PHILIPS

32” LCD TV
chassis PL19.00

Service Manual

Contents

TYPE A

32PFL4664/F7	PHILIPS	(Serial No.: ME1)
32PFL4664/F7 A	PHILIPS	(Serial No.: ME9)

TYPE B

32PFL4664/F7	PHILIPS	(Serial No.: ME3, ME7)

TYPE C

32PFL4664/F7	PHILIPS	(Serial No.: ME2, ME4, ME6)
32PFL4764/F7	PHILIPS	(Serial No.: ME1)

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

200116

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.

TABLE OF CONTENTS

SPECIFICATIONS

< 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.31 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	1366 768	--- ---
2. Brightness (w / filter)	---	cd/m^2	150	---
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 (40/70IRE) 1080i@60 Measurement point: Screen center Measuring instrument: Made of KONICA MINOLTA Luminance meter CA-310 Aging time: 60min. (Retail (Shop) MODE-Warm / 100IRE Raster HDMI 1080i@60) MODE setting of TV: Shipment setting / Retail (Shop) 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.

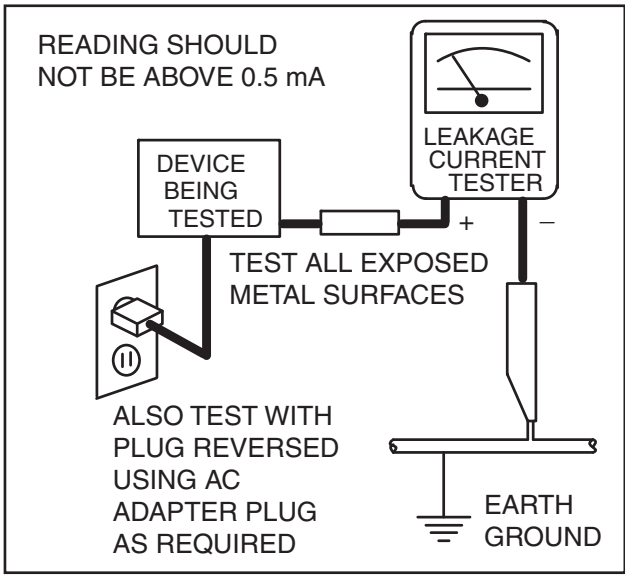
Description	Condition	Unit	Nominal	Limit
1. Audio MAX Output (ATSC 0dBfs)	Lch/Rch	W	8.0/8.0	7.0/7.0
2. Audio Distortion (NTSC)	500mW: Lch/Rch	%	0.5/0.5	3.0/3.0

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.

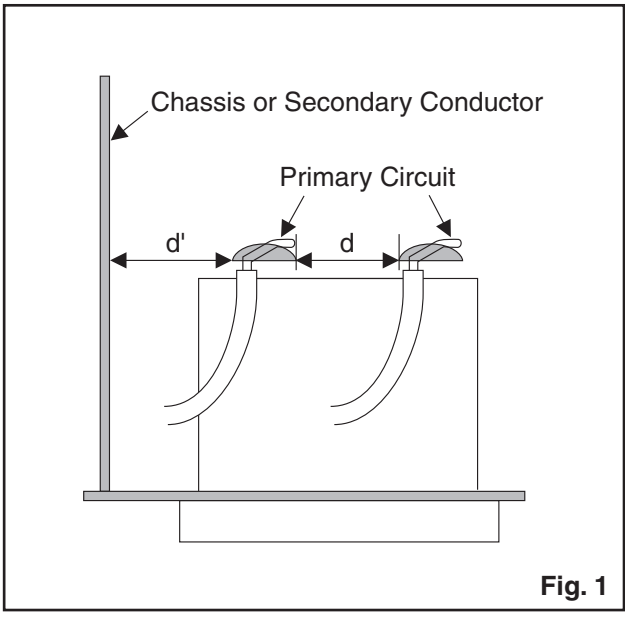


Fig. 1

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.

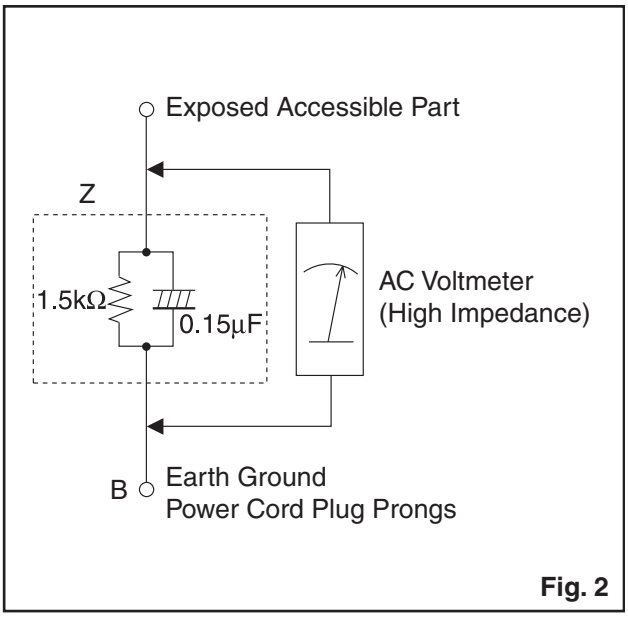


Fig. 2

Table 2: Leakage current ratings for selected areas

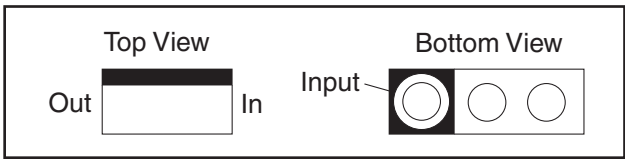
AC Line Voltage	Region	Load Z	Leakage Current (i)	Earth Ground (B) to:
110 to 130 V	U.S.A. or Canada	0.15 μF CAP. & 1.5 kΩ RES. Connected in parallel	i ≤ 0.5 mA rms	Exposed accessible parts

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

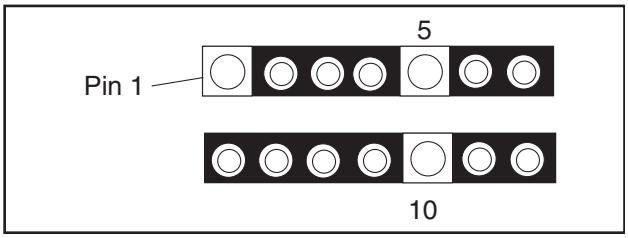
STANDARD NOTES FOR SERVICING

Circuit Board Indications

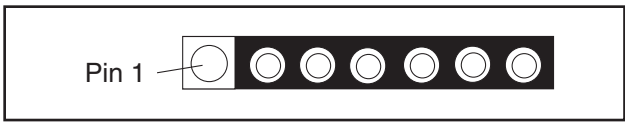
1. The output pin of the 3 pin Regulator ICs is indicated as shown.



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

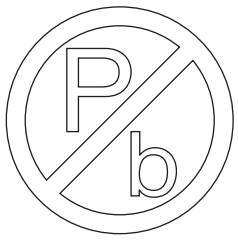


3. The 1st pin of every male connector is indicated as shown.



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)

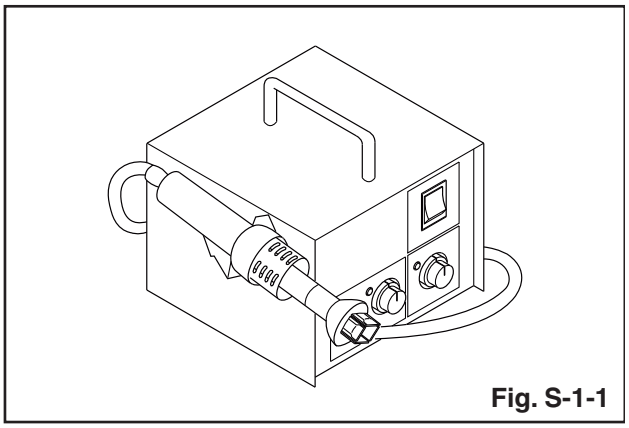


Fig. S-1-1

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.

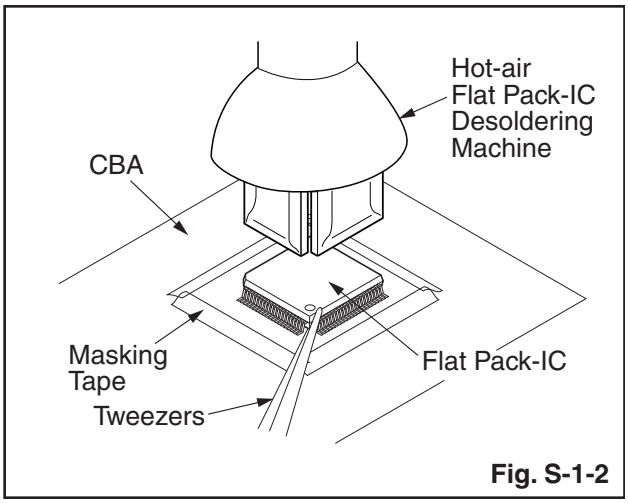


Fig. S-1-2

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)

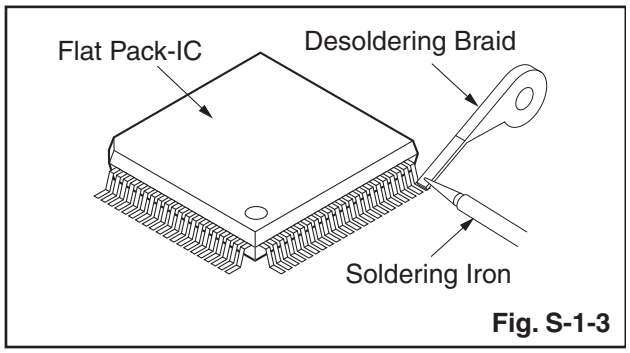


Fig. S-1-3

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)

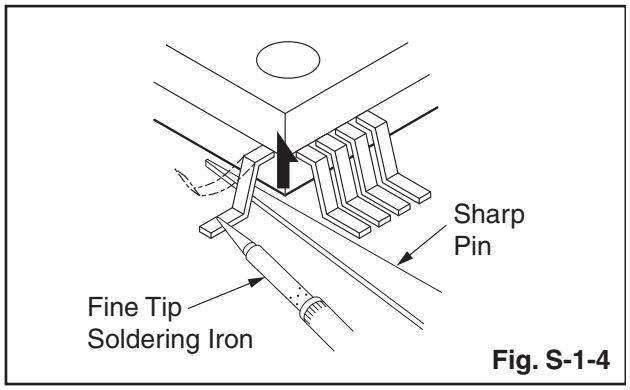


Fig. S-1-4

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.

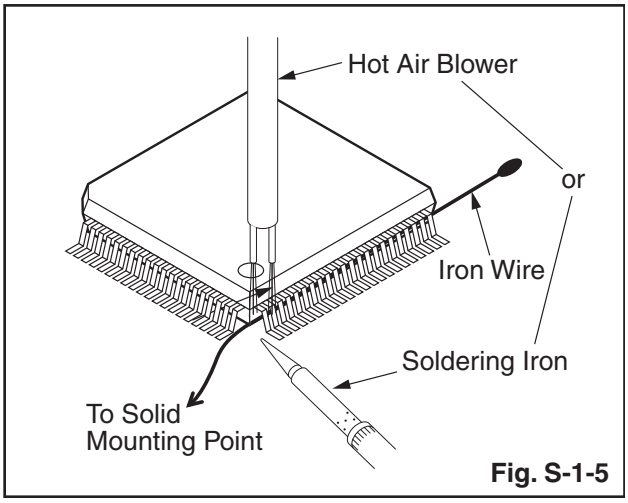


Fig. S-1-5

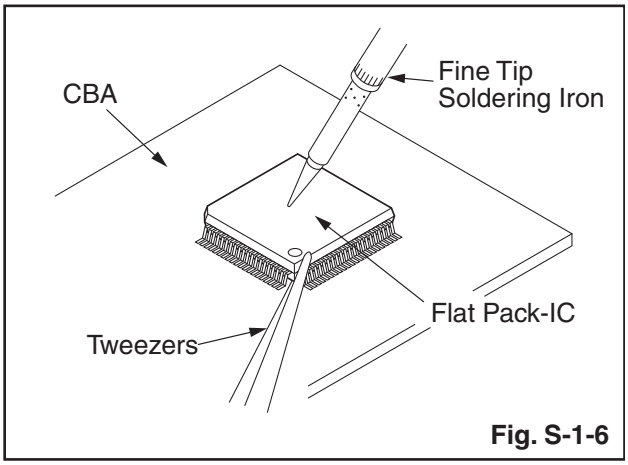


Fig. S-1-6

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.

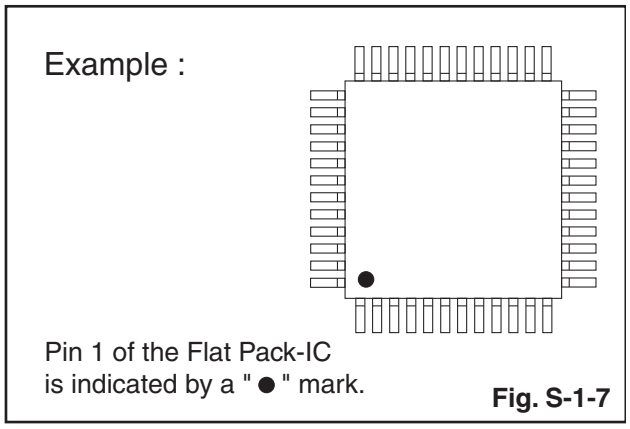


Fig. S-1-7

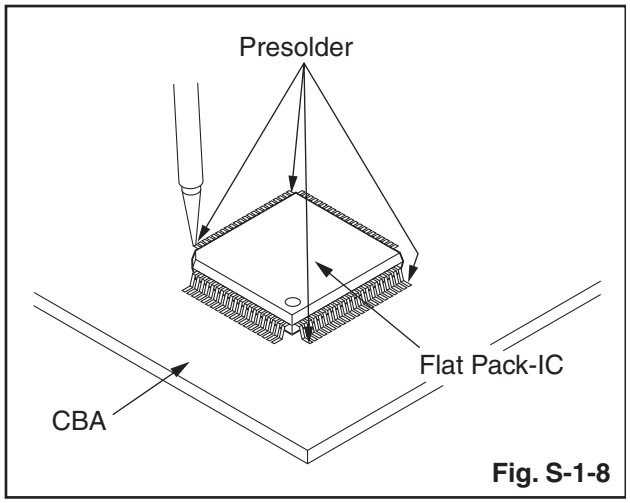


Fig. S-1-8

Instructions for Handling Semi-conductors

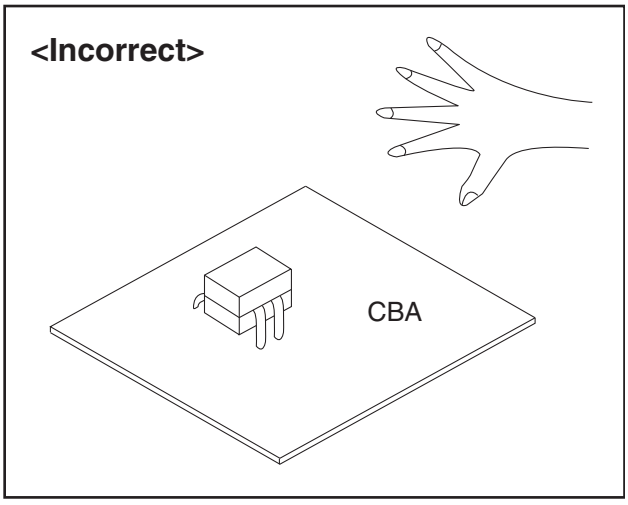
Electrostatic breakdown of the semi-conductors may occur due to a potential difference caused by electrostatic charge during unpacking or repair work.

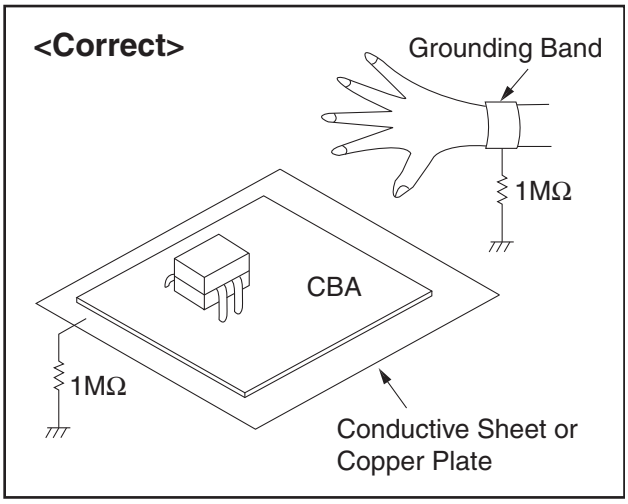
1. Ground for Human Body

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

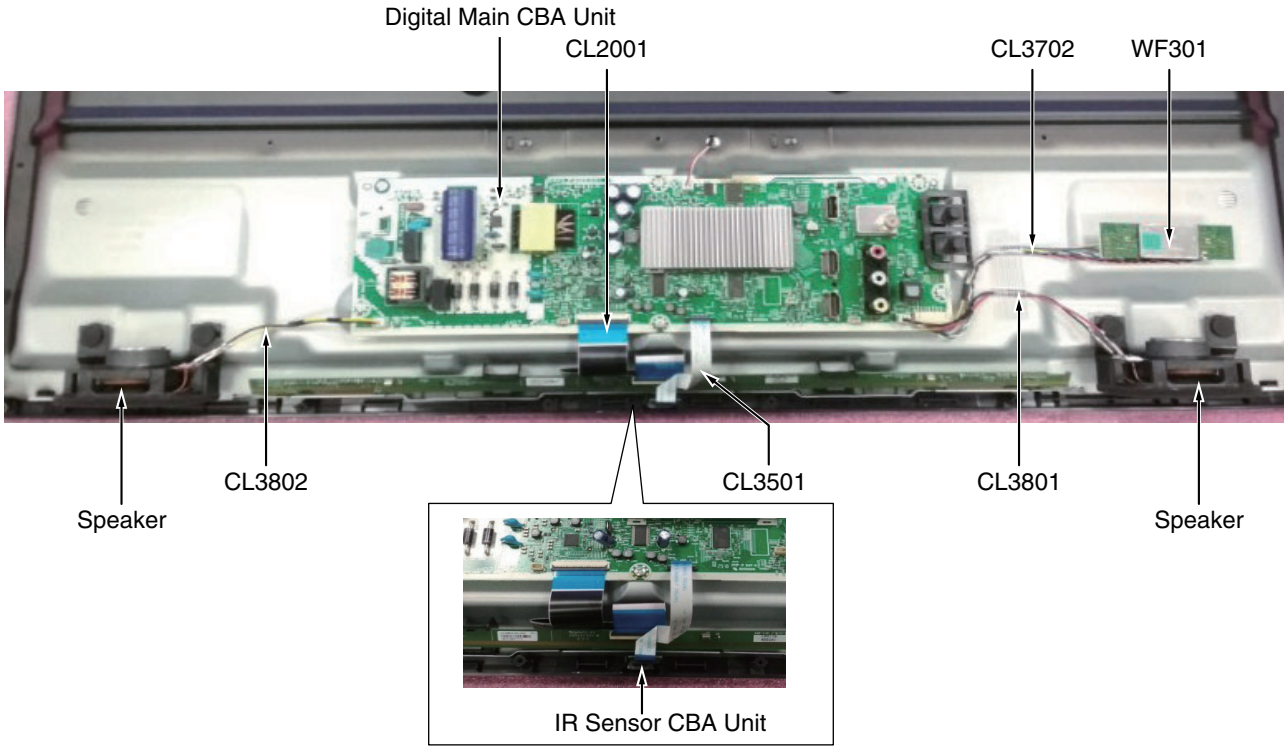
Be sure to place a conductive sheet or copper plate with proper grounding (1 MΩ) on the workbench or other surface, where the semi-conductors are to be placed. Because the static electricity charge on clothing will not escape through the body grounding band, be careful to avoid contacting semi-conductors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





CABINET DISASSEMBLY INSTRUCTIONS

[TYPE A, C]



Ref.No.	Description	Part Number	Type
	Digital Main CBA Unit	ACLFHMMA-004	32PFL4664/F7 (ME1)
	Digital Main CBA Unit	ACLFSMMA-001	32PFL4664/F7 A (ME9)
	Digital Main CBA Unit	ACLFJMMAR005	32PFL4664/F7 (ME2)
	Digital Main CBA Unit	ACLFLMMAR003	32PFL4664/F7 (ME4)
	Digital Main CBA Unit	ACLFPMMAR001	32PFL4664/F7 (ME6)
	Digital Main CBA Unit	ACLFMMMAR002	32PFL4764/F7 (ME1)
	IR Sensor CBA Unit	ACLFBMJC-001	
CL2001	FFC WIRE ASSEMBLY 50PIN 50P/FFC/185MM	WX1ACLFAT101	
CL3501	FFC WIRE ASSEMBLY 9PIN 9P/FFC/100MM	WX1ACLFAT211	
CL3702	WIRE ASSEMBLY 7PIN 7PIN/125MM&185MM	WX1ACLFAC411	
CL3801	WIRE ASSEMBLY 2PIN 2PIN/120MM	WX1ACLFAC301	
CL3802	WIRE ASSEMBLY 2PIN 2PIN/85MM&90MM	WX1ACLFAC312	
SP3801	SPEAKER MAGNETIC 8OHM/10W BE-DQ4070F-15	DS0806BEL002	32PFL4664/F7 (ME1, ME2, ME4, ME6), 32PFL4764/F7 (ME1)
SP3802	SPEAKER MAGNETIC 8OHM/10W BE-DQ4070F-16	DS0806BEL003	
SP3801	SPEAKER MAGNETIC 8OHM/10W S0407F52A	DS08060XQ011	32PFL4664/F7 A (ME9)
SP3802	SPEAKER MAGNETIC 8OHM/10W S0407F52B	DS08060XQ012	
WF301	WIRELESS MODULE U9W31UT	U9W31UT	32PFL4664/F7 (ME1, ME2, ME4), 32PFL4664/F7 A (ME9), 32PFL4764/F7 (ME1)
	WIRELESS LAN MODULE ETWFFTBC01	UWLMDL0GS005	32PFL4664/F7 (ME6)

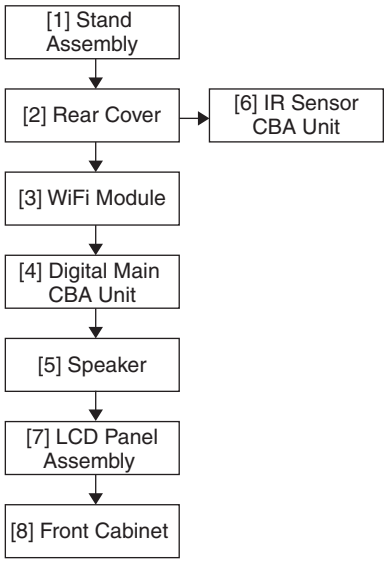
Screw Torque Specification

Ref. No.	Part Number	Part Name	ID. No.	Tightening Torque
L010	GCHP3120	SCREW F-PAN BLACK_NI +P-TITE M3X12.0 3X12 WASHER HEAD+BLK	S-2	5.6±0.9lb·in
L023	GBJS3060	SCREW BIND 3CHROM +S-TITE M3X6.0 M3X6 BIND HEAD+	S-5	
L028	GCHS3080	SCREW F-PAN BLACK_NI +S-TITE M3X8.0 3X8 WASHER HEAD+BLAC	S-3	
L149	2EML00060	SCREW F-PAN BLACK_NI +P-TITE M3X7.5 3X7.5WASHER HEAD+BLK	S-4	
L147	2EML00056	ASSEMBLED SCREW (D6.4 2.6X6 BIT2) ACLF0UT-32HS	S-6	3.5±0.4lb·in
SSK1	2ESA06068	STAND SCREW KIT ACLFBUT-32HL(SCREW BIND BLACK_NI +P-TITE M4X18.0 M4X18 BIND HEAD+)	S-1	(approx. 8.7±0.9lb·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	2(S-1)	---
[2]	Rear Cover	D1 W1	2(S-2), 3(S-3), 8(S-4), CN601, AC Cord Cover, AC Cord	---
[3]	WiFi Module	D2	CN3702, Cushion	---
[4]	Digital Main CBA Unit	D2 W1	6(S-5), CN1001, CN2001, CN3501, CN3801, CN3802, Function Knob	---
[5]	Speaker	D3	----------	---
[6]	IR Sensor CBA Unit	D3 W1	Sensor Lens, Sensor Shield	2
[7]	LCD Panel Assembly	D4	7(S-6)	1
[8]	Front Cabinet	D4	Cell Cushion	2, 3
	↓ (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 Sensor Shield, Sensor Lens and IR Sensor CBA Unit are securely in place when re-assembling.

3. When you disassemble/re-assemble the Front Cabinet.

- Be careful not to break the hook. If you pull with too much force, the hooks may be damaged.
- Make sure to replace the Cell Cushion to a new one when replacing the Front Cabinet.

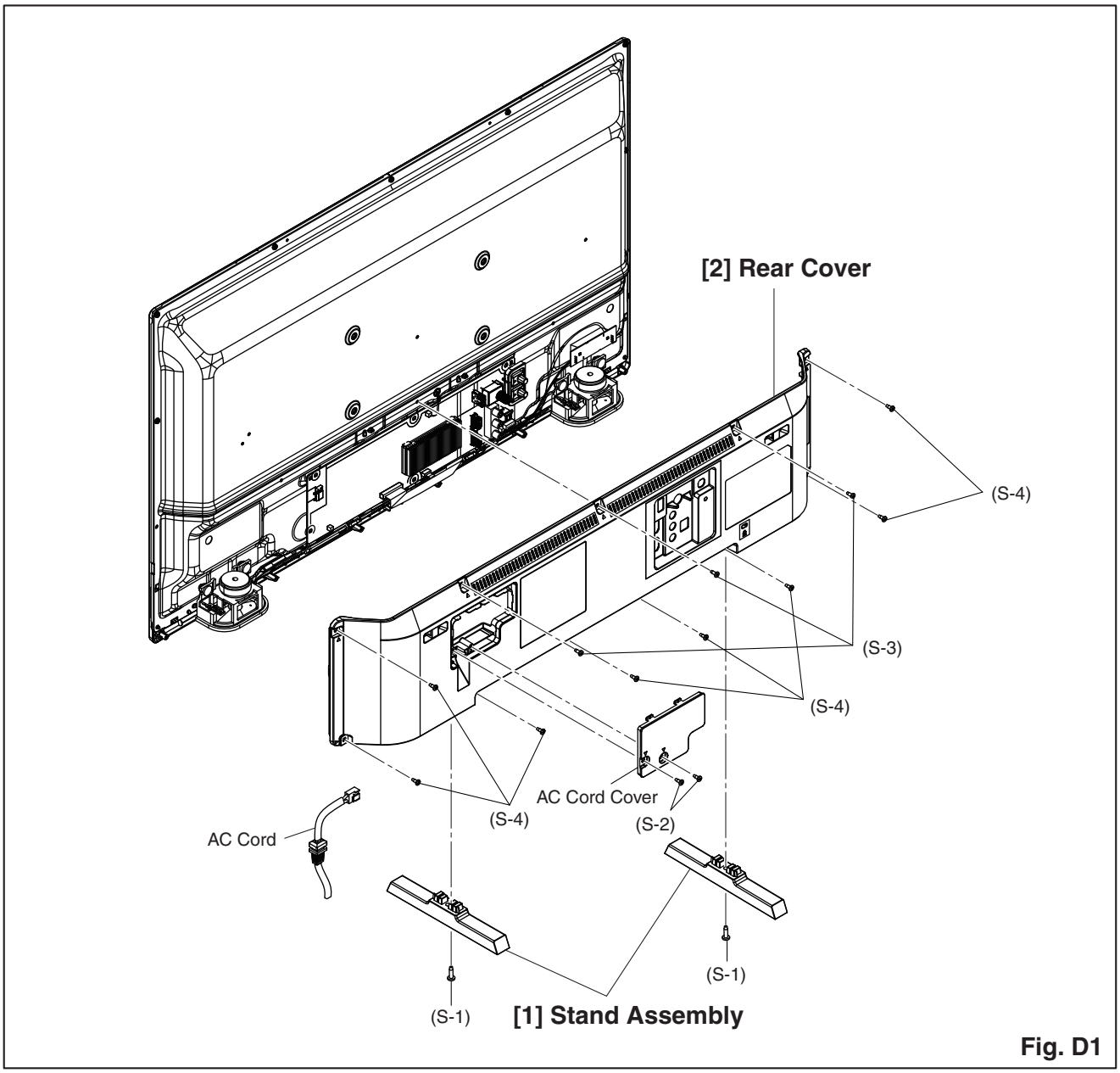

[2] Rear Cover
(S-4)
(S-3)
(S-4)
AC Cord Cover
(S-4)
(S-2)
AC Cord
(S-1)
(S-1)
[1] Stand Assembly

Fig. D1

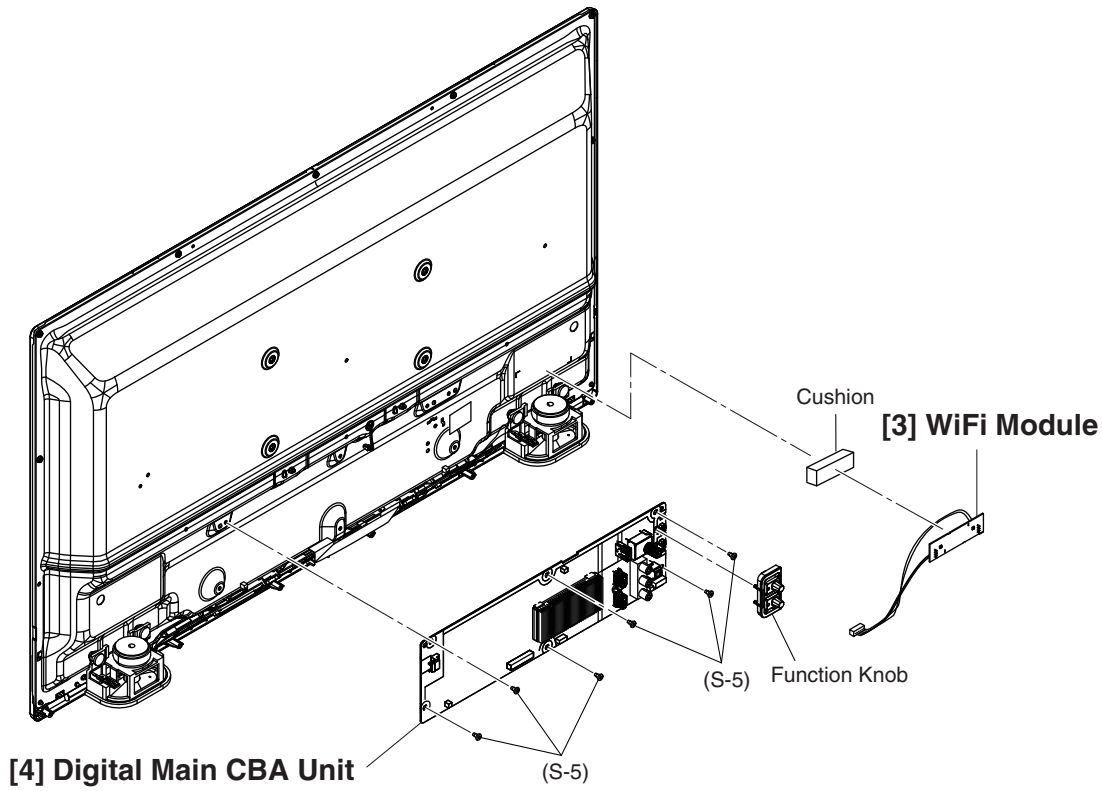

Cushion
[3] WiFi Module
(S-5)
Function Knob
[4] Digital Main CBA Unit
(S-5)

Fig. D2

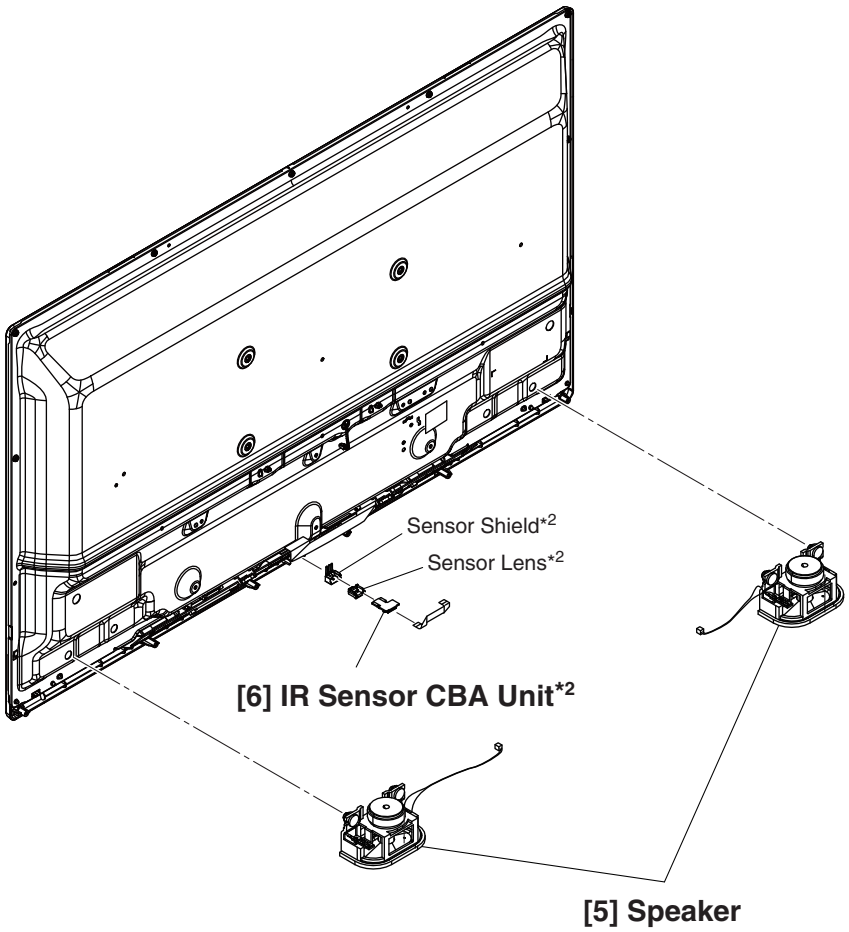


Fig. D3

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

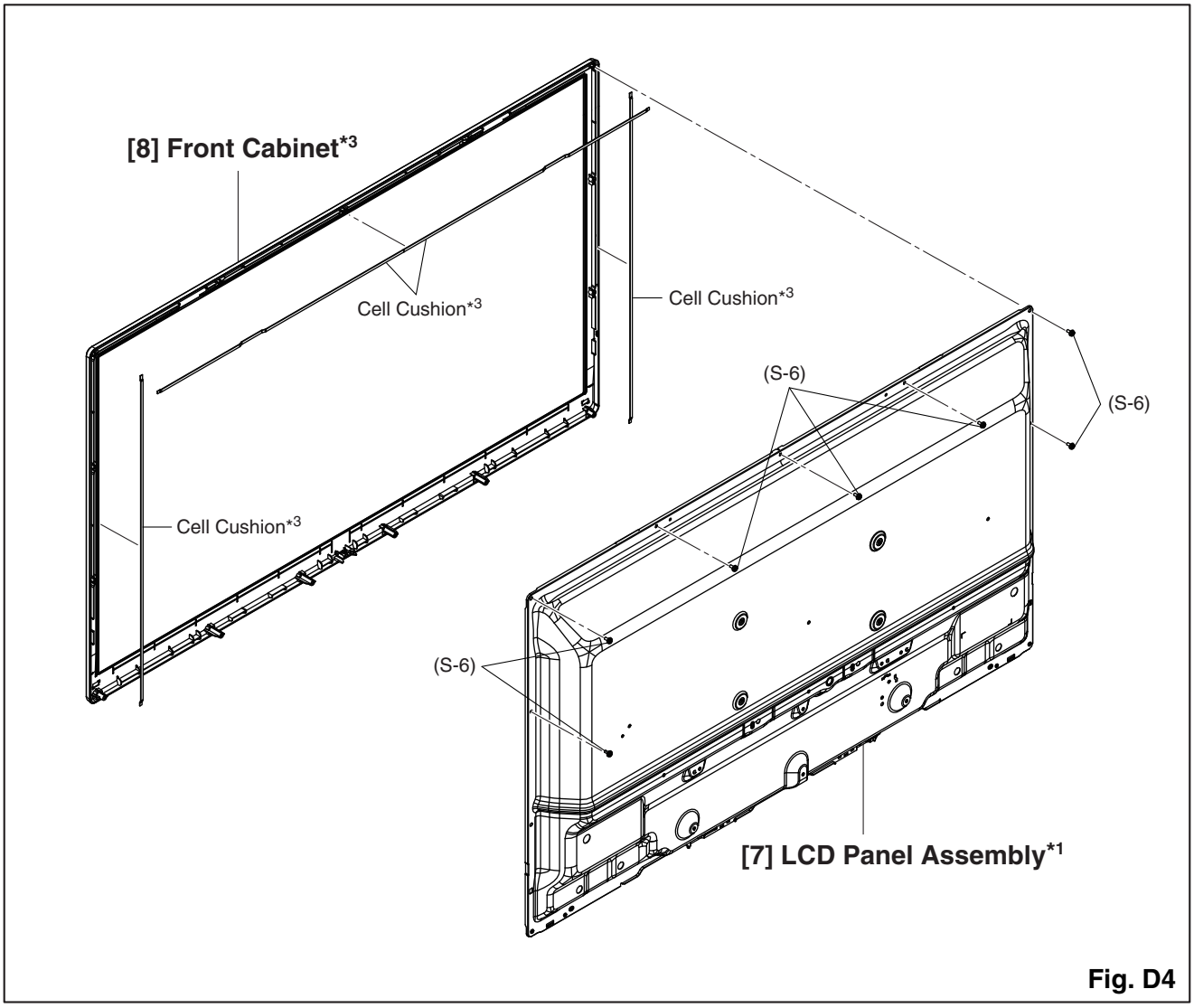


Fig. D4

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

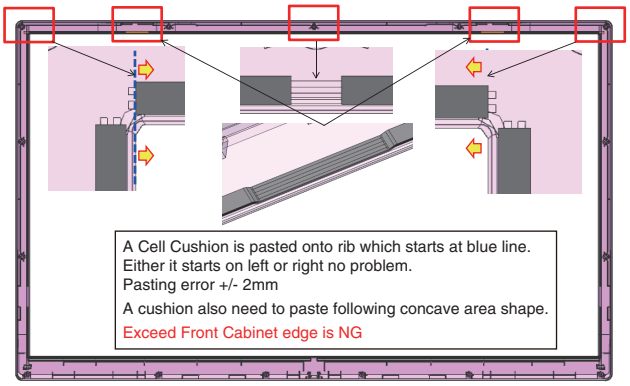
***3: Make sure to read all the precautions on page 4-3 when you disassemble/re-assemble the Front Cabinet.**

3. How to Attach Adjunctive Equipment

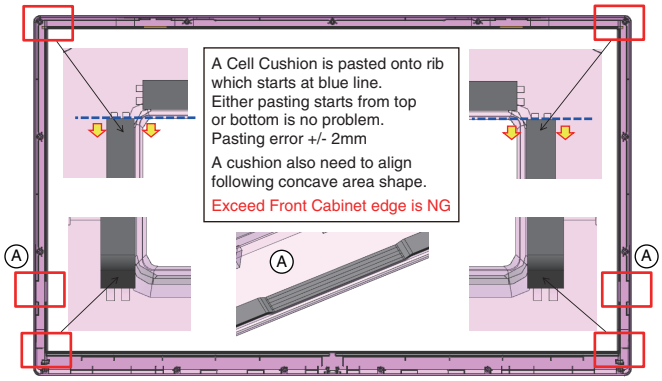
There are no Cell Cushion, etc. attached on the new Front Cabinet to be replaced with.

Apply adjunctive equipment such as Cell Cushion by consulting the following, then assemble the Front Cabinet.

1. Cell Cushion (Top side)
   Attach the Cell Cushion on the top side of the Front Cabinet.

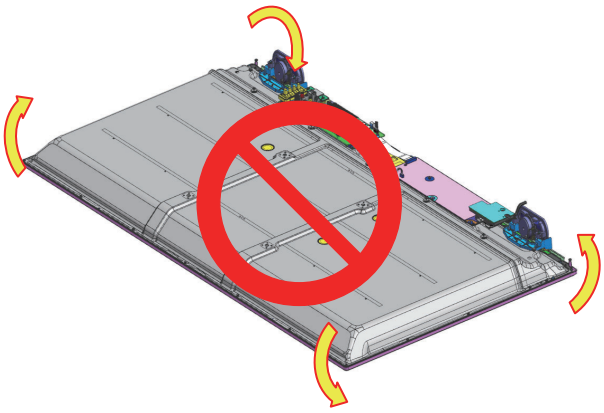


2. Cell Cushion (Left/ Right)
   Attach the Cell Cushion on the left and right side of the Front Cabinet.



CAUTION

When turning over, do not twist the LCD panel before tightening all screws on the front cabinet.



TV Cable Wiring Diagram

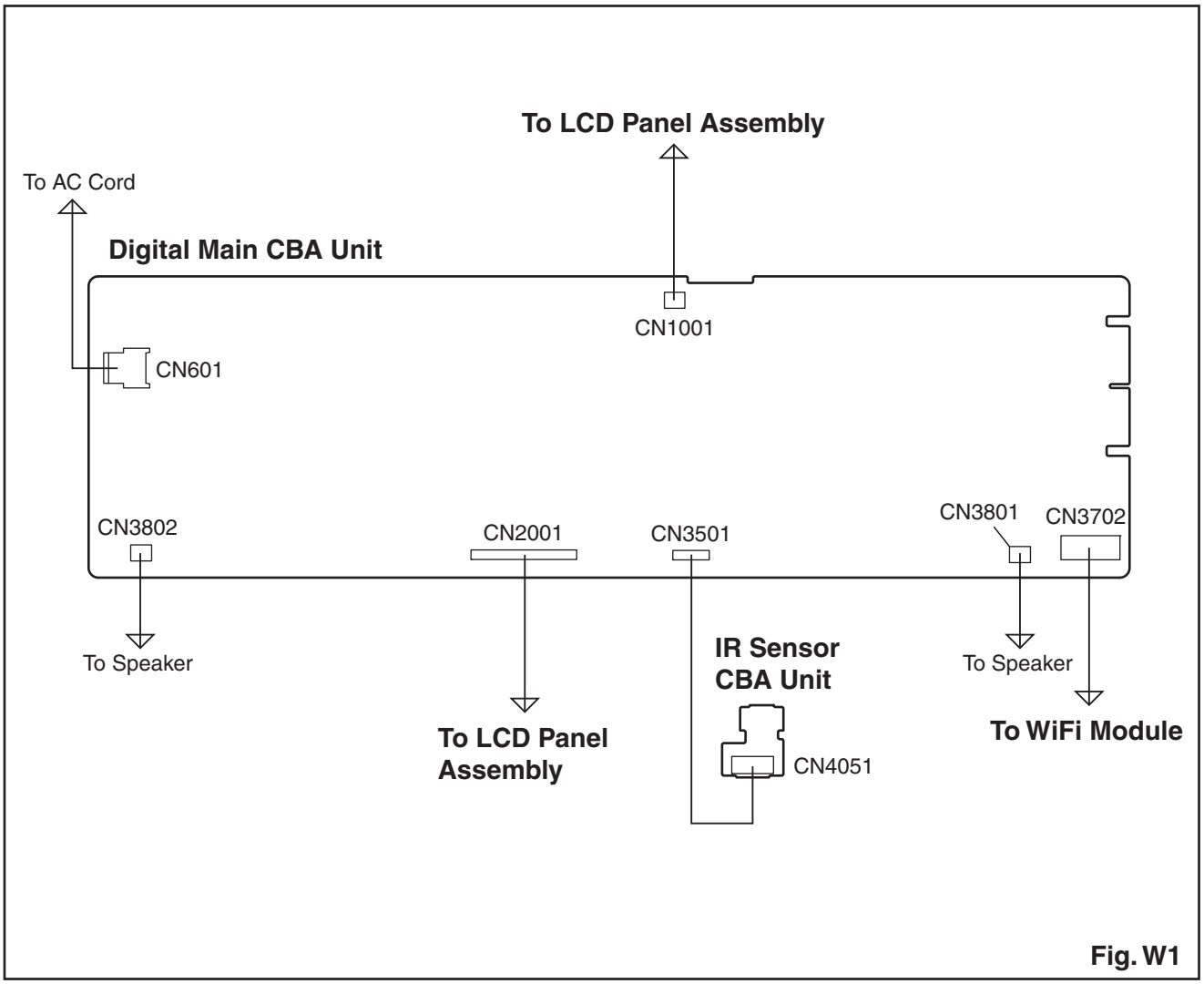
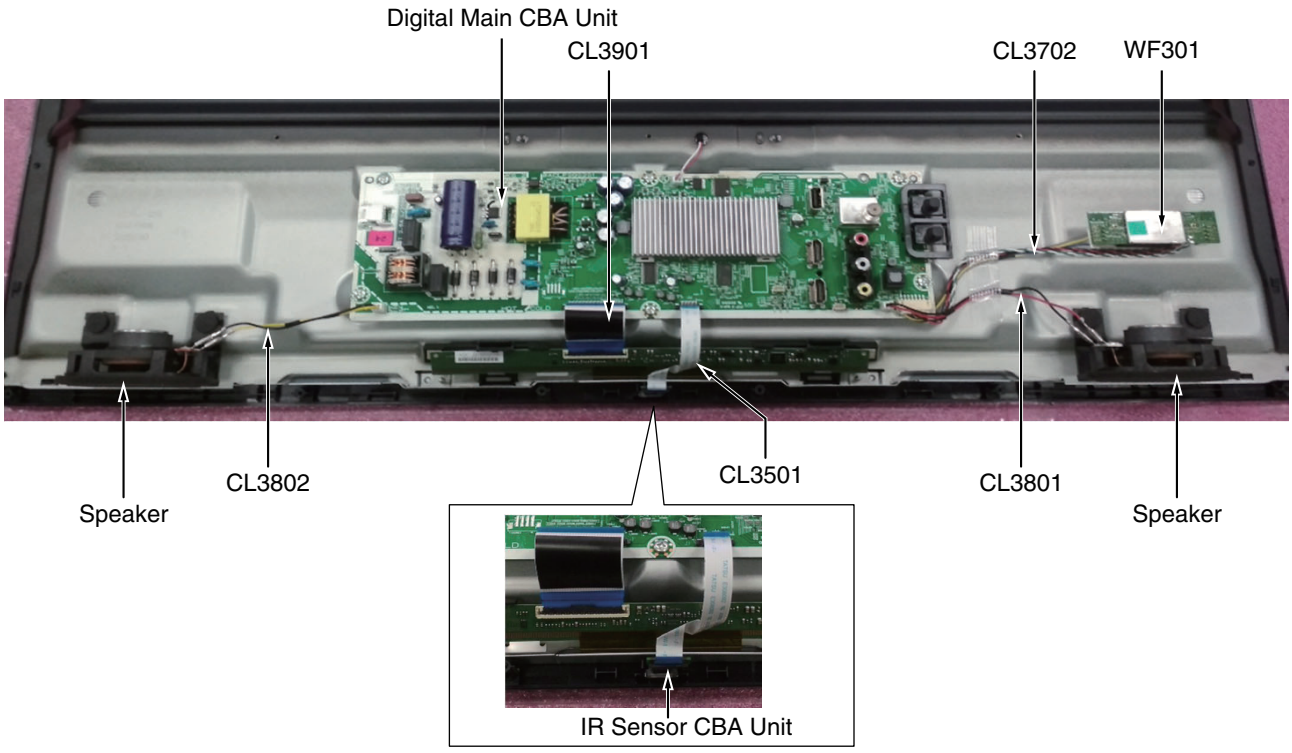


Fig. W1

[TYPE B]



Ref.No.	Description	Part Number	Type
	Digital Main CBA Unit	ACLFGMMAR006	32PFL4664/F7 (ME3)
	Digital Main CBA Unit	ACLFNMMAR001	32PFL4664/F7 (ME7)
	IR Sensor CBA Unit	ACLFBMJC-001	
CL3501	FFC WIRE ASSEMBLY 9PIN 9P/FFC/100MM	WX1ACLFAT211	
CL3702	WIRE ASSEMBLY 7PIN 7PIN/125MM&185MM	WX1ACLFAC411	
CL3801	WIRE ASSEMBLY 2PIN 2PIN/120MM	WX1ACLFAC301	
CL3802	WIRE ASSEMBLY 2PIN 2PIN/85MM&90MM	WX1ACLFAC312	
CL3901	FFC WIRE ASSEMBLY 30PIN 30P/FFC/58MM	WX1ACLF0C111	
SP3801	SPEAKER MAGNETIC 8OHM/10W BE-DQ4070F-15	DS0806BEL002	
SP3802	SPEAKER MAGNETIC 8OHM/10W BE-DQ4070F-16	DS0806BEL003	
WF301	WIRELESS MODULE U9W31UT	U9W31UT	32PFL4664/F7 (ME3)
	WIRELESS LAN MODULE ETWFFTBC01	UWLMDL0GS005	32PFL4664/F7 (ME7)

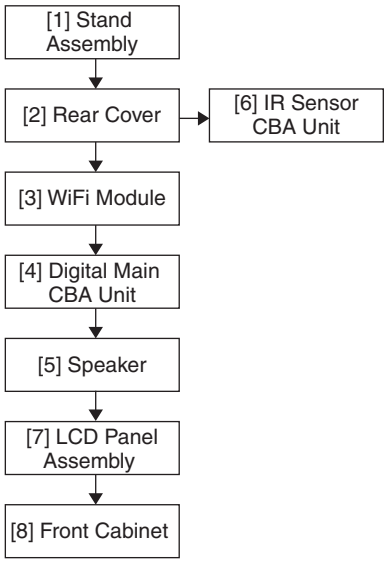
Screw Torque Specification

Ref. No.	Part Number	Part Name	ID. No.	Tightening Torque
L010	GCHP3120	SCREW F-PAN BLACK_NI +P-TITE M3X12.0 3X12 WASHER HEAD+BLK	S-2	5.6±0.9lb·in
L023	GBJS3060	SCREW BIND 3CHROM +S-TITE M3X6.0 M3X6 BIND HEAD+	S-5	
L028	GCHS3080	SCREW F-PAN BLACK_NI +S-TITE M3X8.0 3X8 WASHER HEAD+BLAC	S-3	
L149	2EML00060	SCREW F-PAN BLACK_NI +P-TITE M3X7.5 3X7.5WASHER HEAD+BLK	S-4	
L147	2EML00056	ASSEMBLED SCREW (D6.4 2.6X6 BIT2) ACLF0UT-32HS	S-6	3.5±0.4lb·in
SSK1	2ESA06068	STAND SCREW KIT ACLFBUT-32HL(SCREW BIND BLACK_NI +P-TITE M4X18.0 M4X18 BIND HEAD+)	S-1	(approx. 8.7±0.9lb·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	2(S-1)	---
[2]	Rear Cover	D1 W1	2(S-2), 3(S-3), 8(S-4), CN601, AC Cord Cover, AC Cord	---
[3]	WiFi Module	D2	CN3702, Cushion	---
[4]	Digital Main CBA Unit	D2 W1	6(S-5), CN1001, CN3501, CN3801, CN3802, CN3901, Function Knob	---
[5]	Speaker	D3	----------	---
[6]	IR Sensor CBA Unit	D3 W1	Sensor Lens, Sensor Shield	2
[7]	LCD Panel Assembly	D4	7(S-6)	1
[8]	Front Cabinet	D4	Cell Cushion, Gasket, Grand Tape	2, 3
	↓ (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 Sensor Shield, Sensor Lens and IR Sensor CBA Unit are securely in place when re-assembling.

3. When you disassemble/re-assemble the Front Cabinet.

- Be careful not to break the hook. If you pull with too much force, the hooks may be damaged.
- Make sure to replace the Cell Cushion, Gasket, and Grand Tape to a new one when replacing the Front Cabinet.

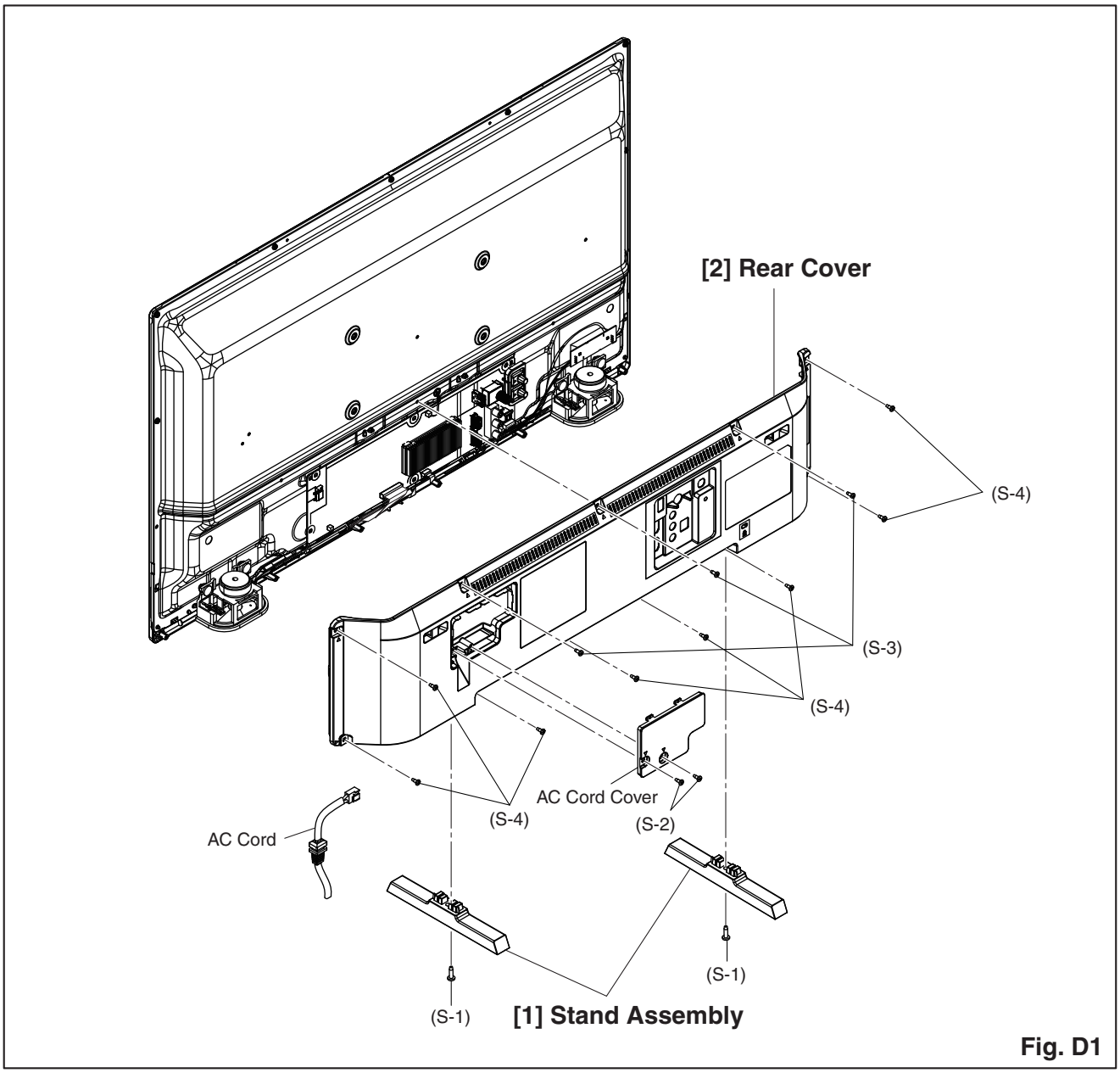

[2] Rear Cover
(S-4)
(S-3)
(S-4)
AC Cord Cover
(S-4)
(S-2)
AC Cord
(S-1)
(S-1)
[1] Stand Assembly

Fig. D1

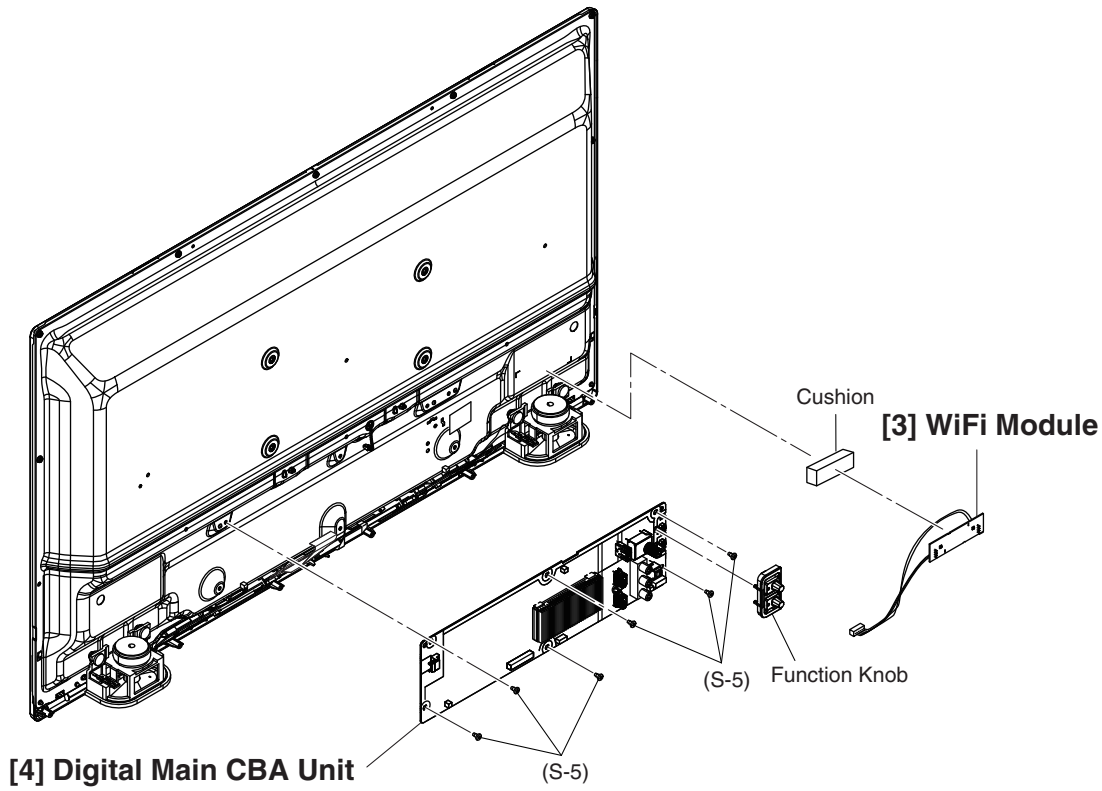

Cushion
[3] WiFi Module
(S-5)
Function Knob
[4] Digital Main CBA Unit
(S-5)

Fig. D2

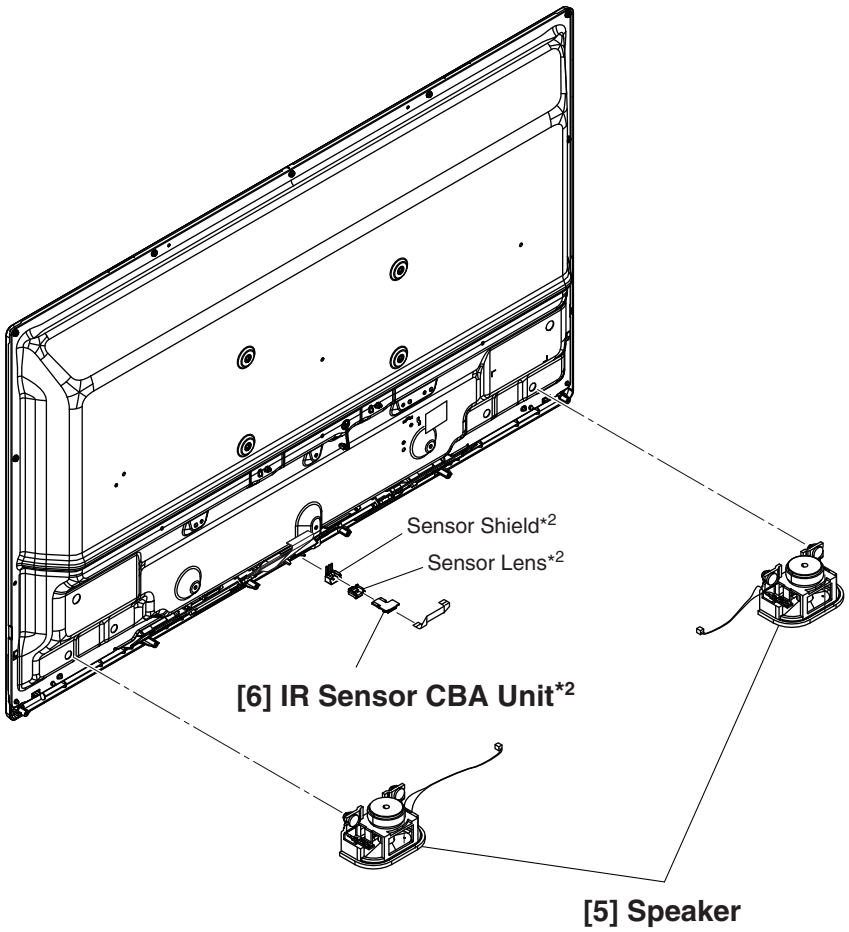


Fig. D3

***2: Make sure to read all the precautions on page 4-12 when you disassemble/re-assemble the IR Sensor CBA Unit.**

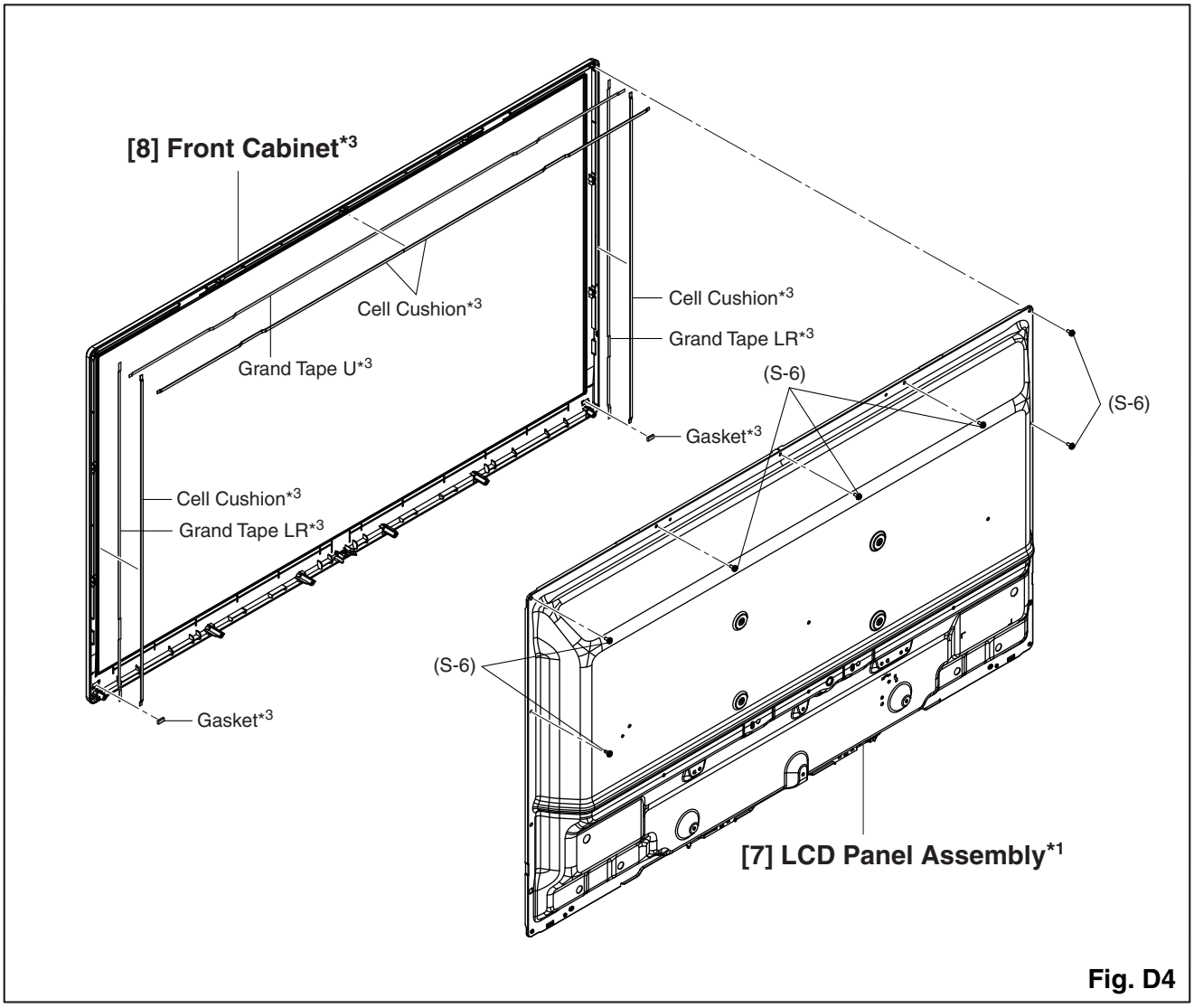


Fig. D4

***1: Make sure to read all the precautions on page 4-12 when you disassemble/re-assemble the LCD Panel Assembly.**

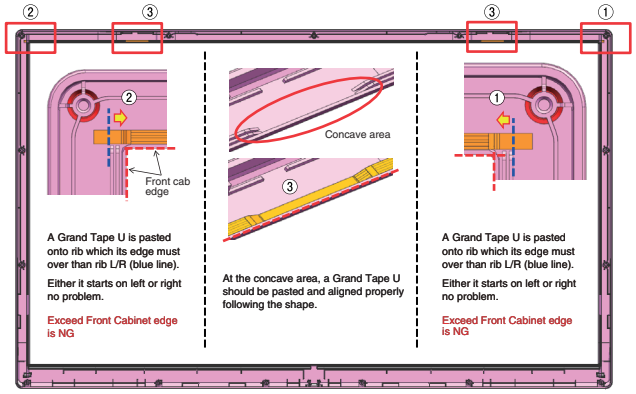
***3: Make sure to read all the precautions on page 4-12 when you disassemble/re-assemble the Front Cabinet.**

3. How to Attach Adjunctive Equipment

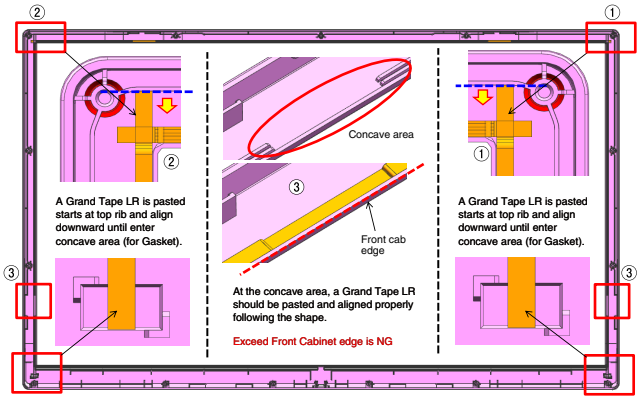
There are no Cell Cushion, etc. attached on the new Front Cabinet to be replaced with.

Apply adjunctive equipment such as Cell Cushion by consulting the following, then assemble the Front Cabinet.

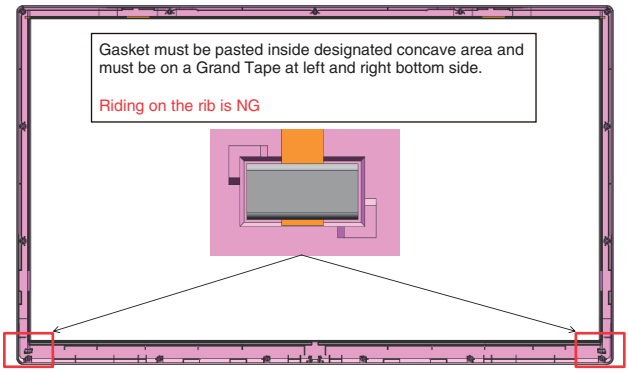
1. Grand Tape (Top side)
   Attach the Grand Tape on the top side of the Front Cabinet.



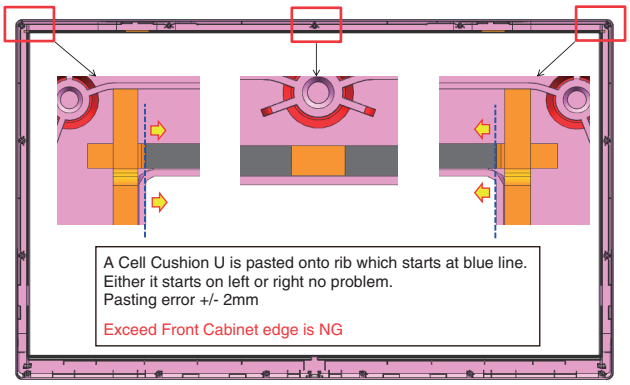
2. Grand Tape (Left/ Right)
   Attach the Grand Tape on the left and right side of the Front Cabinet.



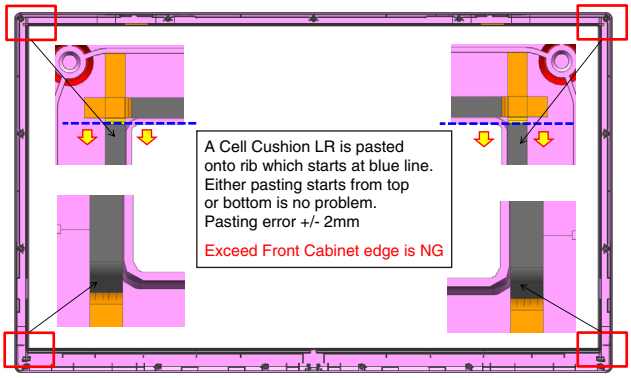
3. Gasket
   Attach the Gasket over the Grand Tape.



4. Cell Cushion (Top side)
   Attach the Cell Cushion over the Grand Tape.

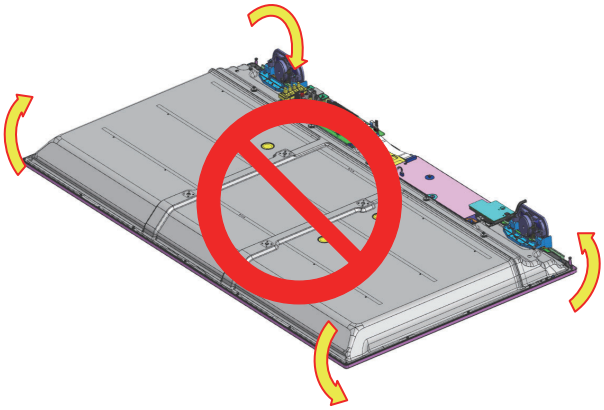


5. Cell Cushion (Left/ Right)
   Attach the Cell Cushion over the Grand Tape.



CAUTION ⚠

When turning over, do not twist the LCD panel before tightening all screws on the front cabinet.



TV Cable Wiring Diagram

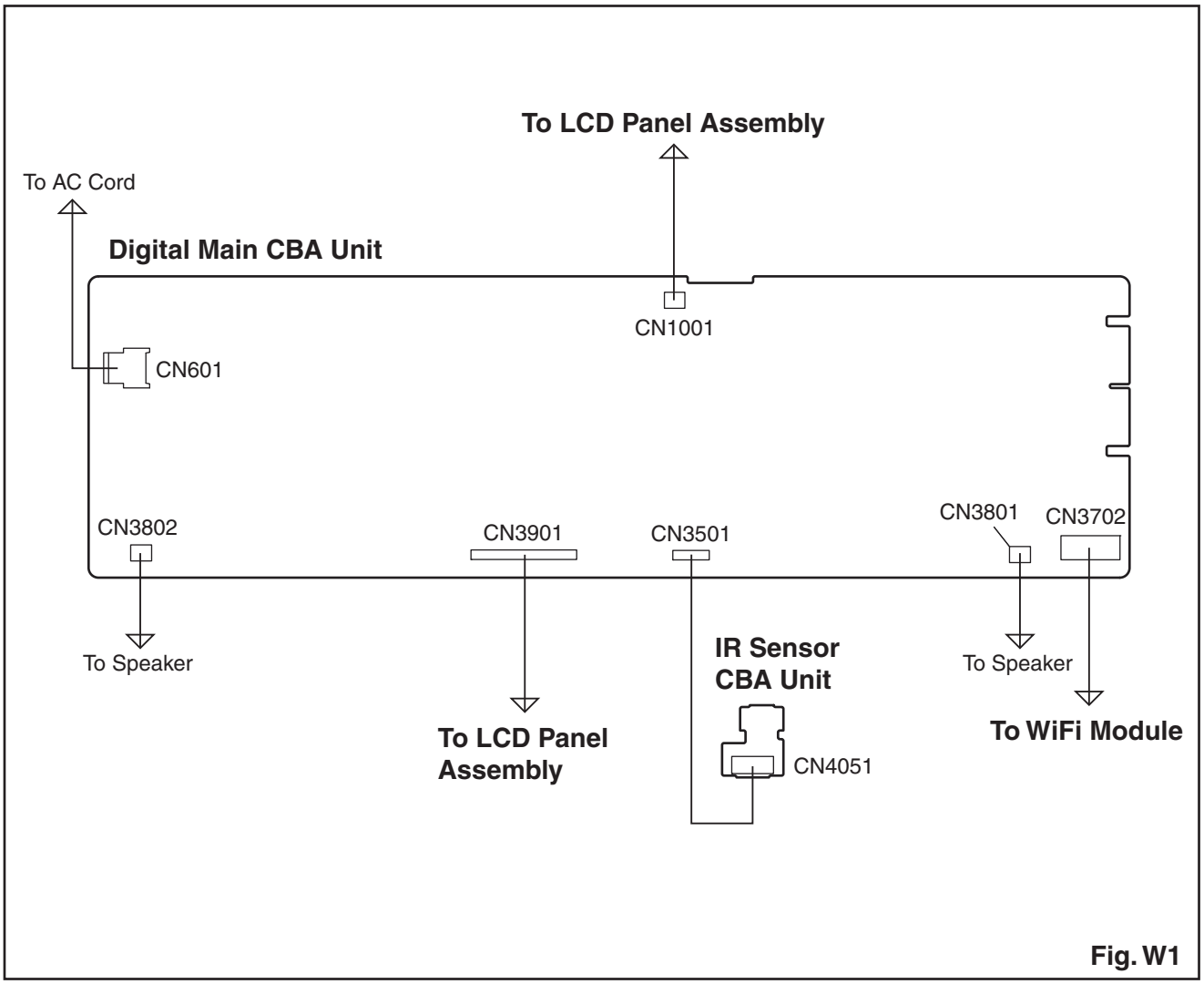


Fig. W1

ELECTRICAL ADJUSTMENT INSTRUCTIONS

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

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

Test Equipment Required

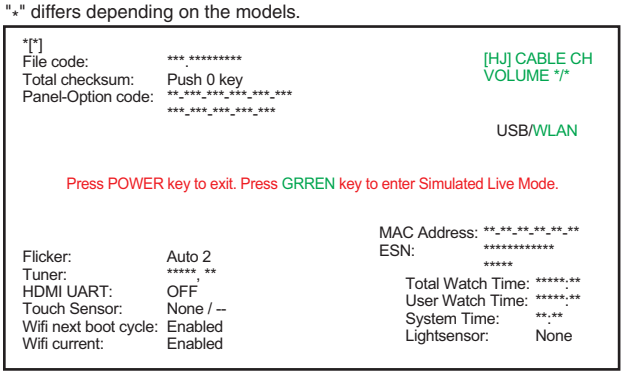
- Remote control unit (Philips Smart: RC6 code)
- Color Analyzer,
  CA-310 (KONICA MINOLTA Luminance meter) or measuring instrument as good as CA-310.

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.

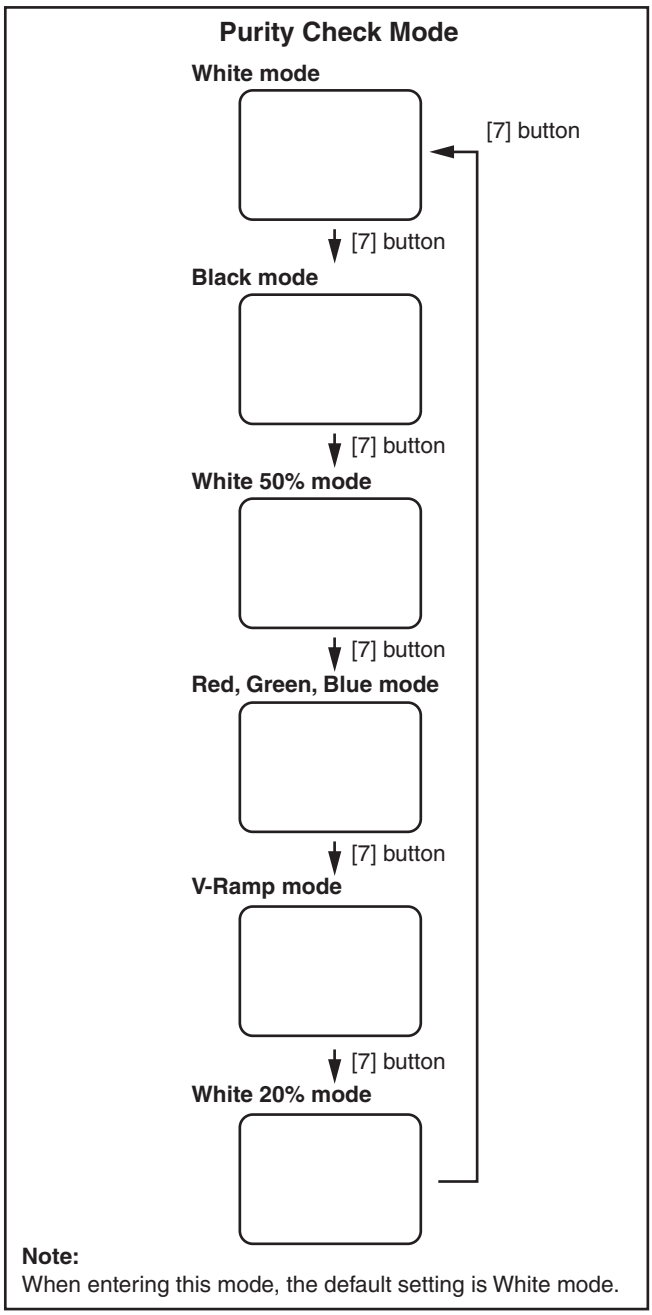
"⋆" differs depending on the models.



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.

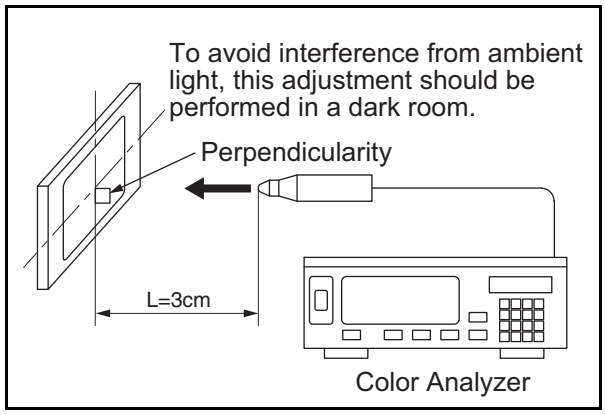
2. White Balance Adjustment

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

Symptom of Misadjustment: White becomes bluish or reddish.

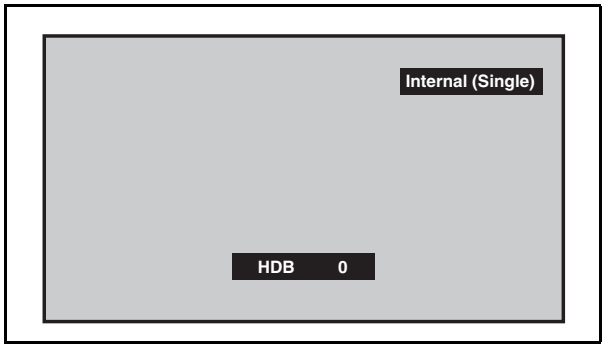
ITEM	SPECIFICATION
Color temperature	x= 0.3127 ± 4% y= 0.329 ± 4.5%
Input Signal	Internal pattern (30/50/80% raster)
Measurement point	Screen center
M. EQ.	CA-310 (KONICA MINOLTA Luminance meter) or measuring instrument as good as CA-310.
Aging time	30min. (Service MODE-Warm / 100IRE Raster HDMI 1080i@60)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

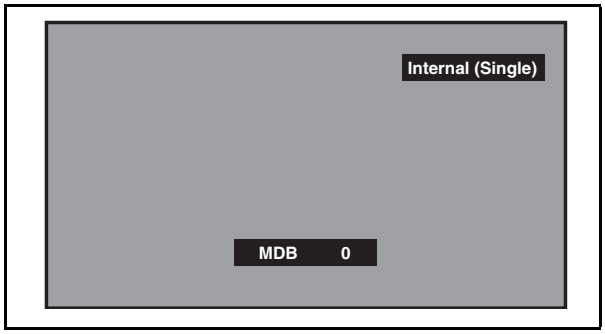


Note: The optical receptor must be set perpendicularly to the LCD Panel surface.

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.)

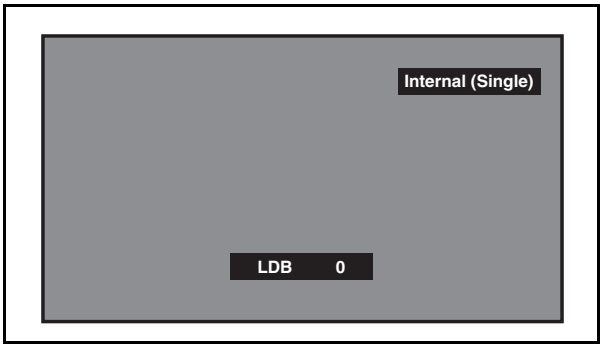


7. Press [CHANNEL UP/DOWN] buttons to adjust the color temperature becomes 6500°K (x= 0.3127 ± 4% / y= 0.329 ± 4.5%).
8. Press [1] button to select the “HDR” for High Drive Red adjustment (“HDR” appears in the screen.) and press [CHANNEL UP/DOWN] buttons to adjust the color temperature.
9. If necessary,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

Please use the: **Remote Control Unit (Philips Smart)**

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

Equipment Required

a. USB storage device

b. Remote Control Unit (ROKU)

Firmware Update Procedure

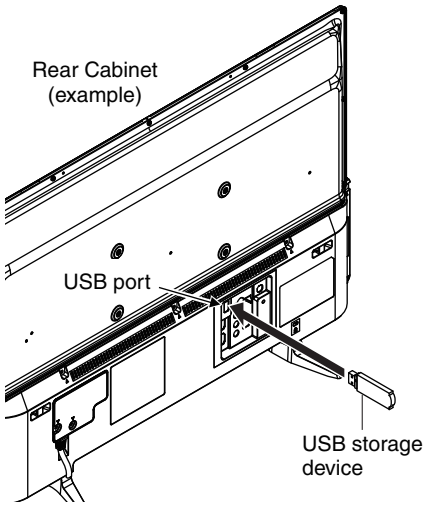
User Upgrade (Filename example: update.roku)

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

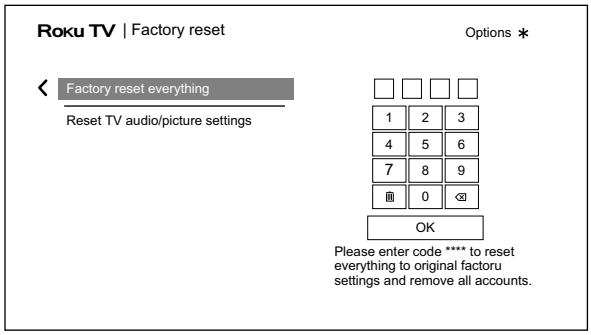
Update procedure

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

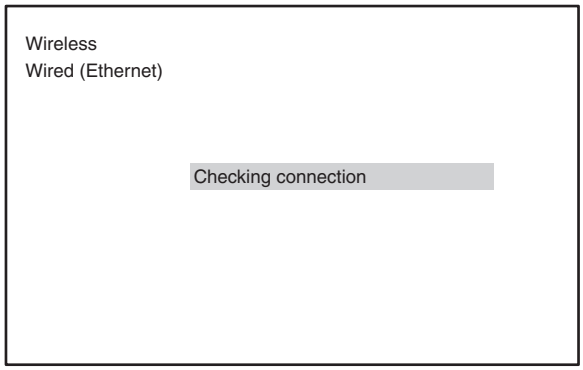
1. Turn the power on.
2. Insert the USB storage device to the USB port as shown below.



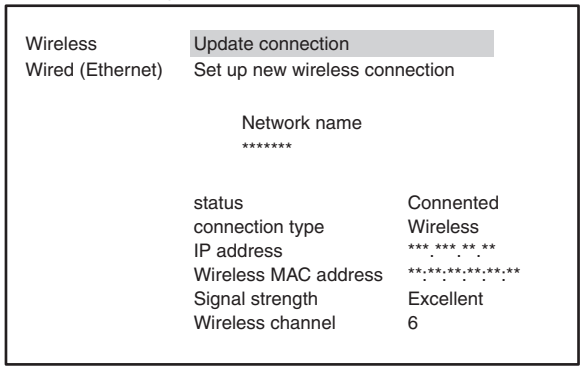
3. Reset Roku TV.
4. Press the [⌂] button, Home - Setting - System - Advanced system settings - Factory reset, enter into - Factory reset everything.



5. Insure TV must connect the network, press the [⌂] × 5, [❯], [❮], [❯], [❮], and [❯] enter into wifi connect interface.



"∗" 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.

[32PFL4664/F7 (Serial No.: ME1), TYPE B, C]

"*" differs depending on the models.

Main	Panel	PQ	Audio
Version info			
Chip			
MAC(wifi)			
USB Update			
Input Source	hdmi1		
Input File	default		
CPU XTAL level	0		
.****A		Model: *********	
SN: **********		HDMI1	
Main Qmap: ***		Small Qmap: ***	

[32PFL4664/F7 A (Serial No.: ME9)]

"*" differs depending on the models.

Main Menu	
PQ Menu>	
Change streaming Video	
CPU Xtal level	<***>
Source	<STREAMING>
USB Update>	
Project ID	<*>
ROKU TV model	<**XX>
OEM Model	<XXX>
Panel Index	<*>
Mode	APP
Software Version	XXX..
ESN	XXX..
Brand	XXX..
Chip Type	Mstar-T14

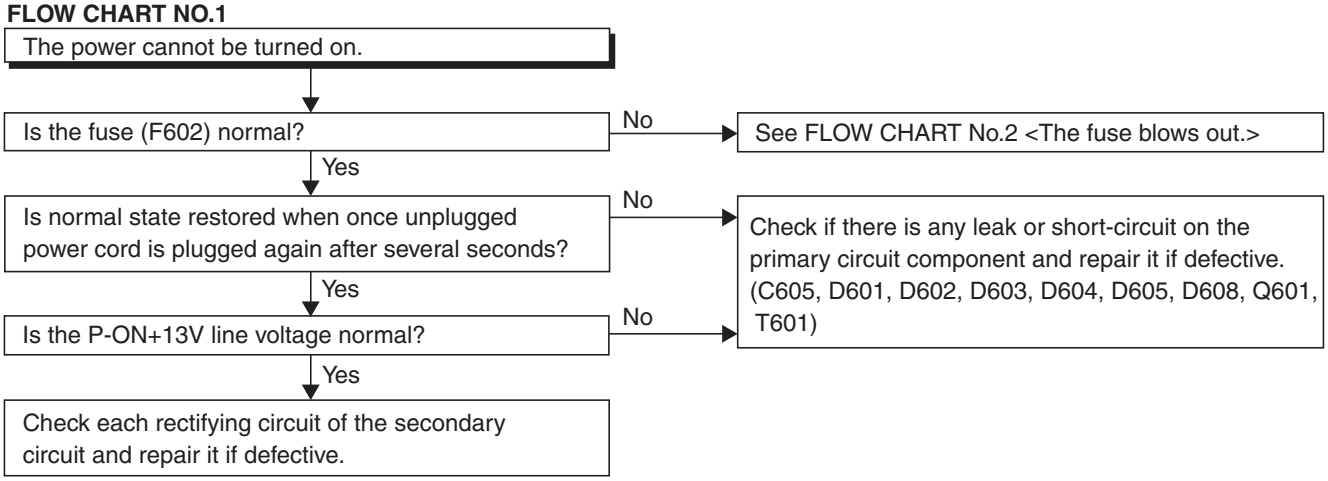
8. Updating progress.

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

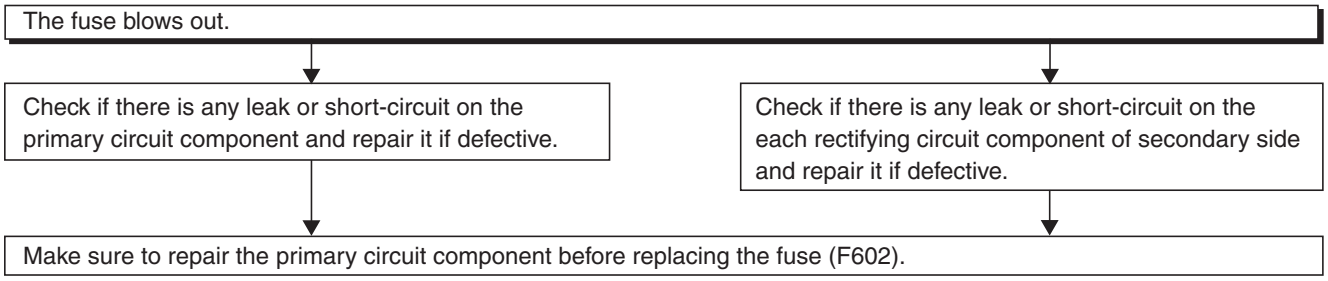
TROUBLESHOOTING

[Power Supply Section]

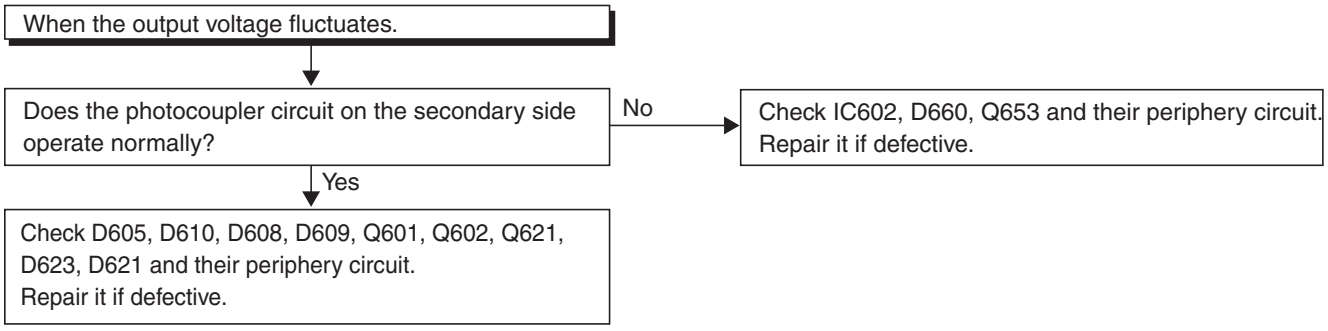
FLOW CHART NO.1



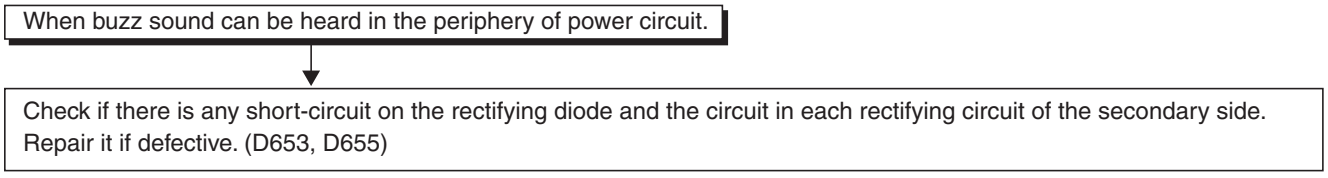
FLOW CHART NO.2



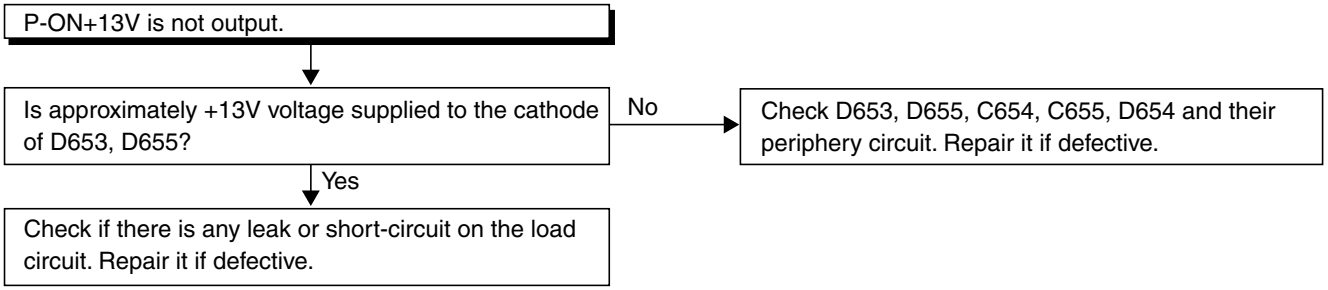
FLOW CHART NO.3



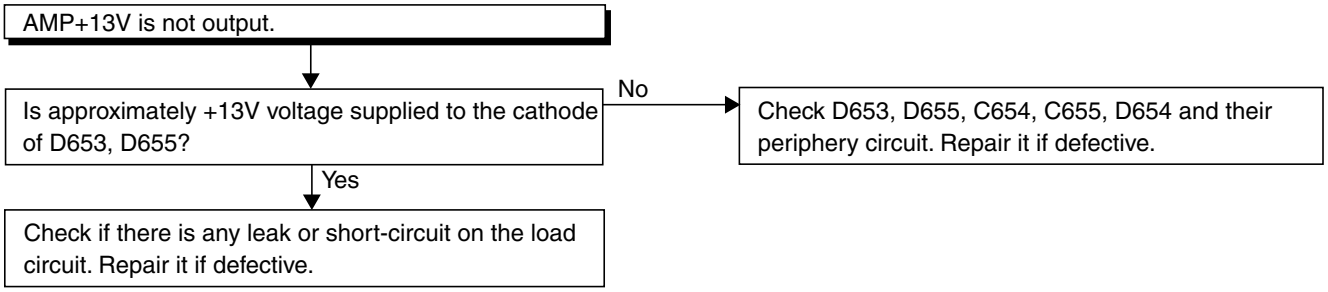
FLOW CHART NO.4



FLOW CHART NO.5



FLOW CHART NO.6



[Video Signal Section]

FLOW CHART NO.1

The key operation is not functioning.

↓

When pressing power/source button, does the cathode voltage of D3501 decrease?

No → Replace the Function Key(SW3002).

↓ 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(2) of CN3501?

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

↓ Yes

Is the "L" pulse supplied to Pin(4) of CN3501 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 LCD+12V voltage supplied to cathode of D3906?

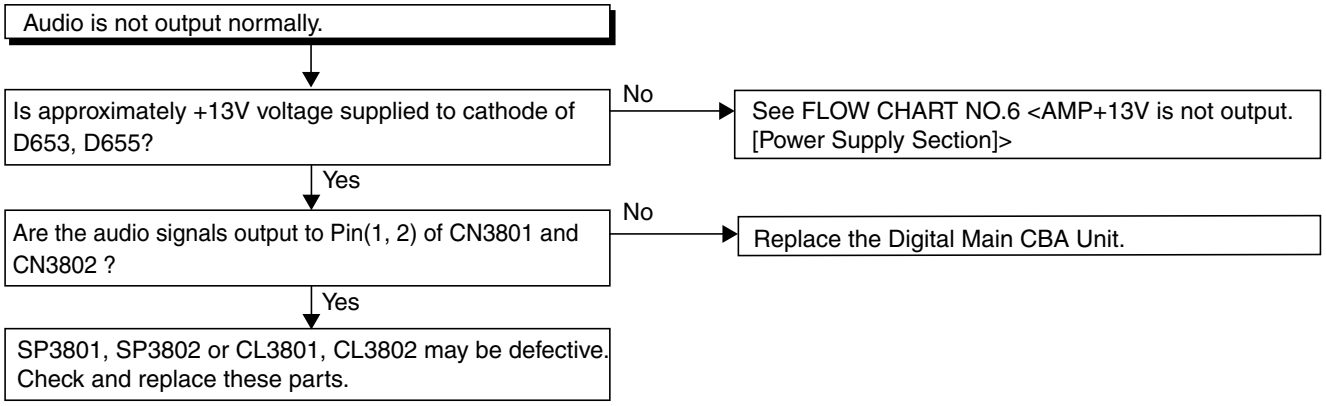
No → See FLOW CHART NO.5 <P-ON+13V is not output. [Power Supply Section]>

↓ Yes

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

[Audio Signal Section]

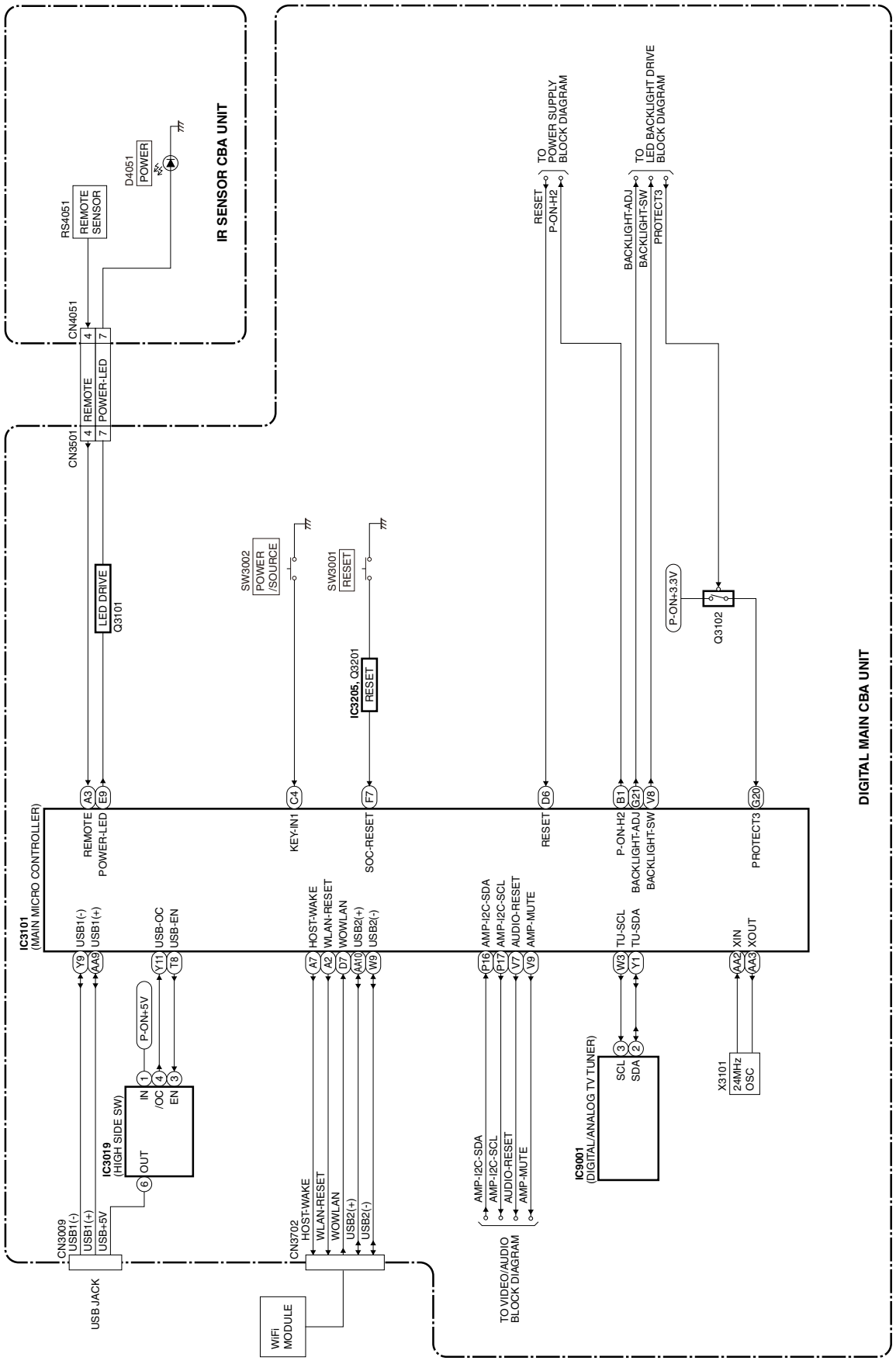
FLOW CHART NO.1



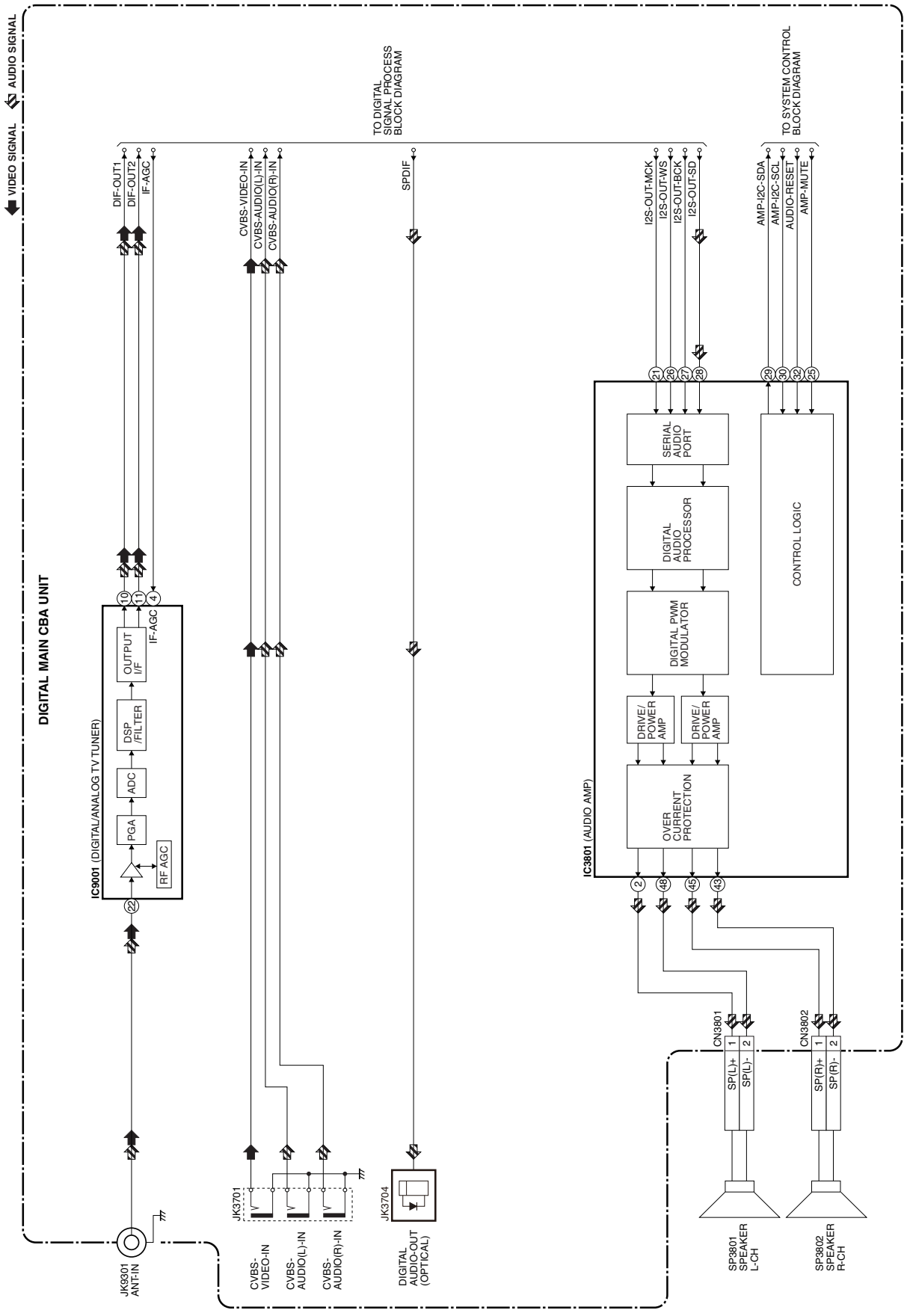
BLOCK DIAGRAMS

[TYPE A, C]

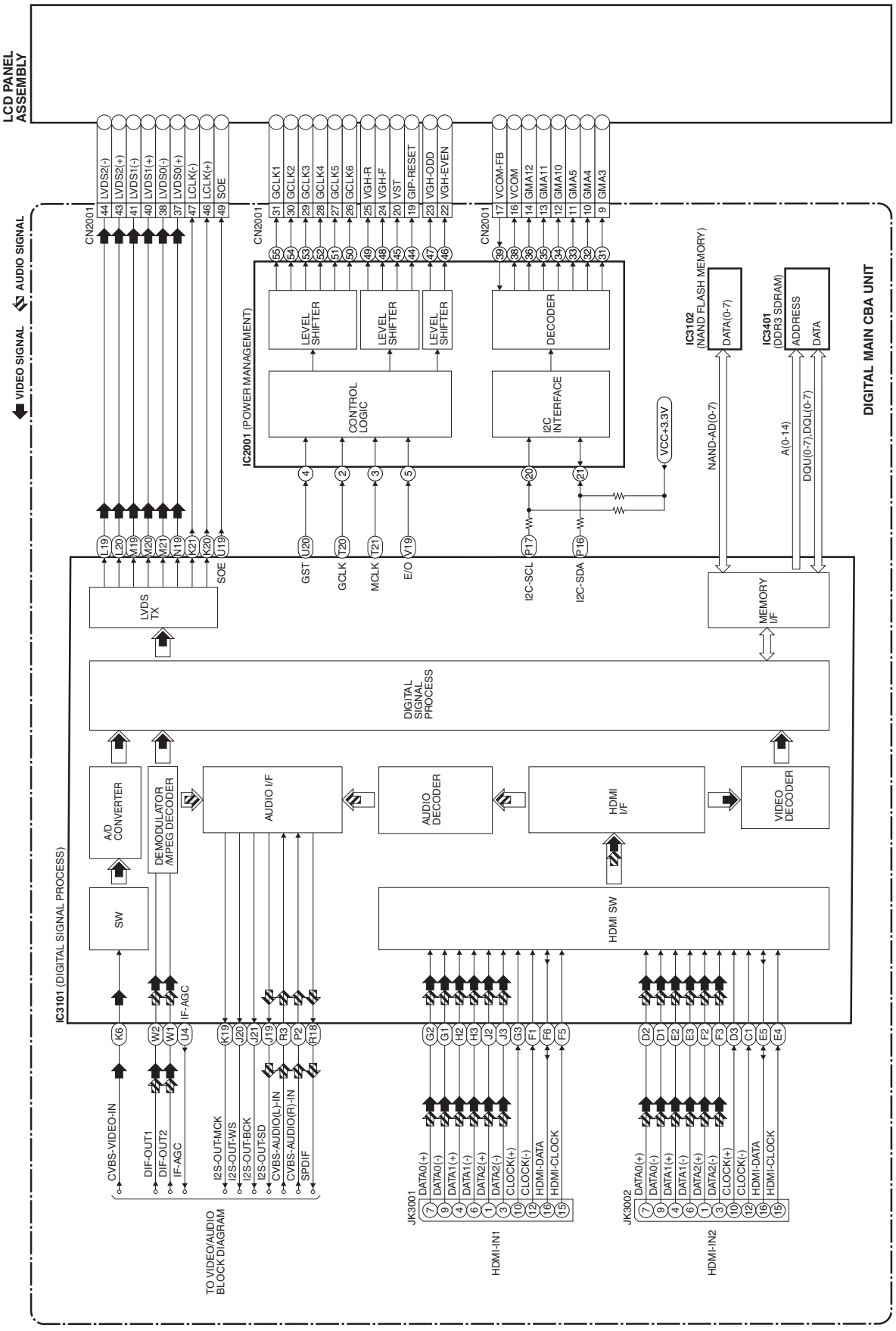
1. System Control Block Diagram



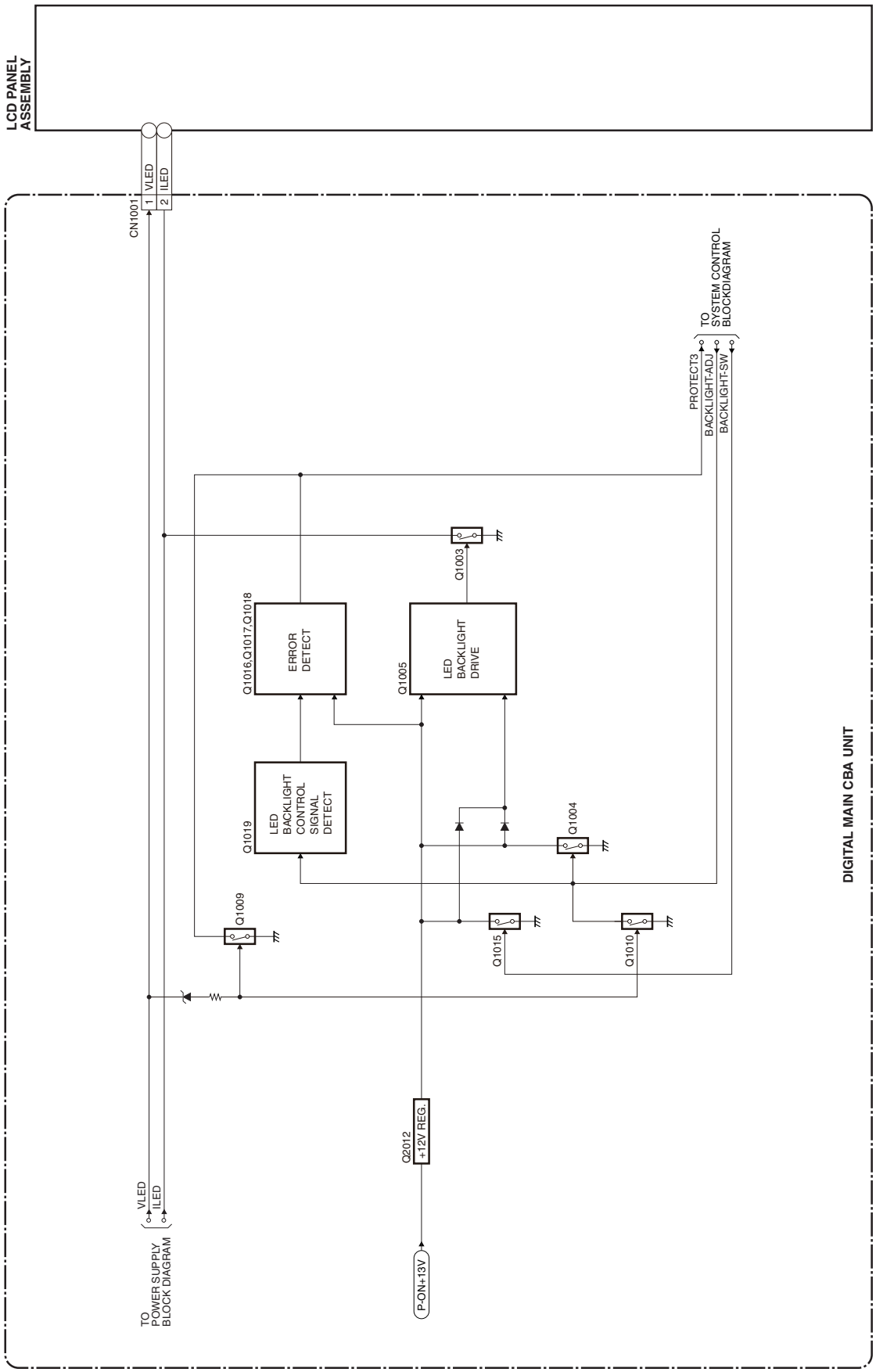
2. Video/Audio Block Diagram



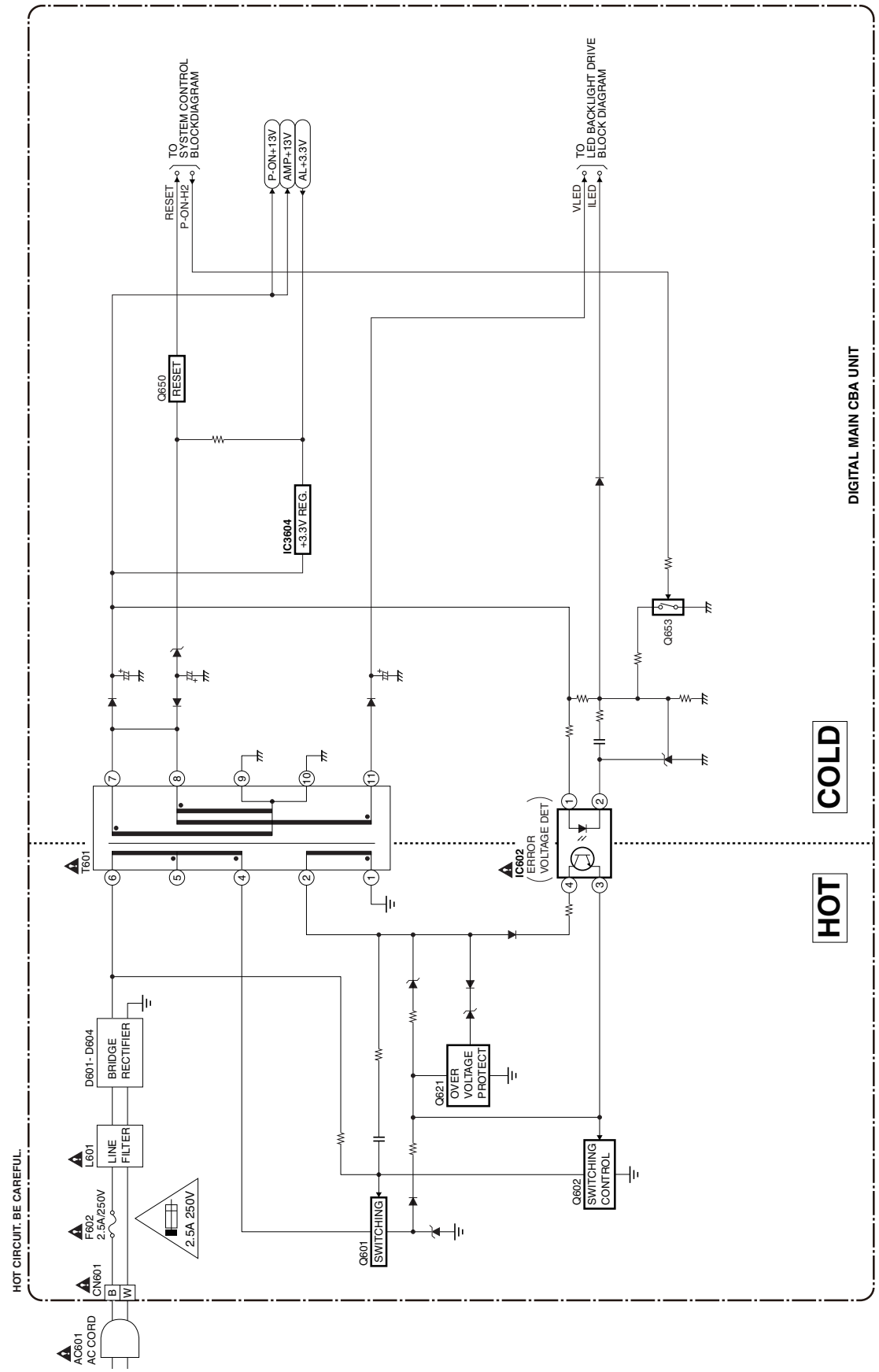
3. Digital Signal Process Block Diagram



4. LED Backlight Drive Block Diagram



5. Power Supply Block Diagram

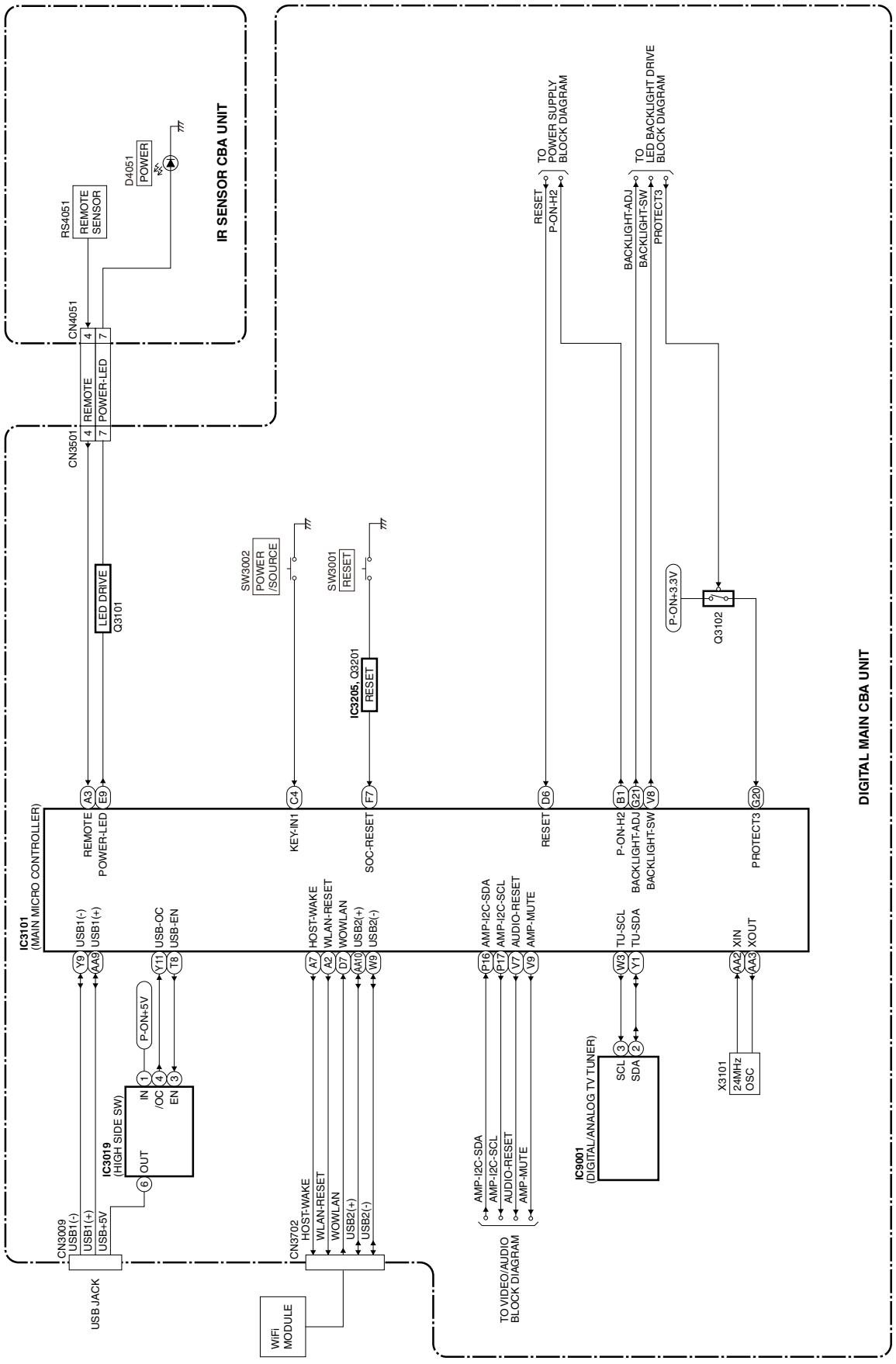


CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit. If Main Fuse (F602) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

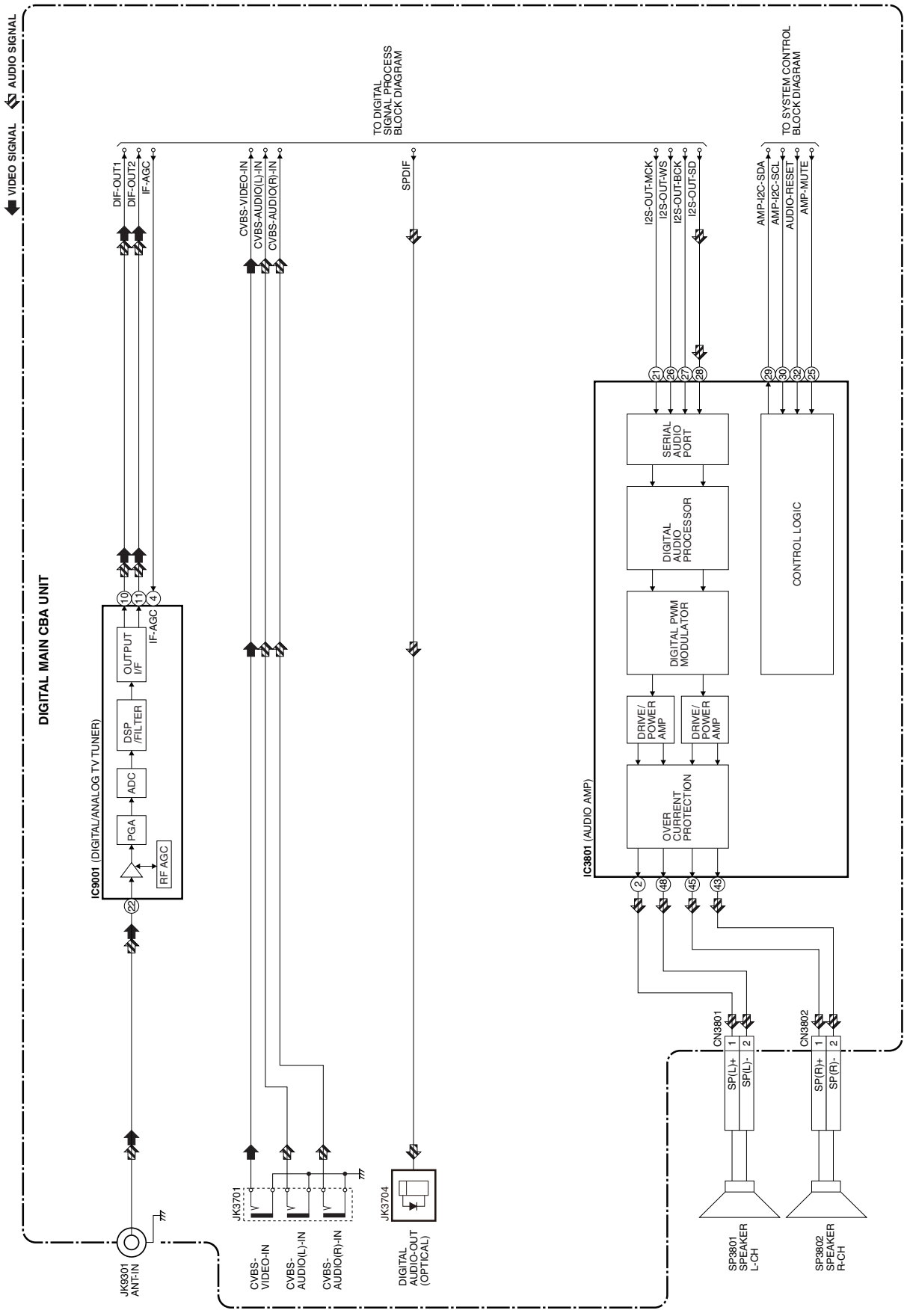
CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

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

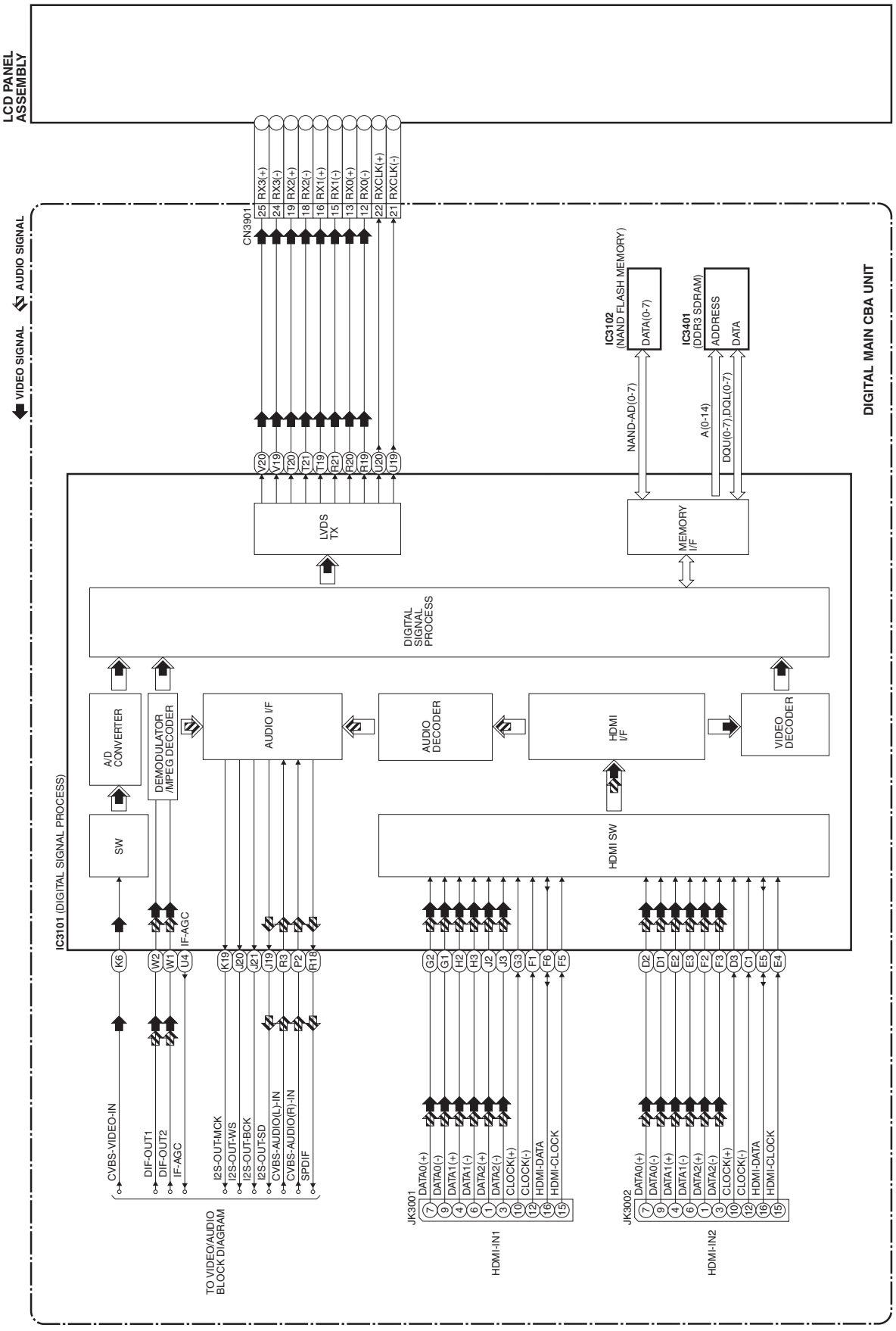
[TYPE B]
1. System Control Block Diagram



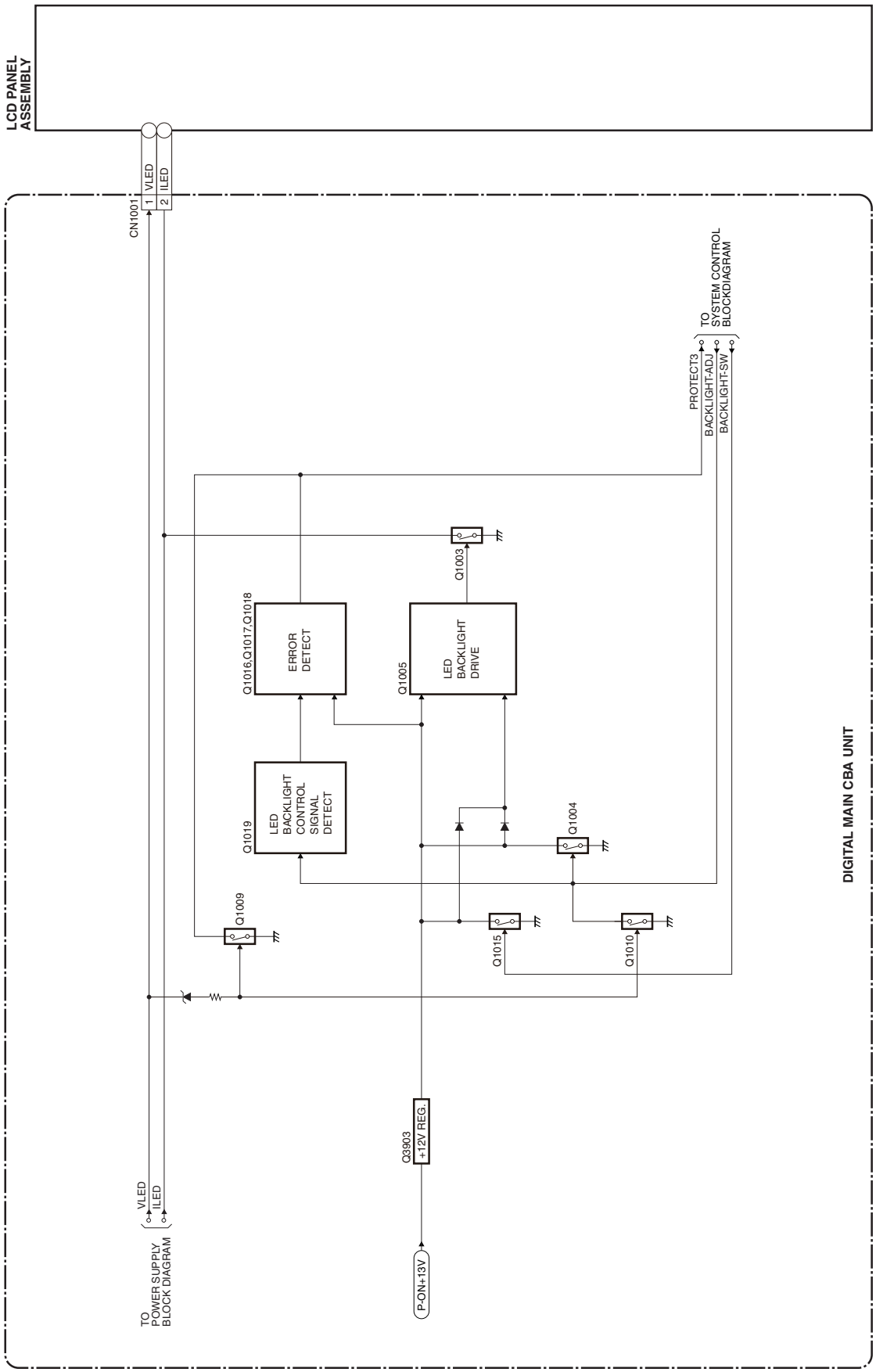
2. Video/Audio Block Diagram



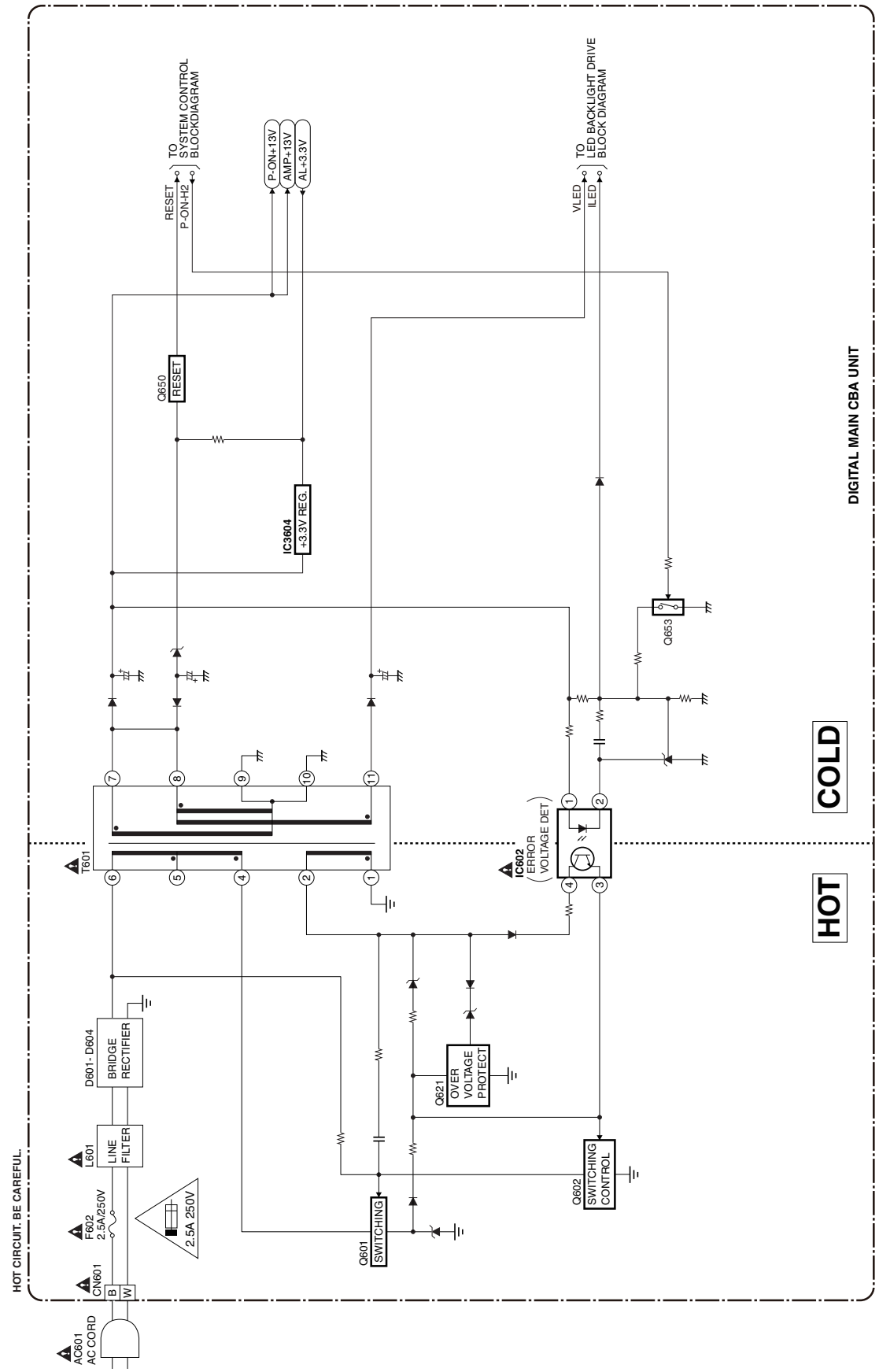
3. Digital Signal Process Block Diagram



4. LED Backlight Drive Block Diagram



5. Power Supply Block Diagram



CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) 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.

2.5A 250V

CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

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

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 PL19.00 chassis models.
   Thus some parts in detail illustrated on this schematic diagrams may vary depend on the model within the PL19.00 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:

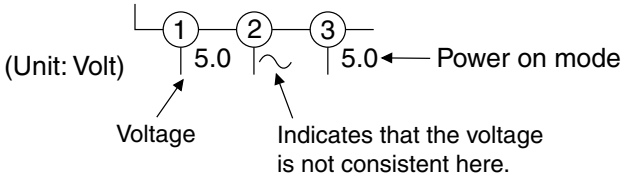
Fixed Voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) is blown, first check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the 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.

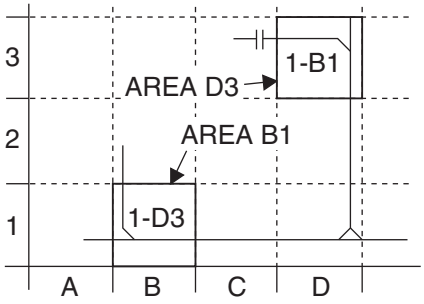
4. Voltage indications on the schematics are as shown below:

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.

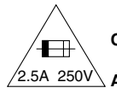
: Used to indicate a test point with no test pin.

: 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.

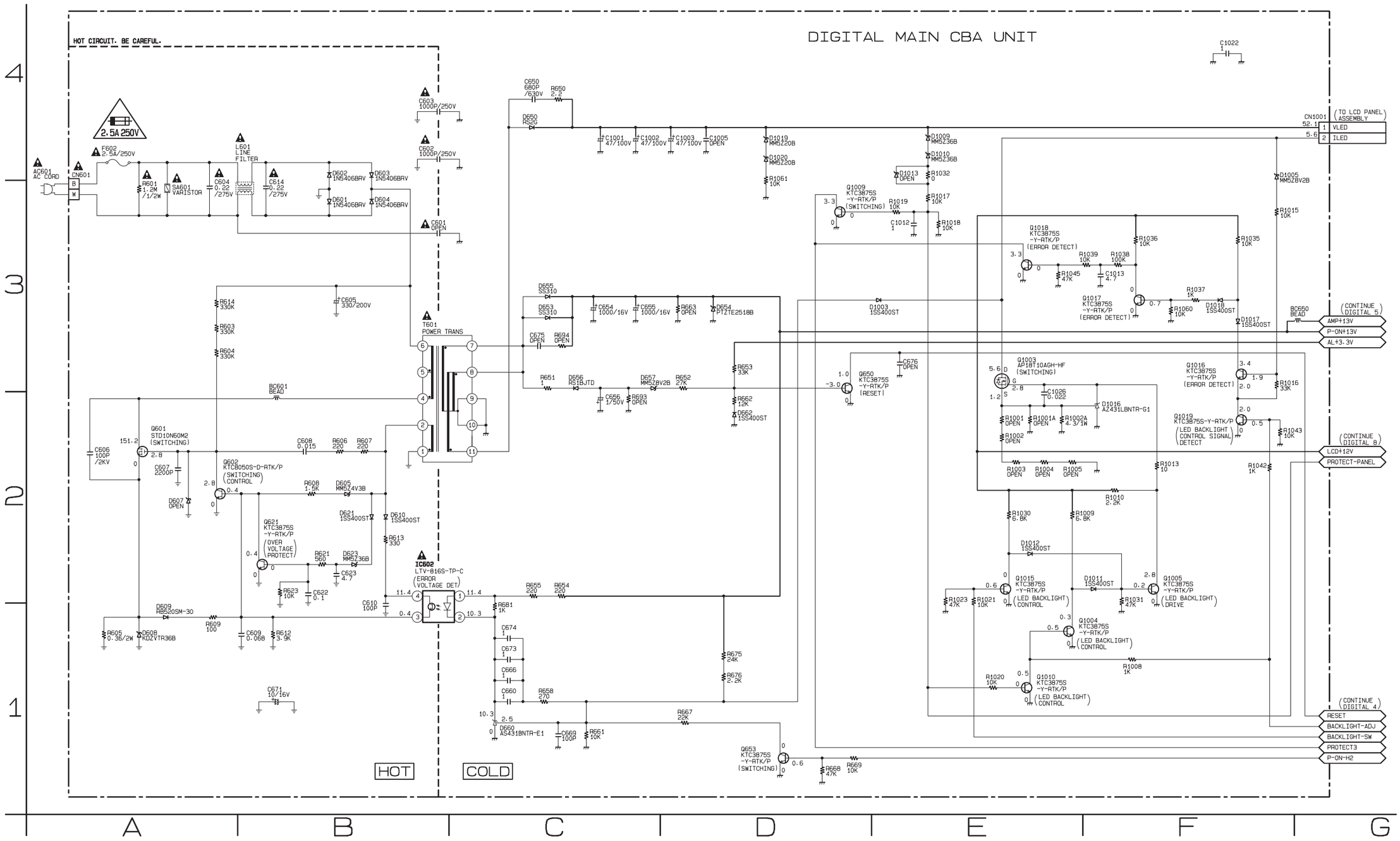
Digital Main 1 Schematic Diagram [TYPE A]

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) 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.



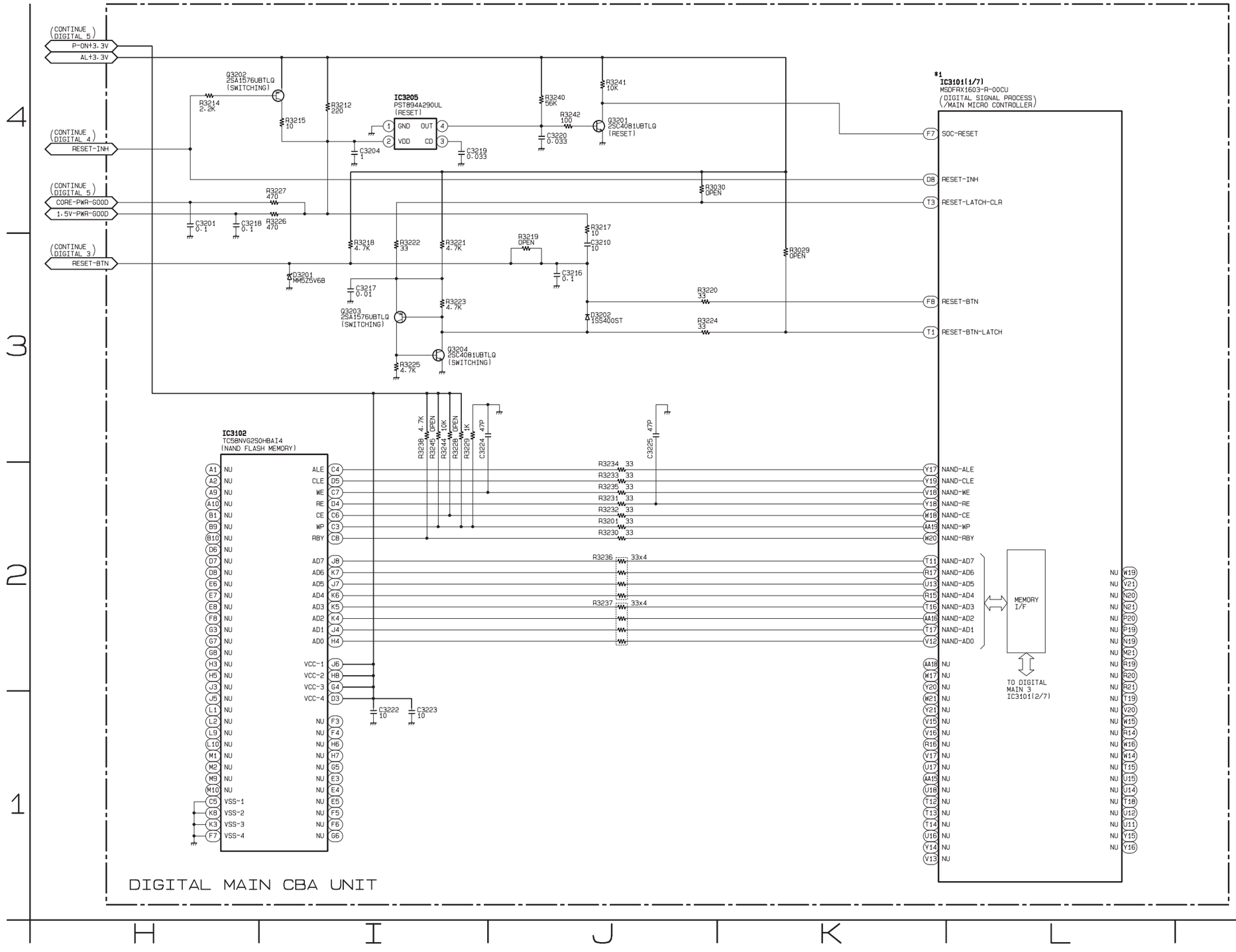
CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

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



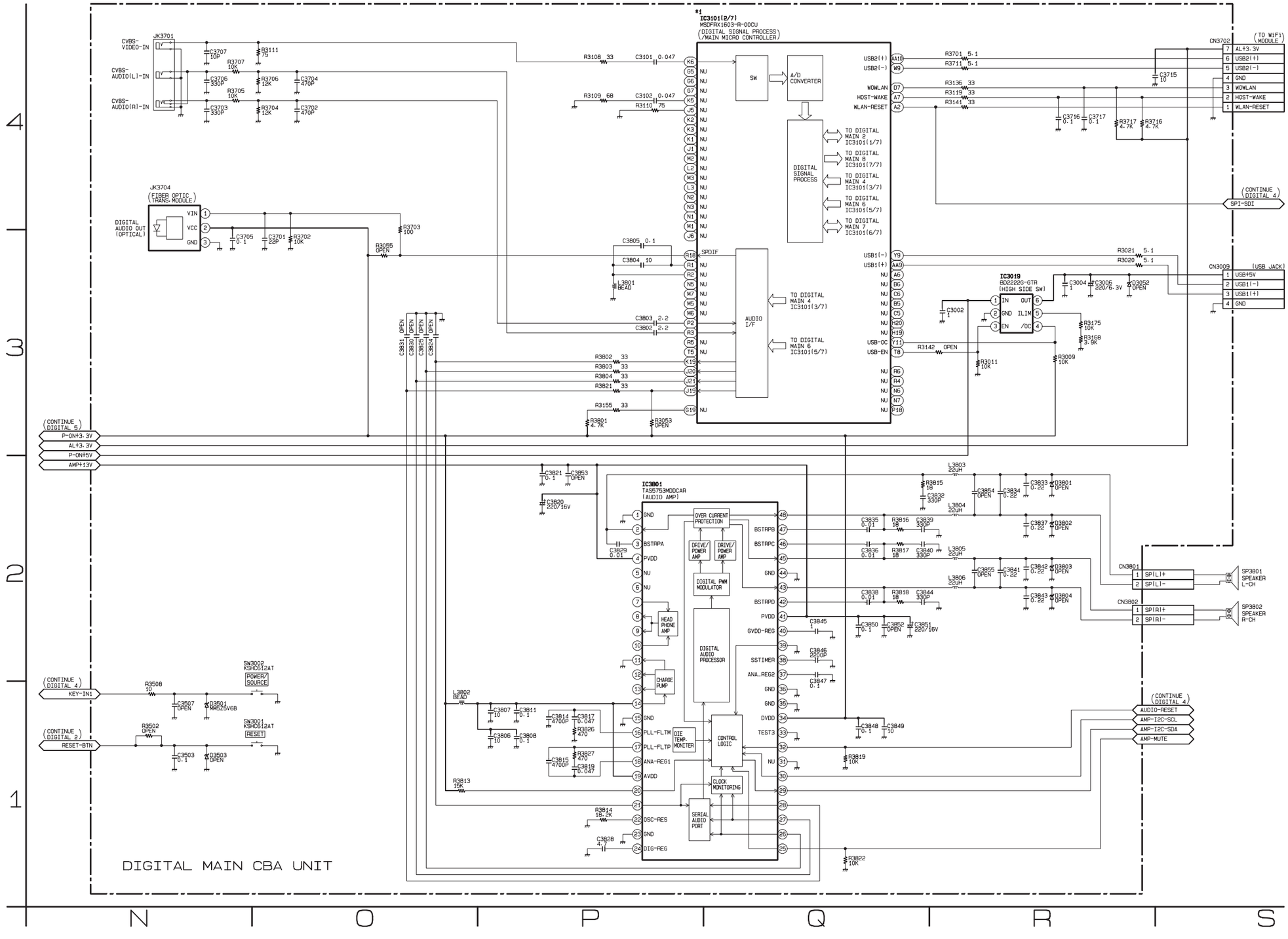
Digital Main 2 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



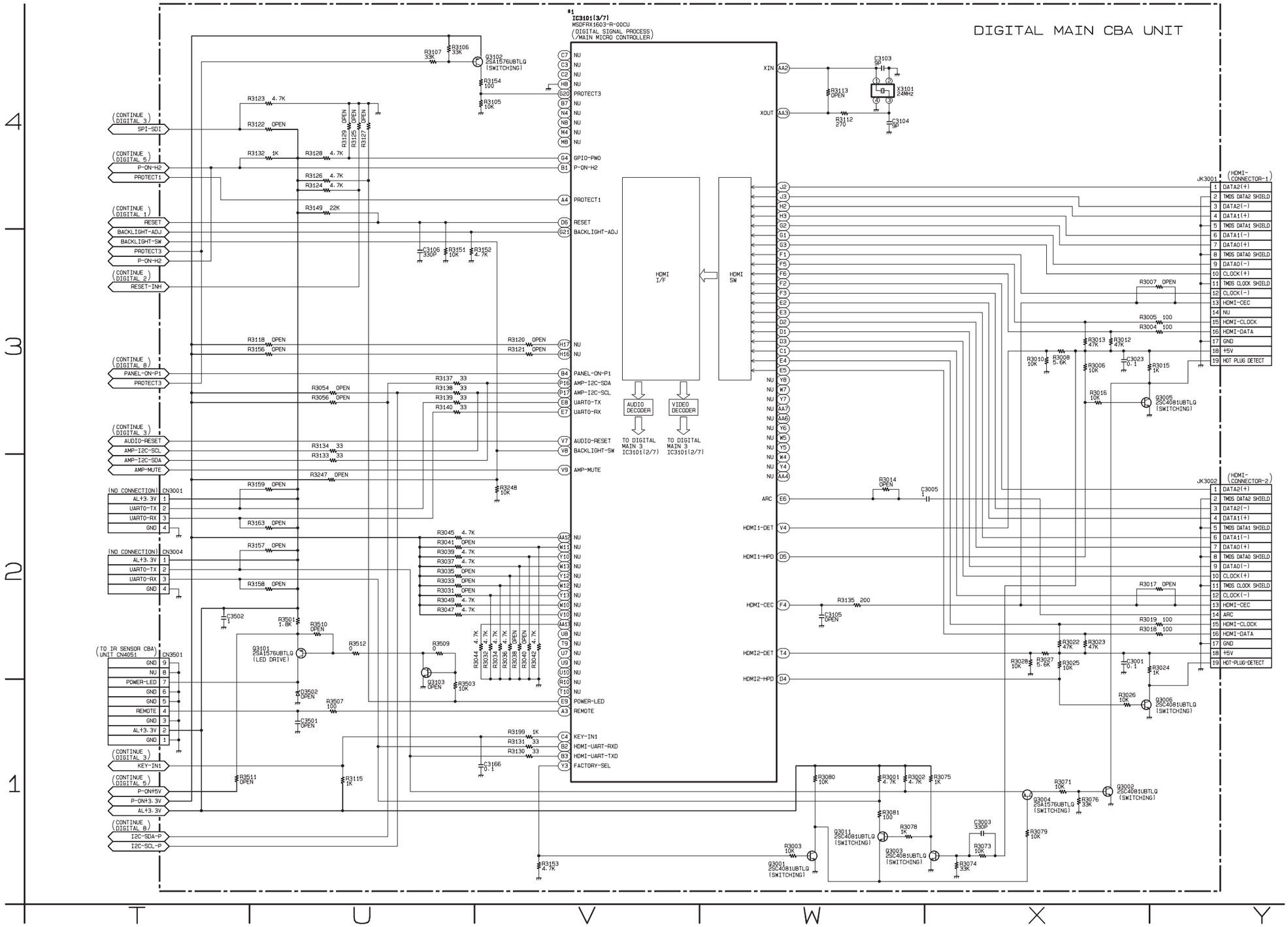
Digital Main 3 Schematic Diagram [TYPE A]

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



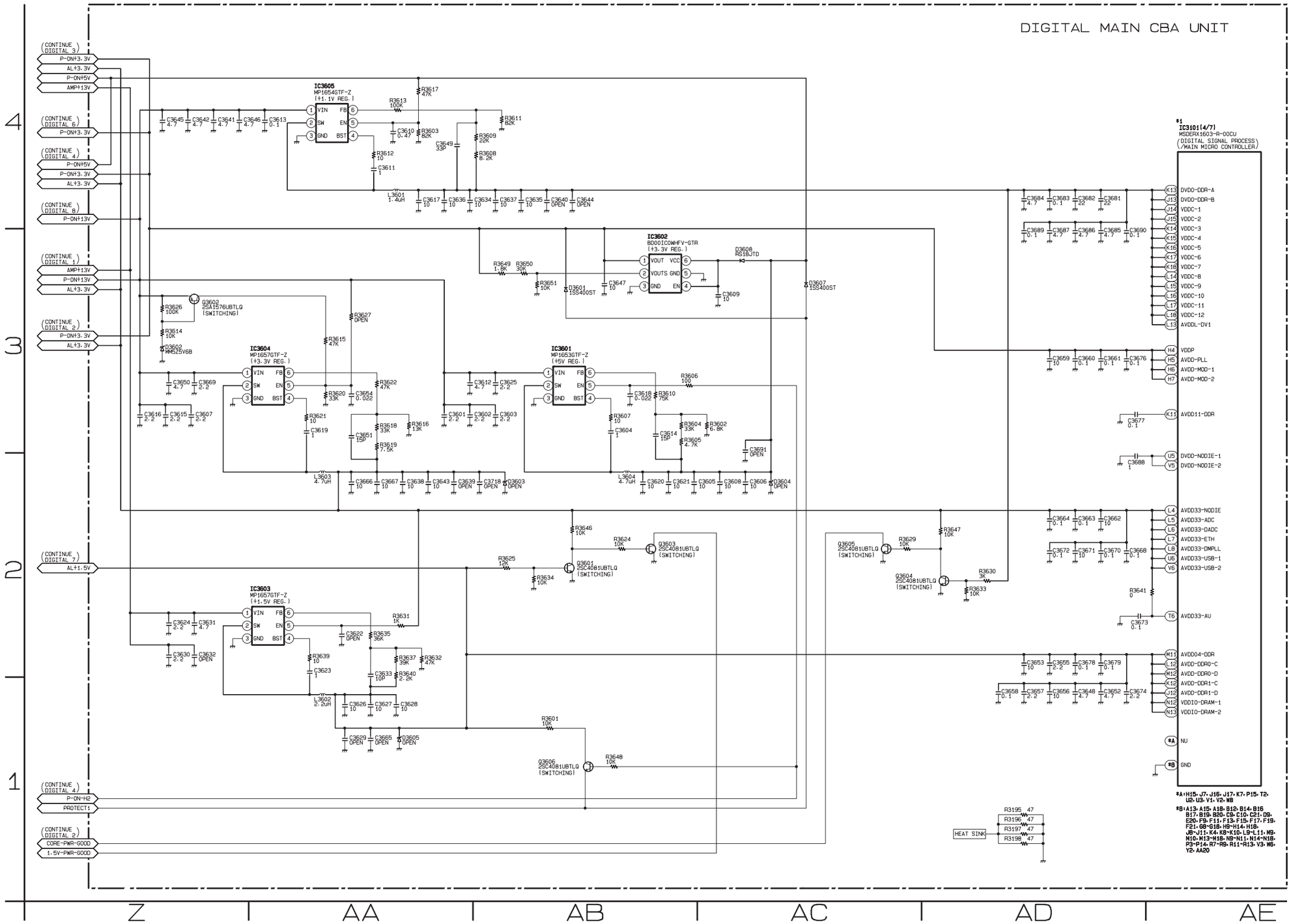
Digital Main 4 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



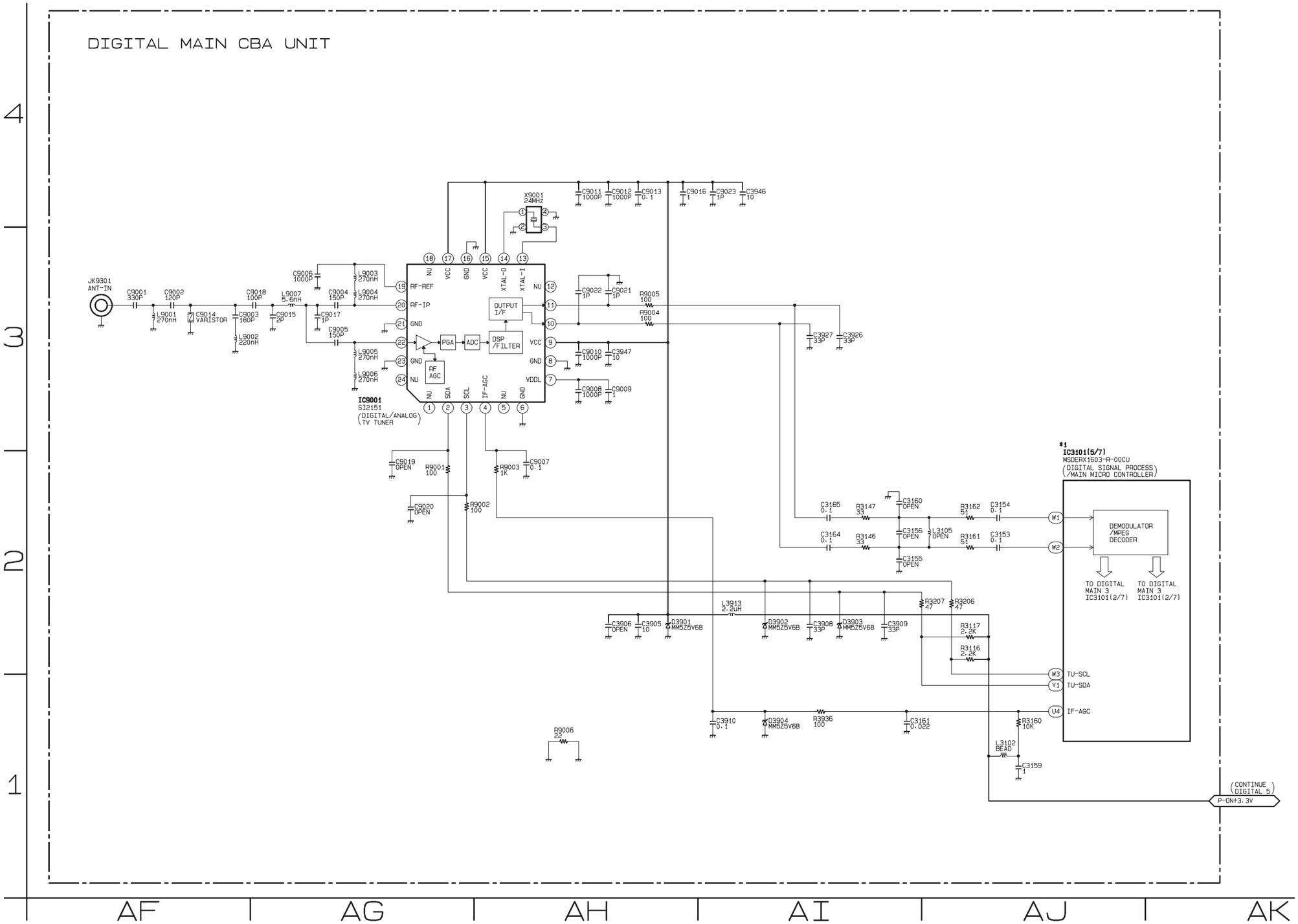
Digital Main 5 Schematic Diagram [TYPE A]

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



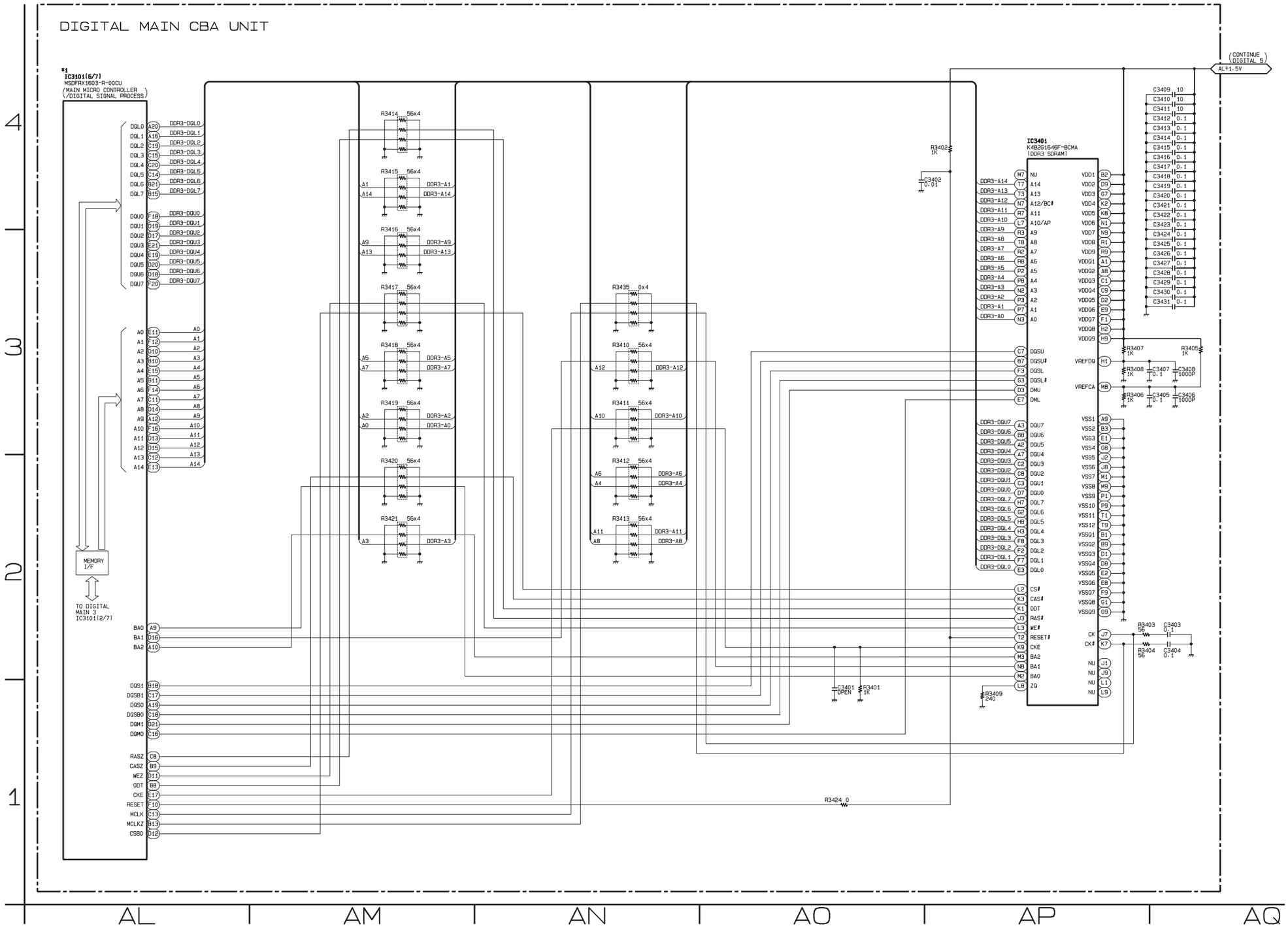
Digital Main 6 Schematic Diagram [TYPE A]

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



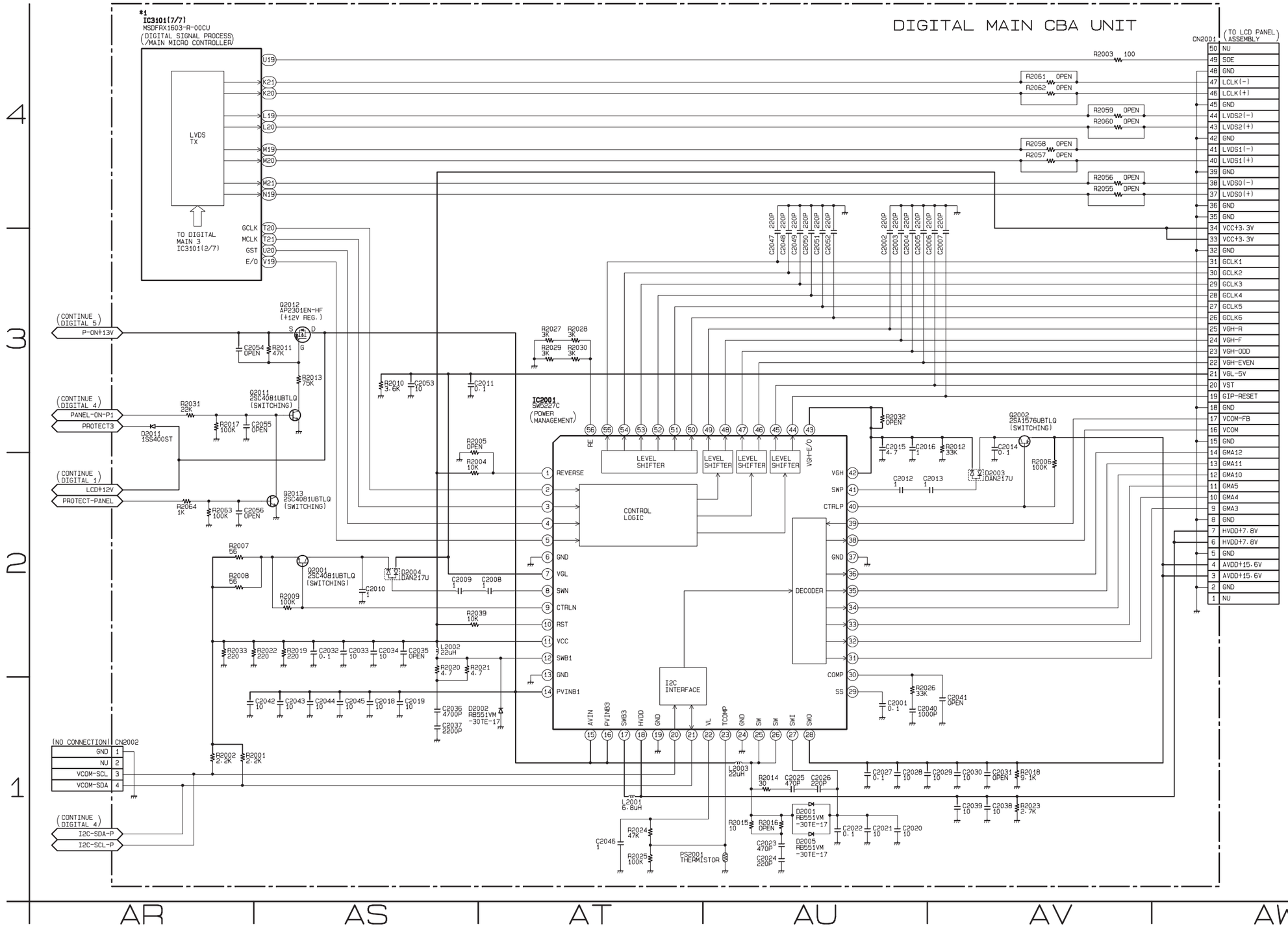
Digital Main 7 Schematic Diagram [TYPE A]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



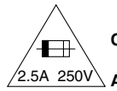
Digital Main 8 Schematic Diagram [TYPE A]

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



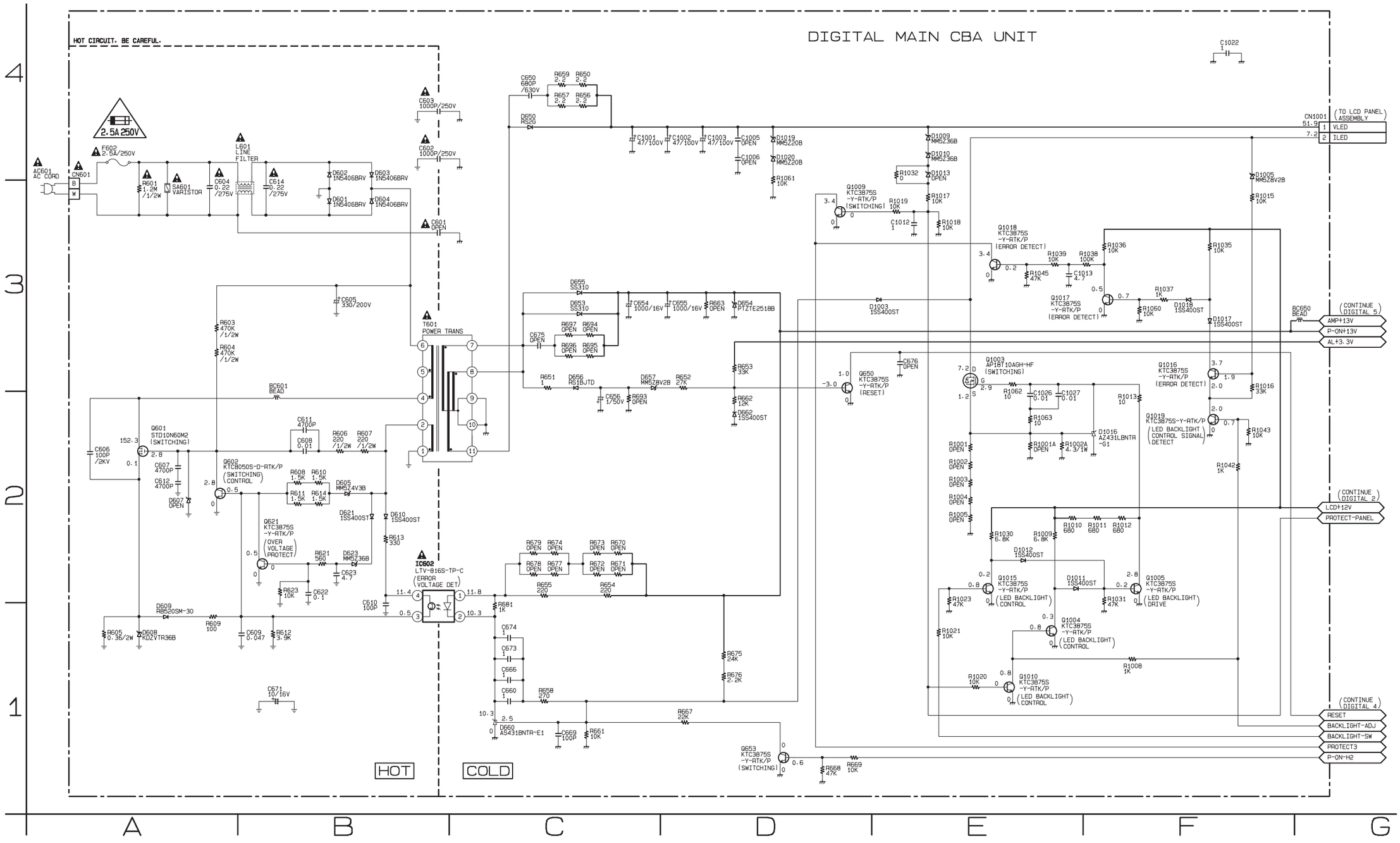
Digital Main 1 Schematic Diagram [TYPE B]

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) 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.



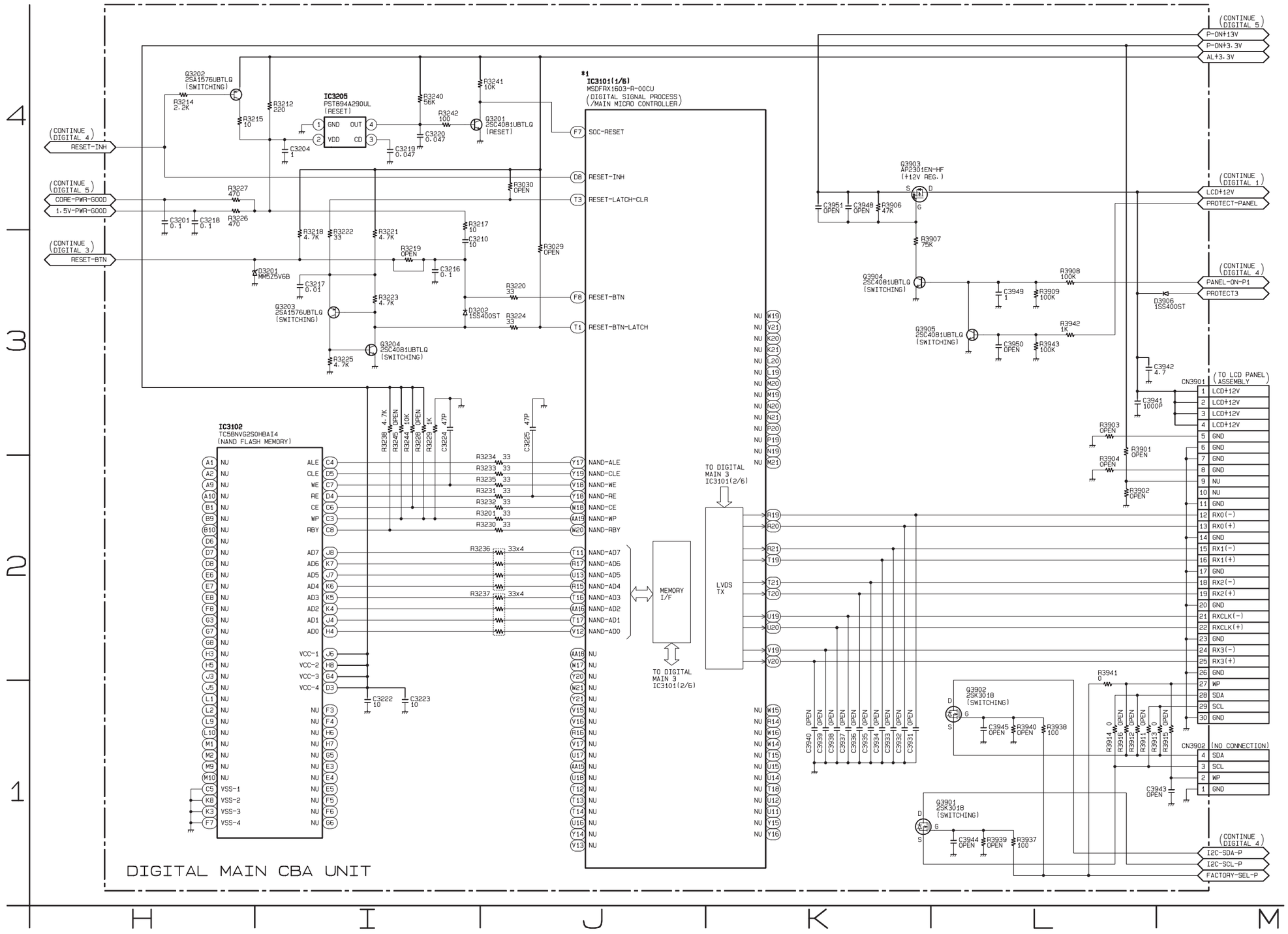
CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

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



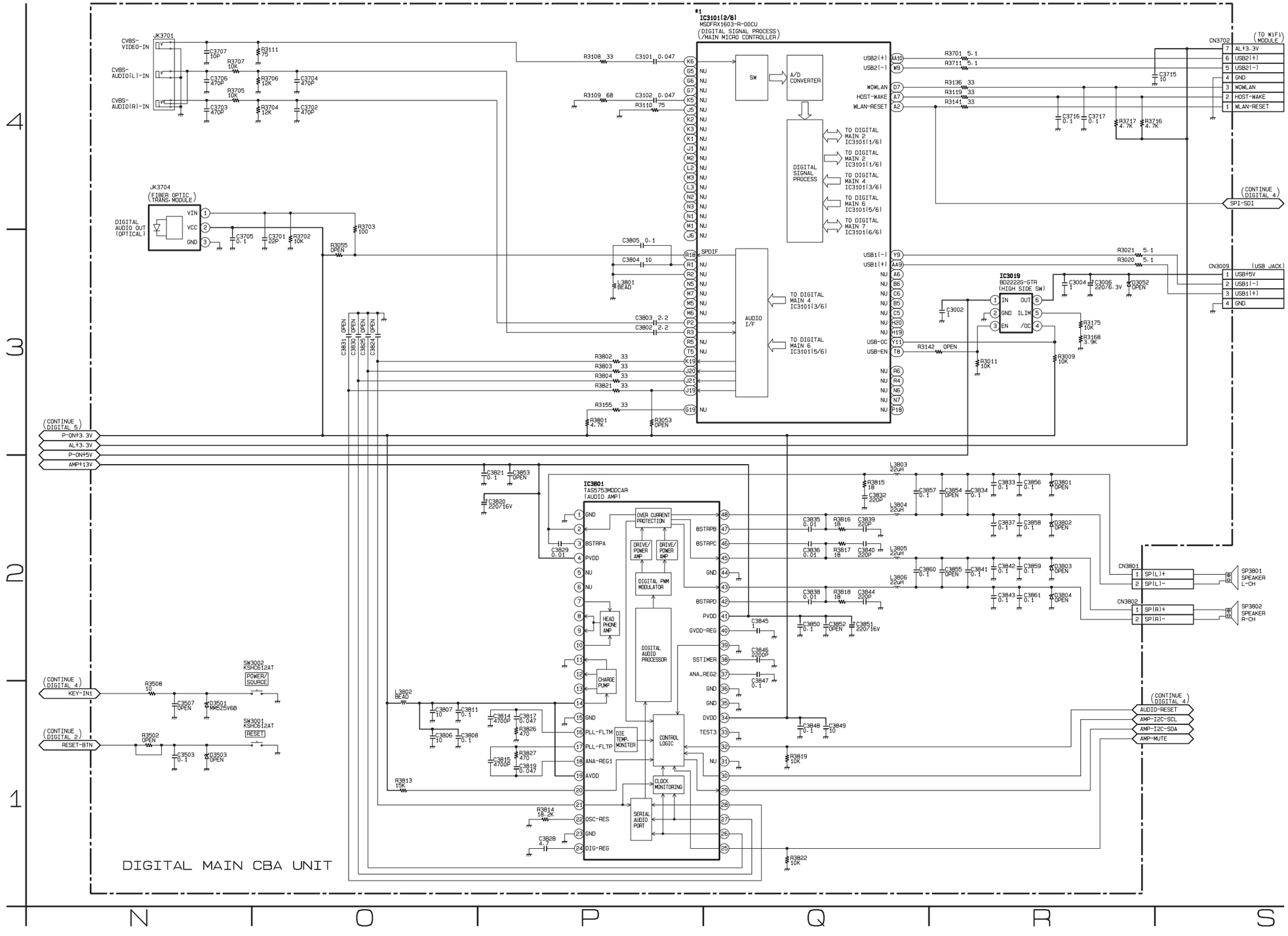
Digital Main 2 Schematic Diagram [TYPE B]

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into six and shown as IC3101 (1/6) ~ IC3101 (6/6) in this Digital Main Schematic Diagram Section.



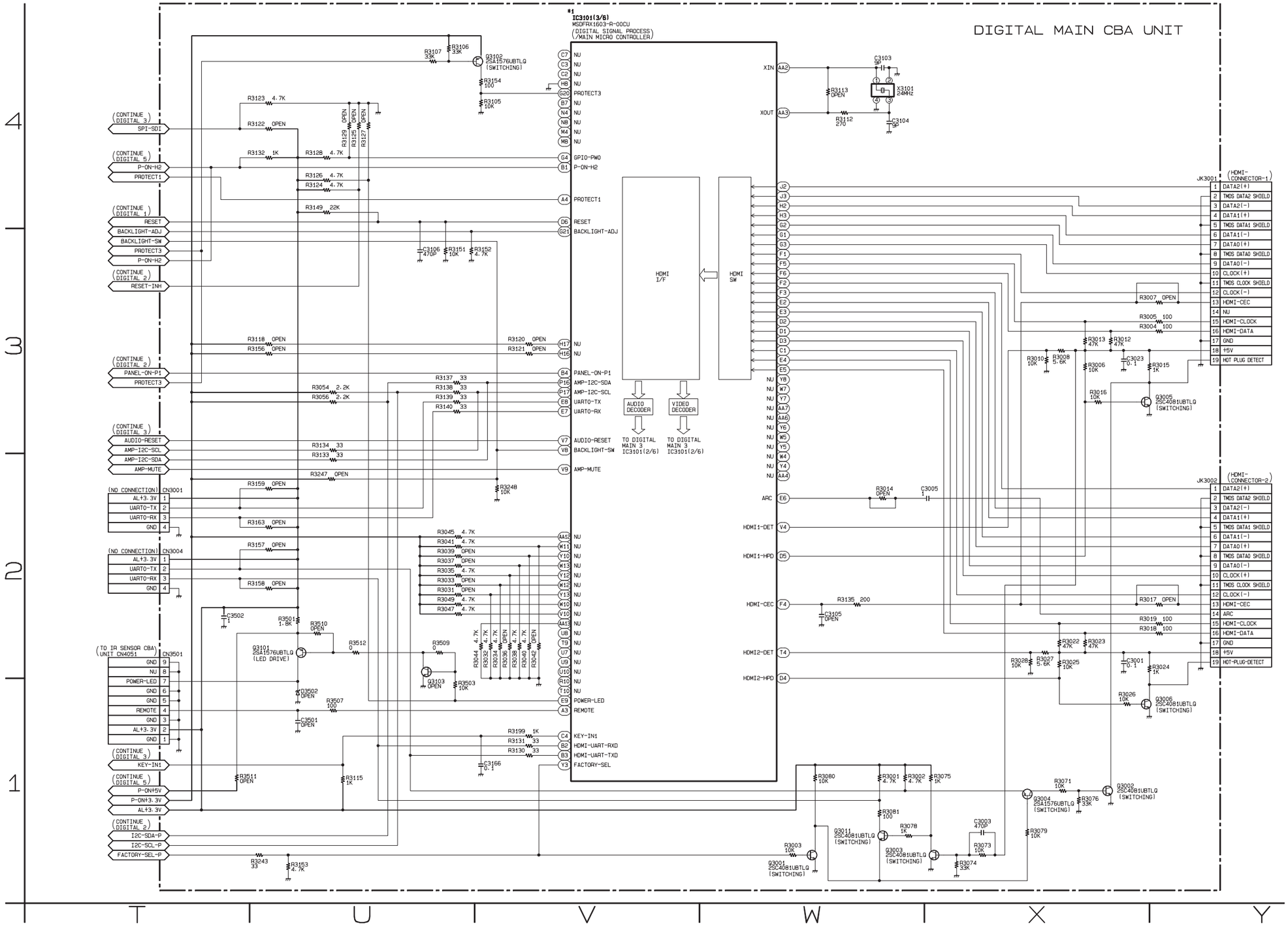
Digital Main 3 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into six and shown as IC3101 (1/6) ~ IC3101 (6/6) in this Digital Main Schematic Diagram Section.



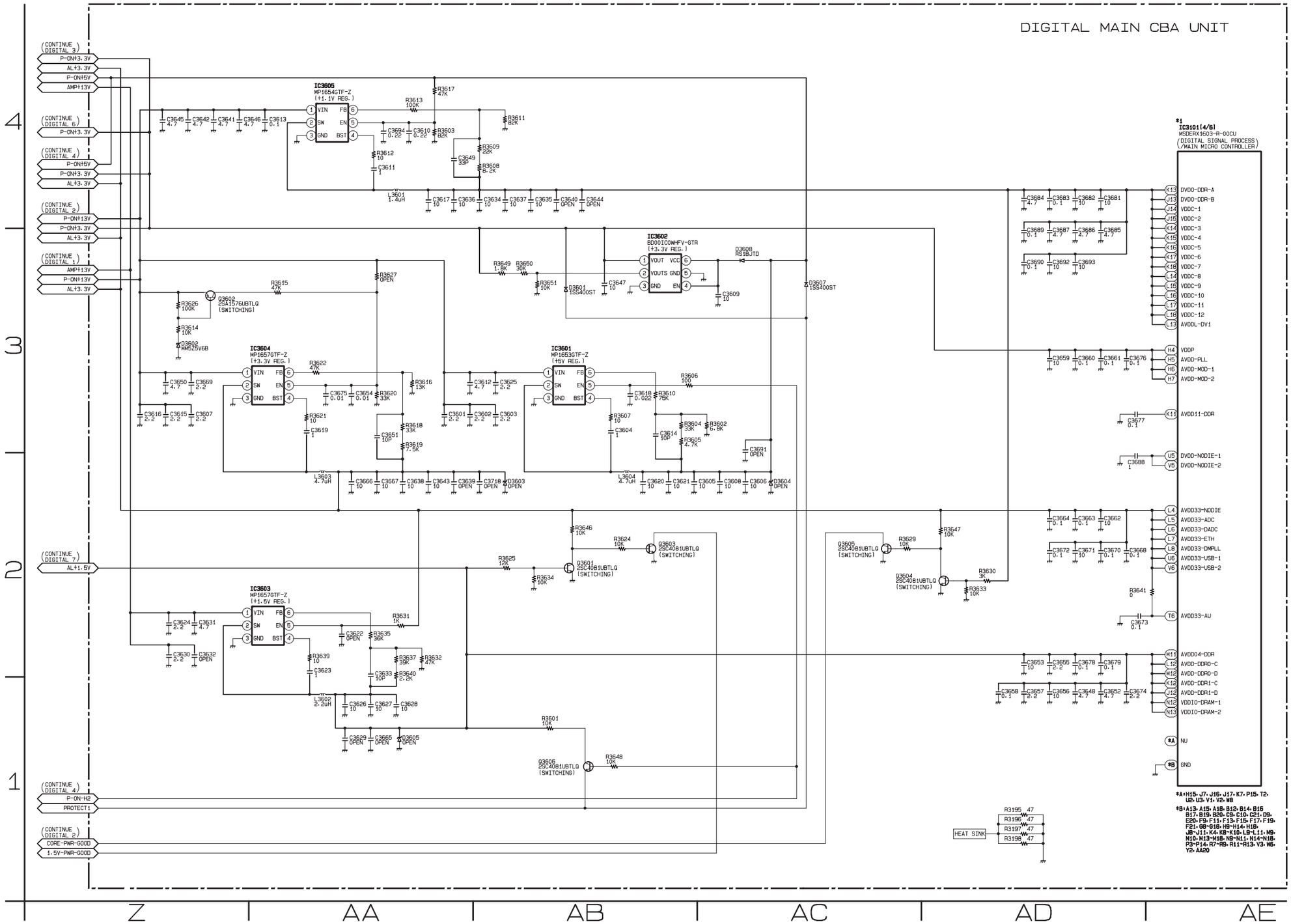
Digital Main 4 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into six and shown as IC3101 (1/6) ~ IC3101 (6/6) in this Digital Main Schematic Diagram Section.



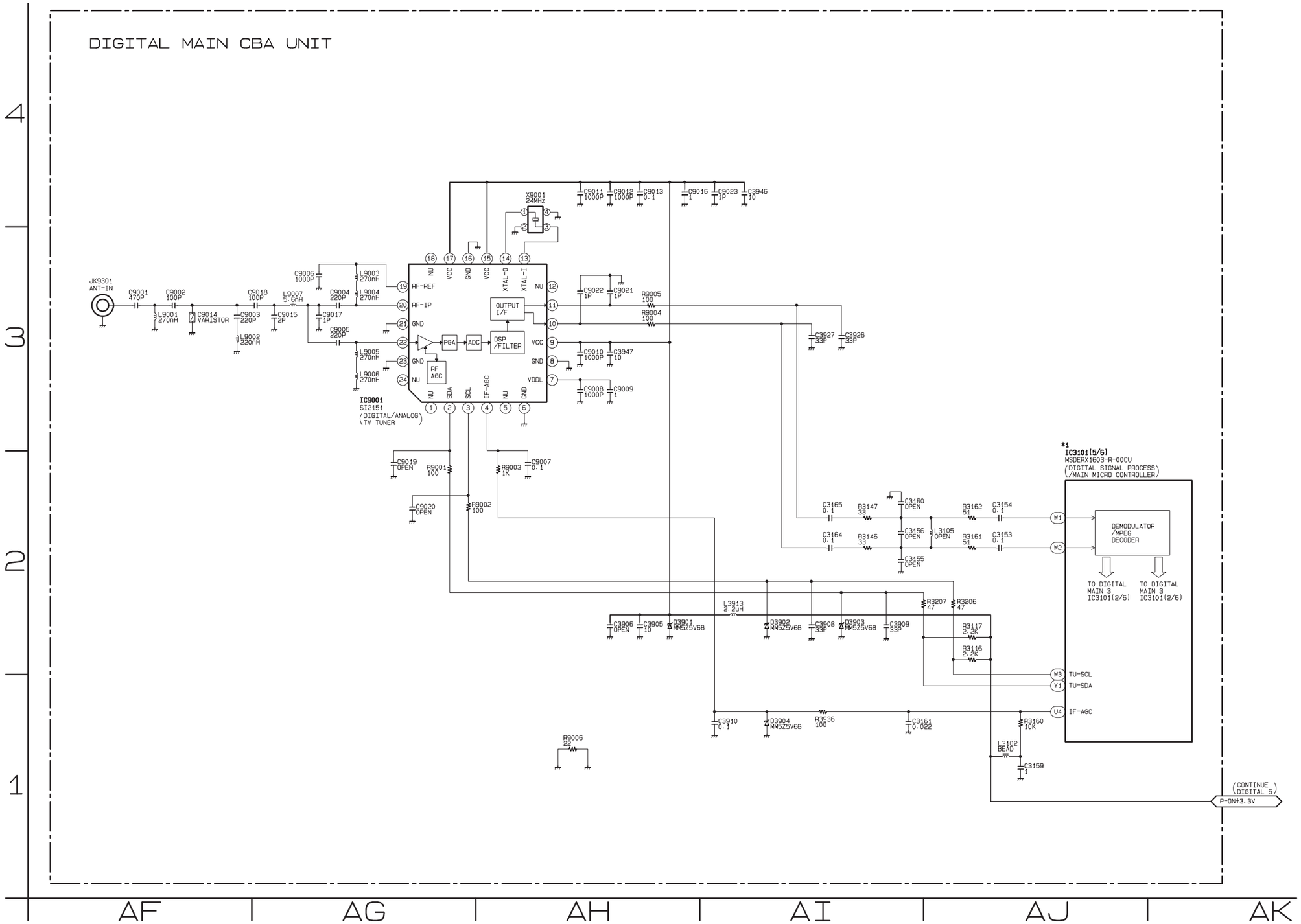
Digital Main 5 Schematic Diagram [TYPE B]

∗1 **NOTE:**
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into six and shown as IC3101 (1/6) ~ IC3101 (6/6) in this Digital Main Schematic Diagram Section.



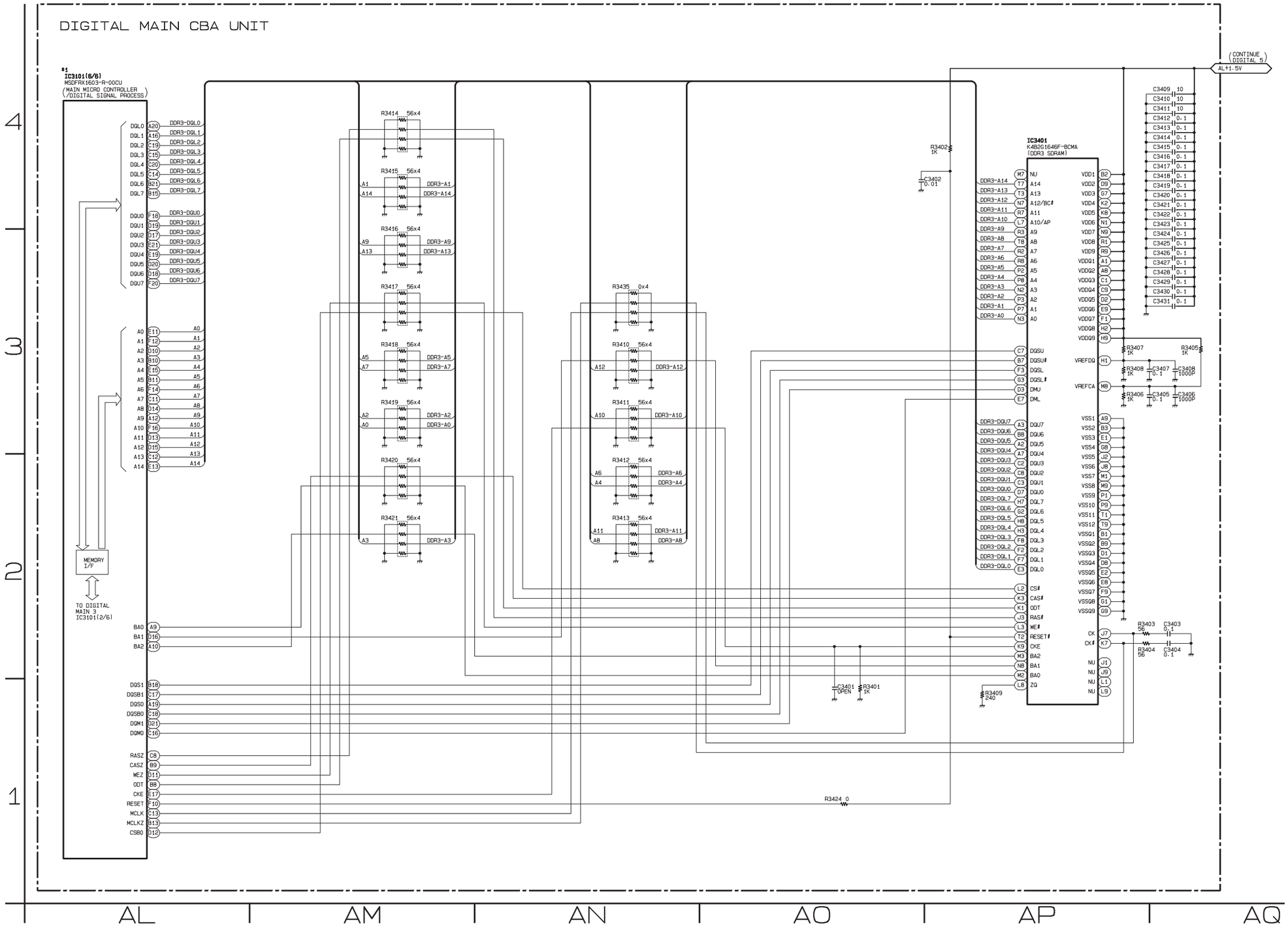
Digital Main 6 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into six and shown as IC3101 (1/6) ~ IC3101 (6/6) in this Digital Main Schematic Diagram Section.



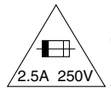
Digital Main 7 Schematic Diagram [TYPE B]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into six and shown as IC3101 (1/6) ~ IC3101 (6/6) in this Digital Main Schematic Diagram Section.



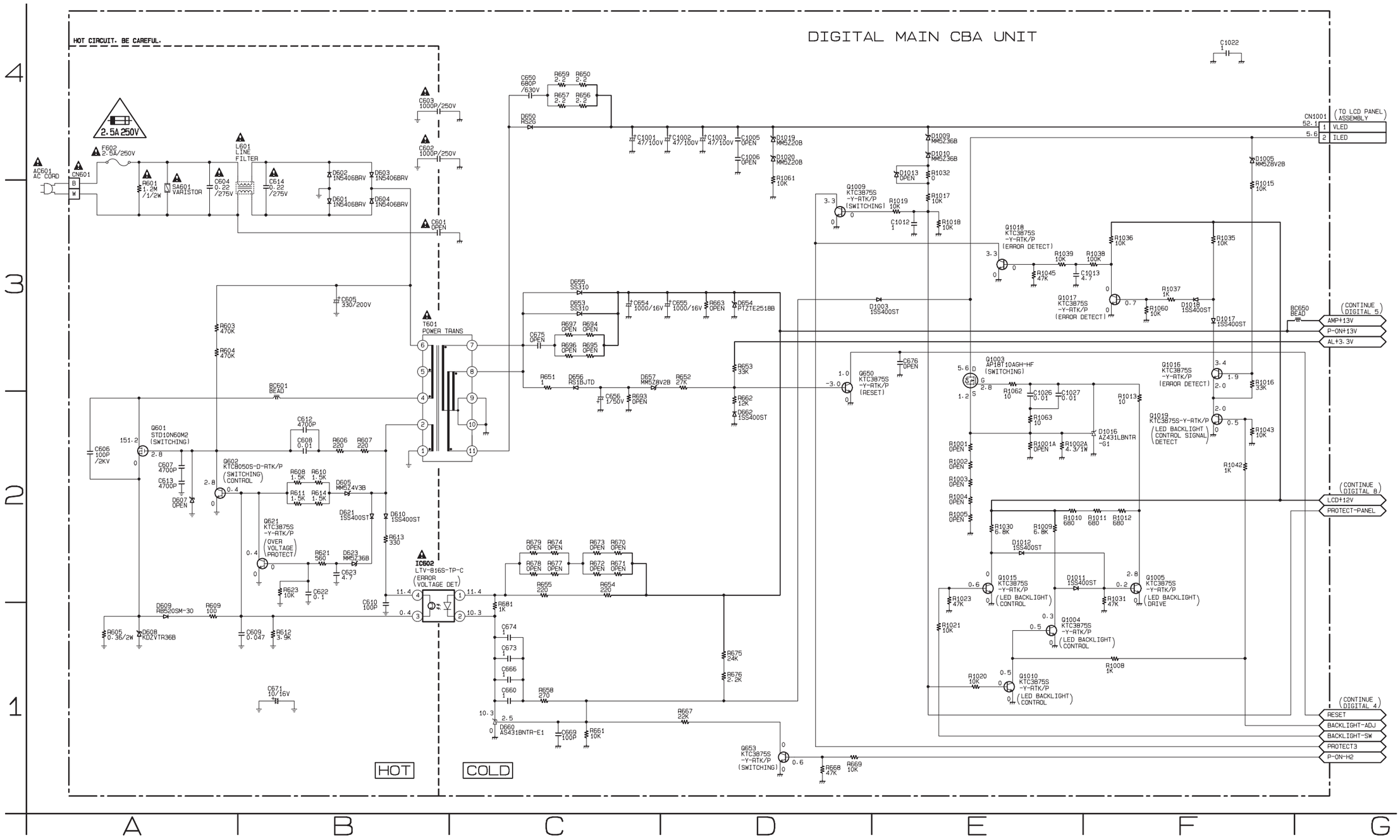
Digital Main 1 Schematic Diagram [TYPE C]

CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) 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.



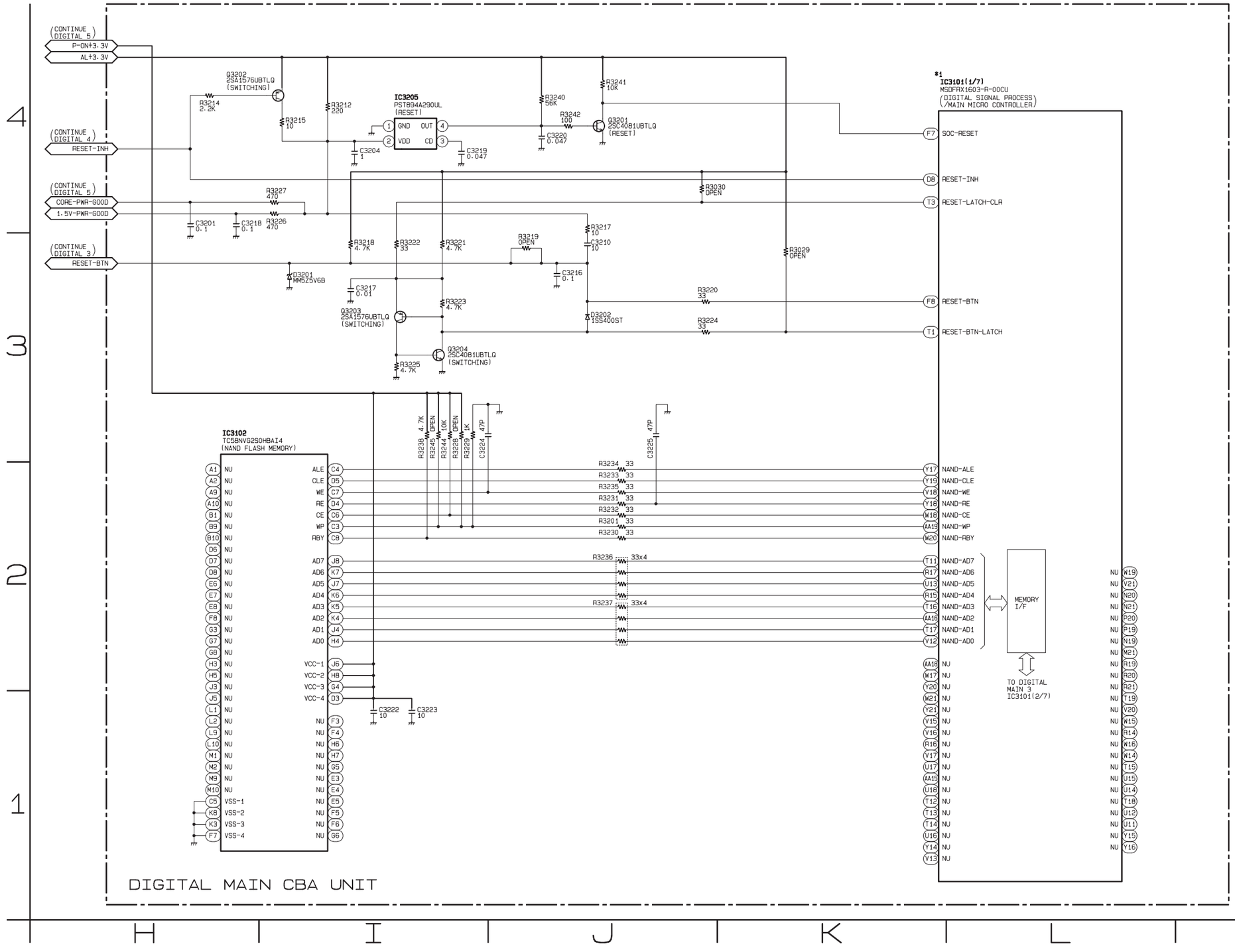
CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

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



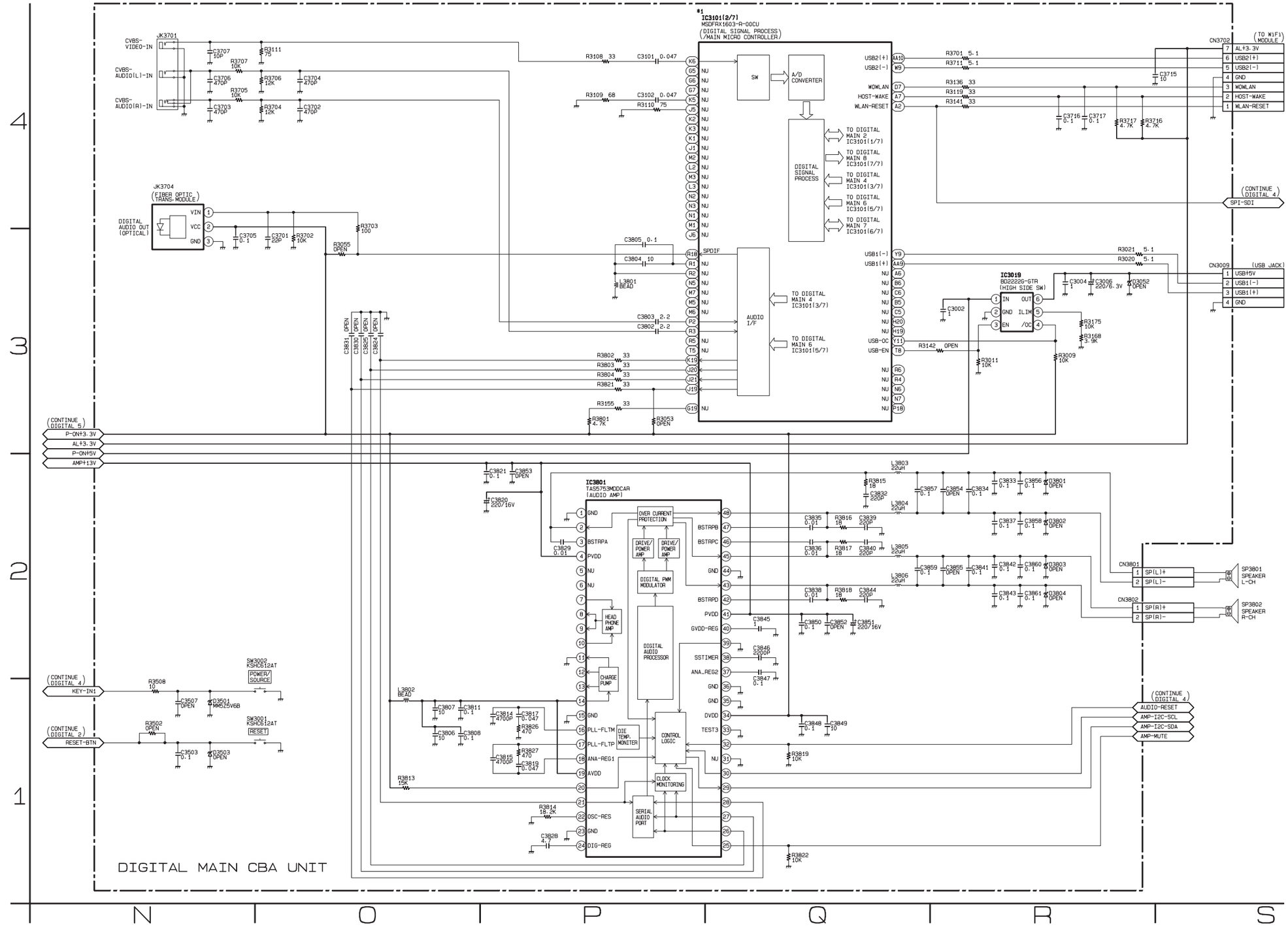
Digital Main 2 Schematic Diagram [TYPE C]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



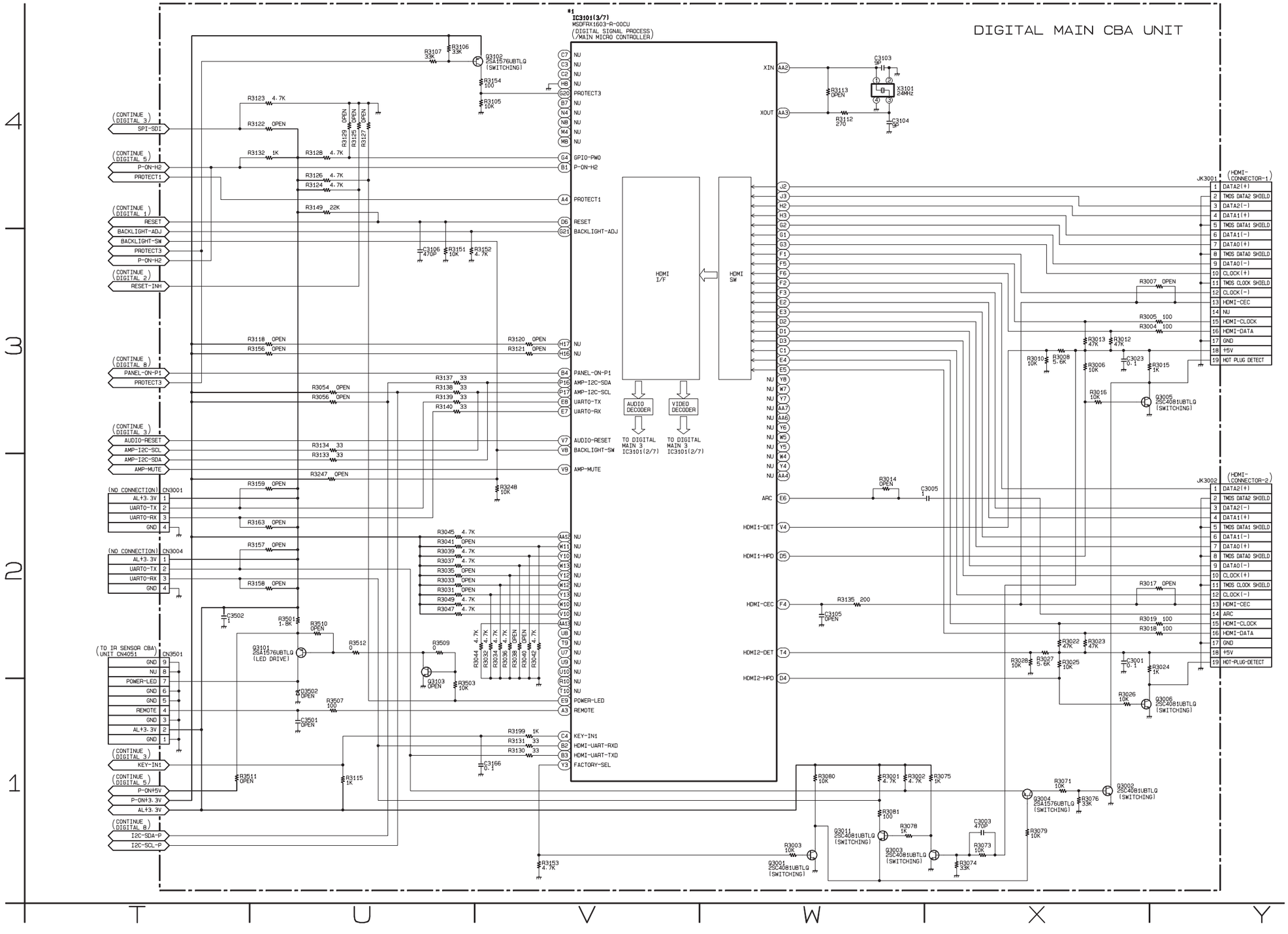
Digital Main 3 Schematic Diagram [TYPE C]

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



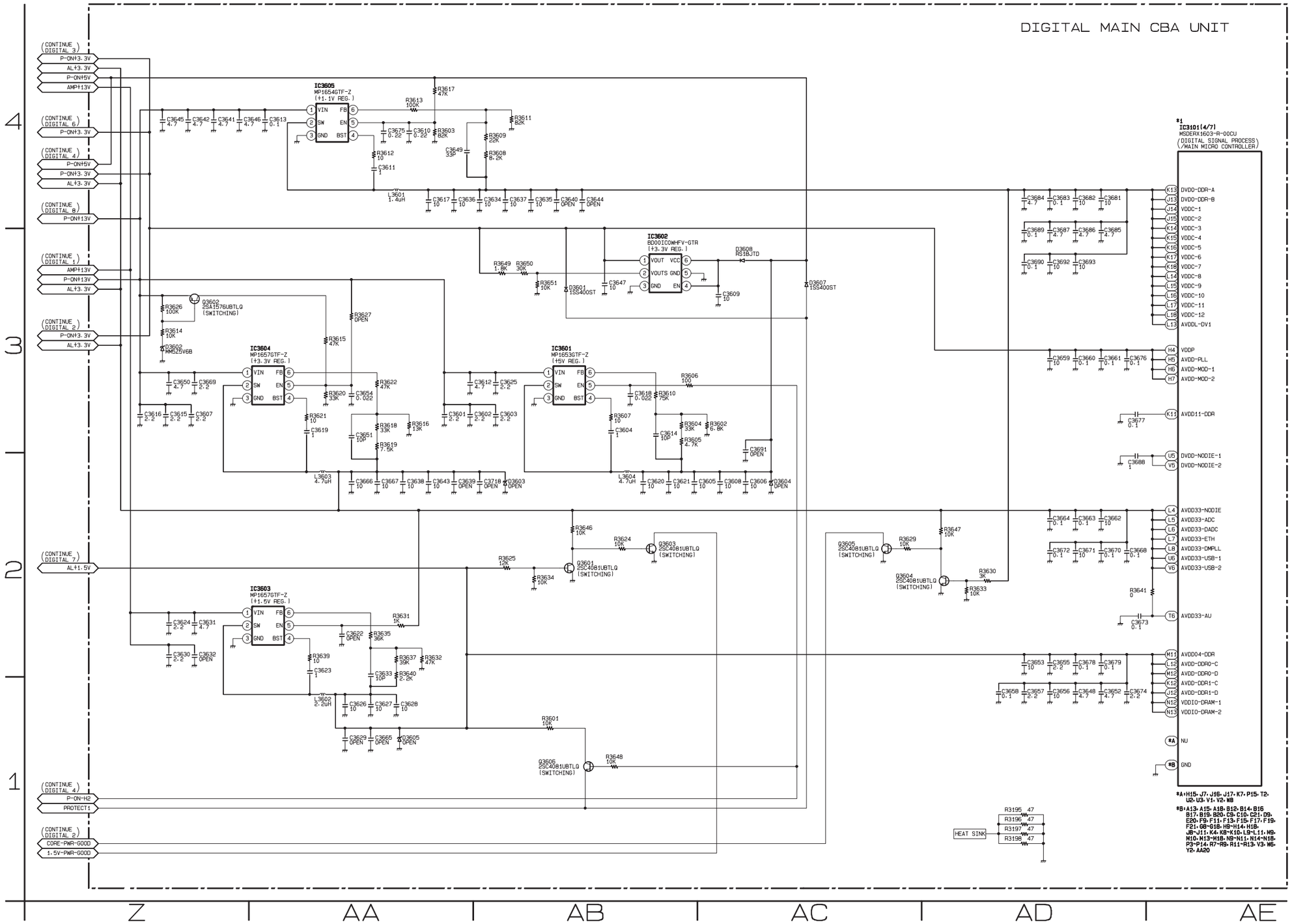
Digital Main 4 Schematic Diagram [TYPE C]

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



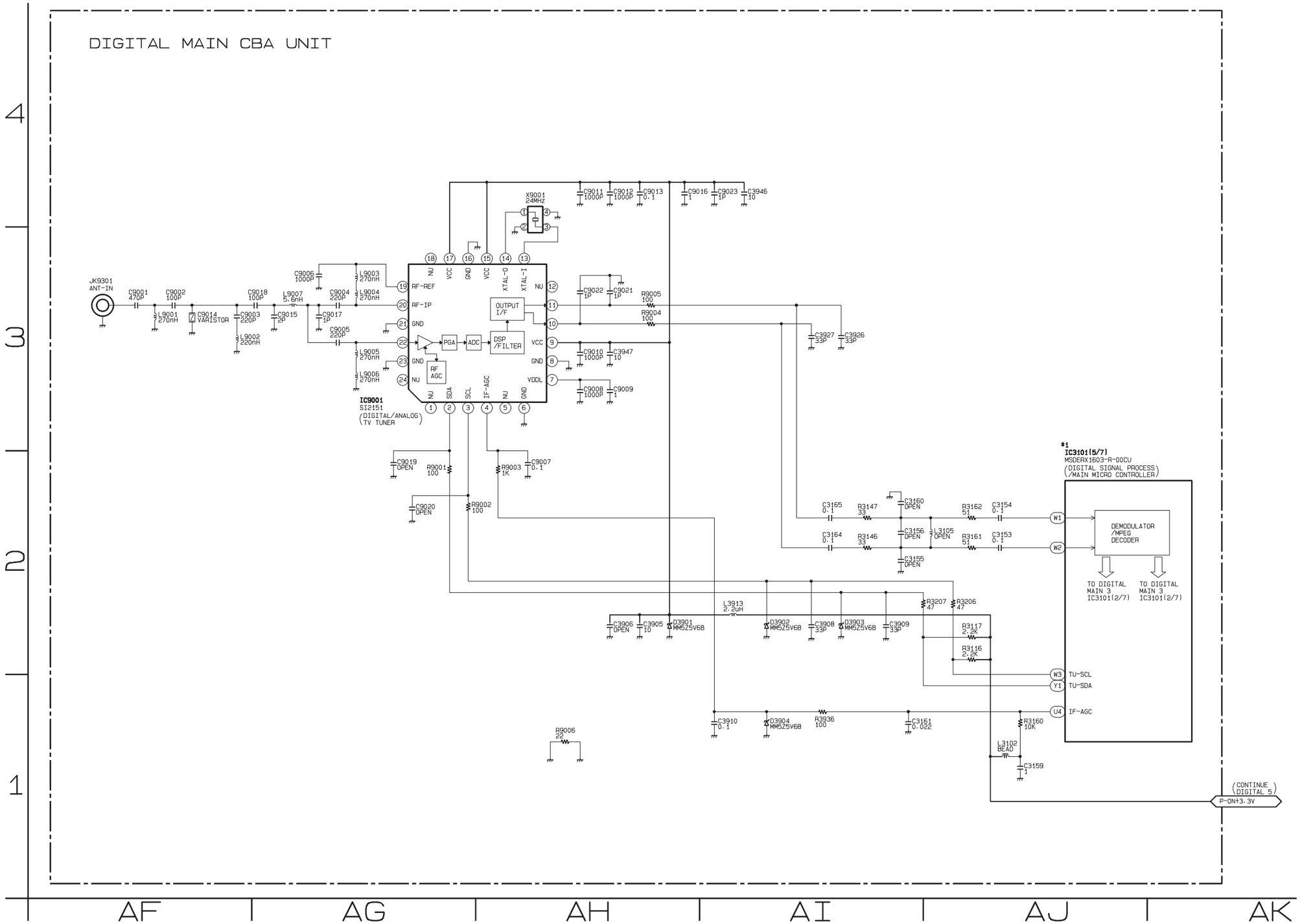
Digital Main 5 Schematic Diagram [TYPE C]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



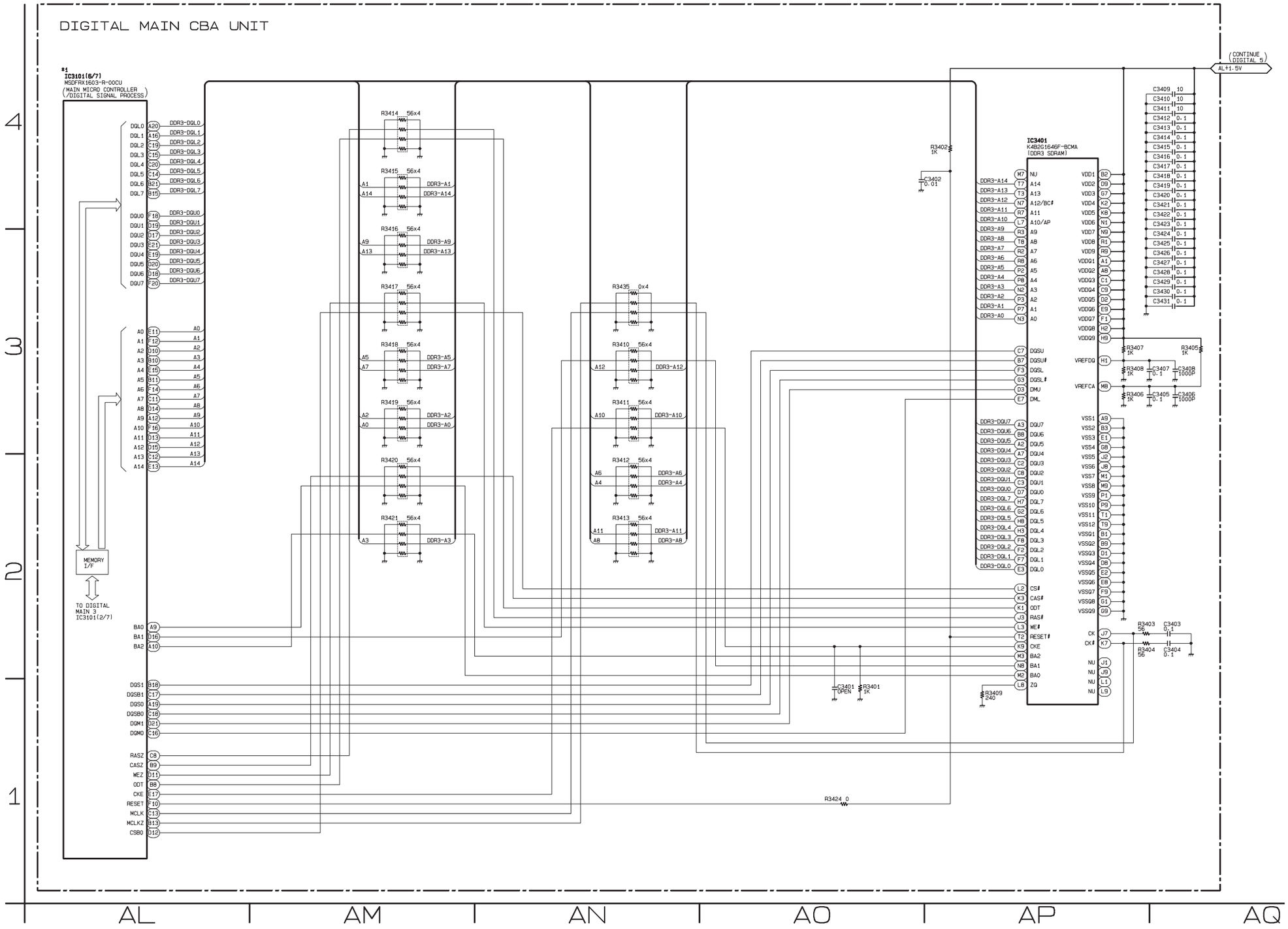
Digital Main 6 Schematic Diagram [TYPE C]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.



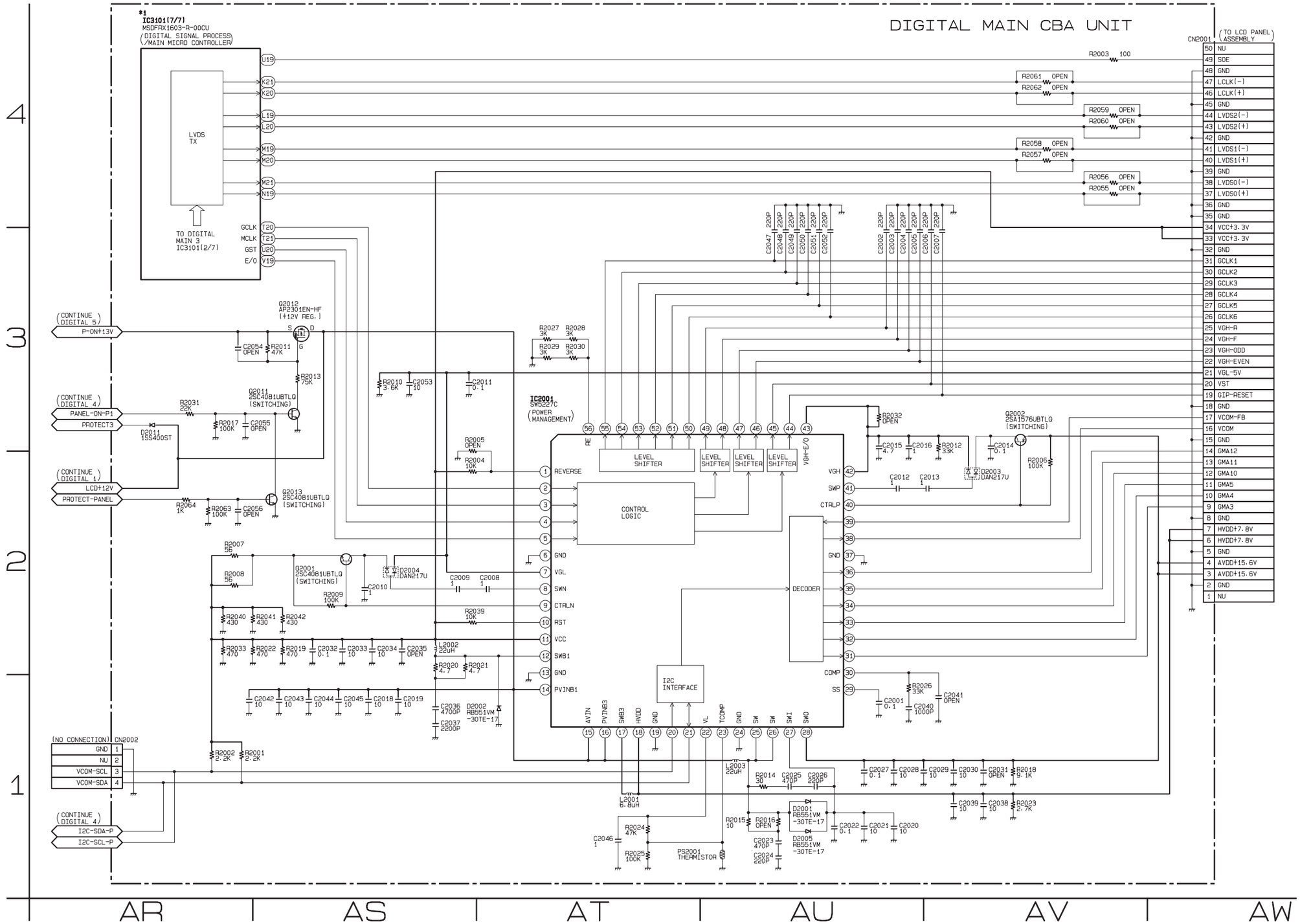
Digital Main 7 Schematic Diagram [TYPE C]

∗1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.

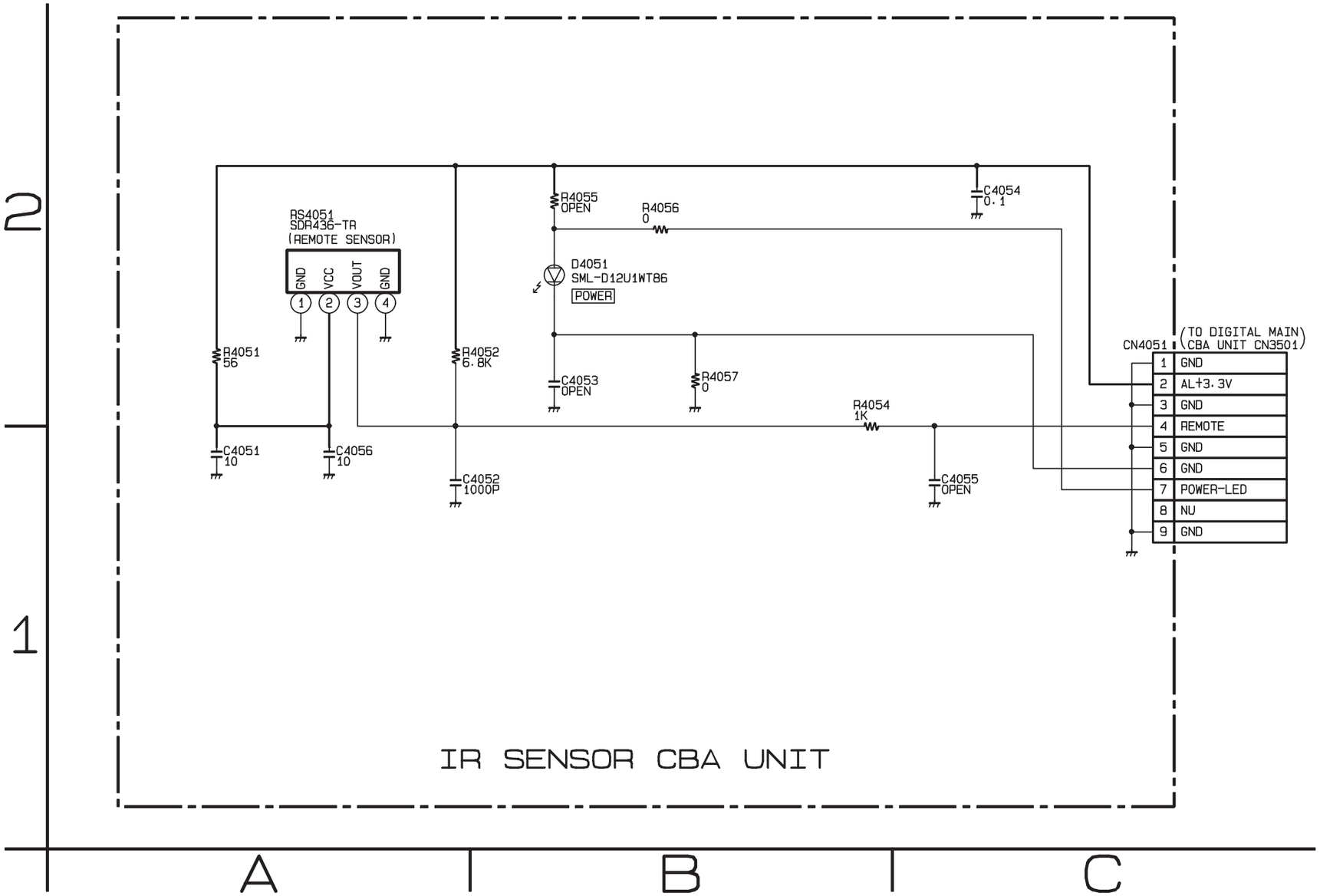


Digital Main 8 Schematic Diagram [TYPE C]

＊1 NOTE:
The order of pins shown in this diagram is different from that of actual IC3101.
IC3101 is divided into seven and shown as IC3101 (1/7) ~ IC3101 (7/7) in this Digital Main Schematic Diagram Section.

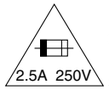


IR Sensor Schematic Diagram



Digital Main CBA Top View [TYPE A]

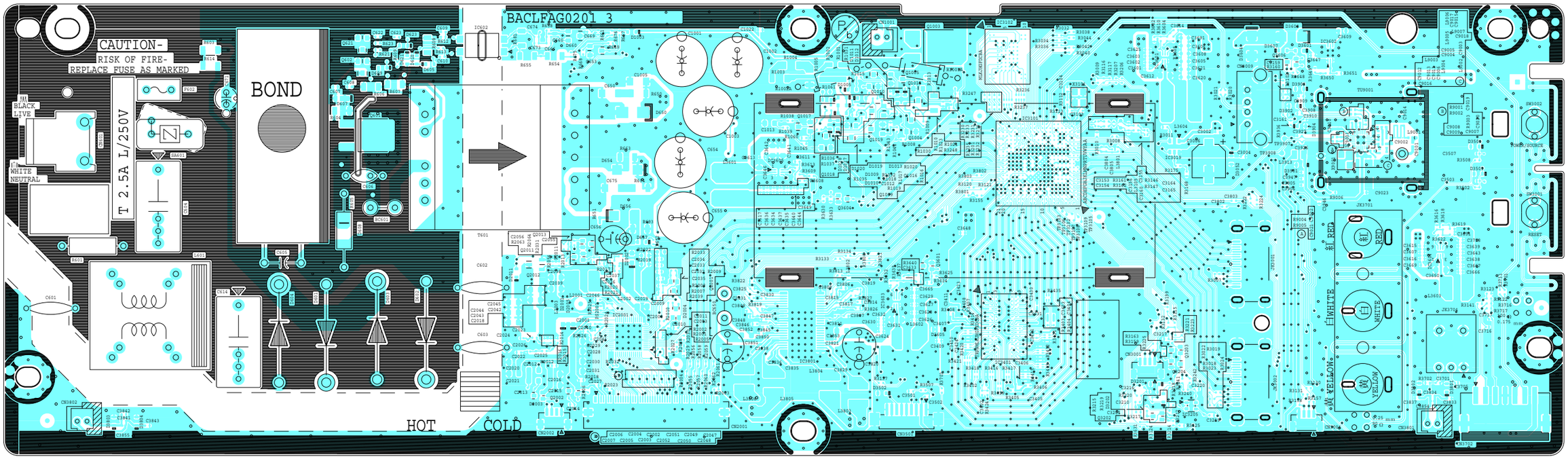
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

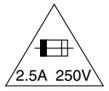
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

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



Digital Main CBA Bottom View [TYPE A]

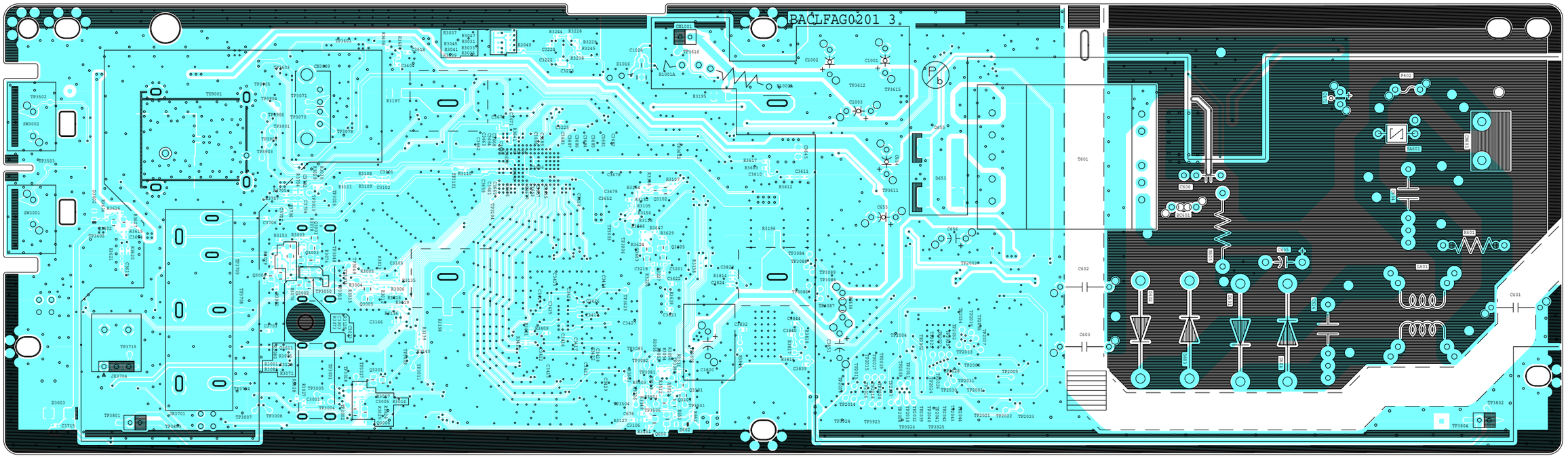
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 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.



Digital Main CBA Top View [TYPE B]

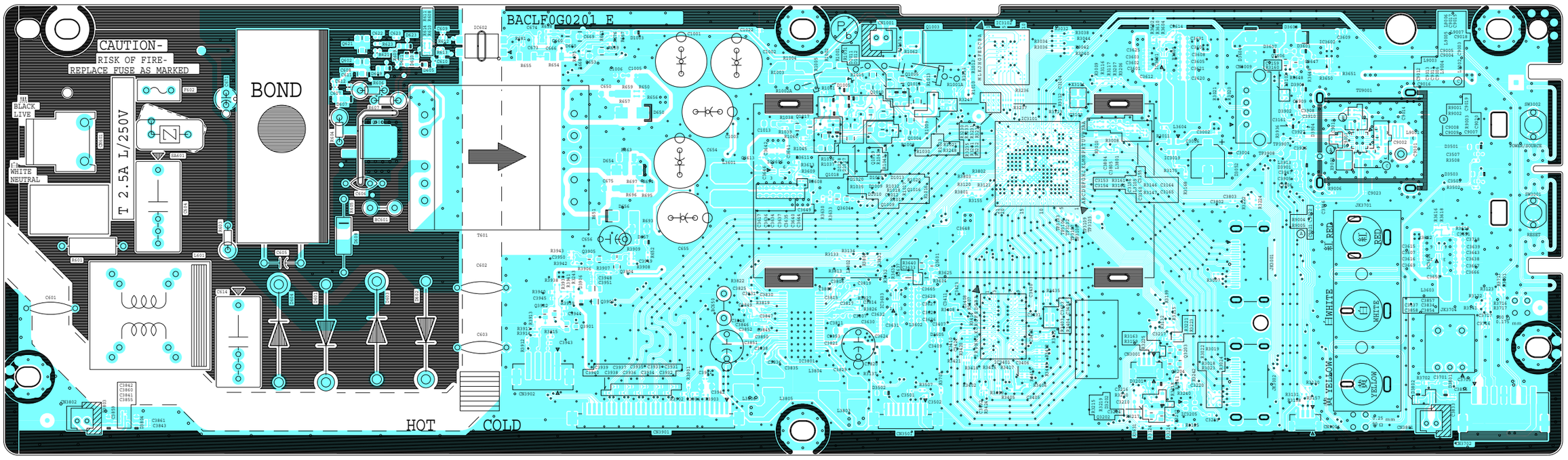
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.

2.5A 250V

CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

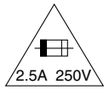
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

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



Digital Main CBA Bottom View [TYPE B]

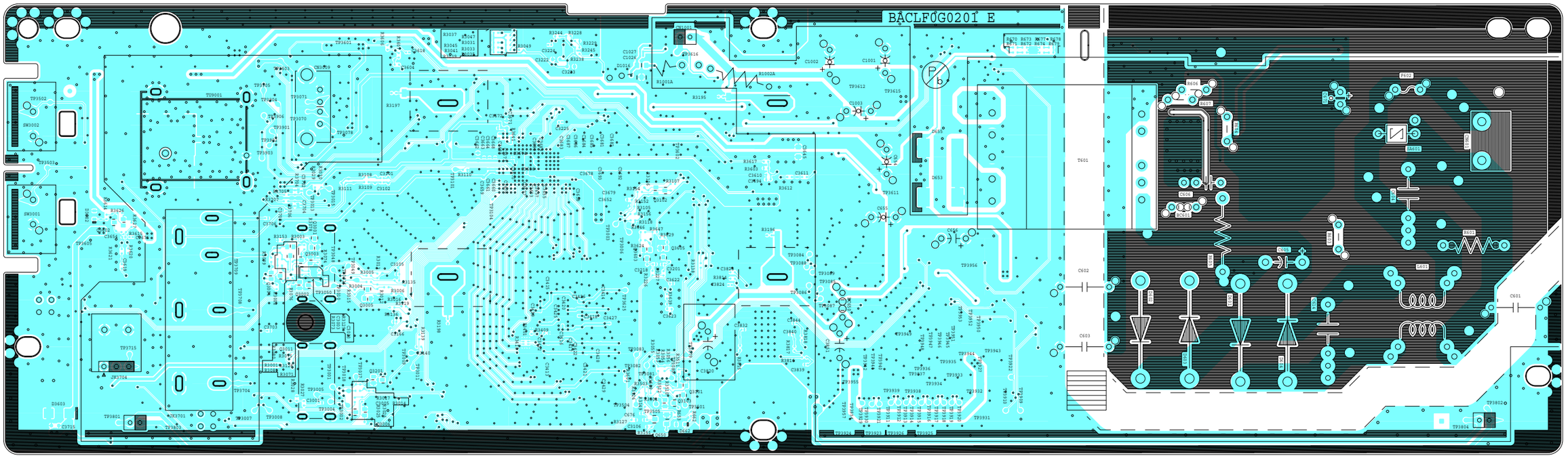
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 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.



Digital Main CBA Top View [TYPE C]

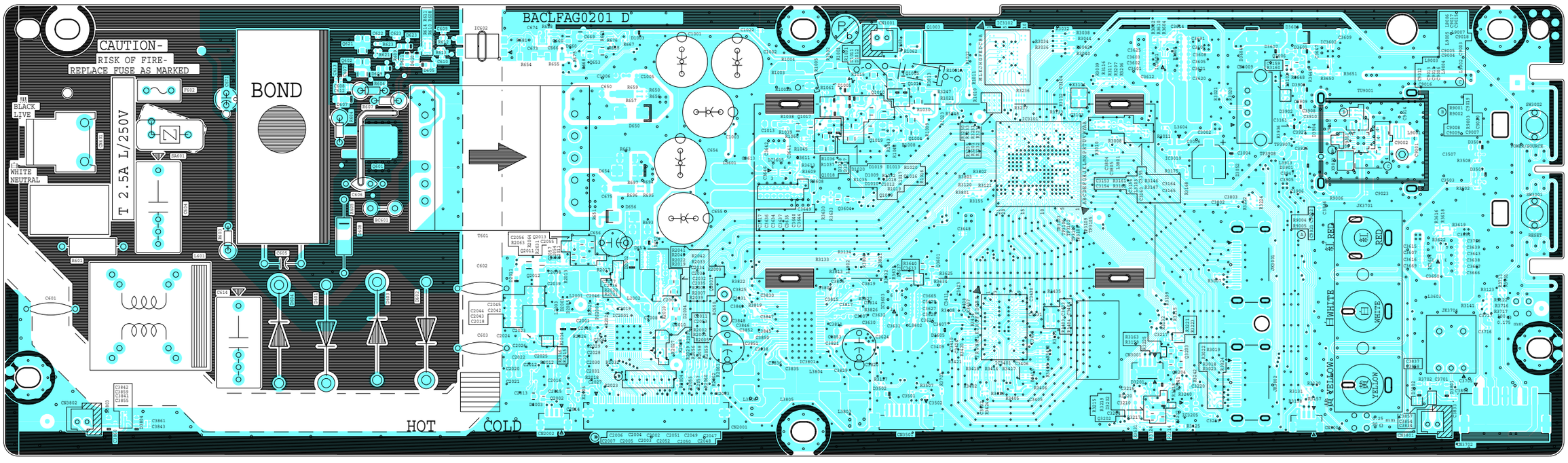
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply. Otherwise it may cause some components in the power supply circuit to fail.

2.5A 250V

CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

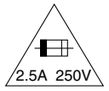
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

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



Digital Main CBA Bottom View [TYPE C]

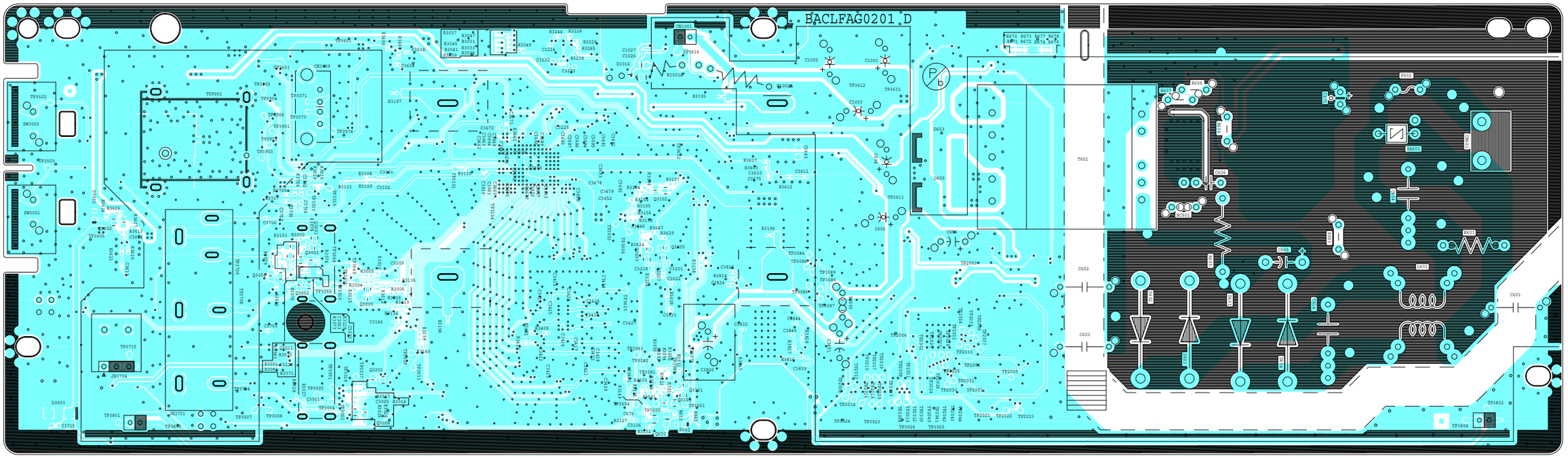
CAUTION !
Fixed voltage (or Auto voltage selectable) power supply circuit is used in this unit.
If Main Fuse (F602) is blown , check to see that all components in the power supply circuit are not defective before you connect the AC plug to the AC power supply.
Otherwise it may cause some components in the power supply circuit to fail.



CAUTION ! : For continued protection against risk of fire, replace only with same type 2.5A, 250V fuse.
ATTENTION : Utiliser un fusible de rechange de même type de 2.5A, 250V.

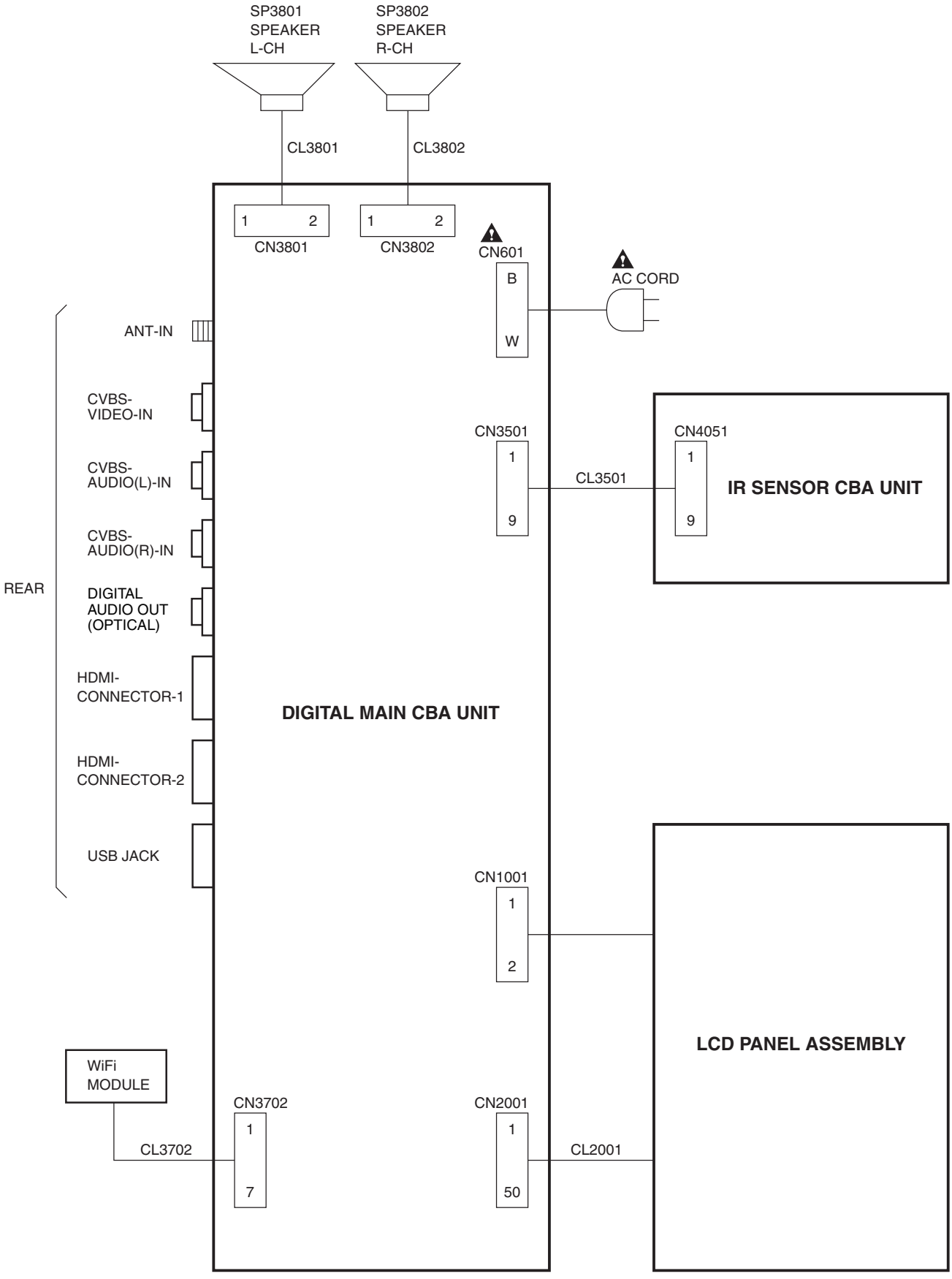
Because a hot chassis ground is present in the power supply circuit, an isolation transformer must be used when repairing. Also, in order to have the ability to increase the input slowly, when troubleshooting this type of power supply circuit, a variable isolation transformer is required.

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

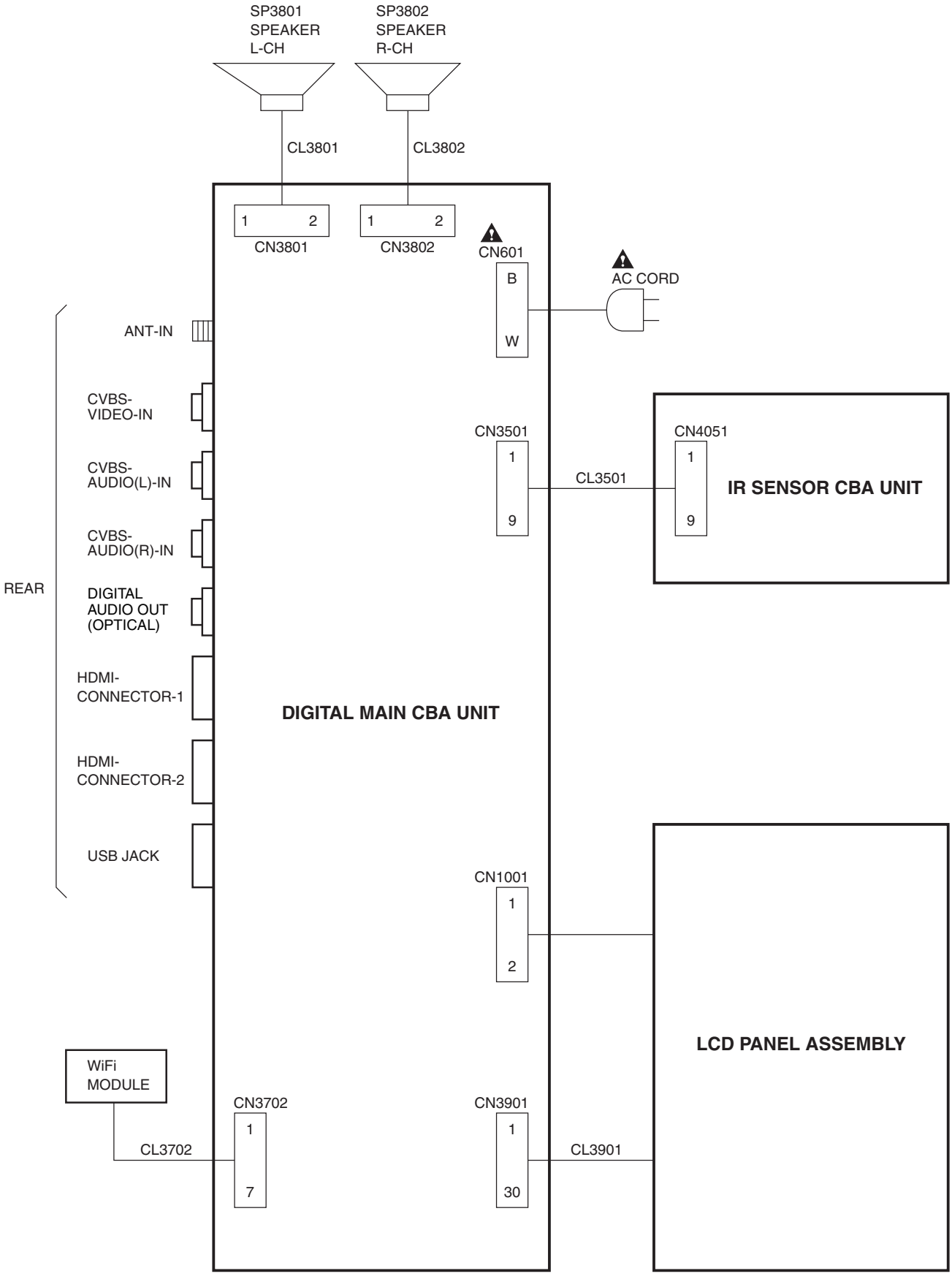


WIRING DIAGRAMS

[TYPE A, C]

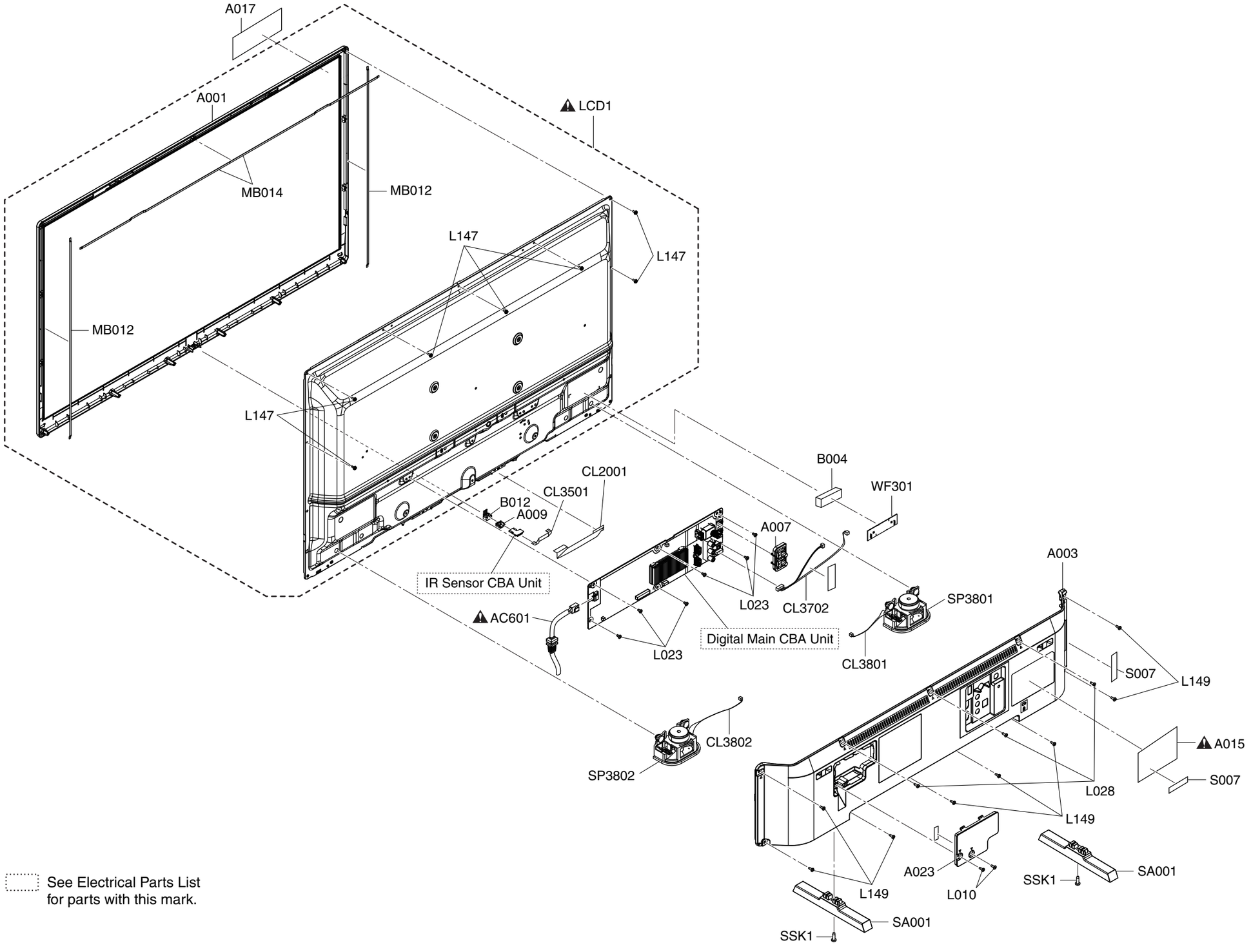


[TYPE B]

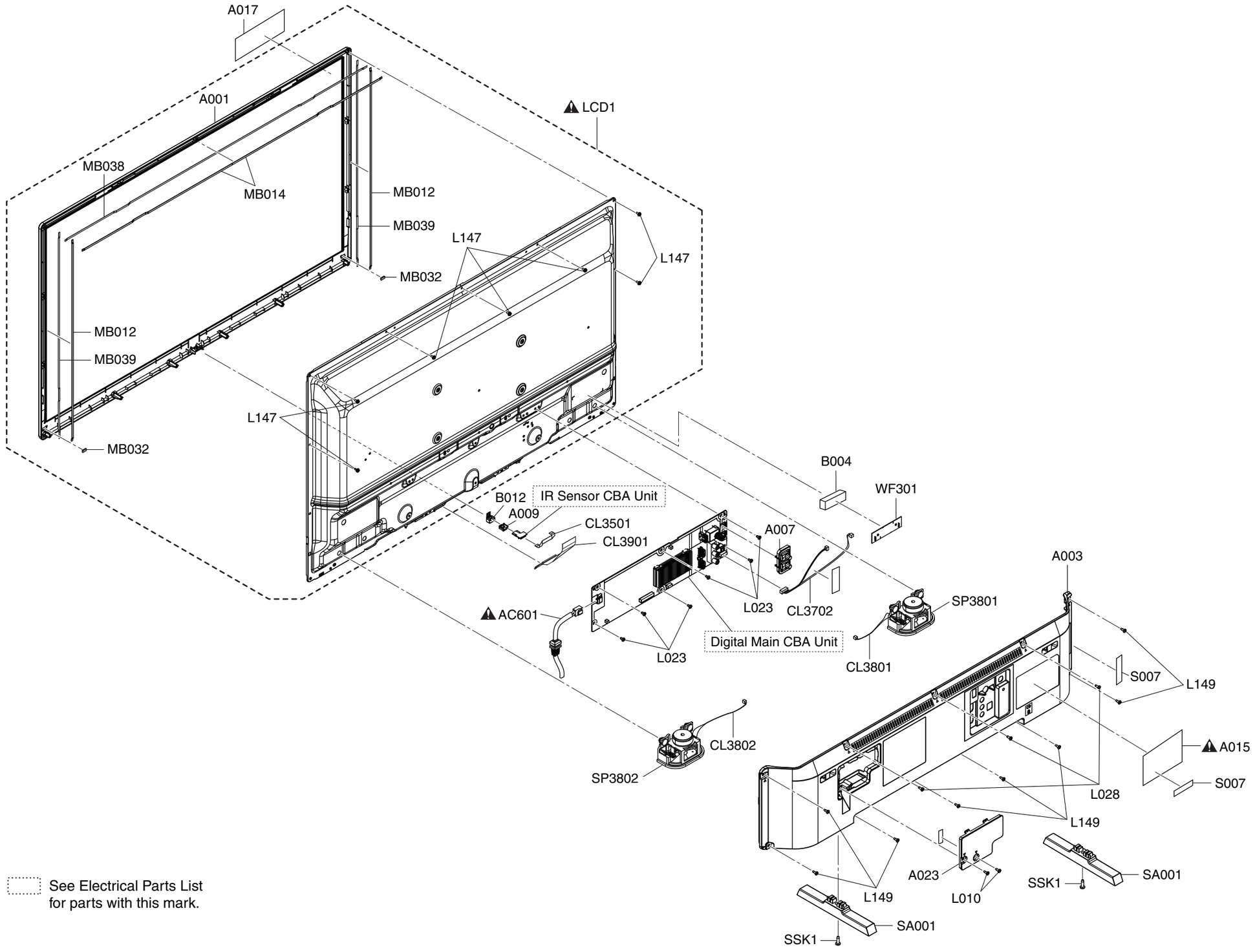

SP3801
SPEAKER
L-CH
SP3802
SPEAKER
R-CH
CL3801
CL3802
1
2
CN3801
1
2
CN3802
CN601
B
W
AC CORD
ANT-IN
CVBS-
VIDEO-IN
CVBS-
AUDIO(L)-IN
CVBS-
AUDIO(R)-IN
REAR
DIGITAL
AUDIO OUT
(OPTICAL)
HDMI-
CONNECTOR-1
HDMI-
CONNECTOR-2
USB JACK
CN3501
1
9
CL3501
CN4051
1
9
IR SENSOR CBA UNIT
DIGITAL MAIN CBA UNIT
CN1001
1
2
LCD PANEL ASSEMBLY
WiFi
MODULE
CL3702
CN3702
1
7
CN3901
1
30
CL3901

EXPLODED VIEWS

[TYPE A, C]

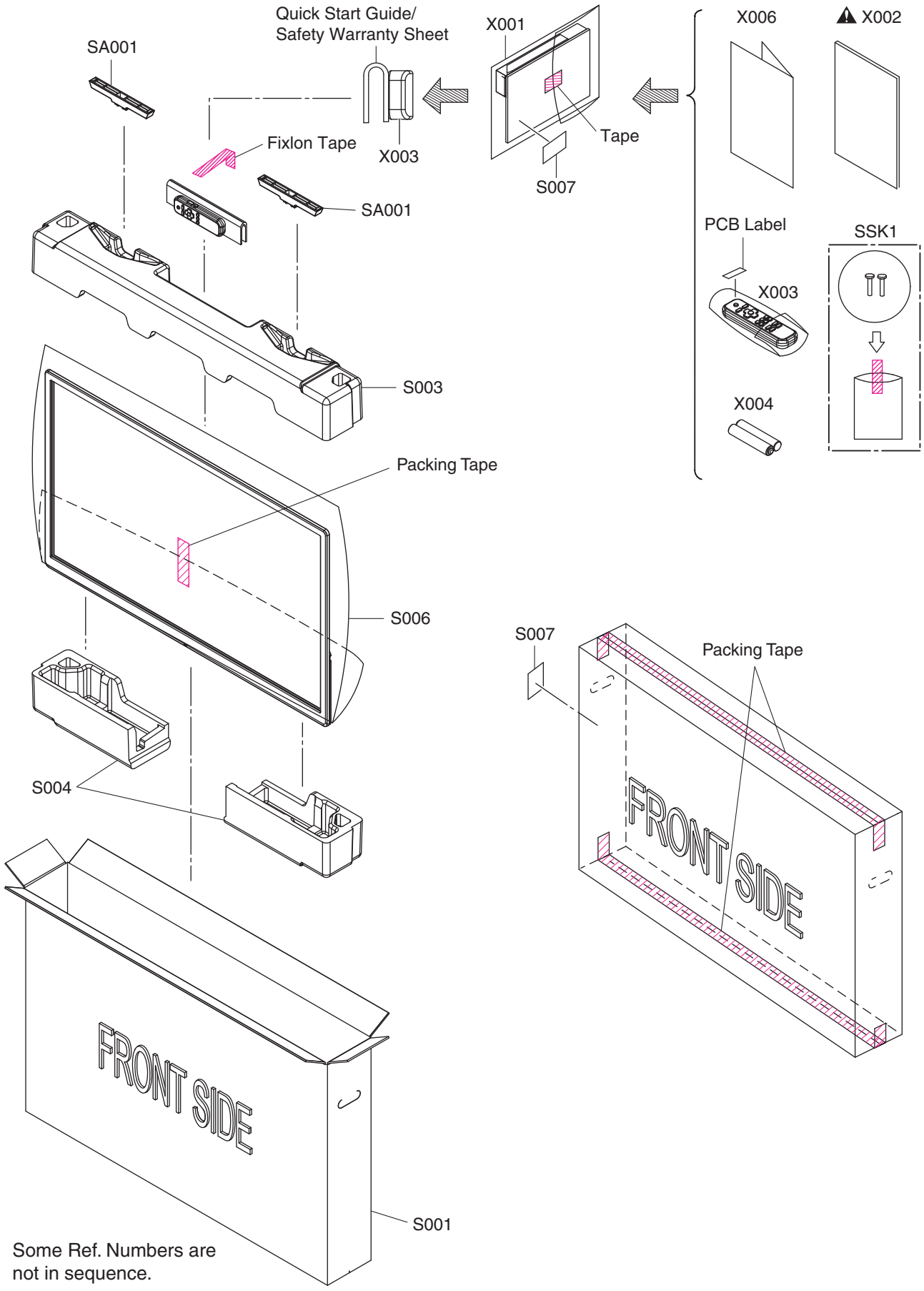


[TYPE B]



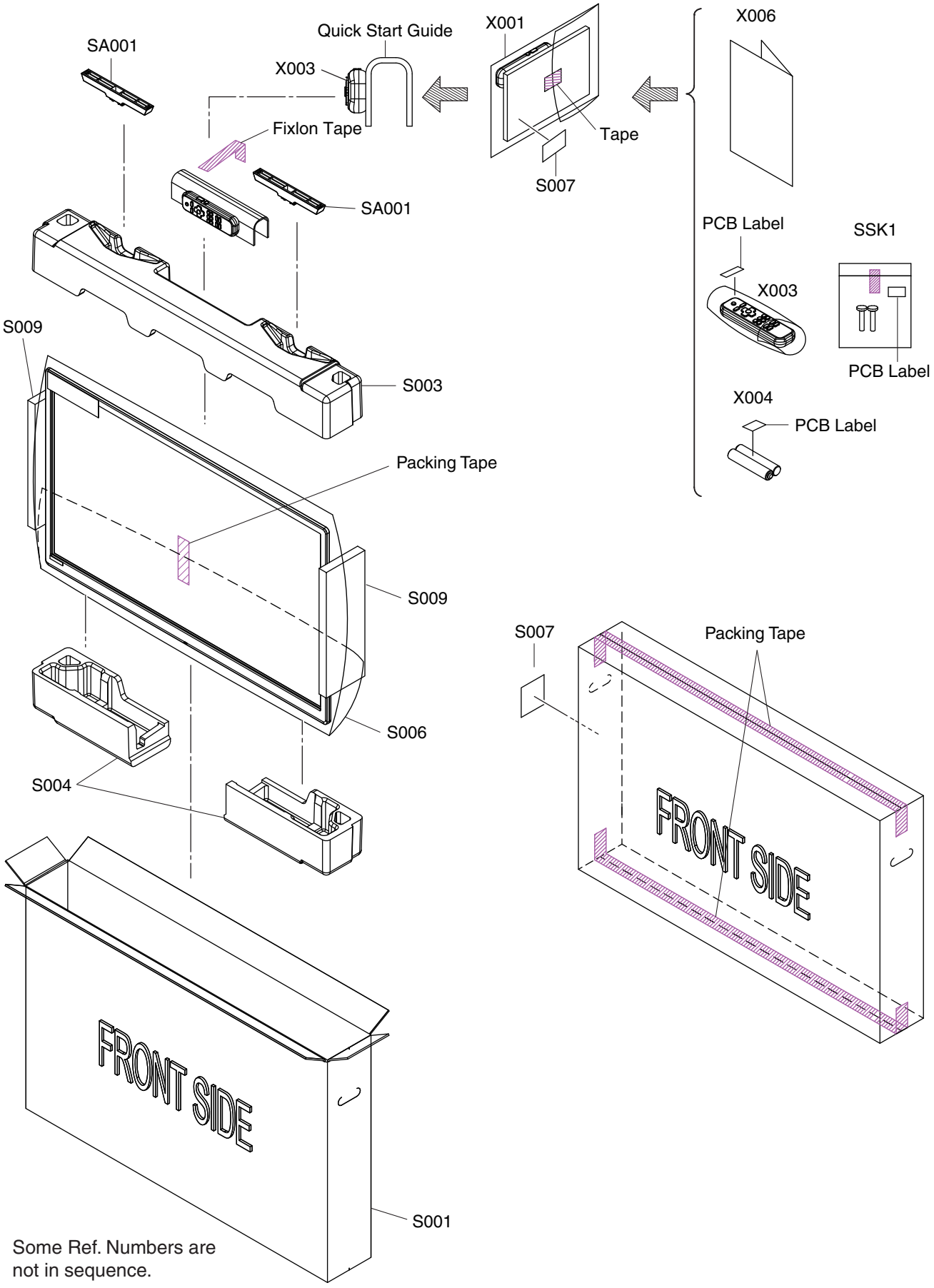
See Electrical Parts List for parts with this mark.

Packing [32PFL4664/F7 (Serial No.: ME1), TYPE B, C]



Some Ref. Numbers are not in sequence.

[32PFL4664/F7 A (Serial No.: ME9)]



Some Ref. Numbers are not in sequence.

TYPE A

PARTS LIST [32PFL4664/F7 (Serial No.: ME1)]

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.
A003	REAR COVER ACLF0UT-32HS	2EMM01533A
A007	FUNCTION KNOB ACLF0UT-32HS	2EMM01544
A009	SENSOR LENS ACLF0UT-32HS	2EMM01534
A015⚠	RATING LABEL ACLFJUT-32HL	----------
A017	ENERGY GUIDE LABEL ACLFJUT-32HL	----------
A023	AC CORD COVER ACLF0UT-32HS	2EMM01569
AC601⚠	AC CORD W/O A GND WIRE UL/CSA/1680/NO/ BLACK	WAC162LUX001
B004	CUSHION ACLF0UT-32HS	HK2EMZ01277
B012	SENSOR SHIELD ACLF0UT-32HS	2EMS00785A
CL2001	FFC WIRE ASSEMBLY 50PIN 50P/FFC/185MM	WX1ACLFAT101
CL3501	FFC WIRE ASSEMBLY 9PIN 9P/FFC/100MM	WX1ACLFAT211
CL3702	WIRE ASSEMBLY 7PIN 7PIN/125MM&185MM	WX1ACLFAC411
CL3801	WIRE ASSEMBLY 2PIN 2PIN/120MM	WX1ACLFAC301
CL3802	WIRE ASSEMBLY 2PIN 2PIN/85MM&90MM	WX1ACLFAC312
L010	SCREW F-PAN BLACK_NI +P-TITE M3X12.0 3X12 WASHER HEAD+BLK	GCHP3120
L023	SCREW BIND 3CHROM +S-TITE M3X6.0 M3X6 BIND HEAD+	GBJS3060
L028	SCREW F-PAN BLACK_NI +S-TITE M3X8.0 3X8 WASHER HEAD+BLAC	GCHS3080
L149	SCREW F-PAN BLACK_NI +P-TITE M3X7.5 3X7.5WASHER HEAD+BLK	2EML00060
SA001	STAND ASSEMBLY ACLVZUT-43UL	2ESA06570
SP3801	SPEAKER MAGNETIC 8OHM/10W BE-DQ4070F-15	DS0806BEL002
SP3802	SPEAKER MAGNETIC 8OHM/10W BE-DQ4070F-16	DS0806BEL003
SSK1	STAND SCREW KIT ACLFBUT-32HL(SCREW BIND BLACK_NI +P-TITE M4X18.0 M4X18 BIND HEAD+)	2ESA06068
WF301	WIRELESS MODULE U9W31UT	U9W31UT
S001	CARTON ACLFJUT-32HL	2EMC02032
S003	STYROFOAM TOP ACLF0UT-32HS	2EMC01811
S004	STYROFOAM BOTTOM ACLF0UT-32HS	2EMC01812
S006	SET BAG A31F0UT	2EMC00088B
S007	SERIAL NO. LABEL A4GF1UT	----------
X001	POLYETHYLENE BAG HDPE 180X340XT0.03	1EM435579
X002⚠	SAFETY WARRANTY SHEET ACLFJUT-32HL	2EMN00906A
X003	REMOTE CONTROL UNIT 1.01018E+61	URMT21CND009
X004	BATTERY DRY R03PVKDS2ZZD	XB00M0CLB003
X006	QUICK START GUIDE ACLFJUT-32HL	2EMN00907A

LCD PANEL ASSEMBLY

Ref. No.	Description	Part No.
LCD1⚠	LCD PANEL ASSEMBLY	UCDF2PA

Ref. No.	Description	Part No.
	Consists of the following	
A001	FRONT CABINET ACLFJUT-32HL	2EMM01657
	When servicing the FRONT CABINET, CELL CUSHION_400X3X1.5 (2EMZ01352), CELL CUSHION_350X3X1.5 (2EMZ01351), and DIFFUSING PLATE CUSHION (2EMZ01330) needs to be ordered and replaced together.	
L147	ASSEMBLED SCREW (D6.4 2.6X6 BIT2) ACLF0UT-32HS	2EML00056
MB012	CELL CUSHION_400X3X1.5 ACLFCUT-32HL	HK2EMZ01352
MB014	CELL CUSHION_350X3X1.5 ACLFCUT-32HL	HK2EMZ01351
	LCD 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	ACLFHMMA-004
	Following parts can be supplied.	
	CAPACITORS	
C602⚠	CAP CERAMIC SAFETY 1000pF/250V E M KX	CJMR102M42E1
C603⚠	CAP CERAMIC SAFETY 1000pF/250V E M KX	CJMR102M42E1
C604⚠	CAP METALLIZED FILM 0.22µF/275V_MPRC	CT8N224K02T1
C605	CAP ELE 330µF/200V/M/85	CEA3310S6016
C606	CERAMIC CAP. /_2 B K 100pF/2kV	CJTE101KB3D5
C607	CAP CHIP 1005 X7R/2.2nF/50V	CHT2220SM001
C608	CAP CHIP 1005 X7R/15nF/25V	CHU1530SM001
C609	CAP CHIP 1005 X7R/68nF/16V	CHV6830SM001
C610	CAP CHIP 1005 COG J 100pF/50V	CHK1010SM001
C614⚠	CAP METALLIZED FILM 0.22µF/275V_MPRC	CT8N224K02T1
C622	CAP CHIP 1005 X5R/100nF/16V	CHR1040SM001
C623	CAP CHIP 1005 X5R/4.7µF/6.3V	CHF4750SM002
C650	CHIP CERAMIC CAP.(3216) /_1 680pF/630V/ C0G/J	CGMR681JJ2J6
C654	CAP ELE 1000µF/16V/M/85	CEC1020V8006
C655	CAP ELE 1000µF/16V/M/85	CEC1020V8006
C656	CAP ELE 1µF/50V/M/85	CEF1R00V8006
C660	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C666	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C669	CAP CHIP 1005 COG J 100pF/50V	CHK1010SM001
C671	ELECTROLYTIC CAP. 10µF/16V M H7	CE1CMAVSL100
C673	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C674	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C1001	CAP ELE 47µF/100V/M/85	CEH4700V8006
C1002	CAP ELE 47µF/100V/M/85	CEH4700V8006
C1003	CAP ELE 47µF/100V/M/85	CEH4700V8006
C1012	CAP CHIP 1005 X5R/1µF/6.3V	CHP1050SM001
C1013	CAP CHIP 2125 X5R/4.7µF/25V	CHSM475K5EE1
C1022	CAP CHIP 1005 X5R/1µF/16V	CHR1050SM001
C1026	CAP CHIP 1005 X7R/K/22nF/16V	CHV2230SM001
	CONNECTOR	
CN601⚠	CONNECTOR S2P3-VH (LF)(SN)	JCVHC02JG002
CN1001	CONNECTOR PRINT OSU JS-1125-02KK	J3JT02CHY002

Ref. No.	Description	Part No.
	DIODES	
D601	DIODE 1N5406BRV	NDWZ001N5406
D602	DIODE 1N5406BRV	NDWZ001N5406
D603	DIODE 1N5406BRV	NDWZ001N5406
D604	DIODE 1N5406BRV	NDWZ001N5406
D605	ZENER DIODE MM5Z4V3B	ND1BMM5Z4V3B
D608	DIODE ZENER SMD KDZVTR36B	QD1B0KDZV36B
D609	DIODE SCHOTTKY SMD RB520SM-30 T2R	QD1ZRB520SM3
D610	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D621	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D623	ZENER DIODE MM5Z36B	ND1B0MM5Z36B
D650	DIODE FAST RECOVERY SMD RS2G	ND1Z0000RS2G
D653	DIODE SCHOTKY SMD SS310	ND1Z000SS310
D654	ZENER DIODE PTZTE2518B	QD1B000PTZ18
D655	DIODE SCHOTKY SMD SS310	ND1Z000SS310
D656	DIODE FAST RECOVERY RS1BJTD	ND1Z0RS1BJTD
D657	ZENER DIODE MM5Z8V2B	ND1BMM5Z8V2B
D660	IC SHUNT REGULATOR AS431BNTR-E1	NSCA0TBCD041
D662	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1003	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1005	ZENER DIODE MM5Z8V2B	ND1BMM5Z8V2B
D1009	ZENER DIODE MM5Z36B	ND1B0MM5Z36B
D1010	ZENER DIODE MM5Z36B	ND1B0MM5Z36B
D1011	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1012	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1016	IC SHUNT REGULATOR AZ431LBNTR-G1	NSCA0TDES025
D1017	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1018	DIODE SWITCHING SMD 1SS400ST(SOD-523)	ND1Z1SS400ST
D1019	ZENER DIODE MM5Z20B	ND1B0MM5Z20B
D1020	ZENER DIODE MM5Z20B	ND1B0MM5Z20B
	ICS	
IC602⚠	PHOTO COUPLER LTV-816S-TP-C	NP2C0LTV816S
IC2001	POWER MANAGEMENT IC SW5227C	NSCA0T0GS006
IC3019	IC HIGH SIDE SW BD2222G-GTR	QSCA0T0RM449
IC3101	IC MSDFRX1603 MSDFRX1603-R-00CU	NSAA0RMST015
IC3102	IC NAND FLASH 4GB TC58NVG2S0HBAI4	QSCA0R0TS181
IC3205	IC RESET PST894A290UL	QA2R9T0MM015
IC3401	IC 2GB DDR3 SDRAM K4B2G1646F-BCMA	NSCA0R0SM061
IC3601	IC DC-DC CONVERTER MP1653GTF-Z	NSCA0T09M038
IC3602	IC REGULATOR BD00IC0WHFV-GTR	QAADJ00RM003
IC3603	IC DC-DC CONVERTER MP1657GTF-Z	NSCA0T09M047
IC3604	IC DC-DC CONVERTER MP1657GTF-Z	NSCA0T09M047
IC3605	IC DC-DC CONVERTER MP1654GTF-Z	NSCA0T09M042
IC3801	IC D-CLASS AUDIO POWER AMPLIFI TAS5753MDDCAR	NSCA0T0TY156
IC9001	IC SILICON TUNER SI2151-A10-GMR	NSCA0T05S010
	COILS	
L601⚠	COIL LINE FILTER ST1803FT20-098/13MH	LLEG0Z0Y2044
	TRANSISTORS	
Q601	FET MOS/_2 STD10N60M2	NF2ZD10N60M2
Q602	NPN TRANSISTOR SMD KTC8050S-D-RTK/P	NQ1DKTC8050S
Q621	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q650	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q653	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1003	FET MOS SMD AP18T10AGH-HF	NF2Z18T10AGH
Q1004	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1005	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1009	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1010	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S

Ref. No.	Description	Part No.
Q1015	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1016	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1017	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1018	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
Q1019	CHIP TRANSISTOR KTC3875S-Y-RTK/P	NQ1YKTC3875S
RESISTORS		
R601⚠	RES CARBON FILM /T_ 1/2W J 1.2 M Ω	RCJ125RYL001
R603	RES CHIP 3216 1/4W J 330k Ω	RRX4334HH034
R604	RES CHIP 3216 1/4W J 330k Ω	RRX4334HH034
R605	METALOXIDE RES 2W J 0.36Ω	RNJR36PAK002
R606	RES CHIP 3216 1/4W J 220 Ω	RRX4221HH034
R607	RES CHIP 3216 1/4W J 220 Ω	RRX4221HH034
R608	RES CHIP 3216 1/4W J 1.5k Ω	RRX4152HH034
R609	CHIP RES.(1005) 1/16W J 100 Ω	RRXG101HH004
R612	RES CHIP 1005 1/16W J 3.9k Ω	RRXG392HH004
R613	RES CHIP 1005 1/16W J 330 Ω	RRXG331HH004
R614	RES CHIP 3216 1/4W J 330k Ω	RRX4334HH034
R621	CHIP RES. 1/16W J 560 Ω	RRXG561HH004
R623	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R650	RES CHIP 3216 1/4W J 2.2 Ω	RRX42R2HH034
R651	RES CHIP 1608 1/10W J 1.0 Ω	RRXA1R0HH013
R652	RES CHIP 1005 1/16W F 27.0k Ω	RTV2702HH004
R653	RES CHIP 1005 1/16W F 33.0k Ω	RTV3302HH004
R654	RES CHIP 3216 1/4W J 220 Ω	RRX4221HH034
R655	RES CHIP 3216 1/4W J 220 Ω	RRX4221HH034
R658	RES CHIP 1005 1/16W J 270 Ω	RRXG271HH004
R661	RES CHIP 1005 1/16W F 10k Ω	RTV1002HH004
R662	CHIP RES.(1005) 1/16W F 12k Ω	RTV1202HH004
R667	RES CHIP 1005 1/16W F 22k Ω	RTV2202HH004
R668	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R669	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R675	RES CHIP 1005 1/16W F 24.0k Ω	RTV2402HH004
R676	RES CHIP 1005 1/16W F 2.2k Ω	RTV2201HH004
R681	RES CHIP 3216 1/4W J 1k Ω	RRX4102HH034
R1002A	METALOXIDE RES 1W J 4.3Ω	RNJ4R3PAK001
R1008	CHIP RES.(1005) 1/16W J 1k Ω	RRXG102HH004
R1009	RES CHIP 1005 1/16W J 6.8k Ω	RRXG682HH004
R1010	RES CHIP 3216 1/4W J 2.2k Ω	RRX4222HH034
R1013	CHIP RES. 1/16W J 10 Ω	RRXG100HH004
R1015	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1016	RES CHIP 1005 1/16W J 33k Ω	RRXG333HH004
R1017	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1018	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1019	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1020	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1021	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1023	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R1030	RES CHIP 1005 1/16W J 6.8k Ω	RRXG682HH004
R1031	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R1032	CHIP RES.(1005) 1/16W 0 Ω	RRXG000HH005
R1035	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1036	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1037	CHIP RES.(1005) 1/16W J 1k Ω	RRXG102HH004
R1038	CHIP RES. 1/16W J 100k Ω	RRXG104HH004
R1039	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1042	CHIP RES.(1005) 1/16W J 1k Ω	RRXG102HH004
R1043	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1045	CHIP RES. 1/16W J 47k Ω	RRXG473HH004
R1060	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1061	RES CHIP 1608 1/10W J 10k Ω	RRXA103HH013
MISCELLANEOUS		
BC601	BEAD INDUCTORS B29 RID 2.3X7.5X7.5T	LLEF0S0XM002
BC650	BEAD INDUCTORS B29 RID 2.3X7.5X7.5T	LLEF0S0XM002
F602⚠	FUSE TIME LAG 2010T2.5A1	PDG21B0W3252
SA601⚠	VARISTOR 10D 471K SVR	NVQZVR10D471
T601⚠	TRANS POWER ST1712EER26.7-001	LTT2PC0Y2019

IR SENSOR CBA UNIT

Ref. No.	Description	Part No.
	IR SENSOR CBA UNIT	ACLFBMJC-001

TYPE A

PARTS LIST [32PFL4664/F7 A (Serial No.: ME9)]

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 32PFL4664/F7 (Serial No. : ME1)

Ref. No.	Description	Part No.
A015⚠	RATING LABEL ACLFRUT-32HL	---------
SP3801	SPEAKER MAGNETIC 8OHM/10W S0407F52A	DS08060XQ011
SP3802	SPEAKER MAGNETIC 8OHM/10W S0407F52B	DS08060XQ012
S001	CARTON ACLFRUT-32HL	2EMC02340
S009	PAD 285X101X19 ACLFZUT-32HL	2EMC02196
X002	Not used	
X006	QUICK START GUIDE ACLLEUT-24HX	2EMN01003
LCD1⚠	LCD PANEL ASSEMBLY	UCDF1PA
MB012	CELL CUSHION_400X3X1.5 ACLFCUT-32HL	2EMZ01352
MB014	CELL CUSHION_350X3X1.5 ACLFCUT-32HL	2EMZ01351

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 32PFL4664/F7 (Serial No. : ME1)

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACLFSMMA-001

TYPE B

PARTS LIST [32PFL4664/F7 (Serial No.: ME3)]

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 32PFL4664/F7 (Serial No. : ME1)

Ref. No.	Description	Part No.
CL2001	Not used	
CL3901	FFC WIRE ASSEMBLY 30PIN 30P/FFC/58MM	WX1ACLF0C111
LCD1⚠	LCD PANEL ASSEMBLY	UCGF0PA
LCD1⚠	LCD PANEL ASSEMBLY	UCGF1PA
MB032	GASKET AA7R1UH	HK2EMZ00771
MB038	GRAND TAPE U A5DFHMA	HK2EMZ00673
MB039	GRAND TAPE LR A4GF1UT	HK2EMZ00137

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 32PFL4664/F7 (Serial No. : ME1)

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACLFGMMAR006
C607	CHIP CERAMIC CAP.(0603) X5R/K/4700pF/25V	CHMR472K5EA2
C608	CHIP CERAMIC CAP.(0603) X5R/K/0.010µF/25V	CHMR103K5EA2
C609	CHIP CERAMIC CAP.(0603) X5R/K/0.047µF/ 6.3V	CHSM473K56A1
C610	CHIP CERAMIC CAP.(0603) CH J 100pF/50V	CHTU101JCHA1
C611	CHIP CERAMIC CAP.(0603) X5R/K/4700pF/25V	CHMR472K5EA2
C612	CHIP CERAMIC CAP.(0603) X5R/K/4700pF/25V	CHMR472K5EA2
C622	CHIP CERAMIC CAP.(0603) X5R K 0.1µF/25V	CHTU104K5EA1
C623	CHIP CERAMIC CAP.(1005) X5R M 4.7µF/6.3V	CHTU475M56B1
C650	CHIP CERAMIC CAP.(2125) 680pF/630V/C0G/J	CGMR681JJ2J1
C660	CHIP CERAMIC CAP.(1005) X5R K 1µF/25V	CHTU105K5EB1
C666	CHIP CERAMIC CAP.(1005) X5R K 1µF/25V	CHTU105K5EB1
C669	CHIP CERAMIC CAP.(0603) CH J 100pF/50V	CHTU101JCHA1
C673	CHIP CERAMIC CAP.(1005) X5R K 1µF/25V	CHTU105K5EB1
C674	CHIP CERAMIC CAP.(1005) X5R K 1µF/25V	CHTU105K5EB1
C1012	CHIP CERAMIC CAP.(1005) X5R K 1µF/6.3V	CHTU105K56B1
C1013	CAP CHIP 2125 X5R/4.7µF/50V	CHSM475K5HE1
C1022	CHIP CERAMIC CAP.(1005) X5R K 1µF/25V	CHTU105K5EB1
C1026	CHIP CERAMIC CAP.(0603) X5R/K/0.010µF/25V	CHMR103K5EA2
C1027	CHIP CERAMIC CAP.(0603) X5R/K/0.010µF/25V	CHMR103K5EA2
IC2001	Not used	
R603	RES METAL OXIDE 1/2W J 470k Ω	RNJ474PAK018
R604	RES METAL OXIDE 1/2W J 470k Ω	RNJ474PAK018
R606	RES METAL OXIDE 1/2W J 220 Ω	RNJ221PAK018
R607	RES METAL OXIDE 1/2W J 220 Ω	RNJ221PAK018
R608	RES CHIP 1005 1/16W J 1.5k Ω	RRXG152HH004
R610	RES CHIP 1005 1/16W J 1.5k Ω	RRXG152HH004
R611	RES CHIP 1005 1/16W J 1.5k Ω	RRXG152HH004
R614	RES CHIP 1005 1/16W J 1.5k Ω	RRXG152HH004
R650	RES CHIP 1005 1/16W J 2.2 Ω	RRXG2R2YF001
R651	RES CHIP 1005 1/16W J 1 Ω	RRXG1R0YF001
R656	RES CHIP 1005 1/16W J 2.2 Ω	RRXG2R2YF001
R657	RES CHIP 1005 1/16W J 2.2 Ω	RRXG2R2YF001
R659	RES CHIP 1005 1/16W J 2.2 Ω	RRXG2R2YF001
R681	CHIP RES.(1005) 1/16W J 1k Ω	RRXG102HH004
R1010	CHIP RES.(1005) 1/16W J 680 Ω	RRXG681HH004
R1011	CHIP RES.(1005) 1/16W J 680 Ω	RRXG681HH004
R1012	CHIP RES.(1005) 1/16W J 680 Ω	RRXG681HH004
R1061	CHIP RES.(1005) 1/16W J 10k Ω	RRXG103HH004
R1062	CHIP RES. 1/16W J 10 Ω	RRXG100HH004
R1063	CHIP RES. 1/16W J 10 Ω	RRXG100HH004

TYPE B

PARTS LIST [32PFL4664/F7 (Serial No.: ME7)]

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 B 32PFL4664/F7 (Serial No. : ME3)

Ref. No.	Description	Part No.
A015⚠	RATING LABEL ACLFPUT-32HL	---------
WF301	WIRELESS LAN MODULE ETWFFTBC01	UWLMDL0GS005

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 B 32PFL4664/F7 (Serial No. : ME3)

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACLFNMMAR001

TYPE C

PARTS LIST [32PFL4664/F7 (Serial No.: ME2)]

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 32PFL4664/F7 (Serial No. : ME1)

Ref. No.	Description	Part No.
LCD1⚠	LCD PANEL ASSEMBLY	UCDF1PA

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 B 32PFL4664/F7 (Serial No. : ME7)

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACLFJMMAR005
C611	Not used	
C613	CHIP CERAMIC CAP.(0603) X5R/K/4700pF/25V	CHMR472K5EA2
C622	CHIP CERAMIC CAP.(0603) B/K/0.1µF/6.3V	CHMR104KB6A2
C623	CAP CHIP 1005 X5R/4.7µF/6.3V	CHF4750SM002
C660	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C666	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C673	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C674	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
C1012	CAP CHIP 1005 X5R/1µF/6.3V	CHP1050SM001
C1022	CAP CHIP 1005 X5R/1µF/25V	CHA1050SM002
IC2001	POWER MANAGEMENT IC SW5227C	NSCA0T0GS006
R603	RES METAL OXIDE 1/4W J 470k Ω	RNJ474PAK017
R604	RES METAL OXIDE 1/4W J 470k Ω	RNJ474PAK017
R606	RES METAL OXIDE 1/4W J 220 Ω	RNJ221PAK017
R607	RES METAL OXIDE 1/4W J 220 Ω	RNJ221PAK017
R650	RES CHIP 1005 1/16W J 2.2 Ω	RRJ2R2RYL001
R656	RES CHIP 1005 1/16W J 2.2 Ω	RRJ2R2RYL001
R657	RES CHIP 1005 1/16W J 2.2 Ω	RRJ2R2RYL001
R659	RES CHIP 1005 1/16W J 2.2 Ω	RRJ2R2RYL001

TYPE C

PARTS LIST [32PFL4664/F7 (Serial No.: ME4)]

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 C 32PFL4664/F7 (Serial No. : ME2)

Ref. No.	Description	Part No.
LCD1⚠	LCD PANEL ASSEMBLY	UCDF0PA

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 C 32PFL4664/F7 (Serial No. : ME2)

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACLFLMMAR003

TYPE C

PARTS LIST [32PFL4664/F7 (Serial No.: ME6)]

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 C 32PFL4664/F7 (Serial No. : ME4)

Ref. No.	Description	Part No.
A015⚠	RATING LABEL ACLFPUT-32HL	---------
WF301	WIRELESS LAN MODULE ETWFFTBC01	UWLMDL0GS005
LCD1⚠	LCD PANEL ASSEMBLY	UCDF2PA

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 C 32PFL4664/F7 (Serial No. : ME4)

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACLFPMMAR001

TYPE C

PARTS LIST [32PFL4764/F7 (Serial No.: ME1)]

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 C 32PFL4664/F7 (Serial No. : ME6)

Ref. No.	Description	Part No.
A015⚠	RATING LABEL ACLFMUT-32HL	---------
A017	ENERGY GUIDE LABEL ACLFMUT-32HL	---------
S001	CARTON ACLFMUT-32HL	2EMC02132
WF301	WIRELESS MODULE U9W31UT	U9W31UT
X003	REMOTE CONTROL UNIT 1.01018E+101	URMT21CND015

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 C 32PFL4664/F7 (Serial No. : ME6)

Ref. No.	Description	Part No.
	DIGITAL MAIN CBA UNIT	ACLFMMMAR002

REVISION HISTORY

Chassis PL19.00

- 2018/11/08 32PFL4664/F7 (Serial No.: ME1) First draft added
- 2018/12/06 32PFL4664/F7 (Serial No.: ME2) First draft added
- 2018/12/20 32PFL4664/F7 (Serial No.: ME3) First draft added
- 2019/01/28 32PFL4664/F7 (Serial No.: ME4) First draft added
- 2019/01/28 32PFL4764/F7 (Serial No.: ME1) First draft added
- 2019/07/22 32PFL4664/F7 (Serial No.: ME7) First draft added
- 2019/07/22 32PFL4664/F7 (Serial No.: ME6) First draft added
- 2020/01/16 32PFL4664/F7 A (Serial No.: ME9) First draft added

COMPARISON LIST OF MODEL NAMES

Chassis PL19.00

32PFL4664/F7	(ME1)	ACLFHUT-32HL	TYPE A
	(ME2)	ACLFJUT-32HL	TYPE C
	(ME3)	ACLFGUT-32HS	TYPE B
	(ME4)	ACLFLUT-32HL	TYPE C
	(ME7)	ACLFNUT-32HS	TYPE B
	(ME6)	ACLFPUT-32HL	TYPE C
32PFL4664/F7 A	(ME9)	ACLFSUT-32HL	TYPE A
32PFL4764/F7	(ME1)	ACLFMUT-32HL	TYPE C