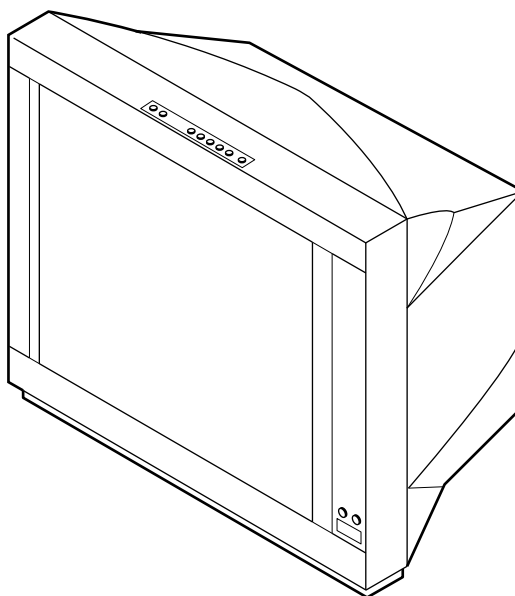
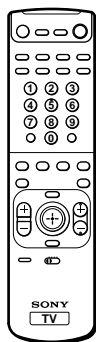


# SERVICE MANUAL

# AG3 CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
<i>KV-ES29M90</i>	<i>RM-916</i>	<i>Hong Kong</i>	<i>SCC-P27A-A</i>				



TRINITRON® COLOR TV  
**SONY®**

## SPECIFICATIONS

		Note
<b>Power requirements</b>	110-240 V AC, 50/60 Hz	
<b>Power consumption (W)</b>	Indicated on the rear of the TV	
<b>Television system</b>	B/G, I, D/K, M	
<b>Color system</b>	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
<b>Stereo/Bilingual system</b>	NICAM Stereo Bilingual B/G, I; A2 Stereo Bilingual (German) B/G	
<b>Channel coverage</b>		
<b>B/G</b>	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
<b>I</b>	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41	
<b>D/K</b>	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 CATV: Z1 to Z39, S01 to S03, S1 to S41	
<b>M</b>	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84	
<b>⌚ (Antenna)</b>	75-ohm external terminal	
<b>Audio output (Speaker)</b>	15W + 15W	10% distortion
<b>Number of terminal</b>		
📺 (Video)	Input: 4    Output: 1	Phono jacks; 1 V <sub>p-p</sub> , 75 ohms
🎵 (Audio)	Input: 4    Output: 1	Phono jacks; 500 mV <sub>rms</sub>
📺 (S Video)	Input: 2	Y : 1 V <sub>p-p</sub> , 75 ohms, unbalanced, sync negative C : 0.286 V <sub>p-p</sub> , 75 ohms
📺 (Component Video)	Input: 1	Phono jacks Y : 1 V <sub>p-p</sub> , 75 ohms, sync negative C <sub>B</sub> : 0.7 V <sub>p-p</sub> , 75 ohms C <sub>R</sub> : 0.7 V <sub>p-p</sub> , 75 ohms Audio : 500 mV <sub>rms</sub>
<b>DIGITAL IN</b>	Input: 1	Phono jack; 0.5 V <sub>p-p</sub> , 75 ohms
🎧 (Headphones)	Output: 1	Stereo minijack
<b>Picture tube</b>	29 inch	
<b>Tube size (cm)</b>	72	Measured diagonally
<b>Screen size (cm)</b>	68	Measured diagonally
<b>Dimension (w/h/d, mm)</b>	722 × 561 × 524	
<b>Mass (kg)</b>	56	

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.

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\triangle$  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.

## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
	<b>SELF DIAGNOSIS FUNCTION</b> .....	4			
<b>1. GENERAL</b> .....		8	<b>6. DIAGRAMS</b>		
<b>2. DISASSEMBLY</b>			6-1. Block Diagram .....	63	
2-1. Rear Cover Removal .....		32	6-2. Frame Schematic Diagram .....	81	
2-2. Speaker Box Removal .....		32	6-3. Circuit Boards Location .....	84	
2-3. H2 Board Removal .....		32	6-4. Schematic Diagrams and Printed Wiring Boards ...	84	
2-4. Chassis Assy Removal .....		33	(1) Schematic Diagram of A Board .....	89	
2-5. Service Position .....		33	(2) Schematic Diagram of D Board .....	93	
2-6. DH Board Removal .....		33	(3) Schematic Diagram of D1 Board .....	101	
2-7. J Board Removal .....		33	(4) Schematic Diagrams of C, F1 and VM Boards .....	109	
2-8. B3, D1 and E Boards Removal .....		34	(5) Schematic Diagram of E Board .....	113	
2-9. A and D Boards Removal .....		34	(6) Schematic Diagrams of H1, H2 and H3 Boards ....	120	
2-10. H1 Board Removal .....		34	(7) Schematic Diagram of B3 (1/6) Board .....	125	
2-11. F2 Board Removal .....		34	(8) Schematic Diagram of B3 (2/6) Board .....	129	
2-12. Demagnetization Coil Removal .....		35	(9) Schematic Diagram of B3 (3/6) Board .....	133	
2-13. Top Switch Removal .....		35	(10) Schematic Diagram of B3 (4/6) Board .....	137	
2-14. G2 Lead Removal .....		35	(11) Schematic Diagram of B3 (5/6) Board .....	141	
2-15. Picture Tube Removal .....		36	(12) Schematic Diagrams of B3 (6/6) and F2 Boards ...	145	
2-16. Frame Sub-Assy Disassembly .....		36	(13) Schematic Diagram of DH Board .....	149	
			(14) Schematic Diagram of A1 Board .....	155	
<b>3. SERVICE JIG</b>			(15) Schematic Diagrams of BC4 and E1 Boards .....	160	
3-1. Jig Required for Servicing .....		39	(16) Schematic Diagram of J Board .....	167	
<b>4. SET-UP ADJUSTMENTS</b>			6-5. Semiconductors .....	172	
4-1. Beam Landing .....		40	<b>7. EXPLODED VIEWS</b>		
4-2. Convergence .....		41	7-1. Speaker Bracket .....	181	
4-3. Focus Adjustment .....		43	7-2. Chassis .....	182	
4-4. Neck Assy Twist Adjustment .....		43	7-3. Picture Tube .....	183	
4-5. G2 (Screen) and White Balance Adjustments .....		44	<b>8. ELECTRICAL PARTS LIST</b> .....	184	
<b>5. CIRCUIT ADJUSTMENTS</b>					
5-1. Adjustments with Commander .....		45			
5-2. Adjustment Method .....		46			
5-3. Picture Quality Adjustments .....		57			
5-4. Deflection Adjustment .....		59			
5-5. A Board Adjustment After IC003 (Memory) Replacement .....		60			
5-6. Picture Distortion Adjustment .....		61			

## SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.

The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

### 1. DIAGNOSTIC TEST INDICATORS

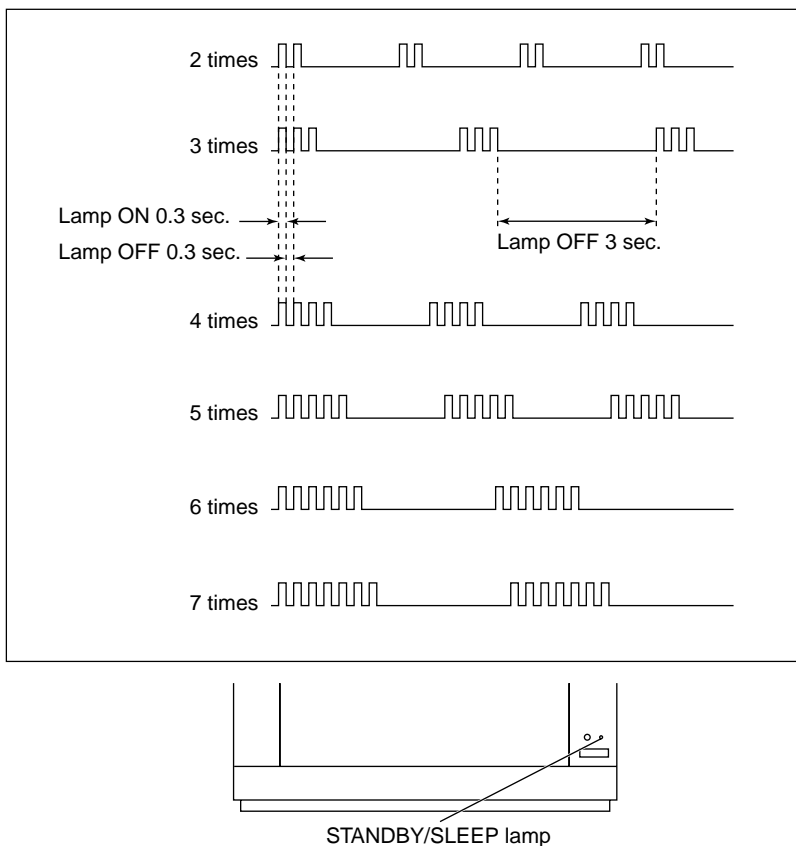
When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	<ul style="list-style-type: none"> <li>• Power cord is not plugged in.</li> <li>• Fuse is burned out F1601 (F1 Board)</li> </ul>	<ul style="list-style-type: none"> <li>• Power does not come on.</li> <li>• No power is supplied to the TV.</li> <li>• AC power supply is faulty.</li> </ul>
• +B overcurrent (OCP)	2 times	002:000 or 002:001~255	<ul style="list-style-type: none"> <li>• H.OUT Q6807 is shorted.</li> <li>• H.LIM Q6810 is shorted.</li> </ul>	<ul style="list-style-type: none"> <li>• Power does not come on.</li> <li>• Load on power line is shorted.</li> </ul>
• +B overvoltage (OVP)	3 times	003:000 or 003:001~255	<ul style="list-style-type: none"> <li>• PH 6602 faulty.</li> <li>• 10.5V is not supplied. (D board)</li> </ul>	<ul style="list-style-type: none"> <li>• Power does not come on.</li> </ul>
• Vertical deflection failure	4 times	004:000 or 004:001~255	<ul style="list-style-type: none"> <li>• V.OUT IC6800 faulty</li> <li>• D6816 faulty</li> <li>• D6817 faulty</li> <li>• D6824 faulty</li> <li>• R6852 open</li> <li>• R6851 open</li> </ul>	<ul style="list-style-type: none"> <li>• Vertical deflection pulse is stopped.</li> <li>• Vertical size is too small.</li> <li>• Vertical deflection stopped.</li> </ul>
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~255	<ul style="list-style-type: none"> <li>• G2 is improperly adjusted. (Note 2)</li> <li>• CRT problem.</li> <li>• Video OUT IC9001, 9002, 9003 are faulty. (C board)</li> <li>• IC8306 (J board) and IC4301 (E board) are faulty.</li> <li>• No connection E board to C board.</li> </ul>	<ul style="list-style-type: none"> <li>• No raster is generated.</li> <li>• CRT cathode current detection reference pulse output is small.</li> </ul>
• Horizontal deflection failure	6 times	006:000 or 006:001~225	<ul style="list-style-type: none"> <li>• C6831 is open circuit.</li> <li>• CN6101 (D1 board) is disconnected.</li> </ul>	<ul style="list-style-type: none"> <li>• H pulse output is too high.</li> </ul>
• Audio Protection	7 times	007:000 or 007:001~225	<ul style="list-style-type: none"> <li>• Power supply fails.</li> <li>• IC1203, IC1204 faulty</li> </ul>	<ul style="list-style-type: none"> <li>• There is picture but speaker does not release sound.</li> </ul>
• Micro reset	—	101:00 or 101:001~225	<ul style="list-style-type: none"> <li>• Discharge CRT (C Board)</li> <li>• Static discharge</li> <li>• External noise</li> </ul>	<ul style="list-style-type: none"> <li>• Power is shut down shortly, after this return back to normal.</li> <li>• Detect Micro latch up.</li> </ul>

Note 1: Refer to screen (G2) Adjustment in section 4-5 of this manual.

## 2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



<u>Diagnostic Item</u>	<u>Flash Count*</u>
+B overcurrent	2 times
+B overvoltage	3 times
V deflection stop	4 times
White balance failure	5 times
High voltage protector	6 times
Audio Protection	7 times

\* One flash count is not used for self-diagnostic.

## 3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

#### 4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure for confirmation on the screen:

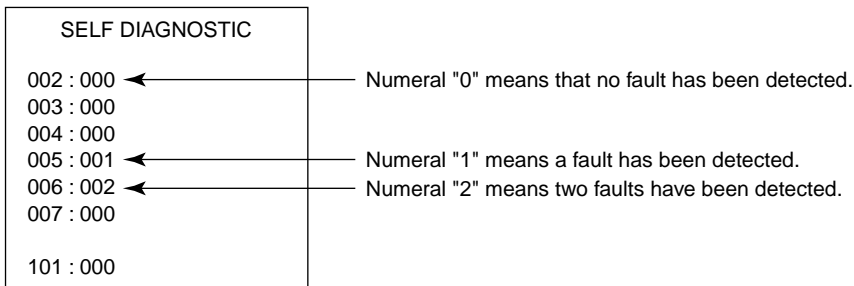
##### [To Bring Up Screen Test]

In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display → channel [5] → Sound volume [ ] → Power ON  
↑

Note that this differs from entering the service mode (mode volume [+]).

##### Self-Diagnosis screen display



#### 5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

##### [Clearing the result display]

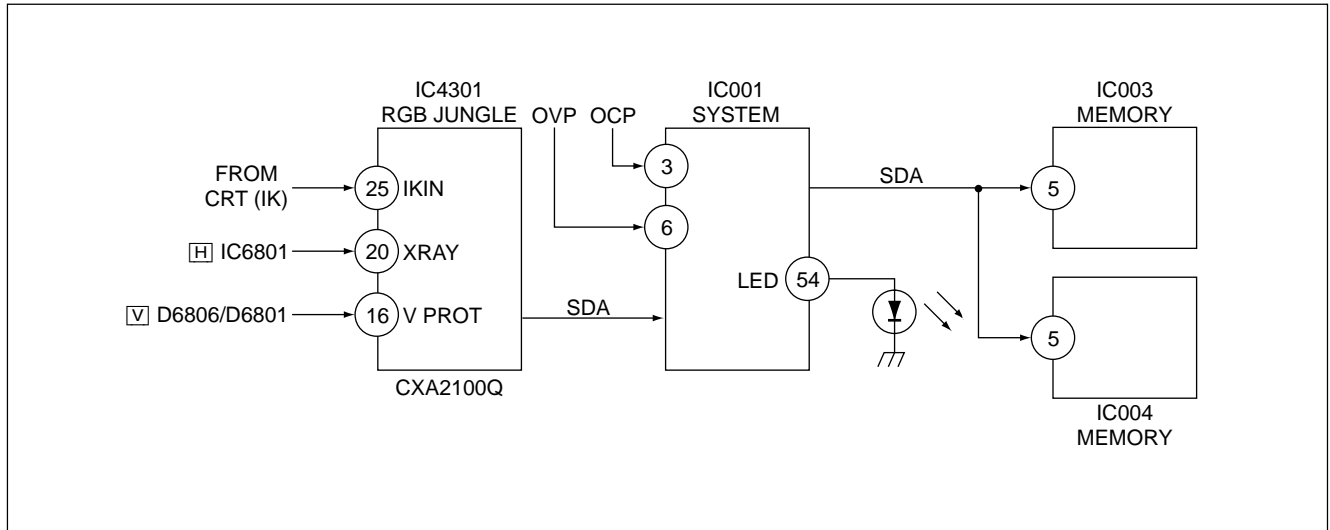
To clear the result display to “0”, press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel [8] → 0

##### [Quitting Self-diagnostic screen]

To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

## 6. SELF-DIAGNOSTIC CIRCUIT



### +B overcurrent (OCP)

Occurs when an overcurrent on the +B(135) line is detected by Q6610 and Q6609. If Q6610 and Q6609 go to ON, the voltage to the pin3 of IC001 go to UP. The unit will automatically turn off.

### +B overvoltage (OVP)

Occurs when an overvoltage on the +B(135) line is detected by D6635, Q6611 and Q6612. If Q6611 and Q6612 go to ON, the voltage to pin6 of IC001 go to UP. The unit will automatically turn off.

### Vertical deflection failure

Occurs when an absence of the vertical deflection pulse is detected by Q6811, Q6819, Q6820, Q6821 and D6801. Shut down the power supply.

### White balance failure

If the RGB levels do not balance or become low level within 5 seconds. This error will be detected by IC4301. TV will stay on, but there will be no picture.

### High voltage protector of Horizontal Deflection

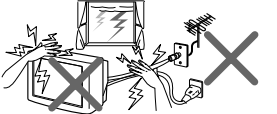
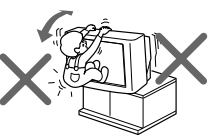
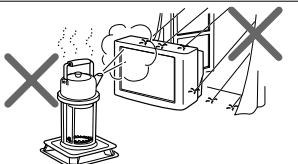
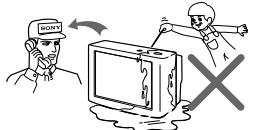
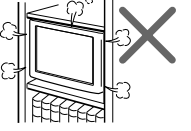
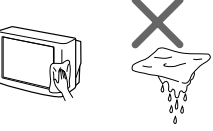
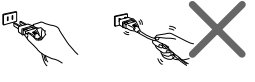


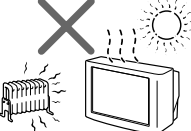
Occurs when an overvoltage of horizontal pulse is detected by D6809 and IC6801. If the voltage of 7 pin of IC6801 goes to High, the voltage to pin20 of IC4301 go to UP. The unit will automatically turn off.

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

## SECTION 1 GENERAL

### WARNING

- Dangerously high voltages are present inside the TV.
- Operate the TV only between 110 – 240 V AC.

 <p>For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.</p>	 <p>Install the TV in a stable position. Do not allow children to climb onto it.</p>
 <p>To prevent fire or shock hazard, do not expose the TV to rain or moisture.</p>	 <p>Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.</p>
 <p>Do not install the TV in a confined space, such as a bookcase or built-in cabinet. Do not block the ventilation openings of the TV.</p>	 <p>Clean the TV with a dry and soft cloth. Do not use benzene, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.</p>
 <p>Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV if you are not going to use it for several days.</p>	 <p>Do not plug in too many appliances to the same power socket. Do not damage the power cord.</p>
 <p>Do not open the cabinet and the rear cover of the TV. Refer servicing to qualified personnel.</p>	 <p>Do not install the TV in hot, humid or excessively dusty places.</p>

2

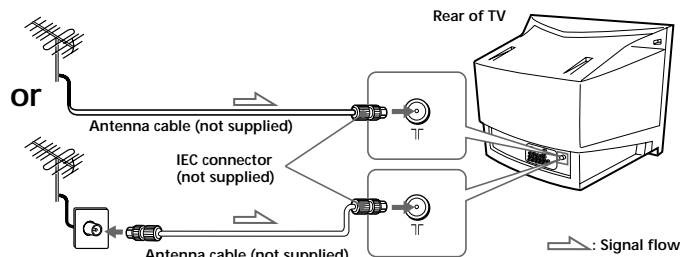
### Using Your New TV

## Getting Started

### Step 1

#### Connect the antenna


If you wish to connect a VCR, see the "Connecting a VCR" diagram below.

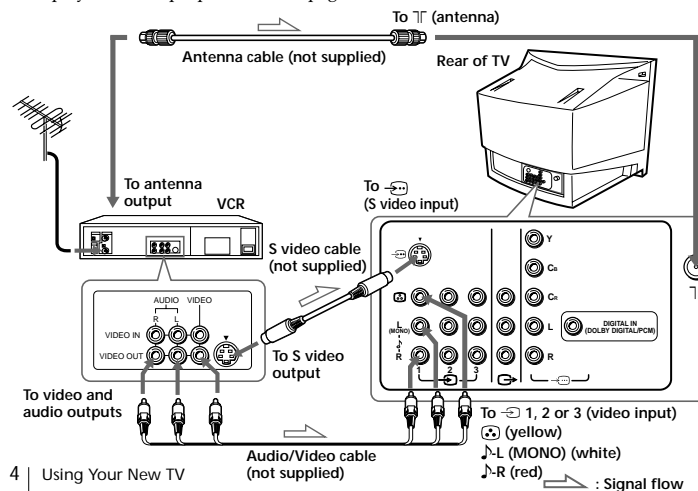


#### CAUTION

Do not connect the power cord until all other connections are complete; otherwise, a minimal current leakage through the antenna and/or other terminals to the ground could occur.

#### Connecting a VCR

To play a video tape, press  (see page 11).



4 Using Your New TV

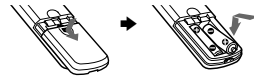


**Notes**

- If you connect a monaural VCR, connect the yellow plug to (yellow jack) and the black plug to L (MONO) (the white jack).
- If you connect a VCR to the (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- When both the (S video input) and (1 video input) are connected, the (S video input) is automatically selected. To view the video input to (1 video input), disconnect the S video cable.

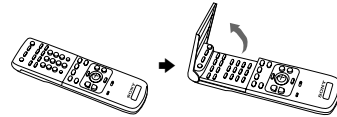
**Step 2**

**Insert the batteries into the remote**



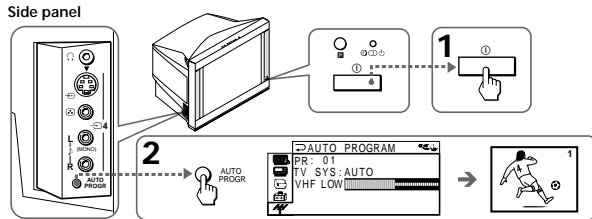
**Notes**

- Do not use old batteries or different types of batteries together.
- To operate some of the functions of your TV, you may have to open the remote control cover.



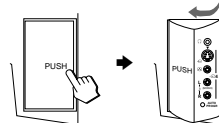
**Step 3**

**Preset the channels automatically**



**Notes**

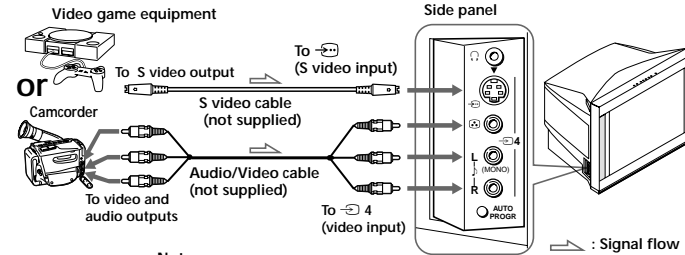
- To stop the automatic channel presetting, press MENU twice.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 41).
- To open the side panel of your TV, push on it until you hear a click, then it will open.



**Connecting optional components**

You can connect optional audio/video components, such as a VCR, multi disc player, camcorder, video game, or stereo system. To watch and operate the connected equipment, see pages 11 and 25.

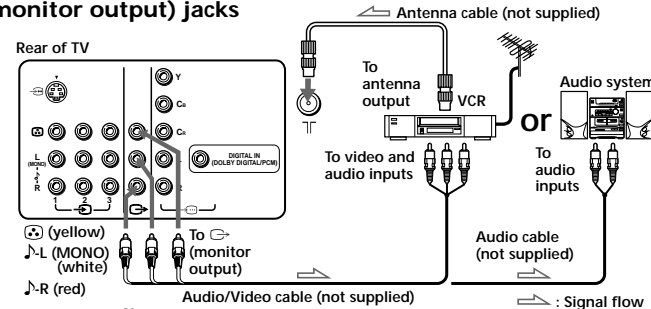
**Connecting a camcorder/video game equipment using the (video input) jacks**



**Notes**

- When connecting video game equipment, display the "FEATURE" menu and select "ON" for "GAME MODE" to adjust the picture setting that is suitable for video games (see page 36).
- You can also connect video equipment to the (1, 2, or 3 video input) jacks at the rear of your TV.
- When both the (S video input) and (4 video input) are connected, the (S video input) is automatically selected. To view the video input to (4 video input), disconnect the S video cable.





**Connecting audio/video equipment using the (monitor output) jacks**

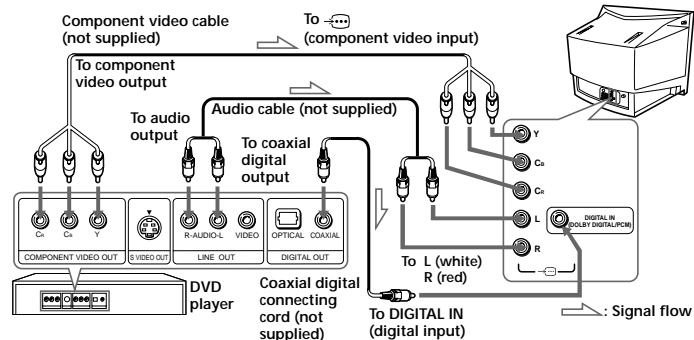


**Note**

- If you select "DVD" on your TV screen, no signal will be output at the (monitor output) jacks (see page 11).

### Connecting a DVD player to (component video input)




- 1 Using an audio cable, connect R and L under  (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.
- 2 Using a coaxial digital connecting cord, connect DIGITAL IN under  (component video input) on your TV to the DIGITAL OUT, COAXIAL output connector on your DVD player.
- 3 Using a component video cable, connect Y, C<sub>B</sub>, and C<sub>R</sub> under  (component video input) on your TV to the COMPONENT VIDEO OUT Y, C<sub>B</sub>, and C<sub>R</sub> output connectors on your DVD player.
- 4 Press  on the remote or the TV until "DVD" appears on the screen.



**Notes**

- Some DVD player terminals may be labeled differently:



Connect	To (on the DVD player)
Y (green)	Y
C <sub>B</sub> (blue)	C <sub>B</sub> , B-Y or P <sub>B</sub>
C <sub>R</sub> (red)	C <sub>R</sub> , R-Y or P <sub>R</sub>

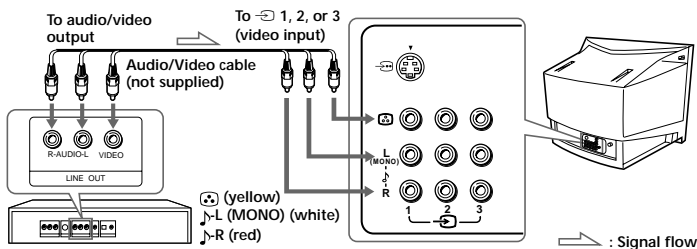
- When connecting to  (component video input) on your TV, you must connect Y, C<sub>B</sub>, and C<sub>R</sub> to receive the video signals, and at least connect DIGITAL IN to receive digital audio signals or connect L and R to receive analog audio signals (see page 32).
- When making connections to DIGITAL IN under  (component video input) on your TV, always set "DIGITAL IN: OFF" in the "A/V CONTROL" menu. After completing all connections, then set "DIGITAL IN: ON". If you set "DIGITAL IN: ON" while still making connections to  DIGITAL IN (component video input), a loud noise may suddenly come out from the speakers, affecting your hearing and causing damage to the speakers (see page 32).

Using Your New TV

### Connecting optional components (continued)

#### Connecting a DVD player to (video input)

Connect  1, 2, or 3 (video input)  (audio/video) connectors on your TV to LINE OUT on your DVD player.



**Notes**

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness ("SHARP") under "PERSONAL ADJUST" in the "PICTURE MODE" menu (see page 31).
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.

continued

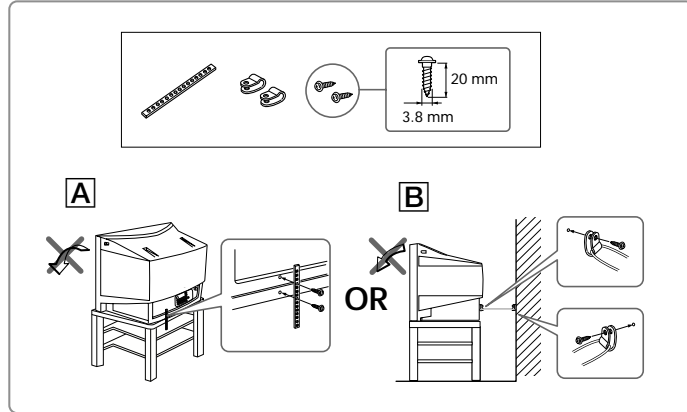
## Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

- A** With the supplied screws, attach the stabilizer band to the TV stand and to the rear of the TV using the provided hole.

OR

- B** Pass a cord or chain through the clamps and secure them to the rear of the TV and a wall or pillar.

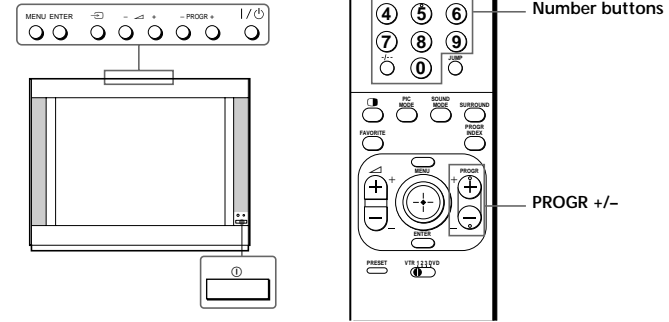


**Note**

- Use only the supplied screws. Use of other screws may damage the TV.

## Watching the TV

This section explains various functions and operations used while watching the TV. Most operations can be done using the remote.



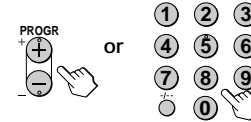
- 1** Press **I/O** to turn on the TV.

When the TV is in standby mode (the **I/O** indicator on the TV is lit red), press **I/O** on the remote or on the TV.



- 2** Press **PROG +/-** or the number buttons to select the TV channel.

For double digit numbers, press **-/-**, then the number (e.g., for 25, press **-/-**, then 2 and 5).

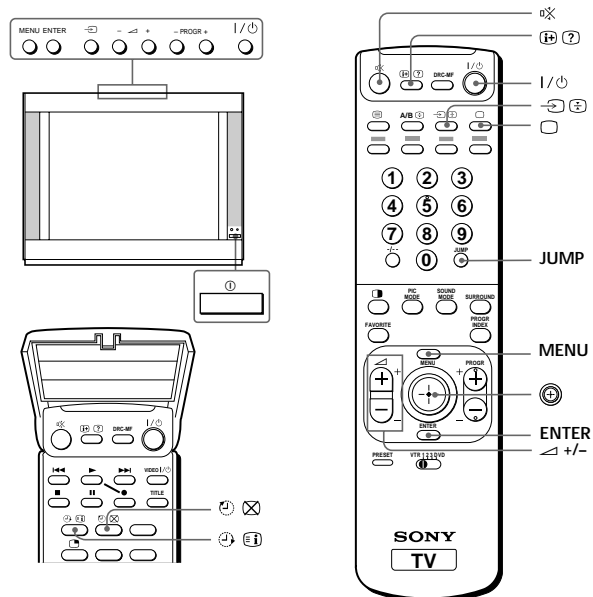


### To select a TV program quickly

- Press and hold **PROG +/-**.
- Release **PROG +/-** when the desired program number appears.

**Note**

- When you select a TV program quickly, the picture may be disrupted. This does not indicate a malfunction.



Using Your New TV

**Additional tasks**

To	Press
Turn off temporarily	I/POWER. The I indicator on the TV lights up red.
Turn off completely	⓪ on the TV.
Adjust the volume	▲+/-.
Mute the sound	⊘.
Watch the video input (VCR, camcorder, etc.)	⏪ (or ⏩ on the TV) to select "VIDEO 1", "VIDEO 2", "VIDEO 3", "VIDEO 4" or "DVD". To return to the TV screen, press □ (or ⏪ on the TV).
Jump back to the previous channel	JUMP.
Display the on-screen information*	Ⓜ.

\* Some picture/sound settings, and either the program number or video mode are displayed. The on-screen display for the picture/sound settings disappears after about 3 seconds.

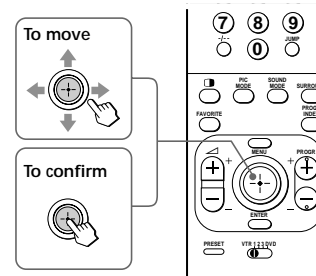
continued

**Watching the TV (continued)**

**Using the Remote Control Button Joystick (Ⓜ)**

You can select the menu item on the screen by moving Ⓜ up, down, left or right (see page 29).

To confirm a selected item, press Ⓜ. You can also press ENTER on the remote to confirm a selected item.



**Changing the menu language**

You can change the menu language as well as the on-screen language. For details on how to use the menu, see "Introducing the menu system" on page 27.

- Press MENU.
- Move Ⓜ up or down to select LANGUAGE, then press Ⓜ.
- Make sure "LANGUAGE" is selected then press Ⓜ.
- Move Ⓜ up or down to select the desired language (e.g., 中文), then press Ⓜ.

**To return to the normal screen**

Press MENU.

### Setting the Wake Up timer

- Press until the desired period of time appears. The Wake Up timer starts immediately after you have set it.
- Select the TV channel or video mode you want to wake up to.
- Press , or set the Sleep timer if you want the TV to turn off automatically. The indicator on the TV lights up orange.

#### To cancel the Wake Up timer

Press until "WAKE UP TIMER: OFF" appears, or turn off the TV's main power.

#### Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into standby mode. To resume watching the TV, press any button or control on the TV or the remote.

### Setting the Sleep timer

- Press until the desired period of time appears. The Sleep timer starts immediately after you have set it.
- 

#### To cancel the Sleep timer

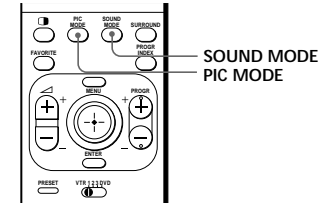
Press until "SLEEP TIMER: OFF" appears, or turn the TV off.

Using Your New TV

## Advanced Operations

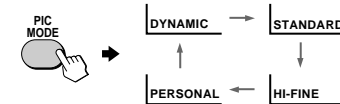
### Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in the "PERSONAL" option.



#### Selecting the picture mode

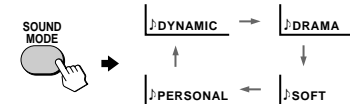
Press PIC MODE repeatedly until the desired picture mode is selected.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal pictures.
"HI-FINE"	receive higher resolution pictures with mild contrast.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "A/V CONTROL" menu (see page 31).

#### Selecting the sound mode

Press SOUND MODE repeatedly until the desired sound mode is selected.



Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes both the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "A/V CONTROL" menu (see page 31).

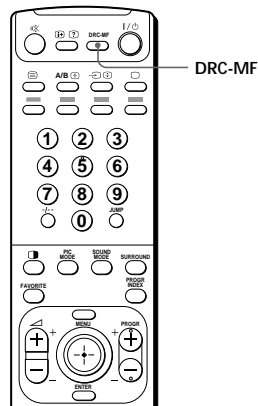
#### Tip

- You can also set the picture and sound modes using the menu (see "Changing the "A/V CONTROL" setting" on page 30).

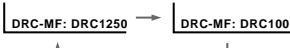
## Viewing higher quality pictures

— “DRC-MF”

The Digital Reality Creation-Multi Function (DRC-MF) feature allows you to enjoy higher quality pictures on your TV. You can select “DRC1250” to watch super real (higher resolution) pictures, or “DRC100” to reduce flicker if necessary.



Press DRC-MF repeatedly until you receive the desired picture quality.



Select	To
“DRC1250”	select higher resolution pictures.
“DRC100”	reduce flicker on the screen.

### Tip

- When the broadcast signal is weak, you may see some dots or noise on the TV screen. To reduce this interference, display the “A/V CONTROL” menu and select “ADJUST” in “PICTURE MODE”, then adjust “SHARP” to reduce the sharpness (see page 31).

### Note

- The DRC-MF mode is not selectable when using the “PROGRAM INDEX” or “FAVORITE” channel feature, or when the “GAME MODE”, Picture-In-Picture (“PIP”), or “TWIN” mode is turned “ON”.

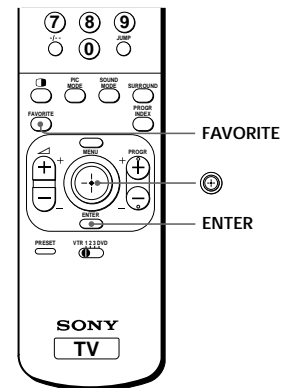
Advanced Operations

## Viewing your favorite channels

— “FAVORITE CH”

You can display seven favorite channels for quick and easy selection.

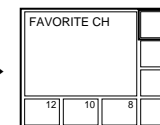
The last seven channels selected with the number buttons are displayed in “AUTO” mode. You can set up your own favorite channels in “MANUAL” mode under the “FAVORITE CH” menu (see “Changing the favorite channel setting” on page 39).



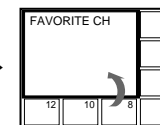
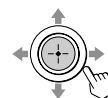
### Selecting a favorite channel

#### 1 Press FAVORITE.

The last seven channels selected with the number buttons appear.



#### 2 Move up, down, left or right to select the desired channel (e.g. PR 8), then press .



#### 3 Press again.



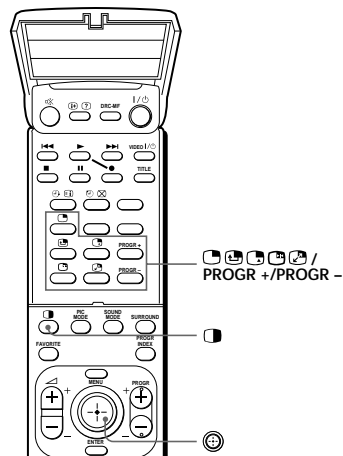
### Note

- When you use your TV for the first time, seven preset channels appear.

## Watching two programs at the same time

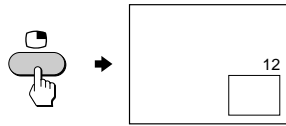
— “PIP”, “TWIN”

With the Picture-in-Picture (PIP) or TWIN pictures features, you can display a different TV program or video within or beside the main picture.



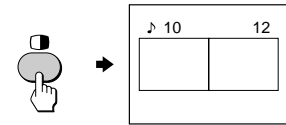
### Displaying the PIP screen

Press



### Displaying TWIN pictures

Press



### To return to the normal screen

Press (when in the PIP screen) or (when in the TWIN picture screen).

#### Tip

- You can also display the PIP screen or TWIN pictures using the menu (see “Changing the MULTI PICTURE setting” on page 33).

continued

## Watching two programs at the same time (continued)

### Additional PIP/TWIN pictures tasks

To	Press/Move
change a TV program in the PIP screen or in the right TWIN picture	Press PROGR + or PROGR -. For a video input, press .
swap pictures between the main and PIP screens	Press . 
freeze the PIP screen	Press . To unfreeze the screen, press the button again.
change the position of the PIP screen	Press . 
swap the right and left pictures of the TWIN pictures	Press . 
change the screen size of the TWIN pictures	Move  left to increase the left screen size. Move  right to increase the right screen size. 

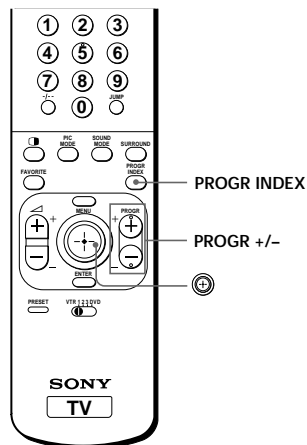
#### Notes

- The button does not function in the TWIN pictures mode.
- When you display a video input on the PIP screen at a faster/slower speed, the picture may be disrupted depending on the VCR type.
- If you display different color systems on the main screen and the PIP screen, the size of the PIP screen may be different and the PIP picture may be disrupted. This does not indicate a malfunction of the TV.
- In the TWIN picture screen, you can only operate and hear the sound of the main left screen (♪ appears on the screen).
- When the button is pressed, the TV screen flickers or goes blank for about one second before the TWIN pictures appear. This does not indicate a malfunction of the TV.

## Displaying multiple programs

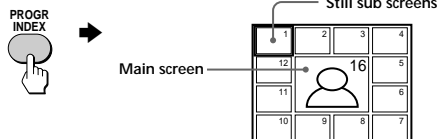
### — "PROGRAM INDEX"

The PROGRAM INDEX feature displays all of the preset TV programs on twelve or seven sub screens for direct selection.

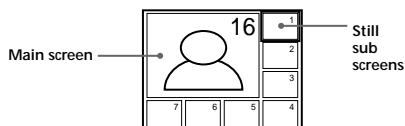


Press PROGR INDEX.

The first twelve preset programs appear one by one, clockwise from the upper left corner.



When the number of the preset TV programs is less than eight, the first seven preset programs appear one by one, clockwise from the upper right corner.



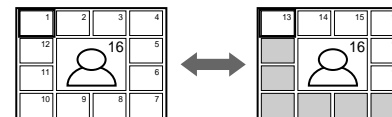
- Tip**
- When you press the PROGR INDEX button in the TWIN pictures mode, the left picture appears as the main screen of the PROGRAM INDEX mode.

## Displaying multiple programs (continued)

To view the next or the previous twelve preset programs

This works only when the number of the preset TV programs is more than twelve.

Press PROGR +/- on the remote or the TV.

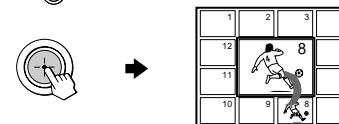


To select the desired program directly from the sub screens

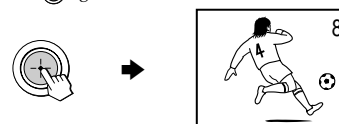
1 Move up, down, left or right to move the frame to the screen of the program you want to watch.



2 Press .



3 Press again.




- Tip**
- Pressing the number buttons directly displays the program.

continued



### To return to the normal screen

Press PROGR INDEX again, or:

- 1 Select "PROGRAM INDEX" from the "MULTI PICTURE" menu.
- 2 Press .

#### Tip

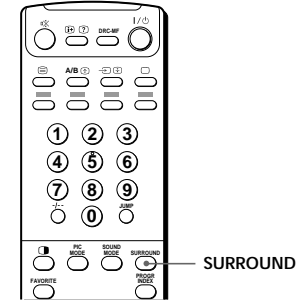
- You can also display multiple programs using the menu (see "Changing the MULTI PICTURE setting" on page 33).

#### Note

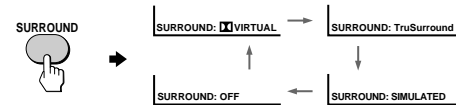
- When displaying multiple programs, only the sound of the main screen is heard.


## Listening with surround sound

The surround feature enables you to enjoy the sound effects of a concert hall or movie theater.







Press SURROUND repeatedly until you receive the desired surround sound.



Select	To
"  VIRTUAL"	listen to Dolby* Surround encoded sound.
"TruSurround"	listen to the surround sound that spreads out to the rear of a room.
"SIMULATED"	listen to monaural sound with a stereo-like effect.
"OFF"	turn off the surround sound.

#### Notes

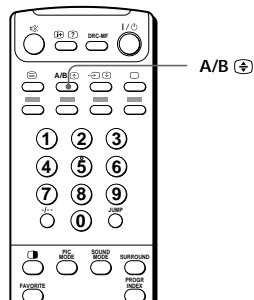
- The Virtual Dolby Surround of this model consists of Dolby Digital, Dolby Pro Logic and TruSurround.
- The " VIRTUAL" (Virtual Dolby Digital) is only available when receiving a Dolby Digital signal through the  DIGITAL IN (component video input) jack at the rear of your TV and "DIGITAL IN: ON" in the "A/V CONTROL" menu is selected (see pages 7 and 30).
- When using the  DIGITAL IN (component video input) jack at the rear of your TV, the available surround modes depend on the type of digital signal being received.
- SIMULATED uses SRS (MONO).

\* Manufactured under license from Dolby Laboratories Licensing Corporation. DOLBY, the double-D symbol  and "PRO LOGIC" are trademarks of Dolby Laboratories Licensing Corporation.


"**TruSurround**" is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents".

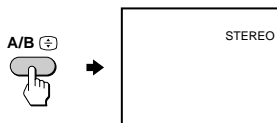
## Enjoying stereo or bilingual programs

You can enjoy stereo sound or bilingual programs of NICAM and A2 (German) stereo systems.



Press A/B repeatedly until you receive the sound you want.

The on-screen display changes to show the selected sound and the  indicator on the TV lights up red.



### When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	
NICAM bilingual	
NICAM monaural	

continued

### Enjoying stereo or bilingual programs (continued)

#### When receiving an A2 (German) program

Broadcasting	On-screen display (Selected sound)
A2 (German) stereo	
A2 (German) bilingual	

#### Receiving area for NICAM and A2 (German) programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
A2 (German)	Australia, Malaysia, Thailand, etc.

#### Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, but the noise is reduced.
- Before receiving a NICAM stereo program in China, please check the NICAM broadcast condition at your area. When receiving a NICAM stereo program, the receiving conditions might vary depending on area. In addition, different strength of the NICAM broadcast signal might affect the receiving quality.

#### If the sound is distorted or noisy when receiving a monaural program through the (antenna) terminal

Press A/B repeatedly until "MONO" appears on the screen.

To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.

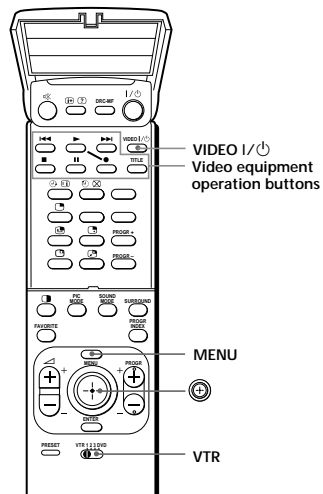


#### Notes

- The "MONO" or "AUTO" setting is memorized for each program position.
- You cannot receive a stereo broadcast signal when the TV is in the "MONO" setting. Normally, set the TV to "AUTO".

## Operating optional components

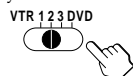
You can use the supplied remote to operate Sony video equipment such as Beta, 8 mm, VHS or DVD.



### Setting up the remote to work with other connected equipment

Switch VTR to select the desired equipment type (see the chart below).

For example, to operate a Sony 8 mm VCR:



To control	Select
DVD	DVD
VTR1 (Beta)	1
VTR2 (8 mm)	2
VTR3 (VHS)	3

#### Notes

- If your video equipment is furnished with a COMMAND MODE selector, set this selector to the same position as the VTR switch.
- If the equipment does not have a certain function, the corresponding button on the remote will not operate.

continued

### Operating optional components (continued)

#### Operating a VCR using the remote

To	Press
turn on/off	VIDEO I / ⏻
record	▶ while pressing ●
play	▶
stop	■
fast forward (▶▶)	▶▶
rewind the tape (◀◀)	◀◀
pause	⏸
search the picture forward (▶▶) or backward (◀◀)	▶▶ or ◀◀ during playback. Release to resume normal playback.

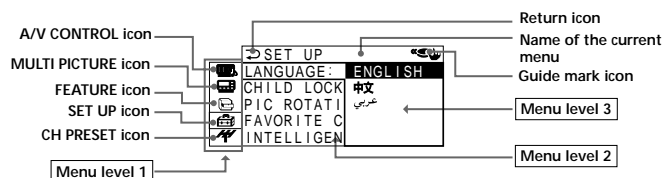
#### Operating a DVD player using the remote




To	Press
turn on/off	VIDEO I / ⏻
play	▶
stop	■
pause	⏸
step through different tracks of an audio disc	▶▶ to step forward or ◀◀ to step backward.
display the title menu	TITLE
display the menu	MENU while holding down ●
select the menu item	Move ● up, down, left or right while holding down ●

## Adjusting Your Setup (MENU)

### Introducing the menu system



The MENU button lets you open a menu and change the settings of your TV. The following is an overview of the menu system.



Level 1	Level 2	Level 3/Function	
 "A/V CONTROL"	"DRC-MF"	Select the "DRC-MF" mode: "DRC1250" → "DRC100"	
	"PICTURE MODE"	"ADJUST"	Select the picture mode: "DYNAMIC" → "STANDARD" → "HI-FINE" → "PERSONAL" → "ADJUST"
		"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP"
	"SOUND MODE"	"ADJUST"	Select the sound mode: "DYNAMIC" → "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST"
		"ADJUST"	Adjust the "PERSONAL" option: "BASS" → "TREBLE" → "BALANCE" → "BBE"*
	"SURROUND"	Select the "SURROUND" mode: "VIRTUAL" → "TruSurround" → "SIMULATED" → "OFF"	
"DIGITAL IN"	Activate or deactivate the digital audio input jack at the rear of your TV.		
 "MULTI PICTURE"	"PIP"	Activate or deactivate the PIP feature.	
	"PIP POSITION"	Change the position of the sub screen.	
	"SWAP"	Swap the pictures between the main and sub screens.	
	"TWIN"	Display a TV program or video beside the main screen.	
"PROGRAM INDEX"	Display all the preset TV programs at the same time.		
 "FEATURE"	"WIDE MODE"	Activate or deactivate WIDE MODE feature.	
	"ECO MODE"	Activate or deactivate ECO MODE feature.	
	"GAME MODE"	Activate or deactivate GAME MODE feature.	

Adjusting Your Setup (MENU)

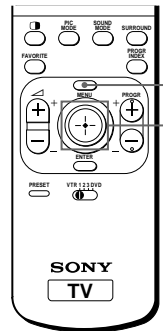
### Introducing the menu system (continued)

Level 1	Level 2	Level 3/Function
 "SET UP"	"LANGUAGE"	Change the menu language: "ENGLISH" → "中文" (Chinese) → "عربي" (Arabic)
	"CHILD LOCK"	Lock out specific channels.
	"PIC ROTATION"	Rotate the picture.
	"FAVORITE CH"	Set favorite channels.
	"INTELLIGENT VOL"	Adjust the volume automatically.
 "CH PRESET"	"AUTO PROGRAM"	Preset channels automatically.
	"MANUAL PROGRAM"	Preset channels manually.
	"SKIP"	Skip unwanted or unused program numbers.
	"TV SYS"	Select the TV system: "B/G" → "I" → "D/K" → "M"
	"COL SYS"	Select the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"

\* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

continued

## How to use the menu



Press MENU to display the menu.

Move the button joystick (⊕) up, down, left or right to select the desired item.

Press the button joystick (⊕) to confirm the selection and/or go to the next level. You can also press ENTER on the remote to do this.

### Other menu operations

To	Press/Move
Adjust the setting value	Move ⊕ up, down, left or right.
Move to the next/previous menu level	Move ⊕ left or right.
Cancel the menu	Press MENU.

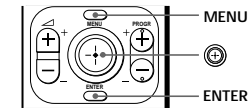
#### Tips

- If you want to exit from Menu level 2 to Menu level 1, move ⊕ up or down until the return icon (⏪) is highlighted, then press ⊕ or ENTER.
- The MENU, ENTER, and ⏪ +/- buttons on the TV can also be used for the operations above.

#### Note

- If more than 60 seconds elapse between entries, the menu screen automatically disappears.

## Changing the "A/V CONTROL" setting



The "A/V CONTROL" menu allows you to adjust the picture and sound settings.

- 1 Press MENU.
- 2 Move ⊕ up or down to select **A/V CONTROL**, then press ⊕.
- 3 Move ⊕ up or down to select either "DRC-MF", "PICTURE MODE", "SOUND MODE", "SURROUND", or "DIGITAL IN", then press ⊕.
- 4 Move ⊕ up or down to select the desired option, then press ⊕.

For	Select
"DRC-MF"	either "DRC1250" or "DRC100".
"PICTURE MODE"	either "DYNAMIC", "STANDARD", "HI-FINE", "PERSONAL*", or "ADJUST".
"SOUND MODE"	either "DYNAMIC", "DRAMA", "SOFT", "PERSONAL*", or "ADJUST".
"SURROUND"	either "D VIRTUAL", "TruSurround", "SIMULATED", or "OFF".
"DIGITAL IN"	either "ON" or "OFF".

\* When the "PERSONAL" mode is selected, the last adjusted picture/sound settings from the "ADJUST" option are received (see page 31).



#### Tip

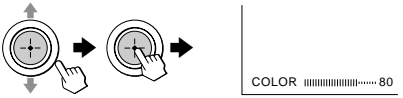

- For details on the options under the "DRC-MF", "PICTURE MODE"/"SOUND MODE", "SURROUND" and "DIGITAL IN" modes, see pages 15, 14, 22 and 32 respectively.



### To return to the normal screen

Press MENU.

### Adjusting the "ADJUST" options under "PICTURE MODE"



- Move  up or down to select the desired item (e.g., "COLOR"), then press .

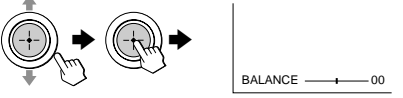


- Adjust the value according to the following table, then press .


For	Move  down or left to	Move  up or right to
"PICTURE"	decrease picture contrast	increase picture contrast
"COLOR"	decrease color intensity	increase color intensity
"BRIGHT"	darken the picture	brighten the picture
"HUE"*	increase red picture tones	increase green picture tones
"SHARP"	soften the picture	sharpen the picture

\* You can adjust "HUE" for the NTSC color system only.
- Repeat the above steps to adjust other items.  
The adjusted settings will be received when you select "PERSONAL".

### Adjusting the "ADJUST" options under "SOUND MODE"


- Move  up or down to select the desired item (e.g., "BALANCE"), then press .

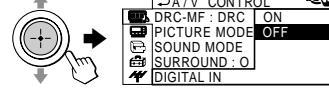

- Adjust the value according to the following table, then press .




For	Move 
"BASS"	down or left to decrease the bass, up or right to increase the bass.
"TREBLE"	down or left to decrease the treble, up or right to increase the treble.
"BALANCE"	down or left to increase the left speaker's volume, up or right to increase the right speaker's volume.
"BBE"	up or down to select "HIGH", "LOW", or "OFF". "BBE" can produce clear sound.
- Repeat the above steps to adjust other items.  
The adjusted settings will be received when you select "PERSONAL".


### Changing the "A/V CONTROL" setting (continued)


#### Setting the "DIGITAL IN" options

- In the "DIGITAL IN" menu, move  up or down to select the desired option (see table below).



Select	To
"ON"	receive digital audio signal through  DIGITAL IN (component video input) jack.
"OFF"	receive analog audio signal through  L and R (component video input) jack.
- Press  to confirm the selected option.

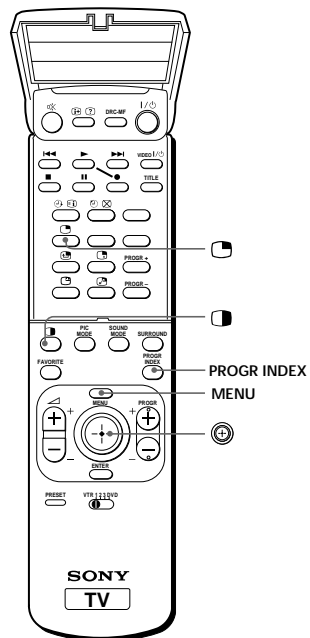


- Note**
- Your TV can only receive Dolby Digital or Linear PCM format digital signals through the  DIGITAL IN (component video input) jack (see page 7). Receiving any other format digital signal may cause unwanted noise or no sound from the speakers.
- Tip**
- For details on the menu system and how to use the menu, refer to "Introducing the menu system" on page 27.

continued

## Changing the "MULTI PICTURE" setting

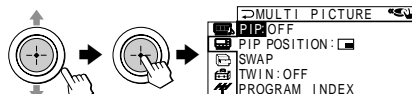
The "MULTI PICTURE" menu allows you to use the Picture-in-Picture (PIP), TWIN pictures, or PROGRAM INDEX features.



- 1 Press MENU.

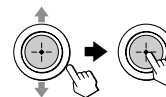


- 2 Move up or down to select then press .



## Changing the "MULTI PICTURE" setting (continued)

- 3 Move up or down to select the desired option (see the table below), then press .



Select	To
"PIP"	display the PIP screen within the main picture. Move  up or down to select "ON", then press . To cancel, press  or select "OFF", then press .
"PIP POSITION"	change the position of the PIP screen. Move  up or down to select the desired position, then press .
"SWAP"	swap the main and PIP screens, or right and left pictures of the TWIN pictures.
"TWIN"	display a different TV program or video beside the main picture. Move  up or down to select "ON", then press . To cancel, press  or select "OFF", then press .
"PROGRAM INDEX"	view multiple programs on the sub-screens. To cancel, press PROGR INDEX.



## To return to the normal screen

Press MENU.

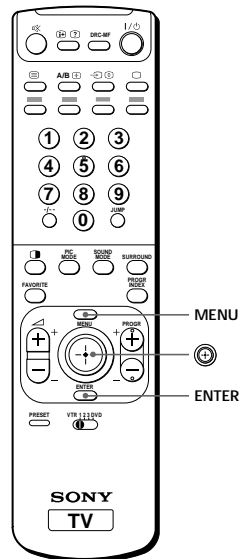
### Tip

- For details on the menu system and how to use the menu, see "Introducing the menu system" on page 27.

continued

## Changing the "FEATURE" setting

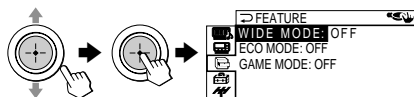
The "FEATURE" menu allows you to change the size of the picture on the screen when receiving wide mode (16:9) picture signals. You can also adjust the picture setting that is suitable for viewing video games, and reduce the power consumption of your TV.



1 Press MENU.

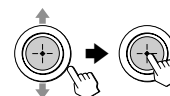


2 Move up or down to select , then press .



## Changing the "FEATURE" setting (continued)

3 Move up or down to select the desired option (see the table below), then press .



Select	To
"WIDE MODE"	change the size of the picture when receiving wide-mode (16:9) picture signal.  Move  up or down to select "ON", then press .
	To restore the normal picture size, select "OFF" then press .
"ECO MODE"	reduce power consumption of your TV to save energy. Move  up or down to select "ON", then press . To cancel, select "OFF", then press .
"GAME MODE"	adjust the picture setting that is suitable to view video games. Move  up or down to select "ON", then press . To cancel, select "OFF", then press .

### Note

- When you turn on "ECO MODE", the picture may become dimmer. Turning "ECO MODE" off will restore the picture to its original setting.
- "WIDE MODE" and "GAME MODE" is available only when receiving signals through the (video input), (S video input), or (component video input) jacks at the side and rear of your TV.

### Tip

- You can check if "ECO MODE" is turned on by checking its setting in the menu or by pressing on the remote. If "ECO MODE" is on, then the icon will appear on the bottom right corner of the screen.

### To return to the normal screen

Press MENU.

### Tip

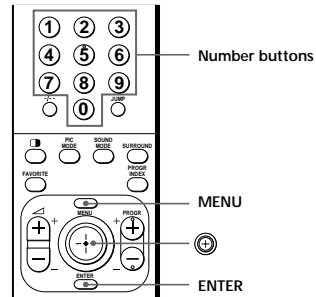
- For details on the menu system and how to use the menu, see "Introducing the menu system" on page 27.

continued



## Changing the "SET UP" setting

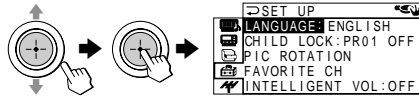
The "SET UP" menu allows you to: change the menu language, block channels, adjust the picture position, program your favorite channels, and adjust the volume automatically.



- 1 Press MENU.



- 2 Move up or down to select , then press .



- 3 Move up or down to select the desired option, then press .



Select	To
"LANGUAGE"	change the menu language (see page 12).
"CHILD LOCK"	block channels (see page 38).
"PIC ROTATION"	adjust the picture position when it is not aligned with the TV screen. Move  up or right to adjust the position clockwise, then press .Move  down or left to adjust the position counterclockwise, then press .
"FAVORITE CH"	select your favorite channels (see pages 16 and 39).
"INTELLIGENT VOL"	adjust the volume of each TV program automatically. Move  up or down to select "ON", then press .To cancel, select "OFF", then press .

### To return to the normal screen

Press MENU.

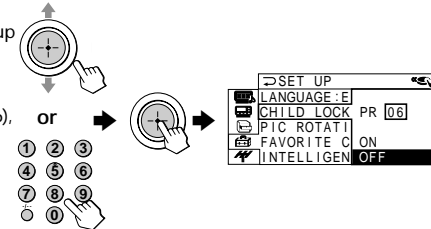
continued

Adjusting Your Setup (MENU) | 37

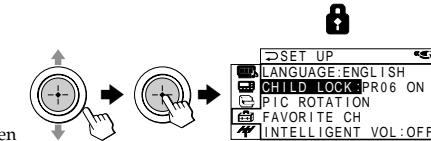
## Changing the "SET UP" setting (continued)

### Blocking channels ("CHILD LOCK")

- 1 After selecting "CHILD LOCK", either move up or down, or press the number buttons (or PROGR +/-) to select the desired channel (e.g. PR 06), then press .



- 2 Move up or down to select "ON", then press . To unlock the channel, select "OFF".



The lock symbol () appears on the screen when "ON" is selected.

If a locked channel is selected, the lock symbol appears on the screen.



- 3 Repeat steps 1 and 2 to lock other channels.

### To return to the normal screen


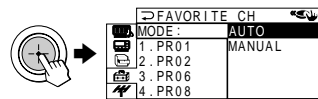


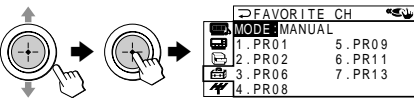


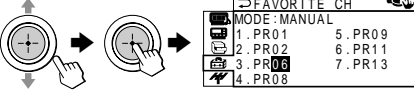


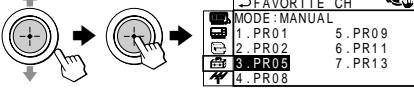
Press MENU.

#### Note

- If you preset a locked channel, that channel will be unlocked (see page 40).

38 | Adjusting Your Setup (MENU)

### Changing the favorite channel setting

- After selecting "FAVORITE CH", make sure "MODE" is selected, then press .
 
- Move  up or down to select "MANUAL", then press .
 
- Move  up or down to select the program you want to change, then press .
 
- Move  up or down to change the number, then press .
 
- Repeat steps 3 and 4 to set other channels.

### To return to the normal screen

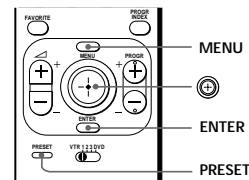
Press MENU.





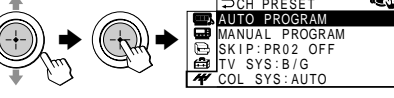



#### Note




- If you press the PROGR +/- buttons or number buttons in step 4 above, the TV will display the channel immediately.

### Changing the "CH PRESET" setting

The "CH PRESET" menu allows you to adjust the setup of your TV. For example, you can manually tune in a channel with a weak signal that fails to be tuned in by automatic presetting.



- Press MENU.
 
- Move  up or down to select , then press .
 
- Move  up or down to select the desired option, then press .
 

Select	To
"AUTO PROGRAM"	preset channels automatically.
"MANUAL PROGRAM"	preset channels manually. See "Presetting channels manually" on page 41.
"SKIP"	skip unwanted or unused channels. 1 Either move  up or down, or press the number buttons (or PROGR +/-) until the unused or unwanted channel number appears, then press  . 2 Select "ON", then press  . 3 To disable other channels, repeat steps 1 and 2. To restore the skipped channel, select "OFF" in step 2.
"TV SYS"	select the TV system.
"COL SYS"	select the color system. Normally, set this to "AUTO".

### To return to the normal screen

Press MENU.



#### Tip

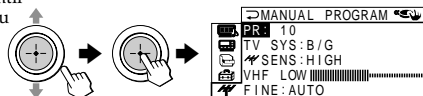
- For details on the menu system and how to use the menu, refer to "Introducing the menu system" on page 27.

## Presetting channels manually

**1** After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected, then press .



(2) Move  up or down until the program number you want to preset (e.g., program number "10") appears on the menu, then press .





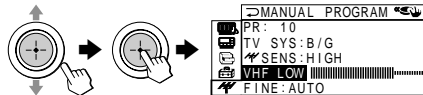
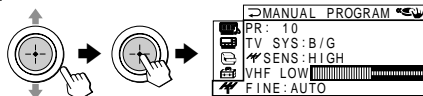
### Tips

- You can also select the "MANUAL PROGRAM" menu directly by pressing the PRESET button on the remote.
- You can also select the program number with the Progr +/- or number buttons.



**2** Select the desired channel.



(1) Move  up or down to select either "VHF LOW", "VHF HIGH", or "UHF", then press .

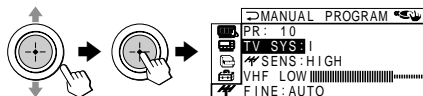
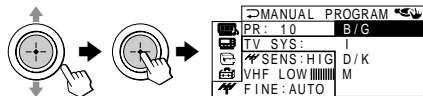
(2) Move  up or down until the desired channel's broadcast appears on the TV screen, then press .



**3** If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Move  up or down to select "TV SYS", then press .



(2) Move  up or down until the sound becomes normal, then press .







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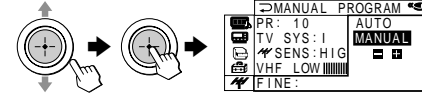
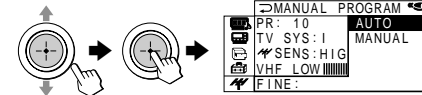
## Changing the "CH PRESET" setting (continued)

**4** If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "FINE" tuning feature.



(1) Move  up or down to select "FINE", then press .

(2) Move  up or down to select "MANUAL", then press .

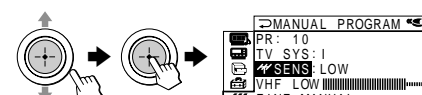
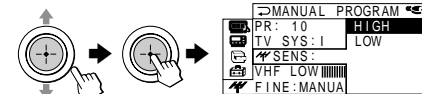
(3) Move  either up, down, left or right until the picture and sound quality are optimal, then press . The + or - icon on the menu flashes while tuning.



**5** If the TV signal is too strong and the picture is distorted, you can adjust the TV reception sensitivity.

(1) Move  up or down to select "SENS", then press .

(2) Move  up or down to select "LOW", then press .



## To return to the normal screen

Press MENU.

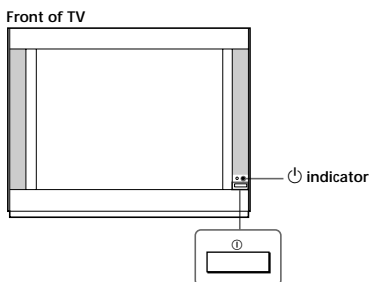
### Notes

- The TV system ("TV SYS") and the TV reception sensitivity ("SENS") settings are memorized for each program number.
- If you preset a locked channel, that channel will be unlocked (see page 38).

**Additional Information**

**Self-diagnosis function**

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the ⏻ (standby) indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.






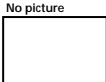




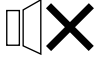




- 1** Check that the ⏻ indicator flashes red a number of times between 3-second intervals.
- 2** Count the number of times the ⏻ indicator flashes.
- 3** Press Ⓛ (main power) to turn off your TV.
- 4** Inform your nearest Sony service center about the number of times the ⏻ indicator flashed. Be sure to note the model name and serial number located on the rear of your TV.

Additional Information

**Troubleshooting**


If you have any problem while viewing your TV, please check the following troubleshooting guide. If the problem persists, contact your Sony dealer.

Symptom	Possible cause	Solutions	Page
 Snowy picture	<ul style="list-style-type: none"> <li>The connection is loose or the cable is damaged.</li> <li>Channel presetting is inappropriate or incomplete.</li> </ul>	<ul style="list-style-type: none"> <li>Check the antenna cable and connection on the TV, VCR and at the wall.</li> <li>Press the PRESET button to display the "MANUAL PROGRAM" menu and preset the channel again.</li> </ul>	4 41
 Noisy sound	<ul style="list-style-type: none"> <li>The antenna type is inappropriate.</li> <li>The antenna direction needs adjustment.</li> <li>Signal transmission is low.</li> </ul>	<ul style="list-style-type: none"> <li>Check the antenna type (VHF/UHF). Contact a Sony dealer for advice.</li> <li>Adjust the antenna direction. Contact a Sony dealer for advice.</li> <li>Try using a booster.</li> </ul>	- - -
 Distorted picture	<ul style="list-style-type: none"> <li>Broadcast signals are too strong.</li> </ul>	<ul style="list-style-type: none"> <li>Press the PRESET button to display the "MANUAL PROGRAM" menu. Then, select "SENS: LOW".</li> <li>Turn off or disconnect the booster if it is in use.</li> </ul>	42 -
 Noisy sound	<ul style="list-style-type: none"> <li>The TV system setting is inappropriate.</li> </ul>	<ul style="list-style-type: none"> <li>If the sound of all the channels are noisy, display the "CH PRESET" menu and select "AUTO PROGRAM" to preset the channels again.</li> <li>If the sound of some channels is noisy, select the channel, then display the "CH PRESET" menu and select the appropriate TV system ("TV SYS").</li> </ul>	40 41
 Good picture	<ul style="list-style-type: none"> <li>The digital audio signal is inappropriate.</li> </ul>	<ul style="list-style-type: none"> <li>Set "DIGITAL IN: OFF" in the "A/V CONTROL" menu and connect L and R (component video input) on your TV to receive analog audio signals.</li> </ul>	7, 32
 No picture	<ul style="list-style-type: none"> <li>The power cord, antenna or VCR is not connected.</li> <li>The TV is not turned on.</li> </ul>	<ul style="list-style-type: none"> <li>Check the power cord, antenna and the VCR connections.</li> <li>Press I/⏻ (power).</li> <li>Press Ⓛ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.</li> </ul>	4 10 11
 No sound			

Symptom	Possible cause	Solutions	Page
<b>Good picture</b> 	• The volume level is too low.	• Press $\triangle +$ to increase the volume level.	11
	• The sound is muted.	• Press $\text{M}$ to cancel the muting.	11
<b>No sound</b> 	• The broadcast signal has a transmission problem.	• Press A/B until a better sound is heard.	23
	• The digital audio signal is inappropriate.	• Set "DIGITAL IN: OFF" in the "A/V CONTROL" menu and connect $\text{L}$ and R (component video input) on your TV to receive analog audio signals.	7, 32
	• The "DIGITAL IN" setting in the "A/V CONTROL" menu is inappropriate.	• When connecting to $\text{L}$ (component video input) on your TV, set "DIGITAL IN: ON" to receive digital audio signals through $\text{DIGITAL IN}$ , or set "DIGITAL IN: OFF" to receive analog audio signals through $\text{L}$ and R.	32
<b>Dotted lines or stripes</b> 	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the TV.  • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	- -
	<b>Double images or "ghosts"</b> 	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning ("FINE") function.
• The antenna direction needs adjustment.		• Adjust the antenna direction. Contact a Sony dealer for advice.	-
• Use of a booster is inappropriate.		• Turn off or disconnect the booster if it is in use.	-
<b>No color</b> 	• The color level setting is too low.	• Display the "A/V CONTROL" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level.	31
	• The color system setting is inappropriate.	• Display the "CH PRESET" menu and check the color system ("COL SYS") setting (usually set this to "AUTO").	40
	• The antenna direction needs adjustment.	• Adjust the antenna direction. Contact a Sony dealer for advice.	-
<b>Abnormal color patches</b> 	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Locate external speakers or other equipment away from the TV. Do not move the TV while the TV is turned on. Press $\text{P}$ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	-

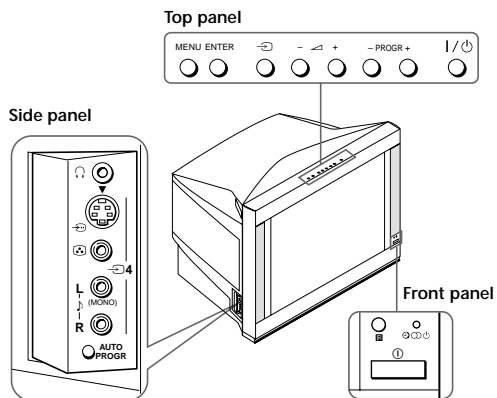
continued

### Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
TV cannot receive stereo broadcast signal.	• The stereo reception setting is inappropriate.	• Press A/B until "AUTO" appears on the screen.	23
Stereo broadcast sound switches on and off or is distorted.	• The connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction needs adjustment.	• Adjust the antenna direction. Contact a Sony dealer for advice.	-
<b>OR</b> The sound switches between stereo and monaural frequently.	• The broadcast signal has a transmission problem.	• Press A/B until a better sound is heard.	23
	<b>Picture slant</b> 	• Terrestrial magnetism is affecting your TV set.	• Display the "SET UP" menu and adjust "PIC ROTATION" so that the picture is aligned to the TV screen.
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning ("FINE") function.	42
The $\text{P}$ indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need servicing.	• Contact your nearest Sony service center.	43
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, causing a noise. This does not indicate a malfunction.	-	-
A small "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	-	-
Static discharge is felt when touching the TV cabinet.	• This is the same static discharge that is felt when touching metal door handles or car doors especially when the air is dry, for example in winter. This does not indicate a malfunction.	-	-

## Identifying parts and controls

### Front, top and side panels



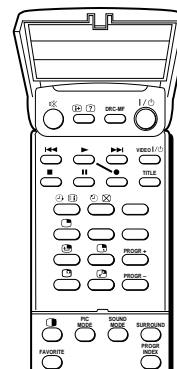
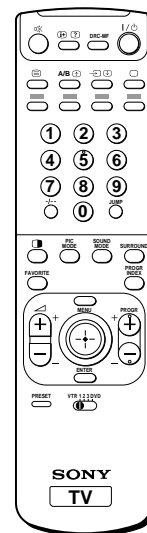
Button	Function	Page
<b>Side panel</b>		
	Headphone jack.	-
AUTO PROGR	Preset channels automatically.	5
<b>Front panel</b>		
	Turn off completely or turn on the TV.	10
<b>Top panel</b>		
I/⏻	Turn off temporarily or turn on the TV.	10
PROGR +/-	Select program number.	10
	Adjust volume.	11
	Select TV or video input.	11
ENTER	Confirm selected items.	29
MENU	Display the menu.	29

continued

Additional Information | 47

### Identifying parts and controls (continued)

#### Remote control

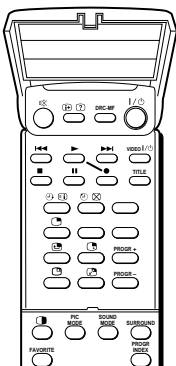
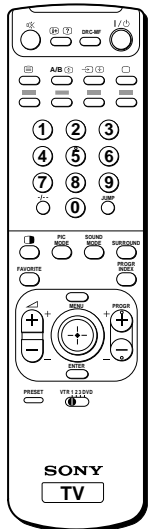


The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations
Yellow	For PIP operations

Button	Function	Page
I/⏻	Turn off temporarily or turn on the TV.	10
PROGR +/-	Select program number.	10
0 - 9, -/-	Input numbers.	10
	Display on-screen information.	11
	Mute the sound.	11
	Display the TV program.	11
	Select TV or video input.	11
	Adjust volume.	11
JUMP	Jump to previous channel.	11
<b>Timer operations</b>		
	Set TV to turn on automatically.	13
	Set TV to turn off automatically.	13
SOUND MODE	Select sound mode.	14
PIC MODE	Select picture mode.	14
DRC-MF	Select DRC-MF mode.	15
<b>Favorite Channel operations</b>		
FAVORITE	Display favorite channels.	16
	Select desired channel.	16
<b>PIP and Twin picture operations</b>		
	Display the PIP screen.	17
	Display TWIN pictures.	17
	Adjust Twin picture size.	18
PROGR +/- PROGR -	Change program in PIP/ Twin picture.	18
	Select video input for PIP/ Twin picture.	18
	Swap main and PIP/Twin picture.	18
	Freeze PIP screen.	18
	Adjust position of PIP screen.	18

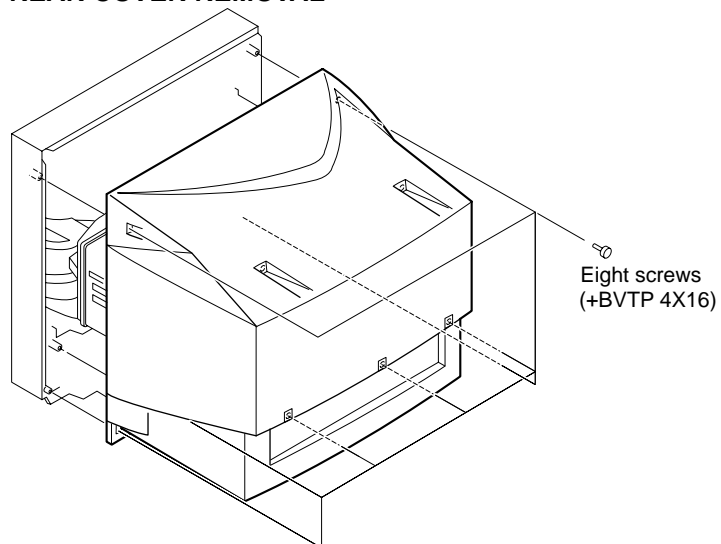
48 | Additional Information



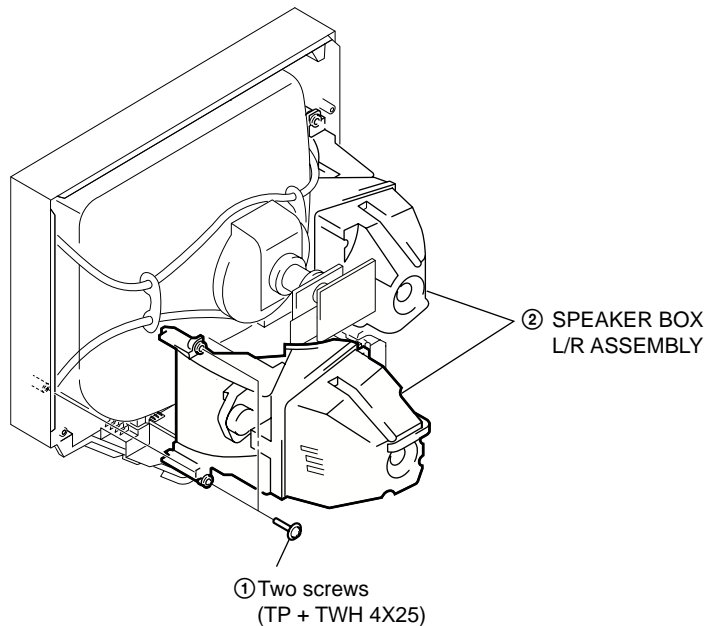
Button	Function	Page
Program Index operations		
PROGR INDEX	Display all preset TV programs.	19
PROGR +/-	View next/previous 12 TV programs.	20
	Select desired channel.	20
SURROUND	Select surround mode.	22
A/B	Select stereo/bilingual mode.	23
Teletext operations (not used for this model)		
	Display Teletext broadcast.	-
	Display Teletext service contents.	-
	Stop Teletext page from scrolling.	-
	Reveal concealed information.	-
	Enlarge the Teletext display.	-
	Show TV screen while waiting for Teletext page.	-
0 - 9	Input Teletext page number.	-
PROGR +/-	Display the next or previous page.	-
(red, green, yellow, blue)	Access a FASTEXT menu.	-
Optional components operations		
VTR	Set up the remote.	25
VIDEO I /	Power.	26
TITLE	Display the title menu.	26
	Play.	26
	Fast forward/Search forward.	26
	Rewind/Search backward.	26
	Record.	26
	Stop.	26
	Pause.	26
Menu operations		
MENU	Display the menu.	29
	Select, adjust and confirm selected items.	29
ENTER	Confirm selected items.	29
PRESET	Display "MANUAL PROGRAM" menu.	41

## SECTION 2 DISASSEMBLY

### 2-1. REAR COVER REMOVAL

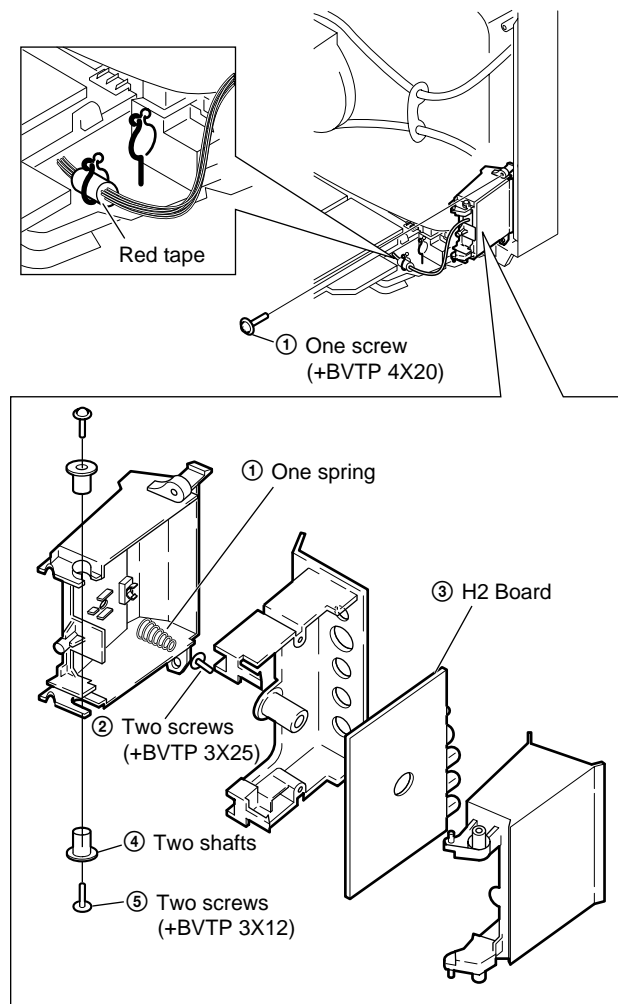


### 2-2. SPEAKER BOX REMOVAL



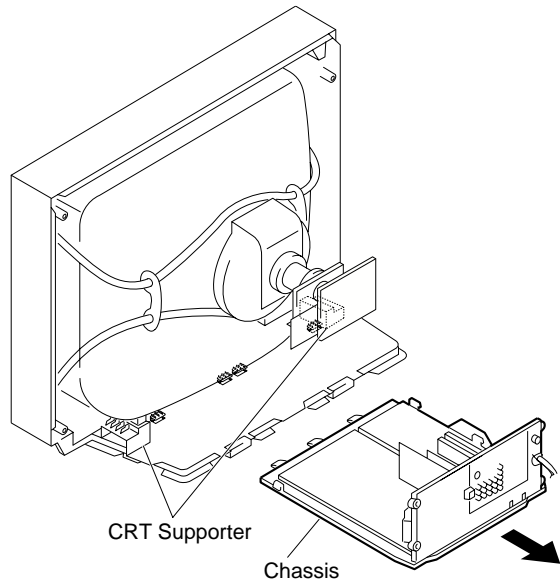
### 2-3. H2 BOARD REMOVAL

Caution: Please make sure that the red colour taped point is just placed with the purse lock when treating the leads to H2 board. If lead treatment is wrongly arranged, it will affect the door opening and closing malfunction.

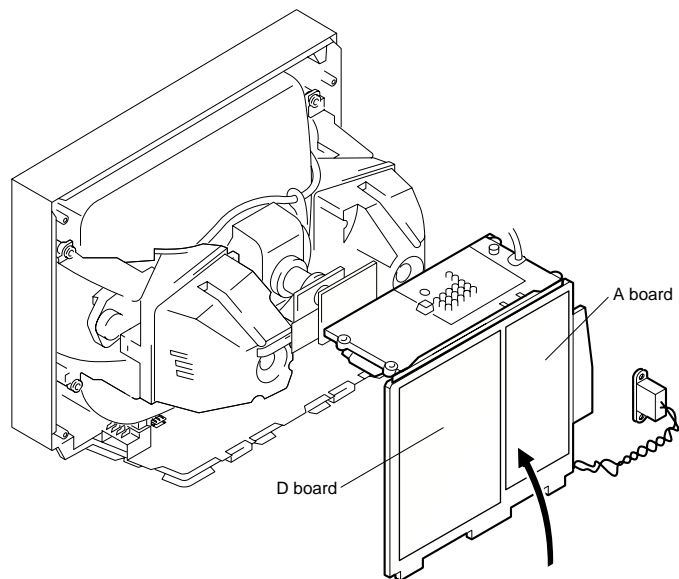




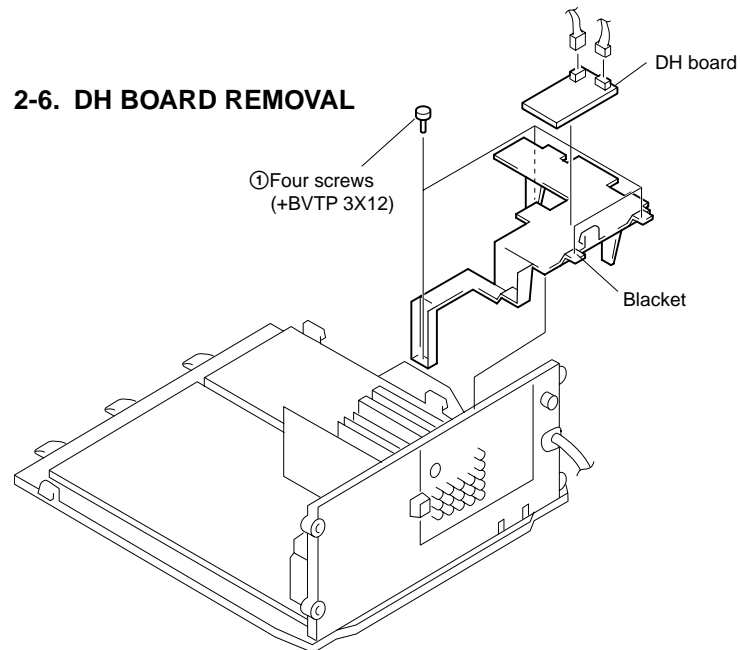
### 2-4. CHASSIS ASSY REMOVAL



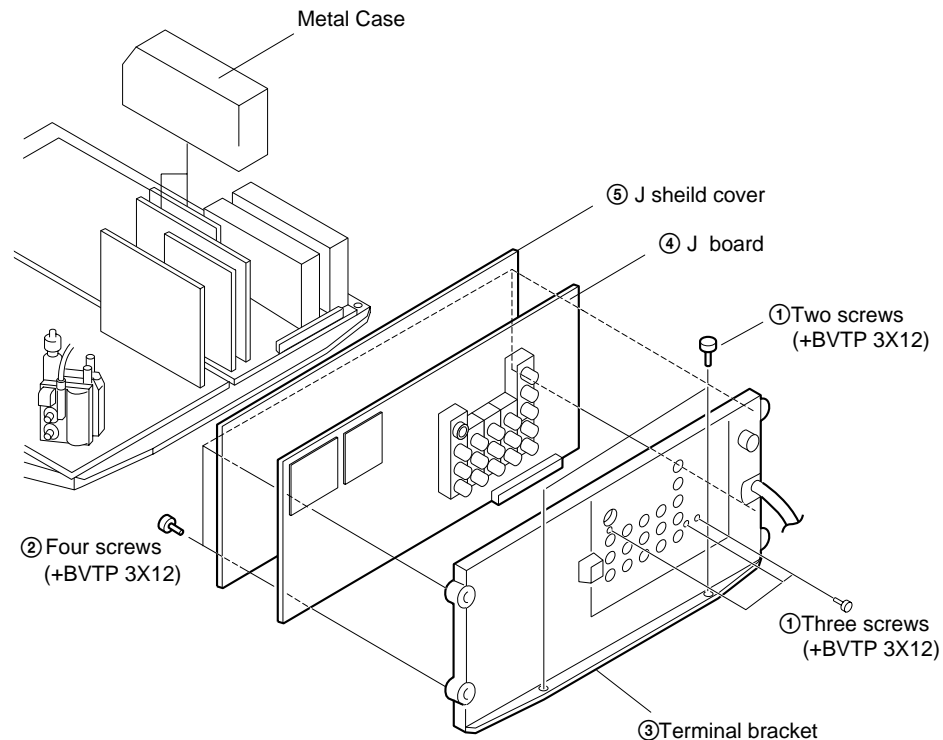
### 2-5. SERVICE POSITION



### 2-6. DH BOARD REMOVAL

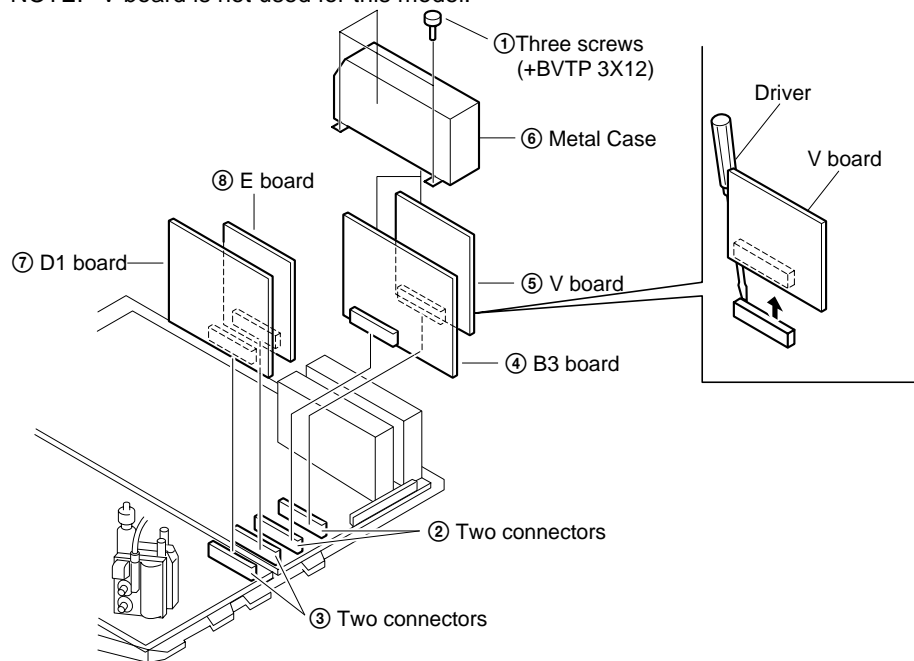


### 2-7. J BOARD REMOVAL

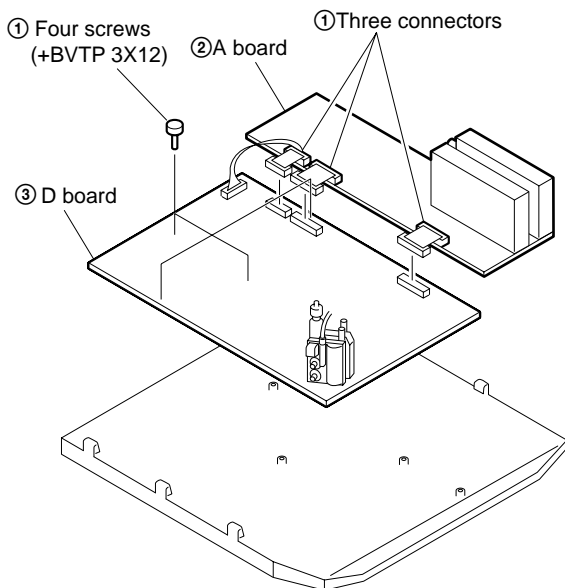


## 2-8. B3, D1 AND E BOARDS REMOVAL

NOTE: V board is not used for this model.

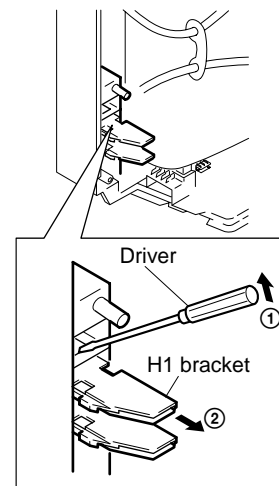


## 2-9. A AND D BOARDS REMOVAL



## 2-10. H1 BOARD REMOVAL

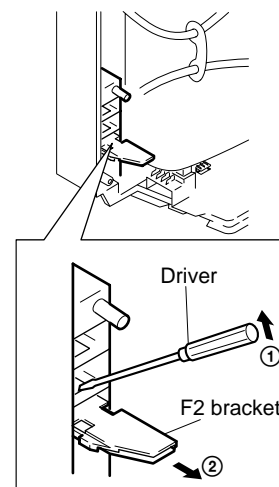
NOTE : Push the hook down using the tip of a screwdriver and at the same time pull the H1 bracket.



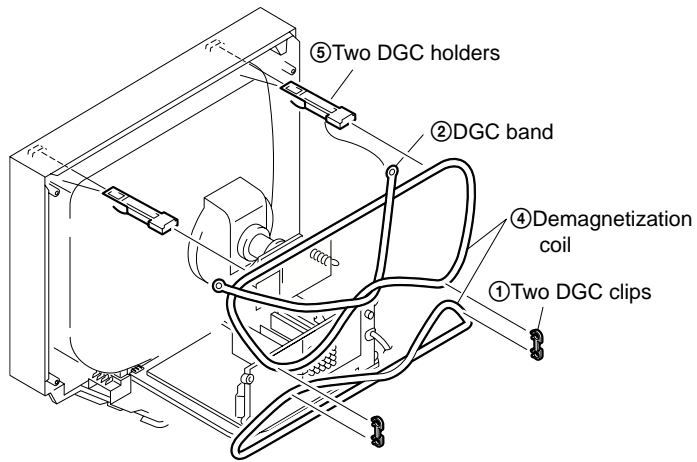
## 2-11. F2 BOARD REMOVAL

NOTE : To remove F2 board, firstly remove the H1 board. Then, push the hook down using the tip of a screwdriver and at the same time pull the F2 bracket.

Caution : When removing the F2 board, please turn off the main AC supply.

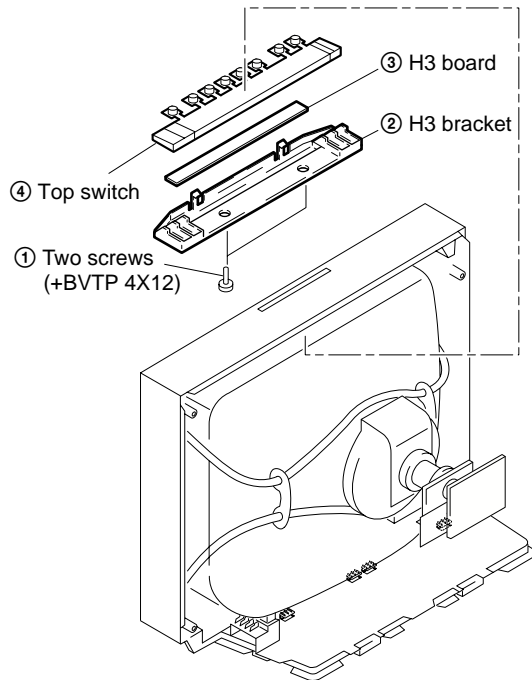


## 2-12. DEMAGNETIZATION COIL REMOVAL



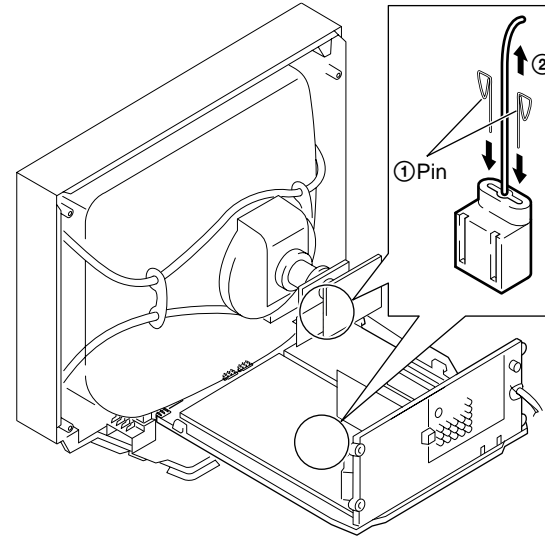
## 2-13. TOP SWITCH REMOVAL (H3 BOARD REMOVAL)

NOTE : To remove H3 board, the CRT has to be removed first.



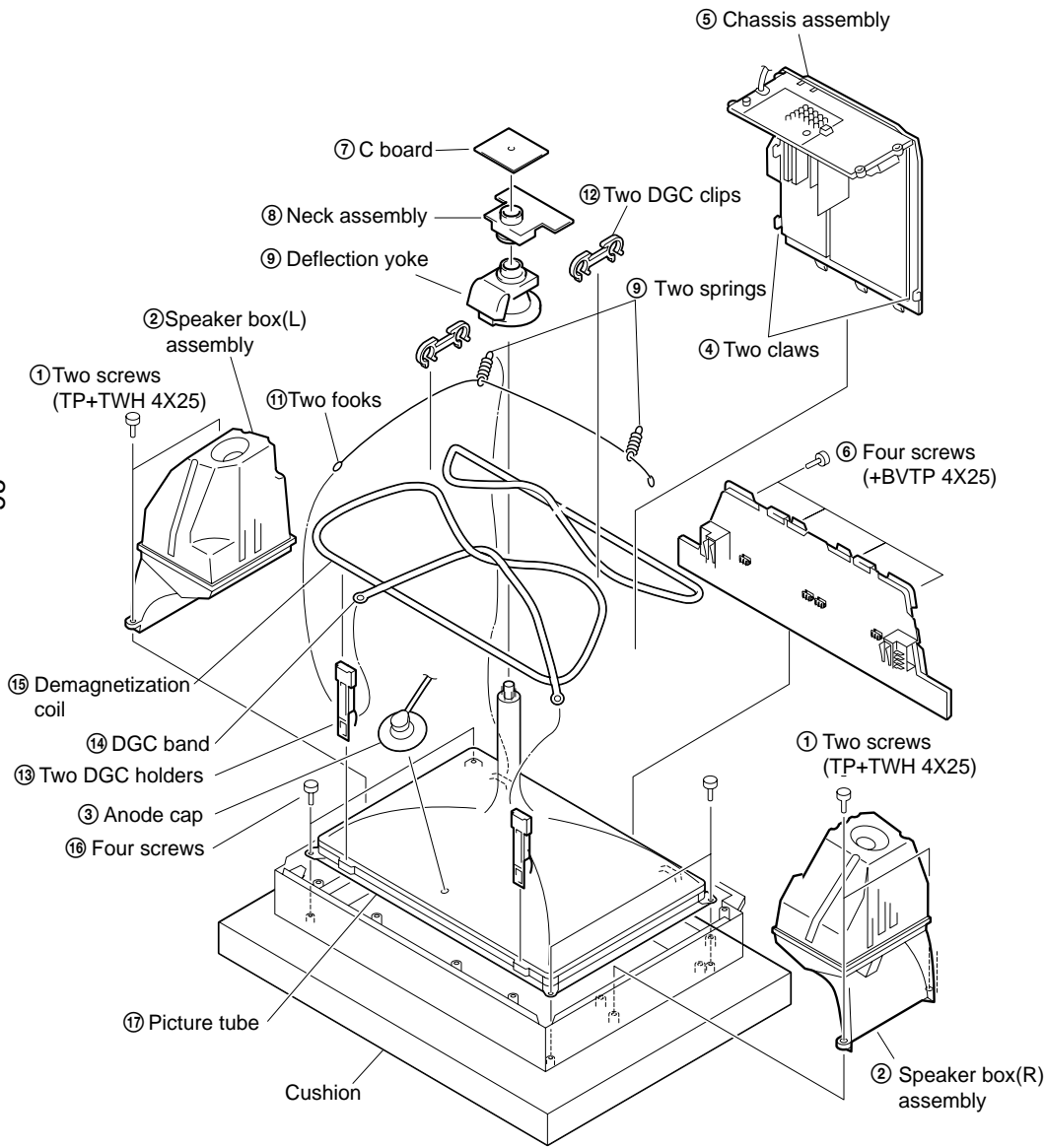
## 2-14. G2 LEAD REMOVAL

NOTE : Insert pin to both edge holes on socket and release the lock.



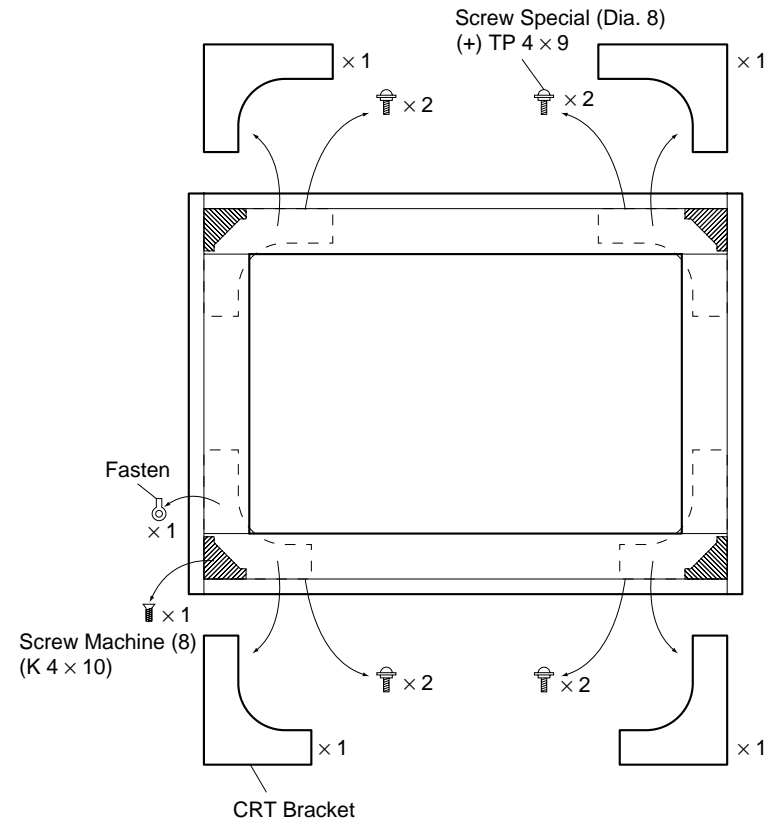
### 2-15. PICTURE TUBE REMOVAL

NOTE : Prior to picture tube removal, please remove the front cover first.  
Caution : Aluminium frame is easily scratched if extra caution is not taken when handling it.

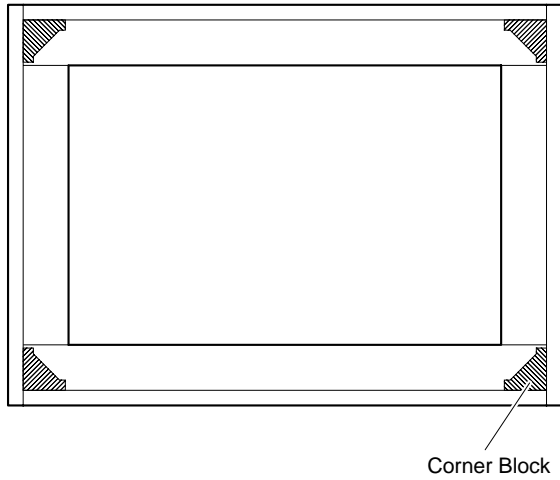


### 2-16. FRAME SUB-ASSY DISASSEMBLY

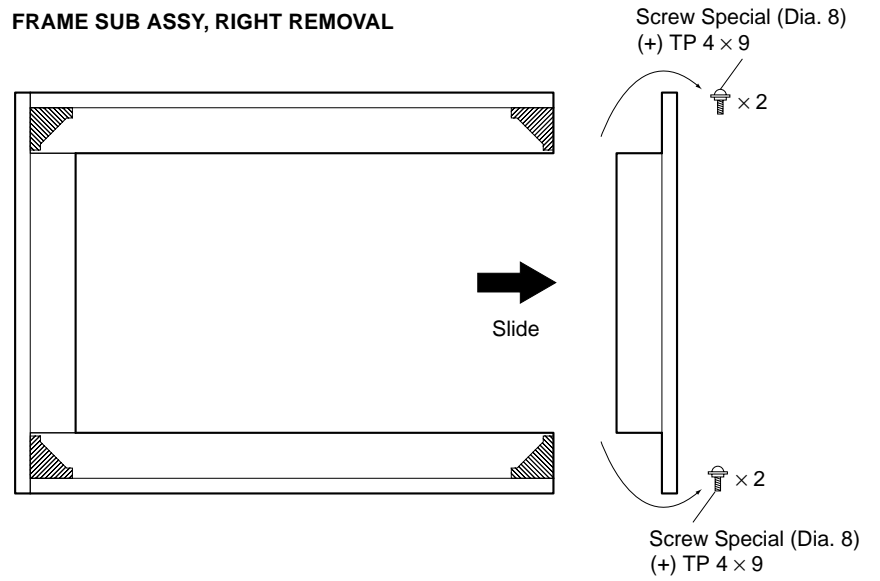
①



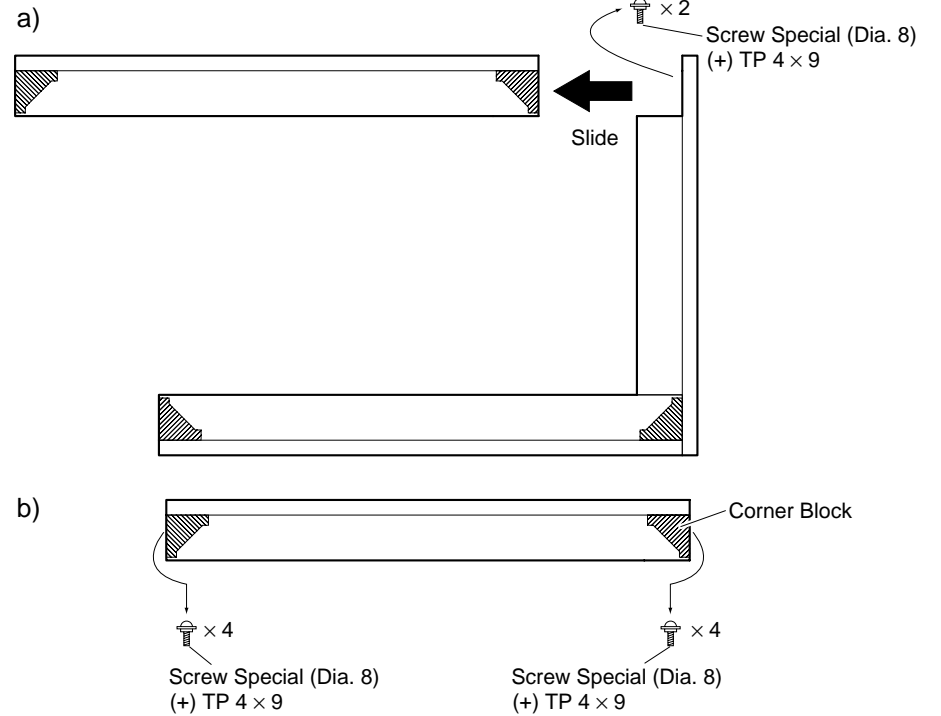
②



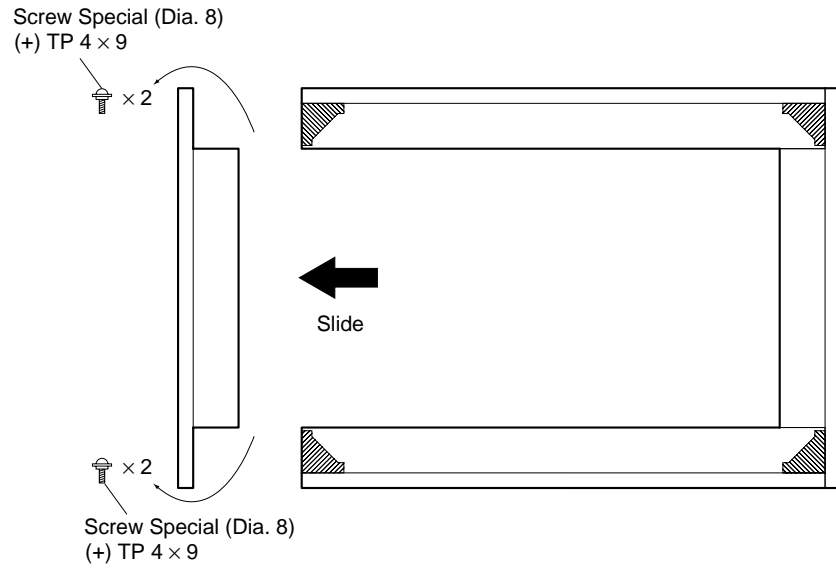
**FRAME SUB ASSY, RIGHT REMOVAL**



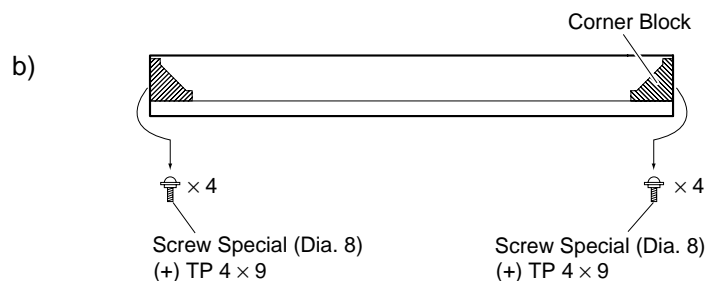
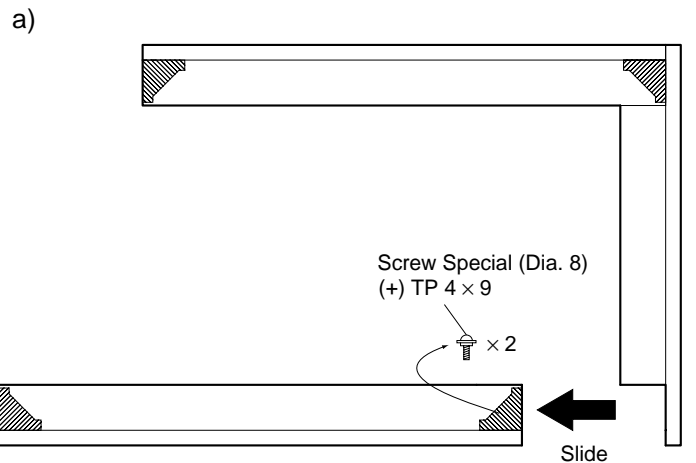
**FRAME SUB ASSY, TOP REMOVAL**



**FRAME SUB ASSY, LEFT REMOVAL**



**FRAME SUB ASSY, BOTTOM REMOVAL**

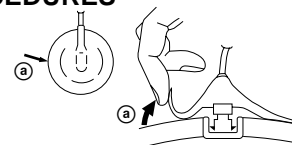


NOTE : When replacing the Frame Sub-Assy Top and Bottom, fix the original corner block to the new part.

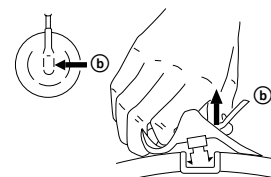
**•REMOVAL OF ANODE-CAP**

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

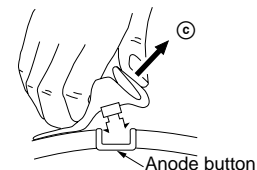
**•REMOVING PROCEDURES**



① Turn up one side of the rubber cap in the direction indicated by the arrow a.



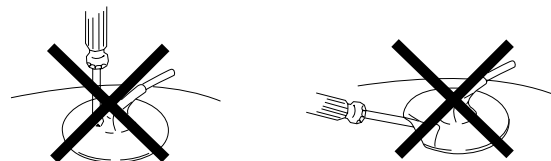
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow b.



③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow c.

**• HOW TO HANDLE AN ANODE-CAP**

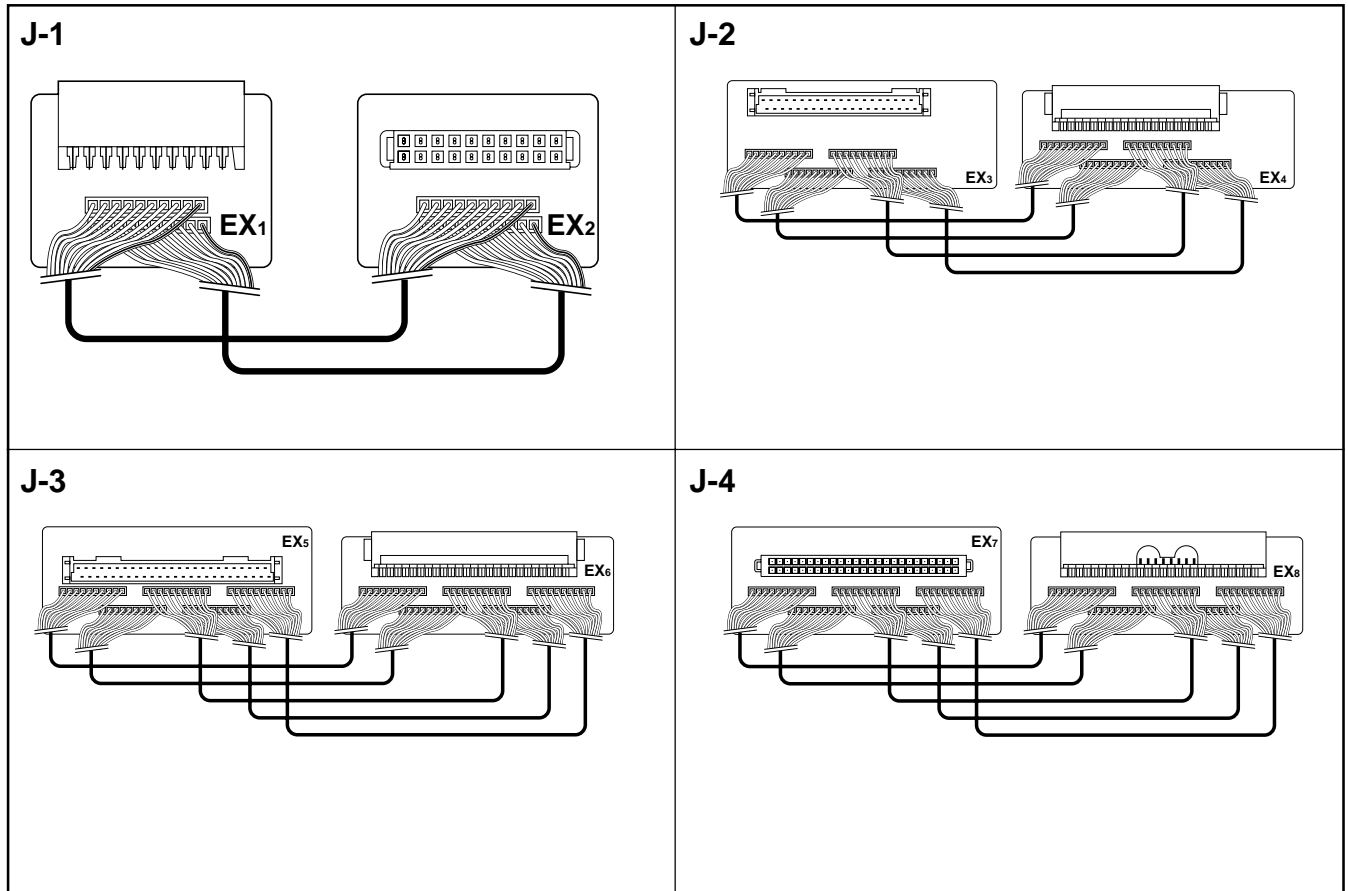
- ① Do not damage the surface of anode-caps with sharp shaped objects.
- ② Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
- ③ Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



## SECTION 3 SERVICE JIG

### 3-1. JIGS REQUIRED FOR SERVICING

REF NO.	DESCRIPTION	PART NO.	REMARK
J-1	TOOL (20P), SERVICE	3-702-763-01	For A to V board extension
J-2	TOOL (40P), SERVICE	3-702-764-01	For A to E board extension
J-3	TOOL (50P-A), SERVICE	3-702-765-01	For A to B3 board extension
J-4	TOOL (50P-J), SERVICE	3-702-766-01	For A to J board extension For D to D1 board extension



## SECTION 4 SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:  
 PICTURE control ..... normal  
 BRIGHTNESS control ..... normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

**Note :** Test Equipment Required.

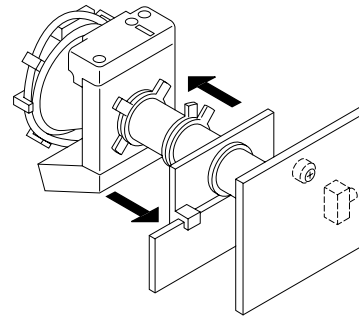
1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

**Preparation :**

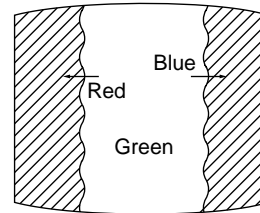
- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

**4-1. BEAM LANDING**

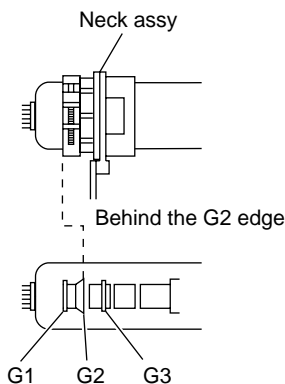
1. Input a white signal with the pattern generator.  
 Contrast } normal  
 Brightness }
2. Position neck assy as shown in Fig4-1.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.  
 (See Figures 4-1 through 4-3.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 4-2.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.  
 (See Figure 4-4.)



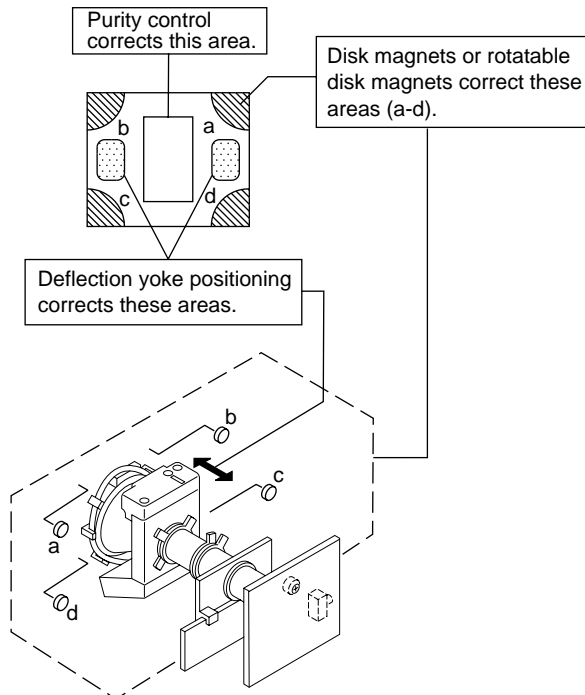
**Fig. 4-2**



**Fig. 4-3**



**Fig. 4-1**



**Fig. 4-4**

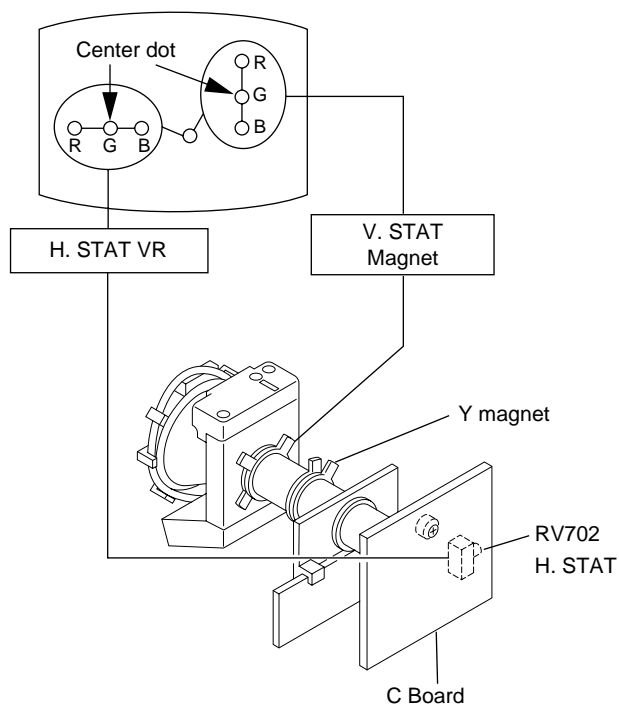


## 4-2. CONVERGENCE ADJUSTMENT

### Preparation :

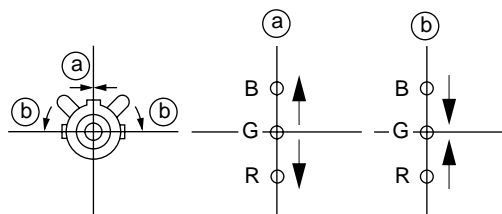
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Set the PICTURE 70% and BRIGHTNESS 0%.
- Cross hatch / Dot pattern.

### (1) Horizontal and Vertical Static Convergence

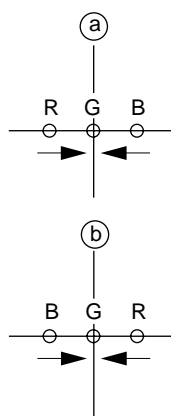


1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. Adjust Horizontal Trapezoid with “DAC 04 HTR” in Service Mode to make H-Trapezoid distortion best.
4. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.  
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)

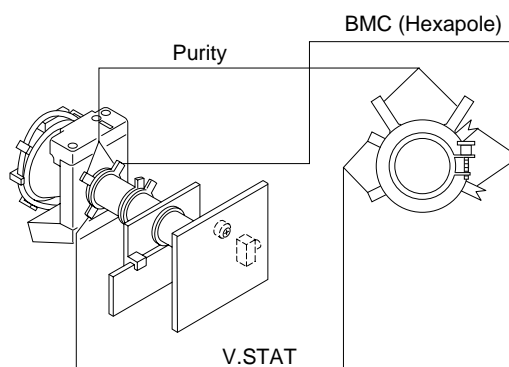
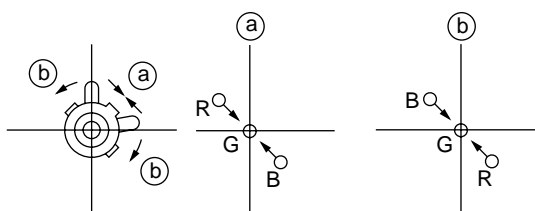
### ① V. STAT



### ② H. STAT VR

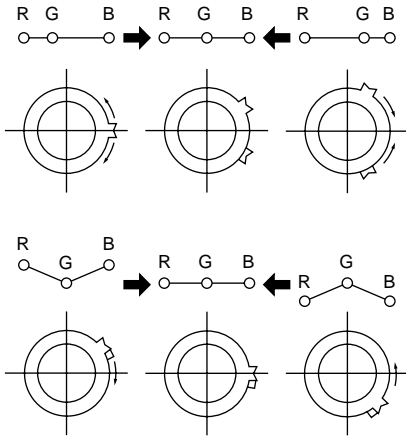


### ③



**④ BMC (Hexapole) Magnet.**

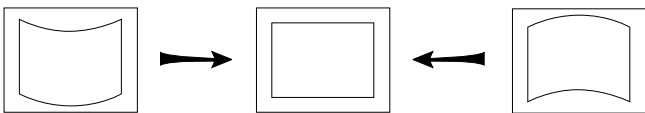
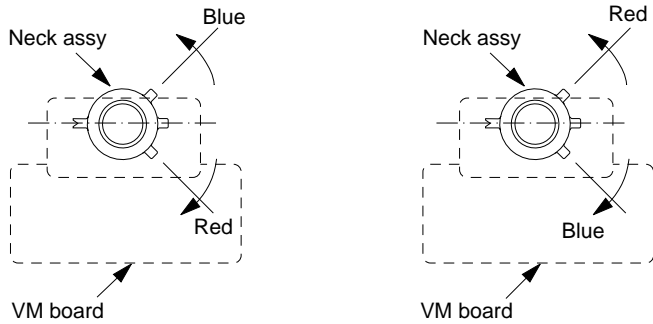
If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.



**⑤ Y separation axis correction magnet adjustment.**

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .

2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.



**Note**

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

**(2) Dynamic Convergence Adjustment**

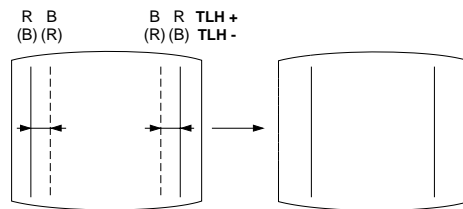
**Preparation:**

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence
- Set the PICTURE and BRIGHTNESS to normal.

**1. Adjust TLH. (TLH correction piece)**

- ① Receive the dot/hatch pattern signal and adjust picture quality by the menu.
- ② Correct horizontal mis-convergence of red and blue of both sides on the X axis.

When red is outside insert BMC magnet to right side (THL+) views from DY neck. And when blue is outside, insert it to left side (THL-) and take both sides.



**2. Adjust XCV core.**

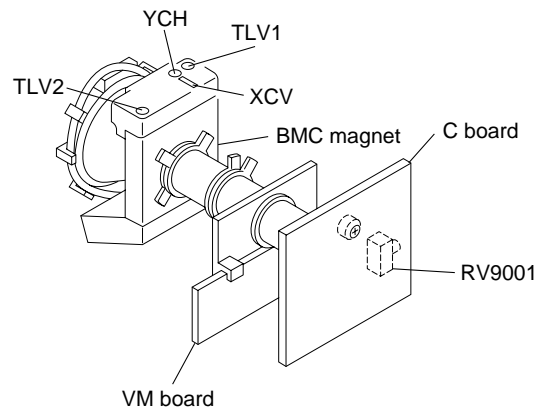
To able to become balance of XCV on the X axis well.

**3. Adjust V-TILT.**

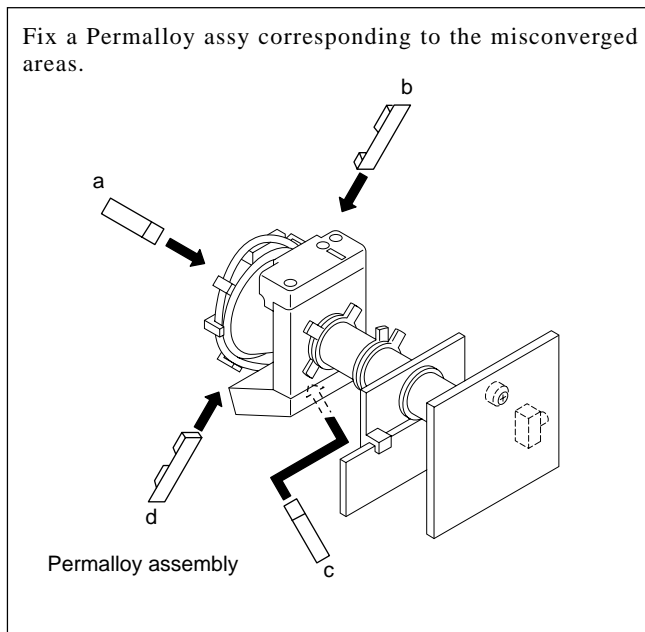
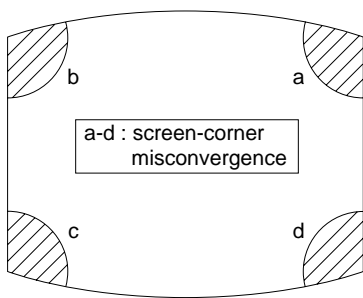
Correct the vertical mis-convergence of red and blue of vertically sides on the Y axis.

**4. Adjust YCH.**

Adjust horizontal mis-convergence of red and blue of vertically sides on the Y axis. Mentioned above steps 2 to 4 are adjusting respectively perform minuteness tracking.



(3) Screen-corner Convergence

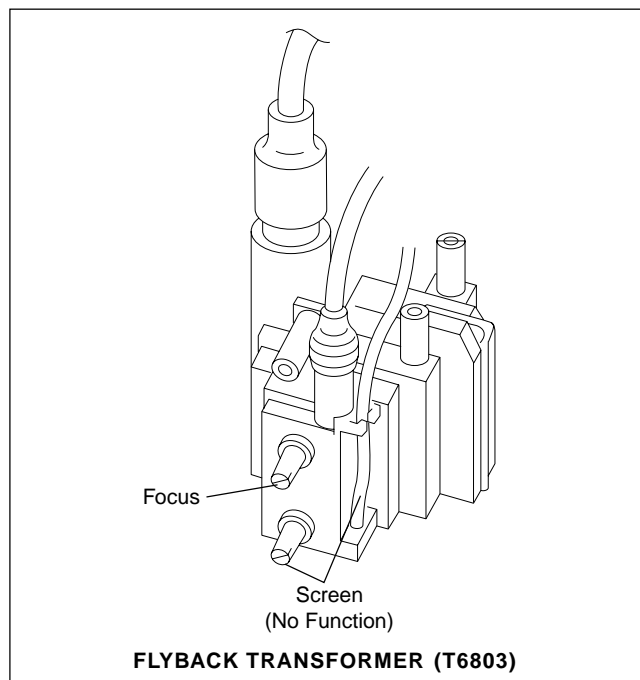


4-3. FOCUS ADJUSTMENT

**Note**

Focus adjustment should be completed before W/B adjustment.

- (1) Receive digital monoscope pattern.
- (2) Set "A/V CONTROL" to "STANDARD".
- (3) Adjust FOCUS VR so that the center of the screen becomes justfocus.
- (4) Change the receiving signal to white pattern and blue back.
- (5) Confirm MAGENTA RING should not be over the limit.  
In case MAGENTA RING is over the limit sample, adjust FOCUS VR to take tracking of MAGENTA RING and FOCUS.



4-4. NECK ASSY TWIST ADJUSTMENT

- (1) Receive dot/hatch pattern.
- (2) Turn FOCUS VR fully counter-clockwise.
- (3) Confirm the dot shape at the screen center. (Fig. 4-4)
- (4) Resume FOCUS VR.

**Note**

In case of turning NECK ASSY, loosen the screw 3 turns. Do not move the position.

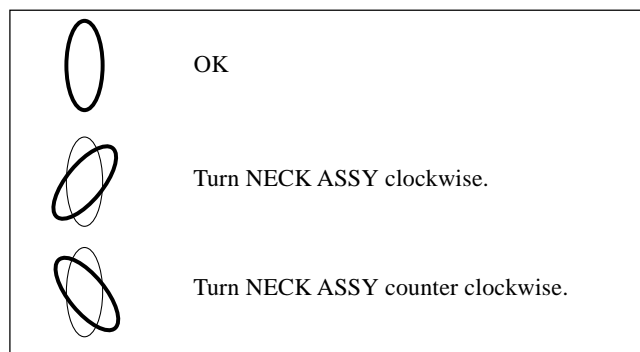
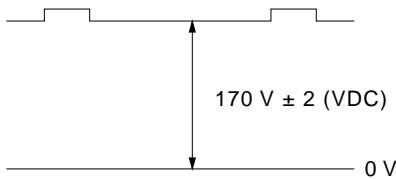


Fig. 4-4

## 4-5. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

### 1. G2 (SCREEN) ADJUSTMENT

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G and B of the C board cathode to the oscilloscope.
- 4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
- 5) Whilst watching the picture, adjust the screen VR (RV9002) located on the C board to the point just before the flyback return lines disappear (to the point before cut-off).



### 2. WHITE BALANCE ADJUSTMENT

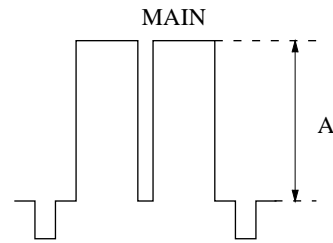
- 1) Set to Service Mode (Refer Section 5-1: ADJUSTMENTS WITH COMMANDER).
- 2) Input white raster signal.
- 3) Set the following condition.  
PICTURE minimum, BRIGHTNESS 50%
- 4) Select GCT (WHB 7) and BCT (WHB 8) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 5) Set the PICTURE to maximum.
- 6) Select GDR (WHB 4) and BDR (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 7) Write into the memory by pressing [MUTING] then [0].

### 3. SUB PICTURE BRIGHTNESS ADJUSTMENT

- 1) Tune RF PAL white signal at program No. 1 and No. 2.
- 2) Select "TWIN PICTURE" mode.
- 3) Receive different RF PAL white signals in MAIN and Sub picture.
- 4) Adjust RV3300 on A PWB, so that the output from the 17 pin and 20 pin of the CN1180 becomes within the spec.

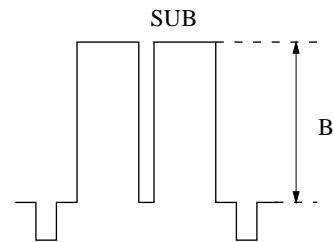
#### CVBS 1

17 pin



#### CVBS 2

20 pin



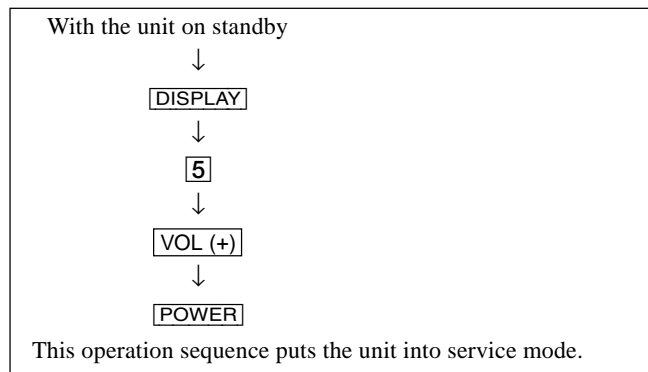
Spec:  $|A - B| \leq \pm 20\text{mV}$

## SECTION 5 CIRCUIT ADJUSTMENTS

### 5-1. ADJUSTMENTS WITH COMMANDER

Service adjustments are made with the RM-916 that comes with this unit.

#### a. ENTERING SERVICE MODE



#### b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

#### c. METHOD OF WRITE INTO MEMORY

- 1) Set to Service Mode.
- 2) Press [1] (UP) and [4] (DOWN), select an item of adjustment.
- 3) Press [MUTING] button and it will indicate WRITE on the screen.
- 4) Press [0] button to write into memory.

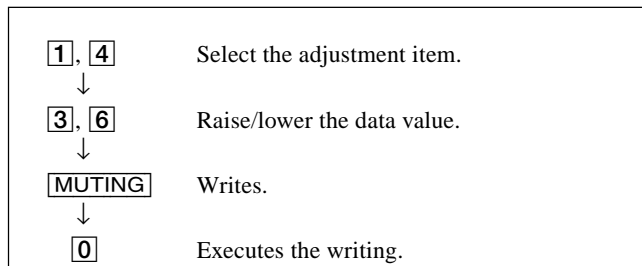
#### d. MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again to confirm adjustments were made.

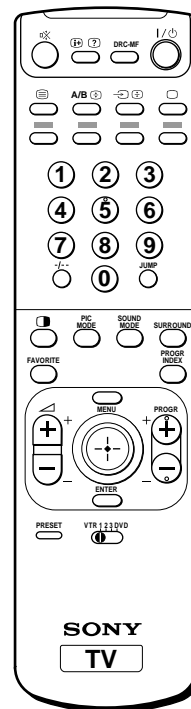
The screen display is :

Device Name	Item Name	Marking of virgin NVM	
	Item No	Data	Mode
GEO	00	VSZ 29	■ SERVICE ■ 50
	0	012Q 1.2M 59	FF 000A
	↑	↑	↑
	Suffix No (OEM Code)	Software version	Total Power-On time (hours)

PAL, SECAM : 50  
NTSC : 60



- [7], [0]      All the data becomes the values in memory.
- [8], [0]      All user control goes to the standard state.
- [5], [0]      Service data initialization (Be sure not to use usually.)
- [DISPLAY], [0]      Write 50Hz adjustment data to 60Hz, or vice versa.
- [2], [0]      Copy and write all data.



RM-916

**5-2. ADJUSTMENT METHOD**

Item Number 00 of device GEO

This explanation uses H-Position as an example.

1. Select "GEO 00 VSZ" with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the [MUTING] button. (The display changes to WRITE.)
5. Execute the writing with the [0] button. (The WRITE display will be changed to red color while excuting, and back to SERVICE.)

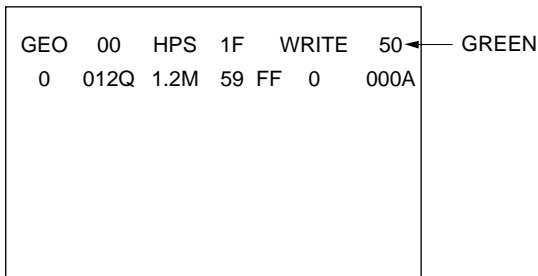
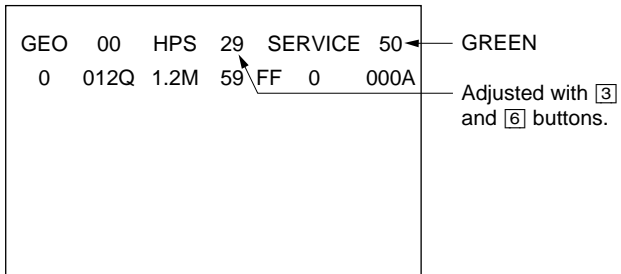
Use the same method for all Items. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].

- Note :**
1. In [WRITE], the data for all items are written into memory together.
  2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.
  3. Additional function to skip category (device) to category (device).

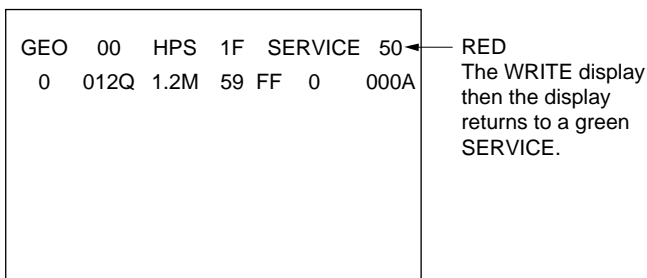
example:

```
GEO 00 HPS
  ↓
DAC 00 XXX
```

The buttons for the function above should be cursor +/-.



Written with [MUTING]



Write executed with [0]

**Adjustment Item Table**

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)
	No.	Name							
GEO	00	VSZ	21	3F	V SIZE	FF/R4/PR*50/60*VC/NC, TW/IX	11 (7-2)	CXA2100AQ (86H)	369 (7-2)
	01	VPS	27	3F	V POSITION	FF/R4/PR*50/60*VC/NC, TW/IX	12 (7-2)		354 (7-2)
	02	VLN	5	0F	V LINEARITY	FF/R4/PR*50/60*VC/NC	13 (7-4)		95 (3-0)
	03	SCO	0A	0F	S CORRECTION	FF/R4/PR*50/60*VC/NC	13 (3-0)		95 (7-4)
	04	HSZ	1E	3F	H SIZE	FF/R4/PR*50/60*VC/NC, TW/IX	14 (7-2)		36A (7-2)
	05	HPS	2F	3F	H POSITION	FF/R4/PR*50/60*VC/NC, TW/IX	19 (7-2)		355 (7-2)
	06	PAP	28	3F	PIN AMP	FF/R4/PR*50/60*VC/NC	15 (7-2)		98 (7-2)
	07	UPN	25	3F	UPPER CORNER PIN	FF/R4/PR*50/60*VC/NC	16 (7-2)		99 (7-2)
	08	LPN	23	3F	LOWER CORNER PIN	FF/R4/PR*50/60*VC/NC	17 (7-2)		9D (7-2)
	09	TRZ	0C	0F	TRAPEZIUM	FF/R4/PR*50/60*VC/NC, TW/IX	18 (7-4)		36B (7-4)
	0A	AGL	0A	0F	AFC ANGLE	FF/R4/PR*50/60*VC/NC	1A (3-0)		9B (3-0)
	0B	BOW	6	0F	AFC BOW	FF/R4/PR*50/60*VC/NC	1A (7-4)		9B (7-4)
	0C	LBL	12	3F	LEFT H BLANKING	FF/R4/PR*50/60*VC/NC, TW/IX	1B (7-2)		9C (7-4)
	0D	RBL	2C	3F	RIGHT H BLANKING	FF/R4/PR*50/60*VC/NC, TW/IX	1C (7-2)		9C (3-0)
	0E	MPN	0	3	MIDDLE PIN DISTORTION COMPENSATION	50/60*VC/NC	16 (1-0)		
	0F	UVL	0	0F	UPPER V LINEARITY	50/60Hz	1F (7-4)		
	10	LVL	0	0F	LOWER V LINEARITY	50/60Hz	1F (3-0)		
11	HCP	0	3	HORIZONTAL HIGH VOLTAGE COMPENSATION	50/60*VC/NC	15 (1-0)			
12	VCP	1	3	VERTICAL HIGH VOLTAGE COMPENSATION	50/60*VC/NC	12 (1-0)			
13	VAS	2F	3F	V ASPECT	50/60*VC/NC	1D (7-2)			
14	VSC	1F	3F	V SCROLL	50/60Hz	1E (7-2)			
15	USC	0	1	UNDER-SCAN MODE ON/OFF	50/60*VC/NC	1D (0)			
16	VBW	0	3	V BLANKING WIDTH CONTROL	FF/R4/PR*50/60*VC/NC	19 (1-0)	6D (1)		
17	AT1	2	3	AKB REFERENCE TIMING	FF/R4/PR*50/60*VC/NC	1E (1-0)			
DAC	00	HCT	33	FF	H CENTER	50/60Hz	CH 10 (7-0)	MB88141 (96H)	
	01	HLN	27	3F	H LINEARITY	FF/R4/PR*50/60*VC/NC	CH 4 (7-2)		
	02	MDP	26	3F	MIDDLE PIN	FF/R4/PR*50/60*VC/NC	CH 1 (7-2)		
	03	CCP	37	3F	LOWER CORNER PIN	FF/R4/PR*50/60*VC/NC	CH 9 (7-2)		
	04	HTR	26	3F	HORIZONTAL TRAPEZIUM	FF/R4/PR*50/60*VC/NC	CH 6 (7-2)		
	05	DF	01	1	DF ON/OFF SWITCH	FF/R4/PR*50/60*VC/NC	CH 2 (7-0)		
	06	DPH	1F	3F	DF PHASE	FF/R4/PR*50/60*VC/NC	CH 3 (7-2)		
	07	QPH	19	3F	QP PHASE	FF/R4/PR*50/60*VC/NC	CH 7 (7-2)		
	08	QAC	23	3F	QP AMPLITUDE	FF/R4/PR*50/60*VC/NC	CH 8 (7-2)		
	09	QDC	20	3F	QP DC LEVEL	FF/R4/PR*50/60*VC/NC	CH 12 (7-2)		
	0A	QDV	1F	3F	QP V MODULATION	FF/R4/PR*50/60*VC/NC	CH 5 (7-2)		
0B	QAV	1A	3F	QP AMPLITUDE MODULATION	FF/R4/PR*50/60*VC/NC	CH 11 (7-2)			
0C	ABC	0	FF	ABL D/A CONTROL	ECO ON/OFF*VC/NC				
WHB	00	CBO	7	0F	DC OFFSET CANCELLER FOR CB1		0F (7-4)	CXA2100AQ(86H)	106

Adjustment Item Table

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)
	No.	Name							
WHB	01	CRO	7	0F	DC OFFSET CANCELLER FOR CR1		0F (3-0)	CXA2100AQ(86H)	
	02	SBR	18	3F	SUB BRIGHTNESS CONTROL		09 (7-2)		107
	03	RDR	29	3F	R DRIVE		06 (7-2)		A1 (7-2)
	04	GDR	25	3F	G DRIVE		07 (7-2)		A2 (7-2)
	05	BDR	26	3F	B DRIVE		08 (7-2)		A3 (7-2)
	06	RCT	29	3F	R CUTOFF		0A (7-2)		A5 (3-0)
	07	GCT	12	3F	G CUTOFF		0B (7-2)		A6 (7-4)
	08	BCT	31	3F	B CUTOFF		0C (7-2)		A6 (3-0)
	09	SBO	29	3F	SUB BRIGHTNESS OFFSET	PICTURE MODE EXCEPT DYNAMIC	09 (7-2)		A3 (7-2)
	0A	RDO	1F	3F	R DRIVE OFFSET	PICTURE MODE EXCEPT DYNAMIC	06 (7-2)		A5 (3-0)
	0B	GDO	1A	3F	G DRIVE OFFSET	PICTURE MODE EXCEPT DYNAMIC	07 (7-2)		A6 (7-4)
	0C	BDO	1A	3F	B DRIVE OFFSET	PICTURE MODE EXCEPT DYNAMIC	08 (7-2)		A6 (3-0)
	0D	RCO	1F	3F	R CUTOFF OFFSET	PICTURE MODE EXCEPT DYNAMIC	0A (7-2)		106
	0E	GCO	1E	3F	G CUTOFF OFFSET	PICTURE MODE EXCEPT DYNAMIC	0B (7-2)		
	0F	BCO	15	3F	B CUTOFF OFFSET	PICTURE MODE EXCEPT DYNAMIC	0C (7-2)		107
	SAJ	00	PIC	3F	3F	PICTURE CONTROL	PICTURE MODE EXCEPT PERSONAL		01 (7-2)
01		BRT	1F	3F	BRIGHTNESS CONTROL	PICTURE MODE EXCEPT PERSONAL	04 (7-2)		
02		COL	27	3F	COLOR CONTROL	PICTURE MODE EXCEPT PERSONAL	03 (7-2)		
03		HUE	1F	3F	HUE CONTROL	PICTURE MODE EXCEPT PERSONAL	02 (7-2)		
04		SHP	24	3F	SHARPNESS CONTROL	PICTURE MODE EXCEPT PERSONAL	05 (7-2)		
05		VML	3	3	VM LEVEL	PICTURE MODE	09 (1-0)	105	
06		DYC	1	1	DYNAMIC COLOR ON/OFF	PICTURE MODE	00 (3)	108	
07		CTM	0	1	COLOR TEMPERATURE FOR DYNAMIC COLOR	PICTURE MODE	00 (0)	109	
08		CAX	2	3	COLOR MATRIX SPECIFICATION	50/60Hz	00 (2-1)	10A	
09		GMA	3	3	GAMMA CORRECTION	PICTURE MODE	04 (1-0)		
0A		DCT	1	3	DC TRANSMISSION CONTROL	PICTURE MODE	0C (1-0)		
0B		DPL	1	3	AUTO PEDESTAL LEVEL CONTROL	PICTURE MODE	0B (1-0)		
0C		ABM	0	3	ABL MODE CONTROL	PICTURE MODE	08 (1-0)		
0D		ABT	0	3	ABL CURRENT DETECTION VTH CONTROL	ECO ON/OFF*VC/NC	07 (1-0)		
0E		CLO	9	0F	COLOR OFFSET	50/60*TV/VIDEO	03 (7-2)		
0F	CLW	3	7	COLOR STEP WIDTH TO THE CHANGE OF S/N		03 (7-2)			
10	HUO	9	0F	HUE OFFSET	50/60*TV/VIDEO	02 (7-2)			
11	SHO	7	1F	SHARPNESS OFFSET	50/60*TV/VIDEO/DVD	05 (7-2)			
12	SHW	1	7	SHARPNESS STEP WIDTH TO THE CHANGE OF S/N		05 (7-2)			
13	PIO	5	7	PICTURE OFFSET FOR TWIN/INDEX	TWIN/INDEX	01 (7-2)			
14	BRO	7	0F	BRIGHTNESS OFFSET	ECO ON/OFF*VC/NC	04 (7-2)			
JGL	00	PON	1	1	RGB AND AKB REFERENCE PULSE OUTPUT ON/OFF		00 (7)	CXA2100AQ(86H)	
	01	RGB	7	7	RGB OUTPUT SELECTION		00 (6-4)		



**Adjustment Item Table**

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)
	No.	Name							
JGL	02	AGG	0	3	AGING MODE SELECTION		0E (1-0)	CXA2100AQ(86H)	
	03	DPS	0	1	Y/C DELAY LINE PASS MODE SWITCH		0E (3)		
	04	BBT	3	3	RGB BOTTOM LIMITTER CONTROL		06 (1-0)		
	05	LML	0	3	RGB AMPLITUDE LIMITTER CONTROL		01 (1-0)		
	06	PAB	0F	0F	DC LEVEL FOR PEAK ABL		0E (7-4)		
	07	SCO	0C	0F	SUB PICTURE CONTROL		0D (7-4)		
	08	LV2	7	0F	RGB LEVEL FOR RGB2		0D (3-0)		
	09	SF0	1	1	SHARPNESS CIRCUIT F0	50/60*TV/VIDEO/DVD	0E (2)		
	0A	PRO	0	3	PRE/OVER-SHOOT RATIO CONTROL	50/60*TV/VIDEO/DVD	0A (1-0)		
	0B	LTI	2	3	LUMINANCE TRANSIENT IMPROVEMENT	PICTURE MODE	05 (1-0)		
	0C	CTI	1	3	CHROMINANCE TRANSIENT IMPROVEMENT	PICTURE MODE	03 (1-0)		
	YCT	00	TNT	1F	3F	TINT ADJUSTMENT FOR NTSC	TV/VIDEO		
01		PNG	0	1	PAL/NTSC GATE WIDTH		00 (6)		
02		PNI	0	1	PAL/NTSC SENSITIVITY SW		00 (7)		
03		SCL	7	0F	SUB COLOR CONTROL	50/60*TV/VIDEO	01 (3-0)		
04		SCT	8	0F	SUB CONTRAST CONTROL	50/60*TV/VIDEO	01 (7-4)		
05		SF0	2	3	SHARPNESS CENTER FREQUENCY CHANGING		02 (1-0)		
06		SEQ	3	3	SHARPNESS EQUALIZER CHARACTERISTIC		02 (3-2)		
07		SHG	5	0F	SHARPNESS GAIN CONTROL	50/60*TV/VIDEO/DVD	02 (7-4)		
08		YOL	1F	3F	Y-OUTPUT LEVEL CONTROL		03 (5-0)		
09		BSP	0	3	BLACK STRETCH START POINT CHANGING		03 (7-6)		
0A		COL	1F	3F	CB/CR OUTPUT LEVEL CONTROL		04 (5-0)		
0B		DCR	0	3	DC RESTORATION RATIO ADJUSTMENT		04 (7-6)		
0C		BF0	1	3	BPF/TQF F0 ADJUSTMENT		05 (1-0)		
0D		BFQ	2	3	BPF/TQF Q ADJUSTMENT		05 (3-2)		
0E		FSW	1	1	BPF/TQF SWITCH		05 (4)		
0F		SDT	1	1	SECAM DOUBLE TRAP SWITCH		05 (6)		
10		LPF	1	1	Y/CB/CR LPF SWITCH		05 (7)		
11		YDL	6	0F	Y-DL TIME ADJUSTMENT	2DCOMB/3DCOMB/S-INPUT/OTHERS	06 (6-3)		
12		CMT	0	1	CB/CR OUTPUT MUTE SWITCH		07 (7)		
13		BO1	7	0F	CB OFFSET1 ADJUSTMENT (MAIN ROUTE)		08 (7-4)		
14		RO1	7	0F	CR OFFSET1 ADJUSTMENT		08 (3-0)		
15		CDF	0	7	V COUNT DOWN FREQUENCY SWITCH	FORCED 50HZ FOR NO SIGNAL	0A (2-0)		
16		CDM	0	3	V COUNT DOWN JUDGE SWITCH		0A (4-3)		
17		AFC	0	3	AFC SENSITIVITY SWITCH	(TV/VIDEO/DVD)	0A (6-5)		
18		MVM	0	1	MACROVISION MASK + AFC MASK		0A (7)		
19		SRY	7	0F	SECAM R-Y BLACK ADJUSTMENT		0B (3-0)		
1A		SBY	1	0F	SECAM B-Y BLACK ADJUSTMENT		0B (7-4)		
1B		BEL	2	3	SECAM BELL/HPF SWITCHING		0C (1-0)		
1C	BLF	0	1	BELL F0 ADJUSTMENT		0C (2)			
1D	SVI	0	1	SECAM V-ID SWITCH		0C (3)			
1E	SGP	0	3	SECAM GATE POSITION ADJUSTMENT		0C (5-4)			

Adjustment Item Table

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)
	No.	Name							
YCT	1F	SID	1	1	SECAM SENSITIVITY SWITCH	EXCEPT SECAM	0C (6)	CXA2123Q(88H)	
	20	SIH	0	1	SECAM INHIBITION SWITCH		0C (7)		
	21	STP	0	1	Y BLACK LEVEL SETUP FOR PAL PLUS		0D (1)		
	22	HVC	2	3	H-VCO TEMPERATURE CHARACTER CANCELLING		0D (7-6)		
	23	3NR	1	1	3D NR OPERATION ON/OFF				
	24	BW6	1	1	3D NR FOR 60Hz NON-BUST SIGNAL ON/OFF				
	25	WSH	0	3	SHARPNESS GAIN STEP FOR NOISE REDUCTION		02 (7-4)		
	26	WCO	0	3	CB/CR OUTPUT LEVEL STEP FOR NOISE REDUCTION		04 (5-0)		
SYC	00	TNT	1F	3F	TINT ADJUSTMENT FOR NTSC	TV/VIDEO	00 (5-0)	CXA2123Q(8AH)	
	01	PNG	0	1	PAL/NTSC GATE WIDTH		00 (6)		
	02	PNI	0	1	PAL/NTSC SENSITIVITY SW		00 (7)		
	03	SCL	7	0F	SUB COLOR CONTROL	50/60*TV/VIDEO/DVD	01 (3-0)		
	04	SCT	7	0F	SUB CONTRAST CONTROL		01 (7-4)		
	05	SFO	2	3	SHARPNESS CENTER FREQUENCY CHANGING		02 (1-0)		
	06	SEQ	3	3	SHARPNESS EQUALIZER CHARACTERISTIC		02 (3-2)		
	07	SHG	7	0F	SHARPNESS GAIN CONTROL		02 (7-4)		
	08	YOL	1F	3F	Y-OUTPUT LEVEL CONTROL		03 (5-0)		
	09	BSP	0	3	BLACK STRETCH START POINT CHANGING		03 (7-6)		
	0A	COL	1F	3F	CB/CR OUTPUT LEVEL CONTROL		04 (5-0)		
	0B	DCR	0	3	DC RESTORATION RATIO ADJUSTMENT		04 (7-6)		
	0C	BF0	1	3	BPF/TQF F0 ADJUSTMENT		05 (1-0)		
	0D	BFQ	2	3	BPF/TQF Q ADJUSTMENT		05 (3-2)		
	0E	FSW	1	1	BPF/TQF SWITCH		05 (4)		
	0F	SDT	1	1	SECAM DOUBLE TRAP SWITCH		05 (6)		
	10	LPF	1	1	Y/CB/CR LPF SWITCH		05 (7)		
	11	YDL	3	0F	Y-DL TIME ADJUSTMENT	PAL/NTSC/SECAM/S-INPUT	06 (6-3)		
	12	NCM	1	1	1-H ADDITION SWITCH		06 (7)		
	13	CMT	0	1	CB/CR OUTPUT MUTE SWITCH		07 (7)		
	14	BO1	7	0F	CB OFFSET1 ADJUSTMENT (MAIN ROUTE)		08 (7-4)		
	15	RO1	7	0F	CR OFFSET1 ADJUSTMENT		08 (3-0)		
	16	CDF	0	7	V COUNT DOWN FREQUENCY SWITCH		0A (2-0)		
	17	CDM	0	3	V COUNT DOWN JUDGE SWITCH		0A (4-3)		
	18	AFC	0	3	AFC SENSITIVITY SWITCH	(TV/VIDEO/DVD)	0A (6-5)		
	19	MVM	0	1	MACROVISION MASK + AFC MASK		0A (7)		
	1A	SRY	7	0F	SECAM R-Y BLACK ADJUSTMENT		0B (3-0)		
	1B	SBY	1	0F	SECAM B-Y BLACK ADJUSTMENT		0B (7-4)		
	1C	BEL	2	3	SECAM BELL/HPF SWITCHING		0C (1-0)		
	1D	BLF	0	1	BELL F0 ADJUSTMENT		0C (2)		
	1E	SVI	0	1	SECAM V-ID SWITCH		0C (3)		

### Adjustment Item Table

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)	
	No.	Name								
SYC	1F	SGP	0	3	SECAM GATE POSITION ADJUSTMENT	EXCEPT SECAM	0C (5-4)	CXA2123Q(8AH)		
	20	SID	1	1	SECAM SENSITIVITY SWITCH		0C (6)			
	21	SIH	0	1	SECAM INHIBITION SWITCH		0C (7)			
	22	STP	0	1	Y BLACK LEVEL SETUP FOR PAL PLUS		0D (1)			
	23	HVC	2	3	H-VCO TEMPERATURE CHARACTER CANCELLING		0D (7-6)			
AP	00	BAS	0A	0F	BASS CONTROL	SOUND MODE EXCEPT PERSONAL	#4 (3-0)	TDA7315(80H)	358 (1-0)	
	01	TRE	0A	0F	TREBLE CONTROL	SOUND MODE EXCEPT PERSONAL	#5 (3-0)		359 (1-0)	
	02	LDN	1	1	LOUDNESS ON/OFF	#3 (2)				
MSP	00	WST	15	FF	W/G STEREO THRESHOLD			MSP3415D(84H)	165	
	01	WBT	EA	FF	W/G BILINGUAL THRESHOLD				166	
	02	WLL	5	FF	W/G MONAURAL THRESHOLD				167	
	03	WAC	1	0F	W/G AGREEMENT COUNT				168	
	04	WDL	30	FF	W/G SEARCH DELAY				169	
	05	NDL	20	FF	NICAM SEARCH DELAY				16A	
	06	SDL	10	FF	STEREO STATUS READ DELAY				16B	
	07	AGC	1	1	AGC SWITCH AUTO/CONSTANT		00BB (7)		116 (7)	
	08	REL	28	3F	AGC GAIN AT CONSTANT MODE		00BB (6-1)		116 (6-1)	
	09	CRM	0	1	CARRIER MUTING ON/OFF		00BB (9)		115 (1)	
	0A	ACO	1	1	AUDIO CLOCK ON/OFF		0083 (5)		11A (5)	
	0B	FP	1B	7F	FM PRESCALE FOR NON-M SYSTEM		000E (7-0)		329	
	0C	FPM	32	7F	FM PRESCALE FOR M SYSTEM		000E (7-0)		32A	
	0D	FH	2D	7F	FM PRESCALE FOR HDEV		000E (7-0)		32B	
0E	FHM	65	7F	FM PRESCALE FOR HDEV AND M		000E (7-0)	32C			
0F	WGP	2A	7F	W/G PRESCALE		000E (7-0)	32D			
10	NIP	6D	7F	NICAM PRESCALE		0010 (7-0)	32E			
11	ERR	50	FF	AUTO FM SWITCH THRESHOLD		0021 (10-3)	14F			
12	VOL	6D	FF	LOUDSPEAKER GAIN 0700H TO 07FFH		0000 (11-4)	368			
LTI	00	LDH	1	1	HISTOGRAM SEGMENT SELECTION	PICTURE MODE	00 (2)	TDA9178(40H)	175 (2)	
	01	CFS	1	1	CONTOUR FILTER SELECTION		00 (3)		175 (3)	
	02	WLB	0	1	LETTERBOX WINDOW SWITCH		00 (5)		175 (5)	
	03	VDC	1	1	VIDEO DEPENDENT CORING		00 (6)		175 (6)	
	04	DEM	0	1	DEMONSTRATION MODE		00 (7)		175 (7)	
	05	CDP	4	07	LUMINANCE DELAY		01 (2-0)		176 (2-0)	
	06	OSP	0	1	OVERRULE SMART PEAKING		01 (5)		176 (5)	
	07	WPO	0	1	WHITE POINT STRETCH OFF		01 (4)		176 (4)	
	08	DSK	0	1	SKIN TONE SWITCH		02 (0)		177 (0)	
	09	ASK	0	1	SKIN TONE ANGLE SELECTION		02 (1)		177 (1)	
	0A	WSK	0	1	SKIN TONE WIDTH SELECTION		02 (2)		177 (2)	
	0B	SSK	0	1	SKIN TONE SIZE SELECTION		02 (3)		177 (3)	
	0C	DGR	1	1	GREEN ENHANCEMENT SWICTH		PICTURE MODE & TWIN		02 (4)	A9 (4)
	0D	DGT	7	7	THRESHOLD OF GREEN ENHANCEMENT SWITCH					A9 (7-5)

Adjustment Item Table

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)
	No.	Name							
LTI	0E	GGR	0	1	GREEN ENHANCEMENT GAIN		02 (5)	TDA9178(40H)	177 (5)
	0F	WGR	0	1	GREEN ENHANCEMENT WIDTH		02 (6)		177 (6)
	10	SGR	0	1	GREEN ENHANCEMENT SIZE		02 (7)		177 (7)
	11	DBL	0	1	BLUE STRETCH SWITCH		03 (0)		178 (0)
	12	GBL	0	1	BLUE STRETCH GAIN SELECTION		03 (1)		178 (1)
	13	SBL	0	1	BLUE STRETCH SIZE SELECTION		03 (2)		178 (2)
	14	CDS	1	1	COLOR DEPENDENT SHARPNESS	PICTURE MODE	03 (3)		A9 (3)
	15	CST	7	7	THRESHOLD OF COLOR DEPENDENT SHARPNESS				A9 (2-0)
	16	CTI	0	1	COLOR TRANSIENT IMPROVEMENT	PICTURE MODE	03 (4)		178 (4)
	17	BON	0	1	BLACK OFFSET COMPENSATION	PICTURE MODE	03 (5)		178 (5)
	18	BTD	0	3F	ADAPTIVE BLACK STRETCH	PICTURE MODE	04 (5-0)		179 (5-0)
	19	NLD	15	3F	NON-LINEARITY AMPLIFIER	PICTURE MODE & TWIN	05 (5-0)		AA (5-0)
	1A	NLW	7	7	STEP WIDTH OF NON-LINEARITY AMPLIFIER		05 (5-0)		AE (6-4)
	1B	VGD	15	3F	VARIABLE GAMMA	PICTURE MODE & TWIN	06 (5-0)		AB (5-0)
	1C	VGW	0	7	STEP WIDTH OF VARIABLE GAMMA		06 (5-0)		AE (2-0)
	1D	PKD	3F	3F	PEAKING AMPLITUDE	PICTURE MODE	07 (5-0)		AC (5-0)
	1E	PKW	8	0F	STEP WIDTH OF PEAKING AMPLITUDE		07 (5-0)		AF (7-4)
	1F	SPD	0	3F	STEEPNESS CORRECTION	PICTURE MODE	08 (5-0)		17D (5-0)
	20	CRD	11	3F	CORING LEVEL	PICTURE MODE	09 (5-0)		AD (5-0)
	21	CRW	9	0F	STEP WIDTH OF CORING LEVEL		09 (5-0)		AF (3-0)
	22	CRO	0	0F	CORING LEVEL OFFSET FOR VIDEO MODE		09 (5-0)		AF (3-0)
	23	LWD	1F	3F	LINE WIDTH CORRECTION		0A (5-0)		17F (5-0)
	24	SNM	0	7	S/N MODE UNDER UNREALIBLE S/N CONDITION				B0 (2-0)
	25	SNC	3	0F	S/N RATIO AVERAGE COUNTER	TV/VIDEO			B1 (3-0)
	26	FMC	2	0F	FEATURE MODE MATCHING COUNTER				B2 (3-0)
	MID	00	HPH		FF	HORIZONTAL ACTIVE DISPLAY AREA PHASE			
01		VPH		3F	VERTICAL ACTIVE DISPLAY AREA PHASE				
02		HSZ		FF	HORIZONTAL ACTIVE DISPLAY AREA SIZE				
03		VSZ		FF	VERTICAL ACTIVE DISPLAY AREA SIZE				
04		HPW		3F	DISPLAY H-SYNC PLUSE WIDTH				
05		VPW		7	DISPLAY V-SYNC PLUSE WIDTH				
06		YDL		3F	DISPLAY OUTPUT Y/C DELAY CORRECTION				
07		MHP		FF	MAIN PICTURE HORIZONTAL POSITION (SINGLE & PINP)				
08		MVP		FF	MAIN PICTURE VERTICAL POSITION (SINGLE & PINP)				
09		MHS		FF	MAIN PICTURE HORIZONTAL SIZE (SINGLE & PINP)				
0A	MVS		FF	MAIN PICTURE VERTICAL SIZE (SINGLE & PINP)					
0B	PHP		FF	PINP SUB PICTURE HORIZONTAL POSITION					
0C	PVP		FF	PINP SUB PICTURE VERTICAL POSITION					
0D	PHS		FF	PINP SUB PICTURE HORIZONTAL SIZE					
0E	PVS		FF	PINP SUB PICTURE VERTICAL SIZE					
0F	PHO		FF	PINP SUB PICTURE HORIZONTAL POSITION OFFSET					
	10	PVO		FF	PINP SUB PICTURE VERTICAL POSITION OFFSET				

**Adjustment Item Table**

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)
	No.	Name							
MID	11	TMP		FF	TWIN MAIN PICTURE HORIZONTAL POSITION			MB94918(68H)	
	12	TSP		FF	TWIN SUB PICTURE HORIZONTAL POSITION				
	13	TVP		FF	TWIN MAIN & SUB PICTURE VERTICAL POSITON				
	14	THS		FF	TWIN MAIN & SUB PICTURE HORIZONTAL SIZE				
	15	TVS		FF	TWIN MAIN & SUB PICTURE VERTICAL SIZE				
	16	THO		FF	TWIN MAIN & SUB PICTURE HORIZONTAL POSITION OFFSET				
	17	TVO		FF	TWIN MAIN & SUB PICTURE VERTICAL POSITION OFFSET				
	18	XHS		FF	INDEX SUB PICTURE HORIZONTAL SIZE				
	19	XVS		FF	INDEX SUB PICTURE VERTICAL SIZE				
	1A	XHG		FF	INDEX HORIZONTAL GAP WIDTH BETWEEN PICTURES				
	1B	XVG		FF	INDEX VERTICAL GAP WIDTH BETWEEN PICTURES				
	1C	XHP		FF	INDEX 1ST SUB PICTURES HORIZONTAL POSITION				
	1D	XVP		FF	INDEX 1ST SUB PICTURES VERTICAL POSITION				
	1E	DHP		FF	DRC HORIZONTAL ACTIVE AREA POSITION				
	1F	DHS		FF	DRC HORIZONTAL ACTIVE PIXEL SIZE				
	20	DVP		3F	DRC VERTICAL ACTIVE AREA LINE POSITION				
	21	DVS		FF	DRC VERTICAL ACTIVE AREA LINE SIZE				
	22	VHP		FF	VDO HORIZONTAL ACTIVE AREA POSITION				
	23	VHS		FF	VDO HORIZONTAL ACTIVE AREA PIXEL SIZE				
	24	VEP		3F	VDO VERTICAL ACTIVE AREA EVEN POSITION				
	25	VVS		FF	VDO VERTICAL ACTIVE AREA LINE SIZE				
	26	VOP		3	VDO VERTICAL ACTIVE AREA ODD POSITION				
	27	CLT		FF	VDO CLAMP PULSE OUTPUT TIMING				
	28	CLW		7	VDO CLAMP PULSE WIDTH				
	29	VYD		3F	VDO ANALOG INPUT Y/C DELAY CORRECTION				
	2A	VCR		1	VDO CROMA SIGNAL ORDER				
	2B	VDI		3	VDO DIGITAL ANALOG INPUT SELECTION				
	3CM	00	FRZ	0	1	EXTERNAL MEMORY TEST BIT			02 (4)
01		NRM	0	3	NOISE REDUCTION OPERATION MODE		00 (7-6)		
02		YCO	0E	0F	Y/C SIGNAL OUTPUT SELECTION		00 (3-0)		
03		SYC	1	3	SYSTEM CLOCK SELECTION		01 (7-6)		
04		STD	0	3	STANDARD/NON-STANDARD OPERATION SELECTION		01 (5-4)		
05		MSS	0	3	INTER-FRAME/INTER-LINE OPERATION SELECTION		01 (3-2)		
06		KIL	3	3	KILLER/NON-KILLER OPERATION SELECTION		01 (1-0)		
07		EAD	0	1	EXTERNAL Y-ADC SWITCH		02 (5)		
08		ECS	1	3	EXTERNAL C-SYNC INPUT SELECTION		02 (1-0)		
09		CPP	2	3	ADC INPUT LEVEL & CLUMP PULSE WIDTH SELECTION		03 (7-6)		
0A		PWR	0	1	ADC INPUT WIDTH SWITCH		09 (7)		
0B		HDP	5	7	HORIZONTAL PHASE ADJUSTMENT		03 (5-3)		
0C		CDL	4	7	C-SIGNAL DELAY ADJUSTMENT		03 (2-0)		
0D		DYC	2	0F	DY DETECTION CORING LEVEL ADJUSTMENT	NR MODE (0-3)	04 (7-4)		
0E		DYG	0A	0F	DY DETECTION GAIN ADJUSTMENT	NR MODE (0-3)	04 (3-0)		

Adjustment Item Table

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)
	No.	Name							
3CM	0F	DCC	5	0F	DC DETECTION CORING LEVEL ADJUSTMENT	NR MODE (0-3)	05 (7-4)	UPD64082(B8H)	
	10	DCG	5	0F	DC DETECTION GAIN ADJUSTMENT	NR MODE (0-3)	05 (3-0)		
	11	YNR	1	0F	YNR NON-LINEAR FILTER SETUP		06 (7-4)		
	12	CNR	1	0F	CNR NON-LINEAR FILTER SETUP		06 (3-0)		
	13	WSC	1	3	NOISE DETECTION CORING ADJUSTMENT		08 (7-6)		
	14	VTH	1	3	HYSTERESIS SELECTION FOR H-SYNC NON-STANDARD	TV/VIDEO	08 (5-4)		
	15	VTR	1	3	SENSITIVITY SELECTION FOR H-SYNC NON-STANDARD	TV/VIDEO	08 (3-2)		
	16	LDR	2	3	SENSITIVITY SELECTION FOR FRAME-SYNC NON-STANDARD	TV/VIDEO	08 (1-0)		
	17	VAP	3	7	GAIN ADJUSTMENT FOR VERTICAL SHAPE CORRECTION	PICTURE MODE	0A (7-5)		
	18	VAI	0C	1F	VANISHING ADJUSTMENT FOR VERTICAL SHAPE CORRECTION	PICTURE MODE	0A (4-0)		
	19	TST	0	1	TEST BIT		0B (6)		
	1A	YPF	3	3	CENTER FREQUENCY SELECTION FOR Y-PEAKING BPF	PICTURE MODE	0B (5-4)		
	1B	YPG	8	0F	GAIN ADJUSTMENT FOR Y-PEAKING BPF	PICTURE MODE	0B (3-0)		
	1C	VSE	0A	0F	LINE COMB FILTER SETUP		0C (7-4)		
	1D	CCN	0	1	C-SIGNAL SPLIT FILTER SWITCH		0C (3)		
	1E	COS	0	1	C-SIGNAL DELAY SWITCH AT NOISE REDUCTION		0C (2)		
	1F	SDC	0	1	DC DETECTION SENSITIVITY SWITCH		0C (0)		
	20	SDY	1	1	DY DETECTION LOWER-LEVEL SENSITIVITY SWITCH		0D (5)		
	21	D2G	4	7	D2 GAIN SELECTION		0D (2-0)		
	22	YHC	0	3	Y-SIGNAL HIGHER-LEVEL CORING SELECTION	PICTURE MODE	10 (7-6)		
	23	YHG	0	1	Y-SIGNAL HIGHER-LEVEL GAIN SWITCH	PICTURE MODE	10 (5)		
	24	SHT	0	0F	NON-STANDARD DETECTION & H/V COUNTER TEST BITS		11 (7-4)		
	25	CLK	8	0F	CLOCK TEST BITS		11 (3-0)		
	26	PLL	0D	0F	PLL FILTER SETUP		12 (7-4)		
	27	KRF	3	0F	KILLER DETECTION REFERENCE ADJUSTMENT		12 (3-0)		
	28	HSL	0C	0F	H-SYNC SLICE LEVEL ADJUSTMENT		13 (7-4)		
	29	VSL	8	0F	V-SYNC SLICE LEVEL ADJUSTMENT		13 (3-0)		
	2A	BPS	4	0F	INTERNAL BURST GATE START POSITION ADJUSTMENT		14 (7-4)		
	2B	BPW	0A	0F	INTERNAL BURST GATE WIDTH ADJUSTMENT		14 (3-0)		
	2C	ADC	3	3	ADC CLOCK DELAY SELECTION		15 (7-6)		
2D	APD	1	1	ADC POWER-DOWN SWITCH		15 (5)			
2E	NSD	1	1	NON-STANDARD DETECTION TEST BIT		15 (4)	322		
2F	SPD	2	3	MEMORY POWER-DOWN SWITCH		16 (7)	323		
	30	CNT	0	1	CNR TEST BIT		17 (7)	324	
2CM	00	APA	1	1	2D COMB APA CON ON/OFF	PICTURE MODE	#2 (2-1)	CXA2069Q(90H)	
DSP	00	DUL	0	3	DIR UNLOCK DETECTION MODE			TC9446F(3AH)	
	01	DIM	3	3	DIGITAL INPUT MODE				
	02	TFM	5A	7F	TRUSURROUND FRONT MINUS	VDD/VDP	2764/276D		
	03	TFP	12	7F	TRUSURROUND FRONT PLUS	VDD/VDP	2765/276E		
	04	TCE	40	7F	TRUSURROUND CENTER	VDD/VDP	2766/276F		
	05	TS1	20	FF	TRUSURROUND SURROUND #1	VDD/VDP	2767		
	06	TS2	20	7F	TRUSURROUND SURROUND #2	VDD/VDP	2770		

**Adjustment Item Table**

Category	Functionality		Initial Data	Range	Function	Table & Note	Register (Bit Range)	Device & Slave Address	RAM Address (Bit Range)	
	No.	Name								
DSP	07	TSP	68	7F	TRUSURROUND SURROUND PLUS	VDD/VDP	2768/2771	TC9446F(3AH)	31E	
	08	TEM	68	7F	TRUSURROUND SURROUND MINUS	VDD/VDP	2769/2772			
	09	LFE	5A	7F	LOW FREQUENCY EFFECT		276A/2773			
	0A	BHL	40	7F	BBE EFFECT 1 FOR BBE HIGH	VDD/VDP/TRS/SIM/OFF	278F			321
	0B	BHH	48	7F	BBE EFFECT 2 FOR BBE HIGH	VDD/VDP/TRS/SIM/OFF	2790			322
	0C	BLL	33	7F	BBE EFFECT 1 FOR BBE LOW	VDD/VDP/TRS/SIM/OFF	278F			323
	0D	BLH	33	7F	BBE EFFECT 2 FOR BBE LOW	VDD/VDP/TRS/SIM/OFF	2790			324
	0E	DLR	7	7	DELAY SELECTION AT DSP RESET					324
	0F	BBE	1	3	BBE SELECTION	SOUND MODE EXCEPT PERSONAL				324
	DYC	00	SBH	1F	3F	H STATIC CONV1	50/60Hz			0D (5-0)
01		YBU	1F	3F	H STATIC CONV2 UPPER	50/60Hz	0B (5-0)			
02		YBL	1F	3F	H STATIC CONV2 LOWER	50/60Hz	0C (5-0)			
03		RSA	1F	3F	H DYNAMIC CONV1 LEFT	50/60Hz	05 (5-0)			
04		LSA	1F	3F	H DYNAMIC CONV1 RIGHT	50/60Hz	0A (5-0)			
05		LUB	1F	3F	H DYNAMIC CONV2 TOP LEFT	50/60Hz	01 (5-0)			
06		LLB	1F	3F	H DYNAMIC CONV2 BOTTOM LEFT	50/60Hz	02 (5-0)			
07		RUB	1F	3F	H DYNAMIC CONV2 TOP RIGHT	50/60Hz	06 (5-0)			
08		RLB	1F	3F	H DYNAMIC CONV2 BOTTOM RIGHT	50/60Hz	07 (5-0)			
TXT	00	TXH	4B	FF	TELETEXT HORIZONTAL POSITION		99 (7-0)	SAA5261(58H)	352 (1-0)	
	01	TXV	0E	3F	TELETEXT VERTICAL POSITION		9A (5-0)		352 (5-4)	
OPM	00	OSH	12	3F	OSD H POSITION		1F1	CXP750096(60H) OPTION-MISC	18D (7-2)	
	01	FW1	0	3F	OSD ODD/EVEN FIELD WINDOW SETUP #1		1F9			
	02	FW2	3	3F	OSD ODD/EVEN FIELD WINDOW SETUP #2		1F9			
	03	OHO	9	0F	OSD H POSITION OFFSET FOR INDEX		1F1			
	04	ICO	1	3	INDEX "VIDEO" OSD HORIZONTAL OFFSET (12+1 INDEX)					
	05	ISO	2	3	INDEX SUB-SCREEN OSD HORIZONTAL OFFSET					
	06	IL1	1C	3F	INDEX SUB-SCREEN OSD 1ST LINE VERTICAL POSITION	50/60Hz	1F2			
	07	IVO	2F	3F	INDEX SUB-SCREEN OSD VERTICAL OFFSET	50/60Hz	1F2/1F3			
	08	COM	0	03	COMB OPERATION SELECTION					347 (7-6)
	09	APC	1	1	APC SWITCH					346 (5)
	0A	TSY	0	03	TV SYSTEM SELECTION UNDER SEARCHING WITH AUTO TV SYSTEM					346 (4-3)
	0B	MUT	0	1	NO SIGNAL MUTE					346 (0)
	0C	AFM	1	1	AUTO FM SWITCH					346 (1)
	0D	TVO	3	7	V-ANGLE CORRECTION TO PICTURE ROTATION					347 (2-0)
	0E	DBL	0	1	DISABLE BLUEBACK FUNCTION					346 (2)
	0F	SSO	1	3	SPEED CH SEARCH SELECTION					346 (5)
10	TRP	0	3F	MPEG/JPEG NOISE REDUCTION FOR EACH INPUT			18E (5-0)			
00	SCH	1	7F	CH SELECTION FOR SHIPPING CONDITION	NTSC ONLY					
10	SCA	1	1	CABLE/AIR SELECTION FOR SHIPPING CONDITION	NTSC ONLY			18E (5-0)		
OPB	00	OP1	E7	FF	OPTIONAL BITS 1 (SEE THE SPECIFIED SHEET)			OPTION-BITS	4A	
	01	OP2	13	FF	OPTIONAL BITS 2 (SEE THE SPECIFIED SHEET)				4B	

# KV-ES29M90

RM-916

## NOTE

- shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data: Those are the standard data values written on the microprocessor. Therefore, the data values of the modes and stored respectively in the memory.

In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

## OPTION NOTE

**COM** Comb Operation Selection  
00 = automatic operation (depends on color system status),  
01 = no comb operation,  
02 = forced 2D-comb operation,  
03 = forced 3D-comb operation

**TSY** TV System Selection for Auto TV System  
00 = B/G, 01 = I, 10 = D/K, 11 = M

**SSO** Speed CH Search Selection  
00 = normal, 01 = 4 times, 10 = 6 times, 11 = 8 times

**TRP** MPEG/JPEG Noise Reduction

Input	–	–	TV	Video 1	Video 2	Video 3	Video 4	DVD
-------	---	---	----	---------	---------	---------	---------	-----

### OP1 Items

Item	TOP	NICAM	HDEV	Reserved	–	DVD Input	AV Input	
<b>KV-ES29M90</b>	1	1	1	0	0	1	1	1

**AV Input** 00 = no AV Input, 01 = 1 AV Input, 10 = 3 AV Input, 11 = 4 AV Input

### OP2 Items

Item	C-Text	Korean Stereo	Korean Mode	A-TVsys	US ST	SSV Model	OSD	Language
<b>KV-ES29M90</b>	0	0	0	1	0	0	1	1



### 5-3. PICTURE QUALITY ADJUSTMENTS

#### SUB COLOR ADJUSTMENT (SCL)

1. Set to service mode.
2. Input RF PAL colorbar signal.  
Set A/V control to PERSONAL.
3. Set to VP7 (Service mode) "DYC" = 0
4. Set the following condition.  
Picture to 100%, Color to 0% and Bright to 0%.
5. Connect an oscilloscope to the pin ③ (BLUE) of CN705, C board.
6. Using the [1] and [4] buttons select SAJ 3 (Service mode) "SCL".
7. Using the [3] and [6] buttons on the Remote Commander to adjust to VB2 = VB3 = VB4 with [3] and [6].
8. Write into the memory by pressing "MUTING" then "0".
9. Input NTSC colorbar signal to VIDEO1 and select VIDEO1 input.
10. Adjust as step 4. and 8. by receiving NTSC colorbar.
11. Reset to VP 7 (Service mode) "DYC" = 1.

#### -H-TRAPIZIUM ADJUSTMENT

1. Input a cross hatch/dot signal.
2. Adjust DAC 4 HTR to make H-Trapezoid distortion best.

#### SUB CONTRAST, SUB HUE, SUB COLOR

Adjustment condition

SAJ	00	PIC	3F
	00	DYC	0
	0E	CLO	7
	10	HUO	7
	13	PIO	0
JGL	04	BBT	0
	05	LML	3

PICTURE QUALITY : HI-FINE  
ECO MODE : OFF  
WIDE MODE : OFF  
DRC-MF : DRC1250

#### INPUT SIGNAL

Video Color Bar (White and Color 75%)  
RF Color Bar (White and Color 75%)

#### CAUTION

After the above Adjustments, these adjustment parameters must be recovered to the original condition.

VR ; R100 (the pin 6 of CN1100)  
VB ; B100 (the pin 7 of CN1100)

#### 1. NTSC VIDEO INPUT

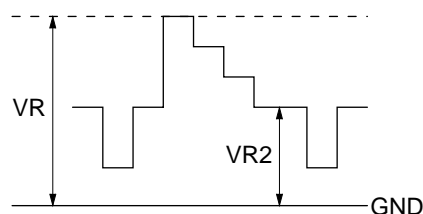
Input signal ; NTSC color bar, 75% to Video 1.  
[TWIN] mode, [Service] mode.

##### (i) SUB CONTRAST

Condition :	SAJ	00	PIC	3F
		02	COL	0
	JGL	01	RGB	4
	SAJ	13	PIO	0

Adjusting parameter:

LEFT ;	YCT	08	YOL
RIGHT ;	SYC	08	YOL



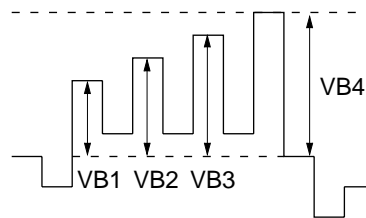
$$VR1 - VR2 = VR = 1.88 \pm 0.07 \text{ (Vp-p)}$$

##### (ii) SUB HUE/SUB COL

Condition :	SAJ	02	COL	1F
	JGL	01	RGB	7
	SAJ	10	HUO	7

Adjusting parameter:

LEFT ;	YCT	0A	COL
	YCT	00	TNT
RIGHT ;	SYC	0A	COL
	SYC	00	TNT



$$VB1 = VB4 \pm 50 \text{ mV}$$

$$VB2 = VB3 \pm 50 \text{ mV}$$

**2. NTSC RF INPUT**

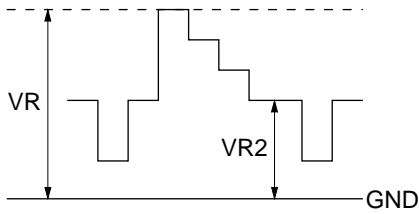
Input signal ; NTSC RF color bar, 75%.  
[TWIN] mode, [Service] mode.

(i) SUB CONTRAST

Condition : SAJ 00 PIC 3F  
                  02 COL 0  
                  JGL 01 RGB 4

Adjusting parameter:

LEFT ; YCT 04 SCT  
RIGHT ; SYC 04 SCT



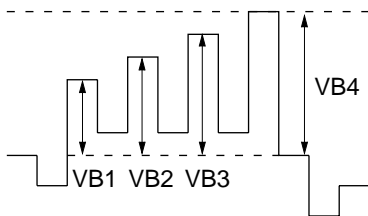
$VR1 - VR2 = VR = 1.88 \pm 0.07 (V_{p-p})$

(ii) SUB HUE/SUB COL

Condition : SAJ 02 COL 1F  
                  JGL 01 RGB 7  
                  SAJ 10 HUO 7

Adjusting parameter:

LEFT ; YCT 03 SCL  
                  YCT 00 TNT  
RIGHT ; SYC 03 SCL  
                  SYC 00 TNT



$VB1 = VB4 \pm 50 \text{ mV}$   
 $VB2 = VB3 \pm 50 \text{ mV}$

**3. PAL VIDEO INPUT**

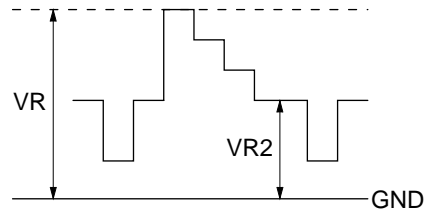
Input signal ; PAL color bar, 75% to Video 1.  
[TWIN] mode, [Service] mode.

(i) SUB CONTRAST

Condition : SAT 00 PIC 3F  
                  SAT 02 COL 0  
                  JGL 01 RGB 4

Adjusting parameter:

LEFT ; YCT 04 SCT  
RIGHT ; SYC 04 SCT



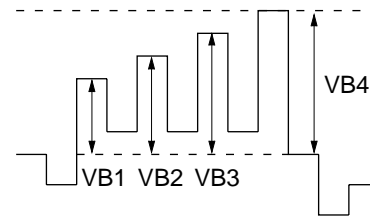
$VR1 - VR2 = VR = 1.88 \pm 0.07 (V_{p-p})$

(ii) SUB HUE/SUB COL

Condition : SAJ 02 COL 1F  
                  JGL 01 RGB 7

Adjusting parameter:

LEFT ; YCT 03 SCL  
                  SAJ 10 HUO  
RIGHT ; SYC 03 SCL



$VB1 = VB4 \pm 50 \text{ mV}$   
 $VB2 = VB3 \pm 50 \text{ mV}$

### 3. PAL RF INPUT

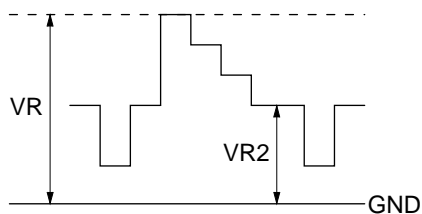
Input signal ; PAL RF color bar, 75%.  
[TWIN] mode, [Service] mode.

#### (i) SUB CONTRAST

Condition : SAJ 00 PIC 3F  
SAJ 02 COL 0  
JGL 01 RGB 4

Adjusting parameter:

LEFT ; YCT 04 SCT  
RIGHT ; SYC 04 SCT



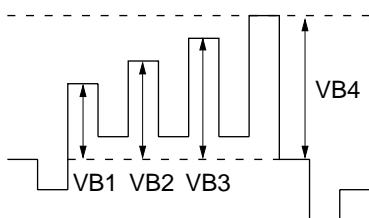
$$VR1 - VR2 = VR = 1.88 \pm 0.07 (V_{p-p})$$

#### (ii) SUB HUE/SUB COL

Condition : SAJ 02 COL 1F  
JGL 01 RGB 7

Adjusting parameter:

LEFT ; YCT 03 SCL  
SAJ 10 HUC  
RIGHT ; SYC 03 SCL



$$VB1 = VB4 \pm 50 \text{ mV}$$

$$VB2 = VB3 \pm 50 \text{ mV}$$

### 5-4. DEFLECTION ADJUSTMENTS

#### FOR DRC 1250

1. Set to Service Mode.
2. Input a Pal cross hatch/dot signal.
3. Set the following condition.  
Picture Mode to **[DYNAMIC]**, Picture Rotation to **[+/- 0]** and Eco Mode to OFF.
4. Set to DRC 1250 mode.
5. Using the **[1]** and **[4]** buttons select category GEO (Service Mode).
6. Select and adjust the following items to obtain optimum image.  
Raise/lower the data with the **[3]** and **[6]** buttons.

1	00	VSZ	V SIZE
2	04	HSZ	H SIZE
3	01	VPS	V POSITION
4	05	HPS	H POSITION
5	03	SCO	S CORRECTION
6	02	VLN	V LINEARITY
7	0B	BOW	AFC BOW
8	06	PAP	PIN AMP
9	07	UPN	UPPER CORNER PIN
10	08	LPN	LOWER CORNER PIN
11	09	TRZ	TRAPEZIUM

7. Using the **[1]** and **[4]** buttons select category DAC (Service Mode).
8. Select and ad List the following items to obtain optimum image.  
Raise/lower the data with the **[3]** and **[6]** buttons.

1	01	HLN	H LINEARITY
2	00	HCT	H CENTER

9. Select "GEO 04 HSZ" with the **[1]** and **[4]** buttons.
10. Confirm the H Size condition. If necessary, adjust the H SIZE to get a best condition.

11. Write into the memory by pressing **[MUTING]** then **[0]**.
- FOR DRC 100 MODE**
12. Set to DRC 100 mode.
  13. Repeat Step 5, Step 6 and Step 7.
  14. Write “DAC 00 HCT DRC 100 Mode” as “DAC 00 HCT DRC 1250 Mode”.
- Write “DAC 01 HLN DRC 100 Mode” as “DAC 01 HLN DRC 1250 Mode”.

**FOR PIP MODE**

15. Set to PIP mode.
16. Repeat Step 5 and Step 6.
17. Write into the memory by pressing **[MUTING]** then **[0]**.

**FOR TWIN MODE**

18. Set to TWIN Mode.
19. Using the **[1]** and **[4]** buttons select category GEO (Service Mode).
20. Select and adjust the following items to obtain optimum image.  
Raise/lower the data with the **[3]** and **[6]** buttons.

1	01	VPS	V POSITION
2	05	HPS	H POSITION
3	06	PAP	PIN AMP
4	09	TRZ	TRAPEZIUM

21. Write into the memory by pressing **[MUTING]** then **[0]**.

**FOR INDEX MODE**

22. Set to Index Mode.
23. Repeat Step 5 and Step 6.
24. Write into the memory by pressing **[MUTING]** then **[0]**.

**FOR WIDE MODE**

25. Set to WIDE Mode.
26. Using the **[1]** and **[4]** buttons select category GEO (Service Mode).
27. Select and adjust the following items to obtain optimum image.  
Raise/lower the data with the **[3]** and **[6]** buttons.

1	00	VSZ	V SIZE
2	01	VPS	V POSITION
3	05	HPS	H POSITION
4	06	PAP	PIN AMP
5	09	TRZ	TRAPEZIUM

28. Input a NTSC cross hatch/dot signal and repeat all above steps.

**5-5. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT**

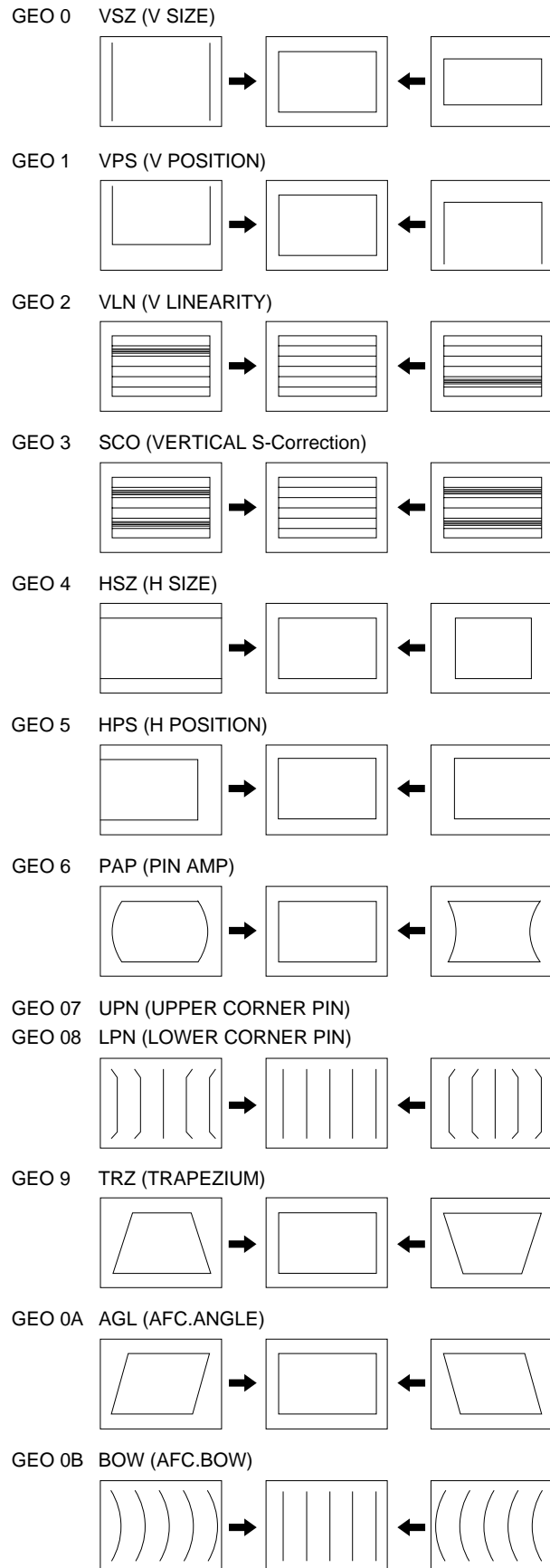
When replacing IC003 and IC004 (MEMORY), be sure to change IC001 ( $\mu$ -COM) to the following new IC at the same time.

MODEL	IC001 ( $\mu$ -CON)
KV-ES29M90	CXP750096-012Q

1. Enter to Service Mode.
2. Press commander buttons **[5]** and **[0]** (Data Initialize), and **[2]** and **[0]** (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.  
In cases where items are not well adjusted, rectify the items with fine adjustment.  
Write the data per each item number (**[MUTING]** + **[0]**).
4. Select item numbers “OPB0” (OP1), “OPB1” (OP2) and respectively set the bit per model with command buttons **[3]** and **[6]**.
5. Press commander buttons **[8]** and **[0]** (Test Normal) to return to the data that was set on the shipment from the factory.  
(This will also cancel Service Mode.)

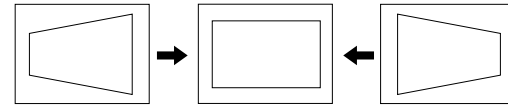
**5-6. PICTURE DISTORTION ADJUSTMENT (1)**

Item Number 00 – 0B



**PICTURE DISTORTION ADJUSTMENT (2)**

H-TRAPEZOID (DAC 4 HTR)





SECTION 6  
DIAGRAMS

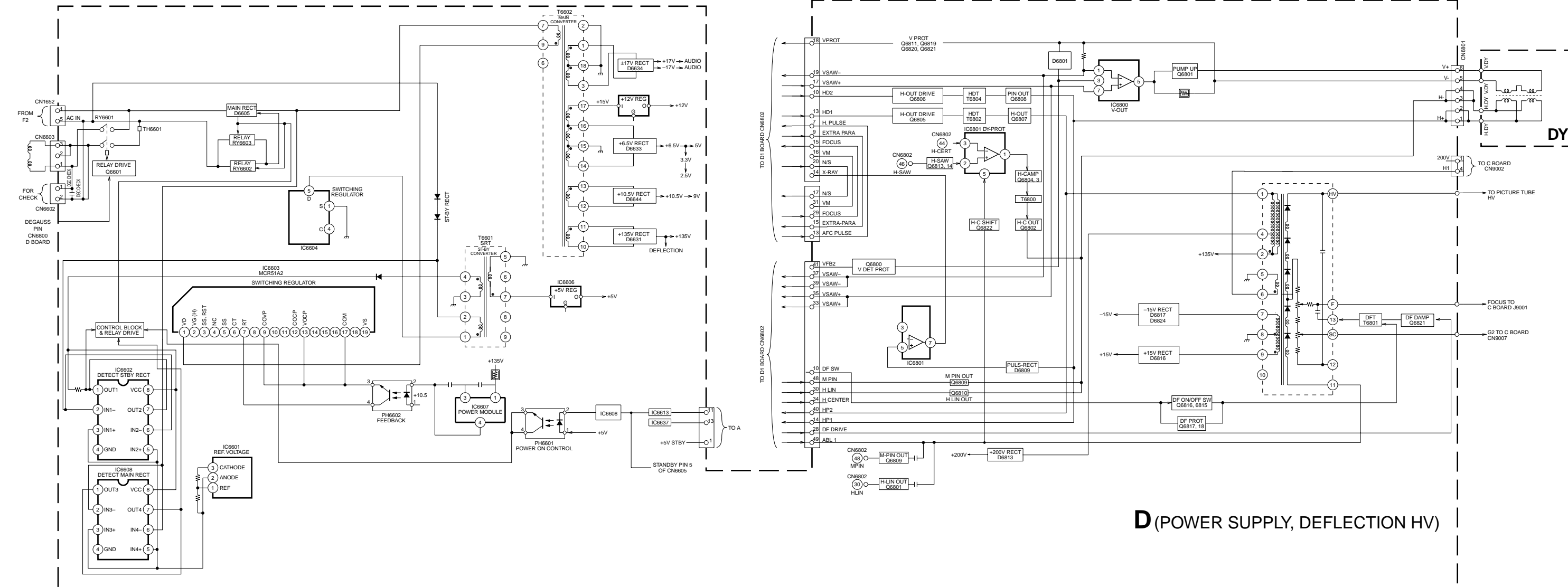
KV-ES29M90  
RM-916

KV-ES29M90  
RM-916

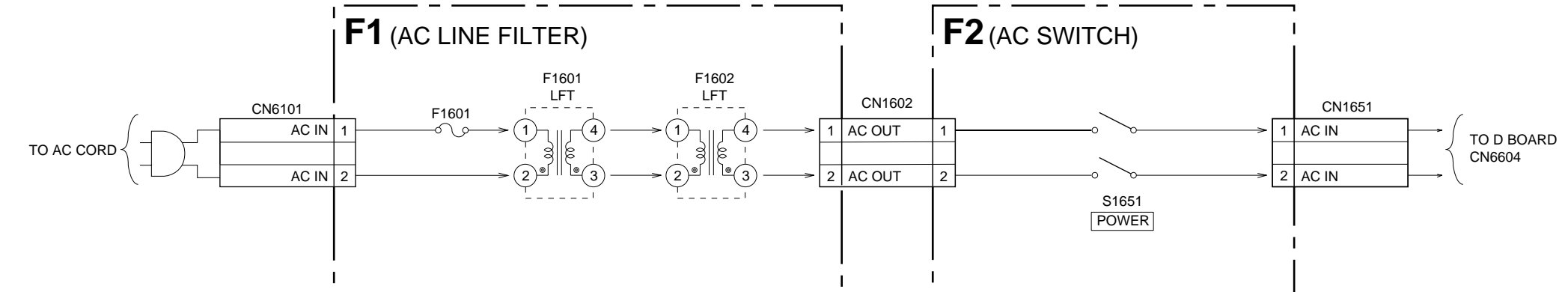
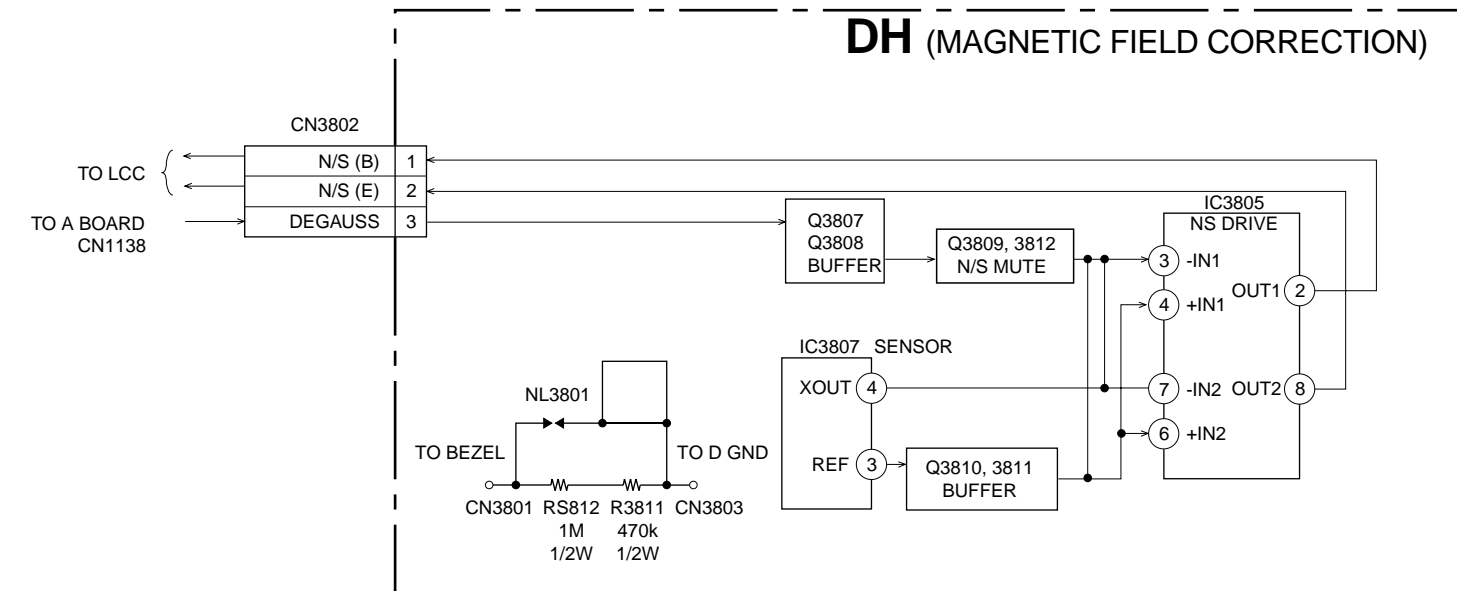
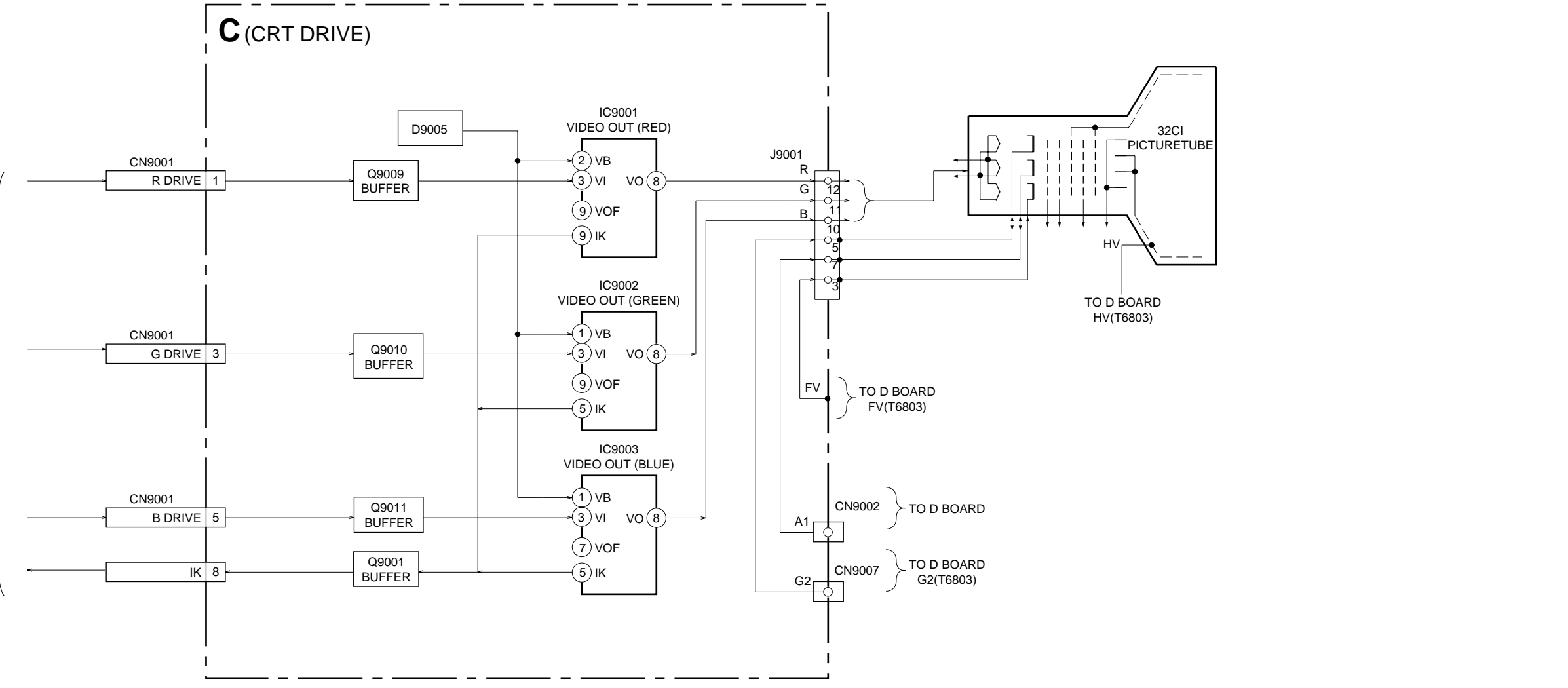
KV-ES29M90  
RM-916

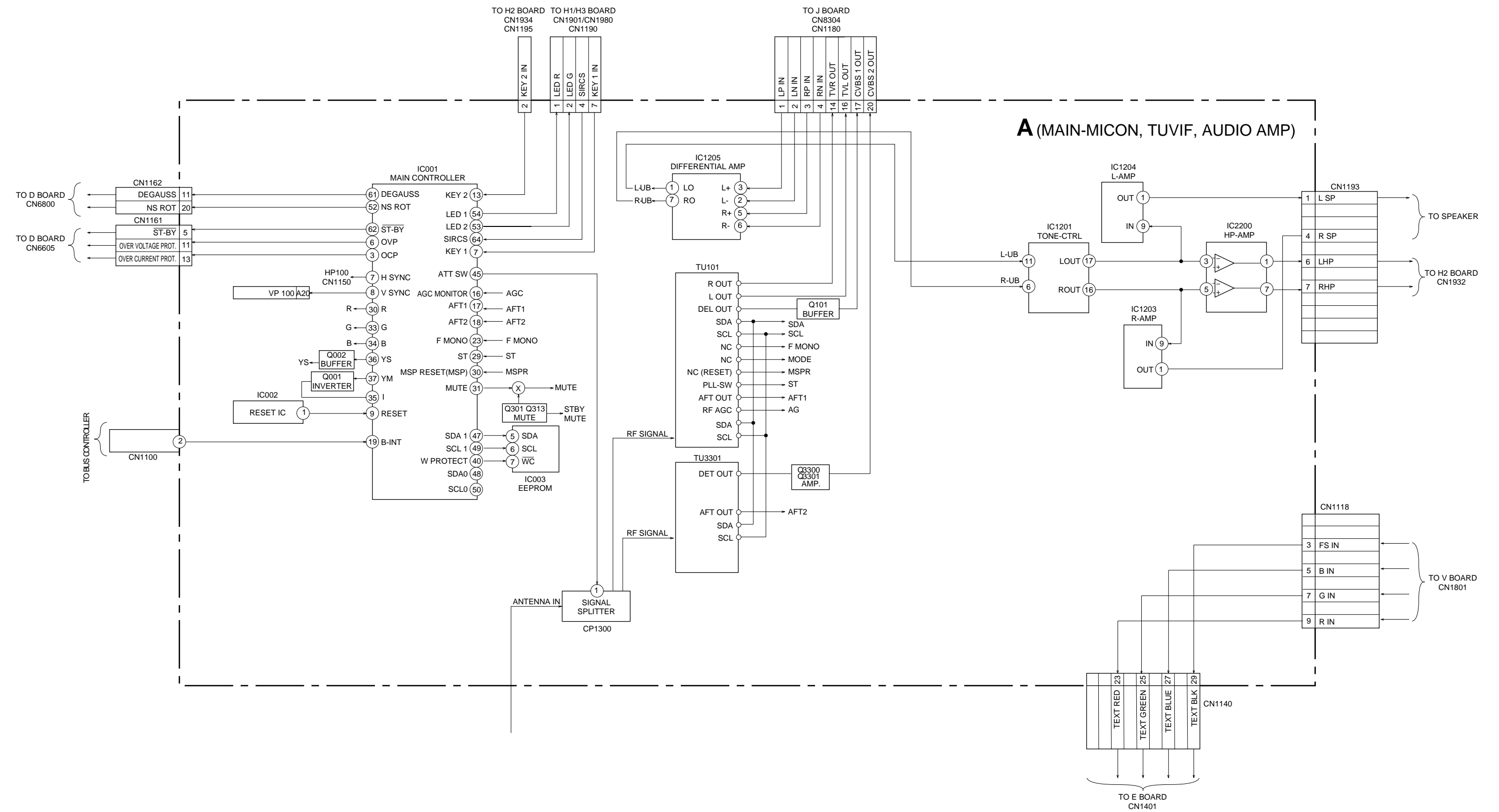
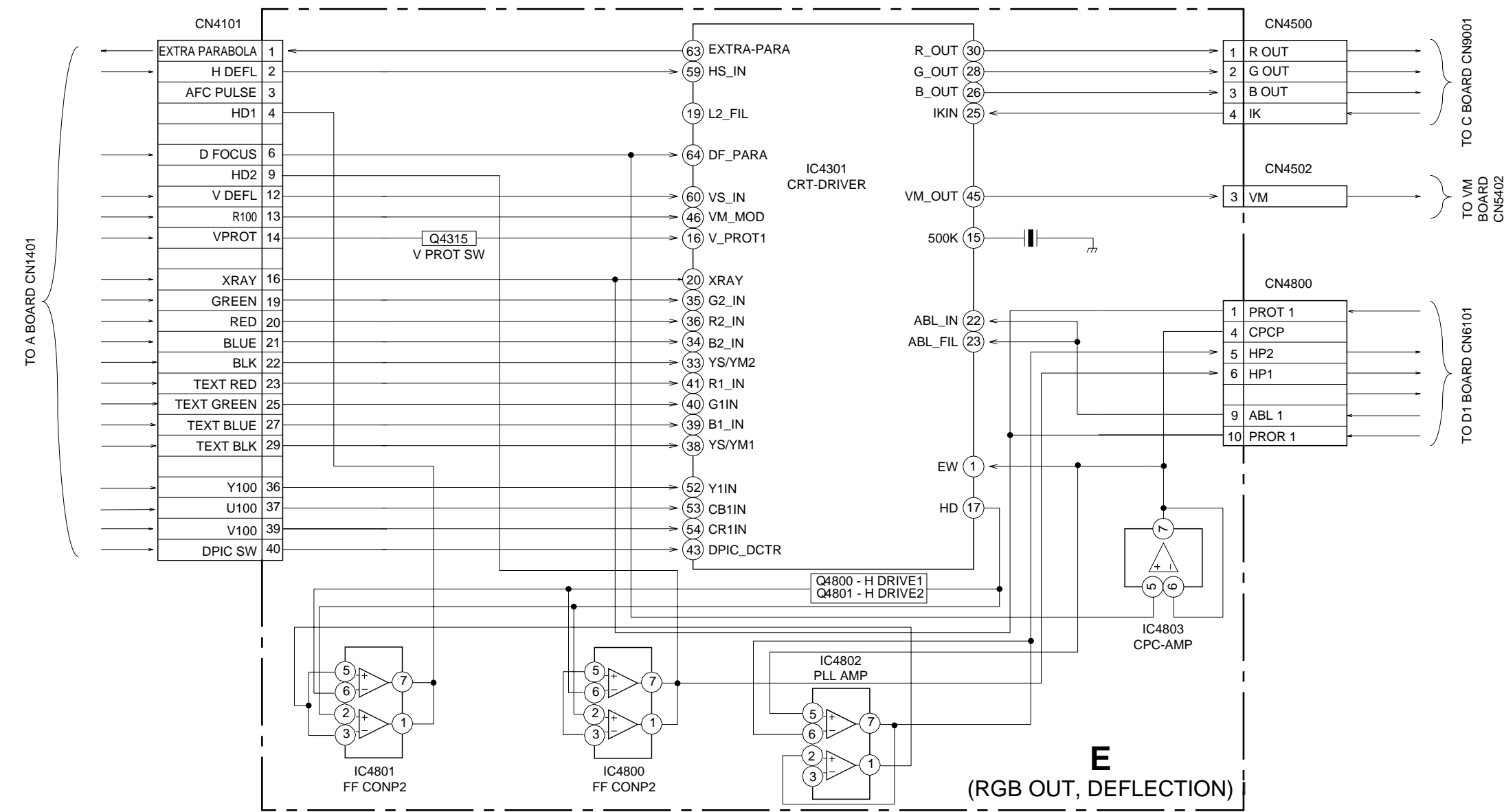
KV-ES29M90  
RM-916

6-1. BLOCK DIAGRAM

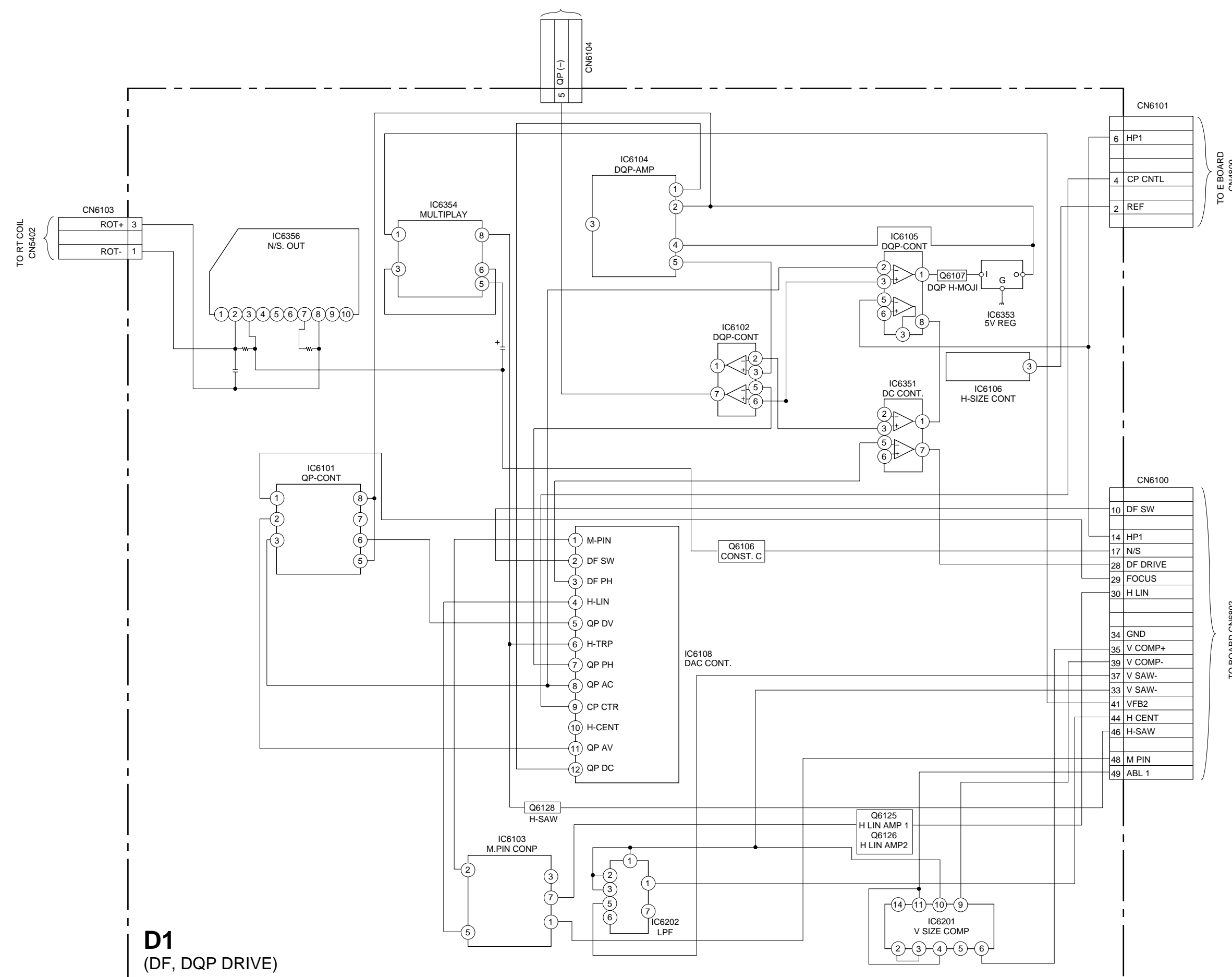
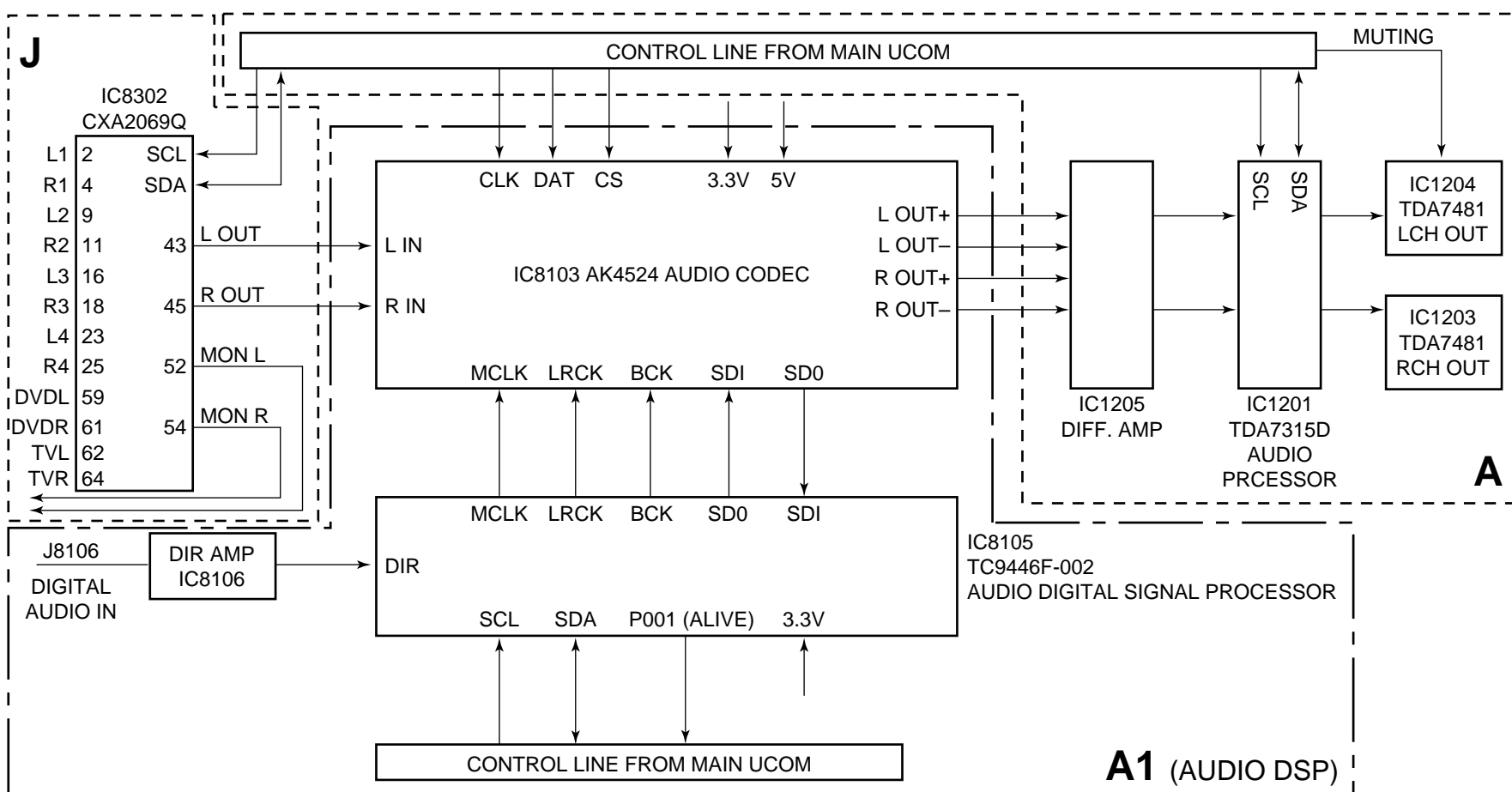
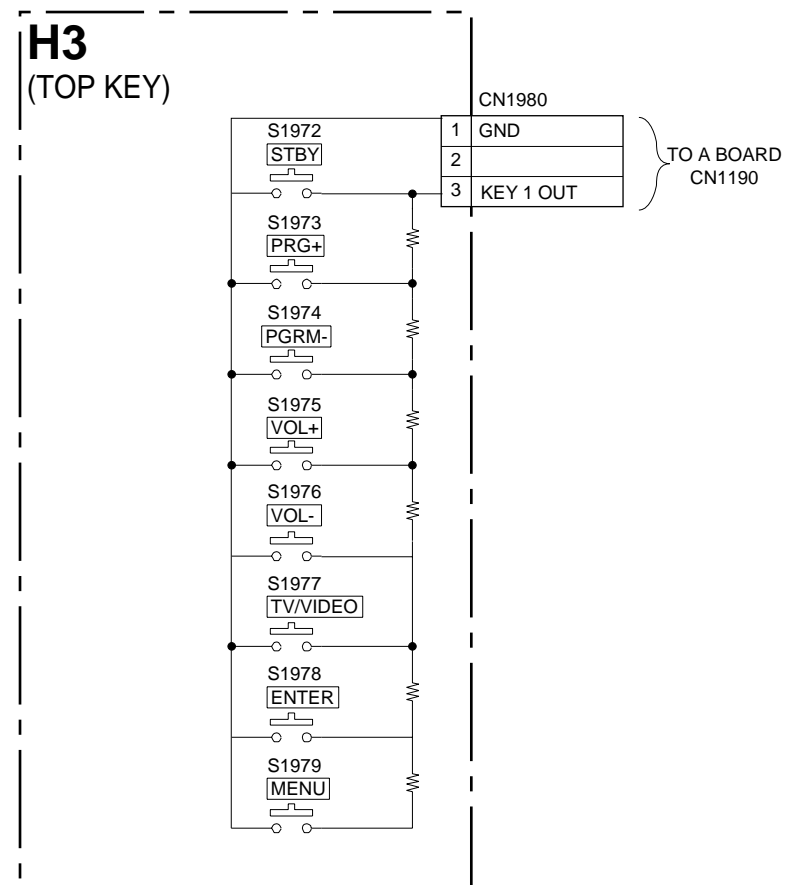
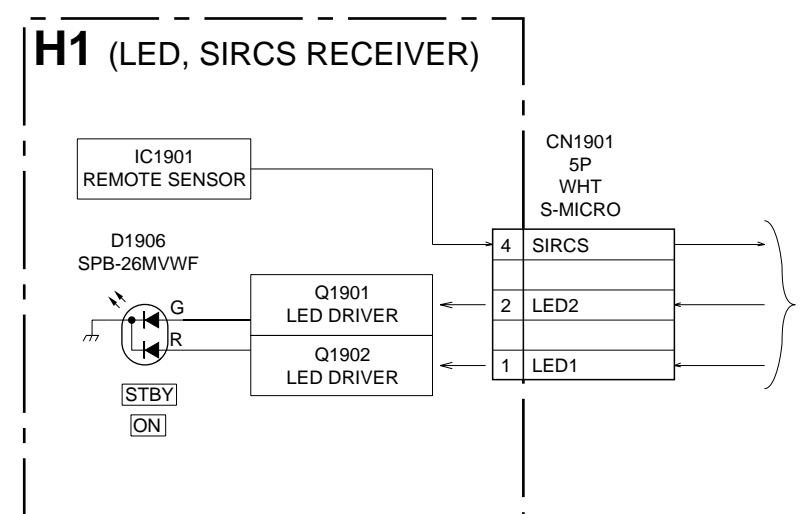
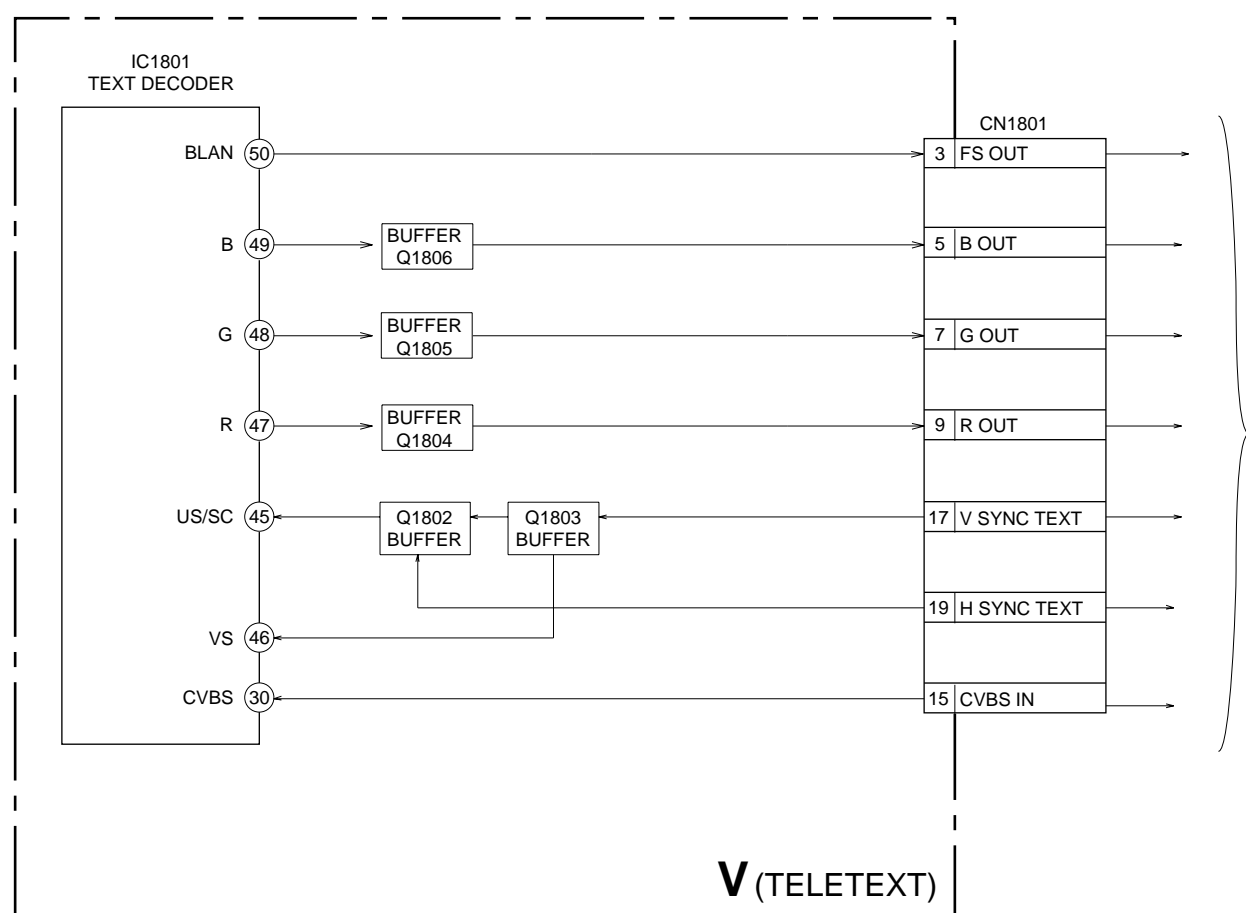
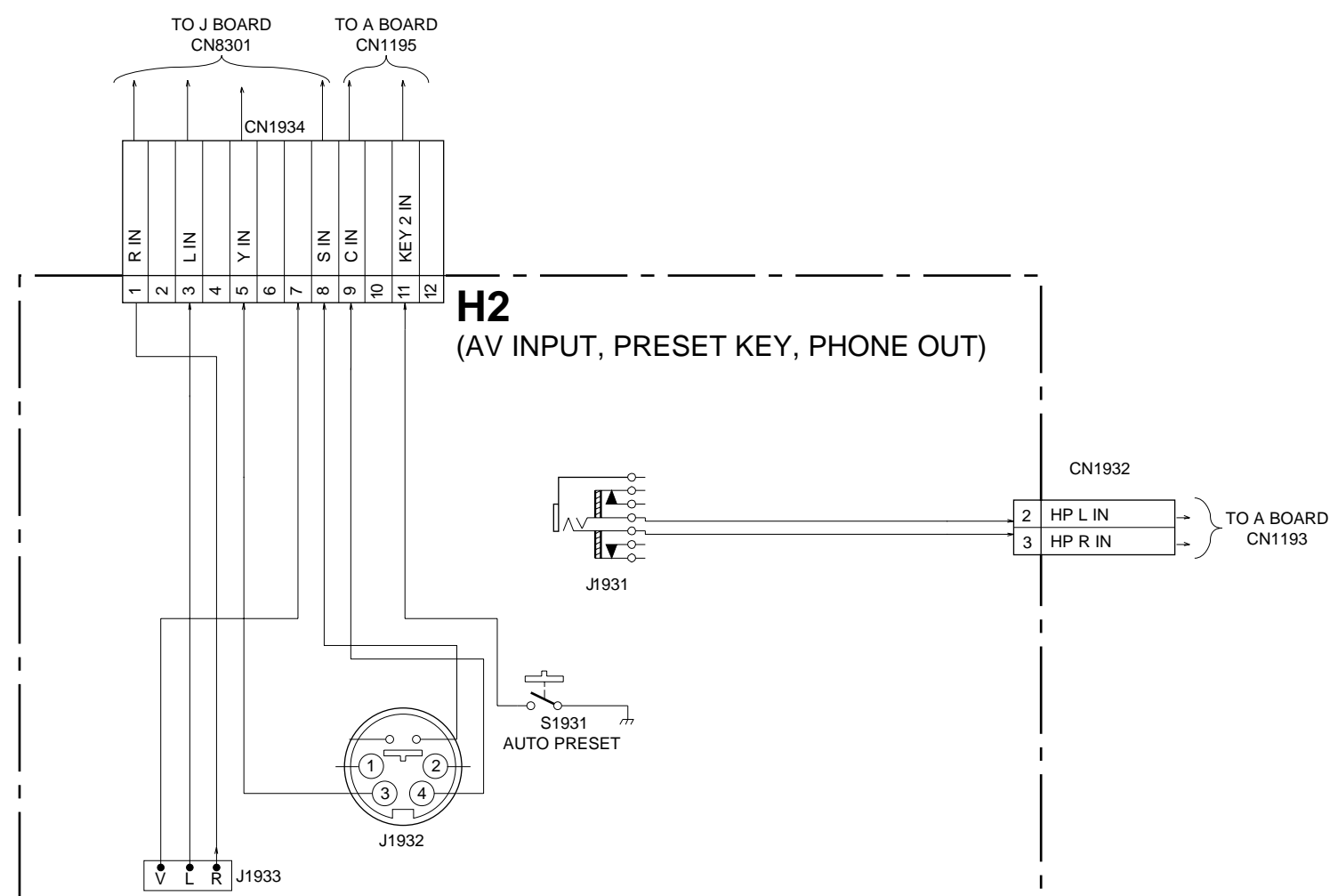


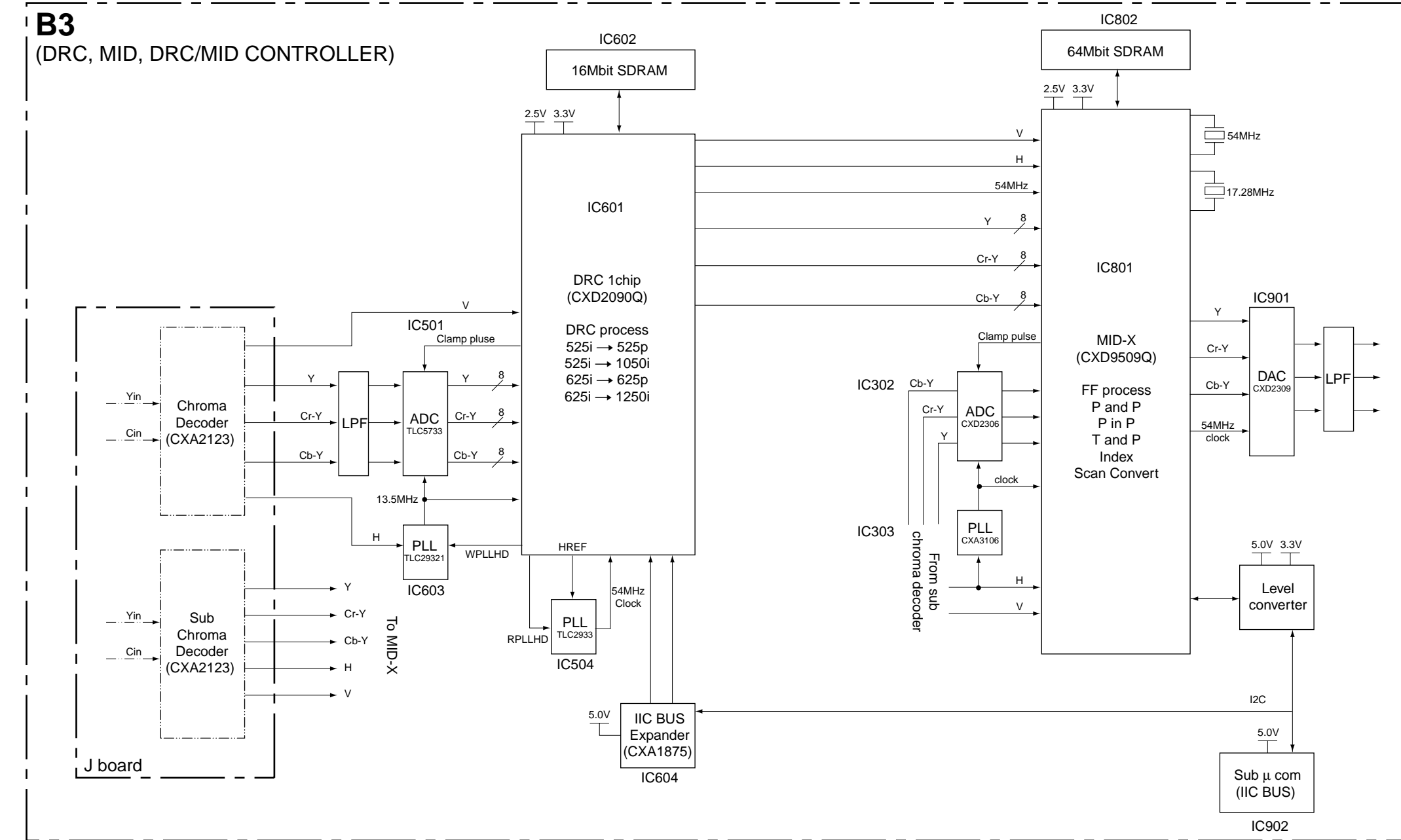
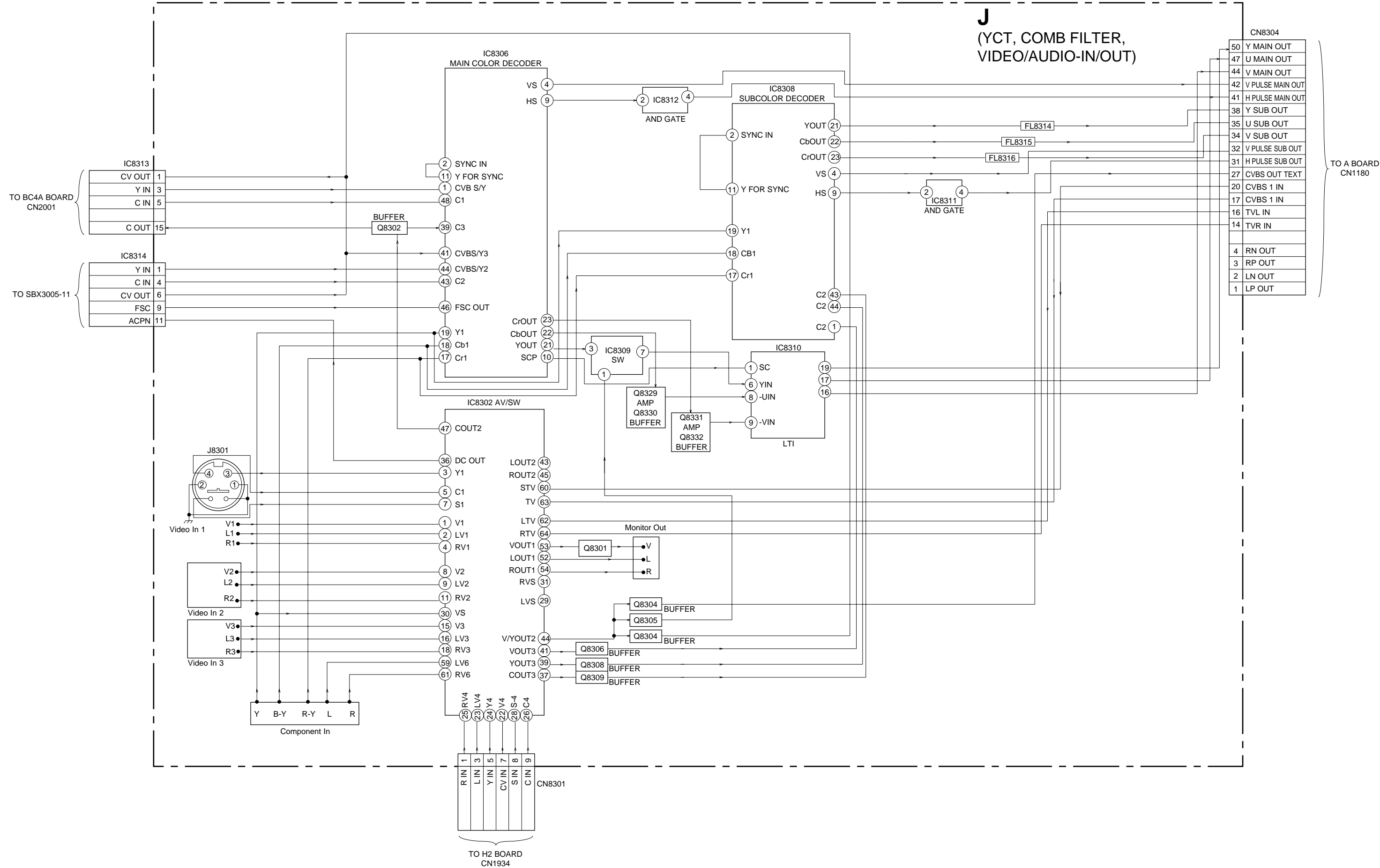
TO E BOARD  
CN4500

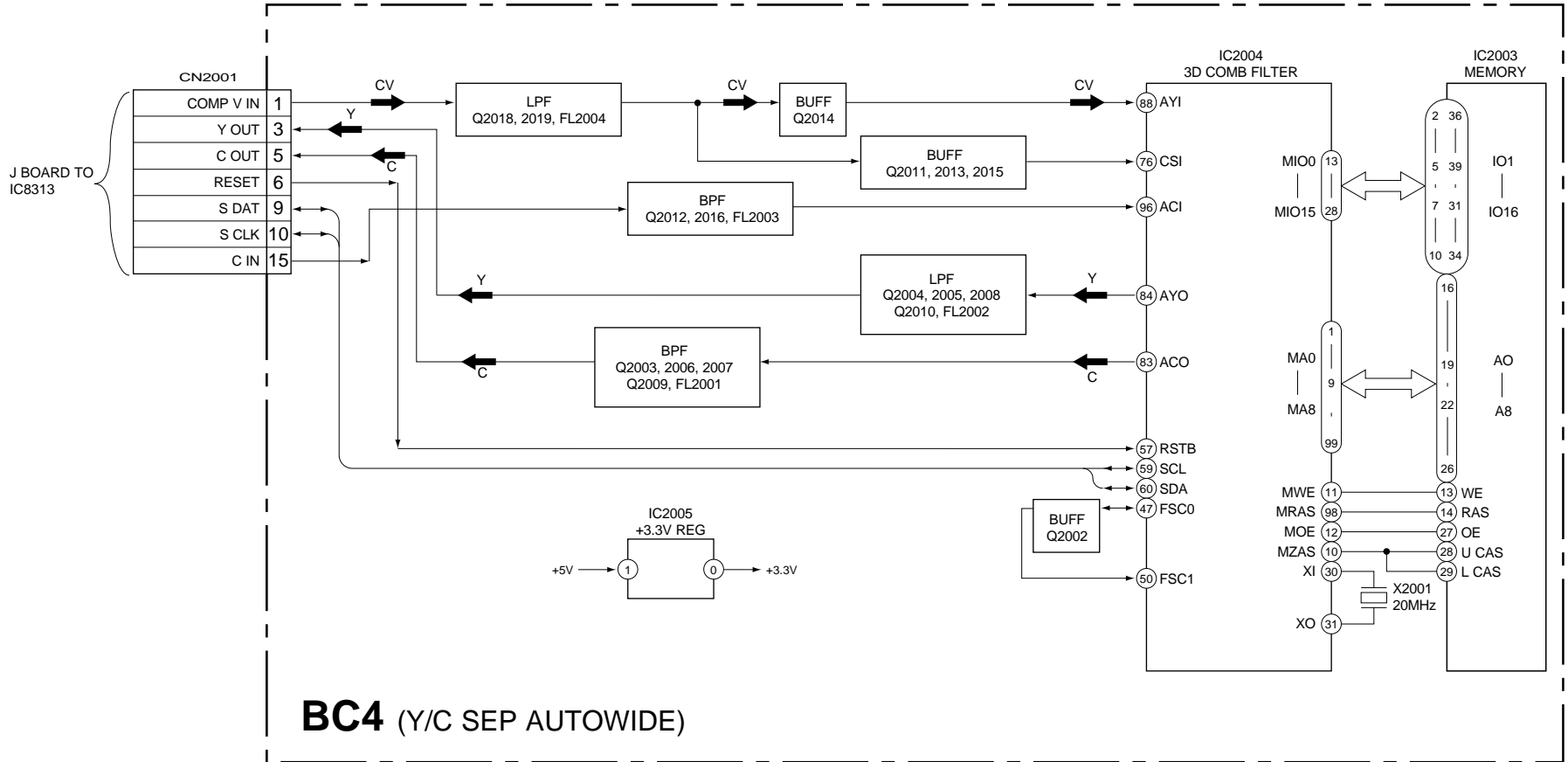


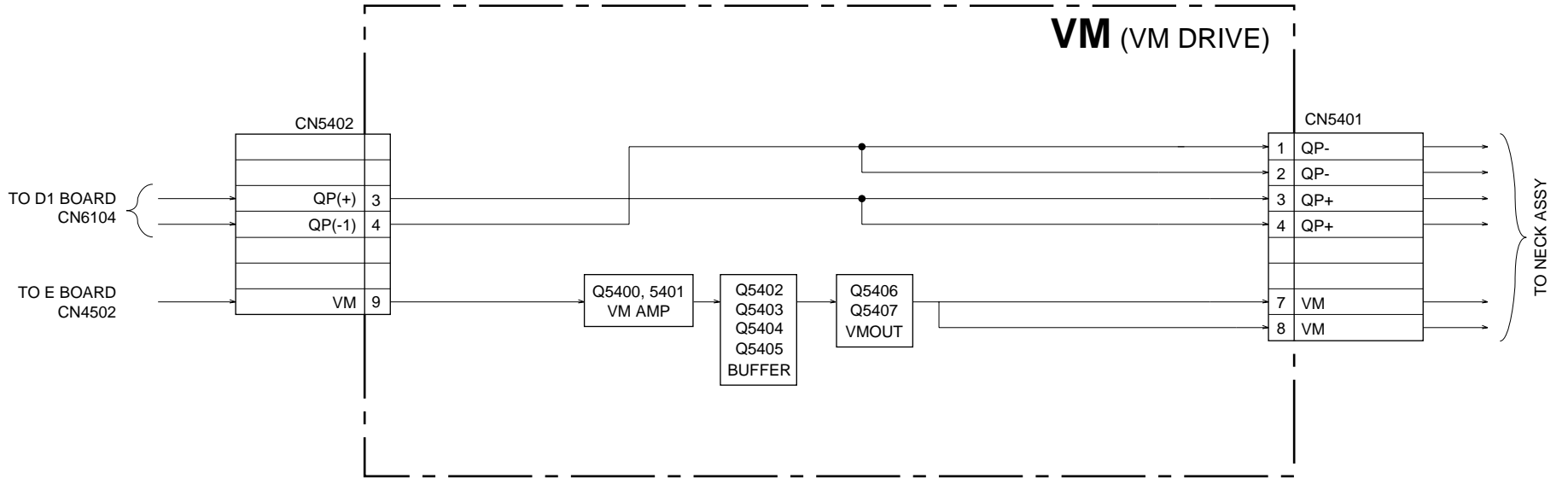




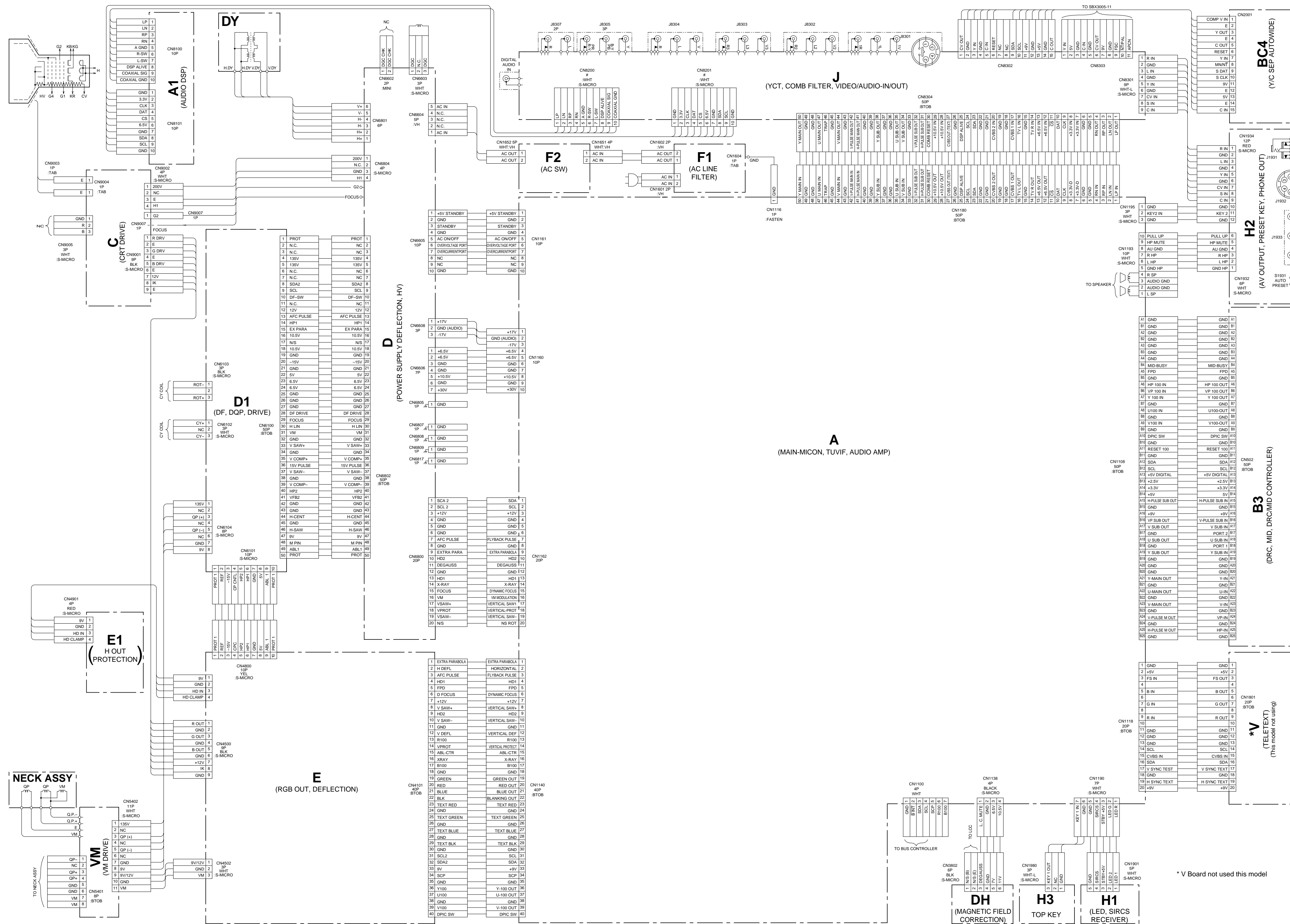




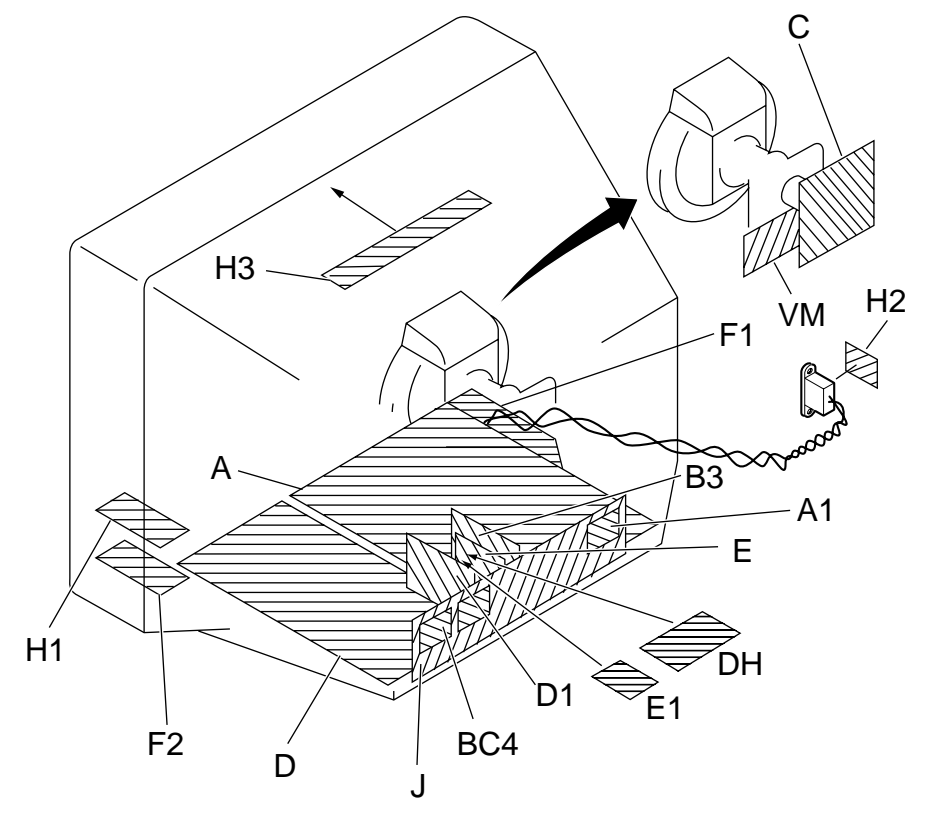




6-2. FRAME SCHEMATIC DIAGRAMS



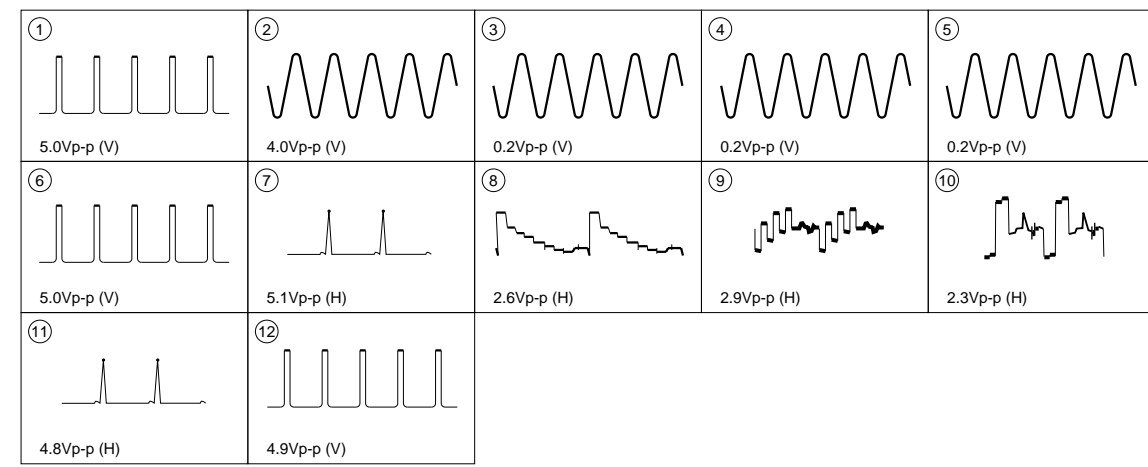
6-3. CIRCUIT BOARDS LOCATION



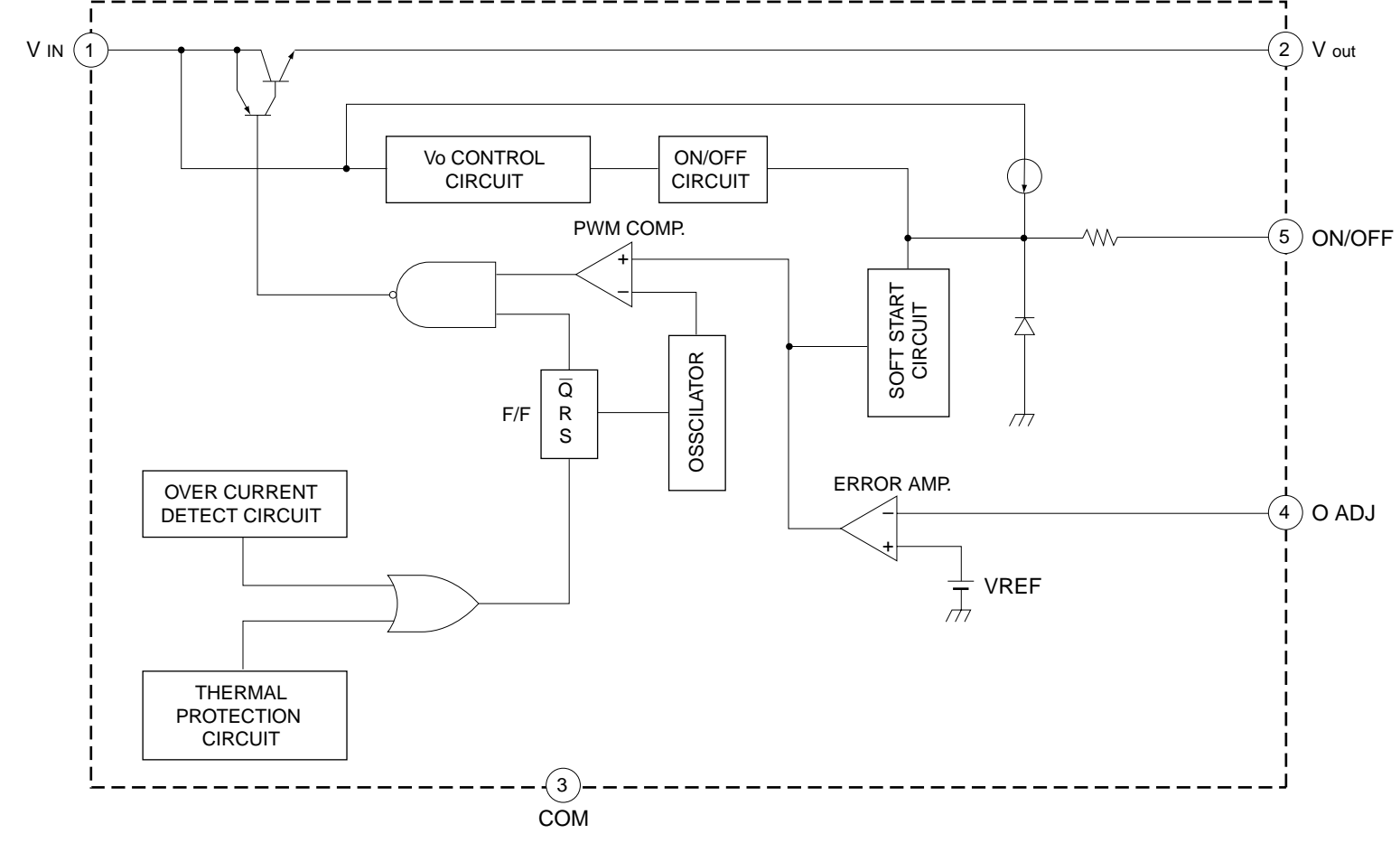
6-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.
  - All electrolytic capacitors are rated at 50V unless otherwise noted.
  - All resistors are in ohms.
  - $k\Omega = 1000\Omega$ ,  $M\Omega = 1000k\Omega$
  - Indication of resistance which does not have rating electrical power is as follows.
  - Pitch: 5 mm
  - Rating electrical power 1/4W (CHIP: 1/10W)
  - $\Delta$ : nonflammable resistor.
  - $\triangle$ : internal component.
  - $\square$ : panel designation or adjustment for repair.
  - All variable and adjustable resistors have characteristic curve B unless otherwise noted.
  - Readings are taken with a color-bar signal input.
  - no mark : PAL
  - ( ) : SECAM
  - [ ] : NTSC 3.58
  - { } : NTSC 4.43
- Reference information**
- |             |       |                          |
|-------------|-------|--------------------------|
| RESISTOR :  | RN    | METAL FILM               |
|             | RC    | SOLID                    |
|             | FPRD  | NONFLAMMABLE CARBON      |
|             | FUSE  | NONFLAMMABLE FUSIBLE     |
|             | RS    | NONFLAMMABLE METAL OXIDE |
|             | RB    | NONFLAMMABLE CEMENT      |
|             | RW    | NONFLAMMABLE WIREWOUND   |
|             | X     | ADJUSTMENT RESISTOR      |
| COIL :      | LF-BL | MICRO INDUCTOR           |
| CAPACITOR : | TA    | TANTALUM                 |
|             | PS    | STYROL                   |
|             | PP    | POLYPROPYLENE            |
|             | PT    | MYLAR                    |
|             | MPS   | NONFLAMMABLE POLYESTER   |
|             | MPP   | METALIZED POLYPROPYLENE  |
|             | ALB   | BIPOLAR                  |
|             | ALT   | HIGH TEMPERATURE         |
|             | ALR   | HIGH RIPPLE              |
- Note:** The component identified by shading and mark  $\Delta$  are critical for safety. Replace only with part number specified.

**A BOARD WAVEFORMS**



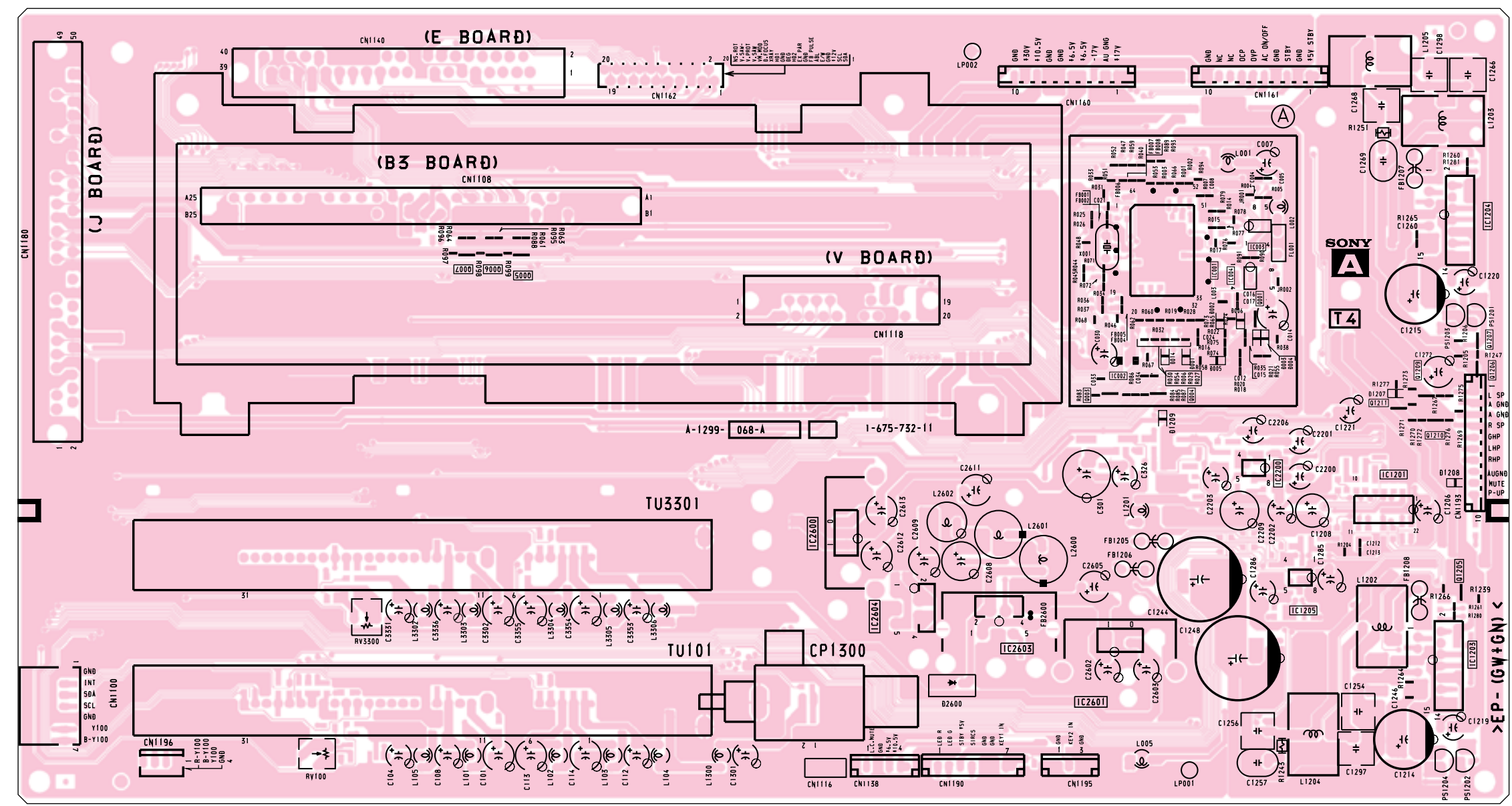
**A BOARD IC2603 PQICG2032FZ**



**PRINTED WIRING BOARDS**

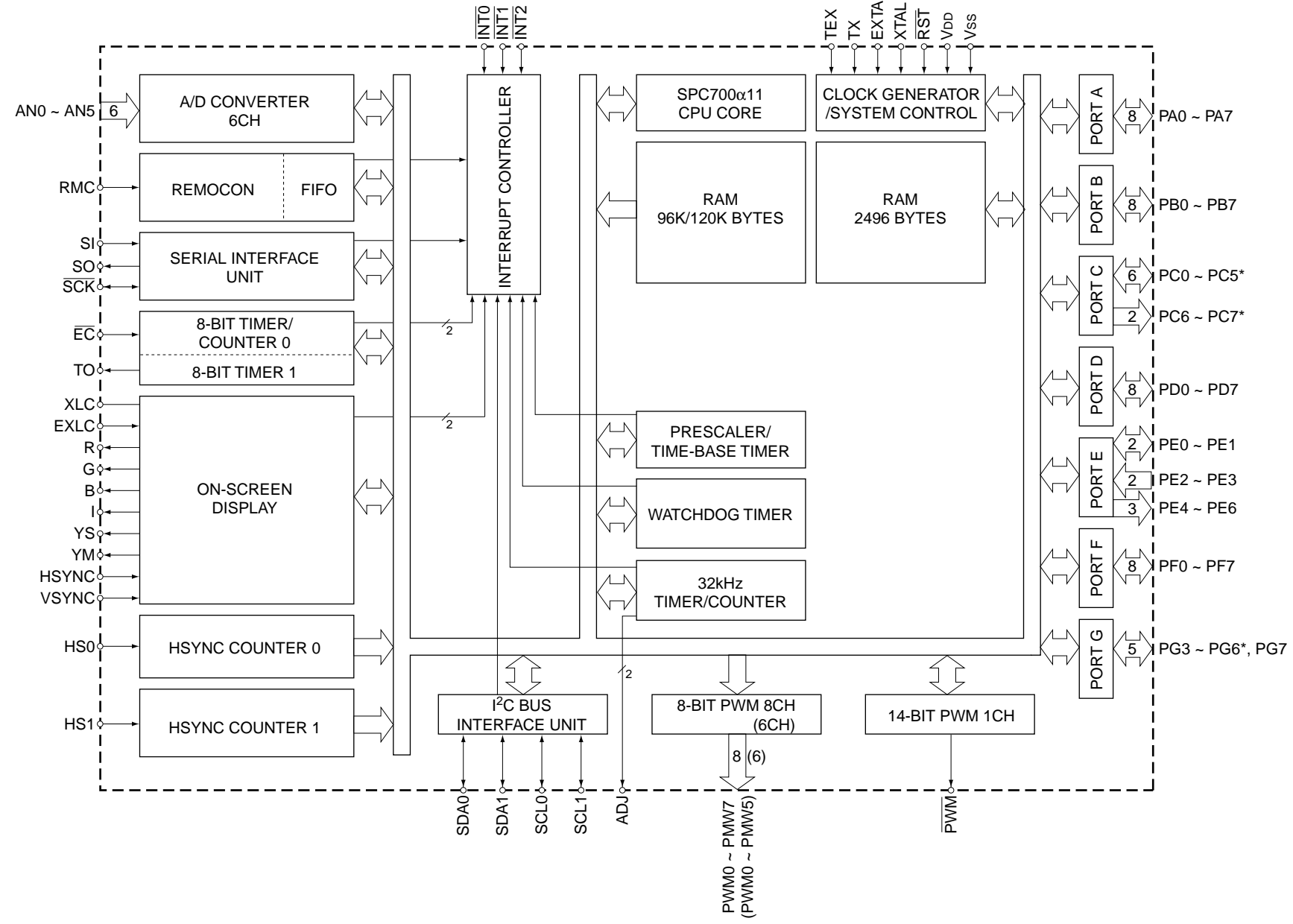
**A [MAIN-MICON, TUVIF, AUDIO AMP]**

**- A Board (Component Side) -**

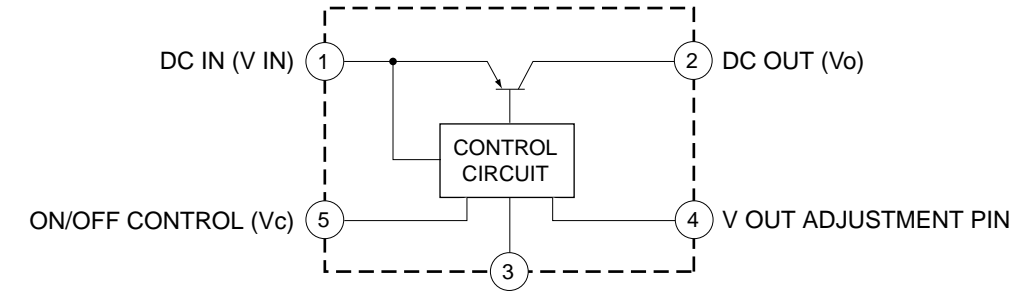


- Pattern from the side which enables seeing.
- Pattern from the rear side.

**A BOARD IC001 CXP750096-012Q**



**A BOARD IC2604 PQ5EV3**



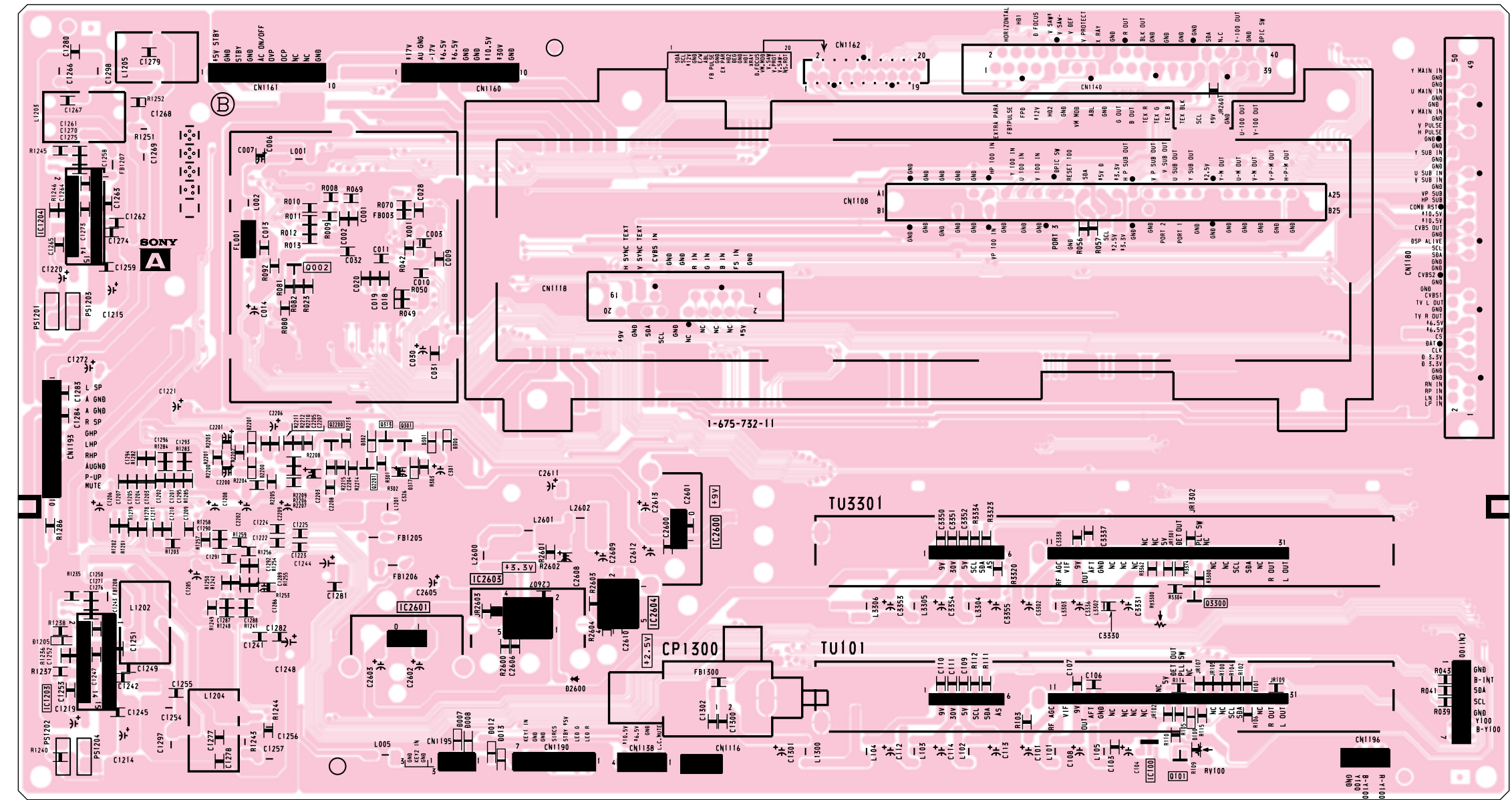
**A BOARD (Component Side)**

IC	TRANSISTOR
IC001	B-9
IC002	C-8
IC003	A-8
IC1201	E-13
IC1203	F-13
IC1204	B-13
IC1205	F-12
IC2200	E-12
IC2600	E-8
IC2601	G-10
IC2603	F-9
IC2604	F-8
Q1201	D-12
Q1206	D-13
Q1209	D-13
Q1210	D-13
Q1205	E-13
DIODE	
D1208	E-13
D1209	D-11

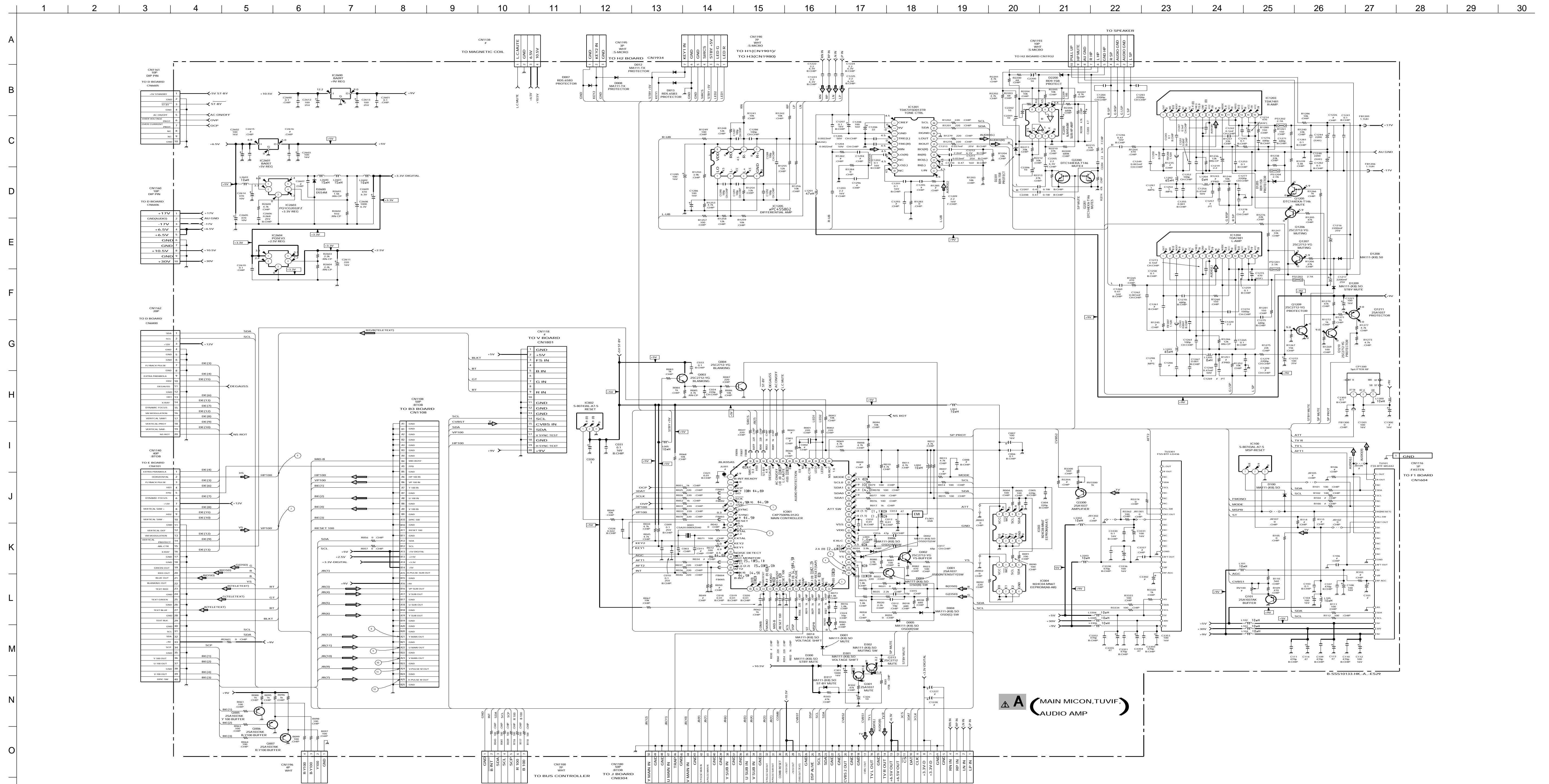
**A BOARD (Conductor Side)**

IC	DIODE
IC100	G-10
IC901	I-13
IC1203	G-1
IC1204	B-1
IC2600	E-7
IC2601	F-4
IC2603	F-5
IC2604	F-6
TRANSISTOR	
Q101	G-11
Q301	D-4
Q313	D-4
Q902	I-13
Q2300	D-3
Q2201	E-4
Q3300	F-11

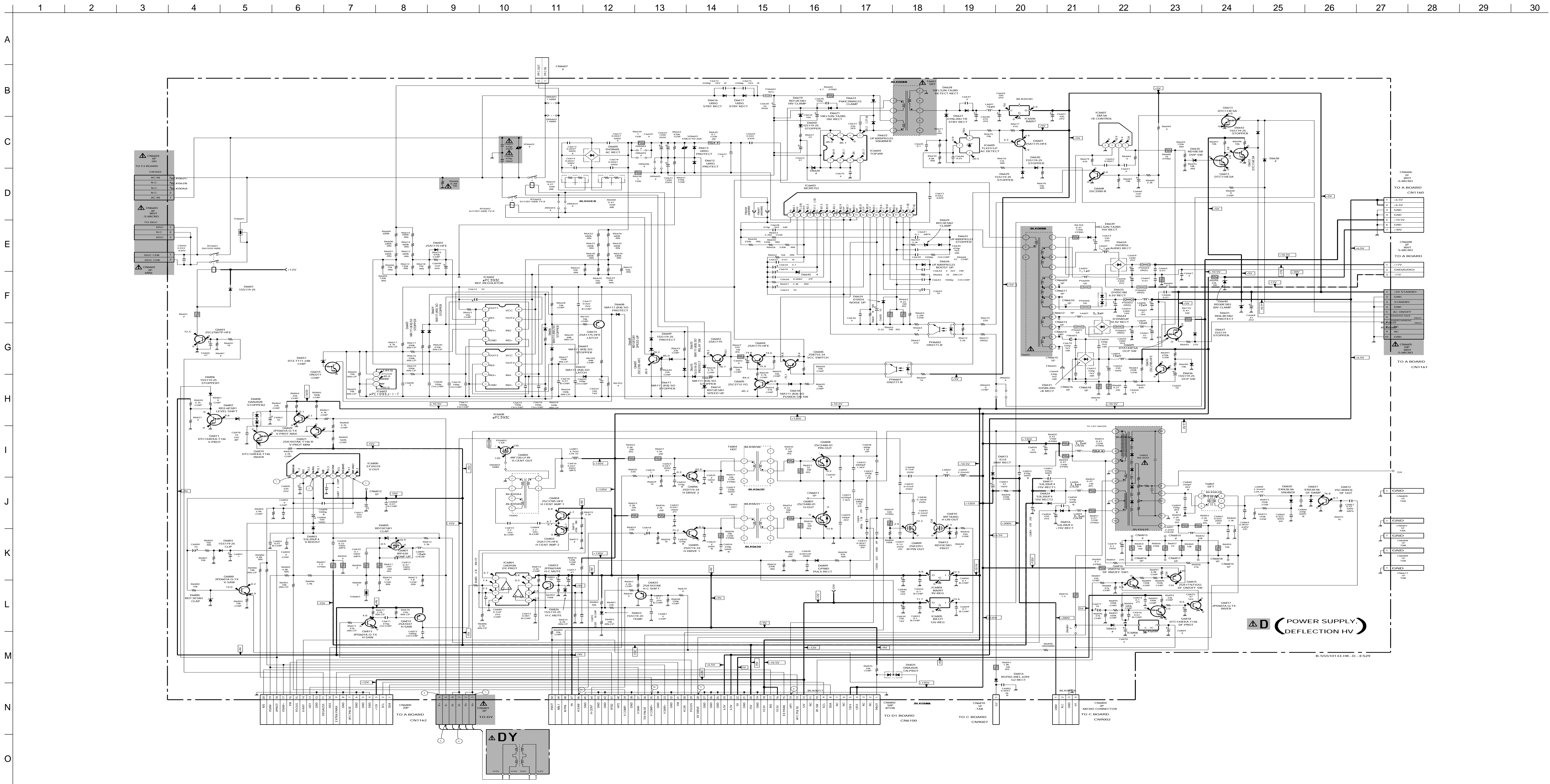
**- A Board (Conductor Side) -**



(1) Schematic Diagram of A Board



(2) Schematic Diagram of D Board

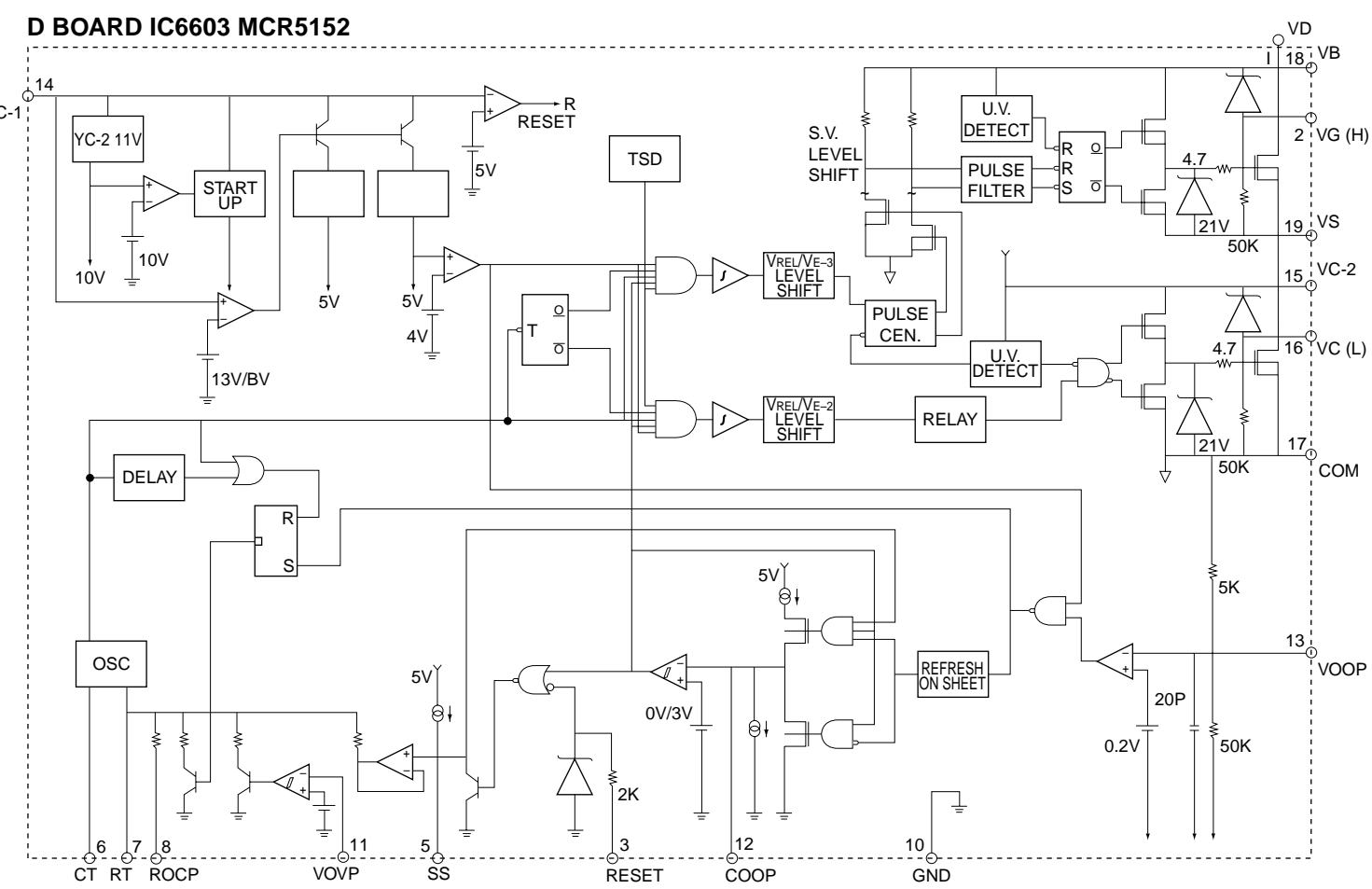
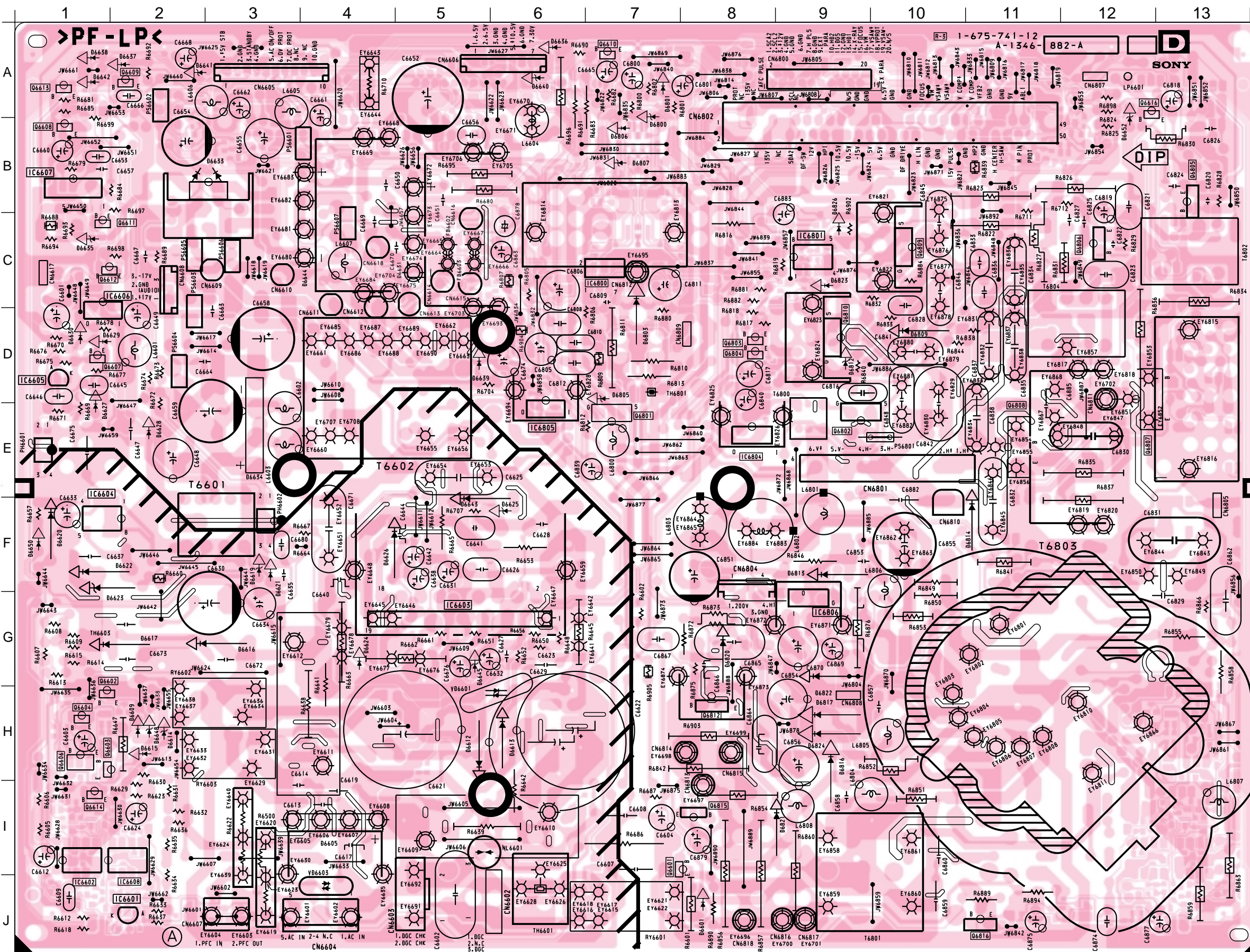




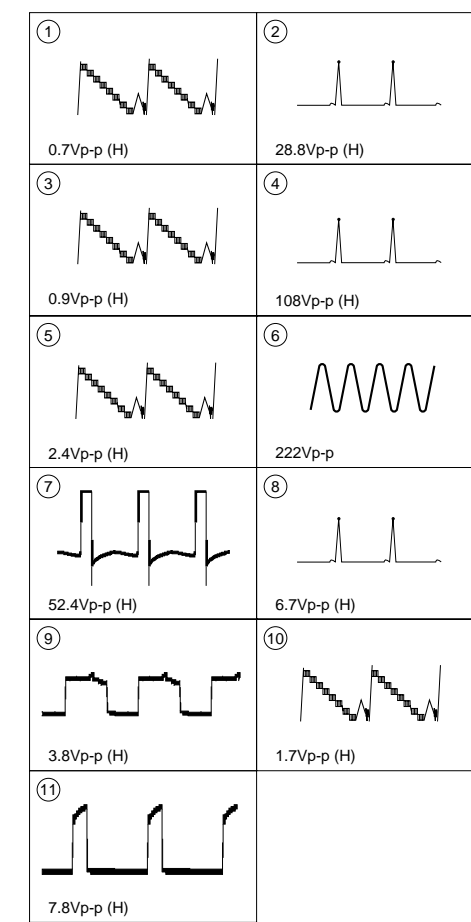
PRINTED WIRING BOARDS

**D** [POWER SUPPLY, DEFLECTION HV]

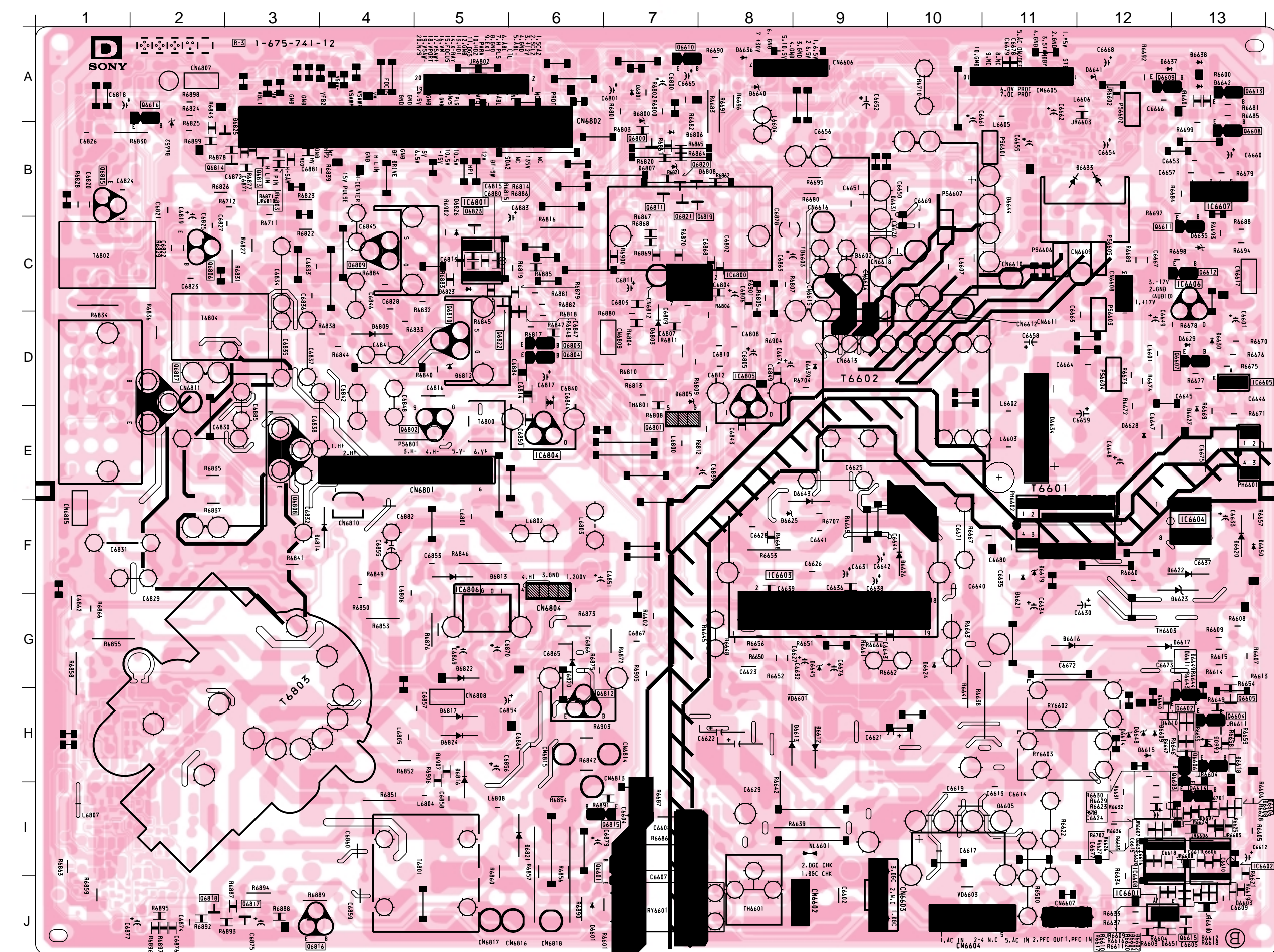
- D Board (Component Side) -



D BOARD WAVEFORMS



- D Board (Conductor Side) -

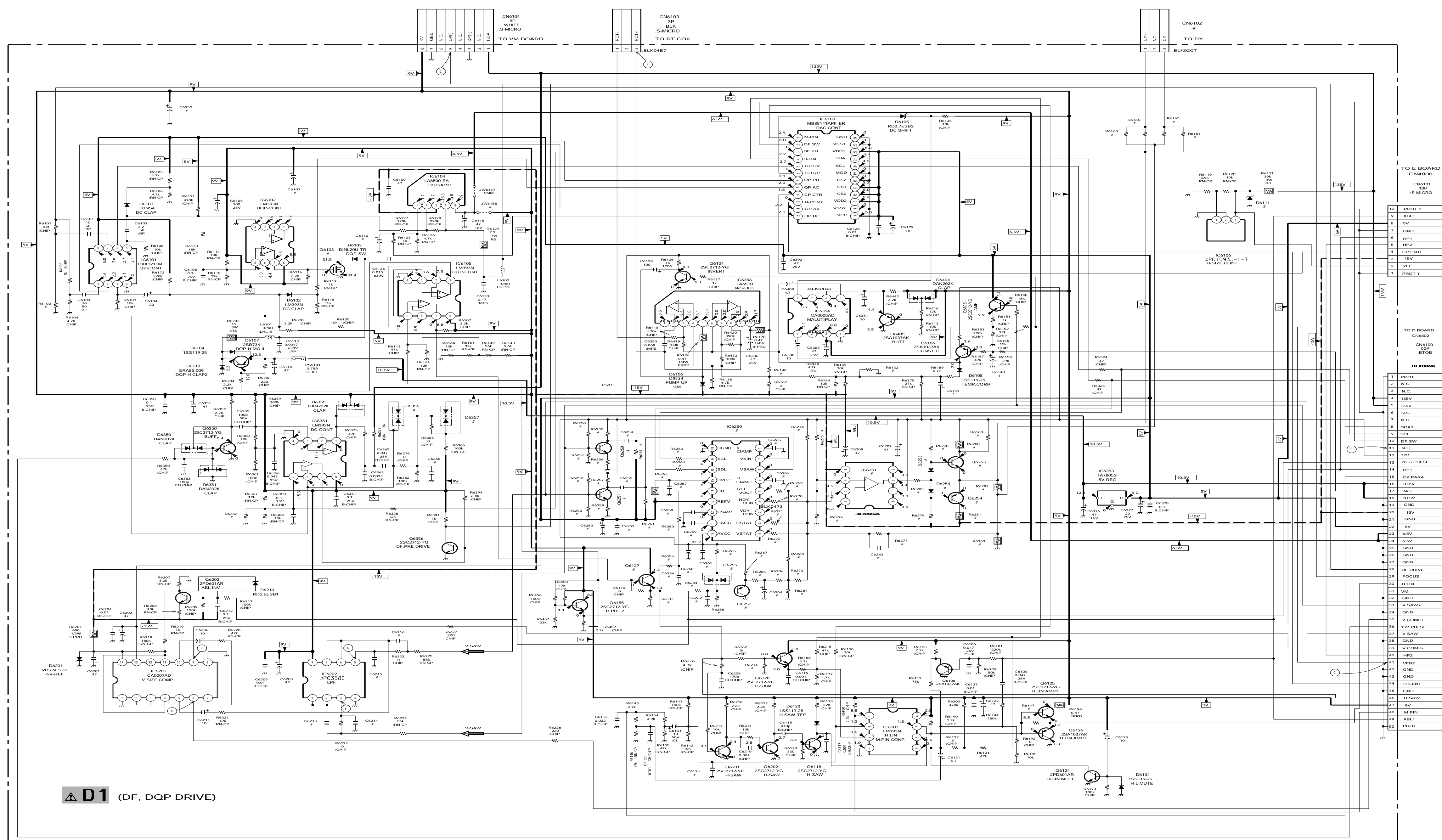


D BOARD (Component Side)

IC	DIODE	D6642	A-1
IC6601	J-2	D6643	F-5
IC6602	J-2	D6644	C-4
IC6603	G-5	D6645	G-5
IC6604	E-1	D6646	H-2
IC6605	D-1	D6647	F-1
IC6606	C-1	D6648	B-7
IC6607	B-1	D6649	A-7
IC6608	E-7	D6650	D-7
IC6801	C-8	D6651	E-7
IC6802	E-8	D6652	B-7
IC6803	E-6	D6653	B-7
IC6804	E-6	D6654	D-10
IC6805	G-6	D6655	F-3
IC6806	E-9	D6656	D-9
IC6807	F-3	D6657	F-8
IC6808	F-2	D6658	F-11
TRANSISTOR		D6659	F-11
Q6601	I-8	D6660	I-9
Q6602	H-2	D6661	H-8
Q6603	H-2	D6662	H-8
Q6604	H-1	D6663	I-9
Q6605	H-1	D6664	G-9
Q6606	H-1	D6665	C-9
Q6607	D-2	D6666	H-10
Q6608	B-1	D6667	C-9
Q6609	A-2	D6668	C-9
Q6610	A-7	D6669	B-12
Q6611	C-2	D6670	C-12
Q6612	C-1	D6671	B-12
Q6613	A-1	D6672	C-10
Q6801	E-7	D6673	C-10
Q6802	E-9	D6674	D-10
Q6803	D-8	D6675	H-8
Q6804	D-8	D6676	I-1
		D6677	A-3
		D6678	I-11

D BOARD (Conductor Side)

IC	DIODE	D6617	G-12	D6807	B-7
IC6601	J-12	D6618	F-11	D6808	B-8
IC6602	I-13	D6619	F-13	D6809	D-4
IC6603	F-8	D6620	G-11	D6812	D-5
IC6604	F-13	D6621	F-13	D6813	F-5
IC6605	D-13	D6622	G-10	D6814	F-4
IC6606	C-13	D6623	F-9	D6816	I-5
IC6607	B-13	D6624	F-10	D6817	H-5
IC6608	C-7	D6625	E-13	D6820	H-6
IC6801	B-5	D6626	E-12	D6821	H-6
IC6802	E-8	D6627	D-12	D6822	G-5
IC6803	E-6	D6628	D-13	D6824	H-5
IC6804	D-8	D6629	B-10	D6825	B-5
IC6805	F-5	D6630	I-13	D6826	C-3
IC6806	F-5	D6631	E-11		
TRANSISTOR		D6632	C-13		
Q6601	J-6	D6633	A-8		
Q6602	G-2	D6634	A-13		
Q6603	H-13	D6635	A-13		
Q6604	H-13	D6636	D-9		
Q6605	H-13	D6637	A-8		
Q6606	H-13	D6638	A-12		
Q6607	H-13	D6639	A-13		
Q6608	D-13	D6640	E-9		
Q6609	B-13	D6641	C-11		
Q6610	C-12	D6642	C-11		
Q6611	C-13	D6643	H-9		
Q6612	C-13	D6644	H-12		
Q6613	I-13	D6645	G-13		
Q6800	B-7	D6646	F-13		
Q6801	D-7	D6647	B-7		
Q6802	E-4	D6648	D-7		
Q6803	D-6	D6649	E-7		
Q6804	D-6	D6650	D-7		
Q6805	C-2	D6651	E-7		
		D6652	B-7		



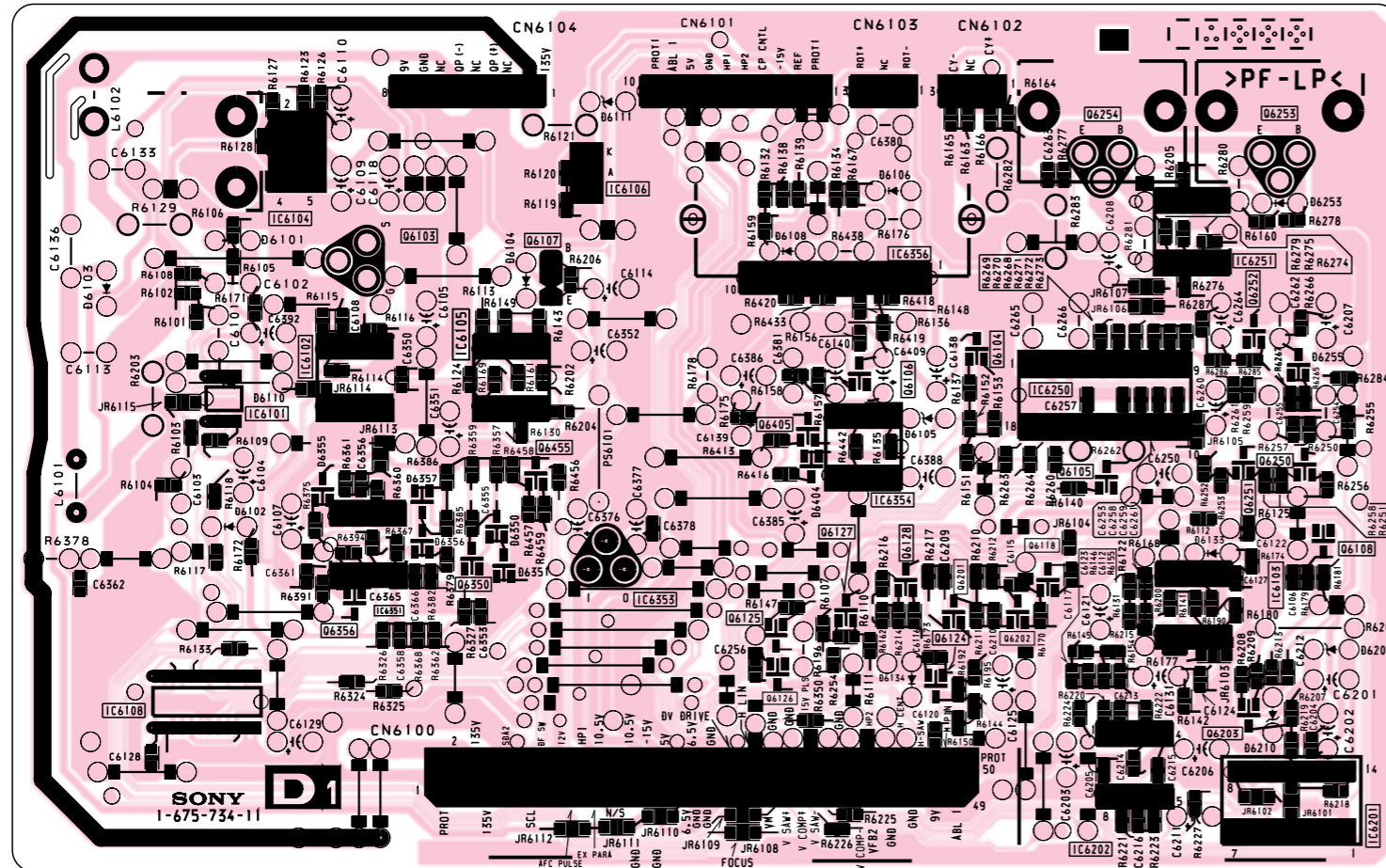
**D1** (DF, DOP DRIVE)

- TO E BOARD  
CN4800  
CN4801  
S-MICRO
- TO D BOARD  
CN4802  
CN4803  
S-MICRO
- TO VM BOARD  
CN6104  
S-MICRO
- TO RT COIL  
CN6103  
S-MICRO
- TO DVY  
CN6102  
S-MICRO

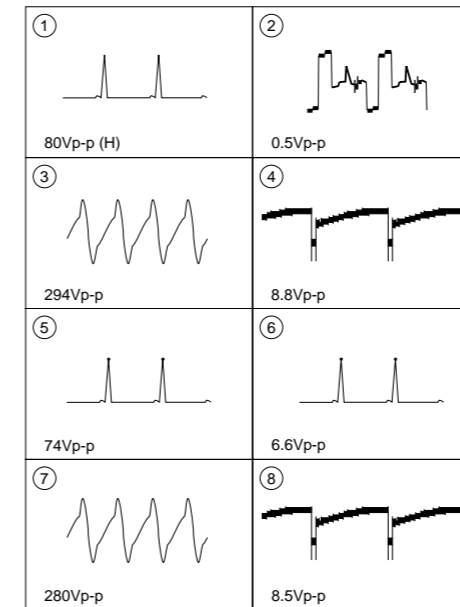
PRINTED WIRING BOARDS

**D1** [DF, DQP DRIVE]

– D1 Board –



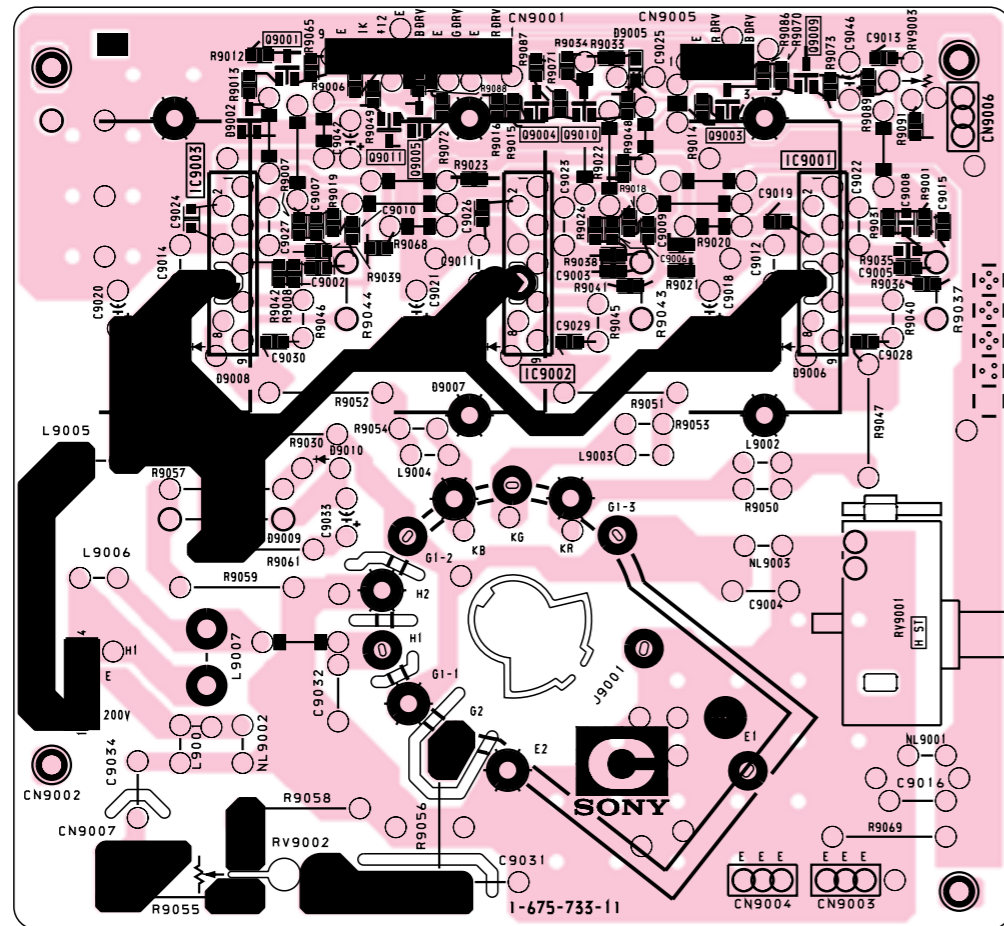
D1 BOARD WAVEFORMS



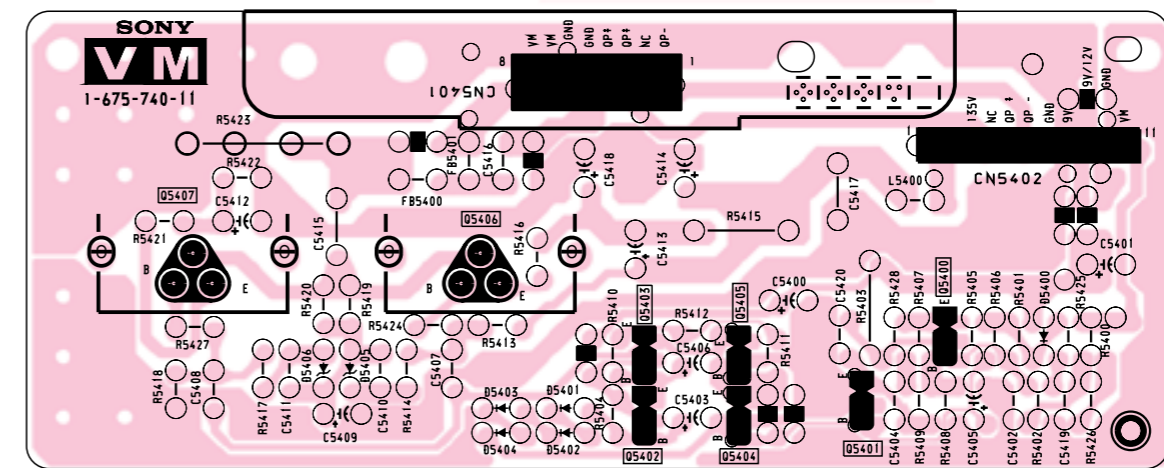
PRINTED WIRING BOARDS

**C** [CRT DRIVE]    **VM** [VM DRIVE]    **F1** [AC LINE FILTER]

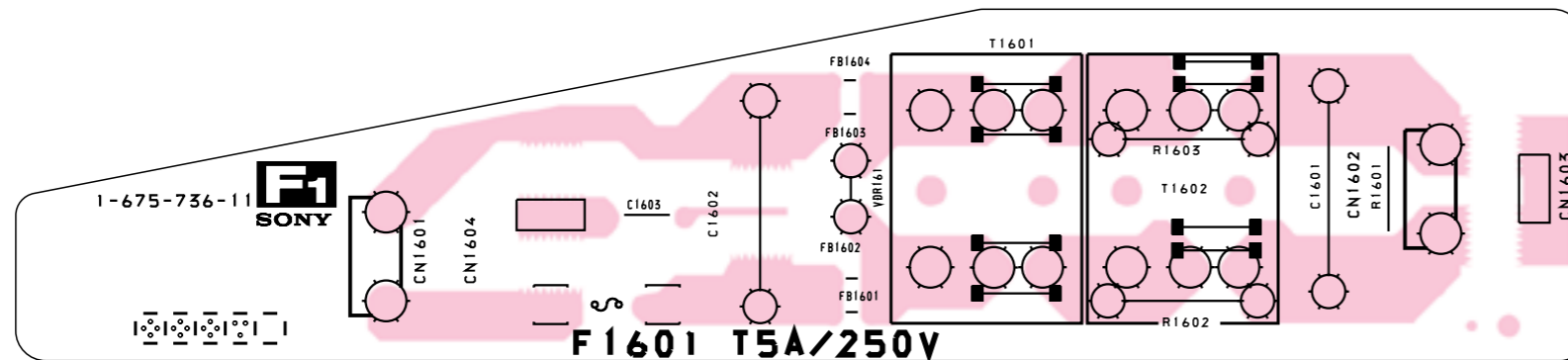
- C Board -



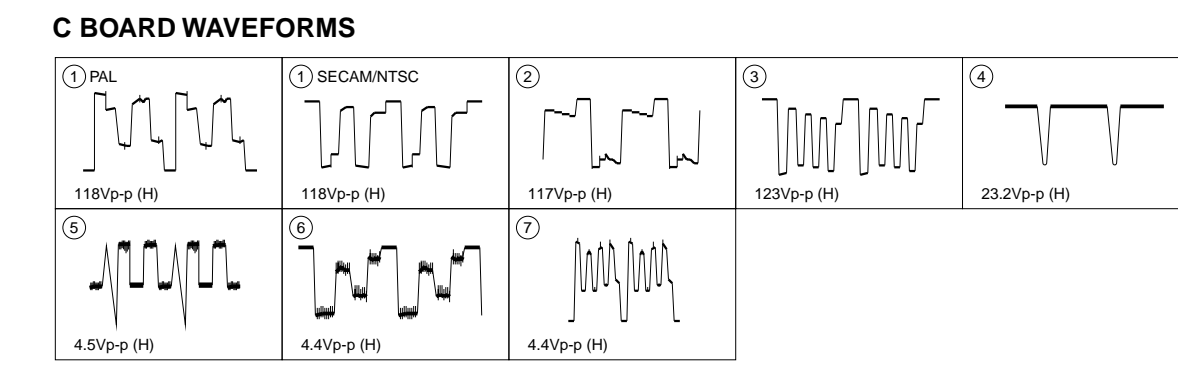
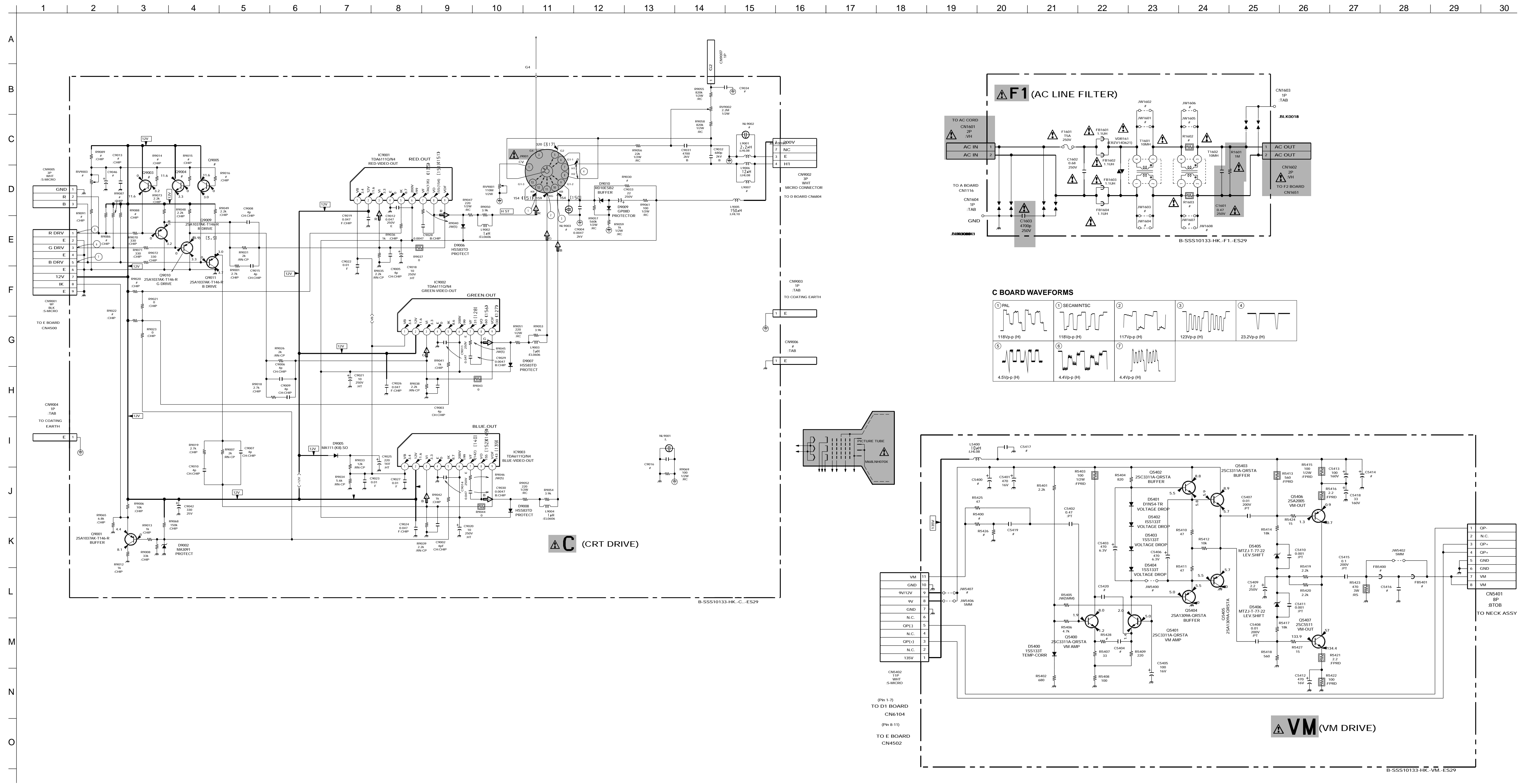
- VM Board -



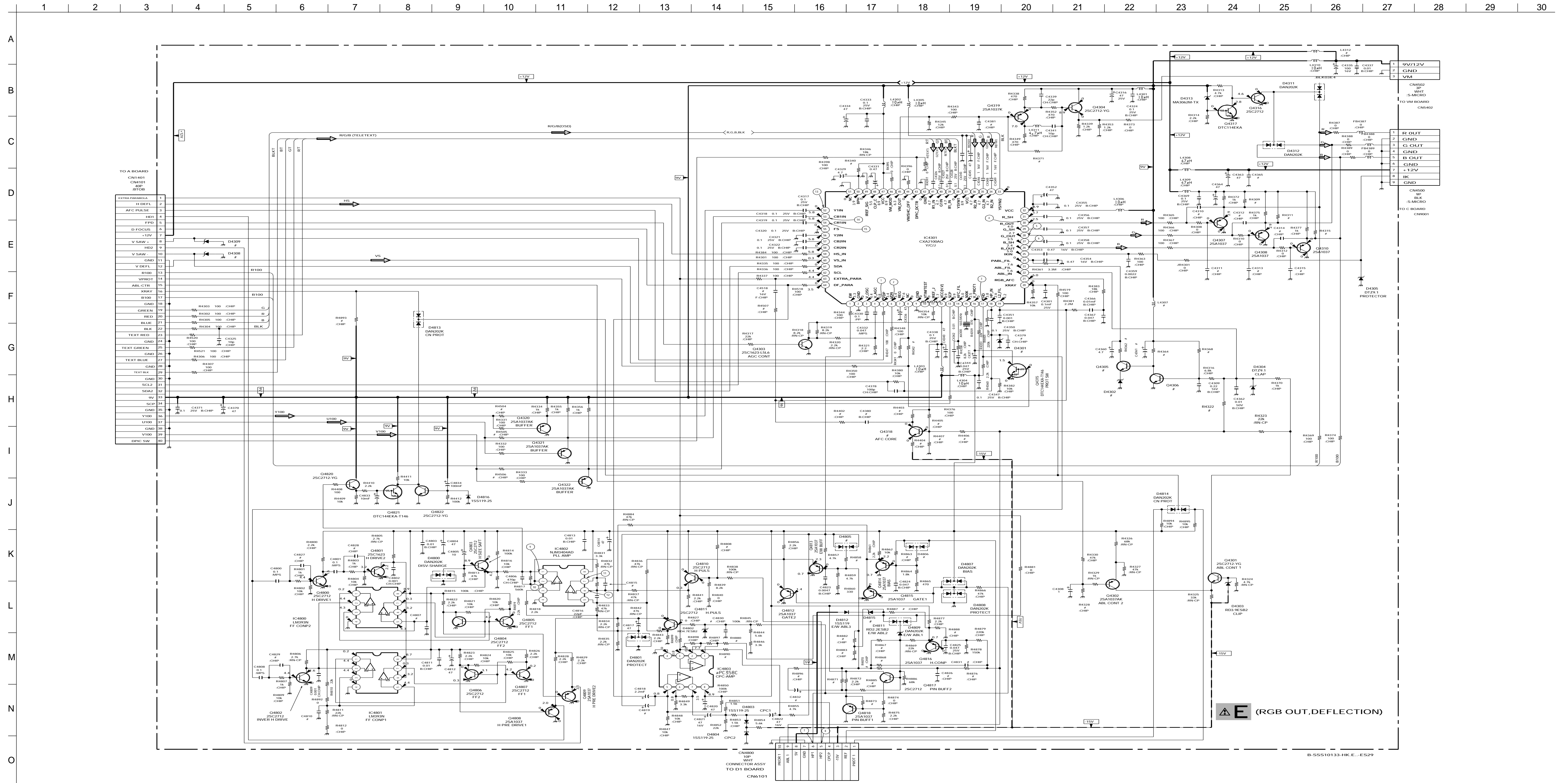
- F1 Board -



(4) Schematic Diagrams of C, F1 and VM Boards



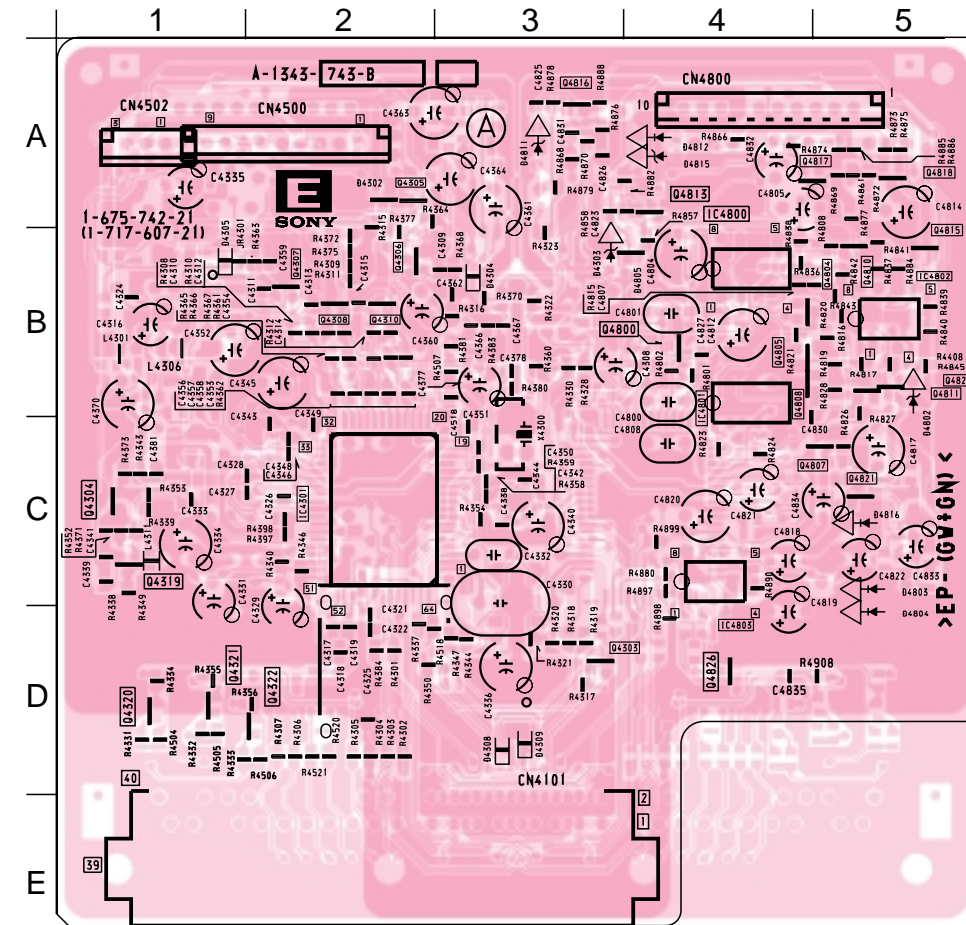
(5) Schematic Diagram of E Board



PRINTED WIRING BOARDS

**E** [RGB OUT, DEFLECTION]

- E Board (Component Side) -



- Pattern from the side which enables seeing.
- Pattern from the rear side.

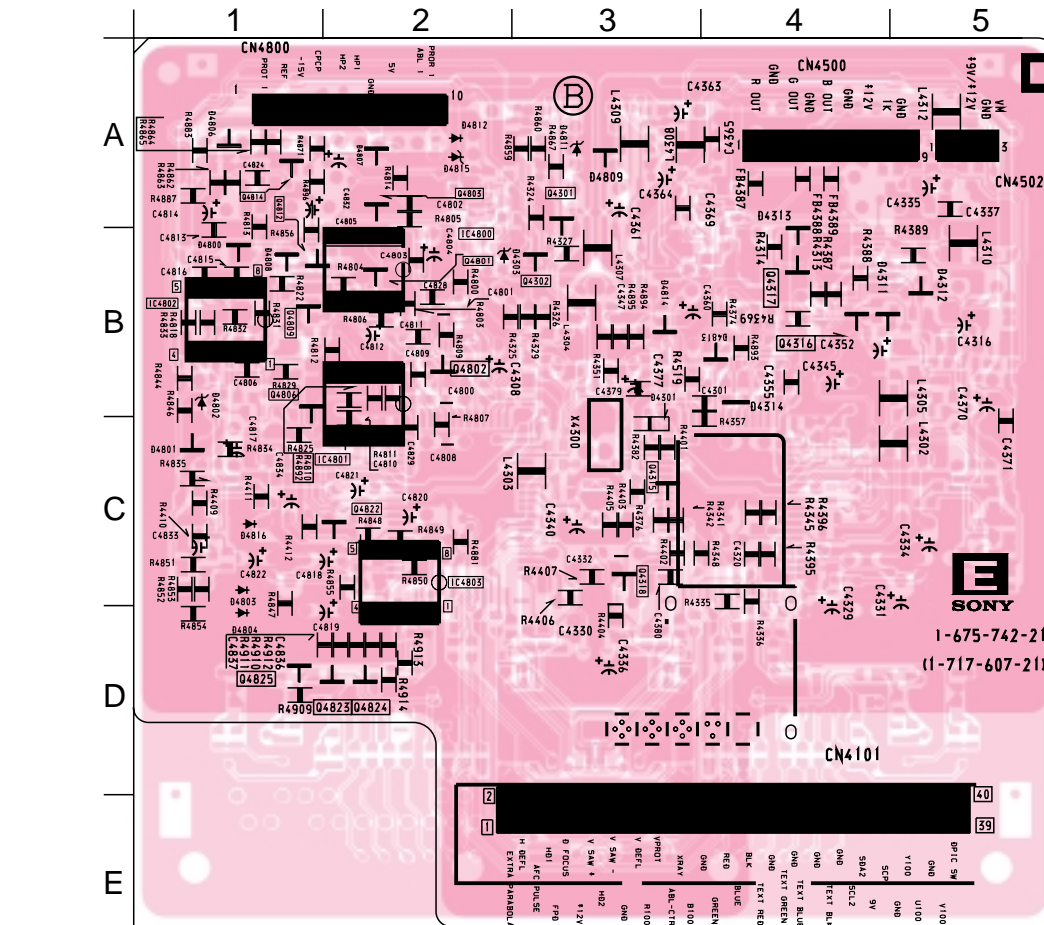
E BOARD (Component Side)

IC	Q4320 D-1	DIODE
IC4301 C-2	Q4321 D-1	D4302 A-2
IC4800 A-4	Q4322 D-2	D4303 B-3
IC4801 C-4	Q4804 B-5	D4304 B-3
IC4802 B-5	Q4805 B-4	D4305 B-12
IC4803 D-4	Q4806 B-2	D4308 D-3
	Q4807 C-5	D4309 D-3
TRANSISTOR	Q4808 B-4	D4802 B-5
Q4303 D-4	Q4810 B-5	D4805 B-4
Q4304 C-1	Q4811 B-5	D4806 C-5
Q4305 A-2	Q4813 A-4	D4811 A-3
Q4307 B-2	Q4815 B-5	D4812 A-4
Q4308 B-2	Q4816 A-3	D4815 A-4
Q4310 B-2	Q4817 A-5	
Q4319 C-1	Q4818 A-5	

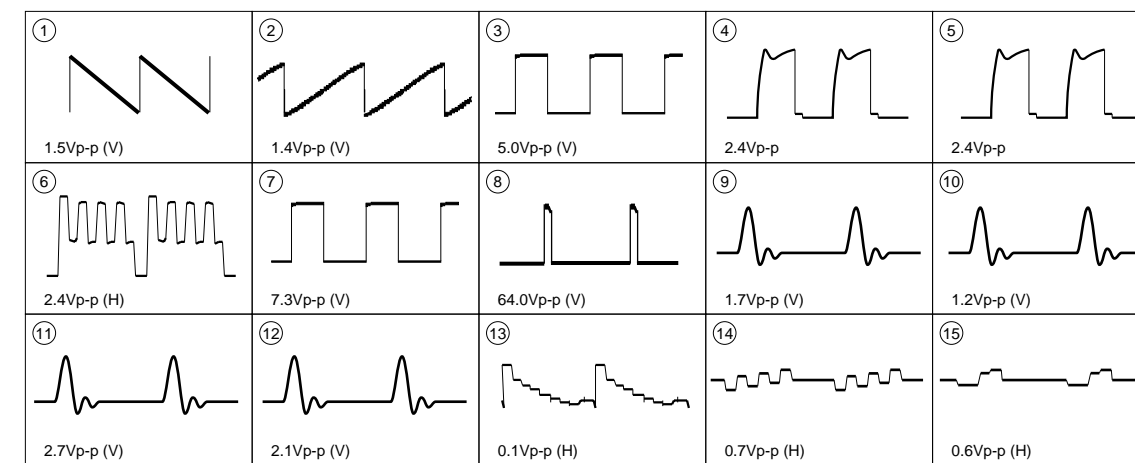
E BOARD (Conductor Side)

IC	Q4806 B-12	D4806 A-1
IC4800 B-2	Q4809 B-1	D4807 A-2
IC4801 C-2	Q4812 A-1	D4808 B-1
IC4802 B-1	Q4814 A-1	D4809 A-3
IC4803 C-2	DIODE	D4811 A-3
		D4812 A-2
TRANSISTOR	D4301 C-3	D4813 B-4
Q4301 A-3	D4303 B-3	D4814 B-3
Q4302 B-3	D4311 B-5	D4815 A-2
Q4315 C-3	D4312 B-5	D4819 C-3
Q4316 B-4	D4313 A-4	
Q4317 B-4	D4801 B-1	
Q4318 D-3	D4802 B-1	
Q4801 B-2	D4803 C-1	
Q4802 B-2	D4804 C-1	

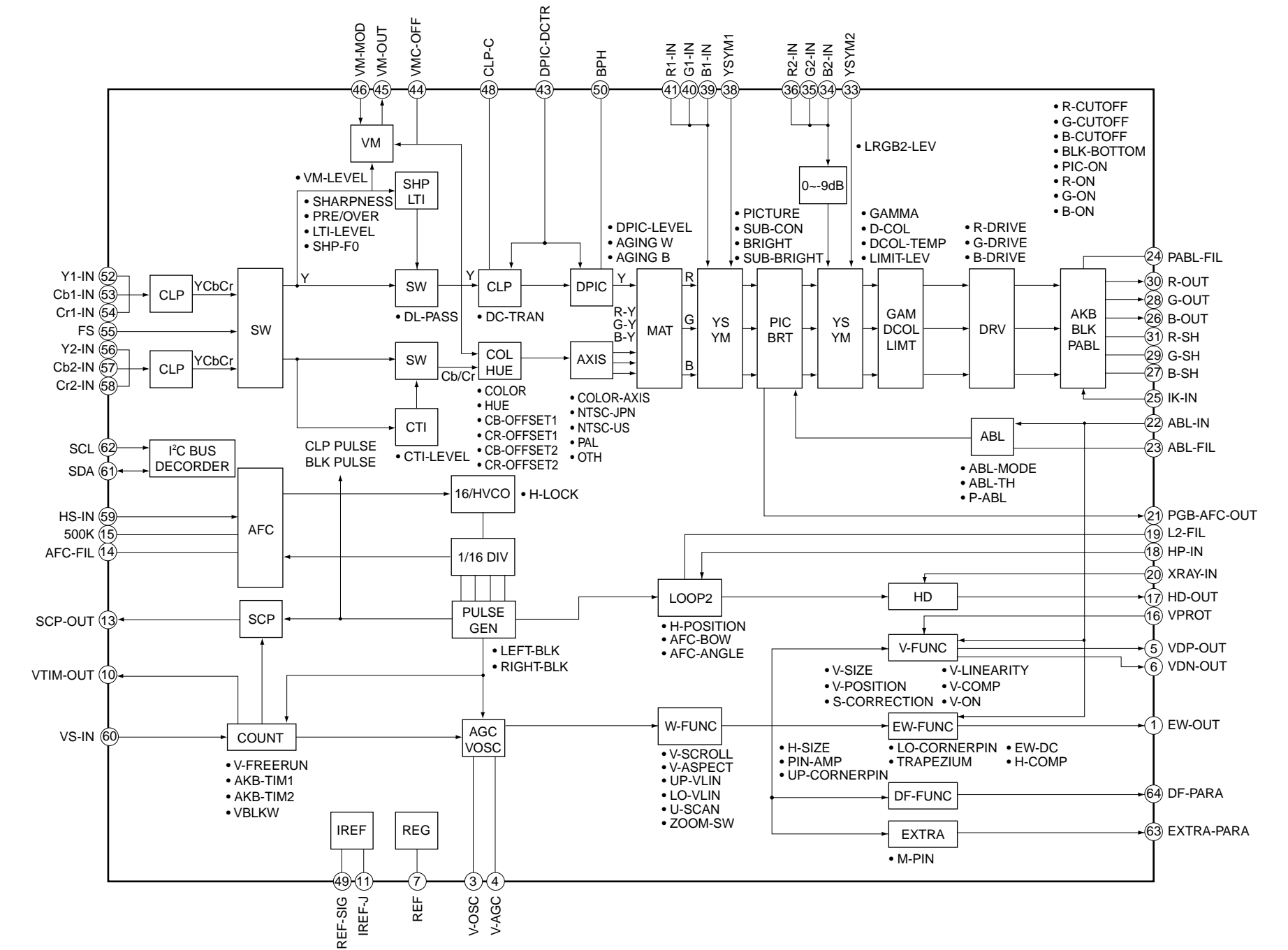
- E Board (Conductor Side) -



E BOARD WAVEFORMS



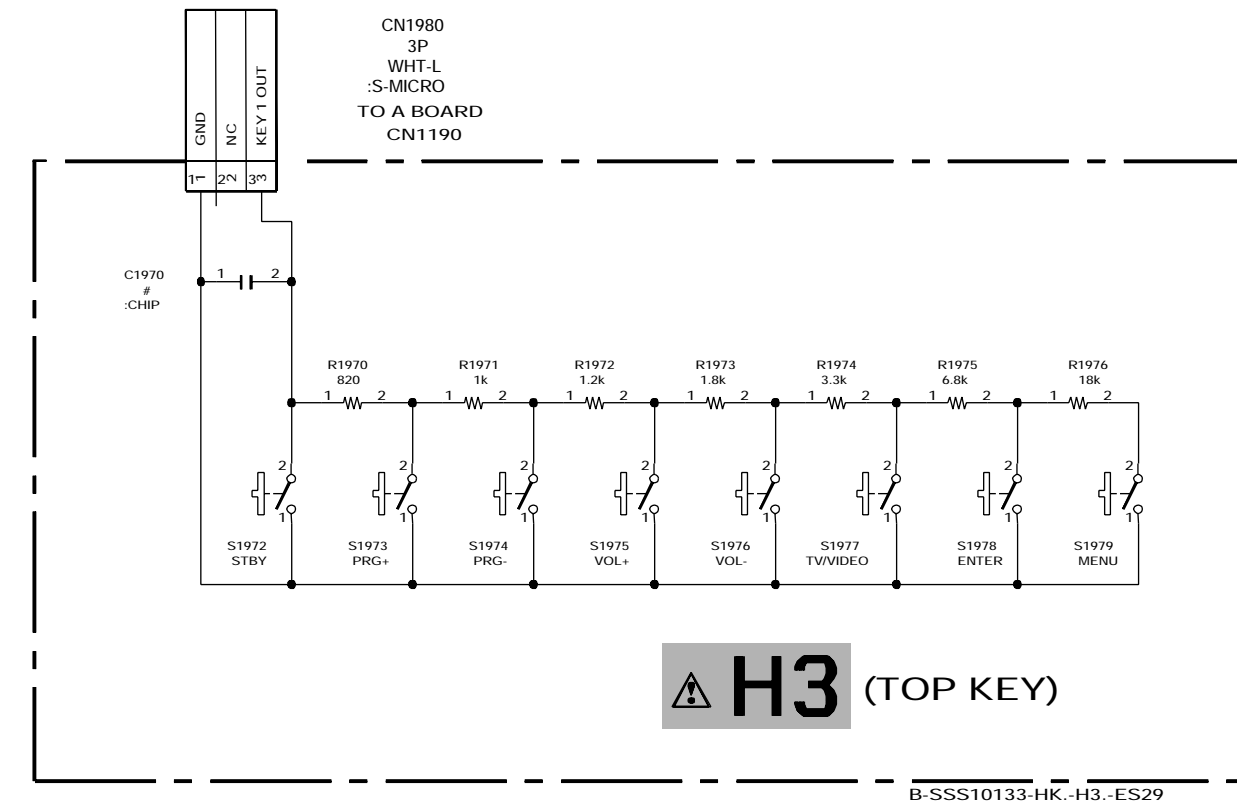
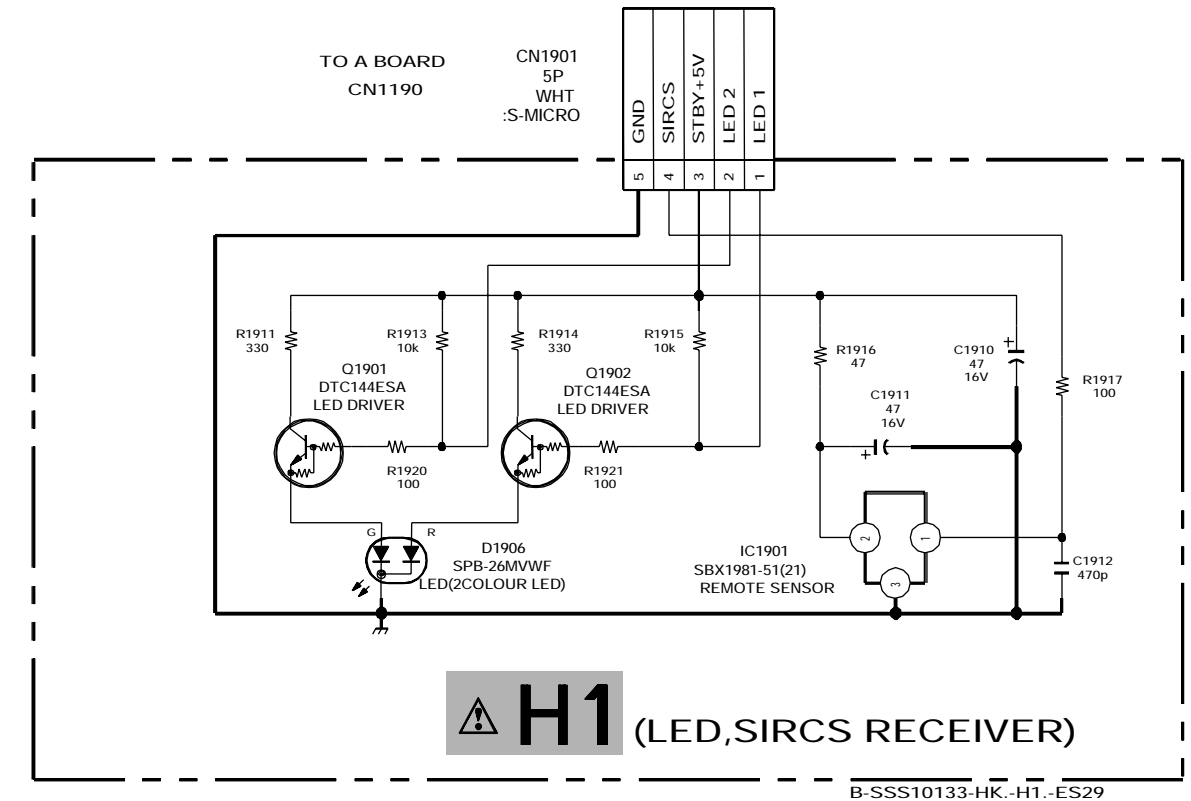
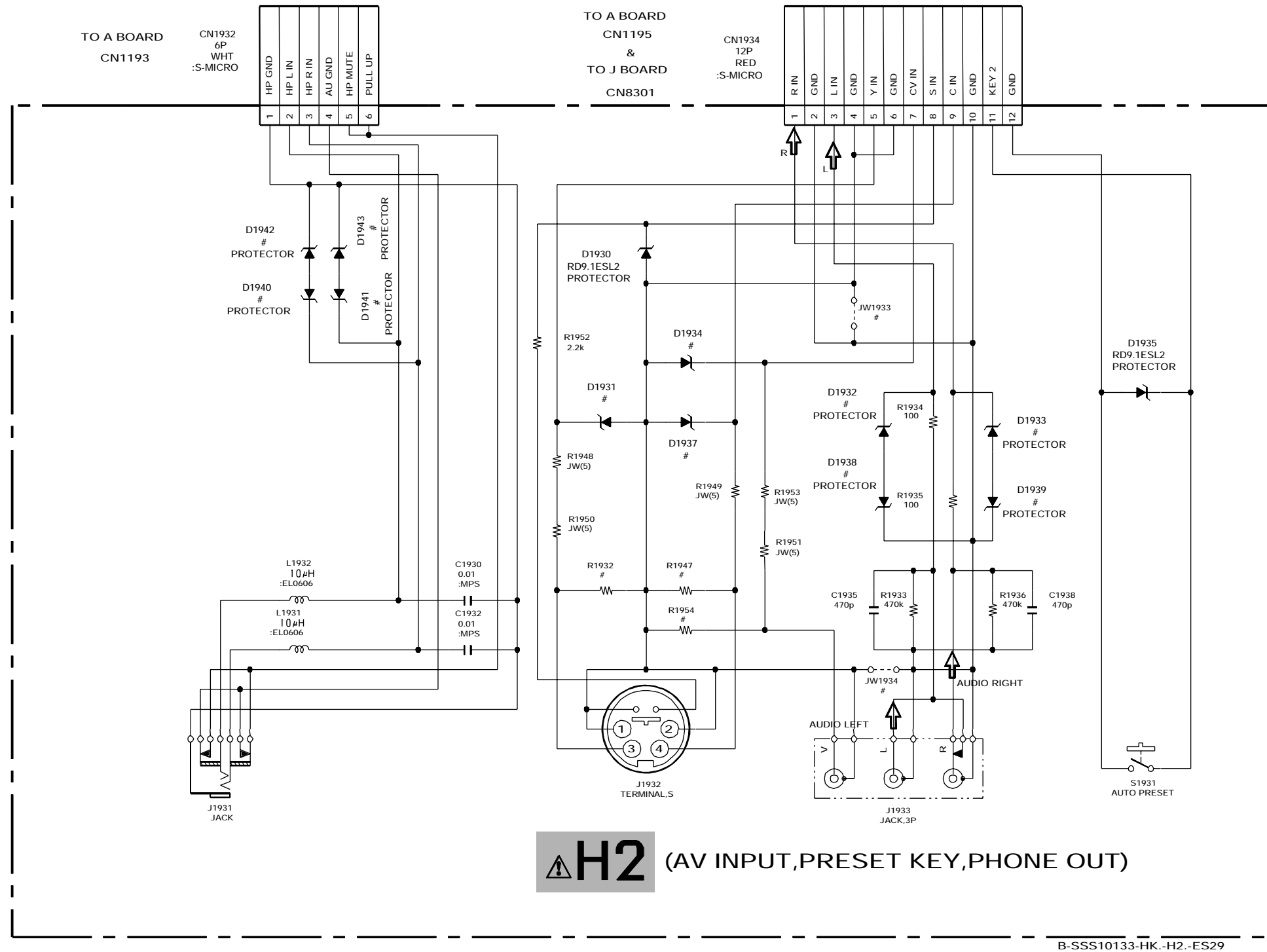
E Board IC4301 CXA2100AQ



(6) Schematic Diagrams of H1, H2 and H3 Boards

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

A  
B  
C  
D  
E  
F  
G  
H  
I  
J





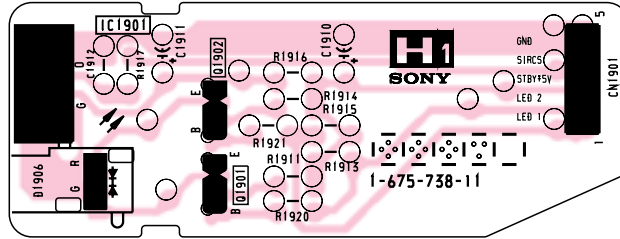
PRINTED WIRING BOARDS

**H1** [LED, SIRCS RECEIVER]

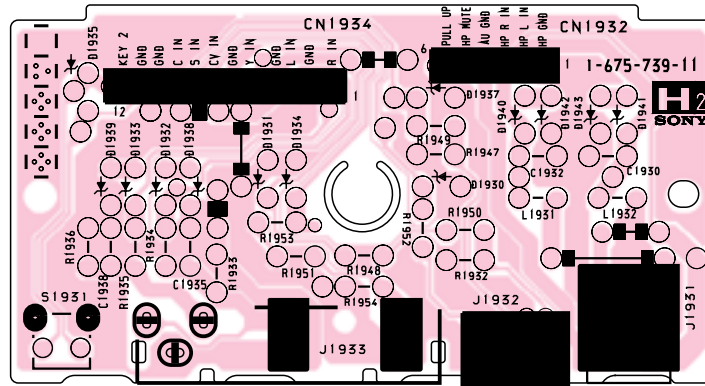
**H2** [AV INPUT, PRESET KEY, PHONE OUT]

**H3** [TOP KEY]

- H1 Board -



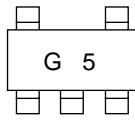
- H2 Board -



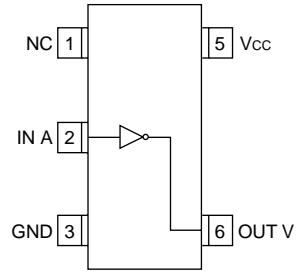
- H3 Board -



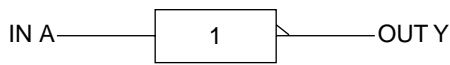
B3 BOARD IC309 TC7SET04F (TE85R)



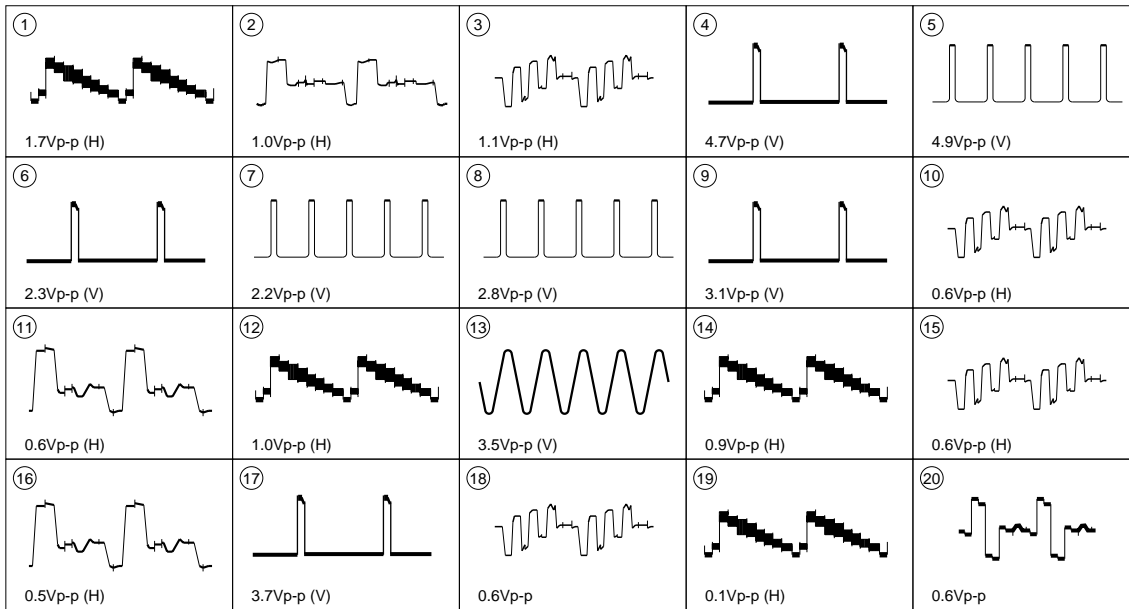
B3 BOARD IC505 TC7SET04F (TE85R)



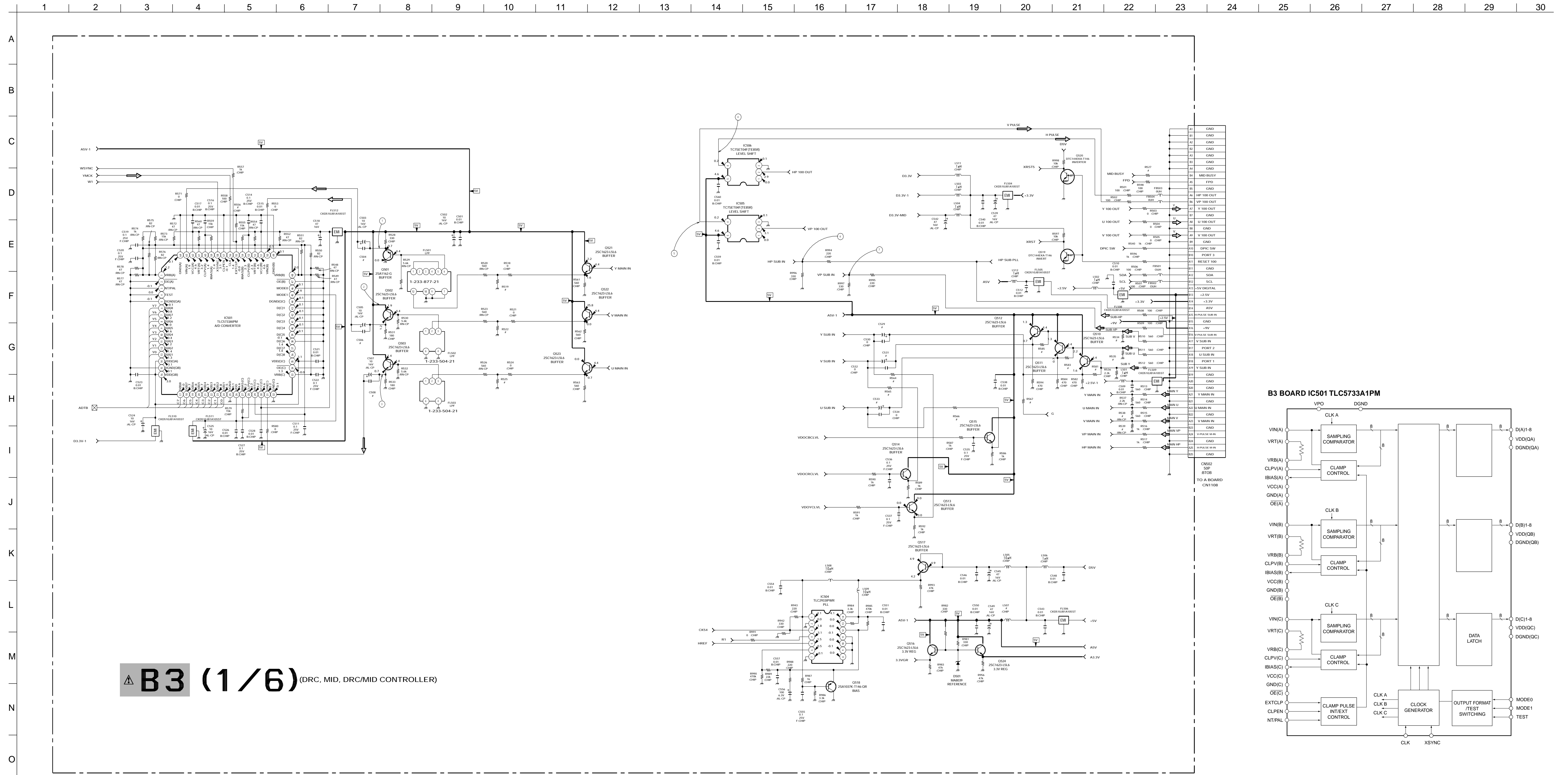
B3 BOARD IC506 TC7SET04F (TE85R)



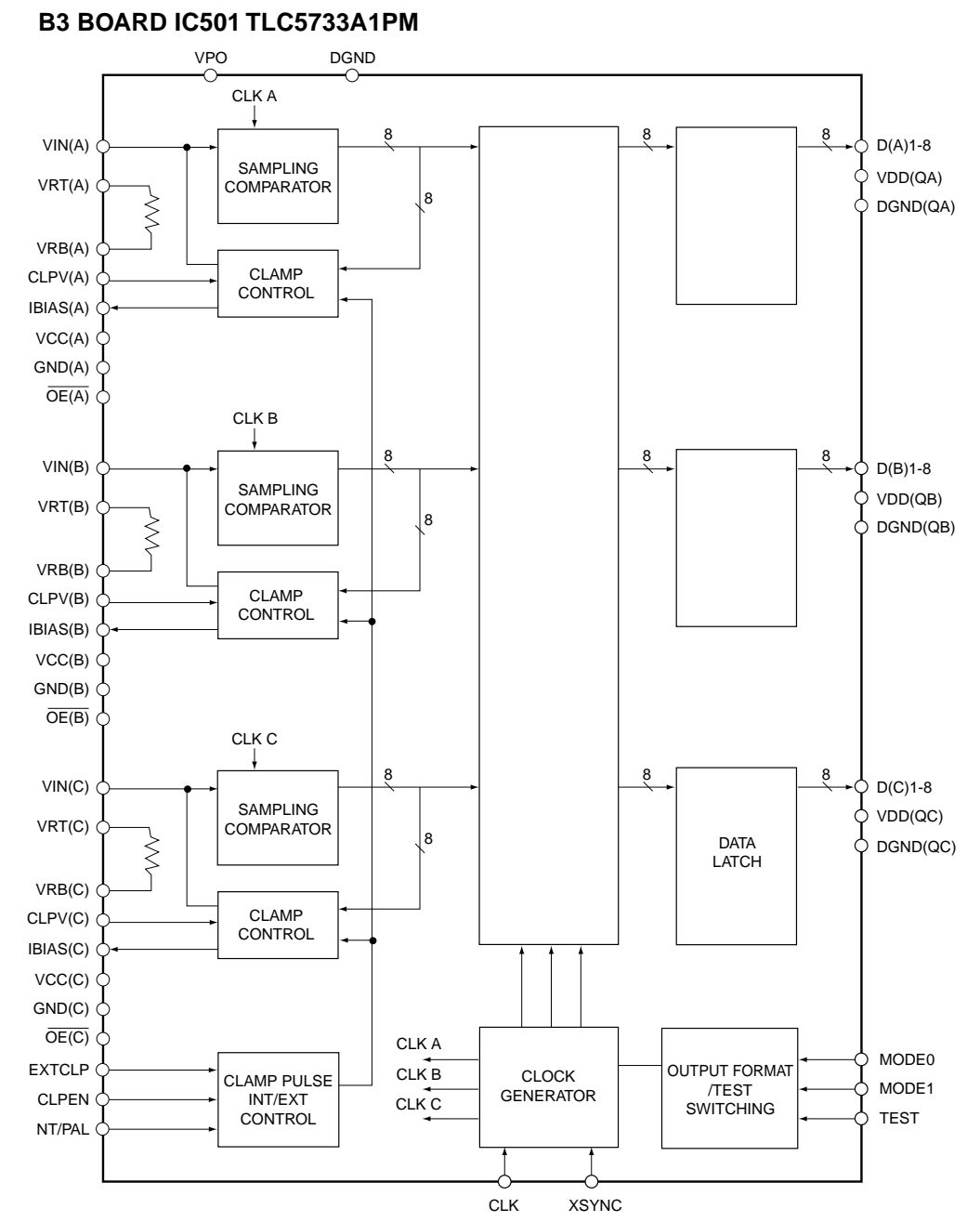
B3 BOARD WAVEFORMS



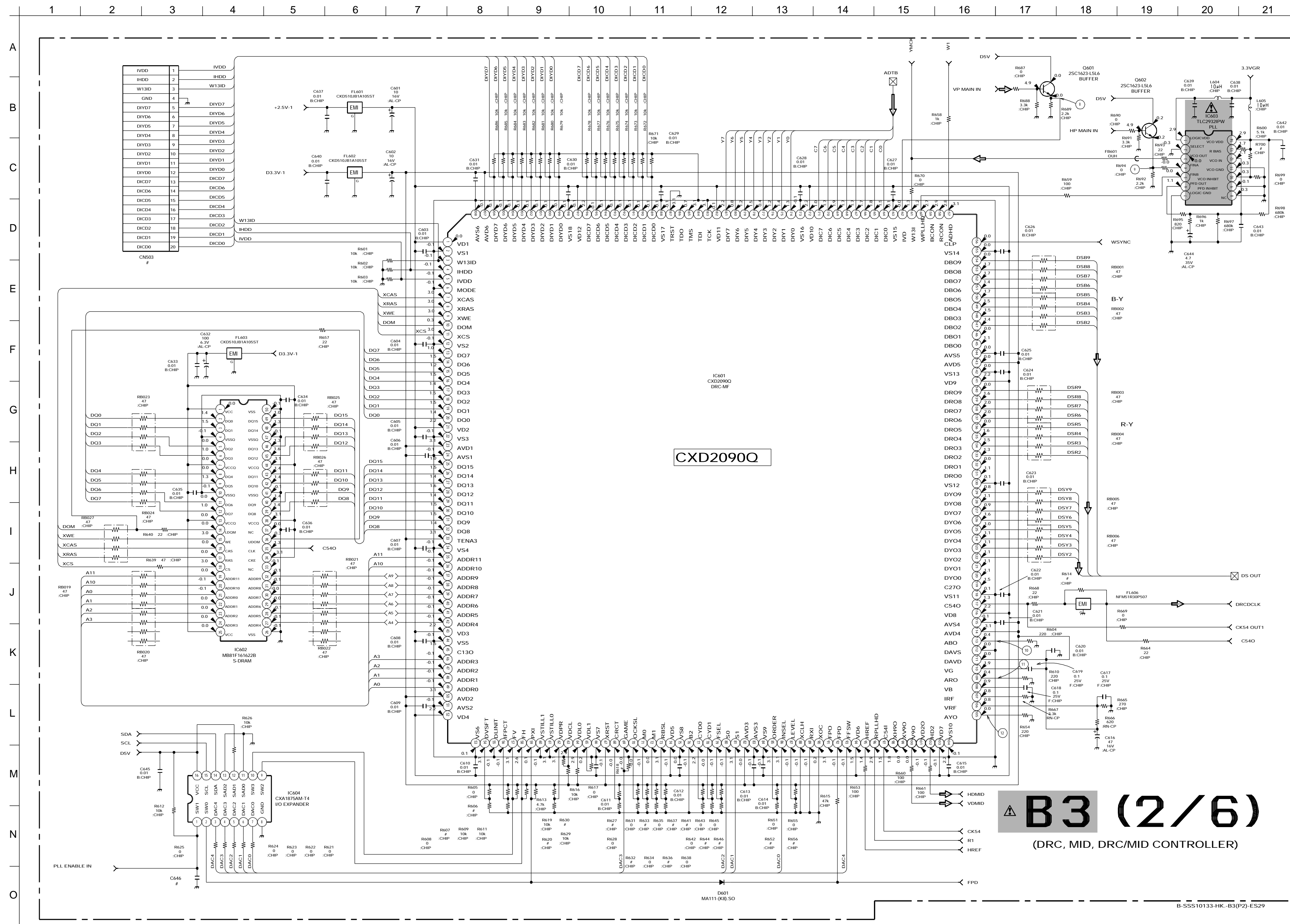
(7) Schematic Diagram of B3 (1/6) Board



**B3 (1/6)** (DRC, MID, DRC/MID CONTROLLER)



(8) Schematic Diagram of B3 (2/6) Board



Schematic diagram  
← B3 (1/6) board

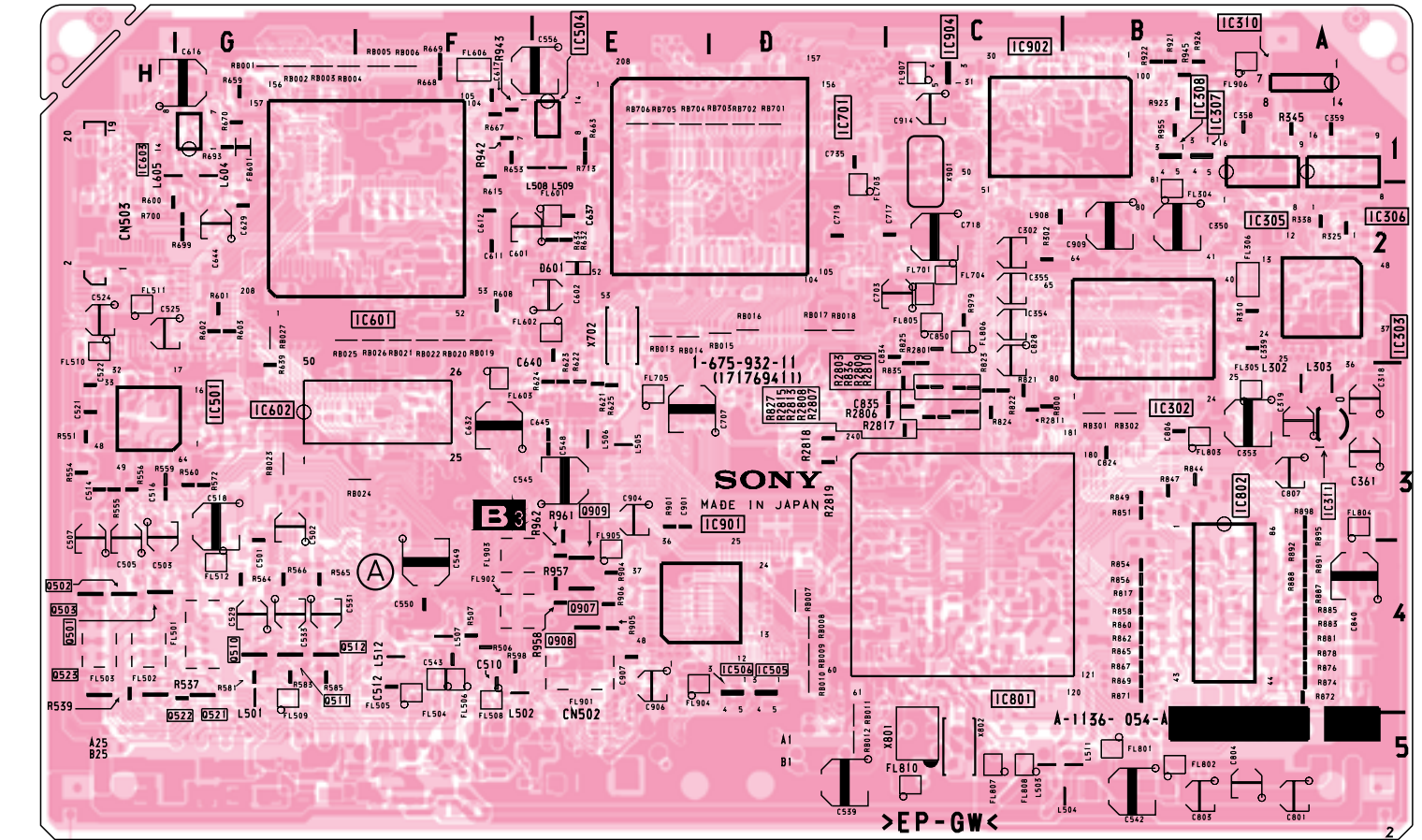
Schematic diagram  
B3 (2/6) board →

- 129 -

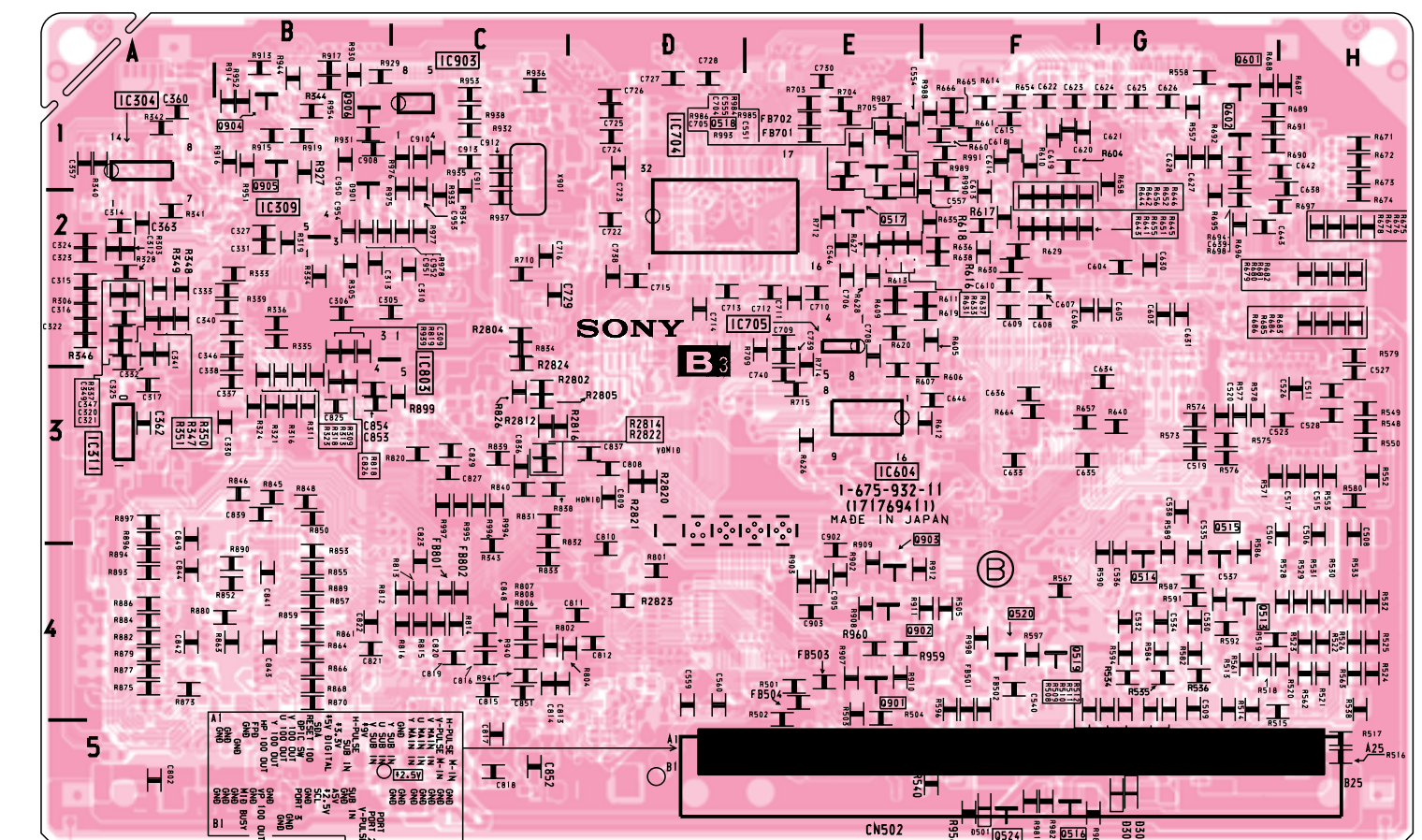
PRINTED WIRING BOARDS

B3 [DRC, MID, SUB MICON, DRC/MID CONTROLLER]

- B3 Board (Component Side) -



- B3 Board (Conductor Side) -



B3 BOARD (Component Side)

IC	TRANSISTOR
IC302	C-7
IC303	B-8
IC305	B-7
IC306	B-8
IC307	A-7
IC308	A-7
IC310	A-7
IC311	C-8
IC501	C-1
IC504	A-4
IC505	D-5
IC506	D-4
IC601	I-8
IC602	H-6
IC603	D-8
IC701	A-5
IC801	E-6
IC802	C-7
IC801	I-13
IC902	A-6
IC904	A-6

B3 BOARD (Conductor Side)

IC	Q519	D-6	
IC304	A-1	Q520	D-6
IC309	B-2	Q601	A-7
IC311	C-1	Q602	A-7
IC604	C-5	Q901	D-5
IC704	A-4	Q902	D-5
IC705	B-4	Q903	C-6
IC803	C-3	Q904	A-2
IC903	A-3	Q905	A-2
		Q906	A-2
TRANSISTOR		DIODE	
Q513	D-7	D301	A-7
Q514	D-7	D302	B-5
Q515	C-7	D301	B-11
Q516	E-6	D901	B-11
Q517	B-5		
Q518	A-4		

- Pattern from the side which enables seeing.
- Pattern from the rear side.

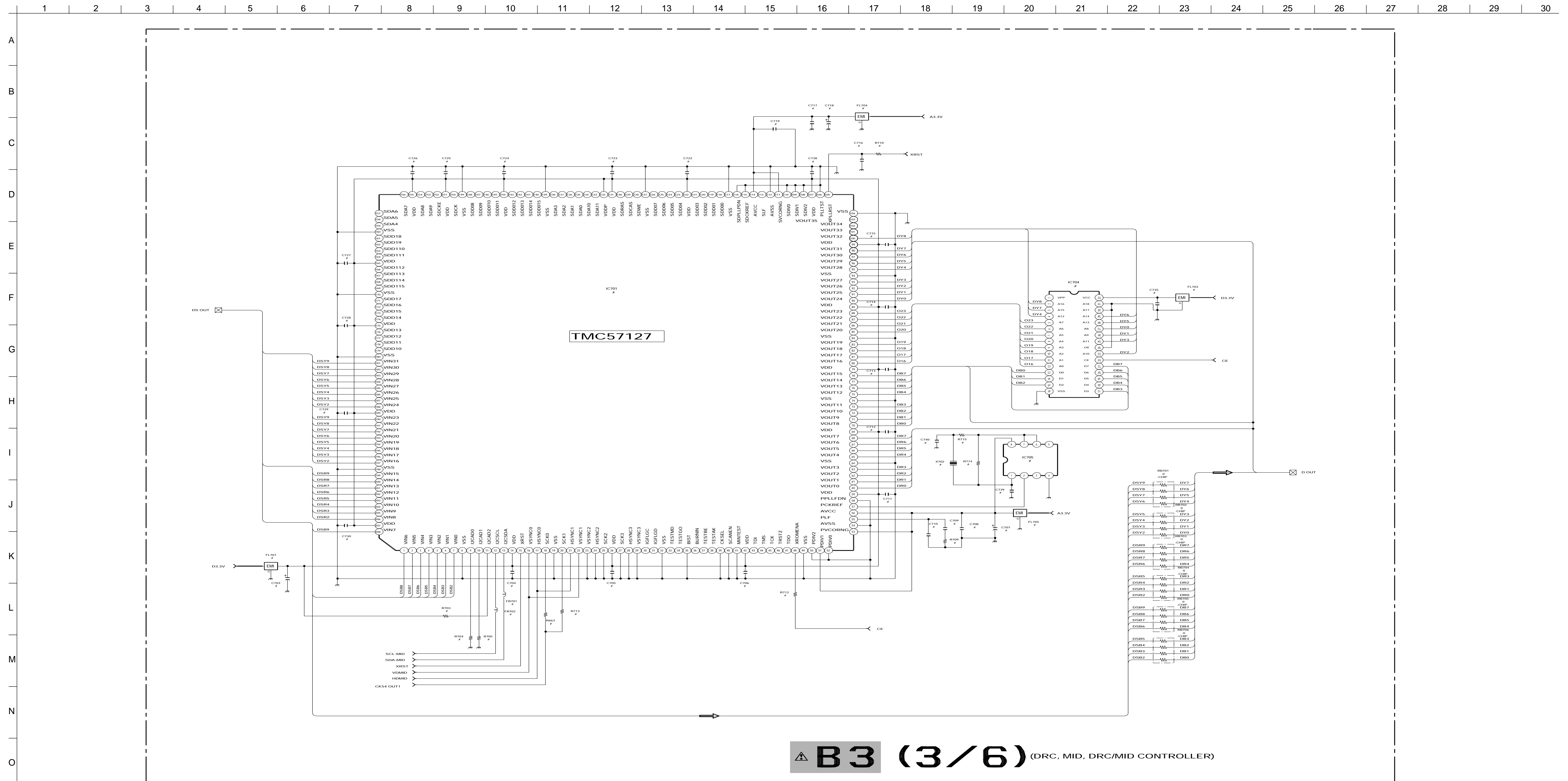
**B3 (2/6)**  
(DRC, MID, DRC/MID CONTROLLER)

B-S5S10133-HK-B3(P2)-ES29

- 131 -

- 132 -

(9) Schematic Diagram of B3 (3/6) Board



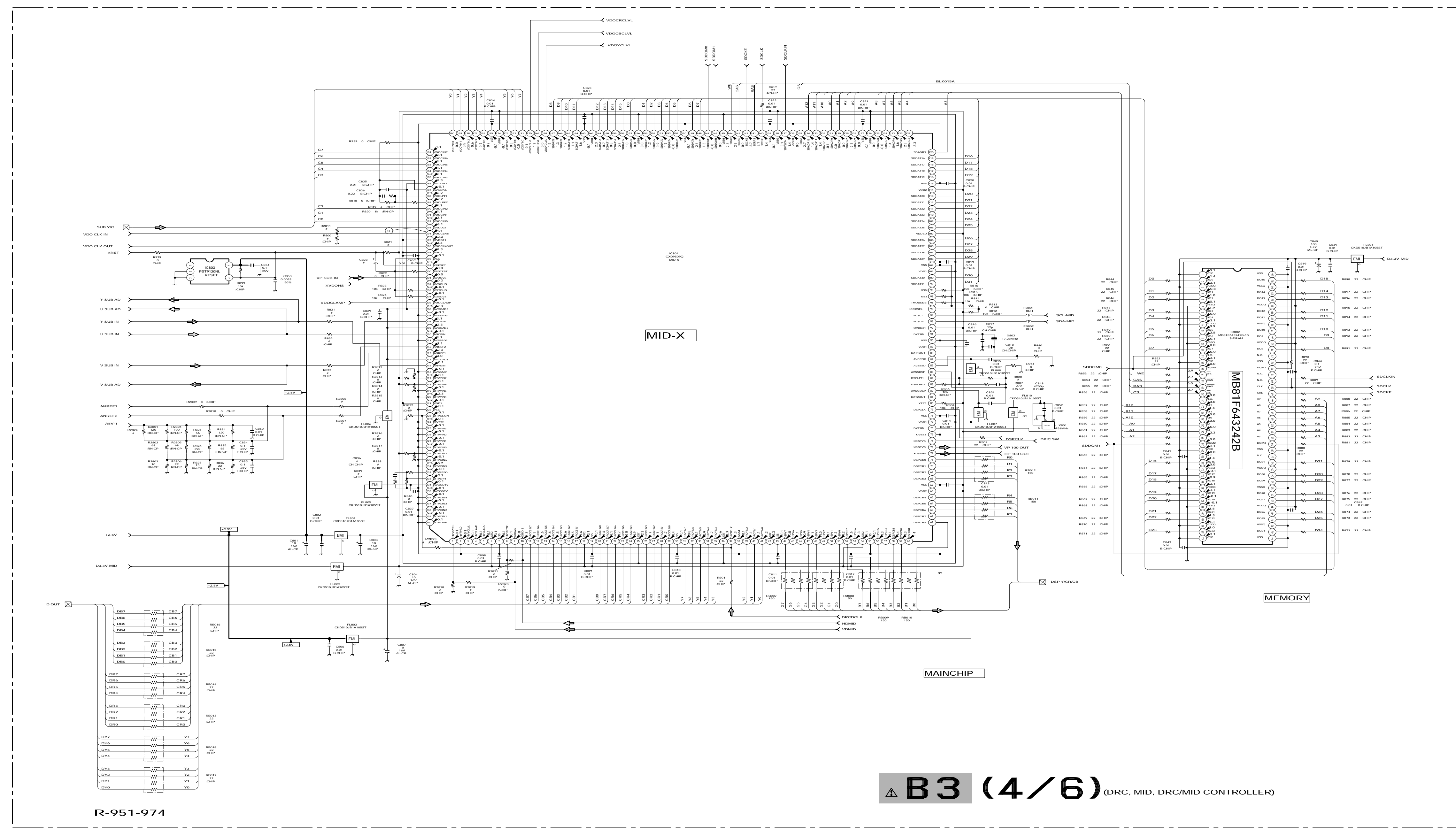
**B3 (3/6)** (DRC, MID, DRC/MID CONTROLLER)

B-SS510133-1K-B3(P3)-E529

(10) Schematic Diagram of B3 (4/6) Board

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O

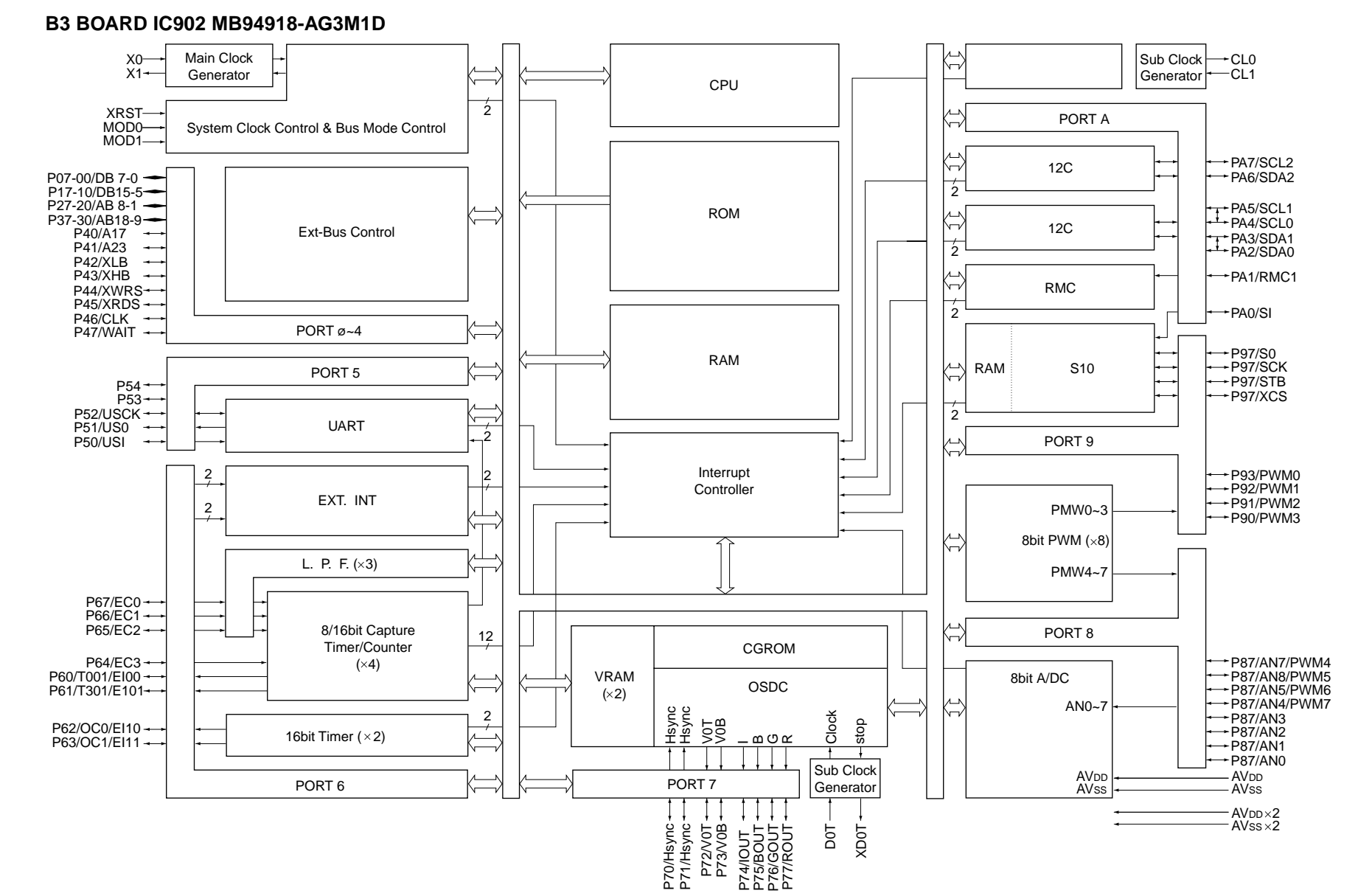
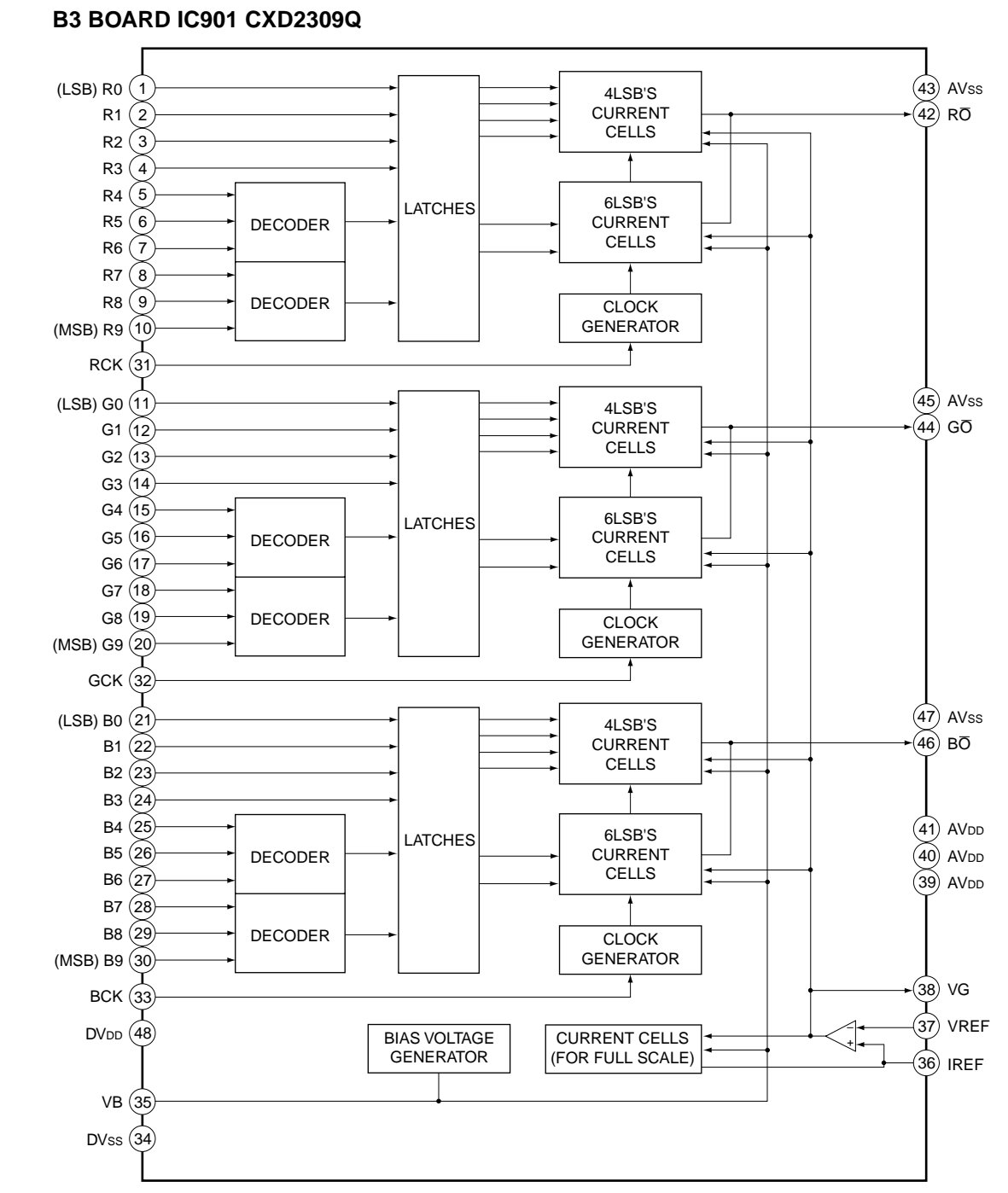
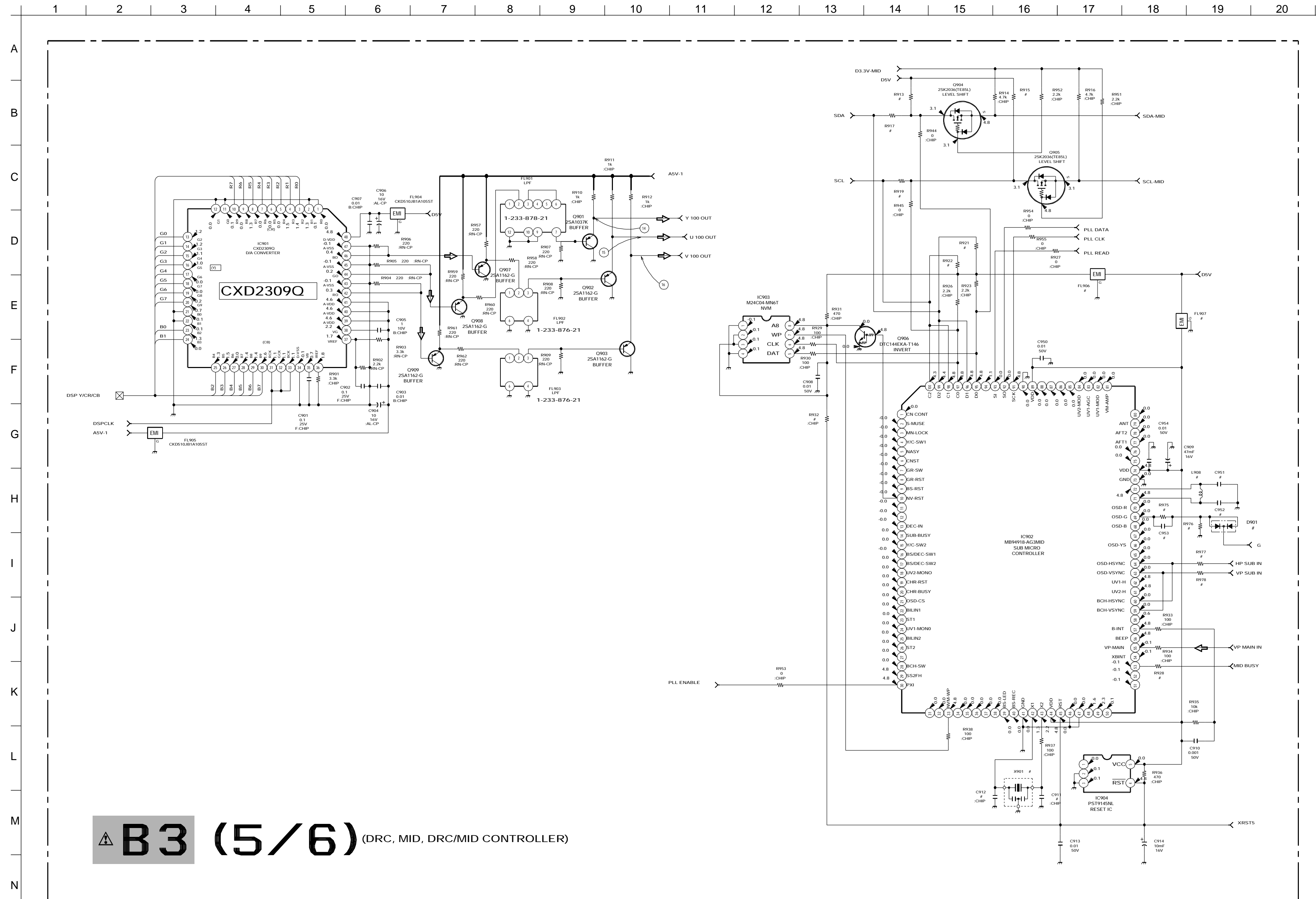


**B3 (4/6)** (DRC, MID, DRC/MID CONTROLLER)

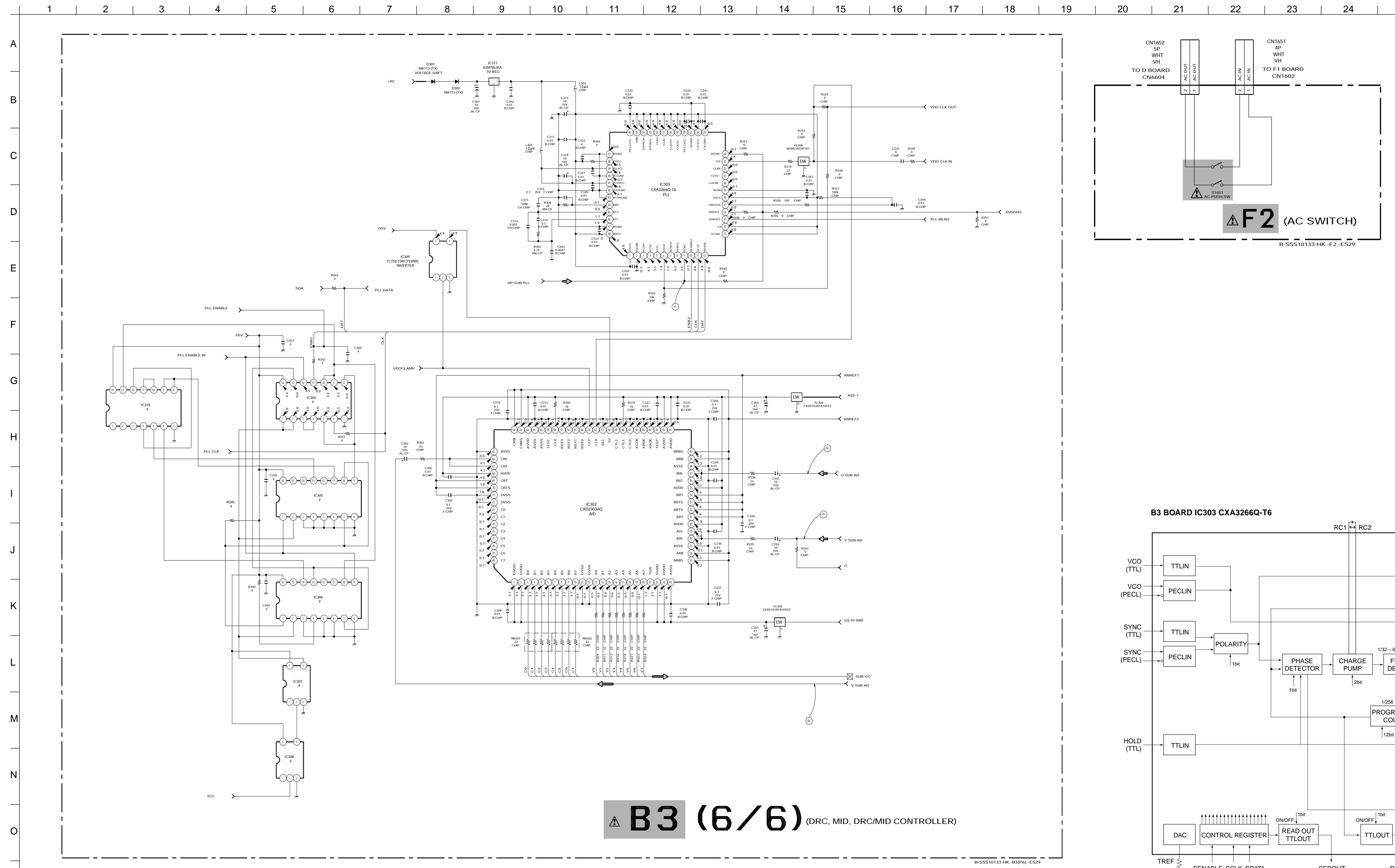
R-951-974

0-55510133-1K-030(4)-ES29

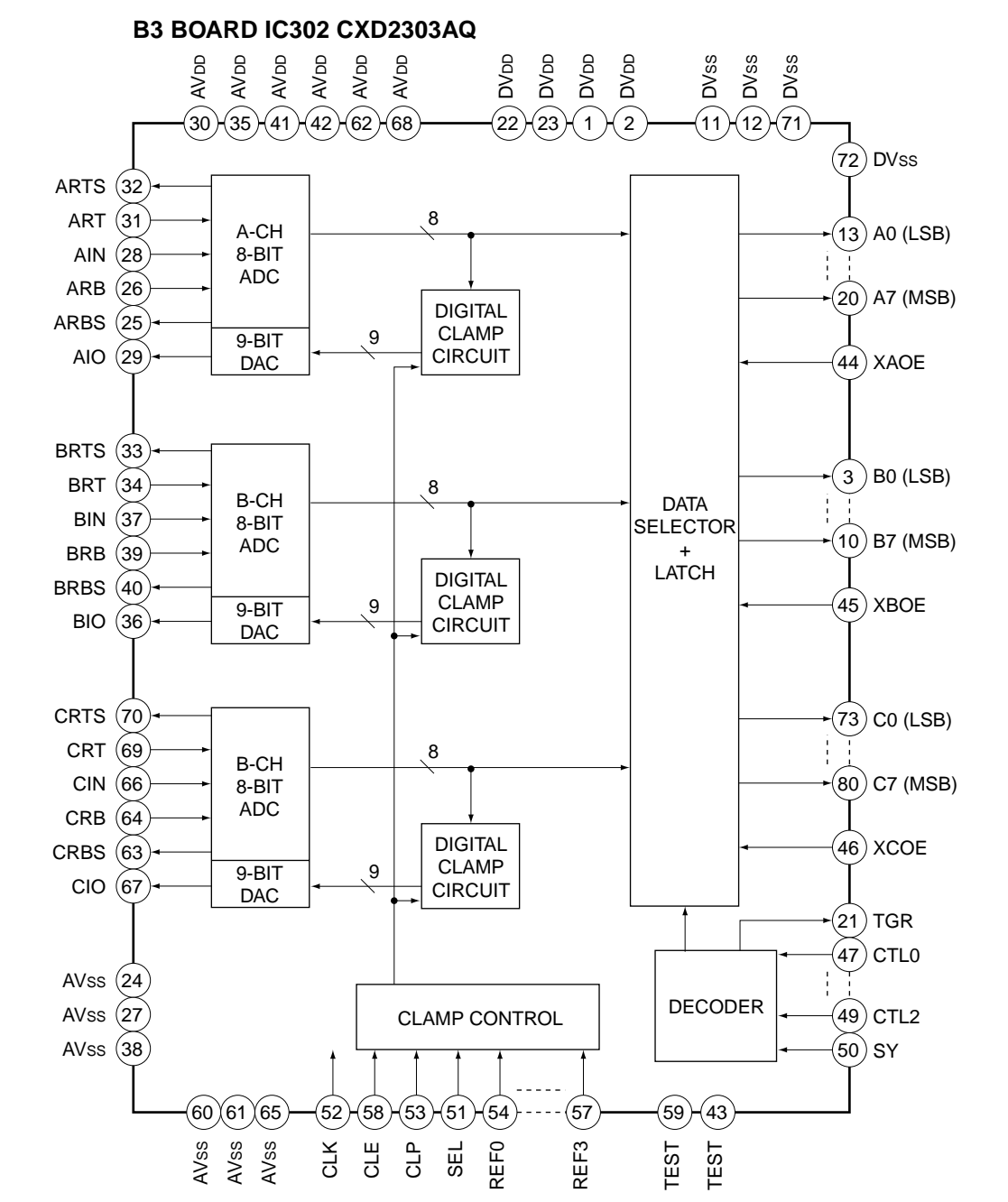
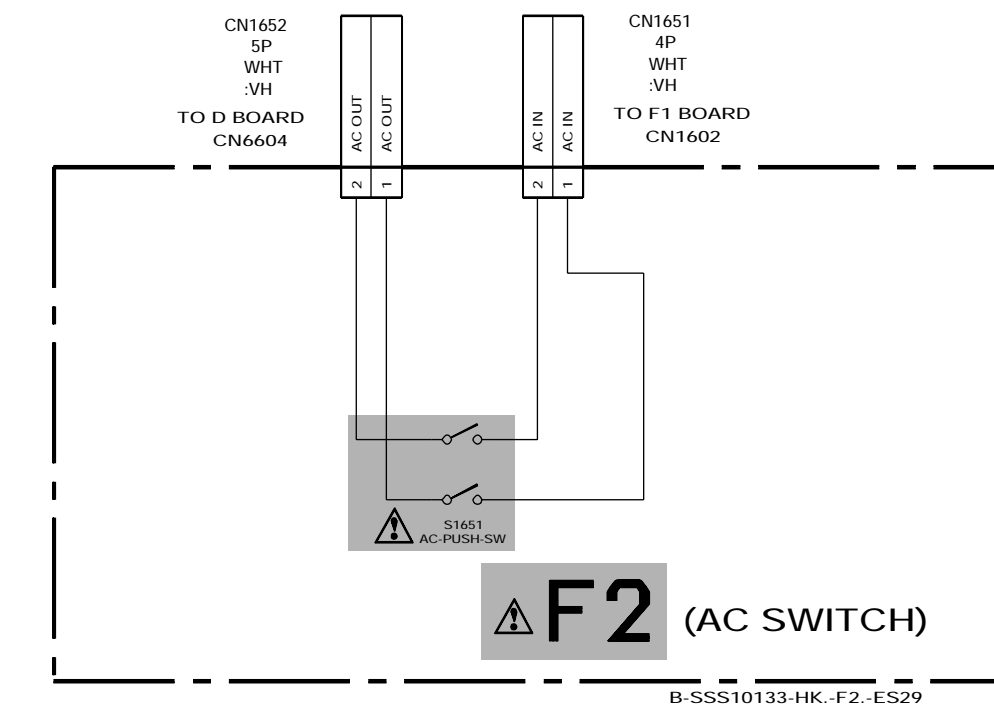
(11) Schematic Diagram of B3 (5/6) Board



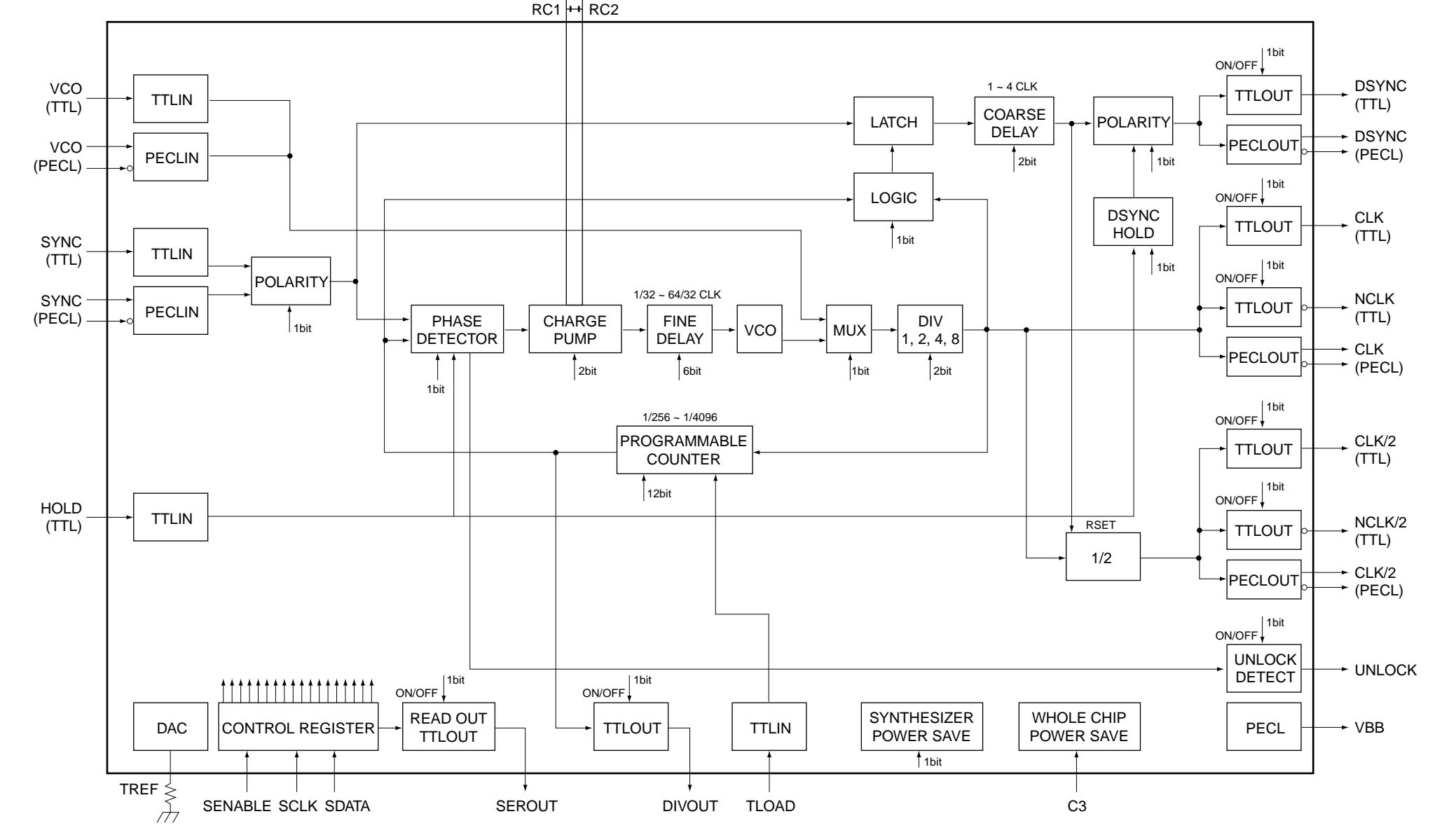
**B3 (5/6)** (DRC, MID, DRC/MID CONTROLLER)



**B3 (6/6)** (DRC, MID, DRC/MID CONTROLLER)

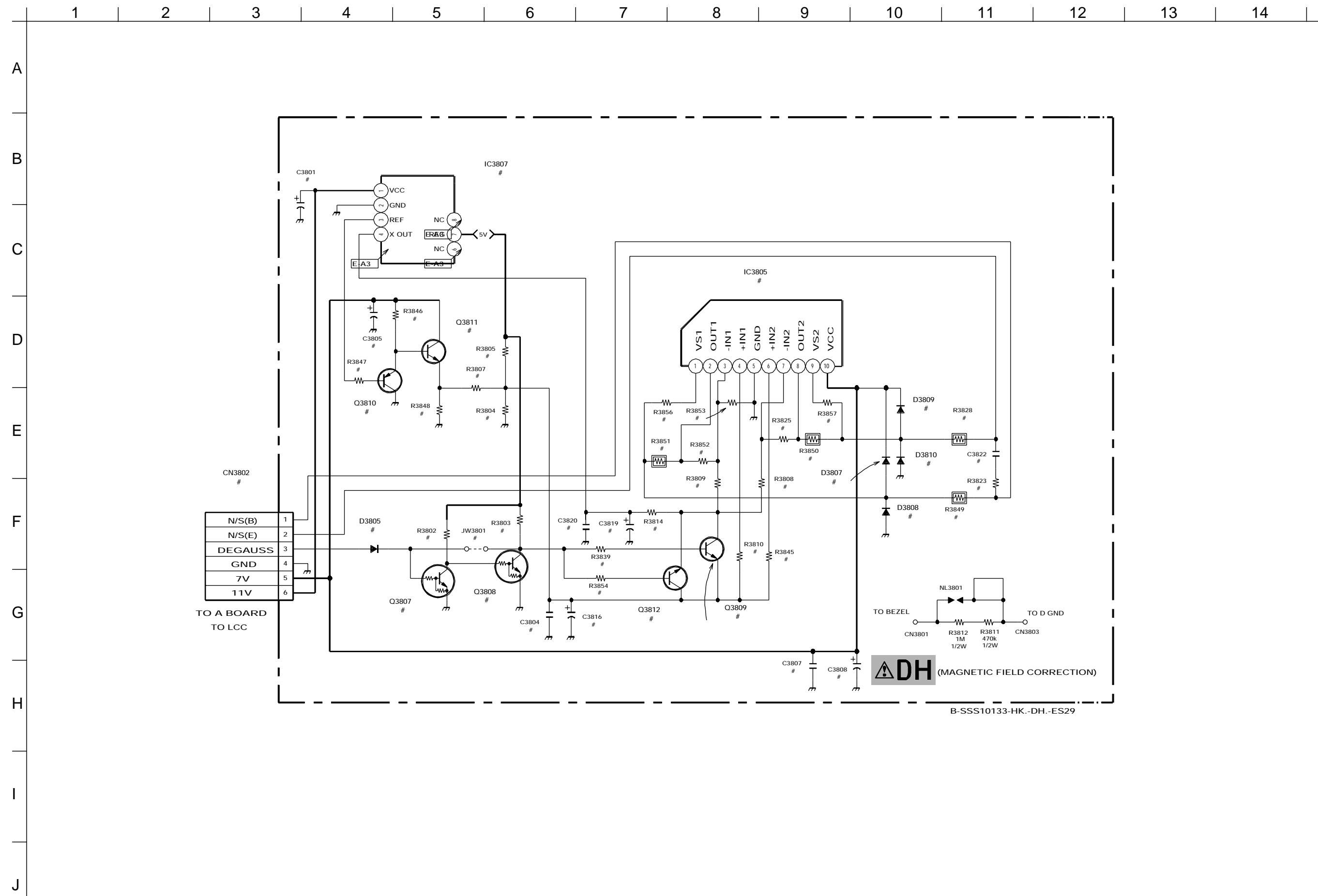


**B3 BOARD IC303 CXA3266Q-T6**





(13) Schematic Diagram of DH Board

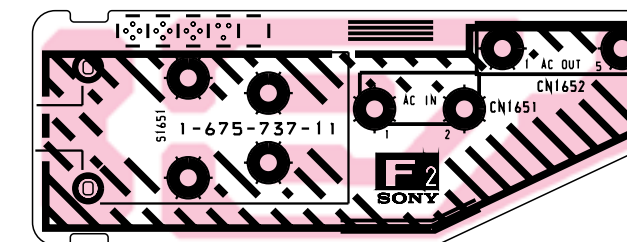


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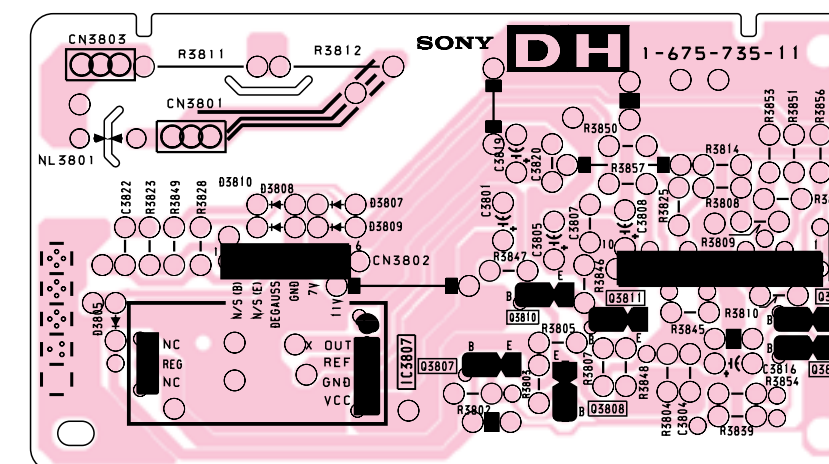
**F2** [AC SWITCH]

**DH** [MAGNETIC FIELD CORRECTION]

- F2 Board -



- DH Board -

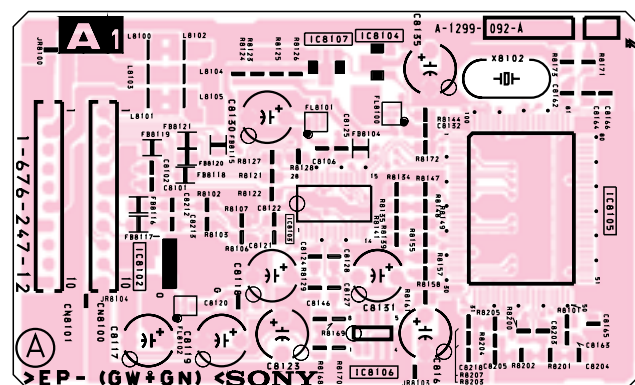


Schematic diagram  
← **DH** board

PRINTED WIRING BOARDS

**A1** [AUDIO DSP]

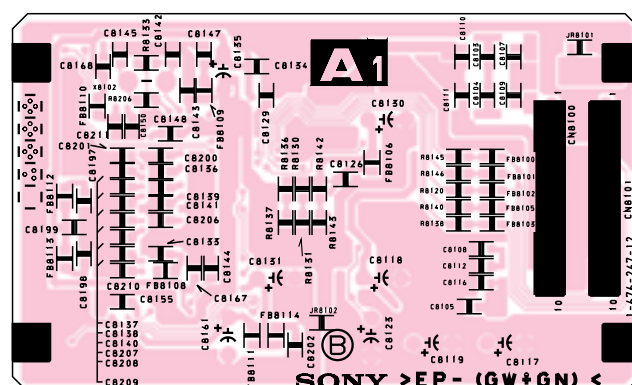
– A1 Board (Component Side) –



A1 BOARD (Component Side)

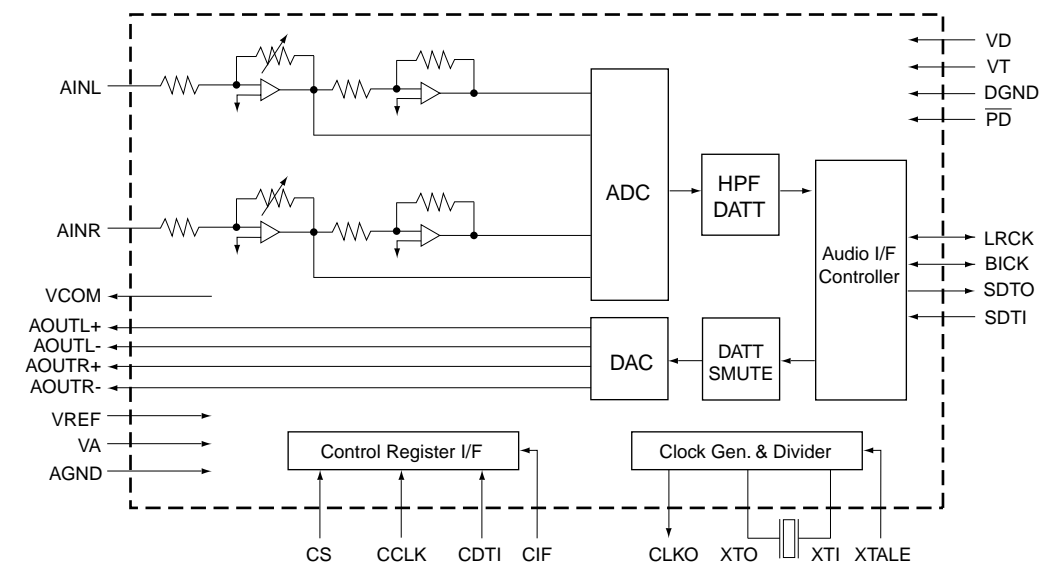
IC	
IC8102	B-1
IC8104	A-2
IC8105	B-4
IC8106	B-3
IC8108	B-1

– A1 Board (Conductor Side) –

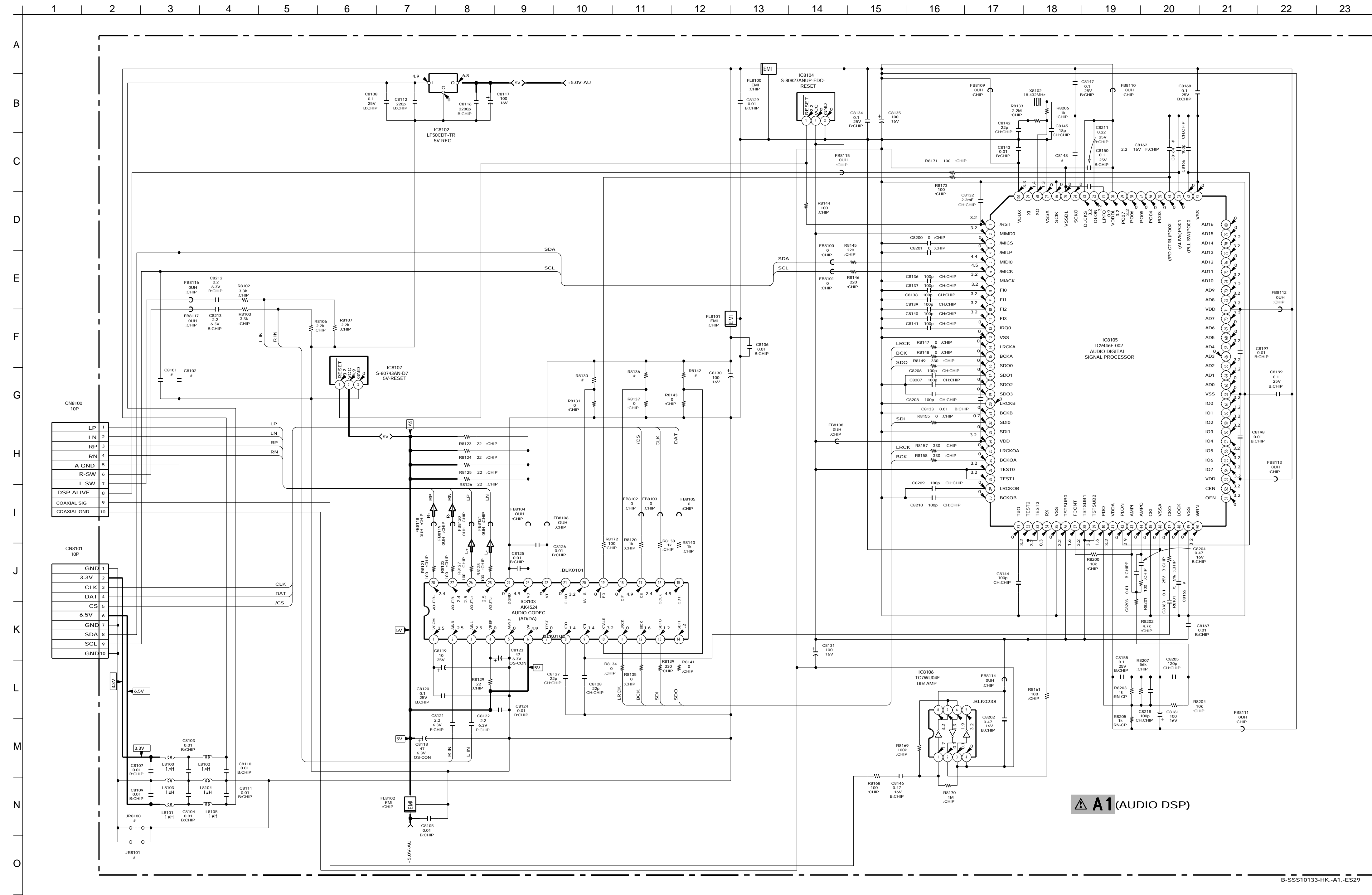


- :Pattern from the side which enables seeing.
- :Pattern from the rear side.

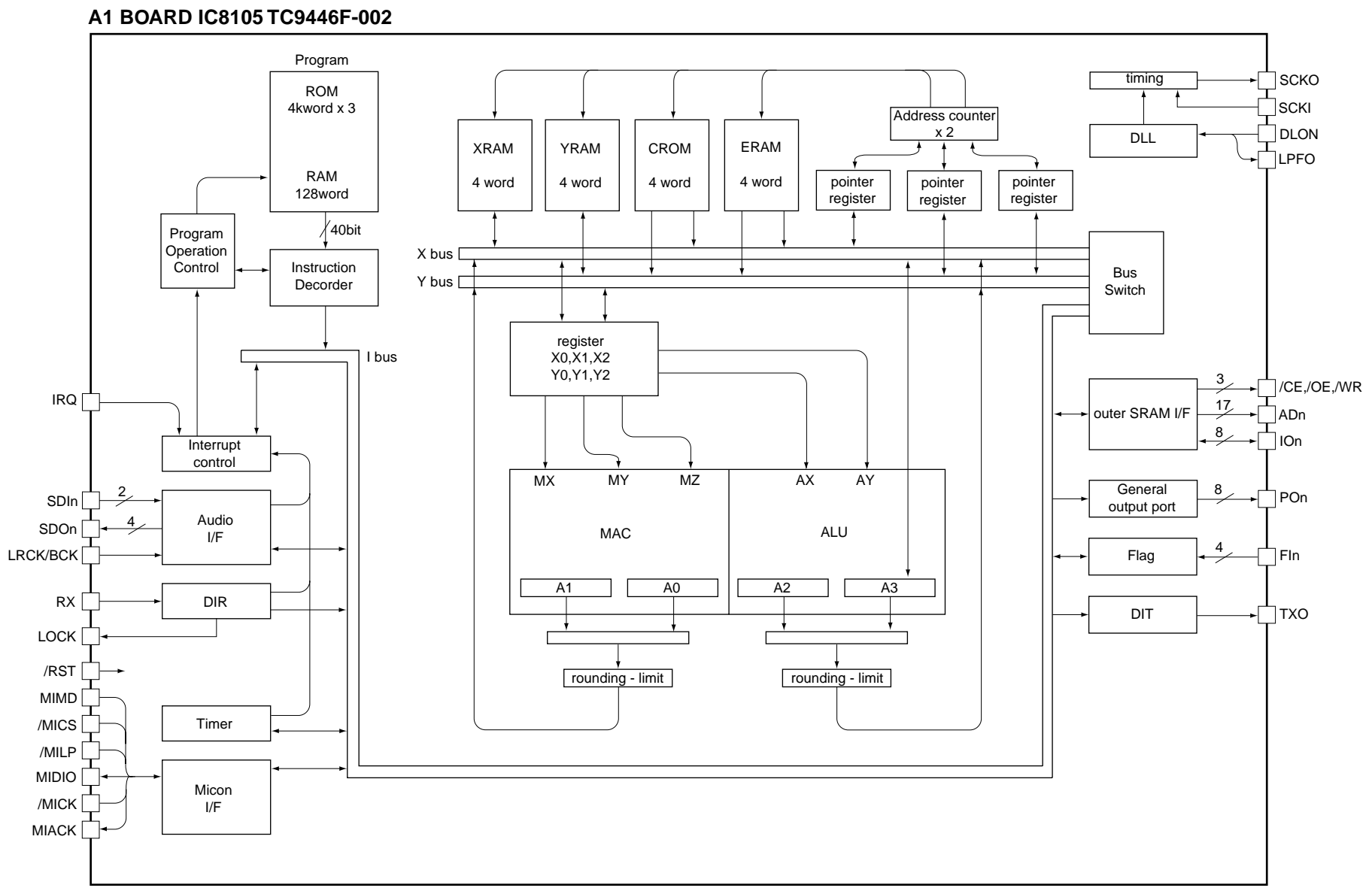
A1 Board IC8103 AK4524



(14) Schematic Diagram of A1 Board



A1 (AUDIO DSP)

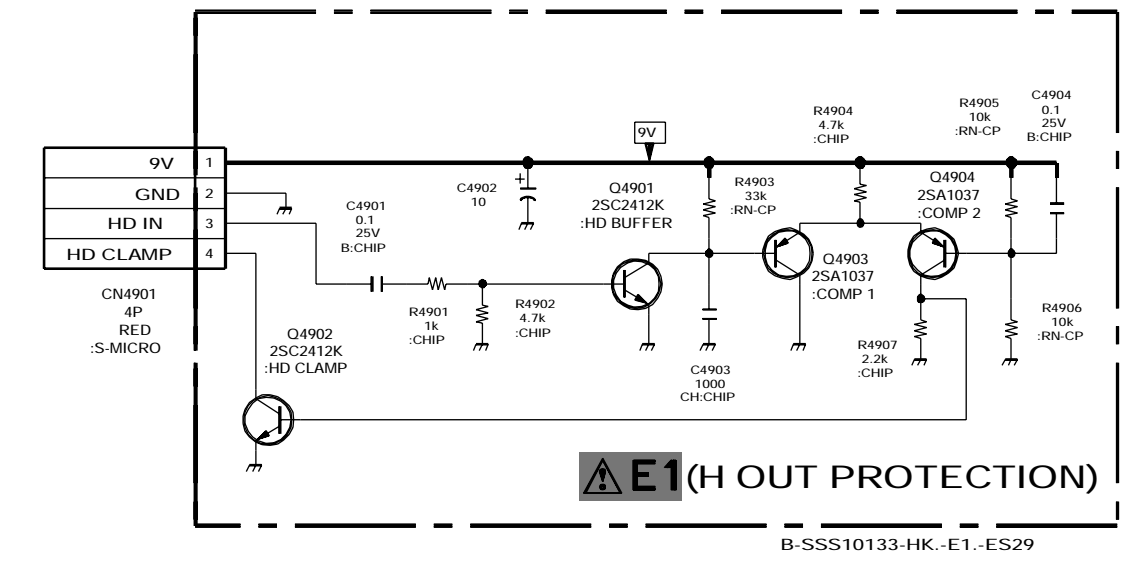
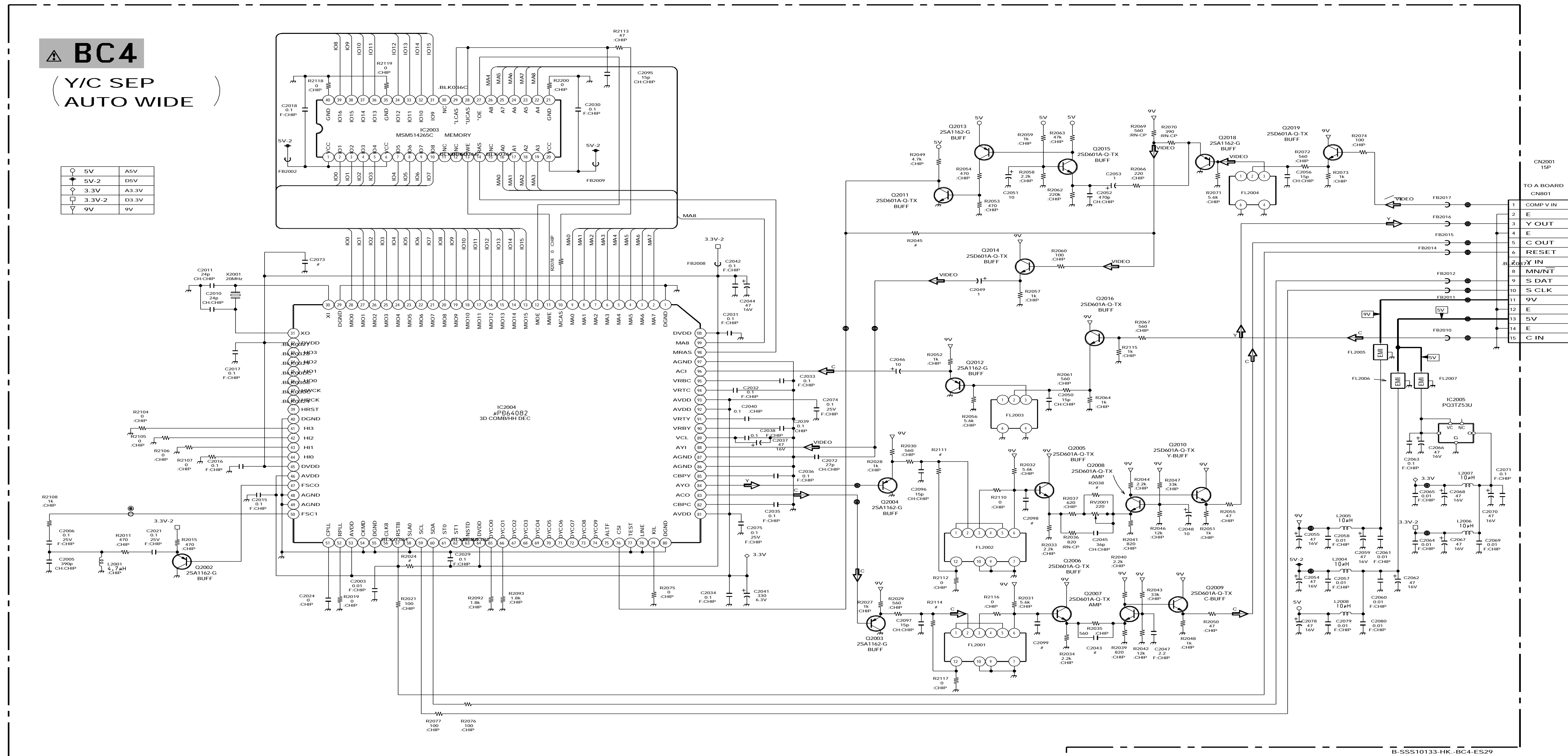


A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O

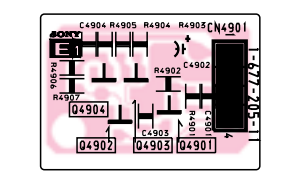
# BC4

(Y/C SEP AUTO WIDE)

5V	A5V
5V-2	B5V
3.3V	A3.3V
3.3V-2	D3.3V
9V	9V



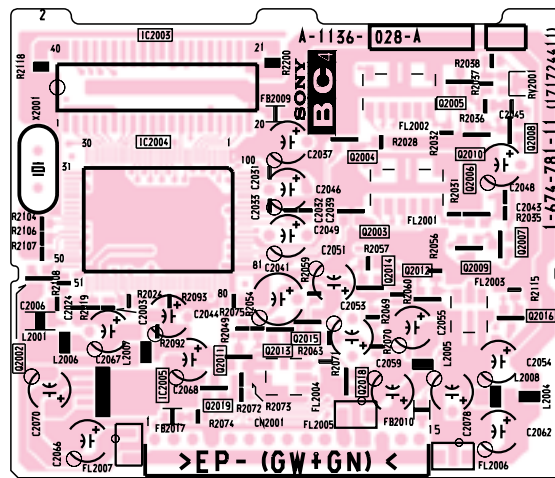
PRINTED WIRING BOARD  
E1 (H OUT PROTECTION)



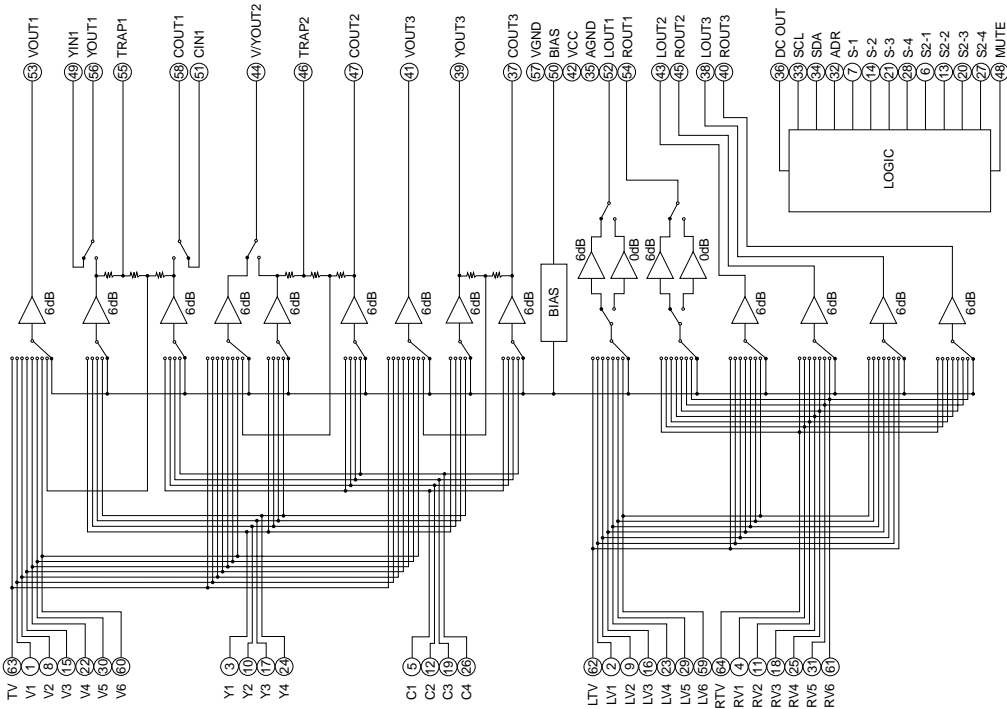
PRINTED WIRING BOARD

**BC4** [Y/C SEP AUTO WIDE]

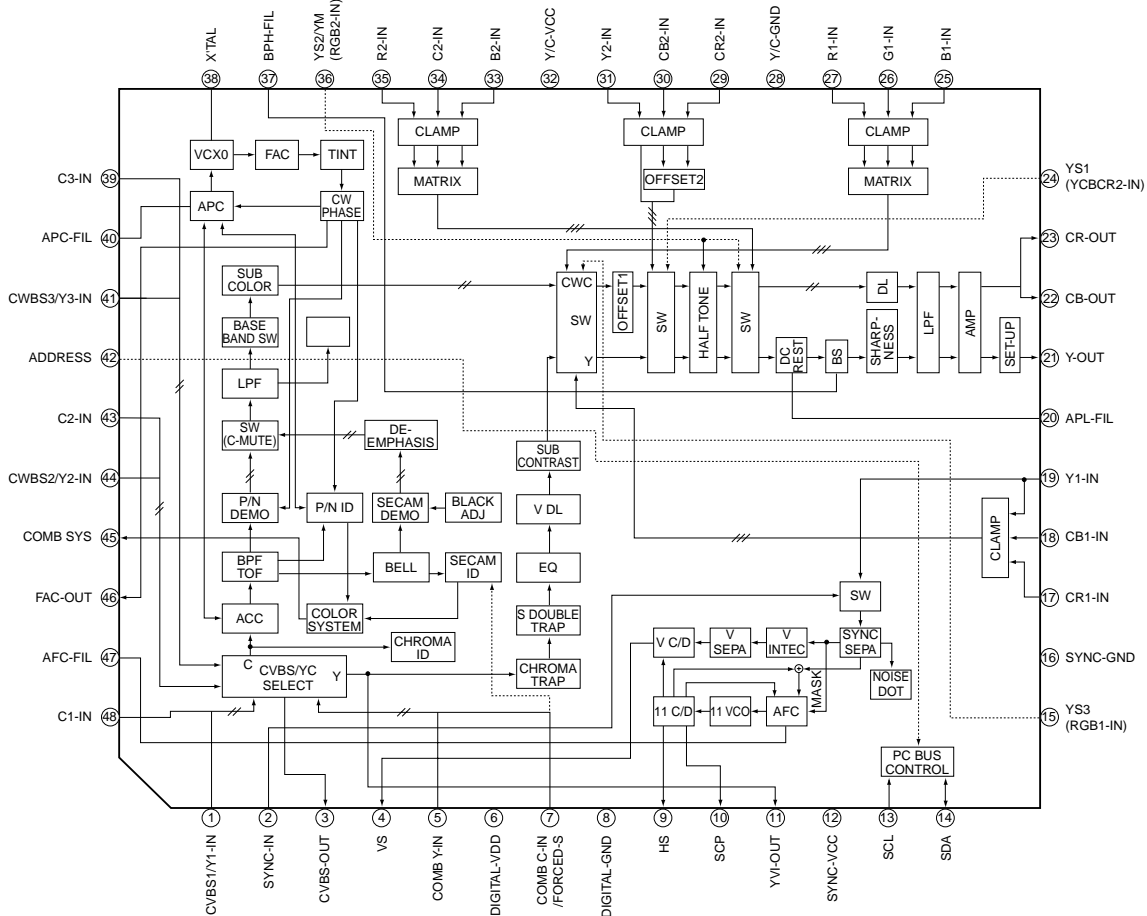
- BC4 Board -



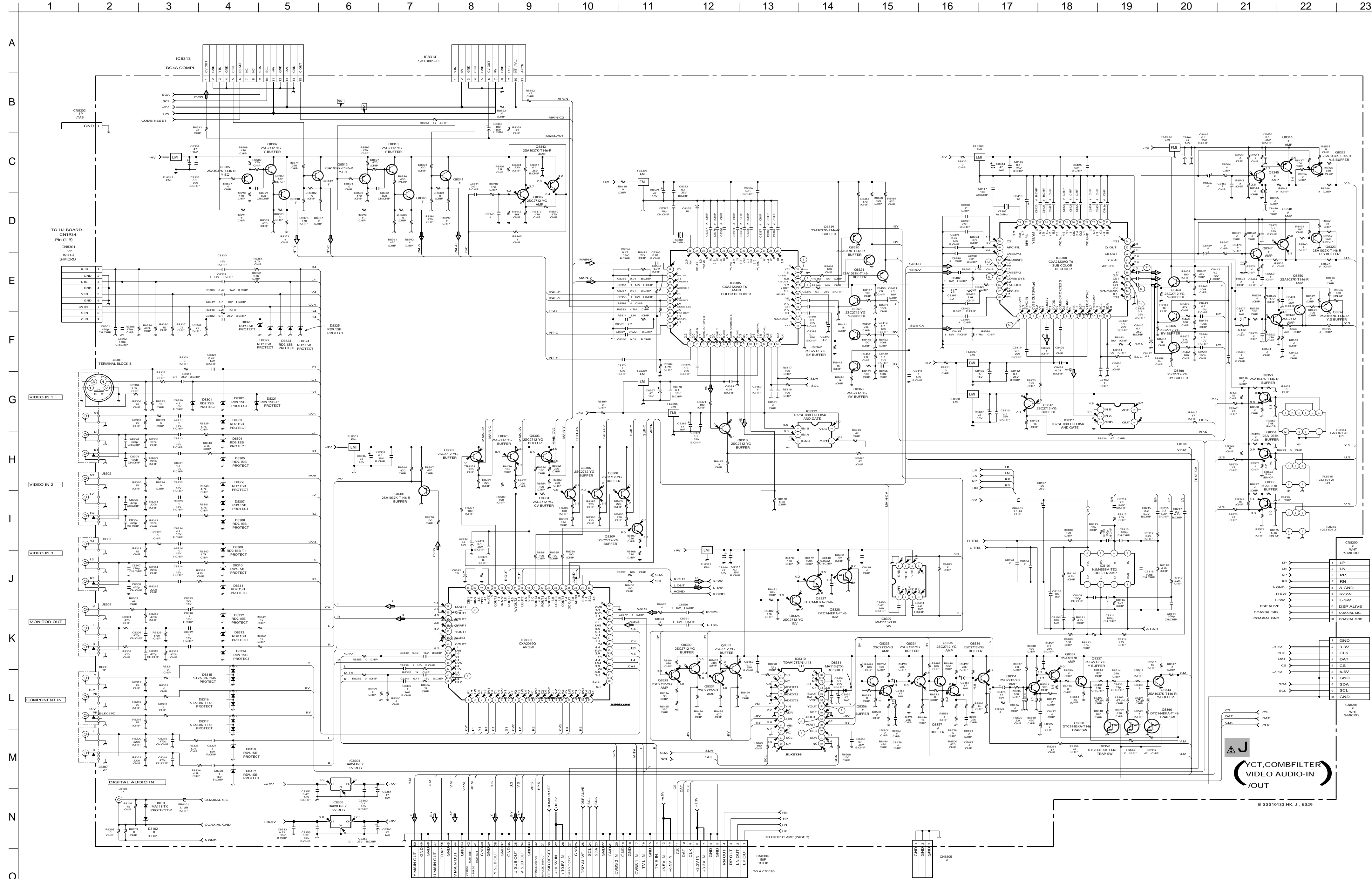
J Board IC8302 CXA2069Q



J Board IC8306 CXA2123AQ-T6



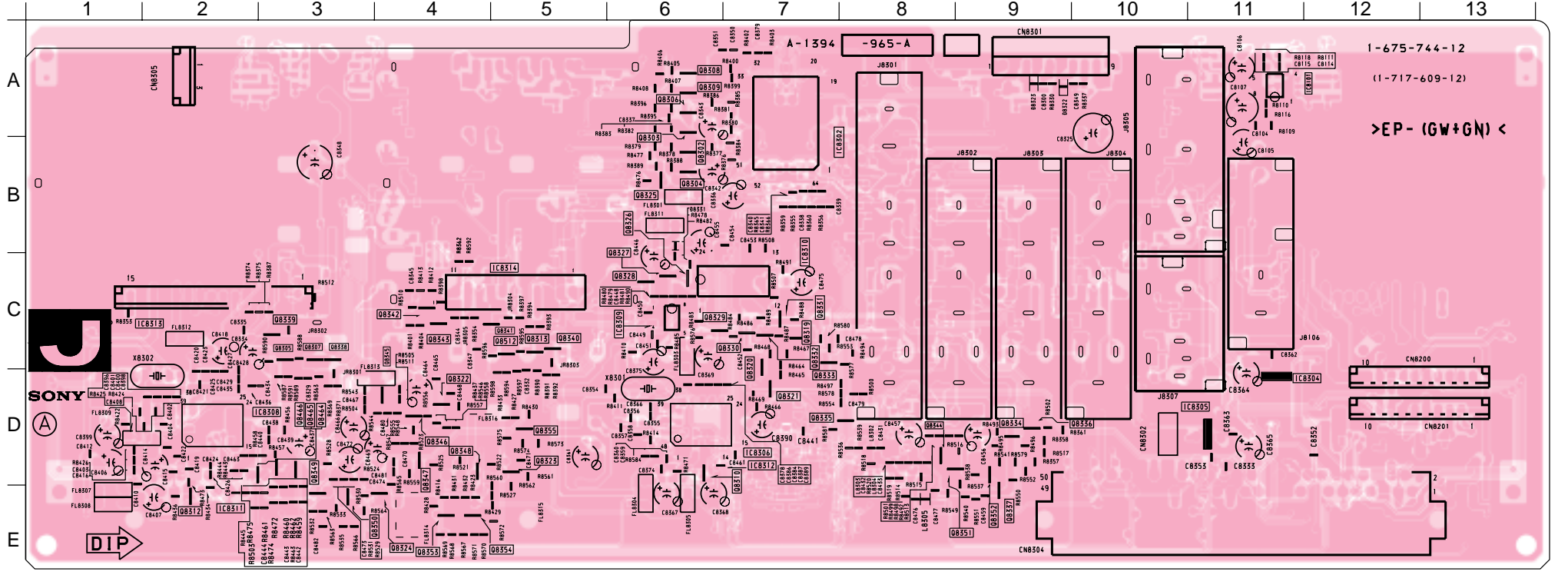
(16) Schematic Diagram of J Board



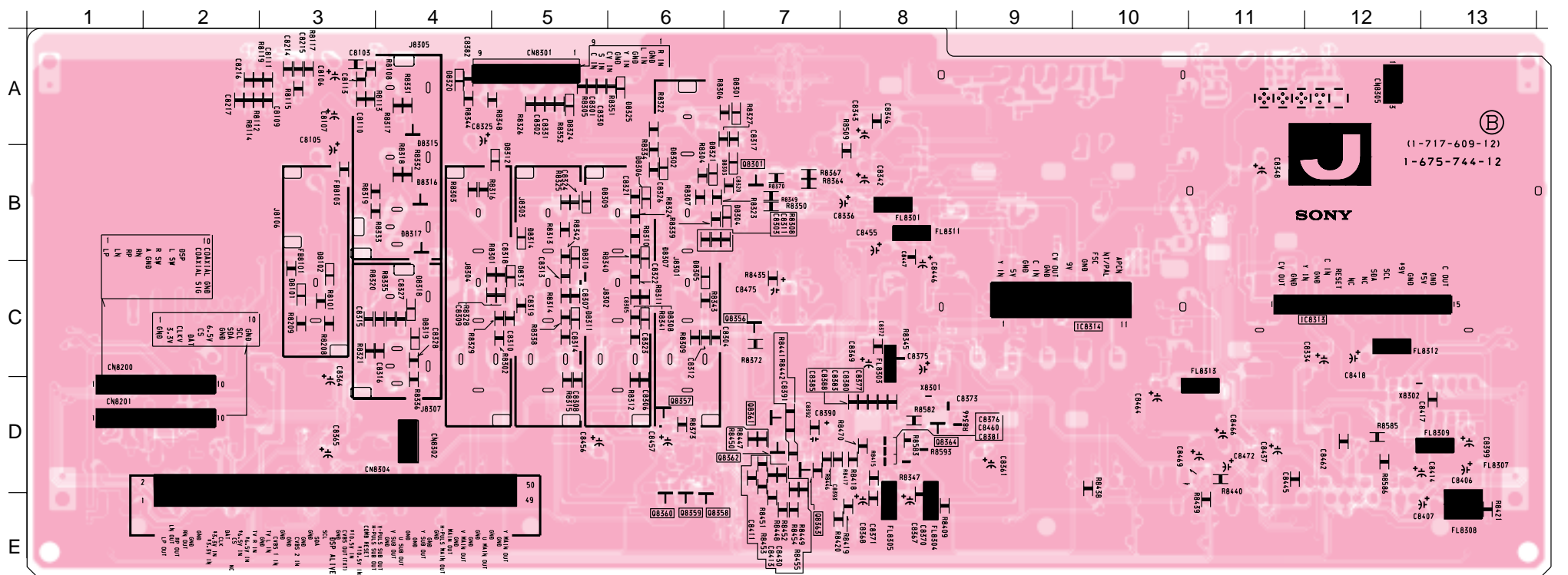
PRINTED WIRING BOARDS

J YCT, COMB FILTER, VIDEO/AUDIO-IN/OUT

- J Board (Component Side) -



- J Board (Conductor Side) -



J BOARD (Component Side)

IC	Q8307 C-3	Q8339 C-3
IC0302 A-8	Q8308 A-6	Q8340 C-5
IC8101 A-12	Q8309 A-6	Q8341 C-5
IC8102 E-13	Q8310 D-7	Q8342 C-4
IC8103 B-13	Q8311 C-5	Q8343 C-4
IC8105 A-13	Q8319 C-7	Q8344 D-8
IC8106 C-12	Q8320 C-7	Q8345 C-3
IC8308 D-2	Q8325 B-6	Q8346 D-4
IC8309 C-6	Q8326 B-6	Q8351 D-9
IC8310 B-7	Q8327 B-6	Q8352 E-9
IC8311 E-3	Q8328 C-6	Q8353 E-5
IC8312 D-7	Q8329 C-7	Q8354 E-5
IC8313 C-2	Q8330 C-7	Q8355 D-5
IC8314 B-5	Q8331 C-7	
	Q8332 C-7	
	Q8333 C-7	
	Q8334 D-9	
	Q8335 D-7	
	Q8336 D-10	
	Q8337 E-9	
	Q8338 C-3	
	Q8339 A-6	

J BOARD (Conductor Side)

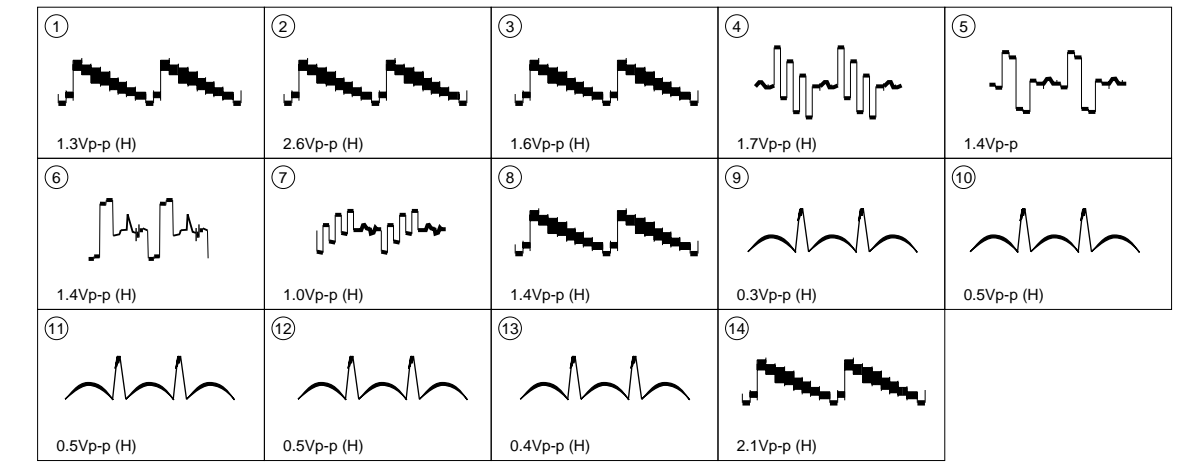
IC	D8302 B-6
IC8104 B-2	D8303 B-7
IC8313 C-12	D8305 C-6
IC8314 C-10	D8306 B-6
	D8307 B-6
	D8308 C-6
	D8309 B-6
	D8311 C-5
	D8313 C-5
	D8314 B-5
	D8315 A-4
	D8316 B-4
	D8317 B-4
	D8318 C-4
	D8319 C-4
	D8320 A-4
	D8321 B-6
	D8325 A-4

TRANSISTOR

DIODE	D8317 B-4
D8101 C-3	D8319 C-4
D8102 C-3	D8320 A-4
D8301 A-4	D8321 B-6
	D8325 A-4

- Pattern from the side which enables seeing.
- Pattern from the rear side.

J BOARD WAVEFORMS

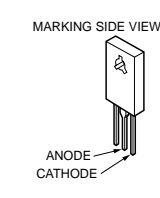


6-5. SEMICONDUCTORS

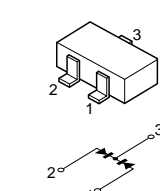
DIODE

D1NS4  
ERA38-06  
ERA85-009  
RD10ESB2  
RD12ES-B2  
RD13ES-B2  
RD15ES-B2  
RD18ESB2  
RD2.2ES-B  
RD2.7ESB2  
RD2.7ESB  
RD3.6ES-B1  
RD3.9ES-B2  
RD30ESB2  
RD4.7ESB2  
RD5.6ES-B  
RD6.8ES-B2  
RD7.5ESB2  
1SS119-25

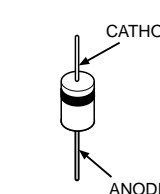
D1NL20U-TR



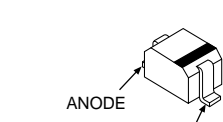
DAN202K



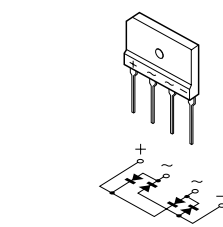
EL1Z  
GP08D  
HSS83TD  
RGP02-20EL-6394



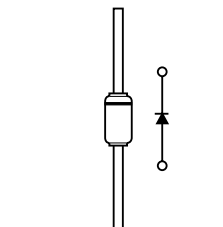
DT29.1  
MA111-(K8),S0  
MA113-(TX)  
RD3.0B2  
RD5.6SB3  
RD9.1S-B



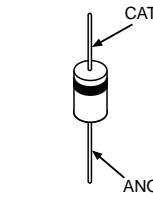
D4SB60L



RD9.1ES-L2

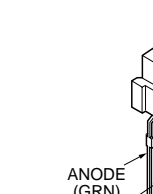


S3L20UF4

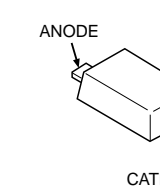


LED

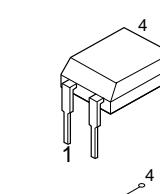
SPB-26MVWF



MA8039

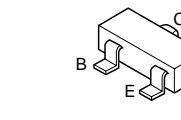


ON3171-R

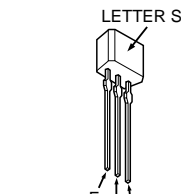


TRANSISTOR

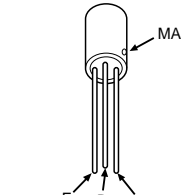
DTA144EKA-T146  
DTC114EK  
2SA1037AK-T146-R  
2SA1162-G  
2SA1775TV2Q  
2SC1623-L5L6  
2SC2712-YG  
2SD601A-Q-TX  
2SD601-Q-TX



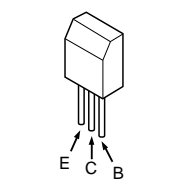
DTC144ESA  
DTC144ESA  
2SA1175-HFE  
2SC2785-HFE



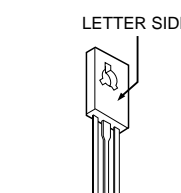
2SA2005



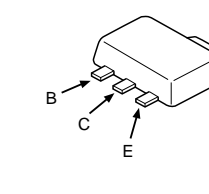
2SB733-34  
2SD774-34



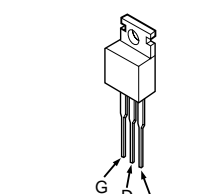
2SC384Q(3)



2SK2036(TE85L)  
2SK2251-01-F19

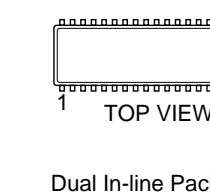


IRF620  
IRF720-LF49

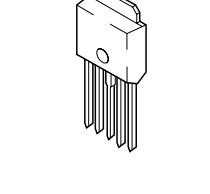


IC

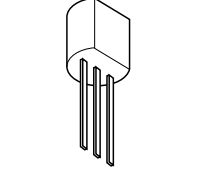
AK4524  
LF50CDT-TR  
DTC114EK  
2SA1037AK-T146-R  
2SA1162-G  
2SA1775TV2Q  
2SC1623-L5L6  
2SC2712-YG  
2SD601A-Q-TX  
2SD601-Q-TX



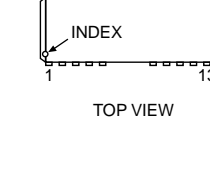
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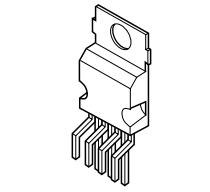
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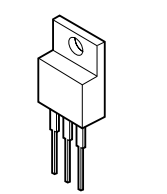
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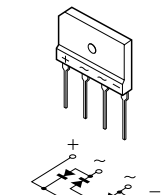
STV9379



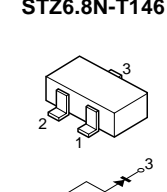
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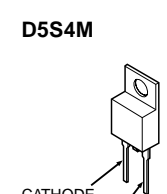
D4SBL20U  
D4SBS6



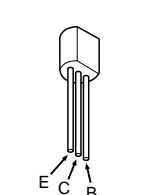
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MA3091  
STZ6.8N-T146



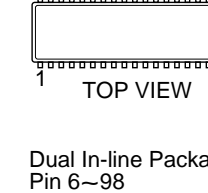
D5S4M



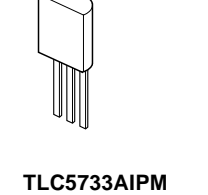
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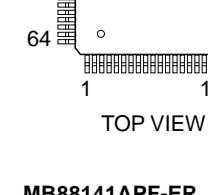
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NJM3404AD  
TOP209P  
UPC393C  
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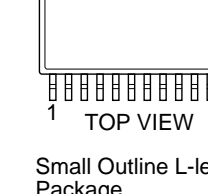
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TLC573AIPM



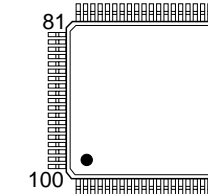
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TDA9178/N1.118



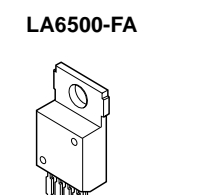
Small Outline L-leaded  
Package  
Pin 8-98



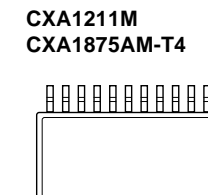
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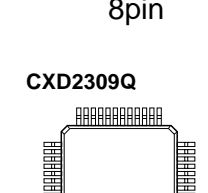
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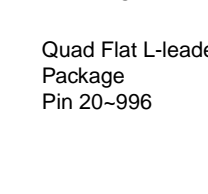
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CXA1875AM-T4



8pin



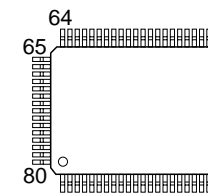
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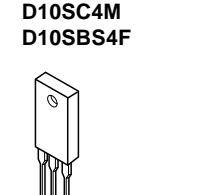
Quad Flat L-leaded  
Package  
Pin 20-996



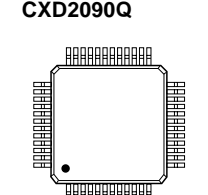
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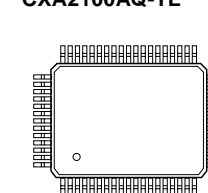
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D10SBS4F



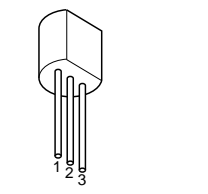
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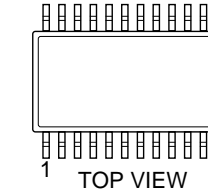
CXA2100AQ-TL



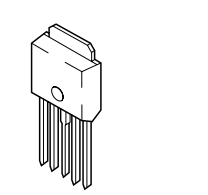
UPC1093J-1-T



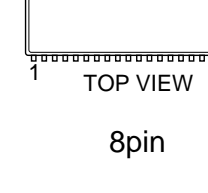
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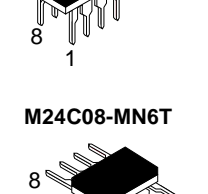
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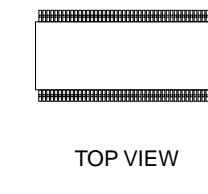
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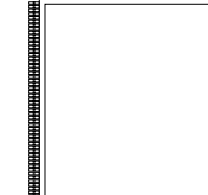
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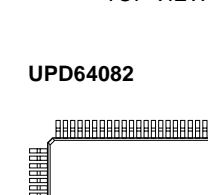
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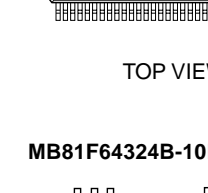
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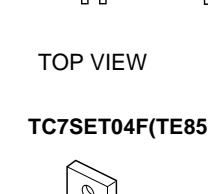
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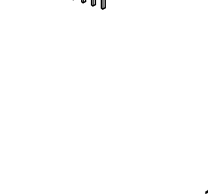
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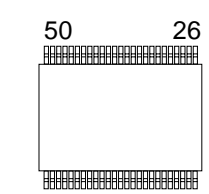
TOP VIEW



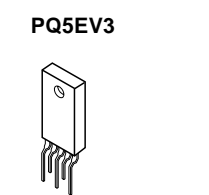
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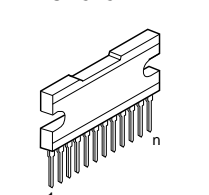
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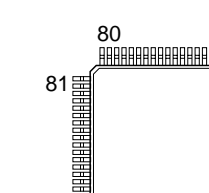
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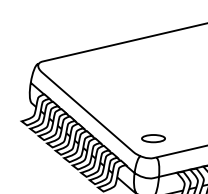
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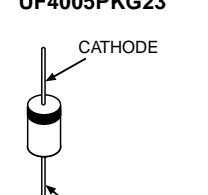
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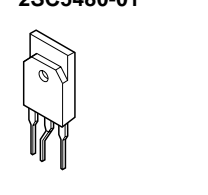
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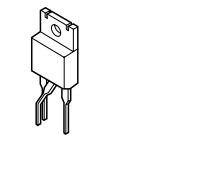
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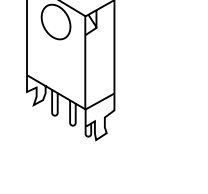
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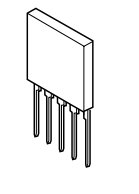
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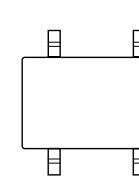
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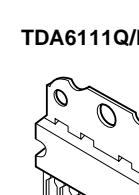
DM-58



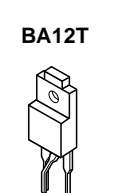
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PST9145NL  
TC7SET08FU(TE85L)



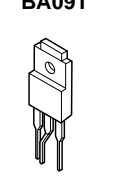
5pin



TDA6111Q/N4



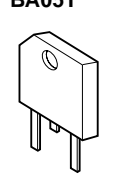
BA12T



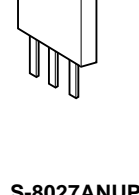
BA09T



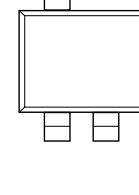
BA05FP-E2  
BA05T



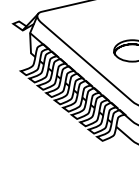
BA09FP-E2



S-8027ANUP-EDQ  
S-80743AL-AL-A7-S  
S-80743AN-D7



CXP750096-014Q





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A series of horizontal dotted lines for writing.





## SECTION 7 EXPLODED VIEWS

**NOTE:**

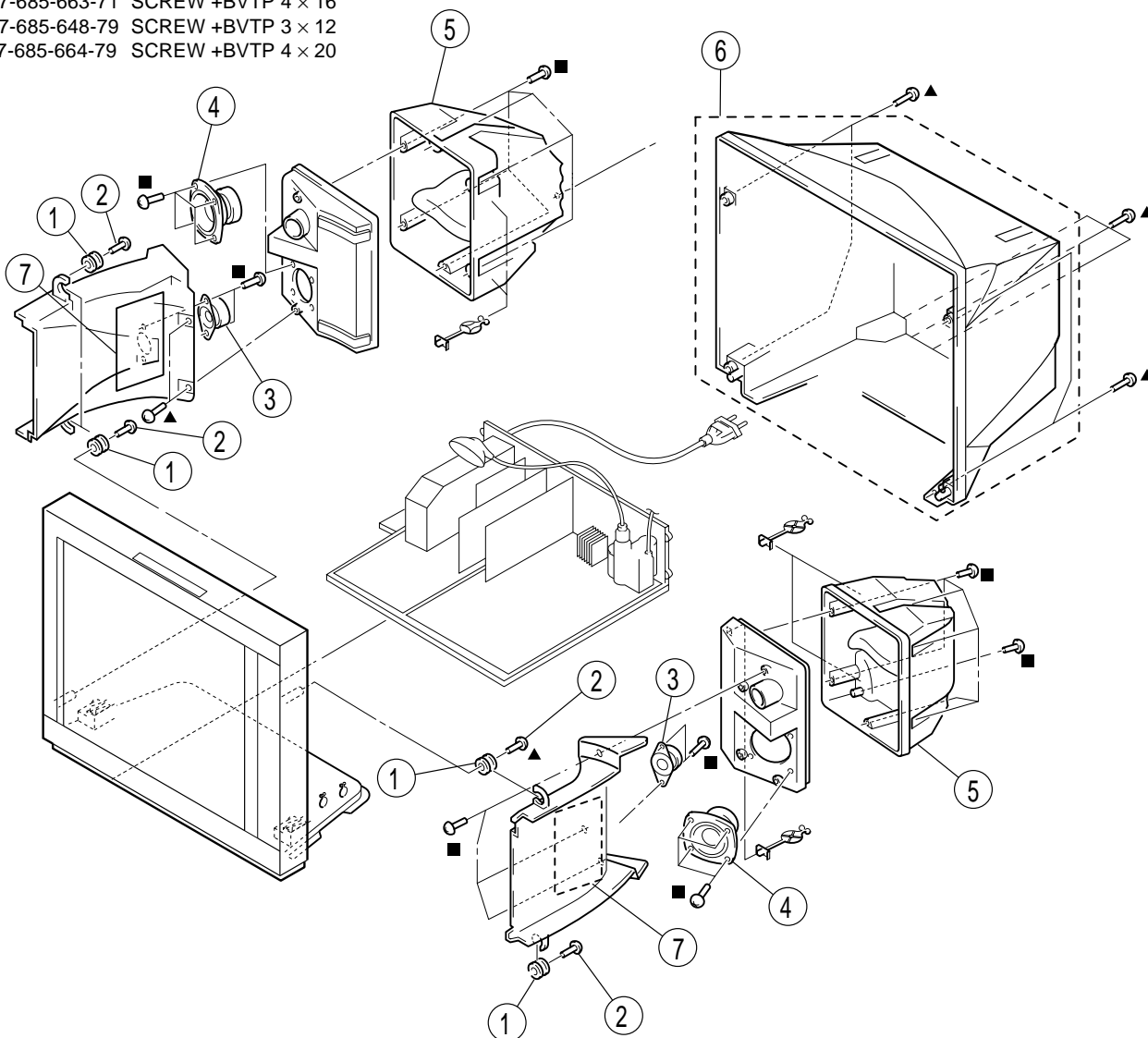
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine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

**CAUTION:** The aluminium frame must be connected to the ground with the ground cable from DH board.  
Failure to do so, may cause the user to suffer electric shock.

### 7-1. SPEAKER BRACKET

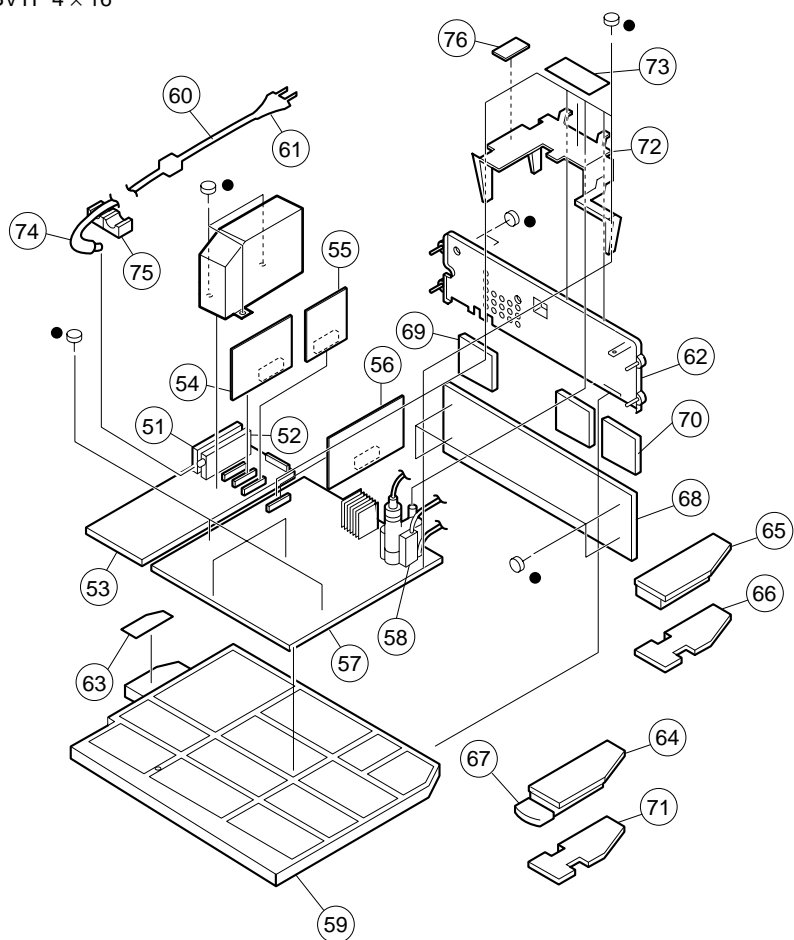
- : 7-685-663-71 SCREW +BVTP 4 × 16
- : 7-685-648-79 SCREW +BVTP 3 × 12
- ▲: 7-685-664-79 SCREW +BVTP 4 × 20



REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-374-745-11	CUSHION (A)	
2	4-046-929-02	SCREW, TD+TWH 4X25	
3	1-529-532-11	SPEAKER (5CM)	
4	1-505-473-11	SPEAKER (12CM)	
5	* 4-071-302-01	DUCT, SPEAKER	
6	X-4036-878-1	COVER ASSY, REAR	
7	* 4-073-084-01	DUCT, CUSHION	

## 7-2. CHASSIS

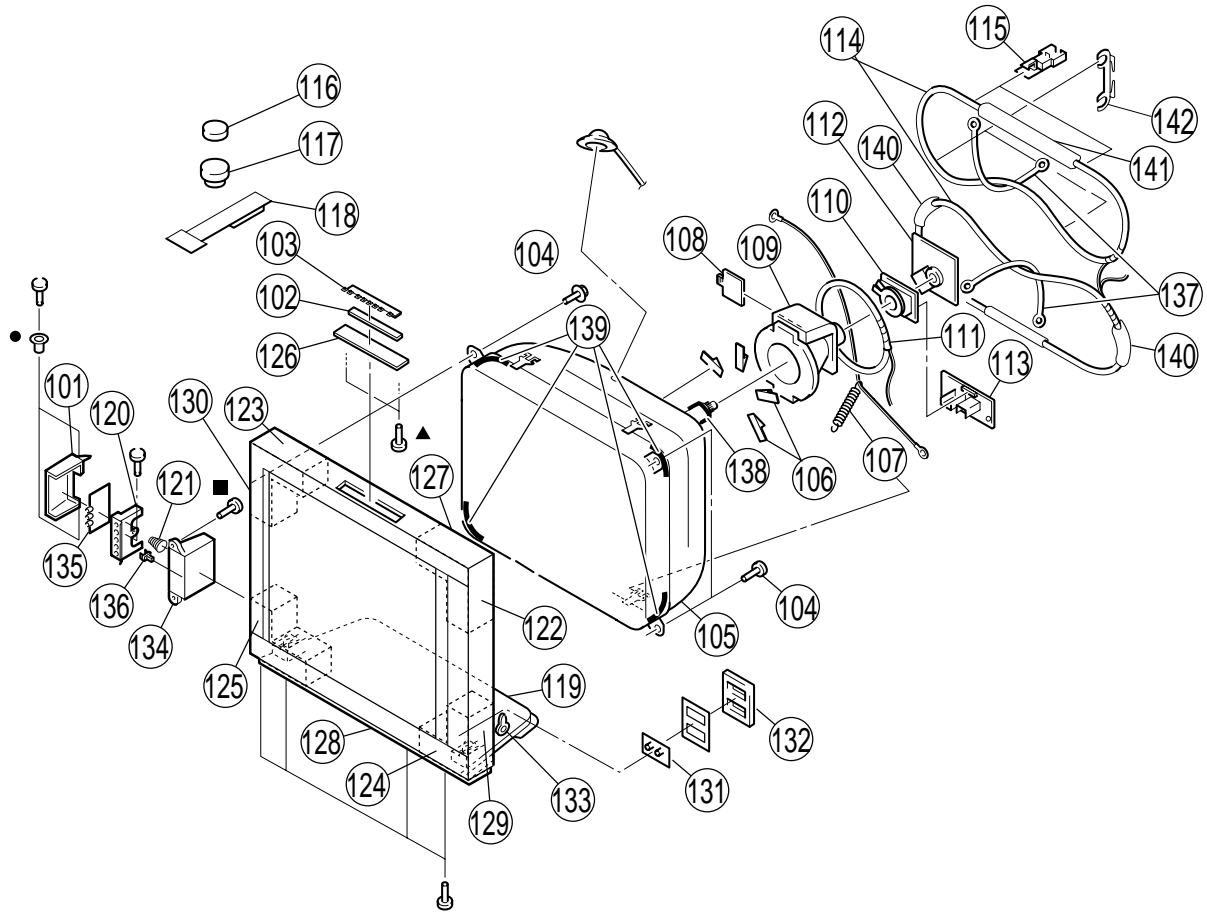
- : 7-685-648-71 SCREW +BVTP 3 × 12
- : 7-685-663-71 SCREW +BVTP 4 × 16



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	8-598-452-30	TUNER, FSS BTF-WG442		63	* A-1241-402-A	F1 BOARD MOUNT	
52	8-598-508-10	TUNER, FSS BTF-LG436		64	* 4-071-307-01	HOLDER, F2/H1	
53	* A-1299-068-A	A BOARD COMPLETE		65	* 4-071-307-01	HOLDER, F2/H1	
54	* A-1136-054-A	B3 BOARD COMPLETE		66	* A-1372-728-A	H1 MOUNT	
55	* A-1343-743-B	E BOARD MOUNT		67	4-071-305-01	BUTTON, POWER	
56	* A-1343-742-A	D1 BOARD MOUNT		68	* A-1394-965-A	J BOARD COMPLETE	
57	* A-1346-882-A	D BOARD COMPLETE		69	* A-1299-092-A	A1 BOARD COMPLETE	
58	△ 1-453-325-11	TRANSFORMER ASSY, FLYBACK (NX-4522/J1B4)		70	* A-1136-069-A	BC4 COMPL	
59	* 4-071-314-01	BRACKET, MAIN		71	* A-1241-403-A	F2 BOARD MOUNT	
60	△ 4-022-115-01	HOLDER, AC CORD		72	* 4-071-316-01	SUPPORTER, PWB	
61	△ 1-792-002-11	CORD, POWER (WITH FILTER)		73	A-1343-791-A	DH MOUNT	
62	* 4-071-315-01	BRACKET, TERMINAL		74	1-790-082-11	CABLE RF	
				75	1-543-827-31	CLAMP, SLEEVE FERRITE	
				76	A-1343-817-A	E1 BOARD	

### 7-3. PICTURE TUBE

- : 7-685-648-71 SCREW +BVTP 3 × 12
- : 7-685-663-71 SCREW +BVTP 4 × 16
- ▲: 7-685-661-14 SCREW +BVTP 4 × 12



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	4-071-308-01	DOOR, CONTROL		123	* 4-071-299-02	BRACKET (TL), CRT	
102	* A-1372-730-A	H3 BOARD MOUNT		124	* 4-071-300-02	BRACKET (BR), CRT	
103	4-071-312-02	BUTTON, TOP SW		125	* 4-071-301-02	BRACKET (BL), CRT	
104	4-046-765-02	SCREW, TAPPING 7+CROWN WASHER		126	* 4-071-311-01	HOLDER, H3	
105	▲ 8-735-056-05	PICTURE TUBE (M68LNH070X)		127	X-4037-416-1	FRAME SUB-ASSY, TOP	
106	3-703-961-01	SPACER, DY		128	X-4037-417-1	FRAME SUB-ASSY, BOTTOM	
107	4-369-318-61	SPRING, TENSION		129	X-4037-418-1	FRAME SUB-ASSY, RIGHT	
108	2-163-920-01	PLATE, TLH CORRECTION		130	X-4037-419-1	FRAME SUB-ASSY, LEFT	
109	▲ 8-451-504-61	DEFLECTION YOKE (Y29RSC-S2)		131	* 4-071-306-01	LIGHT, GUIDE	
110	8-453-011-11	NA299-M		132	* 4-072-950-01	BRACKET, LIGHT GUIDE	
111	1-452-896-11	COIL, NA ROTATION (RT200)		133	* 4-073-080-01	FASTEN	
112	* A-1332-005-A	C BOARD MOUNT		134	* 4-071-310-03	BRACKET, SIDE	
113	* A-1342-515-A	VM BOARD MOUNT		135	* A-1372-729-A	H2 BOARD MOUNT	
114	▲ 1-419-294-11	COIL, DEGAUSSING		136	4-047-464-01	CATCHER, PUSH	
115	* 4-062-970-01	CLIP (29RSN), DGC		137	4-068-028-02	BAND, DGC	
116	1-452-032-00	MAGNET, DISC		138	7-651-302-30	TAPE, UL CLOTH (NO.160UL) 19X20M	
117	1-452-014-11	CIRCULAR DISC MAGNET B		139	4-075-189-01	TAPE, CRT	
118	4-051-734-21	PIECE B(120), CONV. CORRECT		140	* 4-074-513-01	CUSHION (L), DGC	
119	* 4-071-297-01	COVER, FRONT		141	* 4-063-935-02	CUSHION (50X550), DGC	
120	* X-4037-280-1	HOLDER ASSY, CONTROL		142	* 4-064-883-03	HOLDER, DGC	
121	4-071-323-01	SPRING, CONE					
122	* 4-071-298-02	BRACKET (TR), CRT					

SECTION 8

ELECTRICAL PARTS LIST



NOTE:

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

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

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

- All resistors are in ohms
- F : nonflammable

CAPACITORS

- MF :  $\mu$ F, PF :  $\mu$  $\mu$ F

COILS

- MMH : mH, UH :  $\mu$ H

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1299-068-A	A BOARD COMPLETE	*****		C1206	1-126-965-11	ELECT 22MF	20% 50V
* 1-555-110-00	CABLE, PIN			C1207	1-107-725-11	CERAMIC CHIP 0.1MF	10% 16V
4-382-854-11	SCREW (M3X10), P, SW (+)			C1208	1-126-023-11	ELECT 100MF	20% 16V
	<CAPACITOR>			C1209	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C004	1-163-001-11	CERAMIC CHIP 220PF	10% 50V	C1210	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C005	1-163-001-11	CERAMIC CHIP 220PF	10% 50V	C1211	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V
C006	1-107-725-11	CERAMIC CHIP 0.1MF	10% 16V	C1212	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V
C007	1-126-933-11	ELECT 100MF	20% 16V	C1213	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V
C009	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1214	1-126-055-11	ELECT 470MF	20% 50V
C010	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C1215	1-126-055-11	ELECT 470MF	20% 50V
C012	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V	C1216	1-126-943-11	ELECT 2200MF	20% 25V
C013	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C1217	1-136-943-11	ELECT 2200MF	20% 25V
C014	1-126-967-11	ELECT 47MF	20% 50V	C1219	1-126-961-11	ELECT 2.2MF	20% 50V
C015	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V	C1220	1-126-961-11	ELECT 2.2MF	20% 50V
C016	1-102-852-91	CERAMIC CHIP 47PF	5% 50V	C1221	1-126-933-11	ELECT 100MF	20% 16V
C017	1-102-525-11	CERAMIC CHIP 68PF	5% 50V	C1222	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V
C018	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C1223	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V
C019	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C1224	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V
C020	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C1225	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V
C021	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C1241	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C024	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V	C1242	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C028	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V	C1243	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C030	1-126-960-11	ELECT 1MF	20% 50V	C1244	1-110-617-51	ELECT 2200MF	20% 50V
C031	1-107-725-11	CERAMIC CHIP 0.1MF	10% 16V	C1245	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C032	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	C1246	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C033	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V	C1247	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C034	1-163-259-91	CERAMIC CHIP 220PF	5% 50V	C1248	1-110-617-51	ELECT 2200MF	20% 50V
C103	1-107-725-11	CERAMIC CHIP 0.1MF	10% 16V	C1249	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C104	1-126-933-11	ELECT 100MF	20% 16V	C1251	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C107	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1252	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C108	1-126-933-11	ELECT 100MF	20% 16V	C1253	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C109	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1255	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C110	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1256	1-137-194-81	MYLAR 0.47MF	5% 50V
C111	1-163-005-11	CERAMIC CHIP 470PF	10% 50V	C1258	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C112	1-126-933-11	ELECT 100MF	20% 16V	C1259	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C113	1-126-967-11	ELECT 47MF	20% 50V	C1260	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C114	1-126-967-11	ELECT 47MF	20% 50V	C1262	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C301	1-126-767-11	ELECT 1000MF	20% 16V	C1263	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C326	1-126-964-11	ELECT 10MF	20% 50V	C1264	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C1201	1-107-725-11	CERAMIC CHIP 0.1MF	10% 16V	C1265	1-115-339-11	CERAMIC CHIP 0.1MF	10% 50V
C1202	1-107-725-11	CERAMIC CHIP 0.1MF	10% 16V	C1267	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C1203	1-164-505-11	CERAMIC CHIP 2.2MF	16V	C1268	1-137-194-81	MYLAR 0.47MF	5% 50V
C1204	1-164-690-91	CERAMIC CHIP 0.0022MF	5% 50V	C1270	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
C1205	1-164-690-91	CERAMIC CHIP 0.0022MF	5% 50V	C1271	1-163-007-11	CERAMIC CHIP 680PF	10% 50V
				C1272	1-104-941-11	ELECT 470MF	20% 25V





REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1275	1-163-007-11	CERAMIC CHIP	680PF 10% 50V			<CONNECTOR>	
C1276	1-163-007-11	CERAMIC CHIP	680PF 10% 50V				
C1277	1-164-690-91	CERAMIC CHIP	0.0022MF 5% 50V				
C1279	1-164-690-91	CERAMIC CHIP	0.0022MF 5% 50V				
C1281	1-115-339-11	CERAMIC CHIP	0.1MF 10% 50V				
C1282	1-115-339-11	CERAMIC CHIP	0.1MF 10% 50V				
C1283	1-164-690-91	CERAMIC CHIP	0.0022MF 5% 50V				
C1284	1-164-690-91	CERAMIC CHIP	0.0022MF 5% 50V				
C1285	1-126-933-11	ELECT	100MF 20% 16V				
C1286	1-126-933-11	ELECT	100MF 20% 16V				
C1287	1-163-251-11	CERAMIC CHIP	100PF 5% 50V				
C1288	1-163-251-11	CERAMIC CHIP	100PF 5% 50V				
C1289	1-163-251-11	CERAMIC CHIP	100PF 5% 50V				
C1290	1-163-251-11	CERAMIC CHIP	100PF 5% 50V				
C1291	1-163-251-11	CERAMIC CHIP	100PF 5% 50V				
C1292	1-163-251-11	CERAMIC CHIP	100PF 5% 50V			<COMPOSITION CIRCUIT BLOCK>	
C1297	1-136-177-00	MYLAR	1MF 5% 50V				
C1298	1-136-177-00	MYLAR	1MF 5% 50V				
C1301	1-126-933-11	ELECT	100MF 20% 16V				
C1302	1-115-339-11	CERAMIC CHIP	0.1MF 10% 50V			<DIODE>	
C2200	1-126-964-11	ELECT	10MF 20% 50V			D001 8-719-073-01	DIODE MA111-(K8).S0
C2201	1-126-964-11	ELECT	10MF 20% 50V			D002 8-719-073-01	DIODE MA111-(K8).S0
C2202	1-126-964-11	ELECT	10MF 20% 50V			D003 8-719-073-01	DIODE MA111-(K8).S0
C2203	1-126-963-11	ELECT	4.7MF 20% 50V			D004 8-719-073-01	DIODE MA111-(K8).S0
C2204	1-125-838-91	CERAMIC CHIP	2.2MF 10% 6.3V			D005 8-719-073-01	DIODE MA111-(K8).S0
C2205	1-125-838-91	CERAMIC CHIP	2.2MF 10% 6.3V			D006 8-719-073-01	DIODE MA111-(K8).S0
C2206	1-126-964-11	ELECT	10MF 20% 50V			D007 8-719-158-18	DIODE RD5.6SB3
C2207	1-216-065-91	RES,CHIP	4.7K 5% 1/10W			D013 8-719-158-18	DIODE RD5.6SB3
C2208	1-216-065-91	RES,CHIP	4.7K 5% 1/10W			D014 8-719-073-01	DIODE MA111-(K8).S0
C2209	1-126-968-11	ELECT	100MF 20% 50V			D100 8-719-073-01	DIODE MA111-(K8).S0
C2600	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V			D300 8-719-073-01	DIODE MA111-(K8).S0
C2601	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V			D301 8-719-073-01	DIODE MA111-(K8).S0
C2602	1-126-933-11	ELECT	100MF 20% 16V			D302 8-719-073-01	DIODE MA111-(K8).S0
C2603	1-126-933-11	ELECT	100MF 20% 16V			D317 8-719-073-01	DIODE MA111-(K8).S0
C2605	1-126-925-11	ELECT	470MF 20% 10V			D1205 8-719-158-35	DIODE RD9.1SB
C2606	1-164-344-11	CERAMIC CHIP	0.068MF 10% 25V			D1208 8-719-073-01	DIODE MA111-(K8).S0
C2608	1-126-916-11	ELECT	1000MF 20% 6.3V			D1209 8-719-073-01	DIODE MA111-(K8).S0
C2609	1-126-935-11	ELECT	470MF 20% 6.3V			D2200 8-719-158-35	DIODE RD9.1SB
C2610	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V			D2201 8-719-158-35	DIODE RD9.1SB
C2611	1-126-934-11	ELECT	220MF 20% 16V			D2600 8-719-500-70	DIODE D5S4M
C2612	1-104-665-11	ELECT	100MF 20% 25V				<FERRITE BEAD>
C2613	1-104-665-11	ELECT	100MF 20% 25V				
C2614	1-126-925-11	ELECT	470MF 20% 10V				
C3330	1-107-725-11	CERAMIC CHIP	0.1MF 10% 16V			FB001 1-414-233-22	INDUCTOR CHIP 0UH
C3331	1-126-933-11	ELECT	100MF 20% 16V			FB002 1-414-233-22	INDUCTOR CHIP 0UH
C3336	1-126-933-11	ELECT	100MF 20% 16V			FB003 1-414-233-22	INDUCTOR CHIP 0UH
C3338	1-163-005-11	CERAMIC CHIP	470PF 10% 50V			FB004 1-414-233-22	INDUCTOR CHIP 0UH
C3350	1-163-005-11	CERAMIC CHIP	470PF 10% 50V			FB005 1-414-233-22	INDUCTOR CHIP 0UH
C3351	1-163-005-11	CERAMIC CHIP	470PF 10% 50V			FB006 1-414-233-22	INDUCTOR CHIP 0UH
C3352	1-163-005-11	CERAMIC CHIP	470PF 10% 50V			FB007 1-414-233-22	INDUCTOR CHIP 0UH
C3353	1-126-933-11	ELECT	100MF 20% 16V			FB008 1-414-233-22	INDUCTOR CHIP 0UH
C3354	1-126-967-11	ELECT	47MF 20% 50V			FB1205 1-410-397-21	FERRITE 1.1UH
C3355	1-126-967-11	ELECT	47MF 20% 50V			FB1206 1-410-397-21	FERRITE 1.1UH
						FB1207 1-410-397-21	FERRITE 1.1UH
						FB1208 1-410-397-21	FERRITE 1.1UH
						FB1300 1-216-295-91	SHORT 0



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<FILTER>				<IC LINK>	
FL001	1-236-071-11	ENCAPSULATED COMPONENT		PS1201	1-532-686-21	LINK, IC 2.7A/150V	
		<IC>		PS1202	1-532-686-21	LINK, IC 2.7A/150V	
IC001	8-752-910-26	IC CXP750096-012Q		PS1203	1-532-686-21	LINK, IC 2.7A/150V	
IC002	8-759-042-02	IC S-80743AL-A7-S		PS1204	1-532-686-21	LINK, IC 2.7A/150V	
IC003	8-759-527-76	IC M24C08-MN6T				<TRANSISTOR>	
IC004	8-759-527-75	IC M24C04-MN6T		Q001	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC100	8-759-042-02	IC S-80743AL-A7-S		Q002	8-729-230-49	TRANSISTOR 2SC2712-YG	
IC1201	8-759-273-12	IC TDA7315D013TR		Q003	8-729-230-49	TRANSISTOR 2SC2712-YG	
IC1203	8-759-553-45	IC TDA7481		Q004	8-729-230-49	TRANSISTOR 2SC2712-YG	
IC1204	8-759-553-45	IC TDA7481		Q005	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC1205	8-759-100-96	IC UPC4558G2		Q006	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC2200	8-759-745-64	IC NJM4560M		Q007	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC2600	8-759-394-36	IC BA09T		Q101	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC2601	8-759-450-47	IC BA05T		Q301	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC2603	8-759-640-19	IC PQ1CG2032FZ		Q313	8-729-230-49	TRANSISTOR 2SC2712-YG	
IC2604	8-759-644-37	IC PQ5EV3		Q1205	1-801-806-11	TRANSISTOR DTC144EKA-T146	
		<CHIP CONDUCTOR>		Q1206	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR001	1-216-295-91	SHORT	0	Q1207	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR002	1-216-295-91	SHORT	0	Q1209	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR102	1-216-295-91	SHORT	0	Q1210	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR107	1-216-295-91	SHORT	0	Q1211	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
JR1301	1-216-295-91	SHORT	0	Q2200	1-801-806-11	TRANSISTOR DTC144EKA-T146	
JR2601	1-216-295-91	SHORT	0	Q2201	1-801-806-11	TRANSISTOR DTC144EKA-T146	
		<COIL>		Q3300	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
L001	1-414-856-11	INDUCTOR	10UH			<RESISTOR>	
L002	1-414-856-11	INDUCTOR	10UH	R001	1-216-033-00	RES,CHIP	220 5% 1/10W
L003	1-414-751-11	INDUCTOR	1UH	R002	1-216-033-00	RES,CHIP	220 5% 1/10W
L005	1-414-856-11	INDUCTOR	10UH	R004	1-216-025-91	RES,CHIP	100 5% 1/10W
L101	1-414-856-11	INDUCTOR	10UH	R005	1-216-025-91	RES,CHIP	100 5% 1/10W
L102	1-414-856-11	INDUCTOR	10UH	R006	1-216-033-00	RES,CHIP	220 5% 1/10W
L103	1-414-856-11	INDUCTOR	10UH	R008	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
L104	1-414-856-11	INDUCTOR	10UH	R010	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
L105	1-414-856-11	INDUCTOR	10UH	R011	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
L1201	1-414-187-11	INDUCTOR	47UH	R012	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
L1202	1-416-857-11	INDUCTOR	65UH	R013	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
L1203	1-416-857-11	INDUCTOR	65UH	R014	1-216-025-91	RES,CHIP	100 5% 1/10W
L1204	1-416-966-11	INDUCTOR	0UH	R015	1-216-025-91	RES,CHIP	100 5% 1/10W
L1205	1-416-966-11	INDUCTOR	0UH	R016	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
L1300	1-414-856-11	INDUCTOR	10UH	R017	1-216-049-91	RES,CHIP	1K 5% 1/10W
L2600	1-419-249-11	INDUCTOR	15UH	R018	1-216-045-00	RES,CHIP	680 5% 1/10W
L2601	1-419-249-11	INDUCTOR	15UH	R019	1-216-049-91	RES,CHIP	1K 5% 1/10W
L2602	1-412-525-31	INDUCTOR	10UH	R020	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
L2603	1-412-525-31	INDUCTOR	10UH	R021	1-216-295-91	SHORT	0
L3302	1-414-856-11	INDUCTOR	10UH	R022	1-216-033-00	RES,CHIP	220 5% 1/10W
L3303	1-414-856-11	INDUCTOR	10UH	R023	1-216-025-91	RES,CHIP	100 5% 1/10W
L3304	1-414-856-11	INDUCTOR	10UH	R024	1-216-063-91	RES,CHIP	3.9K 5% 1/10W
L3305	1-414-856-11	INDUCTOR	10UH	R025	1-216-033-00	RES,CHIP	220 5% 1/10W
L3306	1-414-856-11	INDUCTOR	10UH	R026	1-216-033-00	RES,CHIP	220 5% 1/10W
				R027	1-216-049-91	RES,CHIP	1K 5% 1/10W
				R028	1-216-049-91	RES,CHIP	1K 5% 1/10W
				R029	1-216-049-91	RES,CHIP	1K 5% 1/10W
				R031	1-216-033-00	RES,CHIP	220 5% 1/10W

A

REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
R032	1-216-049-91	RES,CHIP	1K	5%	1/10W	R091	1-216-025-91	RES,CHIP	100	5%	1/10W
R033	1-216-033-00	RES,CHIP	220	5%	1/10W	R092	1-216-033-00	RES,CHIP	220	5%	1/10W
R035	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	R093	1-216-073-00	RES,CHIP	10K	5%	1/10W
R036	1-216-033-00	RES,CHIP	220	5%	1/10W	R094	1-216-073-00	RES,CHIP	10K	5%	1/10W
R037	1-216-033-00	RES,CHIP	220	5%	1/10W	R095	1-216-049-91	RES,CHIP	1K	5%	1/10W
R038	1-216-045-00	RES,CHIP	680	5%	1/10W	R096	1-216-049-91	RES,CHIP	1K	5%	1/10W
R039	1-216-025-91	RES,CHIP	100	5%	1/10W	R097	1-216-025-91	RES,CHIP	100	5%	1/10W
R040	1-216-033-00	RES,CHIP	220	5%	1/10W	R098	1-216-025-91	RES,CHIP	100	5%	1/10W
R041	1-216-025-91	RES,CHIP	100	5%	1/10W	R099	1-216-025-91	RES,CHIP	100	5%	1/10W
R042	1-216-295-91	SHORT	0			R101	1-216-025-91	RES,CHIP	100	5%	1/10W
R043	1-216-025-91	RES,CHIP	100	5%	1/10W	R102	1-216-025-91	RES,CHIP	100	5%	1/10W
R044	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	R105	1-216-295-91	SHORT	0		
R045	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	R109	1-216-041-00	RES,CHIP	470	5%	1/10W
R046	1-216-033-00	RES,CHIP	220	5%	1/10W	R110	1-216-043-91	RES,CHIP	560	5%	1/10W
R047	1-216-033-00	RES,CHIP	220	5%	1/10W	R111	1-216-025-91	RES,CHIP	100	5%	1/10W
R048	1-216-073-00	RES,CHIP	10K	5%	1/10W	R112	1-216-025-91	RES,CHIP	100	5%	1/10W
R051	1-216-049-91	RES,CHIP	1K	5%	1/10W	R116	1-216-025-91	RES,CHIP	100	5%	1/10W
R052	1-216-049-91	RES,CHIP	1K	5%	1/10W	R117	1-216-025-91	RES,CHIP	100	5%	1/10W
R053	1-216-049-91	RES,CHIP	1K	5%	1/10W	R118	1-216-025-91	RES,CHIP	100	5%	1/10W
R054	1-216-033-00	RES,CHIP	220	5%	1/10W	R301	1-216-113-00	RES,CHIP	470K	5%	1/10W
R055	1-216-295-91	SHORT	0			R302	1-216-089-91	RES,CHIP	47K	5%	1/10W
R056	1-216-295-91	SHORT	0			R303	1-216-089-91	RES,CHIP	47K	5%	1/10W
R057	1-216-295-91	SHORT	0			R1201	1-216-033-00	RES,CHIP	220	5%	1/10W
R058	1-216-295-91	SHORT	0			R1202	1-216-033-00	RES,CHIP	220	5%	1/10W
R059	1-216-033-00	RES,CHIP	220	5%	1/10W	R1203	1-216-079-00	RES,CHIP	18K	5%	1/10W
R060	1-216-033-00	RES,CHIP	220	5%	1/10W	R1204	1-216-079-00	RES,CHIP	18K	5%	1/10W
R061	1-216-025-91	RES,CHIP	100	5%	1/10W	R1205	1-216-089-91	RES,CHIP	47K	5%	1/10W
R062	1-216-049-91	RES,CHIP	1K	5%	1/10W	R1206	1-216-089-91	RES,CHIP	47K	5%	1/10W
R063	1-216-025-91	RES,CHIP	100	5%	1/10W	R1236	1-208-808-11	METAL CHIP	12K	0.50%	1/10W
R064	1-216-025-91	RES,CHIP	100	5%	1/10W	R1237	1-216-085-00	RES,CHIP	33K	5%	1/10W
R065	1-216-045-00	RES,CHIP	680	5%	1/10W	R1238	1-216-081-00	RES,CHIP	22K	5%	1/10W
R066	1-216-049-91	RES,CHIP	1K	5%	1/10W	R1239	1-216-067-00	RES,CHIP	5.6K	5%	1/10W
R067	1-216-073-00	RES,CHIP	10K	5%	1/10W	R1240	1-216-085-00	RES,CHIP	33K	5%	1/10W
R068	1-216-073-00	RES,CHIP	10K	5%	1/10W	R1241	1-216-073-00	RES,CHIP	10K	5%	1/10W
R069	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	R1242	1-216-073-00	RES,CHIP	10K	5%	1/10W
R070	1-216-033-00	RES,CHIP	220	5%	1/10W	R1244	1-216-073-00	RES,CHIP	10K	5%	1/10W
R071	1-216-025-91	RES,CHIP	100	5%	1/10W	R1246	1-208-808-11	METAL CHIP	12K	0.50%	1/10W
R072	1-216-025-91	RES,CHIP	100	5%	1/10W	R1247	1-216-085-00	RES,CHIP	33K	5%	1/10W
R073	1-216-055-00	RES,CHIP	1.8K	5%	1/10W	R1248	1-216-075-00	RES,CHIP	12K	5%	1/10W
R074	1-216-055-00	RES,CHIP	1.8K	5%	1/10W	R1249	1-216-025-91	RES,CHIP	100	5%	1/10W
R075	1-216-055-00	RES,CHIP	1.8K	5%	1/10W	R1250	1-216-063-91	RES,CHIP	3.9K	5%	1/10W
R076	1-216-025-91	RES,CHIP	100	5%	1/10W	R1252	1-216-073-00	RES,CHIP	10K	5%	1/10W
R077	1-216-025-91	RES,CHIP	100	5%	1/10W	R1253	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R078	1-216-025-91	RES,CHIP	100	5%	1/10W	R1254	1-216-075-91	RES,CHIP	12K	5%	1/10W
R079	1-216-025-91	RES,CHIP	100	5%	1/10W	R1255	1-216-075-91	RES,CHIP	12K	5%	1/10W
R080	1-216-063-91	RES,CHIP	3.9K	5%	1/10W	R1256	1-216-073-00	RES,CHIP	10K	5%	1/10W
R081	1-216-025-91	RES,CHIP	100	5%	1/10W	R1257	1-216-025-91	RES,CHIP	100	5%	1/10W
R082	1-216-041-00	RES,CHIP	470	5%	1/10W	R1258	1-216-075-00	RES,CHIP	12K	5%	1/10W
R083	1-216-049-91	RES,CHIP	1K	5%	1/10W	R1259	1-216-073-00	RES,CHIP	10K	5%	1/10W
R084	1-216-049-91	RES,CHIP	1K	5%	1/10W	R1260	1-216-029-00	RES,CHIP	150	5%	1/10W
R085	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W	R1261	1-216-029-00	RES,CHIP	150	5%	1/10W
R086	1-216-073-00	RES,CHIP	10K	5%	1/10W	R1264	1-216-041-00	RES,CHIP	470	5%	1/10W
R087	1-216-033-00	RES,CHIP	220	5%	1/10W	R1265	1-216-041-00	RES,CHIP	470	5%	1/10W
R088	1-216-049-91	RES,CHIP	1K	5%	1/10W	R1266	1-216-049-91	RES,CHIP	1K	5%	1/10W
R089	1-216-049-91	RES,CHIP	1K	5%	1/10W	R1267	1-216-077-91	RES,CHIP	15K	5%	1/10W
R090	1-216-025-91	RES,CHIP	100	5%	1/10W	R1269	1-216-025-91	RES,CHIP	100	5%	1/10W
						R1270	1-216-089-91	RES,CHIP	47K	5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK
R1271	1-216-049-91	RES,CHIP 1K 5%	1/10W
R1272	1-216-049-91	RES,CHIP 1K 5%	1/10W
R1273	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R1275	1-216-081-00	RES,CHIP 22K 5%	1/10W
R1276	1-216-081-00	RES,CHIP 22K 5%	1/10W
R1277	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R1278	1-125-838-91	CERAMIC CHIP 2.2MF 10%	6.3V
R1279	1-125-838-91	CERAMIC CHIP 2.2MF 10%	6.3V
R1280	1-216-029-00	RES,CHIP 150 5%	1/10W
R1281	1-216-029-00	RES,CHIP 150 5%	1/10W
R1283	1-216-295-91	SHORT 0	
R1284	1-216-295-91	SHORT 0	
R1286	1-216-073-00	RES,CHIP 10K 5%	1/10W
R2200	1-216-021-00	RES,CHIP 68 5%	1/10W
R2201	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R2202	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R2203	1-216-021-00	RES,CHIP 68 5%	1/10W
R2204	1-216-073-00	RES,CHIP 10K 5%	1/10W
R2205	1-216-097-91	RES,CHIP 100K 5%	1/10W
R2206	1-216-117-00	RES,CHIP 680K 5%	1/10W
R2207	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R2208	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R2209	1-216-117-00	RES,CHIP 680K 5%	1/10W
R2210	1-216-089-91	RES,CHIP 47K 5%	1/10W
R2211	1-216-097-91	RES,CHIP 100K 5%	1/10W
R2212	1-216-073-00	RES,CHIP 10K 5%	1/10W
R2213	1-216-089-91	RES,CHIP 47K 5%	1/10W
R2214	1-216-089-91	RES,CHIP 47K 5%	1/10W
R2215	1-216-089-91	RES,CHIP 47K 5%	1/10W
R2600	1-216-065-91	RES,CHIP 4.7K 5%	1/10W
R2601	1-216-655-11	METAL CHIP 1.5K 0.50%	1/10W
R2602	1-208-781-11	METAL CHIP 910 0.50%	1/10W
R2603	1-208-790-11	METAL CHIP 2.2K 0.50%	1/10W
R2604	1-208-790-11	METAL CHIP 2.2K 0.50%	1/10W
R3300	1-216-043-91	RES,CHIP 560 5%	1/10W
R3320	1-216-073-00	RES,CHIP 10K 5%	1/10W
R3323	1-216-025-91	RES,CHIP 100 5%	1/10W
R3334	1-216-025-91	RES,CHIP 100 5%	1/10W
R3362	1-216-025-91	RES,CHIP 100 5%	1/10W
R3374	1-216-295-91	SHORT 0	
		<VARIABLE RESISTOR>	
RV3300	1-238-597-11	RES, ADJ, CARBON 1K	
		<TUNER>	
TU101	8-598-452-30	TUNER, FSS BTF-WG442	
TU3301	8-598-508-10	TUNER, FSS BTF-LG436	
		<CRYSTAL>	
X001	1-567-928-11	VIBLATOR, CERAMIC	

REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1299-092-A	A1 BOARD COMPLETE	*****
		<CAPACITOR>	
C8103	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8104	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8105	1-126-933-11	ELECT 100MF	20% 16V
C8106	1-126-933-11	ELECT 100MF	20% 16V
C8107	1-104-665-11	ELECT 100MF	20% 25V
C8108	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8109	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8110	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8111	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8112	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C8113	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8114	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8115	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8116	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C8117	1-126-382-11	ELECT 100MF	20% 16V
C8118	1-127-532-11	ELECT 47MF	20% 6.3V
C8119	1-126-795-11	ELECT 10MF	20% 25V
C8120	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8121	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V
C8122	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V
C8123	1-127-532-11	ELECT 47MF	20% 6.3V
C8124	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8125	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8126	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8127	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C8128	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C8129	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8130	1-126-382-11	ELECT 100MF	20% 16V
C8131	1-126-382-11	ELECT 100MF	20% 16V
C8132	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V
C8133	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8134	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8135	1-126-382-11	ELECT 100MF	20% 16V
C8136	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8137	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8138	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8139	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8140	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8141	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8142	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C8143	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8144	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8145	1-163-233-11	CERAMIC CHIP 18PF	5% 50V
C8146	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8147	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8150	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8155	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8161	1-126-382-11	ELECT 100MF	20% 16V
C8162	1-164-505-11	CERAMIC CHIP 2.2MF	16V
C8163	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8166	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C8167	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V

A1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C8168	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V			<FILTER>	
C8197	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V				
C8198	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	FL8100	1-234-177-21	FILTER, CHIP EMI	
C8199	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	FL8101	1-234-177-21	FILTER, CHIP EMI	
C8200	1-216-295-91	SHORT 0		FL8102	1-234-177-21	FILTER, CHIP EMI	
C8201	1-216-295-91	SHORT 0				<IC>	
C8202	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	IC8102	8-759-576-72	IC LF50CDT-TR	
C8203	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V	IC8103	8-759-579-68	IC AK4524	
C8204	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V	IC8104	8-759-542-87	IC S-80827ANUP-EDQ-T2	
C8205	1-163-253-11	CERAMIC CHIP 120PF	5% 50V	IC8105	8-759-651-20	IC TC9446F-002	
C8206	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	IC8106	8-759-242-70	IC TC7WU04F	
C8207	1-163-251-11	CERAMIC CHIP 100PF	5% 50V				
C8208	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	IC8107	8-759-459-69	IC S-80743AN-D7	
C8209	1-163-251-11	CERAMIC CHIP 100PF	5% 50V			<COIL>	
C8210	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	L8100	1-412-026-11	INDUCTOR CHIP 1UH	
C8211	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V	L8101	1-412-026-11	INDUCTOR CHIP 1UH	
C8212	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V	L8102	1-412-026-11	INDUCTOR CHIP 1UH	
C8213	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V	L8103	1-412-026-11	INDUCTOR CHIP 1UH	
C8214	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V	L8104	1-412-026-11	INDUCTOR CHIP 1UH	
C8215	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V				
C8216	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V	L8105	1-412-026-11	INDUCTOR CHIP 1UH	
C8217	1-125-838-91	CERAMIC CHIP 2.2MF	10% 6.3V			<RESISTOR>	
C8218	1-163-251-11	CERAMIC CHIP 100PF	5% 50V	R8101	1-216-295-91	SHORT 0	
		<CONNECTOR>		R8102	1-216-061-00	RES,CHIP 3.3K	5% 1/10W
CN8100	1-793-867-11	PIN, CONNECTOR (PC BORAD)	10P	R8103	1-216-061-00	RES,CHIP 3.3K	5% 1/10W
CN8101	1-793-867-11	PIN, CONNECTOR (PC BORAD)	10P	R8106	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
		<DIODE>		R8107	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
D8102	1-216-295-91	SHORT 0		R8108	1-216-025-91	RES,CHIP 100	5% 1/10W
		<FERRITE BEAD>		R8109	1-216-025-91	RES,CHIP 100	5% 1/10W
FB8100	1-216-295-91	SHORT 0		R8110	1-216-065-91	RES,CHIP 4.7K	5% 1/10W
FB8101	1-216-295-91	SHORT 0		R8111	1-216-065-91	RES,CHIP 4.7K	5% 1/10W
FB8102	1-216-295-91	SHORT 0		R8112	1-216-073-00	RES,CHIP 10K	5% 1/10W
FB8103	1-216-295-91	SHORT 0		R8113	1-216-073-00	RES,CHIP 10K	5% 1/10W
FB8104	1-414-598-11	INDUCTOR CHIP 0UH		R8114	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
FB8105	1-216-295-91	SHORT 0		R8115	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
FB8106	1-414-598-11	INDUCTOR CHIP 0UH		R8116	1-216-065-91	RES,CHIP 4.7K	5% 1/10W
FB8108	1-414-598-11	INDUCTOR CHIP 0UH		R8117	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
FB8109	1-414-598-11	INDUCTOR CHIP 0UH		R8118	1-216-065-91	RES,CHIP 4.7K	5% 1/10W
FB8110	1-414-598-11	INDUCTOR CHIP 0UH		R8119	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
FB8111	1-414-598-11	INDUCTOR CHIP 0UH		R8120	1-216-049-91	RES,CHIP 1K	5% 1/10W
FB8112	1-414-598-11	INDUCTOR CHIP 0UH		R8121	1-216-025-91	RES,CHIP 100	5% 1/10W
FB8113	1-414-598-11	INDUCTOR CHIP 0UH		R8122	1-216-025-91	RES,CHIP 100	5% 1/10W
FB8114	1-414-598-11	INDUCTOR CHIP 0UH		R8123	1-216-009-91	RES,CHIP 22	5% 1/10W
FB8115	1-414-598-11	INDUCTOR CHIP 0UH		R8124	1-216-009-91	RES,CHIP 22	5% 1/10W
FB8116	1-414-598-11	INDUCTOR CHIP 0UH		R8125	1-216-009-91	RES,CHIP 22	5% 1/10W
FB8117	1-414-598-11	INDUCTOR CHIP 0UH		R8126	1-216-009-91	RES,CHIP 22	5% 1/10W
FB8118	1-414-598-11	INDUCTOR CHIP 0UH		R8127	1-216-025-91	RES,CHIP 100	5% 1/10W
FB8119	1-414-598-11	INDUCTOR CHIP 0UH		R8128	1-216-025-91	RES,CHIP 100	5% 1/10W
FB8120	1-414-598-11	INDUCTOR CHIP 0UH		R8129	1-216-009-91	RES,CHIP 22	5% 1/10W
FB8121	1-414-598-11	INDUCTOR CHIP 0UH		R8131	1-216-295-91	SHORT 0	
				R8133	1-216-129-00	RES,CHIP 2.2M	5% 1/10W
				R8134	1-216-295-91	SHORT 0	

**A1** **B3**

REF. NO.	PART NO.	DESCRIPTION	REMARK
R8135	1-216-295-91	SHORT	0
R8137	1-216-295-91	SHORT	0
R8138	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8139	1-216-037-00	RES,CHIP	330 5% 1/10W
R8140	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8141	1-216-295-91	SHORT	0
R8143	1-216-295-91	SHORT	0
R8144	1-216-025-91	RES,CHIP	100 5% 1/10W
R8145	1-216-033-00	RES,CHIP	220 5% 1/10W
R8146	1-216-033-00	RES,CHIP	220 5% 1/10W
R8147	1-216-295-91	SHORT	0
R8148	1-216-295-91	SHORT	0
R8149	1-216-037-00	RES,CHIP	330 5% 1/10W
R8155	1-216-295-91	SHORT	0
R8157	1-216-037-00	RES,CHIP	330 5% 1/10W
R8158	1-216-037-00	RES,CHIP	330 5% 1/10W
R8161	1-216-025-91	RES,CHIP	100 5% 1/10W
R8168	1-216-025-91	RES,CHIP	100 5% 1/10W
R8169	1-216-097-91	RES,CHIP	100K 5% 1/10W
R8170	1-216-121-91	RES,CHIP	1M 5% 1/10W
R8171	1-216-025-91	RES,CHIP	100 5% 1/10W
R8172	1-216-025-91	RES,CHIP	100 5% 1/10W
R8173	1-216-025-91	RES,CHIP	100 5% 1/10W
R8200	1-216-073-00	RES,CHIP	10K 5% 1/10W
R8201	1-216-025-91	RES,CHIP	100 5% 1/10W
R8202	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R8203	1-208-782-11	METAL CHIP	1K 0.50% 1/10W
R8204	1-216-073-00	RES,CHIP	10K 5% 1/10W
R8205	1-208-782-11	METAL CHIP	1K 0.50% 1/10W
R8206	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8207	1-216-091-00	RES,CHIP	56K 5% 1/10W
<CRYSTAL>			
X8102	1-781-041-11	VIBRATOR, CRYSTAL	
*****			
* A-1136-054-A B3 BOARD COMPLETE			
*****			
<CAPACITOR>			
C302	1-104-601-11	ELECT CHIP	10MF 20% 10V
C305	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C306	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C309	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C310	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C312	1-163-275-11	CERAMIC CHIP	0.001MF 5% 50V
C313	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C314	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C315	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C316	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C317	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C318	1-124-779-00	ELECT CHIP	10MF 20% 16V
C319	1-124-779-00	ELECT CHIP	10MF 20% 16V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C320	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C321	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C323	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C324	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C325	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C327	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C330	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C331	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C332	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C333	1-216-295-91	SHORT	0
C337	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C338	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C339	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C340	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C341	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C346	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C347	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C349	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C350	1-126-204-11	ELECT CHIP	47MF 20% 16V
C353	1-126-204-11	ELECT CHIP	47MF 20% 16V
C354	1-104-601-11	ELECT CHIP	10MF 20% 10V
C355	1-104-601-11	ELECT CHIP	10MF 20% 10V
C361	1-124-779-00	ELECT CHIP	10MF 20% 16V
C362	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C363	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
C501	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C502	1-124-779-00	ELECT CHIP	10MF 20% 16V
C503	1-124-779-00	ELECT CHIP	10MF 20% 16V
C505	1-124-779-00	ELECT CHIP	10MF 20% 16V
C507	1-124-779-00	ELECT CHIP	10MF 20% 16V
C509	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C510	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C511	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C512	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C514	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C515	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C516	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C517	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C518	1-126-204-11	ELECT CHIP	47MF 20% 16V
C519	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C520	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C521	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C522	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C523	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C524	1-124-779-00	ELECT CHIP	10MF 20% 16V
C525	1-124-779-00	ELECT CHIP	10MF 20% 16V
C526	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C527	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C528	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C530	1-216-295-91	SHORT	0
C532	1-216-295-91	SHORT	0
C534	1-216-295-91	SHORT	0
C535	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C536	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C537	1-163-038-91	CERAMIC CHIP	0.1MF 25V
C538	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C539	1-126-204-11	ELECT CHIP	47MF 20% 16V



REF. NO.	PART NO.	DESCRIPTION	REMARK
C540	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C542	1-126-204-11	ELECT CHIP 47MF	20% 16V
C543	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C545	1-126-396-11	ELECT CHIP 47MF	20% 16V
C546	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C548	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C549	1-126-204-11	ELECT CHIP 47MF	20% 16V
C550	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C551	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C554	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C555	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C556	1-126-392-11	ELECT CHIP 100MF	20% 6.3V
C557	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C559	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C560	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C601	1-124-779-00	ELECT CHIP 10MF	20% 16V
C602	1-126-394-11	ELECT CHIP 10MF	20% 16V
C603	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C604	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C605	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C606	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C607	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C608	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C609	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C610	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C611	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C612	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C613	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C614	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C615	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C616	1-126-396-11	ELECT CHIP 47MF	20% 16V
C617	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C618	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C619	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C620	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C621	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C622	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C623	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C624	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C625	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C626	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C627	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C628	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C629	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C630	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C631	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C632	1-126-206-11	ELECT CHIP 100MF	20% 6.3V
C633	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C634	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C635	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C636	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C637	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C638	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C639	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C640	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C642	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C643	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C644	1-126-603-11	ELECT CHIP 4.7MF	20% 35V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C645	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C801	1-124-779-00	ELECT CHIP 10MF	20% 16V
C802	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C803	1-124-779-00	ELECT CHIP 10MF	20% 16V
C804	1-124-779-00	ELECT CHIP 10MF	20% 16V
C806	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C807	1-124-779-00	ELECT CHIP 10MF	20% 16V
C808	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C809	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C810	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C811	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C812	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C813	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C814	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C815	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C816	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C817	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
C818	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
C819	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C820	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C821	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C822	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C823	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C824	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C825	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C826	1-164-489-11	CERAMIC CHIP 0.22MF	10% 16V
C827	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C829	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C834	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C835	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C837	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C839	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C840	1-126-206-11	ELECT CHIP 100MF	20% 6.3V
C841	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C842	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C843	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C844	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C848	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
C849	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C850	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C851	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C852	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C853	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
C854	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C901	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C902	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C903	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C904	1-124-779-00	ELECT CHIP 10MF	20% 16V
C905	1-109-982-11	CERAMIC CHIP 1MF	10% 10V
C906	1-124-779-00	ELECT CHIP 10MF	20% 16V
C907	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C908	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C909	1-126-204-11	ELECT CHIP 47MF	20% 16V
C910	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C913	1-163-031-11	CERAMIC CHIP 0.01MF	50V
C914	1-126-394-11	ELECT CHIP 10MF	20% 16V
C950	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V

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

**B3**

REF. NO.	PART NO.	DESCRIPTION	REMARK
C954	1-163-021-91	CERAMIC CHIP 0.01MF 10%	50V
<CONNECTOR>			
CN502	1-695-302-11	CONNECTOR, BOARD TO BOARD	50P
<DIODE>			
D301	8-719-041-97	DIODE MA113-(TX)	
D302	8-719-041-97	DIODE MA113-(TX)	
D501	8-719-422-12	DIODE MA8039	
D601	8-719-073-01	DIODE MA111-(K8).S0	
<FERRITE BEAD>			
FB501	1-414-813-11	FERRITE	0UH
FB502	1-414-813-11	FERRITE	0UH
FB503	1-414-813-11	FERRITE	0UH
FB504	1-414-813-11	FERRITE	0UH
FB601	1-414-553-11	FERRITE	0UH
FB801	1-414-553-11	FERRITE	0UH
FB802	1-414-553-11	FERRITE	0UH
<FILTER>			
FL304	1-234-177-21	FILTER, CHIP EMI	
FL305	1-234-177-21	FILTER, CHIP EMI	
FL306	1-239-558-11	FILTER, CHIP EMI	
FL501	1-233-877-11	FILTER, LOW PASS	
FL502	1-233-504-21	FILTER, LOW PASS	
FL503	1-233-504-21	FILTER, LOW PASS	
FL504	1-234-177-21	FILTER, CHIP EMI	
FL505	1-234-177-21	FILTER, CHIP EMI	
FL506	1-234-177-21	FILTER, CHIP EMI	
FL508	1-234-177-21	FILTER, CHIP EMI	
FL509	1-234-177-21	FILTER, CHIP EMI	
FL510	1-234-177-21	FILTER, CHIP EMI	
FL511	1-234-177-21	FILTER, CHIP EMI	
FL512	1-234-177-21	FILTER, CHIP EMI	
FL601	1-234-177-21	FILTER, CHIP EMI	
FL602	1-234-177-21	FILTER, CHIP EMI	
FL603	1-234-177-21	FILTER, CHIP EMI	
FL606	1-239-560-11	FILTER, CHIP EMI	
FL801	1-234-177-21	FILTER, CHIP EMI	
FL802	1-234-177-21	FILTER, CHIP EMI	
FL803	1-234-177-21	FILTER, CHIP EMI	
FL804	1-234-177-21	FILTER, CHIP EMI	
FL805	1-234-177-21	FILTER, CHIP EMI	
FL806	1-234-177-21	FILTER, CHIP EMI	
FL807	1-234-177-21	FILTER, CHIP EMI	
FL808	1-234-177-21	FILTER, CHIP EMI	
FL810	1-234-177-21	FILTER, CHIP EMI	
FL901	1-233-878-11	FILTER, LOW PASS	
FL902	1-233-876-11	FILTER, LOW PASS	
FL903	1-233-876-11	FILTER, LOW PASS	
FL904	1-234-177-21	FILTER, CHIP EMI	
FL905	1-234-177-21	FILTER, CHIP EMI	

REF. NO.	PART NO.	DESCRIPTION	REMARK
FL906	1-234-177-21	FILTER, CHIP EMI	
FL907	1-234-177-21	FILTER, CHIP EMI	
<IC>			
IC302	8-752-388-98	IC CXD2303AQ	
IC303	8-752-088-27	IC CXA3266Q-T6	
IC309	8-759-640-16	IC TC7SET04F(TE85R)	
IC311	8-759-708-05	IC NJM78L05A	
IC501	8-759-447-90	IC TLC5733AIPM	
IC504	8-759-430-32	IC TLC2933IPWR	
IC505	8-759-640-16	IC TC7SET04F(TE85R)	
IC506	8-759-640-16	IC TC7SET04F(TE85R)	
IC601	8-752-398-47	IC CXD2090Q	
IC602	8-759-567-37	IC MB81F161622B-80FN	
IC603	$\Delta$ 8-759-295-09	IC TLC2932IPW	
IC604	8-752-072-94	IC CXA1875AM-T4	
IC801	8-759-592-40	IC CXD9509Q	
IC802	8-759-595-53	IC MB81F643242B-10FN	
IC803	8-759-460-29	IC PST9120NL	
IC901	8-752-367-59	IC CXD2309Q	
IC902	8-759-648-21	IC MB94918-AG3MID	
IC903	8-759-527-75	IC M24C04-MN6T	
IC904	8-759-349-11	IC PST9145NL	
<COIL>			
L302	1-412-029-11	INDUCTOR CHIP	10UH
L303	1-412-029-11	INDUCTOR CHIP	10UH
L501	1-412-026-11	INDUCTOR CHIP	1UH
L502	1-412-026-11	INDUCTOR CHIP	1UH
L503	1-412-026-11	INDUCTOR CHIP	1UH
L504	1-412-026-11	INDUCTOR CHIP	1UH
L505	1-412-029-11	INDUCTOR CHIP	10UH
L506	1-412-026-11	INDUCTOR CHIP	1UH
L508	1-412-029-11	INDUCTOR CHIP	10UH
L509	1-412-029-11	INDUCTOR CHIP	10UH
L511	1-412-026-11	INDUCTOR CHIP	1UH
L512	1-412-026-11	INDUCTOR CHIP	1UH
L604	1-412-029-11	INDUCTOR CHIP	10UH
L605	1-412-029-11	INDUCTOR CHIP	10UH
<TRANSISTOR>			
Q501	8-729-216-22	TRANSISTOR 2SA1162-G	
Q502	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q503	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q510	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q511	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q512	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q513	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q514	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q515	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q516	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q517	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q518	8-729-026-50	TRANSISTOR 2SA1037AK-T146-QR	
Q519	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q520	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q521	8-729-120-28	TRANSISTOR 2SC1623-L5L6	



B3

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q522	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R516	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q523	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R517	1-216-049-91	RES,CHIP 1K	5% 1/10W
Q524	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R518	1-216-295-91	SHORT 0	
Q601	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R520	1-216-645-11	METAL CHIP 560	0.50% 1/10W
Q602	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R521	1-216-295-91	SHORT 0	
Q901	8-729-026-50	TRANSISTOR 2SA1037AK-T146-QR		R523	1-216-645-11	METAL CHIP 560	0.50% 1/10W
Q902	8-729-216-22	TRANSISTOR 2SA1162-G		R524	1-216-295-91	SHORT 0	
Q903	8-729-216-22	TRANSISTOR 2SA1162-G		R526	1-216-645-11	METAL CHIP 560	0.50% 1/10W
Q904	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		R528	1-216-037-00	RES,CHIP 330	5% 1/10W
Q905	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		R529	1-216-669-11	METAL CHIP 5.6K	0.50% 1/10W
Q906	1-801-806-11	TRANSISTOR DTC144EKA-T146		R530	1-216-669-11	METAL CHIP 5.6K	0.50% 1/10W
Q907	8-729-216-22	TRANSISTOR 2SA1162-G		R531	1-216-031-00	RES,CHIP 180	5% 1/10W
Q908	8-729-216-22	TRANSISTOR 2SA1162-G		R532	1-216-669-11	METAL CHIP 5.6K	0.50% 1/10W
Q909	8-729-216-22	TRANSISTOR 2SA1162-G		R533	1-216-031-00	RES,CHIP 180	5% 1/10W
		<RESISTOR>		R536	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R302	1-216-013-00	RES,CHIP 33	5% 1/10W	R537	1-216-659-11	METAL CHIP 2.2K	0.50% 1/10W
R303	1-216-667-11	METAL CHIP 4.7K	0.50% 1/10W	R540	1-216-049-91	RES,CHIP 1K	5% 1/10W
R305	1-216-049-91	RES,CHIP 1K	5% 1/10W	R548	1-216-619-11	METAL CHIP 47	0.50% 1/10W
R306	1-216-658-11	METAL CHIP 2K	0.50% 1/10W	R549	1-216-619-11	METAL CHIP 47	0.50% 1/10W
R309	1-216-009-91	RES,CHIP 22	5% 1/10W	R550	1-216-625-11	METAL CHIP 82	0.50% 1/10W
R310	1-216-009-91	RES,CHIP 22	5% 1/10W	R551	1-216-625-11	METAL CHIP 82	0.50% 1/10W
R311	1-216-009-91	RES,CHIP 22	5% 1/10W	R552	1-216-619-11	METAL CHIP 47	0.50% 1/10W
R313	1-216-009-91	RES,CHIP 22	5% 1/10W	R553	1-216-295-91	SHORT 0	
R316	1-216-009-91	RES,CHIP 22	5% 1/10W	R554	1-216-619-11	METAL CHIP 47	0.50% 1/10W
R318	1-216-009-91	RES,CHIP 22	5% 1/10W	R555	1-216-077-91	RES,CHIP 15K	5% 1/10W
R319	1-216-049-91	RES,CHIP 1K	5% 1/10W	R557	1-216-049-91	RES,CHIP 1K	5% 1/10W
R321	1-216-009-91	RES,CHIP 22	5% 1/10W	R558	1-216-025-91	RES,CHIP 100	5% 1/10W
R323	1-216-009-91	RES,CHIP 22	5% 1/10W	R559	1-216-077-91	RES,CHIP 15K	5% 1/10W
R324	1-216-009-91	RES,CHIP 22	5% 1/10W	R560	1-216-619-11	METAL CHIP 47	0.50% 1/10W
R325	1-216-073-00	RES,CHIP 10K	5% 1/10W	R561	1-216-043-91	RES,CHIP 560	5% 1/10W
R328	1-216-025-91	RES,CHIP 100	5% 1/10W	R562	1-216-043-91	RES,CHIP 560	5% 1/10W
R333	1-216-295-91	SHORT 0		R563	1-216-043-91	RES,CHIP 560	5% 1/10W
R335	1-216-013-00	RES,CHIP 33	5% 1/10W	R571	1-216-295-91	SHORT 0	
R336	1-216-013-00	RES,CHIP 33	5% 1/10W	R572	1-216-619-11	METAL CHIP 47	0.50% 1/10W
R337	1-216-097-91	RES,CHIP 100K	5% 1/10W	R573	1-216-679-11	METAL CHIP 15K	0.50% 1/10W
R338	1-216-295-91	SHORT 0		R574	1-216-651-11	METAL CHIP 1K	0.50% 1/10W
R339	1-216-295-91	SHORT 0		R575	1-216-625-11	METAL CHIP 82	0.50% 1/10W
R343	1-216-295-91	SHORT 0		R576	1-216-625-11	METAL CHIP 82	0.50% 1/10W
R347	1-216-295-91	SHORT 0		R577	1-216-619-11	METAL CHIP 47	0.50% 1/10W
R350	1-216-295-91	SHORT 0		R578	1-216-619-11	METAL CHIP 47	0.50% 1/10W
R501	1-216-025-91	RES,CHIP 100	5% 1/10W	R579	1-216-077-91	RES,CHIP 15K	5% 1/10W
R502	1-216-025-91	RES,CHIP 100	5% 1/10W	R580	1-216-295-91	SHORT 0	
R503	1-216-295-91	SHORT 0		R582	1-216-041-00	RES,CHIP 470	5% 1/10W
R504	1-216-295-91	SHORT 0		R584	1-216-041-00	RES,CHIP 470	5% 1/10W
R505	1-216-295-91	SHORT 0		R586	1-216-049-91	RES,CHIP 1K	5% 1/10W
R506	1-216-025-91	RES,CHIP 100	5% 1/10W	R587	1-216-049-91	RES,CHIP 1K	5% 1/10W
R507	1-216-025-91	RES,CHIP 100	5% 1/10W	R589	1-216-049-91	RES,CHIP 1K	5% 1/10W
R508	1-216-025-91	RES,CHIP 100	5% 1/10W	R590	1-216-049-91	RES,CHIP 1K	5% 1/10W
R509	1-216-025-91	RES,CHIP 100	5% 1/10W	R591	1-216-049-91	RES,CHIP 1K	5% 1/10W
R510	1-216-043-91	RES,CHIP 560	5% 1/10W	R592	1-216-049-91	RES,CHIP 1K	5% 1/10W
R511	1-216-043-91	RES,CHIP 560	5% 1/10W	R594	1-216-041-00	RES,CHIP 470	5% 1/10W
R512	1-216-043-91	RES,CHIP 560	5% 1/10W	R596	1-216-049-91	RES,CHIP 1K	5% 1/10W
R513	1-216-043-91	RES,CHIP 560	5% 1/10W	R597	1-216-073-00	RES,CHIP 10K	5% 1/10W
R514	1-216-043-91	RES,CHIP 560	5% 1/10W	R598	1-216-025-91	RES,CHIP 100	5% 1/10W
R515	1-216-043-91	RES,CHIP 560	5% 1/10W	R600	1-216-066-00	RES,CHIP 5.1K	5% 1/10W
				R601	1-216-073-00	RES,CHIP 10K	5% 1/10W
				R602	1-216-073-00	RES,CHIP 10K	5% 1/10W
				R603	1-216-073-00	RES,CHIP 10K	5% 1/10W

**B3**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R604	1-216-033-00	RES,CHIP	220	5%	1/10W	R684	1-216-073-00 RES,CHIP 10K 5% 1/10W
R605	1-216-295-91	SHORT	0			R685	1-216-073-00 RES,CHIP 10K 5% 1/10W
R608	1-216-295-91	SHORT	0			R686	1-216-073-00 RES,CHIP 10K 5% 1/10W
R609	1-216-073-00	RES,CHIP	10K	5%	1/10W	R687	1-216-295-91 SHORT 0
R610	1-216-033-00	RES,CHIP	220	5%	1/10W	R688	1-216-061-00 RES,CHIP 3.3K 5% 1/10W
R611	1-216-073-00	RES,CHIP	10K	5%	1/10W	R689	1-216-057-00 RES,CHIP 2.2K 5% 1/10W
R612	1-216-073-00	RES,CHIP	10K	5%	1/10W	R690	1-216-295-91 SHORT 0
R613	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	R691	1-216-061-00 RES,CHIP 3.3K 5% 1/10W
R615	1-216-089-91	RES,CHIP	47K	5%	1/10W	R692	1-216-057-00 RES,CHIP 2.2K 5% 1/10W
R616	1-216-073-00	RES,CHIP	10K	5%	1/10W	R693	1-216-009-91 RES,CHIP 22 5% 1/10W
R617	1-216-295-91	SHORT	0			R694	1-216-295-91 SHORT 0
R619	1-216-073-00	RES,CHIP	10K	5%	1/10W	R695	1-216-047-91 RES,CHIP 820 5% 1/10W
R621	1-216-295-91	SHORT	0			R696	1-216-049-91 RES,CHIP 1K 5% 1/10W
R622	1-216-295-91	SHORT	0			R697	1-216-117-00 RES,CHIP 680K 5% 1/10W
R623	1-216-295-91	SHORT	0			R698	1-216-117-00 RES,CHIP 680K 5% 1/10W
R624	1-216-295-91	SHORT	0			R699	1-216-295-91 SHORT 0
R625	1-216-295-91	SHORT	0			R801	1-216-009-91 RES,CHIP 22 5% 1/10W
R626	1-216-073-00	RES,CHIP	10K	5%	1/10W	R802	1-216-009-91 RES,CHIP 22 5% 1/10W
R628	1-216-295-91	SHORT	0			R804	1-216-073-00 RES,CHIP 10K 5% 1/10W
R629	1-216-073-00	RES,CHIP	10K	5%	1/10W	R806	1-216-675-91 METAL CHIP 10K 0.50% 1/10W
R631	1-216-295-91	SHORT	0			R807	1-216-637-11 METAL CHIP 270 0.50% 1/10W
R634	1-216-295-91	SHORT	0			R812	1-216-073-00 RES,CHIP 10K 5% 1/10W
R635	1-216-295-91	SHORT	0			R813	1-216-295-91 SHORT 0
R638	1-216-295-91	SHORT	0			R814	1-216-073-00 RES,CHIP 10K 5% 1/10W
R639	1-216-017-91	RES,CHIP	47	5%	1/10W	R815	1-216-073-00 RES,CHIP 10K 5% 1/10W
R640	1-216-009-91	RES,CHIP	22	5%	1/10W	R816	1-216-073-00 RES,CHIP 10K 5% 1/10W
R642	1-216-295-91	SHORT	0			R817	1-216-613-11 METAL CHIP 27 0.50% 1/10W
R643	1-216-295-91	SHORT	0			R818	1-216-295-91 SHORT 0
R645	1-216-295-91	SHORT	0			R820	1-216-651-11 METAL CHIP 1K 0.50% 1/10W
R651	1-216-295-91	SHORT	0			R822	1-216-295-91 SHORT 0
R653	1-216-025-91	RES,CHIP	100	5%	1/10W	R823	1-216-073-00 RES,CHIP 10K 5% 1/10W
R654	1-216-033-00	RES,CHIP	220	5%	1/10W	R824	1-216-073-00 RES,CHIP 10K 5% 1/10W
R655	1-216-295-91	SHORT	0			R825	1-216-621-11 METAL CHIP 56 0.50% 1/10W
R657	1-216-009-91	RES,CHIP	22	5%	1/10W	R826	1-216-641-11 METAL CHIP 390 0.50% 1/10W
R658	1-216-049-91	RES,CHIP	1K	5%	1/10W	R827	1-216-607-11 METAL CHIP 15 0.50% 1/10W
R659	1-216-025-91	RES,CHIP	100	5%	1/10W	R834	1-216-629-11 METAL CHIP 120 0.50% 1/10W
R660	1-216-025-91	RES,CHIP	100	5%	1/10W	R835	1-216-623-11 METAL CHIP 68 0.50% 1/10W
R661	1-216-025-91	RES,CHIP	100	5%	1/10W	R836	1-216-611-11 METAL CHIP 22 0.50% 1/10W
R664	1-216-009-91	RES,CHIP	22	5%	1/10W	R840	1-216-295-91 SHORT 0
R665	1-216-035-00	RES,CHIP	270	5%	1/10W	R844	1-216-009-91 RES,CHIP 22 5% 1/10W
R666	1-216-646-11	METAL CHIP	620	0.50%	1/10W	R845	1-216-009-91 RES,CHIP 22 5% 1/10W
R667	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	R846	1-216-009-91 RES,CHIP 22 5% 1/10W
R668	1-216-009-91	RES,CHIP	22	5%	1/10W	R847	1-216-009-91 RES,CHIP 22 5% 1/10W
R670	1-216-295-91	SHORT	0			R848	1-216-009-91 RES,CHIP 22 5% 1/10W
R671	1-216-073-00	RES,CHIP	10K	5%	1/10W	R849	1-216-009-91 RES,CHIP 22 5% 1/10W
R672	1-216-073-00	RES,CHIP	10K	5%	1/10W	R850	1-216-009-91 RES,CHIP 22 5% 1/10W
R673	1-216-073-00	RES,CHIP	10K	5%	1/10W	R851	1-216-009-91 RES,CHIP 22 5% 1/10W
R674	1-216-073-00	RES,CHIP	10K	5%	1/10W	R852	1-216-009-91 RES,CHIP 22 5% 1/10W
R675	1-216-073-00	RES,CHIP	10K	5%	1/10W	R853	1-216-009-91 RES,CHIP 22 5% 1/10W
R676	1-216-073-00	RES,CHIP	10K	5%	1/10W	R854	1-216-009-91 RES,CHIP 22 5% 1/10W
R677	1-216-073-00	RES,CHIP	10K	5%	1/10W	R855	1-216-009-91 RES,CHIP 22 5% 1/10W
R678	1-216-073-00	RES,CHIP	10K	5%	1/10W	R856	1-216-009-91 RES,CHIP 22 5% 1/10W
R679	1-216-073-00	RES,CHIP	10K	5%	1/10W	R857	1-216-009-91 RES,CHIP 22 5% 1/10W
R680	1-216-073-00	RES,CHIP	10K	5%	1/10W	R858	1-216-009-91 RES,CHIP 22 5% 1/10W
R681	1-216-073-00	RES,CHIP	10K	5%	1/10W	R859	1-216-009-91 RES,CHIP 22 5% 1/10W
R682	1-216-073-00	RES,CHIP	10K	5%	1/10W	R860	1-216-009-91 RES,CHIP 22 5% 1/10W
R683	1-216-073-00	RES,CHIP	10K	5%	1/10W	R861	1-216-009-91 RES,CHIP 22 5% 1/10W
						R862	1-216-009-91 RES,CHIP 22 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R863	1-216-009-91	RES,CHIP	22 5% 1/10W	R933	1-216-025-91	RES,CHIP	100 5% 1/10W
R864	1-216-009-91	RES,CHIP	22 5% 1/10W	R934	1-216-025-91	RES,CHIP	100 5% 1/10W
R865	1-216-009-91	RES,CHIP	22 5% 1/10W	R935	1-216-073-00	RES,CHIP	10K 5% 1/10W
R866	1-216-009-91	RES,CHIP	22 5% 1/10W	R936	1-216-041-00	RES,CHIP	470 5% 1/10W
R867	1-216-009-91	RES,CHIP	22 5% 1/10W	R937	1-216-025-91	RES,CHIP	100 5% 1/10W
R868	1-216-009-91	RES,CHIP	22 5% 1/10W	R938	1-216-025-91	RES,CHIP	100 5% 1/10W
R869	1-216-009-91	RES,CHIP	22 5% 1/10W	R939	1-216-295-91	SHORT	0
R870	1-216-009-91	RES,CHIP	22 5% 1/10W	R940	1-216-295-91	SHORT	0
R871	1-216-009-91	RES,CHIP	22 5% 1/10W	R941	1-216-295-91	SHORT	0
R872	1-216-009-91	RES,CHIP	22 5% 1/10W	R942	1-216-037-00	RES,CHIP	330 5% 1/10W
R873	1-216-009-91	RES,CHIP	22 5% 1/10W	R943	1-216-033-00	RES,CHIP	220 5% 1/10W
R874	1-216-009-91	RES,CHIP	22 5% 1/10W	R944	1-216-295-91	SHORT	0
R875	1-216-009-91	RES,CHIP	22 5% 1/10W	R945	1-216-295-91	SHORT	0
R876	1-216-009-91	RES,CHIP	22 5% 1/10W	R951	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R877	1-216-009-91	RES,CHIP	22 5% 1/10W	R952	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R878	1-216-009-91	RES,CHIP	22 5% 1/10W	R953	1-216-295-91	SHORT	0
R879	1-216-009-91	RES,CHIP	22 5% 1/10W	R954	1-216-295-91	SHORT	0
R880	1-216-009-91	RES,CHIP	22 5% 1/10W	R955	1-216-295-91	SHORT	0
R881	1-216-009-91	RES,CHIP	22 5% 1/10W	R956	1-216-089-91	RES,CHIP	47K 5% 1/10W
R882	1-216-009-91	RES,CHIP	22 5% 1/10W	R957	1-216-635-11	METAL CHIP	220 0.50% 1/10W
R883	1-216-009-91	RES,CHIP	22 5% 1/10W	R958	1-216-635-11	METAL CHIP	220 0.50% 1/10W
R884	1-216-009-91	RES,CHIP	22 5% 1/10W	R959	1-216-635-11	METAL CHIP	220 0.50% 1/10W
R885	1-216-009-91	RES,CHIP	22 5% 1/10W	R960	1-216-635-11	METAL CHIP	220 0.50% 1/10W
R886	1-216-009-91	RES,CHIP	22 5% 1/10W	R961	1-216-635-11	METAL CHIP	220 0.50% 1/10W
R887	1-216-009-91	RES,CHIP	22 5% 1/10W	R962	1-216-635-11	METAL CHIP	220 0.50% 1/10W
R888	1-216-009-91	RES,CHIP	22 5% 1/10W	R979	1-216-295-91	SHORT	0
R889	1-216-009-91	RES,CHIP	22 5% 1/10W	R981	1-216-037-00	RES,CHIP	330 5% 1/10W
R890	1-216-009-91	RES,CHIP	22 5% 1/10W	R982	1-216-037-00	RES,CHIP	330 5% 1/10W
R891	1-216-009-91	RES,CHIP	22 5% 1/10W	R983	1-216-089-91	RES,CHIP	47K 5% 1/10W
R892	1-216-009-91	RES,CHIP	22 5% 1/10W	R984	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R893	1-216-009-91	RES,CHIP	22 5% 1/10W	R985	1-216-113-00	RES,CHIP	470K 5% 1/10W
R894	1-216-009-91	RES,CHIP	22 5% 1/10W	R986	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R895	1-216-009-91	RES,CHIP	22 5% 1/10W	R987	1-216-049-91	RES,CHIP	1K 5% 1/10W
R896	1-216-009-91	RES,CHIP	22 5% 1/10W	R988	1-216-033-00	RES,CHIP	220 5% 1/10W
R897	1-216-009-91	RES,CHIP	22 5% 1/10W	R989	1-216-081-00	RES,CHIP	22K 5% 1/10W
R898	1-216-009-91	RES,CHIP	22 5% 1/10W	R990	1-216-113-00	RES,CHIP	470K 5% 1/10W
R899	1-216-073-00	RES,CHIP	10K 5% 1/10W	R991	1-216-295-91	SHORT	0
R901	1-216-061-00	RES,CHIP	3.3K 5% 1/10W	R993	1-216-089-91	RES,CHIP	47K 5% 1/10W
R902	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W	R994	1-216-033-00	RES,CHIP	220 5% 1/10W
R903	1-216-663-11	METAL CHIP	3.3K 0.50% 1/10W	R995	1-216-033-00	RES,CHIP	220 5% 1/10W
R904	1-216-635-11	METAL CHIP	220 0.50% 1/10W	R996	1-216-037-00	RES,CHIP	330 5% 1/10W
R905	1-216-635-11	METAL CHIP	220 0.50% 1/10W	R997	1-216-037-00	RES,CHIP	330 5% 1/10W
R906	1-216-635-11	METAL CHIP	220 0.50% 1/10W	R998	1-216-073-00	RES,CHIP	10K 5% 1/10W
R907	1-216-635-11	METAL CHIP	220 0.50% 1/10W	R2801	1-216-629-11	METAL CHIP	120 0.50% 1/10W
R908	1-216-635-11	METAL CHIP	220 0.50% 1/10W	R2802	1-216-623-11	METAL CHIP	68 0.50% 1/10W
R909	1-216-635-11	METAL CHIP	220 0.50% 1/10W	R2803	1-216-603-11	METAL CHIP	10 0.50% 1/10W
R910	1-216-049-91	RES,CHIP	1K 5% 1/10W	R2804	1-216-627-11	METAL CHIP	100 0.50% 1/10W
R911	1-216-049-91	RES,CHIP	1K 5% 1/10W	R2805	1-216-623-11	METAL CHIP	68 0.50% 1/10W
R912	1-216-049-91	RES,CHIP	1K 5% 1/10W	R2806	1-216-611-11	METAL CHIP	22 0.50% 1/10W
R914	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R2809	1-216-295-91	SHORT	0
R916	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R2810	1-216-295-91	SHORT	0
R923	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R2813	1-216-295-91	SHORT	0
R926	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R2815	1-216-295-91	SHORT	0
R927	1-216-295-91	SHORT	0	R2817	1-216-295-91	SHORT	0
R929	1-216-025-91	RES,CHIP	100 5% 1/10W	R2818	1-216-295-91	SHORT	0
R930	1-216-025-91	RES,CHIP	100 5% 1/10W	R2820	1-216-295-91	SHORT	0
R931	1-216-041-00	RES,CHIP	470 5% 1/10W	R2822	1-216-295-91	SHORT	0

B3

BC4

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<#####>			* A-1136-069-A	BC4 BOARD COMPLETE *****	
RB001	1-239-409-11	NETWORK RESISTOR (CHIP) 47				<CAPACITOR>	
RB002	1-239-409-11	NETWORK RESISTOR (CHIP) 47					
RB003	1-239-409-11	NETWORK RESISTOR (CHIP) 47					
RB004	1-239-409-11	NETWORK RESISTOR (CHIP) 47					
RB005	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2003	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C2005	1-163-131-00	CERAMIC CHIP 390PF	5% 50V
RB006	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2006	1-163-038-91	CERAMIC CHIP 0.1MF	25V
RB007	1-239-414-11	NETWORK RESISTOR (CHIP) 150		C2010	1-163-102-00	CERAMIC CHIP 24PF	5% 50V
RB008	1-239-414-11	NETWORK RESISTOR (CHIP) 150		C2011	1-163-102-00	CERAMIC CHIP 24PF	5% 50V
RB009	1-239-414-11	NETWORK RESISTOR (CHIP) 150					
RB010	1-239-414-11	NETWORK RESISTOR (CHIP) 150		C2015	1-165-319-11	CERAMIC CHIP 0.1MF	50V
				C2016	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB011	1-239-414-11	NETWORK RESISTOR (CHIP) 150		C2017	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB012	1-239-414-11	NETWORK RESISTOR (CHIP) 150		C2018	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB013	1-239-621-11	NETWORK RESISTOR (CHIP) 22		C2021	1-163-038-91	CERAMIC CHIP 0.1MF	25V
RB014	1-239-621-11	NETWORK RESISTOR (CHIP) 22					
RB015	1-239-621-11	NETWORK RESISTOR (CHIP) 22		C2024	1-216-295-91	SHORT 0	
				C2029	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB016	1-239-621-11	NETWORK RESISTOR (CHIP) 22		C2030	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB017	1-239-621-11	NETWORK RESISTOR (CHIP) 22		C2031	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB018	1-239-621-11	NETWORK RESISTOR (CHIP) 22		C2032	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB019	1-239-409-11	NETWORK RESISTOR (CHIP) 47					
RB020	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2033	1-165-319-11	CERAMIC CHIP 0.1MF	50V
				C2034	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB021	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2035	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB022	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2036	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB023	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2037	1-104-664-11	ELECT 47MF	20% 16V
RB024	1-239-409-11	NETWORK RESISTOR (CHIP) 47					
RB025	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2038	1-165-319-11	CERAMIC CHIP 0.1MF	50V
				C2039	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB026	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2040	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB027	1-239-409-11	NETWORK RESISTOR (CHIP) 47		C2041	1-126-924-11	ELECT 330MF	20% 6.3V
RB301	1-239-621-11	NETWORK RESISTOR (CHIP) 22		C2042	1-165-319-11	CERAMIC CHIP 0.1MF	50V
RB302	1-239-621-11	NETWORK RESISTOR (CHIP) 22					
RB701	1-239-711-91	NETWORK RESISTOR (CHIP) 0		C2044	1-104-664-11	ELECT 47MF	20% 16V
				C2045	1-163-106-00	CERAMIC CHIP 36PF	5% 50V
RB702	1-239-711-91	NETWORK RESISTOR (CHIP) 0		C2046	1-126-964-11	ELECT 10MF	20% 50V
RB703	1-239-711-91	NETWORK RESISTOR (CHIP) 0		C2047	1-164-505-11	CERAMIC CHIP 2.2MF	16V
RB704	1-239-711-91	NETWORK RESISTOR (CHIP) 0		C2048	1-126-964-11	ELECT 10MF	20% 50V
RB705	1-239-711-91	NETWORK RESISTOR (CHIP) 0					
RB706	1-239-711-91	NETWORK RESISTOR (CHIP) 0		C2049	1-126-960-11	ELECT 1MF	20% 50V
				C2050	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
				C2051	1-126-964-11	ELECT 10MF	20% 50V
		<CRYSTAL>		C2052	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
X801	1-781-649-21	OSCILLATOR, CRYSTAL		C2053	1-126-960-11	ELECT 1MF	20% 50V
X802	1-781-650-21	VIBRATOR, CRYSTAL					
X901	1-760-014-11	VIBRATOR, CERAMIC		C2054	1-104-664-11	ELECT 47MF	20% 16V
				C2055	1-104-664-11	ELECT 47MF	20% 16V
				C2056	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
				C2057	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C2058	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C2059	1-104-664-11	ELECT 47MF	20% 16V
				C2060	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C2061	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C2062	1-104-664-11	ELECT 47MF	20% 16V
				C2063	1-165-319-11	CERAMIC CHIP 0.1MF	50V
				C2064	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C2065	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C2066	1-104-664-11	ELECT 47MF	20% 16V
				C2067	1-104-664-11	ELECT 47MF	20% 16V
				C2068	1-104-664-11	ELECT 47MF	20% 16V
				C2069	1-163-031-11	CERAMIC CHIP 0.01MF	50V
				C2070	1-104-664-11	ELECT 47MF	20% 16V
				C2071	1-165-319-11	CERAMIC CHIP 0.1MF	50V

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BC4

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C2072	1-163-237-11	CERAMIC CHIP 27PF	5%	50V			
C2074	1-163-038-91	CERAMIC CHIP 0.1MF		25V			
C2075	1-163-038-91	CERAMIC CHIP 0.1MF		25V			
C2078	1-104-664-11	ELECT 47MF	20%	16V			
C2079	1-163-031-11	CERAMIC CHIP 0.01MF		50V			
C2080	1-163-031-11	CERAMIC CHIP 0.01MF		50V			
C2095	1-163-231-11	CERAMIC CHIP 15PF	5%	50V			
C2096	1-163-231-11	CERAMIC CHIP 15PF	5%	50V			
C2097	1-163-231-11	CERAMIC CHIP 15PF	5%	50V			
		<CONNECTOR>					
CN2001*	1-793-685-11	PIN, CONNECTOR (PC BOARD)		15P			
		<FILTER>					
FL2001	1-239-848-11	FILTER, LOW PASS					
FL2002	1-239-848-11	FILTER, LOW PASS					
FL2003	1-239-848-11	FILTER, LOW PASS					
FL2004	1-239-848-11	FILTER, LOW PASS					
FL2005	1-233-512-21	FERRITE 37UH					
FL2006	1-233-512-21	FERRITE 37UH					
FL2007	1-233-512-21	FERRITE 37UH					
		<IC>					
IC2003	8-759-568-27	IC MSM514265C-60JSDR1					
IC2004	8-759-594-44	IC UPD64082GF-3BA					
IC2005	8-759-431-14	IC PQ3TZ53U					
		<COIL>					
L2001	1-410-200-31	INDUCTOR CHIP 4.7UH					
L2004	1-412-058-11	INDUCTOR CHIP 10UH					
L2005	1-412-058-11	INDUCTOR CHIP 10UH					
L2006	1-412-058-11	INDUCTOR CHIP 10UH					
L2007	1-412-058-11	INDUCTOR CHIP 10UH					
L2008	1-412-058-11	INDUCTOR CHIP 10UH					
		<TRANSISTOR>					
Q2002	8-729-216-22	TRANSISTOR 2SA1162-G					
Q2003	8-729-216-22	TRANSISTOR 2SA1162-G					
Q2004	8-729-216-22	TRANSISTOR 2SA1162-G					
Q2005	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2006	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2007	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2008	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2009	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2010	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2011	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2012	8-729-216-22	TRANSISTOR 2SA1162-G					
Q2013	8-729-216-22	TRANSISTOR 2SA1162-G					
Q2014	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2015	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2016	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q2018	8-729-216-22	TRANSISTOR 2SA1162-G					
Q2019	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
		<RESISTOR>					
R2011	1-216-041-00	RES,CHIP	470	5%	1/10W		
R2015	1-216-041-00	RES,CHIP	470	5%	1/10W		
R2019	1-216-295-91	SHORT	0				
R2021	1-216-025-91	RES,CHIP	100	5%	1/10W		
R2027	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2028	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2029	1-216-043-91	RES,CHIP	560	5%	1/10W		
R2030	1-216-043-91	RES,CHIP	560	5%	1/10W		
R2031	1-216-067-00	RES,CHIP	5.6K	5%	1/10W		
R2032	1-216-067-00	RES,CHIP	5.6K	5%	1/10W		
R2033	1-216-057-00	RES,CHIP	2.2K	5%	1/10W		
R2034	1-216-057-00	RES,CHIP	2.2K	5%	1/10W		
R2035	1-216-043-91	RES,CHIP	560	5%	1/10W		
R2036	1-216-649-11	METAL CHIP	820	0.50%	1/10W		
R2037	1-216-044-00	RES,CHIP	620	5%	1/10W		
R2039	1-216-047-91	RES,CHIP	820	5%	1/10W		
R2040	1-216-057-00	RES,CHIP	2.2K	5%	1/10W		
R2041	1-216-047-91	RES,CHIP	820	5%	1/10W		
R2042	1-216-075-00	RES,CHIP	12K	5%	1/10W		
R2043	1-216-085-00	RES,CHIP	33K	5%	1/10W		
R2044	1-216-057-00	RES,CHIP	2.2K	5%	1/10W		
R2046	1-216-075-00	RES,CHIP	12K	5%	1/10W		
R2047	1-216-085-00	RES,CHIP	33K	5%	1/10W		
R2048	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2049	1-216-065-91	RES,CHIP	4.7K	5%	1/10W		
R2050	1-216-017-91	RES,CHIP	47	5%	1/10W		
R2051	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2052	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2053	1-216-041-00	RES,CHIP	470	5%	1/10W		
R2054	1-216-041-00	RES,CHIP	470	5%	1/10W		
R2055	1-216-017-91	RES,CHIP	47	5%	1/10W		
R2056	1-216-067-00	RES,CHIP	5.6K	5%	1/10W		
R2057	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2058	1-216-057-00	RES,CHIP	2.2K	5%	1/10W		
R2059	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2060	1-216-025-91	RES,CHIP	100	5%	1/10W		
R2061	1-216-043-91	RES,CHIP	560	5%	1/10W		
R2062	1-216-105-91	RES,CHIP	220K	5%	1/10W		
R2063	1-216-089-91	RES,CHIP	47K	5%	1/10W		
R2064	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2066	1-216-033-00	RES,CHIP	220	5%	1/10W		
R2067	1-216-043-91	RES,CHIP	560	5%	1/10W		
R2069	1-216-645-11	METAL CHIP	560	0.50%	1/10W		
R2070	1-216-641-11	METAL CHIP	390	0.50%	1/10W		
R2071	1-216-067-00	RES,CHIP	5.6K	5%	1/10W		
R2072	1-216-043-91	RES,CHIP	560	5%	1/10W		
R2073	1-216-049-91	RES,CHIP	1K	5%	1/10W		
R2074	1-216-025-91	RES,CHIP	100	5%	1/10W		
R2075	1-216-295-91	SHORT	0				
R2076	1-216-025-91	RES,CHIP	100	5%	1/10W		
R2077	1-216-025-91	RES,CHIP	100	5%	1/10W		
R2078	1-216-295-91	SHORT	0				
R2092	1-216-055-00	RES,CHIP	1.8K	5%	1/10W		
R2093	1-216-055-00	RES,CHIP	1.8K	5%	1/10W		
R2104	1-216-295-91	SHORT	0				

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

**BC4** **C**

REF. NO.	PART NO.	DESCRIPTION	REMARK
R2105	1-216-295-91	SHORT	0
R2106	1-216-295-91	SHORT	0
R2107	1-216-295-91	SHORT	0
R2108	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2110	1-216-295-91	SHORT	0
R2112	1-216-295-91	SHORT	0
R2113	1-216-017-91	RES,CHIP	47 5% 1/10W
R2115	1-216-049-91	RES,CHIP	1K 5% 1/10W
R2116	1-216-295-91	SHORT	0
R2117	1-216-295-91	SHORT	0
R2118	1-216-296-91	SHORT	0
R2119	1-216-296-91	SHORT	0
R2200	1-216-296-91	SHORT	0
<VARIABLE RESISTOR>			
RV2001	1-223-271-21	RES, ADJ, CERMET 220	
<CRYSTAL>			
X2001	1-767-606-11	VIBRATOR, CRYSTAL	
*****			
* A-1332-005-A	C BOARD MOUNT	*****	
4-382-854-11	SCREW (M3X10), P, SW (+)		
<CAPACITOR>			
C9002	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C9003	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C9004	1-162-114-00	CERAMIC	0.0047MF 2KV
C9005	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C9006	1-163-091-00	CERAMIC CHIP 8PF	0.25PF 50V
C9007	1-163-091-00	CERAMIC CHIP 8PF	0.25PF 50V
C9008	1-163-091-00	CERAMIC CHIP 8PF	0.25PF 50V
C9009	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C9010	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C9011	1-136-207-11	MYLAR	0.047MF 10% 250V
C9012	1-136-207-11	MYLAR	0.047MF 10% 250V
C9014	1-136-207-11	MYLAR	0.047MF 10% 250V
C9015	1-163-087-00	CERAMIC CHIP 4PF	0.25PF 50V
C9018	1-107-961-91	ELECT	10MF 20% 250V
C9019	1-163-035-00	CERAMIC CHIP	0.047MF 50V
C9020	1-107-961-91	ELECT	10MF 20% 250V
C9021	1-107-961-91	ELECT	10MF 20% 250V
C9022	1-101-004-00	CERAMIC	0.01MF 50V
C9023	1-101-004-00	CERAMIC	0.01MF 50V
C9024	1-163-035-00	CERAMIC CHIP	0.047MF 50V
C9025	1-104-653-11	ELECT	220MF 20% 16V
C9026	1-163-035-00	CERAMIC CHIP	0.047MF 50V
C9027	1-101-004-00	CERAMIC	0.01MF 50V
C9028	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
C9029	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C9030	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
C9031	1-162-114-00	CERAMIC	0.0047MF 2KV
C9032	1-162-116-00	CERAMIC	680PF 10% 2KV
C9033	1-107-662-11	ELECT	22MF 20% 250V
C9042	1-126-940-11	ELECT	330MF 20% 25V
<CONNECTOR>			
CN9001*	1-564-512-11	PLUG, CONNECTOR 9P	
CN9002*	1-691-765-11	PLUG, (MICRO CONNECTOR) 3P	
CN9003	1-695-915-11	TAB (CONTACT)	
CN9004	1-695-915-11	TAB (CONTACT)	
CN9005*	1-564-506-11	PLUG, CONNECTOR 3P	
CN9007	1-785-879-11	CONNECTOR, ONE TOUCH	
<DIODE>			
D9002	8-719-400-75	DIODE MA3091	
D9005	8-719-073-01	DIODE MA111-(K8).S0	
D9006	8-719-051-85	DIODE HSS83TD	
D9007	8-719-051-85	DIODE HSS83TD	
D9008	8-719-051-85	DIODE HSS83TD	
D9009	8-719-908-03	DIODE GP08D	
D9010	8-719-110-17	DIODE RD10ESB2	
<IC>			
IC9001	8-759-360-83	IC TDA6111Q/N4	
IC9002	8-759-360-83	IC TDA6111Q/N4	
IC9003	8-759-360-83	IC TDA6111Q/N4	
<JACK>			
J9001	$\Delta$ 1-540-071-22	SOCKET, CRT	
<COIL>			
L9001	1-414-158-11	INDUCTOR	2.2UH
L9002	1-408-591-11	INDUCTOR	1UH
L9003	1-408-591-11	INDUCTOR	1UH
L9004	1-408-591-11	INDUCTOR	1UH
L9005	1-406-666-21	INDUCTOR	150UH
L9006	1-412-526-11	INDUCTOR	12UH
<NEON LAMP>			
NL9001	1-519-526-11	LAMP, NEON	
<TRANSISTOR>			
Q9001	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q9009	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q9010	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q9011	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	

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



REF. NO.	PART NO.	DESCRIPTION	REMARK
		<RESISTOR>	
R9001	1-216-059-00	RES,CHIP 2.7K 5% 1/10W	
R9006	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R9007	1-208-789-11	METAL CHIP 2K 0.50% 1/10W	
R9008	1-216-085-00	RES,CHIP 33K 5% 1/10W	
R9012	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R9013	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R9018	1-216-059-00	RES,CHIP 2.7K 5% 1/10W	
R9019	1-216-059-00	RES,CHIP 2.7K 5% 1/10W	
R9021	1-216-295-91	SHORT 0	
R9023	1-216-295-91	SHORT 0	
R9026	1-208-789-11	METAL CHIP 2K 0.50% 1/10W	
R9031	1-208-789-11	METAL CHIP 2K 0.50% 1/10W	
R9033	1-208-808-11	METAL CHIP 12K 0.50% 1/10W	
R9034	1-208-800-11	METAL CHIP 5.6K 0.50% 1/10W	
R9035	1-208-790-11	METAL CHIP 2.2K 0.50% 1/10W	
R9036	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R9037	1-240-233-71	REGISTER 0	
R9038	1-208-790-11	METAL CHIP 2.2K 0.50% 1/10W	
R9039	1-208-790-11	METAL CHIP 2.2K 0.50% 1/10W	
R9041	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R9042	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R9043	1-240-233-71	REGISTER 0	
R9044	1-240-233-71	REGISTER 0	
R9047	1-202-557-00	SOLID 220 20% 1/2W	
R9048	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R9049	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
R9050	1-249-424-11	CARBON 3.9K 5% 1/4W	
R9051	1-202-557-00	SOLID 220 20% 1/2W	
R9052	1-202-557-00	SOLID 220 20% 1/2W	
R9053	1-249-424-11	CARBON 3.9K 5% 1/4W	
R9054	1-249-424-11	CARBON 3.9K 5% 1/4W	
R9055	1-202-884-11	SOLID 820K 20% 1/2W	
R9056	1-202-813-00	SOLID 22K 10% 1/2W	
R9057	1-202-847-00	SOLID 560K 20% 1/2W	
R9058	1-202-884-11	SOLID 820K 20% 1/2W	
R9059	1-202-818-00	SOLID 1K 20% 1/2W	
R9061	1-202-549-00	SOLID 100 20% 1/2W	
R9065	1-216-069-00	RES,CHIP 6.8K 5% 1/10W	
R9068	1-216-101-00	RES,CHIP 150K 5% 1/10W	
R9069	1-202-549-00	SOLID 100 20% 1/2W	
R9070	1-216-037-00	RES,CHIP 330 5% 1/10W	
R9071	1-216-037-00	RES,CHIP 330 5% 1/10W	
R9072	1-216-037-00	RES,CHIP 330 5% 1/10W	
R9073	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
		<VARIABLE RESISTOR>	
RV9001	1-241-714-11	RES, ADJ, METAL FILM 110M	
RV9002	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	

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REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1346-882-A	D BOARD COMPLETE *****	
	* 4-363-146-00	HEAT SINK, V.OUT	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
	4-382-854-21	SCREW (M3X14), P, SW (+)	
		<CAPACITOR>	
C6601	1-104-665-11	ELECT 100MF 20% 25V	
C6602	1-129-720-00	FILM 0.033MF 5% 630V	
C6604	1-126-967-11	ELECT 47MF 20% 50V	
C6606	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C6607 $\Delta$	1-119-886-51	CERAMIC 470PF 10% 250V	
C6608 $\Delta$	1-119-886-51	CERAMIC 470PF 10% 250V	
C6609	1-136-177-00	MYLAR 1MF 5% 50V	
C6610	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C6611	1-163-275-11	CERAMIC CHIP 0.001MF 5% 50V	
C6612	1-126-964-11	ELECT 10MF 20% 50V	
C6613	1-161-830-00	CERAMIC 0.0047MF 99% 500V	
C6614	1-161-830-00	CERAMIC 0.0047MF 500V	
C6615	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C6616	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C6617	1-161-830-00	CERAMIC 0.0047MF 500V	
C6618	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C6619	1-161-830-00	CERAMIC 0.0047MF 99% 500V	
C6620	1-163-251-11	CERAMIC CHIP 100PF 5% 50V	
C6621	1-131-940-11	ELECT 1200MF 20% 250V	
C6622	1-131-940-11	ELECT 1200MF 20% 250V	
C6624	1-126-933-11	ELECT 100MF 20% 16V	
C6625	1-129-718-00	FILM 0.022MF 5% 630V	
C6626	1-130-029-00	FILM 8200PF 2% 50V	
C6627	1-102-129-00	CERAMIC 0.01MF 10% 50V	
C6628	1-104-330-91	CERAMIC 470PF 10% 1KV	
C6630	1-107-680-91	ELECT 22MF 20% 450V	
C6631	1-126-964-11	ELECT 10MF 20% 50V	
C6632	1-126-963-11	ELECT 4.7MF 20% 50V	
C6633	1-126-967-11	ELECT 47MF 20% 50V	
C6634	1-126-968-11	ELECT 100MF 20% 50V	
C6635	1-102-973-00	CERAMIC 100PF 5% 50V	
C6637	1-109-879-11	CERAMIC 22PF 5% 2KV	
C6638	1-126-964-11	ELECT 10MF 20% 50V	
C6639	1-163-275-11	CERAMIC CHIP 0.001MF 5% 50V	
C6640	1-104-330-91	CERAMIC 470PF 10% 1KV	
C6641	1-136-165-00	MYLAR 0.1MF 5% 50V	
C6642	1-126-964-11	ELECT 10MF 20% 50V	
C6643	1-163-275-11	CERAMIC CHIP 0.001MF 5% 50V	
C6645	1-136-165-00	MYLAR 0.1MF 5% 50V	
C6648	1-126-941-11	ELECT 470MF 20% 25V	
C6649	1-104-665-11	ELECT 100MF 20% 25V	
C6650	1-162-115-00	CERAMIC 330PF 10% 1KV	
C6651	1-162-115-00	CERAMIC 330PF 10% 1KV	
C6652	1-110-626-11	ELECT 330MF 20% 160V	
C6653	1-137-368-11	MYLAR 0.0047MF 5% 50V	
C6654	1-126-936-11	ELECT 3300MF 20% 16V	
C6655	1-126-942-61	ELECT 1000MF 20% 25V	
C6656	1-136-165-00	MYLAR 0.1MF 5% 50V	
C6658	1-126-944-11	ELECT 3300MF 20% 25V	
C6659	1-126-944-11	ELECT 3300MF 20% 25V	

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

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REF. NO.	PART NO.	DESCRIPTION	REMARK
C6660	1-126-960-11	ELECT 1MF 20% 50V	
C6661	1-104-664-11	ELECT 47MF 20% 16V	
C6662	1-104-664-11	ELECT 47MF 20% 16V	
C6663	1-102-129-00	CERAMIC 0.01MF 10% 50V	
C6664	1-102-129-00	CERAMIC 0.01MF 10% 50V	
C6665	1-126-964-11	ELECT 10MF 20% 50V	
C6666	1-137-370-11	MYLAR 0.01MF 5% 50V	
C6668	1-104-664-11	ELECT 47MF 20% 25V	
C6669	1-162-115-00	CERAMIC 330PF 10% 1KV	
C6670	1-162-115-00	CERAMIC 330PF 10% 1KV	
C6671	1-129-718-00	FILM 0.022MF 5% 630V	
C6672	1-104-331-11	CERAMIC 0.0022MF 10% 1KV	
C6673	1-104-331-11	CERAMIC 0.0022MF 10% 1KV	
C6674	1-128-527-11	ELECT 330MF 20% 25V	
C6677	1-163-037-11	CERAMIC CHIP 0.022MF 10% 50V	
C6679	1-107-823-11	CERAMIC CHIP 0.0047MF 10% 50V	
C6680	1-136-157-00	FILM 0.022MF 5% 50V	
C6800	1-126-964-11	ELECT 10MF 20% 50V	
C6801	1-126-960-11	ELECT 1MF 20% 50V	
C6802	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C6805	1-111-087-11	ELECT 330MF 20% 25V	
C6806	1-107-933-11	ELECT 100MF 20% 100V	
C6808	1-106-228-00	MYLAR 0.22MF 10% 100V	
C6809	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C6810	1-106-220-00	MYLAR 0.1MF 10% 100V	
C6811	1-111-087-11	ELECT 330MF 20% 25V	
C6812	1-130-785-11	MYLAR 0.47MF 10% 100V	
C6813	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C6814	1-115-565-11	CERAMIC CHIP 2.2MF 10% 10V	
C6815	1-163-009-11	CERAMIC CHIP 0.001MF 10% 50V	
C6816	1-136-197-81	MYLAR 0.047MF 5% 400V	
C6817	1-126-967-11	ELECT 47MF 20% 50V	
C6818	1-126-960-11	ELECT 1MF 20% 50V	
C6819	1-126-960-11	ELECT 1MF 20% 50V	
C6820	1-102-114-00	CERAMIC 470PF 10% 50V	
C6821	1-106-383-00	MYLAR 0.047MF 10% 200V	
C6822	1-102-114-00	CERAMIC 470PF 10% 50V	
C6823	1-106-383-00	MYLAR 0.047MF 10% 200V	
C6826	1-102-030-00	CERAMIC 330PF 10% 500V	
C6827	1-102-030-00	CERAMIC 330PF 10% 500V	
C6828	1-106-343-00	MYLAR 0.001MF 10% 200V	
C6829	1-162-558-11	CERAMIC 100PF 10% 2KV	
C6831	1-117-835-21	FILM 6200PF 3% 1.5KV	
C6832	1-117-836-21	FILM 6800PF 3% 1.5KV	
C6833	1-136-287-11	FILM 0.0047MF 5% 100V	
C6834	1-125-893-11	FILM 680PF 3% 1.5KV	
C6835	1-125-893-11	FILM 680PF 3% 1.5KV	
C6836	1-137-150-11	FILM 0.01MF 5% 100V	
C6837	1-125-893-11	FILM 680PF 3% 1.5KV	
C6838	1-125-893-11	FILM 680PF 3% 1.5KV	
C6839	1-126-933-11	ELECT 100MF 20% 16V	
C6840	1-126-933-11	ELECT 100MF 20% 16V	
C6841	1-117-660-81	FILM 0.12MF 5% 250V	
C6842	1-117-667-81	FILM 0.47MF 5% 250V	
C6843	1-115-339-11	CERAMIC CHIP 0.1MF 10% 50V	
C6844	1-115-339-11	CERAMIC CHIP 0.1MF 10% 50V	
C6845	1-115-514-11	FILM 0.22MF 5% 250V	

REF. NO.	PART NO.	DESCRIPTION	REMARK
C6846	1-109-945-11	FILM 0.18MF 5% 250V	
C6848	1-113-979-51	FILM 0.1MF 5% 250V	
C6849	1-115-339-11	CERAMIC CHIP 0.1MF 10% 50V	
C6850	1-115-339-11	CERAMIC CHIP 0.1MF 10% 50V	
C6851	1-107-639-11	ELECT 47MF 20% 160V	
C6853	1-102-228-00	CERAMIC 470PF 10% 500V	
C6854	1-126-941-11	ELECT 470MF 20% 25V	
C6855	1-123-024-21	ELECT 33MF 160V	
C6856	1-126-971-11	ELECT 470MF 20% 50V	
C6857	1-102-228-00	CERAMIC 470PF 10% 500V	
C6858	1-102-228-00	CERAMIC 470PF 10% 500V	
C6859	1-162-129-00	CERAMIC 150PF 10% 2KV	
C6860	1-162-131-11	CERAMIC 220PF 10% 2KV	
C6862	1-130-202-00	FILM 0.022MF 5% 200V	
C6863	1-107-906-11	ELECT 10MF 20% 50V	
C6864	1-129-898-00	FILM 0.0022MF 5% 630V	
C6865	1-130-202-00	FILM 0.022MF 5% 400V	
C6866	1-102-030-00	CERAMIC 330PF 10% 500V	
C6867	1-130-785-11	MYLAR 0.47MF 10% 100V	
C6868	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C6871	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C6872	1-163-275-11	CERAMIC CHIP 0.001MF 5% 50V	
C6874	1-136-165-00	MYLAR 0.1MF 5% 50V	
C6875	1-104-664-11	ELECT 47MF 20% 16V	
C6876	1-163-021-91	CERAMIC CHIP 0.01MF 10% 50V	
C6877	1-126-964-11	ELECT 10MF 20% 50V	
C6878	1-126-320-11	ELECT 10MF 20% 16V	
C6879	1-107-960-11	ELECT 4.7MF 20% 160V	
C6880	1-164-004-11	CERAMIC CHIP 0.1MF 10% 25V	
C6882	1-104-574-11	CERAMIC 0.0047MF 10% 2KV	
C6883	1-126-964-11	ELECT 10MF 20% 50V	
C6884	1-115-565-11	CERAMIC CHIP 2.2MF 10% 10V	
C6885	1-162-131-11	CERAMIC 220PF 10% 2KV	
<CONNECTOR>			
CN6602*	$\Delta$ 1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
CN6603*	$\Delta$ 1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P	
CN6604*	$\Delta$ 1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
CN6605*	$\Delta$ 1-564-513-11	PLUG, CONNECTOR 10P	
CN6606*	1-564-510-11	PLUG, CONNECTOR 7P	
CN6608*	1-564-506-11	PLUG, CONNECTOR 3P	
CN6609*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6610*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6611*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6612*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6613*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6614*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6615*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6616*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6618*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN6800	1-785-802-11	PIN, CONNECTOR (WITH PWB) 20P	
CN6801*	$\Delta$ 1-785-270-12	PIN, DY CONNECTOR (PC BOARD)	
CN6802	1-793-495-11	CONNECTOR, BOARD TO BOARD 50P	
CN6804*	1-691-765-11	PLUG, (MICRO CONNECTOR) 3P	
CN6808	1-695-915-11	TAB (CONTACT)	



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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
CN6810	1-785-879-11	CONNECTOR, ONE TOUCH		D6808	8-719-914-43	DIODE DAN202K	
CN6811*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6809	8-719-908-03	DIODE GP08D	
CN6812*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6812	8-719-110-39	DIODE RD15ESB1	
		<DIODE>		D6813	8-719-302-43	DIODE EL1Z	
D6601	8-719-911-19	DIODE 1SS119-25		D6814	8-719-018-82	DIODE RGP02-20EL-6394	
D6602	8-719-073-01	DIODE MA111-(K8).S0		D6816	8-719-510-73	DIODE S3L20UF4	
D6603	8-719-073-01	DIODE MA111-(K8).S0		D6817	8-719-510-73	DIODE S3L20UF4	
D6604	8-719-073-01	DIODE MA111-(K8).S0		D6820	8-719-970-87	DIODE ERA38-06	
D6605	8-719-510-53	DIODE D4SB60L		D6821	8-719-970-87	DIODE ERA38-06	
D6606	8-719-073-01	DIODE MA111-(K8).S0		D6823	8-719-911-19	DIODE 1SS119-25	
D6607	8-719-073-01	DIODE MA111-(K8).S0		D6824	8-719-510-73	DIODE S3L20UF4	
D6608	8-719-073-01	DIODE MA111-(K8).S0		D6825	8-719-914-43	DIODE DAN202K	
D6609	8-719-911-19	DIODE 1SS119-25		D6826	8-719-911-19	DIODE 1SS119-25	
D6610	8-719-073-01	DIODE MA111-(K8).S0				<FERRITE BEAD>	
D6611	8-719-073-01	DIODE MA111-(K8).S0		FB6602	1-239-358-21	FILTER, NOISE	
D6612	8-719-911-55	DIODE U05G		FB6603	1-239-358-21	FILTER, NOISE	
D6613	8-719-911-55	DIODE U05G				<IC>	
D6614	8-719-110-30	DIODE RD12ESB1		IC6601	8-759-198-31	IC UPC1093J-1-T	
D6615	8-719-911-19	DIODE 1SS119-25		IC6602	8-759-103-93	IC UPC393C	
D6616	8-719-911-55	DIODE U05G		IC6603	8-749-016-66	IC MCR5152	
D6617	8-719-911-55	DIODE U05G		IC6604	8-759-468-89	IC TOP209P	
D6618	8-719-073-01	DIODE MA111-(K8).S0		IC6606	8-759-450-47	IC BA05T	
D6619	8-719-110-30	DIODE RD12ESB1		IC6607	8-749-012-13	IC DM-58	
D6621	8-719-075-73	DIODE 10ELS2N-B5		IC6608	8-759-103-93	IC UPC393C	
D6622	8-719-979-64	DIODE UF4005PKG23		IC6800	8-759-192-71	IC STV9379	
D6623	8-719-059-23	DIODE P6KE200AG23		IC6801	8-759-450-95	IC LM393N	
D6624	8-719-077-66	DIODE 11EQSO3LN-TA1B2		IC6804	8-759-394-36	IC BA09T	
D6625	8-719-110-36	DIODE RD13ESB2		IC6805	8-759-394-35	IC BA12T	
D6626	8-719-979-64	DIODE UF4005PKG23				<CHIP CONDUCTOR>	
D6627	8-719-063-73	DIODE D1NL20U-TR		JR6603	1-216-295-91	SHORT	0
D6628	8-719-075-73	DIODE 10ELS2N-B5				<COIL>	
D6629	8-719-911-19	DIODE 1SS119-25		L6601	1-412-525-31	INDUCTOR	10UH
D6630	8-719-911-19	DIODE 1SS119-25		L6602	1-410-397-21	FERRITE	1.1UH
D6631	8-719-050-18	DIODE D4SBL20U		L6603	1-410-397-21	FERRITE	1.1UH
D6632	8-719-073-01	DIODE MA111-(K8).S0		L6604	1-412-525-31	INDUCTOR	10UH
D6633	8-719-510-12	DIODE D10SC4M		L6605	1-412-525-31	INDUCTOR	10UH
D6634	8-719-060-88	DIODE D4SBS6		L6606	1-412-525-31	INDUCTOR	10UH
D6635	8-719-110-47	DIODE RD18ESB		L6607	1-412-519-11	INDUCTOR	3.3UH
D6636	8-719-911-19	DIODE 1SS119-25		L6800	1-412-525-31	INDUCTOR	10UH
D6639	8-719-075-73	DDIODE 10ELS2N-TB5		L6801	1-406-675-11	INDUCTOR	4.7MMH
D6640	8-719-110-72	DIODE RD30ESB2		L6803	1-406-985-11	INDUCTOR	2.2MMH
D6641	8-719-109-97	DIODE RD6.8ESB2		L6804	1-412-519-11	INDUCTOR	3.3UH
D6642	8-719-911-19	DIODE 1SS119-25		L6805	1-412-519-11	INDUCTOR	3.3UH
D6643	8-719-979-64	DIODE UF4005PKG23		L6806	1-412-519-11	INDUCTOR	3.3UH
D6644	8-719-052-92	DIODE D10SBS4F		L6807	1-412-552-11	INDUCTOR	2.2MMH
D6648	8-719-110-30	DIODE RD12ESB1		L6808	1-406-674-11	INDUCTOR	3.3MMH
D6649	8-719-073-01	DIODE MA111-(K8).S0				<PHOTO COUPLER>	
D6650	8-719-911-19	DIODE 1SS119-25		PH6601	8-749-924-35	PHOTO COUPLER ON3171-R	
D6651	8-719-977-95	DIODE DTZ-TT11-2.4B		PH6602	8-749-924-35	PHOTO COUPLER ON3171-R	
D6652	8-719-110-49	DIODE RD18ESB2					
D6800	8-719-110-03	DIODE RD7.5ESB2					
D6801	8-719-911-19	DIODE 1SS119-25					
D6803	8-719-510-73	DIODE S3L20UF4					
D6805	8-719-110-39	DIODE RD15ESB1					
D6806	8-719-911-19	DIODE 1SS119-25					
D6807	8-719-109-68	DIODE RD3.6ESB1					



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<IC LINK>		R6607	1-215-489-00	METAL	680K 1% 1/4W
				R6608	1-215-489-00	METAL	680K 1% 1/4W
PS6605	1-533-597-41	LINK, IC		R6609	1-215-489-00	METAL	680K 1% 1/4W
PS6606	1-533-597-41	LINK, IC					
PS6607	1-533-597-41	LINK, IC		R6610	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
PS6801	1-532-841-21	LINK, IC		R6611	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W
		<TRANSISTOR>		R6612	1-215-471-00	METAL	120K 1% 1/4W
				R6613	1-215-489-00	METAL	680K 1% 1/4W
Q6601	8-729-119-78	TRANSISTOR 2SC2785-HFE		R6614	1-215-489-00	METAL	680K 1% 1/4W
Q6602	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q6603	8-729-119-76	TRANSISTOR 2SA1175-HFE		R6615	1-215-489-00	METAL	680K 1% 1/4W
Q6604	8-729-119-76	TRANSISTOR 2SA1175-HFE		R6616	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
Q6605	8-729-230-49	TRANSISTOR 2SC2712-YG		R6617	1-208-844-11	METAL CHIP	390K 0.50% 1/10W
				R6618	1-215-466-00	METAL	75K 1% 1/4W
Q6606	8-729-140-93	TRANSISTOR 2SB733-34		R6619	1-216-113-00	RES,CHIP	470K 5% 1/10W
Q6607	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q6608	8-729-200-21	TRANSISTOR 2SC2500-B		R6620	1-208-846-11	METAL CHIP	470K 0.50% 1/10W
Q6609	8-729-029-56	TRANSISTOR DTA144ESA		R6621	1-216-073-00	RES,CHIP	10K 5% 1/10W
Q6610	8-729-119-78	TRANSISTOR 2SC2785-HFE		R6622	1-220-797-11	CEMENTED	0.47 5% 10W F
				R6623	1-215-457-00	METAL	33K 1% 1/4W
Q6611	8-729-029-66	TRANSISTOR DTC114ESA		R6624	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
Q6612	8-729-029-66	TRANSISTOR DTC114ESA					
Q6613	8-729-030-02	TRANSISTOR DTC144ESA		R6625	1-208-826-11	METAL CHIP	68K 0.50% 1/10W
Q6614	8-729-119-76	TRANSISTOR 2SA1175-HFE		R6626	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
Q6615	8-729-900-53	TRANSISTOR DTC114EK		R6627	1-208-834-11	METAL CHIP	150K 0.50% 1/10W
				R6628	1-216-073-00	RES,CHIP	10K 5% 1/10W
Q6615	8-729-421-22	TRANSISTOR UN2211		R6629	1-215-466-00	METAL	75K 1% 1/4W
Q6616	8-729-029-66	TRANSISTOR DTC114ESA					
Q6800	8-729-422-33	TRANSISTOR 2SD601A-Q-TX		R6630	1-215-489-00	METAL	680K 1% 1/4W
Q6801	8-729-039-68	TRANSISTOR IRF620		R6631	1-215-489-00	METAL	680K 1% 1/4W
Q6802	8-729-046-33	TRANSISTOR IRF720-LF49		R6632	1-215-489-00	METAL	680K 1% 1/4W
				R6633	1-215-458-00	METAL	36K 1% 1/4W
Q6803	8-729-119-76	TRANSISTOR 2SA1175-HFE		R6634	1-215-489-00	METAL	680K 1% 1/4W
Q6804	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q6805	8-729-140-96	TRANSISTOR 2SD774-34		R6635	1-215-489-00	METAL	680K 1% 1/4W
Q6806	8-729-140-96	TRANSISTOR 2SD774-34		R6636	1-215-489-00	METAL	680K 1% 1/4W
Q6807	8-729-046-18	TRANSISTOR 2SC5480-01		R6637	1-215-463-00	METAL	56K 1% 1/4W
				R6638	1-240-876-11	CEMENTED	1 5% 15W
Q6808	8-729-046-18	TRANSISTOR 2SC5480-01		R6639	1-240-876-11	CEMENTED	1 5% 15W
Q6809	8-729-038-83	TRANSISTOR 2SK2251-01-F19					
Q6810	8-729-047-60	TRANSISTOR IRF1830G-LF49		R6640	1-216-081-00	RES,CHIP	22K 5% 1/10W
Q6811	1-801-806-11	TRANSISTOR DTC144EKA-T146		R6641	1-260-131-11	CARBON	470K 5% 1/2W
Q6812	8-729-043-95	TRANSISTOR 2SC3840(3)		R6642	1-260-131-11	CARBON	470K 5% 1/2W
				R6643	1-216-081-00	RES,CHIP	22K 5% 1/10W
Q6813	8-729-422-33	TRANSISTOR 2SD601A-Q-TX		R6644	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
Q6814	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
Q6815	8-729-045-65	TRANSISTOR 2SA1776TV2Q		R6645	1-202-933-61	FUSIBLE	0.1 10% 1/2W
Q6816	8-729-140-96	TRANSISTOR 2SD774-34		R6646	1-216-073-00	RES,CHIP	10K 5% 1/10W
Q6817	8-729-422-33	TRANSISTOR 2SD601A-Q-TX		R6647	1-215-864-00	METAL OXIDE	150 5% 1W F
				R6648	1-215-481-00	METAL	330K 1% 1/4W
Q6818	1-801-806-11	TRANSISTOR DTC144EKA-T146		R6649	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
Q6819	1-801-806-11	TRANSISTOR DTC144EKA-T146					
Q6820	8-729-422-33	TRANSISTOR 2SD601A-Q-TX		R6650	1-215-481-00	METAL	330K 1% 1/4W
Q6821	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R6651	1-215-430-00	METAL	2.4K 1% 1/4W
Q6823	8-729-422-33	TRANSISTOR 2SD601A-Q-TX		R6652	1-215-450-00	METAL	16K 1% 1/4W
		<RESISTOR>		R6653	1-219-776-11	CARBON	2.2M 10% 1/2W
R6500	1-220-797-11	CEMENTED	0.47 5% 10W F	R6654	1-216-089-91	RES,CHIP	47K 5% 1/10W
R6600	1-216-295-91	SHORT	0				
R6602	1-247-831-91	CARBON	1K 5% 1/4W	R6655	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6603	1-208-806-11	METAL CHIP	10K 0.50% 1/10W	R6656	1-215-481-00	METAL	330K 1% 1/4W
R6604	1-208-806-11	METAL CHIP	10K 0.50% 1/10W	R6657	1-247-791-91	CARBON	22 5% 1/4W
				R6658	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6605	1-215-471-00	METAL	120K 1% 1/4W	R6659	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6606	1-215-466-00	METAL	75K 1% 1/4W				
				R6660	1-249-389-11	CARBON	4.7 5% 1/4W F
				R6661	1-215-421-00	METAL	1K 1% 1/4W
				R6662	1-216-381-11	METAL OXIDE	0.22 5% 3W F
				R6663	1-216-381-11	METAL OXIDE	0.22 5% 3W F
				R6665	1-219-776-11	CARBON	2.2M 10% 1/2W

The components identified by shading  
and mark  $\Delta$  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		
R6666	1-208-782-11	METAL CHIP	1K	0.50%	1/10W	R6824	1-249-411-11	CARBON	330	5%	1/4W
R6667	1-249-413-11	CARBON	470	5%	1/4W	R6825	1-249-411-11	CARBON	330	5%	1/4W
R6668	1-216-017-91	RES,CHIP	47	5%	1/10W	R6826	1-216-459-00	METAL OXIDE	2.7K	5%	2W F
R6669	1-247-831-91	CARBON	1K	5%	1/4W	R6827	1-215-895-11	METAL OXIDE	3.3K	5%	2W F
R6670	1-215-441-00	METAL	6.8K	1%	1/4W	R6828	1-247-831-91	CARBON	1K	5%	1/4W
R6671	1-215-421-00	METAL	1K	1%	1/4W	R6829	1-247-831-91	CARBON	1K	5%	1/4W
R6672	1-249-421-11	CARBON	2.2K	5%	1/4W	R6830	1-247-764-11	CARBON	10K	5%	1/2W F
R6674	1-249-415-11	CARBON	680	5%	1/4W	R6831	1-247-764-11	CARBON	10K	5%	1/2W F
R6675	1-249-429-11	CARBON	10K	5%	1/4W	R6832	1-215-477-00	METAL	220K	1%	1/4W
R6677	1-249-413-11	CARBON	470	5%	1/4W	R6833	1-215-493-00	METAL	1M	1%	1/4W
R6679	1-249-437-11	CARBON	47K	5%	1/4W	R6834	1-216-381-11	METAL OXIDE	0.22	5%	3W F
R6680	1-216-362-11	METAL OXIDE	0.27	5%	2W F	R6835	1-216-381-11	METAL OXIDE	0.22	5%	3W F
R6681	1-249-429-11	CARBON	10K	5%	1/4W	R6836	1-215-905-11	METAL OXIDE	10	5%	3W F
R6682	1-249-416-11	CARBON	820	5%	1/4W	R6837	1-215-905-11	METAL OXIDE	10	5%	3W F
R6683	1-260-127-11	CARBON	220K	5%	1/2W	R6838	1-215-461-00	METAL	47K	1%	1/4W
R6685	1-249-421-11	CARBON	2.2K	5%	1/4W	R6839	1-249-405-11	CARBON	100	5%	1/4W F
R6686 $\Delta$	1-218-265-11	METAL	8.2M	5%	1W	R6841	1-216-434-11	METAL OXIDE	1.8K	5%	1W F
R6688	1-249-417-11	CARBON	1K	5%	1/4W F	R6842	1-215-923-00	METAL OXIDE	10K	5%	3W F
R6689	1-249-389-11	CARBON	4.7	5%	1/4W	R6843	1-216-073-00	RES,CHIP	10K	5%	1/10W
R6690	1-249-429-11	CARBON	10K	5%	1/4W	R6844	1-247-807-31	CARBON	100	5%	1/4W
R6691	1-260-131-11	CARBON	470K	5%	1/2W	R6846	1-260-127-11	CARBON	220K	5%	1/2W
R6692	1-249-410-11	CARBON	270	5%	1/4W	R6849	1-249-443-11	CARBON	0.47	5%	1/4W F
R6693	1-215-451-00	METAL	18K	1%	1/4W	R6850	1-249-443-11	CARBON	0.47	5%	1/4W F
R6694	1-215-471-00	METAL	120K	1%	1/4W	R6851	1-260-288-11	CARBON	0.47	5%	1/2W F
R6696	1-215-925-11	METAL OXIDE	22K	5%	3W F	R6852	1-216-345-11	METAL OXIDE	0.47	5%	1W F
R6697	1-249-429-11	CARBON	10K	5%	1/4W	R6853	1-260-288-11	CARBON	0.47	5%	1/2W F
R6698	1-247-831-91	CARBON	1K	5%	1/4W	R6854	1-215-923-00	METAL OXIDE	10K	5%	3W F
R6701	1-216-073-00	RES,CHIP	10K	5%	1/10W	R6855	1-214-899-81	METAL	27K	1%	1/2W
R6702	1-216-093-91	RES,CHIP	68K	5%	1/10W	R6856	1-215-923-00	METAL OXIDE	10K	5%	3W F
R6703	1-216-091-00	RES,CHIP	56K	5%	1/10W	R6857	1-215-923-00	METAL OXIDE	10K	5%	3W F
R6704	1-249-377-11	CARBON	0.47	5%	1/4W F	R6858	1-214-899-81	METAL	27K	1%	1/2W
R6707	1-249-421-11	CARBON	2.2K	5%	1/4W	R6859	1-215-871-11	METAL OXIDE	2.2K	5%	1W F
R6710	1-217-158-00	METAL	0.47	10%	5W	R6860	1-215-923-00	METAL OXIDE	10K	5%	3W F
R6711	1-215-471-00	METAL	120K	1%	1/4W	R6861	1-216-295-91	SHORT	0		
R6712	1-215-451-00	METAL	18K	1%	1/4W	R6862	1-216-081-00	RES,CHIP	22K	5%	1/10W
R6713	1-249-423-11	CARBON	3.3K	5%	1/4W	R6863	1-215-894-11	METAL OXIDE	2.2K	5%	2W F
R6714	1-249-423-11	CARBON	3.3K	5%	1/4W	R6864	1-216-081-00	RES,CHIP	22K	5%	1/10W
R6800	1-249-429-11	CARBON	10K	5%	1/4W	R6865	1-216-103-00	RES,CHIP	180K	5%	1/10W
R6801	1-249-429-11	CARBON	10K	5%	1/4W	R6866	1-215-433-00	METAL	3.3K	1%	1/4W
R6802	1-249-429-11	CARBON	10K	5%	1/4W	R6867	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R6803	1-216-073-00	RES,CHIP	10K	5%	1/10W	R6868	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R6804	1-208-796-11	METAL CHIP	3.9K	0.50%	1/10W	R6869	1-216-115-00	RES,CHIP	560K	5%	1/10W
R6805	1-215-441-00	METAL	6.8K	1%	1/4W	R6870	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R6806	1-215-435-00	METAL	3.9K	1%	1/4W	R6871	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R6807	1-249-383-11	CARBON	1.5	5%	1/4W F	R6872	1-260-125-11	CARBON	150K	5%	1/2W
R6810	1-214-798-21	METAL	1.8	1%	1/2W	R6873	1-260-125-11	CARBON	150K	5%	1/2W
R6811	1-215-913-11	METAL OXIDE	220	5%	3W F	R6875	1-247-831-91	CARBON	1K	5%	1/4W
R6812	1-247-843-11	CARBON	3.3K	5%	1/4W	R6876	1-216-391-11	METAL OXIDE	1.5	5%	3W F
R6813	1-214-798-21	METAL	1.8	1%	1/2W	R6877	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R6814	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	R6878	1-208-770-11	METAL CHIP	330	0.50%	1/10W
R6815	1-208-801-11	METAL CHIP	6.2K	0.50%	1/10W	R6880	1-215-441-00	METAL	6.8K	1%	1/4W
R6816	1-214-915-00	METAL	120K	1%	1/2W	R6881	1-215-453-00	METAL	22K	1%	1/4W
R6818	1-215-485-00	METAL	470K	1%	1/4W	R6882	1-215-456-00	METAL	30K	1%	1/4W
R6819	1-249-421-11	CARBON	2.2K	5%	1/4W	R6883	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R6820	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	R6884	1-249-441-11	CARBON	100K	5%	1/4W
R6822	1-216-461-00	METAL OXIDE	5.6K	5%	2W F	R6885	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R6823	1-215-895-11	METAL OXIDE	3.3K	5%	2W F	R6886	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	REMARK
R6887	1-216-081-00	RES,CHIP 22K	5% 1/10W
R6888	1-216-089-91	RES,CHIP 47K	5% 1/10W
R6889	1-260-125-11	CARBON 150K	5% 1/2W
R6890	1-260-125-11	CARBON 150K	5% 1/2W
R6891	1-216-069-00	RES,CHIP 6.8K	5% 1/10W
R6892	1-216-097-91	RES,CHIP 100K	5% 1/10W
R6893	1-216-085-00	RES,CHIP 33K	5% 1/10W
R6894	1-260-133-11	CARBON 680K	5% 1/2W
R6895	1-216-097-91	RES,CHIP 100K	5% 1/10W
R6896	1-216-089-91	RES,CHIP 47K	5% 1/10W
R6897	1-216-097-91	RES,CHIP 100K	5% 1/10W
R6899	1-216-073-00	RES,CHIP 10K	5% 1/10W
R6900	1-208-810-11	METAL CHIP 15K	0.50% 1/10W
R6901	1-208-810-11	METAL CHIP 15K	0.50% 1/10W
R6902	1-249-441-11	CARBON 100K	5% 1/4W
R6903	1-215-923-00	METAL OXIDE 10K	5% 3W F
R6905	1-249-389-11	CARBON 4.7	5% 1/4W F
R6906	1-216-079-00	RES,CHIP 18K	5% 1/10W
R6907	1-216-079-00	RES,CHIP 18K	5% 1/10W
<RELAY>			
RY6601	1-515-840-11	RELAY	
RY6602	1-755-357-11	RELAY, AC POWER	
RY6603	1-755-357-11	RELAY, AC POWER	
<TRANSFORMER>			
T6601	$\Delta$ 1-431-732-11	TRANSFORMER, CONVERTER (SRT)	
T6602	$\Delta$ 1-435-081-11	TRANSFORMER, CONVERTER (PIT)	
T6800	1-429-741-11	TRANSFORMER, DRIVE	
T6801	1-433-934-11	TRANSFORMER, FERRITE (DFT)	
T6802	1-433-489-11	TRANSFORMER, FERRITE (HDT)	
T6803	$\Delta$ 1-453-325-11	FBT ASSY NX-4522/J1B4	
T6804	1-433-489-11	TRANSFORMER, FERRITE (HDT)	
<THERMISTOR>			
TH6601	1-803-540-11	THERMISTOR	
TH6603	1-803-586-11	THERMISTOR, NTC	
<VARISTOR>			
VD6601	1-803-614-11	VARISTOR	

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REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1343-742-A	D1 BOARD MOUNT	*****
	4-027-606-01	HEAT SINK (TO-220 TYPE)	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
<CAPACITOR>			
C6101	1-107-714-11	ELECT 10MF	20% 50V
C6102	1-109-953-11	ELECT 2.2MF	20% 50V
C6103	1-107-714-11	ELECT 10MF	20% 50V
C6104	1-126-965-11	ELECT 22MF	20% 50V
C6105	1-104-665-11	ELECT 100MF	20% 25V
C6106	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C6108	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C6109	1-126-967-11	ELECT 47MF	20% 50V
C6112	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C6113	1-137-493-11	FILM 0.0047MF	5% 630V
C6114	1-107-909-11	ELECT 47MF	20% 50V
C6115	1-163-005-11	CERAMIC CHIP 470PF	10% 50V
C6116	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C6117	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C6118	1-107-909-11	ELECT 47MF	20% 16V
C6120	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C6121	1-126-963-11	ELECT 4.7MF	20% 50V
C6122	1-126-967-11	ELECT 47MF	20% 50V
C6123	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C6125	1-104-664-11	ELECT 47MF	20% 50V
C6127	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6128	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6129	1-126-964-11	ELECT 10MF	20% 50V
C6131	1-126-964-11	ELECT 10MF	20% 50V
C6133	1-137-194-81	MYLAR 0.47MF	5% 50V
C6136	1-129-716-00	FILM 0.015MF	5% 630V
C6138	1-126-968-11	ELECT 100MF	20% 50V
C6139	1-107-902-11	ELECT 1MF	20% 50V
C6140	1-126-960-11	ELECT 1MF	20% 50V
C6201	1-126-967-11	ELECT 47MF	20% 50V
C6202	1-126-967-11	ELECT 47MF	20% 50V
C6203	1-126-967-11	ELECT 47MF	20% 50V
C6204	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6205	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C6206	1-126-964-11	ELECT 10MF	20% 50V
C6207	1-126-967-11	ELECT 47MF	20% 50V
C6208	1-126-967-11	ELECT 47MF	20% 50V
C6209	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C6210	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C6211	1-126-964-11	ELECT 10MF	20% 50V
C6212	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C6350	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C6351	1-126-967-11	ELECT 47MF	20% 50V
C6353	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C6355	1-163-251-11	CERAMIC CHIP 100PF	5% 50V
C6356	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V
C6358	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C6361	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C6362	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
C6365	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V

D1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C6376	1-104-664-11	ELECT	47MF 20%			<IC LINK>	
C6377	1-128-551-11	ELECT	22MF 20%				
C6378	1-115-339-11	CERAMIC CHIP	0.1MF 10%				
C6380	1-136-495-11	MYLAR	0.068MF 5%				
C6381	1-126-964-11	ELECT	10MF 20%				
C6385	1-104-664-11	ELECT	47MF 20%				
C6386	1-104-664-11	ELECT	47MF 20%				
C6388	1-126-964-11	ELECT	10MF 20%				
C6392	1-104-664-11	ELECT	47MF 20%				
C6409	1-126-963-11	ELECT	4.7MF 20%				
		<CONNECTOR>					
CN6100	1-793-498-11	CONNECTOR, BOARD TO BOARD 50P					
CN6101*	1-564-525-11	PLUG, CONNECTOR 10P					
CN6103*	1-564-518-11	PLUG, CONNECTOR 3P					
CN6104*	1-564-523-11	PLUG, CONNECTOR 8P					
		<DIODE>					
D6101	8-719-510-02	DIODE D1NS4					
D6102	8-719-510-02	DIODE D1NS4					
D6103	8-719-063-73	DIODE D1NL20U-TR					
D6104	8-719-911-19	DIODE 1SS119-25					
D6105	8-719-109-60	DIODE RD2.7ESB2					
D6106	8-719-510-02	DIODE D1NS4					
D6108	8-719-911-19	DIODE 1SS119-25					
D6110	8-719-987-87	DIODE ERA85-009					
D6133	8-719-911-19	DIODE 1SS119-25					
D6134	8-719-911-19	DIODE 1SS119-25					
D6201	8-719-109-88	DIODE RD5.6ESB1					
D6210	8-719-109-88	DIODE RD5.6ESB1					
D6350	8-719-914-43	DIODE DAN202K					
D6351	8-719-914-43	DIODE DAN202K					
D6355	8-719-914-43	DIODE DAN202K					
D6404	8-719-914-43	DIODE DAN202K					
		<IC>					
IC6101	8-752-053-21	IC CXA1211M					
IC6102	8-759-450-95	IC LM393N					
IC6103	8-759-450-95	IC LM393N					
IC6104	8-759-803-42	IC LA6500-FA					
IC6105	8-759-450-95	IC LM393N					
IC6106	8-759-198-31	IC UPC1093J-1-T					
IC6108	8-759-567-08	IC MB88141APF-ER					
IC6201	8-759-183-37	IC CA0007AD					
IC6202	8-759-135-80	IC UPC358C					
IC6351	8-759-450-95	IC LM393N					
IC6353	8-759-231-53	IC TA7805S					
IC6354	8-759-325-48	IC CA0005AD					
IC6356	8-759-822-38	IC LA6510					
		<COIL>					
L6101	1-416-920-11	INDUCTOR	10MMH				
L6102	1-406-989-21	INDUCTOR	10MMH				
PS6101	1-533-589-31	LINK, IC					
		<TRANSISTOR>					
Q6103	8-729-046-33	TRANSISTOR IRF720-LF49					
Q6104	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6105	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6106	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
Q6107	8-729-140-93	TRANSISTOR 2SB733-34					
Q6108	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
Q6118	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6124	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q6125	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6126	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
Q6128	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6201	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6202	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6203	8-729-422-33	TRANSISTOR 2SD601A-Q-TX					
Q6350	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6356	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q6405	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
Q6455	8-729-230-49	TRANSISTOR 2SC2712-YG					
		<RESISTOR>					
R6101	1-216-025-91	RES,CHIP	100 5%			1/10W	
R6103	1-216-049-91	RES,CHIP	1K 5%			1/10W	
R6104	1-216-065-91	RES,CHIP	4.7K 5%			1/10W	
R6105	1-208-798-11	METAL CHIP	4.7K 0.50%			1/10W	
R6106	1-208-798-11	METAL CHIP	4.7K 0.50%			1/10W	
R6107	1-216-057-00	RES,CHIP	2.2K 5%			1/10W	
R6108	1-216-073-00	RES,CHIP	10K 5%			1/10W	
R6109	1-216-073-00	RES,CHIP	10K 5%			1/10W	
R6110	1-216-295-91	SHORT	0				
R6112	1-208-827-11	METAL CHIP	75K 0.50%			1/10W	
R6113	1-216-089-91	RES,CHIP	47K 5%			1/10W	
R6114	1-208-806-11	METAL CHIP	10K 0.50%			1/10W	
R6115	1-208-814-91	METAL CHIP	22K 0.50%			1/10W	
R6116	1-216-057-00	RES,CHIP	2.2K 5%			1/10W	
R6117	1-208-782-11	METAL CHIP	1K 0.50%			1/10W	
R6118	1-208-810-11	METAL CHIP	15K 0.50%			1/10W	
R6119	1-208-796-11	METAL CHIP	3.9K 0.50%			1/10W	
R6120	1-208-806-11	METAL CHIP	10K 0.50%			1/10W	
R6121	1-216-490-11	METAL OXIDE	39K 5%			3W F	
R6122	1-216-295-91	SHORT	0				
R6123	1-208-782-11	METAL CHIP	1K 0.50%			1/10W	
R6124	1-208-808-11	METAL CHIP	12K 0.50%			1/10W	
R6125	1-216-057-00	RES,CHIP	2.2K 5%			1/10W	
R6126	1-208-798-11	METAL CHIP	4.7K 0.50%			1/10W	
R6127	1-208-832-11	METAL CHIP	120K 0.50%			1/10W	
R6128	1-208-838-91	METAL CHIP	220K 0.50%			1/10W	
R6129	1-216-353-00	METAL OXIDE	2.2 5%			1W F	
R6130	1-216-073-00	RES,CHIP	10K 5%			1/10W	
R6131	1-208-822-11	METAL CHIP	47K 0.50%			1/10W	
R6133	1-208-812-11	METAL CHIP	18K 0.50%			1/10W	

D1

REF. NO.	PART NO.	DESCRIPTION	REMARK
R6134	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R6135	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6136	1-260-099-11	CARBON	1K 5% 1/2W
R6137	1-216-049-91	RES,CHIP	1K 5% 1/10W
R6138	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W
R6139	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R6140	1-216-077-91	RES,CHIP	15K 5% 1/10W
R6141	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R6142	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R6143	1-208-800-11	METAL CHIP	5.6K 0.50% 1/10W
R6144	1-208-834-11	METAL CHIP	150K 0.50% 1/10W
R6146	1-208-822-11	METAL CHIP	47K 0.50% 1/10W
R6149	1-208-824-11	METAL CHIP	56K 0.50% 1/10W
R6150	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R6151	1-216-049-91	RES,CHIP	1K 5% 1/10W
R6152	1-216-081-00	RES,CHIP	22K 5% 1/10W
R6153	1-216-105-91	RES,CHIP	220K 5% 1/10W
R6154	1-208-796-11	METAL CHIP	3.9K 0.50% 1/10W
R6155	1-208-822-11	METAL CHIP	47K 0.50% 1/10W
R6156	1-216-077-91	RES,CHIP	15K 5% 1/10W
R6157	1-216-089-91	RES,CHIP	47K 5% 1/10W
R6158	1-216-689-11	RES,CHIP	39K 5% 1/10W
R6159	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W
R6161	1-208-818-11	METAL CHIP	33K 0.50% 1/10W
R6162	1-216-049-91	RES,CHIP	1K 5% 1/10W
R6168	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R6169	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R6170	1-216-037-00	RES,CHIP	330 5% 1/10W
R6171	1-216-113-00	RES,CHIP	470K 5% 1/10W
R6172	1-216-105-91	RES,CHIP	220K 5% 1/10W
R6173	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6174	1-216-081-00	RES,CHIP	22K 5% 1/10W
R6175	1-208-816-11	METAL CHIP	27K 0.50% 1/10W
R6176	1-249-389-11	CARBON	4.7 5% 1/4W F
R6177	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R6178	1-249-389-11	CARBON	4.7 5% 1/4W F
R6179	1-216-101-00	RES,CHIP	150K 5% 1/10W
R6180	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6181	1-216-105-91	RES,CHIP	220K 5% 1/10W
R6190	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6192	1-216-295-91	SHORT	0
R6195	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R6196	1-249-377-11	CARBON	0.47 5% 1/4W F
R6200	1-208-846-11	METAL CHIP	470K 0.50% 1/10W
R6201	1-247-750-11	CARBON	680 5% 1/2W F
R6202	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R6203	1-215-906-11	METAL OXIDE	15 5% 3W F
R6204	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6206	1-216-033-00	RES,CHIP	220 5% 1/10W
R6207	1-208-794-11	METAL CHIP	3.3K 0.50% 1/10W
R6208	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R6209	1-216-099-00	RES,CHIP	120K 5% 1/10W
R6210	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6211	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6212	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6213	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6215	1-216-089-91	RES,CHIP	47K 5% 1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R6216	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R6217	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6218	1-208-836-11	METAL CHIP	180K 0.50% 1/10W
R6219	1-208-782-11	METAL CHIP	1K 0.50% 1/10W
R6220	1-208-822-11	METAL CHIP	47K 0.50% 1/10W
R6221	1-208-822-11	METAL CHIP	47K 0.50% 1/10W
R6222	1-216-295-91	SHORT	0
R6223	1-216-295-91	SHORT	0
R6224	1-208-824-11	METAL CHIP	56K 0.50% 1/10W
R6225	1-208-824-11	METAL CHIP	56K 0.50% 1/10W
R6226	1-216-033-00	RES,CHIP	220 5% 1/10W
R6227	1-216-033-00	RES,CHIP	220 5% 1/10W
R6324	1-216-017-91	RES,CHIP	47 5% 1/10W
R6325	1-216-017-91	RES,CHIP	47 5% 1/10W
R6326	1-208-808-11	METAL CHIP	12K 0.50% 1/10W
R6327	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R6350	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R6357	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6359	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6360	1-216-073-00	RES,CHIP	10K 5% 1/10W
R6361	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6367	1-208-808-11	METAL CHIP	12K 0.50% 1/10W
R6368	1-208-810-11	METAL CHIP	15K 0.50% 1/10W
R6375	1-216-041-00	RES,CHIP	470 5% 1/10W
R6378	1-215-473-00	METAL	150K 1% 1/4W
R6379	1-216-295-91	SHORT	0
R6382	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R6385	1-216-295-91	SHORT	0
R6386	1-208-830-11	METAL CHIP	100K 0.50% 1/10W
R6391	1-216-049-91	RES,CHIP	1K 5% 1/10W
R6394	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R6413	1-208-806-11	METAL CHIP	10K 0.50% 1/10W
R6416	1-208-808-11	METAL CHIP	12K 0.50% 1/10W
R6418	1-216-113-00	RES,CHIP	470K 5% 1/10W
R6419	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6420	1-216-111-00	RES,CHIP	390K 5% 1/10W
R6433	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6438	1-215-437-00	METAL	4.7K 1% 1/4W
R6442	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R6456	1-216-097-91	RES,CHIP	100K 5% 1/10W
R6457	1-208-814-91	METAL CHIP	22K 0.50% 1/10W
R6458	1-216-089-91	RES,CHIP	47K 5% 1/10W
R6459	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
RV6100	1-238-786-11	RES,ADJ	5K

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1343-791-A	DH BOARD MOUNT *****		C4344	1-163-809-11	CERAMIC CHIP	0.047MF 10% 25V
		<CONNECTOR>		C4345	1-126-967-11	ELECT	47MF 20% 50V
CN3801	1-695-915-11	TAB (CONTACT)		C4346	1-164-346-11	CERAMIC CHIP	1MF 16V
CN3803	1-695-915-11	TAB (CONTACT)		C4347	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
		<NEON LAMP>		C4348	1-164-346-11	CERAMIC CHIP	1MF 16V
NL3801	1-576-414-21	GAP, SPARK		C4349	1-164-346-11	CERAMIC CHIP	1MF 16V
		<RESISTOR>		C4350	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
R3811	1-219-510-11	CARBON	470K 5% 1/2W	C4351	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
R3812	1-219-759-11	CARBON	1M 5% 1/2W	C4352	1-126-967-11	ELECT	47MF 20% 50V
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	* A-1343-743-B	E BOARD MOUNT *****		C4353	1-107-823-11	CERAMIC CHIP	0.47MF 10% 16V
		<CAPACITOR>		C4354	1-107-823-11	CERAMIC CHIP	0.47MF 10% 16V
C4301	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4355	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C4308	1-126-960-11	ELECT	1MF 20% 50V	C4356	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C4309	1-164-489-11	CERAMIC CHIP	0.22MF 10% 16V	C4357	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C4316	1-104-664-11	ELECT	47MF 20% 25V	C4358	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C4317	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4359	1-164-161-11	CERAMIC CHIP	0.0022MF 10% 50V
C4318	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4360	1-126-963-11	ELECT	4.7MF 20% 50V
C4319	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4362	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C4320	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4363	1-126-967-11	ELECT	47MF 20% 50V
C4321	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4364	1-126-967-11	ELECT	47MF 20% 50V
C4322	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4366	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C4324	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4367	1-104-760-11	CERAMIC CHIP	0.047MF 10% 50V
C4325	1-163-093-00	CERAMIC CHIP	10PF 5% 50V	C4369	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C4326	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4370	1-126-967-11	ELECT	47MF 20% 50V
C4327	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4371	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C4328	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4378	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C4329	1-126-963-11	ELECT	4.7MF 20% 50V	C4800	1-136-165-00	MYLAR	0.1MF 5% 50V
C4330	1-136-244-11	FILM	0.1MF 5% 50V	C4801	1-136-165-00	MYLAR	0.1MF 5% 50V
C4331	1-126-959-11	ELECT	0.47MF 20% 50V	C4802	1-163-275-11	CERAMIC CHIP	0.001MF 5% 50V
C4332	1-136-161-00	MYLAR	0.047MF 5% 50V	C4803	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C4333	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4804	1-126-967-11	ELECT	47MF 20% 50V
C4334	1-126-967-11	ELECT	47MF 20% 50V	C4805	1-126-964-11	ELECT	10MF 20% 50V
C4335	1-126-933-11	ELECT	100MF 20% 16V	C4806	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
C4336	1-126-967-11	ELECT	47MF 20% 50V	C4808	1-136-165-00	MYLAR	0.1MF 5% 50V
C4337	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	C4809	1-163-275-11	CERAMIC CHIP	0.001MF 5% 50V
C4338	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4811	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C4339	1-163-235-11	CERAMIC CHIP	22PF 5% 50V	C4812	1-126-967-11	ELECT	47MF 20% 50V
C4340	1-126-967-11	ELECT	47MF 20% 50V	C4813	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C4341	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V	C4814	1-126-967-11	ELECT	47MF 20% 50V
C4342	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V	C4816	1-163-227-11	CERAMIC CHIP	10PF 5% 50V
C4343	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V	C4817	1-126-967-11	ELECT	47MF 20% 50V
		<CONNECTOR>		C4818	1-126-961-11	ELECT	2.2MF 20% 50V
				C4820	1-107-909-11	ELECT	47MF 20% 50V
				C4821	1-107-909-11	ELECT	47MF 20% 16V
				C4822	1-107-909-11	ELECT	47MF 20% 16V
				C4823	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V
				C4824	1-163-809-11	CERAMIC CHIP	0.047MF 10% 25V
				C4825	1-163-809-11	CERAMIC CHIP	0.047MF 10% 25V
				C4833	1-126-964-11	ELECT	10MF 20% 50V
				C4834	1-126-933-11	ELECT	100MF 20% 16V
				CN4101	1-793-497-11	CONNECTOR, BOARD TO BOARD 40P	
				CN4500*	1-564-512-11	PLUG, CONNECTOR 9P	
				CN4502*	1-564-506-11	PLUG, CONNECTOR 3P	
				CN4901	1-900-251-21	CONNECTOR ASSY 4P	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>					
D4303	8-719-109-72	DIODE RD3.9ESB2		Q4308	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D4304	8-719-977-22	DIODE DTZ9.1		Q4310	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D4305	8-719-977-22	DIODE DTZ9.1		Q4315	1-801-806-11	TRANSISTOR DTC144EKA-T146	
D4311	8-719-914-43	DIODE DAN202K		Q4316	8-729-230-49	TRANSISTOR 2SC2712-YG	
D4312	8-719-914-43	DIODE DAN202K		Q4317	8-729-900-53	TRANSISTOR DTC114EK	
D4313	8-719-401-63	DIODE MA3062M-TX		Q4319	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D4800	8-719-914-43	DIODE DAN202K		Q4320	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D4801	8-719-914-43	DIODE DAN202K		Q4321	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D4802	8-719-109-81	DIODE RD4.7ESB2		Q4322	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
D4803	8-719-911-19	DIODE ISS119-25		Q4800	8-729-230-49	TRANSISTOR 2SC2712-YG	
D4804	8-719-911-19	DIODE ISS119-25		Q4801	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D4807	8-719-914-43	DIODE DAN202K		Q4802	8-729-230-49	TRANSISTOR 2SC2712-YG	
D4808	8-719-914-43	DIODE DAN202K		Q4803	8-729-230-49	TRANSISTOR 2SC2712-YG	
D4809	8-719-914-43	DIODE DAN202K		Q4804	8-729-230-49	TRANSISTOR 2SC2712-YG	
D4811	8-719-109-54	DIODE RD2.2ESB2		Q4805	8-729-230-49	TRANSISTOR 2SC2712-YG	
D4813	8-719-914-43	DIODE DAN202K		Q4806	8-729-230-49	TRANSISTOR 2SC2712-YG	
D4814	8-719-914-43	DIODE DAN202K		Q4807	8-729-230-49	TRANSISTOR 2SC2712-YG	
D4816	8-719-911-19	DIODE ISS119-25		Q4808	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
		<FERRITE BEAD>		Q4809	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
FB4387	1-216-295-91	SHORT	0	Q4810	8-729-230-49	TRANSISTOR 2SC2712-YG	
FB4388	1-216-295-91	SHORT	0	Q4811	8-729-230-49	TRANSISTOR 2SC2712-YG	
FB4389	1-216-295-91	SHORT	0	Q4812	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
		<IC>		Q4813	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC4301	8-752-090-87	IC CXA2100AQ		Q4814	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC4800	8-759-450-95	IC LM393N		Q4815	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC4801	8-759-450-95	IC LM393N		Q4816	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC4802	8-759-701-50	IC NJM3404AD		Q4817	8-729-230-49	TRANSISTOR 2SC2712-YG	
IC4803	8-759-135-80	IC UPC358C		Q4818	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
		<CHIP CONDUCTOR>		Q4820	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR4301	1-216-295-91	SHORT	0	Q4821	1-801-806-11	TRANSISTOR DTC144EKA-T146	
		<COIL>		Q4822	8-729-230-49	TRANSISTOR 2SC2712-YG	
L4301	1-412-029-11	INDUCTOR CHIP 10UH				<RESISTOR>	
L4302	1-412-029-11	INDUCTOR CHIP 10UH		R4301	1-216-025-91	RES,CHIP	100 5% 1/10W
L4303	1-412-029-11	INDUCTOR CHIP 10UH		R4302	1-216-025-91	RES,CHIP	100 5% 1/10W
L4304	1-412-029-11	INDUCTOR CHIP 10UH		R4303	1-216-025-91	RES,CHIP	100 5% 1/10W
L4305	1-412-029-11	INDUCTOR CHIP 10UH		R4304	1-216-025-91	RES,CHIP	100 5% 1/10W
L4306	1-412-029-11	INDUCTOR CHIP 10UH		R4305	1-216-025-91	RES,CHIP	100 5% 1/10W
L4308	1-412-031-11	INDUCTOR CHIP 47UH		R4306	1-216-025-91	RES,CHIP	100 5% 1/10W
L4309	1-412-031-11	INDUCTOR CHIP 47UH		R4307	1-216-025-91	RES,CHIP	100 5% 1/10W
L4310	1-412-029-11	INDUCTOR CHIP 10UH		R4308	1-216-295-91	SHORT	0
L4311	1-412-002-31	INDUCTOR CHIP 4.7UH		R4310	1-216-295-91	SHORT	0
		<TRANSISTOR>		R4312	1-216-295-91	SHORT	0
Q4301	8-729-230-49	TRANSISTOR 2SC2712-YG		R4313	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
Q4302	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R4314	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
Q4303	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R4316	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
Q4304	8-729-230-49	TRANSISTOR 2SC2712-YG		R4317	1-216-081-00	RES,CHIP	22K 5% 1/10W
Q4307	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R4318	1-208-804-11	METAL CHIP	8.2K 0.50% 1/10W
				R4319	1-208-804-11	METAL CHIP	8.2K 0.50% 1/10W
				R4320	1-208-790-11	METAL CHIP	2.2K 0.50% 1/10W
				R4321	1-216-298-00	RES,CHIP	2.2 5% 1/10W
				R4323	1-208-814-91	METAL CHIP	22K 0.50% 1/10W
				R4324	1-208-798-11	METAL CHIP	4.7K 0.50% 1/10W
				R4325	1-208-818-11	METAL CHIP	33K 0.50% 1/10W
				R4326	1-208-826-11	METAL CHIP	68K 0.50% 1/10W
				R4327	1-208-822-11	METAL CHIP	47K 0.50% 1/10W





REF. NO.	PART NO.	DESCRIPTION		REMARK		REF. NO.	PART NO.	DESCRIPTION		REMARK
R4329	1-208-782-11	METAL CHIP	1K	0.50%	1/10W	R4410	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4330	1-216-089-91	RES,CHIP	47K	5%	1/10W	R4411	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4331	1-216-025-91	RES,CHIP	100	5%	1/10W	R4412	1-216-097-91	RES,CHIP	100K	5% 1/10W
R4332	1-216-025-91	RES,CHIP	100	5%	1/10W	R4518	1-216-025-91	RES,CHIP	100	5% 1/10W
R4333	1-216-025-91	RES,CHIP	100	5%	1/10W	R4519	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4334	1-216-049-91	RES,CHIP	1K	5%	1/10W	R4520	1-216-025-91	RES,CHIP	100	5% 1/10W
R4335	1-216-025-91	RES,CHIP	100	5%	1/10W	R4521	1-216-025-91	RES,CHIP	100	5% 1/10W
R4336	1-216-025-91	RES,CHIP	100	5%	1/10W	R4800	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4337	1-216-025-91	RES,CHIP	100	5%	1/10W	R4801	1-216-049-91	RES,CHIP	1K	5% 1/10W
R4338	1-216-041-00	RES,CHIP	470	5%	1/10W	R4802	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4339	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	R4803	1-216-049-91	RES,CHIP	1K	5% 1/10W
R4341	1-216-295-91	SHORT	0			R4804	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4343	1-216-025-91	RES,CHIP	100	5%	1/10W	R4805	1-208-792-11	METAL CHIP	2.7K	0.50% 1/10W
R4344	1-216-025-91	RES,CHIP	100	5%	1/10W	R4806	1-208-792-11	METAL CHIP	2.7K	0.50% 1/10W
R4345	1-216-075-00	RES,CHIP	12K	5%	1/10W	R4807	1-216-049-91	RES,CHIP	1K	5% 1/10W
R4346	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	R4809	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4347	1-216-025-91	RES,CHIP	100	5%	1/10W	R4810	1-208-814-91	METAL CHIP	22K	0.50% 1/10W
R4348	1-216-025-91	RES,CHIP	100	5%	1/10W	R4811	1-208-814-91	METAL CHIP	22K	0.50% 1/10W
R4349	1-216-041-00	RES,CHIP	470	5%	1/10W	R4812	1-216-295-91	SHORT	0	
R4350	1-216-025-91	RES,CHIP	100	5%	1/10W	R4813	1-216-089-91	RES,CHIP	47K	5% 1/10W
R4351	1-216-081-00	RES,CHIP	22K	5%	1/10W	R4814	1-216-097-91	RES,CHIP	100K	5% 1/10W
R4352	1-216-041-00	RES,CHIP	470	5%	1/10W	R4815	1-216-097-91	RES,CHIP	100K	5% 1/10W
R4353	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	R4816	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4354	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R4817	1-208-848-11	METAL CHIP	560K	0.50% 1/10W
R4355	1-216-049-91	RES,CHIP	1K	5%	1/10W	R4818	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4356	1-216-049-91	RES,CHIP	1K	5%	1/10W	R4819	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4357	1-216-073-00	RES,CHIP	10K	5%	1/10W	R4820	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4358	1-216-071-00	RES,CHIP	8.2K	5%	1/10W	R4821	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4359	1-216-041-00	RES,CHIP	470	5%	1/10W	R4822	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4360	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	R4823	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4361	1-216-133-00	RES,CHIP	3.3M	5%	1/10W	R4824	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4363	1-216-025-91	RES,CHIP	100	5%	1/10W	R4825	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4365	1-216-025-91	RES,CHIP	100	5%	1/10W	R4826	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4366	1-216-025-91	RES,CHIP	100	5%	1/10W	R4827	1-216-295-91	SHORT	0	
R4367	1-216-025-91	RES,CHIP	100	5%	1/10W	R4828	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4369	1-216-025-91	RES,CHIP	100	5%	1/10W	R4829	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4370	1-216-049-91	RES,CHIP	1K	5%	1/10W	R4831	1-208-794-11	METAL CHIP	3.3K	0.50% 1/10W
R4372	1-216-049-91	RES,CHIP	1K	5%	1/10W	R4832	1-208-822-11	METAL CHIP	47K	0.50% 1/10W
R4373	1-216-295-91	SHORT	0			R4833	1-208-822-11	METAL CHIP	47K	0.50% 1/10W
R4374	1-216-025-91	RES,CHIP	100	5%	1/10W	R4834	1-208-790-11	METAL CHIP	2.2K	0.50% 1/10W
R4375	1-216-049-91	RES,CHIP	1K	5%	1/10W	R4835	1-208-790-11	METAL CHIP	2.2K	0.50% 1/10W
R4376	1-216-025-91	RES,CHIP	100	5%	1/10W	R4836	1-208-822-11	METAL CHIP	47K	0.50% 1/10W
R4377	1-216-049-91	RES,CHIP	1K	5%	1/10W	R4837	1-208-822-11	METAL CHIP	47K	0.50% 1/10W
R4380	1-216-073-00	RES,CHIP	10K	5%	1/10W	R4838	1-208-830-11	METAL CHIP	100K	0.50% 1/10W
R4381	1-216-129-00	RES,CHIP	2.2M	5%	1/10W	R4839	1-208-804-11	METAL CHIP	8.2K	0.50% 1/10W
R4382	1-216-073-00	RES,CHIP	10K	5%	1/10W	R4840	1-216-295-91	SHORT	0	
R4383	1-216-079-00	RES,CHIP	18K	5%	1/10W	R4841	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4384	1-216-025-91	RES,CHIP	100	5%	1/10W	R4842	1-208-822-11	METAL CHIP	47K	0.50% 1/10W
R4387	1-216-295-91	SHORT	0			R4843	1-216-057-00	RES,CHIP	2.2K	5% 1/10W
R4388	1-216-295-91	SHORT	0			R4844	1-208-800-11	METAL CHIP	5.6K	0.50% 1/10W
R4389	1-216-295-91	SHORT	0			R4845	1-208-830-11	METAL CHIP	100K	0.50% 1/10W
R4395	1-216-295-91	SHORT	0			R4846	1-208-794-11	METAL CHIP	3.3K	0.50% 1/10W
R4396	1-216-295-91	SHORT	0			R4847	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4397	1-216-295-91	SHORT	0			R4848	1-216-073-00	RES,CHIP	10K	5% 1/10W
R4401	1-216-105-91	RES,CHIP	220K	5%	1/10W	R4849	1-216-085-00	RES,CHIP	33K	5% 1/10W
R4408	1-216-025-91	RES,CHIP	100	5%	1/10W	R4850	1-216-097-91	RES,CHIP	100K	5% 1/10W
R4409	1-216-073-00	RES,CHIP	10K	5%	1/10W	R4851	1-216-053-00	RES,CHIP	1.5K	5% 1/10W
						R4852	1-216-081-00	RES,CHIP	22K	5% 1/10W

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

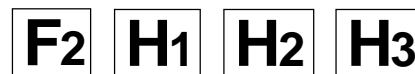


REF. NO.	PART NO.	DESCRIPTION	REMARK
R4853	1-216-053-00	RES,CHIP 1.5K	5% 1/10W
R4854	1-216-067-00	RES,CHIP 5.6K	5% 1/10W
R4855	1-216-065-91	RES,CHIP 4.7K	5% 1/10W
R4856	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R4857	1-208-798-11	METAL CHIP 4.7K	0.50% 1/10W
R4859	1-208-802-11	METAL CHIP 6.8K	0.50% 1/10W
R4860	1-208-778-11	METAL CHIP 680	0.50% 1/10W
R4861	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R4862	1-208-806-11	METAL CHIP 10K	0.50% 1/10W
R4864	1-208-792-11	METAL CHIP 2.7K	0.50% 1/10W
R4865	1-208-762-11	METAL CHIP 150	0.50% 1/10W
R4866	1-216-089-91	RES,CHIP 47K	5% 1/10W
R4869	1-208-814-91	METAL CHIP 22K	0.50% 1/10W
R4871	1-208-814-91	METAL CHIP 22K	0.50% 1/10W
R4872	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R4874	1-216-295-91	SHORT 0	
R4875	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R4877	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
R4878	1-208-834-11	METAL CHIP 150K	0.50% 1/10W
R4879	1-216-105-91	RES,CHIP 220K	5% 1/10W
R4881	1-216-295-91	SHORT 0	
R4884	1-208-822-11	METAL CHIP 47K	0.50% 1/10W
R4886	1-208-826-11	METAL CHIP 68K	0.50% 1/10W
R4892	1-216-295-91	SHORT 0	
R4894	1-216-073-00	RES,CHIP 10K	5% 1/10W
R4895	1-216-073-00	RES,CHIP 10K	5% 1/10W
<CRYSTAL>			
X4300	1-767-127-11	VIBRATOR, CERAMIC	
*****			
* A-1343-817-A		E1 BOARD MOUNT	*****
<CAPACITOR>			
C4901	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C4902	1-126-964-11	ELECT 10MF	20% 50V
C4903	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
C4904	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
<CONNECTOR>			
CN4901*	1-564-507-11	PLUG, CONNECTOR 4P	
<TRANSISTOR>			
Q4901	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4902	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q4903	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q4904	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>			
R4901	1-216-049-91	RES,CHIP 1K	5% 1/10W
R4902	1-216-065-91	RES,CHIP 4.7K	5% 1/10W
R4903	1-208-818-11	METAL CHIP 33K	0.50% 1/10W
R4904	1-216-065-91	RES,CHIP 4.7K	5% 1/10W
R4905	1-208-806-11	METAL CHIP 10K	0.50% 1/10W
R4906	1-208-806-11	METAL CHIP 10K	0.50% 1/10W
R4907	1-216-057-00	RES,CHIP 2.2K	5% 1/10W
*****			
* A-1241-402-A		F1 BOARD MOUNT	*****
1-533-223-11		HOLDER, FUSE	
* 4-374-846-01		COVER, CAPACITOR, CAP TYPE	
<CAPACITOR>			
C1601 $\Delta$	1-104-708-11	MYLAR 0.47MF	20% 250V
C1602 $\Delta$	1-109-835-11	MYLAR 0.68MF	20% 250V
C1603 $\Delta$	1-117-703-11	CERAMIC 0.0047MF	99% 250V
<CONNECTOR>			
CN1601*	$\Delta$ 1-580-843-11	PIN, CONNECTOR (POWER)	
CN1602*	$\Delta$ 1-580-843-11	PIN, CONNECTOR (POWER)	
CN1603	1-695-915-11	TAB (CONTACT)	
CN1604	1-695-915-11	TAB (CONTACT)	
<FUSE>			
F1601	1-532-299-00	FUSE, TIME-LAG 5A/250V	
<FERRITE BEAD>			
FB1601	1-410-397-21	FERRITE 1.1UH	
FB1602	1-410-397-21	FERRITE 1.1UH	
FB1603	1-410-397-21	FERRITE 1.1UH	
FB1604	1-410-397-21	FERRITE 1.1UH	
<RESISTOR>			
R1601 $\Delta$	1-202-719-00	SOLID 1M	10% 1/2W
<TRANSFORMER>			
T1601	1-433-900-11	TRANSFORMER, LINE FILTER	
T1602	1-433-900-11	TRANSFORMER, LINE FILTER	
<VARISTOR>			
VDR161	1-803-830-31	VARISTOR (ERZV14D621)	

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



REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1241-403-A	F2 BOARD MOUNT *****	
		<CONNECTOR>	
CN1651 *	1-580-843-11	PIN, CONNECTOR (POWER)	
CN1652 *	1-691-291-11	PIN, CONNECTOR (PC BOARD) 5P	
		<SWITCH>	
S1651 $\Delta$	1-571-433-21	SWITCH, PUSH (AC POWER)	
*****			
	* A-1372-728-A	H1 BOARD MOUNT *****	
	* 4-055-304-01	HOLDER, LED	
		<CAPACITOR>	
C1910	1-104-664-11	ELECT 47MF 20% 16V	
C1911	1-104-664-11	ELECT 47MF 20% 16V	
C1912	1-102-824-00	CERAMIC 470PF 5% 50V	
		<CONNECTOR>	
CN1901 *	1-564-520-11	PLUG, CONNECTOR 5P	
		<DIODE>	
D1906	8-719-045-19	DIODE SPB-26MVWF	
		<IC>	
IC1901	8-742-134-00	HYB IC SBX1981-51P	
		<TRANSISTOR>	
Q1901	8-729-030-02	TRANSISTOR DTC144ESA	
Q1902	8-729-030-02	TRANSISTOR DTC144ESA	
		<RESISTOR>	
R1911	1-249-411-11	CARBON 330 5% 1/4W	
R1913	1-249-429-11	CARBON 10K 5% 1/4W	
R1914	1-249-411-11	CARBON 330 5% 1/4W	
R1915	1-249-429-11	CARBON 10K 5% 1/4W	
R1916	1-249-401-11	CARBON 47 5% 1/4W	
R1917	1-247-807-31	CARBON 100 5% 1/4W	
R1920	1-247-807-31	CARBON 100 5% 1/4W	
R1921	1-247-807-31	CARBON 100 5% 1/4W	
*****			

REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1372-729-A	H2 BOARD MOUNT *****	
		<CAPACITOR>	
C1930	1-136-153-00	MYLAR 0.01MF 5% 50V	
C1932	1-136-153-00	MYLAR 0.01MF 5% 50V	
C1935	1-102-824-00	CERAMIC 470PF 5% 50V	
C1938	1-102-824-00	CERAMIC 470PF 5% 50V	
		<CONNECTOR>	
CN1932 *	1-564-509-11	PLUG, CONNECTOR 6P	
CN1934 *	1-564-515-11	PLUG, CONNECTOR 12P	
		<DIODE>	
D1930	8-719-121-26	DIODE RD9.1ESL2	
D1935	8-719-121-26	DIODE RD9.1ESL2	
		<JACK>	
J1931	1-770-786-11	JACK	
J1932	1-537-744-11	TERMINAL, S	
J1933	1-770-329-11	JACK, PIN 3P	
		<COIL>	
L1931	1-408-603-31	INDUCTOR 10UH	
L1932	1-408-603-31	INDUCTOR 10UH	
		<RESISTOR>	
R1933	1-247-895-91	CARBON 470K 5% 1/4W	
R1934	1-247-807-31	CARBON 100 5% 1/4W	
R1935	1-247-807-31	CARBON 100 5% 1/4W	
R1936	1-247-895-91	CARBON 470K 5% 1/4W	
R1952	1-249-421-11	CARBON 2.2K 5% 1/4W	
		<SWITCH>	
S1931	1-692-431-21	SWITCH, TACTILE	
*****			
	* A-1372-730-A	H3 BOARD MOUNT *****	
		<CONNECTOR>	
CN1980 *	1-564-518-11	PLUG, CONNECTOR 3P	
		<RESISTOR>	
R1970	1-249-416-11	CARBON 820 5% 1/4W	
R1971	1-247-831-91	CARBON 1K 5% 1/4W	



REF. NO.	PART NO.	DESCRIPTION	REMARK
R1972	1-249-418-11	CARBON 1.2K	5% 1/4W
R1973	1-249-420-11	CARBON 1.8K	5% 1/4W
R1974	1-247-843-11	CARBON 3.3K	5% 1/4W
R1975	1-249-427-11	CARBON 6.8K	5% 1/4W
R1976	1-249-432-11	CARBON 18K	5% 1/4W
<SWITCH>			
S1972	1-572-198-11	SWITCH, KEYBOARD	
S1973	1-572-198-11	SWITCH, KEYBOARD	
S1974	1-572-198-11	SWITCH, KEYBOARD	
S1975	1-572-198-11	SWITCH, KEYBOARD	
S1976	1-572-198-11	SWITCH, KEYBOARD	
S1977	1-572-198-11	SWITCH, KEYBOARD	
S1978	1-572-198-11	SWITCH, KEYBOARD	
S1979	1-572-198-11	SWITCH, KEYBOARD	
*****			
* A-1394-965-A J BOARD COMPLETE			
*****			
<CAPACITOR>			
C8300	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8301	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8302	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8303	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8304	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8305	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8306	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8307	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8308	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8309	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8310	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8311	1-164-346-11	CERAMIC CHIP 1MF	16V
C8312	1-164-346-11	CERAMIC CHIP 1MF	16V
C8313	1-164-346-11	CERAMIC CHIP 1MF	16V
C8314	1-164-346-11	CERAMIC CHIP 1MF	16V
C8315	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8316	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C8317	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8318	1-164-346-11	CERAMIC CHIP 1MF	16V
C8319	1-164-346-11	CERAMIC CHIP 1MF	16V
C8320	1-117-720-11	CERAMIC CHIP 4.7MF	10V
C8321	1-117-720-11	CERAMIC CHIP 4.7MF	10V
C8322	1-164-346-11	CERAMIC CHIP 1MF	16V
C8323	1-164-346-11	CERAMIC CHIP 1MF	16V
C8324	1-117-720-11	CERAMIC CHIP 4.7MF	10V
C8325	1-126-935-11	ELECT 470MF	20% 16V
C8326	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8327	1-164-346-11	CERAMIC CHIP 1MF	16V
C8328	1-164-346-11	CERAMIC CHIP 1MF	16V
C8329	1-163-249-11	CERAMIC CHIP 82PF	5% 50V
C8330	1-164-346-11	CERAMIC CHIP 1MF	16V
C8331	1-164-346-11	CERAMIC CHIP 1MF	16V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C8332	1-163-249-11	CERAMIC CHIP 82PF	5% 50V
C8333	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V
C8334	1-104-664-11	ELECT 47MF	20% 16V
C8335	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8336	1-104-664-11	ELECT 47MF	20% 16V
C8337	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8338	1-164-346-11	CERAMIC CHIP 1MF	16V
C8339	1-164-346-11	CERAMIC CHIP 1MF	16V
C8340	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8341	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8342	1-126-964-11	ELECT 10MF	20% 50V
C8343	1-104-664-11	ELECT 47MF	20% 16V
C8344	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8346	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8347	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8348	1-126-968-11	ELECT 100MF	20% 16V
C8349	1-117-720-11	CERAMIC CHIP 4.7MF	10V
C8350	1-164-346-11	CERAMIC CHIP 1MF	16V
C8351	1-164-346-11	CERAMIC CHIP 1MF	16V
C8352	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8353	1-115-340-11	CERAMIC CHIP 0.22MF	10% 25V
C8354	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8355	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8356	1-164-346-11	CERAMIC CHIP 1MF	16V
C8357	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8358	1-164-346-11	CERAMIC CHIP 1MF	16V
C8359	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C8360	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8361	1-126-961-11	ELECT 2.2MF	20% 50V
C8362	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8363	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8364	1-104-664-11	ELECT 47MF	20% 16V
C8365	1-104-664-11	ELECT 47MF	20% 16V
C8366	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8367	1-104-664-11	ELECT 47MF	20% 16V
C8368	1-104-664-11	ELECT 47MF	20% 16V
C8369	1-104-664-11	ELECT 47MF	20% 16V
C8370	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8371	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8372	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8373	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C8374	1-164-346-11	CERAMIC CHIP 1MF	16V
C8375	1-126-964-11	ELECT 10MF	20% 50V
C8376	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8381	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8382	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8386	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8390	1-126-963-11	ELECT 4.7MF	20% 50V
C8391	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8392	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8393	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C8396	1-107-823-11	CERAMIC CHIP 0.47MF	10% 16V
C8399	1-126-961-11	ELECT 2.2MF	20% 50V
C8401	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C8402	1-164-346-11	CERAMIC CHIP 1MF	16V
C8403	1-163-037-11	CERAMIC CHIP 0.022MF	10% 50V
C8406	1-104-664-11	ELECT 47MF	20% 16V
C8407	1-104-664-11	ELECT 47MF	20% 16V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
C8408	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	D8305	8-719-158-35	DIODE RD9.1SB
C8410	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8306	8-719-158-35	DIODE RD9.1SB
C8411	1-117-720-11	CERAMIC CHIP	4.7MF		10V	D8307	8-719-158-35	DIODE RD9.1SB
C8412	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8308	8-719-158-35	DIODE RD9.1SB
C8413	1-117-720-11	CERAMIC CHIP	4.7MF		10V	D8309	8-719-158-35	DIODE RD9.1SB
C8414	1-104-664-11	ELECT	47MF	20%	16V	D8310	8-719-158-35	DIODE RD9.1SB
C8415	1-164-346-11	CERAMIC CHIP	1MF		16V	D8311	8-719-158-35	DIODE RD9.1SB
C8416	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8312	8-719-158-35	DIODE RD9.1SB
C8417	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V	D8313	8-719-158-35	DIODE RD9.1SB
C8418	1-126-964-11	ELECT	10MF	20%	50V	D8314	8-719-158-35	DIODE RD9.1SB
C8419	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8315	8-719-067-40	DIODE STZ6.8N-T146
C8424	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	D8316	8-719-067-40	DIODE STZ6.8N-T146
C8425	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	D8317	8-719-067-40	DIODE STZ6.8N-T146
C8430	1-117-720-11	CERAMIC CHIP	4.7MF		10V	D8318	8-719-158-35	DIODE RD9.1SB
C8431	1-163-243-11	CERAMIC CHIP	47PF	5%	50V	D8319	8-719-158-35	DIODE RD9.1SB
C8432	1-163-239-11	CERAMIC CHIP	33PF	5%	50V	D8320	8-719-158-35	DIODE RD9.1SB
C8437	1-126-963-11	ELECT	4.7MF	20%	50V	D8321	8-719-158-35	DIODE RD9.1SB
C8438	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8322	8-719-158-35	DIODE RD9.1SB
C8439	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8323	8-719-158-35	DIODE RD9.1SB
C8440	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	D8324	8-719-158-35	DIODE RD9.1SB
C8441	1-164-346-11	CERAMIC CHIP	1MF		16V	D8325	8-719-158-35	DIODE RD9.1SB
C8442	1-117-720-11	CERAMIC CHIP	4.7MF		10V	D8331	8-719-041-97	DIODE MA113-(TX)
C8443	1-117-720-11	CERAMIC CHIP	4.7MF		10V			
C8444	1-117-720-11	CERAMIC CHIP	4.7MF		10V			
C8445	1-164-346-11	CERAMIC CHIP	1MF		16V			<FILTER>
C8446	1-104-664-11	ELECT	47MF	20%	16V	FL8301	1-236-071-11	ENCAPSULATED COMPONENT
C8447	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	FL8303	1-236-071-11	ENCAPSULATED COMPONENT
C8448	1-164-690-91	CERAMIC CHIP	0.0022MF	5%	50V	FL8304	1-236-071-11	ENCAPSULATED COMPONENT
C8450	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V	FL8305	1-236-071-11	ENCAPSULATED COMPONENT
C8451	1-164-505-11	CERAMIC CHIP	2.2MF		16V	FL8307	1-236-071-11	ENCAPSULATED COMPONENT
C8452	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	FL8308	1-236-071-11	ENCAPSULATED COMPONENT
C8453	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	FL8309	1-236-071-11	ENCAPSULATED COMPONENT
C8454	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	FL8311	1-236-071-11	ENCAPSULATED COMPONENT
C8455	1-104-664-11	ELECT	47MF	20%	16V	FL8312	1-236-071-11	ENCAPSULATED COMPONENT
C8456	1-104-664-11	ELECT	47MF	20%	16V	FL8313	1-236-071-11	ENCAPSULATED COMPONENT
C8457	1-104-664-11	ELECT	47MF	20%	16V	FL8314	1-233-877-11	FILTER, LOW PASS
C8459	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	FL8315	1-233-504-21	FILTER, LOW PASS
C8464	1-104-664-11	ELECT	47MF	20%	16V	FL8316	1-233-504-21	FILTER, LOW PASS
C8465	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V			
C8468	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V			<IC>
C8471	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	IC8302	8-752-080-04	IC CXA2069Q
C8474	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	IC8304	8-759-460-74	IC BA05FP-E2
		<CONNECTOR>				IC8305	8-759-460-79	IC BA09FP-E2
CN8301*	1-564-524-11	PLUG, CONNECTOR 9P				IC8306	8-752-094-47	IC CXA2123AQ-T6
CN8302	1-695-915-11	TAB (CONTACT)				IC8308	8-752-094-47	IC CXA2123AQ-T6
CN8304	1-793-498-11	CONNECTOR, BOARD TO BOARD 50P				IC8309	8-759-337-26	IC MM1115XFBE
		<DIODE>				IC8310	8-759-572-04	IC TDA9178T/N1.118
D8101	8-719-073-01	DIODE MA111-(K8.)SO				IC8311	8-759-485-79	IC TC7SET08FU(TE85L)
D8301	8-719-158-35	DIODE RD9.1SB				IC8312	8-759-485-79	IC TC7SET08FU(TE85L)
D8302	8-719-158-35	DIODE RD9.1SB				IC8314	8-742-175-00	HYB IC SBX3005-11
D8303	8-719-158-35	DIODE RD9.1SB						<JACK>
D8304	8-719-158-35	DIODE RD9.1SB				J8106	1-793-787-11	JACK BLOCK, PIN 1P
						J8301	1-774-748-11	TERMINAL BLOCK, S
						J8302	1-774-746-11	JACK BLOCK, PIN
						J8303	1-774-746-11	JACK BLOCK, PIN
						J8304	1-774-746-11	JACK BLOCK, PIN



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
J8305	1-695-444-11	PIN JACK BLOCK 3P		Q8355	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
J8307	1-565-838-11	JACK BLOCK, PIN 2P		Q8358	1-801-806-11	TRANSISTOR DTC144EKA-T146	
		<CHIP CONDUCTOR>		Q8359	1-801-806-11	TRANSISTOR DTC144EKA-T146	
JR8301	1-216-295-91	SHORT	0	Q8360	1-801-806-11	TRANSISTOR DTC144EKA-T146	
JR8302	1-216-295-91	SHORT	0	Q8361	8-729-230-49	TRANSISTOR 2SC2712-YG	
JR8303	1-216-295-91	SHORT	0				
JR8304	1-216-295-91	SHORT	0	Q8362	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<COIL>		Q8363	8-729-230-49	TRANSISTOR 2SC2712-YG	
L8302	1-414-196-41	INDUCTOR	47UH	Q8464	8-729-230-49	TRANSISTOR 2SC2712-YG	
L8303	1-414-196-41	INDUCTOR	47UH	Q8465	8-729-230-49	TRANSISTOR 2SC2712-YG	
L8304	1-414-196-41	INDUCTOR	47UH	Q8466	8-729-230-49	TRANSISTOR 2SC2712-YG	
		<TRANSISTOR>		Q8512	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q8301	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
Q8302	8-729-230-49	TRANSISTOR 2SC2712-YG		R8101	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8303	8-729-230-49	TRANSISTOR 2SC2712-YG		R8208	1-216-295-91	SHORT	0
Q8304	8-729-230-49	TRANSISTOR 2SC2712-YG		R8209	1-216-295-91	SHORT	0
Q8305	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8301	1-216-041-00	RES,CHIP	470 5% 1/10W
				R8302	1-216-041-00	RES,CHIP	470 5% 1/10W
Q8306	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q8307	8-729-230-49	TRANSISTOR 2SC2712-YG		R8303	1-216-021-00	RES,CHIP	68 5% 1/10W
Q8308	8-729-230-49	TRANSISTOR 2SC2712-YG		R8304	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
Q8309	8-729-230-49	TRANSISTOR 2SC2712-YG		R8305	1-216-113-00	RES,CHIP	470K 5% 1/10W
Q8310	8-729-230-49	TRANSISTOR 2SC2712-YG		R8306	1-216-022-00	RES,CHIP	75 5% 1/10W
				R8307	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8312	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q8313	8-729-230-49	TRANSISTOR 2SC2712-YG		R8308	1-216-105-91	RES,CHIP	220K 5% 1/10W
Q8319	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8309	1-216-105-91	RES,CHIP	220K 5% 1/10W
Q8320	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8310	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8321	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8311	1-216-105-91	RES,CHIP	220K 5% 1/10W
				R8312	1-216-105-91	RES,CHIP	220K 5% 1/10W
Q8322	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R					
Q8323	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8313	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8324	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8314	1-216-105-91	RES,CHIP	220K 5% 1/10W
Q8325	8-729-230-49	TRANSISTOR 2SC2712-YG		R8315	1-216-105-91	RES,CHIP	220K 5% 1/10W
Q8326	8-729-230-49	TRANSISTOR 2SC2712-YG		R8316	1-216-113-00	RES,CHIP	470K 5% 1/10W
				R8317	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8327	1-801-806-11	TRANSISTOR DTC144EKA-T146					
Q8328	1-801-806-11	TRANSISTOR DTC144EKA-T146		R8318	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8329	8-729-230-49	TRANSISTOR 2SC2712-YG		R8319	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8330	8-729-230-49	TRANSISTOR 2SC2712-YG		R8320	1-216-105-91	RES,CHIP	220K 5% 1/10W
Q8331	8-729-230-49	TRANSISTOR 2SC2712-YG		R8321	1-216-105-91	RES,CHIP	220K 5% 1/10W
				R8322	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8332	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q8333	8-729-230-49	TRANSISTOR 2SC2712-YG		R8323	1-216-295-91	SHORT	0
Q8334	8-729-230-49	TRANSISTOR 2SC2712-YG		R8324	1-216-295-91	SHORT	0
Q8335	8-729-230-49	TRANSISTOR 2SC2712-YG					
Q8336	8-729-230-49	TRANSISTOR 2SC2712-YG		R8325	1-216-295-91	SHORT	0
Q8337	8-729-230-49	TRANSISTOR 2SC2712-YG		R8326	1-216-113-00	RES,CHIP	470K 5% 1/10W
Q8342	8-729-230-49	TRANSISTOR 2SC2712-YG		R8327	1-216-295-91	SHORT	0
Q8343	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8328	1-216-113-00	RES,CHIP	470K 5% 1/10W
Q8344	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8329	1-216-113-00	RES,CHIP	470K 5% 1/10W
Q8349	8-729-230-49	TRANSISTOR 2SC2712-YG		R8330	1-216-022-00	RES,CHIP	75 5% 1/10W
Q8350	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8331	1-216-295-91	SHORT	0
Q8351	8-729-230-49	TRANSISTOR 2SC2712-YG		R8332	1-216-295-91	SHORT	0
Q8352	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8333	1-216-295-91	SHORT	0
Q8353	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8334	1-216-295-91	SHORT	0
Q8354	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R		R8335	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
				R8336	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
				R8337	1-216-022-00	RES,CHIP	75 5% 1/10W
				R8338	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
				R8339	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
				R8340	1-216-065-91	RES,CHIP	4.7K 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R8341	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R8410	1-216-295-91	SHORT	0
R8342	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R8411	1-216-083-00	RES,CHIP	27K 5% 1/10W
R8343	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R8412	1-216-073-00	RES,CHIP	10K 5% 1/10W
R8344	1-216-022-00	RES,CHIP	75 5% 1/10W	R8413	1-216-041-00	RES,CHIP	470 5% 1/10W
R8348	1-216-057-00	RES,CHIP	2.2K 5% 1/10W	R8414	1-208-796-11	METAL CHIP	3.9K 0.50% 1/10W
R8349	1-216-049-91	RES,CHIP	1K 5% 1/10W	R8415	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8350	1-216-049-91	RES,CHIP	1K 5% 1/10W	R8417	1-216-025-91	RES,CHIP	100 5% 1/10W
R8351	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R8418	1-216-025-91	RES,CHIP	100 5% 1/10W
R8352	1-216-065-91	RES,CHIP	4.7K 5% 1/10W	R8419	1-216-017-91	RES,CHIP	47 5% 1/10W
R8353	1-216-017-91	RES,CHIP	47 5% 1/10W	R8420	1-216-017-91	RES,CHIP	47 5% 1/10W
R8354	1-216-017-91	RES,CHIP	47 5% 1/10W	R8421	1-216-295-91	SHORT	0
R8355	1-216-295-91	SHORT	0	R8422	1-216-295-91	SHORT	0
R8356	1-216-295-91	SHORT	0	R8424	1-216-083-00	RES,CHIP	27K 5% 1/10W
R8357	1-216-017-91	RES,CHIP	47 5% 1/10W	R8425	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8358	1-216-017-91	RES,CHIP	47 5% 1/10W	R8426	1-208-796-11	METAL CHIP	3.9K 0.50% 1/10W
R8361	1-216-017-91	RES,CHIP	47 5% 1/10W	R8428	1-216-295-91	SHORT	0
R8362	1-216-017-91	RES,CHIP	47 5% 1/10W	R8429	1-216-295-91	SHORT	0
R8363	1-208-773-11	METAL CHIP	430 0.50% 1/10W	R8430	1-216-295-91	SHORT	0
R8364	1-216-041-00	RES,CHIP	470 5% 1/10W	R8431	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8365	1-216-049-91	RES,CHIP	1K 5% 1/10W	R8432	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8366	1-216-049-91	RES,CHIP	1K 5% 1/10W	R8433	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8367	1-216-041-00	RES,CHIP	470 5% 1/10W	R8434	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8369	1-216-041-00	RES,CHIP	470 5% 1/10W	R8435	1-216-295-91	SHORT	0
R8370	1-216-025-91	RES,CHIP	100 5% 1/10W	R8436	1-216-017-91	RES,CHIP	47 5% 1/10W
R8372	1-216-295-91	SHORT	0	R8437	1-216-025-91	RES,CHIP	100 5% 1/10W
R8373	1-216-295-91	SHORT	0	R8438	1-216-025-91	RES,CHIP	100 5% 1/10W
R8374	1-216-039-00	RES,CHIP	390 5% 1/10W	R8440	1-216-295-91	SHORT	0
R8375	1-216-041-00	RES,CHIP	470 5% 1/10W	R8441	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8376	1-216-049-91	RES,CHIP	1K 5% 1/10W	R8442	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8377	1-216-025-91	RES,CHIP	100 5% 1/10W	R8443	1-216-025-91	RES,CHIP	100 5% 1/10W
R8378	1-216-033-00	RES,CHIP	220 5% 1/10W	R8444	1-216-025-91	RES,CHIP	100 5% 1/10W
R8379	1-216-033-00	RES,CHIP	220 5% 1/10W	R8445	1-216-017-91	RES,CHIP	47 5% 1/10W
R8380	1-216-025-91	RES,CHIP	100 5% 1/10W	R8446	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8381	1-216-025-91	RES,CHIP	100 5% 1/10W	R8447	1-216-025-91	RES,CHIP	100 5% 1/10W
R8382	1-216-033-00	RES,CHIP	220 5% 1/10W	R8448	1-216-025-91	RES,CHIP	100 5% 1/10W
R8383	1-216-033-00	RES,CHIP	220 5% 1/10W	R8449	1-216-025-91	RES,CHIP	100 5% 1/10W
R8384	1-216-025-91	RES,CHIP	100 5% 1/10W	R8450	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8385	1-216-025-91	RES,CHIP	100 5% 1/10W	R8451	1-216-097-91	RES,CHIP	100K 5% 1/10W
R8386	1-216-025-91	RES,CHIP	100 5% 1/10W	R8452	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8388	1-216-031-00	RES,CHIP	180 5% 1/10W	R8453	1-216-097-91	RES,CHIP	100K 5% 1/10W
R8389	1-216-033-00	RES,CHIP	220 5% 1/10W	R8454	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8390	1-208-773-11	METAL CHIP	430 0.50% 1/10W	R8455	1-216-097-91	RES,CHIP	100K 5% 1/10W
R8391	1-216-041-00	RES,CHIP	470 5% 1/10W	R8456	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8393	1-216-037-00	RES,CHIP	330 5% 1/10W	R8457	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8394	1-216-041-00	RES,CHIP	470 5% 1/10W	R8458	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8395	1-216-033-00	RES,CHIP	220 5% 1/10W	R8459	1-216-025-91	RES,CHIP	100 5% 1/10W
R8396	1-216-033-00	RES,CHIP	220 5% 1/10W	R8460	1-216-025-91	RES,CHIP	100 5% 1/10W
R8398	1-216-025-91	RES,CHIP	100 5% 1/10W	R8461	1-216-025-91	RES,CHIP	100 5% 1/10W
R8399	1-216-025-91	RES,CHIP	100 5% 1/10W	R8462	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8400	1-216-025-91	RES,CHIP	100 5% 1/10W	R8463	1-216-097-91	RES,CHIP	100K 5% 1/10W
R8401	1-216-081-00	RES,CHIP	22K 5% 1/10W	R8464	1-216-025-91	RES,CHIP	100 5% 1/10W
R8404	1-216-033-00	RES,CHIP	220 5% 1/10W	R8465	1-216-025-91	RES,CHIP	100 5% 1/10W
R8405	1-216-033-00	RES,CHIP	220 5% 1/10W	R8466	1-216-025-91	RES,CHIP	100 5% 1/10W
R8406	1-216-033-00	RES,CHIP	220 5% 1/10W	R8467	1-216-041-00	RES,CHIP	470 5% 1/10W
R8407	1-216-033-00	RES,CHIP	220 5% 1/10W	R8468	1-216-041-00	RES,CHIP	470 5% 1/10W
R8408	1-216-033-00	RES,CHIP	220 5% 1/10W	R8469	1-216-041-00	RES,CHIP	470 5% 1/10W
R8409	1-216-295-91	SHORT	0	R8470	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
				R8471	1-216-025-91	RES,CHIP	100 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK
R8472	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8473	1-216-025-91	RES,CHIP	100 5% 1/10W
R8474	1-216-097-91	RES,CHIP	100K 5% 1/10W
R8475	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8476	1-216-031-00	RES,CHIP	180 5% 1/10W
R8477	1-216-033-00	RES,CHIP	220 5% 1/10W
R8478	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8479	1-216-097-91	RES,CHIP	100K 5% 1/10W
R8480	1-216-073-00	RES,CHIP	10K 5% 1/10W
R8481	1-216-095-00	RES,CHIP	82K 5% 1/10W
R8482	1-216-089-91	RES,CHIP	47K 5% 1/10W
R8484	1-216-045-00	RES,CHIP	680 5% 1/10W
R8485	1-216-037-00	RES,CHIP	330 5% 1/10W
R8486	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8487	1-216-045-00	RES,CHIP	680 5% 1/10W
R8488	1-216-041-00	RES,CHIP	470 5% 1/10W
R8489	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8490	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8491	1-216-025-91	RES,CHIP	100 5% 1/10W
R8492	1-216-041-00	RES,CHIP	470 5% 1/10W
R8493	1-216-081-00	RES,CHIP	22K 5% 1/10W
R8494	1-216-041-00	RES,CHIP	470 5% 1/10W
R8495	1-216-081-00	RES,CHIP	22K 5% 1/10W
R8496	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8497	1-216-025-91	RES,CHIP	100 5% 1/10W
R8498	1-216-043-91	RES,CHIP	560 5% 1/10W
R8499	1-216-081-00	RES,CHIP	22K 5% 1/10W
R8500	1-216-033-00	RES,CHIP	220 5% 1/10W
R8501	1-216-081-00	RES,CHIP	22K 5% 1/10W
R8502	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8503	1-216-097-91	RES,CHIP	100K 5% 1/10W
R8507	1-216-025-91	RES,CHIP	100 5% 1/10W
R8508	1-216-025-91	RES,CHIP	100 5% 1/10W
R8509	1-216-025-91	RES,CHIP	100 5% 1/10W
R8510	1-216-041-00	RES,CHIP	470 5% 1/10W
R8512	1-216-017-91	RES,CHIP	47 5% 1/10W
R8513	1-216-039-00	RES,CHIP	390 5% 1/10W
R8514	1-216-039-00	RES,CHIP	390 5% 1/10W
R8515	1-216-295-91	SHORT	0
R8516	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8518	1-216-047-91	RES,CHIP	820 5% 1/10W
R8519	1-216-047-91	RES,CHIP	820 5% 1/10W
R8528	1-216-025-91	RES,CHIP	100 5% 1/10W
R8530	1-216-041-00	RES,CHIP	470 5% 1/10W
R8532	1-216-041-00	RES,CHIP	470 5% 1/10W
R8533	1-216-041-00	RES,CHIP	470 5% 1/10W
R8536	1-216-025-91	RES,CHIP	100 5% 1/10W
R8538	1-216-041-00	RES,CHIP	470 5% 1/10W
R8540	1-216-041-00	RES,CHIP	470 5% 1/10W
R8541	1-216-039-00	RES,CHIP	390 5% 1/10W
R8551	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8557	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8558	1-208-776-11	METAL CHIP	560 0.50% 1/10W
R8561	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8562	1-208-776-11	METAL CHIP	560 0.50% 1/10W
R8564	1-216-025-91	RES,CHIP	100 5% 1/10W
R8565	1-216-049-91	RES,CHIP	1K 5% 1/10W
R8566	1-208-776-11	METAL CHIP	560 0.50% 1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R8567	1-216-017-91	RES,CHIP	47 5% 1/10W
R8569	1-208-800-11	METAL CHIP	5.6K 0.50% 1/10W
R8570	1-216-017-91	RES,CHIP	47 5% 1/10W
R8572	1-208-800-11	METAL CHIP	5.6K 0.50% 1/10W
R8573	1-216-017-91	RES,CHIP	47 5% 1/10W
R8575	1-208-800-11	METAL CHIP	5.6K 0.50% 1/10W
R8576	1-216-013-00	RES,CHIP	33 5% 1/10W
R8577	1-216-295-91	SHORT	0
R8578	1-216-033-00	RES,CHIP	220 5% 1/10W
R8579	1-216-295-91	SHORT	0
R8582	1-208-291-11	RES,CHIP	4.7M 5% 1/10W
R8583	1-208-291-11	RES,CHIP	4.7M 5% 1/10W
R8584	1-208-291-11	RES,CHIP	4.7M 5% 1/10W
R8585	1-208-291-11	RES,CHIP	4.7M 5% 1/10W
R8586	1-208-291-11	RES,CHIP	4.7M 5% 1/10W
R8587	1-216-295-91	SHORT	0
R8588	1-216-041-00	RES,CHIP	470 5% 1/10W
R8589	1-216-041-00	RES,CHIP	470 5% 1/10W
R8590	1-216-041-00	RES,CHIP	470 5% 1/10W
R8592	1-216-295-91	SHORT	0
R8594	1-216-295-91	SHORT	0
R8595	1-216-041-00	RES,CHIP	470 5% 1/10W
R8596	1-216-041-00	RES,CHIP	470 5% 1/10W
R8597	1-216-041-00	RES,CHIP	470 5% 1/10W
<CRYSTAL>			
X8301	1-781-612-11	VIBRATOR, CRYSTAL	
X8302	1-781-612-11	VIBRATOR, CRYSTAL	
*****			
* A-1342-515-A		VM BOARD MOUNT	*****
4-382-854-11	SCREW (M3X10), P, SW (+)		
<CAPACITOR>			
C5401	1-126-935-11	ELECT	470MF 20% 16V
C5402	1-137-194-81	MYLAR	0.47MF 5% 50V
C5403	1-126-935-11	ELECT	470MF 20% 6.3V
C5405	1-126-933-11	ELECT	100MF 20% 16V
C5406	1-126-935-11	ELECT	470MF 20% 6.3V
C5407	1-107-364-11	MYLAR	0.01MF 10% 200V
C5408	1-107-364-11	MYLAR	0.01MF 10% 200V
C5409	1-107-649-11	ELECT	2.2MF 20% 250V
C5410	1-130-471-00	MYLAR	0.001MF 5% 50V
C5411	1-130-471-00	MYLAR	0.001MF 5% 50V
C5412	1-126-935-11	ELECT	470MF 20% 16V
C5413	1-107-648-91	ELECT	100MF 20% 160V
C5415	1-104-999-11	MYLAR	0.1MF 10% 200V
C5418	1-107-638-11	ELECT	33MF 20% 160V
<CONNECTOR>			
CN5401*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
CN5402	1-764-334-11	PLUG, CONNECTOR 11P	



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



REF. NO.	PART NO.	DESCRIPTION	REMARK
<DIODE>			
D5400	8-719-911-19	DIODE 1SS119-25	
D5401	8-719-510-02	DIODE D1NS4	
D5402	8-719-911-19	DIODE 1SS119-25	
D5403	8-719-911-19	DIODE 1SS119-25	
D5404	8-719-911-19	DIODE 1SS119-25	
D5405	8-719-110-56	DIODE RD22ESB1	
D5406	8-719-110-56	DIODE RD22ESB1	
<COIL>			
L5400	1-412-525-31	INDUCTOR 10UH	
<TRANSISTOR>			
Q5400	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5404	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q5405	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q5406	8-729-045-05	TRANSISTOR 2SA2005	
Q5407	8-729-045-04	TRANSISTOR 2SC5511	
<RESISTOR>			
R5401	1-249-425-11	CARBON 4.7K	5% 1/4W
R5402	1-249-415-11	CARBON 680	5% 1/4W
R5403	1-247-739-11	CARBON 100	5% 1/2W F
R5404	1-249-418-11	CARBON 1.2K	5% 1/4W
R5406	1-249-425-11	CARBON 4.7K	5% 1/4W
R5407	1-249-399-11	CARBON 33	5% 1/4W
R5408	1-247-807-31	CARBON 100	5% 1/4W
R5409	1-247-815-91	CARBON 220	5% 1/4W
R5410	1-249-401-11	CARBON 47	5% 1/4W
R5411	1-249-401-11	CARBON 47	5% 1/4W
R5412	1-249-429-11	CARBON 10K	5% 1/4W
R5413	1-249-414-11	CARBON 560	5% 1/4W F
R5414	1-249-432-11	CARBON 18K	5% 1/4W
R5415	1-247-739-11	CARBON 100	5% 1/2W F
R5416	1-249-385-11	CARBON 2.2	5% 1/4W F
R5417	1-249-432-11	CARBON 18K	5% 1/4W
R5418	1-249-414-11	CARBON 560	5% 1/4W
R5419	1-249-421-11	CARBON 2.2K	5% 1/4W
R5420	1-249-421-11	CARBON 2.2K	5% 1/4W
R5421	1-249-385-11	CARBON 2.2	5% 1/4W F
R5422	1-249-405-11	CARBON 100	5% 1/4W F
R5423	1-215-915-11	METAL OXIDE 470	5% 3W F
R5424	1-249-395-11	CARBON 15	5% 1/4W
R5425	1-249-401-11	CARBON 47	5% 1/4W
R5427	1-249-395-11	CARBON 15	5% 1/4W

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REF. NO.	PART NO.	DESCRIPTION	REMARK
MISCELLANEOUS *****			
$\Delta$	1-251-374-51	CAP ASSY, HIGH-VOLTAGE	
$\Delta$	1-419-294-11	COIL, DEGAUSSING	
	1-452-094-00	CIRCULAR DISC MAGNET B	
	1-452-032-00	MAGNET, DISC	
	1-452-896-11	COIL, NA ROTATION (RT200)	
	1-505-473-11	SPEAKER (12CM)	
	1-529-532-11	SPEAKER (5CM)	
	1-543-827-31	CLAMP, SLEEVE FERRITE	
$\Delta$	1-769-175-21	CABLE, ANTENNA (WITH FILTER)	
	1-790-082-11	CABLE, RF	
	1-792-002-11	CORD, POWER (WITH FILTER)	
$\Delta$	8-735-056-05	PICTURE TUBE (M68LNH010X)	
	8-453-011-11	NA299-M	
$\Delta$	8-451-504-61	DEFLECTION YOKE (Y29RSC-Y3)	
$\Delta$	1-900-248-66	LEAD ASSY, FOCUS	

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ACCESSORIES AND PACKING MATERIALS  
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A-1028-081-A	PACKING GROUP
3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)
4-392-004-11	CLIP
3-867-756-11	MANUAL, INSTRUCTION
4-392-003-01	BAND, HOLD
* 4-071-701-01	INDIVIDUAL CARTON
4-071-702-01	TRAY
* 4-071-703-01	CUSHION (UPPER) (ASSY)
* 4-071-704-01	CUSHION (LOWER) (ASSY)
* 4-388-135-01	BAG, PROTECTION
* 4-396-077-01	JOINT

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REMOTE COMMANDER  
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1-418-566-11	REMOTE COMMANDER (RM-916)
4-074-721-01	BATTERY COVER, REMOTE COMMANDER

