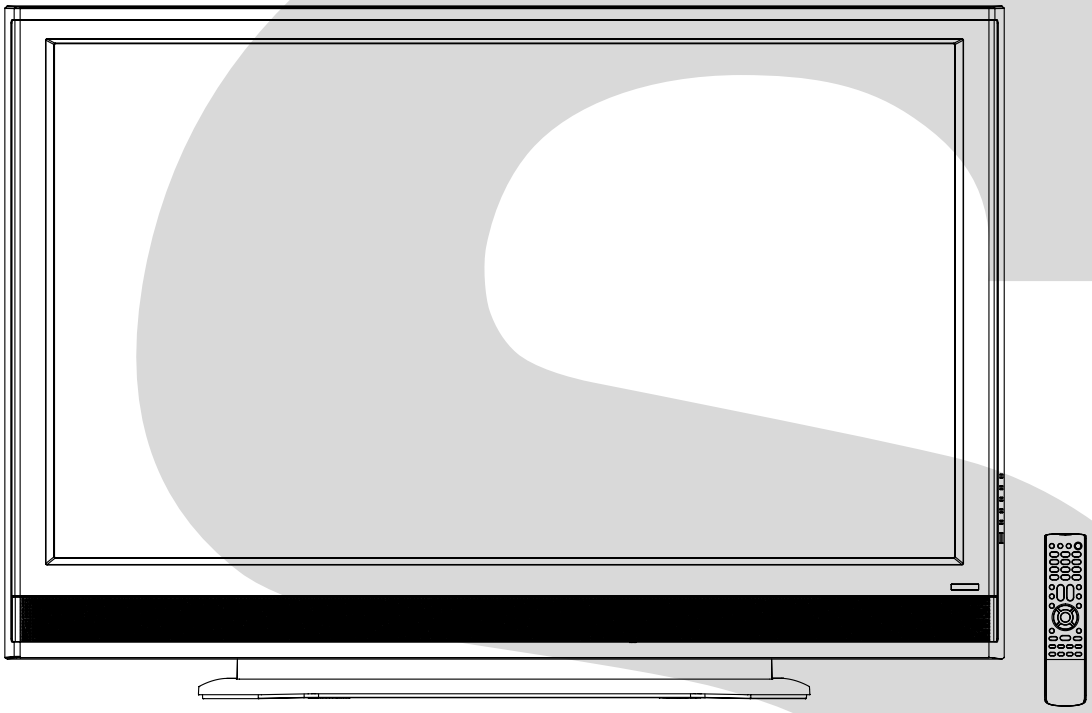
TOSHIBA

FILE NO. 050-200624GR
(MFR'S VERSION A)

SERVICE MANUAL

50" PLASMA COLOR TELEVISION

50HP86



The above model is classified as a green product (*1), as indicated by the underlined serial number. This Service Manual describes replacement parts for the green product. When repairing this green product, use the part(s) described in this manual and lead-free solder (*2).

For (*1) and (*2), see the next page.

DOCUMENT CREATED IN JAPAN, July, 2006 GREEN

(*1) GREEN PRODUCT PROCUREMENT

The EC is actively promoting the WEEE & RoHS Directives that define standards for recycling and reuse of Waste Electrical and Electronic Equipment and for the Restriction of the use of certain Hazardous Substances. From July 1, 2006, the RoHS Directive will prohibit any marketing of new products containing the restricted substances.

Increasing attention is given to issues related to the global environmental. Toshiba Corporation recognizes environmental protection as a key management tasks, and is doing its utmost to enhance and improve the quality and scope of its environmental activities. In line with this, Toshiba proactively promotes Green Procurement, and seeks to purchase and use products, parts and materials that have low environmental impacts.

Green procurement of parts is not only confined to manufacture. The same green parts used in manufacture must also be used as replacement parts.

(*2) LEAD-FREE SOLDER

This product is manufactured using lead-free solder as a part of a movement within the consumer products industry at large to be environmentally responsible. Lead-free solder must be used in the servicing and repair of this product.

WARNING

This product is manufactured using lead free solder.

DO NOT USE LEAD BASED SOLDER TO REPAIR THIS PRODUCT !

The melting temperature of lead-free solder is higher than that of leaded solder by 86°F to 104°F (30°C to 40°C). Use of a soldering iron designed for lead-based solders to repair product made with lead-free solder may result in damage to the component and or PCB being soldered. Great care should be made to ensure high-quality soldering when servicing this product — especially when soldering large components, through-hole pins, and on PCBs — as the level of heat required to melt lead-free solder is high.

SERVICING NOTICES ON CHECKING

1. KEEP THE NOTICES

As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.
Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a ⚠ mark, the designated parts must be used.

4. BE CAREFUL WITH THE PDP PANEL

1. When you handle the PDP Filter you must wear the gloves twice, because, you are to avoid soil it by your sweat and dust.
2. When you lift the PDP Filter you should hold it with the palm of your hand.
   Don't pick up it with your fingers.
3. The back side of PDP Filter tends to damaged. Since there is no coating.
   Therefore, it put into the packing box at the time of delivery, without piling up even at the time of unused.
   Also, when you take out it from a packing box, be careful of the rubbing.
4. When the surface becomes dirty, wipe it with a soft cloth as you draw a circle.
   When it is dirty hardly, wipe it with a cloth ethanol infiltrated.
   Don't use ethanol for the back side.
5. Do not apply it to direct sunshine so that the characteristic may change.
6. When you inspect the surface (the scratch, the dirt and the air bubble), use the fluorescent light.
7. When you use SCREW DRIVER and SCREW, be careful of a metallic powder being mixed.
8. Do not damage the PDP Module with a DRIVER.
9. Do Handling with the PDP Module by 2 persons.
10. There is a step difference between the cover and PDP Module.
    So, when you remove the screws, place a cushion on it so that the PDP Module is not being scratched.
    Then remove the screws carefully.
11. When you remove the cover, do not scratch the FPC on both ends of PDP Module.
12. Hold the four ends holder and be careful not to touch the glass area.
13. Take care for the damage of vacuum exhaust pipe due to a collision.
14. Moisture condensation may damage the PDP Module.
    So, leave it for 48 hours at the service room.

5. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

6. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

(INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the eternal exposure metal **[Note 2]** should be more than 2.5M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 2.5M ohm, the inspection repair should be required.

[Note 1]

If you have not the 500V insulation resistance meter, use a Tester.

[Note 2]

External exposure metal: Antenna terminal
Screw
21pin jack
Side RCA jack
Rear RCA jack
Headphone jack

HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the VERSION LETTER.)

1. MODEL NUMBER and VERSION LETTER
   The MODEL NUMBER can be found on the back of each product and the VERSION LETTER can be found at the end of the SERIAL NUMBER.
2. PART NO. and DESCRIPTION
   You can find it in your SERVICE MANUAL.

IMPORTANT

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 damage to the IC and Transistor).

PANEL LOCK

To unlock the Panel Lock, please follow the steps below.

1. Turn Unit ON.
2. Press and hold the 'VOLUME DOWN' key on the front panel for more than 10 seconds.
3. The Panel Lock has now been cleared.

TABLE OF CONTENTS

GENERAL SPECIFICATIONS

G-1	**TV System**	PDP		PDP Size / Visual Size	49.95 inch / 1268.7 mmV
				Number of Pixels(H x V)	1366(H) x 768(V)
		Color System			NTSC
		Speaker			4 Speaker
				Position	Front
			Main	Size	2.2 x 5.0 inch
				Impedance	4 ohm
			Tweeter	Size	2.0 inch
				Impedance	8 ohm
		Sound Output		MAX	10W + 10W
				10%(Typical)	---
G-2	**Tuning System**	Broadcasting System		Analog	US System M
				Digital	--
		Tuner and Receive CH		System	1Tuner
				Destination	USA(W/ CABLE)
				CH Coverage	2 - 69, 4A, A-5 - A-1, A - I, 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	1 V p-p/75 ohm
				S/N Ratio (Weighted)	--
				Horizontal Resolution at DVD Mode	--
					--
		RGB Signal		Output Level	--
		Audio Signal		Input Level	-8.0dBm/50k ohm
				Output Level at DVD	--
				at TV	-8 dBm/1k ohm (0dBm=0.775Vrms)
					0-600mV /1k ohm (Variable out mode)
				Digital Output Level	--
				S/N Ratio at DVD (Weighted)	--
				Harmonic Distortion	0.02% (1KHz)
				Frequency Response : at DVD	--
				at Video CD	--
				at SVCD	--
				at CD	--
G-4	**Power**	Power Source		AC	120V AC 60Hz
				DC	---
		Power Consumption		at AC	520 W at AC 120 V 60 Hz
				at DC	--
				Stand by (at AC)	1 W at AC 120 V 60 Hz
				Per Year	-- kWh/Year
				Energy Star	Yes
		Protector		Power Fuse	Yes
				Safety Circuit	Yes
				IC Protector(Micro Fuse)	No
G-5	**Regulation**			Safety	CSA
				Radiation	IC
				X-Radiation	---
G-6	**Temperature**			Operation	+/-0oC ~ +40oC
				Storage	-20oC ~ +60oC
G-7	**Operating Humidity**				Less than 80% RH
G-8	**Clock and Timer**	Clock			Yes
		Sleep Timer		Max Time	120 Min
				Step	10 Min
		On Timer		Program	Yes
		Off Timer		Program	No
		Game Timer			Yes
		Wake Up Timer			No
		Timer Back-up (at Power Off Mode)		more than	-- Min Sec

GENERAL SPECIFICATIONS

G-9	**Remote Control**	Unit		RC-KK
		Glow in Dark Remocon		Yes
		Remocon Format		TOSHIBA
		Format		TOSHIBA
		Custom Code		40-BF h
		Power Source	Voltage(D.C)	3V
			UM size x pcs	UM-4 x 2 pcs
		Total Keys		44
		Keys	Power	Yes
			Input	Yes
			Display	Yes
			Mute	Yes
			1	Yes
			2	Yes
			3	Yes
			4	Yes
			5	Yes
			6	Yes
			7	Yes
			8	Yes
			9	Yes
			0	Yes
			100 / +10	Yes
			CH Return / Ent	Yes
			CH +	Yes
			CH -	Yes
			VOL +	Yes
			VOL -	Yes
			SLEEP	Yes
			Picture Size	Yes
			UP	Yes
			LEFT / FAV -	Yes
			MENU/ENTER/DVD MENU	Yes
			RIGHT / FAV +	Yes
			DOWN	Yes
			EXIT	Yes
		Multi Brand Keys	TV	Yes
			CBL/SAT	Yes
			VCR	Yes
			DVD	Yes
			ENTER	Yes
			PAUSE	Yes
			PLAY	Yes
			STOP	Yes
			REW	Yes
			FF	Yes
			SKIP/SEARCH|<<	Yes
			SKIP/SEARCH>>|	Yes
			TOP MENU	Yes
			REC	Yes
			CLEAR	Yes
			TV/VCR	Yes

GENERAL SPECIFICATIONS

G-10	**Features**	Auto Shut Off		Yes
		Power On Memory		Yes
		Auto Search		No
		DNR		Yes 3D
		Comb Filter		Yes 3D
		Just Clock Function		No
		Game Position		No
		Auto Setup(Language/CH Program)		Yes
		Picture Setting(TV)		Yes
			Mode(Picture Preference)	Yes
			Brightness , Contrast , Color	Yes
			Tint	Yes
			Sharpness	Yes
			Color Temperature	Yes
			Cable Clear	Yes
		Picture Setting(PC)		Yes
			BRIGHTNESS , CONTRAST	Yes
			HOR POSITION , VER POSITION	Yes
			PHASE , CLOCK	Yes
			AUTO ADJUST	No
			RED , GREEN , BLUE	Yes
		Audio	MTS	Yes
			Tone Control (Bass/Treble/Balance)	Yes
			Stable Sound	Yes
			Surround	No
			BBE	No
			SRS WOW (SRS 3D/Focus/Tru Bass)	Yes
			Valiable Audio Out	Yes
		Tuning	CH Program	Yes
			TV/Cable	Yes
			ADD/ERASE	Yes
		Screen Saver	Inversion(Reverse)	Yes
			Full White(White)	Yes
			Screen Saver(Picture Shift)	Yes
			Side Panel Color	Yes
		Label	CH Label	Yes
			Video Label	Yes
		Favorite CH		Yes
		V-Chip		No
		RRT Setup		No
		Lock	Hotel Lock	No
			Channel Lock	Yes
			Video Lock	Yes
			Panel Lock	Yes
		OSD Language		English French Spanish
		Closed Caption		Yes
		CC Advanced		No
		Picture Size		Yes
		Picture Scroll		Yes
		Aspect		Yes
		Backlight		No
		PFC(Power Factor circuit)		Yes
		Freeze frame		No
		PIP/POP		No
		Digital Out	Dolby Digital	No
			MPEG	No
			PCM	No
			DTS	No
		PC Monitor Input		Yes
			VGA (640x480)	Yes (60Hz)
			VGA (720x400)	No
			WVGA (848x480)	Yes (60Hz)
			SVGA (800x600)	Yes (60Hz)
			XGA (1024x768)	Yes (60Hz)
			WXGA (1280x768)	Yes (60Hz)
			WXGA (1280x720)	Yes (60Hz)
			WXGA (1360x768)	Yes (60Hz)
			SXGA (1280x1024)	No

GENERAL SPECIFICATIONS

		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)
G-11	**Accessories**	Owner's Manual	Language	English / French
			w/Guarantee Card	Yes
		Remote Control Unit		Yes
		Rod Antenna		No
			Poles	-
			Terminal	-
		Loop Antenna (W/ Antenna Change Plug)		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
		Battery		Yes
			UM size x pcs	UM-4 x 2 pcs
			OEM Brand	No
		AC Adapter		No
		AC Cord (for AC Adapter)		No
		AC Cord		Yes
		AV Cord (2Pin-1Pin)		No
		HDMI-DVI Cable		No
		Registration Card		No
		300 ohm to 75 ohm Antenna Adapter		No
		Information Sheet(for IMPORTANT NOTICE)		No
		Information Sheet(for Picture Shift)		Yes

GENERAL SPECIFICATIONS

G-12	**Interface**	Switch	Side	Power (Tact)	Yes
				System Select	No
				Main Power SW	No
				Channel Up/Menu Up	Yes
				Channel Down/Menu Down	Yes
				Volume Up/Menu >	Yes
				Volume Down/Menu <	Yes
				Input Select	Yes
				Menu	No
				Main Power SW	No
		Indicator		Power / Stand-by	Yes(GREEN / RED)
				On Timer	No
		Terminals	Rear	Video Input 1	RCA x 1
				Audio Input	RCA x 2(L/MONO, R)
				S- Input	Yes
				Video Input 2	RCA x 1
				Audio Input	RCA x 2(L/MONO, R)
				S- Input	Yes
				Video Output	RCA x 1
				Audio Output	RCA x 2(Variable L, R)
				Component In 1	RCA x 3
				Audio Input (Component In use)	RCA x 2(L/MONO, R)
				Component In 2	RCA x 3
				Audio Input (Component In use)	RCA x 2(L/MONO, R)
				Other Terminal	No
				Euro Scart (21Pin)	No
				PC Monitor Input (D-Sub)	Yes
				Audio Input	RCA x 2(L/MONO, R)
				HDMI Input 1	Yes
				Audio Input(DVI 1)	PC Monitor Audio Input Alternative
				HDMI Input 2	Yes
				Audio Input(DVI 2)	Mini Pin Jack(d:3.5), STEREO
				Sub Woofer Out	No
				Diversity	No
				Digital Audio Out (Coaxial)	No
				Digital Audio Out (Optical)	No
				IR Pass Through	Yes
				Ext Speaker	No
				DC Jack 12V(Center +)	No
				VHF/UHF Antenna Input(Analog)	F Type
				AC Inlet	Yes
			Side	Video Input 3	RCA x 1
				Audio Input	RCA x2(L/MONO,R)
				S- Input	Yes
				Other Terminal	No
G-13	**Set Size**			Approx. W x D x H (mm)	1,255 x 391 x 869
G-14	**Weight**			Net Approx.	51.54kg (113.5 lbs)
				Gross Approx.	61.5kg (135.6 lbs)
G-15	**Carton**		Master Carton		No
				Content	--- Sets
				Material	--- / ---
				Dimensions W x D x H(mm)	---
				Description of Origin	---
			Gift Box	Material	Double/Brown
				Dimensions W x D x H(mm)	1,360 x 521 x 979
				Description of Origin	Yes
			Drop Test		Natural Dropping At 1 Corner / 2 Edges / 4 Surfaces
				Height (cm)	50(ORION SPEC:31)
			Container Stuffing		68 Sets/40' container
G-16	**Material**		Cabinet	Cabinet Front	ABS 94V0 Non-DECABROM
				Cabinet Rear	Steel
			PCB	Non-Halogen	No
				Eyelet	Yes
G-17	**Environment**		Environmental standard requirement (by buyer)		Green procurement of TOSHIBA
			Pb-free		Phase3(Phase3A)
				Measures for Whisker	Yes

DISASSEMBLY INSTRUCTIONS

1. EXCHANGE METHOD OF PDP MODULE

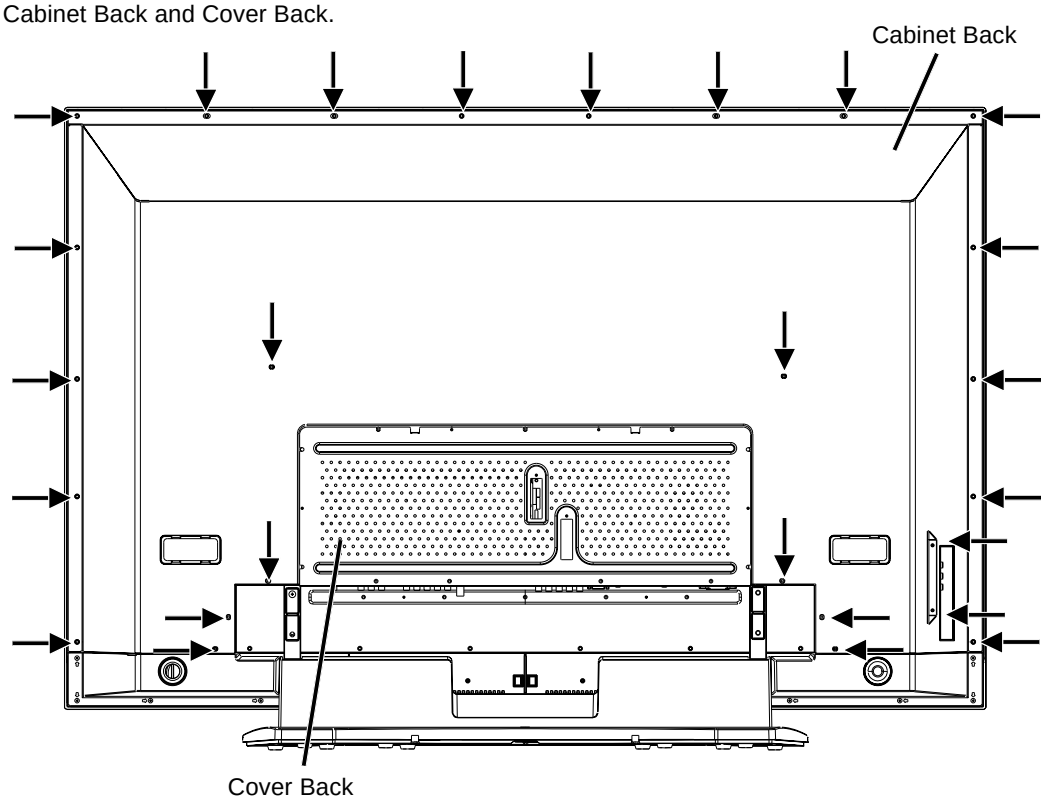
NOTE

1. Do handling with the PDP Module by 2 persons.

REMOVAL METHOD OF PDP MODULE

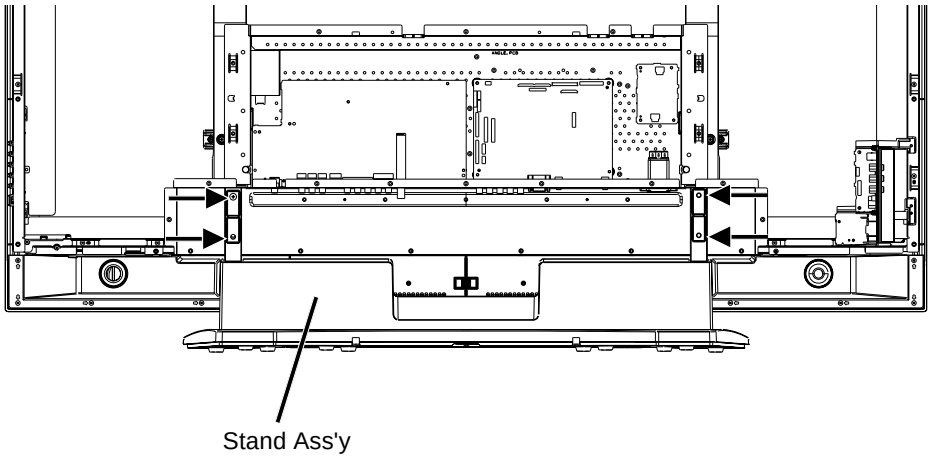
1-1: CABINET BACK/COVER BACK

1. Remove the screw.
2. Remove the Cabinet Back and Cover Back.



1-2: STAND ASS'Y

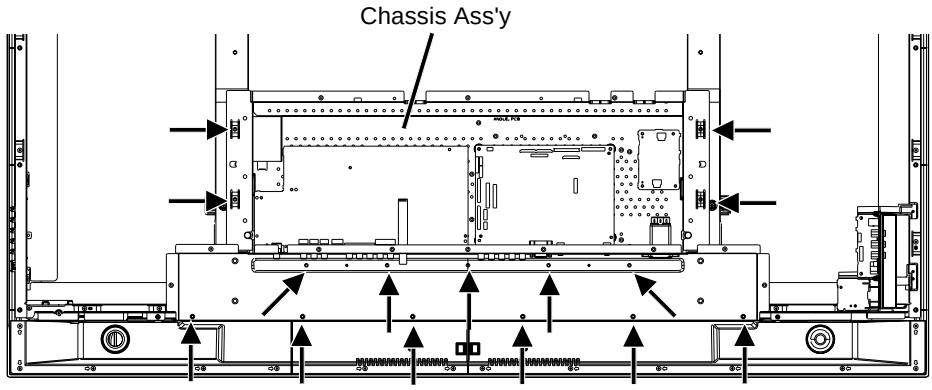
1. Spread a sheet on the plane table and place the PDP Module carefully with the panel face down.
2. Remove the screw.
3. Remove the Stand Ass'y.



DISASSEMBLY INSTRUCTIONS

1-3: CHASSIS BLOCK

1. Disconnect the connector.
2. Remove the screw.
3. Remove the Chassis Ass'y.

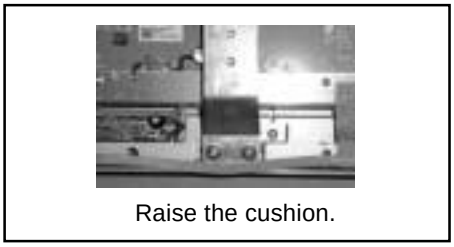


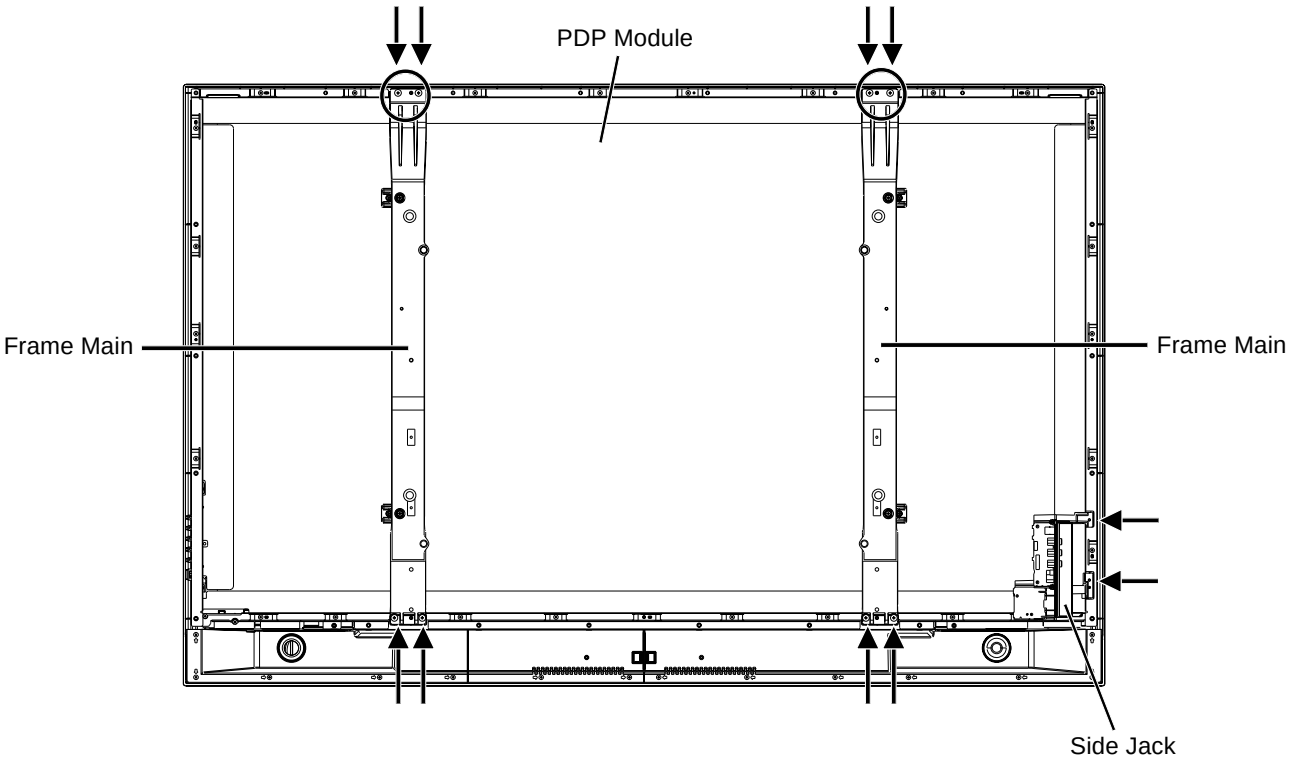
1-4: PDP MODULE

1. Remove the screw.
2. Remove the Side Jack.
3. Hold the Frame Main carefully and remove the PDP Module.

NOTE

1. When removing the PDP Module, raise the cushion carefully so that you do not scratch the face.

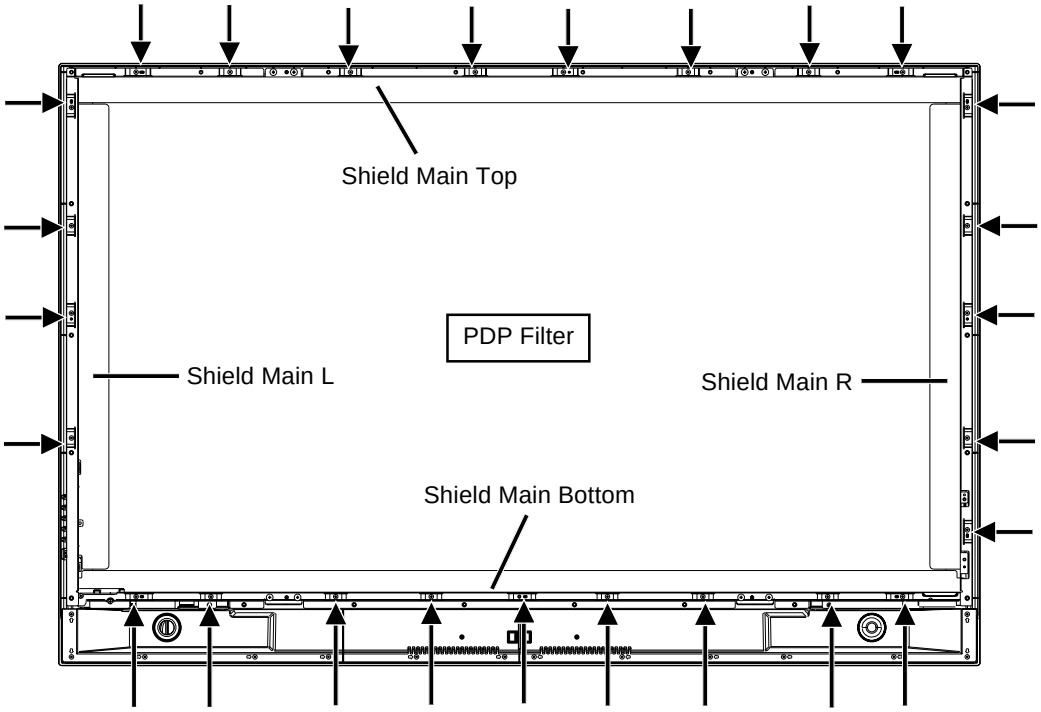

Raise the cushion.



DISASSEMBLY INSTRUCTIONS

1-5: PDP FILTER

1. Remove the screw.
2. Remove the Shield Main.
3. Remove the PDP Filter.



DISASSEMBLY INSTRUCTIONS

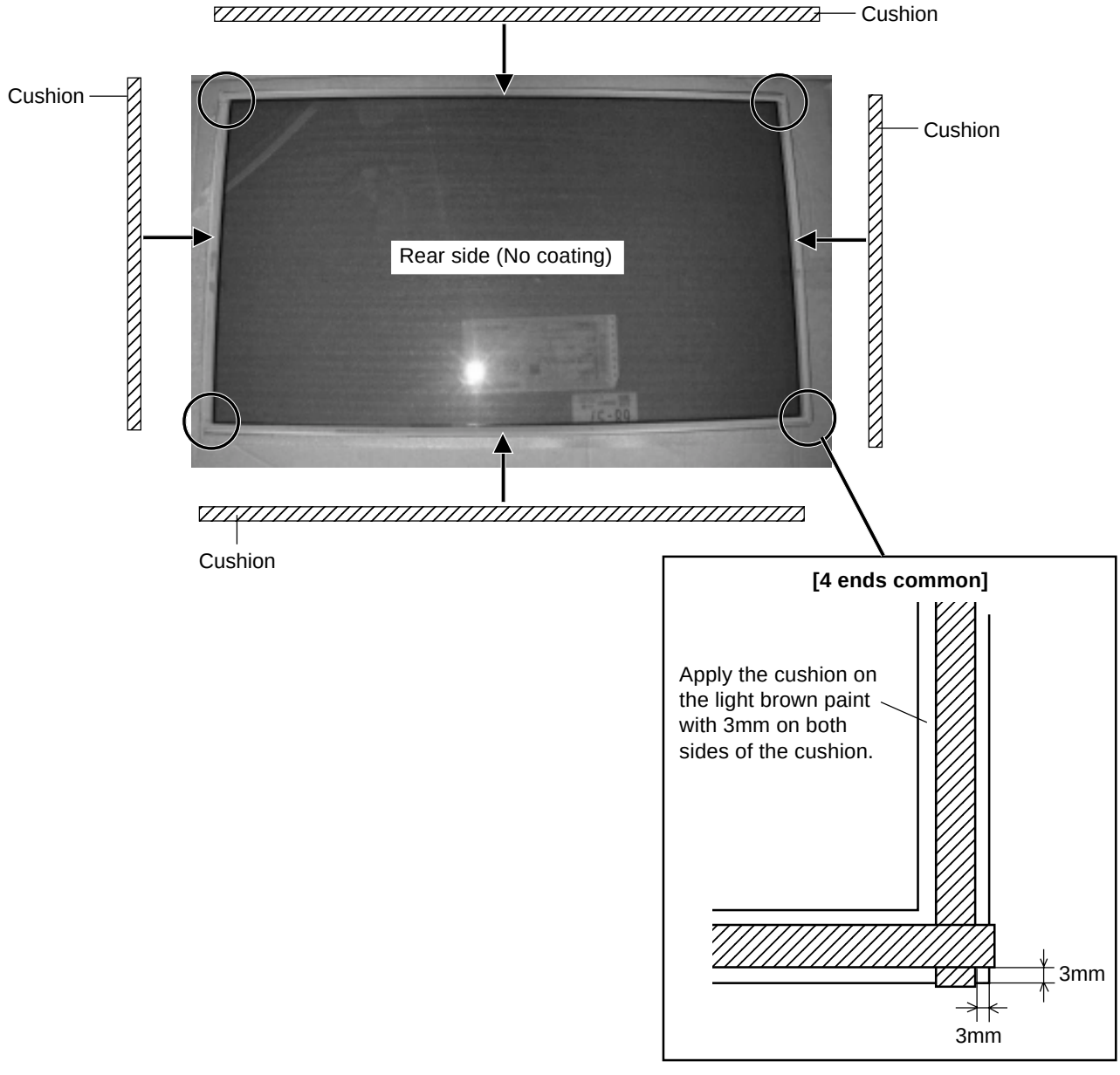
INSTALLATION METHOD OF PDP MODULE

NOTES FOR NEW PDP FILTER HANDLING

1. When you handle the PDP Filter, you must wear gloves to avoid soiling it with sweat and dust.
2. When you lift the PDP Filter, use the palm of your hand. Don't pick it up with your fingers.
3. The back side of the PDP Filter tends to get damaged, since there is no coating. Therefore, it needs to be put into the packing box at the time of delivery, even if it is not being used at the time. Also, when you take it out of the packing box, be careful not to rub the appearance.
4. When the surface becomes dirty, use a cloth which is soft and dust free and wipe it in a circular motion.
   When very dirty, lightly use alcohol on the cloth to wipe. Do not use alcohol for the back side.
5. Do not apply it to direct sunlight, the characteristics may change.
6. When you inspect for scratches and dirt, use a light to check for air bubbles on the PDP Filter surface.

1-6: PDP FILTER (PREPARATION)

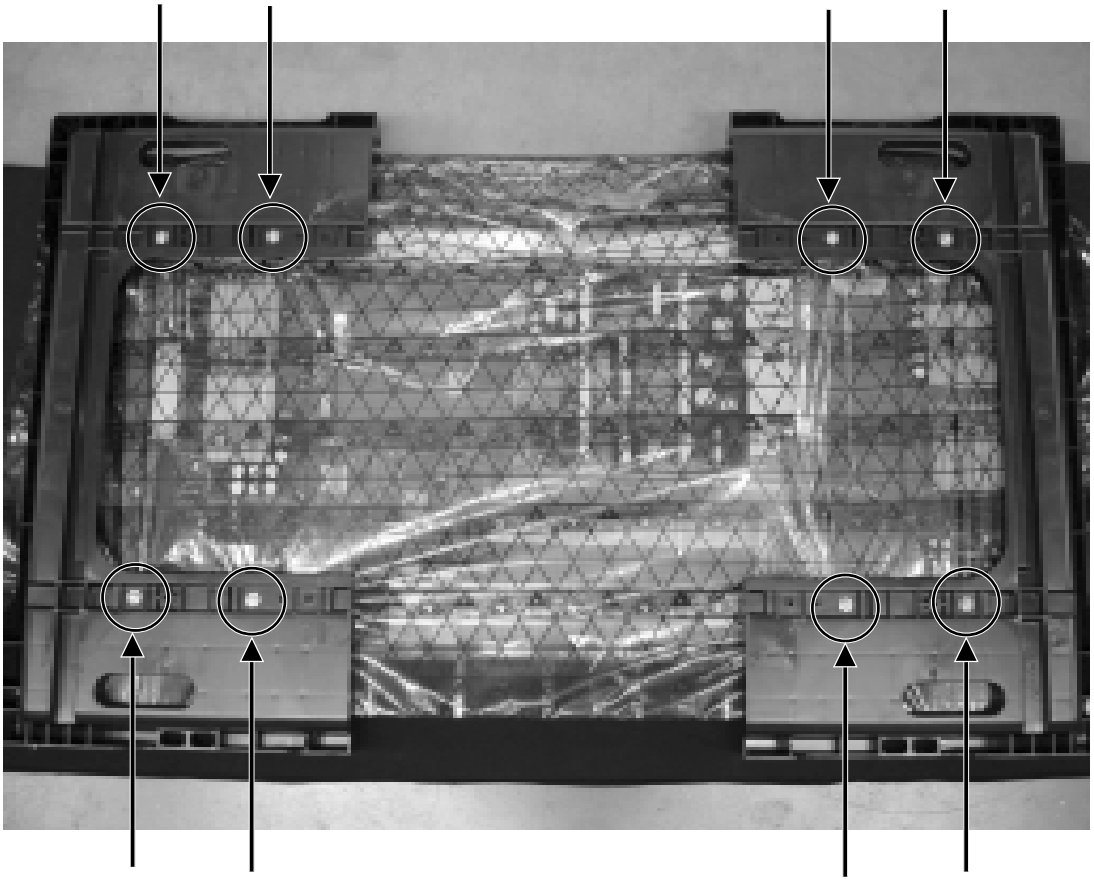
1. Fix the cushion. (Order the cushion new.)

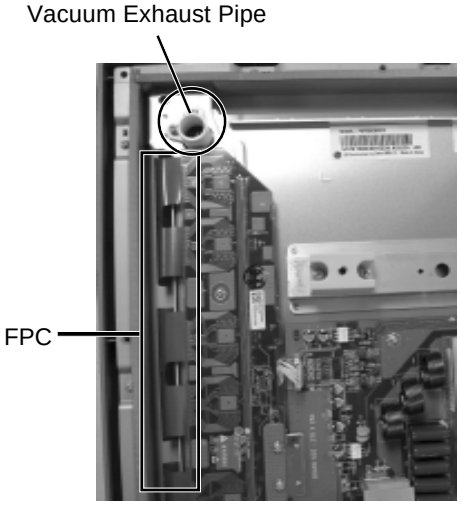


DISASSEMBLY INSTRUCTIONS

NOTES FOR NEW PDP MODULE HANDLING

1. Handle the PDP Module with 2 people.
2. There is a step difference between the cover and the PDP Module, so when you remove the screws, place a cushion on it to keep the PDP Module from being scratched. Then remove the screws carefully.
3. When you remove the cover, do not scratch the FPC on both ends of PDP Module.
4. Hold all four ends of the holder and be careful not to touch the glass area.
5. Be careful not to damage the vacuum exhaust pipe.
6. Moisture condensation may damage the PDP Module, so leave it in the service room for 48 hours.
7. Reuse the cover, vinyl sheet and screws when returning the PDP Module.



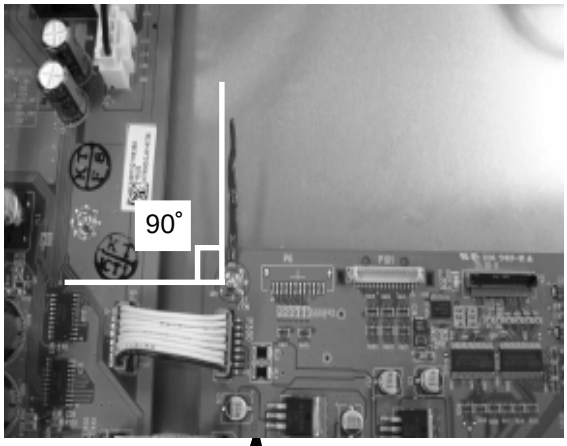


DISASSEMBLY INSTRUCTIONS

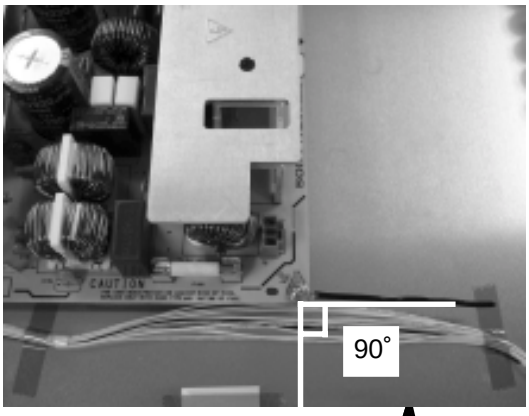
1-7: PDP MODULE (PREPARATION)

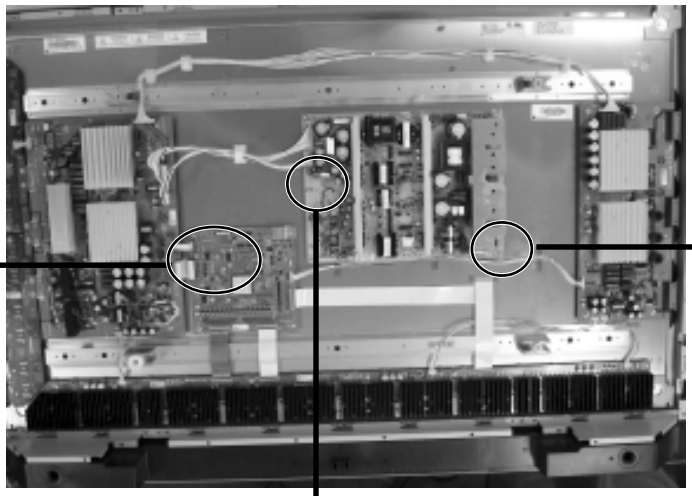
1. Remove the fixing screw of PCB.
2. Assemble the Wiring Clip. (Use the clips on defective PDP Module)
3. Assemble the Cord Clip. (Use the clips on defective PDP Module)

Cord Clip



Wiring Clip



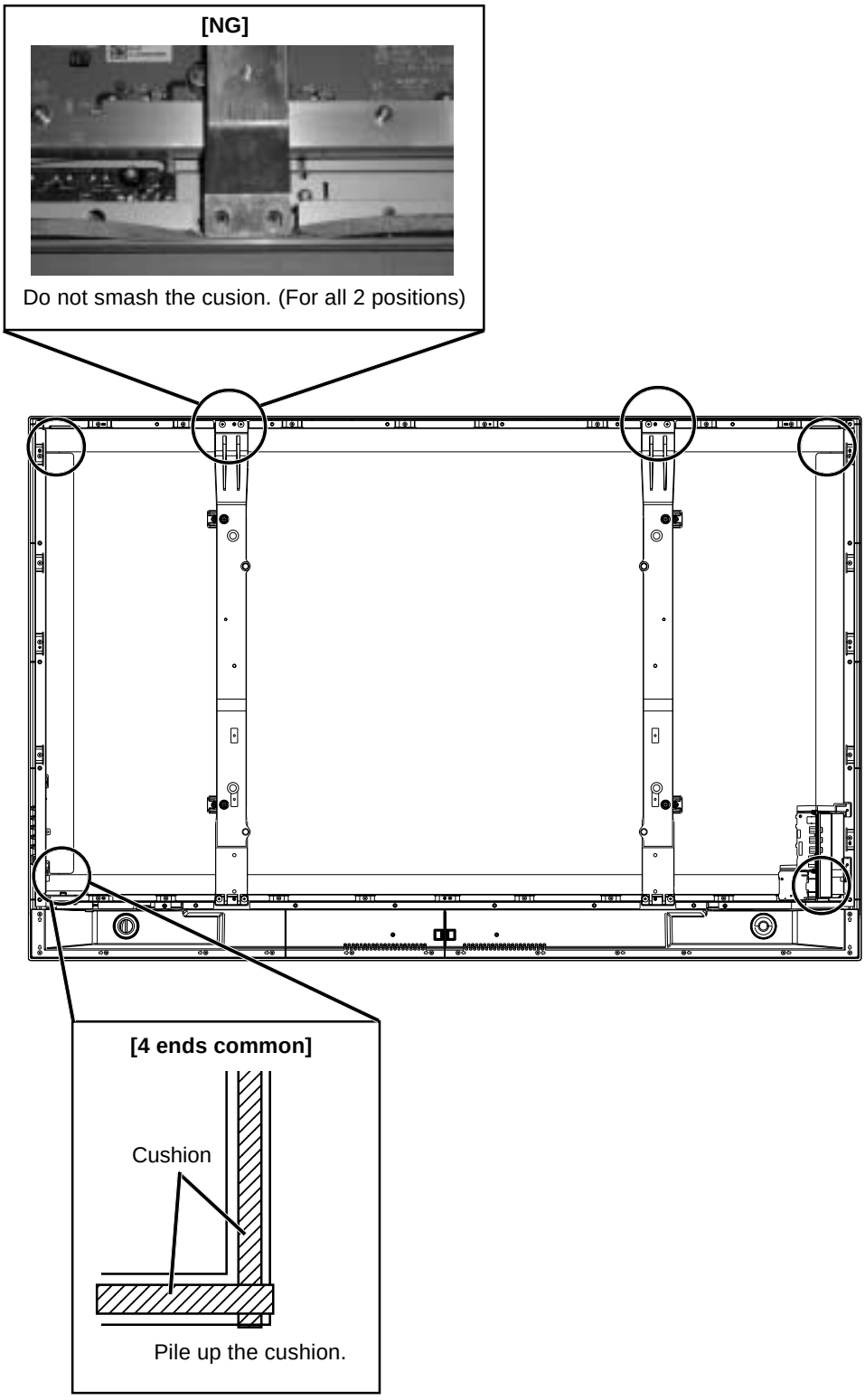


Set CN201 (24V)

DISASSEMBLY INSTRUCTIONS

1-8: PDP MODULE

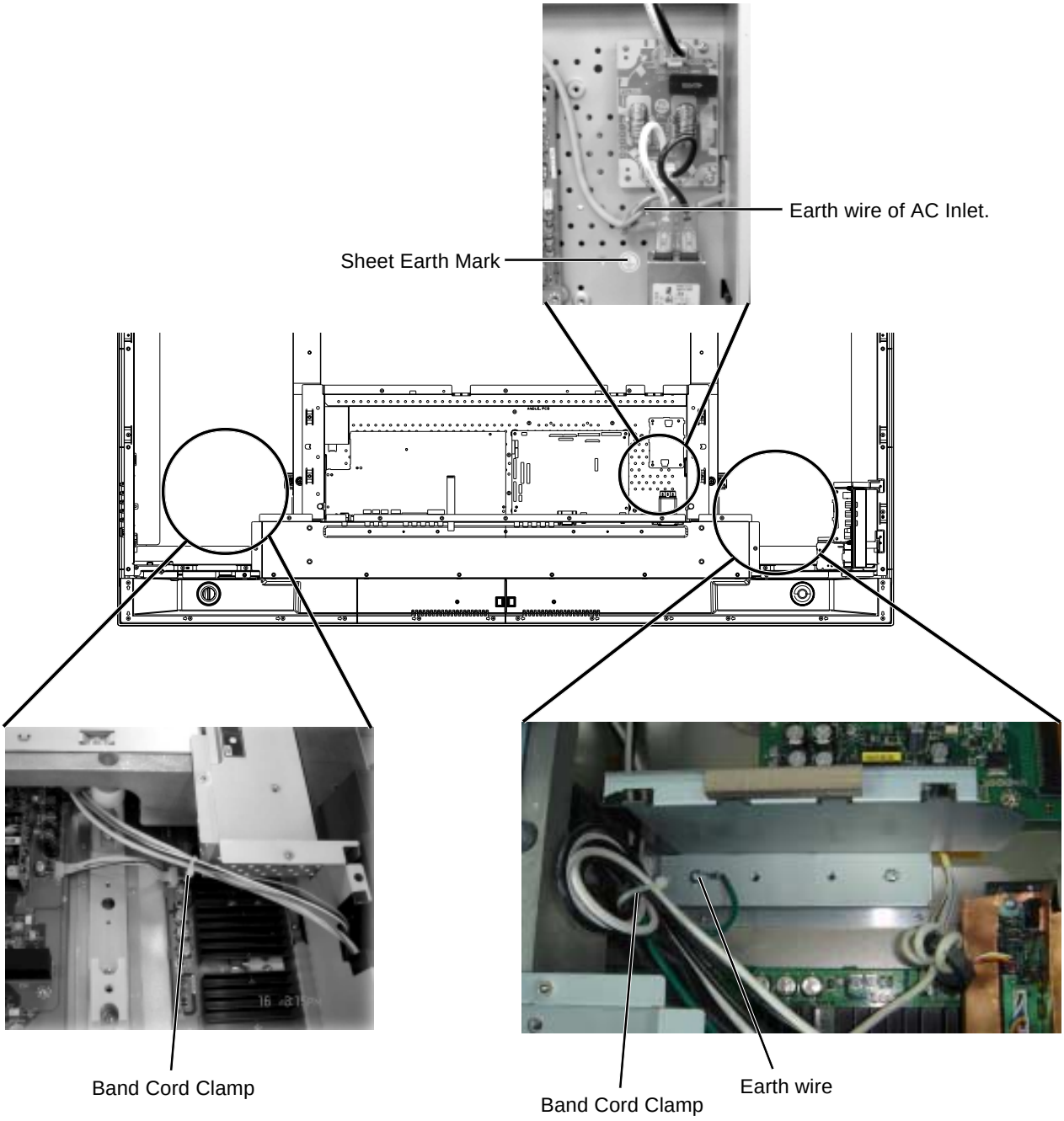
1. Assemble the Frame Main. (Use the clips on defective PDP Module)
2. Install the PDP Filter on the set.
3. Install the Shield Main on the set.
4. Hold the Frame Main carefully and install the New PDP Module on the set.
5. Install the Side Jack on the set.



DISASSEMBLY INSTRUCTIONS

1-9: CHASSIS BLOCK

1. Do the wire fixing as shown in the photo, then install the Chassis Ass'y.
2. Install the Stand Ass'y.



1-10: CABINET BACK/COVER BACK

1. Check if the wire handlings are correct.
2. Check if the cushion positions are correct.
3. Check if the tape positions are correct.
4. Install the Cabinet Back and Cover Back.

DISASSEMBLY INSTRUCTIONS

2. 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. 2-1.)**

   NOTE

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

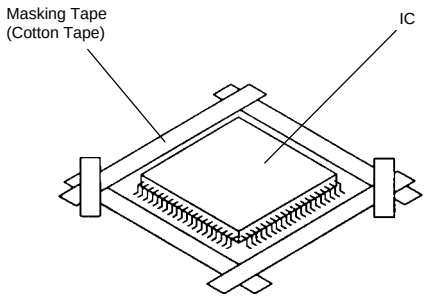


Fig. 2-1

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

   NOTE

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

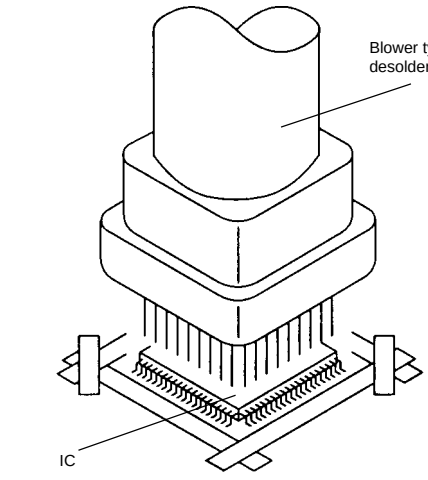


Fig. 2-2

3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using a tweezers and remove the IC by moving with the IC desoldering machine. **(Refer to Fig. 2-3.)**

   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.

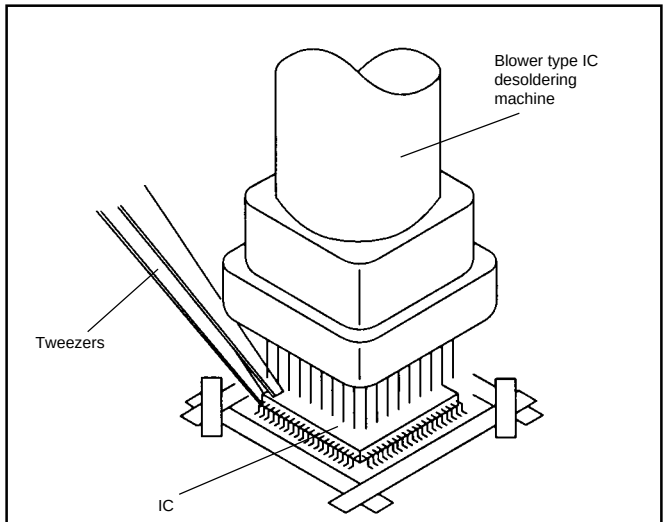


Fig. 2-3

4. Peel off the Masking Tape.

5. Absorb the solder left on the pattern using the Braided Shield Wire. **(Refer to Fig. 2-4.)**

   NOTE

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

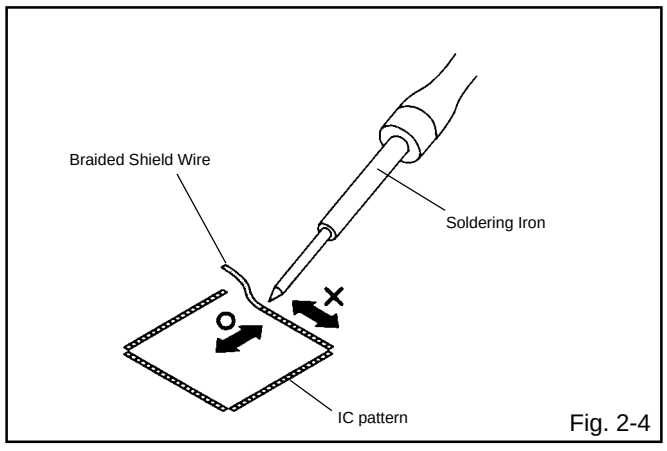


Fig. 2-4

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. 2-5.)**

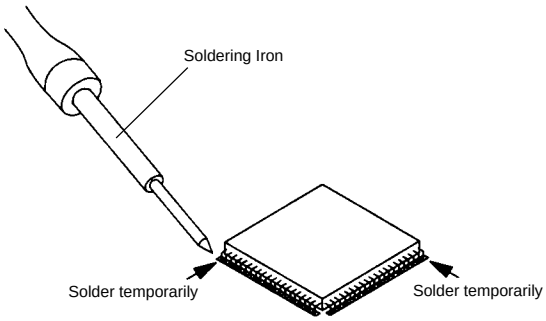


Fig. 2-5

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

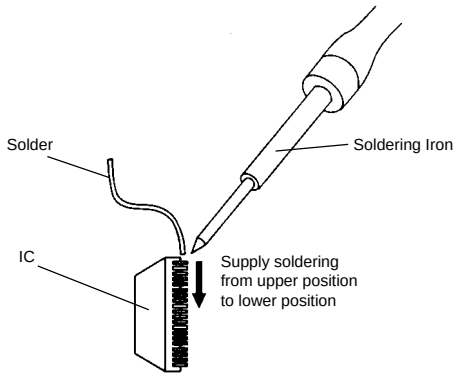


Fig. 2-6

3. Absorb the solder left on the lead using the Braided Shield Wire. **(Refer to Fig. 2-7.)**

   NOTE

   Do not absorb the solder to excess.

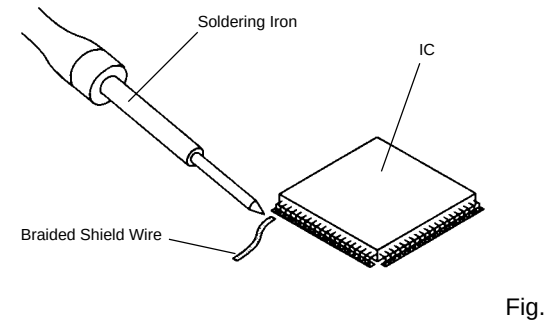


Fig. 2-7

4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thin-tip Soldering Iron. **(Refer to Fig. 2-8.)**

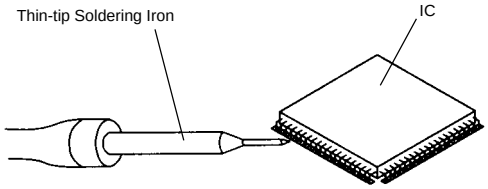


Fig. 2-8

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 the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remocon Key	Standard Time	Operations
TV mode	VOL. DOWN (Minimum)	0	2 sec.	Releasing of V-CHIP PASSWORD.
TV mode	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.
TV mode	VOL. DOWN (Minimum)	6	2 sec.	Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
ALL mode	VOL. DOWN (Minimum)	8	2 sec.	Check of the SUM DATA, POWER ON total hours, MICON VERSION on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
ALL mode	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, MICON VERSION .

Initial total of MEMORY IC, POWER ON total hours, 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, POWER ON total hours, MICON VERSION , turn off the power.

*1 DVP1 is different according to each set.

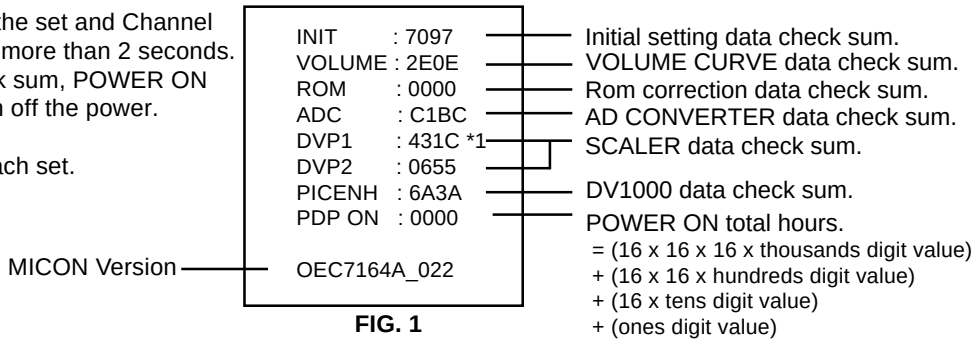


FIG. 1

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.

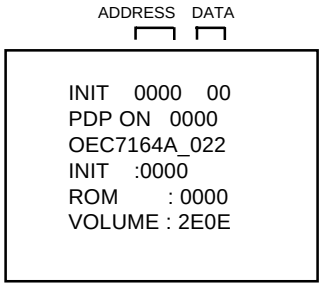


FIG. 2

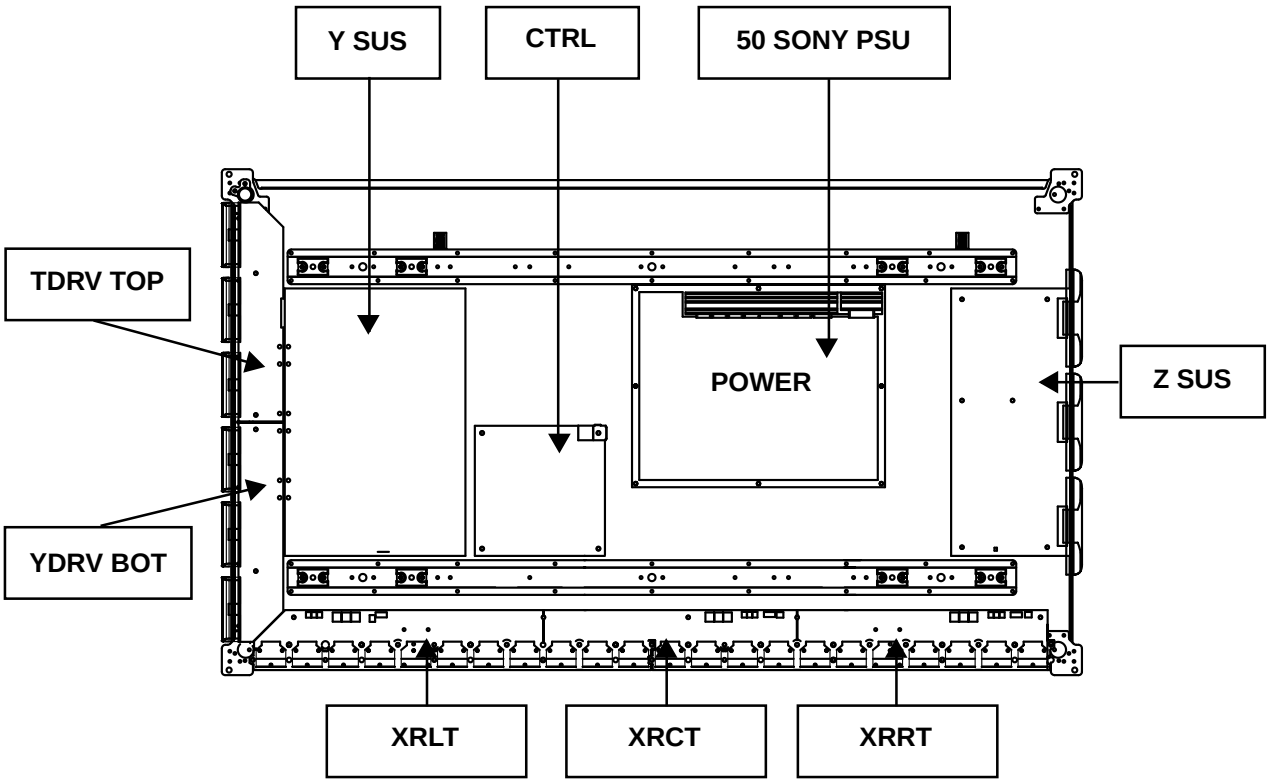
4. ADDRESS is now selected and should "blink". Using the UP/DOWN buton on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press RIGHT/LEFT button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing RIGHT/LEFT 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 POWER on.
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.

FUNCTION OF PCB



50 SONY PSU	: A supplier which supplies voltage and current to each PCB and Panel.
Y SUS	: According to the timing provided from Panel Control, switches FETs and generates driving waveform signal which is provided to Y electrode through Scan Driver IC of TDRV TOP and TDRV BOT.
Z SUS	: According to the timing provided from Panel Control, switches FETs and generates driving waveform signal which is provided to Z electrode through Connector.
CTRL	: Controls Y electrode, Z electrode, and ADDRESS electrode.
XRLT	: Generates Address electrode and supplies to Address electrode by Driver IC.
XRCT	: Generates Address electrode and supplies to Address electrode by Driver IC.
XRRT	: Generates Address electrode and supplies to Address electrode by Driver IC.
TDRV TOP	: Generates Scan electrode and supplies to Y electrode by Driver IC.
TDRV BOT	: Generates Scan electrode and supplies to Y electrode by Driver 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 on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).

Prepare the following measurement tools for electrical adjustments.

1. Pattern Generator

2. BASIC ADJUSTMENTS

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. 2-1**.

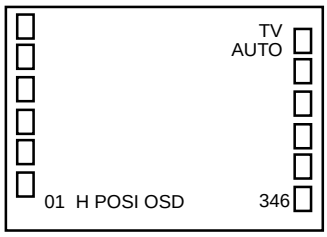


Fig. 2-1

3. Use the Channel UP/DOWN button or Channel button **(0-9)** on the remote control to select the options shown in **Fig. 2-2**.
4. Press the MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for AV, COMP, HDMI and PC mode, press the INPUT button on the remote control to set to the AV, COMP, HDMI and PC mode. 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
01	H POSI OSD	19	B DRIVE (W)
02	V POSI OSD	20	B CUT OFF (W)
03	R DRIVE (N)	22	H POSI 60Hz
04	R CUT OFF (N)	24	V POSI 60Hz
05	G DRIVE (N)	28	BRIGHT CENT
06	G CUT OFF (N)	29	BRIGHT MAX
07	B DRIVE (N)	30	BRIGHT MIN
08	B CUT OFF (N)	31	TINT
09	R DRIVE (C)	35	CONTRAST CENTER
10	R CUT OFF (C)	36	CONTRAST MAX
11	G DRIVE (C)	37	CONTRAST MIN
12	G CUT OFF (C)	38	COLOR CENT
13	B DRIVE (C)	39	COLOR MAX
14	B CUT OFF (C)	40	COLOR MIN
15	R DRIVE (W)		
16	R CUT OFF (W)		
17	G DRIVE (W)		
18	G CUT OFF (W)		

Fig. 2-2

2-1: CONTRAST MAX

1. Receive the monoscope pattern. (VIDEO Input)
2. Press the INPUT button on the remote control to set to the AV mode.
3. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(36)** 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 "155".
5. Check if the picture is normal.
6. Receive the monoscope pattern. (RF Input)
7. Press the INPUT button on the remote control to set to the TV mode.
8. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(36)** on the remote control to select "CONTRAST MAX".
9. Press the VOL UP/DOWN button on the remote control until the contrast step No. becomes "145".
10. Check if the picture is normal.
11. Receive the digital broadcast. (RF Input)
12. Perform the above adjustments 3 and 5.
13. Playback the DVD(480i) disc. (COMPONENT Input)
14. Press the INPUT button on the remote control to set to the COMP mode.
15. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(36)** 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. (HDMI Input)
19. Press the INPUT button on the remote control to set to the HDMI mode.
20. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(36)** on the remote control to select "CONTRAST MAX".
21. Press the VOL UP/DOWN button on the remote control until the contrast step No. becomes "130".
22. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

2-2: 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. Press the INPUT button on the remote control to set to the AV mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(03)** on the remote control to select “R DRIVE (N)”.
6. Press the CH. UP/DOWN button on the remote control to select the “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)”.
7. Adjust the VOL. UP/DOWN button on the remote control to whiten the 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.
8. Perform the above adjustments 6 and 7 until the white color is looked like a white.

2-3: BRIGHT CENT

1. Receive the monoscope pattern. (VIDEO Input)
2. Press the INPUT button on the remote control to set to the AV mode.
3. Set the screen mode to FULL.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 2-1** and press the channel button **(28)** on the remote control to select "BRIGHT CENT".
6. Press the VOL. UP/DOWN button on the remote control until the white 8.1% is starting to be visible.
7. Receive the monoscope pattern. (RF Input)
8. Press the INPUT button on the remote control to set to the TV mode. Then perform the above adjustments 4~6.
9. Receive the digital broadcast. (RF Input)
10. Perform the above adjustments 4~6.
11. Playback the DVD(480i) disc. (COMPONENT Input)
12. Press the INPUT button on the remote control to set to the YUV mode. Then perform the above adjustments 4~6.
13. Playback the DVD(480i) disc. (HDMI Input)
14. Press the INPUT button on the remote control to set to the HDMI mode. Then perform the above adjustments 4~6.

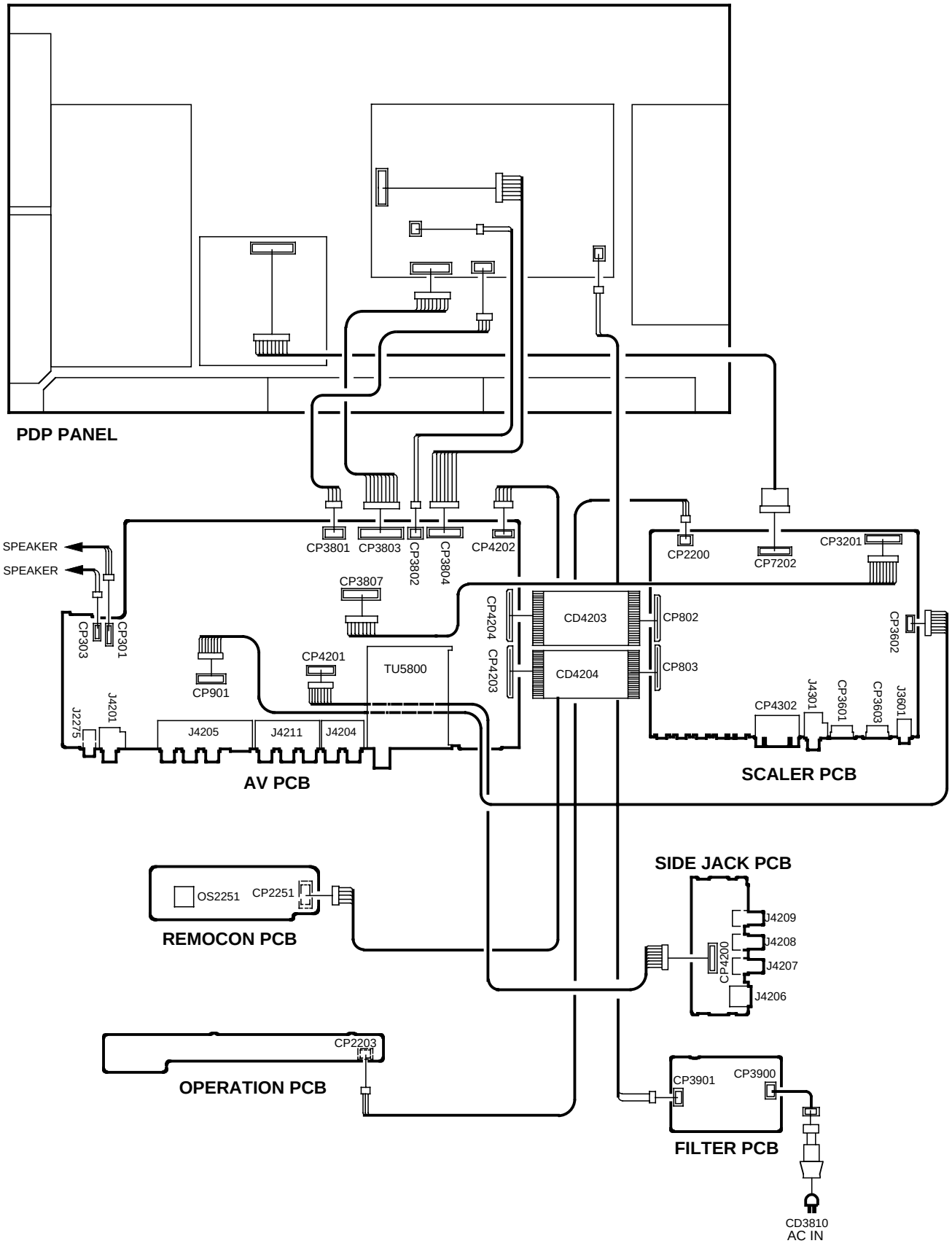
2-4: Confirmation of Fixed Value (Step No.)

Please check if the fixed values of each the adjustment items are set correctly referring below. **(TV/AV/COMPONENT/HDMI/PC)**

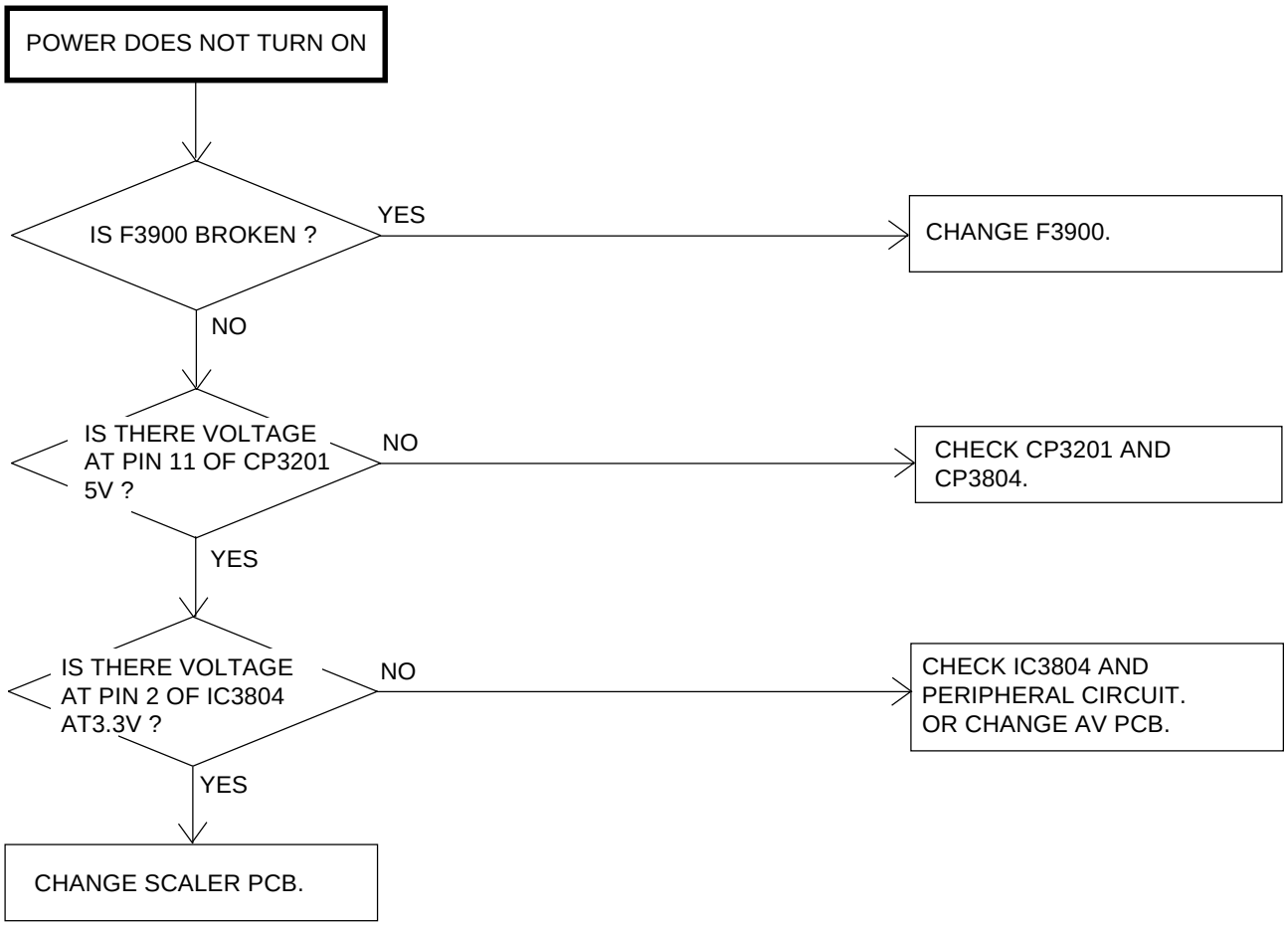
NO.	FUNCTION	TV	AV		COMPONENT				HD-MI					PC						
			CVBS	S(Y/C)	480i	480p	720p	1080i	480i	480p	720p	1080i	VGA	VGA 60*480	SVGA 800*600	XGA 1024*768	WXGA 1280*768	WXGA 1280*720	WVGA 848*480	WXGA 1360*768
		Step No.																		
1	H POSI OSD	346	346	346	346	346	346	346	346	346	346	346	346	346	346	346	346	346	346	346
2	V POSI OSD	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88
3	R DRIVE (N)	127	127	127	127	127	127	127	127	127	127	127	127	128	128	128	128	128	128	128
4	R CUT OFF (N)	133	133	133	133	133	133	133	133	133	133	133	133	…	…	…	…	…	…	…
5	G DRIVE (N)	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
6	G CUT OFF (N)	128	128	128	128	128	128	128	128	128	128	128	128	…	…	…	…	…	…	…
7	B DRIVE (N)	129	129	129	129	129	129	129	129	129	129	129	129	128	128	128	128	128	128	128
8	B CUT OFF (N)	131	131	131	131	131	131	131	131	131	131	131	131	…	…	…	…	…	…	…
9	R DRIVE (C)	125	125	125	125	125	125	125	125	125	125	125	125	…	…	…	…	…	…	…
10	R CUT OFF (C)	132	132	132	132	132	132	132	132	132	132	132	132	…	…	…	…	…	…	…
11	G DRIVE (C)	128	128	128	128	128	128	128	128	128	128	128	128	…	…	…	…	…	…	…
12	G CUT OFF (C)	128	128	128	128	128	128	128	128	128	128	128	128	…	…	…	…	…	…	…
13	B DRIVE (C)	132	132	132	132	132	132	132	132	132	132	132	132	…	…	…	…	…	…	…
14	B CUT OFF (C)	130	130	130	130	130	130	130	130	130	130	130	130	…	…	…	…	…	…	…
15	R DRIVE (W)	131	131	131	131	131	131	131	131	131	131	131	131	…	…	…	…	…	…	…
16	R CUT OFF (W)	130	130	130	130	130	130	130	130	130	130	130	130	…	…	…	…	…	…	…
17	G DRIVE (W)	128	128	128	128	128	128	128	128	128	128	128	128	…	…	…	…	…	…	…
18	G CUT OFF (W)	128	128	128	128	128	128	128	128	128	128	128	128	…	…	…	…	…	…	…
19	B DRIVE (W)	121	121	121	121	121	121	121	121	121	121	121	121	…	…	…	…	…	…	…
20	B CUT OFF (W)	130	130	130	130	130	130	130	130	130	130	130	130	…	…	…	…	…	…	…
22	H POSI 60Hz	280	280	280	282	140	312	260	284	142	278	214	142	110	88	230	190	190	110	366
24	V POSI 60Hz	26	26	26	26	30	26	26	26	26	24	24	26	26	24	26	19	18	26	16
28	BRIGHT CENT	107	107	107	107	115	115	115	95	95	95	95	95	103	103	103	103	103	103	103
29	BRIGHT MAX	185	185	185	185	185	185	185	185	185	185	185	140	140	140	140	140	140	140	140
30	BRIGHT MIN	60	60	60	60	60	60	60	60	60	60	60	60	30	30	30	30	30	30	30
31	TINT	117	117	117	121	126	126	126	123	123	123	123	123	…	…	…	…	…	…	…
35	CONTRAST CENTER	128	128	128	128	128	128	128	128	128	128	128	128	80	80	80	80	80	80	80
36	CONTRAST MAX	145	145	145	162	155	155	155	130	130	130	130	130	100	100	100	100	100	100	100
37	CONTRAST MIN	70	70	70	70	70	70	70	70	70	70	70	70	64	64	64	64	64	64	64
38	COLOR CENT	80	80	80	106	56	56	56	78	78	78	78	78	…	…	…	…	…	…	…
39	COLOR MAX	180	180	180	180	180	180	180	180	180	180	180	180	…	…	…	…	…	…	…
40	COLOR MIN	0	0	0	0	0	0	0	0	0	0	0	0	…	…	…	…	…	…	…

ELECTRICAL ADJUSTMENTS

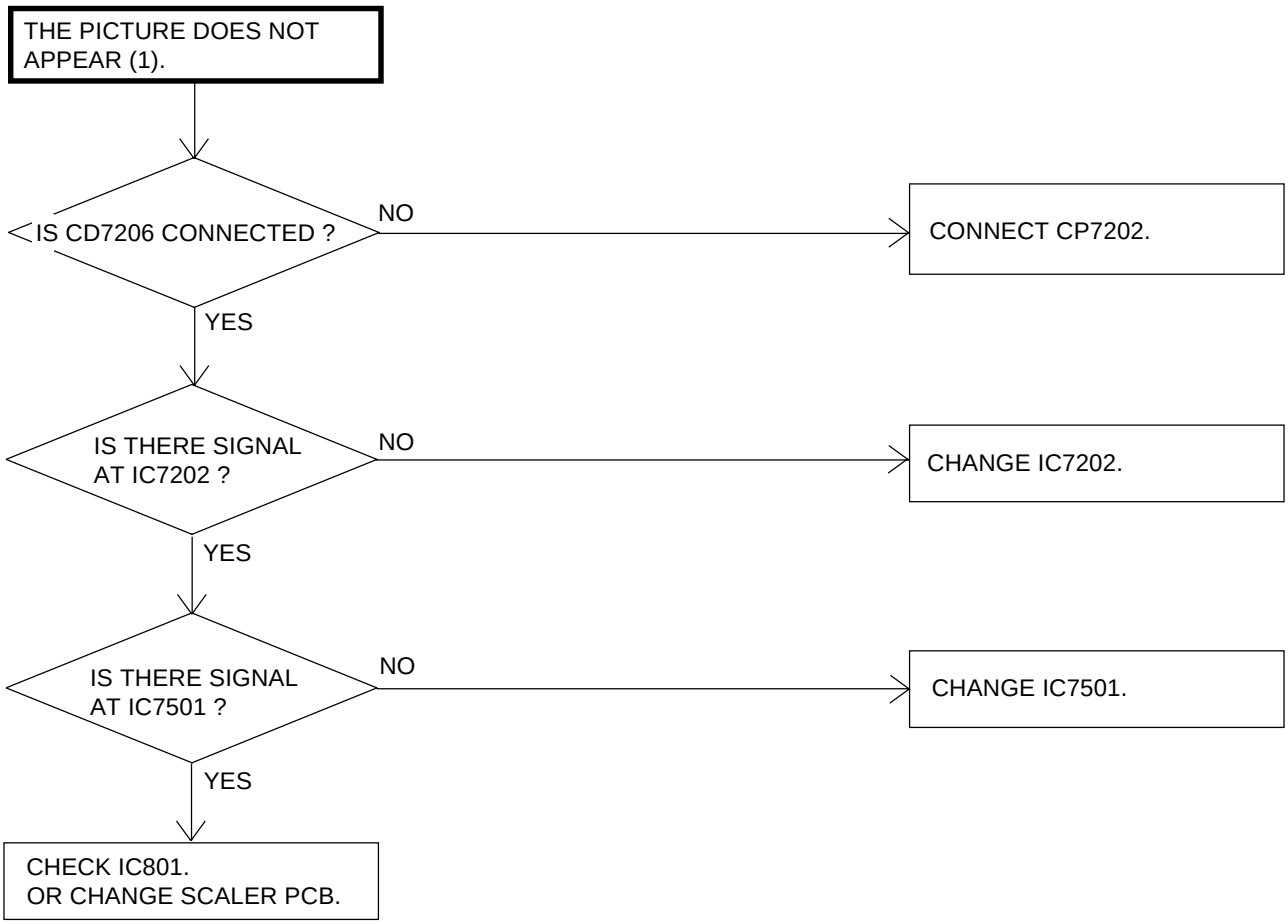
3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)



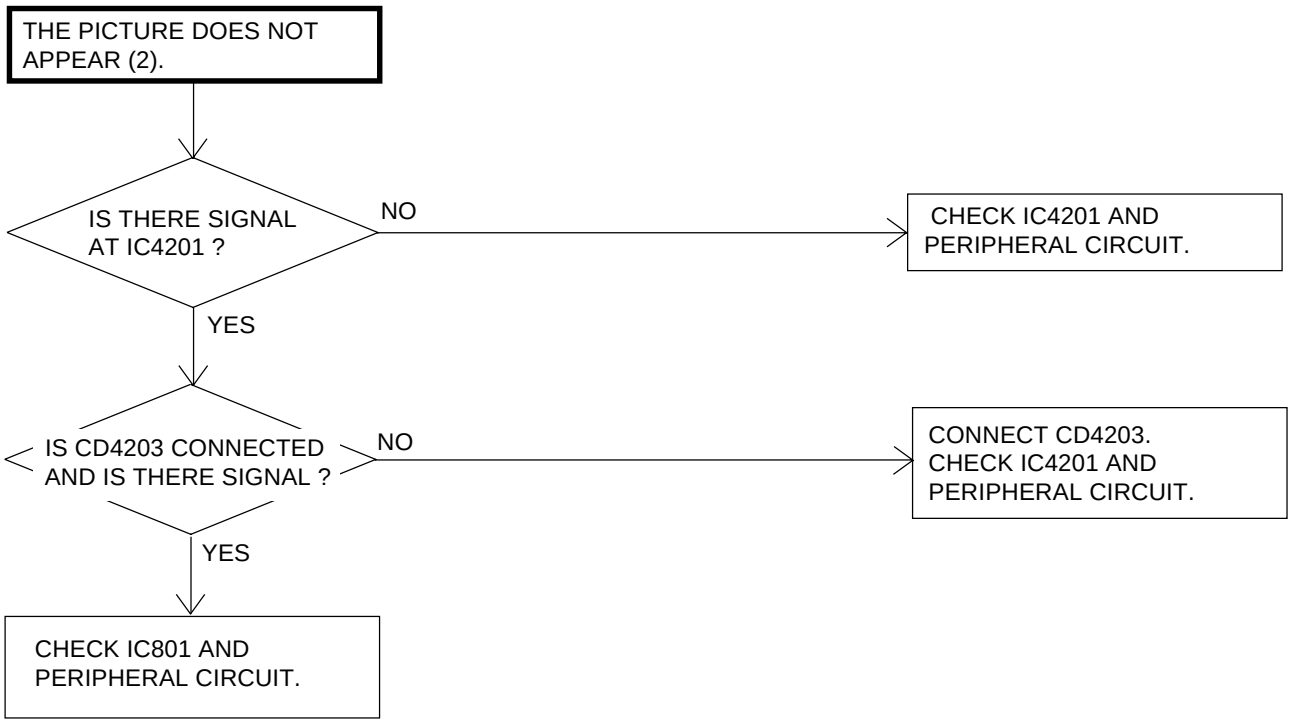
TROUBLESHOOTING GUIDE



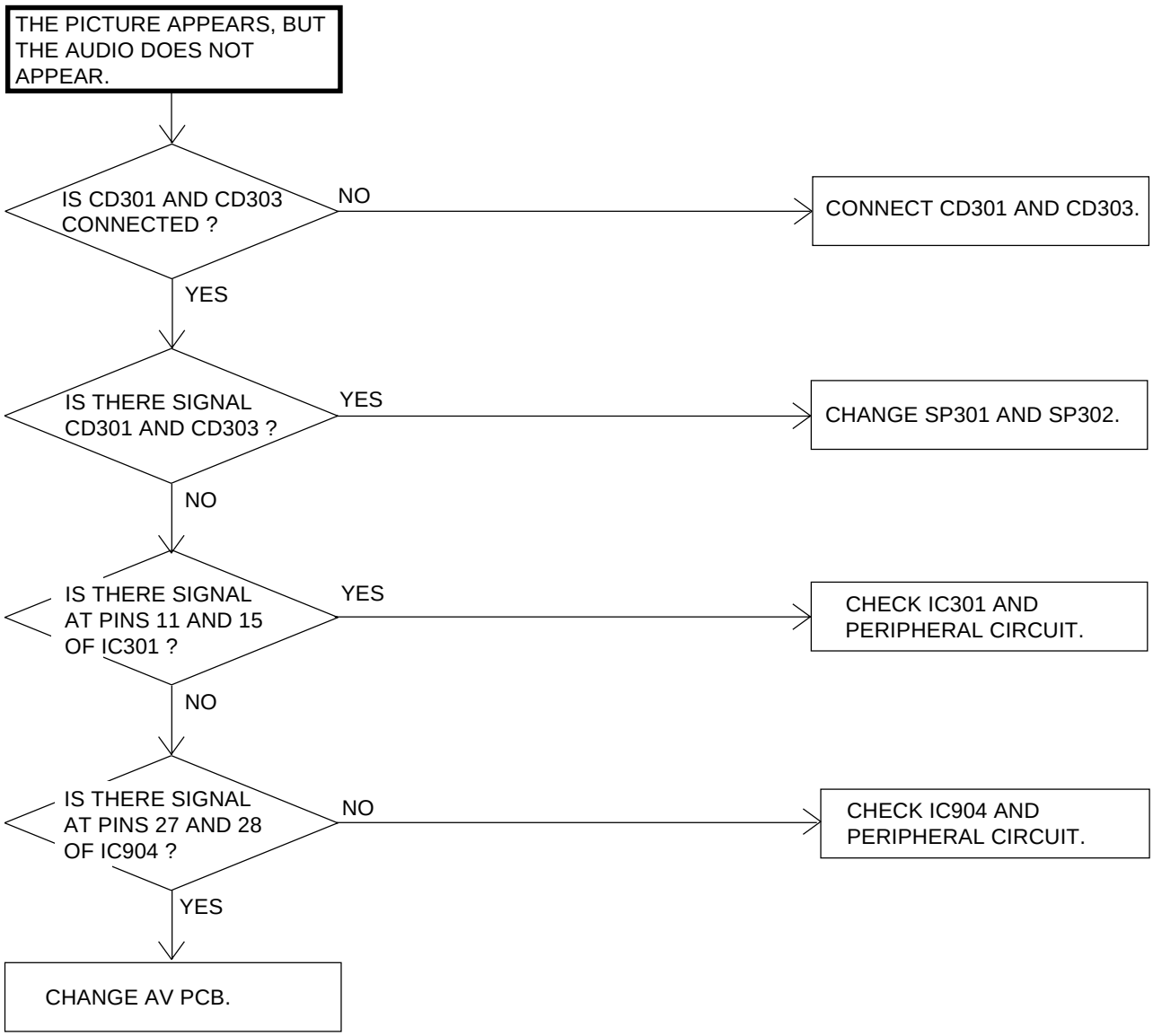
TROUBLESHOOTING GUIDE



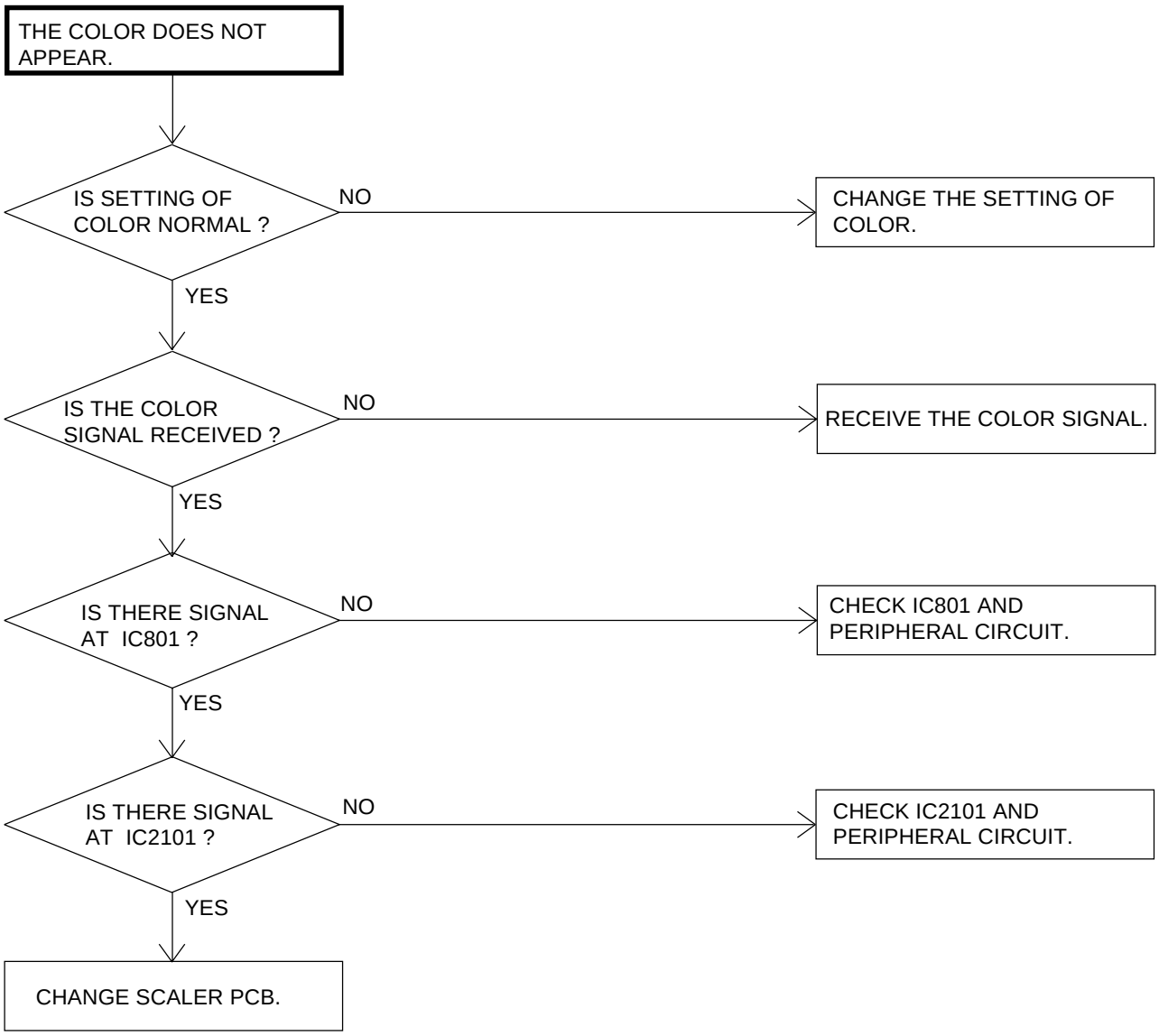
TROUBLESHOOTING GUIDE



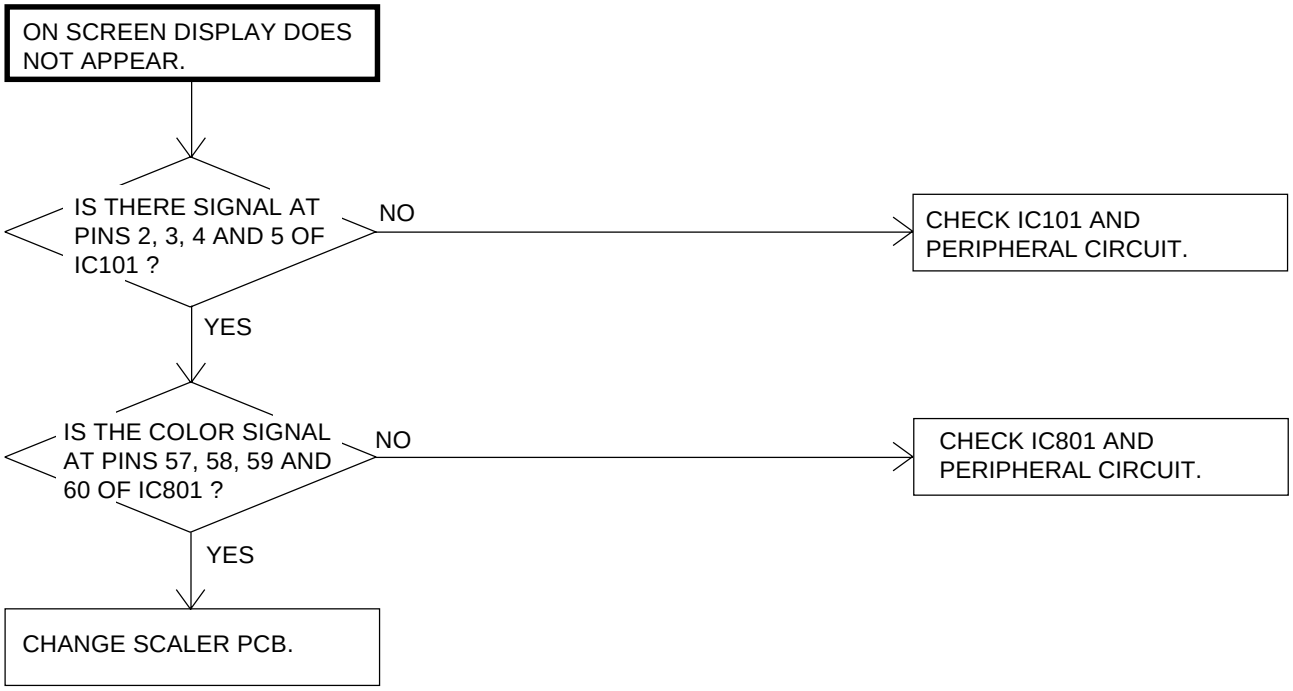
TROUBLESHOOTING GUIDE



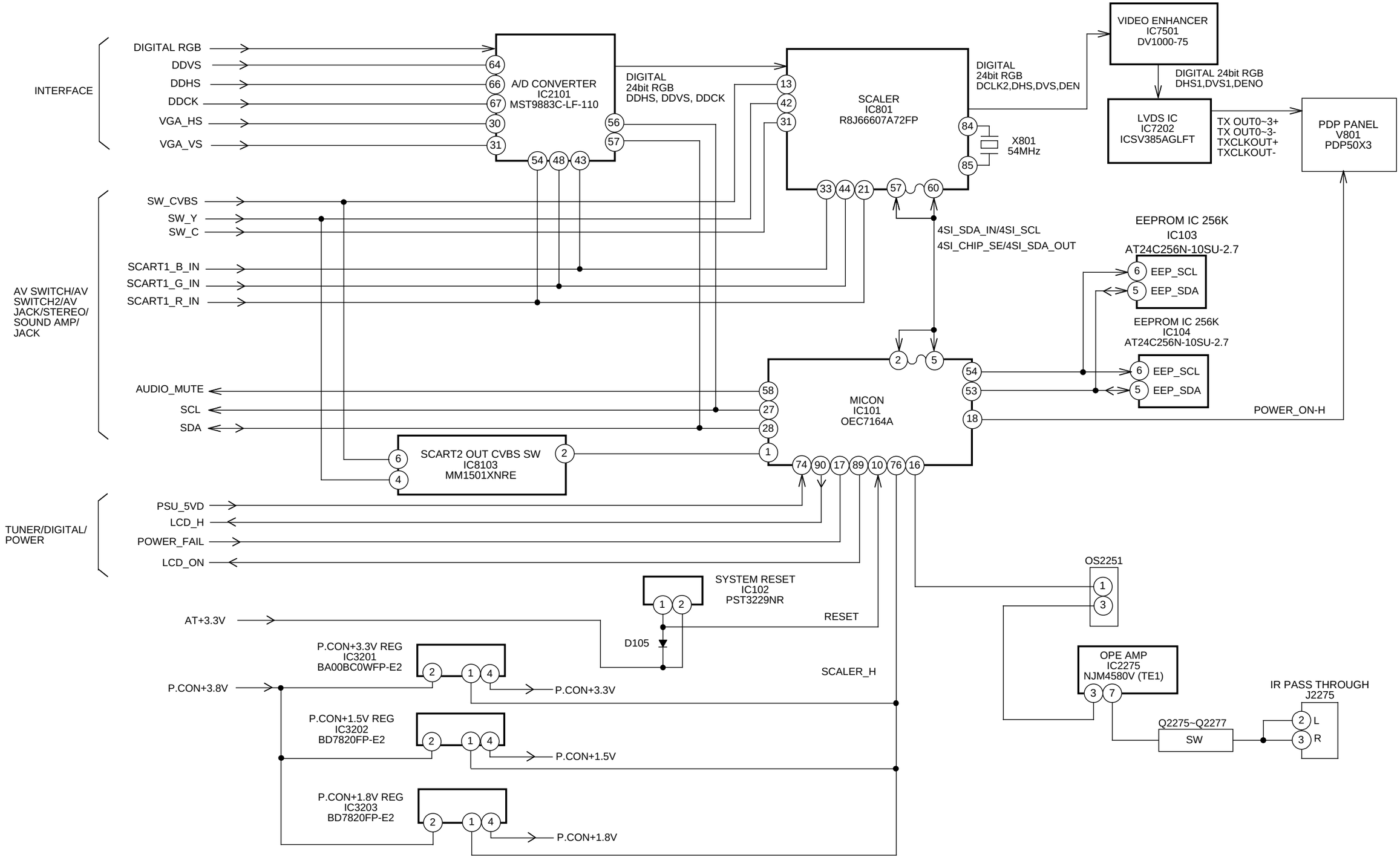
TROUBLESHOOTING GUIDE



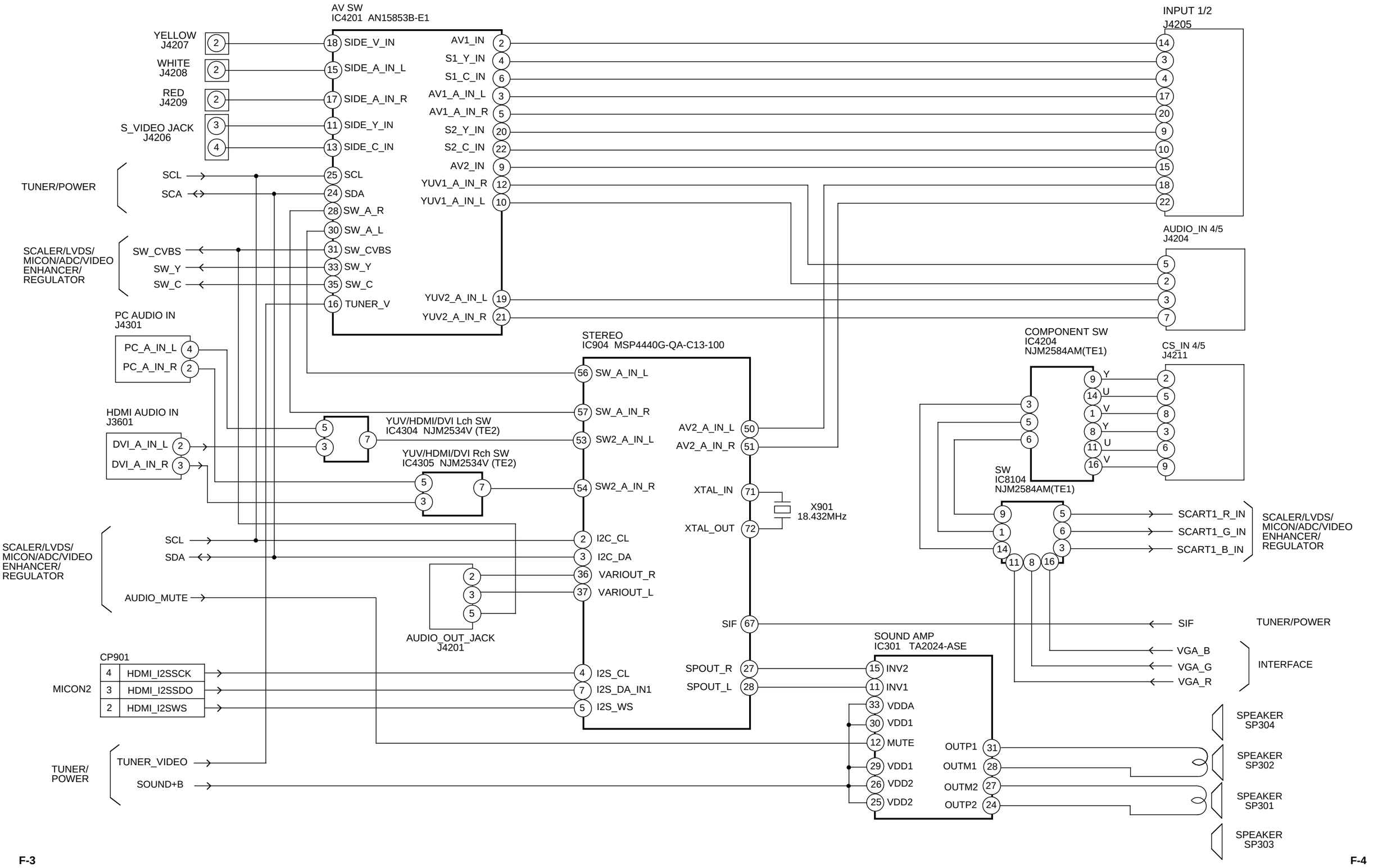
TROUBLESHOOTING GUIDE



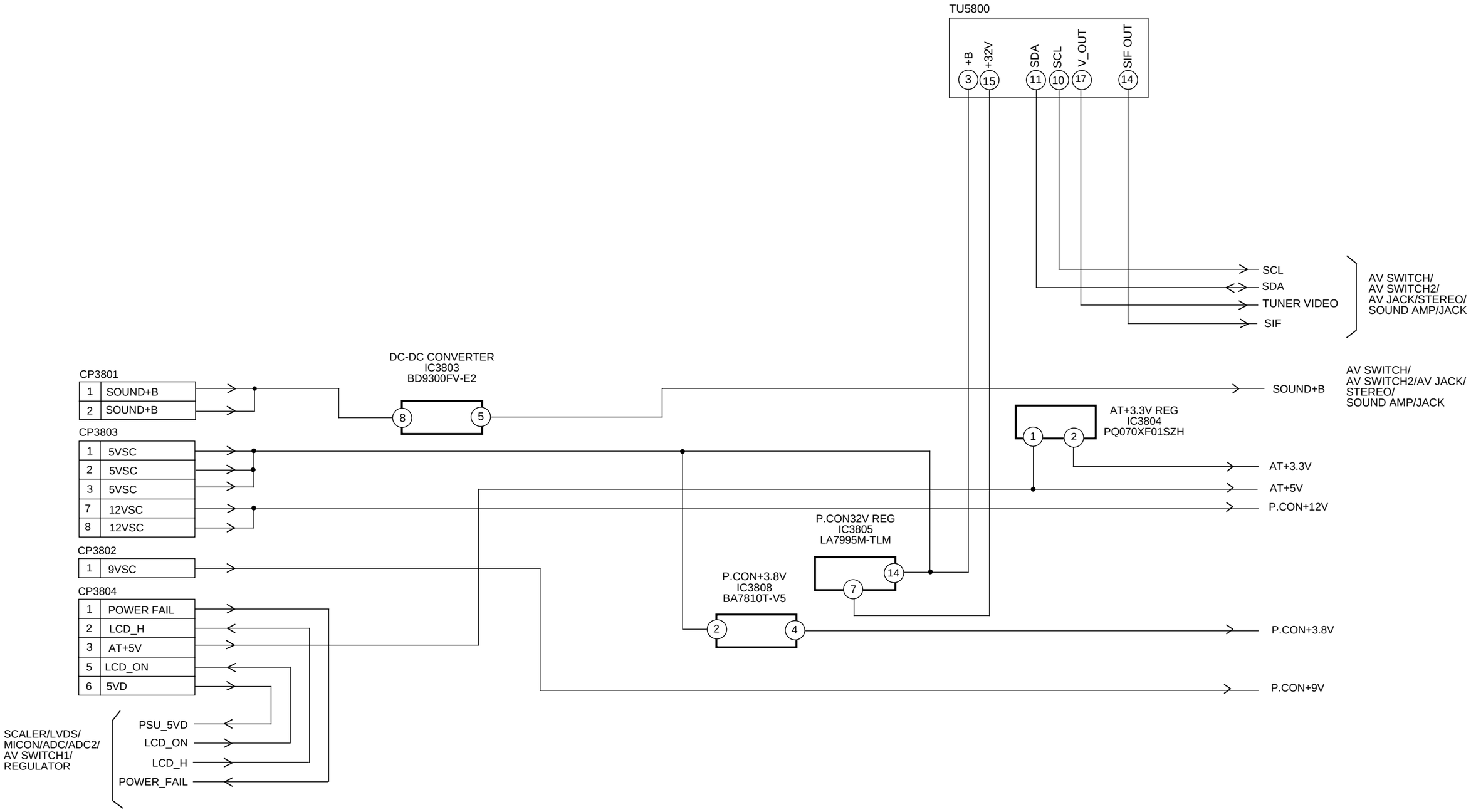
SCALER/LVDS/MICON/ADC/VIDEO ENHANCER/REGULATOR BLOCK DIAGRAM



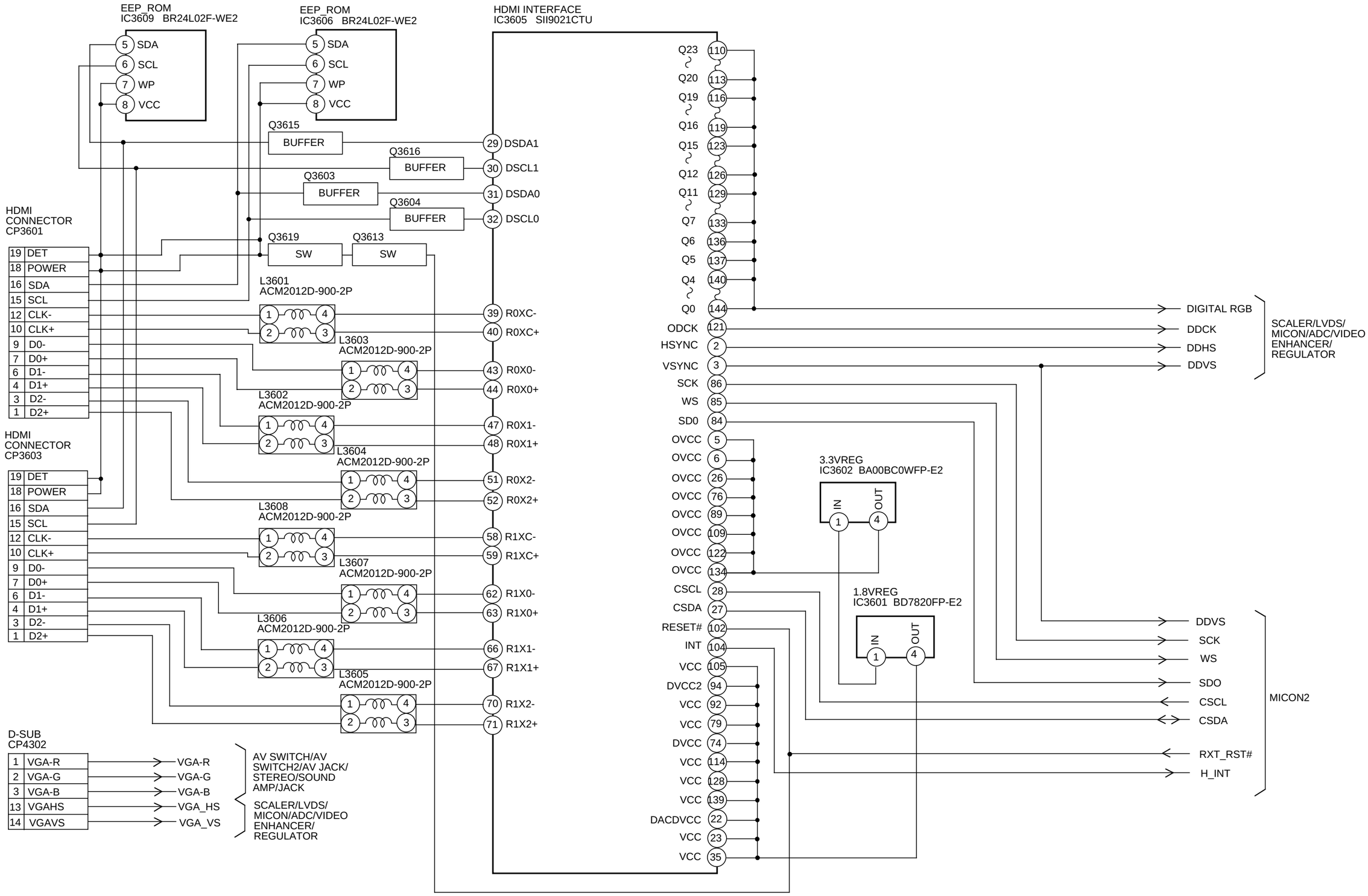
AV SWITCH/AV SWITCH2/AV JACK/STEREO/SOUND AMP/JACK BLOCK DIAGRAM



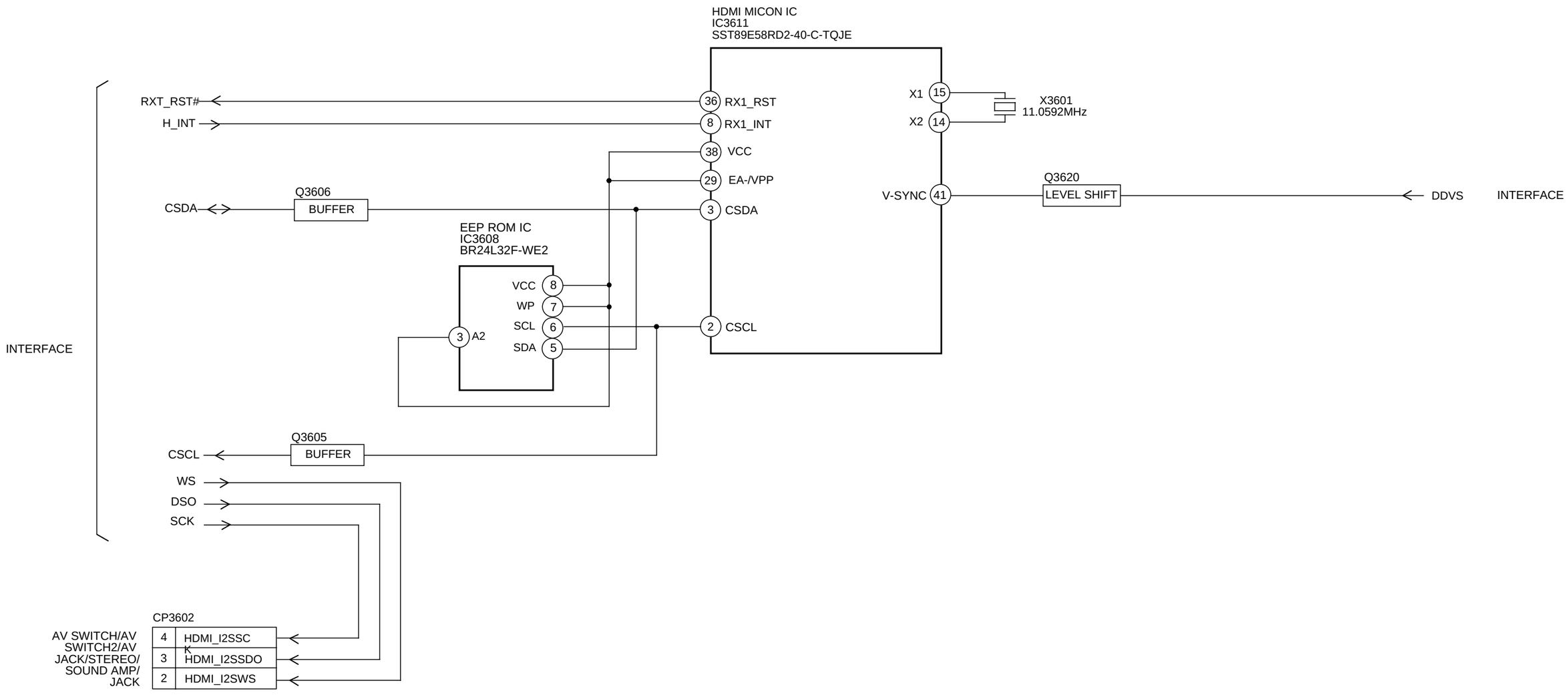
TUNER/POWER BLOCK DIAGRAM



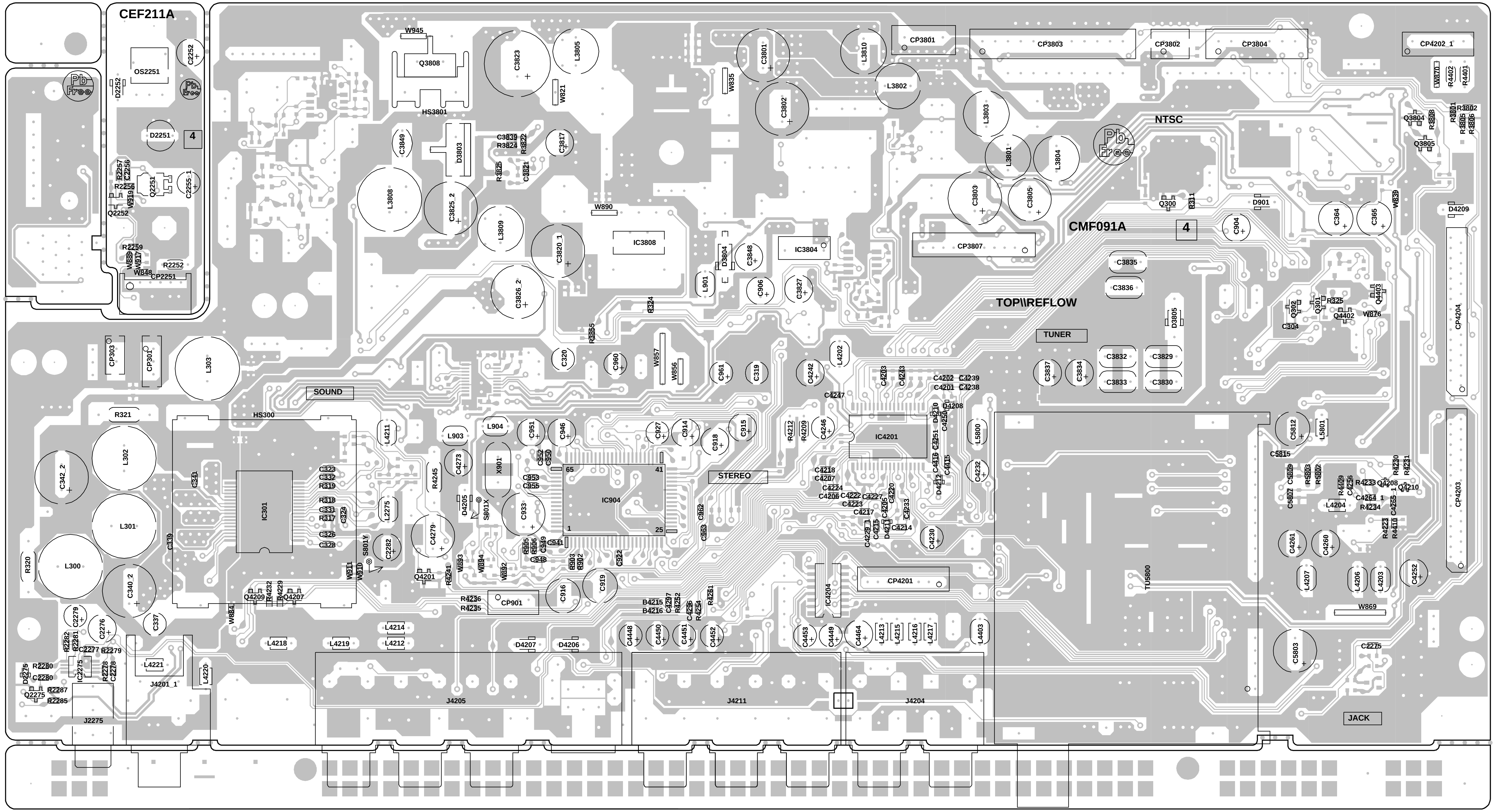
INTERFACE BLOCK DIAGRAM



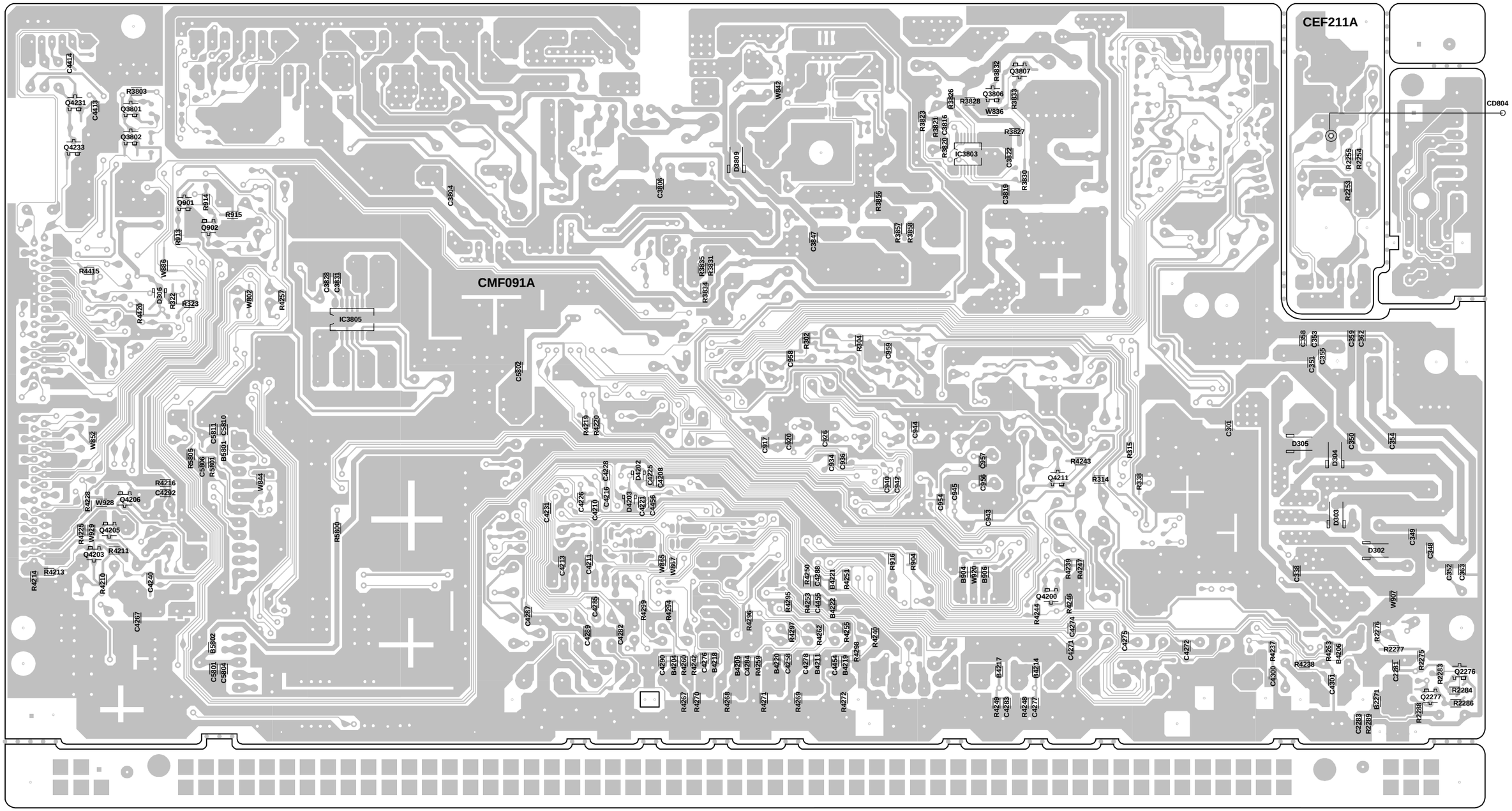
MICON2 BLOCK DIAGRAM



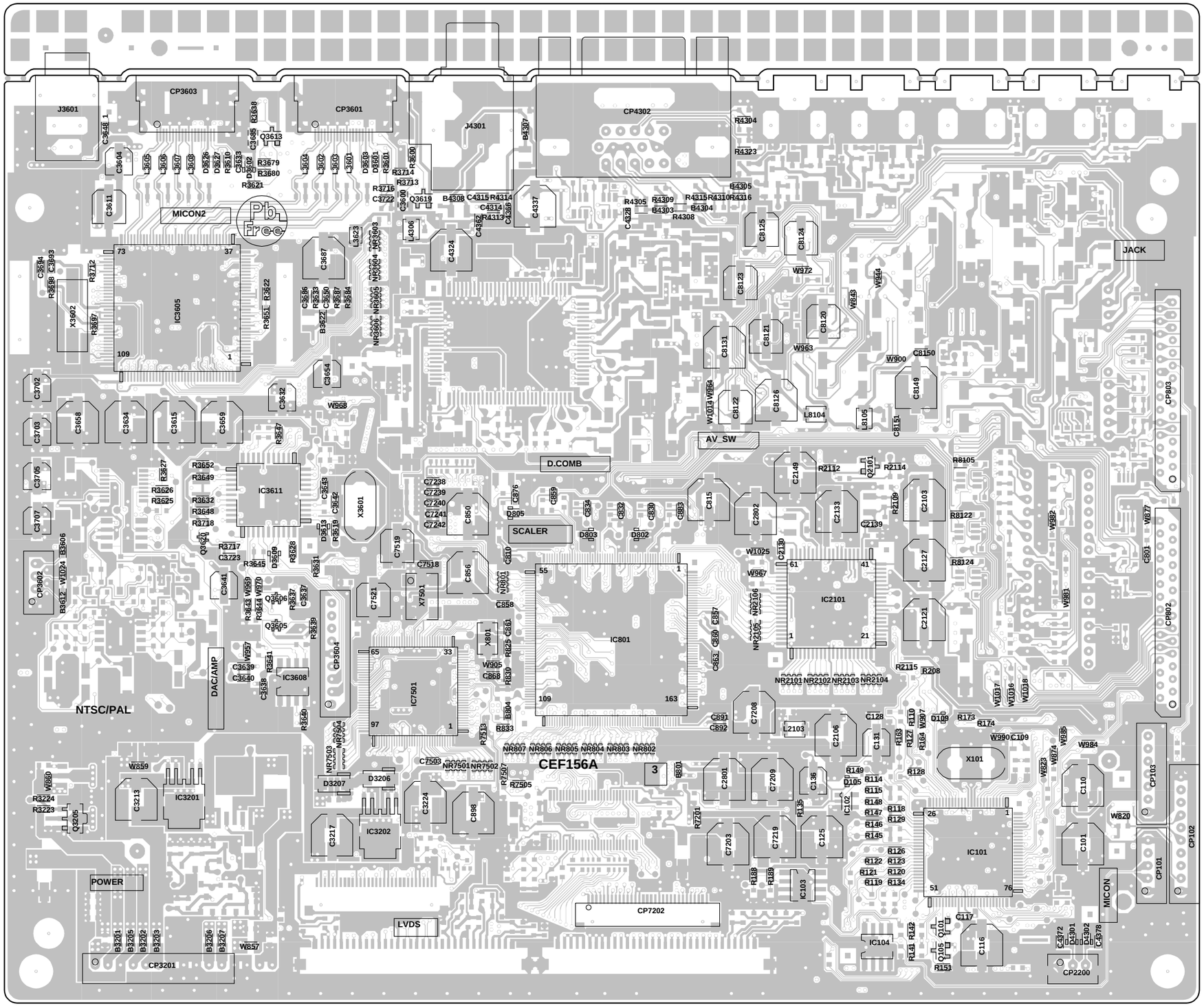
PRINTED CIRCUIT BOARDS
AV/REMOCON (TOP SIDE)



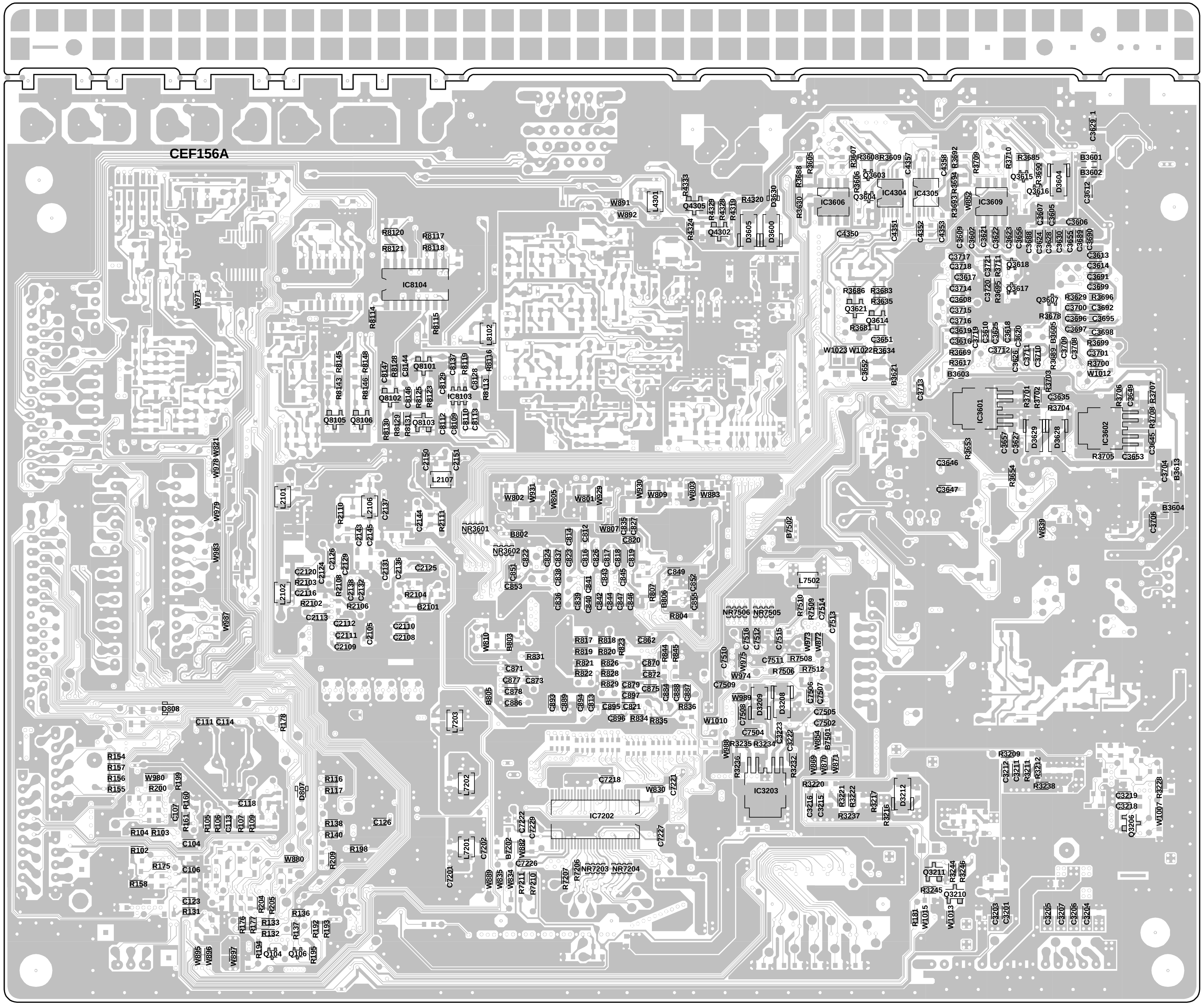
PRINTED CIRCUIT BOARDS
AV/REMOCON (BOTTOM SIDE)



PRINTED CIRCUIT BOARDS
SCALER (TOP SIDE)

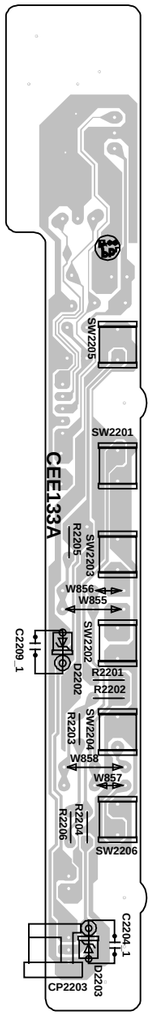


PRINTED CIRCUIT BOARDS
SCALER (BOTTOM SIDE)

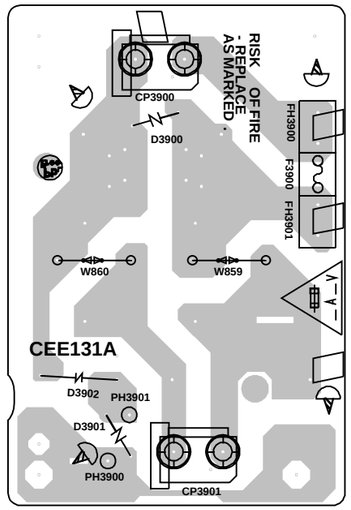


PRINTED CIRCUIT BOARDS

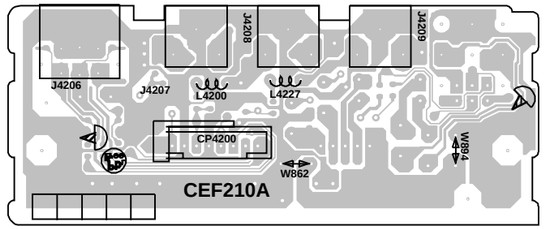
OPERATION
SOLDER SIDE



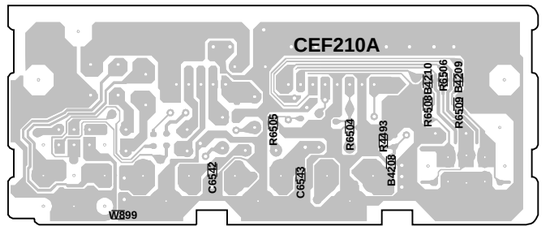
FILTER
SOLDER SIDE



SIDER JACK (INSERTED PARTS)
SOLDER SDIDE



SIDER JACK (CHIP MOUNTED PARTS)
SOLDER SDIDE



AV SWITCH2 SCHEMATIC DIAGRAM

(AV PCB)

TR4205 ZCAT3035-1330
TR4203 ZCAT2436-1330A
TR4201 W5T29X7.5X19
TR4202 W5T29X7.5X19
TR4205 ZCAT3035-1330
TR3806 ZCAT2436-1330A
TR3805 ZCAT3035-1330
TR4204 W5T29X7.5X19

FROM POWER
AT+3.3V
AT+5V
P.CON+9V
GND
P.CON+5V

FROM AV JACK
YUV1_A_IN_L
YUV1_A_IN_R
YUV2_A_IN_L
YUV2_A_IN_R
S_SW_1
S_SW_2
S1_Y_IN
S1_C_IN
S2_Y_IN
S2_C_IN
AV1_IN
AV2_IN
AV1_A_IN_L
AV1_A_IN_R

FROM/TO SWITCH/AMP
SIDE_V_IN
REMOCON_IN
STANDBY_LED
SIDE_A_IN_R
SIDE_S_SW

CD2203 CU23A002
CD3831 CU012202
CD3900 CUU21001
CD3901 CUU33002
CD4202 CU26790

L4202 47uH 0305
W869
C4267 1 B

C4211 47P CH
C4230 25V 10 KA
C4213 470P B
C4231 1 B
D4212 UDZS12B
C4232 25V10 KA
C4226 1 B
C4210 470P B
C4214 47P CH
C4233 1 B
C4228 470P CH
C4229_1 47P CH
C4216 1 B
C4215 1 B
D4211 UDZS12B
C4220 1 B
C4205 470P CH
C4227 1 B
C4217 47P CH
C4208 470P CH
D4202 UDZS12B
C4225 1 B
C4218 1 B
C4207 470P CH
D4203 UDZS12B
C4221 1 B
C4224 1 B
C4206 470P CH
C4222 1 B
C4223 47P CH
C4456 47P CH
R4401 220 1/4W

Vref
6dB
BIAS
Vcc
D_L1_Vin
D_SW_1
IC4201 AV SW IC AN15853B-E1

C4242 25V 100YK
C4415 47P CH
C4416 47P CH
C4238 470P CH
C4250 1 B
C4239 470P CH
D4208 UDZS12B
C4251 1 B
D4210 UDZS12B
R4219 100
R4220 100
C4243 0.01 B
R4212 3.9K 1/4W
C4203 0.01 B
R4209 3.9K 1/4W
R4257 390
C4246 16V22 KA
C4247 0.01 B
C4240 1 B
W802
R4210 10K
C4252 25V 100 YK
R4211 10K
R4213 390
R4214 390
R4216 820
C4256 33P CH
R4409 820
R4410 1K
R4223 1K
W829
W828
R4225 390
R4228 390
L4204 33uH
C4292 10P CH
L4207 47uH 0305
L4206 47uH 0305
L4203 47uH 0305
BUFFER Q4205 KTC3875S_Y_RTK
BUFFER Q4206 KTC3875S_Y_RTK
BUFFER Q4203 KTC3875S_Y_RTK
C4260 25V 100 YK
C4261 25V 100 YK
C4264_1 0.1 B
C4265_1 0.1 B
R4230 2.7K
R4231 2.7K
R4233 56
R4234 56
LEVEL SHIFT Q4208 KTK5132E
LEVEL SHIFT Q4210 KTK5132E

W867
W865
SIDE/DVD_Y
SIDE/DVD_C

FROM OPERATION/FILTER
CP4201 A2001WV2-8P

SIDE_S_SW	SIDE_S_L 8
	SIDE_S_Y 7
	SIDE_S_C 6
SIDE_V_IN	SIDE_V_IN 5
	GND 4
SIDE_A_IN_L	SIDE_A_IN_L 3
	GND 2
SIDE_A_IN_R	SIDE_A_IN_R 1

FROM/TO TUNER
SCL
SDA
TUNER_VIDEO
IR-THROUGH

TO AV JACK2
SW_CVBS

FROM/TO STEREO
SCL
SDA
SW_AUDIO_R[JACK]
SW_AUDIO_L[JACK]
STEREO_RESET
SW_AUDIO_L[PC]
SW_AUDIO_R[PC]

FROM/TO SCALER
CP4203 (CP803) 00_6232_029_006_800+

NC	DVD/AV3_SW	29
NC	DTUNER_H	28
NC	DTV_MUTE_L	27
	GND/INV_DET	26
NC	DTUNER_RX	25
	GND	24
NC	DTUNER_TX	23
	GND	22
NC	DTUNER_RESET_L	21
	GND	20
SW_AUDIO_R[PC]	SW_AUDIO_R(PC)	19
	GND	18
SW_AUDIO_L[PC]	SW_AUDIO_L(PC)	17
NC	SC2_AUDIO_OUT-H	16
STEREO_RESET	STEREO_RESET	15
NC	SCART3_SW	14
NC	SCART_AUDIO_SW	13
	SDA1	12
	SCL1	11
	GND	10
NC	DTUNER_POWER	9
	GND	8
NC	DTUNER_SD_H	7
	GND	6
	SWITCH_CVBS	5
	GND	4
	SWITCH_VIDEO_Y	3
	GND	2
	SWITCH_VIDEO_C	1

W852
CD4203 2H0T0801

W870
D4209 1SS133
C4413 0.1 B
C4414 470P CH
R4402 330 1/4W
SW Q4231 KRA103SRTK
SW Q4233 KRC102SRTK
GND

CP4202_1 A2001WV2-6P

6	P.ON LED
5	STANDBY LED
4	AT+5V
3	GND
2	REMOCON IN
1	IR-THROUGH

PCBD20 CMF091

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

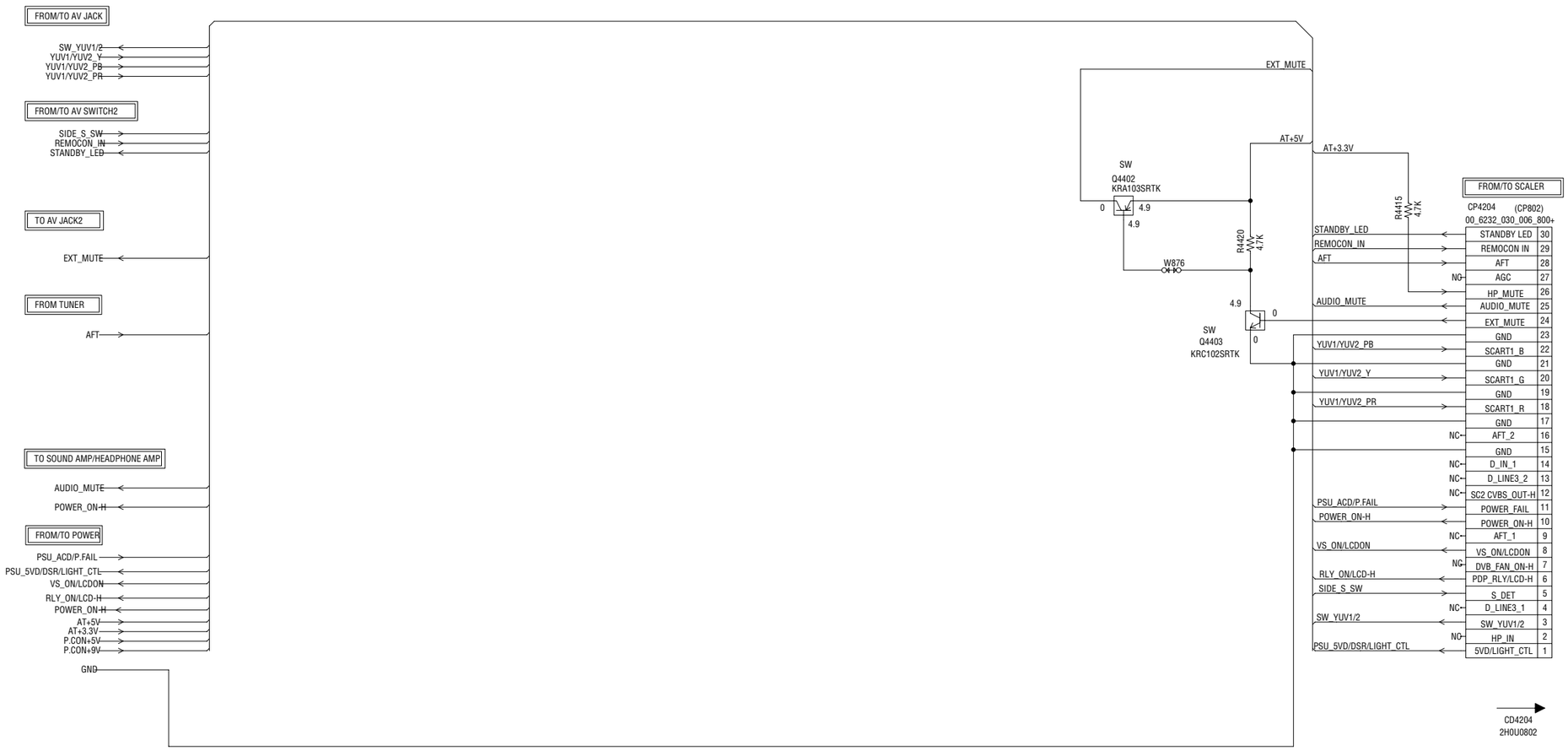
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR

CAUTION: DIGITAL TRANSISTOR

SWITCH/AMP SCHEMATIC DIAGRAM

(AV PCB)



PCBD20
CMF091

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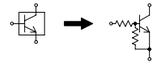
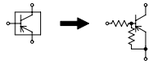
CAUTION: DIGITAL TRANSISTOR

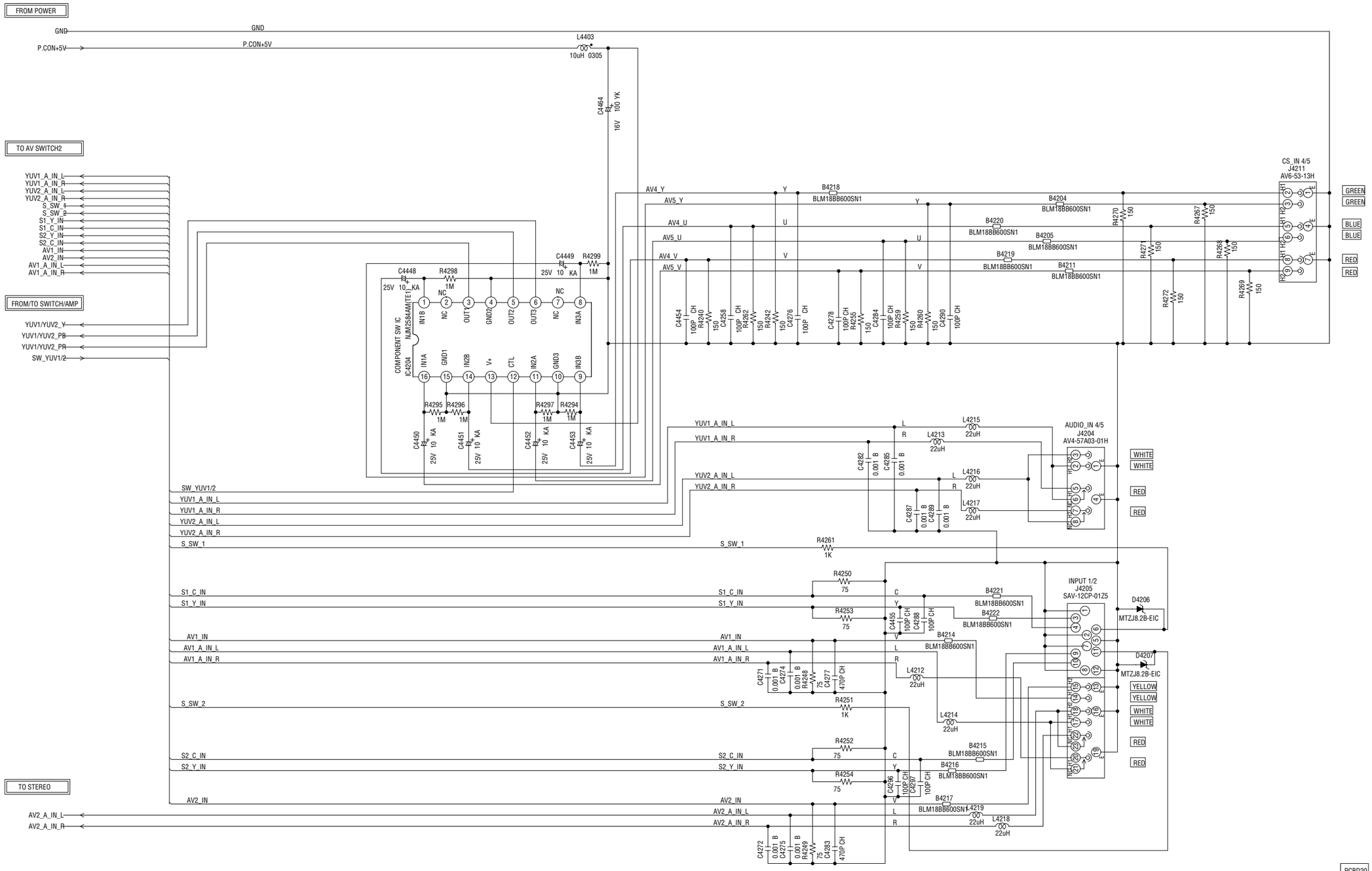


CAUTION: DIGITAL TRANSISTOR



AV JACK SCHEMATIC DIAGRAM

(AV PCB)



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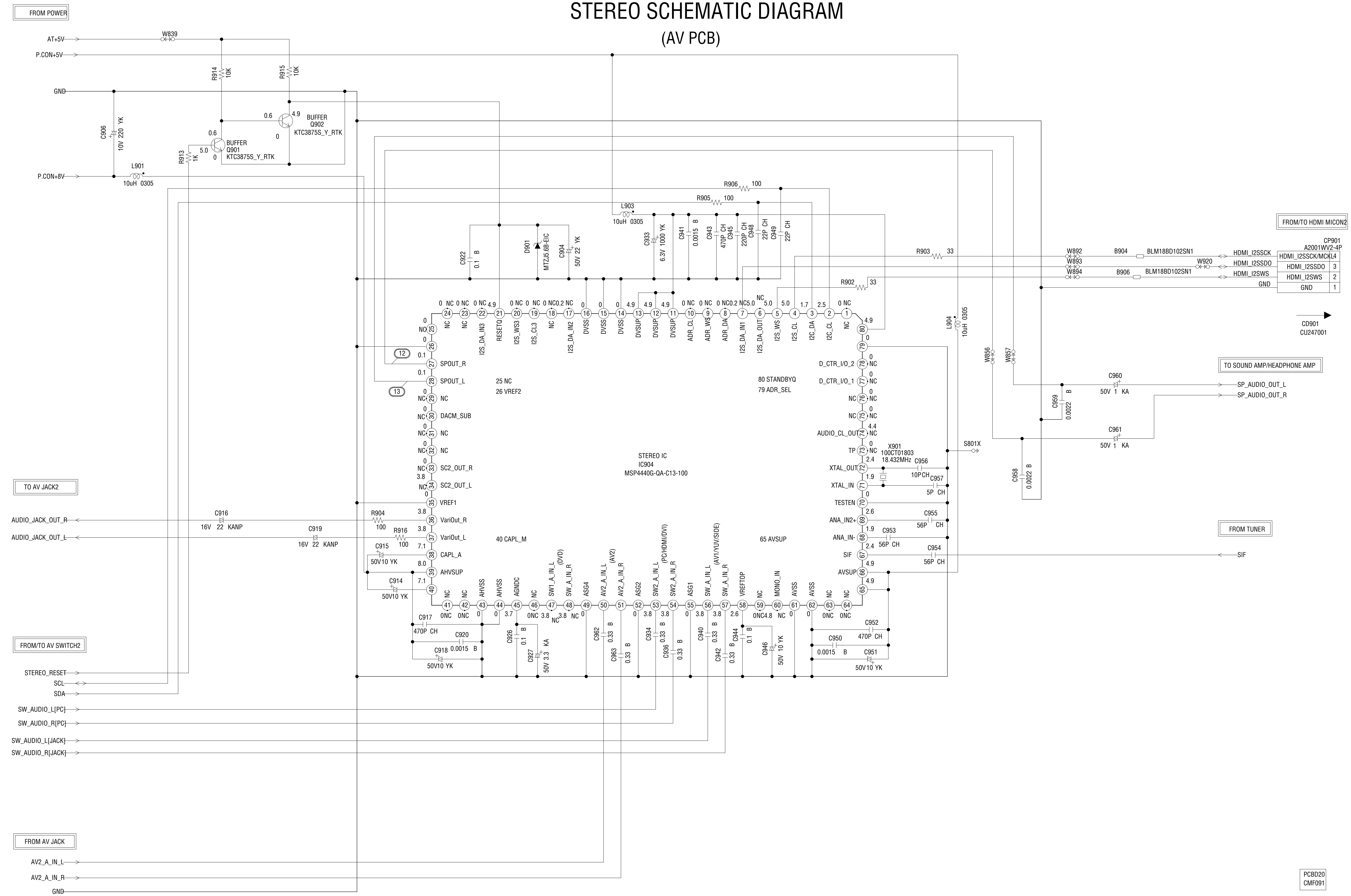
STEREO SCHEMATIC DIAGRAM

(AV PCB)



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

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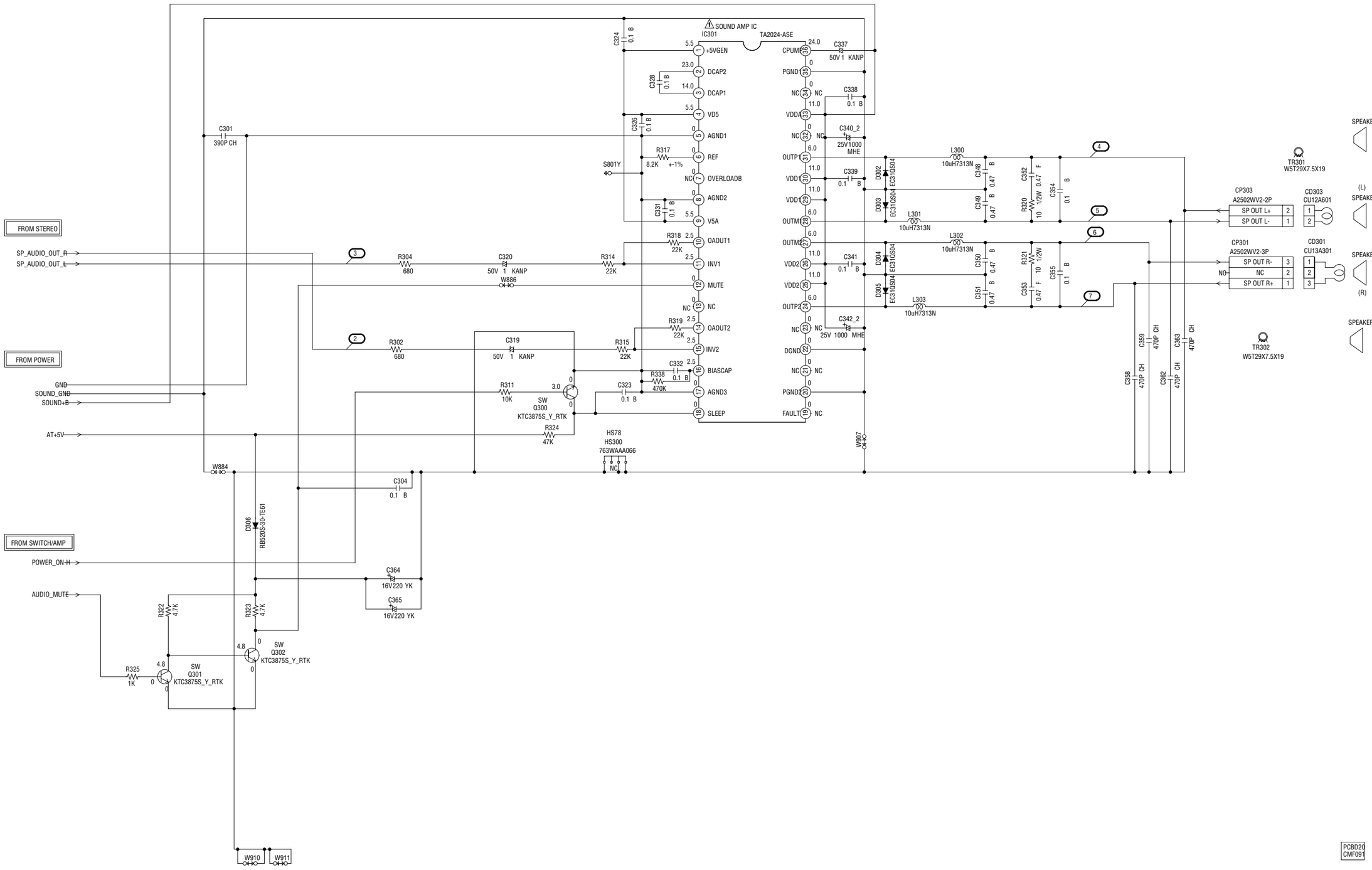
SOUND AMP/HEADPHONE AMP SCHEMATIC DIAGRAM

(AV PCB)



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

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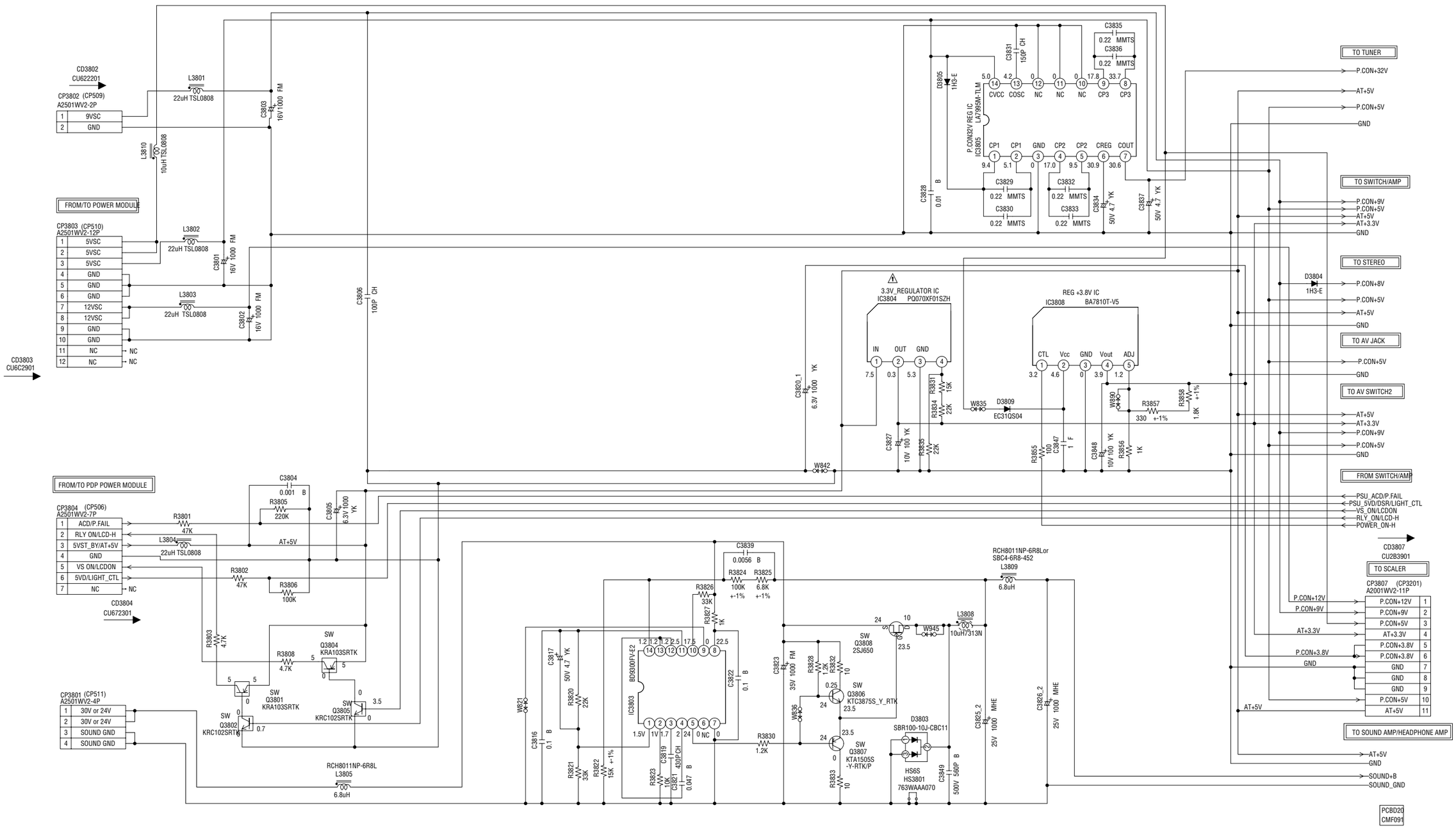
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

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

POWER SCHEMATIC DIAGRAM

(AV PCB)



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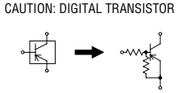
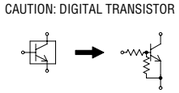
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

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

CAUTION: DIGITAL TRANSISTOR

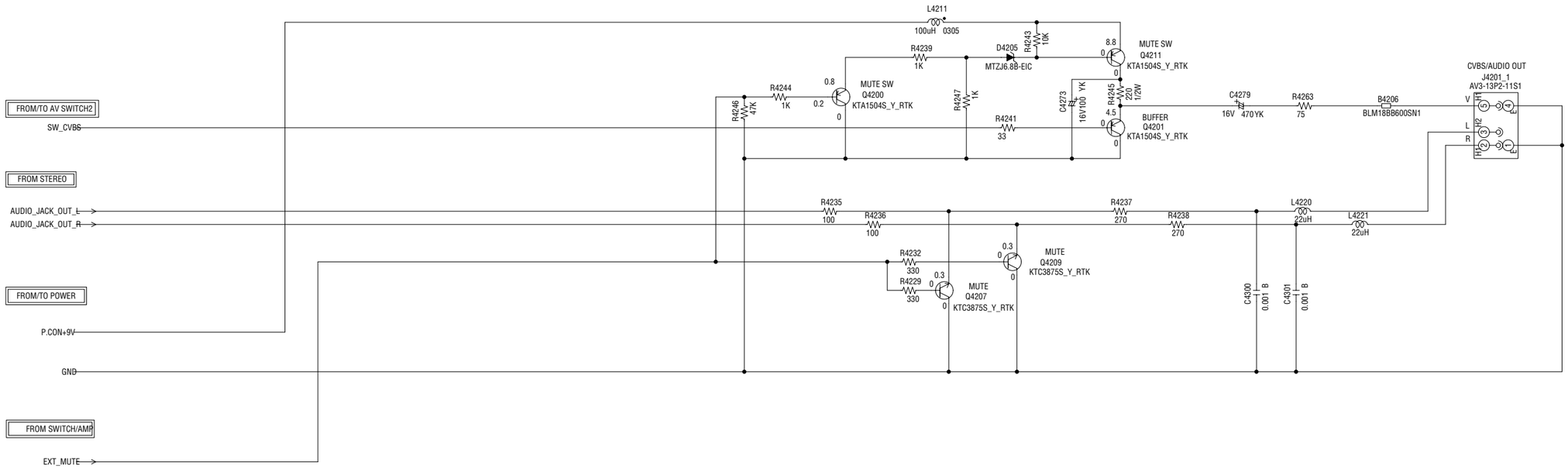


CAUTION: DIGITAL TRANSISTOR



AV JACK2 SCHEMATIC DIAGRAM

(AV PCB)



PCBD20
CMF091

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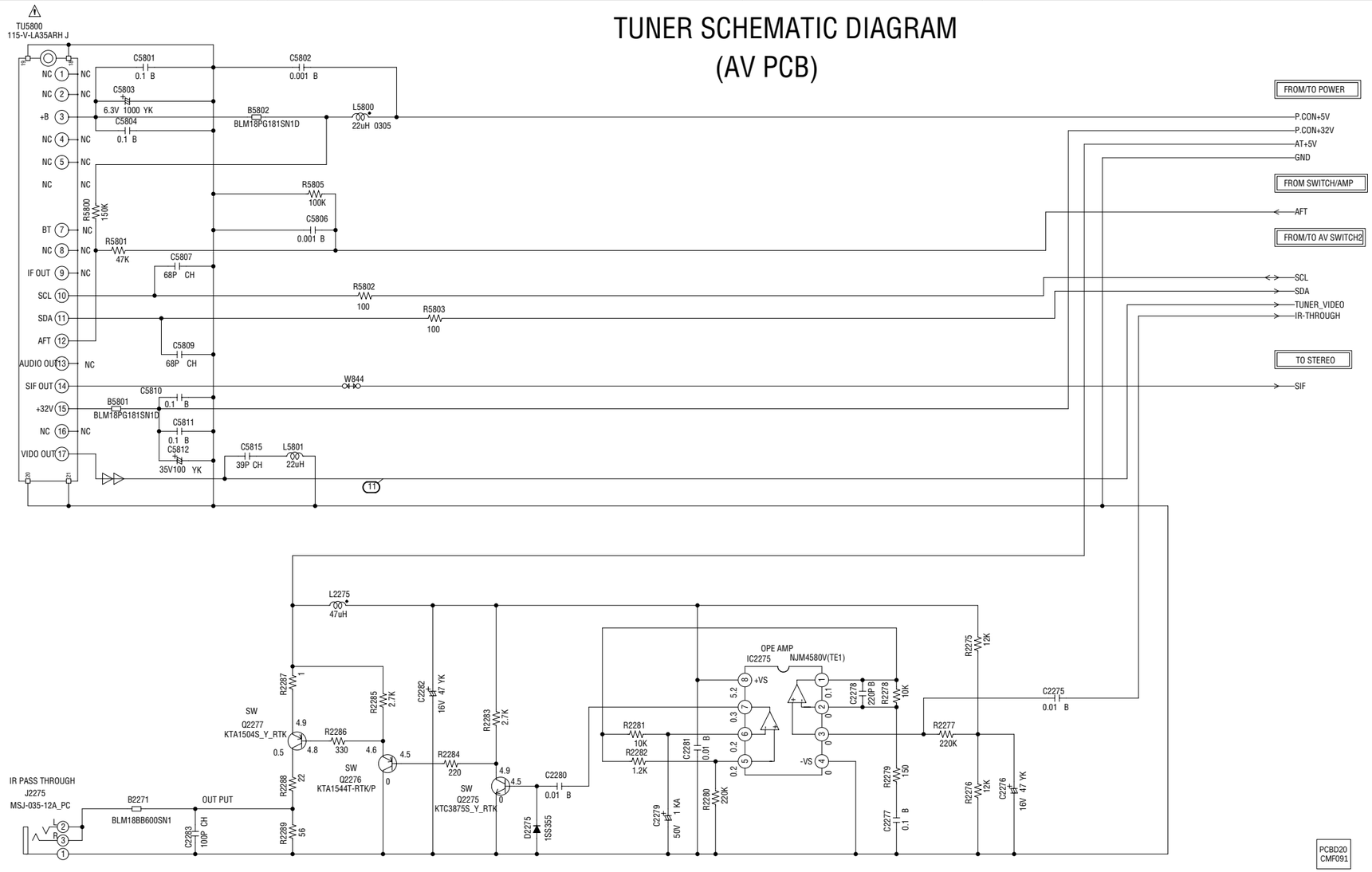
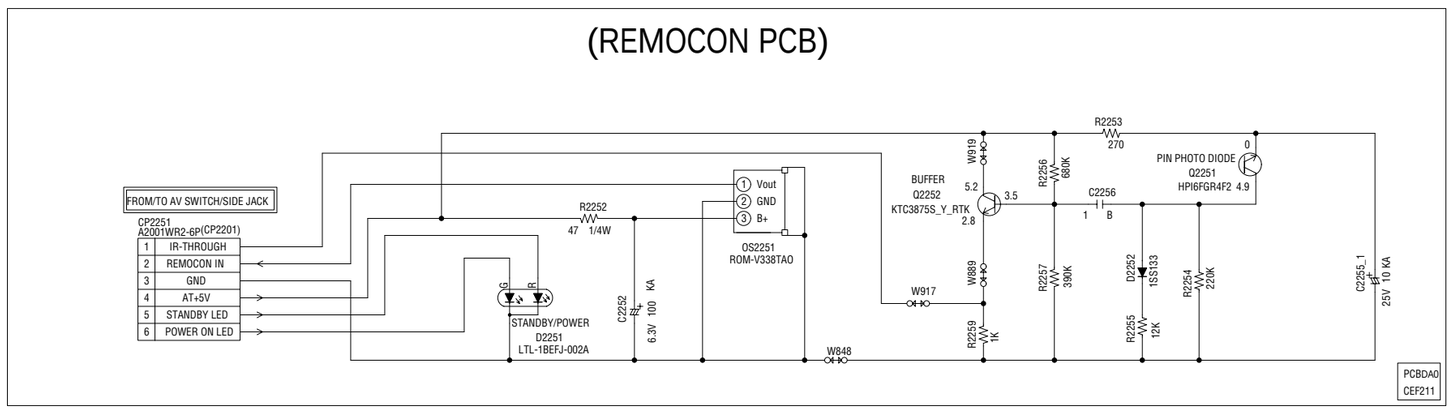
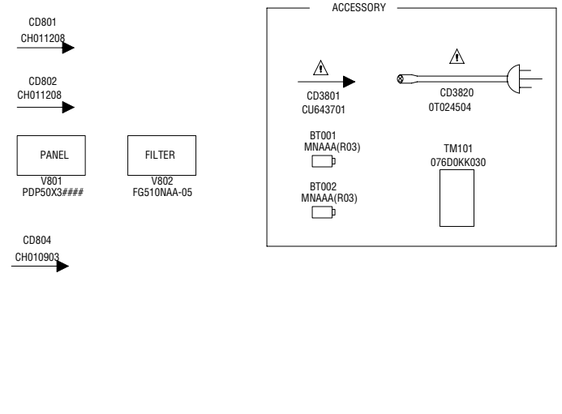
TUNER SCHEMATIC DIAGRAM
(AV PCB)



(REMOCON PCB)





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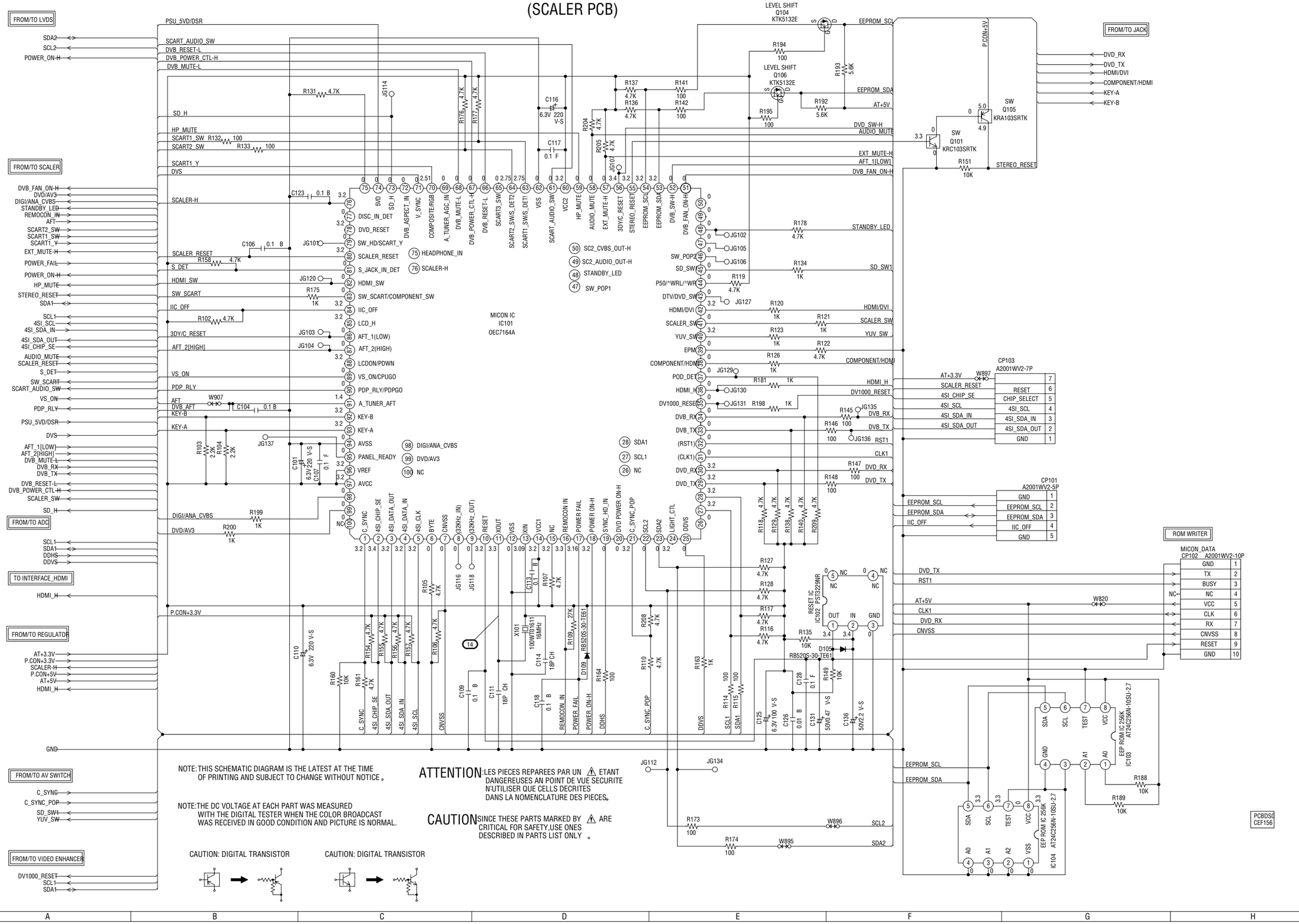
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

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

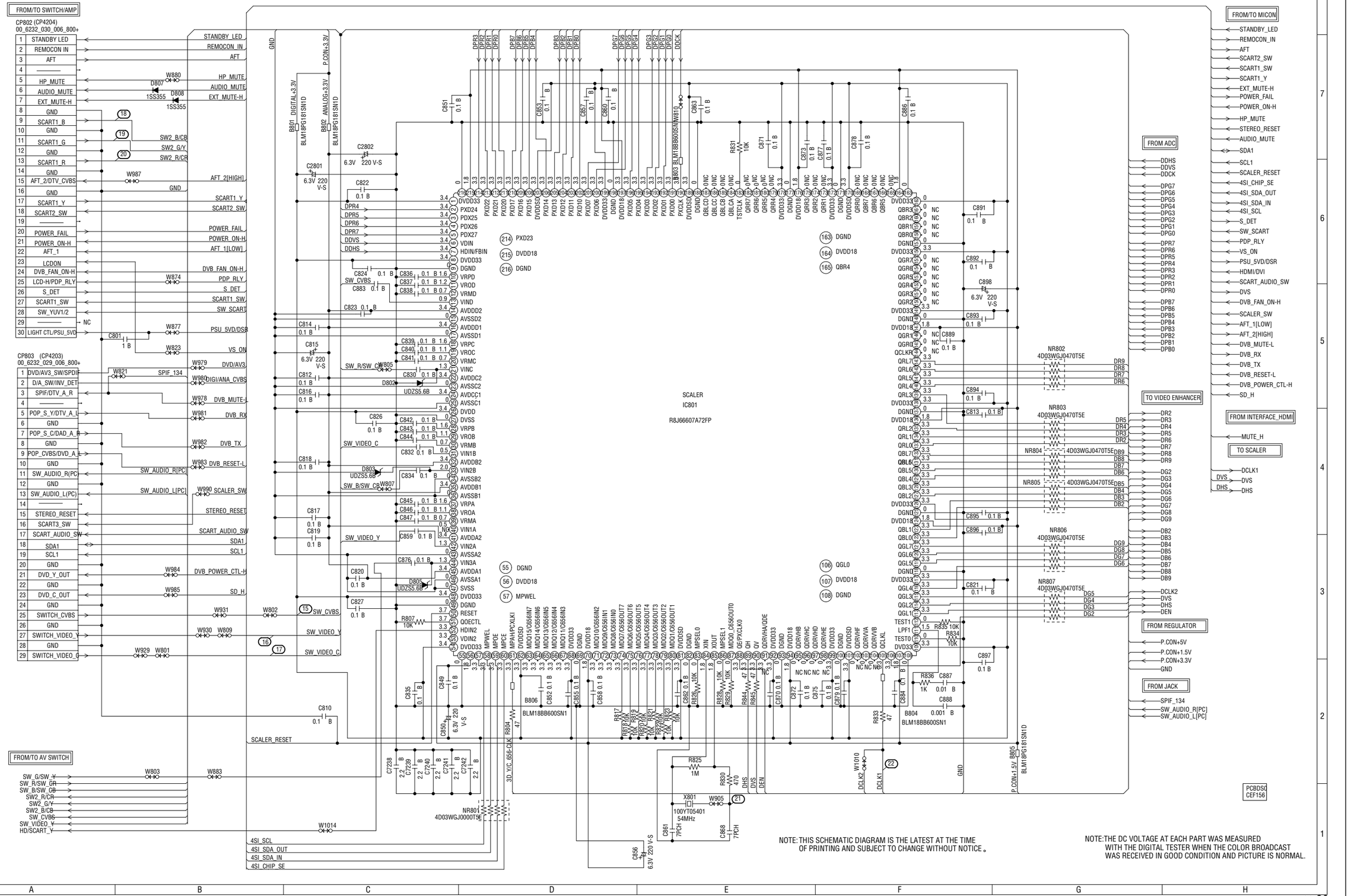
MICON SCHEMATIC DIAGRAM

(SCALER PCB)



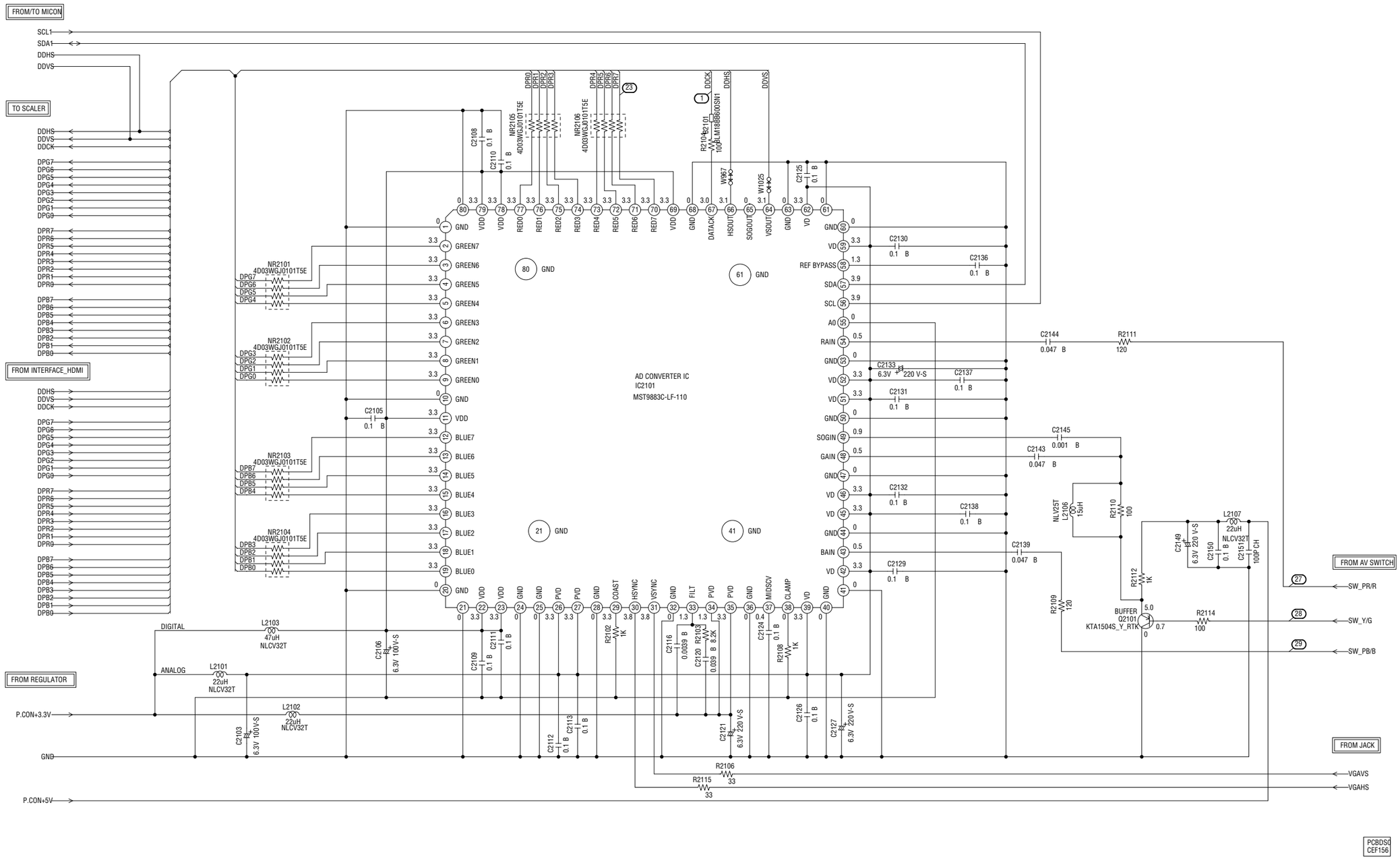
SCALER SCHEMATIC DIAGRAM

(SCALER PCB)



ADC SCHEMATIC DIAGRAM

(SCALER PCB)



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VIDEO ENHANCER SCHEMATIC DIAGRAM

(SCALER PCB)

TO LVDS

DBO9 DBO8 DBO7 DBO6 DBO5 DBO4 DBO3 DBO2

DGO9 DGO8 DGO7 DGO6 DGO5 DGO4 DGO3 DGO2

DRO9 DRO8 DRO7 DRO6 DRO5 DRO4 DRO3 DRO2

DHS DVS DEN0

NR7503 4D03WGJ0470T5E — DG09 DG08 DG07 DG06

NR7504 4D03WGJ0470T5E — DG05 DG04 DG03 DG02

DEN DHS DVS DV1000_RESET

C7506 0.1 B C7507 0.1 B JG7506 JG7507

R7512 47 R7508 47 R7506 47 C7511 0.1 B

96 G_Y_OUT7 · 95 G_Y_OUT6 · 94 VSS · 93 G_Y_OUT5 · 92 G_Y_OUT4 · 91 G_Y_OUT3 · 90 G_Y_OUT2 · 89 VCC_CORE · 88 VCC_BUF · 87 VSS · 86 G_Y_OUT1 · 85 G_Y_OUT0 · 84 SC_ADD_10BIT_7BIT_N_IN · 83 TEST_IN · 82 WINDOW_ENABLE_IN · 81 FIELD_IN · 80 HSYNC_IN · 79 VSYNC_IN · 78 VSS · 77 VCC_CORE · 76 RESET_N_IN · 75 CLARITY_IN7 · 74 CLARITY_IN6 · 73 CLARITY_IN5 · 72 CLARITY_IN4 · 71 CLARITY_IN3

97 · 99 · 100 SC_ADD_CTRL_IN · 101 SC_ADD_CTRL_IN · 102 TEST_MODE0 · 103 TEST_MODE1 · 104 TEST_MODE2 · 105 TEST_MODE3 · 106 TEST_OUT · 107 VCC_BUF · 108 VCC_CORE · 109 PROCESS_CONTROL_IN · 110 PROCESS_CONTROL_IN · 111 CLK_VIDEO · 112 VBLANK_IN · 113 HBLANK_IN · 114 B_CB_CRCB_OUT0 · 115 B_CB_CRCB_OUT1 · 116 VSS · 117 VCC_CORE · 118 B_CB_CRCB_OUT2 · 119 B_CB_CRCB_OUT3 · 120 B_CB_CRCB_OUT4 · 121 B_CB_CRCB_OUT5 · 122 VSS · 123 VCC_BUF · 124 B_CB_CRCB_OUT6 · 125 B_CB_CRCB_OUT7 · 126 B_CB_CRCB_OUT8 · 127

W671 SC_ADD_CTRL_IN · W870 TEST_MODE0 · W869 TEST_MODE2 · JG7501 · C7502 0.1 B · C7505 0.1 B

98 SC_ADD_CTRL_IN · 97 SC_ADD_CTRL_IN · 96 G_Y_OUT9 · 95 G_Y_OUT8

68 CLARITY_IN2 · 67 CLARITY_IN1 · 66 CLARITY_IN0 · 65 B_CB_CRCB_IN9 · 64 VCC_BUF · 63 B_CB_CRCB_IN8

64 · 62 B_CB_CRCB_IN7 · 61 B_CB_CRCB_IN6 · 60 B_CB_CRCB_IN5 · 59 B_CB_CRCB_IN4 · 58 B_CB_CRCB_IN3 · 57 B_CB_CRCB_IN2 · 56 B_CB_CRCB_IN1 · 55 B_CB_CRCB_IN0 · 54 TEST_IN · 53 VCC_CORE · 52 VSS · 51 SDA · 50 SCL · 49 CLK_SYSTEM · 48 OUTPUT_ENABLE_N_IN · 47 VCC_BUF · 46 VSS · 45 R_CR_OUT9 · 44 R_CR_OUT8 · 43 R_CR_OUT7 · 42 R_CR_OUT6 · 41 VSS · 40 R_CR_OUT5 · 39 R_CR_OUT4 · 38 R_CR_OUT3 · 37 R_CR_OUT2 · 36 VCC_CORE · 35 VCC_BUF · 34 · 33

C7513 0.1 B · W872 · W973 · JG7513 · JG7514 · C7514 0.1 B · C7515 0.1 B · C7518 0.1 B · X7501 100DT02006 20MHz (NC) · C7512 0.1 B · C7516 0.1 B · JG7511 · JG7512

R7510 100 · R7509 100 · SDA1 · SCL1

NR7505 4D03WGJ0470T5E — DRO9 DRO8 DRO7 DRO6

NR7506 4D03WGJ0470T5E — DRO5 DRO4 DRO3 DRO2

34 R_CR_OUT1 · 33 R_CR_OUT0 · 32 G_Y_IN9 · 31 G_Y_IN8

128 VSS · 127 B_CB_CRCB_OUT9 · 2 R_CR_IN1 · 1 R_CR_IN0

1 · 2 R_CR_IN2 · 3 R_CR_IN3 · 4 R_CR_IN4 · 5 VSS · 6 R_CR_IN5 · 7 R_CR_IN6 · 8 R_CR_IN7 · 9 R_CR_IN8 · 10 R_CR_IN9 · 11 VCC_BUF · 12 VBLANK_OUT · 13 HBLANK_OUT · 14 FIELD_OUT · 15 VSS · 16 WINDOW_ENABLE_OUT · 17 VSYNC_OUT · 18 HSYNC_OUT · 19 VCC_BUF · 20 VCC_CORE · 21 G_Y_IN0 · 22 G_Y_IN1 · 23 G_Y_IN2 · 24 G_Y_IN3 · 25 G_Y_IN4 · 26 G_Y_IN5 · 27 VSS · 28 G_Y_IN6 · 29 G_Y_IN7 · 30 · 31 · 32

JG7504 · JG7505 · JG7500 · JG7508 · JG7515 · W988 · W989 · C7508 0.1 B · R7513 33 · R7505 33 · R7507 33 · C7509 0.1 · BC7510 0.1 B · W974 · W975 · JG7509 · JG7510

B7501 BLM18BB600SN1 · W854 · C7503 0.1 B · C7504 0.1 B

NR7501 4D03WGJ0470T5E — DBO2 DBO3 DBO4 DBO5

NR7502 4D03WGJ0470T5E — DBO6 DBO7 DBO8 DBO9

B7502 BLM18PG181SN1D · L7502 47uH NLCV32T · C7519 47 6.3V · C7521 47 6.3V

VIDEO_ENHANCER IC
IC7501
DV1000-75

DEN0 DVS1 DHS1 DCLK2

DR2 DR3 DR4 DR5 DR6 DR7 DR8 DR9 DG2 DG3 DG4 DG5 DG6 DG7 DG8 DG9

DB9 DB8 DB7 DB6 DB5 DB4 DB3 DB2

FROM/TO MICON: DV1000_RESET · SDA1 · SCL1

FROM SCALER: DCLK2 · DHS · DVS · DEN · DB9 DB8 DB7 DB6 DB5 DB4 DB3 DB2 · DG9 DG8 DG7 DG6 DG5 DG4 DG3 DG2 · DR9 DR8 DR7 DR6 DR5 DR4 DR3 DR2

FROM REGULATOR: P.CON+1.8V · P.CON+3.3V · GND

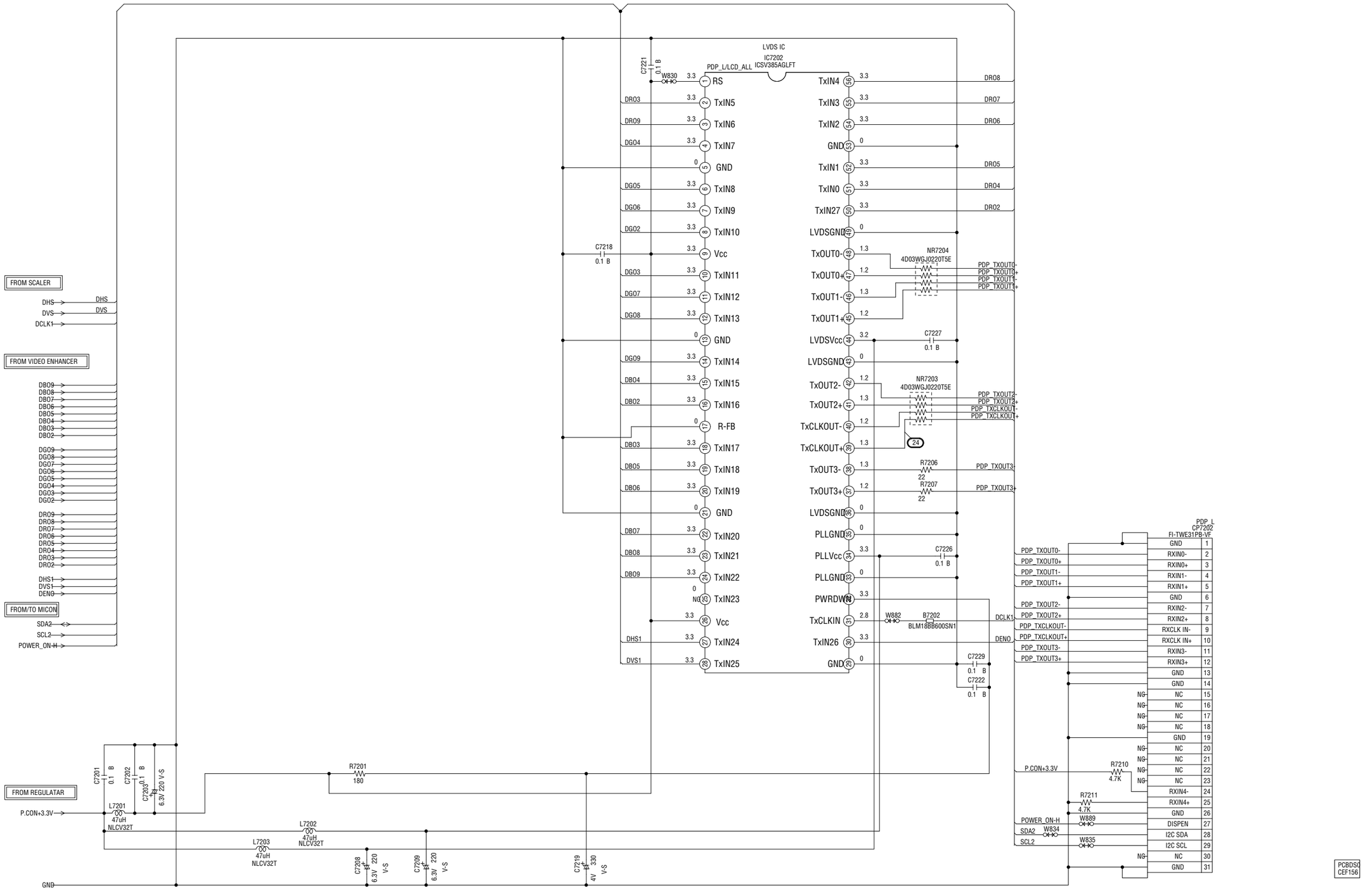
PCBDSC CEF156

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.

LVDS SCHEMATIC DIAGRAM

(SCALER PCB)



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

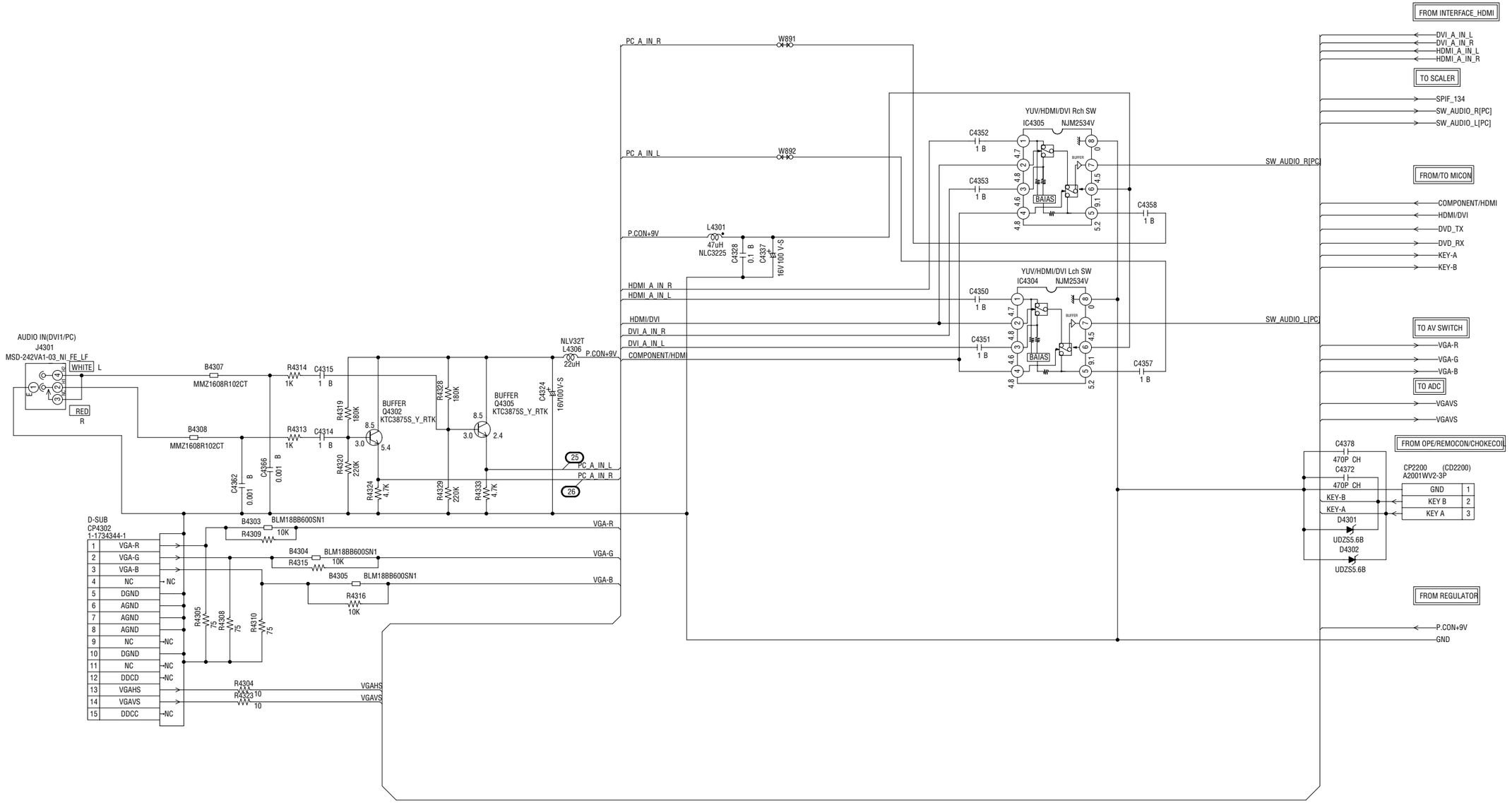
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

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

JACK SCHEMATIC DIAGRAM

(SCALER PCB)

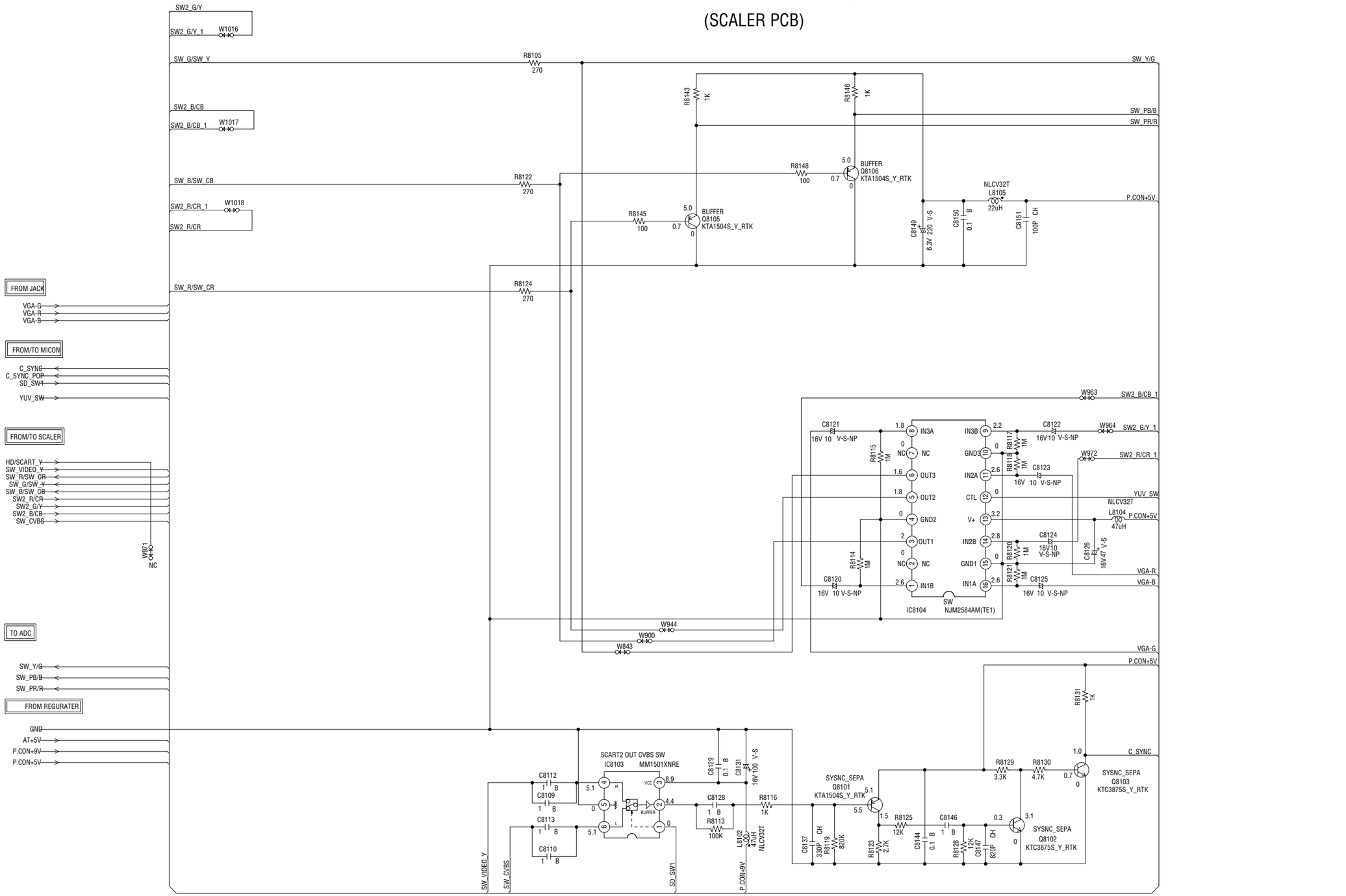


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

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.

AV SWITCH SCHEMATIC DIAGRAM

(SCALER PCB)

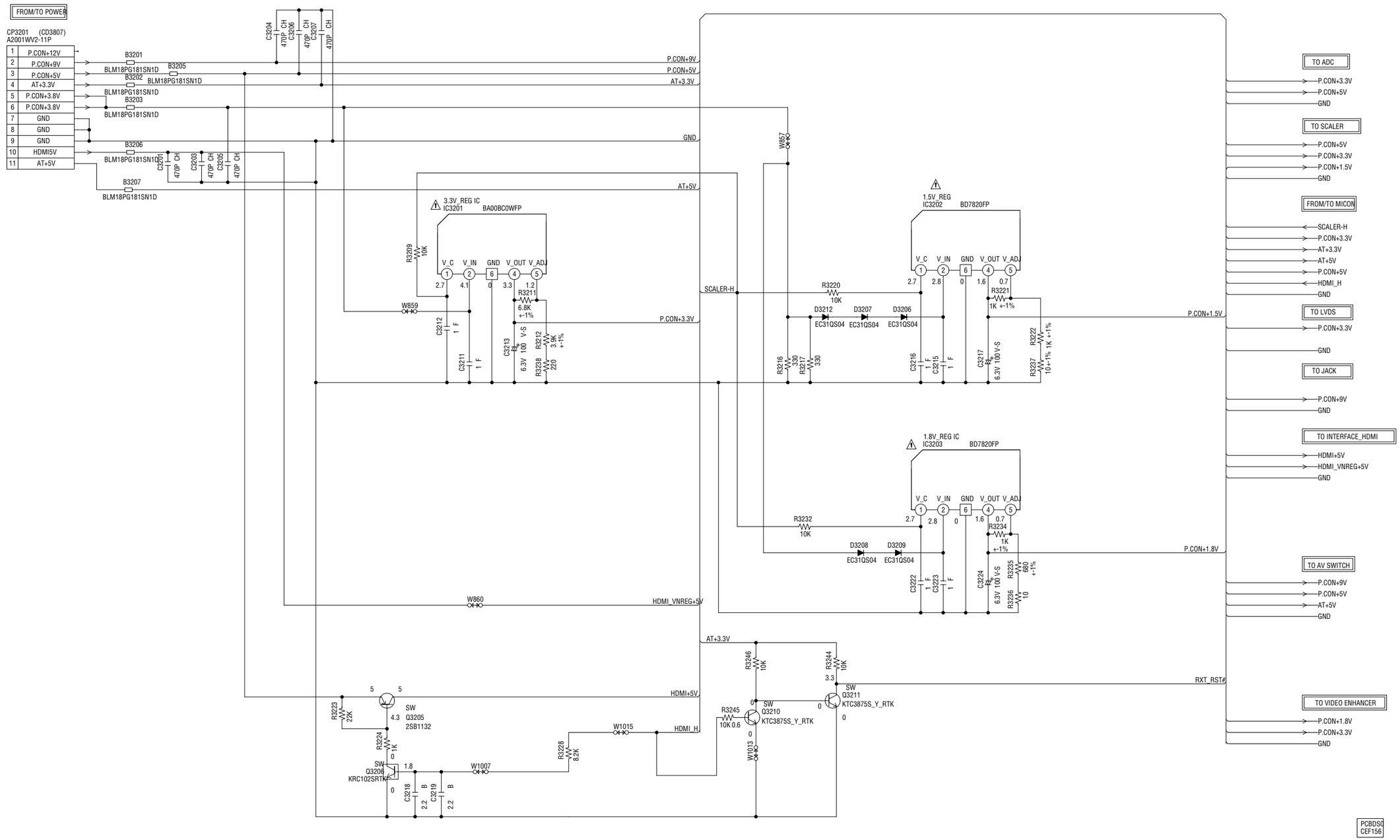


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE。

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.

REGULATOR SCHEMATIC DIAGRAM

(SCALER PCB)



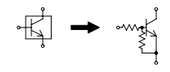
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

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.

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

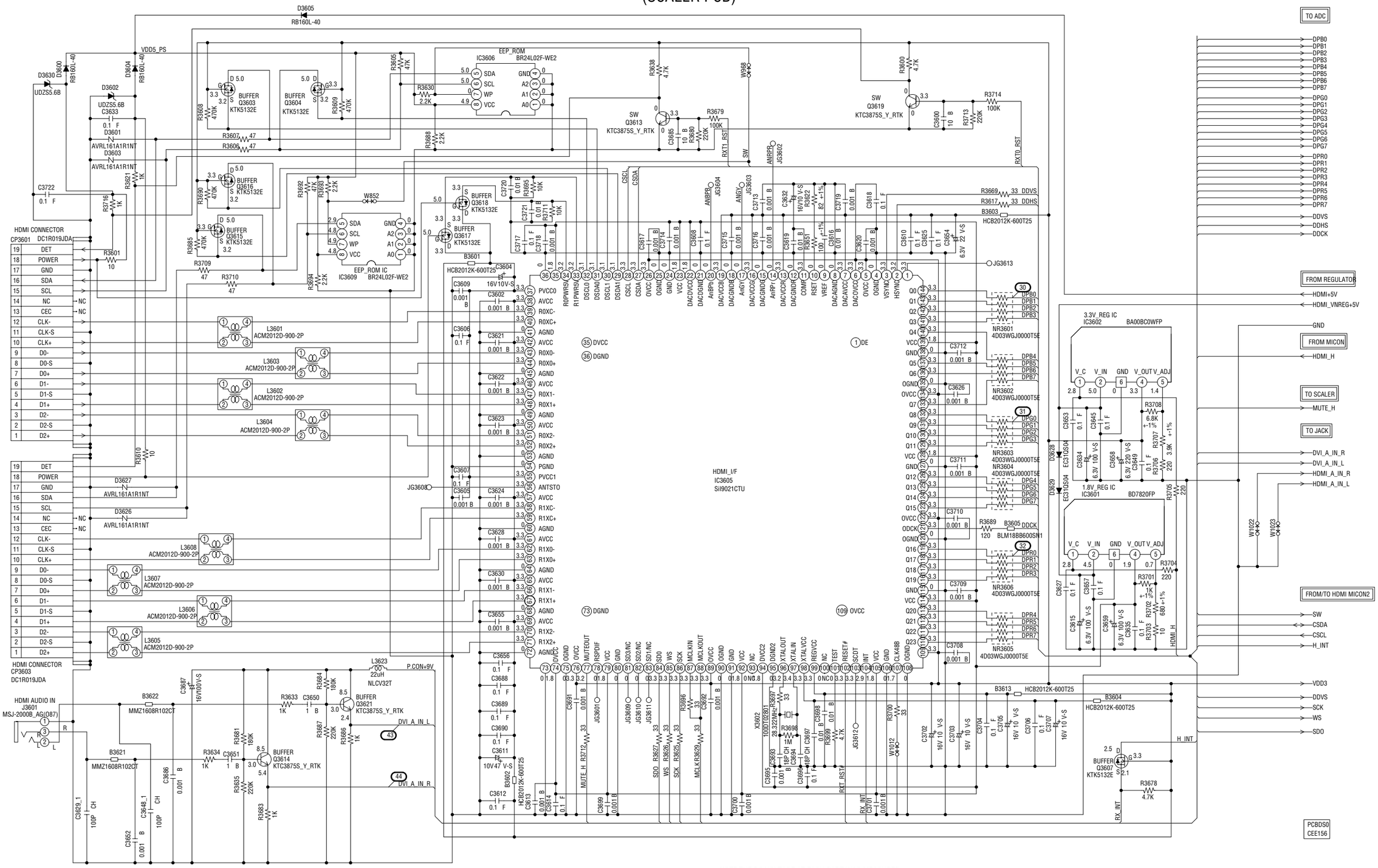
CAUTION: SINCE THESE PARTS MARKED BY ⚠ ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY 。

CAUTION: DIGITAL TRANSISTOR



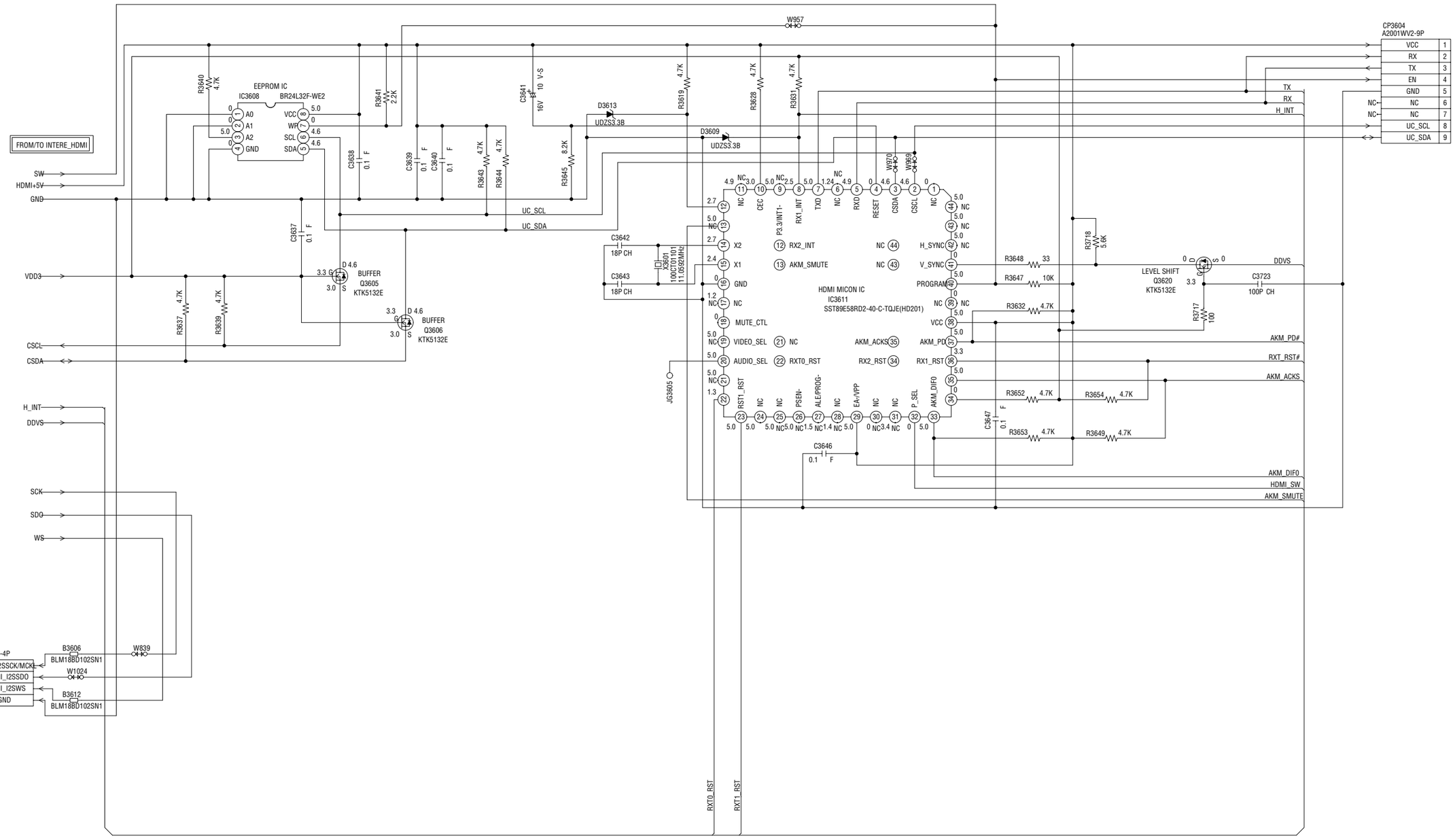
INTERFACE_HDMI IC SCHEMATIC DIAGRAM

(SCALER PCB)



HDMI MICON2 SCHEMATIC DIAGRAM

(SCALER PCB)

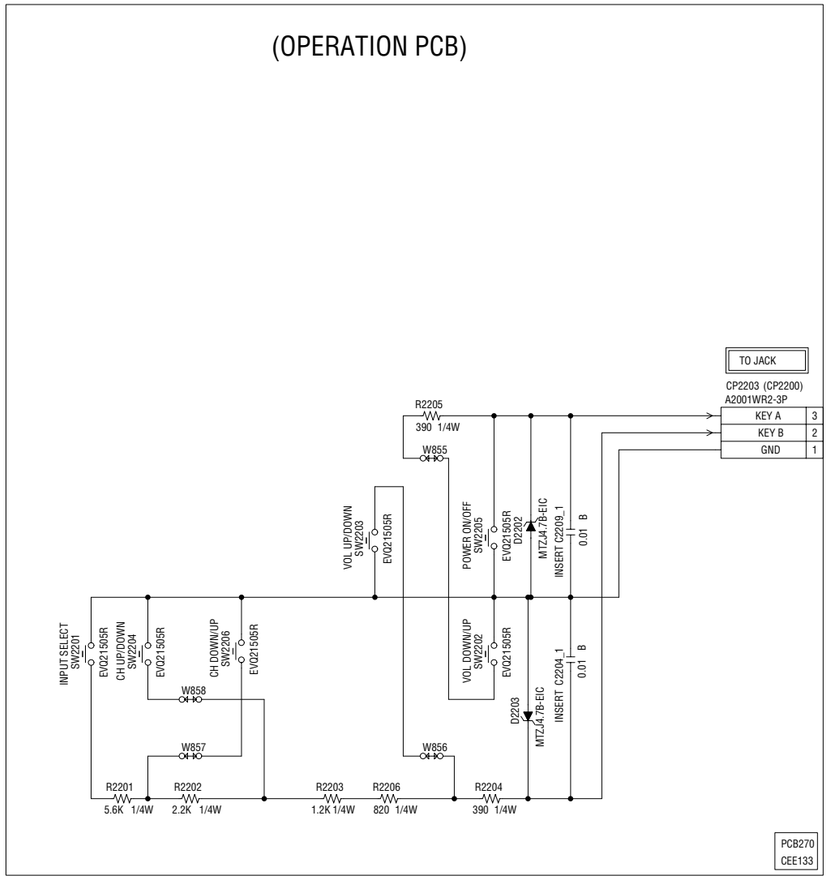


NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE 。

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.

OPERATION/FILTER SCHEMATIOC DIAGRAM

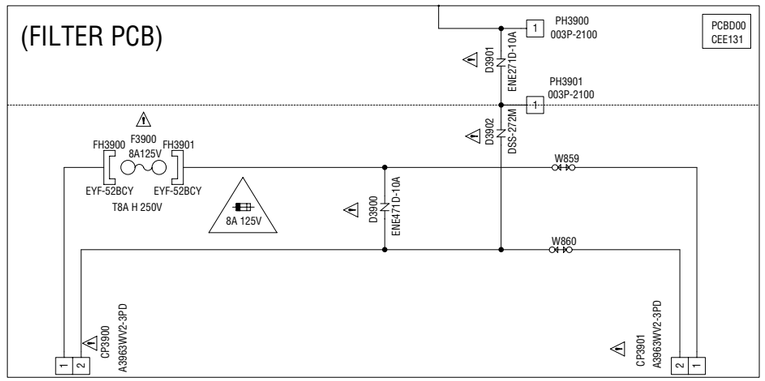
(OPERATION PCB)



CD2203
CU23A002

TR6502
W5T29X7.5X19

(FILTER PCB)



CD3900
CUU21001

CD3901
CUU33002

8A 125V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE 8A 125V (F3900)

ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'INCEIE N'UTILISER QUE DES FUSIBLE DE MEME TYPE 8A 125V (F3900)

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

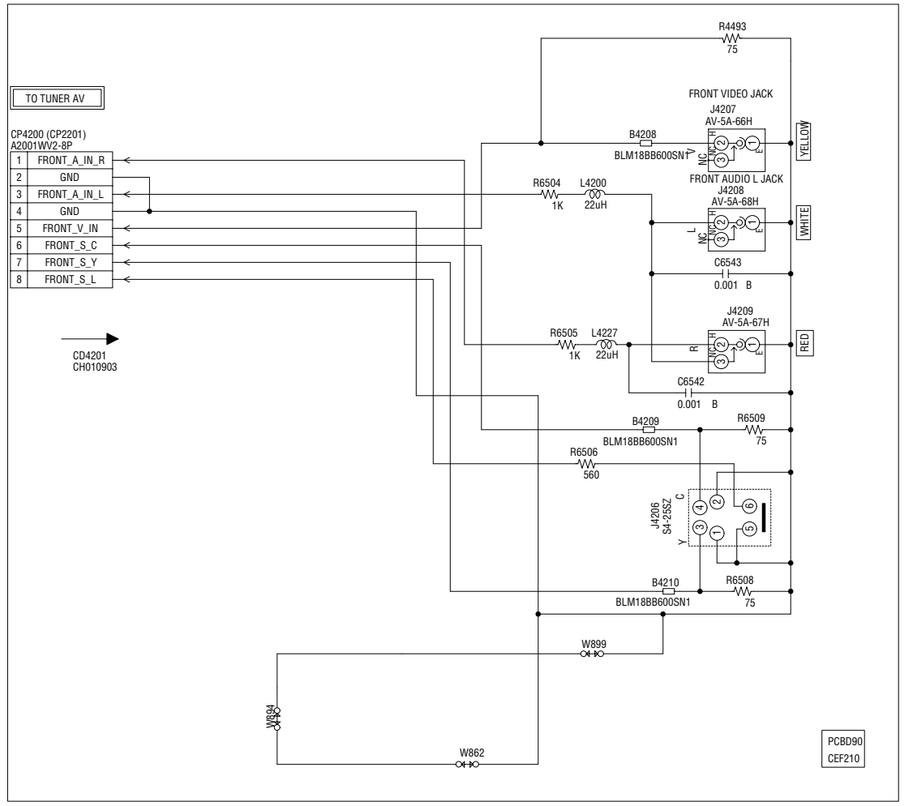
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

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

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

SIDE JACK PCB SCHEMATIC DIAGRAM

(SIDE JACK 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.

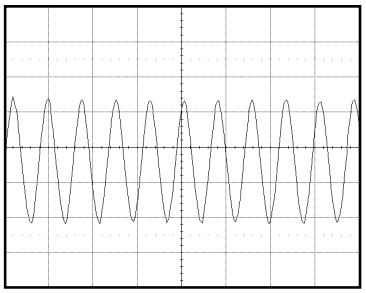
ATTENTION: LES PIECES REPAREES PAR UN ⚠ ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES。

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

WAVEFORMS

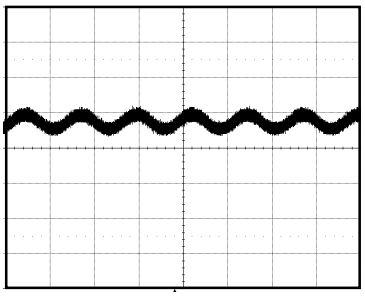
ADC

20ns
1.0V



①

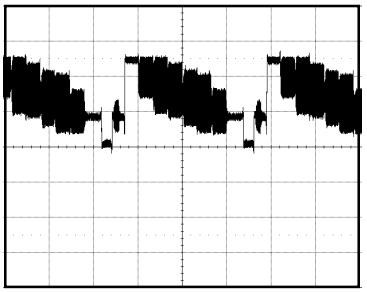
2.0ms
2.0V



⑥

TUNER

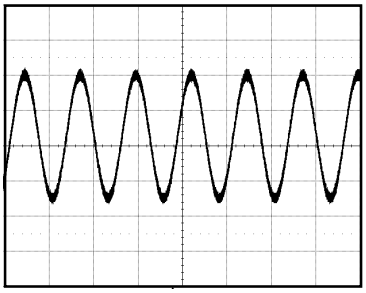
20µs
1.0V



⑪

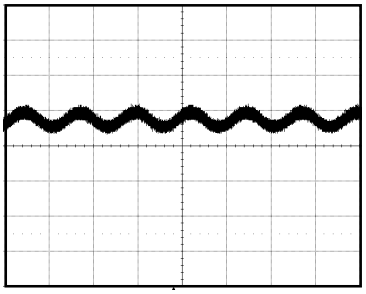
SOUND AMP/HEADPHON AMP

2.0ms
500mV



②

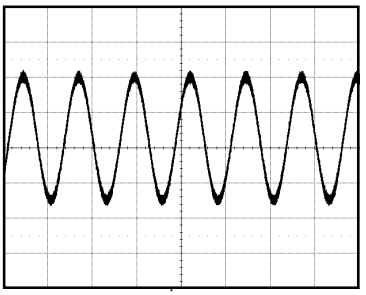
2.0ms
2.0V



⑦

STEREO

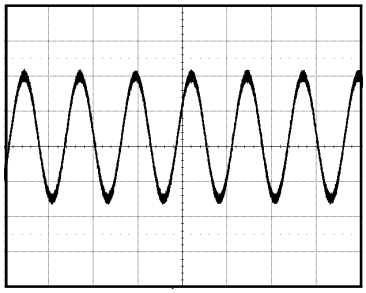
2.0ms
500mV



⑫

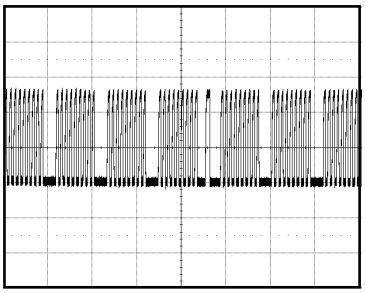
AV SWITCH2

2.0ms
500mV



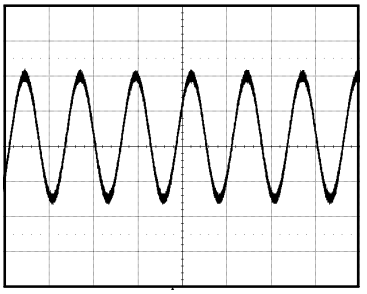
③

100µs
2.0V



⑧

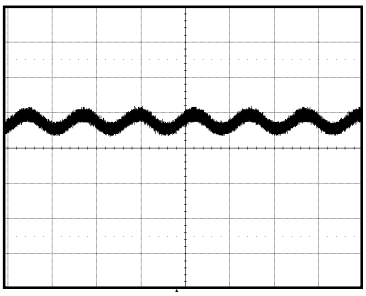
2.0ms
500mV



⑬

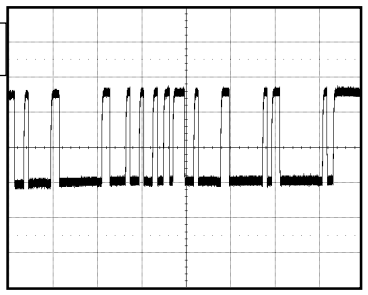
MICON

2.0ms
2.0V



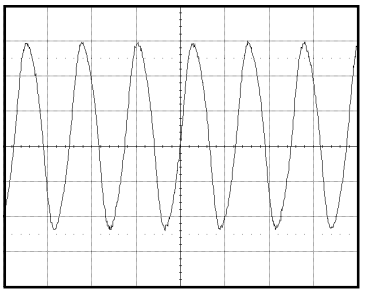
④

100µs
2.0V



⑨

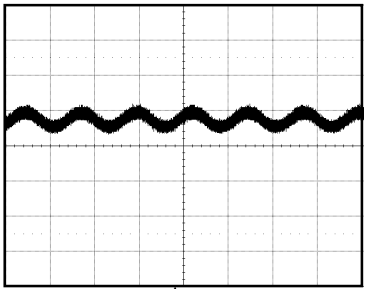
50ns
500mV



⑭

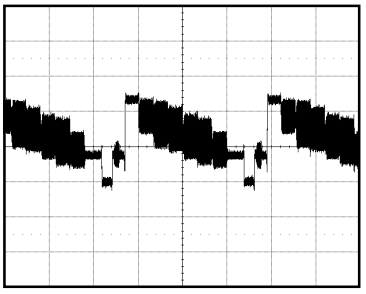
SCALER

2.0ms
2.0V



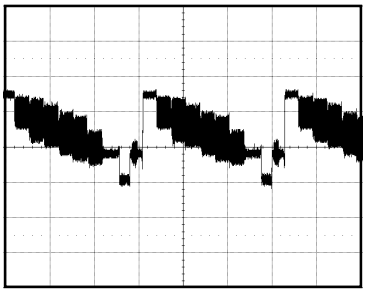
⑤

20µs
500mV



⑩

20µs
500mV



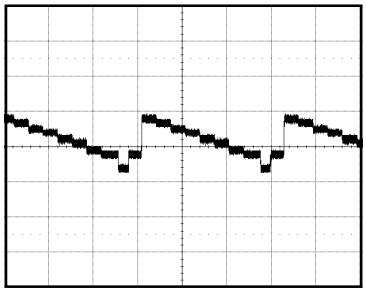
⑮

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

WAVEFORMS

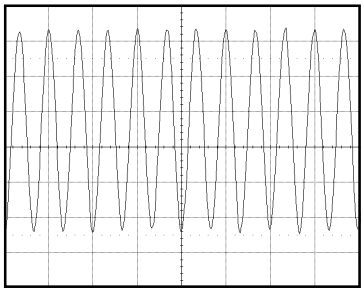
20µs
500mV

16



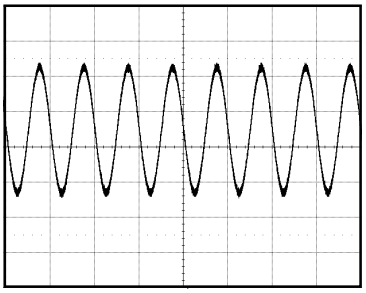
20µs
500mV

21



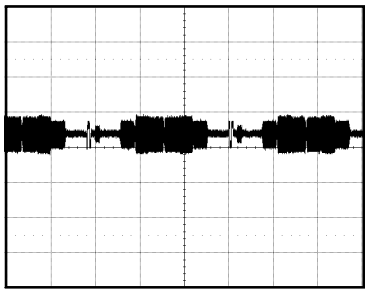
1.0ms
1.0V

26



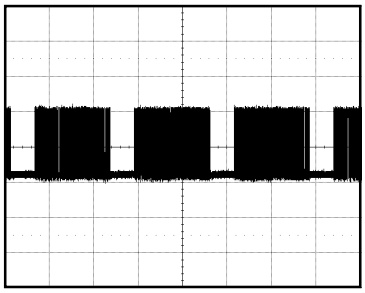
20µs
500mV

17



10µs
2.0V

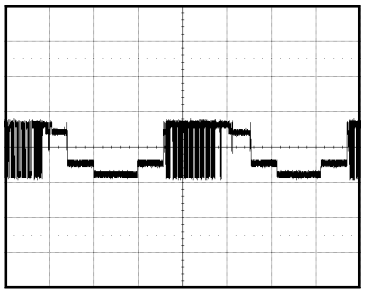
22



ADC

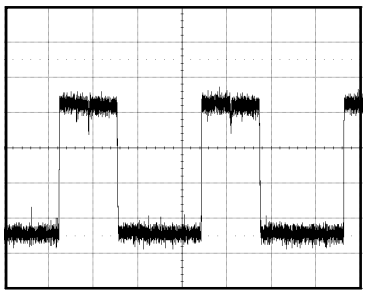
5µs
500mV

27



20µs
200mV

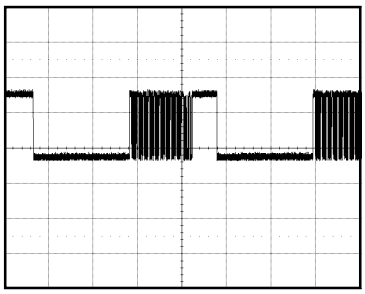
18



ADC

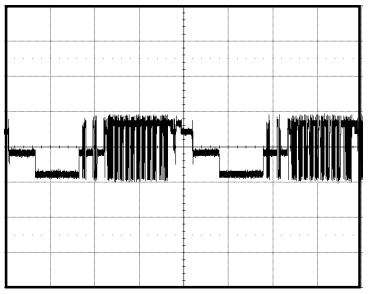
5µs
2.0V

23



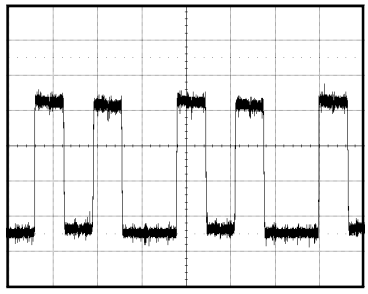
5µs
500mV

28



20µs
200mV

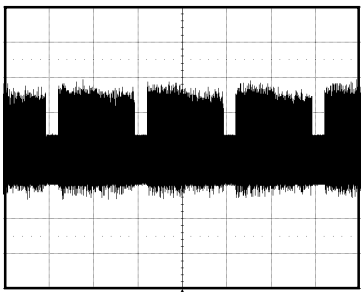
19



LVDS

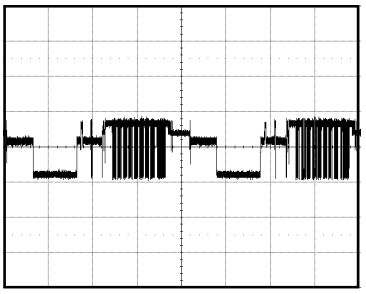
10ms
100mV

24



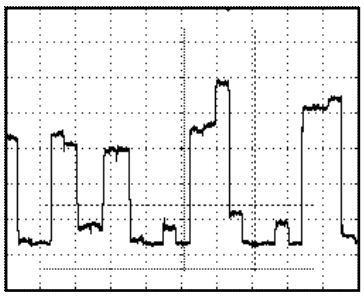
5µs
500mV

29



20µs
200mV

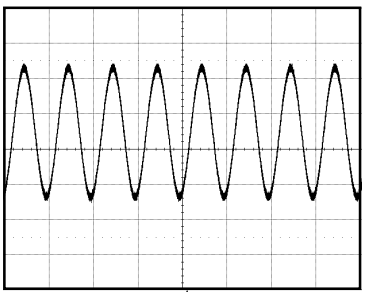
20



JACK

1.0ms
1.0V

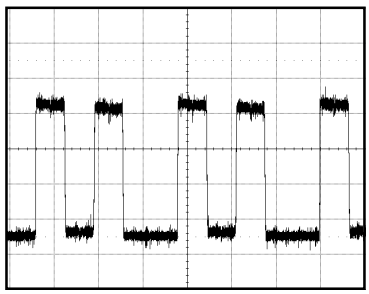
25



INTERFACE_HDMI IC

20µs
1.0V

30

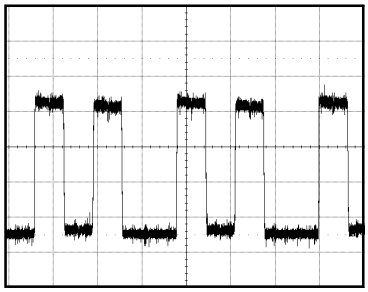


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

WAVEFORMS

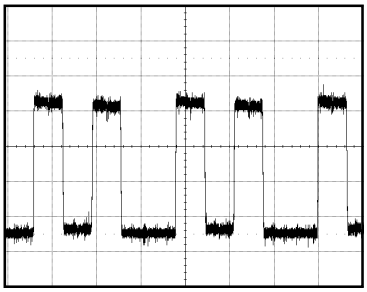
20µs
1.0V

(31)



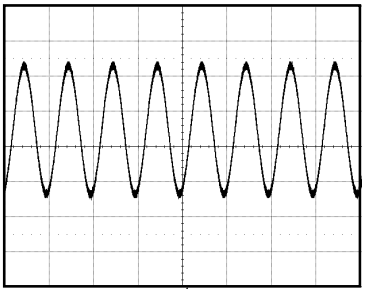
20µs
1.0V

(32)



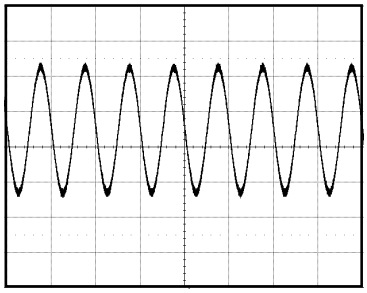
1.0ms
1.0V

(43)



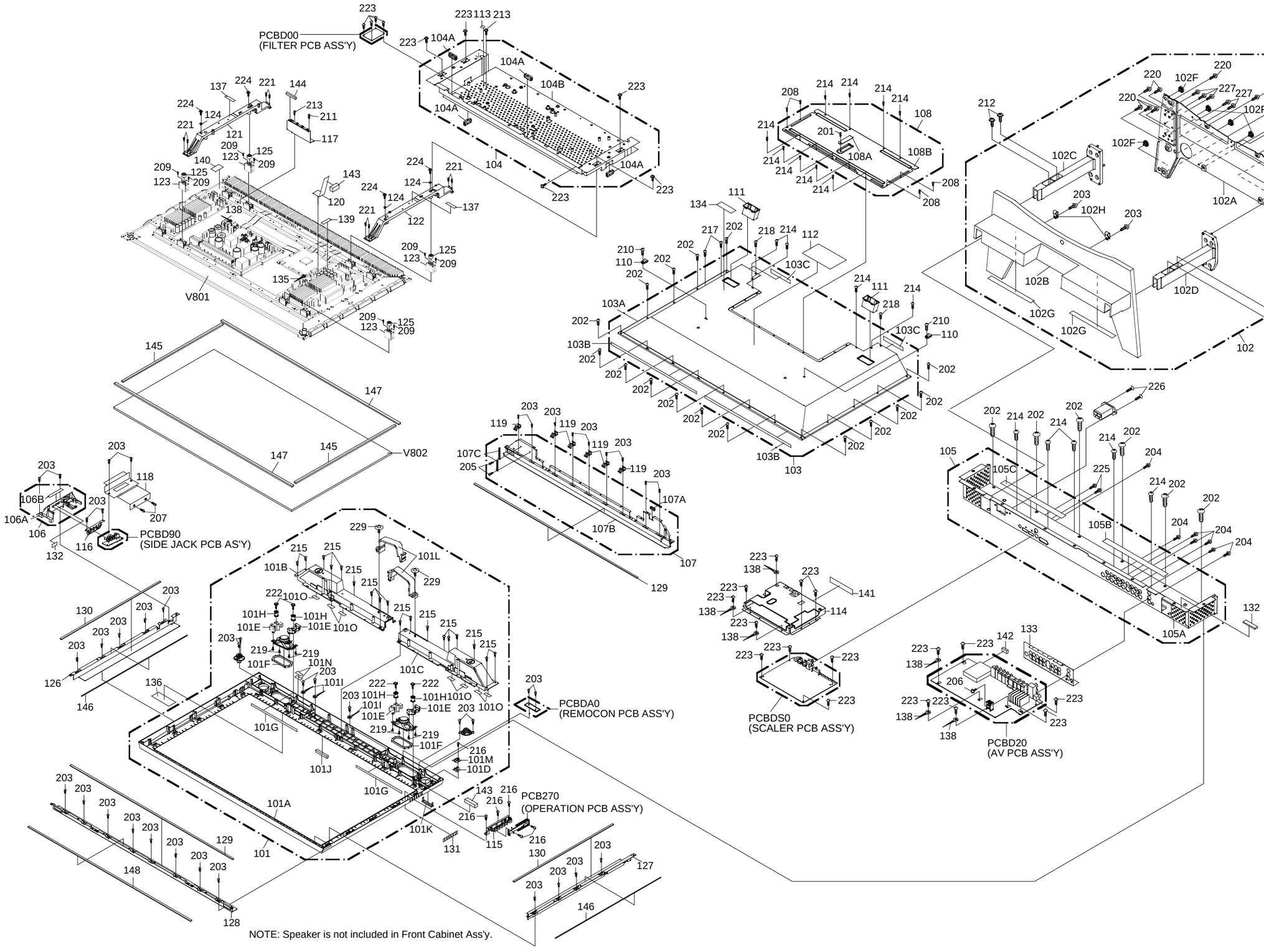
1.0ms
1.0V

(44)

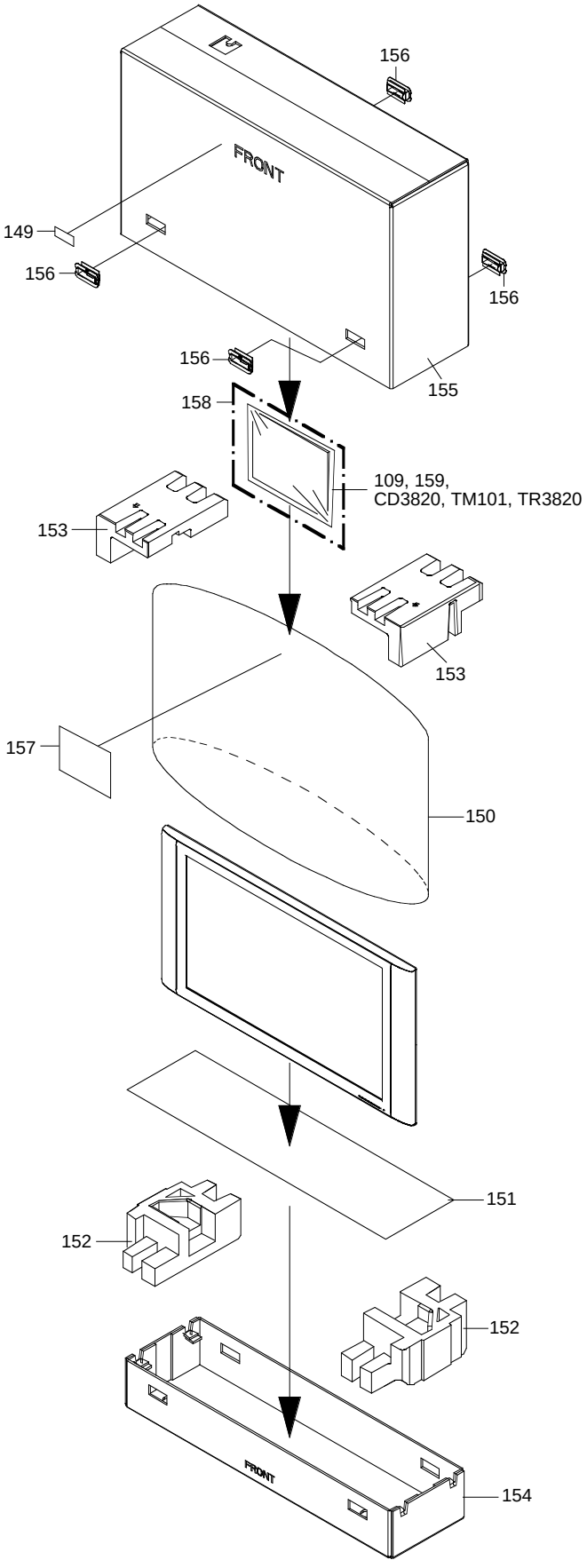


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW
(PACKING DIAGRAM)



MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
101	75004001	7A701A778A	FRONT CABI ASS'Y
101A	75003994	701WPJD346	CABINET FRONT
101B	72784168	702WPA1252	COVER,SPEAKER (L)
101C	72784169	702WPA1253	COVER,SPEAKER (R)
101D	72783966	713WPA0386	GLASS,LED
101E	72783968	761WPA0431	HOLDER,SPEAKER
101F	72784208	800WF00065	CUSHION
101G	75002702	800WQ00107	FELT SHEET 9*390*T1.0
101H	72794733	801WR00001	DAMPER SPEAKER
101I	72795699	899EFBA002	WIRING-CLIP
101J	72783967	7235490077	BADGE,BRAND
101K	72783965	711WPA0254	PLATE,REMOCON
101L	72783969	774WPA0009	HOLDER CORD
101M	75003998	752WSAA136	SHIELD EARTH
101N	72781222	800WQ0A092	FELT SHEET
101O	72781215	800WQ00095	FELT SHEET
102	72783970	7A7040012A	STAND ASS'Y
102A	72783975	7G7610058A	ANGLE STAND ASS'Y
102B	72783971	704WPB0017	STAND
102C	72784187	761WEB0010	FRAME,BOTTOM-L
102D	72784188	761WEB0011	FRAME,BOTTOM-R
102E	72781991	89982E42A0	BAND
102F	72783974	800WRA0008	CUSHION,LEG
102G	72795625	800WQ0A041	FELT SHEET
102H	72781311	899000NK4N	CABLE CLAMPS
103	72783979	7A7020076A	BACK CABI ASS'Y
103A	72783980	702WSB0129	CABINET,BACK
103B	72783981	800WQ00115	FELT SHEET
103C	72784212	800WQ0A129	FELT SHEET
104	72784203	7G7520032B	ANGLE PCB ASS'Y
104A	72783992	709WPA0043	HOLDER,CORD
104B	72784194	762WSAA015	ANGLE PCB
105	75003957	7G761A029A	PLATE JACK ASS'Y
105A	75003951	761WSBA005	PLATE JACK
105B	75003945	723000D384	SHEET JACK 1
105C	72783989	7230008140	SHEET,JACK-2
106	72783984	7A7010192A	PLATE,JACK-SIDE ASS'Y
106A	72783985	711WPA0256	PLATE,JACK-SIDE
106B	72783986	7230008098	SHEET,JACK(SIDE)
107	72783991	7G752A007A	SHIELD,MAIN-BOTTOM ASS'Y
107A	72783992	709WPA0043	HOLDER,CORD
107B	72783993	762WSA0088	SHIELD,MAIN-BOTTOM
107C	72795680	8995034000	CORD CLIP UL CO.
108	75003958	7G761A031A	COVER BACK ASS'Y
108A	72783978	702WPA1218	COVER,CONNECTOR
108B	75003952	761WSBA006	COVER BACK
109	75003970	J30A0121A	INSTRUCTION BOOK(E/F)
110	72784018	899ML02111	CABLE,CLAMP
111	72784172	705WPA0020	HANDLE BACK
112	75003995	722549A620	SHEET RATING
113	72784001	7260000353	SHEET EARTH MARK
114	72784179	752WSA0565	SHIELD SCALER
115	72784002	738WPB0077	BUTTON,FRAME
116	72784003	752WSA0554	SHIELD,JACK-SIDE
117	72784180	752WSA0593	SHIELD,PLATE
118	72784182	753WEAA003	SHEET CU
119	72784183	753WUA0082	SPRING,EARTH

MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
120	72784185	753WUA0084	SPRING EARTH
121	72784004	761WEA0012	FRAME,MAIN-L
122	72784005	761WEA0013	FRAME,MAIN-R
123	72784006	761WEA0014	HOLDER,PANEL
124	72784007	761WPA0427	HOLDER,BUSH
125	72784008	761WPA0428	HOLDER,CAP
126	72784009	762WSA0085	SHIELD,MAIN-L
127	72784010	762WSA0086	SHIELD,MAIN-R
128	72784011	762WSA0087	SHIELD,MAIN-TOP
129	72784012	800WFA0088	CUSHION
130	72784013	800WFA0089	CUSHION
131	75003999	753WEAA007	SHEET CU
132	72784221	890MP2401G	TAPE 30X12
133	75003949	752WSAA132	SHIELD JACK
134	72784176	7250000606	SHEET CAUTION
135	72795680	8995034000	CORD CLIP UL CO.
136	75003997	723549A069	POP LABEL
137	72795888	800WFAA008	CUSHION C
138	72795699	899EFBA002	WIRING-CLIP
139	72784177	7250000607	SHEET PE
140	72784220	890201FR50	TAPE 100*50
141	75003961	8965TS0270	CUSHION W6/H2/L70
142	72781305	8965TS1015	CUSHION 65TS10-5(10*5*15)
143	72784223	8965TS1030	CUSHION W10/H10/L30
144	72781306	8965TS1060	CUSHION W10/H10/L60
145	72784016	8965TS2680	CUSHION W6/H2/L680
146	72784017	8965TS2730	CUSHION W6/H2/L730
147	72784014	8965TS2B70	CUSHION W6/H2/L1170
148	72784015	8965TS2C15	CUSHION W6/H2/L1215
149	75003996	723000D375	SHEET BAR CODE
150	72784020	791WHA0117	LAMI BAG
151	72784021	791WHA0118	LIGHTRON SHEET
152	72784023	792WHA0650	PACKAGE,BOTTOM
153	72784197	792WHA0679	PACKAGE TOP
154	72784024	793WCA0019	GIFT,BOX BOTTOM
155	75004000	793WCDD247	GIFT BOX TOP
156	72784026	794WHAA003	HANDLE
157	72784178	7290000174	SHEET,PICTURE SHIFT
158	75003963	A30A01C975	INSTRUCTION BOOK KIT
159	72794754	JA4UD100	POLYBAG INSTRUCTION(RED CAUTION)
201	72784033	810763080S	SCREW,TAP TITE(S) BRAZIER 3*8 BK
202	72784031	8117540A6S	SCREW,TAPPING(B0) TRUSS 4*16 BK
203	72798791	8110630A0U	SCREW TAP TITE(P) BRAZIER 3*10 CH
204	72784034	810923080S	SCREW TAP TITE(B) BIND 3*8 BK
205	72798787	810923080U	SCREW TAP TITE(B) BIND 3*8 CH
206	72781255	8109I3080U	SCREW TAP TITE(B) WH7 3*8 CH
207	72798789	8109I30A0U	SCREW TAP TITE(B) WH7 3*10 CH
208	72784214	810273060S	SCREW,PLANE-R M3*6 BK
209	72784216	810A140A6U	SCREW WASHER(A) M4*16 CH
210	75003960	810B150A2S	SCREW,SEMS(B) 5*12 BK
211	72784217	810B140A0U	SCREW SEMS(B) 4*10 CH
212	72784039	810B150B0S	SCREW,SEMS(B) 5*20 BK
213	72784035	810C14080U	SCREW WASHER C 4*8 CH TOOTHED
214	72784041	810F23060S	SEMS(F)-R BIND 3*6 BK
215	72784042	8110230A4S	SCREW TAP TITE(P) BIND 3*14 BK
216	72798790	811063080U	SCREW TAP TITE(P) BRAZIER 3*8 CH
217	72784043	8110630A0S	SCREW TAP TITE(P) BRAZIER 3*10 BK
218	72784044	8110E3080S	SCREW,TAP TITE(P) WH10 3*8 BK
219	72781276	8117140A2U	SCREW,TAPPING(B0) PAN 4*12 CH

MECHANICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description
220	72781277	8117540A0U	SCREW TAPPING(B0) TRUSS 4*10 CH
221	72798795	8117540B0U	SCREW TAPPING(B0) TRUSS 4*20 CH
222	72781295	8162540A6U	SCREW TAPPING (BO) WASHER 18
223	72784036	810B13080U	SCREW WASHER(B) M3*8 CH
224	72784218	8167150B0U	SCREW WASHER(B) 5*20 CH
225	72784032	810213080S	SCREW PAN M3*8 BK
226	72784040	810233080S	SCREW,FLAT M3*8 BK
227	72784215	810A140A4U	SCREW WASHER(A) M4*14 CH
228	72781977	814623080U	SCREW TAP TITE(B) BIND 3*5.7+4*2.3 CH
229	72781292	8159130A0S	SCREW TAPPING(B) WASHER12 PAN 3*10 BLACK

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			CAPACITORS	
C340	72794410	E5EZF3102M	CE	1000 UF 25V
C342	72794410	E5EZF3102M	CE	1000 UF 25V
C2204	75003486	CQG0B0414K	CC	0.01 UF 50V B
C2209	75003486	CQG0B0414K	CC	0.01 UF 50V B
C3801	72784045	E61FF2102D	CE	1000 UF 16V
C3802	72784045	E61FF2102D	CE	1000 UF 16V
C3803	72784045	E61FF2102D	CE	1000 UF 16V
C3823	72781395	E61FF4102D	CE	1000 UF 35V
C3825	72794410	E5EZF3102M	CE	1000 UF 25V
C3826	72794410	E5EZF3102M	CE	1000 UF 25V
			DIODES	
D105	72781371	DD7R20S300	DIODE,SCHOTTKY BARRIER	RB520S-30-TE61
D109	72781371	DD7R20S300	DIODE,SCHOTTKY BARRIER	RB520S-30-TE61
D302	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D303	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D304	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D305	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D306	72781371	DD7R20S300	DIODE,SCHOTTKY BARRIER	RB520S-30-TE61
D802	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D803	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D805	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D807	72795897	DD7R0S3550	DIODE,SILICON	1SS355 TE-17
D808	72795897	DD7R0S3550	DIODE,SILICON	1SS355 TE-17
D901	72783214	D9WU05R62B	DIODE,ZENER	MTZJ5.6B-EIC
D2202	72783367	D9WU04R72B	DIODE,ZENER	MTZJ4.7B-EIC
D2203	72783367	D9WU04R72B	DIODE,ZENER	MTZJ4.7B-EIC
D2251	72794467	0021E9Q010	LED	LTL-1BEFJ-002A
D2252	72794491	D1VT001330	DIODE,SILICON	1SS133T-77
D2275	72795897	DD7R0S3550	DIODE,SILICON	1SS355 TE-17
D3206	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3207	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3208	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3209	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3212	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3600	72781372	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3601	72781361	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3602	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D3603	72781361	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3604	72781372	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3605	72781372	DD7R60L400	DIODE,SCHOTTKY	RB160L-40-TE25
D3609	72781374	DE7RB3R32B	DIODE,ZENER	UDZS3.3B TE-17
D3613	72781374	DE7RB3R32B	DIODE,ZENER	UDZS3.3B TE-17
D3626	72781361	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3627	72781361	D77R1A1R10	DIODE,VARISTA	AVRL161A1R1NT
D3628	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3629	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
D3630	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D3803	72781352	D23A0010J0	DIODE,SCHOTTKY	SBR100-10J-CBC11
D3804	72783759	D4AT01H3E0	DIODE,RECTIFIER	1H3-E
D3805	72783759	D4AT01H3E0	DIODE,RECTIFIER	1H3-E
D3809	72797300	D28R1QS040	DIODE	EC31QS04-TE12L
⚠D3900	72784073	D6C047110A	DIODE,VARISTA	ENE471D-10A
⚠D3901	72795544	D6E027110A	DIODE,VARISTA	ENE271D-10A
⚠D3902	72794484	DOU002720M	DIODE,VARISTA	DSS-272M-S00B
D4202	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4203	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4205	72781369	D9WU06R82B	DIODE,ZENER	MTZJ6.8B-EIC
D4206	72783414	D9WU08R22B	DIODE,ZENER	MTZJ8.2B-EIC
D4207	72783414	D9WU08R22B	DIODE,ZENER	MTZJ8.2B-EIC
D4208	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4209	72794491	D1VT001330	DIODE,SILICON	1SS133T-77
D4210	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4211	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4212	72784074	DE7RB1202B	DIODE,ZENER	UDZS12B TE-177
D4301	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
D4302	72781375	DE7RB5R62B	DIODE,ZENER	UDZS5.6B TE-17
			ICS	
IC101	75004040	S30B01CM01	MEMORY DATA	OEC7164A
IC102	72795101	I9UF032290	IC	PST3229NR
IC103	75004009	S30B01CE02	MEMORY DATA	AT24C256N-10SU-2.7
IC104	75004008	S30B01CE01	MEMORY DATA	AT24C256N-10SU-2.7
⚠IC301	72781462	I1MFPA2020	IC	TA2024-ASE
IC801	72784084	I56K07A720	IC	R8J66607A72FP
IC904	72781455	I19FF4440G	IC	MSP4440G-QA-C13-100
IC2101	72781516	IFSK0883C0	IC	MST9883C-LF-110

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			ICS	
IC2275	72797569	I0QF0580V0	IC	NJM4580V(TE1)
⚠IC3201	72781440	I07F0C0WF0	IC	BA00BC0WFP-E2
⚠IC3202	72783780	I07F078200	IC	BD7820FP-E2
⚠IC3203	72783780	I07F078200	IC	BD7820FP-E2
IC3601	72783780	I07F078200	IC	BD7820FP-E2
IC3602	72781440	I07F0C0WF0	IC	BA00BC0WFP-E2
IC3605	72784078	IG1F090210	IC	SII9021CTU
IC3606	72796085	I57J0L02F0	IC	BR24L02F-WE2
IC3608	72784079	I57J0L32F0	IC	BR24L32F-WE2
IC3609	72796085	I57J0L02F0	IC	BR24L02F-WE2
IC3611	72784080	ICMF0T89E0	IC	SST89E58RD2-40-C-TQJE
IC3803	72781439	I07F093000	IC	BD9300FV-E2
⚠IC3804	72781444	I0GA9XF010	IC	PQ070XF01SZH
IC3805	72797534	I03D979950	IC	LA7995M-TLM
IC3808	72784081	I07A078100	IC	BA7810T-V5
IC4201	72794501	I01F05853B	IC	AN15853B-E1
IC4204	72797567	I0QF025840	IC	NJM2584AM(TE1)
IC4304	72795918	I0QF02534V	IC	NJM2534V(TE2)
IC4305	72795918	I0QF02534V	IC	NJM2534V(TE2)
IC7202	72784082	IF8F0385A0	IC	ICSV385AGLFT
IC7501	72784083	IF8K010000	IC	DV1000-75
IC8103	72794502	I0UF015010	IC	MM1501XNRE
IC8104	72797567	I0QF025840	IC	NJM2584AM(TE1)
			TRANSISTORS	
Q101	72794567	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK
Q104	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q105	72798367	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
Q106	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q300	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q301	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q302	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q901	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q902	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q2101	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q2251	72784102	0001L00070	PHOTO DIODE	HPI6FGR4F2
Q2252	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q2275	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q2276	72783824	TAAA1544T0	TRANSISTOR,SILICON	KTA1544T-RTK/P
Q2277	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q3205	72798319	T77J011320	TRANSISTOR,SILICON	2SB1132T100(Q,R)
Q3206	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q3210	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3211	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3603	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3604	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3605	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3606	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3607	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3613	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3614	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3615	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3616	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3617	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3618	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3619	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3620	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q3621	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3801	72798367	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
Q3802	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q3804	72798367	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
Q3805	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q3806	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q3807	72783823	TAAA1505SY	TRANSISTOR,SILICON	KTA1505S-Y-RTK/P
Q3808	72781787	T0300J6500	FET	2SJ650
Q4200	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q4201	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q4203	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4205	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4206	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4207	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4208	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q4209	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4210	72783825	T2AA5132E0	FET	KTK5132E-RTK/P
Q4211	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q4231	72798367	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			TRANSISTORS	
Q4233	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q4302	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4305	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q4402	72798367	TPAAC05002	COMPOUND TRANSISTOR	KRA103SRTK
Q4403	72795962	TNAAB05003	COMPOUND TRANSISTOR	KRC102SRTK
Q8101	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q8102	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q8103	72794571	TCAA3875SY	TRANSISTOR,SILICON	KTC3875S_Y_RTK
Q8105	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
Q8106	72794566	TAAA1504SY	TRANSISTOR,SILICON	KTA1504S_Y_RTK
			COILS &TRANSFORMERS	
L300	72798924	021W0G100M	COIL	10 UH
L301	72798924	021W0G100M	COIL	10 UH
L302	72798924	021W0G100M	COIL	10 UH
L303	72798924	021W0G100M	COIL	10 UH
L901	72795062	02167F100J	COIL	10 UH
L903	72795062	02167F100J	COIL	10 UH
L904	72795062	02167F100J	COIL	10 UH
L2101	72798914	0216S8220K	COIL	22 UH
L2102	72798914	0216S8220K	COIL	22 UH
L2103	72798916	0216S8470K	COIL	47 UH
L2106	72798912	0216S8150K	COIL	15 UH
L2107	72798914	0216S8220K	COIL	22 UH
L2275	72796089	02167F470J	COIL	47 UH
L3601	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3602	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3603	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3604	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3605	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3606	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3607	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3608	72798955	02D6000068	COIL,CHOKE	ACM2012D-900-2P-T00
L3623	72784092	0216SD220J	COIL	22 UH
L3801	72796513	02167E220K	COIL	22 UH
L3802	72796513	02167E220K	COIL	22 UH
L3803	72796513	02167E220K	COIL	22 UH
L3804	72796513	02167E220K	COIL	22 UH
L3805	72798897	0214646R8M	COIL	6.8 UH
L3808	72798924	021W0G100M	COIL	10 UH
L3809	72798897	0214646R8M	COIL	6.8 UH
L3810	72796087	02167E100K	COIL	10 UH
L4200	72796402	021LA6220K	COIL	22 UH
L4202	72796089	02167F470J	COIL	47 UH
L4203	72796089	02167F470J	COIL	47 UH
L4204	72794536	021LA6330J	COIL	33 UH
L4206	72796089	02167F470J	COIL	47 UH
L4207	72796089	02167F470J	COIL	47 UH
L4211	72794540	02167F101J	COIL	100 UH
L4212	72796571	021LA6220J	COIL	22 UH
L4213	72796571	021LA6220J	COIL	22 UH
L4214	72796571	021LA6220J	COIL	22 UH
L4215	72796571	021LA6220J	COIL	22 UH
L4216	72796571	021LA6220J	COIL	22 UH
L4217	72796571	021LA6220J	COIL	22 UH
L4218	72796571	021LA6220J	COIL	22 UH
L4219	72796571	021LA6220J	COIL	22 UH
L4220	72796571	021LA6220J	COIL	22 UH
L4221	72796571	021LA6220J	COIL	22 UH
L4227	72796402	021LA6220K	COIL	22 UH
L4301	72798916	0216S8470K	COIL	47 UH
L4306	72798914	0216S8220K	COIL	22 UH
L4403	72795062	02167F100J	COIL	10 UH
L5800	72794526	02167F220J	COIL	22 UH
L5801	72796571	021LA6220J	COIL	22 UH
L7201	72798916	0216S8470K	COIL	47 UH
L7202	72798916	0216S8470K	COIL	47 UH
L7203	72798916	0216S8470K	COIL	47 UH
L7502	72798916	0216S8470K	COIL	47 UH
L8102	72798916	0216S8470K	COIL	47 UH
L8104	72798916	0216S8470K	COIL	47 UH
L8105	72798914	0216S8220K	COIL	22 UH
			JACKS	
J2275	72796730	060J121014	JACK,RCA,3.5	MSJ-035-12A_PC
J3601	72784085	060J131019	HEADPHONE JACK	MSJ-2000B_AG(O87)
J4201	72784086	060K411049	RCA JACK	AV3-13P2-11S1

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			JACKS	
J4204	75003937	060K471011	RCA JACK	AV4-57A03-01H
J4205	72784089	063E000082	JACK,PLATE	SAV-12CP-01Z5
J4206	72783793	063E700012	JACK	S4-25SZ
J4207	72783794	060K421056	RCA JACK	AV-5A-66H
J4208	72783795	060K421058	RCA JACK	AV-5A-68H
J4209	72783796	060K421057	RCA JACK	AV-5A-67H
J4211	75003936	060K441006	RCA JACK	AV6-53-13H
J4301	72784091	060J431025	RCA JACK	MSD-242VA1-03_NI_FE_LF
			SWITCHES	
SW2201	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2202	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2203	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2204	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2205	72794688	0504101T34	SWITCH,TACT	EVQ21505R
SW2206	72794688	0504101T34	SWITCH,TACT	EVQ21505R
			P.C.BOARD ASSEMBLIES	
PCB270	75004002	A30B01C270	OPERATION PCB ASS'Y	CEE133A
PCBD00	75004003	A30B01CD00	FILTER PCB ASS'Y	CEE131A
PCBD20	75004004	A30B01CD20	AV PCB ASS'Y	CMF091A
PCBD90	75004005	A30B01CD90	SIDE JACK PCB ASS'Y	CEF210A
PCBDA0	75004006	A30B01CDA0	REMOCON PCB ASS'Y	CEF211A
PCBDS0	75004007	A30B01CDS0	SCALER PCB ASS'Y	CEF156A
			MISCELLANEOUS	
B801	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B802	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B803	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B804	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B805	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B806	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B904	72798929	024AC5102F	CORE,BEADS	BLM18BD102SN1D
B906	72798929	024AC5102F	CORE,BEADS	BLM18BD102SN1D
B2101	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B2271	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B3201	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B3202	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B3203	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B3205	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B3206	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B3207	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B3601	72796605	024HC36001	CORE,BEADS	HCB2012K-600T25
B3602	72796605	024HC36001	CORE,BEADS	HCB2012K-600T25
B3603	72796605	024HC36001	CORE,BEADS	HCB2012K-600T25
B3604	72796605	024HC36001	CORE,BEADS	HCB2012K-600T25
B3605	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B3606	72798929	024AC5102F	CORE,BEADS	BLM18BD102SN1D
B3612	72798929	024AC5102F	CORE,BEADS	BLM18BD102SN1D
B3613	72796605	024HC36001	CORE,BEADS	HCB2012K-600T25
B3621	72795787	0246C51024	CORE,BEADS	MMZ1608R102CT
B3622	72795787	0246C51024	CORE,BEADS	MMZ1608R102CT
B4204	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4205	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4206	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4208	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4209	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4210	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4211	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4214	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4215	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4216	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4217	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4218	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4219	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4220	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4221	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4222	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4303	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4304	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4305	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B4307	72795787	0246C51024	CORE,BEADS	MMZ1608R102CT
B4308	72795787	0246C51024	CORE,BEADS	MMZ1608R102CT
B5801	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B5802	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D
B7202	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B7501	72798931	024AC5600E	CORE,BEADS	BLM18BB600SN1D
B7502	72798930	024AC5181J	CORE,BEADS	BLM18PG181SN1D

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			MISCELLANEOUS	
BT001	72783174	141U004016	BATTERY,MANGAN	MNAAA(R03)
BT002	72783174	141U004016	BATTERY,MANGAN	MNAAA(R03)
CD301	72784048	06CU13A301	CORD,CONNECTOR	CU13A301
CD303	72784049	06CU12A601	CORD,CONNECTOR	CU12A601
CD801	72784062	06CH011208	CORD,CONNECTOR	CH011208
CD802	72784062	06CH011208	CORD,CONNECTOR	CH011208
CD803	72784164	122Q312102	CORD,JUMPER	TD-OR0210Z
CD804	72784158	06CH010903	CORD,CONNECTOR	CH010903
CD901	72784063	06CU247001	CORD,CONNECTOR	CU247001
CP101	72796798	069S250629	CONNECTOR PCB SIDE	A2001WV2-5P
CP102	72796806	069S2A0629	CONNECTOR PCB SIDE	A2001WV2-10P
CP103	72796801	069S270629	CONNECTOR PCB SIDE	A2001WV2-7P
CP301	72784066	069S130419	CONNECTOR PCB SIDE	A2502WV2-3P
CP303	72796792	069S120419	CONNECTOR PCB SIDE	A2502WV2-2P
CP802	72799028	069EVU3030	CONNECTOR PCB SIDE	00_6232_030_006_800+
CP803	72799027	069EVT3030	CONNECTOR PCB SIDE	00_6232_029_006_800+
CP901	72796796	069S240629	CONNECTOR PCB SIDE	A2001WV2-4P
CD2203	75003938	06CU23A002	CORD,CONNECTOR	CU23A002
⚠CD3801	72784050	06CU643701	CORD,CONNECTOR	CU643701
CD3802	72784051	06CU622201	CORD,CONNECTOR	CU622201
CD3803	72784052	06CU6C2901	CORD,CONNECTOR	CU6C2901
CD3804	72784053	06CU672301	CORD,CONNECTOR	CU672301
CD3807	72784054	06CU2B3901	CORD,CONNECTOR	CU2B3901
⚠CD3820	75003940	120T024504	CORD,AC	0T024504
CD3831	72784056	06CU012202	CORD,CONNECTOR	CU012202
CD3900	72784057	06CUU21001	CORD,CONNECTOR	CUU21001
CD3901	72784058	06CUU33002	CORD,CONNECTOR	CUU33002
CD4200	72784059	06CU28A005	CORD,CONNECTOR	CU28A005
CD4201	72784158	06CH010903	CORD,CONNECTOR	CH010903
CD4202	72784060	06CU267901	CORD,CONNECTOR	CU267901
CD4203	72799271	122H0T0801	CORD,JUMPER	2H0T0801
CD4204	72799273	122H0U0802	CORD,JUMPER	2H0U0802
CD7206	72784061	06CUZV6301	CORD,CONNECTOR	CUZV6301
CP2200	72796794	069S230629	CONNECTOR PCB SIDE	A2001WV2-3P
CP2203	72796795	069S230639	CONNECTOR PCB SIDE	A2001WR2-3P
CP2251	72799047	069S260639	CONNECTOR PCB SIDE	A2001WR2-6P
CP3201	72796807	069S2B0629	CONNECTOR PCB SIDE	A2001WV2-11P
CP3601	72799030	069HYJ3010	CONNECTOR PCB SIDE	DC1R019JDA
CP3602	72796796	069S240629	CONNECTOR PCB SIDE	A2001WV2-4P
CP3603	72799030	069HYJ3010	CONNECTOR PCB SIDE	DC1R019JDA
CP3604	72796804	069S290629	CONNECTOR PCB SIDE	A2001WV2-9P
CP3801	72784067	069S140019	CONNECTOR PCB SIDE	A2501WV2-4P
CP3802	72784068	069S120019	CONNECTOR PCB SIDE	A2501WV2-2P
CP3803	72784069	069S1C0019	CONNECTOR PCB SIDE	A2501WV2-12P
CP3804	72784070	069S170019	CONNECTOR PCB SIDE	A2501WV2-7P
CP3807	72796807	069S2B0629	CONNECTOR PCB SIDE	A2001WV2-11P
⚠CP3900	72796817	069S320419	CONNECTOR PCB SIDE	A3963WV2-3PD
⚠CP3901	72796817	069S320419	CONNECTOR PCB SIDE	A3963WV2-3PD
CP4200	72796803	069S280629	CONNECTOR PCB SIDE	A2001WV2-8P
CP4201	72796803	069S280629	CONNECTOR PCB SIDE	A2001WV2-8P
CP4202	72796800	069S260629	CONNECTOR PCB SIDE	A2001WV2-6P
CP4203	72799027	069EVT3030	CONNECTOR PCB SIDE	00_6232_029_006_800+
CP4204	72799028	069EVU3030	CONNECTOR PCB SIDE	00_6232_030_006_800+
CP4302	72799010	0694S15017	CONNECTOR PCB SIDE	1-1734344-1
CP7202	72784072	069HTR001A	CONNECTOR PCB SIDE	FI-TWE31PB-VF
ELD002	72797070	124120301A	EYE LET	XRY20X30BD
⚠F3900	72784075	081PC08005	FUSE	51MS080L
FH3900	72794496	06710T0009	HOLDER,FUSE	EYF-52BCY
FH3901	72794496	06710T0009	HOLDER,FUSE	EYF-52BCY
NR801	72799237	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR802	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR803	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR804	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR805	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR806	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR807	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR2101	72797034	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR2102	72797034	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR2103	72797034	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR2104	72797034	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR2105	72797034	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR2106	72797034	110P4101M4	R,NETWORK	4D03WGJ0101T5E
NR3601	72799237	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3602	72799237	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3603	72799237	110P4000M4	R,NETWORK	4D03WGJ0000T5E

ELECTRICAL REPLACEMENT PARTS LIST

Location No.	TSB P/N	Reference No.	Description	
			MISCELLANEOUS	
NR3604	72799237	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3605	72799237	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR3606	72799237	110P4000M4	R,NETWORK	4D03WGJ0000T5E
NR7203	72799238	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR7204	72799238	110P4220M4	R,NETWORK	4D03WGJ0220T5E
NR7501	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR7502	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR7503	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR7504	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR7505	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
NR7506	72799240	110P4470M4	R,NETWORK	4D03WGJ0470T5E
OS2251	72784093	077A033001	REMOTE RECEIVER	ROM-V338TAO
PH3900	72796825	069W01001A	CONNECTOR PCB SIDE	003P-2100
PH3901	72796825	069W01001A	CONNECTOR PCB SIDE	003P-2100
⚠SP301	72784103	0701016002	SPEAKER	EAS12D175B
⚠SP302	72784103	0701016002	SPEAKER	EAS12D175B
⚠SP303	72784104	0701026001	SPEAKER	EAS5PH134C
⚠SP304	72784104	0701026001	SPEAKER	EAS5PH134C
TM101	75003939	076D0KK030	TRANSMITTER	000-103000440
TR301	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR302	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR3805	72784107	02A6C0A3Y1	CORE,FERRITE	ZCAT3035-1330
TR3806	72784106	02A6B3A3T1	CORE,FERRITE	ZCAT2436-1330A
TR4201	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR4202	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR4203	72784106	02A6B3A3T1	CORE,FERRITE	ZCAT2436-1330A
TR4204	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TR4205	72784107	02A6C0A3Y1	CORE,FERRITE	ZCAT3035-1330
TR4206	72784106	02A6B3A3T1	CORE,FERRITE	ZCAT2436-1330A
TR6502	72796088	02AHB9A972	CORE,FERRITE	W5T29X7.5X19
TU5800	75003831	0162300048	RF UNIT	115-V-LA35ARH
⚠V801	72784108	09HD205001	PDP	PDP50X3####
V802	72784109	09JE250001	PDP FILTER	FG510NAA-05
X101	72799226	100WT01611	CRYSTAL	HC-49/U-S
X801	72799227	100YT05401	CRYSTAL	FCX-03
X901	72797001	100CT01803	CRYSTAL	HC-49/U-S
X3601	72799220	100CT01101	CRYSTAL	HC-49/U-S
X3602	72783835	100DT02801	CRYSTAL	SMD-49
X7501	72784110	100DT02006	CRYSTAL	DSO751SV

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

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN