

PHILIPS

32" LCD TV

Service Manual

32HFL3663S/F7 (Serial No.: DS1)

In this service manual, there are some models which consist of two Inverter CBAs. The main Inverter CBA and the sub Inverter CBA are compatible with each other for a board level repair but they are not compatible with each other for a component level repair.

When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List.


For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2).

For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).

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IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all P&F Equipment. The service procedures recommended by P&F and described in this service manual are effective methods of performing service operations. Some of these service special tools should be used when and as recommended.

It is important to note that this service manual contains various CAUTIONS and NOTICES which should be carefully read in order to minimize the risk of personal injury to service personnel. The possibility exists that improper service methods may damage the equipment. It also is important to understand that these CAUTIONS and NOTICES ARE NOT EXHAUSTIVE. P&F could not possibly know, evaluate and advice the service trade of all conceivable ways in which service might be done or of the possible hazardous consequences of each way. Consequently, P&F has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by P&F must first use all precautions thoroughly so that neither his safety nor the safe operation of the equipment will be jeopardized by the service method selected.

<p>The LCD panel is manufactured to provide many years of useful life. Occasionally a few non active pixels may appear as a tiny spec of color. This is not to be considered a defect in the LCD screen.</p>

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SPECIFICATIONS

< TUNER / NTSC >

ANT. Input ----- 75 Ω Unbal., F type

Description	Condition	Unit	Nominal	Limit
1. AFT Pull-In Range	---	MHz	± 2.3	± 2.1
2. Synchronizing Sens.	TV.ch.4	dB μ	18	20
	CA.ch.31	dB μ	18	20
	CA.ch.87	dB μ	18	23

< TUNER / ATSC >

Description	Condition	Unit	Nominal	Limit
1. Received Freq. Range (-28dBm)	---	kHz	---	± 100
2. ATSC Dynamic Range (min / max)	ch.4	dBm	---	-76/0
	ch.10	dBm	---	-76/0
	ch.41	dBm	---	-76/0

< LCD PANEL >

Description	Condition	Unit	Nominal	Limit
1. Native Pixel Resolution	Horizontal	pixels	1366	---
	Vertical	pixels	768	---
2. Brightness (w / filter)	---	cd/m ²	350	---
3. Viewing Angle	Horizontal	°	-88 to 88	---
	Vertical	°	-88 to 88	---

< VIDEO >

Description	Condition	Unit	Nominal	Limit
1. Over Scan	Horizontal	%	5	5 \pm 5
	Vertical	%	5	5 \pm 5
2. Color Temperature	---	°K	12000	---
	x		0.272	$\pm 3\%$
	y		0.278	$\pm 3\%$
3. Resolution (composite video)	Horizontal	line	400	---
	Vertical	line	350	---

< AUDIO >

All items are measured across 8 Ω load at speaker output terminal with L.P.F.

Description	Condition	Unit	Nominal	Limit
1. Audio Max Output (ATSC 0 dBfs)	Lch/Rch	W	10.0/10.0	8.0/8.0
2. Audio Distortion (NTSC)	500mW: Lch/Rch	%	0.5/0.5	2.0/2.0
3. Audio Freq. Response (NTSC)	-6dB: Lch	Hz	70 to 10 k	---
	-6dB: Rch	Hz	70 to 10 k	---

IMPORTANT SAFETY PRECAUTIONS

Prior to shipment from the factory, our products are strictly inspected for recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

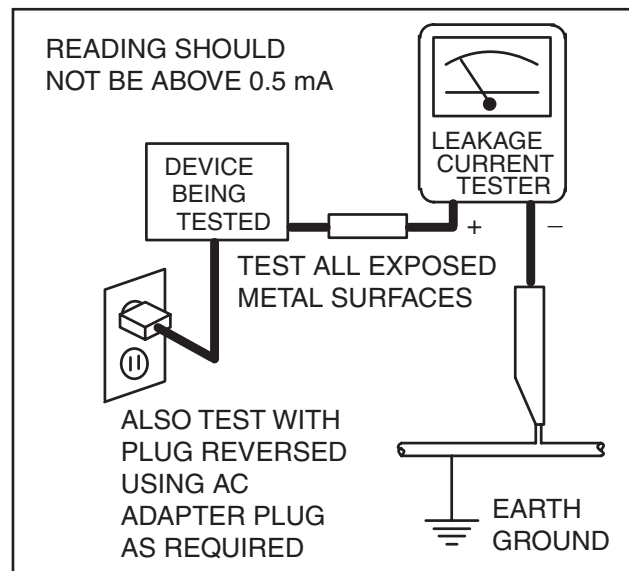
Safety Precautions for LCD TV Circuit

1. **Before returning an instrument to the customer**, always make a safety check of the entire instrument, including, but not limited to, the following items:

- a. Be sure that no built-in protective devices are defective and have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**
- b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the Liquid Crystal Panel and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.


- c. **Antenna Cold Check** - With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohm or greater than 5.2 megohm, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.

- d. **Leakage Current Hot Check** - With the instrument completely reassembled, plug the AC line cord directly into a 120 V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milli-ampere. Reverse the instrument power cord plug in the outlet and repeat the test.



ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the Liquid Crystal Panel.

3. **Design Alteration Warning** - Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions, including, but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connections, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions will void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.
4. **Hot Chassis Warning** -
 - a. Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and maybe safety-serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. To confirm that the AC power plug is inserted correctly, with an AC voltmeter, measure between the chassis and a known earth ground. If a voltage reading in excess of 1.0 V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground.
 - b. Some TV receiver chassis normally have 85V AC(RMS) between chassis and earth ground regardless of the AC plug polarity. This chassis can be safety-serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection.
 - c. Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulation material that must not be defeated or altered.
5. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: a. near sharp edges, b. near thermally hot parts-be sure that leads and components do not touch thermally hot parts, c. the AC supply, d. high voltage, and, e. antenna wiring. Always inspect in all areas for pinched, out of place, or frayed wiring. Check AC power cord for damage.
6. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.
7. **Product Safety Notice** - Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by a  on schematics and in parts lists. Use of a substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire, and/or other hazards. The product's safety is under review continuously and new instructions are issued whenever appropriate. Prior to shipment from the factory, our products are strictly inspected to confirm they comply with the recognized product safety and electrical codes of the countries in which they are to be sold. However, in order to maintain such compliance, it is equally important to implement the following precautions when a set is being serviced.

Precautions during Servicing

- A.** Parts identified by the **▲** symbol are critical for safety.
Replace only with part number specified.
- B.** In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.
- C.** Use specified internal wiring. Note especially:
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
- D.** Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers
 - 4) Insulators for transistors.
- E.** When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.
- F.** Observe that the wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.)
- G.** Check that replaced wires do not contact sharp edged or pointed parts.
- H.** When a power cord has been replaced, check that 11~13 lb (5~6 kg) of force in any direction will not loosen it.
- I.** Also check areas surrounding repaired locations.
- J.** Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.
- K.** When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC supply outlet.
- L.** When installing parts or assembling the cabinet parts, be sure to use the proper screws and tighten certainly.

Safety Check after Servicing

Examine the area surrounding the repaired location for damage or deterioration. Observe that screws, parts and wires have been returned to original positions. Afterwards, perform the following tests and confirm the specified values in order to verify compliance with safety standards.

1. Clearance Distance

When replacing primary circuit components, confirm specified clearance distance (d) and (d') between soldered terminals, and between terminals and surrounding metallic parts. (See Fig. 1)

Table 1: Ratings for selected area

AC Line Voltage	Region	Clearance Distance (d), (d')
110 to 130 V	U.S.A. or Canada	≥ 3.2 mm (0.126 inches)

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

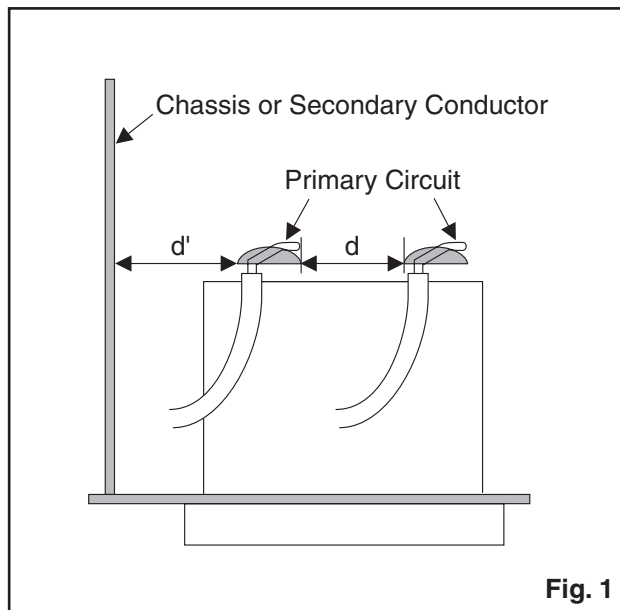


Fig. 1

2. Leakage Current Test

Confirm the specified (or lower) leakage current between B (earth ground, power cord plug prongs) and externally exposed accessible parts (RF terminals, antenna terminals, video and audio input and output terminals, microphone jacks, earphone jacks, etc.) is lower than or equal to the specified value in the table below.

Measuring Method: (Power ON)

Insert load Z between B (earth ground, power cord plug prongs) and exposed accessible parts. Use an AC voltmeter to measure across both terminals of load Z. See Fig. 2 and following table.

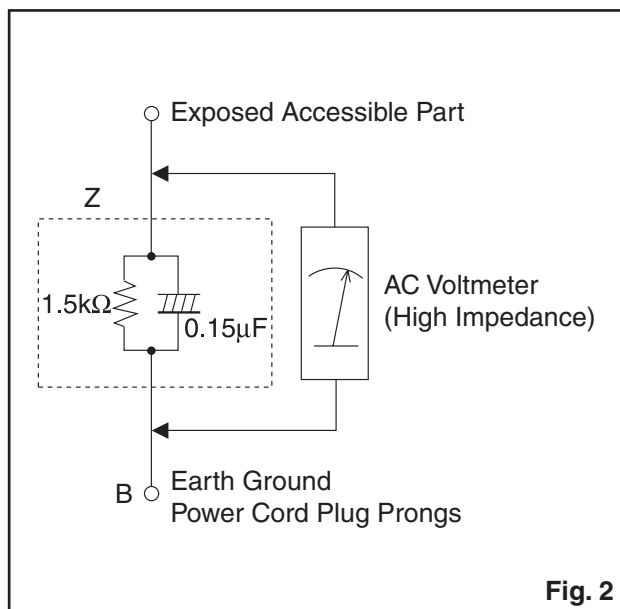


Fig. 2

Table 2: Leakage current ratings for selected areas

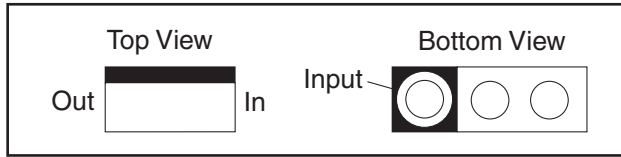
AC Line Voltage	Region	Load Z	Leakage Current (i)	Earth Ground (B) to:
110 to 130 V	U.S.A. or Canada	0.15 μ F CAP. & 1.5 kΩ RES. Connected in parallel	$i \leq 0.5$ mA rms	Exposed accessible parts

Note: This table is unofficial and for reference only. Be sure to confirm the precise values.

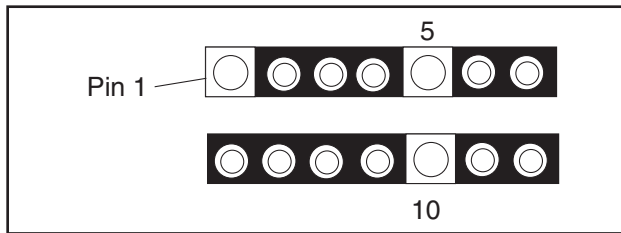
STANDARD NOTES FOR SERVICING

Circuit Board Indications

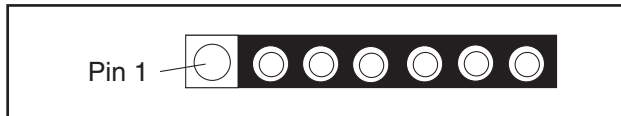
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



2. For other ICs, pin 1 and every fifth pin are indicated as shown.

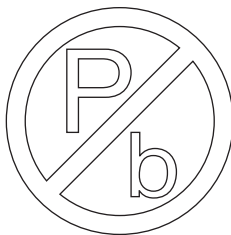


3. The 1st pin of every male connector is indicated as shown.



Pb (Lead) Free Solder

Pb free mark will be found on PCBs which use Pb free solder. (Refer to figure.) For PCBs with Pb free mark, be sure to use Pb free solder. For PCBs without Pb free mark, use standard solder.



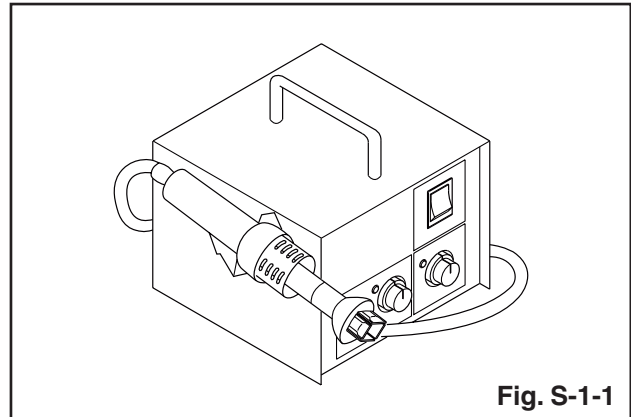
Pb free mark

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

1. Prepare the hot-air flat pack-IC desoldering machine, then apply hot air to the Flat Pack-IC (about 5 to 6 seconds). (Fig. S-1-1)

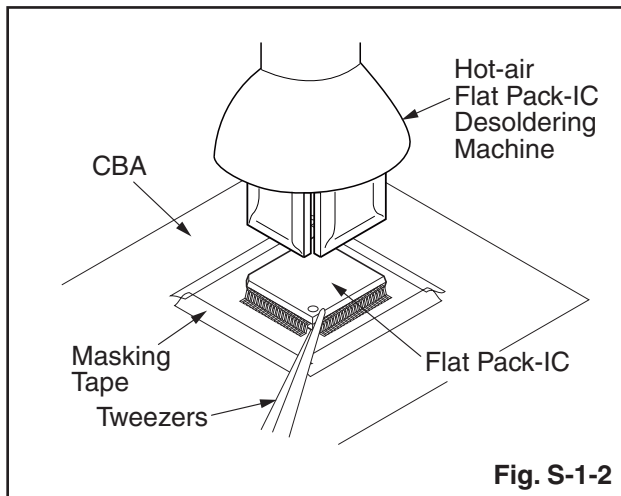


2. Remove the flat pack-IC with tweezers while applying the hot air.
3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

CAUTION:

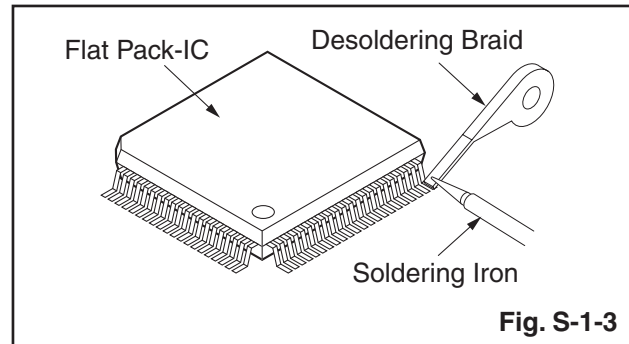
1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.
2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape around the flat pack-IC to protect other parts from damage. (Fig. S-1-2)

3. The flat pack-IC on the CBA is affixed with glue, so be careful not to break or damage the foil of each pin or the solder lands under the IC when removing it.

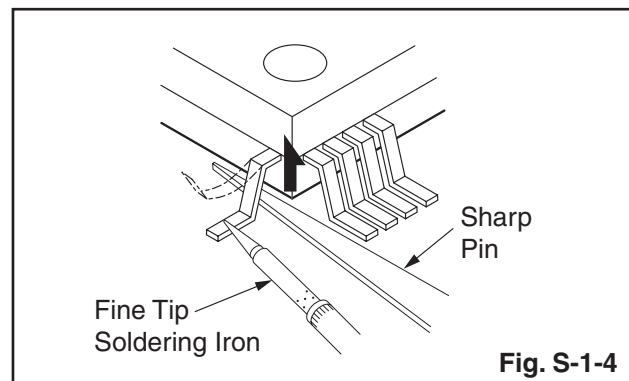


With Soldering Iron:

1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)



2. Lift each lead of the flat pack-IC upward one by one, using a sharp pin or wire to which solder will not adhere (iron wire). When heating the pins, use a fine tip soldering iron or a hot air desoldering machine. (Fig. S-1-4)

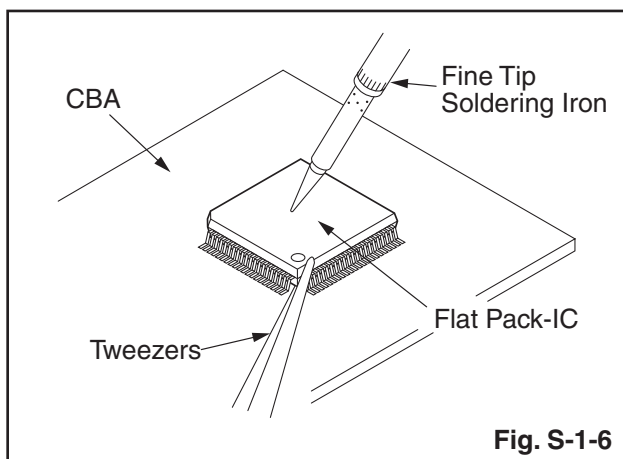
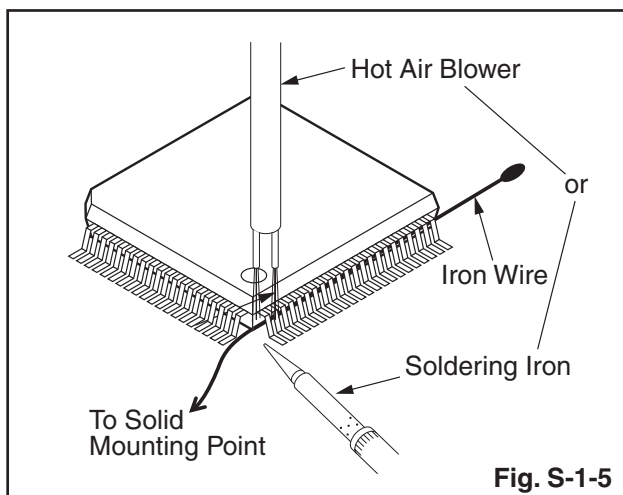


3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

With Iron Wire:

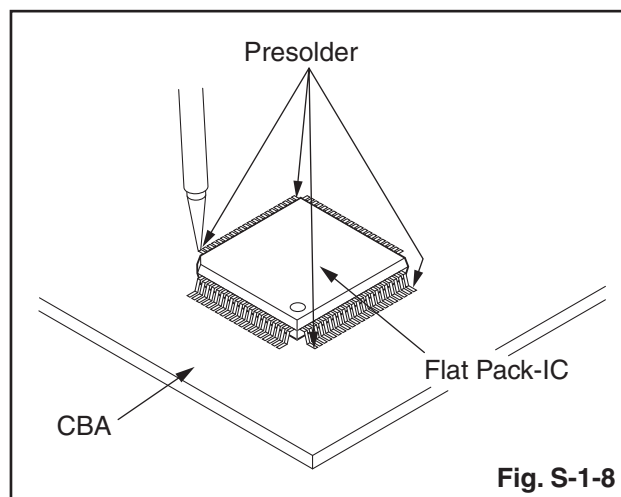
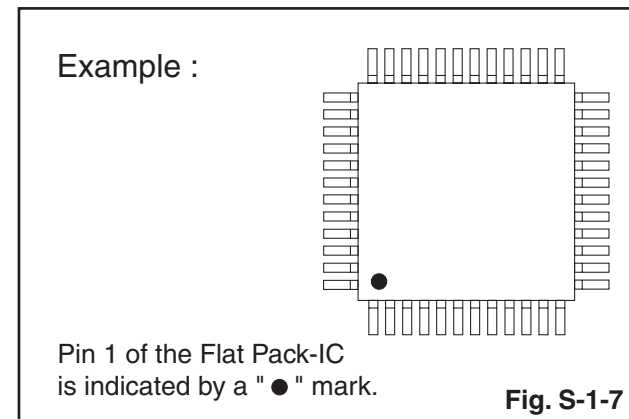
1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
2. Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
3. While heating the pins using a fine tip soldering iron or hot air blower, pull up the wire as the solder melts so as to lift the IC leads from the CBA contact pads as shown in Fig. S-1-5.
4. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
5. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

Note: When using a soldering iron, care must be taken to ensure that the flat pack-IC is not being held by glue. When the flat pack-IC is removed from the CBA, handle it gently because it may be damaged if force is applied.



2. Installation

1. Using desoldering braid, remove the solder from the foil of each pin of the flat pack-IC on the CBA so you can install a replacement flat pack-IC more easily.
2. The "●" mark on the flat pack-IC indicates pin 1. (See Fig. S-1-7.) Be sure this mark matches the pin 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)
3. Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.



Instructions for Handling Semi-conductors

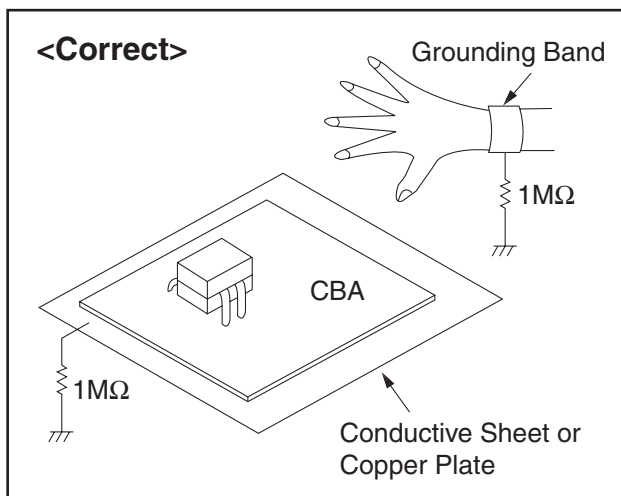
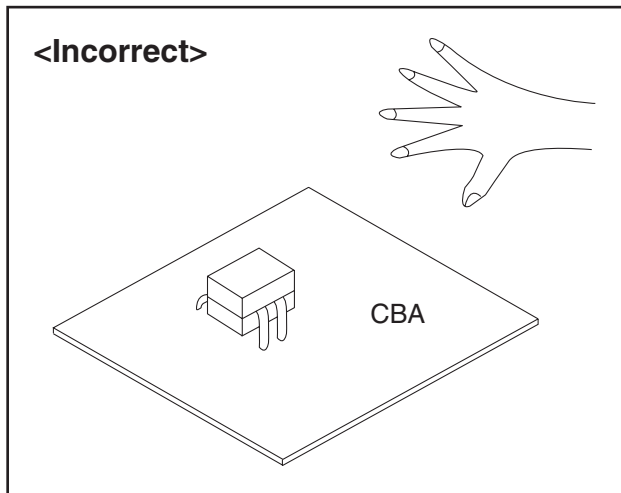
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

1. Ground for Human Body

Be sure to wear a grounding band ($1\text{ M}\Omega$) that is properly grounded to remove any static electricity that may be charged on the body.

2. Ground for Workbench

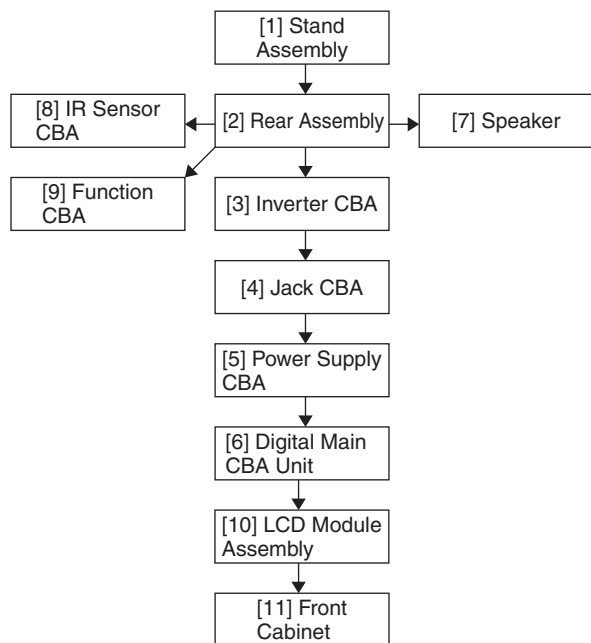
Be sure to place a conductive sheet or copper plate with proper grounding ($1\text{ M}\Omega$) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors with your clothing.



CABINET DISASSEMBLY INSTRUCTIONS

1. Disassembly Flowchart

This flowchart indicates the disassembly steps for the cabinet parts and the CBA in order to gain access to items to be serviced. When reassembling, follow the steps in reverse order. Bend, route and dress the cables as they were.



2. Disassembly Method

Step/ Loc. No.	Part	Fig. No.	Removal	Note
[1]	Stand Assembly	D1	3(S-1)	---
[2]	Rear Assembly	D1	12(S-2), 2(S-3), 4(S-4), 11(L-1)	---
[3]	Inverter CBA	D2 D4	7(S-5), CN1001, CN1003, CN1100, CN1101, CN1102, CN1901	---
[4]	Jack CBA	D2 D4	2(S-6), CL701B	---
[5]	Power Supply CBA	D2 D4	9(S-7), CN101, CN301, CN302, CN801, CN802	---
[6]	Digital Main CBA Unit	D2 D4	2(S-8), 8(S-9), CN3005, Jack Holder, Shield Box	---
[7]	Speaker	D3	4(S-10), Speaker Holder	---

Step/ Loc. No.	Part	Fig. No.	Removal	Note
[8]	IR Sensor CBA	D3 D4	CL103A	---
[9]	Function CBA	D3 D4	Function Knob, Knob Frame	---
[10]	LCD Module Assembly	D3	(S-11)	---
[11]	Front Cabinet	D3	-----	---
↓	↓	↓	↓	↓
(1)	(2)	(3)	(4)	(5)

Note:

- (1) Order of steps in procedure. When reassembling, follow the steps in reverse order. These numbers are also used as the Identification (location) No. of parts in figures.
- (2) Parts to be removed or installed.
- (3) Fig. No. showing procedure of part location
- (4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P = Spring, L = Locking Tab, S = Screw,
H = Hex Screw, CN = Connector
e.g. 2(S-2) = two Screws of (S-2),
2(L-2) = two Locking Tabs of (L-2)
- (5) Refer to the following "Reference Notes in the Table."

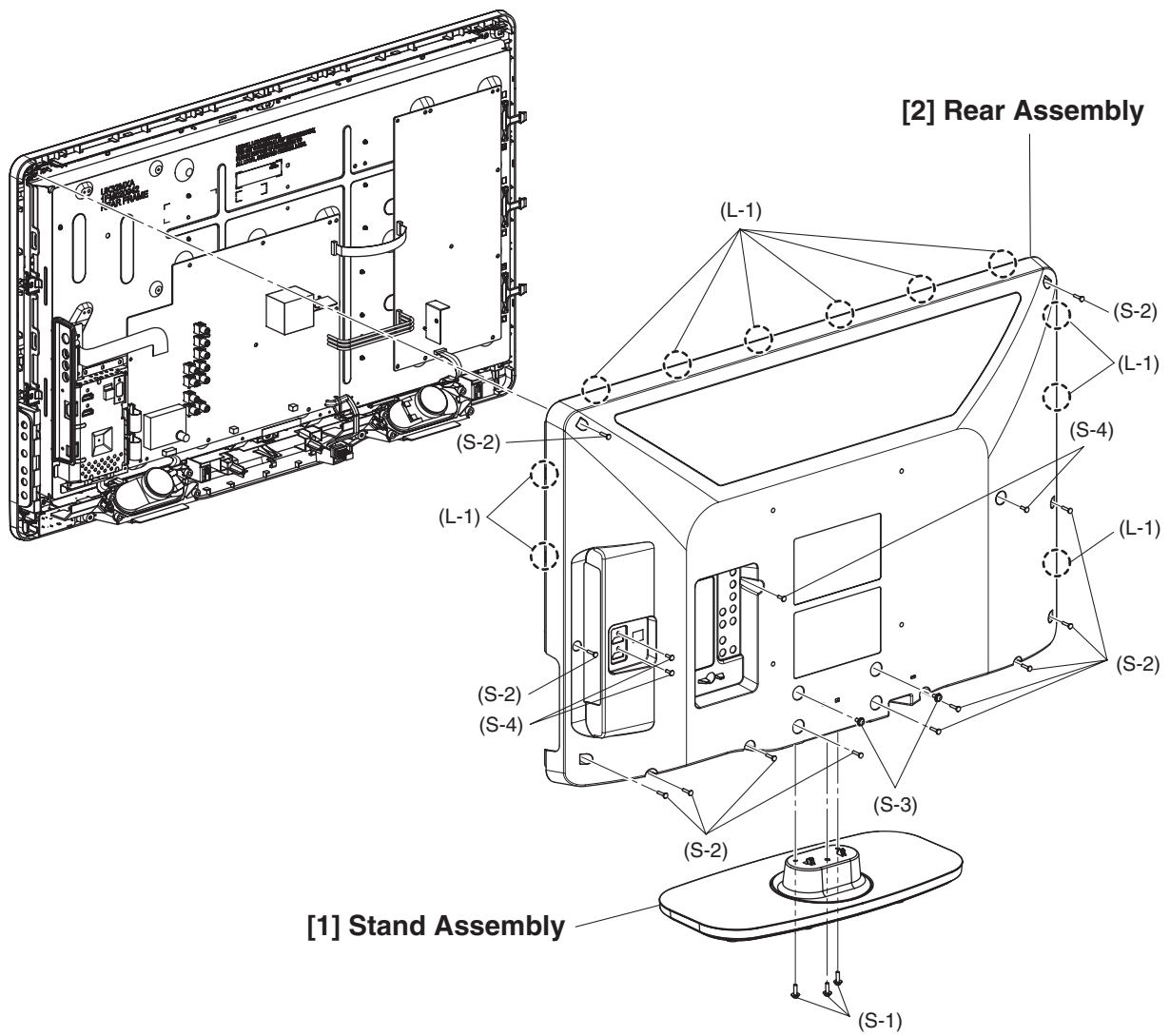


Fig. D1

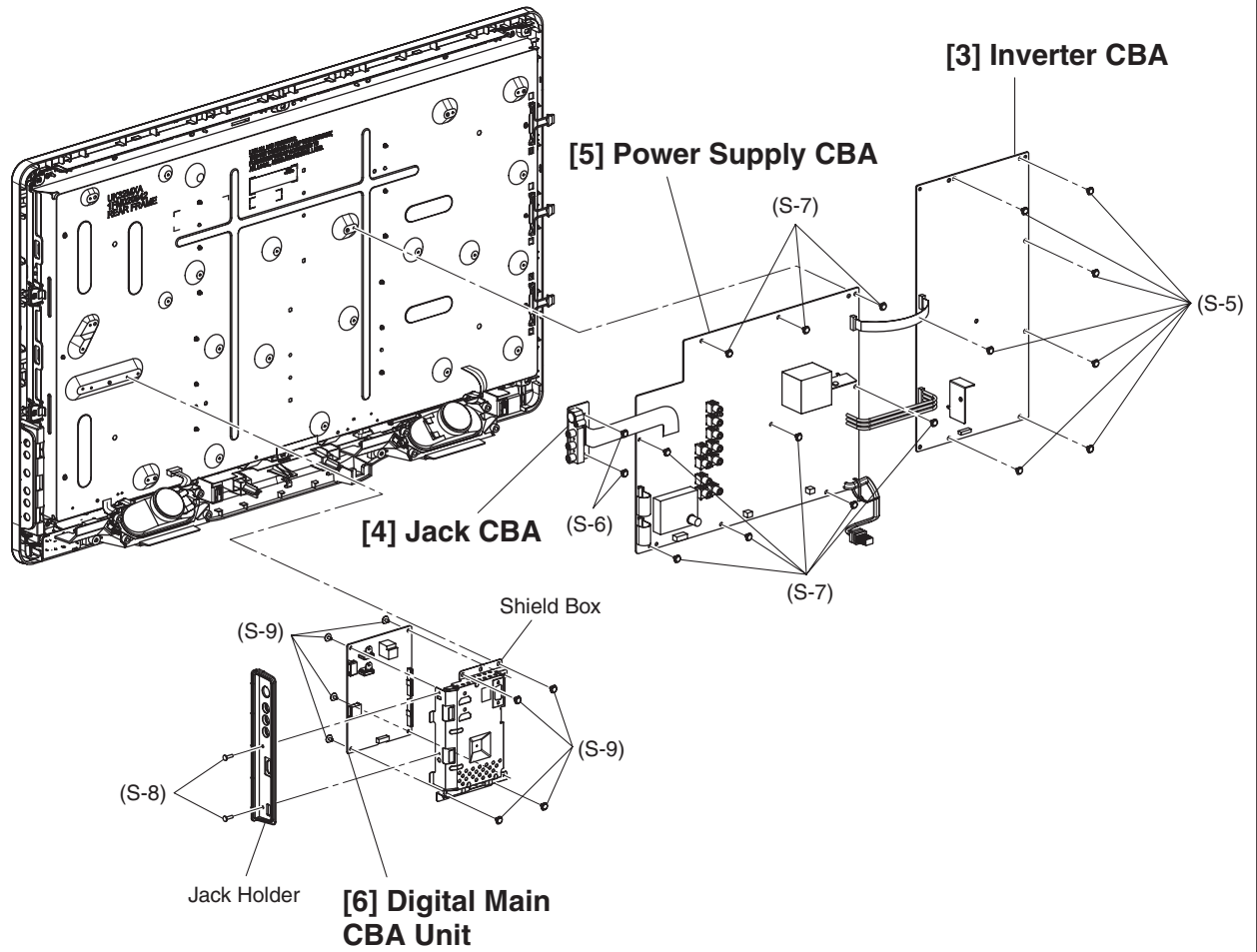


Fig. D2

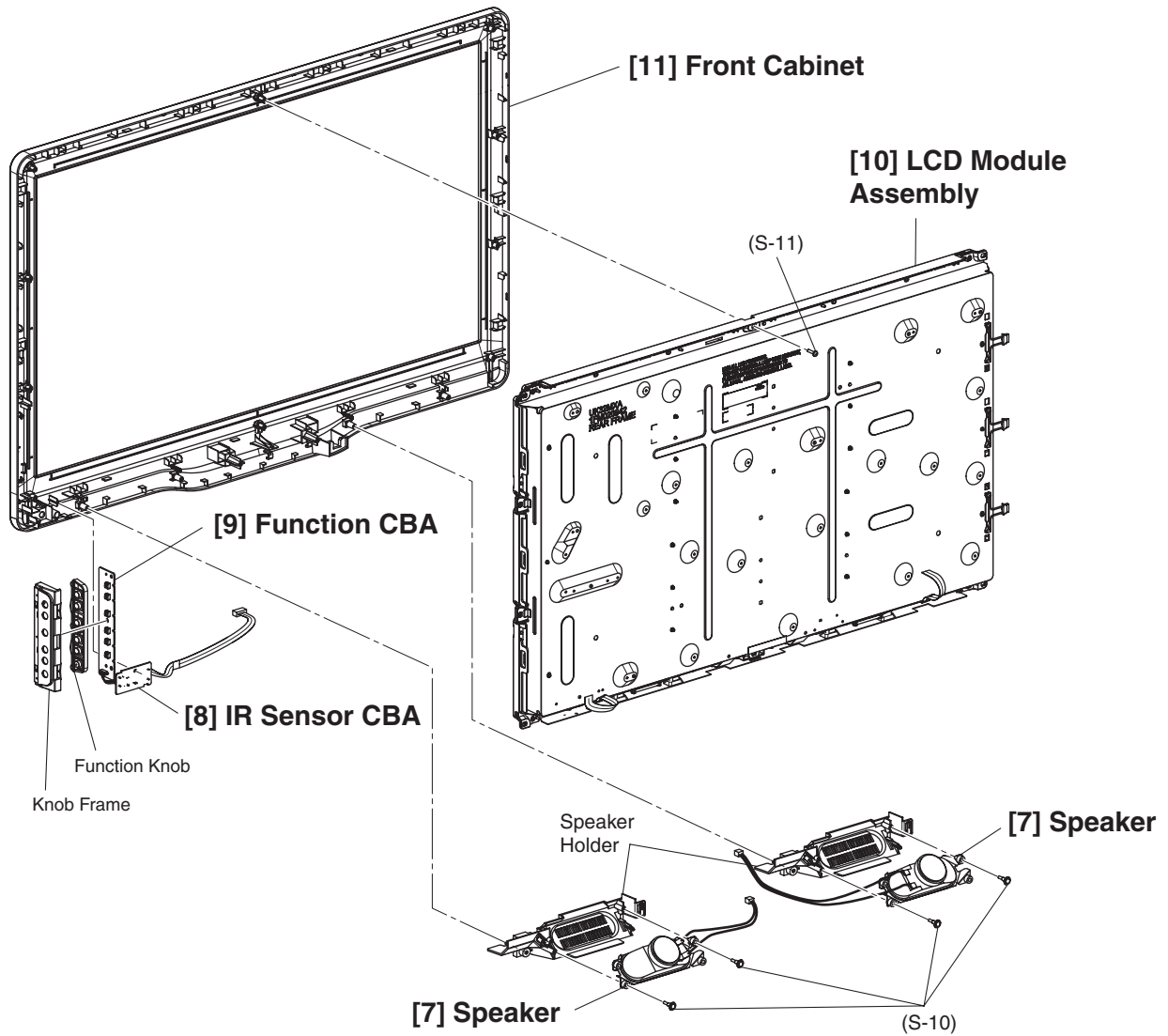


Fig. D3

TV Cable Wiring Diagram

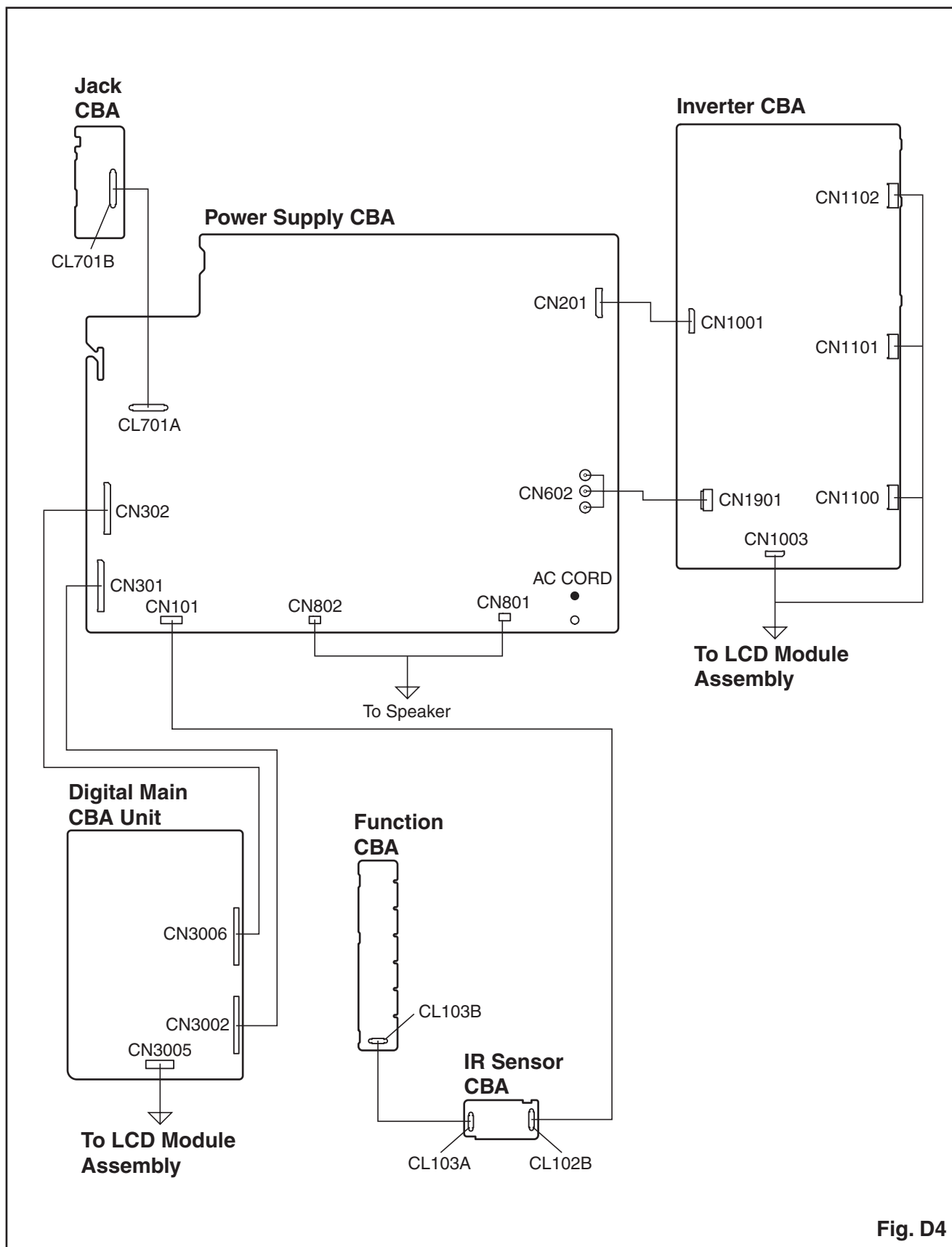


Fig. D4

ELECTRICAL ADJUSTMENT INSTRUCTIONS

General Note: “CBA” is abbreviation for “Circuit Board Assembly.”

Note: Electrical adjustments are required after replacing circuit components and certain mechanical parts. It is important to perform these adjustments only after all repairs and replacements have been completed. Also, do not attempt these adjustments unless the proper equipment is available.

Test Equipment Required

1. Remote control unit
2. Color Analyzer, CA-310 (KONICA MINOLTA Luminance meter) or measuring instrument as good as CA-310.

How to set up the service mode

How to set up the service mode with Guest Remote Control

1. Turn the power on.
2. Press [3], [1], [9], [7], [5], [3] and [MUTE] buttons on the remote control unit in this order to display the menu.
3. Select “Consumer TV setup” and press the [OK] button to display Setup menu.
4. Select “Features”.
5. Select “Current Software Info”.
6. Press [0], [6], [2], [5], [9], [6] and [INFO] buttons on the remote control unit in this order. The following screen appears.

"*" differs depending on the models.

Code:	*****_*_*_*_*_*_*_*_*		
Pic code:	*****_*_*_*_*_*_*_*_*		
Panel-Option code:	**_*_*_*_*_*_*_*_*		
MIPS:	Push 0 key		
Press "POWER" key to exit.			
Tuner:	****_*_*_*_*_*_*_*_*		
Safety:	Safety_Non	Total Watch Time:	****
HDMI EDID:	**	Lightsensor:	****

How to set up the service mode with Set Up Remote Control (optional)

1. Turn the power on.
2. Press the [RC5 SETUP] and [HOME/MENU] button on the set up remote control in this order to display the menu.
3. Select “Consumer TV setup” and press the [OK] button to display Setup menu.
4. Select “Features”.
5. Select “Current Software Info”.
6. Press the [RC5 GUEST], [0], [6], [2], [5], [9], [6] and [RECALL/INFO] buttons on the set up remote control in this order. The following screen appears.

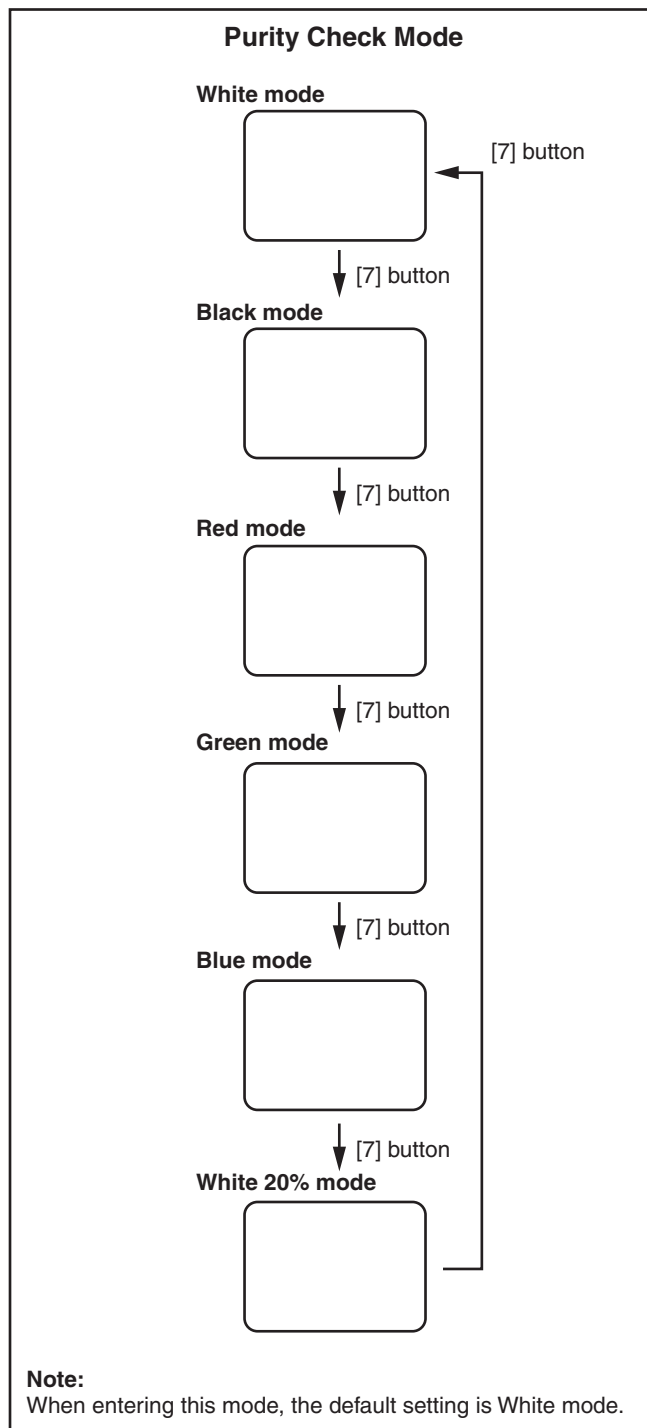
"*" differs depending on the models.

Code:	*****_*_*_*_*_*_*_*_*		
Pic code:	*****_*_*_*_*_*_*_*_*		
Panel-Option code:	**_*_*_*_*_*_*_*_*		
MIPS:	Push 0 key		
Press "POWER" key to exit.			
Tuner:	****_*_*_*_*_*_*_*_*		
Safety:	Safety_Non	Total Watch Time:	****
HDMI EDID:	**	Lightsensor:	****

1. Purity Check Mode

This mode cycles through full-screen displays of red, green, blue, and white to check for non-active pixels.

1. Enter the service mode.
2. Each time the [7] button on the remote control unit is pressed, the display changes as follows.

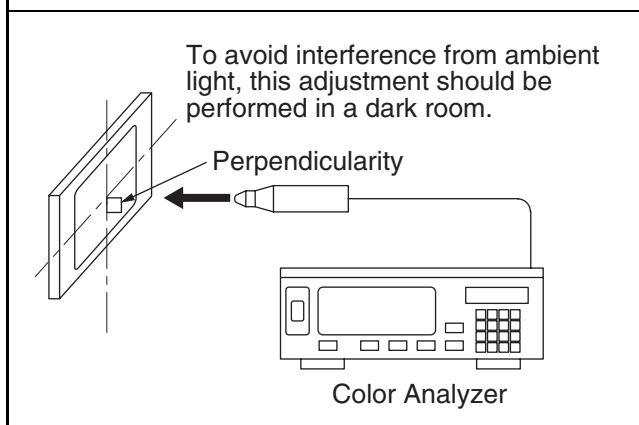


3. To cancel or to exit from the Purity Check Mode, press [BACK] button.

2. VCOM Adjustment

Test Point	Adj. Point
Screen	[CH + or -] buttons
M. EQ.	Spec.
Color analyzer	See below

Figure



1. Set the color analyzer at the zero point calibration and bring the optical receptor pointing at the center of the LCD-Panel.
Note: The optical receptor must be set perpendicularly to the LCD Panel surface.
2. Enter the service mode.
3. Press [2] button on the remote control unit.
4. Press [CH + or -] buttons on the remote control unit so that the color analyzer value becomes minimum.
5. To cancel or to exit from the VCOM Adjustment, press [BACK] button.

The White Balance Adjustment should be performed when replacing the LCD Panel or Digital Main CBA.

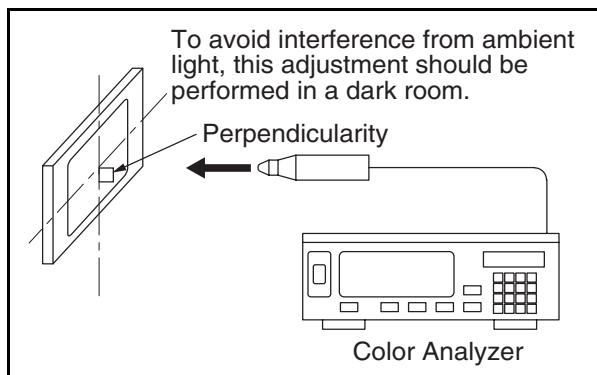
3. White Balance Adjustment

Purpose: To mix red and blue beams correctly for pure white.

Symptom of Misadjustment: White becomes bluish or reddish.

ITEM	SPECIFICATION
Color temperature	$x = 0.272 \pm 0.002$ $y = 0.278 \pm 0.002$
Input Signal	Internal pattern (40/70% raster)
Measurement point	Screen center
M. EQ.	CA-310 (KONICA MINOLTA Luminance meter) or measuring instrument as good as CA-310.
Aging time	60min. (Retail MODE/100IRE Raster HDMI 1080i @ 60)
MODE setting of TV	Shipment setting/ Retail MODE
Ambient temperature	$25^{\circ}\text{C} \pm 5^{\circ}\text{C}$

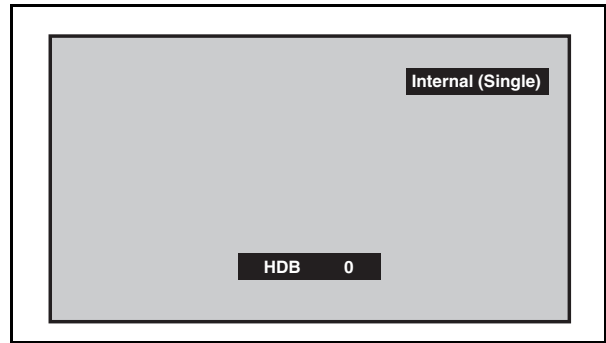
1. Operate the unit for more than 60 minutes.
2. Enter the service mode.
3. Press [VOL -] button three times on the remote control unit to select "Drive setting" mode. "Drive" appears in the screen.
4. Set the color analyzer at the CHROMA mode and zero point calibration. Bring the optical receptor pointing at the center of the LCD-Panel.



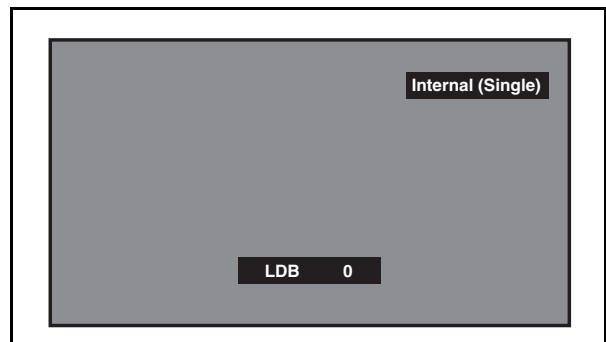
Note: The optical receptor must be set perpendicularly to the LCD Panel surface.

5. Press [3] button to select the "HDB" for High Drive Blue adjustment. ("HDB" appears in the screen.)

6. Press [MENU] button. The internal Raster signal appears in the screen. ("Internal (Single)" appears in the upper right of the screen as shown below.)



7. Press [CH + or -] buttons to adjust the color temperature becomes 12000°K ($x = 0.272 / y = 0.278 \pm 0.002$).
8. Press [1] button to select the "HDR" for High Drive Red adjustment ("HDR" appears in the screen.) and press [CH + or -] buttons to adjust the color temperature.
9. If necessary, adjust the "HDB" or "HDR" again.
10. Press [6] button to select the "LDB" for Low Drive Blue adjustment ("LDB" appears in the screen.) and press [CH + or -] buttons to adjust the color temperature.



11. Press [4] button to select the "LDR" for Low Drive Red adjustment ("LDR" appears in the screen.) and press [CH + or -] buttons to adjust the color temperature.
12. If necessary, adjust the "LDB" or "LDR" again.
13. Press [VOL -] button to shift to the "Debugging Message" mode.
If there is no message under "[WB]" section, this adjustment completes.
If "Drive settings are NG. Retry." is displayed, repeat above steps from 5. to 12. Then check "Debugging Message" again. If "Drive settings are NG. Retry." is displayed, replace the LCD Panel or Digital Main CBA.
14. To cancel or to exit from the White Balance Adjustment, press [BACK] button.

HOW TO INITIALIZE THE LCD TV

The purpose of initialization is to place the set in a new out of box condition. The customer will be prompted to select a language and program channels after the set has been initialized.

To put the program back at the factory-default, initialize the LCD TV using the following procedure.

1. Turn the power on.
2. Enter the service mode.
3. Press [FREEZE] button on the remote control unit to initialize the LCD television.
4. "INITIALIZED" will appear in the upper right of the screen. "INITIALIZED" color will change to green from red when initialization is completed.

Note: To cancel the service mode, press [⏻] button on the remote control unit.

FIRMWARE RENEWAL MODE

Equipment Required

- USB storage device
- Remote Control Unit

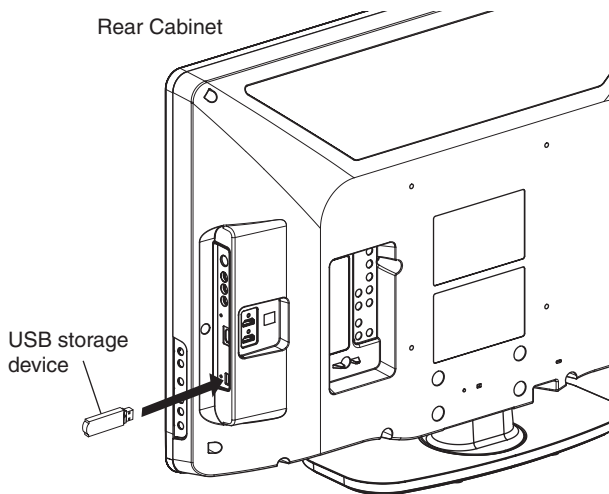
Firmware Update Procedure

Note: There are two states (the User Upgrade and the Factory Upgrade) in firmware update.

User Upgrade	Upgrade the firmware only. The setting values are not initialized.
Factory upgrade	Upgrade the firmware and initialize the setting values.
Factory Upgrade (Flash upgrade)	Upgrade the firmware and initialize the setting values along with the setting data adjusted at the factory such as White Balance, etc.

The identification of User Upgrade and Factory Upgrade are done by the filename.

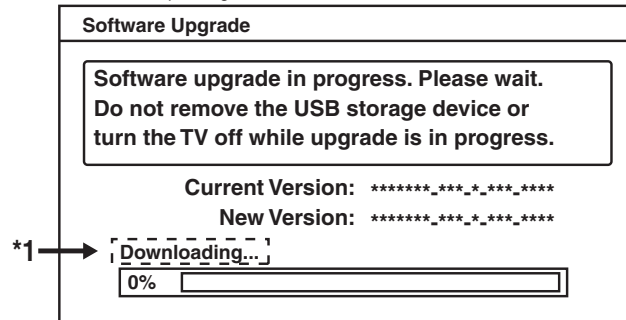
- Turn the power off and unplug the AC Cord.
- Insert the USB storage device to the USB port as shown below.



- Plug the AC cord in the wall outlet and turn the power on.

- The update will start and the following will appear in the screen.

"*" differs depending on the models.

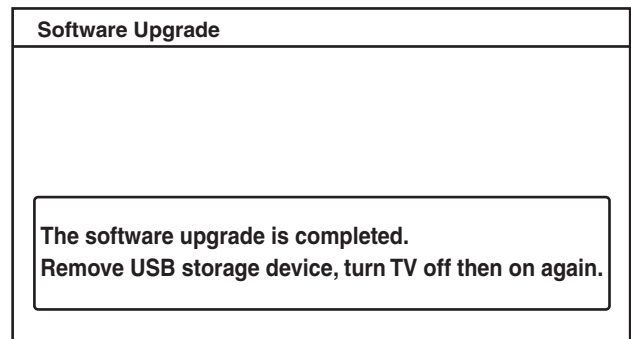


Note: If the above screen isn't displayed, repeat from step 1.

The appearance shown in *1 is described as follows.

Appearance	State
Downloading...	Downloading the firmware from the USB storage device.
Writing...	Writing the downloaded firmware in flash memory.
Checking...	Checking the new firmware.

- When the firmware update is completed, the following will appear in the screen.



Remove the USB storage device from the USB port.

Turn the power off and turn the power on again.

Note:

When the Factory Upgrade is used, after restarting TV, shift to initial screen menu in service mode. "INITIALIZED" will appear in the upper right of the screen. "INITIALIZED" color will change to green from red when initializing is completed.

HOTEL TV MODE

TV to USB settings

- The channel map and all other settings except for the factory setting will be copied from TV to USB storage device.
- The set value will be preserved in the root directory of the USB storage device.
- The channel map will be preserved in two files (one for analog and one for digital) and all other settings will be preserved in the third file.
- When a same file name exists in the USB storage device, the new file will overwrite the previous file.
- All the key input and the shutdown timers will be invalid during the copying process.
- Audio and Video will be muted during the copying process.

How to copy the TV settings to USB storage device

1. Turn the power on.
2. Insert an empty USB storage device to the USB port.
3. Press the [HOME/MENU] button on the setup remote control to display the menu.
4. Select "TV to USB", "Start now" and press the [OK] button.
5. After the successful completion, "Setting copied to USB" message appears on the screen.

NOTE:

In case of any error during the copying process, the copying process will be stopped with the warning message "Failed. Please retry" on the screen.

USB to TV settings

- The channel map and all other settings except for the factory setting will be copied from USB storage device to TV.
- All the key input and the shutdown timers will be invalid during the copying process.
- Audio and Video will be muted during the copying process.
- When illegal data exist in the file, the copying process will be aborted.
- After the successful completion of the copying process, the new set of values will be adopted by the TV.

How to read the setting values from the USB storage device

1. Turn the power on.
2. Insert an USB storage device to the USB port.
3. Press the [HOME/MENU] button on the setup remote control to display the menu screen.
4. Select "USB to TV", "Start now" and press [OK] button.
5. After the successful completion, the TV will restart and initialize with the new values. TV shifts to Standby (Green) and TV shifts to Live mode automatically.

NOTE:

In case of any error during the copying process, the copying process will be stopped with the warning message "Failed. Please retry" on the screen.

Status menu screen (optional)

1. Turn the power on.
2. Press the [RECALL/INFO] button on the setup remote control to display the status menu as shown below.

"*" differs depending on the models.

Model number	*****
SW version	*****_**_**_****_**
SPI Port	***
TV**	*****

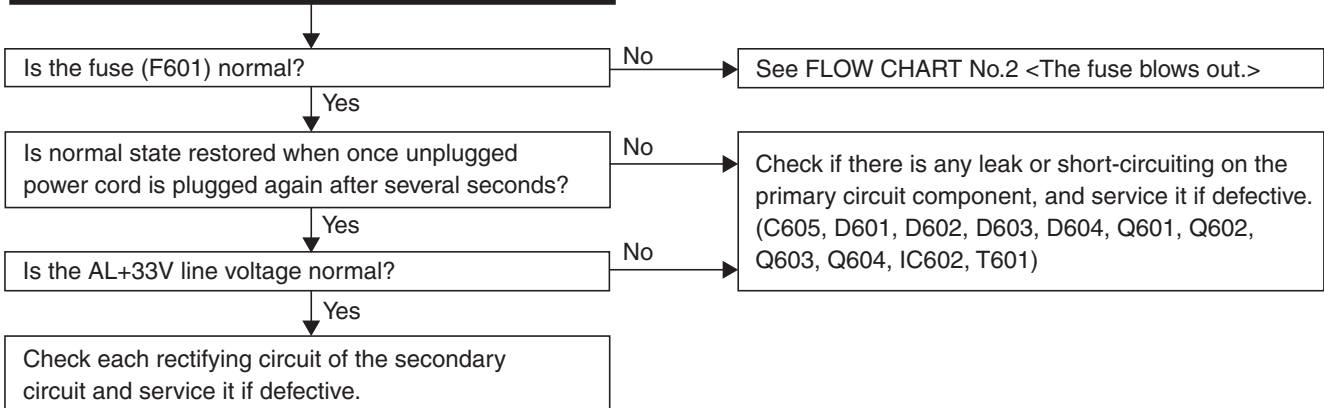
3. Press the [RECALL/INFO] button again to cancel the status menu.

TROUBLESHOOTING

[Power Supply Section]

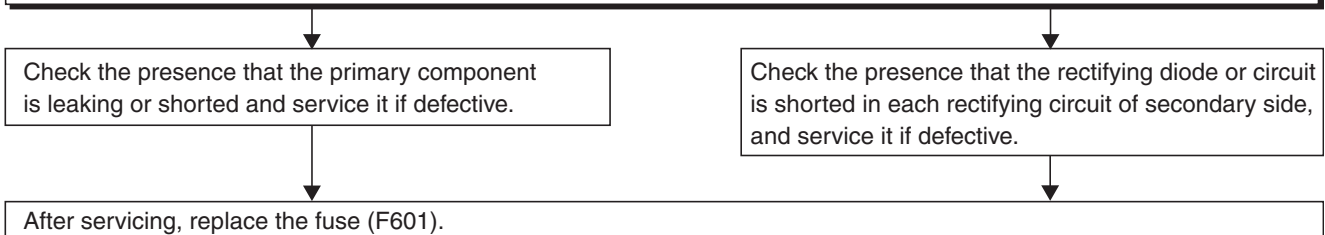
FLOW CHART NO.1

The power cannot be turned on.



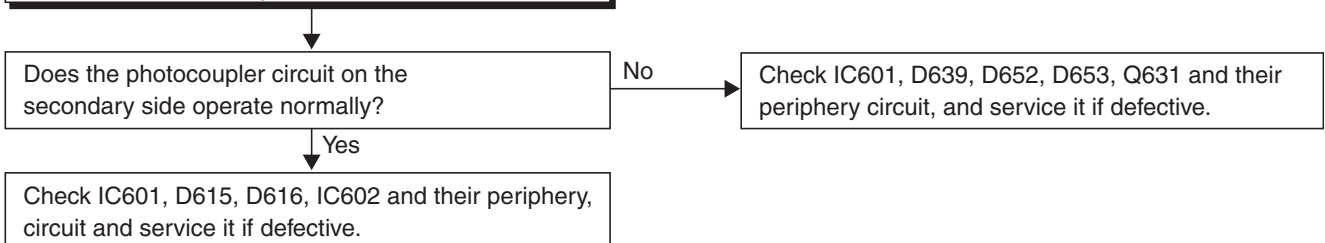
FLOW CHART NO.2

The fuse blows out.



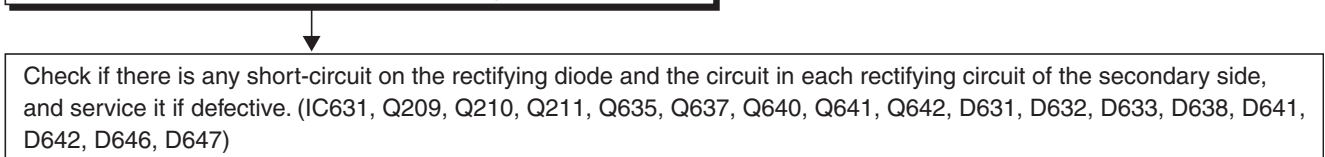
FLOW CHART NO.3

When the output voltage fluctuates.



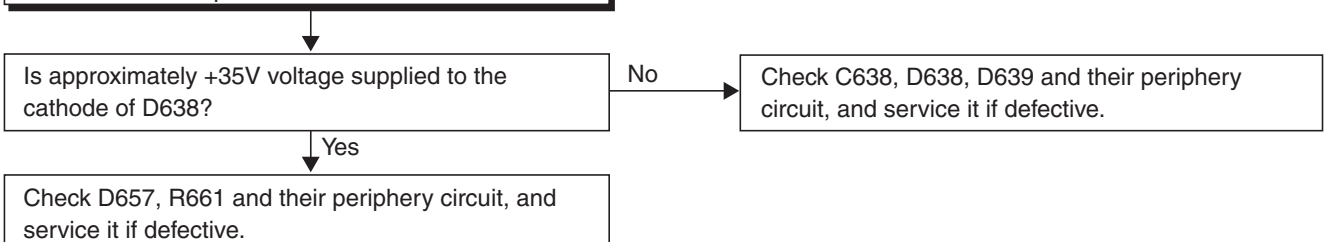
FLOW CHART NO.4

When buzz sound can be heard in the vicinity of power circuit.

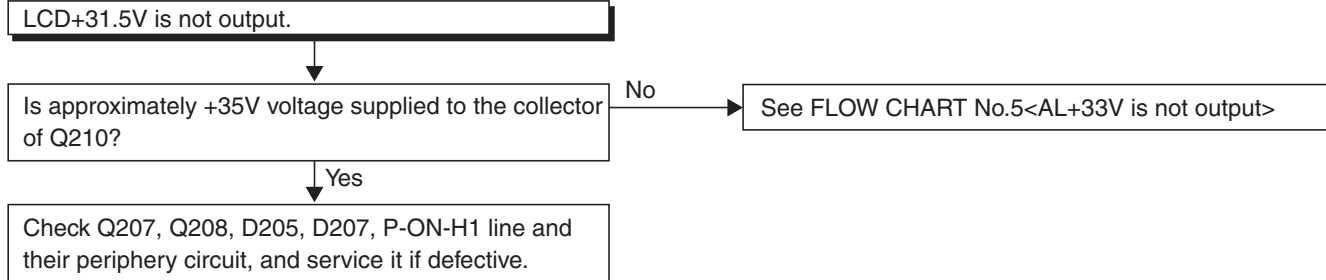


FLOW CHART NO.5

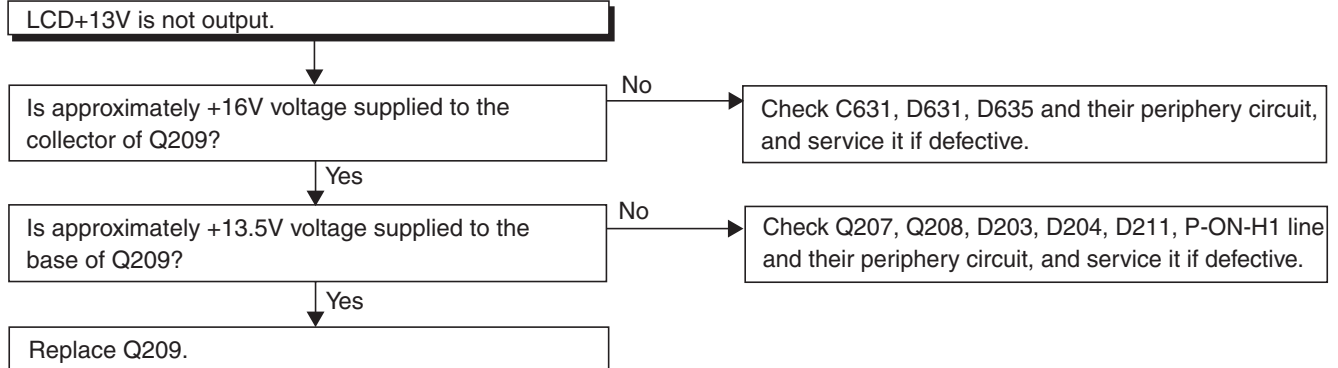
AL+33V is not output.



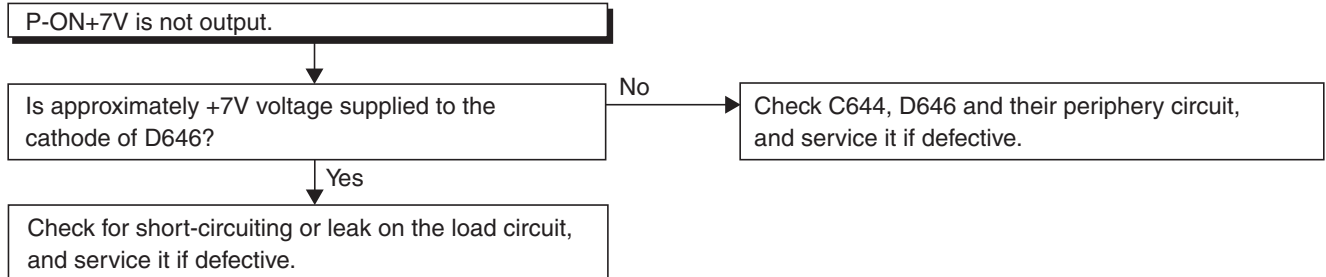
FLOW CHART NO.6



FLOW CHART NO.7



FLOW CHART NO.8



FLOW CHART NO.9

P-ON+5V is not output. (LCD+13V is outputted normally.)

Is approximately +6.5V voltage supplied to the collector of Q641?

No

See FLOW CHART No.8 <P-ON+7V is not output.>

Yes

Is approximately +6V voltage supplied to the base of Q641?

No

Check D645 and their periphery circuit, and service it if defective.

Yes

Replace Q641.

FLOW CHART NO.10

TUNER+5V is not output. (LCD+13V is outputted normally.)

Is approximately +6.5V voltage supplied to the collector of Q640?

No

See FLOW CHART No.8 <P-ON+7V is not output.>

Yes

Is approximately +6V voltage supplied to the base of Q640?

No

Check D645 and their periphery circuit, and service it if defective.

Yes

Replace Q640.

FLOW CHART NO.11

AL+13V is not output.

Is approximately +13V voltage supplied to the cathode of D641 and D642?

No

Check C639, D641, D642 and their periphery circuit, and service it if defective.

Yes

Check for short-circuiting or leak on the load circuit, and service it if defective.

FLOW CHART NO.12

P-ON+3V is not output.

Is approximately +3V voltage supplied to the cathode of D647?

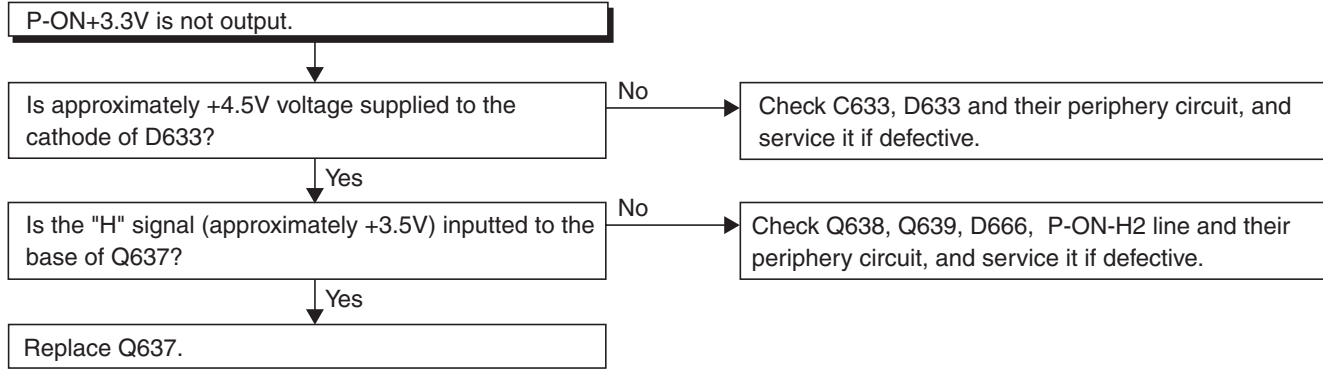
No

Check C645, D647 and their periphery circuit, and service it if defective.

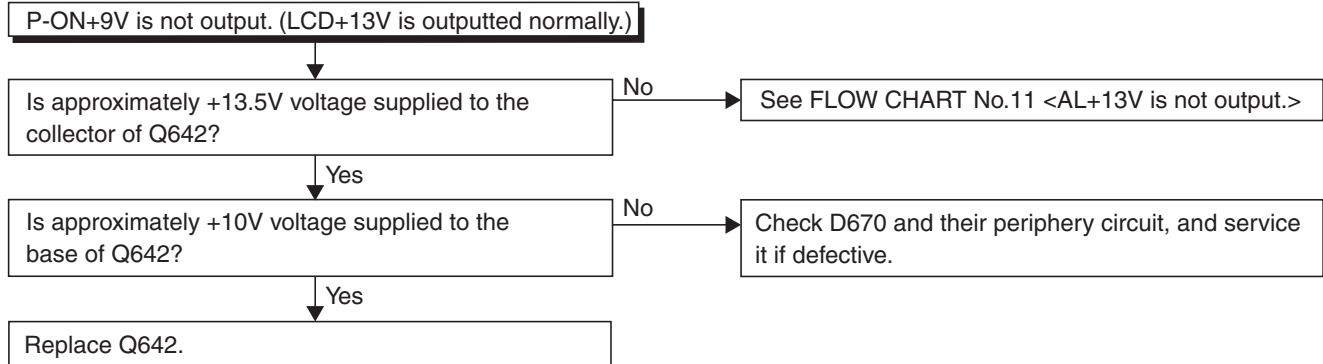
Yes

Check for short-circuiting or leak on the load circuit, and service it if defective.

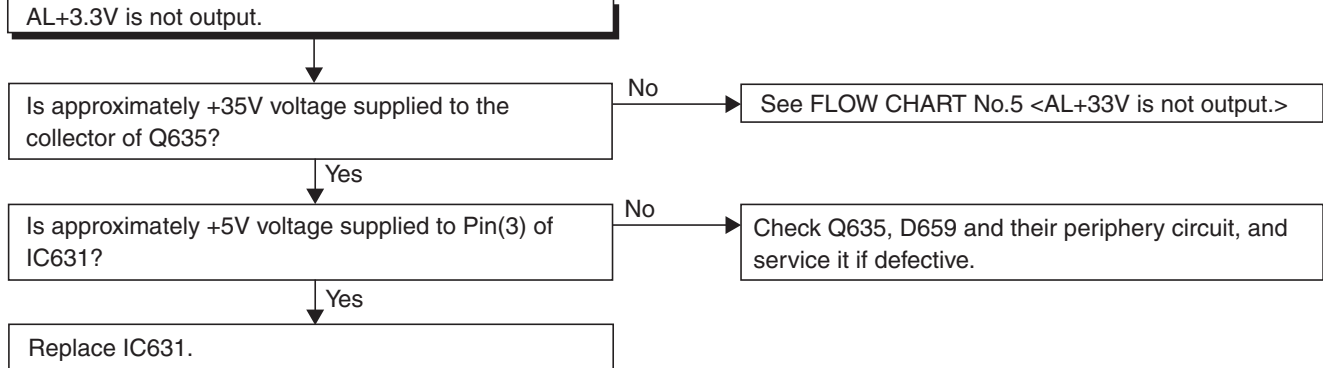
FLOW CHART NO.13



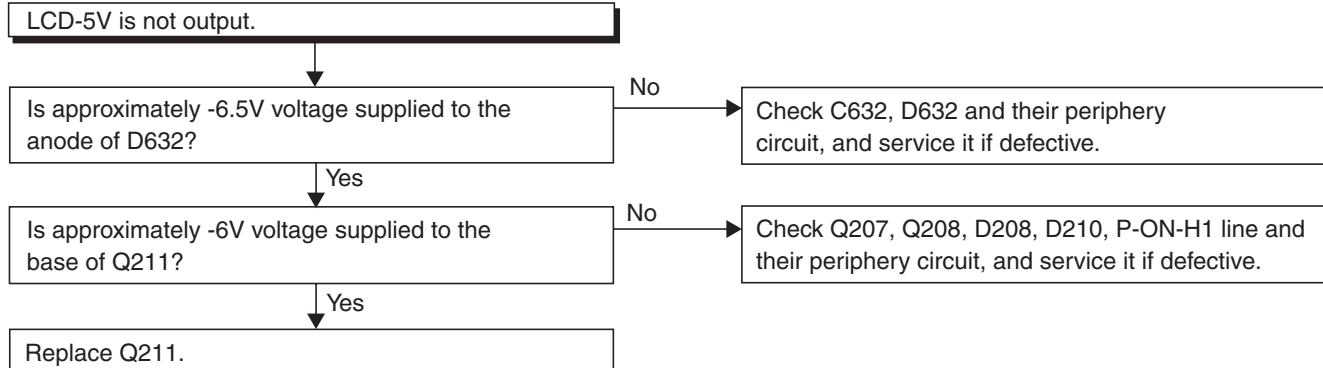
FLOW CHART NO.14



FLOW CHART NO.15

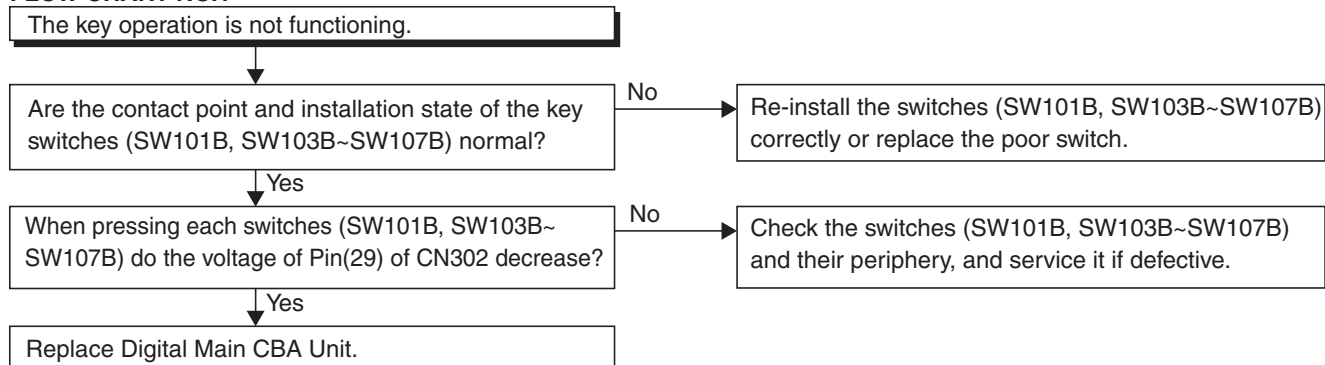


FLOW CHART NO.16

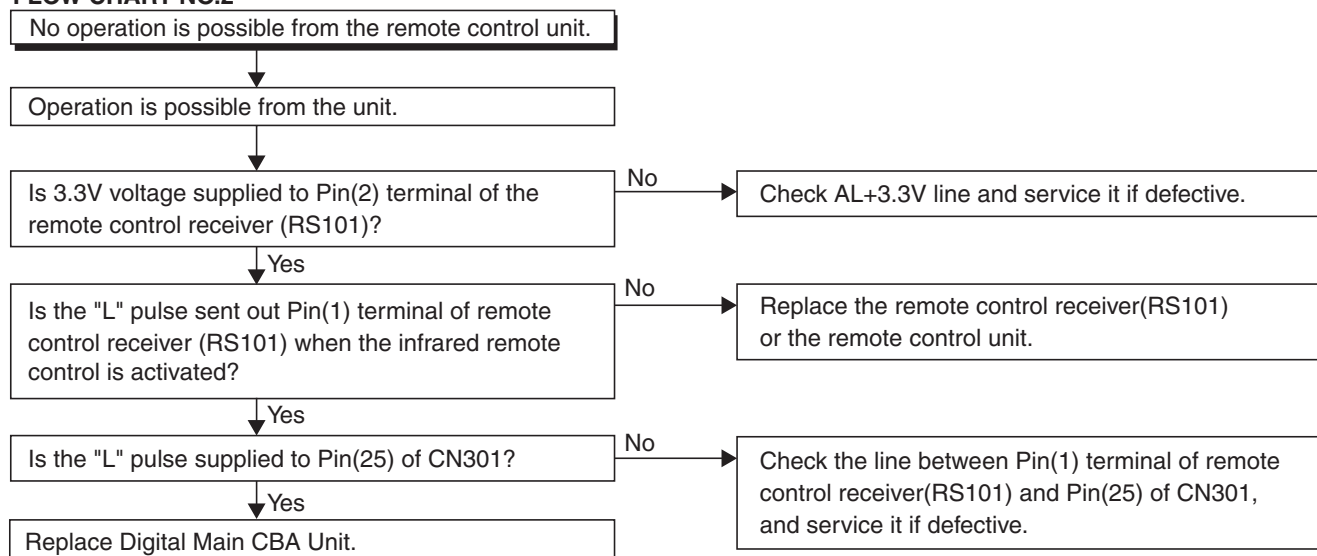


[Video Signal Section]

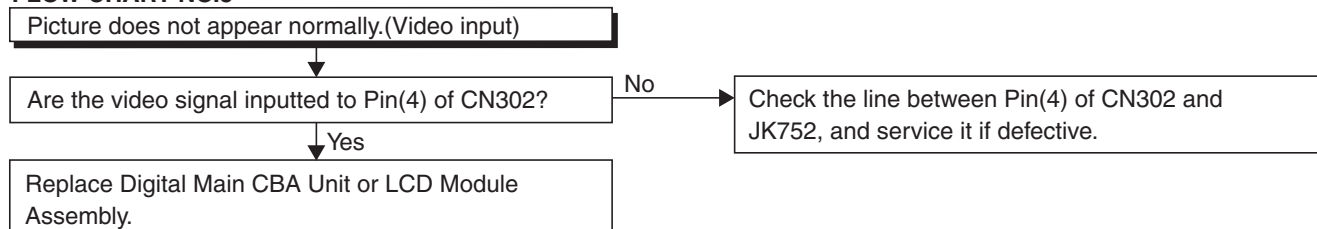
FLOW CHART NO.1



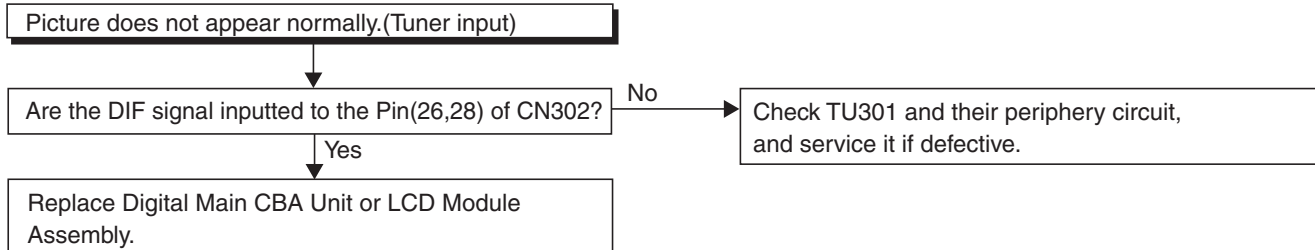
FLOW CHART NO.2



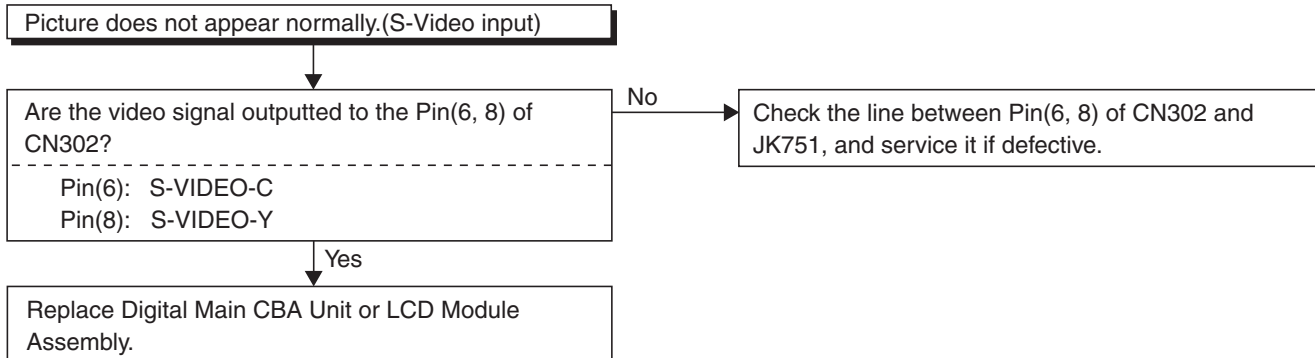
FLOW CHART NO.3



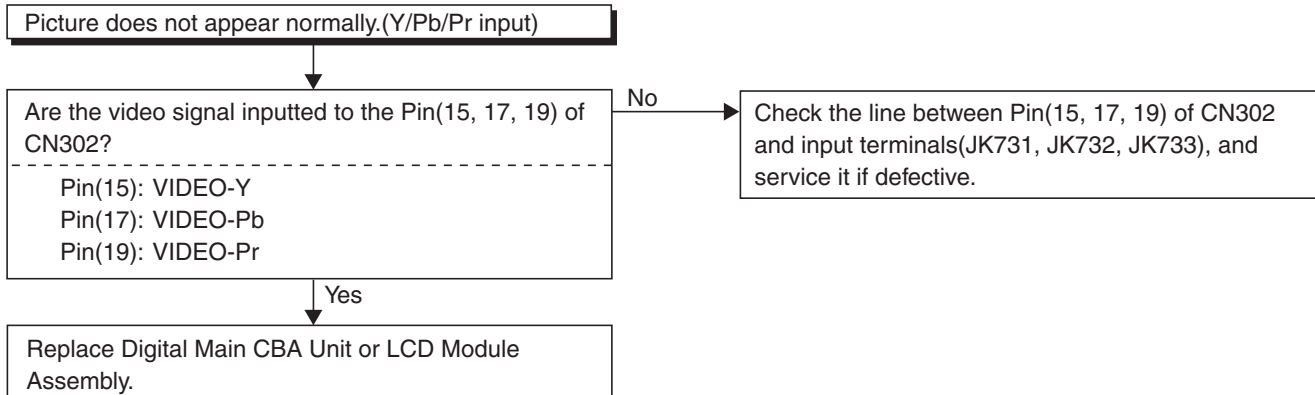
FLOW CHART NO.4



FLOW CHART NO.5

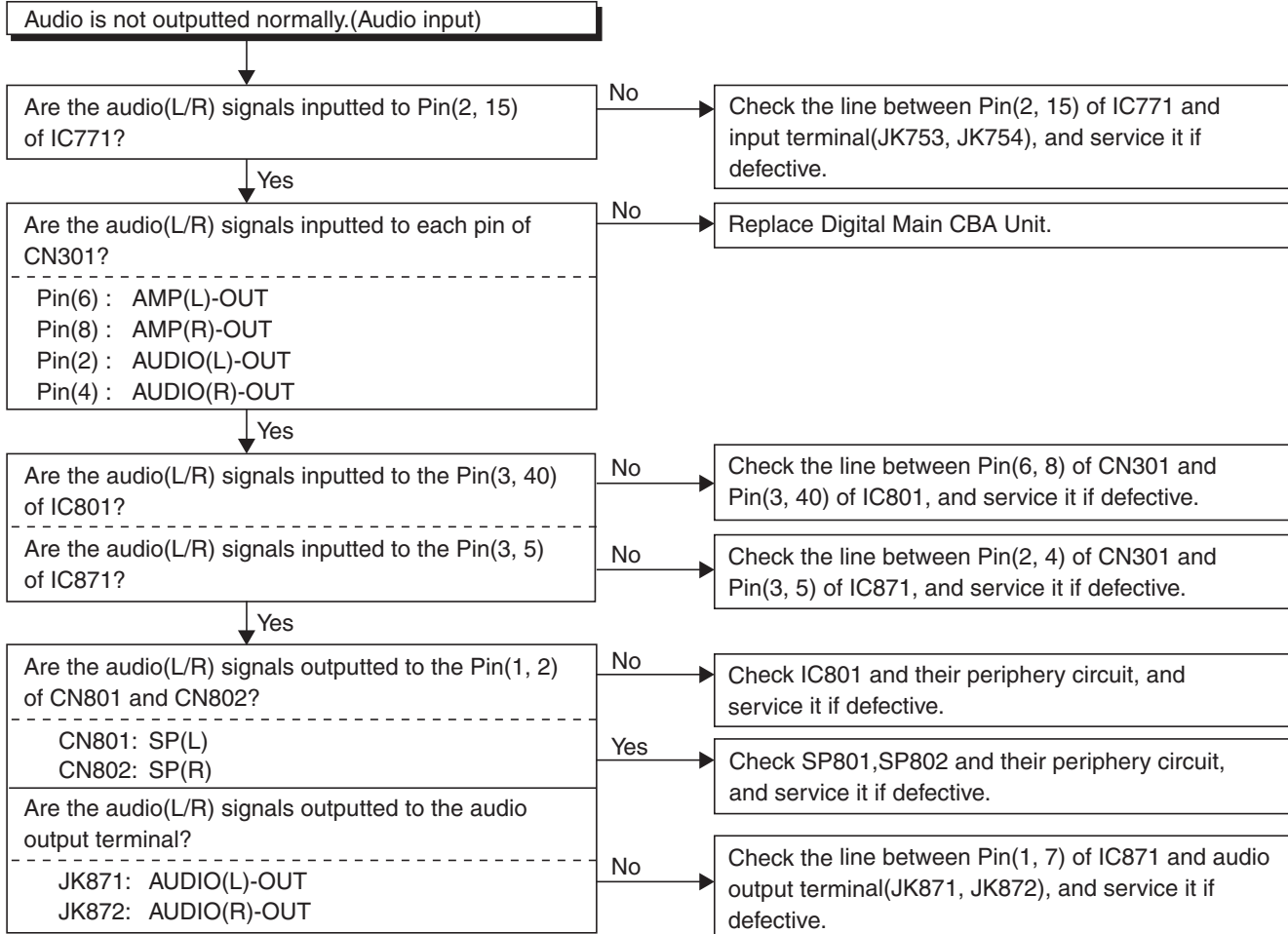


FLOW CHART NO.6



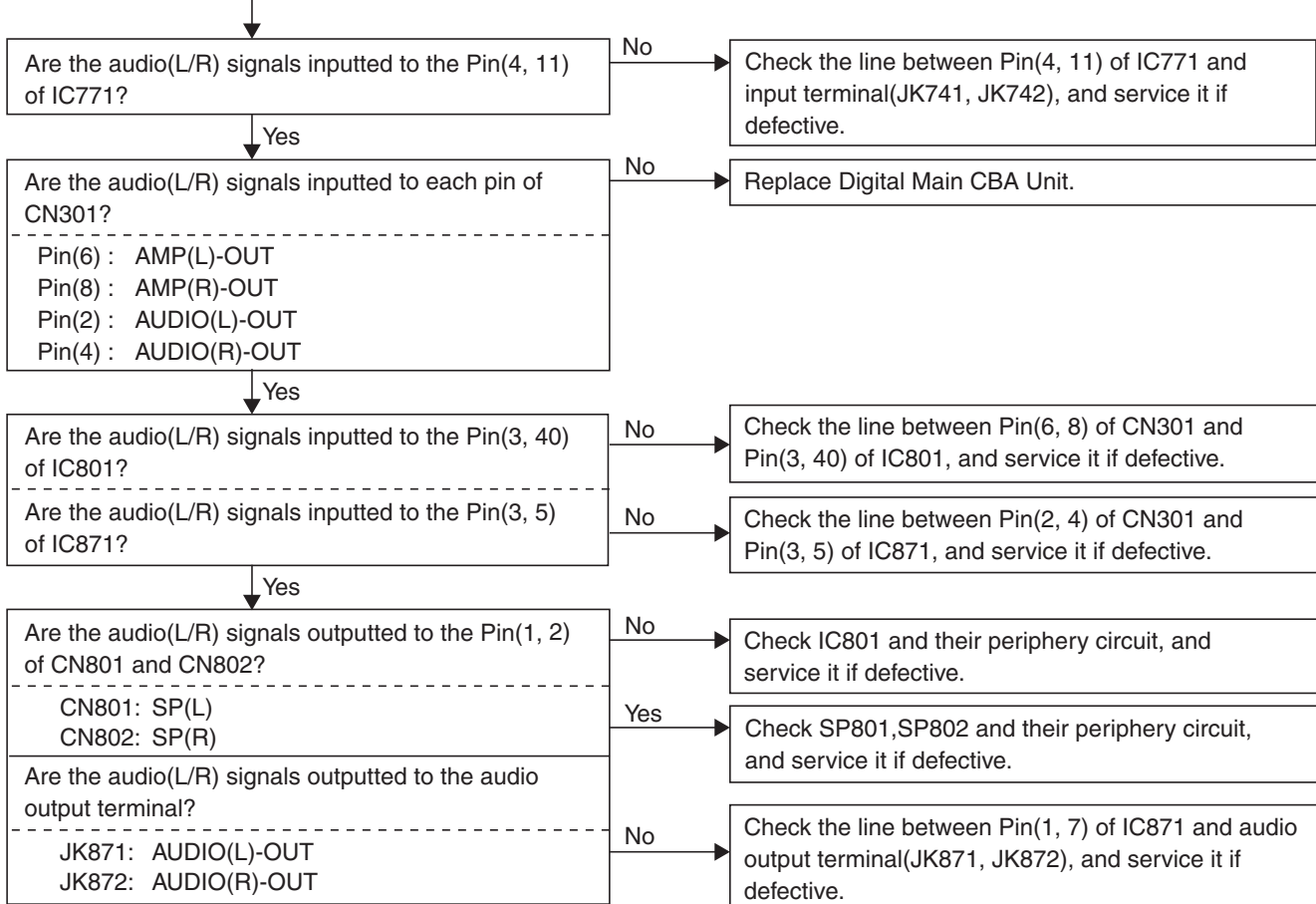
[Audio Signal Section]

FLOW CHART NO.1

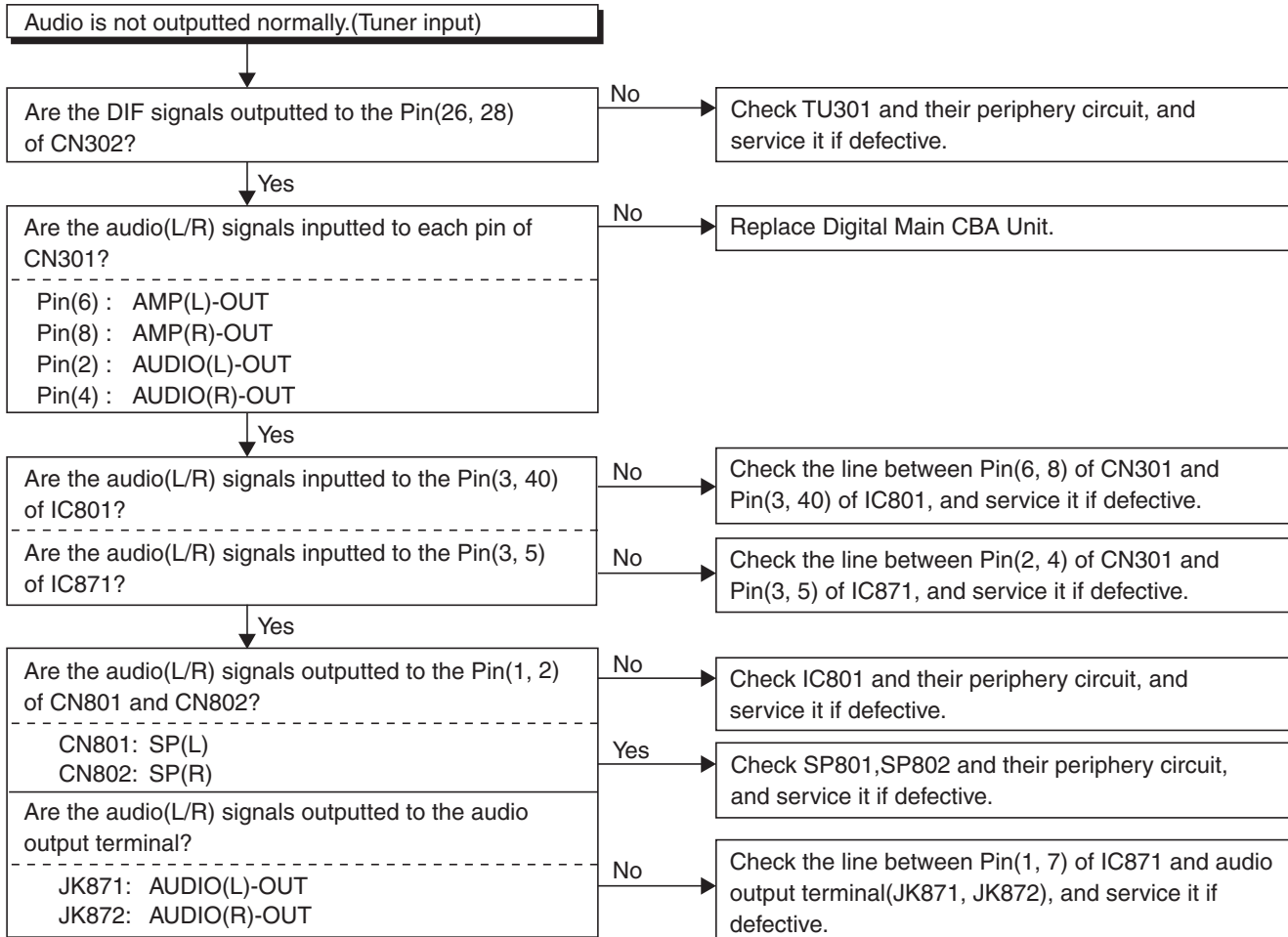


FLOW CHART NO.2

Audio is not outputted normally.(Component Audio input)



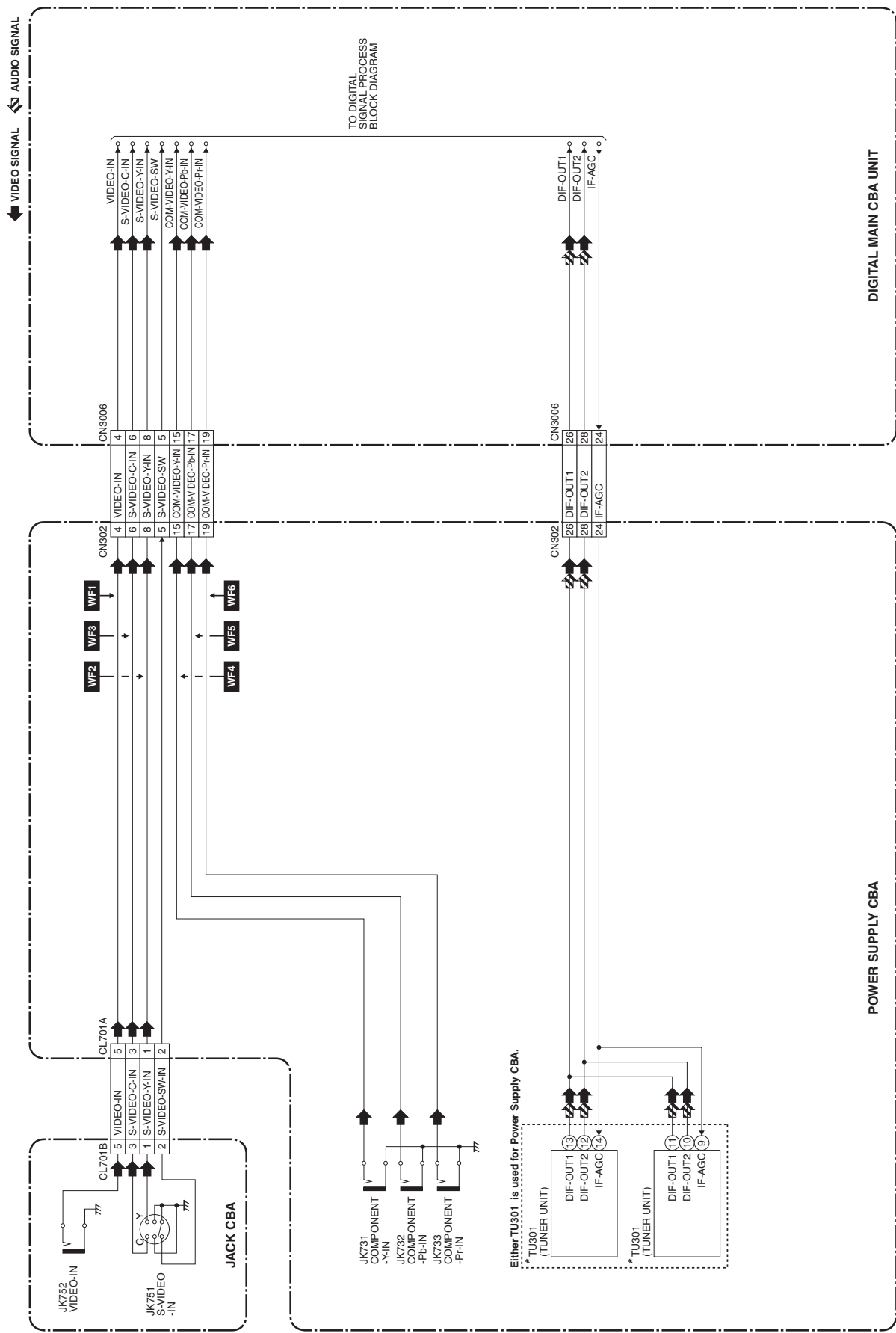
FLOW CHART NO.3



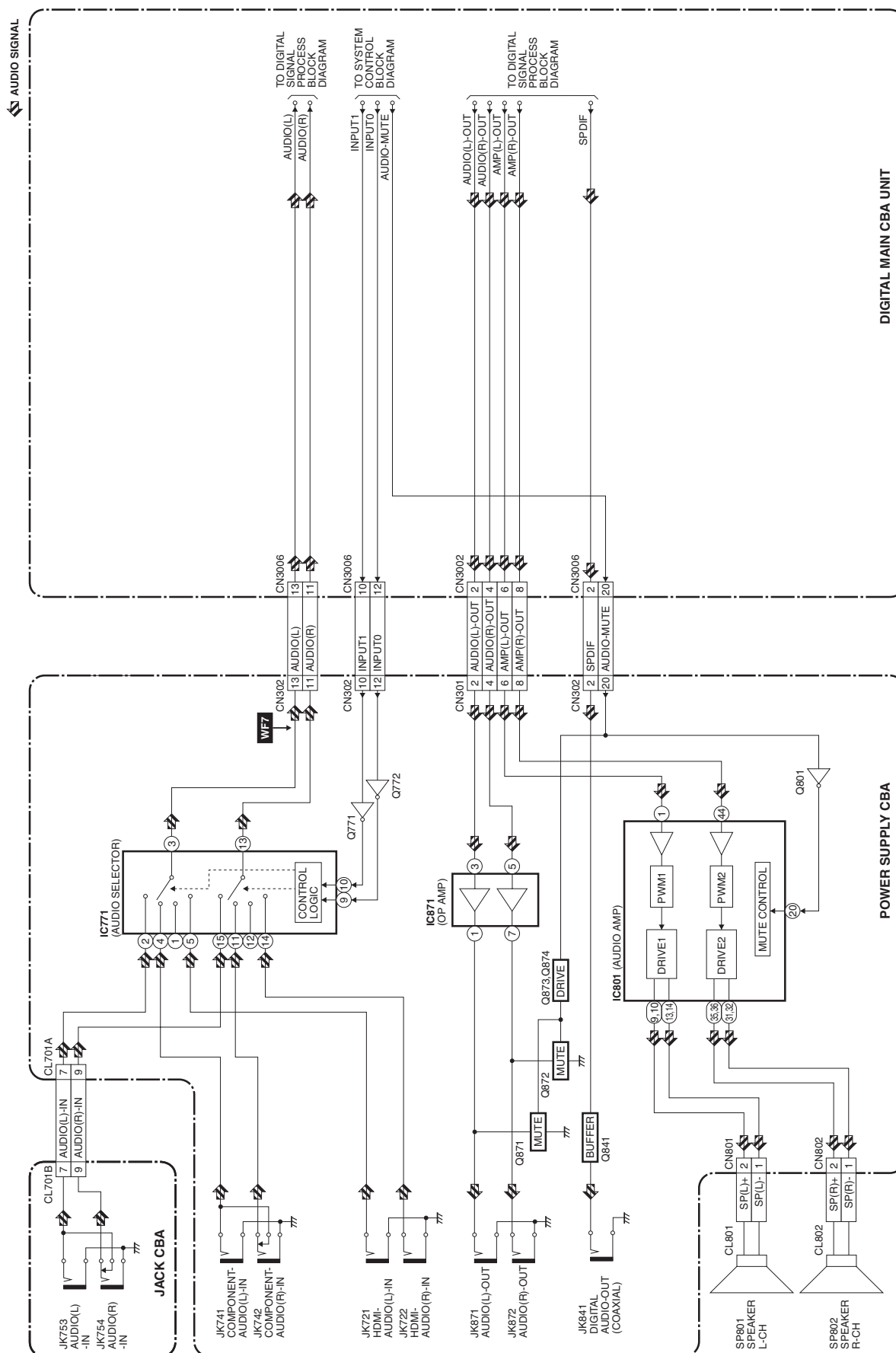
1. System Control Block Diagram



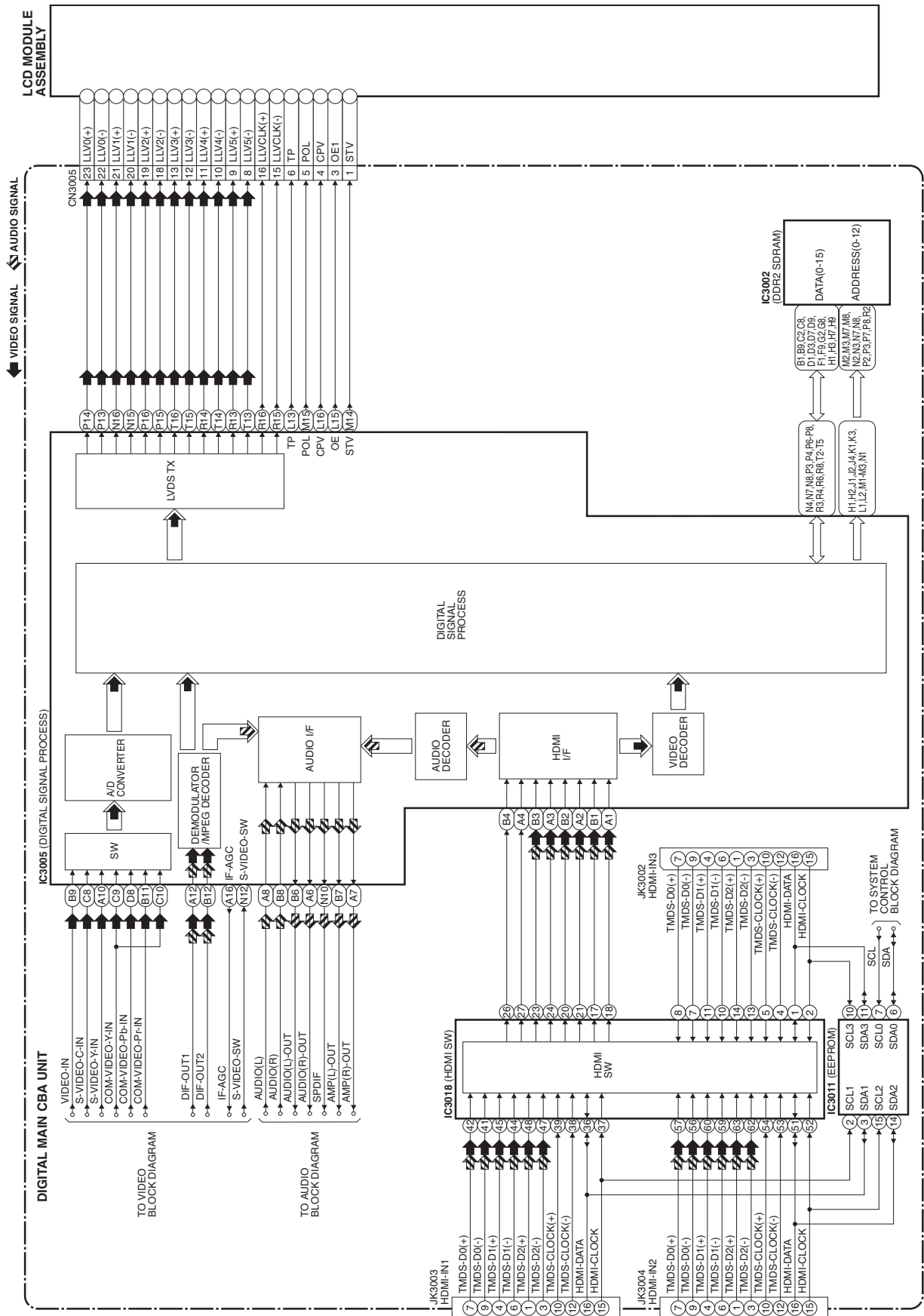
2. Video Block Diagram



3. Audio Block Diagram



4. Digital Signal Process Block Diagram

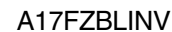


When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List.

For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2).

For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

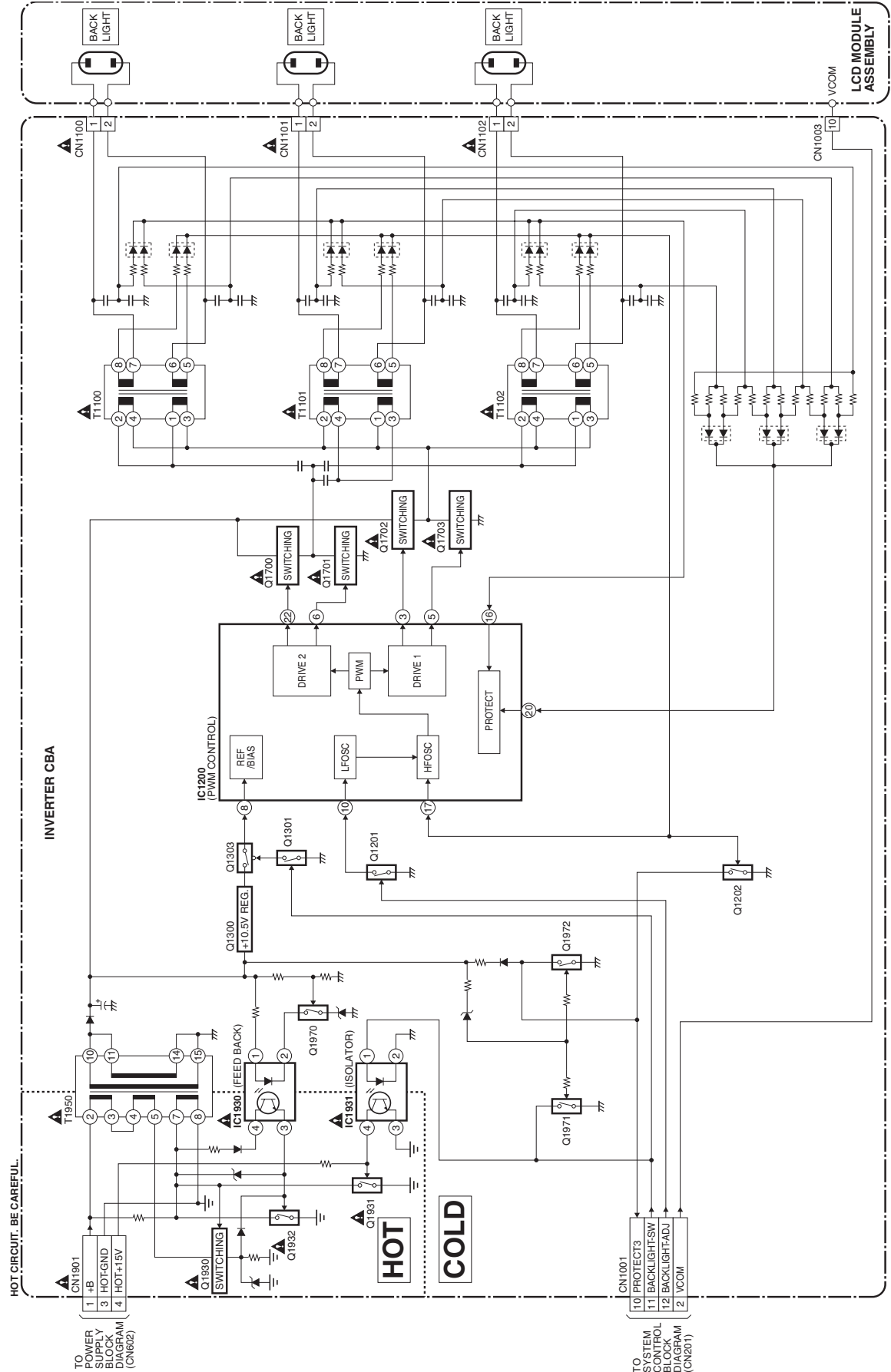


5. Inverter Block Diagram (sub Inverter CBA)

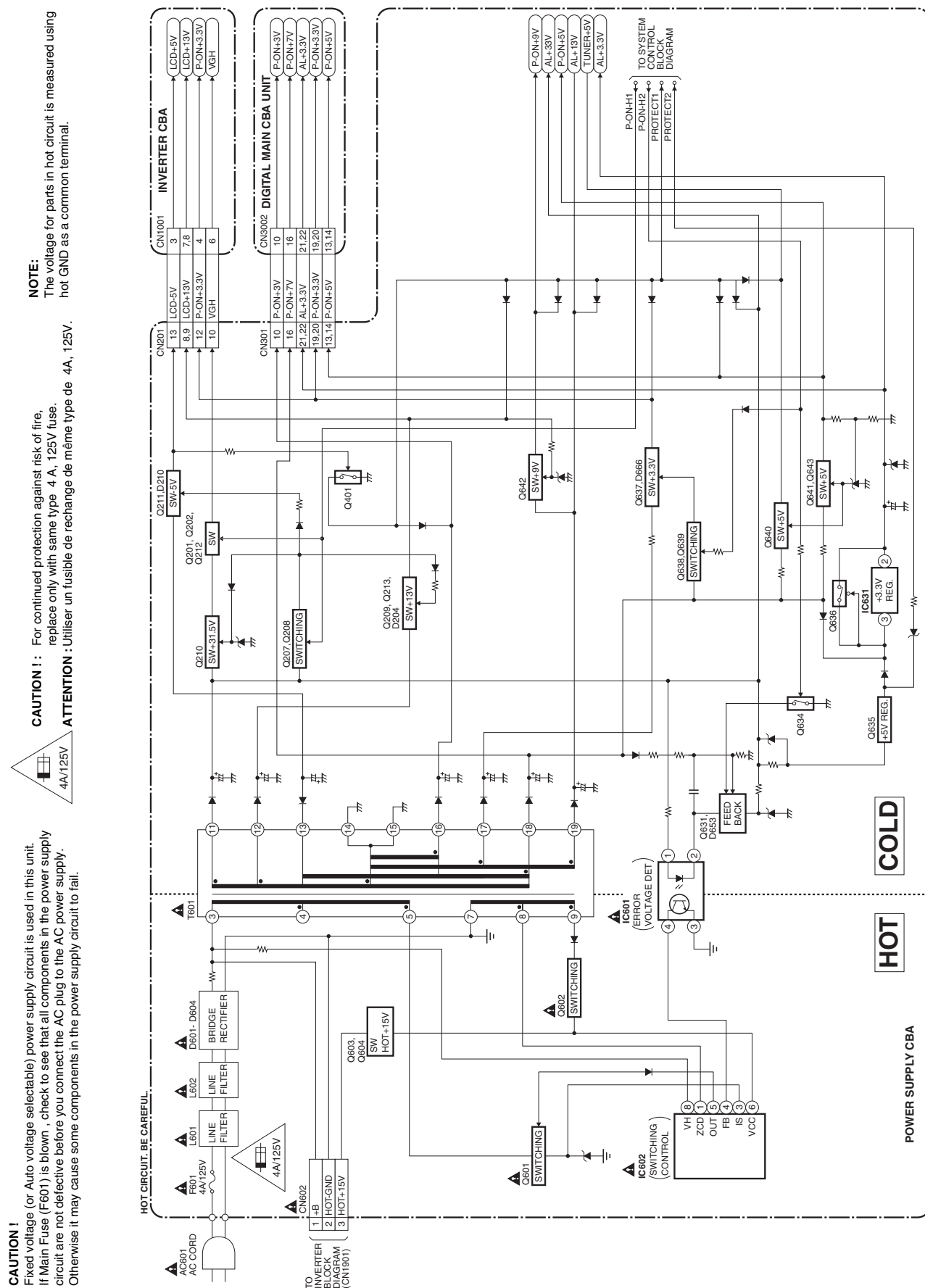
NOTE:

The voltage for parts in hot circuit is measured using hot GND as a common terminal.

When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List. For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2). For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).



6. Power Supply Block Diagram



SCHEMATIC DIAGRAMS / CBA AND TEST POINTS

Standard Notes

WARNING

Many electrical and mechanical parts in this chassis have special characteristics. These characteristics often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements; electrical components having such features are identified by the mark “▲” in the schematic diagram and the parts list. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K = 10^3$, $M = 10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF ($P = 10^{-6} \mu F$).
5. All voltages are DC voltages unless otherwise specified.

LIST OF CAUTION, NOTES, AND SYMBOLS USED IN THE SCHEMATIC DIAGRAMS ON THE FOLLOWING PAGES:

1. CAUTION:

CAUTION: FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE_A,_V FUSE.

ATTENTION: UTILISER UN FUSIBLE DE RECHANGE DE MÊME TYPE DE_A,_V.

2. CAUTION:

Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.

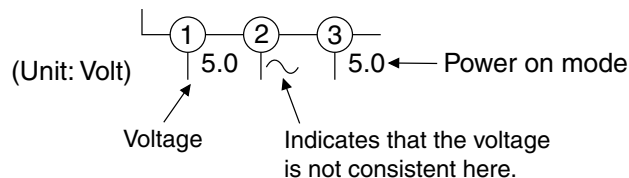
If Main Fuse (F601) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. Note:

1. Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.
2. To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

4. Voltage indications on the schematics are as shown below:

Plug the TV power cord into a standard AC outlet.:



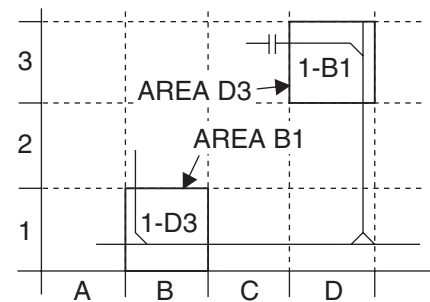
5. How to read converged lines

1-D3

 Distinction Area
 Line Number
 (1 to 3 digits)

Examples:

1. "1-D3" means that line number "1" goes to the line number "1" of the area "D3".
2. "1-B1" means that line number "1" goes to the line number "1" of the area "B1".



6. Test Point Information

: Indicates a test point with a jumper wire across a hole in the PCB.

: Used to indicate a test point with a component lead on foil side.

: Used to indicate a test point with no test pin.

: Used to indicate a test point with a test pin.

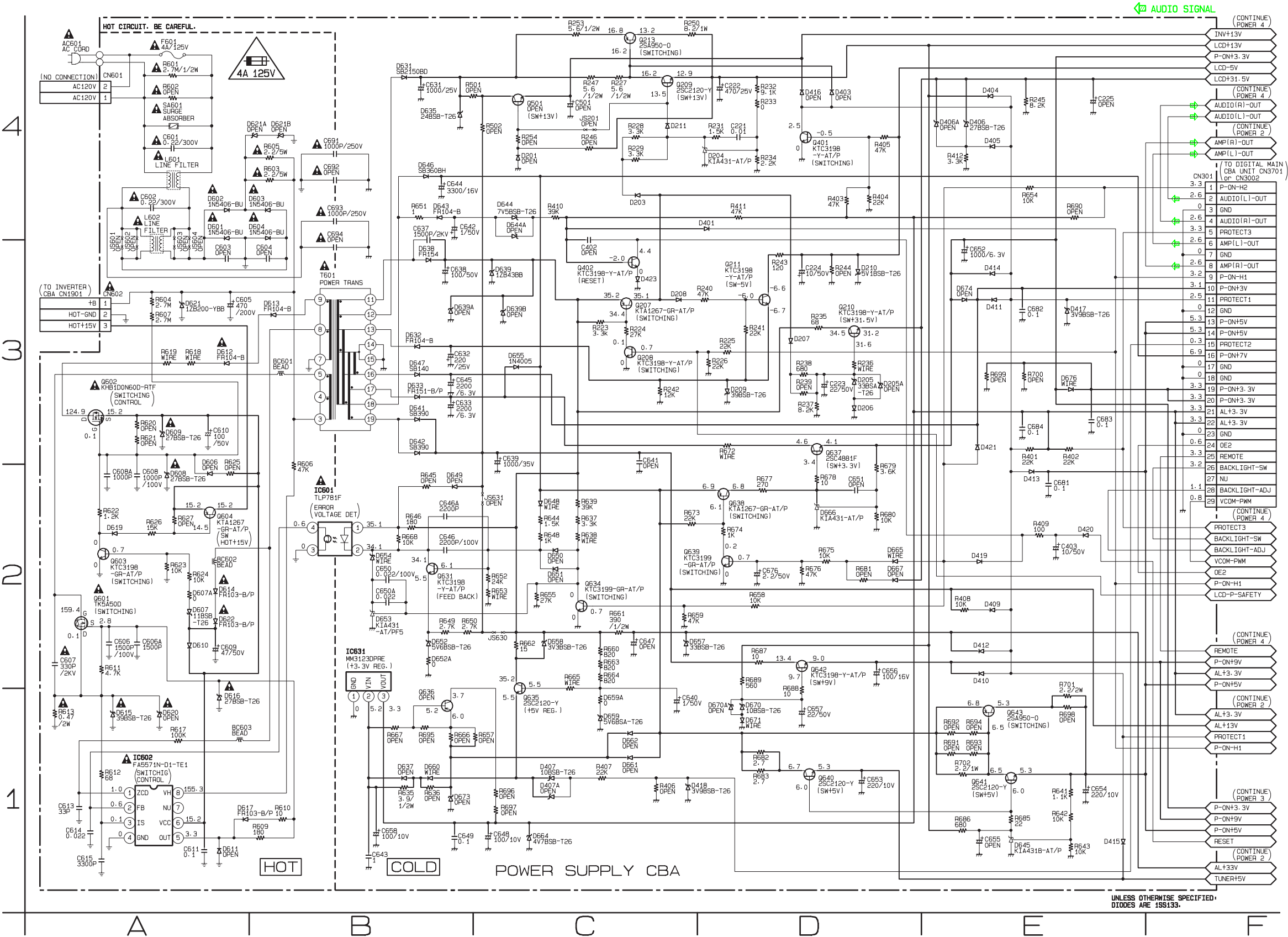
The reference number of parts on Schematic Diagrams/CBA can be retrieved by application search function.

Power Supply 1 Schematic Diagram

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

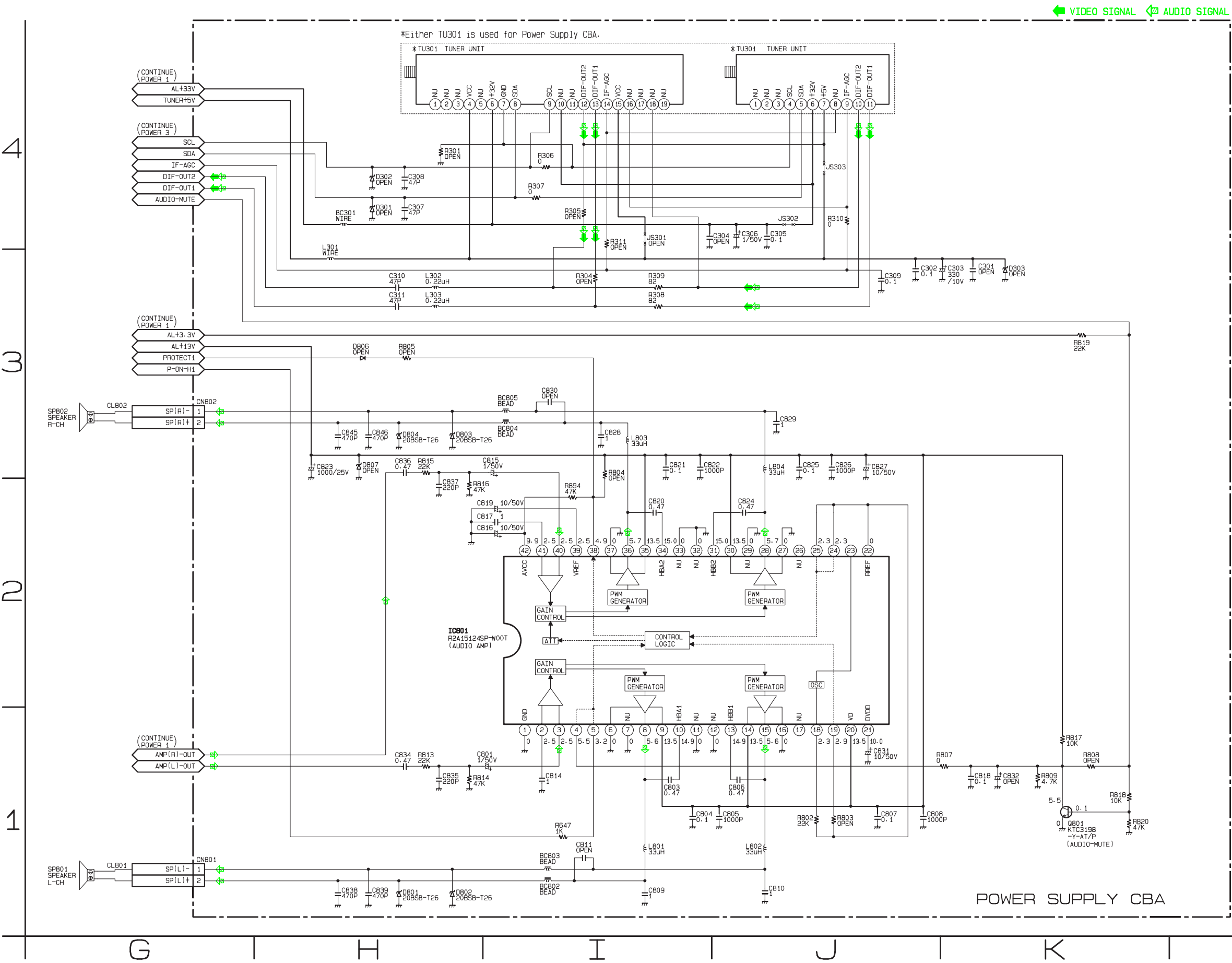
CAUTION ! : For continued protection against risk of fire,
replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

NOTE:
The voltage for parts in hot circuit is measured using
hot GND as a common terminal.



UNLESS OTHERWISE SPECIFIED:
DIODES ARE 1SS133.

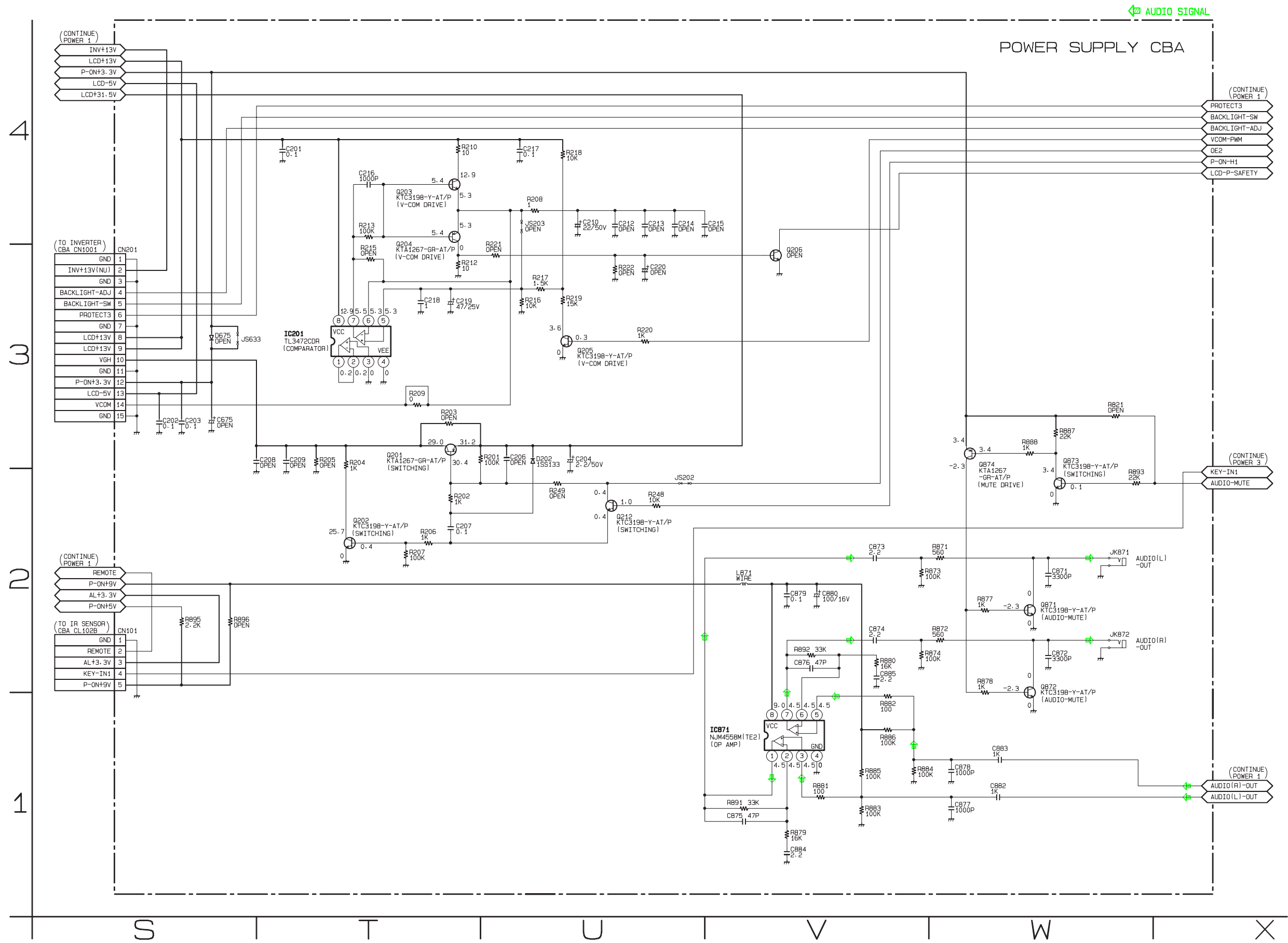
Power Supply 2 Schematic Diagram



4



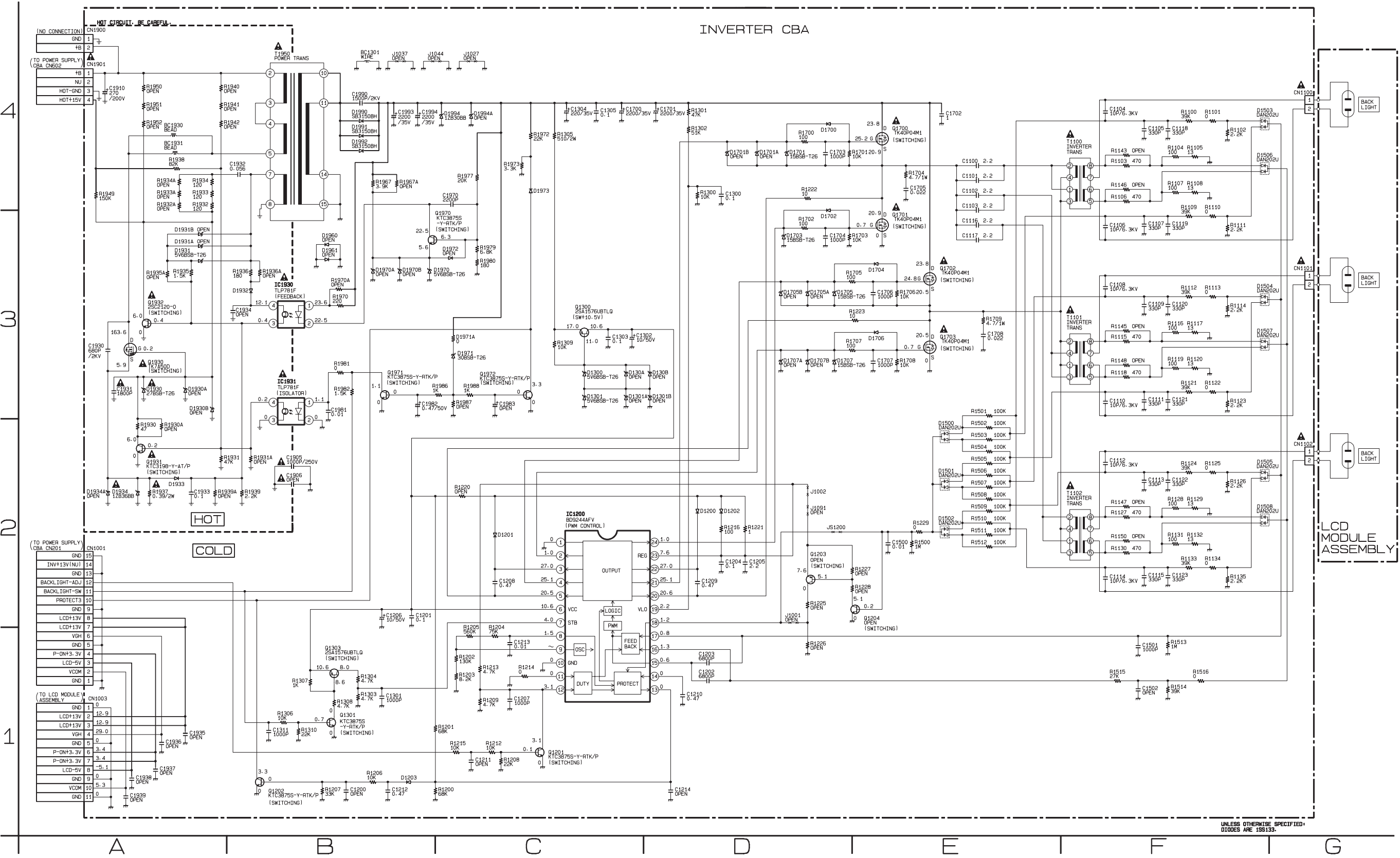
Power Supply 4 Schematic Diagram



Inverter Schematic Diagram (main Inverter CBA)

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List.
For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2).
For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).



Inverter Schematic Diagram (sub Inverter CBA)

NOTE:

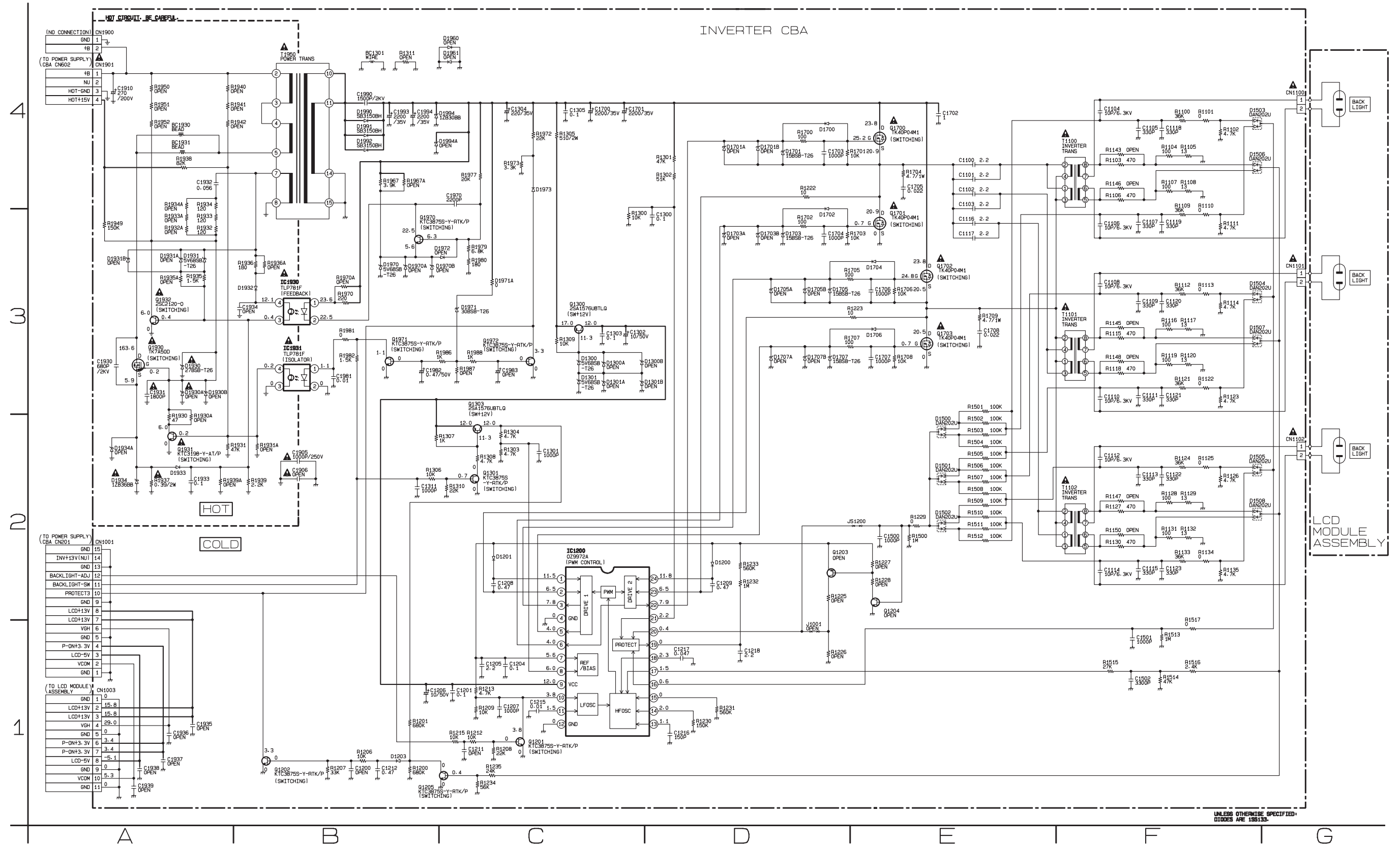
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

When you conduct on a component level repair for the Inverter CBA for any models within this service manual,

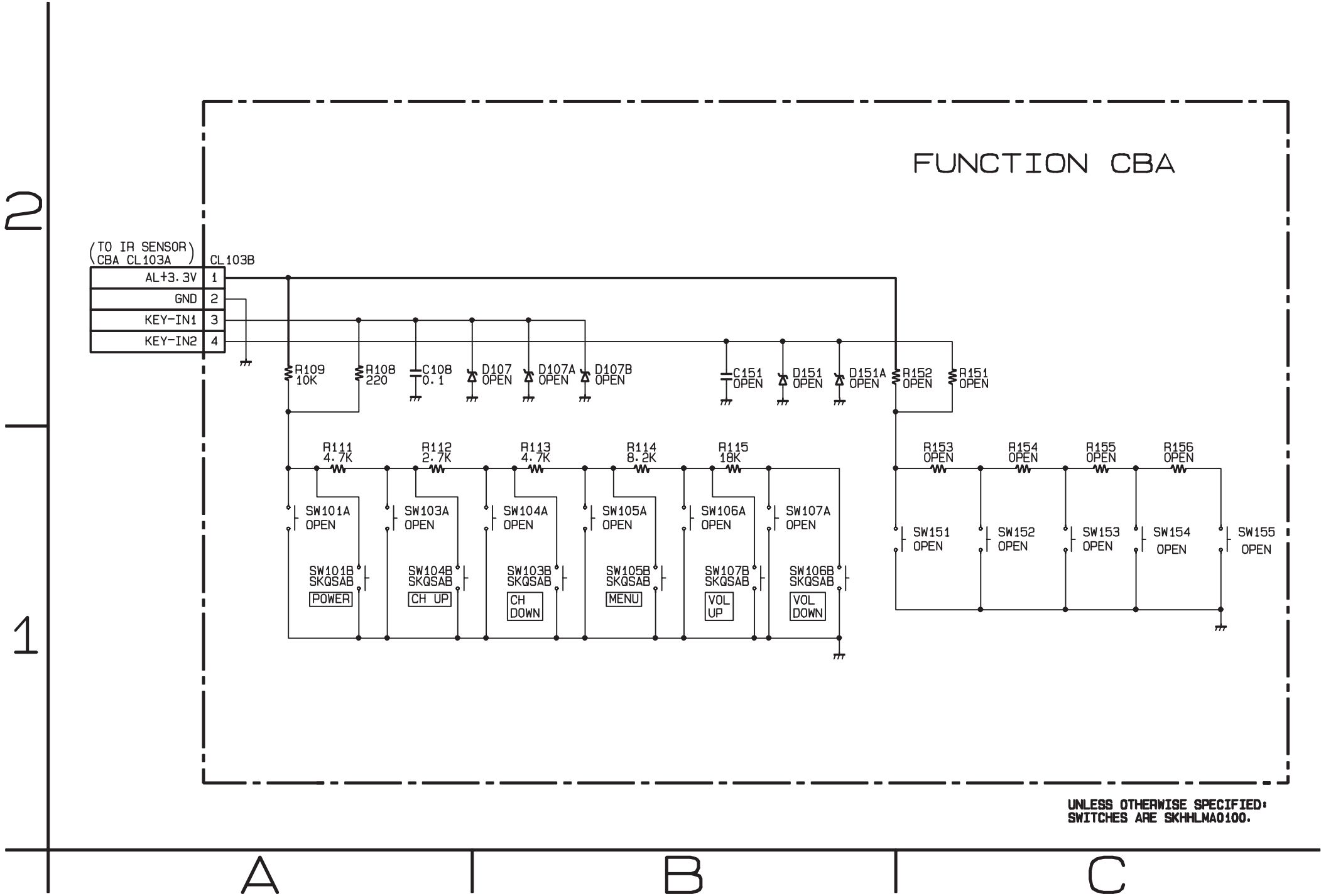
make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List.

For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2).

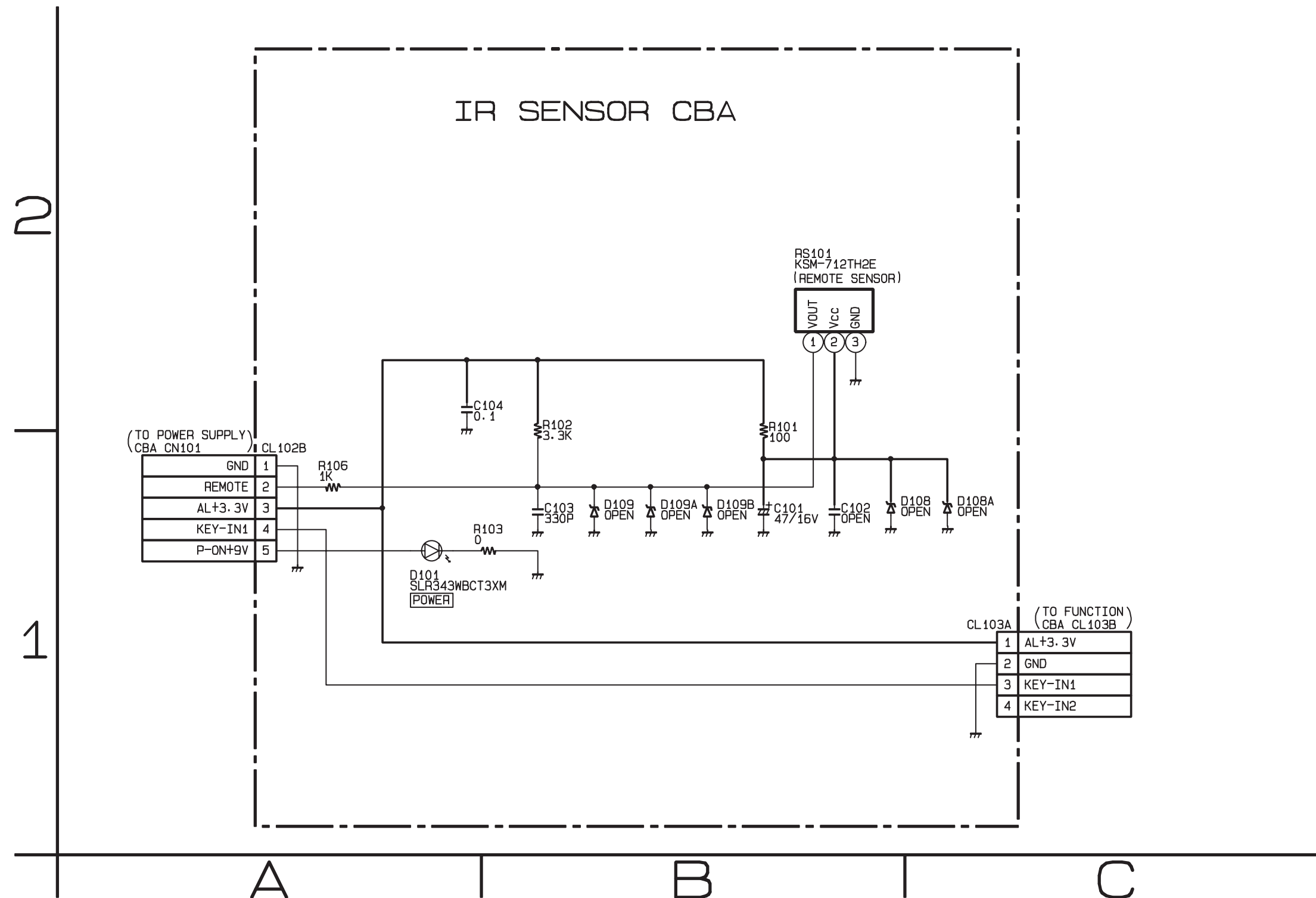
For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).



Function Schematic Diagram



IR Sensor Schematic Diagram

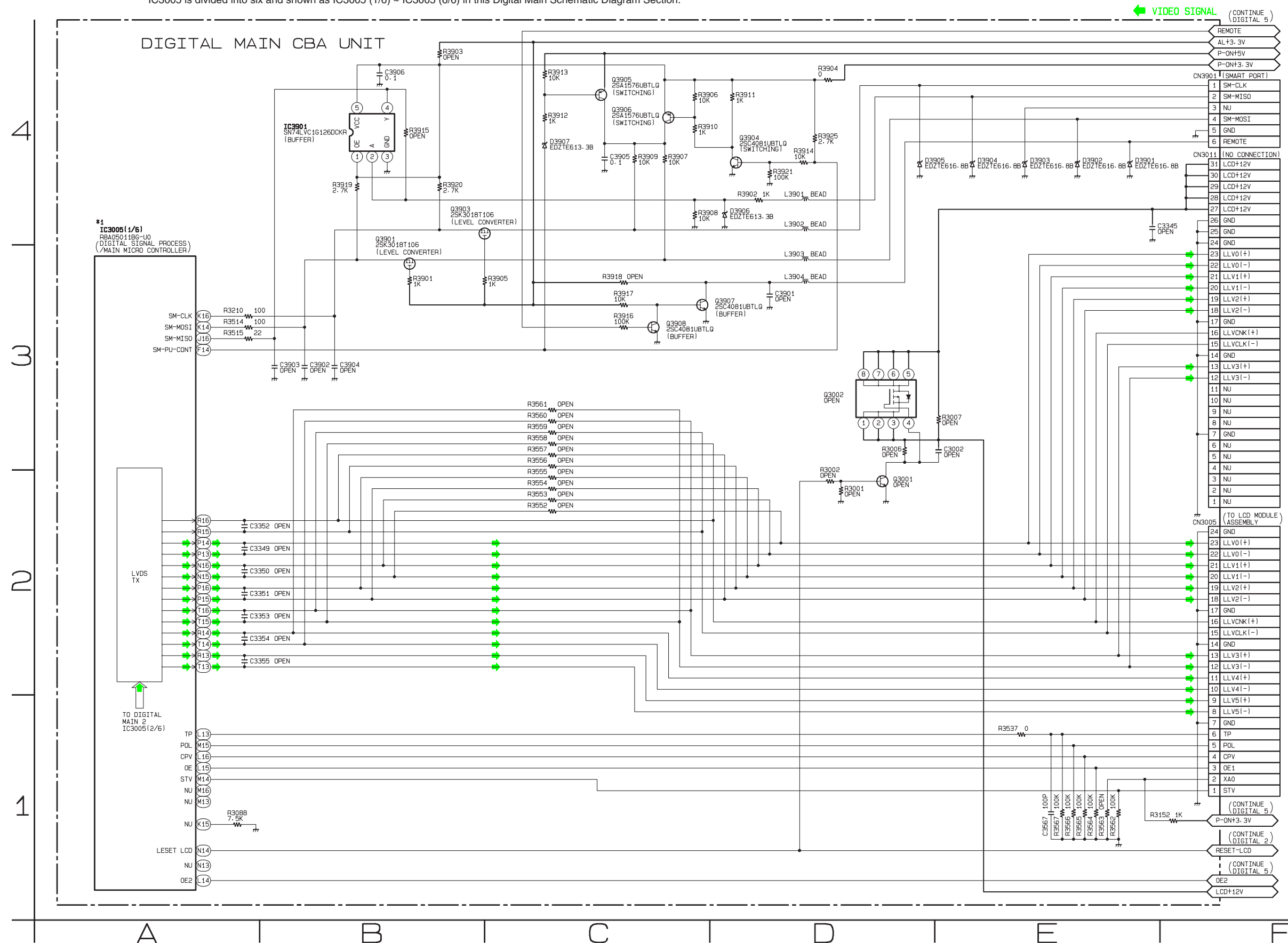


Digital Main 1 Schematic Diagram

***1 NOTE:**

The order of pins shown in this diagram is different from that of actual IC3005.

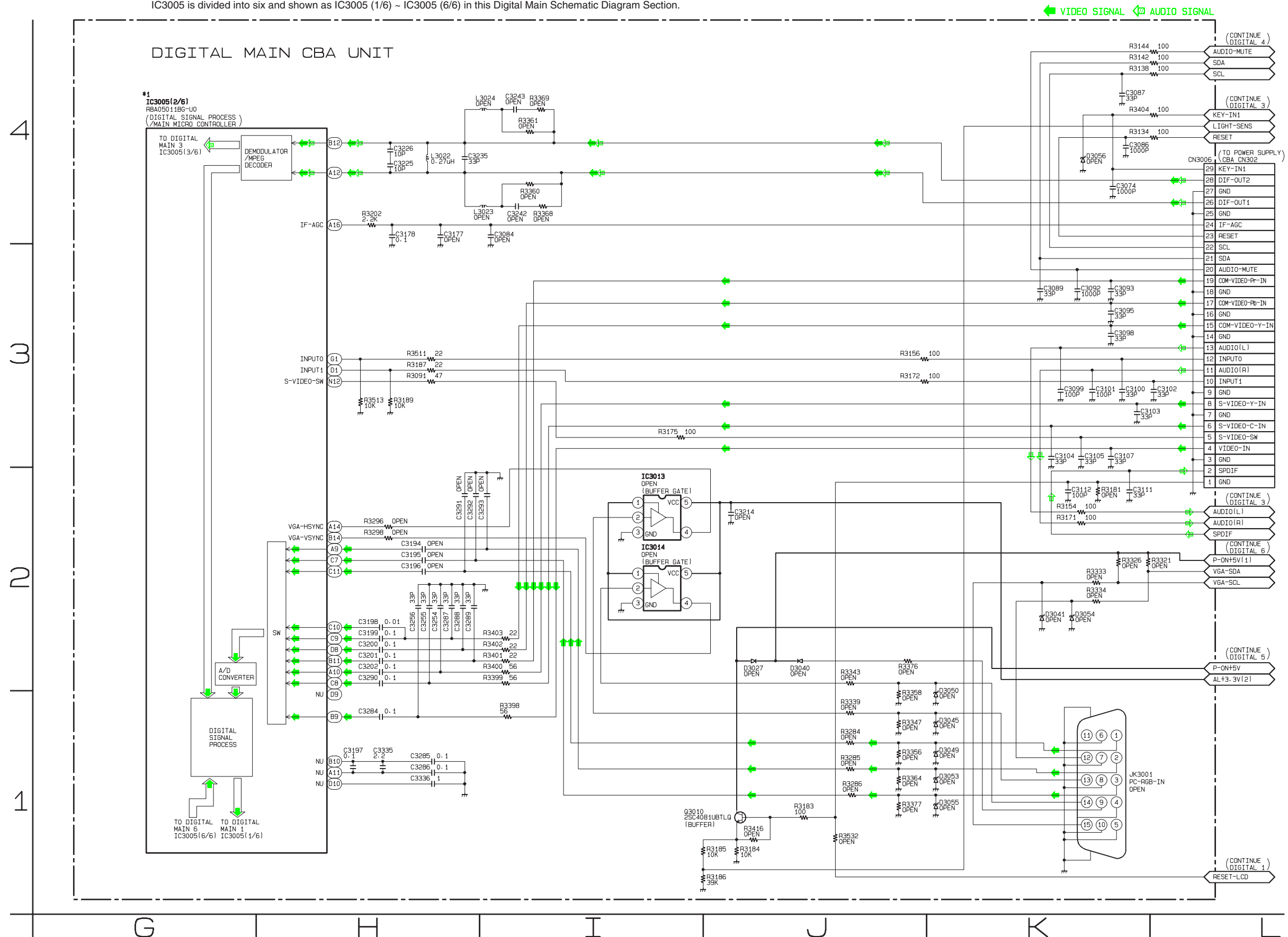
IC3005 is divided into six and shown as IC3005 (1/6) ~ IC3005 (6/6) in this Digital Main Schematic Diagram Section.



Digital Main 2 Schematic Diagram

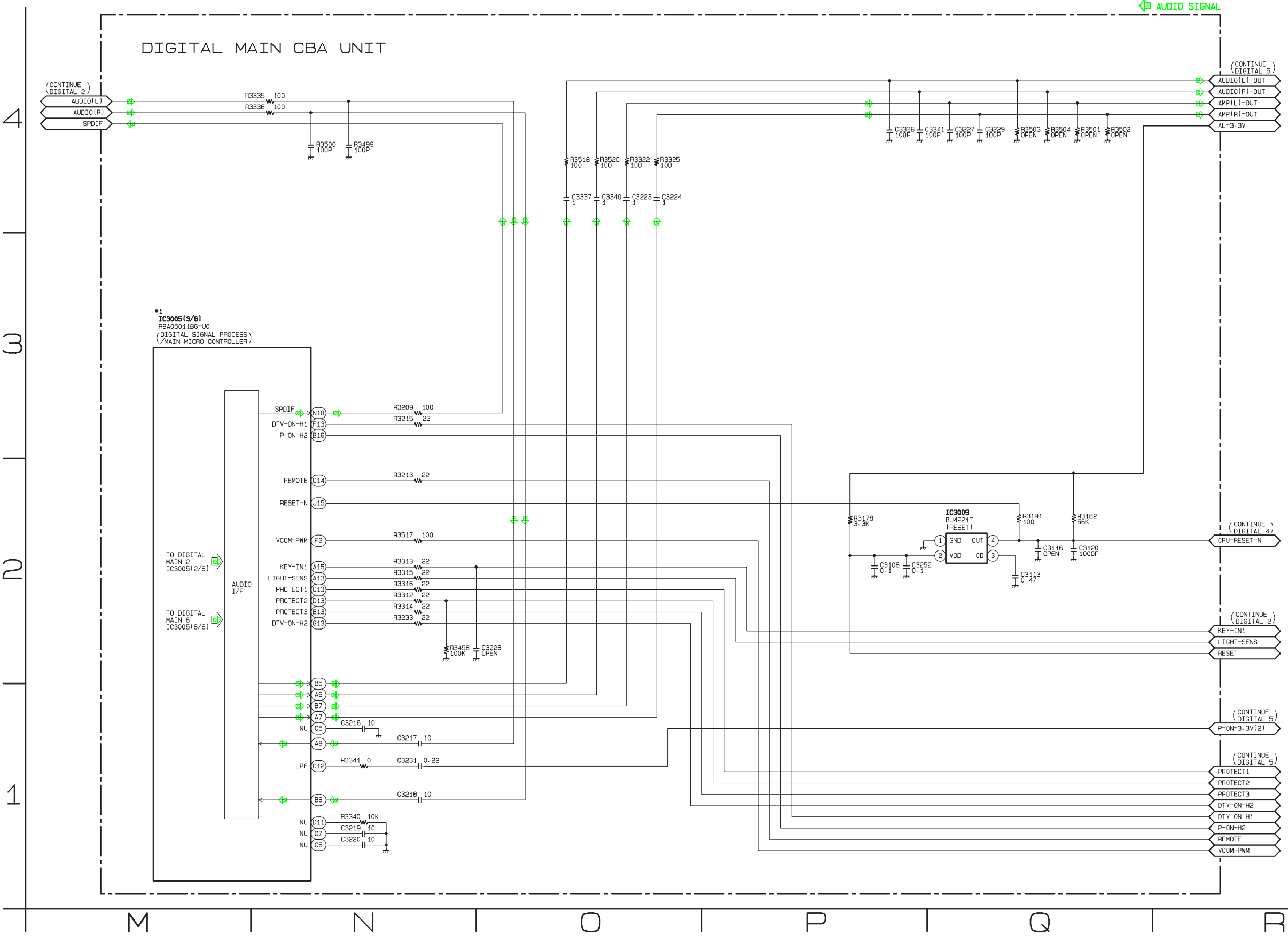
***1 NOTE:**

The order of pins shown in this diagram is different from that of actual IC3005.
IC3005 is divided into six and shown as IC3005 (1/6) ~ IC3005 (6/6) in this Digital Main Schematic Diagram Section.



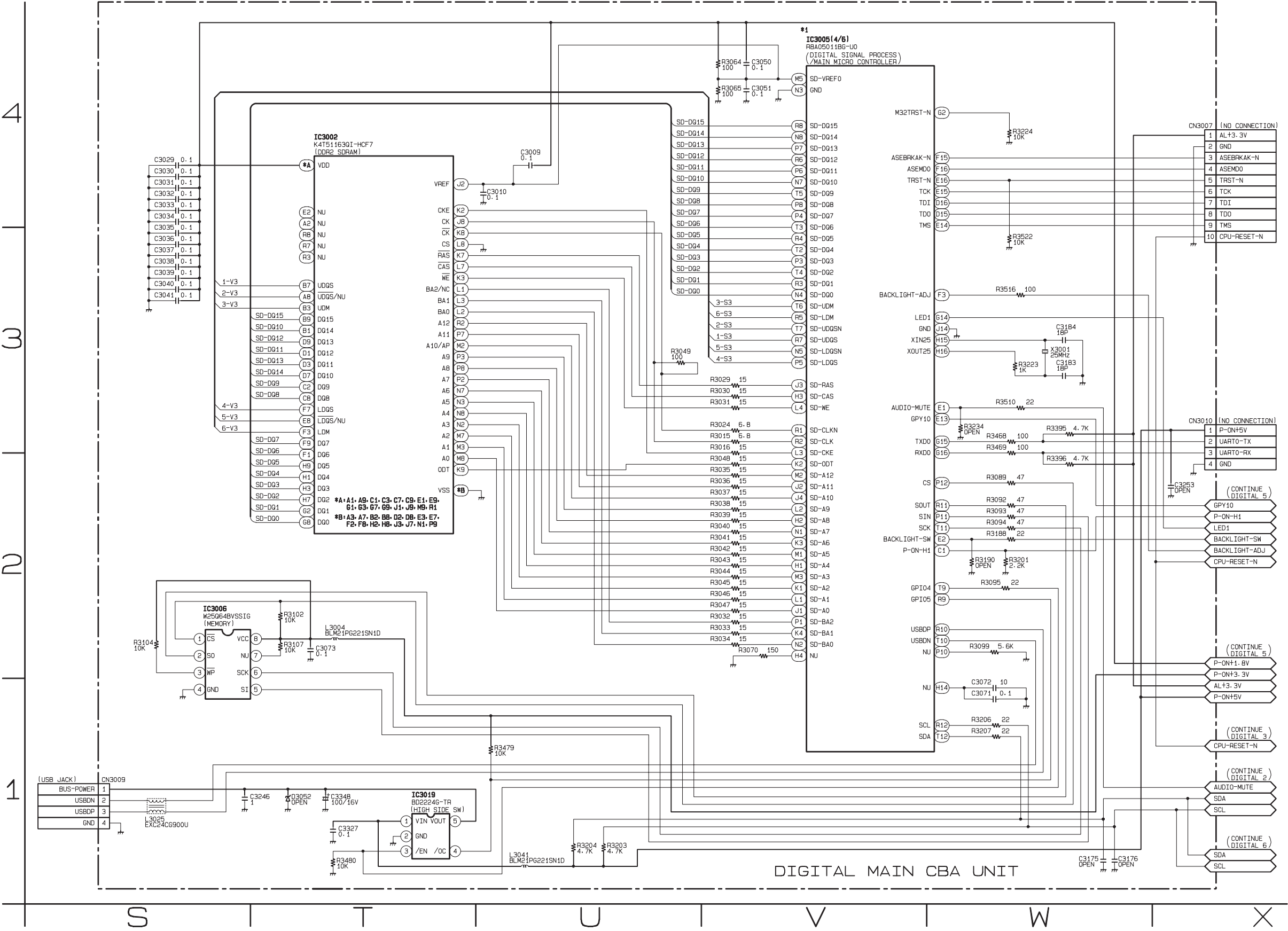
Digital Main 3 Schematic Diagram

*1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3005.
IC3005 is divided into six and shown as IC3005 (1/6) ~ IC3005 (6/6) in this Digital Main Schematic Diagram Section.



Digital Main 4 Schematic Diagram

*1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3005.
IC3005 is divided into six and shown as IC3005 (1/6) ~ IC3005 (6/6) in this Digital Main Schematic Diagram Section.

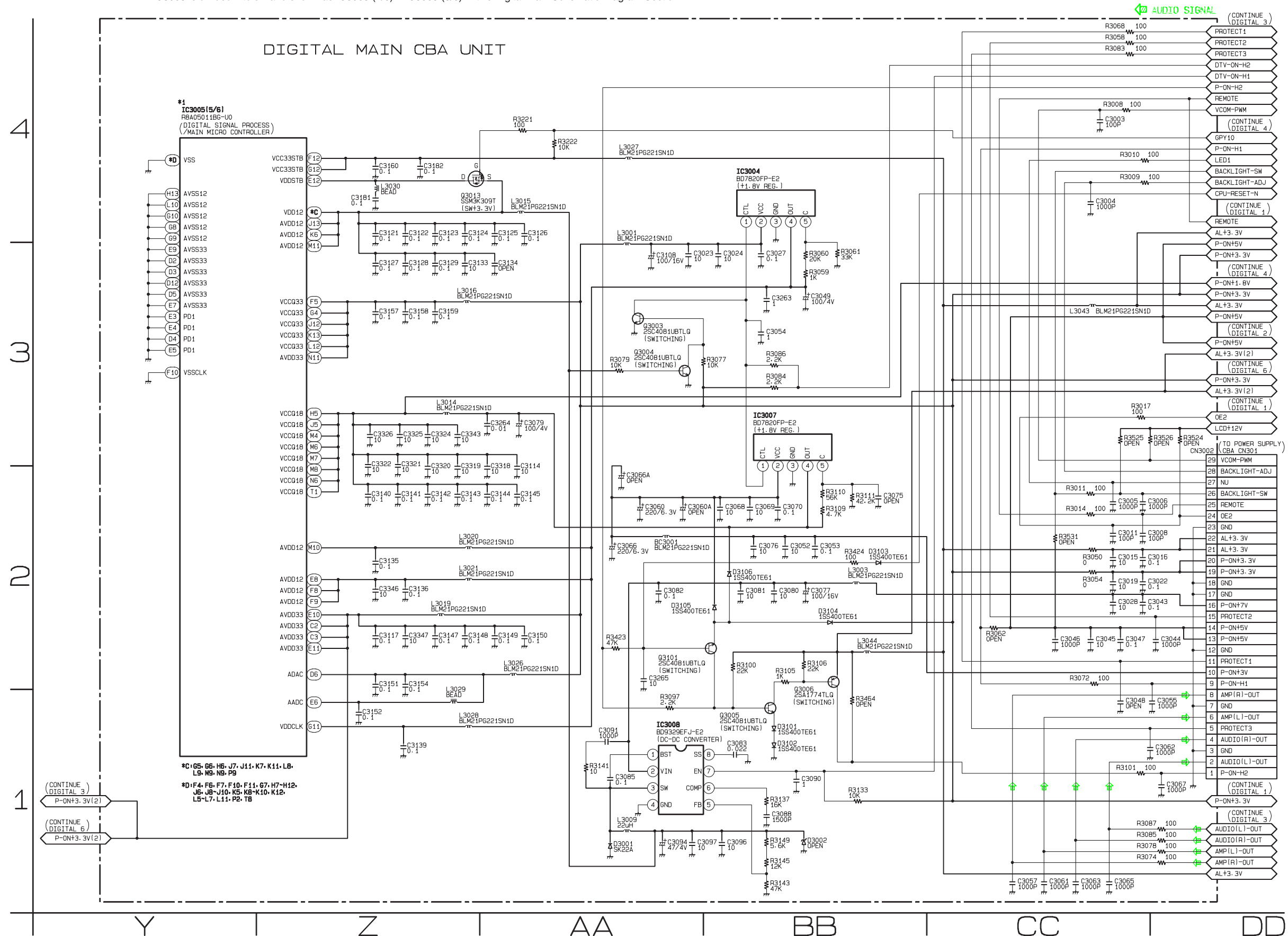


Digital Main 5 Schematic Diagram

***1 NOTE:**

The order of pins shown in this diagram is different from that of actual IC3005.

IC3005 is divided into six and shown as IC3005 (1/6) ~ IC3005 (6/6) in this Digital Main Schematic Diagram Section.

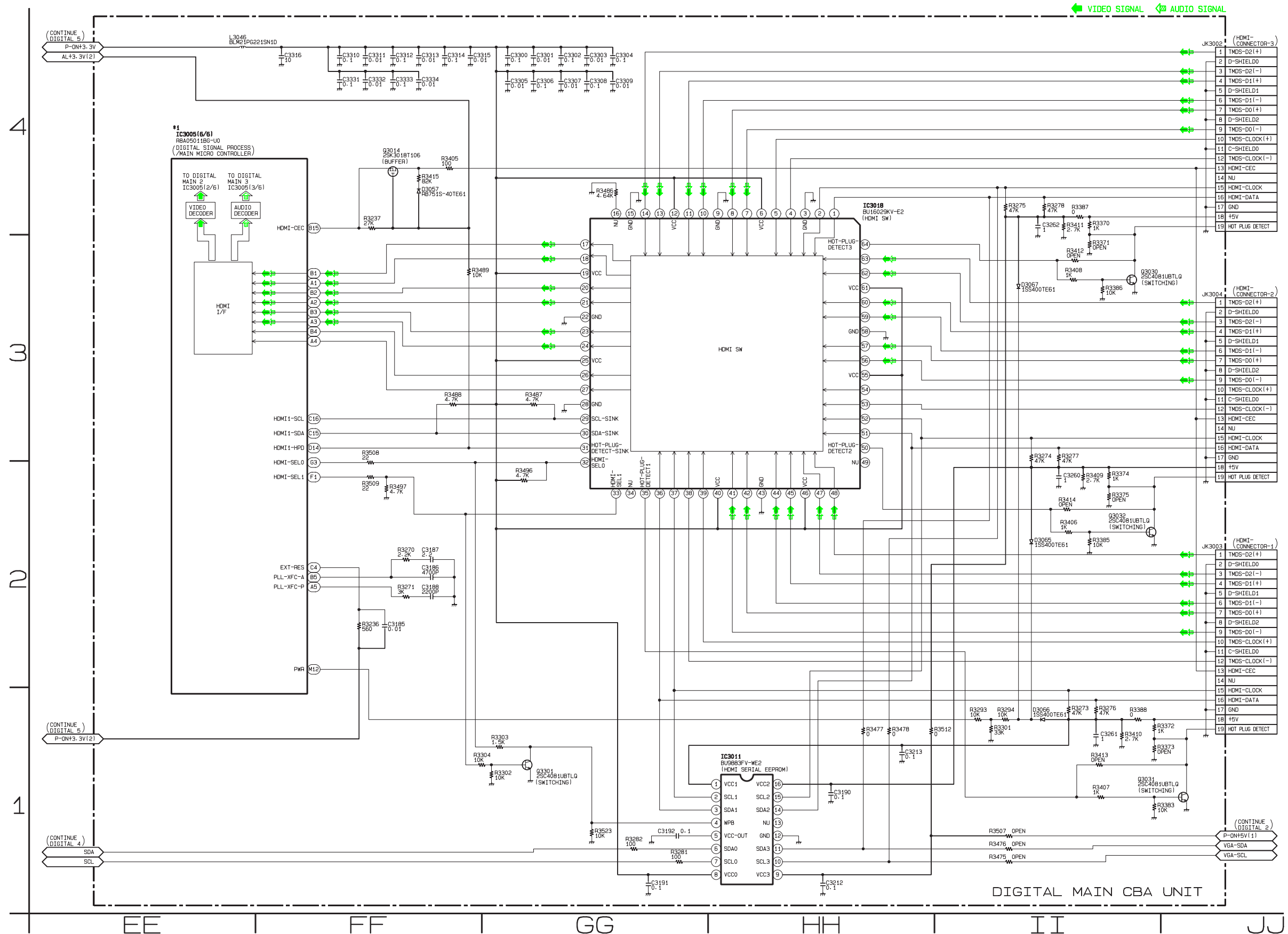


Digital Main 6 Schematic Diagram

***1 NOTE:**

The order of pins shown in this diagram is different from that of actual IC3005.

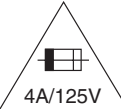
IC3005 is divided into six and shown as IC3005 (1/6) ~ IC3005 (6/6) in this Digital Main Schematic Diagram Section.



Power Supply CBA & Jack CBA Top View

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

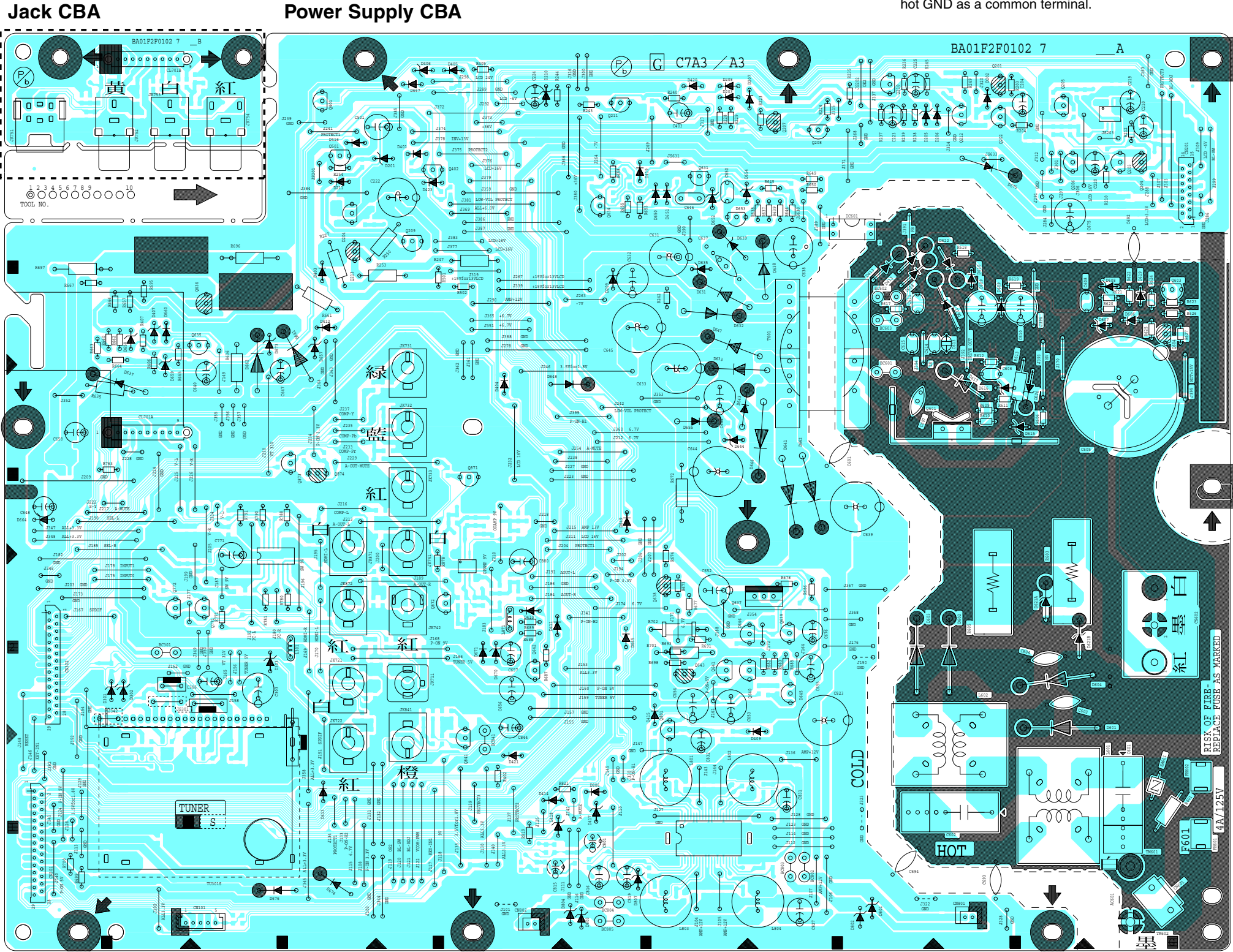
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



CAUTION ! : For continued protection against risk of fire, replace only with same type 4 A, 125V fuse.

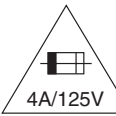
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



Power Supply CBA & Jack CBA Bottom View

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



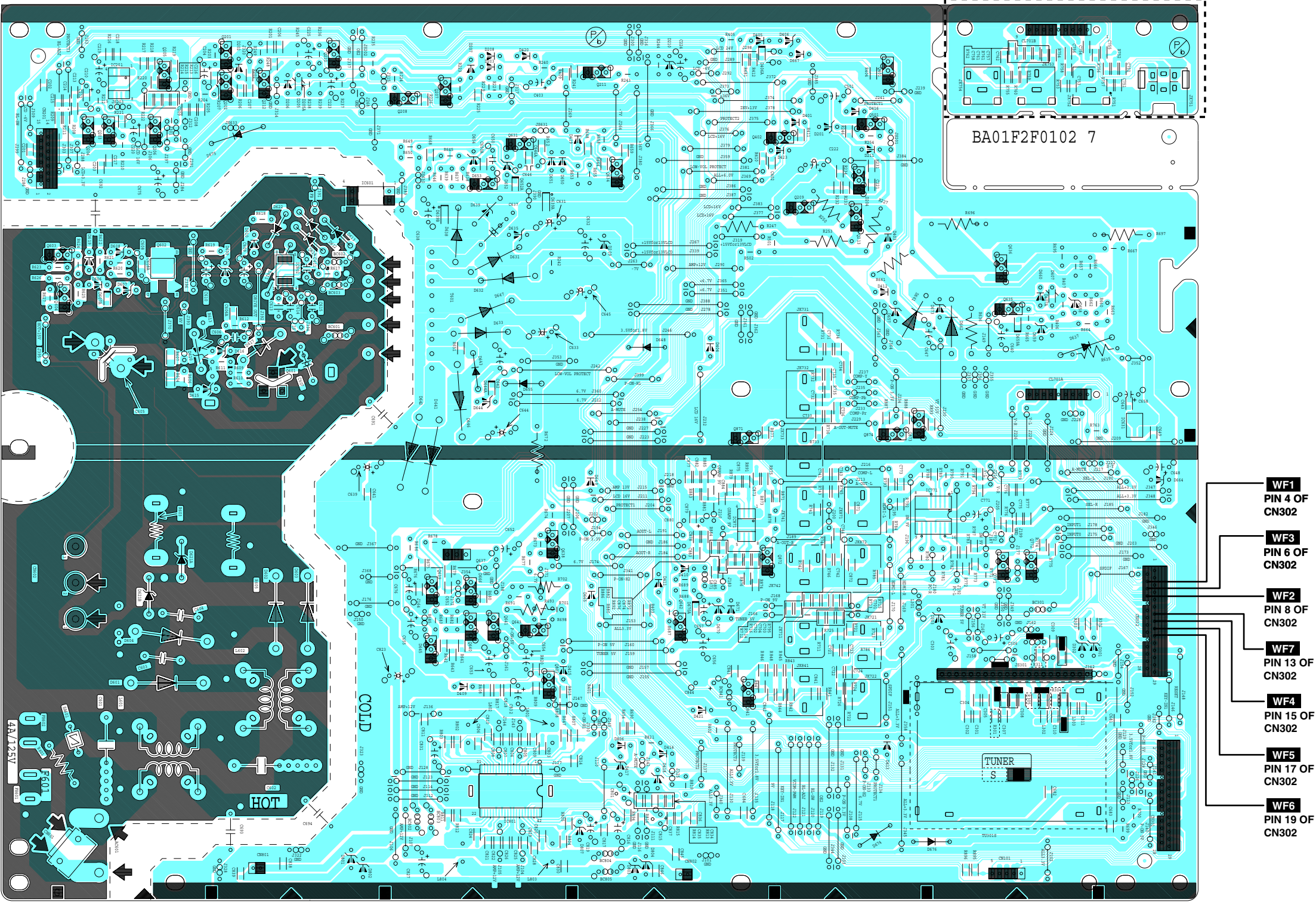
CAUTION ! : For continued protection against risk of fire,
replace only with same type 4 A, 125V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 125V.

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing.
Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

Power Supply CBA

Jack CBA

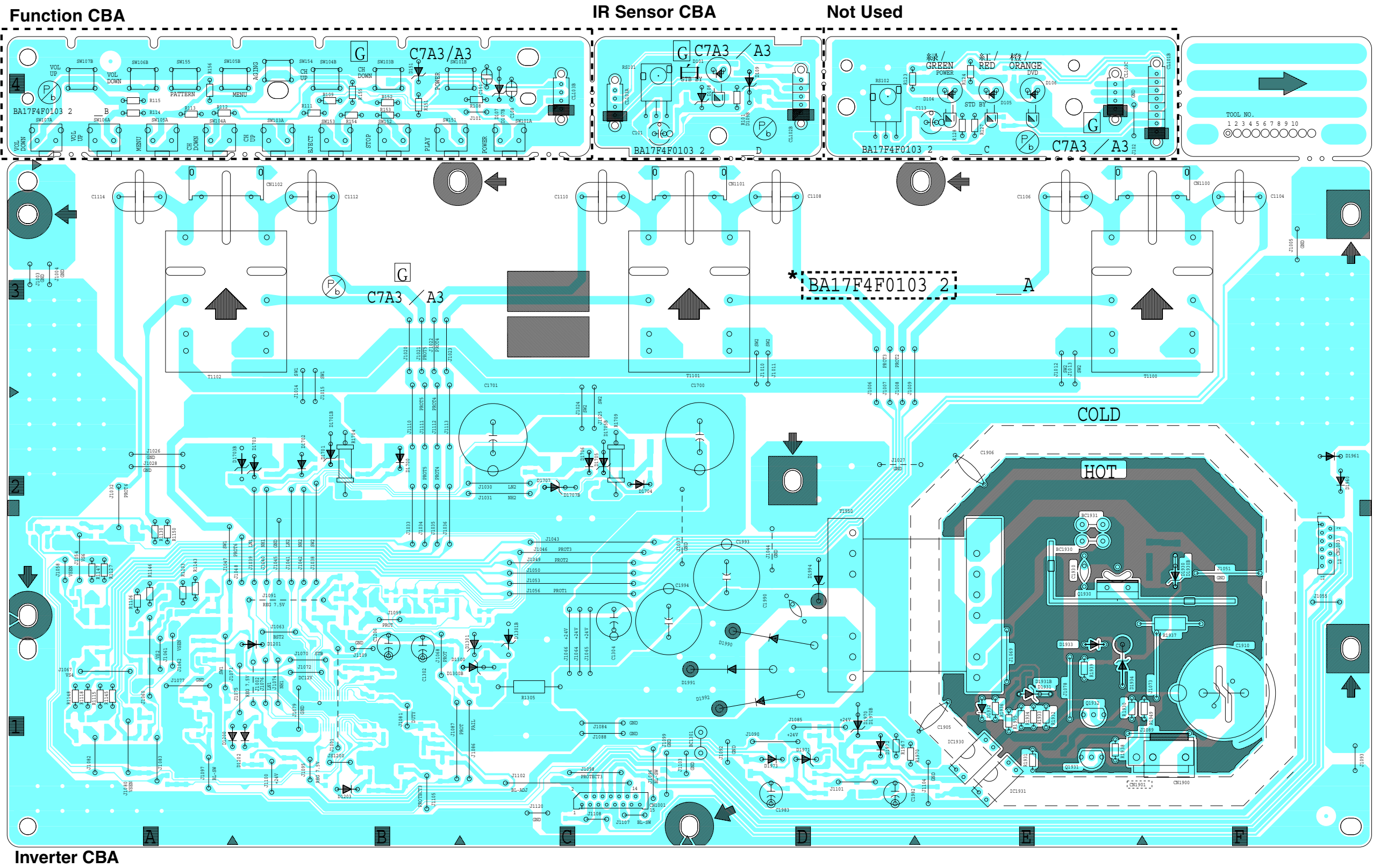


Inverter CBA, Function CBA & IR Sensor CBA Top View (main Inverter CBA)

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

***When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List.**
For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2).
For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).

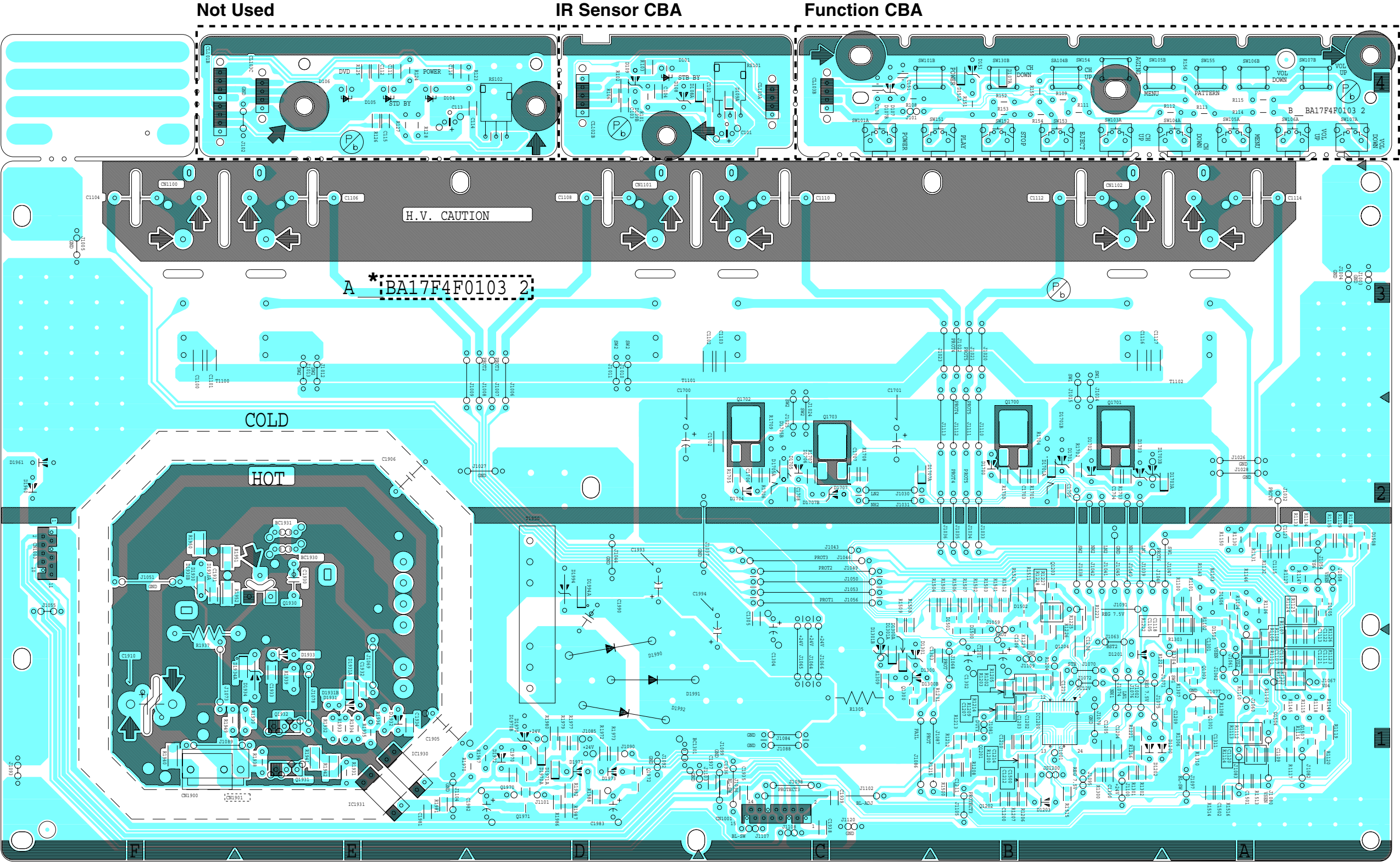


Inverter CBA, Function CBA & IR Sensor CBA Bottom View (main Inverter CBA)

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

*** When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List.**
For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2).
For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).



Inverter CBA

Inverter CBA, Function CBA & IR Sensor CBA Top View (sub Inverter CBA)

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

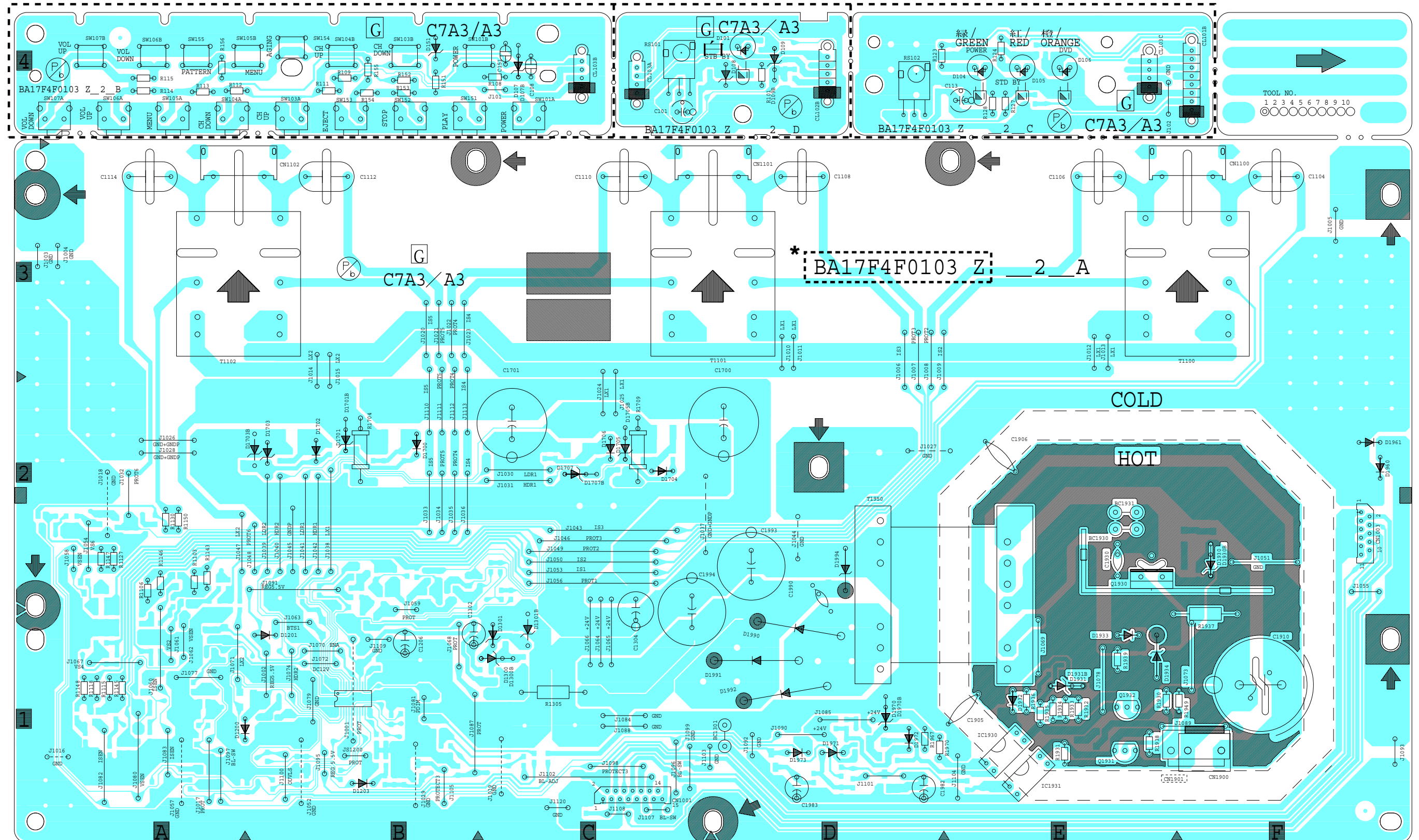
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

*** When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List.**
For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2).
For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).

Function CBA

IR Sensor CBA

Not Used



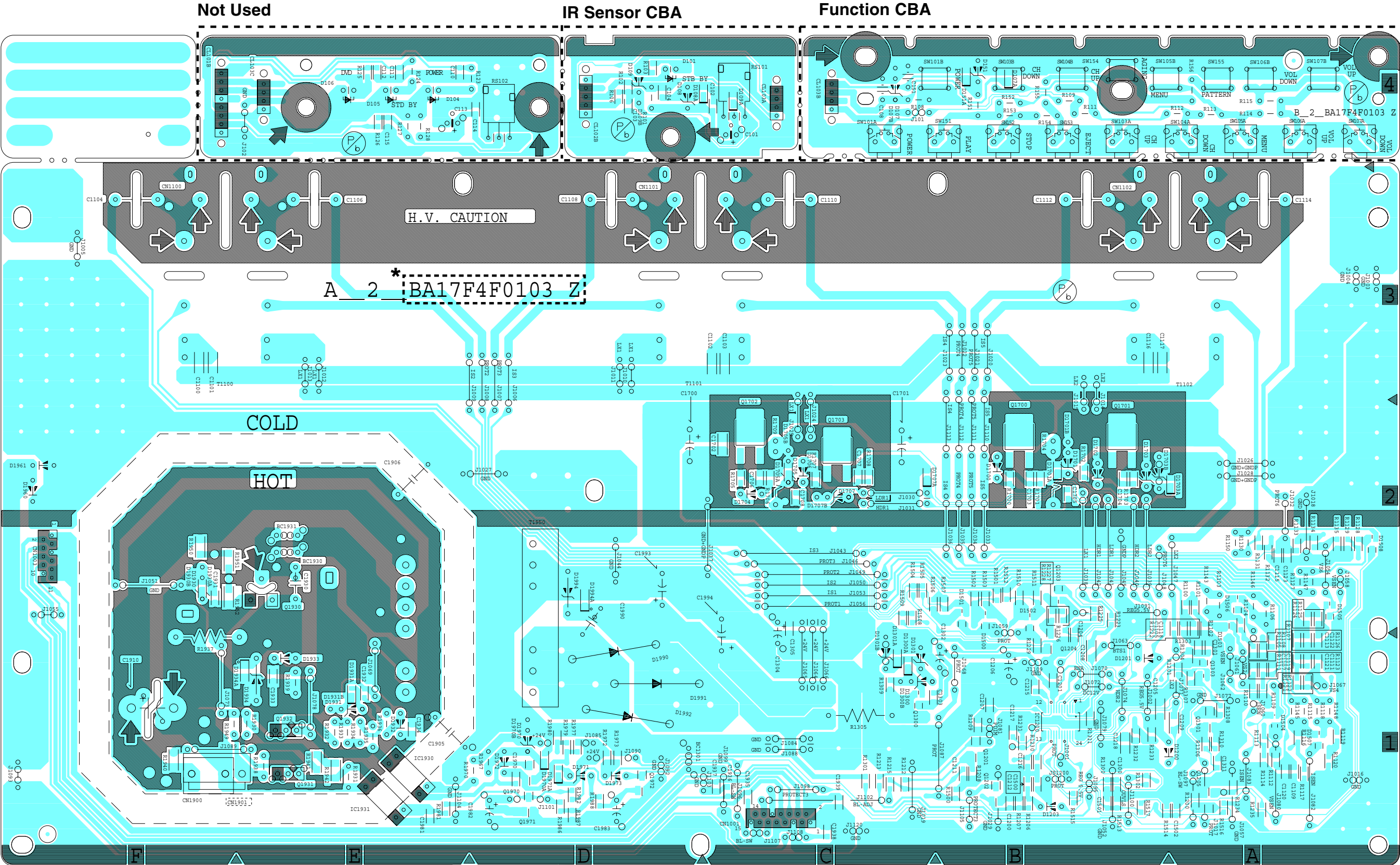
Inverter CBA

Inverter CBA, Function CBA & IR Sensor CBA Bottom View (sub Inverter CBA)

NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

*** When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagrams, Schematic Diagrams/CBA and Parts List.**
For the main CBA, the last digit of the board number, which is engraved on every board, should be a number(e.g. BA17F4F0103 2).
For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet(e.g. BA17F4F0103 Z).



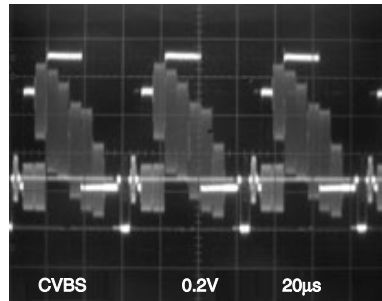
Inverter CBA

WAVEFORMS

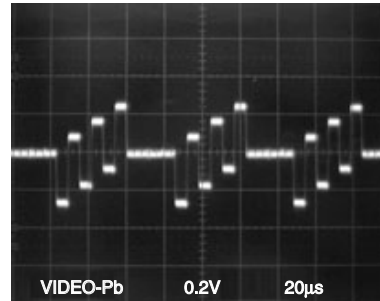
WF1 ~ WF7 = Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

Input: NTSC Color Bar Signal (with 1kHz Audio Signal)

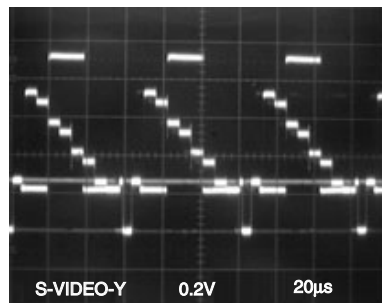
WF1 Pin 4 of CN302



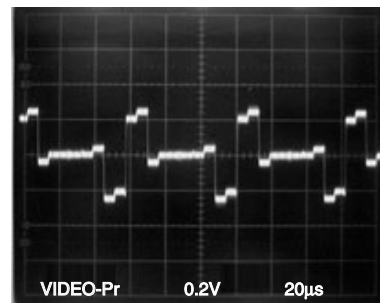
WF5 Pin 17 of CN302



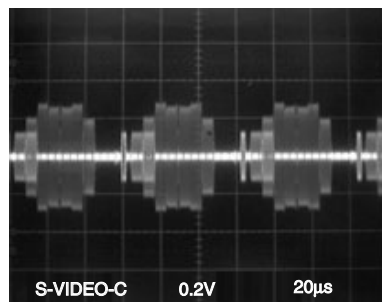
WF2 Pin 8 of CN302



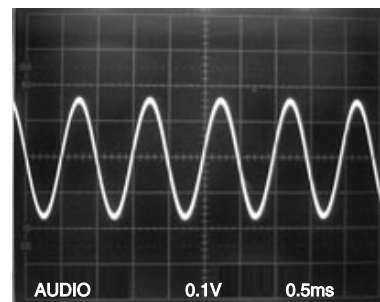
WF6 Pin 19 of CN302



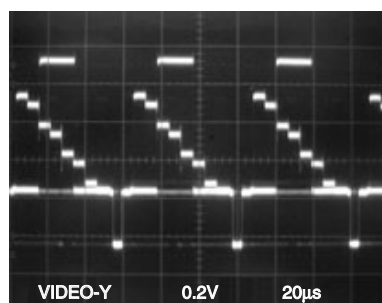
WF3 Pin 6 of CN302



WF7 Pin 13 of CN302



WF4 Pin 15 of CN302



DIGITAL MAIN CBA UNIT

POWER SUPPLY CBA

TU301 TUNER UNIT

INVERTER CBA

JACK CBA

LCD MODULE ASSEMBLY

CONNECTORS:

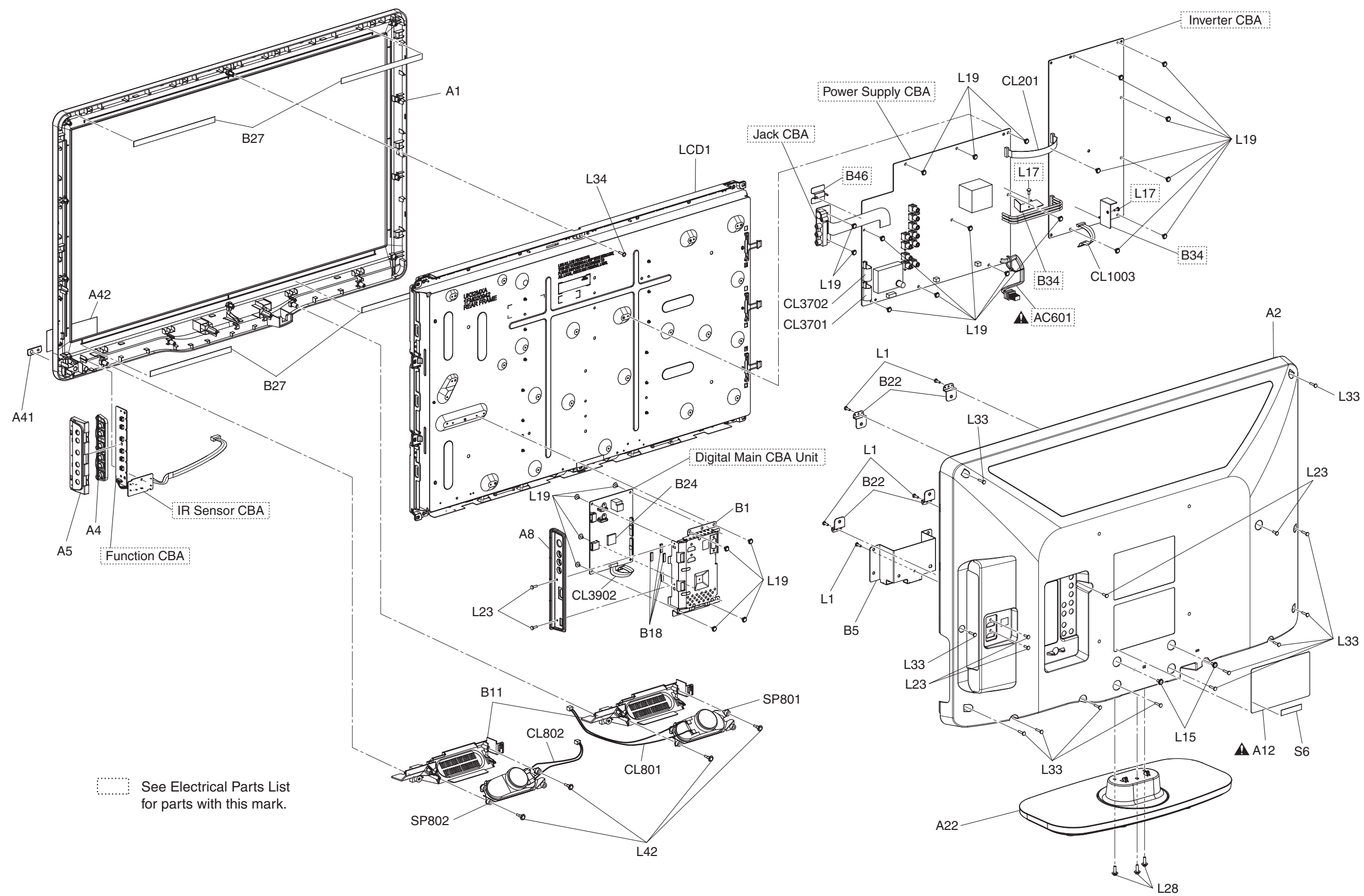
- COMPONENT P-IN
- COMPONENT P-OUT
- COMPONENT AUDIO(L)-IN
- COMPONENT AUDIO(R)-IN
- HDMI-CONNECTOR-1
- HDMI-CONNECTOR-2
- HDMI-CONNECTOR-3
- USB JACK
- SMART PORT

INTERNAL COMPONENTS AND CONNECTIONS:

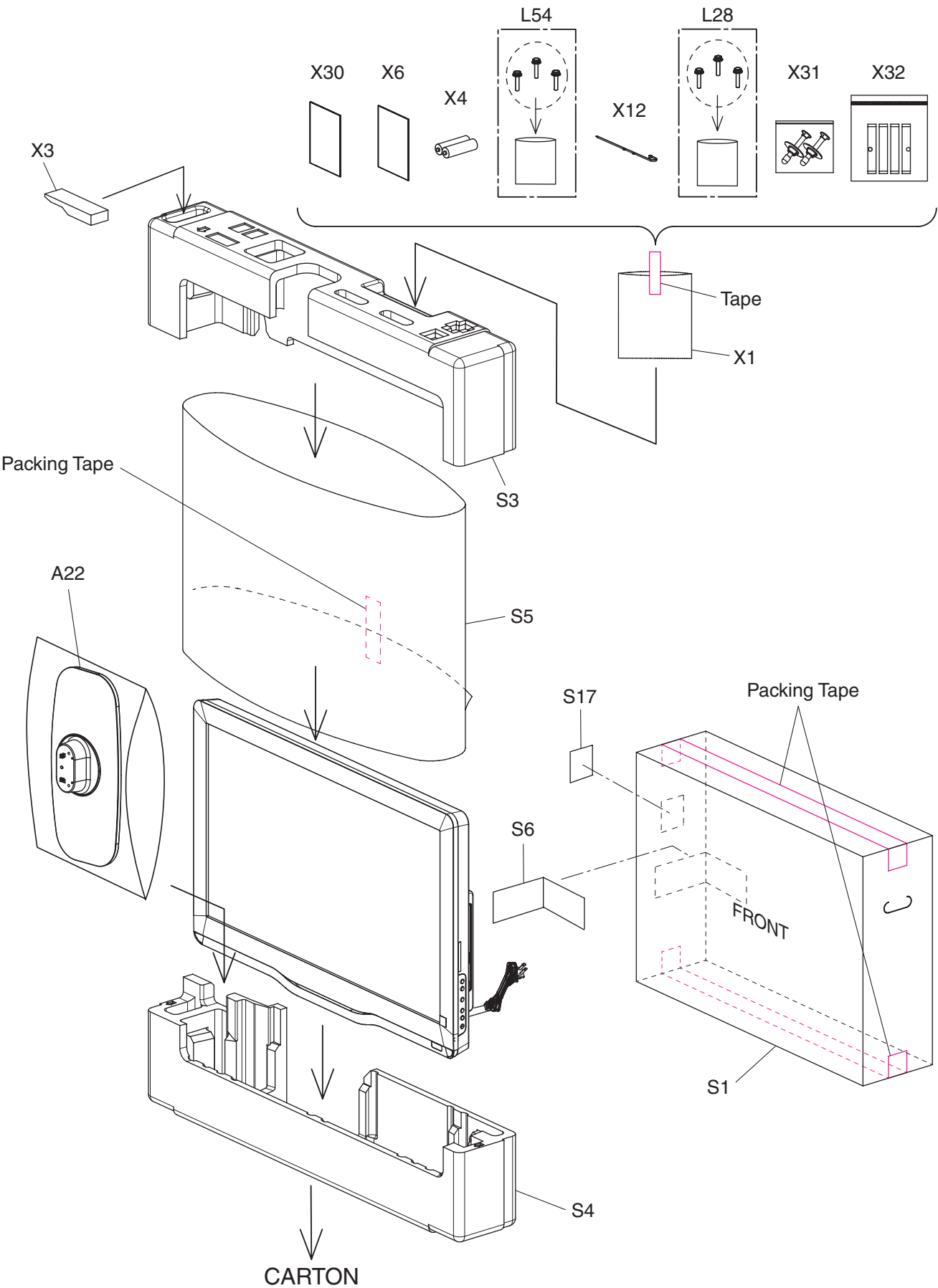
- CL3701** (CN3002): 1 P-ON+H2, 2 AUDIO(L)-OUT, 3 GND, 4 AUDIO(R)-OUT, 5 PROTECT3, 6 AMP(L)-OUT, 7 GND, 8 AMP(R)-OUT, 9 P-ON+H1, 10 P-ON+3V, 11 PROTECT1, 12 GND, 13 P-ON+5V, 14 P-ON+5V, 15 PROTECT2, 16 P-ON+7V, 17 GND, 18 GND, 19 P-ON+3.3V, 20 P-ON+3.3V, 21 AL+3.3V, 22 AL+3.3V, 23 GND, 24 OE2, 25 REMOTE, 26 BACKLIGHT-SW, 27 LED(NU), 28 BACKLIGHT-ADJ, 29 VCOM-PWM.
- CL3702** (CN3006): 1 GND, 2 SPDIF, 3 GND, 4 VIDEO-IN, 5 S-VIDEO-SW, 6 S-VIDEO-C-IN, 7 GND, 8 S-VIDEO-Y-IN, 9 GND, 10 INPUT1, 11 AUDIO(R), 12 INPUT0, 13 AUDIO(L), 14 GND, 15 COM-VIDEO-Y-IN, 16 GND, 17 COM-VIDEO-Pb-IN, 18 GND, 19 COM-VIDEO-Pn-IN, 20 AUDIO-MUTE, 21 SDA, 22 SCL, 23 RESET, 24 IF-AGC, 25 GND, 26 DIF-OUT1, 27 GND, 28 DIF-OUT2, 29 KEY-IN1.
- CL201** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL202** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL203** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL204** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL205** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL206** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL207** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL208** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL209** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL210** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL211** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL212** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL213** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL214** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL215** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL216** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL217** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL218** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL219** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL220** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL221** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL222** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL223** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL224** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL225** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL226** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 VGH, 11 GND, 12 P-ON+3.3V, 13 LCD-5V, 14 VCOM, 15 GND.
- CL227** (CN201): 1 GND, 2 INV+13VINU, 3 GND, 4 BACKLIGHT-ADJ, 5 BACKLIGHTSW, 6 PROTECT3, 7 GND, 8 LCD+13V, 9 LCD+13V, 10 V

EXPLODED VIEWS

Cabinet




Packing



PARTS LIST

Mechanical Parts

PRODUCT SAFETY NOTE: Products marked with a  have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTE: Parts that are not assigned part numbers (-----) are not available.

Ref. No.	Description	Part No.
A1	FRONT CABINET A17F6UH	1EM027428
A2	REAR CABINET A17FZUH	1EM127008
A4	FUNCTION KNOB A17F6UH	1EM225787
A5	KNOB FRAME A17F6UH	1EM333757
A8	JACK HOLDER A17FGUH	1EM227683
A12 	RATING LABEL A17FZUH	-----
A22	32W STAND ASSEMBLY A17FZUH	1EM028605
A41	SENSOR PLATE A17F6UH	1EM330357A
A42	ENERGY GUIDE LABEL A17FZUH	-----
B1	SHIELD BOX A17FZUH	1EM226485
B5	STAND HOLDER A17F6UH	1EM225789
B11	SPEAKER HOLDER A17F6UH	1EM227644
B18	GASKET A8AF0UH	1EM425861
B22	WALL MOUNT BRACKET A84N0UH	1EM323797
B24	THERMAL SHEET TMS-14-20 12X12	XK10000X4011
B27	CLOTH(10X180XT0.5) L0336JG	0EM408827
CL201	WIRE ASSEMBLY 15PIN FFC 15PIN/140MM	WX1A01F4-112
CL801	WIRE ASSEMBLY 2PIN 2PIN/320MM/BLACK RED	WX1A17F6-311
CL802	WIRE ASSEMBLY 2PIN 2PIN/110MM/CORE	WX1A01F2-013
CL1003	WIRE ASSEMBLY 11PIN FFC 11PIN/129MM	WX1A01F4-111
CL3701	WIRE ASSEMBLY 29PIN FFC 29PIN/50MM	WX1A94F0-121
CL3702	WIRE ASSEMBLY 29PIN FFC 29PIN/50MM	WX1A94F0-121
CL3902	WIRE ASSEMBLY 24PIN FFC 24PIN/117.5MM	WX1A91F6-112
L1	SCREW P-TIGHT 3X10 BIND HEAD+	GBHP3100
L15	DOUBLE SEMS SCREW M4X10 + BLK	FPH34100
L19	ASSEMBLED SCREW (D9 M3X6) A71F0UH	1EM424392B
L23	SCREW TAP TIGHT M3X10 BIND HEAD+BLK NI	GBHS3100
L28	STAND SCREW KIT A17F1UH (DOUBLE SEMS SCREW M4X14 + BLK)	1ESA27587
L33	SCREW P-TIGHT 3X14 BIND HEAD+ BLK	GBHP3140
L34	SCREW P-TIGHT 3X14 WASHER HEAD+	GCJP3140
L42	SHOULDER SCREW A01Q0UF	1EM328277
LCD1	LCD MODULE	UK32AXB
SP801	SPEAKER MAGNETIC S0412F28B	DS08130XQ002
SP802	SPEAKER MAGNETIC S0412F28C	DS08130XQ003
PACKING		
S1	CARTON A17FZUH	1EM436437
S3	STYROFOAM TOP A17F6UH	1EM027431
S4	STYROFOAM BOTTOM A17F6UH	1EM027432A
S5	SET BAG A17F6UH	1EM330877
S6	SERIAL NO. LABEL A17FZUH	-----
S17	CARTON LABEL A17FZUH	-----
L54	SECURITY SCREW M4X14 A17FZUH	1EM436697A

Ref. No.	Description	Part No.
ACCESSORIES		
X1	BAG POLYETHYLENE 235X365XT0.03	0EM408420A
X3	REMOTE CONTROL TRANSMITTER YKF259-001	URMT34JHG001
X4	BATTERY R03-B500/01S	XB0M451CZB01
X6	QUICK START SETUP GUIDE A17FZUH	1EMN28742A
X12	CABLE MANAGEMENT TIE(BLACK) A01F2UH	1EM431197
X30	WARRANTY SHEET A17FZUH	1EMN29039
X31	SECURITY SCREW KIT A17FZUH	1EM332298
X32	SECURITY TAPE KIT A17FZUH	1EM332299

Electrical Parts

PRODUCT SAFETY NOTE: Products marked with a **▲** have special characteristics important to safety. Before replacing any of these components, read carefully the product safety notice in this service manual. Don't degrade the safety of the product through improper servicing.

NOTES:

- Parts that are not assigned part numbers (-----) are not available.
- Tolerance of Capacitors and Resistors are noted with the following symbols.

C.....±0.25% D.....±0.5% F.....±1%
 G.....±2% J.....±5% K.....±10%
 M.....±20% N.....±30% Z.....+80/-20%

- When you conduct on a component level repair for the Inverter CBA for any models within this service manual, make sure to refer the right Block Diagram/Schematic Diagram/ CBA and Parts List.

For the main CBA, the last digit of the board number, which is engraved on every board, should be a number (e.g. BA17F4F0103 2). For the sub CBA, the last digit of the board number, which is engraved on every board, should be an alphabet (e.g. BA17F4F0103 Z).

DIGITAL MAIN CBA UNIT

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	A17FZMMA-005

MPW CBA

Ref. No.	Description	Part No.
	MPW CBA Consists of the following:	A17FZMPW-001
	POWER SUPPLY CBA(MPW-A) JACK CBA(MPW-B)	----- -----

POWER SUPPLY CBA

Ref. No.	Description	Part No.
	POWER SUPPLY CBA(MPW-A) Consists of the following:	-----
CAPACITORS		
C201	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C202	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C203	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C204	ELECTROLYTIC CAP. 2.2µF/50V M	CE1JMASDL2R2
C207	CHIP CERAMIC CAP.(1608) B K 0.1µF/16V	CHD1CK30B104
C210	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASDL220
C216	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C217	CHIP CERAMIC CAP.(1608) B K 0.1µF/16V	CHD1CK30B104
C218	CHIP CERAMIC CAP.(1608) B K 1µF/25V	CHD1EK30B105

Ref. No.	Description	Part No.
C219	ELECTROLYTIC CAP. 47µF/25V M	CE1EMASDL470
C221	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C222	ELECTROLYTIC CAP. 470µF/25V M	CE1EMASDL471
C223	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASDL220
C224	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASDL100
C302	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C303	ELECTROLYTIC CAP. 330µF/10V M	CE1AMASDL331
C305	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C306	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL1R0
C307	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C308	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C309	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V	CHD1EK30B104
C310	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C311	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C403	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASDL100
C601▲	CAP METALIZED FILM 0.22µF/300V K 3.5MM	CT2F224DC004
C602▲	CAP METALIZED FILM 0.22µF/300V K 3.5MM	CT2F224DC004
C605	CAP ELECTROLYTIC 470µF/200V M	CA2D471DYG07
C606A	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C607▲	CERAMIC CAP. 330pF/2KV	CA3D331PAN04
C608A	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C609	ELECTROLYTIC CAP. 47µF/50V M	CE1JMASDL470
C610	ELECTROLYTIC CAP. 100µF/50V M	CE1JMASDL101
C611	CAP CERAMIC (AX) 0.1µF/50V/F/Z	CA1J104TU062
C613	CAP CERAMIC (AX) 33pF/50V/CH/J	CA1J330TU059
C614	CAP CERAMIC (AX) 0.022µF/50V/B/K	CA1J223TU061
C615	CAP CERAMIC (AX) 3300pF/50V/B/K	CA1J332TU061
C631	ELECTROLYTIC CAP. 1000µF/25V M	CE1EMZNDL102
C632	ELECTROLYTIC CAP. 220µF/25V M	CE1EMASDL221
C633	CAP ALUMINUM ELECTROLYTIC 2200µF/6.3V M	CE0KMZNDL222
C637	CERAMIC CAP. 1500pF/2KV	CA3D152PAN04
C638	ELECTROLYTIC CAP. 100µF/50V M	CE1JMASDL101
C639	ELECTROLYTIC CAP. 1000µF/35V M	CE1GMZADL102
C640	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL1R0
C642	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL1R0
C643	CHIP CERAMIC CAP.(1608) B K 1µF/10V	CHD1AK30B105
C644	ELECTROLYTIC CAP 3300µF/16V M	CE1CMZNDL332
C645	CAP ALUMINUM ELECTROLYTIC 2200µF/6.3V M	CE0KMZNDL222
C646A	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C648	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C649	CHIP CERAMIC CAP.(1608) B K 0.1µF/25V	CHD1EK30B104
C650A	CHIP CERAMIC CAP.(1608) B K 0.022µF/50V	CHD1JK30B223
C652	ELECTROLYTIC CAP. 1000µF/6.3V M	CE0KMASDL102
C653	ELECTROLYTIC CAP. 220µF/10V M	CE1AMASDL221
C654	ELECTROLYTIC CAP. 220µF/10V M	CE1AMASDL221
C656	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101
C657	ELECTROLYTIC CAP. 22µF/50V M	CE1JMASDL220
C658	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C676	ELECTROLYTIC CAP. 2.2µF/50V M	CE1JMASDL2R2
C681	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C682	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C683	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C684	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C691▲	SAFTY CAP. 1000pF/250V KX	CA2E102MR101
C693▲	SAFTY CAP. 1000pF/250V KX	CA2E102MR101
C723	CHIP CERAMIC CAP.(1608) B K 2.2µF/10V	CHD1AK30B225
C724	CHIP CERAMIC CAP.(1608) B K 2.2µF/10V	CHD1AK30B225
C731	CHIP CERAMIC CAP. CH J 39pF/50V	CHD1JJ3CH390

Ref. No.	Description	Part No.
C732	CHIP CERAMIC CAP. CH J 39pF/50V	CHD1JJ3CH390
C733	CHIP CERAMIC CAP. CH J 39pF/50V	CHD1JJ3CH390
C743	CHIP CERAMIC CAP.(1608) B K 2.2μF/10V	CHD1AK30B225
C744	CHIP CERAMIC CAP.(1608) B K 2.2μF/10V	CHD1AK30B225
C771	ELECTROLYTIC CAP. 100μF/16V M	CE1CMASDL101
C772	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V	CHD1EZ30F104
C775	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C776	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C801	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C803	CHIP CERAMIC CAP.(1608) B K 0.47μF/25V	CHD1EK30B474
C804	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C805	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C806	CHIP CERAMIC CAP.(1608) B K 0.47μF/25V	CHD1EK30B474
C807	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C808	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C809	CHIP CERAMIC CAP.(1608) B K 1μF/25V	CHD1EK30B105
C810	CHIP CERAMIC CAP.(1608) B K 1μF/25V	CHD1EK30B105
C814	CHIP CERAMIC CAP.(1608) B K 1μF/25V	CHD1EK30B105
C815	ELECTROLYTIC CAP. 1μF/50V M H7	CE1JMAVSL1R0
C816	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C817	CHIP CERAMIC CAP.(1608) B K 1μF/25V	CHD1EK30B105
C818	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C819	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C820	CHIP CERAMIC CAP.(1608) B K 0.47μF/25V	CHD1EK30B474
C821	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C822	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C823	ELECTROLYTIC CAP. 1000μF/25V M	CE1EMZNDL102
C824	CHIP CERAMIC CAP.(1608) B K 0.47μF/25V	CHD1EK30B474
C825	CHIP CERAMIC CAP.(1608) B K 0.1μF/25V	CHD1EK30B104
C826	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C827	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C828	CHIP CERAMIC CAP.(1608) B K 1μF/25V	CHD1EK30B105
C829	CHIP CERAMIC CAP.(1608) B K 1μF/25V	CHD1EK30B105
C831	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C834	CHIP CERAMIC CAP.(1608) B K 0.47μF/16V	CHD1CK30B474
C835	CHIP CERAMIC CAP. CH J 220pF/50V	CHD1JJ3CH221
C836	CHIP CERAMIC CAP.(1608) B K 0.47μF/16V	CHD1CK30B474
C837	CHIP CERAMIC CAP. CH J 220pF/50V	CHD1JJ3CH221
C838	CHIP CERAMIC CAP.(1608) CH J 470pF/50V	CHD1JJ3CH471
C839	CHIP CERAMIC CAP.(1608) CH J 470pF/50V	CHD1JJ3CH471
C841	CHIP CERAMIC CAP. F Z 1μF/10V	CHD1AZ30F105
C842	CHIP CERAMIC CAP. F Z 1μF/10V	CHD1AZ30F105
C843	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C844	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C845	CHIP CERAMIC CAP.(1608) CH J 470pF/50V	CHD1JJ3CH471
C846	CHIP CERAMIC CAP.(1608) CH J 470pF/50V	CHD1JJ3CH471
C871	CHIP CERAMIC CAP.(1608) B K 3300pF/50V	CHD1JK30B332
C872	CHIP CERAMIC CAP.(1608) B K 3300pF/50V	CHD1JK30B332
C873	CHIP CERAMIC CAP.(1608) B K 2.2μF/10V	CHD1AK30B225
C874	CHIP CERAMIC CAP.(1608) B K 2.2μF/10V	CHD1AK30B225
C875	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C876	CHIP CERAMIC CAP.(1608) CH J 47pF/50V	CHD1JJ3CH470
C877	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C878	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C879	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V	CHD1EZ30F104
C880	ELECTROLYTIC CAP. 100μF/16V M	CE1CMASDL101
C882	RES CHIP 1608 1/10W J 1.0kΩ	RRXA102HH013
C883	RES CHIP 1608 1/10W J 1.0kΩ	RRXA102HH013
C884	CHIP CERAMIC CAP.(1608) B K 2.2μF/10V	CHD1AK30B225
C885	CHIP CERAMIC CAP.(1608) B K 2.2μF/10V	CHD1AK30B225
CONNECTORS		
CN101	CONNECTOR PRINT OSU B5B-PH-K-S (LF)(SN)	J3PHC05JG029

Ref. No.	Description	Part No.
CN201	FFC CONNECTOR 15P IMSA-9615S-15A-PP-A	JC96J15ER007
CN301	FFC CONNECTOR IMSA-9615S-29A-PP-A	JC96J29ER007
CN302	FFC CONNECTOR IMSA-9615S-29A-PP-A	JC96J29ER007
CN602▲	WIRE ASSEMBLY 3PIN 3PIN 145MM R/B/W	WX1A01F0-201
CN801	PH CONNECTOR TOP 2P B2B-PH-K-S (LF)(SN)	J3PHC02JG029
CN802	PH CONNECTOR TOP 2P B2B-PH-K-S (LF)(SN)	J3PHC02JG029
DIODES		
D202	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D203	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D204	IC SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
D205	DIODE ZENER 33BSA-T26	NDTA033BST26
D206	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D207	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D208	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D209	DIODE ZENER 39BSB-T26	NDTB039BST26
D210	DIODE ZENER 5V1BSB-T26	NDTB5R1BST26
D211	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D401	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D404	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D405	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D406	DIODE ZENER 27BSB-T26	NDTB027BST26
D407	DIODE ZENER 10BSB-T26	NDTB010BST26
D409	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D410	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D411	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D412	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D413	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D414	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D415	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D417	DIODE ZENER 3V9BSB-T26	NDTB3R9BST26
D418	DIODE ZENER 3V9BSB-T26	NDTB3R9BST26
D419	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D420	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D421	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D423	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D601▲	DIODE GENERAL PURPOSE 1N5406-BU	NDLZ1N5406BU
D602▲	DIODE GENERAL PURPOSE 1N5406-BU	NDLZ1N5406BU
D603▲	DIODE GENERAL PURPOSE 1N5406-BU	NDLZ1N5406BU
D604▲	DIODE GENERAL PURPOSE 1N5406-BU	NDLZ1N5406BU
D607	DIODE ZENER 11BSB-T26	NDTB011BST26
D607A	RES CHIP 1608 1/10W 0Ω	RRXA000HH014
D608▲	DIODE ZENER 27BSB-T26	NDTB027BST26
D609▲	DIODE ZENER 27BSB-T26	NDTB027BST26
D610	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D612▲	DIODE FR104-B	NDLZ000FR104
D613	DIODE FR104-B	NDLZ000FR104
D614▲	DIODE FAST RECOVERY FR103-B/P	NDWZ0FR103BP
D615▲	DIODE ZENER 39BSB-T26	NDTB039BST26
D616▲	DIODE ZENER 27BSB-T26	NDTB027BST26
D617	DIODE FAST RECOVERY FR103-B/P	NDWZ0FR103BP
D619	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D622▲	DIODE FAST RECOVERY FR103-B/P	NDWZ0FR103BP
D631	DIODE SCHOTTKY BARRIER SB2150BD	NDWZ00SB2150
D632	DIODE FR104-B	NDLZ000FR104
D633	DIODE FAST RECOVERY FR151-B/P	NDWZ0FR151BP
D635	DIODE ZENER 24BSB-T26	NDTB024BST26
D638	DIODE FR154	NDLZ000FR154
D639	DIODE ZENER 1ZB43BB	NDWZ0001ZB43
D641	SCHOTTKY BARRIER DIODE SB390	NDWZ000SB390
D642	SCHOTTKY BARRIER DIODE SB390	NDWZ000SB390
D643	DIODE FR104-B	NDLZ000FR104

Ref. No.	Description	Part No.
D644	DIODE ZENER 7V5BSB-T26	NDTB7R5BST26
D645	SHUNT REGULATOR KIA431B-AT/P	NSZBA0TJY038
D646	DIODE SCHOTTKY SB360BH	NDWZ000SB360
D647	SCHOTTKY BARRIER DIODE SB140	NDWZ000SB140
D648	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
D652	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D652A	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
D653	IC SHUNT REGULATOR KIA431-AT/PF5	NSZBB0TJY036
D654	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
D655	RECTIFIER DIODE 1N4005	NDQZ001N4005
D657	DIODE ZENER 33BSB-T26	NDTB033BST26
D658	DIODE ZENER 3V3BSB-T26	NDTB3R3BST26
D659	DIODE ZENER 5V6BSA-T26	NDTA5R6BST26
D659A	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
D660	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
D664	DIODE ZENER 4V7BSB-T26	NDTB4R7BST26
D665	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
D666	IC SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
D670	DIODE ZENER 10BSB-T26	NDTB010BST26
D671	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
D676	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
D801	DIODE ZENER 20BSB-T26	NDTB020BST26
D802	DIODE ZENER 20BSB-T26	NDTB020BST26
D803	DIODE ZENER 20BSB-T26	NDTB020BST26
D804	DIODE ZENER 20BSB-T26	NDTB020BST26
ICS		
IC201	IC TL3472CDR	NSZBA0TTY115
IC601▲	IC PHOTOCOUPLER TLP781F(D4-FUNBLL F)	QPEL781FBLLF
IC602▲	IC SWITING FA5571N-D1-TE1/SOP-8	QSCA0T0FD003
IC631	IC REGULATOR MM3123DPRE	QSCA0T0MM108
IC771	IC SWITCH HCF4052M013TR/SOP/16	NSZBA0TSS301
IC801	IC D-CLASS POWER AMPLIFER R2A15124SP-W00T	QSCA0T0HT006
IC871	IC OP AMP NJM4558M(Te2)-PBF/DM	QSCA0T0JR010
COILS		
L301	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
L302	CHIP INDUCTOR LK1608R22K-T	LLACKB3TUR22
L303	CHIP INDUCTOR LK1608R22K-T	LLACKB3TUR22
L601▲	COIL LINE FILTER ST0908ET28V-016	LLEG0Z0Y2008
L602▲	COIL LINE FILTER ST0908ET28V-016	LLEG0Z0Y2008
L801	RADIAL LEAD INDUCTORS 33 μ H	LLARKGQTU330
L802	RADIAL LEAD INDUCTORS 33 μ H	LLARKGQTU330
L803	RADIAL LEAD INDUCTORS 33 μ H	LLARKGQTU330
L804	RADIAL LEAD INDUCTORS 33 μ H	LLARKGQTU330
L871	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
TRANSISTORS		
Q201	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q202	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q203	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q204	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q205	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q207	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q208	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q209	TRANSISTOR 2SC2120-Y(Te2 F T)	QQSY2SC2120F
Q210	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q211	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q212	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q213	TRANSISTOR 2SA950-O (Te2 F T)	QQS002SA950F
Q401	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q402	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q601▲	FET MOS TK5A50D(FUNAI	QEWZTK5A50DQ
Q602▲	FET POWER MOS SMD KHB1D0N60D-RTF/PMC	NF1ZKHB1D0N6

Ref. No.	Description	Part No.
Q603	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q604	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q631	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q634	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q635	TRANSISTOR 2SC2120-Y(Te2 F T)	QQSY2SC2120F
Q637	NPN TRANSISTOR POWER 2SC4881F HFE MAX320	QQWZ2SC4881F
Q638	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q639	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q640	TRANSISTOR 2SC2120-Y(Te2 F T)	QQSY2SC2120F
Q641	TRANSISTOR 2SC2120-Y(Te2 F T)	QQSY2SC2120F
Q642	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q643	TRANSISTOR 2SA950-O (Te2 F T)	QQS002SA950F
Q771	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q772	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q801	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q841	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q871	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q872	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q873	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q874	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
RESISTORS		
R201	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R202	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R204	RES CARBON FILM T 1/4W J 1.0k Ω	RCX4102T1001
R206	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R207	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R208	RES CHIP 1608 1/10W J 1.0 Ω	RRXA1R0HH013
R210	RES CARBON FILM T 1/4W J 10 Ω	RCX4100T1001
R212	RES CARBON FILM T 1/4W J 10 Ω	RCX4100T1001
R213	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R216	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R217	RES CHIP 1608 1/10W J 1.5k Ω	RRXA152HH013
R218	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R219	RES CHIP 1608 1/10W J 15k Ω	RRXA153HH013
R220	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R223	RES CARBON FILM T 1/4W J 3.3k Ω	RCX4332T1001
R224	RES CARBON FILM T 1/4W J 27k Ω	RCX4273T1001
R225	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R226	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R227	RES. CARBON FILM J 1/2W J 5.6 Ω	RCX25R6T1003
R228	RES CARBON FILM T 1/4W J 3.3k Ω	RCX4332T1001
R229	RES CARBON FILM T 1/4W J 3.3k Ω	RCX4332T1001
R231	RES CHIP 1608 1/10W J 1.5k Ω	RRXA152HH013
R232	RES CHIP 1608 1/10W F 9.10k Ω	RTW9101HH008
R233	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R234	RES CHIP 1608 1/10W F 2.20k Ω	RTW2201HH008
R235	RES CARBON FILM T 1/4W J 68 Ω	RCX4680T1001
R236	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
R237	RES CARBON FILM T 1/4W J 8.2k Ω	RCX4822T1001
R238	RES CARBON FILM T 1/4W J 680 Ω	RCX4681T1001
R240	RES CARBON FILM T 1/4W J 47k Ω	RCX4473T1001
R241	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R242	RES CARBON FILM T 1/4W J 12k Ω	RCX4123T1001
R243	RES CARBON FILM T 1/4W J 120 Ω	RCX4121T1001
R245	RES CARBON FILM T 1/4W J 8.2k Ω	RCX4822T1001
R247	RES. CARBON FILM J 1/2W J 5.6 Ω	RCX25R6T1003
R248	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R250	METAL OXIDE FILM RES. 1W J 8.2 Ω	RN018R2ZU001
R253	RES. CARBON FILM J 1/2W J 5.6 Ω	RCX25R6T1003
R306	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R307	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R308	RES CHIP 1608 1/10W J 82 Ω	RRXA820HH013

Ref. No.	Description	Part No.
R309	RES CHIP 1608 1/10W J 82 Ω	RRXA820HH013
R310	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R401	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R402	RES CARBON FILM T 1/4W J 22k Ω	RCX4223T1001
R403	RES CHIP 1608 1/10W J 47k Ω	RRXA473HH013
R404	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R405	RES CARBON FILM T 1/4W J 47k Ω	RCX4473T1001
R407	RES CARBON FILM T 1/4W J 22k Ω	RCX4223T1001
R408	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R409	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R410	RES CHIP 1608 1/10W F 39.0k Ω	RTW3902HH008
R411	RES CHIP 1608 1/10W F 47.0k Ω	RTW4702HH008
R412	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332HH013
R601▲	GLASS GLAZE RES. 1/2W J 2.7M Ω	RXX2JZLZ0275
R603▲	CEMENT RESISTOR 5W J 2.2 Ω H 10MM	RW052R2PAK10
R604	RES CHIP 3216 1/4W J 2.7M Ω	RRXA4275HH034
R605▲	CEMENT RESISTOR 5W J 2.2 Ω H 10MM	RW052R2PAK10
R606	RES CARBON FILM T 1/4W J 47k Ω	RCX4473T1001
R607	RES CHIP 3216 1/4W J 2.7M Ω	RRXA4275HH034
R609	RES CARBON FILM T 1/4W J 180 Ω	RCX4181T1001
R610	RES CARBON FILM T 1/4W J 10 Ω	RCX4100T1001
R611	RES CARBON FILM T 1/4W J 4.7k Ω	RCX4472T1001
R612	RES CARBON FILM T 1/4W J 68 Ω	RCX4680T1001
R613▲	METAL OXIDE FILM RES. 2W J 0.47 Ω	RN02R47ZU001
R617	RES CARBON FILM T 1/4W J 100k Ω	RCX4104T1001
R618	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
R619	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
R622	RES CARBON FILM T 1/4W J 1.2k Ω	RCX4122T1001
R623	RES CARBON FILM T 1/4W J 10k Ω	RCX4103T1001
R624	RES CARBON FILM T 1/4W J 10k Ω	RCX4103T1001
R626	RES CARBON FILM T 1/4W J 15k Ω	RCX4153T1001
R635	RES. CARBON FILM J 1/2W J 3.9 Ω	RCX23R9T1003
R637	RES CARBON FILM T 1/4W G 3.3k Ω	RCX4332T1002
R638	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
R639	RES CARBON FILM T 1/4W G 39k Ω	RCX4393T1002
R641	RES CHIP 1608 1/10W D 1.10k Ω	RTW1101HH007
R642	RES CHIP 1608 1/10W D 10.0k Ω	RTW1002HH007
R643	RES CHIP 1608 1/10W D 10.0k Ω	RTW1002HH007
R644	RES CHIP 1608 1/10W F 1.50k Ω	RTW1501HH008
R646	RES CARBON FILM T 1/4W J 180 Ω	RCX4181T1001
R647	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R648	RES CHIP 1608 1/10W F 1.00k Ω	RTW1001HH008
R649	RES CARBON FILM T 1/4W J 2.7k Ω	RCX4272T1001
R650	RES CARBON FILM T 1/4W J 2.7k Ω	RCX4272T1001
R651	RES CHIP 1608 1/10W J 1.0 Ω	RRXA1R0HH013
R652	RES CHIP 1608 1/10W F 24.0k Ω	RTW2402HH008
R653	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
R654	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R655	RES CARBON FILM T 1/4W G 27k Ω	RCX4273T1002
R658	RES CARBON FILM T 1/4W J 10k Ω	RCX4103T1001
R659	RES CHIP 1608 1/10W J 47k Ω	RRXA473HH013
R660	RES CARBON FILM T 1/4W J 820 Ω	RCX4821T1001
R661	RES. CARBON FILM J 1/2W J 390 Ω	RCX2391T1003
R662	RES CARBON FILM T 1/4W J 15 Ω	RCX4150T1001
R663	RES CARBON FILM T 1/4W J 820 Ω	RCX4821T1001
R664	RES CARBON FILM T 1/4W J 820 Ω	RCX4821T1001
R665	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
R668	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002HH008
R672	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
R673	RES CARBON FILM T 1/4W J 22k Ω	RCX4223T1001
R674	RES CARBON FILM T 1/4W J 1.0k Ω	RCX4102T1001
R675	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R676	RES CHIP 1608 1/10W J 47k Ω	RRXA473HH013

Ref. No.	Description	Part No.
R677	RES CARBON FILM T 1/4W J 270 Ω	RCX4271T1001
R678	RES CARBON FILM T 1/4W J 10 Ω	RCX4100T1001
R679	RES CHIP 1608 1/10W F 3.60k Ω	RTW3601HH008
R680	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002HH008
R682	RES CARBON FILM T 1/4W J 2.7 Ω	RCX42R7T1001
R683	RES CARBON FILM T 1/4W J 2.7 Ω	RCX42R7T1001
R685	RES CARBON FILM T 1/4W J 22 Ω	RCX4220T1001
R686	RES CARBON FILM T 1/4W J 680 Ω	RCX4681T1001
R687	RES CARBON FILM T 1/4W J 10 Ω	RCX4100T1001
R688	RES CARBON FILM T 1/4W J 10 Ω	RCX4100T1001
R689	RES CARBON FILM T 1/4W J 560 Ω	RCX4561T1001
R701	METAL OXIDE FILM RES. 2W J 2.2 Ω	RN022R2ZU001
R702	METAL OXIDE FILM RES. 1W J 2.2 Ω	RN012R2ZU001
R723	RES CHIP 1608 1/10W J 15k Ω	RRXA153HH013
R724	RES CHIP 1608 1/10W J 15k Ω	RRXA153HH013
R725	RES CHIP 1608 1/10W J 39k Ω	RRXA393HH013
R726	RES CHIP 1608 1/10W J 39k Ω	RRXA393HH013
R731	RES CHIP 1608 1/10W J 75 Ω	RRXA750HH013
R732	RES CHIP 1608 1/10W J 75 Ω	RRXA750HH013
R733	RES CHIP 1608 1/10W J 75 Ω	RRXA750HH013
R734	RES CHIP 1608 1/10W J 10 Ω	RRXA100HH013
R735	RES CHIP 1608 1/10W J 10 Ω	RRXA100HH013
R736	RES CHIP 1608 1/10W J 10 Ω	RRXA100HH013
R743	RES CHIP 1608 1/10W J 15k Ω	RRXA153HH013
R744	RES CHIP 1608 1/10W J 15k Ω	RRXA153HH013
R745	RES CHIP 1608 1/10W J 39k Ω	RRXA393HH013
R746	RES CHIP 1608 1/10W J 39k Ω	RRXA393HH013
R763	RES CARBON FILM T 1/4W J 10k Ω	RCX4103T1001
R771	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
R772	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R773	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R774	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R775	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R776	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R777	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R778	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R779	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R802	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R807	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R809	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R813	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R814	RES CHIP 1608 1/10W J 47k Ω	RRXA473HH013
R815	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R816	RES CHIP 1608 1/10W J 47k Ω	RRXA473HH013
R817	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R818	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R819	RES CARBON FILM T 1/4W J 22k Ω	RCX4223T1001
R820	RES CHIP 1608 1/10W J 47k Ω	RRXA473HH013
R843	RES CHIP 1608 1/10W J 110 Ω	RRXA111HH013
R844	RES CHIP 1608 1/10W J 220 Ω	RRXA221HH013
R846	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R847	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R848	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R871	RES CHIP 1608 1/10W J 560 Ω	RRXA561HH013
R872	RES CHIP 1608 1/10W J 560 Ω	RRXA561HH013
R873	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R874	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R877	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R878	RES CARBON FILM T 1/4W J 1.0k Ω	RCX4102T1001
R879	RES CHIP 1608 1/10W J 16k Ω	RRXA163HH013
R880	RES CHIP 1608 1/10W J 16k Ω	RRXA163HH013
R881	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R882	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013

Ref. No.	Description	Part No.
R883	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R884	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R885	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R886	RES CHIP 1608 1/10W J 100k Ω	RRXA104HH013
R887	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R888	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R891	RES CHIP 1608 1/10W J 33k Ω	RRXA333HH013
R892	RES CHIP 1608 1/10W J 33k Ω	RRXA333HH013
R893	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R894	RES CHIP 1608 1/10W J 47k Ω	RRXA473HH013
R895	RES CHIP 1608 1/10W J 2.2k Ω	RRXA222HH013
MISCELLANEOUS		
AC601▲	AC CORD W/O A GND WIRE UL/CSA 1770 NO BLACK	WAC0172LW022
B34	POW HEAT SINK A7120UH	1EM423993
B46	HEAT SINK PMM A74F0UH	1EM424517A
BC301	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
BC601	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC602	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC603	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC802	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC803	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC804	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC805	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC841	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
CL701	WIRE ASSEMBLY 9P 9PIN/170MM	WX1A94F0-002
F601▲	FUSE STC4A125V U/CT	PAGE20CW3402
FH601	FUSE HOLDER MSF-015-RS-SN (B110)	XH001Z0LY001
FH602	FUSE HOLDER MSF-015-RS-SN (B110)	XH001Z0LY001
JK721	JACK RCA PCB S WHITE 01/RCA-101H(WH)	JXRJ010YUQ02
JK722	JACK RCA PCB S RED 01/RCA-101H(RD)	JXRJ010YUQ01
JK731	JACK RCA PCB S GREEN 01/RCA-101H(GN)	JXRJ010YUQ03
JK732	JACK RCA PCB S BLUE 01/RCA-101H(BL)	JXRJ010YUQ04
JK733	JACK RCA PCB S RED 01/RCA-101H(RD)	JXRJ010YUQ01
JK741	JACK RCA PCB S WHITE 01/RCA-101H(WH)	JXRJ010YUQ02
JK742	JACK SW RCA PCB S RED RCA-102H(RD)	JYRJ010YUQ03
JK841	JACK RCA PCB S ORANGE 01/RCA-101H(OR)	JXRJ010YUQ06
JK871	JACK RCA PCB S WHITE 01/RCA-101H(WH)	JXRJ010YUQ02
JK872	JACK RCA PCB S RED 01/RCA-101H(RD)	JXRJ010YUQ01
JS202	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
JS302	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
JS303	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
JS630	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
JS633	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
L17	SCREW B-TIGHT D3X8 BIND HEAD+	GBJB3080
SA601▲	SURGE ABSORBER 470V+-10PER	NVQZ10D471KB
T601▲	TRANS POWER BCK-28-9885	LTT2PC0XB067
TM601	EYELET TYPE D-1	0VM406868
TM602	EYELET TYPE D-1	0VM406868
TU301	TUNER UNIT ATSC TDAU4-D05A	UTNATS0AL002

JACK CBA

Ref. No.	Description	Part No.
	JACK CBA(MPW-B) Consists of the following:	-----
CAPACITORS		
C757	CHIP CERAMIC CAP.(1608) B K 2.2 μ F/10V	CHD1AK30B225
C758	CHIP CERAMIC CAP.(1608) B K 2.2 μ F/10V	CHD1AK30B225
RESISTORS		
R751	RES CHIP 1608 1/10W J 75 Ω	RRXA750HH013
R752	RES CHIP 1608 1/10W J 75 Ω	RRXA750HH013
R753	RES CHIP 1608 1/10W J 75 Ω	RRXA750HH013

Ref. No.	Description	Part No.
R756	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R757	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R758	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R759	RES CHIP 1608 1/10W J 15k Ω	RRXA153HH013
R760	RES CHIP 1608 1/10W J 15k Ω	RRXA153HH013
R761	RES CHIP 1608 1/10W J 39k Ω	RRXA393HH013
R762	RES CHIP 1608 1/10W J 39k Ω	RRXA393HH013
MISCELLANEOUS		
JK751	JACK SW DIN PCB L DIN-435C(777D)	JYEL040YUQ03
JK752	JACK RCA PCB L RCA-101S(1)-03	JXRL010YUQ12
JK753	JACK RCA PCB L RCA-101S(1)-04	JXRL010YUQ13
JK754	JACK SW RCA PCB L RCA-102F(RD)	JYRL010YUQ05

INVERTER ASSEMBLY (main CBA)

Ref. No.	Description	Part No.
	INVERTER ASSEMBLY Consists of the following:	A17FZM1V-001
	INVERTER CBA	A17FZM1V-001-IV
	FUNCTION CBA IR SENSOR CBA	A17FZM1V-001-FNIR

INVERTER CBA

Ref. No.	Description	Part No.
	INVERTER CBA Consists of the following:	-----
CAPACITORS		
C1100	CHIP CERAMIC CAP. F Z 2.2 μ F/50V	CHF1JZ30F225
C1101	CHIP CERAMIC CAP. F Z 2.2 μ F/50V	CHF1JZ30F225
C1102	CHIP CERAMIC CAP. F Z 2.2 μ F/50V	CHF1JZ30F225
C1103	CHIP CERAMIC CAP. F Z 2.2 μ F/50V	CHF1JZ30F225
C1104	CAP CERAMIC HV 10pF/6.3KV/SLJ	CCC1000MR007
C1105	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1106	CAP CERAMIC HV 10pF/6.3KV/SLJ	CCC1000MR007
C1107	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1108	CAP CERAMIC HV 10pF/6.3KV/SLJ	CCC1000MR007
C1109	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1110	CAP CERAMIC HV 10pF/6.3KV/SLJ	CCC1000MR007
C1111	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1112	CAP CERAMIC HV 10pF/6.3KV/SLJ	CCC1000MR007
C1113	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1114	CAP CERAMIC HV 10pF/6.3KV/SLJ	CCC1000MR007
C1115	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1116	CHIP CERAMIC CAP. F Z 2.2 μ F/50V	CHF1JZ30F225
C1117	CHIP CERAMIC CAP. F Z 2.2 μ F/50V	CHF1JZ30F225
C1118	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1119	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1120	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1121	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1122	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1123	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1201	CHIP CERAMIC CAP.(1608) B K 0.1 μ F/50V	CHD1JK30B104
C1202	CHIP CERAMIC CAP.(1608) B K 6800pF/50V	CHD1JK30B682
C1203	CHIP CERAMIC CAP.(1608) B K 6800pF/50V	CHD1JK30B682
C1204	CHIP CERAMIC CAP.(1608) B K 0.1 μ F/50V	CHD1JK30B104
C1205	CHIP CERAMIC CAP. F Z 2.2 μ F/50V	CHF1JZ30F225
C1206	ELECTROLYTIC CAP. 10 μ F/50V M	CE1JMASDL100
C1207	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1208	CAP CHIP 3216 B K 0.47 μ F/50V	CA1J474TE142
C1209	CAP CHIP 3216 B K 0.47 μ F/50V	CA1J474TE142
C1210	CHIP CERAMIC CAP.(1608) B K 0.47 μ F/16V	CHD1CK30B474

Ref. No.	Description	Part No.
C1212	CHIP CERAMIC CAP.(1608) B K 0.47μF/16V	CHD1CK30B474
C1213	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1300	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1301	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1302	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C1303	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1304	ELECTROLYTIC CAP. 220μF/35V M	CE1GMASDL221
C1305	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1311	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1500	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1501	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1700	ELECTROLYTIC CAP. 2200μF/35V M	CE1GMZNDL222
C1701	ELECTROLYTIC CAP. 2200μF/35V M	CE1GMZNDL222
C1702	CAP CHIP 3216 B K 1μF/50V	CA1J105TE142
C1703	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1704	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1705	CHIP CERAMIC CAP.(1608) B K 0.022μF/50V	CHD1JK30B223
C1706	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1707	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1708	CHIP CERAMIC CAP.(1608) B K 0.022μF/50V	CHD1JK30B223
C1905▲	SAFTY CAP. 1000pF/250V KX	CA2E102MR101
C1910	CAP ELECTROLYTIC 270μF/200V	CEA271DYGO05
C1930	CERAMIC CAP. 680pF/2KV	CA3D681PAN04
C1931▲	CHIP CERAMIC CAP. B K 1800pF/50V	CHD1JK30B182
C1932	CHIP CERAMIC CAP. B K 0.056μF/50V	CHD1JK30B563
C1933	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1970	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1981	CHIP CERAMIC CAP. F Z 0.01μF/50V	CHD1JZ30F103
C1982	ELECTROLYTIC CAP. 0.47μF/50V M	CE1JMASDLR47
C1990	CERAMIC CAP. 1500pF/2KV	CA3D152PAN04
C1993	ELECTROLYTIC CAP. 2200μF/35V M	CE1GMZNDL222
C1994	ELECTROLYTIC CAP. 2200μF/35V M	CE1GMZNDL222
CONNECTORS		
CN1001	FFC CONNECTOR 15P IMSA-9615S-15A-PP-A	JC96J15ER007
CN1003	FFC CONNECTOR IMSA-9615S-11A-PP-A	JC96J11ER007
CN1100▲	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1101▲	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1102▲	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1901▲	CONNECTOR PRINT OSU 3 S B3P4-VH-L	J3VH030JG015
DIODES		
D1200	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1201	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1202	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1203	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1300	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D1301	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D1500	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1501	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1502	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1503	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1504	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1505	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1506	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1507	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1508	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1700	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1701	DIODE ZENER 15BSB-T26	NDTB015BST26
D1702	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1703	DIODE ZENER 15BSB-T26	NDTB015BST26
D1704	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1705	DIODE ZENER 15BSB-T26	NDTB015BST26
D1706	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133

Ref. No.	Description	Part No.
D1707	DIODE ZENER 15BSB-T26	NDTB015BST26
D1930▲	DIODE ZENER 27BSB-T26	NDTB027BST26
D1931	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D1932	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1933	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1934▲	DIODE ZENER 1ZB36BB	NDWZ0001ZB36
D1970	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D1971	DIODE ZENER 30BSB-T26	NDTB030BST26
D1971A	CHIP RES.(2125) 1/8W 0 Ω	RRX8000HH024
D1973	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1990	DIODE SCHOTTKY SB3150BH	NDWZ00S3150
D1991	DIODE SCHOTTKY SB3150BH	NDWZ00S3150
D1992	DIODE SCHOTTKY SB3150BH	NDWZ00S3150
D1994	DIODE ZENER 1ZB30BB	NDWZ0001ZB30
ICS		
IC1200	IC INVERTER CONTROL BD9244AFV/SSOP/24PIN	QSCA0T0RM222
IC1930▲	IC PHOTOCOUPLER TLP781F(D4-FUNBLL F)	QPEL781FBLLF
IC1931▲	IC PHOTOCOUPLER TLP781F(D4-FUNBLL F)	QPEL781FBLLF
TRANSISTORS		
Q1201	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1202	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1300	PNP TRANSISTOR SMD 2SA1576UBTLQ	QQ1Q2SA1576U
Q1301	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1303	PNP TRANSISTOR SMD 2SA1576UBTLQ	QQ1Q2SA1576U
Q1700▲	FET MOS SMD TK40P04M1(T6RSS-Q)	QF1ZK40P04M1
Q1701▲	FET MOS SMD TK40P04M1(T6RSS-Q)	QF1ZK40P04M1
Q1702▲	FET MOS SMD TK40P04M1(T6RSS-Q)	QF1ZK40P04M1
Q1703▲	FET MOS SMD TK40P04M1(T6RSS-Q)	QF1ZK40P04M1
Q1930▲	MOS FET TK7A50D(FUNAI)	QEWZTK7A50DQ
Q1931▲	TRANSISTOR KTC3198-Y-AT/P	NQSYKTC3198P
Q1932▲	TRANSISTOR 2SC2120-O(TE2 F T)	QQS02SC2120F
Q1970	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1971	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1972	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
RESISTORS		
R1100	RES CHIP 1608 1/10W F 39.0k Ω	RTW3902HH008
R1101	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1102	RES CHIP 1608 1/10W F 2.20k Ω	RTW2201HH008
R1103	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1104	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1105	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1106	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1107	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1108	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1109	RES CHIP 1608 1/10W F 39.0k Ω	RTW3902HH008
R1110	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1111	RES CHIP 1608 1/10W F 2.20k Ω	RTW2201HH008
R1112	RES CHIP 1608 1/10W F 39.0k Ω	RTW3902HH008
R1113	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1114	RES CHIP 1608 1/10W F 2.20k Ω	RTW2201HH008
R1115	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1116	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1117	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1118	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1119	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1120	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1121	RES CHIP 1608 1/10W F 39.0k Ω	RTW3902HH008
R1122	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1123	RES CHIP 1608 1/10W F 2.20k Ω	RTW2201HH008
R1124	RES CHIP 1608 1/10W F 39.0k Ω	RTW3902HH008
R1125	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1126	RES CHIP 1608 1/10W F 2.20k Ω	RTW2201HH008

Ref. No.	Description	Part No.
R1127	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1128	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1129	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1130	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1131	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1132	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1133	RES CHIP 1608 1/10W F 39.0k Ω	RTW3902HH008
R1134	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1135	RES CHIP 1608 1/10W F 2.20k Ω	RTW2201HH008
R1200	RES CHIP 1608 1/10W J 68k Ω	RRXA683HH013
R1201	RES CHIP 1608 1/10W J 68k Ω	RRXA683HH013
R1202	RES CHIP 1608 1/10W F 130k Ω	RTW1303HH008
R1203	RES CHIP 1608 1/10W F 8.20k Ω	RTW8201HH008
R1204	RES CHIP 1608 1/10W F 75.0k Ω	RTW7502HH008
R1205	RES CHIP 1608 1/10W F 560k Ω	RTW5603HH008
R1206	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1207	RES CHIP 1608 1/10W J 33k Ω	RRXA333HH013
R1208	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R1209	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1212	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1213	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1214	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1215	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1216	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1221	RES CHIP 1608 1/10W J 1.0 Ω	RRXA1R0HH013
R1222	RES CHIP 1608 1/10W J 10 Ω	RRXA100HH013
R1223	RES CHIP 1608 1/10W J 10 Ω	RRXA100HH013
R1229	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1300	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002HH008
R1301	RES CHIP 1608 1/10W F 47.0k Ω	RTW4702HH008
R1302	RES CHIP 1608 1/10W F 51.0k Ω	RTW5102HH008
R1303	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1304	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1305	METAL OXIDE RES. 2W J 510 Ω	RN02511ZU001
R1306	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1307	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R1308	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1309	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1310	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R1500	RES CHIP 1608 1/10W F 1.00M Ω	RTW1004HH008
R1501	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1502	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1503	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1504	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1505	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1506	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1507	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1508	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1509	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1510	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1511	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1512	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1513	RES CHIP 1608 1/10W F 1.00M Ω	RTW1004HH008
R1514	RES CHIP 1608 1/10W F 39.0k Ω	RTW3902HH008
R1515	RES CHIP 1608 1/10W F 27.0k Ω	RTW2702HH008
R1516	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1700	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1701	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1702	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1703	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1704	METAL OXIDE FILM RES. 1W J 4.7 Ω	RN014R7ZU001
R1705	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1706	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013

Ref. No.	Description	Part No.
R1707	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1708	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1709	METAL OXIDE FILM RES. 1W J 4.7 Ω	RN014R7ZU001
R1930	RES CARBON FILM T 1/4W J 47 Ω	RCX4470T1001
R1931	RES CARBON FILM T 1/4W J 47k Ω	RCX4473T1001
R1932	RES CARBON FILM T 1/4W J 120 Ω	RCX4121T1001
R1933	RES CARBON FILM T 1/4W J 120 Ω	RCX4121T1001
R1934	RES CARBON FILM T 1/4W J 120 Ω	RCX4121T1001
R1935	RES CARBON FILM T 1/4W J 1.5k Ω	RCX4152T1001
R1936	RES CARBON FILM T 1/4W J 180 Ω	RCX4181T1001
R1937▲	METAL OXIDE FILM RES. 2W J 0.39 Ω	RN02R39ZU001
R1938	RES CARBON FILM T 1/4W J 82k Ω	RCX4823T1001
R1939	RES CARBON FILM T 1/4W J 2.2k Ω	RCX4222T1001
R1949	RES CARBON FILM T 1/4W J 150k Ω	RCX4154T1001
R1967	RES CARBON FILM T 1/4W J 3.9k Ω	RCX4392T1001
R1970	RES CARBON FILM T 1/4W J 220 Ω	RCX4221T1001
R1972	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R1973	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332HH013
R1977	RES CHIP 1608 1/10W F 20.0k Ω	RTW2002HH008
R1979	RES CHIP 1608 1/10W F 6.80k Ω	RTW6801HH008
R1980	RES CHIP 1608 1/10W F 180 Ω	RTW1800HH008
R1981	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1982	RES CHIP 1608 1/10W J 1.5k Ω	RRXA152HH013
R1986	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R1988	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
MISCELLANEOUS		
B34	POW HEAT SINK A7120UH	1EM423993
BC1301	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
BC1930	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC1931	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
CL102	WIRE ASSEMBLY 5PIN 5PIN/180MM	WX1A17F6-201
JS1200	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
L17	SCREW B-TIGHT D3X8 BIND HEAD+	GBJB3080
T1950▲	TRANS POWER BCK-28CM	LTT2PCMEK031
When you replace one of the below Trans Inverters on this CBA, please replace with the one that has same parts number. Do not mix different parts number's Trans Inverter.		
T1100▲	TRANS INV TZ.7617A.101	LTZ3PZDAR014
T1101▲	TRANS INV TZ.7617A.101	LTZ3PZDAR014
T1102▲	TRANS INV TZ.7617A.101	LTZ3PZDAR014
or		
T1100▲	TRANS INV HVT-325	LTZ3PZ0XB018
T1101▲	TRANS INV HVT-325	LTZ3PZ0XB018
T1102▲	TRANS INV HVT-325	LTZ3PZ0XB018

FUNCTION CBA

Ref. No.	Description	Part No.
	FUNCTION CBA Consists of the following:	-----
CAPACITOR		
C108	CAP CERAMIC (AX) 0.1μF/50V/F/Z	CA1J104TU062
RESISTORS		
R108	RES CARBON FILM T 1/4W J 220 Ω	RCX4221T1001
R109	RES CARBON FILM T 1/4W G 10k Ω	RCX4103T1002
R111	RES CARBON FILM T 1/4W G 4.7k Ω	RCX4472T1002
R112	RES CARBON FILM T 1/4W G 2.7k Ω	RCX4272T1002
R113	RES CARBON FILM T 1/4W G 4.7k Ω	RCX4472T1002
R114	RES CARBON FILM T 1/4W G 8.2k Ω	RCX4822T1002
R115	RES CARBON FILM T 1/4W G 18k Ω	RCX4183T1002
SWITCHES		
SW101B	TACT SWITCH SKQSAB	SST0101AL038
SW103B	TACT SWITCH SKQSAB	SST0101AL038
SW104B	TACT SWITCH SKQSAB	SST0101AL038

Ref. No.	Description	Part No.
SW105B	TACT SWITCH SKQSAB	SST0101AL038
SW106B	TACT SWITCH SKQSAB	SST0101AL038
SW107B	TACT SWITCH SKQSAB	SST0101AL038

IR SENSOR CBA

Ref. No.	Description	Part No.
	IR SENSOR CBA Consists of the following:	-----
CAPACITORS		
C101	ELECTROLYTIC CAP. 47μF/16V M H7	CE1CMAVSL470
C103	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C104	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
DIODE		
D101	LED (WHITE) SLR343WBC7T3XM	QPWM343WBC7T
RESISTORS		
R101	RES CARBON FILM T 1/4W J 100 Ω	RCX4101T1001
R102	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332HH013
R103	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R106	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
MISCELLANEOUS		
CL103	WIRE ASSEMBLY 4PIN 4PIN/35MM	WX1A17F6-202
RS101	SENSOR REMOTE RECEIVER KSM-712TH2E	USESJRSKK044

INVERTER ASSEMBLY (sub CBA)

Ref. No.	Description	Part No.
	INVERTER ASSEMBLY Consists of the following:	A17FZM1Z-001
	INVERTER CBA	A17FZM1Z-001-IV
	FUNCTION CBA IR SENSOR CBA	A17FZM1Z-001-FNIR

INVERTER CBA

Ref. No.	Description	Part No.
	INVERTER CBA Consists of the following:	-----
CAPACITORS		
C1100	CHIP CERAMIC CAP. F Z 2.2μF/50V	CHF1JZ30F225
C1101	CHIP CERAMIC CAP. F Z 2.2μF/50V	CHF1JZ30F225
C1102	CHIP CERAMIC CAP. F Z 2.2μF/50V	CHF1JZ30F225
C1103	CHIP CERAMIC CAP. F Z 2.2μF/50V	CHF1JZ30F225
C1104	CAP CERAMIC HV 10pF/6.3KV/SL/J	CCC1000MR007
C1105	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1106	CAP CERAMIC HV 10pF/6.3KV/SL/J	CCC1000MR007
C1107	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1108	CAP CERAMIC HV 10pF/6.3KV/SL/J	CCC1000MR007
C1109	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1110	CAP CERAMIC HV 10pF/6.3KV/SL/J	CCC1000MR007
C1111	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1112	CAP CERAMIC HV 10pF/6.3KV/SL/J	CCC1000MR007
C1113	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1114	CAP CERAMIC HV 10pF/6.3KV/SL/J	CCC1000MR007
C1115	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1116	CHIP CERAMIC CAP. F Z 2.2μF/50V	CHF1JZ30F225
C1117	CHIP CERAMIC CAP. F Z 2.2μF/50V	CHF1JZ30F225
C1118	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1119	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1120	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1121	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1122	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331

Ref. No.	Description	Part No.
C1123	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1201	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1204	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1205	CHIP CERAMIC CAP. F Z 2.2μF/50V	CHF1JZ30F225
C1206	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C1207	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1208	CAP CHIP 3216 B K 0.47μF/50V	CA1J474TE142
C1209	CAP CHIP 3216 B K 0.47μF/50V	CA1J474TE142
C1212	CHIP CERAMIC CAP.(1608) B K 0.47μF/16V	CHD1CK30B474
C1215	CHIP CERAMIC CAP.(1608) B K 0.01μF/50V	CHD1JK30B103
C1216	CHIP CERAMIC CAP. CH J 150pF/50V	CHD1JJ3CH151
C1217	CHIP CERAMIC CAP.(1608) B K 0.047μF/50V	CHD1JK30B473
C1218	CHIP CERAMIC CAP.(3216) B K 2.2μF/50V	CA1J225MR082
C1300	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1301	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1302	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C1303	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1304	ELECTROLYTIC CAP. 220μF/35V M	CE1GMASDL221
C1305	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1311	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1500	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1501	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1502	CHIP CERAMIC CAP.(1608) B K 3300pF/50V	CHD1JK30B332
C1700	ELECTROLYTIC CAP. 2200μF/35V M	CE1GMZNDL222
C1701	ELECTROLYTIC CAP. 2200μF/35V M	CE1GMZNDL222
C1702	CAP CHIP 3216 B K 1μF/50V	CA1J105TE142
C1703	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1704	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1705	CHIP CERAMIC CAP.(1608) B K 0.022μF/50V	CHD1JK30B223
C1706	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1707	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1708	CHIP CERAMIC CAP.(1608) B K 0.022μF/50V	CHD1JK30B223
C1905▲	SAFTY CAP. 1000pF/250V KX	CA2E102MR101
C1910	CAP ELECTROLYTIC 270μF/200V	CEA271DYG005
C1930	CERAMIC CAP. 680pF/2KV	CA3D681PAN04
C1931▲	CHIP CERAMIC CAP. B K 1800pF/50V	CHD1JK30B182
C1932	CHIP CERAMIC CAP. B K 0.056μF/50V	CHD1JK30B563
C1933	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C1970	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1981	CHIP CERAMIC CAP. F Z 0.01μF/50V	CHD1JZ30F103
C1982	ELECTROLYTIC CAP. 0.47μF/50V M	CE1JMASDLR47
C1990	CERAMIC CAP. 1500pF/2KV	CA3D152PAN04
C1993	ELECTROLYTIC CAP. 2200μF/35V M	CE1GMZNDL222
C1994	ELECTROLYTIC CAP. 2200μF/35V M	CE1GMZNDL222
CONNECTORS		
CN1001	FFC CONNECTOR 15P IMSA-9615S-15A-PP-A	JC96J15ER007
CN1003	FFC CONNECTOR IMSA-9615S-11A-PP-A	JC96J11ER007
CN1100▲	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1101▲	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1102▲	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1901▲	CONNECTOR PRINT OSU 3 S B3P4-VH-L	J3VH030JG015
DIODES		
D1200	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1201	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1203	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1300	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D1301	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D1500	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1501	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1502	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1503	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1504	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U

Ref. No.	Description	Part No.
D1505	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1506	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1507	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1508	SWITCHING DIODE DAN202U T106	QD1Z0DAN202U
D1700	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1701	DIODE ZENER 15BSB-T26	NDTB015BST26
D1702	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1703	DIODE ZENER 15BSB-T26	NDTB015BST26
D1704	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1705	DIODE ZENER 15BSB-T26	NDTB015BST26
D1706	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1707	DIODE ZENER 15BSB-T26	NDTB015BST26
D1930▲	DIODE ZENER 27BSB-T26	NDTB027BST26
D1931	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D1932	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1933	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1934▲	DIODE ZENER 1ZB36BB	NDWZ0001ZB36
D1970	DIODE ZENER 5V6BSB-T26	NDTB5R6BST26
D1971	DIODE ZENER 30BSB-T26	NDTB030BST26
D1971A	CHIP RES.(2125) 1/8W 0 Ω	RRX8000HH024
D1973	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1990	DIODE SCHOTTKY SB3150BH	NDWZ00SB3150
D1991	DIODE SCHOTTKY SB3150BH	NDWZ00SB3150
D1992	DIODE SCHOTTKY SB3150BH	NDWZ00SB3150
D1994	DIODE ZENER 1ZB30BB	NDWZ0001ZB30
ICS		
IC1200	IC INVERTER CONTROLLER OZ9972A/24PIN/SOP	NSCA0TTMC005
IC1930▲	IC PHOTOCOUPLER TLP781F(D4-FUNBLL F)	OPEL781FBLLF
IC1931▲	IC PHOTOCOUPLER TLP781F(D4-FUNBLL F)	OPEL781FBLLF
TRANSISTORS		
Q1201	CHIP TRANSISTOR KTC3875S-YRTK/P	NQ1YKTC3875S
Q1202	CHIP TRANSISTOR KTC3875S-YRTK/P	NQ1YKTC3875S
Q1205	CHIP TRANSISTOR KTC3875S-YRTK/P	NQ1YKTC3875S
Q1300	PNP TRANSISTOR SMD 2SA1576UBTLQ	QQ1Q2SA1576U
Q1301	CHIP TRANSISTOR KTC3875S-YRTK/P	NQ1YKTC3875S
Q1303	PNP TRANSISTOR SMD 2SA1576UBTLQ	QQ1Q2SA1576U
Q1700▲	FET MOS SMD TK40P04M1(T6RSS-Q)	QF1ZK40P04M1
Q1701▲	FET MOS SMD TK40P04M1(T6RSS-Q)	QF1ZK40P04M1
Q1702▲	FET MOS SMD TK40P04M1(T6RSS-Q)	QF1ZK40P04M1
Q1703▲	FET MOS SMD TK40P04M1(T6RSS-Q)	QF1ZK40P04M1
Q1930▲	MOS FET TK7A50D(FUNAI)	QEWZTK7A50DQ
Q1931▲	TRANSISTOR KTC3198-YAT/P	NQSYKTC3198P
Q1932▲	TRANSISTOR 2SC2120-O(T2 F T)	QQS02SC2120F
Q1970	CHIP TRANSISTOR KTC3875S-YRTK/P	NQ1YKTC3875S
Q1971	CHIP TRANSISTOR KTC3875S-YRTK/P	NQ1YKTC3875S
Q1972	CHIP TRANSISTOR KTC3875S-YRTK/P	NQ1YKTC3875S
RESISTORS		
R1100	RES CHIP 1608 1/10W F 36.0k Ω	RTW3602HH008
R1101	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1102	RES CHIP 1608 1/10W F 4.70k Ω	RTW4701HH008
R1103	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1104	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1105	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1106	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1107	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1108	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1109	RES CHIP 1608 1/10W F 36.0k Ω	RTW3602HH008
R1110	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1111	RES CHIP 1608 1/10W F 4.70k Ω	RTW4701HH008
R1112	RES CHIP 1608 1/10W F 36.0k Ω	RTW3602HH008
R1113	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1114	RES CHIP 1608 1/10W F 4.70k Ω	RTW4701HH008

Ref. No.	Description	Part No.
R1115	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1116	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1117	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1118	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1119	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1120	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1121	RES CHIP 1608 1/10W F 36.0k Ω	RTW3602HH008
R1122	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1123	RES CHIP 1608 1/10W F 4.70k Ω	RTW4701HH008
R1124	RES CHIP 1608 1/10W F 36.0k Ω	RTW3602HH008
R1125	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1126	RES CHIP 1608 1/10W F 4.70k Ω	RTW4701HH008
R1127	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1128	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1129	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1130	RES CARBON FILM T 1/4W G 470 Ω	RCX4471T1002
R1131	RES CHIP 1608 1/10W F 100 Ω	RTW1000HH008
R1132	RES CHIP 1608 1/10W F 13.0 Ω	RTW13R0HH008
R1133	RES CHIP 1608 1/10W F 36.0k Ω	RTW3602HH008
R1134	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1135	RES CHIP 1608 1/10W F 4.70k Ω	RTW4701HH008
R1200	RES CHIP 1608 1/10W J 680k Ω	RRXA684HH013
R1201	RES CHIP 1608 1/10W J 680k Ω	RRXA684HH013
R1206	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1207	RES CHIP 1608 1/10W J 33k Ω	RRXA333HH013
R1208	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R1209	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1212	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1213	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1215	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1222	RES CHIP 1608 1/10W J 10 Ω	RRXA100HH013
R1223	RES CHIP 1608 1/10W J 10 Ω	RRXA100HH013
R1229	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1230	RES CHIP 1608 1/10W F 150k Ω	RTW1503HH008
R1231	RES CHIP 1608 1/10W F 560k Ω	RTW5603HH008
R1232	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105HH013
R1233	RES CHIP 1608 1/10W J 560k Ω	RRXA564HH013
R1234	RES CHIP 1608 1/10W F 56.0k Ω	RTW5602HH008
R1235	RES CHIP 1608 1/10W F 24.0k Ω	RTW2402HH008
R1300	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002HH008
R1301	RES CHIP 1608 1/10W F 47.0k Ω	RTW4702HH008
R1302	RES CHIP 1608 1/10W F 51.0k Ω	RTW5102HH008
R1303	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1304	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1305	METAL OXIDE RES. 2W J 510 Ω	RN02511ZU001
R1306	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1307	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R1308	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472HH013
R1309	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1310	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R1500	RES CHIP 1608 1/10W F 1.00M Ω	RTW1004HH008
R1501	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1502	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1503	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1504	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1505	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1506	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1507	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1508	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1509	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1510	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1511	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008
R1512	RES CHIP 1608 1/10W F 100k Ω	RTW1003HH008

Ref. No.	Description	Part No.
R1513	RES CHIP 1608 1/10W F 1.00M Ω	RTW1004HH008
R1514	RES CHIP 1608 1/10W F 47.0k Ω	RTW4702HH008
R1515	RES CHIP 1608 1/10W F 27.0k Ω	RTW2702HH008
R1516	RES CHIP 1608 1/10W F 2.40k Ω	RTW2401HH008
R1517	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1700	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1701	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1702	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1703	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1704	METAL OXIDE FILM RES. 1W J 4.7 Ω	RN014R7ZU001
R1705	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1706	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1707	RES CHIP 1608 1/10W J 100 Ω	RRXA101HH013
R1708	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
R1709	METAL OXIDE FILM RES. 1W J 4.7 Ω	RN014R7ZU001
R1930	RES CARBON FILM T 1/4W J 47 Ω	RCX4470T1001
R1931	RES CARBON FILM T 1/4W J 47k Ω	RCX4473T1001
R1932	RES CARBON FILM T 1/4W J 120 Ω	RCX4121T1001
R1933	RES CARBON FILM T 1/4W J 120 Ω	RCX4121T1001
R1934	RES CARBON FILM T 1/4W J 120 Ω	RCX4121T1001
R1935	RES CARBON FILM T 1/4W J 1.5k Ω	RCX4152T1001
R1936	RES CARBON FILM T 1/4W J 180 Ω	RCX4181T1001
R1937▲	METAL OXIDE FILM RES. 2W J 0.39 Ω	RN02R39ZU001
R1938	RES CARBON FILM T 1/4W J 82k Ω	RCX4823T1001
R1939	RES CARBON FILM T 1/4W J 2.2k Ω	RCX4222T1001
R1949	RES CARBON FILM T 1/4W J 150k Ω	RCX4154T1001
R1967	RES CARBON FILM T 1/4W J 3.9k Ω	RCX4392T1001
R1970	RES CARBON FILM T 1/4W J 220 Ω	RCX4221T1001
R1972	RES CHIP 1608 1/10W J 22k Ω	RRXA223HH013
R1973	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332HH013
R1977	RES CHIP 1608 1/10W F 20.0k Ω	RTW2002HH008
R1979	RES CHIP 1608 1/10W F 6.80k Ω	RTW6801HH008
R1980	RES CHIP 1608 1/10W F 180 Ω	RTW1800HH008
R1981	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R1982	RES CHIP 1608 1/10W J 1.5k Ω	RRXA152HH013
R1986	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
R1988	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
MISCELLANEOUS		
B34	POW HEAT SINK A7120UH	1EM423993
BC1301	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
BC1930	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC1931	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
CL102	WIRE ASSEMBLY 5PIN 5PIN/180MM	WX1A17F6-201
JS1200	WIRE COPPER 6111-06003-0120	XZ40C0SHG002
L17	SCREW B-TIGHT D3X8 BIND HEAD+	GBJB3080
T1950▲	TRANS POWER BCK-28CM	LIT2PCMEK031
When you replace one of the below Trans Inverters on this CBA, please replace with the one that has same parts number. Do not mix different parts number's Trans Inverter.		
T1100▲	TRANS INV TZ.7617A.101	LTZ3PZDAR014
T1101▲	TRANS INV TZ.7617A.101	LTZ3PZDAR014
T1102▲	TRANS INV TZ.7617A.101	LTZ3PZDAR014
or		
T1100▲	TRANS INV HVT-325	LTZ3PZ0XB018
T1101▲	TRANS INV HVT-325	LTZ3PZ0XB018
T1102▲	TRANS INV HVT-325	LTZ3PZ0XB018

FUNCTION CBA

Ref. No.	Description	Part No.
	FUNCTION CBA Consists of the following:	-----
CAPACITOR		
C108	CAP CERAMIC (AX) 0.1 μ F/50V/F/Z	CA1J104TU062

Ref. No.	Description	Part No.
RESISTORS		
R108	RES CARBON FILM T 1/4W J 220 Ω	RCX4221T1001
R109	RES CARBON FILM T 1/4W G 10k Ω	RCX4103T1002
R111	RES CARBON FILM T 1/4W G 4.7k Ω	RCX4472T1002
R112	RES CARBON FILM T 1/4W G 2.7k Ω	RCX4272T1002
R113	RES CARBON FILM T 1/4W G 4.7k Ω	RCX4472T1002
R114	RES CARBON FILM T 1/4W G 8.2k Ω	RCX4822T1002
R115	RES CARBON FILM T 1/4W G 18k Ω	RCX4183T1002
SWITCHES		
SW101B	TACT SWITCH SKQSAB	SST0101AL038
SW103B	TACT SWITCH SKQSAB	SST0101AL038
SW104B	TACT SWITCH SKQSAB	SST0101AL038
SW105B	TACT SWITCH SKQSAB	SST0101AL038
SW106B	TACT SWITCH SKQSAB	SST0101AL038
SW107B	TACT SWITCH SKQSAB	SST0101AL038

IR SENSOR CBA

Ref. No.	Description	Part No.
	IR SENSOR CBA Consists of the following:	-----
CAPACITORS		
C101	ELECTROLYTIC CAP. 47 μ F/16V M H7	CE1CMAVSL470
C103	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C104	CHIP CERAMIC CAP.(1608) F Z 0.1 μ F/50V	CHD1JZ30F104
DIODE		
D101	LED (WHITE) SLR343WBC7T3XM	QPWM343WBC7T
RESISTORS		
R101	RES CARBON FILM T 1/4W J 100 Ω	RCX4101T1001
R102	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332HH013
R103	RES CHIP 1608 1/10W 0 Ω	RRXA000HH014
R106	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102HH013
MISCELLANEOUS		
CL103	WIRE ASSEMBLY 4PIN 4PIN/35MM	WX1A17F6-202
RS101	SENSOR REMOTE RECEIVER KSM-712TH2E	USESJRSKK044