PHILIPS

75” LCD TV
chassis PL19.29

Service Manual

Contents

TYPE A

75PFL5704/F7 PHILIPS (Serial No.: XA1)

TYPE B

75PFL4864/F7 PHILIPS (Serial No.: XA1)

This service manual contains information of different types of models.
Make sure to refer to the section describing your model.

191211

IMPORTANT SAFETY NOTICE

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

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

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.

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SPECIFICATIONS

[TYPE A]

< TUNER / NTSC >

Description	Condition	Unit	Nominal	Limit
1. AFT Pull-In Range	---	MHz	±2.3	±2.1
2. Synchronizing Sens.	TV.ch.4 CA.ch.10 CA.ch.87	dBμV dBμV dBμV	18 18 18	20 20 23

< TUNER / ATSC >

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

< LCD PANEL >

Description	Condition	Unit	Nominal	Limit
1. Native Pixel Resolution	Horizontal Vertical	pixels pixels	3840 2160	--- ---
2. Brightness (w / filter)	---	cd/m^2	400	---
3. Viewing Angle	Horizontal Vertical	° °	-89 to 89 -89 to 89	--- ---

< VIDEO >

Description	Condition	Unit	Nominal	Limit
1. Over Scan	Horizontal Vertical	% %	5 5	5±5 5±5
2. Color Temperature	--- x y	°K	12000 0.272 0.278	--- ±3% ±3%
	<Measurement condition> Input signal: HDMI1 Raster (40/80IRE) 1080i@60 Measurement point: Screen center Measuring instrument: Made of KONICA MINOLTA Luminance meter CA-310 Aging time: 60min. (Retail MODE-Cool / 100IRE Raster HDMI 1080i@60) MODE setting of TV: Shipment setting / Retail MODE-Cool Ambient temperature: 25°C ±5°C			
3. Resolution (composite video)	Horizontal Vertical	line line	400 350	--- ---

<AUDIO >

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

Description	Condition	Unit	Nominal	Limit
1. Audio MAX Output (ATSC 0dBfs)	Lch/Rch	W	10.0/10.0	9.0/9.0
2. Audio Distortion (NTSC)	500mW: Lch/Rch	%	0.5/0.5	3.0/3.0

[TYPE B]

< TUNER / NTSC >

Description	Condition	Unit	Nominal	Limit
1. AFT Pull-In Range	---	MHz	±2.3	±2.1
2. Synchronizing Sens.	TV.ch.4 CA.ch.10 CA.ch.87	dBμV dBμV dBμV	18 18 18	20 20 23

< TUNER / ATSC >

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

< LCD PANEL >

Description	Condition	Unit	Nominal	Limit
1. Native Pixel Resolution	Horizontal Vertical	pixels pixels	3840 2160	--- ---
2. Brightness (w / filter)	---	cd/m^2	400	---
3. Viewing Angle	Horizontal Vertical	° °	-89 to 89 -89 to 89	--- ---

< VIDEO >

Description	Condition	Unit	Nominal	Limit
1. Over Scan	Horizontal Vertical	% %	5 5	5±5 5±5
2. Color Temperature	--- x y	°K	6500 0.3127 0.329	--- ±3% ±3%
	<Measurement condition> Input signal: HDMI1 Raster (40/80IRE) 1080i@60 Measurement point: Screen center Measuring instrument: Made of KONICA MINOLTA Luminance meter CA-310 Aging time: 60min. (Retail MODE-Warm / 100IRE Raster HDMI 1080i@60) MODE setting of TV: Shipment setting / Retail MODE-Warm Ambient temperature: 25°C ±5°C			
3. Resolution (composite video)	Horizontal Vertical	line line	400 350	--- ---

<AUDIO >

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

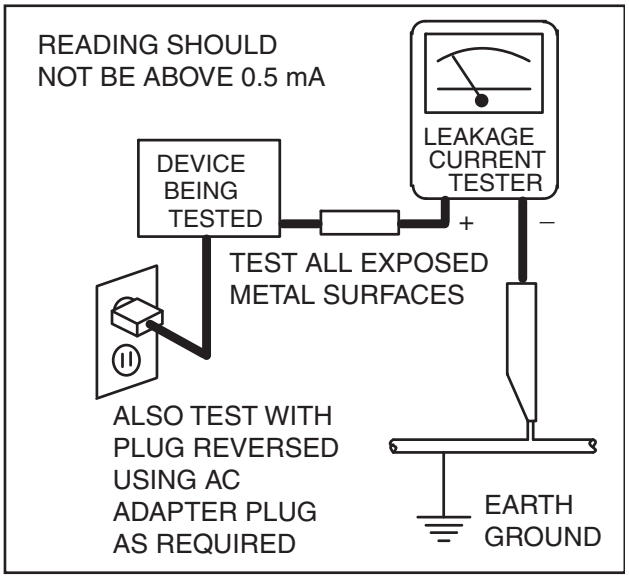
Description	Condition	Unit	Nominal	Limit
1. Audio MAX Output (ATSC 0dBfs)	Lch/Rch	W	8.0/8.0	7.0/7.0
2. Audio Distortion (NTSC)	500mW: Lch/Rch	%	0.5/0.5	3.0/3.0

IMPORTANT SAFETY PRECAUTIONS

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

Safety Precautions for LCD TV Circuit

1. **Before returning an instrument to the customer,** always make a safety check of the entire instrument, including, but not limited to, the following items:
   - **a.** Be sure that no built-in protective devices are defective and have been defeated during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpapers, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**
   - **b.** Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to, (1) spacing between the Liquid Crystal Panel and the cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.
   - **c. Antenna Cold Check -** With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohm or greater than 5.2 megohm, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.
   - **d. Leakage Current Hot Check -** With the instrument completely reassembled, plug the AC line cord directly into a 120 V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.1 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal water pipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle brackets, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milli-ampere. Reverse the instrument power cord plug in the outlet and repeat the test.



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

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

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

Precautions during Servicing

A. Parts identified by the ⚠ symbol are critical for safety.
Replace only with part number specified.

B. In addition to safety, other parts and assemblies are specified for conformance with regulations applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, RF cables, noise blocking capacitors, and noise blocking filters, etc.

C. Use specified internal wiring. Note especially:

1) Wires covered with PVC tubing
2) Double insulated wires
3) High voltage leads

D. Use specified insulating materials for hazardous live parts. Note especially:

1) Insulation Tape
2) PVC tubing
3) Spacers
4) Insulators for transistors.

E. When replacing AC primary side components (transformers, power cord, etc.), wrap ends of wires securely about the terminals before soldering.

F. Observe that the wires do not contact heat producing parts (heat sinks, oxide metal film resistors, fusible resistors, etc.)

G. Check that replaced wires do not contact sharp edged or pointed parts.

H. When a power cord has been replaced, check that 11~13 lb. (5~6 kg) of force in any direction will not loosen it.

I. Also check areas surrounding repaired locations.

J. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

K. When connecting or disconnecting the internal connectors, first, disconnect the AC plug from the AC supply outlet.

L. When installing parts or assembling the cabinet parts, be sure to use the proper screws and tighten certainly.

Safety Check after Servicing

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

1. Clearance Distance

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

Table 1: Ratings for selected area

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

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

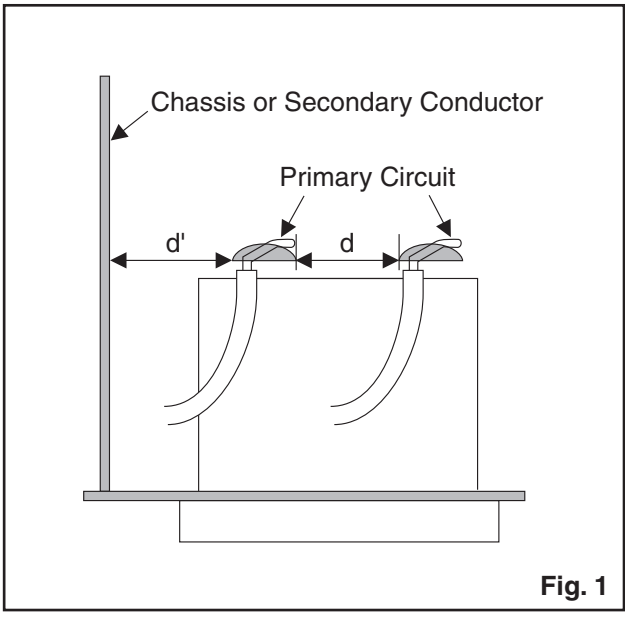


Fig. 1

2. Leakage Current Test

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

Measuring Method: (Power ON)

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

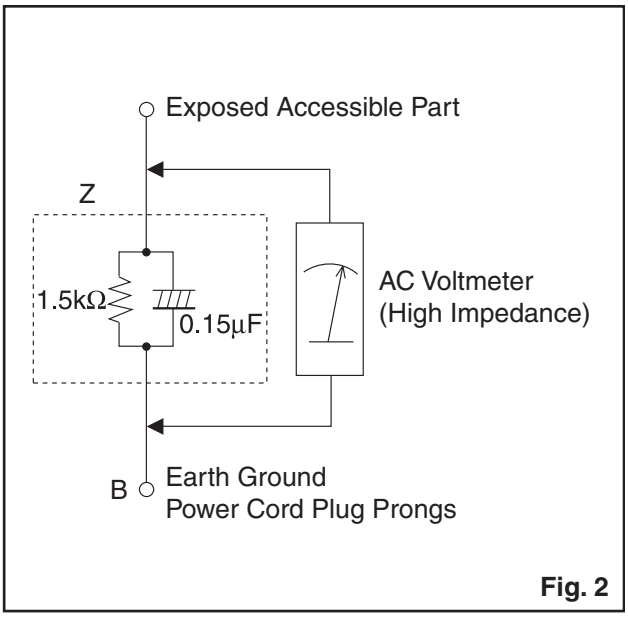


Fig. 2

Table 2: Leakage current ratings for selected areas

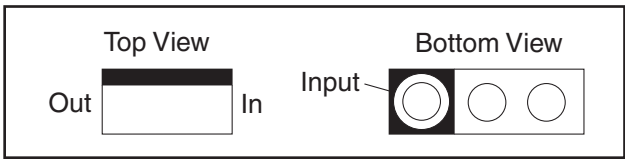
AC Line Voltage	Region	Load Z	Leakage Current (i)	Earth Ground (B) to:
110 to 130 V	U.S.A. or Canada	0.15 μF CAP. & 1.5 kΩ RES. Connected in parallel	i ≤ 0.5 mA rms	Exposed accessible parts

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

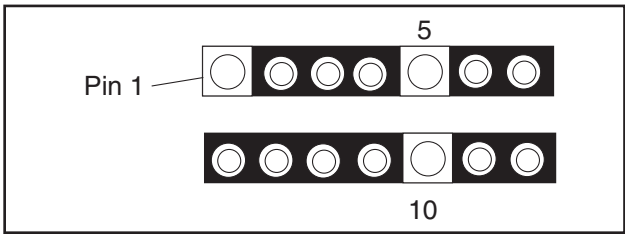
STANDARD NOTES FOR SERVICING

Circuit Board Indications

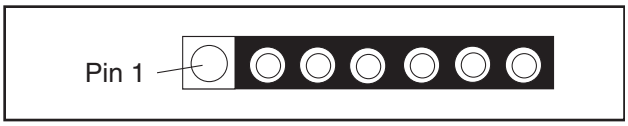
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



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

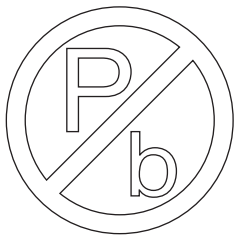


3. The 1st pin of every male connector is indicated as shown.



Pb (Lead) Free Solder

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



Pb free mark

How to Remove / Install Flat Pack-IC

1. Removal

With Hot-Air Flat Pack-IC Desoldering Machine:

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

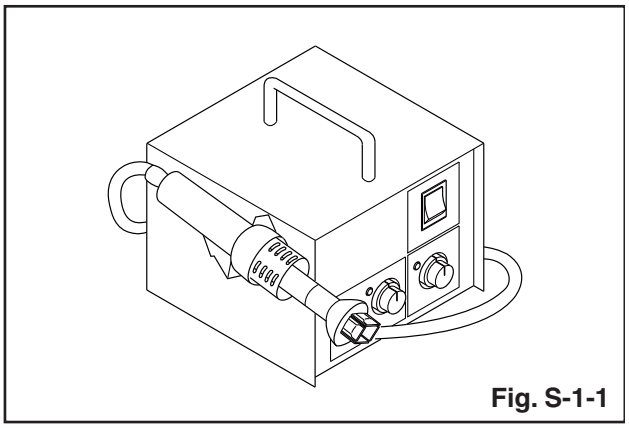


Fig. S-1-1

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

CAUTION:

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

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

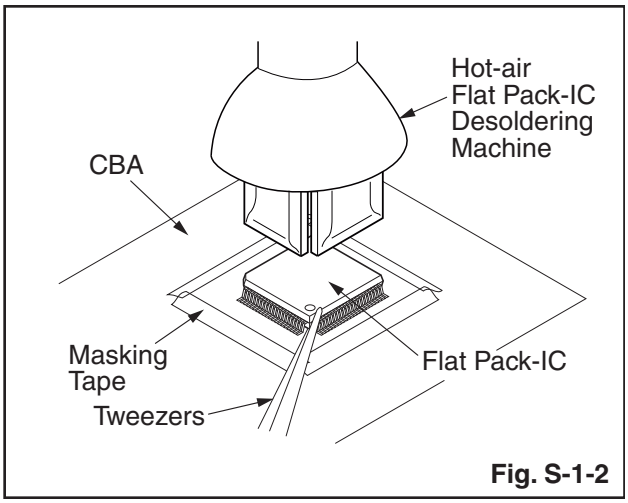


Fig. S-1-2

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)

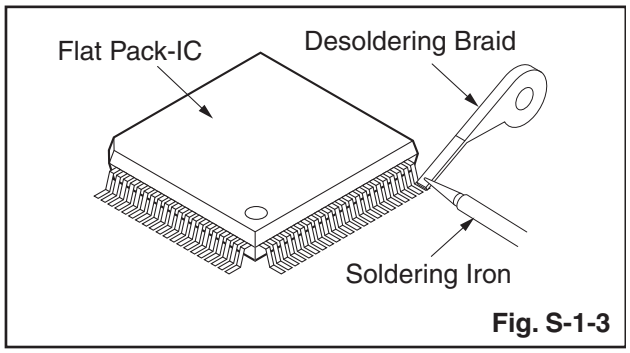


Fig. S-1-3

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)

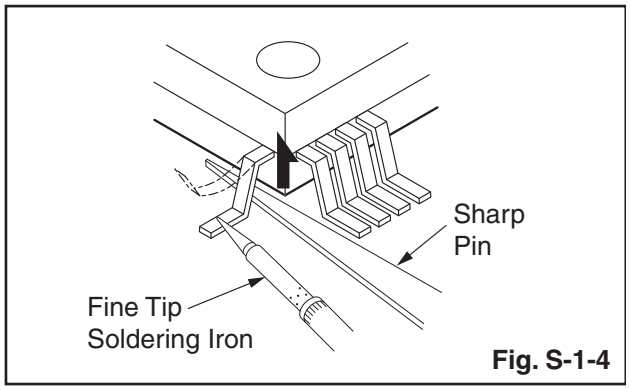


Fig. S-1-4

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.

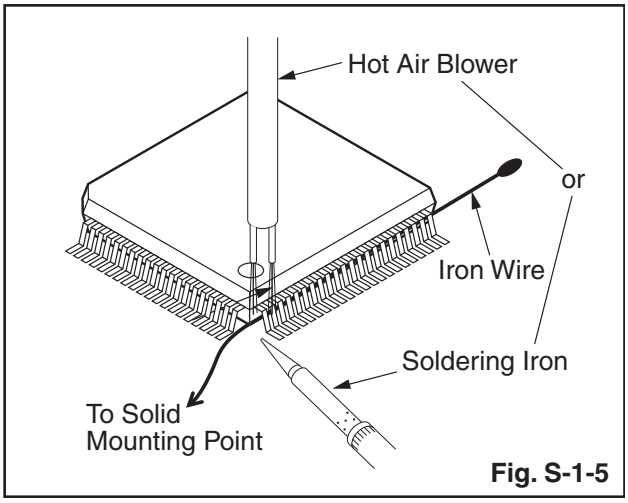


Fig. S-1-5

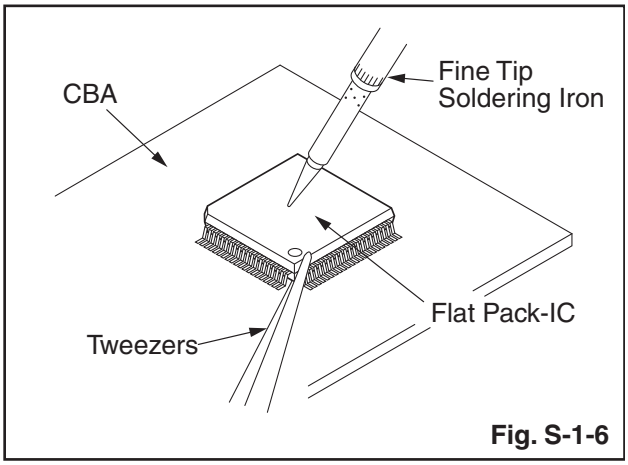


Fig. S-1-6

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 pin 1 on the PCB when positioning for installation. Then presolder the four corners of the flat pack-IC. (See Fig. S-1-8.)
3. Solder all pins of the flat pack-IC. Be sure that none of the pins have solder bridges.

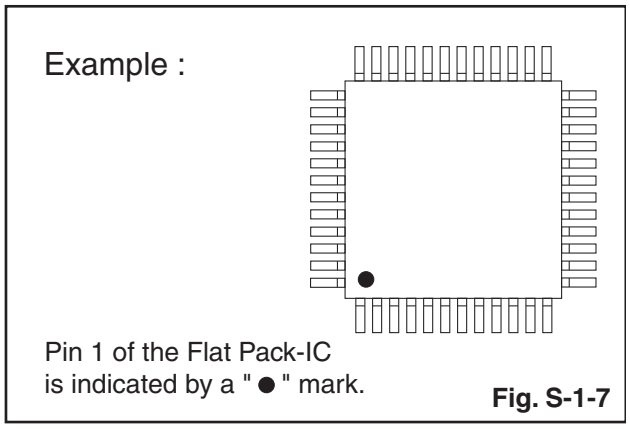


Fig. S-1-7

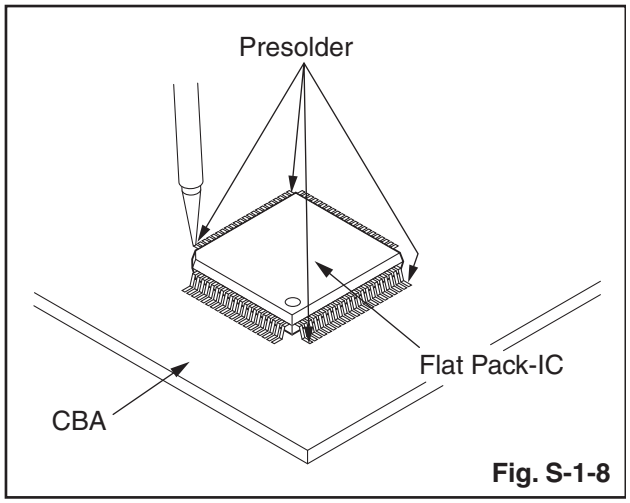


Fig. S-1-8

Instructions for Handling Semi-conductors

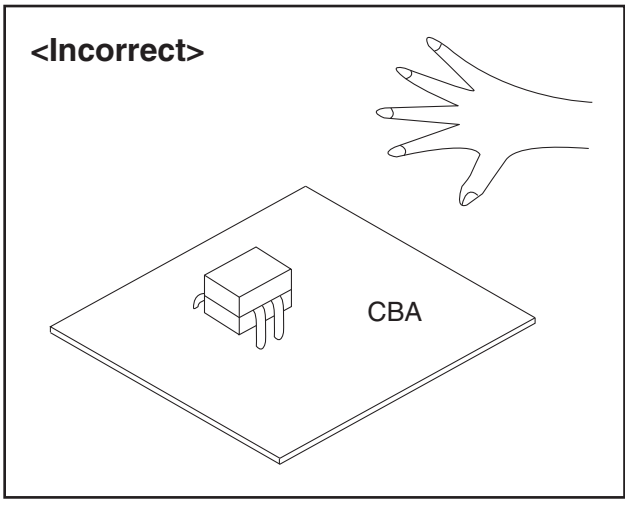
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

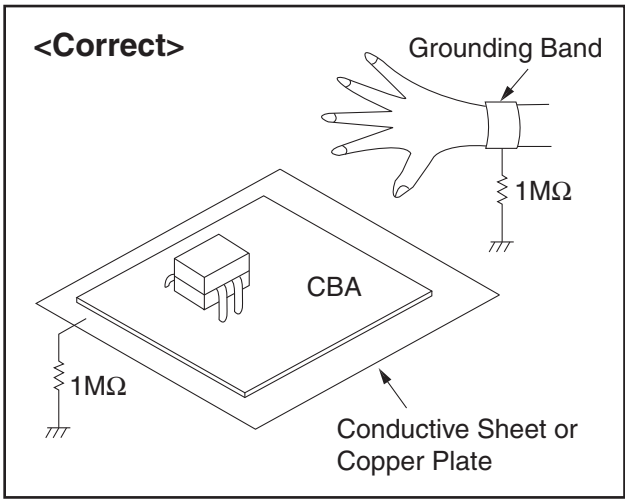
1. Ground for Human Body

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

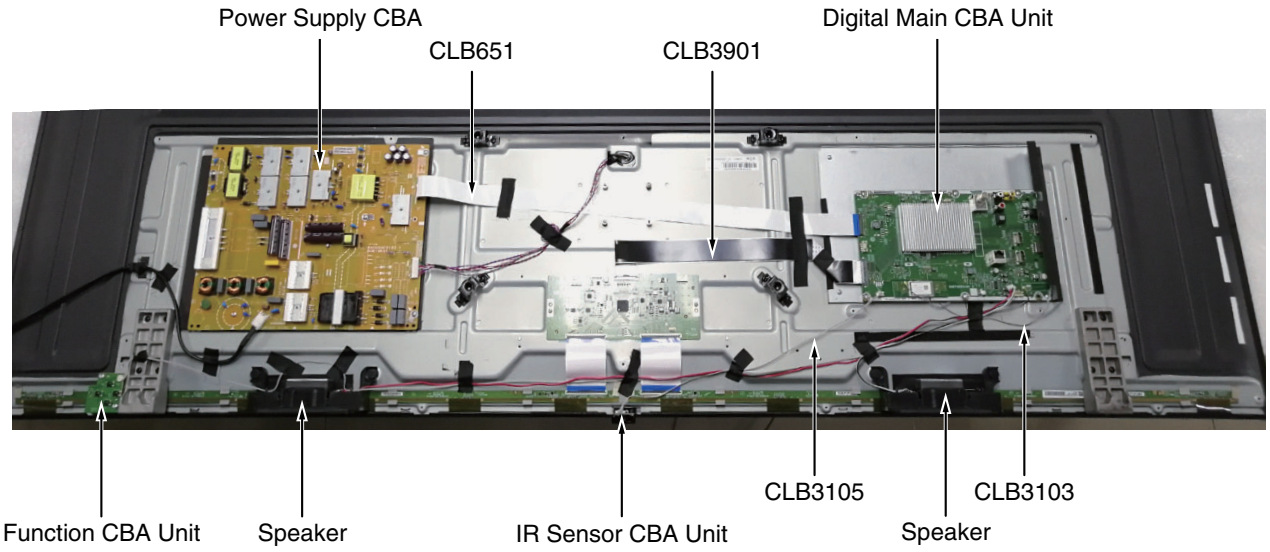
Be sure to place a conductive sheet or copper plate with proper grounding (1 MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors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





CABINET DISASSEMBLY INSTRUCTIONS

[TYPE A]



Ref.No.	Description	Part Number	Type
	Digital Main CBA Unit	ACG9HMMA-002	
	Function CBA Unit	UPB000BEG013	
	IR Sensor CBA Unit	UPB000BEG014	
	Power Supply CBA	ACG9HMPW-001	
CLB651	FFC WIRE ASSEMBLY 27PIN 27PIN/FFC/WHITE	WX1ACG9GB101	
CLB3103	WIRE ASSEMBLY 3PIN 3PIN&6PIN/AWG28	WX1ACG9GB301	
CLB3105	WIRE ASSEMBLY 2PIN 2PIN/AWG28	WX1ACG9GB401	
CLB3901	FFC WIRE ASSEMBLY 51PIN 51PIN/FFC/WHITE	WX1ACG9GB501	
SPB801	SPEAKER MAGNETIC 8OHM/10W 60803-01215	DS0814BEG001	

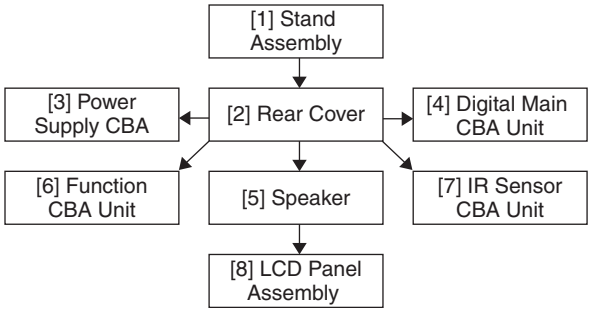
Screw Torque Specification

Ref. No.	Part Number	Part Name	ID. No.	Tightening Torque
LB-1	2EML00069	(80601-00413)SCREW M3*8 ACG9YUA-75UB	S-2	3.5±0.5lb·in
LB-2	2EML00070	(80601-00730)SCREW M3*3.5 ACG9YUA-75UB	S-8	2.2±0.5lb·in
LB-3	2EML00071	(80601-01169)SCREW M5*24 ACG9YUA-75UB	S-1	(approx. 13.9±3lb·in)*
LB-4	2EML00072	(80601-00004)SCREW M3*6 ACG9YUA-75UB	S-7	2.2±0.4lb·in5 (IR)
			S-3, S-5, S-6	3.0±0.5lb·in (POW,DIGI,FUN)
LB-5	2EML00073	(80601-00384)SCREW M3*6 ACG9GUA-75UB	S-4	3.5±0.5lb·in

***: For reference**

1. Disassembly Flowchart

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



2. Disassembly Method

Step/ Loc. No.	Part	Fig. No.	Removal	Note
[1]	Stand Assembly	D1	4(S-1)	---
[2]	Rear Cover	D1	16(S-2)	---
[3]	Power Supply CBA	D2 W1	5(S-3), CN601, CN651, CN1001	---
[4]	Digital Main CBA Unit	D2 W1	2(S-4), 6(S-5), CN3103, CN3105, CN3801, CN3901, Jack Holder	---
[5]	Speaker	D3	----------	---
[6]	Function CBA Unit	D3 W1	2(S-6)	---
[7]	IR Sensor CBA Unit	D3 W1	2(S-7), (S-8), Lens	2
[8]	LCD Panel Assembly	D3	----------	1
	↓ (1)	↓ (2)	↓ (3)	↓ (4) ↓ (5)

Note:

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

(2) Parts to be removed or installed.

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

(4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P = Spring, L = Locking Tab, S = Screw,
H = Hex Screw, CN = Connector
e.g. 2(S-2) = two Screws of (S-2),
2(L-2) = two Locking Tabs of (L-2)

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

Important precautions concerning the LCD Panel Assembly:

1. **When you disassemble/re-assemble the LCD Panel Assembly.**

- Do not pull the FFC Cable and Board Cable forcefully when you re-assemble.
- Be careful not to scratch the display panel when assembling.

2. **When you disassemble/re-assemble the IR Sensor CBA Unit.**

- Be careful not to scratch the display panel when assembling.
- Make sure the Lens and IR Sensor CBA Unit are securely in place when re-assembling.

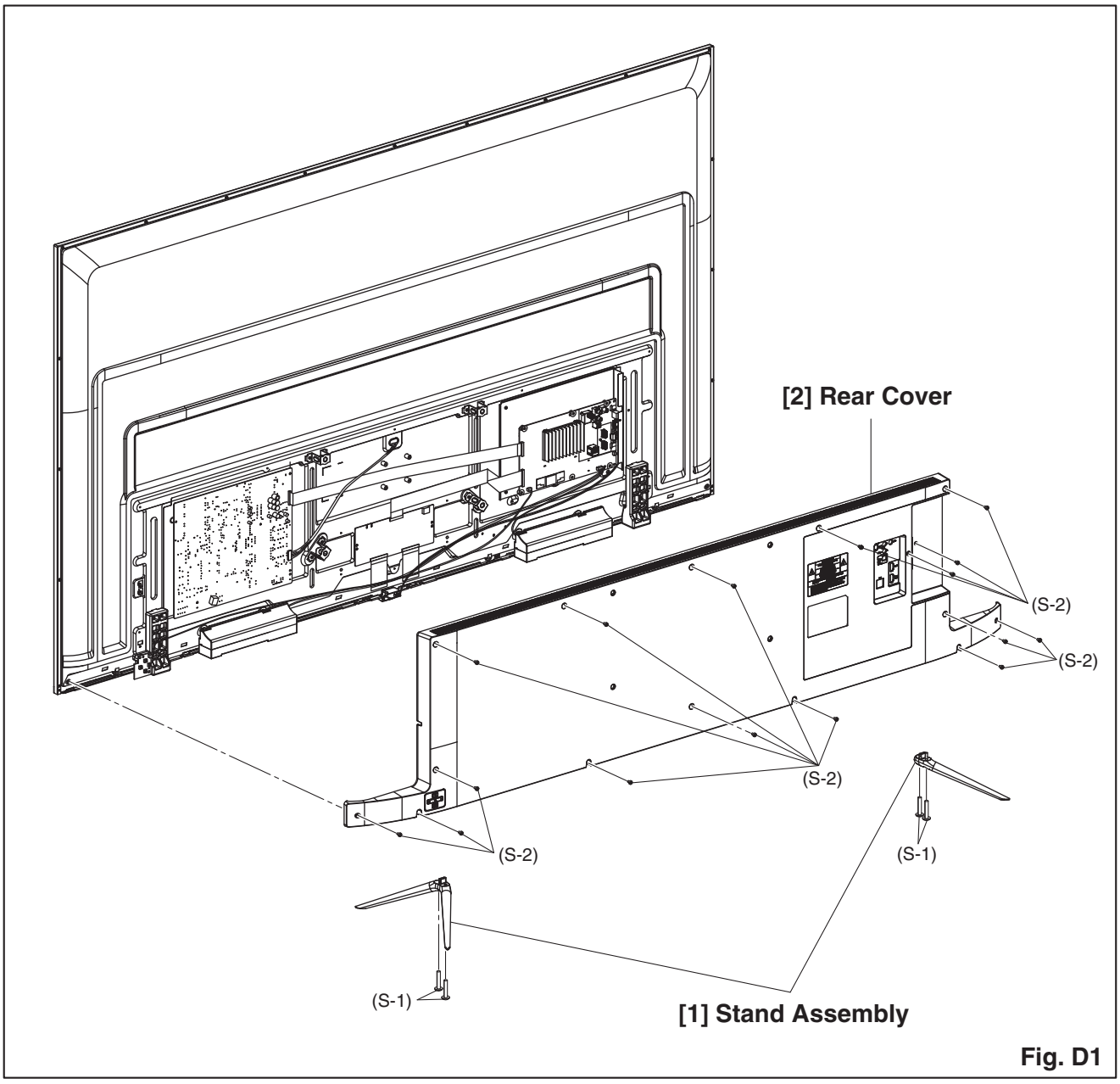


Fig. D1

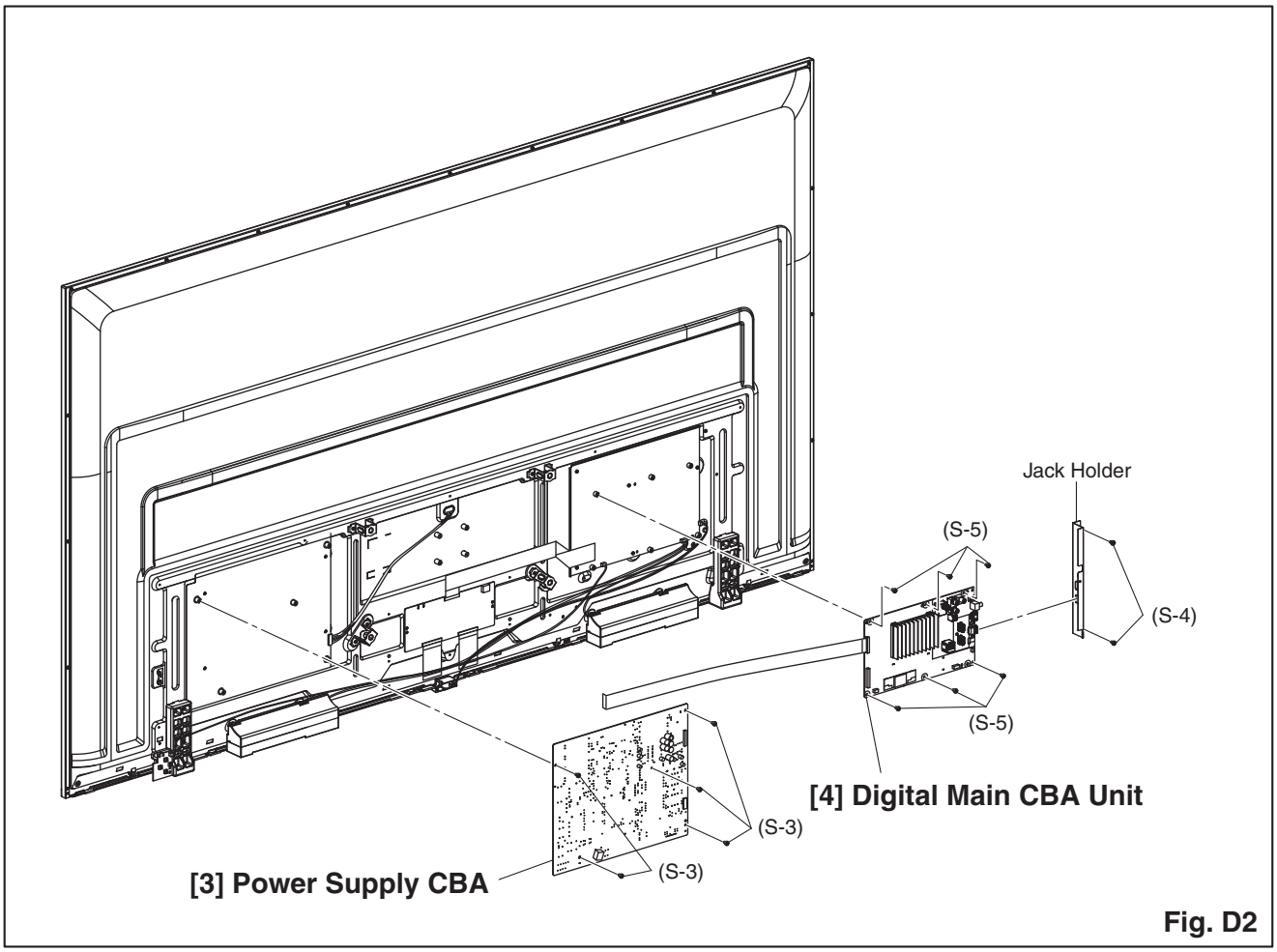

Jack Holder
(S-5)
(S-4)
(S-5)
[4] Digital Main CBA Unit
(S-3)
(S-3)
[3] Power Supply CBA

Fig. D2

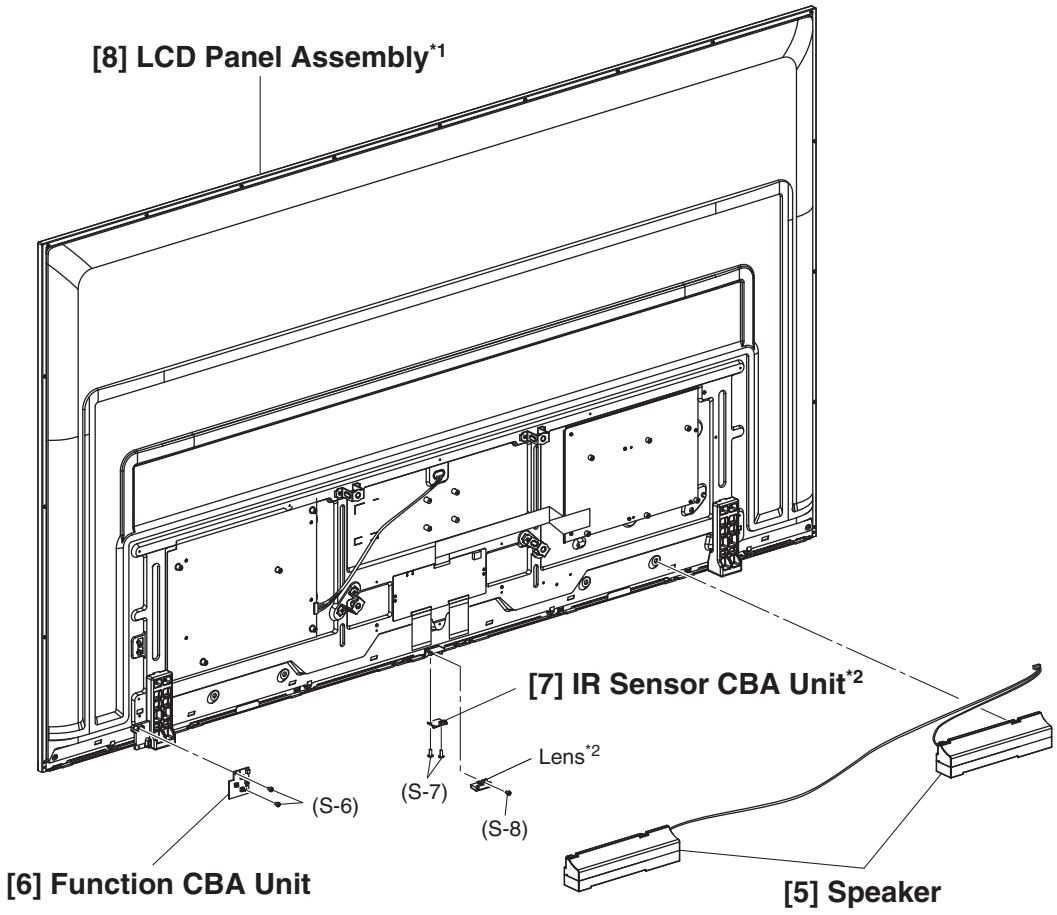


Fig. D3

***1: Make sure to read all the precautions on page 4-3 when you disassemble/re-assemble the LCD Panel Assembly.**

***2: Make sure to read all the precautions on page 4-3 when you disassemble/re-assemble the IR Sensor CBA Unit.**

TV Cable Wiring Diagram

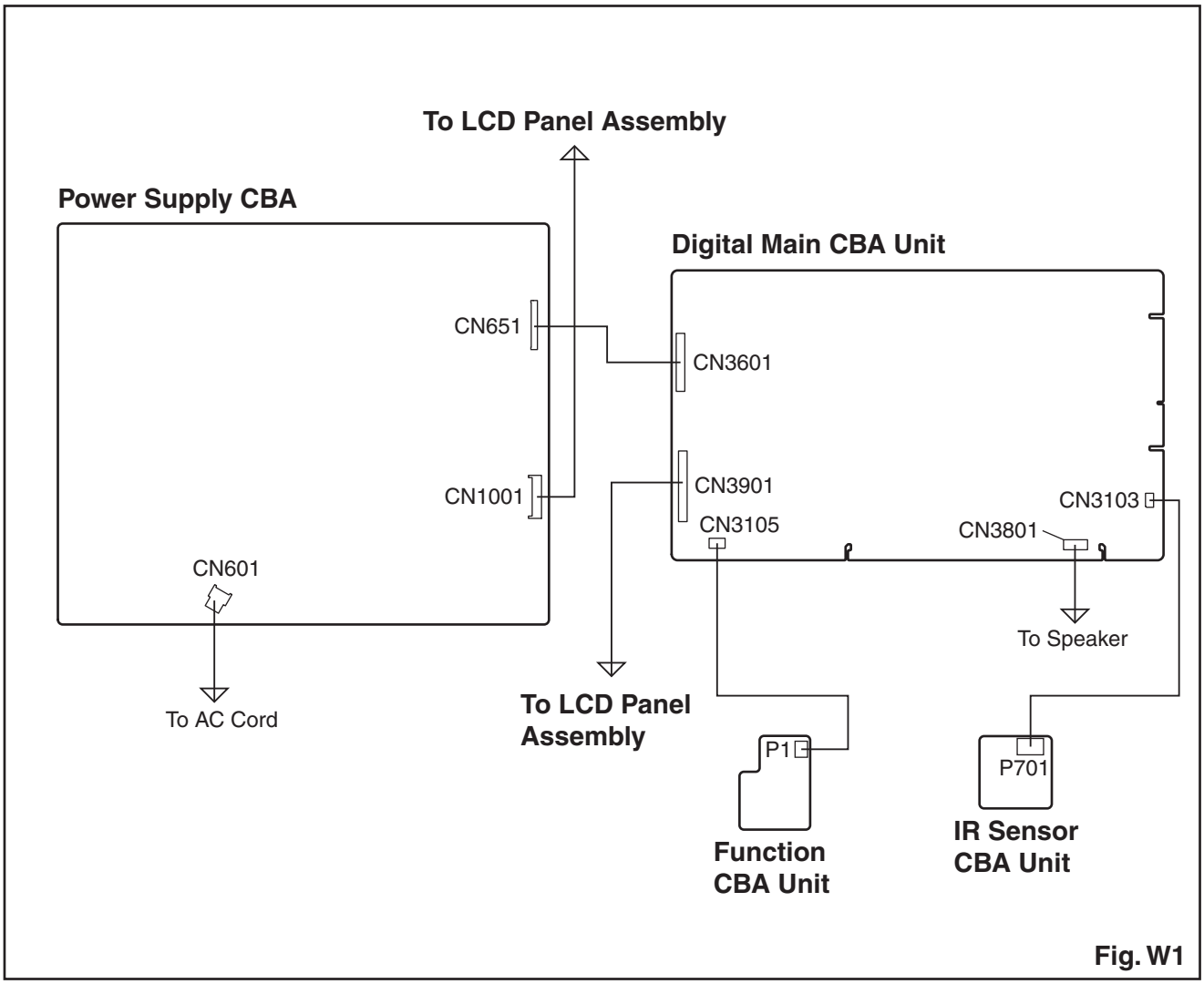
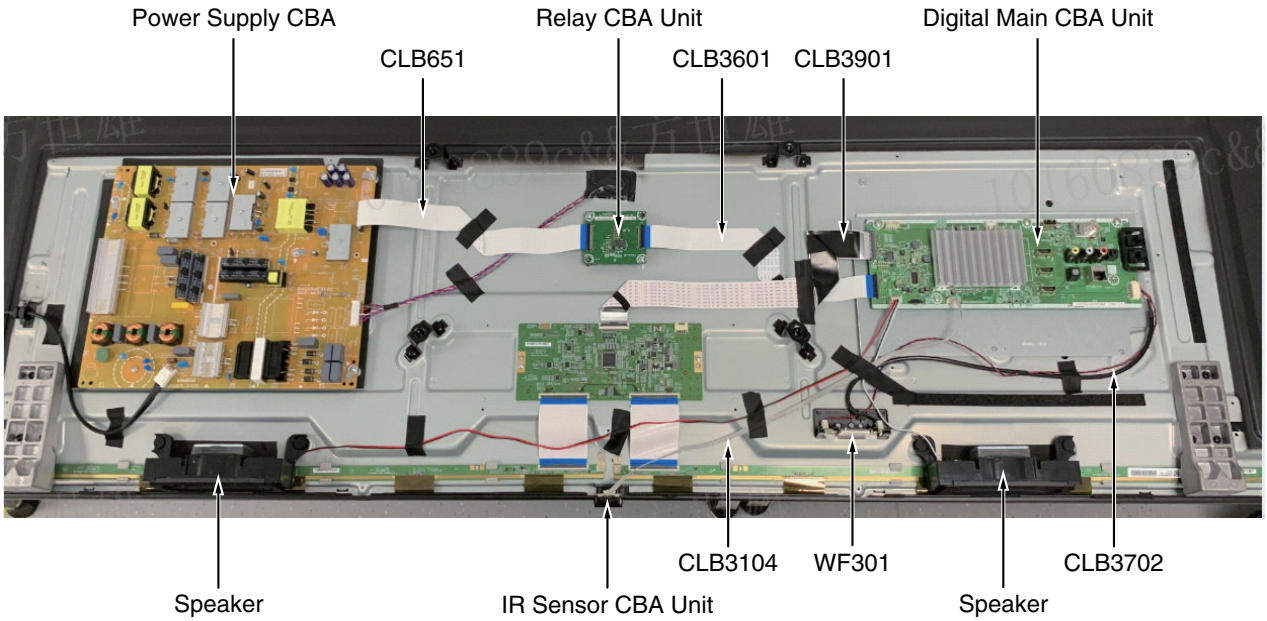


Fig. W1

[TYPE B]



Ref.No.	Description	Part Number	Type
	Digital Main CBA Unit	ACG9ZMMA-001	
	Relay CBA Unit	ACG9ZM1F-001	
	IR Sensor CBA Unit	UPB000BEG015	
	Power Supply CBA	ACG9ZMPW-001	
CLB651	FFC WIRE ASSEMBLY 27PIN 27PIN/FFC/WHITE	WX1ACG9YB101	
CLB3104	WIRE ASSEMBLY 5PIN 5PIN&6PIN/AWG28	WX1ACG9YB301	
CLB3601	FFC WIRE ASSEMBLY 23PIN 23PIN/FFC/WHITE	WX1ACG9YB201	
CLB3702	WIRE ASSEMBLY 7PIN 7PIN&4PIN/AWG28	WX1ACG9YB401	
CLB3901	FFC WIRE ASSEMBLY 51PIN 51PIN/FFC/WHITE	WX1ACG9YB501	
SPB801	SPEAKER MAGNETIC 8OHM/10W 60803-01225	DS0814BEG002	
WF301	WIRELESS MODULE U9W31UT	U9W31UT	

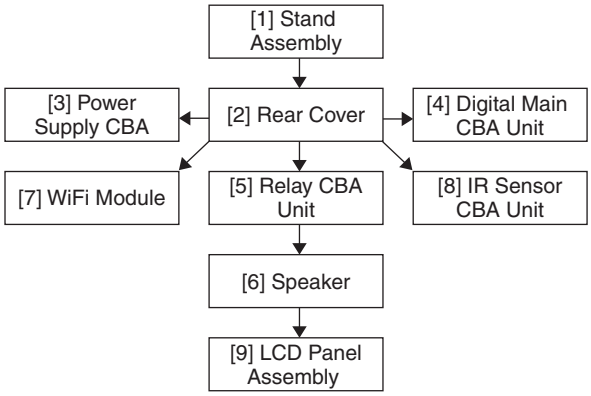
Screw Torque Specification

Ref. No.	Part Number	Part Name	ID. No.	Tightening Torque
LB-1	2EML00069	(80601-00413)SCREW M3*8 ACG9YUA-75UB	S-2	3.5±0.5lb·in
LB-2	2EML00070	(80601-00730)SCREW M3*3.5 ACG9YUA-75UB	S-7	2.2±0.5lb·in
LB-3	2EML00071	(80601-01169)SCREW M5*24 ACG9YUA-75UB	S-1	(approx. 13.9±3lb·in)*
LB-4	2EML00072	(80601-00004)SCREW M3*6 ACG9YUA-75UB	S-5, S-6	2.2±0.4lb·in (IR,REL)
			S-3, S-4	3.0±0.4lb·in (POW,DIGI)

***: For reference**

1. Disassembly Flowchart

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



2. Disassembly Method

Step/ Loc. No.	Part	Fig. No.	Removal	Note
[1]	Stand Assembly	D1	4(S-1)	---
[2]	Rear Cover	D1	16(S-2)	---
[3]	Power Supply CBA	D2 W1	5(S-3), CN601, CN651, CN1001	---
[4]	Digital Main CBA Unit	D2 W1	4(S-4), CN3104, CN3601, CN3702, CN3802, CN3901, Function Knob	---
[5]	Relay CBA Unit	D2 W1	2(S-5)	---
[6]	Speaker	D3	----------	---
[7]	WiFi Module	D3 W1	----------	---
[8]	IR Sensor CBA Unit	D3 W1	2(S-6), (S-7), Lens	2
[9]	LCD Panel Assembly	D3	----------	1
		↓ (1)	↓ (2)	↓ (3)	↓ (4)	↓ (5)

Note:

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

(2) Parts to be removed or installed.

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

(4) Identification of parts to be removed, unhooked, unlocked, released, unplugged, unclamped, or desoldered.
P = Spring, L = Locking Tab, S = Screw,
H = Hex Screw, CN = Connector
e.g. 2(S-2) = two Screws of (S-2),
2(L-2) = two Locking Tabs of (L-2)

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

Important precautions concerning the LCD Panel Assembly:

1. **When you disassemble/re-assemble the LCD Panel Assembly.**

- Do not pull the FFC Cable and Board Cable forcefully when you re-assemble.
- Be careful not to scratch the display panel when assembling.

2. **When you disassemble/re-assemble the IR Sensor CBA Unit.**

- Be careful not to scratch the display panel when assembling.
- Make sure the Lens and IR Sensor CBA Unit are securely in place when re-assembling.

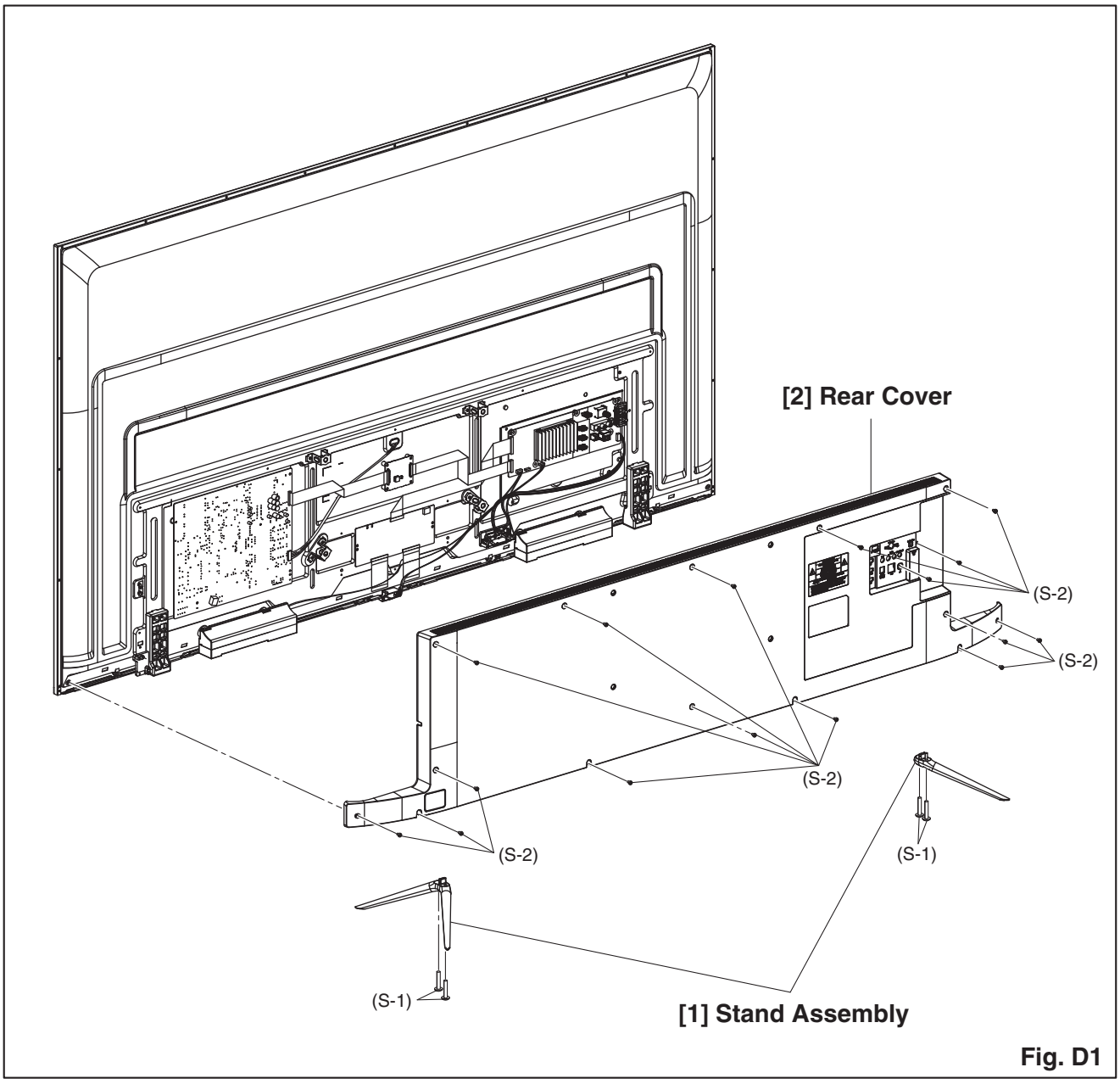


Fig. D1

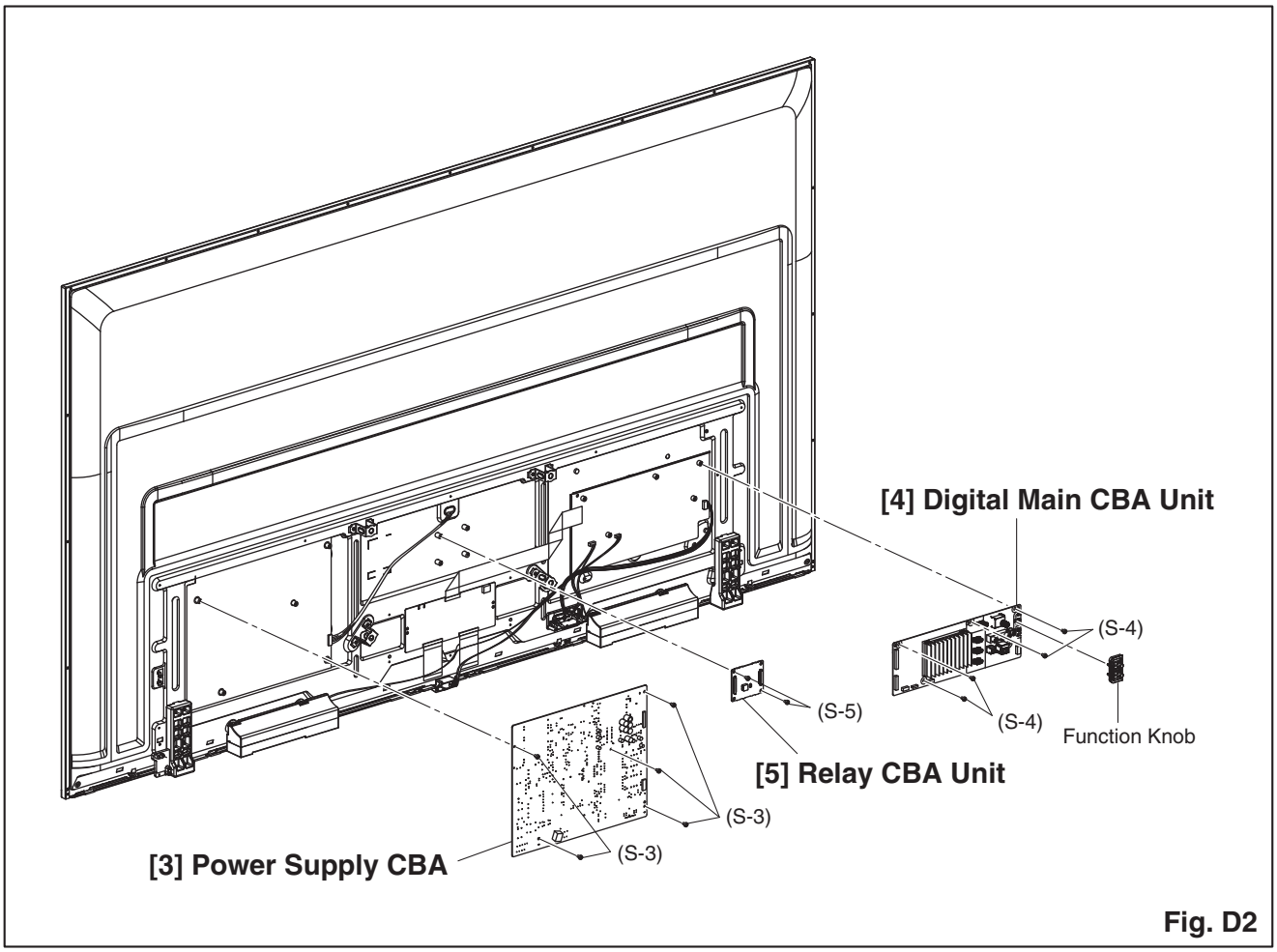

[4] Digital Main CBA Unit
(S-4)
(S-5)
(S-4)
Function Knob
[5] Relay CBA Unit
(S-3)
[3] Power Supply CBA
(S-3)

Fig. D2

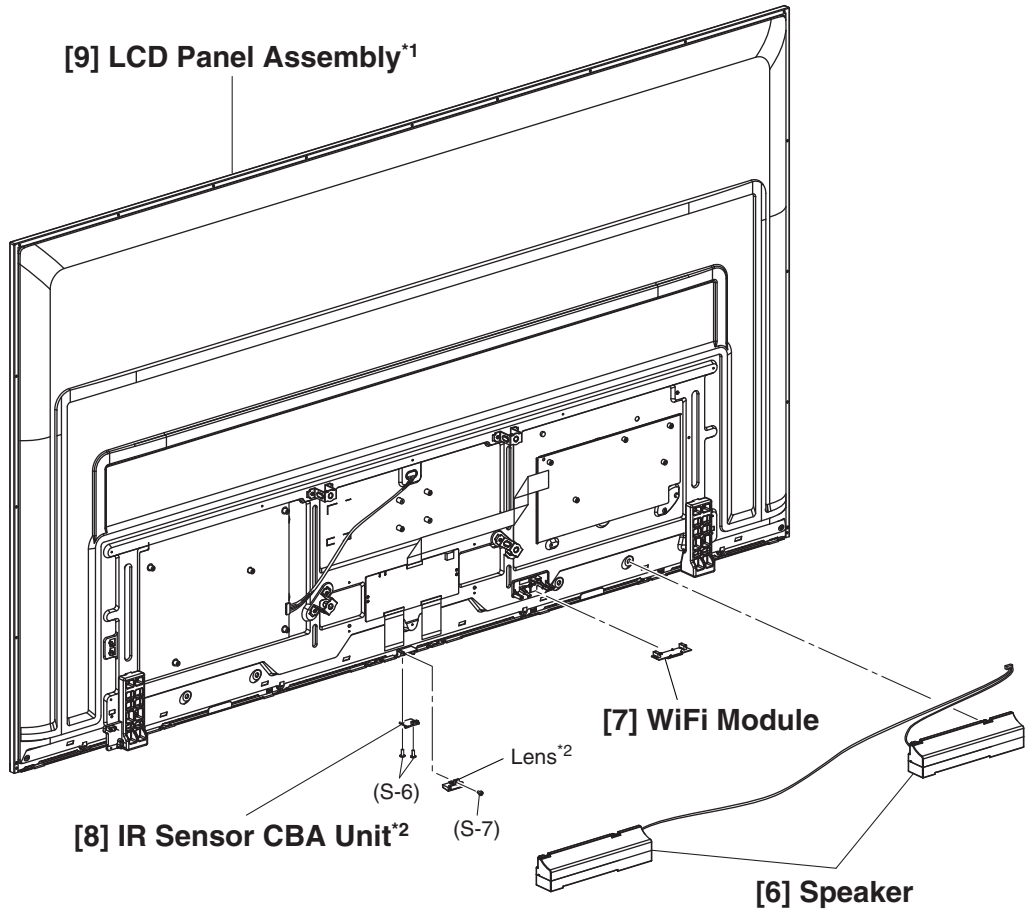


Fig. D3

***1: Make sure to read all the precautions on page 4-10 when you disassemble/re-assemble the LCD Panel Assembly.**

***2: Make sure to read all the precautions on page 4-10 when you disassemble/re-assemble the IR Sensor CBA Unit.**

TV Cable Wiring Diagram

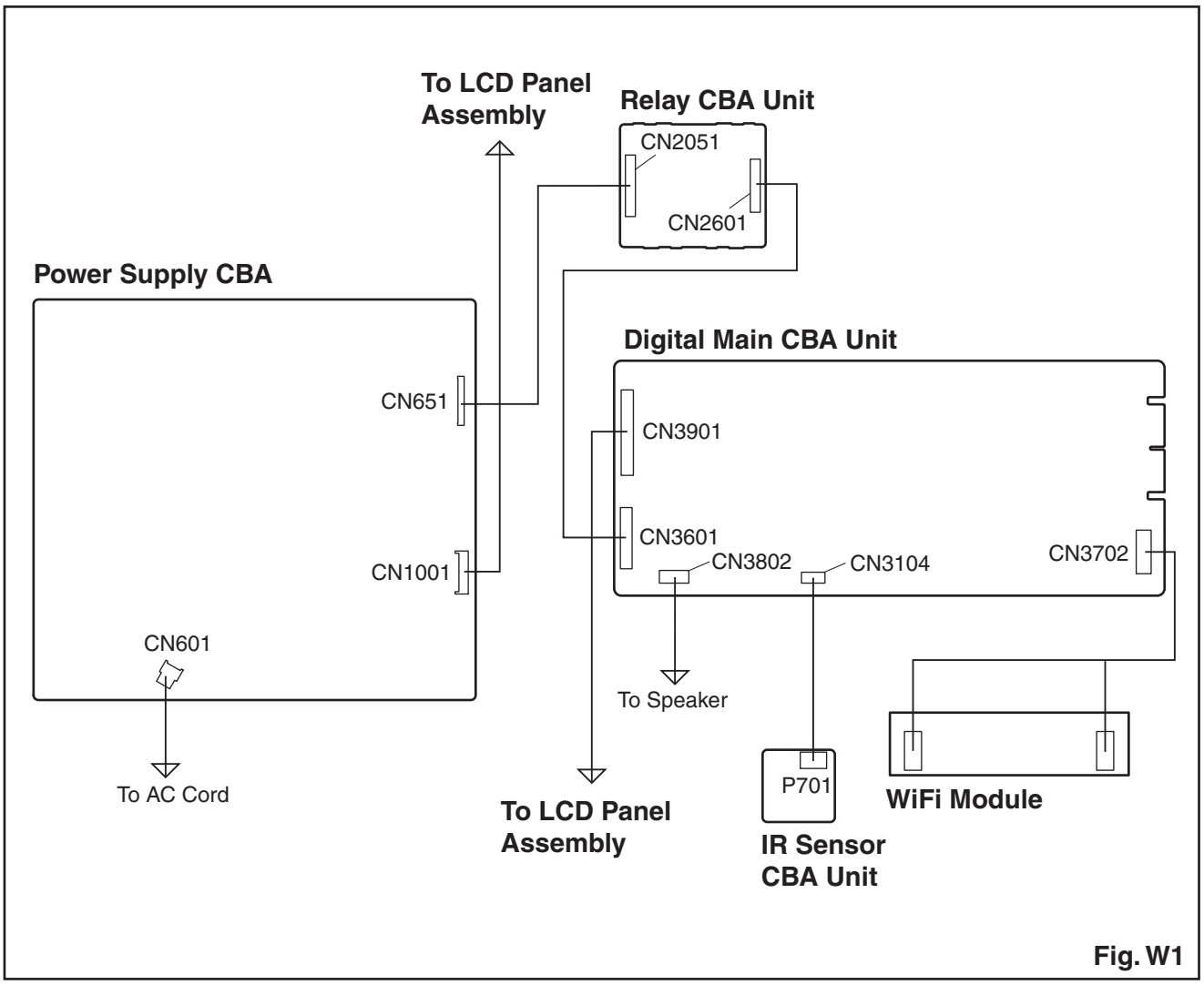


Fig. W1

ELECTRICAL ADJUSTMENT INSTRUCTIONS

[TYPE A]

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

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

Test Equipment Required

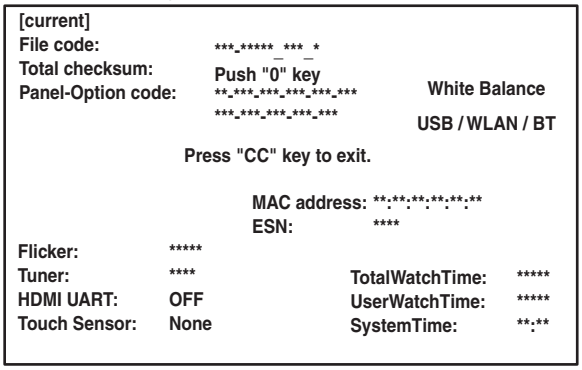
1. Remote control unit
2. Color Analyzer,
   CA-310 (KONICA MINOLTA Luminance meter) or measuring instrument as good as CA-310.

How to set up the service mode:

Enter Service mode:

1. Turn the power on.
2. Press [⌂(HOME)] button on the remote control unit.
3. Press [OPTIONS] button.
4. Press [0], [6], [2], [5], [9], [6] and [ⓘ(INFO)] buttons in this order. The following screen appears.

"⁎" differs depending on the models.



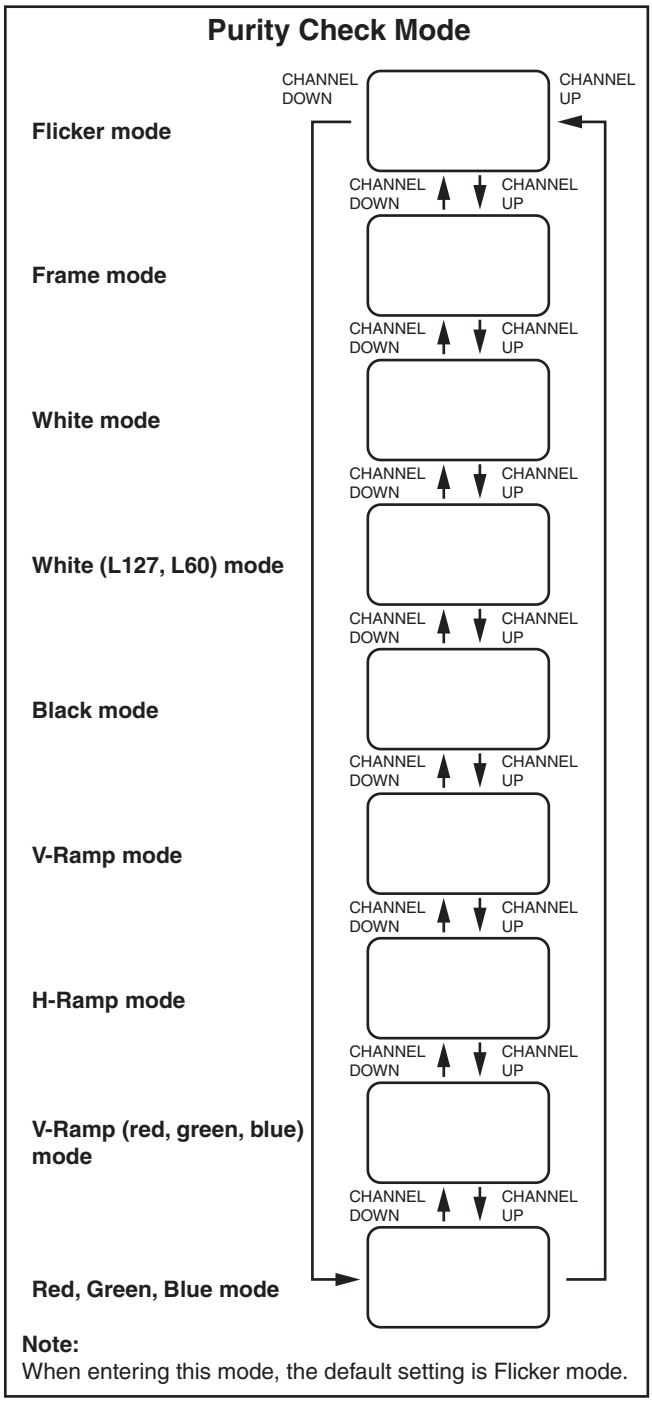
Exit Service mode:

1. Press [CC] button on Service mode Initial screen.
2. Press[OK], [0], [0], [0], and [ⓘ(INFO)] buttons on the remote control unit in this order.

1. Purity Check Mode

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

1. Enter the service mode.
2. Press [BLUE] button on the remote control unit to select Purity Check Mode.
3. Each time the [CHANNEL UP/DOWN] buttons is pressed, the display changes as follows.



4. To cancel or to exit from the Purity Check Mode, press [RIGHT] button of cursor keys.

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

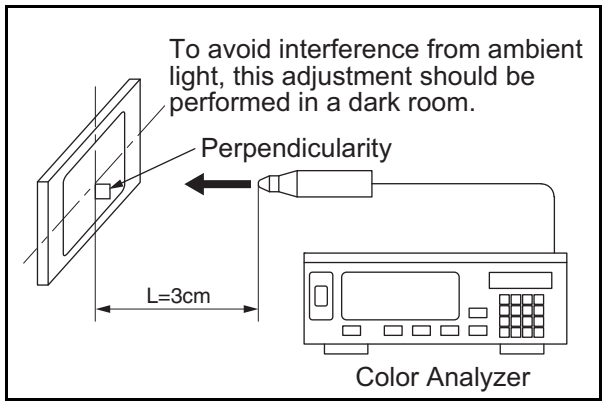
2. White Balance Adjustment

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

Symptom of Misadjustment: White becomes bluish or reddish.

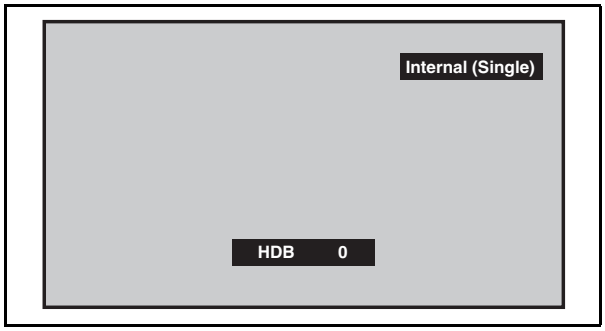
ITEM	SPECIFICATION
Color temperature	x= 0.272 ± 4% y= 0.278 ± 4.5%
Input Signal	Internal pattern (30/50/80% raster)
Measurement point	Screen center
M. EQ.	CA-310 (KONICA MINOLTA Luminance meter) or measuring instrument as good as CA-310.
Aging time	30min. (Service MODE-Cool / 100IRE Raster HDMI 1080i@60)
MODE setting of TV	Service MODE-Cool
Ambient temperature	25°C ± 5°C

1. Operate the unit for more than 30 minutes.
2. Enter the service mode.
3. Press [• (DOT)] button three times on the remote control unit to select “Drive setting” mode. “Drive-” appears in the screen.
4. Set the color analyzer at the CHROMA mode and zero point calibration. Bring the optical receptor pointing at the center of the LCD-Panel.

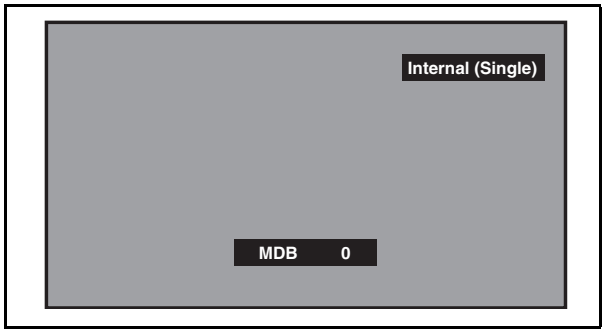


Note: The optical receptor must be set perpendicularly to the LCD Panel surface.

5. Press [3] button to select the “HDB” for High Drive Blue adjustment. (“HDB” appears in the screen.)
6. Press [BLUE] button. The internal Raster signal appears in the screen. (“Internal (Single)” appears in the upper right of the screen as shown below.)

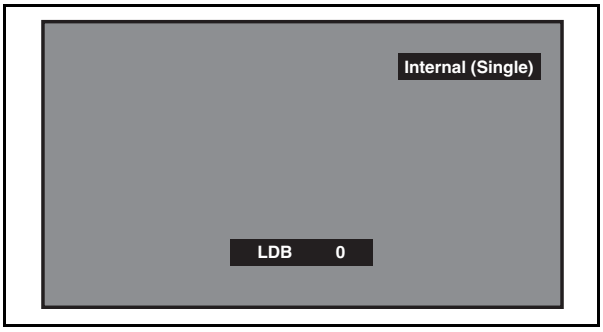


7. Press [CHANNEL UP/DOWN] buttons to adjust the color temperature becomes 12000°K (x= 0.272 ± 4% / y= 0.278 ± 4.5%).
8. Press [1] button to select the “HDR” for High Drive Red adjustment (“HDR” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.
9. If necessary, adjust the “HDB” or “HDR” again.
10. Press [6] button to select the “MDB” for Middle Drive Blue adjustment (“MDB” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.



11. Press [4] button to select the “MDR” for Middle Drive Red adjustment (“MDR” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.
12. If necessary, adjust the “MDB” or “MDR” again.

13. Press [9] button to select the “LDB” for Low Drive Blue adjustment (“LDB” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.



14. Press [7] button to select the “LDR” for Low Drive Red adjustment (“LDR” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.
15. If necessary, adjust the “LDB” or “LDR” again.
16. Press [• (DOT)] button to shift to the “Debugging Message” mode.
    If there is no message under “[WB]” section, this adjustment completes.
    If “Drive settings are NG. Retry again.” is displayed, repeat above steps from 5. to 15. Then check “Debugging Message” again. If “Drive settings are NG. Retry again.” is displayed, replace the LCD Panel or Digital Main CBA.
17. To cancel or to exit from the White Balance Adjustment, press [←(BACK)] button.

[TYPE B]

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

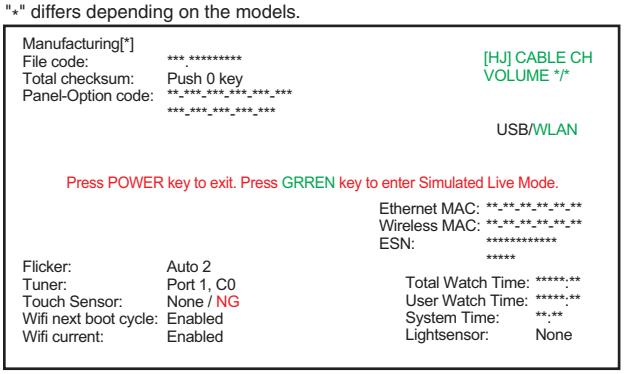
- Remote control unit (Philips Smart & Magnavox Smart: RC6 code)
- Color Analyzer,
  CA-310 (KONICA MINOLTA Luminance meter) or measuring instrument as good as CA-310.

How to set up the service mode:

Service mode:

1. Turn the power on.
2. Press [0], [6], [2], [5], [9], [6], and [INFO] buttons on the remote control unit in this order. The following screen appears.

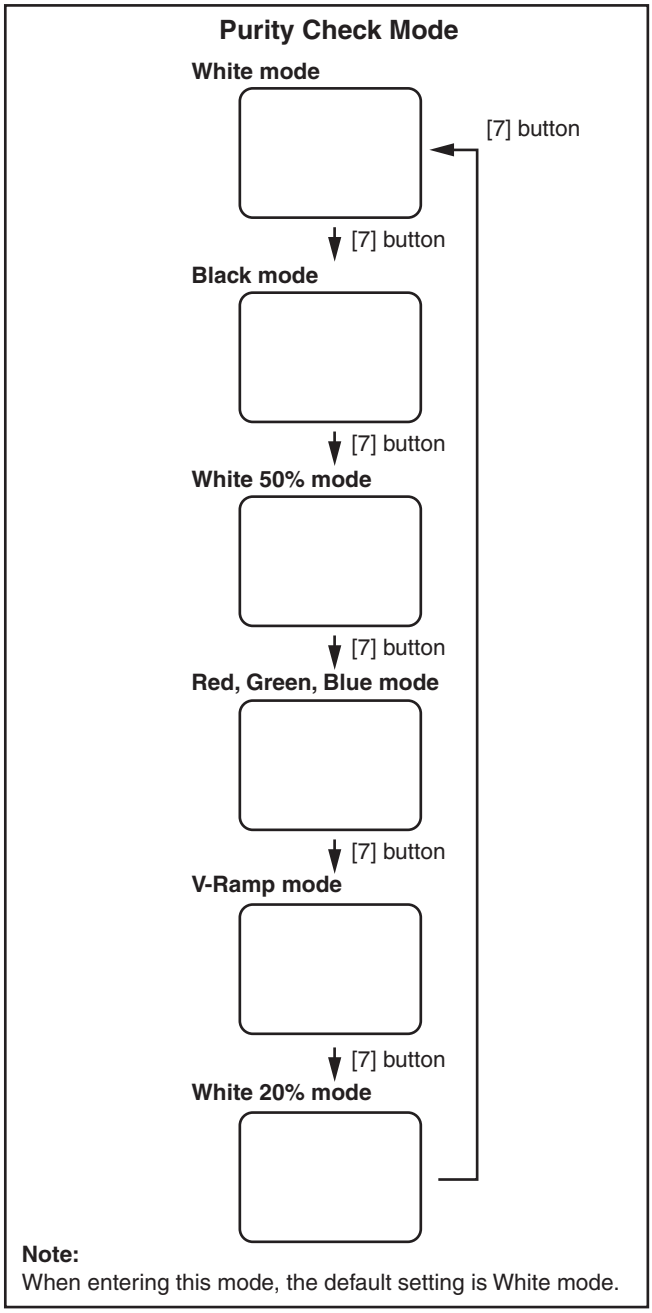
"⋆" differs depending on the models.



1. Purity Check Mode

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

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



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

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

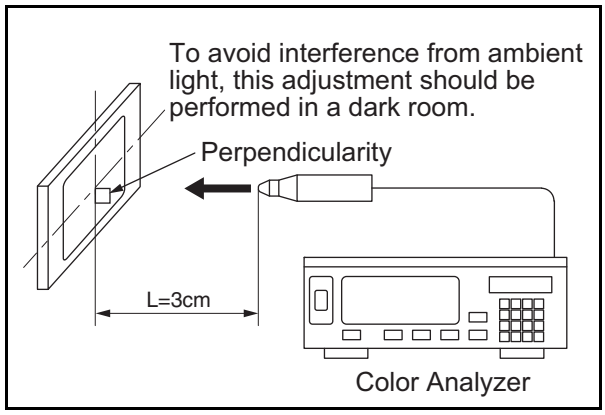
2. White Balance Adjustment

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

Symptom of Misadjustment: White becomes bluish or reddish.

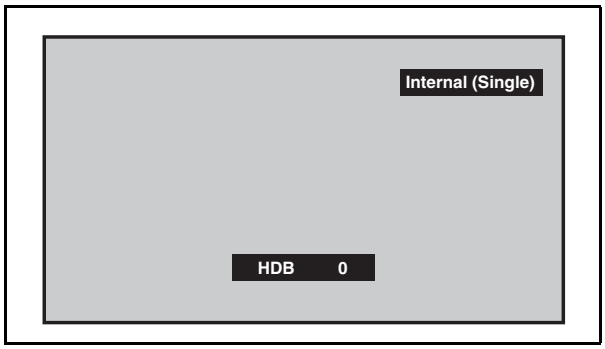
ITEM	SPECIFICATION
Color temperature	x= 0.3127 ± 4% y= 0.329 ± 4.5%
Input Signal	Internal pattern (30/50/80% raster)
Measurement point	Screen center
M. EQ.	CA-310 (KONICA MINOLTA Luminance meter) or measuring instrument as good as CA-310.
Aging time	30min. (Service MODE-Warm/ 100IRE Raster HDMI 1080i@60)
MODE setting of TV	Service MODE-Warm
Ambient temperature	25°C ± 5°C

1. Operate the unit for more than 30 minutes.
2. Enter the service mode.
3. Press [VOLUME DOWN] button three times on the remote control unit to select “Drive setting” mode. “Drive -” appears in the screen.
4. Set the color analyzer at the CHROMA mode and zero point calibration. Bring the optical receptor pointing at the center of the LCD-Panel.

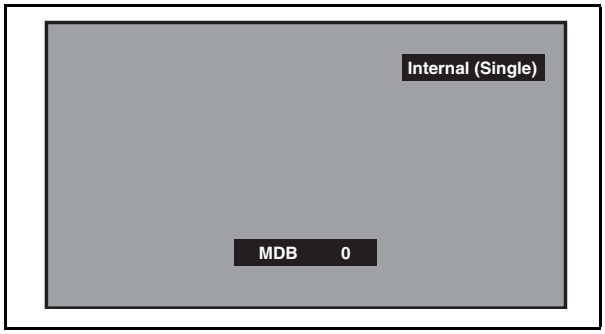


Note: The optical receptor must be set perpendicularly to the LCD Panel surface.

5. Press [3] button to select the “HDB” for High Drive Blue adjustment. (“HDB” appears in the screen.)
6. Press [MENU] or [HOME] button. The internal Raster signal appears in the screen. (“Internal (Single)” appears in the upper right of the screen as shown below.)

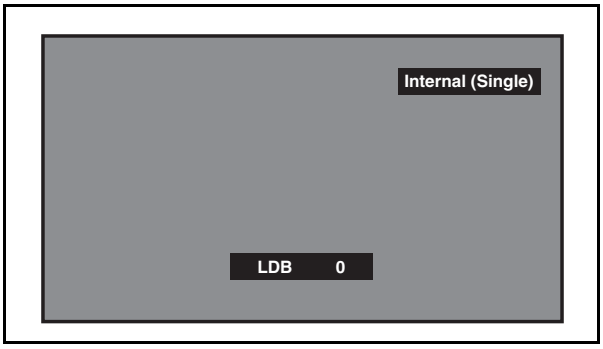


7. Press [CHANNEL UP/DOWN] buttons to adjust the color temperature becomes 6500°K (x= 0.3127 ± 4% / y= 0.329 ± 4.5%).
8. Press [1] button to select the “HDR” for High Drive Red adjustment (“HDR” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.
9. If necessary, adjust the “HDB”, “HDR” again.
10. Press [6] button to select the “MDB” for Middle Drive Blue adjustment (“MDB” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.



11. Press [4] button to select the “MDR” for Middle Drive Red adjustment (“MDR” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.
12. If necessary, adjust the “MDB” or “MDR” again.

13. Press [9] button to select the “LDB” for Low Drive Blue adjustment. (“LDB” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.



14. Press [7] button to select the “LDR” for Low Drive Red adjustment (“LDR” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.
15. Press [8] button to select the “LDG” for Low Drive Green adjustment (“LDG” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.
16. If necessary, adjust the “LDB”, “LDR” or “LDG” again.
17. Press [VOLUME DOWN] button to shift to the “Debugging Message” mode.
    If there is no message under “[WB]” section, this adjustment completes.
    If “Drive settings are NG. Retry again.” is displayed, repeat above steps from 5. to 16. Then check “Debugging Message” again. If “Drive settings are NG. Retry again.” is displayed, replace the LCD Panel or Digital Main CBA.
18. To cancel or to exit from the White Balance Adjustment, press [PREV. CH] button.

HOW TO INITIALIZE THE LCD TV

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

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

Note: Disconnect any device from the USB Port before you conduct on this procedure.

[TYPE A]

1. Turn the power on.
2. Enter the service mode.
3. Press [ⓘ(INFO)] button on the remote control unit to proceed with the self check mode.
4. **[If the firmware version is "UNI-0W0LU_102_0" or older]**

   Make sure to confirm the “INITIALIZED: OK” appears in the green screen.

   [If the firmware version is “UNI-0W0LU_103_0” or newer, Or If the firmware version is “UNI-0X0LU_xxx_x”]

   Make sure to confirm the Initial settings menu appears.

   Note: It will take long time. (around 4minutes)
5. Unplug the AC Cord and plug it back on again.

[TYPE B]

Please use the: **Remote control unit (Philips Smart & Magnavox Smart: RC6 code)**

1. According to above steps, enter into the service mode.
   - To cancel the service mode, press [⏻] button on the remote control unit.
2. Press [Red], [2], [7], [3] buttons to implement forced the initialized.
3. Make sure to confirm the “INITIALIZED FINISH” appears in the green screen.
4. Unplug the AC Cord and plug it back on again.

FIRMWARE RENEWAL MODE

[TYPE A]

Equipment Required

a. USB storage device
b. Remote Control Unit

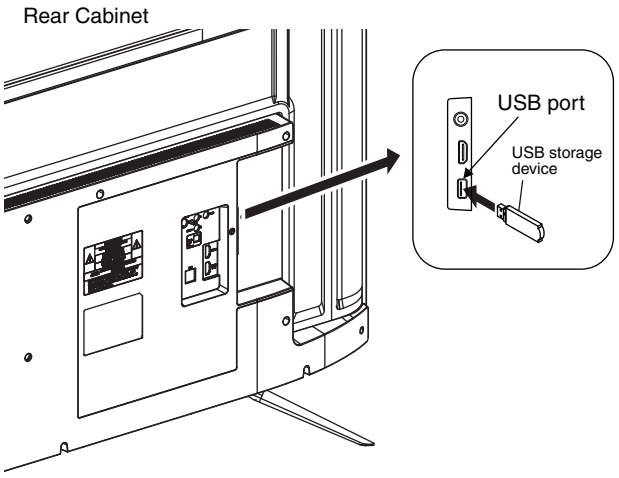
Firmware Update Procedure

User Upgrade (Filename example: : FunatvUpgrade.bin)

Upgrade the firmware only. The setting values will not be initialized.

Update procedure

1. Turn the power on.
2. Plug the AC Cord out.
3. Insert the USB storage device to the USB port as shown below.



4. Plug the AC Cord in.
5. Software update will start automatically.

   Note: Do not remove USB storage device until software update is completely finish.

6. After finished the updating software, TV set will automatically reboot.
7. Remove the USB storage device from the USB port.

[TYPE B]

Equipment Required

a. USB storage device

b. Remote Control Unit (ROKU)

Firmware Update Procedure

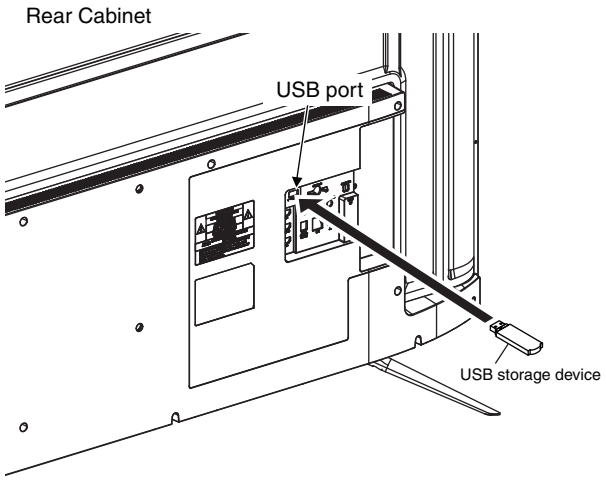
User Upgrade (Filename example: update.roku)

Upgrade the firmware only. The setting values will not be initialized.

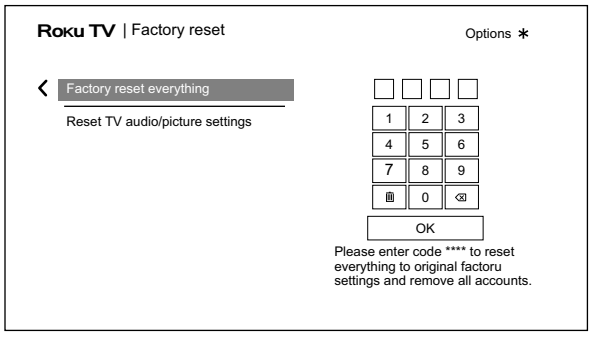
Update procedure

Please use the: **Remote Control Unit (ROKU)**

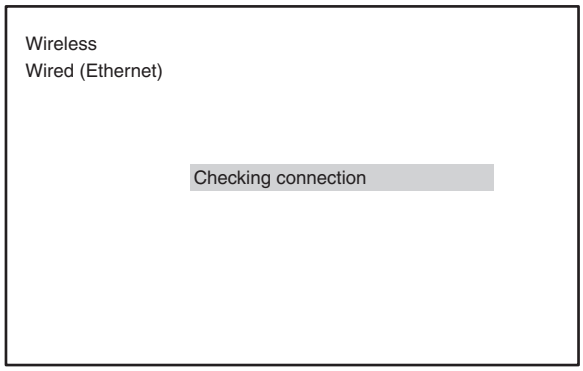
1. Turn the power on.
2. Insert the USB storage device to the USB port as shown below.



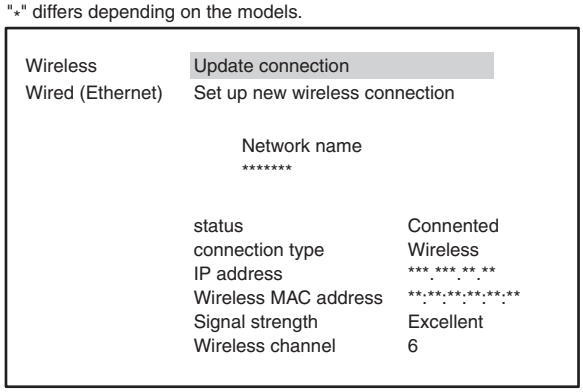
3. Reset Roku TV.
4. Press the [⌂] button, Home - Setting - System - Advanced system settings - Factory reset, enter into - Factory reset everything.



5. Insure TV must connect the network, press the [⌂] × 5, [>], [<], [>], [<], and [>] enter into Network connect interface, select Wireless or Wired, both are OK, and connect network.



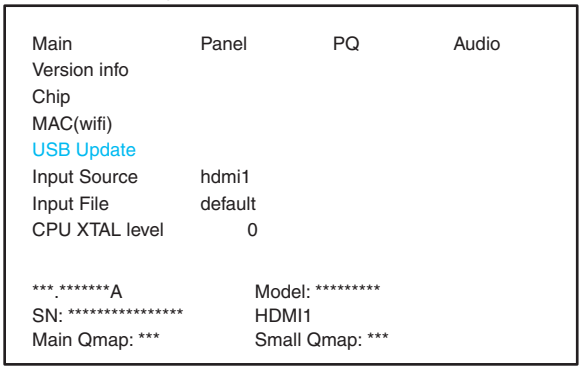
"⁎" differs depending on the models.



6. Enter into Roku update interface, press the [⌂] button × 5, [◀◀] × 4, and [▶II] × 1 enter into Roku update interface.

7. Select “USB” update.

"*" differs depending on the models.



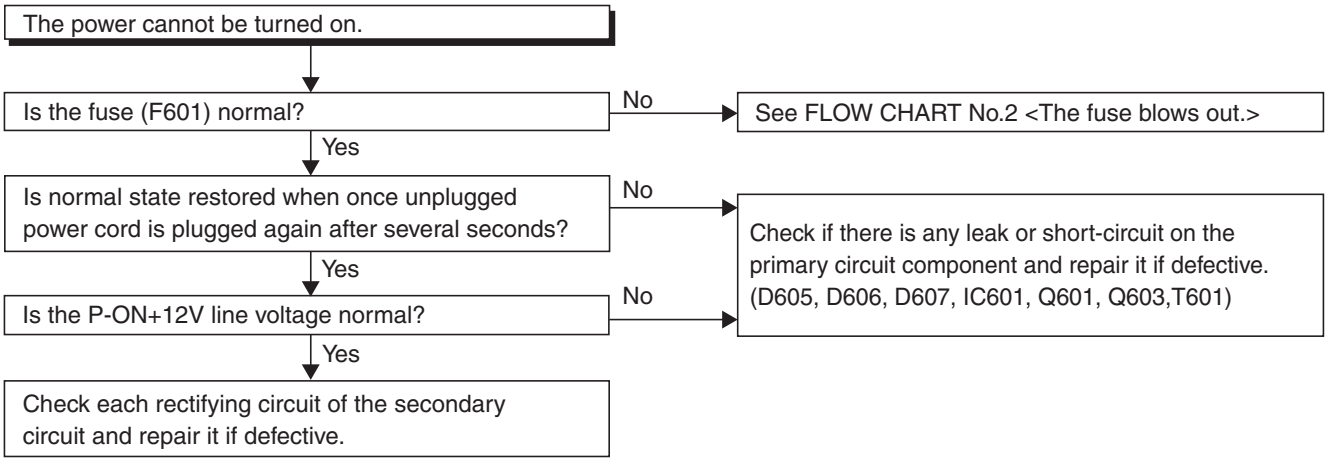
8. Updating progress.

9. After finished the updating software, TV set will automatically reboot.

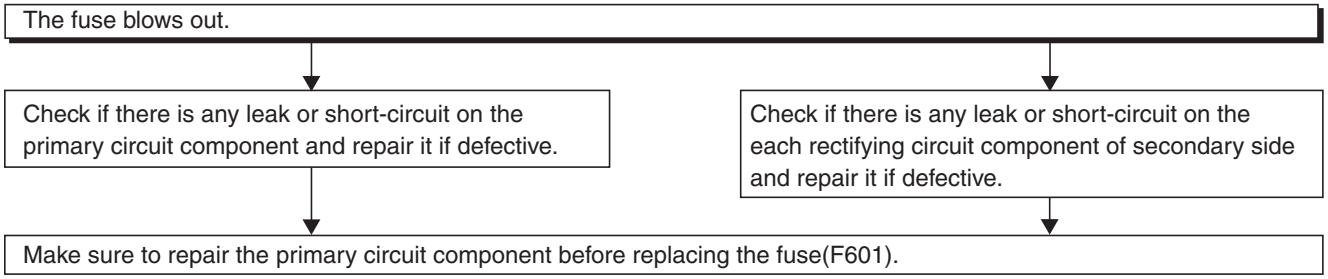
TROUBLESHOOTING

[TYPE A]
[Power Supply Section]

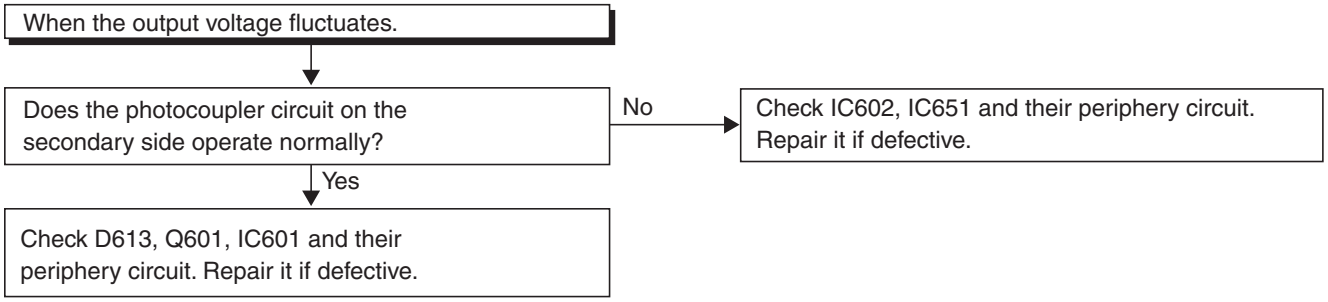
FLOW CHART NO.1



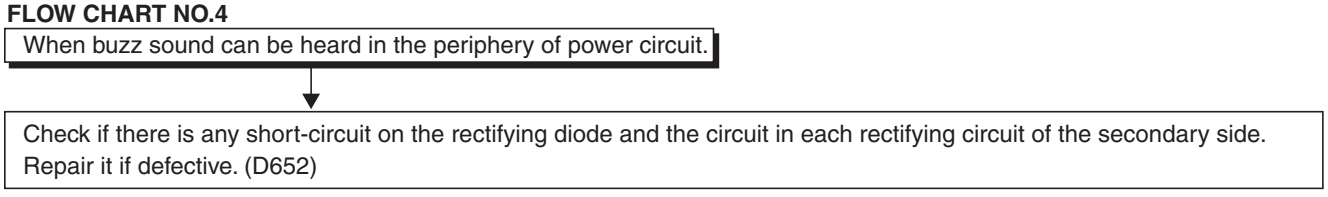
FLOW CHART NO.2



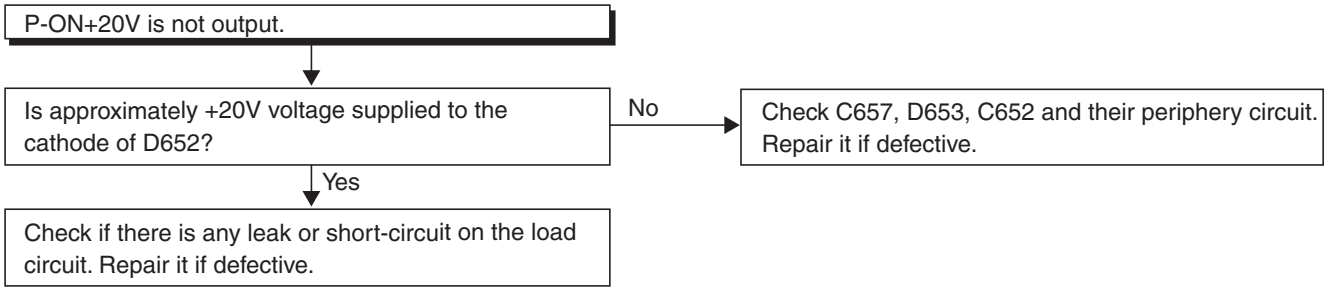
FLOW CHART NO.3



FLOW CHART NO.4



FLOW CHART NO.5



[Video Signal Section]

FLOW CHART NO.1

The key operation is not functioning.

↓

When pressing each buttons, does the Pin(2) voltage of CN3103 decrease?

No → Replace the Function CBA Unit.

↓ Yes

Replace the Digital Main CBA Unit.

FLOW CHART NO.2

No operation is possible from the remote control unit. (Operation is possible from the unit.)

↓

Is approximately +3.3V voltage supplied to Pin(1) of CN3103?

No → Check AL+3.3V line and repair it if defective.

↓ Yes

Is the "L" pulse supplied to Pin(3) of CN3103 when the infrared remote control activated?

No → Replace the IR Sensor CBA Unit or replace the remote control unit.

↓ Yes

Replace the Digital Main CBA Unit.

FLOW CHART NO.3

Picture does not appear normally.

↓

Is approximately +20V voltage supplied to Pin(18, 19, 20, 21, 22, 23, 24, 25, 26, 27) of CN651?

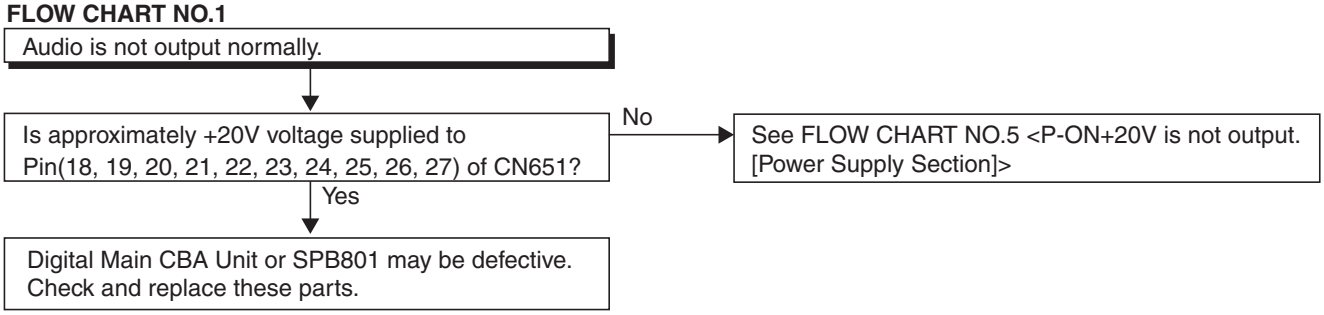
No → See FLOW CHART NO.5 <P-ON+20V is not output. [Power Supply Section]>

↓ Yes

Digital Main CBA Unit or LCD Panel Assembly may be defective. Check and replace these parts.

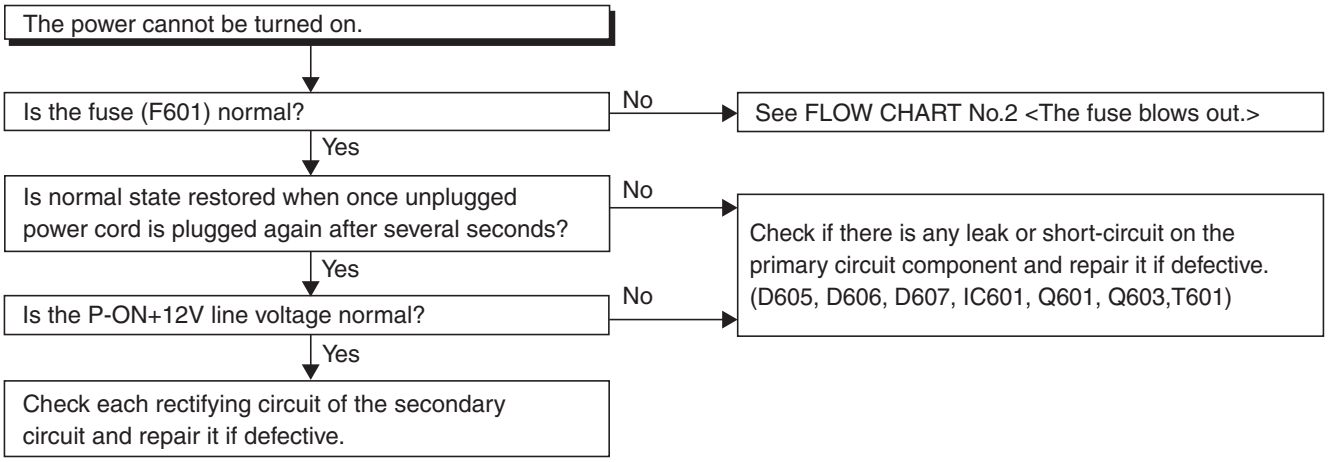
[Audio Signal Section]

FLOW CHART NO.1

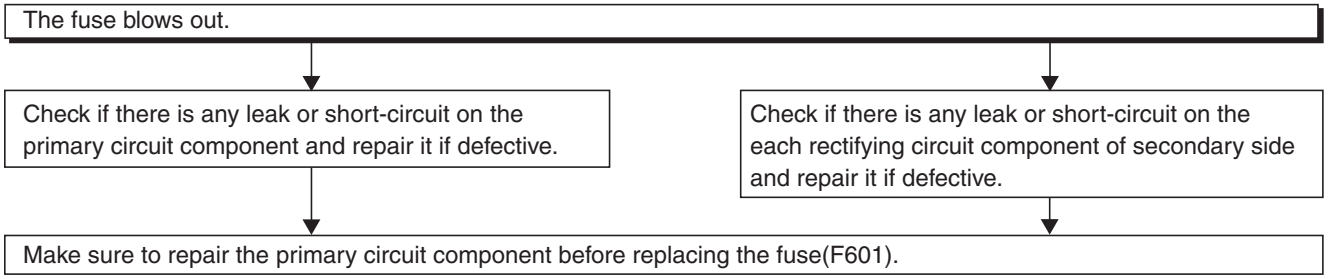


[TYPE B]
[Power Supply Section]

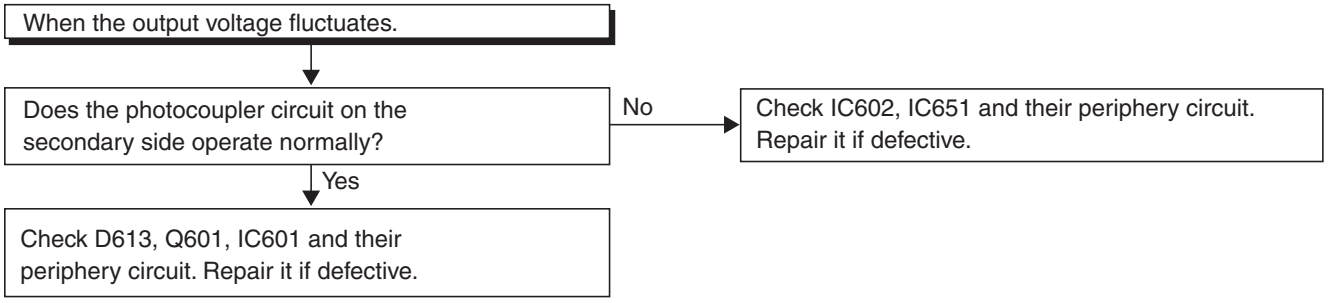
FLOW CHART NO.1



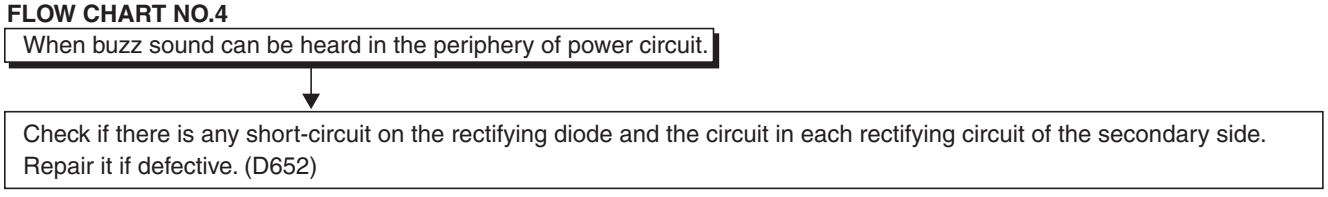
FLOW CHART NO.2



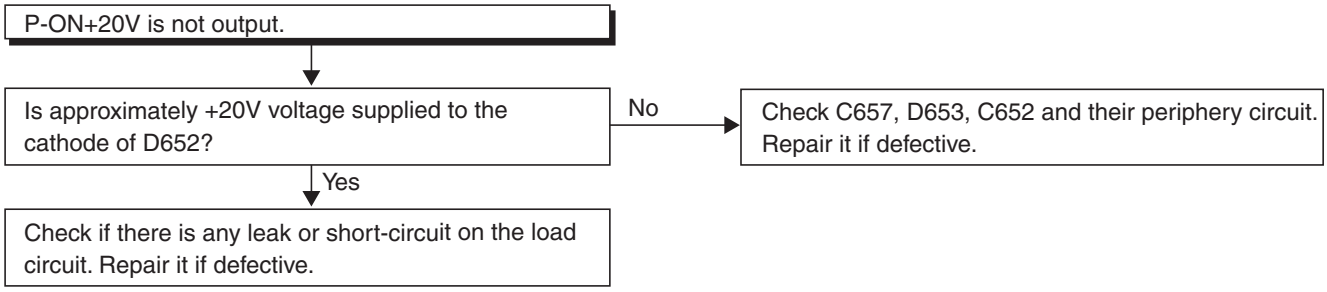
FLOW CHART NO.3



FLOW CHART NO.4



FLOW CHART NO.5



[Video Signal Section]

FLOW CHART NO.1

The key operation is not functioning.

↓

When pressing power/source button, does the cathode voltage of D3103 decrease?

No → Replace the Function Key(SW3101).

↓ Yes

Replace the Digital Main CBA Unit.

FLOW CHART NO.2

No operation is possible from the remote control unit. (Operation is possible from the unit.)

↓

Is approximately +3.3V voltage supplied to Pin(4) of CN3104?

No → Check AL+3.3V line and repair it if defective.

↓ Yes

Is the "L" pulse supplied to Pin(5) of CN3104 when the infrared remote control activated?

No → Replace the IR Sensor CBA Unit or replace the remote control unit.

↓ Yes

Replace the Digital Main CBA Unit.

FLOW CHART NO.3

Picture does not appear normally.

↓

Is approximately +20V voltage supplied to Pin(18, 19, 20, 21, 22, 23, 24, 25, 26, 27) of CN651?

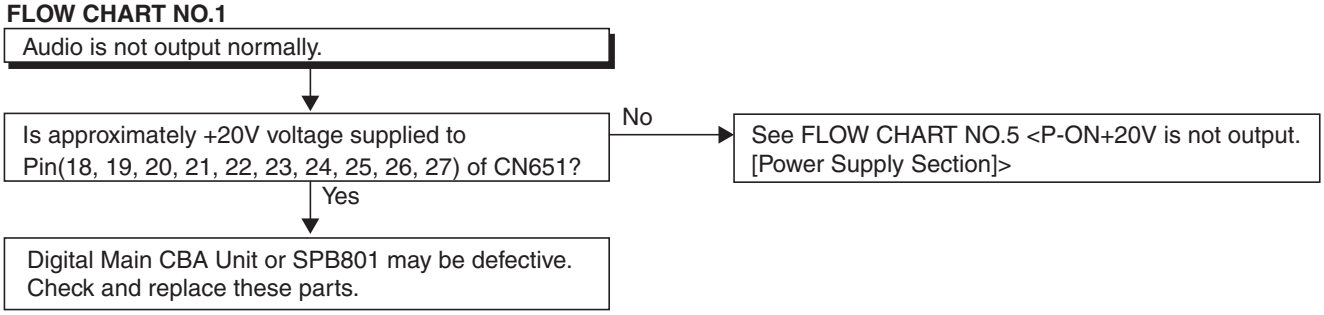
No → See FLOW CHART NO.5 <P-ON+20V is not output. [Power Supply Section]>

↓ Yes

Digital Main CBA Unit or LCD Panel Assembly may be defective. Check and replace these parts.

[Audio Signal Section]

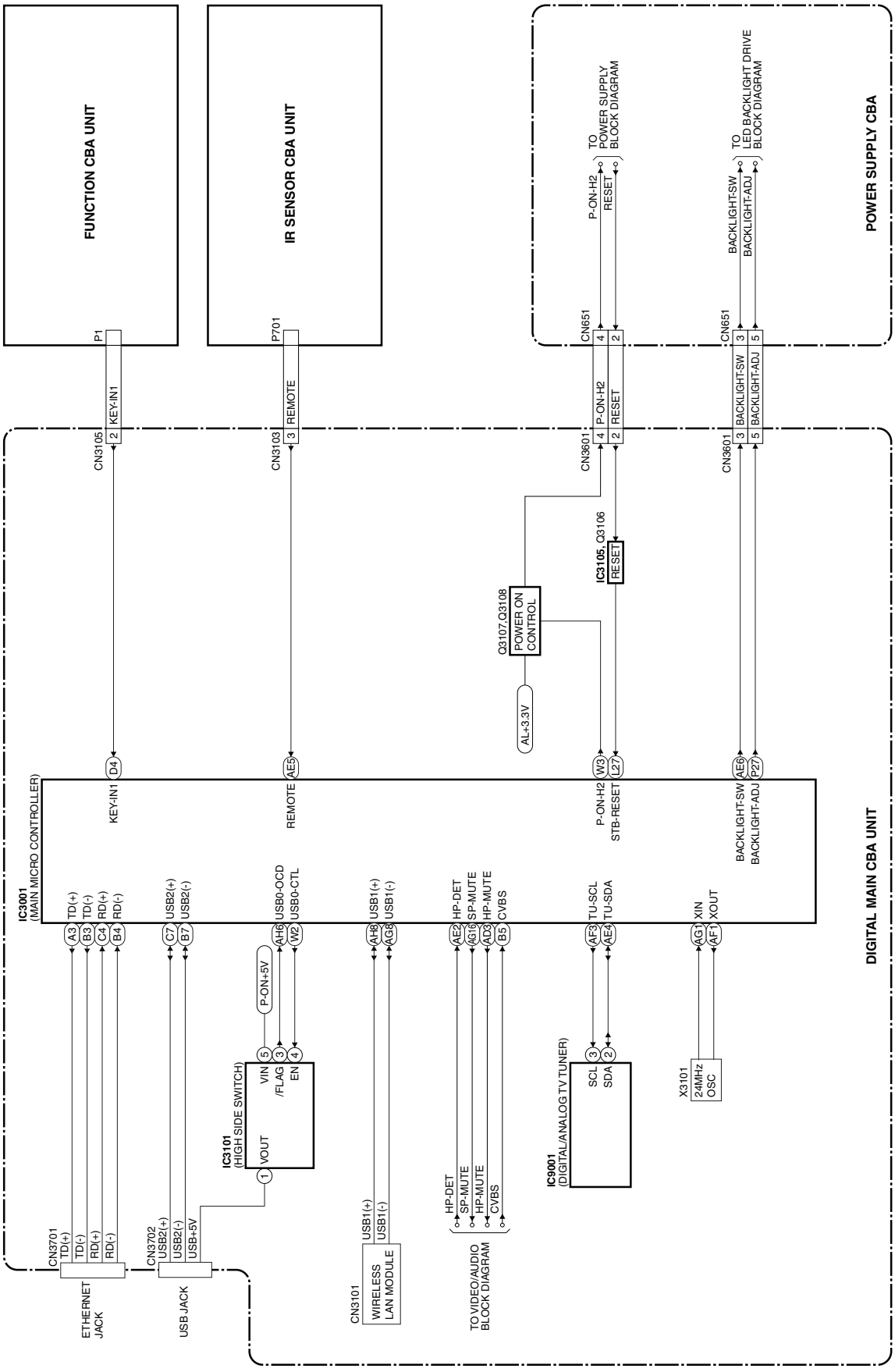
FLOW CHART NO.1



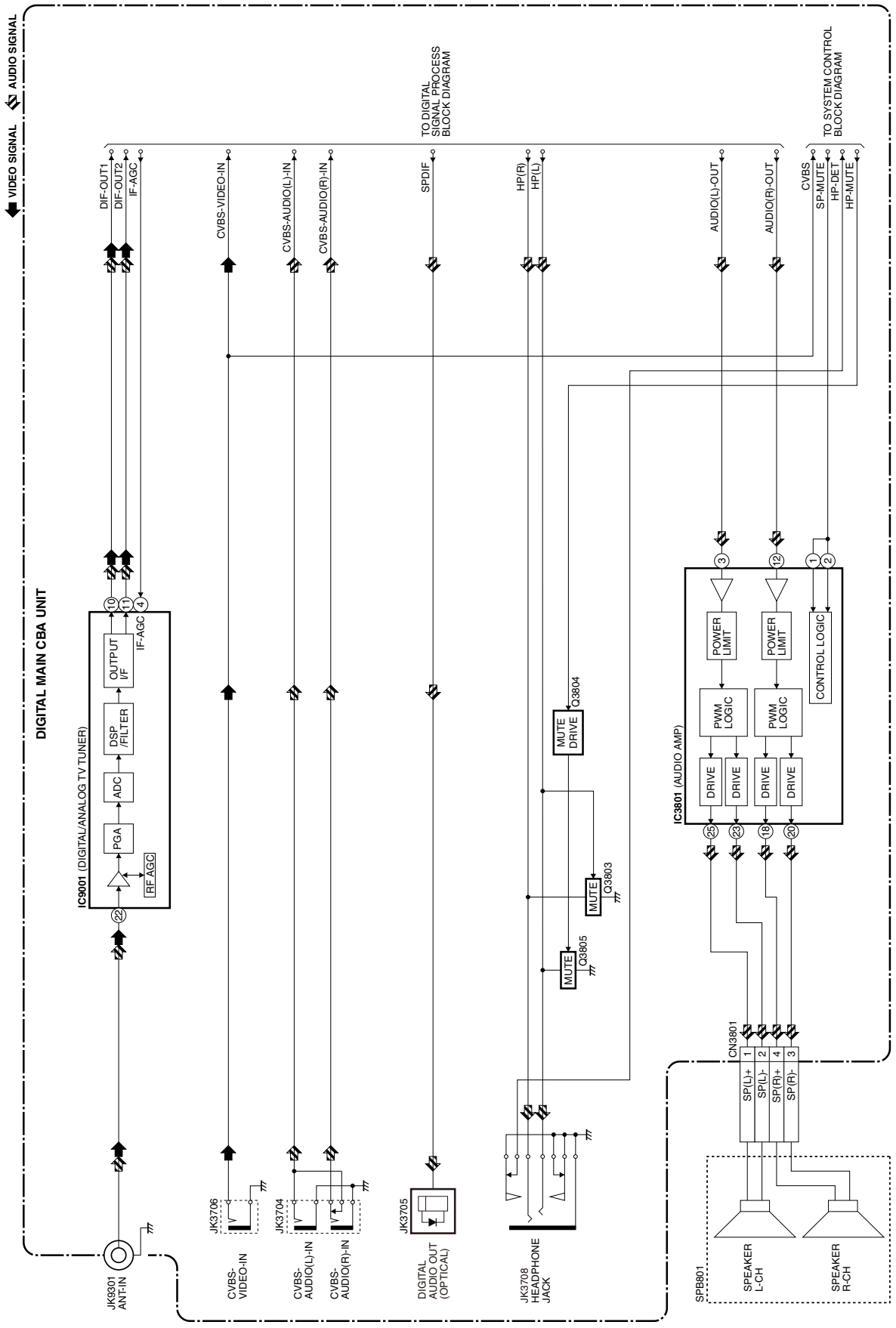
BLOCK DIAGRAMS

[TYPE A]

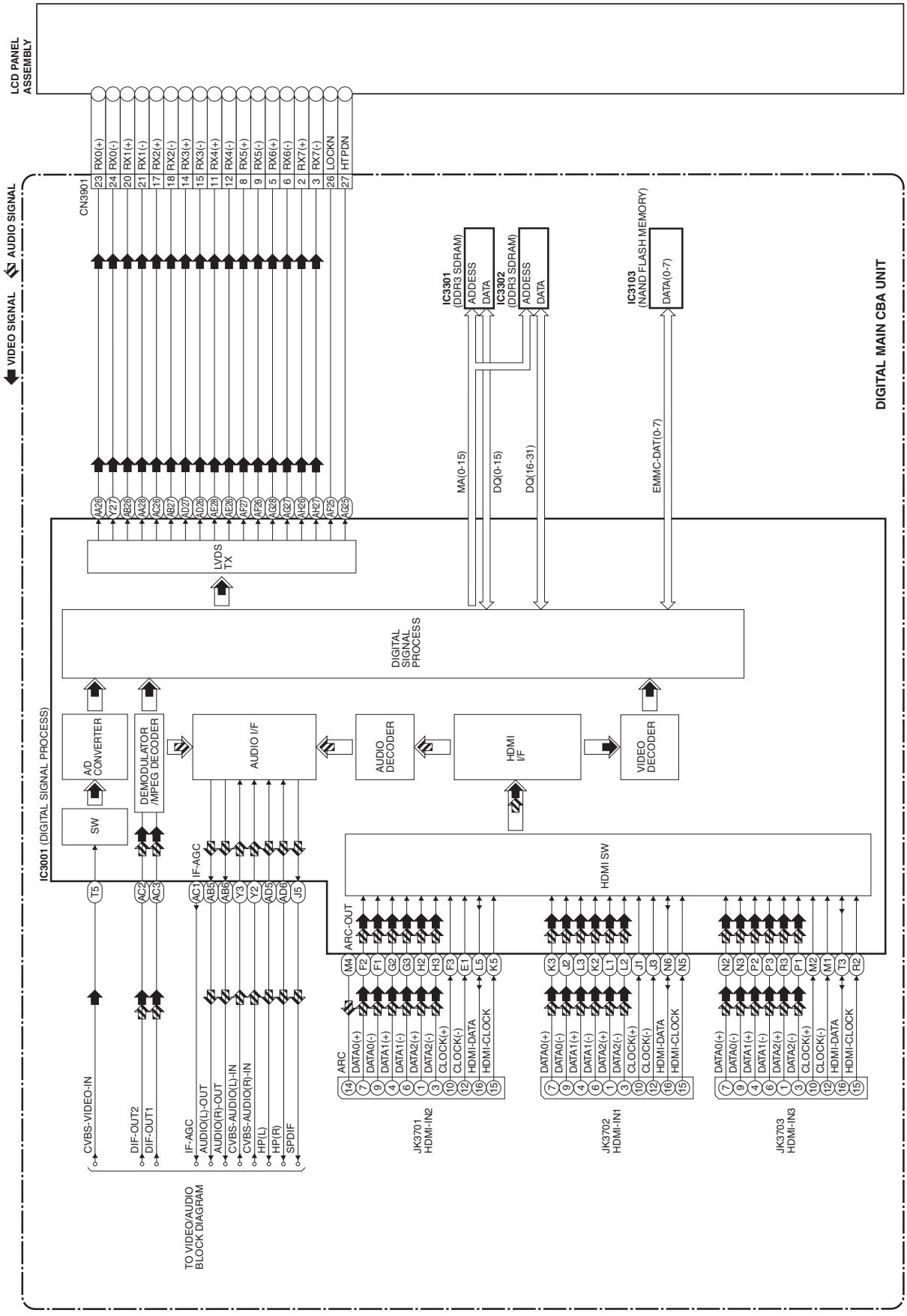
1. System Control Block Diagram



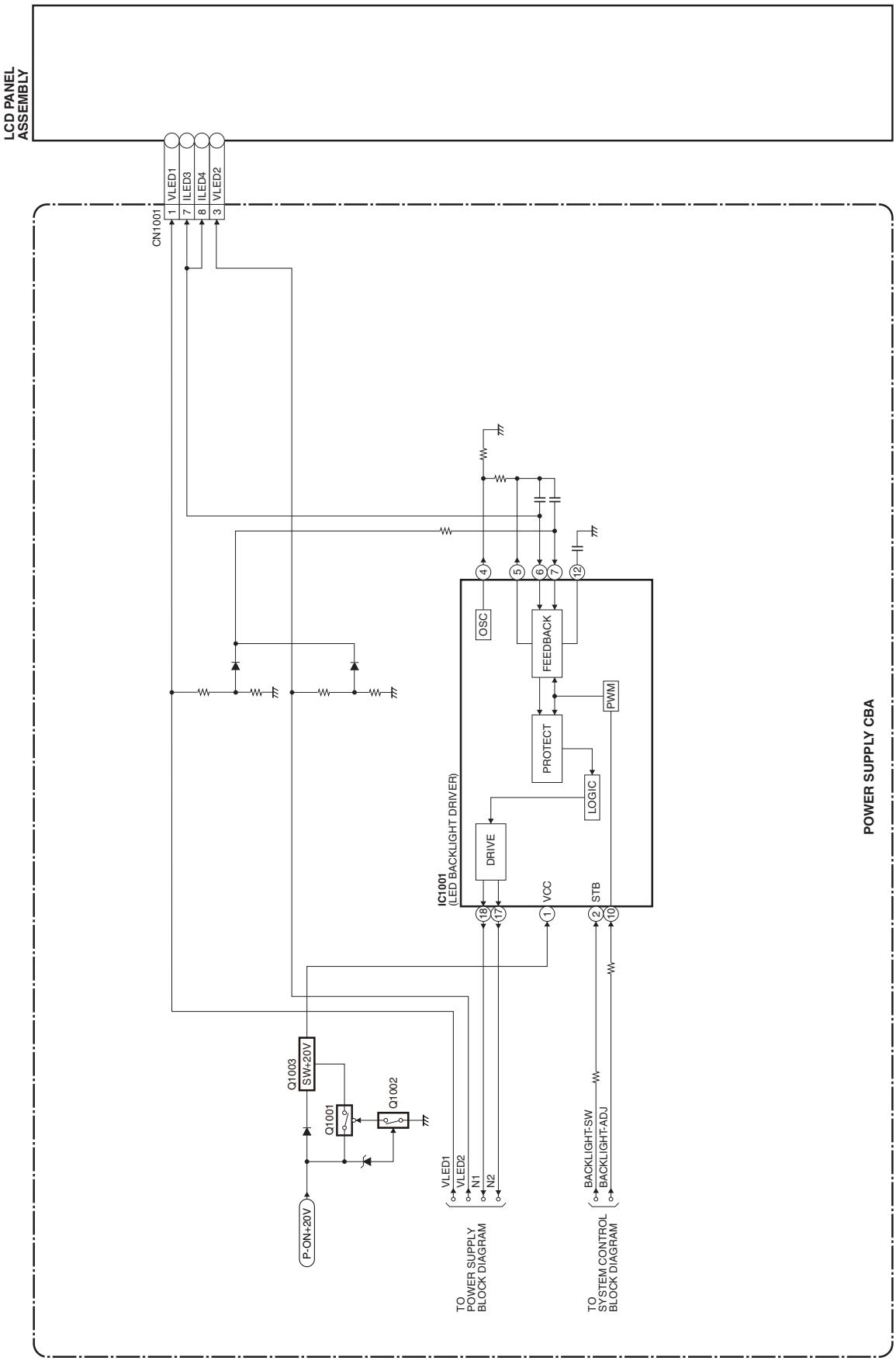
2. Video/Audio Block Diagram



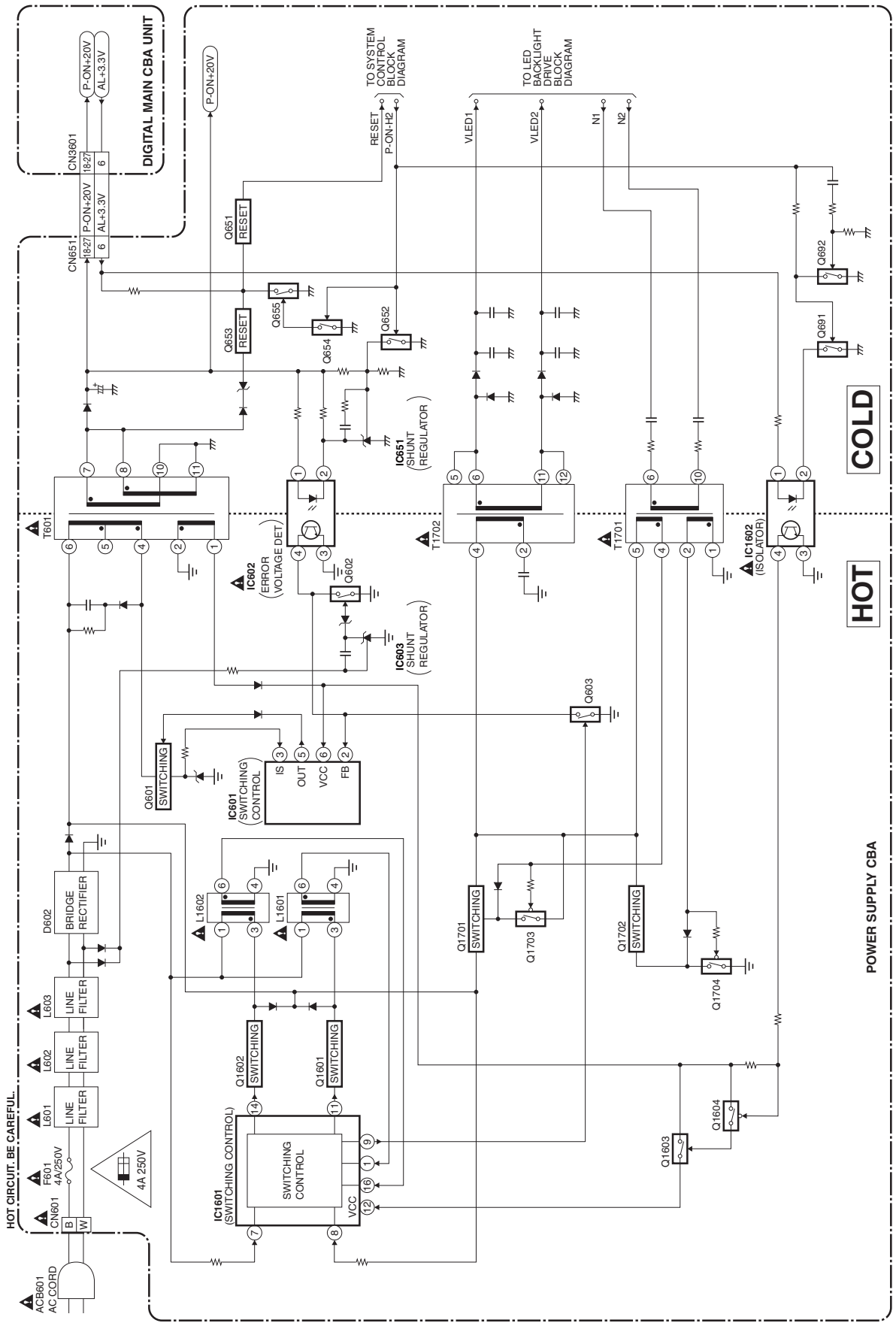
3. Digital Signal Process Block Diagram



4. LED Backlight Drive Block Diagram



5. Power Supply Block Diagram

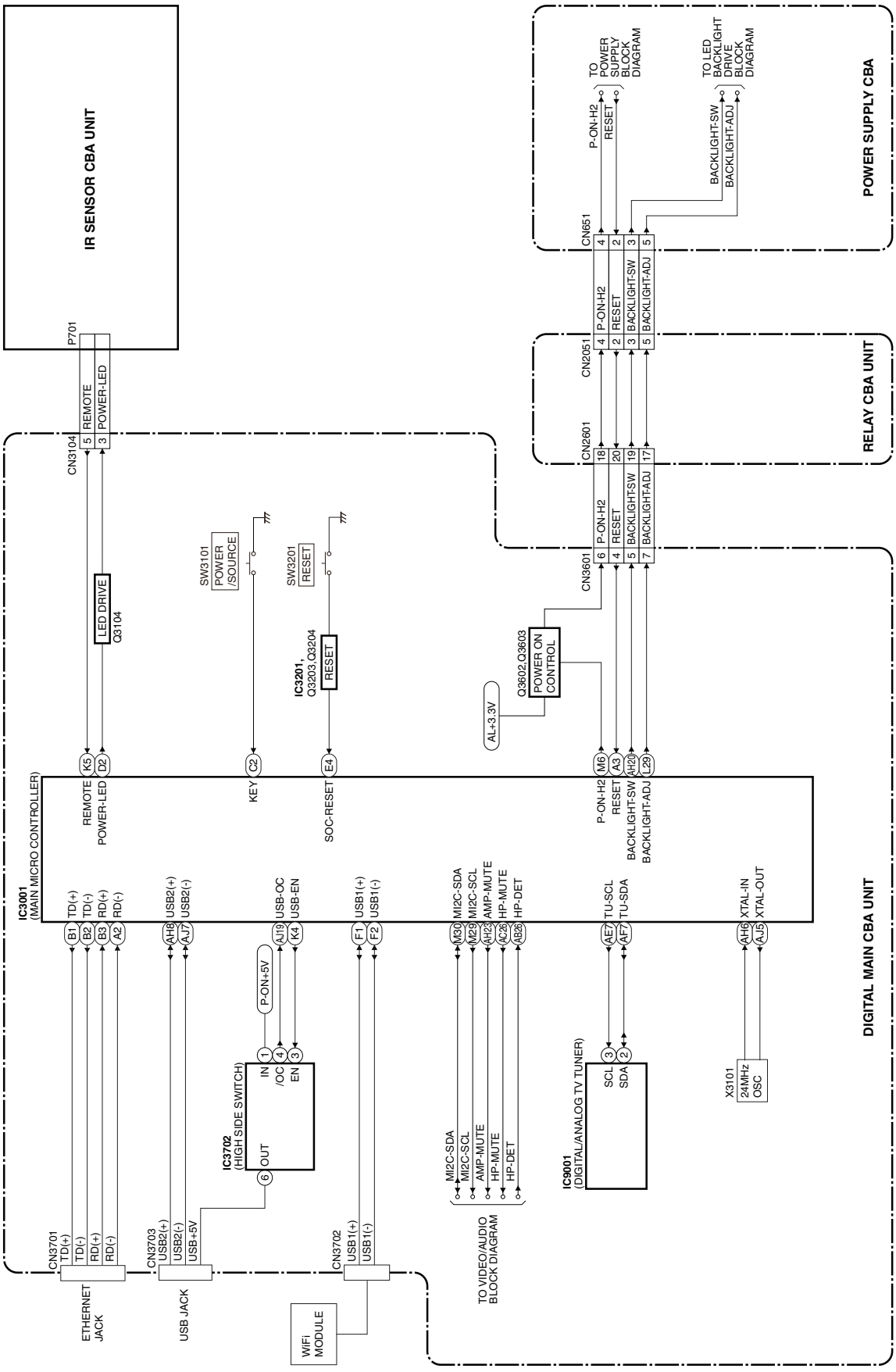


CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in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

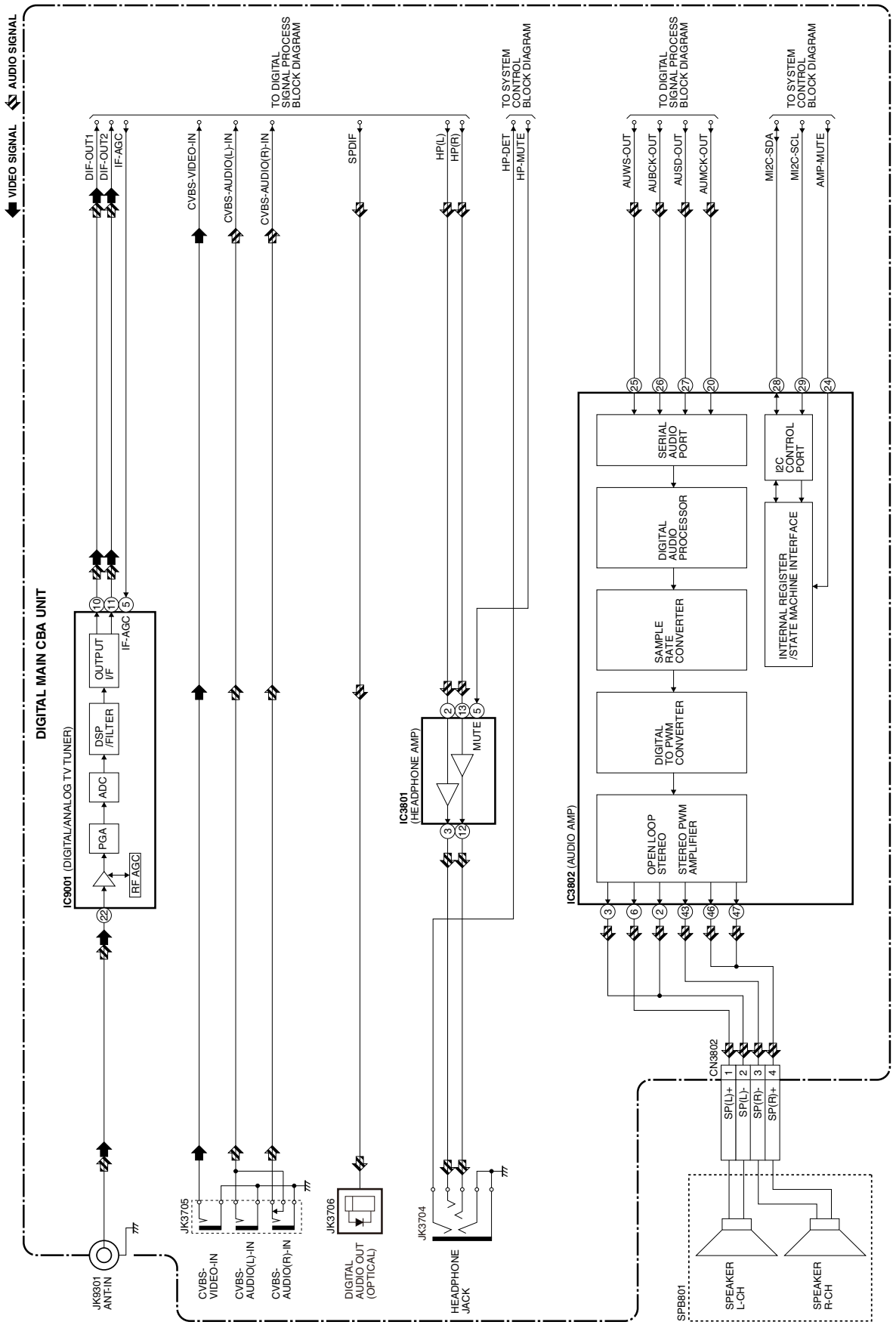
CAUTION ! : For continued protection against risk of fire, replace only with same type 4A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 250V.

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

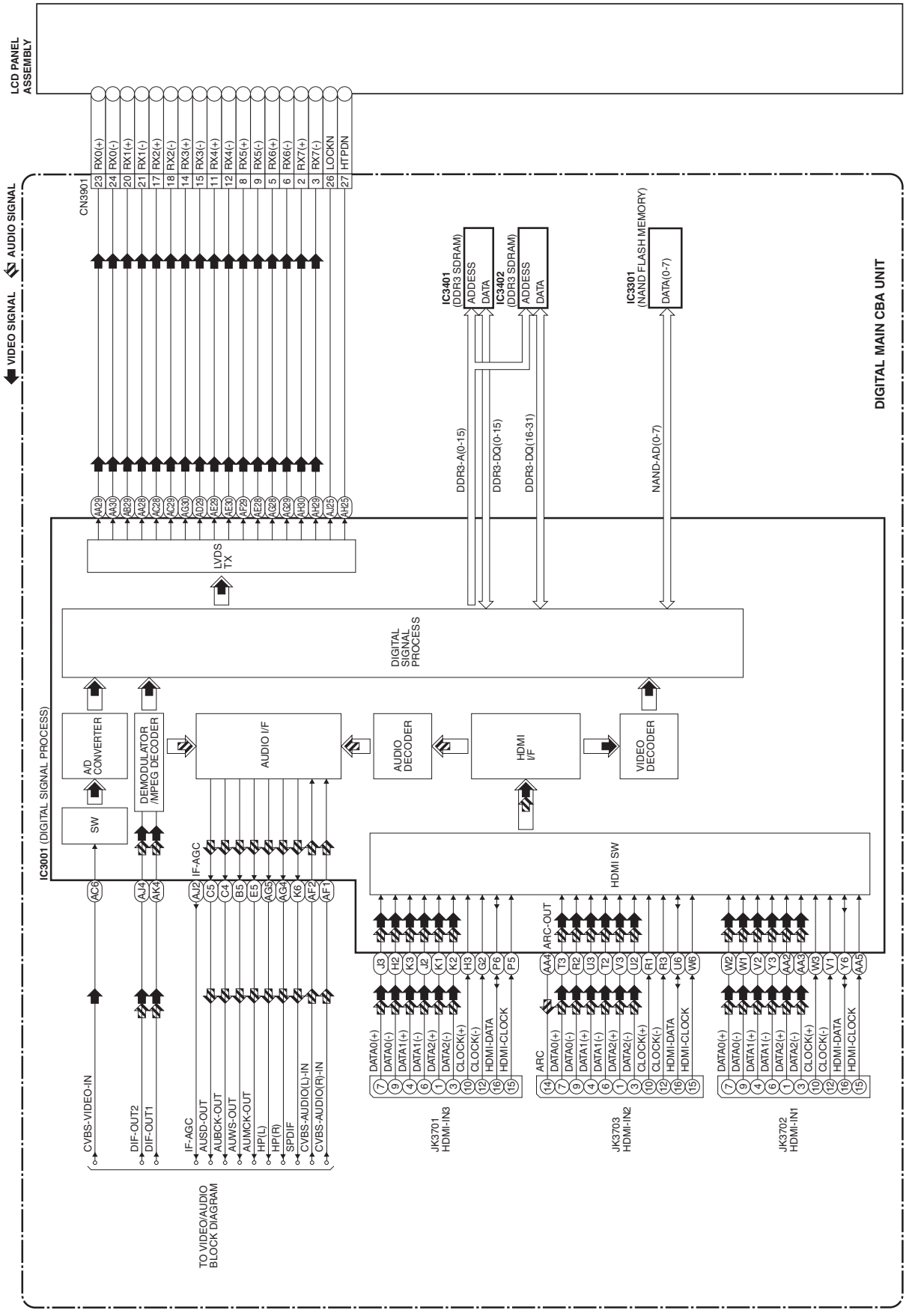
[TYPE B]
1. System Control Block Diagram



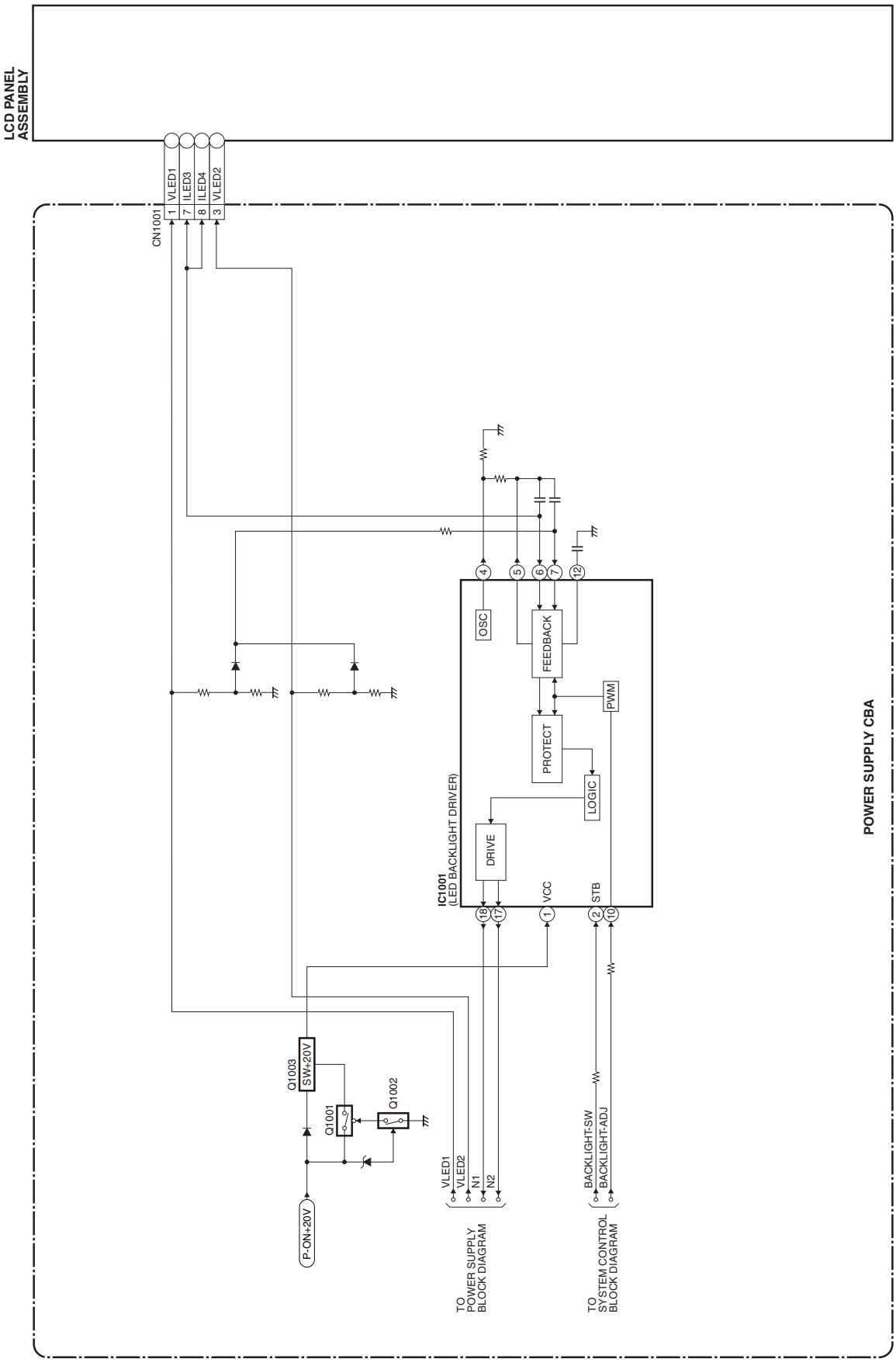
2. Video/Audio Block Diagram



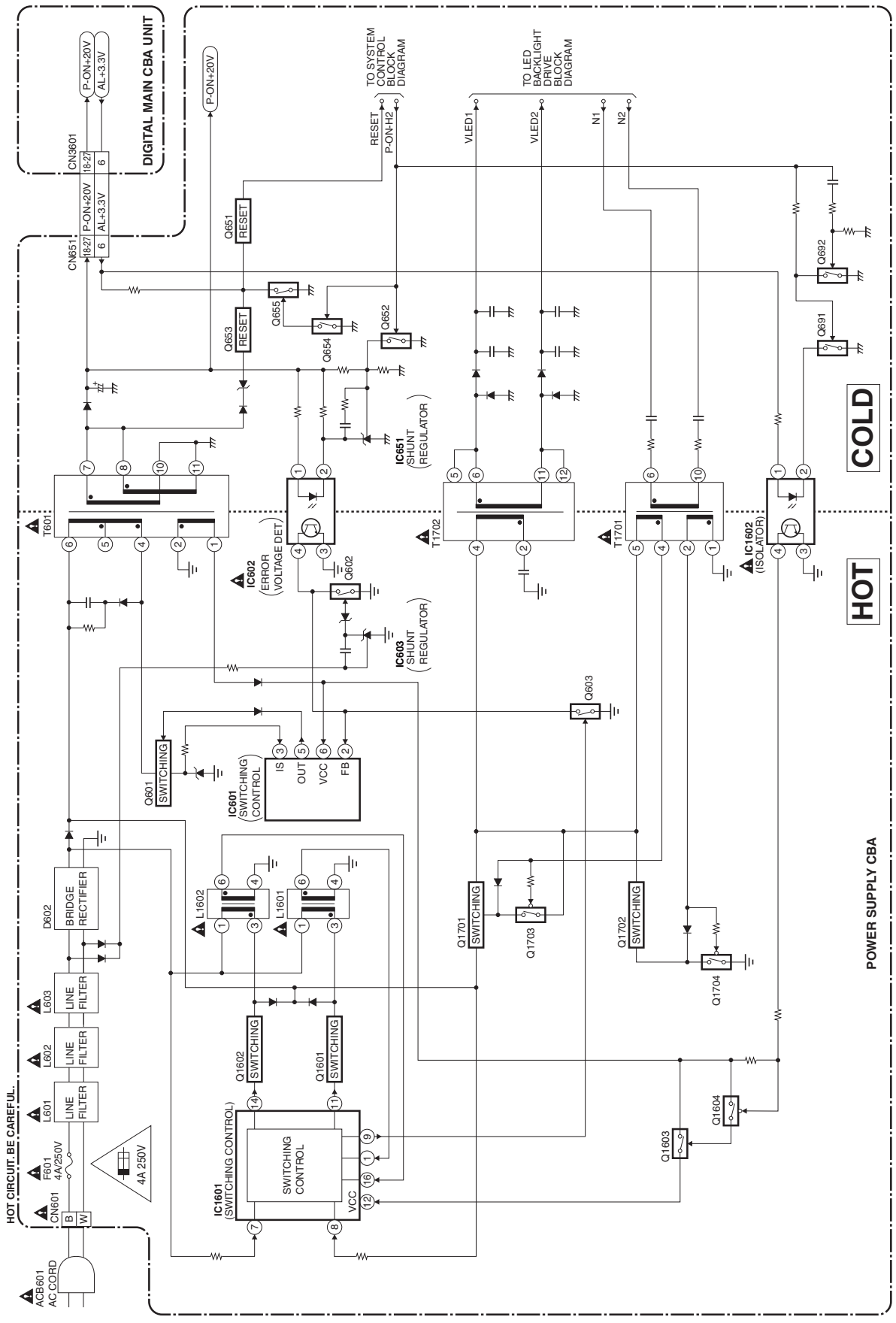
3. Digital Signal Process Block Diagram



4. LED Backlight Drive Block Diagram



5. Power Supply Block Diagram



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

CAUTION ! : For continued protection against risk of fire, replace only with same type 4A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 250V.

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

SCHEMATIC DIAGRAMS / CBA AND TEST POINTS

Standard Notes

WARNING

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

Notes:

1. Do not use the part number shown on these drawings for ordering. The correct part number is shown in the parts list, and may be slightly different or amended since these drawings were prepared.
2. All resistance values are indicated in ohms ($K = 10^3$, $M = 10^6$).
3. Resistor wattages are 1/4W or 1/6W unless otherwise specified.
4. All capacitance values are indicated in μF ($P = 10^{-6}$ μF).
5. All voltages are DC voltages unless otherwise specified.
6. This schematic diagrams are masterized version that should cover the entire PL19.29 chassis models.
   Thus some parts in detail illustrated on this schematic diagrams may vary depend on the model within the PL19.29 chassis.
   Please refer to the parts lists for each models.
7. The Circuit Board layout illustrated on this service manual is the latest version for this chassis at the moment of making this service manual.
   Depend on the mass production date of each model, the actual layout of each Board may differ slightly from this version.

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

1. CAUTION:

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

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

2. CAUTION:

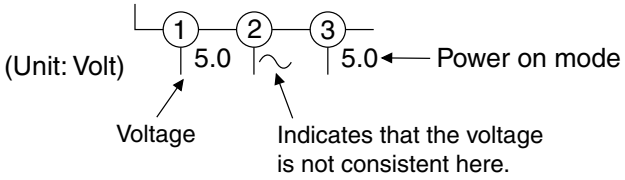
Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the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

3. Note:

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

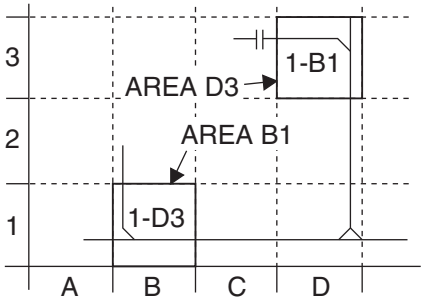
4. Voltage indications on the schematics are as shown below:

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



5. How to read converged lines

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



6. Test Point Information

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

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

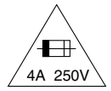
: Used to indicate a test point with no test pin.

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

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

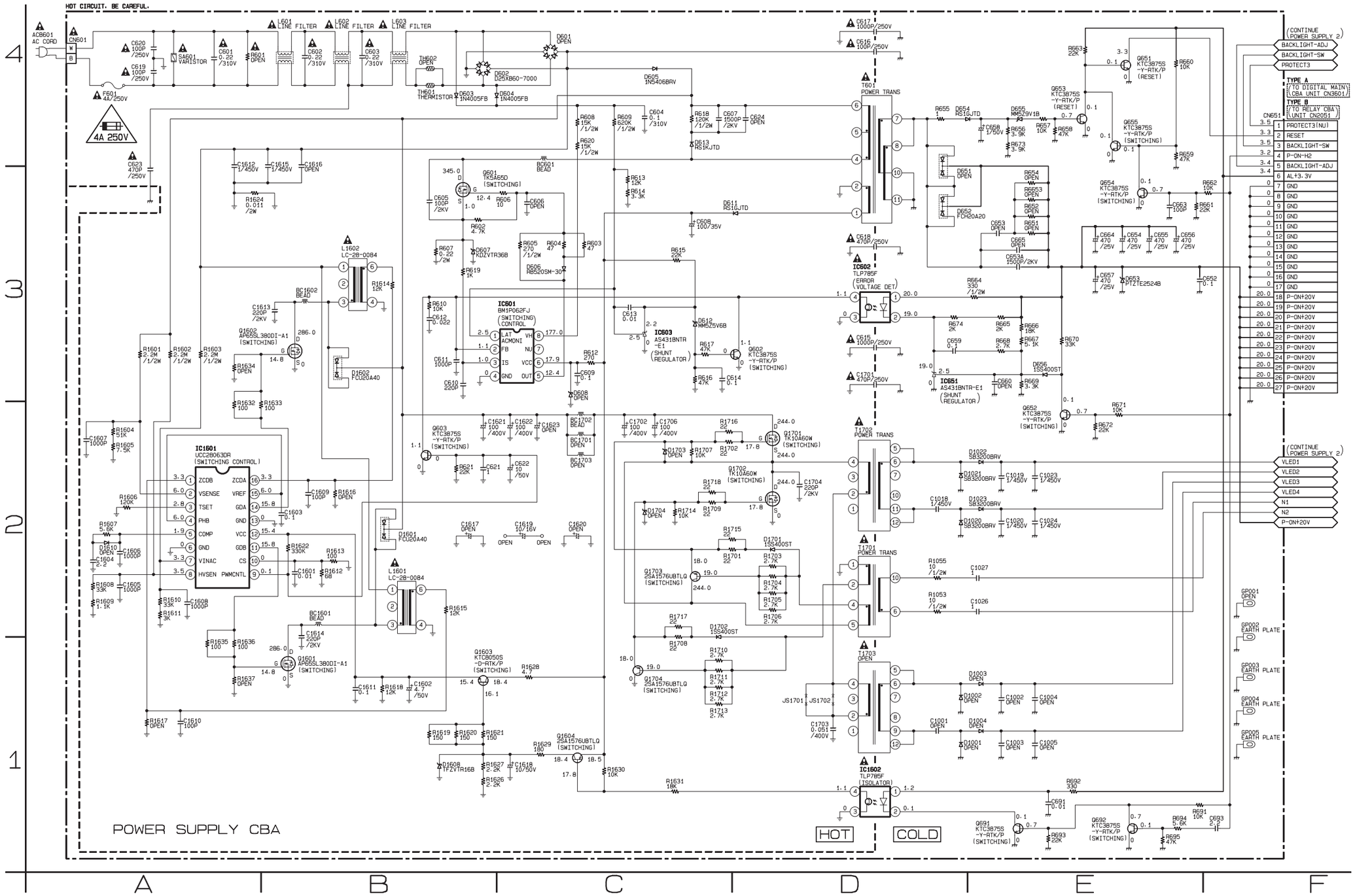
Power Supply 1 Schematic Diagram

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

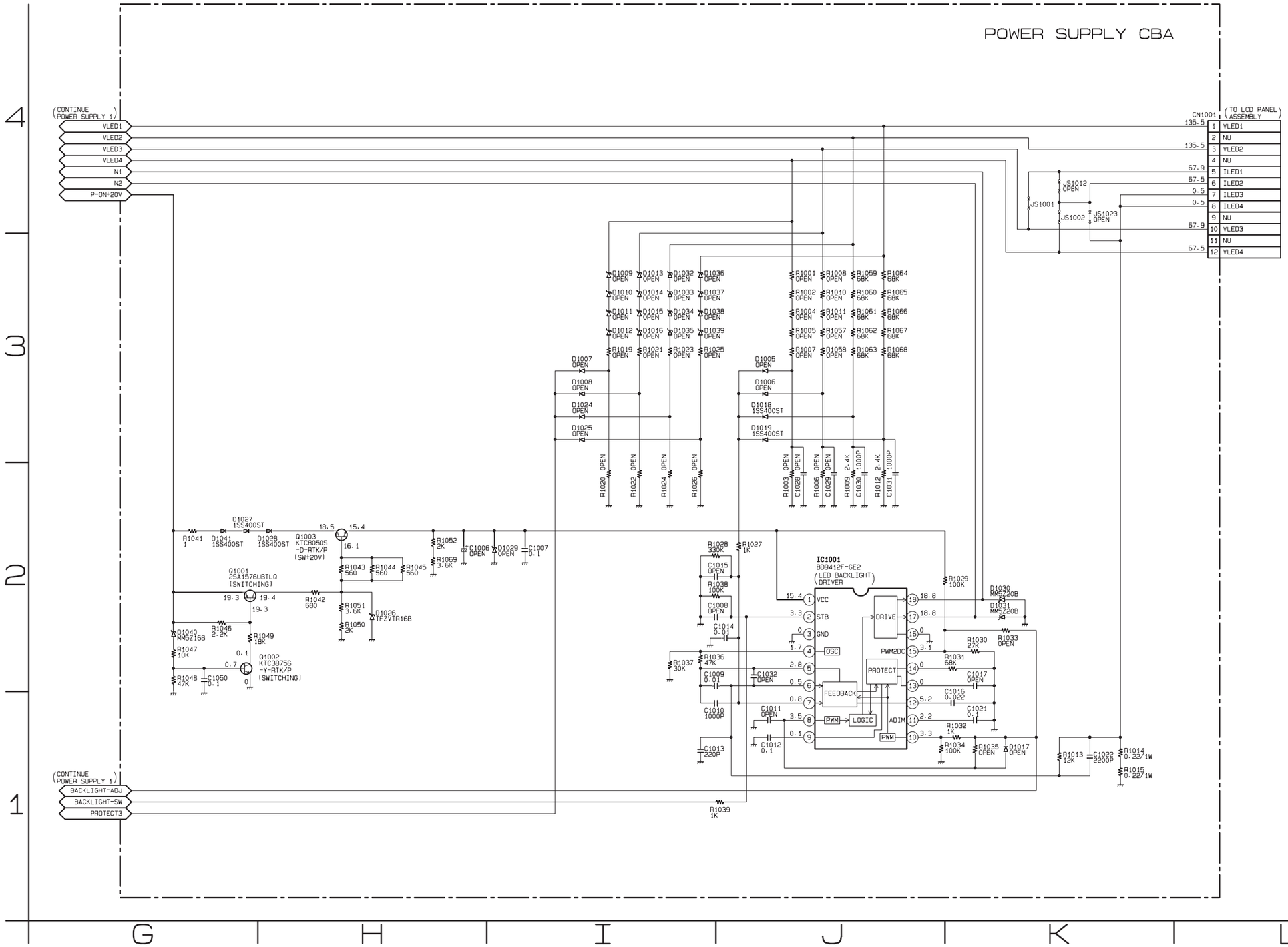


CAUTION ! : For continued protection against risk of fire, replace only with same type 4A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 250V.

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

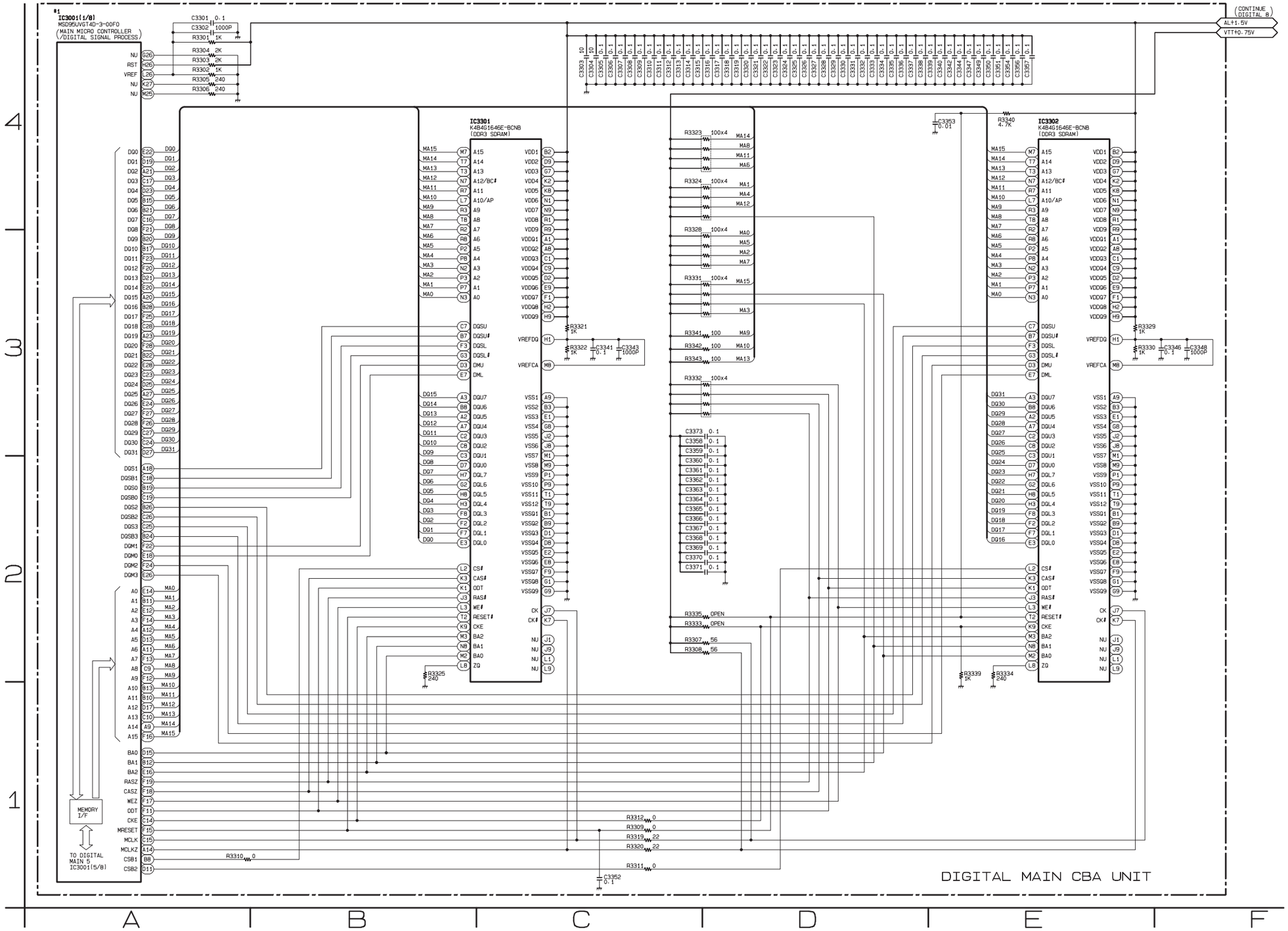


Power Supply 2 Schematic Diagram



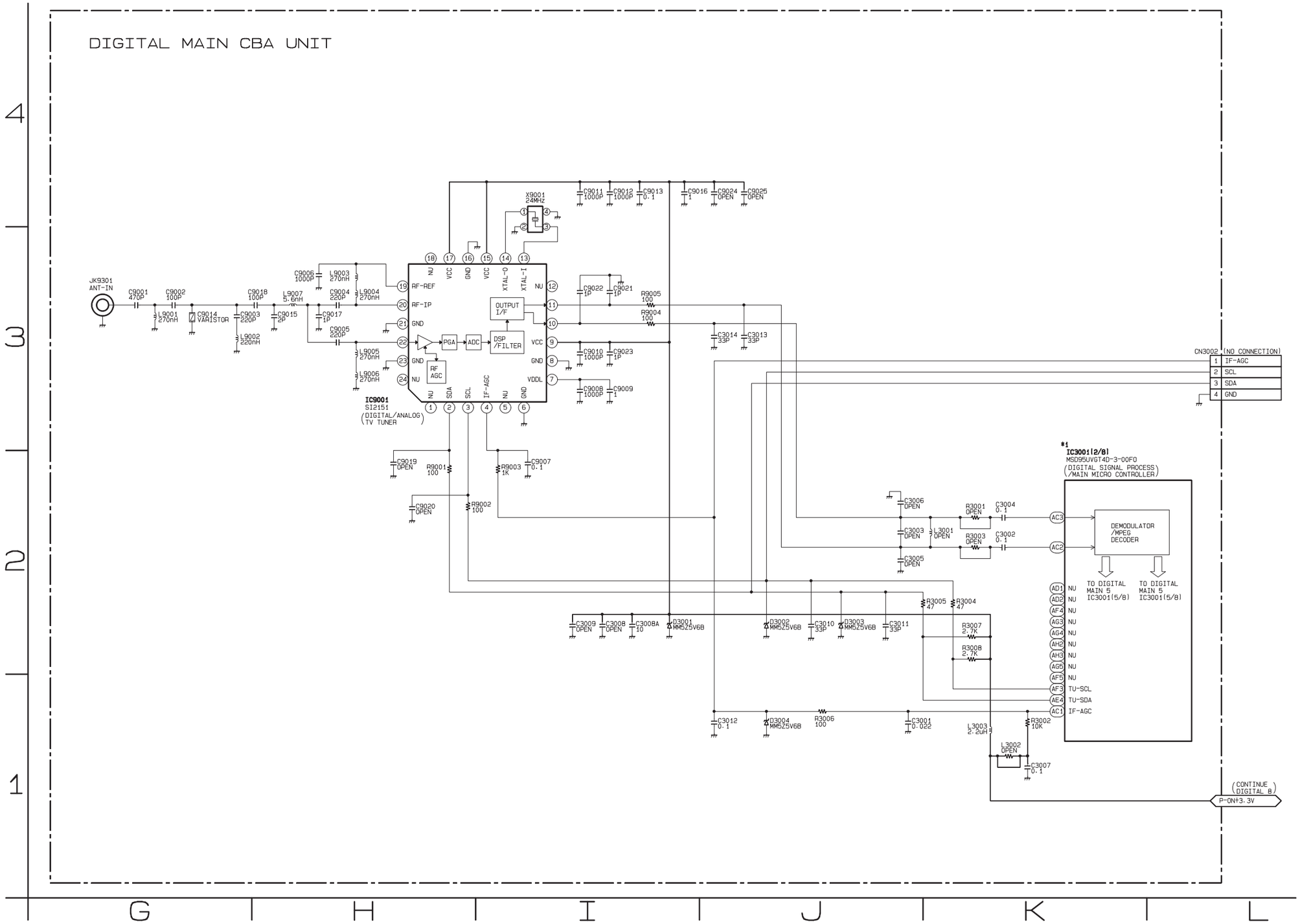
Digital Main 1 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into eight and shown as IC3001 (1/8) ~ IC3001 (8/8) in this Digital Main Schematic Diagram Section.



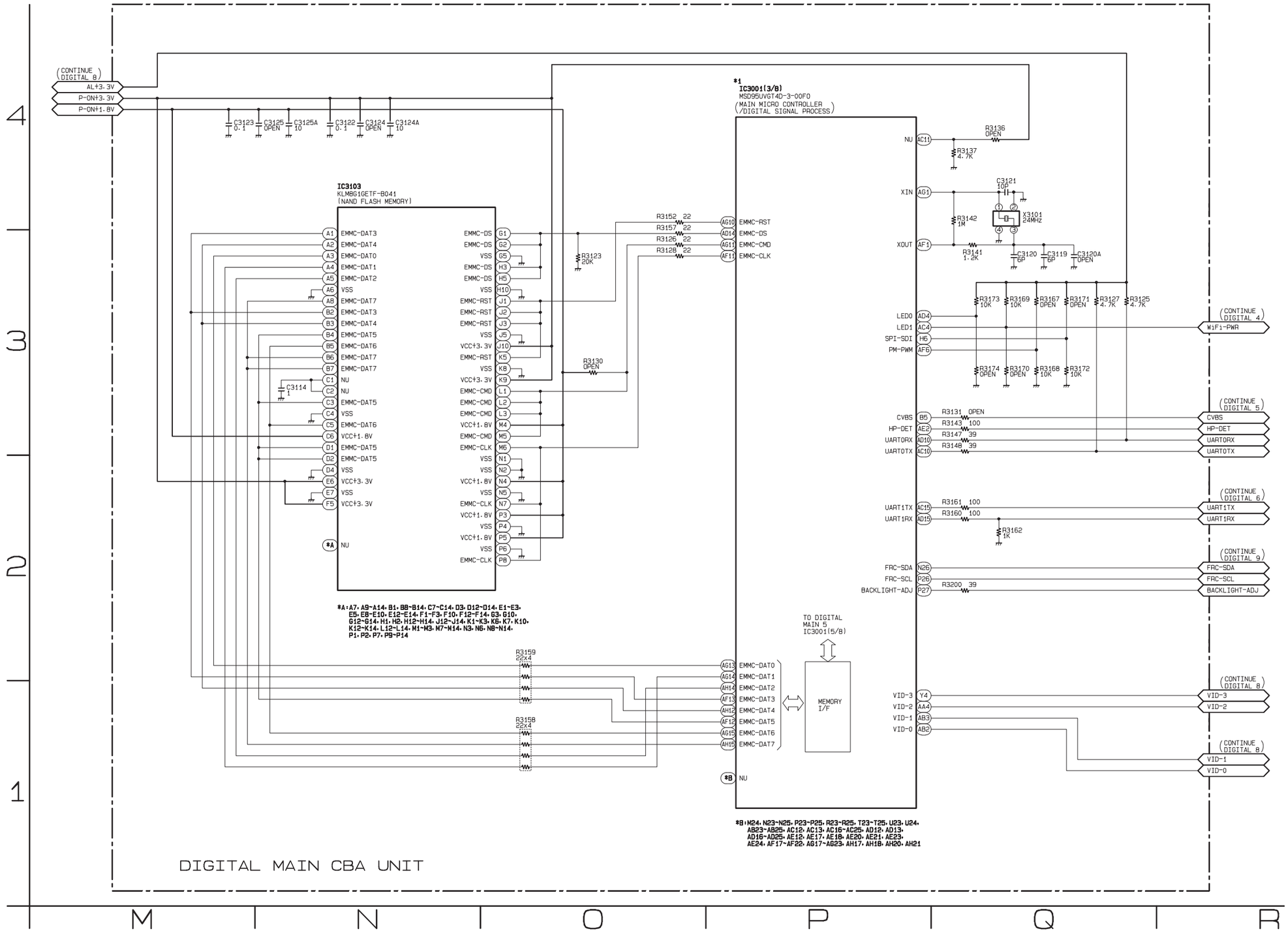
Digital Main 2 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into eight and shown as IC3001 (1/8) ~ IC3001 (8/8) in this Digital Main Schematic Diagram Section.



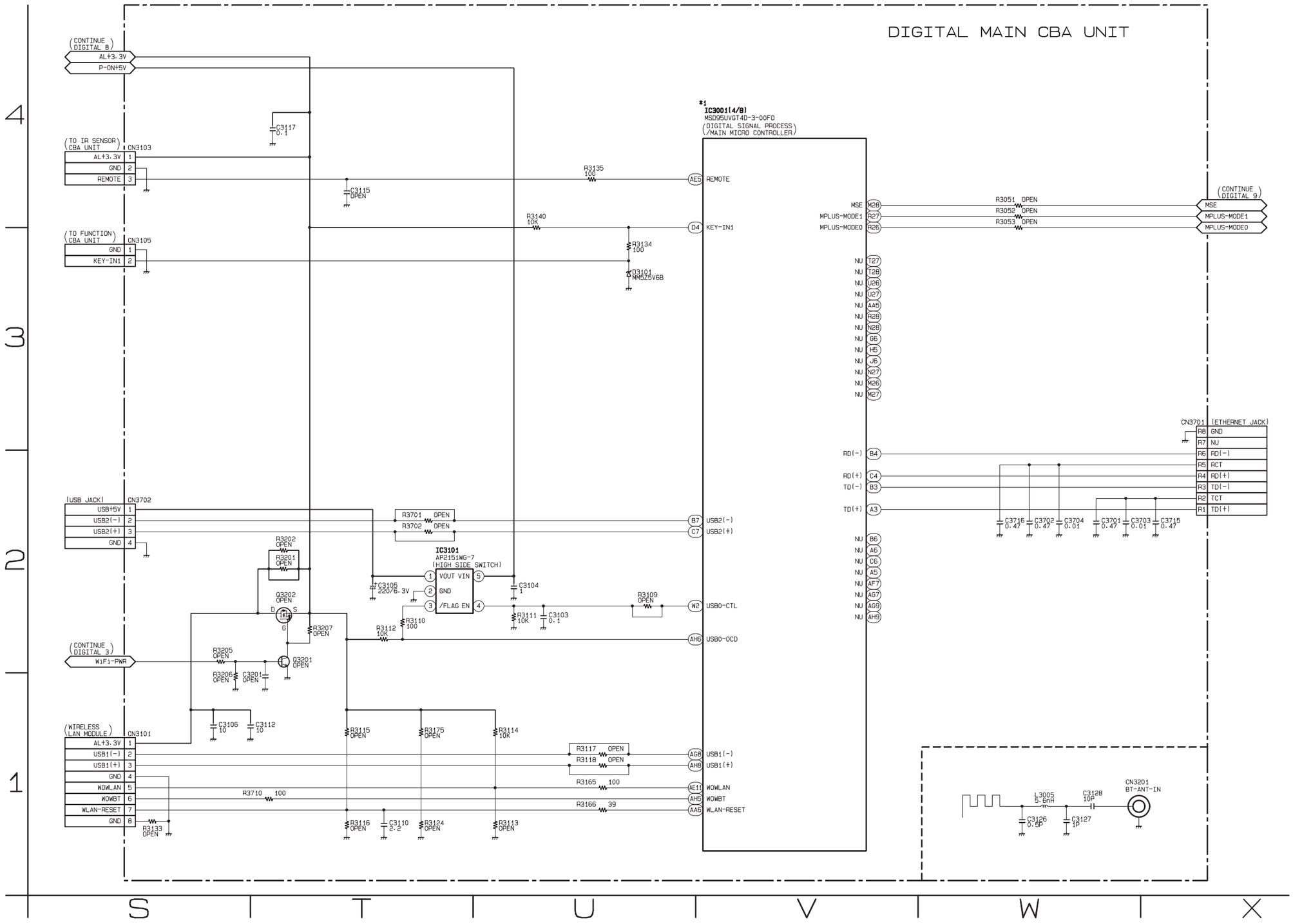
Digital Main 3 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into eight and shown as IC3001 (1/8) ~ IC3001 (8/8) in this Digital Main Schematic Diagram Section.



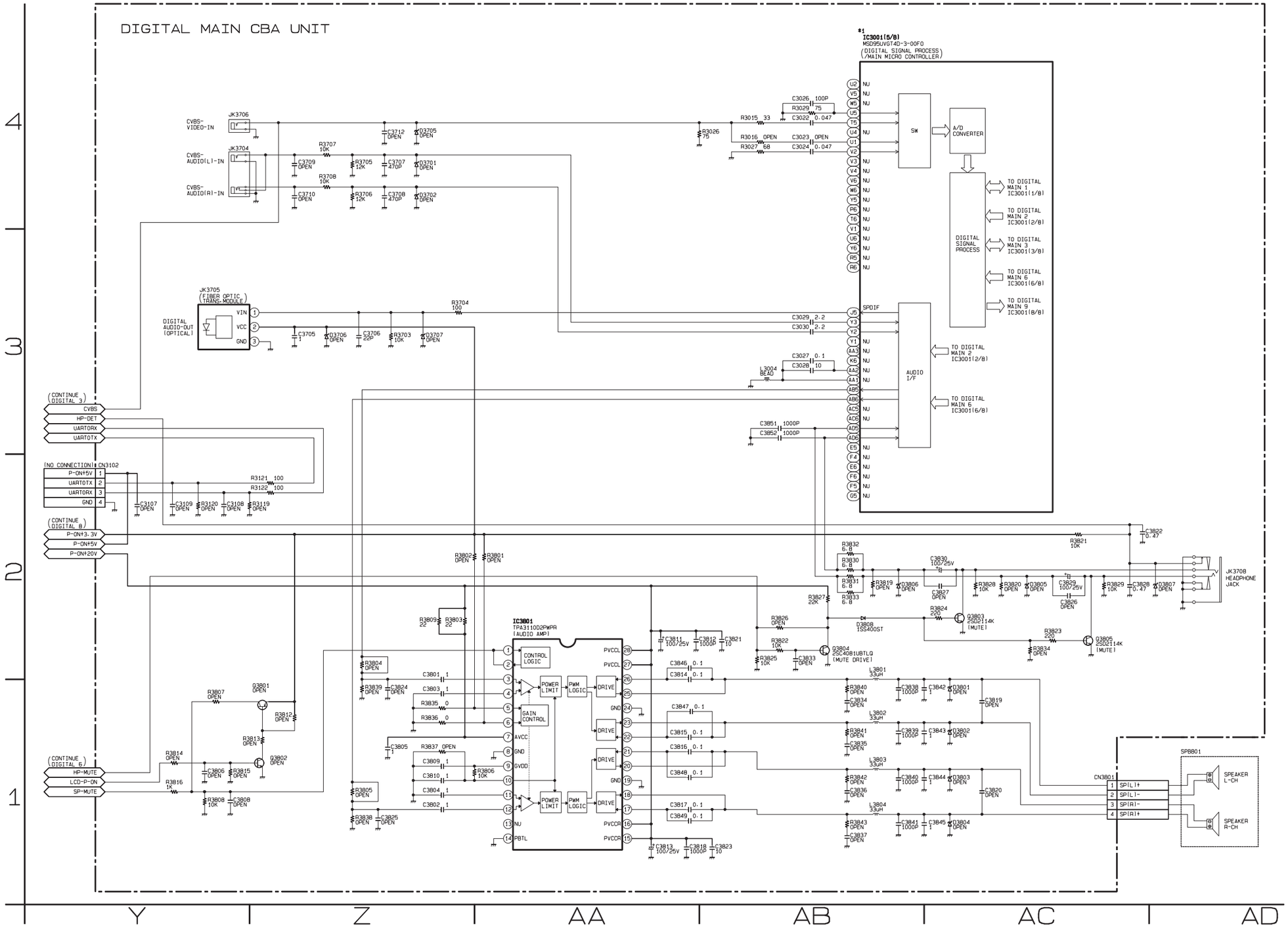
Digital Main 4 Schematic Diagram [TYPE A]

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into eight and shown as IC3001 (1/8) ~ IC3001 (8/8) in this Digital Main Schematic Diagram Section.



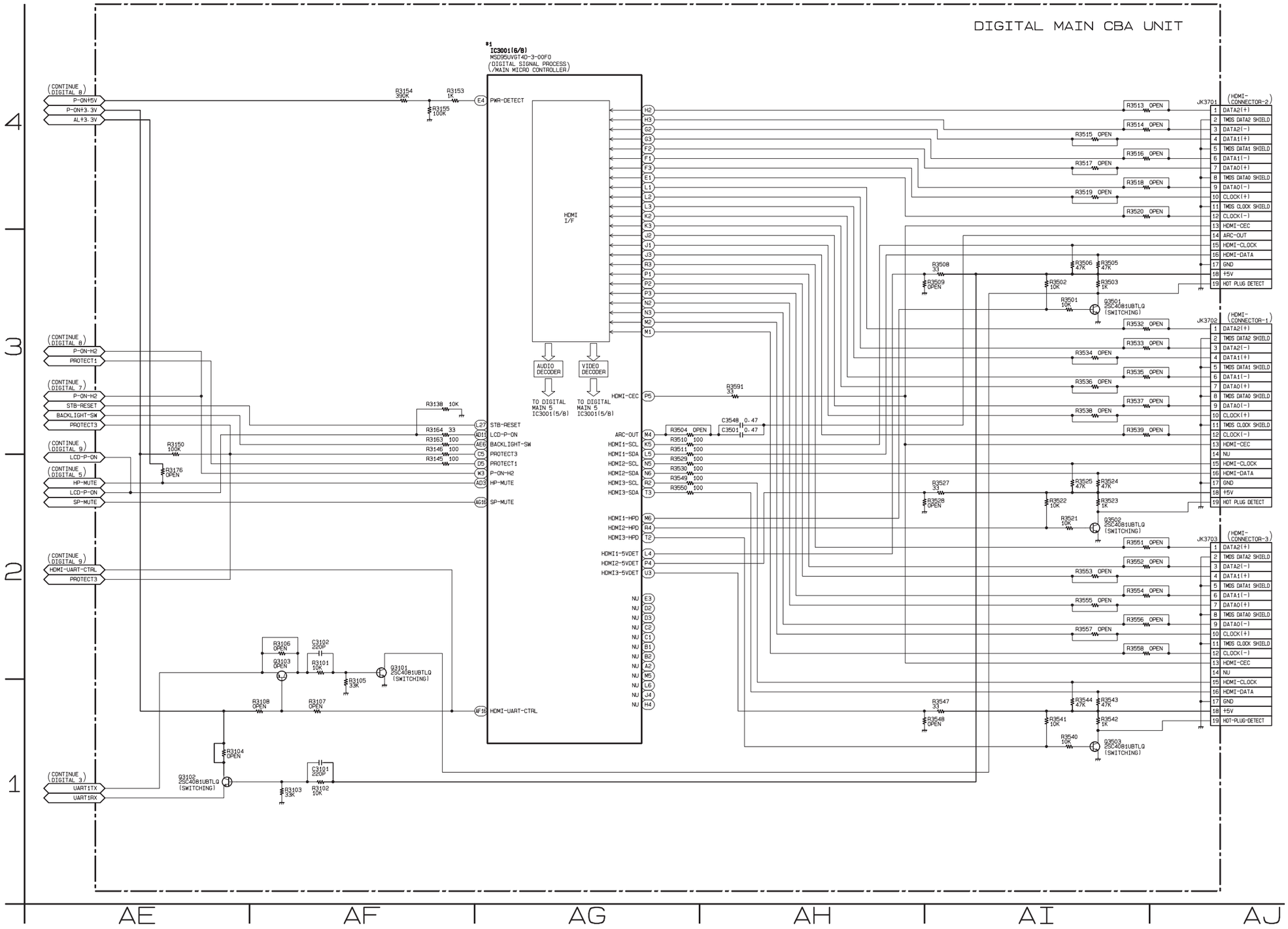
Digital Main 5 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into eight and shown as IC3001 (1/8) ~ IC3001 (8/8) in this Digital Main Schematic Diagram Section.



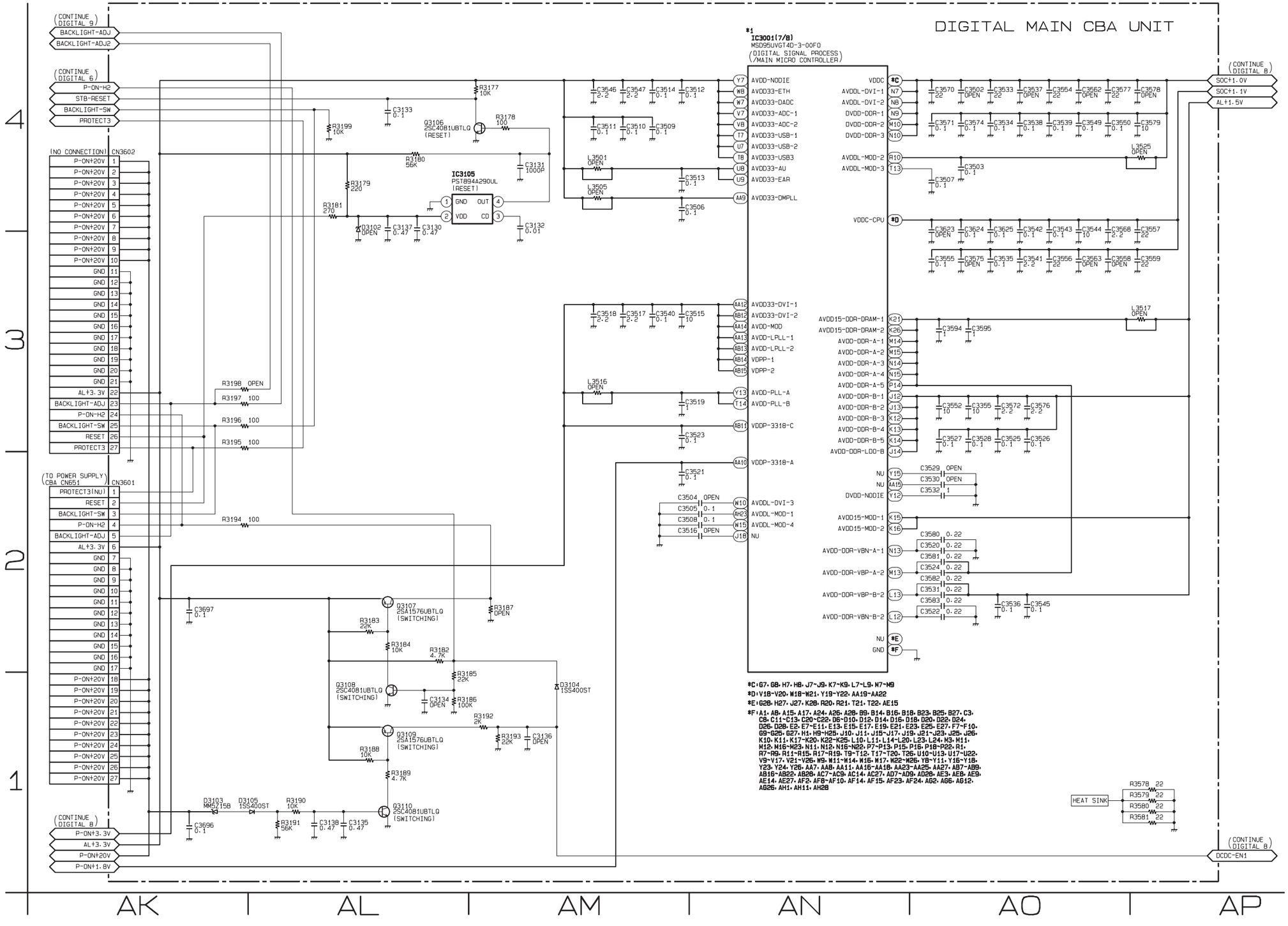
Digital Main 6 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into eight and shown as IC3001 (1/8) ~ IC3001 (8/8) in this Digital Main Schematic Diagram Section.

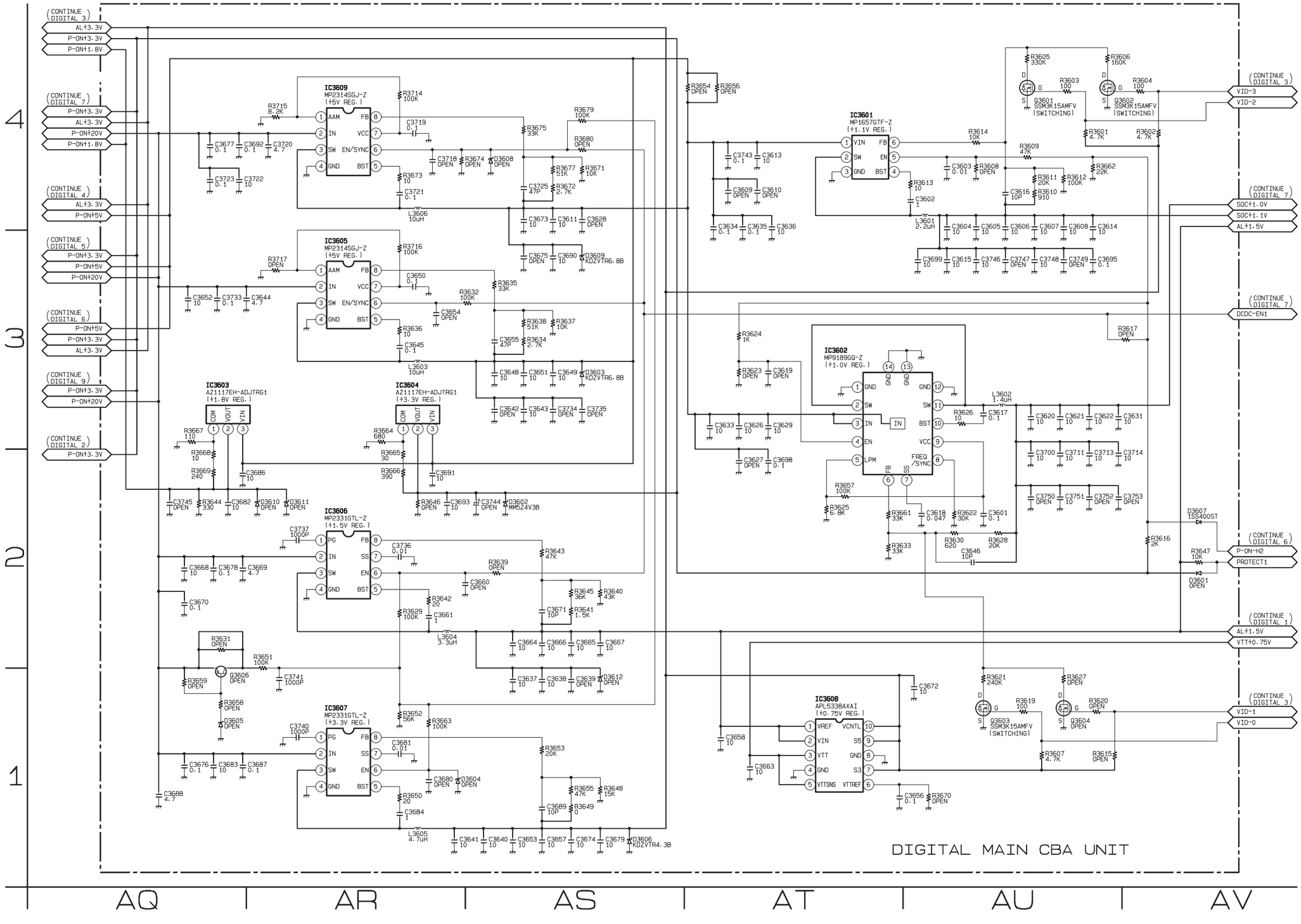


Digital Main 7 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into eight and shown as IC3001 (1/8) ~ IC3001 (8/8) in this Digital Main Schematic Diagram Section.

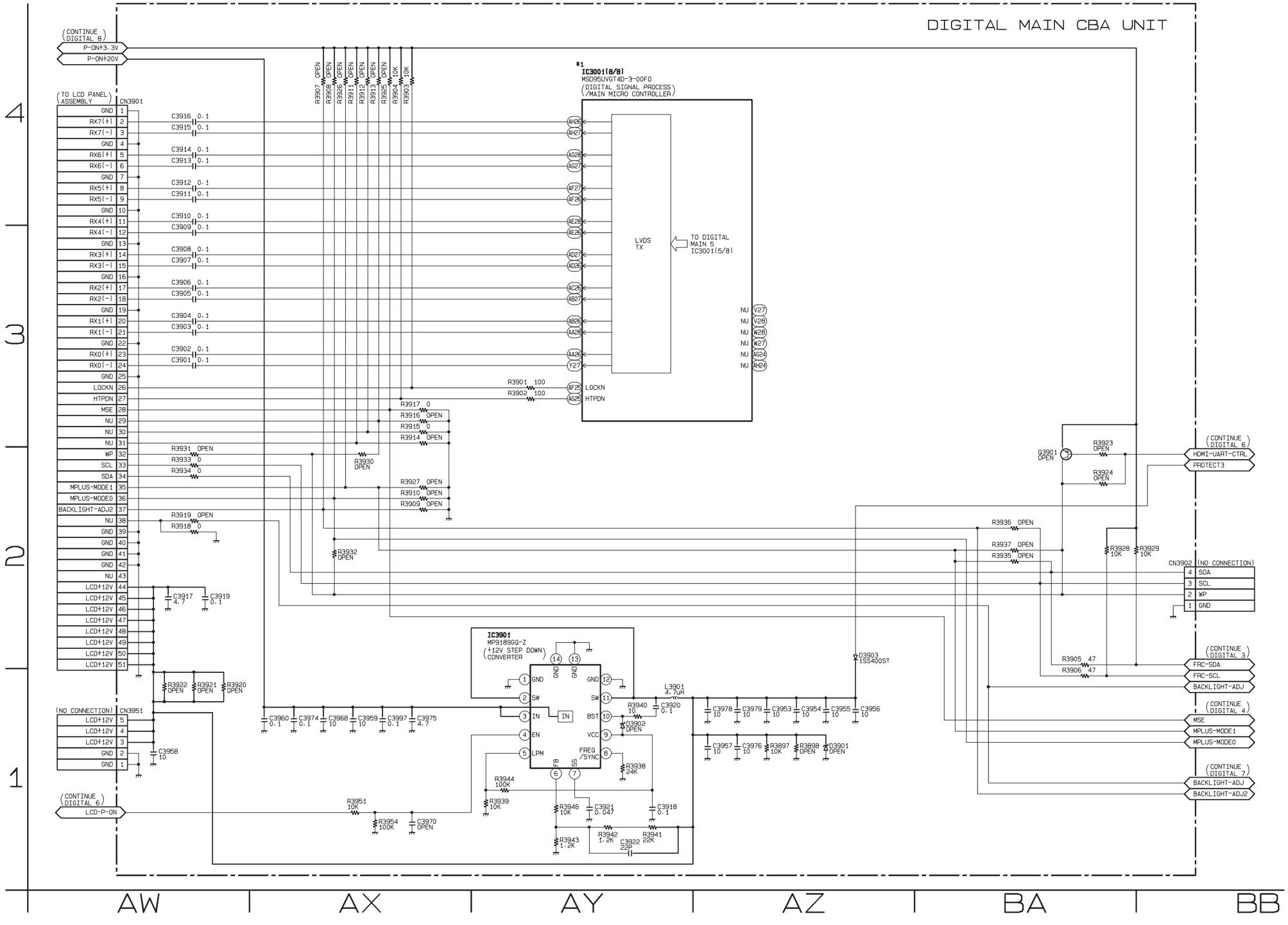


Digital Main 8 Schematic Diagram [TYPE A]



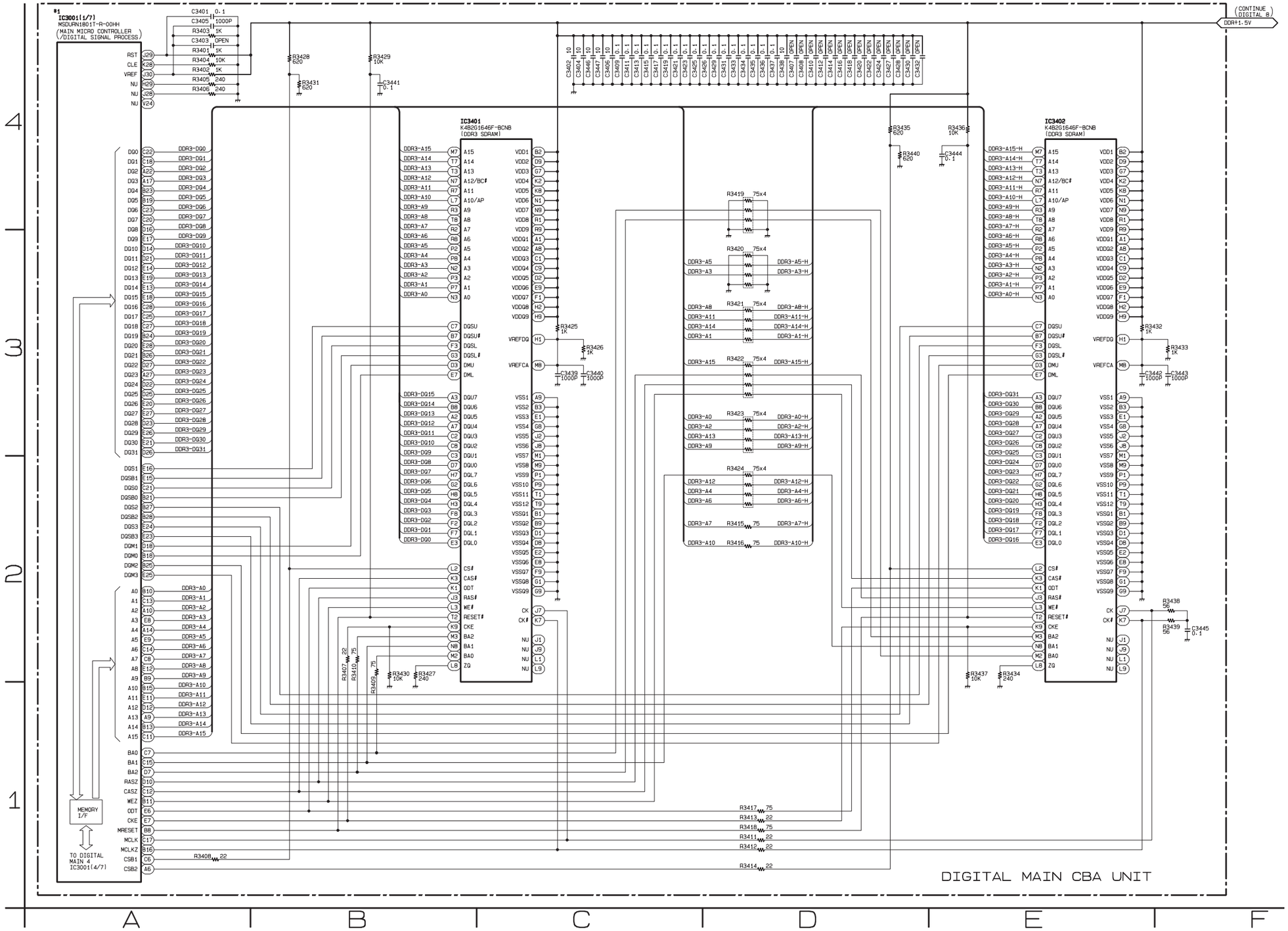
Digital Main 9 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into eight and shown as IC3001 (1/8) ~ IC3001 (8/8) in this Digital Main Schematic Diagram Section.



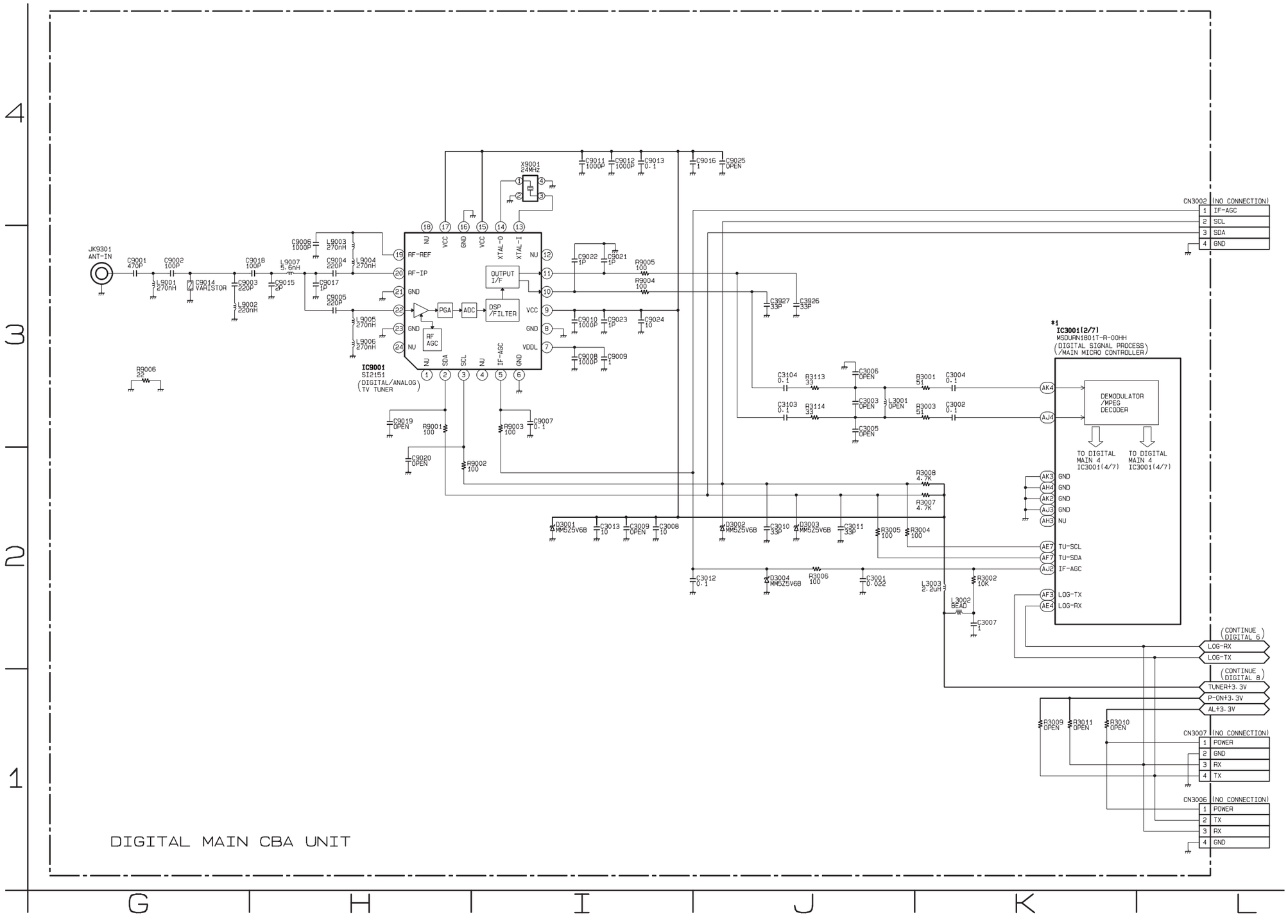
Digital Main 1 Schematic Diagram [TYPE B]

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into seven and shown as IC3001 (1/7) ~ IC3001 (7/7) in this Digital Main Schematic Diagram Section.



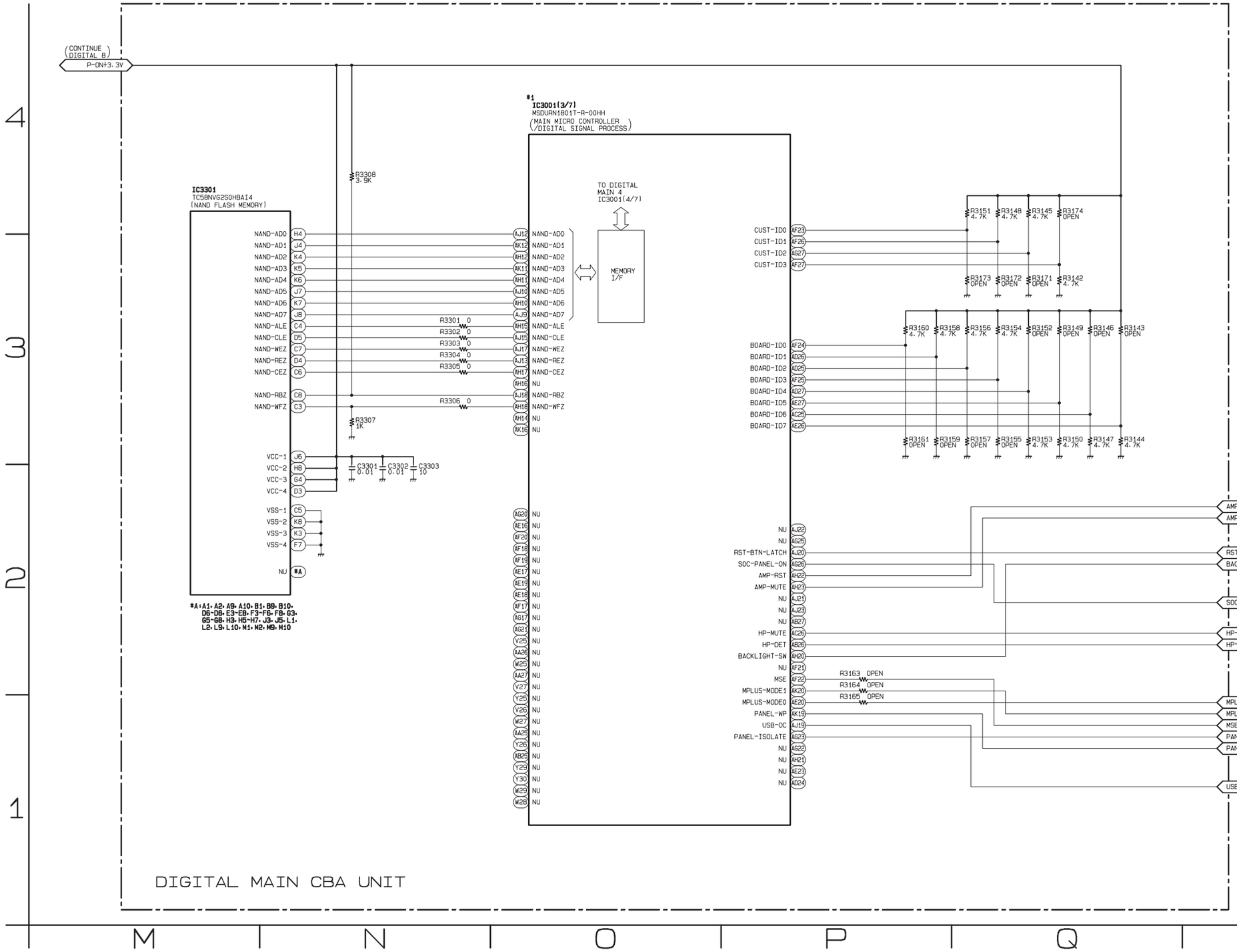
Digital Main 2 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into seven and shown as IC3001 (1/7) ~ IC3001 (7/7) in this Digital Main Schematic Diagram Section.



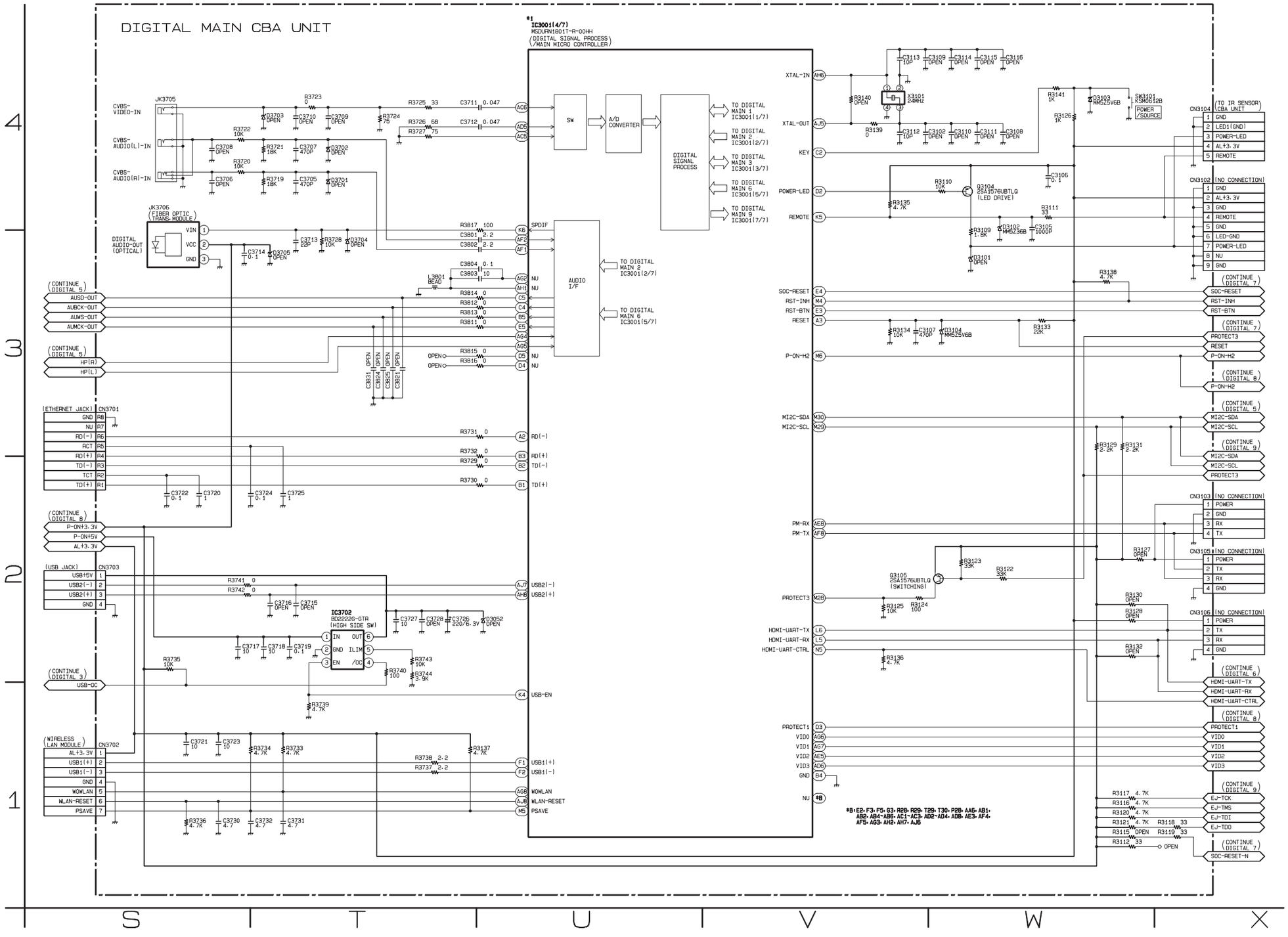
Digital Main 3 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into seven and shown as IC3001 (1/7) ~ IC3001 (7/7) in this Digital Main Schematic Diagram Section.

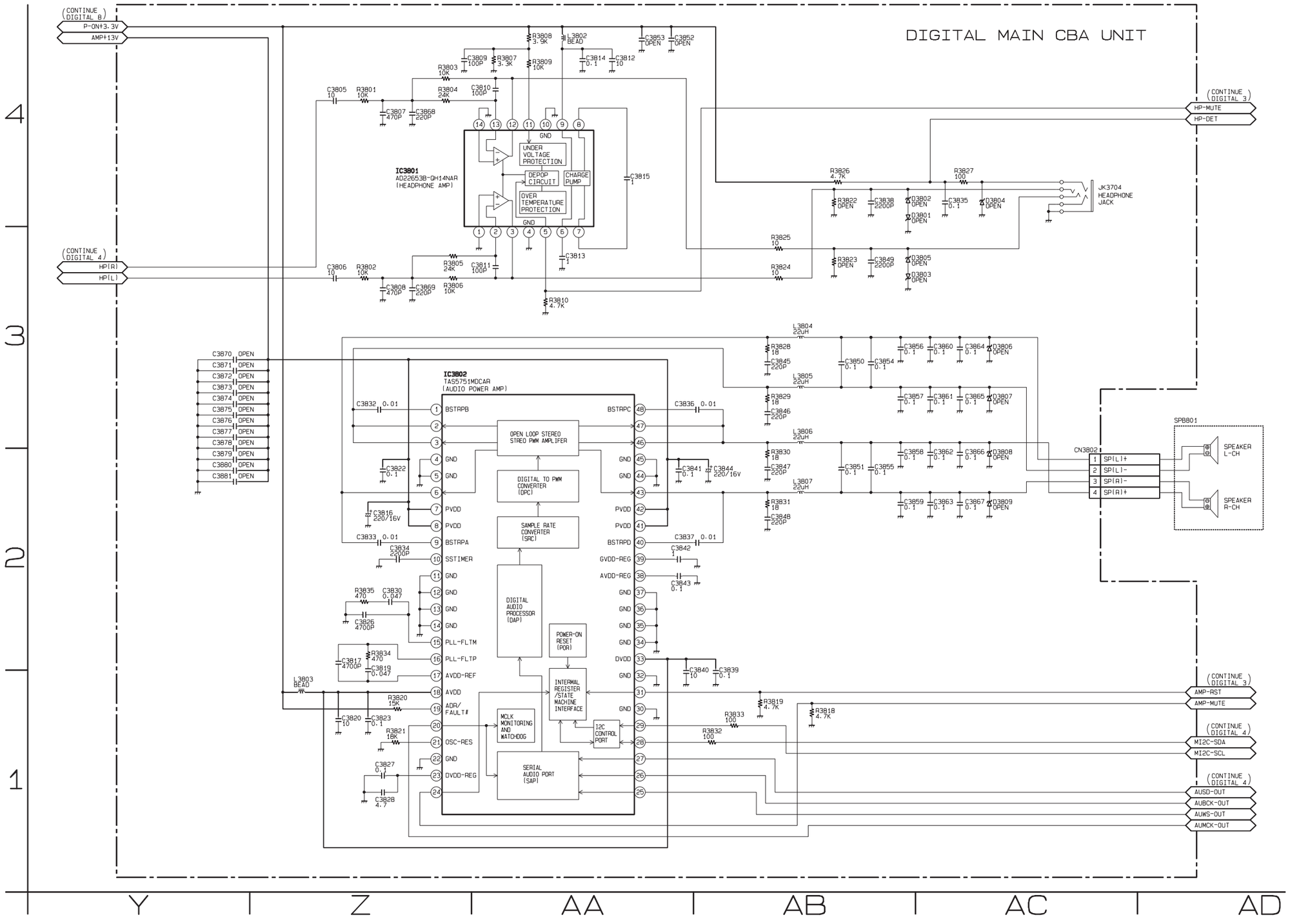


Digital Main 4 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into seven and shown as IC3001 (1/7) ~ IC3001 (7/7) in this Digital Main Schematic Diagram Section.

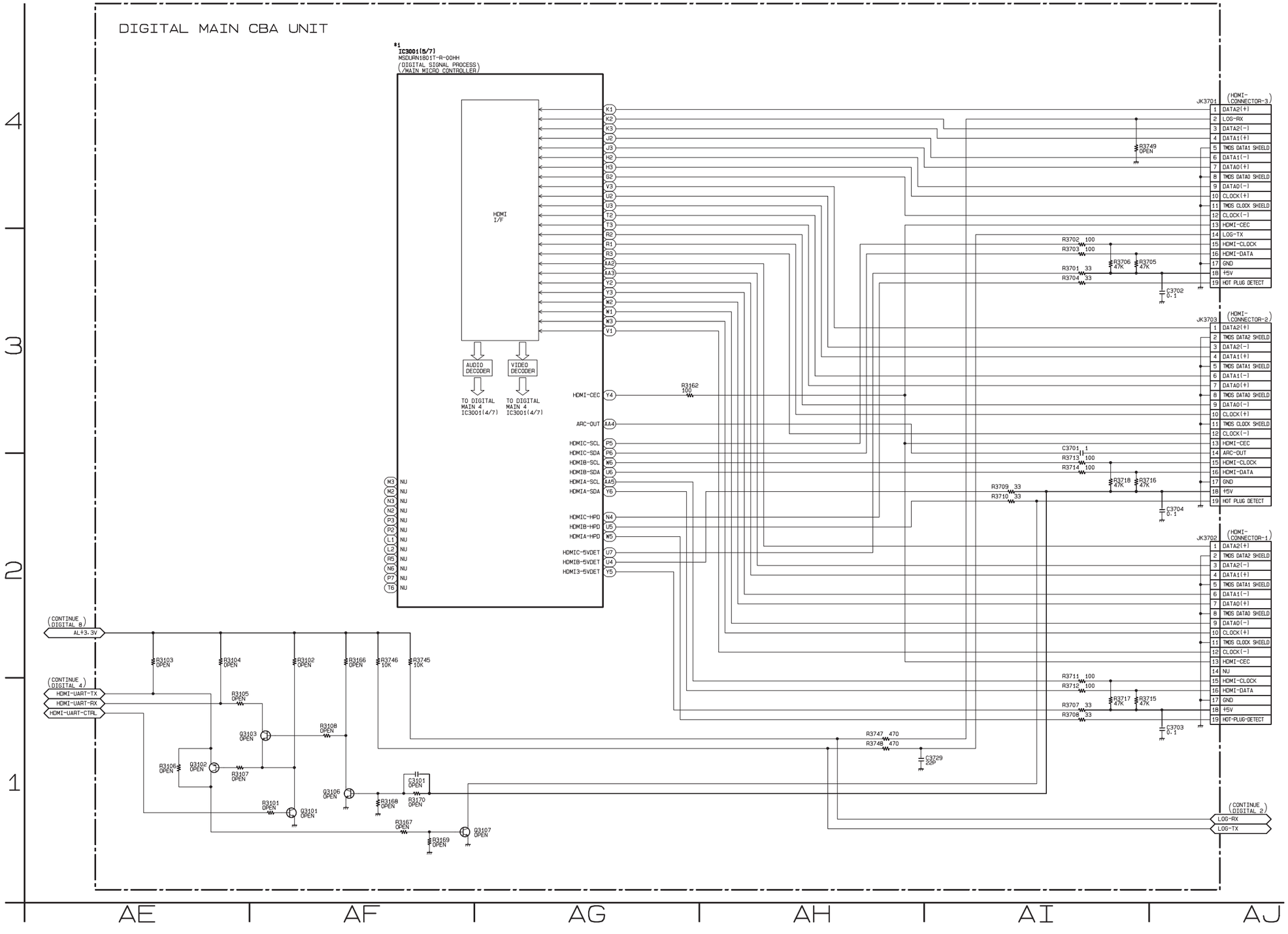


Digital Main 5 Schematic Diagram [TYPE B]



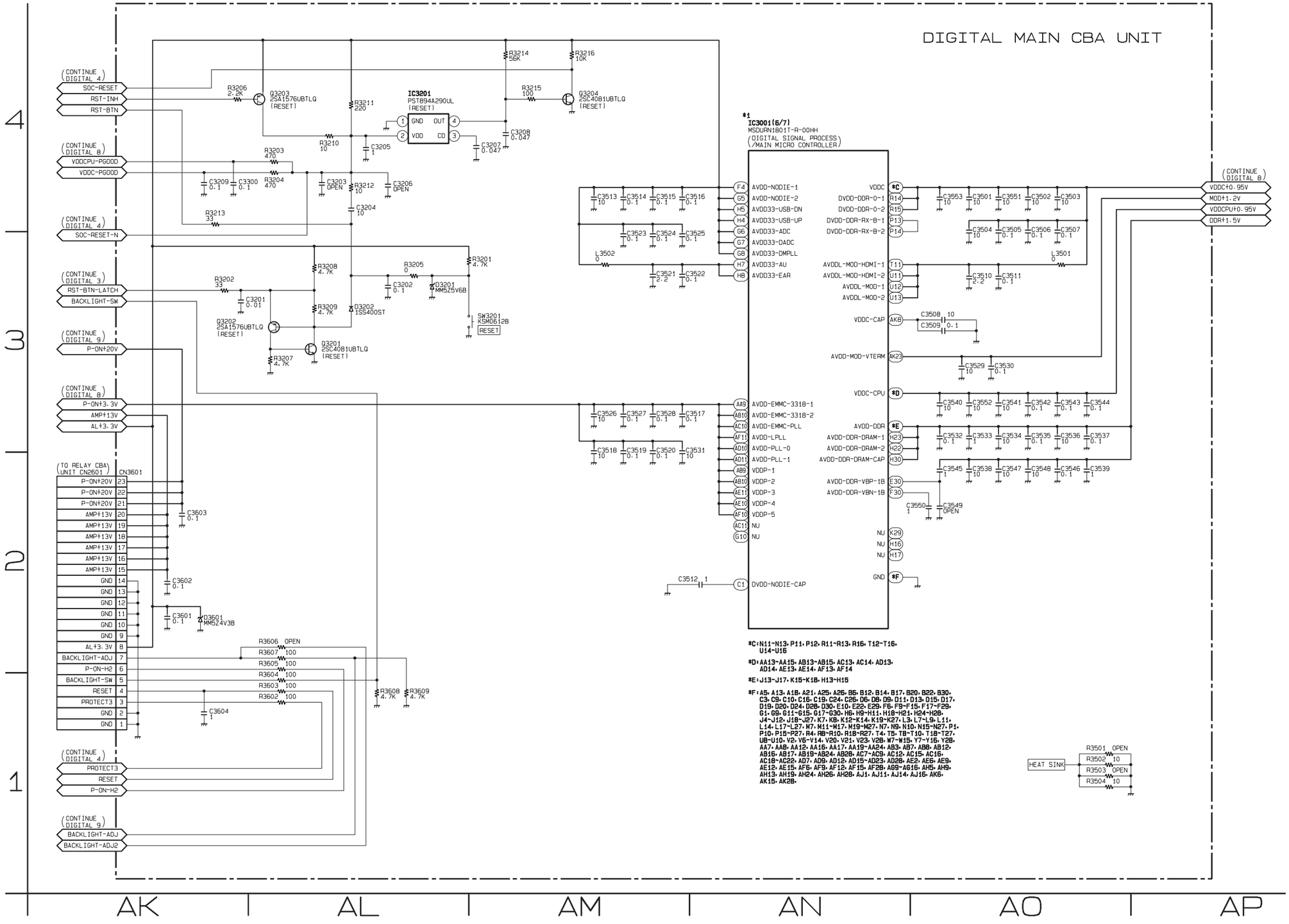
Digital Main 6 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into seven and shown as IC3001 (1/7) ~ IC3001 (7/7) in this Digital Main Schematic Diagram Section.

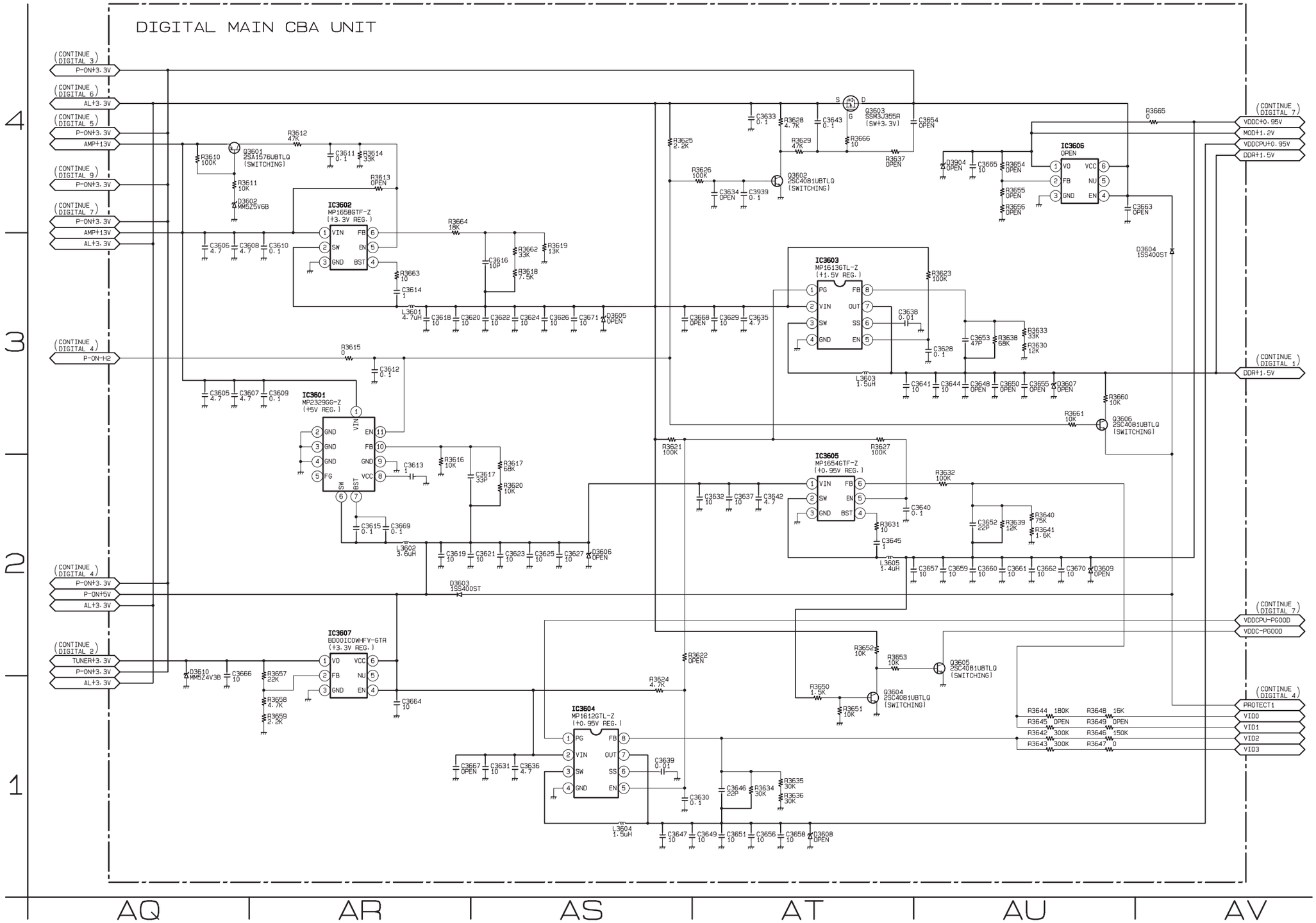


Digital Main 7 Schematic Diagram [TYPE B]

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into seven and shown as IC3001 (1/7) ~ IC3001 (7/7) in this Digital Main Schematic Diagram Section.

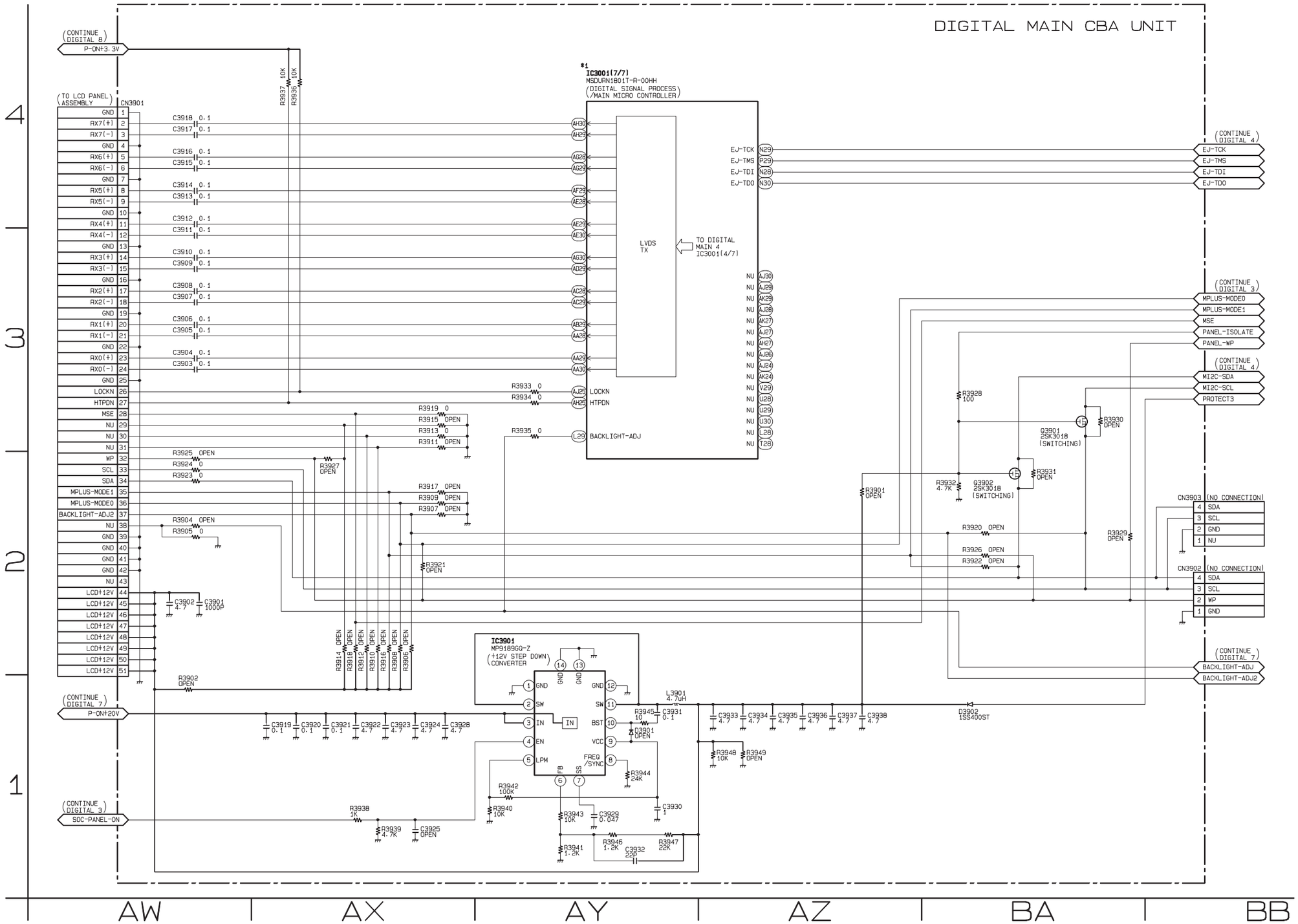


Digital Main 8 Schematic Diagram [TYPE B]

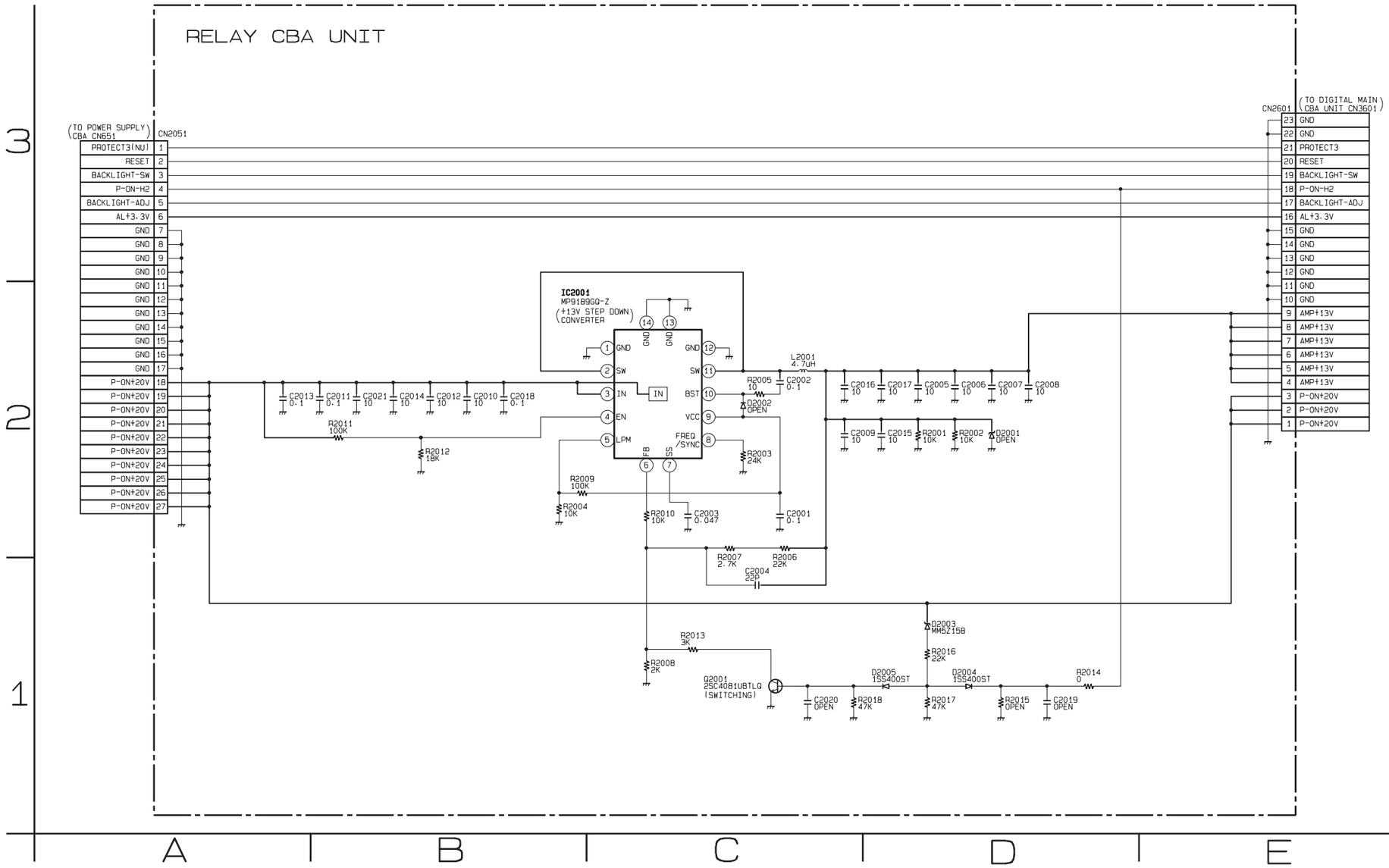


Digital Main 9 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3001.
IC3001 is divided into seven and shown as IC3001 (1/7) ~ IC3001 (7/7) in this Digital Main Schematic Diagram Section.

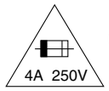


Relay Schematic Diagram [TYPE B]



Power Supply CBA Top View

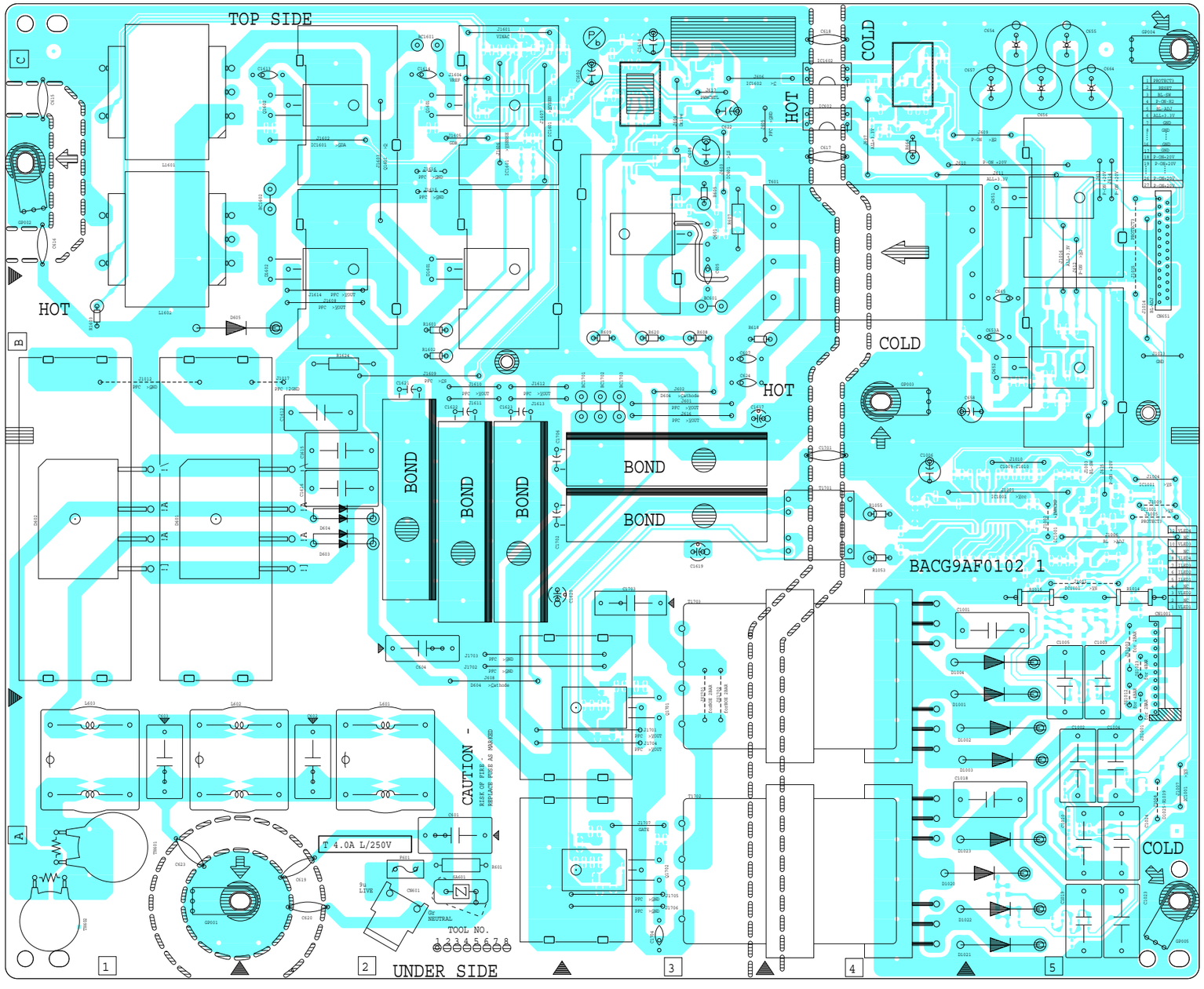
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in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



CAUTION ! : For continued protection against risk of fire, replace only with same type 4A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 250V.

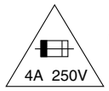
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

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



Power Supply CBA Bottom View

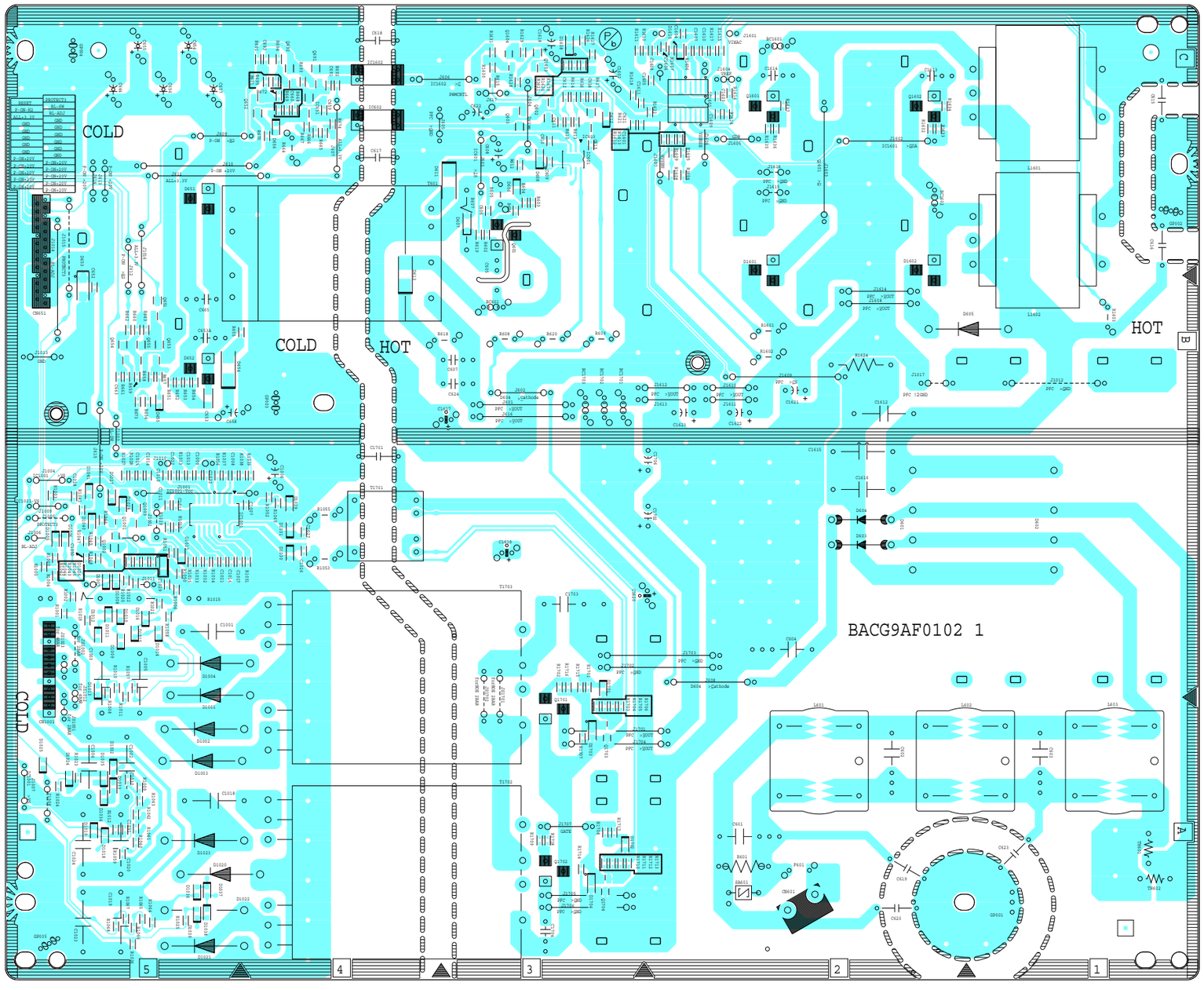
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F601) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in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



CAUTION ! : For continued protection against risk of fire, replace only with same type 4A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 4A, 250V.

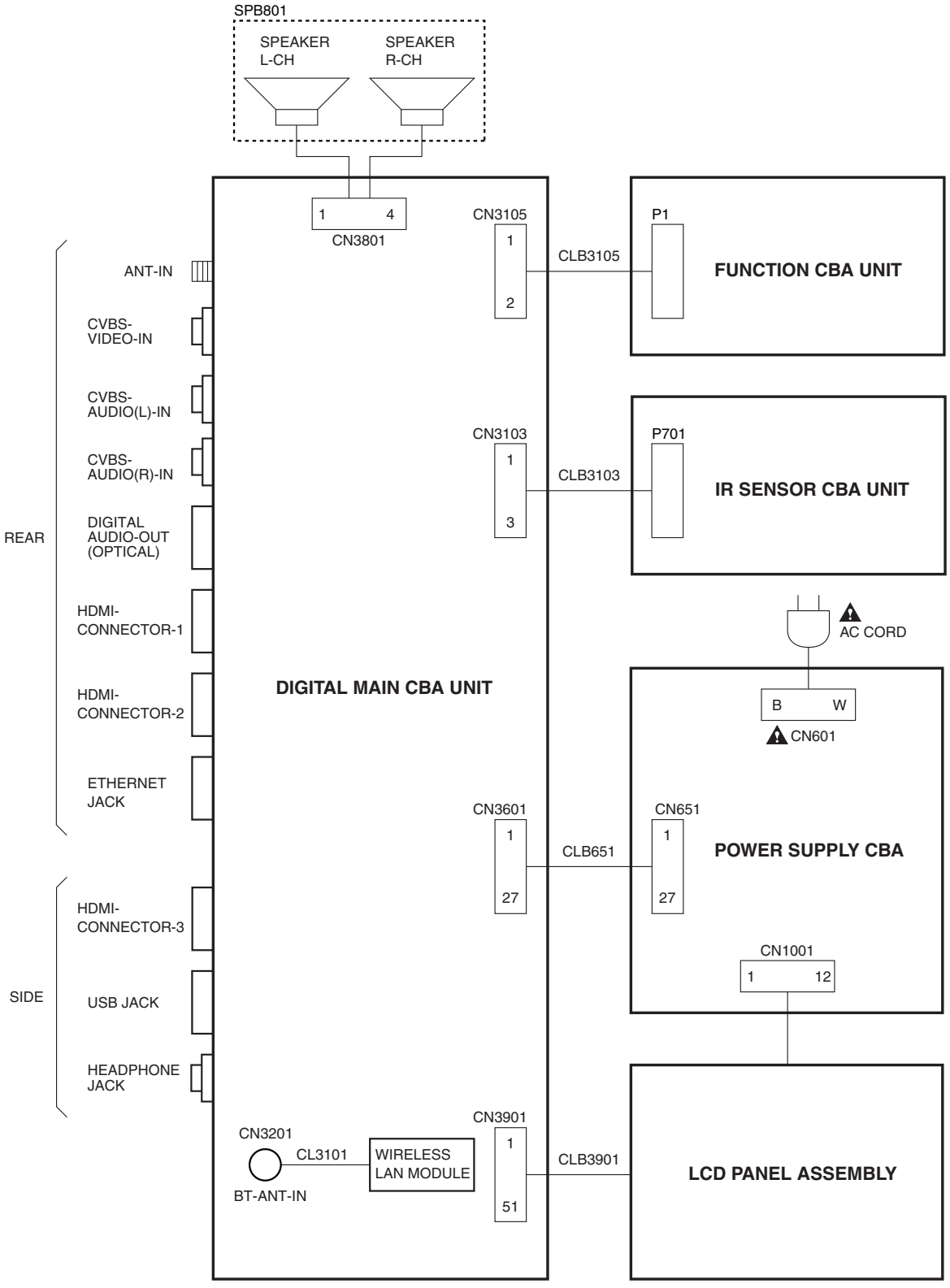
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

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

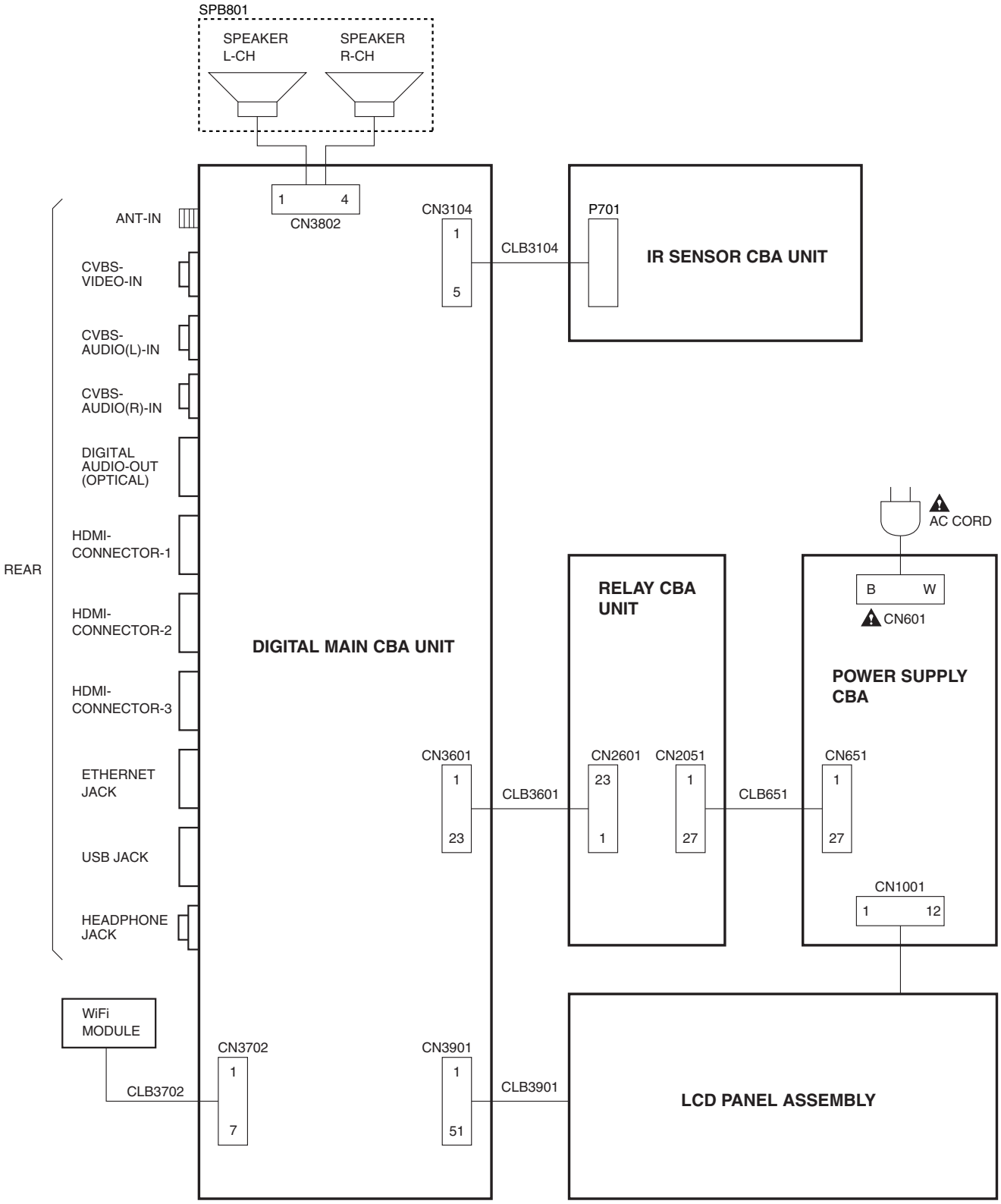


WIRING DIAGRAMS

[TYPE A]

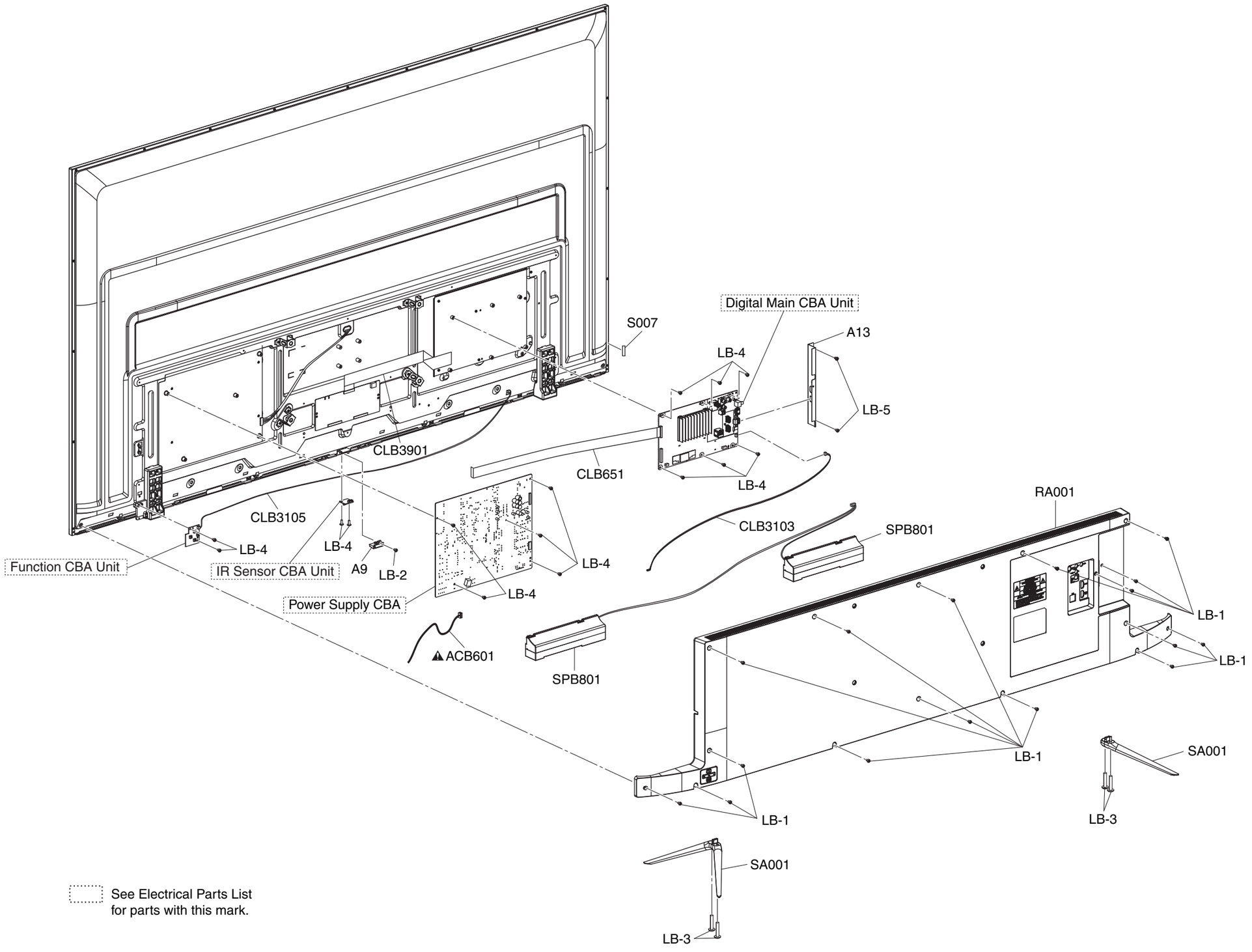


[TYPE B]

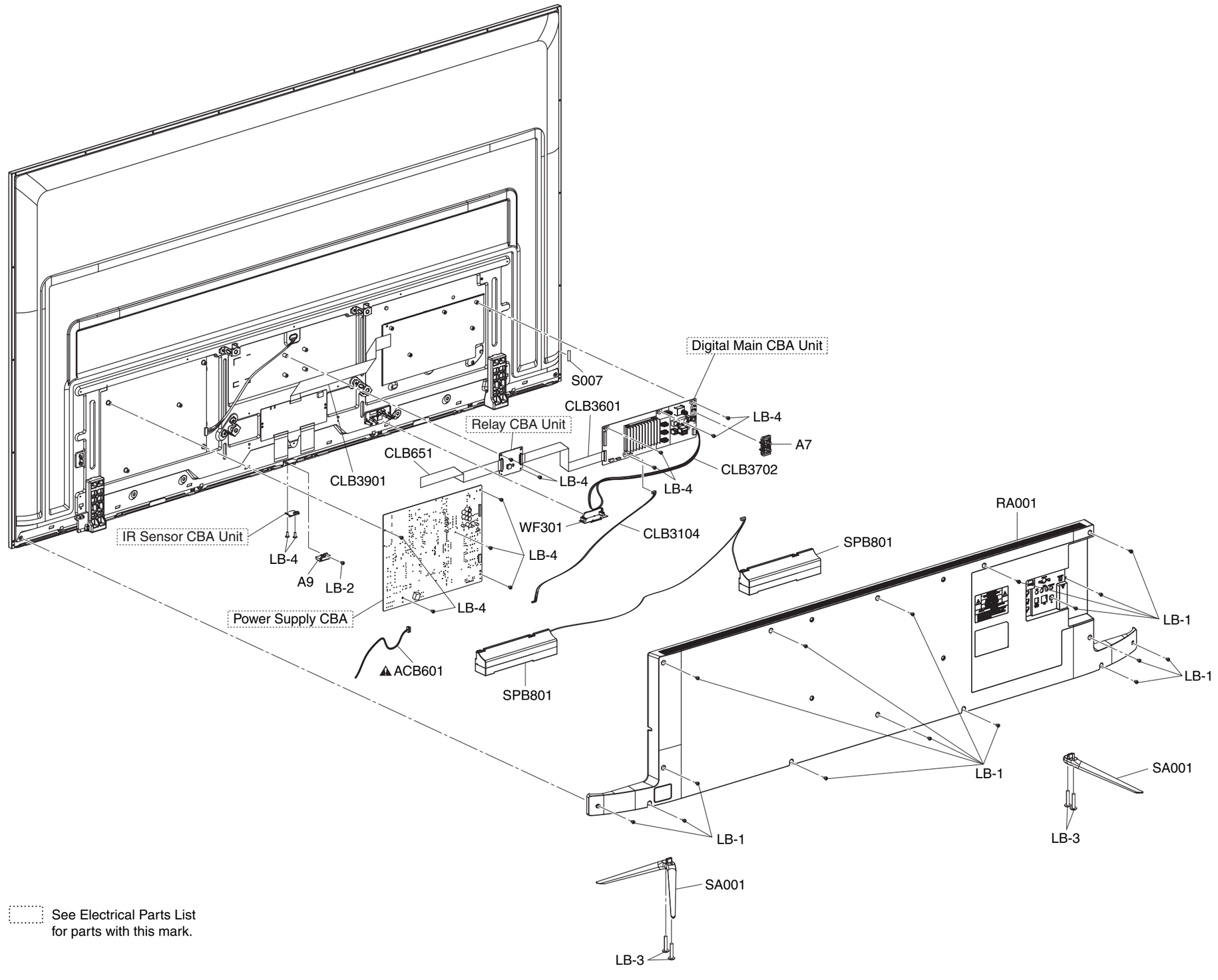

SPB801
SPEAKER L-CH
SPEAKER R-CH
1
4
CN3802
CN3104
1
5
CLB3104
P701
IR SENSOR CBA UNIT
ANT-IN
CVBS-VIDEO-IN
CVBS-AUDIO(L)-IN
CVBS-AUDIO(R)-IN
DIGITAL AUDIO-OUT (OPTICAL)
HDMI-CONNECTOR-1
HDMI-CONNECTOR-2
HDMI-CONNECTOR-3
ETHERNET JACK
USB JACK
HEADPHONE JACK
REAR
DIGITAL MAIN CBA UNIT
AC CORD
B
W
CN601
RELAY CBA UNIT
POWER SUPPLY CBA
CN3601
1
23
CLB3601
CN2601
23
1
CN2051
1
27
CLB651
CN651
1
27
CN1001
1
12
WiFi MODULE
CLB3702
CN3702
1
7
CN3901
1
51
CLB3901
LCD PANEL ASSEMBLY

EXPLODED VIEWS

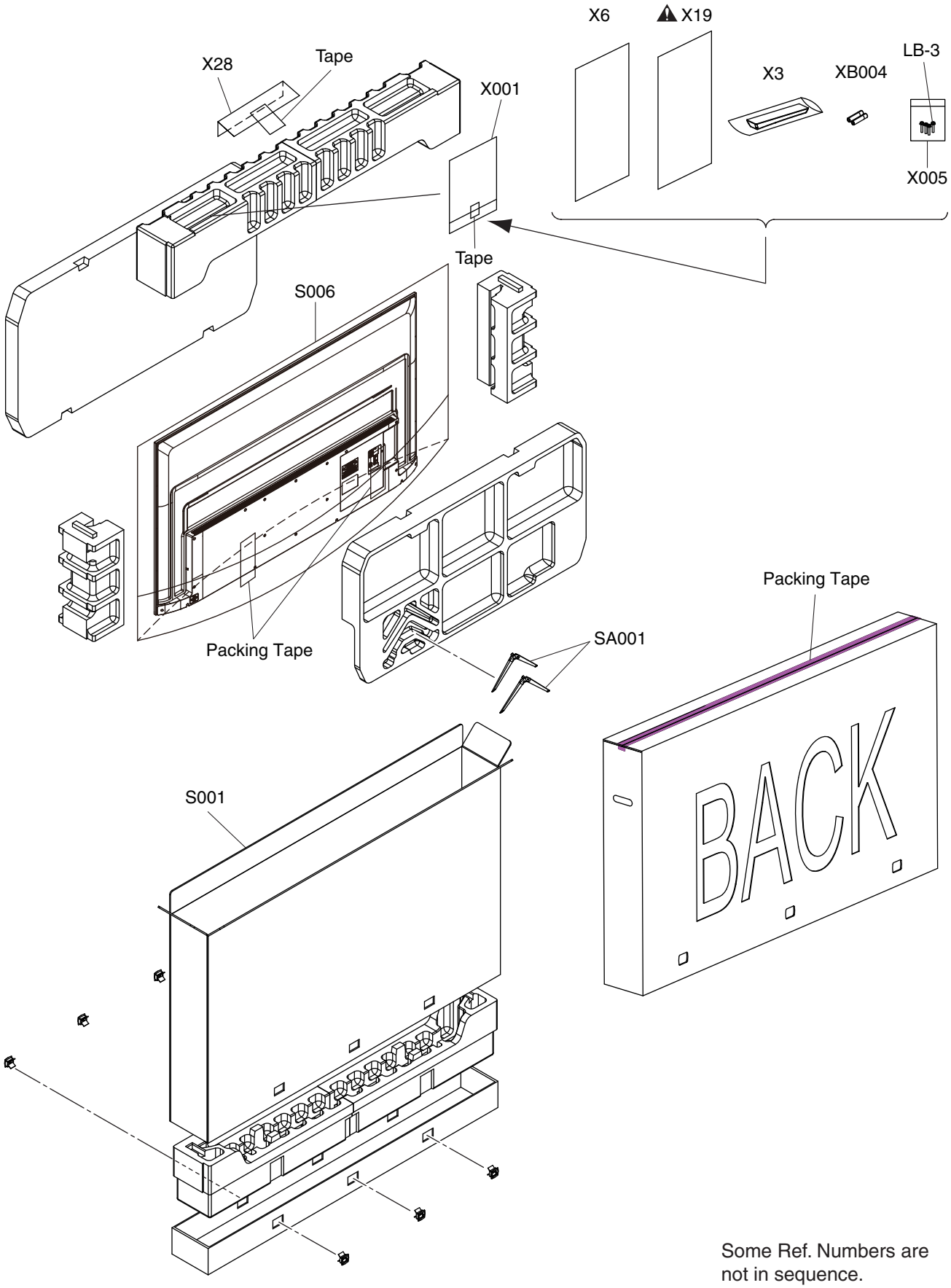
[TYPE A]



[TYPE B]

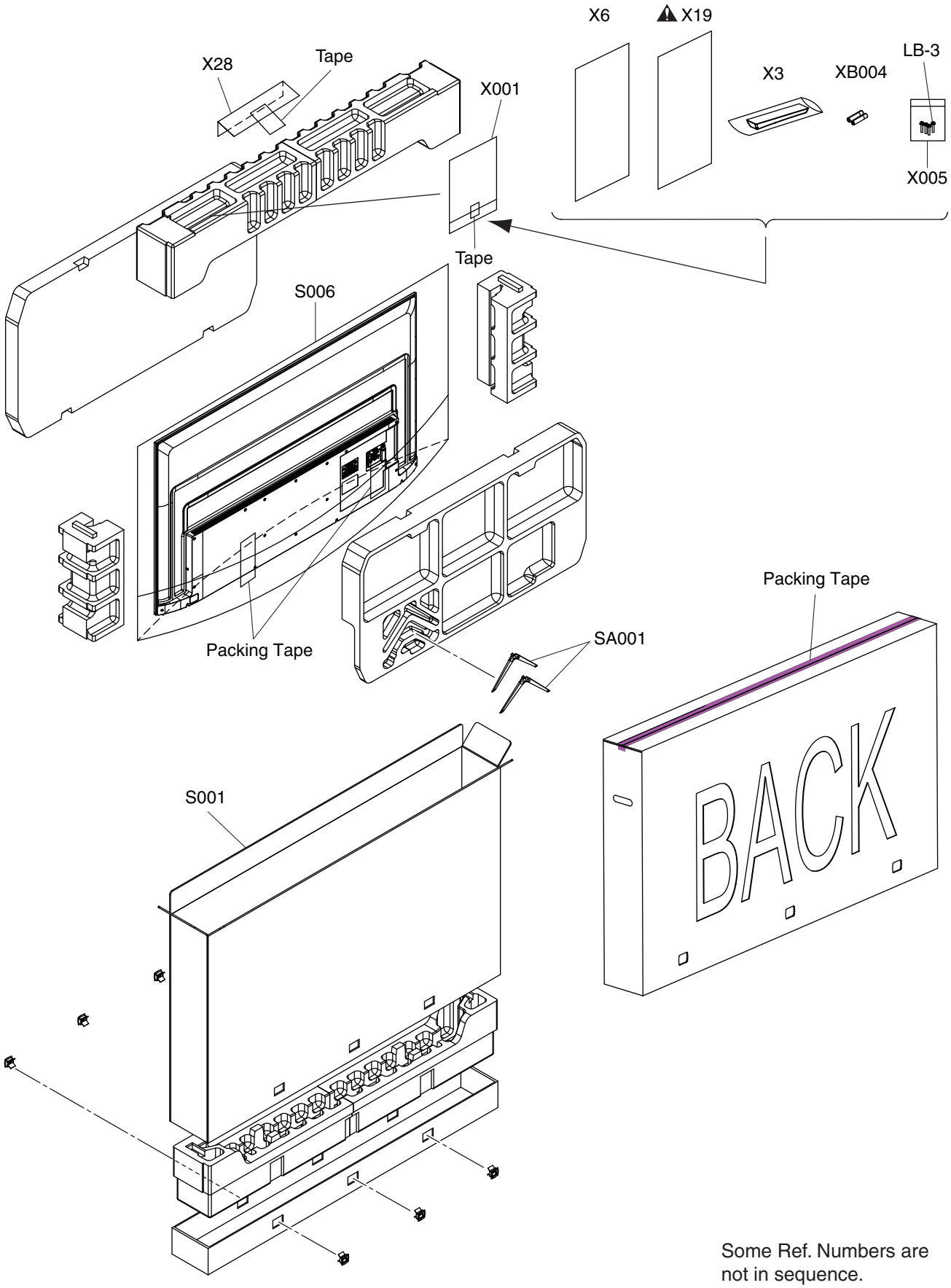

Digital Main CBA Unit
S007
CLB3601
LB-4
A7
Relay CBA Unit
CLB651
CLB3901
LB-4
LB-4
CLB3702
WF301
CLB3104
IR Sensor CBA Unit
LB-4
A9
LB-2
LB-4
LB-4
Power Supply CBA
ACB601
SPB801
SPB801
RA001
LB-1
LB-1
LB-1
LB-1
SA001
LB-3
SA001
LB-3
See Electrical Parts List
for parts with this mark.

Packing [TYPE A]



Some Ref. Numbers are not in sequence.

[TYPE B]



Some Ref. Numbers are not in sequence.

TYPE A

PARTS LIST [75PFL5704/F7 (Serial No.: XA1)]

Mechanical Parts

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

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

Ref.No.	Description	Parts No.
A9	(80302-03127)LENS ACG9YUA-75UB	2EMM01902
A13	(81304-00490)JACK HOLDER ACG9GUA-75UB	2EMS00889
ACB601⚠	AC CORD W/O A GND WIRE UL/CSA/2050/NO/ BLACK	WAV202BEG001
CLB651	FFC WIRE ASSEMBLY 27PIN 27PIN/FFC/ WHITE	WX1ACG9GB101
CLB3103	WIRE ASSEMBLY 3PIN 3PIN&6PIN/AWG28	WX1ACG9GB301
CLB3105	WIRE ASSEMBLY 2PIN 2PIN/AWG28	WX1ACG9GB401
CLB3901	FFC WIRE ASSEMBLY 51PIN 51PIN/FFC/ WHITE	WX1ACG9GB501
LB-1	(80601-00413)SCREW M3*8 ACG9YUA-75UB	2EML00069
LB-2	(80601-00730)SCREW M3*3.5 ACG9YUA-75UB	2EML00070
LB-3	(80601-01169)SCREW M5*24 ACG9YUA-75UB	2EML00071
LB-4	(80601-00004)SCREW M3*6 ACG9YUA-75UB	2EML00072
LB-5	(80601-00384)SCREW M3*6 ACG9GUA-75UB	2EML00073
RA001	(80301-03729) REAR COVER ASSEMBLY ACG9GUA-75UB	2EMA00244
SA001	(80402-03063)STAND ASSEMBLY ACG9YUA-75UB	2EMA00242
SPB801	SPEAKER MAGNETIC 8Ω/10W 60803-01215	DS0814BEG001
S001	(90202-3378S)CARTON TOP ACG9GUA-75UB	2EMC02302
S006	(90201-08640)SET BAG ACG9YUA-75UB	2EMC02346
S007	SERIAL NO. LABEL A4GF1UT	————
X001	(90201-0106S)POLYETHYLENE BAG ACG9YUA-75UB	2EMC02291
X3	REMOTE CONTROL UNIT RD29B00	URMT26RST004
X005	(90201-0316S)SCREW BAG ACG9YUA-75UB	2EMC02292
X6	(90101-2382S)QUICK START GUIDE ACG9GUA-75UB	2EMN01012
X19⚠	(90111-1702S)SAFETY WARRANTY SHEET ACG9GUA-75UB	2EMN01014
X28	(90111-1703S)CAUTION SHEET ACG9GUA-75UB	2EMN01013
XB004	BATTERY DRY 61101-00222	XB00M0BEG001

LCD PANEL ASSEMBLY

Ref.No.	Description	Parts No.
	LCD MKD MODULE	----------

Electrical Parts

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

NOTES:

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%

DIGITAL MAIN CBA UNIT

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACG9HMMA-002
CN3101	WIRELESS MODULE U9W40XT	U9W40XT
IC3001	IC MSD95UVGT4D MSD95UVGT4D-3-00FO	NSAA0RMST020
IC3101	IC USB HIGH-SIDE SW AP2151WG-7/SOT25/5PI	NSCA0TDES015
IC3103	IC EMMC NAND 64GBIT KLM8G1GETF-B041	NSCA0R0SM071
IC3105	IC RESET PST894A290UL	QA2R9T0MM015
IC3601	IC DC-DC CONVERTER MP1657GTF-Z	NSCA0T09M047
IC3602	IC DC-DC CONVERTER MP9189GQ-Z	NSCA0T09M044
IC3603	IC REGULATOR AZ1117EH-ADJTRG1	NAADJTDES001
IC3604	IC REGULATOR AZ1117EH-ADJTRG1	NAADJTDES001
IC3605	IC DC-DC CONVERTER MP2314SGJ-Z TSOT23-8	NSCA0T09M033
IC3606	IC DC-DC CONVERTER MP2331GTL-Z	NSCA0T09M046
IC3607	IC DC-DC CONVERTER MP2331GTL-Z	NSCA0T09M046
IC3608	DDR TERMINATION REGULATOR APL5338AXAI	NSCA0T03A031
IC3609	IC DC-DC CONVERTER MP2314SGJ-Z TSOT23-8	NSCA0T09M033
IC3801	IC D-CLASS AUDIO POWER AMPLIFI TPA3110D2PWPR	NSCA0T0TY073
IC3901	IC DC-DC CONVERTER MP9189GQ-Z	NSCA0T09M044
IC9001	IC SILICON TUNER SI2151-A10-GMR	NSCA0T05S010
	When you replace one of the below ICs on this CBA, replace with the one that has the same part number. Do not mix ICs with different part number.	
IC3301	IC 4GB DDR3 SDRAM K4B4G1646E-BCNB	NSCA0R0SM065
IC3302	IC 4GB DDR3 SDRAM K4B4G1646E-BCNB	NSCA0R0SM065
	or	
IC3301	IC 4GB DDR3 SDRAM NT5CB256M16ER-FL	NSCA0R0J2035
IC3302	IC 4GB DDR3 SDRAM NT5CB256M16ER-FL	NSCA0R0J2035

FUNCTION CBA UNIT

Ref. No.	Description	Part No.
	FUNCTION CBA UNIT	UPB000BEG013

IR SENSOR CBA UNIT

Ref. No.	Description	Part No.
	IR SENSOR CBA UNIT	UPB000BEG014

POWER SUPPLY CBA

Ref. No.	Description	Part No.
	POWER SUPPLY CBA	ACG9HMPW-001
	Consists of the following	
	CAPACITORS	
C601⚠	CAP METALLIZED FILM 0.22µF/310V /K/LE-MX	CTA2240DC001
C602⚠	CAP METALLIZED FILM 0.22µF/310V /K/LE-MX	CTA2240DC001
C603⚠	CAP METALLIZED FILM 0.22µF/310V /K/LE-MX	CTA2240DC001
C604	CAP METALLIZED FILM 0.1µF/310V /K/LE-MX	CTA1040DC001
C605	CERAMIC CAP. /_2 B K 100pF/2kV	CJTE101KB3D5
C607	CERAMIC CAP. /_2 B K 1500pF/2kV	CJTE152KB3D5
C608	CAP ELE 100µF/35V/M/85	CEE1010V8006
C609	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C610	CAP CHIP 1005 COG/220pF/50V	CHK2210SM001
C611	CAP CHIP 1005 X7R K 1000pF/50V	CHT1020SM001
C612	CAP CHIP 1005 X7R/K/22nF/16V	CHV2230SM001
C613	CAP CHIP 1005 X7R/10nF/50V	CHT1030SM001
C614	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C615⚠	CAP CERAMIC SAFETY 1000pF/250V E M KX	CJMR102M42E1
C616⚠	CAP CERAMIC SAFETY 100pF/250V B K KX	CJMR101KB2E1
C617⚠	CAP CERAMIC SAFETY 1000pF/250V E M KX	CJMR102M42E1
C618⚠	CAP CERAMIC SAFETY 470pF/250V B K KX	CJMR471KB2E1
C619⚠	CAP CERAMIC SAFETY 100pF/250V B K KX	CJMR101KB2E1
C620⚠	CAP CERAMIC SAFETY 100pF/250V B K KX	CJMR101KB2E1
C621	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C622	CAP ELE 10µF/50V/M/85	CEF1000V8006
C623⚠	CAP CERAMIC SAFETY 470pF/250V B K KX	CJMR471KB2E1
C652	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C653A	CERAMIC CAP. /_2 B K 1500pF/2kV	CJTE152KB3D5
C654	CAP ELE 470µF/25V/M/85	CED4710V8006
C655	CAP ELE 470µF/25V/M/85	CED4710V8006
C656	CAP ELE 470µF/25V/M/85	CED4710V8006
C657	CAP ELE 470µF/25V/M/85	CED4710V8006
C658	CAP ELE 1µF/50V/M/85	CEF1R00V8006
C659	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C663	CAP CHIP 1005 COG J 100pF/50V	CHK1010SM001
C664	CAP ELE 470µF/25V/M/85	CED4710V8006
C691	CAP CHIP 1005 X7R/10nF/50V	CHT1030SM001
C693	CAP CHIP 1005 X5R/2.2µF/16V	CHG2250SM001
C1007	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C1009	CAP CHIP 1005 X7R/10nF/50V	CHT1030SM001
C1010	CAP CHIP 1005 X7R K 1000pF/50V	CHT1020SM001
C1012	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C1013	CAP CHIP 1005 COG/220pF/50V	CHK2210SM001
C1014	CAP CHIP 1005 X7R/10nF/50V	CHT1030SM001
C1016	CAP CHIP 1005 X7R/K/22nF/16V	CHV2230SM001
C1018	CAP METALLIZED FILM 1.0µF/450V/K/MPXK	CT8N105K02W3
C1019	CAP METALLIZED FILM 1.0µF/450V/K/MPXK	CT8N105K02W3
C1020	CAP METALLIZED FILM 1.0µF/450V/K/MPXK	CT8N105K02W3
C1021	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C1022	CAP CHIP 1005 X7R/2.2nF/50V	CHT2220SM001
C1023	CAP METALLIZED FILM 1.0µF/450V/K/MPXK	CT8N105K02W3
C1024	CAP METALLIZED FILM 1.0µF/450V/K/MPXK	CT8N105K02W3
C1026	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002

Ref. No.	Description	Part No.
C1027	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C1030	CAP CHIP 1005 X7R K 1000pF/50V	CHT1020SM001
C1031	CAP CHIP 1005 X7R K 1000pF/50V	CHT1020SM001
C1050	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C1601	CAP CHIP 1005 X7R/10nF/50V	CHT1030SM001
C1602	CAP ELE 4.7µF/50V/M/85	CEF4R70V8006
C1603	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C1604	CAP CHIP 1005 X5R/2.2µF/16V	CHG2250SM001
C1605	CAP CHIP 1005 X7R K 1000pF/50V	CHT1020SM001
C1606	CAP CHIP 1005 X7R K 1000pF/50V	CHT1020SM001
C1607	CAP CHIP 1005 X7R K 1000pF/50V	CHT1020SM001
C1608	CAP CHIP 1005 X7R K 1000pF/50V	CHT1020SM001
C1609	CAP CHIP 1005 COG J 100pF/50V	CHK1010SM001
C1610	CAP CHIP 1005 COG J 100pF/50V	CHK1010SM001
C1611	CAP CHIP 1005 X5R/100nF/25V	CHS1040SM001
C1612	CAP METALLIZED FILM 1.0µF/450V/K/MPXK	CT8N105K02W3
C1613	CERAMIC CAP. /_2 B K 220pF/2kV	CJTE221KB3D5
C1614	CERAMIC CAP. /_2 B K 220pF/2kV	CJTE221KB3D5
C1615	CAP METALLIZED FILM 1.0µF/450V/K/MPXK	CT8N105K02W3
C1618	CAP ELE 10µF/50V/M/85	CEF1000V8006
C1619	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C1621	CAP ELE 105 100µF/400V/M/105	CVNC101M02G7
C1622	CAP ELE 105 100µF/400V/M/105	CVNC101M02G7
C1701⚠	CAP CERAMIC SAFETY 470pF/250V B K KX	CJMR471KB2E1
C1702	CAP ELE 105 100µF/400V/M/105	CVNC101M02G7
C1703	CAP METALLIZED FILM 0.051µF/400V/J	CT8N513J02G2
C1704	CERAMIC CAP. /_2 B K 220pF/2kV	CJTE221KB3D5
C1706	CAP ELE 105 100µF/400V/M/105	CVNC101M02G7
CONNECTORS		
CN601⚠	CONNECTOR S2P3-VH (LF)(SN)	JCVHC02JG002
CN651	FFC CONNECTOR IMSA-9615S-27A-PP-A	JC96J27ER007
CN1001	CONNECTOR PRINT OSU S12B-PH-K-S(LF)(SN)	J3PHC12JG030
DIODES		
D602	DIODE BRIDGE D25XB60-7000	QDWZ0D25XB60
D603	RECTIFIER DIODE 1N4005FB	NDJZG1N4005F
D604	RECTIFIER DIODE 1N4005FB	NDJZG1N4005F
D605	DIODE 1N5406BRV	NDWZ001N5406
D606	DIODE SCHOTTKY SMD RB520SM-30 T2R	QD1ZRB520SM3
D607	DIODE ZENER SMD KDZVTR36B	QD1B0KDZV36B
D611	DIODE FAST RECOVERY RS1GJTD	ND1Z0RS1GJTD
D612	ZENER DIODE MM5Z5V6B	ND1BMM5Z5V6B
D613	DIODE FAST RECOVERY RS1KJTD	ND1Z0RS1KJTD
D652	DIODE SHOTTKY FCH20A20	QDWZFCH20A20
D653	DIODE(ZENER) PTZTE2524B	QD1B000PTZ24
D654	DIODE FAST RECOVERY RS1GJTD	ND1Z0RS1GJTD
D655	ZENER DIODE MM5Z9V1B	ND1BMM5Z9V1B
D656	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1018	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1019	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1020	DIODE SCHOTTKY SB3200BRV	NDWZB3200BRV
D1021	DIODE SCHOTTKY SB3200BRV	NDWZB3200BRV
D1022	DIODE SCHOTTKY SB3200BRV	NDWZB3200BRV
D1023	DIODE SCHOTTKY SB3200BRV	NDWZB3200BRV
D1026	ZENER DIODE SMD TFZVTR16B	QD1B00TFZV16
D1027	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1028	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1030	ZENER DIODE MM5Z20B	ND1B0MM5Z20B
D1031	ZENER DIODE MM5Z20B	ND1B0MM5Z20B
D1040	ZENER DIODE MM5Z16B	ND1B0MM5Z16B
D1041	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1601	DIODE FAST RECOVERY FCU20A40	QDEZFCU20A40
D1602	DIODE FAST RECOVERY FCU20A40	QDEZFCU20A40

Ref. No.	Description	Part No.
D1608	ZENER DIODE SMD TFZVTR16B	QD1B00TFZV16
D1701	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1702	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
ICS		
IC601	IC SWITCHING BM1P062FJ/SOP-J8	QSCA0T0RM432
IC602⚠	O-E DEVICE PHOTO COUPLER TLP785F(D4FNBLLF(C	QPEL0TLP785F
IC603	IC SHUNT REGULATOR AS431BNTR-E1	NSCA0TBCD041
IC651	IC SHUNT REGULATOR AS431BNTR-E1	NSCA0TBCD041
IC1001	LLC LED DRIVE BD9412F-GE2	QSCA0T0RM444
IC1601	IC DUAL-PHASE PFC CONTROLLER UCC28063DR/R-PDSO-G	NSCA0T0TY087
IC1602⚠	O-E DEVICE PHOTO COUPLER TLP785F(D4FNBLLF(C	QPEL0TLP785F
COILS		
L601⚠	COIL LINE FILTER TT1810A1150	LLEG0ZMEK035
L602⚠	COIL LINE FILTER TT1810A1150	LLEG0ZMEK035
L603⚠	COIL LINE FILTER TT1810A1150	LLEG0ZMEK035
L1601⚠	COIL EF LC-28-0084	LLEE0ZEDE006
L1602⚠	COIL EF LC-28-0084	LLEE0ZEDE006
TRANSISTORS		
Q601	FET MOS TK5A65D(STA4 Q M)	QFEZTK5A65DM
Q602	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q603	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q651	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q652	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q653	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q654	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q655	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q691	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q692	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1001	PNP TRANSISTOR SMD 2SA1576UBTLQ	QQ1Q2SA1576U
Q1002	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1003	NPN TRANSISTOR SMD KTC8050S-D-RTK/P	NQ1DKTC8050S
Q1601	MOS-FET 10A/650V AP65SL380DI-A1	NFEZ65SL380D
Q1602	MOS-FET 10A/650V AP65SL380DI-A1	NFEZ65SL380D
Q1603	NPN TRANSISTOR SMD KTC8050S-D-RTK/P	NQ1DKTC8050S
Q1604	PNP TRANSISTOR SMD 2SA1576UBTLQ	QQ1Q2SA1576U
Q1701	FET MOS TK10A60W S4VX(M	QFEZTK10A60W
Q1702	FET MOS TK10A60W S4VX(M	QFEZTK10A60W
Q1703	PNP TRANSISTOR SMD 2SA1576UBTLQ	QQ1Q2SA1576U
Q1704	PNP TRANSISTOR SMD 2SA1576UBTLQ	QQ1Q2SA1576U
RESISTORS		
R602	CHIP RES. 1/16W J 4.7k Ω	RRXG472HH004
R603	CHIP RES. 1/16W J 47 Ω	RRXG470HH004
R604	CHIP RES. 1/16W J 47 Ω	RRXG470HH004
R605	RES METAL OXIDE 1/2W J 270 Ω	RNJ271PAK018
R606	CHIP RES. 1/16W J 10 Ω	RRXG100HH004
R607	METALOXIDE RES 2W J 0.22Ω	RNJR22PAK002
R608	RES METAL OXIDE 1/2W J 15k Ω	RNJ153PAK018
R609	RES METAL OXIDE 1/2W J 620k Ω	RNJ624PAK018
R610	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R612	RES CHIP 1005 1/16W J 270 Ω	RRXG271HH004
R613	CHIP RES.(1005) 1/16W F 12k Ω	RTV1202HH004
R614	RES CHIP 1005 1/16W F 3.3k Ω	RTV3301HH004
R615	CHIP RES. 1/16W J 22k Ω	RRXG223HH004
R616	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R617	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R618	RES METAL OXIDE 1/2W J 120k Ω	RNJ124PAK018
R619	CHIP RES.(1005) 1/16W J 1k Ω	RRXG102HH004
R620	RES METAL OXIDE 1/2W J 15k Ω	RNJ153PAK018
R621	CHIP RES. 1/16W J 22k Ω	RRXG223HH004
R655	RES CHIP 1005 1/16W J 1 Ω	RRJ1R0RYL001

Ref. No.	Description	Part No.
R656	RES CHIP 1005 1/16W J 3.9k Ω	RRXG392HH004
R657	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R658	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R659	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R660	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R661	CHIP RES. 1/16W J 22k Ω	RRXG223HH004
R662	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R663	CHIP RES. 1/16W J 22k Ω	RRXG223HH004
R664	RES METAL OXIDE 1/2W J 330 Ω	RNJ331PAK018
R665	CHIP RES.(1005) 1/16W J 2.0k Ω	RRXG202HH004
R666	RES CHIP 1005 1/16W F 18k Ω	RTV1802HH004
R667	RES CHIP 1005 1/16W F 5.10k Ω	RTV5101HH004
R668	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R669	RES CHIP 1005 1/16W F 3.3k Ω	RTV3301HH004
R670	RES CHIP 1005 1/16W F 33.0k Ω	RTV3302HH004
R671	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R672	CHIP RES. 1/16W J 22k Ω	RRXG223HH004
R673	RES CHIP 1005 1/16W J 3.9k Ω	RRXG392HH004
R674	CHIP RES.(1005) 1/16W J 2.0k Ω	RRXG202HH004
R691	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R692	RES CHIP 1005 1/16W J 330 Ω	RRXG331HH004
R693	CHIP RES. 1/16W J 22k Ω	RRXG223HH004
R694	RES CHIP 1005 1/16W J 5.6k Ω	RRXG562HH004
R695	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R1009	RES CHIP 1005 1/16W F 2.4k Ω	RTV2401HH004
R1012	RES CHIP 1005 1/16W F 2.4k Ω	RTV2401HH004
R1013	RES CHIP 1005 1/16W J 12k Ω	RRXG123HH004
R1014	RES WIREWOUND 1W F 0.22 Ω	RHR220PAK001
R1015	RES WIREWOUND 1W F 0.22 Ω	RHR220PAK001
R1027	CHIP RES.(1005) 1/16W J 1k Ω	RRXG102HH004
R1028	RES CHIP 1005 1/16W J 330k Ω	RRXG334HH004
R1029	CHIP RES. 1/16W J 100k Ω	RRXG104HH004
R1030	CHIP RES. 1/16W J 27k Ω	RRXG273HH004
R1031	RES CHIP 1005 1/16W J 68k Ω	RRXG683HH004
R1032	CHIP RES.(1005) 1/16W J 1k Ω	RRXG102HH004
R1034	CHIP RES. 1/16W J 100k Ω	RRXG104HH004
R1036	RES CHIP 1005 1/16W F 47k Ω	RTV4702HH004
R1037	RES CHIP 1005 1/16W F 30.0k Ω	RTV3002HH004
R1038	CHIP RES. 1/16W J 100k Ω	RRXG104HH004
R1039	CHIP RES.(1005) 1/16W J 1k Ω	RRXG102HH004
R1041	RES CHIP 1005 1/16W J 1 Ω	RRJ1R0RYL001
R1042	CHIP RES.(1005) 1/16W J 680 Ω	RRXG681HH004
R1043	CHIP RES. 1/16W J 560 Ω	RRXG561HH004
R1044	CHIP RES. 1/16W J 560 Ω	RRXG561HH004
R1045	CHIP RES. 1/16W J 560 Ω	RRXG561HH004
R1046	CHIP RES.(1005) 1/16W J 2.2k Ω	RRXG222HH004
R1047	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1048	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R1049	RES CHIP 1005 1/16W J 18k Ω	RRXG183HH004
R1050	CHIP RES.(1005) 1/16W J 2.0k Ω	RRXG202HH004
R1051	CHIP RES.(1005) 1/16W J 3.6k Ω	RRXG362HH004
R1052	CHIP RES.(1005) 1/16W J 2.0k Ω	RRXG202HH004
R1053	RES METAL OXIDE 1/2W J 10 Ω	RNJ100PAK018
R1055	RES METAL OXIDE 1/2W J 10 Ω	RNJ100PAK018
R1059	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1060	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1061	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1062	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1063	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1064	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1065	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1066	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1067	CHIP RES 1/16W F 68k Ω	RTV6802HH004

Ref. No.	Description	Part No.
R1068	CHIP RES 1/16W F 68k Ω	RTV6802HH004
R1069	CHIP RES.(1005) 1/16W J 3.6k Ω	RRXG362HH004
R1601	RES METAL OXIDE 1/2W J 2.2M Ω	RNJ225PAK018
R1602	RES METAL OXIDE 1/2W J 2.2M Ω	RNJ225PAK018
R1603	RES METAL OXIDE 1/2W J 2.2M Ω	RNJ225PAK018
R1604	RES CHIP 1005 1/16W F 51.0k Ω	RTV5102HH004
R1605	CHIP RES. 1/16W F 7.5k Ω	RTV7501HH004
R1606	RES CHIP 1005 1/16W J 120k Ω	RRXG124HH004
R1607	RES CHIP 1005 1/16W J 5.6k Ω	RRXG562HH004
R1608	RES CHIP 1005 1/16W F 33.0k Ω	RTV3302HH004
R1609	RES CHIP 1005 1/16W F 1.10k Ω	RTV1101HH004
R1610	RES CHIP 1005 1/16W F 33.0k Ω	RTV3302HH004
R1611	RES CHIP 1005 1/16W F 3k Ω	RTV3001HH004
R1612	RES CHIP 1005 1/16W J 68 Ω	RRXG680HH004
R1613	CHIP RES.(1005) 1/16W J 100 Ω	RRXG101HH004
R1614	RES CHIP 1005 1/16W J 12k Ω	RRXG123HH004
R1615	RES CHIP 1005 1/16W J 12k Ω	RRXG123HH004
R1618	RES CHIP 1005 1/16W J 12k Ω	RRXG123HH004
R1619	RES CHIP 1005 1/16W J 150 Ω	RRXG151HH004
R1620	RES CHIP 1005 1/16W J 150 Ω	RRXG151HH004
R1621	RES CHIP 1005 1/16W J 150 Ω	RRXG151HH004
R1622	RES CHIP 1005 1/16W J 330k Ω	RRXG334HH004
R1624	RES WIREWOUND 2W F 0.011 Ω	RH11M0PAK002
R1626	CHIP RES.(1005) 1/16W J 2.2k Ω	RRXG222HH004
R1627	CHIP RES.(1005) 1/16W J 2.2k Ω	RRXG222HH004
R1628	RES CHIP 1005 1/16W J 4.7 Ω	RRXG4R7HH004
R1629	RES CHIP 1005 1/16W J 180 Ω	RRXG181HH004
R1630	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1631	RES CHIP 1005 1/16W J 18k Ω	RRXG183HH004
R1632	CHIP RES.(1005) 1/16W J 100 Ω	RRXG101HH004
R1633	CHIP RES.(1005) 1/16W J 100 Ω	RRXG101HH004
R1635	CHIP RES.(1005) 1/16W J 100 Ω	RRXG101HH004
R1636	CHIP RES.(1005) 1/16W J 100 Ω	RRXG101HH004
R1701	CHIP RES.(1005) 1/16W J 22 Ω	RRXG220HH004
R1702	CHIP RES.(1005) 1/16W J 22 Ω	RRXG220HH004
R1703	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R1704	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R1705	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R1706	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R1707	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1708	CHIP RES.(1005) 1/16W J 22 Ω	RRXG220HH004
R1709	CHIP RES.(1005) 1/16W J 22 Ω	RRXG220HH004
R1710	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R1711	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R1712	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R1713	CHIP RES.(1005) 1/16W J 2.7k Ω	RRXG272HH004
R1714	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1715	CHIP RES.(1005) 1/16W J 22 Ω	RRXG220HH004
R1716	CHIP RES.(1005) 1/16W J 22 Ω	RRXG220HH004
R1717	CHIP RES.(1005) 1/16W J 22 Ω	RRXG220HH004
R1718	CHIP RES.(1005) 1/16W J 22 Ω	RRXG220HH004
	MISCELLANEOUS	
B19C	HEAT SINK PNH A0CN6EP	HK1EM329979A
B19E	HEAT SINK PNH A0CN6EP	HK1EM329979A
B19F	HEAT SINK PNH A0CN6EP	HK1EM329979A
B19G	HEAT SINK PNH A0CN6EP	HK1EM329979A
B19H	HEAT SINK PNH A0CN6EP	HK1EM329979A
B19I	HEAT SINK PNH A0CN6EP	HK1EM329979A
B19J	HEAT SINK EAY ASSEMBLY A61R2UH	HK2EMZ00511
B19K	HEAT SINK EAY ASSEMBLY A61R2UH	HK2EMZ00511
B19B	HEAT SINK EAZ ASSEMBLY A621AJH	HK2EMZ00832
BC601	BEAD INDUCTORS B29 RID 2.3X7.5X7.5T	LLEF0S0XM002

Ref. No.	Description	Part No.
BC1601	BEAD INDUCTORS B29 RID 2.3X7.5X7.5T	LLEF0S0XM002
BC1602	BEAD INDUCTORS B29 RID 2.3X7.5X7.5T	LLEF0S0XM002
BC1702	BEAD INDUCTORS B29 RID 2.3X7.5X7.5T	LLEF0S0XM002
F601⚠	FUSE TIME LAG 2010T4.0A1	PDG21B0W3402
GP002	EARTH PLATE A31FBUT	1EM440258
GP003	EARTH PLATE A31FBUT	1EM440258
GP004	EARTH PLATE A31FBUT	1EM440258
GP005	EARTH PLATE A31FBUT	1EM440258
JS1001	WIRE CP CP0.56	XZ40F0XRC001
JS1002	WIRE CP CP0.56	XZ40F0XRC001
JS1701	WIRE CP CP0.56	XZ40F0XRC001
JS1702	WIRE CP CP0.56	XZ40F0XRC001
L35	SCREW BIND 3CHROM +B-TITE M3X8.0 D3X8 BIND HEAD+	GBJB3080
SA601⚠	VARISTOR 10D 471K SVR	NVQZVR10D471
T601⚠	TRANS POWER BCK-32FR	LTT3PCMEK053
T1701⚠	TRANS POWER BCK-1689	LTT1PCMEK007
T1702⚠	TRANS RESONANT SRV4214EE-PA400K8202	LTZ4PC0TE010
TH601	NEGA THERMISTOR SPNL15D010MBID	NMQZL15D010M

TYPE B

PARTS LIST [75PFL4864/F7 (Serial No.: XA1)]

Mechanical Parts

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

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

Different parts from the original model TYPE A 75PFL5704/F7 (Serial No. : XA1)

Ref. No.	Description	Part No.
A7	(80302-03093)FUNCTION KNOB ACG9YUA-75UB	2EMM01901
A13	Not used	
CLB651	FFC WIRE ASSEMBLY 27PIN 27PIN/FFC/ WHITE	WX1ACG9YB101
CLB3103	Not used	
CLB3104	WIRE ASSEMBLY 5PIN 5PIN&6PIN/AWG28	WX1ACG9YB301
CLB3105	Not used	
CLB3601	FFC WIRE ASSEMBLY 23PIN 23PIN/FFC/ WHITE	WX1ACG9YB201
CLB3702	WIRE ASSEMBLY 7PIN 7PIN&4PIN/AWG28	WX1ACG9YB401
CLB3901	FFC WIRE ASSEMBLY 51PIN 51PIN/FFC/ WHITE	WX1ACG9YB501
LB-5	Not used	
RA001	(80301-03730)REAR COVER ASSEMBLY ACG9YUA-75UB	2EMA00243
SPB801	SPEAKER MAGNETIC 8Ω/10W 60803-01225	DS0814BEG002
WF301	WIRELESS MODULE U9W31UT	U9W31UT
S001	(90202-3379S)CARTON TOP ACG9YUA-75UB	2EMC02289
X3	REMOTE CONTROL UNIT 1.01018E+101	URMT21CND015
X6	(90101-2383S)QUICK START GUIDE ACG9YUA-75UB	2EMN01009
X19⚠	(90111-1704S)SAFETY WARRANTY SHEET ACG9YUA-75UB	2EMN01011
X28	(90111-1705S)CAUTION SHEET ACG9YUA-75UB	2EMN01010

Electrical Parts

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

NOTES:

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%

Different parts from the original model TYPE A 75PFL5704/F7 (Serial No. : XA1)

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACG9ZMMA-001
CN3101	Not used	
IC3001	IC MSDURN1801TR MSDURN1801T-R-00HH	NSAA0RMST022
IC3101	Not used	
IC3103	Not used	
IC3105	Not used	
IC3201	IC RESET PST894A290UL	QA2R9T0MM015
IC3301	IC NAND FLASH 4GB TC58NVG2S0HBAI4	QSCA0R0TS181
IC3302	Not used	
IC3601	IC DC-DC CONVERTER MP2329GG-Z	NSCA0T09M053
IC3602	IC DC-DC CONVERTER MP1658GTF-Z	NSCA0T09M048
IC3603	IC DC-DC CONVERTER MP1613GTL-Z	NSCA0T09M055
IC3604	IC DC-DC CONVERTER MP1612GTL-Z	NSCA0T09M054
IC3605	IC DC-DC CONVERTER MP1654GTF-Z	NSCA0T09M042
IC3606	Not used	
IC3607	IC REGULATOR BD00IC0WHFV-GTR	QAADJ00RM003
IC3608	Not used	
IC3609	Not used	
IC3702	IC HIGH SIDE SW BD2222G-GTR	QSCA0T0RM449
IC3801	IC LINE DRIVER AD22653B-QH14NAR	NSCA0T0E1032
IC3802	IC D-CLASS AUDIO POWER AMPLIFI TAS5751MDCAR	NSCA0T0TY173
IC3401	IC 2GB DDR3 SDRAM K4B2G1646F-BCNB	NSCA0R0SM066
IC3402	IC 2GB DDR3 SDRAM K4B2G1646F-BCNB	NSCA0R0SM066
IC3401	IC 2GB DDR3 SDRAM H5TQ2G63GFR-TEC	NSCA0R0HY052
IC3402	IC 2GB DDR3 SDRAM H5TQ2G63GFR-TEC	NSCA0R0HY052
IC3401	IC 2GB DDR3 SDRAM NT5CB128M16JR-FL	NSCA0R0J2033
IC3402	IC 2GB DDR3 SDRAM NT5CB128M16JR-FL	NSCA0R0J2033
	RELAY CBA UNIT	ACG9ZM1F-001
	FUNCTION CBA UNIT	Not used
	IR SENSOR CBA UNIT	UPB000BEG015
	POWER SUPPLY CBA	ACG9ZMPW-001

REVISION HISTORY

Chassis PL19.29

- 2019/12/11 75PFL5704/F7 (Serial No.: XA1) First draft added
- 2019/12/11 75PFL4864/F7 (Serial No.: XA1) First draft added

COMPARISON LIST OF MODEL NAMES

Chassis PL19.29

75PFL5704/F7	(XA1)	ACG9GUA-75UB	TYPE A
75PFL4864/F7	(XA1)	ACG9YUA-75UB	TYPE B