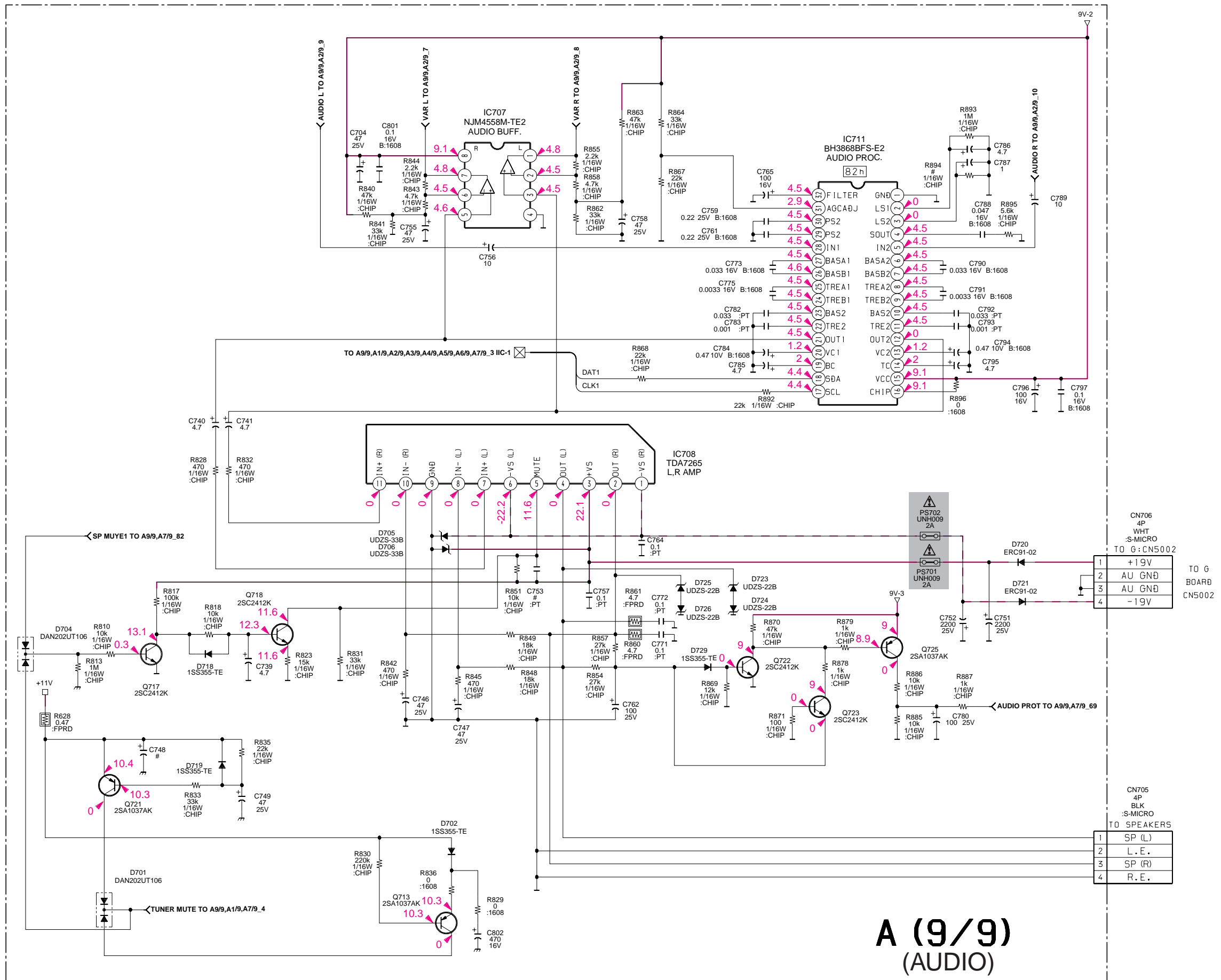
Ref. No.	KP-HR432K90/HR532K90/HR532N90	KP-HW572K90
R834	-	47: CHIP



A (8/9)
(SHADING)

1 2 3 4 5 6 7 8 9 10 11 12 13

A
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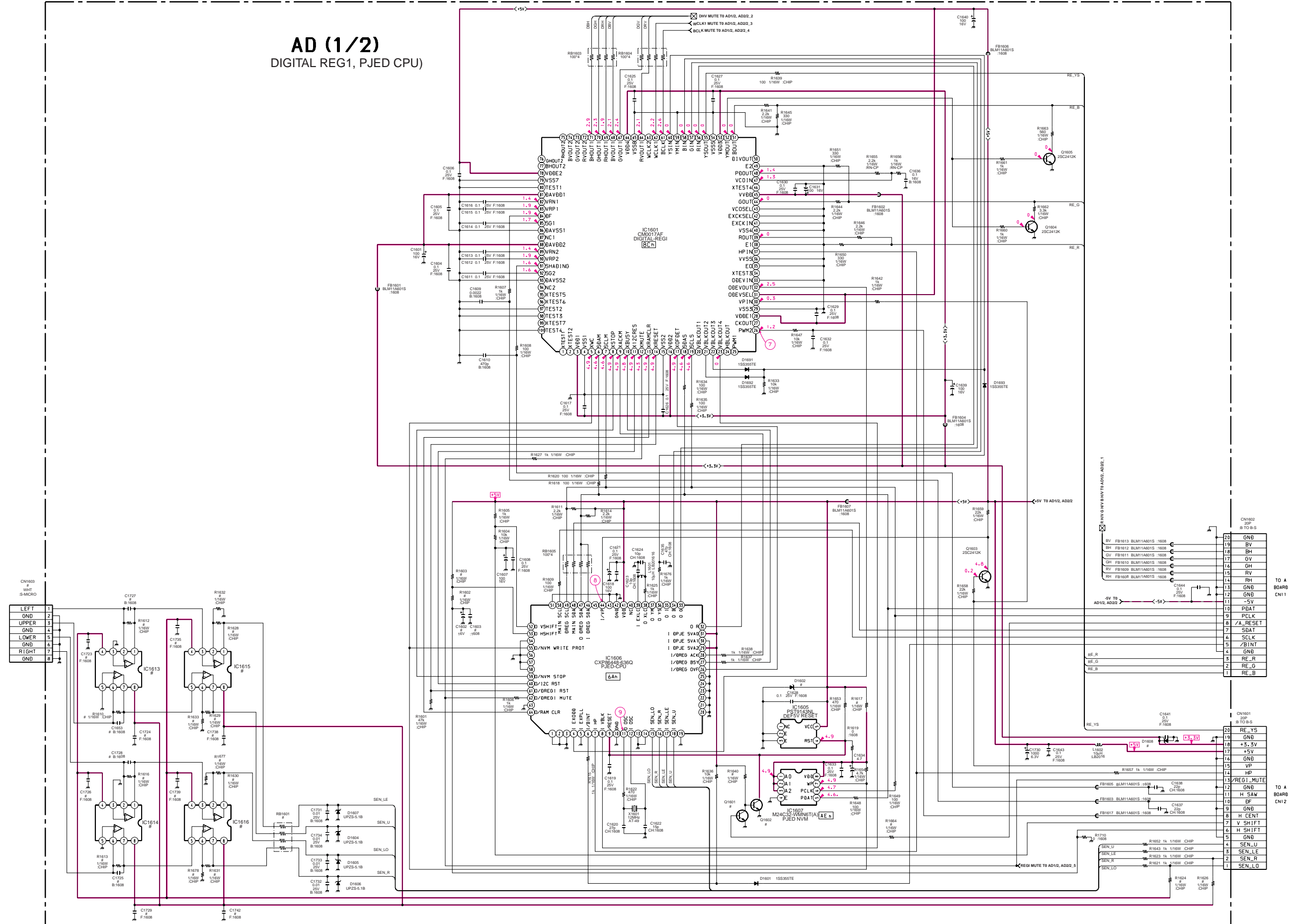


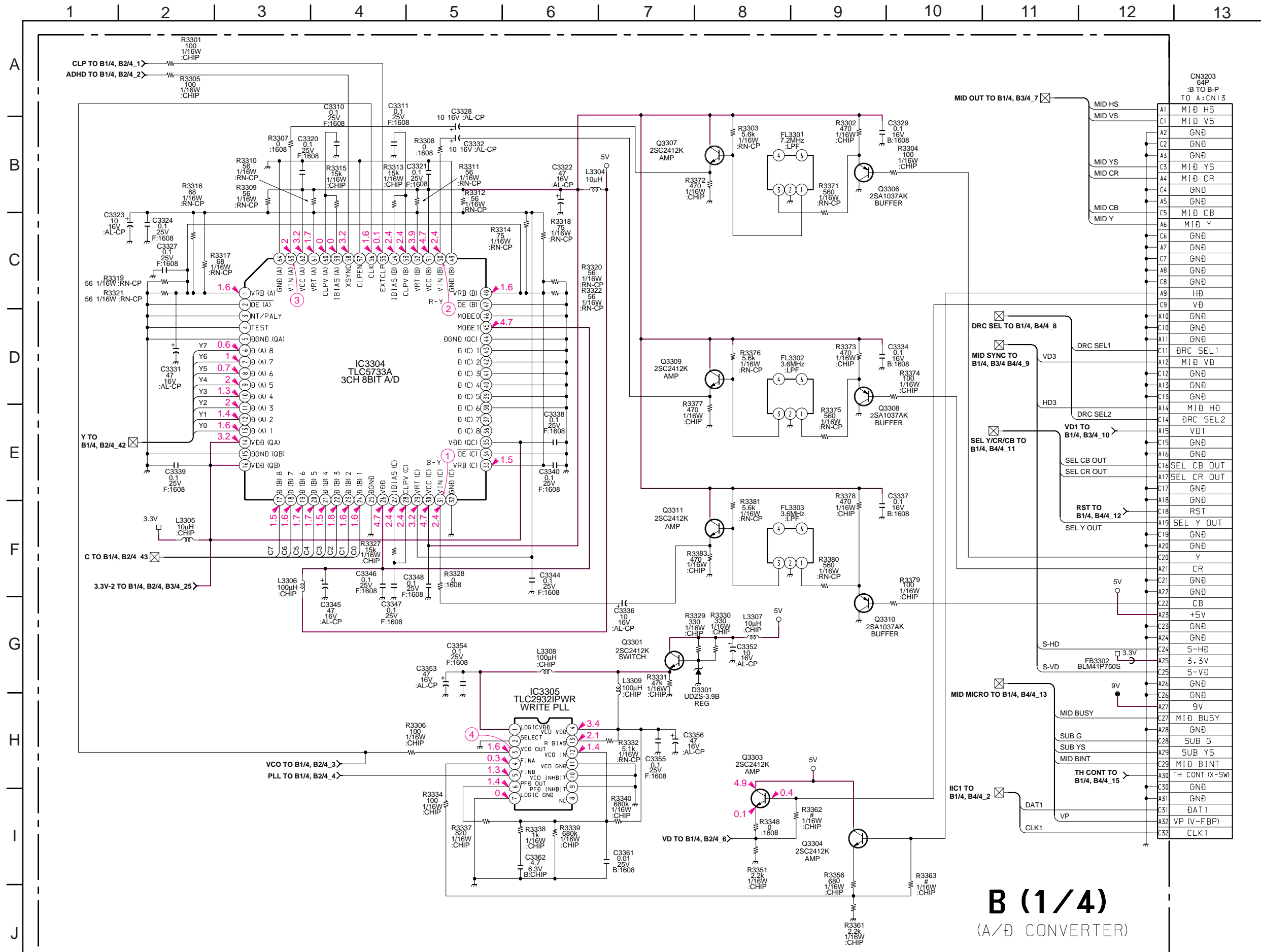
A (9/9)
(AUDIO)

1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H I J

AD (1/2) DIGITAL REG1, PJED CPU

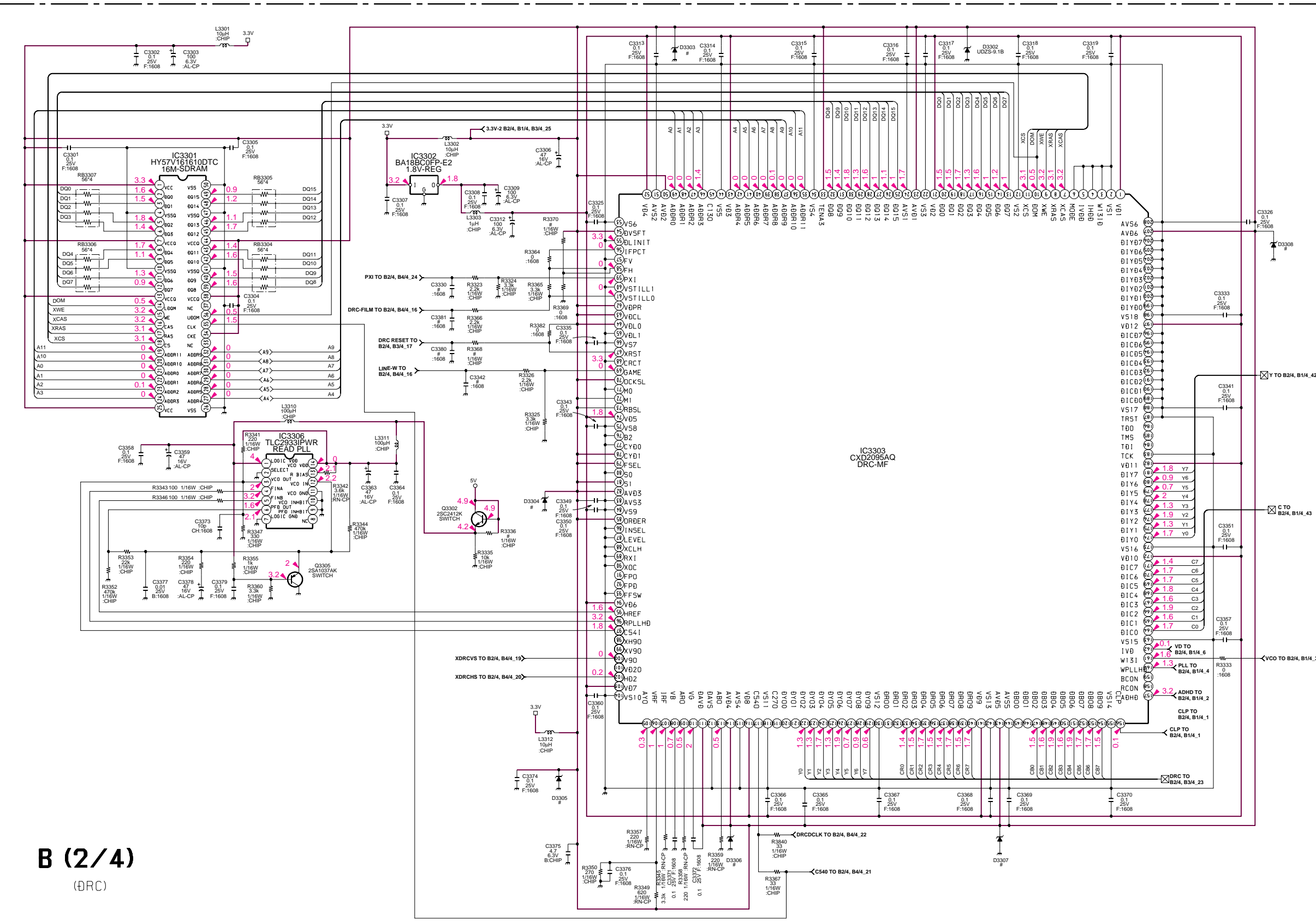




B (1/4)
(A/D CONVERTER)

1 2 3 4 5 6 7 8 9 10 11 12 13 14

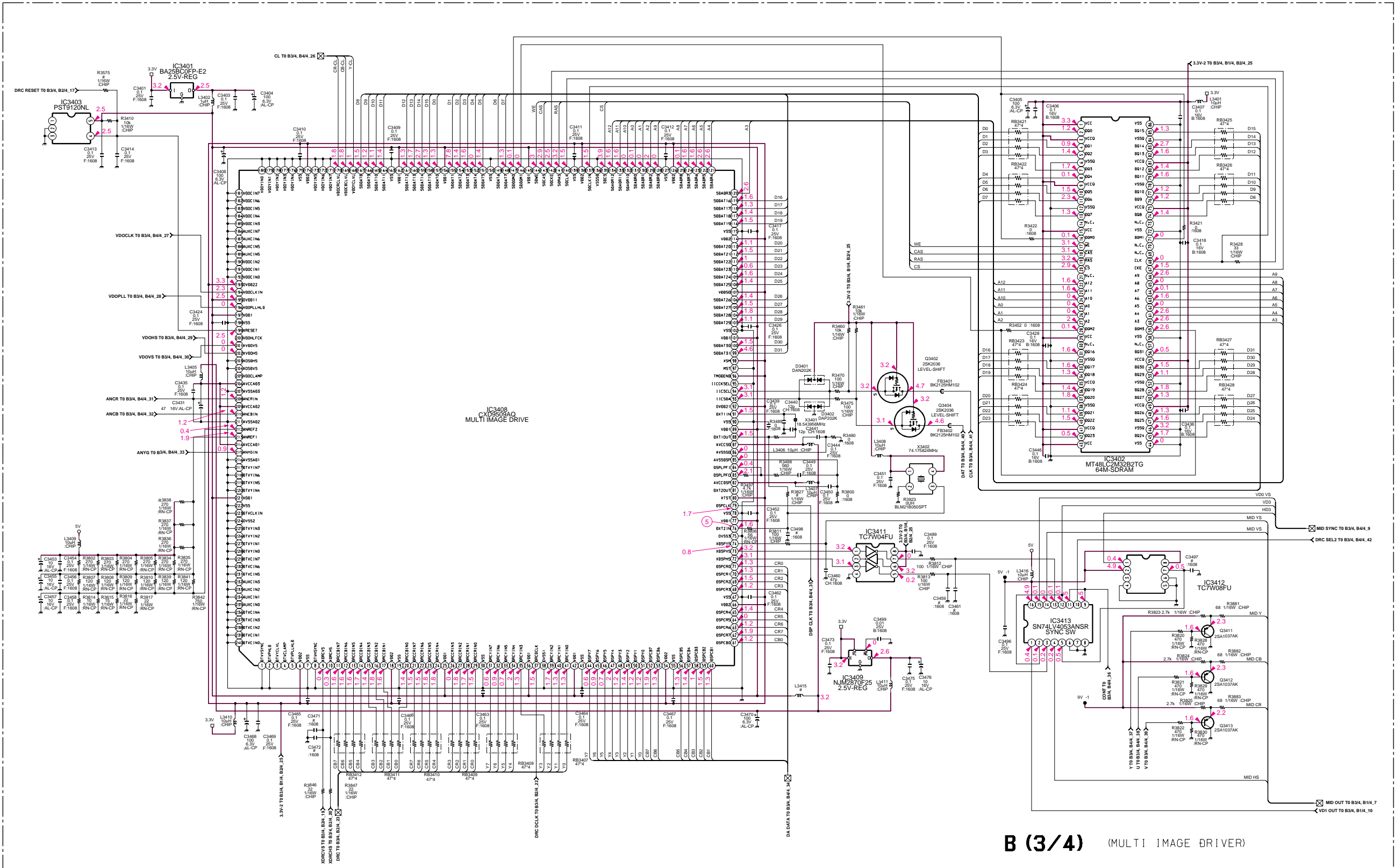
A B C D E F G H I J



B (2/4)
(DRC)

1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H I

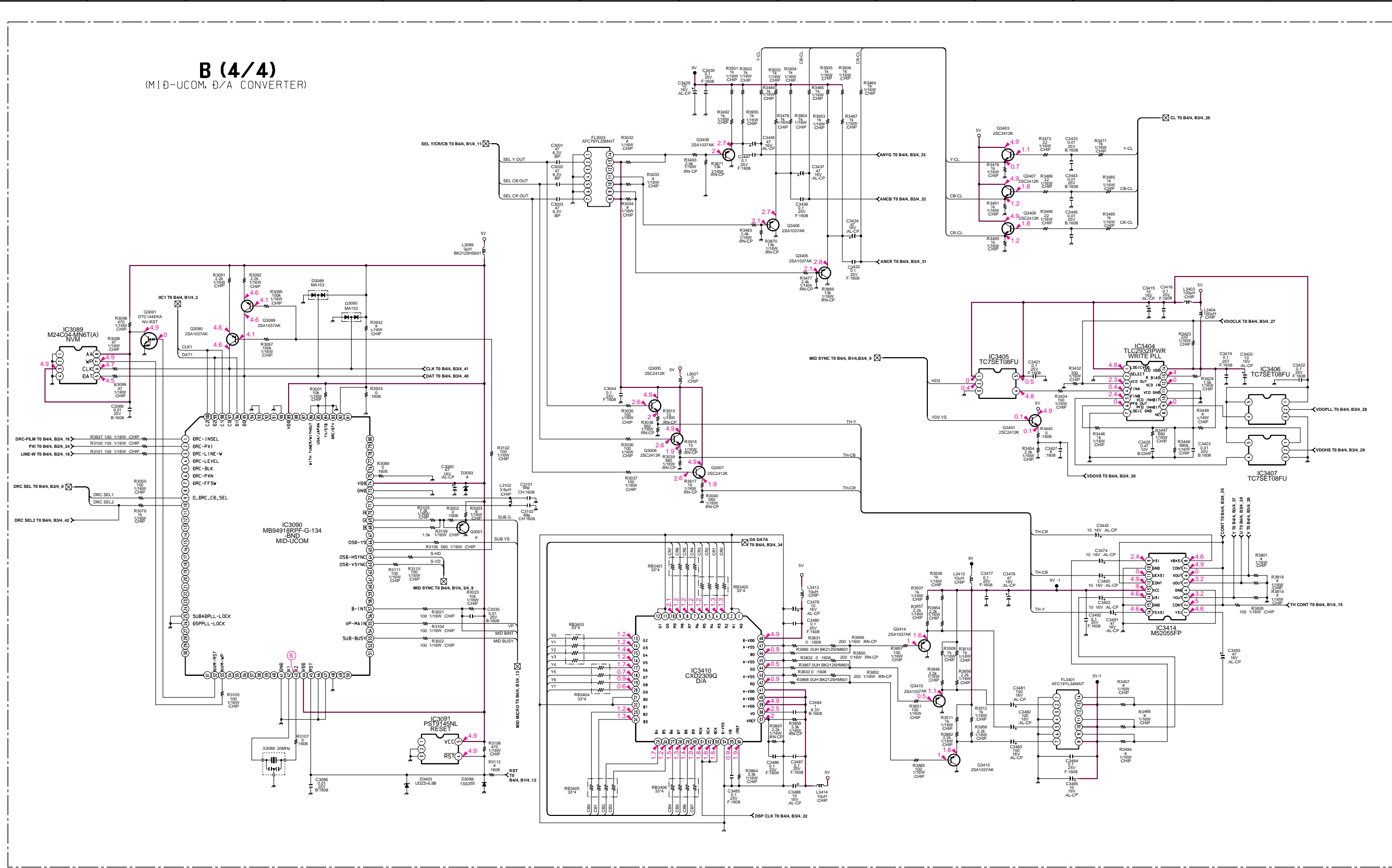


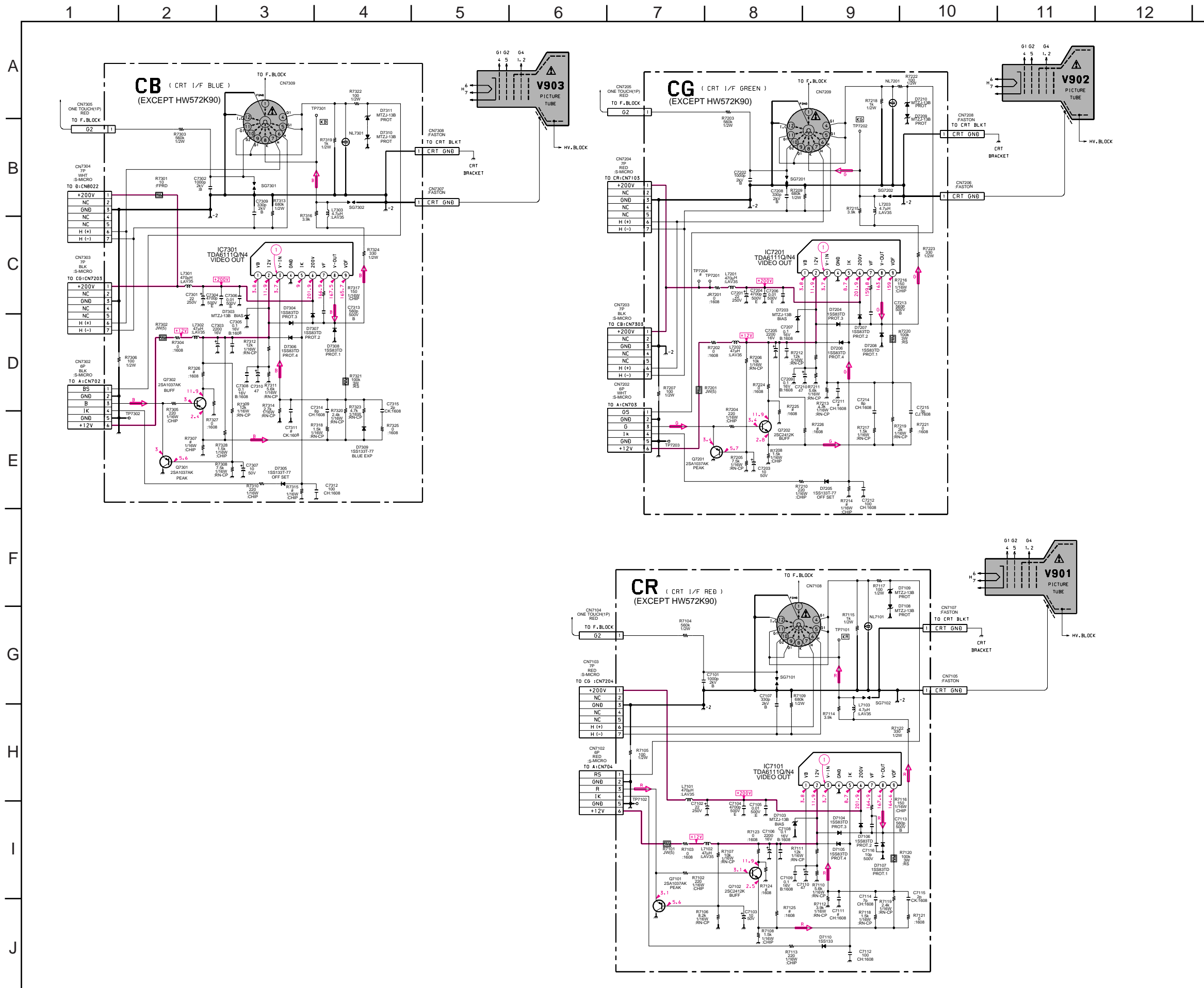
B (3/4) (MULTI IMAGE DRIVER)

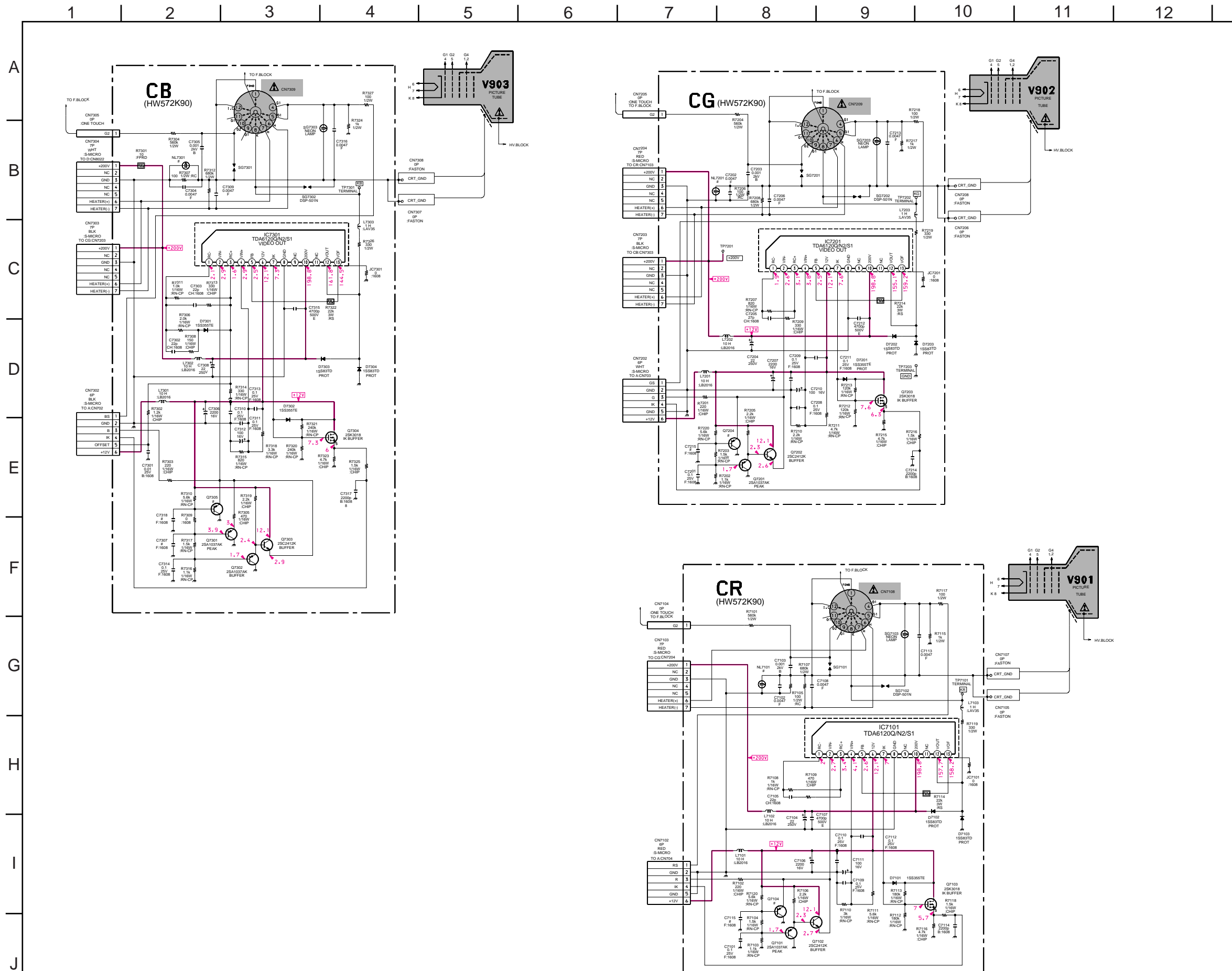
1 2 3 4 5 6 7 8 9 10 11 12 13 14

A B C D E F G H

B (4/4)
(MID-UCOM, D/A CONVERTER)

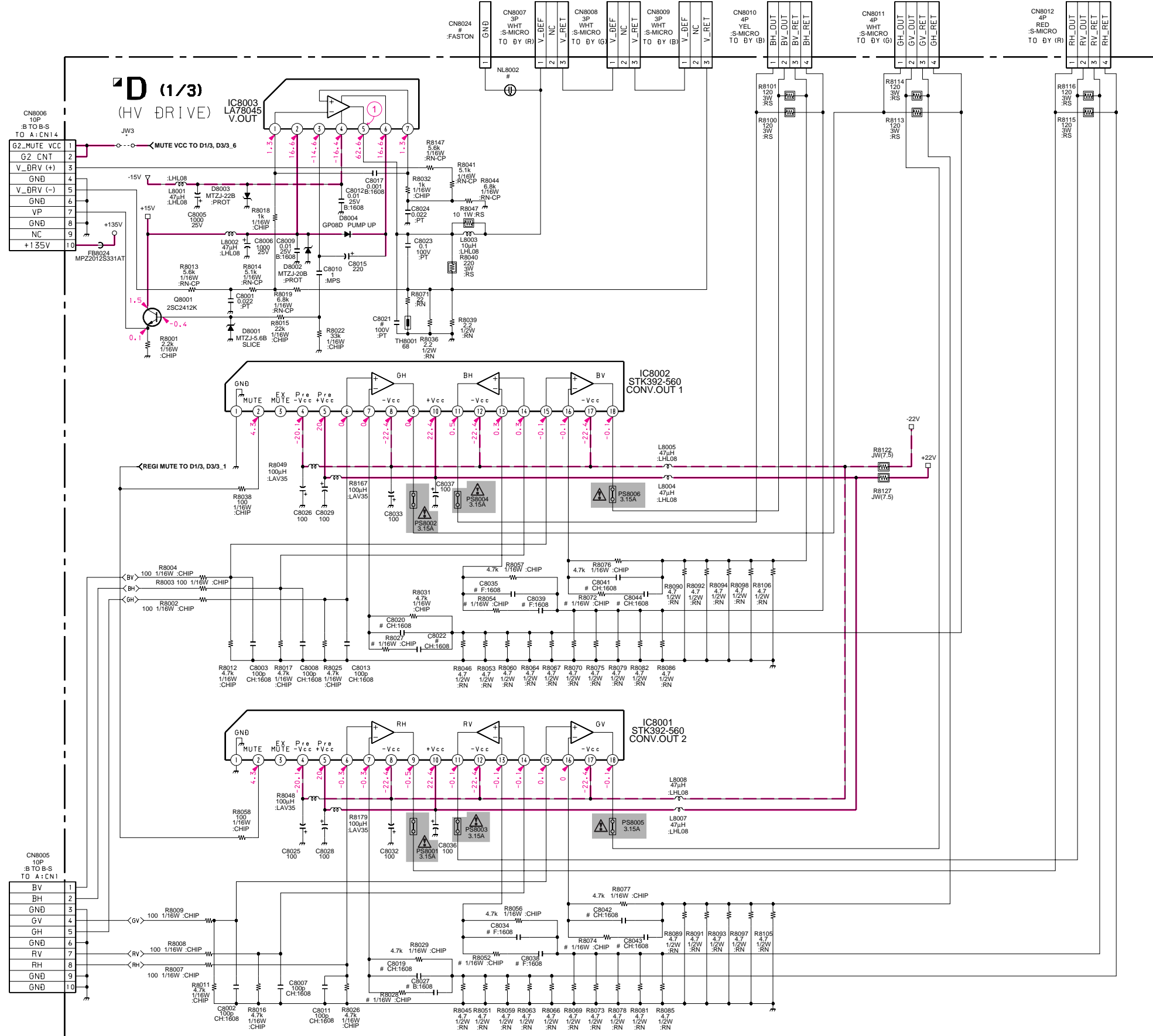






1 2 3 4 5 6 7 8 9 10 11

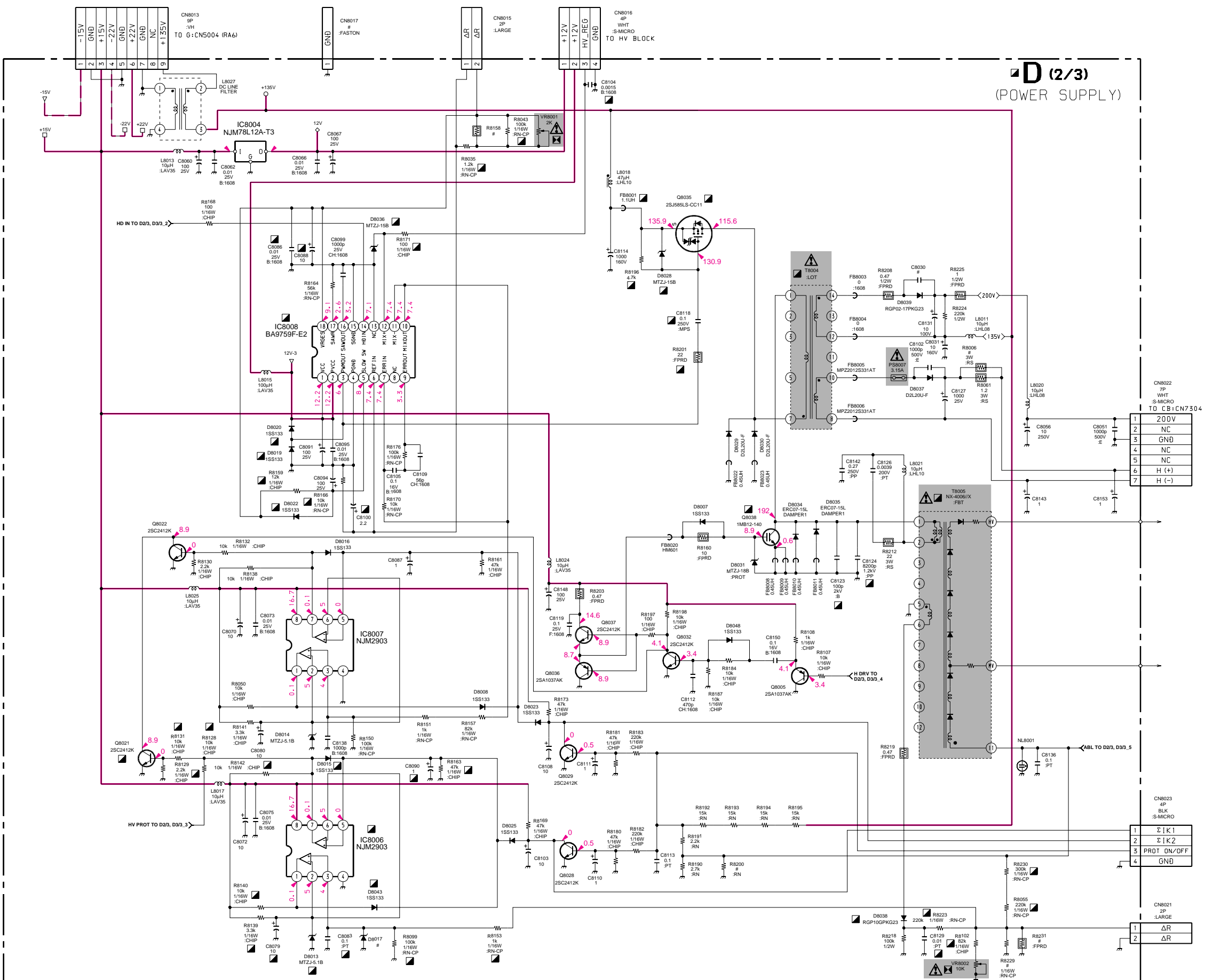
A
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1 2 3 4 5 6 7 8 9 10 11 12 13

A
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C
D
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F
G
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J

D (2/3)
(POWER SUPPLY)



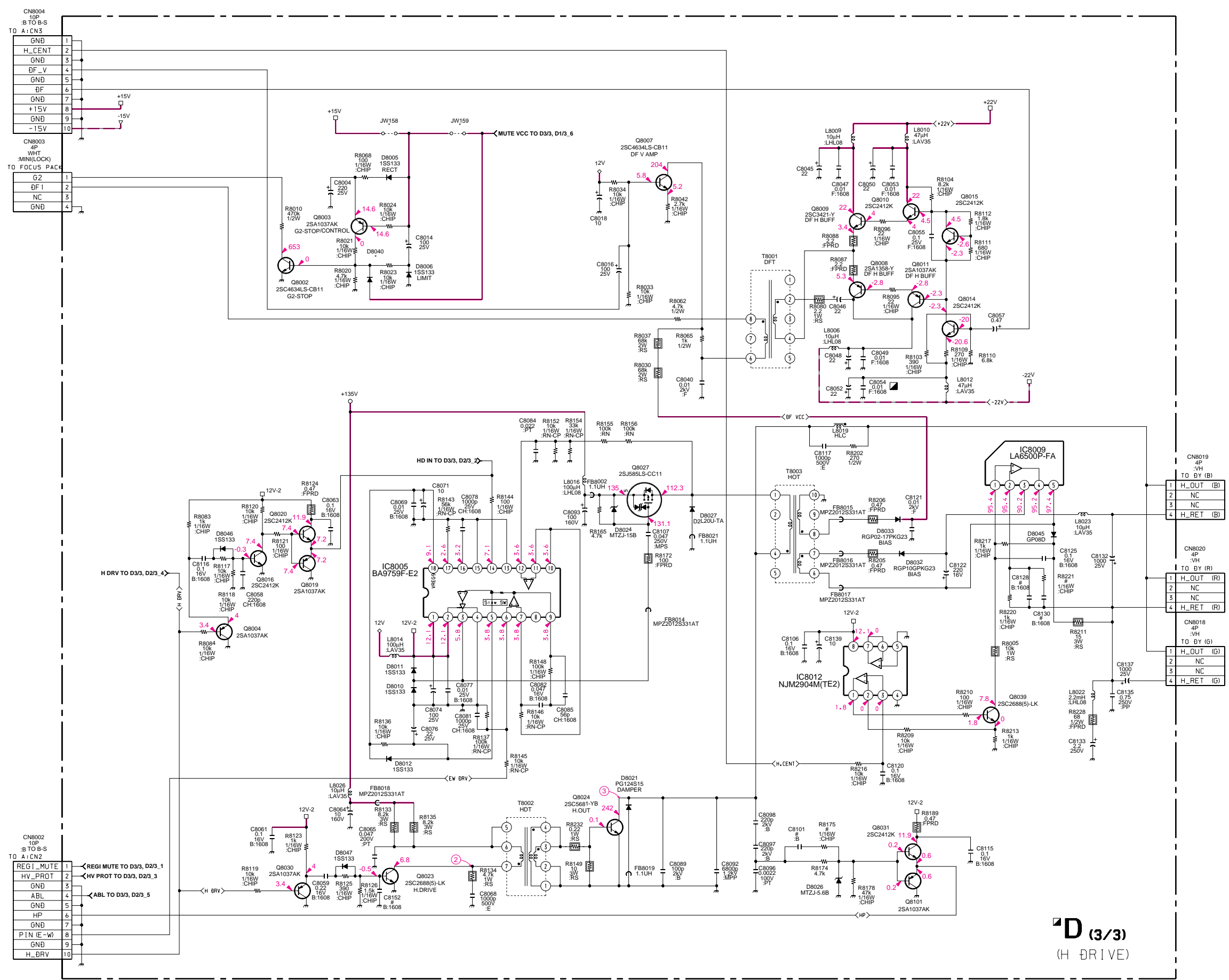
1	200V
2	NC
3	GND
4	NC
5	H (+)
6	H (-)
7	

1	Σ I K 1
2	Σ I K 2
3	PROT ON/OFF
4	GND

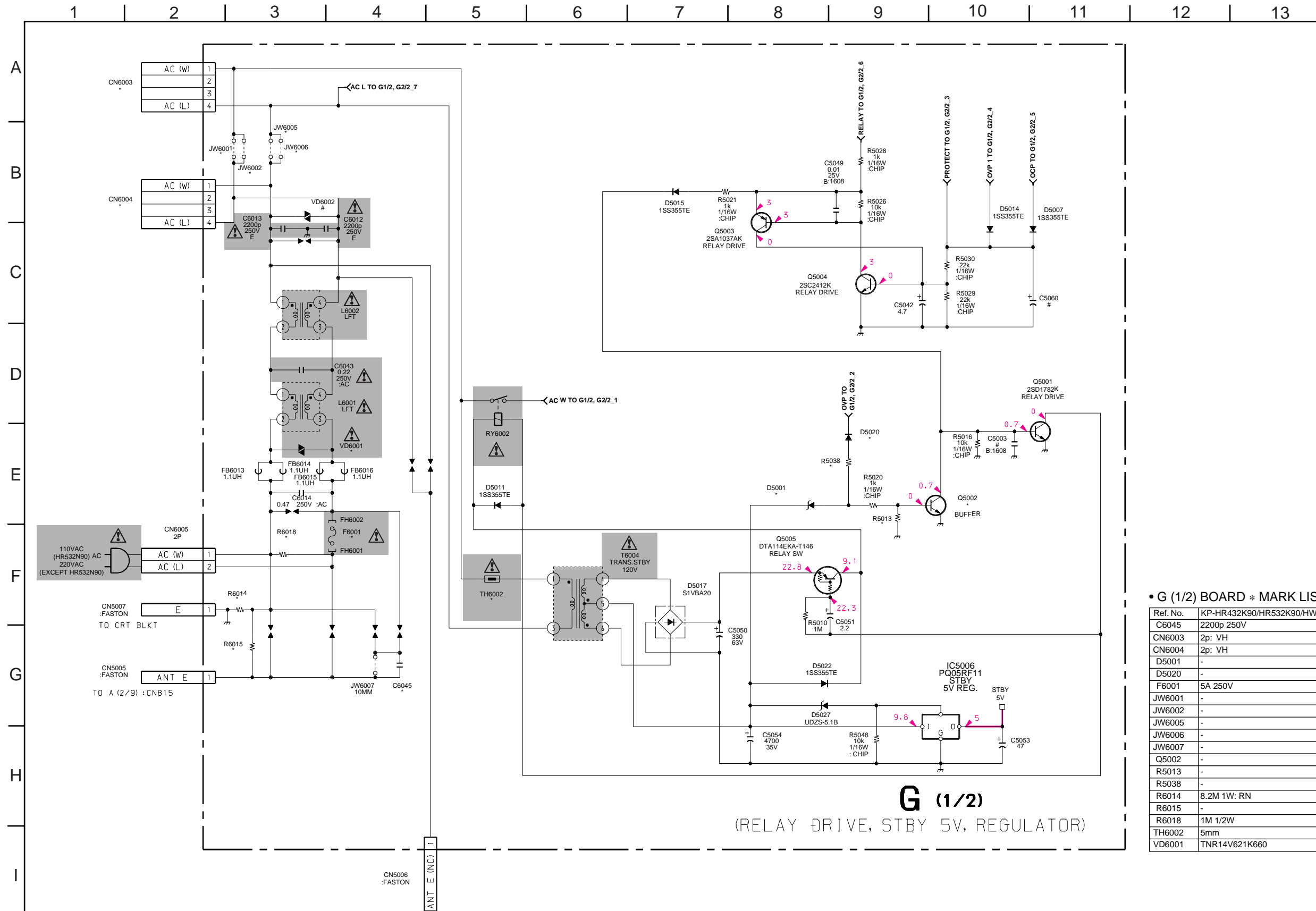
1	ΔR
2	ΔR

1 2 3 4 5 6 7 8 9 10 11 12 13

A
B
C
D
E
F
G
H
I
J

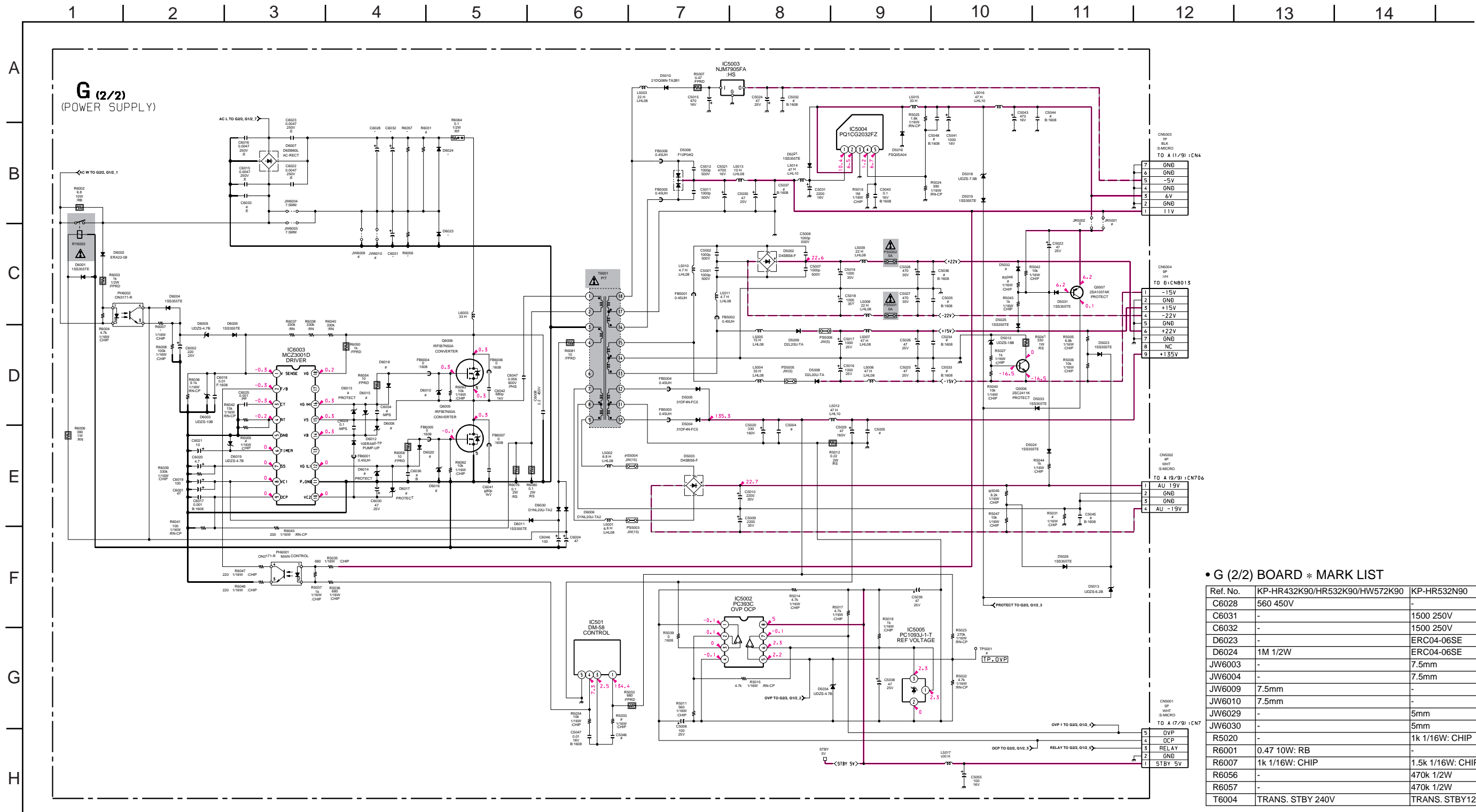


D (3/3)
(H DRIVE)



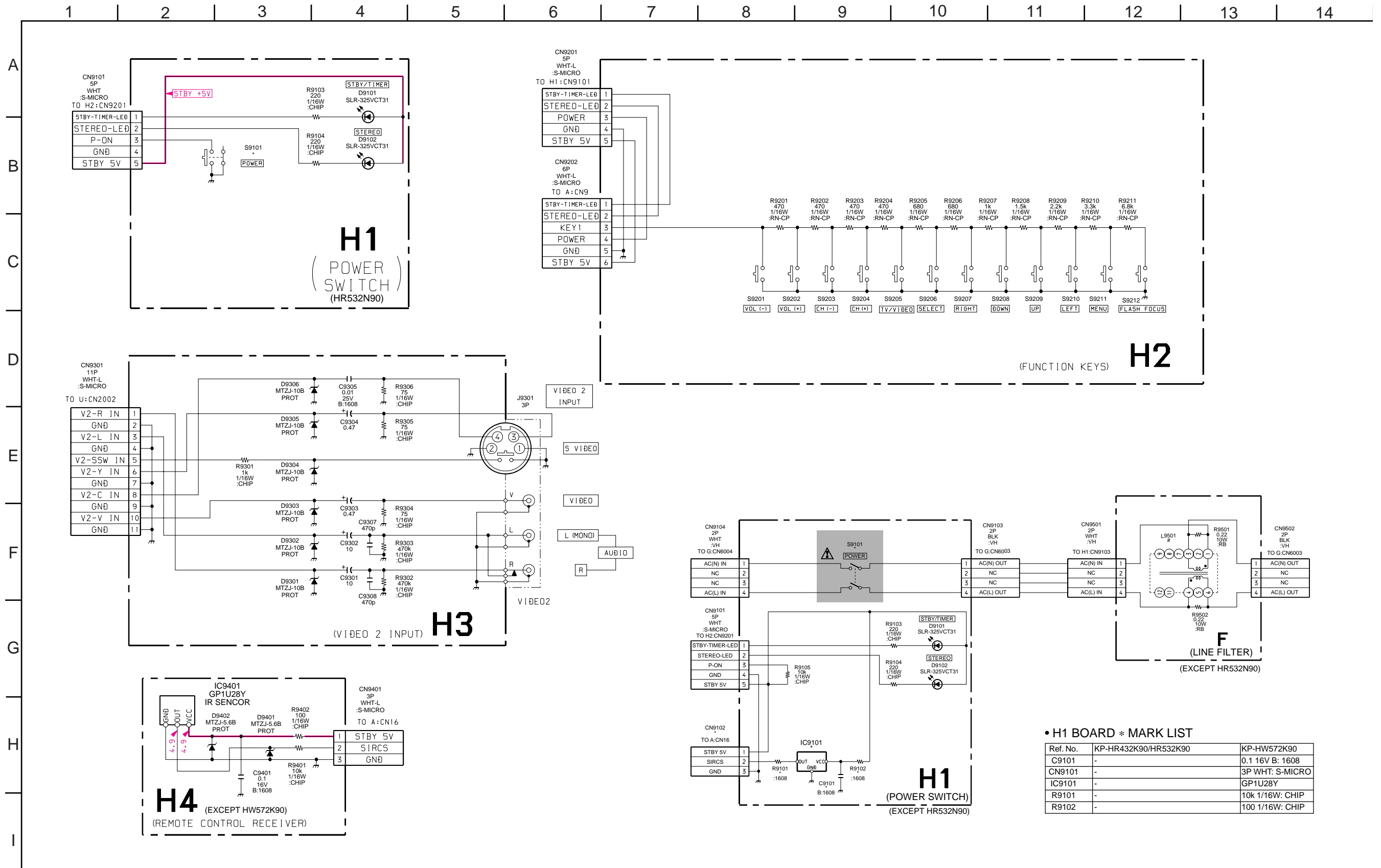
• G (1/2) BOARD * MARK LIST

Ref. No.	KP-HR432K90/HR532K90/HW572K90	KP-HR532N90
C6045	2200p 250V	JW (10)
CN6003	2p: VH	-
CN6004	2p: VH	-
D5001	-	UDZSTE1720B
D5020	-	1SS355TE
F6001	5A 250V	6.3A 125V
JW6001	-	7.5mm
JW6002	-	7.5mm
JW6005	-	7.5mm
JW6006	-	7.5mm
JW6007	-	10mm
Q5002	-	2SC2412K
R5013	-	10k 1/16W: CHIP
R5038	-	1k 1/16W: CHIP
R6014	8.2M 1W: RN	-
R6015	-	2.2M 1/2W
R6018	1M 1/2W	-
TH6002	5mm	PTH8L05AR/88: PTC
VD6001	TNR14V621K660	TNR14V471K



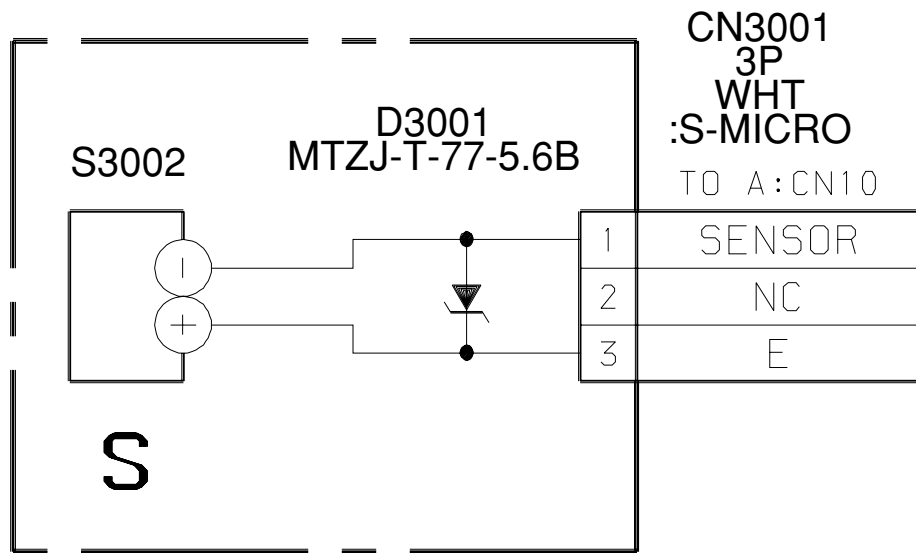
• G (2/2) BOARD * MARK LIST

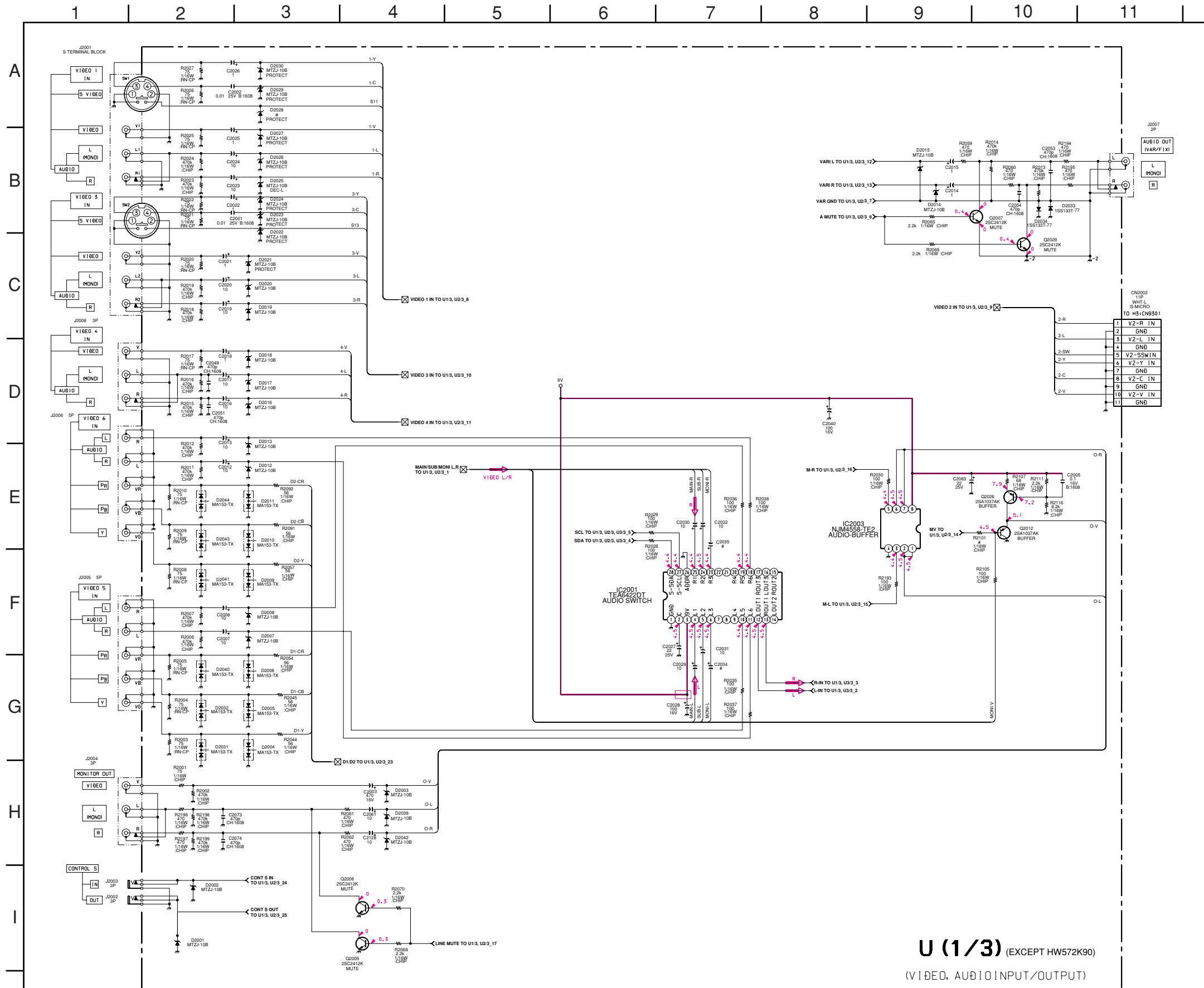
Ref. No.	KP-HR432K90/HR532K90/HW572K90	KP-HR532N90
C6028	560 450V	-
C6031	-	1500 250V
C6032	-	1500 250V
D6023	-	ERC04-06SE
D6024	1M 1/2W	ERC04-06SE
JW6003	-	7.5mm
JW6004	-	7.5mm
JW6009	7.5mm	-
JW6010	7.5mm	-
JW6029	-	5mm
JW6030	-	5mm
R5020	OVP	1k 1/16W: CHIP
R6001	0.47 10W: RB	-
R6007	1k 1/16W: CHIP	1.5k 1/16W: CHIP
R6056	-	470k 1/2W
R6057	-	470k 1/2W
T6004	TRANS. STBY 240V	TRANS. STBY120V

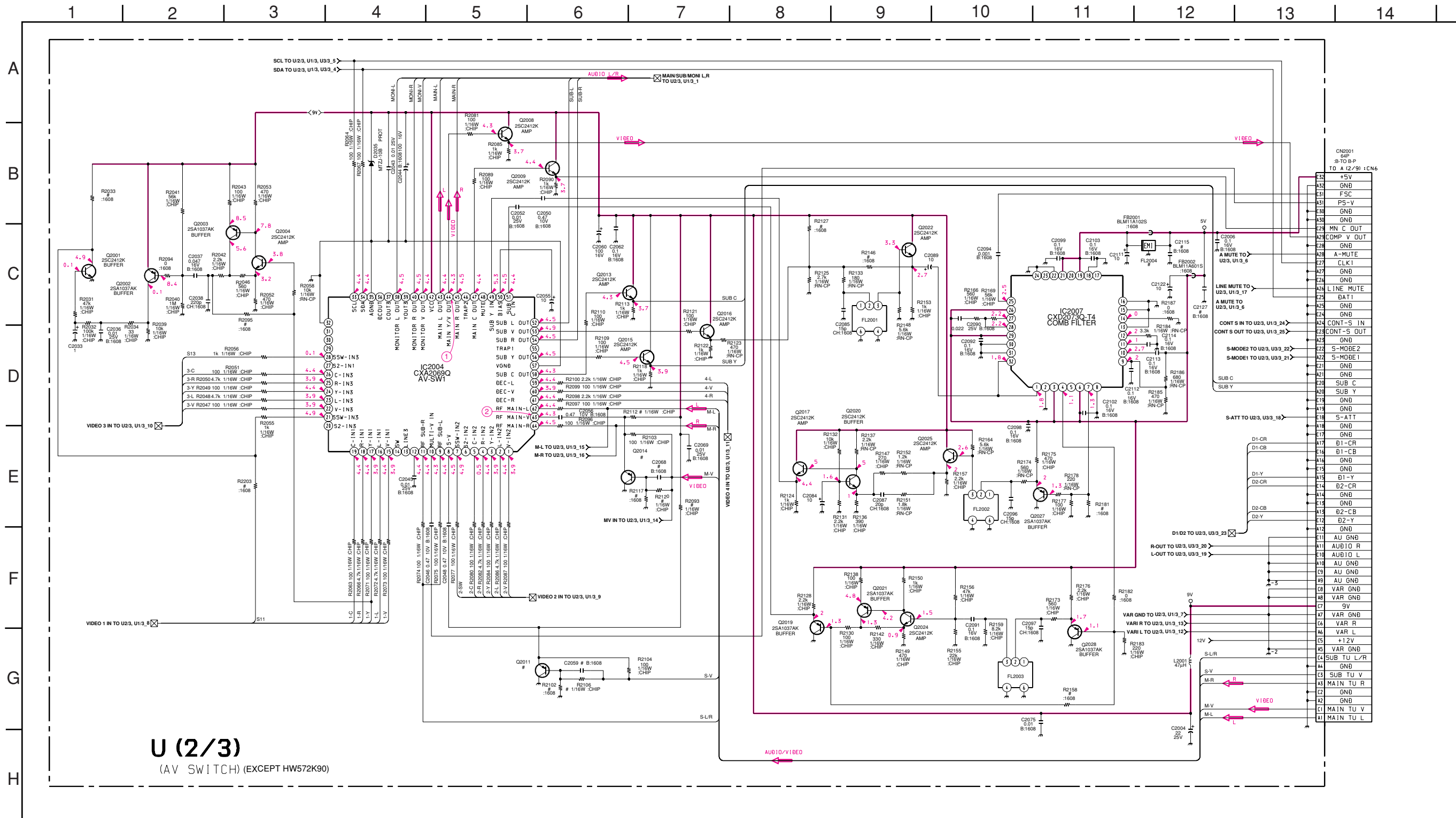


• H1 BOARD * MARK LIST

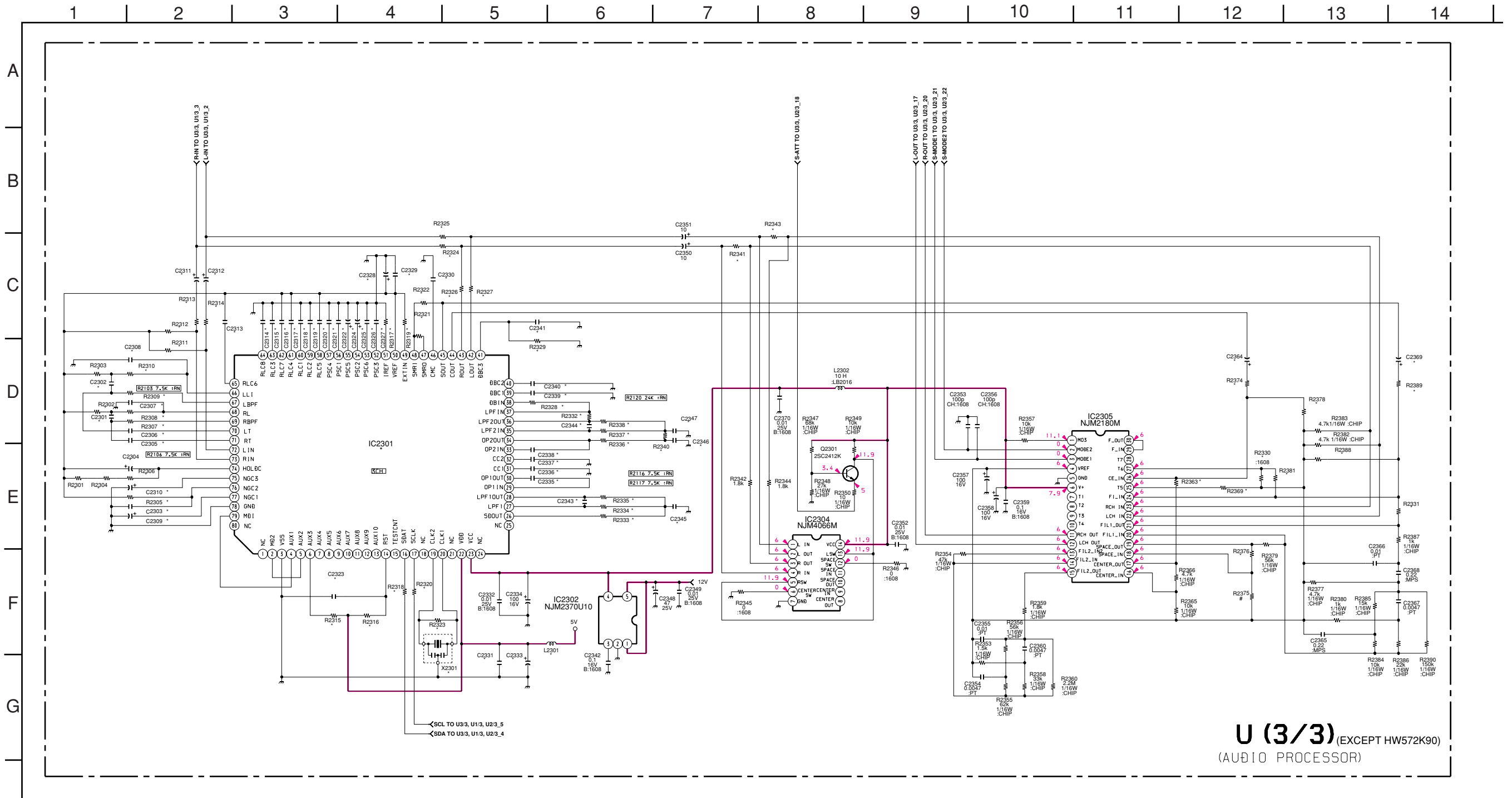
Ref. No.	KP-HR432K90/HR532K90	KP-HW572K90
C9101	-	0.1 16V B: 1608
CN9101	-	3P WHT: S-MICRO
IC9101	-	GP1U28Y
R9101	-	10k 1/16W: CHIP
R9102	-	100 1/16W: CHIP

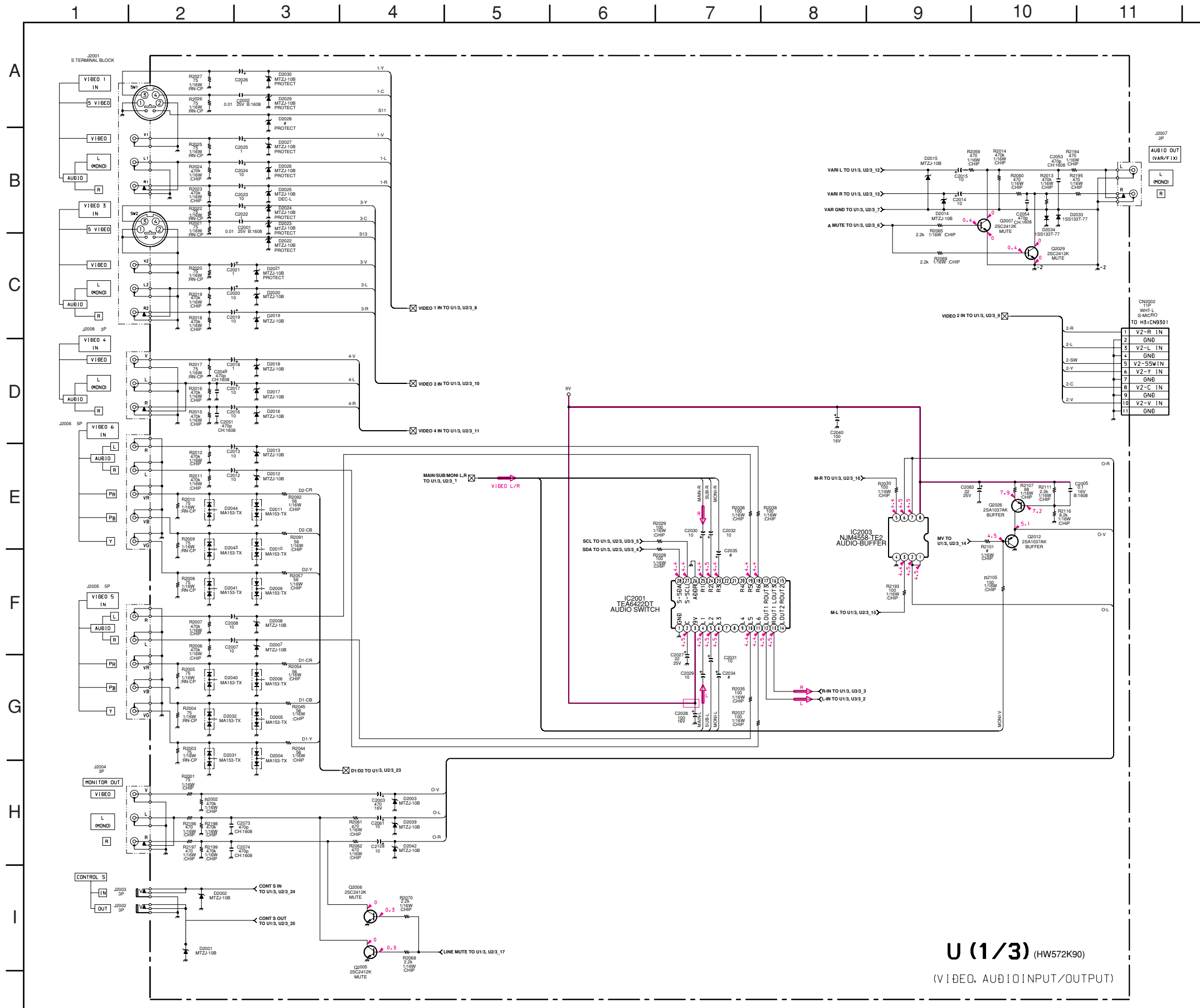






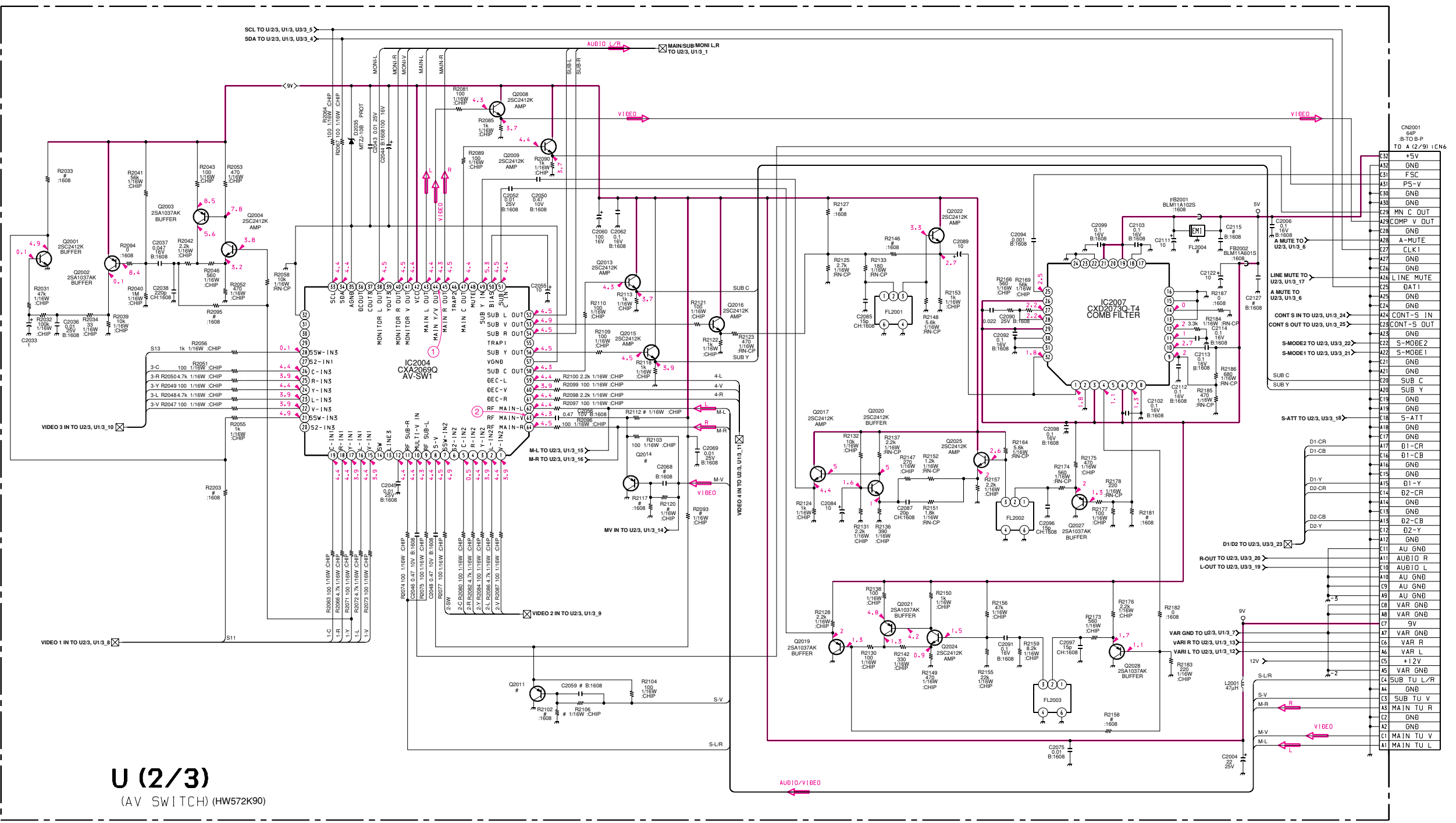
U (2/3)
(AV SWITCH) (EXCEPT HW572K90)



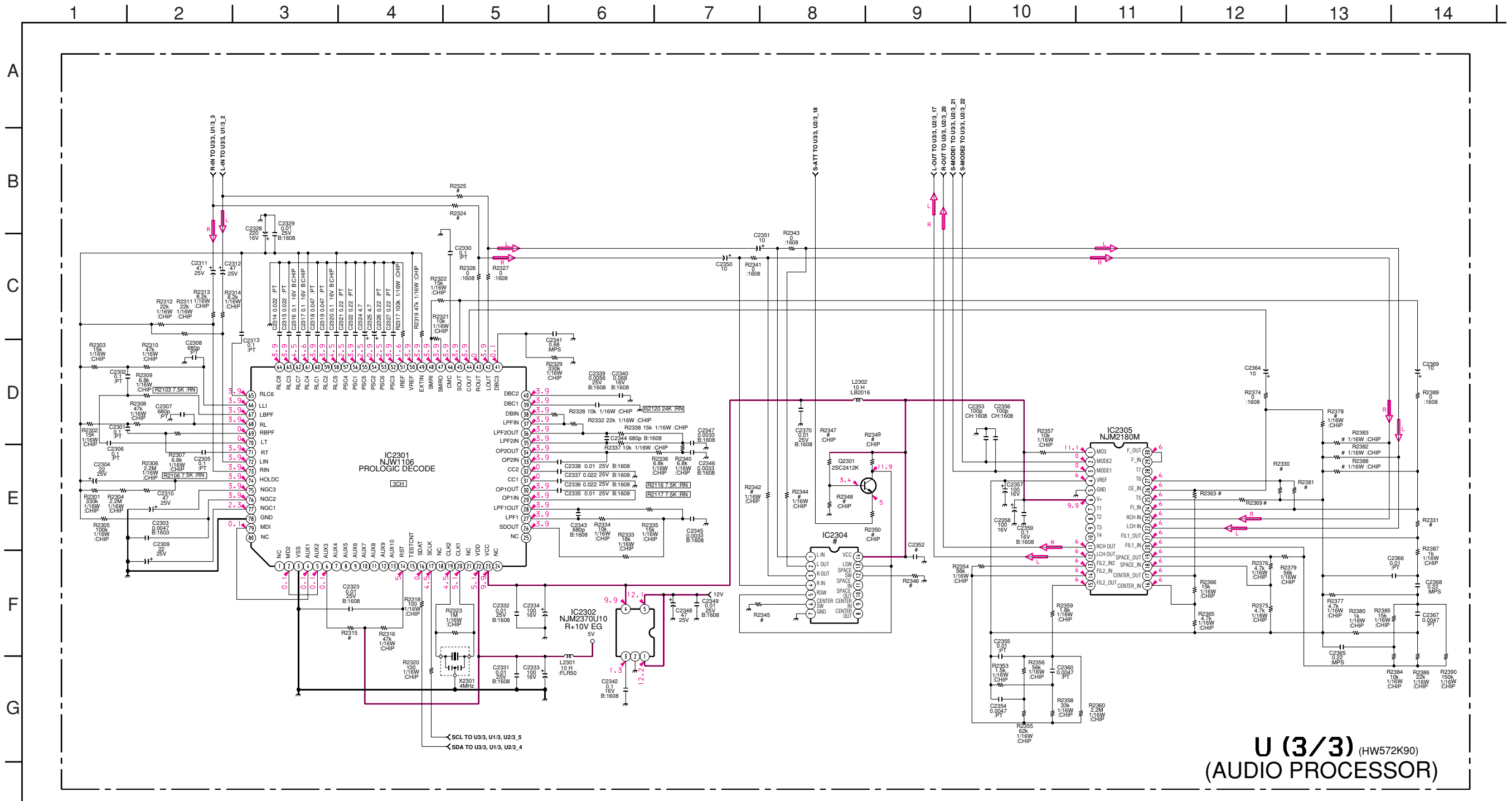


1 2 3 4 5 6 7 8 9 10 11 12 13 14

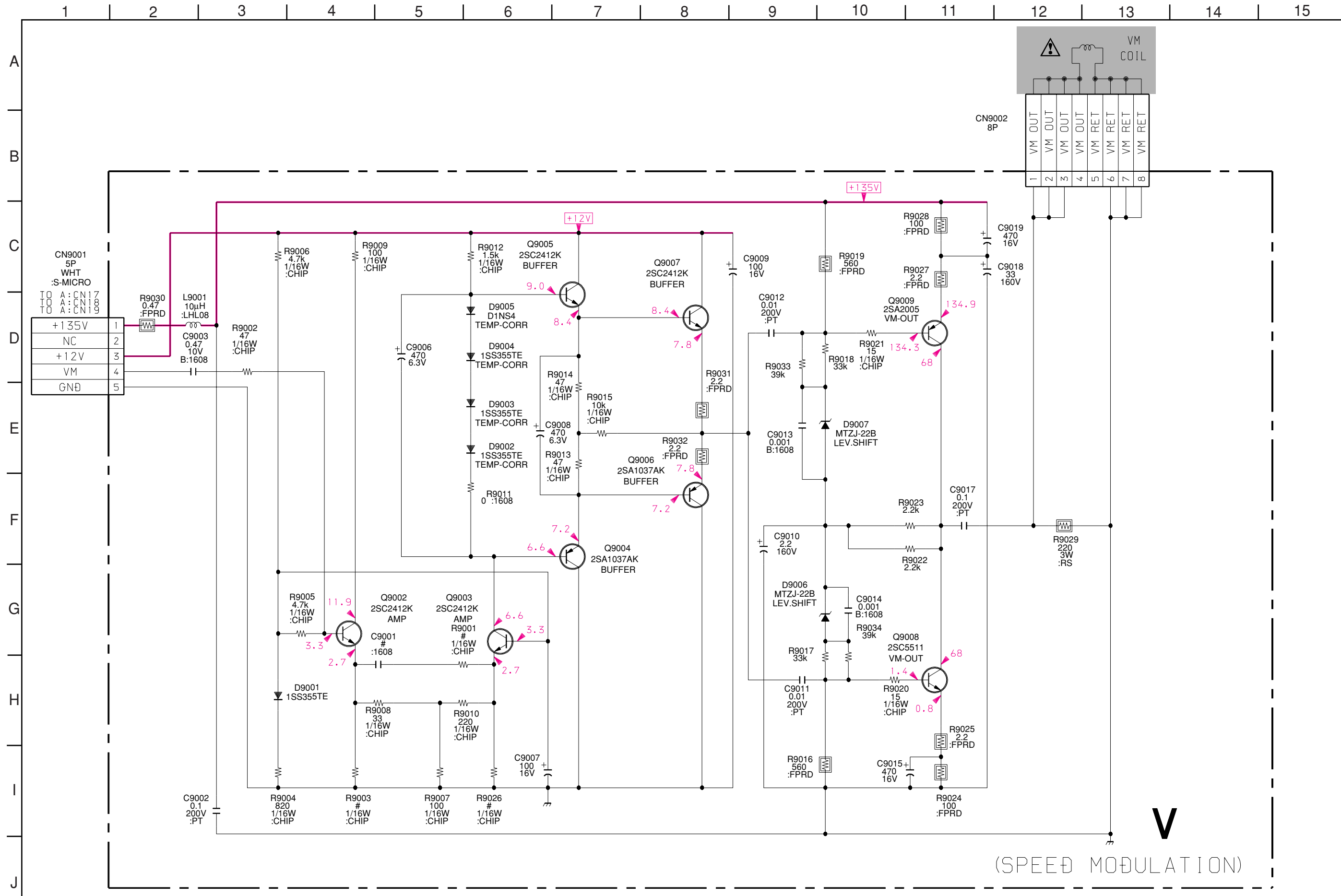
A B C D E F G H



U (2/3)
(AV SWITCH) (HW572K90)



U (3/3) (HW572K90)
 (AUDIO PROCESSOR)



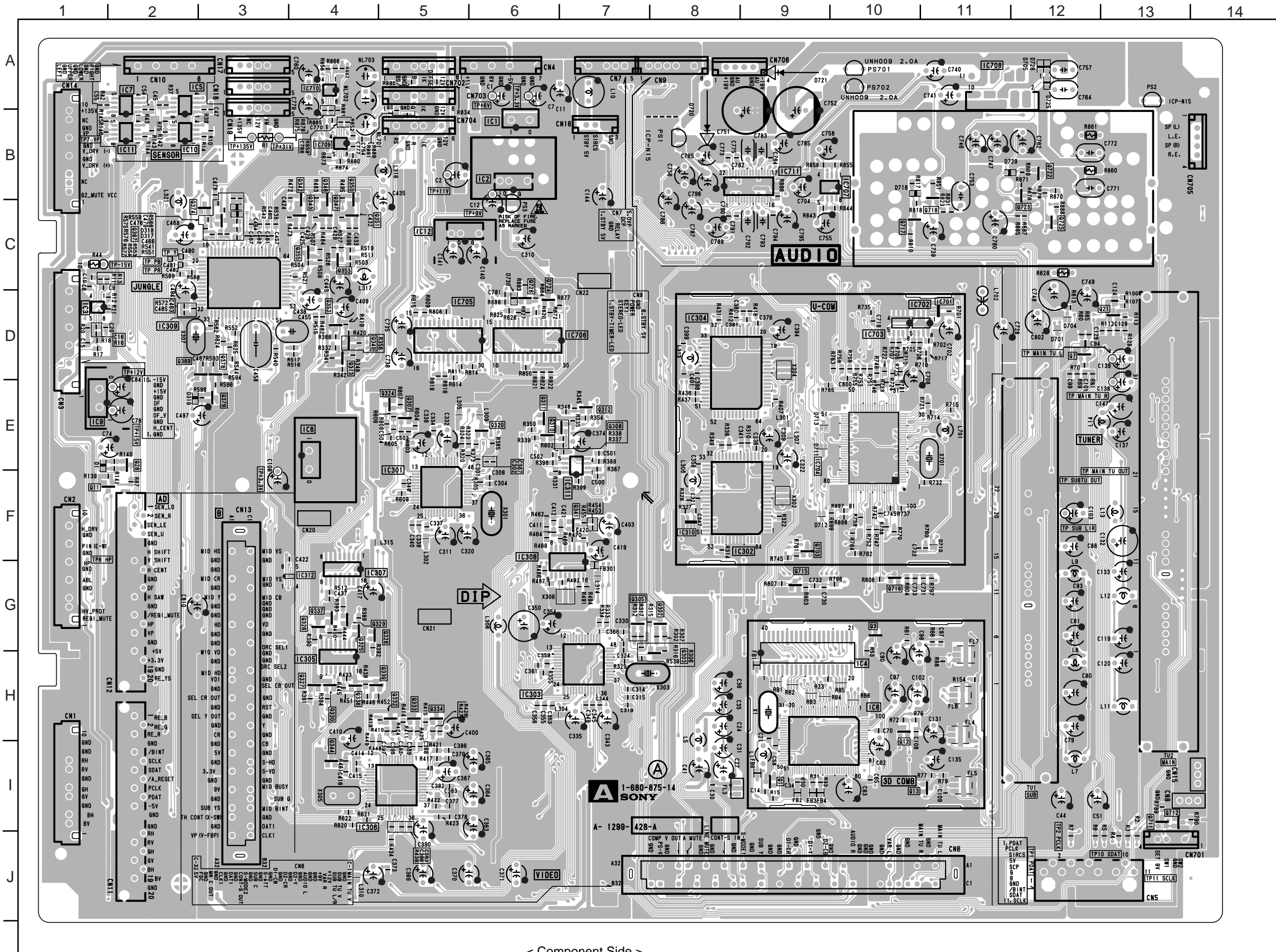
A [TUNER, VIDEO, AUDIO, SYSTEM CONTROL]

- A Board -

A BOARD

DIODE		*	TRANSISTOR *		
D1	E-2	3	Q1	I-9	2
D317	C-3	3	Q3	G-10	2
D318	C-3	3	Q7	D-12	2
D319	E-2	3	Q11	F-1	2
D701	D-12	9	Q12	H-10	2
D704	D-12	9	Q13	I-11	2
D705	A-12	3	Q21	D-13	2
D710	F-11	9	Q302	G-8	2
D711	E-9	9	Q303	H-8	2
D712	F-9	9	Q305	G-7	2
D713	E-9	9	Q307	E-5	2
D718	B-10	3	Q308	E-7	2
D720	B-8	2	Q310	E-6	2
D721	A-9	2	Q311	E-6	2
D725	A-12	3	Q312	E-7	2
D726	A-12	3	Q313	D-4	2
D729	B-11	3	Q320	E-6	2
D730	D-6	3	Q324	E-5	2
IC					
IC1	B-6		Q325	G-4	2
IC2	B-6		Q326	G-4	2
IC3	D-1		Q327	H-4	2
IC4	H-9		Q328	G-4	2
IC5	A-2		Q329	G-4	2
IC6	H-9		Q330	H-4	2
IC7	A-2		Q332	H-5	2
IC8	E-4		Q333	H-5	2
IC9	E-1		Q334	H-5	2
IC10	B-2		Q337	G-4	2
IC11	B-2		Q338	H-4	2
IC12	C-5		Q339	H-4	2
IC301	F-5		Q341	F-7	2
IC302	F-8		Q343	C-4	2
IC303	H-7		Q344	I-4	2
IC304	D-8		Q347	C-4	2
IC305	H-4		Q349	D-4	2
IC306	I-5		Q351	C-4	2
IC307	G-4		Q352	D-4	2
IC308	D-3		Q353	C-4	2
IC309	C-3		Q355	C-4	2
IC310	F-8		Q367	C-3	2
IC311	F-7		Q369	D-2	2
IC312	G-4		Q374	C-3	2
IC701	D-11		Q378	D-2	2
IC702	D-10		Q379	E-3	2
IC703	D-10		Q712	I-13	2
IC704	F-10		Q713	I-13	2
IC705	D-5		Q715	G-9	2
IC706	D-6		Q716	G-10	2
IC707	B-10		Q717	C-10	2
IC708	A-11		Q718	B-11	2
IC709	B-4		Q722	B-12	2
IC710	A-4		Q723	B-12	2
IC711	B-9		Q724	D-6	2
			Q725	C-12	2
			Q726	D-6	2

*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 49)



< Component Side >

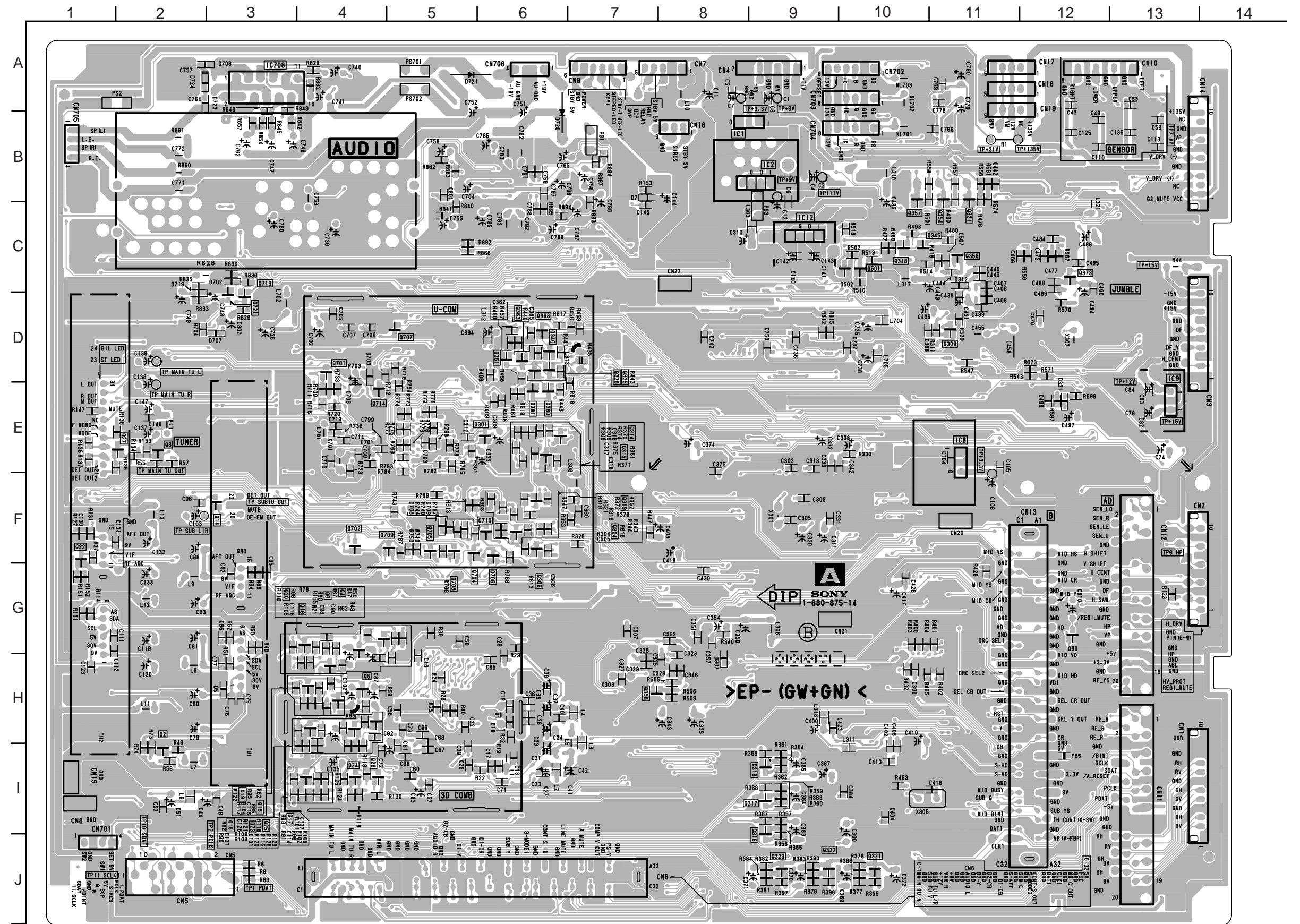
A [TUNER, VIDEO, AUDIO, SYSTEM CONTROL]

- A Board -

A BOARD

DIODE *		Q27	E-1	1
D5	H-3	Q28	I-4	1
D7	C-7	Q30	G-12	1
D307	H-8	Q301	E-6	1
D312	C-11	Q306	F-6	1
D702	C-3	Q309	D-11	1
D703	E-4	Q314	E-6	1
D706	A-3	Q315	E-6	1
D708	F-5	Q316	J-9	1
D719	D-2	Q317	I-9	1
D720	B-6	Q318	I-9	1
D721	A-5	Q319	F-6	1
D723	A-3	Q321	J-10	1
D724	A-3	Q322	J-10	1
		Q323	J-9	1
IC		Q331	C-11	1
IC1	B-8	Q335	D-6	1
IC2	B-9	Q336	D-6	1
IC8	E-11	Q340	D-6	1
IC9	E-13	Q345	C-11	1
IC12	C-9	Q348	C-10	1
IC708	A-3	Q354	C-11	1
TRANSISTOR *		Q356 <th>C-11</th> <th>1</th>	C-11	1
Q2	I-2	Q357	C-10	1
Q4	G-4	Q358	H-8	1
Q5	H-4	Q361	D-6	1
Q6	G-4	Q363	D-6	1
Q8	E-2	Q368	D-6	1
Q14	F-3	Q373	C-12	1
Q15	H-4	Q380	E-6	1
Q16	H-4	Q381	E-6	1
Q17	I-4	Q501	C-10	1
Q18	H-4	Q502	C-10	1
Q19	H-4	Q701	D-4	1
Q20	G-4	Q702	F-4	1
Q22	F-1	Q704	F-5	1
Q23	H-4	Q705	F-5	1
Q24	I-4	Q706	F-6	1
Q25	H-4	Q707	D-5	1
Q26	I-4	Q708	F-5	1
		Q710	F-6	1
		Q714	D-4	1
		Q721	D-3	1

*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 49)



< Conductor Side >

AD

[DIGITAL REGI, DJED CPU, PJE DRIVE]

KP-HR432K90/HR532K90/HR532N90/HW572K90

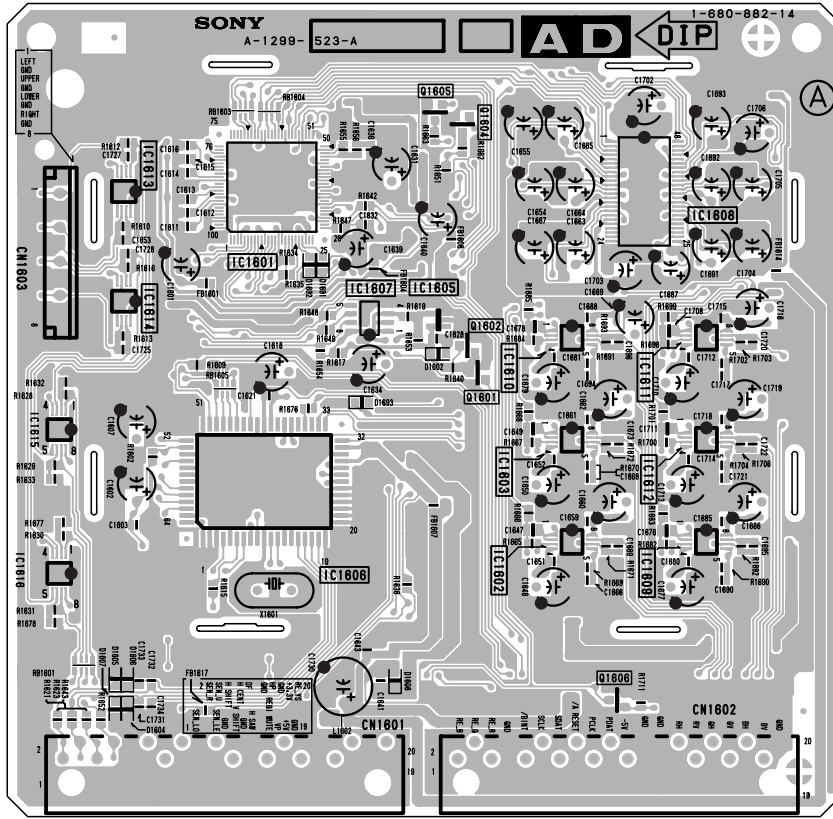
RM-Y909K

RM-Y909K

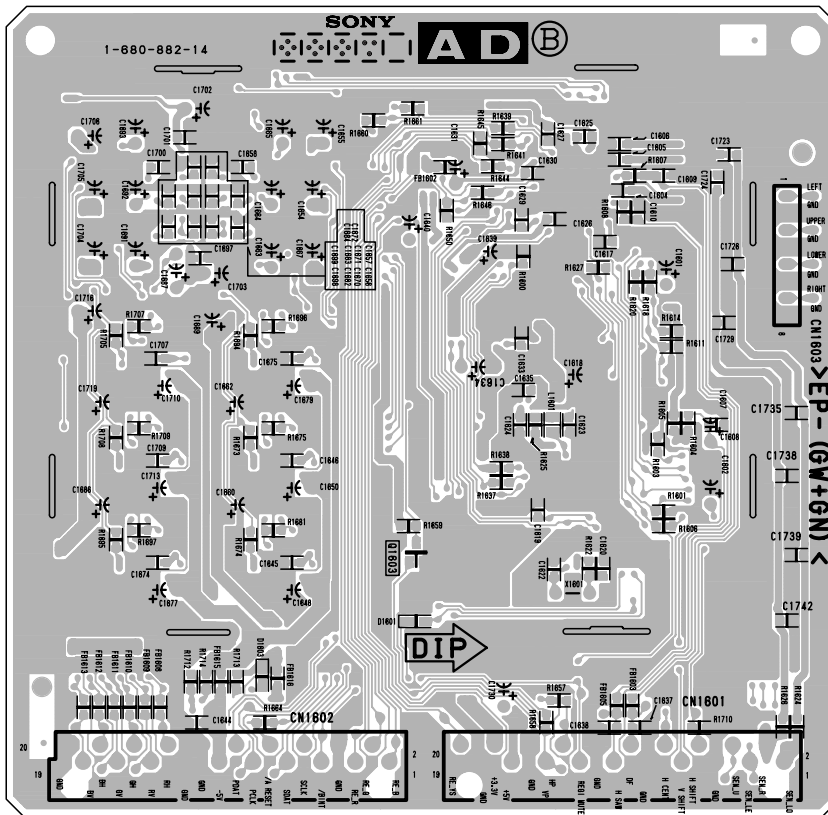
RM-Y908

RM-Y909K

- AD Board -



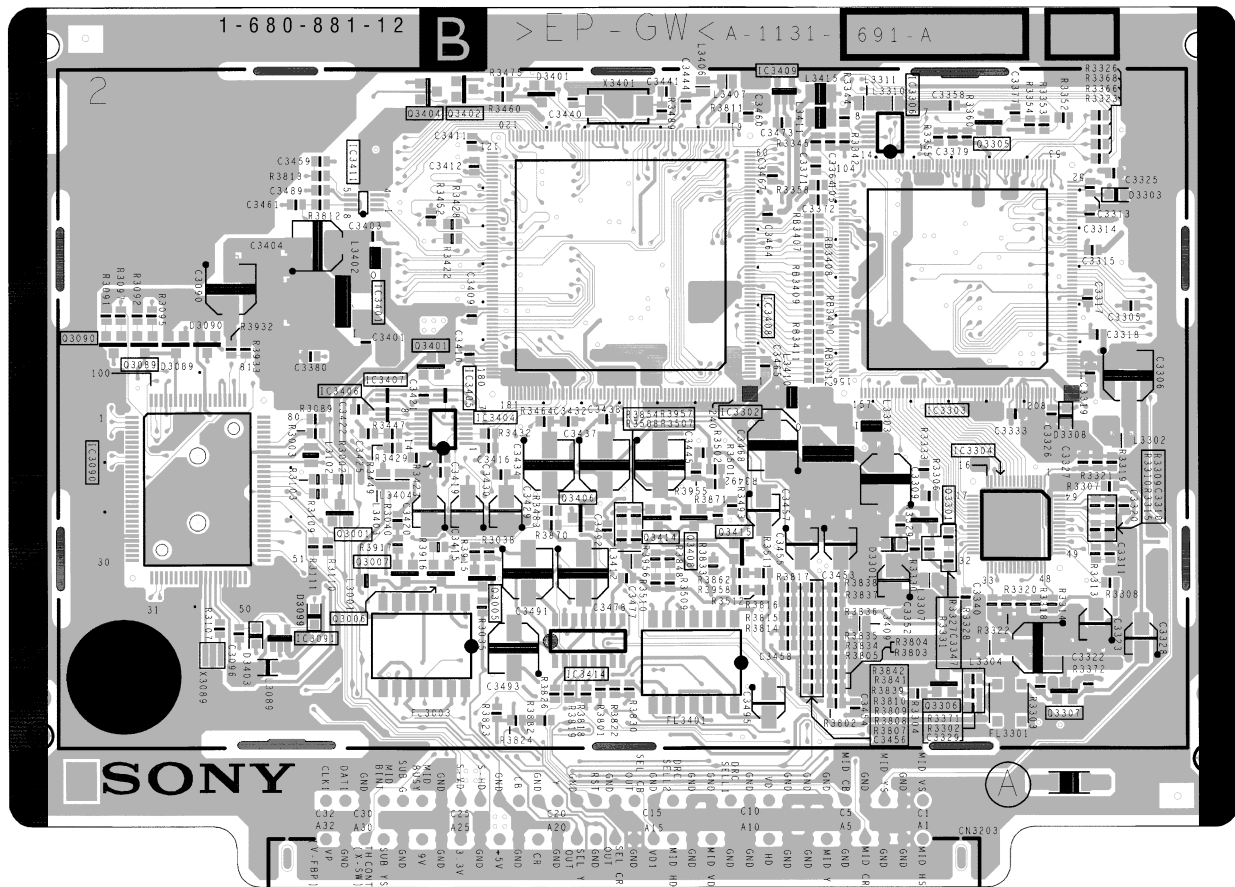
< Component Side >



< Conductor Side >

B [A/D CONVERTER, DRC, MULTI IMAGA DRIVER, MID-U CON, D/A CONVERTER]

- B Board -

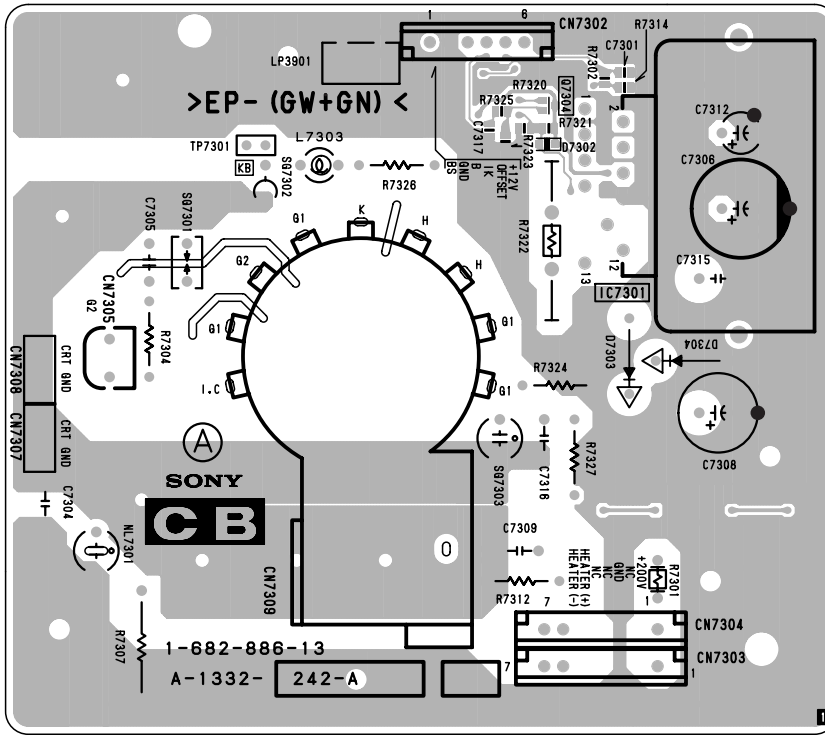


< Component Side >

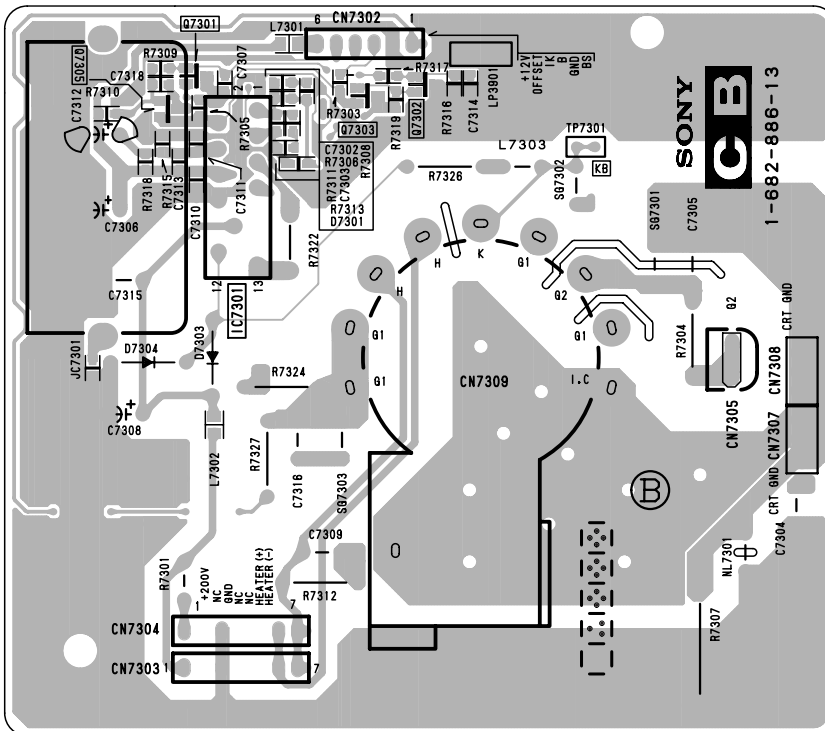
CB [CRT I/F BLUE]

(HW572K90)

- CB Board -



< Component Side >

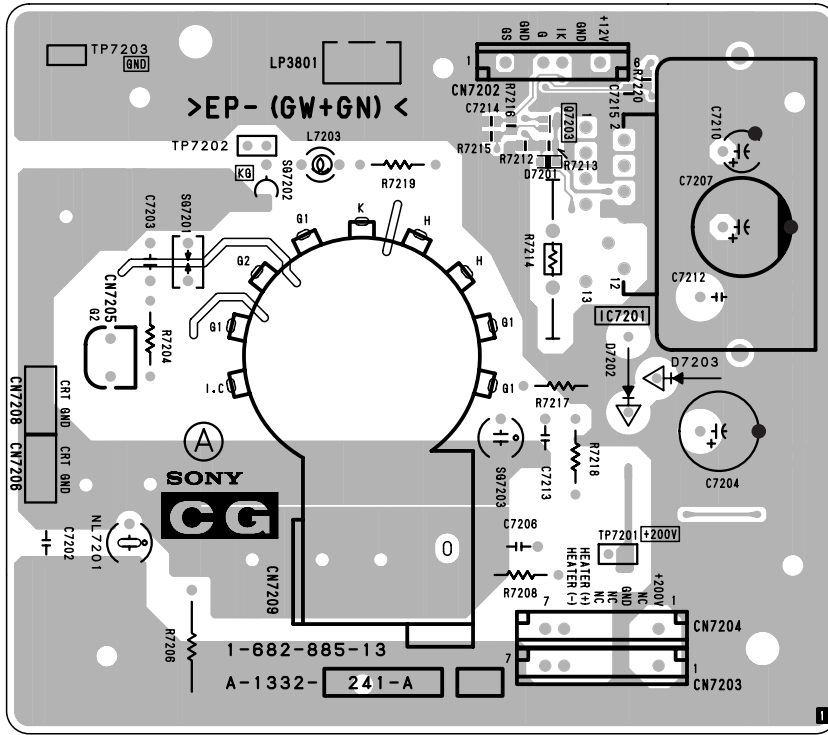


< Conductor Side >

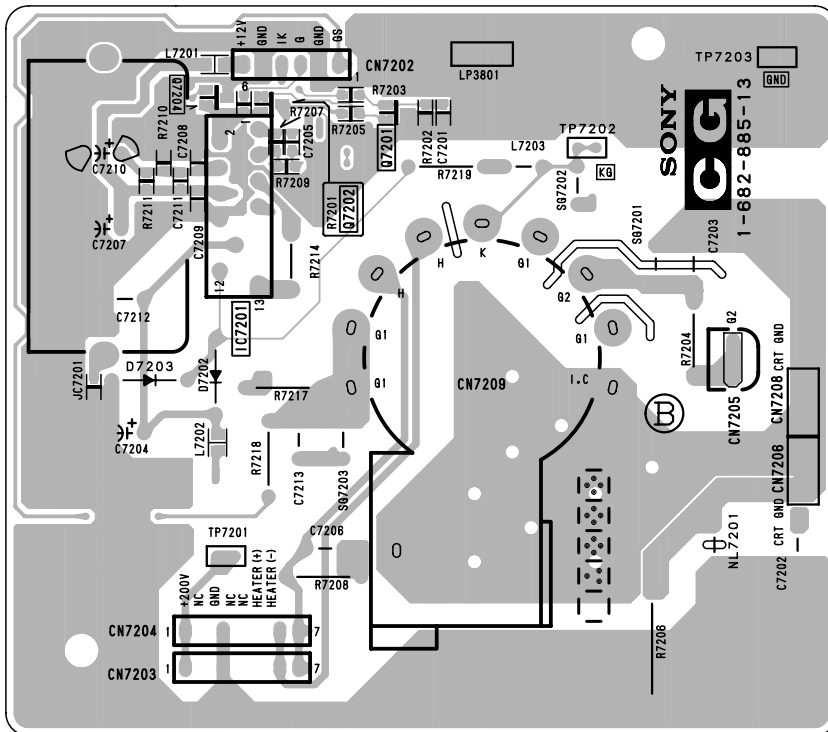
CG [CRT I/F GREEN]

(HW572K90)

- CG Board -



< Component Side >

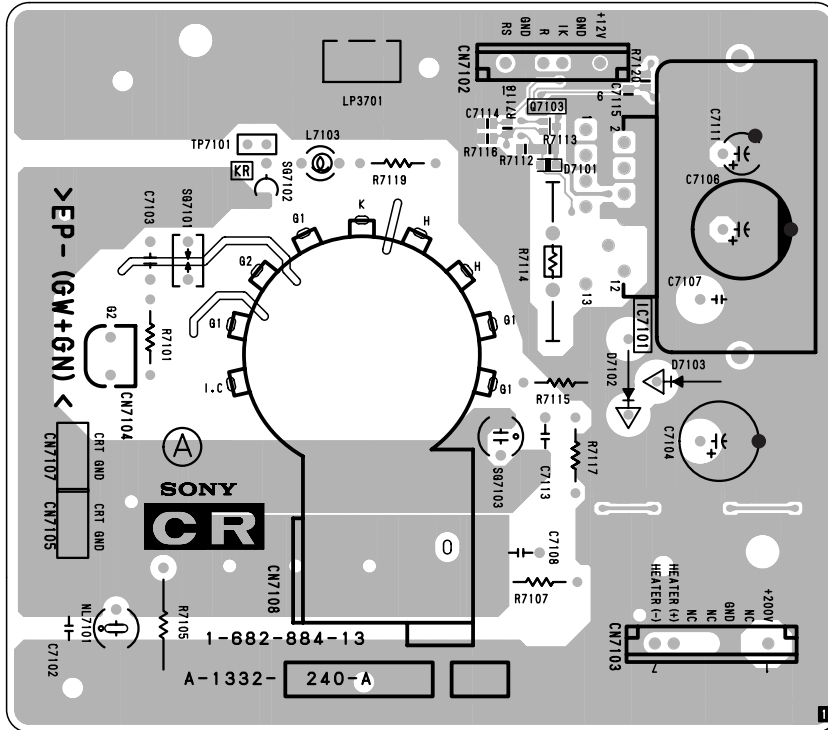


< Conductor Side >

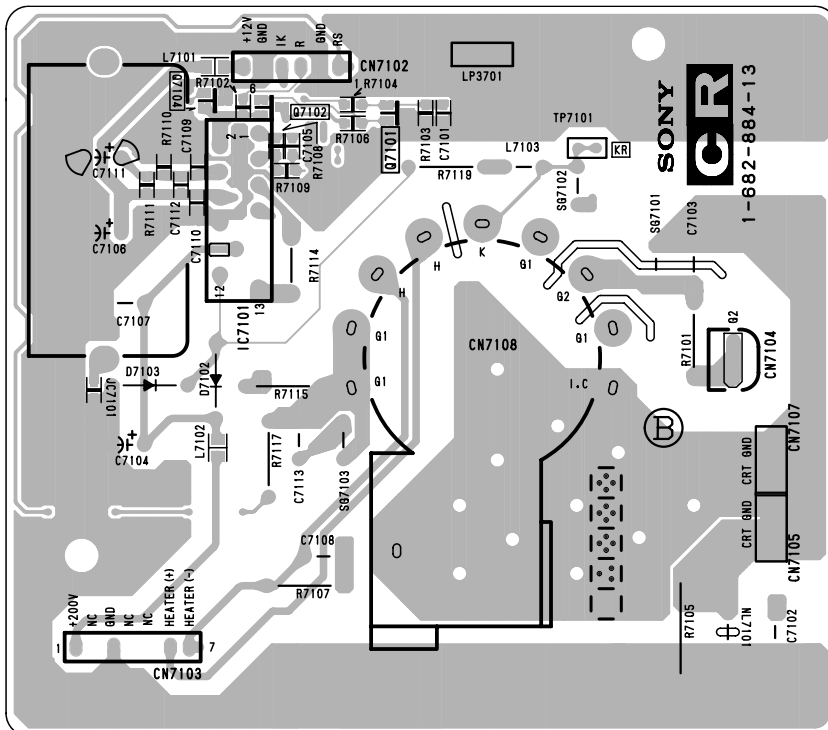
CR [CRT I/F RED]

(HW572K90)

- CR Board -



< Component Side >



< Conductor Side >

CB [CRT I/F BLUE]

(EXCEPT HW572K90)

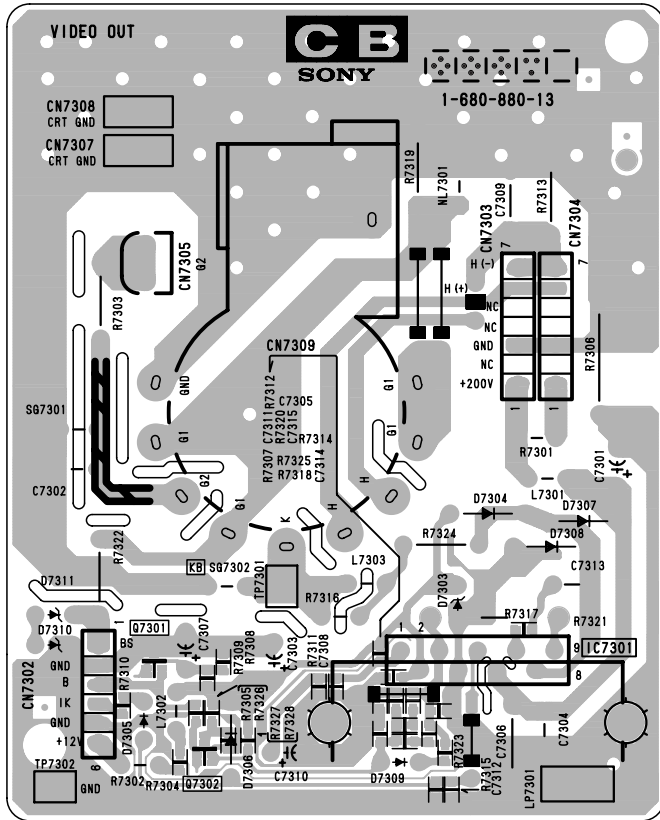
CG [CRT I/F GREEN]

(EXCEPT HW572K90)

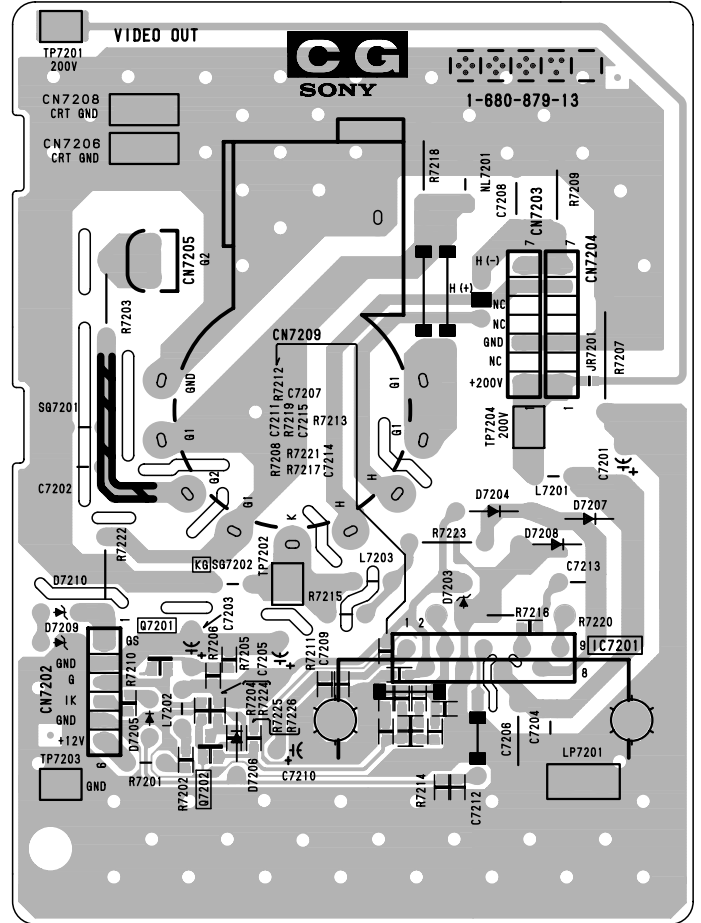
CR [CRT I/F RED]

(EXCEPT HW572K90)

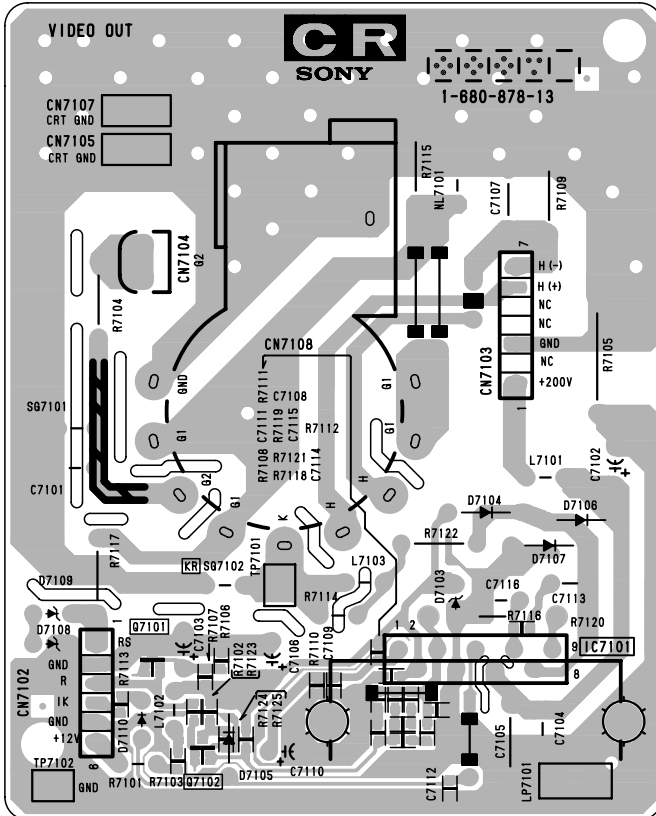
- CB Board -



- CG Board -



- CR Board -



D [HV DRIVE, POWER SUPPLY, H DRIVE]

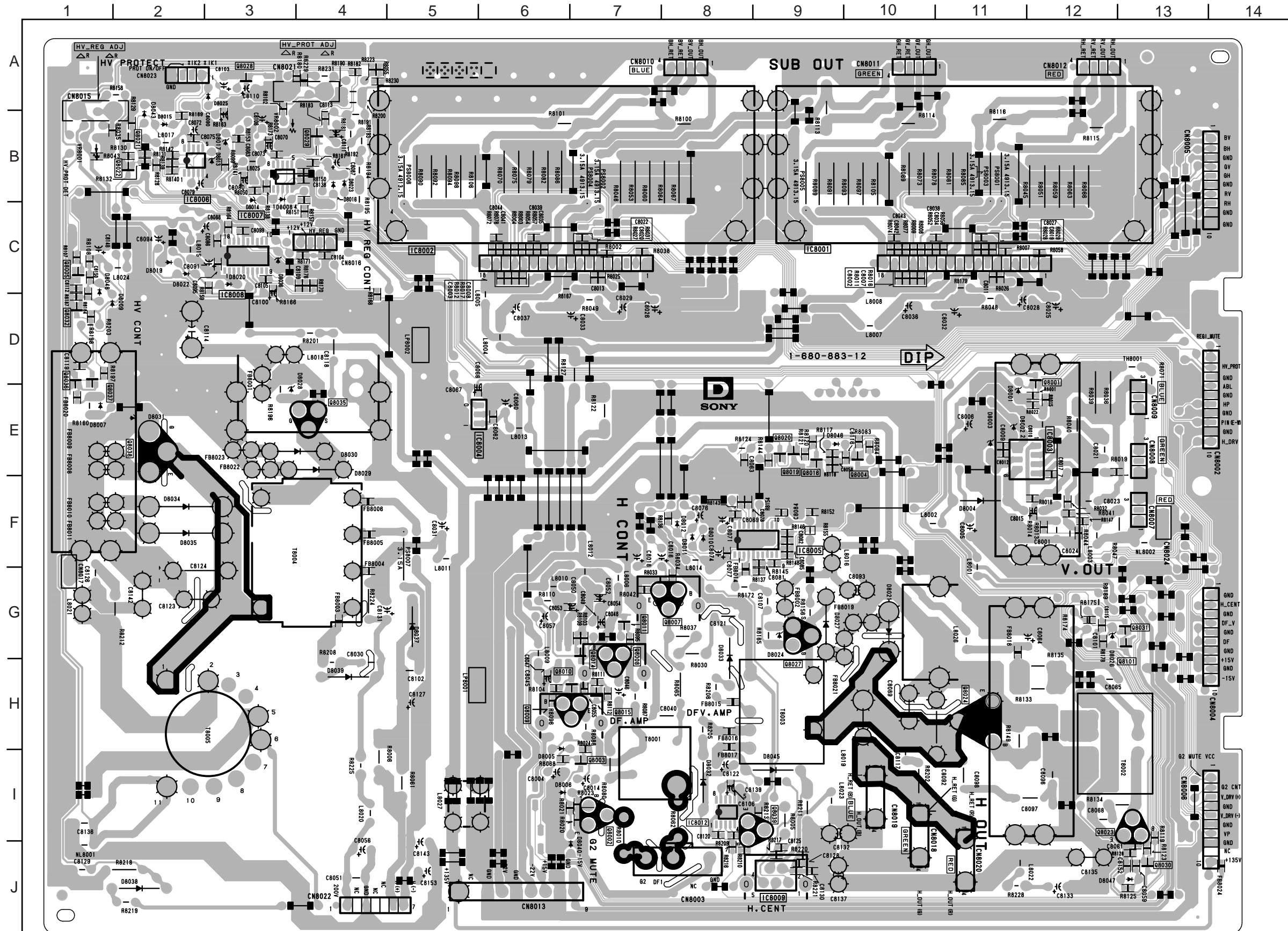
- D Board -

D BOARD

DIODE *		TRANSISTOR *	
D8001	E-11	Q8001	E-12
D8002	E-11	Q8002	I-7
D8003	E-11	Q8003	I-7
D8004	F-11	Q8004	E-10
D8005	H-6	Q8005	C-1
D8006	I-6	Q8007	G-7
D8007	E-1	Q8008	H-7
D8008	C-3	Q8009	H-6
D8009	E-11	Q8010	H-7
D8010	F-8	Q8011	G-7
D8011	F-8	Q8014	G-7
D8012	F-8	Q8015	H-7
D8013	B-3	Q8016	E-9
D8014	C-3	Q8019	E-9
D8015	B-2	Q8020	E-9
D8016	B-4	Q8021	B-2
D8019	C-2	Q8022	B-2
D8020	C-3	Q8023	I-13
D8021	G-10	Q8024	H-11
D8022	C-2	Q8027	G-9
D8023	B-4	Q8028	A-3
D8024	G-9	Q8029	B-4
D8025	A-3	Q8030	J-13
D8026	G-12	Q8031	G-13
D8027	G-9	Q8032	D-1
D8028	E-3	Q8035	I-4
D8029	E-4	Q8036	E-1
D8030	E-4	Q8037	E-1
D8031	E-2	Q8038	E-2
D8032	I-8	Q8039	I-9
D8033	H-8	Q8101	G-13
D8034	F-2		
D8035	F-2		
D8036	C-3		
D8037	G-5		
D8038	J-2		
D8039	H-4		
D8043	B-2		
D8045	I-9		
D8046	E-9		
D8047	J-13		

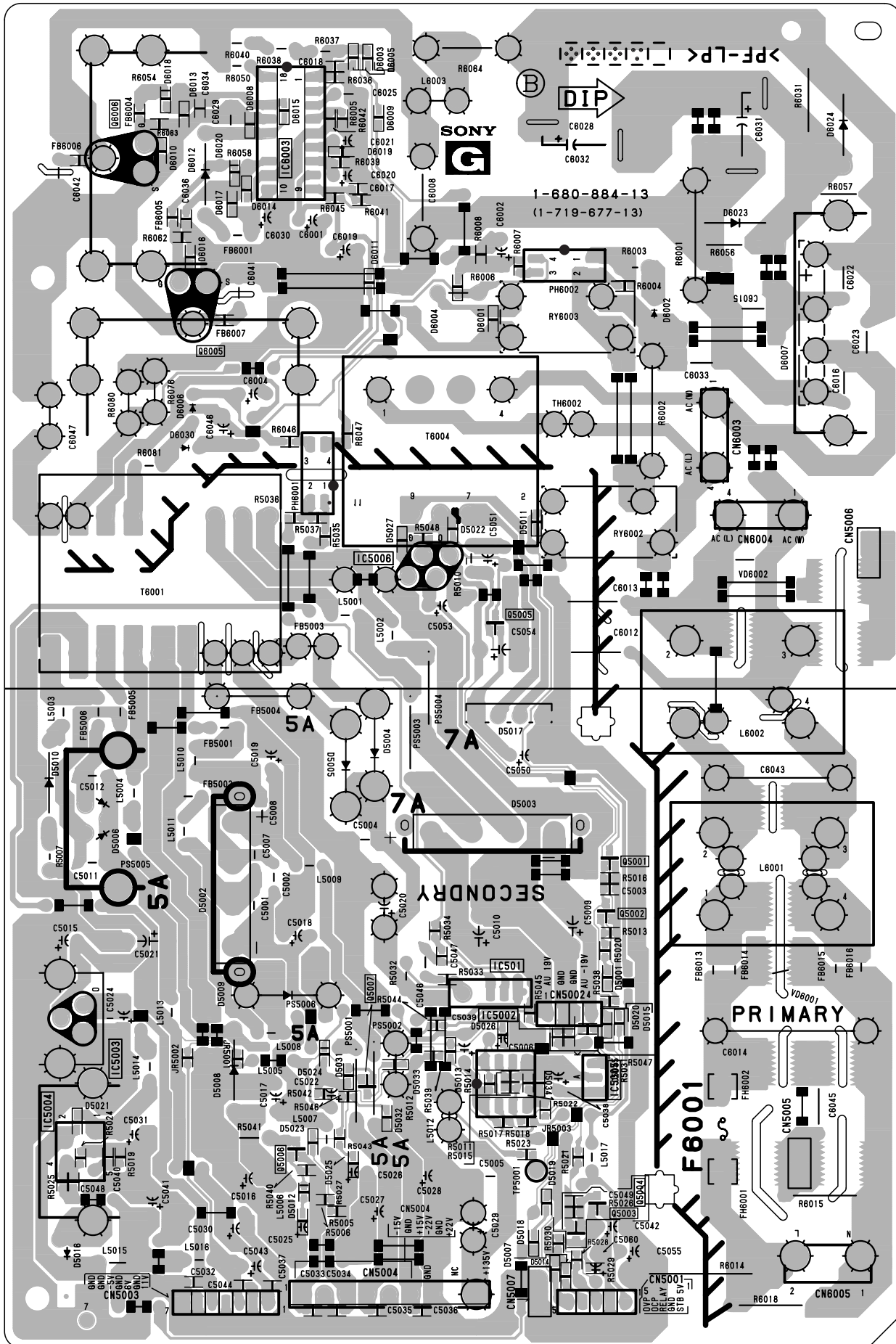
IC	
IC8001	C-11
IC8002	C-6
IC8003	E-12
IC8004	E-5
IC8005	F-9
IC8006	B-2
IC8007	B-3
IC8008	C-3
IC8009	J-9
IC8012	I-8

*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 49)



< Conductor Side >

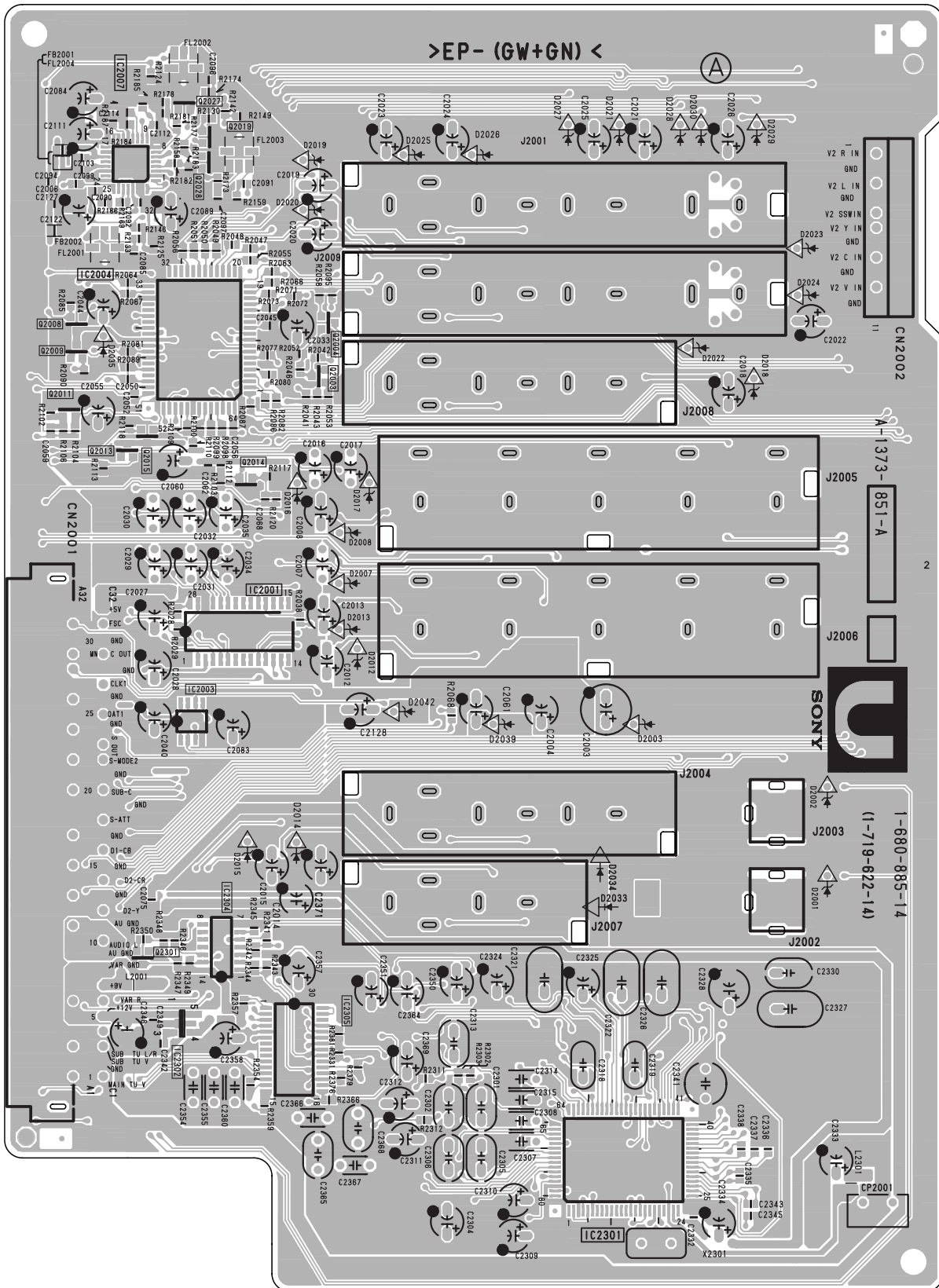
- G Board -





[VIDEO, AUDIO INPUT/OUTPUT, AV SWITCH, AUDIO PROCESSOR]

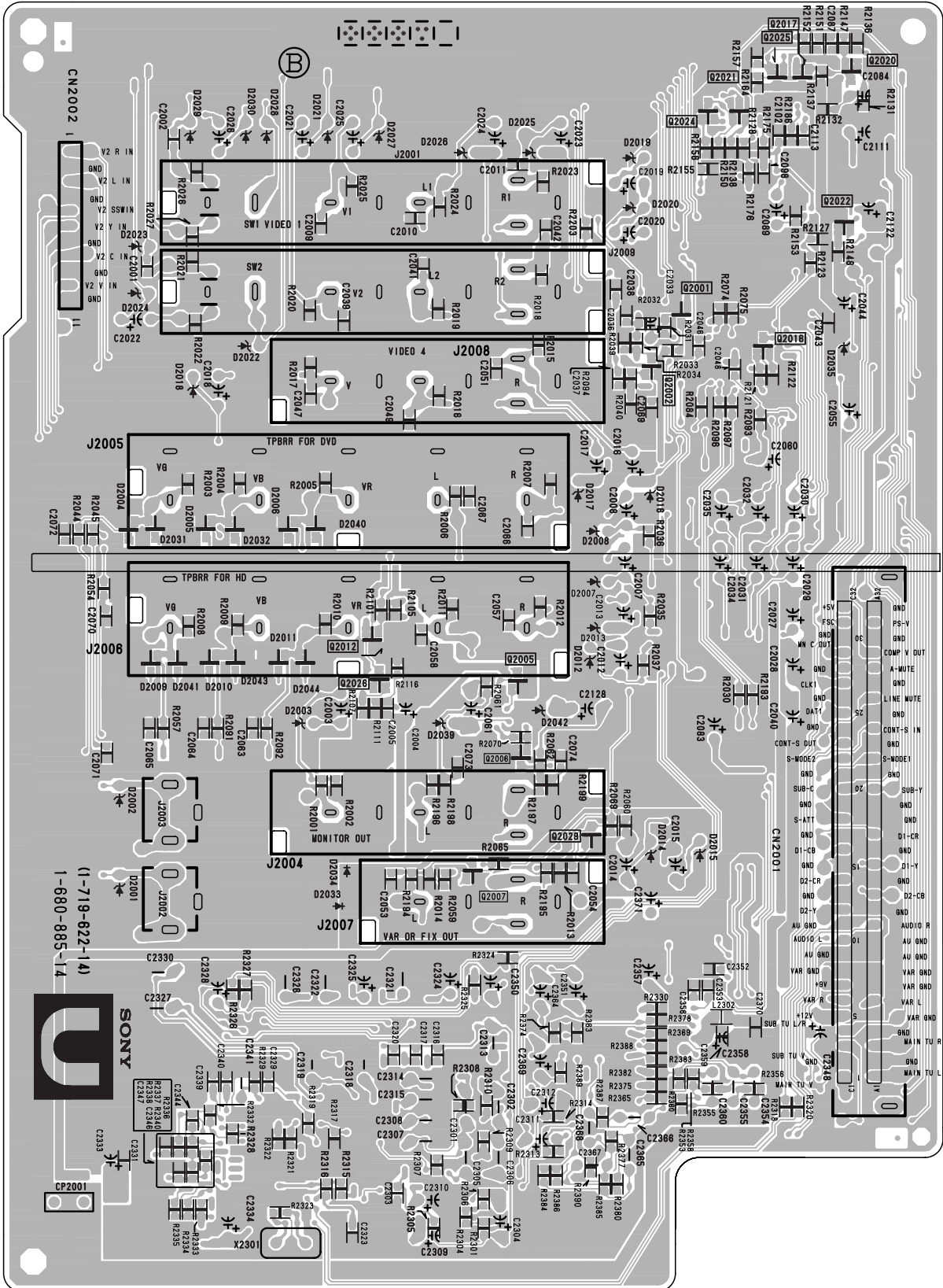
- U Board -



< Component Side >

U [VIDEO, AUDIO INPUT/OUTPUT, AV SWITCH, AUDIO PROCESSOR]

- U Board -

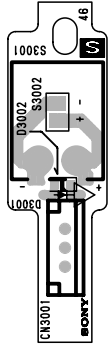


< Conductor Side >

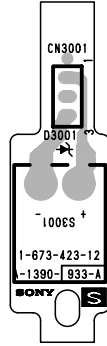
S [SENSOR]

V [SPEED MODULATION]

– S Board –

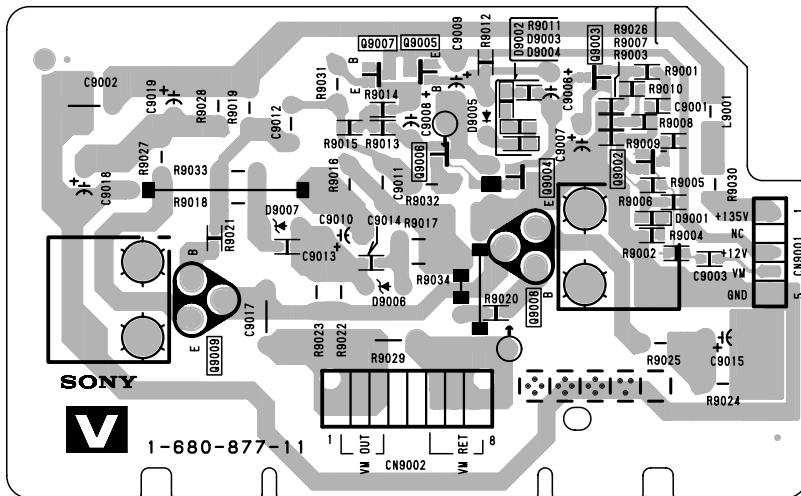


< Component Side >



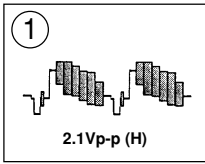
< Conductor Side >

– V Board –

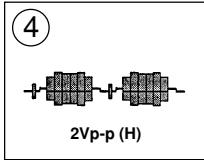
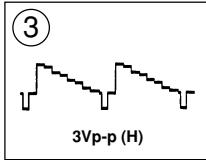
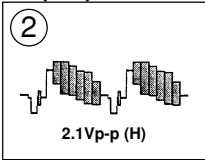


6-5. WAVEFORMS

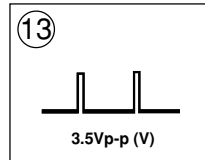
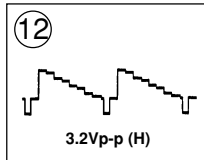
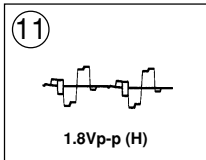
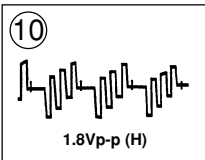
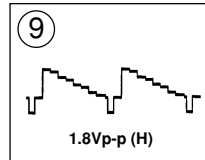
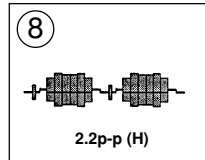
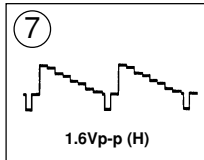
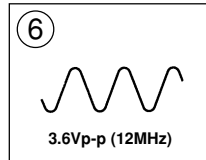
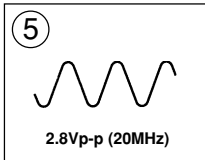
• A(1/9) BOARD WAVEFORMS



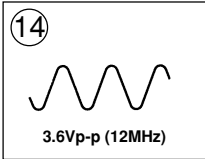
• A(2/9) BOARD WAVEFORMS



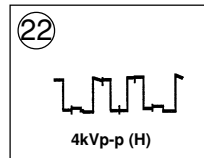
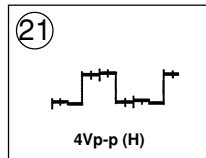
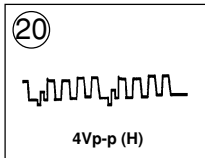
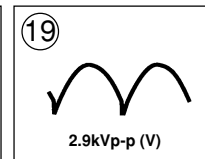
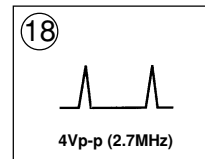
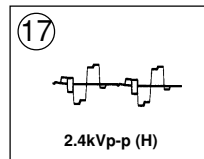
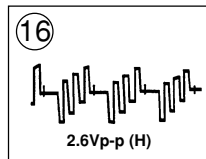
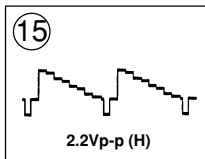
• A(3/9) BOARD WAVEFORMS



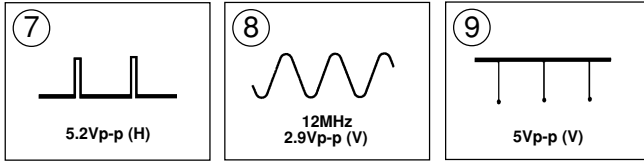
• A(4/9) BOARD WAVEFORMS



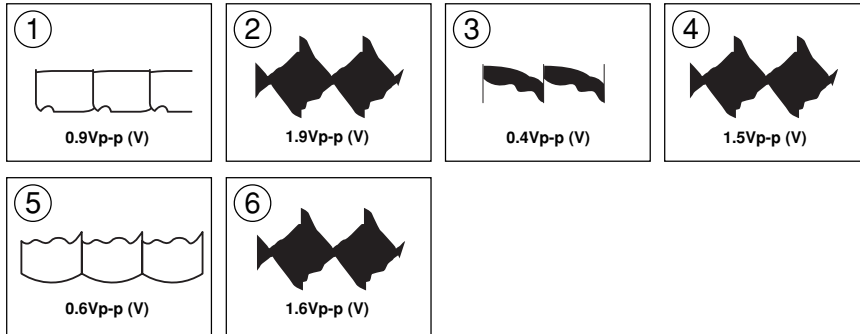
• A(5/9) BOARD WAVEFORMS



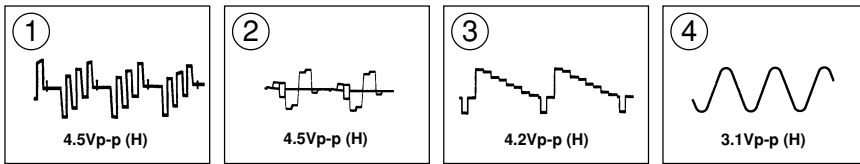
• AD(1/2) BOARD WAVEFORMS



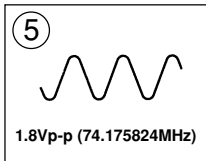
• AD(2/2) BOARD WAVEFORMS



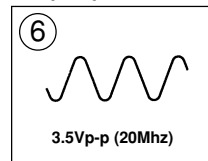
• B(1/4) BOARD WAVEFORMS



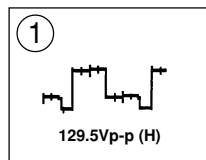
• B(3/4) BOARD WAVEFORMS



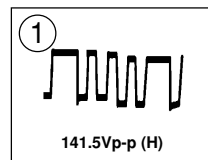
• B(4/4) BOARD WAVEFORMS



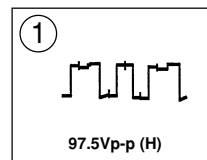
• CR BOARD WAVEFORM



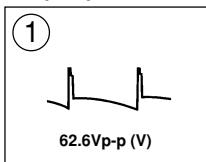
• CB BOARD WAVEFORM



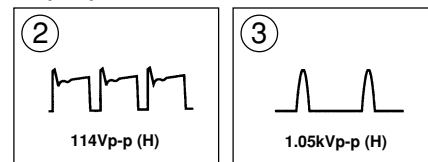
• CG BOARD WAVEFORMS



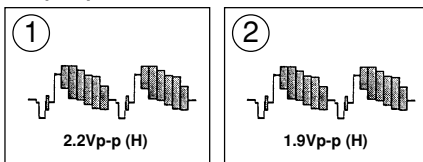
• D(1/3) BOARD WAVEFORMS



• D(3/3) BOARD WAVEFORMS

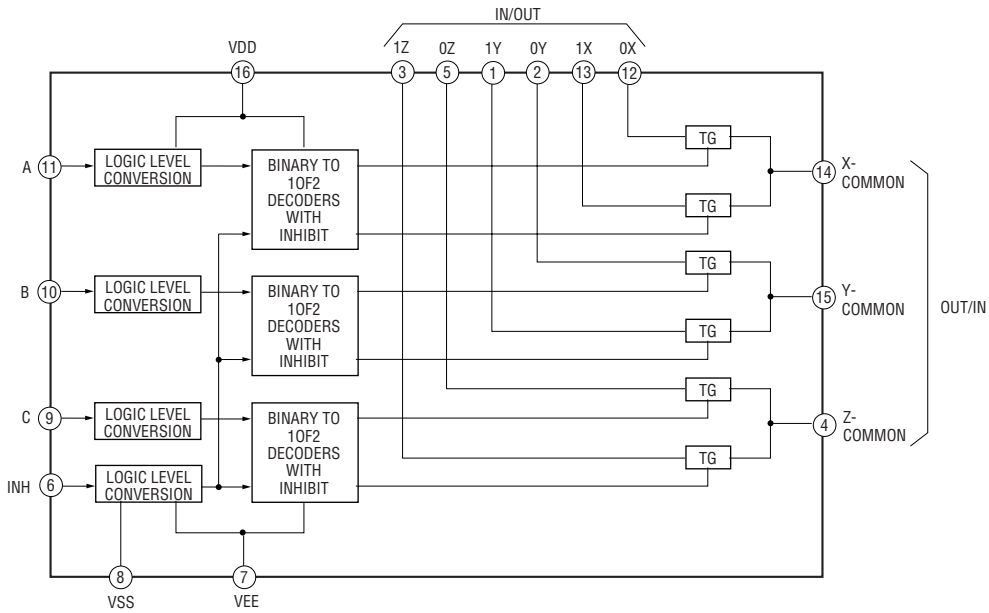


• U(2/3) BOARD WAVEFORMS

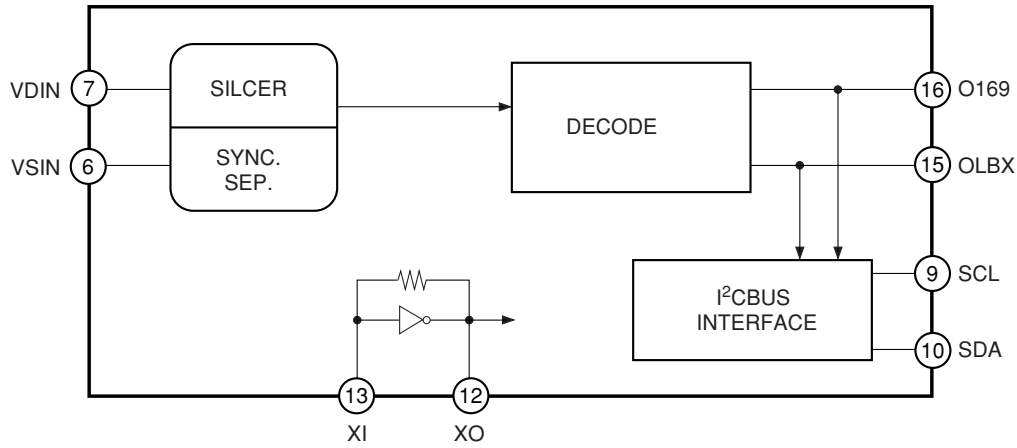


6-6. IC BLOCK DIAGRAMS

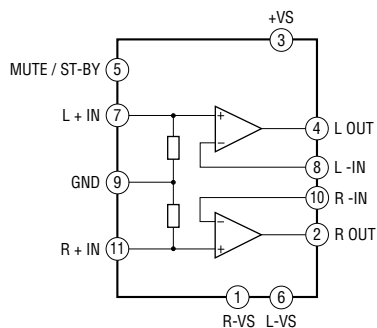
A BOARD : IC305, 307 SN74LV4053ANSR



A BOARD : IC308 CXD2085M



A BOARD : IC708 TDA7265



B BOARD : IC3305, 3404 TLC2932IPWR

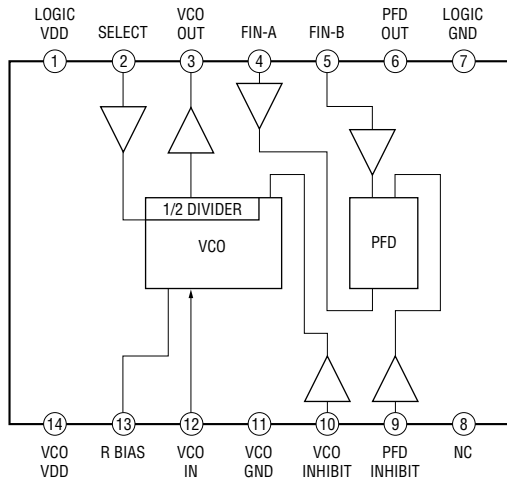
KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

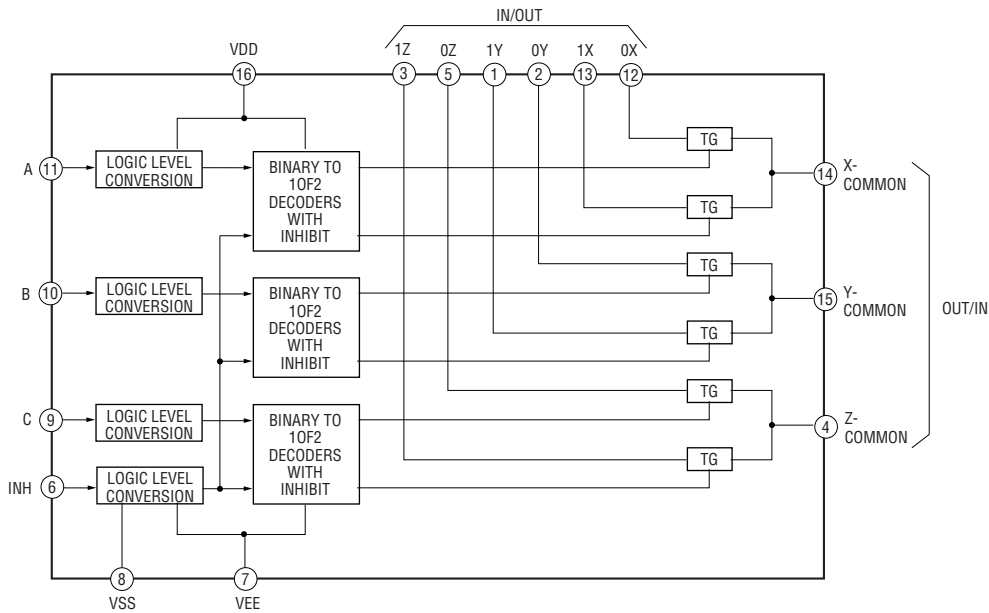
RM-Y909K

RM-Y908

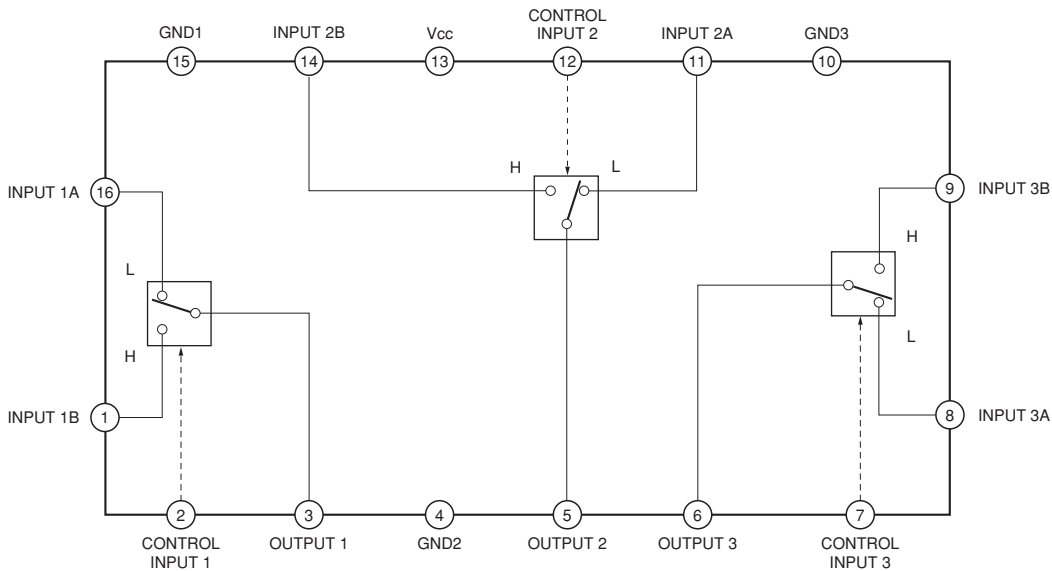
RM-Y909K

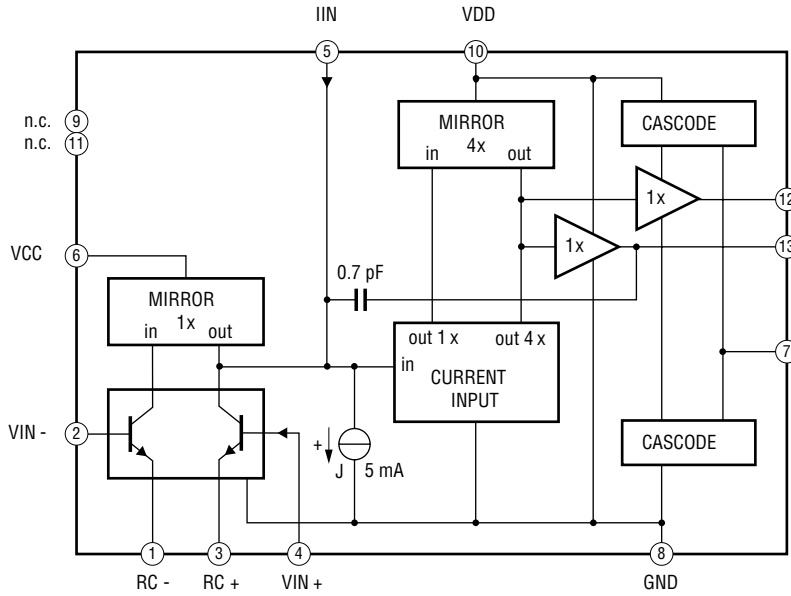


B BOARD : IC3413 SN74LV4053ANSR

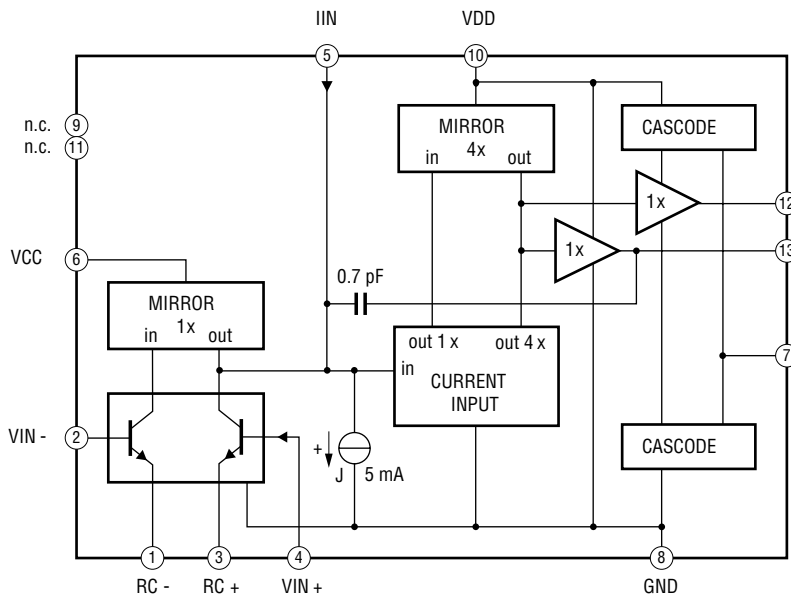


B BOARD : IC3414 M52055P

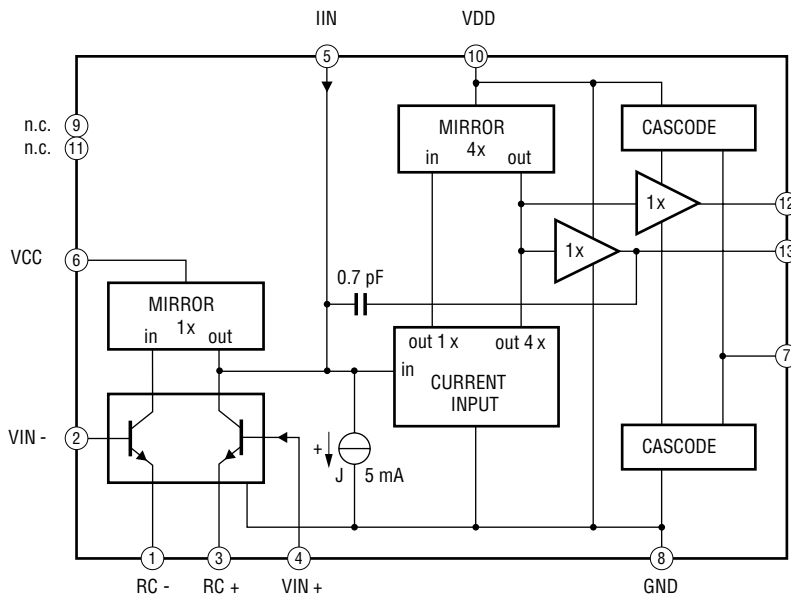


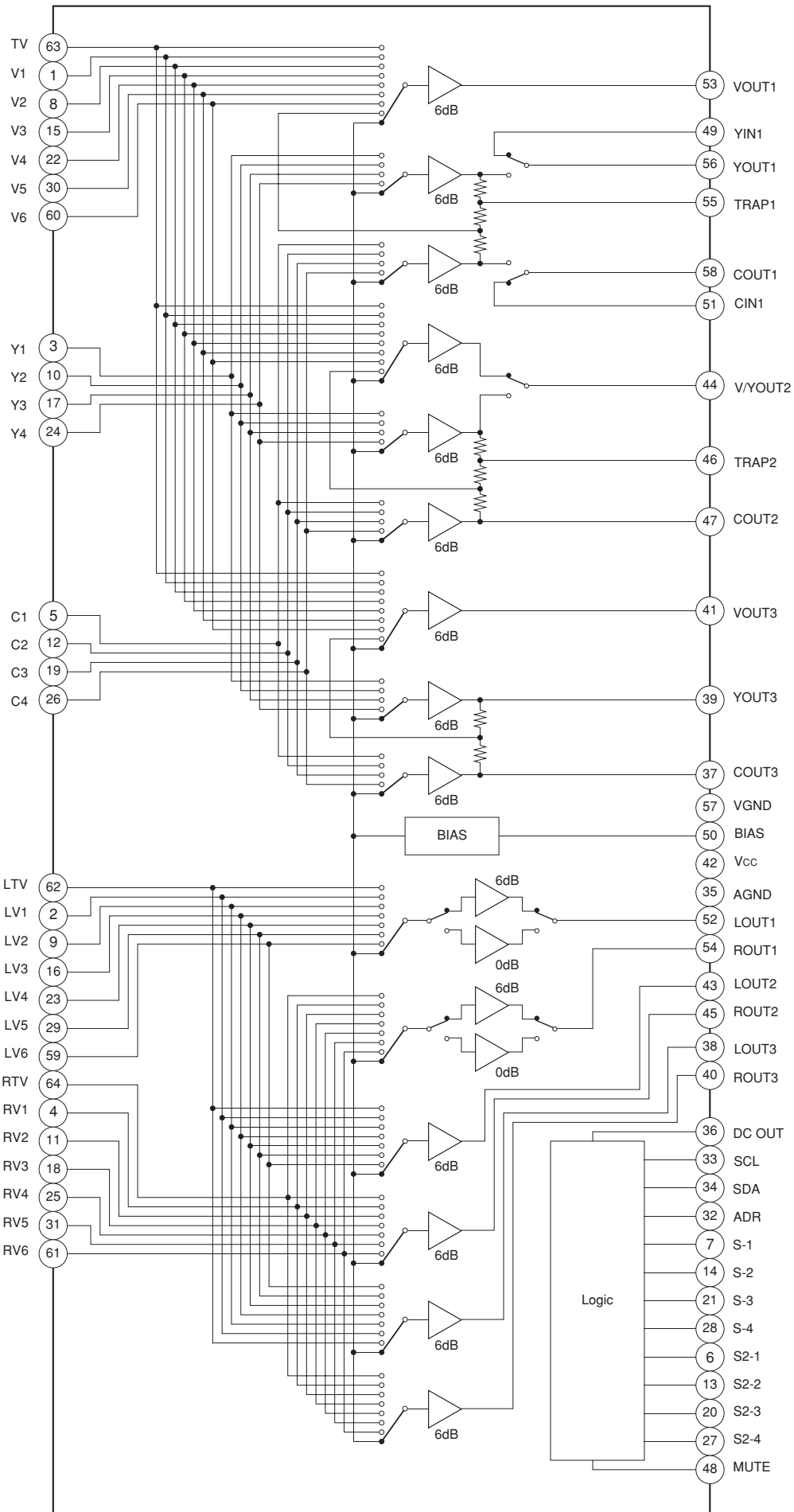


CG BOARD : IC7201 TDA6120Q



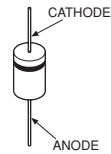
CB BOARD : IC7301 TDA6120Q



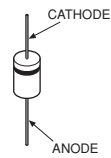


6-7. SEMICONDUCTORS

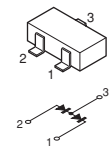
1SS83TD
21DP05
D1NL40-TR2
D1NS4
D2L20U
EL1Z
GP08DPKG23
RD10ES-B2
RD15ES-B2
RD18ES-B2
RD20ES-B2
RD5.6ES-B2
RGP02-17EL-6433
UF4005PKG23



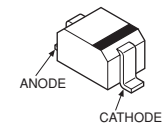
1SS133T-77
30DF4N-FC5
ERC04-06SE
ERC91-02



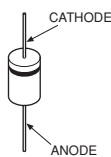
1SS226



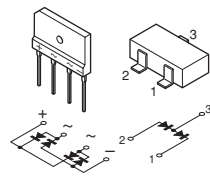
1S355TE-17
DTZ-10B
DTZ-TT11-6.8B
UDZS-TE-17-7.5B
UDZ-TE-17-10B
UDZS-TE-17-18B
UDZS-TE-17-22B
UDZS-TE-17-24B
UDZS-TE-17-3.9B
UDZS-TE-17-33B
UDZS-TE-17-4.7B
UDZS-TE-17-5.1B
UDZS-TE-17-5.6B
UDZS-TE-17-6.2B
UDZS-TE-17-9.1B



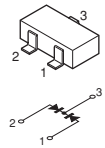
D1NL20U-TR



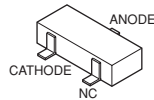
D4SBS4-F
D6SB60L



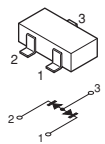
DAN202K-T-146



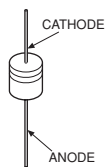
DAN202U



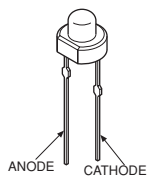
DAP202K



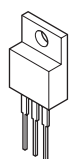
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MTZJ-T-77-22B



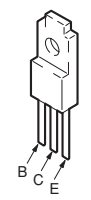
SLR-325VCT31



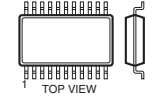
BA033T
NJM7812FA
TA7812S



BA05T

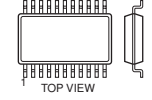


BA9759F-E2



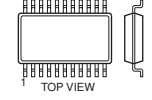
18pin SOP

BH3868BFS-E2



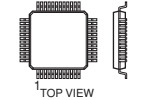
32pin SOP

CD0031AM



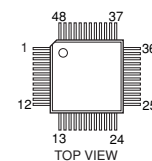
48pin SOP

CM0017AF

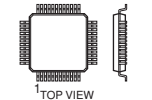


120pin QFP

CXA2151Q
CXD2013Q-T6

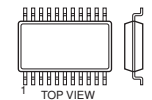


CXD2073Q-T4



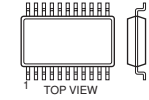
32pin QFP

CXD2085M
PCM56P-L
SN74LV4053ANSR



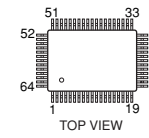
16pin SOP

CXA1726AM
NJM2180M

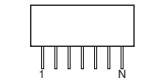


30pin SOP

CXA2069Q
CXP85840A-039Q
CXP86448-635Q
CX2150AQ



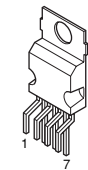
DM-58



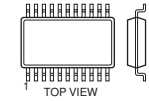
MARKING SIDE VIEW
• pin 1 ~ N
• Mt (one side, both side)

14pin DIP

LA78045

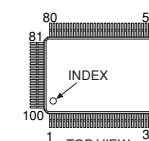


M24C08-MN6T
M24C32-WMN6T
NJM2068V
NJM2904M
UPC4558G2

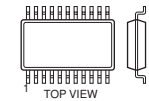


8pin SOP

M306V2ME-175FP
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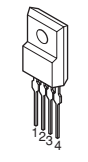


MSM514265C-60JS



40pin SOP

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PQ09RF21

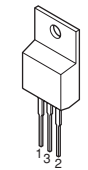


NJM2903M
UPC393C

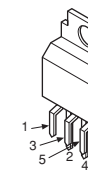


8pin DIP

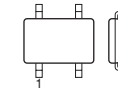
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PQ1CG2032FZ

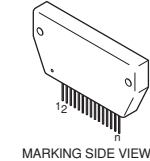


PST9143NL
PST9145NL

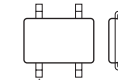


5pin CHIP

STK392-560

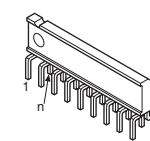


TC7W08FU(TE12R)



8pin CHIP

TDA6120Q / N2/S2

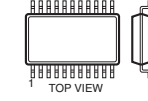


TDA7265



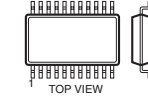
11pin ZIP

TEA6422DT



28pin SOP

TLC2933IPWR

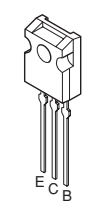


14pin SOP

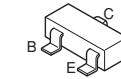
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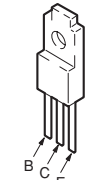
2SA1358-Y
2SA3421-Y



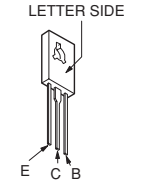
2SA1037AK-T146R
2SA1226-T1E3E4
2SC1623-L516
2SD601A-QRS-TX
DTC114EKA-T146
DTC144EKA-T146



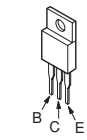
2SA2005
2SC5511



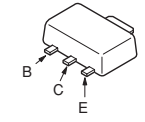
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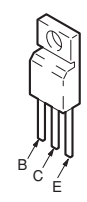
2SC4634LS-CB11



2SK2036(TE85L)



IRFIB7N50A



SECTION 7
EXPLODED VIEWS

NOTE:

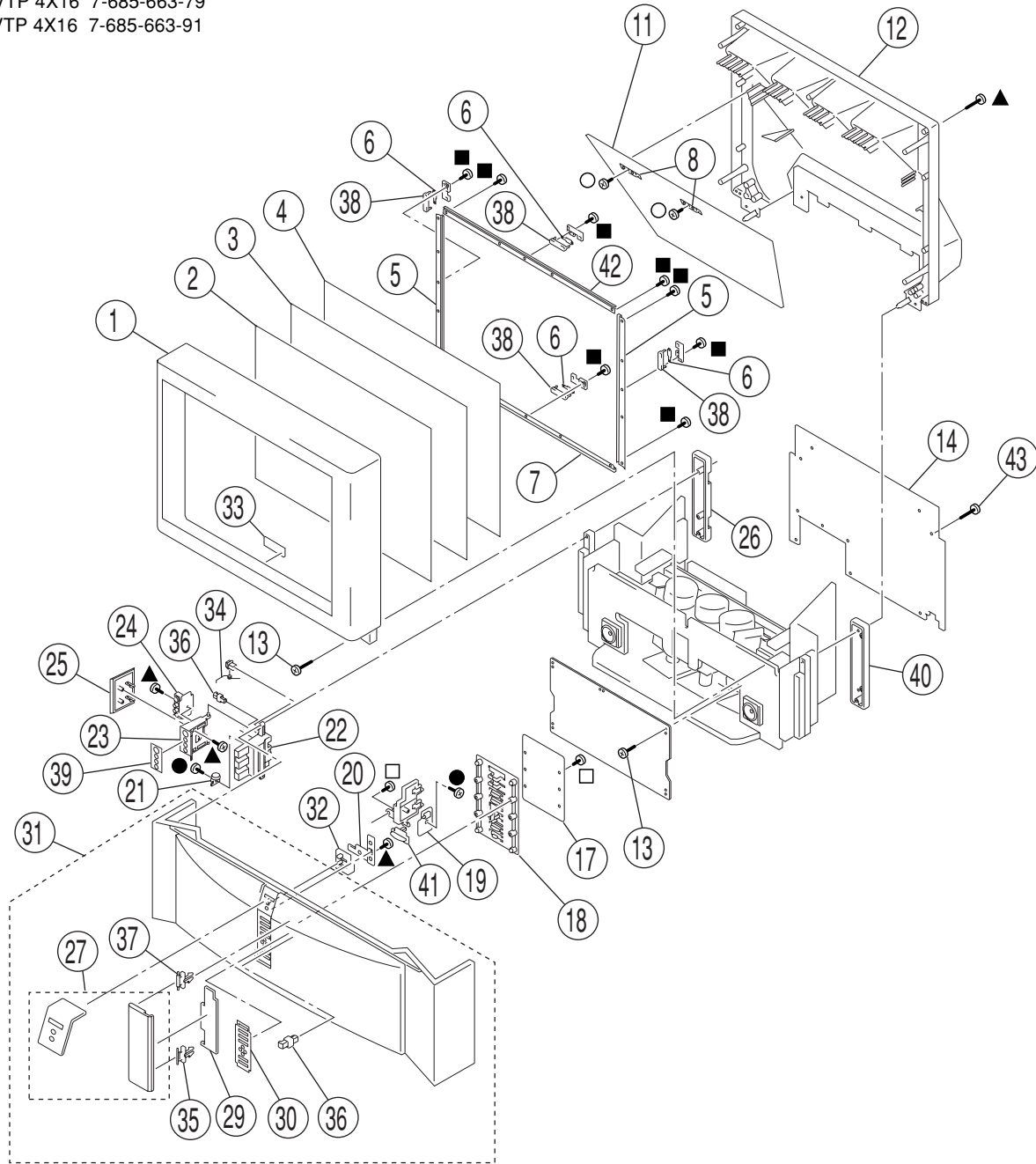
- Items with no part number and no description are not stocked because they are seldom required for routine service
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ▲ are critical for safety. Replace only with part number specified.

7-1. COVER (KP-HR432K90)

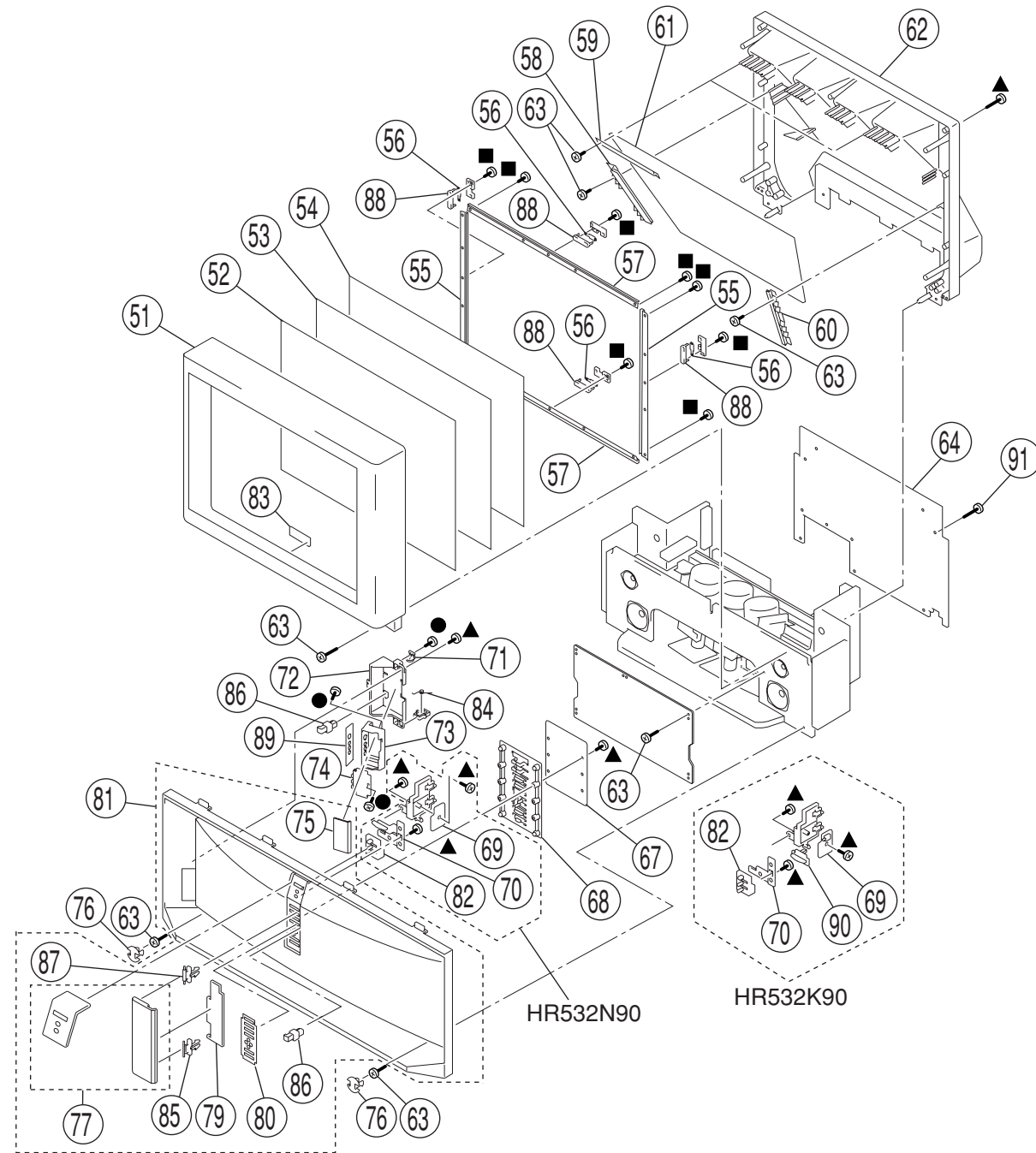
- : +BVTP 3X12 7-685-648-79
- : +BVTP 4X12 7-685-661-79
- : +BVTP 4X12 7-685-661-71
- : +BVTP 4X16 7-685-663-79
- ▲ : +BVTP 4X16 7-685-663-91



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4037-770-3	BEZEL (43) ASSY		25	4-082-300-11	DOOR, SIDE TERMINAL	
2	4-078-189-11	SCREEN (43), CONTRAST		26	4-082-298-01	CAP (L), SPEAKER GRILLE	
3	4-070-284-11	PLATE (L), DIFFUSION		27	4-083-502-21	PANEL (ASSY), FRONT	
4	4-070-285-12	PLATE (43F), DIFFUSION		29	4-082-282-01	COVER, CONTROL DOOR	
5	* 4-070-333-21	HOLDER (S), SCREEN NC		30	4-082-291-02	LABEL, CONTROL	
6	* A-1391-179-A	S BOARD, COMPLETE		31	X-4039-541-1	GRILLE (43) ASSY, SP	25,27,29,30,35,36,37
7	* 4-070-332-31	HOLDER (L), SCREEN NC		32	4-082-286-01	GUIDE, LED	
8	* 4-081-501-01	HOLDER, MIRROR		33	* A-1377-061-A	H4 BOARD, COMPLETE	
11	4-085-508-01	MIRROR (43)		34	4-083-694-01	SPRING, DOOR	
12	* 4-081-500-01	COVER (43), MIRROR		35	3-703-035-12	SHAFT, LID	
13	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD		36	4-042-192-02	CATCHER, PUSH	
14	* 4-085-474-01	BOARD (43), REAR		37	4-045-250-01	DAMPER	
17	* A-1377-062-A	H2 BOARD, COMPLETE		38	* 4-069-680-01	BRACKET (B), SENSOR	
18	4-082-284-01	BUTTON, MULTI		39	4-086-330-01	LABEL, FRONT TERMINAL	
19	* A-1377-063-A	H1 BOARD, COMPLETE		40	4-082-299-01	CAP (R), SPEAKER GRILLE	
20	4-082-283-21	BUTTON, POWER		41	4-085-452-01	BUTTON, POWER	
21	4-919-393-02	DAMPER		42	4-070-333-31	HOLDER (S), SCREEN NC	
22	4-082-302-01	HOLDER, SIDE TERMINAL		43	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
23	4-082-301-02	BRACKET, H3					
24	* A-1377-065-A	H3 BOARD, COMPLETE					

7-2. COVER (KP-HR532K90/HR532N90)

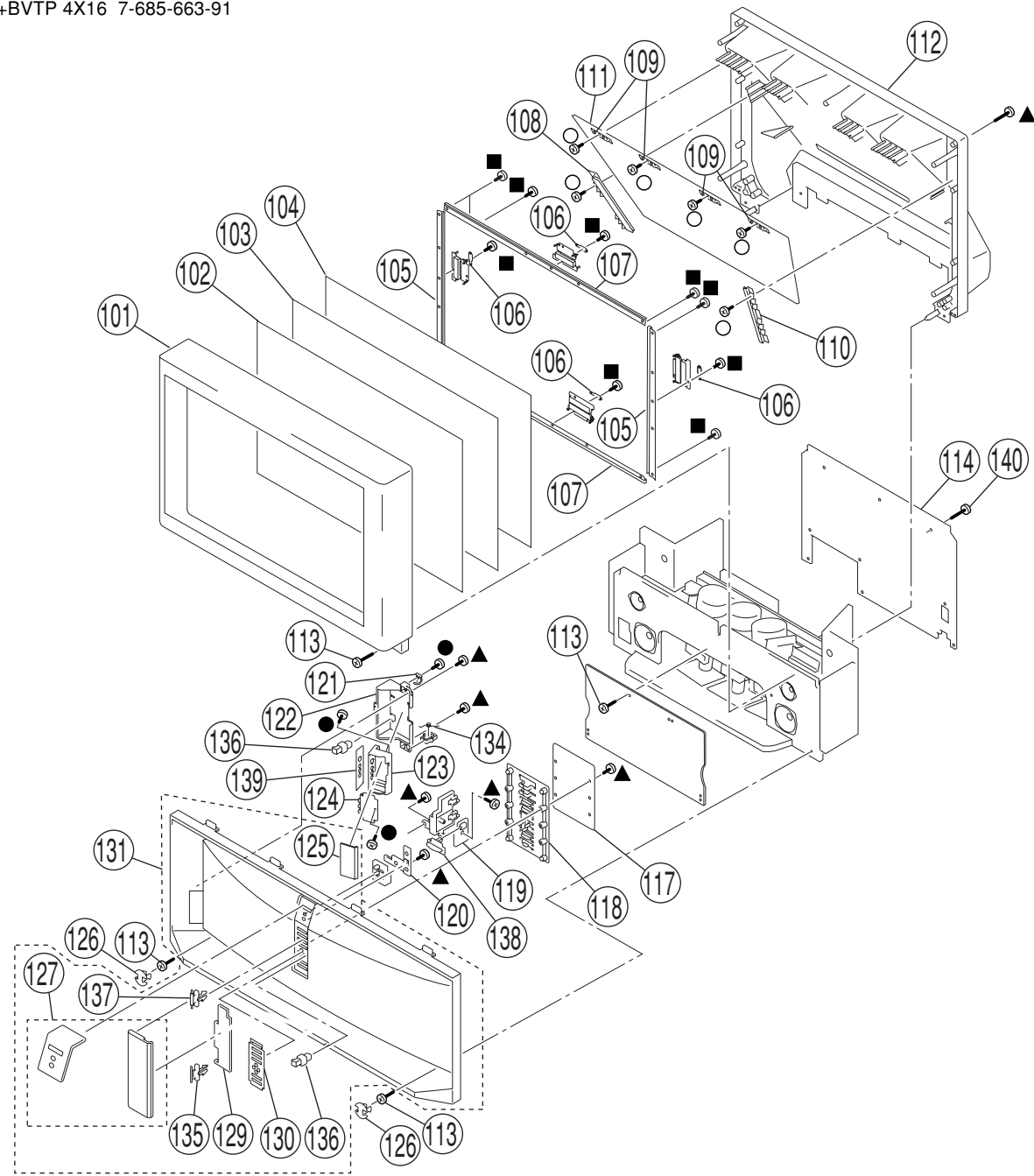
- : +BVTP 3X12 7-685-648-79
- : +BVTP 4X12 7-685-661-79
- ▲ : +BVTP 4X16 7-685-663-91



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	X-4039-545-1	BEZNET (53) ASSY		73	4-082-288-02	BRACKET, H3	
52	4-055-639-11	SCREEN (53), CONTRAST		74	* A-1377-065-A	H3 BOARD, COMPLETE	
53	4-070-525-11	PLATE (L), DIFFUSION		75	4-082-287-11	DOOR, FRONT TERMINAL	
54	4-070-602-11	PLATE (53F), DIFFUSION		76	4-083-503-11	SCREW CAP, GRILLE	
55	* 4-070-330-02	HOLDER (S), SCREEN YC		77	4-083-502-21	PANEL (ASSY), FRONT	
56	* A-1391-179-A	S BOARD, COMPLETE		79	4-082-282-01	COVER, CONTROL DOOR	
57	* 4-070-328-12	HOLDER (L), SCREEN YC		80	4-082-291-02	LABEL, CONTROL	
58	* 4-076-705-01	HOLDER (SL), MIRROR		81	X-4039-542-1	GRILLE ASSY, SPEAKER	75,77,79,80,85,86,87 (HR532N90)
59	* 4-075-234-01	HOLDER (TOP), MIRROR			X-4039-546-1	GRILLE (53) ASSY, SPEAKER	75,77,79,80,85,86,87 (HR532K90)
60	* 4-076-706-01	HOLDER (SR), MIRROR		82	4-082-286-01	GUIDE, LED	
61	4-070-344-01	MIRROR, REFLECTION		83	* A-1377-061-A	H4 BOARD, COMPLETE	
62	* 4-081-503-01	COVER, MIRROR		84	4-083-505-01	SPRING, DOOR	
63	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD		85	3-703-035-12	SHAFT, LID	
64	* 4-085-475-01	BOARD (53), REAR		86	4-042-192-02	CATCHER, PUSH	
67	* A-1377-062-A	H2 BOARD, COMPLETE		87	4-045-250-01	DAMPER	
68	4-082-284-01	BUTTON, MULTI		88	* 4-069-680-01	BRACKET (B), SENSOR	
69	* A-1377-063-A	H1 BOARD, COMPLETE	(HR532K90)	89	4-086-330-01	LABEL, FRONT TERMINAL	
	* A-1377-066-A	H1 BOARD, COMPLETE	(HR532N90)	90	4-085-452-01	BUTTON, POWER (HR532K90)	
70	4-082-283-11	BUTTON, POWER (HR532N90)		91	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
	4-082-283-21	BUTTON, POWER (HR532K90)					
71	4-919-393-02	DAMPER					
72	4-082-289-01	HOLDER, FRONT TERMINAL					

7-3. COVER (KP-HW572K90)

- : +BVTP 3X12 7-685-648-79
- : +BVTP 4X12 7-685-661-79
- : +BVTP 4X16 7-685-663-79
- ▲ : +BVTP 4X16 7-685-663-91

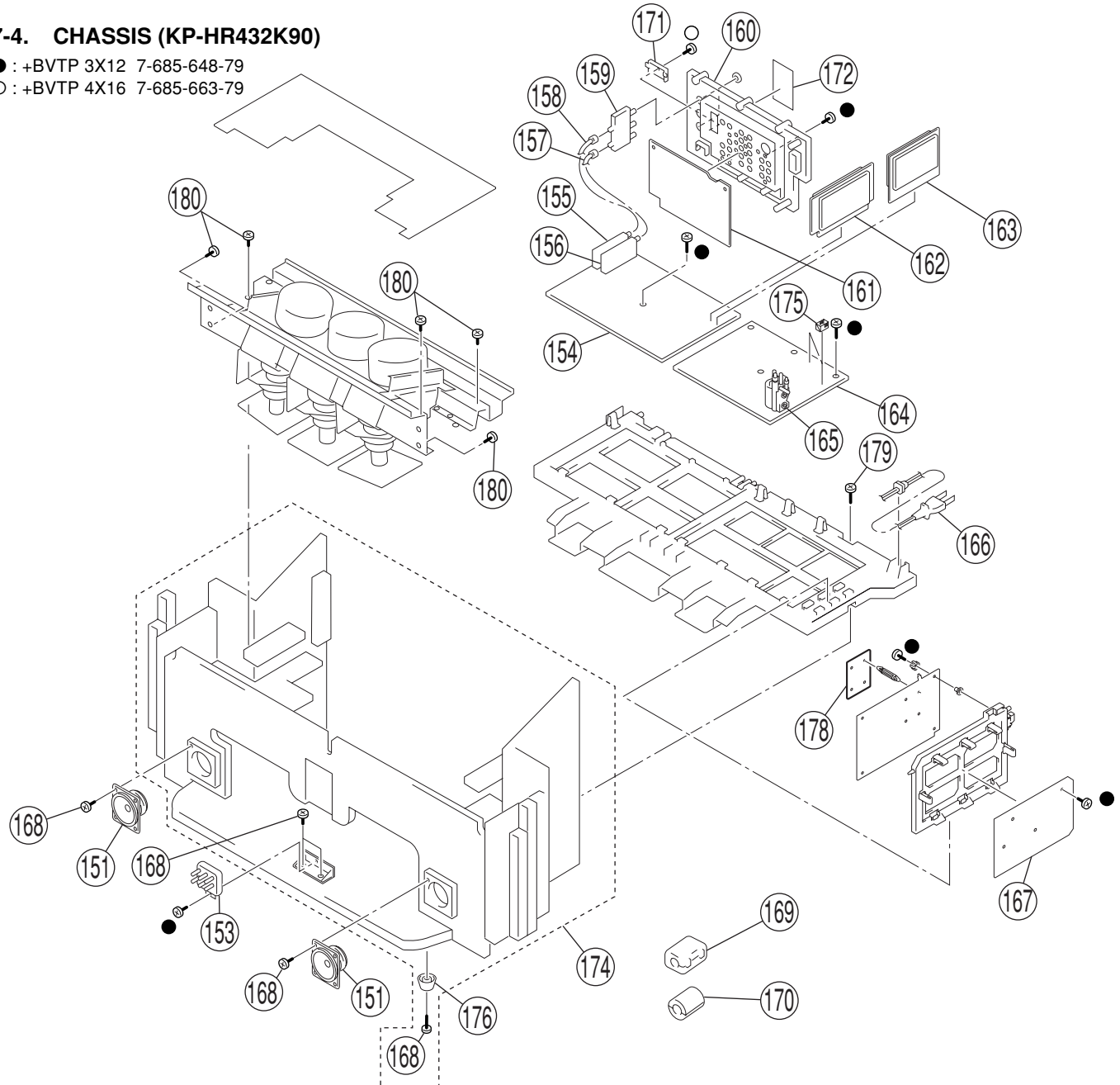


REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	X-4039-626-1	BEZNET (57) ASSY		122	4-082-289-01	HOLDER, FRONT TERMINAL	
102	4-086-327-11	SCREEN (57W), CONTRAST		123	4-082-288-02	BRACKET, H3	
103	4-081-949-11	PLATE (57WL), DIFFUSION		124	* A-1377-065-A	H3 BOARD, COMPLETE	
104	4-081-950-11	PLATE (57WFV), DIFFUSION		125	4-083-468-11	DOOR, FRONT TERMINAL	
105	* 4-084-568-01	HOLDER, SCREEN		126	4-083-503-01	SCREW CAP, GRILLE	
106	* A-1391-179-A	S BOARD, COMPLETE		127	4-084-563-11	PANEL ASSY, FRONT	
107	* 4-084-568-11	HOLDER, SCREEN		129	4-083-731-01	COVER (HW), CONTROL DOOR	
108	* 4-083-462-01	HOLDER (L), MIRROR SIDE		130	4-084-571-03	LABEL (HW), CONTROL	
109	* 4-081-501-01	HOLDER, MIRROR		131	X-4039-590-1	GRILLE (57) ASSY, SPEAKER	125,127,129,130,136,137
110	* 4-083-461-01	HOLDER (R), MIRROR SIDE		134	4-083-505-01	SPRING, DOOR	
111	4-084-561-01	MIRROR (57)		135	3-703-035-11	SHAFT, LID	
112	* X-4039-824-1	COVER ASSY, MIRROR		136	4-042-192-02	CATCHER, PUSH	
113	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD		137	4-045-250-01	DAMPER	
114	* 4-085-688-01	BOARD, REAR		138	4-085-452-01	BUTTON, POWER	
117	* A-1377-062-A	H2 BOARD, COMPLETE		139	4-086-330-01	LABEL, FRONT TERMINAL	
118	4-082-284-01	BUTTON, MULTI		140	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
119	* A-1377-080-A	H1 BOARD, COMPLETE (VAR)					
120	4-082-283-21	BUTTON, POWER					
121	4-919-393-02	DAMPER					

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

7-4. CHASSIS (KP-HR432K90)

- : +BVTP 3X12 7-685-648-79
- : +BVTP 4X16 7-685-663-79

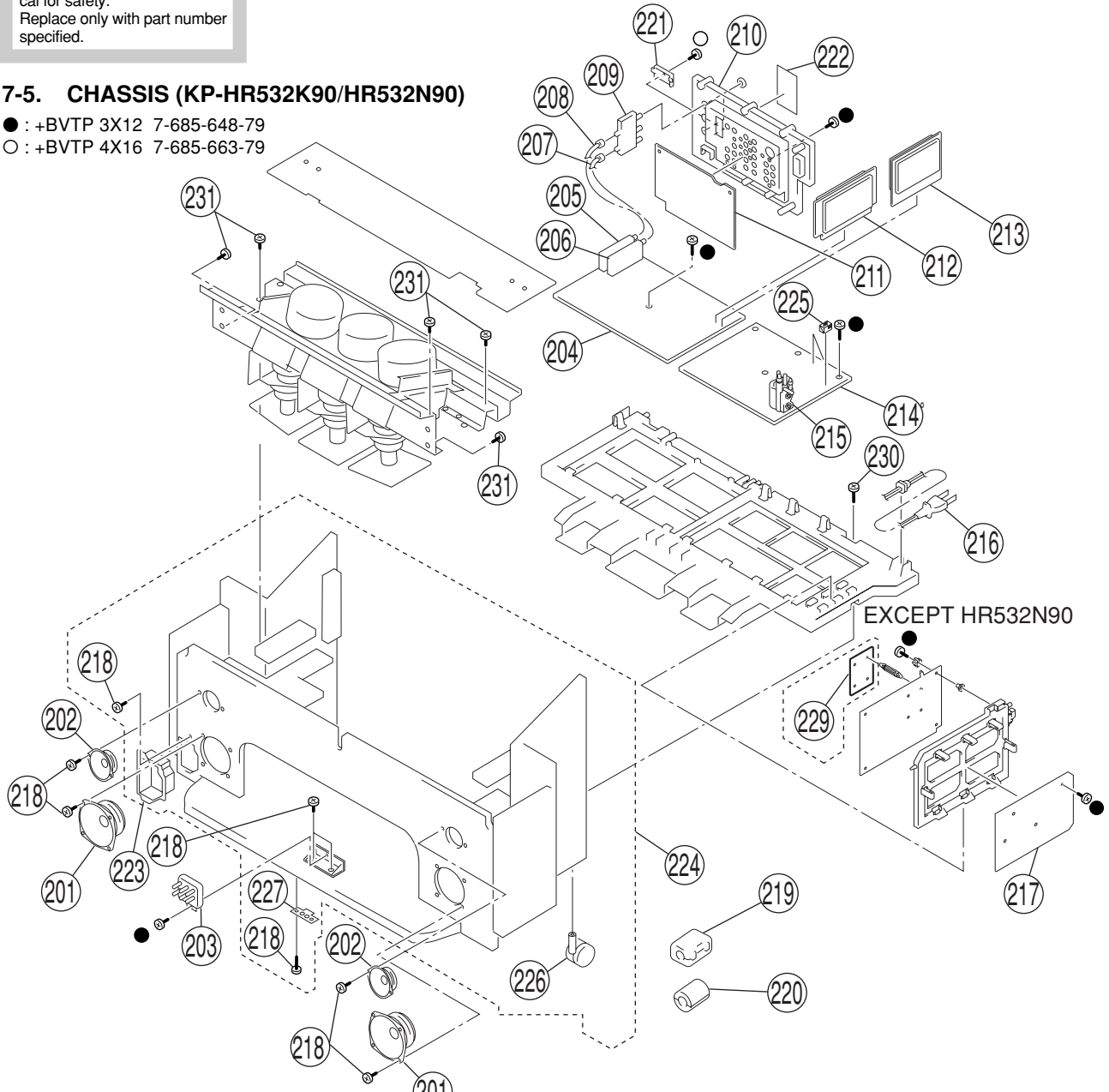


REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
151	1-544-893-11	SPEAKER (10cm)		165	Δ 1-453-285-21	FBT ASSY, NX-4006//X4P4 (T8005)	
153	Δ 1-223-925-11	RESISTOR ASSY (HIGH VOLTAGE) (FOCUS PACK)		166	Δ 1-823-473-11	CORD, AC POWER (WITH FILTER)	
154	* A-1299-633-A	A BOARD, COMPLETE		167	* A-1316-596-A	G BOARD, COMPLETE	
155	8-598-475-01	TUNER, FSS BTF-WL411 (TU2)		168	4-378-522-31	SCREW,TAPPING,HEXAGON HEAD	
156	8-598-430-50	TUNER, FSS BTF-FA401 (TU1)		169	1-500-021-11	CLAMP, SLEEVE FERRITE	
157	* 1-557-056-31	CABLE, P-P		170	1-543-653-11	CORE ASSY, BEAD(DIVISION TYPE)	
158	* 1-556-945-21	CABLE, P-P		171	4-069-675-01	CAP, TERMINAL BOARD	
159	1-771-787-11	SWITCH, RF ANTENNA		172	4-086-329-01	LABEL, TERMINAL	
160	4-081-961-01	BOARD, TERMINAL		174	* X-4039-543-1	CABINET (43) ASSY, BOTTOM	176
161	* A-1373-882-A	U BOARD, COMPLETE		175	3-710-578-01	COVER VOLUME 6 MOLD	
162	* A-1136-267-A	B BOARD, COMPLETE		176	4-076-577-01	FOOT	
163	* A-1299-634-A	AD BOARD, COMPLETE		178	* A-1241-525-A	F BOARD,COMPLETE	
164	* A-1348-132-A	D BOARD, COMPLETE		179	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
				180	4-052-894-01	SCREW (4X20), HEAD TAPPING	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

7-5. CHASSIS (KP-HR532K90/HR532N90)

- : +BVTP 3X12 7-685-648-79
- : +BVTP 4X16 7-685-663-79



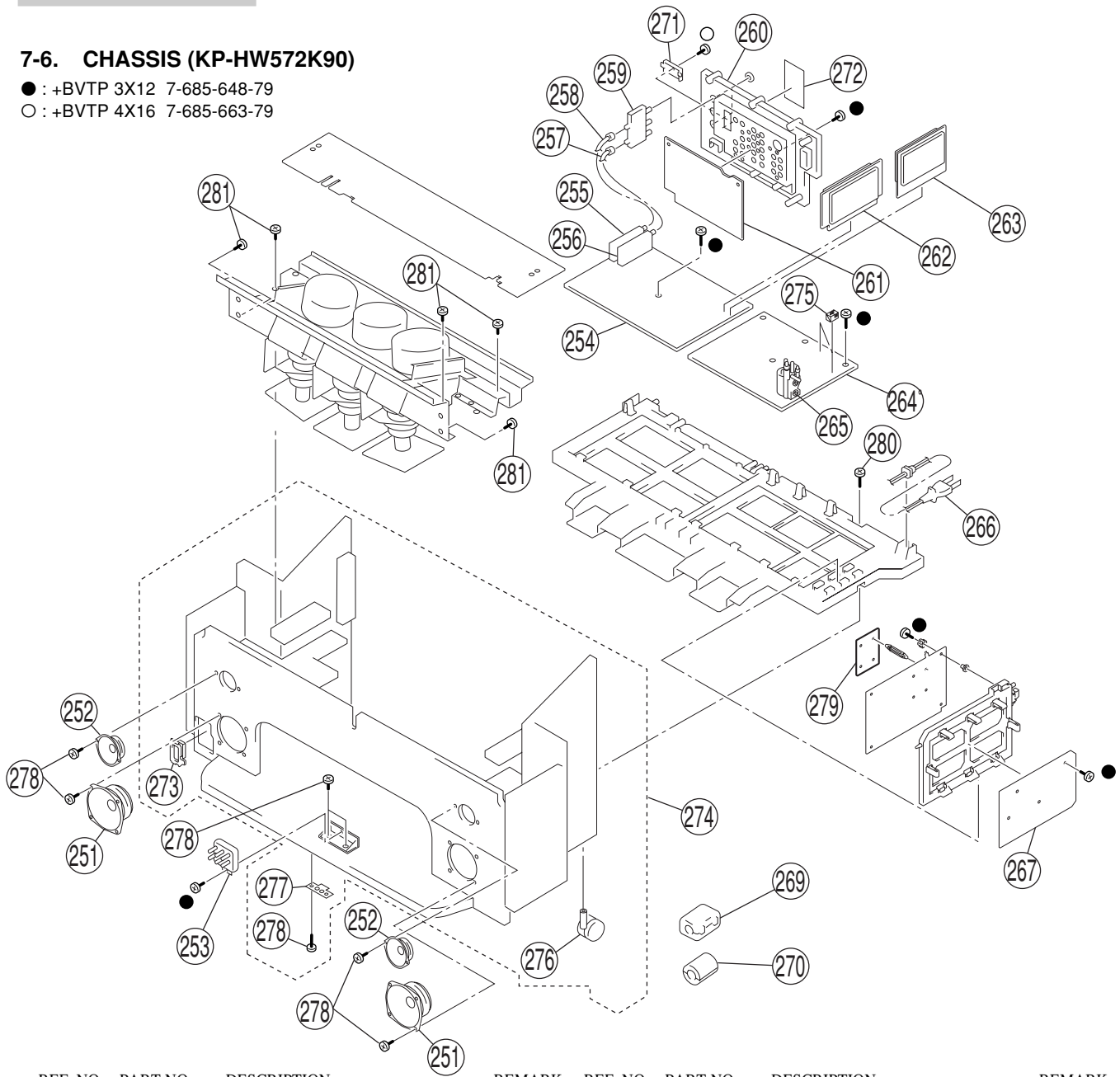
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
201	1-544-849-11	SPEAKER (13cm)		216	Δ 1-790-130-11	CORD, AC POWER (WITH CONNECTOR)	(HR532N90)
202	1-529-403-31	SPEAKER (6.6cm)			Δ 1-823-473-11	CORD, AC POWER (WITH FILTER)	(HR532K90)
203	Δ 1-223-925-11	RESISTOR ASSY (HIGH VOLTAGE)					
		(FOCUS PACK)					
204	* A-1299-633-A	A BOARD, COMPLETE		217	* A-1316-596-A	G BOARD, COMPLETE	(HR532K90)
205	8-598-475-01	TUNER, FSS BTF-WL411 (TU2)	(HR532K90)		* A-1316-597-A	G BOARD, COMPLETE	(HR532N90)
	8-598-542-20	TUNER, FSS BTF-WA412 (TU2)	(HR532N90)	218	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
206	8-598-430-50	TUNER, FSS BTF-FA401 (TU1)		219	1-500-021-11	CLAMP, SLEEVE FERRITE	
207	* 1-557-056-31	CABLE, P-P		220	1-543-653-11	CORE ASSY, BEAD (DIVISION TYPE)	
208	* 1-556-945-21	CABLE, P-P		221	4-069-675-01	CAP, TERMINAL BOARD	
209	1-771-787-11	SWITCH, RF ANTENNA		222	4-086-329-01	LABEL, TERMINAL	
210	4-081-961-01	BOARD, TERMINAL		223	* 4-083-506-01	COVER, CABINET (HS)	
211	* A-1373-882-A	U BOARD, COMPLETE		224	* X-4039-544-1	CABINET (53) ASSY, BOTTOM	223, 226, 227
212	* A-1136-267-A	B BOARD, COMPLETE		225	3-710-578-01	COVER VOLUME 6 MOLD	
213	* A-1299-634-A	AD BOARD, COMPLETE		226	4-075-244-01	CASTER (30 DIA.)	
214	* A-1348-132-A	D BOARD, COMPLETE		227	4-075-874-01	FOOT, PLASTIC	
215	Δ 1-453-285-21	FBT ASSY, NX-4006//X4P4 (T8005)		229	* A-1241-525-A	F BOARD, COMPLETE	(HR532K90)
				230	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
				231	4-052-894-01	SCREW (4X20), HEAD TAPPING	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

7-6. CHASSIS (KP-HW572K90)

● : +BVTP 3X12 7-685-648-79

○ : +BVTP 4X16 7-685-663-79

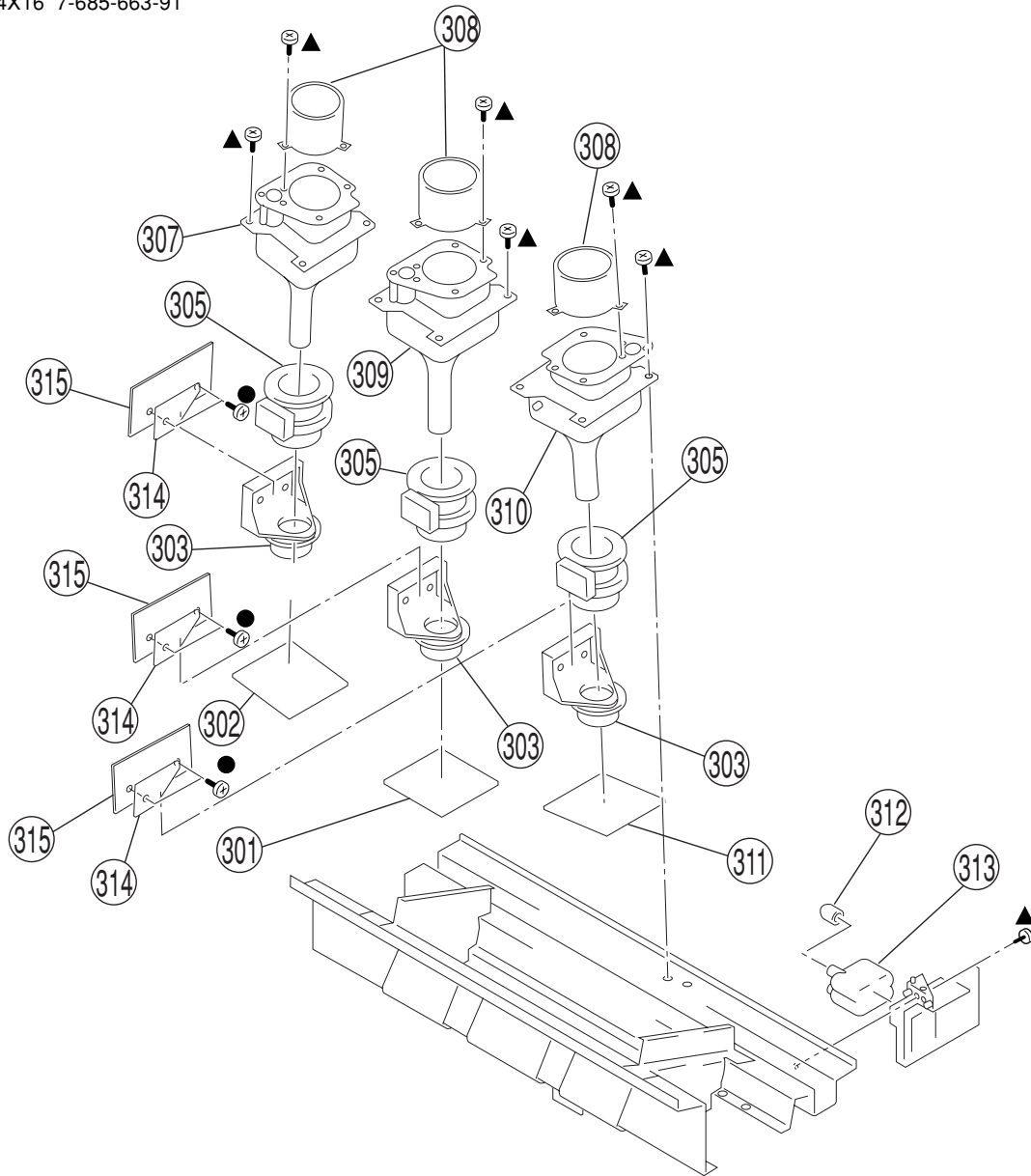


REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
251	1-544-894-11	SPEAKER (13cm)		266	Δ 1-823-473-11	CORD, AC POWER (WITH FILTER)	
252	1-529-403-31	SPEAKER (6.6cm)		267	* A-1316-596-A	G BOARD, COMPLETE	
253	Δ 1-223-925-11	RESISTOR ASSY (HIGH-VOLTAGE) (FOCUS PACK)		269	1-500-021-11	CLAMP, SLEEVE FERRITE	
254	* A-1299-656-A	A BOARD, COMPLETE		270	1-543-653-11	CORE ASSY, BEAD (DIVISION TYPE)	
255	8-598-475-01	TUNER, FSS BTF-WL411 (TU2)		271	4-069-675-01	CAP, TERMINAL BOARD	
256	8-598-430-50	TUNER, FSS BTF-FA401 (TU1)		272	4-086-329-11	LABEL, TERMINAL	
257	* 1-557-056-31	CABLE, P-P		273	* 4-084-570-01	COVER, CABINET (HW)	
258	* 1-556-945-21	CABLE, P-P		274	X-4039-602-1	CABINET (57) ASSY, BOTTOM	273, 276, 277
259	1-771-787-11	SWITCH, RF ANTENNA		275	3-710-578-01	COVER, VOLUME, 6 MOLD	
260	4-081-961-01	BOARD, TERMINAL		276	4-075-244-01	CASTER (DIA. 30)	
261	* A-1373-890-A	U BOARD, COMPLETE		277	4-075-874-01	FOOT, PLASTIC	
262	* A-1136-267-A	B BOARD, COMPLETE		278	4-378-522-31	SCREW, TAPPING, HEXAGON HEAD	
263	* A-1299-634-A	AD BOARD, COMPLETE		279	* A-1241-525-A	F BOARD, COMPLETE	
264	* A-1348-132-A	D BOARD, COMPLETE		280	4-378-522-01	SCREW, TAPPING, HEXAGON HEAD	
265	Δ 1-453-285-21	FBT ASSY, NX-4006//X4P4 (T8005)		281	4-052-894-01	SCREW (4X20), HEAD TAPPING	

7-7. PICTURE TUBE

● : +BVTP 3X12 7-685-648-79

▲ : +BVTP 4X16 7-685-663-91



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
301	* A-1332-251-A	CG BOARD, COMPLETE	(EXCEPT HW572K90)	309	▲ 4-083-750-01	LENS (DELTA 260)(HW572K90)	
	* A-1332-265-A	CG BOARD, COMPLETE	(HW572K90)		▲ A-1501-976-	ACOUPLER (G) ASSY, CRT	(EXCEPT HW572K90)
302	* A-1332-250-A	CR BOARD, COMPLETE	(EXCEPT HW572K90)		▲ A-1502-025-	ACOUPLER (G) ASSY, CRT	(HW572K90)
	* A-1332-264-A	CR BOARD, COMPLETE	(HW572K90)	310	▲ A-1501-977-	ACOUPLER (B) ASSY, CRT	(HR532K90/HR532N90)
303	▲ 1-451-535-11	COIL ASSY, VM			▲ A-1501-981-	ACOUPLER (B) ASSY, CRT	(HR432K90)
305	▲ 1-451-537-11	DEFLECTION YOKE			▲ A-1502-022-	ACOUPLER (B) ASSY, CRT	(HW572K90)
307	▲ A-1501-975-	ACOUPLER (R) ASSY, CRT	(HR532K90/HR532N90)	311	* A-1332-252-A	CB BOARD, COMPLETE	(EXCEPT HW572K90)
	▲ A-1501-980-	ACOUPLER (R) ASSY, CRT	(HR432K90)		* A-1332-266-A	CB BOARD, COMPLETE	(HW572K90)
	▲ A-1502-021-	ACOUPLER (R) ASSY, CRT	(HW572K90)	312	4-373-137-01	CAP (Z), RUBBER	
308	4-056-258-11	LENS (DELTA 78) (EXCEPT HW572K90)		313	▲ 8-598-955-31	BLOCK ASSY, HV HVB-1031	
				314	* 4-085-133-01	PWB PROTECTION SHEET	
				315	* A-1342-635-A	V BOARD, COMPLETE	

SECTION 8



ELECTRICAL PARTS LIST

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- The components identified by in \square this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- CAPACITORS
PF : $\mu\mu$ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

- RESISTORS
- All resistors are in ohms
 - F : nonflammable

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1299-633-A	A BOARD, COMPLETE		C36	1-126-934-11	ELECT	220UF 20% 10V
		(HR432K90/HR532K90)		C37	1-162-974-11	CERAMIC CHIP	0.01UF 50V
	* A-1299-635-A	A BOARD, COMPLETE	(HR532N90)	C38	1-162-974-11	CERAMIC CHIP	0.01UF 50V
	* A-1299-656-A	A BOARD, COMPLETE	(HW572K90)	C39	1-164-156-11	CERAMIC CHIP	0.1UF 25V
		*****		C40	1-162-974-11	CERAMIC CHIP	0.01UF 50V
	4-382-854-11	SCREW (M3X10), P, SW (+)		C41	1-126-934-11	ELECT	220UF 20% 10V
		< CAPACITOR >		C42	1-162-974-11	CERAMIC CHIP	0.01UF 50V
C1	1-126-933-11	ELECT	100UF 20% 16V	C43	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C2	1-104-665-11	ELECT	100UF 20% 25V	C44	1-126-947-11	ELECT	47UF 20% 16V
C3	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C45	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V
C4	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C46	1-162-974-11	CERAMIC CHIP	0.01UF 50V
C5	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C47	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V
C6	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C49	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C7	1-126-933-11	ELECT	100UF 20% 16V	C50	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C8	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C51	1-126-947-11	ELECT	47UF 20% 16V
C9	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C52	1-162-974-11	CERAMIC CHIP	0.01UF 50V
C10	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C53	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C11	1-126-933-11	ELECT	100UF 20% 16V	C54	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V
C12	1-126-933-11	ELECT	100UF 20% 16V	C55	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V
C13	1-164-392-11	CERAMIC CHIP	390PF 5% 50V	C56	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C14	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C57	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C15	1-164-392-11	CERAMIC CHIP	390PF 5% 50V	C59	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C16	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	C60	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C17	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C61	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C18	1-162-975-11	CERAMIC CHIP	24PF 5% 50V	C62	1-126-947-11	ELECT	47UF 20% 16V
C19	1-162-975-11	CERAMIC CHIP	24PF 5% 50V	C63	1-126-935-11	ELECT	470UF 20% 6.3V
C20	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C65	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C21	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C66	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C22	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C67	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C23	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C68	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C24	1-126-947-11	ELECT	47UF 20% 16V	C69	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C26	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C70	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C27	1-126-947-11	ELECT	47UF 20% 16V	C73	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C28	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C74	1-126-964-11	ELECT	10UF 20% 50V
C29	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C75	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C30	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C76	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V
C31	1-126-947-11	ELECT	47UF 20% 16V	C77	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C33	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C78	1-104-665-11	ELECT	100UF 20% 25V
C34	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C79	1-126-933-11	ELECT	100UF 20% 16V
C35	1-126-947-11	ELECT	47UF 20% 16V	C80	1-126-967-11	ELECT	47UF 20% 50V
				C81	1-104-665-11	ELECT	100UF 20% 10V
				C82	1-164-156-11	CERAMIC CHIP	0.1UF 25V

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C83	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C302	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V
C84	1-126-933-11	ELECT	100UF 20% 16V	C303	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C85	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C304	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C86	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C305	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C87	1-126-960-11	ELECT	1UF 20% 50V	C306	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C88	1-126-933-11	ELECT	100UF 20% 16V	C307	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C90	1-126-964-11	ELECT	10UF 20% 50V	C308	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C92	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C309	1-126-933-11	ELECT	100UF 20% 16V
C93	1-126-964-11	ELECT	10UF 20% 50V	C310	1-126-964-11	ELECT	10UF 20% 50V
C94	1-164-346-11	CERAMIC CHIP	1UF 16V	C311	1-126-933-11	ELECT	100UF 20% 16V
C95	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C312	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C96	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C313	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C97	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	C314	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C98	1-126-960-11	ELECT	1UF 20% 50V	C315	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C99	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V	C316	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V
C101	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C317	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C102	1-126-964-11	ELECT	10UF 20% 50V	C318	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C103	1-126-964-11	ELECT	10UF 20% 50V	C319	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C104	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C320	1-126-963-11	ELECT	4.7UF 20% 50V
C105	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C321	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C106	1-126-933-11	ELECT	100UF 20% 16V	C322	1-126-933-11	ELECT	100UF 20% 16V
C108	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C323	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C109	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C324	1-125-837-91	CERAMIC CHIP	1UF 10% 6.3V
C110	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C325	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C111	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C326	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C112	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C327	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C113	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C328	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C115	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C329	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C116	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C330	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V
C119	1-126-933-11	ELECT	100UF 20% 16V	C331	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C120	1-126-933-11	ELECT	100UF 20% 16V	C332	1-126-964-11	ELECT	10UF 20% 50V
C123	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V	C333	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C124	1-164-346-11	CERAMIC CHIP	1UF 16V	C334	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C125	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C335	1-126-933-11	ELECT	100UF 20% 16V
C128	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C336	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C129	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V	C337	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C130	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C338	1-126-963-11	ELECT	4.7UF 20% 50V
C131	1-126-961-11	ELECT	2.2UF 20% 50V	C339	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C132	1-126-935-11	ELECT	470UF 20% 16V	C340	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C133	1-126-964-11	ELECT	10UF 20% 50V	C341	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V
C134	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C342	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C135	1-126-964-11	ELECT	10UF 20% 50V	C343	1-126-963-11	ELECT	4.7UF 20% 50V
C136	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C344	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C137	1-126-964-11	ELECT	10UF 20% 50V	C345	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C138	1-126-964-11	ELECT	10UF 20% 50V	C346	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C139	1-126-964-11	ELECT	10UF 20% 50V	C347	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C140	1-126-933-11	ELECT	100UF 20% 16V	C348	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C141	1-126-933-11	ELECT	100UF 20% 16V	C349	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C142	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C350	1-126-935-11	ELECT	470UF 20% 16V
C143	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C351	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C144	1-126-964-11	ELECT	10UF 20% 50V	C352	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C145	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C353	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C146	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C354	1-126-963-11	ELECT	4.7UF 20% 50V
			(EXCEPT HR532N90)	C355	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C147	1-126-947-11	ELECT	47UF 20% 25V	C356	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
			(EXCEPT HR532N90)	C357	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C301	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	C358	1-162-917-11	CERAMIC CHIP	15PF 5% 50V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C359	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C417	1-126-933-11	ELECT 100UF 20% 16V
C360	1-162-917-11	CERAMIC CHIP	15PF 5%	50V	C418	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C361	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C419	1-126-933-11	ELECT 100UF 20% 16V
C362	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C420	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C363	1-126-933-11	ELECT	100UF 20%	16V	C421	1-162-964-11	CERAMIC CHIP 0.001UF 10% 50V
C364	1-126-933-11	ELECT	100UF 20%	16V	C422	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C365	1-126-933-11	ELECT	100UF 20%	16V	C422	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C366	1-125-837-91	CERAMIC CHIP	1UF 10%	6.3V	C423	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C367	1-125-837-91	CERAMIC CHIP	1UF 10%	6.3V	C430	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C368	1-107-826-11	CERAMIC CHIP	0.1UF 10%	16V	C431	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C369	1-126-933-11	ELECT	100UF 20%	16V	C435	1-126-933-11	ELECT 100UF 20% 16V
C370	1-126-933-11	ELECT	100UF 20%	16V	C438	1-126-933-11	ELECT 100UF 20% 16V
C371	1-126-933-11	ELECT	100UF 20%	16V	C439	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C372	1-126-933-11	ELECT	100UF 20%	16V	C440	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C373	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C442	1-135-834-91	CERAMIC CHIP 2.2E+06PF 6.3V
C374	1-126-933-11	ELECT	100UF 20%	16V	C443	1-126-933-11	ELECT 100UF 20% 16V
C375	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C444	1-110-563-11	CERAMIC CHIP 0.068UF 10% 16V
C376	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C449	1-125-837-91	CERAMIC CHIP 1UF 10% 6.3V
C377	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C455	1-130-495-00	MYLAR 0.1UF 5% 50V
C378	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C457	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C379	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C458	1-136-244-11	FILM 0.1UF 5% 50V
C380	1-162-964-11	CERAMIC CHIP	0.001UF 10%	50V	C460	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C381	1-107-826-11	CERAMIC CHIP	0.1UF 10%	16V	C461	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C382	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C463	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C383	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C464	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C384	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C466	1-162-923-11	CERAMIC CHIP 47PF 5% 50V
C385	1-162-968-11	CERAMIC CHIP	0.0047UF 10%	50V	C467	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C386	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C468	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V
C387	1-126-964-11	ELECT	10UF 20%	50V	C470	1-162-970-11	CERAMIC CHIP 0.01UF 10% 16V
C388	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C472	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V
C389	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C476	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C390	1-126-964-11	ELECT	10UF 20%	50V	C477	1-127-760-11	CERAMIC CHIP 4.7UF 10% 6.3V
C391	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C478	1-216-864-11	SHORT 0
C392	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C479	1-162-923-11	CERAMIC CHIP 47PF 5% 50V
C393	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C480	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C394	1-126-933-11	ELECT	100UF 20%	16V	C481	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C395	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C482	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C396	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C483	1-162-968-11	CERAMIC CHIP 0.0047UF 10% 50V
C397	1-125-891-11	CERAMIC CHIP	0.47UF 10%	10V	C484	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C398	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C485	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V
C399	1-162-917-11	CERAMIC CHIP	15PF 5%	50V	C486	1-115-467-11	CERAMIC CHIP 0.22UF 10% 10V
C400	1-126-933-11	ELECT	100UF 20%	16V	C487	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C401	1-162-917-11	CERAMIC CHIP	15PF 5%	50V	C488	1-126-933-11	ELECT 100UF 20% 16V
C402	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C489	1-125-891-11	CERAMIC CHIP 0.47UF 10% 10V
C403	1-126-947-11	ELECT	47UF 20%	16V	C490	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C404	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C494	1-126-933-11	ELECT 100UF 20% 16V
C405	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C495	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C406	1-127-760-11	CERAMIC CHIP	4.7UF 10%	6.3V	C497	1-126-933-11	ELECT 100UF 20% 16V
C407	1-127-760-11	CERAMIC CHIP	4.7UF 10%	6.3V	C498	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V
C408	1-127-760-11	CERAMIC CHIP	4.7UF 10%	6.3V	C500	1-164-816-11	CERAMIC CHIP 220PF 2% 50V
C410	1-126-934-11	ELECT	220UF 20%	10V	C501	1-162-974-11	CERAMIC CHIP 0.01UF 50V
C411	1-107-826-11	CERAMIC CHIP	0.1UF 10%	16V	C502	1-164-816-11	CERAMIC CHIP 220PF 2% 50V
C412	1-125-837-91	CERAMIC CHIP	1UF 10%	6.3V	C503	1-164-816-11	CERAMIC CHIP 220PF 2% 50V
C413	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C504	1-115-416-11	CERAMIC CHIP 0.001UF 5% 25V
C414	1-162-970-11	CERAMIC CHIP	0.01UF 10%	16V	C505	1-162-964-11	CERAMIC CHIP 0.001UF 10% 50V
C415	1-125-837-91	CERAMIC CHIP	1UF 10%	6.3V	C506	1-164-816-11	CERAMIC CHIP 220PF 2% 50V
C416	1-164-156-11	CERAMIC CHIP	0.1UF	25V			



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C507	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V	C780	1-104-665-11	ELECT	100UF 20% 25V
C701	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C781	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C702	1-126-964-11	ELECT	10UF 20% 50V	C782	1-130-489-00	MYLAR	0.033UF 5% 50V
C703	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C783	1-137-364-11	MYLAR	0.001UF 5% 50V
C704	1-126-947-11	ELECT	47UF 20% 25V	C784	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C705	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C785	1-126-963-11	ELECT	4.7UF 20% 50V
C706	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C786	1-126-963-11	ELECT	4.7UF 20% 50V
C707	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C787	1-126-960-11	ELECT	1UF 20% 50V
C708	1-104-665-11	ELECT	100UF 20% 10V	C788	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V
C709	1-162-920-11	CERAMIC CHIP	27PF 5% 50V	C789	1-126-964-11	ELECT	10UF 20% 50V
C710	1-162-919-11	CERAMIC CHIP	22PF 5% 50V	C790	1-164-677-11	CERAMIC CHIP	0.033UF 10% 16V
C713	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C791	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 16V
C714	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C792	1-130-489-00	MYLAR	0.033UF 5% 50V
C719	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V	C793	1-137-364-11	MYLAR	0.001UF 5% 50V
C722	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C794	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
C728	1-126-933-11	ELECT	100UF 20% 16V	C795	1-126-963-11	ELECT	4.7UF 20% 50V
C730	1-162-915-11	CERAMIC CHIP	10PF 0.50PF50V	C796	1-126-933-11	ELECT	100UF 20% 16V
C731	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	C797	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C732	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	C799	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C733	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C800	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V
C735	1-126-933-11	ELECT	100UF 20% 16V	C801	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C736	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C802	1-126-935-11	ELECT	470UF 20% 16V
C737	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C810	1-126-947-11	ELECT	47UF 20% 25V
C738	1-126-933-11	ELECT	100UF 20% 16V				(HW572K90)
C739	1-126-963-11	ELECT	4.7UF 20% 50V				< CONNECTOR >
C740	1-126-963-11	ELECT	4.7UF 20% 50V	CN1	* 1-779-892-11	CONNECTOR, BOARD TO BOARD	10P
C741	1-126-963-11	ELECT	4.7UF 20% 50V	CN2	* 1-779-892-11	CONNECTOR, BOARD TO BOARD	10P
C742	1-164-156-11	CERAMIC CHIP	0.1UF 25V	CN3	* 1-779-892-11	CONNECTOR, BOARD TO BOARD	10P
C745	1-164-156-11	CERAMIC CHIP	0.1UF 25V	CN4	* 1-564-510-11	PLUG, CONNECTOR	7P
C746	1-126-947-11	ELECT	47UF 20% 25V	CN5	1-573-979-21	CONNECTOR, BOARD TO BOARD	11P
C747	1-126-947-11	ELECT	47UF 20% 25V	CN6	* 1-793-922-11	CONNECTOR, DIN (RECEPTACLE)	64P
C749	1-126-947-11	ELECT	47UF 20% 25V	CN7	* 1-564-508-11	PLUG, CONNECTOR	5P
C750	1-164-156-11	CERAMIC CHIP	0.1UF 25V	CN8	1-695-915-11	TAB (CONTACT)	
C751	1-126-943-11	ELECT	2200UF 20% 25V	CN9	* 1-564-509-11	PLUG, CONNECTOR	6P
C752	1-126-943-11	ELECT	2200UF 20% 25V	CN10	* 1-564-511-11	PLUG, CONNECTOR	8P
C754	1-162-970-11	CERAMIC CHIP	0.01UF 10% 16V	CN11	1-573-298-21	CONNECTOR, BOARD TO BOARD	20P
C755	1-126-947-11	ELECT	47UF 20% 25V	CN12	1-573-298-21	CONNECTOR, BOARD TO BOARD	20P
C756	1-126-964-11	ELECT	10UF 20% 50V	CN13	* 1-793-922-11	CONNECTOR, DIN (RECEPTACLE)	64P
C757	1-130-495-00	MYLAR	0.1UF 5% 50V	CN14	* 1-779-892-11	CONNECTOR, BOARD TO BOARD	10P
C758	1-126-947-11	ELECT	47UF 20% 25V	CN15	1-695-915-11	TAB (CONTACT)	
C759	1-164-227-11	CERAMIC CHIP	0.022UF 10% 25V	CN16	* 1-564-506-11	PLUG, CONNECTOR	3P
C760	1-104-664-11	ELECT	47UF 20% 25V	CN17	* 1-564-508-11	PLUG, CONNECTOR	5P
C761	1-164-227-11	CERAMIC CHIP	0.022UF 10% 25V	CN18	* 1-564-508-11	PLUG, CONNECTOR	5P
C762	1-104-665-11	ELECT	100UF 20% 25V	CN19	* 1-564-508-11	PLUG, CONNECTOR	5P
C764	1-130-495-00	MYLAR	0.1UF 5% 50V	CN701	* 1-564-507-11	PLUG, CONNECTOR	4P
C765	1-126-933-11	ELECT	100UF 20% 16V	CN702	* 1-564-509-11	PLUG, CONNECTOR	6P
C766	1-164-156-11	CERAMIC CHIP	0.1UF 25V	CN703	* 1-564-509-11	PLUG, CONNECTOR	6P
C768	1-164-218-11	CERAMIC CHIP	180PF 5% 50V	CN704	* 1-564-509-11	PLUG, CONNECTOR	6P
C769	1-164-156-11	CERAMIC CHIP	0.1UF 25V	CN705	* 1-564-507-11	PLUG, CONNECTOR	4P
C770	1-162-928-11	CERAMIC CHIP	120PF 5% 50V	CN706	* 1-564-507-11	PLUG, CONNECTOR	4P
C771	1-130-495-00	MYLAR	0.1UF 5% 50V				< DIODE >
C772	1-130-495-00	MYLAR	0.1UF 5% 50V	D1	8-719-404-50	MA111-TX	
C773	1-164-677-11	CERAMIC CHIP	0.033UF 10% 16V	D5	8-719-083-87	UDZS-TE11-33B	
C775	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 16V	D7	8-719-069-55	UDZSTE-175.6B	
C777	1-164-156-11	CERAMIC CHIP	0.1UF 25V	D307	8-719-069-33	DTZ-TT11-6.8B	
C778	1-164-156-11	CERAMIC CHIP	0.1UF 25V	D312	8-719-069-55	UDZSTE-175.6B	
C779	1-126-933-11	ELECT	100UF 20% 16V				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D317	8-719-404-50	MA111-TX		IC301	8-752-089-50	CXA2103Q	
D318	8-719-404-50	MA111-TX		IC302	8-752-916-40	CXP85840A-039Q	
D319	8-719-404-50	MA111-TX					
D321	8-719-404-50	MA111-TX		IC303	8-752-089-50	CXA2103Q	
D701	8-719-941-86	DAN202U		IC304	8-752-916-40	CXP85840A-039Q	
				IC305	8-759-595-97	SN74LV4053ANSR	
D702	8-719-404-50	MA111-TX		IC306	8-752-093-84	CXA2151Q	
D703	8-719-083-57	DIODE UDZSTE-173.6B		IC307	8-759-595-97	SN74LV4053ANSR	
D704	8-719-941-86	DAN202U					
D705	8-719-083-87	UDZS-TE17-33B		IC308	8-752-395-13	CXD2085M-T4	
D706	8-719-083-87	UDZS-TE17-33B		IC309	8-752-100-25	CXA2150AQ	
				IC310	8-759-349-11	PST9145NL	
D708	8-719-404-50	MA111-TX		IC311	8-759-700-07	NJM2903M	
D709	8-719-404-50	MA111-TX		IC312	8-759-082-58	TC7W08FU	
D710	8-719-941-86	DAN202U					
D711	8-719-941-86	DAN202U		IC701	8-759-349-11	PST9145NL	
D712	8-719-941-86	DAN202U		IC702	6-700-149-01	M24C04-MN6T(A)	
				IC703	8-759-675-72	M24C08-WMN6T	
D713	8-719-941-86	DAN202U		IC704	6-801-140-01	IC M306V2ME-184FP	(EXCEPT HW572K90)
D718	8-719-404-50	MA111-TX					(HW572K90)
D719	8-719-404-50	MA111-TX		IC704	6-801-141-01	IC M306V2ME-185FP	
D720	8-719-920-67	ERC91-02					
D721	8-719-920-67	ERC91-02		IC705	8-752-068-37	CXA1726AM	
				IC706	8-752-068-37	CXA1726AM	
D723	8-719-083-85	UDZS-TE17-22B		IC707	8-759-100-96	UPC4558G2	
D724	8-719-083-85	UDZS-TE17-22B		IC708	8-759-190-89	TDA7265	
D725	8-719-083-85	UDZS-TE17-22B		IC709	8-759-830-08	IC NJM2068V-TE2	
D726	8-719-083-85	UDZS-TE17-22B					
D729	8-719-404-50	MA111-TX		IC710	8-759-830-08	IC NJM2068V-TE2	
				IC711	8-759-690-57	BH3868BFS-E2	
D730	8-719-069-33	DTZ-TT11-6.8B					
		< FERRITE BEAD >					
FB1	1-414-445-11	FERRITE	0UH	L1	1-414-181-11	INDUCTOR	4.7UH
FB2	1-414-445-11	FERRITE	0UH	L2	1-469-555-21	INDUCTOR	10UH
FB3	1-414-445-11	FERRITE	0UH	L3	1-469-555-21	INDUCTOR	10UH
FB4	1-414-445-11	FERRITE	0UH	L4	1-469-555-21	INDUCTOR	10UH
FB5	1-216-295-91	SHORT	0	L5	1-414-193-41	INDUCTOR	220UH
FB6	1-414-445-11	FERRITE	0UH	L6	1-469-555-21	INDUCTOR	10UH
FB301	1-414-760-21	FERRITE	0UH	L7	1-414-856-11	INDUCTOR	10UH
				L8	1-414-856-11	INDUCTOR	10UH
				L9	1-414-856-11	INDUCTOR	10UH
		< FILTER >		L10	1-412-537-31	INDUCTOR	100UH
FL3	1-233-512-21	FERRITE	37UH	L11	1-414-856-11	INDUCTOR	10UH
FL4	1-239-848-11	FILTER, LOW PASS		L12	1-414-856-11	INDUCTOR	10UH
FL5	1-239-848-11	FILTER, LOW PASS		L13	1-414-856-11	INDUCTOR	10UH
FL6	1-239-848-11	FILTER, LOW PASS		L14	1-414-856-11	INDUCTOR	10UH
FL7	1-239-848-11	FILTER, LOW PASS					(EXCEPT HR532N90)
				L301	1-469-555-21	INDUCTOR	10UH
		< IC >					
IC1	8-759-445-59	BA033T		L302	1-469-555-21	INDUCTOR	10UH
IC2	8-759-198-03	PQ09RF21		L303	1-469-555-21	INDUCTOR	10UH
IC3	8-759-830-08	IC NJM2068V-TE2		L304	1-469-555-21	INDUCTOR	10UH
IC4	8-759-568-27	MSM514265C-60JS		L305	1-469-555-21	INDUCTOR	10UH
IC5	8-759-100-96	UPC4558G2		L306	1-414-193-41	INDUCTOR	220UH
IC6	8-759-594-44	UPD64082GF-3BA		L307	1-469-555-21	INDUCTOR	10UH
IC7	8-759-100-96	UPC4558G2		L308	1-414-856-11	INDUCTOR	10UH
IC8	8-759-445-59	BA033T		L309	1-469-555-21	INDUCTOR	10UH
IC9	8-759-231-58	TA7812S	(EXCEPT HW572K90)	L310	1-469-555-21	INDUCTOR	10UH
IC9	8-759-701-79	NJM7812FA	(HW572K90)	L311	1-469-555-21	INDUCTOR	10UH
IC10	8-759-100-96	UPC4558G2		L312	1-469-555-21	INDUCTOR	10UH
IC11	8-759-100-96	UPC4558G2		L313	1-414-856-11	INDUCTOR	10UH
IC12	8-759-833-12	IC NJM2395AF05		L314	1-469-555-21	INDUCTOR	10UH
				L315	1-469-555-21	INDUCTOR	10UH

The components identified by shading and mark \triangle are critical for safety.
Replace only with part number specified.

KP-HR432K90/HR532K90/HR532N90/HW572K90

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
L316	1-414-856-11	INDUCTOR	10UH	Q309	8-729-422-27	2SD601A-Q	
L317	1-414-856-11	INDUCTOR	10UH	Q310	8-729-422-27	2SD601A-Q	
L318	1-469-555-21	INDUCTOR	10UH	Q311	8-729-422-27	2SD601A-Q	
L321	1-414-856-11	INDUCTOR	10UH	Q312	8-729-026-49	2SA1037AK-T146-R	
L701	1-414-179-21	INDUCTOR	2.2UH	Q313	8-729-422-27	2SD601A-Q	
L702	1-412-911-11	FERRITE	0UH	Q314	8-729-422-27	2SD601A-Q	
L704	1-469-555-21	INDUCTOR	10UH	Q315	8-729-422-27	2SD601A-Q	
L705	1-469-555-21	INDUCTOR	10UH	Q316	8-729-422-27	2SD601A-Q	
< NEON LAMP >				Q317	8-729-422-27	2SD601A-Q	
NL701	1-517-778-21	LAMP, NEON		Q318	8-729-422-27	2SD601A-Q	
NL702	1-517-778-21	LAMP, NEON		Q319	8-729-422-27	2SD601A-Q	
NL703	1-517-778-21	LAMP, NEON		Q320	8-729-422-27	2SD601A-Q	
< IC LINK >				Q321	8-729-422-27	2SD601A-Q	
PS1	\triangle 1-532-679-00	LINK, IC	0.6A	Q322	8-729-422-27	2SD601A-Q	
PS2	\triangle 1-532-685-00	LINK, IC	0.8A	Q323	8-729-422-27	2SD601A-Q	
PS3	\triangle 1-532-679-00	LINK, IC	0.6A	Q324	8-729-422-27	2SD601A-Q	
PS701	\triangle 1-576-336-21	LINK, IC	2A	Q325	8-729-026-49	2SA1037AK-T146-R	
PS702	\triangle 1-576-336-21	LINK, IC	2A	Q326	8-729-026-49	2SA1037AK-T146-R	
< TRANSISTOR >				Q327	8-729-026-49	2SA1037AK-T146-R	
Q1	8-729-026-49	2SA1037AK-T146-R		Q328	8-729-026-49	2SA1037AK-T146-R	
Q2	8-729-026-49	2SA1037AK-T146-R		Q329	8-729-026-49	2SA1037AK-T146-R	
Q3	8-729-422-27	2SD601A-Q		Q330	8-729-026-49	2SA1037AK-T146-R	
Q4	8-729-026-49	2SA1037AK-T146-R		Q331	8-729-026-49	2SA1037AK-T146-R	
Q5	8-729-422-27	2SD601A-Q		Q332	8-729-026-49	2SA1037AK-T146-R	
Q6	8-729-422-27	2SD601A-Q		Q333	8-729-026-49	2SA1037AK-T146-R	
Q7	8-729-026-49	2SA1037AK-T146-R		Q334	8-729-026-49	2SA1037AK-T146-R	
Q8	8-729-026-49	2SA1037AK-T146-R		Q335	8-729-422-27	2SD601A-Q	
Q11	8-729-422-27	2SD601A-Q		Q336	8-729-422-27	2SD601A-Q	
Q12	8-729-026-49	2SA1037AK-T146-R		Q337	8-729-422-27	2SD601A-Q	
Q13	8-729-026-49	2SA1037AK-T146-R		Q338	8-729-422-27	2SD601A-Q	
Q14	8-729-422-27	2SD601A-Q		Q339	8-729-422-27	2SD601A-Q	
Q15	8-729-026-49	2SA1037AK-T146-R		Q340	8-729-422-27	2SD601A-Q	
Q16	8-729-026-49	2SA1037AK-T146-R		Q341	8-729-422-27	2SD601A-Q	
Q17	8-729-422-27	2SD601A-Q		Q342	8-729-422-27	2SD601A-Q	
Q18	8-729-422-27	2SD601A-Q		Q343	8-729-122-63	2SA1226	
Q19	8-729-422-27	2SD601A-Q		Q344	8-729-026-49	2SA1037AK-T146-R	
Q20	8-729-422-27	2SD601A-Q		Q345	8-729-026-49	2SA1037AK-T146-R	
Q21	8-729-026-49	2SA1037AK-T146-R		Q346	8-729-422-27	2SD601A-Q	
Q22	8-729-422-27	2SD601A-Q		Q347	8-729-122-63	2SA1226	
Q23	8-729-422-27	2SD601A-Q		Q348	8-729-026-49	2SA1037AK-T146-R	
Q24	8-729-422-27	2SD601A-Q		Q349	8-729-422-27	2SD601A-Q	
Q25	8-729-422-27	2SD601A-Q		Q350	8-729-422-27	2SD601A-Q	
Q26	8-729-422-27	2SD601A-Q		Q351	8-729-122-63	2SA1226	
Q27	8-729-422-27	2SD601A-Q		Q352	8-729-422-27	2SD601A-Q	
Q28	8-729-026-49	2SA1037AK-T146-R		Q353	8-729-026-49	2SA1037AK-T146-R	
Q30	1-801-806-11	DTC144EKA (HW572K90)		Q354	8-729-026-49	2SA1037AK-T146-R	
Q301	8-729-422-27	2SD601A-Q		Q355	8-729-422-27	2SD601A-Q	
Q302	8-729-422-27	2SD601A-Q		Q356	8-729-026-49	2SA1037AK-T146-R	
Q303	8-729-026-49	2SA1037AK-T146-R		Q357	8-729-026-49	2SA1037AK-T146-R	
Q304	8-729-422-27	2SD601A-Q		Q358	8-729-026-49	2SA1037AK-T146-R	
Q305	8-729-422-27	2SD601A-Q		Q361	8-729-422-27	2SD601A-Q	
Q306	8-729-422-27	2SD601A-Q		Q363	8-729-422-27	2SD601A-Q	
Q307	8-729-422-27	2SD601A-Q		Q367	8-729-122-63	2SA1226	
Q308	8-729-026-49	2SA1037AK-T146-R		Q368	8-729-422-27	2SD601A-Q	
				Q369	1-801-806-11	TR DTC144EKA	
				Q373	8-729-422-27	2SD601A-Q	
				Q374	8-729-422-27	2SD601A-Q	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q378	8-729-422-27	2SD601A-Q		R26	1-216-809-11	RES-CHIP	100 5% 1/16W
Q379	8-729-026-49	2SA1037AK-T146-R		R27	1-218-707-11	METAL CHIP	4.3K 0.5% 1/16W
Q380	8-729-422-27	2SD601A-Q		R29	1-216-864-11	SHORT	0
Q381	8-729-422-27	2SD601A-Q		R30	1-216-809-11	RES-CHIP	100 5% 1/16W
Q501	8-729-026-49	2SA1037AK-T146-R	(HW572K90)	R31	1-216-809-11	RES-CHIP	100 5% 1/16W
Q502	8-729-422-27	2SD601A-Q	(HW572K90)	R32	1-216-864-11	SHORT	0
Q701	8-729-422-27	2SD601A-Q		R33	1-216-809-11	RES-CHIP	100 5% 1/16W
Q702	8-729-026-49	2SA1037AK-T146-R		R37	1-216-853-11	RES-CHIP	470K 5% 1/16W
Q703	8-729-422-27	2SD601A-Q		R39	1-216-855-11	RES-CHIP	680K 5% 1/16W
Q704	8-729-026-49	2SA1037AK-T146-R		R40	1-216-809-11	RES-CHIP	100 5% 1/16W
Q705	8-729-422-27	2SD601A-Q		R42	1-216-855-11	RES-CHIP	680K 5% 1/16W
Q706	8-729-026-49	2SA1037AK-T146-R		R43	1-216-853-11	RES-CHIP	470K 5% 1/16W
Q707	1-801-806-11	TR DTC144EKA		R44	1-249-377-11	CARBON	0.47 5% 1/4W
Q708	8-729-422-27	2SD601A-Q		R46	1-216-822-11	RES-CHIP	1.2K 5% 1/16W
Q709	8-729-422-27	2SD601A-Q		R48	1-216-809-11	RES-CHIP	100 5% 1/16W
Q710	8-729-422-27	2SD601A-Q		R49	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q712	8-729-026-49	2SA1037AK-T146-R		R50	1-216-809-11	RES-CHIP	100 5% 1/16W
Q713	8-729-026-49	2SA1037AK-T146-R		R51	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q714	8-729-027-38	DTA144EKA-T146		R52	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q715	8-729-422-27	2SD601A-Q		R53	1-216-817-11	RES-CHIP	470 5% 1/16W
Q716	8-729-422-27	2SD601A-Q		R54	1-216-817-11	RES-CHIP	470 5% 1/16W
Q717	8-729-422-27	2SD601A-Q		R55	1-216-822-11	RES-CHIP	1.2K 5% 1/16W
Q718	8-729-422-27	2SD601A-Q		R56	1-216-805-11	RES-CHIP	47 5% 1/16W
Q721	8-729-026-49	2SA1037AK-T146-R		R57	1-216-805-11	RES-CHIP	47 5% 1/16W
Q722	8-729-422-27	2SD601A-Q		R59	1-216-821-11	RES-CHIP	1K 5% 1/16W
Q723	8-729-422-27	2SD601A-Q		R60	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q724	8-729-422-27	2SD601A-Q		R61	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
Q725	8-729-026-49	2SA1037AK-T146-R		R62	1-216-821-11	RES-CHIP	1K 5% 1/16W
Q726	8-729-026-49	2SA1037AK-T146-R		R63	1-216-809-11	RES-CHIP	100 5% 1/16W
< RESISTOR >				R64	1-216-837-11	RES-CHIP	22K 5% 1/16W
R1	1-216-464-11	METAL OXIDE	18K 5% 2W	R65	1-216-833-11	RES-CHIP	10K 5% 1/16W
R2	1-216-813-11	RES-CHIP	220 5% 1/16W	R66	1-216-849-11	RES-CHIP	220K 5% 1/16W
R3	1-216-813-11	RES-CHIP	220 5% 1/16W	R67	1-216-841-11	RES-CHIP	47K 5% 1/16W
R4	1-216-813-11	RES-CHIP	220 5% 1/16W	R68	1-216-839-11	RES-CHIP	33K 5% 1/16W
R5	1-216-813-11	RES-CHIP	220 5% 1/16W	R69	1-216-857-11	RES-CHIP	1M 5% 1/16W
R6	1-216-813-11	RES-CHIP	220 5% 1/16W	R70	1-216-845-11	RES-CHIP	100K 5% 1/16W
R7	1-216-833-11	RES-CHIP	10K 5% 1/16W	R71	1-216-813-11	RES-CHIP	220 5% 1/16W
R8	1-216-813-11	RES-CHIP	220 5% 1/16W	R72	1-216-821-11	RES-CHIP	1K 5% 1/16W
R9	1-216-813-11	RES-CHIP	220 5% 1/16W	R73	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R10	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R74	1-218-684-11	METAL CHIP	470 0.5% 1/16W
R11	1-218-720-11	METAL CHIP	15K 0.5% 1/16W	R75	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R12	1-218-722-11	METAL CHIP	18K 0.5% 1/16W	R76	1-216-818-11	RES-CHIP	560 5% 1/16W
R13	1-218-740-11	METAL CHIP	100K 0.5% 1/16W	R77	1-216-821-11	RES-CHIP	1K 5% 1/16W
R14	1-218-295-11	RES-CHIP	43K 5% 1/16W	R78	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R15	1-216-821-11	RES-CHIP	1K 5% 1/16W	R79	1-216-818-11	RES-CHIP	560 5% 1/16W
R16	1-218-702-11	METAL CHIP	2.7K 0.5% 1/16W	R80	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R17	1-218-706-11	METAL CHIP	3.9K 0.5% 1/16W	R81	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R18	1-218-714-11	METAL CHIP	8.2K 0.5% 1/16W	R82	1-216-821-11	RES-CHIP	1K 5% 1/16W
R19	1-216-817-11	RES-CHIP	470 5% 1/16W	R85	1-216-830-11	RES-CHIP	5.6K 5% 1/16W
R20	1-216-827-11	RES-CHIP	3.3K 5% 1/16W	R87	1-216-833-11	RES-CHIP	10K 5% 1/16W
R21	1-216-839-11	RES-CHIP	33K 5% 1/16W	R88	1-216-830-11	RES-CHIP	5.6K 5% 1/16W
R22	1-216-817-11	RES-CHIP	470 5% 1/16W	R89	1-216-813-11	RES-CHIP	220 5% 1/16W
R23	1-216-809-11	RES-CHIP	100 5% 1/16W	R90	1-216-864-11	SHORT	0
R24	1-216-809-11	RES-CHIP	100 5% 1/16W	R91	1-216-864-11	SHORT	0
R25	1-216-809-11	RES-CHIP	100 5% 1/16W	R92	1-216-830-11	RES-CHIP	5.6K 5% 1/16W
				R93	1-216-830-11	RES-CHIP	5.6K 5% 1/16W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R95	1-216-818-11	RES-CHIP	560 5% 1/16W	R306	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W
R96	1-216-818-11	RES-CHIP	560 5% 1/16W	R307	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W
R99	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R308	1-216-821-11	RES-CHIP	1K 5% 1/16W
R100	1-216-833-11	RES-CHIP	10K 5% 1/16W	R309	1-216-813-11	RES-CHIP	220 5% 1/16W
R102	1-216-818-11	RES-CHIP	560 5% 1/16W	R310	1-216-857-11	RES-CHIP	1M 5% 1/16W
R103	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R311	1-216-840-11	RES-CHIP	39K 5% 1/16W
R104	1-216-821-11	RES-CHIP	1K 5% 1/16W	R312	1-216-809-11	RES-CHIP	100 5% 1/16W
R105	1-216-821-11	RES-CHIP	1K 5% 1/16W	R313	1-216-833-11	RES-CHIP	10K 5% 1/16W
R107	1-216-833-11	RES-CHIP	10K 5% 1/16W	R314	1-216-833-11	RES-CHIP	10K 5% 1/16W
R108	1-216-818-11	RES-CHIP	560 5% 1/16W	R315	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R109	1-216-807-11	RES-CHIP	68 5% 1/16W	R316	1-216-821-11	RES-CHIP	1K 5% 1/16W
R110	1-216-809-11	RES-CHIP	100 5% 1/16W	R317	1-216-821-11	RES-CHIP	1K 5% 1/16W
R111	1-216-809-11	RES-CHIP	100 5% 1/16W	R318	1-216-833-11	RES-CHIP	10K 5% 1/16W
R112	1-216-857-11	RES-CHIP	1M 5% 1/16W	R319	1-216-864-11	SHORT	0
R113	1-216-845-11	RES-CHIP	100K 5% 1/16W	R320	1-216-833-11	RES-CHIP	10K 5% 1/16W
R114	1-216-809-11	RES-CHIP	100 5% 1/16W	R321	1-216-821-11	RES-CHIP	1K 5% 1/16W
R115	1-216-820-11	RES-CHIP	820 5% 1/16W	R322	1-216-809-11	RES-CHIP	100 5% 1/16W
R116	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R323	1-216-809-11	RES-CHIP	100 5% 1/16W
R117	1-216-821-11	RES-CHIP	1K 5% 1/16W	R324	1-216-809-11	RES-CHIP	100 5% 1/16W
R118	1-216-820-11	RES-CHIP	820 5% 1/16W	R325	1-216-835-11	RES-CHIP	15K 5% 1/16W
R119	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R326	1-216-864-11	SHORT	0
R120	1-216-834-11	RES-CHIP	12K 5% 1/16W	R327	1-216-817-11	RES-CHIP	470 5% 1/16W
R121	1-216-839-11	RES-CHIP	33K 5% 1/16W	R329	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R122	1-216-820-11	RES-CHIP	820 5% 1/16W	R330	1-216-828-11	RES-CHIP	3.9K 5% 1/16W
R123	1-216-833-11	RES-CHIP	10K 5% 1/16W	R331	1-216-833-11	RES-CHIP	10K 5% 1/16W
R124	1-216-834-11	RES-CHIP	12K 5% 1/16W	R332	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W
R125	1-216-839-11	RES-CHIP	33K 5% 1/16W	R333	1-216-809-11	RES-CHIP	100 5% 1/16W
R126	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R334	1-216-809-11	RES-CHIP	100 5% 1/16W
R127	1-216-839-11	RES-CHIP	33K 5% 1/16W	R335	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R128	1-216-821-11	RES-CHIP	1K 5% 1/16W	R336	1-216-809-11	RES-CHIP	100 5% 1/16W
R129	1-216-805-11	RES-CHIP	47 5% 1/16W	R337	1-216-823-11	RES-CHIP	1.5K 5% 1/16W
R130	1-216-821-11	RES-CHIP	1K 5% 1/16W	R338	1-216-823-11	RES-CHIP	1.5K 5% 1/16W
R131	1-216-837-11	RES-CHIP	22K 5% 1/16W	R339	1-216-809-11	RES-CHIP	100 5% 1/16W
R133	1-218-686-11	METAL CHIP	560 0.5% 1/16W	R340	1-216-828-11	RES-CHIP	3.9K 5% 1/16W
R134	1-218-683-11	METAL CHIP	430 0.5% 1/16W	R341	1-218-706-11	METAL CHIP	3.9K 0.5% 1/16W
R135	1-216-809-11	RES-CHIP	100 5% 1/16W	R342	1-216-841-11	RES-CHIP	47K 5% 1/16W
R136	1-216-821-11	RES-CHIP	1K 5% 1/16W	R343	1-216-809-11	RES-CHIP	100 5% 1/16W
R137	1-216-833-11	RES-CHIP	10K 5% 1/16W	R344	1-216-809-11	RES-CHIP	100 5% 1/16W
R138	1-216-833-11	RES-CHIP	10K 5% 1/16W	R345	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W
R139	1-216-841-11	RES-CHIP	47K 5% 1/16W	R346	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W
R140	1-216-833-11	RES-CHIP	10K 5% 1/16W	R347	1-216-817-11	RES-CHIP	470 5% 1/16W
R141	1-216-809-11	RES-CHIP	100 5% 1/16W	R348	1-216-841-11	RES-CHIP	47K 5% 1/16W
R142	1-216-843-11	RES-CHIP	68K 5% 1/16W	R349	1-216-813-11	RES-CHIP	220 5% 1/16W
R143	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R350	1-216-809-11	RES-CHIP	100 5% 1/16W
R144	1-216-843-11	RES-CHIP	68K 5% 1/16W	R351	1-216-813-11	RES-CHIP	220 5% 1/16W
R145	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R352	1-216-813-11	RES-CHIP	220 5% 1/16W
R146	1-218-295-11	RES-CHIP	43K 5% 1/16W	R353	1-216-809-11	RES-CHIP	100 5% 1/16W
R151	1-216-833-11	RES-CHIP	10K 5% 1/16W	R354	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R152	1-216-833-11	RES-CHIP	10K 5% 1/16W	R355	1-216-809-11	RES-CHIP	100 5% 1/16W
R153	1-216-833-11	RES-CHIP	10K 5% 1/16W	R356	1-216-841-11	RES-CHIP	47K 5% 1/16W
R154	1-216-830-11	RES-CHIP	5.6K 5% 1/16W	R357	1-216-837-11	RES-CHIP	22K 5% 1/16W
R155	1-216-864-11	SHORT	0	R358	1-216-837-11	RES-CHIP	22K 5% 1/16W
R301	1-216-809-11	RES-CHIP	100 5% 1/16W	R359	1-216-837-11	RES-CHIP	22K 5% 1/16W
R302	1-216-809-11	RES-CHIP	100 5% 1/16W	R360	1-216-837-11	RES-CHIP	22K 5% 1/16W
R303	1-216-833-11	RES-CHIP	10K 5% 1/16W	R361	1-216-837-11	RES-CHIP	22K 5% 1/16W
R304	1-216-833-11	RES-CHIP	10K 5% 1/16W	R362	1-216-837-11	RES-CHIP	22K 5% 1/16W
R305	1-216-835-11	RES-CHIP	15K 5% 1/16W	R363	1-216-809-11	RES-CHIP	100 5% 1/16W



REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK		
R364	1-216-809-11	RES-CHIP	100	5%	1/16W	R421	1-216-809-11	RES-CHIP	100	5%	1/16W
R365	1-216-809-11	RES-CHIP	100	5%	1/16W	R422	1-216-809-11	RES-CHIP	100	5%	1/16W
R366	1-216-841-11	RES-CHIP	47K	5%	1/16W	R423	1-216-809-11	RES-CHIP	100	5%	1/16W
R367	1-216-821-11	RES-CHIP	1K	5%	1/16W						
R368	1-216-821-11	RES-CHIP	1K	5%	1/16W	R424	1-218-674-11	METAL CHIP	180	0.5%	1/16W
						R425	1-218-674-11	METAL CHIP	180	0.5%	1/16W
R369	1-216-821-11	RES-CHIP	1K	5%	1/16W	R426	1-218-674-11	METAL CHIP	180	0.5%	1/16W
R370	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R427	1-218-673-11	METAL CHIP	160	0.5%	1/16W
R371	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R428	1-216-864-11	SHORT	0		
R372	1-216-825-11	RES-CHIP	2.2K	5%	1/16W						
R373	1-216-809-11	RES-CHIP	100	5%	1/16W	R431	1-216-809-11	RES-CHIP	100	5%	1/16W
						R432	1-216-817-11	RES-CHIP	470	5%	1/16W
R374	1-216-815-11	RES-CHIP	330	5%	1/16W	R433	1-216-817-11	RES-CHIP	470	5%	1/16W
R375	1-216-815-11	RES-CHIP	330	5%	1/16W	R434	1-216-809-11	RES-CHIP	100	5%	1/16W
R376	1-216-815-11	RES-CHIP	330	5%	1/16W	R435	1-216-817-11	RES-CHIP	470	5%	1/16W
R377	1-216-837-11	RES-CHIP	22K	5%	1/16W						
R378	1-216-837-11	RES-CHIP	22K	5%	1/16W	R436	1-216-809-11	RES-CHIP	100	5%	1/16W
						R437	1-216-809-11	RES-CHIP	100	5%	1/16W
R379	1-216-837-11	RES-CHIP	22K	5%	1/16W	R438	1-216-809-11	RES-CHIP	100	5%	1/16W
R380	1-216-837-11	RES-CHIP	22K	5%	1/16W	R439	1-216-817-11	RES-CHIP	470	5%	1/16W
R381	1-216-837-11	RES-CHIP	22K	5%	1/16W	R440	1-216-813-11	RES-CHIP	220	5%	1/16W
R382	1-216-837-11	RES-CHIP	22K	5%	1/16W						
R383	1-216-809-11	RES-CHIP	100	5%	1/16W	R441	1-216-813-11	RES-CHIP	220	5%	1/16W
						R442	1-216-813-11	RES-CHIP	220	5%	1/16W
R384	1-216-809-11	RES-CHIP	100	5%	1/16W	R443	1-216-809-11	RES-CHIP	100	5%	1/16W
R385	1-216-821-11	RES-CHIP	1K	5%	1/16W	R444	1-216-809-11	RES-CHIP	100	5%	1/16W
R386	1-216-809-11	RES-CHIP	100	5%	1/16W	R445	1-216-809-11	RES-CHIP	100	5%	1/16W
R387	1-216-845-11	RES-CHIP	100K	5%	1/16W						
R388	1-216-837-11	RES-CHIP	22K	5%	1/16W	R446	1-216-809-11	RES-CHIP	100	5%	1/16W
						R447	1-216-809-11	RES-CHIP	100	5%	1/16W
R389	1-216-809-11	RES-CHIP	100	5%	1/16W	R448	1-216-809-11	RES-CHIP	100	5%	1/16W
R390	1-216-809-11	RES-CHIP	100	5%	1/16W	R449	1-216-809-11	RES-CHIP	100	5%	1/16W
R391	1-216-809-11	RES-CHIP	100	5%	1/16W	R450	1-216-814-11	RES-CHIP	270	5%	1/16W
R392	1-216-809-11	RES-CHIP	100	5%	1/16W						
R393	1-216-809-11	RES-CHIP	100	5%	1/16W	R451	1-216-814-11	RES-CHIP	270	5%	1/16W
						R452	1-216-814-11	RES-CHIP	270	5%	1/16W
R394	1-216-809-11	RES-CHIP	100	5%	1/16W	R453	1-216-841-11	RES-CHIP	47K	5%	1/16W
R395	1-216-821-11	RES-CHIP	1K	5%	1/16W	R454	1-216-837-11	RES-CHIP	22K	5%	1/16W
R396	1-216-821-11	RES-CHIP	1K	5%	1/16W	R455	1-216-837-11	RES-CHIP	22K	5%	1/16W
R397	1-216-821-11	RES-CHIP	1K	5%	1/16W						
R398	1-216-845-11	RES-CHIP	100K	5%	1/16W	R456	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
						R457	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R399	1-216-833-11	RES-CHIP	10K	5%	1/16W	R458	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R400	1-216-845-11	RES-CHIP	100K	5%	1/16W	R459	1-216-815-11	RES-CHIP	330	5%	1/16W
R401	1-216-845-11	RES-CHIP	100K	5%	1/16W	R460	1-216-815-11	RES-CHIP	330	5%	1/16W
R402	1-216-845-11	RES-CHIP	100K	5%	1/16W						
R403	1-216-845-11	RES-CHIP	100K	5%	1/16W	R461	1-216-815-11	RES-CHIP	330	5%	1/16W
						R462	1-216-817-11	RES-CHIP	470	5%	1/16W
R404	1-216-845-11	RES-CHIP	100K	5%	1/16W	R463	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R405	1-216-845-11	RES-CHIP	100K	5%	1/16W	R464	1-216-809-11	RES-CHIP	100	5%	1/16W
R406	1-216-864-11	SHORT	0			R468	1-216-809-11	RES-CHIP	100	5%	1/16W
R407	1-216-833-11	RES-CHIP	10K	5%	1/16W						
R408	1-216-821-11	RES-CHIP	1K	5%	1/16W	R469	1-216-797-11	RES-CHIP	10	5%	1/16W
						R470	1-216-839-11	RES-CHIP	33K	5%	1/16W
R409	1-216-821-11	RES-CHIP	1K	5%	1/16W	R472	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R410	1-218-673-11	METAL CHIP	160	0.5%	1/16W	R473	1-216-809-11	RES-CHIP	100	5%	1/16W
R411	1-218-673-11	METAL CHIP	160	0.5%	1/16W	R476	1-216-808-11	RES-CHIP	82	5%	1/16W
R412	1-216-813-11	RES-CHIP	220	5%	1/16W						
R413	1-218-668-11	METAL CHIP	100	0.5%	1/16W	R477	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
						R480	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R414	1-218-668-11	METAL CHIP	100	0.5%	1/16W	R481	1-216-821-11	RES-CHIP	1K	5%	1/16W
R415	1-218-668-11	METAL CHIP	100	0.5%	1/16W	R482	1-216-839-11	RES-CHIP	33K	5%	1/16W
R416	1-216-857-11	RES-CHIP	1M	5%	1/16W	R483	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R417	1-216-809-11	RES-CHIP	100	5%	1/16W						
R418	1-216-809-11	RES-CHIP	100	5%	1/16W	R484	1-216-809-11	RES-CHIP	100	5%	1/16W
						R486	1-216-809-11	RES-CHIP	100	5%	1/16W
R419	1-218-702-11	METAL CHIP	2.7K	0.5%	1/16W	R487	1-216-809-11	RES-CHIP	100	5%	1/16W
R420	1-218-698-11	METAL CHIP	1.8K	0.5%	1/16W	R489	1-216-829-11	RES-CHIP	4.7K	5%	1/16W

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK		REF. NO.	PART NO.	DESCRIPTION	REMARK	
R490	1-216-808-11	RES-CHIP	82	5%	1/16W	R558	1-216-808-11	RES-CHIP	82 5% 1/16W
R491	1-216-833-11	RES-CHIP	10K	5%	1/16W	R559	1-216-817-11	RES-CHIP	470 5% 1/16W
R492	1-216-864-11	SHORT	0			R561	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R493	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R562	1-216-817-11	RES-CHIP	470 5% 1/16W
R494	1-216-833-11	RES-CHIP	10K	5%	1/16W	R566	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R495	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R567	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W
R496	1-216-809-11	RES-CHIP	100	5%	1/16W	R568	1-216-809-11	RES-CHIP	100 5% 1/16W
R501	1-216-808-11	RES-CHIP	82	5%	1/16W	R569	1-216-809-11	RES-CHIP	100 5% 1/16W
R502	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R570	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R503	1-216-833-11	RES-CHIP	10K	5%	1/16W	R571	1-216-864-11	SHORT	0
R504	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R572	1-216-835-11	RES-CHIP	15K 5% 1/16W
R505	1-216-821-11	RES-CHIP	1K	5%	1/16W	R574	1-216-833-11	RES-CHIP	10K 5% 1/16W
R506	1-216-837-11	RES-CHIP	22K	5%	1/16W	R575	1-216-833-11	RES-CHIP	10K 5% 1/16W
R507	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R576	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R507	1-216-827-11	RES-CHIP	3.3K	5%	1/16W (EXCEPT HW572K90)	R577	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R508	1-216-821-11	RES-CHIP	1K	5%	1/16W (HW572K90)	R593	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R508	1-216-825-11	RES-CHIP	2.2K	5%	1/16W (EXCEPT HW572K90)	R594	1-216-833-11	RES-CHIP	10K 5% 1/16W
R509	1-216-837-11	RES-CHIP	22K	5%	1/16W	R596	1-216-841-11	RES-CHIP	47K 5% 1/16W
R510	1-216-825-11	RES-CHIP	2.2K	5%	1/16W (HW572K90)	R597	1-216-821-11	RES-CHIP	1K 5% 1/16W
R511	1-216-847-11	RES-CHIP	150K	5%	1/16W (EXCEPT HW572K90)	R598	1-216-833-11	RES-CHIP	10K 5% 1/16W
R512	1-216-864-11	SHORT	0			R599	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R513	1-216-826-11	RES-CHIP	2.7K	5%	1/16W (HW572K90)	R602	1-216-837-11	RES-CHIP	22K 5% 1/16W
R514	1-216-829-11	RES-CHIP	4.7K	5%	1/16W (EXCEPT HW572K90)	R603	1-216-833-11	RES-CHIP	10K 5% 1/16W
R515	1-216-809-11	RES-CHIP	100	5%	1/16W	R604	1-216-833-11	RES-CHIP	10K 5% 1/16W
R516	1-216-809-11	RES-CHIP	100	5%	1/16W	R605	1-216-833-11	RES-CHIP	10K 5% 1/16W
R517	1-216-809-11	RES-CHIP	100	5%	1/16W	R606	1-216-833-11	RES-CHIP	10K 5% 1/16W
R518	1-216-829-11	RES-CHIP	4.7K	5%	1/16W (HW572K90)	R607	1-216-833-11	RES-CHIP	10K 5% 1/16W
R519	1-216-809-11	RES-CHIP	100	5%	1/16W (EXCEPT HW572K90)	R608	1-216-833-11	RES-CHIP	10K 5% 1/16W
R519	1-216-821-11	RES-CHIP	1K	5%	1/16W (HW572K90)	R609	1-216-809-11	RES-CHIP	100 5% 1/16W
R521	1-216-833-11	RES-CHIP	10K	5%	1/16W	R613	1-216-833-11	RES-CHIP	10K 5% 1/16W
R526	1-216-839-11	RES-CHIP	33K	5%	1/16W (EXCEPT HW572K90)	R614	1-216-836-11	RES-CHIP	18K 5% 1/16W
R527	1-216-864-11	SHORT	0			R615	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R538	1-216-809-11	RES-CHIP	100	5%	1/16W	R616	1-216-833-11	RES-CHIP	10K 5% 1/16W
R540	1-216-809-11	RES-CHIP	100	5%	1/16W	R617	1-216-809-11	RES-CHIP	100 5% 1/16W
R541	1-216-831-11	RES-CHIP	6.8K	5%	1/16W	R618	1-216-809-11	RES-CHIP	100 5% 1/16W
R542	1-216-809-11	RES-CHIP	100	5%	1/16W	R619	1-216-821-11	RES-CHIP	1K 5% 1/16W
R543	1-216-826-11	RES-CHIP	2.7K	5%	1/16W	R620	1-216-801-11	RES-CHIP	22 5% 1/16W (HW572K90)
R544	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	R620	1-216-807-11	RES-CHIP	68 5% 1/16W (EXCEPT HW572K90)
R547	1-216-809-11	RES-CHIP	100	5%	1/16W	R621	1-216-801-11	RES-CHIP	22 5% 1/16W (HW572K90)
R550	1-216-863-11	RES-CHIP	3.3M	5%	1/16W	R621	1-216-807-11	RES-CHIP	68 5% 1/16W (EXCEPT HW572K90)
R551	1-216-833-11	RES-CHIP	10K	5%	1/16W	R622	1-216-801-11	RES-CHIP	22 5% 1/16W (HW572K90)
R552	1-216-809-11	RES-CHIP	100	5%	1/16W	R622	1-216-807-11	RES-CHIP	68 5% 1/16W (EXCEPT HW572K90)
R553	1-216-834-11	RES-CHIP	12K	5%	1/16W	R624	1-216-809-11	RES-CHIP	100 5% 1/16W
R554	1-216-809-11	RES-CHIP	100	5%	1/16W	R628	1-249-377-11	CARBON	0.47 5% 1/4W
R556	1-216-808-11	RES-CHIP	82	5%	1/16W	R701	1-216-817-11	RES-CHIP	470 5% 1/16W
R557	1-216-808-11	RES-CHIP	82	5%	1/16W	R702	1-216-841-11	RES-CHIP	47K 5% 1/16W
						R703	1-216-821-11	RES-CHIP	1K 5% 1/16W
						R705	1-216-809-11	RES-CHIP	100 5% 1/16W
						R706	1-216-809-11	RES-CHIP	100 5% 1/16W
						R707	1-216-809-11	RES-CHIP	100 5% 1/16W
						R708	1-216-809-11	RES-CHIP	100 5% 1/16W

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

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RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK	
R709	1-216-817-11	RES-CHIP	470	5%	1/16W	R777	1-216-821-11	RES-CHIP	1K 5%	1/16W
R710	1-216-813-11	RES-CHIP	220	5%	1/16W	R778	1-216-809-11	RES-CHIP	100	5% 1/16W
R711	1-216-833-11	RES-CHIP	10K	5%	1/16W	R779	1-216-809-11	RES-CHIP	100	5% 1/16W
R712	1-216-813-11	RES-CHIP	220	5%	1/16W					
R714	1-216-809-11	RES-CHIP	100	5%	1/16W	R781	1-216-823-11	RES-CHIP	1.5K	5% 1/16W
						R782	1-216-809-11	RES-CHIP	100	5% 1/16W
R715	1-216-809-11	RES-CHIP	100	5%	1/16W	R783	1-216-809-11	RES-CHIP	100	5% 1/16W
R716	1-216-821-11	RES-CHIP	1K	5%	1/16W	R784	1-216-809-11	RES-CHIP	100	5% 1/16W
R717	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	R785	1-216-821-11	RES-CHIP	1K	5% 1/16W
R718	1-216-827-11	RES-CHIP	3.3K	5%	1/16W					
R719	1-216-813-11	RES-CHIP	220	5%	1/16W	R786	1-216-821-11	RES-CHIP	1K	5% 1/16W
						R787	1-216-833-11	RES-CHIP	10K	5% 1/16W
R720	1-216-809-11	RES-CHIP	100	5%	1/16W	R788	1-216-845-11	RES-CHIP	100K	5% 1/16W
R721	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	R790	1-216-837-11	RES-CHIP	22K	5% 1/16W
R722	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R796	1-216-821-11	RES-CHIP	1K	5% 1/16W
R723	1-216-825-11	RES-CHIP	2.2K	5%	1/16W					
R724	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R797	1-216-829-11	RES-CHIP	4.7K	5% 1/16W
						R803	1-216-833-11	RES-CHIP	10K	5% 1/16W
R725	1-216-809-11	RES-CHIP	100	5%	1/16W	R804	1-216-837-11	RES-CHIP	22K	5% 1/16W
R728	1-216-864-11	SHORT	0			R806	1-216-829-11	RES-CHIP	4.7K	5% 1/16W
R732	1-216-809-11	RES-CHIP	100	5%	1/16W	R807	1-216-829-11	RES-CHIP	4.7K	5% 1/16W
R733	1-216-821-11	RES-CHIP	1K	5%	1/16W					
R735	1-216-833-11	RES-CHIP	10K	5%	1/16W	R808	1-216-829-11	RES-CHIP	4.7K	5% 1/16W
						R809	1-216-835-11	RES-CHIP	15K	5% 1/16W
R736	1-216-813-11	RES-CHIP	220	5%	1/16W	R810	1-216-833-11	RES-CHIP	10K	5% 1/16W
R737	1-216-833-11	RES-CHIP	10K	5%	1/16W	R811	1-218-708-11	METAL CHIP	4.7K	0.5% 1/16W
R738	1-218-708-11	METAL CHIP	4.7K	0.5%	1/16W	R813	1-216-857-11	RES-CHIP	1M	5% 1/16W
R740	1-216-809-11	RES-CHIP	100	5%	1/16W					
R742	1-216-821-11	RES-CHIP	1K	5%	1/16W	R814	1-218-701-11	METAL CHIP	2.4K	0.5% 1/16W
						R815	1-216-830-11	RES-CHIP	5.6K	5% 1/16W
R743	1-216-809-11	RES-CHIP	100	5%	1/16W	R816	1-216-830-11	RES-CHIP	5.6K	5% 1/16W
R744	1-216-821-11	RES-CHIP	1K	5%	1/16W	R817	1-216-845-11	RES-CHIP	100K	5% 1/16W
R745	1-216-841-11	RES-CHIP	47K	5%	1/16W	R818	1-216-833-11	RES-CHIP	10K	5% 1/16W
R746	1-216-809-11	RES-CHIP	100	5%	1/16W					
R747	1-216-809-11	RES-CHIP	100	5%	1/16W	R819	1-216-827-11	RES-CHIP	3.3K	5% 1/16W
						R820	1-216-838-11	RES-CHIP	27K	5% 1/16W
R748	1-216-833-11	RES-CHIP	10K	5%	1/16W	R821	1-216-827-11	RES-CHIP	3.3K	5% 1/16W
R749	1-216-849-11	RES-CHIP	220K	5%	1/16W	R823	1-216-835-11	RES-CHIP	15K	5% 1/16W
R750	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R824	1-216-838-11	RES-CHIP	27K	5% 1/16W
R751	1-216-821-11	RES-CHIP	1K	5%	1/16W					
R752	1-216-821-11	RES-CHIP	1K	5%	1/16W	R825	1-216-827-11	RES-CHIP	3.3K	5% 1/16W
						R826	1-216-830-11	RES-CHIP	5.6K	5% 1/16W
R753	1-216-809-11	RES-CHIP	100	5%	1/16W	R828	1-216-817-11	RES-CHIP	470	5% 1/16W
R754	1-216-809-11	RES-CHIP	100	5%	1/16W	R829	1-216-864-11	SHORT	0	
R755	1-216-809-11	RES-CHIP	100	5%	1/16W	R830	1-216-849-11	RES-CHIP	220K	5% 1/16W
R756	1-216-809-11	RES-CHIP	100	5%	1/16W					
R758	1-216-809-11	RES-CHIP	100	5%	1/16W	R831	1-216-839-11	RES-CHIP	33K	5% 1/16W
						R832	1-216-817-11	RES-CHIP	470	5% 1/16W
R759	1-216-821-11	RES-CHIP	1K	5%	1/16W	R833	1-216-839-11	RES-CHIP	33K	5% 1/16W
R760	1-216-849-11	RES-CHIP	220K	5%	1/16W	R834	1-216-805-11	RES-CHIP	47	5% 1/16W
R761	1-216-849-11	RES-CHIP	220K	5%	1/16W					
R762	1-216-845-11	RES-CHIP	100K	5%	1/16W	R835	1-216-837-11	RES-CHIP	22K	5% 1/16W
R763	1-216-815-11	RES-CHIP	330	5%	1/16W					
						R836	1-216-864-11	SHORT	0	
R764	1-216-821-11	RES-CHIP	1K	5%	1/16W	R840	1-216-841-11	RES-CHIP	47K	5% 1/16W
R765	1-216-815-11	RES-CHIP	330	5%	1/16W	R841	1-216-839-11	RES-CHIP	33K	5% 1/16W
R766	1-216-821-11	RES-CHIP	1K	5%	1/16W	R842	1-216-817-11	RES-CHIP	470	5% 1/16W
R767	1-216-833-11	RES-CHIP	10K	5%	1/16W	R843	1-216-829-11	RES-CHIP	4.7K	5% 1/16W
R768	1-216-809-11	RES-CHIP	100	5%	1/16W					
						R844	1-216-825-11	RES-CHIP	2.2K	5% 1/16W
R769	1-216-809-11	RES-CHIP	100	5%	1/16W	R845	1-216-817-11	RES-CHIP	470	5% 1/16W
R770	1-216-845-11	RES-CHIP	100K	5%	1/16W	R848	1-216-836-11	RES-CHIP	18K	5% 1/16W
R771	1-216-809-11	RES-CHIP	100	5%	1/16W	R849	1-216-836-11	RES-CHIP	18K	5% 1/16W
R772	1-216-821-11	RES-CHIP	1K	5%	1/16W	R850	1-216-830-11	RES-CHIP	5.6K	5% 1/16W
R773	1-216-809-11	RES-CHIP	100	5%	1/16W					
						R851	1-216-833-11	RES-CHIP	10K	5% 1/16W
R774	1-216-809-11	RES-CHIP	100	5%	1/16W	R852	1-216-833-11	RES-CHIP	10K	5% 1/16W
R775	1-216-821-11	RES-CHIP	1K	5%	1/16W	R854	1-216-838-11	RES-CHIP	27K	5% 1/16W

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R855	1-216-825-11	RES-CHIP	2.2K 5% 1/16W			< TUNER >	
R856	1-216-829-11	RES-CHIP	4.7K 5% 1/16W				
R857	1-216-838-11	RES-CHIP	27K 5% 1/16W	TU1	8-598-430-50	TUNER, FSS BTF-FA401	
R858	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	TU2	8-598-475-01	TUNER, FSS BTF-WL411	
R859	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W			(EXCEPT HR532N90)	
R860	1-249-389-11	CARBON	4.7 5% 1/4W	TU2	8-598-542-20	TUNER, FSS BTF-WA412	(HR532N90)
R861	1-249-389-11	CARBON	4.7 5% 1/4W			< VIBRATOR >	
R862	1-216-839-11	RES-CHIP	33K 5% 1/16W	X1	1-577-110-11	VIBRATOR, CRYSTAL	
R863	1-216-841-11	RES-CHIP	47K 5% 1/16W	X301	1-567-505-11	OSCILLATOR, CRYSTAL	
R864	1-216-839-11	RES-CHIP	33K 5% 1/16W	X302	1-767-179-31	VIBRATOR, SERAMIC	
R865	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W	X303	1-567-505-11	OSCILLATOR, CRYSTAL	
R866	1-216-841-11	RES-CHIP	47K 5% 1/16W	X304	1-767-179-31	VIBRATOR, SERAMIC	
R867	1-216-837-11	RES-CHIP	22K 5% 1/16W	X305	1-781-282-11	VIBRATOR, CERAMIC	
R868	1-216-837-11	RES-CHIP	22K 5% 1/16W	X306	1-767-989-11	VIBRATOR, CERAMIC	
R869	1-216-834-11	RES-CHIP	12K 5% 1/16W	X307	1-760-895-21	VIBRATOR, CERAMIC	
R870	1-216-841-11	RES-CHIP	47K 5% 1/16W	X701	1-579-358-21	VIBLATOR, CRYSTAL	
R871	1-216-809-11	RES-CHIP	100 5% 1/16W	*****			
R872	1-216-809-11	RES-CHIP	100 5% 1/16W			* A-1299-634-A AD BOARD, COMPLETE	
R873	1-216-829-11	RES-CHIP	4.7K 5% 1/16W			*****	
R874	1-216-841-11	RES-CHIP	47K 5% 1/16W			< CAPACITOR >	
R875	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	C1601	1-126-933-11	ELECT 100UF 20% 16V	
R876	1-216-841-11	RES-CHIP	47K 5% 1/16W	C1604	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R877	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	C1605	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R878	1-216-821-11	RES-CHIP	1K 5% 1/16W	C1606	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R879	1-216-821-11	RES-CHIP	1K 5% 1/16W	C1607	1-126-933-11	ELECT 100UF 20% 16V	
R880	1-216-809-11	RES-CHIP	100 5% 1/16W	C1608	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R881	1-216-809-11	RES-CHIP	100 5% 1/16W	C1609	1-162-966-11	CERAMIC CHIP 0.0022UF 10% 50V	
R882	1-216-809-11	RES-CHIP	100 5% 1/16W	C1610	1-162-962-11	CERAMIC CHIP 470PF 10% 50V	
R883	1-216-832-11	RES-CHIP	8.2K 5% 1/16W	C1611	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R884	1-216-833-11	RES-CHIP	10K 5% 1/16W	C1612	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R885	1-216-833-11	RES-CHIP	10K 5% 1/16W	C1613	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R886	1-216-833-11	RES-CHIP	10K 5% 1/16W	C1614	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R887	1-216-821-11	RES-CHIP	1K 5% 1/16W	C1615	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R888	1-216-849-11	RES-CHIP	220K 5% 1/16W	C1616	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R889	1-216-807-11	RES-CHIP	68 5% 1/16W	C1617	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R890	1-216-807-11	RES-CHIP	68 5% 1/16W	C1618	1-126-933-11	ELECT 100UF 20% 16V	
R891	1-216-807-11	RES-CHIP	68 5% 1/16W	C1619	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R892	1-216-837-11	RES-CHIP	22K 5% 1/16W	C1620	1-162-920-11	CERAMIC CHIP 27PF 5% 50V	
R893	1-216-857-11	RES-CHIP	1M 5% 1/16W	C1621	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R895	1-216-830-11	RES-CHIP	5.6K 5% 1/16W	C1622	1-162-917-11	CERAMIC CHIP 15PF 5% 50V	
R896	1-216-864-11	SHORT	0	C1623	1-162-915-11	CERAMIC CHIP 10PF 0.50PF50V	
R897	1-216-821-11	RES-CHIP	1K 5% 1/16W	C1624	1-162-915-11	CERAMIC CHIP 10PF 0.50PF50V	
R898	1-216-805-11	RES-CHIP	47 5% 1/16W	C1625	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
R899	1-216-821-11	RES-CHIP	1K 5% 1/16W	C1626	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
		< NETWORK RESISTOR >		C1627	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
RB1	1-233-576-11	RES, CHIP NETWORK	100	C1628	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
RB2	1-233-576-11	RES, CHIP NETWORK	100	C1629	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
RB3	1-233-576-11	RES, CHIP NETWORK	100	C1630	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
RB4	1-233-576-11	RES, CHIP NETWORK	100	C1631	1-126-933-11	ELECT 100UF 20% 16V	
RB5	1-233-576-11	RES, CHIP NETWORK	100	C1632	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
RB6	1-233-576-11	RES, CHIP NETWORK	100	C1633	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
				C1634	1-126-963-11	ELECT 4.7UF 20% 50V	
				C1635	1-162-923-11	CERAMIC CHIP 47PF 5% 50V	
				C1636	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
				C1637	1-162-919-11	CERAMIC CHIP 22PF 5% 50V	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1638	1-162-919-11	CERAMIC CHIP	22PF 5% 50V	C1711	1-164-690-91	CERAMIC CHIP	0.0022UF 5% 50V
C1639	1-126-933-11	ELECT	100UF 20% 16V	C1712	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C1640	1-126-933-11	ELECT	100UF 20% 16V	C1714	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C1641	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C1715	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C1643	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C1717	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C1644	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C1718	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C1645	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C1720	1-162-910-11	CERAMIC CHIP	5PF 0.25PF50V
C1646	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C1721	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C1647	1-164-690-91	CERAMIC CHIP	0.0022UF 5% 50V	C1722	1-162-910-11	CERAMIC CHIP	5PF 0.25PF50V
C1649	1-164-690-91	CERAMIC CHIP	0.0022UF 5% 50V	C1730	1-126-916-11	ELECT	1000UF 20% 6.3V
C1651	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C1731	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C1652	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C1732	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C1656	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C1733	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C1657	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C1734	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C1658	1-164-156-11	CERAMIC CHIP	0.1UF 25V	< CONNECTOR >			
C1659	1-164-156-11	CERAMIC CHIP	0.1UF 25V	CN1601	1-573-301-21	CONNECTOR, BOARD TO BOARD	20P
C1661	1-164-156-11	CERAMIC CHIP	0.1UF 25V	CN1602	1-573-301-21	CONNECTOR, BOARD TO BOARD	20P
C1663	1-126-933-11	ELECT	100UF 20% 16V	< DIODE >			
C1664	1-126-933-11	ELECT	100UF 20% 16V	D1601	8-719-404-50	MA111-TX	
C1665	1-126-933-11	ELECT	100UF 20% 16V	D1603	8-719-404-50	MA111-TX	
C1666	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D1604	8-719-069-54	UDZSTE-175.1B	
C1668	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D1605	8-719-069-54	UDZSTE-175.1B	
C1669	1-162-910-11	CERAMIC CHIP	5PF 0.25PF50V	D1606	8-719-069-54	UDZSTE-175.1B	
C1670	1-164-156-11	CERAMIC CHIP	0.1UF 25V	D1607	8-719-069-54	UDZSTE-175.1B	
C1671	1-164-156-11	CERAMIC CHIP	0.1UF 25V	D1691	8-719-404-50	MA111-TX	
C1672	1-164-156-11	CERAMIC CHIP	0.1UF 25V	D1692	8-719-404-50	MA111-TX	
C1673	1-162-910-11	CERAMIC CHIP	5PF 0.25PF50V	D1693	8-719-404-50	MA111-TX	
C1674	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	< FERRITE BEAD >			
C1675	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	FB1601	1-414-445-11	FERRITE	0UH
C1676	1-164-690-91	CERAMIC CHIP	0.0022UF 5% 50V	FB1602	1-414-445-11	FERRITE	0UH
C1677	1-126-933-11	ELECT	100UF 20% 16V	FB1603	1-414-445-11	FERRITE	0UH
C1678	1-164-690-91	CERAMIC CHIP	0.0022UF 5% 50V	FB1604	1-414-445-11	FERRITE	0UH
C1680	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB1605	1-414-445-11	FERRITE	0UH
C1681	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB1606	1-414-445-11	FERRITE	0UH
C1682	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB1607	1-414-445-11	FERRITE	0UH
C1683	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB1608	1-414-445-11	FERRITE	0UH
C1684	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB1609	1-414-445-11	FERRITE	0UH
C1685	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB1610	1-414-445-11	FERRITE	0UH
C1688	1-164-156-11	CERAMIC CHIP	0.1UF 25V	FB1611	1-414-445-11	FERRITE	0UH
C1690	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	FB1612	1-414-445-11	FERRITE	0UH
C1691	1-126-933-11	ELECT	100UF 20% 16V	FB1613	1-414-445-11	FERRITE	0UH
C1692	1-126-933-11	ELECT	100UF 20% 16V	FB1614	1-414-445-11	FERRITE	0UH
C1693	1-126-933-11	ELECT	100UF 20% 16V	FB1615	1-414-445-11	FERRITE	0UH
C1694	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	FB1616	1-414-445-11	FERRITE	0UH
C1695	1-162-910-11	CERAMIC CHIP	5PF 0.25PF50V	FB1617	1-414-445-11	FERRITE	0UH
C1696	1-162-910-11	CERAMIC CHIP	5PF 0.25PF50V	< IC >			
C1697	1-164-156-11	CERAMIC CHIP	0.1UF 25V	IC1601	8-759-683-55	IC CM0017AF	
C1698	1-164-156-11	CERAMIC CHIP	0.1UF 25V	IC1602	8-759-830-08	IC NJM2068V-TE2	
C1699	1-164-156-11	CERAMIC CHIP	0.1UF 25V	IC1603	8-759-830-08	IC NJM2068V-TE2	
C1700	1-164-156-11	CERAMIC CHIP	0.1UF 25V	IC1605	8-759-352-91	PST9143NL	
C1701	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V	IC1606	8-752-928-13	IC CXP86448-636Q	
C1704	1-126-933-11	ELECT	100UF 20% 16V	IC1607	8-759-682-41	M24C32-WMN6T(A)	
C1707	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	IC1608	8-759-829-87	IC CD0031AM	
C1708	1-164-690-91	CERAMIC CHIP	0.0022UF 5% 50V				
C1709	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V				



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC1609	8-759-830-08	IC NJM2068V-TE2		R1656	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
IC1610	8-759-830-08	IC NJM2068V-TE2		R1657	1-216-821-11	RES-CHIP	1K 5% 1/16W
IC1611	8-759-830-08	IC NJM2068V-TE2		R1658	1-216-837-11	RES-CHIP	22K 5% 1/16W
				R1659	1-216-837-11	RES-CHIP	22K 5% 1/16W
IC1612	8-759-830-08	IC NJM2068V-TE2		R1660	1-216-821-11	RES-CHIP	1K 5% 1/16W
		< COIL >		R1661	1-216-821-11	RES-CHIP	1K 5% 1/16W
L1601	1-469-555-21	INDUCTOR	10UH	R1662	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
L1602	1-469-555-21	INDUCTOR	10UH	R1663	1-216-818-11	RES-CHIP	560 5% 1/16W
		< TRANSISTOR >		R1665	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
Q1603	8-729-422-27	2SD601A-Q		R1666	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
Q1604	8-729-422-27	2SD601A-Q		R1667	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
Q1605	8-729-422-27	2SD601A-Q		R1668	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
Q1606	8-729-422-27	2SD601A-Q		R1669	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
		< RESISTOR >		R1670	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1600	1-216-833-11	RES-CHIP	10K 5% 1/16W	R1671	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1601	1-216-841-11	RES-CHIP	47K 5% 1/16W	R1672	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1604	1-216-833-11	RES-CHIP	10K 5% 1/16W	R1673	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1605	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1674	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1606	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1675	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1607	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1676	1-216-821-11	RES-CHIP	1K 5% 1/16W
R1608	1-216-809-11	RES-CHIP	100 5% 1/16W	R1681	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1609	1-216-809-11	RES-CHIP	100 5% 1/16W	R1682	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R1611	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R1683	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R1614	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R1684	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R1615	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1685	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R1618	1-216-809-11	RES-CHIP	100 5% 1/16W	R1690	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1619	1-216-864-11	SHORT	0	R1691	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1620	1-216-809-11	RES-CHIP	100 5% 1/16W	R1692	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1621	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1693	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1622	1-216-817-11	RES-CHIP	470 5% 1/16W	R1694	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1623	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1695	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1625	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1696	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1627	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1697	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1634	1-216-809-11	RES-CHIP	100 5% 1/16W	R1698	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R1635	1-216-809-11	RES-CHIP	100 5% 1/16W	R1699	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R1636	1-216-833-11	RES-CHIP	10K 5% 1/16W	R1700	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R1637	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1701	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R1638	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1702	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1639	1-216-809-11	RES-CHIP	100 5% 1/16W	R1703	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1641	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R1704	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1642	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1705	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1643	1-216-821-11	RES-CHIP	1K 5% 1/16W	R1706	1-218-724-11	METAL CHIP	22K 0.5% 1/16W
R1644	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R1707	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1645	1-216-815-11	RES-CHIP	330 5% 1/16W	R1708	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1646	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R1709	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R1647	1-216-833-11	RES-CHIP	10K 5% 1/16W	R1710	1-216-864-11	SHORT	0
R1648	1-216-809-11	RES-CHIP	100 5% 1/16W	R1711	1-216-833-11	RES-CHIP	10K 5% 1/16W
R1649	1-216-809-11	RES-CHIP	100 5% 1/16W	R1712	1-216-833-11	RES-CHIP	10K 5% 1/16W
R1650	1-216-815-11	RES-CHIP	330 5% 1/16W	R1713	1-216-833-11	RES-CHIP	10K 5% 1/16W
R1651	1-216-815-11	RES-CHIP	330 5% 1/16W	R1714	1-216-833-11	RES-CHIP	10K 5% 1/16W
R1652	1-216-821-11	RES-CHIP	1K 5% 1/16W			< NETWORK RESISTOR >	
R1653	1-216-817-11	RES-CHIP	470 5% 1/16W	RB1603	1-233-576-11	RES, CHIP NETWORK	100
R1654	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	RB1604	1-233-576-11	RES, CHIP NETWORK	100
R1655	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W	RB1605	1-233-576-11	RES, CHIP NETWORK	100



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
< VIBRATOR >							
X1601	1-767-925-21	VIBRATOR, CRYSTAL		C3340	1-164-156-11	CERAMIC CHIP 0.1UF	25V
*****				C3341	1-164-156-11	CERAMIC CHIP 0.1UF	25V
	* A-1136-267-A	B BOARD, COMPLETE		C3343	1-164-156-11	CERAMIC CHIP 0.1UF	25V
*****				C3344	1-164-156-11	CERAMIC CHIP 0.1UF	25V
< CAPACITOR >				C3345	1-126-204-11	ELECT CHIP 47UF	20% 16V
C3001	1-128-453-21	ELECT CHIP 47UF	20% 6.3V	C3346	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3002	1-128-453-21	ELECT CHIP 47UF	20% 6.3V	C3347	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3003	1-128-453-21	ELECT CHIP 47UF	20% 6.3V	C3348	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3035	1-162-970-11	CERAMIC CHIP 0.01UF	10% 25V	C3349	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3044	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3350	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3089	1-162-970-11	CERAMIC CHIP 0.01UF	10% 25V	C3351	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3090	1-126-204-11	ELECT CHIP 47UF	20% 16V	C3352	1-124-779-00	ELECT CHIP 10UF	20% 16V
C3096	1-162-970-11	CERAMIC CHIP 0.01UF	10% 25V	C3353	1-126-204-11	ELECT CHIP 47UF	20% 16V
C3101	1-162-925-11	CERAMIC CHIP 68PF	5% 50V	C3354	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3102	1-162-925-11	CERAMIC CHIP 68PF	5% 50V	C3355	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3301	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3356	1-126-204-11	ELECT CHIP 47UF	20% 16V
C3302	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3357	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3303	1-126-206-11	ELECT CHIP 100UF	20% 6.3V	C3358	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3304	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3359	1-126-204-11	ELECT CHIP 47UF	20% 16V
C3305	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3360	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3306	1-126-204-11	ELECT CHIP 47UF	20% 16V	C3361	1-162-970-11	CERAMIC CHIP 0.01UF	10% 25V
C3307	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3362	1-127-760-11	CERAMIC CHIP 4.7UF	10% 6.3V
C3308	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3363	1-126-204-11	ELECT CHIP 47UF	20% 16V
C3309	1-126-206-11	ELECT CHIP 100UF	20% 6.3V	C3364	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3310	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3365	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3311	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3366	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3312	1-126-206-11	ELECT CHIP 100UF	20% 6.3V	C3367	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3313	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3368	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3314	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3369	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3315	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3370	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3316	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3371	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3317	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3372	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3318	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3373	1-162-915-11	CERAMIC CHIP 10PF	0.50PF50V
C3319	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3374	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3320	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3375	1-127-760-11	CERAMIC CHIP 4.7UF	10% 6.3V
C3321	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3376	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3322	1-126-204-11	ELECT CHIP 47UF	20% 16V	C3377	1-162-970-11	CERAMIC CHIP 0.01UF	10% 25V
C3323	1-124-779-00	ELECT CHIP 10UF	20% 16V	C3378	1-126-204-11	ELECT CHIP 47UF	20% 16V
C3324	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3379	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3325	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3401	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3326	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3402	1-124-779-00	ELECT CHIP 10UF	20% 16V
C3327	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3403	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3328	1-124-779-00	ELECT CHIP 10UF	20% 16V	C3404	1-126-206-11	ELECT CHIP 100UF	20% 6.3V
C3329	1-107-826-11	CERAMIC CHIP 0.1UF	10% 16V	C3405	1-126-206-11	ELECT CHIP 100UF	20% 6.3V
C3331	1-126-204-11	ELECT CHIP 47UF	20% 16V	C3406	1-107-826-11	CERAMIC CHIP 0.1UF	10% 16V
C3332	1-124-779-00	ELECT CHIP 10UF	20% 16V	C3407	1-107-826-11	CERAMIC CHIP 0.1UF	10% 16V
C3333	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3408	1-126-206-11	ELECT CHIP 100UF	20% 6.3V
C3334	1-107-826-11	CERAMIC CHIP 0.1UF	10% 16V	C3409	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3335	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3410	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3336	1-124-779-00	ELECT CHIP 10UF	20% 16V	C3411	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3337	1-107-826-11	CERAMIC CHIP 0.1UF	10% 16V	C3412	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3338	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3413	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C3339	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3414	1-164-156-11	CERAMIC CHIP 0.1UF	25V
				C3415	1-124-779-00	ELECT CHIP 10UF	20% 16V
				C3416	1-164-156-11	CERAMIC CHIP 0.1UF	25V
				C3417	1-164-156-11	CERAMIC CHIP 0.1UF	25V
				C3418	1-107-826-11	CERAMIC CHIP 0.1UF	10% 16V

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C3419	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C3481	1-117-681-11	ELECT CHIP 100UF 20% 16V
C3420	1-124-779-00	ELECT CHIP	10UF	20% 16V	C3482	1-117-681-11	ELECT CHIP 100UF 20% 16V
C3421	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C3483	1-117-681-11	ELECT CHIP 100UF 20% 16V
C3422	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C3484	1-125-837-91	CERAMIC CHIP 1UF 10% 6.3V
C3423	1-162-970-11	CERAMIC CHIP	0.01UF	10% 25V			
C3424	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C3485	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C3425	1-125-891-11	CERAMIC CHIP	0.47UF	10% 10V	C3486	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C3426	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C3487	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C3428	1-107-826-11	CERAMIC CHIP	0.1UF	10% 16V	C3488	1-124-779-00	ELECT CHIP 10UF 20% 16V
C3429	1-124-779-00	ELECT CHIP	10UF	20% 16V	C3489	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C3430	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C3490	1-124-779-00	ELECT CHIP 10UF 20% 16V
C3431	1-126-204-11	ELECT CHIP	47UF	20% 16V	C3491	1-126-204-11	ELECT CHIP 47UF 20% 16V
C3432	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C3492	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C3433	1-162-970-11	CERAMIC CHIP	0.01UF	10% 25V	C3493	1-126-204-11	ELECT CHIP 47UF 20% 16V
C3434	1-126-204-11	ELECT CHIP	47UF	20% 16V	C3494	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C3435	1-164-156-11	CERAMIC CHIP	0.1UF	25V	C3495	1-124-779-00	ELECT CHIP 10UF 20% 16V
C3436	1-107-826-11	CERAMIC CHIP	0.1UF	10% 16V	C3496	1-164-156-11	CERAMIC CHIP 0.1UF 25V
C3437	1-126-204-11	ELECT CHIP	47UF	20% 16V	C3499	1-162-970-11	CERAMIC CHIP 0.01UF 10% 25V
C3438	1-164-156-11	CERAMIC CHIP	0.1UF	25V			< CONNECTOR >
C3439	1-164-156-11	CERAMIC CHIP	0.1UF	25V	CN3203*	1-793-923-11	CONNECTOR, DIN (PLUG) 64P
C3440	1-162-916-11	CERAMIC CHIP	12PF	5% 50V			< DIODE >
C3441	1-162-916-11	CERAMIC CHIP	12PF	5% 50V	D3089	8-719-800-76	1SS226
C3442	1-124-779-00	ELECT CHIP	10UF	20% 16V	D3090	8-719-800-76	1SS226
C3443	1-162-970-11	CERAMIC CHIP	0.01UF	10% 25V	D3099	8-719-988-61	1SS355TE-17
C3444	1-164-156-11	CERAMIC CHIP	0.1UF	25V	D3301	8-719-083-58	UDZSTE-173.9B
C3445	1-126-204-11	ELECT CHIP	47UF	20% 16V	D3302	8-719-069-60	UDZSTE-179.1B
C3446	1-107-826-11	CERAMIC CHIP	0.1UF	10% 16V	D3401	8-719-914-43	DAN202K
C3447	1-164-156-11	CERAMIC CHIP	0.1UF	25V	D3402	8-719-914-45	DAP202K
C3448	1-162-970-11	CERAMIC CHIP	0.01UF	10% 25V	D3403	8-719-069-33	DTZ-TT11-6.8B
C3449	1-164-156-11	CERAMIC CHIP	0.1UF	25V			< FERRITE BEAD >
C3450	1-164-156-11	CERAMIC CHIP	0.1UF	25V	FB3302	1-500-451-11	FERRITE 0UH
C3451	1-164-156-11	CERAMIC CHIP	0.1UF	25V	FB3401	1-414-235-22	FERRITE 0UH
C3452	1-164-156-11	CERAMIC CHIP	0.1UF	25V	FB3402	1-414-235-22	FERRITE 0UH
C3453	1-124-779-00	ELECT CHIP	10UF	20% 16V			< FILTER >
C3454	1-164-156-11	CERAMIC CHIP	0.1UF	25V	FL3003	1-781-924-11	FILTER, LOW PASS (SMD)
C3455	1-124-779-00	ELECT CHIP	10UF	20% 16V	FL3301	1-234-558-21	FILTER, LOW PASS
C3456	1-164-156-11	CERAMIC CHIP	0.1UF	25V	FL3302	1-234-557-21	FILTER, LOW PASS
C3457	1-124-779-00	ELECT CHIP	10UF	20% 16V	FL3303	1-234-557-21	FILTER, LOW PASS
C3458	1-164-156-11	CERAMIC CHIP	0.1UF	25V	FL3401	1-781-923-11	FILTER, LOW PASS (SMD)
C3460	1-162-923-11	CERAMIC CHIP	47PF	5% 50V			< IC >
C3462	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3089	6-700-149-01	IC M24C04-MN6T(A)
C3463	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3090	8-759-832-08	IC MB94918RPF-G-134-BND
C3464	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3091	8-759-349-11	PST9145NL
C3465	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3301	8-759-832-53	W981616AH-7-EL1
C3466	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3302	8-759-832-05	IC BA18BC0FP-E2
C3467	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3303	8-752-409-78	IC CXD2095AQ
C3468	1-126-206-11	ELECT CHIP	100UF	20% 6.3V	IC3304	8-759-447-90	TLC5733AIPM
C3469	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3305	8-759-669-75	TLC2932IPWR
C3470	1-126-206-11	ELECT CHIP	100UF	20% 6.3V	IC3306	8-759-669-78	TLC2933IPWR-12
C3473	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3401	6-700-394-01	IC BA25BC0FP-E2
C3474	1-124-779-00	ELECT CHIP	10UF	20% 16V	IC3402	8-759-677-39	MB81F643242B-D
C3475	1-164-156-11	CERAMIC CHIP	0.1UF	25V	IC3403	8-759-460-29	PST9120NL
C3476	1-124-779-00	ELECT CHIP	10UF	20% 16V			
C3477	1-164-156-11	CERAMIC CHIP	0.1UF	25V			
C3478	1-126-204-11	ELECT CHIP	47UF	20% 16V			
C3479	1-124-779-00	ELECT CHIP	10UF	20% 16V			
C3480	1-164-156-11	CERAMIC CHIP	0.1UF	25V			



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC3404	8-759-669-75	TLC2932IPWR		Q3307	8-729-422-27	2SD601A-Q	
IC3405	8-759-453-97	TC7SET08FU(TE85L		Q3308	8-729-026-49	2SA1037AK-T146-R	
IC3406	8-759-453-97	TC7SET08FU(TE85L					
IC3407	8-759-453-97	TC7SET08FU(TE85L		Q3309	8-729-422-27	2SD601A-Q	
IC3408	8-759-672-57	CXD9509AQ		Q3310	8-729-026-49	2SA1037AK-T146-R	
IC3409	8-759-833-72	IC NJM2870F25-TE2		Q3311	8-729-422-27	2SD601A-Q	
IC3410	8-752-367-59	CXD2309Q		Q3401	8-729-422-27	2SD601A-Q	
IC3411	8-759-082-57	TC7W04FU		Q3402	8-729-028-28	2SK2036(TE85L)	
IC3412	8-759-082-58	TC7W08FU		Q3403	8-729-422-27	2SD601A-Q	
IC3413	8-759-595-97	SN74LV4053ANSR		Q3404	8-729-028-28	2SK2036(TE85L)	
IC3414	8-759-548-56	M52055FP		Q3405	8-729-026-49	2SA1037AK-T146-R	
		< COIL >		Q3406	8-729-026-49	2SA1037AK-T146-R	
L3001	1-216-295-91	SHORT	0	Q3407	8-729-422-27	2SD601A-Q	
L3089	1-414-233-22	FERRITE	0UH	Q3408	8-729-026-49	2SA1037AK-T146-R	
L3102	1-412-946-11	INDUCTOR	3.9UH	Q3409	8-729-422-27	2SD601A-Q	
L3301	1-412-058-11	INDUCTOR	10UH	Q3410	8-729-026-49	2SA1037AK-T146-R	
L3302	1-469-555-21	INDUCTOR	10UH	Q3411	8-729-026-49	2SA1037AK-T146-R	
L3303	1-412-052-21	INDUCTOR	1UH	Q3412	8-729-026-49	2SA1037AK-T146-R	
L3304	1-469-555-21	INDUCTOR	10UH	Q3413	8-729-026-49	2SA1037AK-T146-R	
L3305	1-469-555-21	INDUCTOR	10UH	Q3414	8-729-026-49	2SA1037AK-T146-R	
L3306	1-469-561-21	INDUCTOR	100UH	Q3415	8-729-026-49	2SA1037AK-T146-R	
L3307	1-469-555-21	INDUCTOR	10UH			< RESISTOR >	
L3308	1-469-561-21	INDUCTOR	100UH	R3001	1-216-833-11	RES-CHIP	10K 5% 1/16W
L3309	1-469-561-21	INDUCTOR	100UH	R3002	1-216-864-11	SHORT	0
L3310	1-469-561-21	INDUCTOR	100UH	R3021	1-216-809-11	RES-CHIP	100 5% 1/16W
L3311	1-469-561-21	INDUCTOR	100UH	R3022	1-216-809-11	RES-CHIP	100 5% 1/16W
L3312	1-469-555-21	INDUCTOR	10UH	R3023	1-216-833-11	RES-CHIP	10K 5% 1/16W
L3401	1-412-058-11	INDUCTOR	10UH	R3035	1-216-809-11	RES-CHIP	100 5% 1/16W
L3402	1-412-052-21	INDUCTOR	1UH	R3036	1-216-809-11	RES-CHIP	100 5% 1/16W
L3403	1-469-561-21	INDUCTOR	100UH	R3037	1-216-809-11	RES-CHIP	100 5% 1/16W
L3404	1-469-561-21	INDUCTOR	100UH	R3038	1-218-686-11	METAL CHIP	560 0.5% 1/16W
L3405	1-469-555-21	INDUCTOR	10UH	R3039	1-218-686-11	METAL CHIP	560 0.5% 1/16W
L3406	1-469-555-21	INDUCTOR	10UH	R3040	1-218-686-11	METAL CHIP	560 0.5% 1/16W
L3407	1-469-555-21	INDUCTOR	10UH	R3050	1-216-809-11	RES-CHIP	100 5% 1/16W
L3408	1-469-555-21	INDUCTOR	10UH	R3079	1-216-821-11	RES-CHIP	1K 5% 1/16W
L3409	1-469-555-21	INDUCTOR	10UH	R3089	1-216-864-11	SHORT	0
L3410	1-412-058-11	INDUCTOR	10UH	R3091	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
L3411	1-412-058-11	INDUCTOR	10UH	R3092	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
L3412	1-469-555-21	INDUCTOR	10UH	R3095	1-216-845-11	RES-CHIP	100K 5% 1/16W
L3413	1-469-555-21	INDUCTOR	10UH	R3096	1-216-817-11	RES-CHIP	470 5% 1/16W
L3414	1-469-555-21	INDUCTOR	10UH	R3097	1-216-845-11	RES-CHIP	100K 5% 1/16W
L3416	1-469-555-21	INDUCTOR	10UH	R3098	1-216-805-11	RES-CHIP	47 5% 1/16W
		< TRANSISTOR >		R3099	1-216-805-11	RES-CHIP	47 5% 1/16W
Q3005	8-729-422-27	2SD601A-Q		R3100	1-216-809-11	RES-CHIP	100 5% 1/16W
Q3006	8-729-422-27	2SD601A-Q		R3101	1-216-809-11	RES-CHIP	100 5% 1/16W
Q3007	8-729-422-27	2SD601A-Q		R3102	1-216-809-11	RES-CHIP	100 5% 1/16W
Q3089	8-729-026-49	2SA1037AK-T146-R		R3103	1-216-822-11	RES-CHIP	1.2K 5% 1/16W
Q3090	8-729-026-49	2SA1037AK-T146-R		R3104	1-216-809-11	RES-CHIP	100 5% 1/16W
Q3091	1-801-806-11	TR DTC144EKA		R3105	1-216-809-11	RES-CHIP	100 5% 1/16W
Q3301	8-729-422-27	2SD601A-Q		R3106	1-216-818-11	RES-CHIP	560 5% 1/16W
Q3302	8-729-422-27	2SD601A-Q		R3107	1-216-864-11	SHORT	0
Q3303	8-729-422-27	2SD601A-Q		R3108	1-216-817-11	RES-CHIP	470 5% 1/16W
Q3304	8-729-422-27	2SD601A-Q		R3109	1-216-823-11	RES-CHIP	1.5K 5% 1/16W
Q3305	8-729-026-49	2SA1037AK-T146-R		R3110	1-216-809-11	RES-CHIP	100 5% 1/16W
Q3306	8-729-026-49	2SA1037AK-T146-R		R3111	1-216-809-11	RES-CHIP	100 5% 1/16W
				R3301	1-216-809-11	RES-CHIP	100 5% 1/16W
				R3302	1-216-817-11	RES-CHIP	470 5% 1/16W

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK		
R3303	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W	R3361	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3304	1-216-809-11	RES-CHIP	100	5%	1/16W	R3364	1-216-864-11	SHORT	0		
R3305	1-216-809-11	RES-CHIP	100	5%	1/16W						
R3306	1-216-809-11	RES-CHIP	100	5%	1/16W	R3365	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3307	1-216-864-11	SHORT	0			R3366	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
					R3367	1-216-803-11	RES-CHIP	33	5%	1/16W	
R3308	1-216-864-11	SHORT	0		R3369	1-216-864-11	SHORT	0			
R3309	1-218-662-11	METAL CHIP	56	0.5%	1/16W	R3371	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3310	1-218-662-11	METAL CHIP	56	0.5%	1/16W						
R3311	1-218-662-11	METAL CHIP	56	0.5%	1/16W	R3372	1-216-817-11	RES-CHIP	470	5%	1/16W
R3312	1-218-662-11	METAL CHIP	56	0.5%	1/16W	R3373	1-216-817-11	RES-CHIP	470	5%	1/16W
					R3374	1-216-809-11	RES-CHIP	100	5%	1/16W	
R3313	1-216-835-11	RES-CHIP	15K	5%	1/16W	R3375	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3314	1-218-665-11	METAL CHIP	75	0.5%	1/16W	R3376	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R3315	1-216-835-11	RES-CHIP	15K	5%	1/16W						
R3316	1-218-664-11	METAL CHIP	68	0.5%	1/16W	R3377	1-216-817-11	RES-CHIP	470	5%	1/16W
					R3378	1-216-817-11	RES-CHIP	470	5%	1/16W	
R3317	1-218-664-11	METAL CHIP	68	0.5%	1/16W	R3379	1-216-809-11	RES-CHIP	100	5%	1/16W
R3318	1-218-665-11	METAL CHIP	75	0.5%	1/16W	R3380	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R3319	1-218-662-11	METAL CHIP	56	0.5%	1/16W	R3381	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R3320	1-218-662-11	METAL CHIP	56	0.5%	1/16W						
R3321	1-218-662-11	METAL CHIP	56	0.5%	1/16W	R3382	1-216-864-11	SHORT	0		
					R3383	1-216-817-11	RES-CHIP	470	5%	1/16W	
R3322	1-218-662-11	METAL CHIP	56	0.5%	1/16W	R3410	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3323	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3421	1-216-864-11	SHORT	0		
R3324	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	R3422	1-216-864-11	SHORT	0		
R3325	1-216-827-11	RES-CHIP	3.3K	5%	1/16W						
R3326	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3423	1-216-813-11	RES-CHIP	220	5%	1/16W
					R3428	1-216-803-11	RES-CHIP	33	5%	1/16W	
R3327	1-216-835-11	RES-CHIP	15K	5%	1/16W	R3429	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R3328	1-216-864-11	SHORT	0		R3432	1-216-815-11	RES-CHIP	330	5%	1/16W	
R3329	1-216-815-11	RES-CHIP	330	5%	1/16W	R3434	1-216-809-11	RES-CHIP	100	5%	1/16W
R3330	1-216-815-11	RES-CHIP	330	5%	1/16W						
R3331	1-216-841-11	RES-CHIP	47K	5%	1/16W	R3445	1-216-864-11	SHORT	0		
					R3446	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R3332	1-218-709-11	METAL CHIP	5.1K	0.5%	1/16W	R3447	1-216-819-11	RES-CHIP	680	5%	1/16W
R3333	1-216-864-11	SHORT	0		R3448	1-216-855-11	RES-CHIP	680K	5%	1/16W	
R3334	1-216-809-11	RES-CHIP	100	5%	1/16W	R3452	1-216-864-11	SHORT	0		
R3335	1-216-833-11	RES-CHIP	10K	5%	1/16W						
R3337	1-216-820-11	RES-CHIP	820	5%	1/16W	R3454	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
					R3460	1-216-833-11	RES-CHIP	10K	5%	1/16W	
R3338	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3461	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3339	1-216-855-11	RES-CHIP	680K	5%	1/16W	R3464	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3340	1-216-855-11	RES-CHIP	680K	5%	1/16W	R3465	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3341	1-216-813-11	RES-CHIP	220	5%	1/16W						
R3342	1-218-705-11	METAL CHIP	3.6K	0.5%	1/16W	R3467	1-216-821-11	RES-CHIP	1K	5%	1/16W
					R3470	1-216-809-11	RES-CHIP	100	5%	1/16W	
R3343	1-216-809-11	RES-CHIP	100	5%	1/16W	R3471	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3344	1-216-853-11	RES-CHIP	470K	5%	1/16W	R3472	1-216-801-11	RES-CHIP	22	5%	1/16W
R3345	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W	R3475	1-216-809-11	RES-CHIP	100	5%	1/16W
R3346	1-216-809-11	RES-CHIP	100	5%	1/16W						
R3347	1-216-815-11	RES-CHIP	330	5%	1/16W	R3476	1-216-821-11	RES-CHIP	1K	5%	1/16W
					R3477	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W	
R3348	1-216-864-11	SHORT	0		R3478	1-216-821-11	RES-CHIP	1K	5%	1/16W	
R3349	1-218-687-11	METAL CHIP	620	0.5%	1/16W	R3483	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W
R3350	1-216-814-11	RES-CHIP	270	5%	1/16W	R3484	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3351	1-216-825-11	RES-CHIP	2.2K	5%	1/16W						
R3352	1-216-853-11	RES-CHIP	470K	5%	1/16W	R3485	1-216-821-11	RES-CHIP	1K	5%	1/16W
					R3486	1-216-801-11	RES-CHIP	22	5%	1/16W	
R3353	1-216-837-11	RES-CHIP	22K	5%	1/16W	R3489	1-216-864-11	SHORT	0		
R3354	1-216-813-11	RES-CHIP	220	5%	1/16W	R3490	1-216-864-11	SHORT	0		
R3355	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3491	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3356	1-216-819-11	RES-CHIP	680	5%	1/16W						
R3357	1-218-676-11	METAL CHIP	220	0.5%	1/16W	R3492	1-216-821-11	RES-CHIP	1K	5%	1/16W
					R3493	1-218-701-11	METAL CHIP	2.4K	0.5%	1/16W	
R3358	1-218-676-11	METAL CHIP	220	0.5%	1/16W	R3495	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3359	1-218-676-11	METAL CHIP	220	0.5%	1/16W	R3496	1-216-801-11	RES-CHIP	22	5%	1/16W
R3360	1-216-827-11	RES-CHIP	3.3K	5%	1/16W						

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RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION		REMARK	REF. NO.	PART NO.	DESCRIPTION		REMARK
R3497	1-216-829-11	RES-CHIP	4.7K	5% 1/16W	R3848	1-216-825-11	RES-CHIP	2.2K	5% 1/16W
R3498	1-216-818-11	RES-CHIP	560	5% 1/16W	R3849	1-218-675-11	METAL CHIP	200	0.5% 1/16W
R3499	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3850	1-218-675-11	METAL CHIP	200	0.5% 1/16W
R3501	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3851	1-216-809-11	RES-CHIP	100	5% 1/16W
R3502	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3852	1-218-675-11	METAL CHIP	200	0.5% 1/16W
R3503	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3854	1-216-825-11	RES-CHIP	2.2K	5% 1/16W
R3504	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3857	1-216-809-11	RES-CHIP	100	5% 1/16W
R3505	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3858	1-218-704-11	METAL CHIP	3.3K	0.5% 1/16W
R3506	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3862	1-216-825-11	RES-CHIP	2.2K	5% 1/16W
R3507	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3863	1-218-700-11	METAL CHIP	2.2K	0.5% 1/16W
R3508	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3864	1-216-827-11	RES-CHIP	3.3K	5% 1/16W
R3509	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3865	1-216-809-11	RES-CHIP	100	5% 1/16W
R3510	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3866	1-414-234-22	FERRITE	0UH	
R3511	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3867	1-414-234-22	FERRITE	0UH	
R3512	1-216-821-11	RES-CHIP	1K	5% 1/16W	R3868	1-414-234-22	FERRITE	0UH	
R3800	1-216-864-11	SHORT	0		R3869	1-218-719-11	METAL CHIP	13K	0.5% 1/16W
R3802	1-218-678-11	METAL CHIP	270	0.5% 1/16W	R3870	1-218-719-11	METAL CHIP	13K	0.5% 1/16W
R3803	1-218-678-11	METAL CHIP	270	0.5% 1/16W	R3871	1-218-719-11	METAL CHIP	13K	0.5% 1/16W
R3804	1-218-678-11	METAL CHIP	270	0.5% 1/16W	R3881	1-216-807-11	RES-CHIP	68	5% 1/16W
R3805	1-218-678-11	METAL CHIP	270	0.5% 1/16W	R3882	1-216-807-11	RES-CHIP	68	5% 1/16W
R3806	1-218-662-11	METAL CHIP	56	0.5% 1/16W	R3883	1-216-807-11	RES-CHIP	68	5% 1/16W
R3807	1-218-670-11	METAL CHIP	120	0.5% 1/16W	R3915	1-218-644-11	METAL CHIP	10	0.5% 1/16W
R3808	1-218-670-11	METAL CHIP	120	0.5% 1/16W	R3916	1-218-644-11	METAL CHIP	10	0.5% 1/16W
R3809	1-218-670-11	METAL CHIP	120	0.5% 1/16W	R3917	1-218-644-11	METAL CHIP	10	0.5% 1/16W
R3810	1-218-670-11	METAL CHIP	120	0.5% 1/16W	R3923	1-412-363-21	FERRITE	0UH	
R3811	1-216-809-11	RES-CHIP	100	5% 1/16W	R3933	1-216-864-11	SHORT	0	
R3812	1-216-809-11	RES-CHIP	100	5% 1/16W	R3937	1-216-809-11	RES-CHIP	100	5% 1/16W
R3813	1-216-809-11	RES-CHIP	100	5% 1/16W	R3953	1-216-821-11	RES-CHIP	1K	5% 1/16W
R3814	1-218-644-11	METAL CHIP	10	0.5% 1/16W	R3954	1-216-821-11	RES-CHIP	1K	5% 1/16W
R3815	1-218-648-11	METAL CHIP	15	0.5% 1/16W	R3955	1-216-821-11	RES-CHIP	1K	5% 1/16W
R3816	1-218-652-11	METAL CHIP	22	0.5% 1/16W	R3956	1-216-825-11	RES-CHIP	2.2K	5% 1/16W
R3817	1-218-652-11	METAL CHIP	22	0.5% 1/16W	R3957	1-216-825-11	RES-CHIP	2.2K	5% 1/16W
R3820	1-218-684-11	METAL CHIP	470	0.5% 1/16W	R3958	1-216-825-11	RES-CHIP	2.2K	5% 1/16W
R3821	1-218-684-11	METAL CHIP	470	0.5% 1/16W			< NETWORK RESISTOR >		
R3822	1-218-684-11	METAL CHIP	470	0.5% 1/16W	RB3304	1-234-525-21	RES, CHIP NETWORK	56	
R3823	1-216-826-11	RES-CHIP	2.7K	5% 1/16W	RB3305	1-234-525-21	RES, CHIP NETWORK	56	
R3824	1-216-826-11	RES-CHIP	2.7K	5% 1/16W	RB3306	1-234-525-21	RES, CHIP NETWORK	56	
R3825	1-216-826-11	RES-CHIP	2.7K	5% 1/16W	RB3307	1-234-525-21	RES, CHIP NETWORK	56	
R3826	1-216-809-11	RES-CHIP	100	5% 1/16W	RB3401	1-234-524-21	RES, CHIP NETWORK	33	
R3828	1-218-684-11	METAL CHIP	470	0.5% 1/16W	RB3402	1-234-524-21	RES, CHIP NETWORK	33	
R3829	1-218-684-11	METAL CHIP	470	0.5% 1/16W	RB3403	1-234-524-21	RES, CHIP NETWORK	33	
R3830	1-218-684-11	METAL CHIP	470	0.5% 1/16W	RB3404	1-234-524-21	RES, CHIP NETWORK	33	
R3831	1-216-864-11	SHORT	0		RB3405	1-234-524-21	RES, CHIP NETWORK	33	
R3832	1-216-864-11	SHORT	0		RB3406	1-234-524-21	RES, CHIP NETWORK	33	
R3833	1-216-864-11	SHORT	0		RB3407	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3834	1-218-678-11	METAL CHIP	270	0.5% 1/16W	RB3408	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3835	1-218-678-11	METAL CHIP	270	0.5% 1/16W	RB3409	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3836	1-218-678-11	METAL CHIP	270	0.5% 1/16W	RB3410	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3837	1-218-678-11	METAL CHIP	270	0.5% 1/16W	RB3411	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3838	1-218-678-11	METAL CHIP	270	0.5% 1/16W	RB3412	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3839	1-218-670-11	METAL CHIP	120	0.5% 1/16W	RB3421	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3840	1-216-803-11	RES-CHIP	33	5% 1/16W	RB3422	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3841	1-218-670-11	METAL CHIP	120	0.5% 1/16W	RB3423	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3842	1-218-689-11	METAL CHIP	750	0.5% 1/16W	RB3424	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3846	1-216-801-11	RES-CHIP	22	5% 1/16W	RB3425	1-239-409-11	RES, CHIP NETWORK	47 (3216)	
R3847	1-216-801-11	RES-CHIP	22	5% 1/16W	RB3426	1-239-409-11	RES, CHIP NETWORK	47 (3216)	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
RB3427	1-239-409-11	RES, CHIP NETWORK 47 (3216)		L7303	1-414-181-11	INDUCTOR 4.7UH	
RB3428	1-239-409-11	RES, CHIP NETWORK 47 (3216)				< NEON LAMP >	
		< VIBRATOR >		NL7301	1-517-778-21	LAMP, NEON	
X3089	1-781-945-21	VIBRATOR, CERAMIC				< TRANSISTOR >	
X3401	1-781-887-21	VIBRATOR, CRYSTAL		Q7301	8-729-026-49	2SA1037AK-T146-R	
X3402	1-781-579-21	OSCILLATOR, CRYSTAL		Q7302	8-729-026-49	2SA1037AK-T146-R	
*****						< RESISTOR >	
	* A-1332-252-A	CB BOARD, COMPLETE	(EXCEPT HW572K90)	R7301	1-249-393-11	CARBON 10 5% 1/4W	
		*****		R7303	1-260-132-11	CARBON 560K 5% 1/2W	
	4-382-854-11	SCREW (M3X10), P, SW (+)		R7304	1-216-864-11	SHORT 0	
		< CAPACITOR >		R7305	1-216-813-11	RES-CHIP 220 5% 1/16W	
C7301	1-107-662-11	ELECT 22UF 20% 250V		R7306	1-219-743-11	CARBON 100 5% 1/2W	
C7302	1-104-570-11	CERAMIC 0.001UF 10% 2KV		R7308	1-218-713-11	METAL CHIP 7.5K 0.5% 1/16W	
C7303	1-126-768-11	ELECT 2200UF 20% 16V		R7309	1-218-718-11	METAL CHIP 12K 0.5% 1/16W	
C7304	1-161-830-00	CERAMIC 0.0047UF 500V		R7310	1-216-813-11	RES-CHIP 220 5% 1/16W	
C7305	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V		R7311	1-218-710-11	METAL CHIP 5.6K 0.5% 1/16W	
C7306	1-102-050-00	CERAMIC 0.01UF 99% 500V		R7312	1-218-718-11	METAL CHIP 12K 0.5% 1/16W	
C7307	1-126-964-11	ELECT 10UF 20% 50V		R7313	1-260-133-11	CARBON 680K 5% 1/2W	
C7308	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V		R7314	1-218-702-11	METAL CHIP 2.7K 0.5% 1/16W	
C7309	1-162-115-00	CERAMIC 330PF 10% 2KV		R7316	1-249-424-11	CARBON 3.9K 5% 1/4W	
C7310	1-126-967-11	ELECT 47UF 20% 50V		R7317	1-216-811-11	RES-CHIP 150 5% 1/16W	
C7312	1-162-927-11	CERAMIC CHIP 100PF 5% 50V		R7318	1-218-696-11	METAL CHIP 1.5K 0.5% 1/16W	
C7313	1-102-157-00	CERAMIC 560PF 10% 500V		R7319	1-260-328-11	CARBON 1K 5% 1/2W	
C7314	1-162-913-11	CERAMIC CHIP 8PF 0.50PF50V		R7320	1-218-701-11	METAL CHIP 2.4K 0.5% 1/16W	
C7315	1-162-907-11	CERAMIC CHIP 2PF 0.25PF50V		R7321	1-215-929-11	METAL OXIDE 100K 5% 3W	
		< CONNECTOR >		R7322	1-260-087-11	CARBON 100 5% 1/2W	
CN7302*	1-564-509-11	PLUG, CONNECTOR 6P		R7323	1-218-708-11	METAL CHIP 4.7K 0.5% 1/16W	
CN7303*	1-564-510-11	PLUG, CONNECTOR 7P		R7324	1-260-093-11	CARBON 330 5% 1/2W	
CN7304*	1-564-510-11	PLUG, CONNECTOR 7P		R7325	1-216-864-11	SHORT 0	
CN7305	1-785-879-11	CONNECTOR, ONE TOUCH		R7327	1-216-864-11	SHORT 0	
CN7307	1-695-915-11	TAB (CONTACT)		R7328	1-216-823-11	RES-CHIP 1.5K 5% 1/16W	
CN7308	1-695-915-11	TAB (CONTACT)				< SPARK GAP >	
CN7309 Δ	1-251-182-11	SOCKET, CRT		SG7301	1-519-422-11	GAP, SPARK	
		< DIODE >		SG7302	1-517-729-31	GAP, SPARK	
D7303	8-719-921-88	MTZJ-13B		*****			
D7304	8-719-901-83	ISS83				* A-1332-266-A	CB BOARD, COMPLETE (HW572K90)
D7305	8-719-991-33	ISS133T-77				*****	
D7306	8-719-901-83	ISS83			4-382-854-11	SCREW (M3X10), P, SW (+)	
D7307	8-719-901-83	ISS83				< CAPACITOR >	
D7308	8-719-901-83	ISS83		C7301	1-162-970-11	CERAMIC CHIP 0.01UF 10% 25V	
D7309	8-719-991-33	ISS133T-77		C7302	1-162-919-11	CERAMIC CHIP 22PF 5% 50V	
D7310	8-719-921-88	MTZJ-13B		C7303	1-162-919-11	CERAMIC CHIP 22PF 5% 50V	
D7311	8-719-921-88	MTZJ-13B		C7304	1-101-003-00	CERAMIC 0.0047UF 50V	
		< IC >		C7305	1-104-570-11	CERAMIC 0.001UF 10% 2KV	
IC7301	8-759-360-83	TDA6111Q/N4		C7306	1-126-768-11	ELECT 2200UF 20% 16V	
		< COIL >		C7308	1-107-662-11	ELECT 22UF 20% 250V	
L7301	1-414-223-11	INDUCTOR 470UH		C7309	1-101-003-00	CERAMIC 0.0047UF 0V	
L7302	1-414-187-11	INDUCTOR 47UH		C7310	1-164-156-11	CERAMIC CHIP 0.1UF 25V	
				C7311	1-164-156-11	CERAMIC CHIP 0.1UF 25V	

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KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

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RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK
C7312	1-126-933-11	ELECT 100UF 20%	16V
C7313	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7314	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C7315	1-161-830-00	CERAMIC 0.0047UF	500V
C7316	1-101-003-00	CERAMIC 0.0047UF	50V
C7317	1-162-966-11	CERAMIC CHIP 0.0022UF	10% 50V
< CONNECTOR >			
CN7302*	1-564-509-11	PLUG, CONNECTOR 6P	
CN7303*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7304*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7305	1-785-879-11	CONNECTOR, ONE TOUCH	
CN7307	1-695-915-11	TAB (CONTACT)	
CN7308	1-695-915-11	TAB (CONTACT)	
CN7309 Δ 1	1-251-182-11	SOCKET, CRT	
< DIODE >			
D7301	8-719-988-61	ISS355TE-17	
D7302	8-719-988-61	ISS355TE-17	
D7303	8-719-901-83	ISS83	
D7304	8-719-901-83	ISS83	
< IC >			
IC7301	8-759-680-01	TDA6120Q/N2/S1	
< JUMPER RESISTOR >			
JC7301	1-216-864-11	SHORT 0	
< COIL >			
L7301	1-469-555-21	INDUCTOR 10UH	
L7302	1-469-555-21	INDUCTOR 10UH	
L7303	1-414-855-31	INDUCTOR 1UH	
< TRANSISTOR >			
Q7301	8-729-026-49	2SA1037AK-T146-R	
Q7302	8-729-026-49	2SA1037AK-T146-R	
Q7303	8-729-422-27	2SD601A-Q	
Q7304	8-729-048-50	2SK3018-T106	
< RESISTOR >			
R7301	1-249-393-11	CARBON 10	5% 1/4W
R7302	1-216-822-11	RES-CHIP 1.2K	5% 1/16W
R7303	1-216-813-11	RES-CHIP 220	5% 1/16W
R7304	1-260-132-11	CARBON 560K	5% 1/2W
R7305	1-216-817-11	RES-CHIP 470	5% 1/16W
R7306	1-218-699-11	METAL CHIP 2K	0.5% 1/16W
R7307	1-219-743-11	CARBON 100	5% 1/2W
R7308	1-216-811-11	RES-CHIP 150	5% 1/16W
R7309	1-216-864-11	SHORT 0	
R7310	1-218-710-11	METAL CHIP 5.6K	0.5% 1/16W
R7311	1-218-692-11	METAL CHIP 1K	0.5% 1/16W
R7312	1-260-133-11	CARBON 680K	5% 1/2W
R7313	1-216-815-11	RES-CHIP 330	5% 1/16W
R7314	1-218-680-11	METAL CHIP 330	0.5% 1/16W
R7315	1-218-690-11	METAL CHIP 820	0.5% 1/16W
R7316	1-218-693-11	METAL CHIP 1.1K	0.5% 1/16W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R7317	1-218-696-11	METAL CHIP 1.5K	0.5% 1/16W
R7318	1-218-704-11	METAL CHIP 3.3K	0.5% 1/16W
R7319	1-216-825-11	RES-CHIP 2.2K	5% 1/16W
R7320	1-218-749-11	METAL CHIP 240K	0.5% 1/16W
R7321	1-218-749-11	METAL CHIP 240K	0.5% 1/16W
R7322	1-215-925-11	METAL OXIDE 22K	5% 3W
R7323	1-216-829-11	RES-CHIP 4.7K	5% 1/16W
R7324	1-260-328-11	CARBON 1K	5% 1/2W
R7325	1-216-823-11	RES-CHIP 1.5K	5% 1/16W
R7326	1-260-093-11	CARBON 330	5% 1/2W
R7327	1-260-087-11	CARBON 100	5% 1/2W
< SPARK GAP >			
SG7301	1-519-422-11	GAP, SPARK	
SG7302	1-517-729-31	GAP, SPARK	
SG7303	1-517-778-21	LAMP, NEON	

		* A-1332-251-A CG BOARD, COMPLETE	(EXCEPT HW572K90)

		4-382-854-11	SCREW (M3X10), P, SW (+)
< CAPACITOR >			
C7201	1-107-662-11	ELECT 22UF	20% 250V
C7202	1-104-570-11	CERAMIC 0.001UF	10% 2KV
C7203	1-126-964-11	ELECT 10UF	20% 50V
C7204	1-161-830-00	CERAMIC 0.0047UF	500V
C7205	1-126-768-11	ELECT 2200UF	20% 16V
C7206	1-102-050-00	CERAMIC 0.01UF	99% 500V
C7207	1-107-826-11	CERAMIC CHIP 0.1UF	10% 16V
C7208	1-162-115-00	CERAMIC 330PF	10% 2KV
C7209	1-107-826-11	CERAMIC CHIP 0.1UF	10% 16V
C7210	1-126-967-11	ELECT 47UF	20% 50V
C7212	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C7213	1-102-157-00	CERAMIC 560PF	10% 500V
C7214	1-162-913-11	CERAMIC CHIP 8PF	0.50PF50V
C7215	1-162-908-11	CERAMIC CHIP 3PF	0.25PF50V
< CONNECTOR >			
CN7202*	1-564-509-11	PLUG, CONNECTOR 6P	
CN7203*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7204*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7205	1-785-879-11	CONNECTOR, ONE TOUCH	
CN7206	1-695-915-11	TAB (CONTACT)	
CN7208	1-695-915-11	TAB (CONTACT)	
CN7209 Δ 1	1-251-182-11	SOCKET, CRT	
< DIODE >			
D7203	8-719-921-88	MTZJ-13B	
D7204	8-719-901-83	ISS83	
D7205	8-719-991-33	ISS133T-77	
D7206	8-719-901-83	ISS83	
D7207	8-719-901-83	ISS83	
D7208	8-719-901-83	ISS83	
D7209	8-719-921-88	MTZJ-13B	

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KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D7210	8-719-921-88	MTZJ-13B				< CAPACITOR >	
		< IC >		C7201	1-164-156-11	CERAMIC CHIP 0.1UF	25V
IC7201	8-759-360-83	TDA6111Q/N4		C7202	1-101-003-00	CERAMIC 0.0047UF	50V
		< JUMPER RESISTOR >		C7203	1-104-570-11	CERAMIC 0.001UF	10% 2KV
JR7201	1-216-864-11	SHORT 0		C7204	1-107-662-11	ELECT 22UF	20% 250V
		< COIL >		C7205	1-162-920-11	CERAMIC CHIP 27PF	5% 50V
L7201	1-414-223-11	INDUCTOR 470UH		C7206	1-101-003-00	CERAMIC 0.0047UF	50V
L7202	1-414-187-11	INDUCTOR 47UH		C7207	1-126-768-11	ELECT 2200UF	20% 16V
L7203	1-414-181-11	INDUCTOR 4.7UH		C7208	1-164-156-11	CERAMIC CHIP 0.1UF	25V
		< NEON LAMP >		C7209	1-164-156-11	CERAMIC CHIP 0.1UF	25V
NL7201	1-517-778-21	LAMP, NEON		C7210	1-126-933-11	ELECT 100UF	20% 16V
		< TRANSISTOR >		C7211	1-164-156-11	CERAMIC CHIP 0.1UF	25V
Q7201	8-729-026-49	2SA1037AK-T146-R		C7212	1-161-830-00	CERAMIC 0.0047UF	500V
Q7202	8-729-422-27	2SD601A-Q		C7213	1-101-003-00	CERAMIC 0.0047UF	50V
		< RESISTOR >		C7214	1-162-966-11	CERAMIC CHIP 0.0022UF	10% 50V
R7202	1-216-864-11	SHORT 0				< CONNECTOR >	
R7203	1-260-132-11	CARBON 560K	5% 1/2W	CN7202*	1-564-509-11	PLUG, CONNECTOR 6P	
R7204	1-216-813-11	RES-CHIP 220	5% 1/16W	CN7203*	1-564-510-11	PLUG, CONNECTOR 7P	
R7205	1-218-713-11	METAL CHIP 7.5K	0.5% 1/16W	CN7204*	1-564-510-11	PLUG, CONNECTOR 7P	
R7206	1-218-716-11	METAL CHIP 10K	0.5% 1/16W	CN7205	1-785-879-11	CONNECTOR, ONE TOUCH	
R7207	1-219-743-11	CARBON 100	5% 1/2W	CN7206	1-695-915-11	TAB (CONTACT)	
R7208	1-216-823-11	RES-CHIP 1.5K	5% 1/16W	CN7208	1-695-915-11	TAB (CONTACT)	
R7209	1-260-133-11	CARBON 680K	5% 1/2W	CN7209 Δ 1-251-182-11	SOCKET, CRT		
R7210	1-216-813-11	RES-CHIP 220	5% 1/16W			< DIODE >	
R7211	1-218-710-11	METAL CHIP 5.6K	0.5% 1/16W	D7201	8-719-988-61	1SS355TE-17	
R7212	1-218-718-11	METAL CHIP 12K	0.5% 1/16W	D7202	8-719-901-83	1SS83	
R7213	1-218-707-11	METAL CHIP 4.3K	0.5% 1/16W	D7203	8-719-901-83	1SS83	
R7215	1-249-424-11	CARBON 3.9K	5% 1/4W			< IC >	
R7216	1-216-811-11	RES-CHIP 150	5% 1/16W	IC7201	8-759-680-01	TDA6120Q/N2/S1	
R7217	1-218-696-11	METAL CHIP 1.5K	0.5% 1/16W			< JUMPER RESISTOR >	
R7218	1-260-328-11	CARBON 1K	5% 1/2W	JC7201	1-216-864-11	SHORT 0	
R7219	1-218-699-11	METAL CHIP 2K	0.5% 1/16W			< COIL >	
R7220	1-215-929-11	METAL OXIDE 100K	5% 3W	L7201	1-469-555-21	INDUCTOR 10UH	
R7221	1-216-864-11	SHORT 0		L7202	1-469-555-21	INDUCTOR 10UH	
R7222	1-260-087-11	CARBON 100	5% 1/2W	L7203	1-414-855-31	INDUCTOR 1UH	
R7223	1-260-093-11	CARBON 330	5% 1/2W			< TRANSISTOR >	
R7224	1-216-864-11	SHORT 0		Q7201	8-729-026-49	2SA1037AK-T146-R	
		< SPARK GAP >		Q7202	8-729-422-27	2SD601A-Q	
SG7201	1-519-422-11	GAP, SPARK		Q7203	8-729-048-50	2SK3018-T106	
SG7202	1-517-729-31	GAP, SPARK				< RESISTOR >	
*****				R7201	1-216-813-11	RES-CHIP 220	5% 1/16W
*****				R7202	1-218-693-11	METAL CHIP 1.1K	0.5% 1/16W
*****				R7203	1-218-696-11	METAL CHIP 1.5K	0.5% 1/16W
*****				R7204	1-260-132-11	CARBON 560K	5% 1/2W
*****				R7205	1-216-825-11	RES-CHIP 2.2K	5% 1/16W
*****				R7206	1-219-743-11	CARBON 100	5% 1/2W
*****				R7207	1-218-690-11	METAL CHIP 820	0.5% 1/16W
*****				R7208	1-260-133-11	CARBON 680K	5% 1/2W
*****				R7209	1-216-815-11	RES-CHIP 330	5% 1/16W

* A-1332-265-A CG BOARD, COMPLETE		(HW572K90)					

4-382-854-11	SCREW (M3X10), P, SW (+)						

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

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RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R7210	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W	D7109	8-719-921-88	MTZJ-13B	
R7211	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W	D7110	8-719-991-33	ISS133T-77	
R7212	1-218-742-11	METAL CHIP	120K 0.5% 1/16W			< IC >	
R7213	1-218-742-11	METAL CHIP	120K 0.5% 1/16W	IC7101	8-759-360-83	TDA6111Q/N4	
R7214	1-215-925-11	METAL OXIDE	22K 5% 3W			< COIL >	
R7215	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	L7101	1-414-223-11	INDUCTOR	470UH
R7216	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	L7102	1-414-187-11	INDUCTOR	47UH
R7217	1-260-099-11	CARBON	1K 5% 1/2W	L7103	1-414-181-11	INDUCTOR	4.7UH
R7218	1-260-087-11	CARBON	100 5% 1/2W			< NEON LAMP >	
R7219	1-260-093-11	CARBON	330 5% 1/2W	NL7101	1-517-778-21	LAMP, NEON	
R7220	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W			< TRANSISTOR >	
		< SPARK GAP >		Q7101	8-729-026-49	2SA1037AK-T146-R	
SG7201	1-519-422-11	GAP, SPARK		Q7102	8-729-422-27	2SD601A-Q	
SG7202	1-517-729-31	GAP, SPARK				< RESISTOR >	
SG7203	1-517-778-21	LAMP, NEON		R7102	1-216-813-11	RES-CHIP	220 5% 1/16W
*****				R7103	1-216-864-11	SHORT	0
		* A-1332-250-A CR BOARD, COMPLETE	(EXCEPT HW572K90)	R7104	1-260-132-11	CARBON	560K 5% 1/2W
		*****		R7105	1-219-743-11	CARBON	100 5% 1/2W
	4-382-854-11	SCREW (M3X10), P, SW (+)		R7106	1-218-714-11	METAL CHIP	8.2K 0.5% 1/16W
		< CAPACITOR >		R7107	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
C7101	1-104-570-11	CERAMIC	0.001UF 10% 2KV	R7108	1-216-823-11	RES-CHIP	1.5K 5% 1/16W
C7102	1-107-662-11	ELECT	22UF 20% 250V	R7109	1-260-133-11	CARBON	680K 5% 1/2W
C7103	1-126-964-11	ELECT	10UF 20% 50V	R7110	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
C7104	1-161-830-00	CERAMIC	0.0047UF 500V	R7111	1-218-718-11	METAL CHIP	12K 0.5% 1/16W
C7105	1-102-050-00	CERAMIC	0.01UF 99% 500V	R7112	1-218-706-11	METAL CHIP	3.9K 0.5% 1/16W
C7106	1-126-768-11	ELECT	2200UF 20% 16V	R7113	1-216-813-11	RES-CHIP	220 5% 1/16W
C7107	1-162-115-00	CERAMIC	330PF 10% 2KV	R7114	1-249-424-11	CARBON	3.9K 5% 1/4W
C7108	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	R7115	1-260-328-11	CARBON	1K 5% 1/2W
C7109	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	R7116	1-216-811-11	RES-CHIP	150 5% 1/16W
C7110	1-126-967-11	ELECT	47UF 20% 50V	R7117	1-260-087-11	CARBON	100 5% 1/2W
C7112	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	R7118	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W
C7113	1-102-157-00	CERAMIC	560PF 10% 500V	R7119	1-218-701-11	METAL CHIP	2.4K 0.5% 1/16W
C7114	1-162-912-11	CERAMIC CHIP	7PF 0.50PF50V	R7120	1-215-929-11	METAL OXIDE	100K 5% 3W
C7115	1-162-907-11	CERAMIC CHIP	2PF 0.25PF50V	R7121	1-216-864-11	SHORT	0
C7116	1-107-504-11	CERAMIC	10PF 500V	R7122	1-260-093-11	CARBON	330 5% 1/2W
		< CONNECTOR >		R7123	1-216-864-11	SHORT	0
CN7102*	1-564-509-11	PLUG, CONNECTOR 6P				< SPARK GAP >	
CN7103*	1-564-510-11	PLUG, CONNECTOR 7P		SG7101	1-519-422-11	GAP, SPARK	
CN7104	1-785-879-11	CONNECTOR, ONE TOUCH		SG7102	1-517-729-31	GAP, SPARK	
CN7105	1-695-915-11	TAB (CONTACT)		*****			
CN7107	1-695-915-11	TAB (CONTACT)				* A-1332-264-A CR BOARD, COMPLETE	(HW572K90)

						4-382-854-11	SCREW (M3X10), P, SW (+)
						< CAPACITOR >	
				C7101	1-164-156-11	CERAMIC CHIP	0.1UF 25V
				C7102	1-101-003-00	CERAMIC	0.0047UF 50V
				C7103	1-104-570-11	CERAMIC	0.001UF 10% 2KV

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK
C7104	1-107-662-11	ELECT	22UF 20% 250V
C7105	1-162-919-11	CERAMIC CHIP	22PF 5% 50V
C7106	1-126-768-11	ELECT	2200UF 20% 16V
C7107	1-161-830-00	CERAMIC	0.0047UF 500V
C7108	1-101-003-00	CERAMIC	0.0047UF 50V
C7109	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C7110	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C7111	1-126-933-11	ELECT	100UF 20% 16V
C7112	1-164-156-11	CERAMIC CHIP	0.1UF 25V
C7113	1-101-003-00	CERAMIC	0.0047UF 50V
C7114	1-162-966-11	CERAMIC CHIP	0.0022UF 10% 50V
< CONNECTOR >			
CN7102*	1-564-509-11	PLUG, CONNECTOR 6P	
CN7103*	1-564-510-11	PLUG, CONNECTOR 7P	
CN7104	1-785-879-11	CONNECTOR, ONE TOUCH	
CN7105	1-695-915-11	TAB (CONTACT)	
CN7107	1-695-915-11	TAB (CONTACT)	
CN7108 Δ 1-251-182-11 SOCKET, CRT			
< DIODE >			
D7101	8-719-404-50	MA111-TX	
D7101	8-719-988-61	ISS355TE-17	
D7102	8-719-901-83	ISS83	
D7103	8-719-901-83	ISS83	
< IC >			
IC7101	8-759-680-01	TDA6120Q/N2/S1	
< JUMPER RESISTOR >			
JC7101	1-216-864-11	SHORT	0
< COIL >			
L7101	1-469-555-21	INDUCTOR	10UH
L7102	1-469-555-21	INDUCTOR	10UH
L7103	1-414-855-31	INDUCTOR	1UH
< TRANSISTOR >			
Q7101	8-729-026-49	2SA1037AK-T146-R	
Q7102	8-729-422-27	2SD601A-Q	
Q7103	8-729-048-50	2SK3018-T106	
< RESISTOR >			
R7101	1-260-132-11	CARBON	560K 5% 1/2W
R7102	1-216-813-11	RES-CHIP	220 5% 1/16W
R7103	1-218-693-11	METAL CHIP	1.1K 0.5% 1/16W
R7104	1-218-696-11	METAL CHIP	1.5K 0.5% 1/16W
R7105	1-219-743-11	CARBON	100 5% 1/2W
R7106	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R7107	1-260-133-11	CARBON	680K 5% 1/2W
R7108	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R7109	1-216-817-11	RES-CHIP	470 5% 1/16W
R7110	1-218-703-11	METAL CHIP	3K 0.5% 1/16W
R7111	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
R7112	1-218-746-11	METAL CHIP	180K 0.5% 1/16W
R7113	1-218-746-11	METAL CHIP	180K 0.5% 1/16W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R7114	1-215-925-11	METAL OXIDE	22K 5% 3W
R7115	1-260-328-11	CARBON	1K 5% 1/2W
R7116	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R7117	1-260-087-11	CARBON	100 5% 1/2W
R7118	1-216-823-11	RES-CHIP	1.5K 5% 1/16W
R7119	1-260-093-11	CARBON	330 5% 1/2W
R7120	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
< SPARK GAP >			
SG7101	1-519-422-11	GAP, SPARK	
SG7102	1-517-729-31	GAP, SPARK	
SG7103	1-517-778-21	LAMP, NEON	

* A-1348-132-A D BOARD, COMPLETE			

4-382-854-11	SCREW (M3X10), P, SW (+)		
7-682-952-09	SCREW +PSW 3X16		
< CAPACITOR >			
C8001	1-137-372-11	MYLAR	0.022UF 5% 50V
C8002	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C8003	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C8004	1-104-666-11	ELECT	220UF 20% 25V
C8005	1-126-942-61	ELECT	1000UF 20% 25V
C8006	1-126-942-61	ELECT	1000UF 20% 25V
C8007	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C8008	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C8009	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C8010	1-136-177-00	FILM	1UF 5% 50V
C8011	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C8012	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C8013	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C8014	1-104-665-11	ELECT	100UF 20% 25V
C8015	1-126-969-11	ELECT	220UF 20% 50V
C8016	1-104-665-11	ELECT	100UF 20% 25V
C8017	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V
C8018	1-126-964-11	ELECT	10UF 20% 50V
C8023	1-106-220-00	MYLAR	0.1UF 10% 100V
C8024	1-137-372-11	MYLAR	0.022UF 5% 50V
C8025	1-126-968-11	ELECT	100UF 20% 50V
C8026	1-126-968-11	ELECT	100UF 20% 50V
C8028	1-126-968-11	ELECT	100UF 20% 50V
C8029	1-126-968-11	ELECT	100UF 20% 50V
C8031	1-107-636-11	ELECT	10UF 20% 160V
C8032	1-126-968-11	ELECT	100UF 20% 50V
C8033	1-126-968-11	ELECT	100UF 20% 50V
C8036	1-126-968-11	ELECT	100UF 20% 50V
C8037	1-126-968-11	ELECT	100UF 20% 50V
C8040	1-115-349-51	CERAMIC	0.01UF 2K V
C8045	1-126-965-11	ELECT	22UF 20% 50V
C8046	1-126-965-11	ELECT	22UF 20% 50V
C8047	1-162-974-11	CERAMIC CHIP	0.01UF 50V
C8048	1-126-965-11	ELECT	22UF 20% 50V
C8049	1-162-974-11	CERAMIC CHIP	0.01UF 50V
C8050	1-126-965-11	ELECT	22UF 20% 50V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C8051	1-102-038-00	CERAMIC	0.001UF 500V	C8109	1-162-924-11	CERAMIC CHIP	56PF 5% 50V
C8052	1-126-965-11	ELECT	22UF 20% 50V	C8110	1-126-960-11	ELECT	1UF 20% 50V
C8053	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C8111	1-126-960-11	ELECT	1UF 20% 50V
C8054	1-162-974-11	CERAMIC CHIP	0.01UF 50V	C8112	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
C8055	1-164-156-11	CERAMIC CHIP	0.1UF 25V	C8113	1-130-495-00	MYLAR	0.1UF 5% 50V
C8056	1-107-652-11	ELECT	10UF 20% 250V	C8114	1-125-473-11	ELECT(BLOCK)	1000UF 20% 160V
C8057	1-126-959-11	ELECT	0.47UF 20% 50V	C8115	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8058	1-164-230-11	CERAMIC CHIP	220PF 5% 50V	C8116	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8059	1-127-715-91	CERAMIC CHIP	0.22UF 10% 16V	C8117	1-102-038-00	CERAMIC	0.001UF 500V
C8060	1-104-665-11	ELECT	100UF 20% 25V	C8118	1-136-189-00	MYLAR	0.1UF 10% 250V
C8061	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C8119	1-164-156-11	CERAMIC CHIP	0.1UF 25
C8062	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8120	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8063	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C8121	1-115-349-51	CERAMIC	0.01UF 2KV
C8064	1-107-636-11	ELECT	10UF 20% 160V	C8122	1-126-934-11	ELECT	220UF 20% 16V
C8065	1-106-383-00	MYLAR	0.047UF 10% 200V	C8123	1-107-444-11	CERAMIC	100PF 10% 2KV
C8066	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8124	1-117-642-11	FILM	8200PF 3% 1.2KV
C8067	1-104-665-11	ELECT	100UF 20% 25V	C8125	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8068	1-102-038-00	CERAMIC	0.001UF 500V	C8126	1-106-357-00	MYLAR	0.0039UF 99% 200V
C8069	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8127	1-126-942-61	ELECT	1000UF 20% 25V
C8070	1-126-964-11	ELECT	10UF 20% 50V	C8129	1-137-150-11	MYLAR	0.01UF 5% 50V
C8071	1-126-964-11	ELECT	10UF 20% 50V	C8131	1-128-582-11	ELECT	10UF 20% 100V
C8072	1-126-964-11	ELECT	10UF 20% 50V	C8132	1-126-942-61	ELECT	1000UF 20% 25V
C8073	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8133	1-107-649-11	ELECT	2.2UF 20% 250V
C8074	1-104-665-11	ELECT	100UF 20% 25V	C8135	1-117-813-11	FILM	0.75UF 5% 250V
C8075	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8136	1-130-495-00	MYLAR	0.1UF 5% 50V
C8076	1-128-551-11	ELECT	22UF 20% 25V	C8137	1-126-942-61	ELECT	1000UF 20% 25V
C8077	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C8138	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V
C8078	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C8139	1-126-964-11	ELECT	10UF 20% 50V
C8079	1-126-964-11	ELECT	10UF 20% 50V	C8142	1-117-664-11	FILM	0.27UF 5% 250V
C8080	1-126-964-11	ELECT	10UF 20% 50V	C8143	1-126-960-11	ELECT	1UF 20% 50V
C8081	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	C8148	1-104-665-11	ELECT	100UF 20% 25V
C8082	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V	C8150	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C8083	1-130-495-00	MYLAR	0.1UF 5% 50V	C8153	1-126-960-11	ELECT	1UF 20% 50V
C8084	1-130-992-11	FILM	0.022UF 5% 50V			< CONNECTOR >	
C8085	1-162-924-11	CERAMIC CHIP	56PF 5% 50V	CN8002*	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P
C8086	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	CN8003*	1-691-135-11	PIN, CONNECTOR (PC BOARD)	4P
C8087	1-126-960-11	ELECT	1UF 20% 50V	CN8004*	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P
C8088	1-126-964-11	ELECT	10UF 20% 50V	CN8005*	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P
C8089	1-107-444-11	CERAMIC	100PF 10% 2KV	CN8006*	1-779-890-11	CONNECTOR, BOARD TO BOARD	10P
C8090	1-126-960-11	ELECT	1UF 20% 50V	CN8007*	1-564-506-11	PLUG, CONNECTOR	3P
C8091	1-104-665-11	ELECT	100UF 20% 25V	CN8008*	1-564-506-11	PLUG, CONNECTOR	3P
C8092	1-117-640-11	FILM	6800PF 3% 1.2KV	CN8009*	1-564-506-11	PLUG, CONNECTOR	3P
C8093	1-107-648-91	ELECT	100UF 20% 160V	CN8010*	1-564-507-11	PLUG, CONNECTOR	4P
C8094	1-104-665-11	ELECT	100UF 20% 25V	CN8011*	1-564-507-11	PLUG, CONNECTOR	4P
C8095	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	CN8012*	1-564-507-11	PLUG, CONNECTOR	4P
C8096	1-136-684-51	MYLAR	0.0022UF 10% 100V	CN8013*	1-766-177-11	PIN, CONNECTOR (PC BOARD)	9P
C8097	1-162-131-11	CERAMIC	220PF 10% 2KV	CN8015*	1-506-371-00	PIN, CONNECTOR	2P
C8098	1-162-131-11	CERAMIC	220PF 10% 2KV	CN8016*	1-564-507-11	PLUG, CONNECTOR	4P
C8099	1-115-416-11	CERAMIC CHIP	0.001UF 5% 25V	CN8018*	1-580-689-11	PIN, CONNECTOR (PC BOARD)	4P
C8100	1-126-961-11	ELECT	2.2UF 20% 50V	CN8019*	1-580-689-11	PIN, CONNECTOR (PC BOARD)	4P
C8102	1-102-038-00	CERAMIC	0.001UF 500V	CN8020*	1-580-689-11	PIN, CONNECTOR (PC BOARD)	4P
C8103	1-126-964-11	ELECT	10UF 20% 50V	CN8021*	1-506-371-00	PIN, CONNECTOR	2P
C8104	1-162-965-11	CERAMIC CHIP	0.0015UF 10% 50V	CN8022*	1-564-510-11	PLUG, CONNECTOR	7P
C8105	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	CN8023*	1-564-507-11	PLUG, CONNECTOR	4P
C8106	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V				
C8107	1-136-187-11	MYLAR	0.047UF 10% 250V				
C8108	1-126-964-11	ELECT	10UF 20% 50V				

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

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RM-Y908

RM-Y909K

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		< DIODE >					
D8001	8-719-109-98	RD5.6ESB2		FB8016	1-469-869-21	FERRITE	0UH
D8002	8-719-110-53	RD20ES-B2		FB8017	1-469-869-21	FERRITE	0UH
D8003	8-719-924-13	MTZJ-T-77-22B		FB8018	1-469-869-21	FERRITE	0UH
D8004	8-719-908-03	GP08D		FB8019	1-410-397-21	FERRITE	1.1UH
D8005	8-719-991-33	ISS133T-77		FB8020	1-414-229-11	FERRITE	0UH
D8006	8-719-991-33	ISS133T-77		FB8021	1-410-397-21	FERRITE	1.1UH
D8007	8-719-991-33	ISS133T-77		FB8022	1-410-396-41	FERRITE	0.45UH
D8008	8-719-991-33	ISS133T-77		FB8023	1-410-396-41	FERRITE	0.45UH
D8009	8-719-991-33	ISS133T-77		FB8024	1-469-869-21	FERRITE	0UH
D8010	8-719-991-33	ISS133T-77				< IC >	
D8011	8-719-991-33	ISS133T-77		IC8001	8-749-019-08	IC STK392-560	
D8012	8-719-991-33	ISS133T-77		IC8002	8-749-019-08	IC STK392-560	
D8013	8-719-921-88	RD5.1ESB2		IC8003	8-759-593-33	LA78045	
D8014	8-719-921-88	RD5.1ESB2		IC8004	8-759-077-88	AN77L12-TA	
D8015	8-719-991-33	ISS133T-77		IC8005	8-759-585-82	BA9759F-E2	
D8016	8-719-991-33	ISS133T-77		IC8006	8-759-700-07	NJM2903M	
D8019	8-719-991-33	ISS133T-77		IC8007	8-759-700-07	NJM2903M	
D8020	8-719-991-33	ISS133T-77		IC8008	8-759-585-82	BA9759F-E2	
D8021	8-719-061-21	FMQ-G5FMS		IC8009	8-759-803-42	LA6500-FA	
D8022	8-719-991-33	ISS133T-77		IC8012	8-759-701-01	NJM2904M	
D8023	8-719-991-33	ISS133T-77				< COIL >	
D8024	8-719-921-88	RD15ES-B2		L8001	1-412-533-21	INDUCTOR	47UH
D8025	8-719-991-33	ISS133T-77		L8002	1-412-533-21	INDUCTOR	47UH
D8026	8-719-109-89	RD5.6ESB2		L8003	1-412-525-31	INDUCTOR	10UH
D8027	8-719-028-45	D2L20U		L8004	1-412-533-21	INDUCTOR	47UH
D8028	8-719-921-88	RD15ES-B2		L8005	1-412-533-21	INDUCTOR	47UH
D8029	8-719-028-45	D2L20U		L8006	1-412-525-31	INDUCTOR	10UH
D8030	8-719-028-45	D2L20U		L8007	1-412-533-21	INDUCTOR	47UH
D8031	8-719-921-88	RD18ES-B2		L8008	1-412-533-21	INDUCTOR	47UH
D8032	8-719-302-43	EL1Z		L8009	1-412-525-31	INDUCTOR	10UH
D8033	8-719-028-72	RGP02-17EL-6433		L8010	1-414-187-11	INDUCTOR	47UH
D8034	6-500-004-01	DIODE ERD07-15L		L8011	1-412-525-31	INDUCTOR	10UH
D8035	6-500-004-01	DIODE ERD07-15L		L8012	1-414-187-11	INDUCTOR	47UH
D8036	8-719-921-88	RD15ES-B2		L8013	1-414-856-11	INDUCTOR	10UH
D8037	8-719-028-45	D2L20U		L8014	1-414-189-31	INDUCTOR	100UH
D8038	8-719-302-43	EL1Z		L8015	1-414-189-31	INDUCTOR	100UH
D8039	8-719-028-72	RGP02-17EL-6433		L8016	1-412-537-31	INDUCTOR	100UH
D8043	8-719-991-33	ISS133T-77		L8017	1-414-856-11	INDUCTOR	10UH
D8045	8-719-908-03	GP08D		L8018	1-406-663-21	INDUCTOR	47UH
D8046	8-719-991-33	ISS133T-77		L8019	1-419-352-11	COIL, HORIZONTAL LINEARITY	
D8047	8-719-991-33	ISS133T-77		L8020	1-412-525-31	INDUCTOR	10UH
		< FERRITE BEAD >		L8021	1-406-659-11	INDUCTOR	10UH
FB8001	1-410-397-21	FERRITE	1.1UH	L8022	1-412-552-11	INDUCTOR	2.2mmH
FB8002	1-410-397-21	FERRITE	1.1UH	L8023	1-414-856-11	INDUCTOR	10UH
FB8003	1-216-864-11	SHORT	0	L8024	1-414-856-11	INDUCTOR	10UH
FB8004	1-216-864-11	SHORT	0	L8025	1-414-856-11	INDUCTOR	10UH
FB8005	1-469-869-21	FERRITE	0UH	L8026	1-414-856-11	INDUCTOR	10UH
FB8006	1-469-869-21	FERRITE	0UH	L8027	1-230-510-11	DC LINE FILTER	
FB8008	1-410-396-41	FERRITE	0.45UH			< NEON LAMP >	
FB8009	1-410-396-41	FERRITE	0.45UH	NL8001	1-517-778-21	LAMP, NEON	
FB8010	1-410-396-41	FERRITE	0.45UH			< IC LINK >	
FB8011	1-410-396-41	FERRITE	0.45UH				
FB8014	1-469-869-21	FERRITE	0UH				
FB8015	1-469-869-21	FERRITE	0UH	PS8001 Δ	1-533-595-31	LINK, IC	3.15A

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
PS8002 Δ	1-533-595-31	LINK, IC	3.15A	R8017	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
PS8003 Δ	1-533-595-31	LINK, IC	3.15A	R8018	1-216-821-11	RES-CHIP	1K 5% 1/16W
PS8004 Δ	1-533-595-31	LINK, IC	3.15A	R8019	1-218-712-11	METAL CHIP	6.8K 0.5% 1/16W
PS8005 Δ	1-533-595-31	LINK, IC	3.15A	R8020	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R8021	1-216-833-11	RES-CHIP	10K 5% 1/16W
PS8006 Δ	1-533-595-31	LINK, IC	3.15A	R8022	1-216-839-11	RES-CHIP	33K 5% 1/16W
PS8007 Δ	1-533-595-31	LINK, IC	3.15A	R8023	1-216-833-11	RES-CHIP	10K 5% 1/16W
< TRANSISTOR >				R8024	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q8001	8-729-422-27	2SD601A-Q		R8025	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q8002	8-729-046-80	2SC4634LS-CB11		R8026	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q8003	8-729-026-49	2SA1037AK-T146-R		R8029	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q8004	8-729-026-49	2SA1037AK-T146-R		R8030	1-215-903-11	METAL OXIDE	68K 5% 2W
Q8005	8-729-026-49	2SA1037AK-T146-R		R8031	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R8032	1-216-821-11	RES-CHIP	1K 5% 1/16W
Q8007	8-729-046-80	2SC4634LS-CB11		R8033	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q8008	8-729-207-89	2SA1358-Y		R8034	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q8009	8-729-207-82	2SC3421-Y		R8035	1-218-694-11	METAL CHIP	1.2K 0.5% 1/16W
Q8010	8-729-422-27	2SD601A-Q		R8036	1-214-800-11	METAL	2.2 1% 1/2W
Q8011	8-729-026-49	2SA1037AK-T146-R		R8037	1-215-903-11	METAL OXIDE	68K 5% 2W
				R8038	1-216-809-11	RES-CHIP	100 5% 1/16W
Q8014	8-729-422-27	2SD601A-Q		R8039	1-214-800-11	METAL	2.2 1% 1/2W
Q8015	8-729-422-27	2SD601A-Q		R8040	1-215-913-11	METAL OXIDE	220 5% 3W
Q8016	8-729-422-27	2SD601A-Q		R8041	1-218-709-11	METAL CHIP	5.1K 0.5% 1/16W
Q8019	8-729-026-49	2SA1037AK-T146-R		R8042	1-216-826-11	RES-CHIP	2.7K 5% 1/16W
Q8020	8-729-422-27	2SD601A-Q		R8043	1-218-740-11	METAL CHIP	100K 0.5% 1/16W
				R8044	1-218-712-11	METAL CHIP	6.8K 0.5% 1/16W
Q8021	8-729-422-27	2SD601A-Q		R8045	1-214-808-11	METAL	4.7 1% 1/2W
Q8022	8-729-422-27	2SD601A-Q		R8046	1-214-808-11	METAL	4.7 1% 1/2W
Q8023	8-729-048-47	2SC2688(5)-LK		R8047	1-215-857-71	METAL OXIDE	10 5% 1W
Q8024	8-729-056-50	TRANSISTOR 2SC5681-YB		R8048	1-414-189-31	INDUCTOR	100UH
Q8027	8-729-050-13	2SJ585LS-CC11		R8049	1-414-189-31	INDUCTOR	100UH
				R8050	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q8028	8-729-422-27	2SD601A-Q		R8051	1-214-808-11	METAL	4.7 1% 1/2W
Q8029	8-729-422-27	2SD601A-Q		R8053	1-214-808-11	METAL	4.7 1% 1/2W
Q8030	8-729-026-49	2SA1037AK-T146-R		R8055	1-218-748-11	METAL CHIP	220K 0.5% 1/16W
Q8031	8-729-422-27	2SD601A-Q		R8056	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q8032	8-729-422-27	2SD601A-Q		R8057	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R8058	1-216-809-11	RES-CHIP	100 5% 1/16W
Q8035	8-729-050-13	2SJ585LS-CC11		R8059	1-214-808-11	METAL	4.7 1% 1/2W
Q8036	8-729-026-49	2SA1037AK-T146-R		R8060	1-214-808-11	METAL	4.7 1% 1/2W
Q8037	8-729-422-27	2SD601A-Q		R8061	1-216-390-11	METAL OXIDE	1.2 5% 3W
Q8038	8-729-038-10	TRANSISTOR 1MB12-140-F153A		R8062	1-260-107-11	CARBON	4.7K 5% 1/2W
Q8039	8-729-048-47	2SC2688(5)-LK		R8063	1-214-808-11	METAL	4.7 1% 1/2W
				R8064	1-214-808-11	METAL	4.7 1% 1/2W
Q8101	8-729-026-49	2SA1037AK-T146-R		R8065	1-260-328-11	CARBON	1K 5% 1/2W
< RESISTOR >				R8066	1-214-808-11	METAL	4.7 1% 1/2W
R8001	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R8067	1-214-808-11	METAL	4.7 1% 1/2W
R8002	1-216-809-11	RES-CHIP	100 5% 1/16W	R8068	1-216-809-11	RES-CHIP	100 5% 1/16W
R8003	1-216-809-11	RES-CHIP	100 5% 1/16W	R8069	1-214-808-11	METAL	4.7 1% 1/2W
R8004	1-216-809-11	RES-CHIP	100 5% 1/16W	R8070	1-214-808-11	METAL	4.7 1% 1/2W
R8005	1-215-875-11	METAL OXIDE	10K 5% 1W	R8071	1-215-381-00	METAL	22 1% 1/4W
				R8073	1-214-808-11	METAL	4.7 1% 1/2W
R8007	1-216-809-11	RES-CHIP	100 5% 1/16W	R8075	1-214-808-11	METAL	4.7 1% 1/2W
R8008	1-216-809-11	RES-CHIP	100 5% 1/16W	R8076	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R8009	1-216-809-11	RES-CHIP	100 5% 1/16W	R8077	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
R8010	1-260-131-11	CARBON	470K 5% 1/2W	R8078	1-214-808-11	METAL	4.7 1% 1/2W
R8011	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R8079	1-214-808-11	METAL	4.7 1% 1/2W
R8012	1-216-829-11	RES-CHIP	4.7K 5% 1/16W				
R8013	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W				
R8014	1-218-709-11	METAL CHIP	5.1K 0.5% 1/16W				
R8015	1-216-837-11	RES-CHIP	22K 5% 1/16W				
R8016	1-216-829-11	RES-CHIP	4.7K 5% 1/16W				

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RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R8080	1-216-353-00	METAL OXIDE	2.2 5%	R8139	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R8081	1-214-808-11	METAL	4.7 1%	R8140	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8082	1-214-808-11	METAL	4.7 1%	R8141	1-216-827-11	RES-CHIP	3.3K 5% 1/16W
R8083	1-216-821-11	RES-CHIP	1K 5%	R8142	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8084	1-216-833-11	RES-CHIP	10K 5%	R8143	1-218-734-11	METAL CHIP	56K 0.5% 1/16W
R8085	1-214-808-11	METAL	4.7 1%	R8144	1-216-809-11	RES-CHIP	100 5% 1/16W
R8086	1-214-808-11	METAL	4.7 1%	R8145	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8087	1-249-385-11	CARBON	2.2 5%	R8146	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8088	1-249-385-11	CARBON	2.2 5%	R8147	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
R8089	1-214-808-11	METAL	4.7 1%	R8148	1-218-740-11	METAL-CHIP	100K 0.5% 1/16W
R8090	1-214-808-11	METAL	4.7 1%	R8149	1-215-905-11	METAL OXIDE	10 5% 3W
R8091	1-214-808-11	METAL	4.7 1%	R8150	1-218-740-11	METAL CHIP	100K 0.5% 1/16W
R8092	1-214-808-11	METAL	4.7 1%	R8151	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R8093	1-214-808-11	METAL	4.7 1%	R8152	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8094	1-214-808-11	METAL	4.7 1%	R8153	1-218-692-11	METAL CHIP	1K 0.5% 1/16W
R8095	1-216-801-11	RES-CHIP	22 5%	R8154	1-218-728-11	METAL CHIP	33K 0.5% 1/16W
R8096	1-216-801-11	RES-CHIP	22 5%	R8155	1-215-469-00	METAL	100K 1% 1/4W
R8097	1-214-808-11	METAL	4.7 1%	R8156	1-215-469-00	METAL	100K 1% 1/4W
R8098	1-214-808-11	METAL	4.7 1%	R8157	1-218-738-11	METAL CHIP	82K 0.5% 1/16W
R8099	1-218-740-11	METAL CHIP	100K 0.5%	R8159	1-216-834-11	RES-CHIP	12K 5% 1/16W
R8100	1-216-475-11	METAL OXIDE	120 5%	R8160	1-249-393-11	CARBON	10 5% 1/4W
R8101	1-216-475-11	METAL OXIDE	120 5%	R8161	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8102	1-218-738-11	METAL-CHIP	82K 0.5%	R8163	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8103	1-216-816-11	RES-CHIP	390 5%	R8164	1-218-734-11	METAL CHIP	56K 0.5% 1/16W
R8104	1-216-832-11	RES-CHIP	8.2K 5%	R8165	1-249-425-11	CARBON	4.7K 5% 1/4W
R8105	1-214-808-11	METAL	4.7 1%	R8166	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8106	1-214-808-11	METAL	4.7 1%	R8167	1-414-189-31	INDUCTOR	100UH
R8107	1-216-833-11	RES-CHIP	10K 5%	R8168	1-216-809-11	RES-CHIP	100 5% 1/16W
R8108	1-216-821-11	RES-CHIP	1K 5%	R8169	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8109	1-216-814-11	RES-CHIP	270 5%	R8170	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
R8110	1-249-427-11	CARBON	6.8K 5%	R8171	1-216-809-11	RES-CHIP	100 5% 1/16W
R8111	1-216-819-11	RES-CHIP	680 5%	R8172	1-249-405-11	CARBON	100 5% 1/4W
R8112	1-216-824-11	RES-CHIP	1.8K 5%	R8173	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8113	1-216-475-11	METAL OXIDE	120 5%	R8174	1-249-425-11	CARBON	4.7K 5% 1/4W
R8114	1-216-475-11	METAL OXIDE	120 5%	R8176	1-218-740-11	METAL CHIP	100K 0.5% 1/16W
R8115	1-216-475-11	METAL OXIDE	120 5%	R8178	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8116	1-216-475-11	METAL OXIDE	120 5%	R8179	1-414-189-31	INDUCTOR	100UH
R8117	1-216-833-11	RES-CHIP	10K 5%	R8180	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8118	1-216-833-11	RES-CHIP	10K 5%	R8181	1-216-841-11	RES-CHIP	47K 5% 1/16W
R8119	1-216-833-11	RES-CHIP	10K 5%	R8182	1-218-748-11	RES-CHIP	220K 5% 1/16W
R8120	1-216-833-11	RES-CHIP	10K 5%	R8183	1-218-748-11	RES-CHIP	220K 5% 1/16W
R8121	1-216-809-11	RES-CHIP	100 5%	R8184	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8122	1-216-821-11	RES-CHIP	1K 5%	R8187	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8123	1-216-821-11	RES-CHIP	1K 5%	R8189	1-249-377-11	CARBON	0.47 5% 1/4W
R8124	1-249-377-11	CARBON	0.47 5%	R8190	1-215-431-00	METAL	2.7K 1% 1/4W
R8125	1-216-816-11	RES-CHIP	390 5%	R8191	1-215-429-00	METAL	2.2K 1% 1/4W
R8126	1-216-823-11	RES-CHIP	1.5K 5%	R8192	1-215-449-00	METAL	15K 1% 1/4W
R8128	1-216-833-11	RES-CHIP	10K 5%	R8193	1-215-449-00	METAL	15K 1% 1/4W
R8129	1-216-825-11	RES-CHIP	2.2K 5%	R8194	1-215-449-00	METAL	15K 1% 1/4W
R8130	1-216-825-11	RES-CHIP	2.2K 5%	R8195	1-215-449-00	METAL	15K 1% 1/4W
R8131	1-216-833-11	RES-CHIP	10K 5%	R8196	1-249-425-11	CARBON	4.7K 5% 1/4W
R8132	1-216-833-11	RES-CHIP	10K 5%	R8197	1-216-809-11	RES-CHIP	100 5% 1/16W
R8133	1-216-486-00	METAL OXIDE	8.2K 5%	R8198	1-216-833-11	RES-CHIP	10K 5% 1/16W
R8134	1-215-873-00	METAL OXIDE	4.7K 5%	R8201	1-249-397-11	CARBON	22 5% 1/4W
R8135	1-216-486-00	METAL OXIDE	8.2K 5%	R8202	1-260-092-11	CARBON	270 5% 1/2W
R8136	1-216-833-11	RES-CHIP	10K 5%	R8203	1-249-377-11	CARBON	0.47 5% 1/4W
R8137	1-218-740-11	METAL CHIP	100K 0.5%				
R8138	1-216-833-11	RES-CHIP	10K 5%				

The components identified by shading and mark Δ are critical for safety.
Replace only with part number specified.

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RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K

The components identified by \blacktriangledown in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R8205	1-249-377-11	CARBON	0.47 5% 1/4W		4-382-854-11	SCREW (M3X10), P, SW (+)	
R8206	1-249-377-11	CARBON	0.47 5% 1/4W				
R8208	1-260-288-11	CARBON	0.47 5% 1/2W			< CAPACITOR >	
R8209	1-216-833-11	RES-CHIP	10K 5% 1/16W				
R8210	1-216-809-11	RES-CHIP	100 5% 1/16W	C5001	1-164-645-11	CERAMIC 1000PF 10% 500V	
				C5002	1-164-645-11	CERAMIC 1000PF 10% 500V	
R8211	1-215-906-11	METAL OXIDE	15 5% 3W	C5006	1-104-665-11	ELECT 100UF 20% 25V	
R8212	1-215-907-11	METAL OXIDE	22 5% 3W	C5007	1-164-645-11	CERAMIC 1000PF 10% 500V	
R8213	1-216-821-11	RES-CHIP	1K 5% 1/16W	C5008	1-164-645-11	CERAMIC 1000PF 10% 500V	
R8216	1-216-833-11	RES-CHIP	10K 5% 1/16W				
R8217	1-216-821-11	RES-CHIP	1K 5% 1/16W	C5009	1-126-953-11	ELECT 2200UF 20% 35V	
				C5010	1-126-953-11	ELECT 2200UF 20% 35V	
R8218	1-260-123-11	CARBON	100K 5% 1/2W	C5011	1-164-645-11	CERAMIC 1000PF 10% 500V	
R8219	1-249-377-11	CARBON	0.47 5% 1/4W	C5012	1-164-645-11	CERAMIC 1000PF 10% 500V	
R8220	1-216-821-11	RES-CHIP	1K 5% 1/16W	C5015	1-115-758-11	ELECT 470UF 20% 16V	
R8223	1-218-748-11	METAL CHIP	220K 0.5% 1/16W				
R8224	1-260-127-11	CARBON	220K 5% 1/2W	C5016	1-126-942-61	ELECT 1000UF 20% 25V	
				C5017	1-126-942-61	ELECT 1000UF 20% 25V	
R8225	1-260-292-11	CARBON	1 5% 1/2W	C5018	1-126-952-11	ELECT 1000UF 20% 35V	
R8228	1-260-314-11	CARBON	68 5% 1/2W	C5019	1-126-952-11	ELECT 1000UF 20% 35V	
R8230	1-218-751-11	METAL CHIP	300K 0.5% 1/16W	C5020	1-110-626-11	ELECT 330UF 20% 160V	
R8232	1-216-341-11	METAL OXIDE	0.22 1W				
				C5021	1-115-771-51	ELECT 0.0047F 20% 16V	
				C5022	1-126-947-11	ELECT 47UF 20% 25V	
				C5024	1-107-888-11	ELECT 47UF 20% 25V	
				C5025	1-126-947-11	ELECT 47UF 20% 25V	
				C5026	1-126-947-11	ELECT 47UF 20% 25V	
				C5027	1-126-951-11	ELECT 470UF 20% 35V	
				C5028	1-126-951-11	ELECT 470UF 20% 35V	
				C5029	1-107-639-11	ELECT 47UF 20% 160V	
				C5030	1-126-947-11	ELECT 47UF 20% 25V	
				C5031	1-126-768-11	ELECT 2200UF 20% 16V	
				C5038	1-126-947-11	ELECT 47UF 20% 25V	
				C5039	1-126-947-11	ELECT 47UF 20% 25V	
				C5040	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
				C5041	1-126-767-11	ELECT 1000UF 20% 16V	
				C5042	1-126-963-11	ELECT 4.7UF 20% 50V	
				C5043	1-126-935-11	ELECT 470UF 20% 16V	
				C5047	1-162-970-11	CERAMIC CHIP 0.01UF 10% 16V	
				C5049	1-162-970-11	CERAMIC CHIP 0.01UF 10% 25V	
				C5050	1-128-554-11	ELECT 330UF 20% 63V	
				C5051	1-126-961-11	ELECT 2.2UF 20% 50V	
				C5053	1-126-967-11	ELECT 47UF 20% 50V	
				C5054	1-126-955-11	ELECT 4700UF 20% 35V	
				C5055	1-126-933-11	ELECT 100UF 20% 16V	
				C6001	1-126-967-11	ELECT 47UF 20% 50V	
				C6002	1-104-666-11	ELECT 220UF 20% 25V	
				C6004	1-126-967-11	ELECT 47UF 20% 50V	
				C6008	1-117-228-11	MYLAR 2.2UF 10% 450V	
				C6012 Δ	1-119-888-51	CERAMIC 2200PF 20% 250V	
				C6013 Δ	1-119-888-51	CERAMIC 2200PF 20% 250V	
				C6014 Δ	1-104-708-11	MYLAR 0.47UF 20% 250V	
				C6015	1-161-964-91	CERAMIC 0.0047UF 250V	
				C6016	1-161-964-91	CERAMIC 0.0047UF 250V	
				C6017	1-162-964-11	CERAMIC CHIP 0.001UF 10% 50V	
				C6018	1-162-974-11	CERAMIC CHIP 0.01UF 50V	
				C6019	1-126-968-11	ELECT 100UF 20% 50V	
				C6020	1-126-963-11	ELECT 4.7UF 20% 50V	
				C6021	1-126-964-11	ELECT 10UF 20% 50V	
				C6022	1-161-964-91	CERAMIC 0.0047UF 250V	
				C6023	1-161-964-91	CERAMIC 0.0047UF 250V	

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KP-HR432K90/HR532K90/HR532N90/HW572K90

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RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C6025	1-136-479-11	FILM	0.001UF 2% 50V	D5026	8-719-404-50	MA111-TX	
C6028	1-125-906-11	ELECT	560UF 20% 450V (EXCEPT HR532N90)	D5027	8-719-069-55	UDZSTE-17-5.6B	
C6029	1-136-165-00	FILM	0.1UF 5% 50V	D5031	8-719-404-50	MA111-TX	
C6030	1-126-947-11	ELECT	47UF 20% 25V	D5033	8-719-404-50	MA111-TX	
C6031	1-137-750-11	ELECT	1500UF 20% 250V (HR532N90)	D5034	8-719-083-60	UDZSTE-17-4.7B	
C6032	1-137-750-11	ELECT	1500UF 20% 250V (HR532N90)	D6001	8-719-404-50	MA111-TX	
C6041	1-125-969-91	CERAMIC	680PF 10% 1KV	D6002	8-719-948-45	ERA22-08	
C6042	1-125-969-91	CERAMIC	680PF 10% 1KV	D6003	8-719-069-87	DTZ10B	
C6043 Δ	1-104-706-11	MYLAR	0.22UF 20% 250V	D6004	8-719-404-50	MA111-TX	
C6045	1-117-700-11	CERAMIC	0.0022UF 99% 250V (EXCEPT HR532N90)	D6005	8-719-404-50	MA111-TX	
C6046	1-126-968-11	ELECT	100UF 20% 50V	D6006	8-719-063-70	D1NL20U	
C6047	1-135-998-21	FILM	56000PF 3% 800V	D6007	8-719-022-99	D6SB60L	
		< CONNECTOR >		D6009	8-719-083-60	UDZSTE-174.7B	
CN5001*	1-564-508-11	PLUG, CONNECTOR 5P		D6011	8-719-404-50	MA111-TX	
CN5002*	1-564-507-11	PLUG, CONNECTOR 4P		D6012	8-719-979-64	UF4005PKG23	
CN5003*	1-564-510-11	PLUG, CONNECTOR 7P		D6019	8-719-083-60	UDZSTE-174.7B	
CN5004*	1-766-177-11	PIN, CONNECTOR (PC BOARD) 9P		D6023	8-719-068-00	ERC04-06SE (HR532N90)	
CN5005	1-695-915-11	TAB (CONTACT)		D6024	1-219-759-11	CARBON 1M 5% 1/2W (EXCEPT HR532N90)	
CN5006	1-695-915-11	TAB (CONTACT)		D6024	8-719-068-00	ERC04-06SE (HR532N90)	
CN5007	1-695-915-11	TAB (CONTACT)		D6030	8-719-063-70	D1NL20U	
CN6003	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P (EXCEPT HR532N90)				< FUSE >	
CN6004	1-580-689-31	PIN, CONNECTOR (PC BOARD) 4P (EXCEPT HR532N90)		F6001 Δ	1-532-299-00	FUSE 5A 250V (EXCEPT HR532N90)	
CN6005	1-580-843-11	PIN, CONNECTOR (POWER)		F6001 Δ	1-576-193-11	FUSE 6.3A 125V (HR532N90)	
		< DIODE >				< FERRITE BEAD >	
D5001	8-719-083-69	UDZSTE-1724B (HR532N90)		FB5001	1-410-396-41	FERRITE 0.45UH	
D5002	8-719-060-89	D4SBS6-F		FB5002	1-410-396-41	FERRITE 0.45UH	
D5003	8-719-060-89	D4SBS6-F		FB5003	1-410-396-41	FERRITE 0.45UH	
D5004	8-719-083-45	DIODE 31DF4N-FC5		FB5004	1-410-396-41	INDUCTOR 0.45UH	
D5005	8-719-083-45	DIODE 31DF4N-FC5		FB5005	1-410-396-41	FERRITE 0.45UH	
D5006	8-719-052-37	F10P04Q		FB5006	1-410-396-41	FERRITE 0.45UH	
D5007	8-719-404-50	MA111-TX		FB6001	1-410-396-41	FERRITE 0.45UH	
D5008	8-719-028-45	D2L20U		FB6004	1-216-295-91	SHORT 0	
D5009	8-719-028-45	D2L20U		FB6005	1-216-295-91	SHORT 0	
D5010	8-719-200-31	21DQ05		FB6006	1-216-295-91	SHORT 0	
D5011	8-719-404-50	MA111-TX		FB6007	1-216-295-91	SHORT 0	
D5012	8-719-083-66	DIODE UDZSTE-1718B		FB6013	1-410-397-21	FERRITE 1.1UH	
D5013	8-719-069-56	UDZSTE-176.2B		FB6014	1-410-397-21	FERRITE 1.1UH	
D5014	8-719-404-50	MA111-TX		FB6015	1-410-397-21	FERRITE 1.1UH	
D5015	8-719-404-50	MA111-TX		FB6016	1-410-397-21	FERRITE 1.1UH	
D5016	8-719-083-44	DIODE FSQ05A04				< IC >	
D5017	8-719-073-25	S1VBA20		IC501	8-749-012-13	DM-58	
D5018	8-719-056-84	UDZ-TE-17-7.5B		IC5002	8-759-103-93	UPC393C	
D5019	8-719-404-50	MA111-TX		IC5003	8-759-701-84	NJM7905FA	
D5020	8-719-404-50	MA111-TX (HR532N90)		IC5004	8-759-640-19	PQ1CG2032FZ	
D5021	8-719-404-50	MA111-TX		IC5005	8-759-198-31	UPC1093J-1-T	
D5022	8-719-404-50	MA111-TX		IC5006	8-759-069-28	PQ05RF11	
D5023	8-719-404-50	MA111-TX		IC6003	8-759-670-30	MCZ3001D	
D5024	8-719-404-50	MA111-TX				< JUMPER RESISTOR >	
D5025	8-719-404-50	MA111-TX		JR5002	1-216-864-11	SHORT 0	
				JR5003	1-216-295-91	SHORT 0	

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KP-HR432K90/HR532K90/HR532N90/HW572K90

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RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
< COIL >				R5021	1-216-821-11	RES-CHIP	1K 5% 1/16W
L5001	1-412-523-41	INDUCTOR	6.8UH	R5022	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W
L5002	1-412-523-41	INDUCTOR	6.8UH	R5023	1-218-750-11	METAL CHIP	270K 0.5% 1/16W
L5003	1-412-529-11	INDUCTOR	22UH	R5024	1-218-682-11	METAL CHIP	390 0.5% 1/16W
L5004	1-412-531-31	INDUCTOR	33UH	R5025	1-218-697-11	METAL CHIP	1.6K 0.5% 1/16W
L5005	1-412-527-11	INDUCTOR	15UH	R5026	1-216-833-11	RES-CHIP	10K 5% 1/16W
L5006	1-412-533-21	INDUCTOR	47UH	R5027	1-216-821-11	RES-CHIP	1K 5% 1/16W
L5007	1-412-533-21	INDUCTOR	47UH	R5028	1-216-821-11	RES-CHIP	1K 5% 1/16W
L5008	1-412-529-11	INDUCTOR	22UH	R5029	1-216-837-11	RES-CHIP	22K 5% 1/16W
L5009	1-412-529-11	INDUCTOR	22UH	R5030	1-216-837-11	RES-CHIP	22K 5% 1/16W
L5010	1-412-521-31	INDUCTOR	4.7UH	R5032	1-249-415-11	CARBON	680 5% 1/4W
L5011	1-412-521-31	INDUCTOR	4.7UH	R5034	1-216-833-11	RES-CHIP	10K 5% 1/16W
L5012	1-406-663-21	INDUCTOR	47UH	R5035	1-216-819-11	RES-CHIP	680 5% 1/16W
L5013	1-412-525-31	INDUCTOR	10UH	R5036	1-216-819-11	RES-CHIP	680 5% 1/16W
L5014	1-406-663-21	INDUCTOR	47UH	R5037	1-216-821-11	RES-CHIP	1K 5% 1/16W
L5015	1-424-862-11	INDUCTOR	33UH	R5038	1-216-821-11	RES-CHIP	1K 5% 1/16W (HR532N90)
L5016	1-406-663-21	INDUCTOR	47UH	R5039	1-216-864-11	SHORT	0
L5017	1-412-537-31	INDUCTOR	100UH	R5040	1-216-833-11	RES-CHIP	10K 5% 1/16W
L6001 Δ	1-437-479-11	TRANSFORMER, LINE FILTER		R5041	1-215-866-11	METAL OXIDE	330 5% 1W
L6002 Δ	1-437-479-11	TRANSFORMER, LINE FILTER		R5042	1-216-833-11	RES-CHIP	10K 5% 1/16W
L6003	1-424-862-11	INDUCTOR	33UH	R5043	1-216-821-11	RES-CHIP	1K 5% 1/16W
< PHOTO COUPLER >				R5044	1-216-821-11	RES-CHIP	1K 5% 1/16W
PH6001	8-749-924-35	ON3171-R		R5045	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
PH6002 Δ	8-749-924-35	ON3171-R		R5047	1-216-833-11	RES-CHIP	10K 5% 1/16W
< IC LINK >				R5048	1-216-833-11	RES-CHIP	10K 5% 1/16W
PS5001 Δ	1-533-597-31	LINK, IC	5A	R6001	1-220-797-11	CEMENT	0.47 5% 10W (EXCEPT HR532N90)
PS5002 Δ	1-533-597-31	LINK, IC	5A	R6002	1-240-251-11	CMT-MELF	6.8 5% 10W
< TRANSISTOR >				R6003	1-260-328-11	CARBON	1K 5% 1/2W
Q5001	8-729-050-50	TRANSISTOR 2SD1782K-T146-R		R6004	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q5002	8-729-422-27	2SD601A-Q (HR532N90)		R6006	1-216-430-11	METAL OXIDE	390 5% 1W
Q5003	8-729-026-49	2SA1037AK-T146-R		R6007	1-216-821-11	RES-CHIP	1K 5% 1/16W (EXCEPT HR532N90)
Q5004	8-729-422-27	2SD601A-Q		R6007	1-216-823-11	RES-CHIP	1.5K 5% 1/16W (HR532N90)
Q5005	8-729-027-23	DTA114EKA-T146		R6008	1-216-845-11	RES-CHIP	100K 5% 1/16W
Q5006	8-729-901-87	2SC2411K-CQ		R6014	1-218-265-11	METAL	8.2M 5% 1W (EXCEPT HR532N90)
Q5007	8-729-026-49	2SA1037AK-T146-R		R6015	1-219-776-11	CARBON	2.2M 10% 1/2W (HR532N90)
Q6005	8-729-052-32	IRFIB7N50A		R6018	1-219-959-11	CARBON	1M 5% 1/2W (EXCEPT HR532N90)
Q6006	8-729-052-32	IRFIB7N50A		R6036	1-218-715-11	METAL CHIP	9.1K 0.5% 1/16W
< RESISTOR >				R6037	1-215-481-00	METAL	330K 1% 1/4W
R5005	1-216-831-11	RES-CHIP	6.8K 5% 1/16W	R6038	1-215-481-00	METAL	330K 1% 1/4W
R5006	1-216-833-11	RES-CHIP	10K 5% 1/16W	R6039	1-216-851-11	RES-CHIP	330K 5% 1/16W
R5007	1-249-377-11	CARBON	0.47 5% 1/4W	R6040	1-215-481-00	METAL	330K 1% 1/4W
R5010	1-247-903-00	CARBON	1M 5% 1/4W	R6041	1-218-668-11	METAL CHIP	100 0.5% 1/16W
R5011	1-216-818-11	RES-CHIP	560 5% 1/16W	R6042	1-218-719-11	METAL CHIP	13K 0.5% 1/16W
R5012	1-216-361-00	METAL OXIDE	0.22 5% 2W	R6045	1-218-675-11	METAL CHIP	200 0.5% 1/16W
R5013	1-216-833-11	RES-CHIP	10K 5% 1/16W (HR532N90)	R6046	1-216-813-11	RES-CHIP	220 5% 1/16W
R5014	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R6047	1-216-813-11	RES-CHIP	220 5% 1/16W
R5015	1-218-708-11	METAL CHIP	4.7K 0.5% 1/16W	R6050	1-249-417-11	CARBON	1K 5% 1/4W
R5016	1-216-833-11	RES-CHIP	10K 5% 1/16W	R6054	1-249-393-11	CARBON	10 5% 1/4W
R5017	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R6056	1-260-131-11	CARBON	470K 5% 1/2W (HR532N90)
R5018	1-216-821-11	RES-CHIP	1K 5% 1/16W	R6057	1-260-131-11	CARBON	470K 5% 1/2W (HR532N90)
R5019	1-216-857-11	RES-CHIP	1M 5% 1/16W				
R5020	1-216-821-11	RES-CHIP	1K 5% 1/16W				

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KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R6058	1-249-393-11	CARBON	10 5% 1/4W				
R6062	1-216-833-11	RES-CHIP	10K 5% 1/16W				
R6063	1-216-833-11	RES-CHIP	10K 5% 1/16W				
R6064	1-202-933-61	FUSIBLE	0.1 10% 1/2W				
R6076	1-243-979-71	METAL OXIDE	0.1 5% 2W				
R6080	1-243-979-71	METAL OXIDE	0.1 5% 2W				
R6081	1-249-393-11	CARBON	10 5% 1/4W				
		< RELAY >					
		R6002 Δ 1-755-395-11	RELAY (AC POWER)				
		R6003 Δ 1-755-395-11	RELAY (AC POWER)				
		< TRANSFORMER >					
		T6001 Δ 1-437-436-11	CONVERTER TRANSFORMER (PIT)				
		T6004 Δ 1-435-675-11	TRANSFORMER, STANDBY (HR532N90)				
		T6004 Δ 1-435-676-11	TRANSFORMER, STANDBY (EXCEPT HR532N90)				
		< POSISTOR >					
		TH6002	1-804-475-21 POSISTOR (HR532N90)				
		< VARISTOR >					
		VD6001	1-801-073-31 VARISTOR TNR14V471K660 (HR532N90)				
		VD6001	1-803-918-11 VARISTOR (EXCEPT HR532N90)				

		* A-1377-063-A	H1 BOARD, COMPLETE (HR432K90/HR532K90)				
		* A-1377-066-A	H1 BOARD, COMPLETE (HR532N90)				

		< CONNECTOR >					
		CN9101*	1-564-508-11 PLUG, CONNECTOR 5P				
		CN9103*	1-580-689-31 PIN, CONNECTOR (PC BOARD) 4P (HR432K90/HR532K90)				
		CN9104*	1-580-689-11 PIN, CONNECTOR (PC BOARD) 4P (HR432K90/HR532K90)				
		< DIODE >					
		D9101	8-719-053-43 SLR-325VCT31				
		D9102	8-719-053-43 SLR-325VCT31				
		< RESISTOR >					
		R9103	1-216-813-11 RES-CHIP 220 5% 1/16W				
		R9104	1-216-813-11 RES-CHIP 220 5% 1/16W				
		R9105	1-216-833-11 RES-CHIP 10K 5% 1/16W (HR432K90/HR532K90)				
		< SWITCH >					
		S9101 Δ 1-571-433-21	SWITCH, PUSH (AC POWER) (HR432K90/HR532K90)				
		S9101	1-571-532-21 SWITCH, TACTIL (HR532N90)				

		* A-1377-080-A	H1 BOARD, COMPLETE (HW572K90)				

		< CAPACITOR >					
		C9101	1-107-826-11 CERAMIC CHIP 0.1UF 10% 16V				
		< CONNECTOR >					
		CN9101*	1-564-508-11 PLUG, CONNECTOR 5P				
		CN9102*	1-564-506-11 PLUG, CONNECTOR 3P				
		CN9103*	1-580-689-31 PIN, CONNECTOR (PC BOARD) 4P				
		CN9104*	1-580-689-11 PIN, CONNECTOR (PC BOARD) 4P				
		< DIODE >					
		D9101	8-719-053-43 SLR-325VCT31				
		D9102	8-719-053-43 SLR-325VCT31				
		< IC >					
		IC9101	8-719-066-43 GP1U28Y				
		< RESISTOR >					
		R9101	1-216-833-11 RES-CHIP 10K 5% 1/16W				
		R9102	1-216-809-11 RES-CHIP 100 5% 1/16W				
		R9103	1-216-813-11 RES-CHIP 220 5% 1/16W				
		R9104	1-216-813-11 RES-CHIP 220 5% 1/16W				
		R9105	1-216-833-11 RES-CHIP 10K 5% 1/16W				
		< SWITCH >					
		S9101 Δ 1-571-433-21	SWITCH, PUSH (AC POWER)				

		* A-1377-062-A	H2 BOARD, COMPLETE				

		< CONNECTOR >					
		CN9201*	1-564-520-11 PLUG, CONNECTOR 5P				
		CN9202	1-564-521-11 PLUG, CONNECTOR 6P				
		< RESISTOR >					
		R9201	1-218-684-11 METAL CHIP 470 0.5% 1/16W				
		R9202	1-218-684-11 METAL CHIP 470 0.5% 1/16W				
		R9203	1-218-684-11 METAL CHIP 470 0.5% 1/16W				
		R9204	1-218-684-11 METAL CHIP 470 0.5% 1/16W				
		R9205	1-218-688-11 METAL CHIP 680 0.5% 1/16W				
		R9206	1-218-688-11 METAL CHIP 680 0.5% 1/16W				
		R9207	1-218-692-11 METAL CHIP 1K 0.5% 1/16W				
		R9208	1-218-696-11 METAL CHIP 1.5K 0.5% 1/16W				
		R9209	1-218-700-11 METAL CHIP 2.2K 0.5% 1/16W				
		R9210	1-218-704-11 METAL CHIP 3.3K 0.5% 1/16W				
		R9211	1-218-712-11 METAL CHIP 6.8K 0.5% 1/16W				
		< SWITCH >					
		S9201	1-572-198-11 SWITCH, KEYBOARD				
		S9202	1-572-198-11 SWITCH, KEYBOARD				
		S9203	1-572-198-11 SWITCH, KEYBOARD				
		S9204	1-572-198-11 SWITCH, KEYBOARD				
		S9205	1-572-198-11 SWITCH, KEYBOARD				

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
S9206	1-572-198-11	SWITCH, KEYBOARD				< DIODE >	
S9207	1-572-198-11	SWITCH, KEYBOARD		D9401	8-719-923-38	RD5.6ESB2	
S9208	1-572-198-11	SWITCH, KEYBOARD		D9402	8-719-923-38	RD5.6ESB2	
S9209	1-572-198-11	SWITCH, KEYBOARD				< IC >	
S9210	1-572-198-11	SWITCH, KEYBOARD		IC9401	8-719-066-43	GPIU28Y	
S9211	1-572-198-11	SWITCH, KEYBOARD				< RESISTOR >	
S9212	1-572-198-11	SWITCH, KEYBOARD		R9401	1-216-833-11	RES-CHIP 10K 5% 1/16W	
*****				R9402	1-216-809-11	RES-CHIP 100 5% 1/16W	
*****				*****			
* A-1377-065-A H3 BOARD, COMPLETE				* A-1391-179-A S BOARD, COMPLETE			
*****				*****			
< CAPACITOR >				< CONNECTOR >			
C9301	1-126-964-11	ELECT	10UF 20% 50V	CN3001*	1-564-506-11	PLUG, CONNECTOR 3P	
C9302	1-126-964-11	ELECT	10UF 20% 50V			< DIODE >	
C9303	1-126-959-11	ELECT	0.47UF 20% 50V	D3001	8-719-109-89	RD5.6ESB2	
C9304	1-126-959-11	ELECT	0.47UF 20% 50V			< SOLAR BATTERY >	
C9305	1-163-021-11	CERAMIC CHIP	0.01UF 10% 50V	S3002	1-756-063-21	BATTERY, SOLAR	
C9307	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	*****			
C9308	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	* A-1373-882-A U BOARD, COMPLETE			
< CONNECTOR >				(EXCEPT HW572K90)			
CN9301*	1-564-526-11	PLUG, CONNECTOR 11P		*****			
< DIODE >				< CAPACITOR >			
D9301	8-719-110-17	RD10ESB2		C2001	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
D9302	8-719-110-17	RD10ESB2		C2002	1-163-021-91	CERAMIC CHIP 0.01UF 10% 50V	
D9303	8-719-110-17	RD10ESB2		C2003	1-126-935-11	ELECT 470UF 20% 16V	
D9304	8-719-110-17	RD10ESB2		C2004	1-128-551-11	ELECT 22UF 20% 25V	
D9305	8-719-110-17	RD10ESB2		C2005	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
D9306	8-719-110-17	RD10ESB2		C2006	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V	
< JACK >				C2007	1-126-964-11	ELECT 10UF 20% 50V	
J9301	1-565-929-11	TERMINAL BLOCK, S 3P		C2008	1-126-964-11	ELECT 10UF 20% 50V	
< RESISTOR >				C2012	1-126-964-11	ELECT 10UF 20% 50V	
R9301	1-216-821-11	RES-CHIP 1K 5% 1/16W		C2013	1-126-964-11	ELECT 10UF 20% 50V	
R9302	1-216-853-11	RES-CHIP 470K 5% 1/16W		C2014	1-126-960-11	ELECT 1UF 20% 50V	
R9303	1-216-853-11	RES-CHIP 470K 5% 1/16W		C2015	1-126-960-11	ELECT 1UF 20% 50V	
R9304	1-218-285-11	RES-CHIP 75 5% 1/16W		C2016	1-126-964-11	ELECT 10UF 20% 50V	
R9305	1-218-285-11	RES-CHIP 75 5% 1/16W		C2017	1-126-964-11	ELECT 10UF 20% 50V	
R9306	1-218-285-11	RES-CHIP 75 5% 1/16W		C2018	1-126-960-11	ELECT 1UF 20% 50V	
*****				C2019	1-126-964-11	ELECT 10UF 20% 50V	
*****				C2020	1-126-964-11	ELECT 10UF 20% 50V	
* A-1377-061-A H4 BOARD, COMPLETE (EXCEPT HW572K90)				C2021	1-126-960-11	ELECT 1UF 20% 50V	
*****				C2022	1-126-960-11	ELECT 1UF 20% 50V	
< CAPACITOR >				C2023	1-126-964-11	ELECT 10UF 20% 50V	
C9401	1-107-826-11	CERAMIC CHIP 0.1UF 10% 16V		C2024	1-126-964-11	ELECT 10UF 20% 50V	
< CONNECTOR >				C2025	1-126-960-11	ELECT 1UF 20% 50V	
CN9401*	1-564-518-11	PLUG, CONNECTOR 3P		C2026	1-126-960-11	ELECT 1UF 20% 50V	
*****				C2027	1-128-551-11	ELECT 22UF 20% 25V	
*****				C2028	1-126-933-11	ELECT 100UF 20% 16V	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C2029	1-126-964-11	ELECT	10UF 20% 50V	C2352	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
C2030	1-126-964-11	ELECT	10UF 20% 50V	C2353	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C2031	1-126-964-11	ELECT	10UF 20% 50V	C2354	1-137-368-11	MYLAR	0.0047UF 5% 50V
C2032	1-126-964-11	ELECT	10UF 20% 50V				
C2033	1-126-960-11	ELECT	1UF 20% 50V	C2355	1-137-150-11	MYLAR	0.01UF 5% 50V
				C2356	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C2036	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C2357	1-126-933-11	ELECT	100UF 20% 16V
C2037	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V	C2358	1-126-933-11	ELECT	100UF 20% 16V
C2038	1-164-816-11	CERAMIC CHIP	220PF 2% 50V	C2359	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2040	1-126-933-11	ELECT	100UF 20% 16V				
C2043	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C2360	1-137-368-11	MYLAR	0.0047UF 5% 50V
				C2365	1-136-169-00	FILM	0.22UF 5% 50V
C2044	1-126-933-11	ELECT	100UF 20% 16	C2366	1-137-150-11	MYLAR	0.01UF 5% 50V
C2045	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	C2367	1-137-368-11	MYLAR	0.0047UF 5% 50V
C2046	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	C2368	1-136-169-00	FILM	0.22UF 5% 50V
C2048	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V				
C2049	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	C2370	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
						< CONNECTOR >	
C2050	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V				
C2051	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	CN2001*	1-793-923-11	CONNECTOR, DIN (PLUG) 64P	
C2052	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	CN2002*	1-564-526-11	PLUG, CONNECTOR 11P	
C2053	1-164-315-11	CERAMIC CHIP	470PF 5% 50V			< DIODE >	
C2054	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
				D2001	8-719-110-53	RD10ESB2	
C2055	1-126-964-11	ELECT	10UF 20% 50V	D2002	8-719-110-53	RD10ESB2	
C2056	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	D2003	8-719-110-53	RD10ESB2	
C2060	1-126-933-11	ELECT	100UF 20% 16V	D2004	8-719-800-76	1SS226	
C2061	1-126-964-11	ELECT	10UF 20% 50V	D2005	8-719-800-76	1SS226	
C2062	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V				
				D2006	8-719-800-76	1SS226	
C2069	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2007	8-719-110-53	RD10ESB2	
C2073	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	D2008	8-719-110-53	RD10ESB2	
C2074	1-164-315-11	CERAMIC CHIP	470PF 5% 50V	D2009	8-719-800-76	1SS226	
C2075	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2010	8-719-800-76	1SS226	
C2083	1-128-551-11	ELECT	22UF 20% 25V				
				D2011	8-719-800-76	1SS226	
C2084	1-126-964-11	ELECT	10UF 20% 50V	D2012	8-719-110-53	RD10ESB2	
C2085	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	D2013	8-719-110-53	RD10ESB2	
C2087	1-164-160-11	CERAMIC CHIP	20PF 5% 50V	D2014	8-719-110-53	RD10ESB2	
C2089	1-126-964-11	ELECT	10UF 20% 50V	D2015	8-719-110-53	RD10ESB2	
C2090	1-164-227-11	CERAMIC CHIP	0.022UF 10% 25V				
				D2016	8-719-110-53	RD10ESB2	
C2091	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2017	8-719-110-53	RD10ESB2	
C2092	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2018	8-719-110-53	RD10ESB2	
C2094	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V	D2019	8-719-110-53	RD10ESB2	
C2096	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	D2020	8-719-110-53	RD10ESB2	
C2097	1-162-917-11	CERAMIC CHIP	15PF 5% 50V				
				D2021	8-719-110-53	RD10ESB2	
C2098	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2022	8-719-110-53	RD10ESB2	
C2099	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2023	8-719-110-53	RD10ESB2	
C2102	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2024	8-719-110-53	RD10ESB2	
C2103	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2025	8-719-110-53	RD10ESB2	
C2111	1-126-964-11	ELECT	10UF 20% 50V				
				D2026	8-719-110-53	RD10ESB2	
C2112	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2027	8-719-110-53	RD10ESB2	
C2113	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2029	8-719-110-53	RD10ESB2	
C2114	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2030	8-719-110-53	RD10ESB2	
C2122	1-126-964-11	ELECT	10UF 20% 50V	D2031	8-719-800-76	1SS226	
C2128	1-126-964-11	ELECT	10UF 20% 50V				
				D2032	8-719-800-76	1SS226	
C2332	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2033	8-719-991-33	1SS133T-77	
C2334	1-126-933-11	ELECT	100UF 20% 16V	D2034	8-719-991-33	1SS133T-77	
C2342	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2035	8-719-110-53	RD10ESB2	
C2348	1-126-947-11	ELECT	47UF 20% 25V	D2039	8-719-110-53	RD10ESB2	
C2349	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V				
				D2040	8-719-800-76	1SS226	
C2350	1-126-964-11	ELECT	10UF 20% 50V				
C2351	1-126-964-11	ELECT	10UF 20% 50V				



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D2041	8-719-800-76	ISS226		Q2026	8-729-026-49	2SA1037AK-T146-R	
D2042	8-719-110-53	RD10ESB2		Q2027	8-729-026-49	2SA1037AK-T146-R	
D2043	8-719-800-76	ISS226		Q2028	8-729-026-49	2SA1037AK-T146-R	
D2044	8-719-800-76	ISS226		Q2029	8-729-120-28	2SC1623-L5L6	
		< FERRITE BEAD >		Q2301	8-729-422-27	2SD601A-Q	
FB2001	1-414-760-21	FERRITE	0UH			< RESISTOR >	
FB2002	1-414-445-11	FERRITE	0UH	R2001	1-218-285-11	RES-CHIP	75 5% 1/16W
		< FILTER >		R2002	1-216-853-11	RES-CHIP	470K 5% 1/16W
FL2001	1-239-848-11	FILTER, LOW PASS		R2003	1-218-665-11	METAL CHIP	75 0.5% 1/16W
FL2002	1-239-848-11	FILTER, LOW PASS		R2004	1-218-665-11	METAL CHIP	75 0.5% 1/16W
FL2003	1-239-848-11	FILTER, LOW PASS		R2005	1-218-665-11	METAL CHIP	75 0.5% 1/16W
		< IC >		R2006	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2001	8-759-351-01	TEA6422DT		R2007	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2003	8-759-100-96	UPC4558G2		R2008	1-218-665-11	METAL CHIP	75 0.5% 1/16W
IC2004	8-752-080-04	CXA2069Q		R2009	1-218-665-11	METAL CHIP	75 0.5% 1/16W
IC2007	8-752-394-69	CXD2073Q-T4		R2010	1-218-665-11	METAL CHIP	75 0.5% 1/16W
IC2302	8-759-578-49	NJM2370U10-TE2		R2011	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2304	8-759-711-10	NJU4066BM		R2012	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2305	8-759-686-15	NJM2180M		R2013	1-216-853-11	RES-CHIP	470K 5% 1/16W
		< JACK >		R2014	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2001	1-573-967-12	BLOCK, (S) TERMINAL		R2015	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2002	1-764-143-11	JACK		R2016	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2003	1-764-143-11	JACK		R2017	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2004	1-750-517-21	JACK BLOCK, PIN 3P		R2018	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2005	1-815-015-11	JACK BLOCK, PIN		R2019	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2006	1-815-015-11	JACK BLOCK, PIN		R2020	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2007	1-750-516-21	JACK BLOCK, PIN 2P		R2021	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2008	1-750-517-21	JACK BLOCK, PIN 3P		R2022	1-218-665-11	METAL CHIP	75 0.5% 1/16W
		< COIL >		R2023	1-216-853-11	RES-CHIP	470K 5% 1/16W
L2001	1-469-559-21	INDUCTOR	47UH	R2024	1-216-853-11	RES-CHIP	470K 5% 1/16W
L2302	1-469-555-21	INDUCTOR	10UH	R2025	1-218-665-11	METAL CHIP	75 0.5% 1/16W
		< TRANSISTOR >		R2026	1-218-665-11	METAL CHIP	75 0.5% 1/16W
Q2001	8-729-422-27	2SD601A-Q		R2027	1-218-665-11	METAL CHIP	75 0.5% 1/16W
Q2002	8-729-026-49	2SA1037AK-T146-R		R2028	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2003	8-729-026-49	2SA1037AK-T146-R		R2029	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2004	8-729-422-27	2SD601A-Q		R2030	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2005	8-729-422-27	2SD601A-Q		R2031	1-216-841-11	RES-CHIP	47K 5% 1/16W
Q2006	8-729-422-27	2SD601A-Q		R2032	1-216-845-11	RES-CHIP	100K 5% 1/16W
Q2007	8-729-422-27	2SD601A-Q		R2034	1-216-803-11	RES-CHIP	33 5% 1/16W
Q2008	8-729-422-27	2SD601A-Q		R2035	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2009	8-729-422-27	2SD601A-Q		R2036	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2012	8-729-026-49	2SA1037AK-T146-R		R2037	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2013	8-729-422-27	2SD601A-Q		R2038	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2015	8-729-422-27	2SD601A-Q		R2039	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q2016	8-729-422-27	2SD601A-Q		R2040	1-216-857-11	RES-CHIP	1M 5% 1/16W
Q2017	8-729-422-27	2SD601A-Q		R2041	1-216-842-11	RES-CHIP	56K 5% 1/16W
Q2019	8-729-026-49	2SA1037AK-T146-R		R2042	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
Q2020	8-729-422-27	2SD601A-Q		R2043	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2021	8-729-026-49	2SA1037AK-T146-R		R2044	1-216-806-11	RES-CHIP	56 5% 1/16W
Q2022	8-729-422-27	2SD601A-Q		R2045	1-216-806-11	RES-CHIP	56 5% 1/16W
Q2024	8-729-422-27	2SD601A-Q		R2046	1-216-818-11	RES-CHIP	560 5% 1/16W
Q2025	8-729-422-27	2SD601A-Q		R2047	1-216-809-11	RES-CHIP	100 5% 1/16W
				R2048	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R2049	1-216-809-11	RES-CHIP	100 5% 1/16W
				R2050	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
				R2051	1-216-809-11	RES-CHIP	100 5% 1/16W

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2052	1-216-817-11	RES-CHIP	470 5% 1/16W	R2125	1-218-702-11	METAL CHIP	2.7K 0.5% 1/16W
R2053	1-216-817-11	RES-CHIP	470 5% 1/16W	R2128	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R2054	1-216-806-11	RES-CHIP	56 5% 1/16W	R2130	1-216-809-11	RES-CHIP	100 5% 1/16W
R2055	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2131	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R2056	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2132	1-216-833-11	RES-CHIP	10K 5% 1/16W
R2057	1-216-806-11	RES-CHIP	56 5% 1/16W	R2133	1-218-674-11	METAL CHIP	180 0.5% 1/16W
R2058	1-218-716-11	METAL CHIP	10K 0.5% 1/16W	R2136	1-216-816-11	RES-CHIP	390 5% 1/16W
R2059	1-216-817-11	RES-CHIP	470 5% 1/16W	R2137	1-218-700-11	METAL CHIP	2.2K 0.5% 1/16W
R2060	1-216-817-11	RES-CHIP	470 5% 1/16W	R2138	1-216-809-11	RES-CHIP	100 5% 1/16W
R2061	1-216-817-11	RES-CHIP	470 5% 1/16W	R2142	1-216-815-11	RES-CHIP	330 5% 1/16W
R2062	1-216-817-11	RES-CHIP	470 5% 1/16W	R2147	1-216-814-11	RES-CHIP	270 5% 1/16W
R2063	1-216-809-11	RES-CHIP	100 5% 1/16W	R2148	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
R2064	1-216-809-11	RES-CHIP	100 5% 1/16W	R2149	1-216-817-11	RES-CHIP	470 5% 1/16W
R2065	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2150	1-216-821-11	RES-CHIP	1K 5% 1/16W
R2066	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R2151	1-218-698-11	METAL CHIP	1.8K 0.5% 1/16W
R2067	1-216-809-11	RES-CHIP	100 5% 1/16W	R2152	1-218-694-11	METAL CHIP	1.2K 0.5% 1/16W
R2068	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2153	1-216-821-11	RES-CHIP	1K 5% 1/16W
R2069	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2155	1-216-837-11	RES-CHIP	22K 5% 1/16W
R2070	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2156	1-216-841-11	RES-CHIP	47K 5% 1/16W
R2071	1-216-809-11	RES-CHIP	100 5% 1/16W	R2157	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R2072	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R2159	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R2073	1-216-809-11	RES-CHIP	100 5% 1/16W	R2164	1-218-710-11	METAL CHIP	5.6K 0.5% 1/16W
R2074	1-216-809-11	RES-CHIP	100 5% 1/16W	R2166	1-216-818-11	RES-CHIP	560 5% 1/16W
R2075	1-216-809-11	RES-CHIP	100 5% 1/16W	R2169	1-216-842-11	RES-CHIP	56K 5% 1/16W
R2077	1-216-809-11	RES-CHIP	100 5% 1/16W	R2173	1-216-818-11	RES-CHIP	560 5% 1/16W
R2080	1-216-809-11	RES-CHIP	100 5% 1/16W	R2174	1-218-686-11	METAL CHIP	560 0.5% 1/16W
R2081	1-216-809-11	RES-CHIP	100 5% 1/16W	R2175	1-216-817-11	RES-CHIP	470 5% 1/16W
R2082	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R2176	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
R2084	1-216-809-11	RES-CHIP	100 5% 1/16W	R2177	1-216-809-11	RES-CHIP	100 5% 1/16W
R2085	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2178	1-218-676-11	METAL CHIP	220 0.5% 1/16W
R2086	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	R2182	1-216-864-11	SHORT	0
R2087	1-216-809-11	RES-CHIP	100 5% 1/16W	R2183	1-216-813-11	RES-CHIP	220 5% 1/16W
R2089	1-216-809-11	RES-CHIP	100 5% 1/16W	R2184	1-218-704-11	METAL CHIP	3.3K 0.5% 1/16W
R2090	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2185	1-218-684-11	METAL CHIP	470 0.5% 1/16W
R2091	1-216-806-11	RES-CHIP	56 5% 1/16W	R2186	1-218-688-11	METAL CHIP	680 0.5% 1/16W
R2092	1-216-806-11	RES-CHIP	56 5% 1/16W	R2187	1-216-864-11	SHORT	0
R2094	1-216-864-11	SHORT	0	R2193	1-216-809-11	RES-CHIP	100 5% 1/16W
R2096	1-216-809-11	RES-CHIP	100 5% 1/16W	R2194	1-216-817-11	RES-CHIP	470 5% 1/16W
R2097	1-216-809-11	RES-CHIP	100 5% 1/16W	R2195	1-216-817-11	RES-CHIP	470 5% 1/16W
R2098	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2196	1-216-817-11	RES-CHIP	470 5% 1/16W
R2099	1-216-809-11	RES-CHIP	100 5% 1/16W	R2197	1-216-817-11	RES-CHIP	470 5% 1/16W
R2100	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2198	1-216-853-11	RES-CHIP	470K 5% 1/16W
R2103	1-216-809-11	RES-CHIP	100 5% 1/16W	R2199	1-216-853-11	RES-CHIP	470K 5% 1/16W
R2104	1-216-809-11	RES-CHIP	100 5% 1/16W	R2324	1-216-864-11	SHORT	0
R2105	1-216-809-11	RES-CHIP	100 5% 1/16W	R2325	1-216-864-11	SHORT	0
R2107	1-216-807-11	RES-CHIP	68 5% 1/16W	R2330	1-216-864-11	SHORT	0
R2109	1-216-809-11	RES-CHIP	100 5% 1/16W	R2331	1-216-833-11	RES-CHIP	10K 5% 1/16W
R2110	1-216-809-11	RES-CHIP	100 5% 1/16W	R2341	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R2111	1-216-825-11	RES-CHIP	2.2K 5% 1/16W	R2342	1-216-824-11	RES-CHIP	1.8K 5% 1/16W
R2113	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2343	1-216-832-11	RES-CHIP	8.2K 5% 1/16W
R2116	1-216-832-11	RES-CHIP	8.2K 5% 1/16W	R2344	1-216-824-11	RES-CHIP	1.8K 5% 1/16W
R2118	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2345	1-216-864-11	SHORT	0
R2121	1-216-809-11	RES-CHIP	100 5% 1/16W	R2346	1-216-864-11	SHORT	0
R2122	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2347	1-216-843-11	RES-CHIP	68K 5% 1/16W
R2123	1-218-684-11	METAL CHIP	470 0.5% 1/16W	R2348	1-216-838-11	RES-CHIP	27K 5% 1/16W
R2124	1-216-821-11	RES-CHIP	1K 5% 1/16W	R2349	1-216-833-11	RES-CHIP	10K 5% 1/16W
				R2350	1-216-797-11	RES-CHIP	10 5% 1/16W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2353	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	C2031	1-126-964-11	ELECT	10UF 20% 50V
R2354	1-216-841-11	RES-CHIP	47K 5% 1/16W	C2032	1-126-964-11	ELECT	10UF 20% 50V
R2355	1-218-890-11	RES-CHIP	62K 5% 1/16W	C2033	1-126-960-11	ELECT	1UF 20% 50V
R2356	1-216-842-11	RES-CHIP	56K 5% 1/16W	C2036	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
R2357	1-216-833-11	RES-CHIP	10K 5% 1/16W	C2037	1-165-176-11	CERAMIC CHIP	0.047UF 10% 16V
R2358	1-216-839-11	RES-CHIP	33K 5% 1/16W	C2038	1-164-816-11	CERAMIC CHIP	220PF 2% 50V
R2359	1-216-824-11	RES-CHIP	1.8K 5% 1/16W	C2040	1-126-933-11	ELECT	100UF 20% 16V
R2360	1-216-861-11	RES-CHIP	2.2M 5% 1/16W	C2043	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
R2363	1-216-864-11	SHORT	0	C2044	1-126-933-11	ELECT	100UF 20% 16V
R2365	1-216-833-11	RES-CHIP	10K 5% 1/16W	C2045	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
R2366	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	C2046	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
R2369	1-216-864-11	SHORT	0	C2048	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
R2376	1-216-833-11	RES-CHIP	10K 5% 1/16W	C2049	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
R2377	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	C2050	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
R2379	1-216-842-11	RES-CHIP	56K 5% 1/16W	C2051	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
R2380	1-216-821-11	RES-CHIP	1K 5% 1/16W	C2052	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
R2381	1-216-831-11	RES-CHIP	6.8K 5% 1/16W	C2053	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
R2382	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	C2054	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
R2383	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	C2055	1-126-964-11	ELECT	10UF 20% 50V
R2384	1-216-833-11	RES-CHIP	10K 5% 1/16W	C2056	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V
R2385	1-216-835-11	RES-CHIP	15K 5% 1/16W	C2060	1-126-933-11	ELECT	100UF 20% 16V
R2386	1-216-837-11	RES-CHIP	22K 5% 1/16W	C2061	1-126-964-11	ELECT	10UF 20% 50V
R2387	1-216-821-11	RES-CHIP	1K 5% 1/16W	C2062	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
R2390	1-216-847-11	RES-CHIP	150K 5% 1/16W	C2069	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
*****				C2073	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
* A-1373-890-A U BOARD, COMPLETE (HW572K90)				C2074	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
*****				C2075	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V
< CAPACITOR >				C2083	1-128-551-11	ELECT	22UF 20% 25V
C2001	1-163-021-91	CERAMIC CHIP	0.01UF 10% 50V	C2084	1-126-964-11	ELECT	10UF 20% 50V
C2002	1-163-021-91	CERAMIC CHIP	0.01UF 10% 50V	C2085	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C2003	1-126-935-11	ELECT	470UF 20% 16V	C2087	1-164-160-11	CERAMIC CHIP	20PF 5% 50V
C2004	1-128-551-11	ELECT	22UF 20% 25V	C2089	1-126-964-11	ELECT	10UF 20% 50V
C2005	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C2090	1-164-227-11	CERAMIC CHIP	0.022UF 10% 25V
C2006	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	C2091	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2007	1-126-964-11	ELECT	10UF 20% 50V	C2092	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2008	1-126-964-11	ELECT	10UF 20% 50V	C2094	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V
C2012	1-126-964-11	ELECT	10UF 20% 50V	C2096	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C2013	1-126-964-11	ELECT	10UF 20% 50V	C2097	1-162-917-11	CERAMIC CHIP	15PF 5% 50V
C2014	1-126-960-11	ELECT	1UF 20% 50V	C2098	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2015	1-126-960-11	ELECT	1UF 20% 50V	C2099	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2016	1-126-964-11	ELECT	10UF 20% 50V	C2102	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2017	1-126-964-11	ELECT	10UF 20% 50V	C2103	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2018	1-126-960-11	ELECT	1UF 20% 50V	C2111	1-126-964-11	ELECT	10UF 20% 50V
C2019	1-126-964-11	ELECT	10UF 20% 50V	C2112	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2020	1-126-964-11	ELECT	10UF 20% 50V	C2113	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2021	1-126-960-11	ELECT	1UF 20% 50V	C2114	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V
C2022	1-126-960-11	ELECT	1UF 20% 50V	C2122	1-126-964-11	ELECT	10UF 20% 50V
C2023	1-126-964-11	ELECT	10UF 20% 50V	C2128	1-126-964-11	ELECT	10UF 20% 50V
C2024	1-126-964-11	ELECT	10UF 20% 50V	C2301	1-130-495-00	MYLAR	0.1UF 5% 50V
C2025	1-126-960-11	ELECT	1UF 20% 50V	C2302	1-130-495-00	MYLAR	0.1UF 5% 50V
C2026	1-126-960-11	ELECT	1UF 20% 50V	C2303	1-162-968-11	CERAMIC CHIP	0.0047UF 10% 50V
C2027	1-128-551-11	ELECT	22UF 20% 25V	C2304	1-128-551-11	ELECT	22UF 20% 25V
C2028	1-126-933-11	ELECT	100UF 20% 16V	C2305	1-130-495-00	MYLAR	0.1UF 5% 50V
C2029	1-126-964-11	ELECT	10UF 20% 50V	C2306	1-130-495-00	MYLAR	0.1UF 5% 50V
C2030	1-126-964-11	ELECT	10UF 20% 50V	C2307	1-136-357-11	MYLAR	680PF 5% 50V
				C2308	1-136-357-11	MYLAR	680PF 5% 50V
				C2309	1-128-551-11	ELECT	22UF 20% 25V
				C2310	1-126-947-11	ELECT	47UF 20% 25V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C2311	1-126-947-11	ELECT	47UF 20% 25V			< CONNECTOR >	
C2312	1-126-947-11	ELECT	47UF 20% 25V				
C2313	1-130-495-00	MYLAR	0.1UF 5% 50V	CN2001*	1-793-923-11	CONNECTOR, DIN (PLUG) 64P	
C2314	1-137-372-11	MYLAR	0.022UF 5% 50V	CN2002*	1-564-526-11	PLUG, CONNECTOR 11P	
C2315	1-137-372-11	MYLAR	0.022UF 5% 50V			< DIODE >	
C2316	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2001	8-719-110-17	RD10ESB2	
C2317	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2002	8-719-110-17	RD10ESB2	
C2318	1-137-374-11	MYLAR	0.047UF 5% 50V	D2003	8-719-110-17	RD10ESB2	
C2319	1-137-374-11	MYLAR	0.047UF 5% 50V	D2004	8-719-800-76	1SS226	
C2320	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2005	8-719-800-76	1SS226	
C2321	1-137-378-11	MYLAR	0.22UF 5% 50V	D2006	8-719-800-76	1SS226	
C2322	1-137-378-11	MYLAR	0.22UF 5% 50V	D2007	8-719-110-17	RD10ESB2	
C2323	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2008	8-719-110-17	RD10ESB2	
C2324	1-126-963-11	ELECT	4.7UF 20% 50V	D2009	8-719-800-76	1SS226	
C2325	1-126-963-11	ELECT	4.7UF 20% 50V	D2010	8-719-800-76	1SS226	
C2326	1-137-378-11	MYLAR	0.22UF 5% 50V	D2011	8-719-800-76	1SS226	
C2327	1-137-378-11	MYLAR	0.22UF 5% 50V	D2012	8-719-110-17	RD10ESB2	
C2328	1-126-934-11	ELECT	220UF 20% 16V	D2013	8-719-110-17	RD10ESB2	
C2329	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2014	8-719-110-17	RD10ESB2	
C2330	1-130-495-00	MYLAR	0.1UF 5% 50V	D2015	8-719-110-17	RD10ESB2	
C2331	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2016	8-719-110-17	RD10ESB2	
C2332	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2017	8-719-110-17	RD10ESB2	
C2333	1-126-933-11	ELECT	100UF 20% 16V	D2018	8-719-110-17	RD10ESB2	
C2334	1-126-933-11	ELECT	100UF 20% 16V	D2019	8-719-110-17	RD10ESB2	
C2335	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2020	8-719-110-17	RD10ESB2	
C2336	1-164-227-11	CERAMIC CHIP	0.022UF 10% 25V	D2021	8-719-110-17	RD10ESB2	
C2337	1-164-227-11	CERAMIC CHIP	0.022UF 10% 25V	D2022	8-719-110-17	RD10ESB2	
C2338	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2023	8-719-110-17	RD10ESB2	
C2339	1-164-172-11	CERAMIC CHIP	0.0056UF 10% 25V	D2024	8-719-110-17	RD10ESB2	
C2340	1-110-563-11	CERAMIC CHIP	0.068UF 10% 16V	D2025	8-719-110-17	RD10ESB2	
C2341	1-136-175-00	FILM	0.68UF 5% 50V	D2026	8-719-110-17	RD10ESB2	
C2342	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	D2027	8-719-110-17	RD10ESB2	
C2343	1-162-963-11	CERAMIC CHIP	680PF 10% 50V	D2029	8-719-110-17	RD10ESB2	
C2344	1-162-963-11	CERAMIC CHIP	680PF 10% 50V	D2030	8-719-110-17	RD10ESB2	
C2345	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 50V	D2031	8-719-800-76	1SS226	
C2346	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 50V	D2032	8-719-800-76	1SS226	
C2347	1-162-967-11	CERAMIC CHIP	0.0033UF 10% 50V	D2033	8-719-991-33	1SS133T-77	
C2348	1-126-947-11	ELECT	47UF 20% 25V	D2034	8-719-991-33	1SS133T-77	
C2349	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V	D2035	8-719-110-17	RD10ESB2	
C2350	1-126-964-11	ELECT	10UF 20% 50V	D2039	8-719-110-17	RD10ESB2	
C2351	1-126-964-11	ELECT	10UF 20% 50V	D2040	8-719-800-76	1SS226	
C2353	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D2041	8-719-800-76	1SS226	
C2354	1-137-368-11	MYLAR	0.0047UF 5% 50V	D2042	8-719-110-17	RD10ESB2	
C2355	1-137-150-11	MYLAR	0.01UF 5% 50V	D2043	8-719-800-76	1SS226	
C2356	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	D2044	8-719-800-76	1SS226	
C2357	1-126-933-11	ELECT	100UF 20% 16V			< FERRITE BEAD >	
C2358	1-126-933-11	ELECT	100UF 20% 16V	FB2001	1-414-760-21	FERRITE	OUH
C2359	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	FB2002	1-414-445-11	FERRITE	OUH
C2360	1-137-368-11	MYLAR	0.0047UF 5% 50V			< FILTER >	
C2364	1-126-964-11	ELECT	10UF 20% 50V	FL2001	1-239-848-11	FILTER, LOW PASS	
C2365	1-136-169-00	FILM	0.22UF 5% 50V	FL2002	1-239-848-11	FILTER, LOW PASS	
C2366	1-137-150-11	MYLAR	0.01UF 5% 50V	FL2003	1-239-848-11	FILTER, LOW PASS	
C2367	1-137-368-11	MYLAR	0.0047UF 5% 50V				
C2368	1-136-169-00	FILM	0.22UF 5% 50V				
C2369	1-126-964-11	ELECT	10UF 20% 50V				
C2370	1-162-970-11	CERAMIC CHIP	0.01UF 10% 25V				



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		< IC >		R2006	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2001	8-759-351-01	TEA6422DT		R2007	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2003	8-759-100-96	UPC4558G2		R2008	1-218-665-11	METAL CHIP	75 0.5% 1/16W
IC2004	8-752-080-04	CXA2069Q		R2009	1-218-665-11	METAL CHIP	75 0.5% 1/16W
IC2007	8-752-394-69	CXD2073Q-T4		R2010	1-218-665-11	METAL CHIP	75 0.5% 1/16W
IC2301	6-700-393-01	NJW1106FC2		R2011	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2302	8-759-578-49	NJM2370U10-TE2		R2012	1-216-853-11	RES-CHIP	470K 5% 1/16W
IC2305	8-759-686-15	NJM2180M		R2013	1-216-853-11	RES-CHIP	470K 5% 1/16W
		< JACK >		R2014	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2001	1-573-967-12	BLOCK, (S) TERMINAL		R2015	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2002	1-764-143-11	JACK		R2016	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2003	1-764-143-11	JACK		R2017	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2004	1-750-517-21	JACK BLOCK, PIN 3P		R2018	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2005	1-815-015-11	JACK BLOCK, PIN		R2019	1-216-853-11	RES-CHIP	470K 5% 1/16W
J2006	1-815-015-11	JACK BLOCK, PIN		R2020	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2007	1-750-516-21	JACK BLOCK, PIN 2P		R2021	1-218-665-11	METAL CHIP	75 0.5% 1/16W
J2008	1-750-517-21	JACK BLOCK, PIN 3P		R2022	1-218-665-11	METAL CHIP	75 0.5% 1/16W
		< COIL >		R2023	1-216-853-11	RES-CHIP	470K 5% 1/16W
L2001	1-469-559-21	INDUCTOR 10UH		R2024	1-216-853-11	RES-CHIP	470K 5% 1/16W
L2301	1-469-555-21	INDUCTOR 10UH		R2025	1-218-665-11	METAL CHIP	75 0.5% 1/16W
L2302	1-469-555-21	INDUCTOR 10UH		R2026	1-218-665-11	METAL CHIP	75 0.5% 1/16W
		< TRANSISTOR >		R2027	1-218-665-11	METAL CHIP	75 0.5% 1/16W
Q2001	8-729-422-27	2SD601A-Q		R2028	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2002	8-729-026-49	2SA1037AK-T146-R		R2029	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2003	8-729-026-49	2SA1037AK-T146-R		R2030	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2004	8-729-422-27	2SD601A-Q		R2031	1-216-841-11	RES-CHIP	47K 5% 1/16W
Q2005	8-729-422-27	2SD601A-Q		R2032	1-216-845-11	RES-CHIP	100K 5% 1/16W
Q2006	8-729-422-27	2SD601A-Q		R2033	1-216-803-11	RES-CHIP	33 5% 1/16W
Q2007	8-729-422-27	2SD601A-Q		R2034	1-216-803-11	RES-CHIP	33 5% 1/16W
Q2008	8-729-422-27	2SD601A-Q		R2035	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2009	8-729-422-27	2SD601A-Q		R2036	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2012	8-729-026-49	2SA1037AK-T146-R		R2037	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2013	8-729-422-27	2SD601A-Q		R2038	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2015	8-729-422-27	2SD601A-Q		R2039	1-216-833-11	RES-CHIP	10K 5% 1/16W
Q2016	8-729-422-27	2SD601A-Q		R2040	1-216-857-11	RES-CHIP	1M 5% 1/16W
Q2017	8-729-422-27	2SD601A-Q		R2041	1-216-842-11	RES-CHIP	56K 5% 1/16W
Q2019	8-729-026-49	2SA1037AK-T146-R		R2042	1-216-825-11	RES-CHIP	2.2K 5% 1/16W
Q2020	8-729-422-27	2SD601A-Q		R2043	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2021	8-729-026-49	2SA1037AK-T146-R		R2044	1-216-806-11	RES-CHIP	56 5% 1/16W
Q2022	8-729-422-27	2SD601A-Q		R2045	1-216-806-11	RES-CHIP	56 5% 1/16W
Q2024	8-729-422-27	2SD601A-Q		R2046	1-216-818-11	RES-CHIP	560 5% 1/16W
Q2025	8-729-422-27	2SD601A-Q		R2047	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2026	8-729-026-49	2SA1037AK-T146-R		R2048	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q2027	8-729-026-49	2SA1037AK-T146-R		R2049	1-216-809-11	RES-CHIP	100 5% 1/16W
Q2028	8-729-026-49	2SA1037AK-T146-R		R2050	1-216-829-11	RES-CHIP	4.7K 5% 1/16W
Q2029	8-729-422-27	2SD601A-Q		R2051	1-216-809-11	RES-CHIP	100 5% 1/16W
		< RESISTOR >		R2052	1-216-817-11	RES-CHIP	470 5% 1/16W
R2001	1-218-285-11	RES-CHIP 75	5% 1/16W	R2053	1-216-817-11	RES-CHIP	470 5% 1/16W
R2002	1-216-853-11	RES-CHIP 470K	5% 1/16W	R2054	1-216-806-11	RES-CHIP	56 5% 1/16W
R2003	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2055	1-216-821-11	RES-CHIP	1K 5% 1/16W
R2004	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2056	1-216-821-11	RES-CHIP	1K 5% 1/16W
R2005	1-218-665-11	METAL CHIP 75	0.5% 1/16W	R2057	1-216-806-11	RES-CHIP	56 5% 1/16W
				R2058	1-218-716-11	METAL CHIP	10K 0.5% 1/16W
				R2059	1-216-817-11	RES-CHIP	470 5% 1/16W
				R2060	1-216-817-11	RES-CHIP	470 5% 1/16W
				R2061	1-216-817-11	RES-CHIP	470 5% 1/16W
				R2062	1-216-817-11	RES-CHIP	470 5% 1/16W
				R2063	1-216-809-11	RES-CHIP	100 5% 1/16W



<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>			<u>REMARK</u>	<u>REF. NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>			<u>REMARK</u>
R2064	1-216-809-11	RES-CHIP	100	5%	1/16W	R2150	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2065	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2151	1-218-698-11	METAL CHIP	1.8K	0.5%	1/16W
R2066	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R2152	1-218-694-11	METAL CHIP	1.2K	0.5%	1/16W
R2067	1-216-809-11	RES-CHIP	100	5%	1/16W	R2153	1-216-821-11	RES-CHIP	1K	5%	1/16W
R2068	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2155	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2069	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2156	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2070	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2157	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2071	1-216-809-11	RES-CHIP	100	5%	1/16W	R2159	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R2072	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R2164	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W
R2073	1-216-809-11	RES-CHIP	100	5%	1/16W	R2166	1-216-818-11	RES-CHIP	560	5%	1/16W
R2074	1-216-809-11	RES-CHIP	100	5%	1/16W	R2169	1-216-842-11	RES-CHIP	56K	5%	1/16W
R2075	1-216-809-11	RES-CHIP	100	5%	1/16W	R2173	1-216-818-11	RES-CHIP	560	5%	1/16W
R2077	1-216-809-11	RES-CHIP	100	5%	1/16W	R2174	1-218-686-11	METAL CHIP	560	0.5%	1/16W
R2080	1-216-809-11	RES-CHIP	100	5%	1/16W	R2175	1-216-817-11	RES-CHIP	470	5%	1/16W
R2081	1-216-809-11	RES-CHIP	100	5%	1/16W	R2176	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R2082	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R2177	1-216-809-11	RES-CHIP	100	5%	1/16W
R2084	1-216-809-11	RES-CHIP	100	5%	1/16W	R2178	1-218-676-11	METAL CHIP	220	0.5%	1/16W
R2085	1-216-821-11	RES-CHIP	1K	5%	1/16W	R2182	1-216-864-11	SHORT	0		
R2086	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R2183	1-216-813-11	RES-CHIP	220	5%	1/16W
R2087	1-216-809-11	RES-CHIP	100	5%	1/16W	R2184	1-218-704-11	METAL CHIP	3.3K	0.5%	1/16W
R2089	1-216-809-11	RES-CHIP	100	5%	1/16W	R2185	1-218-684-11	METAL CHIP	470	0.5%	1/16W
R2090	1-216-821-11	RES-CHIP	1K	5%	1/16W	R2186	1-218-688-11	METAL CHIP	680	0.5%	1/16W
R2091	1-216-806-11	RES-CHIP	56	5%	1/16W	R2187	1-216-864-11	SHORT	0		
R2092	1-216-806-11	RES-CHIP	56	5%	1/16W	R2193	1-216-809-11	RES-CHIP	100	5%	1/16W
R2094	1-216-864-11	SHORT	0			R2194	1-216-817-11	RES-CHIP	470	5%	1/16W
R2096	1-216-809-11	RES-CHIP	100	5%	1/16W	R2195	1-216-817-11	RES-CHIP	470	5%	1/16W
R2097	1-216-809-11	RES-CHIP	100	5%	1/16W	R2196	1-216-817-11	RES-CHIP	470	5%	1/16W
R2098	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2197	1-216-817-11	RES-CHIP	470	5%	1/16W
R2099	1-216-809-11	RES-CHIP	100	5%	1/16W	R2198	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2100	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2199	1-216-853-11	RES-CHIP	470K	5%	1/16W
R2103	1-216-809-11	RES-CHIP	100	5%	1/16W	R2301	1-216-851-11	RES-CHIP	330K	5%	1/16W
R2104	1-216-809-11	RES-CHIP	100	5%	1/16W	R2302	1-216-835-11	RES-CHIP	15K	5%	1/16W
R2105	1-216-809-11	RES-CHIP	100	5%	1/16W	R2303	1-216-835-11	RES-CHIP	15K	5%	1/16W
R2107	1-216-807-11	RES-CHIP	68	5%	1/16W	R2304	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R2109	1-216-809-11	RES-CHIP	100	5%	1/16W	R2305	1-216-845-11	RES-CHIP	100K	5%	1/16W
R2110	1-216-809-11	RES-CHIP	100	5%	1/16W	R2306	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R2111	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2307	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R2113	1-216-821-11	RES-CHIP	1K	5%	1/16W	R2308	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2116	1-216-832-11	RES-CHIP	8.2K	5%	1/16W	R2309	1-216-831-11	RES-CHIP	6.8K	5%	1/16W
R2118	1-216-821-11	RES-CHIP	1K	5%	1/16W	R2310	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2121	1-216-809-11	RES-CHIP	100	5%	1/16W	R2311	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2122	1-216-821-11	RES-CHIP	1K	5%	1/16W	R2312	1-216-837-11	RES-CHIP	22K	5%	1/16W
R2123	1-218-684-11	METAL CHIP	470	0.5%	1/16W	R2313	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R2124	1-216-821-11	RES-CHIP	1K	5%	1/16W	R2314	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R2125	1-218-702-11	METAL CHIP	2.7K	0.5%	1/16W	R2316	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2128	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2317	1-216-845-11	RES-CHIP	100K	5%	1/16W
R2130	1-216-809-11	RES-CHIP	100	5%	1/16W	R2318	1-216-809-11	RES-CHIP	100	5%	1/16W
R2131	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R2319	1-216-841-11	RES-CHIP	47K	5%	1/16W
R2132	1-216-833-11	RES-CHIP	10K	5%	1/16W	R2320	1-216-809-11	RES-CHIP	100	5%	1/16W
R2133	1-218-674-11	METAL CHIP	180	0.5%	1/16W	R2321	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2136	1-216-816-11	RES-CHIP	390	5%	1/16W	R2322	1-216-835-11	RES-CHIP	15K	5%	1/16W
R2137	1-218-700-11	METAL CHIP	2.2K	0.5%	1/16W	R2323	1-216-857-11	RES-CHIP	1M	5%	1/16W
R2138	1-216-809-11	RES-CHIP	100	5%	1/16W	R2326	1-216-864-11	SHORT	0		
R2142	1-216-815-11	RES-CHIP	330	5%	1/16W	R2327	1-216-864-11	SHORT	0		
R2147	1-216-814-11	RES-CHIP	270	5%	1/16W	R2328	1-216-833-11	RES-CHIP	10K	5%	1/16W
R2148	1-218-710-11	METAL CHIP	5.6K	0.5%	1/16W	R2329	1-216-851-11	RES-CHIP	330K	5%	1/16W
R2149	1-216-817-11	RES-CHIP	470	5%	1/16W						

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2332	1-216-837-11	RES-CHIP	22K 5% 1/16W			< CONNECTOR >	
R2333	1-216-836-11	RES-CHIP	18K 5% 1/16W				
R2334	1-216-833-11	RES-CHIP	10K 5% 1/16W	CN9001*	1-564-508-11	PLUG, CONNECTOR 5P	
R2335	1-216-835-11	RES-CHIP	15K 5% 1/16W	CN9002*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
R2336	1-216-831-11	RES-CHIP	6.8K 5% 1/16W			< DIODE >	
R2337	1-216-833-11	RES-CHIP	10K 5% 1/16W	D9001	8-719-404-50	MA111-TX	
R2338	1-216-835-11	RES-CHIP	15K 5% 1/16W	D9002	8-719-404-50	MA111-TX	
R2340	1-216-831-11	RES-CHIP	6.8K 5% 1/16W	D9003	8-719-404-50	MA111-TX	
R2341	1-216-864-11	SHORT	0	D9004	8-719-404-50	MA111-TX	
R2343	1-216-864-11	SHORT	0	D9005	8-719-510-02	D1NS4	
R2353	1-216-823-11	RES-CHIP	1.5K 5% 1/16W	D9006	8-719-924-13	MTZJ-T-77-22B	
R2354	1-216-842-11	RES-CHIP	56K 5% 1/16W	D9007	8-719-924-13	MTZJ-T-77-22B	
R2355	1-218-890-11	RES-CHIP	62K 5% 1/16W			< COIL >	
R2356	1-216-842-11	RES-CHIP	56K 5% 1/16W	L9001	1-412-525-31	INDUCTOR 10UH	
R2357	1-216-833-11	RES-CHIP	10K 5% 1/16W			< TRANSISTOR >	
R2358	1-216-839-11	RES-CHIP	33K 5% 1/16W	Q9002	8-729-422-27	2SD601A-Q	
R2359	1-216-824-11	RES-CHIP	1.8K 5% 1/16W	Q9003	8-729-422-27	2SD601A-Q	
R2360	1-216-861-11	RES-CHIP	2.2M 5% 1/16W	Q9004	8-729-026-49	2SA1037AK-T146-R	
R2365	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	Q9005	8-729-422-27	2SD601A-Q	
R2366	1-216-835-11	RES-CHIP	15K 5% 1/16W	Q9006	8-729-026-49	2SA1037AK-T146-R	
R2374	1-216-864-11	SHORT	0	Q9007	8-729-422-27	2SD601A-Q	
R2375	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	Q9008	8-729-045-04	2SC5511	
R2376	1-216-829-11	RES-CHIP	4.7K 5% 1/16W	Q9009	8-729-045-05	2SA2005	
R2377	1-216-829-11	RES-CHIP	4.7K 5% 1/16W			< RESISTOR >	
R2379	1-218-331-11	RES-CHIP	51K 5% 1/16W	R9002	1-216-805-11	RES-CHIP 47 5% 1/16W	
R2380	1-216-821-11	RES-CHIP	1K 5% 1/16W	R9004	1-216-820-11	RES-CHIP 820 5% 1/16W	
R2384	1-216-833-11	RES-CHIP	10K 5% 1/16W	R9005	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R2385	1-216-835-11	RES-CHIP	15K 5% 1/16W	R9006	1-216-829-11	RES-CHIP 4.7K 5% 1/16W	
R2386	1-216-837-11	RES-CHIP	22K 5% 1/16W	R9007	1-216-809-11	RES-CHIP 100 5% 1/16W	
R2387	1-216-821-11	RES-CHIP	1K 5% 1/16W	R9008	1-216-803-11	RES-CHIP 33 5% 1/16W	
R2389	1-216-864-11	SHORT	0	R9009	1-216-809-11	RES-CHIP 100 5% 1/16W	
R2390	1-216-847-11	RES-CHIP	150K 5% 1/16W	R9010	1-216-813-11	RES-CHIP 220 5% 1/16W	

* A-1342-635-A V BOARD, COMPLETE							

4-382-854-11	SCREW (M3X10), P, SW (+)			R9011	1-216-864-11	SHORT 0	
	< CAPACITOR >			R9012	1-216-823-11	RES-CHIP 1.5K 5% 1/16W	
C9002	1-104-999-11	MYLAR	0.1UF 10% 200V	R9013	1-216-805-11	RES-CHIP 47 5% 1/16W	
C9003	1-125-891-11	CERAMIC CHIP	0.47UF 10% 10V	R9014	1-216-805-11	RES-CHIP 47 5% 1/16W	
C9006	1-126-935-11	ELECT	470UF 20% 6.3V	R9015	1-216-833-11	RES-CHIP 10K 5% 1/16W	
C9007	1-126-933-11	ELECT	100UF 20% 16V	R9016	1-249-414-11	CARBON 560 5% 1/4W	
C9008	1-126-935-11	ELECT	470UF 20% 6.3V	R9017	1-249-435-11	CARBON 33K 5% 1/4W	
C9009	1-126-933-11	ELECT	100UF 20% 16V	R9018	1-249-435-11	CARBON 33K 5% 1/4W	
C9010	1-107-667-11	ELECT	2.2UF 20% 160V	R9019	1-249-414-11	CARBON 560 5% 1/4W	
C9011	1-107-364-11	MYLAR	0.01UF 10% 200V	R9020	1-216-799-11	RES-CHIP 15 5% 1/16W	
C9012	1-107-364-11	MYLAR	0.01UF 10% 200V	R9021	1-216-799-11	RES-CHIP 15 5% 1/16W	
C9013	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V	R9022	1-249-421-11	CARBON 2.2K 5% 1/4W	
C9014	1-162-964-11	CERAMIC CHIP	0.001UF 10% 50V	R9023	1-249-421-11	CARBON 2.2K 5% 1/4W	
C9015	1-126-935-11	ELECT	470UF 20% 16V	R9024	1-249-405-11	CARBON 100 5% 1/4W	
C9017	1-104-999-11	MYLAR	0.1UF 10% 200V	R9025	1-249-385-11	CARBON 2.2 5% 1/4W	
C9018	1-107-638-11	ELECT	33UF 20% 160V	R9027	1-249-385-11	CARBON 2.2 5% 1/4W	
C9019	1-126-935-11	ELECT	470UF 20% 16V	R9028	1-249-405-11	CARBON 100 5% 1/4W	
				R9029	1-215-913-11	METAL OXIDE 220 5% 3W	
				R9030	1-249-377-11	CARBON 0.47 5% 1/4W	
				R9031	1-249-385-11	CARBON 2.2 5% 1/4W	
				R9032	1-249-385-11	CARBON 2.2 5% 1/4W	

The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

KP-HR432K90/HR532K90/HR532N90/HW572K90

RM-Y909K

RM-Y909K

RM-Y908

RM-Y909K



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R9033	1-249-436-11	CARBON 39K	5% 1/4W	* 4-084-062-01	CUSHION (UPPER)	(HR532K90/HR532N90)	
R9034	1-249-436-11	CARBON 39K	5% 1/4W	* 4-084-063-01	CUSHION (LOWER)	(HR532K90/HR532N90)	
*****				*****			
MISCELLANEOUS				*****			
*****				*****			
Δ	1-223-925-11	RESISTOR ASSY (HIGH-VOLTAGE)	(FOCUS PACK)	* 4-085-511-01	TRAY	(HR432K90)	
Δ	1-451-535-11	COIL ASSY, VM		* 4-085-512-01	CUSHION, UPPER	(HR432K90)	
Δ	1-451-537-11	DEFLECTION YOKE		* 4-085-513-01	CUSHION, LOWER	(HR432K90)	
Δ	1-453-285-21	FBT ASSY, NX-4006//X4P4 (T8005)		* 4-085-704-01	INDIVIDUAL CARTON	(HW572K90)	
	1-500-021-11	CLAMP, SLEEVE FERRITE		* 4-085-705-01	TRAY	(HW572K90)	
	1-529-403-31	SPEAKER (6.6cm) (EXCEPT HR432K90)		* 4-085-706-01	BOARD, TOP	(HW572K90)	
	1-543-653-11	CORE ASSY, BEAD (DIVISION TYPE)		* 4-085-707-01	BOARD, BOTTOM	(HW572K90)	
	1-544-849-11	SPEAKER (13cm) (HR532K90/HR532N90)		* 4-085-708-01	CUSHION (UPPER)	(HW572K90)	
	1-544-893-11	SPEAKER (10cm) (HR432K90)		* 4-085-709-01	CUSHION (LOWER)	(HW572K90)	
	1-544-894-11	SPEAKER (13cm) (HW572K90)		4-085-753-11	MANUAL, INSTRUCTION	(HW572K90)	
	* 1-556-945-21	CABLE, P-P		*****			
	* 1-557-056-31	CABLE, P-P		REMOTE COMMANDER			
	1-771-787-11	SWITCH, RF ANTENNA		*****			
Δ	1-790-130-11	CORD, AC POWER(WITH CONNECTOR)	(HR532N90)	1-476-853-11	REMOTE COMMANDER (RM-Y908)	(HR532N90)	
Δ	1-823-473-11	CORD, AC POWER	(WITH FILTER)(EXCEPT HR532N90)	1-477-055-11	REMOTE COMMANDER (RM-Y909K)	(EXCEPT HR532N90)	
Δ	8-598-955-31	BLOCK ASSY, HV HVB-1031		*****			
Δ	A-1501-975-ACOUPLER (R) ASSY, CRT	(HR532K90/HR532N90)		*****			
Δ	A-1501-976-ACOUPLER (G) ASSY, CRT	(EXCEPT HW572K90)		*****			
Δ	A-1501-977-ACOUPLER (B) ASSY, CRT	(HR532K90/HR532N90)		*****			
Δ	A-1501-980-ACOUPLER (R) ASSY, CRT	(HR432K90)		*****			
Δ	A-1501-981-ACOUPLER (B) ASSY, CRT	(HR432K90)		*****			
Δ	A-1502-021-ACOUPLER (R) ASSY, CRT	(HW572K90)		*****			
Δ	A-1502-022-ACOUPLER (B) ASSY, CRT	(HW572K90)		*****			
Δ	A-1502-025-ACOUPLER (G) ASSY, CRT	(HW572K90)		*****			
*****				*****			
ACCESSORIES & PACKING MATERIALS				*****			
*****				*****			
	* 4-030-895-01	JOINT		*****			
	* 4-041-423-11	SHEET, PROTECTION	(HR432K90)	*****			
	* 4-055-672-01	BAG, PROTECTION	(HR532K90/HR532N90)	*****			
	* 4-055-673-01	SHEET, PROTECTION	(EXCEPT HR432K90)	*****			
	* 4-060-976-02	BAG, PROTECTION	(HR432K90)	*****			
	* 4-069-994-01	TRAY	(HR532K90/HR532N90)	*****			
	* 4-069-995-01	BOARD, TOP	(HR532K90/HR532N90)	*****			
	* 4-076-420-01	BAG, PROTECTION	(HW572K90)	*****			
	* 4-084-059-01	BOARD, BOTTOM	(HR532K90/HR532N90)	*****			
	* 4-084-061-01	INDIVIDUAL CARTON	(HR532K90/HR532N90)	*****			



Projection TV

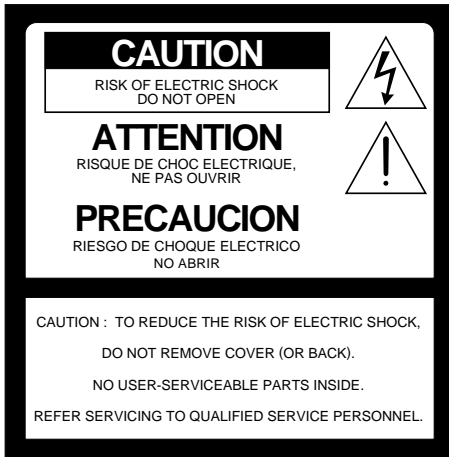
Operating Instructions

KP-HR432K90

KP-HR532K90

WARNING

To prevent fire or shock hazard, do not expose the projection TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

To prevent electric shock, do not use this polarized AC plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

CAUTION

When using TV games, computers, and similar products with your projection TV, or viewing a TV station whose logo always stays on the screen, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern such as a station logo is left on the screen for long periods of time, especially at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty.

Note on convergence adjustment

Before you use your projection TV, make sure to adjust convergence. For details, see “Adjusting the Convergence Automatically – FLASH FOCUS™ –” on page 30.

You are cautioned that any changes or modifications not expressly approved in this manual could void your warranty and your authority to operate this equipment.

Safety

- Operate the projection TV only on 220 V AC.
- If any liquid or solid object should fall inside the cabinet, unplug the projection TV immediately and have it checked by qualified service personnel before operating it further.
- Pull the power cord out by the plug. Do not pull the power cord itself. Even if your projection TV is turned off, it is still connected to the AC power source (mains) as long as the power cord is plugged in. Unplug the projection TV before moving it or if you are not going to use it for several days. For details concerning safety precautions, see “Important Safeguards” on page 3.

Installing

- To prevent internal heat buildup, do not block the ventilation openings.
- Do not install the projection TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- Avoid operating the projection TV at temperature below 5°C.
- If the projection TV is transported directly from a cold to a warm location, or if the room temperature changes suddenly, the picture may be blurred or show poor color. In this case, please wait a few hours to let the moisture evaporate before turning on the projection TV.
- To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of a reflective material.

TruSurround and the (●) symbol are trademarks of SRS Labs, Inc.

TruSurround technology is incorporated under license from SRS Labs, Inc.

BBE and BBE Symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

Important Safeguards

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use and servicing of the set.

Use

Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.

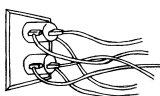


Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

Overloading

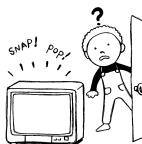
Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not being used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.



If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.



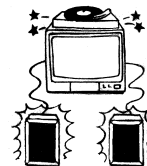
Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.



Cleaning

Clean the cabinet of the projection TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth. Stubborn stains may be removed with a cloth slightly dampened with solution of mild soap and warm water. Never use strong solvents such as thinner or benzene for cleaning.



If the picture becomes dark after using the projection TV for a long period of time, it may be necessary to clean the inside of the projection TV. Consult qualified service personnel.

Installation

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



Accessories

Do not place the set on an unstable cart, stand, table or shelf. The set may fall, causing serious injury to a child or an adult and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of projection TV. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- ❑ Never cover the slots and openings with a cloth or other materials.
- ❑ Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.
- ❑ Never place the set in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.
- ❑ Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.



Power-Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.



Antennas

Outdoor Antenna Grounding — If an outdoor antenna is installed, follow the precautions below.

An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Lightning

For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power-line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ❑ When the power cord or plug is damaged or frayed.
- ❑ If liquid has been spilled into the set.
- ❑ If the set has been exposed to rain or water.
- ❑ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged.
- ❑ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation.
- ❑ When the set exhibits a distinct change in performance, it indicates a need for service.



Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock or other hazards.

Safety Check

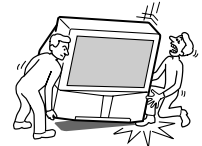
Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.



For Safety

Be careful when moving the projection TV

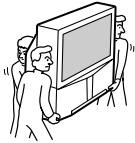
When you place the projection TV in position, be careful not to drop it on your foot or fingers.



Watch your footing while installing the projection TV.

Carry the projection TV in the specified manner

If you carry the projection TV in a manner other than the specified manner and without the specified number of persons, it may drop and a serious injury may be caused. Be sure to follow the instructions mentioned below.



- ❑ Carry the projection TV with the specified number of persons (see page 9).
- ❑ Do not carry the projection TV holding the speaker grill.
- ❑ Hold the projection TV tightly when carrying it.

Owner's Record

The model and serial numbers are located at the rear of the projection TV, below the Sony logo, on the sticker, and also on the TV box (white label). Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

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Introducing the Sony Projection TV

Presenting the Sony Projection TV

Thank you for purchasing the Sony Projection TV.
This manual is for models KP-HR432K90 and KP-HR532K90.
Model KP-HR532K90 is used for illustration purposes.

Features

Some of the features that you will enjoy with your new projection TV include:

- ❑ **1080i Capable:** Enables you to receive the 1080i, 720p, 480p and 480i digital TV formats. By using the VIDEO 5/6 IN jacks, you can connect a DTV (digital television) receiver to view DTV programs.
- ❑ **DRC™ Multi-Function:** Unlike conventional line doublers, the DRC feature doubles vertical and horizontal lines, resulting in four times the density for quality sources such as DVD and Digital camcorder.
- ❑ **CineMotion™:** Using the 2-3 Pull-Down technology, the CineMotion feature allows you to obtain a smooth picture movement when playing back movies or other video sources on film.
- ❑ **Twin View™:** Using Multi-Image Driver (MID-X), Twin View allows you to watch two programs side by side with the ability to zoom in on one picture and listen to the program in the selected window. You can watch pictures from two different sources (1080i, 720p, 480p or 480i) simultaneously.
- ❑ **16:9 Enhancement:** Vertical Compression technology that maximizes picture resolution on “anamorphic” or “enhanced for wide screen” sources, including selected DVDs.
- ❑ **Steady Sound™:** Equalizes volume levels so there is consistent output between programs and commercials.
- ❑ **Component Video Inputs:** Offers the best video quality for DVD (480p, 480i) and Digital Set-top box (1080i, 720p, 480p, 480i) connections.
- ❑ **S-VIDEO Inputs:** Provides a high-quality image for connected equipment.
- ❑ **Favorite Channel Preview:** Preview up to eight favorite channels without leaving the current channel.
- ❑ **Channel Index:** Allows you to view and choose from twelve programs.
- ❑ **Flash Focus™:** Allows you to adjust convergence automatically.

Using this manual

We recommend that you carefully review the contents of the following three sections in the order shown to ensure that you fully understand the operation of your new projection TV.

1 Installing and Connecting the Projection TV

This section guides you through your initial setup. It shows you how to install your projection TV, to connect your new components and to connect the antenna and cable.

2 Using the Features

This section shows you how to begin using your new projection TV. It also shows you how to use your remote control functions.

3 Using the menus

This section teaches you how to access on-screen menus and adjust your projection TV settings.

Instructions in this manual are written for the remote control. Similar controls are also found on the projection TV console.

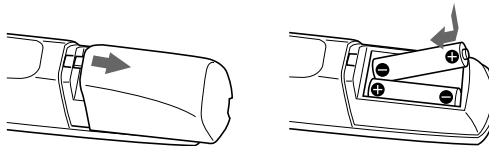
Installing and Connecting the Projection TV




Contents

The box contains your new projection TV, a remote control and two AA batteries. No peripheral cables are included. If you intend to add additional equipment to your projection TV, please check the hookup instructions for your desired setup before you begin. You may need to purchase cables and/or splitters to complete the hookup properly.

Inserting Batteries into the Remote Control

Insert two size AA (R6) batteries (supplied) by matching the + and – on the batteries to the diagram inside the battery compartment.



-  Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.
-  Handle the remote control with care. Avoid dropping it, getting it wet, or placing it in direct sunlight, near a heater, or where the humidity is high.
-  Your remote control can be programmed to operate most video equipment. (See "Programming the Remote Control" on page 55.)

Carrying Your Projection TV

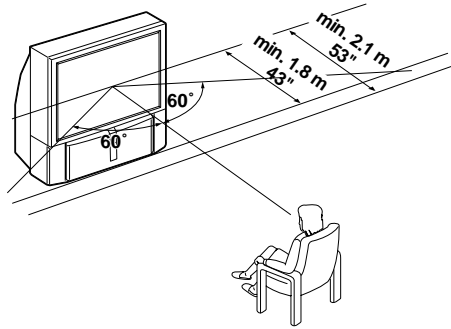
Carrying the projection TV requires three (3) or more people.

The projection TV has been equipped with casters for easy movement on a hard surface. (for KP-HR532K90 only)

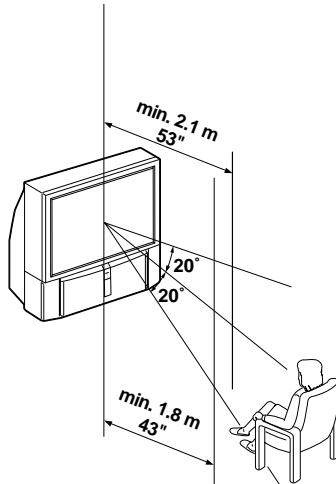
Please move your projection TV using the casters.

Installing the Projection TV

Recommended viewing area (Horizontal)



Recommended viewing area (Vertical)



Connector Types

You may find it necessary to use some of the following connector types during set up.

Coaxial cable

Standard TV cable and antenna cable

Plug Type



Screw-on Type



S Video cable

High quality video cable for enhanced picture quality



Audio/Video cable



Video - Yellow

Audio (Left) - White

Audio (Right) - Red

Some DVD Players are equipped with the following three video connectors:

Y - Green

P_B (C_B, C_b or B-Y) - Blue

P_R (C_R, C_r or R-Y) - Red

CONTROL S cable

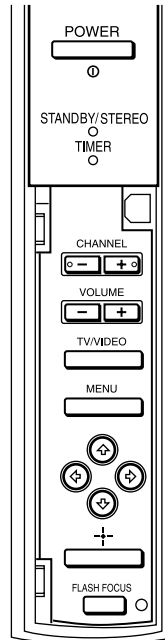
CONTROL S connections are exclusive to Sony products and allow greater control of all Sony equipment.




Projection TV Controls and Connectors

Front Panel Menu Controls

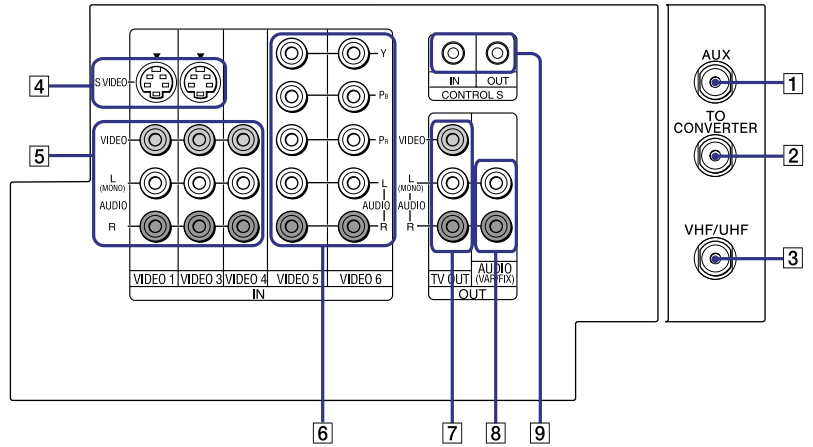
The front panel menu controls allow access to the on-screen menus without the use of a remote control. Pressing MENU brings up the on-screen menus. The arrow buttons move the on-screen cursor in the menus and the Select button (+-) selects the menu item.



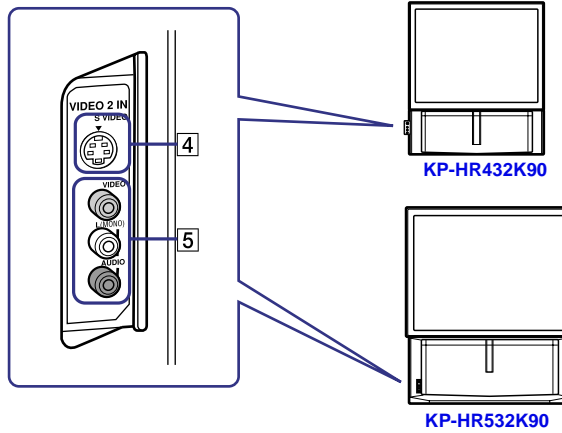
 If power is in STANDBY, press CH+/- to turn on.

Projection TV Rear and Front/Side Panel Connectors

Rear of projection TV



Front or side of projection TV



Installing and Connecting the Projection TV

Connection	Description
1 AUX	Allows you to view local and cable channels if your cable provider does not feature local channels. You can switch between local and cable channels easily by pressing ANT on the remote control. Devices connected to the AUX input cannot be viewed in Twin View.
2 TO CONVERTER	This is a VHF/UHF OUT jack that lets you set up your projection TV to switch between scrambled channels (through a cable box) and normal cable channels (CATV). Use this jack instead of a splitter to get better picture quality when switching between scrambled and unscrambled cable channels.
3 VHF/UHF	Connects to your VHF/UHF antenna or cable.
4 S VIDEO (Rear and front/ side)	Connects to the S VIDEO OUT jack of your VCR or other S VIDEO-equipped video component. Provides better picture quality than the VHF/UHF jacks or the Video IN jack.
5 VIDEO (L/R)/AUDIO (Rear and front/ side)	Connects to the audio and video OUT jacks on your VCR or other video component. A fourth video input (VIDEO 2) is located on the side panel (for KP-HR432K90) or the front panel (for KP-HR532K90) of the projection TV.
6 Y/PB/PR (L/R)/AUDIO	Connects to your DVD player's or Digital Set-top box's component video (Y, PB, PR) and audio (L/R) jacks.
7 TV OUT	Connects to an AV receiver for greater control of all audio and video equipment (see page 27). For detailed information about connection, refer to the operating manual supplied with the AV receiver.
8 AUDIO OUT (VAR/FIX) L (MONO)/R	Connects to the left and right audio inputs of your audio or video component.
9 CONTROL S IN/OUT	To control other Sony equipment with the projection TV's remote control, connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack on the projection TV with the CONTROL S cable. To control the projection TV with a remote control for another Sony product, connect the CONTROL S OUT jack of the equipment to the CONTROL S IN jack on the projection TV with the CONTROL S cable.

Basic Connections (Connecting Cable TV or Antenna)

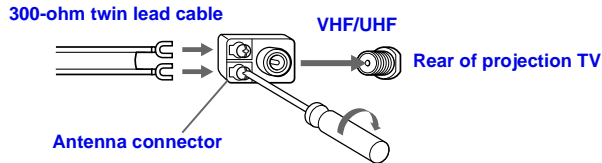
Connecting Directly to Cable or an Antenna

The connection you choose depends on the cable found in your home. Newer homes are equipped with standard coaxial cable (see **A**); older homes probably have 300-ohm twin lead cable (see **B**); other homes may contain both (see **C**).

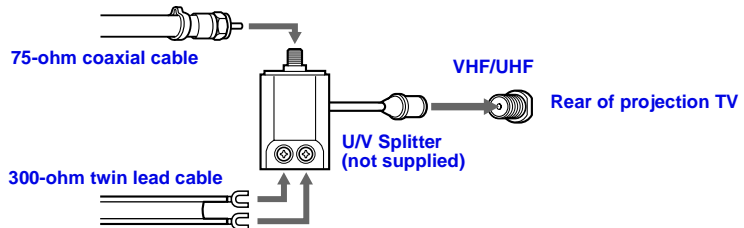
A VHF Only or VHF/UHF or Cable



B VHF Only or UHF Only or VHF/UHF

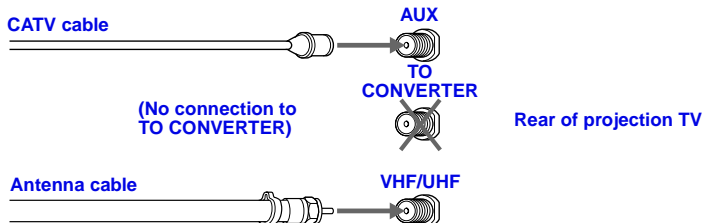


C VHF and UHF



Cable and Antenna

If your cable provider does not feature local channels, you may find this set up convenient.



Select CABLE or antenna (ANT) mode by pressing ANT on the remote control.

To receive channels with an antenna, you need to turn your Cable to OFF (see page 49) and perform the Auto Program function (see page 50).

Cable Box Connections

Cable Box and Cable

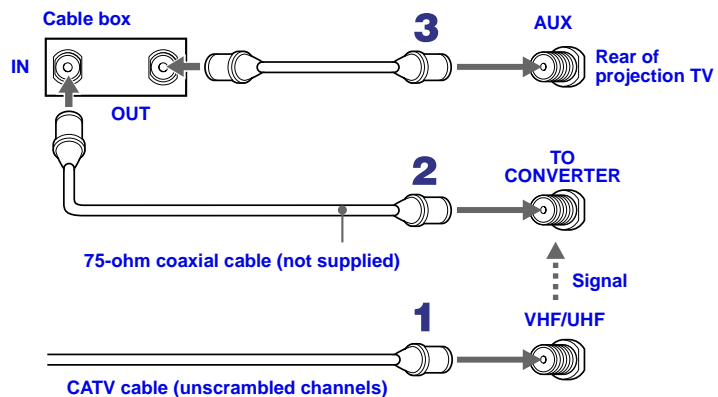
This is the preferred basic cable TV hookup to use if:


- ❑ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- ❑ You want to enjoy the Twin View feature.

With this setup you can:

- ❑ Use the projection TV remote control to change channels using your cable box when the signal is scrambled.
- ❑ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. (Your projection TV's tuner provides a better signal than the cable box.)
- ❑ Use the Twin View feature. (When all channels are routed through your cable box, only one channel is sent to the projection TV, so you can not use the Twin View or Channel Index features for your cable box.)

- 1 Connect the Cable TV cable to the projection TV's VHF/UHF jack.
- 2 Using a coaxial cable, connect the projection TV's TO CONVERTER jack to the cable box's IN jack. The projection TV's internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
- 3 Using a coaxial cable, connect the cable box's OUT jack to the projection TV's AUX jack.



 Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the TV (unscrambled).

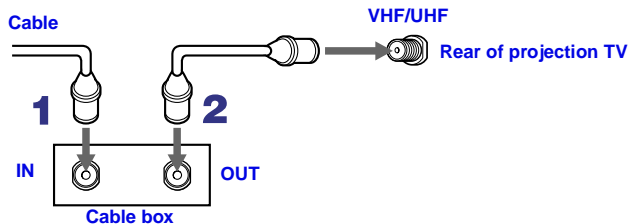
Cable Box Only

Use this hookup if:


- ❑ You subscribe to a cable TV system that uses scrambled or encoded signals requiring a cable box to view all channels, and
- ❑ You do not intend to hook up any other audio or video equipment to your projection TV.




When all channels are routed through your cable box, only one unscrambled channel is sent to the projection TV, so you cannot use the Twin View feature. If some channels are scrambled, but others are not, consider using the hookup on page 16 instead.

- 1 Connect the coaxial connector from your cable service to the cable box's IN jack.
- 2 Using a coaxial cable, connect the cable box's OUT jack to the TV's VHF/UHF jack.



Also, set Cable to ON in the Channel menu. (see page 49)

 Setting the Channel Fix feature in the Channel menu (see "Using the Channel Menu" on page 49) ensures that you do not accidentally switch the channels using your projection TV.

-  If you will be controlling all channel selection through your cable box, consider using the Channel Fix feature to set your projection TV to channel 3 or 4 (see page 50).
-  Your Sony remote control can be programmed to operate your cable box (see "Programming the Remote Control" on page 55).
-  To change channels using the cable box, set your projection TV to channel 3 or 4 depending on the cable box channel output.

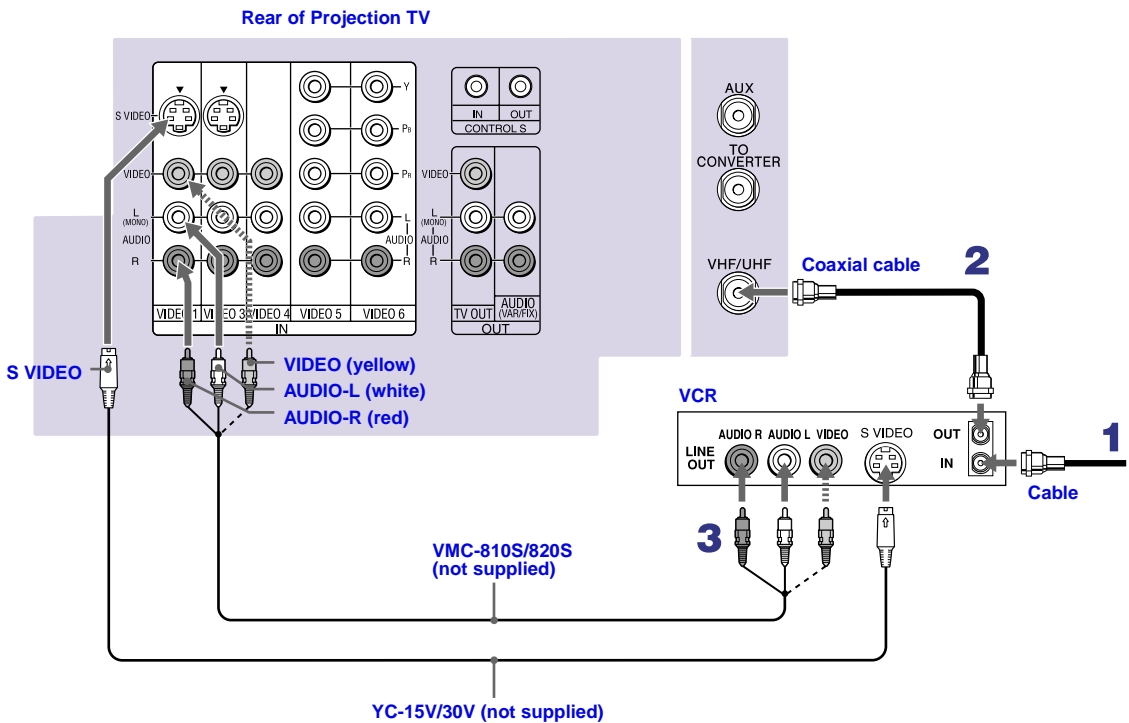
Connecting a VCR and Cable


Use this hookup if:

- You have cable TV that does not require a cable box.

Disconnect all power sources before making any connections.

- 1 Connect the cable TV cable to the VCR's IN jack.
- 2 Using a coaxial cable, connect the VCR's OUT jack to the projection TV's VHF/UHF jack.
- 3 Using AUDIO and S VIDEO cables, connect the VCR's Audio and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.



 If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting a VCR and Cable Box

Use this hookup if:

- ❑ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- ❑ You want to enjoy the Twin View feature.

With this setup you can:

- ❑ Use the projection TV remote control to change channels on your cable box when the signal is scrambled. To program your Sony Remote control to operate your cable box, see “Programming the Remote Control” on page 55.
- ❑ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. Your projection TV’s tuner provides a better signal than the cable box.
- ❑ Use the Twin View feature. (When all channels are routed through your cable box, only one signal is sent to the projection TV, so you cannot use the Twin View feature.)

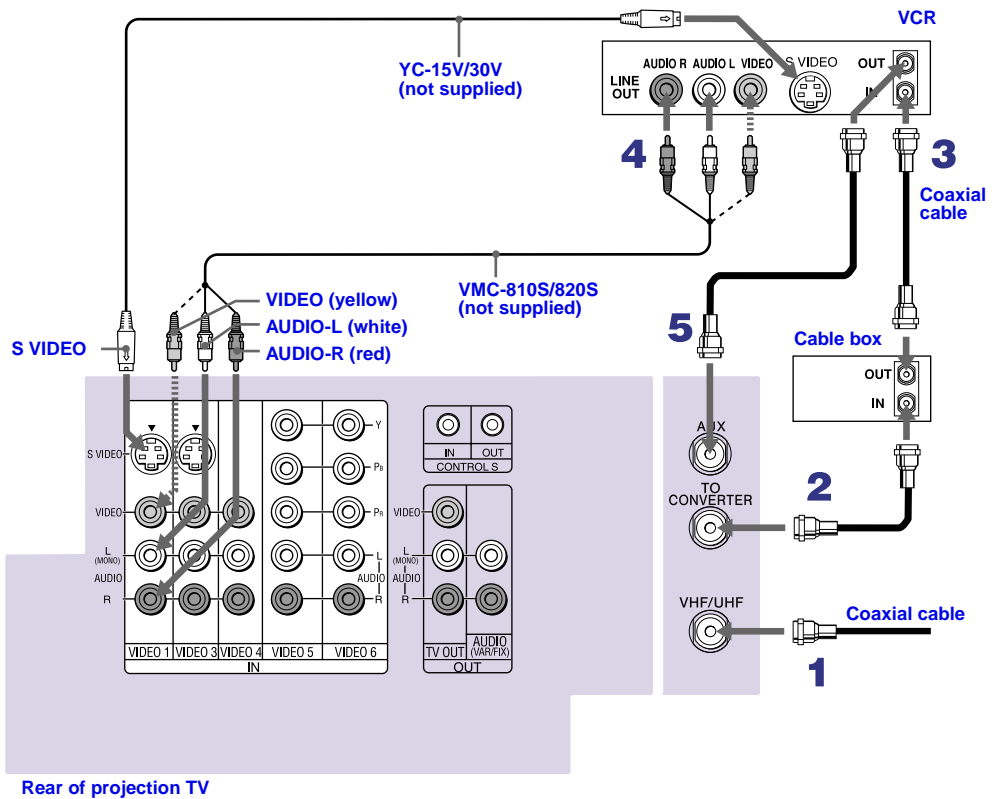
Disconnect all power sources before making any connections.




- 1 Connect the Cable TV cable to the projection TV’s VHF/UHF jack.
- 2 Using a coaxial cable, connect the TV’s TO CONVERTER jack to the cable box’s IN jack. The projection TV’s internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
- 3 Using a coaxial cable, connect the cable box’s OUT jack to the VCR’s IN jack.
- 4 Using AUDIO and S VIDEO cables, connect the VCR’s AUDIO and S VIDEO OUT jacks to the projection TV’s AUDIO and S VIDEO IN jacks.
- 5 Using a coaxial cable, connect the VCR’s OUT jack to the projection TV’s AUX jack.



To view scrambled channels, set your projection TV to AUX 3 or 4 (depending on your cable box output). Change channels using your cable box.

Installing and Connecting the Projection TV



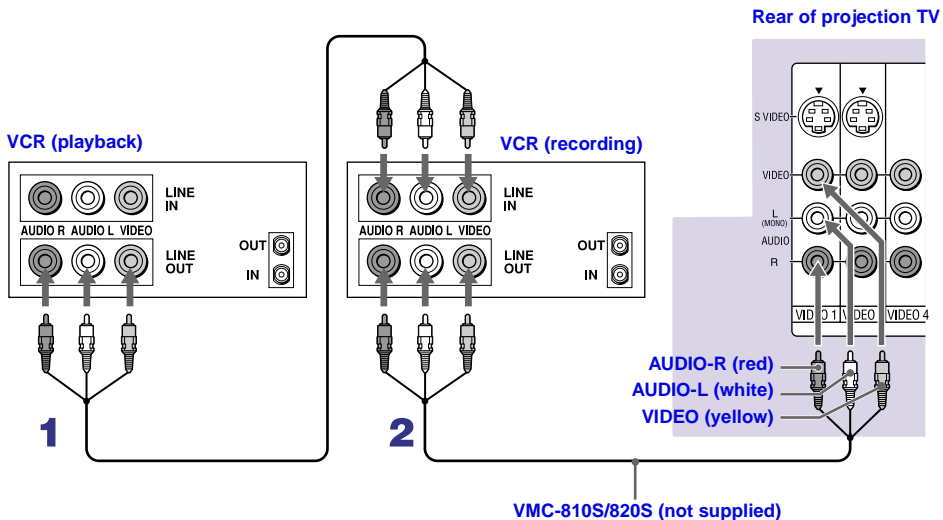
-  If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.
-  You will not be able to change channels on the VCR. Set your projection TV and VCR to channel 3 or 4, depending on your cable box channel output.
-  Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the projection TV (unscrambled).

Connecting Two VCRs for Tape Editing

If you connect two VCRs, you can record from one VCR to the other while using your TV to monitor what is being recorded.

Disconnect all power sources before making any connections.

- 1 Using AUDIO and VIDEO cables, connect the playback VCR's Audio and Video OUT jacks to the recording VCR's Audio and Video IN jacks.
- 2 Using AUDIO and VIDEO cables, connect the recording VCR's AUDIO and Video OUT jacks to the projection TV's AUDIO and VIDEO IN jacks.



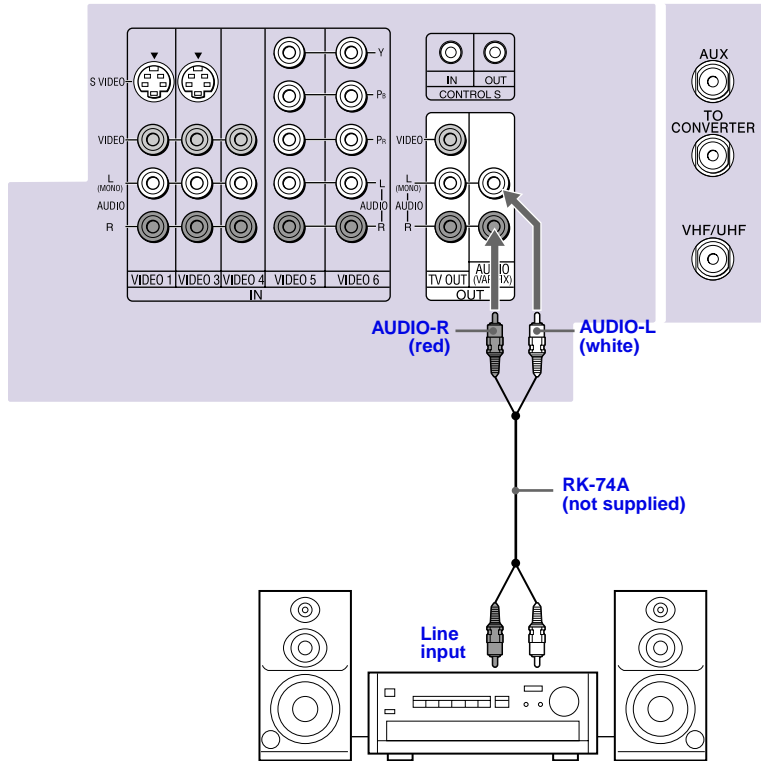
- To perform tape editing, set the projection TV to the video input intended for playback by pressing TV/VIDEO on the remote control.
- You may need to change the video input on your VCR. Consult your VCR's operating manual for instructions.
- If your VCRs have an S VIDEO jack: For best picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable.
Using an S VIDEO cable, connect the playback VCR's S VIDEO OUT jack to the recording VCR's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.
- You cannot record signals from equipment connected to the Y, P_B, P_R input.

Connecting an Audio Receiver

Disconnect all power sources before making any connections.

Using audio cables, connect the projection TV's AUDIO OUT (VAR/FIX) jacks to the audio receiver's audio LINE IN jacks.

Rear of projection TV




Connecting a DVD Player with Component Video Connectors

This is the preferred hookup to use if:

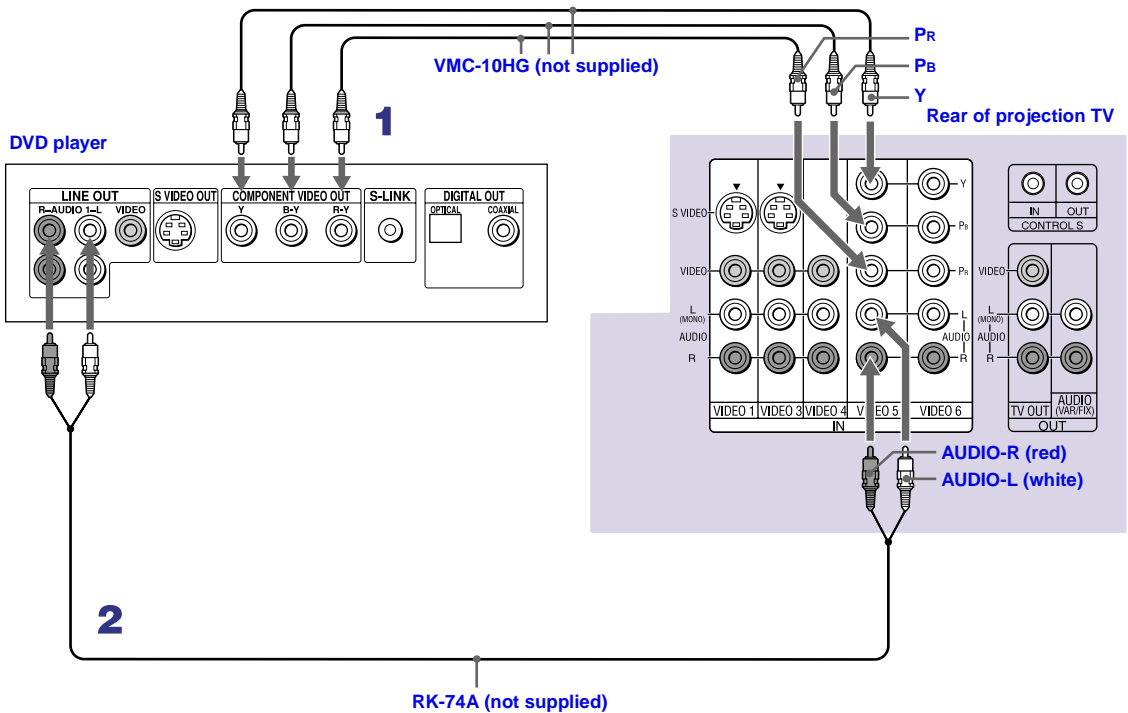
- Your DVD player has component (Y, PB, PR) jacks.

Disconnect all power sources before making any connections.

- 1 Using three separate component video cables, connect the DVD player's Y, B-Y and R-Y jacks to the Y, PB and PR jacks on the projection TV. Use the VIDEO IN 5 or 6 connections.

 The Y, B-Y and R-Y jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, PB and PR. If so, connect the cables to like colors.

- 2 Using an audio cable, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks. Be sure to use the same row of inputs that you used for the video connection (VIDEO IN 5 or 6).



Connecting a DVD Player with A/V Connectors

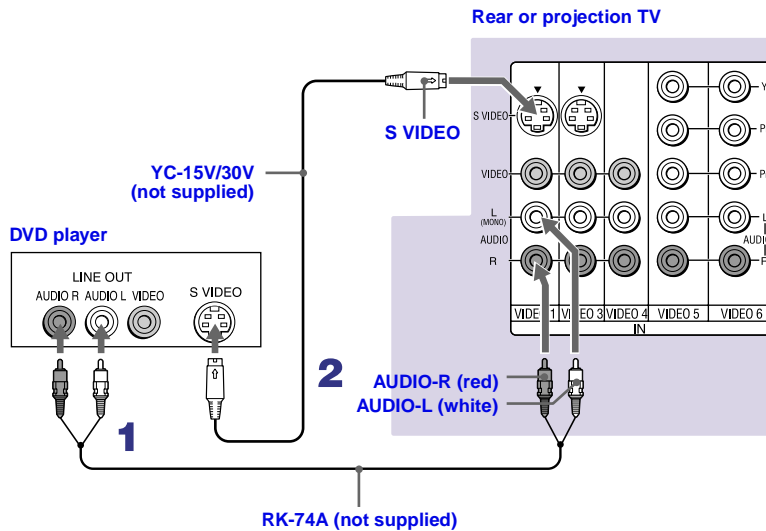
Use this hookup if:

- Your DVD player does not have component (Y, PB, PR) jacks.

🔧 If your DVD player has video component output connectors: for best picture quality use the connection described on page 23.

Disconnect all power sources before making any connections.


- 1 Using audio cables, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks.
- 2 Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the projection TV's S VIDEO jack.



🔧 Use TV/VIDEO on the remote control to switch between the VCR, DVD player and cable TV inputs.


🔧 If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting a Digital TV Receiver

 Be sure to read the Set-top box manual.

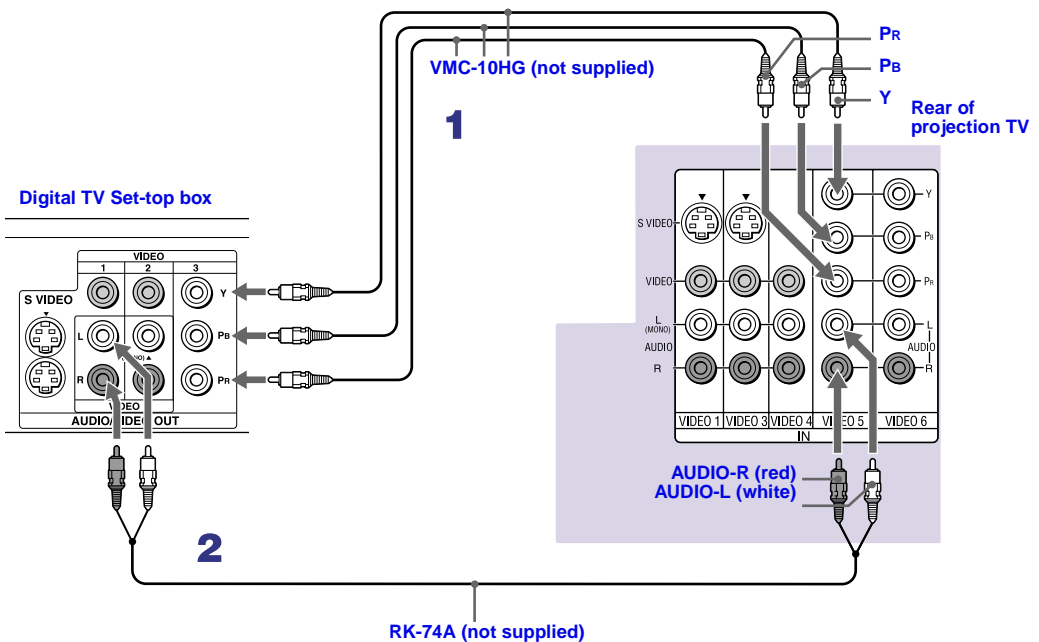
Disconnect all power sources before making any connections.


- Using three separate component video cables, connect the Digital TV Set-top box's Y, P_B and P_R jacks to the projection TV.


 The Y, P_B and P_R jacks do not provide audio, so audio cables must be connected to provide sound.

Component video connection is necessary to view 480p, 720p and 1080i formats. You may also use the S VIDEO or Composite Video connections, however, composite video (Y, P_B, P_R) will provide the best picture quality for all format types.

- Using an audio cable, connect the Digital TV Set-top box's Audio OUT jacks to the projection TV's AUDIO IN jacks.



 You cannot record the signal from any equipment connected into the Y, P_B and P_R connectors.

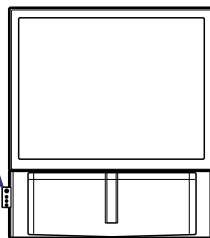
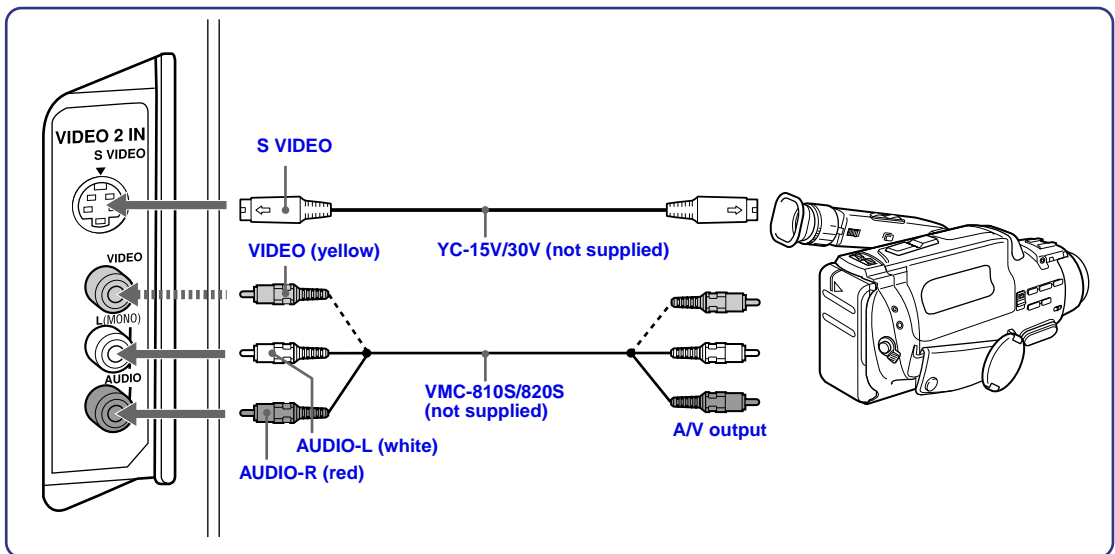
 This projection TV is not compatible with digital TV receivers configured with RGB or VGA output connectors.

Connecting a Camcorder

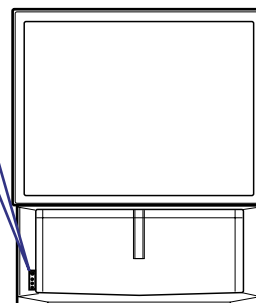
For easy connection of the camcorder, the projection TV has front Audio and Video inputs (shown below). However, if you prefer, you can also connect the camcorder to the projection TV's rear Audio and Video IN jacks.

Using AUDIO and S VIDEO cables, connect the camcorder's Audio and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.

- 👉 If you have a mono camcorder, connect its left audio output to the projection TV's AUDIO L (MONO) jack.
- 👉 If your camcorder is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.



KP-HR432K90



KP-HR532K90

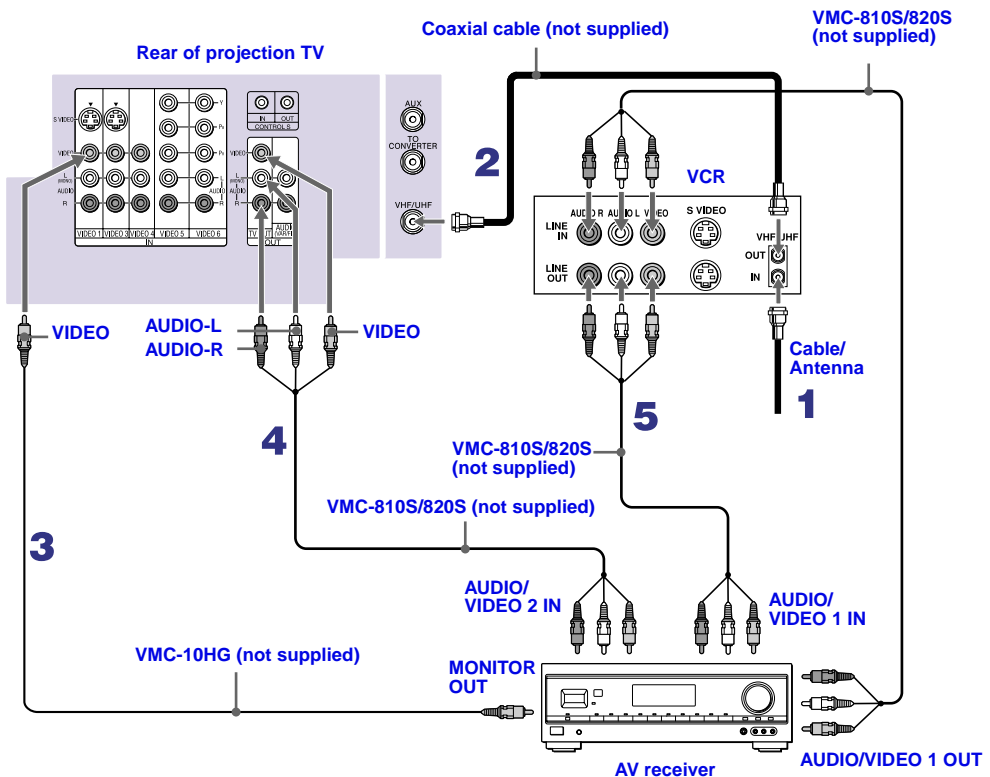
Connecting an AV Receiver

For greater control of all audio and video equipment, connect an AV receiver.

 Change "Video Label" for the VIDEO 1 input to "Receiver" (see page 54).

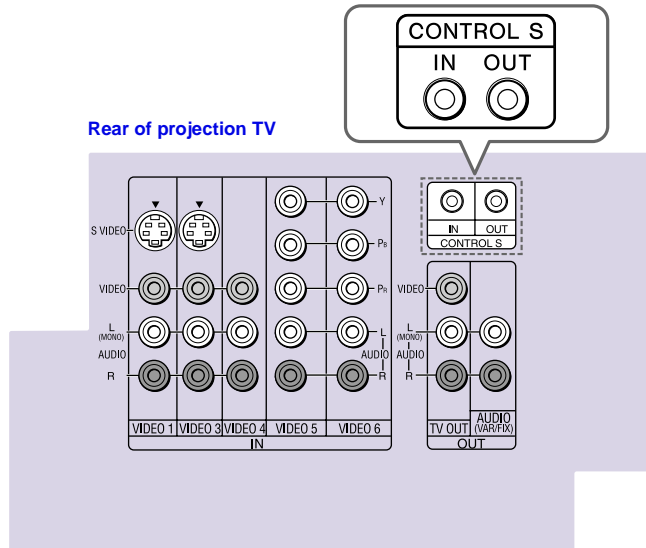
Disconnect all power sources before making any connections.

- 1 Connect the coaxial cable from the incoming cable connection or antenna to IN on the VCR.
- 2 Using a coaxial cable, connect OUT on the VCR to VHF/UHF on the projection TV.
- 3 Using a VIDEO cable, connect VIDEO of VIDEO 1 IN on the projection TV to MONITOR OUT on the AV receiver.
- 4 Using an AUDIO/VIDEO cable, connect TV OUT on the projection TV to AUDIO/VIDEO 2 IN on the AV receiver.
- 5 Using an AUDIO/VIDEO cable, connect the video equipment to the AV receiver.
- 6 Select the Setup menu and set "Video Label" to "Receiver" to fix your TV's input to AV receiver (see "Video Label" on page 54).




Using the CONTROL S Feature

CONTROL S allows you to control your projection TV system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your projection TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.




Setting Up the Projection TV Automatically

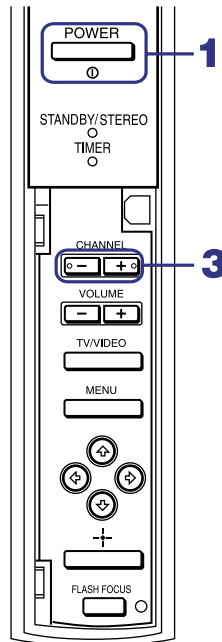
After you finish connecting your projection TV, you can run Auto Setup to set up your channels. The Auto Setup screen appears when you turn your projection TV on for the first time after installing it. If you do not want to set up the channels at this time, you can do it later by using the Auto Program feature in the Channel menu (see page 50).


 The Auto Setup feature does not apply for installations that use a cable box for all channel selection.

Using Auto Setup

- 1 Press POWER on the front panel of your projection TV to turn on the projection TV.
- 2 Press the TV (FUNCTION) button on your remote control. Red light will briefly appear.
- 3 Press CH+ on your projection TV to run Auto Setup, or press CH- to exit. If you use the channel buttons on your remote control, be sure to use the main set of buttons ().

Projection TV front panel



 You can run Auto Program by selecting it in the Channel menu, as described on page 50.

Adjusting the Convergence Automatically – FLASH FOCUS™ –

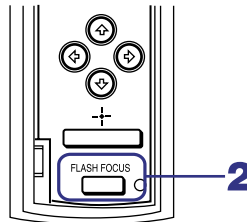
The projection tube image appears on the screen in three colors (red, green and blue). If they do not converge, the color is poor and the picture blurs.

Before you use your projection TV, be sure to adjust the convergence.

The FLASH FOCUS feature allows you to adjust the convergence automatically.

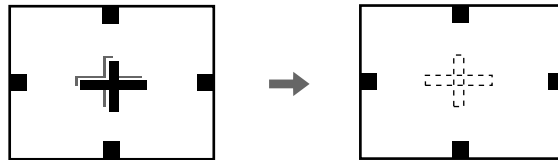
 It is recommended to perform FLASH FOCUS about 30 minutes after the projection TV is first turned on.

Projection TV
front panel






- 1 Receive a TV or cable TV program.
- 2 Press FLASH FOCUS.

The cross pattern shown below appears and FLASH FOCUS begins to work. The adjustment is completed when the cross pattern becomes white and you are returned to the program you were watching.



To obtain an optimum convergence for Digital TV programs

The optimum convergence alignment varies with digital TV formats. Whenever you find that the picture blurs, press FLASH FOCUS.

-  You cannot perform any other functions until FLASH FOCUS has completed its cycle.
-  If you perform any other operation while FLASH FOCUS is in progress, FLASH FOCUS operation is canceled.
-  Unshielded speakers or other metallic objects can cause picture distortion if placed close to the projection TV.

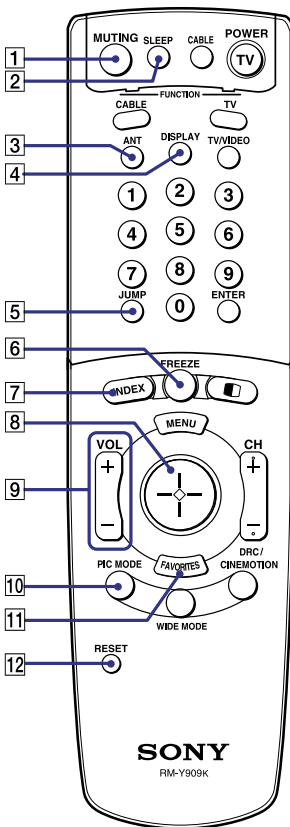
Using the Features

Using the Remote Control


The following table describes the buttons on the remote control that are for more advanced functions.

 Main Power button must be turned ON to activate the remote control.

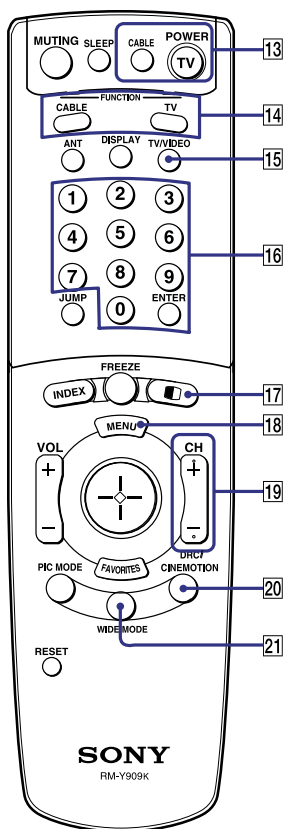
Button Descriptions



Outside Panel

Button	Description
1 MUTING	Press to mute the sound. Press again or press VOL + to restore the sound.
2 SLEEP	Press repeatedly until the projection TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears. While the Sleep feature is set, press once to view the remaining time.
3 ANT	Changes between the VHF/UHF input and the AUX input.
4 DISPLAY	Press once to display the current time and channel label (if set) and channel number. Press again to turn Display off. See page 52 for details on setting the time.
5 JUMP	Press to jump back and forth between two channels. The projection TV alternates between the current channel and the last channel that was selected.
6 FREEZE	Freezes the window picture. Press again to restore the picture.
7 INDEX	Press to enter the Channel Index mode. You can view and select from twelve channels without leaving the current one.
8 	The joystick allows for movement of the on-screen cursor. Pressing down on the center of the joystick selects the item.
9 VOL +/-	Adjusts the volume.
10 PIC MODE	Press repeatedly to step through the available video picture modes: Vivid, Standard, Movie and Pro. Also available in the Video menu. For details, see "Selecting Video Options" on page 45.
11 FAVORITES	Displays the Favorite Channels list. For details, see "Using Favorite Channels" on page 37.
12 RESET	Press when in a menu to reset the settings to the factory defaults.

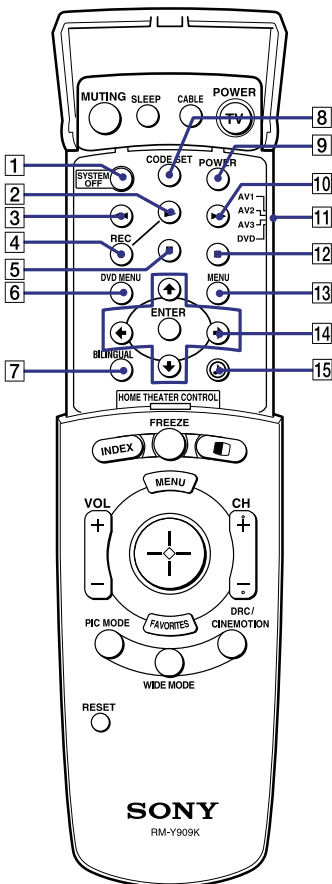
(Continued)











Button	Description
13 POWER buttons (GREEN)	Turn on and off the projection TV and other audio/video equipment you have programmed into the remote control. For instructions, see “Programming the Remote Control” on page 55.
14 FUNCTION buttons	Select the equipment (TV, CABLE) that you want to operate. The indicator lights up momentarily when pushed to show which device the remote control is operating.
15 TV/VIDEO	Cycles through the video equipment connected to your projection TV’s video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.
16 0 – 9 and ENTER	Press 0 - 9 to select a channel, the channel changes after 2 seconds. Press ENTER to select immediately.
17	Turns on/off Twin View. For details, see “Using Twin View™” on page 38.
18 MENU	Press to display the projection TV on-screen menu. Press again to exit from the menu.
19 CH +/-	Scan through channels.
20 DRC/ CINEMOTION	Press repeatedly to step through the available high-resolution picture modes: Interlaced, Progressive and CineMotion. For details, see “Using the Video Menu” on page 45.
21 WIDE MODE	No function on this set.

To scan rapidly through the channels, press and hold down CH+ or CH-.

If power is in STANDBY, press 0-9 or CH+/- to turn on.



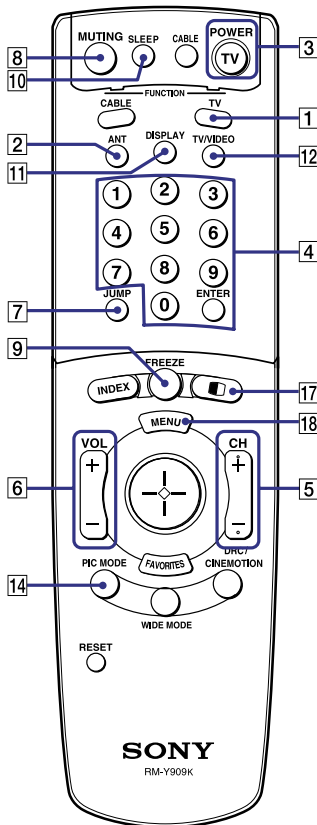
Inside Panel

Button	Description
1 SYSTEM OFF	Press to turn off the projection TV and all equipment connected with S-Link.
2 	Play
3 	Rewind
4 REC	Record
5 	Stop
6 DVD MENU	Displays the DVD menu.
7 BILINGUAL	Press to scroll through the bilingual options: MAIN, MAIN+SUB, and SUB.
8 CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 55.
9 POWER	Press to turn on the DVD/VCR player you have programmed into the remote control. For instructions, see "Programming the Remote Control" on page 55.
10 	Fast-forward
11 	Use to switch control for connected video equipment. You can program one video source for each switch position. For details, see "Programming the Remote Control" on page 55.
12 	Pause (Press again to resume normal playback)
13 MENU	Displays the video equipment menu.
14  and ENTER	Use to operate the DVD menu.
15 	Press to select an audio option: Steady Sound ON or OFF.

Watching the TV

Many TV features can be accessed directly through the remote control. The following will explain the function of some of the buttons found on your remote control.

Buttons for Projection TV Operations



1 TV (FUNCTION)

Activates the remote control for use with the projection TV.

2 ANT— (AUX input)

Press to change between the VHF/UHF input and the AUX input.

3 TV (POWER)

Turns the projection TV on and off. If a video input indication (e.g., VIDEO 1, VIDEO 2) appears on the screen, press TV/VIDEO or CH +/- until a channel number appears.

4 0-9 and ENTER

Use for direct channel selection. Press 0-9 to select a channel (for example, to select channel 10, press 1 and 0). The channel will change after 2 seconds, or you can press ENTER for immediate selection.

5 CH +/-

Press to scan through the channels (+ up or – down).

6 VOL +/-

Press to adjust the volume (+ up or – down).

7 JUMP

Press to alternate or jump back and forth between two channels. The projection TV will jump between the current channel and the last channel selected.

8 MUTING

Press to mute the sound. “MUTING” will appear on the screen and will dim three seconds later. To restore the sound, press again or press VOL +.

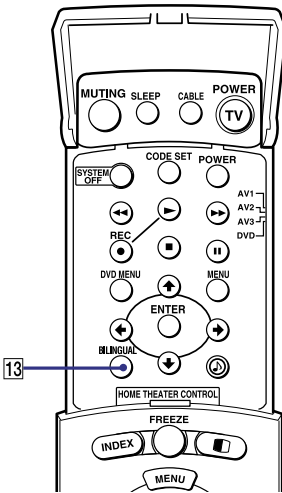
9 FREEZE — (yellow labeled button)

This is useful when you need to copy down information that appears on the TV’s screen (see “Using the Freeze Function” on page 41).

10 SLEEP

Press repeatedly until the projection TV displays the approximate time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically.

Cancel by pressing SLEEP until “SLEEP OFF” appears.



11 DISPLAY

Press to display the channel number, current time and channel label (if set).

To turn the display off, press DISPLAY again.

12 TV/VIDEO

Press repeatedly to scroll through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.

If you select Skip as a Video Label in the Setup menu, your projection TV will skip the video input you selected (see “Video Label” on page 54).

13 BILINGUAL

Press to scroll through the bilingual options: MAIN, MAIN+SUB, and SUB.

14 PIC MODE

Press PIC MODE repeatedly to directly choose one of five different video modes that best suits the program you are watching.

Vivid: Select for enhanced picture contrast and sharpness.

Standard: Select to display a standard picture for normal viewing environments.


Movie: Select to display a finely detailed picture for low light environments.

Pro (Professional): Select to display a picture with minimum enhancements.

When you select each mode, you can also adjust the picture quality (such as Brightness, Color, etc.) to suit your taste. For details, see “Mode” on page 45.

Watching the Digital TV

When you have connected the DTV receiver, you can enjoy digital TV programs. This projection TV is capable of receiving the 1080i, 720p, 480p and 480i digital TV formats.

 This projection TV is not capable of displaying a native 720p format signal. When a 720p format signal is received, it is converted into a 480p format signal.

To view a digital TV program


- 1 Connect the DTV receiver to VIDEO 5 or 6 IN on the projection TV (for details, see page 25).
- 2 Press TV/VIDEO to select VIDEO 5 or 6.
- 3 Select a digital channel on the DTV receiver. For details, see the Operating Manual of the DTV receiver.
- 4 Adjust the volume of the projection TV as necessary.

 The optimum convergence alignment varies with digital TV formats. Whenever you find that the picture blurs, press FLASH FOCUS (for details, see page 30).

Using Favorite Channels

The Favorite Channel feature lets you select programs from a list of favorite channels that you preset.


To display a list of your favorite channels:

 Your Favorite Channel options can be set automatically or manually. The factory setting for Favorite Channel is Auto. When Favorite Channel is set to Auto, the last eight channels selected with 0-9 buttons will be set as Favorite Channel options. If you want to input your own selections as Favorite Channel settings, see "Favorite Channel" on page 49.

- 1 Press FAVORITES.

The Favorite Channel options appear.




- 2 Move the joystick up or down to highlight the channel you want to watch. The program on that channel appears in the preview window. Press  to select.

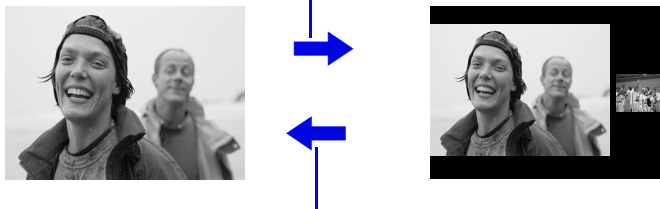
Using Twin View™

Twin View enables you to watch two programs at the same time. You can also change the size of both the left and right pictures.



Displaying Twin Pictures

To display twin pictures

- 1 Make sure your projection TV is tuned to a working channel.
- 2 Press .



To cancel twin pictures

- Press  again (or press .

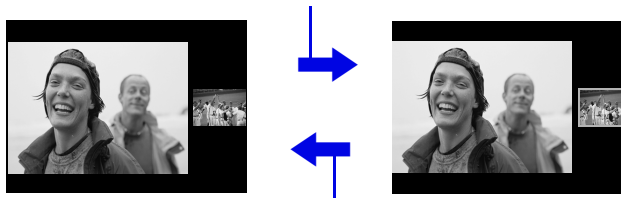
Activating the Picture

Although two pictures appear on the screen at the same time, only one picture is active. Change the picture size by using the joystick. For an active picture, you can:

- Change channels.
- Adjust the volume.
- Switch the input sources from VHF/UHF to cable by pressing ANT or TV/VIDEO to switch the video input.
- Change the picture size by pressing the joystick up or down.








To activate the right picture

- Move the joystick to the right.



To activate the left picture

- Move the joystick to the left.

-  ANT is not effective in the right picture.
-  JUMP is not effective in Twin View.
-  When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View feature, the memorized sizes appear.
-  When viewing an enhanced 16:9 picture, the aspect ratio changes to 4:3 in Twin View. The picture will be reformatted to that aspect ratio.
-  If viewing a 720p or 1080i format input source, the aspect ratio will maintain the original 16:9 aspect ratio.
-  Hookups that affect your ability to use Twin View:
 - If you are viewing all channels through the cable box, the Twin View feature will not work. The cable box only unscrambles one signal at a time, so the right picture will be the same as the left picture.
 - You can watch a scrambled cable channel and another video source. Be sure your DVD player or VCR is connected to one of the VIDEO IN 1-6 and AUX inputs on the rear of the projection TV. Pictures from equipment connected to VIDEO 5, 6 and AUX will only appear in the left picture, not in the right.
-  The active picture is highlighted in cyan.

Changing the Picture Size

The zoom feature lets you change the size of the left and right pictures.


To enlarge the left picture (reduce the right)

- 1 Move the joystick left to activate the left picture (if not already activated).
- 2 Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.



To enlarge the right picture (reduce the left)

- 1 Move the joystick right to activate the right picture (if not already activated).
- 2 Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.

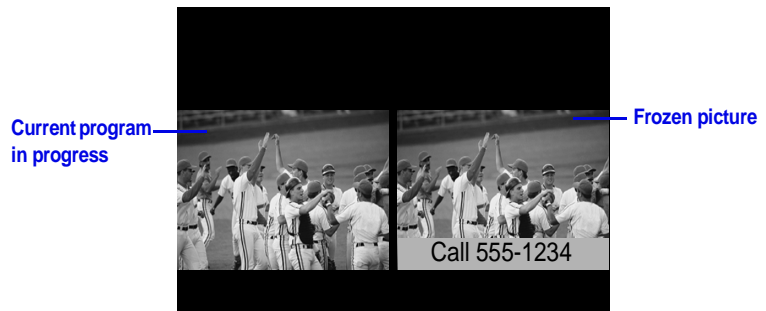
 When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View function, the memorized sizes appear.

Using the Freeze Function


The FREEZE button allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc.

To use the Freeze function

- 1 When the program information you want to capture is displayed, press FREEZE.
- 2 The projection TV switches to Twin View mode and displays the "frozen" picture on the right, while the current program continues on the left.



- 3 To cancel and return to normal viewing, press FREEZE.

 Freeze feature is not available if you are already in Twin View™ mode.

Using Channel Index

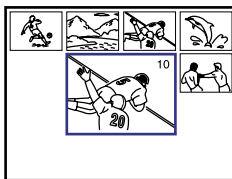
Channel Index allows you to display multiple channels and select one directly.

The channels used for Channel Index will come directly from the projection TV's list of receivable channels (those set during "Auto Program" on page 50).


To use the Channel Index function

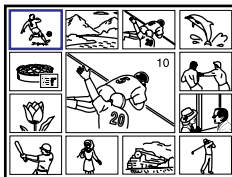
- 1 Press INDEX.

The current channel will be reduced in size and displayed in the center of the screen in normal motion picture format. The first twelve receivable channels will appear one after another, clockwise, around the center picture. These small pictures are updated in intervals of one second. The channel number and channel caption (if set) on the second and later appearances will dim.



A cyan-colored frame will appear to indicate current channel selection.

- 2 Move the joystick in any direction to move the cyan frame to the channel that you wish to view, and press .






The selected channel will zoom in and move to the center, and the sound of that channel will be heard.



For the center picture you can:

- ❑ Change the channel by pressing 0-9 and ENTER.
- ❑ Switch the input sources from VHF/UHF to cable by pressing ANT or to the video input by pressing TV/VIDEO, without changing the surrounding channels.

-  Sound will only be heard from the center picture.
-  If one of the pictures received through Channel Index is snowy, the entire screen may become unstable. In this case, erase the snowy channel (see "Channel Skip/Add" on page 50).
-  If you leave the Channel Index screen displayed for an hour without any additional operation, Channel Index is canceled and the normal picture reappears.

3 If you wish to view another channel, repeat step 2.

To view another twelve channels, press CH+.

To view the previous twelve, press CH-.

To view the normal picture of the selected channel, proceed to step 4.

4 Press .

The center picture will be enlarged for normal viewing.

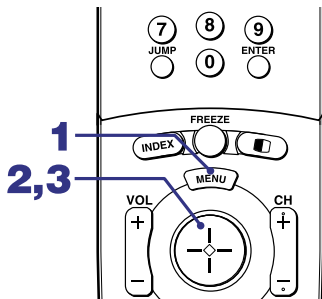


To cancel Channel Index


- ❑ Press INDEX again to resume normal viewing.

Using the Menus







Overview



Opening and choosing a menu:

- 1 Press MENU to display the menu screen.
- 2 Move the joystick to the desired menu icon and press  to select it.
- 3 Use the joystick to scroll through the features.
- 4 See the specific menu page for instructions on moving through the menu.





The menu gives you access to the following features:

<i>Menu Icon</i>	<i>Description</i>	<i>Page</i>
	Allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing.	45
	Offers enhanced audio options such as customizing the Effect of the sound on your projection TV.	47
	Allows you to set up a Favorite Channel list, run the Auto Program function, and more.	49
	Lets you control the viewing of programs.	51
	Lets you set the clock on your projection TV and allows you to program your projection TV for scheduled viewing using the Timers.	52
	Provides several options for setting up your channels, labeling your Video inputs, and selecting the language of the on-screen menus.	53

To end a menu session:

Press MENU again.





To end one menu session and move to another:

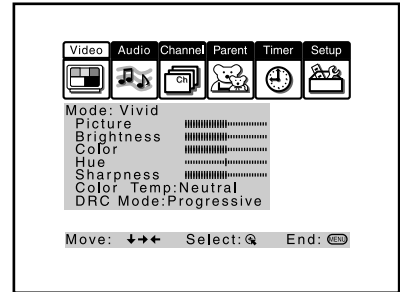
Press the joystick  to return to the menu icons. Move the joystick  or  to choose the next menu icon and press  to select it.



Using the Video Menu

To select the Video Menu


- 1 Press MENU.
- 2 Move the joystick to the Video icon  and press .
- 3 Use the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's adjustment appears.
- 5 Use the joystick to make the desired adjustments.
- 6 Press  to select/set.
- 7 Press MENU to exit the menu screen.




To restore the factory default settings for Picture, Brightness, Color, Hue, Sharpness and Color Temp

- Press RESET on the remote control when in the Video menu.

Selecting Video Options

 To quickly and easily change from one Video Mode to another, use the PIC MODE on the remote control.

The Video menu includes the following options.

Option	Description
Mode	Vivid Select for enhanced picture contrast and sharpness.
<i>Customized picture viewing</i>	Standard Recommended for Normal viewing conditions.
	Movie Select for soft, film like, picture.
	Pro Select for professional monitor like appearance.
	 You can alter the Video menu settings (Picture, Brightness, Color, etc.) for each Mode.
Picture	Adjust to increase picture contrast and deepen the color or decrease picture contrast and soften the color.
Brightness	Adjust to brighten or darken the picture.
Color	Adjust to increase or decrease color intensity.
Hue	Adjust to increase or decrease the green tones.
Sharpness	Adjust to sharpen or soften the picture.
Color Temp	Choose from three color temperatures:
<i>White intensity adjustment</i>	Cool Select to give the white colors a blue tint.
	Neutral Select to give the white colors a neutral tint.
	Warm Select to give the white colors a red tint (NTSC-Standard).





(Continued)

Option	Description
DRC Mode	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player).
Digital Reality Creation	Select from Interlaced, Progressive and CineMotion.
Interlaced	Recommended for moving pictures.
Progressive	Recommended for still images and text.
CineMotion	Recommended for 24 frame-per-second films.



Using the Audio Menu

To select the Audio Menu

- 1 Press MENU.
- 2 Move the joystick to the Audio icon  and press .
- 3 Use the joystick to scroll through the options.
- 4 Press  to select an option. That option's settings appear.
- 5 Use the joystick to scroll through the settings.
- 6 Press  to select the desired setting.
- 7 Press MENU to exit the menu screen.



To restore the factory default settings for Treble, Bass and Balance

- Press RESET on the remote control when in the Audio menu.

Selecting Audio Options

The Audio menu includes the following options:

Option	Description
Treble	Adjust to increase or decrease higher-pitched sounds.
Bass	Adjust to increase or decrease lower-pitched sounds.
Balance	Adjust to emphasize left or right speaker balance.
Steady Sound	ON Select to stabilize the volume.
	OFF Select to turn off Steady Sound.
Effect	TruSurround Select for surround sound (for stereo programs only).
	Simulated Adds a surround-like effect to mono programs.
	OFF Normal stereo or mono reception.
Auto Stereo <i>Enjoy stereo and mono programs</i>	ON Select for stereo reception when viewing a program broadcast in stereo.
	OFF Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)
Speaker	ON Select to turn on the projection TV speakers.
	OFF Select to turn off the projection TV speakers and listen to the projection TV's sound only through your external audio system speakers.





(Continued)

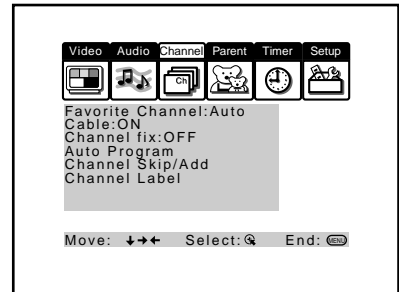
Option	Description	
Audio Out <i>Easy control of volume adjustments</i>	Variable	The projection TV's speakers are turned off, but the volume output from your audio system can still be controlled by the projection TV's remote control.
	Fixed	The projection TV's speakers are turned off and the volume, bass and treble output of the projection TV is fixed. Use your audio receiver's volume control to adjust the volume through your audio system.



Using the Channel Menu




To select the Channel Menu



- 1 Press MENU.
- 2 Move the joystick to the Channel icon  and press .
- 3 Use the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's options appear.
- 5 Use the joystick to scroll through the options.
- 6 Press  to select the desired option.
- 7 Press MENU to exit the menu screen.



Selecting Channel Options

The Channel menu includes the following options:

Option	Description	
Favorite Channel	Auto	Select if you want Favorite Channel options to be set automatically to the last eight channels selected with the 0-9 buttons.
	Manual	Select if you want to input your own selections as Favorite Channel options.
		<ol style="list-style-type: none"> 1 Press  to select a favorite channel number. 2 Use the joystick to scroll through the channels until you find the channel you want to add to your favorites. 3 Press  to select it.
Cable	ON	Select if you are receiving cable channels with a CATV cable.
	OFF	Select if you are using an antenna.
	 You should run Auto Program after changing the Cable setting.	

Option	Description
Channel Fix <i>Useful when you have a cable box connected</i>	2-6 “Fix” your projection TV’s channel setting to 3 or 4 and use the cable box or VCR to change channels. Select one of these settings if you have connected the device to the VHF/UHF jack. AUX 2-6 Same as 2-6, except you select one of these settings if you have connected the device to the AUX jack. (see page 14) VIDEO 1 Use when connecting an AV receiver to control external video sources. TV output should be connected through the AV receiver.
Auto Program	Automatically programs the projection TV for all receivable channels.
Channel Skip/Add	Removes and adds viewable channels. 1 Use the joystick to scroll through the channels until you find the channel you want to skip/add. 2 Press  to select it. 3 Press the joystick up or down to toggle between “Add” and “Skip.” 4 Press  to select.
Channel Label	Label up to 20 channels with their station call letters.





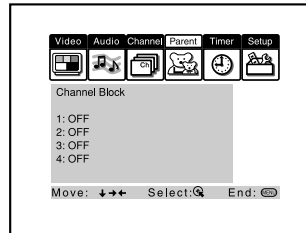
Using the Parent Menu (Channel Block)


The Parent menu allows you to set up the TV to block up to 4 channels.

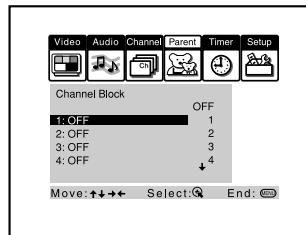
Using the Parent Menu


To block channels

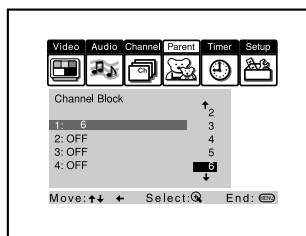
- 1 Press MENU.
- 2 Move the joystick to the Parent icon  and press .





- 3 Move the joystick up or down to select 1-4, and press .



- 4 Move the joystick down to select the channel to be blocked, and press .



 Performing Auto Program will erase the Channel Block settings.

 Selecting "Receiver" of Video Label will erase the Channel Block Settings.

- 5 Press MENU to exit the menu screen.



To cancel channel block settings

- Set Channel Block to OFF in step 4.





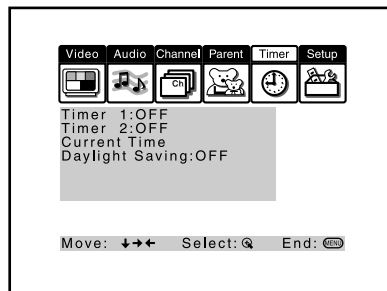
Using the Timer Menu

To select the Timer menu

- 1 Press MENU.
- 2 Move the joystick to the Timer icon  and press .



To set the Current Time

- 1 Use the joystick to select “Current Time”, then press .
- 2 If it is currently Daylight Saving Time, be sure to set the mode to “ON” first.
- 3 Use the joystick to enter the correct time, then press .
- 4 Press MENU to exit the menu screen.





To set the Timer

Before setting the timer, be sure to set your projection TV’s clock to the current time and Daylight Saving Mode.

- 1 Move the joystick to “Timer 1” or “Timer 2”, then press .
- 2 Use the joystick to enter your day, time and channel preferences, then press  to select each one.
- 3 Press MENU to exit the menu screen.

To reset the Clock or Timers

- Press RESET on the remote control after selecting that option in the Timer menu.

 Turning off the main power of the projection TV will clear the timer settings.
 Selecting Channel Fix will clear the timer settings.

Selecting Timer Options


The Timer menu includes the following options:

Option	Description
Timer 1	Program
Timer 2	Program
	OFF
Current Time	Set the current time.
Daylight Saving	ON
	OFF



Using the Setup Menu

To select the Setup Menu

- 1 Press MENU.
- 2 Move the joystick to the Setup icon  and press (+).
- 3 Use the joystick to scroll through the features.
- 4 Press (+) to select a feature. That feature's options appear.
- 5 Use the joystick to scroll through the options.
- 6 Press (+) to select the desired option.
- 7 Press MENU to exit the menu screen.






Selecting Setup Options


The Setup menu includes the following options:

Option	Description
Caption Vision	Allows you to select from three closed caption modes (for programs that are broadcast with closed captioning).
OFF	Turns off Caption Vision.
CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
TEXT1, TEXT2, TEXT3, TEXT4	Displays network/station information presented using either half or the whole screen (if available). For closed captioning, set to CC1.
XDS (Extended Data Service)	Displays a network name, program name, program length, and time of the show if the broadcaster offers this service.

(Continued)

Option	Description
Video Label	<p>Allows you to label the audio/video components you connected to the projection TV so you can identify them when using TV/VIDEO. When in the Setup menu's Video Label feature, use the joystick to highlight an input to label, then press  to select it. Use the joystick to scroll through the labels. Press  to select the component you connected to each of the input jacks on the back of your projection TV. Select "Skip" if you do not have a component connected to a particular set of input jacks.</p>
VIDEO 1/2/3/4	VHS, 8mm, Beta, LD, Game, DVD, Web, Receiver, DTV, Skip
VIDEO 5/6	DVD, DTV, HD, Skip
<p>If you select "Skip", your projection TV skips this connection when you press TV/VIDEO.</p>	
<p> When you select "Receiver" on Video Label, your projection TV's input is fixed.</p>	
Language	<p>Select to display all on-screen menus in your language of choice: English, Español, Français.</p>
16:9 Enhanced	<p>Provides enhanced picture resolution for widescreen sources, such as selected DVD titles (only available when the projection TV is in VIDEO mode). Press TV/VIDEO and select from one of the following options:</p>
AUTO	To activate automatically when a 16:9 signal is received.
ON	To activate manually.
OFF	To deactivate manually.

 AUTO/ON will appear when the projection TV is in VIDEO mode 1-6. ON/OFF will appear when the projection TV is in VIDEO mode 5-6 and the 480p signal occurs.

 To use this feature with widescreen DVDs, set your DVD player to 16:9 aspect ratio.


Other Information

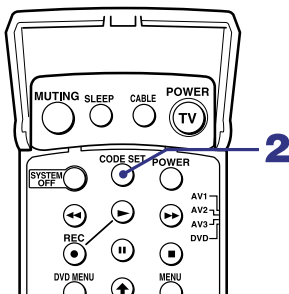
Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.

Sony Equipment	Switch Position on Remote Control	Programmable Code Number
Beta, ED Beta VCRs	AV1	303
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD Player	DVD	751

If you have video equipment other than Sony brand that you want to control with the projection TV's remote control, use the following procedures to program the remote control.

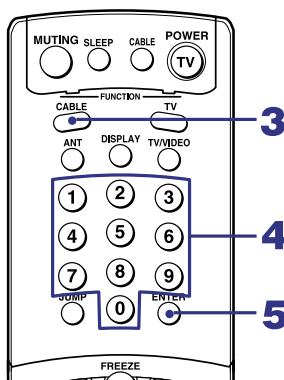
 The equipment must have infrared (IR) remote capability in order to be used with the remote control.



From the "Manufacturer's Codes" listed on page 57, select the three-digit code number for the manufacturer's code for your component. If more than one code number is listed, start with the number listed first. Use the code number to complete the following procedure.

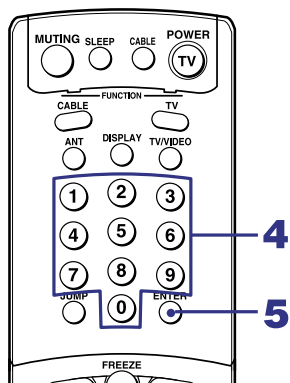
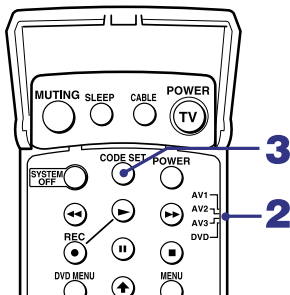
To program a cable box

- 1 Open the panel of the remote control.
- 2 Press CODE SET inside the panel.
- 3 Close the panel and press CABLE (FUNCTION).
- 4 Enter the three-digit manufacturer's code number using the 0-9 buttons.
- 5 Press ENTER.
- 6 To check if the code number works, aim the projection TV's remote control at the component and press the green POWER button that corresponds with that component. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.



(Continued)

Other Information



To program video equipment

- 1 Open the panel of the remote control.
- 2 Move the slide switch to the desired component type.
- 3 Press CODE SET inside the panel.



You must perform step 4 within 10 seconds of step 3, or you must start again from step 3.

- 4 Close the panel and enter the three-digit manufacturer's code number using the 0-9 buttons.
- 5 Press ENTER.
- 6 To check if the code number works, aim the projection TV's remote control at the component, open the panel, and press the green POWER button. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.

Tips

- ❑ If more than one code number is listed, try entering them one by one until you come to the correct code for your component.
- ❑ If you enter a new code number, the code number you previously entered at that setting is erased.
- ❑ In some rare cases, you may not be able to operate your component with the Sony remote control. In this case, use the component's own remote control unit.

Manufacturer's Codes**VCRs**

Manufacturer	Code
Sony	301
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335

Manufacturer	Code
Minolta	305, 304
Mitsubishi/ MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/ PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311

Manufacturer	Code
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

DVD Players

Manufacturer	Code
Sony	751
Panasonic	753
Pioneer	752
RCA	755
Toshiba	754

Cable Boxes

Manufacturer	Code
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Operating Other Components with Your Projection TV Remote Control

Operating a VCR

Open the panel and move the slide switch to the AV input you coded for this device.

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	green POWER button (inside the panel)
Change channels	CH +/-
Record	▶ and REC simultaneously
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	(press again to resume normal playback)
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Change input mode	Slide switch

Operating a DVD Player

Open the panel and move the slide switch to the DVD input you coded for this device.

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	green POWER button (inside the panel)
Play	▶
Stop	■
Pause	(press again to resume normal playback)
Step through different tracks of an audio disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the DVD menu	DVD MENU
Display the menu (Setup)	MENU
Operate the DVD menu	↑, ↓, ←, →, ENTER

Operating a Cable Box

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	CABLE (POWER)
Select Cable Box	CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

Troubleshooting

Problem	Possible Remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"><input type="checkbox"/> Make sure the projection TV's power cord is connected securely to the wall outlet.<input type="checkbox"/> Push the power button on the front of the projection TV.<input type="checkbox"/> Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching connected equipment, set to VIDEO 1, 2, 3, 4, 5 or 6.<input type="checkbox"/> Try another channel. It could be station trouble.<input type="checkbox"/> The Channel Block feature is activated (see "Using the Parent Menu (Channel Block)" on page 51).<input type="checkbox"/> If your projection TV does not turn on, and a red light keeps flashing, your projection TV may need service. Call your local Sony Service Center.
Remote control does not operate	<ul style="list-style-type: none"><input type="checkbox"/> Batteries could be weak. Replace the batteries.<input type="checkbox"/> Press TV (FUNCTION) when operating your projection TV.<input type="checkbox"/> Make sure the projection TV's power cord is connected securely to the wall outlet.<input type="checkbox"/> Locate the projection TV at least 3-4 feet away from fluorescent lights.<input type="checkbox"/> Check the orientation of the batteries.
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none"><input type="checkbox"/> Adjust the Picture setting in the Video menu (see page 45).<input type="checkbox"/> Adjust the Brightness setting in the Video menu (see page 45).<input type="checkbox"/> Check antenna/cable connections.<input type="checkbox"/> Adjust the convergence again using FLASH FOCUS (see "Adjusting the Convergence Automatically – FLASH FOCUS™ –" on page 30).
Good picture, no sound	<ul style="list-style-type: none"><input type="checkbox"/> Press MUTING so that "MUTING" disappears from the screen (see page 31).<input type="checkbox"/> Make sure Speaker is set to ON in the Audio menu (see page 47).
Cannot receive digital channels (when a DTV receiver is connected)	<ul style="list-style-type: none"><input type="checkbox"/> Check the connections between the DTV receiver and the projection TV (see page 25).<input type="checkbox"/> Check your local listings to find out if you can receive digital broadcasts in your area.
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none"><input type="checkbox"/> Change Cable to OFF (see page 49).<input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 50).
No color	<ul style="list-style-type: none"><input type="checkbox"/> Adjust the Color settings in the Video menu (see page 45).
Only snow and noise appear on the screen	<ul style="list-style-type: none"><input type="checkbox"/> Check the Cable setting in the Channel menu (see "Cable" on page 49).<input type="checkbox"/> Check the antenna/cable connections.<input type="checkbox"/> Make sure the channel is broadcasting programs.<input type="checkbox"/> Press ANT to change the input mode (see page 34).
Dotted lines or stripes	<ul style="list-style-type: none"><input type="checkbox"/> Adjust the antenna.<input type="checkbox"/> Move the projection TV away from noise sources such as cars, neon signs, or hair-dryers.
Projection TV is fixed to one channel	<ul style="list-style-type: none"><input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 50).<input type="checkbox"/> Check your Channel Fix settings (see page 50).
Double images or ghosts	<ul style="list-style-type: none"><input type="checkbox"/> Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).

Problem	Possible Remedies
Cannot operate menu	<ul style="list-style-type: none"> <input type="checkbox"/> If the item you want to choose appears in gray, you cannot select it. <input type="checkbox"/> Turn the projection TV's power off and on again.
Cannot receive any channels when using cable TV	<ul style="list-style-type: none"> <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 50). <input type="checkbox"/> Check your cable settings. <input type="checkbox"/> Make sure Cable is set to ON in the Channel menu (see page 49).
Cannot gain enough volume when using a cable box	<ul style="list-style-type: none"> <input type="checkbox"/> Increase the volume of the cable box using the cable box's remote control. Then press TV (FUNCTION) and adjust the projection TV's volume.
Channel Index does not display all available channels	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure Cable is set to ON in the Channel menu (see "Cable" on page 49). <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 50).
Cannot receive channels Unable to select a channel	<ul style="list-style-type: none"> <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 50).
Cannot change channels with the remote control	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure you have not inadvertently switched your projection TV from channel 3 or 4 setting if you are using another device to change channels. <input type="checkbox"/> If you are using another device to control channels, be sure the "function" button for that device has been pressed, or the slide switch is set correctly. For example, if you are using your cable to control channels, be sure to press CABLE.
Cannot cycle through the other video equipment connected to the projection TV	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure the Video Label feature has not been set to Skip (see page 54).
There is a black box on the screen	<ul style="list-style-type: none"> <input type="checkbox"/> You have selected a text option in the Setup menu and no text is available (see page 53 to reset Setup selections). To turn this feature off, select OFF in the Caption Vision option. If you were trying to get closed captioning, select CC1 instead of Text 1-4.
There is no twin picture or it is just static	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure your twin picture is set to a video source/channel that has a program airing. <input type="checkbox"/> You may be tuned to a video input with nothing connected to it. Try cycling through your video inputs using TV/VIDEO. <input type="checkbox"/> Twin View is not set to receive a signal from the AUX input. If you have connected a VCR, DVD player or satellite receiver to the AUX input on the projection TV, it will not show in the second picture.
You get the same program in the window picture as in the main picture	<ul style="list-style-type: none"> <input type="checkbox"/> Both may be set to the same channel. Try changing channels in either the main picture or the window picture. <input type="checkbox"/> You may be running all your channels through a cable box. The cable box will only unscramble one signal at a time, so you cannot use the Twin View feature. If possible, run a direct cable to your projection TV's VHF/UHF input (this will only work if your cable system provides an unscrambled signal).
You cannot get anything but TV channels in your second picture	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure the video label has not been set to skip your video inputs. See the Setup menu on page 53.
Favorite Channel does not display your choices	<ul style="list-style-type: none"> <input type="checkbox"/> Verify that Favorite Channel is set to Manual in the Channel menu (see "Favorite Channel" on page 49).

(Continued)

Other Information

Problem

Some video sources do not appear when you press TV/VIDEO

Possible Remedies

- Ensure that Video Label is not set to Skip (see “Video Label” on page 54).
-

Specifications

Projection System	3 picture tubes, 3 lenses, horizontal in-line system	
Picture Tube	7-inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system	
Projection Lenses	High performance, large diameter hybrid lens F1.1	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard	
Screen Size (measured diagonally)	43 inches (KP-HR432K90) 53 inches (KP-HR532K90)	
Channel Coverage		
VHF	2-13	
UHF	14-69	
CATV	1-125	
Power Requirements	220 V, 60 Hz	
Number of Inputs/Outputs		
Video (IN)	4	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	6	500 mVrms (100% modulation) Impedance: 47 kilohms
AUDIO (VAR/FIX) OUT	1	500 mVrms (100 % modulation), Impedance: 470 ohms
TV Out	1	1 Vp-p, 75 ohms unbalanced, sync negative
CONTROL S (IN/OUT)	1	Minijacks
Component Video Input	2 (Y, P _B , P _R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative P _B : 0.7 Vp-p, 75 ohms P _R : 0.7 Vp-p, 75 ohms
RF Inputs	2	
Converter	1	
Speaker Output	20 W × 2	
Dimensions (W × H × D)	966 × 1,072 × 577 mm (KP-HR432K90) 1,180 × 1,430 × 626 mm (KP-HR532K90)	
Mass	56 kg (KP-HR432K90) 71 kg (KP-HR532K90)	
Power Consumption		
In Use	230 W	
In Standby	1.2 W	
Supplied Accessories		
Remote Control	RM-Y909K	
AA (R6) Batteries	2 supplied for remote control	
Optional Accessories		
AV Cable	VMC-810/820/830 HG	

(Continued)

Other Information

Audio Cable	RKC-515HG
Control S Cable	RK-G69HG
Component Video Cable	VMC-10/30 HG

Design and specifications are subject to change without notice.

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Projection TV

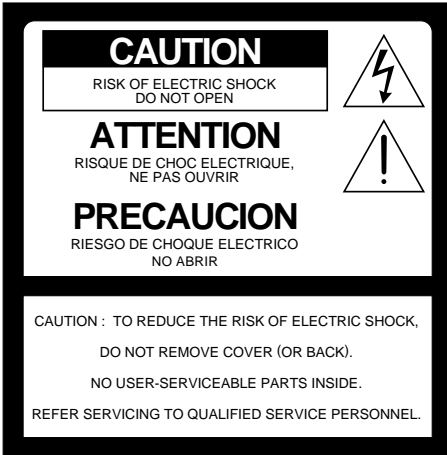
Operating Instructions

KP-HR532N90

DRC-MF
Digital Reality Creation

WARNING

To prevent fire or shock hazard, do not expose the projection TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

To prevent electric shock, do not use this polarized AC plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

CAUTION

When using TV games, computers, and similar products with your projection TV, or viewing a TV station whose logo always stays on the screen, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern such as a station logo is left on the screen for long periods of time, especially at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty.

Safety

- ❑ Operate the projection TV only on 110 V AC.
 - ❑ The plug is designed, for safety purposes, to fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
 - ❑ If any liquid or solid object should fall inside the cabinet, unplug the projection TV immediately and have it checked by qualified service personnel before operating it further.
 - ❑ If you will not be using the projection TV for several days, disconnect the power by pulling the plug itself. Never pull on the cord.
- For details concerning safety precautions, see “Important Safeguards” on page 3.

Installing

- ❑ To prevent internal heat buildup, do not block the ventilation openings.
- ❑ Do not install the projection TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- ❑ Avoid operating the projection TV at temperature below 5°C.
- ❑ If the projection TV is transported directly from a cold to a warm location, or if the room temperature changes suddenly, the picture may be blurred or show poor color. In this case, please wait a few hours to let the moisture evaporate before turning on the projection TV.
- ❑ To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of a reflective material.

Note on convergence adjustment

Before you use your projection TV, make sure to adjust convergence. For details, see “Adjusting the Convergence Automatically – FLASH FOCUS™ –” on page 32.

TruSurround and the (●) symbol are trademarks of SRS Labs, Inc.

TruSurround technology is incorporated under license from SRS Labs, Inc.

BBE and BBE Symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

Important Safeguards

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use and servicing of the set.

Use

Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.

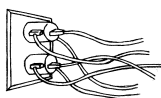


Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

Overloading

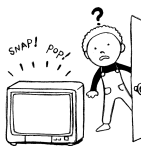
Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not being used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.



If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.



Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.



Cleaning

Clean the cabinet of the projection TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth. Stubborn stains may be removed with a cloth slightly dampened with solution of mild soap and warm water. Never use strong solvents such as thinner or benzene for cleaning.



If the picture becomes dark after using the projection TV for a long period of time, it may be necessary to clean the inside of the projection TV. Consult qualified service personnel.

Installation

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



Accessories

Do not place the set on an unstable cart, stand, table or shelf. The set may fall, causing serious injury to a child or an adult and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of projection TV. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- Never cover the slots and openings with a cloth or other materials.
- Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.
- Never place the set in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.
- Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.



Power-Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.



Antennas

Outdoor Antenna Grounding

If an outdoor antenna is installed, follow the precautions below. An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Lightning

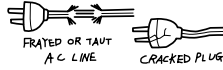
For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power-line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ❑ When the power cord or plug is damaged or frayed.
- ❑ If liquid has been spilled into the set.
- ❑ If the set has been exposed to rain or water.
- ❑ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged.
- ❑ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation.
- ❑ When the set exhibits a distinct change in performance, it indicates a need for service.



Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock or other hazards.

Safety Check

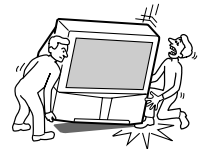
Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.



For Safety

Be careful when moving the projection TV

When you place the projection TV in position, be careful not to drop it on your foot or fingers.



Watch your footing while installing the projection TV.

Carry the projection TV in the specified manner

If you carry the projection TV in a manner other than the specified manner and without the specified number of persons, it may drop and a serious injury may be caused. Be sure to follow the instructions mentioned below.



- ❑ Carry the projection TV with the specified number of persons (see page 9).
- ❑ Do not carry the projection TV holding the speaker grill.
- ❑ Hold the projection TV tightly when carrying it.

Owner's Record

The model and serial numbers are located at the rear of the projection TV, below the Sony logo, on the sticker, and also on the TV box (white label). Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

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Introducing the Sony Projection TV

Presenting the Sony Projection TV

Thank you for purchasing the Sony Projection TV.
This manual is for model KP-HR532N90.

Features

Some of the features that you will enjoy with your new projection TV include:

- ❑ **1080i Capable:** Enables you to receive the 1080i, 720p, 480p and 480i digital TV formats. By using the VIDEO 5/6 IN jacks, you can connect a DTV (digital television) receiver to view DTV programs.
- ❑ **DRC™ Multi-Function:** Unlike conventional line doublers, the DRC feature doubles vertical and horizontal lines, resulting in four times the density for quality sources such as DVD, Satellite and Digital camcorder.
- ❑ **CineMotion™:** Using the 2-3 Pull-Down technology, the CineMotion feature allows you to obtain a smooth picture movement when playing back movies or other video sources on film.
- ❑ **Twin View™:** Using Multi-Image Driver (MID-X), Twin View allows you to watch two programs side by side with the ability to zoom in on one picture and listen to the program in the selected window. You can watch pictures from two different sources (1080i, 720p, 480p or 480i) simultaneously.
- ❑ **16:9 Enhancement:** Vertical Compression technology that maximizes picture resolution on “anamorphic” or “enhanced for wide screen” sources, including selected DVDs.
- ❑ **Steady Sound™:** Equalizes volume levels so there is consistent output between programs and commercials.
- ❑ **Component Video Inputs:** Offers the best video quality for DVD (480p, 480i) and Digital Set-top box (1080i, 720p, 480p, 480i) connections.
- ❑ **S-VIDEO Inputs:** Provides a high-quality image for connected equipment.
- ❑ **Favorite Channel Preview:** Preview up to eight favorite channels without leaving the current channel.
- ❑ **Channel Index:** Allows you to view and choose from twelve programs.
- ❑ **Flash Focus™:** Allows you to adjust convergence automatically.

Using this manual

We recommend that you carefully review the contents of the following three sections in the order shown to ensure that you fully understand the operation of your new projection TV.

1 Installing and Connecting the Projection TV

This section guides you through your initial setup. It shows you how to install your projection TV, to connect your new components and to connect the antenna and cable.

2 Using the Features

This section shows you how to begin using your new projection TV. It also shows you how to use your remote control functions.

3 Using the menus

This section teaches you how to access on-screen menus and adjust your projection TV settings.

Instructions in this manual are written for the remote control. Similar controls are also found on the projection TV console.

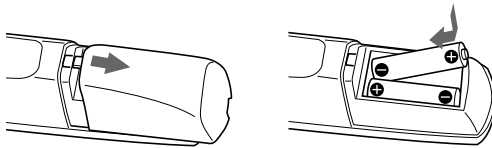
Installing and Connecting the Projection TV




Contents

The box contains your new projection TV, a remote control and two AA batteries. No peripheral cables are included. If you intend to add additional equipment to your projection TV, please check the hookup instructions for your desired setup before you begin. You may need to purchase cables and/or splitters to complete the hookup properly.

Inserting Batteries into the Remote Control

Insert two size AA (R6) batteries (supplied) by matching the + and – on the batteries to the diagram inside the battery compartment.



-  Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.
-  Handle the remote control with care. Avoid dropping it, getting it wet, or placing it in direct sunlight, near a heater, or where the humidity is high.
-  Your remote control can be programmed to operate most video equipment. (See "Programming the Remote Control" on page 57.)

Carrying Your Projection TV

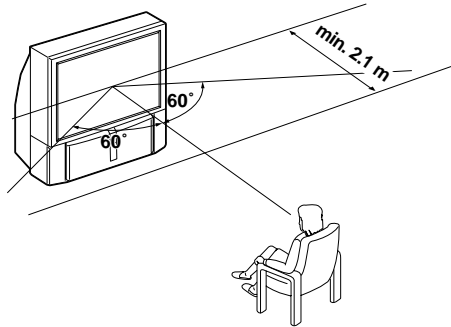
Carrying the projection TV requires three (3) or more people.

The projection TV has been equipped with casters for easy movement on a hard surface.

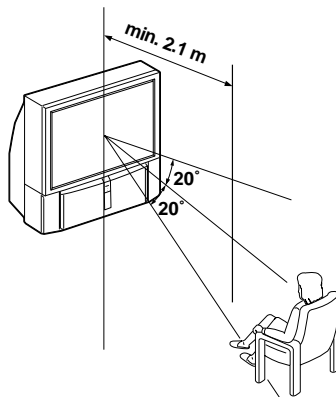
Please move your projection TV using the casters.

Installing the Projection TV

Recommended viewing area (Horizontal)



Recommended viewing area (Vertical)



Connector Types

You may find it necessary to use some of the following connector types during set up.

Coaxial cable

Standard TV cable and antenna cable

Plug Type



Screw-on Type



S Video cable

High quality video cable for enhanced picture quality



Audio/Video cable



Video - Yellow

Audio (Left) - White

Audio (Right) - Red

Some DVD Players are equipped with the following three video connectors:

Y - Green

P_B (C_B, C_b or B-Y) - Blue

P_R (C_R, C_r or R-Y) - Red

CONTROL S cable

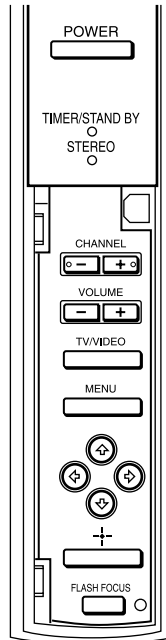
CONTROL S connections are exclusive to Sony products and allow greater control of all Sony equipment.



Projection TV Controls and Connectors

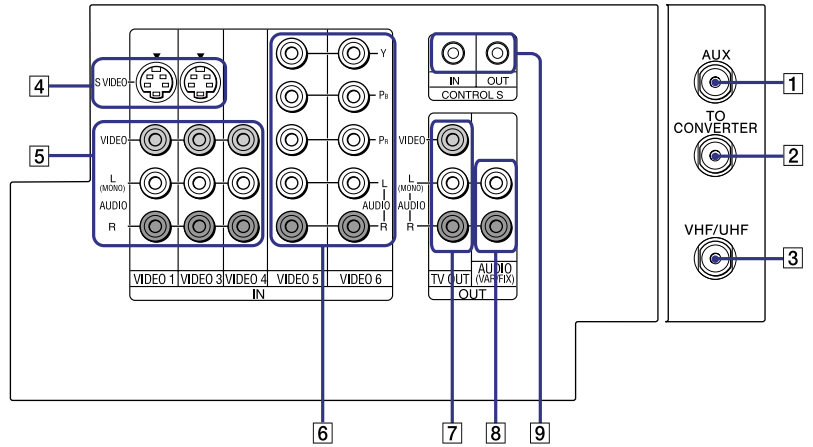
Front Panel Menu Controls

The front panel menu controls allow access to the on-screen menus without the use of a remote control. Pressing MENU brings up the on-screen menus. The arrow buttons move the on-screen cursor in the menus and the Select button (+-) selects the menu item.

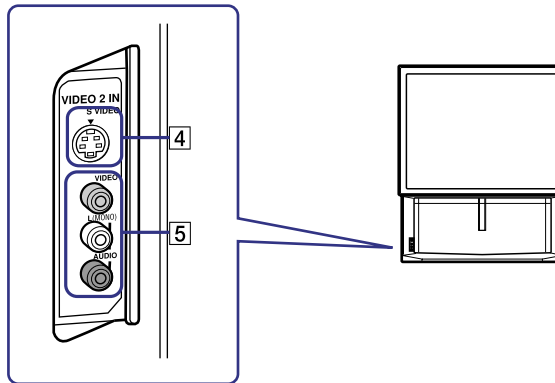


Projection TV Rear and Front Panel Connectors

Rear of projection TV



Front of projection TV



Connection	Description
1 AUX	Allows you to view local and cable channels if your cable provider does not feature local channels. You can switch between local and cable channels easily by pressing ANT on the remote control. Devices connected to the AUX input cannot be viewed in Twin View.
2 TO CONVERTER	This is a VHF/UHF OUT jack that lets you set up your projection TV to switch between scrambled channels (through a cable box) and normal cable channels (CATV). Use this jack instead of a splitter to get better picture quality when switching between scrambled and unscrambled cable channels.
3 VHF/UHF	Connects to your VHF/UHF antenna or cable.
4 S VIDEO (Rear and front)	Connects to the S VIDEO OUT jack of your VCR or other S VIDEO-equipped video component. Provides better picture quality than the VHF/UHF jacks or the Video IN jack.
5 VIDEO (L/R)/AUDIO (Rear and front)	Connects to the audio and video OUT jacks on your VCR or other video component. A fourth video input (VIDEO 2) is located on the front panel of the projection TV.
6 Y/PB/PR (L/R)/AUDIO	Connects to your DVD player's or Digital Set-top box's component video (Y, PB, PR) and audio (L/R) jacks.
7 TV OUT	Connects to an AV receiver for greater control of all audio and video equipment (see page 29). For detailed information about connection, refer to the operating manual supplied with the AV receiver.
8 AUDIO OUT (VAR/FIX) L (MONO)/R	Connects to the left and right audio inputs of your audio or video component.
9 CONTROL S IN/OUT	To control other Sony equipment with the projection TV's remote control, connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack on the projection TV with the CONTROL S cable. To control the projection TV with a remote control for another Sony product, connect the CONTROL S OUT jack of the equipment to the CONTROL S IN jack on the projection TV with the CONTROL S cable.

Basic Connections (Connecting Cable TV or Antenna)

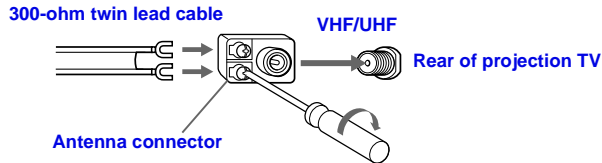
Connecting Directly to Cable or an Antenna

The connection you choose depends on the cable found in your home. Newer homes are equipped with standard coaxial cable (see **A**); older homes probably have 300-ohm twin lead cable (see **B**); other homes may contain both (see **C**).

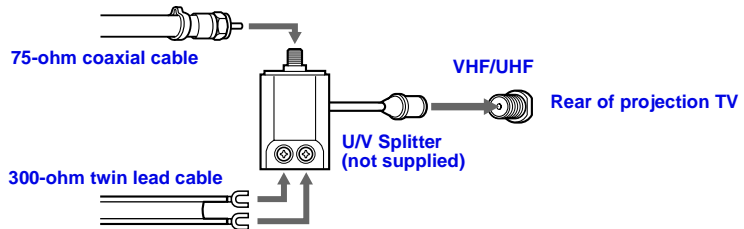
A VHF Only or VHF/UHF or Cable



B VHF Only or UHF Only or VHF/UHF

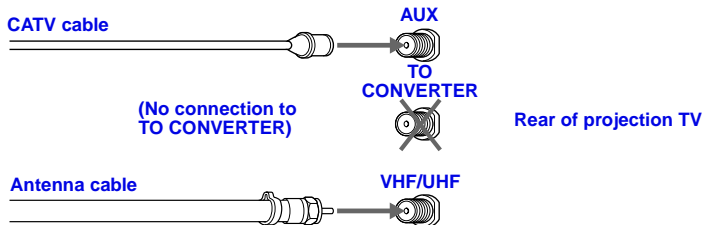


C VHF and UHF



Cable and Antenna

If your cable provider does not feature local channels, you may find this set up convenient.



Select CABLE or antenna (ANT) mode by pressing ANT on the remote control.

To receive channels with an antenna, you need to turn your Cable to OFF (see page 51) and perform the Auto Program function (see page 52).

Cable Box Connections

Cable Box and Cable

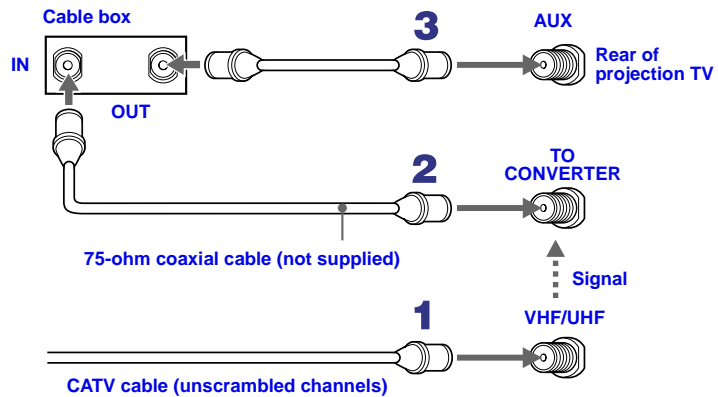
This is the preferred basic cable TV hookup to use if:

- ❑ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- ❑ You want to enjoy the Twin View feature.

With this setup you can:

- ❑ Use the projection TV remote control to change channels using your cable box when the signal is scrambled.
- ❑ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. (Your projection TV's tuner provides a better signal than the cable box.)
- ❑ Use the Twin View feature. (When all channels are routed through your cable box, only one channel is sent to the projection TV, so you can not use the Twin View or Channel Index features for your cable box.)

- 1 Connect the Cable TV cable to the projection TV's VHF/UHF jack.
- 2 Using a coaxial cable, connect the projection TV's TO CONVERTER jack to the cable box's IN jack. The projection TV's internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
- 3 Using a coaxial cable, connect the cable box's OUT jack to the projection TV's AUX jack.



Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the TV (unscrambled).

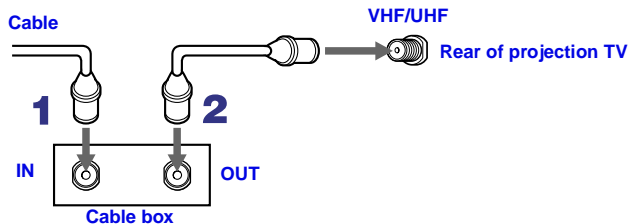
Cable Box Only

Use this hookup if:


- ❑ You subscribe to a cable TV system that uses scrambled or encoded signals requiring a cable box to view all channels, and
- ❑ You do not intend to hook up any other audio or video equipment to your projection TV.




When all channels are routed through your cable box, only one unscrambled channel is sent to the projection TV, so you cannot use the Twin View feature. If some channels are scrambled, but others are not, consider using the hookup on page 16 instead.

- 1 Connect the coaxial connector from your cable service to the cable box's IN jack.
- 2 Using a coaxial cable, connect the cable box's OUT jack to the TV's VHF/UHF jack.



Also, set Cable to ON in the Channel menu. (see page 51)

 Setting the Channel Fix feature in the Channel menu (see "Using the Channel Menu" on page 51) ensures that you do not accidentally switch the channels using your projection TV.

-  If you will be controlling all channel selection through your cable box, consider using the Channel Fix feature to set your projection TV to channel 3 or 4 (see page 52).
-  Your Sony remote control can be programmed to operate your cable box (see "Programming the Remote Control" on page 57).
-  To change channels using the cable box, set your projection TV to channel 3 or 4 depending on the cable box channel output.

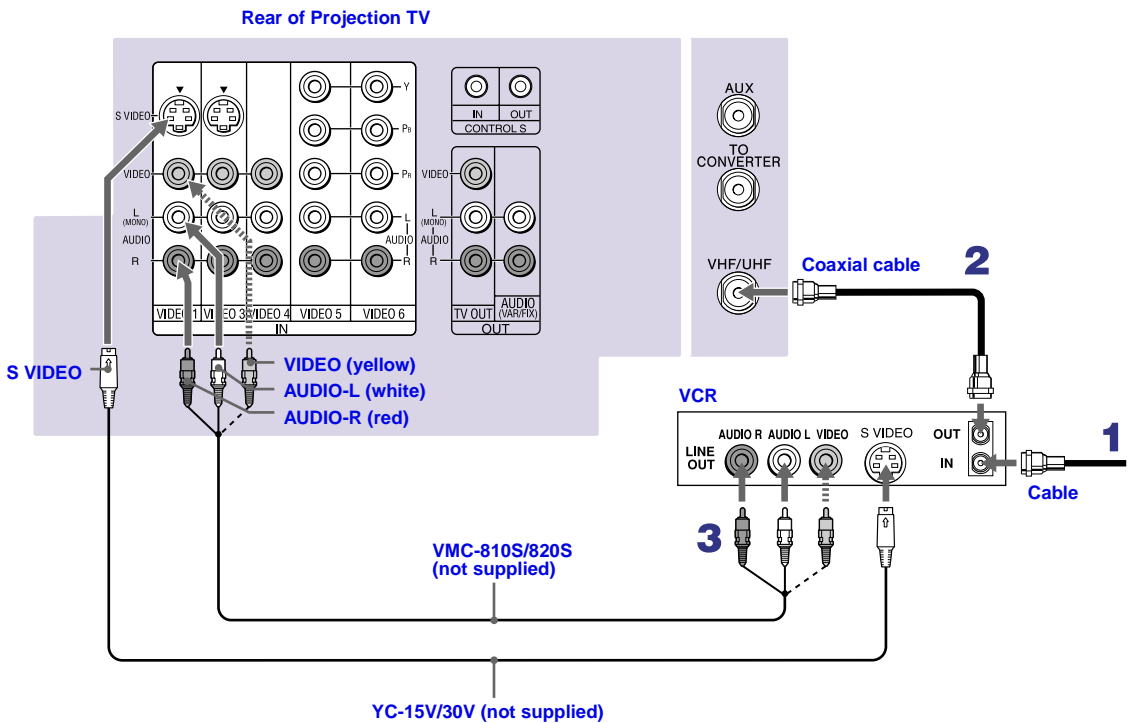
Connecting a VCR and Cable


Use this hookup if:

- You have cable TV that does not require a cable box.

Disconnect all power sources before making any connections.

- 1 Connect the cable TV cable to the VCR's IN jack.
- 2 Using a coaxial cable, connect the VCR's OUT jack to the projection TV's VHF/UHF jack.
- 3 Using AUDIO and S VIDEO cables, connect the VCR's Audio and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.



 If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting a VCR and Cable Box

Use this hookup if:

- ❑ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- ❑ You want to enjoy the Twin View feature.

With this setup you can:

- ❑ Use the projection TV remote control to change channels on your cable box when the signal is scrambled. To program your Sony Remote control to operate your cable box, see “Programming the Remote Control” on page 57.
- ❑ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. Your projection TV’s tuner provides a better signal than the cable box.
- ❑ Use the Twin View feature. (When all channels are routed through your cable box, only one signal is sent to the projection TV, so you cannot use the Twin View feature.)

Disconnect all power sources before making any connections.

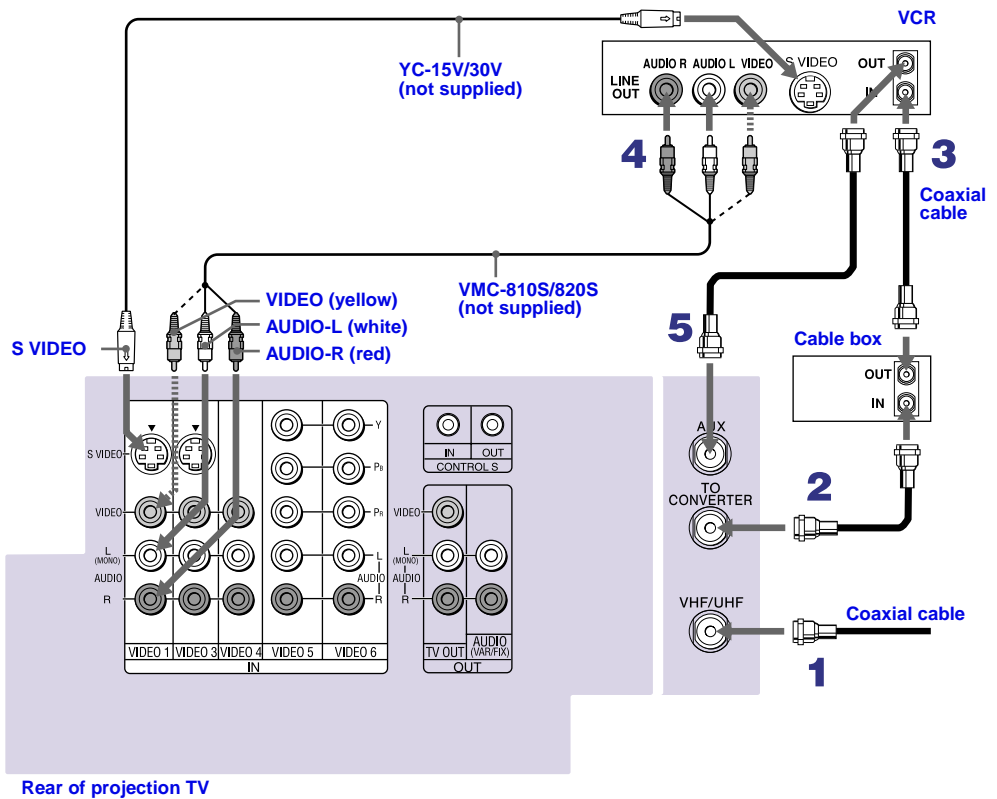
- 1 Connect the Cable TV cable to the projection TV’s VHF/UHF jack.
- 2 Using a coaxial cable, connect the TV’s TO CONVERTER jack to the cable box’s IN jack. The projection TV’s internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
- 3 Using a coaxial cable, connect the cable box’s OUT jack to the VCR’s IN jack.
- 4 Using AUDIO and S VIDEO cables, connect the VCR’s AUDIO and S VIDEO OUT jacks to the projection TV’s AUDIO and S VIDEO IN jacks.
- 5 Using a coaxial cable, connect the VCR’s OUT jack to the projection TV’s AUX jack.






To view scrambled channels, set your projection TV to AUX 3 or 4 (depending on your cable box output). Change channels using your cable box.

(Continued)

Installing and Connecting the Projection TV



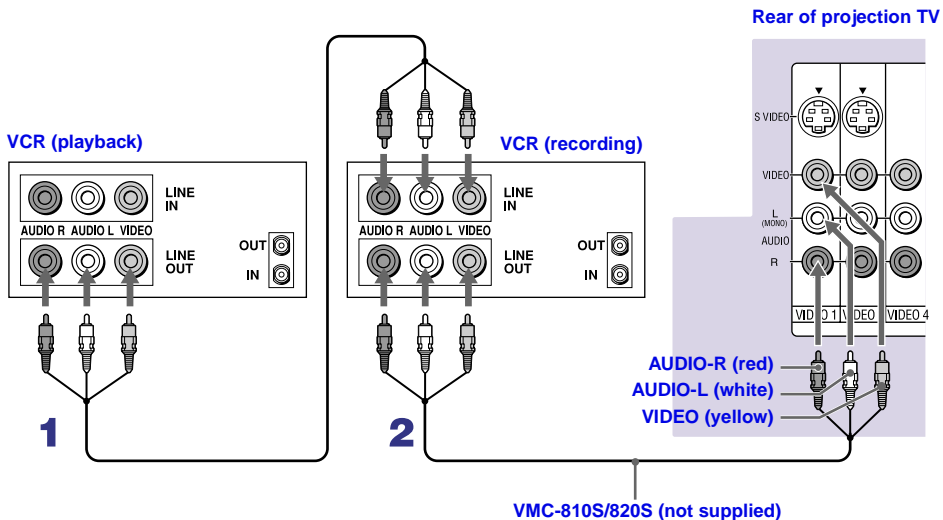
-  If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.
-  You will not be able to change channels on the VCR. Set your projection TV and VCR to channel 3 or 4, depending on your cable box channel output.
-  Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the projection TV (unscrambled).





Connecting Two VCRs for Tape Editing

If you connect two VCRs, you can record from one VCR to the other while using your TV to monitor what is being recorded.

Disconnect all power sources before making any connections.

- 1 Using AUDIO and VIDEO cables, connect the playback VCR's Audio and Video OUT jacks to the recording VCR's Audio and Video IN jacks.
- 2 Using AUDIO and VIDEO cables, connect the recording VCR's AUDIO and Video OUT jacks to the projection TV's AUDIO and VIDEO IN jacks.




-  To perform tape editing, set the projection TV to the video input intended for playback by pressing TV/VIDEO on the remote control.
-  You may need to change the video input on your VCR. Consult your VCR's operating manual for instructions.
-  If your VCRs have an S VIDEO jack: For best picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable.
Using an S VIDEO cable, connect the playback VCR's S VIDEO OUT jack to the recording VCR's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.
-  You cannot record signals from equipment connected to the Y, P_B, P_R input.

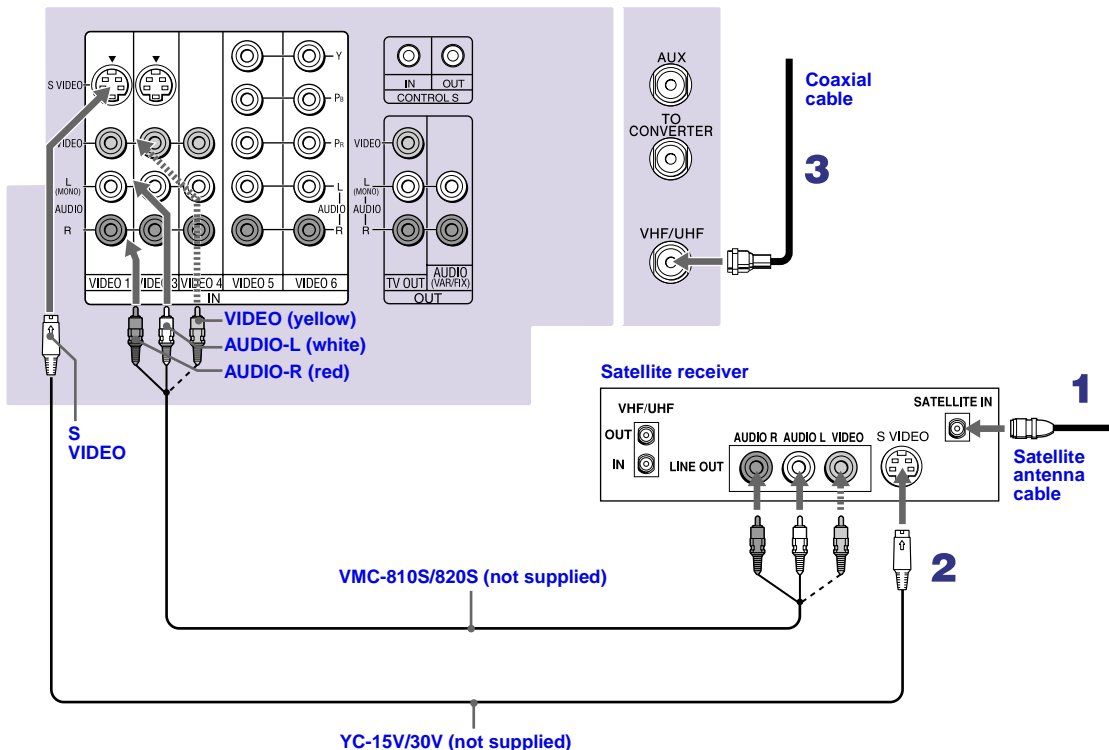
Connecting a Satellite Receiver

Disconnect all power sources before making any connections.

- 1 Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
- 2 Using AUDIO and S VIDEO cables, connect the satellite receiver's AUDIO and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.
- 3 Connect a coaxial cable from your cable or antenna to the projection TV's VHF/UHF jack.

 If your satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

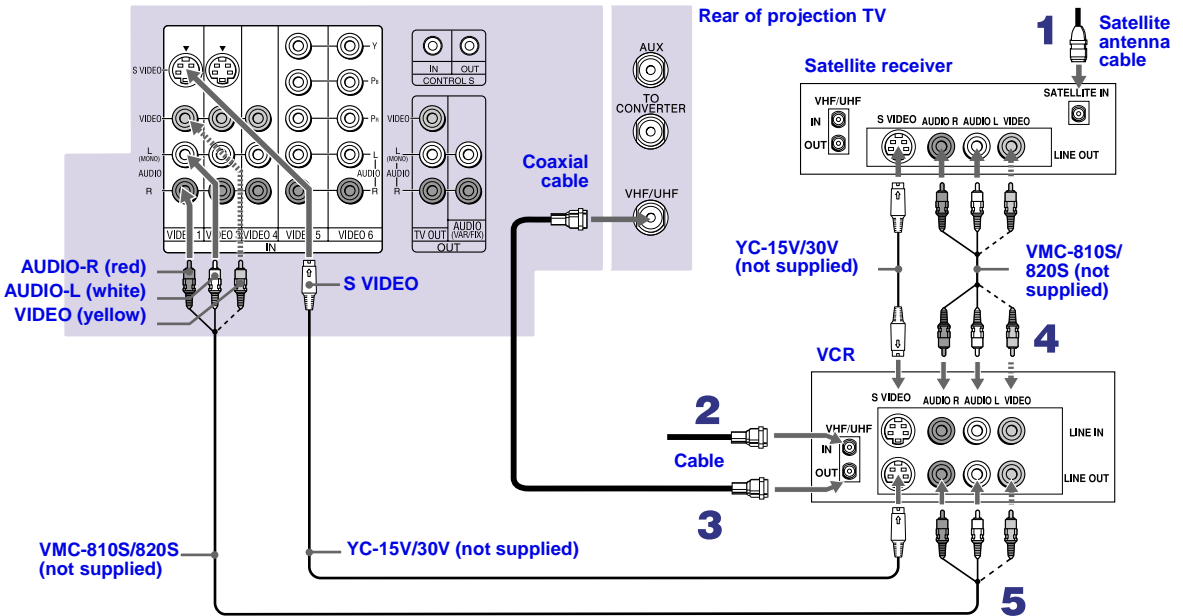
Rear of projection TV



Connecting a Satellite Receiver with a VCR

Disconnect all power sources before making any connections.

- 1 Connect the satellite antenna cable to the satellite receiver's SATELLITE IN jack.
- 2 Connect the CATV cable to the VCR's VHF/UHF IN jack.
- 3 Using a coaxial cable, connect the VCR's OUT jack to the projection TV's VHF/UHF jack.
- 4 Using AUDIO and S VIDEO cables, connect the satellite receiver's AUDIO and S VIDEO OUT jacks to the VCR's AUDIO and S VIDEO IN jacks.
- 5 Using AUDIO and S VIDEO cables, connect the VCR's AUDIO and S VIDEO OUT jacks to the TV's AUDIO and S VIDEO IN jacks.



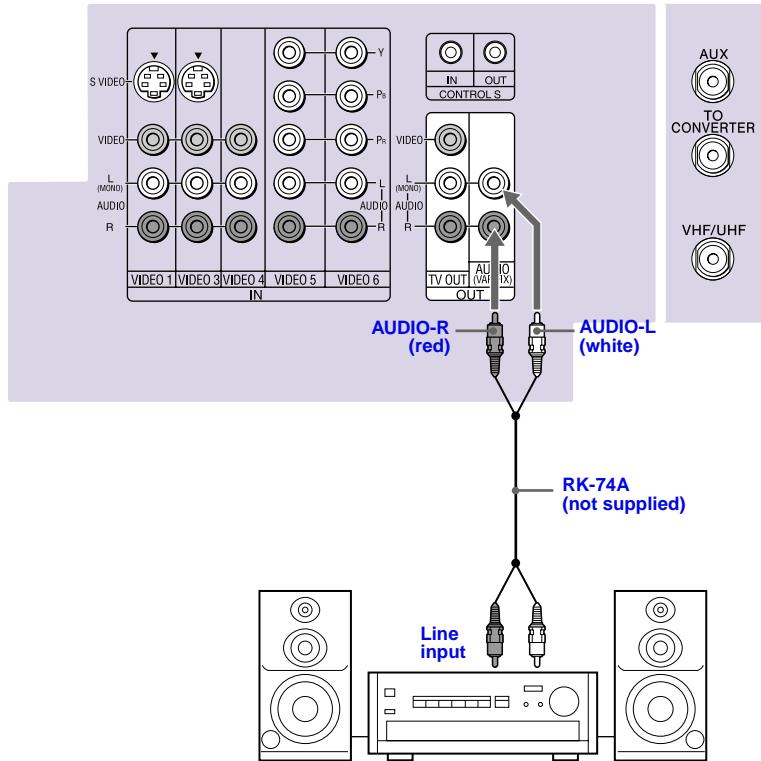
- Be sure your VCR's video input is set correctly. Consult your VCR's operating manual for instructions.
- Use TV/VIDEO to select
 - VIDEO 1 to watch satellite TV or the VCR (Your VCR must be turned on).
 - VHF/UHF to watch cable TV.
- If your VCR or satellite receiver is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting an Audio Receiver

Disconnect all power sources before making any connections.

Using audio cables, connect the projection TV's AUDIO OUT (VAR/FIX) jacks to the audio receiver's audio LINE IN jacks.

Rear of projection TV




Connecting a DVD Player with Component Video Connectors

This is the preferred hookup to use if:

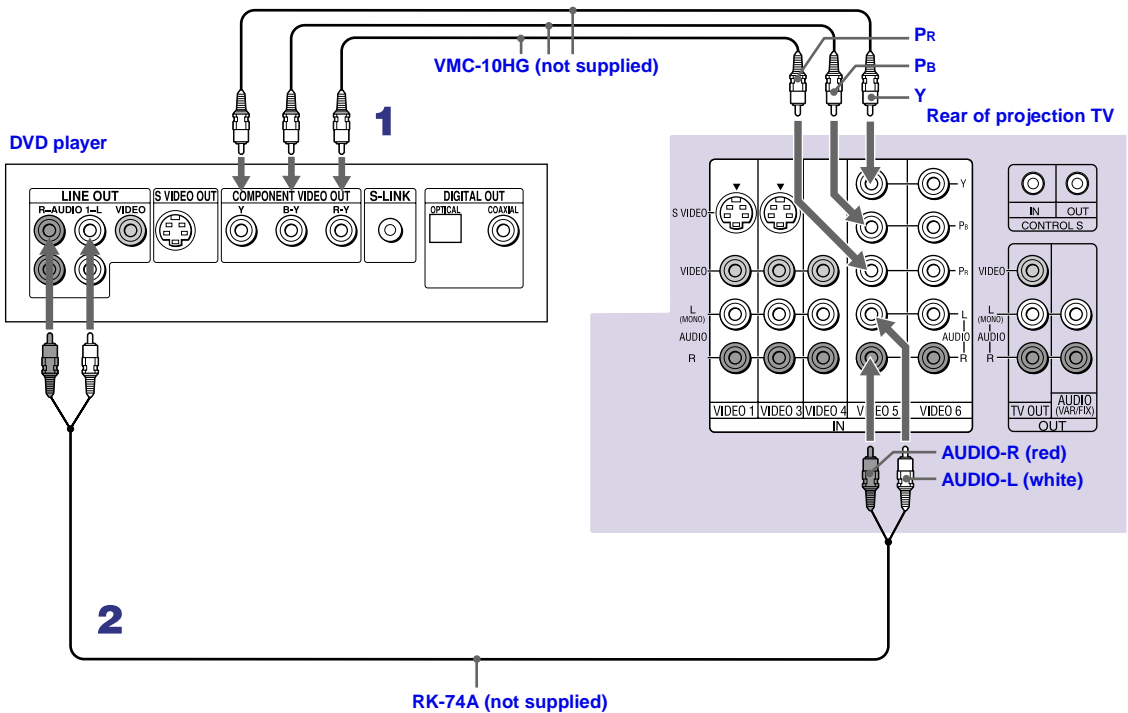
- Your DVD player has component (Y, PB, PR) jacks.

Disconnect all power sources before making any connections.

- 1 Using three separate component video cables, connect the DVD player's Y, B-Y and R-Y jacks to the Y, PB and PR jacks on the projection TV. Use the VIDEO IN 5 or 6 connections.

 The Y, B-Y and R-Y jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, PB and PR. If so, connect the cables to like colors.

- 2 Using an audio cable, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks. Be sure to use the same row of inputs that you used for the video connection (VIDEO IN 5 or 6).



Connecting a DVD Player with A/V Connectors

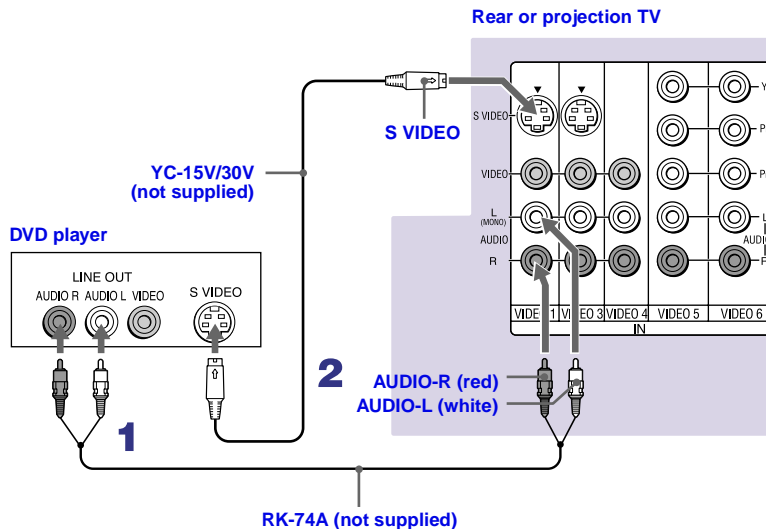
Use this hookup if:

- Your DVD player does not have component (Y, PB, PR) jacks.

🔧 If your DVD player has video component output connectors: for best picture quality use the connection described on page 25.

Disconnect all power sources before making any connections.


- 1 Using audio cables, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks.
- 2 Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the projection TV's S VIDEO jack.



🔧 Use TV/VIDEO on the remote control to switch between the VCR, DVD player and cable TV inputs.


🔧 If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting a Digital TV Receiver

 Be sure to read the Set-top box manual.

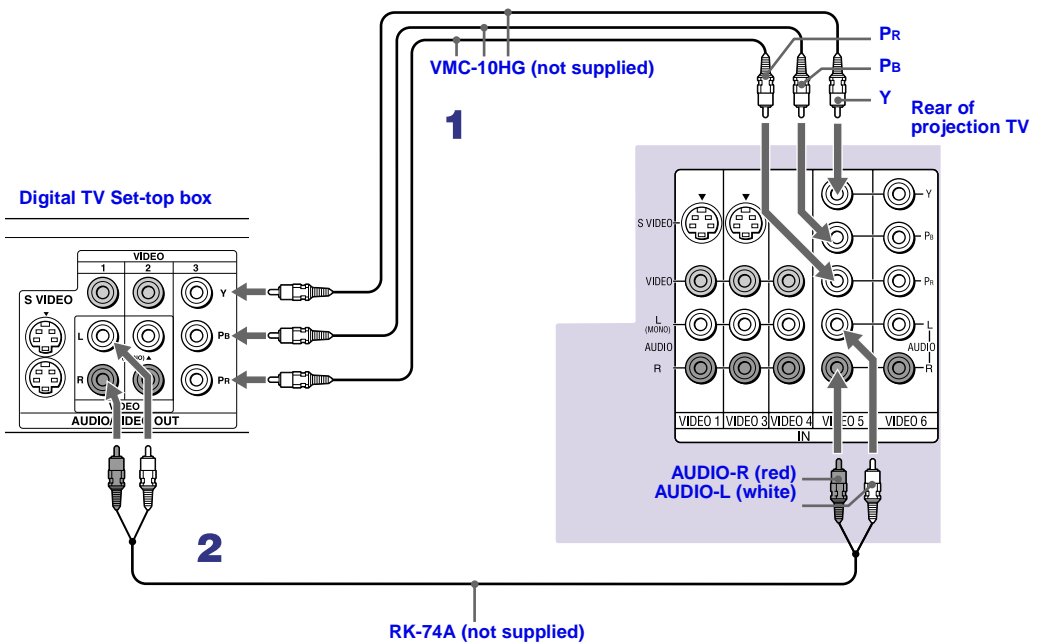
Disconnect all power sources before making any connections.


- Using three separate component video cables, connect the Digital TV Set-top box's Y, P_B and P_R jacks to the projection TV.


 The Y, P_B and P_R jacks do not provide audio, so audio cables must be connected to provide sound.

Component video connection is necessary to view 480p, 720p and 1080i formats. You may also use the S VIDEO or Composite Video connections, however, composite video (Y, P_B, P_R) will provide the best picture quality for all format types.

- Using an audio cable, connect the Digital TV Set-top box's Audio OUT jacks to the projection TV's AUDIO IN jacks.



 You cannot record the signal from any equipment connected into the Y, P_B and P_R connectors.

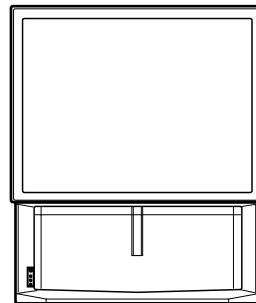
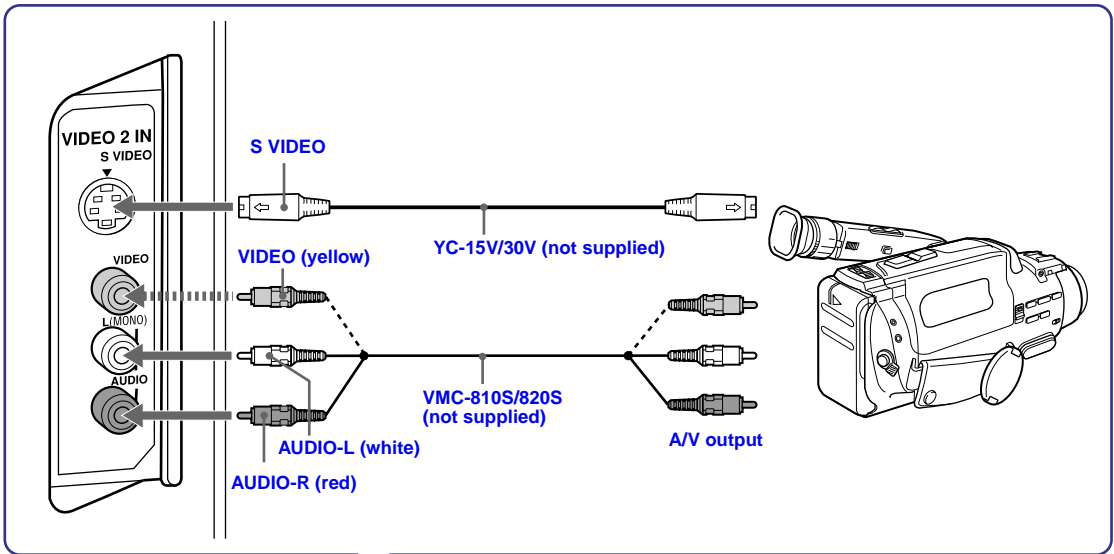
 This projection TV is not compatible with digital TV receivers configured with RGB or VGA output connectors.

Connecting a Camcorder

For easy connection of the camcorder, the projection TV has front Audio and Video inputs (shown below). However, if you prefer, you can also connect the camcorder to the projection TV's rear Audio and Video IN jacks.

Using AUDIO and S VIDEO cables, connect the camcorder's Audio and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.

- ☞ If you have a mono camcorder, connect its left audio output to the projection TV's AUDIO L (MONO) jack.
- ☞ If your camcorder is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.



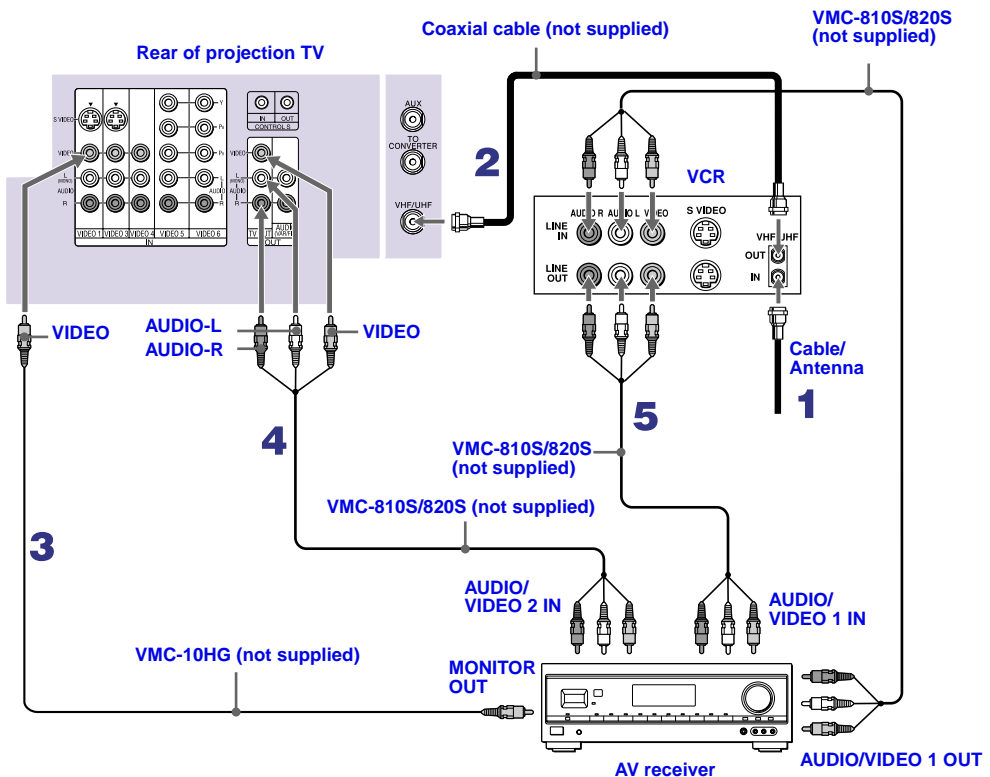
Connecting an AV Receiver

For greater control of all audio and video equipment, connect an AV receiver.

 Change "Video Label" for the VIDEO 1 input to "Receiver" (see page 56).

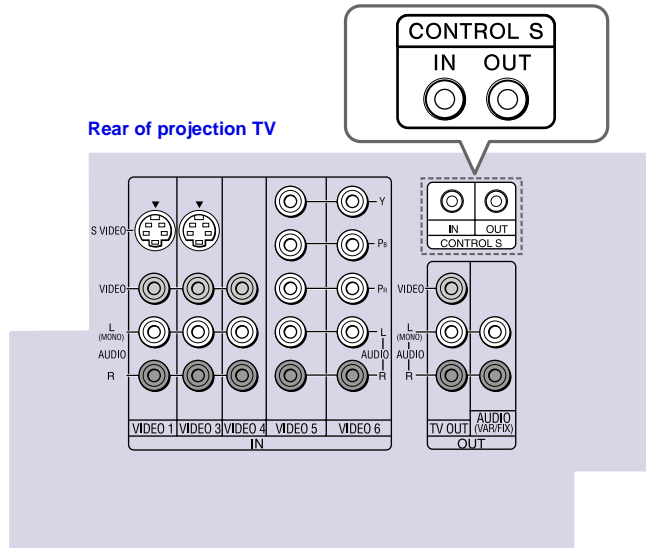
Disconnect all power sources before making any connections.

- 1 Connect the coaxial cable from the incoming cable connection or antenna to IN on the VCR.
- 2 Using a coaxial cable, connect OUT on the VCR to VHF/UHF on the projection TV.
- 3 Using a VIDEO cable, connect VIDEO of VIDEO 1 IN on the projection TV to MONITOR OUT on the AV receiver.
- 4 Using an AUDIO/VIDEO cable, connect TV OUT on the projection TV to AUDIO/VIDEO 2 IN on the AV receiver.
- 5 Using an AUDIO/VIDEO cable, connect the video equipment to the AV receiver.
- 6 Select the Setup menu and set "Video Label" to "Receiver" to fix your TV's input to AV receiver (see "Video Label" on page 56).




Using the CONTROL S Feature

CONTROL S allows you to control your projection TV system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your projection TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.




Setting Up the Projection TV Automatically

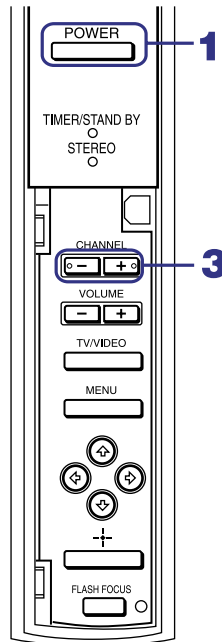
After you finish connecting your projection TV, you can run Auto Setup to set up your channels. The Auto Setup screen appears when you turn your projection TV on for the first time after installing it. If you do not want to set up the channels at this time, you can do it later by using the Auto Program feature in the Channel menu (see page 52).


 The Auto Setup feature does not apply for installations that use a cable box for all channel selection.

Using Auto Setup

- 1 Press POWER on the front panel of your projection TV or on the remote control to turn on the projection TV.
- 2 Press the TV (FUNCTION) button on your remote control. Red light will briefly appear.
- 3 Press CH+ on your projection TV to run Auto Setup, or press CH- to exit. If you use the channel buttons on your remote control, be sure to use the main set of buttons ().

Projection TV front panel




 You can run Auto Program by selecting it in the Channel menu, as described on page 52.

Adjusting the Convergence Automatically – FLASH FOCUS™ –

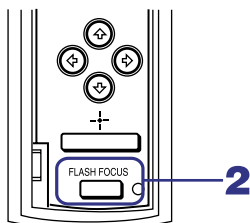
The projection tube image appears on the screen in three colors (red, green and blue). If they do not converge, the color is poor and the picture blurs.

Before you use your projection TV, be sure to adjust the convergence.

The FLASH FOCUS feature allows you to adjust the convergence automatically.

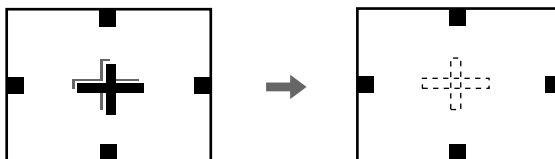
 It is recommended to perform FLASH FOCUS about 30 minutes after the projection TV is first turned on.

Projection TV front panel






- 1 Receive a TV or cable TV program.
- 2 Press FLASH FOCUS.

The cross pattern shown below appears and FLASH FOCUS begins to work. The adjustment is completed when the cross pattern becomes white and you are returned to the program you were watching.



To obtain an optimum convergence for Digital TV programs

The optimum convergence alignment varies with digital TV formats. Whenever you find that the picture blurs, press FLASH FOCUS.

-  You cannot perform any other functions until FLASH FOCUS has completed its cycle.
-  If you perform any other operation while FLASH FOCUS is in progress, FLASH FOCUS operation is canceled.
-  Unshielded speakers or other metallic objects can cause picture distortion if placed close to the projection TV.

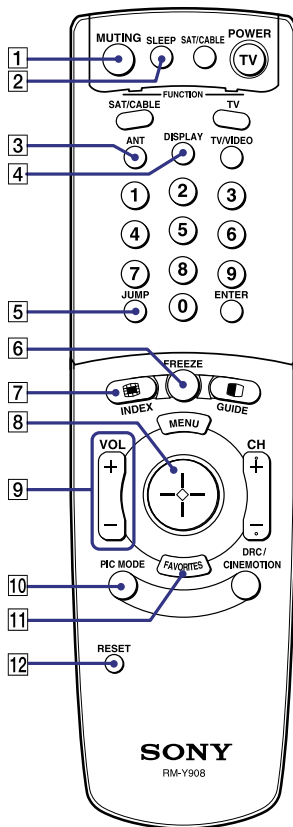
Using the Features

Using the Remote Control



The following table describes the buttons on the remote control that are for more advanced functions.

 Main Power button must be turned ON to activate the remote control.

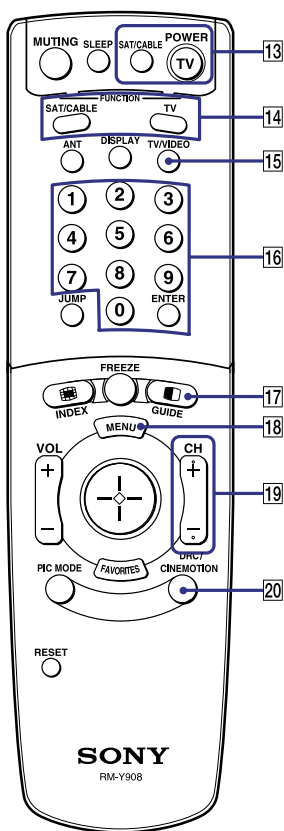
Button Descriptions





Outside Panel

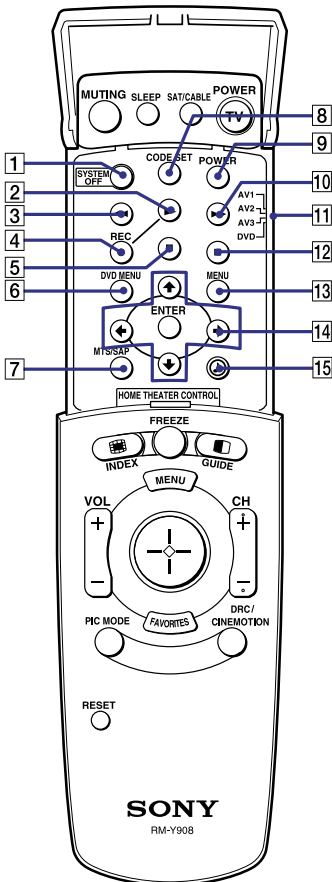
Button	Description
1 MUTING	Press to mute the sound. Press again or press VOL + to restore the sound.
2 SLEEP	Press repeatedly until the projection TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears. While the Sleep feature is set, press once to view the remaining time.
3 ANT	Changes between the VHF/UHF input and the AUX input.
4 DISPLAY	Press once to display the current time and channel label (if set) and channel number. Press again to turn Display off. See page 54 for details on setting the time.
5 JUMP	Press to jump back and forth between two channels. The projection TV alternates between the current channel and the last channel that was selected.
6 FREEZE	Freezes the window picture. Press again to restore the picture.
7  INDEX	Press to enter the Channel Index mode. You can view and select from twelve channels without leaving the current one.
8 	The joystick allows for movement of the on-screen cursor. Pressing down on the center of the joystick selects the item.
9 VOL +/-	Adjusts the volume.
10 PIC MODE	Press repeatedly to step through the available video picture modes: Vivid, Standard, Movie and Pro. Also available in the Video menu. For details, see "Selecting Video Options" on page 47.
11 FAVORITES	Displays the Favorite Channels list. For details, see "Using Favorite Channels" on page 39.
12 RESET	Press when in a menu to reset the settings to the factory defaults.

(Continued)











Button	Description
13 POWER buttons (GREEN)	Turn on and off the projection TV and other audio/video equipment you have programmed into the remote control. For instructions, see “Programming the Remote Control” on page 57.
14 FUNCTION buttons	Select the equipment (TV, SAT/CABLE) that you want to operate. The indicator lights up momentarily when pushed to show which device the remote control is operating.
15 TV/VIDEO	Cycles through the video equipment connected to your projection TV’s video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.
16 0 – 9 and ENTER	Press 0 - 9 to select a channel, the channel changes after 2 seconds. Press ENTER to select immediately.
17 	Turns on/off Twin View. For details, see “Using Twin View™” on page 40.
GUIDE	Displays the program guide of your satellite.
18 MENU	Press to display the projection TV on-screen menu. Press again to exit from the menu.
19 CH +/-	Scan through channels.
20 DRC/ CINEMOTION	Press repeatedly to step through the available high-resolution picture modes: Interlaced, Progressive and CineMotion. For details, see “Using the Video Menu” on page 47.

 To scan rapidly through the channels, press and hold down CH+ or CH-.



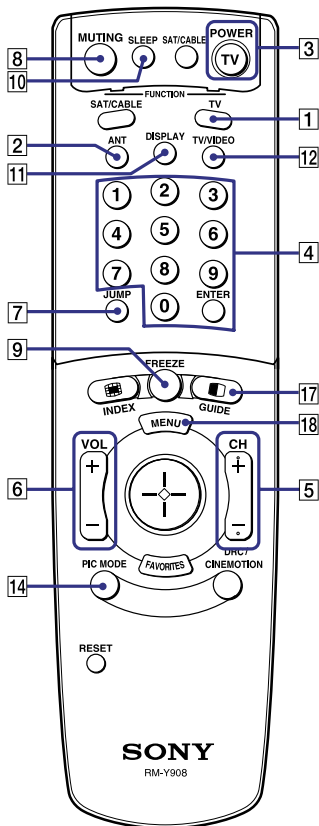
Inside Panel

Button	Description
1 SYSTEM OFF	Press to turn off the projection TV and all equipment connected with S-Link.
2 	Play
3 	Rewind
4 REC	Record
5 	Stop
6 DVD MENU	Displays the DVD menu.
7 MTS/SAP	Press to scroll through the Multi-channel TV Sound (MTS) options: Stereo, Auto SAP, and Mono.
8 CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 57.
9 POWER	Press to turn on the DVD/VCR player you have programmed into the remote control. For instructions, see "Programming the Remote Control" on page 57.
10 	Fast-forward
11 	Use to switch control for connected video equipment. You can program one video source for each switch position. For details, see "Programming the Remote Control" on page 57.
12 	Pause (Press again to resume normal playback)
13 MENU	Displays the video equipment menu.
14 	Use to operate the DVD menu.
15 	Press to select an audio option: Steady Sound ON or OFF.

Watching the TV

Many TV features can be accessed directly through the remote control. The following will explain the function of some of the buttons found on your remote control.

Buttons for Projection TV Operations



1 TV (FUNCTION)

Activates the remote control for use with the projection TV.

2 ANT— (AUX input)

Press to change between the VHF/UHF input and the AUX input.

3 TV (POWER)

Turns the projection TV on and off. If a video input indication (e.g., VIDEO 1, VIDEO 2) appears on the screen, press TV/VIDEO or CH +/- until a channel number appears.

4 0-9 and ENTER

Use for direct channel selection. Press 0-9 to select a channel (for example, to select channel 10, press 1 and 0). The channel will change after 2 seconds, or you can press ENTER for immediate selection.

5 CH +/-

Press to scan through the channels (+ up or - down).

6 VOL +/-

Press to adjust the volume (+ up or - down).

7 JUMP

Press to alternate or jump back and forth between two channels. The projection TV will jump between the current channel and the last channel selected.

8 MUTING

Press to mute the sound. "MUTING" will appear on the screen and will dim three seconds later. To restore the sound, press again or press VOL +.

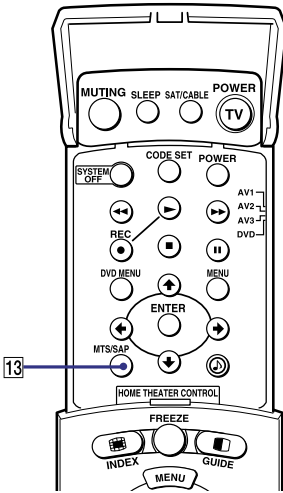
9 FREEZE — (yellow labeled button)

This is useful when you need to copy down information that appears on the TV's screen (see "Using the Freeze Function" on page 43).

10 SLEEP

Press repeatedly until the projection TV displays the approximate time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically.

Cancel by pressing SLEEP until "SLEEP OFF" appears.



11 DISPLAY

Press to display the channel number, current time and channel label (if set).

To turn the display off, press DISPLAY again.

12 TV/VIDEO

Press repeatedly to scroll through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.

If you select Skip as a Video Label in the Setup menu, your projection TV will skip the video input you selected (see “Video Label” on page 56).

13 MTS/SAP

Press to scroll through the Multi-channel TV Sound (MTS) options (see “MTS” on page 49).

14 PIC MODE

Press PIC MODE repeatedly to directly choose one of five different video modes that best suits the program you are watching.

Vivid: Select for enhanced picture contrast and sharpness.

Standard: Select to display a standard picture for normal viewing environments.


Movie: Select to display a finely detailed picture for low light environments.

Pro (Professional): Select to display a picture with minimum enhancements.

When you select each mode, you can also adjust the picture quality (such as Brightness, Color, etc.) to suit your taste. For details, see “Mode” on page 47.


Watching the Digital TV

When you have connected the DTV receiver, you can enjoy digital TV programs. This projection TV is capable of receiving the 1080i, 720p, 480p and 480i digital TV formats.

 This projection TV is not capable of displaying a native 720p format signal. When a 720p format signal is received, it is converted into a 480p format signal.

To view a digital TV program


- 1 Connect the DTV receiver to VIDEO 5 or 6 IN on the projection TV (for details, see page 27).
- 2 Press TV/VIDEO to select VIDEO 5 or 6.
- 3 Select a digital channel on the DTV receiver. For details, see the Operating Manual of the DTV receiver.
- 4 Adjust the volume of the projection TV as necessary.

 The optimum convergence alignment varies with digital TV formats. Whenever you find that the picture blurs, press FLASH FOCUS (for details, see page 32).

Using Favorite Channels

The Favorite Channel feature lets you select programs from a list of favorite channels that you preset.


To display a list of your favorite channels:

 Your Favorite Channel options can be set automatically or manually. The factory setting for Favorite Channel is Auto. When Favorite Channel is set to Auto, the last eight channels selected with 0-9 buttons will be set as Favorite Channel options. If you want to input your own selections as Favorite Channel settings, see "Favorite Channel" on page 51.

- 1 Press FAVORITES.

The Favorite Channel options appear.




- 2 Move the joystick up or down to highlight the channel you want to watch. The program on that channel appears in the preview window. Press  to select.

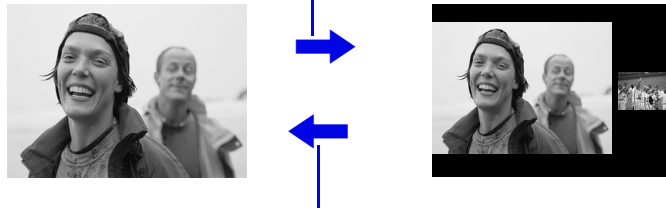
Using Twin View™

Twin View enables you to watch two programs at the same time. You can also change the size of both the left and right pictures.



Displaying Twin Pictures

To display twin pictures

- 1 Make sure your projection TV is tuned to a working channel.
- 2 Press .



To cancel twin pictures

- Press  again (or press .

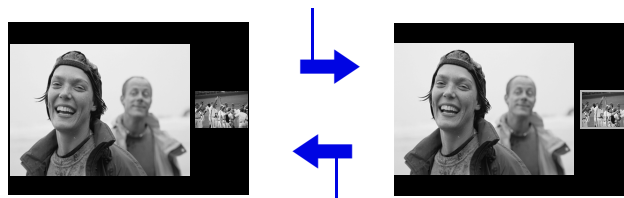
Activating the Picture

Although two pictures appear on the screen at the same time, only one picture is active. Change the picture size by using the joystick. For an active picture, you can:

- Change channels.
- Adjust the volume.
- Switch the input sources from VHF/UHF to cable by pressing ANT or TV/VIDEO to switch the video input.
- Change the picture size by pressing the joystick up or down.








To activate the right picture

- Move the joystick to the right.



To activate the left picture

- Move the joystick to the left.

-  ANT is not effective in the right picture.
-  JUMP is not effective in Twin View.
-  When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View feature, the memorized sizes appear.
-  When viewing an enhanced 16:9 picture, the aspect ratio changes to 4:3 in Twin View. The picture will be reformatted to that aspect ratio.
-  If viewing a 720p or 1080i format input source, the aspect ratio will maintain the original 16:9 aspect ratio.
-  Hookups that affect your ability to use Twin View:
 - If you are viewing all channels through the cable box, the Twin View feature will not work. The cable box only unscrambles one signal at a time, so the right picture will be the same as the left picture.
 - You can watch a scrambled cable channel and another video source. Be sure your DVD player, VCR or satellite receiver are connected to one of the VIDEO IN 1-6 and AUX inputs on the rear of the projection TV. Pictures from equipment connected to VIDEO 5, 6 and AUX will only appear in the left picture, not in the right.
-  The active picture is highlighted in cyan.

Changing the Picture Size

The zoom feature lets you change the size of the left and right pictures.


To enlarge the left picture (reduce the right)

- 1 Move the joystick left to activate the left picture (if not already activated).
- 2 Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.



To enlarge the right picture (reduce the left)

- 1 Move the joystick right to activate the right picture (if not already activated).
- 2 Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.

 When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View function, the memorized sizes appear.

Using the Freeze Function


The FREEZE button allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc.

To use the Freeze function

- 1 When the program information you want to capture is displayed, press FREEZE.
- 2 The projection TV switches to Twin View mode and displays the "frozen" picture on the right, while the current program continues on the left.



- 3 To cancel and return to normal viewing, press FREEZE.

 Freeze feature is not available if you are already in Twin View™ mode.

Using Channel Index

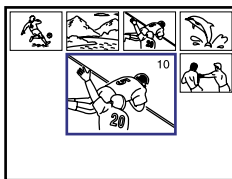
Channel Index allows you to display multiple channels and select one directly.

The channels used for Channel Index will come directly from the projection TV's list of receivable channels (those set during "Auto Program" on page 52).


To use the Channel Index function

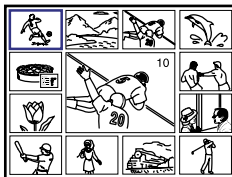
1 Press .

The current channel will be reduced in size and displayed in the center of the screen in normal motion picture format. The first twelve receivable channels will appear one after another, clockwise, around the center picture. These small pictures are updated in intervals of one second. The channel number and channel caption (if set) on the second and later appearances will dim.



A cyan-colored frame will appear to indicate current channel selection.

2 Move the joystick in any direction to move the cyan frame to the channel that you wish to view, and press .






The selected channel will zoom in and move to the center, and the sound of that channel will be heard.



For the center picture you can:

- Change the channel by pressing 0-9 and ENTER.
- Switch the input sources from VHF/UHF to cable by pressing ANT or to the video input by pressing TV/VIDEO, without changing the surrounding channels.

-  Sound will only be heard from the center picture.
-  If one of the pictures received through Channel Index is snowy, the entire screen may become unstable. In this case, erase the snowy channel (see "Channel Skip/Add" on page 52).
-  If you leave the Channel Index screen displayed for an hour without any additional operation, Channel Index is canceled and the normal picture reappears.

3 If you wish to view another channel, repeat step 2.

To view another twelve channels, press CH+.

To view the previous twelve, press CH-.


To view the normal picture of the selected channel, proceed to step 4.

4 Press .

The center picture will be enlarged for normal viewing.

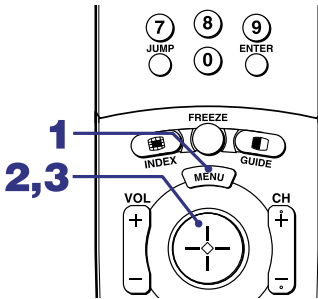


To cancel Channel Index


- Press  again to resume normal viewing.

Using the Menus







Overview



Opening and choosing a menu:

- 1 Press MENU to display the menu screen.
- 2 Move the joystick to the desired menu icon and press  to select it.
- 3 Use the joystick to scroll through the features.
- 4 See the specific menu page for instructions on moving through the menu.





The menu gives you access to the following features:

<i>Menu Icon</i>	<i>Description</i>	<i>Page</i>
	Allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing.	47
	Offers enhanced audio options such as listening to second audio programming (SAP), or customizing the Effect of the sound on your projection TV.	49
	Allows you to set up a Favorite Channel list, run the Auto Program function, and more.	51
	Lets you control the viewing of programs.	53
	Lets you set the clock on your projection TV and allows you to program your projection TV for scheduled viewing using the Timers.	54
	Provides several options for setting up your channels, labeling your Video inputs, and selecting the language of the on-screen menus.	55

To end a menu session:

Press MENU again.





To end one menu session and move to another:

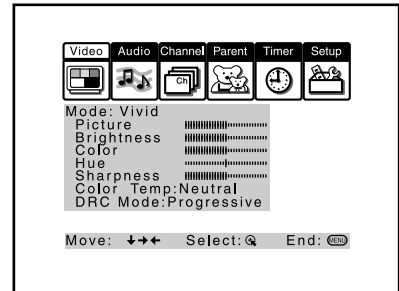
Press the joystick  to return to the menu icons. Move the joystick  or  to choose the next menu icon and press  to select it.



Using the Video Menu

To select the Video Menu


- 1 Press MENU.
- 2 Move the joystick to the Video icon  and press .
- 3 Use the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's adjustment appears.
- 5 Use the joystick to make the desired adjustments.
- 6 Press  to select/set.
- 7 Press MENU to exit the menu screen.




To restore the factory default settings for Picture, Brightness, Color, Hue, Sharpness and Color Temp

- Press RESET on the remote control when in the Video menu.

Selecting Video Options

 To quickly and easily change from one Video Mode to another, use the PIC MODE on the remote control.

The Video menu includes the following options.

Option	Description
Mode	Vivid Select for enhanced picture contrast and sharpness.
<i>Customized picture viewing</i>	Standard Recommended for Normal viewing conditions.
	Movie Select for soft, film like, picture.
	Pro Select for professional monitor like appearance.
	 You can alter the Video menu settings (Picture, Brightness, Color, etc.) for each Mode.
Picture	Adjust to increase picture contrast and deepen the color or decrease picture contrast and soften the color.
Brightness	Adjust to brighten or darken the picture.
Color	Adjust to increase or decrease color intensity.
Hue	Adjust to increase or decrease the green tones.
Sharpness	Adjust to sharpen or soften the picture.
Color Temp	Choose from three color temperatures:
<i>White intensity adjustment</i>	Cool Select to give the white colors a blue tint.
	Neutral Select to give the white colors a neutral tint.
	Warm Select to give the white colors a red tint (NTSC-Standard).





(Continued)

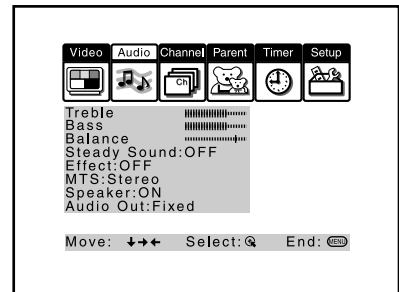
<i>Option</i>	<i>Description</i>
DRC Mode	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player, Satellite receiver).
Digital Reality Creation	Select from Interlaced, Progressive and CineMotion.
Interlaced	Recommended for moving pictures.
Progressive	Recommended for still images and text.
CineMotion	Recommended for 24 frame-per-second films.



Using the Audio Menu

To select the Audio Menu

- 1 Press MENU.
- 2 Move the joystick to the Audio icon  and press .
- 3 Use the joystick to scroll through the options.
- 4 Press  to select an option. That option's settings appear.
- 5 Use the joystick to scroll through the settings.
- 6 Press  to select the desired setting.
- 7 Press MENU to exit the menu screen.



To restore the factory default settings for Treble, Bass and Balance

- Press RESET on the remote control when in the Audio menu.

Selecting Audio Options

The Audio menu includes the following options:

Option	Description
Treble	Adjust to increase or decrease higher-pitched sounds.
Bass	Adjust to increase or decrease lower-pitched sounds.
Balance	Adjust to emphasize left or right speaker balance.
Steady Sound	ON Select to stabilize the volume.
	OFF Select to turn off Steady Sound.
Effect	TruSurround Select for surround sound (for stereo programs only).
	Simulated Adds a surround-like effect to mono programs.
	OFF Normal stereo or mono reception.
MTS <i>Enjoy stereo, bilingual and mono programs</i>	Stereo Select for stereo reception when viewing a program broadcast in stereo.
	Auto-SAP Select to automatically switch the projection TV to second audio programs when a signal is received. (If no SAP signal is present, the projection TV remains in Stereo mode.)
	Mono Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)





(Continued)

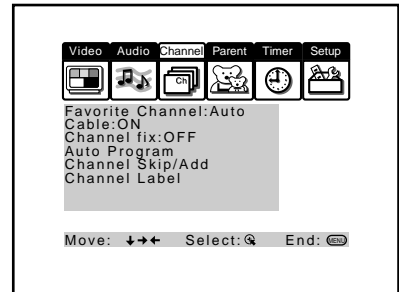
Option	Description	
Speaker	ON	Select to turn on the projection TV speakers.
	OFF	Select to turn off the projection TV speakers and listen to the projection TV's sound only through your external audio system speakers.
Audio Out <i>Easy control of volume adjustments</i>	Variable	The projection TV's speakers are turned off, but the volume output from your audio system can still be controlled by the projection TV's remote control.
	Fixed	The projection TV's speakers are turned off and the volume, bass and treble output of the projection TV is fixed. Use your audio receiver's volume control to adjust the volume through your audio system.



Using the Channel Menu




To select the Channel Menu

- 1 Press MENU.
- 2 Move the joystick to the Channel icon  and press .
- 3 Use the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's options appear.
- 5 Use the joystick to scroll through the options.
- 6 Press  to select the desired option.
- 7 Press MENU to exit the menu screen.





Selecting Channel Options

The Channel menu includes the following options:

Option	Description	
Favorite Channel	Auto	Select if you want Favorite Channel options to be set automatically to the last eight channels selected with the 0-9 buttons.
	Manual	Select if you want to input your own selections as Favorite Channel options.
		<ol style="list-style-type: none"> 1 Press  to select a favorite channel number. 2 Use the joystick to scroll through the channels until you find the channel you want to add to your favorites. 3 Press  to select it.
Cable	ON	Select if you are receiving cable channels with a CATV cable.
	OFF	Select if you are using an antenna.
	 You should run Auto Program after changing the Cable setting.	

(Continued)

Option	Description
Channel Fix <i>Useful when you have a cable box or satellite receiver connected</i>	2-6 “Fix” your projection TV’s channel setting to 3 or 4 and use the cable box, VCR or satellite receiver to change channels. Select one of these settings if you have connected the device to the VHF/UHF jack. <hr/> AUX 2-6 Same as 2-6, except you select one of these settings if you have connected the device to the AUX jack. (see page 14) <hr/> VIDEO 1 Use when connecting an AV receiver to control external video sources. TV output should be connected through the AV receiver.
Auto Program	Automatically programs the projection TV for all receivable channels.
Channel Skip/Add	Removes and adds viewable channels. 1 Use the joystick to scroll through the channels until you find the channel you want to skip/add. 2 Press  to select it. 3 Press the joystick up or down to toggle between “Add” and “Skip.” 4 Press  to select.
Channel Label	Label up to 20 channels with their station call letters.





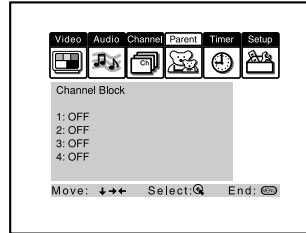
Using the Parent Menu (Channel Block)


The Parent menu allows you to set up the TV to block up to 4 channels.

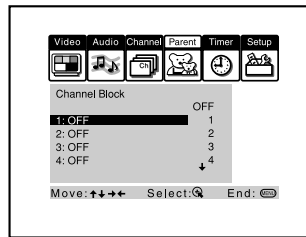
Using the Parent Menu


To block channels

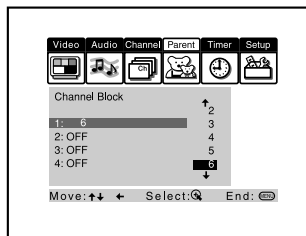
- 1 Press MENU.
- 2 Move the joystick to the Parent icon  and press .



- 3 Move the joystick up or down to select 1-4, and press .




- 4 Move the joystick down to select the channel to be blocked, and press .




- 5 Press MENU to exit the menu screen.

To cancel channel block settings

- Set Channel Block to OFF in step 4.



 Performing Auto Program will erase the Channel Block settings.

 Selecting "Receiver" of Video Label will erase the Channel Block settings.





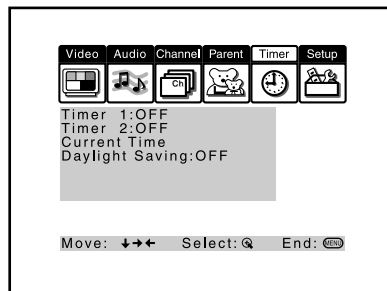
Using the Timer Menu

To select the Timer menu

- 1 Press MENU.
- 2 Move the joystick to the Timer icon  and press .



To set the Current Time

- 1 Use the joystick to select “Current Time”, then press .
- 2 If it is currently Daylight Saving Time, be sure to set the mode to “ON” first.
- 3 Use the joystick to enter the correct time, then press .
- 4 Press MENU to exit the menu screen.



To set the Timer

Before setting the timer, be sure to set your projection TV’s clock to the current time and Daylight Saving Mode.

- 1 Move the joystick to “Timer 1” or “Timer 2”, then press .
- 2 Use the joystick to enter your day, time and channel preferences, then press  to select each one.
- 3 Press MENU to exit the menu screen.

To reset the Clock or Timers

- Press RESET on the remote control after selecting that option in the Timer menu.

 Selecting Channel Fix will clear the timer settings.

Selecting Timer Options





The Timer menu includes the following options:

Option	Description
Timer 1	Program
Timer 2	Program
	OFF
Current Time	Set the current time.
Daylight Saving	ON
	OFF



Using the Setup Menu

To select the Setup Menu

- 1 Press MENU.
- 2 Move the joystick to the Setup icon  and press .
- 3 Use the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's options appear.
- 5 Use the joystick to scroll through the options.
- 6 Press  to select the desired option.
- 7 Press MENU to exit the menu screen.







Selecting Setup Options


The Setup menu includes the following options:

Option	Description
Caption Vision	Allows you to select from three closed caption modes (for programs that are broadcast with closed captioning).
OFF	Turns off Caption Vision.
CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
TEXT1, TEXT2, TEXT3, TEXT4	Displays network/station information presented using either half or the whole screen (if available). For closed captioning, set to CC1.
XDS (Extended Data Service)	Displays a network name, program name, program length, and time of the show if the broadcaster offers this service.

(Continued)

<i>Option</i>	<i>Description</i>
Video Label	<p>Allows you to label the audio/video components you connected to the projection TV so you can identify them when using TV/VIDEO. When in the Setup menu's Video Label feature, use the joystick to highlight an input to label, then press  to select it. Use the joystick to scroll through the labels. Press  to select the component you connected to each of the input jacks on the back of your projection TV. Select "Skip" if you do not have a component connected to a particular set of input jacks.</p>
VIDEO 1/2/3/4	VHS, 8mm, Beta, LD, Game, SAT, DVD, Web, Receiver, DTV, Skip
VIDEO 5/6	DVD, DTV, HD, Skip
	<p>If you select "Skip", your projection TV skips this connection when you press TV/VIDEO.</p>
	<p> When you select "Receiver" on Video Label, your projection TV's input is fixed.</p>
Language	<p>Select to display all on-screen menus in your language of choice: English, Español, Français.</p>
16:9 Enhanced	<p>Provides enhanced picture resolution for widescreen sources, such as selected DVD titles (only available when the projection TV is in VIDEO mode). Press TV/VIDEO and select from one of the following options:</p>
AUTO	To activate automatically when a 16:9 signal is received.
ON	To activate manually.
OFF	To deactivate manually.

 To use this feature with widescreen DVDs, set your DVD player to 16:9 aspect ratio.

 AUTO/ON will appear when the projection TV is in VIDEO mode 1-6. ON/OFF will appear when the projection TV is in VIDEO mode 5-6 and the 480p signal occurs.


Other Information

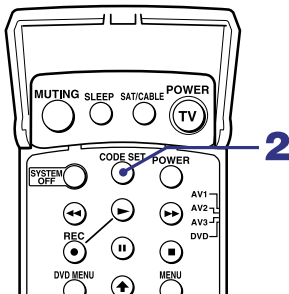
Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.

Sony Equipment	Switch Position on Remote Control	Programmable Code Number
Beta, ED Beta VCRs	AV1	303
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD Player	DVD	751

If you have video equipment other than Sony brand that you want to control with the projection TV's remote control, use the following procedures to program the remote control.

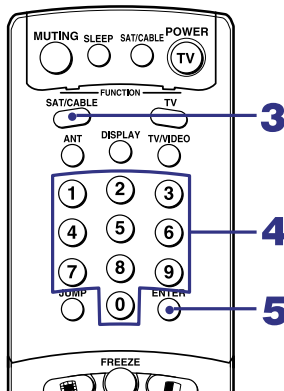
 The equipment must have infrared (IR) remote capability in order to be used with the remote control.



From the "Manufacturer's Codes" listed on page 59, select the three-digit code number for the manufacturer's code for your component. If more than one code number is listed, start with the number listed first. Use the code number to complete the following procedure.

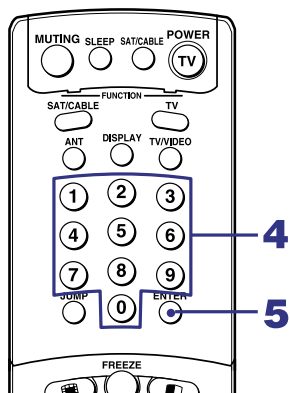
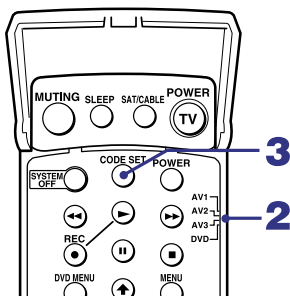
To program a cable box or a satellite receiver

- 1 Open the panel of the remote control.
- 2 Press CODE SET inside the panel.
- 3 Close the panel and press SAT/CABLE (FUNCTION).
- 4 Enter the three-digit manufacturer's code number using the 0-9 buttons.
- 5 Press ENTER.
- 6 To check if the code number works, aim the projection TV's remote control at the component and press the green POWER button that corresponds with that component. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.



(Continued)

Other Information



To program video equipment

- 1 Open the panel of the remote control.
- 2 Move the slide switch to the desired component type.
- 3 Press CODE SET inside the panel.

 You must perform step 4 within 10 seconds of step 3, or you must start again from step 3.

- 4 Close the panel and enter the three-digit manufacturer's code number using the 0-9 buttons.
- 5 Press ENTER.
- 6 To check if the code number works, aim the projection TV's remote control at the component, open the panel, and press the green POWER button. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.

Tips

- ❑ If more than one code number is listed, try entering them one by one until you come to the correct code for your component.
- ❑ If you enter a new code number, the code number you previously entered at that setting is erased.
- ❑ In some rare cases, you may not be able to operate your component with the Sony remote control. In this case, use the component's own remote control unit.

Manufacturer's Codes**VCRs**

Manufacturer	Code
Sony	301
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335

Manufacturer	Code
Minolta	305, 304
Mitsubishi/ MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/ PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
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Manufacturer	Code
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

DVD Players

Manufacturer	Code
Sony	751
Panasonic	753
Pioneer	752
RCA	755
Toshiba	754

Cable Boxes

Manufacturer	Code
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Satellite Receivers

Manufacturer	Code
Sony	801
General Electric	802
Hitachi	805
Hughes	804
Panasonic	803
RCA/ PROSCAN	802, 808
Toshiba	806, 807

Operating Other Components with Your Projection TV Remote Control

Operating a VCR

Open the panel and move the slide switch to the AV input you coded for this device.

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	green POWER button (inside the panel)
Change channels	CH +/-
Record	▶ and REC simultaneously
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	(press again to resume normal playback)
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Change input mode	Slide switch

Operating a DVD Player


Open the panel and move the slide switch to the DVD input you coded for this device.

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	green POWER button (inside the panel)
Play	▶
Stop	■
Pause	(press again to resume normal playback)
Step through different tracks of an audio disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the DVD menu	DVD MENU
Display the menu (Setup)	MENU
Operate the DVD menu	↑, ↓, ←, →, ENTER

Operating a Cable Box

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	SAT/CABLE (POWER)
Select Cable Box	SAT/CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

Operating a Satellite Receiver

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	SAT/CABLE (POWER)
Select Satellite Receiver	SAT/CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP
Display channel number	DISPLAY
Display DBS guide	GUIDE
Display DBS menu	MENU
Move highlight (cursor)	Joystick or arrows
Select item	

Troubleshooting

Problem	Possible Remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"><input type="checkbox"/> Make sure the projection TV's power cord is connected securely to the wall outlet.<input type="checkbox"/> Push the power button on the front of the projection TV.<input type="checkbox"/> Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching connected equipment, set to VIDEO 1, 2, 3, 4, 5 or 6.<input type="checkbox"/> Try another channel. It could be station trouble.<input type="checkbox"/> The Channel Block feature is activated (see "Using the Parent Menu (Channel Block)" on page 53).<input type="checkbox"/> If your projection TV does not turn on, and a red light keeps flashing, your projection TV may need service. Call your local Sony Service Center.
Remote control does not operate	<ul style="list-style-type: none"><input type="checkbox"/> Batteries could be weak. Replace the batteries.<input type="checkbox"/> Press TV (FUNCTION) when operating your projection TV.<input type="checkbox"/> Make sure the projection TV's power cord is connected securely to the wall outlet.<input type="checkbox"/> Locate the projection TV at least 3-4 feet away from fluorescent lights.<input type="checkbox"/> Check the orientation of the batteries.
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none"><input type="checkbox"/> Adjust the Picture setting in the Video menu (see page 47).<input type="checkbox"/> Adjust the Brightness setting in the Video menu (see page 47).<input type="checkbox"/> Check antenna/cable connections.<input type="checkbox"/> Adjust the convergence again using FLASH FOCUS (see "Adjusting the Convergence Automatically – FLASH FOCUS™ –" on page 32).
Good picture, no sound	<ul style="list-style-type: none"><input type="checkbox"/> Press MUTING so that "MUTING" disappears from the screen (see page 33).<input type="checkbox"/> Make sure Speaker is set to ON in the Audio menu (see page 50).<input type="checkbox"/> Check the MTS setting in the Audio menu (see "MTS" on page 49).
Cannot receive digital channels (when a DTV receiver is connected)	<ul style="list-style-type: none"><input type="checkbox"/> Check the connections between the DTV receiver and the projection TV (see page 27).<input type="checkbox"/> Check your local listings to find out if you can receive digital broadcasts in your area.
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none"><input type="checkbox"/> Change Cable to OFF (see page 51).<input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 52).
No color	<ul style="list-style-type: none"><input type="checkbox"/> Adjust the Color settings in the Video menu (see page 47).
Only snow and noise appear on the screen	<ul style="list-style-type: none"><input type="checkbox"/> Check the Cable setting in the Channel menu (see "Cable" on page 51).<input type="checkbox"/> Check the antenna/cable connections.<input type="checkbox"/> Make sure the channel is broadcasting programs.<input type="checkbox"/> Press ANT to change the input mode (see page 36).
Dotted lines or stripes	<ul style="list-style-type: none"><input type="checkbox"/> Adjust the antenna.<input type="checkbox"/> Move the projection TV away from noise sources such as cars, neon signs, or hair-dryers.
Projection TV is fixed to one channel	<ul style="list-style-type: none"><input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 52).<input type="checkbox"/> Check your Channel Fix settings (see page 52).
Double images or ghosts	<ul style="list-style-type: none"><input type="checkbox"/> Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).

Problem	Possible Remedies
Cannot operate menu	<ul style="list-style-type: none"> <input type="checkbox"/> If the item you want to choose appears in gray, you cannot select it. <input type="checkbox"/> Turn the projection TV's power off and on again.
Cannot receive any channels when using cable TV	<ul style="list-style-type: none"> <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 52). <input type="checkbox"/> Check your cable settings. <input type="checkbox"/> Make sure Cable is set to ON in the Channel menu (see page 51).
Cannot gain enough volume when using a cable box	<ul style="list-style-type: none"> <input type="checkbox"/> Increase the volume of the cable box using the cable box's remote control. Then press TV (FUNCTION) and adjust the projection TV's volume.
Channel Index does not display all available channels	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure Cable is set to ON in the Channel menu (see "Cable" on page 51). <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 52).
Cannot receive channels Unable to select a channel	<ul style="list-style-type: none"> <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 52).
Cannot change channels with the remote control	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure you have not inadvertently switched your projection TV from channel 3 or 4 setting if you are using another device to change channels. <input type="checkbox"/> If you are using another device to control channels, be sure the "function" button for that device has been pressed, or the slide switch is set correctly. For example, if you are using your cable to control channels, be sure to press SAT/CABLE.
Cannot cycle through the other video equipment connected to the projection TV	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure the Video Label feature has not been set to Skip (see page 56).
There is a black box on the screen	<ul style="list-style-type: none"> <input type="checkbox"/> You have selected a text option in the Setup menu and no text is available (see page 55 to reset Setup selections). To turn this feature off, select OFF in the Caption Vision option. If you were trying to get closed captioning, select CC1 instead of Text 1-4.
There is no twin picture or it is just static	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure your twin picture is set to a video source/channel that has a program airing. <input type="checkbox"/> You may be tuned to a video input with nothing connected to it. Try cycling through your video inputs using TV/VIDEO. <input type="checkbox"/> Twin View is not set to receive a signal from the AUX input. If you have connected a VCR, DVD player or satellite receiver to the AUX input on the projection TV, it will not show in the second picture.
You get the same program in the window picture as in the main picture	<ul style="list-style-type: none"> <input type="checkbox"/> Both may be set to the same channel. Try changing channels in either the main picture or the window picture. <input type="checkbox"/> You may be running all your channels through a cable box. The cable box will only unscramble one signal at a time, so you cannot use the Twin View feature. If possible, run a direct cable to your projection TV's VHF/UHF input (this will only work if your cable system provides an unscrambled signal).
You cannot get anything but TV channels in your second picture	<ul style="list-style-type: none"> <input type="checkbox"/> Be sure the video label has not been set to skip your video inputs. See the Setup menu on page 55.
Favorite Channel does not display your choices	<ul style="list-style-type: none"> <input type="checkbox"/> Verify that Favorite Channel is set to Manual in the Channel menu (see "Favorite Channel" on page 51).

(Continued)

Other Information

Problem

Some video sources do not appear when you press TV/VIDEO

Possible Remedies

- Ensure that Video Label is not set to SKIP (see “Video Label” on page 56).
-

Specifications

Projection System	3 picture tubes, 3 lenses, horizontal in-line system	
Picture Tube	7-inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system	
Projection Lenses	High performance, large diameter hybrid lens F1.1	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard	
Screen Size (measured diagonally)	53 inches	
Channel Coverage		
VHF	2-13	
UHF	14-69	
CATV	1-125	
Power Requirements	110 V AC, 60 Hz	
Number of Inputs/Outputs		
Video (IN)	4	1 V _{p-p} , 75 ohms unbalanced, sync negative
S Video (IN)	3	Y: 1 V _{p-p} , 75 ohms unbalanced, sync negative C: 0.286 V _{p-p} (Burst signal), 75 ohms
Audio (IN)	6	500 mV _{rms} (100% modulation) Impedance: 47 kilohms
AUDIO (VAR/FIX) OUT	1	500 mV _{rms} (100 % modulation), Impedance: 470 ohms
TV Out	1	1 V _{p-p} , 75 ohms unbalanced, sync negative
CONTROL S (IN/OUT)	1	Minijacks
Component Video Input	2 (Y, P _B , P _R)	Y: 1.0 V _{p-p} , 75 ohms unbalanced, sync negative P _B : 0.7 V _{p-p} , 75 ohms P _R : 0.7 V _{p-p} , 75 ohms
RF Inputs	2	
Converter	1	
Speaker Output	20 W × 2	
Dimensions (W × H × D)	1,180 × 1,417 × 632 mm	
Mass	71.2 kg	
Power Consumption		
In Use	280 W	
In Standby	Under 1 W	

(Continued)

Other Information

Supplied Accessories

Remote Control	RM-Y908
AA (R6) Batteries	2 supplied for remote control

Optional Accessories

AV Cable	VMC-810/820/830 HG
Audio Cable	RKC-515HG
Control S Cable	RK-G69HG
Component Video Cable	VMC-10/30 HG

Design and specifications are subject to change without notice.

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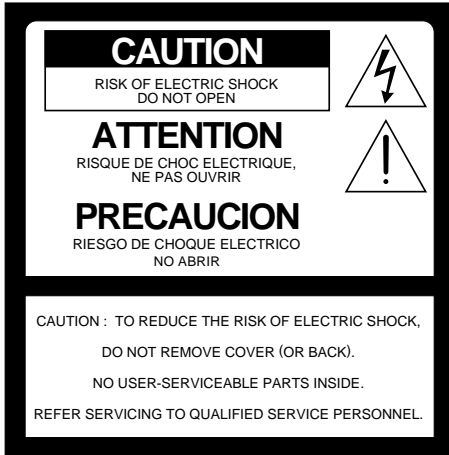
Projection TV

Operating Instructions

KP-HW572K90

WARNING

To prevent fire or shock hazard, do not expose the projection TV to rain or moisture.



This symbol is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

CAUTION

To prevent electric shock, do not use this polarized AC plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

CAUTION

When using TV games, computers, and similar products with your projection TV, or viewing a TV station whose logo always stays on the screen, keep the brightness and contrast functions at low settings. If a fixed (non-moving) pattern such as a station logo is left on the screen for long periods of time, especially at a high brightness or contrast setting, the image can be permanently imprinted onto the screen. These types of imprints are not covered by your warranty.

Note on convergence adjustment

Before you use your projection TV, make sure to adjust convergence. For details, see “Adjusting the Convergence Automatically – FLASH FOCUS™ –” on page 30.

You are cautioned that any changes or modifications not expressly approved in this manual could void your warranty and your authority to operate this equipment.

Safety

- ❑ Operate the projection TV only on 220 V AC.
- ❑ If any liquid or solid object should fall inside the cabinet, unplug the projection TV immediately and have it checked by qualified service personnel before operating it further.
- ❑ Pull the power cord out by the plug. Do not pull the power cord itself. Even if your projection TV is turned off, it is still connected to the AC power source (mains) as long as the power cord is plugged in. Unplug the projection TV before moving it or if you are not going to use it for several days. For details concerning safety precautions, see “Important Safeguards” on page 3.

Installing

- ❑ To prevent internal heat buildup, do not block the ventilation openings.
- ❑ Do not install the projection TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- ❑ Avoid operating the projection TV at temperature below 5°C.
- ❑ If the projection TV is transported directly from a cold to a warm location, or if the room temperature changes suddenly, the picture may be blurred or show poor color. In this case, please wait a few hours to let the moisture evaporate before turning on the projection TV.
- ❑ To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of a reflective material.

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BBE and BBE Symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

Important Safeguards

For your protection, please read these instructions completely, and keep this manual for future reference.

Carefully observe and comply with all warnings, cautions and instructions placed on the set or described in the operating instructions or service manual.

WARNING

To guard against injury, the following basic safety precautions should be observed in the installation, use and servicing of the set.

Use

Power Sources

This set should be operated only from the type of power source indicated on the serial/model plate. If you are not sure of the type of electrical power supplied to your home, consult your dealer or local power company. For those sets designed to operate from battery power, refer to the operating instructions.

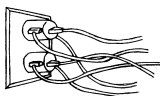


Grounding or Polarization

This set is equipped with a polarized AC power cord plug (a plug having one blade wider than the other), or with a three-wire grounding type plug (a plug having a third pin for grounding). Follow the instructions below:

Overloading

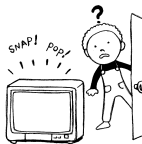
Do not overload wall outlets, extension cords or convenience receptacles beyond their capacity, since this can result in fire or electric shock.



Always turn the set off when it is not being used. When the set is left unattended and unused for long periods of time, unplug it from the wall outlet as a precaution against the possibility of an internal malfunction that could create a fire hazard.



If a snapping or popping sound from a TV set is continuous or frequent while the TV is operating, unplug the TV and consult your dealer or service technician. It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off.



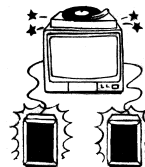
Object and Liquid Entry

Never push objects of any kind into the set through the cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the set.



Attachments

Do not use attachments not recommended by the manufacturer, as they may cause hazards.



Cleaning

Clean the cabinet of the projection TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth. Stubborn stains may be removed with a cloth slightly dampened with solution of mild soap and warm water. Never use strong solvents such as thinner or benzene for cleaning.



If the picture becomes dark after using the projection TV for a long period of time, it may be necessary to clean the inside of the projection TV. Consult qualified service personnel.

Installation

Water and Moisture

Do not use power-line operated sets near water — for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



Accessories

Do not place the set on an unstable cart, stand, table or shelf. The set may fall, causing serious injury to a child or an adult and serious damage to the set. Use only a cart or stand recommended by the manufacturer for the specific model of projection TV. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



Ventilation

The slots and openings in the cabinet and in the back or bottom are provided for necessary ventilation. To ensure reliable operation of the set, and to protect it from overheating, these slots and openings must never be blocked or covered.

- ❑ Never cover the slots and openings with a cloth or other materials.
- ❑ Never block the slots and openings by placing the set on a bed, sofa, rug or other similar surface.
- ❑ Never place the set in a confined space, such as a bookcase or built-in cabinet, unless proper ventilation is provided.
- ❑ Do not place the set near or over a radiator or heat register, or where it is exposed to direct sunlight.



Power-Cord Protection

Do not allow anything to rest on or roll over the power cord, and do not place the set where the power cord is subject to wear or abuse.



Antennas

Outdoor Antenna Grounding — If an outdoor antenna is installed, follow the precautions below.

An outdoor antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can come in contact with such power lines or circuits.

WHEN INSTALLING AN OUTDOOR ANTENNA SYSTEM, EXTREME CARE SHOULD BE TAKEN TO KEEP FROM CONTACTING SUCH POWER LINES OR CIRCUITS AS CONTACT WITH THEM IS ALMOST INVARIABLY FATAL.

Be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges.

Lightning

For added protection for this television receiver during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage to the receiver due to lightning and power-line surges.

Service

Damage Requiring Service

Unplug the set from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- ❑ When the power cord or plug is damaged or frayed.
- ❑ If liquid has been spilled into the set.
- ❑ If the set has been exposed to rain or water.
- ❑ If the set has been subject to excessive shock by being dropped, or the cabinet has been damaged.
- ❑ If the set does not operate normally when following the operating instructions. Adjust only those controls that are specified in the operating instructions. Improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the set to normal operation.
- ❑ When the set exhibits a distinct change in performance, it indicates a need for service.



Servicing

Do not attempt to service the set yourself since opening the cabinet may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



Replacement Parts

When replacement parts are required, be sure the service technician certifies in writing that he has used replacement parts specified by the manufacturer that have the same characteristics as the original parts.

Unauthorized substitutions may result in fire, electric shock or other hazards.

Safety Check

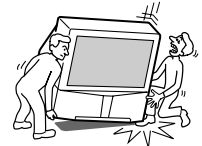
Upon completion of any service or repairs to the set, ask the service technician to perform routine safety checks (as specified by the manufacturer) to determine that the set is in safe operating condition, and to so certify. When the set reaches the end of its useful life, improper disposal could result in a picture tube implosion. Ask a qualified service technician to dispose of the set.



For Safety

Be careful when moving the projection TV

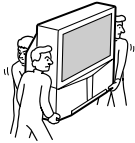
When you place the projection TV in position, be careful not to drop it on your foot or fingers.



Watch your footing while installing the projection TV.

Carry the projection TV in the specified manner

If you carry the projection TV in a manner other than the specified manner and without the specified number of persons, it may drop and a serious injury may be caused. Be sure to follow the instructions mentioned below.



- ❑ Carry the projection TV with the specified number of persons (see page 9).
- ❑ Do not carry the projection TV holding the speaker grill.
- ❑ Hold the projection TV tightly when carrying it.

Owner's Record

The model and serial numbers are located at the rear of the projection TV, below the Sony logo, on the sticker, and also on the TV box (white label). Record these numbers in the spaces provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

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Introducing the Sony Projection TV

Presenting the Sony Projection TV

Thank you for purchasing the Sony Projection TV.
This manual is for model KP-HW572K90.

Features

Some of the features that you will enjoy with your new projection TV include:

- ❑ **1080i Capable:** Enables you to receive the 1080i, 720p, 480p and 480i digital TV formats. By using the VIDEO 5/6 IN jacks, you can connect a DTV (digital television) receiver to view DTV programs.
- ❑ **DRC™ Multi-Function:** Unlike conventional line doublers, the DRC feature doubles vertical and horizontal lines, resulting in four times the density for quality sources such as DVD and Digital camcorder.
- ❑ **CineMotion™:** Using the 2-3 Pull-Down technology, the CineMotion feature allows you to obtain a smooth picture movement when playing back movies or other video sources on film.
- ❑ **Twin View™:** Using Multi-Image Driver (MID-X), Twin View allows you to watch two programs side by side with the ability to zoom in on one picture and listen to the program in the selected window. You can watch pictures from two different sources (1080i, 720p, 480p or 480i) simultaneously.
- ❑ **Steady Sound™:** Equalizes volume levels so there is consistent output between programs and commercials.
- ❑ **Component Video Inputs:** Offers the best video quality for DVD (480p, 480i) and Digital Set-top box (1080i, 720p, 480p, 480i) connections.
- ❑ **S-VIDEO Inputs:** Provides a high-quality image for connected equipment.
- ❑ **Favorite Channel Preview:** Preview up to eight favorite channels without leaving the current channel.
- ❑ **Scrolling Channel Index:** Allows you to view and choose channels from scrolling pictures without leaving the current channel.
- ❑ **Wide Screen Mode:** Allows you to watch 4:3 normal broadcasts in wide screen mode (16:9 aspect ratio).
- ❑ **Auto Wide:** Allows you to select the wide screen mode automatically.
- ❑ **Flash Focus™:** Allows you to adjust convergence automatically.

Using this manual

We recommend that you carefully review the contents of the following three sections in the order shown to ensure that you fully understand the operation of your new projection TV.

1 Installing and Connecting the Projection TV

This section guides you through your initial setup. It shows you how to install your projection TV, to connect your new components and to connect the antenna and cable.

2 Using the Features

This section shows you how to begin using your new projection TV. It also shows you how to use your remote control functions.

3 Using the menus

This section teaches you how to access on-screen menus and adjust your projection TV settings.

Instructions in this manual are written for the remote control. Similar controls are also found on the projection TV console.

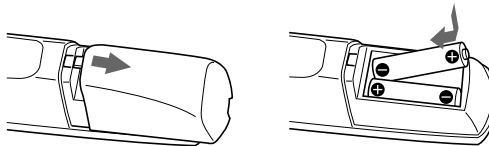
Installing and Connecting the Projection TV




Contents

The box contains your new projection TV, a remote control and two AA batteries. No peripheral cables are included. If you intend to add additional equipment to your projection TV, please check the hookup instructions for your desired setup before you begin. You may need to purchase cables and/or splitters to complete the hookup properly.

Inserting Batteries into the Remote Control

Insert two size AA (R6) batteries (supplied) by matching the + and – on the batteries to the diagram inside the battery compartment.



-  Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.
-  Handle the remote control with care. Avoid dropping it, getting it wet, or placing it in direct sunlight, near a heater, or where the humidity is high.
-  Your remote control can be programmed to operate most video equipment. (See "Programming the Remote Control" on page 58.)

Carrying Your Projection TV

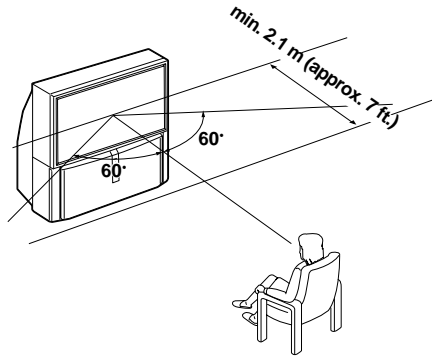
Carrying the projection TV requires three (3) or more people.

The projection TV has been equipped with casters for easy movement on a hard surface.

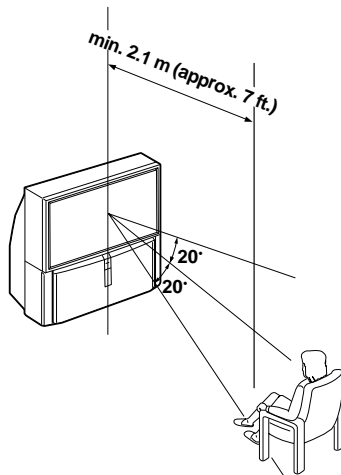
Please move your projection TV using the casters.

Installing the Projection TV

Recommended viewing area (Horizontal)



Recommended viewing area (Vertical)



Connector Types

You may find it necessary to use some of the following connector types during set up.

Coaxial cable

Standard TV cable and antenna cable

Plug Type



Screw-on Type



S Video cable

High quality video cable for enhanced picture quality



Audio/Video cable



Video - Yellow

Audio (Left) - White

Audio (Right) - Red

Some DVD Players are equipped with the following three video connectors:

Y - Green

P_B (C_B, C_b or B-Y) - Blue

P_R (C_R, C_r or R-Y) - Red

CONTROL S cable

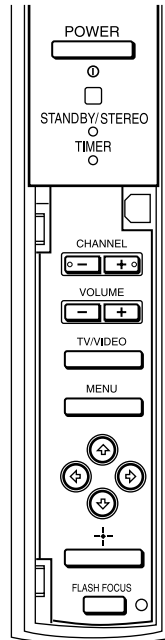
CONTROL S connections are exclusive to Sony products and allow greater control of all Sony equipment.




Projection TV Controls and Connectors

Front Panel Menu Controls

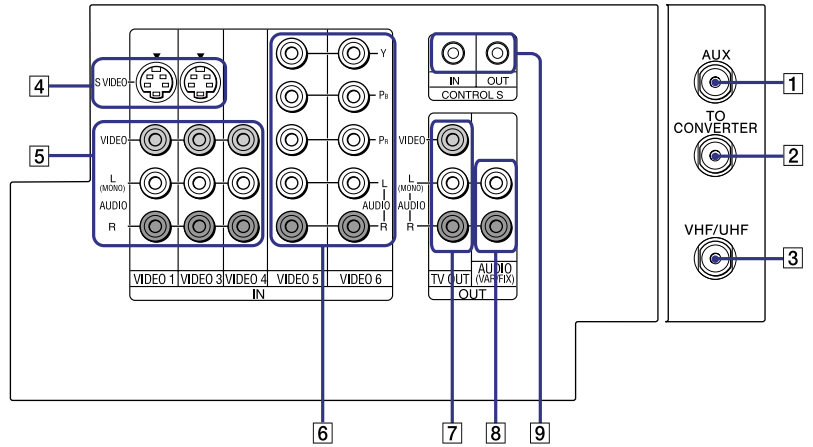
The front panel menu controls allow access to the on-screen menus without the use of a remote control. Pressing MENU brings up the on-screen menus. The arrow buttons move the on-screen cursor in the menus and the Select button (+-) selects the menu item.



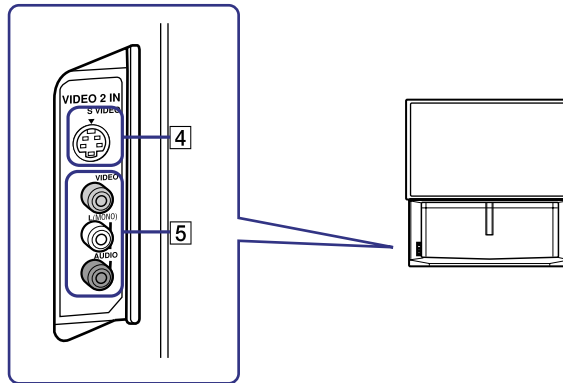
 If power is in STANDBY, press CH+/- to turn on.

Projection TV Rear and Front Panel Connectors

Rear of projection TV



Front of projection TV



Connection	Description
1 AUX	Allows you to view local and cable channels if your cable provider does not feature local channels. You can switch between local and cable channels easily by pressing ANT on the remote control. Devices connected to the AUX input cannot be viewed in Twin View.
2 TO CONVERTER	This is a VHF/UHF OUT jack that lets you set up your projection TV to switch between scrambled channels (through a cable box) and normal cable channels (CATV). Use this jack instead of a splitter to get better picture quality when switching between scrambled and unscrambled cable channels.
3 VHF/UHF	Connects to your VHF/UHF antenna or cable.
4 S VIDEO (Rear and front)	Connects to the S VIDEO OUT jack of your VCR or other S VIDEO-equipped video component. Provides better picture quality than the VHF/UHF jacks or the Video IN jack.
5 VIDEO (L/R)/AUDIO (Rear and front)	Connects to the audio and video OUT jacks on your VCR or other video component. A fourth video input (VIDEO 2) is located on the front panel of the projection TV.
6 Y/PB/PR (L/R)/AUDIO	Connects to your DVD player's or Digital Set-top box's component video (Y, PB, PR) and audio (L/R) jacks.
7 TV OUT	Connects to an AV receiver for greater control of all audio and video equipment (see page 27). For detailed information about connection, refer to the operating manual supplied with the AV receiver.
8 AUDIO OUT (VAR/FIX) L (MONO)/R	Connects to the left and right audio inputs of your audio or video component.
9 CONTROL S IN/OUT	To control other Sony equipment with the projection TV's remote control, connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack on the projection TV with the CONTROL S cable. To control the projection TV with a remote control for another Sony product, connect the CONTROL S OUT jack of the equipment to the CONTROL S IN jack on the projection TV with the CONTROL S cable.

Basic Connections (Connecting Cable TV or Antenna)

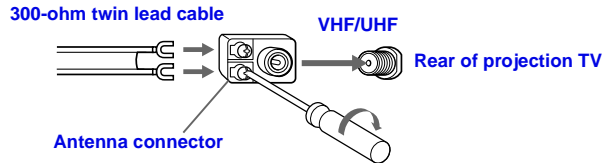
Connecting Directly to Cable or an Antenna

The connection you choose depends on the cable found in your home. Newer homes are equipped with standard coaxial cable (see **A**); older homes probably have 300-ohm twin lead cable (see **B**); other homes may contain both (see **C**).

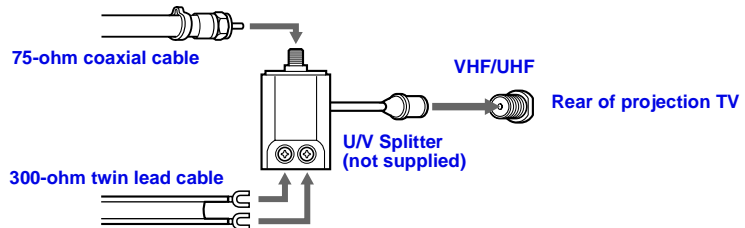
A VHF Only or VHF/UHF or Cable



B VHF Only or UHF Only or VHF/UHF

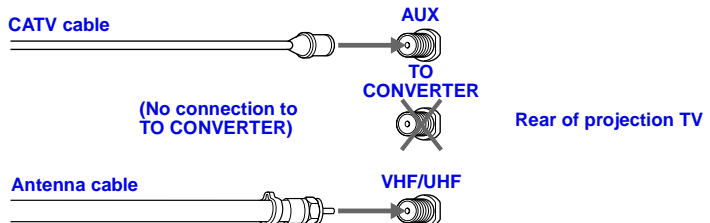


C VHF and UHF



Cable and Antenna

If your cable provider does not feature local channels, you may find this set up convenient.



Select CABLE or antenna (ANT) mode by pressing ANT on the remote control.

To receive channels with an antenna, you need to turn your Cable to OFF (see page 50) and perform the Auto Program function (see page 51).

Cable Box Connections

Cable Box and Cable

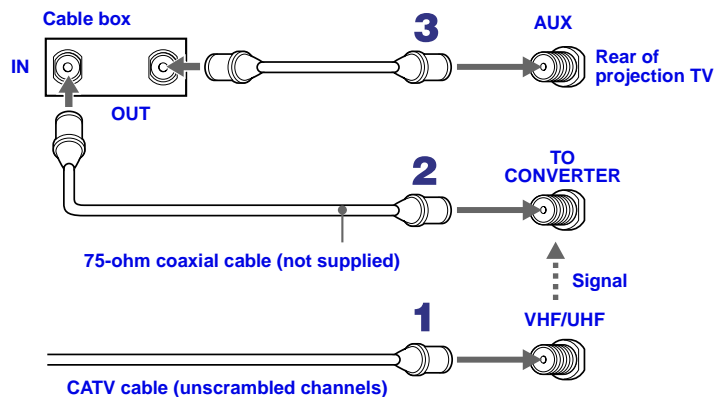
This is the preferred basic cable TV hookup to use if:


- ❑ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- ❑ You want to enjoy the Twin View feature.

With this setup you can:

- ❑ Use the projection TV remote control to change channels using your cable box when the signal is scrambled.
- ❑ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. (Your projection TV's tuner provides a better signal than the cable box.)
- ❑ Use the Twin View feature. (When all channels are routed through your cable box, only one channel is sent to the projection TV, so you can not use the Twin View or Channel Index features for your cable box.)

- 1 Connect the Cable TV cable to the projection TV's VHF/UHF jack.
- 2 Using a coaxial cable, connect the projection TV's TO CONVERTER jack to the cable box's IN jack. The projection TV's internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
- 3 Using a coaxial cable, connect the cable box's OUT jack to the projection TV's AUX jack.



 Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the TV (unscrambled).

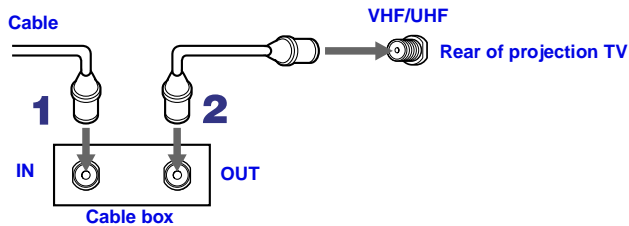
Cable Box Only

Use this hookup if:


- ❑ You subscribe to a cable TV system that uses scrambled or encoded signals requiring a cable box to view all channels, and
- ❑ You do not intend to hook up any other audio or video equipment to your projection TV.



When all channels are routed through your cable box, only one unscrambled channel is sent to the projection TV, so you cannot use the Twin View feature. If some channels are scrambled, but others are not, consider using the hookup on page 16 instead.

- 1 Connect the coaxial connector from your cable service to the cable box's IN jack.
- 2 Using a coaxial cable, connect the cable box's OUT jack to the TV's VHF/UHF jack.



Also, set Cable to ON in the Channel menu. (see page 50)

 Setting the Channel Fix feature in the Channel menu (see "Using the Channel Menu" on page 50) ensures that you do not accidentally switch the channels using your projection TV.

-  Your Sony remote control can be programmed to operate your cable box (see "Programming the Remote Control" on page 58).
-  To change channels using the cable box, set your projection TV to channel 3 or 4 depending on the cable box channel output. If you will be controlling all channel selection through your cable box, consider using the Channel Fix feature to set your projection TV to channel 3 or 4 (see page 51).

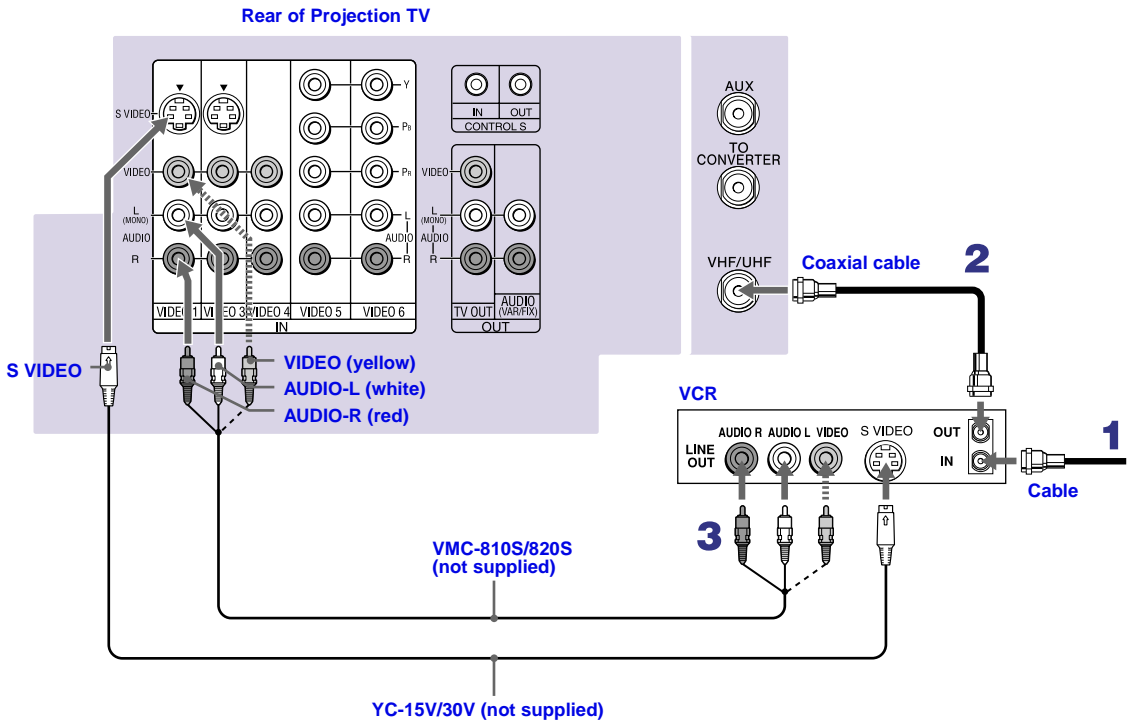
Connecting a VCR and Cable


Use this hookup if:

- ❑ You have cable TV that does not require a cable box.

Disconnect all power sources before making any connections.

- 1 Connect the cable TV cable to the VCR's IN jack.
- 2 Using a coaxial cable, connect the VCR's OUT jack to the projection TV's VHF/UHF jack.
- 3 Using AUDIO and S VIDEO cables, connect the VCR's Audio and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.



 If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.

Connecting a VCR and Cable Box

Use this hookup if:

- ❑ Your cable TV company scrambles some channels, but not all of them (pay channels vs. regular cable channels) and you need to use a cable box, and
- ❑ You want to enjoy the Twin View feature.

With this setup you can:

- ❑ Use the projection TV remote control to change channels on your cable box when the signal is scrambled. To program your Sony Remote control to operate your cable box, see “Programming the Remote Control” on page 58.
- ❑ Use the projection TV remote control to change channels using your projection TV when the signal is not scrambled. Your projection TV’s tuner provides a better signal than the cable box.
- ❑ Use the Twin View feature. (When all channels are routed through your cable box, only one signal is sent to the projection TV, so you cannot use the Twin View feature.)

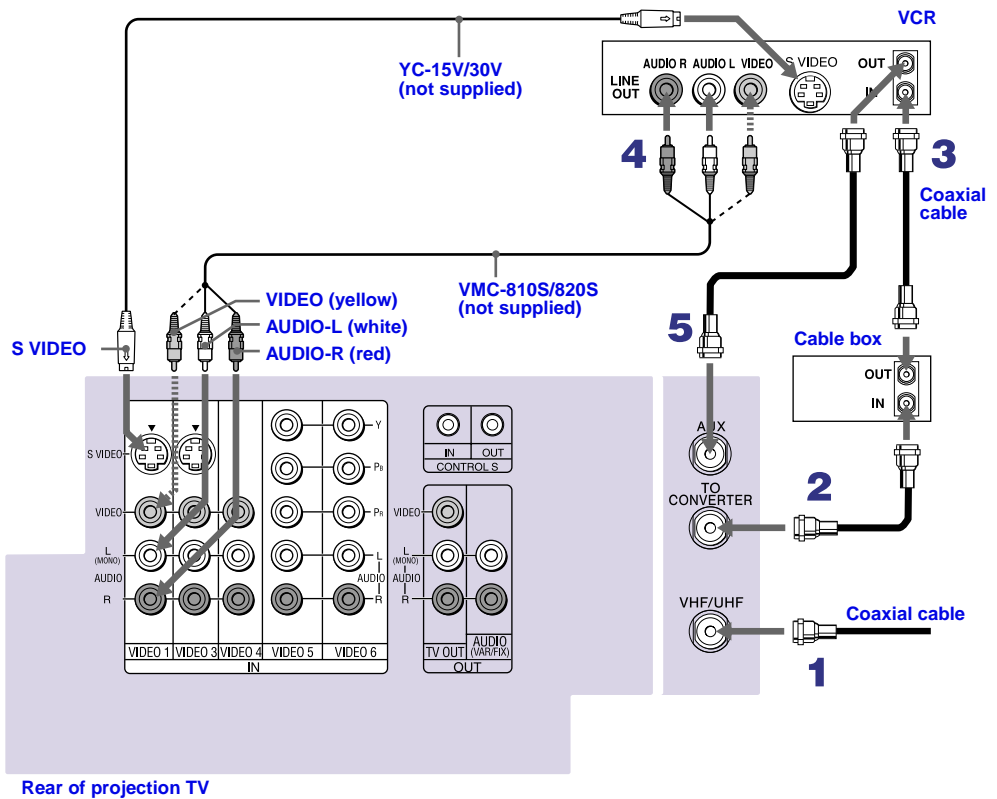
Disconnect all power sources before making any connections.




- 1 Connect the Cable TV cable to the projection TV’s VHF/UHF jack.
- 2 Using a coaxial cable, connect the TV’s TO CONVERTER jack to the cable box’s IN jack. The projection TV’s internal converter allows you to switch between unscrambled signals coming straight into the projection TV and scrambled signals coming in through the cable box, eliminating the need for an external splitter.
- 3 Using a coaxial cable, connect the cable box’s OUT jack to the VCR’s IN jack.
- 4 Using AUDIO and S VIDEO cables, connect the VCR’s AUDIO and S VIDEO OUT jacks to the projection TV’s AUDIO and S VIDEO IN jacks.
- 5 Using a coaxial cable, connect the VCR’s OUT jack to the projection TV’s AUX jack.



To view scrambled channels, set your projection TV to AUX 3 or 4 (depending on your cable box output). Change channels using your cable box.

Installing and Connecting the Projection TV



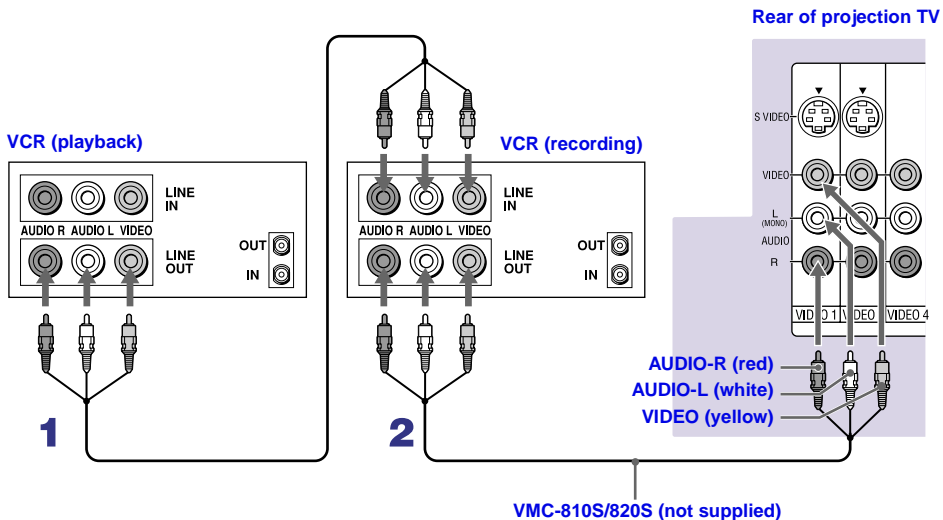
-  If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.
-  You will not be able to change channels on the VCR. Set your projection TV and VCR to channel 3 or 4, depending on your cable box channel output.
-  Pressing ANT on the remote control switches between the channels coming in through the cable box (scrambled) and those coming directly to the projection TV (unscrambled).





Connecting Two VCRs for Tape Editing

If you connect two VCRs, you can record from one VCR to the other while using your TV to monitor what is being recorded.

Disconnect all power sources before making any connections.

- 1 Using AUDIO and VIDEO cables, connect the playback VCR's Audio and Video OUT jacks to the recording VCR's Audio and Video IN jacks.
- 2 Using AUDIO and VIDEO cables, connect the recording VCR's AUDIO and Video OUT jacks to the projection TV's AUDIO and VIDEO IN jacks.



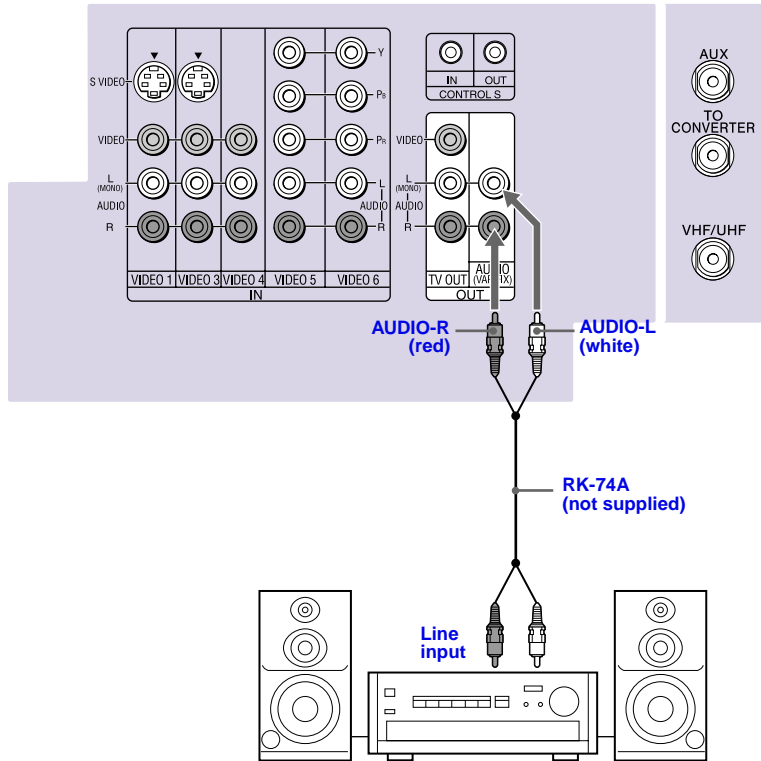
-  To perform tape editing, set the projection TV to the video input intended for playback by pressing TV/VIDEO on the remote control.
-  You may need to change the video input on your VCR. Consult your VCR's operating manual for instructions.
-  If your VCRs have an S VIDEO jack: For best picture quality, use an S VIDEO connection instead of the yellow video cable on your combined A/V cable.
Using an S VIDEO cable, connect the playback VCR's S VIDEO OUT jack to the recording VCR's S VIDEO IN jack. S VIDEO does not provide audio, so audio cables must still be connected to provide sound.
-  You cannot record signals from equipment connected to the Y, P_B, P_R input.

Connecting an Audio Receiver

Disconnect all power sources before making any connections.

Using audio cables, connect the projection TV's AUDIO OUT (VAR/FIX) jacks to the audio receiver's audio LINE IN jacks.

Rear of projection TV




Connecting a DVD Player with Component Video Connectors

This is the preferred hookup to use if:

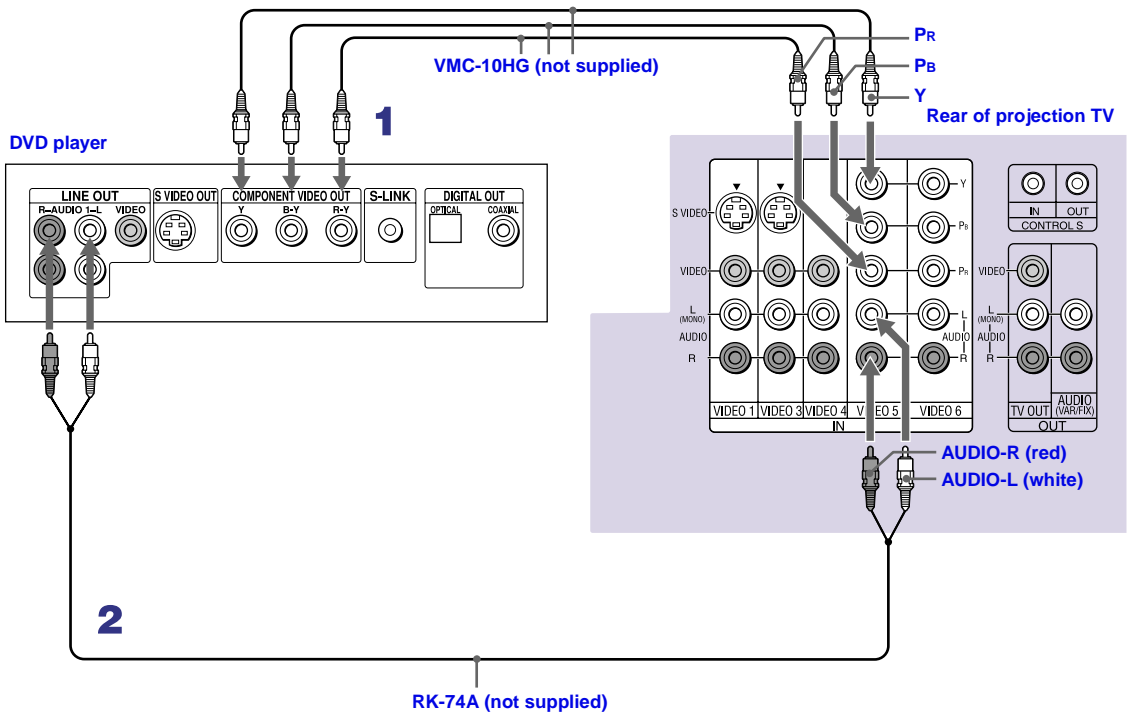
- Your DVD player has component (Y, B-Y, R-Y) jacks.

Disconnect all power sources before making any connections.

- 1 Using three separate component video cables, connect the DVD player's Y, B-Y and R-Y jacks to the Y, PB and PR jacks on the projection TV. Use the VIDEO IN 5 or 6 connections.

 The Y, B-Y and R-Y jacks on your DVD player are sometimes labeled Y, C_B and C_R, or Y, PB and PR. If so, connect the cables to like colors.

- 2 Using an audio cable, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks. Be sure to use the same row of inputs that you used for the video connection (VIDEO IN 5 or 6).



Connecting a DVD Player with A/V Connectors

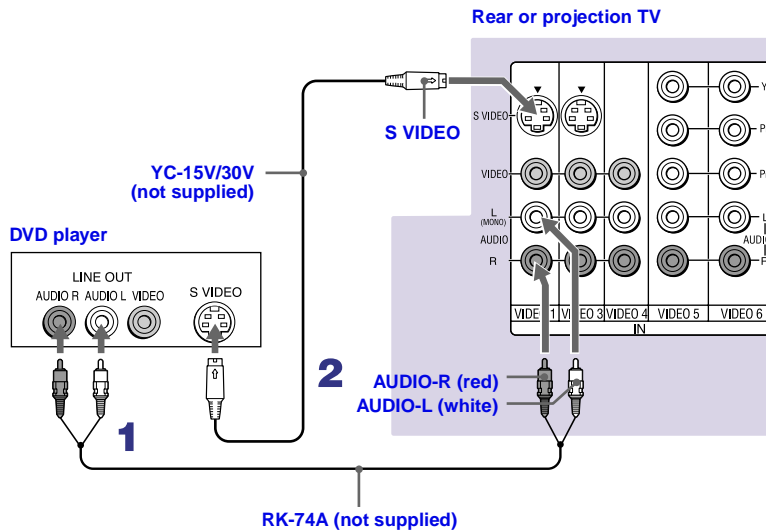
Use this hookup if:

- Your DVD player does not have component (Y, PB, PR) jacks.

👉 If your DVD player has video component output connectors: for best picture quality use the connection described on page 23.

Disconnect all power sources before making any connections.


- 1 Using audio cables, connect the DVD player's Audio OUT jacks to the projection TV's AUDIO IN jacks.
- 2 Using an S VIDEO cable, connect the DVD player's S VIDEO jack to the projection TV's S VIDEO jack.



👉 Use TV/VIDEO on the remote control to switch between the VCR, DVD player and cable TV inputs.


👉 If your VCR is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.


Connecting a Digital TV Receiver

 Be sure to read the Set-top box manual.

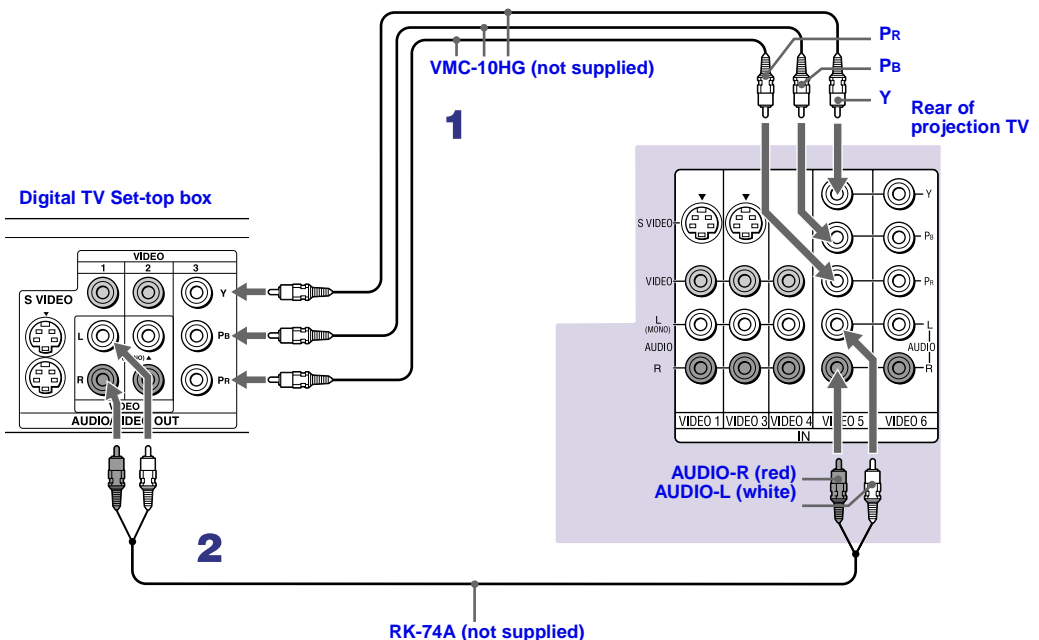
Disconnect all power sources before making any connections.


- Using three separate component video cables, connect the Digital TV Set-top box's Y, P_B and P_R jacks to the projection TV.


 The Y, P_B and P_R jacks do not provide audio, so audio cables must be connected to provide sound.

 Component video connection is necessary to view 480p, 720p and 1080i formats. You may also use the S VIDEO or Composite Video connections, however, composite video (Y, P_B, P_R) will provide the best picture quality for all format types.

- Using an audio cable, connect the Digital TV Set-top box's Audio OUT jacks to the projection TV's AUDIO IN jacks.



 You cannot record the signal from any equipment connected into the Y, P_B and P_R connectors.

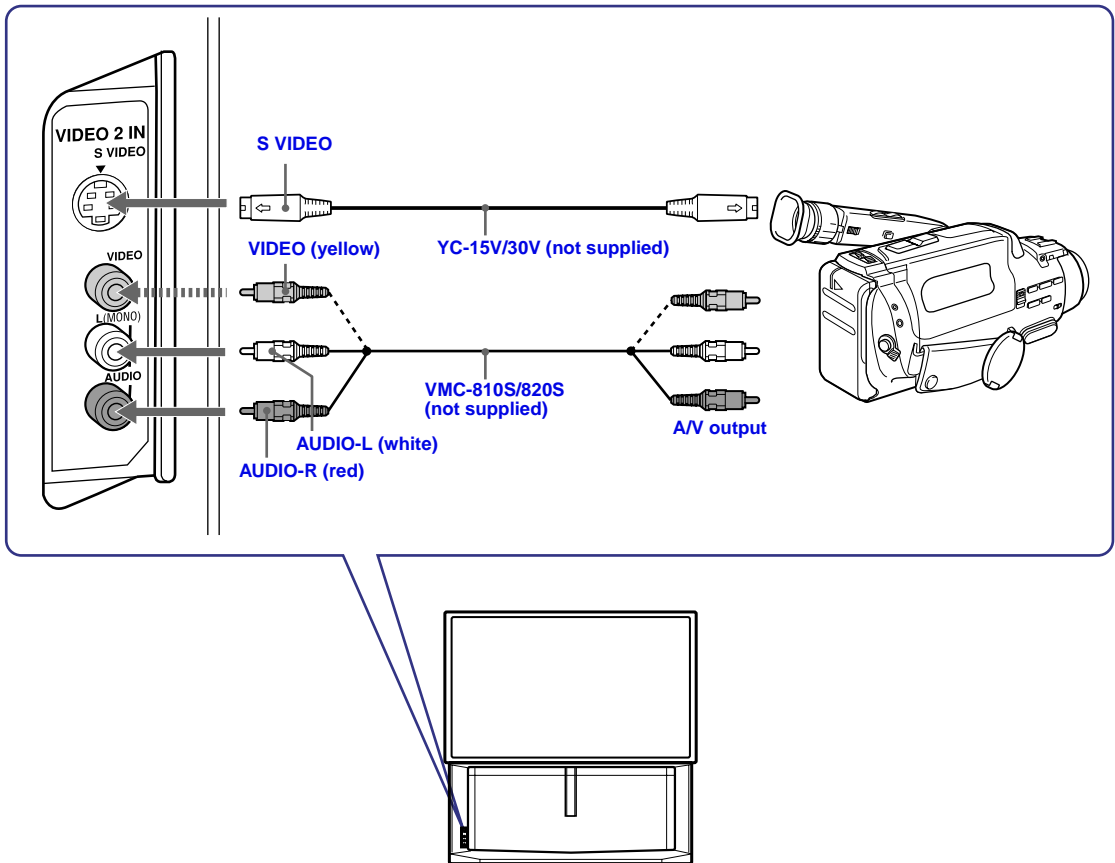
 This projection TV is not compatible with digital TV receivers configured with RGB or VGA output connectors.

Connecting a Camcorder

For easy connection of the camcorder, the projection TV has front Audio and Video inputs (shown below). However, if you prefer, you can also connect the camcorder to the projection TV's rear Audio and Video IN jacks.

Using AUDIO and S VIDEO cables, connect the camcorder's Audio and S VIDEO OUT jacks to the projection TV's AUDIO and S VIDEO IN jacks.

- ☞ If you have a mono camcorder, connect its left audio output to the projection TV's AUDIO L (MONO) jack.
- ☞ If your camcorder is not equipped with S VIDEO, use a VIDEO cable (yellow) instead of the S VIDEO cable.



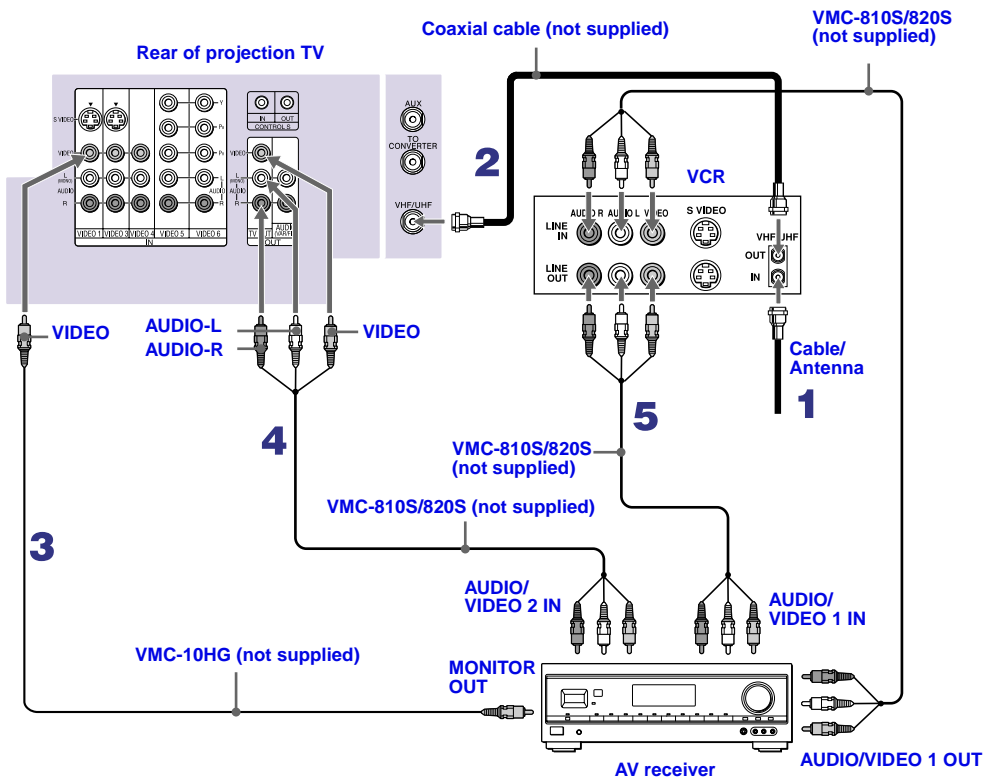
Connecting an AV Receiver

For greater control of all audio and video equipment, connect an AV receiver.

 Change "Video Label" for the VIDEO 1 input to "Receiver" (see page 56).

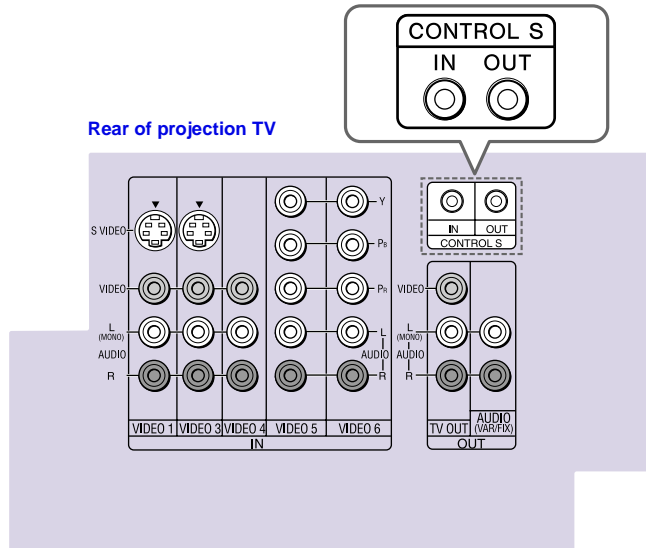
Disconnect all power sources before making any connections.

- 1 Connect the coaxial cable from the incoming cable connection or antenna to IN on the VCR.
- 2 Using a coaxial cable, connect OUT on the VCR to VHF/UHF on the projection TV.
- 3 Using a VIDEO cable, connect VIDEO of VIDEO 1 IN on the projection TV to MONITOR OUT on the AV receiver.
- 4 Using an AUDIO/VIDEO cable, connect TV OUT on the projection TV to AUDIO/VIDEO 2 IN on the AV receiver.
- 5 Using an AUDIO/VIDEO cable, connect the video equipment to the AV receiver.
- 6 Select the Setup menu and set "Video Label" to "Receiver" to fix your TV's input to AV receiver (see "Video Label" on page 56).




Using the CONTROL S Feature

CONTROL S allows you to control your projection TV system and other Sony equipment with one remote control. In addition to allowing you to control multiple devices with one remote control, the CONTROL S feature allows you to always point your remote control at your projection TV, instead of having to point it at the other equipment, which might be hidden or out of direct line of sight.




Setting Up the Projection TV Automatically

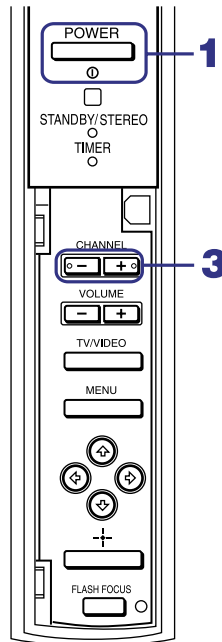
After you finish connecting your projection TV, you can run Auto Setup to set up your channels. The Auto Setup screen appears when you turn your projection TV on for the first time after installing it. If you do not want to set up the channels at this time, you can do it later by using the Auto Program feature in the Channel menu (see page 51).


 The Auto Setup feature does not apply for installations that use a cable box for all channel selection.

Using Auto Setup

- 1 Press POWER on the front panel of your projection TV to turn on the projection TV.
- 2 Press the TV (FUNCTION) button on your remote control. Red light will briefly appear.
- 3 Press CH+ on your projection TV to run Auto Setup, or press CH- to exit. If you use the channel buttons on your remote control, be sure to use the main set of buttons ().

Projection TV front panel




 You can run Auto Program by selecting it in the Channel menu, as described on page 51.

Adjusting the Convergence Automatically – FLASH FOCUS™ –

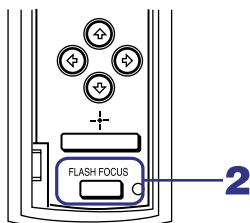
The projection tube image appears on the screen in three colors (red, green and blue). If they do not converge, the color is poor and the picture blurs.

Before you use your projection TV, be sure to adjust the convergence.

The FLASH FOCUS feature allows you to adjust the convergence automatically.

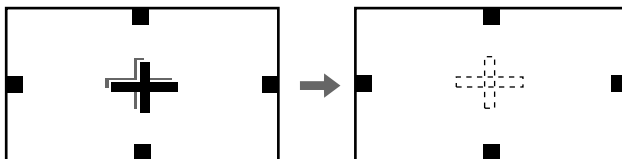
 It is recommended to perform FLASH FOCUS about 30 minutes after the projection TV is first turned on.

Projection TV front panel






- 1 Receive a TV or cable TV program.
- 2 Press FLASH FOCUS.

The cross pattern shown below appears and FLASH FOCUS begins to work. The adjustment is completed when the cross pattern becomes white and you are returned to the program you were watching.



To obtain an optimum convergence for Digital TV programs

The optimum convergence alignment varies with digital TV formats. Whenever you find that the picture blurs, press FLASH FOCUS.

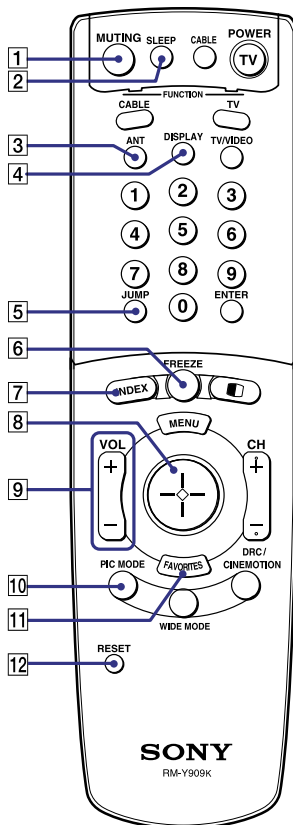
-  You cannot perform any other functions until FLASH FOCUS has completed its cycle.
-  If you perform any other operation while FLASH FOCUS is in progress, FLASH FOCUS operation is canceled.
-  Unshielded speakers or other metallic objects can cause picture distortion if placed close to the projection TV.

Using the Features


Using the Remote Control

The following table describes the buttons on the remote control that are for more advanced functions.

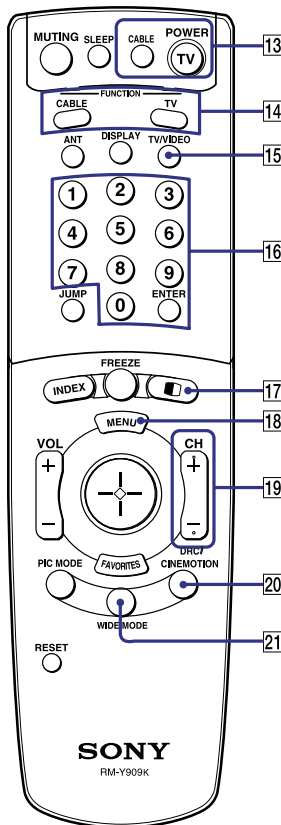
Button Descriptions



Outside Panel

Button	Description
1 MUTING	Press to mute the sound. Press again or press VOL + to restore the sound.
2 SLEEP	Press repeatedly until the projection TV displays the time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears. While the Sleep feature is set, press once to view the remaining time.
3 ANT	Changes between the VHF/UHF input and the AUX input.
4 DISPLAY	Press once to display the current time and channel label (if set) and channel number. Press again to turn Display off. See page 54 for details on setting the time.
5 JUMP	Press to jump back and forth between two channels. The projection TV alternates between the current channel and the last channel that was selected.
6 FREEZE	Freezes the window picture. Press again to restore the picture.
7 INDEX	Press to enter the Scrolling Channel Index mode. You can view and select from all receivable channels scrolling on the screen without leaving the current one.
8 	The joystick allows for movement of the on-screen cursor. Pressing down on the center of the joystick selects the item.
9 VOL +/-	Adjusts the volume.
10 PIC MODE	Press repeatedly to step through the available video picture modes: Vivid, Standard, Movie and Pro. Also available in the Video menu. For details, see "Selecting Video Options" on page 46.
11 FAVORITES	Displays the Favorite Channels list. For details, see "Using Favorite Channels" on page 37.
12 RESET	Press when in a menu to reset the settings to the factory defaults.

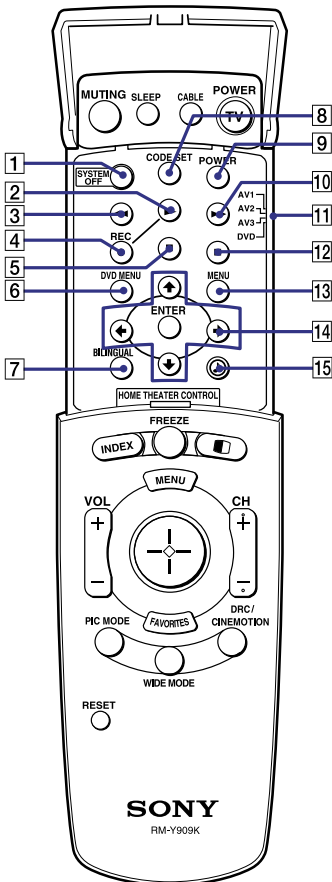
(Continued)











Button	Description
13 POWER buttons (GREEN)	Turn on and off the projection TV and other audio/video equipment you have programmed into the remote control. For instructions, see “Programming the Remote Control” on page 58.
14 FUNCTION buttons	Select the equipment (TV, CABLE) that you want to operate. The indicator lights up momentarily when pushed to show which device the remote control is operating.
15 TV/VIDEO	Cycles through the video equipment connected to your projection TV’s video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.
16 0 – 9 and ENTER	Press 0 - 9 to select a channel, the channel changes after 2 seconds. Press ENTER to select immediately.
17	Turns on/off Twin View. For details, see “Using Twin View™” on page 38.
18 MENU	Press to display the projection TV on-screen menu. Press again to exit from the menu.
19 CH +/-	Scan through channels.
20 DRC/ CINEMOTION	Press repeatedly to step through the available high-resolution picture modes: Interlaced, Progressive and CineMotion. For details, see “Using the Video Menu” on page 46.
21 WIDE MODE	Press to step through the wide screen modes: Wide Zoom, Normal, Full and Zoom. For details, see “Using Wide Screen Mode” on page 44.

To scan rapidly through the channels, press and hold down CH+ or CH-.

If power is in STANDBY, press 0-9 or CH+/- to turn on.



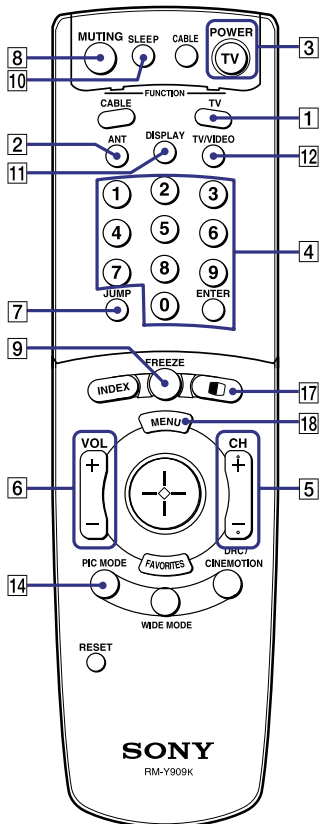
Inside Panel

Button	Description
1 SYSTEM OFF	Press to turn off the projection TV and all equipment connected with S-Link.
2 	Play
3 	Rewind
4 REC	Record
5 	Stop
6 DVD MENU	Displays the DVD menu.
7 BILINGUAL	Press to scroll through the bilingual options: MAIN, MAIN+SUB, and SUB.
8 CODE SET	Used for programming the remote control to operate non-Sony video equipment. For details, see "Programming the Remote Control" on page 58.
9 POWER	Press to turn on the DVD/VCR player you have programmed into the remote control. For instructions, see "Programming the Remote Control" on page 58.
10 	Fast-forward
11 	Use to switch control for connected video equipment. You can program one video source for each switch position. For details, see "Programming the Remote Control" on page 58.
12 	Pause (Press again to resume normal playback)
13 MENU	Displays the video equipment menu.
14  and ENTER	Use to operate the DVD menu.
15 	Press to select an audio option: Steady Sound ON or OFF.

Watching the TV

Many TV features can be accessed directly through the remote control. The following will explain the function of some of the buttons found on your remote control.

Buttons for Projection TV Operations



1 TV (FUNCTION)

Activates the remote control for use with the projection TV.

2 ANT— (AUX input)

Press to change between the VHF/UHF input and the AUX input.

3 TV (POWER)

Turns the projection TV on and off. If a video input indication (e.g., VIDEO 1, VIDEO 2) appears on the screen, press TV/VIDEO or CH +/- until a channel number appears.

4 0-9 and ENTER

Use for direct channel selection. Press 0-9 to select a channel (for example, to select channel 10, press 1 and 0). The channel will change after 2 seconds, or you can press ENTER for immediate selection.

5 CH +/-

Press to scan through the channels (+ up or – down).

6 VOL +/-

Press to adjust the volume (+ up or – down).

7 JUMP

Press to alternate or jump back and forth between two channels. The projection TV will jump between the current channel and the last channel selected.

8 MUTING

Press to mute the sound. “MUTING” will appear on the screen and will dim three seconds later. To restore the sound, press again or press VOL +.

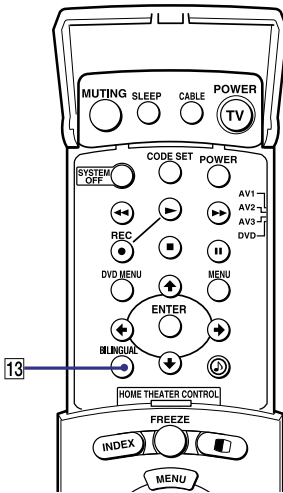
9 FREEZE — (yellow labeled button)

This is useful when you need to copy down information that appears on the TV’s screen (see “Using the Freeze Function” on page 41).

10 SLEEP

Press repeatedly until the projection TV displays the approximate time in minutes (15, 30, 45, 60, or 90) that you want the projection TV to remain on before shutting off automatically.

Cancel by pressing SLEEP until “SLEEP OFF” appears.



11 DISPLAY

Press to display the channel number, current time and channel label (if set).

To turn the display off, press DISPLAY again.

12 TV/VIDEO

Press repeatedly to scroll through available video inputs: TV, VIDEO 1, VIDEO 2, VIDEO 3, VIDEO 4, VIDEO 5 and VIDEO 6.

If you select Skip as a Video Label in the Setup menu, your projection TV will skip the video input you selected (see “Video Label” on page 56).

13 BILINGUAL

Press to scroll through the bilingual options: MAIN, MAIN+SUB, and SUB.

14 PIC MODE

Press PIC MODE repeatedly to directly choose one of five different video modes that best suits the program you are watching.

Vivid: Select for enhanced picture contrast and sharpness.

Standard: Select to display a standard picture for normal viewing environments.

Movie: Select to display a finely detailed picture for low light environments.

Pro (Professional): Select to display a picture with minimum enhancements.

When you select each mode, you can also adjust the picture quality (such as Brightness, Color, etc.) to suit your taste. For details, see “Mode” on page 46.

Watching the Digital TV

When you have connected the DTV receiver, you can enjoy digital TV programs. This projection TV is capable of receiving the 1080i, 720p, 480p and 480i digital TV formats.



This projection TV is not capable of displaying a native 720p format signal. When a 720p format signal is received, it is converted into a 480p format signal.


To view a digital TV program

- 1 Connect the DTV receiver to VIDEO 5 or 6 IN on the projection TV (for details, see page 25).
- 2 Press TV/VIDEO to select VIDEO 5 or 6.
- 3 Select a digital channel on the DTV receiver. For details, see the Operating Manual of the DTV receiver.
- 4 Adjust the volume of the projection TV as necessary.

Using Favorite Channels

The Favorite Channel feature lets you select programs from a list of favorite channels that you preset.


To display a list of your favorite channels:

 Your Favorite Channel options can be set automatically or manually. The factory setting for Favorite Channel is Auto. When Favorite Channel is set to Auto, the last eight channels selected with 0-9 buttons will be set as Favorite Channel options. If you want to input your own selections as Favorite Channel settings, see "Favorite Channel" on page 50.

- 1 Press FAVORITES.

The Favorite Channel options appear.




- 2 Move the joystick up or down to highlight the channel you want to watch. The program on that channel appears in the preview window. Press  to select.

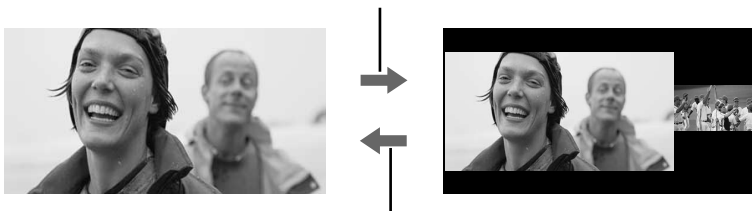
Using Twin View™

Twin View enables you to watch two programs at the same time. You can also change the size of both the left and right pictures.



Displaying Twin Pictures

To display twin pictures

- 1 Make sure your projection TV is tuned to a working channel.
- 2 Press .



To cancel twin pictures

- Press  again (or press .

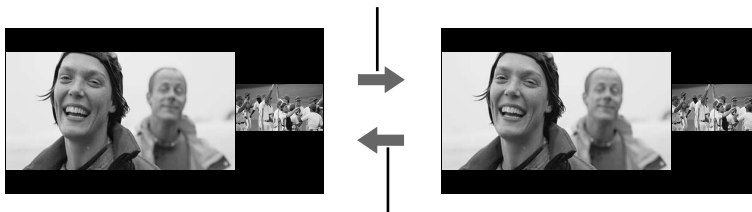
Activating the Picture

Although two pictures appear on the screen at the same time, only one picture is active. Change the picture size by using the joystick. For an active picture, you can:

- Change channels.
- Adjust the volume.
- Switch the input sources from VHF/UHF to cable by pressing ANT or TV/VIDEO to switch the video input.
- Change the picture size by pressing the joystick up or down.






To activate the right picture

- Move the joystick to the right.



To activate the left picture

- Move the joystick to the left.

-  ANT is not effective in the right picture.
-  JUMP is not effective in Twin View.
-  When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View feature, the memorized sizes appear.
-  Hookups that affect your ability to use Twin View:
 - If you are viewing all channels through the cable box, the Twin View feature will not work. The cable box only unscrambles one signal at a time, so the right picture will be the same as the left picture.
 - You can watch a scrambled cable channel and another video source. Be sure your DVD player or VCR is connected to one of the VIDEO IN 1-6 and AUX inputs on the rear of the projection TV. Pictures from equipment connected to VIDEO 5, 6 and AUX will only appear in the left picture, not in the right.
-  The active picture is highlighted in cyan.

Changing the Picture Size

The zoom feature lets you change the size of the left and right pictures.


To enlarge the left picture (reduce the right)

- 1 Move the joystick left to activate the left picture (if not already activated).
- 2 Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.



To enlarge the right picture (reduce the left)

- 1 Move the joystick right to activate the right picture (if not already activated).
- 2 Move the joystick up to enlarge the picture and move the joystick down to reduce the picture.

 When you adjust the twin screen sizes, the projection TV memorizes the change. The next time you use the Twin View function, the memorized sizes appear.

Using the Freeze Function


The FREEZE button allows you to temporarily capture a program's picture. You can use this feature to write down information such as phone numbers, recipes, etc.

To use the Freeze function

- 1 When the program information you want to capture is displayed, press FREEZE.
- 2 The projection TV switches to Twin View mode and displays the "frozen" picture on the right, while the current program continues on the left.



- 3 To cancel and return to normal viewing, press FREEZE.

 Freeze feature is not available if you are already in Twin View™ mode.

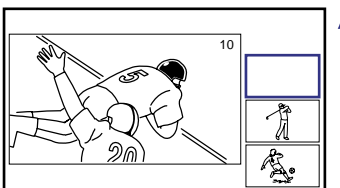
Using Scrolling Channel Index

Scrolling Channel Index allows you to view and select from all receivable channels scrolling on the screen without leaving the current channel.

To use the Scrolling Channel Index function

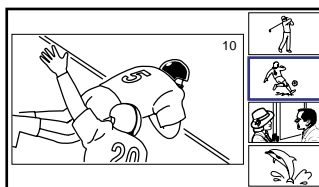
- 1 Press INDEX.

The current channel will be reduced in size and displayed on the left in normal motion picture format. The first channel is briefly displayed on the bottom-right side of the screen, then frozen. It scrolls up and the next channel appears on the bottom-right, and the process is repeated with the other channels.

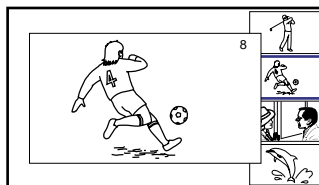



- 2 Move the joystick up and down so that the channel you wish to view is displayed in the cyan frame, and press \oplus .

To return to scrolling, move the joystick up and down again.



- 3 To enlarge the selected channel into the left frame, press \oplus again. The selected channel will be displayed in normal motion picture, and the sound also switches to this channel.



 To change the direction of scrolling, move the joystick up or down once. To increase scrolling speed, hold the joystick up or down.

4 Press INDEX.

The selected channel will be enlarged for normal viewing.



To cancel Scrolling Channel Index


Press INDEX again to resume normal viewing.




If you leave the Scrolling Channel Index screen displayed for an hour without any additional operation, Channel Index is canceled and the normal picture reappears.

Using Wide Screen Mode

Wide Screen Mode lets you watch 4:3 normal broadcasts in several Wide Screen modes (16:9 aspect ratio).

 You can also access the Wide Mode settings in the Wide menu. For details, see page 52.

 When you change channels or inputs, the Wide Mode settings revert to Wide Zoom (or the 4:3 Default setting in the Wide menu). To retain the current Wide Mode setting as channels and inputs are changed, set 4:3 Default to Off. For details, see page 52.

- Press WIDE MODE repeatedly to toggle through the following Wide Mode settings.



Wide Zoom enlarges the 4:3 picture, while the upper and lower parts of the picture are condensed to fit the 16:9 screen.

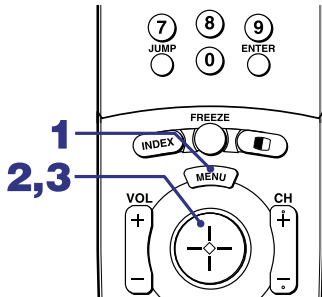
Normal returns the 4:3 picture to its original size.

Full Mode stretches the 4:3 picture horizontally only, to fill the 16:9 screen.


Zoom Mode enlarges the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the 16:9 screen. Useful for watching Letterbox movies.

Using the Menus







Overview



Opening and choosing a menu:

- 1 Press MENU to display the menu screen.
- 2 Move the joystick to the desired menu icon and press  to select it.
- 3 Use the joystick to scroll through the features.
- 4 See the specific menu page for instructions on moving through the menu.





The menu gives you access to the following features:

<i>Menu Icon</i>	<i>Description</i>	<i>Page</i>
	Allows you to make adjustments to your picture settings. It also allows you to customize the Picture Mode based on the type of program you are viewing.	46
	Offers enhanced audio options such as customizing the Effect of the sound on your projection TV.	48
	Allows you to set up a Favorite Channel list, run the Auto Program function, and more.	50
	Allows you to set the wide screen mode, adjust the vertical center in wide mode, and set the 4:3 Default mode.	52
	Lets you set the clock on your projection TV and allows you to program your projection TV for scheduled viewing using the Timers.	54
	Provides several options for setting up your channels, labeling your Video inputs, and selecting the language of the on-screen menus.	55

To end a menu session:

Press MENU again.





To end one menu session and move to another:

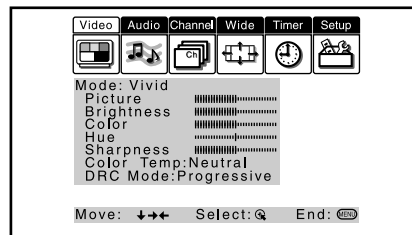
Press the joystick  to return to the menu icons. Move the joystick  or  to choose the next menu icon and press  to select it.



Using the Video Menu

To select the Video Menu


- 1 Press MENU.
- 2 Move the joystick to the Video icon  and press .
- 3 Use the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's adjustment appears.
- 5 Use the joystick to make the desired adjustments.
- 6 Press  to select/set.
- 7 Press MENU to exit the menu screen.




To restore the factory default settings for Picture, Brightness, Color, Hue, Sharpness and Color Temp

- Press RESET on the remote control when in the Video menu.

Selecting Video Options

 To quickly and easily change from one Video Mode to another, use the PIC MODE on the remote control.

The Video menu includes the following options.





Option	Description
Mode	Vivid Select for enhanced picture contrast and sharpness.
<i>Customized picture viewing</i>	Standard Recommended for Normal viewing conditions.
	Movie Select for soft, film like, picture.
	Pro Select for professional monitor like appearance.
	 You can alter the Video menu settings (Picture, Brightness, Color, etc.) for each Mode.
Picture	Adjust to increase picture contrast and deepen the color or decrease picture contrast and soften the color.
Brightness	Adjust to brighten or darken the picture.
Color	Adjust to increase or decrease color intensity.
Hue	Adjust to increase or decrease the green tones.
Sharpness	Adjust to sharpen or soften the picture.
Color Temp	Choose from three color temperatures:
<i>White intensity adjustment</i>	Cool Select to give the white colors a blue tint.
	Neutral Select to give the white colors a neutral tint.
	Warm Select to give the white colors a red tint (NTSC-Standard).

Option	Description
DRC Mode	Creates a high-resolution picture with 4x density, for high quality sources (i.e., DVD player).
Digital Reality Creation	Select from Interlaced, Progressive and CineMotion.
Interlaced	Recommended for moving pictures.
Progressive	Recommended for still images and text.
CineMotion	Recommended for 24 frame-per-second films.



Using the Audio Menu

To select the Audio Menu

- 1 Press MENU.
- 2 Move the joystick to the Audio icon  and press .
- 3 Use the joystick to scroll through the options.
- 4 Press  to select an option. That option's settings appear.
- 5 Use the joystick to scroll through the settings.
- 6 Press  to select the desired setting.
- 7 Press MENU to exit the menu screen.




To restore the factory default settings for Treble, Bass and Balance

- Press RESET on the remote control when in the Audio menu.

Selecting Audio Options

The Audio menu includes the following options:

Option	Description
Treble	Adjust to increase or decrease higher-pitched sounds.
Bass	Adjust to increase or decrease lower-pitched sounds.
Balance	Adjust to emphasize left or right speaker balance.
Steady Sound	ON Select to stabilize the volume.
	OFF Select to turn off Steady Sound.
Effect	Dolby Virtual Select for surround sound (for stereo programs only).
	Simulated Adds a surround-like effect to mono programs.
	OFF Normal stereo or mono reception.
Auto Stereo	ON Select for stereo reception when viewing a program broadcast in stereo.
	OFF Select for mono reception. (Use to reduce noise during weak stereo broadcasts.)
Speaker	ON Select to turn on the projection TV speakers.
	OFF Select to turn off the projection TV speakers and listen to the projection TV's sound only through your external audio system speakers.





 A virtual surround system attempts to create the same surround effect produced by a multichannel system using only the left and right speakers. Most effective for programs encoded in Dolby Surround.

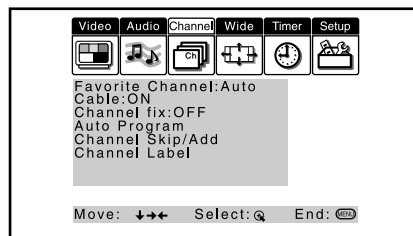
Option	Description	
Audio Out <i>Easy control of volume adjustments</i>	Variable	The projection TV's speakers are turned off, but the volume output from your audio system can still be controlled by the projection TV's remote control.
	Fixed	The projection TV's speakers are turned off and the volume, bass and treble output of the projection TV is fixed. Use your audio receiver's volume control to adjust the volume through your audio system.



Using the Channel Menu




To select the Channel Menu



- 1 Press MENU.
- 2 Move the joystick to the Channel icon  and press .
- 3 Use the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's options appear.
- 5 Use the joystick to scroll through the options.
- 6 Press  to select the desired option.
- 7 Press MENU to exit the menu screen.

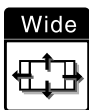


Selecting Channel Options

The Channel menu includes the following options:





Option	Description	
Favorite Channel	Auto	Select if you want Favorite Channel options to be set automatically to the last eight channels selected with the 0-9 buttons.
	Manual	Select if you want to input your own selections as Favorite Channel options. <ol style="list-style-type: none"> 1 Press  to select a favorite channel number. 2 Use the joystick to scroll through the channels until you find the channel you want to add to your favorites. 3 Press  to select it.
Cable	ON	Select if you are receiving cable channels with a CATV cable.
	OFF	Select if you are using an antenna. <div style="background-color: #e0e0ff; padding: 5px; margin-top: 5px;">  You should run Auto Program after changing the Cable setting. </div>

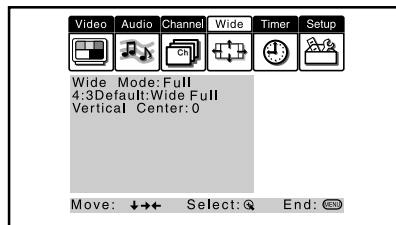
Option	Description
Channel Fix <i>Useful when you have a cable box connected</i>	<p>2-6 “Fix” your projection TV’s channel setting to 3 or 4 and use the cable box or VCR to change channels. Select one of these settings if you have connected the device to the VHF/UHF jack.</p> <hr/> <p>AUX 2-6 Same as 2-6, except you select one of these settings if you have connected the device to the AUX jack. (see page 14)</p> <hr/> <p>VIDEO 1 Use when connecting an AV receiver to control external video sources. TV output should be connected through the AV receiver.</p>
Auto Program	Automatically programs the projection TV for all receivable channels.
Channel Skip/Add	<p>Removes and adds viewable channels.</p> <ol style="list-style-type: none"> 1 Use the joystick to scroll through the channels until you find the channel you want to skip/add. 2 Press  to select it. 3 Press the joystick up or down to toggle between “Add” and “Skip.” 4 Press  to select.
Channel Label	Label up to 20 channels with their station call letters.




Using the Wide Menu


To select the Wide menu


- 1 Press MENU.
- 2 Use the joystick to move to the Wide icon  and press .
- 3 Move the joystick to scroll through the features.
- 4 Press  to select a feature. That feature's options appear.
- 5 Use the joystick to scroll through the options.
- 6 Press  to select the desired option.
- 7 Press MENU to exit the menu screen.



Selecting Wide Options


 To change from one Wide Mode to another, use the WIDE MODE button on the remote control.


 Wide Mode is unavailable while in Twin View.

 The 4:3 Default functions only when the projection TV receives 480i signals.

The Wide menu includes the following options:

Option	Description
Wide Mode <i>Select a Wide Mode to use for 4:3 sources.</i>	<p>Wide Zoom Select to enlarge the 4:3 picture, while the upper and lower parts of the picture are condensed to fit the wide screen.</p> <p>Normal Select to return the 4:3 picture to normal mode.</p> <p>Full Select to enlarge the 4:3 picture horizontally only, to fill the wide screen.</p> <p>Zoom Select to enlarge the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the wide screen.</p>
4:3 Default <i>Select the default Screen Mode to use for 4:3 sources.</i>	<p>Wide Zoom Select to enlarge the 4:3 picture, while the upper and lower parts of the picture are condensed to fit the wide screen.</p> <p>Normal Select to return the 4:3 picture to normal mode.</p> <p>Full Select to enlarge the 4:3 picture horizontally only, to fill the wide screen.</p> <p>Zoom Select to enlarge the 4:3 picture horizontally and vertically to an equal aspect ratio that fills the wide screen.</p> <p>Off Select to continue using the current Wide Mode setting when the channel or input is changed.</p>



 If 4:3 Default is set to anything but Off, the Wide Mode setting changes only for the current channel. When you change channels (or inputs), Wide Mode is automatically replaced with the 4:3 Default setting. To retain the current Wide Mode setting as channels and inputs are changed, set 4:3 Default to Off.

<i>Option</i>	<i>Description</i>
Vertical Center	Allows you to move the position of the picture up and down in the window. (Available only in Wide Zoom and Zoom modes.) Move the joystick up or down to choose a position and press  .





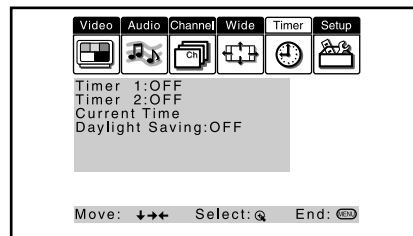
Using the Timer Menu

To select the Timer menu

- 1 Press MENU.
- 2 Move the joystick to the Timer icon  and press .



To set the Current Time

- 1 Use the joystick to select “Current Time”, then press .
- 2 If it is currently Daylight Saving Time, be sure to set the mode to “ON” first.
- 3 Use the joystick to enter the correct time, then press .
- 4 Press MENU to exit the menu screen.





To set the Timer

Before setting the timer, be sure to set your projection TV’s clock to the current time and Daylight Saving Mode.

- 1 Move the joystick to “Timer 1” or “Timer 2”, then press .
- 2 Use the joystick to enter your day, time and channel preferences, then press  to select each one.
- 3 Press MENU to exit the menu screen.

To reset the Clock or Timers

- Press RESET on the remote control after selecting that option in the Timer menu.

-  Turning off the main power of the projection TV will clear the timer settings.
-  Selecting Channel Fix will clear the timer settings.

Selecting Timer Options


The Timer menu includes the following options:

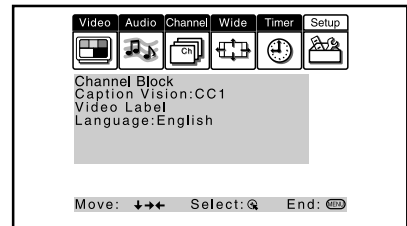
Option	Description
Timer 1	Program
Timer 2	Program
	OFF
Current Time	Set the current time.
Daylight Saving	ON
	OFF



Using the Setup Menu

To select the Setup Menu

- 1 Press MENU.
- 2 Move the joystick to the Setup icon  and press \odot .
- 3 Use the joystick to scroll through the features.
- 4 Press \odot to select a feature. That feature's options appear.
- 5 Use the joystick to scroll through the options.
- 6 Press \odot to select the desired option.
- 7 Press MENU to exit the menu screen.







Selecting Setup Options

The Setup menu includes the following options:

Option	Description
Channel Block	Allows you to set up the TV to block up to 4 channels. See "Using the Channel Block Menu" on page 57
Caption Vision	Allows you to select from three closed caption modes (for programs that are broadcast with closed captioning).
OFF	Turns off Caption Vision.
CC1, CC2, CC3, CC4	Displays a printed version of the dialog or sound effects of a program. (Should be set to CC1 for most programs.)
TEXT1, TEXT2, TEXT3, TEXT4	Displays network/station information presented using either half or the whole screen (if available). For closed captioning, set to CC1.
XDS (Extended Data Service)	Displays a network name, program name, program length, and time of the show if the broadcaster offers this service.

(Continued)



Option	Description
Video Label	<p>Allows you to label the audio/video components you connected to the projection TV so you can identify them when using TV/VIDEO. When in the Setup menu's Video Label feature, use the joystick to highlight an input to label, then press  to select it. Use the joystick to scroll through the labels. Press  to select the component you connected to each of the input jacks on the back of your projection TV. Select "Skip" if you do not have a component connected to a particular set of input jacks.</p>
VIDEO 1/2/3/4	VHS, 8mm, Beta, LD, Game, DVD, Web, Receiver, DTV, Skip
VIDEO 5/6	DVD, DTV, HD, Skip
<p>If you select "Skip", your projection TV skips this connection when you press TV/VIDEO.</p>	
<p> When you select "Receiver" on Video Label, your projection TV's input is fixed.</p>	
Language	<p>Select to display all on-screen menus in your language of choice: English, Español, Français.</p>

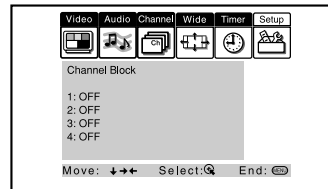
 To use this feature with widescreen DVDs, set your DVD player to 16:9 aspect ratio.


Using the Channel Block Menu

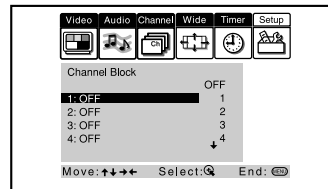
The Channel Block menu allows you to set up the TV to block up to 4 channels.


To block channels

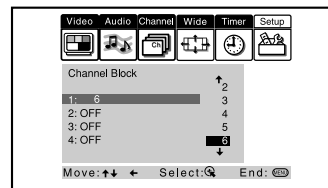
- 1 Press MENU.
- 2 Move the joystick to the Setup icon  and press .





- 3 Move the joystick up or down to select 1-4, and press .



- 4 Move the joystick down to select the channel to be blocked, and press .



 Performing Auto Program will erase the Channel Block settings.

 Selecting "Receiver" of Video Label will erase the Channel Block settings.

- 5 Press MENU to exit the menu screen.

To cancel channel block settings

Set Channel Block to OFF in step 4.


Other Information

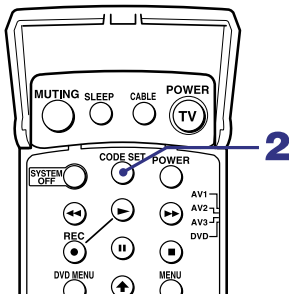
Programming the Remote Control

The remote control is preset to operate Sony brand video equipment.

<i>Sony Equipment</i>	<i>Switch Position on Remote Control</i>	<i>Programmable Code Number</i>
Beta, ED Beta VCRs	AV1	303
8 mm VCR	AV2	302
VHS VCR	AV3	301
DVD Player	DVD	751

If you have video equipment other than Sony brand that you want to control with the projection TV's remote control, use the following procedures to program the remote control.

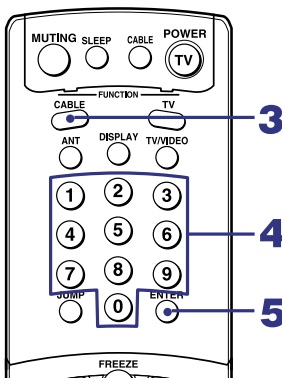
 The equipment must have infrared (IR) remote capability in order to be used with the remote control.

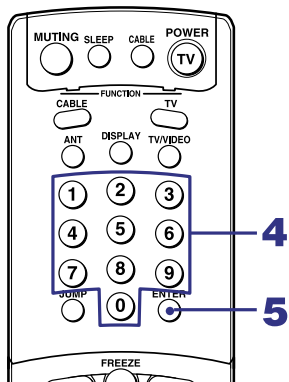
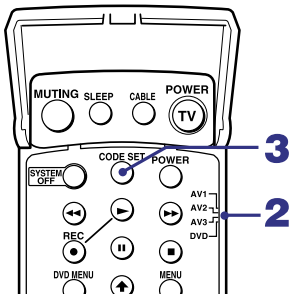


From the "Manufacturer's Codes" listed on page 60, select the three-digit code number for the manufacturer's code for your component. If more than one code number is listed, start with the number listed first. Use the code number to complete the following procedure.

To program a cable box


- 1 Open the panel of the remote control.
- 2 Press CODE SET inside the panel.
- 3 Close the panel and press CABLE (FUNCTION).
- 4 Enter the three-digit manufacturer's code number using the 0-9 buttons.
- 5 Press ENTER.
- 6 To check if the code number works, aim the projection TV's remote control at the component and press the green POWER button that corresponds with that component. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.





To program video equipment

- 1 Open the panel of the remote control.
- 2 Move the slide switch to the desired component type.
- 3 Press CODE SET inside the panel.

 You must perform step 4 within 10 seconds of step 3, or you must start again from step 3.

- 4 Close the panel and enter the three-digit manufacturer's code number using the 0-9 buttons.
- 5 Press ENTER.
- 6 To check if the code number works, aim the projection TV's remote control at the component, open the panel, and press the green POWER button. If it responds, the programming is completed. If not, try using the other codes listed for that manufacturer.

Tips

- ❑ If more than one code number is listed, try entering them one by one until you come to the correct code for your component.
- ❑ If you enter a new code number, the code number you previously entered at that setting is erased.
- ❑ In some rare cases, you may not be able to operate your component with the Sony remote control. In this case, use the component's own remote control unit.

Other Information

Manufacturer's Codes

VCRs

<i>Manufacturer</i>	<i>Code</i>
Sony	301
Admiral (M. Ward)	327
Aiwa	338, 344
Audio Dynamic	314, 337
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318, 341
Fisher	330, 335
Funai	338
General Electric	329, 304, 309
Go Video	322, 339, 340
Goldstar	332
Hitachi	306, 304, 305, 338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335

<i>Manufacturer</i>	<i>Code</i>
Minolta	305, 304
Mitsubishi/ MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/ PROSCAN	304, 305, 308, 309, 311, 312, 313, 310, 329
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Ward)	338, 327
SV2000	338
Sylvania	308, 309, 338, 310
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311

<i>Manufacturer</i>	<i>Code</i>
Wards	327, 328, 335, 331, 332
Yamaha	314, 330, 336, 337
Zenith	331

DVD Players

<i>Manufacturer</i>	<i>Code</i>
Sony	751
Panasonic	753
Pioneer	752
RCA	755
Toshiba	754

Cable Boxes

<i>Manufacturer</i>	<i>Code</i>
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

Operating Other Components with Your Projection TV Remote Control

Operating a VCR

Open the panel and move the slide switch to the AV input you coded for this device.

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	green POWER button (inside the panel)
Change channels	CH +/-
Record	▶ and REC simultaneously
Play	▶
Stop	■
Fast forward	▶▶
Rewind the tape	◀◀
Pause	(press again to resume normal playback)
Search the picture forward or backward	▶▶ or ◀◀ during playback (release to resume normal playback)
Change input mode	Slide switch

Operating a DVD Player

Open the panel and move the slide switch to the DVD input you coded for this device.

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	green POWER button (inside the panel)
Play	▶
Stop	■
Pause	(press again to resume normal playback)
Step through different tracks of an audio disc	▶▶ to step forward or ◀◀ to step backward
Step through different chapters of a video disc	CH+ to step forward or CH- to step backward
Display the DVD menu	DVD MENU
Display the menu (Setup)	MENU
Operate the DVD menu	↑, ↓, ←, →, ENTER

**Operating a Cable
Box**

<i>To Do This ...</i>	<i>Press</i>
Turn on/off	CABLE (POWER)
Select Cable Box	CABLE (FUNCTION)
Select a channel	0-9 buttons, ENTER
Change channels	CH +/-
Back to previous channel	JUMP

Troubleshooting

Problem	Possible Remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> <input type="checkbox"/> Make sure the projection TV's power cord is connected securely to the wall outlet. <input type="checkbox"/> Push the power button on the front of the projection TV. <input type="checkbox"/> Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching connected equipment, set to VIDEO 1, 2, 3, 4, 5 or 6. <input type="checkbox"/> Try another channel. It could be station trouble. <input type="checkbox"/> The Channel Block feature is activated (see "Using the Channel Block Menu" on page 57). <input type="checkbox"/> If your projection TV does not turn on, and a red light keeps flashing, your projection TV may need service. Call your local Sony Service Center.
Remote control does not operate	<ul style="list-style-type: none"> <input type="checkbox"/> Batteries could be weak. Replace the batteries. <input type="checkbox"/> Press TV (FUNCTION) when operating your projection TV. <input type="checkbox"/> Make sure the projection TV's power cord is connected securely to the wall outlet. <input type="checkbox"/> Locate the projection TV at least 3-4 feet away from fluorescent lights. <input type="checkbox"/> Check the orientation of the batteries.
Dark, poor or no picture (screen lit), good sound	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust the Picture setting in the Video menu (see page 46). <input type="checkbox"/> Adjust the Brightness setting in the Video menu (see page 46). <input type="checkbox"/> Check antenna/cable connections. <input type="checkbox"/> Adjust the convergence again using FLASH FOCUS (see "Adjusting the Convergence Automatically – FLASH FOCUS™ –" on page 30).
Good picture, no sound	<ul style="list-style-type: none"> <input type="checkbox"/> Press MUTING so that "MUTING" disappears from the screen (see page 31). <input type="checkbox"/> Make sure Speaker is set to ON in the Audio menu (see page 48).
Cannot receive digital channels (when a DTV receiver is connected)	<ul style="list-style-type: none"> <input type="checkbox"/> Check the connections between the DTV receiver and the projection TV (see page 25). <input type="checkbox"/> Check your local listings to find out if you can receive digital broadcasts in your area.
Cannot receive upper channels (UHF) when using an antenna	<ul style="list-style-type: none"> <input type="checkbox"/> Change Cable to OFF (see page 50). <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 51).
No color	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust the Color settings in the Video menu (see page 46).
Only snow and noise appear on the screen	<ul style="list-style-type: none"> <input type="checkbox"/> Check the Cable setting in the Channel menu (see "Cable" on page 50). <input type="checkbox"/> Check the antenna/cable connections. <input type="checkbox"/> Make sure the channel is broadcasting programs. <input type="checkbox"/> Press ANT to change the input mode (see page 34).
Dotted lines or stripes	<ul style="list-style-type: none"> <input type="checkbox"/> Adjust the antenna. <input type="checkbox"/> Move the projection TV away from noise sources such as cars, neon signs, or hair-dryers.
Projection TV is fixed to one channel	<ul style="list-style-type: none"> <input type="checkbox"/> Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 51). <input type="checkbox"/> Check your Channel Fix settings (see page 51).
Double images or ghosts	<ul style="list-style-type: none"> <input type="checkbox"/> Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).

(Continued)

Other Information

Problem	Possible Remedies
Cannot operate menu	<ul style="list-style-type: none">❑ If the item you want to choose appears in gray, you cannot select it.❑ Turn the projection TV's power off and on again.
Cannot receive any channels when using cable TV	<ul style="list-style-type: none">❑ Use Auto Program in the Channel menu to add receivable channels that are not presently in TV memory (see page 51).❑ Check your cable settings.❑ Make sure Cable is set to ON in the Channel menu (see page 50).
Cannot gain enough volume when using a cable box	<ul style="list-style-type: none">❑ Increase the volume of the cable box using the cable box's remote control. Then press TV (FUNCTION) and adjust the projection TV's volume.
Channel Index does not display all available channels	<ul style="list-style-type: none">❑ Make sure Cable is set to ON in the Channel menu (see "Cable" on page 50).❑ Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 51).
Cannot receive channels Unable to select a channel	<ul style="list-style-type: none">❑ Use Auto Program in the Channel menu to add receivable TV channels that are not presently in TV memory (see page 51).
Cannot change channels with the remote control	<ul style="list-style-type: none">❑ Be sure you have not inadvertently switched your projection TV from channel 3 or 4 setting if you are using another device to change channels.❑ If you are using another device to control channels, be sure the "function" button for that device has been pressed, or the slide switch is set correctly. For example, if you are using your cable to control channels, be sure to press CABLE.
Cannot cycle through the other video equipment connected to the projection TV	<ul style="list-style-type: none">❑ Be sure the Video Label feature has not been set to Skip (see page 56).
There is a black box on the screen	<ul style="list-style-type: none">❑ You have selected a text option in the Setup menu and no text is available (see page 55 to reset Setup selections). To turn this feature off, select OFF in the Caption Vision option. If you were trying to get closed captioning, select CC1 instead of Text 1-4.
There is no twin picture or it is just static	<ul style="list-style-type: none">❑ Be sure your twin picture is set to a video source/channel that has a program airing.❑ You may be tuned to a video input with nothing connected to it. Try cycling through your video inputs using TV/VIDEO.❑ Twin View is not set to receive a signal from the AUX input. If you have connected a VCR, DVD player or satellite receiver to the AUX input on the projection TV, it will not show in the second picture.
You get the same program in the window picture as in the main picture	<ul style="list-style-type: none">❑ Both may be set to the same channel. Try changing channels in either the main picture or the window picture.❑ You may be running all your channels through a cable box. The cable box will only unscramble one signal at a time, so you cannot use the Twin View feature. If possible, run a direct cable to your projection TV's VHF/UHF input (this will only work if your cable system provides an unscrambled signal).
You cannot get anything but TV channels in your second picture	<ul style="list-style-type: none">❑ Be sure the video label has not been set to skip your video inputs. See the Setup menu on page 55.
Favorite Channel does not display your choices	<ul style="list-style-type: none">❑ Verify that Favorite Channel is set to Manual in the Channel menu (see "Favorite Channel" on page 50).
Some video sources do not appear when you press TV/VIDEO	<ul style="list-style-type: none">❑ Ensure that Video Label is not set to Skip (see "Video Label" on page 56).

Specifications

Projection System	3 picture tubes, 3 lenses, horizontal in-line system	
Picture Tube	7-inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system	
Projection Lenses	High performance, large diameter hybrid lens F1.1	
Antenna	75 ohm external terminal for VHF/UHF	
Television System	NTSC, American TV Standard	
Screen Size (measured diagonally)	57 inches	
Channel Coverage		
VHF	2-13	
UHF	14-69	
CATV	1-125	
Power Requirements	220 V, 60 Hz	
Number of Inputs/Outputs		
Video (IN)	4	1 Vp-p, 75 ohms unbalanced, sync negative
S Video (IN)	3	Y: 1 Vp-p, 75 ohms unbalanced, sync negative C: 0.286 Vp-p (Burst signal), 75 ohms
Audio (IN)	6	500 mVrms (100% modulation) Impedance: 47 kilohms
AUDIO (VAR/FIX)	1	500 mVrms at the maximum volume setting (Variable) 500 mVrms (Fixed) Impedance (output): 2 kilohms
TV Out	1	Video: 1 Vp-p 75 ohms unbalanced, Sync negative Audio: 500 mVrms (100% modulation) Impedance (output): 1 kilohms
CONTROL S (IN/OUT)	1	Minijacks
Component Video Input	2 (Y, P _B , P _R)	Y: 1.0 Vp-p, 75 ohms unbalanced, sync negative P _B : 0.7 Vp-p, 75 ohms P _R : 0.7 Vp-p, 75 ohms
RF Inputs	2	
Converter	1	
Speaker Output	20 W × 2	
Dimensions (W × H × D)	1,326 × 1,377 × 690 mm	
Mass	89 kg	
Power Consumption		
In Use	230 W	
In Standby	1.2 W	
Supplied Accessories		
Remote Control	RM-Y909K	
AA (R6) Batteries	2 supplied for remote control	

(Continued)

Other Information

Optional Accessories

AV Cable	VMC-810/820/830 HG
Audio Cable	RKC-515HG
Control S Cable	RK-G69HG
Component Video Cable	VMC-10/30 HG

Design and specifications are subject to change without notice.

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