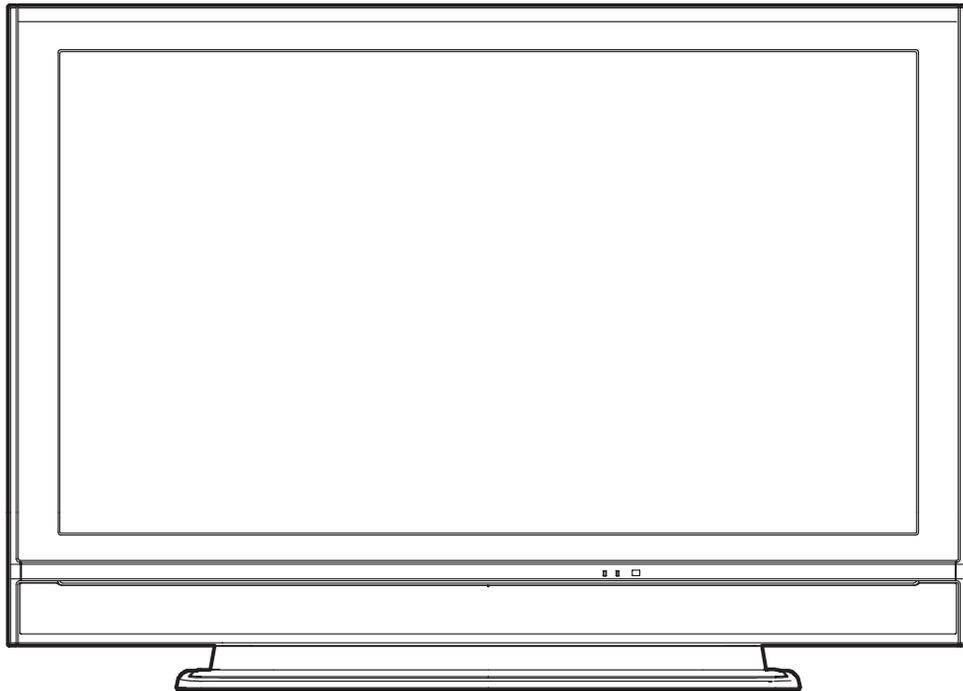


***SYLVANIA***

# **SERVICE MANUAL**

**42" COLOR LCD TELEVISION  
LC420SS8**



# IMPORTANT SAFETY NOTICE

Proper service and repair is important to the safe, reliable operation of all Funai Equipment. The service procedures recommended by Funai 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. Funai 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, Funai has not undertaken any such broad evaluation. Accordingly, a servicer who uses a service procedure or tool which is not recommended by Funai 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.

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**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.**

# SPECIFICATIONS

## < TUNER / NTSC >

ANT. Input ----- 75 ohm Unbal., F type

Description	Condition	Unit	Nominal	Limit
1. AFT Pull-In Range	---	MHz	±2.3	±2.1
2. Synchronizing Sens.	TV.ch.4	dBμ	---	20
	CA.ch.31	dBμ	---	20
	CA.ch.87	dBμ	---	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/+6
	ch.10	dBm	---	-76/+6
	ch.41	dBm	---	-76/+6

## < LCD PANEL >

Description	Condition	Unit	Nominal	Limit
1. Native Pixel Resolution	Horizontal	pixels	1920	---
	Vertical	pixels	1080	---
2. Brightness (w / filter)	---	cd/m <sup>2</sup>	500	---
3. Viewing Angle	Horizontal	°	---	-89 to +89
	Vertical	°	---	-89 to +89

## < VIDEO >

Description	Condition	Unit	Nominal	Limit
1. Over Scan	Horizontal	%	5±5	---
	Vertical	%	5±5	---
2. Color Temperature	---	°K	12000	---
	x		0.272	±10%
	y		0.278	±10%
3. Resolution (composite video)	Horizontal	line	720	---
	Vertical	line	480	---

## < AUDIO >

All items are measured across 8  $\Omega$  load at speaker output terminal with L.P.F. / Video1 Input.

Description	Condition	Unit	Nominal	Limit
1. Audio Output Power	10% THD: Lch/Rch	W	10.0/10.0	9.0/9.0
2. Audio Distortion	500mW: Lch/Rch	%	0.5/0.5	2.0/2.0
3. Audio Freq. Response (NTSC)	-6dB: Lch -6dB: Rch	Hz Hz	20 to 10 k 20 to 10 k	--- ---

**Note:** Nominal specifications represent the design specifications. All units should be able to approximate these. Some will exceed and some may drop slightly below these specifications. Limit specifications represent the absolute worst condition that still might be considered acceptable. In no case should a unit fail to meet limit specifications.

# 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

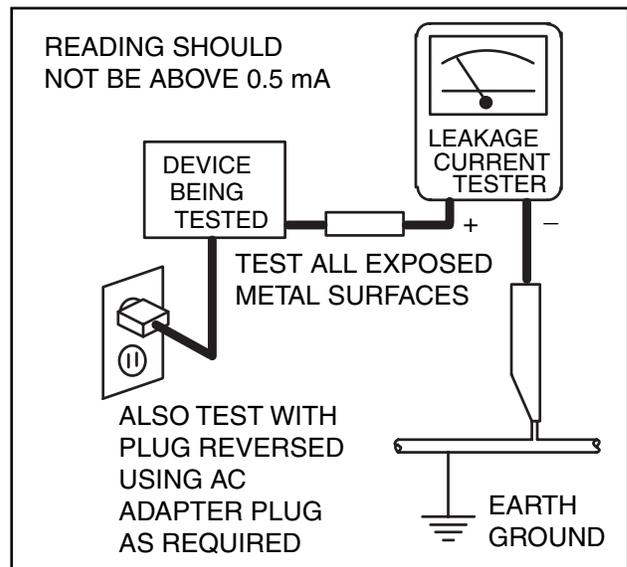
1. **Before returning an instrument to the customer**, always make a safety check of the entire instrument, including, but not limited to, the following items:

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 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.

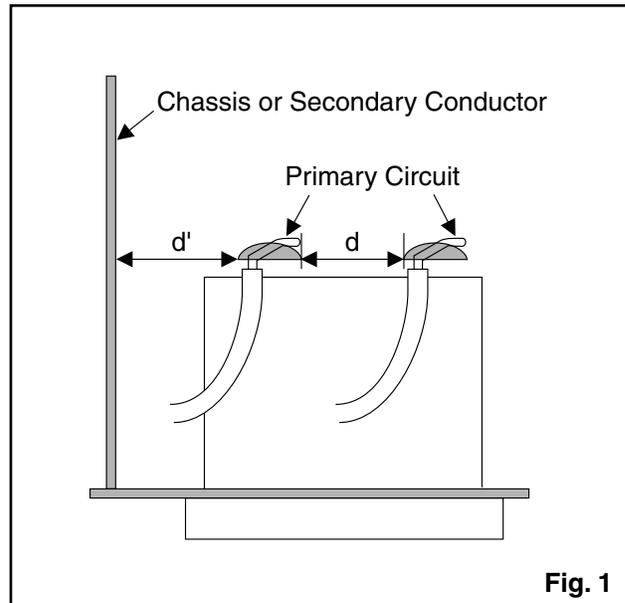
### 1. Clearance Distance

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	$\geq 3.2$ mm (0.126 inches)

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



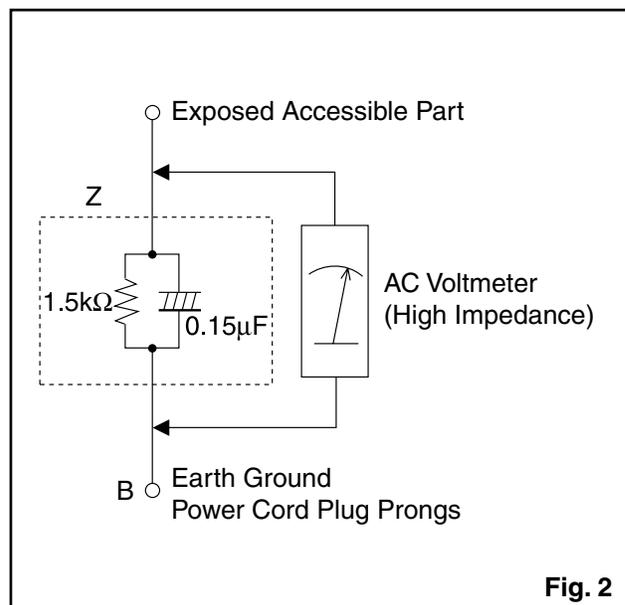
**Fig. 1**

### 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**

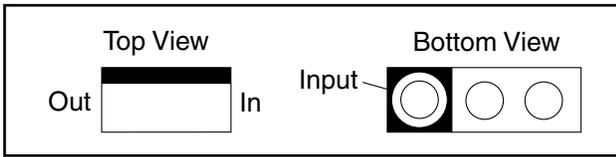
AC Line Voltage	Region	Load Z	Leakage Current ( $i$ )	Earth Ground (B) to:
110 to 130 V	U.S.A. or Canada	$0.15\mu\text{F}$ CAP. & $1.5\text{k}\Omega$ RES. Connected in parallel	$i \leq 0.5$ mA rms	Exposed accessible parts

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

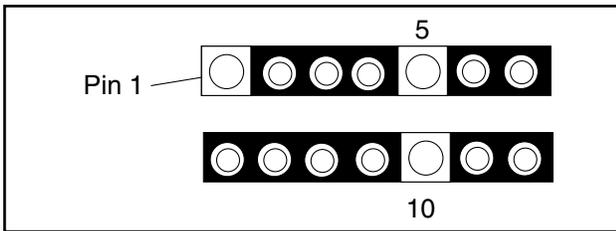
# STANDARD NOTES FOR SERVICING

## Circuit Board Indications

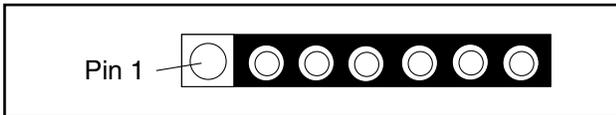
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



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

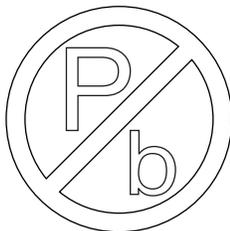


3. The 1st pin of every male connector is indicated as shown.



## 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)

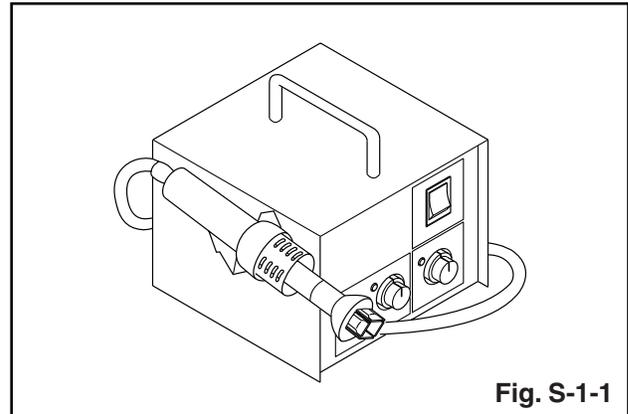


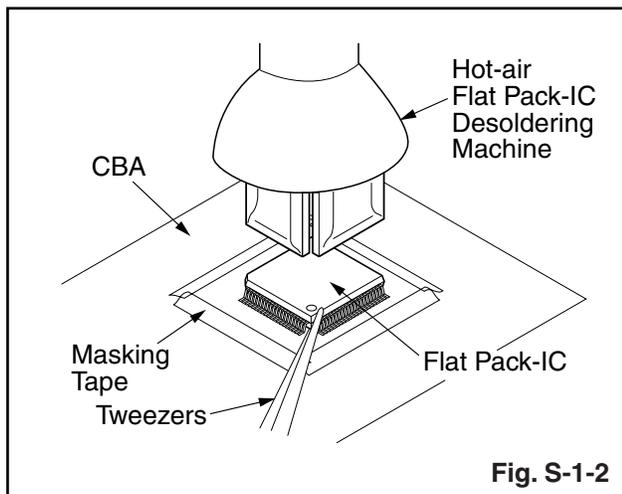
Fig. S-1-1

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:

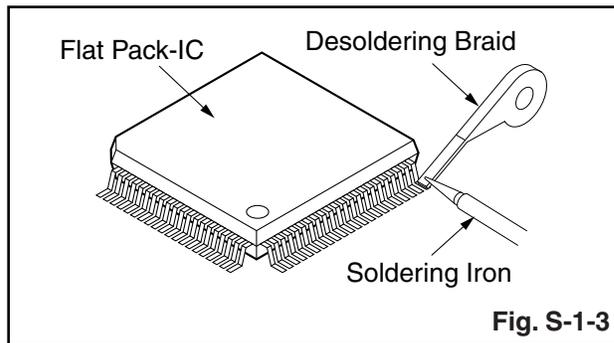
1. The Flat Pack-IC shape may differ by models. Use an appropriate hot-air flat pack-IC desoldering machine, whose shape matches that of the Flat Pack-IC.
2. Do not supply hot air to the chip parts around the flat pack-IC for over 6 seconds because damage to the chip parts may occur. Put masking tape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

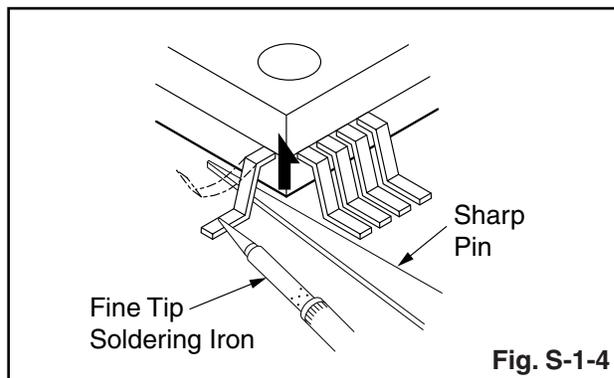


#### With Soldering Iron:

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)

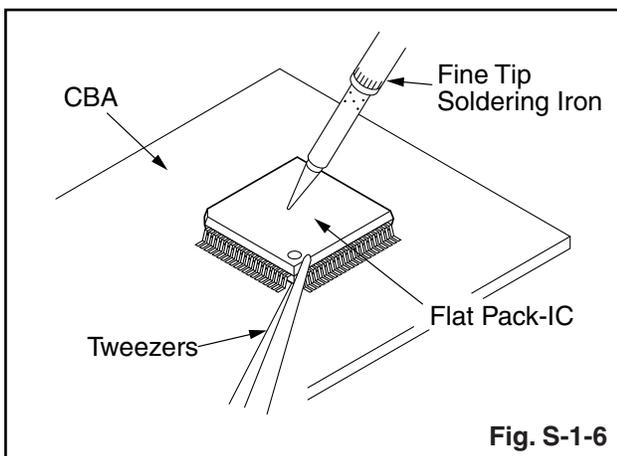
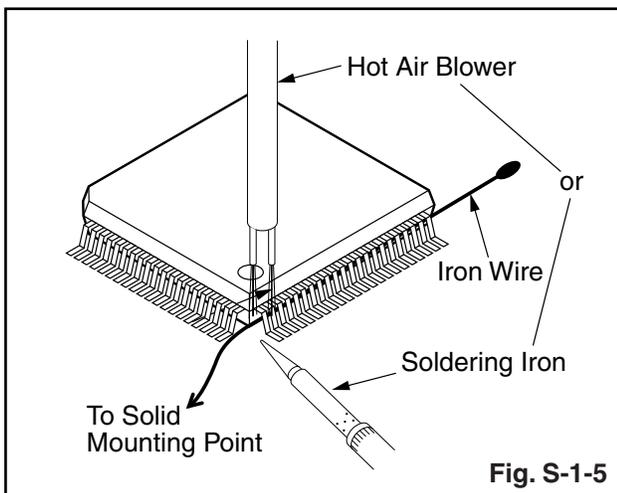


3. Bottom of the flat pack-IC is fixed with glue to the CBA; when removing entire flat pack-IC, first apply soldering iron to center of the flat pack-IC and heat up. Then remove (glue will be melted). (Fig. S-1-6)
4. Release the flat pack-IC from the CBA using tweezers. (Fig. S-1-6)

### With Iron Wire:

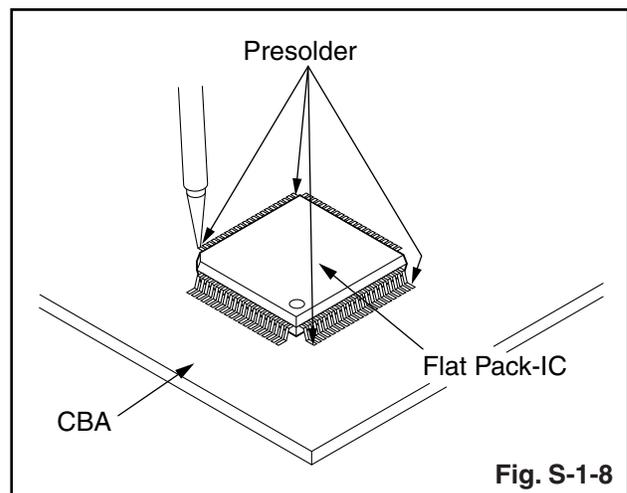
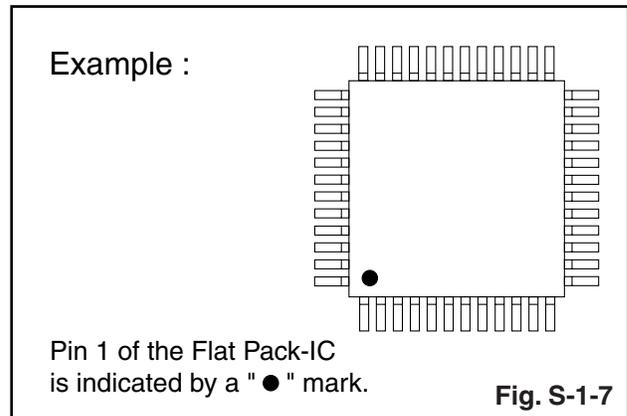
1. Using desoldering braid, remove the solder from all pins of the flat pack-IC. When you use solder flux which is applied to all pins of the flat pack-IC, you can remove it easily. (Fig. S-1-3)
2. Affix the wire to a workbench or solid mounting point, as shown in Fig. S-1-5.
3. While heating the pins 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 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

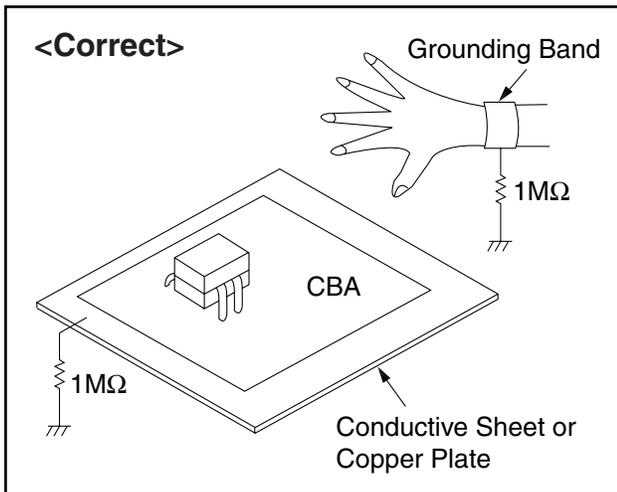
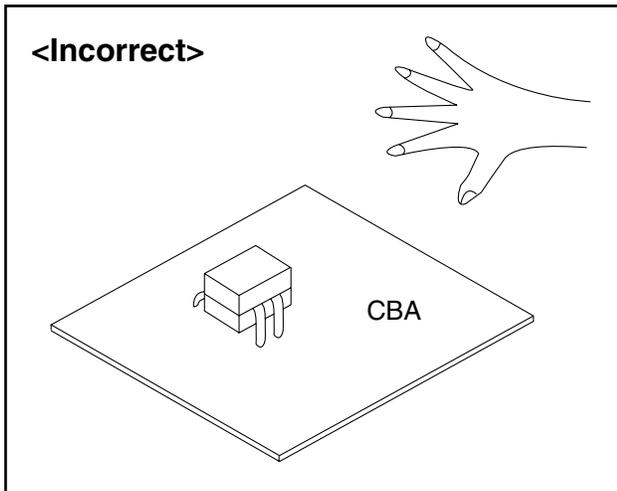
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

## 1. Ground for Human Body

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

## 2. Ground for Workbench

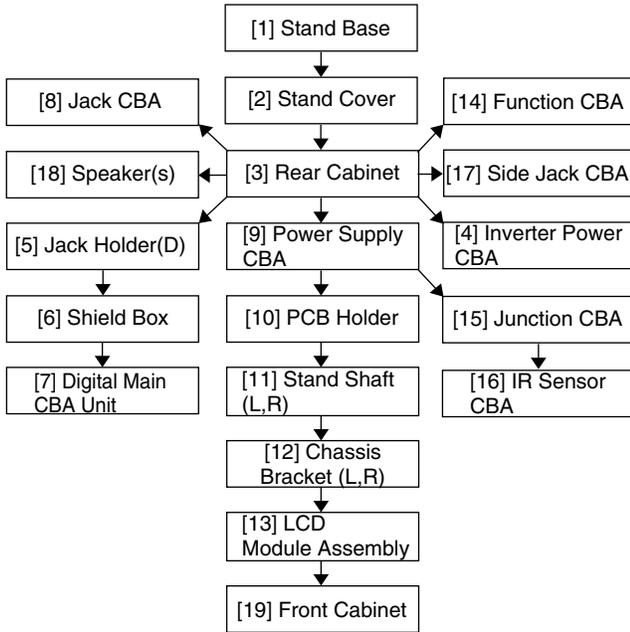
Be sure to place a conductive sheet or copper plate with proper grounding (1 M $\Omega$ ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors 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 item(s) to be serviced. When reassembling, follow the steps in reverse order. Bend, route and dress the cables as they were.



## 2. Disassembly Method

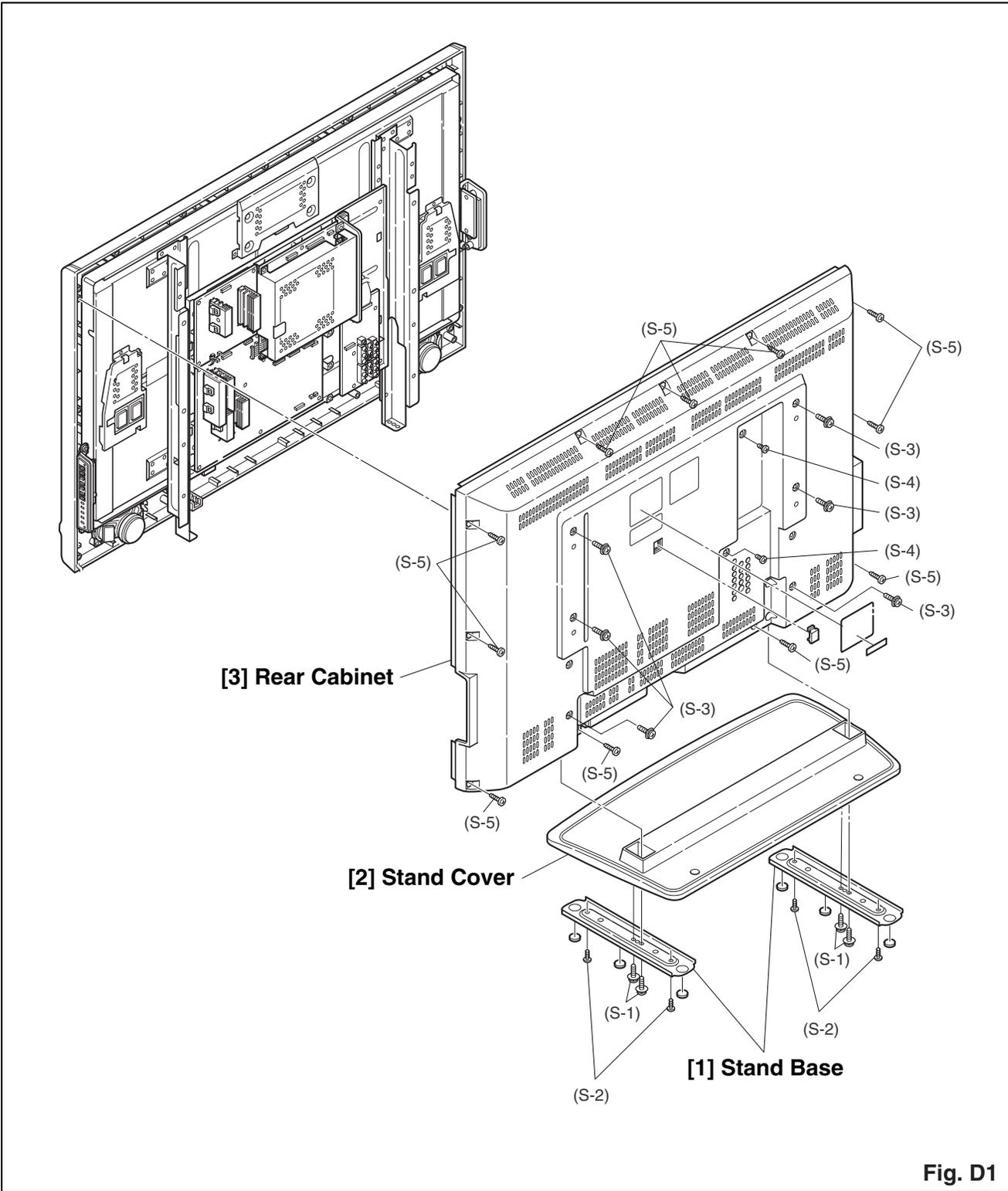
Step/ Loc. No.	Part	Removal		
		Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Unclamp/ Desolder	Note
[1]	Stand Base	D1	4(S-1), 4(S-2)	---
[2]	Stand Cover	D1	-----	---
[3]	Rear Cabinet	D1	6(S-3), 2(S-4), 11(S-5)	---
[4]	Inverter Power CBA	D2 D5	5(S-6), *CN701, *CN702, *CN751, *CN752, *CN753	---
[5]	Jack Holder(D)	D2	(S-7), 2(S-8), 2(S-9)	---
[6]	Shield Box	D2	5(S-10), 2(S-11), (N-1)	---
[7]	Digital Main CBA Unit	D2 D5	*CN200, *CN201, *CN202, *CN203, *CN3707, *CN4201	---
[8]	Jack CBA	D3 D5	5(S-12), *CL7002A, *CN7002	---

Step/ Loc. No.	Part	Removal		
		Fig. No.	Remove/*Unhook/ Unlock/Release/ Unplug/Unclamp/ Desolder	Note
[9]	Power Supply CBA	D3 D5	8(S-13), *CN204, *CN801, *CN802	---
[10]	PCB Holder	D3	4(S-14)	---
[11]	Stand Shaft (L, R)	D4	4(S-15)	---
[12]	Chassis Bracket (L, R)	D4	6(S-16)	---
[13]	LCD Module Assembly	D4	13(S-17)	---
[14]	Function CBA	D4 D5	3(S-18), *CL106B	---
[15]	Junction CBA	D4 D5	*CL101A	---
[16]	IR Sensor CBA	D4 D5	2(S-19)	---
[17]	Side Jack CBA	D4 D5	2(S-20)	---
[18]	Speaker(s)	D4	8(S-21)	---
[19]	Front Cabinet	D4	-----	---

(1) (2) (3) (4) (5)

### Note:

- 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.
- Parts to be removed or installed.
- Fig. No. showing procedure of part location
- Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.  
N = Nut, L = Locking Tab, S = Screw,  
CN = Connector  
\* = Unhook, Unlock, Release, Unplug, or Desolder  
e.g. 2(S-2) = two Screws (S-2),  
2(L-2) = two Locking Tabs (L-2)
- Refer to the following "Reference Notes in the Table."



**Fig. D1**

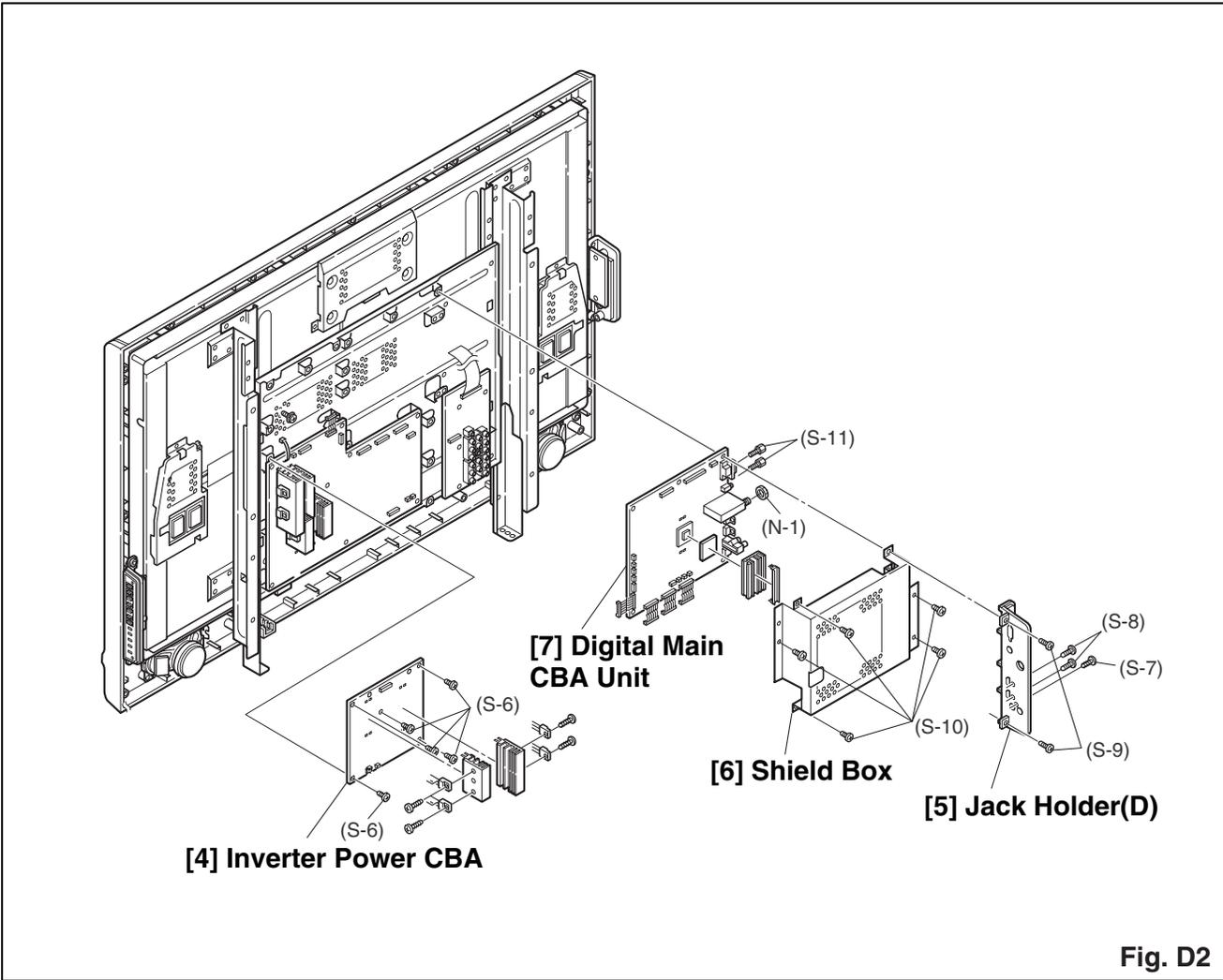
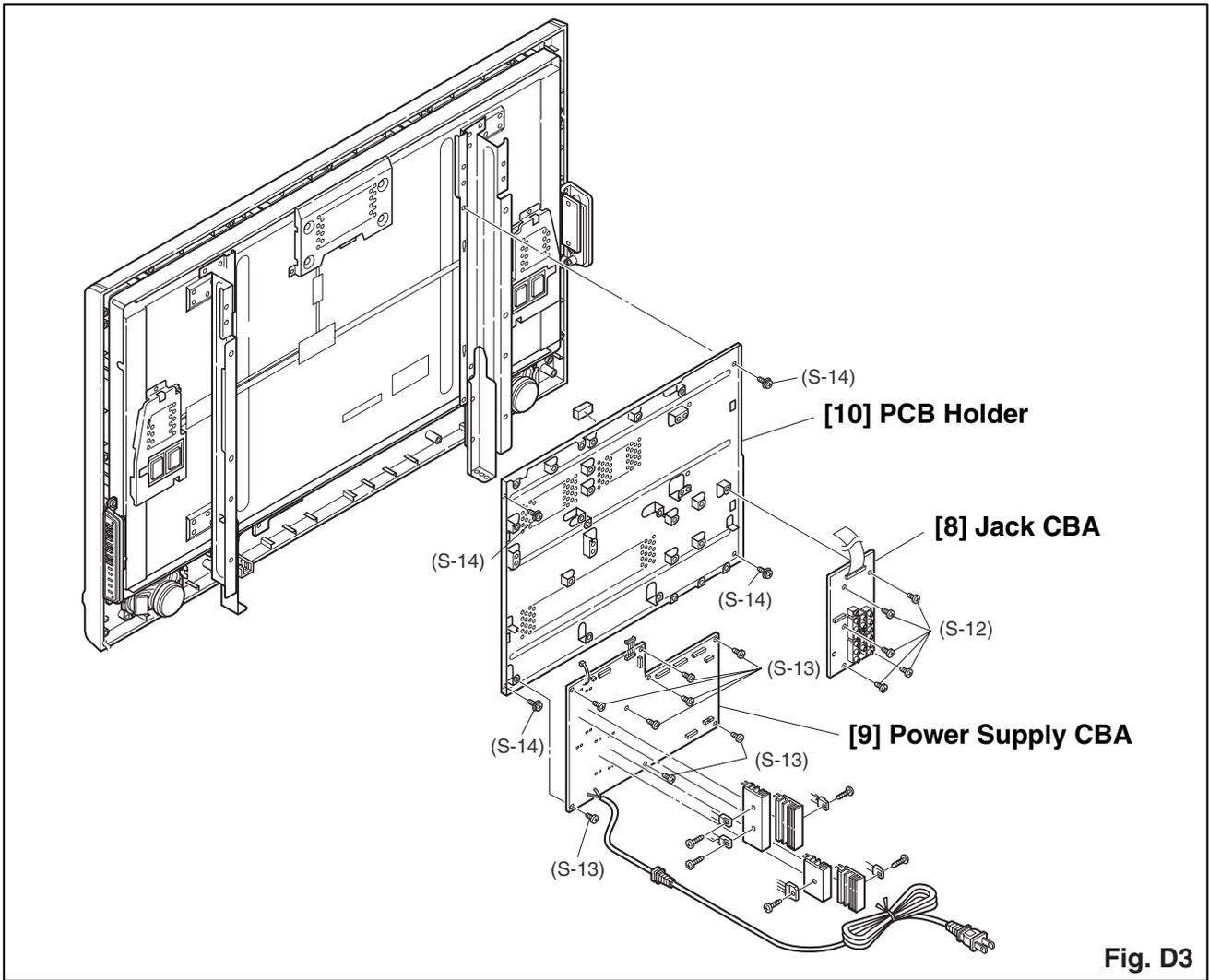


Fig. D2



**Fig. D3**



# TV Cable Wiring Diagram

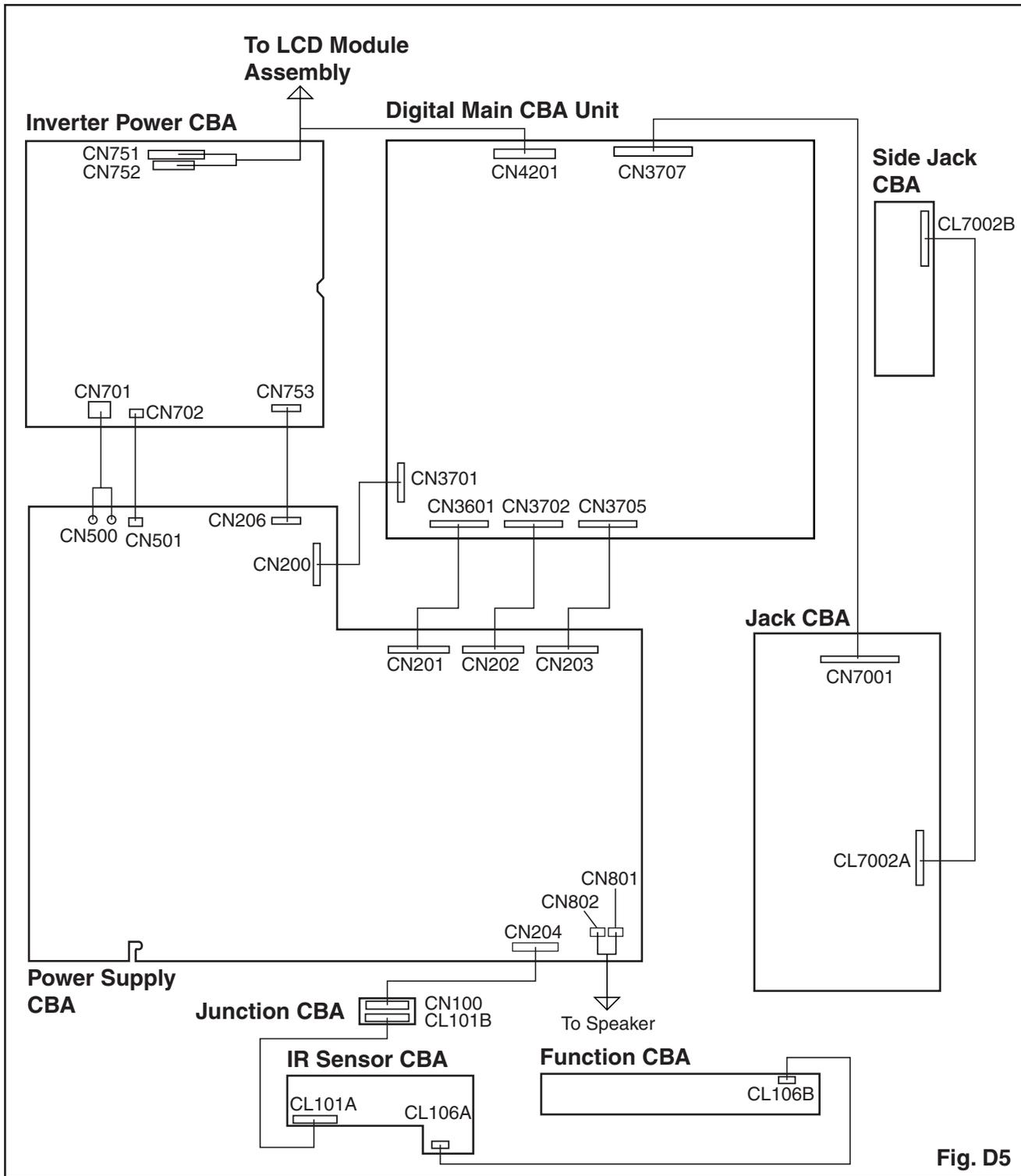


Fig. D5

# 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. DC Voltmeter
2. NTSC Pattern Generator (Color Bar W/White Window, Red Color, Dot Pattern, Gray Scale, Monoscope, Multi-Burst)
3. Remote control unit
4. Color Analyzer

## How to make the Service remote control unit:

Cut “A” portion of the attached remote control unit as shown in Fig. 1.

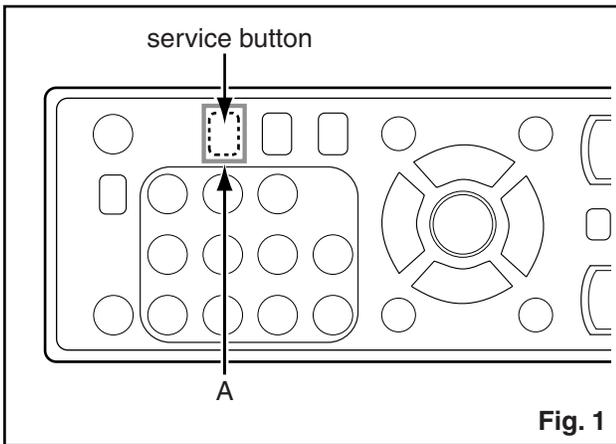


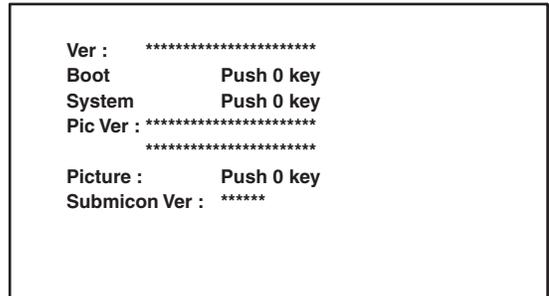
Fig. 1

## How to set up the service mode:

### Service mode:

1. Use the service remote control unit.
2. Turn the power on.
3. Press the service button on the service remote control unit. The following screen appears.

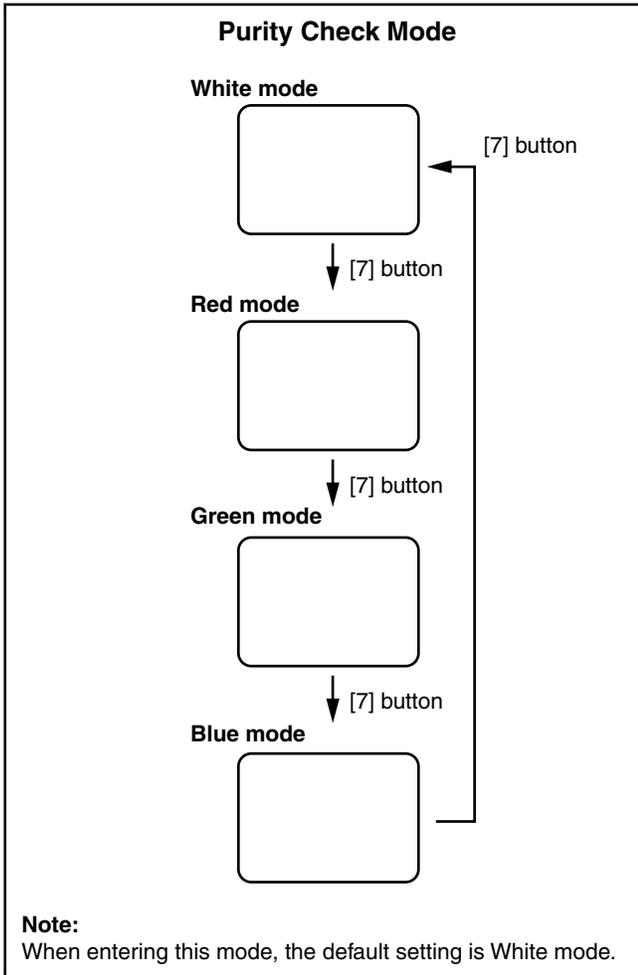
"\*" differs depending on the models.



# 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 pressing [7] button on the service remote control unit, the display changes as follows.



The following adjustment normally are not attempted in the field. Only when replacing the LCD Panel then adjust as a preparation.

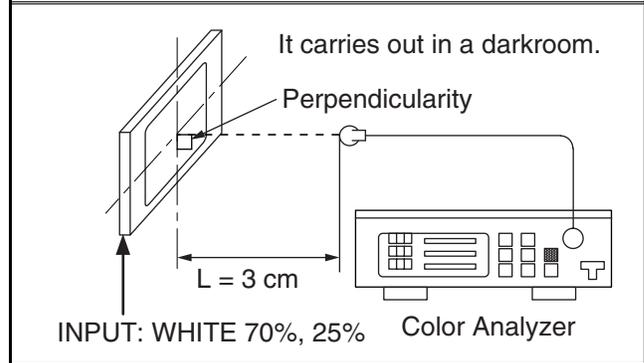
# 2. White Balance Adjustment

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

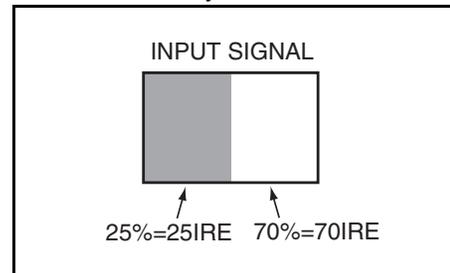
**Symptom of Misadjustment:** White becomes bluish or reddish.

Test Point	Adj. Point	Mode	Input
Screen	[CH. ▲/▼] buttons	[VIDEO1] C/D	White Purity (APL 70%) or (APL 25%)
<b>M. EQ.</b>		<b>Spec.</b>	
Pattern Generator, Color analyzer		x= 0.272 ± 0.005 y= 0.278 ± 0.005	

**Figure**



1. Operate the unit for more than 20 minutes.
2. Input the White Purity.



3. Set the color analyzer to the CHROMA mode and bring the optical receptor to the center on the LCD-Panel surface after zero point calibration as shown above.
 

**Note:** The optical receptor must be set perpendicularly to the LCD Panel surface.
4. Enter the Service mode. Press [VOL. ▼] button on the service remote control unit and select "C/D" mode.

5. **[CUTOFF]**

Press [3] button to select "COB" for Blue Cutoff adjustment. Press [1] button to select "COR" for Red Cutoff adjustment.

**[DRIVE]**

Press [6] button to select "DB" for Blue Drive adjustment. Press [4] button to select "DR" for Red Drive adjustment.

6. In each color mode, press [CH. ▲ / ▼] buttons to adjust the values of color.
7. Adjust Cutoff and Drive so that the color temperature becomes 12000K ( $x= 0.272$  /  $y= 0.278 \pm 0.005$ ).

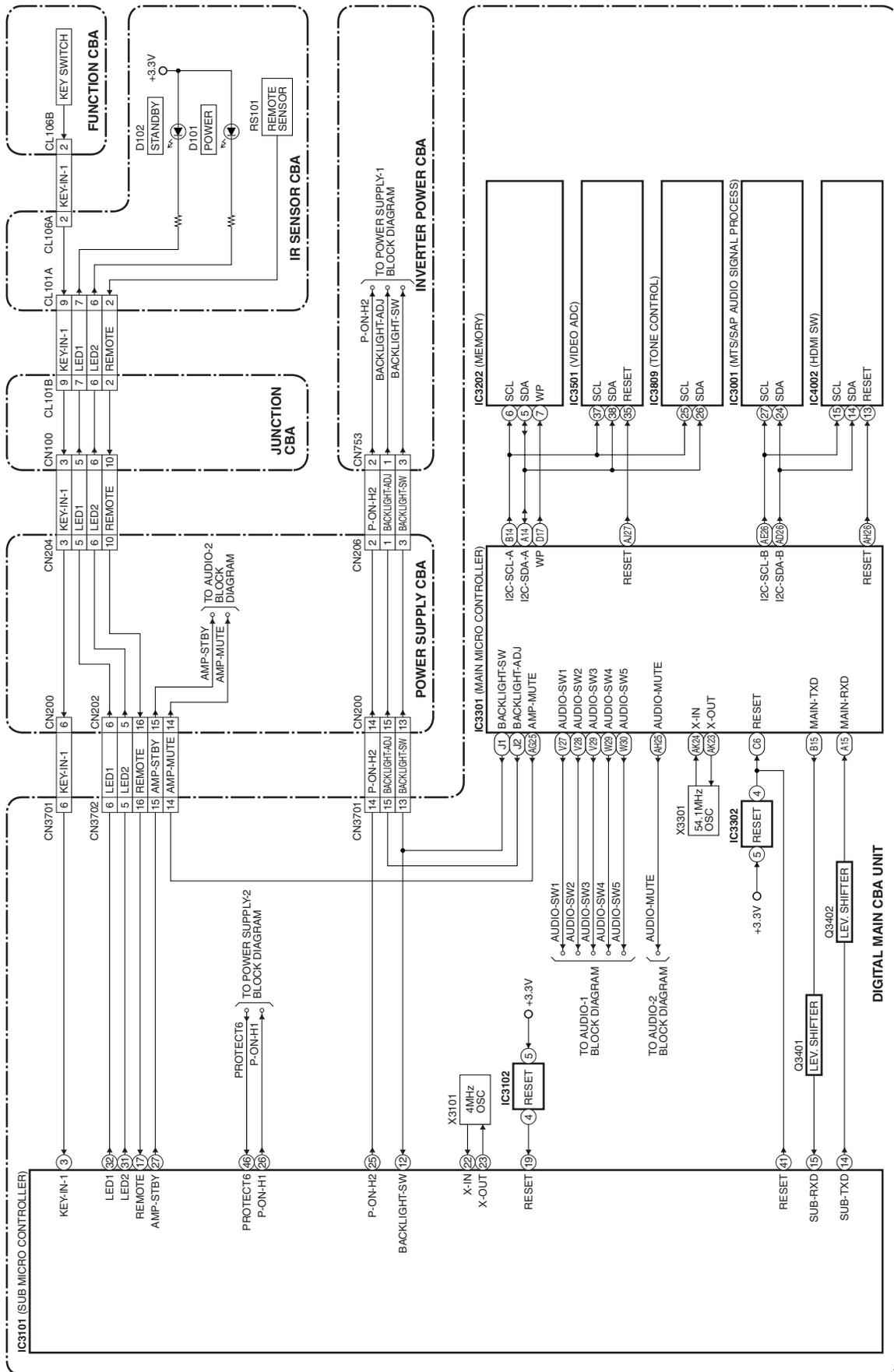
# HOW TO INITIALIZE THE LCD TELEVISION

## How to initialize the LCD television:

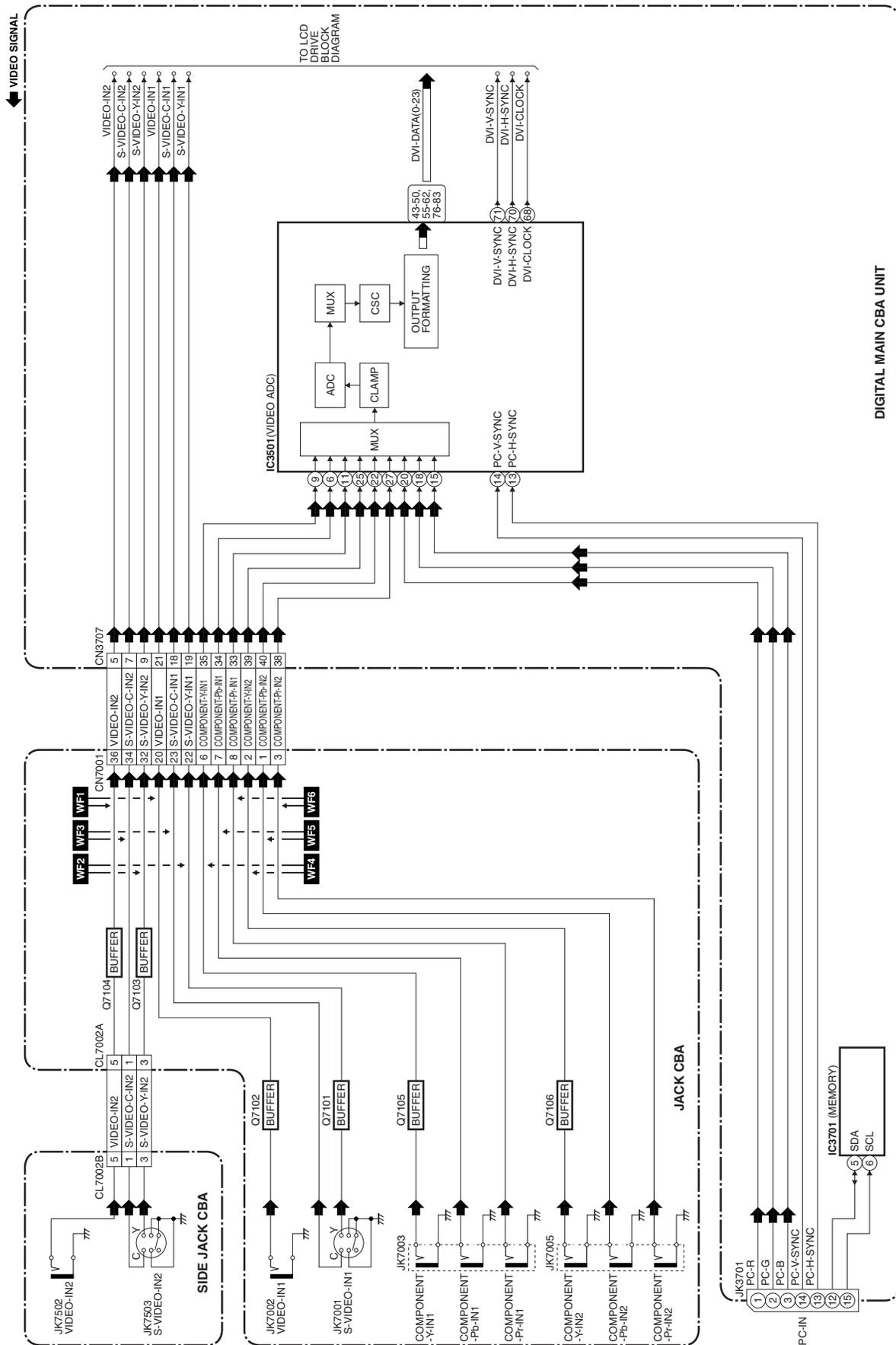
1. Turn the power on.
2. To enter the service mode, press the service button on the service remote control unit. (Refer to page 5-1.)
  - To cancel the service mode, press [POWER] button on the remote control unit.
3. Press [INFO] button on the remote control unit to initialize the LCD television.
4. "INITIALIZED" will appear in the upper right of the screen. "INITIALIZED" color will change to green from red when initializing is complete.

# BLOCK DIAGRAMS

## System Control Block Diagram



# Video Input Select Block Diagram









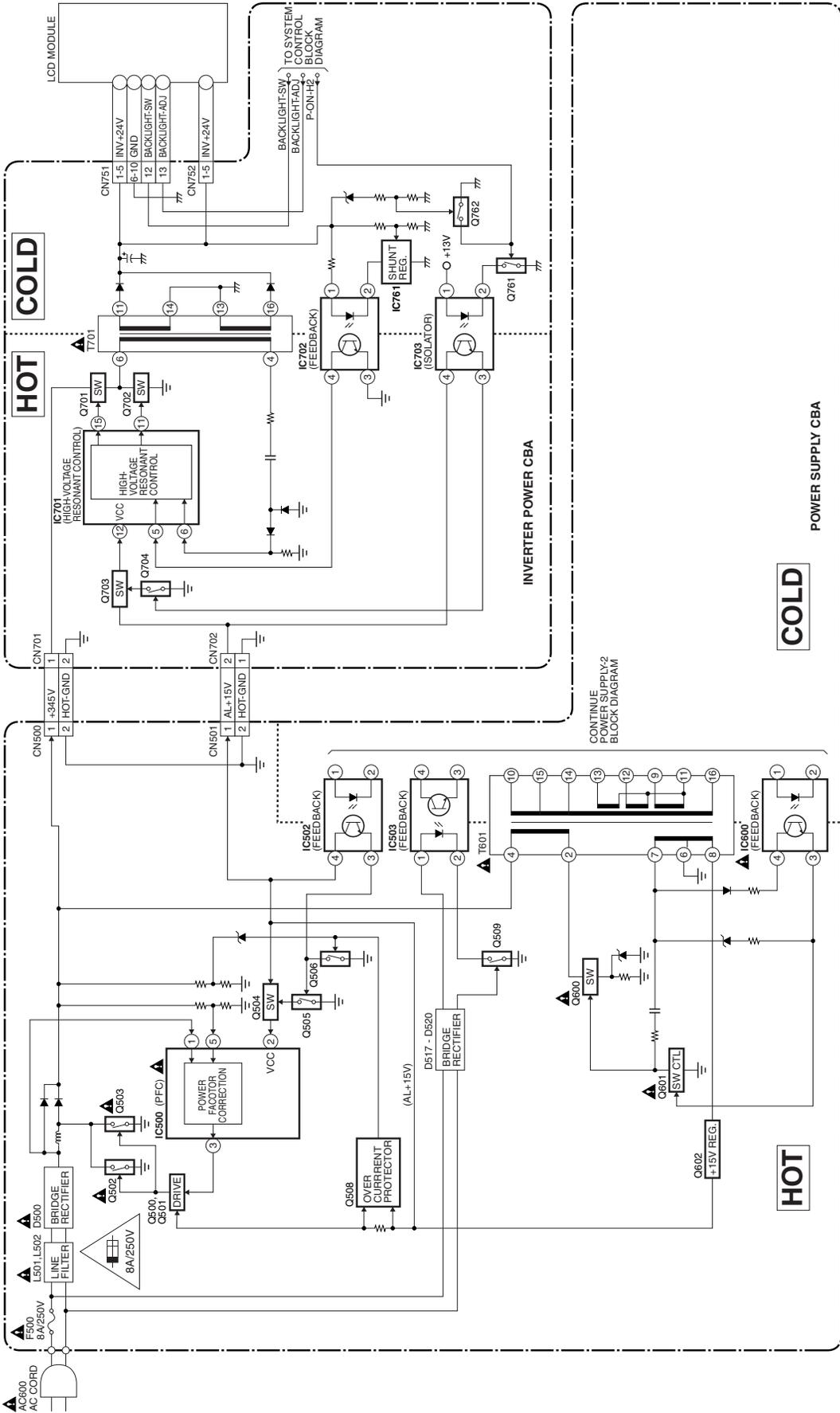
# Power Supply-1 Block Diagram

**CAUTION !**  
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.  
If Main Fuse (F500) 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 1 :** For continued protection against risk of fire, replace only with same type 8A, 250V fuse.  
**ATTENTION :** Utiliser un fusible de même type de 8A, 250V.



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



CONTINUE  
POWER SUPPLY-2  
BLOCK DIAGRAM

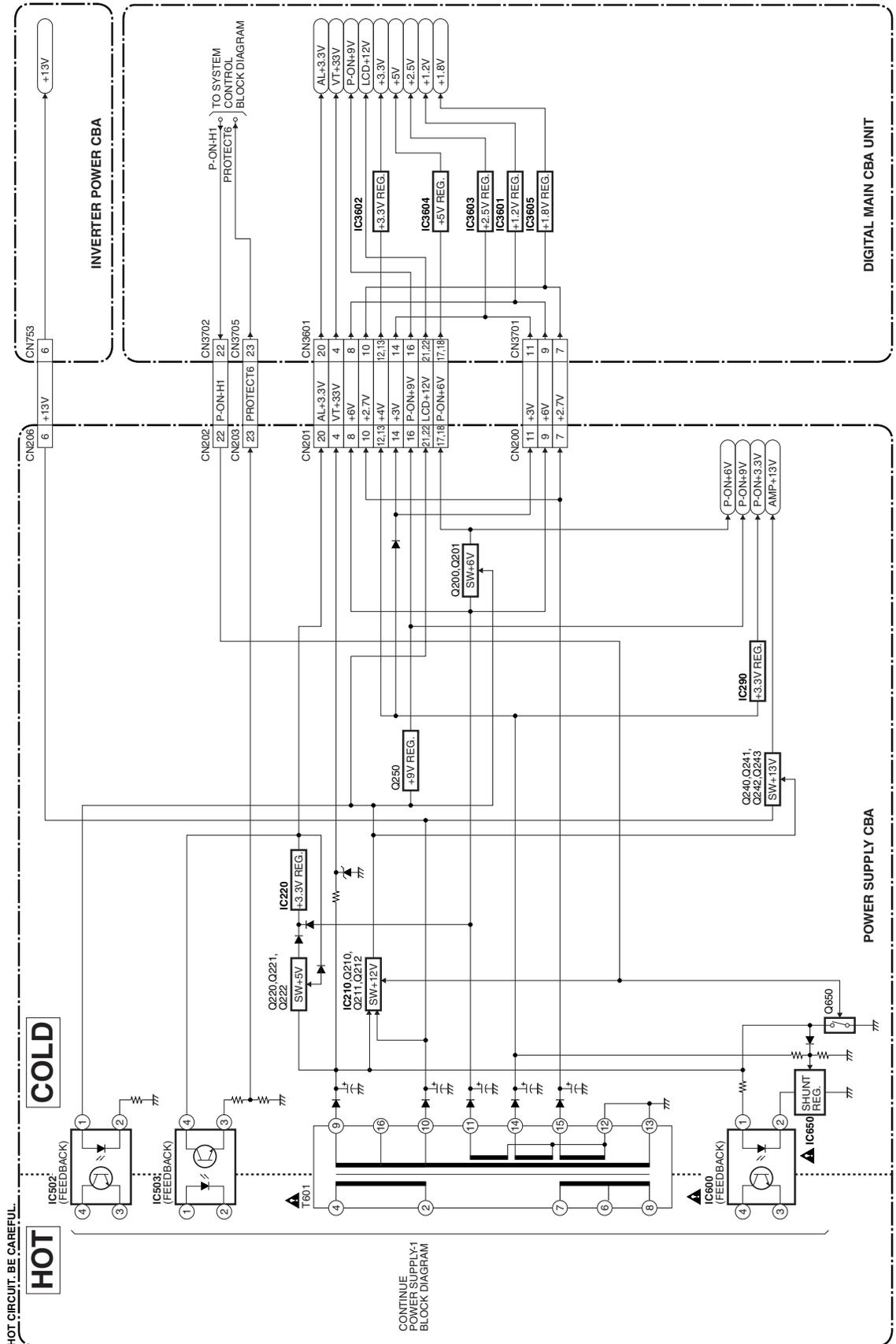
**COLD**

POWER SUPPLY CBA

**HOT**

# Power Supply-2 Block Diagram

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



# SCHEMATIC DIAGRAMS / CBA'S 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  $\mu F$  ( $P = 10^{-6} \mu F$ ).
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.

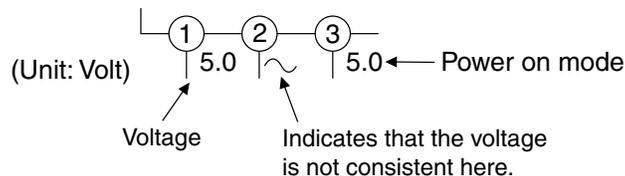
If Main Fuse (F500) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

### 3. Note:

- 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.
- 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.:

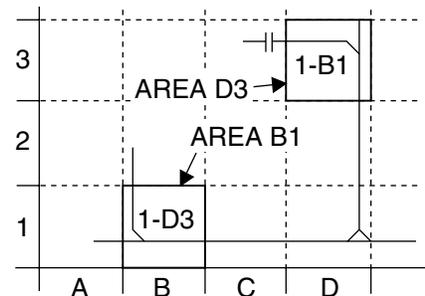


### 5. How to read converged lines

1-D3  
 ↑ Distinction Area  
 ↑ Line Number  
 (1 to 3 digits)

Examples:

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

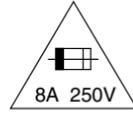
⊗ : Used to indicate a test point with no test pin.

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

# Power Supply 1/3 Schematic Diagram

## CAUTION !

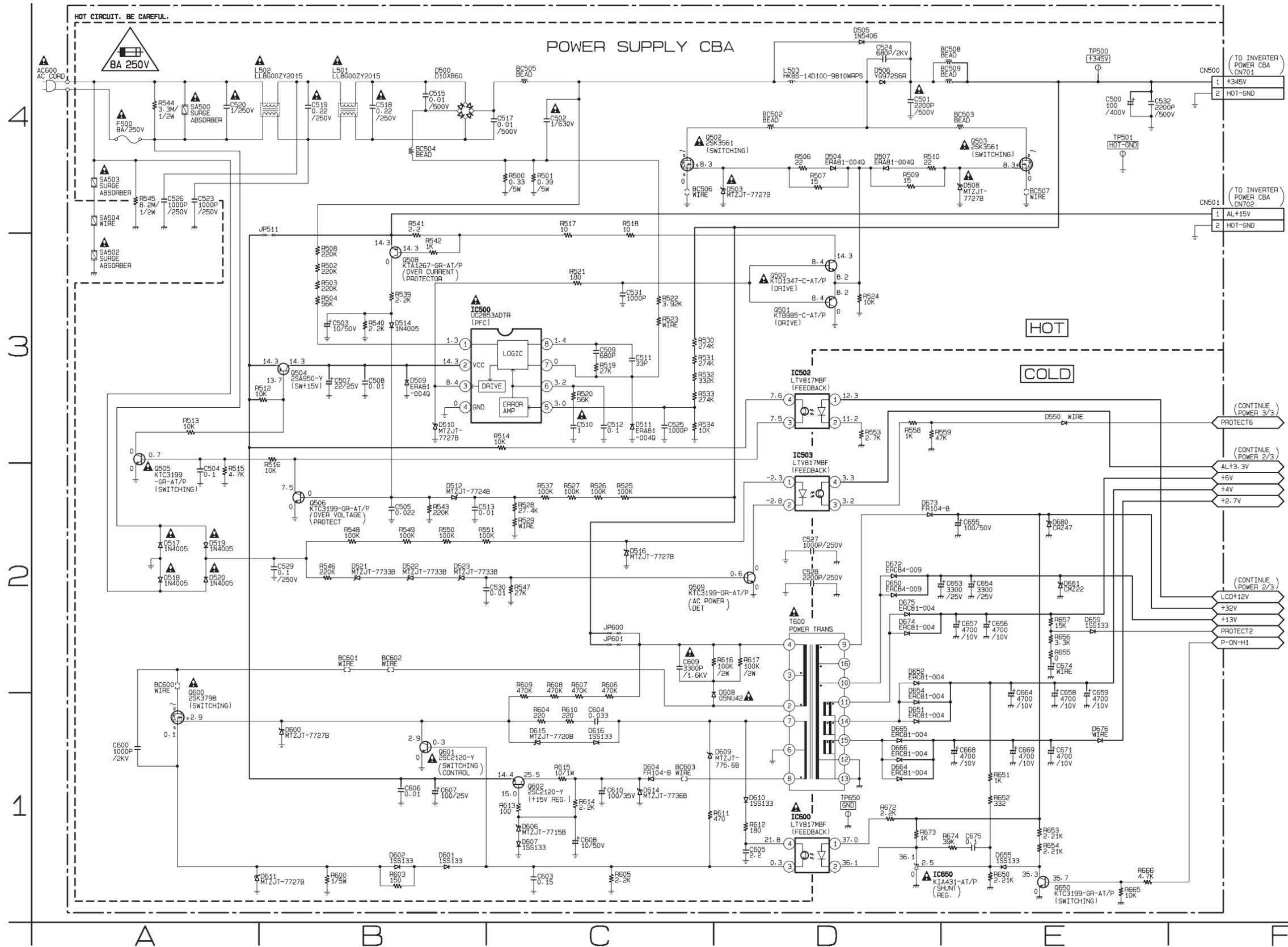
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.  
If Main Fuse (F500) is blown, check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.  
Otherwise it may cause some components in the power supply circuit to fail.



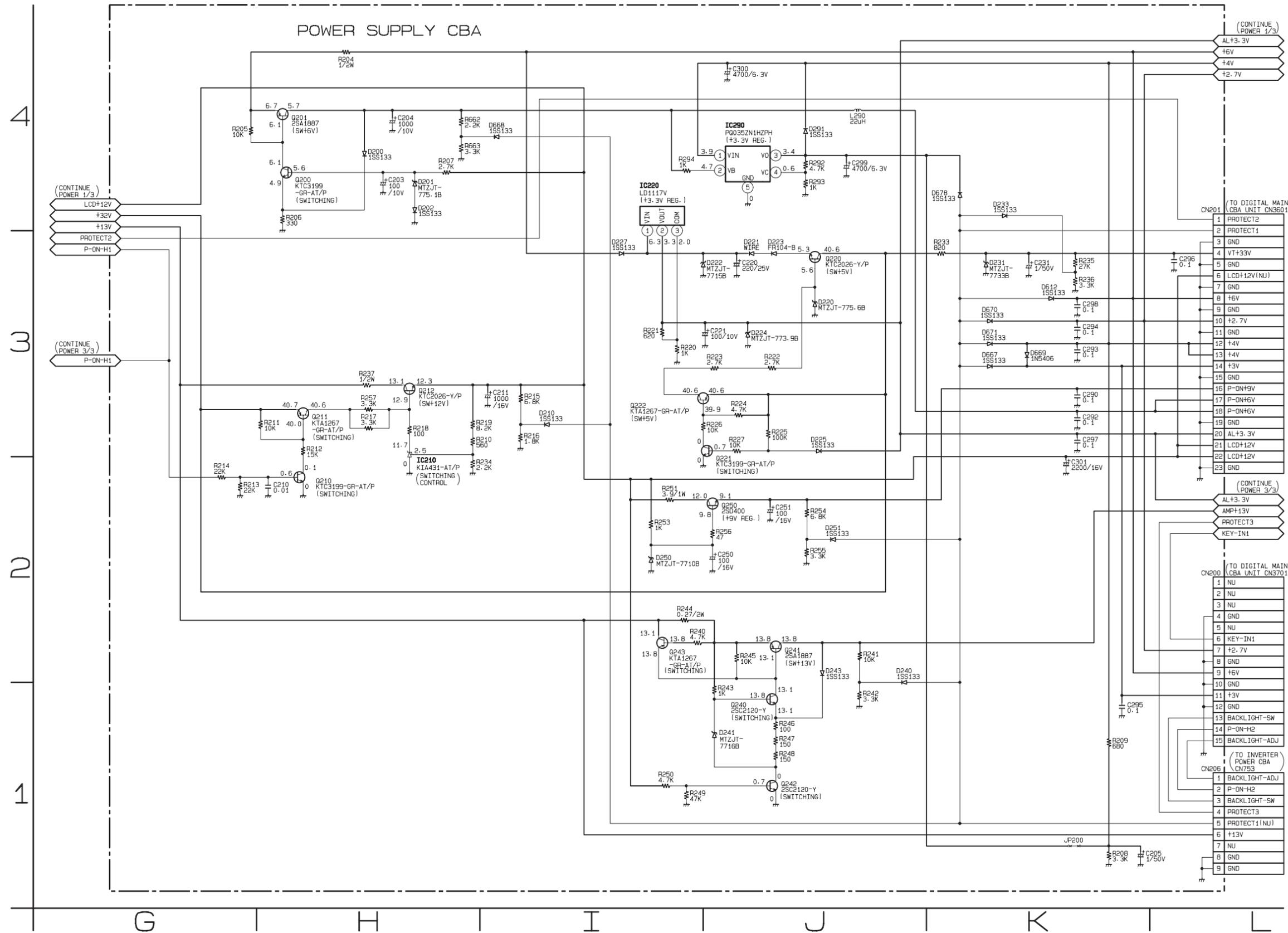
**CAUTION ! :** For continued protection against risk of fire, replace only with same type 8A, 250V fuse.  
**ATTENTION :** Utiliser un fusible de rechange de même type de 8A, 250V.

## NOTE:

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



# Power Supply 2/3 Schematic Diagram



## VOLTAGE CHART

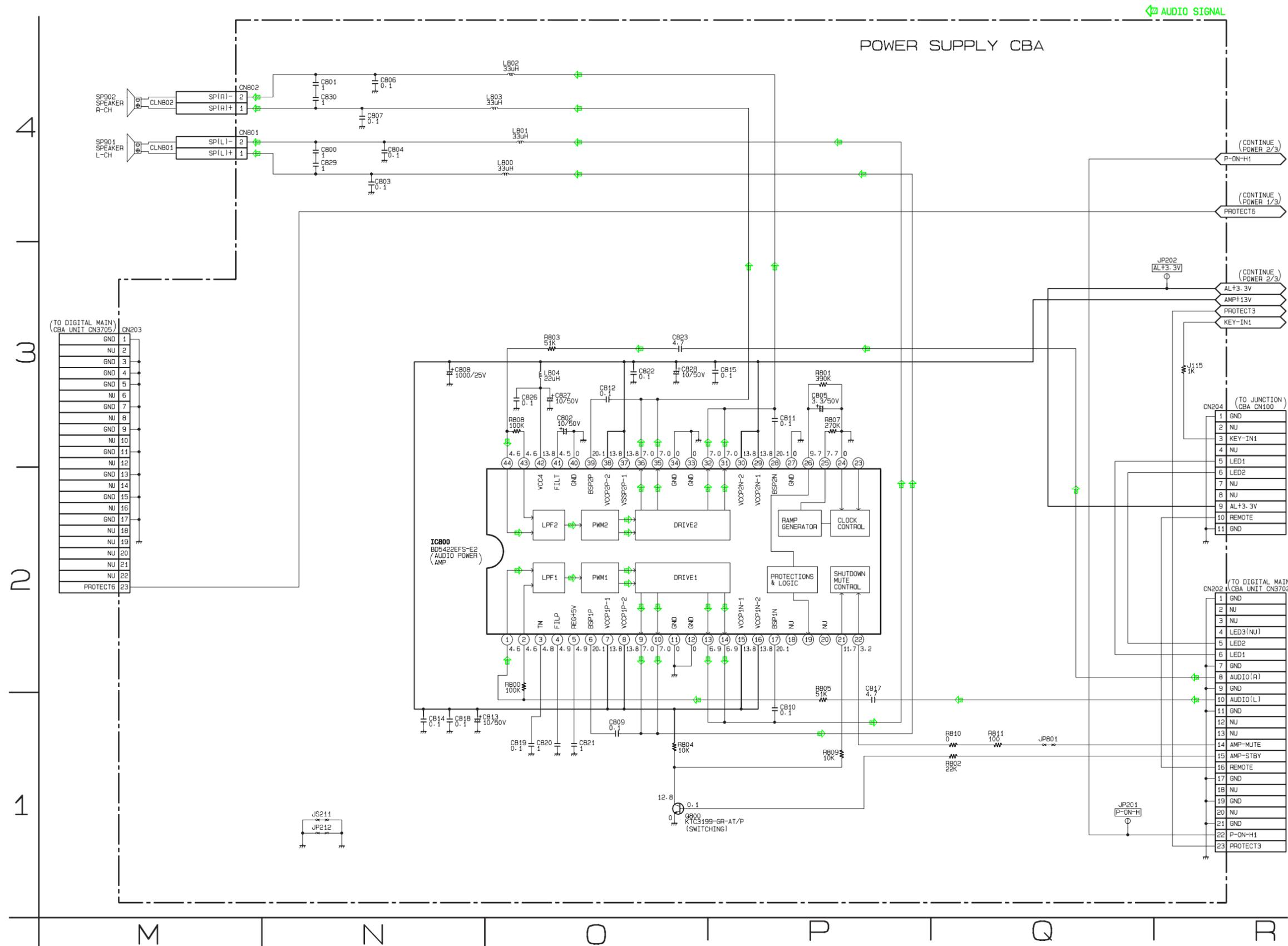
CN200

Pin No.	Voltage
1	0
2	0
3	0
4	0
5	3.3
6	3.3
7	2.6
8	0
9	7.0
10	0
11	3.2
12	0
13	3.5
14	3.2
15	3.6

CN201

Pin No.	Voltage
1	0.9
2	2.7
3	0
4	32.9
5	0
6	12.3
7	0
8	7.0
9	0
10	2.6
11	0
12	3.9
13	3.9
14	3.2
15	0
16	9.1
17	5.6
18	5.6
19	0
20	3.3
21	12.3
22	12.3
23	0

# Power Supply 3/3 Schematic Diagram



## VOLTAGE CHART

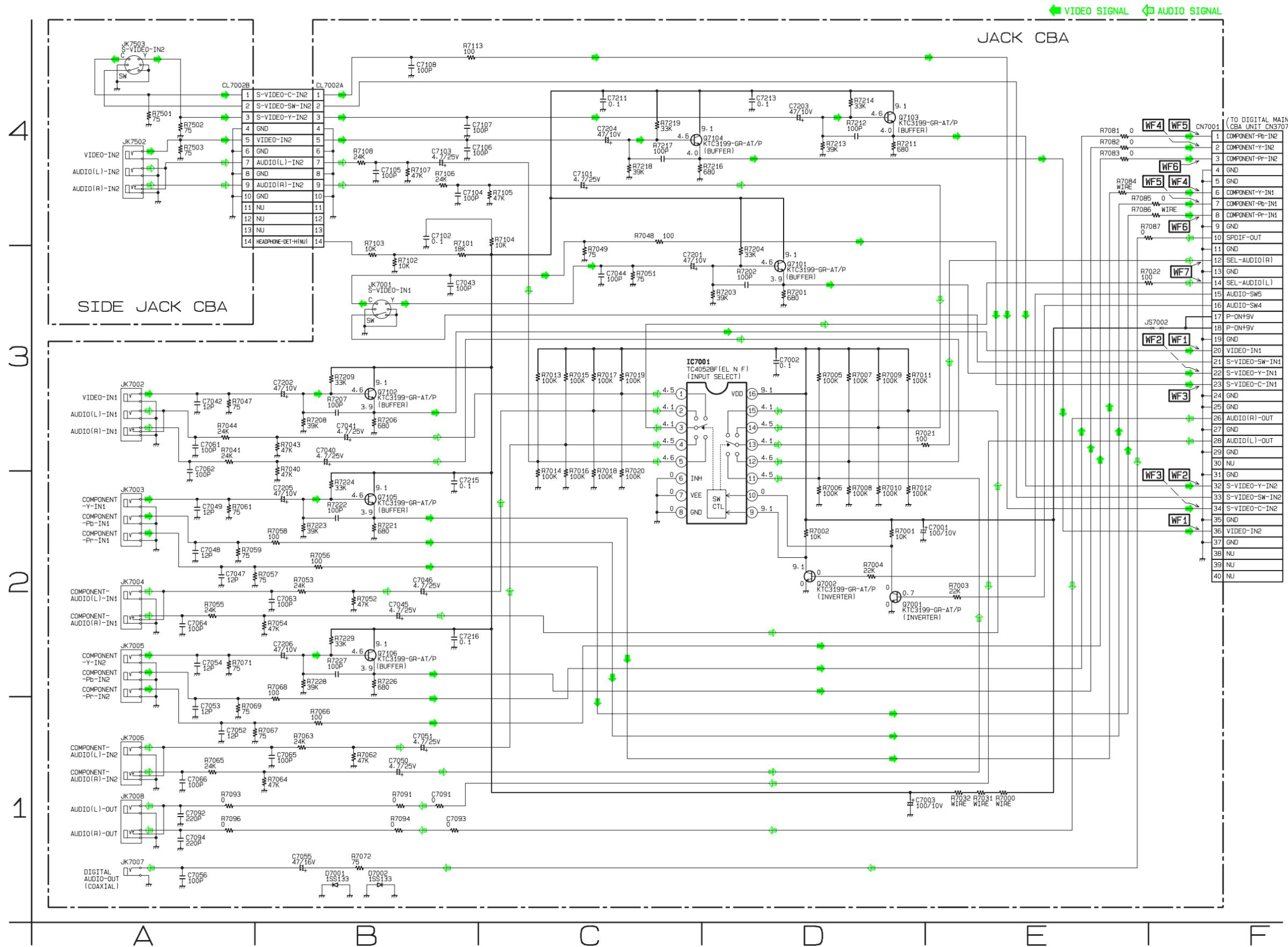
CN202

Pin No.	Voltage
1	0
2	0
3	0
4	3.3
5	0.9
6	3.3
7	0
8	---
9	0
10	---
11	0
12	3.3
13	5.1
14	3.6
15	0.1
16	3.3
17	0
18	3.6
19	0
20	3.6
21	0
22	3.1
23	2.7

CN203

Pin No.	Voltage
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
14	0
15	0
16	0
17	0
18	0
19	0
20	0
21	0
22	0
23	3.1

# Jack & Side Jack Schematic Diagram



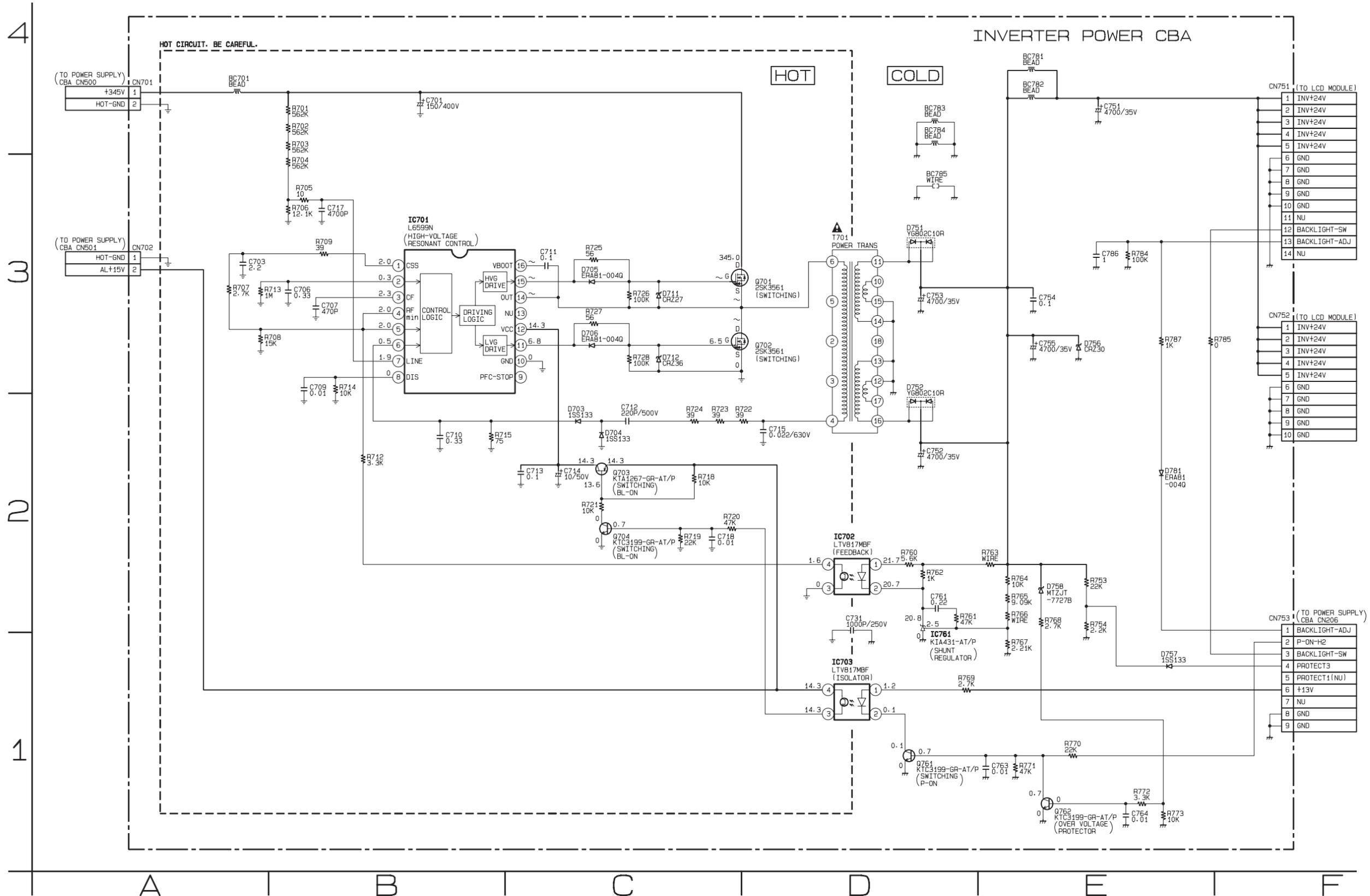
## VOLTAGE CHART

CN7001

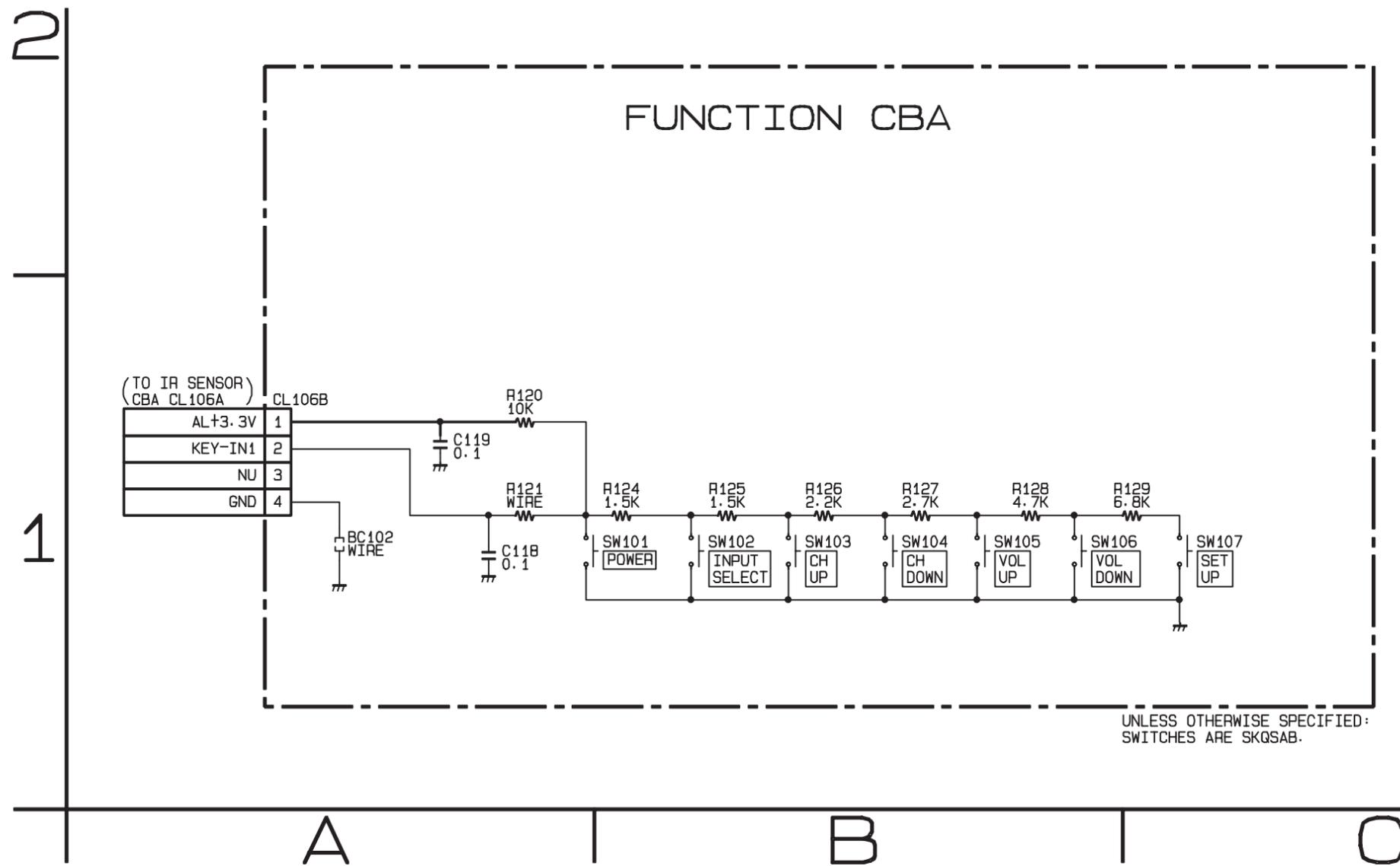
Pin No.	Voltage
1	0
2	3.9
3	0
4	0
5	0
6	4.0
7	0
8	0
9	0
10	1.5
11	0
12	0
13	4.1
14	0
15	4.1
16	0
17	3.3
18	0
19	9.1
20	0
21	3.9
22	2.8
23	4.0
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	0
32	4.0
33	2.8
34	0
35	0
36	4.0
37	0
38	0
39	0
40	3.8

# Inverter Power Schematic Diagram

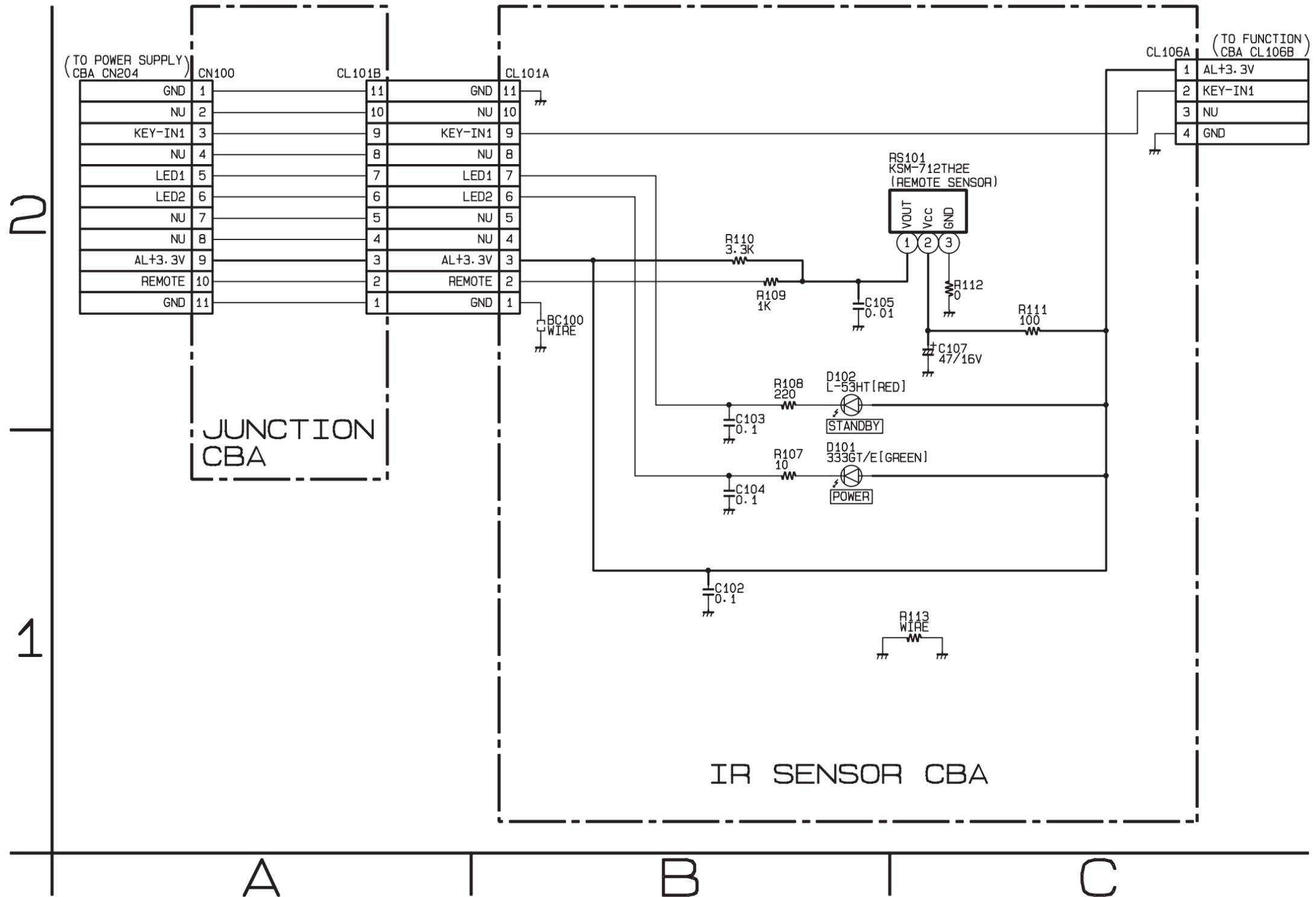
**NOTE:**  
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



# Function Schematic Diagram



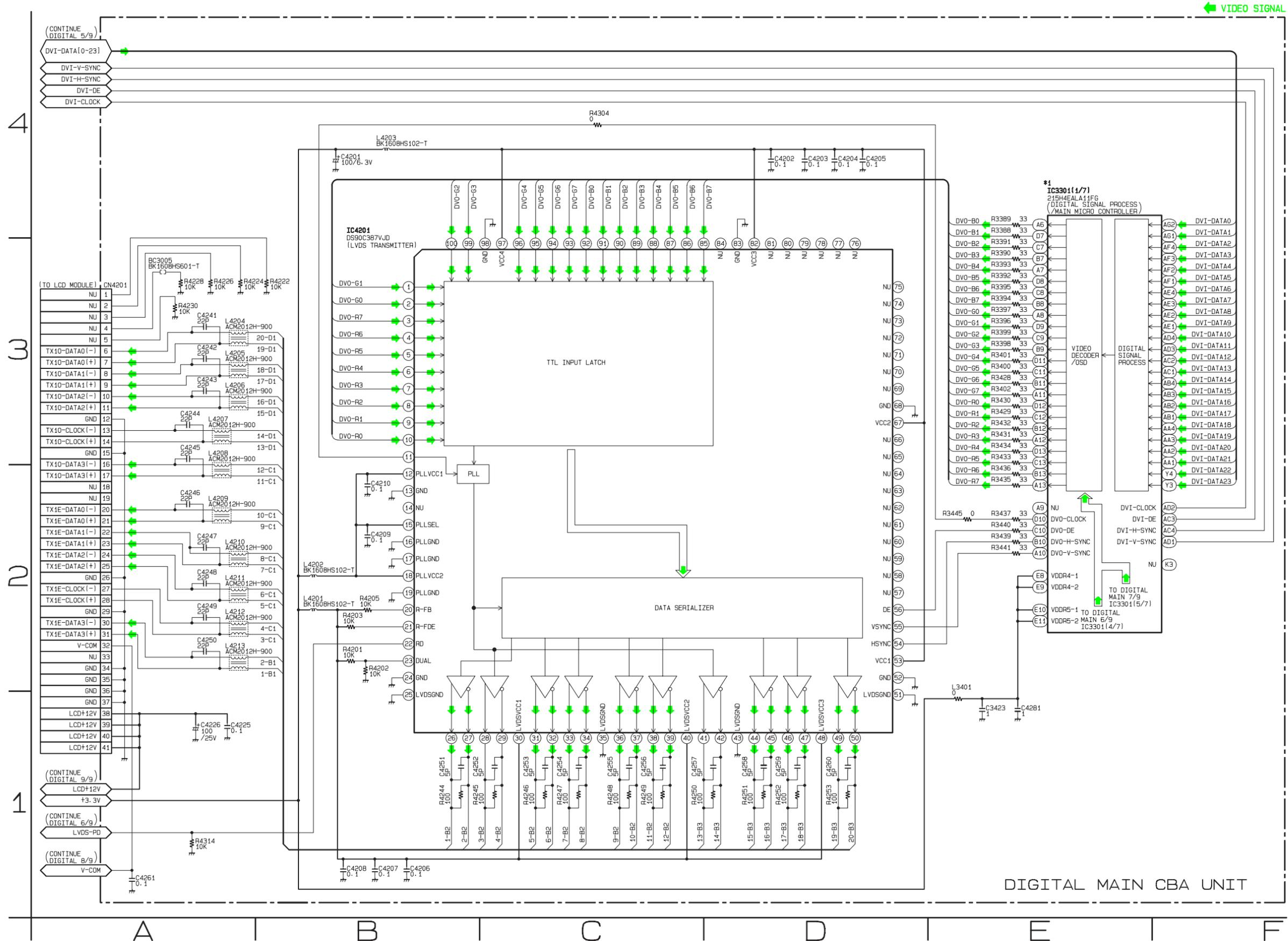
# IR Sensor & Junction Schematic Diagram



# Digital Main 1/9 Schematic Diagram

\*1 NOTE:

The order of pins shown in this diagram is different from that of actual IC3301.  
 IC3301 is divided into seven and shown as IC3301 (1/7) ~ IC3301 (7/7) in this Digital Main Schematic Diagram Section.

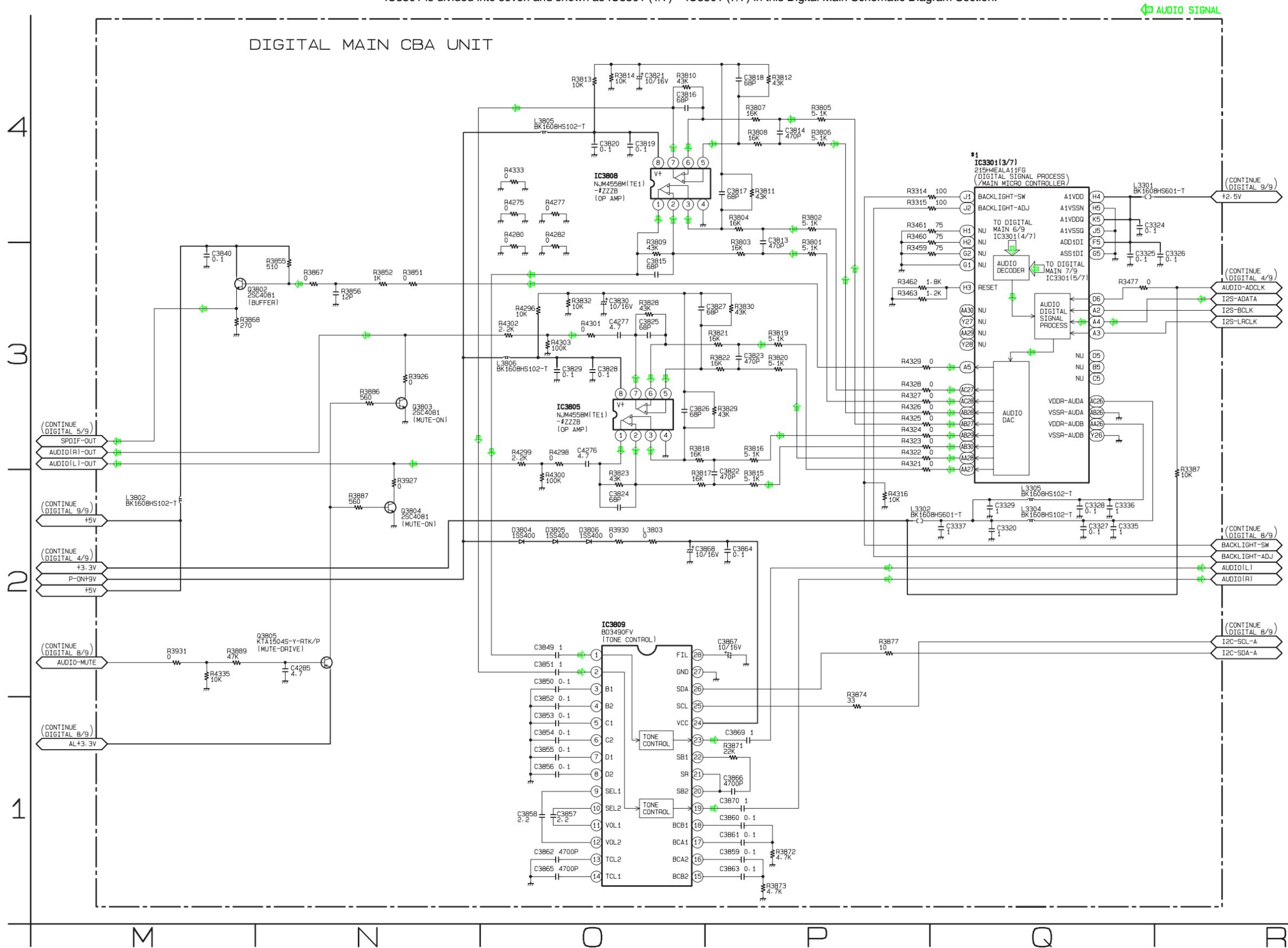




# Digital Main 3/9 Schematic Diagram

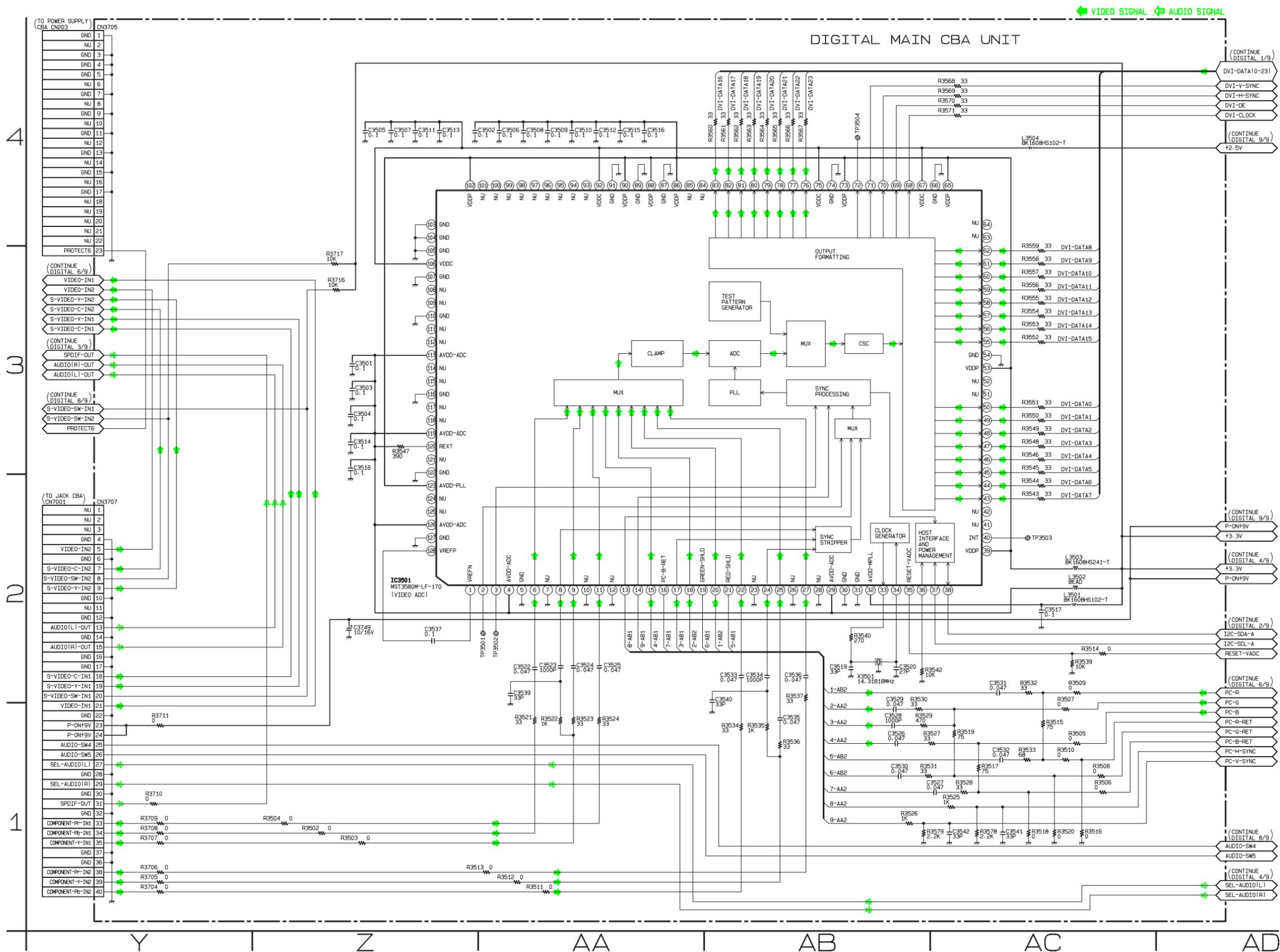
\*1 NOTE:

The order of pins shown in this diagram is different from that of actual IC3301.  
 IC3301 is divided into seven and shown as IC3301 (1/7) ~ IC3301 (7/7) in this Digital Main Schematic Diagram Section.





# Digital Main 5/9 Schematic Diagram

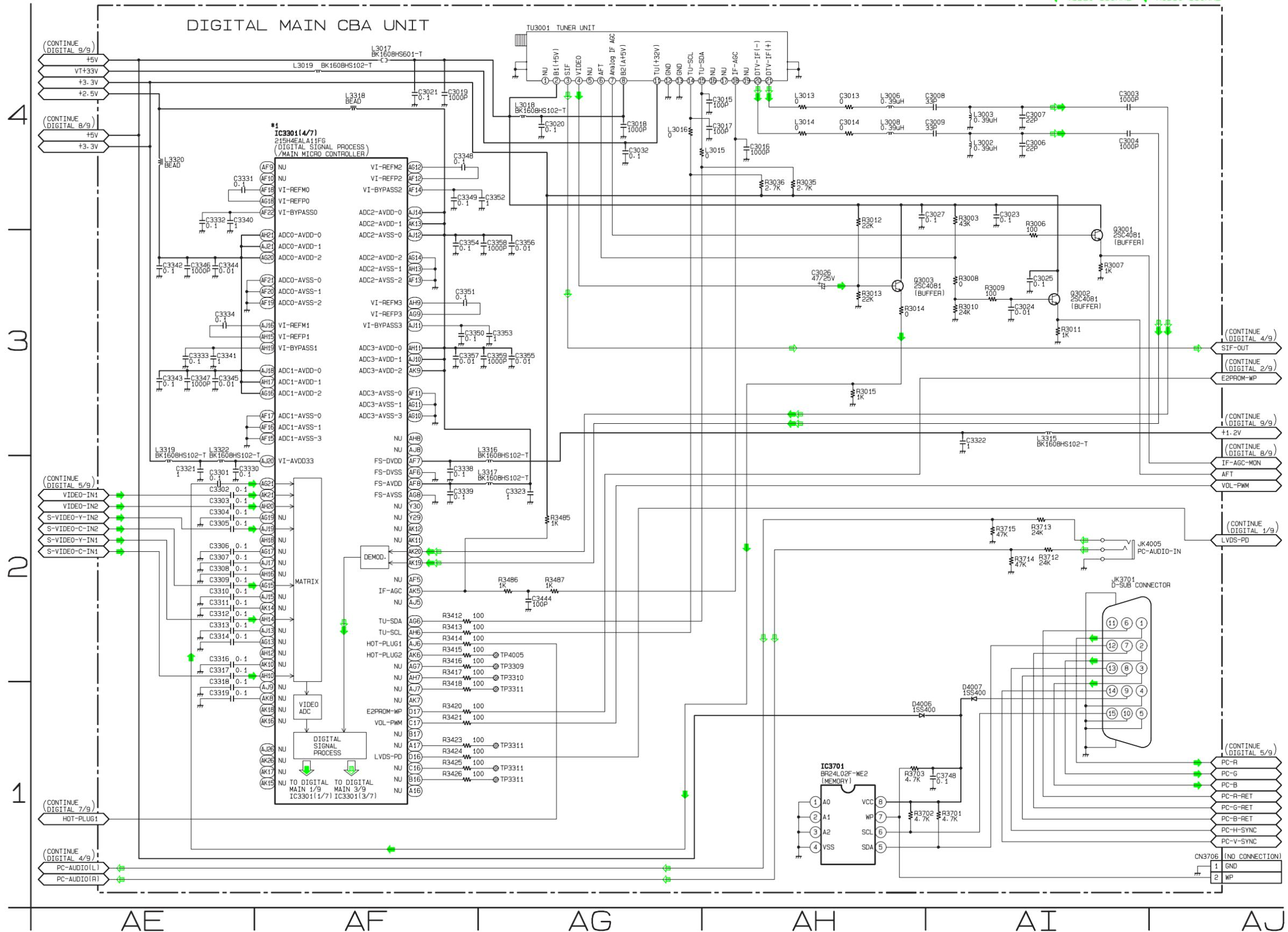


# Digital Main 6/9 Schematic Diagram

\*1 NOTE:

The order of pins shown in this diagram is different from that of actual IC3301.  
 IC3301 is divided into seven and shown as IC3301 (1/7) ~ IC3301 (7/7) in this Digital Main Schematic Diagram Section.

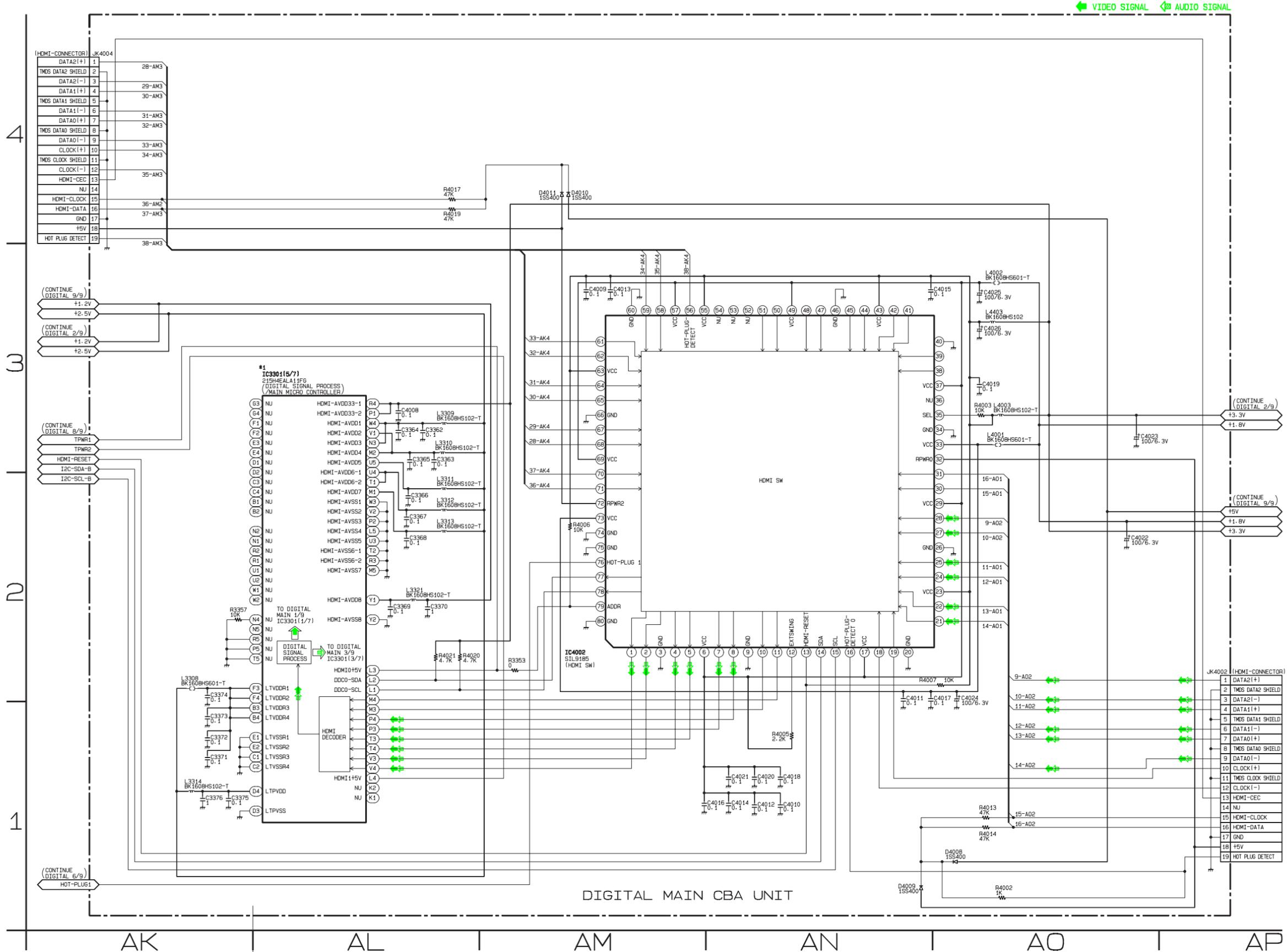
← VIDEO SIGNAL ← AUDIO SIGNAL



# Digital Main 7/9 Schematic Diagram

\*1 NOTE:

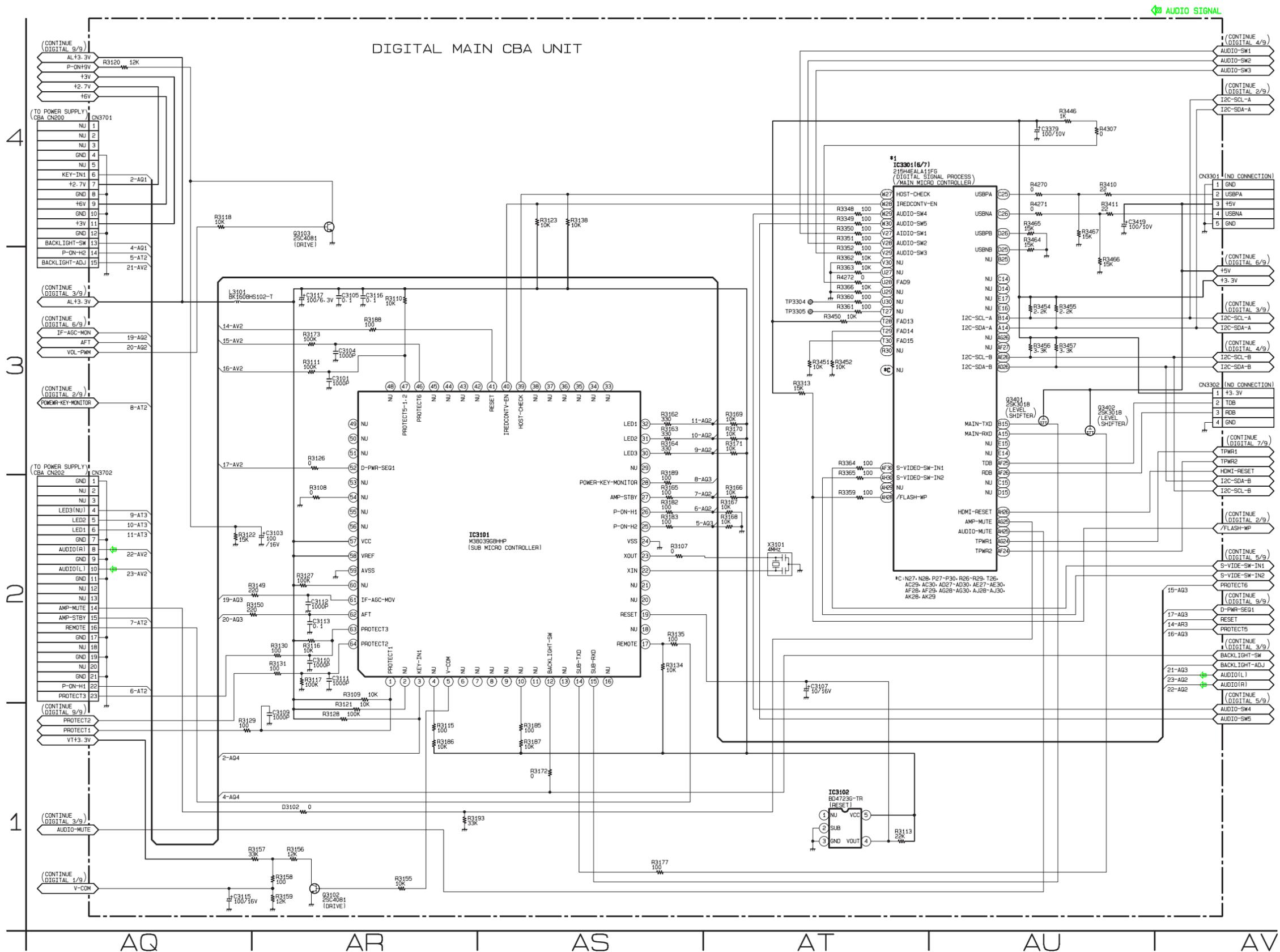
The order of pins shown in this diagram is different from that of actual IC3301.  
 IC3301 is divided into seven and shown as IC3301 (1/7) ~ IC3301 (7/7) in this Digital Main Schematic Diagram Section.



# Digital Main 8/9 Schematic Diagram

**\*1 NOTE:**

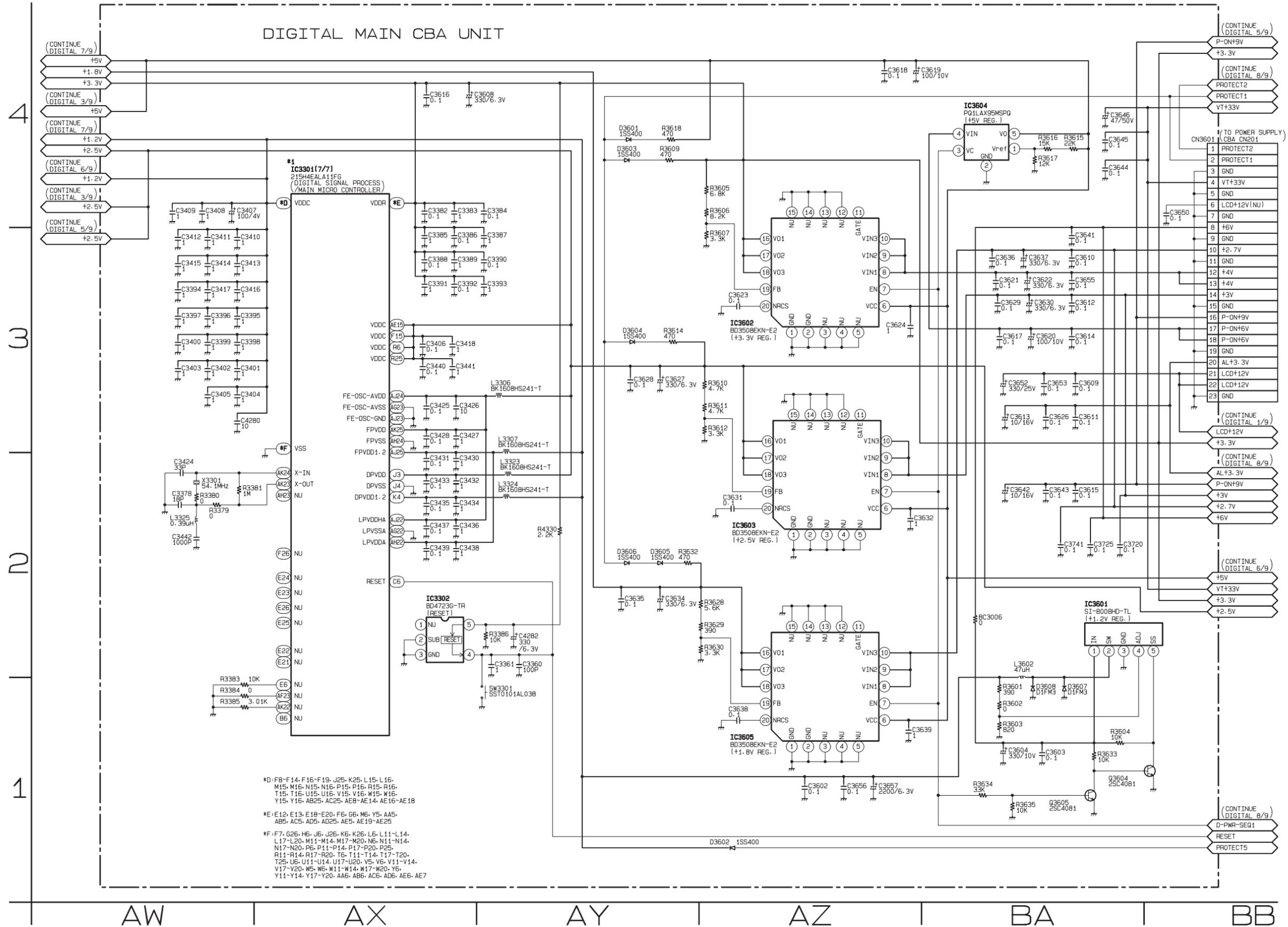
The order of pins shown in this diagram is different from that of actual IC3301.  
IC3301 is divided into seven and shown as IC3301 (1/7) ~ IC3301 (7/7) in this Digital Main Schematic Diagram Section.



# Digital Main 9/9 Schematic Diagram

\*1 NOTE:

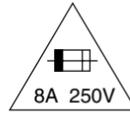
The order of pins shown in this diagram is different from that of actual IC3301.  
IC3301 is divided into seven and shown as IC3301 (1/7) ~ IC3301 (7/7) in this Digital Main Schematic Diagram Section.



# Power Supply CBA Top View

## CAUTION !

Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.  
 If Main Fuse (F500) 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.

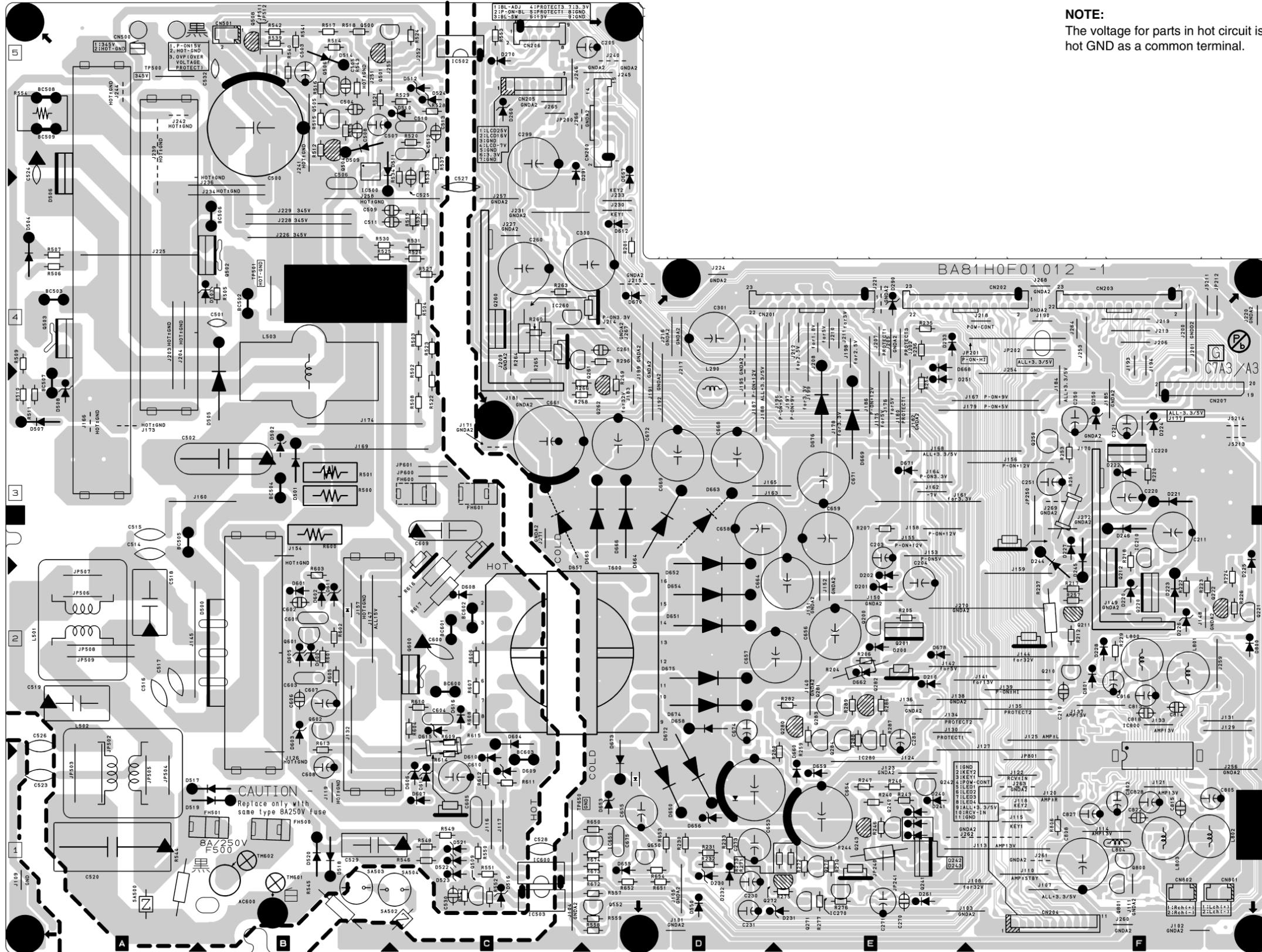


**CAUTION ! :** For continued protection against risk of fire, replace only with same type 8A, 250V fuse.  
**ATTENTION :** Utiliser un fusible de rechange de même type de 8A, 250V.

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

## NOTE:

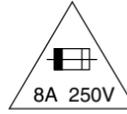
The voltage for parts in hot circuit is measured using hot GND as a common terminal.



# Power Supply CBA Bottom View

## CAUTION !

Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.  
If Main Fuse (F500) 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.

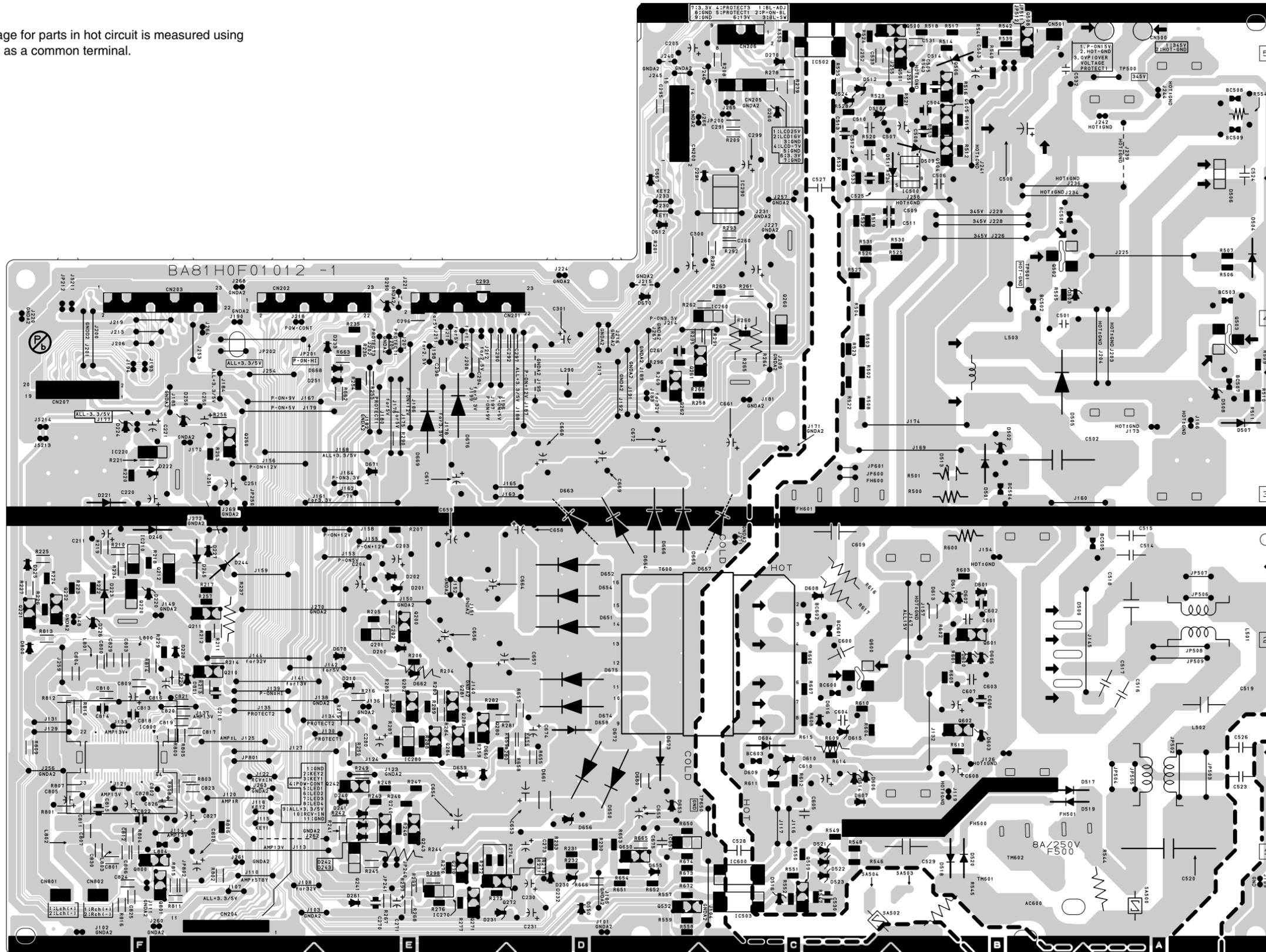


**CAUTION ! :** For continued protection against risk of fire, replace only with same type 8A, 250V fuse.  
**ATTENTION :** Utiliser un fusible de rechange de même type de 8A, 250V.

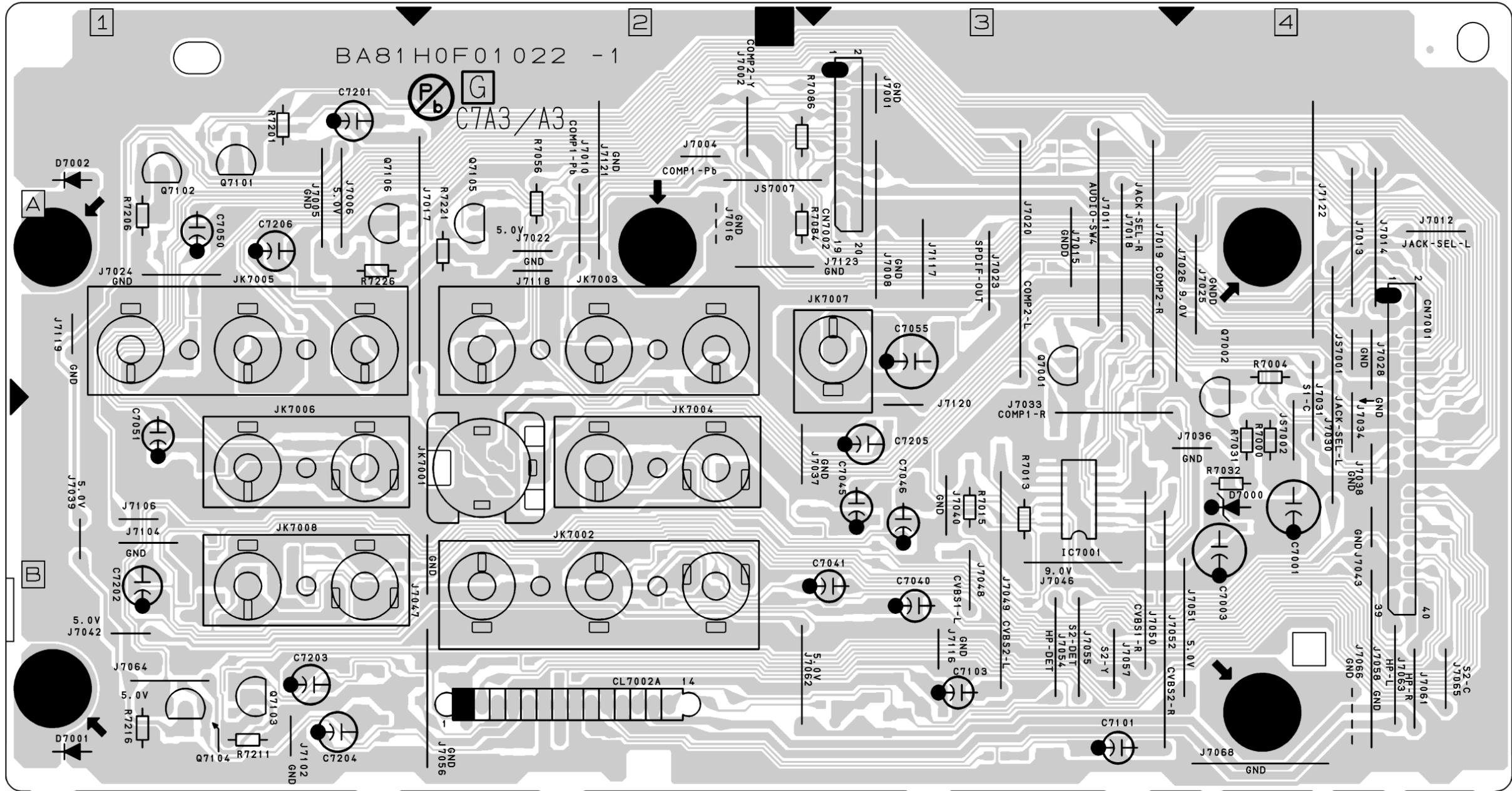
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly, when troubleshooting this type power supply circuit, a variable isolation transformer is required.

## NOTE:

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



# Jack CBA Top View

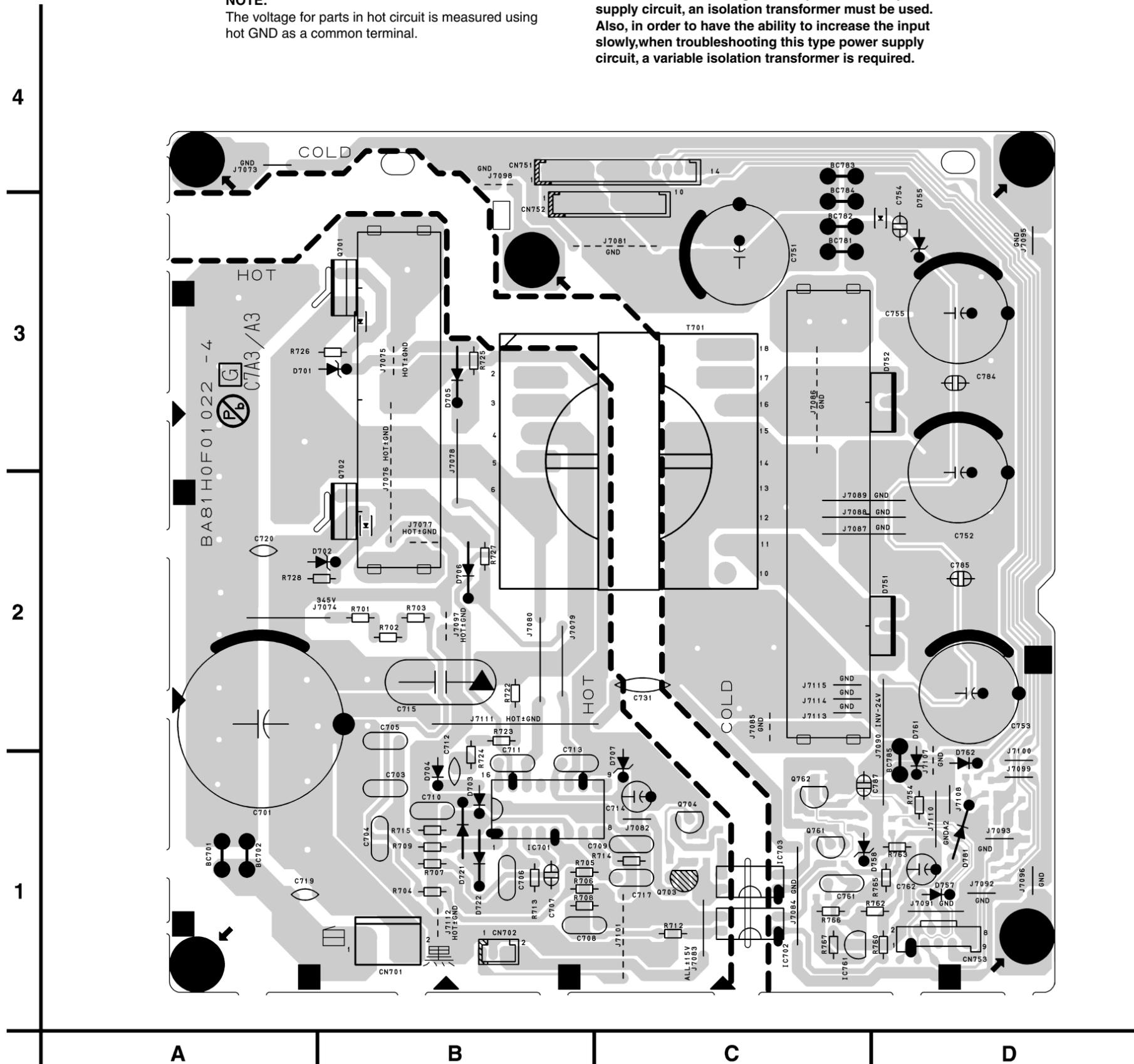




# Inverter Power CBA Top View

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

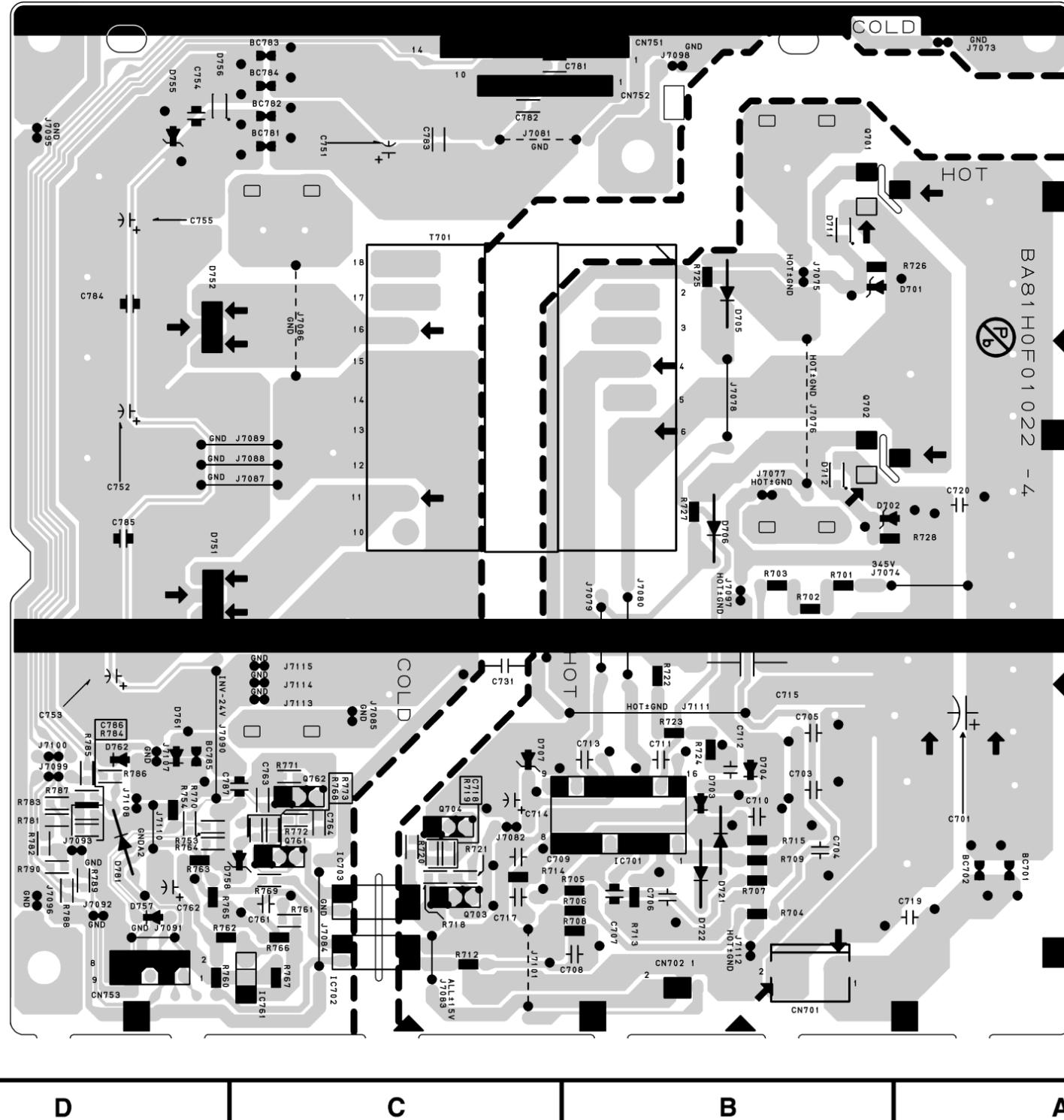
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly, when troubleshooting this type power supply circuit, a variable isolation transformer is required.



# Inverter Power CBA Bottom View

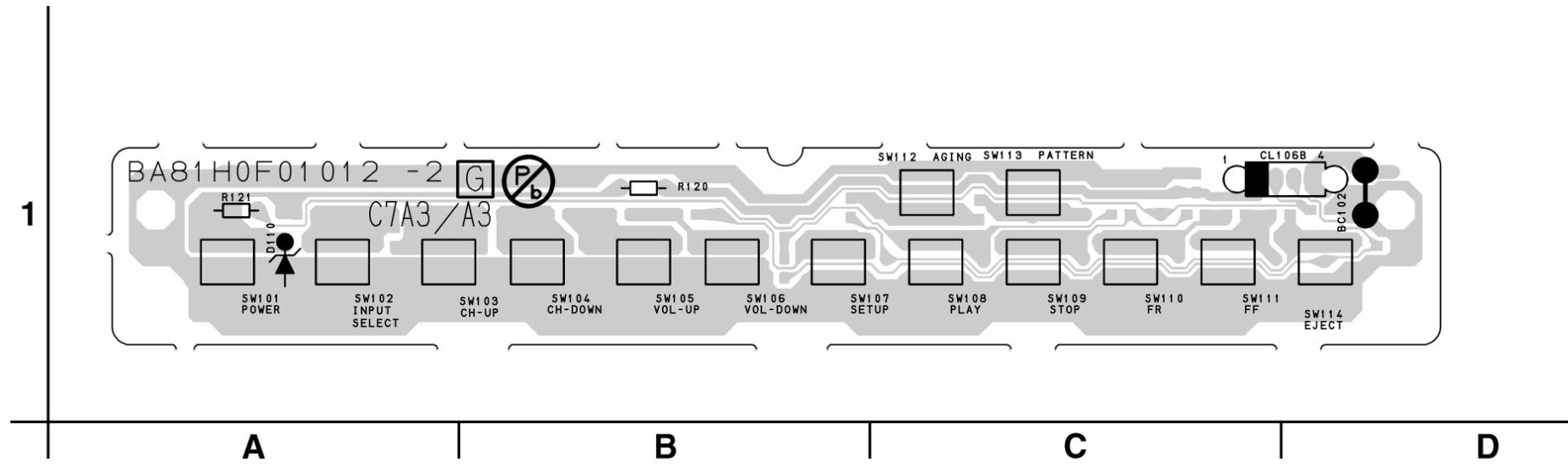
**NOTE:**  
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

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

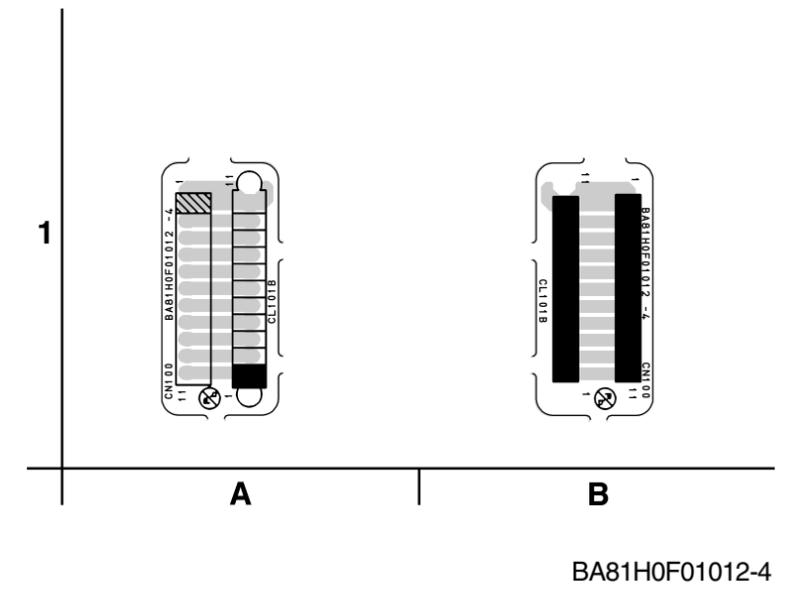


4  
3  
2  
1

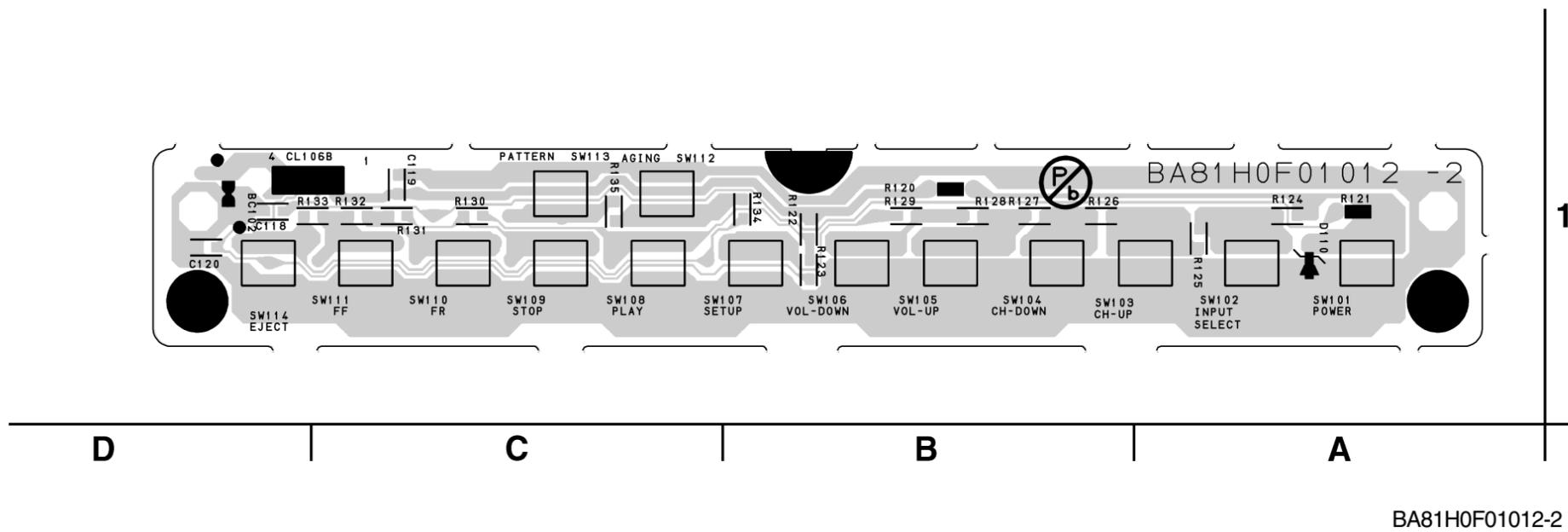
### Function CBA Top View



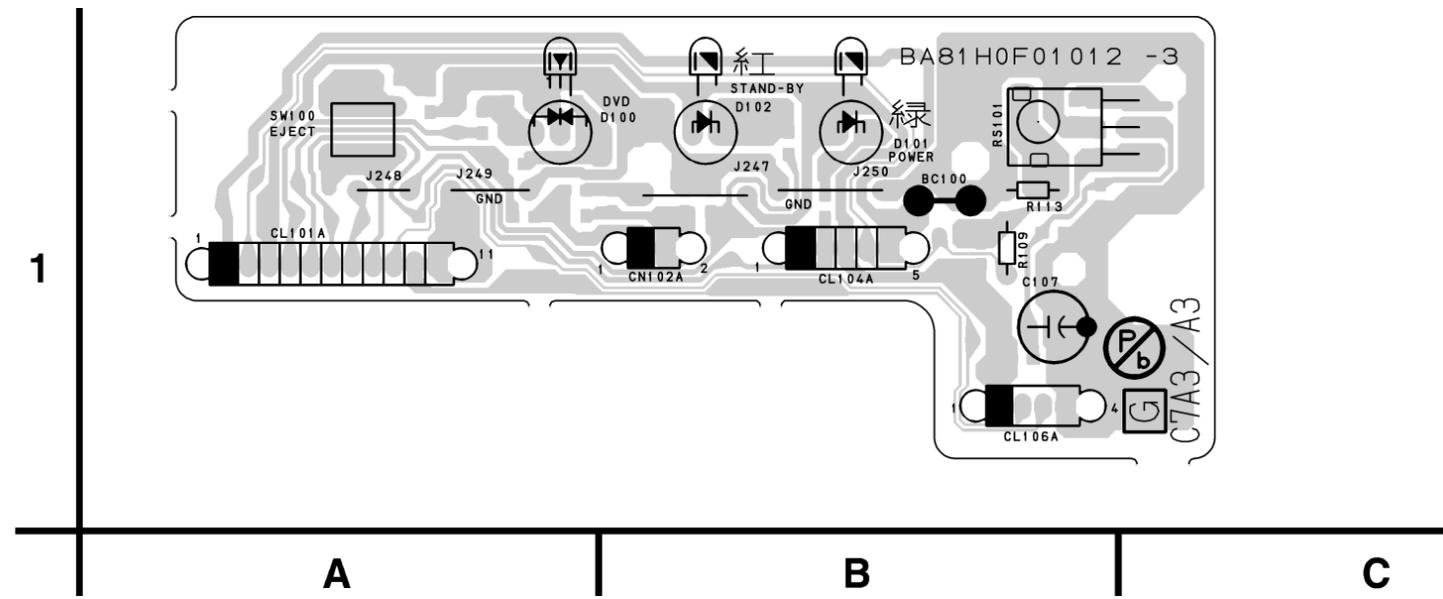
### Junction CBA Top & Bottom View



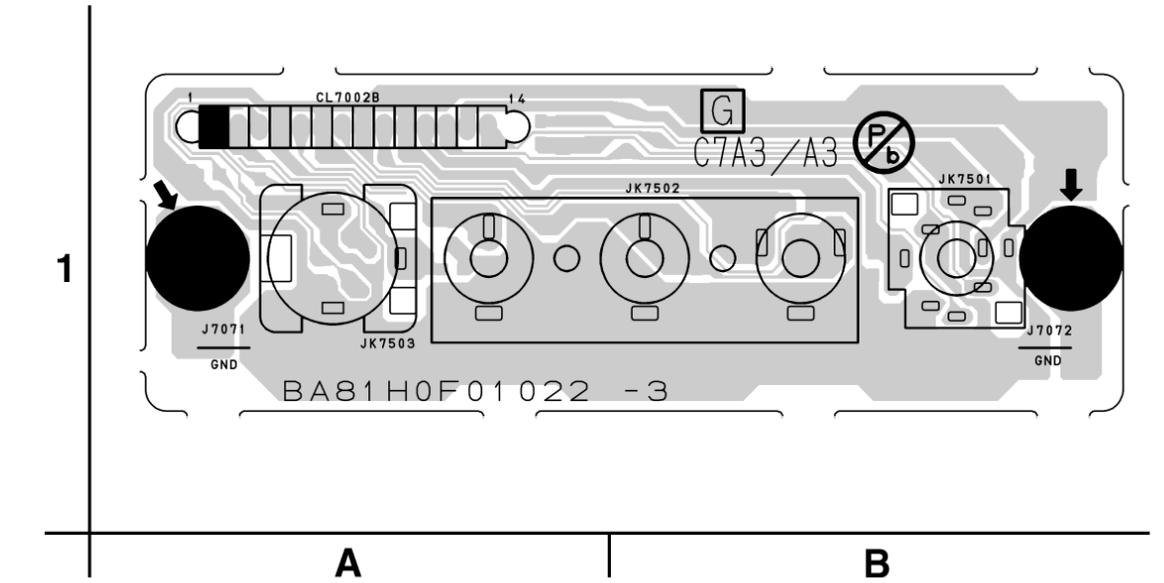
### Function CBA Bottom View



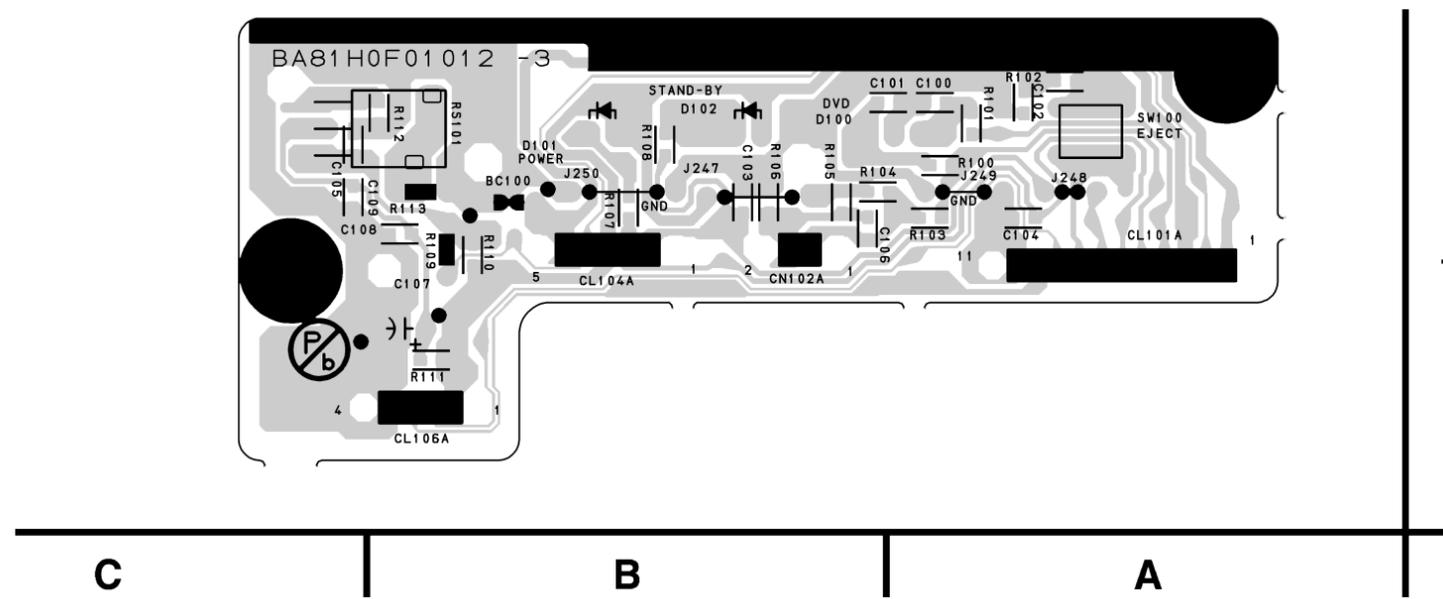
IR Sensor CBA Top View



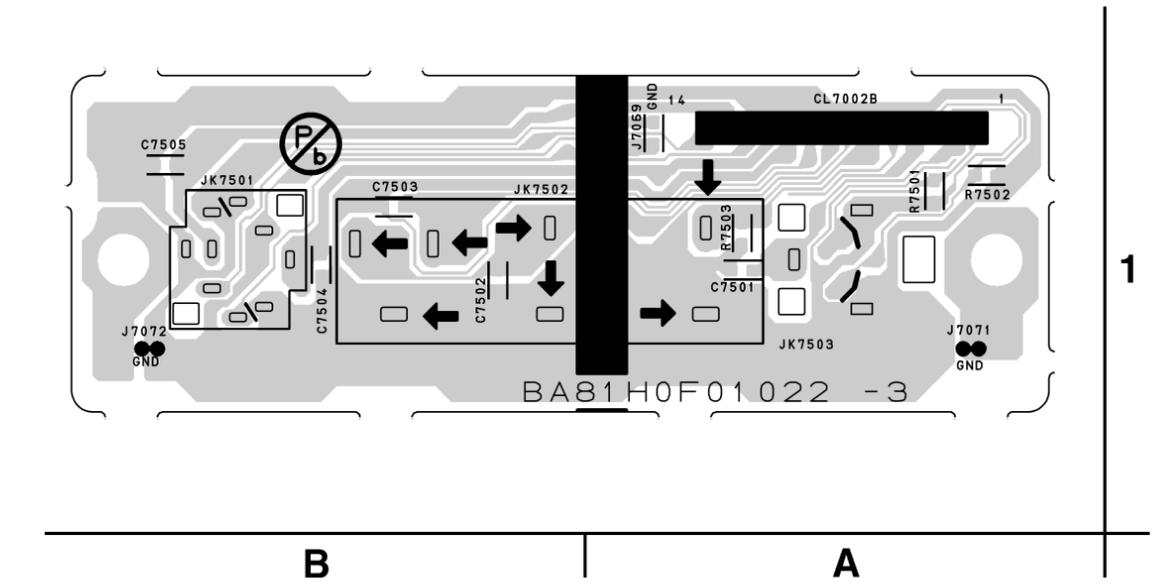
Side Jack CBA Top View



IR Sensor CBA Bottom View



Side Jack CBA Bottom View



BA81H0F01022-3

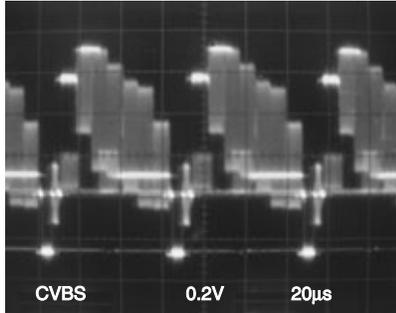
BA81H0F01012-3

# WAVEFORMS

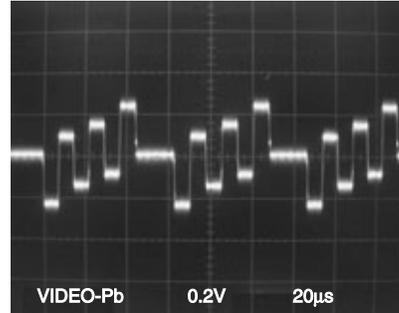
**WF1 ~ WF7 =** Waveforms to be observed at  
Waveform check points.  
(Shown in Schematic Diagram.)

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

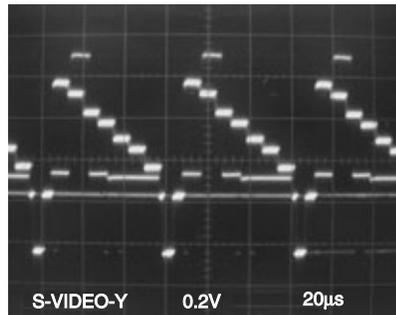
**WF1** Pin 20 of CN7001 (CVBS1)  
Pin 36 of CN7001 (CVBS2)



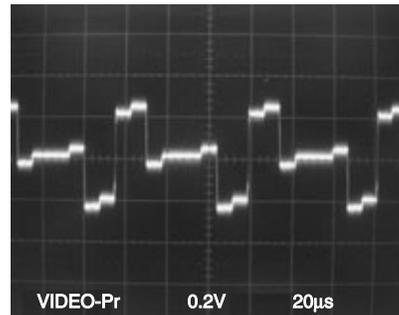
**WF5** Pin 7 of CN7001 (COMP1-Pb)  
Pin 1 of CN7001 (COMP2-Pb)



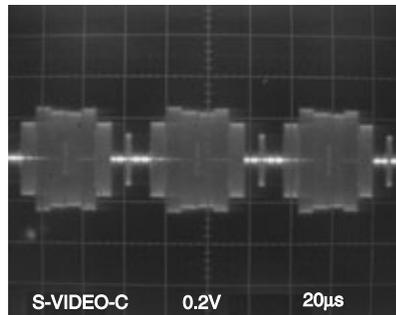
**WF2** Pin 22 of CN7001 (S1-Y)  
Pin 32 of CN7001 (S2-Y)



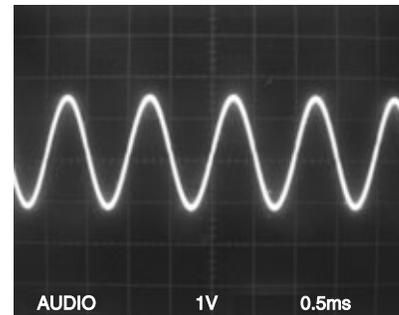
**WF6** Pin 8 of CN7001 (COMP1-Pr)  
Pin 3 of CN7001 (COMP2-Pr)



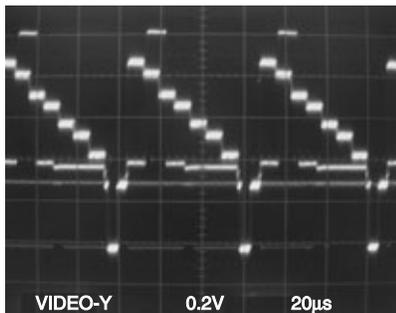
**WF3** Pin 23 of CN7001 (S1-C)  
Pin 34 of CN7001 (S2-C)



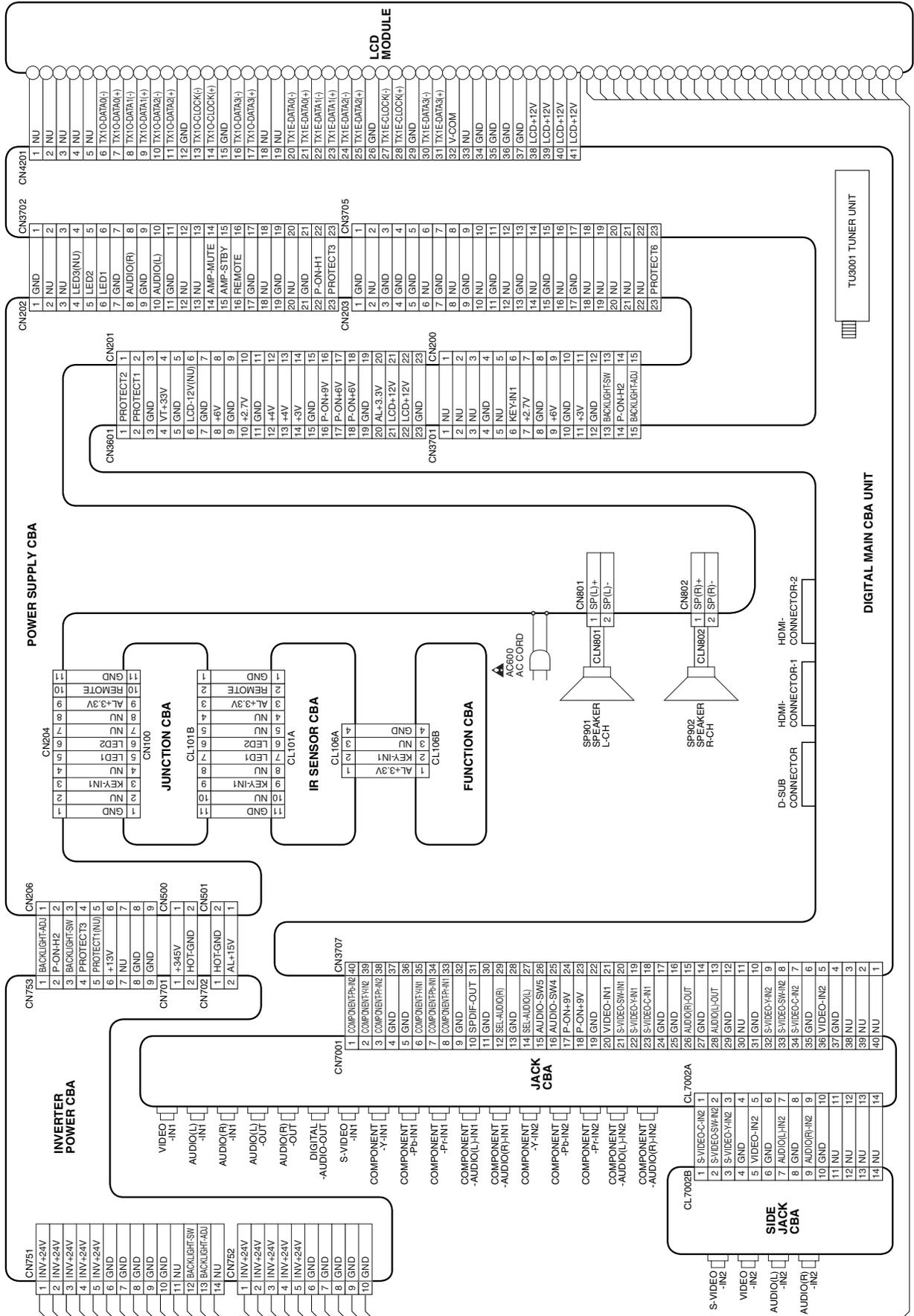
**WF7** Pin 14 of CN7001 (JACK-SEL-L)  
Pin 12 of CN7001 (JACK-SEL-R)



**WF4** Pin 6 of CN7001 (COMP1-Y)  
Pin 2 of CN7001 (COMP2-Y)

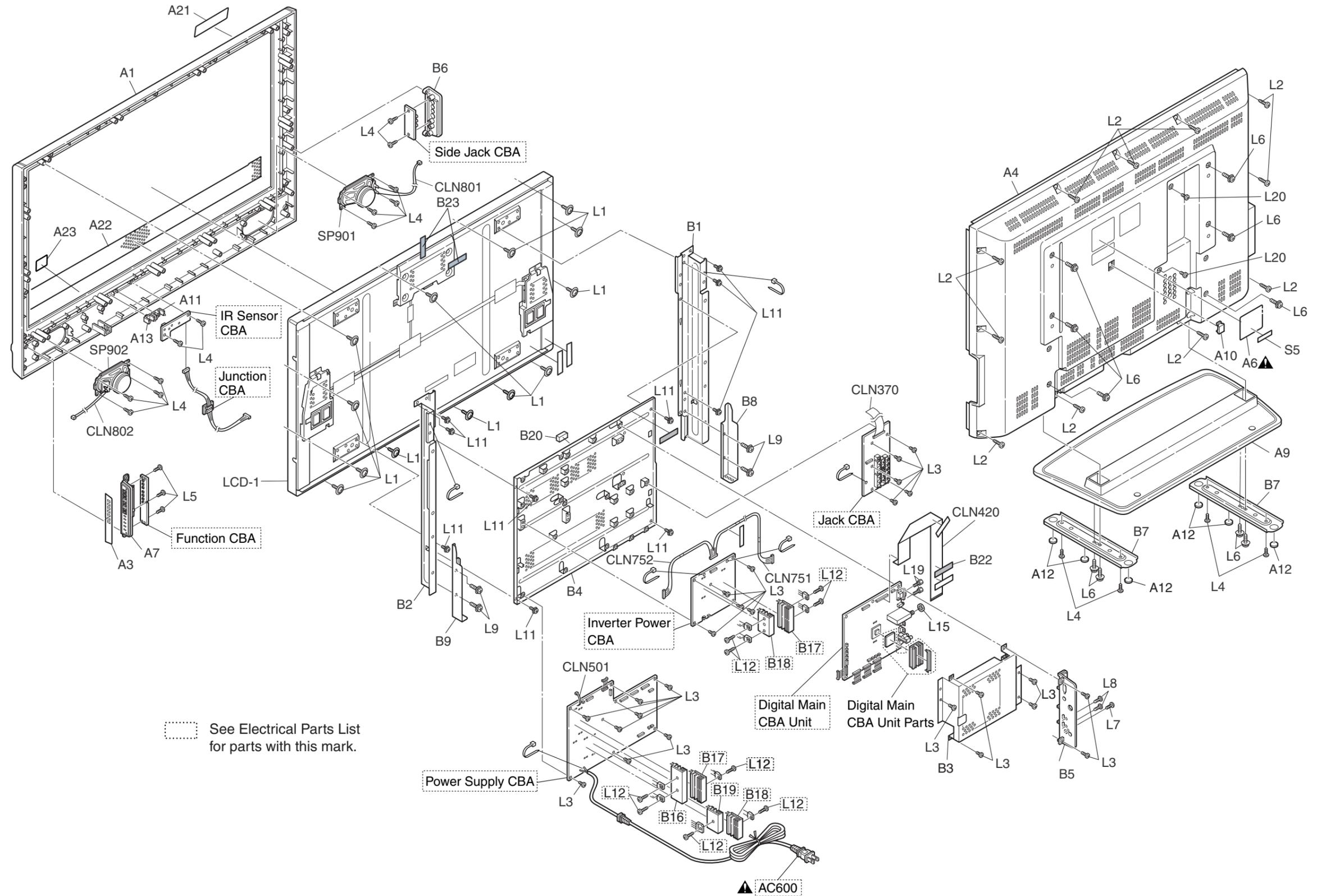


# WIRING DIAGRAM

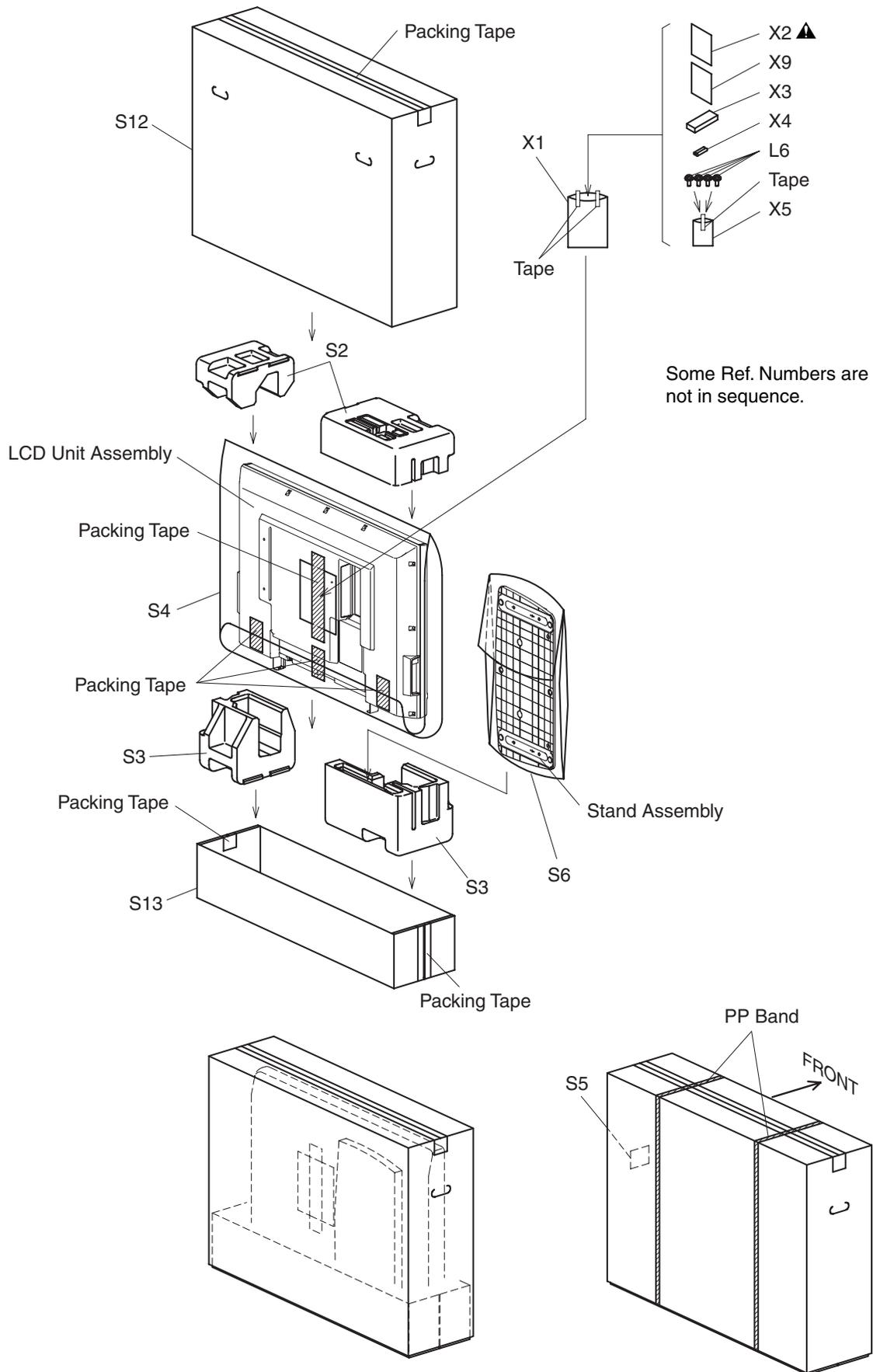


# EXPLODED VIEWS

## Cabinet



# Packing



# MECHANICAL PARTS LIST

**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 A81H1UH	1EM021813
A3	CONTROL PLATE A81H0UH	1EM322723
A4	REAR CABINET A81H1UH	1EM021814
A6 	RATING LABEL A81H1UH	-----
A7	FUNCTION KNOB A81H0UH	1EM121947
A9	STAND COVER A81H0UH	1EM021739
A10	REAR COVER A7260JH	1EM322484
A11	LED LENS A7260JH	1EM221523
A12	STAND RUBBER FOOT L5001CB	1EM423855
A13	SENSOR LENS A7260JH	1EM221522
A21	POP LABEL A81H1UH	-----
A22	PUNCHING SHEET A81H0UH	1EM021740
A23	ENERGY STAR LABEL A81H0UH	-----
B1	CHASSIS BRACKET(L) A81H0UH	1EM121905
B2	CHASSIS BRACKET(R) A81H0UH	1EM121906
B3	SHIELD BOX A81H0UH	1EM122153
B4	PCB HOLDER A81H0UH	1EM121904
B5	JACK HOLDER(D) A81H1UH	1EM221636
B6	JACK HOLDER(S) A81H0UH	1EM221578
B7	STAND BASE A81H0UH	1EM221581
B8	STAND SHAFT(L) A81H0UH	1EM221579
B9	STAND SHAFT(R) A81H0UH	1EM221580
B20	GASKET A71F0UH	1EM424393
B22	GRAND TAPE A81H0UH	1EM425137
B23	GRAND TAPE (TR-19) A71F0UH	1EM424512
CLN370	WIRE ASSEMBLY 101 40PIN UL2896	WX1A81H0-101
CLN420	WIRE ASSEMBLY 201 36PIN AWG32	WX1A81H0-201
CLN501	WIRE ASSEMBLY 302 2PIN AWG24	WX1A81H0-302
CLN751	WIRE ASSEMBLY 304 14PIN AWG24	WX1A81H0-304
CLN752	WIRE ASSEMBLY 305 10PIN AWG24	WX1A81H0-305
CLN801	WIRE ASSEMBLY 306 2PIN AWG22	WX1A81H0-306
CLN802	WIRE ASSEMBLY 307 2PIN AWG22	WX1A81H0-307
L1	ASSEMBLY SCREW A81H0UH	1EM424524
L2	SCREW P-TIGHT M4X14 BIND HEAD+BLK	GBHP4140
L3	SCREW S-TIGHT M3X8 BIND HEAD+	GBJS3080
L4	SCREW P-TIGHT M3X10 BIND HEAD+	GBJP3100
L5	SCREW P-TIGHT M3*10 WASHERHEAD+	GCJP3100
L6	DOUBLE SEMS SCREW M4X10 + BLK	FPH34100
L7	SCREW B-TIGHT 3X10 BIND HEAD+ BLK	GBHB3100
L8	SCREW S-TIGHT M3X8 BIND HEAD+	GBHS3080
L9	DOUBLE SEMS SCREW M5X10 BLACK M5X10	FPH35100
L11	SCREW SEMS M4X8 PAN HEAD +	FPJ34080
L15	NUT 3/8-32UNEF	0EM401451A
L19	HEX SCREW #4-40 7MM	1EM422042
L20	SCREW S-TIGHT 3X8 WASHER HEAD+BLAC	GCHS3080
LCD-1	LCD 42V TFT LC420WU5-SLA2	UDPULCDGS003
SP901	SPEAKER MAGNETIC YDP613-1FN	DSD0811EFU01
SP902	SPEAKER MAGNETIC YDP613-1FN	DSD0811EFU01

Ref. No.	Description	Part No.
<b>PACKING</b>		
S2	STYROFORM TOP A81H0UH	1EM021800
S3	STYROFORM BOTTOM A81H0UH	1EM021801
S4	SET BAG A81H0UH	1EM322766
S5	SERIAL NO. LABEL L9750UA	-----
S6	STAND BAG A81H0UH	1EM424649
S12	CARTON(U) A81H1UH	1EM322741
S13	CARTON(L) A81H0UH	1EM322725
<b>ACCESSORIES</b>		
X1	BAG POLYETHYLENE 235X365XT0.03	0EM408420A
X2 	OWNERS MANUAL A81H1UH	1EMN22312
X3	REMOTE CONTROL NF020UD NF020UD	NF020UD
X4	DRY BATTERY(SUNRISE) R6SSE/2S	XB0M451MS002
X5	SCREW BAG A81N0UH	1EM424596
X9	QUICK SETUP GUIDE A81H1UH	1EMN22313

# ELECTRICAL PARTS LIST

**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%

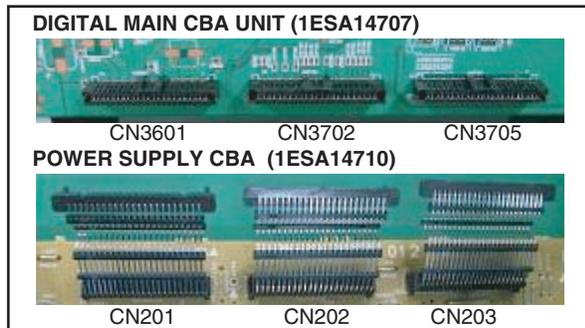
**Compatibility between the DIGITAL MAIN CBA UNIT and the POWER SUPPLY CBA**

For both DIGITAL MAIN CBA UNIT and POWER SUPPLY CBA, two different types of connectors, either Type A(Serial Number below 'J37713000') or Type B(Serial Number over 'J37713001'), are being used for this model.

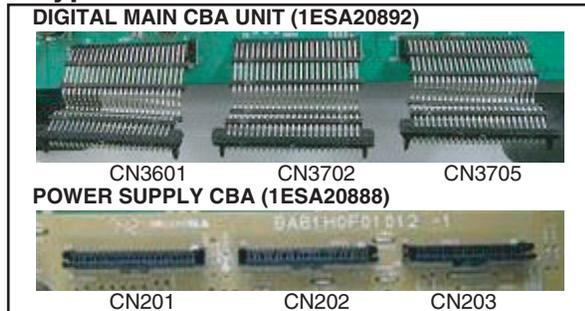
Consequently, there are pairing compatibilities between Type A and Type B when repairing these units. Refer to the correlation table below and make sure to confirm the serial number of the unit.

TYPE	DIGITAL MAIN CBA UNIT	POWER SUPPLY CBA	Part No. (CN201, CN202, CN203)	SERIAL NUMBER
A	1ESA14707	1ESA14710	J3TWA23TG001	below J37713000
B	1ESA20892	1ESA20888	JCTWA23TG004	over J37713001

**Type A**



**Type B**



**DIGITAL MAIN CBA UNIT**

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	1ESA14707 or 1ESA20892

**MMA CBA**

Ref. No.	Description	Part No.
	MMA CBA Consists of the following:	1ESA14710 or 1ESA20888
	POWER SUPPLY CBA	-----
	FUNCTION CBA	-----
	IR SENSOR CBA	-----
	JUNCTION CBA	-----

**POWER SUPPLY CBA**

Ref. No.	Description	Part No.
	POWER SUPPLY CBA Consists of the following:	-----
<b>CAPACITORS</b>		
C203	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C204	ELECTROLYTIC CAP. 1000µF/10V M	CE1AMASDL102
C205	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL1R0
C210	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C211	ELECTROLYTIC CAP. 1000µF/16V M	CE1CMASDL102
C220	ELECTROLYTIC CAP. 220µF/25V M	CE1EMASDL221
C221	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASDL101
C231	ELECTROLYTIC CAP. 1µF/50V M	CE1JMASDL1R0
C250	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101
C251	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101
C290	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C292	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C293	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C294	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C295	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C296	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C297	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C298	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C299	CAP ELE STD-85 4700µF 6.3V SL	CE0KMZNDL472
C300	CAP ELE STD-85 4700µF 6.3V SL	CE0KMZNDL472
C301	ELECTROLYTIC CAP. 2200µF/16V M	CE1CMZNDL222
C500	ELECTROLYTIC CAPACITOR 100µF/400V	CA2H101NC230
C501▲	CERAMIC CAP. B K 2200pF/500V	CCD2JKP0B222
C502▲	METALIZED FILM CAP. 1µF/630V K	CT2K105DT037
C503	ELECTROLYTIC CAP. 10µF/50V M	CE1JMASDL100
C504	CERAMIC CAP.(AX) B K 0.1µF/50V	CA1J104TU011
C505	CERAMIC CAP.(AX) B K 0.022µF/50V	CA1J223TU011
C507	ELECTROLYTIC CAP. 22µF/25V M	CE1EMASDL220
C508	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C509	CERAMIC CAP.(AX) CH J 680pF/50V	CA1J681TU008
C510▲	TF CAP. 1µF/50V	CT1J1105MS045
C511	CERAMIC CAP.(AX) CH J 33pF/50V	CA1J330TU008
C512	FILM CAP.(P) 0.1µF/50V J	CMA1JJS00104
C513	CERAMIC CAP.(AX) F Z 0.01µF/25V	CCA1EZTFZ103
C515	CERAMIC CAP. B K 0.01µF/500V	CCD2JKP0B103
C517	CERAMIC CAP. B K 0.01µF/500V	CCD2JKP0B103
C518▲	METALIZED FILM CAP. 0.22µF/250V	CT2E224MS037
C519▲	METALIZED FILM CAP. 0.22µF/250V	CT2E224MS037
C520▲	METALIZED FILM CAP. 1µF/250V	CT2E105MS037
C523	SAFETY CAP. 1000pF/250V KX	CA2E102MR050
C524	CERAMIC CAP. BN 680pF/2KV	CCD3DKA0B681

Ref. No.	Description	Part No.
C525	CERAMIC CAP.(AX) B K 1000pF/50V	CCA1JKT0B102
C526	SAFETY CAP. 1000pF/250V KX	CA2E102MR050
C527	SAFETY CAP. 1000pF/250V KX	CA2E102MR050
C528	SAFETY CAP. 2200pF/250V KX	CA2E222MR050
C529	METALIZED FILM CAP. 0.1μF/250V	CT2E104MS037
C530	CERAMIC CAP.(AX) B K 0.01μF/50V	CA1J103TU011
C531	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C532	CERAMIC CAP. B K 2200pF/500V	CCD2JKP0B222
C600	CERAMIC CAP. BN 1000pF/2KV	CCD3DKA0B102
C603	STACKED FILM CAP. 0. 0.15μF/50V J	CMA1JJS00154
C604	FILM CAP.(P) 0.033μF/50V J	CMA1JJS00333
C605	CAP METALIZED FILM 2.2μF 50V	CT1J225MS045
C606	CERAMIC CAP.(AX) F Z 0.01μF/25V	CCA1EZTFZ103
C607	ELECTROLYTIC CAP. 100μF/25V M	CE1EMASDL101
C608	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C609▲	PP CAP. 0.0033μF/1.6KV J	CT3C332MS039
C610	ELECTROLYTIC CAP. 100μF/35V M	CE1GMASDL101
C653	ELECTROLYTIC CAP 3300μF/25V M	CE1EMZNDL332
C654	ELECTROLYTIC CAP 3300μF/25V M	CE1EMZNDL332
C655	ELECTROLYTIC CAP. 100μF/50V M	CE1JMASDL101
C656	ELECTROLYTIC CAP. 4700μF/10V M P=7.5	CE1AMZNDL472
C657	ELECTROLYTIC CAP. 4700μF/10V M P=7.5	CE1AMZNDL472
C658	ELECTROLYTIC CAP. 4700μF/10V M P=7.5	CE1AMZNDL472
C659	ELECTROLYTIC CAP. 4700μF/10V M P=7.5	CE1AMZNDL472
C664	ELECTROLYTIC CAP. 4700μF/10V M P=7.5	CE1AMZNDL472
C668	ELECTROLYTIC CAP. 4700μF/10V M P=7.5	CE1AMZNDL472
C669	ELECTROLYTIC CAP. 4700μF/10V M P=7.5	CE1AMZNDL472
C671	ELECTROLYTIC CAP. 4700μF/10V M P=7.5	CE1AMZNDL472
C674	PCB JUMPER D0.6-P5.0	JW5.0T
C675	FILM CAP.(P) 0.1μF/50V J	CMA1JJS00104
C800	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
C801	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
C802	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C803	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C804	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C805	ELECTROLYTIC CAP. 3.3μF/50V M	CE1JMASDL3R3
C806	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C807	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C808	ELECTROLYTIC CAP. 1000μF/25V M	CE1EMZNDL102
C809	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C810	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C811	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C812	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C813	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C814	CERAMIC CAP.(AX) B K 0.1μF/50V	CA1J104TU011
C815	CERAMIC CAP.(AX) B K 0.1μF/50V	CA1J104TU011
C817	CHIP CERAMIC CAP.(2125) B K 4.7μF/16V	CHE1CK30B475
C818	CERAMIC CAP.(AX) B K 0.1μF/50V	CA1J104TU011
C819	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C820	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
C821	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
C822	CERAMIC CAP.(AX) B K 0.1μF/50V	CA1J104TU011
C823	CHIP CERAMIC CAP.(2125) B K 4.7μF/16V	CHE1CK30B475
C826	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C827	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C828	ELECTROLYTIC CAP. 10μF/50V M	CE1JMASDL100
C829	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
C830	CHIP CERAMIC CAP. (1608) B K 1μF/16V	CHD1CK30B105
<b>CONNECTORS</b>		
CN200	CONNECTOR PRINT MES C/15/S/127301115K2	JCTWA15TG004
CN201	CONNECTOR 23P	Refer to page 13-1
CN202	CONNECTOR 23P	Refer to page 13-1

Ref. No.	Description	Part No.
CN203	CONNECTOR 23P	Refer to page 13-1
CN204	242 SERIES CONNECTOR 224202111W1	J322C11TG001
CN206	TWG CONNECTOR 09P TWG-P09P-A1	J3TWA09TG001
CN500	WIRE ASSEMBLY 303 2PIN AWG18	WX1A81H0-303
CN501	CONNECTOR PRINT OSU 008283021200000S+	J383C02UG004
CN801	CONNECTOR BASE 2P(EH) B 2B-EH-A(LF)(SN)	J3EHC02JG010
CN802	CONNECTOR BASE 2P(EH) B 2B-EH-A(LF)(SN)	J3EHC02JG010
<b>DIODES</b>		
D110	ZENER DIODE MTZJT-7710B	QDTB00MTZJ10
D200	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D201	ZENER DIODE MTZJT-775.1B	QDTB00MTZJ5R1
D202	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D210	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D220	ZENER DIODE MTZJT-775.6B	QDTB00MTZJ5R6
D221	PCB JUMPER D0.6-P10.0	JW10.0T
D222	ZENER DIODE MTZJT-7715B	QDTB00MTZJ15
D223	DIODE FR104-B	NDLZ000FR104
D224	ZENER DIODE MTZJT-773.9B	QDTB00MTZJ3R9
D225	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D227	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D231	ZENER DIODE MTZJT-7733B	QDTB00MTZJ33
D233	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D240	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D241	ZENER DIODE MTZJT-7716B	QDTB00MTZJ16
D243	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D250	ZENER DIODE MTZJT-7710B	QDTB00MTZJ10
D251	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D291	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D500▲	DIODE BRIDGE D10XB60-7000	QDWZ0D10XB60
D503▲	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D504	SCHOTTKY BARRIER DIODE ERA81-004Q	QDLZRA81004Q
D505	DIODE 1N5406	NDLZ001N5406
D506▲	FAST RECOVERY DIODE YG972S6R	QDLZYG972S6R
D507	SCHOTTKY BARRIER DIODE ERA81-004Q	QDLZRA81004Q
D508▲	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D509	SCHOTTKY BARRIER DIODE ERA81-004Q	QDLZRA81004Q
D510	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D511	SCHOTTKY BARRIER DIODE ERA81-004Q	QDLZRA81004Q
D512	ZENER DIODE MTZJT-7724B	QDTB00MTZJ24
D514	RECTIFIER DIODE 1N4005	NDQZ001N4005
D516	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D517	RECTIFIER DIODE 1N4005	NDQZ001N4005
D518	RECTIFIER DIODE 1N4005	NDQZ001N4005
D519	RECTIFIER DIODE 1N4005	NDQZ001N4005
D520	RECTIFIER DIODE 1N4005	NDQZ001N4005
D521	ZENER DIODE MTZJT-7733B	QDTB00MTZJ33
D522	ZENER DIODE MTZJT-7733B	QDTB00MTZJ33
D523	ZENER DIODE MTZJT-7733B	QDTB00MTZJ33
D550	PCB JUMPER D0.6-P5.0	JW5.0T
D600	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D601	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D602	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D604	DIODE FR104-B	NDLZ000FR104
D606	ZENER DIODE MTZJT-7715B	QDTB00MTZJ15
D607	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D608▲	DIODE 05NU42	QDTZ005NU42Q
D609	ZENER DIODE MTZJT-775.6B	QDTB00MTZJ5R6
D610	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D611	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D612	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D614	ZENER DIODE MTZJT-7736B	QDTB00MTZJ36

Ref. No.	Description	Part No.
D615	ZENER DIODE MTZJT-7720B	QDTB00MTZJ20
D616	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D650	SCHOTTKY BARRIER DIODE ERC84-009	QDLZERC84009
D651	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D652	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D654	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D655	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D659	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D661	CHIP ZENER DIODE CMZ22(TE12L Q)	QD1Z00CMZ22Q
D664	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D665	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D666	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D667	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D668	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D669	DIODE 1N5406	NDLZ001N5406
D670	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D671	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D672	SCHOTTKY BARRIER DIODE ERC84-009	QDLZERC84009
D673	DIODE FR104-B	NDLZ000FR104
D674	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D675	SCHOTTKY BARRIER DIODE ERC81-004	QDPZERC81004
D676	PCB JUMPER D0.6-P20.0	JW20.0T
D678	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D680	CHIP ZENER DIODE CRZ47(TE85L Q)	QD1Z00CRZ47Q
<b>ICS</b>		
IC210	IC SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
IC220	IC LD1117V	NSZBA0SS046
IC290	REGULATOR IC(3.5V) PQ035ZN1HZPH	QSZBA0TSH078
IC500▲	IC PFC UC2853ADTR SOIC 8	NSZBA0TTY257
IC502▲	PHOTO COUPLER LTV817MBF	NPEBLTV817MF
IC503▲	PHOTO COUPLER LTV817MBF	NPEBLTV817MF
IC600▲	PHOTO COUPLER LTV817MBF	NPEBLTV817MF
IC650▲	IC SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
IC800	IC POWER AMP BD5422EFS-E2	QSZBA0TRM113
<b>COILS</b>		
L290	CHOKE COIL 22μH-K	LLBD00PKV021
L501▲	FILTER LLBG00ZY2015	LLBG00ZY2015
L502▲	FILTER LLBG00ZY2015	LLBG00ZY2015
L503	CIOL TOROIDAL HKBS-14D100-9810WRPF	LLET0Z0BF003
L800	COIL RADIAL LHLP10NB330M 33μH	LLF3300TU003
L801	COIL RADIAL LHLP10NB330M 33μH	LLF3300TU003
L802	COIL RADIAL LHLP10NB330M 33μH	LLF3300TU003
L803	COIL RADIAL LHLP10NB330M 33μH	LLF3300TU003
L804	INDUCTOR 22μH-K-5FT	LLARKBSTU220
<b>TRANSISTORS</b>		
Q200	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q201	PNP TRANSISTOR POWER 2SA1887(F)	QQWZ2SA1887F
Q210	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q211	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q212	TRANSISTOR(PB FREE) KTC2026-Y/P	NQEYKTC2026P
Q220	TRANSISTOR(PB FREE) KTC2026-Y/P	NQEYKTC2026P
Q221	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q222	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q240	TRANSISTOR 2SC2120-Y(TE2 F T)	QGSY2SC2120F
Q241	PNP TRANSISTOR POWER 2SA1887(F)	QQWZ2SA1887F
Q242	TRANSISTOR 2SC2120-Y(TE2 F T)	QGSY2SC2120F
Q243	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q250	TRANSISTOR 2SD400(E)	QQUE002SD400
Q500▲	TRANSISTOR KTD1347-C-AT/P	NQSCKTD1347P
Q501	TRANSISTOR KTB985-C-AT/P	NQSCOKTB985P
Q502▲	FET MOS 2SK3561(Q) IDSS100UA	QFWZ2SK3561Q
Q503▲	FET MOS 2SK3561(Q) IDSS100UA	QFWZ2SK3561Q

Ref. No.	Description	Part No.
Q504▲	TRANSISTOR 2SA950-Y(TE2 F T)	QGSY02SA950F
Q505	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q506	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q508	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q509	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q600▲	MOS FET 2SK3798(Q)	QFWZ2SK3798Q
Q601▲	TRANSISTOR 2SC2120-Y(TE2 F T)	QGSY2SC2120F
Q602	TRANSISTOR 2SC2120-Y(TE2 F T)	QGSY2SC2120F
Q650	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q800	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
<b>RESISTORS</b>		
R204	METAL OXIDE FILM RES. 2W J 1 Ω	RN021R0DP004
R205	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R206	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R207	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R208	CHIP RES. 1/10W F 3.3k Ω	RRXAFR5H3301
R209	CHIP RES. 1/10W F 680 Ω	RRXAFR5H6800
R210	CHIP RES. 1/10W F 560 Ω	RRXAFR5H5600
R211	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R212	CARBON RES. 1/4W J 15k Ω	RCX4JATZ0153
R213	CHIP RES. 1/10W J 22k Ω	RRXAJR5Z0223
R214	CHIP RES. 1/10W J 22k Ω	RRXAJR5Z0223
R215	CHIP RES. 1/10W J 6.8k Ω	RRXAJR5Z0682
R216	CHIP RES. 1/10W J 1.8k Ω	RRXAJR5Z0182
R217	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R218	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R219	CHIP RES. 1/10W F 8.2k Ω	RRXAFR5H8201
R220	RES METALIZED FILM T 1/4W F 1.00k Ω	RDC1001HH003
R221	CHIP RES. 1/10W F 620 Ω	RRXAFR5H6200
R222	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R223	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R224	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R225	CHIP RES. 1/10W J 100k Ω	RRXAJR5Z0104
R226	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R227	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R233	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R234	CHIP RES. 1/10W F 2.2k Ω	RRXAFR5H2201
R235	CARBON RES. 1/4W J 27k Ω	RCX4JATZ0273
R236	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R237	METAL OXIDE FILM RES. 2W J 1 Ω	RN021R0DP004
R240	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R241	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R242	CHIP RES. 1/10W J 3.3k Ω	RRXAJR5Z0332
R243	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R244	METAL OXIDE FILM RES. 2W J 0.27 Ω	RN02R27DP004
R245	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R246	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R247	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R248	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R249	CHIP RES. 1/10W J 47k Ω	RRXAJR5Z0473
R250	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R251	METAL OXIDE FILM RES. 1W J 3.9 Ω	RN013R9DP003
R253	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R254	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R255	CHIP RES. 1/10W J 3.3k Ω	RRXAJR5Z0332
R256	CHIP RES. 1/10W J 47 Ω	RRXAJR5Z0470
R257	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R292	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R293	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R294	CHIP RES. 1/10W J 1k Ω	RRXAJR5Z0102
R500▲	RES CEMENT 5W J 0.33 Ω	RW05R33KA050
R501▲	RES CEMENT 5W J 0.39 Ω	RW05R39KA050

Ref. No.	Description	Part No.
R502	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R503	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R504	CARBON RES. 1/4W J 56k Ω	RCX4JATZ0563
R506	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
R507	CARBON RES. 1/4W J 15 Ω	RCX4JATZ0150
R508	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R509	CARBON RES. 1/4W J 15 Ω	RCX4JATZ0150
R510	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
R512	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R513	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R514	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R515	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R516	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R517	CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R518	CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R519	CARBON RES. 1/4W J 27k Ω	RCX4JATZ0273
R520	CARBON RES. 1/4W J 56k Ω	RCX4JATZ0563
R521	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R522	RES METALIZED FILM T 1/4W F 3.92k Ω	RDC3921HH003
R523	PCB JUMPER D0.6-P5.0	JW5.0T
R524	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R525	RES METALIZED FILM T 1/4W F 100k Ω	RDC1003HH003
R526	RES METALIZED FILM T 1/4W F 100k Ω	RDC1003HH003
R527	RES METALIZED FILM T 1/4W F 100k Ω	RDC1003HH003
R528	RES METALIZED FILM T 1/4W F 27.4k Ω	RDC2742HH003
R529	PCB JUMPER D0.6-P5.0	JW5.0T
R530	RES METALIZED FILM 1/4W F 274k Ω	RDC2743HH001
R531	RES METALIZED FILM 1/4W F 274k Ω	RDC2743HH001
R532	RES METALIZED FILM 1/4W F 332k Ω	RDC3323HH001
R533	RES METALIZED FILM 1/4W F 274k Ω	RDC2743HH001
R534	RES METALIZED FILM T 1/4W F 10.0k Ω	RDC1002HH003
R537	RES METALIZED FILM T 1/4W F 100k Ω	RDC1003HH003
R539	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R540	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R541	CARBON RES. 1/4W J 2.2 Ω	RCX4JATZ02R2
R542	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R543	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R544▲	SOLID RES.(UL) 1/2W 3.3M Ω	RSX2335KE010
R545	SOLID RES.(UL) 1/2W 8.2M Ω	RSX2825KE010
R546	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R547	CARBON RES. 1/4W J 27k Ω	RCX4JATZ0273
R548	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R549	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R550	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R551	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R553	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R558	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R559	CARBON RES. 1/4W J 47k Ω	RCX4JATZ0473
R600	RES CEMENT 5W J 1.0 Ω	RW051R0KA050
R603	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R604	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R605	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R606	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R607	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R608	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R609	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R610	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R611	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R612	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R613	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R614	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R615	METAL OXIDE FILM RES. 1W J 10 Ω	RN01100DP003
R616	METAL OXIDE FILM RES. 2W J 100k Ω	RN02104DP004

Ref. No.	Description	Part No.
R617	METAL OXIDE FILM RES. 2W J 100k Ω	RN02104DP004
R650	RES METALIZED FILM T 1/4W F 2.21k Ω	RDC2211HH003
R651	RES METALIZED FILM T 1/4W F 1.00k Ω	RDC1001HH003
R652	RES METALIZED FILM T 1/4W F 332 Ω	RDC3320HH003
R653	RES METALIZED FILM T 1/4W F 2.21k Ω	RDC2211HH003
R654	RES METALIZED FILM T 1/4W F 2.21k Ω	RDC2211HH003
R655	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R656	CHIP RES. 1/10W J 3.3k Ω	RRXAJR5Z0332
R657	CHIP RES. 1/10W J 15k Ω	RRXAJR5Z0153
R662	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R663	CHIP RES. 1/10W J 3.3k Ω	RRXAJR5Z0332
R665	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R666	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R672	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R673	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R674	CARBON RES. 1/4W J 39k Ω	RCX4JATZ0393
R800	CHIP RES. 1/10W F 100k Ω	RRXAFR5H1003
R801	CHIP RES. 1/10W J 390k Ω	RRXAJR5Z0394
R802	CHIP RES. 1/10W J 22k Ω	RRXAJR5Z0223
R803	CHIP RES. 1/10W F 51.0 k Ω	RRXAFR5H5102
R804	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R805	CHIP RES. 1/10W F 51.0 k Ω	RRXAFR5H5102
R807	CHIP RES. 1/10W J 270k Ω	RRXAJR5Z0274
R808	CHIP RES. 1/10W F 100k Ω	RRXAFR5H1003
R809	CHIP RES. 1/10W J 10k Ω	RRXAJR5Z0103
R810	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R811	CHIP RES. 1/10W J 100 Ω	RRXAJR5Z0101
<b>MISCELLANEOUS</b>		
AC600▲	AC CORD LP-11W&PT218P-K90A&S	WAC0172LW020
B16	HEAT SINK EAI ASSEMBLY A81H0UH	1EM424642
B17	HEAT SINK EAJ ASSEMBLY A81H0UH	1EM424644
B18	HEAT SINK EAK ASSEMBLY A81H0UH	1EM424646
B19	HEAT SINK EAL ASSEMBLY A81H0UH	1EM424648
BC502	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC503	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC504	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC505	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC506	PCB JUMPER D0.6-P5.0	JW5.0T
BC507	PCB JUMPER D0.6-P5.0	JW5.0T
BC508	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC509	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC600	PCB JUMPER D0.6-P5.0	JW5.0T
BC601	PCB JUMPER D0.6-P5.0	JW5.0T
BC602	PCB JUMPER D0.6-P5.0	JW5.0T
BC603	PCB JUMPER D0.6-P5.0	JW5.0T
F500▲	FUSE 8A/250V(PB FREE) 0215008.MXP	PBGZ20BAG022
FC600	CORE FERRITE TOROIDAL HF40T18X10X10	XL04018TE001
FH500	HOLDER FUSE CNT41-0014	1790424
FH501	HOLDER FUSE CNT41-0014	1790424
J115	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
JS211	PCB JUMPER D0.6-P5.0	JW5.0T
JP200	PCB JUMPER D0.6-P5.0	JW5.0T
JP201	PCB JUMPER D0.6-P25.0	JW25.0T
JP202	PCB JUMPER D0.6-P10.0	JW10.0T
JP212	PCB JUMPER D0.6-P5.0	JW5.0T
JP511	PCB JUMPER D0.6-P5.0	JW5.0T
JP600	PCB JUMPER D0.6-P7.5	JW7.5T
JP601	PCB JUMPER D0.6-P7.5	JW7.5T
JP801	PCB JUMPER D0.6-P12.5	JW12.5T
L12	SCREW B-TIGHT D3X8 BIND HEAD+	GBJB3080
SA500▲	SURGE ABSORBER 470V+10PER	NVQZ10D471KB
SA502	SURGE ABSORBER 470V+10PER	NVQZ10D471KB

Ref. No.	Description	Part No.
SA503	SURGE ABSORBER RA-452MS-V7-Y	PDVAEA0DC452
SA504	PCB JUMPER D0.6-P7.5	JW7.5T
T600▲	TRANS POWER 7736	LTT3PC0KT033
TM601	EYELET TYPE D-1	0VM406868
TM602	EYELET TYPE D-1	0VM406868
TP500	PCB JUMPER D0.6-P10.0	JW10.0T
TP501	PCB JUMPER D0.6-P10.0	JW10.0T
TP650	PCB JUMPER D0.6-P10.0	JW10.0T

## FUNCTION CBA

Ref. No.	Description	Part No.
	FUNCTION CBA Consists of the following:	-----
<b>CAPACITORS</b>		
C118	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C119	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
<b>RESISTORS</b>		
R120	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R121	PCB JUMPER D0.6-P5.0	JW5.0T
R124	CHIP RES. 1/10W J 1.5k Ω	RRXAJR5Z0152
R125	CHIP RES. 1/10W J 1.5k Ω	RRXAJR5Z0152
R126	CHIP RES. 1/10W J 2.2k Ω	RRXAJR5Z0222
R127	CHIP RES. 1/10W J 2.7k Ω	RRXAJR5Z0272
R128	CHIP RES. 1/10W J 4.7k Ω	RRXAJR5Z0472
R129	CHIP RES. 1/10W J 6.8k Ω	RRXAJR5Z0682
<b>SWITCHES</b>		
SW101	TACT SWITCH SKQSAB	SST0101AL038
SW102	TACT SWITCH SKQSAB	SST0101AL038
SW103	TACT SWITCH SKQSAB	SST0101AL038
SW104	TACT SWITCH SKQSAB	SST0101AL038
SW105	TACT SWITCH SKQSAB	SST0101AL038
SW106	TACT SWITCH SKQSAB	SST0101AL038
SW107	TACT SWITCH SKQSAB	SST0101AL038
<b>MISCELLANEOUS</b>		
BC102	PCB JUMPER D0.6-P5.0	JW5.0T

## IR SENSOR CBA

Ref. No.	Description	Part No.
	IR SENSOR CBA Consists of the following:	-----
<b>CAPACITORS</b>		
C102	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C103	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C104	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C105	CHIP CERAMIC CAP. F Z 0.01μF/50V	CHD1JZ30F103
C107	ELECTROLYTIC CAP. 47μF/16V M H7	CE1CMASSL470
<b>DIODES</b>		
D101	LED 333GT/E	NPHZ00333GTE
D102	LED L-53HT	NP4Z000L53HT
<b>RESISTORS</b>		
R107	CHIP RES. 1/10W J 10 Ω	RRXAJR5Z0100
R108	CHIP RES. 1/10W J 220 Ω	RRXAJR5Z0221
R109	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R110	CHIP RES. 1/10W J 3.3k Ω	RRXAJR5Z0332
R111	CHIP RES. 1/10W J 100 Ω	RRXAJR5Z0101
R112	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
R113	PCB JUMPER D0.6-P5.0	JW5.0T
<b>MISCELLANEOUS</b>		
BC100	PCB JUMPER D0.6-P5.0	JW5.0T
CL101	WIRE ASSEMBLY 003 11PIN AWG26	WX1A81H0-003
CL106	WIRE ASSEMBLY 004 4PIN AWG26	WX1A81H0-004

Ref. No.	Description	Part No.
RS101	PHOTO LINK MODULE KSM-712TH2E	USESJRSKK044

## JUNCTION CBA

Ref. No.	Description	Part No.
	JUNCTION CBA Consists of the following:	-----
<b>CONNECTOR</b>		
CN100	242 SERIES CONNECTOR TUC-P11X-B1 WHT ST	JCTUB11TG002

## JACK ASSEMBLY

Ref. No.	Description	Part No.
	JACK ASSEMBLY Consists of the following:	1ESA14714
	JACK CBA INVERTER POWER CBA SIDE JACK CBA	----- ----- -----

## JACK CBA

Ref. No.	Description	Part No.
	JACK CBA Consists of the following:	-----
<b>CAPACITORS</b>		
C7001	ELECTROLYTIC CAP. 100μF/10V M H7	CE1AMASSL101
C7002	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C7003	ELECTROLYTIC CAP. 100μF/10V M H7	CE1AMASSL101
C7040	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMASSL4R7
C7041	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMASSL4R7
C7042	CHIP CERAMIC CAP. CH J 12pF/50V	CHD1JJ3CH120
C7043	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7044	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7045	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMASSL4R7
C7046	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMASSL4R7
C7047	CHIP CERAMIC CAP. CH J 12pF/50V	CHD1JJ3CH120
C7048	CHIP CERAMIC CAP. CH J 12pF/50V	CHD1JJ3CH120
C7049	CHIP CERAMIC CAP. CH J 12pF/50V	CHD1JJ3CH120
C7050	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMASSL4R7
C7051	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMASSL4R7
C7052	CHIP CERAMIC CAP. CH J 12pF/50V	CHD1JJ3CH120
C7053	CHIP CERAMIC CAP. CH J 12pF/50V	CHD1JJ3CH120
C7054	CHIP CERAMIC CAP. CH J 12pF/50V	CHD1JJ3CH120
C7055	ELECTROLYTIC CAP. 47μF/16V M H7	CE1CMASSL470
C7056	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7061	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7062	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7063	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7064	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7065	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7066	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7091	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
C7092	CHIP CERAMIC CAP. B K 220pF/50V	CHD1JK30B221
C7093	CHIP RES.(1608) 1/10W 0 Ω	RRXAZR5Z0000
C7094	CHIP CERAMIC CAP. B K 220pF/50V	CHD1JK30B221
C7101	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMASSL4R7
C7102	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C7103	ELECTROLYTIC CAP. 4.7μF/25V M H7	CE1EMASSL4R7
C7104	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7105	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7106	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7107	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7108	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7201	ELECTROLYTIC CAP. 47μF/10V M H7	CE1AMASSL470

Ref. No.	Description	Part No.
C7202	ELECTROLYTIC CAP. 47 $\mu$ F/10V M H7	CE1AMASSL470
C7203	ELECTROLYTIC CAP. 47 $\mu$ F/10V M H7	CE1AMASSL470
C7204	ELECTROLYTIC CAP. 47 $\mu$ F/10V M H7	CE1AMASSL470
C7205	ELECTROLYTIC CAP. 47 $\mu$ F/10V M H7	CE1AMASSL470
C7206	ELECTROLYTIC CAP. 47 $\mu$ F/10V M H7	CE1AMASSL470
C7211	CHIP CERAMIC CAP.(1608) F Z 0.1 $\mu$ F/50V	CHD1JZ30F104
C7213	CHIP CERAMIC CAP.(1608) F Z 0.1 $\mu$ F/50V	CHD1JZ30F104
C7215	CHIP CERAMIC CAP.(1608) F Z 0.1 $\mu$ F/50V	CHD1JZ30F104
C7216	CHIP CERAMIC CAP.(1608) F Z 0.1 $\mu$ F/50V	CHD1JZ30F104
<b>CONNECTOR</b>		
CN7001	FMN CONNECTOR TOP 40P 40FMN-BTRK-A(LF)(SN)	JCFNG40JG020
<b>DIODES</b>		
D7001	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D7002	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
<b>IC</b>		
IC7001	IC SWITCHING TC4052BF(ELNF)	QSZBA0TTS162
<b>TRANSISTORS</b>		
Q7001	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q7002	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q7101	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q7102	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q7103	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q7104	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q7105	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q7106	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
<b>RESISTORS</b>		
R7000	PCB JUMPER D0.6-P5.0	JW5.0T
R7001	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R7002	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R7003	CHIP RES. 1/10W J 22k $\Omega$	RRXAJR5Z0223
R7004	CARBON RES. 1/4W J 22k $\Omega$	RCX4JATZ0223
R7005	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7006	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7007	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7008	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7009	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7010	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7011	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7012	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7013	CARBON RES. 1/4W J 100k $\Omega$	RCX4JATZ0104
R7014	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7015	CARBON RES. 1/4W J 100k $\Omega$	RCX4JATZ0104
R7016	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7017	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7018	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7019	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7020	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R7021	CHIP RES. 1/10W J 100 $\Omega$	RRXAJR5Z0101
R7022	CHIP RES. 1/10W J 100 $\Omega$	RRXAJR5Z0101
R7031	PCB JUMPER D0.6-P5.0	JW5.0T
R7032	PCB JUMPER D0.6-P5.0	JW5.0T
R7040	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R7041	CHIP RES. 1/10W J 24k $\Omega$	RRXAJR5Z0243
R7043	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R7044	CHIP RES. 1/10W J 24k $\Omega$	RRXAJR5Z0243
R7047	CHIP RES.(1608) 1/10W F 75 $\Omega$	RRXAFR5H75R0
R7048	CHIP RES. 1/10W J 100 $\Omega$	RRXAJR5Z0101
R7049	CHIP RES. 1/10W J 75 $\Omega$	RRXAJR5Z0750
R7051	CHIP RES. 1/10W J 75 $\Omega$	RRXAJR5Z0750
R7052	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R7053	CHIP RES. 1/10W J 24k $\Omega$	RRXAJR5Z0243

Ref. No.	Description	Part No.
R7054	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R7055	CHIP RES. 1/10W J 24k $\Omega$	RRXAJR5Z0243
R7056	CARBON RES. 1/4W J 100 $\Omega$	RCX4JATZ0101
R7057	CHIP RES.(1608) 1/10W F 75 $\Omega$	RRXAFR5H75R0
R7058	CHIP RES. 1/10W J 100 $\Omega$	RRXAJR5Z0101
R7059	CHIP RES.(1608) 1/10W F 75 $\Omega$	RRXAFR5H75R0
R7061	CHIP RES.(1608) 1/10W F 75 $\Omega$	RRXAFR5H75R0
R7062	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R7063	CHIP RES. 1/10W J 24k $\Omega$	RRXAJR5Z0243
R7064	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R7065	CHIP RES. 1/10W J 24k $\Omega$	RRXAJR5Z0243
R7066	CHIP RES. 1/10W J 100 $\Omega$	RRXAJR5Z0101
R7067	CHIP RES.(1608) 1/10W F 75 $\Omega$	RRXAFR5H75R0
R7068	CHIP RES. 1/10W J 100 $\Omega$	RRXAJR5Z0101
R7069	CHIP RES.(1608) 1/10W F 75 $\Omega$	RRXAFR5H75R0
R7071	CHIP RES.(1608) 1/10W F 75 $\Omega$	RRXAFR5H75R0
R7072	CHIP RES. 1/10W J 75 $\Omega$	RRXAJR5Z0750
R7081	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7082	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7083	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7084	PCB JUMPER D0.6-P5.0	JW5.0T
R7085	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7086	PCB JUMPER D0.6-P5.0	JW5.0T
R7087	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7091	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7093	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7094	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7096	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R7101	CHIP RES. 1/10W J 18k $\Omega$	RRXAJR5Z0183
R7102	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R7103	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R7104	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R7105	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R7106	CHIP RES. 1/10W J 24k $\Omega$	RRXAJR5Z0243
R7107	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R7108	CHIP RES. 1/10W J 24k $\Omega$	RRXAJR5Z0243
R7113	CHIP RES. 1/10W J 100 $\Omega$	RRXAJR5Z0101
R7201	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R7202	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
R7203	CHIP RES. 1/10W J 39k $\Omega$	RRXAJR5Z0393
R7204	CHIP RES. 1/10W J 33k $\Omega$	RRXAJR5Z0333
R7206	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R7207	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
R7208	CHIP RES. 1/10W J 39k $\Omega$	RRXAJR5Z0393
R7209	CHIP RES. 1/10W J 33k $\Omega$	RRXAJR5Z0333
R7211	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R7212	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
R7213	CHIP RES. 1/10W J 39k $\Omega$	RRXAJR5Z0393
R7214	CHIP RES. 1/10W J 33k $\Omega$	RRXAJR5Z0333
R7216	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R7217	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
R7218	CHIP RES. 1/10W J 39k $\Omega$	RRXAJR5Z0393
R7219	CHIP RES. 1/10W J 33k $\Omega$	RRXAJR5Z0333
R7221	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R7222	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
R7223	CHIP RES. 1/10W J 39k $\Omega$	RRXAJR5Z0393
R7224	CHIP RES. 1/10W J 33k $\Omega$	RRXAJR5Z0333
R7226	CARBON RES. 1/4W J 680 $\Omega$	RCX4JATZ0681
R7227	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
R7228	CHIP RES. 1/10W J 39k $\Omega$	RRXAJR5Z0393
R7229	CHIP RES. 1/10W J 33k $\Omega$	RRXAJR5Z0333
<b>MISCELLANEOUS</b>		

Ref. No.	Description	Part No.
CL7002	WIRES ASSEMBLY 005 14PIN AWG26	WX1A81H0-005
JK7001	JACK SW DIN PCB S YKF51-5379V	JYEJ040JC002
JK7002	JACK SW RCA PCB S RCA-347HDT-02	JYRJ030YUQ01
JK7003	JACK RCA PCB S 03 RCA-347HT-03	JXRJ030YUQ01
JK7004	JACK SW RCA PCB S RCA-228H(2)NI-01	JYRJ020YUQ02
JK7005	JACK RCA PCB S 03 RCA-347HT-03	JXRJ030YUQ01
JK7006	JACK SW RCA PCB S RCA-228H(2)NI-01	JYRJ020YUQ02
JK7007	JACK RCA PCB S AV-4B-70HH	JXRJ010SNJ06
JK7008	JACK SW RCA PCB S RCA-228H(2)NI-01	JYRJ020YUQ02
JS7002	PCB JUMPER D0.6-P7.5	JW7.5T

## INVERTER POWER CBA

Ref. No.	Description	Part No.
	INVERTER POWER CBA Consists of the following:	-----
<b>CAPACITORS</b>		
C701	ELECTROLYTIC CAPACITOR 150 $\mu$ F/400V	CA2H151NC229
C703	CAP METALIZED FILM 2.2 $\mu$ F 50V	CT1J225MS045
C706	FILM CAP. 0.33 $\mu$ F/50V J	CMA1JJS00334
C707	CERAMIC CAP.(AX) CH J 470pF/50V	CA1J471TU008
C709	FILM CAP.(P) 0.01 $\mu$ F/50V J	CMA1JJS00103
C710	FILM CAP. 0.33 $\mu$ F/50V J	CMA1JJS00334
C711	FILM CAP.(P) 0.1 $\mu$ F/50V J	CMA1JJS00104
C712	CERAMIC CAP. B K 220pF/500V	CCD2JKP0B221
C713	FILM CAP.(P) 0.1 $\mu$ F/50V J	CMA1JJS00104
C714	ELECTROLYTIC CAP. 10 $\mu$ F/50V M	CE1JMASDL100
C715	P.P.CAPACITOR 0.022 $\mu$ F/630V J	CT2K223MS086
C717	FILM CAP.(P) 0.0047 $\mu$ F/50V J	CMA1JJS00472
C718	CHIP CERAMIC CAP. F Z 0.01 $\mu$ F/50V	CHD1JZ30F103
C731	SAFETY CAP. 1000pF/250V KX	CA2E102MR050
C751	CAP ELE STD-85 4700 $\mu$ F/35V SL	CE1GMZNDL472
C752	CAP ELE STD-85 4700 $\mu$ F/35V SL	CE1GMZNDL472
C753	CAP ELE STD-85 4700 $\mu$ F/35V SL	CE1GMZNDL472
C754	CERAMIC CAP.(AX) F Z 0.1 $\mu$ F/50V	CCA1JZTFZ104
C755	CAP ELE STD-85 4700 $\mu$ F/35V SL	CE1GMZNDL472
C761	MYLAR CAP. 0.22 $\mu$ F/50V J	CMA1JJS00224
C763	CHIP CERAMIC CAP. F Z 0.01 $\mu$ F/50V	CHD1JZ30F103
C764	CHIP CERAMIC CAP. F Z 0.01 $\mu$ F/50V	CHD1JZ30F103
C786	CHIP CERAMIC CAP. (1608) B K 1 $\mu$ F/16V	CHD1CK30B105
<b>CONNECTORS</b>		
CN701	CONNECTOR B2P3-VH(LF)(SN)	J3VH020JG001
CN702	CONNECTOR PRINT OSU 008283021200000S+	J383C02UG004
CN751	CONNECTOR PRINT OSU B14B-PH-K- S(LF)(SN)	J3PHC14JG029
CN752	PH CONNECTOR TOP 10P B10B-PH-K- S(LF)(SN)	J3PHC10JG029
CN753	BOARD CONNECTOR 09P(PB FREE) 127301109K2	JCTWA09TG004
<b>DIODES</b>		
D703	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D704	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D705	SCHOTTKY BARRIER DIODE ERA81-004Q	QDLZRA81004Q
D706	SCHOTTKY BARRIER DIODE ERA81-004Q	QDLZRA81004Q
D711	CHIP ZENER DIODE CRZ27(TE85L Q)	QD1Z00CRZ27Q
D712	CHIP ZENER DIODE CRZ36(TE85L Q)	QD1Z00CRZ36Q
D751	DIODE SCHOTTKY YG802C10R	QDQZYG802C10
D752	DIODE SCHOTTKY YG802C10R	QDQZYG802C10
D756	CHIP ZENER DIODE CRZ30(TE85L Q)	QD1Z00CRZ30Q
D757	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D758	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D781	SCHOTTKY BARRIER DIODE ERA81-004Q	QDLZRA81004Q
<b>ICS</b>		

Ref. No.	Description	Part No.
IC701	IC HIGH-VOLTAGE RESONANT CONTR L6599N	NSZBA0SSS312
IC702	PHOTO COUPLER LTV817MBF	NPEBLTV817MF
IC703	PHOTO COUPLER LTV817MBF	NPEBLTV817MF
IC761	IC SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
<b>TRANSISTORS</b>		
Q701	FET MOS 2SK3561(Q) IDSS100UA	QFWZ2SK3561Q
Q702	FET MOS 2SK3561(Q) IDSS100UA	QFWZ2SK3561Q
Q703	TRANSISTOR KTA1267-GR-AT/P	NQS1KTA1267P
Q704	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q761	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
Q762	TRANSISTOR KTC3199-GR-AT/P	NQS4KTC3199P
<b>RESISTORS</b>		
R701	RES MATALIZED FILM 1/4W F 562k $\Omega$	RDC5623HH001
R702	RES MATALIZED FILM 1/4W F 562k $\Omega$	RDC5623HH001
R703	RES MATALIZED FILM 1/4W F 562k $\Omega$	RDC5623HH001
R704	RES MATALIZED FILM 1/4W F 562k $\Omega$	RDC5623HH001
R705	CARBON RES. 1/4W J 10 $\Omega$	RCX4JATZ0100
R706	RES METALIZED FILM T 1/4W F 12.1k $\Omega$	RDC1212HH003
R707	CARBON RES. 1/4W J 2.7k $\Omega$	RCX4JATZ0272
R708	RES METALIZED FILM T 1/4W F 15.0k $\Omega$	RDC1502HH003
R709	CARBON RES. 1/4W J 39 $\Omega$	RCX4JATZ0390
R712	CARBON RES. 1/4W J 3.3k $\Omega$	RCX4JATZ0332
R713	CARBON RES. 1/4W J 1M $\Omega$	RCX4JATZ0105
R714	CARBON RES. 1/4W J 10k $\Omega$	RCX4JATZ0103
R715	RES METALIZED FILM T 1/4W F 75.0 $\Omega$	RDC75R0HH003
R718	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R719	CHIP RES. 1/10W J 22k $\Omega$	RRXAJR5Z0223
R720	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R721	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R722	CARBON RES. 1/4W J 39 $\Omega$	RCX4JATZ0390
R723	CARBON RES. 1/4W J 39 $\Omega$	RCX4JATZ0390
R724	CARBON RES. 1/4W J 39 $\Omega$	RCX4JATZ0390
R725	CARBON RES. 1/4W J 56 $\Omega$	RCX4JATZ0560
R726	CARBON RES. 1/4W J 100k $\Omega$	RCX4JATZ0104
R727	CARBON RES. 1/4W J 56 $\Omega$	RCX4JATZ0560
R728	CARBON RES. 1/4W J 100k $\Omega$	RCX4JATZ0104
R753	CHIP RES. 1/10W J 22k $\Omega$	RRXAJR5Z0223
R754	CARBON RES. 1/4W J 2.2k $\Omega$	RCX4JATZ0222
R760	CARBON RES. 1/4W J 5.6k $\Omega$	RCX4JATZ0562
R761	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R762	CARBON RES. 1/4W J 1k $\Omega$	RCX4JATZ0102
R763	PCB JUMPER D0.6-P5.0	JW5.0T
R764	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R765	RES METALIZED FILM T 1/4W F 9.09k $\Omega$	RDC9091HH003
R766	PCB JUMPER D0.6-P5.0	JW5.0T
R767	RES METALIZED FILM T 1/4W F 2.21k $\Omega$	RDC2211HH003
R768	CHIP RES. 1/10W J 2.7k $\Omega$	RRXAJR5Z0272
R769	CHIP RES. 1/10W J 2.7k $\Omega$	RRXAJR5Z0272
R770	CHIP RES. 1/10W J 22k $\Omega$	RRXAJR5Z0223
R771	CHIP RES. 1/10W J 47k $\Omega$	RRXAJR5Z0473
R772	CHIP RES. 1/10W J 3.3k $\Omega$	RRXAJR5Z0332
R773	CHIP RES. 1/10W J 10k $\Omega$	RRXAJR5Z0103
R784	CHIP RES. 1/10W J 100k $\Omega$	RRXAJR5Z0104
R785	CHIP RES.(1608) 1/10W 0 $\Omega$	RRXAZR5Z0000
R787	CHIP RES. 1/10W J 1k $\Omega$	RRXAJR5Z0102
<b>MISCELLANEOUS</b>		
B17	HEAT SINK EAJ ASSEMBLY A81H0UH	1EM424644
B18	HEAT SINK EAK ASSEMBLY A81H0UH	1EM424646
BC701	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC781	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC782	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC783	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021

Ref. No.	Description	Part No.
BC784	BEAD INDUCTOR FBR07HA121TB-00	LLBF00ZTU021
BC785	PCB JUMPER D0.6-P5.0	JW5.0T
L12	SCREW B-TIGHT D3X8 BIND HEAD+	GBJB3080
T701 ▲	TRANS POWER ETS42LZ196AD	LTT4PC0MS004

## SIDE JACK CBA

Ref. No.	Description	Part No.
	SIDE JACK CBA Consists of the following:	-----
<b>RESISTORS</b>		
R7501	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R7502	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
R7503	CHIP RES. 1/10W J 75 Ω	RRXAJR5Z0750
<b>MISCELLANEOUS</b>		
JK7502	JACK SW RCA PCB S RCA-347HDT-02	JYRJ030YUQ01
JK7503	JACK SW DIN PCB S YKF51-5379V	JYEJ040JC002