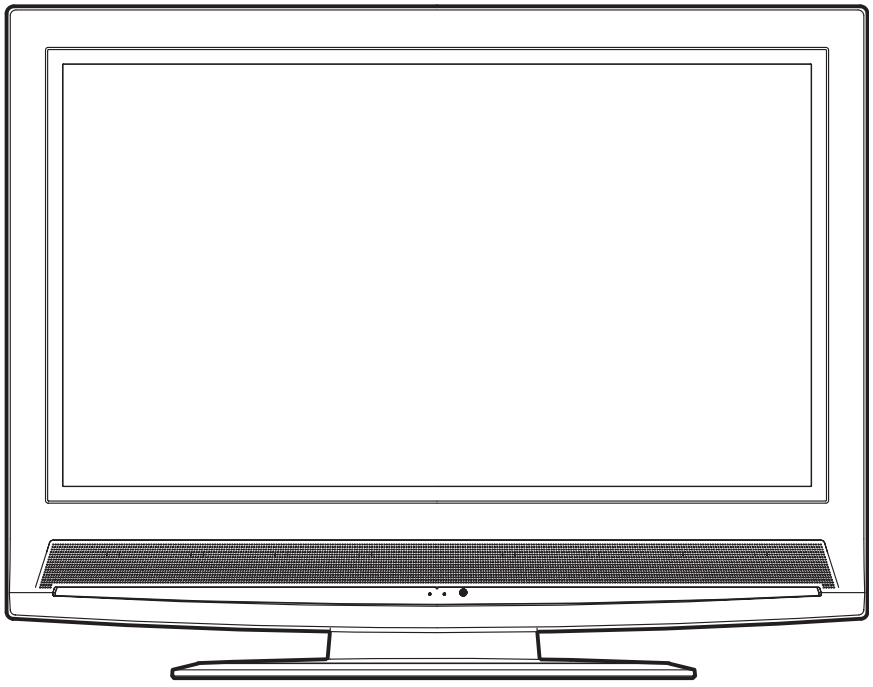
FUNAI

SERVICE MANUAL

32″ COLOR LCD TELEVISION

LT5-M32BB



32″ COLOR LCD TELEVISION

LT5-M32BB

TABLE OF CONTENTS

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 >

VHS/UHF Input ---------- 75Ω Unbal., IEC Connector
Intermediate Freq. ------- Digital 36.167MHz, SECAM-L 38.9MHz, SECAM-L' 33.9MHz, PAL BG/DK 38.9MHz

Description	Condition	Unit	Nominal	Limit
1. Video S/N	80	dB	---	40
2. Audio S/N	---	dB	---	40/40

< LCD PANEL >

Description	Condition	Unit	Nominal	Limit
1. Number of Pixels	Horizontal Vertical	pixels pixels	1366× 3 768	--- ---
2. Viewing Angle	Horizontal Vertical	° °	-85 to 85 -85 to 85	--- ---

<DVB-T>

Description	Condition	Unit	Nominal	Limit
1. RECEIVED FREQ.RANGE (-60dBm, 45ch.) *1	+ -	kHz kHz	1000 900	500 167
2. INPUT DYNAMIC RANGE (mix./max) *1	VHF HIGH 7ch. UHF 45ch.	dBm dBm	-82.5/2 -81.1/2	-79.9/-10 -79.3/-10
3. C/N PERFORMANCE *1	VHF HIGH 7ch. UHF 45ch.	dB dB	15 15	17.9 17.9
4. MULTIPATH a. Performance with short delay echoes b. Performance with long delay echoes c. C/N Performance on 0dB echo channel (14μs)	UHF 45ch. ①:*2 ②:*3 ①:*2 ②:*3 ①:*1	 dB dB dB dB dB	 18.7 14.0 19.1 13.0 20.7	 ≦22.2 ≦19.5 ≦22.2 ≦18.0 ≦24.0
5. Audio S/N (0dBfs)	Lch Rch	dB dB	--- ---	40 40
6. Audio DIST. (0dBfs)	Lch Rch	% %	--- ---	10 10

*1: modulation parameters = [8k 64QAM CR=2/3 GI=1/32]
*2: modulation parameters = [2k 64QAM CR=2/3 GI=1/32]
*3: modulation parameters = [2k 16QAM CR=3/4 GI=1/32]

< VIDEO >

Description	Condition	Unit	Nominal	Limit
1. Over Scan	Horizontal Vertical	% %	5 5	--- ---
2. Color Temperature	AT 70% WHITE FIELD x y	°K	12000 0.272 0.278	--- ±0.03 ±0.03
3. Resolution	Horizontal Vertical	line line	400 350	--- ---
4. Brightness	AT 100% WHITE FIELD BRT/CNT MAX	cd/m^2	450	---

< AUDIO >

All items are measured across 8 Ω load at speaker output terminal.

Description	Condition	Unit	Nominal	Limit
1. Audio Output Power	10% THD: Lch/Rch	W	5.0/5.0	4.5/4.5
2. Audio Distortion	500mW: Lch/Rch	%	1.0/1.0	4.0/4.0
3. Audio Freq. Response	–6dB: Lch –6dB: Rch	Hz Hz	100 to 12 k 100 to 12 k	--- ---
4. Audio S/N	VIDEO 1	dB	---	>45/45

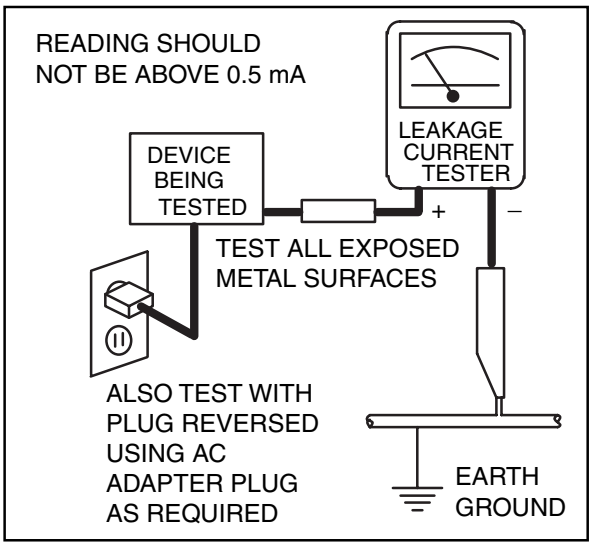
Note: Nominal specifications represent the design specifications. All units should be able to approximate these. Some will exceed and some may drop slightly below these specifications. Limit specifications represent the absolute worst condition that still might be considered acceptable. In no case should 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 LCD module 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 230 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 LCD module.
3. **Design Alteration Warning -** Do not alter or add to the mechanical or electrical design of this LCD 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	Clearance Distance (d), (d')
220 to 240 V	≥ 3mm(d) ≥ 6 mm(d')

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

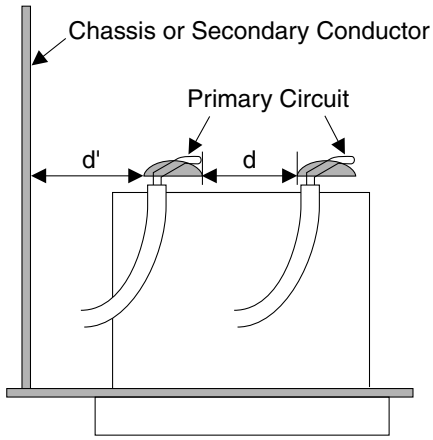


Fig. 1

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.).

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.

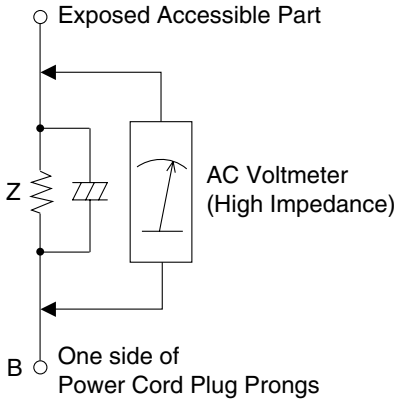


Fig. 2

Table 2: Leakage current ratings for selected areas

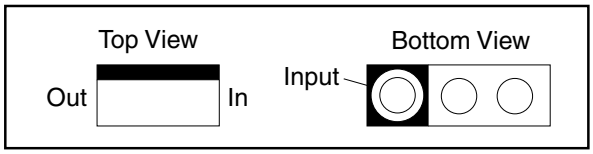
AC Line Voltage	Load Z	Leakage Current (i)	One side of power cord plug prongs (B) to:
220 to 240 V	2kΩ RES. Connected in parallel	i≤0.7mA AC Peak i≤2mA DC	RF or Antenna terminals
	50kΩ RES. Connected in parallel	i≤0.7mA AC Peak i≤2mA DC	A/V Input, Output

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

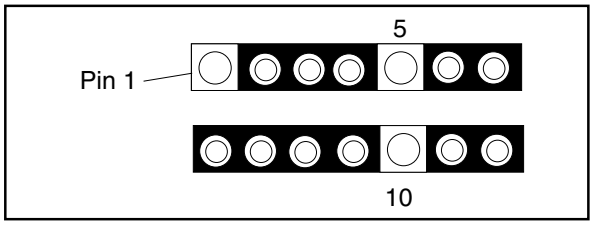
STANDARD NOTES FOR SERVICING

Circuit Board Indications

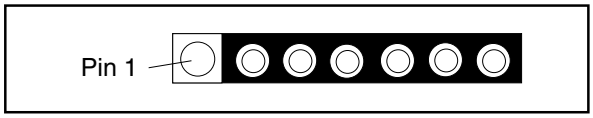
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



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

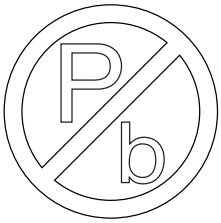


3. The 1st pin of every male connector is indicated as shown.



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)

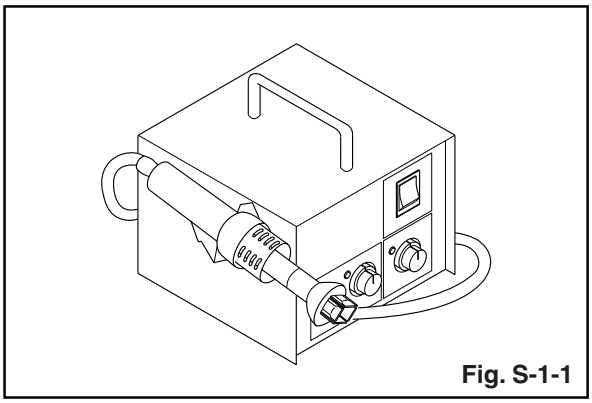


Fig. S-1-1

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.

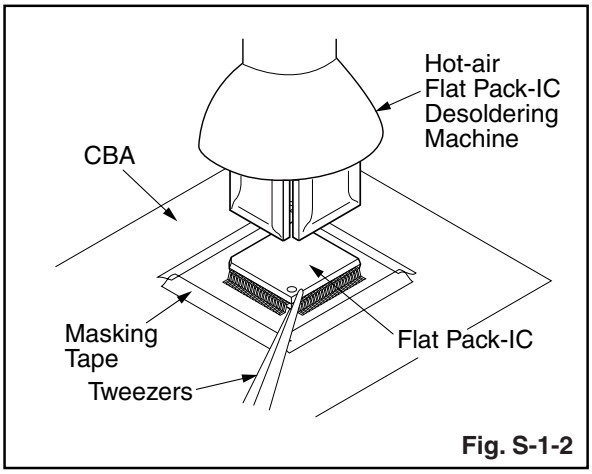


Fig. S-1-2

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)

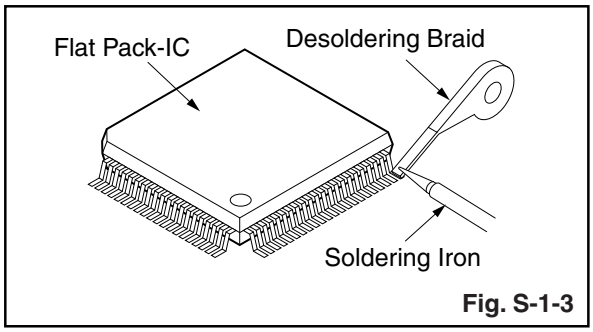


Fig. S-1-3

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)

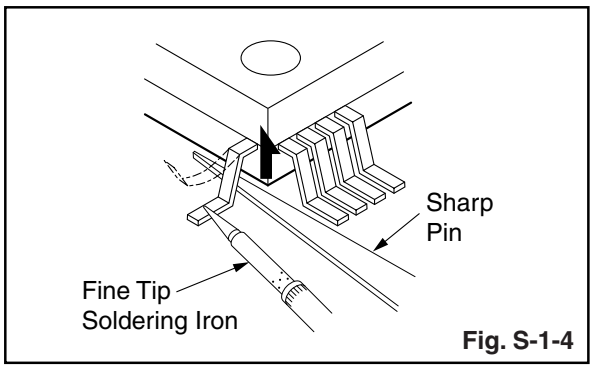


Fig. S-1-4

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.

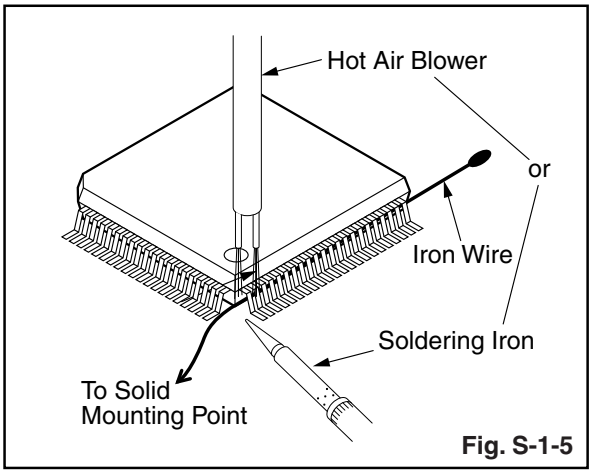


Fig. S-1-5

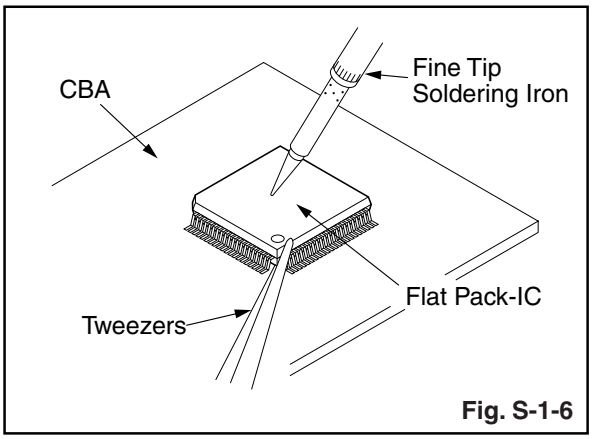


Fig. S-1-6

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.

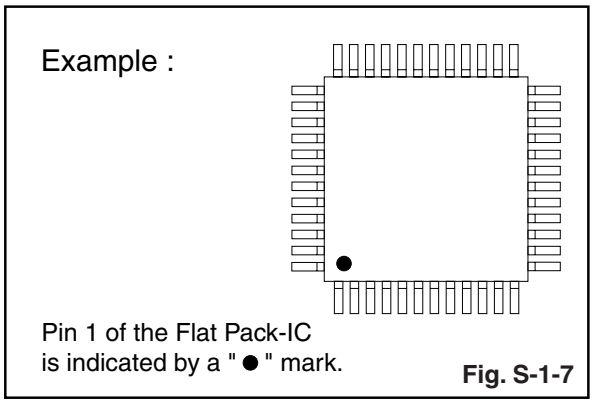


Fig. S-1-7

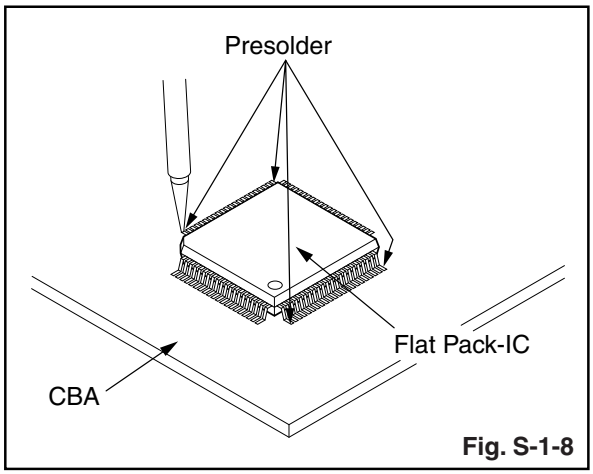


Fig. S-1-8

Instructions for Handling Semi-conductors

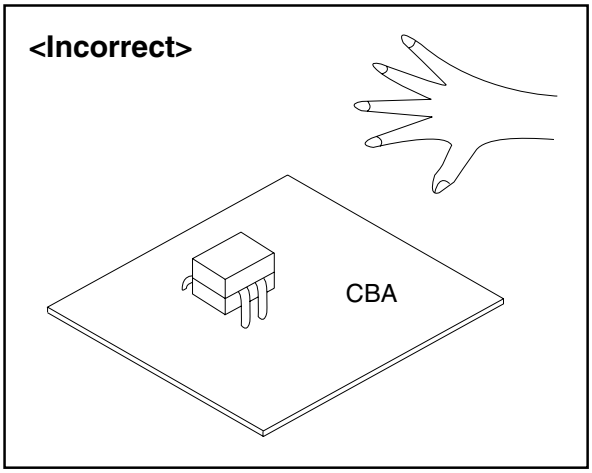
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

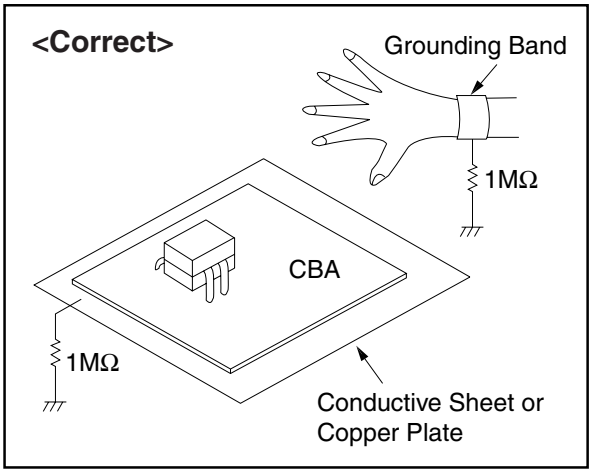
1. Ground for Human Body

Be sure to wear a grounding band (1 MΩ) 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 MΩ) 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.

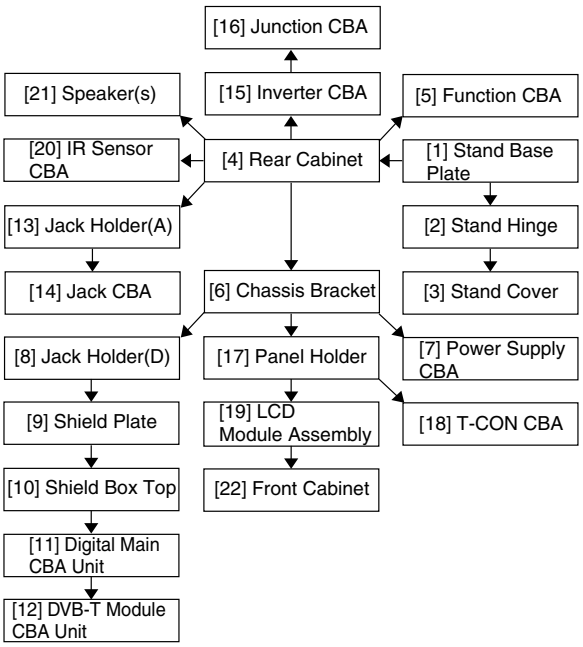




CABINET DISASSEMBLY INSTRUCTIONS

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 Plate	D1	4(S-1), 4(S-2), 5(S-3)	---
[2]	Stand Hinge	D1	----------	---
[3]	Stand Cover	D1	----------	---
[4]	Rear Cabinet	D1	10(S-4), 4(S-5)	---
[5]	Function CBA	D1 D5	3(S-6), *CN3501	---
[6]	Chassis Bracket	D2	8(S-7)	---
[7]	Power Supply CBA	D2 D5	4(S-8), *CN501, *CN701, *CN702, *CN4501, *CN4502, *CN4503, *CN4504, *CLN51B	---
[8]	Jack Holder(D)	D2	(S-9), (S-10), 2(S-11), 2(S-12)	---
[9]	Shield Plate	D2	2(S-13)	---
[10]	Shield Box Top	D2	4(S-14), *CN3302, *CN3802	---
[11]	Digital Main CBA Unit	D2 D5	*CN4104, *CN4105	---
[12]	DVB-T Module CBA Unit	D2 D5	2(S-15), 4(S-16), Shield Box Bottom	---
[13]	Jack Holder(A)	D3	(S-17)	---
[14]	Jack CBA	D3 D5	7(S-18)	---
[15]	Inverter CBA	D3 D5	7(S-19), *CN1050, *CN1100, *CN1150, *CN1200, *CN1250, *CN1300	---
[16]	Junction CBA	D3 D5	Desolder	---
[17]	Panel Holder	D3	8(S-20), 2(S-21)	---
[18]	T-CON CBA	D4 D5	6(S-22), Shield Plate, *CN9001, *CN9002, *CN9005	---
[19]	LCD Module Assembly	D4	6(S-23)	---
[20]	IR Sensor CBA	D4 D5	2(S-24) *CN801, *CN802	---
[21]	Speaker(s)	D4	8(S-25)	---
[22]	Front Cabinet	D4	----------	---
		↓ (3)	↓ (4)	↓ (5)

↓ (1) ↓ (2)

Note:

(1) Order of steps in procedure. When reassembling, follow the steps in reverse order. These numbers are also used as the Identification (location) No. of parts in figures.

(2) Parts to be removed or installed.

(3) Fig. No. showing procedure of part location

(4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
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)

(5) Refer to the following "Reference Notes in the Table."

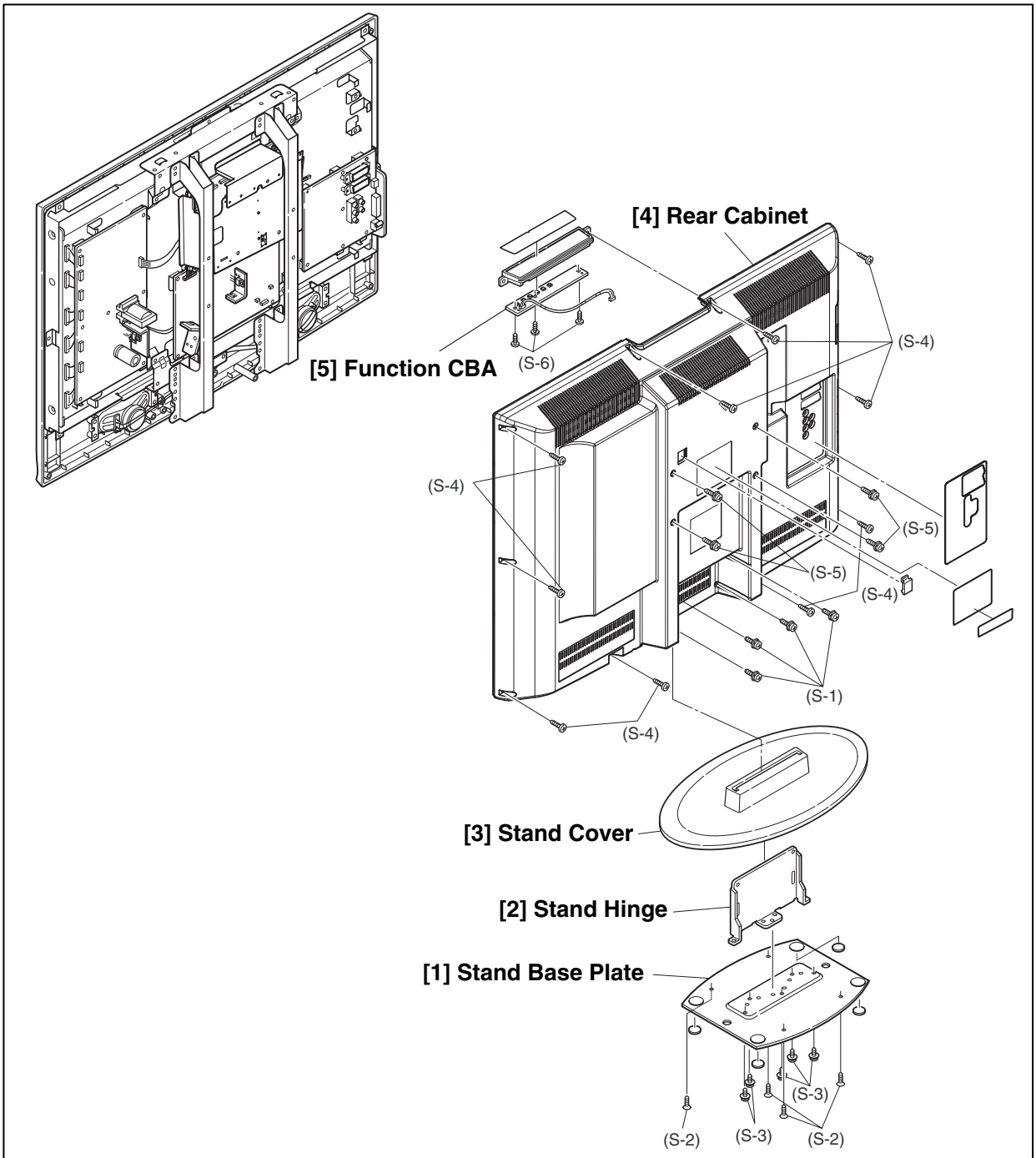


Fig. D1

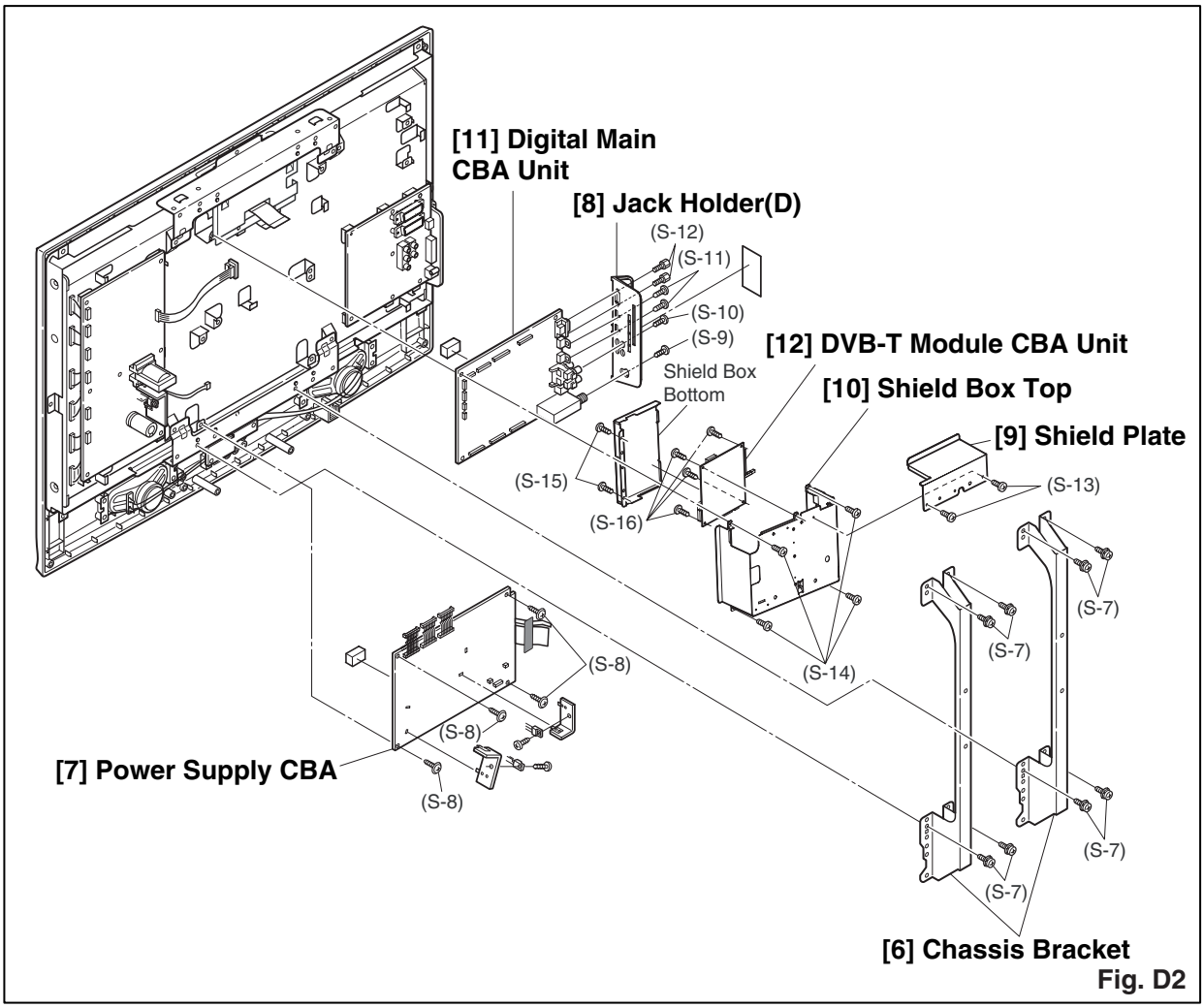


Fig. D2

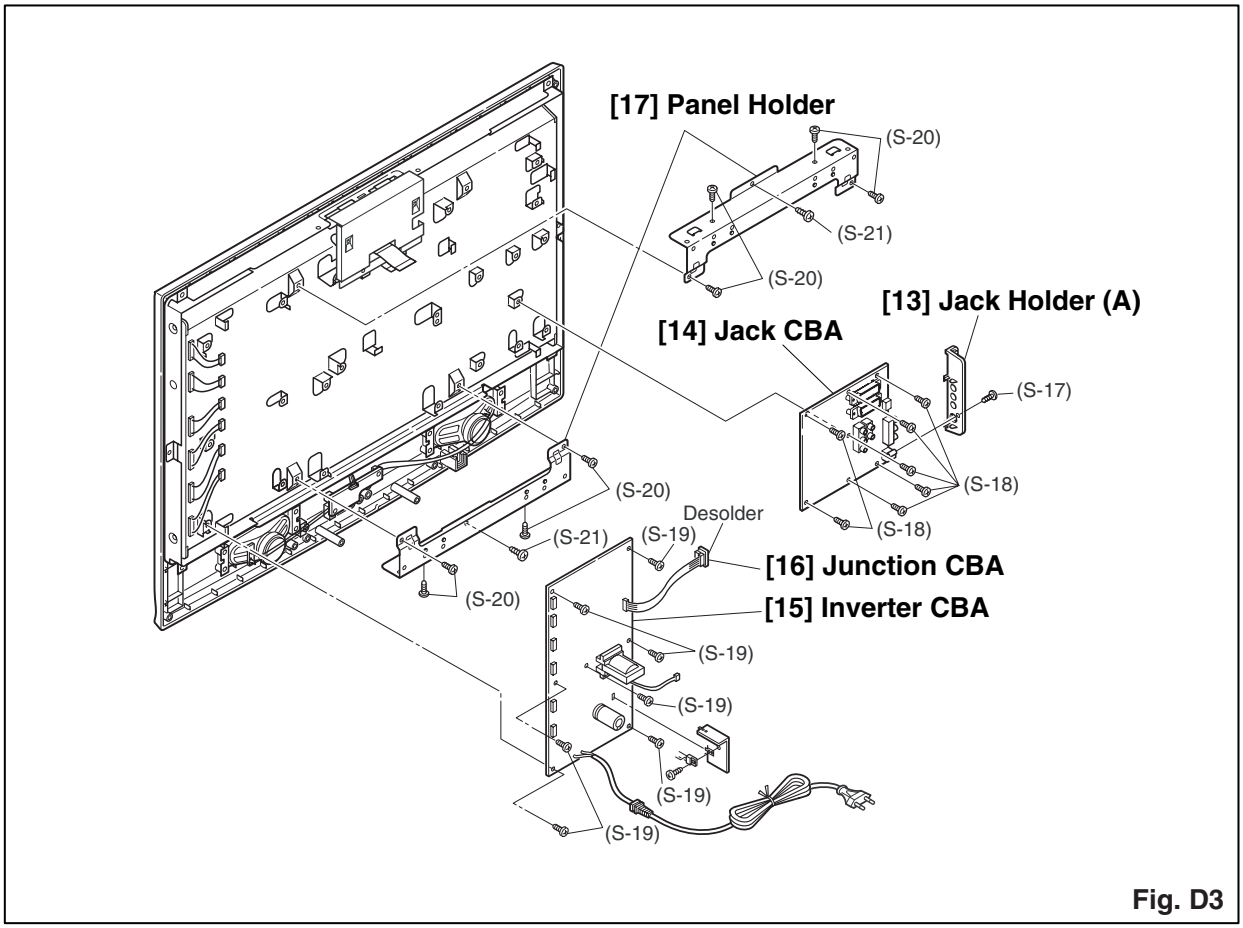


Fig. D3

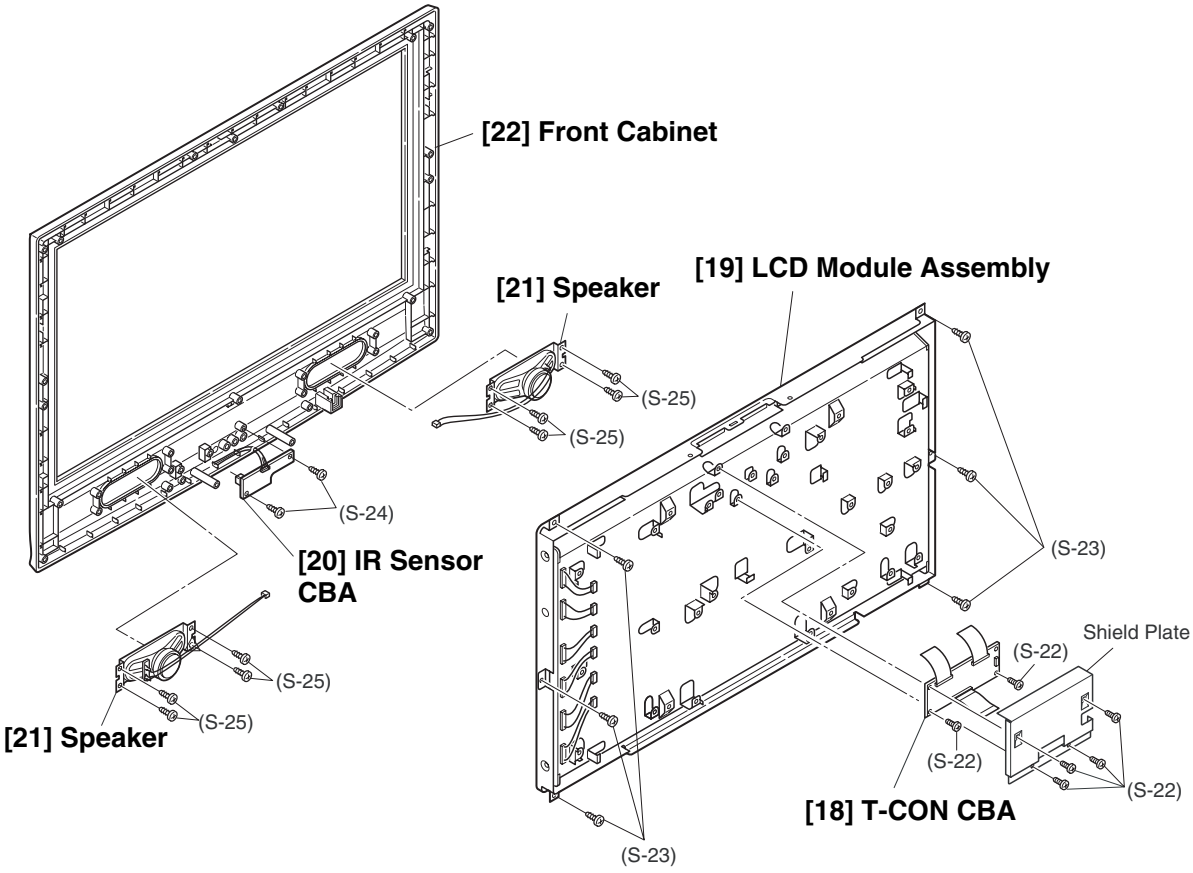


Fig. D4

TV Cable Wiring Diagram

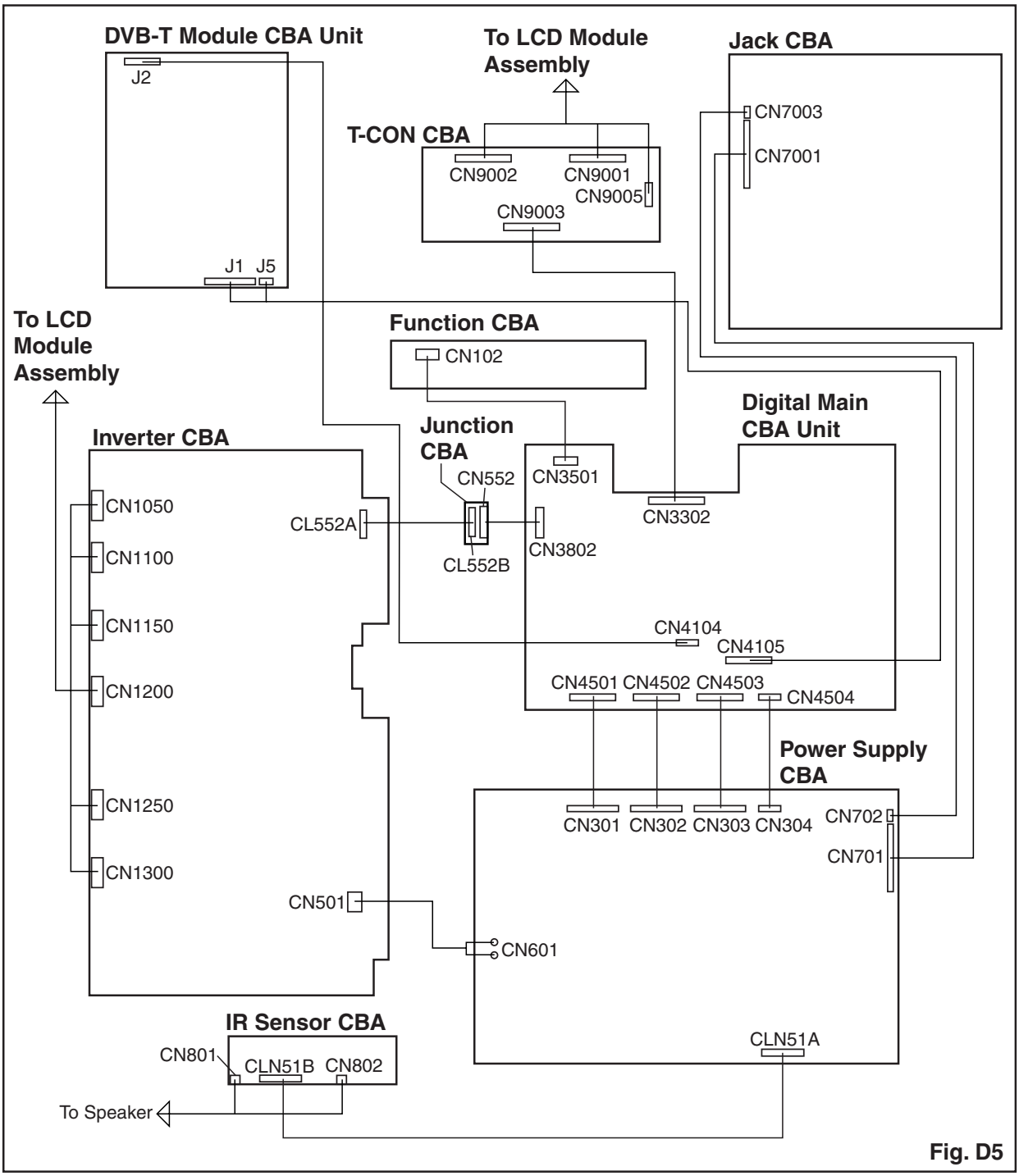


Fig. D5

HOW TO INITIALIZE THE LCD TELEVISION

How to initialize the LCD television:

1. Turn the power off.
2. To enter the service mode, while pressing [MENU] button, press [STANDBY-ON] button on the TV unit.
   - To cancel the service mode, press [STANDBY-ON] button on the remote control.
3. Press [i] button on the remote control unit to initialize the LCD television.
4. Confirm "FF" indication on the upper left of the screen.

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. Pattern Generator
3. Color Analyzer

How to Set up the Service mode:

1. Turn the power off.
2. While pressing [MENU] button, press [STANDBY-ON] button on the TV unit
- To cancel the service mode, press [STANDBY-ON] button on the TV unit.

1. Initial Setting

General

Enter the Service mode.

Set the each initial data as shown on table 1 below.

Table 1: Initial Data

ITEM		BUTTON (on the remote control)	DATA VALUE
PAL SECAM RF	BRT	[MENU(PAL SECAM NTSC)] → [1]	124
	CNT		175
	CLR-R		140
	CLR-B		140
	SHR		112
PAL SECAM NTSC CVBS	BRT	[MENU(PAL SECAM NTSC)] → [2]	125
	CNT		180
	CLR-R		125
	CLR-B		125
	TNT		128
	SHR		143
PAL SECAM NTSC YC	BRT	[MENU(PAL SECAM NTSC)] → [3]	123
	CNT		200
	CLR-R		115
	CLR-B		115
	TNT		128
	SHR		125
PAL SECAM NTSC RGB	BRT	[MENU(PAL SECAM NTSC)] → [4]	132
	CNT		150
	CLR-R		200
	CLR-B		200
	TNT		128
	SHR		125
YUV D1	BRT	[MENU(YUV)] → [1]	125
	CNT		120
	CLR-R		130
	CLR-B		130
	TNT		128
	SHR		112
YUV D2	BRT	[MENU(YUV)] → [2]	125
	CNT		120
	CLR-R		150
	CLR-B		150
	TNT		128
	SHR		125
YUV D3	BRT	[MENU(YUV)] → [3]	122
	CNT		125
	CLR-R		155
	CLR-B		155
	TNT		128
	SHR		112

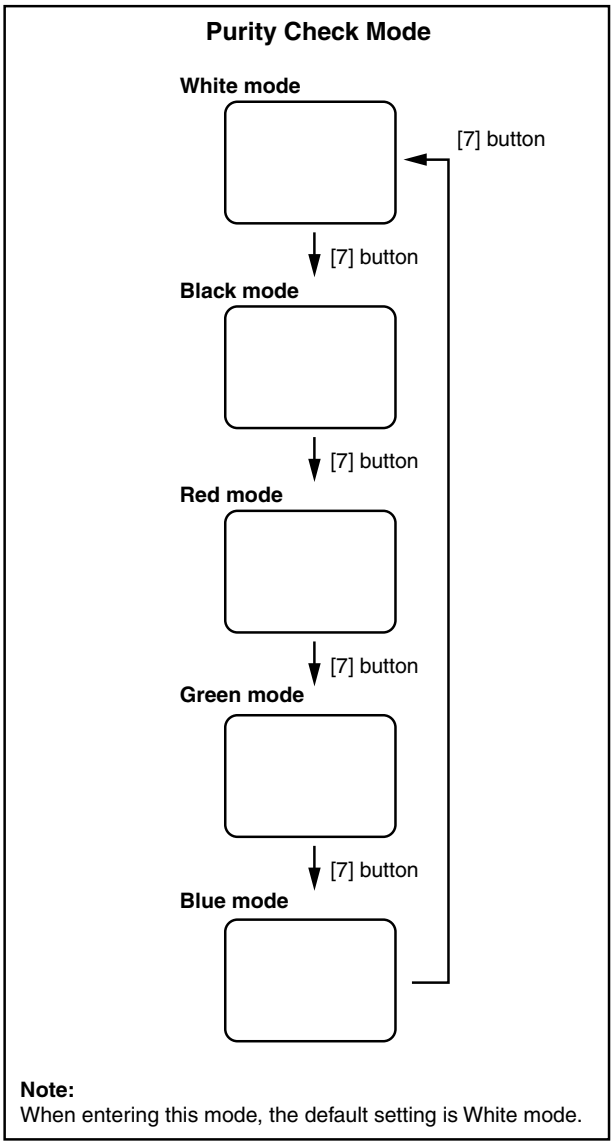
ITEM		BUTTON (on the remote control)	DATA VALUE
YUV D4	BRT	[MENU(YUV)] → [4]	123
	CNT		125
	CLR-R		150
	CLR-B		150
	TNT		128
	SHR		130
HDMI D1	BRT	[MENU(HDMI)] → [1]	125
	CNT		130
	CLR-R		145
	CLR-B		145
	TNT		128
	SHR		125
HDMI D2	BRT	[MENU(HDMI)] → [2]	126
	CNT		130
	CLR-R		160
	CLR-B		160
	TNT		128
	SHR		128
HDMI D3	BRT	[MENU(HDMI)] → [3]	121
	CNT		130
	CLR-R		155
	CLR-B		155
	TNT		120
	SHR		128
HDMI D4	BRT	[MENU(HDMI)] → [4]	121
	CNT		130
	CLR-R		145
	CLR-B		145
	TNT		128
	SHR		128
HDMI VGA	BRT	[MENU(HDMI)] → [5]	128
	CNT		128
	CLR-R		138
	CLR-B		138
	TNT		128
	SHR		112
PC	BRT	[MENU(PC DVB-T)] → [1]	122
	CNT		128
DVB-T	BRT	[MENU(PC DVB-T)] → [2]	142
	CNT		130
	CLR-R		160
	CLR-B		160
	SHR		112
BRIGHT		[0]	255
NORMAL		[0]	176
DARK		[0]	112
LAST POWER		[◢ -]	ON
COR(C/D/S 1)		[◢ -] → [1]	128
COG(C/D/S 1)		[◢ -] → [2]	128
COB(C/D/S 1)		[◢ -] → [3]	128
DR(C/D/S 1)		[◢ -] → [4]	128

ITEM	BUTTON (on the remote control)	DATA VALUE
DG(C/D/S 1)	[◢ -] → [5]	128
DB(C/D/S 1)	[◢ -] → [6]	128
SBR(C/D/S 1)	[◢ -] → [7]	63
SBB(C/D/S 1)	[◢ -] → [9]	63
COR(C/D/S 2)	[◢ -] → [1]	128
COG(C/D/S 2)	[◢ -] → [2]	128
COB(C/D/S 2)	[◢ -] → [3]	128
DR(C/D/S 2)	[◢ -] → [4]	128
DG(C/D/S 2)	[◢ -] → [5]	128
DB(C/D/S 2)	[◢ -] → [6]	128
SBR(C/D/S 2)	[◢ -] → [7]	63
SBB(C/D/S 2)	[◢ -] → [9]	63
COR(C/D/S 3)	[◢ -] → [1]	128
COG(C/D/S 3)	[◢ -] → [2]	128
COB(C/D/S 3)	[◢ -] → [3]	128
DR(C/D/S 3)	[◢ -] → [4]	128
DG(C/D/S 3)	[◢ -] → [5]	128
DB(C/D/S 3)	[◢ -] → [6]	128
SBR(C/D/S 3)	[◢ -] → [7]	63
SBB(C/D/S 3)	[◢ -] → [9]	63
COR(C/D/S 4)	[◢ -] → [1]	121
COG(C/D/S 4)	[◢ -] → [2]	128
COB(C/D/S 4)	[◢ -] → [3]	130
DR(C/D/S 4)	[◢ -] → [4]	134
DG(C/D/S 4)	[◢ -] → [5]	128
DB(C/D/S 4)	[◢ -] → [6]	112

2. 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 remote control unit, the display changes as follows.

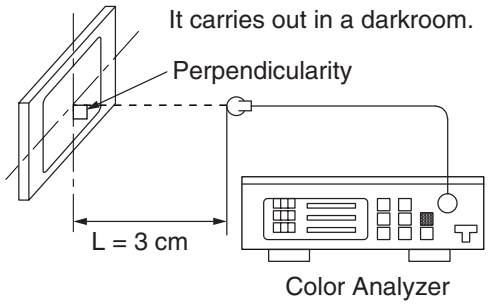


Note:
When entering this mode, the default setting is White mode.

3. Flicker Adjustment

*This adjustment is required when reparing T-CON CBA.

Test Point	Adj. Point
Screen	[P ∧ / ∨] buttons
M. EQ.	**Spec.**
Color analyzer	See below
Figure	



1. Operate the unit for more than 20 minutes.
2. Set the color analyzer 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.
3. Enter the Service mode.
4. Press [2] button on the remote control unit.
5. Press [P ∧ / ∨] buttons on the remote control unit so that the color analyzer value becomes minimum.

4. Auto Calibration [Component]

Purpose: To bring the color adjustment of each component into standard alignment.

Symptom of Misadjustment: If this adjustment is incorrect, component signals do not reproduce the corresponding color.

1. Input the 100% White Purity (1080i /59.94 (30sF)).
2. Enter the service mode.
3. To enter the Auto Calibration adjustment mode, press [6] button on the remote control unit.
4. To start auto adjustment, press [◢ +] button on the remote control unit.

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

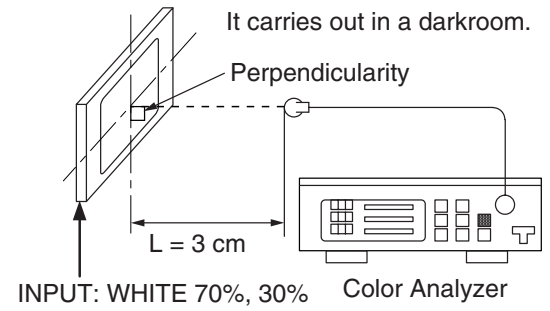
5. White Balance Adjustment

*This adjustment is needed when reparing T-CON CBA.

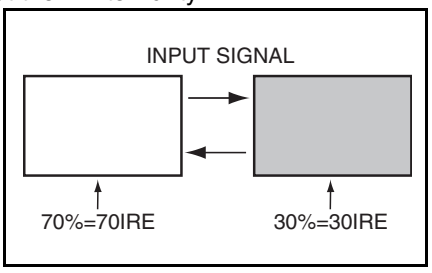
Purpose: To mix red, green and blue beams correctly for pure white.

Symptom of Misadjustment: White becomes bluish or reddish.

Test Point	Adj. Point	Mode	Input
Screen	[◢ -] button	**[CVBS]** C/D/S 1 **[YUV]** C/D/S 2 **[RGB]** C/D/S 3	White Purity (APL 70%) or (APL 30%)
M. EQ.		**Spec.**	
Pattern Generator, Color analyzer		(APL 70%) x= 0.272 ± 0.03, y= 0.278 ± 0.03 (APL 30%) x= 0.272 ± 0.01, y= 0.278 ± 0.01	
Figure			



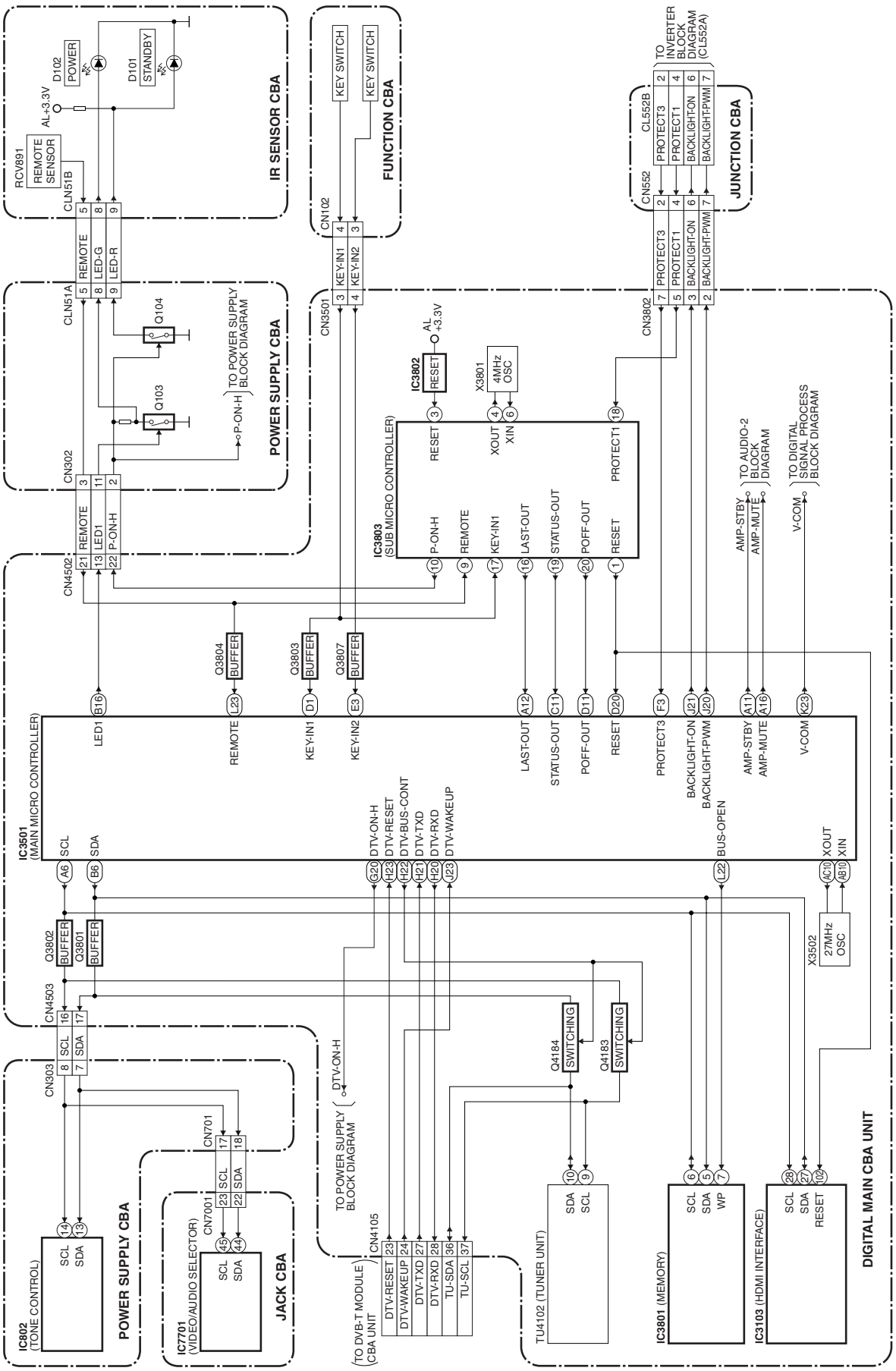
1. Operate the unit for more than 20 minutes.
2. Input the White Purity.



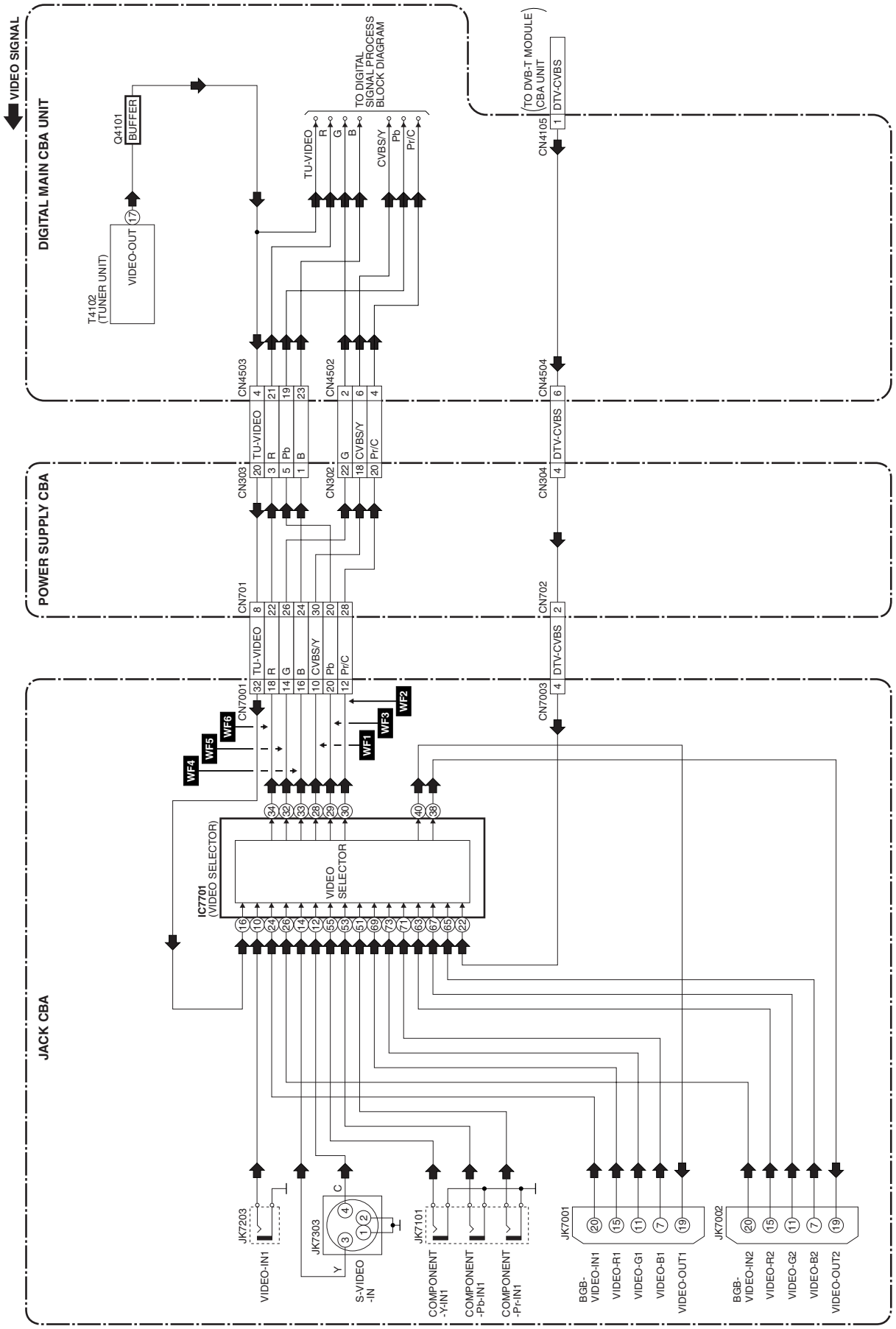
3. Set the color analyzer to the CHROMA mode and bring the optical receptor to the center on the LCD-Panel surface after zero point calibration as shown above.
   Note: The optical receptor must be set perpendicularly to the LCD Panel surface.
4. **[CVBS]**
   Enter the Service mode. Press [◢ -] button on the remote control unit and select “C/D/S 1” mode.
   [YUV]
   Enter the Service mode. Press [◢ -] button on the remote control unit and select “C/D/S 2” mode.
   [RGB]
   Enter the Service mode. Press [◢ -] button on the remote control unit and select “C/D/S 3” mode.
5. **[CVBS]----(APL 70%)**
   Press [6] button to select “DB 1(C/D/S 1)” for Blue adjustment. Press [4] button to select “DR 1(C/D/S 1)” for Red adjustment. When “x” value and “y” value are not within specification, adjust “DB 1(C/D/S 1)” or “DR 1(C/D/S 1)”. Refer to “1. Initial Setting.”
   [CVBS]----(APL 30%)
   Press [3] button to select “COB 1(C/D/S 1)” for Blue adjustment. Press [1] button to select “COR 1(C/D/S 1)” for Red adjustment. When “x” value and “y” value are not within specification, adjust “COB 1(C/D/S 1)” or “COR 1(C/D/S 1)”. Refer to “1. Initial Setting.”
   After adjusting (APL 30%), verify (APL 70%) again and adjust repeatedly until both values are within specification.
6. **[YUV]----(APL 70%)**
   Press [6] button to select “DB 2(C/D/S 2)” for Blue adjustment. Press [4] button to select “DR 2(C/D/S 2)” for Red adjustment. When “x” value and “y” value are not within specification, adjust “DB 2(C/D/S 2)” or “DR 2(C/D/S 2)”. Refer to “1. Initial Setting.”
   [YUV]----(APL 30%)
   Press [3] button to select “COB 2(C/D/S 2)” for Blue adjustment. Press [1] button to select “COR 2(C/D/S 2)” for Red adjustment. When “x” value and “y” value are not within specification, adjust “COB 2(C/D/S 2)” or “COR 2(C/D/S 2)”.
   Refer to “1. Initial Setting.”
   After adjusting (APL 30%), verify (APL 70%) again and adjust repeatedly until both values are within specification.
7. **[RGB]----(APL 70%)**
   Press [6] button to select “DB 3(C/D/S 3)” for Blue adjustment. Press [4] button to select “DR 3(C/D/S 3)” for Red adjustment.When “x” value and “y” value are not within specification, adjust “DB 3(C/D/S 3)” or “DR 3(C/D/S 3)”. Refer to “1. Initial Setting.”
   [RGB]----(APL 30%)
   Press [3] button to select “COB 3(C/D/S 3)” for Blue adjustment. Press [1] button to select “COR 3(C/D/S 3)” for Red adjustment. When “x” value and “y” value are not within specification, adjust “COB 3(C/D/S 3)” or “COR 3(C/D/S 3)”.
   Refer to “1. Initial Setting.”
   After adjusting (APL 30%), verify (APL 70%) again and adjust repeatedly until both values are within specification.
8. Turn the power off and on again.

BLOCK DIAGRAMS

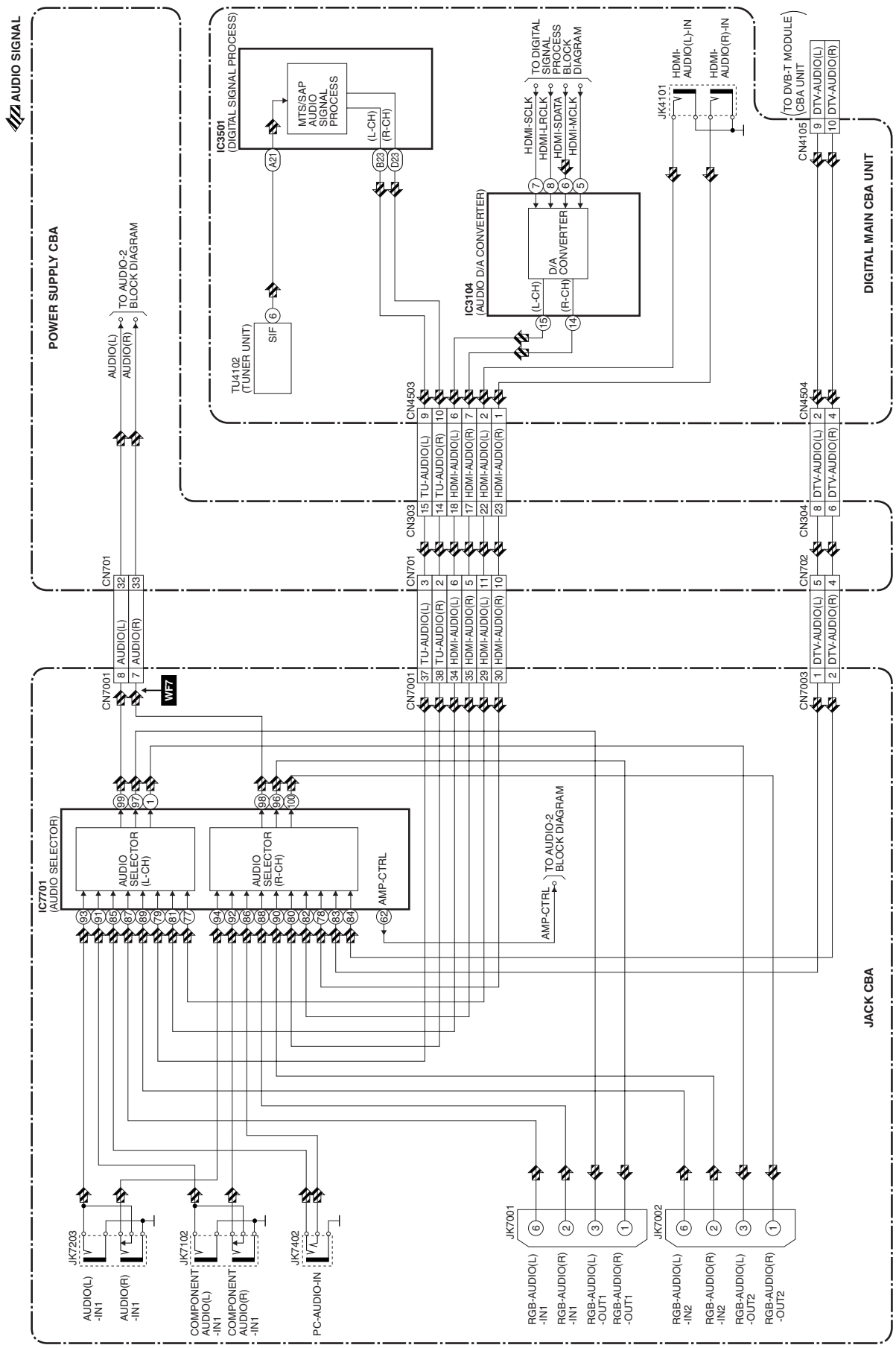
System Control Block Diagram



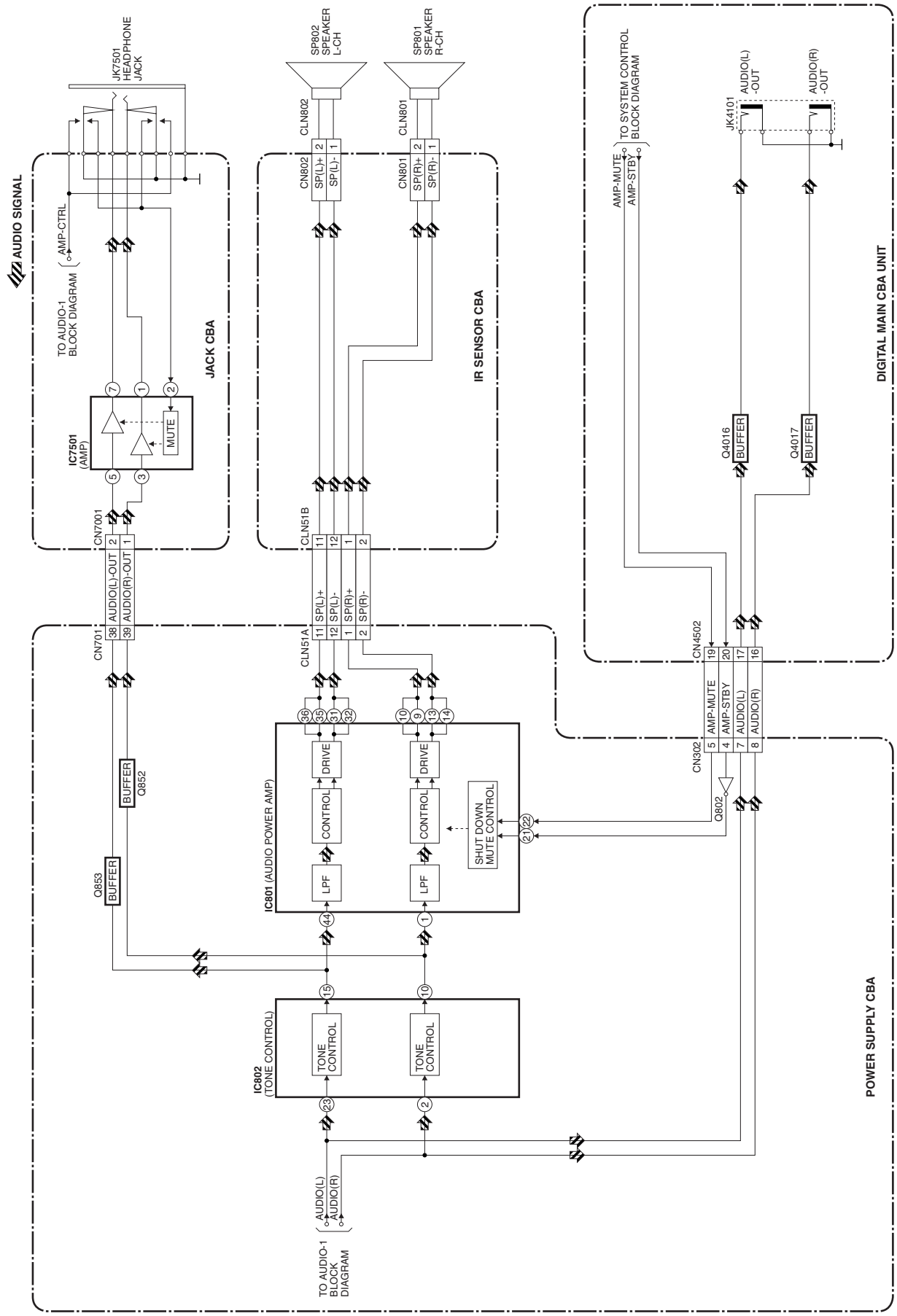
Video Block Diagram



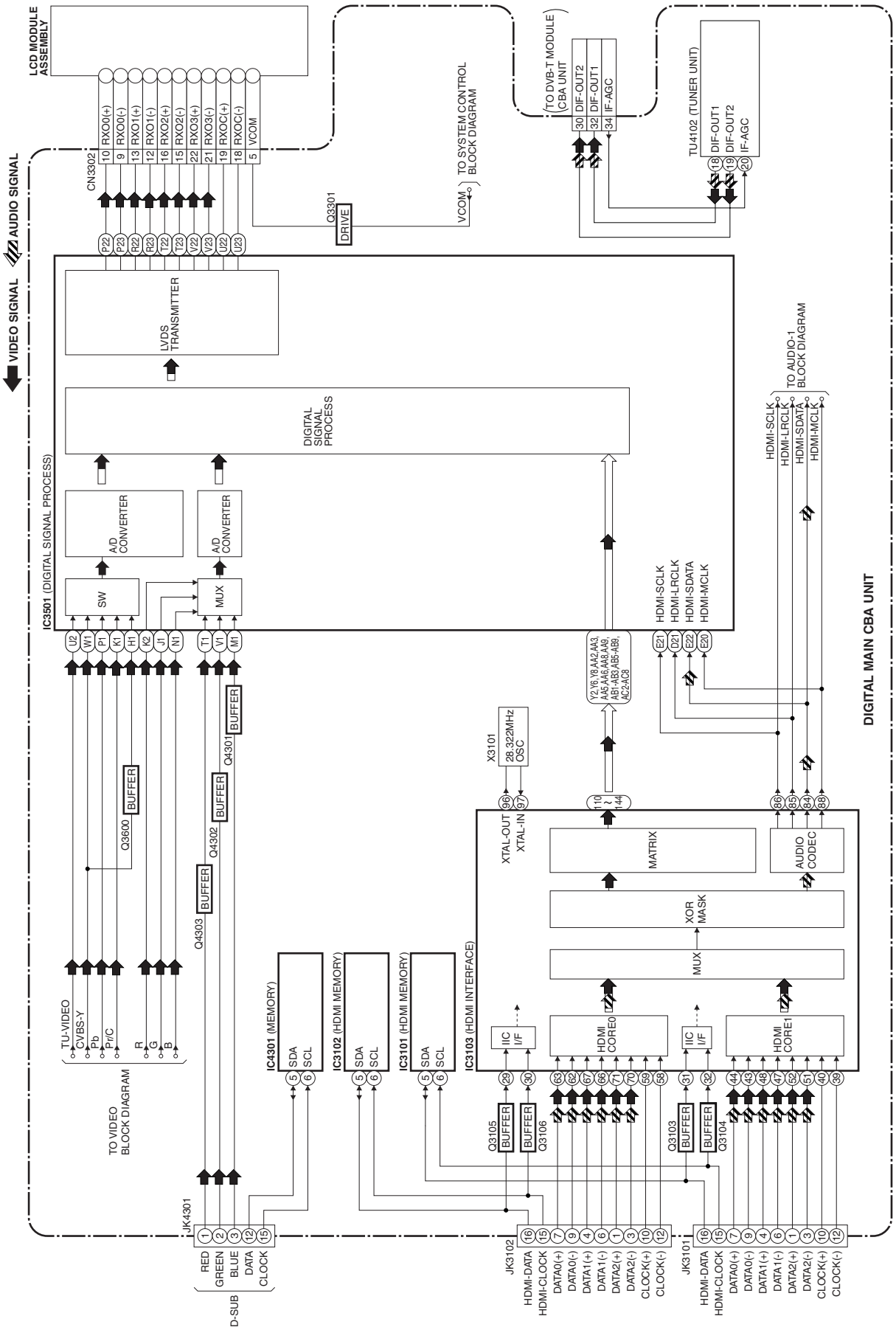
Audio-1 Block Diagram



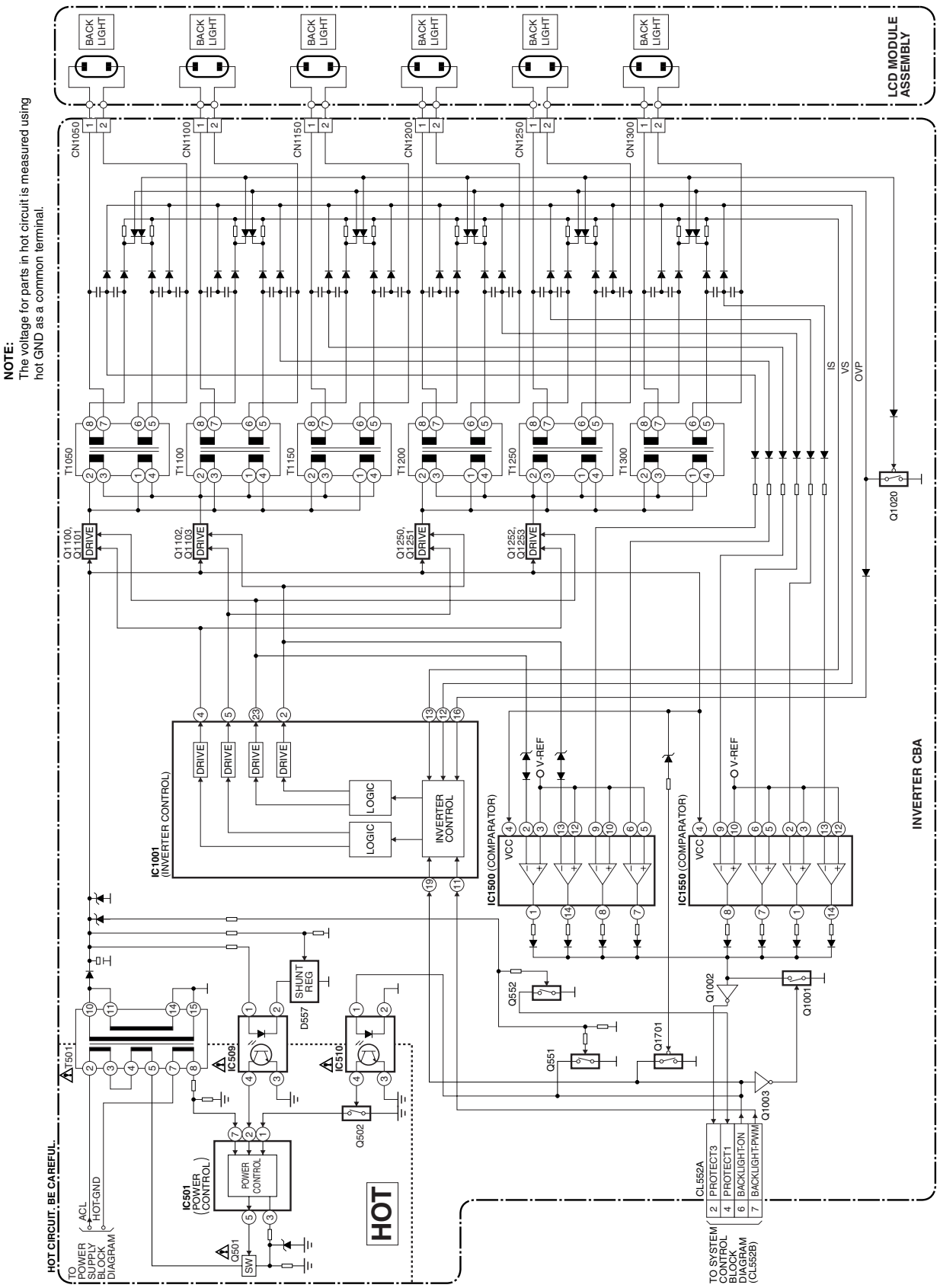
Audio-2 Block Diagram



Digital Signal Process Block Diagram



Inverter Block Diagram

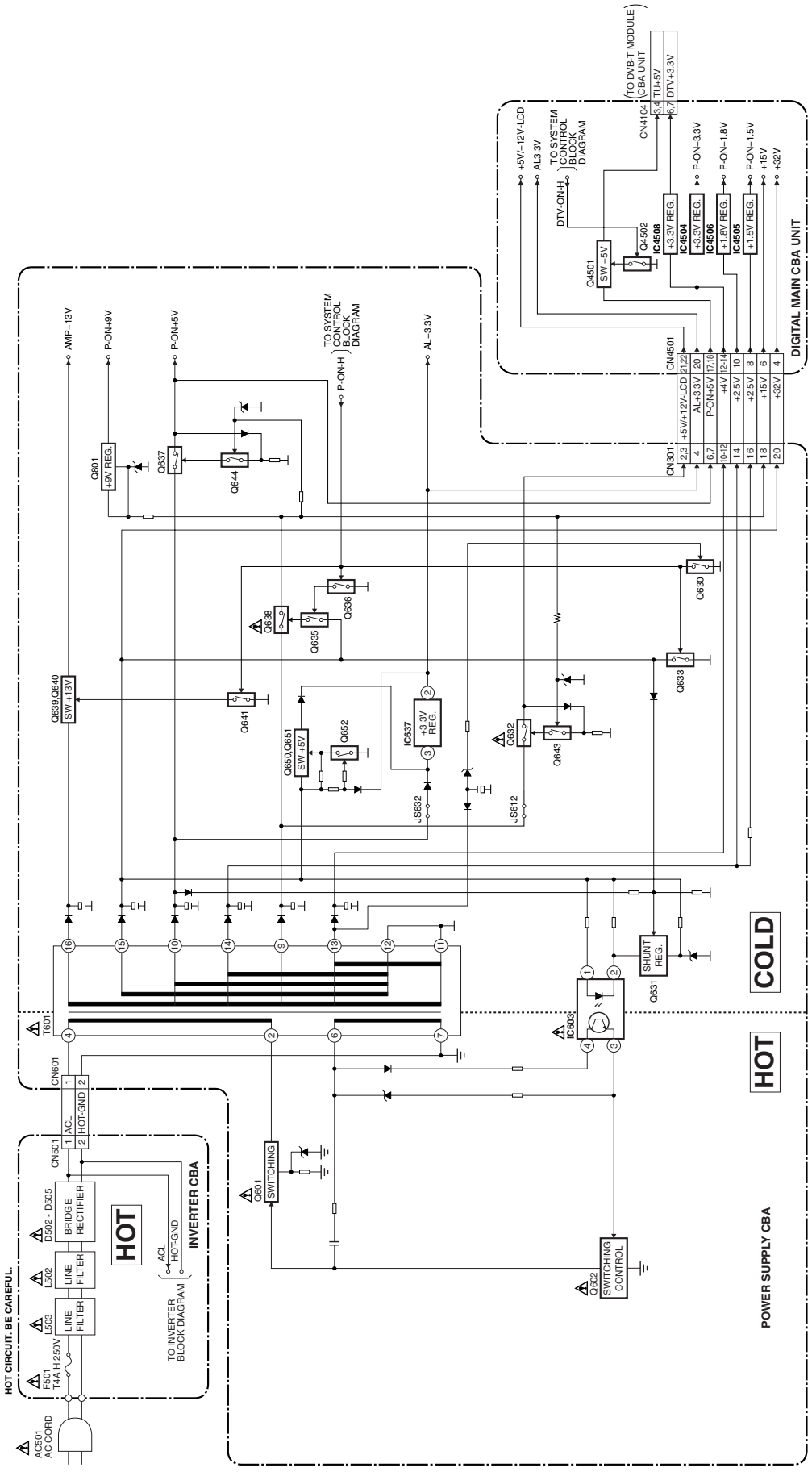


Power Supply Block Diagram

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F501) 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 fire hazard, replace only with the same type fuse.

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 μF ($P = 10^{-6}$ μF).
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:

FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE FUSE.

2. CAUTION:

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

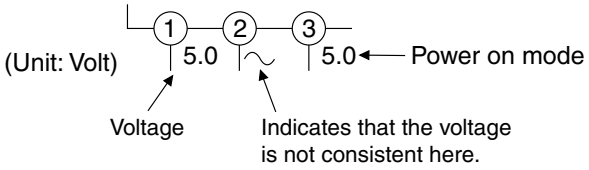
If Main Fuse (F501) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

3. Note:

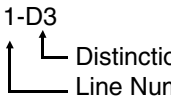
1. Do not use the part number shown on the drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since the drawings were prepared.
2. To maintain original function and reliability of repaired units, use only original replacement parts which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

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

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

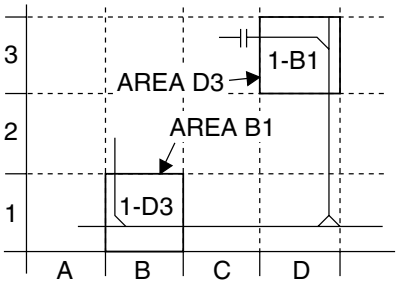


5. How to read converged lines



Examples:

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



6. Test Point Information

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

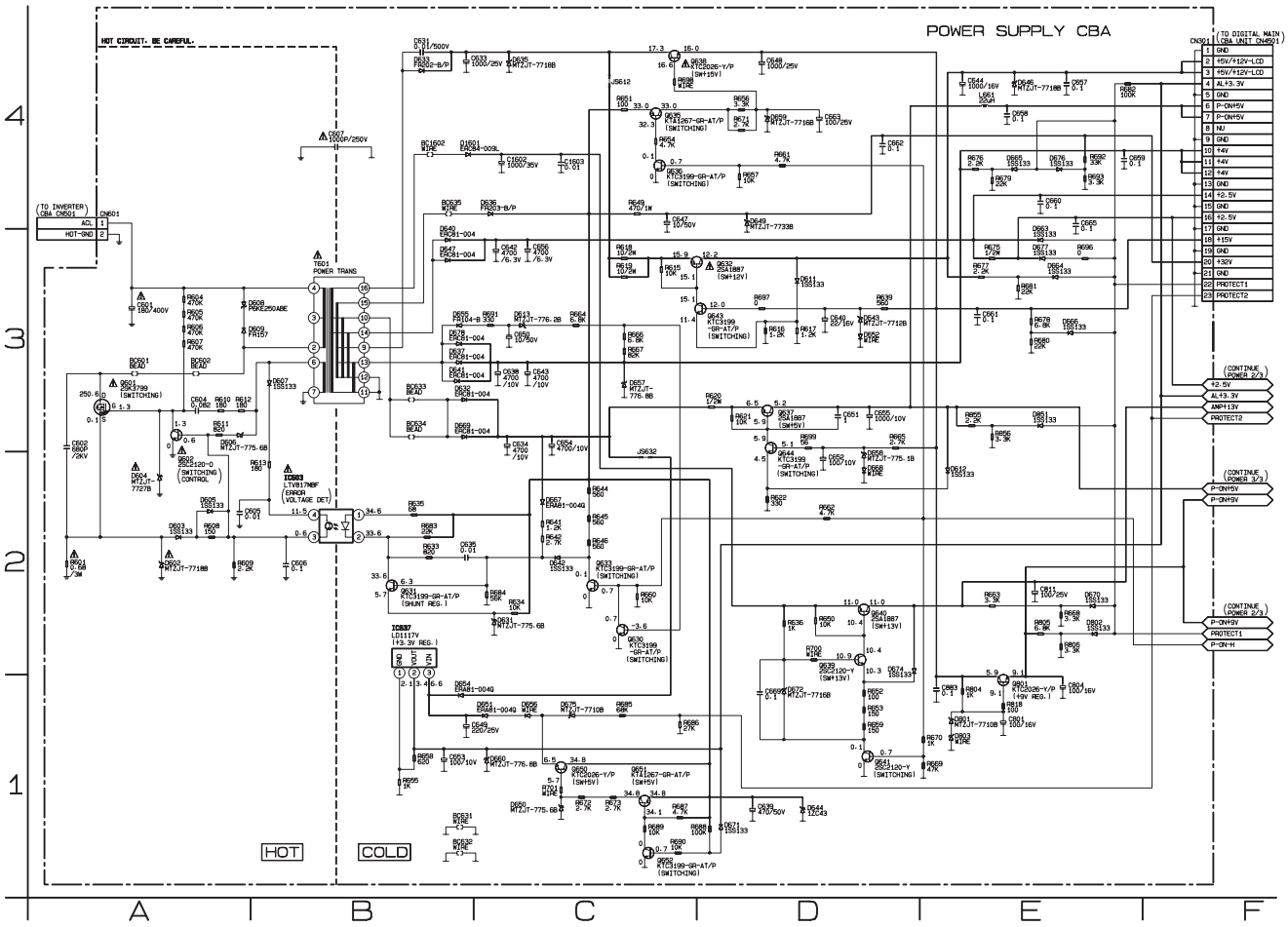
: Used to indicate a test point with a component lead on foil side.

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

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

Power Supply 1/3 Schematic Diagram

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

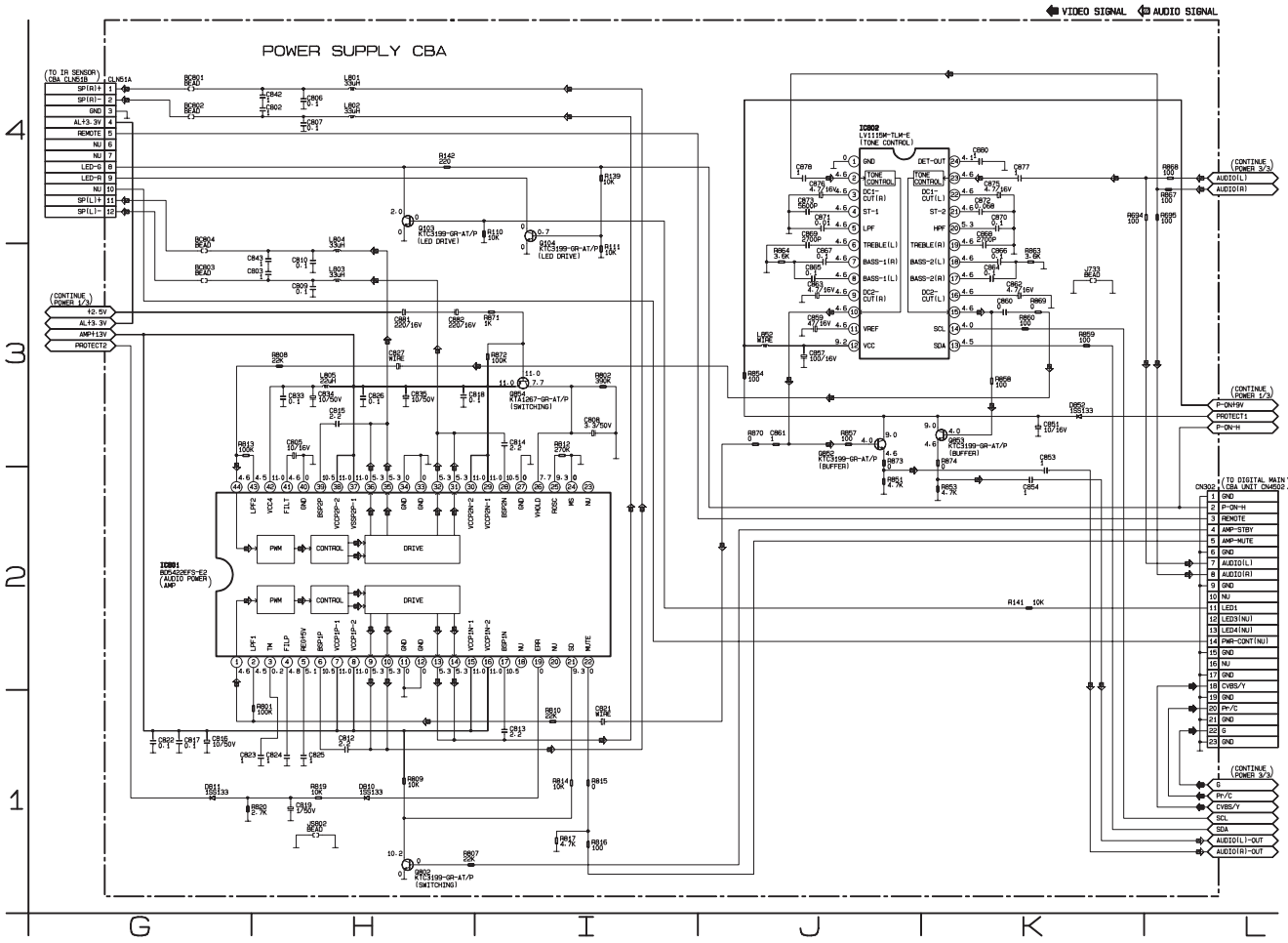


VOLTAGE CHART

CN301

Pin No.	Voltage
1	0
2	12.1
3	12.1
4	3.4
5	0
6	5.2
7	5.2
8	---
9	0
10	5.3
11	5.3
12	5.3
13	0
14	3.4
15	0
16	2.9
17	0
18	15.9
19	0
20	32.1
21	0
22	3.3
23	0

Power Supply 2/3 Schematic Diagram

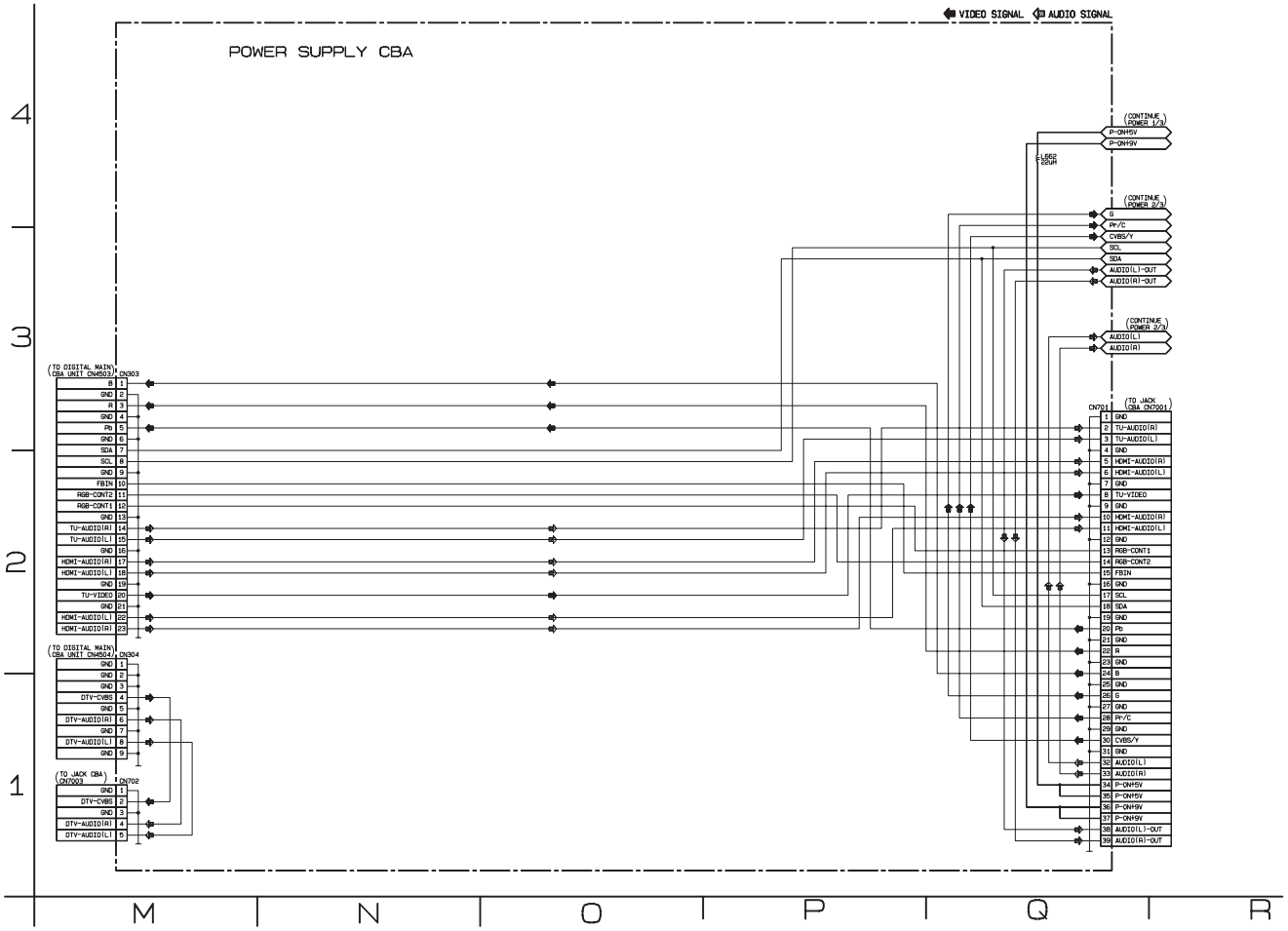


VOLTAGE CHART

CN302

Pin No.	Voltage
1	0
2	2.4
3	3.4
4	0
5	3.3
6	0
7	4.5
8	4.5
9	0
10	3.3
11	0
12	---
13	---
14	---
15	0
16	---
17	0
18	2.4
19	0
20	2.4
21	0
22	2.4
23	0

Power Supply 3/3 Schematic Diagram



VOLTAGE CHART

CN303

Pin No.	Voltage
1	2.4
2	0
3	2.4
4	0
5	2.5
6	0
7	5
8	5
9	0
10	0
11	5.2
12	5.2
13	0
14	3.3
15	3.2
16	0
17	2.6
18	2.6
19	0
20	2.3
21	0
22	0.6
23	0.6

CN304

Pin No.	Voltage
1	0
2	0
3	0
4	0.6
5	0
6	2.4
7	0
8	2.3
9	0

Inverter & Junction Schematic Diagram

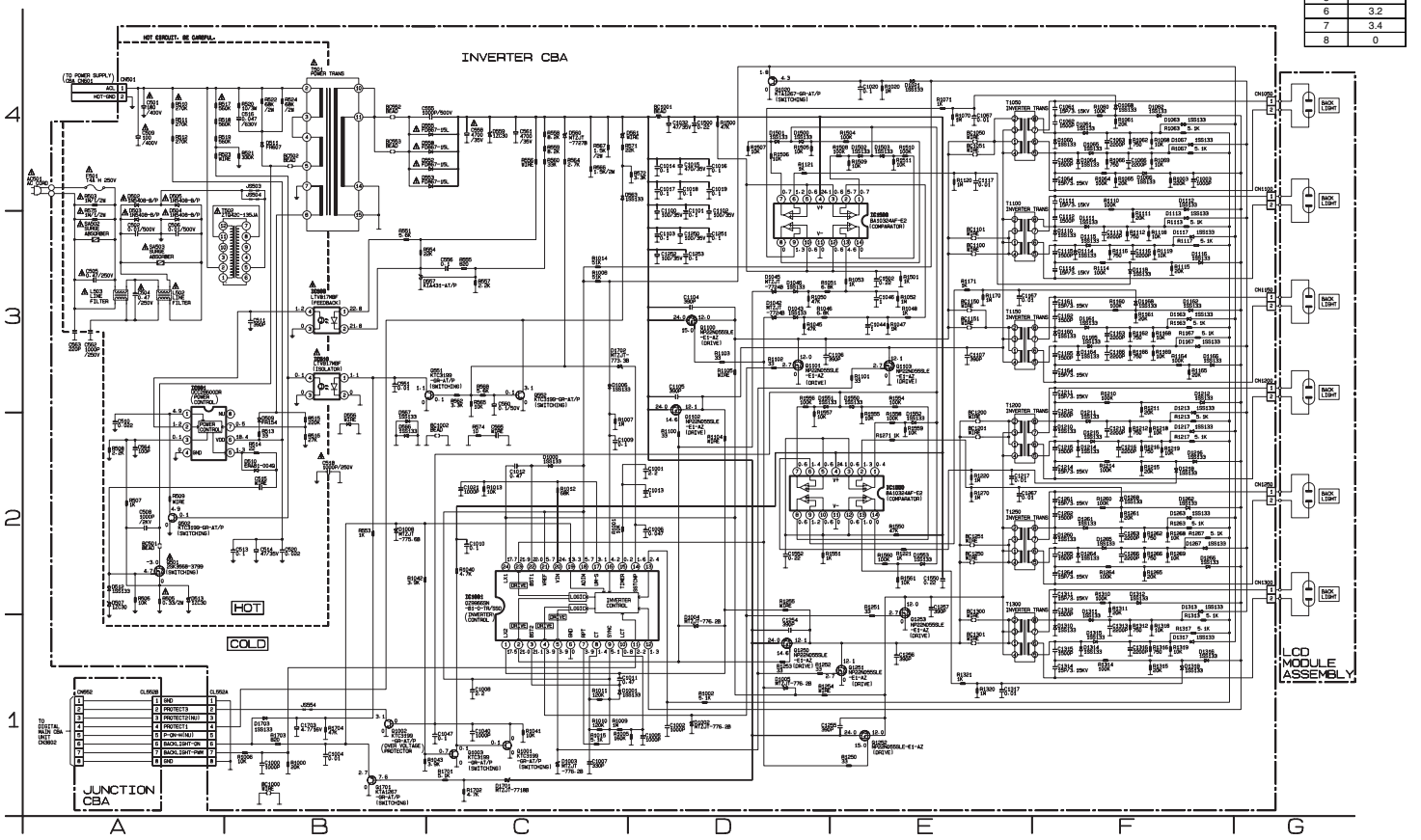
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit. If Main Fuse (F501) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

CAUTION !
For continued protection against fire hazard, replace only with the same type fuse.

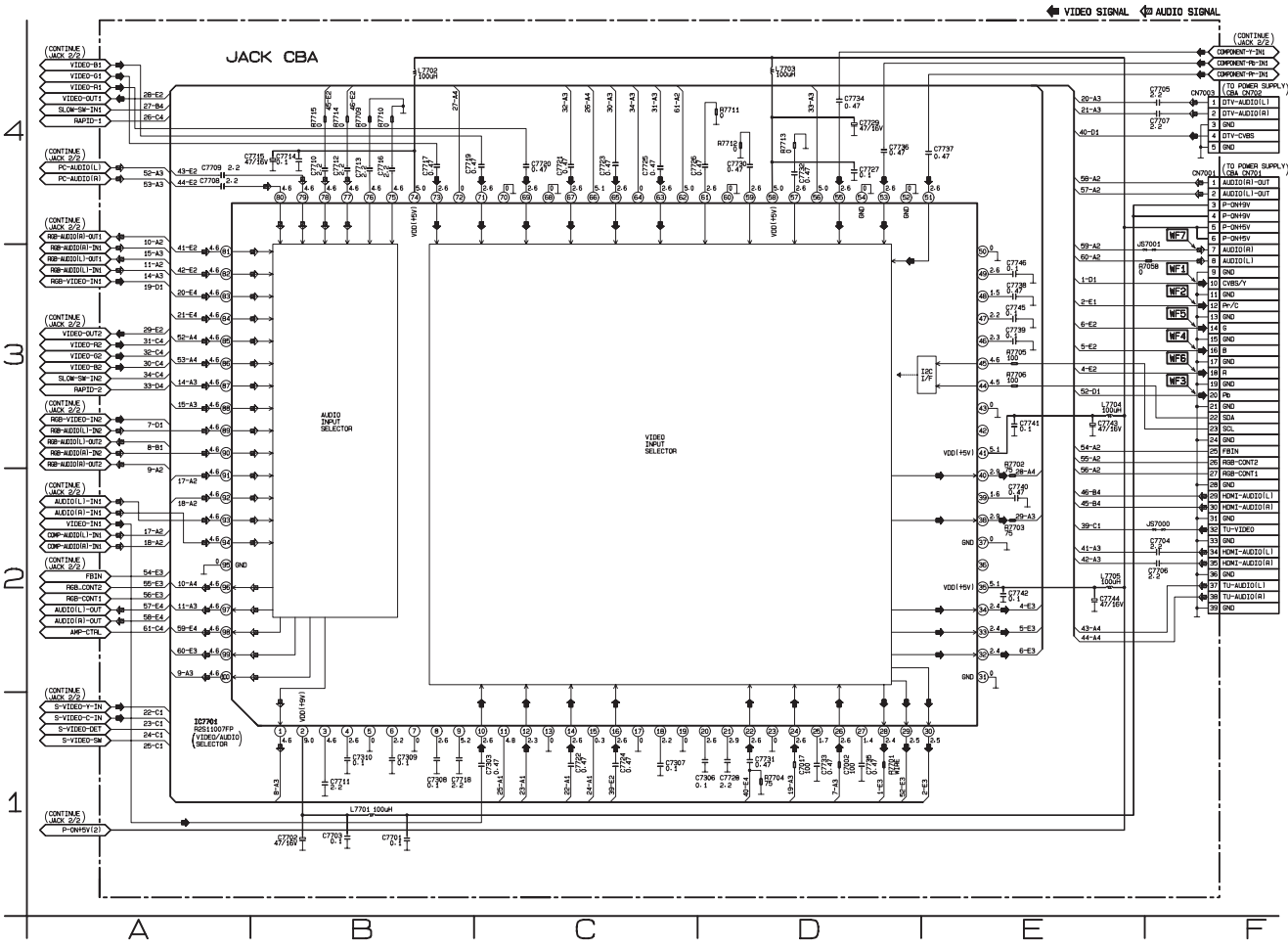
NOTE:
The voltage for parts in hot circuit is measured using hot GND as a common terminal.

VOLTAGE CHART
CN552

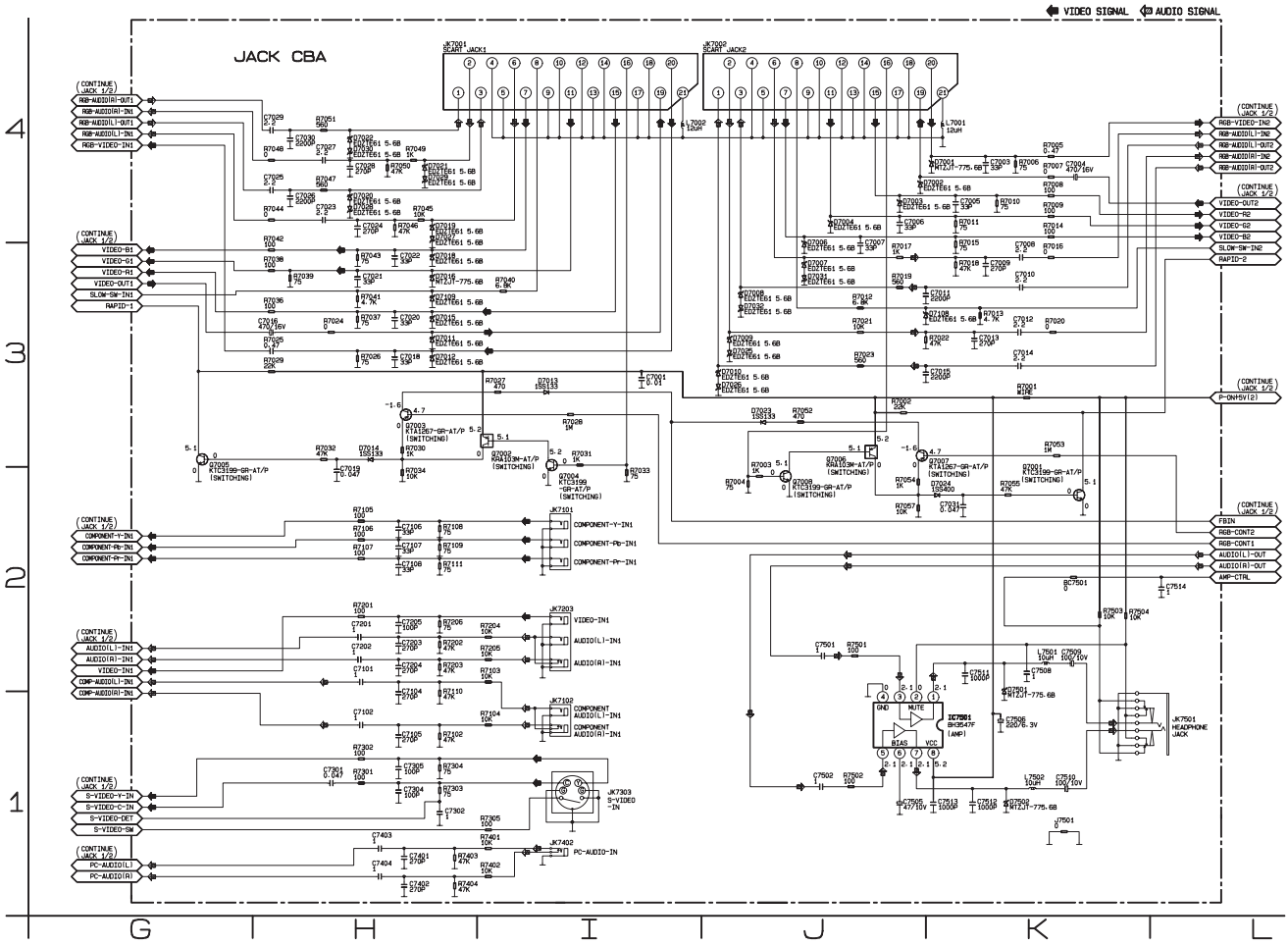
Pin No.	Voltage
1	0
2	3.1
3	---
4	3.1
5	---
6	3.2
7	3.4
8	0



Jack 1/2 Schematic Diagram



Jack 2/2 Schematic Diagram

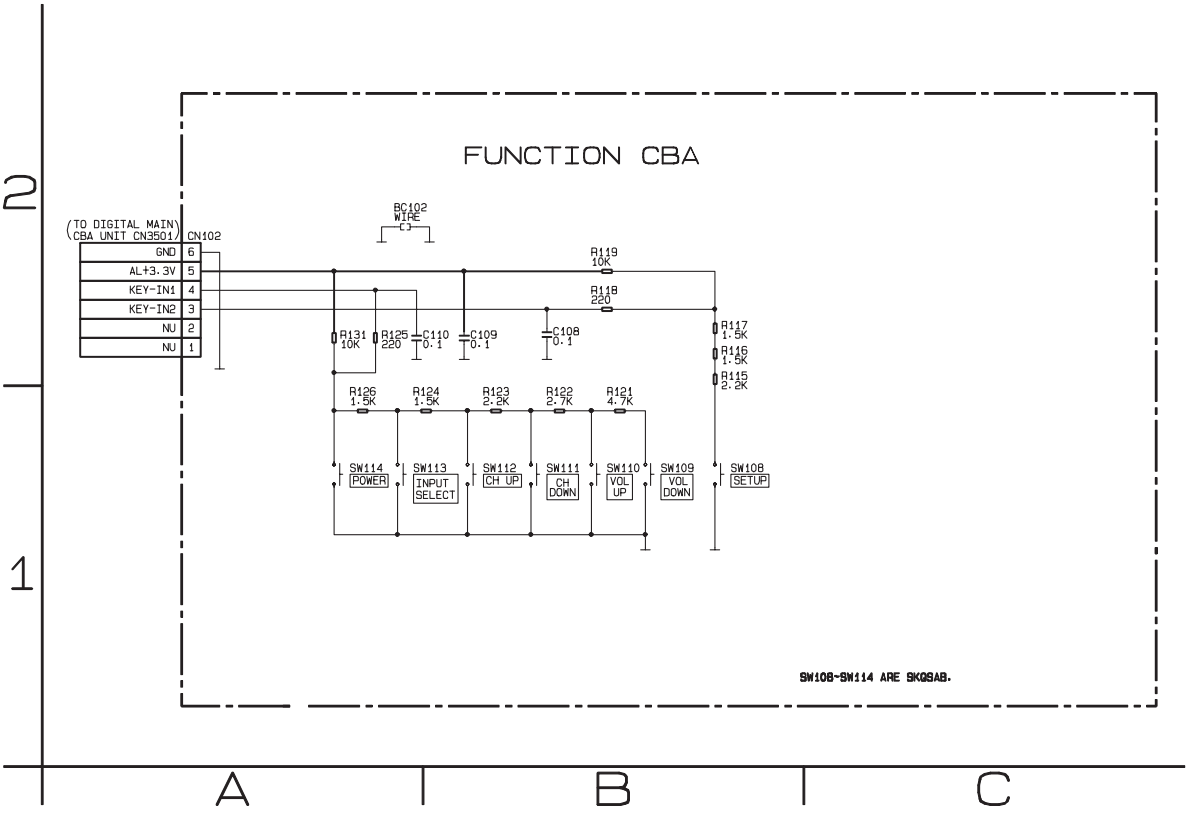


Function Schematic Diagram

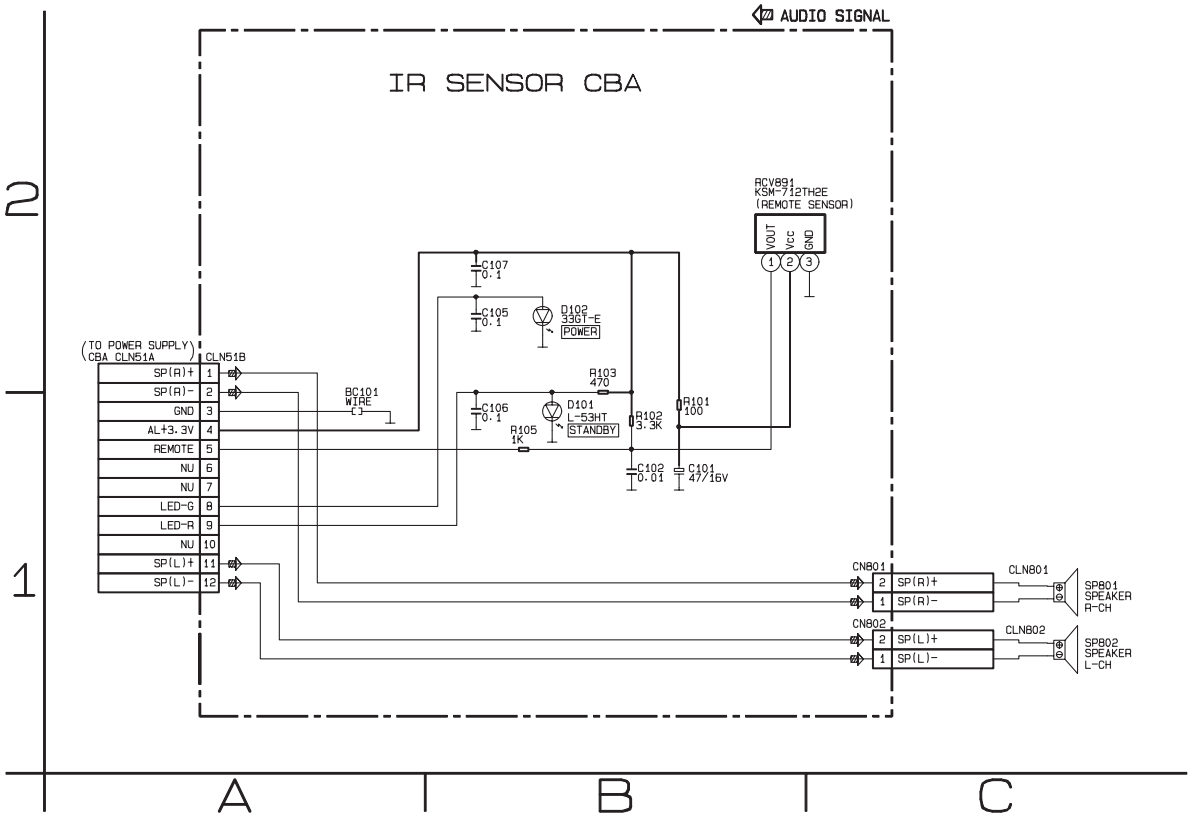
VOLTAGE CHART

CN102

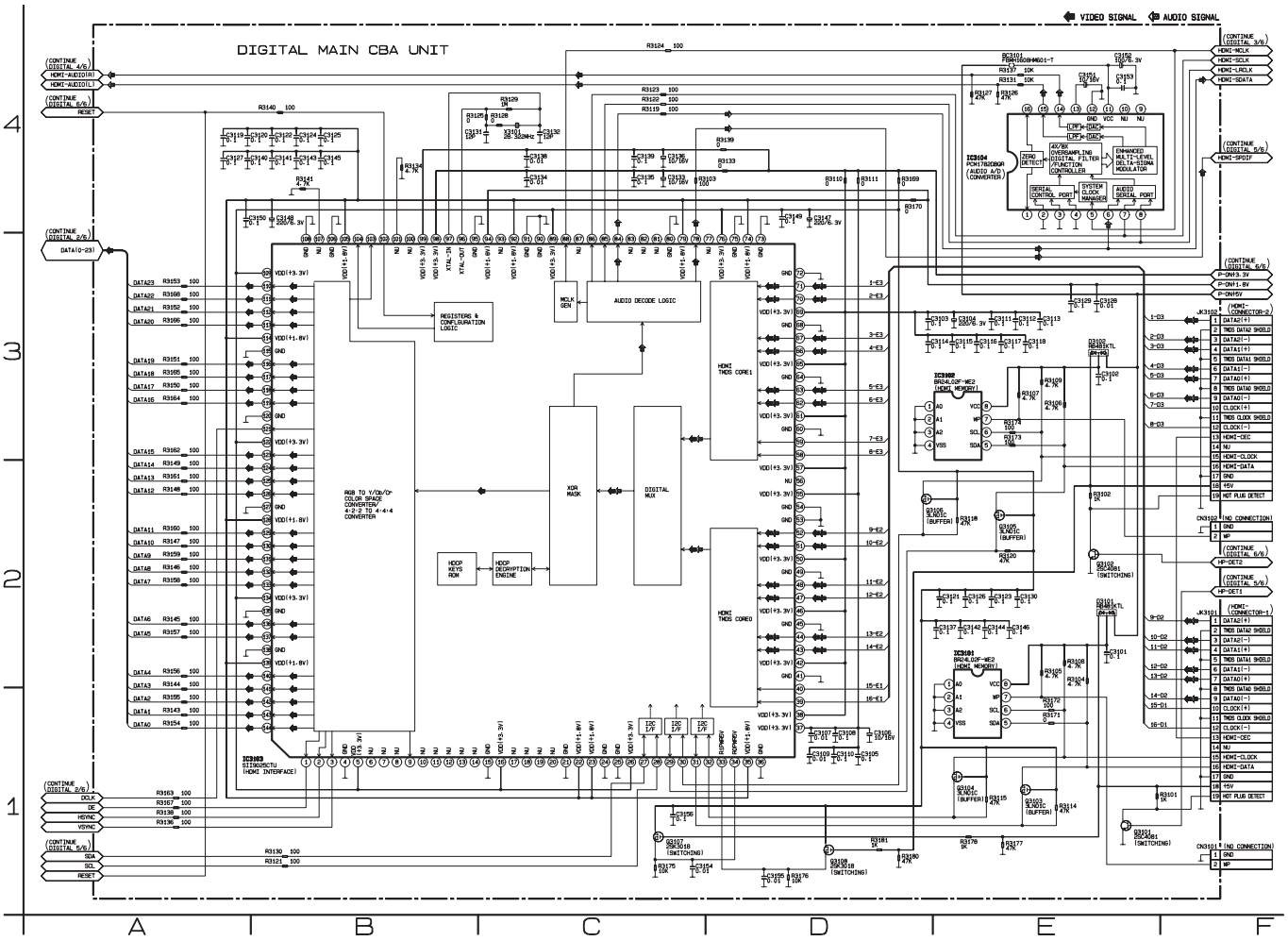
Pin No.	Voltage
1	---
2	---
3	3.4
4	3.4
5	3.4
6	0



IR Sensor Schematic Diagram

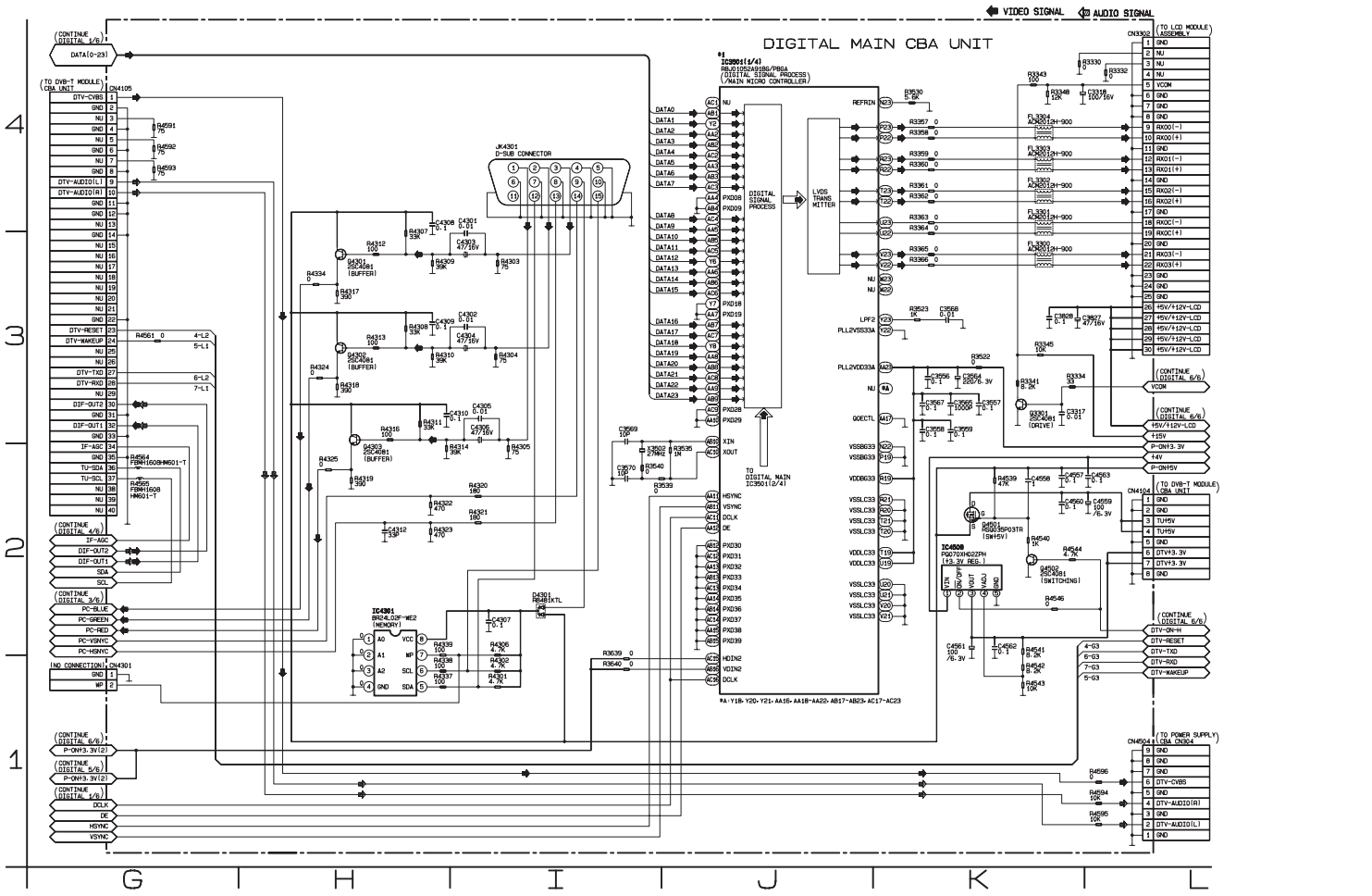


Digital Main 1/6 Schematic Diagram



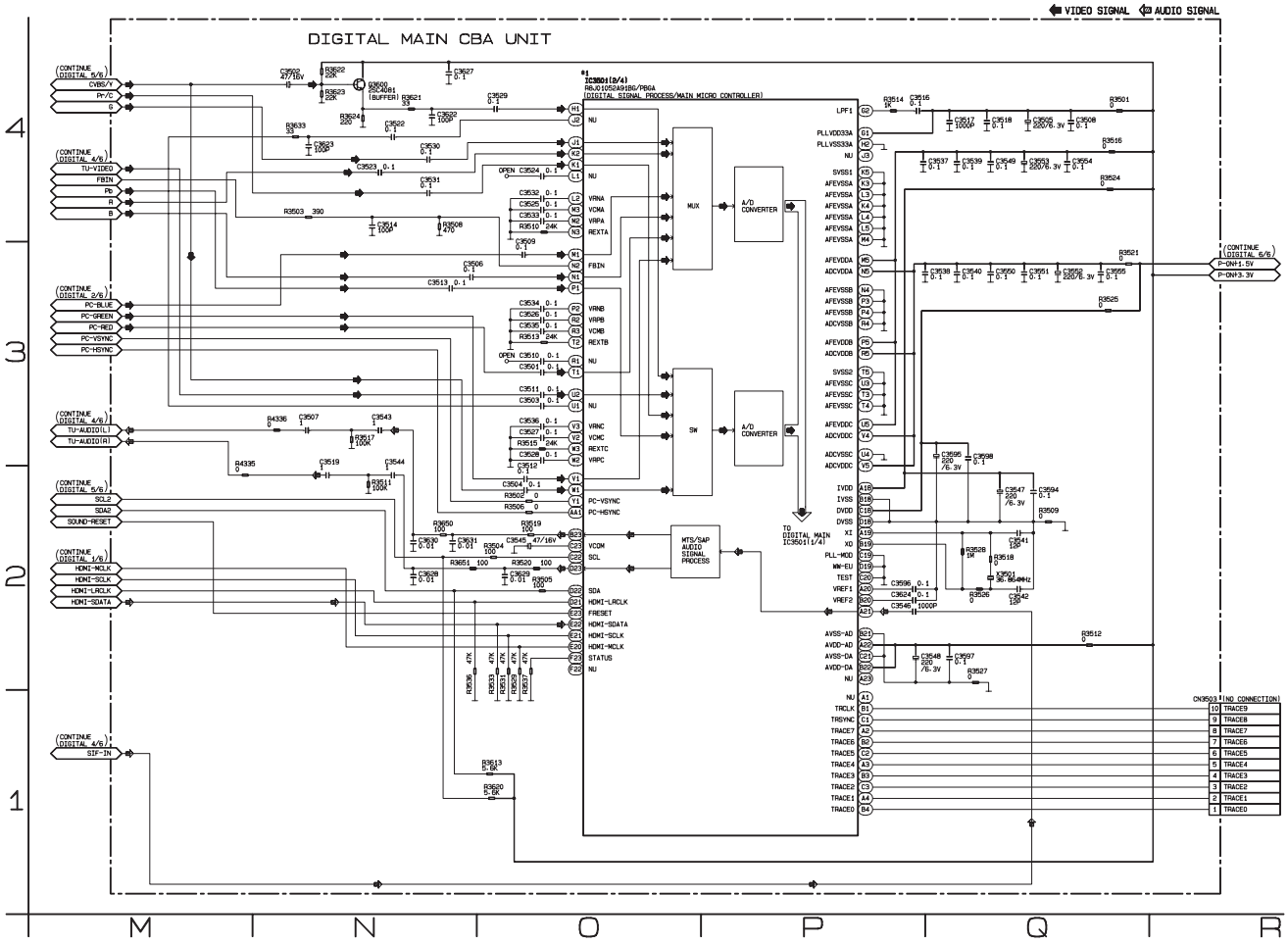
Digital Main 2/6 Schematic Diagram

***1 NOTE:**
The order of pins shown in this diagram is different from that of actual IC3501.
IC3501 is divided into four and shown as IC3501 (1/4) ~ IC3501 (4/4) in this Digital Main Schematic Diagram Section.

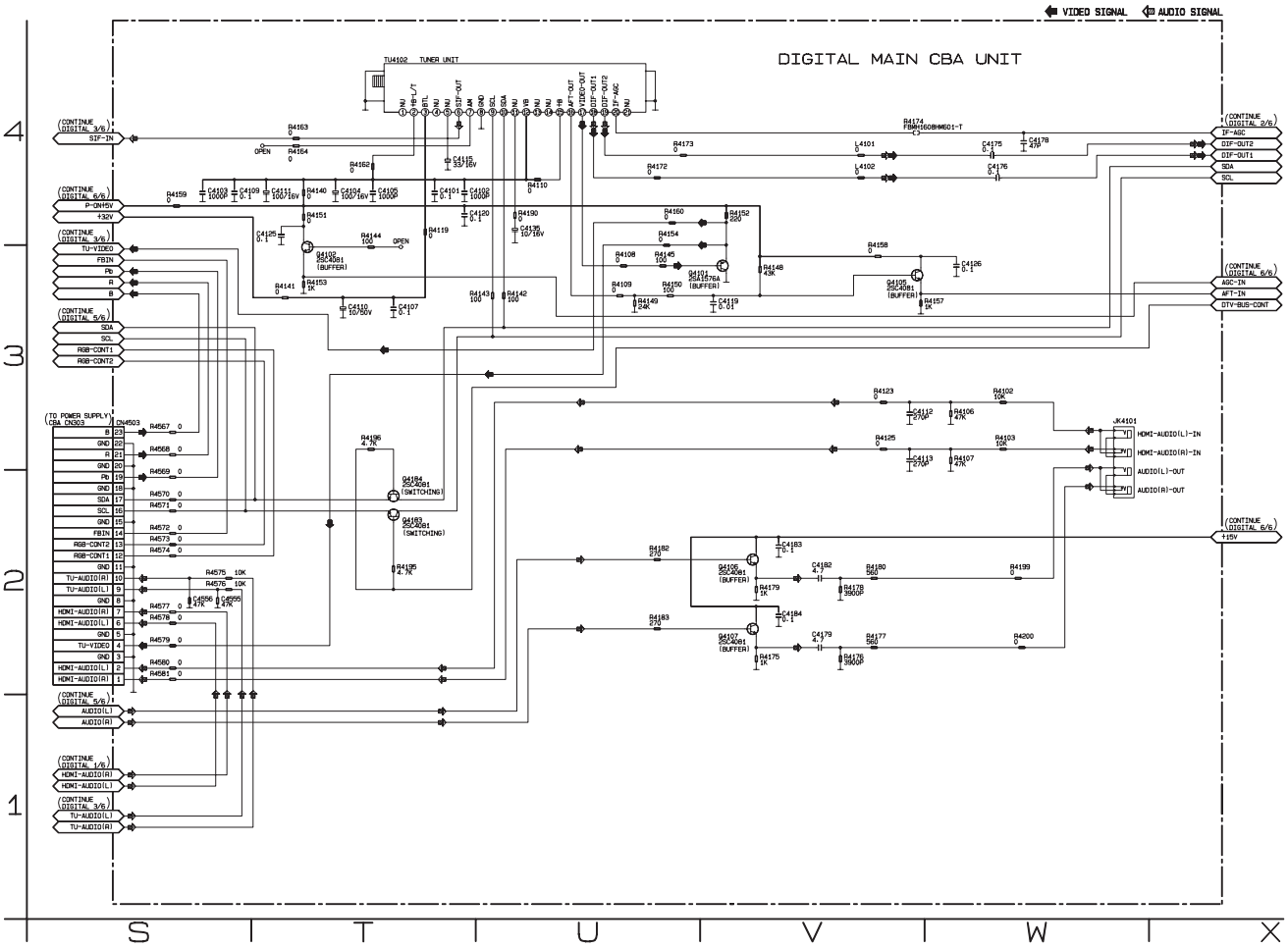


Digital Main 3/6 Schematic Diagram

*1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC3501.
IC3501 is divided into four and shown as IC3501 (1/4) ~ IC3501 (4/4) in this Digital Main Schematic Diagram Section.

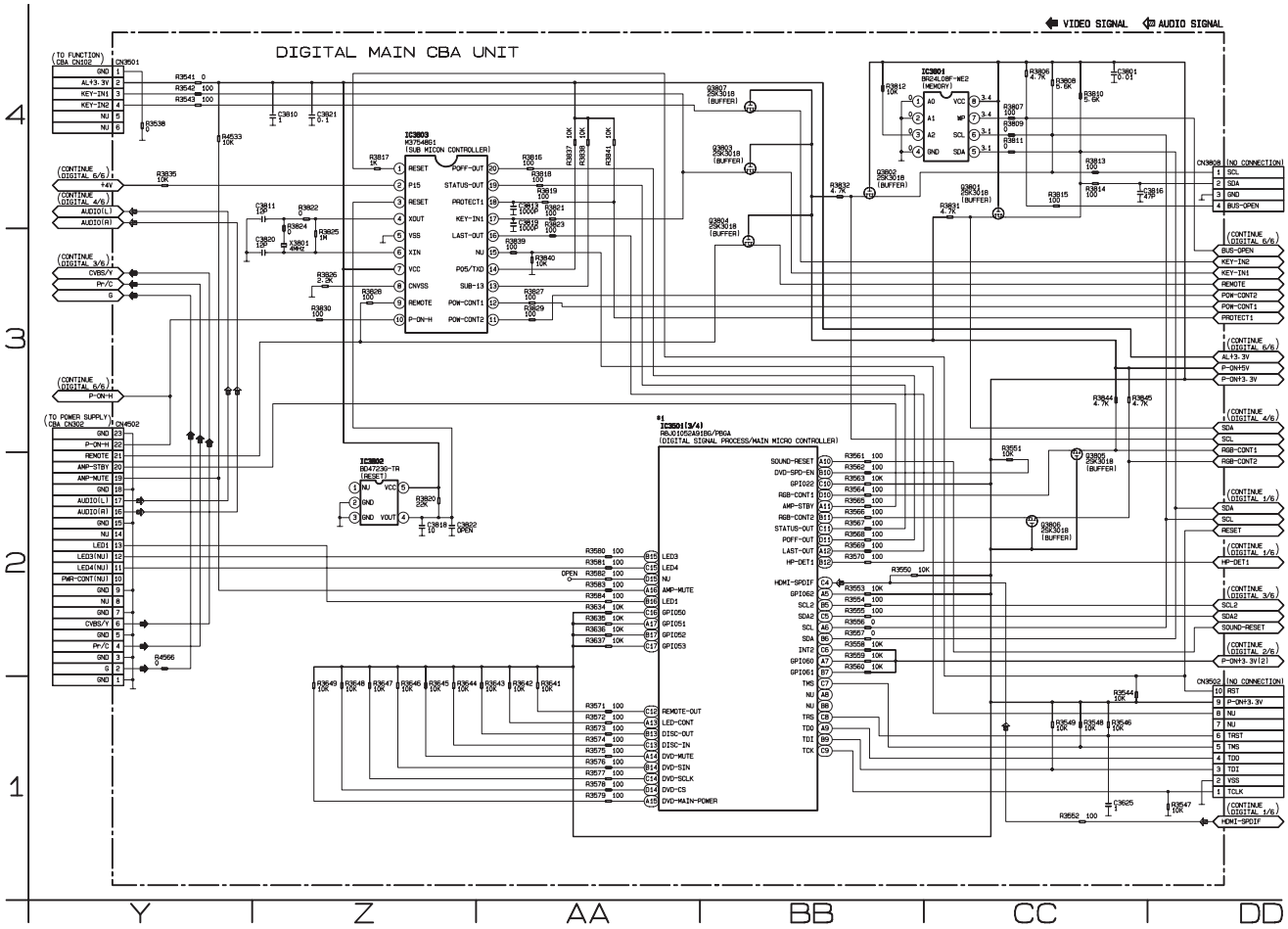


Digital Main 4/6 Schematic Diagram



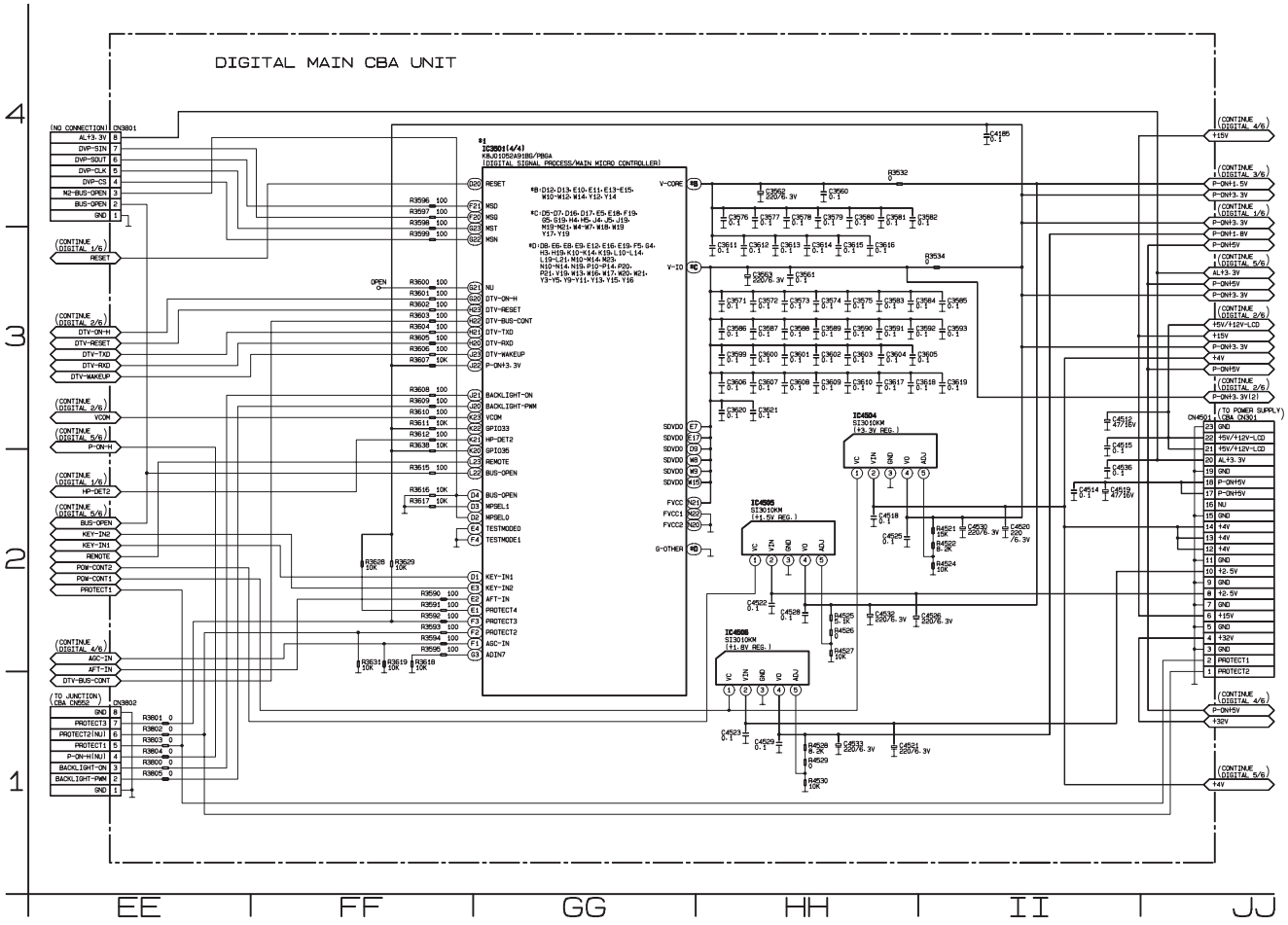
Digital Main 5/6 Schematic Diagram

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3501.
IC3501 is divided into four and shown as IC3501 (1/4) ~ IC3501 (4/4) in this Digital Main Schematic Diagram Section.



Digital Main 6/6 Schematic Diagram

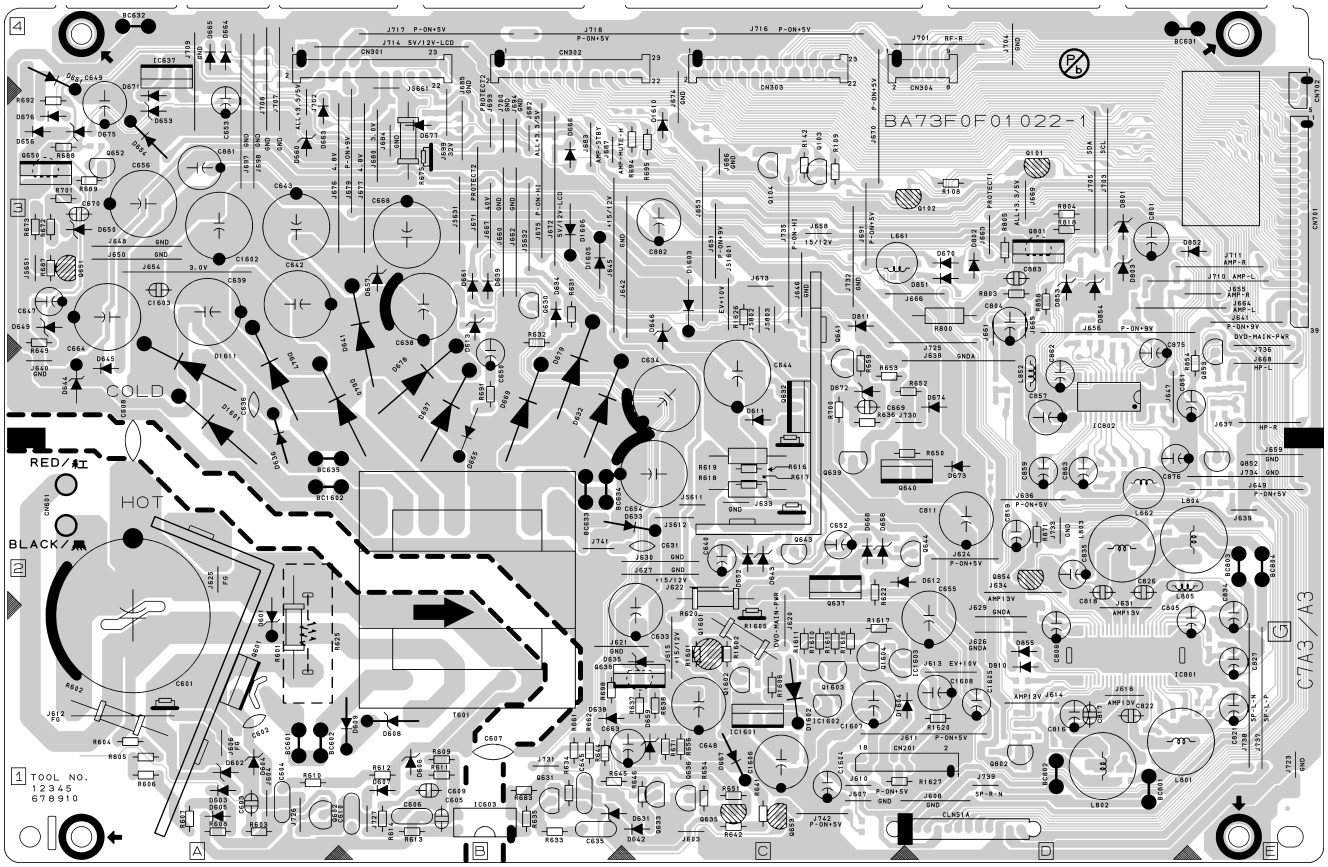
＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3501.
IC3501 is divided into four and shown as IC3501 (1/4) ~ IC3501 (4/4) in this Digital Main Schematic Diagram Section.



Power Supply CBA Top View

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

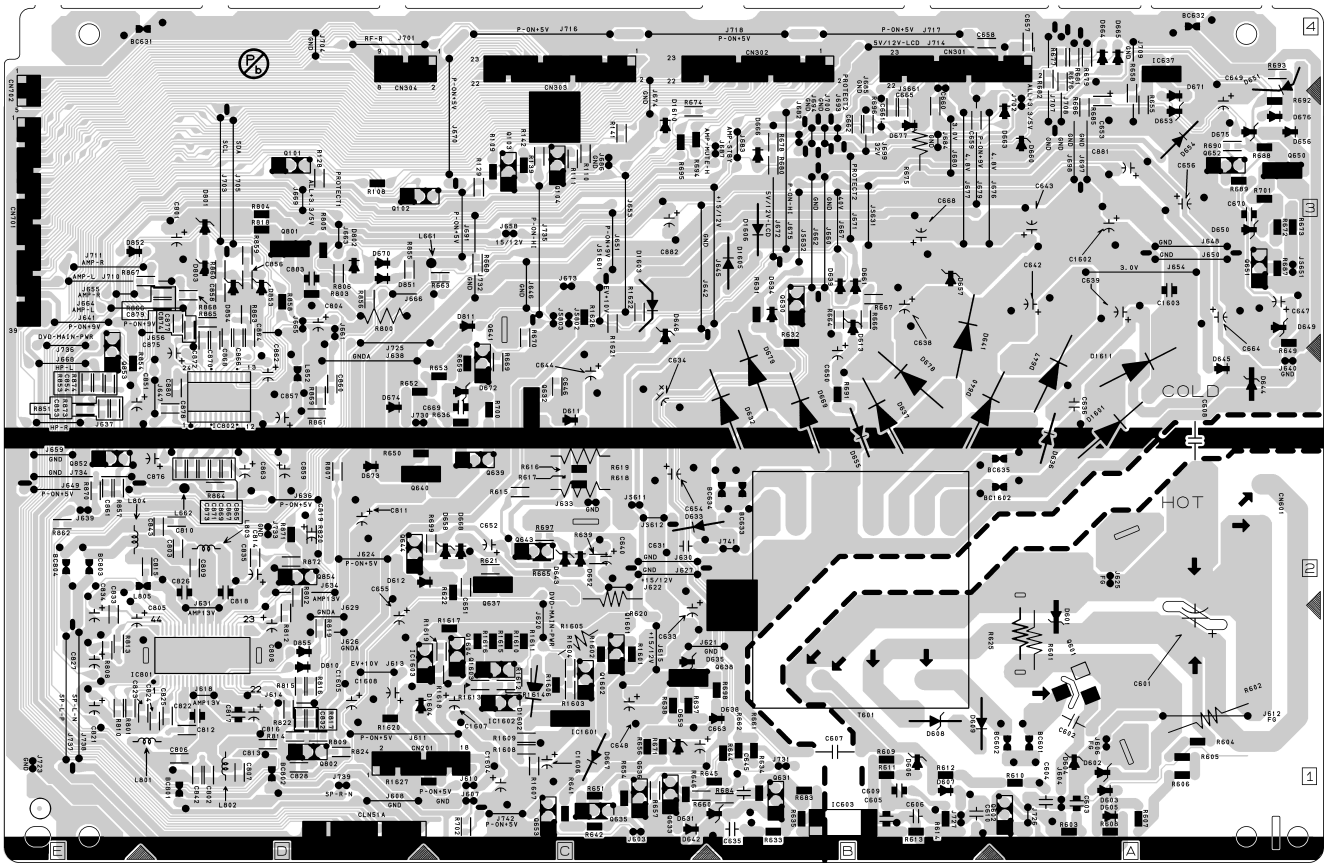
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly,when troubleshooting this type power supply circuit, a variable isolation transformer is required.



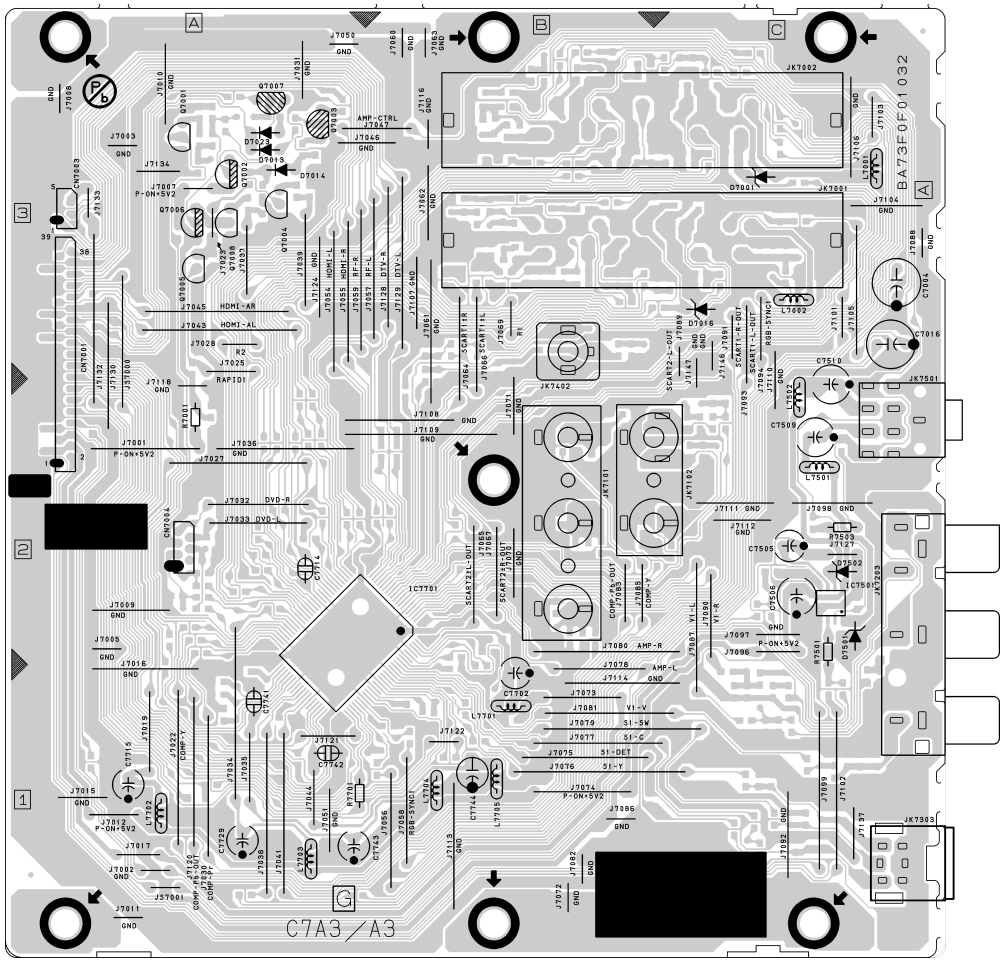
Power Supply CBA Bottom View

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

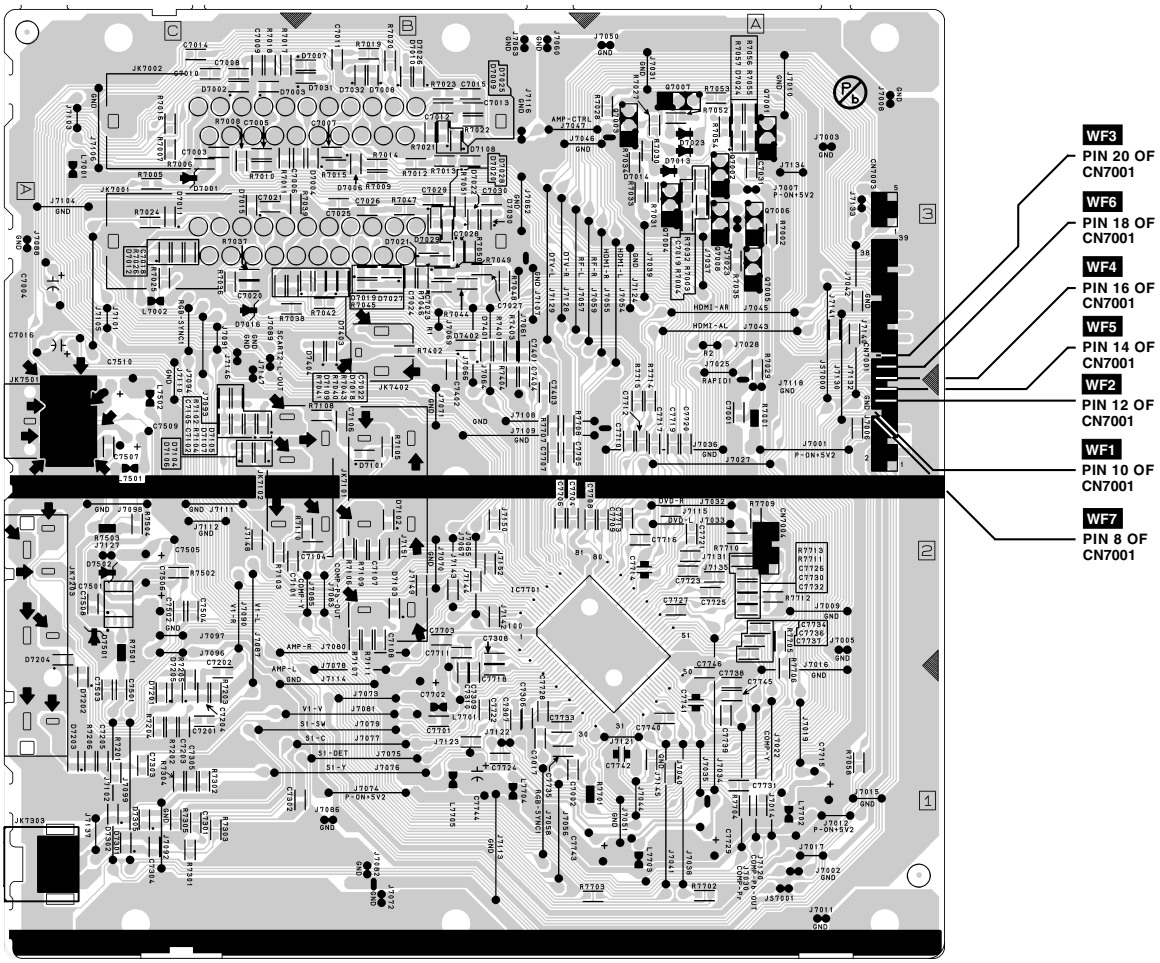
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly,when troubleshooting this type power supply circuit, a variable isolation transformer is required.



Jack CBA Top View



Jack CBA Bottom View



BA73F0F01032

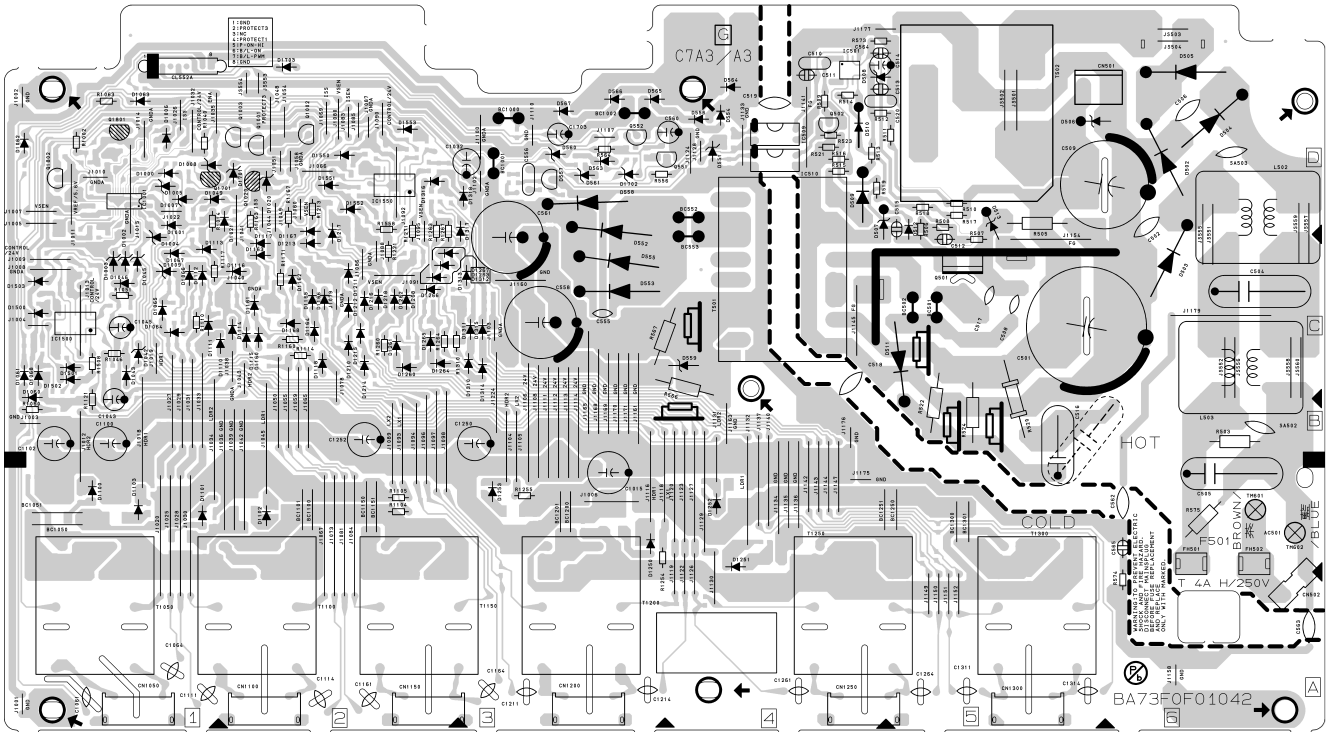
Inverter CBA Top View

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit. If Main Fuse (F501) 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 fire hazard, replace only with the same type fuse.

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.



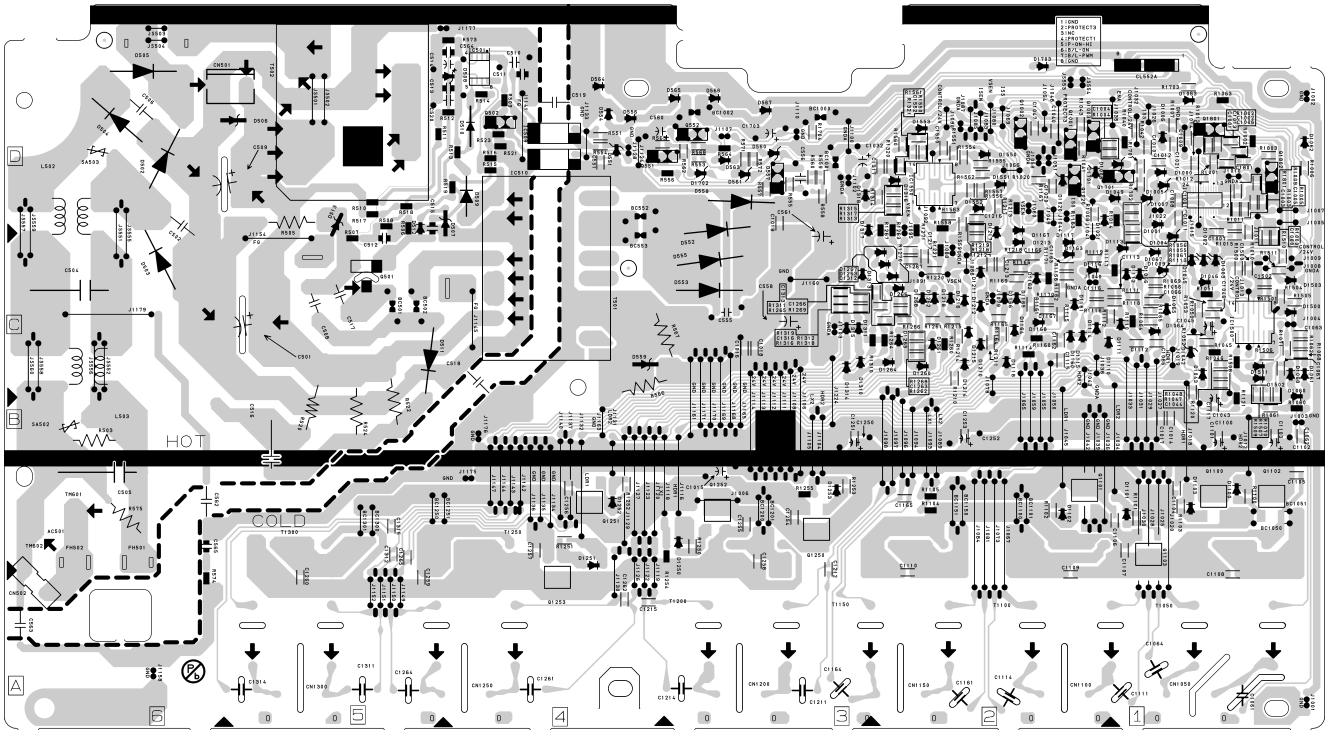
Inverter CBA Bottom View

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit. If Main Fuse (F501) 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.

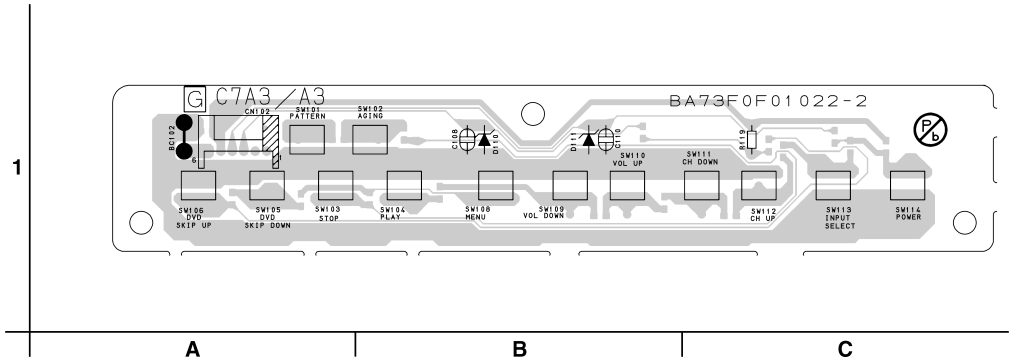
CAUTION !
For continued protection against fire hazard, replace only with the same type fuse.

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

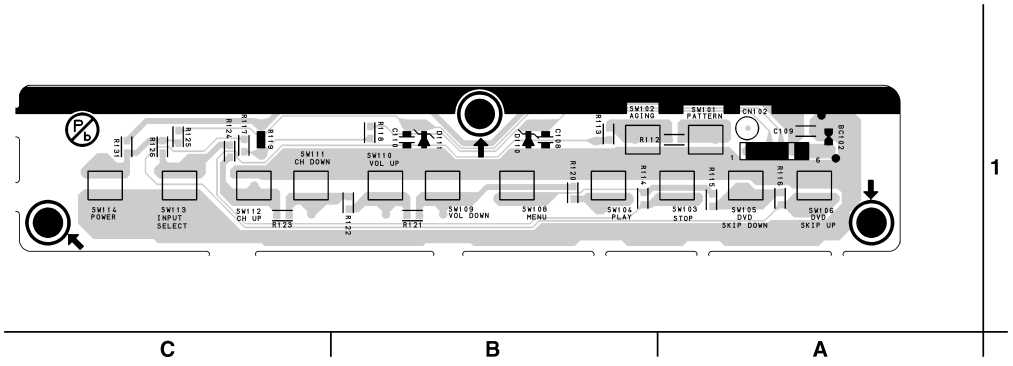
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used. Also, in order to have the ability to increase the input slowly,when troubleshooting this type power supply circuit, a variable isolation transformer is required.



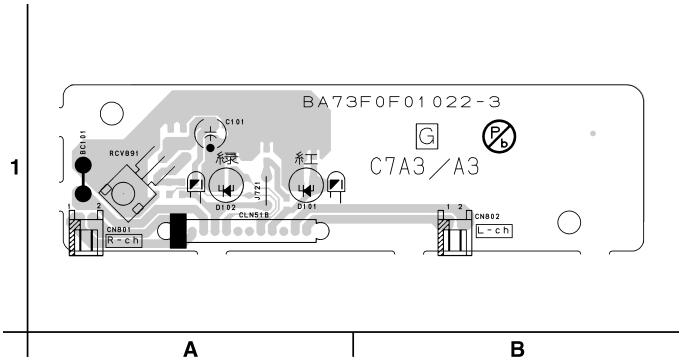
Function CBA Top View



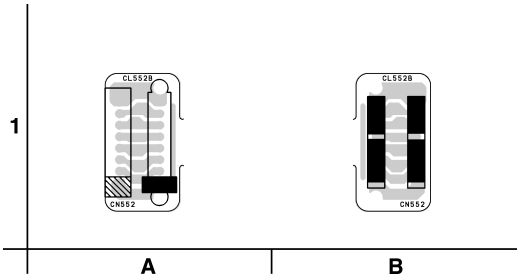
Function CBA Bottom View



IR Sensor CBA Top View

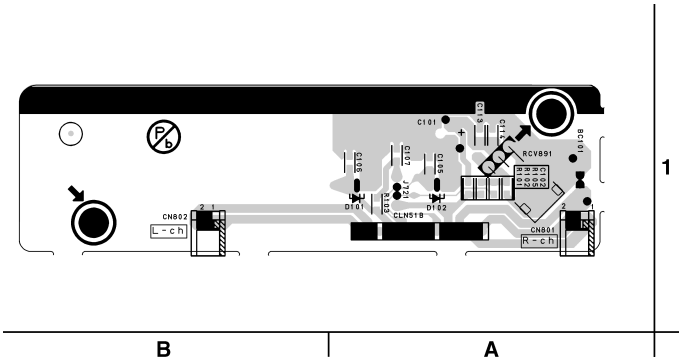


Junction CBA Top & Bottom View



BA73F0F01042

IR Sensor CBA Bottom View



BA73F0F01022-3

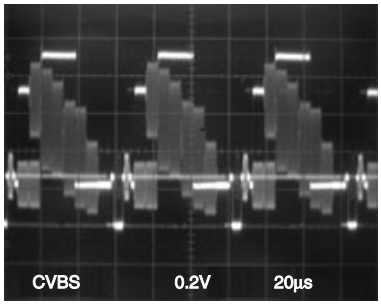
WAVEFORMS

WF1 ~ WF3 = Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

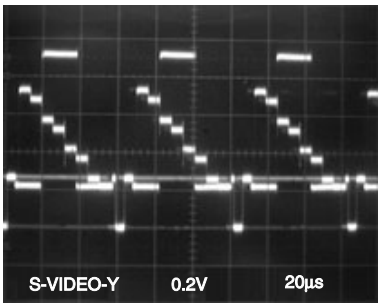
Input: PAL Color Bar Signal (with 1kHz Audio Signal)

WF1 Pin 10 of CN7001

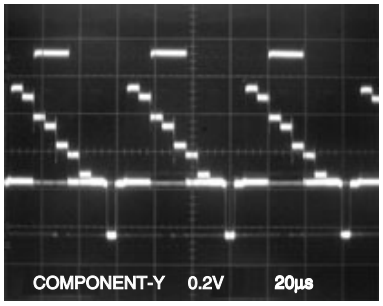
(VIDEO IN)



(S-VIDEO IN)

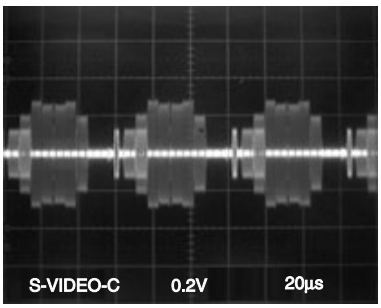


(COMPONENT IN)

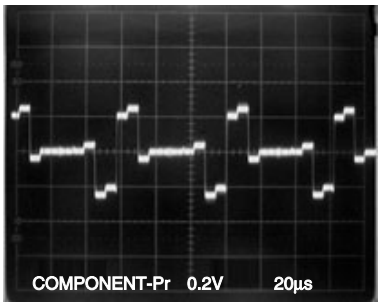


WF2 Pin 12 of CN7001

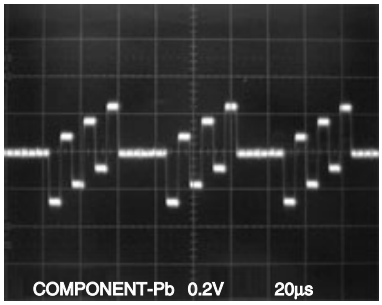
(S-VIDEO IN)



(COMPONENT IN)



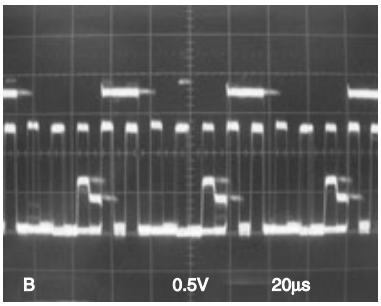
WF3 Pin 20 of CN7001



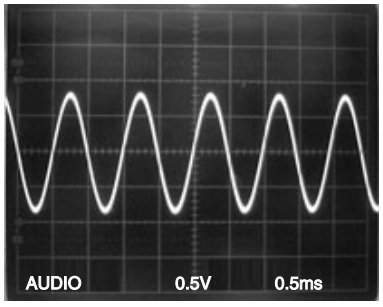
WF4 ~ WF7 = Waveforms to be observed at
Waveform check points.
(Shown in Schematic Diagram.)

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

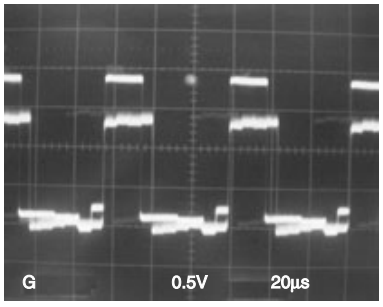
WF4 Pin 16 of CN7001



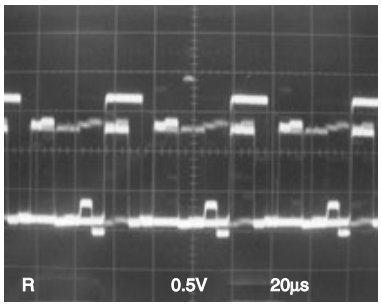
WF7 Pin 8 of CN7001



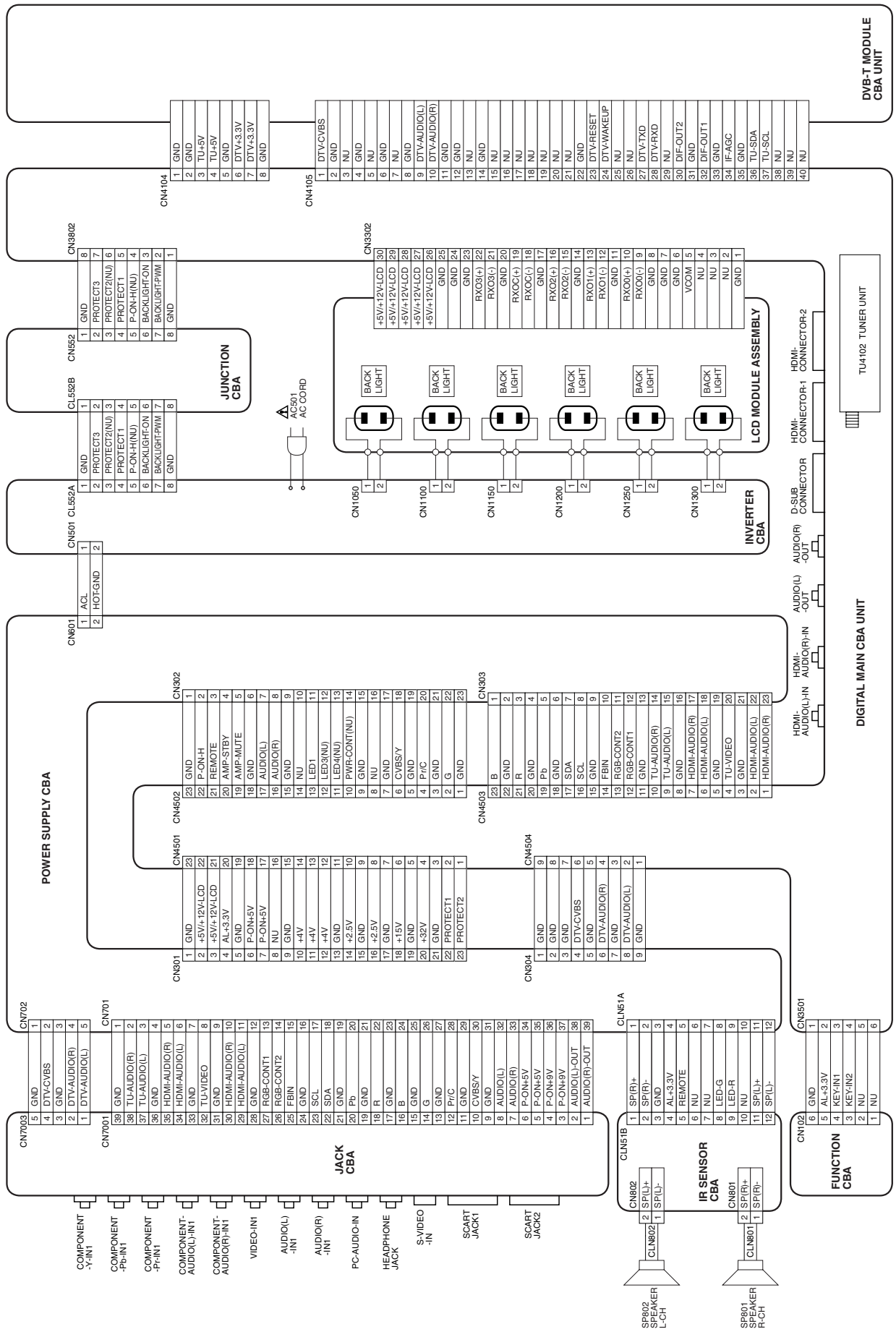
WF5 Pin 14 of CN7001



WF6 Pin 18 of CN7001

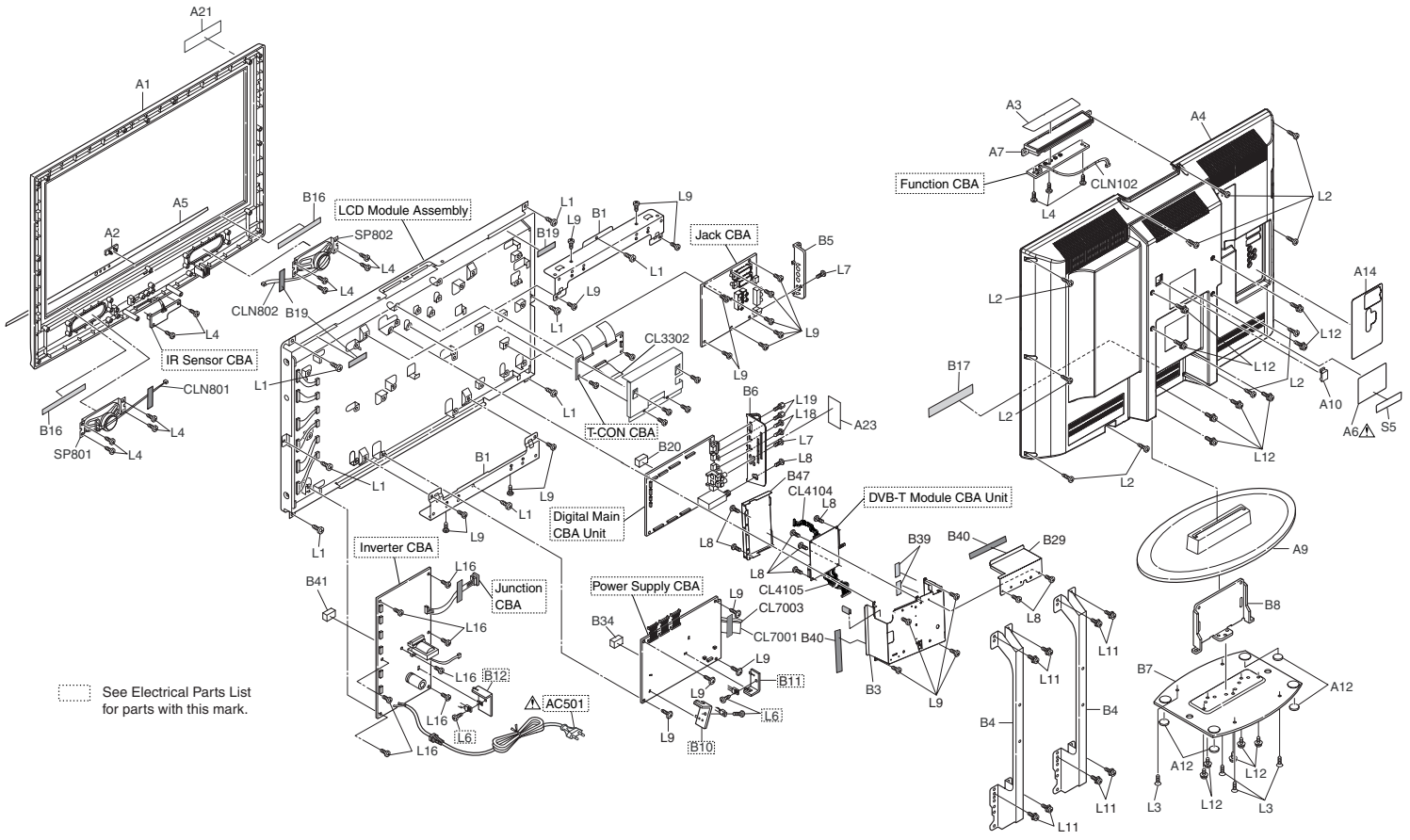


WIRING DIAGRAMS



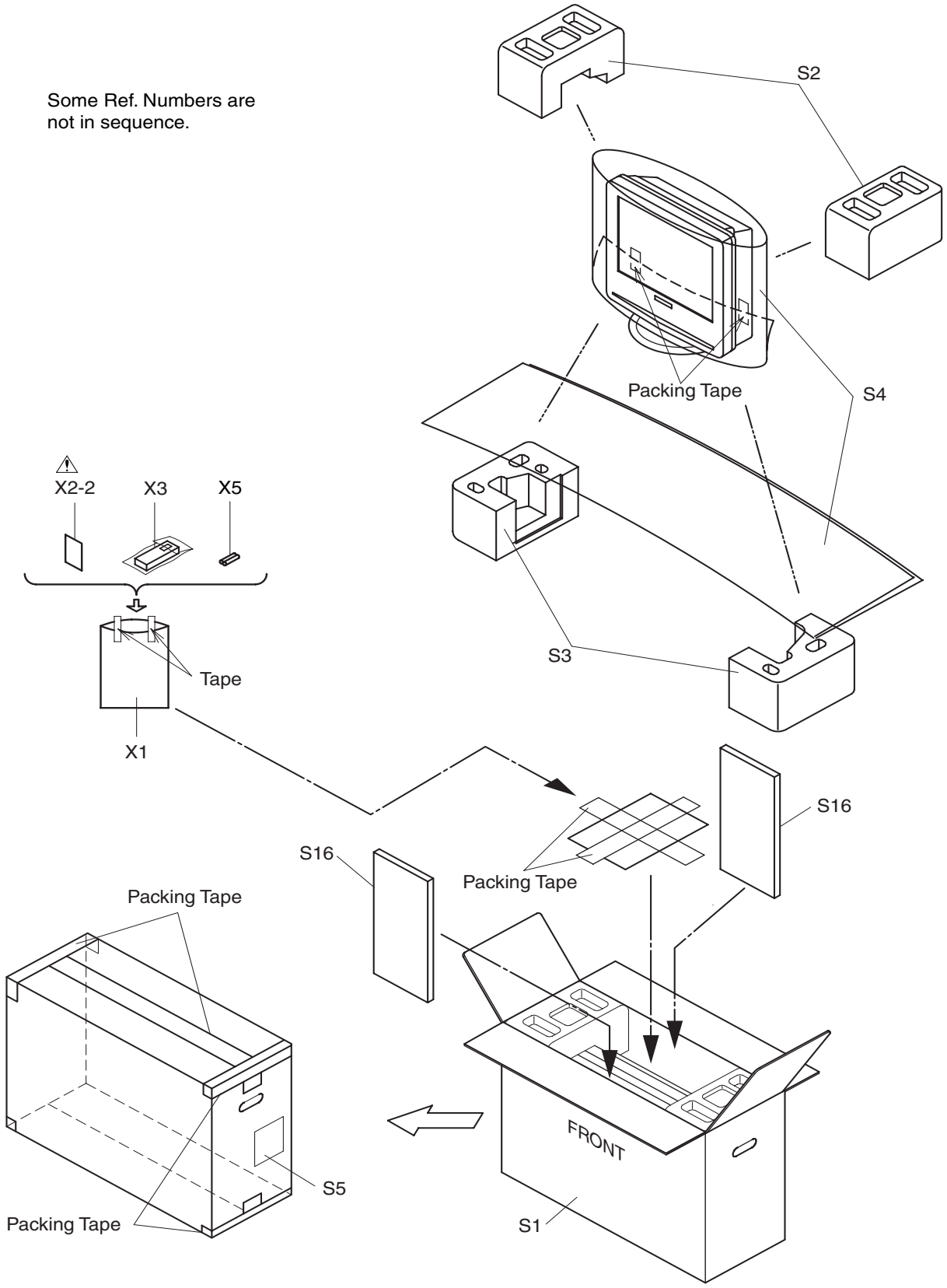
EXPLODED VIEWS

Cabinet



Packing

Some Ref. Numbers are not in sequence.



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 A73F0EP	1EM021797A
A2	BRAND BADGE L5825FF	1EM424293
A3	CONTROL PLATE A73F2FP	1EM323137
A4	REAR CABINET A73F2FP	1EM021885
A5	DECORATION PLATE A73F2FP	1EM122093
A7	FUNCTION KNOB A73F0EP	1EM121950
A9	STAND COVER L4301UB	1EM221344B
A10	REAR COVER A73F0EP	1EM322722
A12	STAND RUBBER FOOT L5001CB	1EM423855
A14	JACK PLATE A73F0EP	1EM221631
B1	PANEL HOLDER 32V A71F0UH	1EM121831A
B3	SHIELD BOX TOP A73F2FP	1EM122073
B4	CHASSIS BRACKET 32V-PAL A73F2FP	1EM122074
B5	JACK HOLDER(A) A73F0EP	1EM221630
B6	JACK HOLDER(D) A73F2FP	1EM221763
B7	STAND BASE PLATE L4300UA	1EM121113B
B8	STAND HINGE A71F3UH	1EM221883
B16	CLOTH(10X180XT0.5) L0336JG	0EM408827
B17	CLOTH 10X150XT1.0	1EM421092
B19	CLOTH(20X65XT0.5) L0100JA	0EM407914
B29	SHIELD PLATE A73F2FP	1EM221744
B39	GASKET(A) A73F0EP	1EM424765
B40	GASKET(B) A73F0EP	1EM425059
B47	SHIELD BOX BOTTOM A73F2FP	1EM221743
CL3302	WIRE ASSEMBLY LVDS-FFC 30PIN / 30MM / UL289	WX1A73F0-101
CL4104	WIRE ASSEMBLY 8PIN / 190MM /UL1007	WX1A73F0-002
CL4105	WIRE ASSEMBLY 40PIN-28PIN / 100MM	WX1A73F0-001
CL7001	WIRE ASSEMBLY FFC 39PIN / 130MM / UL28	WX1A73F0-102
CL7003	WIRE ASSEMBLY FFC 5PIN / 130MM / UL289	WX1A73F0-103
CLN102	WIRE ASSEMBLY 002 6PIN / 185MM / AWG26	WX1A71F3-002
CLN801	WIRE ASSEMBLY 2PIN/280MM/UL1007	WX1A73F0-005
CLN802	WIRE ASSEMBLY 2PIN/280MM/UL1007	WX1A73F0-005
L3	SCREW P-TIGHT M3X12 DISH HEAD+	GDJP3120
L4	SCREW P-TIGHT M3X10 BIND HEAD+	GBJP3100
L7	SCREW B-TIGHT 3X10 BIND HEAD+ BLK	GBHB3100
L9	SCREW S-TIGHT M3X6 BIND HEAD+	GBJS3060
L12	DOUBLE SEMS SCREW M4X9 + BLACK L0130UA	0EM408146A
SP801	SPEAKER S0516F06	DSD0813XQ002
SP802	SPEAKER S0516F06	DSD0813XQ002
PACKING		
S4	SET BAG L4300UA	1EM321546
ACCESSORY		
X3	REMOTE CONTROL NF022RD 170/ ECNLC501/NF022RD	NF022RD

Ref. No.	Description	Part No.
A6⚠	RATING LABEL A73F2FP	---------
A21	POP LABEL A7343FP	---------
A23	CARD LABEL A7343FP	---------
B20	GASKET A71F0UH	1EM424393
B34	RUBBER CUSHION (10X10X20) A71F0UH	1EM424528
B41	RUBBER CUSHION (10X10X13) A71F0UH	1EM424527
L1	SCREW P-TIGHT 4X14 BIND HEAD	GBJP4140
L2	SCREW P-TIGHT M4X14 PAN HEAD+BLK	GPHP4140
L4	SCREW P-TIGHT M3X10 BIND HEAD+	GBJP3100
L7	SCREW B-TIGHT 3X10 BIND HEAD+ BLK	GBHB3100
L8	SCREW S-TIGHT M3X4 BIND HEAD	GBJS3040
L9	SCREW S-TIGHT M3X6 BIND HEAD+	GBJS3060
L11	DOUBLE SEMS SCREW M4X6 M4X6	FPJ34060
L12	DOUBLE SEMS SCREW M4X9 + BLACK L0130UA	0EM408146A
L18	SCREW S-TIGHT M3X8 BIND HEAD+	GBHS3080
L19	HEX SCREW #4-40 7MM	1EM422042
PACKING		
S1	CARTON A73F2FP	1EM425162
S2	STYROFOAM TOP A73F0EP	1EM021811
S3	STYROFOAM BOTTOM A73F0EP	1EM021812
S5	SERIAL NO. LABEL L9750UA	---------
S16	FRONT REAR PAD A73F2FP	1EM425664
ACCESSORIES		
X1	BAG POLYETHYLENE 235X365XT0.03	0EM408420A
X2-2⚠	OWNERS MANUAL(FR) A73F2FP	1EMN22561
X5	BATTERY R6RC/2P	XB0M601MS001

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:

1. Parts that are not assigned part numbers (---------) are not available.
2. 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%

LCD MODULE ASSEMBLY

*Flicker Adjustment and White Balance Adjustment are required when reparing T-CON CBA.

Ref. No.	Description	Part No.
	LCD MODULE ASSEMBLY Consists of the following:	UF320EA
	T-CON CBA CELL ACF ASSEMBLY BACKLIGHT ASSEMBLY	1FSA10301 --------- ---------

DIGITAL MAIN CBA UNIT

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	1ESA15118

MMA CBA

Ref. No.	Description	Part No.
	MMA CBA Consists of the following:	1ESA15248
	POWER SUPPLY CBA FUNCTION CBA IR SENSOR CBA	--------- --------- ---------

POWER SUPPLY CBA

Ref. No.	Description	Part No.
	POWER SUPPLY CBA Consists of the following:	---------
	CAPACITORS	
C601⚠	ALUMINUM ELECTROLYTIC CAP 180µF/400V M	CA2H181NC206
C602	CERAMIC CAP. BN 680pF/2KV or	CCD3DKA0B681
	CERAMIC CAP. 680pF/2KV or	CA3D681PAN04
	CERAMIC CAP. RB 680pF/2KV or	CA3D681TE006
	CERAMIC CAP. BL 680pF/2KV	CA3D681XF003
C604	FILM CAP.(P) 0.082µF/50V J or	CA1J823MS029
	FILM CAP.(P) 0.082µF/50V J or	CMA1JJS00823
	POLYESTER FILM CAP. (PB FREE) 0.082µF/100V J or	CA2A823DT018
	CAP POLYESTER FILM 0.082µF/50V J	CA1J823SER04
C605	CERAMIC CAP.(AX) B K 0.01µF/50V	CA1J103TU011
C606	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	CAP POLYESTER FILM 0.1µF/50V J or	CA1J104SER04
	POLYESTER FILM CAP. (PB FREE) 0.1µF/100V J	CA2A104DT018
C607⚠	SAFTY CAP. 1000pF/250V KX	CA2E102MR101
C631	CERAMIC CAP. F Z 0.01µF/500V or	CCD2JZP0F103
	CERAMIC CAP. E Z 0.01µF/500V	CCD2JZP0E103
C633	ALUMINUM ELECTROLYTIC CAP 1000µF/25V M or	CE1EMZNTM102
	ELECTROLYTIC CAP. 1000µF/25V M or	CA1E102SP084
	ELECTROLYTIC CAP. 1000µF/25V M or	CE1EMZNDL102
	ELECTROLYTIC CAP. 1000µF/25V M	CE1EMZPDL102
C634	ELECTROLYTIC CAP. 4700µF/10V M P=7.5 or	CE1AMZNDL472
	ELECTROLYTIC CAP. 4700µF/10V M	CE1AMZPDL472
C635	FILM CAP.(P) 0.01µF/50V J or	CA1J103MS029
	FILM CAP.(P) 0.01µF/50V J or	CMA1JJS00103
	POLYESTER FILM CAP. (PB FREE) 0.01µF/100V J or	CA2A103DT018
	CAP POLYESTER FILM 0.01µF/50V J	CA1J103SER04
C638	ELECTROLYTIC CAP. 4700µF/10V M P=7.5 or	CE1AMZNDL472
	ELECTROLYTIC CAP. 4700µF/10V M	CE1AMZPDL472
C639	ELECTROLYTIC CAP 470µF/50V M or	CE1JMZADL471
	ELECTROLYTIC CAP 470µF/50V M	CE1JMZPDL471
C640	ELECTROLYTIC CAP. 22µF/16V M or	CE1CMASDL220
	ELECTROLYTIC CAP. 22µF/16V M or	CA1C220SP085
	ALUMINUM ELECTROLYTIC CAP 22µF/16V M	CE1CMASTM220
C642	CAP ELE STD-85 4700µF 6.3V SL or	CE0KMZNDL472
	ELECTROLYTIC CAP. 4700µF/6.3V SM	CE0KMZPDL472
C643	ELECTROLYTIC CAP. 4700µF/10V M P=7.5 or	CE1AMZNDL472
	ELECTROLYTIC CAP. 4700µF/10V M	CE1AMZPDL472
C644	ELECTROLYTIC CAP. 1000µF/16V M or	CE1CMASTL102
	ELECTROLYTIC CAP. 1000µF/16V M	CE1CMASDL102
C647	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CA1J100SP085
C648	ALUMINUM ELECTROLYTIC CAP 1000µF/25V M or	CE1EMZNTM102
	ELECTROLYTIC CAP. 1000µF/25V M or	CA1E102SP084
	ELECTROLYTIC CAP. 1000µF/25V M or	CE1EMZNDL102
	ELECTROLYTIC CAP. 1000µF/25V M	CE1EMZPDL102
C649	ELECTROLYTIC CAP. 220µF/25V M or	CE1EMASDL221
	ELECTROLYTIC CAP. 220µF/25V M or	CA1E221SP085
	ELECTROLYTIC CAP. 220µF/25V M	CE1EMASTM221
C650	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CA1J100SP085
C651	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C652	ELECTROLYTIC CAP. 100µF/10V M or	CA1A101SP085
	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASDL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASTM101
C653	ELECTROLYTIC CAP. 100µF/10V M or	CA1A101SP085
	ELECTROLYTIC CAP. 100µF/10V M or	CE1AMASDL101
	ELECTROLYTIC CAP. 100µF/10V M	CE1AMASTM101
C654	ELECTROLYTIC CAP. 4700µF/10V M P=7.5 or	CE1AMZNDL472
	ELECTROLYTIC CAP. 4700µF/10V M	CE1AMZPDL472
C655	ELECTROLYTIC CAP. 1000µF/10V M or	CE1AMASDL102
	ELECTROLYTIC CAP. 1000µF/10V M or	CA1A102SP085
	ALUMINUM ELECTROLYTIC CAP 1000µF/10V M	CE1AMASTM102
C656	CAP ELE STD-85 4700µF 6.3V SL or	CE0KMZNDL472
	ELECTROLYTIC CAP. 4700µF/6.3V SM	CE0KMZPDL472
C657	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C658	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C659	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C660	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C661	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C662	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C663	ELECTROLYTIC CAP. 100µF/25V M	CE1EMASDL101
C665	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C669	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104

Ref. No.	Description	Part No.
C801	ELECTROLYTIC CAP. 100µF/16V M or	CA1C101SP085
	ELECTROLYTIC CAP. 100µF/16V M or	CE1CMASTM101
	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101
C802	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C803	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C804	ELECTROLYTIC CAP. 100µF/16V M or	CA1C101SP085
	ELECTROLYTIC CAP. 100µF/16V M or	CE1CMASTM101
	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101
C805	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
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. 3.3µF/50V M	CE1JMASDL3R3
C809	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C810	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C811	ELECTROLYTIC CAP. 100µF/25V M	CE1EMASDL101
C812	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C813	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C814	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C815	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C816	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CA1J100SP085
C817	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C818	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C819	ELECTROLYTIC CAP. 1µF/50V M or	CE1JMASDL1R0
	ELECTROLYTIC CAP 1µF/50V M or	CA1J1R0SP085
	ELECTROLYTIC CAP 1µF/50V M	CE1JMASTM1R0
C821	PCB JUMPER D0.6-P5.0	JW5.0T
C822	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C823	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C824	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C825	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C826	CERAMIC CAP.(AX) F Z 0.1µF/50V	CCA1JZTFZ104
C827	PCB JUMPER D0.6-P5.0	JW5.0T
C833	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C834	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CA1J100SP085
C835	ELECTROLYTIC CAP. 10µF/50V M or	CE1JMASDL100
	ELECTROLYTIC CAP. 10µF/50V M	CA1J100SP085
C842	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C843	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C851	ELECTROLYTIC CAP. 10µF/16V M	CE1CMASDL100
C853	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C854	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C857	ELECTROLYTIC CAP. 100µF/16V M or	CA1C101SP085
	ELECTROLYTIC CAP. 100µF/16V M or	CE1CMASTM101
	ELECTROLYTIC CAP. 100µF/16V M	CE1CMASDL101
C859	ELECTROLYTIC CAP. 47µF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47µF/16V M	CE1CMASTL470
C860	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C861	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C862	ELECTROLYTIC CAP. 4.7µF/16V M or	CE1CMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CE1EMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CA1E4R7SP085
	ALUMINUM ELECTROLYTIC CAP 4.7µF/25V M	CE1EMASTM4R7
C863	ELECTROLYTIC CAP. 4.7µF/16V M or	CE1CMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CE1EMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CA1E4R7SP085
	ALUMINUM ELECTROLYTIC CAP 4.7µF/25V M	CE1EMASTM4R7
C864	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C865	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C866	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C867	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C868	CHIP CERAMIC CAP.(1608) B K 2700pF/50V	CHD1JK30B272
C869	CHIP CERAMIC CAP.(1608) B K 2700pF/50V	CHD1JK30B272
C870	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C871	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C872	CHIP CERAMIC CAP. F Z 0.068µF/50V	CHD1JZ30F683

Ref. No.	Description	Part No.
C873	CHIP CERAMIC CAP.(1608) B K 5600pF/50V	CHD1JK30B562
C875	ELECTROLYTIC CAP. 4.7µF/16V M or	CE1CMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CE1EMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CA1E4R7SP085
	ALUMINUM ELECTROLYTIC CAP 4.7µF/25V M	CE1EMASTM4R7
C876	ELECTROLYTIC CAP. 4.7µF/16V M or	CE1CMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CE1EMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CA1E4R7SP085
	ALUMINUM ELECTROLYTIC CAP 4.7µF/25V M	CE1EMASTM4R7
C877	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C878	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C880	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C883	CERAMIC CAP.(AX) B K 0.1µF/25V	CCA1EKT0B104
C1602	ALUMINUM ELECTROLYTIC CAP 1000µF/35V M or	CE1GMZNTM102
	ELECTROLYTIC CAP. 1000µF/35V M or	CA1G102SP084
	ELECTROLYTIC CAP. 1000µF/35V M or	CE1GMZADL102
	ELECTROLYTIC CAP. 1000µF/35V M	CE1GMZPDL102
C1603	CERAMIC CAP.(AX) B K 0.01µF/50V	CA1J103TU011
	CONNECTORS	
CN301	TWG CONNECTOR 23P TWG-P23P-A1	J3TWA23TG001
CN302	TWG CONNECTOR 23P TWG-P23P-A1	J3TWA23TG001
CN303	TWG CONNECTOR 23P TWG-P23P-A1	J3TWA23TG001
CN304	TWG CONNECTOR 09P TWG-P09P-A1	J3TWA09TG001
CN601	WIRE ASSEMBLY 2PIN/120MM/UL1672	WX1A73F0-007
CN701	CONNECTOR PRINT MES 39FMN-BTK-A(LF)(SN)	JCFNG39JG019
CN702	CONNECTOR PRINT MES 05FMN-BTK-A (LF)(SN)	JCFNG05JG019
	DIODES	
D602⚠	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D603	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D604⚠	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D605	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D606	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D607	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D608	DIODE TRANSIENT VOLTAGE SUPPRE P6KE250ABE	NDLZP6KE250A
D609	DIODE FAST RECOVERY FR157	NDLZ000FR157
D611	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D612	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D613	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D631	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D632	SCHOTTKY BARRIER DIODE ERC81-004 or	QDPZERC81004
	SCHOTTKY BARRIER DIODE SB340 or	NDQZ000SB340
	SCHOTTKY BARRIER DIODE SB340	NDWZ000SB340
D633	RECTIFIER DIODE FR202-B/P or	NDQZ000FR202
	FAST RECOVERY DIODE FR202	NDWZ000FR202
D635	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D636	RECTIFIER DIODE FR203-B/P	NDQZ000FR203
D637	SCHOTTKY BARRIER DIODE ERC81-004 or	QDPZERC81004
	SCHOTTKY BARRIER DIODE SB340 or	NDQZ000SB340
	SCHOTTKY BARRIER DIODE SB340	NDWZ000SB340
D640	SCHOTTKY BARRIER DIODE ERC81-004 or	QDPZERC81004
	SCHOTTKY BARRIER DIODE SB340 or	NDQZ000SB340
	SCHOTTKY BARRIER DIODE SB340	NDWZ000SB340
D641	SCHOTTKY BARRIER DIODE ERC81-004 or	QDPZERC81004
	SCHOTTKY BARRIER DIODE SB340 or	NDQZ000SB340
	SCHOTTKY BARRIER DIODE SB340	NDWZ000SB340
D642	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D643	ZENER DIODE MTZJT-7712B	QDTB00MTZJ12
D644	DIODE 1ZC43(Q) or	QDLZ001ZC43Q
	DIODE ZENER RD43F-T7-AZ-B	QDJB0RD43FAZ
D646	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D647	SCHOTTKY BARRIER DIODE ERC81-004 or	QDPZERC81004
	SCHOTTKY BARRIER DIODE SB340 or	NDQZ000SB340
	SCHOTTKY BARRIER DIODE SB340	NDWZ000SB340
D649	ZENER DIODE MTZJT-7733B	QDTB00MTZJ33

Ref. No.	Description	Part No.
D650	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D651	SCHOTTKY BARRIER DIODE ERA81-004Q or	QDLZRA81004Q
	SCHOTTKY BARRIEA DIODE 11EQS04 or	QD4Z011EQS04
	SCHOTTKY BARRIER DIODE SB140	NDWZ000SB140
D652	PCB JUMPER D0.6-P5.0	JW5.0T
D654	SCHOTTKY BARRIER DIODE ERA81-004Q or	QDLZRA81004Q
	SCHOTTKY BARRIEA DIODE 11EQS04 or	QD4Z011EQS04
	SCHOTTKY BARRIER DIODE SB140	NDWZ000SB140
D655	DIODE FR104-B or	NDLZ000FR104
	RECTIFIER DIODE ERA22-02 or	QDPZ0ERA2202
	RECTIFIER DIODE 10ELS2 or	QDQZ0010ELS2
	DIODE 10ERB20 or	QDLZ010ERB20
	DIODE FR104BB	NDL1000FR104
D656	PCB JUMPER D0.6-P5.0	JW5.0T
D657	ZENER DIODE MTZJT-776.8B	QDTB0MTZJ6R8
D658	ZENER DIODE MTZJT-775.1B	QDTB0MTZJ5R1
D659	ZENER DIODE MTZJT-7716B	QDTB00MTZJ16
D660	ZENER DIODE MTZJT-776.8B	QDTB0MTZJ6R8
D663	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D664	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D665	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D666	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D667	SCHOTTKY BARRIER DIODE ERA81-004Q or	QDLZRA81004Q
	SCHOTTKY BARRIEA DIODE 11EQS04 or	QD4Z011EQS04
	SCHOTTKY BARRIER DIODE SB140	NDWZ000SB140
D668	PCB JUMPER D0.6-P5.0	JW5.0T
D669	SCHOTTKY BARRIER DIODE ERC81-004 or	QDPZERC81004
	SCHOTTKY BARRIER DIODE SB340 or	NDQZ000SB340
	SCHOTTKY BARRIER DIODE SB340	NDWZ000SB340
D670	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D671	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D672	ZENER DIODE MTZJT-7716B	QDTB00MTZJ16
D674	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D675	ZENER DIODE MTZJT-7710B	QDTB00MTZJ10
D676	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D677	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D678	SCHOTTKY BARRIER DIODE ERC81-004 or	QDPZERC81004
	SCHOTTKY BARRIER DIODE SB340 or	NDQZ000SB340
	SCHOTTKY BARRIER DIODE SB340	NDWZ000SB340
D801	ZENER DIODE MTZJT-7710B	QDTB00MTZJ10
D802	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D803	PCB JUMPER D0.6-P5.0	JW5.0T
D810	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D811	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D851	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D852	SWITCHING DIODE 1SS133(T-77)	QDTZ001SS133
D1601	DIODE SCHOTTKY ERC84-009L	QD4ZERC84009
	ICS	
IC603⚠	PHOTO COUPLER LTV817MBF or	NPEBLTV817MF
⚠	PHOTO COUPLER LTV817MCF	NPECLTV817MF
IC637	IC LD1117V or	NSZBA0SSS046
	IC REGULATOR UTC1117TA or	NSZBA0S2H004
	IC REGULATOR TLV1117I TO-220	NSZBA0STY245
IC801	IC POWER AMP BD5422EFS-E2	QSZBA0TRM113
IC802	IC SURROUND PROCESSOR LV1115M-TLM-E MFP24S	QSZBA0TSY050
	COILS	
L661	CHOKE COIL 22μH-K or	LLBD00PKV021
	CHOKE COIL 22μH-K or	LLBD00PU6011
	CHOKE COIL 22μH-K	LLBD00PKT002
L662	CHOKE COIL 22μH-K or	LLBD00PKV021
	CHOKE COIL 22μH-K or	LLBD00PU6011
	CHOKE COIL 22μH-K	LLBD00PKT002
L801	COIL RADIAL LHLP10NB330M 33μH	LLF3300TU003
L802	COIL RADIAL LHLP10NB330M 33μH	LLF3300TU003
L803	COIL RADIAL LHLP10NB330M 33μH	LLF3300TU003
L804	COIL RADIAL LHLP10NB330M 33μH	LLF3300TU003

Ref. No.	Description	Part No.
L805	INDUCTOR 22μH-K-5FT	LLARKBSTU220
L852	PCB JUMPER D0.6-P5.0	JW5.0T
	TRANSISTORS	
Q103	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q104	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q601⚠	FET MOS 2SK3799(Q)	QFQZ2SK3799Q
Q602⚠	TRANSISTOR 2SC2120-O(TE2 F T) or	QQS02SC2120F
⚠	TRANSISTOR 2SC2120-Y(TE2 F T)	QQSY2SC2120F
Q630	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q631	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q632⚠	PNP TRANSISTOR POWER 2SA1887(F) or	QQWZ2SA1887F
⚠	TRANSISTOR 2SA1931(Q) or	QQZZ2SA1931Q
⚠	PNP TRANSISTOR 2SA2099 or	QQWZ02SA2099
⚠	PNP TRANSISTOR KTA1046-Y-U/PF	NQEY0KTA1046
Q633	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q635	TRANSISTOR KTA1267-GR-AT/P or	NQS1KTA1267P
	TRANSISTOR KTA-1266-GR-AT/P or	NQS4KTA1266P
	TRANSISTOR 2SA1015-GR(TE2 F T)	QQS12SA1015F
Q636	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q637	PNP TRANSISTOR POWER 2SA1887(F) or	QQWZ2SA1887F
	TRANSISTOR 2SA1931(Q)	QQZZ2SA1931Q
Q638⚠	TRANSISTOR(PB FREE) KTC2026-Y/P or	NQEYKTC2026P
⚠	NPN TRANSISTOR POWER 2SC4881F HFE MAX320	QQWZ2SC4881F
Q639	TRANSISTOR 2SC2120-Y(TE2 F T) or	QQSY2SC2120F
	TRANSISTOR 2SC2120-O(TE2 F T) or	QQS02SC2120F
	TRANSISTOR KTC3203-Y-AT/P	NQSYKTC3203P
Q640	PNP TRANSISTOR POWER 2SA1887(F)	QQWZ2SA1887F
Q641	TRANSISTOR 2SC2120-Y(TE2 F T) or	QQSY2SC2120F
	TRANSISTOR 2SC2120-O(TE2 F T) or	QQS02SC2120F
	TRANSISTOR KTC3203-Y-AT/P	NQSYKTC3203P
Q643	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q644	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q650	TRANSISTOR(PB FREE) KTC2026-Y/P or	NQEYKTC2026P
	NPN TRANSISTOR POWER 2SC4881F HFE MAX320	QQWZ2SC4881F
Q651	TRANSISTOR KTA1267-GR-AT/P or	NQS1KTA1267P
	TRANSISTOR KTA-1266-GR-AT/P or	NQS4KTA1266P
	TRANSISTOR 2SA1015-GR(TE2 F T)	QQS12SA1015F
Q652	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q801	TRANSISTOR(PB FREE) KTC2026-Y/P or	NQEYKTC2026P
	NPN TRANSISTOR POWER 2SC4881F HFE MAX320	QQWZ2SC4881F
Q802	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q852	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q853	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P

Ref. No.	Description	Part No.
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
	RESISTORS	
R110	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R111	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R139	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R141	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R142	CARBON RES. 1/4W J 220 Ω	RCX4JATZ0221
R601⚠	RES METAL OXIDE 3W 0.68 Ω	RN03JZPZ0R68
R604	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R605	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R606	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R607	CARBON RES. 1/4W J 470k Ω	RCX4JATZ0474
R608	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R609	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R610	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R611	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R612	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R613	CARBON RES. 1/4W J 180 Ω	RCX4JATZ0181
R615	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R616	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R617	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R618	METAL OXIDE FILM RES. 2W J 10 Ω or	RN02100DP004
	METAL OXIDE FILM RES. 2W J 10 Ω	RN02100ZU001
R619	METAL OXIDE FILM RES. 2W J 10 Ω or	RN02100DP004
	METAL OXIDE FILM RES. 2W J 10 Ω	RN02100ZU001
R620	METAL OXIDE FILM RES. 2W J 1 Ω or	RN021R0DP004
	METAL OXIDE FILM RES. 2W J 1 Ω	RN021R0ZU001
R621	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R622	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R633	CARBON RES. 1/4W J 820 Ω	RCX4JATZ0821
R634	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R635	CARBON RES. 1/4W J 68 Ω	RCX4JATZ0680
R636	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R639	CHIP RES. 1/10W J 560 Ω or	RRXAJR5Z0561
	RES CHIP 1608 1/10W J 560 Ω	RRXA561YF002
R641	CARBON RES. 1/4W J 1.2k Ω	RCX4JATZ0122
R642	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R644	CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R645	CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R646	CARBON RES. 1/4W J 560 Ω	RCX4JATZ0561
R649	CARBON RES. 1/4W J 470 Ω	RCX4JATZ0471
R650	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R651	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R652	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R653	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R654	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R655	CHIP RES. 1/10W F 1.0k Ω or	RRXAFR5H1001
	CHIP RES. 1/10W F 1k Ω or	RRXAFR5Z1001
	RES CHIP 1608 1/10W F 1.00k Ω	RTW1001YF002
R656	CARBON RES. 1/4W J 3.3k Ω	RCX4JATZ0332
R657	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R658	CHIP RES. 1/10W F 620 Ω or	RRXAFR5H6200
	CHIP RES. 1/10W F 620 Ω or	RRXAFR5Z6200
	RES CHIP 1608 1/10W F 620 Ω	RTW6200YF002
R659	CARBON RES. 1/4W J 150 Ω	RCX4JATZ0151
R660	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R661	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R662	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472

Ref. No.	Description	Part No.
R663	CHIP RES. 1/10W J 3.3k Ω or	RRXAJR5Z0332
	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332YF002
R664	CHIP RES. 1/10W J 6.8k Ω or	RRXAJR5Z0682
	RES CHIP 1608 1/10W J 6.8k Ω	RRXA682YF002
R665	CHIP RES. 1/10W J 2.7k Ω or	RRXAJR5Z0272
	RES CHIP 1608 1/10W J 2.7k Ω	RRXA272YF002
R666	CHIP RES. 1/10W J 6.8k Ω or	RRXAJR5Z0682
	RES CHIP 1608 1/10W J 6.8k Ω	RRXA682YF002
R667	CHIP RES. 1/10W J 82k Ω or	RRXAJR5Z0823
	RES CHIP 1608 1/10W J 82k Ω	RRXA823YF002
R668	CHIP RES. 1/10W J 3.3k Ω or	RRXAJR5Z0332
	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332YF002
R669	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R670	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R671	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R672	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R673	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R675	METAL OXIDE FILM RES. 2W J 1 Ω or	RN021R0DP004
	METAL OXIDE FILM RES. 2W J 1 Ω	RN021R0ZU001
R676	CHIP RES. 1/10W J 2.2k Ω or	RRXAJR5Z0222
	RES CHIP 1608 1/10W J 2.2k Ω	RRXA222YF002
R677	CHIP RES. 1/10W J 2.2k Ω or	RRXAJR5Z0222
	RES CHIP 1608 1/10W J 2.2k Ω	RRXA222YF002
R678	CHIP RES. 1/10W J 6.8k Ω or	RRXAJR5Z0682
	RES CHIP 1608 1/10W J 6.8k Ω	RRXA682YF002
R679	CHIP RES. 1/10W J 22k Ω or	RRXAJR5Z0223
	RES CHIP 1608 1/10W J 22k Ω	RRXA223YF002
R680	CHIP RES. 1/10W J 22k Ω or	RRXAJR5Z0223
	RES CHIP 1608 1/10W J 22k Ω	RRXA223YF002
R681	CHIP RES. 1/10W J 22k Ω or	RRXAJR5Z0223
	RES CHIP 1608 1/10W J 22k Ω	RRXA223YF002
R682	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R683	CARBON RES. 1/4W J 22k Ω	RCX4JATZ0223
R684	CHIP RES. 1/10W J 56k Ω or	RRXAJR5Z0563
	RES CHIP 1608 1/10W J 56k Ω	RRXA563YF002
R685	CHIP RES. 1/10W F 68k Ω or	RRXAFR5H6802
	CHIP RES. 1/10W F 68k Ω or	RRXAFR5Z6802
	RES CHIP 1608 1/10W F 68.0k Ω	RTW6802YF002
R686	CHIP RES. 1/10W F 27k Ω or	RRXAFR5H2702
	CHIP RES.(1608) 1/10W F 27k Ω or	RRXAFR5Z2702
	RES CHIP 1608 1/10W F 27.0k Ω	RTW2702YF002
R687	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R688	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R689	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R690	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R691	CARBON RES. 1/4W J 330 Ω	RCX4JATZ0331
R692	CARBON RES. 1/4W J 33k Ω	RCX4JATZ0333
R693	CHIP RES. 1/10W J 3.3k Ω or	RRXAJR5Z0332
	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332YF002
R694	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R695	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R696	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R697	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R698	PCB JUMPER D0.6-P5.0	JW5.0T
R699	CHIP RES. 1/10W J 56 Ω or	RRXAJR5Z0560
	RES CHIP 1608 1/10W J 56 Ω	RRXA560YF002
R700	PCB JUMPER D0.6-P5.0	JW5.0T
R701	PCB JUMPER D0.6-P5.0	JW5.0T
R801	CHIP RES. 1/10W F 100k Ω or	RRXAFR5H1003
	CHIP RES. 1/10W F 100k Ω or	RRXAFR5Z1003
	RES CHIP 1608 1/10W F 100k Ω	RTW1003YF002

Ref. No.	Description	Part No.
R802	CHIP RES. 1/10W J 390k Ω or	RRXAJR5Z0394
	RES CHIP 1608 1/10W J 390k Ω	RRXA394YF002
R804	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R805	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R806	CHIP RES. 1/10W J 3.3k Ω or	RRXAJR5Z0332
	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332YF002
R807	CHIP RES. 1/10W J 22k Ω or	RRXAJR5Z0223
	RES CHIP 1608 1/10W J 22k Ω	RRXA223YF002
R808	CHIP RES.(1608) 1/10W F 22k Ω or	RRXAFR5Z2202
	RES CHIP 1608 1/10W F 22.0k Ω	RTW2202YF002
R809	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R810	CHIP RES.(1608) 1/10W F 22k Ω or	RRXAFR5Z2202
	RES CHIP 1608 1/10W F 22.0k Ω	RTW2202YF002
R812	CHIP RES. 1/10W J 270k Ω or	RRXAJR5Z0274
	RES CHIP 1608 1/10W J 270k Ω	RRXA274YF002
R813	CHIP RES. 1/10W F 100k Ω or	RRXAFR5H1003
	CHIP RES. 1/10W F 100k Ω or	RRXAFR5Z1003
	RES CHIP 1608 1/10W F 100k Ω	RTW1003YF002
R814	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R815	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R816	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R817	CHIP RES. 1/10W J 4.7k Ω or	RRXAJR5Z0472
	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472YF002
R818	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R819	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R820	CHIP RES. 1/10W J 2.7k Ω or	RRXAJR5Z0272
	RES CHIP 1608 1/10W J 2.7k Ω	RRXA272YF002
R851	CHIP RES. 1/10W J 4.7k Ω or	RRXAJR5Z0472
	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472YF002
R853	CHIP RES. 1/10W J 4.7k Ω or	RRXAJR5Z0472
	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472YF002
R854	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R855	CHIP RES. 1/10W J 2.2k Ω or	RRXAJR5Z0222
	RES CHIP 1608 1/10W J 2.2k Ω	RRXA222YF002
R856	CHIP RES. 1/10W J 3.3k Ω or	RRXAJR5Z0332
	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332YF002
R857	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R858	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R859	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R860	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R863	CHIP RES. 1/10W J 3.6k Ω or	RRXAJR5Z0362
	RES CHIP 1608 1/10W J 3.6k Ω	RRXA362YF002
R864	CHIP RES. 1/10W J 3.6k Ω or	RRXAJR5Z0362
	RES CHIP 1608 1/10W J 3.6k Ω	RRXA362YF002
R867	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R868	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R869	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R870	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R873	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R874	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
MISCELLANEOUS		
B10	HEAT SINK PKH ASSEMBLY L3201UB	1EM420648
B11	HEAT SINK PKP ASSEMBLY L4200EA	1EM420855

Ref. No.	Description	Part No.
BC601	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC602	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC631	PCB JUMPER D0.6-P5.0	JW5.0T
BC632	PCB JUMPER D0.6-P5.0	JW5.0T
BC633	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC634	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC635	PCB JUMPER D0.6-P5.0	JW5.0T
BC801	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC802	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC803	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC804	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC1602	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
CLN51	WIRE ASSEMBLY 12PIN/230MM/UL2468	WX1A73F0-004
J733	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
JS612	PCB JUMPER D0.6-P7.5	JW7.5T
JS632	PCB JUMPER D0.6-P17.0	JW17.0T
JS802	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
L6	SCREW B-TIGHT D3X8 BIND HEAD+	GBJB3080
T601⚠	TRANS POWER 7726	LTT4PE0KT002

FUNCTION CBA

Ref. No.	Description	Part No.
	FUNCTION CBA Consists of the following:	--------
CAPACITORS		
C108	CERAMIC CAP.(AX) F Z 0.1μF/50V	CCA1JZTFZ104
C109	CHIP CERAMIC CAP.(1608) F Z 0.1μF/50V	CHD1JZ30F104
C110	CERAMIC CAP.(AX) F Z 0.1μF/50V	CCA1JZTFZ104
CONNECTORS		
CN102	CONNECTOR PRINT OSU S6B-PH-K-S(LF)(SN) or	J3PHC06JG030
	CONNECTOR PRINT OSU C R 440055-6	J344C06AP006
RESISTORS		
R115	CHIP RES. 1/10W J 2.2k Ω or	RRXAJR5Z0222
	RES CHIP 1608 1/10W J 2.2k Ω	RRXA222YF002
R116	CHIP RES. 1/10W J 1.5k Ω or	RRXAJR5Z0152
	RES CHIP 1608 1/10W J 1.5k Ω	RRXA152YF002
R117	CHIP RES. 1/10W J 1.5k Ω or	RRXAJR5Z0152
	RES CHIP 1608 1/10W J 1.5k Ω	RRXA152YF002
R118	CHIP RES. 1/10W J 220 Ω or	RRXAJR5Z0221
	RES CHIP 1608 1/10W J 220 Ω	RRXA221YF002
R119	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R121	CHIP RES. 1/10W J 4.7k Ω or	RRXAJR5Z0472
	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472YF002
R122	CHIP RES. 1/10W J 2.7k Ω or	RRXAJR5Z0272
	RES CHIP 1608 1/10W J 2.7k Ω	RRXA272YF002
R123	CHIP RES. 1/10W J 2.2k Ω or	RRXAJR5Z0222
	RES CHIP 1608 1/10W J 2.2k Ω	RRXA222YF002
R124	CHIP RES. 1/10W J 1.5k Ω or	RRXAJR5Z0152
	RES CHIP 1608 1/10W J 1.5k Ω	RRXA152YF002
R125	CHIP RES. 1/10W J 220 Ω or	RRXAJR5Z0221
	RES CHIP 1608 1/10W J 220 Ω	RRXA221YF002
R126	CHIP RES. 1/10W J 1.5k Ω or	RRXAJR5Z0152
	RES CHIP 1608 1/10W J 1.5k Ω	RRXA152YF002
R131	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
SWITCHES		
SW108	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH TC-1104(H=5.0) or	SST0101DNG02
	TACT SWITCH KSM0612B	SST0101HH003
SW109	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH TC-1104(H=5.0) or	SST0101DNG02
	TACT SWITCH KSM0612B	SST0101HH003
SW110	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH TC-1104(H=5.0) or	SST0101DNG02
	TACT SWITCH KSM0612B	SST0101HH003
SW111	TACT SWITCH SKQSAB or	SST0101AL038

Ref. No.	Description	Part No.
	TACT SWITCH TC-1104(H=5.0) or	SST0101DNG02
	TACT SWITCH KSM0612B	SST0101HH003
SW112	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH TC-1104(H=5.0) or	SST0101DNG02
	TACT SWITCH KSM0612B	SST0101HH003
SW113	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH TC-1104(H=5.0) or	SST0101DNG02
	TACT SWITCH KSM0612B	SST0101HH003
SW114	TACT SWITCH SKQSAB or	SST0101AL038
	TACT SWITCH TC-1104(H=5.0) or	SST0101DNG02
	TACT SWITCH KSM0612B	SST0101HH003
	MISCELLANEOUS	
BC102	PCB JUMPER D0.6-P5.0	JW5.0T

IR SENSOR CBA

Ref. No.	Description	Part No.
	IR SENSOR CBA Consists of the following:	----------
	CAPACITORS	
C101	ELECTROLYTIC CAP. 47µF/16V M H7 or	CE1CMAVSL470
	ALUMINUM ELECTROLYTIC CAP 47µF/16V H7	CE1CMAVSM470
C102	CHIP CERAMIC CAP. F Z 0.01µF/50V	CHD1JZ30F103
C105	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C106	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
C107	CHIP CERAMIC CAP.(1608) F Z 0.1µF/50V	CHD1JZ30F104
	CONNECTORS	
CN801	PH CONNECTOR SIDE 2P S2B-PH-K-S(LF)(SN)	J3PHC02JG030
CN802	PH CONNECTOR SIDE 2P S2B-PH-K-S(LF)(SN)	J3PHC02JG030
	DIODES	
D101	LED L-53HT or	NP4Z000L53HT
	LED 333HT/E-L or	NPHL00333HTE
	LED 333HT/E-K	NPHK00333HTE
D102	LED 333GT/E	NPHZ00333GTE
	RESISTORS	
R101	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R102	CHIP RES. 1/10W J 3.3k Ω or	RRXAJR5Z0332
	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332YF002
R103	CHIP RES. 1/10W J 470 Ω or	RRXAJR5Z0471
	RES CHIP 1608 1/10W J 470 Ω	RRXA471YF002
R105	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
	MISCELLANEOUS	
BC101	PCB JUMPER D0.6-P5.0	JW5.0T
RCV891	PHOTO LINK MODULE KSM-712TH2E	USESJRSKK044

JACK CBA

Ref. No.	Description	Part No.
	JACK CBA Consists of the following:	1ESA15122
	CAPACITORS	
C7001	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C7002	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
C7003	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7004	ELECTROLYTIC CAP. 470µF/10V M or	CE1AMASDL471
	ELECTROLYTIC CAP. 470µF/10V M or	CA1A471SP085
	ELECTROLYTIC CAP. 470µF/10V M	CE1AMASTM471
C7005	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7006	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7007	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7008	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C7009	CHIP CERAMIC CAP.(1608) CH J 270pF/50V	CHD1JJ3CH271
C7010	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C7011	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C7012	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C7013	CHIP CERAMIC CAP.(1608) CH J 270pF/50V	CHD1JJ3CH271
C7014	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C7015	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C7016	ELECTROLYTIC CAP. 470µF/10V M or	CE1AMASDL471
	ELECTROLYTIC CAP. 470µF/10V M or	CA1A471SP085
	ELECTROLYTIC CAP. 470µF/10V M	CE1AMASTM471
C7017	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
C7018	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7019	CHIP CERAMIC CAP.(1608) B K 0.047µF/50V	CHD1JK30B473
C7020	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7021	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7022	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7023	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C7024	CHIP CERAMIC CAP.(1608) CH J 270pF/50V	CHD1JJ3CH271
C7025	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C7026	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C7027	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C7028	CHIP CERAMIC CAP.(1608) CH J 270pF/50V	CHD1JJ3CH271
C7029	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C7030	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C7031	CHIP CERAMIC CAP.(1608) B K 0.047µF/25V	CHD1EK30B473
C7101	CHIP CERAMIC CAP.(1608) B K 1µF/10V	CHD1AK30B105
C7102	CHIP CERAMIC CAP.(1608) B K 1µF/10V	CHD1AK30B105
C7104	CHIP CERAMIC CAP. B K 270pF/50V	CHD1JK30B271
C7105	CHIP CERAMIC CAP. B K 270pF/50V	CHD1JK30B271
C7106	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7107	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7108	CHIP CERAMIC CAP.(1608) CH J 33pF/50V	CHD1JJ3CH330
C7201	CHIP CERAMIC CAP.(1608) B K 1µF/10V	CHD1AK30B105
C7202	CHIP CERAMIC CAP.(1608) B K 1µF/10V	CHD1AK30B105
C7203	CHIP CERAMIC CAP. B K 270pF/50V	CHD1JK30B271
C7204	CHIP CERAMIC CAP. B K 270pF/50V	CHD1JK30B271
C7205	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7301	CHIP CERAMIC CAP. F Z 0.047µF/50V	CHD1JZ30F473
C7302	CHIP CERAMIC CAP. F Z 1µF/10V	CHD1AZ30F105
C7303	CHIP CERAMIC CAP. F Z 0.47µF/10V	CHD1AZ30F474
C7304	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7305	CHIP CERAMIC CAP.(1608) CH J 100pF/50V	CHD1JJ3CH101
C7306	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C7307	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C7308	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C7309	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C7310	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C7401	CHIP CERAMIC CAP. B K 270pF/50V	CHD1JK30B271
C7402	CHIP CERAMIC CAP. B K 270pF/50V	CHD1JK30B271
C7403	CHIP CERAMIC CAP.(1608) B K 1µF/10V	CHD1AK30B105
C7404	CHIP CERAMIC CAP.(1608) B K 1µF/10V	CHD1AK30B105
C7501	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C7502	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C7505	ELECTROLYTIC CAP 47µF/10V H7 or	CE1AMAVSM470
	ELECTROLYTIC CAP. 47µF/10V M H7	CE1AMAVSL470
C7506	ELECTROLYTIC CAP. 220µF/6.3V M H7 or	CE0KMAVSL221
	ALUMINUM ELECTROLYTIC CAP 220µF/6.3V H7	CE0KMAVSM221
C7508	CHIP CERAMIC CAP. F Z 1µF/10V	CHD1AZ30F105
C7509	ALUMINUM ELECTROLYTIC CAP 100µF/10V H7 or	CE1AMAVSM101
	ELECTROLYTIC CAP. 100µF/10V M H7	CE1AMAVSL101
C7510	ALUMINUM ELECTROLYTIC CAP 100µF/10V H7 or	CE1AMAVSM101
	ELECTROLYTIC CAP. 100µF/10V M H7	CE1AMAVSL101
C7511	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C7512	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C7513	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C7514	CHIP CERAMIC CAP. F Z 1µF/10V	CHD1AZ30F105

Ref. No.	Description	Part No.
C7701	CHIP CERAMIC CAP.(1608) B K 0.1μF/50V	CHD1JK30B104
C7702	ELECTROLYTIC CAP. 47μF/16V M H7 or	CE1CMAVSL470
	ALUMINUM ELECTROLYTIC CAP 47μF/16V H7	CE1CMAVSM470
C7703	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V	CHD1EZ30F104
C7704	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7705	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7706	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7707	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7708	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7709	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7710	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7711	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7712	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7713	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7714	CERAMIC CAP.(AX) F Z 0.1μF/50V	CCA1JZTFZ104
C7715	ELECTROLYTIC CAP. 47μF/16V M H7 or	CE1CMAVSL470
	ALUMINUM ELECTROLYTIC CAP 47μF/16V H7	CE1CMAVSM470
C7716	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7717	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7718	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7719	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7720	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7721	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7722	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7723	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7724	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7725	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7726	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7727	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V	CHD1EZ30F104
C7728	CHIP CERAMIC CAP. F Z 2.2μF/10V	CHD1AZ30F225
C7729	ELECTROLYTIC CAP. 47μF/16V M H7 or	CE1CMAVSL470
	ALUMINUM ELECTROLYTIC CAP 47μF/16V H7	CE1CMAVSM470
C7730	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7731	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7732	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7733	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7734	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7735	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7736	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7737	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7738	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7739	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V	CHD1EZ30F104
C7740	CHIP CERAMIC CAP. F Z 0.47μF/10V	CHD1AZ30F474
C7741	CERAMIC CAP.(AX) F Z 0.1μF/50V	CCA1JZTFZ104
C7742	CERAMIC CAP.(AX) F Z 0.1μF/50V	CCA1JZTFZ104
C7743	ELECTROLYTIC CAP. 47μF/16V M H7 or	CE1CMAVSL470
	ALUMINUM ELECTROLYTIC CAP 47μF/16V H7	CE1CMAVSM470
C7744	ELECTROLYTIC CAP. 47μF/16V M or	CE1CMASDL470
	ELECTROLYTIC CAP. 47μF/16V M or	CA1C470SP085
	ALUMINUM ELECTROLYTIC CAP 47μF/16V M	CE1CMASTM470
C7745	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V	CHD1EZ30F104
C7746	CHIP CERAMIC CAP.(1608) F Z 0.1μF/25V	CHD1EZ30F104
CONNECTORS		
CN7001	CONNECTOR PRINT MES 39FMN-BTK-A(LF)(SN)	JCFNG39JG019
CN7003	CONNECTOR PRINT MES 05FMN-BTK-A (LF)(SN)	JCFNG05JG019
DIODES		
D7001	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D7002	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7003	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7004	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7006	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7007	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6

Ref. No.	Description	Part No.
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7008	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7009	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7010	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7011	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7012	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7013	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D7014	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D7015	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7016	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D7018	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7019	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7020	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7021	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7022	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7023	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D7024	SWITCHING DIODE 1SS400 TE61 or	QD1Z001SS400
	SWITCHING DIODE KDS160E-RTK/P or	ND1ZKDS160EP
	DIODE SWITCHING HSC119 TRF -E	QD1Z00HSC119
D7025	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7026	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7027	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7028	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7029	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7030	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7031	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7032	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7108	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7109	ZENER DIODE EDZTE61 5.6B or	QD1B00EDZ5R6
	DIODE ZENER SMD 015AZ5.6 Y	QD1Y015AZ5R6
D7501	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D7502	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
ICS		
IC7501	IC HEADPHONE AMP BH3547F SOP 8PIN	QSZBA0TRM119
IC7701	IC INTERFACE R2S11007FP	QSZBA0RHT054
COILS		
L7001	INDUCTOR 12μH-J-26T	LLAXJATTU120
L7002	INDUCTOR 12μH-J-26T	LLAXJATTU120
L7501	INDUCTOR 10μH-J-26T	LLAXJATTU100
L7502	INDUCTOR 10μH-J-26T	LLAXJATTU100
L7701	INDUCTOR 100μH-K-5FT	LLARKBSTU101
L7702	INDUCTOR 100μH-K-5FT	LLARKBSTU101
L7703	INDUCTOR 100μH-K-5FT	LLARKBSTU101
L7704	INDUCTOR 100μH-J-26T	LLAXJATTU101

Ref. No.	Description	Part No.
L7705	INDUCTOR 100µH-J-26T	LLAXJATTU101
	TRANSISTORS	
Q7001	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q7002	RES. BUILT-IN TRANSISTOR KRA103M-AT/P or	NQSZ0KRA103M
	RES. BUILT-IN TRANSISTOR BN1F4M-T	QQSZ00BN1F4M
Q7003	TRANSISTOR KTA1267-GR-AT/P or	NQS1KTA1267P
	TRANSISTOR KTA-1266-GR-AT/P or	NQS4KTA1266P
	TRANSISTOR 2SA1015-Y(TE2 F T) or	QQSY2SA1015F
	TRANSISTOR 2SA1015-GR(TE2 F T)	QQS12SA1015F
Q7004	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q7005	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q7006	RES. BUILT-IN TRANSISTOR KRA103M-AT/P or	NQSZ0KRA103M
	RES. BUILT-IN TRANSISTOR BN1F4M-T	QQSZ00BN1F4M
Q7007	TRANSISTOR KTA1267-GR-AT/P or	NQS1KTA1267P
	TRANSISTOR KTA-1266-GR-AT/P or	NQS4KTA1266P
	TRANSISTOR 2SA1015-Y(TE2 F T) or	QQSY2SA1015F
	TRANSISTOR 2SA1015-GR(TE2 F T)	QQS12SA1015F
Q7008	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
	RESISTORS	
R7001	PCB JUMPER D0.6-P5.0	JW5.0T
R7002	CHIP RES. 1/10W J 22k Ω or	RRXAJR5Z0223
	RES CHIP 1608 1/10W J 22k Ω	RRXA223YF002
R7003	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R7004	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7005	CHIP CERAMIC CAP. F Z 0.47µF/16V	CHD1CZ30F474
R7006	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7007	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7008	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7009	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7010	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7011	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7012	CHIP RES. 1/10W J 6.8k Ω or	RRXAJR5Z0682
	RES CHIP 1608 1/10W J 6.8k Ω	RRXA682YF002
R7013	CHIP RES. 1/10W J 4.7k Ω or	RRXAJR5Z0472
	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472YF002
R7014	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7015	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7016	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7017	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7018	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7019	CHIP RES. 1/10W J 560 Ω or	RRXAJR5Z0561
	RES CHIP 1608 1/10W J 560 Ω	RRXA561YF002
R7020	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7021	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002

Ref. No.	Description	Part No.
R7022	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7023	CHIP RES. 1/10W J 560 Ω or	RRXAJR5Z0561
	RES CHIP 1608 1/10W J 560 Ω	RRXA561YF002
R7024	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7025	CHIP CERAMIC CAP. F Z 0.47µF/16V	CHD1CZ30F474
R7026	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7027	CHIP RES. 1/10W J 470 Ω or	RRXAJR5Z0471
	RES CHIP 1608 1/10W J 470 Ω	RRXA471YF002
R7028	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R7029	CHIP RES. 1/10W J 22k Ω or	RRXAJR5Z0223
	RES CHIP 1608 1/10W J 22k Ω	RRXA223YF002
R7030	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R7031	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R7032	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7033	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7034	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7036	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7037	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7038	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7039	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7040	CHIP RES. 1/10W J 6.8k Ω or	RRXAJR5Z0682
	RES CHIP 1608 1/10W J 6.8k Ω	RRXA682YF002
R7041	CHIP RES. 1/10W J 4.7k Ω or	RRXAJR5Z0472
	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472YF002
R7042	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7043	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7044	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7045	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7046	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7047	CHIP RES. 1/10W J 560 Ω or	RRXAJR5Z0561
	RES CHIP 1608 1/10W J 560 Ω	RRXA561YF002
R7048	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7049	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7050	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7051	CHIP RES. 1/10W J 560 Ω or	RRXAJR5Z0561
	RES CHIP 1608 1/10W J 560 Ω	RRXA561YF002
R7052	CHIP RES. 1/10W J 470 Ω or	RRXAJR5Z0471
	RES CHIP 1608 1/10W J 470 Ω	RRXA471YF002
R7053	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R7054	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R7055	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7057	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002

Ref. No.	Description	Part No.
R7058	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7102	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7103	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7104	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7105	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7106	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7107	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7108	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7109	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7110	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7111	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7201	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7202	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7203	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7204	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7205	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7206	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7301	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7302	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7303	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7304	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7305	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7401	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7402	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7403	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7404	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R7501	CARBON RES. 1/4W J 100 Ω	RCX4JATZ0101
R7502	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7503	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R7504	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R7701	PCB JUMPER D0.6-P5.0	JW5.0T
R7702	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7703	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7704	CHIP RES. 1/10W J 75 Ω or	RRXAJR5Z0750
	RES CHIP 1608 1/10W J 75 Ω	RRXA750YF002
R7705	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002

Ref. No.	Description	Part No.
R7706	CHIP RES. 1/10W J 100 Ω or	RRXAJR5Z0101
	RES CHIP 1608 1/10W J 100 Ω	RRXA101YF002
R7709	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7710	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7711	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7712	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7713	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7714	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
R7715	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
MISCELLANEOUS		
BC7501	CHIP RES.(1608) 1/10W 0 Ω or	RRXAZR5Z0000
	RES CHIP 1608 1/10W J 0 Ω	RRXA000YF002
JK7001	JACK RGB PCB S 21PIN / MRC-021H-02	JXGJ210LY001
JK7002	JACK RGB PCB S 21PIN / MRC-021H-02	JXGJ210LY001
JK7101	JACK RCA PCB S 03 RCA-347HT-03	JXRJ030YUQ01
JK7102	JACK SW RCA PCB S RCA-228H(2)NI-01 or	JYRJ020YUQ02
	JACK SW RCA PCB S 02 MTJ-032-31BA-32	JYRJ020LY028
JK7203	JACK SW RCA PCB L 05 RCA-340NI-01 or	JYRL030YUQ14
	JACK SW RCA PCB L MSP-293V3-324 NI LF	JYRL030LY043
JK7303	JACK SW DIN PCB L DIN-435C	JYEL040YUQ02
JK7402	JACK HPEP SML PCB S PJ-358H	JXSJ020YUQ01
JK7501	JACK SW HPEP SML PCB L 9PIN / PJ-323 or	JYSL020YUQ04
	JACK SW HPEP SML PCB L MSJ-035-10B B AG LF	JYSL020LY008
JS7000	PCB JUMPER D0.6-P23.0	JW23.0T
JS7001	PCB JUMPER D0.6-P5.0	JW5.0T

MUT CBA

Ref. No.	Description	Part No.
	MUT CBA Consists of the following:	1FSA10339
	INVERTER CBA JUNCTION CBA	-------- --------

INVERTER CBA

Ref. No.	Description	Part No.
	INVERTER CBA Consists of the following:	--------
CAPACITORS		
C501⚠	ALUMINUM ELECTROLYTIC CAP 180μF/400V M	CA2H181NC206
C502	CERAMIC CAP. B K 0.01μF/500V	CCD2JKP0B103
C504⚠	METALIZED FILM CAP. 0.47μF/250V or	CT2E474MS037
⚠	ACROSS THE LINE CAP. 0.47μF/250V or	CT2E474DC017
⚠	CAP METALIZED FILM 0.47μF/300V K 3.5MM	CT2F474DC004
C505⚠	METALIZED FILM CAP. 0.47μF/250V or	CT2E474MS037
⚠	ACROSS THE LINE CAP. 0.47μF/250V or	CT2E474DC017
⚠	CAP METALIZED FILM 0.47μF/300V K 3.5MM	CT2F474DC004
C506	CERAMIC CAP. B K 0.01μF/500V	CCD2JKP0B103
C508	CERAMIC CAP. B K 1000pF/2KV or	CCD3DKP0B102
	CERAMIC CAP. B K 1000pF/2KV	CA3D102MR030
C509⚠	CAP ELE LS 100μF/400V/M/85	CA2H101V8006
C510	FILM CAP.(P) 0.022μF/50V J or	CA1J223MS029
	FILM CAP.(P) 0.022μF/50V J or	CMA1JJS00223
	POLYESTER FILM CAP. (PB FREE) 0.022μF/ 100V J or	CA2A223DT018
	CAP POLYESTER FILM 0.022μF/50V J	CA1J223SER04
C511	CAP CERAMIC (AX) 390pF/50V/B/K	CA1J391TU061
C513	CAP CERAMIC (AX) 0.1μF/50V/F/Z	CA1J104TU062
C514	ELECTROLYTIC CAP. 47μF/35V M or	CE1GMASDL470

Ref. No.	Description	Part No.
	ELECTROLYTIC CAP. 47µF/35V M	CE1GMASTM470
C515	PCB JUMPER D0.6-P5.0	JW5.0T
C516	CAP POLYPROPYLENE 0.047µF/630V J	CA2K473F7001
C518⚠	SAFTY CAP. 1000pF/250V KX	CA2E102MR101
C520	FILM CAP.(P) 0.022µF/50V J or	CA1J223MS029
	FILM CAP.(P) 0.022µF/50V J or	CMA1JJS00223
	POLYESTER FILM CAP. (PB FREE) 0.022µF/100V J or	CA2A223DT018
	CAP POLYESTER FILM 0.022µF/50V J	CA1J223SER04
C551	CHIP CERAMIC CAP. F Z 0.01µF/50V	CHD1JZ30F103
C555	CERAMIC CAP. B K 1000pF/500V	CCD2JKS0B102
C556	FILM CAP.(P) 0.1µF/50V J or	CA1J104MS029
	FILM CAP.(P) 0.1µF/50V J or	CMA1JJS00104
	POLYESTER FILM CAP. (PB FREE) 0.1µF/100V J or	CA2A104DT018
	CAP POLYESTER FILM 0.1µF/50V J	CA1J104SER04
C558⚠	CAP ELE STD-85 4700µF/35V SL or	CE1GMZNDL472
⚠	CAP ELE STD-85 4700µF/35V SL	CE1GMZPDL472
C560	ELECTROLYTIC CAP. 0.1µF/50V M	CE1JMASDL0R1
C561	CAP ELE STD-85 4700µF/35V SL or	CE1GMZNDL472
	CAP ELE STD-85 4700µF/35V SL	CE1GMZPDL472
C562	SAFTY CAP. 1000pF/250V KX	CA2E102MR101
C563	SAFTY CAP. 220pF/250V KX	CA2E221MR100
C564	CAP CERAMIC (AX) 100pF/50V/B/K	CA1J101TU061
C565	PCB JUMPER D0.6-P5.0	JW5.0T
C1000	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1001	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C1002	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1003	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1004	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1005	CHIP CERAMIC CAP.(1608) CH J 1000pF/50V	CHD1JJ3CH102
C1006	CHIP CERAMIC CAP.(1608) B K 0.047µF/50V	CHD1JK30B473
C1007	CHIP CERAMIC CAP. CH J 330pF/50V	CHD1JJ3CH331
C1008	CHIP CERAMIC CAP. F Z 2.2µF/10V	CHD1AZ30F225
C1009	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1010	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1011	CHIP CERAMIC CAP.(1608) B K 0.47µF/10V	CHD1AK30B474
C1012	CHIP CERAMIC CAP.(1608) B K 0.47µF/10V	CHD1AK30B474
C1013	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C1014	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1015	ELECTROLYTIC CAP. 470µF/35V M or	CE1GMZNDL471
	ELECTROLYTIC CAP. 470µF/35V M	CE1GMZPDL471
C1016	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1017	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1018	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1019	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1020	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1021	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1032	ELECTROLYTIC CAP. 47µF/35V M or	CE1GMASDL470
	ELECTROLYTIC CAP. 47µF/35V M	CE1GMASTM470
C1040	CHIP CERAMIC CAP.(1608) B K 1000pF/50V	CHD1JK30B102
C1044	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C1046	CHIP CERAMIC CAP. (1608) B K 1µF/16V	CHD1CK30B105
C1047	CHIP CERAMIC CAP.(1608) F Z 0.1µF/25V	CHD1EZ30F104
C1061	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1062	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1063	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1064	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1065	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1066	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1067	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1100	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASDL101
	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASTM101
	ELECTROLYTIC CAP. 100µF/35V M	CA1G101SP085
C1101	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1102	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASDL101
	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASTM101
	ELECTROLYTIC CAP. 100µF/35V M	CA1G101SP085

Ref. No.	Description	Part No.
C1103	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1104	CHIP CERAMIC CAP.(1608) CH J 390pF/50V	CHD1JJ3CH391
C1105	CHIP CERAMIC CAP.(1608) CH J 390pF/50V	CHD1JJ3CH391
C1106	CHIP CERAMIC CAP.(1608) CH J 390pF/50V	CHD1JJ3CH391
C1107	CHIP CERAMIC CAP.(1608) CH J 390pF/50V	CHD1JJ3CH391
C1111	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1112	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1113	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1114	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1115	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1116	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1117	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1161	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1162	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1163	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1164	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1165	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1166	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1167	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1211	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1212	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1213	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1214	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1215	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1216	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1217	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1250	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASDL101
	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASTM101
	ELECTROLYTIC CAP. 100µF/35V M	CA1G101SP085
C1251	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1252	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASDL101
	ELECTROLYTIC CAP. 100µF/35V M or	CE1GMASTM101
	ELECTROLYTIC CAP. 100µF/35V M	CA1G101SP085
C1253	CHIP CERAMIC CAP.(1608) B K 0.1µF/50V	CHD1JK30B104
C1254	CHIP CERAMIC CAP.(1608) CH J 390pF/50V	CHD1JJ3CH391
C1255	CHIP CERAMIC CAP.(1608) CH J 390pF/50V	CHD1JJ3CH391
C1256	CHIP CERAMIC CAP.(1608) CH J 390pF/50V	CHD1JJ3CH391
C1257	CHIP CERAMIC CAP.(1608) CH J 390pF/50V	CHD1JJ3CH391
C1261	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1262	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1263	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1264	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1265	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1266	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1267	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1311	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1312	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1313	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1314	CAP CERAMIC HV 15pF/3.15KV/SL/J	CCD3FJASL150
C1315	CHIP CERAMIC CAP. B K 1500pF/50V	CHD1JK30B152
C1316	CHIP CERAMIC CAP. B K 2200pF/50V	CHD1JK30B222
C1317	CHIP CERAMIC CAP.(1608) B K 0.01µF/50V	CHD1JK30B103
C1500	CHIP CERAMIC CAP.(1608) B K 0.22µF/25V	CHD1EK30B224
C1502	CHIP CERAMIC CAP.(1608) B K 0.22µF/25V	CHD1EK30B224
C1550	CHIP CERAMIC CAP.(1608) B K 0.22µF/25V	CHD1EK30B224
C1552	CHIP CERAMIC CAP.(1608) B K 0.22µF/25V	CHD1EK30B224
C1703	ELECTROLYTIC CAP. 4.7µF/16V M or	CE1CMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M or	CE1EMASDL4R7
	ELECTROLYTIC CAP. 4.7µF/25V M	CA1E4R7SP085
	CONNECTORS	
CN501	CONNECTOR B2P3-VH(LF)(SN)	J3VH020JG001
CN1050	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1100	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1150	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1200	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1250	CONNECTOR/JACK 1747386-1	JB17J02AP002
CN1300	CONNECTOR/JACK 1747386-1	JB17J02AP002

Ref. No.	Description	Part No.
	DIODES	
D502⚠	DIODE 1N5408-B/P	NDLZ001N5408
D503⚠	DIODE 1N5408-B/P	NDLZ001N5408
D504⚠	DIODE 1N5408-B/P	NDLZ001N5408
D505⚠	DIODE 1N5408-B/P	NDLZ001N5408
D507	DIODE 1ZC30(Q)	QDLZ001ZC30Q
D509	DIODE FR154 or	NDLZ000FR154
	DIODE FR154BD or	NDL1000FR154
	FAST RECOVERY DIODE ERB44-02	QDPZ0ERB4402
D510	SCHOTTKY BARRIER DIODE ERA81-004Q or	QDLZRA81004Q
	SCHOTTKY BARRIEA DIODE 11EQS04 or	QD4Z011EQS04
	SCHOTTKY BARRIER DIODE SB140	NDWZ000SB140
D511	DIODE FAST RECOVERY FR607	NDWZ000FR607
D512	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D513	DIODE 1ZC33(Q)	QDLZ001ZC33Q
D552⚠	DIODE SCHOTTKY FD867-15L	QDWZFD86715L
D553⚠	DIODE SCHOTTKY FD867-15L	QDWZFD86715L
D555⚠	DIODE SCHOTTKY FD867-15L	QDWZFD86715L
D556	PCB JUMPER D0.6-P5.0	JW5.0T
D557	IC SHUNT REGULATOR KIA431-AT/P	NSZBA0TJY036
D558⚠	DIODE SCHOTTKY FD867-15L	QDWZFD86715L
D559	DIODE 1ZC30(Q)	QDLZ001ZC30Q
D560	ZENER DIODE MTZJT-7727B	QDTB00MTZJ27
D561	PCB JUMPER D0.6-P5.0	JW5.0T
D563	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D566	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D567	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1000	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1001	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1002	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1003	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1004	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1005	ZENER DIODE MTZJT-776.2B	QDTB0MTZJ6R2
D1006	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1008	ZENER DIODE MTZJT-775.6B	QDTB0MTZJ5R6
D1021	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1042	ZENER DIODE MTZJT-7724B	QDTB00MTZJ24
D1043	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1045	ZENER DIODE MTZJT-7724B	QDTB00MTZJ24
D1046	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1060	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1061	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1062	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1063	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1064	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1065	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1066	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1067	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1068	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133

Ref. No.	Description	Part No.
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1110	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1111	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1112	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1113	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1114	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1115	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1116	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1117	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1118	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1160	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1161	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1162	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1163	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1164	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1165	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1166	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1167	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1168	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1210	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1211	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1212	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1213	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1214	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1215	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1216	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1217	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1218	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1260	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1261	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1262	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1263	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1264	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1265	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148

Ref. No.	Description	Part No.
D1266	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1267	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1268	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1310	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1311	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1312	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1313	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1314	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1315	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1316	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1317	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1318	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1500	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1501	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1502	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1503	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1550	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1551	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1552	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1553	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
D1701	ZENER DIODE MTZJT-7718B	QDTB00MTZJ18
D1702	ZENER DIODE MTZJT-773.3B	QDTB0MTZJ3R3
D1703	SWITCHING DIODE 1SS133(T-77) or	QDTZ001SS133
	DIODE SWITCHING HSS4148TE-E	QDTZ0HSS4148
ICS		
IC501	IC UCC28600DR SOIC 8PIN	NSZAA0TTY017
IC509⚠	PHOTO COUPLER LTV817MBF	NPEBLTV817MF
IC510⚠	PHOTO COUPLER LTV817MBF	NPEBLTV817MF
IC1001	IC INVERTER CONTROLLER OZ9966SN-B1-0-TR/SSO	NSZBA0TTMC06
IC1500	IC BA10324AF-E2 or	QSZBA0TRM032
	IC(OPAMP) LM324NSR or	NSZBA0TTY190
	IC OP.AMP. LM324DT/SO-14/14PIN	NSZBA0TSS302
IC1550	IC BA10324AF-E2 or	QSZBA0TRM032
	IC(OPAMP) LM324NSR or	NSZBA0TTY190
	IC OP.AMP. LM324DT/SO-14/14PIN	NSZBA0TSS302
COILS		
L502⚠	LINE FILTER MS036 or	LLBG00ZY2009
⚠	LINE FILTER JLB2460	LLBG00ZXB012
L503⚠	LINE FILTER MS036 or	LLBG00ZY2009
⚠	LINE FILTER JLB2460	LLBG00ZXB012
TRANSISTORS		
Q501⚠	FET MOS 2SK3799(Q)	QFQZ2SK3799Q
Q502	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q551	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P

Ref. No.	Description	Part No.
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q552	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q1001	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q1002	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q1003	TRANSISTOR KTC3199-GR-AT/P or	NQS4KTC3199P
	TRANSISTOR KTC3198-GR-AT/P or	NQS4KTC3198P
	TRANSISTOR 2SC1815-GR(TE2 F T)	QQS12SC1815F
Q1020	TRANSISTOR KTA1267-GR-AT/P or	NQS1KTA1267P
	TRANSISTOR KTA-1266-GR-AT/P or	NQS4KTA1266P
	TRANSISTOR 2SA1015-Y(TE2 F T)	QQSY2SA1015F
Q1100	FET POWER MOS SMD NP22N055SLE-E1-AZ	QF2ZNP22N055
Q1101	FET POWER MOS SMD NP22N055SLE-E1-AZ	QF2ZNP22N055
Q1102	FET POWER MOS SMD NP22N055SLE-E1-AZ	QF2ZNP22N055
Q1103	FET POWER MOS SMD NP22N055SLE-E1-AZ	QF2ZNP22N055
Q1250	FET POWER MOS SMD NP22N055SLE-E1-AZ	QF2ZNP22N055
Q1251	FET POWER MOS SMD NP22N055SLE-E1-AZ	QF2ZNP22N055
Q1252	FET POWER MOS SMD NP22N055SLE-E1-AZ	QF2ZNP22N055
Q1253	FET POWER MOS SMD NP22N055SLE-E1-AZ	QF2ZNP22N055
Q1701	TRANSISTOR KTA1267-GR-AT/P or	NQS1KTA1267P
	TRANSISTOR KTA-1266-GR-AT/P or	NQS4KTA1266P
	TRANSISTOR 2SA1015-Y(TE2 F T)	QQSY2SA1015F
RESISTORS		
R503⚠	RES CARBON 1/2W J 1M Ω or	RCX2105DP006
⚠	GLASS GLAZE RES. 1/2W J 1M Ω	RXX2JZLZ0105
R505⚠	METAL OXIDE FILM RES. 2W J 0.33 Ω or	RN02R33DP004
⚠	METAL OXIDE FILM RES. 2W J 0.33 Ω	RN02R33ZU001
R506	CARBON RES. 1/4W J 10k Ω	RCX4JATZ0103
R507	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R508	CARBON RES. 1/4W J 2.2k Ω	RCX4JATZ0222
R509	PCB JUMPER D0.6-P5.0	JW5.0T
R510⚠	CARBON RES. 1/4W J 270k Ω	RCX4JATZ0274
R511	CARBON RES. 1/4W J 270k Ω	RCX4JATZ0274
R512	CARBON RES. 1/4W J 270k Ω	RCX4JATZ0274
R513	CARBON RES. 1/4W J 33 Ω	RCX4JATZ0330
R514	CARBON RES. 1/4W J 22 Ω	RCX4JATZ0220
R515	CARBON RES. 1/4W J 220k Ω	RCX4JATZ0224
R516	CARBON RES. 1/4W J 27k Ω	RCX4JATZ0273
R517⚠	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R518	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R519	CARBON RES. 1/4W J 560k Ω	RCX4JATZ0564
R520	METAL OXIDE FILM RES. 3W J 10 Ω or	RN03100ZU001
	METAL OXIDE FILM RES. 3W J 10 Ω	RN03100DP005
R521	CARBON RES. 1/4W J 330k Ω	RCX4JATZ0334
R522	METAL OXIDE FILM RES. 2W J 68k Ω or	RN02683ZU001
	METAL OXIDE FILM RES. 2W J 68k Ω	RN02683DP004
R523	PCB JUMPER D0.6-P5.0	JW5.0T
R524	METAL OXIDE FILM RES. 2W J 68k Ω or	RN02683ZU001
	METAL OXIDE FILM RES. 2W J 68k Ω	RN02683DP004
R551	CHIP RES. 1/10W J 5.6k Ω or	RRXAJR5Z0562
	RES CHIP 1608 1/10W J 5.6k Ω	RRXA562YF002
R553	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R554	CHIP RES. 1/10W J 22k Ω or	RRXAJR5Z0223
	RES CHIP 1608 1/10W J 22k Ω	RRXA223YF002
R555	CHIP RES. 1/10W J 820 Ω or	RRXAJR5Z0821
	RES CHIP 1608 1/10W J 820 Ω	RRXA821YF002
R556	PCB JUMPER D0.6-P5.0	JW5.0T
R557	CHIP RES. 1/10W F 2.2k Ω or	RRXAFR5H2201
	CHIP RES.(1608) 1/10W F 2.2k Ω or	RRXAFR5Z2201
	RES CHIP 1608 1/10W F 2.20k Ω	RTW2201YF002

Ref. No.	Description	Part No.
R558	CHIP RES. 1/10W F 8.2k Ω or	RRXAFR5H8201
	CHIP RES.(1608) 1/10W F 8.2k Ω or	RRXAFR5Z8201
	RES CHIP 1608 1/10W F 8.20k Ω	RTW8201YF002
R559	CHIP RES. 1/10W F 8.2k Ω or	RRXAFR5H8201
	CHIP RES.(1608) 1/10W F 8.2k Ω or	RRXAFR5Z8201
	RES CHIP 1608 1/10W F 8.20k Ω	RTW8201YF002
R560	CHIP RES. 1/10W F 3.3k Ω or	RRXAFR5H3301
	CHIP RES.(1608) 1/10W F 3.3k Ω or	RRXAFR5Z3301
	RES CHIP 1608 1/10W F 3.30k Ω	RTW3301YF002
R562	CHIP RES. 1/10W J 3.3k Ω or	RRXAJR5Z0332
	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332YF002
R564	CARBON RES. 1/4W J 2.7k Ω	RCX4JATZ0272
R565	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R566	METAL OXIDE FILM RES. 2W J 1.5k Ω or	RN02152ZU001
	METAL OXIDE FILM RES. 2W J 1.5k Ω	RN02152DP004
R567	METAL OXIDE FILM RES. 2W J 1.5k Ω or	RN02152ZU001
	METAL OXIDE FILM RES. 2W J 1.5k Ω	RN02152DP004
R568	CHIP RES. 1/10W J 5.6k Ω or	RRXAJR5Z0562
	RES CHIP 1608 1/10W J 5.6k Ω	RRXA562YF002
R571	CHIP RES. 1/10W J 22k Ω or	RRXAJR5Z0223
	RES CHIP 1608 1/10W J 22k Ω	RRXA223YF002
R572	CHIP RES. 1/10W J 3.3k Ω or	RRXAJR5Z0332
	RES CHIP 1608 1/10W J 3.3k Ω	RRXA332YF002
R574	CARBON RES. 1/4W J 10 Ω	RCX4JATZ0100
R575⚠	RES CARBON 1/2W J 1M Ω or	RCX2105DP006
⚠	GLASS GLAZE RES. 1/2W J 1M Ω	RXX2JZLZ0105
R1000	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1001	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1002	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R1003	CHIP RES. 1/10W J 220k Ω or	RRXAJR5Z0224
	RES CHIP 1608 1/10W J 220k Ω	RRXA224YF002
R1005	CHIP RES. 1/10W F 160 k Ω or	RRXAFR5H1603
	CHIP RES.(1608) 1/10W F 160k Ω or	RRXAFR5Z1603
	RES CHIP 1608 1/10W F 160k Ω	RTW1603YF002
R1006	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1007	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1008	CHIP RES. 1/10W J 51k Ω or	RRXAJR5Z0513
	RES CHIP 1608 1/10W J 51k Ω	RRXA513YF002
R1009	CHIP RES. 1/10W F 1M Ω or	RRXAFR5H1004
	CHIP RES. 1/10W F 1M Ω or	RRXAFR5Z1004
	RES CHIP 1608 1/10W F 1.00M Ω	RTW1004YF002
R1010	CHIP RES. 1/10W F 120 k Ω or	RRXAFR5H1203
	CHIP RES. 1/10W F 120k Ω or	RRXAFR5Z0124
	RES CHIP 1608 1/10W F 120k Ω	RTW1203YF002
R1011	CHIP RES. 1/10W F 120 k Ω or	RRXAFR5H1203
	CHIP RES. 1/10W F 120k Ω or	RRXAFR5Z0124
	RES CHIP 1608 1/10W F 120k Ω	RTW1203YF002
R1012	CHIP RES. 1/10W J 68k Ω or	RRXAJR5Z0683
	RES CHIP 1608 1/10W J 68k Ω	RRXA683YF002
R1013	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1014	CARBON RES. 1/4W J 51k Ω	RCX4JATZ0513
R1015	CHIP RES.(1608) 1/10W F 5.1k Ω or	RRXAFR5H0512
	CHIP RES. 1/10W F 5.1k Ω or	RRXAFR5Z0512
	RES CHIP 1608 1/10W F 5.10k Ω	RTW5101YF002
R1020	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1040	CARBON RES. 1/4W J 4.7k Ω	RCX4JATZ0472
R1041	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1042	CHIP RES. 1/10W J 3.9k Ω or	RRXAJR5Z0392
	RES CHIP 1608 1/10W J 3.9k Ω	RRXA392YF002

Ref. No.	Description	Part No.
R1043	CHIP RES. 1/10W J 3.9k Ω or	RRXAJR5Z0392
	RES CHIP 1608 1/10W J 3.9k Ω	RRXA392YF002
R1045	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R1046	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R1047	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1048	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R1050	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
R1051	CARBON RES. 1/4W J 6.8k Ω	RCX4JATZ0682
R1052	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1053	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R1060	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1061	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1062	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1063	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R1064	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1065	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1066	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1067	CHIP RES. 1/10W J 5.1k Ω or	RRXAJR5Z0512
	RES CHIP 1608 1/10W J 5.1k Ω	RRXA512YF002
R1068	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1069	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1070	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1071	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R1100	CHIP RES. 1/10W J 33 Ω or	RRXAJR5Z0330
	RES CHIP 1608 1/10W J 33 Ω	RRXA330YF002
R1101	CHIP RES. 1/10W J 33 Ω or	RRXAJR5Z0330
	RES CHIP 1608 1/10W J 33 Ω	RRXA330YF002
R1102	CHIP RES. 1/10W J 33 Ω or	RRXAJR5Z0330
	RES CHIP 1608 1/10W J 33 Ω	RRXA330YF002
R1103	CHIP RES. 1/10W J 33 Ω or	RRXAJR5Z0330
	RES CHIP 1608 1/10W J 33 Ω	RRXA330YF002
R1104	PCB JUMPER D0.6-P5.0	JW5.0T
R1105	PCB JUMPER D0.6-P5.0	JW5.0T
R1110	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1111	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1112	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1113	CHIP RES. 1/10W J 5.1k Ω or	RRXAJR5Z0512
	RES CHIP 1608 1/10W J 5.1k Ω	RRXA512YF002
R1114	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1115	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1116	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1117	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512

Ref. No.	Description	Part No.
R1118	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1119	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1120	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1121	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1160	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1161	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1162	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1163	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R1164	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1165	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1166	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1167	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R1168	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1169	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1170	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1171	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1210	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1211	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1212	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1213	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R1214	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1215	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1216	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1217	CHIP RES. 1/10W J 5.1k Ω or	RRXAJR5Z0512
	RES CHIP 1608 1/10W J 5.1k Ω	RRXA512YF002
R1218	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1219	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1220	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1221	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1250	CHIP RES. 1/10W J 33 Ω or	RRXAJR5Z0330
	RES CHIP 1608 1/10W J 33 Ω	RRXA330YF002
R1251	CHIP RES. 1/10W J 33 Ω or	RRXAJR5Z0330
	RES CHIP 1608 1/10W J 33 Ω	RRXA330YF002
R1252	CHIP RES. 1/10W J 33 Ω or	RRXAJR5Z0330
	RES CHIP 1608 1/10W J 33 Ω	RRXA330YF002
R1253	CHIP RES. 1/10W J 33 Ω or	RRXAJR5Z0330
	RES CHIP 1608 1/10W J 33 Ω	RRXA330YF002

Ref. No.	Description	Part No.
R1254	PCB JUMPER D0.6-P5.0	JW5.0T
R1255	PCB JUMPER D0.6-P5.0	JW5.0T
R1260	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1261	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1262	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1263	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R1264	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1265	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1266	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1267	CARBON RES. 1/4W J 5.1k Ω	RCX4JATZ0512
R1268	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1269	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1270	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1271	CARBON RES. 1/4W J 1k Ω	RCX4JATZ0102
R1310	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1311	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1312	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1313	CHIP RES. 1/10W J 5.1k Ω or	RRXAJR5Z0512
	RES CHIP 1608 1/10W J 5.1k Ω	RRXA512YF002
R1314	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1315	CHIP RES. 1/10W J 20k Ω or	RRXAJR5Z0203
	RES CHIP 1608 1/10W J 20k Ω	RRXA203YF002
R1316	CHIP RES. 1/10W F 750 Ω or	RRXAFR5H7500
	CHIP RES. RMC1/067500FTP or	RRXAFR5Z7500
	RES CHIP 1608 1/10W F 750 Ω	RTW7500YF002
R1317	CHIP RES. 1/10W J 5.1k Ω or	RRXAJR5Z0512
	RES CHIP 1608 1/10W J 5.1k Ω	RRXA512YF002
R1318	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1319	CHIP RES. 1/10W F 10k Ω or	RRXAFR5H1002
	CHIP RES. 1/10W F 10k Ω or	RRXAFR5Z1002
	RES CHIP 1608 1/10W F 10.0k Ω	RTW1002YF002
R1320	CHIP RES. 1/10W J 1M Ω or	RRXAJR5Z0105
	RES CHIP 1608 1/10W J 1.0M Ω	RRXA105YF002
R1321	CHIP RES. 1/10W J 1k Ω or	RRXAJR5Z0102
	RES CHIP 1608 1/10W J 1.0k Ω	RRXA102YF002
R1500	CHIP RES. 1/10W F 47.0 k Ω or	RRXAFR5H4702
	CHIP RES.(1608) 1/10W F 47k Ω or	RRXAFR5Z4702
	RES CHIP 1608 1/10W F 47.0k Ω	RTW4702YF002
R1501	CHIP RES. 1/10W F 1.0k Ω or	RRXAFR5H1001
	CHIP RES. 1/10W F 1k Ω or	RRXAFR5Z1001
	RES CHIP 1608 1/10W F 1.00k Ω	RTW1001YF002
R1504	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1505	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1506	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1507	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1508	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104

Ref. No.	Description	Part No.
R1509	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1510	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1511	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1550	CHIP RES. 1/10W F 47.0 k Ω or	RRXAFR5H4702
	CHIP RES.(1608) 1/10W F 47k Ω or	RRXAFR5Z4702
	RES CHIP 1608 1/10W F 47.0k Ω	RTW4702YF002
R1551	CHIP RES. 1/10W F 1.0k Ω or	RRXAFR5H1001
	CHIP RES. 1/10W F 1k Ω or	RRXAFR5Z1001
	RES CHIP 1608 1/10W F 1.00k Ω	RTW1001YF002
R1554	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1555	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1556	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1557	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1558	CARBON RES. 1/4W J 100k Ω	RCX4JATZ0104
R1559	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1560	CHIP RES. 1/10W J 100k Ω or	RRXAJR5Z0104
	RES CHIP 1608 1/10W J 100k Ω	RRXA104YF002
R1561	CHIP RES. 1/10W J 10k Ω or	RRXAJR5Z0103
	RES CHIP 1608 1/10W J 10k Ω	RRXA103YF002
R1701	CHIP RES. 1/10W J 5.1k Ω or	RRXAJR5Z0512
	RES CHIP 1608 1/10W J 5.1k Ω	RRXA512YF002
R1702	CHIP RES. 1/10W J 4.7k Ω or	RRXAJR5Z0472
	RES CHIP 1608 1/10W J 4.7k Ω	RRXA472YF002
R1703	CHIP RES. 1/10W J 820 Ω or	RRXAJR5Z0821
	RES CHIP 1608 1/10W J 820 Ω	RRXA821YF002
R1704	CHIP RES. 1/10W J 47k Ω or	RRXAJR5Z0473
	RES CHIP 1608 1/10W J 47k Ω	RRXA473YF002
	MISCELLANEOUS	
AC501⚠	AC CORD W/O A GND WIRE CEE/1905/NON-ANTITRA	WAE0192LW005
B12	HEAT SINK PMI ASSEMBLY A71F0UH	1EM424257
BC501	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC502	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC552	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC553	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC1000	PCB JUMPER D0.6-P5.0	JW5.0T
BC1001	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC1002	BEADS INDUCTOR FBR07HA121SB-00	LLBF00STU030
BC1050	PCB JUMPER D0.6-P12.5	JW12.5T
BC1051	PCB JUMPER D0.6-P12.5	JW12.5T
BC1100	PCB JUMPER D0.6-P10.0	JW10.0T
BC1101	PCB JUMPER D0.6-P10.0	JW10.0T
BC1150	PCB JUMPER D0.6-P12.5	JW12.5T
BC1151	PCB JUMPER D0.6-P12.5	JW12.5T
BC1200	PCB JUMPER D0.6-P10.0	JW10.0T
BC1201	PCB JUMPER D0.6-P10.0	JW10.0T
BC1250	PCB JUMPER D0.6-P10.0	JW10.0T
BC1251	PCB JUMPER D0.6-P10.0	JW10.0T
BC1300	PCB JUMPER D0.6-P10.0	JW10.0T
BC1301	PCB JUMPER D0.6-P10.0	JW10.0T
CLN552	WIRE ASSEMBLY 8PIN/156MM/UL2468	WX1A73F0-003
F501⚠	FUSE 4A/250V(PB FREE) 0215004.MXP	PBGZ20BAG021
FH501	FUSE HOLDER MSF-015 LF (B110)	XH01Z00LY002
FH502	FUSE HOLDER MSF-015 LF (B110)	XH01Z00LY002
JS503	PCB JUMPER D0.6-P7.5	JW7.5T
JS504	PCB JUMPER D0.6-P7.5	JW7.5T
JS554	PCB JUMPER D0.6-P5.0	JW5.0T
L6	SCREW B-TIGHT D3X8 BIND HEAD+	GBJB3080
SA502⚠	SURGE ABSORBER 470V+-10PER or	NVQZ10D471KB
⚠	VARISTOR 10D 471K SVR	NVQZVR10D471
SA503⚠	SURGE ABSORBER 470V+-10PER or	NVQZ10D471KB
⚠	VARISTOR 10D 471K SVR	NVQZVR10D471
T501⚠	TRANS POWER 7727	LTT3PE0KT030
T502⚠	CHOKE COIL LLEE0Z0ZB001 or	LLEE0Z0ZB001
⚠	COIL CHOKE JCC41-0022 / 45MH	LLEE0Z0XB004
TM601	EYELET TYPE D-1	0VM406868
TM602	EYELET TYPE D-1	0VM406868
T1050	TRANS INVERTER ETJV23ZF2LAC	LTZ2PC0MS008
T1100	TRANS INVERTER ETJV23ZF2LAC	LTZ2PC0MS008
T1150	TRANS INVERTER ETJV23ZF2LAC	LTZ2PC0MS008
T1200	TRANS INVERTER ETJV23ZF2LAC	LTZ2PC0MS008
T1250	TRANS INVERTER ETJV23ZF2LAC	LTZ2PC0MS008
T1300	TRANS INVERTER ETJV23ZF2LAC	LTZ2PC0MS008

JUNCTION CBA

Ref. No.	Description	Part No.
	JUNCTION CBA Consists of the following:	---------
	CONNECTOR	
CN552	242 SERIES CONNECTOR TUC-P08X-B1 WHT ST	JCTUB08TG002

DVB-T MODULE CBA UNIT

Ref. No.	Description	Part No.
	DVB-T MODULE CBA UNIT	UPCBPPBTNE01

Ref. No.	Description	Part No.
	MISCELLANEOUS	
TU4102	TUNER UNIT DTV ENG37E06KF	UTUNDVTMS002

SUPPLEMENT

FUNAI

SERVICE MANUAL

This Service Manual shows only the differences between the LT7-M32BB(A93F1EP) model and the LH7-M32BB(A93F0FP) model. All other information is described in the service manual of the original LH7-M32BB(A93F0FP) model.
For the LT7-M32BB(A93F1EP) model, the letter (A93F1EP) is printed on the Serial Number Label on the back of the unit. Refer to the Serial Number Label illustration on the below.

Serial No. Label

"A93F1EP"

32″ COLOR LCD TELEVISION

LT7-M32BB

Different parts from the original model LH7-M32BB(A93F0FP)

Ref. No.	Description	Part No.
MECHANICAL PARTS		
	STAND ASSEMBLY A93F1EZ	1ESA21199
A3	DECORATION PLATE A93F1EP	1EM123554
A4	REAR CABINET A93F1EP	1EM024046
A10	POP LABEL A93F1EP	----------
L6	ASSEMBLED SCREW (D9 M3X6) A71F0UH	1EM424392B
ELECTRICAL PARTS		
	DIGITAL MAIN CBA UNIT	A93F1MMA-003
	POWER SUPPLY CBA	A93F1MPW-005
C208	Not used	
C209	Not used	
JK207	Not used	
R216	Not used	
R217	Not used	

Ref. No.	Description	Part No.
MECHANICAL PARTS		
A8⚠	RATING LABEL A93F1EP	----------
S1	CARTON A93F1EP	1EM429077
S8	STAND HOLD PAD TOP A93F1EP	1EM123633
S9	STAND HOLD PAD BOTTOM A93F1EP	1EM123634
X2-1⚠	OWNERS MANUAL(DE-7) A93F1EP	1EMN24820
X2-2⚠	OWNERS MANUAL(FR-7) A93F1EP	1EMN24819
X2-3⚠	OWNERS MANUAL(PL-6) A93F1EP	1EMN24821
X6	WARRANTY CARD A93F2EP	1EMN24799A