

SERVICE MANUAL

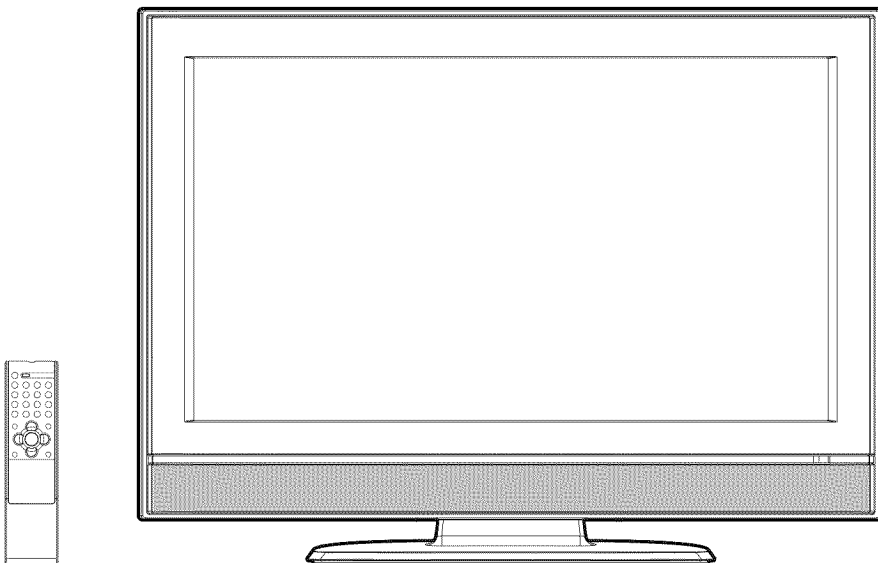


**32" WIDE TFT LCD TELEVISION
WITH DIGITAL TUNER**

HDLCD3200C



HDMI



ATTENTION

If you purchase a universal remote control from your local retailer, please contact the remote manufacturer for the required programming code.

TV/CABLE MODE SELECTION

When shipped from the factory, the TV/CABLE menu option is set to the "CABLE" (Cable Television) mode. If not using Cable TV, set this menu option to the "TV" position.

IF CONTACT WITH CUSTOMER SERVICE IS REQUIRED
PLEASE HAVE THE MODEL NUMBER READY PRIOR TO THE CALL
CUSTOMER SERVICE – 1-800-289-0980

ORION WEBSITE

FOR INFORMATION ON OUR OTHER PRODUCTS, PLEASE VISIT OUR WEBSITE AT

www.orionsalesinc.com

Before operating the unit, please read this manual thoroughly.

IMPORTANT SERVICE SAFETY INFORMATION

Operating the receiver outside of its cabinet or with its back removed involves a shock hazard. Work on these models should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.

Exercise care when servicing this chassis with power applied. Many B plus and high voltage RF terminals are exposed which, if carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnecting ground lead connections between chassis, escutcheon, picture tube dag and tuner cluster when operating the chassis.

These receivers have a "polarized" AC line cord. The AC plug is designed to fit into standard AC outlets in one direction only. The wide blade connects to the "ground side" and the narrow blade connects to the "hot side" of the AC line. This assures that the TV receiver is properly grounded to the house wiring. If an extension cord must be used, make sure it is of the "polarized" type.

Since the chassis of this receiver is connected to one side of the AC supply during operation, service should not be attempted by anyone not familiar with the precautions necessary when working on these types of equipment.

When it is necessary to make measurements or tests with AC power applied to the receiver chassis, an Isolation Transformer must be used as a safety precaution and to prevent possible damage to transistors. The Isolation Transformer should be connected between the TV line cord plug and the AC power outlet.

When removing springs or spring mounted parts from the tuner, tuner cluster or chassis, shatterproof goggles must be worn. Keep others without shatterproof goggles away.

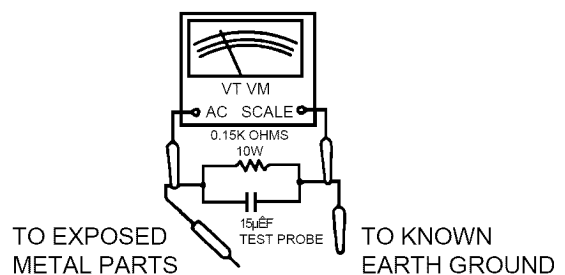
Before returning the receiver to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.
2. Replace all protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. To be sure that no shock hazard exists, a check for the presence of leakage current should be made at each exposed metal part having a return path to the chassis (antenna, cabinet metal, screw heads, knobs and/or shafts, escutcheon, etc.) in the following manner.

Plug the AC line cord directly into a 120V AC receptacle. (Do not use an Isolation Transformer during these checks.) All checks must be repeated with the AC line cord plug connection reversed. (If necessary, a nonpolarized adapter plug must be used only for the purpose of completing these checks.)

If available, measure current using an accurate leakage current tester. Any reading of 0.35mA or more is excessive and indicates a potential shock hazard which must be corrected before returning the receiver to the owner.

If a reliable leakage current tester is not available, this alternate method of measurement should be used. Using two clip leads, connect a 1500 ohm, 10 watt resistor paralleled by a 0.15 μ F capacitor in series with a known earth ground, such as a water pipe or conduit and the metal part to be checked. Use a VTVM or VOM with 1000 ohms per volt, or higher, sensitivity to measure this AC voltage drop across the resistor. Any reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the receiver to the owner.

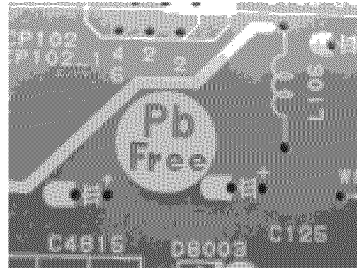


ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.

(Please refer to figures.)



Caution:

- Pb free solder has a higher melting point than standard solder; Typically the melting point is 86°F~104°F(30°C~40°C) higher. Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C). In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder. When soldering or unsoldering, completely remove all of the solder from the pins or solder area, and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

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GENERAL SPECIFICATIONS

G-1	TV System	LCD	LCD Size / Visual Size	31.5 inch / 800.4mmV
			LCD Type	Color TFT LCD
			Number of Pixels	1366(H) x 768(V)
		View Range	Left/Right	88/88 degree
			Up/Down	88/88 degree
		Bright Dot	n \geq 2	
		Zero Bright Dot Ratio	70% above	
Color System	NTSC			
Speaker	2 Speaker			
	Position	Front		
Size	2.2 x 5.0 inch			
	Impedance	8 ohm		
Sound Output	Max	5.0W + 5.0W		
	10%(Typical)	---		
G-2	Tuning System	Broadcasting System	Analog	US System M
			Digital	ATSC(8VSB)/QAM
		Tuner and Receive CH	System	1Tuner
			Destination	US (W/CABLE)
		CH Coverage	2-69, 4A, A-5-A-1, A-1, J-W, W+1-W+84	
			Intermediate Frequency	Digital
		Analog	Picture(FP)	45.75MHz
			Sound(FS)	41.25MHz
		FP-FS	4.50MHz	
		Preset CH	No	
Stereo/Dual TV Sound	US-Stereo			
Tuner Sound Muting	Yes			
G-3	Signal	Video Signal	Input Level	1 V p-p/75 ohm
			Output Level	--
			S/N Ratio (Weighted)	--
			Horizontal Resolution at DVD Mode	--
		RGB Signal	Output Level	--
			Audio Signal	Input Level
		Output Level	at DVD	--
			at TV	0-600mV /1k ohm
		Digital Output Level	0.5 V p-p/75 ohm	
		S/N Ratio at DVD (Weighted)	--	
		Harmonic Distortion	--	
		Frequency Response :	at DVD	--
			at Video CD	--
			at SVCD	--
at CD	--			
G-4	Power	Power Source	AC	120V, 60Hz
			DC	--
		Power Consumption	at AC	170W at 120V 60Hz
			at DC	--
		Stand by (at AC)	1W at 120V 60Hz	
		Energy Star	Yes	
		Per Year	-- kWh/Year	
Protector	Power Fuse	Yes		
	Safety Circuit	Yes		
	IC Protector(Micro Fuse)	Yes		
G-5	Regulation	Safety	UL(UL6500_2nd)/cUL(CSA E60065)(From MAR O/R)	
		Radiation	FCC/IC(From MAR O/R)	
		Laser	--	
G-6	Temperature	Operation	+5°C ~ +40°C	
		Storage	-20°C ~ +60°C	
G-7	Operating Humidity	Less than 80% RH		
G-8	Clock and Timer	Clock	No	
		Sleep Timer	Max Time	120 Min
		On Timer	Program	No
		Off Timer	Program	No
		Game Timer		No
		Wake Up Timer		No
		Timer Back-up (at Power Off Mode)	more than	-- Min Sec
G-9	Remote Control	Unit	RC-MJ	
		Glow in Dark Remocon	No	
		Remocon Format	ORION	
		Format	NEC	
		Custom Code	86-05 h	
		Power Source	Voltage(D.C)	3V
			UM size x pcs	UM-3 x 2 pcs
Total Keys	27 Keys			

GENERAL SPECIFICATIONS

	Keys	POWER	Yes		
		1	Yes		
		2	Yes		
		3	Yes		
		4	Yes		
		5	Yes		
		6	Yes		
		7	Yes		
		8	Yes		
		9	Yes		
		0	Yes		
		-	Yes		
		DISPLAY	Yes		
		PICTURE SIZE(SCREEN SIZE)	Yes		
		INPUT SELECT	Yes		
		RECALL(QUICK VIEW)	Yes		
		SLEEP	Yes		
		MUTE	Yes		
		MENU	Yes		
		ENTER	Yes		
		EXIT	Yes		
		CH+ / UP	Yes		
		CH- / DOWN	Yes		
		VOL+ / RIGHT	Yes		
		VOL- / LEFT	Yes		
		FAV +	No		
		FAV -	No		
		CCD(CLOSED CAPTION)	Yes		
		RESET	Yes		
		G-10	Features	Auto Shut Off	Yes
				Auto Search	No
Power On Memory	Yes				
Comb Filter	Yes				
	3 -D				
Game Position	No				
Auto Setup(Language/CH Program)	No				
Picture Setting(TV)	Yes				
	Picture Preference			Yes	
	Brightness , Contrast , Color			Yes	
	Tint			Yes	
	Sharpness			Yes	
	Color Temperature			Yes	
	DNR			Yes	
	Cable Clear			No	
Picture Setting(PC)	Yes				
	HOR Position , VER Position			Yes	
	Phase, Clock			Yes	
	Red, Green, Blue			No	
	Auto Adjust			No	
	Backlight			No	
Audio	MTS			Yes	
	Tone Control (Bass/Treble/Balance)			Yes	
	Stable Sound			No	
	Surround			No	
	BBE			No	
	SRS WOW (SRS 3D/Focus/Tru Bass)			No	
	Variable Audio Out			Yes	
Tuning	CH Program			Yes	
	Air/Cable			Yes	
	ADD/DELETE			Yes	
Label	CH Label	Yes			
	Video Label	Yes			
Favorite CH		No			
V-Chip		Yes			
	Type	USA Type			
RRT Setup		Yes			
Lock	Hotel Lock	No			
	Channel Lock	No			

GENERAL SPECIFICATIONS

		Video Lock	No
		Panel Lock	No
	Menu Language	English	
		French	
	Closed Caption	Yes	
	CC Advanced	Yes	
	Picture Size	Yes	
	Picture Scroll	No	
	Film Mode	Yes	
	Aspect	No	
	Backlight	Yes	
	PFC(Power Factor circuit)	No	
	Freeze frame	No	
	PIP/POP	No	
	Direct Input Selection	Yes	
	Digital Out	Dolby Digital	Yes
		MPEG	No
		PCM	No
		DTS	No
	PC Monitor Input		Yes
		VGA (640x480)	Yes (60Hz)
		VGA (720x400)	Yes (70Hz)
		WVGA (848x480)	No
		SVGA (800x600)	Yes (60Hz)
		XGA (1024x768)	Yes (60Hz)
		WXGA (1280x768)	Yes (60Hz)
		WXGA (1280x720)	Yes (60Hz)
		WXGA (1360x768)	Yes (60Hz)
		SXGA (1280x1024)	No
	HDMI Input		Yes
		VGA (640x480)	Yes (60Hz)
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
	Component Input		Yes
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
	Wall Mount	Size W x H(mm)	Yes (200 x 200)
		Screw Size	M6 x 10
G-11	Accessories	Owner's Manual	Language
			English/French(From MAR O/R)
			w/Guarantee Card
		Remote Control Unit	Yes
		Rod Antenna	No
			Poles
			Terminal
		Loop Antenna	No
			Terminal
		U/V Mixer	No
		DC Car Cord (Center+)	No
		Guarantee Card	No
		Warning Sheet	No
		Circuit Diagram	No
		Antenna Change Plug	No
		Service Facility List	No
		Important Safeguard	No
		Dew/AHC Caution Sheet	No
		Quick Set-up Sheet	No

GENERAL SPECIFICATIONS

	Battery		Yes		
		UM size x pcs	UM-3 x 2 pcs		
		OEM Brand	No		
	AC Adapter		No		
	AC Cord (for AC Adapter)		No		
	AC Cord		Yes		
	AV Cord (2Pin-1Pin)		No		
	Registration Card (NDL Card)		No		
	300 to 75ohm Antenna Adapter		No		
	Cable Clamp		Yes		
	Sheet Information (Return)		Yes		
	Sheet Information (HDMI)		No		
G-12	Interface	Switch	Top	Power (Tact)	Yes
				Channel Up/Menu Up	Yes
			Channel Down/Menu Down	Yes	
			Volume Up/Menu >	Yes	
			Volume Down/Menu <	Yes	
			Menu	Yes	
			Play	No	
			Eject	No	
			Skip+, Search+	No	
			Skip-, Search-	No	
			Still/Pause	No	
			Stop	No	
			Main Power SW	No	
			Input Select/Enter	Yes	
			Rear	Main Power SW	No
			Indicator	Power/Stand-By	Yes (Green / Red)
				Power Wake Up	No
		On Timer		No	
		Terminals	Rear	Video Input 1	RCA x 1
				Audio Input 1	RCA x 2(L/MONO, R)
				S - Input 1	Yes
				Digital Audio Output	Coaxial
				VHF/UHF Antenna Input	F Type
				AC Inlet	Yes
			Side	Video Input 2	RCA x 1
				Audio Input 2	RCA x 2(L/MONO, R)
				S - Input 2	No
				Video Output	No
				Audio Output	RCA x 2 (Variable) (L, R)
				Component Input 1	RCA x 3
				Analog Audio	Video Input 2 Audio Input Alternative
				Component Input 2	No
				Analog Audio	No
	HDMI Input 1			HDMI x 1	
	Analog Audio	Mini Jack			
	HDMI Input 2	HDMI x 1			
	Analog Audio	No			
	Sub Woofer Out	No			
	PC Monitor Input	Yes			
	Analog Audio	HDMI 1 Audio Input Alternative			
	DC Jack (Center +)	No			
	Video Input 3	No			
	Audio Input 3	No			
	S - Input 3	No			
	Other Terminal	No			
G-13	Set Size	Approx. W x D x H (mm)	822 x 282.5 x 604		
		w/o Handle, Stand Approx. W x D x H (mm)	822 x 116 x 556.5		
G-14	Weight	Net (Approx.)	14.1kg (31.1 lbs)		
		Net w/o Handle, Stand (Approx.)	12.8kg (28.2 lbs)		
		Gross (Approx.)	17.3kg (38.1 lbs)		

GENERAL SPECIFICATIONS

G-15	Carton	Master Carton	No	
		Content	--- Sets	
		Material	--- / ---	
		Dimensions W x D x H(mm)	---	
		Description of Origin	---	
		Gift Box	Material	Double/White
		W/Color Photo Label	No	
		W/Handle	No	
		Dimensions W x D x H(mm)	917 x 340 x 720	
		Description of Origin	Yes	
		Drop Test	1 Corner / 3 Edges / 6 Surfaces	
		Height (cm)	62	
		Container Stuffing (40' container)	261 Sets/40' container	
		w/Pallet	No	
		w/Wrapping	No	
G-16	Material	Cabinet	Front PS 94V0 DECABROM	
		Rear	PS 94V0 DECABROM	
		Jack Panel	--	
		PCB	Non-Halogen Demand No	
		Eyelet Demand	Yes	
G-17	Environment	Environmental standard requirement	Green procurement of ORION	
		Pb-free	Phase3(Phase3A)	
		Measures for Whisker	Yes	

DISASSEMBLY INSTRUCTIONS

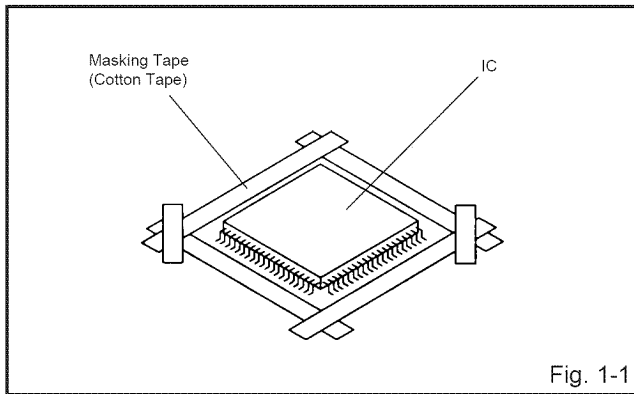
1. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. (Refer to Fig. 1-1.)

NOTE

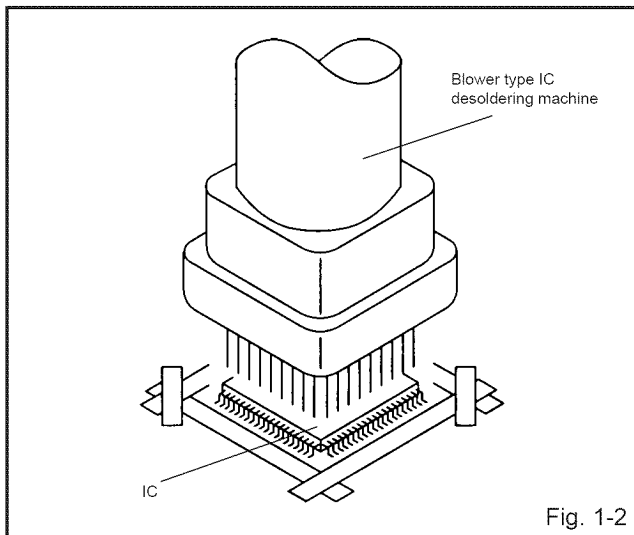
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. (Refer to Fig. 1-2.)

NOTE

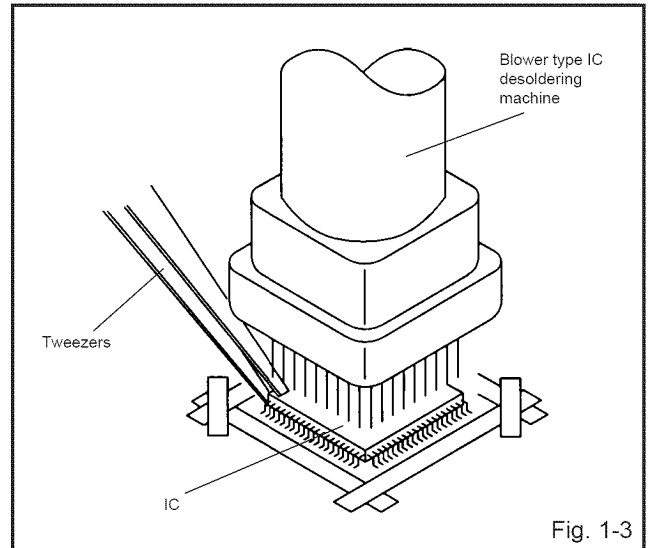
Do not rotate or move the IC back and forth until IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 1-3.)

NOTE

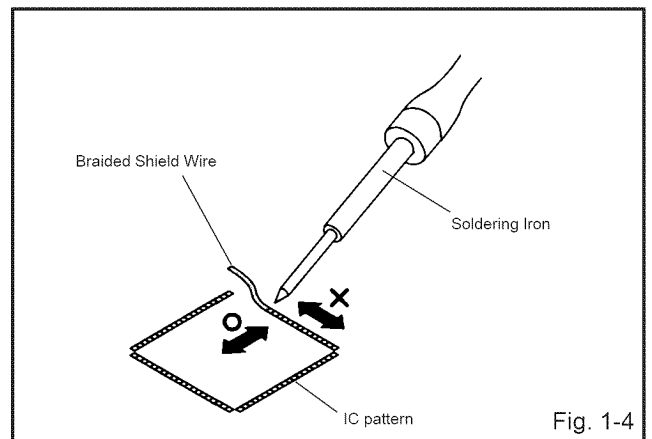
Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.



4. Peel off the Masking Tape.
5. Absorb the solder left on the pattern using the Braided Shield Wire. (Refer to Fig. 1-4.)

NOTE

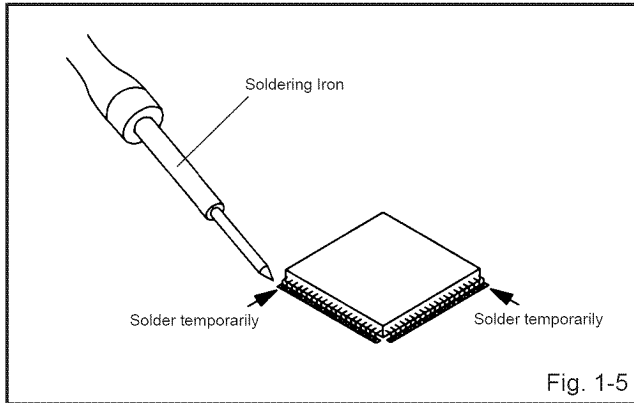
Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.



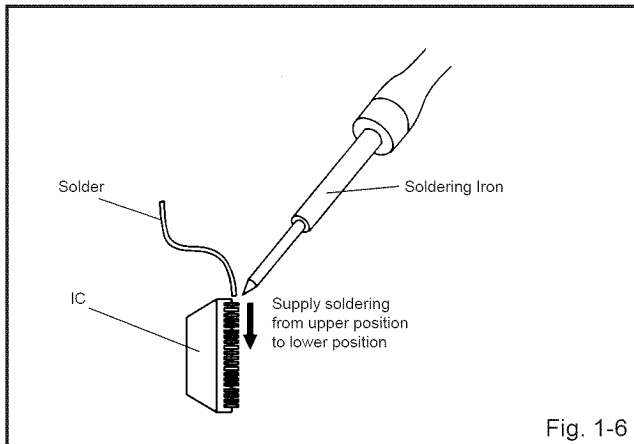
DISASSEMBLY INSTRUCTIONS

INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. (Refer to Fig. 1-5.)



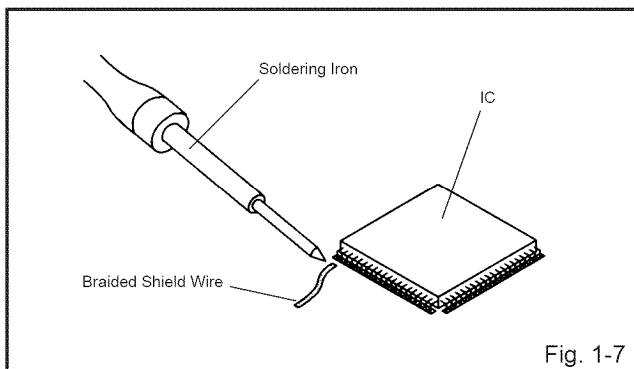
2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. (Refer to Fig. 1-6.)



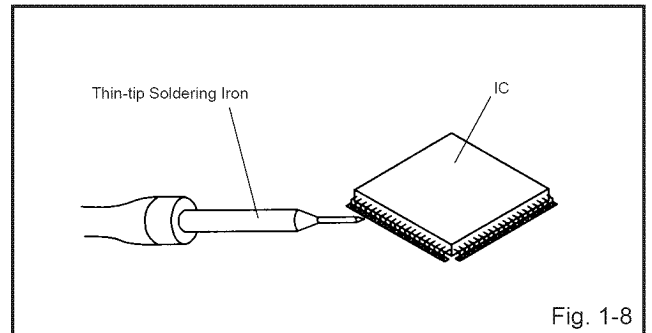
3. Absorb the solder left on the lead using the Braided Shield Wire. (Refer to Fig. 1-7.)

NOTE

Do not absorb the solder to excess.



4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. (Refer to Fig. 1-8.)



5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass. Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

NOTE

When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.

SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than a the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remocon Key	Standard Time	Operations
Power ON	VOL. DOWN (Minimum)	0	2 sec.	Releasing of V-CHIP PASSWORD.
Power ON	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
Power ON	VOL. DOWN (Minimum)	6	2 sec.	Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
Power ON	VOL. DOWN (Minimum)	8	2 sec.	Check of the SUM DATA and MICON VERSION on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
Power ON	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).

WHEN REPLACING EEPROM (MEMORY) IC

CONFIRMATION OF CHECK SUM, POWER ON TOTAL HOURS AND MICON VERSION

Initial total of MEMORY IC, POWER ON total hours and MICON VERSION can be checked on the screen. Total hours are displayed in 16 system of notation.

NOTE: If you set a factory initialization, the total hours is reset to "0".

Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(8)** on the remote control for more than 2 seconds.
4. After the confirmation of each check sum, turn off the power.

NOTE: The each item value might be different according to each set.

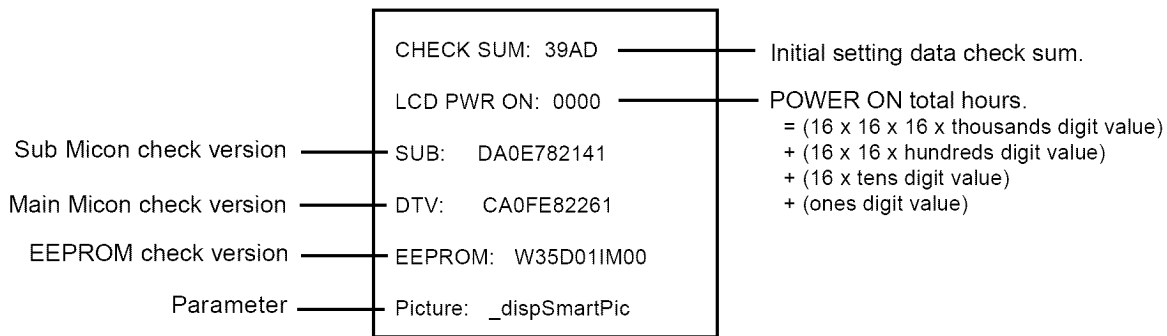


FIG. 1

CONFIRMATION OF INITIAL DATA

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the TV mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds. ADDRESS and DATA should appear as **FIG 2**.

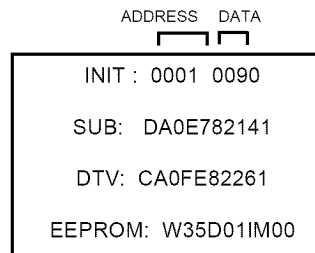


FIG. 2

4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press LEFT/RIGHT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing LEFT/RIGHT button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

After the data input, set to the initializing of shipping.

10. Turn on the POWER, and set to the TV mode.
11. Press both VOL. DOWN button on the set and Channel button **(1)** on the remote control for more than 2 seconds.
12. After the finishing of the initializing of shipping, the unit will turn off automatically. The unit will now have the correct DATA for the new MEMORY IC.

ELECTRICAL ADJUSTMENTS

1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION

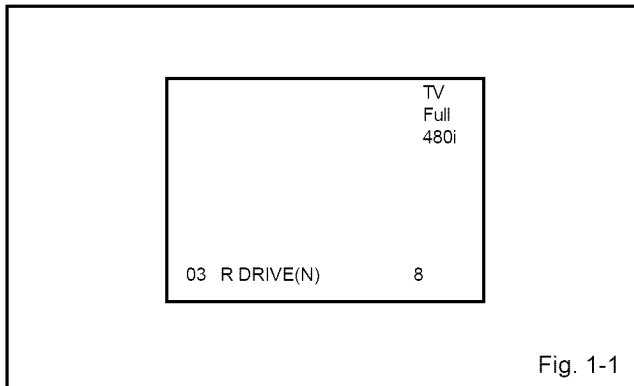
- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease (**YG6260M**) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor).

Prepare the following measurement tools for electrical adjustments.

1. Pattern Generator

On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button (**9**) on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in **Fig. 1-1**.



3. Use the CH. UP/DOWN button or Channel button (**0-9**) on the remote control to select the options shown in **Fig. 1-2**.
4. Press the MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for TV, AV, COMPONENT HDMI and PC mode, press the INPUT SELECT button on the remote control to set to the TV, AV, COMPONENT HDMI and PC mode.
6. Receive the DIGITAL broadcasting.
7. To display the adjustment screen for DTV mode, select the digital channel.
8. Press the VOL.DOWN button on the set and the channel (**9**) on the remote control for more than 2 seconds.

NO.	FUNCTION	NO.	FUNCTION
03.	R DRIVE(N)	31	BAK LIGHT MIN
04	R CUTOFF(N)	32	BRIGHTNESS CENT
05	G DRIVE(N)	33	BRIGHTNESS MAX
06	G CUTOFF(N)	34	BRIGHTNESS MIN
07	B DRIVE(N)	35	TINT
08	B CUTOFF(N)	36	SHARP H1 MAX
09.	R DRIVE(C)	37	SHARP H1 MIN
10	R CUTOFF(C)	38	SHARP H2 MAX
11	G DRIVE(C)	39	SHARP H2 MIN
12	G CUTOFF(C)	40	SHARP V1 MAX
13	B DRIVE(C)	41	SHARP V1 MIN
14	B CUTOFF(C)	42	CONTRAST CENTER
15.	R DRIVE(W)	43	CONTRAST MAX
16	R CUTOFF(W)	44	CONTRAST MIN
17	G DRIVE(W)	45	COLOR CENTER
18	G CUTOFF(W)	46	COLOR MAX
19	B DRIVE(W)	47	COLOR MIN
20	B CUTOFF(W)	50	CONTRAST 40
29	BAK LIGHT CENT	51	INVERSION
30	BAK LIGHT MAX	52	BRIGHT
		53	CONTRAST

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**03**) on the remote control to select "R DRIVE(N)".
5. Press the CH. UP/DOWN button on the remote control to select the "R DRIVE(N)", "R CUTOFF(N)", "B DRIVE(N)", "B CUTOFF(N)", "R DRIVE(C)", "R CUTOFF(C)", "B DRIVE(C)", "B CUTOFF(C)", "R DRIVE(W)", "R CUTOFF(W)", "B DRIVE(W)" or "B CUTOFF(W)".
6. Adjust the VOL. UP/DOWN button on the remote control to whiten the "R DRIVE(N)", "R CUTOFF(N)", "B DRIVE(N)", "B CUTOFF(N)", "R DRIVE(C)", "R CUTOFF(C)", "B DRIVE(C)", "B CUTOFF(C)", "R DRIVE(W)", "R CUTOFF(W)", "B DRIVE(W)" and "B CUTOFF(W)". at each step tone sections equally.
7. Perform the above adjustments 5 and 6 until the white color is achieved.

ELECTRICAL ADJUSTMENTS

2-2: BRIGHT CENT

1. Receive the monoscope pattern. (RF Input)
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
4. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "111".
5. Check if the picture is normal.
6. Receive the monoscope pattern. (VIDEO Input)
7. Press the INPUT SELECT button on the remote control to set to the AV mode.
8. Using the remote control, set the brightness and contrast to normal position.
9. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
10. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "120".
11. Check if the picture is normal.
12. Receive the monoscope pattern. (S-VIDEO Input)
13. Press the INPUT SELECT button on the remote control to set to the AV(S) mode.
14. Using the remote control, set the brightness and contrast to normal position.
15. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
16. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "124".
17. Check if the picture is normal.
18. Playback the DVD(480i) disc. (COMPONENT Input)
19. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
20. Using the remote control, set the brightness and contrast to normal position.
21. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
22. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "121".
23. Check if the picture is normal.
24. Playback the DVD(480p) disc. (COMPONENT Input)
25. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
26. Using the remote control, set the brightness and contrast to normal position.
27. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
28. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "134".
29. Check if the picture is normal.
30. Playback the DVD(720p) disc. (COMPONENT Input)
31. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
32. Using the remote control, set the brightness and contrast to normal position.
33. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
34. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "131"

35. Check if the picture is normal.
36. Playback the DVD(1080i) disc. (COMPONENT Input)
37. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode. Then perform the above adjustments 32~35.
38. Playback the DVD(480i) disc. (HDMI Input)
39. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
40. Using the remote control, set the brightness and contrast to normal position.
41. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
42. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "124".
43. Check if the picture is normal.

2-3: CONTRAST MAX

1. Receive the color bar pattern. (RF Input)
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(43)** on the remote control to select "CONTRAST MAX".
4. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "147".
5. Check if the picture is normal.
6. Receive the color bar pattern. (VIDEO Input)
7. Press the INPUT SELECT button on the remote control to set to the AV mode.
8. Using the remote control, set the brightness and contrast to normal position.
9. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(43)** on the remote control to select "CONTRAST MAX".
10. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "152".
11. Check if the picture is normal.
12. Receive the color bar pattern. (S-VIDEO Input)
13. Press the INPUT SELECT button on the remote control to set to the AV(S) mode.
14. Using the remote control, set the brightness and contrast to normal position.
15. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(43)** on the remote control to select "CONTRAST MAX".
16. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "162".
17. Check if the picture is normal.
18. Playback the DVD(480i) disc. (COMPONENT Input)
19. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
20. Using the remote control, set the brightness and contrast to normal position.
21. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(43)** on the remote control to select "CONTRAST MAX".
22. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "131".
23. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

24. Playback the DVD(480i) disc. (HDMI Input)
25. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
26. Using the remote control, set the brightness and contrast to normal position.
27. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**43**) on the remote control to select "CONTRAST MAX".
28. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "135".
29. Check if the picture is normal.

2-4: CONTRAST CENTER

1. Receive the color bar pattern. (RF Input)
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**42**) on the remote control to select "CONTRAST CENTER".
4. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "98".
5. Check if the picture is normal.
6. Receive the color bar pattern. (VIDEO Input)
7. Press the INPUT SELECT button on the remote control to set to the AV mode.
8. Using the remote control, set the brightness and contrast to normal position.
9. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**42**) on the remote control to select "CONTRAST CENTER".
10. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "102".
11. Check if the picture is normal.
12. Receive the color bar pattern. (S-VIDEO Input)
13. Press the INPUT SELECT button on the remote control to set to the AV(S) mode.
14. Using the remote control, set the brightness and contrast to normal position.
15. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**42**) on the remote control to select "CONTRAST CENTER".
16. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "109".
17. Check if the picture is normal.
18. Playback the DVD(480i) disc. (COMPONENT Input)
19. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
20. Using the remote control, set the brightness and contrast to normal position.
21. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**42**) on the remote control to select "CONTRAST CENTER".
22. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "88".
23. Check if the picture is normal.
24. Playback the DVD(480i) disc. (HDMI Input)
25. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
26. Using the remote control, set the brightness and contrast to normal position.
27. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**42**) on the remote control to select "CONTRAST CENTER".
28. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "90".
29. Check if the picture is normal.

2-5: CONTRAST 40

1. Receive the color bar pattern. (RF Input)
2. Using the remote control, set the brightness and contrast to normal position.
3. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**50**) on the remote control to select "CONTRAST 40".
4. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "128".
5. Check if the picture is normal.
6. Receive the color bar pattern. (VIDEO Input)
7. Press the INPUT SELECT button on the remote control to set to the AV mode.
8. Using the remote control, set the brightness and contrast to normal position.
9. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**50**) on the remote control to select "CONTRAST 40".
10. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "132".
11. Check if the picture is normal.
12. Receive the color bar pattern. (S-VIDEO Input)
13. Press the INPUT SELECT button on the remote control to set to the AV(S) mode.
14. Using the remote control, set the brightness and contrast to normal position.
15. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**50**) on the remote control to select "CONTRAST 40".
16. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "142".
17. Check if the picture is normal.
18. Playback the DVD(480i) disc. (COMPONENT Input)
19. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
20. Using the remote control, set the brightness and contrast to normal position.
21. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**50**) on the remote control to select "CONTRAST 40".
22. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "122".
23. Check if the picture is normal.
24. Playback the DVD(480i) disc. (HDMI Input)
25. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
26. Using the remote control, set the brightness and contrast to normal position.
27. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**50**) on the remote control to select "CONTRAST 40".
28. Press the VOL. UP/DOWN button on the remote control until the contrast step No. becomes "120".
29. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

2-6: FLICKER

WARNING!

If you perform this adjustment with a metallic tool, you will destroy the DIGITAL PCB plus the LCD panel. To prevent this disastrous damage, you must use a non-metallic tool to perform the Flicker adjustment.

NOTE: The following adjustment is necessary for changing the DIGITAL PCB and Panel module.

1. Activate the adjustment mode display of **Fig. 1-2** and press the CH. UP/DOWN button to select "38 Flicker Pattern". (**Refer to Fig. 2-1**)
2. Check if the screen is flashing.
3. Turn Variable Resistor, and adjust it not appear FLICKER (FLASHING). (**Refer to Fig. 2-2**)

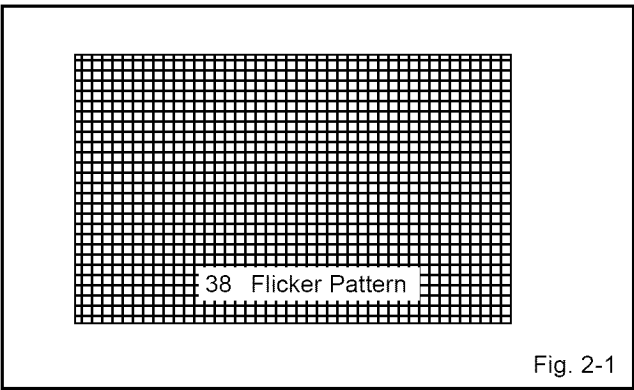


Fig. 2-1

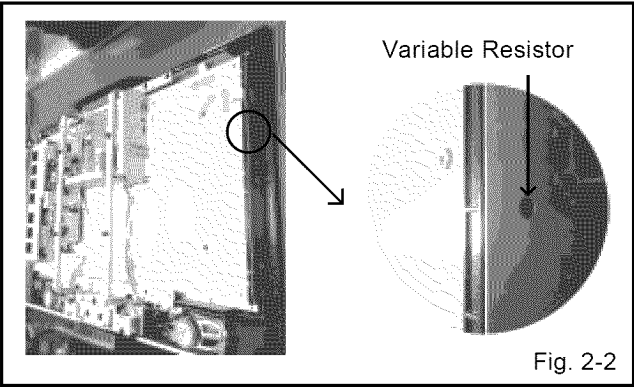


Fig. 2-2

ELECTRICAL ADJUSTMENTS

2-7: Confirmation of Fixed Value (Step No.)

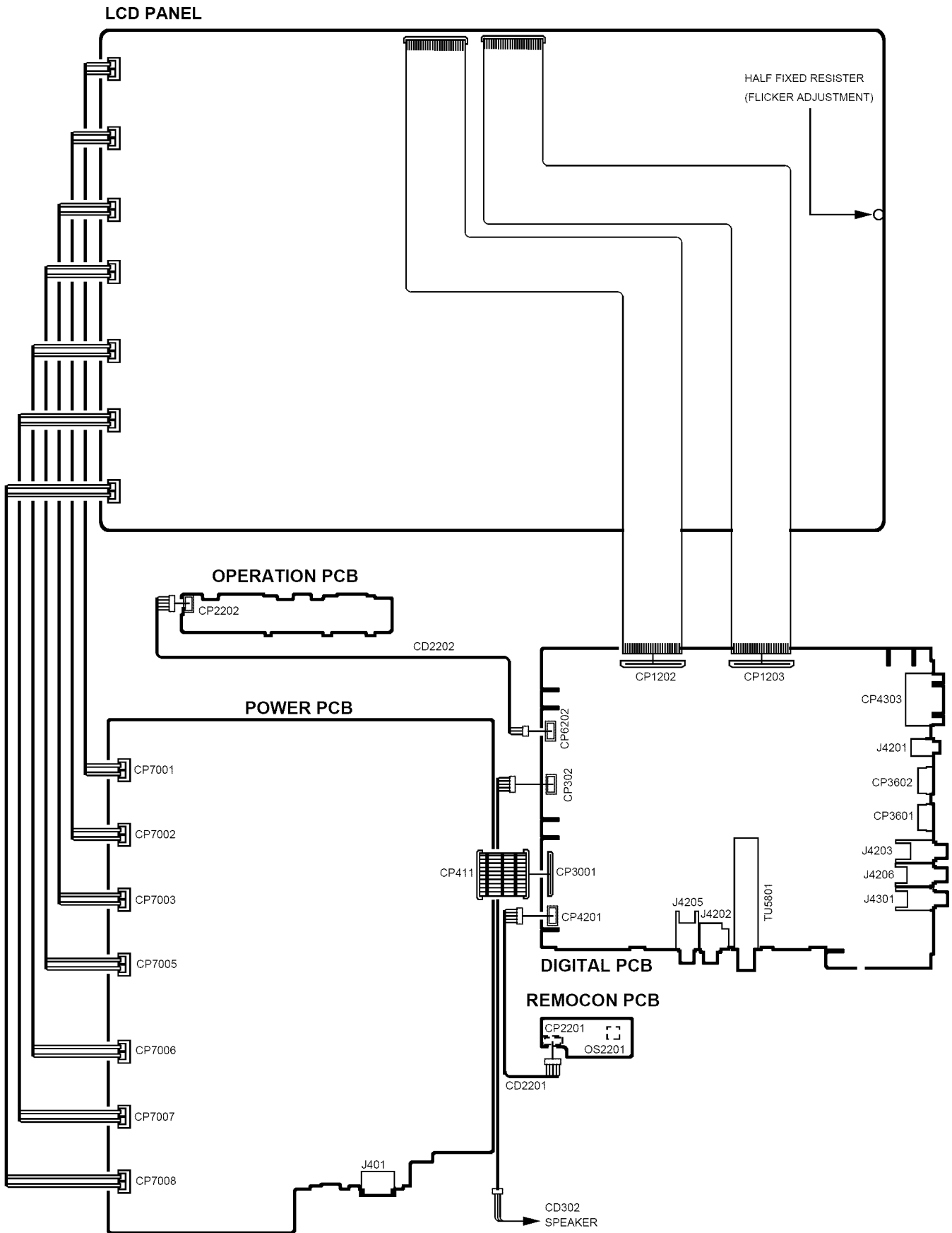
Please check if the fixed values of each of the adjustment item is set correctly referring below. (TV/AV/COMPONENT/HDMI/PC/DIGITAL TUNER)

NO.	FUNCTION	TV	AV							COMPONENT					HDMI					PC				DIGITAL TUNER			
			CVBS		Y/C	480i	480p	720p	1080i	480i	480p	720p	1080i	VGA	640*480	720*400	800*600	1024*768	1280*768	1280*720	1360*768	480i	480p	720p	1080i		
			Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.	Step No.		
3	R.DRIVE (N)	* 10	* 10	* 10	* 9	* 10	* 10	* 10	* 10	* 10	* 10	* 10	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 9	* 9	* 9	* 9			
4	R.CUTOFF (N)	* 0	* 2	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0				
5	G.DRIVE (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
6	G.CUTOFF (N)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
7	B.DRIVE (N)	* 8	* 12	* 9	* 10	* 10	* 10	* 10	* 10	* 10	* 10	* 9	* 10	* 10	* 0	* 0	* 0	* 0	* 0	* 0	* 9	* 9	* 9	* 9			
8	B.CUTOFF (N)	* 0	* -3	* -2	* -3	* -3	* -2	* -2	* -2	* -2	* -2	* -2	* -2	* -2	* 0	* 0	* 0	* 0	* 0	* 0	* -2	* -2	* -2	* -2			
9	R.DRIVE (C)	* 3	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 2	* 0	* 0	* 0	* 0	* 0	* 0	* 2	* 2	* 2	* 2			
10	R.CUTOFF (C)	* 0	* 2	* 0	* 0	* 0	* 0	* 0	* 0	* -1	* -1	* -1	* -1	* -1	* 0	* 0	* 0	* 0	* 0	* 0	* -1	* -1	* -1	* -1			
11	G.DRIVE (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
12	G.CUTOFF (C)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
13	B.DRIVE (C)	* 13	* 16	* 13	* 13	* 13	* 13	* 13	* 13	* 13	* 13	* 14	* 14	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 14	* 14	* 14	* 14			
14	B.CUTOFF (C)	* -1	* -4	* -2	* -2	* -3	* -3	* -3	* -3	* -3	* -3	* -3	* -3	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* -3	* -3	* -3	* -3			
15	R.DRIVE (W)	* 21	* 17	* 20	* 20	* 20	* 20	* 20	* 19	* 19	* 19	* 19	* 19	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 19	* 19	* 19	* 19			
16	R.CUTOFF (W)	* 0	* 3	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 1	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* 0				
17	G.DRIVE (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
18	G.CUTOFF (W)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
19	B.DRIVE (W)	* -1	* 2	* -1	* -1	* -1	* -1	* -1	* -1	* -1	* -1	* -3	* -1	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* -3	* -3	* -3	* -3			
20	B.CUTOFF (W)	* -3	* -5	* -4	* -4	* -4	* -4	* -4	* -4	* -4	* -4	* -3	* -4	* 0	* 0	* 0	* 0	* 0	* 0	* 0	* -3	* -3	* -3	* -3			
21	H POSI CENTER	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
22	H POSI MAX	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
23	H POSI MIN	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
24	V POSI CENTER	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
25	V POSI MAX	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
26	V POSI MIN	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
27	H POSI 50	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
28	V POSI 50	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
29	BAK LIGHT CENT	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75	75				
30	BAK LIGHT MAX	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93	93				
31	BAK LIGHT MIN	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50				
32	BRIGHT CENT	111	120	124	121	134	131	131	124	134	134	133	127	127	127	127	127	127	127	127	127	127	127				
33	BRIGHT MAX	200	200	200	200	200	200	200	200	200	200	200	200	140	140	140	140	140	140	200	200	200	200				
34	BRIGHT MIN	60	60	60	60	60	60	60	60	60	60	60	110	110	110	110	110	110	110	60	60	60	60				
35	TINT	137	125	122	125	125	126	125	122	122	122	122	125	128	128	128	128	128	128	137	137	137	137				
36	SHARP H1 MAX	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511				
37	SHARP H1 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
38	SHARP H2 MAX	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511				
39	SHARP H2 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
40	SHARP V1 MAX	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511	511				
41	SHARP V1 MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
42	CONTRAST CENTER	* 98	* 102	* 109	* 88	* 88	* 88	* 88	* 90	* 90	* 96	* 96	* 83	* 88	* 88	* 88	* 88	* 88	* 88	* 88	* 94	* 94	* 94	* 94			
43	CONTRAST MAX	* 147	* 152	* 162	* 131	* 130	* 131	* 132	* 135	* 134	* 143	* 142	* 124	* 128	* 128	* 128	* 128	* 128	* 128	* 128	* 142	* 142	* 142	* 142			
44	CONTRAST MIN	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60				
45	COLOR CENT	125	147	122	125	125	138	138	153	153	153	153	128	128	128	128	128	128	128	128	128	128	128				
46	COLOR MAX	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255				
47	COLOR MIN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
48	H.POZI TEXT	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
49	V.POZI TEXT	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
50	CONT 40	* 128	* 132	* 142	* 122	* 113	* 124	* 115	* 120	* 119	* 127	* 125	* 108	* 114	* 114	* 114	* 114	* 114	* 114	* 114	* 125	* 125	* 125	* 125			
51	INVERSION	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
52	BRIGHT (NTSC)	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
52	BRIGHT (PAL)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
52	BRIGHT SECAM)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
53	CONTRAST (NTSC)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
53	CONTRAST (PAL)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				
53	CONTRAST (SECAM)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x				

NOTE: For the step no. with * mark, please adjust it according to the situation of the set.

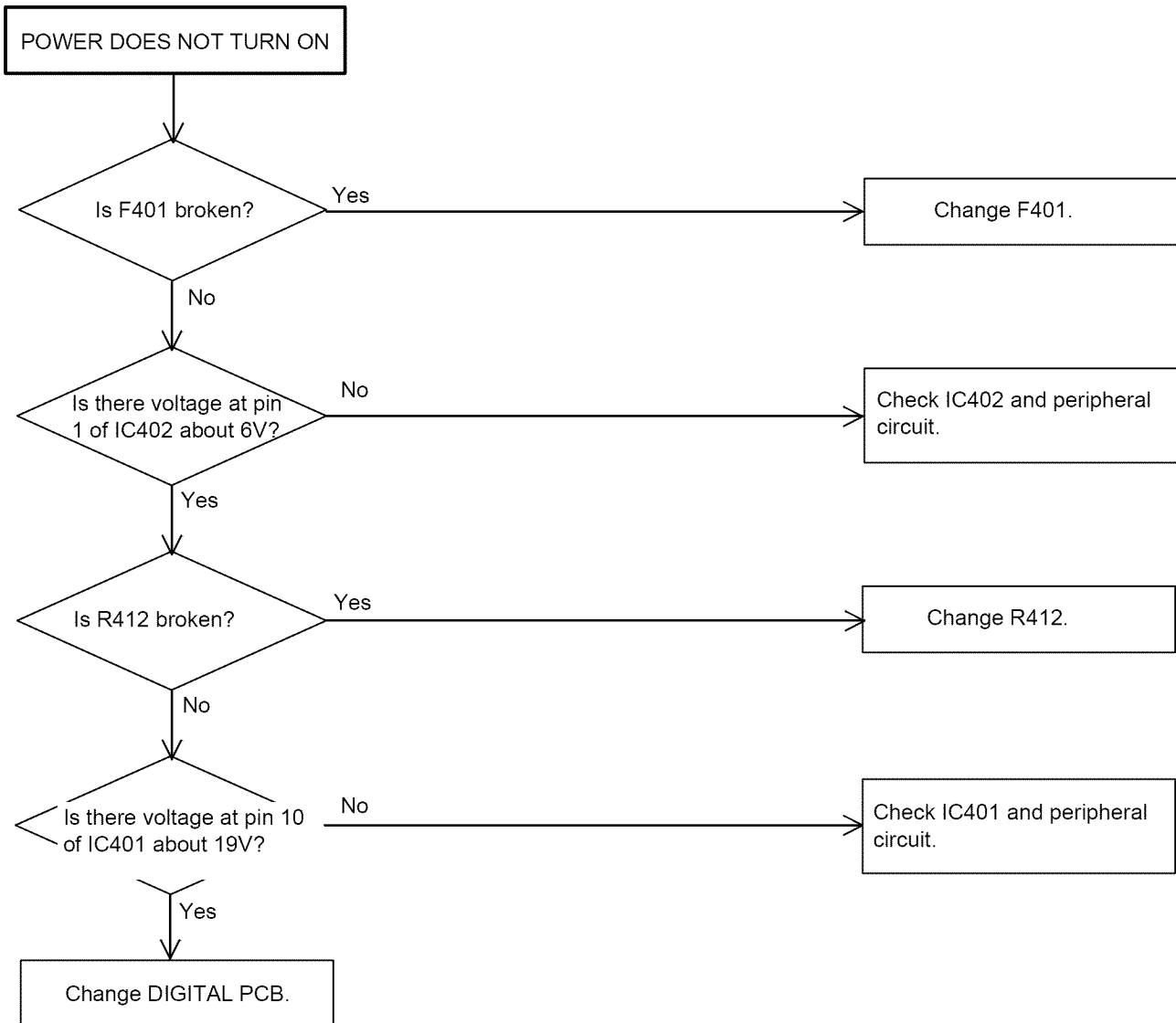
ELECTRICAL ADJUSTMENTS

3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)

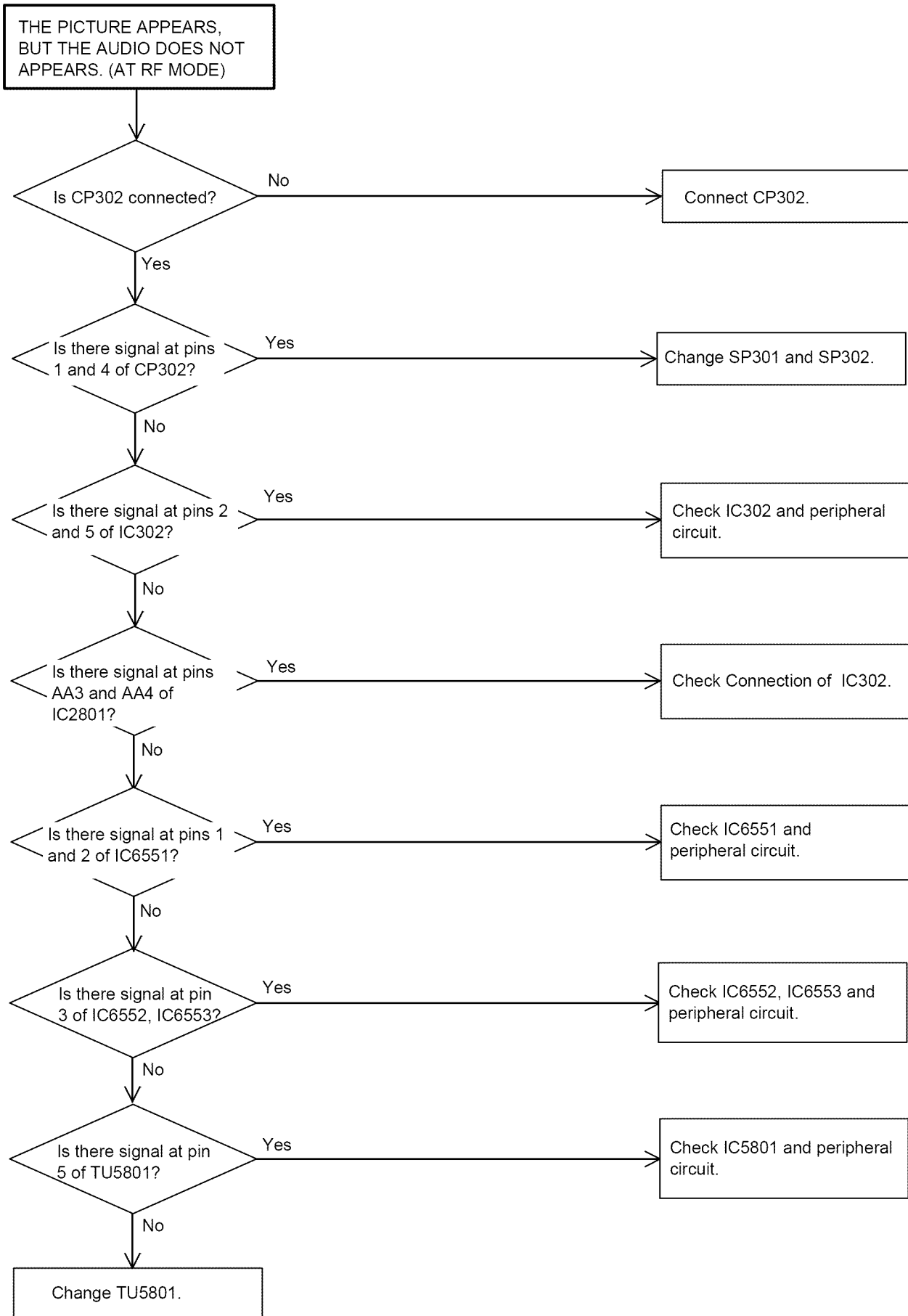


TROUBLESHOOTING GUIDE

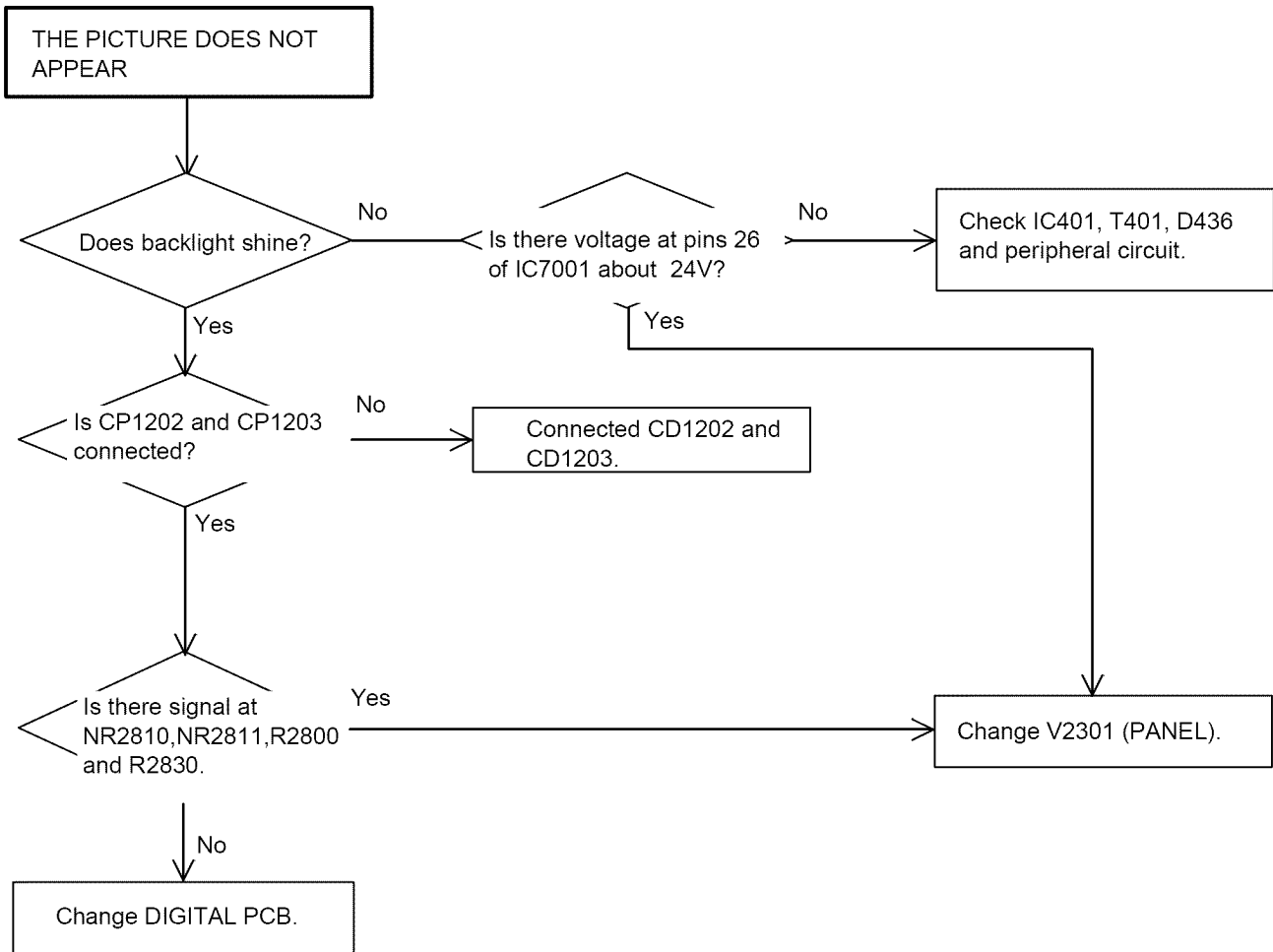
(LCD SECTION)



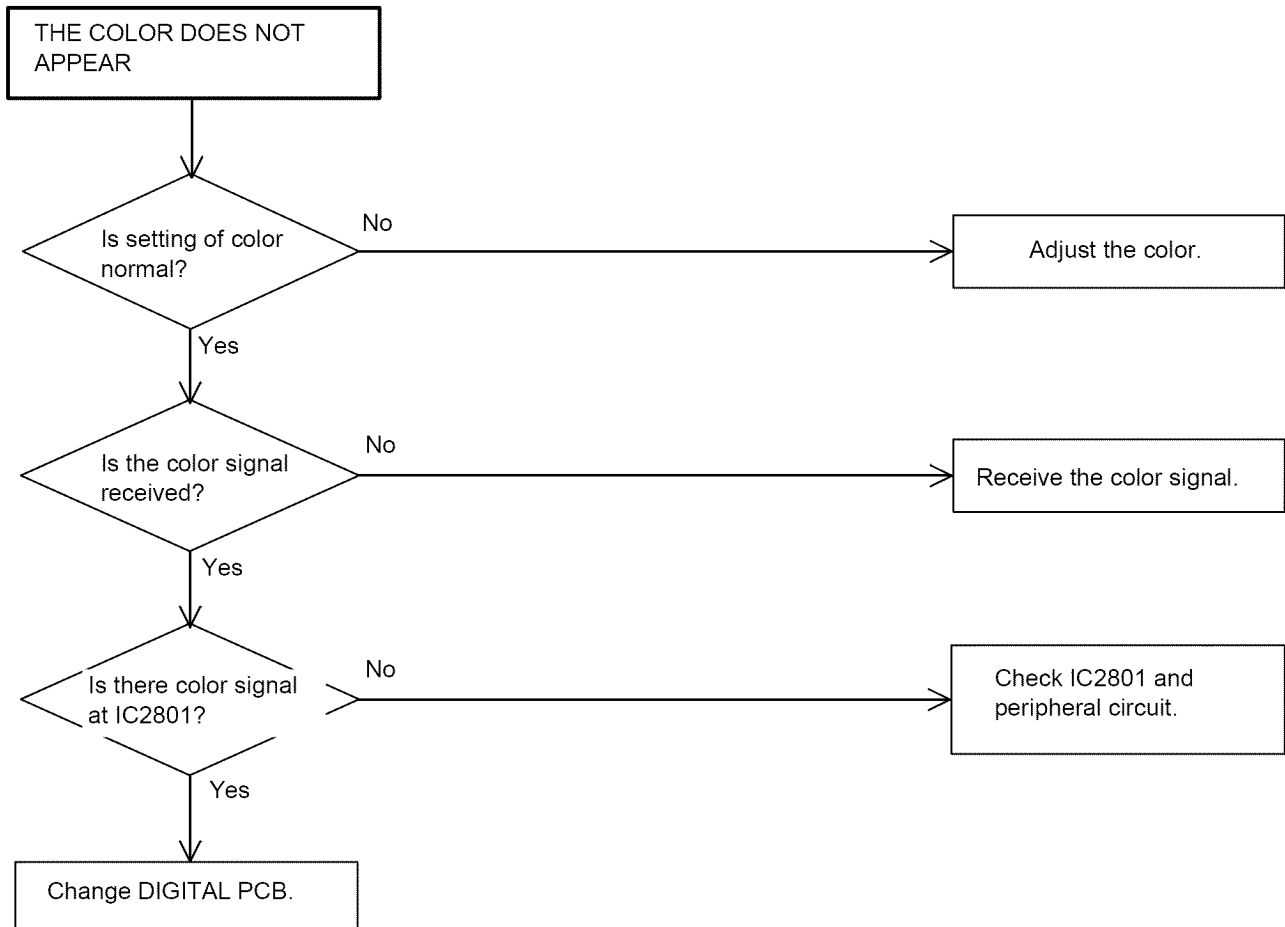
TROUBLESHOOTING GUIDE



TROUBLESHOOTING GUIDE



TROUBLESHOOTING GUIDE



IC DESCRIPTION

R8J66954BG(IC2801)

DIVISION	PIN NO.	PIN NAME	I/O	DESCRIPTION
RESET	A1	RESET_N	I	Reset signal input terminal
CLOCK	B16	XIN	I	27MHz Oscillation
	A16	XOUT	O	
	C14	Not used	O	
	B15	XIN25	I	25MHz Oscillation
	A15	XOUT25	O	
LVDS	G19	LVDS0CLKOUTP	O	LVDS0 clock output +
	G18	LVDS0CLKOUTM	O	LVDS0 clock output -
	F19	LVDS0OUT0P	O	LVDS0 serial data output 0 +
	E21	LVDS0OUT1P	O	LVDS0 serial data output 1 +
	F21	LVDS0OUT2P	O	LVDS0 serial data output 2 +
	G21	LVDS0OUT3P	O	LVDS0 serial data output 3 +
	H21	Not used	O	
	E19	LVDS0OUT0M	O	LVDS0 serial data output 0 -
	E20	LVDS0OUT1M	O	LVDS0 serial data output 1 -
	F20	LVDS0OUT2M	O	LVDS0 serial data output 2 -
	G20	LVDS0OUT3M	O	LVDS0 serial data output 3 -
	H20	Not used	O	
	D19	Not used	O	
	C19	Not used	O	
	B19	Not used	O	
	A21	Not used	O	
	B21	Not used	O	
	C21	Not used	O	
	D21	Not used	O	
	A19	Not used	O	
	A20	Not used	O	
	B20	Not used	O	
	C20	Not used	O	
	D20	Not used	O	
	D18	REFR	I	External resistance (pulldown)
	E18	LPFP	I	LVDS PLL LPF
	RSDS/CMOS	H18	Not used	O
H19		Not used	O	
IIS output	AA6	BCLK	I	IIS_BUS input
	Y6	LRCK	I	IIS_BUS input
	W6	SDOUT	I	IIS_BUS input
SPDIF	V5	SPDIFO	O	Digital audio output
ACLK	W5	ACLK	I	Audio master clock
Analog audio output	AA4	LOUT	O	Analog audio output (L)
	AA3	ROUT	O	Analog audio output (R)
	W3	DACVREF	O	Reference voltage
SDRAM	U20	SDA0	O	DDR2 controller address
	AA18	SDA1	O	
	AA20	SDA2	O	
	AA17	SDA3	O	
	U18	SDA4	O	
	V16	SDA5	O	
	U21	SDA6	O	
	Y16	SDA7	O	
	T20	SDA8	O	
	Y17	SDA9	O	
	Y18	SDA10	O	
	W16	SDA11	O	
	T18	SDA12	O	
	AA19	SDBA0	O	DDR2 Reference voltage
	V17	SDBA1	O	
	N17	SDVREF0	I	
	U13	SDVREF1	I	
	V18	SDODT	I/O	
	W20	SDCLK	O	DDR2 controller clock
	W21	SDCLKN	O	
	Y20	SDCKE	O	DDR2 controller control
	V21	SDCS_N	O	
	V19	SDRAS_N	O	
	Y21	SDCAS_N	O	
	Y19	SDWE_N	O	
	P21	SDDM0	O	
	L21	SDDM1	O	
N18	SDDQS0	I/O		
K18	SDDQS1	I/O		
N19	SDDQS0_N	I/O		
K19	SDDQS1_N	I/O		

IC DESCRIPTION

R8J66954BG(IC2801)

DIVISION	PIN NO.	PIN NAME	I/O	DESCRIPTION	
	R20	SDDQ0	I/O	DDR2 controller subordinate position 16 bits data	
	R21	SDDQ1	I/O		
	T21	SDDQ2	I/O		
	R18	SDDQ3	I/O		
	P18	SDDQ4	I/O		
	R19	SDDQ5	I/O		
	N20	SDDQ6	I/O		
	P20	SDDQ7	I/O		
	M20	SDDQ8	I/O		
	L18	SDDQ9	I/O		
	L20	SDDQ10	I/O		
	M18	SDDQ11	I/O		
	L19	SDDQ12	I/O		
	N21	SDDQ13	I/O		
	K21	SDDQ14	I/O		
	M21	SDDQ15	I/O		
	AA14	SDDM2	O		DDR2 controller control
	AA11	SDDM3	O		
	V13	SDDSQ2	I/O		
	V10	SDDSQ3	I/O		
	W13	SDDSQ2_N	I/O		
	W10	SDDSQ3_N	I/O		
	Y14	SDDQ16	I/O	DDR2 controller subordinate position 16 bits data	
	W15	SDDQ17	I/O		
	V14	SDDQ18	I/O		
	V15	SDDQ19	I/O		
	AA16	SDDQ20	I/O		
	Y15	SDDQ21	I/O		
	AA15	SDDQ22	I/O		
	Y13	SDDQ23	I/O		
	V11	SDDQ24	I/O		
	W11	SDDQ25	I/O		
	Y11	SDDQ26	I/O		
	V12	SDDQ27	I/O		
	AA13	SDDQ28	I/O		
	AA12	SDDQ29	I/O		
	Y12	SDDQ30	I/O		
	AA10	SDDQ31	I/O		
NOR Flash	B6	A22	O	Connects it with 13pin through the jumper.	
	D6	A21	O	Flash address bus	
	A5	A20	O		
	D7	A19	O		
	C7	A18	O		
	A14	A17	O		
	B3	A16	O		
	A3	A15	O		
	C4	A14	O		
	B4	A13	O		
	A4	A12	O		
	D5	A11	O		
	C5	A10	O		
	B5	A9	O		
	B7	A8	O		
	A7	A7	O		
	D8	A6	O		
	C8	A5	O		
	B8	A4	O		
	A8	A3	O		
	D9	A2	O		
	C9	A1	O		
	B14	BL_ON	O	Backlight ON/OFF	
	B9	CS0_N	O	FLASH Chip select signal	
	J1	PCVDIN (CS2_N)	I	PC V	
	A9	RD_N	O	FLASH read signal	
	C6	WE_ON	O	FLASH write signal	
	A13	D15	I/O	Flash data bus	
	C13	D14	I/O		
	A12	D13	I/O		
	C12	D12	I/O		
	A11	D11	I/O		
	C11	D10	I/O		
	A10	D9	I/O		
	C10	D8	I/O		
	B13	D7	I/O		
	D13	D6	I/O		
	B12	D5	I/O		
	D12	D4	I/O		

IC DESCRIPTION

R8J66954BG(IC2801)

DIVISION	PIN NO.	PIN NAME	I/O	DESCRIPTION	
	B11	D3	I/O	Flash data bus	
	D11	D2	I/O		
	B10	D1	I/O		
	D10	D0	I/O		
		A6	Not used	I	USB CS (pull down)
SCIF0	W7	IIC_OFF	I	IIC_BUS communication is stopped when Low is input.	
	V7	MCU_SCITXD	I	UART communication with Sub micom	
	V8	MCU_SCIRXD	O	UART communication with Sub micom	
CSIO0	AA8	ASW0	O	High is output at the TV mode.	
	Y8	ASW1	O	(Low, Low) at the Video mode, (Low, High) Not used	
	W8	ASW2	O	(High, Low) at the Component mode, (High, High) at the PC mode	
IIC0	Y9	I2C0C	O	IIC_BUS communication with Tuner unit	
	AA9	I2C0D	I/O	IIC_BUS communication with Tuner unit	
IIC1	V9	I2C_CLK	O	IIC_BUS communication with EEPROM IC.	
	W9	I2C_DATA	I/O	IIC_BUS communication with EEPROM IC.	
M32R debug	B18	Not used	I		
	C17	Not used	I		
	C18	A_MUTE	I	Audio output of the speaker is mute when High is output.	
	C16	PC_TOOL_TX	I	UART communication with PC(picture control tool)	
	D16	PC_TOOL_RX	O	UART communication with PC(picture control tool)	
E10A interface	C2	ASEBRKAK_N	O	E10A Terminal for ICE connection	
	B1	ASEMD0	I		
JTAG	D4	TRST_N	I	E10A Terminal for ICE connection	
	D3	TCK	I		
	C3	TMS	I		
	B2	SCIRXD1	I		
	A2	SCITXD1	O		
MODE	F4	MODE1	I	C4US mode setting 01/Flash 16bit	
	E4	MODE0	I		
ADC	Y1	ADIN	I	Digital tuner IF signal input	
	AA1	ADIN	I		
	W2	ADVREF	O	VREF output	
	Y2	ADVREF	O		
AA2	ADVREF	O			
VSB	AA7	IFAGC	O	Digital tuner IF gain adjust output (PWM output)	
	Y7	Not used	O	Not used	
	V6	DVD-H	O	High is output at the DVD mode.	
ADC	AA5	MCUADIN0	I	AFT voltage input	
	Y5	Not used	O	Not used	
	W4	S1_DET	I	S cable was connected when Low is input	
	V4	Not used	I		
Backlight control output SCIF1 modem control	J21	BL_PWM	O	Terminal that adjusts output of backlight	
	J20	LCD-H	O	Power supply of LCD is supplied when High is an output	
	J19	TWIRE_RXDC	I	UART communication with DVD unit.	
	J18	TWIRE_TXDC	O	UART communication with DVD unit.	
HDMI	F1	Not used	I		
	F2	Not used	I		
	G1	Not used	I		
	G2	Not used	I		
	G3	Not used	I		
	H3	Not used	I		
	H1	Not used	I		
	H2	Not used	I		
	G4	Not used	I/O		
	F3	Not used	I/O		
	J2	Not used	I		
	C1	Not used	I		
	D1	Not used	I		
	D2	Not used	I		
	E1	Not used	I		
	E2	Not used	O		
	E3	Not used	I		
	110MHz ADC	L2	VIN1A	I	CVBS signal input at the TV mode
		L3	VIN2A	I	CVBS signal input at the Video mode
		L1	VIN3A	I	Y signal input at the S mode
M2		VIN4A	I	Y signal input at the Component mode	
N3		VIN5A	I	Not used	
N2		VIN6A	I	Not used	
N1		VIN2B	I	C signal input at the S mode	
P3		VIN3B	I	Pb signal input at the Component mode	
R3		VIN4B	I	Not used	
T2		VIN2C	I	Pr signal input at the Component mode	
U2		VIN3C	I	Not used	
M1		VREFA	I	PGA reference	
P2		VREFB	I	ADC reference	
R1		VREFC	I	ADC reference	

IC DESCRIPTION

R8J66954BG(IC2801)

DIVISION	PIN NO.	PIN NAME	I/O	DESCRIPTION	
	M3	VRPA	I	PGA reference	
	P1	VRPB	I	ADC reference	
	T1	VRPC	I	ADC reference	
	N4	VRMA	I	PGA reference	
	R2	VRMB	I	ADC reference	
	U1	VRMC	I	ADC reference	
	V1	LPF	I	LPF	
	K1	SSIN1	I	PC H	
	K2	SSIN2	I	Y at the Component mode	
	J4	AVDDA	I	Analog power supply	
	K4	AVddb	I	Analog power supply	
	L4	AVDDC	I	Analog power supply	
	J3	VDD33	I	Digital power supply	
	U4	VDD33	I	Digital power supply	
	H5	VSS33	I	Digital GND	
	R5	VSS33	I	Digital GND	
3.3	C15	PLL_AVCC_1	I	PLL 3.3V power supply	
	A17	PLL_AVCC_2	I		
	D14	PLL_AVSS_1	I	PLL 3.3V GND	
	A18	PLL_AVSS_2	I		
	E13	PLL_DVDD_1	I	PLL 1.0V power supply	
	B17	PLL_DVDD_2	I		
	P4	PLLVDd	I	PLL 1.0V GND	
	E14	PLL_DVSS_1	I		
	C15	PLL_DVSS_2	I		
	N5	PLLVSS	I		
	T4	DLLVDd	I	Audio DAC power supply (3.3V)	
	P5	DLLVSS	I	Audio DAC GND (3.3V)	
	F17	VCC33BIAS	I	LVDS PLL BIAS power supply (3.3V)	
	D17	VSS33BIAS	I	LVDS PLL BIAS GND (3.3V)	
	H17	VDD 10LVDS	I	LVDS digital power supply (1.0V)	
	J17	VSS 10LVDS	I	LVDS digital GND (1.0V)	
	M4	DVD DABC	I	DAC power supply (3.3V)	
	M5	DVS SABC	I		
	V2	VDD33ADDA	I	VSB ADC power supply (3.3V)	
	U3	VSS33ADDA	I		
	V3	VCC33AD_A	I	VSB ADC power supply (3.3V)	
	Y4	VCC33DA_A	I	VSB ADC power supply (3.3V)	
	W1	VSS33AD_A	I	VSB ADC power supply (3.3V)	
	Y3	VSS33DA_A	I		
	E17	VCC33LVDS	I	LVDS power supply (3.3V)	
	F18	VCC33LVDS	I		
	E18	VSS33LVDS	I		
	G17	VSS33LVDS	I		
	D1.8	K3	VDD18	I	
		T3	VDD18	I	
		K5	VSS18	I	
		R4	VSS18	I	
		F5	ADVSS	I	
G5		ADVSS	I		
H4		ADVSS	I		
J5		ADVSS	I		
L5		ADVSS	I		
DDR power supply		K20	VCCQ18	I	
		M17	VSSQ18	I	
	P19	VSSQ18	I		
	T17	VSSQ18	I		
	U10	VSSQ18	I		
	U14	VSSQ18	I		
	V20	VSSQ18	I		
	T19	VSSQ18	I		
	W12	VSSQ18	I		
	W18	VSSQ18	I		
W19	VSSQ18	I			
IO power supply	E5	VCCQ33	I		
	E6	VCCQ33	I		
	E11	VCCQ33	I		
	U5	VCCQ33	I		
	U8	VCCQ33	I		

IC DESCRIPTION

R8J66954BG(IC2801)

DIVISION	PIN NO.	PIN NAME	I/O	DESCRIPTION	
Core power supply	E7	VDD	I	Core power supply 1.09V	
	E9	VDD	I		
	E15	VDD	I		
	J9	VDD	I		
	J10	VDD	I		
	J11	VDD	I		
	J12	VDD	I		
	J13	VDD	I		
	K9	VDD	I		
	K13	VDD	I		
	L9	VDD	I		
	L13	VDD	I		
	M9	VDD	I		
	M13	VDD	I		
	N9	VDD	I		
	N10	VDD	I		
	N11	VDD	I		
	N12	VDD	I		
	N13	VDD	I		
	T5	VDD	I		
	U6	VDD	I		
	U9	VDD	I		
	E8	VSS	I		Digital GND
	E10	VSS	I		
	E12	VSS	I		
	K10	VSS	I		
	K11	VSS	I		
	K12	VSS	I		
	K17	VSS	I		
	L10	VSS	I		
	L11	VSS	I		
	L12	VSS	I		
	L17	VSS	I		
	M10	VSS	I		
M11	VSS	I			
M12	VSS	I			
M19	VSS	I			
P17	VSS	I			
R17	VSS	I			
U7	VSS	I			
U11	VSS	I			
U12	VSS	I			
U15	VSS	I			
U16	VSS	I			
U17	VSS	I			
U19	VSS	I			
W14	VSS	I			
W17	VSS	I			
Y10	VSS	I			
AA21	VSS	I			

IC DESCRIPTION

R5F21124FP(IC6202)

PIN NO.	PIN NAME	I/O	DESCRIPTION
1	MAIN RXD	I	UART DATA input. (for DVP-M2) [38400bps]
2	CNVSS	I	It connects it with VSS. When you write Flash "H".
3	RESET	I	RESET input. "L"--->when Flash is written "H".
4	XOUT	O	Output the clock count crystal. (16MHz)
5	VSS	I	GND.
6	XIN	I	Input the clock count crystal. (16MHz)
7	VCC	I	Main Power. (3.3V)
8	REMOCON IN	I	REMOCON input.
9	5VD	I	5VD input.(from Panel power block)
10	EEPROM SCL	O	IIC BUS CLOCK output. (for EEPROM) [MAX:384KHz]
11	EEPROM SDA	I/O	IIC BUS DATA I/O. (for EEPROM) [MAX:384KHz]
12	PDP VS	O	Control the power supply of PANEL
13	PDP RLY	O	Control the power supply of PANEL.
14	DTV POWER-H	O	Control the power supply of Digital IC.
15	DTV RESET	O	RESET control for Digital IC.
16	POWER FAIL	I	Input for the detection of power interruption.
17	STAND BY-H	O	STAND_BY LED output.
18	NOT USED (SLEEP MODE_L)	O	Not used.
19	VREF	I	Reference Voltage input for A/D.
20	DVP POWER-H	O	Control the power supply (3.3V) of DVP-M2.
21	NOT USED (AVSS)	I	Not used.
22	IIC OFF	I	IIC BUS STOP input for adjustment.
23	IVCC	O	Connect with the terminal VCC. (for being steady of the internal power supply.)
24	KEY B	I	Main unit key input.
25	KEY A	I	Main unit key input.
26	DVP RESET	O	RESET control for DVP-M2.
27	DVP_1.5 POWER-H	O	Control the power supply (1.5V) of DVP-M2.
28	MODE	I	Connect with the terminal VCC. (for writing FLASH)
29	EXT MUTE	O	Output EXTERNAL AUDIO MUTE.
30	AUDIO MUTE	O	Output Volume MUTE.
31	DISPEN_H	O	Control the terminal dispen of PANEL.
32	MAIN TXD	O	UART DATA output. (for DVP-M2) [38400bps]

SEMICONDUCTOR BASE CONNECTIONS

DIODE



1N5406FL-6737
1SS133T-77
MTZJ15B T-77
MTZJ27B T-77
MTZJ3.3B T-77
MTZJ3.9B T-77
MTZJ30B T-77
MTZJ33B T-77



RL106F-E



1N4005-EIC
31DQ09-FC
MA111-(TX)



FCH10A20
YG862C15R



AVRL161A1R1NT
EC31QS04-TE12L
SMAB34
UDZSNP20B TE-17
UDZSNP4.7B TE-17
UDZSNP6.8B TE-17



BAT54S_215



BAV99DW



1SS355 TE-17



ENE241D-10A-Q6



LTL-1BEFJ-002A



BAT54WS
RB520S-30-TE61
UDZSNP5.6B TE-17

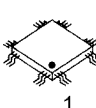


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1H3-E

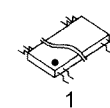


ERC91-02J11SC

IC



ATMEGA48-20AU
EC5579-HG
R5F21124FP
R8J66731FT
STHDMI002ABTR



AK5358A
AN5832SA-E1V
BD9897FS



M24256-BWMN6TP



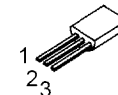
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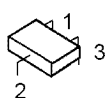
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S-24CS02AFJ-TB-GE



PST3229NR
S-1170B33UC-OTSTFG



KIA431A-AT



AP431AWLA



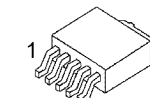
AN17808B



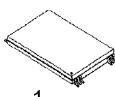
EC50117ABG



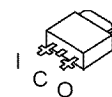
MIP2F4



PQ035ZN1HZPH



EN29LV320AB-70TCP



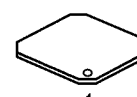
KIA78D09F



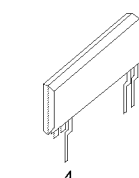
PS2561AL1-1-V(W)



EC5461AB3-G
RTQ035P02-TR
TPC6108(Te85L,F,M)



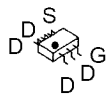
HYB18TC256160BF-3S
R8J66954BG



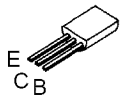
MP3A5038

SEMICONDUCTOR BASE CONNECTIONS

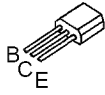
TRANSISTOR



AO6604
MMDT4401



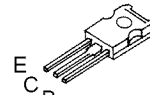
2SC2120Y(TPE2)



KTA1281_Y
KTC3198-AT(Y,GR)



KRA101SRTK
KRA102SRTK
KRA103SRTK
KRC102SRTK
KRC103SRTK
KTA1504S_Y_RTK
KTC3875S_Y_RTK

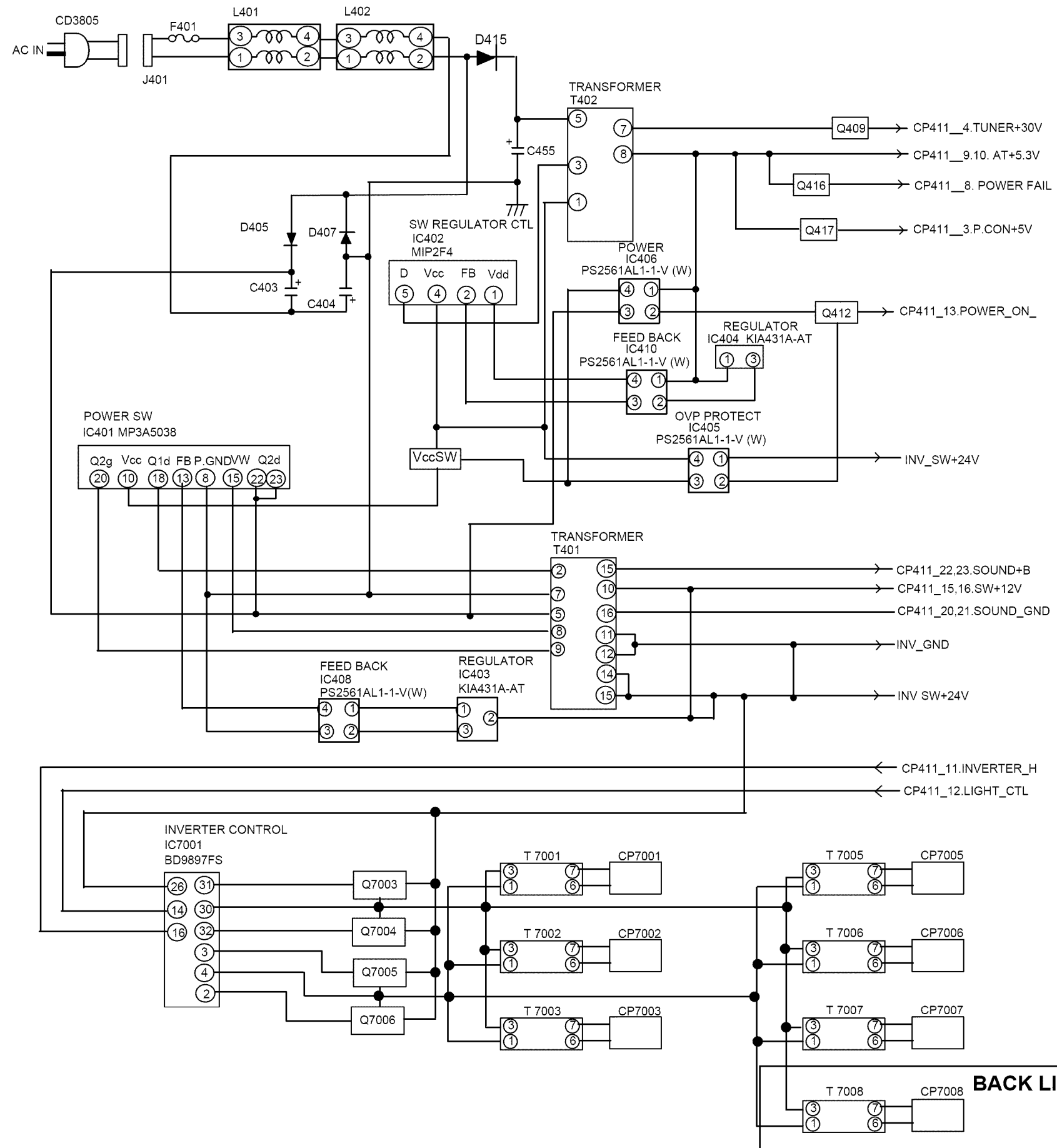


KTB1151



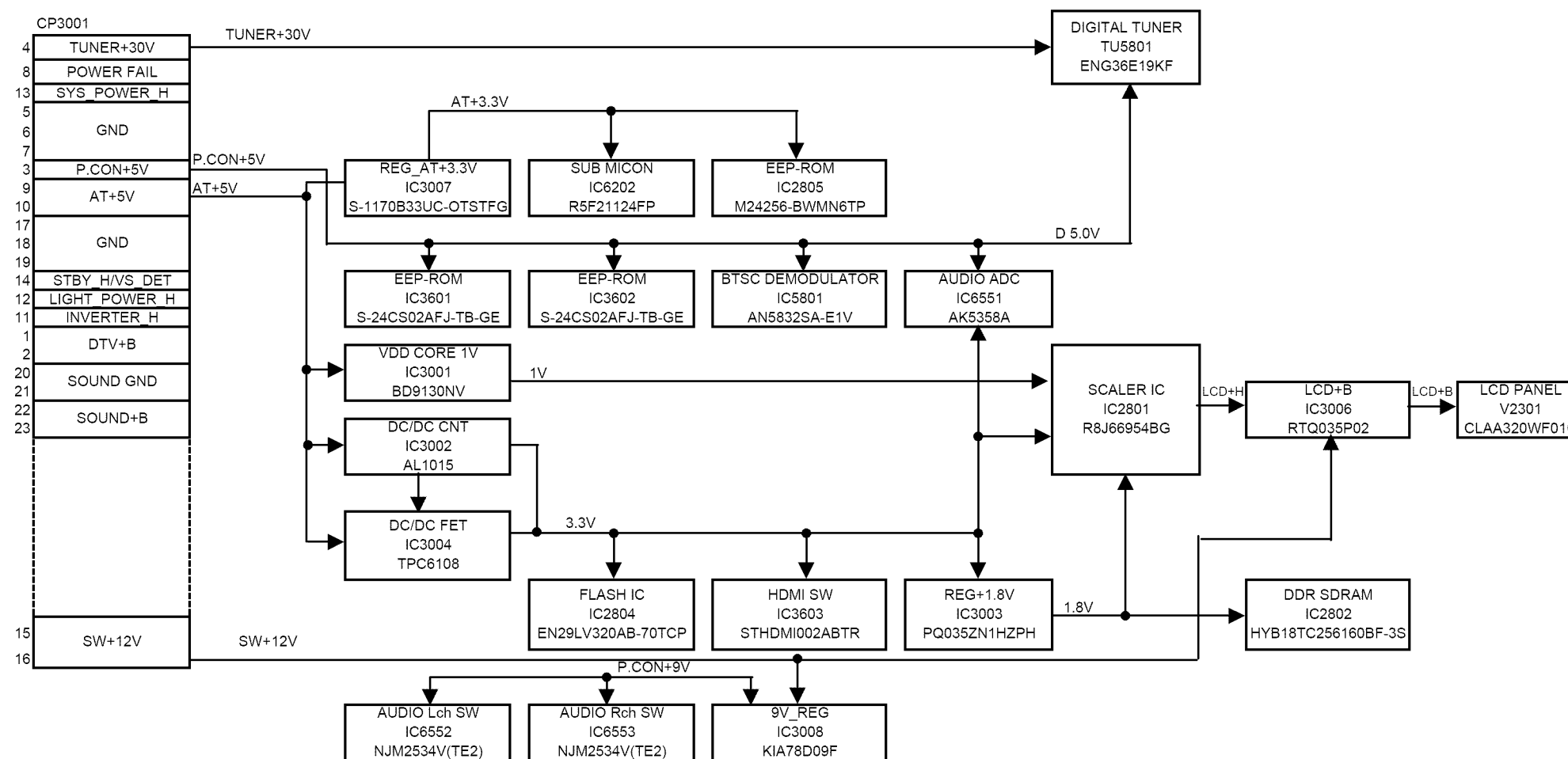
2SK3019_TL
AO3400
AO3407
MMBT4401
MMBT4403

POWER BLOCK DIAGRAM

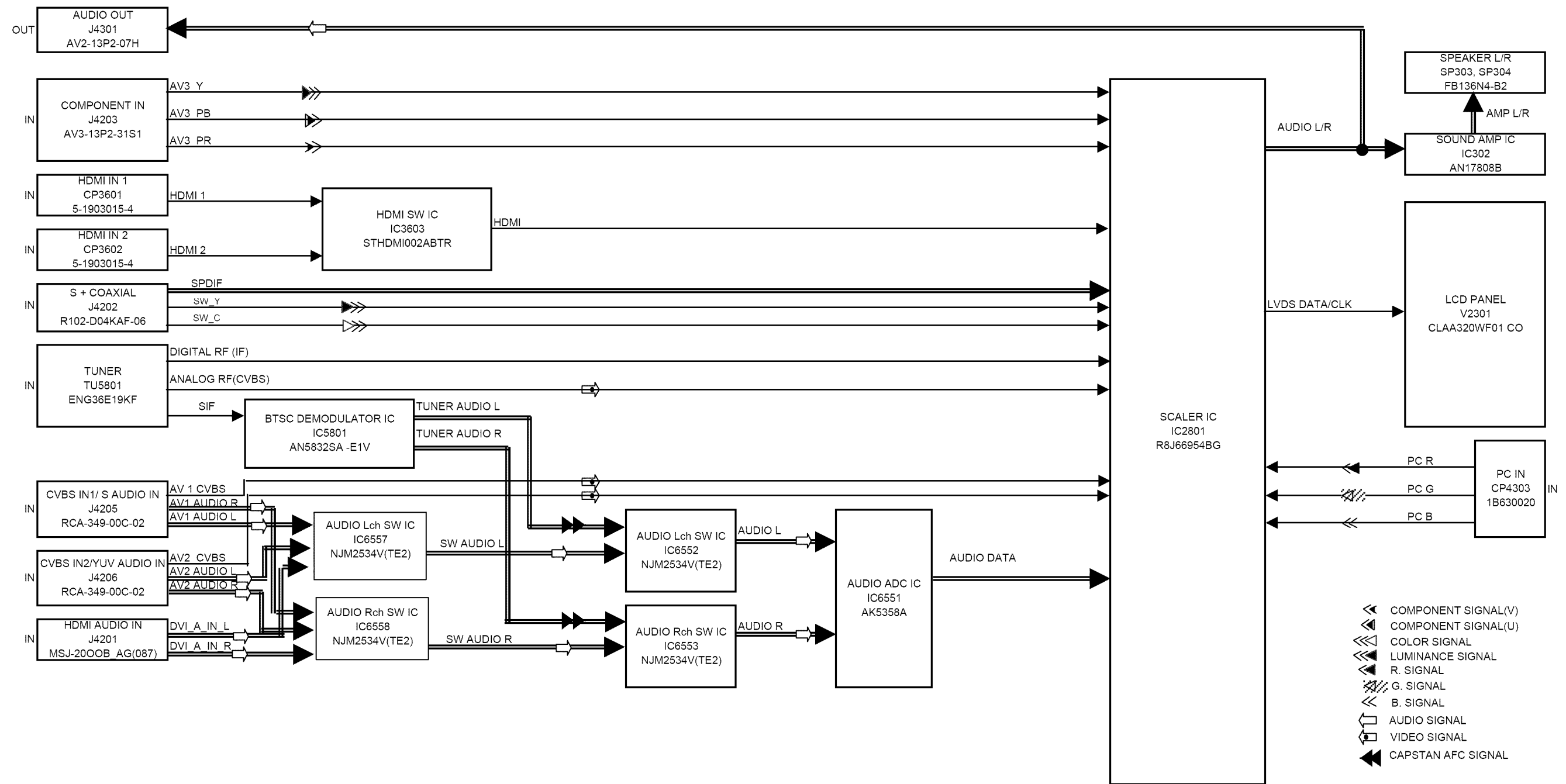


BACK LIGHT BLOCK DIAGRAM

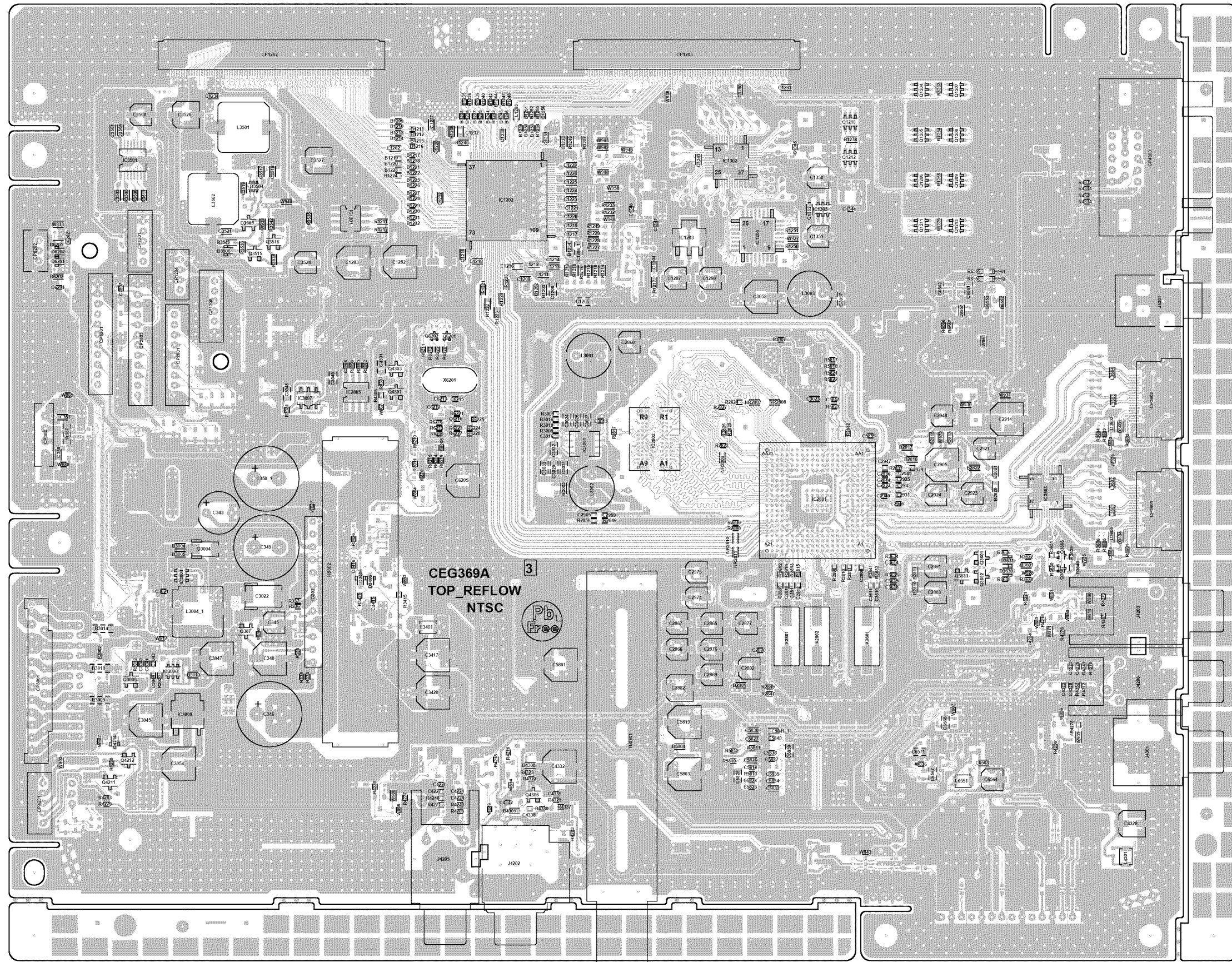
POWER(DIGITAL PCB) BLOCK DIAGRAM



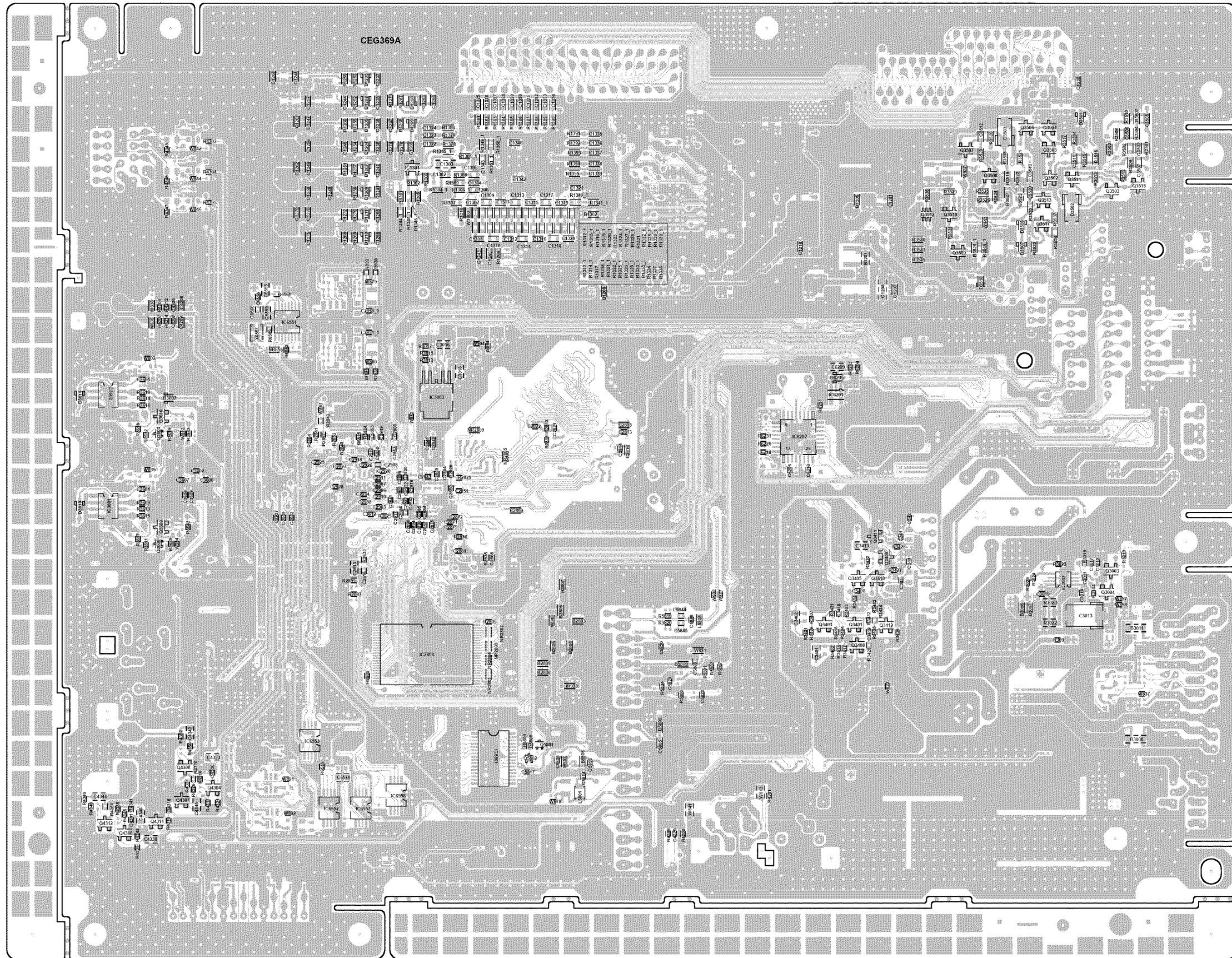
SIGNAL BLOCK DIAGRAM



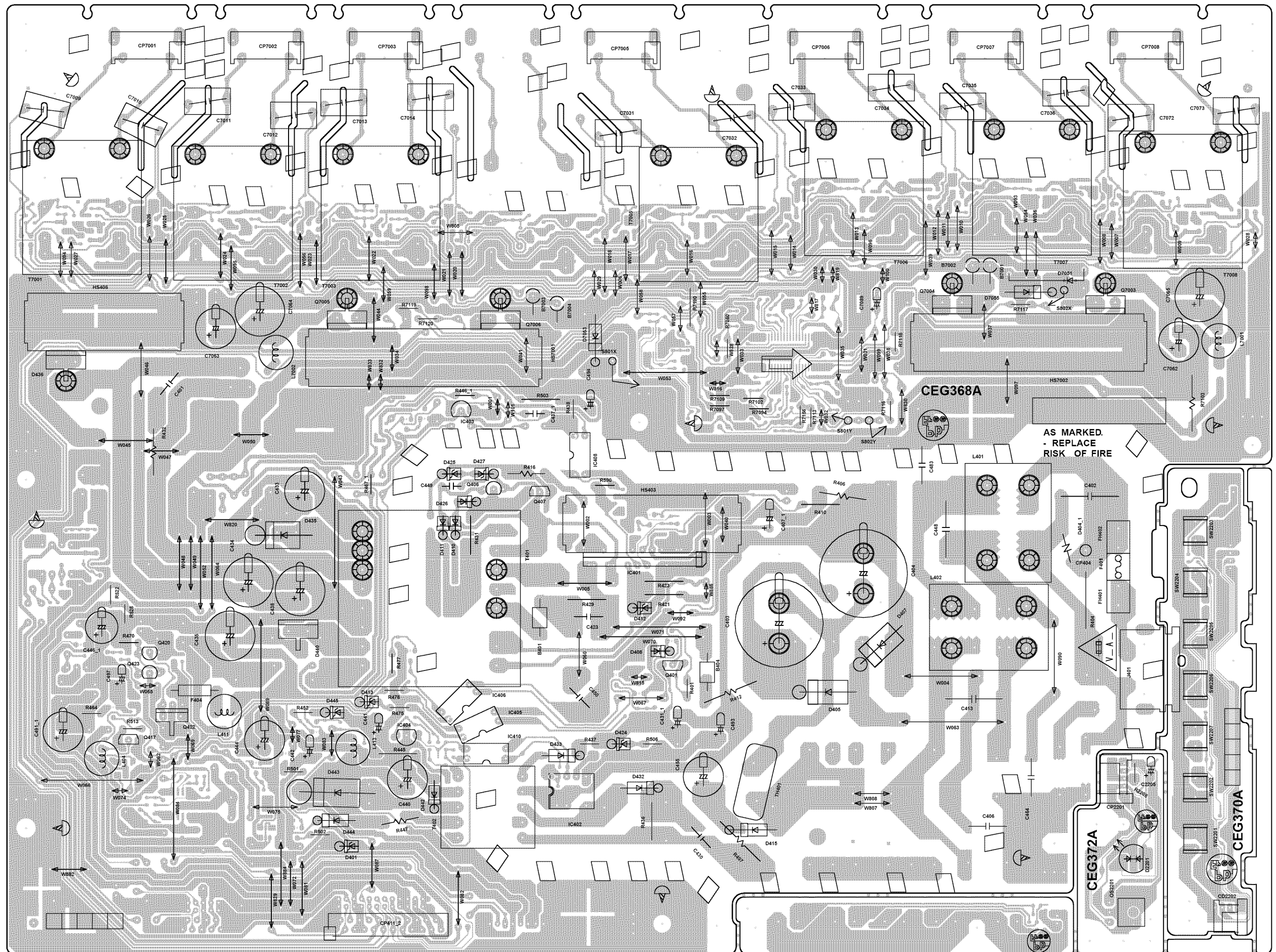
PRINTED CIRCUIT BOARDS
DIGITAL (TOP SIDE)



PRINTED CIRCUIT BOARDS
DIGITAL (BOTTOM SIDE)



PRINTED CIRCUIT BOARDS
POWER/OPERATION/REMOCON (INSERTED PARTS)
SOLDER SIDE



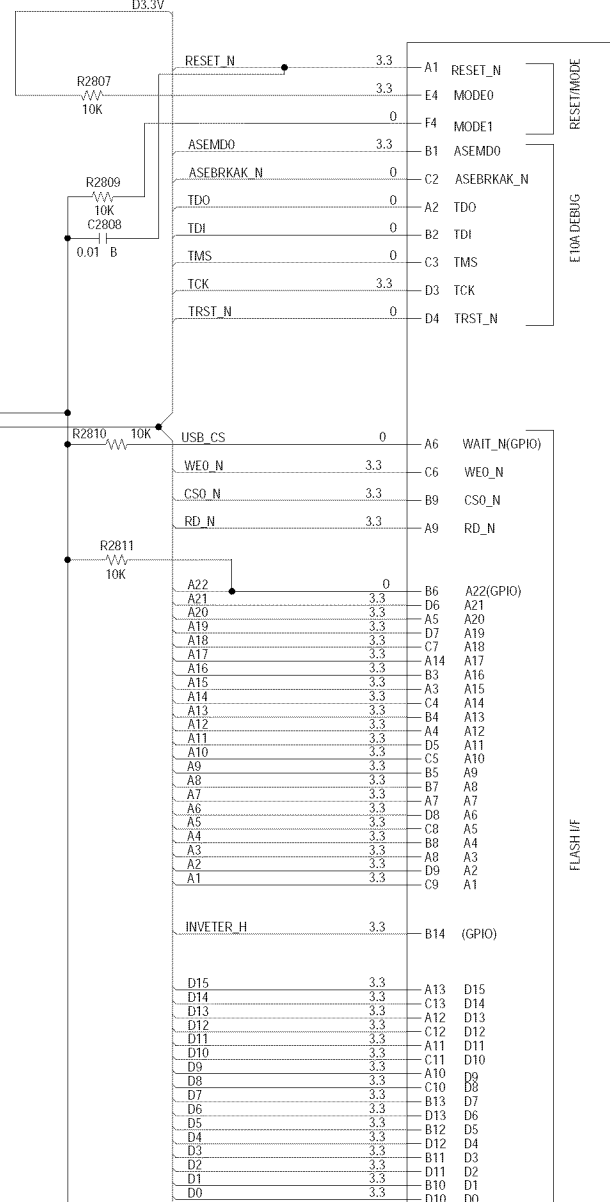
FLASH SCHEMATIC DIAGRAM (DIGITAL PCB)

EEP/PC_TOOL_JIG_CON
CP2801
A2001WV-9A

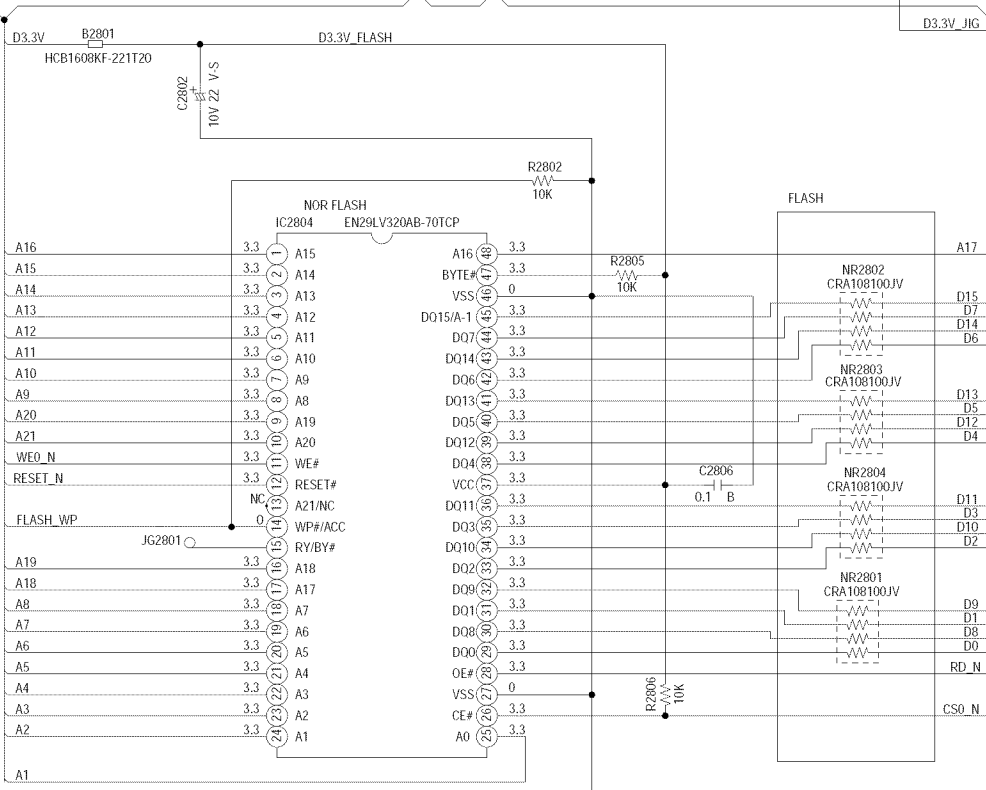
9	NC/RESET	NC
8	D3.3V	D3.3V_JIG
7	PC_TOOL_TX	PC_TOOL_TX
6	PC_TOOL_RX	PC_TOOL_RX
5	D_GND	
4	IIC_OFF	IIC_OFF
3	SDA	I2C_DATA
2	SCL	I2C_CLK
1	GND	

CP2803
A2001WV-12A

TCK	1
TRST_N	2
TDO	3
ASEBRKAK_N	4
TMS	5
TDI	6
RESET_N	7
FLASH_WP	8
ASEMDO	9
GND	10
VDD33	11
GND	12



IC2801
R8J6954BG
SCALER



TO HDMI

HDMI_SW

FROM/TO SCALER VIDEO/AUDIO

IIC_OFF

I2C_DATA

I2C_CLK

TO SOUND

A_MUTE

TO MICON

ASEMDO

IIC_OFF

FROM/TO REGULATOR2

D3.3V_JIG

INVERTER_H

D3.3V

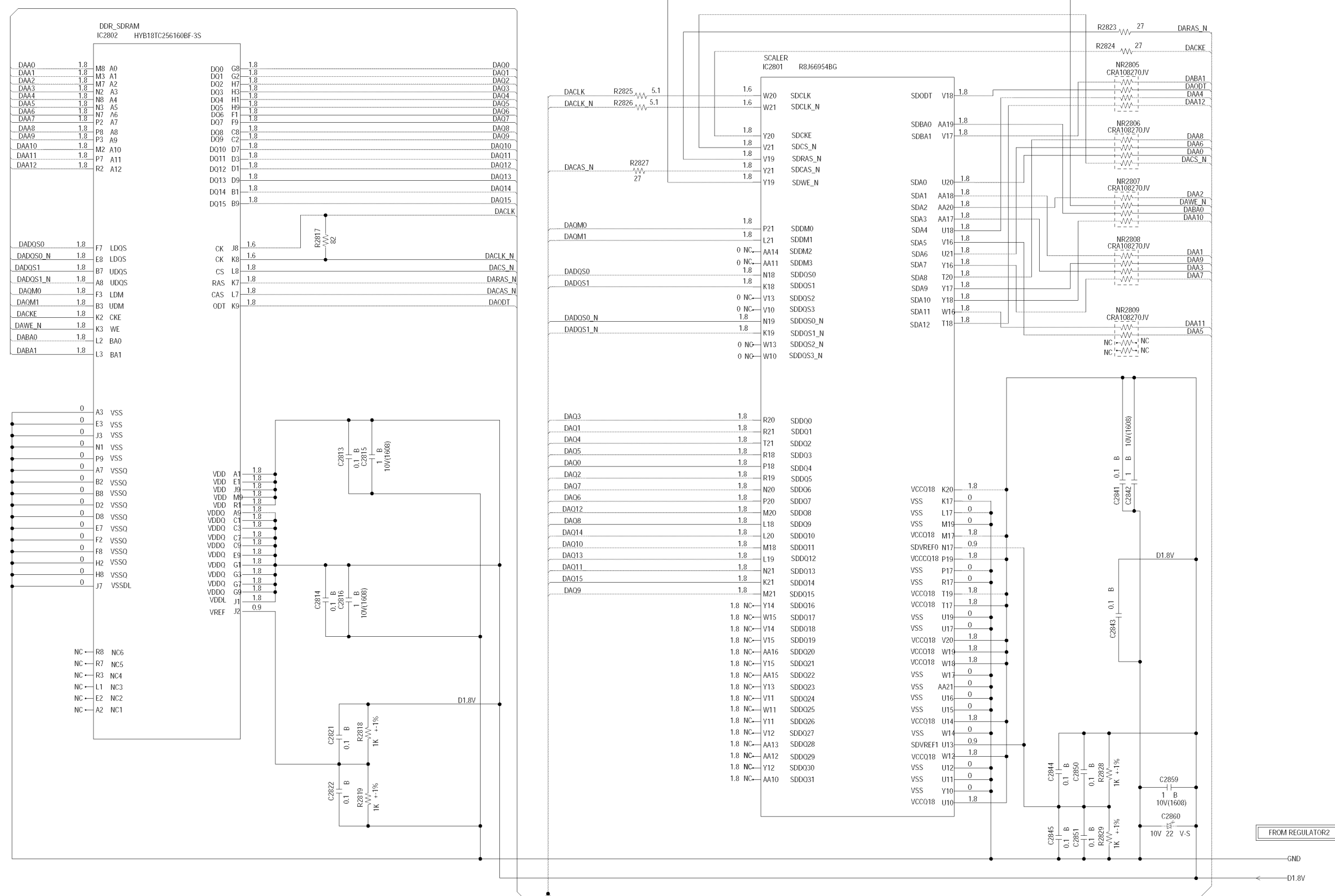
GND

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEG369

DDR SCHEMATIC DIAGRAM (DIGITAL PCB)

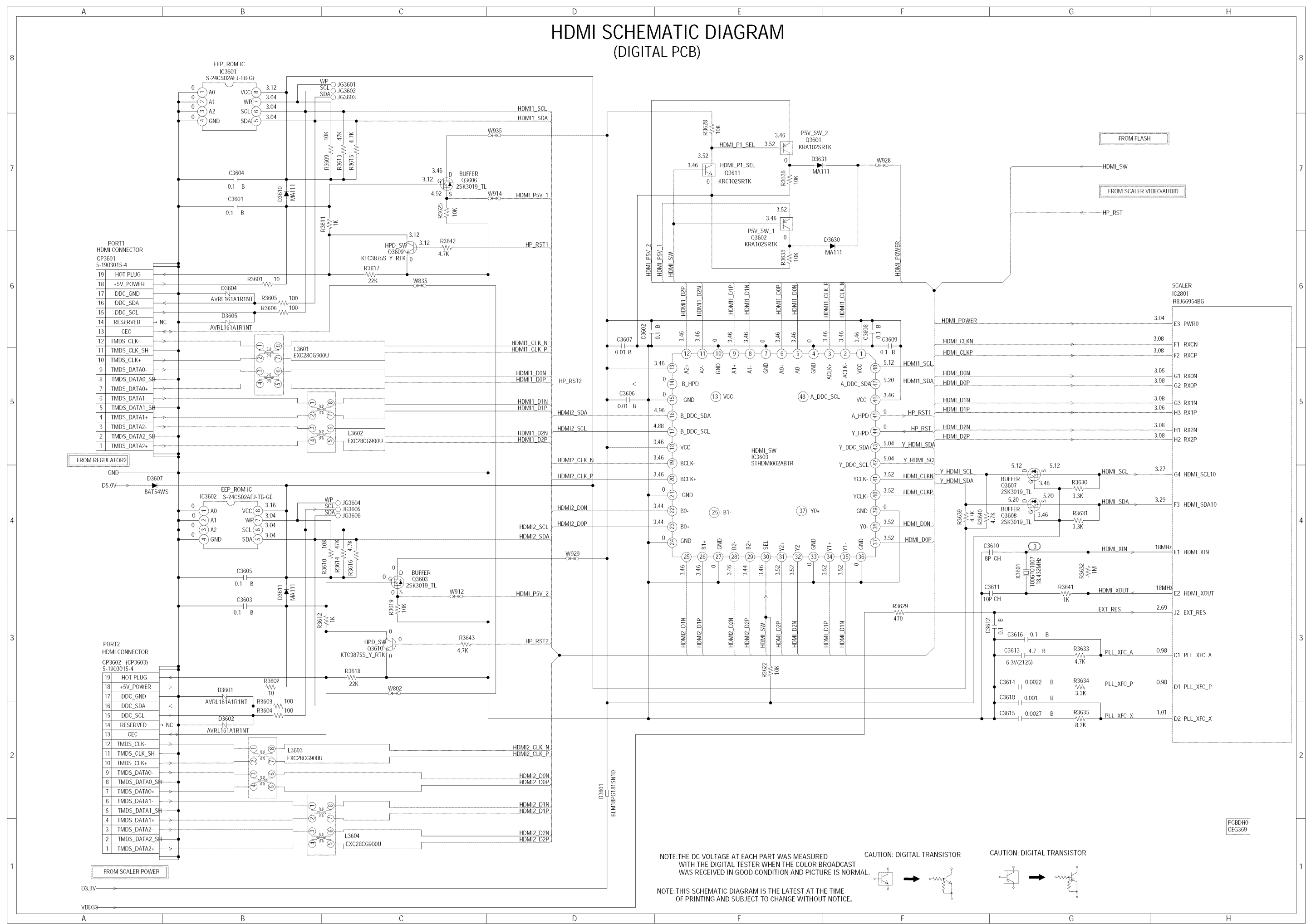


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDHD
CEG369

HDMI SCHEMATIC DIAGRAM (DIGITAL PCB)



FROM REGULATOR2

FROM SCALER POWER

FROM FLASH

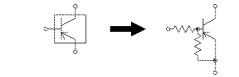
FROM SCALER VIDEO/AUDIO

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

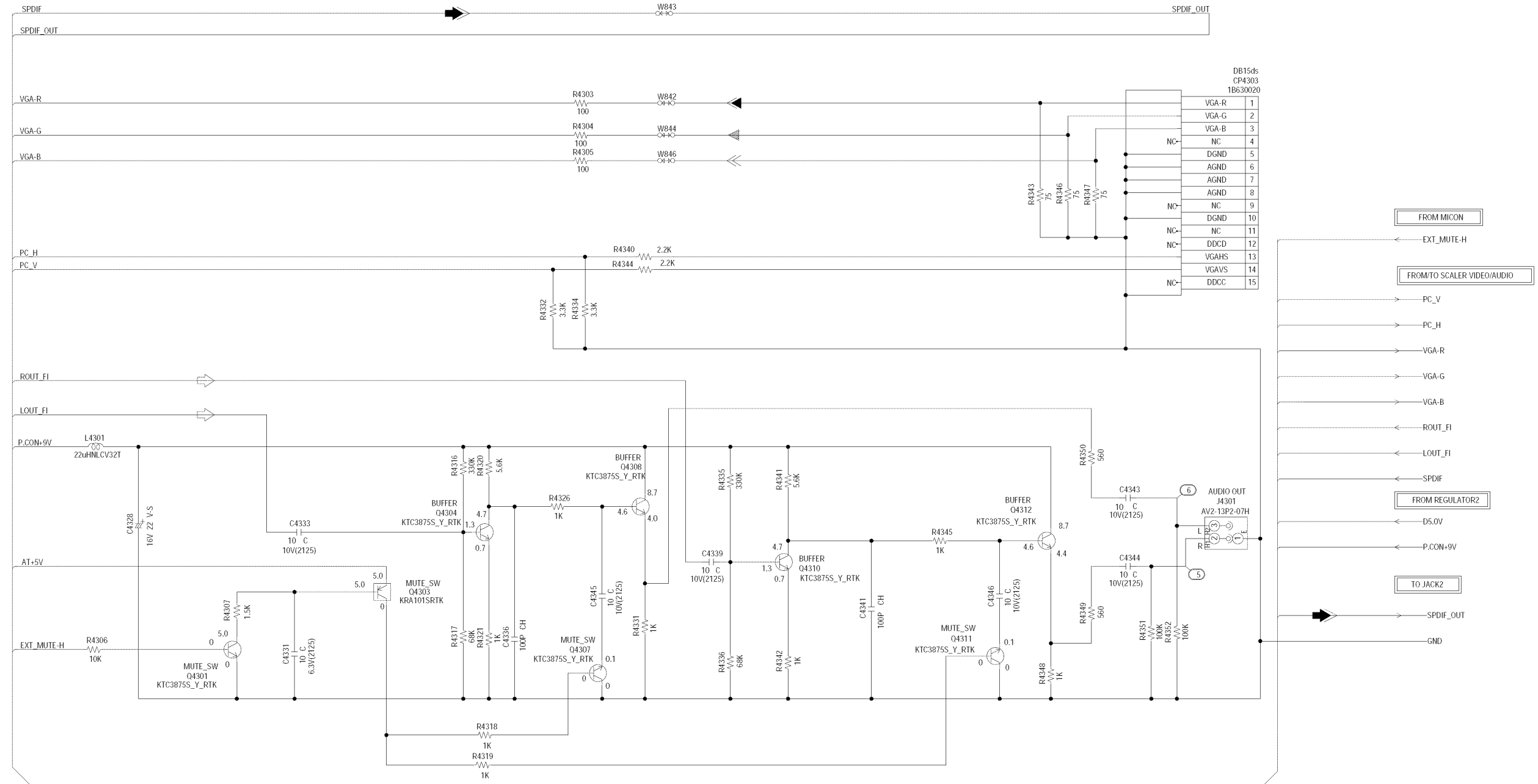
CAUTION: DIGITAL TRANSISTOR

CAUTION: DIGITAL TRANSISTOR



PCBD10
CEG369

JACK SCHEMATIC DIAGRAM (DIGITAL PCB)



DB15ds
CP4303
1B630020

VGA-R	1
VGA-G	2
VGA-B	3
NC	4
DGND	5
AGND	6
AGND	7
AGND	8
NC	9
DGND	10
NC	11
NC	12
DDCC	13
VGHS	14
DDCC	15

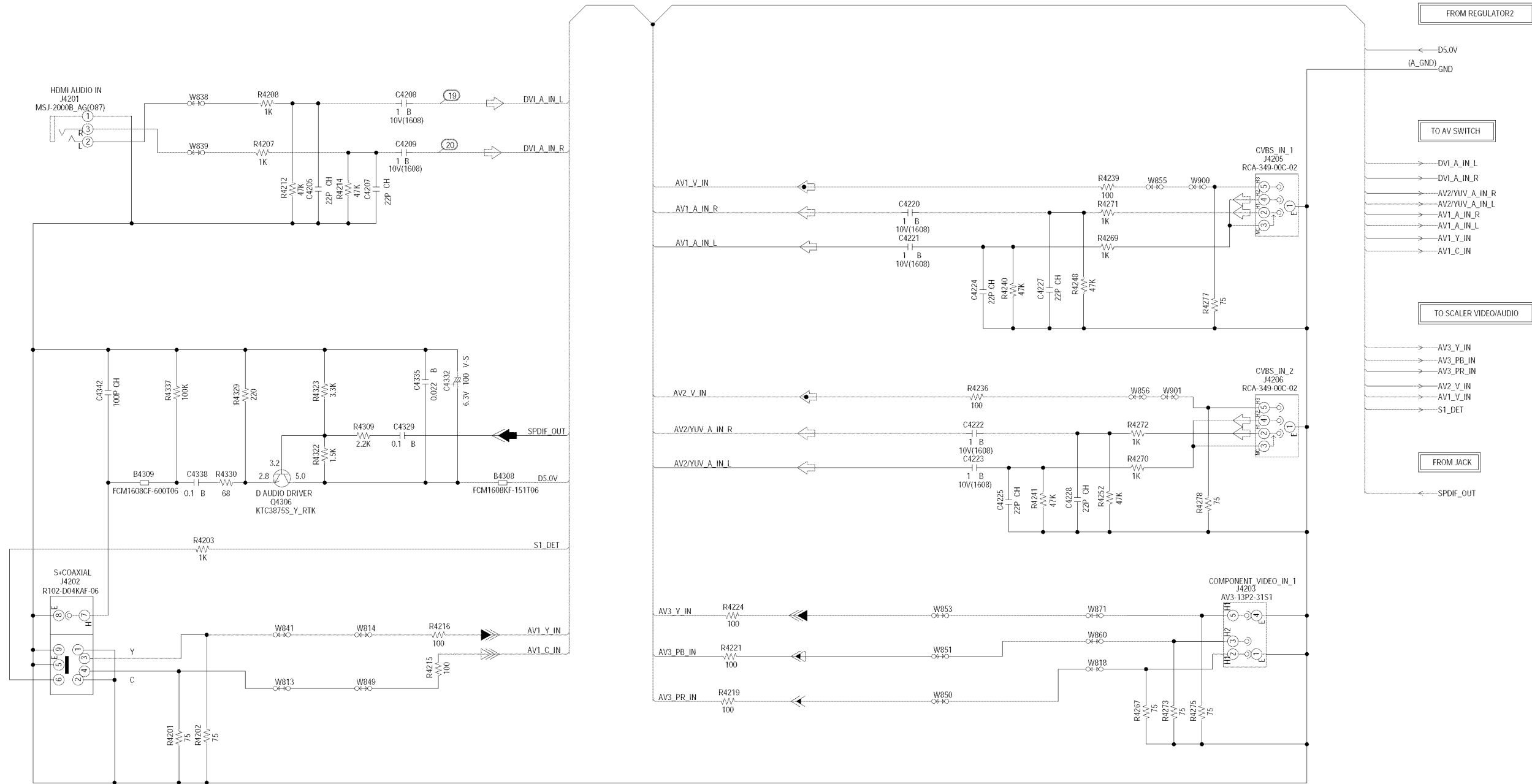
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

- ◀ DIGITAL AUDIO SIGNAL (PB)
 - ◀ AUDIO SIGNAL
 - ◀ R. SIGNAL
 - ◀ G. SIGNAL
 - ◀ B. SIGNAL
- CAUTION: DIGITAL TRANSISTOR
-

PCBDH0
CEG368

JACK2 SCHEMATIC DIAGRAM (DIGITAL PCB)



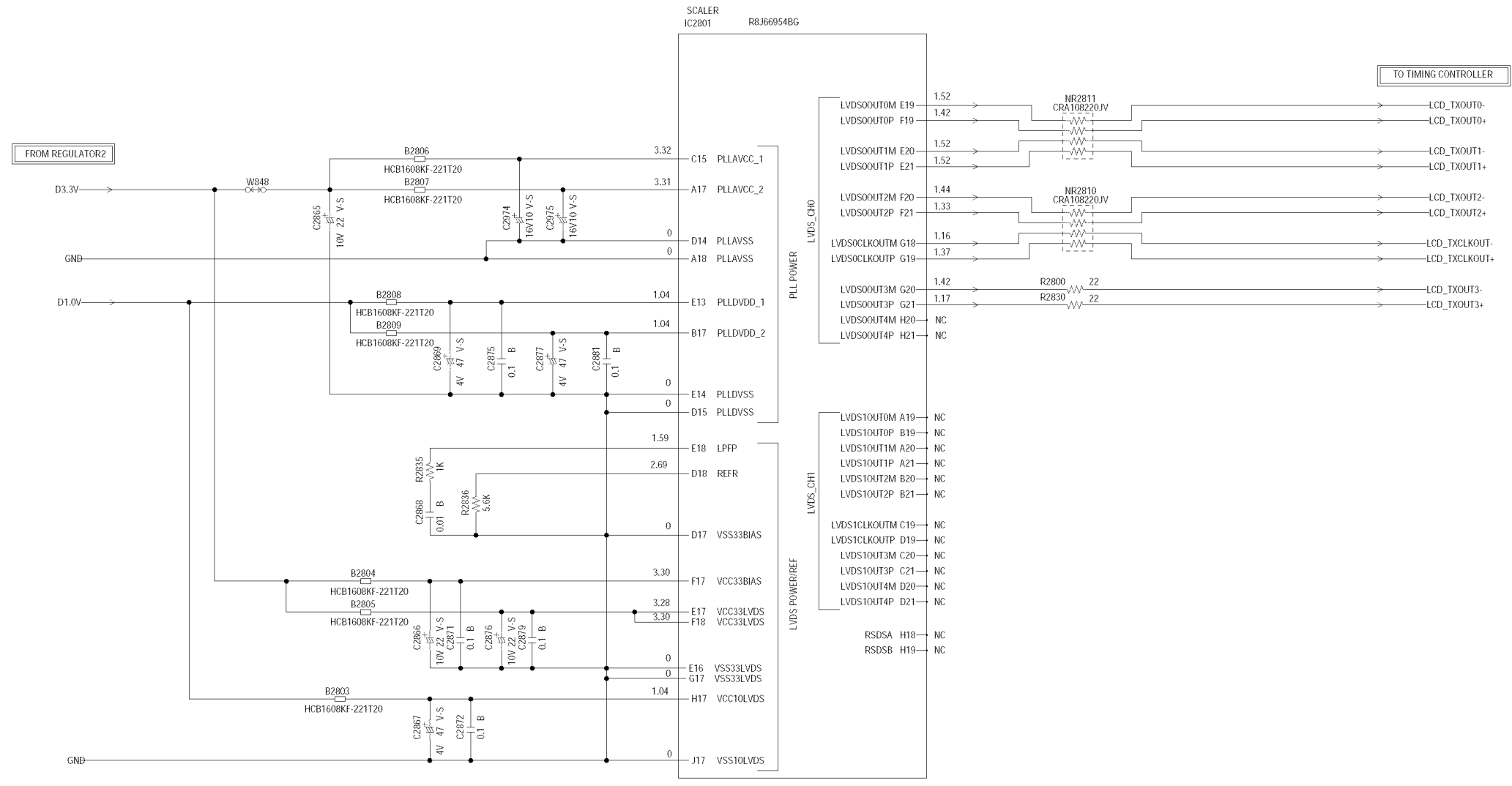
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

- ↔ AUDIO SIGNAL
- ↔ COLOR SIGNAL
- ↔ VIDEO SIGNAL
- ◀ COMPONENT SIGNAL (U)
- ◀ LUMINANCE SIGNAL
- ◀ COMPONENT SIGNAL (V)
- ◀ DIGITAL AUDIO SIGNAL (PB)

PCBDH0
CEG368

LVDS SCHEMATIC DIAGRAM (DIGITAL PCB)

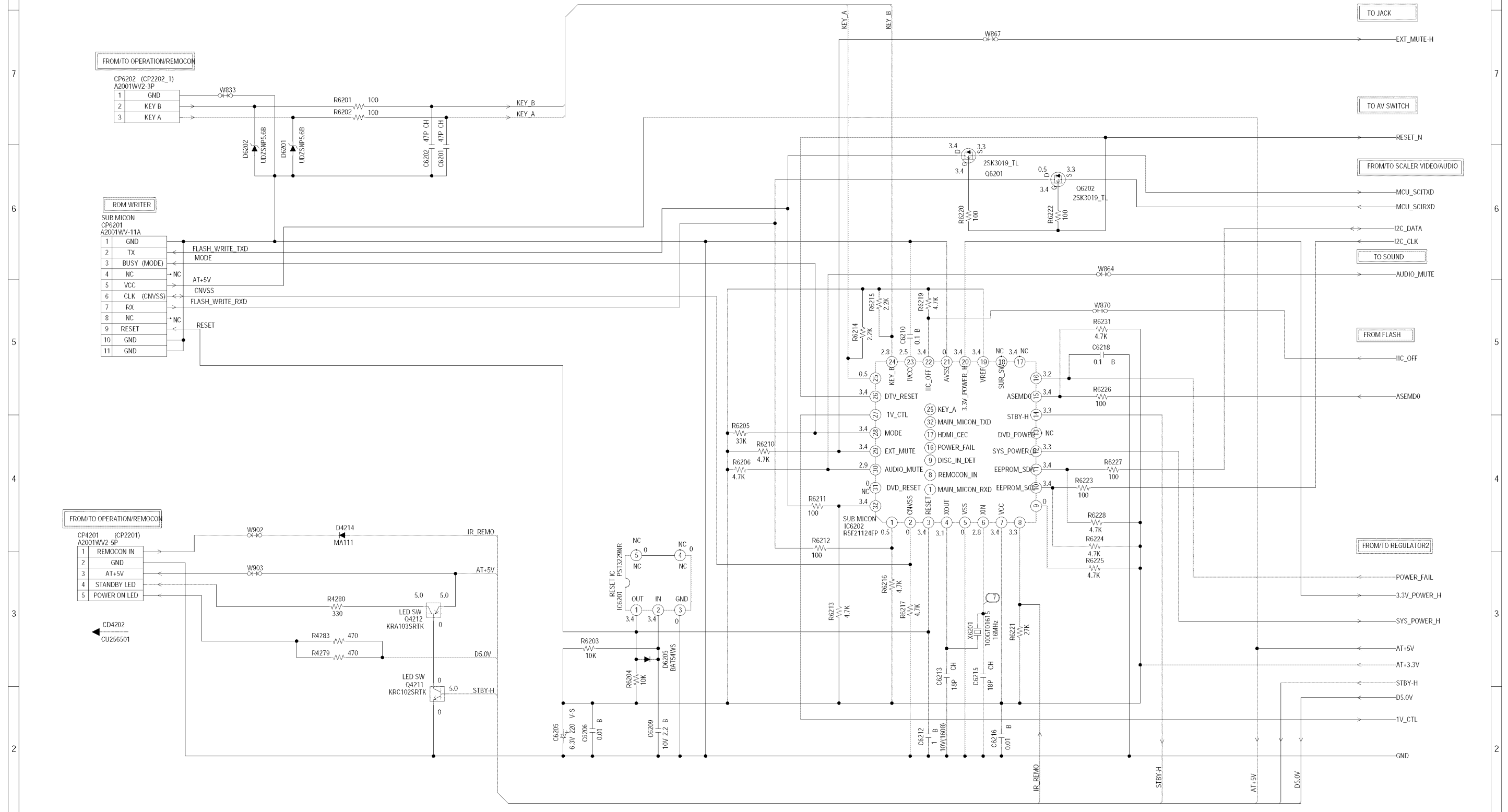


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

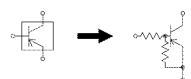
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEG368

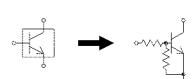
MICON SCHEMATIC DIAGRAM (DIGITAL PCB)



CAUTION: DIGITAL TRANSISTOR



CAUTION: DIGITAL TRANSISTOR

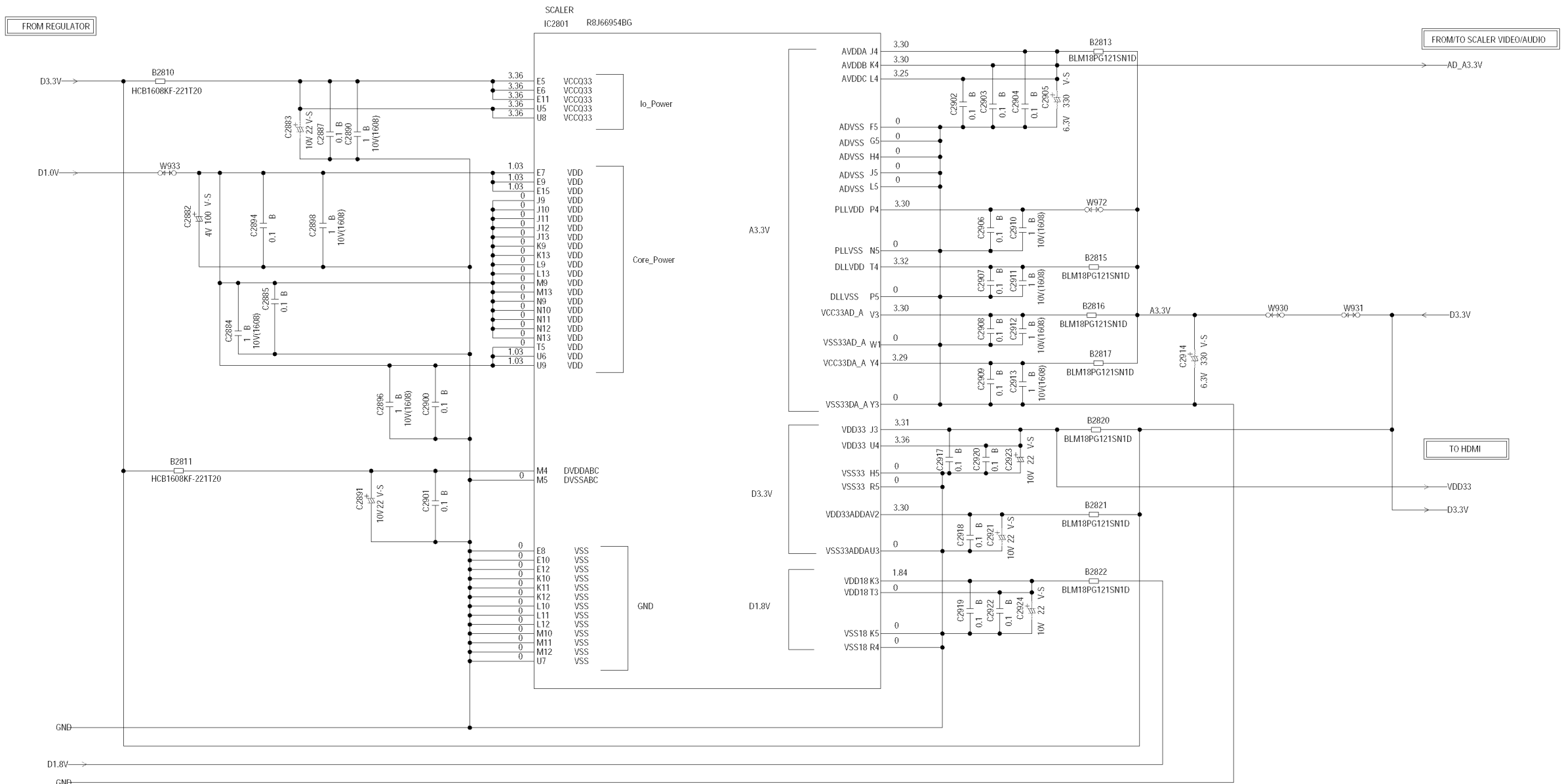


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEG368

SCALER POWER SCHEMATIC DIAGRAM (DIGITAL PCB)

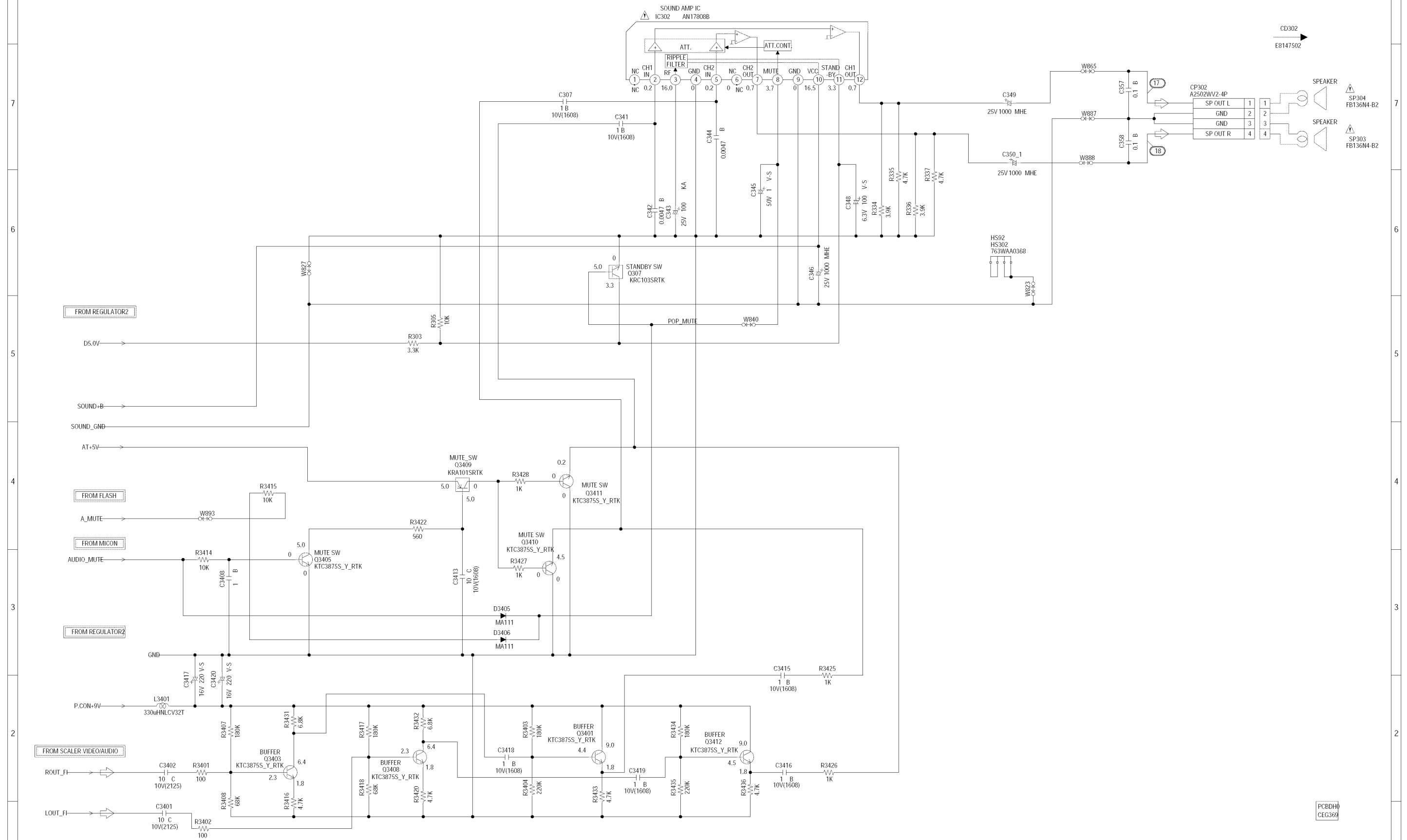


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBDH0
CEG368

SOUND SCHEMATIC DIAGRAM (DIGITAL PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

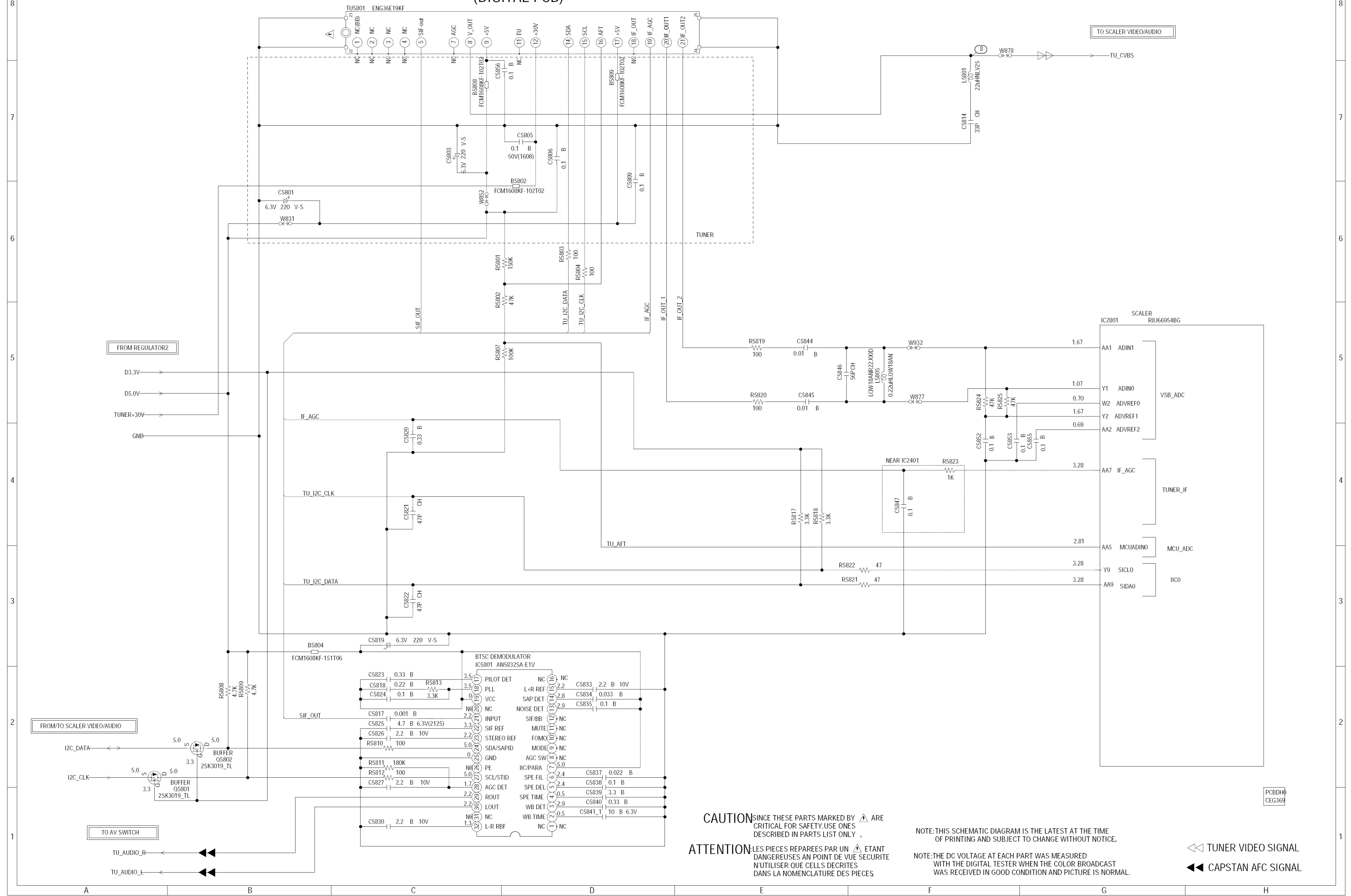
ATTENTION LES PIECES REPAREES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

CAUTION: DIGITAL TRANSISTOR

CAUTION: DIGITAL TRANSISTOR

AUDIO SIGNAL
 AUDIO SIGNAL (REC)

TUNER SCHEMATIC DIAGRAM (DIGITAL PCB)



CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

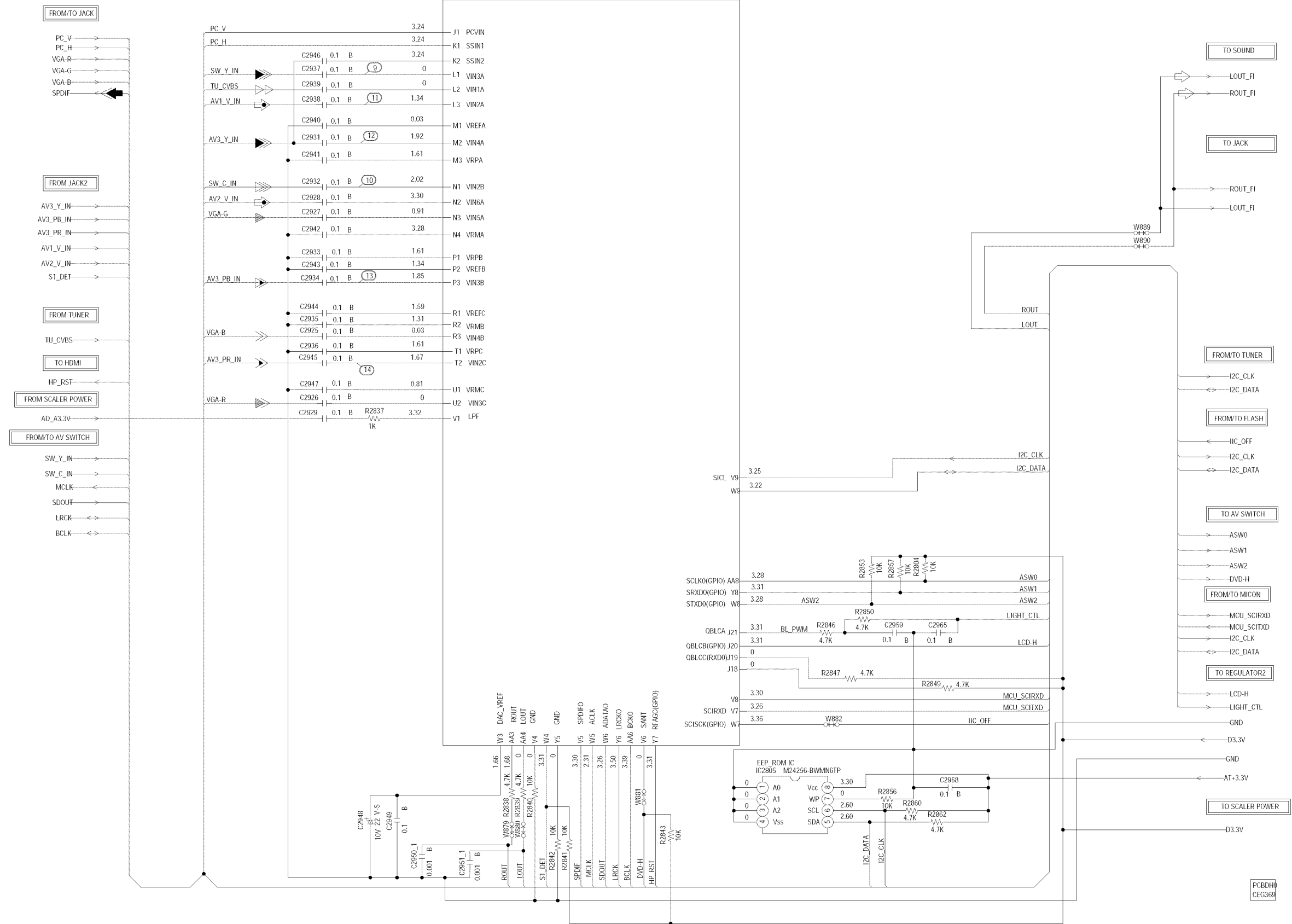
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

TUNER VIDEO SIGNAL
 CAPSTAN AFC SIGNAL

SCALER VIDEO/AUDIO SCHEMATIC DIAGRAM (DIGITAL PCB)

IC2801 R8J66954BG SCALER

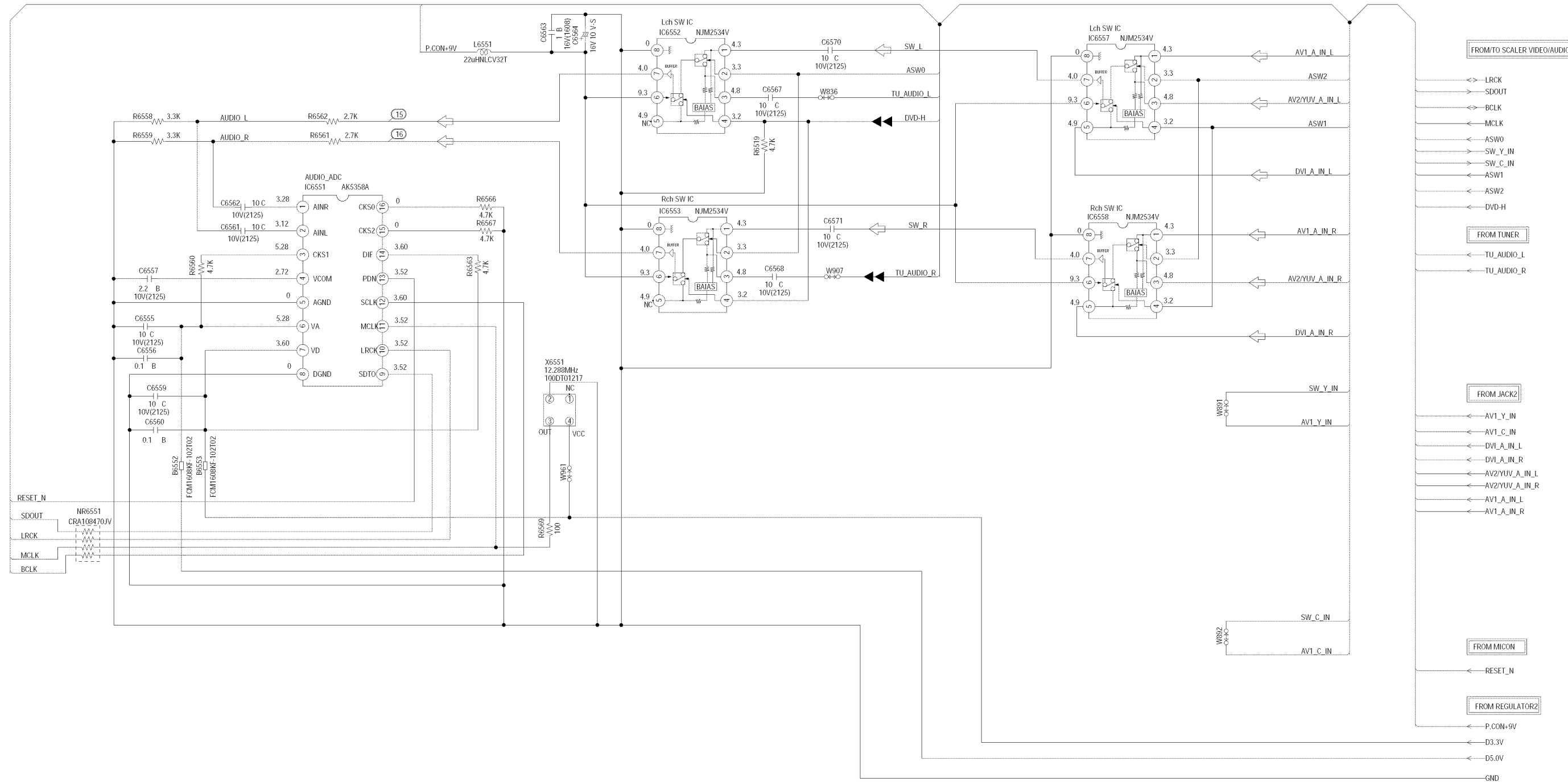


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

- ◀ B. SIGNAL
- ◀ G. SIGNAL
- ◀ R. SIGNAL
- ◀ COLOR SIGNAL
- ◀ LUMINANCE SIGNAL
- ◀ TUNER VIDEO SIGNAL
- ◀ COMPONENT SIGNAL (U)
- ◀ COMPONENT SIGNAL (V)
- ◀ VIDEO SIGNAL
- ◀ AUDIO SIGNAL
- ◀ COMPONENT SIGNAL (U)
- ◀ DIGITAL AUDIO SIGNAL (PB)

AV SWITCH SCHEMATIC DIAGRAM (DIGITAL PCB)



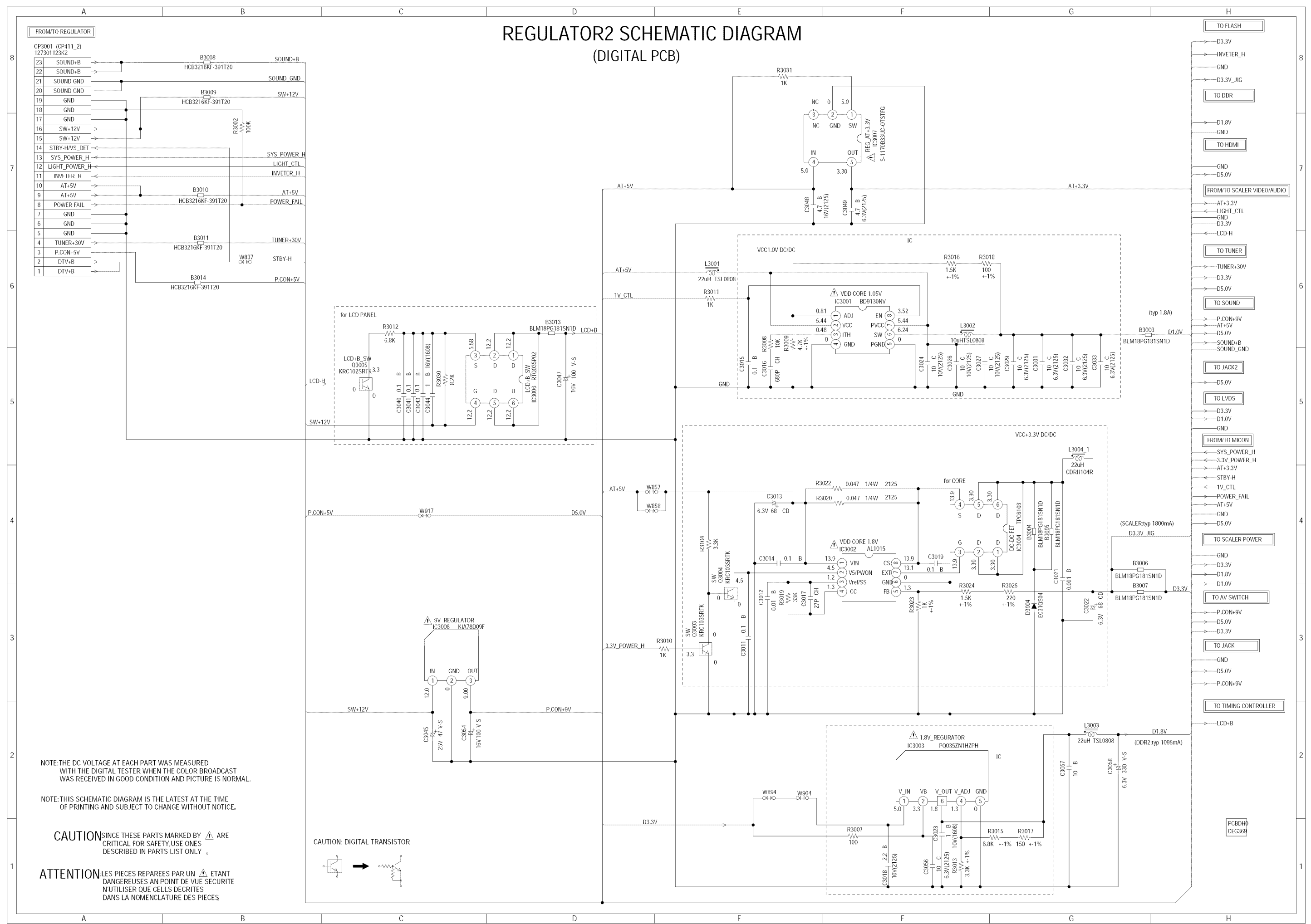
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

◁ AUDIO SIGNAL

◀◀ CAPSTAN AFC SIGNAL

REGULATOR2 SCHEMATIC DIAGRAM (DIGITAL PCB)



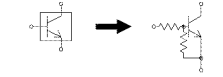
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

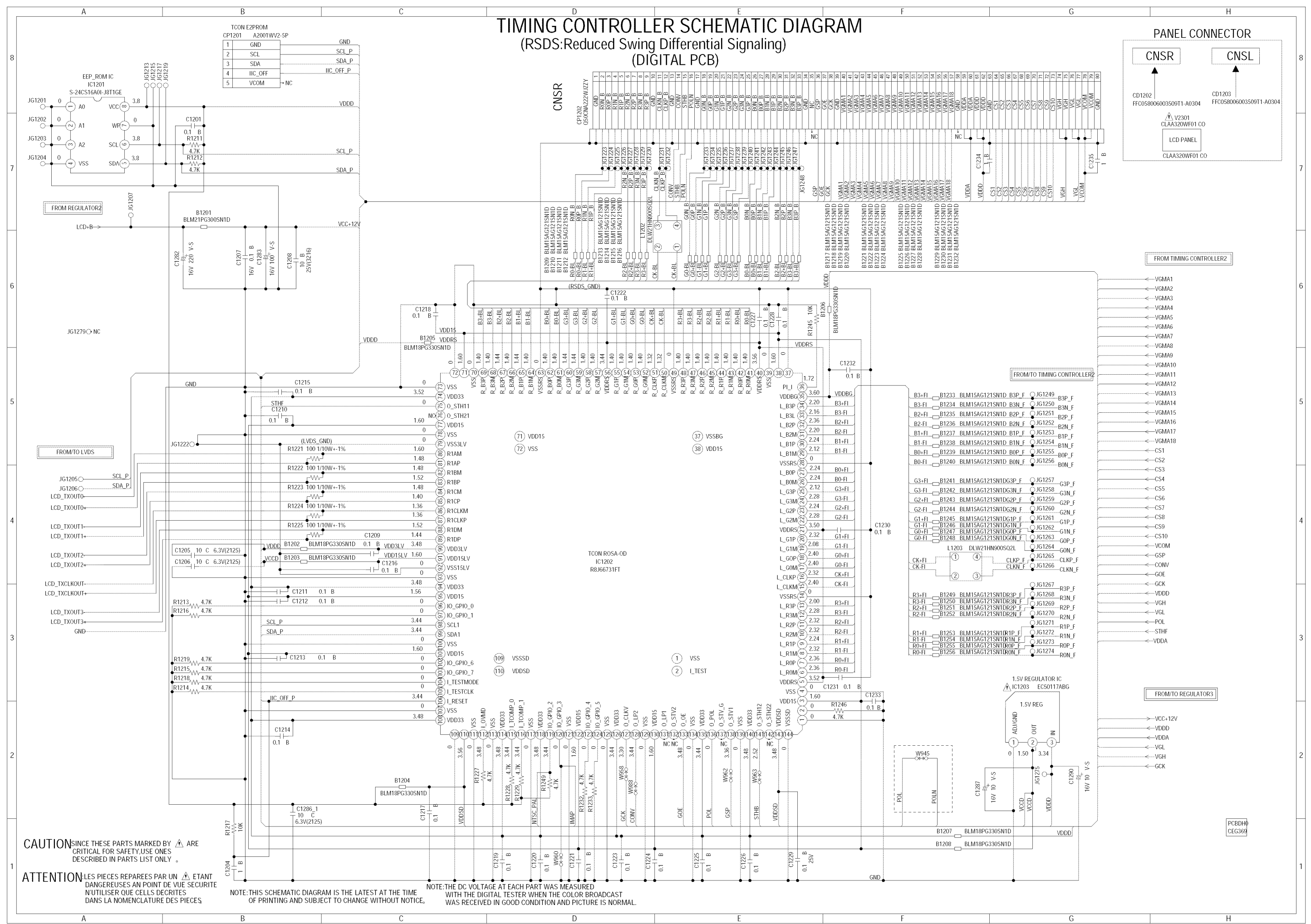
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION LES PIÈCES REPAREES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIÈCES.

CAUTION: DIGITAL TRANSISTOR

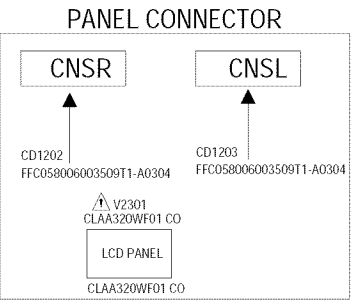


TIMING CONTROLLER SCHEMATIC DIAGRAM (RSDS:Reduced Swing Differential Signaling) (DIGITAL PCB)



TCON E2PROM
CP1201 A2001WV2-5P

1	GND	SCL_P
2	SCL	SDA_P
3	SDA	IIC_OFF_P
4	IIC_OFF	NC
5	VCOM	NC



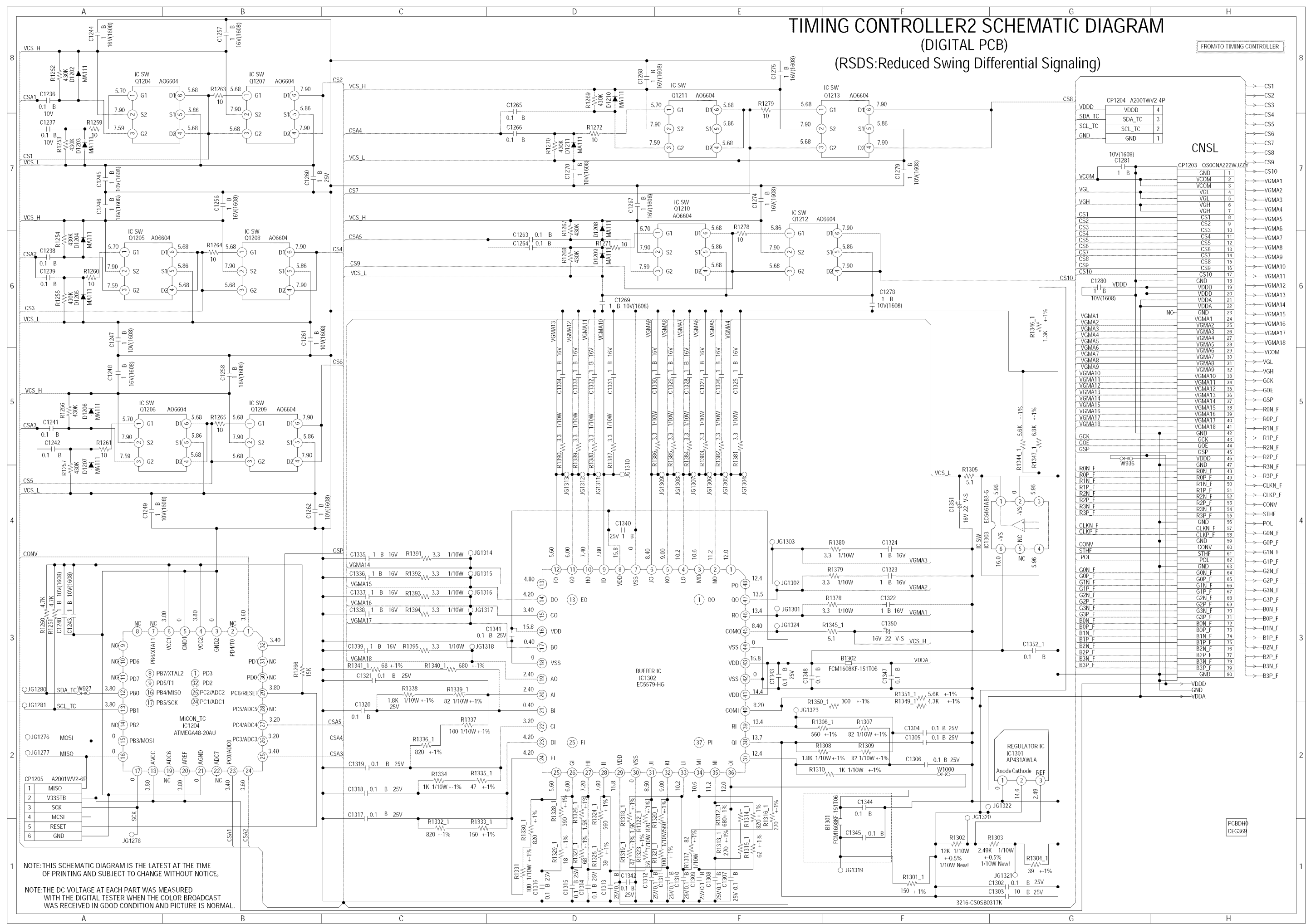
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION LES PIÈCES REPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLES DECRITES DANS LA NOMENCLATURE DES PIÈCES

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

TIMING CONTROLLER2 SCHEMATIC DIAGRAM (DIGITAL PCB) (RSDS:Reduced Swing Differential Signaling)



FROM/TO TIMING CONTROLLER

VDDD	VDDD	4
SDA_TC	SDA_TC	3
SCL_TC	SCL_TC	2
GND	GND	1

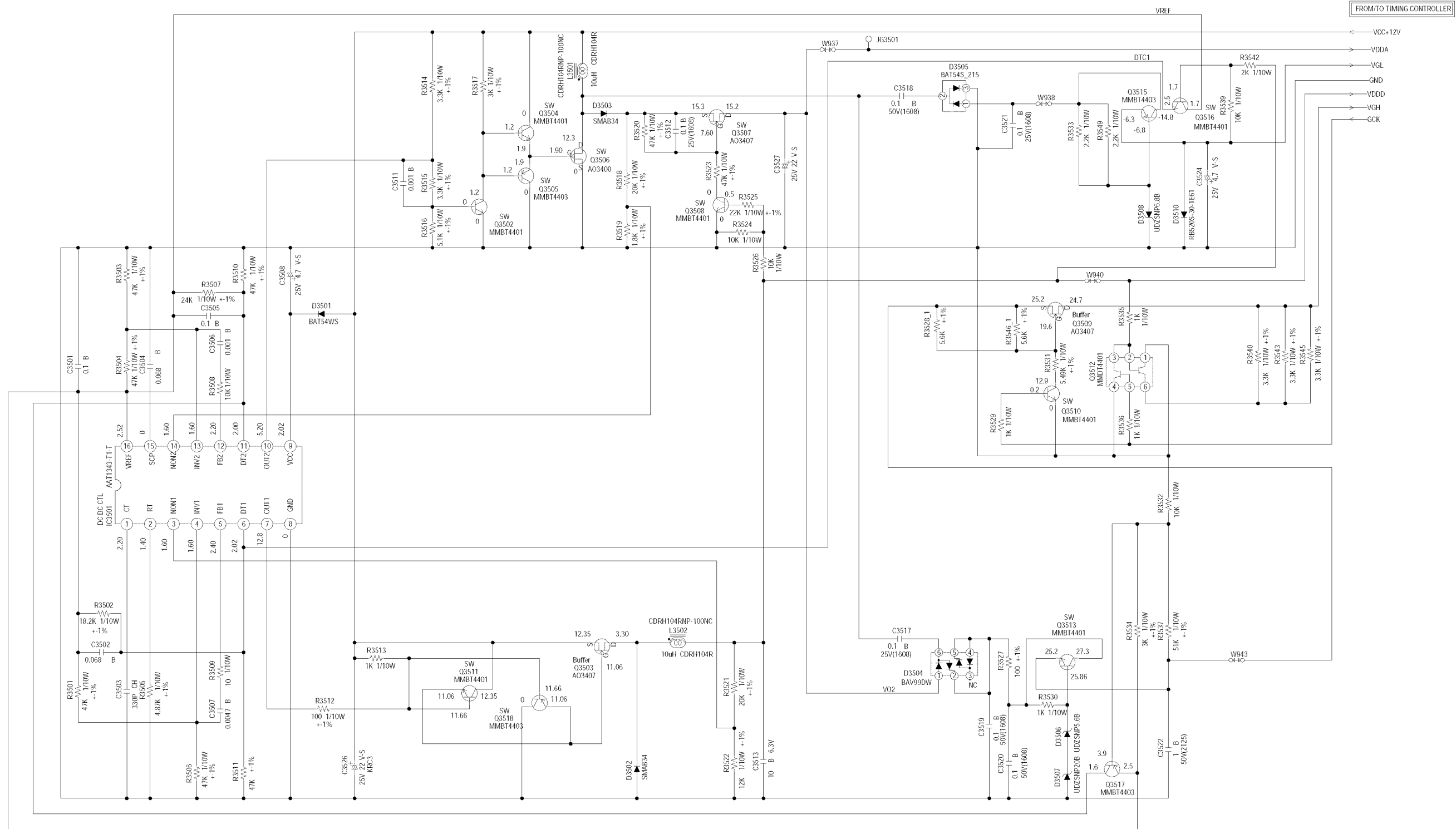
CNSL

CP1204	A2001WV2-4P	
VDDD	VDDD	4
SDA_TC	SDA_TC	3
SCL_TC	SCL_TC	2
GND	GND	1
VCOM	VCOM	1
VGL	VGL	4
VGH	VGH	6
CS1	CS1	8
CS2	CS2	9
CS3	CS3	10
CS4	CS4	11
CS5	CS5	12
CS6	CS6	13
CS7	CS7	14
CS8	CS8	15
CS9	CS9	16
CS10	CS10	17
VDDD	VDDD	18
VDDD	VDDD	20
VDDA	VDDA	21
VDDA	VDDA	22
GND	GND	23
VGMA1	VGMA1	24
VGMA2	VGMA2	25
VGMA3	VGMA3	26
VGMA4	VGMA4	27
VGMA5	VGMA5	28
VGMA6	VGMA6	29
VGMA7	VGMA7	30
VGMA8	VGMA8	31
VGMA9	VGMA9	32
VGMA10	VGMA10	33
VGMA11	VGMA11	34
VGMA12	VGMA12	35
VGMA13	VGMA13	36
VGMA14	VGMA14	37
VGMA15	VGMA15	38
VGMA16	VGMA16	39
VGMA17	VGMA17	40
VGMA18	VGMA18	41
GND	GND	42
GCK	GCK	43
GOE	GOE	44
GSP	GSP	45
VDDD	VDDD	46
GND	GND	47
RON_F	RON_F	48
ROP_F	ROP_F	49
RIN_F	RIN_F	50
RIP_F	RIP_F	51
R2N_F	R2N_F	52
R2P_F	R2P_F	53
R3N_F	R3N_F	54
R3P_F	R3P_F	55
GND	GND	56
CLKN_F	CLKN_F	57
CLKP_F	CLKP_F	58
GND	GND	59
CONV	CONV	60
STHF	STHF	61
POL	POL	62
GND	GND	63
GON_F	GON_F	64
GOP_F	GOP_F	65
GIN_F	GIN_F	66
G1P_F	G1P_F	67
G2P_F	G2P_F	68
G3P_F	G3P_F	69
BON_F	BON_F	70
BOP_F	BOP_F	71
B1N_F	B1N_F	72
B1P_F	B1P_F	73
B2N_F	B2N_F	74
B2P_F	B2P_F	75
B3N_F	B3N_F	76
B3P_F	B3P_F	77
GND	GND	78
VDDD	VDDD	79
VDDA	VDDA	80

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

REGULATOR3 SCHEMATIC DIAGRAM (DIGITAL PCB)



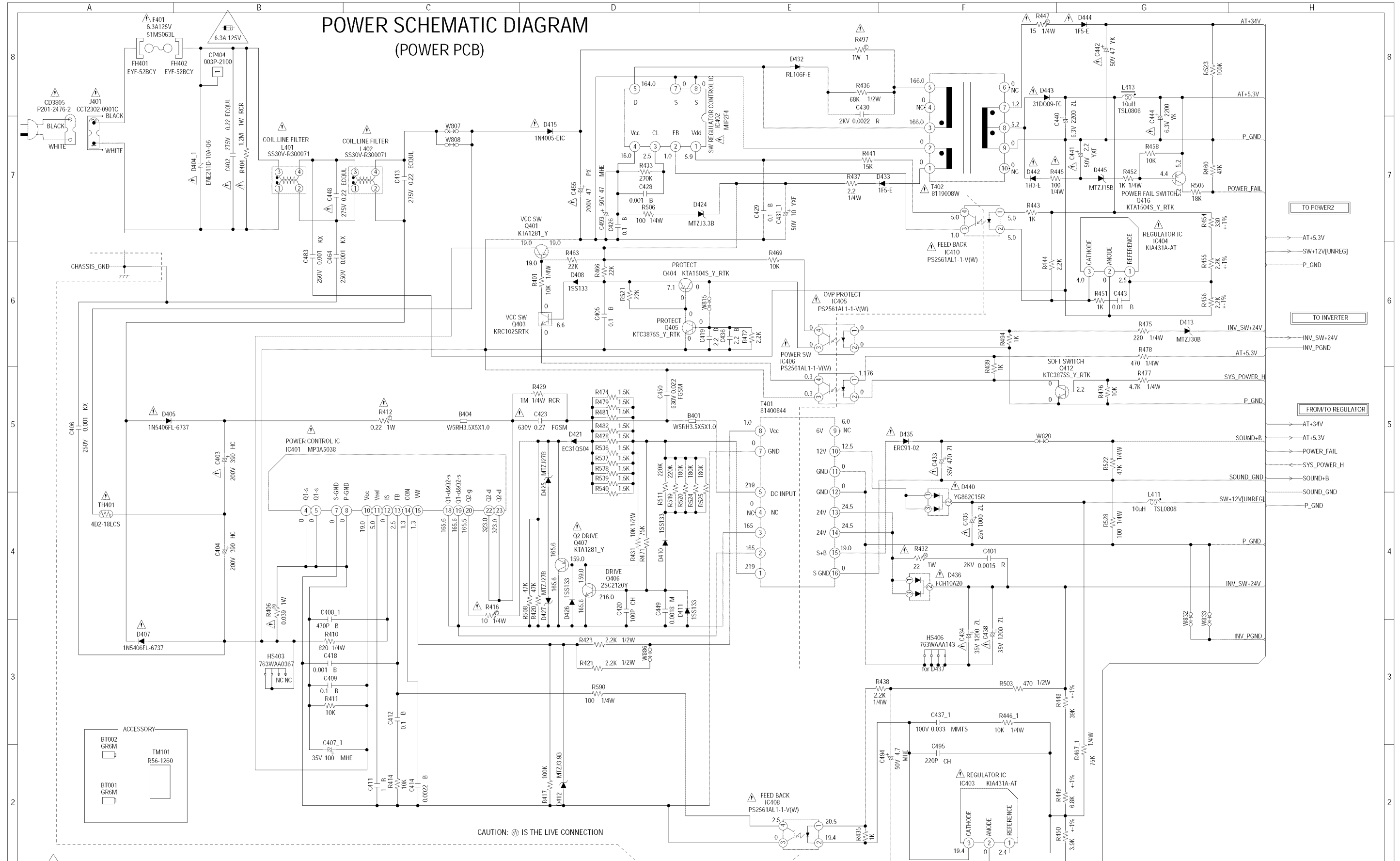
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

NOTE: THE DC VOLTAGE EACH PART WAS MEASURED WITH THE DIGITAL TESTER DURING PLAYBACK.

PCBDH0
CEG368

POWER SCHEMATIC DIAGRAM (POWER PCB)



CAUTION -FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 6.3A 125V(F401)
ATTENTION -POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 6.3A 125V(F401)

NOTE: THE RESISTOR MARKED F IS FUSE RESISTOR. THE ALUMI ELECTROLYTIC CAPACITOR MARKED NP IS NON POLAR ONE.

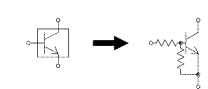
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

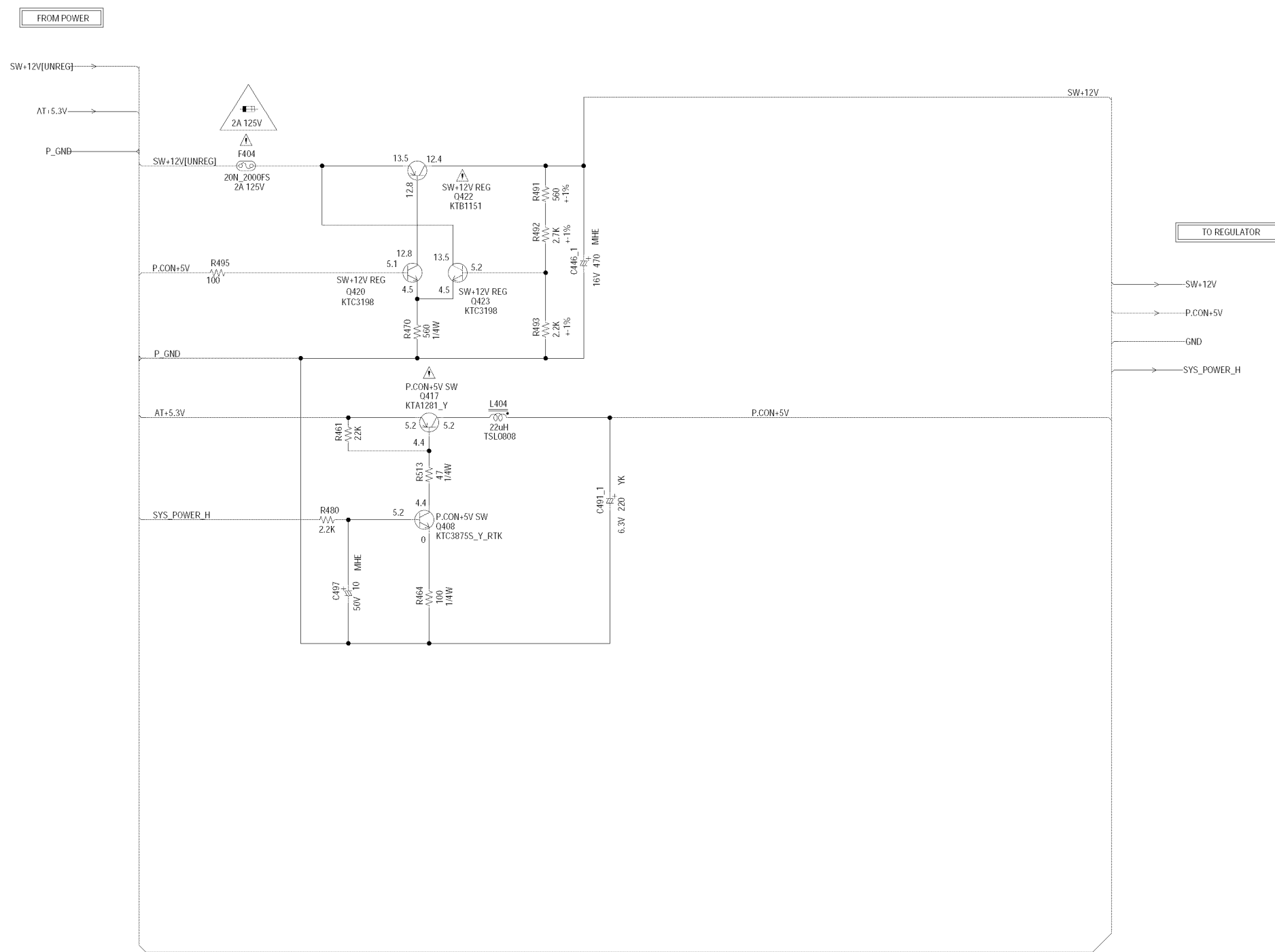
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY

ATTENTION LES PIECES REPARÉES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLES DECRITES DANS LA NOMENCLATURE DES PIECES

CAUTION: DIGITAL TRANSISTOR



POWER2 SCHEMATIC DIAGRAM (POWER PCB)



CAUTION :FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 1.6V 125V(F404).
ATTENTION :POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 1.6V 125V(F404).
CAUTION :F404 IS MANUFACTURED BY SKYGATE CO.,LTD., TYPE 20N.

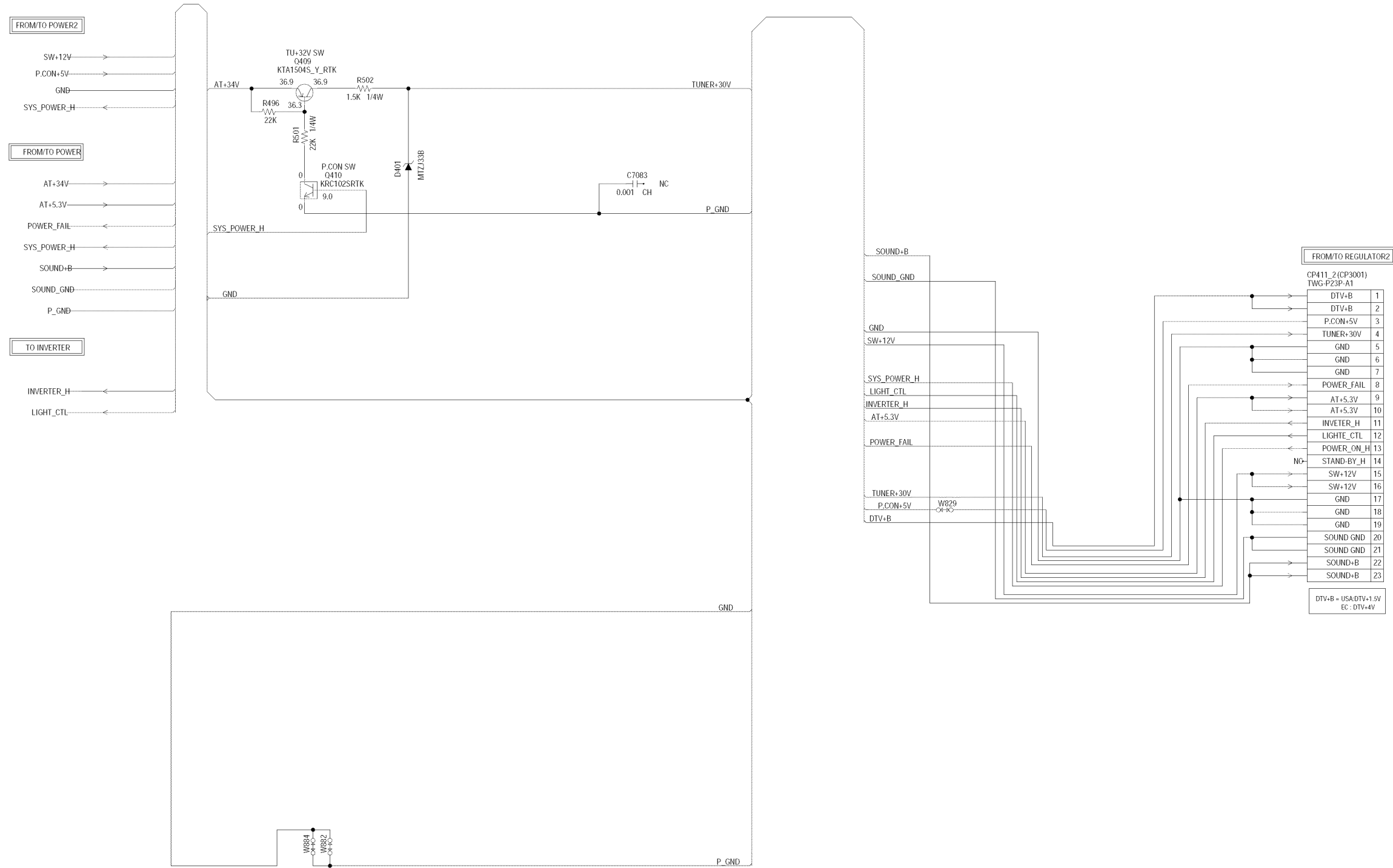
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.
 NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

ATTENTION LES PIECES REPARÉES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES

PCB240
CEG368

REGULATOR SCHEMATIC DIAGRAM (POWER PCB)



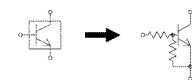
FROM/TO REGULATOR2

CP411_2 (CP3001) TWG-P23P-A1	
DTV-B	1
DTV-B	2
P.CON+5V	3
TUNER+30V	4
GND	5
GND	6
GND	7
POWER_FAIL	8
AT+5.3V	9
AT+5.3V	10
INVERTER_H	11
LIGHTE_CTL	12
POWER_ON_H	13
STAND-BY_H	14
NG	14
SW+12V	15
SW+12V	16
GND	17
GND	18
GND	19
SOUND_GND	20
SOUND_GND	21
SOUND+B	22
SOUND+B	23

DTV-B - USA:DTV-1.5V
EC: DTV-4V

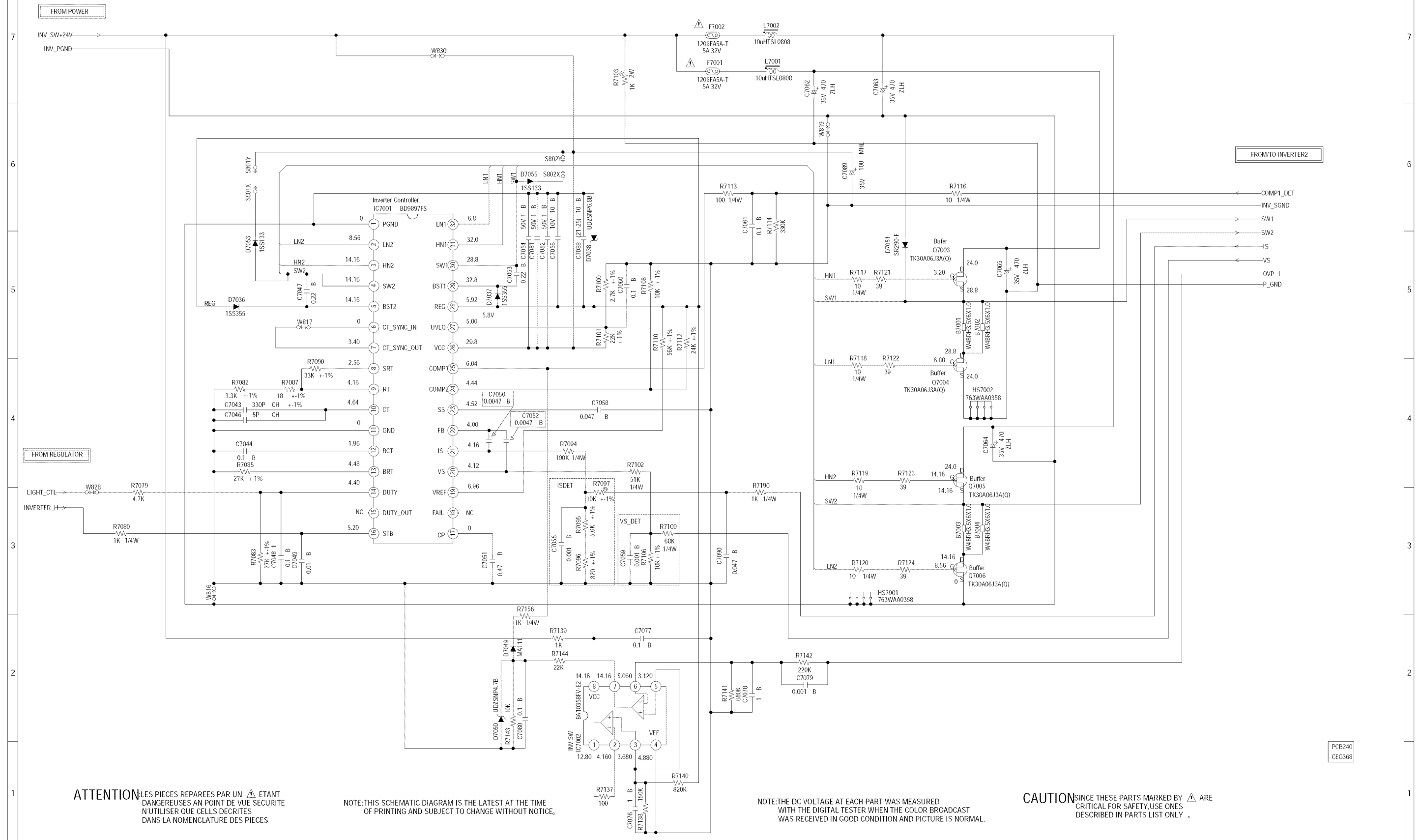
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR



PCB240
CEG368

INVERTER SCHEMATIC DIAGRAM (POWER PCB)



ATTENTION LES PIÈCES RÉPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SÉCURITÉ NUTILISER QUE CELLS DÉCRITES DANS LA NOMENCLATURE DES PIÈCES

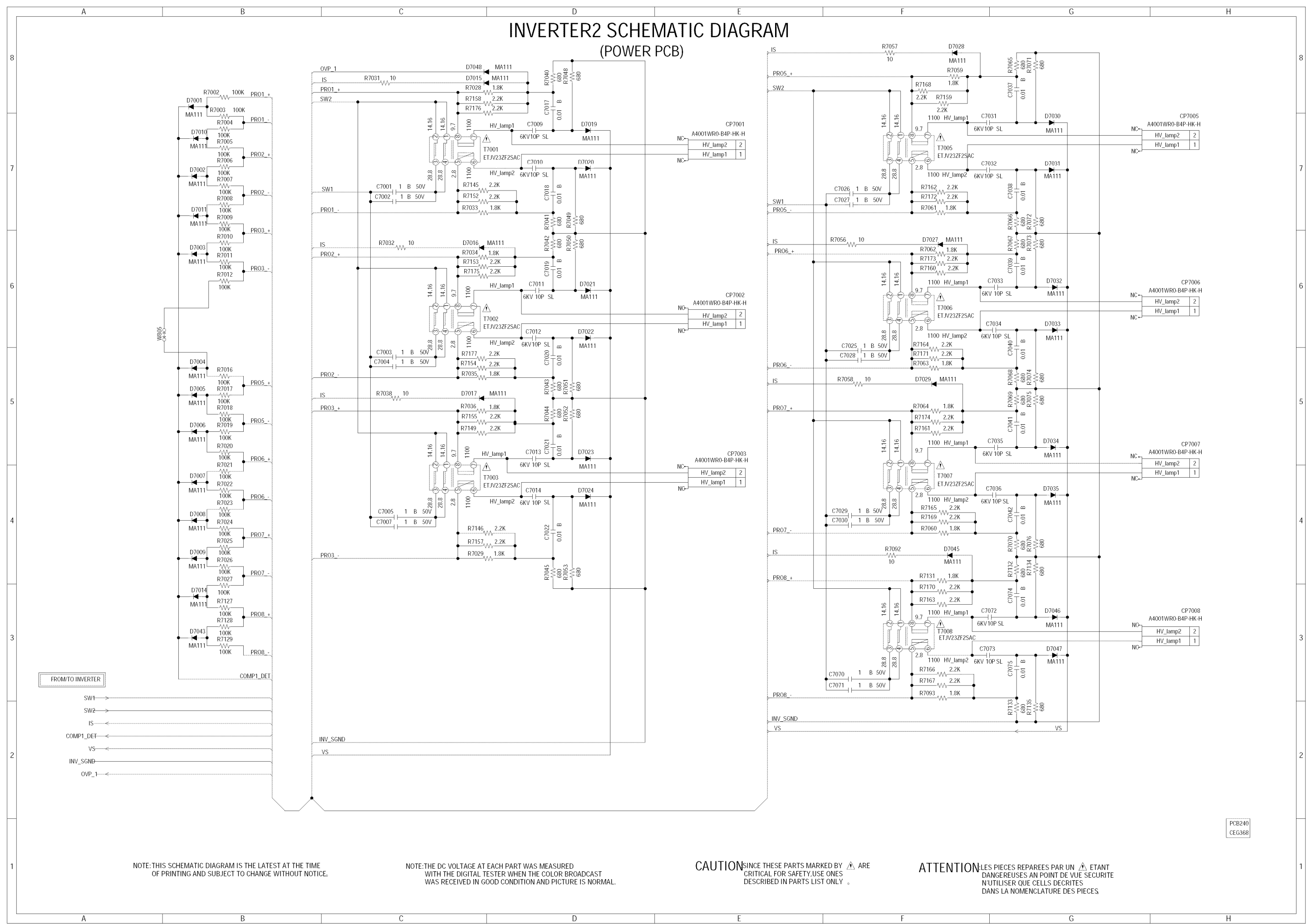
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

PCB240
CEG368

INVERTER2 SCHEMATIC DIAGRAM (POWER PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

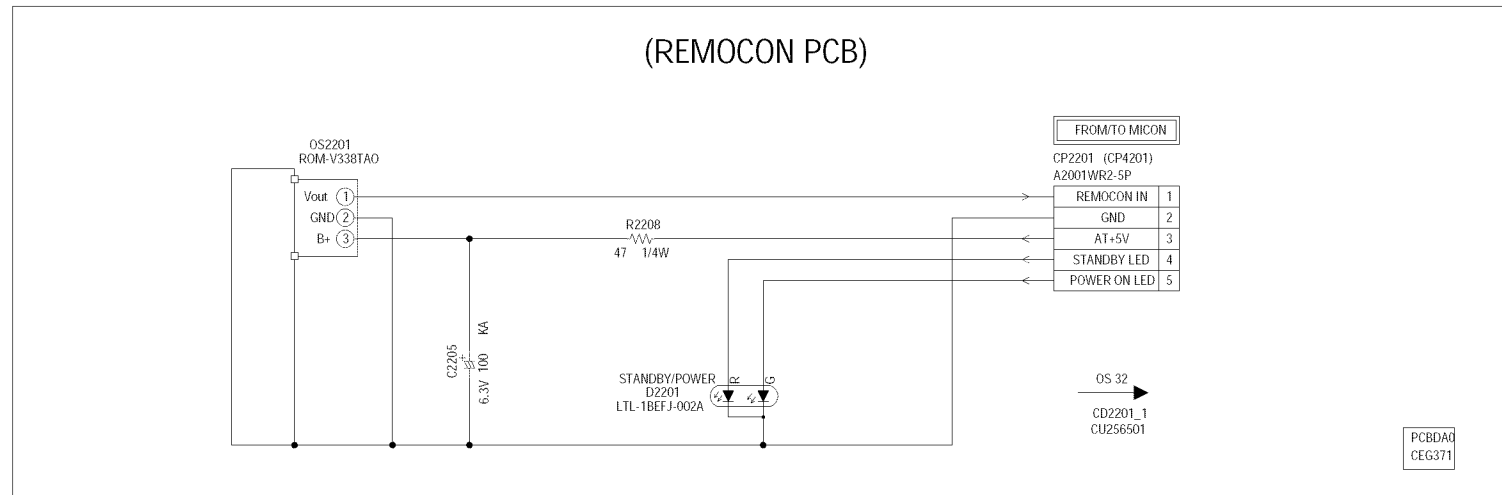
CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION LES PIECES REPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DÉCRITES DANS LA NOMENCLATURE DES PIECES

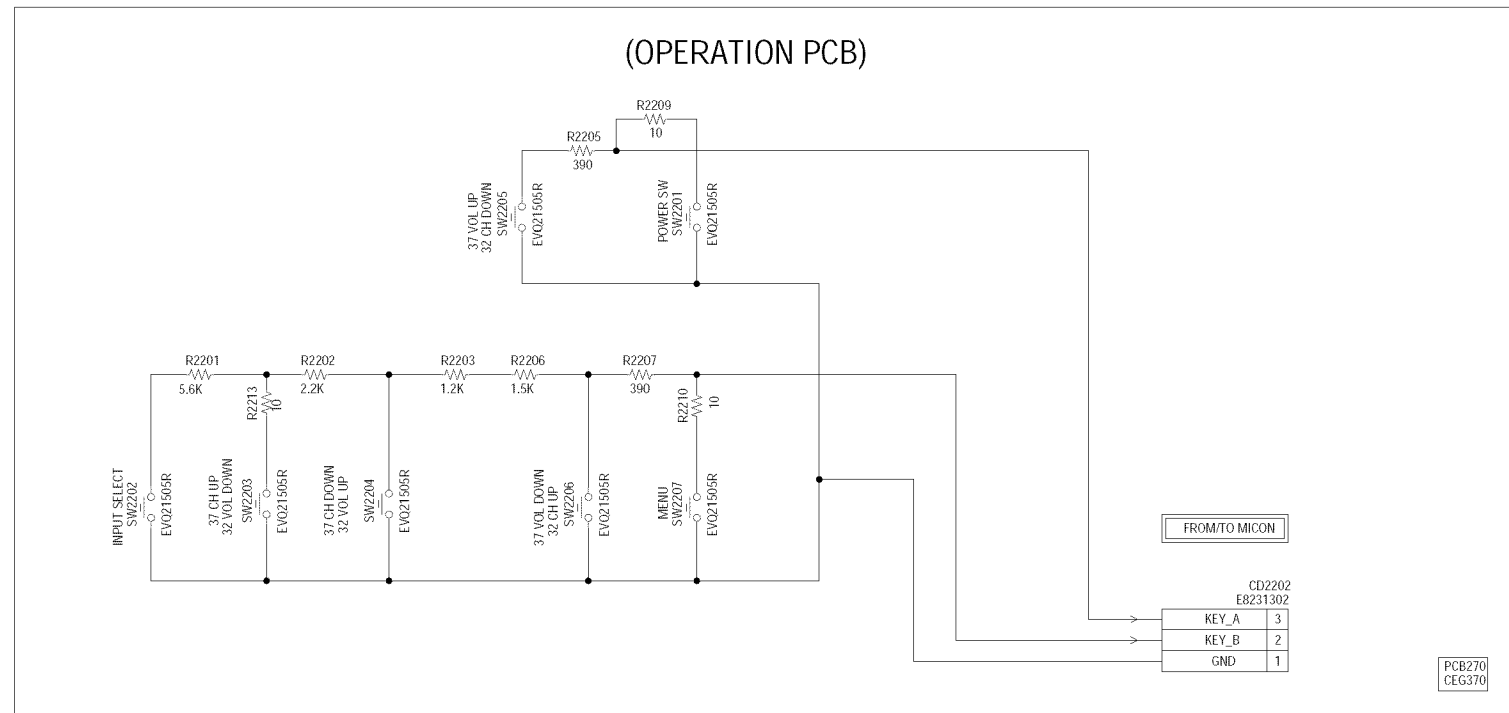
PCB240
CEG368

OPERATION/REMOCON SCHEMATIC DIAGRAM

(REMOCON PCB)



(OPERATION PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

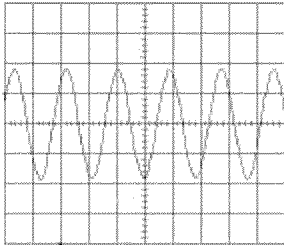
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

WAVEFORMS

FLASH

20ns
200mV

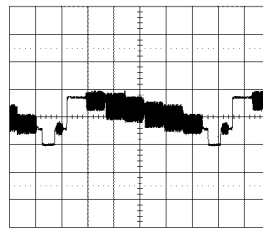
1



TUNER

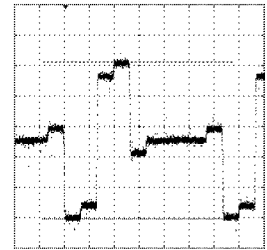
10us
0.5V

8



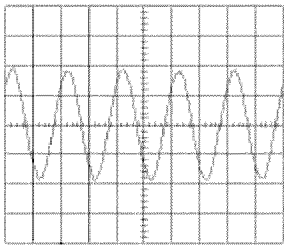
10us
100mV

14



20ns
200mV

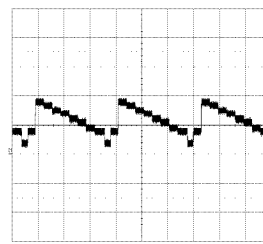
2



SCALER VIDEO/AUDIO

20us
500mV

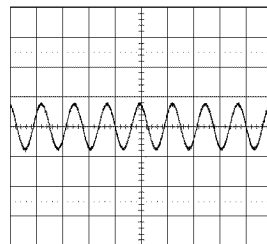
9



AV SWITCH

2ms
100mV

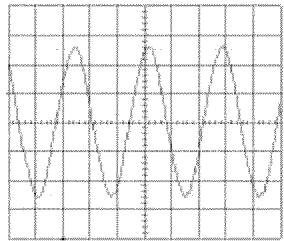
15



HDMI

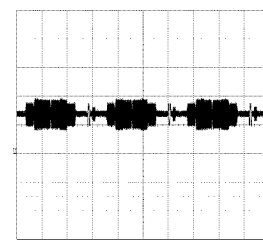
20ns
200mV

3



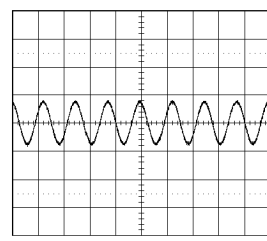
20us
500mV

10



2ms
100mV

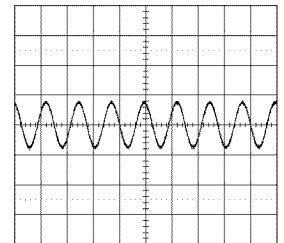
16



JACK

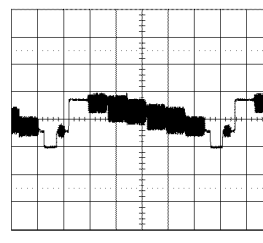
2ms
500mV

5



10us
0.5V

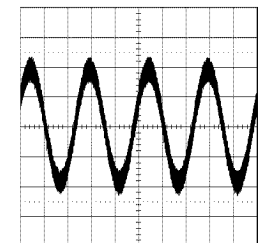
11



SOUND

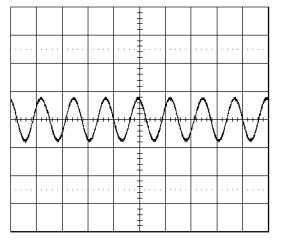
1ms
200mV

17



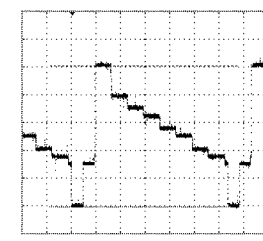
2ms
500mV

6



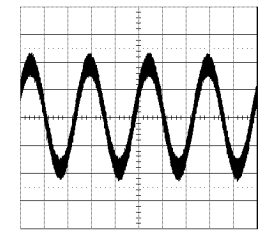
10us
200mV

12



1ms
200mV

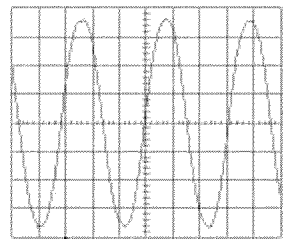
18



MICON

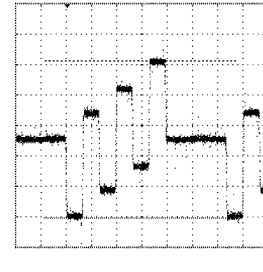
20ns
200mV

7



10us
100mV

13



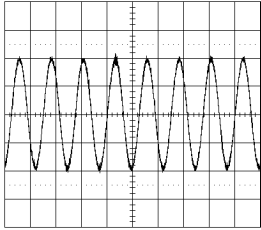
NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

JACK2

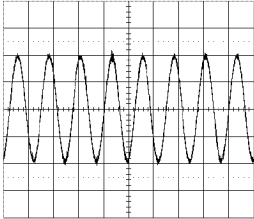
2ms
100mV

19



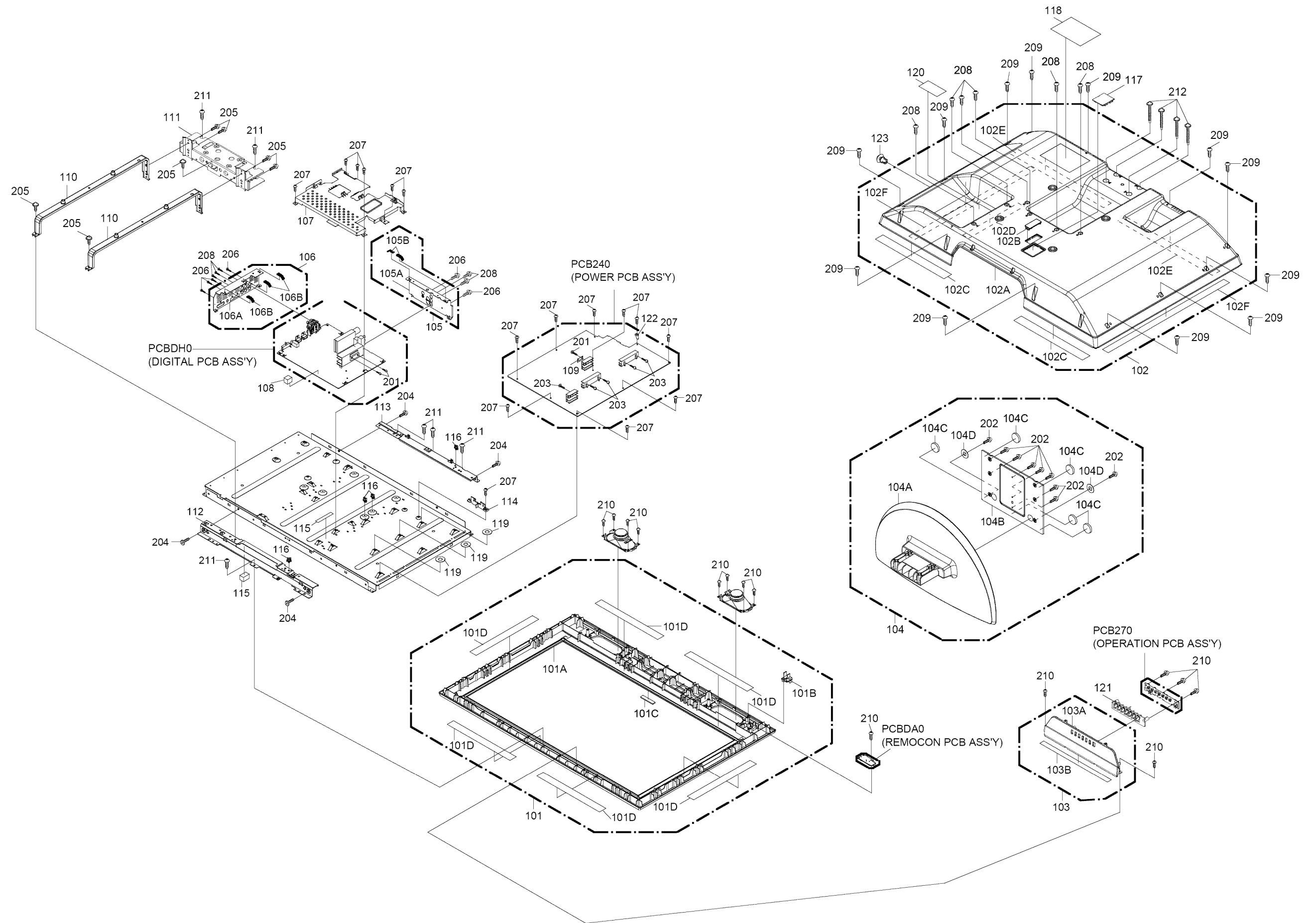
2ms
100mV

20



NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

MECHANICAL EXPLODED VIEW



MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
101	7A701B094A	FRONT CABI ASS'Y	201	810763080U	SCREW TAP TITE(S) BRAZIER 3*8 CH
101A	701WPJD663	CABINET FRONT	202	811063080U	SCREW TAP TITE(P) BRAZIER 3*8 CH
101B	713WPA0407	GLASS LED	203	8109130A0U	SCREW TAP TITE(B) WH7 3*10 CH
	713WPA0422	GLASS LED	204	810A140A6U	SCREW WASHER(A) M4*16 CH
101C	7234650032	BADGE BRAND	205	810A14080U	SCREW WASHER(A) M4*8 CH
101D	800WQ0A046	FELT SHEET	206	810213060U	SCREW PAN M3*6 CH
			207	810223060U	SCREW BIND M3*6 CH
102	7A702A567A	BACK CABI ASS'Y	208	810923080U	SCREW TAP TITE(B) BIND 3*8 CH
102A	702WPAB238	CABINET BACK	209	8110230A4U	SCREW TAP TITE(P) BIND 3*14 CH
102B	706WPA0021	COVER CONNECTOR			
102C	800WQ0A046	FELT SHEET	210	8110630A0U	SCREW TAP TITE(P) BRAZIER 3*10 CH
102D	800WQ0A108	FELT SHEET	211	8117540A6U	SCREW TAPPING(B0) TRUSS 4*16 CH
102E	800WQ0A127	FELT SHEET 18x310xT0.5	212	8167150D0U	SCREW WASHER(B) 5*40 CH
102F	800WQ00128	FELT SHEET 9x520xT1.0			
103	7A7110042A	PLATE BUTTON ASS'Y	---	774WPA0012	HOLDER CORD
103A	711WPD0758	PLATE BUTTON	---	791WHA0135	LAMIFILM BAG
103B	800WQ0A097	FELT SHEET	---	791WHAA202	LAMIFILM BAG 1300*1050*T0.5MM.
			---	792WHA0738	PACKAGE TOP
			---	792WHA0739	PACKAGE BOTTOM
104	7A704A098A	STAND ASS'Y	---	793WCDD675	GIFT BOX
104A	704WPB0046	STAND			
104B	761WSA0581	ANGLE STAND			
104C	800WFA0121	CUSHION LEG			
104D	800WB00004	FIBER WASHER 7x3.2xT0.5			
105	7G7610082C	PLATE JACK-1 ASS'Y			
105A	761WSA0620	PLATE JACK-1			
105B	744WUA0030	SPRING EARTH-2			
106	7G761A048A	PLATE JACK-2 ASS'Y			
106A	761WSAA109	PLATE JACK-2			
106B	744WUA0030	SPRING EARTH-2			
107	752WSAA152	SHIELD MAIN			
108	8965TS1210	CUSHION W10/H12/L10			
109	761WSA0459	SHIELD IC			
110	761WSA0472	ANGLE MAIN			
111	761WSA0491	ANGLE HINGE			
112	761WSA0497	ANGLE LCD TOP			
113	761WSA0498	ANGLE LCD BOTTOM			
114	771WPA0392	HOLDER AC-INLET			
115	8965TS3020	CUSHION 65TS10-30(20x20x12)			
116	709WPA0051	HOLDER WIRE			
117	706WPA0025	COVER CONNECTOR			
118	722465A468	SHEET RATING			
119	800WB0A007	FIBER WASHER			
120	7230007075	SHEET INFORMATION			
121	735WPB0354	BUTTON FRAME			
122	752WSA0344	EARTH LUG			
123	8900P5055B	RIVET NYLON			

ACCESSORY REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
△ CD3805	120Q119905	CORD SET AC P201-2476-2
TM101	076R0MJ041	TRANSMITTER R56-1260
---	J35D0101A	INSTRUCTION BOOK(E)
---	J3T11629A	INFORMATION SHEET(RETURN)
---	JB5ND000	POLYBAG,INSTRUCTION(REDCAUTION)

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R303	R808R9332J	RC 3.3K OHM 1/16W	R519	R803R9224J	RC 220K OHM 1/16W
R305	R808R9103J	RC 10K OHM 1/16W	R520	R803R9184J	RC 180K OHM 1/16W
R334	R808R9392J	RC 3.9K OHM 1/16W	R521	R803R9223J	RC 22K OHM 1/16W
R335	R808R9472J	RC 4.7K OHM 1/16W	R522	R002T4473J	RC 47K OHM 1/4W
R336	R808R9392J	RC 3.9K OHM 1/16W	R523	R803R9104J	RC 100K OHM 1/16W
R337	R808R9472J	RC 4.7K OHM 1/16W	R524	R803R9184J	RC 180K OHM 1/16W
R401	R002T4103J	RC 10K OHM 1/4W	R525	R803R9184J	RC 180K OHM 1/16W
△R404	RC31X1125J	RC 1.2M OHM 1W	R528	R002T4101J	RC 100 OHM 1/4W
△R406	R3K681S39J	R,METAL OXIDE 0.039 OHM 1W	R536	R803R9152J	RC 1.5K OHM 1/16W
R410	R002T4821J	RC 820 OHM 1/4W	R537	R803R9152J	RC 1.5K OHM 1/16W
R411	R803R9103J	RC 10K OHM 1/16W	R538	R803R9152J	RC 1.5K OHM 1/16W
△R412	R63881R22J	R,FUSE 0.22 OHM 1W	R539	R803R9152J	RC 1.5K OHM 1/16W
R414	R803R9103J	RC 10K OHM 1/16W	R540	R803R9152J	RC 1.5K OHM 1/16W
R416	R65584100J	R,FUSE 10 OHM 1/4W	R590	R002T4101J	RC 100 OHM 1/4W
R417	R803R9104J	RC 100K OHM 1/16W	R1211	R803R9472J	RC 4.7K OHM 1/16W
R420	R803R9473J	RC 47K OHM 1/16W	R1212	R803R9472J	RC 4.7K OHM 1/16W
R421	R002T2222J	RC 2.2K OHM 1/2W	R1213	R803R9472J	RC 4.7K OHM 1/16W
R423	R002T2222J	RC 2.2K OHM 1/2W	R1214	R803R9472J	RC 4.7K OHM 1/16W
R428	R803R9152J	RC 1.5K OHM 1/16W	R1215	R803R9472J	RC 4.7K OHM 1/16W
R429	R002T4105J	RC 1M OHM 1/4W	R1216	R803R9472J	RC 4.7K OHM 1/16W
R431	R002T2103J	RC 10K OHM 1/2W	R1217	R803R9103J	RC 10K OHM 1/16W
△R432	R3K781220J	R,METAL OXIDE 22 OHM 1W	R1218	R803R9472J	RC 4.7K OHM 1/16W
R433	R803R9274J	RC 270K OHM 1/16W	R1219	R803R9472J	RC 4.7K OHM 1/16W
R435	R803R9102J	RC 1K OHM 1/16W	R1221	R803R9101F	RC 100 OHM 1/16W
R436	R002T2683J	RC 68K OHM 1/2W	R1222	R803R9101F	RC 100 OHM 1/16W
R437	R002T42R2J	RC 2.2 OHM 1/4W	R1223	R803R9101F	RC 100 OHM 1/16W
R438	R002T4222J	RC 2.2K OHM 1/4W	R1224	R803R9101F	RC 100 OHM 1/16W
R439	R803R9102J	RC 1K OHM 1/16W	R1225	R803R9101F	RC 100 OHM 1/16W
R441	R803R9153J	RC 15K OHM 1/16W	R1227	R803R9472J	RC 4.7K OHM 1/16W
R443	R803R9102J	RC 1K OHM 1/16W	R1228	R803R9472J	RC 4.7K OHM 1/16W
R444	R803R9222J	RC 2.2K OHM 1/16W	R1229	R803R9472J	RC 4.7K OHM 1/16W
△R445	R002T4101J	RC 100 OHM 1/4W	R1232	R803R9472J	RC 4.7K OHM 1/16W
R446	R002T4103J	RC 10K OHM 1/4W	R1233	R803R9472J	RC 4.7K OHM 1/16W
△R447	R65584150J	R,FUSE 15 OHM 1/4W	R1245	R803R9103J	RC 10K OHM 1/16W
R448	R803R9393F	RC 39K OHM 1/16W	R1246	R803R9472J	RC 4.7K OHM 1/16W
R449	R803R9682F	RC 6.8K OHM 1/16W	R1249	R803R9472J	RC 4.7K OHM 1/16W
R450	R803R9392F	RC 3.9K OHM 1/16W	R1250	R803R9472J	RC 4.7K OHM 1/16W
R451	R803R9102J	RC 1K OHM 1/16W	R1251	R803R9472J	RC 4.7K OHM 1/16W
R452	R002T4102J	RC 1K OHM 1/4W	R1252	R803R9434J	RC 430K OHM 1/16W
R454	R803R9331F	RC 330 OHM 1/16W	R1253	R803R9434J	RC 430K OHM 1/16W
R455	R803R9222F	RC 2.2K OHM 1/16W	R1254	R803R9434J	RC 430K OHM 1/16W
R456	R803R9222F	RC 2.2K OHM 1/16W	R1255	R803R9434J	RC 430K OHM 1/16W
R458	R803R9103J	RC 10K OHM 1/16W	R1256	R803R9434J	RC 430K OHM 1/16W
R460	R803R9473J	RC 47K OHM 1/16W	R1257	R803R9434J	RC 430K OHM 1/16W
R461	R803R9223J	RC 22K OHM 1/16W	R1259	R803R9100J	RC 10 OHM 1/16W
R463	R803R9223J	RC 22K OHM 1/16W	R1260	R803R9100J	RC 10 OHM 1/16W
R464	R002T4101J	RC 100 OHM 1/4W	R1261	R803R9100J	RC 10 OHM 1/16W
R466	R803R9223J	RC 22K OHM 1/16W	R1263	R803R9100J	RC 10 OHM 1/16W
R467	R002T4753J	RC 75K OHM 1/4W	R1264	R803R9100J	RC 10 OHM 1/16W
R469	R803R9103J	RC 10K OHM 1/16W	R1265	R803R9100J	RC 10 OHM 1/16W
R470	R002T4561J	RC 560 OHM 1/4W	R1266	R803R9153J	RC 15K OHM 1/16W
R471	R803R9753J	RC 75K OHM 1/16W	R1267	R803R9434J	RC 430K OHM 1/16W
R472	R803R9222J	RC 2.2K OHM 1/16W	R1268	R803R9434J	RC 430K OHM 1/16W
R474	R803R9152J	RC 1.5K OHM 1/16W	R1269	R803R9434J	RC 430K OHM 1/16W
R475	R002T4221J	RC 220 OHM 1/4W	R1270	R803R9434J	RC 430K OHM 1/16W
R476	R803R9103J	RC 10K OHM 1/16W	R1271	R803R9100J	RC 10 OHM 1/16W
R477	R002T4472J	RC 4.7K OHM 1/4W	R1272	R803R9100J	RC 10 OHM 1/16W
R478	R002T4471J	RC 470 OHM 1/4W	R1278	R803R9100J	RC 10 OHM 1/16W
R479	R803R9152J	RC 1.5K OHM 1/16W	R1279	R803R9100J	RC 10 OHM 1/16W
R480	R803R9222J	RC 2.2K OHM 1/16W	R1301	R803R9151F	RC 150 OHM 1/16W
R481	R803R9152J	RC 1.5K OHM 1/16W	R1302	R803R7123D	RC 12K OHM 1/10W
R482	R803R9152J	RC 1.5K OHM 1/16W	R1303	R803R7CS1D	RC 2.49K OHM 1/10W
R491	R803R9561F	RC 560 OHM 1/16W	R1304	R803R9390F	RC 39 OHM 1/16W
R492	R803R9272F	RC 2.7K OHM 1/16W	R1305	R803R95R1J	RC 5.1 OHM 1/16W
R493	R803R9222F	RC 2.2K OHM 1/16W	R1306	R803R9561F	RC 560 OHM 1/16W
R494	R803R9102J	RC 1K OHM 1/16W	R1307	R803R7820F	RC 82 OHM 1/10W
R495	R803R9101J	RC 100 OHM 1/16W	R1308	R803R7182F	RC 1.8K OHM 1/10W
R496	R803R9223J	RC 22K OHM 1/16W	R1309	R803R7820F	RC 82 OHM 1/10W
△R497	R65581010J	R,FUSE 1 OHM 1W	R1310	R803R7102F	RC 1K OHM 1/10W
R501	R002T4223J	RC 22K OHM 1/4W	R1312	R803R9681F	RC 680 OHM 1/16W
R502	R002T4152J	RC 1.5K OHM 1/4W	R1313	R803R9271F	RC 270 OHM 1/16W
R503	R002T2471J	RC 470 OHM 1/2W	R1314	R803R9821F	RC 820 OHM 1/16W
R505	R803R9183J	RC 18K OHM 1/16W	R1315	R803R9620F	RC 62 OHM 1/16W
R506	R002T4101J	RC 100 OHM 1/4W	R1316	R803R9271F	RC 270 OHM 1/16W
R508	R803R9473J	RC 47K OHM 1/16W	R1317	R803R7820F	RC 82 OHM 1/10W
R511	R803R9224J	RC 220K OHM 1/16W	R1318	R803R9152F	RC 1.5K OHM 1/16W
R513	R002T4470J	RC 47 OHM 1/4W	R1319	R803R9470F	RC 47 OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R1320	R803R9561F	RC 560 OHM 1/16W	R2827	R808R9270J	RC 27 OHM 1/16W
R1321	R803R7101F	RC 100 OHM 1/10W	R2828	R808R9102F	RC 1K OHM 1/16W
R1322	R803R9821F	RC 820 OHM 1/16W	R2829	R808R9102F	RC 1K OHM 1/16W
R1323	R803R7560F	RC 56 OHM 1/10W	R2830	R808R9220J	RC 22 OHM 1/16W
R1324	R803R9561F	RC 560 OHM 1/16W	R2835	R808R9102J	RC 1K OHM 1/16W
R1325	R803R9390F	RC 39 OHM 1/16W	R2836	R808R9562J	RC 5.6K OHM 1/16W
R1326	R803R9152F	RC 1.5K OHM 1/16W	R2837	R808R9102J	RC 1K OHM 1/16W
R1327	R803R9680F	RC 68 OHM 1/16W	R2838	R808R9472J	RC 4.7K OHM 1/16W
R1328	R803R9391F	RC 390 OHM 1/16W	R2839	R808R9472J	RC 4.7K OHM 1/16W
R1329	R803R9180F	RC 18 OHM 1/16W	R2840	R808R9103J	RC 10K OHM 1/16W
R1330	R803R9821F	RC 820 OHM 1/16W	R2841	R808R9103J	RC 10K OHM 1/16W
R1331	R803R7101F	RC 100 OHM 1/10W	R2842	R808R9103J	RC 10K OHM 1/16W
R1332	R803R9821F	RC 820 OHM 1/16W	R2843	R808R9103J	RC 10K OHM 1/16W
R1333	R803R9151F	RC 150 OHM 1/16W	R2846	R808R9472J	RC 4.7K OHM 1/16W
R1334	R803R7102F	RC 1K OHM 1/10W	R2847	R808R9472J	RC 4.7K OHM 1/16W
R1335	R803R9470F	RC 47 OHM 1/16W	R2849	R808R9472J	RC 4.7K OHM 1/16W
R1336	R803R9821F	RC 820 OHM 1/16W	R2850	R808R9472J	RC 4.7K OHM 1/16W
R1337	R803R7101F	RC 100 OHM 1/10W	R2853	R808R9103J	RC 10K OHM 1/16W
R1338	R803R7182F	RC 1.8K OHM 1/10W	R2856	R808R9103J	RC 10K OHM 1/16W
R1339	R803R7820F	RC 82 OHM 1/10W	R2857	R808R9103J	RC 10K OHM 1/16W
R1340	R803R9681F	RC 680 OHM 1/16W	R2860	R808R9472J	RC 4.7K OHM 1/16W
R1341	R803R9680F	RC 68 OHM 1/16W	R2862	R808R9472J	RC 4.7K OHM 1/16W
R1344	R803R9562F	RC 5.6K OHM 1/16W	R3002	R808R9104J	RC 100K OHM 1/16W
R1345	R803R95R1J	RC 5.1 OHM 1/16W	R3007	R808R9101J	RC 100 OHM 1/16W
R1346	R803R9132F	RC 1.3K OHM 1/16W	R3008	R808R9103J	RC 10K OHM 1/16W
R1347	R803R9682F	RC 6.8K OHM 1/16W	R3009	R808R9472F	RC 4.7K OHM 1/16W
R1349	R803R9432F	RC 4.3K OHM 1/16W	R3010	R808R9102J	RC 1K OHM 1/16W
R1350	R803R9301F	RC 300 OHM 1/16W	R3011	R808R9102J	RC 1K OHM 1/16W
R1351	R803R9562F	RC 5.6K OHM 1/16W	R3012	R808R9682J	RC 6.8K OHM 1/16W
R1378	R803R73R3J	RC 3.3 OHM 1/10W	R3013	R808R9332F	RC 3.3K OHM 1/16W
R1379	R803R73R3J	RC 3.3 OHM 1/10W	R3015	R808R9682F	RC 6.8K OHM 1/16W
R1380	R803R73R3J	RC 3.3 OHM 1/10W	R3016	R808R9152F	RC 1.5K OHM 1/16W
R1381	R803R73R3J	RC 3.3 OHM 1/10W	R3017	R808R9151F	RC 150 OHM 1/16W
R1382	R803R73R3J	RC 3.3 OHM 1/10W	R3018	R808R9101F	RC 100 OHM 1/16W
R1383	R803R73R3J	RC 3.3 OHM 1/10W	R3019	R808R9333J	RC 33K OHM 1/16W
R1384	R803R73R3J	RC 3.3 OHM 1/10W	R3020	R81YR4S47J	RC 0.047 OHM 1/4W
R1385	R803R73R3J	RC 3.3 OHM 1/10W	R3022	R81YR4S47J	RC 0.047 OHM 1/4W
R1386	R803R73R3J	RC 3.3 OHM 1/10W	R3023	R808R9102F	RC 1K OHM 1/16W
R1387	R803R73R3J	RC 3.3 OHM 1/10W	R3024	R808R9152F	RC 1.5K OHM 1/16W
R1388	R803R73R3J	RC 3.3 OHM 1/10W	R3025	R808R9221F	RC 220 OHM 1/16W
R1389	R803R73R3J	RC 3.3 OHM 1/10W	R3030	R808R9822J	RC 8.2K OHM 1/16W
R1390	R803R73R3J	RC 3.3 OHM 1/10W	R3031	R808R9102J	RC 1K OHM 1/16W
R1391	R803R73R3J	RC 3.3 OHM 1/10W	R3104	R808R9332J	RC 3.3K OHM 1/16W
R1392	R803R73R3J	RC 3.3 OHM 1/10W	R3401	R808R9101J	RC 100 OHM 1/16W
R1393	R803R73R3J	RC 3.3 OHM 1/10W	R3402	R808R9101J	RC 100 OHM 1/16W
R1394	R803R73R3J	RC 3.3 OHM 1/10W	R3403	R808R9184J	RC 180K OHM 1/16W
R1395	R803R73R3J	RC 3.3 OHM 1/10W	R3404	R808R9224J	RC 220K OHM 1/16W
R2201	R803R9562J	RC 5.6K OHM 1/16W	R3407	R808R9184J	RC 180K OHM 1/16W
R2202	R803R9222J	RC 2.2K OHM 1/16W	R3408	R808R9683J	RC 68K OHM 1/16W
R2203	R803R9122J	RC 1.2K OHM 1/16W	R3414	R808R9103J	RC 10K OHM 1/16W
R2205	R803R9391J	RC 390 OHM 1/16W	R3415	R808R9103J	RC 10K OHM 1/16W
R2206	R803R9152J	RC 1.5K OHM 1/16W	R3416	R808R9472J	RC 4.7K OHM 1/16W
R2207	R803R9391J	RC 390 OHM 1/16W	R3417	R808R9184J	RC 180K OHM 1/16W
R2208	R002T4470J	RC 47 OHM 1/4W	R3418	R808R9683J	RC 68K OHM 1/16W
R2209	R803R9100J	RC 10 OHM 1/16W	R3420	R808R9472J	RC 4.7K OHM 1/16W
R2210	R803R9100J	RC 10 OHM 1/16W	R3422	R808R9561J	RC 560 OHM 1/16W
R2213	R803R9100J	RC 10 OHM 1/16W	R3425	R808R9102J	RC 1K OHM 1/16W
R2800	R808R9220J	RC 22 OHM 1/16W	R3426	R808R9102J	RC 1K OHM 1/16W
R2802	R808R9103J	RC 10K OHM 1/16W	R3427	R808R9102J	RC 1K OHM 1/16W
R2804	R808R9103J	RC 10K OHM 1/16W	R3428	R808R9102J	RC 1K OHM 1/16W
R2805	R808R9103J	RC 10K OHM 1/16W	R3431	R808R9682J	RC 6.8K OHM 1/16W
R2806	R808R9103J	RC 10K OHM 1/16W	R3432	R808R9682J	RC 6.8K OHM 1/16W
R2807	R808R9103J	RC 10K OHM 1/16W	R3433	R808R9472J	RC 4.7K OHM 1/16W
R2809	R808R9103J	RC 10K OHM 1/16W	R3434	R808R9184J	RC 180K OHM 1/16W
R2810	R808R9103J	RC 10K OHM 1/16W	R3435	R808R9224J	RC 220K OHM 1/16W
R2811	R808R9103J	RC 10K OHM 1/16W	R3436	R808R9472J	RC 4.7K OHM 1/16W
R2812	R808R9182J	RC 1.8K OHM 1/16W	R3501	R803R7473F	RC 47K OHM 1/10W
R2813	R808R9182J	RC 1.8K OHM 1/16W	R3502	R803R7BT2F	RC 18.2K OHM 1/10W
R2814	R808R9105J	RC 1M OHM 1/16W	R3503	R803R7473F	RC 47K OHM 1/10W
R2815	R808R9105J	RC 1M OHM 1/16W	R3504	R803R7473F	RC 47K OHM 1/10W
R2817	R808R9820J	RC 82 OHM 1/16W	R3505	R803R7EV2F	RC 4.87K OHM 1/10W
R2818	R808R9102F	RC 1K OHM 1/16W	R3506	R803R7473F	RC 47K OHM 1/10W
R2819	R808R9102F	RC 1K OHM 1/16W	R3507	R803R7243F	RC 24K OHM 1/10W
R2823	R808R9270J	RC 27 OHM 1/16W	R3508	R803R7103J	RC 10K OHM 1/10W
R2824	R808R9270J	RC 27 OHM 1/16W	R3509	R803R7100J	RC 10 OHM 1/10W
R2825	R808R95R1J	RC 5.1 OHM 1/16W	R3510	R803R7473F	RC 47K OHM 1/10W
R2826	R808R95R1J	RC 5.1 OHM 1/16W	R3511	R803R9473F	RC 47K OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R3512	R803R7101F	RC 100 OHM 1/10W	R4221	R808R9101J	RC 100 OHM 1/16W
R3513	R803R7102J	RC 1K OHM 1/10W	R4224	R808R9101J	RC 100 OHM 1/16W
R3514	R803R7332F	RC 3.3K OHM 1/10W	R4236	R808R9101J	RC 100 OHM 1/16W
R3515	R803R7332F	RC 3.3K OHM 1/10W	R4239	R808R9101J	RC 100 OHM 1/16W
R3516	R803R7512F	RC 5.1K OHM 1/10W	R4240	R808R9473J	RC 47K OHM 1/16W
R3517	R803R7302F	RC 3K OHM 1/10W	R4241	R808R9473J	RC 47K OHM 1/16W
R3518	R803R7203F	RC 20K OHM 1/10W	R4248	R808R9473J	RC 47K OHM 1/16W
R3519	R803R7182F	RC 1.8K OHM 1/10W	R4252	R808R9473J	RC 47K OHM 1/16W
R3520	R803R7473F	RC 47K OHM 1/10W	R4267	R808R9750J	RC 75 OHM 1/16W
R3521	R803R7203F	RC 20K OHM 1/10W	R4269	R808R9102J	RC 1K OHM 1/16W
R3522	R803R7123F	RC 12K OHM 1/10W	R4270	R808R9102J	RC 1K OHM 1/16W
R3523	R803R7473F	RC 47K OHM 1/10W	R4271	R808R9102J	RC 1K OHM 1/16W
R3524	R803R7103J	RC 10K OHM 1/10W	R4272	R808R9102J	RC 1K OHM 1/16W
R3525	R803R7223F	RC 22K OHM 1/10W	R4273	R808R9750J	RC 75 OHM 1/16W
R3526	R803R7103J	RC 10K OHM 1/10W	R4275	R808R9750J	RC 75 OHM 1/16W
R3527	R803R9101F	RC 100 OHM 1/16W	R4277	R808R9750J	RC 75 OHM 1/16W
R3528	R803R9562F	RC 5.6K OHM 1/16W	R4278	R808R9750J	RC 75 OHM 1/16W
R3529	R803R7102J	RC 1K OHM 1/10W	R4279	R808R9471J	RC 470 OHM 1/16W
R3530	R803R7102J	RC 1K OHM 1/10W	R4280	R808R9331J	RC 330 OHM 1/16W
R3531	R803R7FF1F	RC 5.49K OHM 1/10W	R4283	R808R9471J	RC 470 OHM 1/16W
R3532	R803R7103J	RC 10K OHM 1/10W	R4303	R808R9101J	RC 100 OHM 1/16W
R3533	R803R7222J	RC 2.2K OHM 1/10W	R4304	R808R9101J	RC 100 OHM 1/16W
R3534	R803R7302F	RC 3K OHM 1/10W	R4305	R808R9101J	RC 100 OHM 1/16W
R3535	R803R7102J	RC 1K OHM 1/10W	R4306	R808R9103J	RC 10K OHM 1/16W
R3536	R803R7102J	RC 1K OHM 1/10W	R4307	R808R9152J	RC 1.5K OHM 1/16W
R3537	R803R7513F	RC 51K OHM 1/10W	R4309	R808R9222J	RC 2.2K OHM 1/16W
R3539	R803R7103J	RC 10K OHM 1/10W	R4316	R808R9334J	RC 330K OHM 1/16W
R3540	R803R7332F	RC 3.3K OHM 1/10W	R4317	R808R9683J	RC 68K OHM 1/16W
R3542	R803R7202J	RC 2K OHM 1/10W	R4318	R808R9102J	RC 1K OHM 1/16W
R3543	R803R7332F	RC 3.3K OHM 1/10W	R4319	R808R9102J	RC 1K OHM 1/16W
R3545	R803R7332F	RC 3.3K OHM 1/10W	R4320	R808R9562J	RC 5.6K OHM 1/16W
R3546	R803R9562F	RC 5.6K OHM 1/16W	R4321	R808R9102J	RC 1K OHM 1/16W
R3549	R803R7222J	RC 2.2K OHM 1/10W	R4322	R808R9152J	RC 1.5K OHM 1/16W
R3601	R808R9100J	RC 10 OHM 1/16W	R4323	R808R9332J	RC 3.3K OHM 1/16W
R3602	R808R9100J	RC 10 OHM 1/16W	R4326	R808R9102J	RC 1K OHM 1/16W
R3603	R808R9101J	RC 100 OHM 1/16W	R4329	R808R9221J	RC 220 OHM 1/16W
R3604	R808R9101J	RC 100 OHM 1/16W	R4330	R808R9680J	RC 68 OHM 1/16W
R3605	R808R9101J	RC 100 OHM 1/16W	R4331	R808R9102J	RC 1K OHM 1/16W
R3606	R808R9101J	RC 100 OHM 1/16W	R4332	R808R9332J	RC 3.3K OHM 1/16W
R3609	R808R9103J	RC 10K OHM 1/16W	R4334	R808R9332J	RC 3.3K OHM 1/16W
R3610	R808R9103J	RC 10K OHM 1/16W	R4335	R808R9334J	RC 330K OHM 1/16W
R3611	R808R9102J	RC 1K OHM 1/16W	R4336	R808R9683J	RC 68K OHM 1/16W
R3612	R808R9102J	RC 1K OHM 1/16W	R4337	R808R9104J	RC 100K OHM 1/16W
R3613	R808R9473J	RC 47K OHM 1/16W	R4340	R808R9222J	RC 2.2K OHM 1/16W
R3614	R808R9473J	RC 47K OHM 1/16W	R4341	R808R9562J	RC 5.6K OHM 1/16W
R3615	R808R9472J	RC 4.7K OHM 1/16W	R4342	R808R9102J	RC 1K OHM 1/16W
R3616	R808R9472J	RC 4.7K OHM 1/16W	R4343	R808R9750J	RC 75 OHM 1/16W
R3617	R808R9223J	RC 22K OHM 1/16W	R4344	R808R9222J	RC 2.2K OHM 1/16W
R3618	R808R9223J	RC 22K OHM 1/16W	R4345	R808R9102J	RC 1K OHM 1/16W
R3619	R808R9103J	RC 10K OHM 1/16W	R4346	R808R9750J	RC 75 OHM 1/16W
R3622	R808R9103J	RC 10K OHM 1/16W	R4347	R808R9750J	RC 75 OHM 1/16W
R3625	R808R9103J	RC 10K OHM 1/16W	R4348	R808R9102J	RC 1K OHM 1/16W
R3628	R808R9103J	RC 10K OHM 1/16W	R4349	R808R9561J	RC 560 OHM 1/16W
R3629	R808R9471J	RC 470 OHM 1/16W	R4350	R808R9561J	RC 560 OHM 1/16W
R3630	R808R9332J	RC 3.3K OHM 1/16W	R4351	R808R9104J	RC 100K OHM 1/16W
R3631	R808R9332J	RC 3.3K OHM 1/16W	R4352	R808R9104J	RC 100K OHM 1/16W
R3632	R808R9105J	RC 1M OHM 1/16W	R5801	R808R9154J	RC 150K OHM 1/16W
R3633	R808R9472J	RC 4.7K OHM 1/16W	R5802	R808R9473J	RC 47K OHM 1/16W
R3634	R808R9332J	RC 3.3K OHM 1/16W	R5803	R808R9101J	RC 100 OHM 1/16W
R3635	R808R9822J	RC 8.2K OHM 1/16W	R5804	R808R9101J	RC 100 OHM 1/16W
R3636	R808R9103J	RC 10K OHM 1/16W	R5807	R808R9104J	RC 100K OHM 1/16W
R3638	R808R9103J	RC 10K OHM 1/16W	R5808	R808R9472J	RC 4.7K OHM 1/16W
R3639	R808R9472J	RC 4.7K OHM 1/16W	R5809	R808R9472J	RC 4.7K OHM 1/16W
R3640	R808R9472J	RC 4.7K OHM 1/16W	R5810	R808R9101J	RC 100 OHM 1/16W
R3641	R808R9102J	RC 1K OHM 1/16W	R5811	R808R9184J	RC 180K OHM 1/16W
R3642	R808R9472J	RC 4.7K OHM 1/16W	R5812	R808R9101J	RC 100 OHM 1/16W
R3643	R808R9472J	RC 4.7K OHM 1/16W	R5813	R808R9332J	RC 3.3K OHM 1/16W
R4201	R808R9750J	RC 75 OHM 1/16W	R5817	R808R9332J	RC 3.3K OHM 1/16W
R4202	R808R9750J	RC 75 OHM 1/16W	R5818	R808R9332J	RC 3.3K OHM 1/16W
R4203	R808R9102J	RC 1K OHM 1/16W	R5819	R808R9101J	RC 100 OHM 1/16W
R4207	R808R9102J	RC 1K OHM 1/16W	R5820	R808R9101J	RC 100 OHM 1/16W
R4208	R808R9102J	RC 1K OHM 1/16W	R5821	R808R9470J	RC 47 OHM 1/16W
R4212	R808R9473J	RC 47K OHM 1/16W	R5822	R808R9470J	RC 47 OHM 1/16W
R4214	R808R9473J	RC 47K OHM 1/16W	R5823	R808R9102J	RC 1K OHM 1/16W
R4215	R808R9101J	RC 100 OHM 1/16W	R5824	R808R9473J	RC 47K OHM 1/16W
R4216	R808R9101J	RC 100 OHM 1/16W	R5825	R808R9473J	RC 47K OHM 1/16W
R4219	R808R9101J	RC 100 OHM 1/16W	R6201	R803R9101J	RC 100 OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R6202	R803R9101J	RC 100 OHM 1/16W	R7053	R803R9681J	RC 680 OHM 1/16W
R6203	R808R9103J	RC 10K OHM 1/16W	R7056	R803R9100J	RC 10 OHM 1/16W
R6204	R808R9103J	RC 10K OHM 1/16W	R7057	R803R9100J	RC 10 OHM 1/16W
R6205	R808R9333J	RC 33K OHM 1/16W	R7058	R803R9100J	RC 10 OHM 1/16W
R6206	R808R9472J	RC 4.7K OHM 1/16W	R7059	R803R9182J	RC 1.8K OHM 1/16W
R6210	R808R9472J	RC 4.7K OHM 1/16W	R7060	R803R9182J	RC 1.8K OHM 1/16W
R6211	R808R9101J	RC 100 OHM 1/16W	R7061	R803R9182J	RC 1.8K OHM 1/16W
R6212	R808R9101J	RC 100 OHM 1/16W	R7062	R803R9182J	RC 1.8K OHM 1/16W
R6213	R808R9472J	RC 4.7K OHM 1/16W	R7063	R803R9182J	RC 1.8K OHM 1/16W
R6214	R808R9222J	RC 2.2K OHM 1/16W	R7064	R803R9182J	RC 1.8K OHM 1/16W
R6215	R808R9222J	RC 2.2K OHM 1/16W	R7065	R803R9681J	RC 680 OHM 1/16W
R6216	R808R9472J	RC 4.7K OHM 1/16W	R7066	R803R9681J	RC 680 OHM 1/16W
R6217	R808R9472J	RC 4.7K OHM 1/16W	R7067	R803R9681J	RC 680 OHM 1/16W
R6219	R808R9472J	RC 4.7K OHM 1/16W	R7068	R803R9681J	RC 680 OHM 1/16W
R6220	R808R9101J	RC 100 OHM 1/16W	R7069	R803R9681J	RC 680 OHM 1/16W
R6221	R808R9273J	RC 27K OHM 1/16W	R7070	R803R9681J	RC 680 OHM 1/16W
R6222	R808R9101J	RC 100 OHM 1/16W	R7071	R803R9681J	RC 680 OHM 1/16W
R6223	R808R9101J	RC 100 OHM 1/16W	R7072	R803R9681J	RC 680 OHM 1/16W
R6224	R808R9472J	RC 4.7K OHM 1/16W	R7073	R803R9681J	RC 680 OHM 1/16W
R6225	R808R9472J	RC 4.7K OHM 1/16W	R7074	R803R9681J	RC 680 OHM 1/16W
R6226	R808R9101J	RC 100 OHM 1/16W	R7075	R803R9681J	RC 680 OHM 1/16W
R6227	R808R9101J	RC 100 OHM 1/16W	R7076	R803R9681J	RC 680 OHM 1/16W
R6228	R808R9472J	RC 4.7K OHM 1/16W	R7079	R803R9472J	RC 4.7K OHM 1/16W
R6231	R808R9472J	RC 4.7K OHM 1/16W	R7080	R002T4102J	RC 1K OHM 1/4W
R6519	R808R9472J	RC 4.7K OHM 1/16W	R7082	R803R9332F	RC 3.3K OHM 1/16W
R6558	R808R9332J	RC 3.3K OHM 1/16W	R7083	R803R9273F	RC 27K OHM 1/16W
R6559	R808R9332J	RC 3.3K OHM 1/16W	R7085	R803R9273F	RC 27K OHM 1/16W
R6560	R808R9472J	RC 4.7K OHM 1/16W	R7087	R803R9180F	RC 18 OHM 1/16W
R6561	R808R9272J	RC 2.7K OHM 1/16W	R7090	R803R9333F	RC 33K OHM 1/16W
R6562	R808R9272J	RC 2.7K OHM 1/16W	R7092	R803R9100J	RC 10 OHM 1/16W
R6563	R808R9472J	RC 4.7K OHM 1/16W	R7093	R803R9182J	RC 1.8K OHM 1/16W
R6566	R808R9472J	RC 4.7K OHM 1/16W	R7094	R002T4104J	RC 100K OHM 1/4W
R6567	R808R9472J	RC 4.7K OHM 1/16W	R7095	R803R9562F	RC 5.6K OHM 1/16W
R6569	R808R9101J	RC 100 OHM 1/16W	R7096	R803R9821F	RC 820 OHM 1/16W
R7002	R803R9104J	RC 100K OHM 1/16W	R7097	R4X5T6103F	R,METAL 10K OHM 1/6W
R7003	R803R9104J	RC 100K OHM 1/16W	R7100	R803R9272F	RC 2.7K OHM 1/16W
R7004	R803R9104J	RC 100K OHM 1/16W	R7101	R803R9223F	RC 22K OHM 1/16W
R7005	R803R9104J	RC 100K OHM 1/16W	R7102	R002T4513J	RC 51K OHM 1/4W
R7006	R803R9104J	RC 100K OHM 1/16W	R7103	R3K78A102J	R,METAL OXIDE 1K OHM 2W
R7007	R803R9104J	RC 100K OHM 1/16W	R7106	R803R9103F	RC 10K OHM 1/16W
R7008	R803R9104J	RC 100K OHM 1/16W	R7108	R803R9103F	RC 10K OHM 1/16W
R7009	R803R9104J	RC 100K OHM 1/16W	R7109	R002T4683J	RC 68K OHM 1/4W
R7010	R803R9104J	RC 100K OHM 1/16W	R7110	R803R9563F	RC 56K OHM 1/16W
R7011	R803R9104J	RC 100K OHM 1/16W	R7112	R803R9243F	RC 24K OHM 1/16W
R7012	R803R9104J	RC 100K OHM 1/16W	R7113	R002T4101J	RC 100 OHM 1/4W
R7016	R803R9104J	RC 100K OHM 1/16W	R7114	R803R9334J	RC 330K OHM 1/16W
R7017	R803R9104J	RC 100K OHM 1/16W	R7116	R002T4100J	RC 10 OHM 1/4W
R7018	R803R9104J	RC 100K OHM 1/16W	R7117	R002T4100J	RC 10 OHM 1/4W
R7019	R803R9104J	RC 100K OHM 1/16W	R7118	R002T4100J	RC 10 OHM 1/4W
R7020	R803R9104J	RC 100K OHM 1/16W	R7119	R002T4100J	RC 10 OHM 1/4W
R7021	R803R9104J	RC 100K OHM 1/16W	R7120	R002T4100J	RC 10 OHM 1/4W
R7022	R803R9104J	RC 100K OHM 1/16W	R7121	R803R9390J	RC 39 OHM 1/16W
R7023	R803R9104J	RC 100K OHM 1/16W	R7122	R803R9390J	RC 39 OHM 1/16W
R7024	R803R9104J	RC 100K OHM 1/16W	R7123	R803R9390J	RC 39 OHM 1/16W
R7025	R803R9104J	RC 100K OHM 1/16W	R7124	R803R9390J	RC 39 OHM 1/16W
R7026	R803R9104J	RC 100K OHM 1/16W	R7127	R803R9104J	RC 100K OHM 1/16W
R7027	R803R9104J	RC 100K OHM 1/16W	R7128	R803R9104J	RC 100K OHM 1/16W
R7028	R803R9182J	RC 1.8K OHM 1/16W	R7129	R803R9104J	RC 100K OHM 1/16W
R7029	R803R9182J	RC 1.8K OHM 1/16W	R7131	R803R9182J	RC 1.8K OHM 1/16W
R7031	R803R9100J	RC 10 OHM 1/16W	R7132	R803R9681J	RC 680 OHM 1/16W
R7032	R803R9100J	RC 10 OHM 1/16W	R7133	R803R9681J	RC 680 OHM 1/16W
R7033	R803R9182J	RC 1.8K OHM 1/16W	R7134	R803R9681J	RC 680 OHM 1/16W
R7034	R803R9182J	RC 1.8K OHM 1/16W	R7135	R803R9681J	RC 680 OHM 1/16W
R7035	R803R9182J	RC 1.8K OHM 1/16W	R7137	R803R9101J	RC 100 OHM 1/16W
R7036	R803R9182J	RC 1.8K OHM 1/16W	R7138	R803R9154J	RC 150K OHM 1/16W
R7038	R803R9100J	RC 10 OHM 1/16W	R7139	R803R9102J	RC 1K OHM 1/16W
R7040	R803R9681J	RC 680 OHM 1/16W	R7140	R803R9824J	RC 820K OHM 1/16W
R7041	R803R9681J	RC 680 OHM 1/16W	R7141	R803R9684J	RC 680K OHM 1/16W
R7042	R803R9681J	RC 680 OHM 1/16W	R7142	R803R9224J	RC 220K OHM 1/16W
R7043	R803R9681J	RC 680 OHM 1/16W	R7143	R803R9103J	RC 10K OHM 1/16W
R7044	R803R9681J	RC 680 OHM 1/16W	R7144	R803R9223J	RC 22K OHM 1/16W
R7045	R803R9681J	RC 680 OHM 1/16W	R7145	R803R9222J	RC 2.2K OHM 1/16W
R7048	R803R9681J	RC 680 OHM 1/16W	R7146	R803R9222J	RC 2.2K OHM 1/16W
R7049	R803R9681J	RC 680 OHM 1/16W	R7149	R803R9222J	RC 2.2K OHM 1/16W
R7050	R803R9681J	RC 680 OHM 1/16W	R7152	R803R9222J	RC 2.2K OHM 1/16W
R7051	R803R9681J	RC 680 OHM 1/16W	R7153	R803R9222J	RC 2.2K OHM 1/16W
R7052	R803R9681J	RC 680 OHM 1/16W	R7154	R803R9222J	RC 2.2K OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			CAPACITORS		
R7155	R803R9222J	RC 2.2K OHM 1/16W	C491	E7EPT0221M	CE 220 UF 6.3V
R7156	R002T4102J	RC 1K OHM 1/4W	C493	E7ESU5470M	CE 47 UF 50V
R7157	R803R9222J	RC 2.2K OHM 1/16W	C494	E7ESU54R7M	CE 4.7 UF 50V
R7158	R803R9222J	RC 2.2K OHM 1/16W	C495	CS0PCH4H2J	CC 220 PF 50V CH
R7159	R803R9222J	RC 2.2K OHM 1/16W	C497	E7ESU5100M	CE 10 UF 50V
R7160	R803R9222J	RC 2.2K OHM 1/16W	C1201	CS0PB0315K	CC 0.1 UF 25V B
R7161	R803R9222J	RC 2.2K OHM 1/16W	C1204	CS0PB0N16K	CC 1 UF 10V B
R7162	R803R9222J	RC 2.2K OHM 1/16W	C1205	CT7RC0P17M	CC 10 UF 6.3V C
R7163	R803R9222J	RC 2.2K OHM 1/16W	C1206	CT7RC0P17M	CC 10 UF 6.3V C
R7164	R803R9222J	RC 2.2K OHM 1/16W	C1207	CS0PB0315K	CC 0.1 UF 25V B
R7165	R803R9222J	RC 2.2K OHM 1/16W	C1208	CS0SB0317K	CC 10 UF 25V B
R7166	R803R9222J	RC 2.2K OHM 1/16W	C1209	CS0PB0315K	CC 0.1 UF 25V B
R7167	R803R9222J	RC 2.2K OHM 1/16W	C1210	CS0PB0315K	CC 0.1 UF 25V B
R7168	R803R9222J	RC 2.2K OHM 1/16W	C1211	CS0PB0315K	CC 0.1 UF 25V B
R7169	R803R9222J	RC 2.2K OHM 1/16W	C1212	CS0PB0315K	CC 0.1 UF 25V B
R7170	R803R9222J	RC 2.2K OHM 1/16W	C1213	CS0PB0315K	CC 0.1 UF 25V B
R7171	R803R9222J	RC 2.2K OHM 1/16W	C1214	CS0PB0315K	CC 0.1 UF 25V B
R7172	R803R9222J	RC 2.2K OHM 1/16W	C1215	CS0PB0315K	CC 0.1 UF 25V B
R7173	R803R9222J	RC 2.2K OHM 1/16W	C1216	CS0PB0315K	CC 0.1 UF 25V B
R7174	R803R9222J	RC 2.2K OHM 1/16W	C1217	CS0PB0315K	CC 0.1 UF 25V B
R7175	R803R9222J	RC 2.2K OHM 1/16W	C1218	CS0PB0315K	CC 0.1 UF 25V B
R7176	R803R9222J	RC 2.2K OHM 1/16W	C1219	CS0PB0315K	CC 0.1 UF 25V B
R7177	R803R9222J	RC 2.2K OHM 1/16W	C1220	CS0PB0315K	CC 0.1 UF 25V B
R7190	R002T4102J	RC 1K OHM 1/4W	C1221	CS0PB0315K	CC 0.1 UF 25V B
CAPACITORS			C1222	CS0PB0315K	CC 0.1 UF 25V B
C307	CS0UB0P16K	CC 1 UF 6.3V B	C1223	CS0PB0315K	CC 0.1 UF 25V B
C341	CS0UB0P16K	CC 1 UF 6.3V B	C1224	CS0PB0315K	CC 0.1 UF 25V B
C342	CS0UB04Q3K	CC 0.0047UF 50V B	C1225	CS0PB0315K	CC 0.1 UF 25V B
C343	E70QT3101M	CE 100 UF 25V	C1226	CS0PB0315K	CC 0.1 UF 25V B
C344	CS0UB04Q3K	CC 0.0047UF 50V B	C1227	CS0PB0315K	CC 0.1 UF 25V B
C345	E61UM5010D	CE 1 UF 50V	C1228	CS0PB0315K	CC 0.1 UF 25V B
C346	E7ESF3102M	CE 1000 UF 25V	C1229	CS0PB0315K	CC 0.1 UF 25V B
C348	E61UM0101D	CE 100 UF 6.3V	C1230	CS0PB0315K	CC 0.1 UF 25V B
C349	E7ESF3102M	CE 1000 UF 25V	C1231	CS0PB0315K	CC 0.1 UF 25V B
C350	E7ESF3102M	CE 1000 UF 25V	C1232	CS0PB0315K	CC 0.1 UF 25V B
C357	CS0PB0415K	CC 0.1 UF 50V B	C1233	CS0PB0315K	CC 0.1 UF 25V B
C358	CS0PB0415K	CC 0.1 UF 50V B	C1234	CS0PB0N16K	CC 1 UF 10V B
C401	C0PLRR7E3K	CC 0.0015 UF 2KV R	C1235	CS0PB0N16K	CC 1 UF 10V B
△C402	P2122B224M	CMP 0.22 UF 275V ECQUL	C1236	CS0PB0315K	CC 0.1 UF 25V B
△C403	E718HC391D	CE 390 UF 200V	C1237	CS0PB0315K	CC 0.1 UF 25V B
C404	E718HC391D	CE 390 UF 200V	C1238	CS0PB0315K	CC 0.1 UF 25V B
C405	CS0PB0315K	CC 0.1 UF 25V B	C1239	CS0PB0315K	CC 0.1 UF 25V B
C406	CD39E0M13M	CC 0.001 UF 250V	C1240	CS0PB0N16K	CC 1 UF 10V B
C407	E7EST4101M	CE 100 UF 35V	C1241	CS0PB0315K	CC 0.1 UF 25V B
C408	CS0PB04Q2K	CC 470 PF 50V B	C1242	CS0PB0315K	CC 0.1 UF 25V B
C409	CS0PB0415K	CC 0.1 UF 50V B	C1243	CS0PB0N16K	CC 1 UF 10V B
C411	CS0PB0N16K	CC 1 UF 10V B	C1244	CS0PB0216K	CC 1 UF 16V B
C412	CS0PB0315K	CC 0.1 UF 25V B	C1245	CS0PB0N16K	CC 1 UF 10V B
C413	P2122B224M	CMP 0.22 UF 275V ECQUL	C1246	CS0PB0216K	CC 1 UF 16V B
C414	CS0PB04H3K	CC 0.0022UF 50V B	C1247	CS0PB0N16K	CC 1 UF 10V B
C418	CS0PB0413K	CC 0.001 UF 50V B	C1248	CS0PB0216K	CC 1 UF 16V B
C419	CS0PB0NH6K	CC 2.2 UF 10V B	C1249	CS0PB0N16K	CC 1 UF 10V B
C420	CS0PCH412J	CC 100 PF 50V CH	C1256	CS0PB0216K	CC 1 UF 16V B
△C423	P4NBE5274H	CMPP 0.27 UF 630	C1257	CS0PB0216K	CC 1 UF 16V B
C426	CS0PB0315K	CC 0.1 UF 25V B	C1258	CS0PB0216K	CC 1 UF 16V B
C428	CS0PB0413K	CC 0.001 UF 50V B	C1260	CS0PB0N16K	CC 1 UF 10V B
C429	CS0PB0315K	CC 0.1 UF 25V B	C1261	CS0PB0N16K	CC 1 UF 10V B
C430	C0PLRR7H3K	CC 0.0022 UF 2KV R	C1262	CS0PB0N16K	CC 1 UF 10V B
C431	E8E2U5100D	CE 10 UF 50V	C1263	CS0PB0315K	CC 0.1 UF 25V B
△C433	E7EYF4471M	CE 470 UF 35V	C1264	CS0PB0315K	CC 0.1 UF 25V B
△C434	E7EYF4122M	CE 1200 UF 35V	C1265	CS0PB0315K	CC 0.1 UF 25V B
△C435	E7EYF3102M	CE 1000 UF 25V	C1266	CS0PB0315K	CC 0.1 UF 25V B
C436	CS0PB0NH6K	CC 2.2 UF 10V B	C1267	CS0PB0216K	CC 1 UF 16V B
C437	P232W1333J	CMP 0.033 UF 100V MMTS	C1268	CS0PB0216K	CC 1 UF 16V B
△C438	E7EYF4122M	CE 1200 UF 35V	C1269	CS0PB0N16K	CC 1 UF 10V B
C440	E7EYF0222M	CE 2200 UF 6.3V	C1270	CS0PB0N16K	CC 1 UF 10V B
△C441	E8E2U52R2D	CE 2.2 UF 50V	C1274	CS0PB0216K	CC 1 UF 16V B
△C442	E7EPU5470M	CE 47 UF 50V	C1275	CS0PB0216K	CC 1 UF 16V B
C443	CS0PB0414K	CC 0.01 UF 50V B	C1278	CS0PB0N16K	CC 1 UF 10V B
△C444	E7EPT0222M	CE 2200 UF 6.3V	C1279	CS0PB0216K	CC 1 UF 16V B
C446	E7EST2471M	CE 470 UF 16V	C1280	CS0PB0N16K	CC 1 UF 10V B
△C448	P2122B224M	CMP 0.22 UF 275V ECQUL	C1281	CS0PB0N16K	CC 1 UF 10V B
C449	P1S3T0182J	CP 0.0018UF 50V	C1282	E61UM2221D	CE 220 UF 16V
C450	P4NBE5223H	CMPP 0.022 UF 630	C1283	E61UM2101D	CE 100 UF 16V
△C455	E8E6FC470M	CE 47 UF 200V	C1286	CT7RC0P17M	CC 10 UF 6.3V C
C464	CD39E0M13M	CC 0.001 UF 250V	C1287	E61UM2100D	CE 10 UF 16V
C483	CD39E0M13M	CC 0.001 UF 250V	C1290	E61UM2100D	CE 10 UF 16V

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
CAPACITORS			CAPACITORS		
C1302	CS0PB0315K	CC 0.1 UF 25V B	C2869	E61UMQ470D	CE 47 UF 4V
C1303	CS0SB0317K	CC 10 UF 25V B	C2871	CS0UB0N15K	CC 0.1 UF 10V B
C1304	CS0PB0315K	CC 0.1 UF 25V B	C2872	CS0UB0N15K	CC 0.1 UF 10V B
C1305	CS0PB0315K	CC 0.1 UF 25V B	C2875	CS0UB0N15K	CC 0.1 UF 10V B
C1306	CS0PB0315K	CC 0.1 UF 25V B	C2876	E61UM1220D	CE 22 UF 10V
C1307	CS0PB0315K	CC 0.1 UF 25V B	C2877	E61UMQ470D	CE 47 UF 4V
C1308	CS0PB0315K	CC 0.1 UF 25V B	C2879	CS0UB0N15K	CC 0.1 UF 10V B
C1309	CS0PB0315K	CC 0.1 UF 25V B	C2881	CS0UB0N15K	CC 0.1 UF 10V B
C1310	CS0PB0315K	CC 0.1 UF 25V B	C2882	E61UMQ101D	CE 100 UF 4V
C1311	CS0PB0315K	CC 0.1 UF 25V B	C2883	E61UM1220D	CE 22 UF 10V
C1312	CS0PB0315K	CC 0.1 UF 25V B	C2884	CS0UB0N16K	CC 1 UF 10V B
C1313	CS0PB0315K	CC 0.1 UF 25V B	C2885	CS0UB0N15K	CC 0.1 UF 10V B
C1314	CS0PB0315K	CC 0.1 UF 25V B	C2887	CS0UB0N15K	CC 0.1 UF 10V B
C1315	CS0PB0315K	CC 0.1 UF 25V B	C2890	CS0UB0N16K	CC 1 UF 10V B
C1316	CS0PB0315K	CC 0.1 UF 25V B	C2891	E61UM1220D	CE 22 UF 10V
C1317	CS0PB0315K	CC 0.1 UF 25V B	C2894	CS0UB0N15K	CC 0.1 UF 10V B
C1318	CS0PB0315K	CC 0.1 UF 25V B	C2896	CS0UB0N16K	CC 1 UF 10V B
C1319	CS0PB0315K	CC 0.1 UF 25V B	C2898	CS0UB0N16K	CC 1 UF 10V B
C1320	CS0PB0315K	CC 0.1 UF 25V B	C2900	CS0UB0N15K	CC 0.1 UF 10V B
C1321	CS0PB0315K	CC 0.1 UF 25V B	C2901	CS0UB0N15K	CC 0.1 UF 10V B
C1322	CS0PB0316K	CC 1 UF 25V B	C2902	CS0UB0N15K	CC 0.1 UF 10V B
C1323	CS0PB0316K	CC 1 UF 25V B	C2903	CS0UB0N15K	CC 0.1 UF 10V B
C1324	CS0PB0316K	CC 1 UF 25V B	C2904	CS0UB0N15K	CC 0.1 UF 10V B
C1325	CS0PB0N16K	CC 1 UF 10V B	C2905	E61UM0331D	CE 330 UF 6.3V
C1326	CS0PB0316K	CC 1 UF 25V B	C2906	CS0UB0N15K	CC 0.1 UF 10V B
C1327	CS0PB0316K	CC 1 UF 25V B	C2907	CS0UB0N15K	CC 0.1 UF 10V B
C1328	CS0PB0316K	CC 1 UF 25V B	C2908	CS0UB0N15K	CC 0.1 UF 10V B
C1329	CS0PB0N16K	CC 1 UF 10V B	C2909	CS0UB0N15K	CC 0.1 UF 10V B
C1330	CS0PB0N16K	CC 1 UF 10V B	C2910	CS0UB0N16K	CC 1 UF 10V B
C1331	CS0PB0N16K	CC 1 UF 10V B	C2911	CS0UB0N16K	CC 1 UF 10V B
C1332	CS0PB0N16K	CC 1 UF 10V B	C2912	CS0UB0N16K	CC 1 UF 10V B
C1333	CS0PB0N16K	CC 1 UF 10V B	C2913	CS0UB0N16K	CC 1 UF 10V B
C1334	CS0PB0N16K	CC 1 UF 10V B	C2914	E61UM0331D	CE 330 UF 6.3V
C1335	CS0PB0N16K	CC 1 UF 10V B	C2917	CS0UB0N15K	CC 0.1 UF 10V B
C1336	CS0PB0N16K	CC 1 UF 10V B	C2918	CS0UB0N15K	CC 0.1 UF 10V B
C1337	CS0PB0N16K	CC 1 UF 10V B	C2919	CS0UB0N15K	CC 0.1 UF 10V B
C1338	CS0PB0N16K	CC 1 UF 10V B	C2920	CS0UB0N15K	CC 0.1 UF 10V B
C1339	CS0PB0N16K	CC 1 UF 10V B	C2921	E61UM1220D	CE 22 UF 10V
C1340	CS0PB0316K	CC 1 UF 25V B	C2922	CS0UB0N15K	CC 0.1 UF 10V B
C1341	CS0PB0315K	CC 0.1 UF 25V B	C2923	E61UM1220D	CE 22 UF 10V
C1342	CS0PB0315K	CC 0.1 UF 25V B	C2924	E61UM1220D	CE 22 UF 10V
C1343	CS0PB0315K	CC 0.1 UF 25V B	C2925	CS0UB0N15K	CC 0.1 UF 10V B
C1344	CS0UB0315K	CC 0.1 UF 25V B	C2926	CS0UB0N15K	CC 0.1 UF 10V B
C1345	CS0UB0315K	CC 0.1 UF 25V B	C2927	CS0UB0N15K	CC 0.1 UF 10V B
C1347	CS0UB0315K	CC 0.1 UF 25V B	C2928	CS0UB0N15K	CC 0.1 UF 10V B
C1348	CS0UB0315K	CC 0.1 UF 25V B	C2929	CS0UB0N15K	CC 0.1 UF 10V B
C1350	E61VM2220D	CE 22 UF 16V	C2931	CS0UB0N15K	CC 0.1 UF 10V B
C1351	E61VM2220D	CE 22 UF 16V	C2932	CS0UB0N15K	CC 0.1 UF 10V B
C1352	CS0PB0315K	CC 0.1 UF 25V B	C2933	CS0UB0N15K	CC 0.1 UF 10V B
C2205	E70QU0101M	CE 100 UF 6.3V	C2934	CS0UB0N15K	CC 0.1 UF 10V B
C2802	E61UM1220D	CE 22 UF 10V	C2935	CS0UB0N15K	CC 0.1 UF 10V B
C2806	CS0UB0N15K	CC 0.1 UF 10V B	C2936	CS0UB0N15K	CC 0.1 UF 10V B
C2807	CS0UB0N15K	CC 0.1 UF 10V B	C2937	CS0UB0N15K	CC 0.1 UF 10V B
C2808	CS0UB0214K	CC 0.01 UF 16V B	C2938	CS0UB0N15K	CC 0.1 UF 10V B
C2809	CS0UCH4B1J	CC 12 PF 50V CH	C2939	CS0UB0N15K	CC 0.1 UF 10V B
C2810	CS0PCH4K1J	CC 27 PF 50V CH	C2940	CS0UB0N15K	CC 0.1 UF 10V B
C2811	CS0UCH4K1J	CC 27 PF 50V CH	C2941	CS0UB0N15K	CC 0.1 UF 10V B
C2812	CS0UCH421J	CC 20 PF 50V CH	C2942	CS0UB0N15K	CC 0.1 UF 10V B
C2813	CS0UB0N15K	CC 0.1 UF 10V B	C2943	CS0UB0N15K	CC 0.1 UF 10V B
C2814	CS0UB0N15K	CC 0.1 UF 10V B	C2944	CS0UB0N15K	CC 0.1 UF 10V B
C2815	CS0PB0N16K	CC 1 UF 10V B	C2945	CS0UB0N15K	CC 0.1 UF 10V B
C2816	CS0PB0N16K	CC 1 UF 10V B	C2946	CS0UB0N15K	CC 0.1 UF 10V B
C2821	CS0UB0N15K	CC 0.1 UF 10V B	C2947	CS0UB0N15K	CC 0.1 UF 10V B
C2822	CS0UB0N15K	CC 0.1 UF 10V B	C2948	E61UM1220D	CE 22 UF 10V
C2841	CS0UB0N15K	CC 0.1 UF 10V B	C2949	CS0UB0N15K	CC 0.1 UF 10V B
C2842	CS0PB0N16K	CC 1 UF 10V B	C2950	CS0UB0413K	CC 0.001 UF 50V B
C2843	CS0UB0N15K	CC 0.1 UF 10V B	C2951	CS0UB0413K	CC 0.001 UF 50V B
C2844	CS0UB0N15K	CC 0.1 UF 10V B	C2959	CS0UB0N15K	CC 0.1 UF 10V B
C2845	CS0UB0N15K	CC 0.1 UF 10V B	C2965	CS0UB0N15K	CC 0.1 UF 10V B
C2850	CS0UB0N15K	CC 0.1 UF 10V B	C2968	CS0UB0N15K	CC 0.1 UF 10V B
C2851	CS0UB0N15K	CC 0.1 UF 10V B	C2974	E61UM2100D	CE 10 UF 16V
C2859	CS0PB0N16K	CC 1 UF 10V B	C2975	E61UM2100D	CE 10 UF 16V
C2860	E61UM1220D	CE 22 UF 10V	C3011	CS0UB0N15K	CC 0.1 UF 10V B
C2865	E61UM1220D	CE 22 UF 10V	C3012	CS0UB0214K	CC 0.01 UF 16V B
C2866	E61UM1220D	CE 22 UF 10V	C3013	E71GM0680D	CE 68 UF 6.3V
C2867	E61UMQ470D	CE 47 UF 4V	C3014	CS0UB0N15K	CC 0.1 UF 10V B
C2868	CS0UB0214K	CC 0.01 UF 16V B	C3015	CS0UB0N15K	CC 0.1 UF 10V B

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
CAPACITORS			CAPACITORS		
C3016	CS0UCH4U2J	CC 680 PF 50V CH	C4220	CS0UB0P16K	CC 1 UF 6.3V B
C3017	CS0UCH4K1J	CC 27 PF 50V CH	C4221	CS0UB0P16K	CC 1 UF 6.3V B
C3018	CS0RB0NH6K	CC 2.2 UF 10V B	C4222	CS0UB0P16K	CC 1 UF 6.3V B
C3019	CS0UB0N15K	CC 0.1 UF 10V B	C4223	CS0UB0P16K	CC 1 UF 6.3V B
C3021	CS0UB0413K	CC 0.001 UF 50V B	C4224	CS0UCH4H1J	CC 22 PF 50V CH
C3022	E71GM0680D	CE 68 UF 6.3V	C4225	CS0UCH4H1J	CC 22 PF 50V CH
C3023	CS0PB0N16K	CC 1 UF 10V B	C4227	CS0UCH4H1J	CC 22 PF 50V CH
C3024	CS7RC0N17M	CC 10 UF 10V C	C4228	CS0UCH4H1J	CC 22 PF 50V CH
C3026	CS7RC0N17M	CC 10 UF 10V C	C4328	E61UM2220D	CE 22 UF 16V
C3027	CS7RC0N17M	CC 10 UF 10V C	C4329	CS0UB0N15K	CC 0.1 UF 10V B
C3029	CT5RC0P17M	CC 10 UF 6.3V C	C4331	CT7RC0P17M	CC 10 UF 6.3V C
C3031	CT7RC0P17M	CC 10 UF 6.3V C	C4332	E61UM0101D	CE 100 UF 6.3V
C3032	CT5RC0P17M	CC 10 UF 6.3V C	C4333	CS7RC0N17M	CC 10 UF 10V C
C3033	CT5RC0P17M	CC 10 UF 6.3V C	C4335	CS0UB03H4K	CC 0.022 UF 25V B
C3040	CS0UB0N15K	CC 0.1 UF 10V B	C4336	CS0UCH412J	CC 100 PF 50V CH
C3041	CS0UB0N15K	CC 0.1 UF 10V B	C4338	CS0UB0N15K	CC 0.1 UF 10V B
C3043	CS0UB0N15K	CC 0.1 UF 10V B	C4339	CS7RC0N17M	CC 10 UF 10V C
C3044	CS0UB0N16K	CC 1 UF 10V B	C4341	CS0UCH412J	CC 100 PF 50V CH
C3045	E61UM3470D	CE 47 UF 25V	C4342	CS0UCH412J	CC 100 PF 50V CH
C3047	E61UM2101D	CE 100 UF 16V	C4343	CS7RC0N17M	CC 10 UF 10V C
C3048	CS8RB02Q6K	CC 4.7 UF 16V B	C4344	CS7RC0N17M	CC 10 UF 10V C
C3049	CS0RB0PQ6K	CC 4.7 UF 6.3V B	C4345	CS7RC0N17M	CC 10 UF 10V C
C3054	E61UM2101D	CE 100 UF 16V	C4346	CS7RC0N17M	CC 10 UF 10V C
C3056	CT7RC0P17M	CC 10 UF 6.3V C	C5801	E61UM0221D	CE 220 UF 6.3V
C3057	CS0RB0N17K	CC 10 UF 10V B	C5803	E61UM0221D	CE 220 UF 6.3V
C3058	E61UM0331D	CE 330 UF 6.3V	C5805	CS0PB0415K	CC 0.1 UF 50V B
C3401	CS7RC0N17M	CC 10 UF 10V C	C5806	CS0UB0N15K	CC 0.1 UF 10V B
C3402	CS7RC0N17M	CC 10 UF 10V C	C5809	CS0UB0N15K	CC 0.1 UF 10V B
C3408	CS0UB0P16K	CC 1 UF 6.3V B	C5814	CS0UCH4L1J	CC 33 PF 50V CH
C3413	CS7RC0N17M	CC 10 UF 10V C	C5817	CS0UB0413K	CC 0.001 UF 50V B
C3415	CS0UB0P16K	CC 1 UF 6.3V B	C5818	CS0UB0NH5K	CC 0.22 UF 10V B
C3416	CS0UB0P16K	CC 1 UF 6.3V B	C5819	E61UM0221D	CE 220 UF 6.3V
C3417	E61UM2221D	CE 220 UF 16V	C5820	CS0UB0PL5K	CC 0.33 UF 6.3V B
C3418	CS0UB0P16K	CC 1 UF 6.3V B	C5821	CS0UCH4Q1J	CC 47 PF 50V CH
C3419	CS0UB0P16K	CC 1 UF 6.3V B	C5822	CS0UCH4Q1J	CC 47 PF 50V CH
C3420	E61UM2221D	CE 220 UF 16V	C5823	CS0UB0PL5K	CC 0.33 UF 6.3V B
C3501	CS0PB0315K	CC 0.1 UF 25V B	C5824	CS0UB0N15K	CC 0.1 UF 10V B
C3502	CS0PB04U4K	CC 0.068 UF 50V B	C5825	CS0RB0PQ6K	CC 4.7 UF 6.3V B
C3503	CS0PCH4L2J	CC 330 PF 50V CH	C5826	CS0PB0NH6K	CC 2.2 UF 10V B
C3504	CS0PB04U4K	CC 0.068 UF 50V B	C5827	CS0PB0NH6K	CC 2.2 UF 10V B
C3505	CS0PB0315K	CC 0.1 UF 25V B	C5830	CS0PB0NH6K	CC 2.2 UF 10V B
C3506	CS0PB0413K	CC 0.001 UF 50V B	C5833	CS0PB0NH6K	CC 2.2 UF 10V B
C3507	CS0PB04Q3K	CC 0.0047UF 50V B	C5834	CS0UB02L4K	CC 0.033 UF 16V B
C3508	E61UM34R7D	CE 4.7 UF 25V	C5835	CS0UB0N15K	CC 0.1 UF 10V B
C3511	CS0PB0413K	CC 0.001 UF 50V B	C5837	CS0UB03H4K	CC 0.022 UF 25V B
C3512	CS0PB0315K	CC 0.1 UF 25V B	C5838	CS0UB0N15K	CC 0.1 UF 10V B
C3513	CS0PB0P17M	CC 10 UF 6.3V B	C5839	CS3RB0PL6K	CC 3.3 UF 6.3V B
C3517	CS0PB0315K	CC 0.1 UF 25V B	C5840	CS0UB0PL5K	CC 0.33 UF 6.3V B
C3518	CS0PB0415K	CC 0.1 UF 50V B	C5841	CS0PB0P17M	CC 10 UF 6.3V B
C3519	CS0PB0415K	CC 0.1 UF 50V B	C5844	CS0UB0214K	CC 0.01 UF 16V B
C3520	CS0PB0415K	CC 0.1 UF 50V B	C5845	CS0UB0214K	CC 0.01 UF 16V B
C3521	CS0PB0315K	CC 0.1 UF 25V B	C5846	CS0UCH4S1J	CC 56 PF 50V CH
C3522	CS3RB0416K	CC 1 UF 50V B	C5847	CS0UB0N15K	CC 0.1 UF 10V B
C3524	E61UM34R7D	CE 4.7 UF 25V	C5852	CS0UB0N15K	CC 0.1 UF 10V B
C3526	E61VM3220D	CE 22 UF 25V	C5853	CS0UB0N15K	CC 0.1 UF 10V B
C3527	E61VM3220D	CE 22 UF 25V	C5855	CS0UB0N15K	CC 0.1 UF 10V B
C3601	CS0UB0N15K	CC 0.1 UF 10V B	C5856	CS0UB0N15K	CC 0.1 UF 10V B
C3602	CS0UB0N15K	CC 0.1 UF 10V B	C6201	CS0UCH4Q1J	CC 47 PF 50V CH
C3603	CS0UB0N15K	CC 0.1 UF 10V B	C6202	CS0UCH4Q1J	CC 47 PF 50V CH
C3604	CS0UB0N15K	CC 0.1 UF 10V B	C6205	E61UM0221D	CE 220 UF 6.3V
C3605	CS0UB0N15K	CC 0.1 UF 10V B	C6206	CS0UB0214K	CC 0.01 UF 16V B
C3606	CS0UB0214K	CC 0.01 UF 16V B	C6209	CS0RB0NH6K	CC 2.2 UF 10V B
C3607	CS0UB0214K	CC 0.01 UF 16V B	C6210	CS0UB0N15K	CC 0.1 UF 10V B
C3608	CS0UB0N15K	CC 0.1 UF 10V B	C6212	CS0UB0P16K	CC 1 UF 6.3V B
C3609	CS0UB0N15K	CC 0.1 UF 10V B	C6213	CS0UCH4G1J	CC 18 PF 50V CH
C3610	CS0UCH480D	CC 8 PF 50V CH	C6215	CS0UCH4G1J	CC 18 PF 50V CH
C3611	CS0UCH411J	CC 10 PF 50V CH	C6216	CS0UB0214K	CC 0.01 UF 16V B
C3612	CS0UB0N15K	CC 0.1 UF 10V B	C6218	CS0UB0N15K	CC 0.1 UF 10V B
C3613	CS0RB0PQ6K	CC 4.7 UF 6.3V B	C6555	CS7RC0N17M	CC 10 UF 10V C
C3614	CS0UB04H3K	CC 0.0022UF 50V B	C6556	CS0UB0N15K	CC 0.1 UF 10V B
C3615	CS0UB04K3K	CC 0.0027UF 50V B	C6557	CS0PB0NH6K	CC 2.2 UF 10V B
C3616	CS0UB0N15K	CC 0.1 UF 10V B	C6559	CS7RC0N17M	CC 10 UF 10V C
C3618	CS0UB0413K	CC 0.001 UF 50V B	C6560	CS0UB0N15K	CC 0.1 UF 10V B
C4205	CS0UCH4H1J	CC 22 PF 50V CH	C6561	CS7RC0N17M	CC 10 UF 10V C
C4207	CS0UCH4H1J	CC 22 PF 50V CH	C6562	CS7RC0N17M	CC 10 UF 10V C
C4208	CS0PB0N16K	CC 1 UF 10V B	C6563	CS0PB0216K	CC 1 UF 16V B
C4209	CS0PB0N16K	CC 1 UF 10V B	C6564	E61UM2100D	CE 10 UF 16V

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
CAPACITORS			CAPACITORS		
C6567	CS7RC0N17M	CC 10 UF 10V C	C7090	CS0PB04Q4K	CC 0.047 UF 50V B
C6568	CS7RC0N17M	CC 10 UF 10V C	DIODES		
C6570	CS7RC0N17M	CC 10 UF 10V C	D401	D97U03301B	DIODE,ZENER MTZJ33B T-77
C6571	CS7RC0N17M	CC 10 UF 10V C	△D404	D6CE24110A	DIODE VARISTA ENE241D-10A-Q6
C7001	CS3RB0416K	CC 1 UF 50V B	△D405	D4CKN54060	DIODE SILICON 1N5406FL-6737
C7002	CS3RB0416K	CC 1 UF 50V B	△D407	D4CKN54060	DIODE SILICON 1N5406FL-6737
C7003	CS3RB0416K	CC 1 UF 50V B	D408	D1VT001330	DIODE,SILICON 1SS133T-77
C7004	CS3RB0416K	CC 1 UF 50V B	D410	D1VT001330	DIODE,SILICON 1SS133T-77
C7005	CS3RB0416K	CC 1 UF 50V B	D411	D1VT001330	DIODE,SILICON 1SS133T-77
C7007	CS3RB0416K	CC 1 UF 50V B	D412	D97U03R91B	DIODE,ZENER MTZJ3.9B T-77
C7009	C234SLB11J	CC 10 PF 6KV SL	D413	D97U03001B	DIODE,ZENER MTZJ30B T-77
C7010	C234SLB11J	CC 10 PF 6KV SL	△D415	D2WXN40050	DIODE SILICON 1N4005-EIC
C7011	C234SLB11J	CC 10 PF 6KV SL	D421	D28R1QS040	DIODE EC31QS04-TE12L
C7012	C234SLB11J	CC 10 PF 6KV SL	D424	D97U03R31B	DIODE,ZENER MTZJ3.3B T-77
C7013	C234SLB11J	CC 10 PF 6KV SL	D425	D97U02701B	DIODE,ZENER MTZJ27B T-77
C7014	C234SLB11J	CC 10 PF 6KV SL	D426	D1VT001330	DIODE,SILICON 1SS133T-77
C7017	CS0PB0414K	CC 0.01 UF 50V B	D427	D97U02701B	DIODE,ZENER MTZJ27B T-77
C7018	CS0PB0414K	CC 0.01 UF 50V B	D432	D4AT106FE0	DIODE RECTIFIER RL106F-E
C7019	CS0PB0414K	CC 0.01 UF 50V B	D433	D2LT001F50	DIODE SILICON 1F5-E
C7020	CS0PB0414K	CC 0.01 UF 50V B	△D435	D2CFC91020	DIODE SILICON ERC91-02J11SC
C7021	CS0PB0414K	CC 0.01 UF 50V B	△D436	D28AH10A20	DIODE SCHOTTKY BARRIER FCH10A20
C7022	CS0PB0414K	CC 0.01 UF 50V B	△D440	D2CA2C15R0	DIODE SCHOTTKY BARRIER YG862C15R
C7025	CS3RB0416K	CC 1 UF 50V B	△D442	D4AT01H3E0	DIODE RECTIFIER 1H3-E
C7026	CS3RB0416K	CC 1 UF 50V B	△D443	D28F31DQ09	DIODE SCHOTTKY 31DQ09-FC
C7027	CS3RB0416K	CC 1 UF 50V B	△D444	D2LT001F50	DIODE SILICON 1F5-E
C7028	CS3RB0416K	CC 1 UF 50V B	D445	D97U01501B	DIODE,ZENER MTZJ15B T-77
C7029	CS3RB0416K	CC 1 UF 50V B	D1202	DGERMA1110	DIODE SILICON MA111-(TX)
C7030	CS3RB0416K	CC 1 UF 50V B	D1203	DGERMA1110	DIODE SILICON MA111-(TX)
C7031	C234SLB11J	CC 10 PF 6KV SL	D1204	DGERMA1110	DIODE SILICON MA111-(TX)
C7032	C234SLB11J	CC 10 PF 6KV SL	D1205	DGERMA1110	DIODE SILICON MA111-(TX)
C7033	C234SLB11J	CC 10 PF 6KV SL	D1206	DGERMA1110	DIODE SILICON MA111-(TX)
C7034	C234SLB11J	CC 10 PF 6KV SL	D1207	DGERMA1110	DIODE SILICON MA111-(TX)
C7035	C234SLB11J	CC 10 PF 6KV SL	D1208	DGERMA1110	DIODE SILICON MA111-(TX)
C7036	C234SLB11J	CC 10 PF 6KV SL	D1209	DGERMA1110	DIODE SILICON MA111-(TX)
C7037	CS0PB0414K	CC 0.01 UF 50V B	D1210	DGERMA1110	DIODE SILICON MA111-(TX)
C7038	CS0PB0414K	CC 0.01 UF 50V B	D1211	DGERMA1110	DIODE SILICON MA111-(TX)
C7039	CS0PB0414K	CC 0.01 UF 50V B	D1212	DGERMA1110	DIODE SILICON MA111-(TX)
C7040	CS0PB0414K	CC 0.01 UF 50V B	D2201	0021E9Q010	LED LTL-1BEFJ-002A
C7041	CS0PB0414K	CC 0.01 UF 50V B	D3004	D28R1QS040	DIODE EC31QS04-TE12L
C7042	CS0PB0414K	CC 0.01 UF 50V B	D3405	DGERMA1110	DIODE SILICON MA111-(TX)
C7043	CS0PCH4L2H	CC 330 PF 50V CH	D3406	DGERMA1110	DIODE SILICON MA111-(TX)
C7044	CS0PB0415K	CC 0.1 UF 50V B	D3501	DGJRT54WS0	DIODE SCHOTTKY BARRIER BAT54WS
C7046	CS0PCH450C	CC 5 PF 50V CH	D3502	D2ARMAB340	DIODE SCHOTTKY SMAB34
C7047	CS0PB02H5K	CC 0.22 UF 16V B	D3503	D2ARMAB340	DIODE SCHOTTKY SMAB34
C7048	CS0PB0415K	CC 0.1 UF 50V B	D3504	DGJRV99DW0	DIODE BAV99DW
C7049	CS0PB0414K	CC 0.01 UF 50V B	D3505	DDQRTA54S0	DIODE SCHOTTKY BARRIER BAT54S_215
C7050	CS0PB04Q3K	CC 0.0047UF 50V B	D3506	DE7RB5R62B	DIODE ZENER UDZSNP5.6B TE-17
C7051	CS0PB0N05K	CC 0.47 UF 10V B	D3507	DE7RB2002B	DIODE ZENER UDZSNP20B TE-17
C7052	CS0PB04Q3K	CC 0.0047UF 50V B	D3508	DE7RB6R82B	DIODE ZENER UDZSNP6.8B TE-17
C7053	CS0PB02H5K	CC 0.22 UF 16V B	D3510	DD7R20S300	DIODE SCHOTTKY BARRIER RB520S-30-TE61
C7054	CS3RB0416K	CC 1 UF 50V B	D3601	D77R1A1R10	DIODE VARISTA AVRL161A1R1NT
C7055	CS0PB0413K	CC 0.001 UF 50V B	D3602	D77R1A1R10	DIODE VARISTA AVRL161A1R1NT
C7056	CS0RB0N17K	CC 10 UF 10V B	D3604	D77R1A1R10	DIODE VARISTA AVRL161A1R1NT
C7058	CS0PB04Q4K	CC 0.047 UF 50V B	D3605	D77R1A1R10	DIODE VARISTA AVRL161A1R1NT
C7059	CS0PB0413K	CC 0.001 UF 50V B	D3607	DGJRT54WS0	DIODE SCHOTTKY BARRIER BAT54WS
C7060	CS0PB0315K	CC 0.1 UF 25V B	D3610	DGERMA1110	DIODE SILICON MA111-(TX)
C7061	CS0PB0315K	CC 0.1 UF 25V B	D3611	DGERMA1110	DIODE SILICON MA111-(TX)
C7062	E8E1T4471M	CE 470 UF 35V	D3630	DGERMA1110	DIODE SILICON MA111-(TX)
C7063	E8E1T4471M	CE 470 UF 35V	D3631	DGERMA1110	DIODE SILICON MA111-(TX)
C7064	E8E1T4471M	CE 470 UF 35V	D4214	DGERMA1110	DIODE SILICON MA111-(TX)
C7065	E8E1T4471M	CE 470 UF 35V	D6201	DE7RB5R62B	DIODE ZENER UDZSNP5.6B TE-17
C7070	CS3RB0416K	CC 1 UF 50V B	D6202	DE7RB5R62B	DIODE ZENER UDZSNP5.6B TE-17
C7071	CS3RB0416K	CC 1 UF 50V B	D6205	DGJRT54WS0	DIODE SCHOTTKY BARRIER BAT54WS
C7072	C234SLB11J	CC 10 PF 6KV SL	D7001	DGERMA1110	DIODE SILICON MA111-(TX)
C7073	C234SLB11J	CC 10 PF 6KV SL	D7002	DGERMA1110	DIODE SILICON MA111-(TX)
C7074	CS0PB0414K	CC 0.01 UF 50V B	D7003	DGERMA1110	DIODE SILICON MA111-(TX)
C7075	CS0PB0414K	CC 0.01 UF 50V B	D7004	DGERMA1110	DIODE SILICON MA111-(TX)
C7076	CS0PB0316K	CC 1 UF 25V B	D7005	DGERMA1110	DIODE SILICON MA111-(TX)
C7077	CS0PB0415K	CC 0.1 UF 50V B	D7006	DGERMA1110	DIODE SILICON MA111-(TX)
C7078	CS0PB0316K	CC 1 UF 25V B	D7007	DGERMA1110	DIODE SILICON MA111-(TX)
C7079	CS0PB0413K	CC 0.001 UF 50V B	D7008	DGERMA1110	DIODE SILICON MA111-(TX)
C7080	CS0PB0415K	CC 0.1 UF 50V B	D7009	DGERMA1110	DIODE SILICON MA111-(TX)
C7081	CS3RB0416K	CC 1 UF 50V B	D7010	DGERMA1110	DIODE SILICON MA111-(TX)
C7082	CS3RB0416K	CC 1 UF 50V B	D7011	DGERMA1110	DIODE SILICON MA111-(TX)
C7083	CQGTCH413J	CC 0.001 UF 50V CH	D7014	DGERMA1110	DIODE SILICON MA111-(TX)
C7088	CS0RB0N17K	CC 10 UF 10V B	D7015	DGERMA1110	DIODE SILICON MA111-(TX)
C7089	E7ESU4101M	CE 100 UF 35V	D7016	DGERMA1110	DIODE SILICON MA111-(TX)
			D7017	DGERMA1110	DIODE SILICON MA111-(TX)

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
DIODES			TRANSISTORS		
D7019	DGERMA1110	DIODE SILICON MA111-(TX)	△Q407	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y
D7020	DGERMA1110	DIODE SILICON MA111-(TX)	Q408	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
D7021	DGERMA1110	DIODE SILICON MA111-(TX)	Q409	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
D7022	DGERMA1110	DIODE SILICON MA111-(TX)	Q410	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
D7023	DGERMA1110	DIODE SILICON MA111-(TX)	Q412	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
D7024	DGERMA1110	DIODE SILICON MA111-(TX)	Q416	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK
D7027	DGERMA1110	DIODE SILICON MA111-(TX)	△Q417	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y
D7028	DGERMA1110	DIODE SILICON MA111-(TX)	Q420	TCATC31980	TRANSISTOR,SILICON KTC3198-AT(Y,GR)
D7029	DGERMA1110	DIODE SILICON MA111-(TX)	△Q422	TBA0011510	TRANSISTOR,SILICON KTB1151
D7030	DGERMA1110	DIODE SILICON MA111-(TX)	Q423	TCATC31980	TRANSISTOR,SILICON KTC3198-AT(Y,GR)
D7031	DGERMA1110	DIODE SILICON MA111-(TX)	Q1204	TK7MO66040	FET AO6604
D7032	DGERMA1110	DIODE SILICON MA111-(TX)	Q1205	TK7MO66040	FET AO6604
D7033	DGERMA1110	DIODE SILICON MA111-(TX)	Q1206	TK7MO66040	FET AO6604
D7034	DGERMA1110	DIODE SILICON MA111-(TX)	Q1207	TK7MO66040	FET AO6604
D7035	DGERMA1110	DIODE SILICON MA111-(TX)	Q1208	TK7MO66040	FET AO6604
D7036	DD7R0S3550	DIODE SILICON 1SS355 TE-17	Q1209	TK7MO66040	FET AO6604
D7037	DD7R0S3550	DIODE SILICON 1SS355 TE-17	Q1210	TK7MO66040	FET AO6604
D7038	DE7RB6R82B	DIODE ZENER UDZSNP6.8B TE-17	Q1211	TK7MO66040	FET AO6604
D7043	DGERMA1110	DIODE SILICON MA111-(TX)	Q1212	TK7MO66040	FET AO6604
D7045	DGERMA1110	DIODE SILICON MA111-(TX)	Q1213	TK7MO66040	FET AO6604
D7046	DGERMA1110	DIODE SILICON MA111-(TX)	Q3003	TNAAC05002	COMPOUND TRANSISTOR KRC103SRTK
D7047	DGERMA1110	DIODE SILICON MA111-(TX)	Q3004	TNAAC05002	COMPOUND TRANSISTOR KRC103SRTK
D7048	DGERMA1110	DIODE SILICON MA111-(TX)	Q3005	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
D7049	DGERMA1110	DIODE SILICON MA111-(TX)	Q3401	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
D7050	DE7RB4R72B	DIODE ZENER UDZSNP4.7B TE-17	Q3403	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
D7051	D2LXSR2900	DIODE SCHOTTKY SR290-F	Q3405	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
D7053	D1VT001330	DIODE,SILICON 1SS133T-77	Q3408	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
D7055	D1VT001330	DIODE,SILICON 1SS133T-77	Q3409	TPAAA05001	COMPOUND TRANSISTOR KRA101SRTK
ICS			Q3410	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC302	I0FSP7808B	SOUND AMP STEREO AN17808B	Q3411	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC401	I2GT050380	VDS=500V RDS1=0.77 RDS2=0.38 MP3A5038	Q3412	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC402	I5SD0P2F40	VD=700V RDS(ON)=9.5OHM MIP2F4	Q3502	TT8MT44010	TRANSISTOR SILICON MMBT4401
△IC403	I1KJ9A431A	VARIABLE SHUNT REGULATOR TAPE KIA431A-AT	Q3503	TK7MA34070	FET AO3407
△IC404	I1KJ9A431A	VARIABLE SHUNT REGULATOR TAPE KIA431A-AT	Q3504	TT8MT44010	TRANSISTOR SILICON MMBT4401
△IC405	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	Q3505	TT8MT44030	TRANSISTOR SILICON MMBT4403
△IC406	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	Q3506	TK7MO34000	FET AO3400
△IC408	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	Q3507	TK7MA34070	FET AO3407
IC410	000220002W	PHOTO COUPLER PS2561AL1-1-V(W)	Q3508	TT8MT44010	TRANSISTOR SILICON MMBT4401
IC1201	S35D01IE02	MEMORY DATA EEPROM 16K SOP8 S-24CS16A0I-J8T1GE	Q3509	TK7MA34070	FET AO3407
IC1202	I56K067310	SCALER R8J66731FT	Q3510	TT8MT44010	TRANSISTOR SILICON MMBT4401
△IC1203	I1VF0117A0	REGULATOR 1.5V EC50117ABG	Q3511	TT8MT44010	TRANSISTOR SILICON MMBT4401
IC1204	ICRKG0GA480	FLASH MICOM ROM 4K RAM 1K ATMEGA48-20AU	Q3512	TT8MDT4400	TRANSISTOR SILICON MMDT4401
IC1301	I1WJ9431A0	SHUNT REGULATOR IC AP431AWLA	Q3513	TT8MT44010	TRANSISTOR SILICON MMBT4401
IC1302	IGHKS55790	18+1 CH BUFFER EC5579-HG	Q3515	TT8MT44030	TRANSISTOR SILICON MMBT4403
IC1303	IGHFG54610	AMPLIFIER EC5461AB3-G	Q3516	TT8MT44010	TRANSISTOR SILICON MMBT4401
IC2801	I56M069540	SCALER R8J66954BG	Q3517	TT8MT44030	TRANSISTOR SILICON MMBT4403
IC2802	IGGM061600	256MB DDR2 SDRAM HYB18TC256160BF-3S	Q3518	TT8MT44030	TRANSISTOR SILICON MMBT4403
IC2804	S34D01PF01	MEMORY DATA 32MBIT FLASH 48PIN TSOP EN29LV320AB-70TCP	Q3601	TPAAB05001	COMPOUND TRANSISTOR KRA102SRTK
IC2805	S35D01IE01	MEMORY DATA EEPROM 256KBIT SO8 M24256-BWMN6TP	Q3602	TPAAB05001	COMPOUND TRANSISTOR KRA102SRTK
△IC3001	I07F091300	1CH DC-DC CONVERTER BD9130NV	Q3603	T27T030190	FET 2SK3019_TL
△IC3002	I1LF010150	DC-DC CONVERTER CONTROLLER AL1015	Q3606	T27T030190	FET 2SK3019_TL
△IC3003	I0GF95ZN10	VO=0.8-3.5V I=1.5A TAPING PQ0352N1H2PH	Q3607	T27T030190	FET 2SK3019_TL
IC3004	TJ5MC61080	FET TPC6108(TE85L,F,M)	Q3608	T27T030190	FET 2SK3019_TL
IC3006	TJ7T35P020	FET RTQ035P02-TR	Q3609	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC3007	I5HJ0170B0	REGULATOR VO=3.3V IO=800MA S-1170B33UC-OTSTFG	Q3610	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
△IC3008	I1KF98D090	REGULATOR 9V KIA78D09F	Q3611	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
IC3501	I1XJ913430	SW REGULATOR IC AAT1343-T1-T	Q4211	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK
IC3601	S34D01PE02	MEMORY DATA EEPROM 2K SOP8 S-24CS02AFJ-TB-GE	Q4212	TPAAC05002	COMPOUND TRANSISTOR KRA103SRTK
IC3602	S34D01PE03	MEMORY DATA EEPROM 2K SOP8 S-24CS02AFJ-TB-GE	Q4301	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC3603	I0WF0002A0	2IN1_HDMI_SW_IC STHDMI002ABTR	Q4303	TPAAA05001	COMPOUND TRANSISTOR KRA101SRTK
IC5801	I01FF58320	USA STEREO AN5832SA-E1V	Q4304	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC6201	I9UF032290	RESET IC 2.9V TYPE PST3229NR	Q4306	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC6202	S34L01PM01	MEMORY DATA FLASH MICOM ROM16K 2KX2 RAM1 R5F21124FP	Q4307	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC6551	IC1J053580	A/D CONVERTER AK5358A	Q4308	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC6552	I0QF02534V	A/V SW 3INPUT 1OUTPUT NJM2534V(TE2)	Q4310	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC6553	I0QF02534V	A/V SW 3INPUT 1OUTPUT NJM2534V(TE2)	Q4311	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC6557	I0QF02534V	A/V SW 3INPUT 1OUTPUT NJM2534V(TE2)	Q4312	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK
IC6558	I0QF02534V	A/V SW 3INPUT 1OUTPUT NJM2534V(TE2)	Q5801	T27T030190	FET 2SK3019_TL
IC7001	I07F098970	19WLCD INVERTER CONTROL IC BD9897FS	Q5802	T27T030190	FET 2SK3019_TL
IC7002	I07J003580	DUAL OPE AMP SSOP8 PACKAGE BA10358FV-E2	Q6201	T27T030190	FET 2SK3019_TL
TRANSISTORS			Q6202	T27T030190	FET 2SK3019_TL
Q307	TNAAC05002	COMPOUND TRANSISTOR KRC103SRTK	Q7003	T25006J3A0	FET TK30A06J3A(Q)
Q401	TAAT01281Y	TRANSISTOR SILICON KTA1281_Y	Q7004	T25006J3A0	FET TK30A06J3A(Q)
Q403	TNAAB05003	COMPOUND TRANSISTOR KRC102SRTK	Q7005	T25006J3A0	FET TK30A06J3A(Q)
Q404	TAAA1504SY	TRANSISTOR SILICON KTA1504S_Y_RTK	Q7006	T25006J3A0	FET TK30A06J3A(Q)
Q405	TCAA3875SY	TRANSISTOR SILICON KTC3875S_Y_RTK	COILS & TRANSFORMERS		
Q406	TC5T021204	TRANSISTOR,SILICON 2SC2120Y(TPE2)	△L401	029X000129	COIL,LINE FILTER SS30V-R300071

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION		
COILS & TRANSFORMERS			MISCELLANEOUS				
▲ L402	029X000129	COIL, LINE FILTER	SS30V-R300071	B1222	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L404	02167E220K	COIL	22 UH	B1223	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L411	02167E100K	COIL	10 UH	B1224	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L413	02167E100K	COIL	10 UH	B1225	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L1202	02DA000107	COIL CHOKE	DLW21HN900SQ2L	B1226	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L1203	02DA000107	COIL CHOKE	DLW21HN900SQ2L	B1227	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3001	02167E220K	COIL	22 UH	B1228	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3002	02167E100K	COIL	10 UH	B1229	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3003	02167E220K	COIL	22 UH	B1230	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3004	0218MG220P	COIL	22 UH	B1231	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3401	0216S8331K	COIL	330 UH	B1232	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3501	0218MG100P	COIL	10 UH	B1233	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3502	0218MG100P	COIL	10 UH	B1234	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3601	02D1000119	COIL CHOKE	EXC28CG900U	B1235	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3602	02D1000119	COIL CHOKE	EXC28CG900U	B1236	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3603	02D1000119	COIL CHOKE	EXC28CG900U	B1237	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L3604	02D1000119	COIL CHOKE	EXC28CG900U	B1238	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L4301	0216S8220K	COIL	22 UH	B1239	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L5801	0216SD220J	COIL	22 UH	B1240	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L5805	021AS9224J	COIL	0.22 UH	B1241	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L6551	0216S8220K	COIL	22 UH	B1242	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L7001	02167E100K	COIL	10 UH	B1243	024AC8121T	CORE, BEADS	BLM15AG121SN1D
L7002	02167E100K	COIL	10 UH	B1244	024AC8121T	CORE, BEADS	BLM15AG121SN1D
T401	0481400844	TRANSFORMER, SWITCHING	81400844	B1245	024AC8121T	CORE, BEADS	BLM15AG121SN1D
T402	048119008W	TRANSFORMER, SWITCHING	8119008W	B1246	024AC8121T	CORE, BEADS	BLM15AG121SN1D
▲ T7001	0456300041	TRANSFORMER, SWITCHING	ETJV23ZF2SAC	B1247	024AC8121T	CORE, BEADS	BLM15AG121SN1D
▲ T7002	0456300041	TRANSFORMER, SWITCHING	ETJV23ZF2SAC	B1248	024AC8121T	CORE, BEADS	BLM15AG121SN1D
▲ T7003	0456300041	TRANSFORMER, SWITCHING	ETJV23ZF2SAC	B1249	024AC8121T	CORE, BEADS	BLM15AG121SN1D
▲ T7005	0456300041	TRANSFORMER, SWITCHING	ETJV23ZF2SAC	B1250	024AC8121T	CORE, BEADS	BLM15AG121SN1D
▲ T7006	0456300041	TRANSFORMER, SWITCHING	ETJV23ZF2SAC	B1251	024AC8121T	CORE, BEADS	BLM15AG121SN1D
▲ T7007	0456300041	TRANSFORMER, SWITCHING	ETJV23ZF2SAC	B1252	024AC8121T	CORE, BEADS	BLM15AG121SN1D
▲ T7008	0456300041	TRANSFORMER, SWITCHING	ETJV23ZF2SAC	B1253	024AC8121T	CORE, BEADS	BLM15AG121SN1D
JACKS							
▲ J401	064Q1A0010	JACK, AC	CCT2302-0901C	B1254	024AC8121T	CORE, BEADS	BLM15AG121SN1D
J4201	060J131019	HEADPHONE JACK	MSJ-2000B_AG(O87)	B1255	024AC8121T	CORE, BEADS	BLM15AG121SN1D
J4202	063Y000087	JACK PLATE	R102-D04KAF-06	B1256	024AC8121T	CORE, BEADS	BLM15AG121SN1D
J4203	060K411053	RCA JACK	AV3-13P2-31S1	B1301	024HC51513	CORE, BEADS	FCM1608KF-151T06
J4205	060R431035	RCA JACK	RCA-349-00C-02	B1302	024HC51513	CORE, BEADS	FCM1608KF-151T06
J4206	060R431035	RCA JACK	RCA-349-00C-02	B2801	024HC52216	CORE, BEADS	FCM1608KF-221T20
J4301	060K411041	RCA JACK	AV2-13P2-07H	B2803	024HC52216	CORE, BEADS	FCM1608KF-221T20
SWITCHES							
SW2201	0504101T34	SWITCH, TACT	EVQ21505R	B2804	024HC52216	CORE, BEADS	FCM1608KF-221T20
SW2202	0504101T34	SWITCH, TACT	EVQ21505R	B2805	024HC52216	CORE, BEADS	FCM1608KF-221T20
SW2203	0504101T34	SWITCH, TACT	EVQ21505R	B2806	024HC52216	CORE, BEADS	FCM1608KF-221T20
SW2204	0504101T34	SWITCH, TACT	EVQ21505R	B2807	024HC52216	CORE, BEADS	FCM1608KF-221T20
SW2205	0504101T34	SWITCH, TACT	EVQ21505R	B2808	024HC52216	CORE, BEADS	FCM1608KF-221T20
SW2206	0504101T34	SWITCH, TACT	EVQ21505R	B2809	024HC52216	CORE, BEADS	FCM1608KF-221T20
SW2207	0504101T34	SWITCH, TACT	EVQ21505R	B2810	024HC52216	CORE, BEADS	FCM1608KF-221T20
P.C. BOARD ASSEMBLIES							
PCB240	A35D011240	POWER PCB ASS'Y	CEG368A	B2811	024HC52216	CORE, BEADS	FCM1608KF-221T20
PCB270	A35D011270	OPERATION PCB ASS'Y	CEG370A	B2813	024BC5121J	CORE, BEADS	BLM18PG121SN1D
PCBDA0	A35D011DA0	REMOCON PCB ASS'Y	CEG371A	B2815	024BC5121J	CORE, BEADS	BLM18PG121SN1D
PCBDH0	A35D011DH0	DIGITAL PCB ASS'Y	CEG369A	B2816	024BC5121J	CORE, BEADS	BLM18PG121SN1D
MISCELLANEOUS							
B401	024HT03553	CORE, BEADS	W5RH3.5X5X1.0	B2822	024BC5121J	CORE, BEADS	BLM18PG121SN1D
B404	024HT03553	CORE, BEADS	W5RH3.5X5X1.0	B3003	024AC5181J	CORE, BEADS	BLM18PG181SN1D
B1201	024AC3330P	CORE, BEADS	BLM21PG3300SN1D	B3004	024AC5181J	CORE, BEADS	BLM18PG181SN1D
B1202	024AC5330J	CORE, BEADS	BLM18PG3300SN1D	B3005	024AC5181J	CORE, BEADS	BLM18PG181SN1D
B1203	024AC5330J	CORE, BEADS	BLM18PG3300SN1D	B3006	024AC5181J	CORE, BEADS	BLM18PG181SN1D
B1204	024AC5330J	CORE, BEADS	BLM18PG3300SN1D	B3007	024AC5181J	CORE, BEADS	BLM18PG181SN1D
B1205	024AC5330J	CORE, BEADS	BLM18PG3300SN1D	B3008	024HC13914	CORE, BEADS	FCM1608KF-391T20
B1206	024AC5330J	CORE, BEADS	BLM18PG3300SN1D	B3009	024HC13914	CORE, BEADS	FCM1608KF-391T20
B1207	024AC5330J	CORE, BEADS	BLM18PG3300SN1D	B3010	024HC13914	CORE, BEADS	FCM1608KF-391T20
B1208	024AC5330J	CORE, BEADS	BLM18PG3300SN1D	B3011	024HC13914	CORE, BEADS	FCM1608KF-391T20
B1209	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B3013	024AC5181J	CORE, BEADS	BLM18PG181SN1D
B1210	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B3014	024HC13914	CORE, BEADS	FCM1608KF-391T20
B1211	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B3601	024AC5181J	CORE, BEADS	BLM18PG181SN1D
B1212	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B4308	024HC51513	CORE, BEADS	FCM1608KF-151T06
B1213	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B4309	024HC56005	CORE, BEADS	FCM1608CF-600T06
B1214	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B5802	024HC51023	CORE, BEADS	FCM1608KF-102T02
B1215	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B5804	024HC51513	CORE, BEADS	FCM1608KF-151T06
B1216	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B5808	024HC51023	CORE, BEADS	FCM1608KF-102T02
B1217	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B5809	024HC51023	CORE, BEADS	FCM1608KF-102T02
B1218	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B6552	024HC51023	CORE, BEADS	FCM1608KF-102T02
B1219	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B6553	024HC51023	CORE, BEADS	FCM1608KF-102T02
B1220	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B7001	024HT03564	CORE, BEADS	W4BRH3.5X6X1.0
B1221	024AC8121T	CORE, BEADS	BLM15AG121SN1D	B7002	024HT03564	CORE, BEADS	W4BRH3.5X6X1.0
				B7003	024HT03564	CORE, BEADS	W4BRH3.5X6X1.0

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
MISCELLANEOUS			
B7004	024HT03564	CORE,BEADS	W4BRH3.5X6X1.0
BT001	141R003018	BATTERY,MANGAN	GR6M
BT002	141R003018	BATTERY,MANGAN	GR6M
CD302	06E8147502	CORD CONNECTOR	E8147502
CP302	069S140419	CONNECTOR PCB SIDE	A2502WV2-4P
CP404	069D01001A	CONNECTOR PCB SIDE	003P-2100
CP411	06CK7N0301	CORD CONNECTOR	TWG-P23P-A1
CD1202	12BR480061	CORD JUMPER	FFC058006003509T1-A0304
CD1203	12BR480061	CORD JUMPER	FFC058006003509T1-A0304
CD2201	06CU256501	CORD CONNECTOR	CU256501
CD2202	06E8231302	CORD CONNECTOR	E8231302
CP1201	069S250629	CONNECTOR PCB SIDE	A2001WV2-5P
CP1202	06AAY08019	CONNECTOR PCB SIDE	QS0CNA222WJZZYH(41)
CP1203	06AAY08019	CONNECTOR PCB SIDE	QS0CNA222WJZZYH(41)
CP1204	069S240629	CONNECTOR PCB SIDE	A2001WV2-4P
CP1205	069S260629	CONNECTOR PCB SIDE	A2001WV2-6P
CP2201	069S250639	CONNECTOR PCB SIDE	A2001WR2-5P
CP2801	06GG290029	CONNECTOR PCB SIDE	A2001WV-9A
CP2803	06GG2C0029	CONNECTOR PCB SIDE	A2001WV-12A
CP3001	06977NM020	CONNECTOR PCB SIDE	127301123K2
CP3601	0694YJ3038	CONNECTOR PCB SIDE	5-1903015-4
CP3602	0694YJ3038	CONNECTOR PCB SIDE	5-1903015-4
CP4201	069S250629	CONNECTOR PCB SIDE	A2001WV2-5P
CP4303	06G8S21504	CONNECTOR PCB SIDE	1B630020
CP6201	06GG2B0029	CONNECTOR PCB SIDE	A2001WV-11A
CP6202	069S230629	CONNECTOR PCB SIDE	A2001WV2-3P
CP7001	069SW20039	CONNECTOR PCB SIDE	A4001WR0-B4P-HK-H
CP7002	069SW20039	CONNECTOR PCB SIDE	A4001WR0-B4P-HK-H
CP7003	069SW20039	CONNECTOR PCB SIDE	A4001WR0-B4P-HK-H
CP7005	069SW20039	CONNECTOR PCB SIDE	A4001WR0-B4P-HK-H
CP7006	069SW20039	CONNECTOR PCB SIDE	A4001WR0-B4P-HK-H
CP7007	069SW20039	CONNECTOR PCB SIDE	A4001WR0-B4P-HK-H
CP7008	069SW20039	CONNECTOR PCB SIDE	A4001WR0-B4P-HK-H
EL2401	124116281A	EYE LET	XRY16X28BD
EL2402	124120301A	EYE LET	XRY20X30BD
△F401	081PC6R305	FUSE	51MS063L
△F404	0835C02003	MICRO FUSE	20N_2000FS
△F7001	083LA05007	FUSE	1206FA5A-T
△F7002	083LA05007	FUSE	1206FA5A-T
FH401	06710T0009	HOLDER,FUSE	EYF-52BCY
FH402	06710T0009	HOLDER,FUSE	EYF-52BCY
NR2801	11074100M7	R,NETWORK	CRA108100JV
NR2802	11074100M7	R,NETWORK	CRA108100JV
NR2803	11074100M7	R,NETWORK	CRA108100JV
NR2804	11074100M7	R,NETWORK	CRA108100JV
NR2805	11074270M7	R,NETWORK	CRA108270JV
NR2806	11074270M7	R,NETWORK	CRA108270JV
NR2807	11074270M7	R,NETWORK	CRA108270JV
NR2808	11074270M7	R,NETWORK	CRA108270JV
NR2809	11074270M7	R,NETWORK	CRA108270JV
NR2810	11074220M7	R,NETWORK	CRA108220JV
NR2811	11074220M7	R,NETWORK	CRA108220JV
NR6551	11074470M7	R,NETWORK	CRA108470JV
OS2201	077A033001	REMOTE RECEIVER	ROM-V338TAO
SP303	070L056008	SPEAKER	FB136N4-B2
SP304	070L056008	SPEAKER	FB136N4-B2
△TH401	DSQ0VE4R0L	THERMISTOR	4D2-18LCS
△TU5801	0164100026	DIGITAL TUNER	ENG36E19KF
△V2301	09EK132025	LCD	CLAA320WF01 CO
X2801	100GT02728	CRYSTAL	SMD-49 C27000B030
X2802	100GT02509	CRYSTAL	SMD-49 C25000H025
X3601	100GT01807	CRYSTAL	SMD-49 C18432B022
X6201	100GT01615	CRYSTAL	B16000E007
X6551	100DT01217	CRYSTAL	DS0321SRAB

RESISTOR
RC..... CARBON RESISTOR

CAPACITORS
CC..... CERAMIC CAPACITOR
CE..... ALUMI ELECTROLYTIC CAPACITOR
CP..... POLYESTER CAPACITOR
CPP..... POLYPROPYLENE CAPACITOR
CPL..... PLASTIC CAPACITOR
CMP..... METAL POLYESTER CAPACITOR
CMPL..... METAL PLASTIC CAPACITOR
CMPP..... METAL POLYPROPYLENE CAPACITOR

HOW TO ORDER PARTS

When placing a parts order, please have the following information.

A. MODEL NUMBER and VERSION NUMBER

Located on the back of the unit.

EX: VR0100 (Model no.), VERSION/A (Version no.)

B. PART NO. and DESCRIPTION

Located in your SERVICE MANUAL. (See pages M1-2~M2-11)

EX: I235953420, STK5342, Voltage Regulator

↑
PART NO.

↑
DESCRIPTION

C. QUANTITY

D. Mailing address and NAME

EX: ABC Service Center
111 Broadway
NEW YORK, N.Y. 10005

ATTN: MR. X Y Z

ORION SALES, INC.
HIGHWAY 41
ORION PLACE
PRINCETON, INDIANA 47670