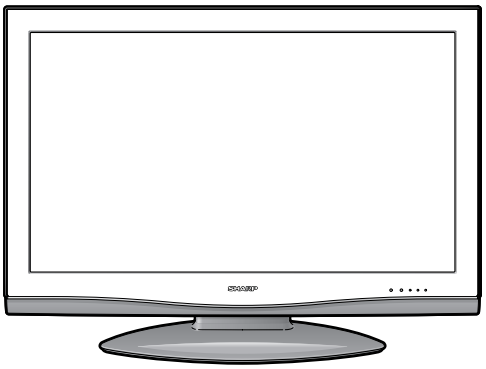
SHARP SERVICE MANUAL

No. SY6Z6LC37RA1E



LCD COLOUR TELEVISION

MODELS LC-32RA1E/RU LC-37RA1E/RU

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

CONTENTS

Parts marked with " ⚠ " are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

SAFETY PRECAUTION

IMPORTANT SERVICE SAFETY PRECAUTION

■ **Service work should be performed only by qualified service technicians who are thoroughly familiar with all safety checks and the** servicing guidelines which follow:

■ WARNING

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC power before servicing.

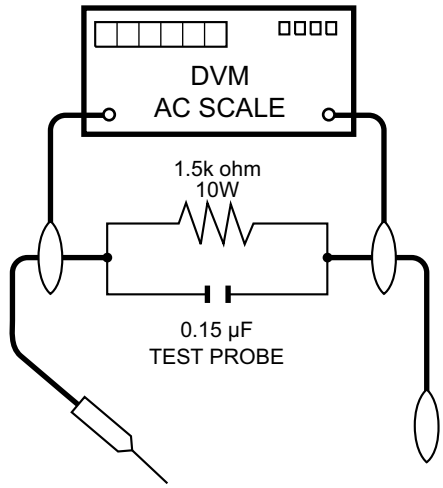
CAUTION:
FOR CONTINUED PROTECTION AGAINST A RISK OF FIRE REPLACE ONLY WITH SAME TYPE FUSE.
F701 (4A/250V)

■ BEFORE RETURNING THE RECEIVER (Fire & Shock Hazard)

Before returning the receiver to the user, perform the following safety checks:

3. Inspect all lead dress to make certain that leads are not pinched, and check that hardware is not lodged between the chassis and other metal parts in the receiver.
4. Inspect all protective devices such as non-metallic control knobs, insulation materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
5. To be sure that no shock hazard exists, check for leakage current in the following manner.

- Plug the AC cord directly into a 220~240 volt AC outlet.
- Using two clip leads, connect a 1.5k ohm, 10 watt resistor paralleled by a 0.15μF capacitor in series with all exposed metal cabinet parts and a known earth ground, such as electrical conduit or electrical ground connected to an earth ground.
- Use an AC voltmeter having with 5000 ohm per volt, or higher, sensitivity or measure the AC voltage drop across the resistor.
- Connect the resistor connection to all exposed metal parts having a return to the chassis (antenna, metal cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor.
  All checks must be repeated with the AC cord plug connection reversed. (If necessary, a nonpolarized adaptor plug must be used only for the purpose of completing these checks.)
  Any reading of 1.05 V peak (this corresponds to 0.7 mA peak AC.) or more is excessive and indicates a potential shock hazard which must be corrected before returning the monitor to the owner.



SAFETY NOTICE

Many electrical and mechanical parts in LCD color television have special safety-related characteristics.

These characteristics are often not evident from visual inspection, nor can protection afforded by them be necessarily increased by using replacement components rated for higher voltage, wattage, etc.

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" and shaded areas in the Replacement Parts List and Schematic Diagrams.

For continued protection, replacement parts must be identical to those used in the original circuit.

The use of a substitute replacement parts which do not have the same safety characteristics as the factory recommended replacement parts shown in this service manual, may create shock, fire or other hazards.

Precautions for using lead-free solder

■Employing lead-free solder

- “PWBs” of this model employs lead-free solder. The LF symbol indicates lead-free solder, and is attached on the PWBs and service manuals. The alphabetical character following LF shows the type of lead-free solder.

  Example:

Indicates lead-free solder of tin, silver and copper.

Indicates lead-free solder of tin, silver and copper.

■Using lead-free wire solder

- When fixing the PWB soldered with the lead-free solder, apply lead-free wire solder. Repairing with conventional lead wire solder may cause damage or accident due to cracks.

  As the melting point of lead-free solder (Sn-Ag-Cu) is higher than the lead wire solder by 40 °C, we recommend you to use a dedicated soldering bit, if you are not familiar with how to obtain lead-free wire solder or soldering bit, contact our service station or service branch in your area.

■Soldering

- As the melting point of lead-free solder (Sn-Ag-Cu) is about 220 °C which is higher than the conventional lead solder by 40 °C, and as it has poor solder wettability, you may be apt to keep the soldering bit in contact with the PWB for extended period of time. However, Since the land may be peeled off or the maximum heat-resistance temperature of parts may be exceeded, remove the bit from the PWB as soon as you confirm the steady soldering condition.

  Lead-free solder contains more tin, and the end of the soldering bit may be easily corroded. Make sure to turn on and off the power of the bit as required.

  If a different type of solder stays on the tip of the soldering bit, it is alloyed with lead-free solder. Clean the bit after every use of it.

  When the tip of the soldering bit is blackened during use, file it with steel wool or fine sandpaper.

- Be careful when replacing parts with polarity indication on the PWB silk.

Lead-free wire solder for servicing

Part No.	★	Description	Code
ZHNDAi123250E	J	ϕ0.3mm 250g (1roll)	BL
ZHNDAi126500E	J	ϕ0.6mm 500g (1roll)	BK
ZHNDAi12801KE	J	ϕ1.0mm 1kg (1roll)	BM

CHAPTER 1. OPERATION MANUAL

[1] SPECIFICATIONS

Specifications

Item			32" LCD COLOUR TV, Model: LC-32RA1E	37" LCD COLOUR TV, Model: LC-37RA1E
LCD panel			32" Advanced Super View & BLACK TFT LCD	37" Advanced Super View & BLACK TFT LCD
Number of dots			3,147,264 dots (1366 × 768 × 3 dots)	
Video Colour System			PAL/SECAM/NTSC 3.58/NTSC 4.43/PAL 60	
TV Function	TV-Standard (CCIR)		B/G, I, D/K, L, L'	
	Receiving Channel	VHF/UHF	E2–E69ch, F2–F10ch, I21–I69ch, IR A–IR Jch	
		CATV	Hyper-band, S1–S41ch	
	TV-Tuning System		Auto Preset 99 ch, Auto Label, Auto Sort	
	STEREO/BILINGUAL		NICAM/A2	
Brightness			450 cd/m^2	
Viewing angles			H : 176° V : 176°	
Audio amplifier			10W × 2	
Speaker			(100 mm × 40 mm) × 2, Ø 20 mm × 2	
Terminals	Rear	Antenna input	UHF/VHF 75 Ω Din type	
		RS-232C	9 pin MINI-DIN male connector	
		EXT 1	SCART (AV input, Y/C input, RGB input, TV output)	
		EXT 2	SCART (AV input/output, Y/C input, RGB input, AV Link)	
		EXT 3	S-VIDEO (Y/C input), RCA pin (AV input)	
		EXT 4	Ø 3.5 mm jack (Audio input), 15 pin mini D-sub (PC/Component)	
		EXT 5	HDMI, Ø 3.5 mm jack (Audio input)	
		EXT 6	HDMI	
		OUTPUT	RCA pin (Audio)	
		Headphones	Ø 3.5 mm jack (Audio output)	
OSD language			English/German/French/Italian/Spanish/Dutch/Swedish/Portuguese/Finnish/Turkish/Greek/Russian/Polish	
Power Requirement			AC 220–240 V, 50 Hz	
Power Consumption			152 W (0.9 W Standby) (Method IEC60107)	168 W (0.9 W Standby) (Method IEC60107)
Weight			18.5 kg (Display only), 20.5 kg (Display with stand)	21.5 kg (Display only), 24.5 kg (Display with stand)
Operating temperature			0°C to +40°C	

- As a part of policy of continuous improvement, SHARP reserves the right to make design and specification changes for product improvement without prior notice. The performance specification figures indicated are nominal values of production units. There may be some deviations from these values in individual units.

NOTE

- Refer to inside back cover for dimensional drawings.

Optional accessories

The listed optional accessories are available for the LCD colour TV. Please purchase them at your nearest shop.

- Additional optional accessories may be available in near future. When purchasing, please read the newest catalogue for compatibility and check the availability.

No.	Part name	Part number
1	Wall mount bracket (LC-32RA1E, LC-37RA1E)	AN-37AG2
2	9 pin D-sub/MINI-DIN conversion cable	AN-A1RS

PC compatibility chart

Resolution		Horizontal Frequency	Vertical Frequency	VESA Standard
VGA	640 × 480	31.5 kHz	60 Hz	✓
SVGA	800 × 600	37.9 kHz	60 Hz	✓
XGA	1024 × 768	48.4 kHz	60 Hz	✓

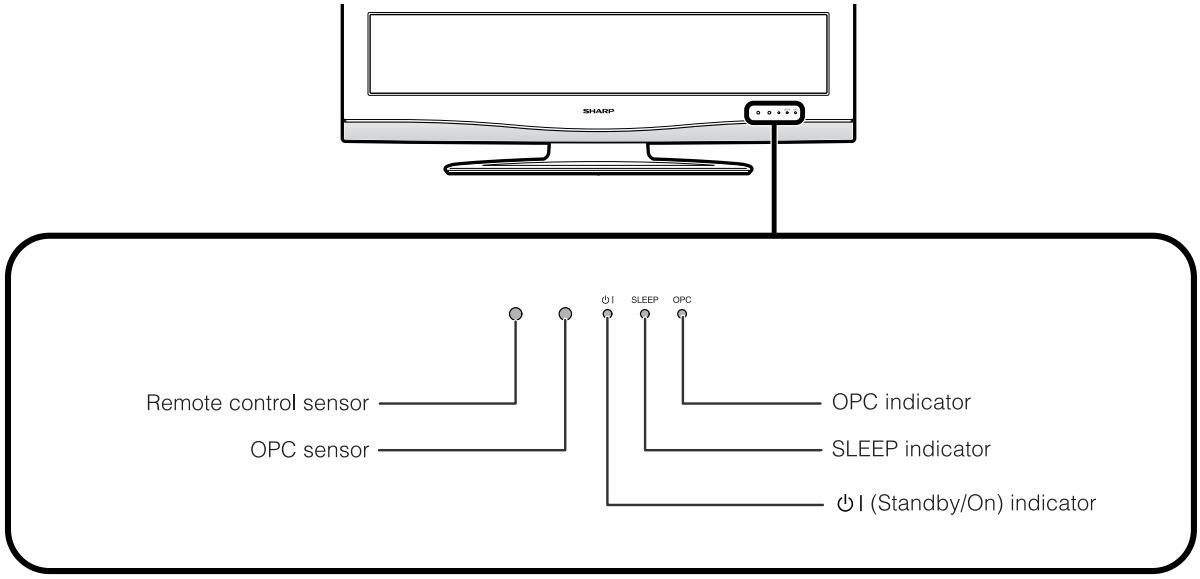
VGA, SVGA and XGA are registered trademarks of International Business Machines Co., Inc.

NOTE

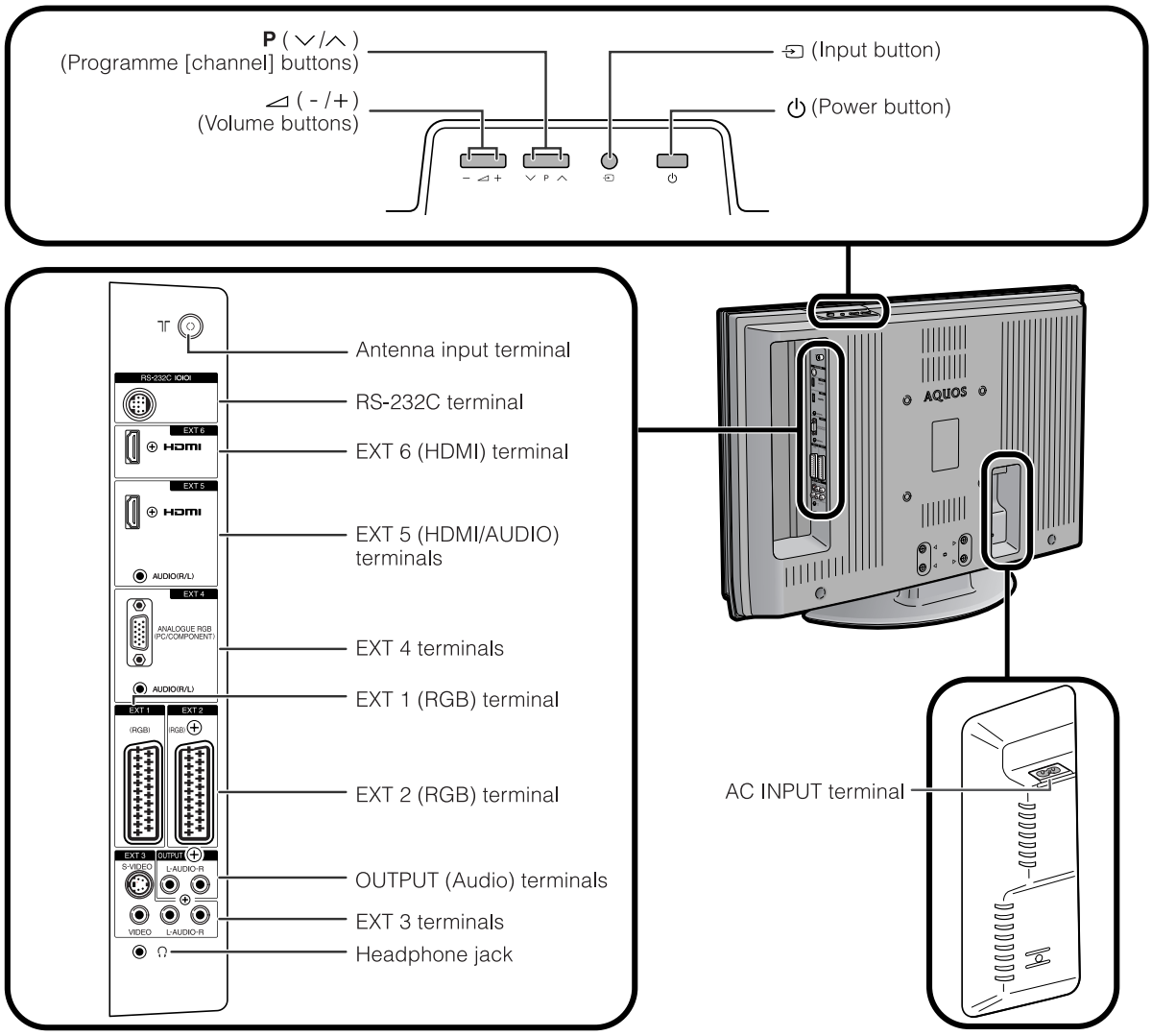
- This TV has only limited PC compatibility, correct operation can only be guaranteed if the video card conforms exactly to the VESA 60Hz standard. Any variations from this standard will result in picture distortions.

[2] OPERATION MANUAL

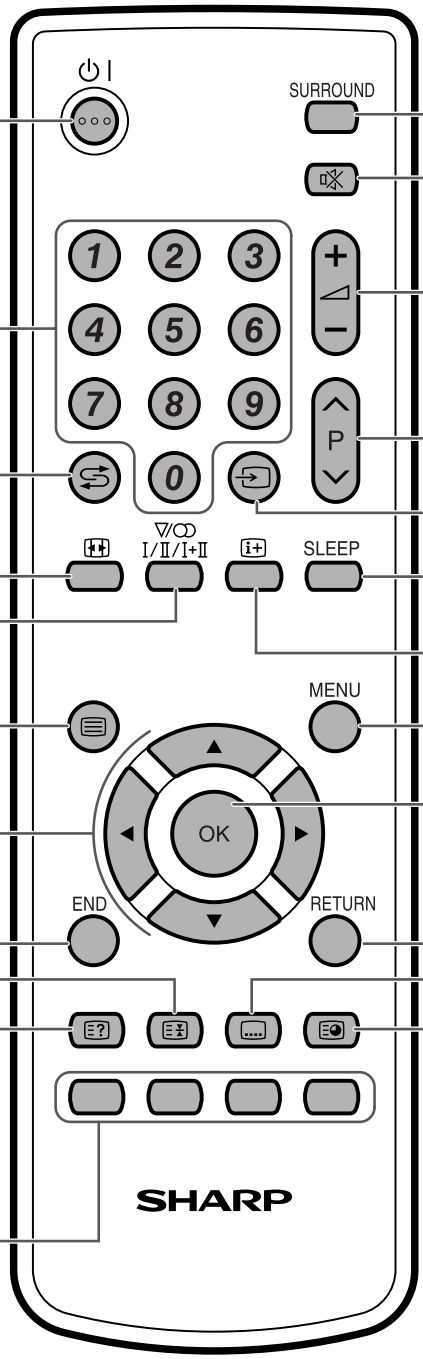
TV (Front view)



TV (Rear view)



Remote control unit



(Standby/On)
Enter standby mode or turn on the power.

0–9
Set the channel in TV mode.
Set the page in Teletext mode.

(Flashback)
Press to return to the previous image in normal viewing mode.

(WIDE MODE)
Select the wide mode.

Set the area of magnification in Teletext mode.

(Sound mode)
Select the sound multiplex mode. (See below.)

(Teletext)
(See page 20.)

◄/►/▲/▼ (Cursor)
Select a desired item on the setting screen.

END
Exit the menu screen.

(Freeze/Hold)

(Reveal hidden Teletext)

Colour (Red/Green/Yellow/Blue)

SURROUND
Switch the surround effects on and off.

(Mute)
Switch the sound on and off.

(+/–) (Volume)
(+) Increase the volume.
(–) Decrease the volume.

P (^/v)
TV: Select the channel.
External: Switch to TV input mode.
Teletext: Move to the next/previous page.

(INPUT SOURCE)
Select an input source.
(TV, EXT1, EXT2, EXT3, EXT4, EXT5, EXT6)

SLEEP
Set the sleep timer on (in units of 30 min. up to max. 2 hr. 30 min.) and off.

(Display information)

MENU
Display the MENU screen.

OK
Execute a command within the menu screen.
Display the programme list. (Except external input.)

RETURN
Return to the previous menu screen.

(Subtitle for Teletext)

(Subpage)

NICAM TV broadcasts selection

Signal	Selectable items
Stereo	NICAM STEREO, MONO
Bilingual	NICAM CH A, NICAM CH B, NICAM CH AB, MONO
Monaural	NICAM MONO, MONO

A2 TV broadcasts selection

Signal	Selectable items
Stereo	STEREO, MONO
Bilingual	CH A, CH B, CH AB
Monaural	MONO

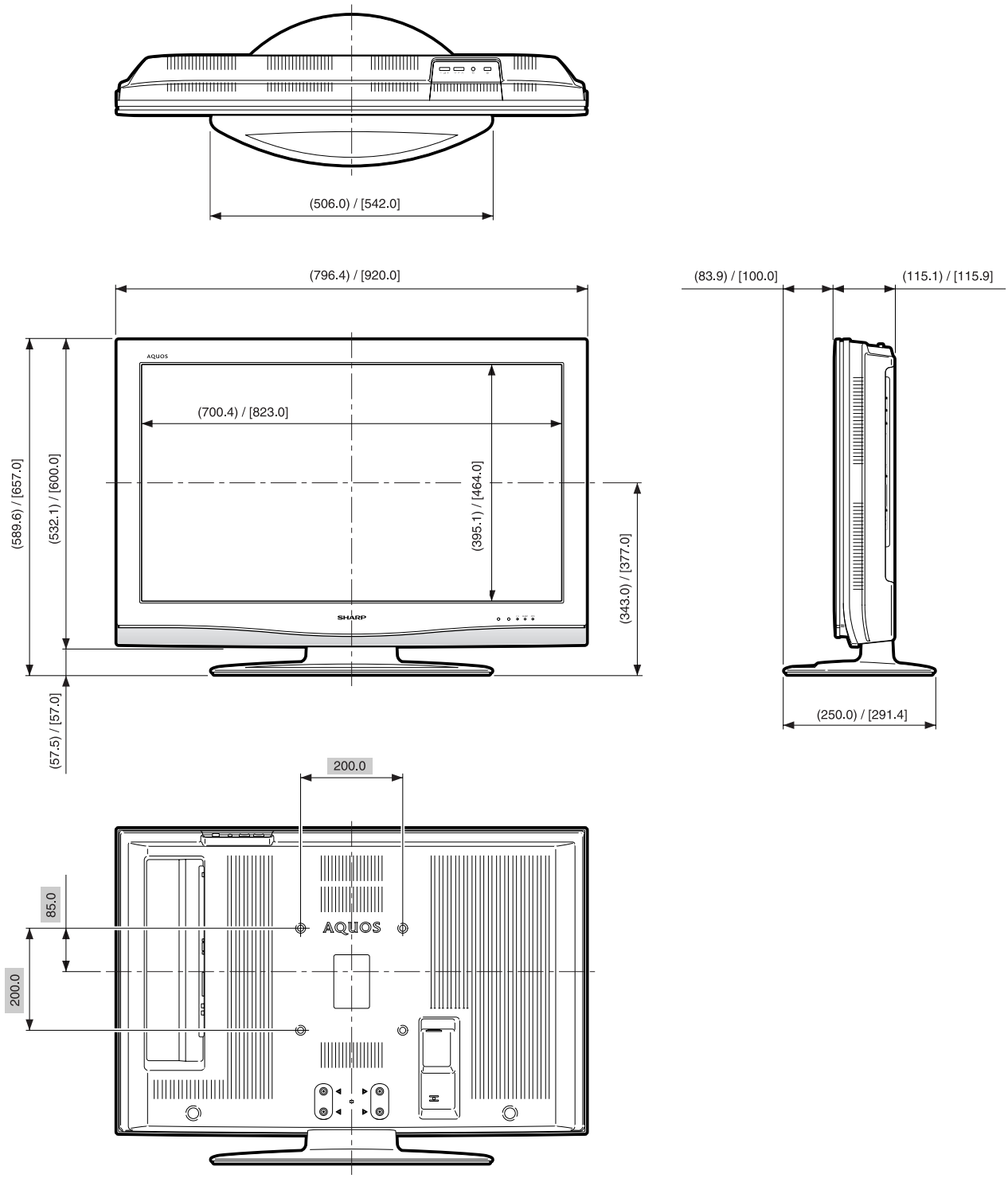
NOTE

- When no signal is input, the sound mode will display “MONO”.

[3] DIMENSIONS

Unit:mm

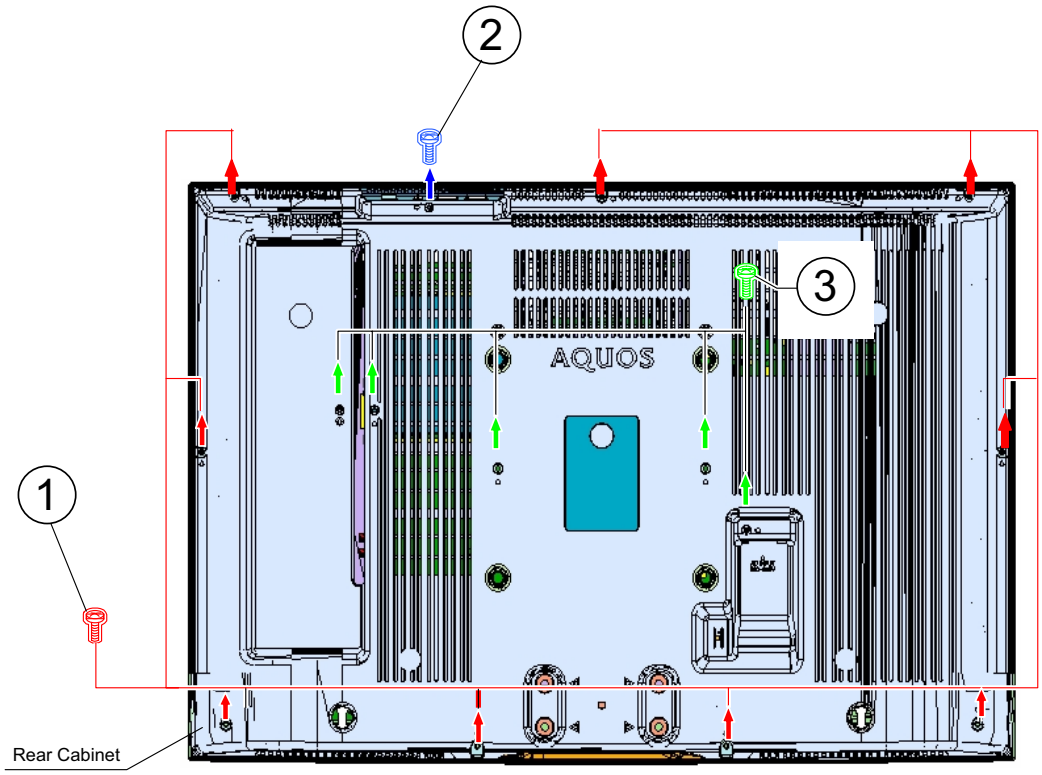
( ) : LC-32RA1E
[ ] : LC-37RA1E
: LC-32RA1E
LC-37RA1E



CHAPTER 2. REMOVING OF MAJOR PARTS

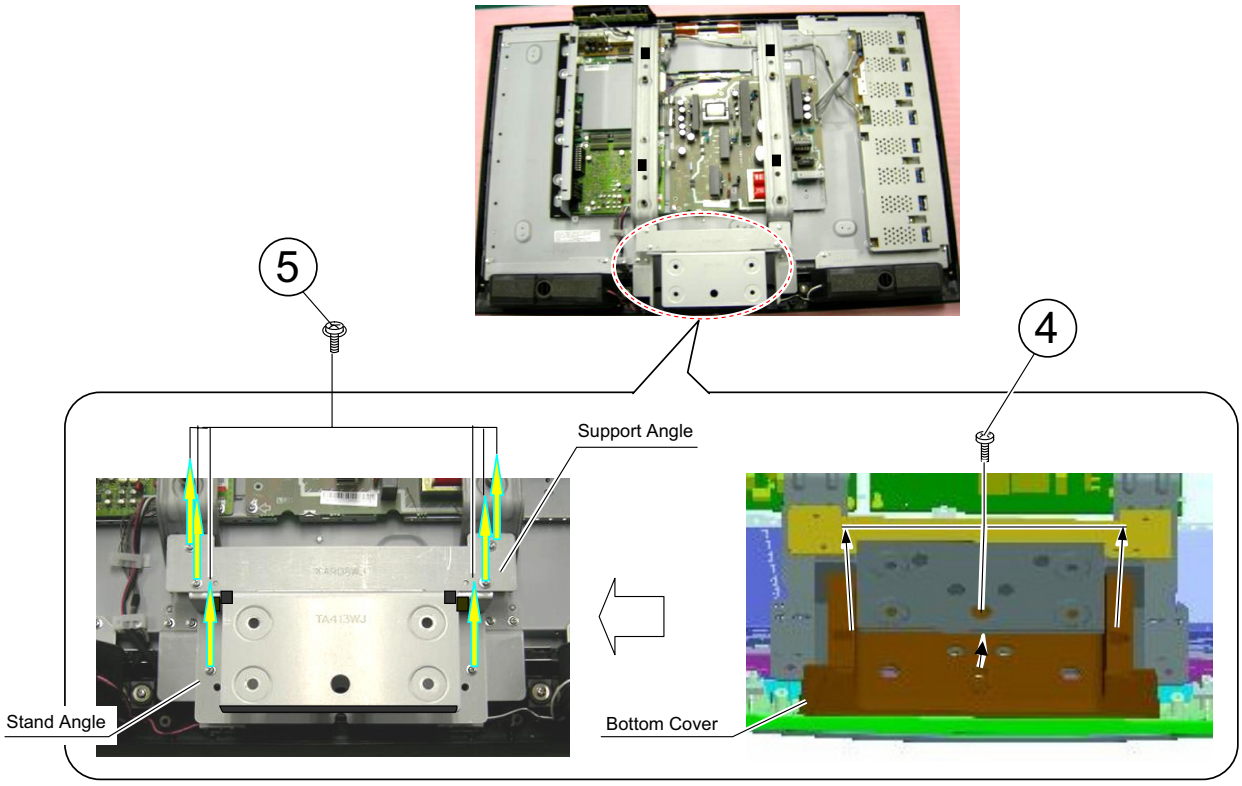
[1] REMOVING OF MAJOR PARTS (LC-32RA1E/RU)

1. Remove the 9 lock screws (1) . 1 lock screw (2) , and the 5 lock screws (3) . Detach the Rear Cabinet.

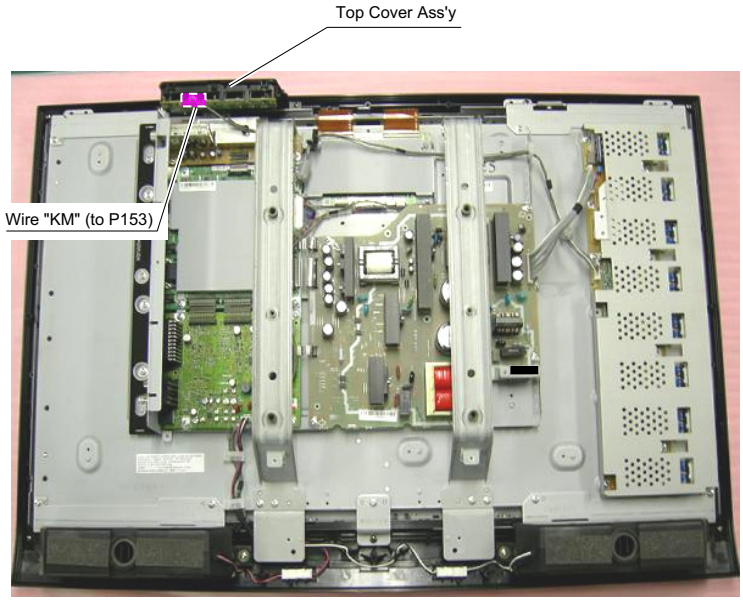


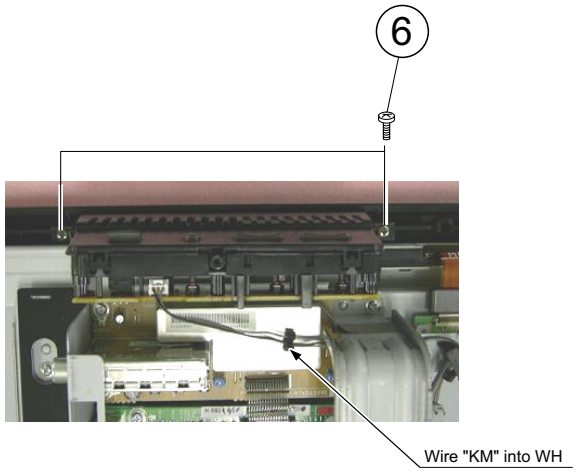
2. Remove the 3 lock screws (4) . Detach the Bottom Cover and Stand Angle.

3. Remove the 6 lock screws (5) and detach the Support Angler.

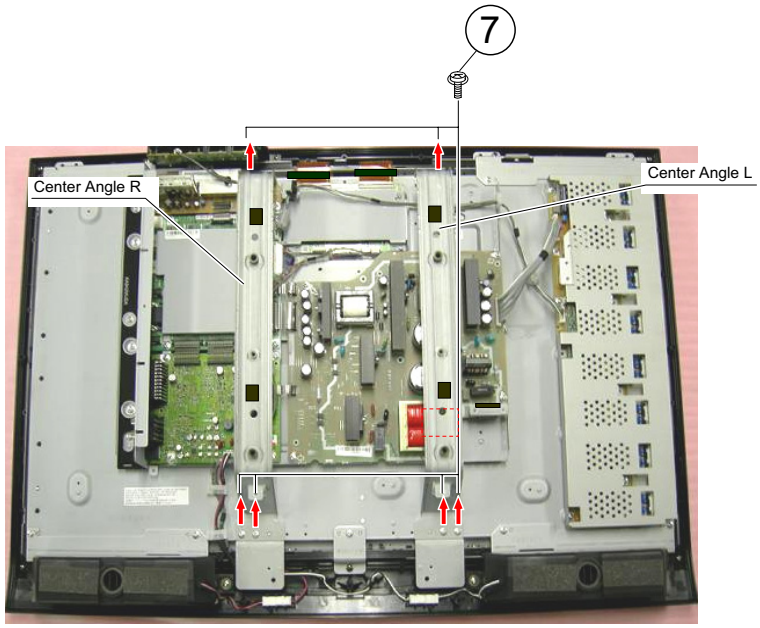


4. Remove the 2 lock screws (6). Detach the Top Cover.

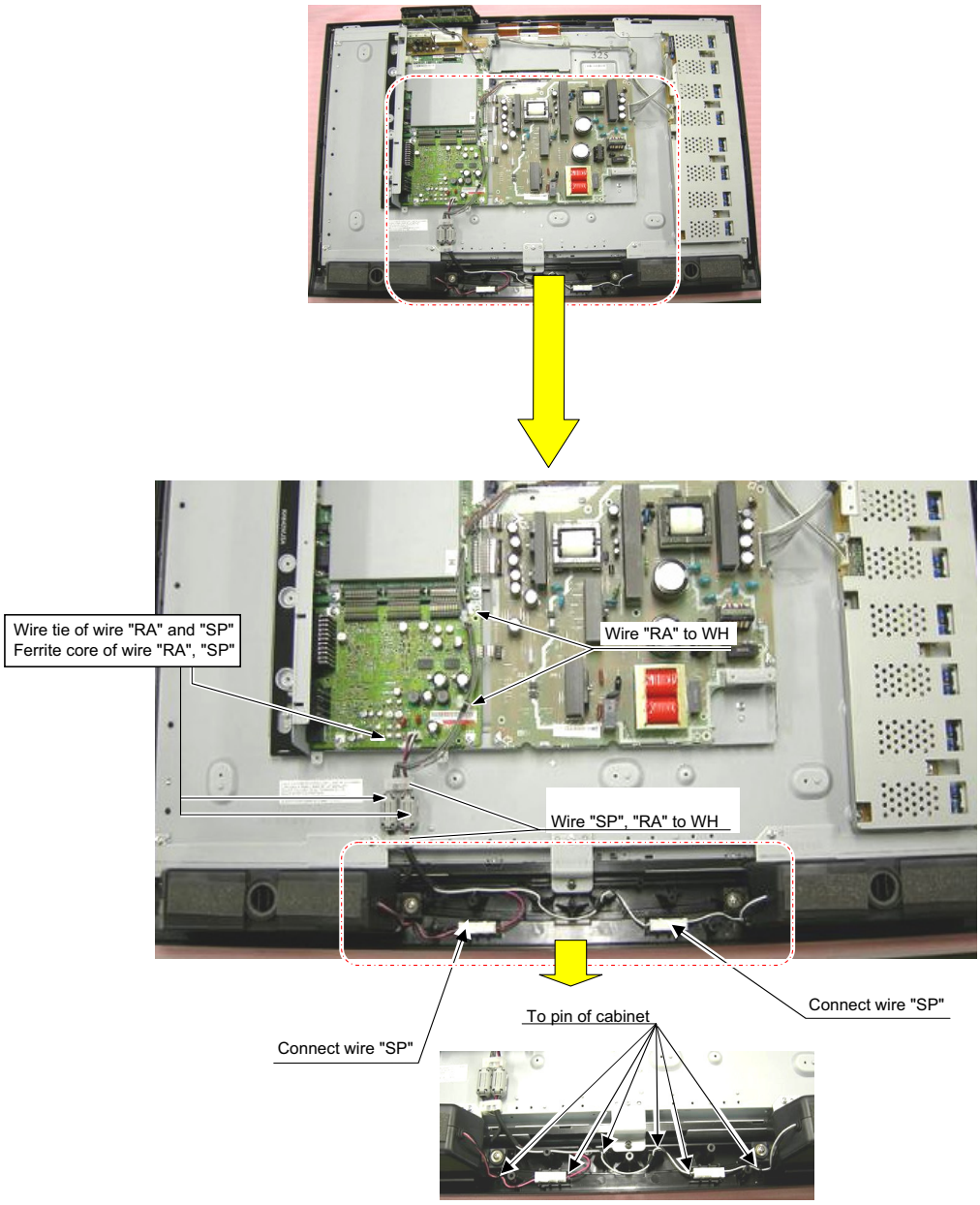




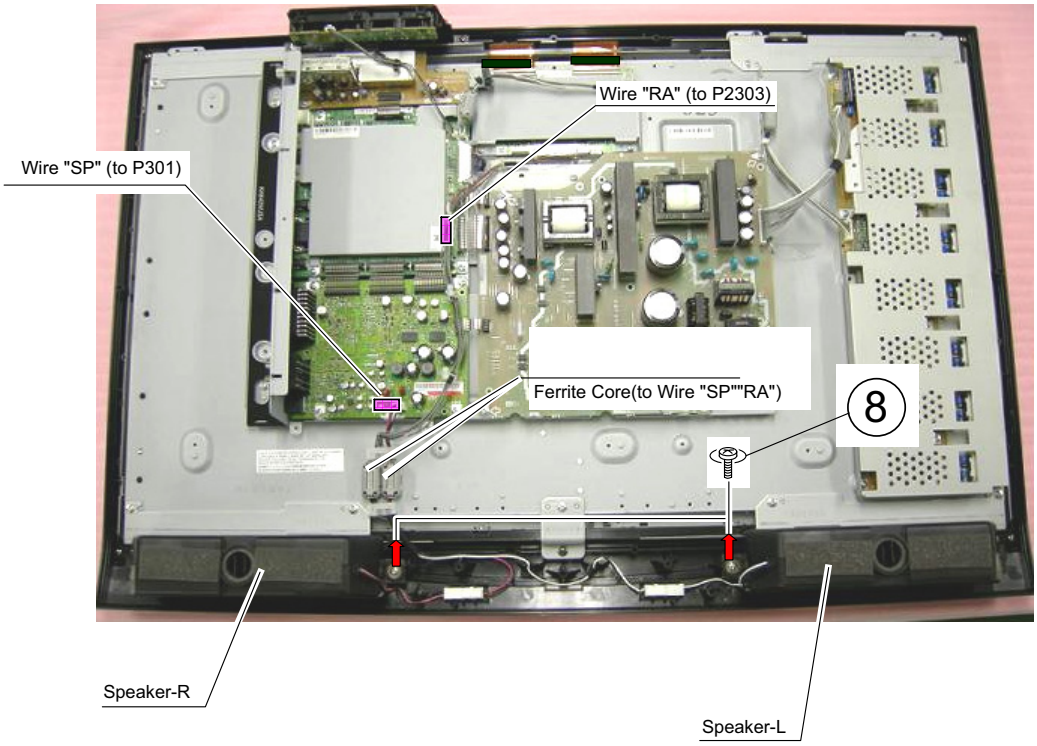
5. Remove the 6 lock screws (7). Detach the Center Angle-L/R.



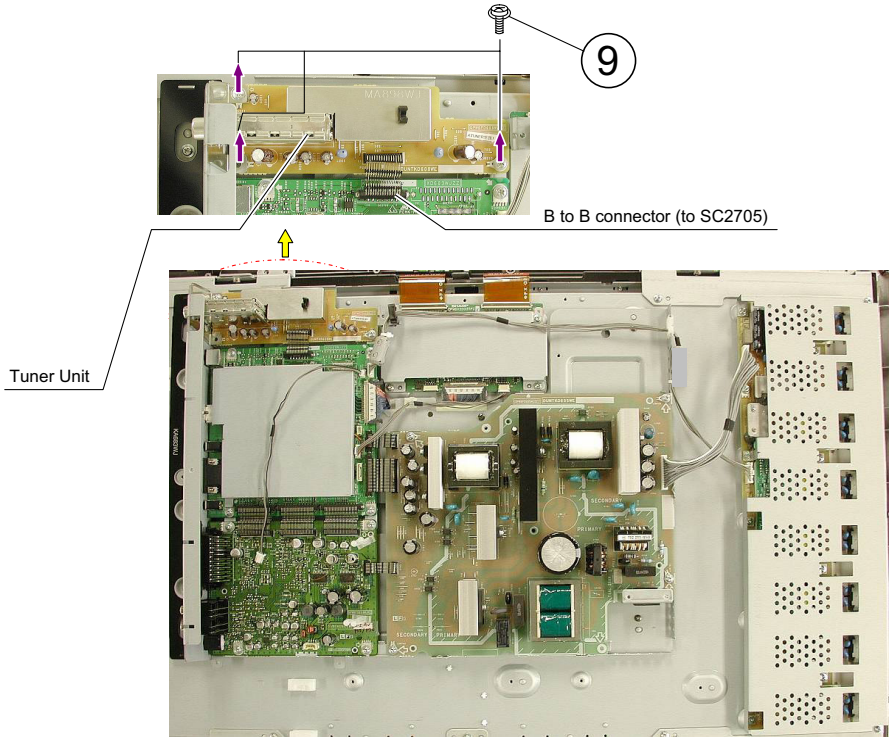
6. Remove all the connectors from PWBs.



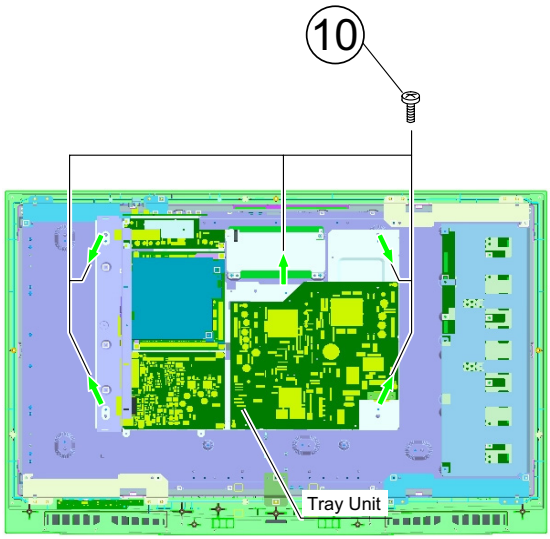
7. Remove the 2 lock screws (8) . Detach the Speakers.

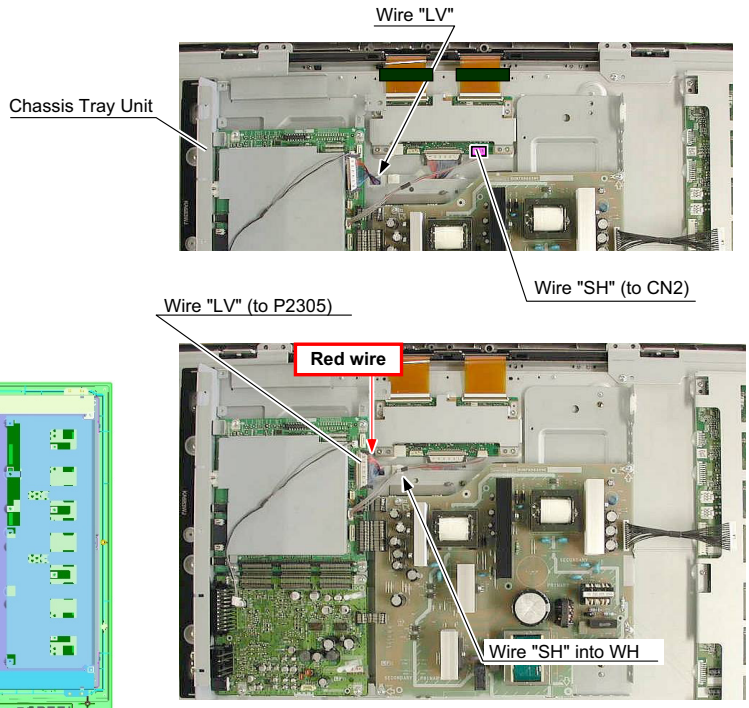


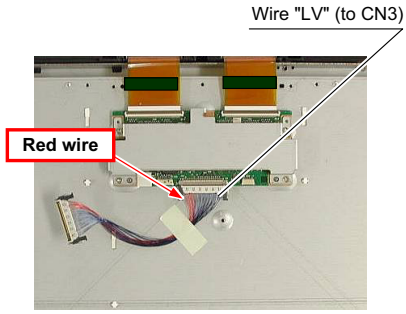
8. Remove the 3 lock screws (9) . Detach the Tuner Unit.



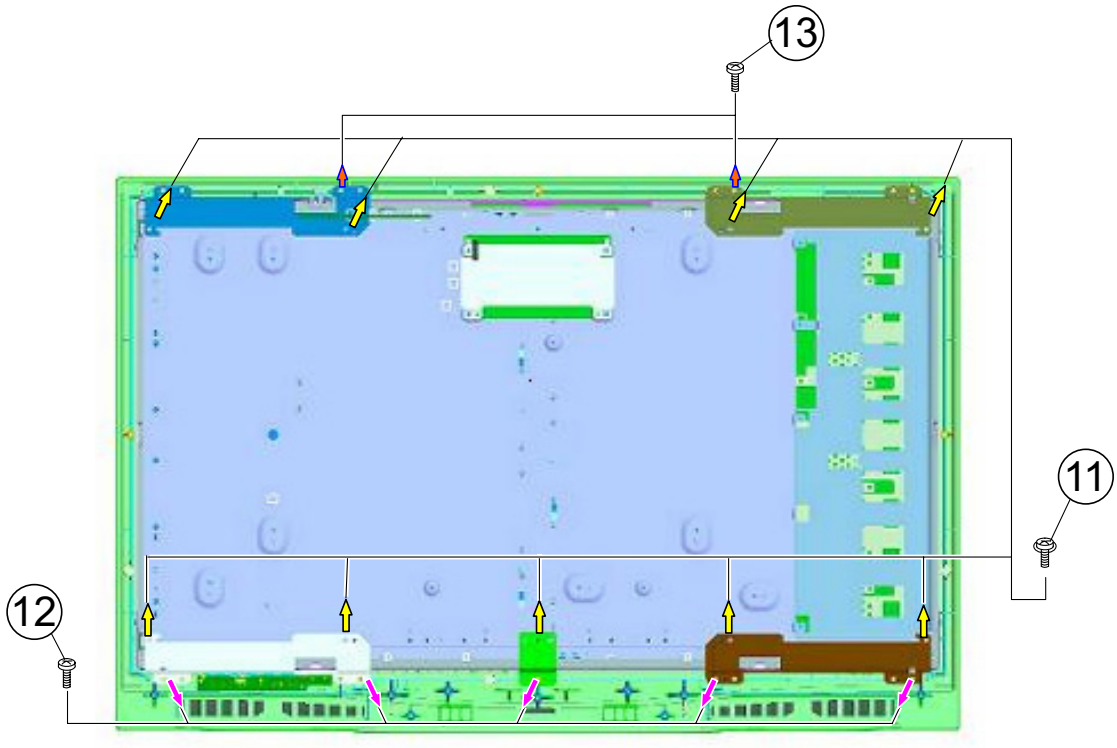
9. Remove the 5 lock screws ⑩ . and detach the Tray Unit.



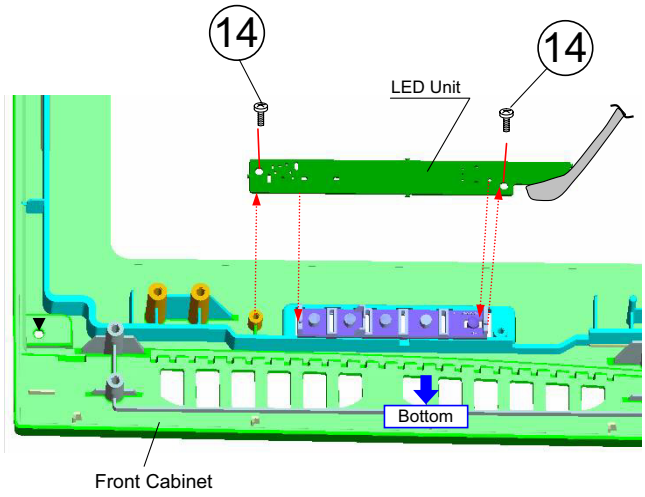


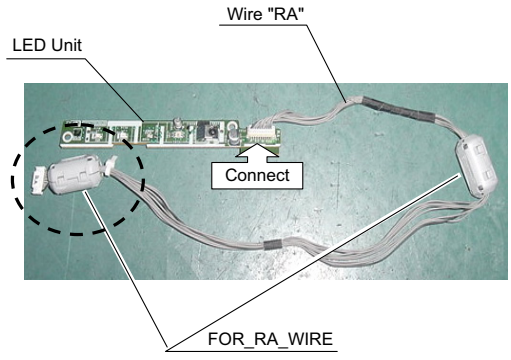


10. Remove the 9 lock screws (11) , 5 lock screws (12) and 2 lock screws (13) and detach the LCD Angle.



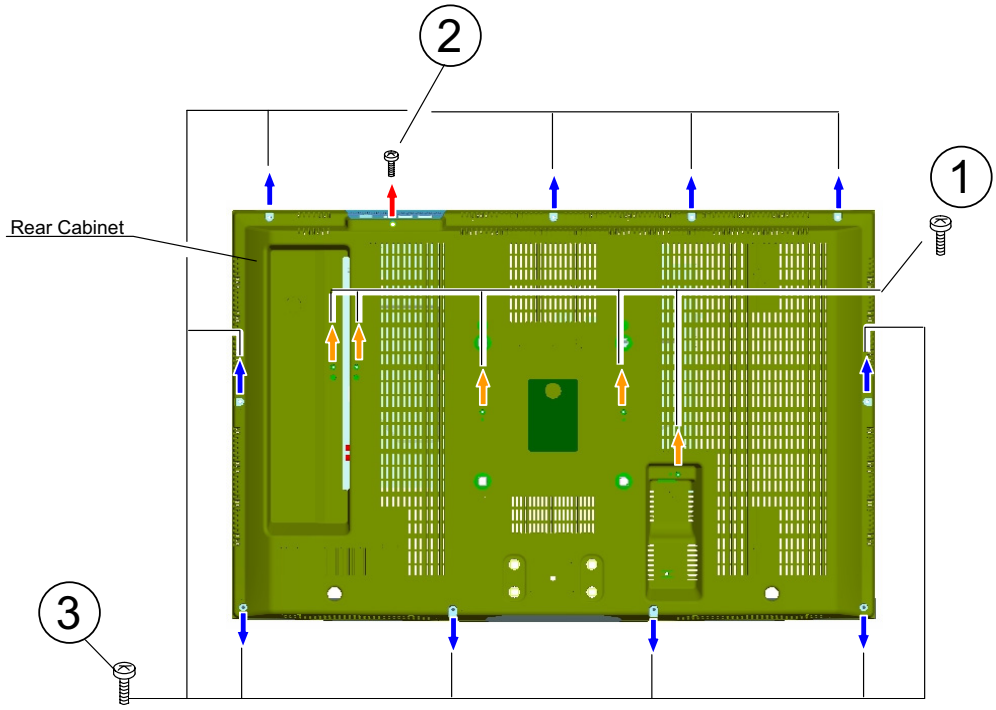
11. Remove the 2 lock screws (14) . and detach the LED Unit.





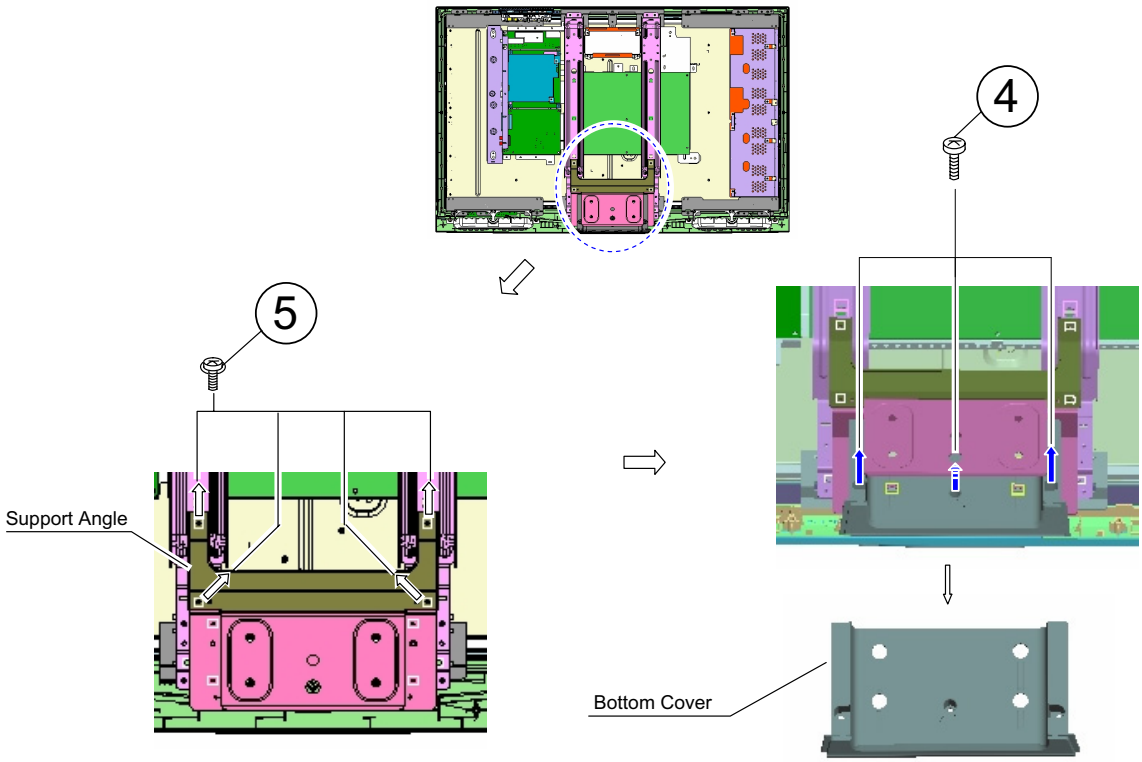
[2] REMOVING OF MAJOR PARTS (LC-37RA1E/RU)

1. Remove the 5 lock screws ① . 1 lock screw ② , and the 10 lock screws ③ . Detach the Rear Cabinet.



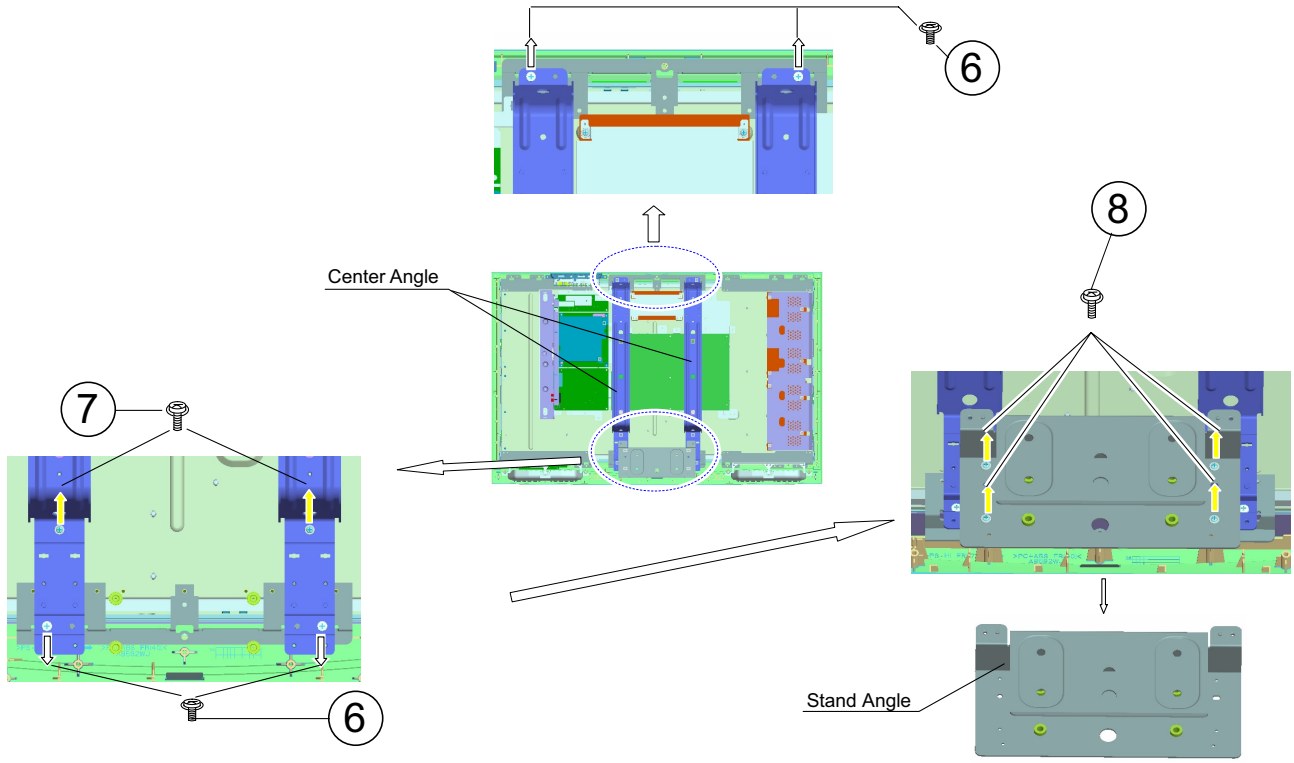
2. Remove the 3 lock screws ④ and detach the Bottom Cover.

3. Remove the 4 lock screws ⑤ . Detach the Support Angle.

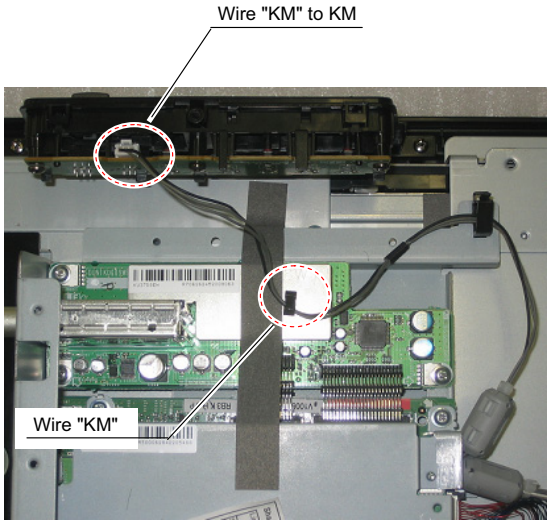


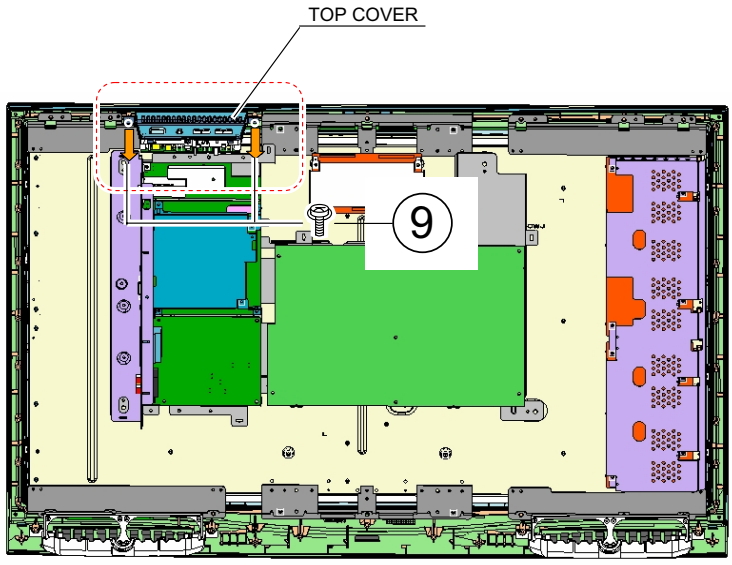
4. Remove the 4 lock screws (6) and the 2 lock screws (7) . Detach the Center Angle.

5. Remove the 4 lock screws (8) . Detach the Stand Angle.

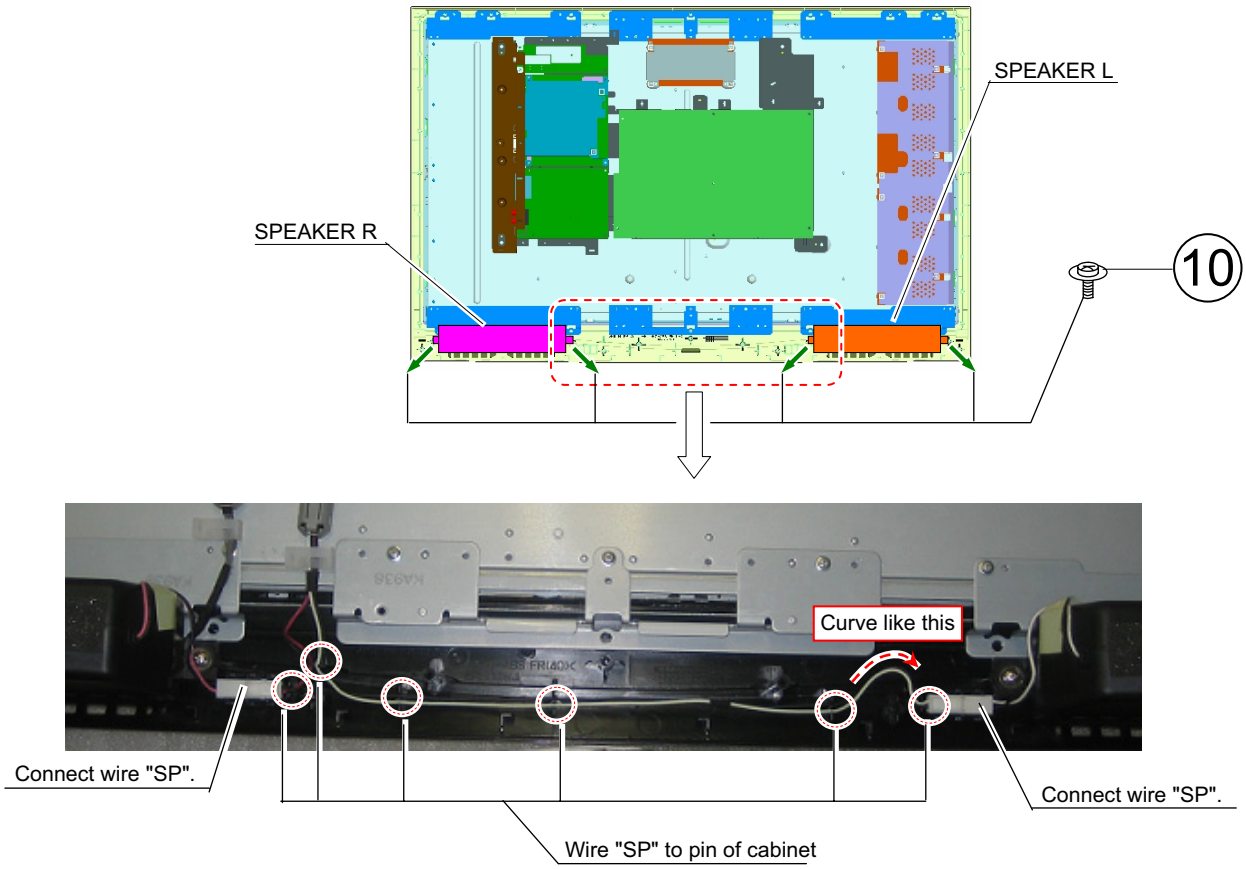


6. Remove the 2 lock screws (9) . Detach the Top Cover.

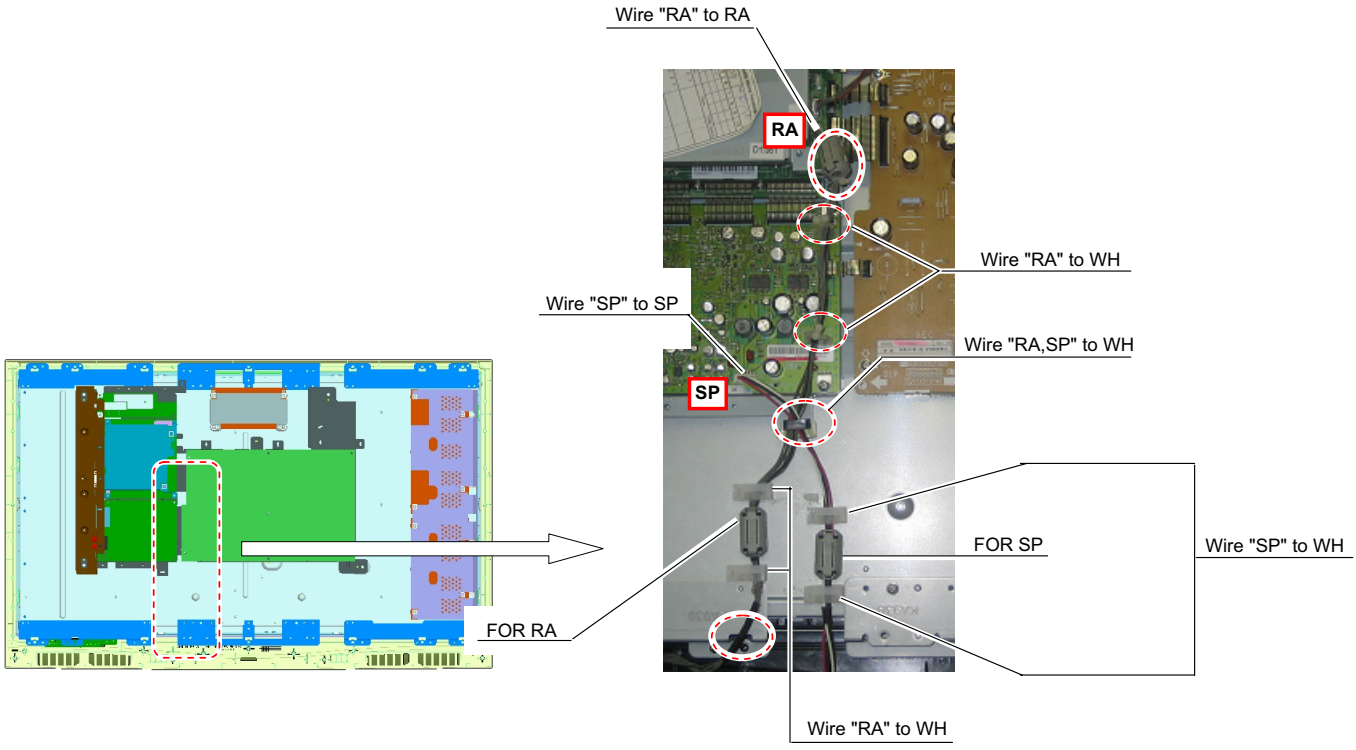




7. Remove the 4 lock screws ⑩. Detach the Speakers.

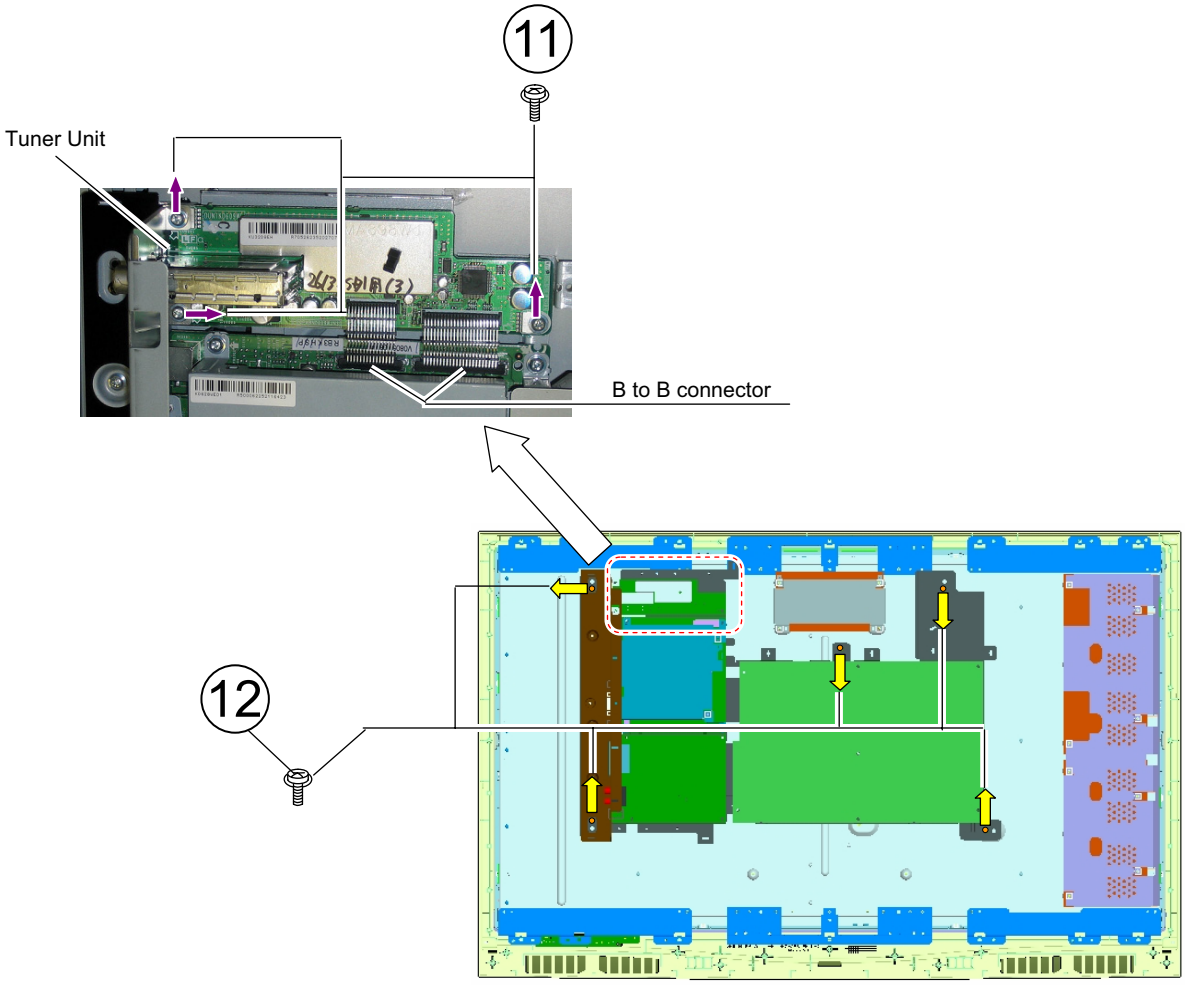


8. Remove all the connectors from PWBs.

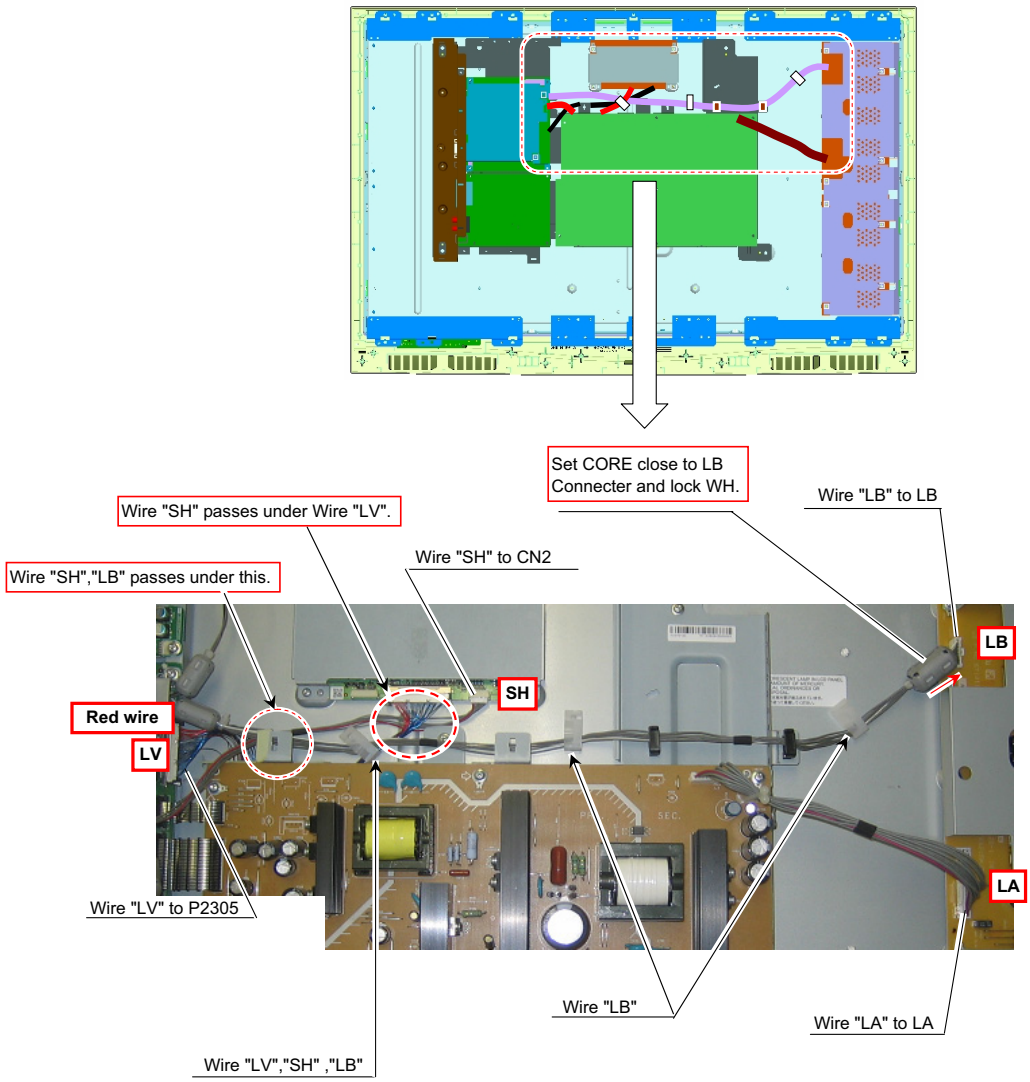


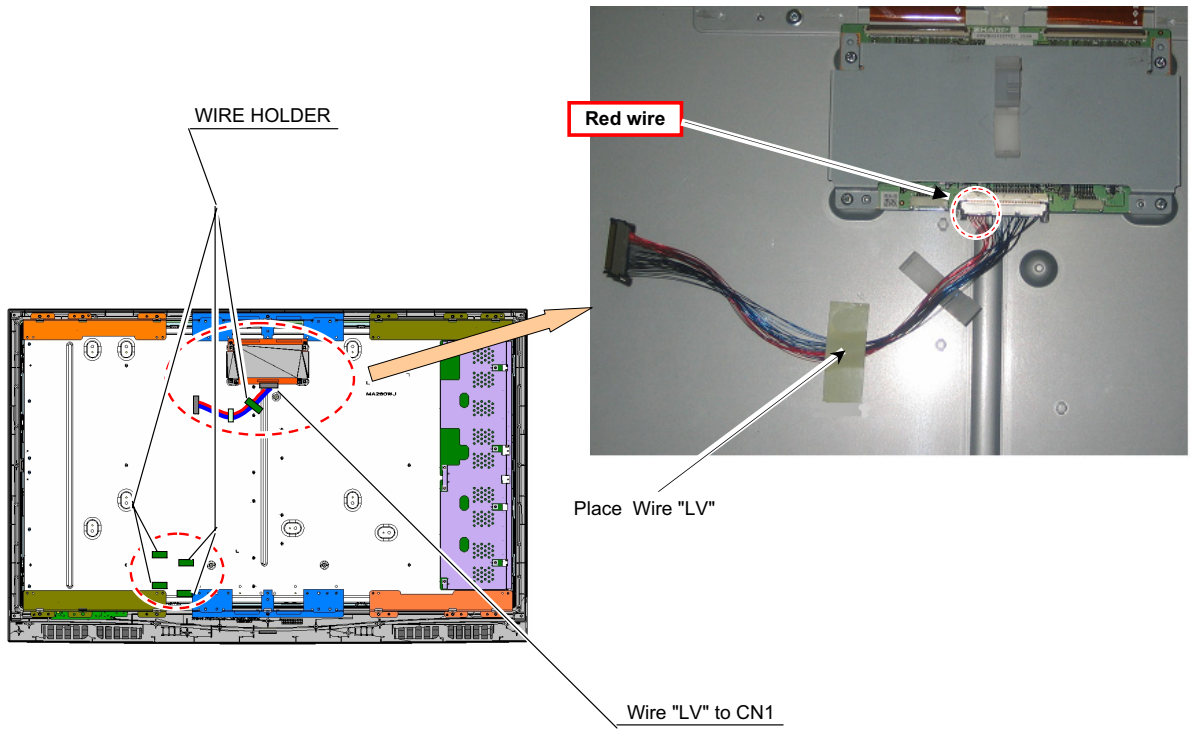
9. Remove the 3 lock screws ⑪ . Detach the Tuner Unit.

10. Remove the 5 lock screws ⑫ . Detach the Shield Cover.

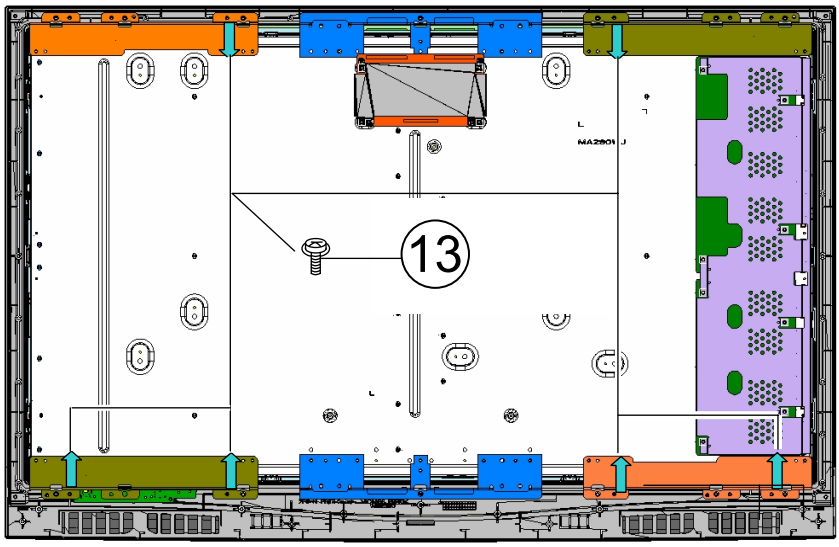


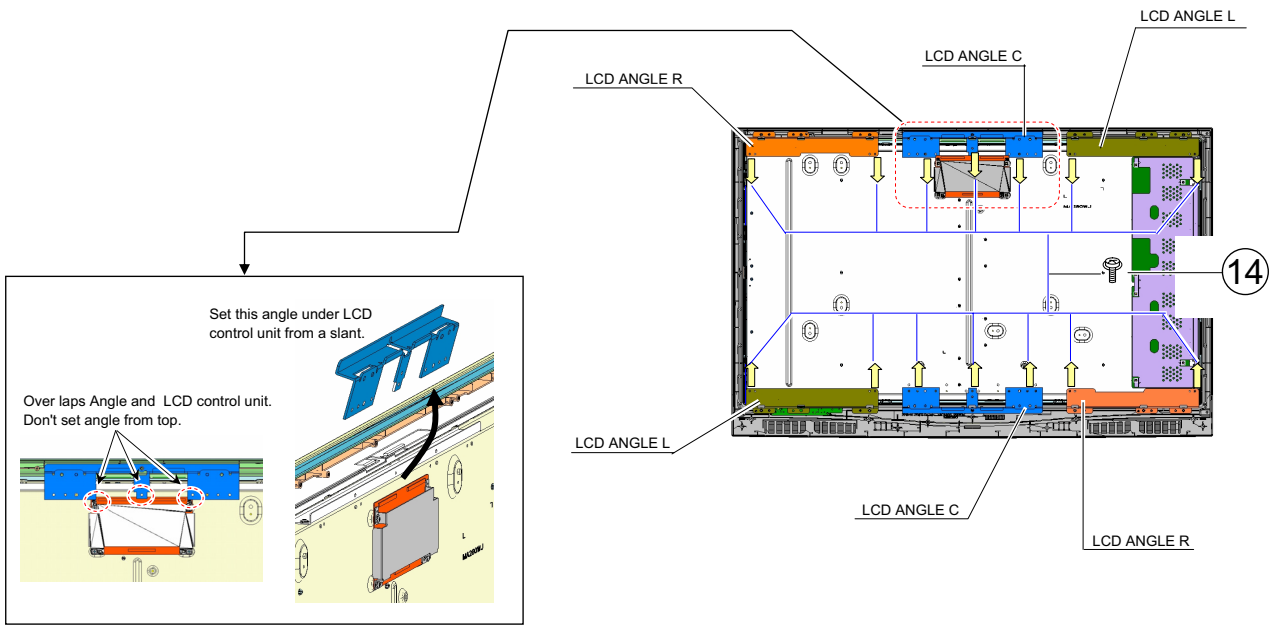
11. Remove all the connectors from PWBs.



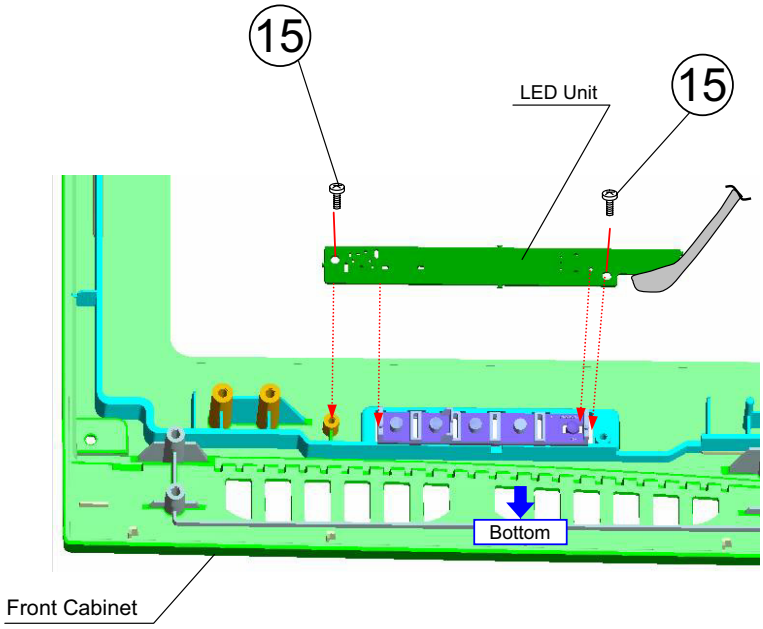


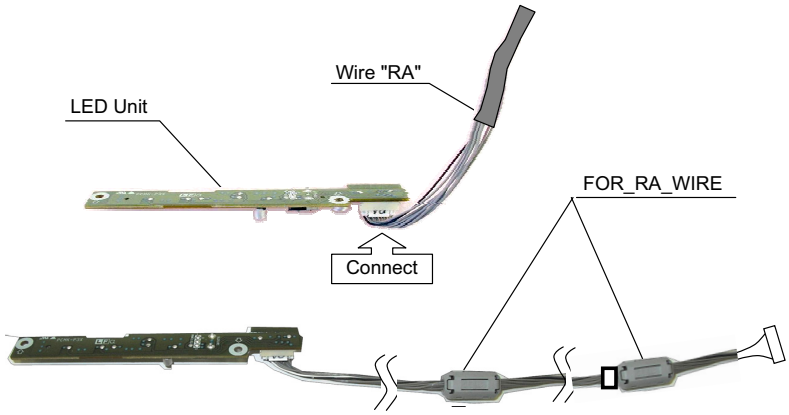
12.Remove the 6 lock screws (13) and 14 lock screws (14) . and detach the LCD Angle.



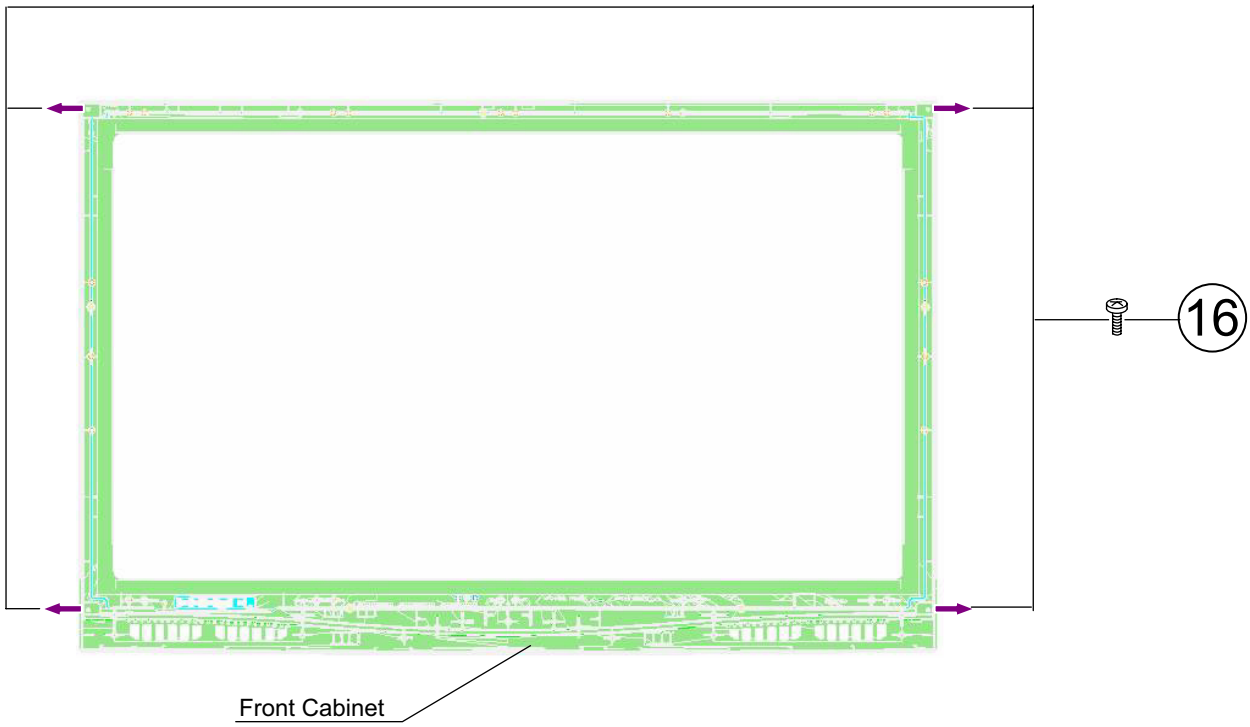


13.Remove the 2 lock screws (15) and detach the LED Unit.





14.Remove the 4 lock screws ⑯ . and detach the Front Cabinet.



CHAPTER 3. ADJUSTMENT PROCEDURE

[1] After replacement of any PWB and/or IC for repair, note the following.

When replacing the following units, be sure to prepare the new units loaded with updated software.

MAIN-UNIT: DUNTKD890FM23

- Note that an IC into which ROM data is written is available for MAIN-UNIT servicing (see below)

IC1901	VHi24LC2BiNEES	EDID (HDMI)
IC1902	VHi24LC2BiNEES	EDID (HDMI)
IC2303	RH-iXB731WJZZS	EDID (PC)

[2] SOFTWARE UPDATING

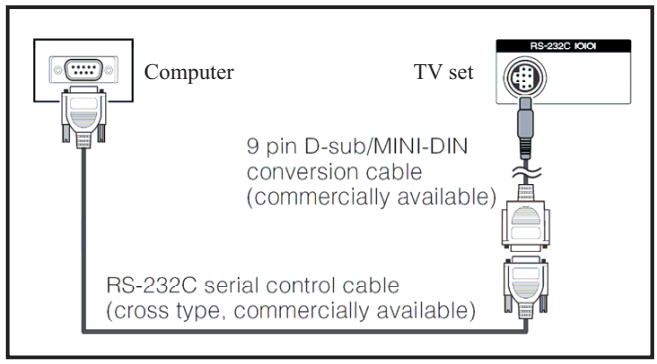
There are 3 methods to update software in the VCTp: I2C method, RS-232C HyperTerminal and RS-232C Tera Term method.

- RS-232C method is allowed when the TV is working properly and the action should be only software upgrade.
- I2C method is required when the VCTp fiash is empty or corrupted (it means, any software inside IC running).

1. RS-232C Method Description (HyperTerminal).

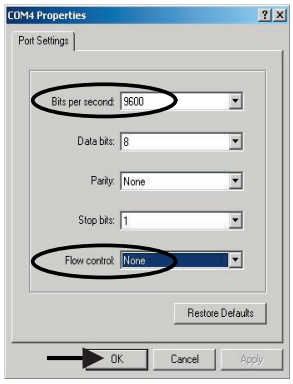
The hardware tools requirement are:

1. A Modem-null (Cross type) DB9 female to DB9 female cable.
2. An adaptor DB9 male to mini-Din 9 pin male cable (Sharp Code: QCNWGA015WJPZ)
3. Make the connections as indicated in the figure:

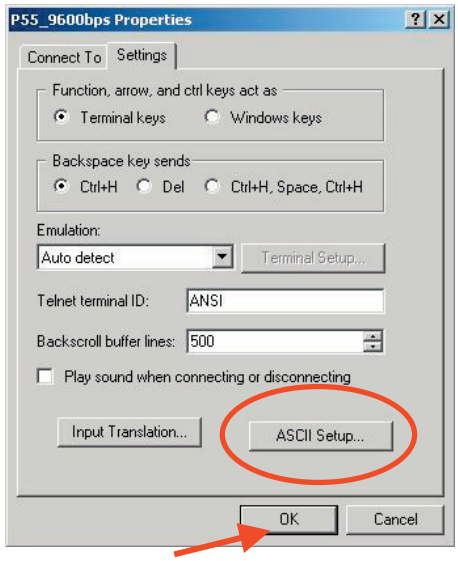


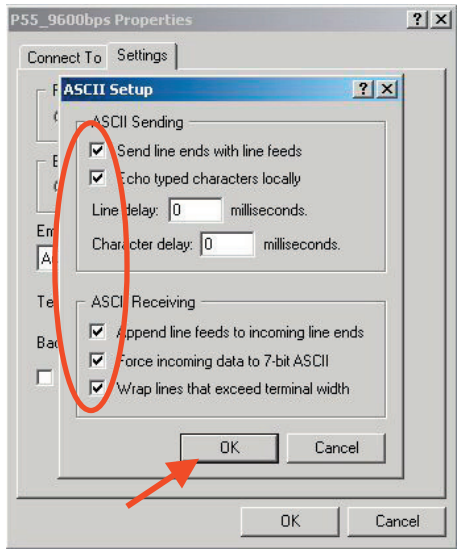
Before using RS-232C updating method is necessary to configure a Terminal PC software. HyperTerminal has been selected as a Terminal software because it's include in all Windows versions as an accessory, and you can find it inside "Accessories\Communications" folder. For this reason, please follow carefully the next steps:

1) First time HyperTerminal is used, it's necessary to configure some settings. Follows next action to configure two connection: low speed (9600bps) and high speed (115200bps).
2) Create a New Connection file with name "P55_9600bps".
3) Select a free COM port and select the Port Settings properties as follows:



4) Click on “File\Properties” menu for selecting the General and ASCII properties as follows:



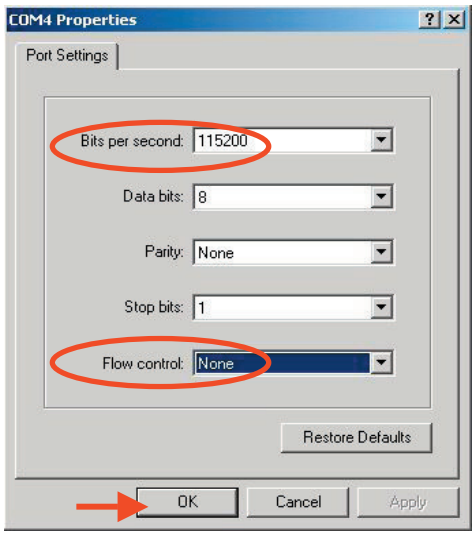


5) Select “New Connection” in the File Menu.

6) Answer “Yes” to close current connection and ”Yes” to save session “P55_9600bps”.

7) Create a new connection with the name “P55_115200bps”.

8) Select a the same COM port used in item 2 and select the Port Settings properties as follows:

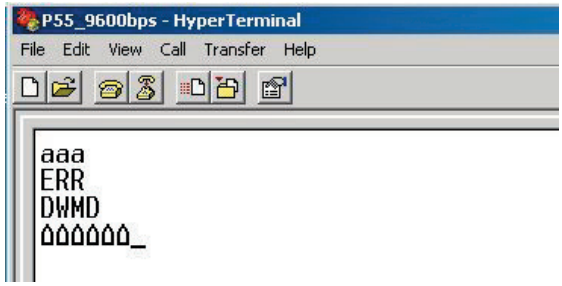


9) Select the same General and ASCII properties as item 3.

10)Close HyperTerminal session, answering “Yes” to close current connection and “Yes” to save session “P55_115200bps”.

To start updating session, click over “P55_9600bps” icon that you can find in the “START\All programs\Accessories\ Communications\HyperTerminal\HyperTerminal” folder and follow next procedure:

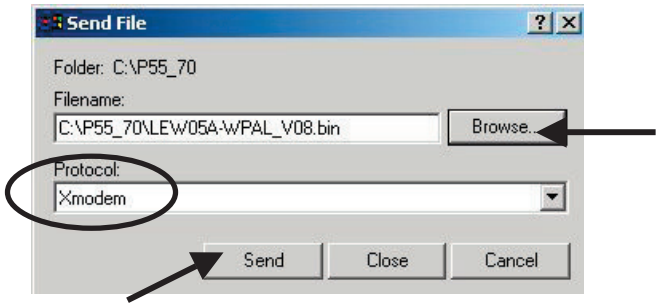
1) Check the connection between TV set and PC, sending a wrong command, as for example: “aaa”. TV set returns an “ERR” label as an syntaxis ERROR (Not correct order or sequence).



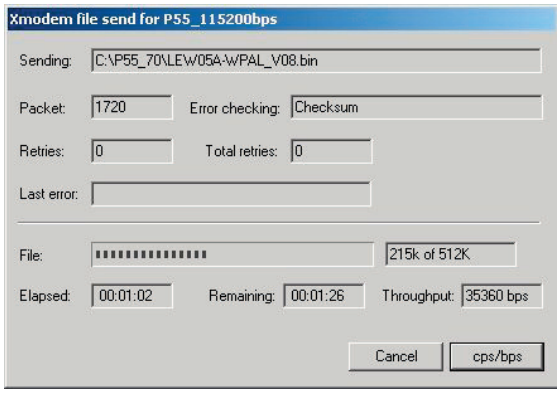
2) Send the command “DWMD” to enter TV set in Download Mode. The TV set answer sending same symbol continuosly. If this symbol character doesn’t appear, please don’t worry and pass to next step.

3) Close this connection and open “P55_115200bps” connection clicking over the “P55_115200bps” that you can find in “START\All programs\Accessories\ Communications\HyperTerminal\HyperTerminal” folder.

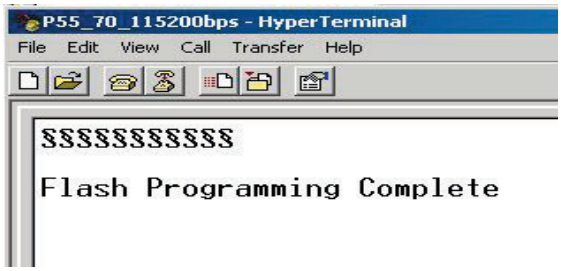
4) Using “Transfer\Send file...” menu, select desired file (.bin format) and the transmission protocol (Xmodem) as show below.



5) After press “Send” button the updating process starts as follows:



6) When flash update process finishes, the ”Flash Programming Complete” label appears in the screen, the device automatically go to switch off, and in a few seconds go to switch on again.



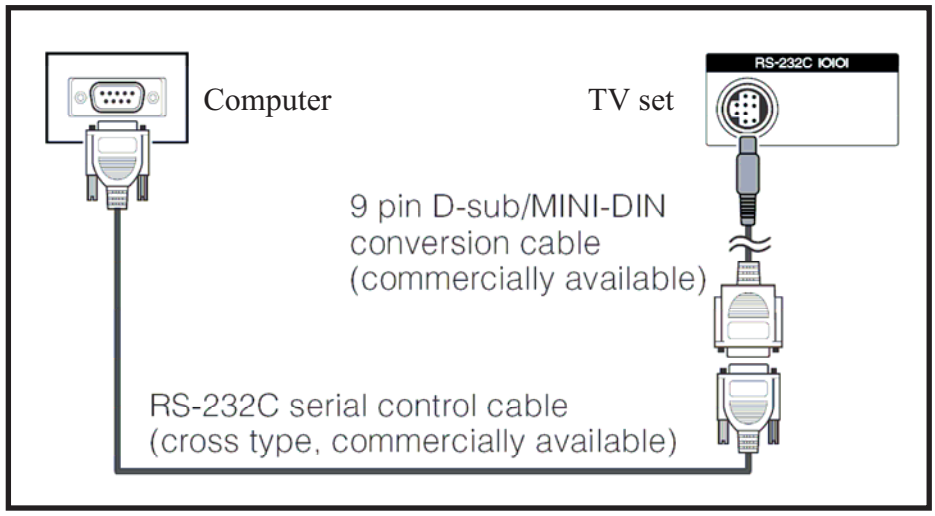
VERY IMPORTANT NOTE:

During the updating time, please don’t use the PC for other purpouses, in order to abolish communication problems between TV set and PC. If TV set was not updated properly, the TV won’t have the software to startup again, and you must follow the “I2C method” to update another time the TV set.

2. RS-232C Method Description (Tera Term)

The hardware tools requirement are:

1. A Modem-null (Cross type) DB9 female to DB9 female cable.
2. An adaptor DB9 male to mini-Din 9 pin male cable (Sharp Code: QCNWGA015WJPZ)
3. Make the connections as indicated in the figure:



Software requirements :

To upgrade VCTp software from RS-232C external connector is necessary to use a Tera Term (Pro) free software.

The URL of Tera Term home page is:

http://hp.vector.co.jp/authors/VA002416/teraterm.html

(The address may be changed in future)

Tera Term (Pro) supported operating systems:

MS-Windows 95 or upper

MS-Windows NT 3.5 and 4.0 or upper

Note.- For Windows 3.1 use Tera Term version 1.X.

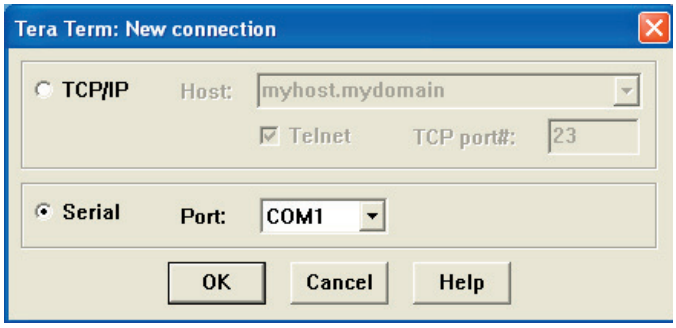
Copy all the distribution files to an empty floppy disk or temporary directory (for example C:\ TEMP).

Run SETUP.EXE and follow the instruction given by it.

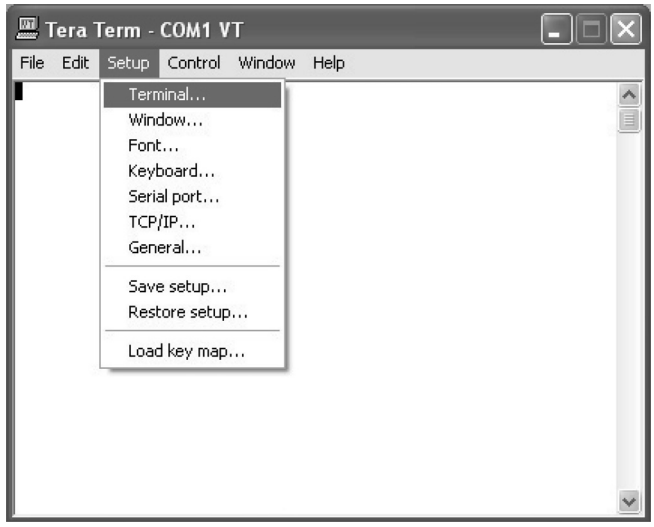
After the installation, the distribution files are no longer needed, you can delete them or may keep them in the floppy disk.

How to use Tera Term Pro :

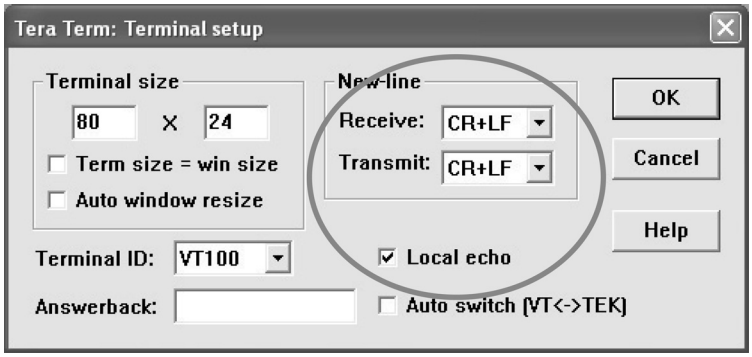
When the Tera Term (Pro) program is used, it's necessary to shape some settings. Follows next action to configure the connection:



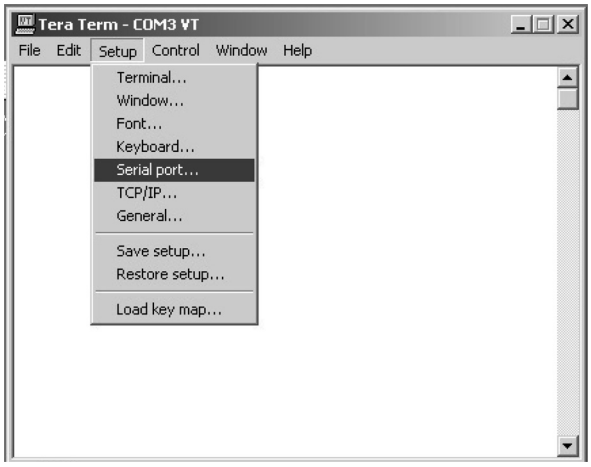
1) Select: **Serial→COM X→ O.K.**



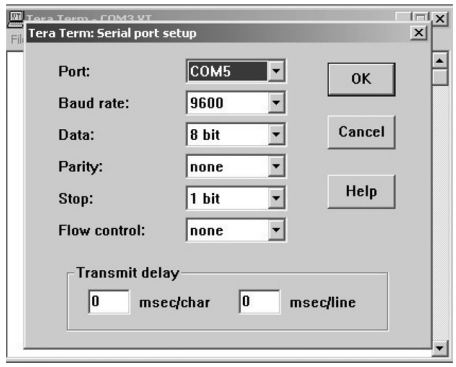
2) Select: **Terminal**



3) Choose the same options as the above picture.



4) Select: **Setup** → **Serial port** → **O.K.** Appear the follow screen:



5) Select follows settings:

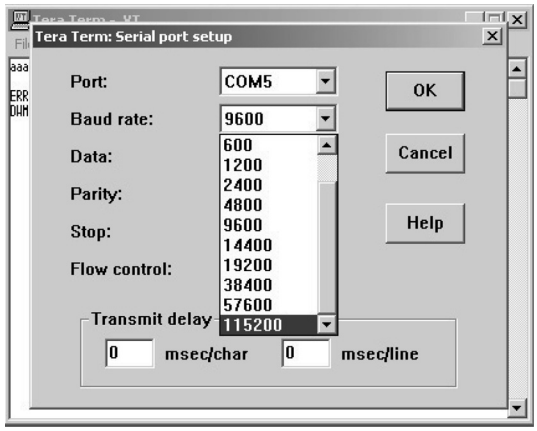
Serial port to use:	COM x
Baud rate:	9600
Data:	8 bits
Parity:	none
Stop:	1 bit
Flow control:	none
Enter O.K.	

6) Check the connection between TV set and PC, sending a wrong command, as for example: “aaa”. TV set returns an “err” label as an syntaxes ERROR (Not correct order or sequence).

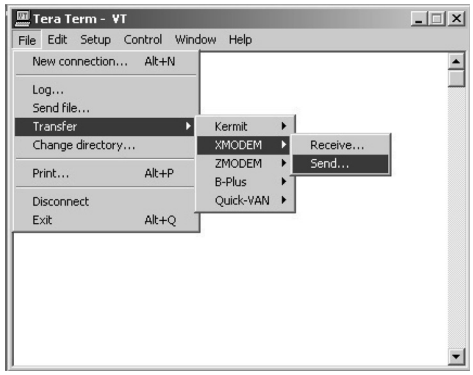
Send a “DWMD” (capital letters) command to enter TV set in Download Mode.

Change a baud rate to 115200.

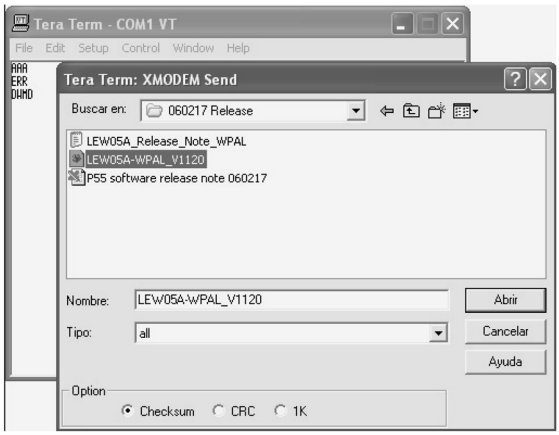
Select: **Setup** → **Baud rate** → **115200** → **O.K.**



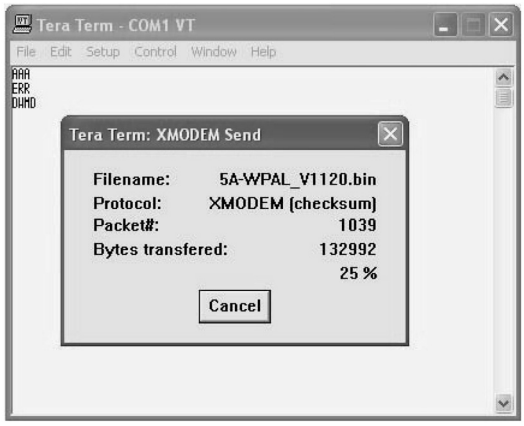
7) Select: **File** → **Transfer** → **XMODEM** → **Sent**



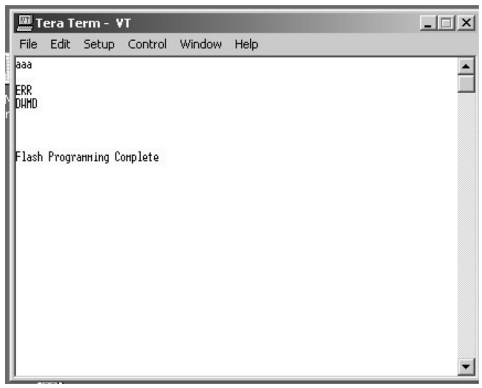
8) Choose the file for upgrade and click “Open”.



9) After select “Open” the upgrade process starts as follows:



10)When flash update process finishes, the “Flash programming complete” label appear in the screen, the device automatically go to switch off, and in a few seconds go to switch on again.



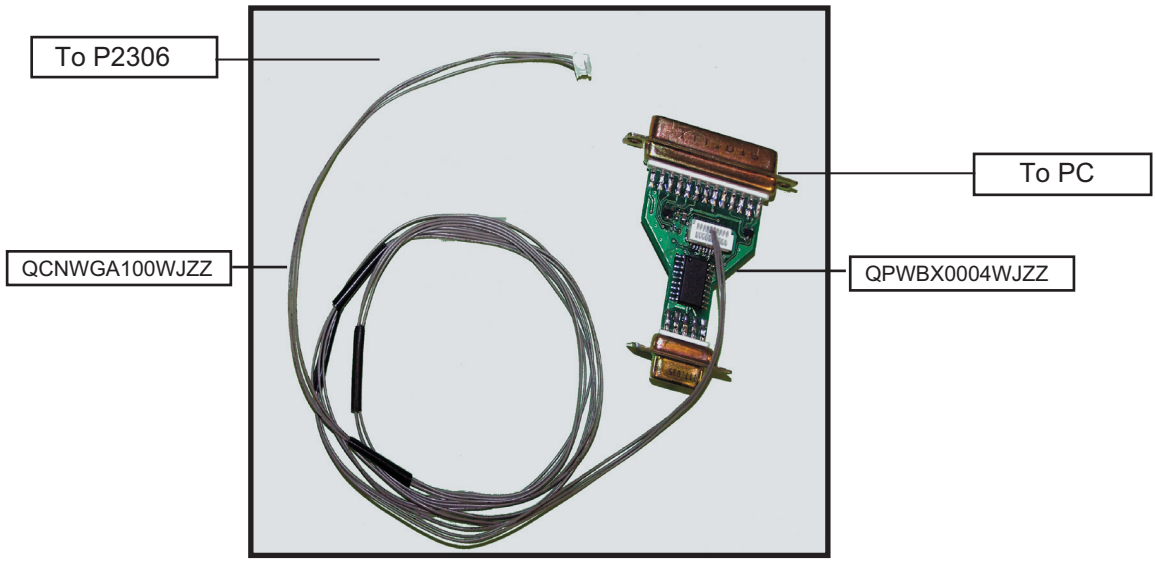
VERY IMPORTANT NOTE:

During the updating time, please don’t use the PC for other purposes, in order to abolish communication problems between TV set and PC. If TV set was not updated properly, the TV won’t have the software to startup again, and you must follow the “I2C method” to update another time the TV set.

3. I2C Method Description

The hardware tools requirement are:

1. A Parallel port I2C interface with 20 pin to 3 pin cable (Sharp Code: CKIT-0004WJV0).
2. Make the connections as indicated below:
   i) Connect Parallel port I2C interface to LPT port of the computer.
   ii) Connect the 20 to 3 pin cable from the I2C interface to the P2306 socket in the main board (XD603).



I2C Interface (CKIT-0004WJV0)

Before using I2C method is necessary to install Visual I2C software following next procedure.

1. Install Visual I2C release V3.2.3b from file (“Setup_Visual_I2C_v3-2-3b8h.exe”).

- It’s strongly recommended to accept the suggested default folder (“C:\Program Files\Micronas\Visual I2C”).

2. Install Visual I2C VCTp extension from file (“Setup_VI2C_for_VCT6wxyP_v0111.exe”).

- It’s interesting to change default folder to same as Visual I2C (“C:\Program Files\Micronas\Visual I2C”).
- During this installation process is possible to install also a complementary software to manage NVM memories.

This installation is not needed, for this reason uncheck the option when the setup program ask to you. In case of installation it’s interesting to change default folder to same as Visual I2C (“C:\Program Files\Micronas\Visual I2C”).

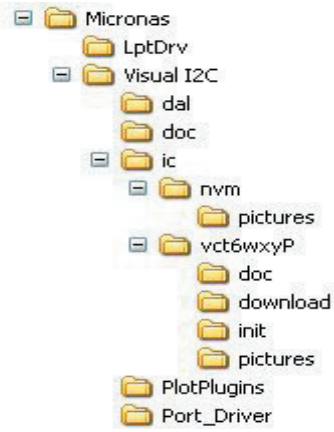
3. Install Parallel driver depending of your Windows version from existing files inside the Visual I2C installation folder “C:\Program Files\Micro nas\Visual I2C\Port_Driver”, following next criteria:.

1) Windows 98/Me (“Setup_LptDrv_v0104_9x.exe”).

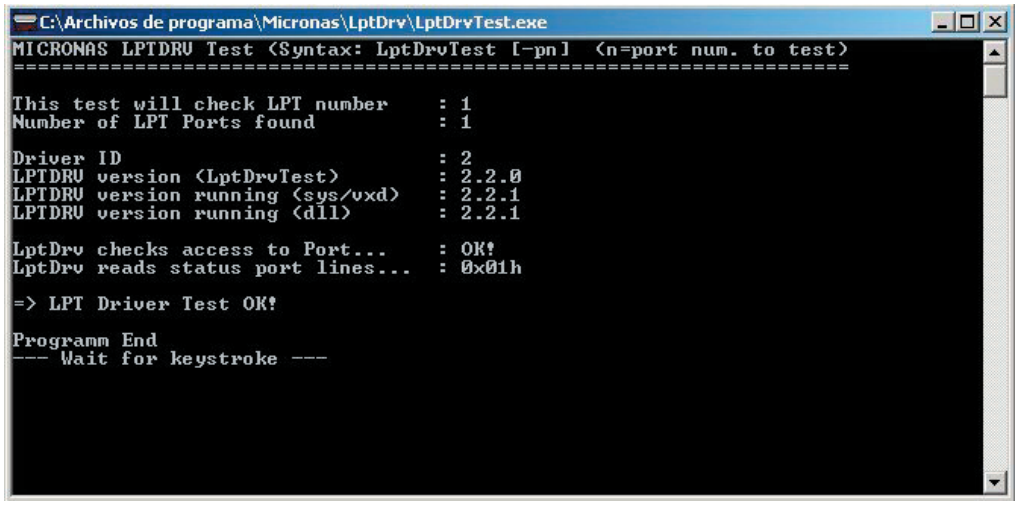
2) Windows NT (“Setup_LptDrv_v0104_NT_2000.exe”).

3) Windows Xp/2000 (“Setup_LptDrv_v020201_XP_2000.exe”).

After installing Visual I2C, the new generated file structure should look like this:

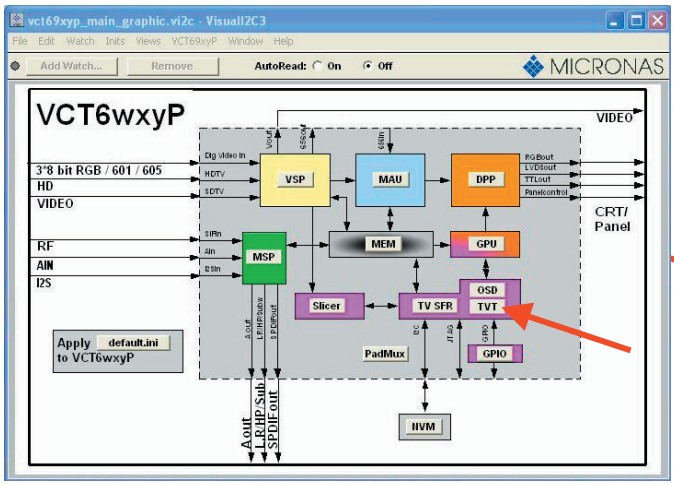


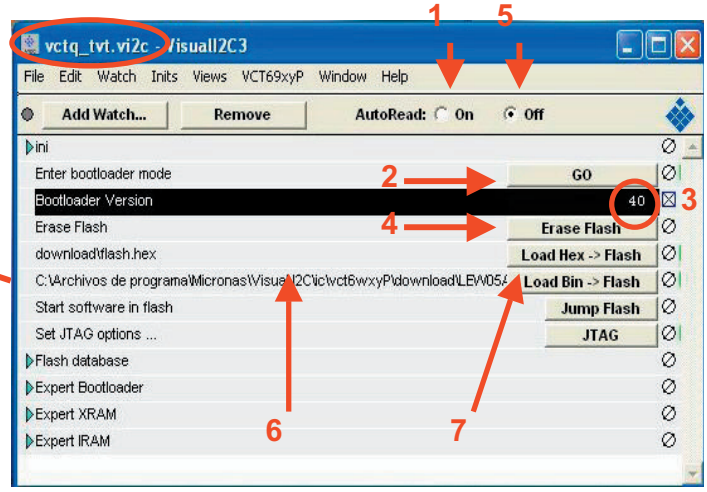
4. Check installation LPT driver using “C:\Program Files\Micronas\LptDrv\LptDrvTest.exe”. After run this software, if LPT driver is installed properly must appear this screen:



- If the result is not OK, check inside PC bios: Parallel Port Mode=EPP

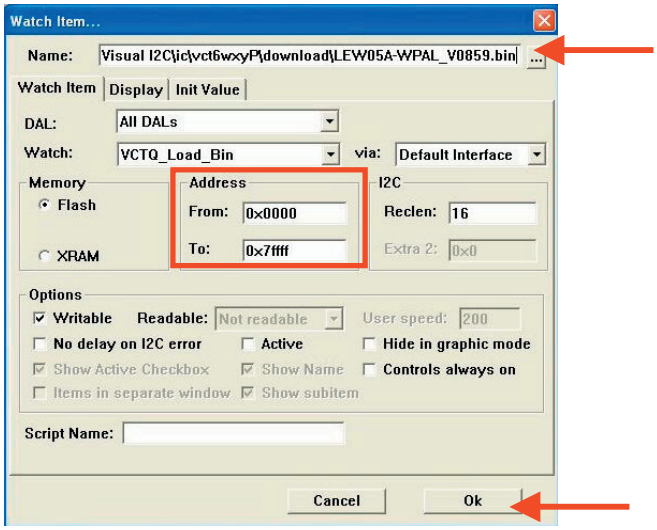
To run VCTp software update program, please click over “VCTP” icon from “START\All programs\Micronas\Visual I2C\IC\VCTP” and after Visual I2C finish their starting process click on “TVT” module. As additional method, it’s possible to create a direct access to “C:\Program Files\Micronas\Visual I2C\ic\vct6wxyP\vctq_tvt.vi2c” and launch it from Windows Desktop.



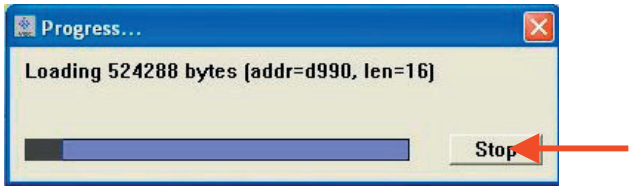


To start updating process follow next instructions:

1. Set Autoread in ON option.
2. Click on “GO” button.
3. Wait until “40” appears in Bootloader Version field.
4. Close DOS pop up windows pressing any key (“Press any key to continue...”.).
5. Click on the “Erase flash” button and wait for a seconds and set the AutoRead to OFF.
6. Check in the desired software version is selected in the “Load BinaFlash” option. If it’s not the correct one, please double click on the file name and select it. The first time this software is use it’s necessary to confirm write Addressing margin as from 0x0 to 0x7ffff.



7. Click on the “Load Bin → Flash” to start updating process.

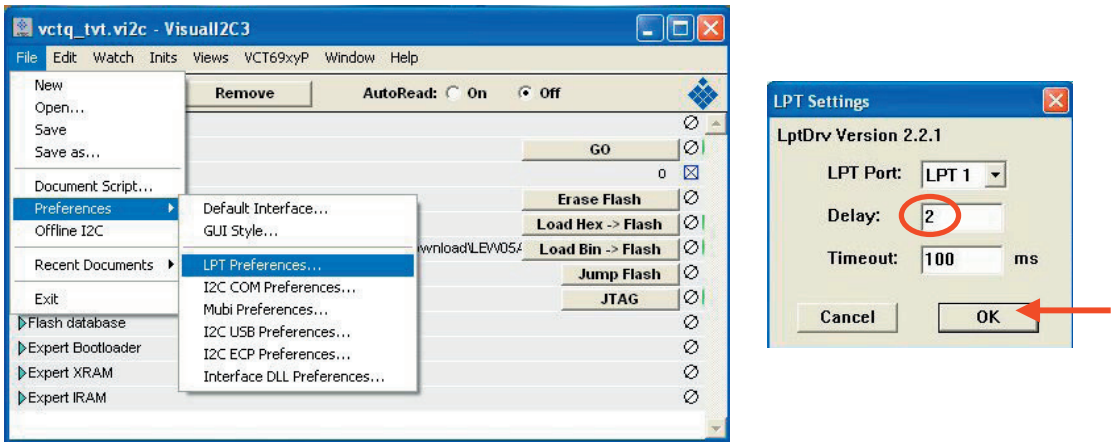


8. When the updating process finishes, the “Progress” pop up window automatically closes. If appears some problem during the updating process a error label appears in the filename information line.

If the TV has problem to enters in the “Bootloader mode”, it’s possible to force it by hardware method. This alternative method is described below:

1. Switch off TV set or hold VCTp RESET line to GND.
2. Pull down SCL line (pin 1) to GND (pin 3) in P2306 connector.
3. Switch on TV set or release VCTp RESET line.
4. Release SCL pull down after minimum of 2 seconds.
5. Check if VCTp is in bootloader mode with Autoread setting in ON.
6. Wait until “40” appears in Bootloader Version field.
7. Follow instruction from item 5 on software method.

Sometimes, depending on the PC hardware, the progress bar runs very fast (Normal time: 1 minute) or some error message appears in the filename information line. This means it’s necessary to modify some parameter of LPT port, for this reason select “LPT Preferences” on the “File\Preferences...” menu and increase Delay from “0” to “1” or “2” (normally, these values are the best choice).



4. How to update the Digital Board Software.

There are 2 methods to update the Digital Board Software on Flash Memory (IC4203) throught the Digital Processor (IC4001).

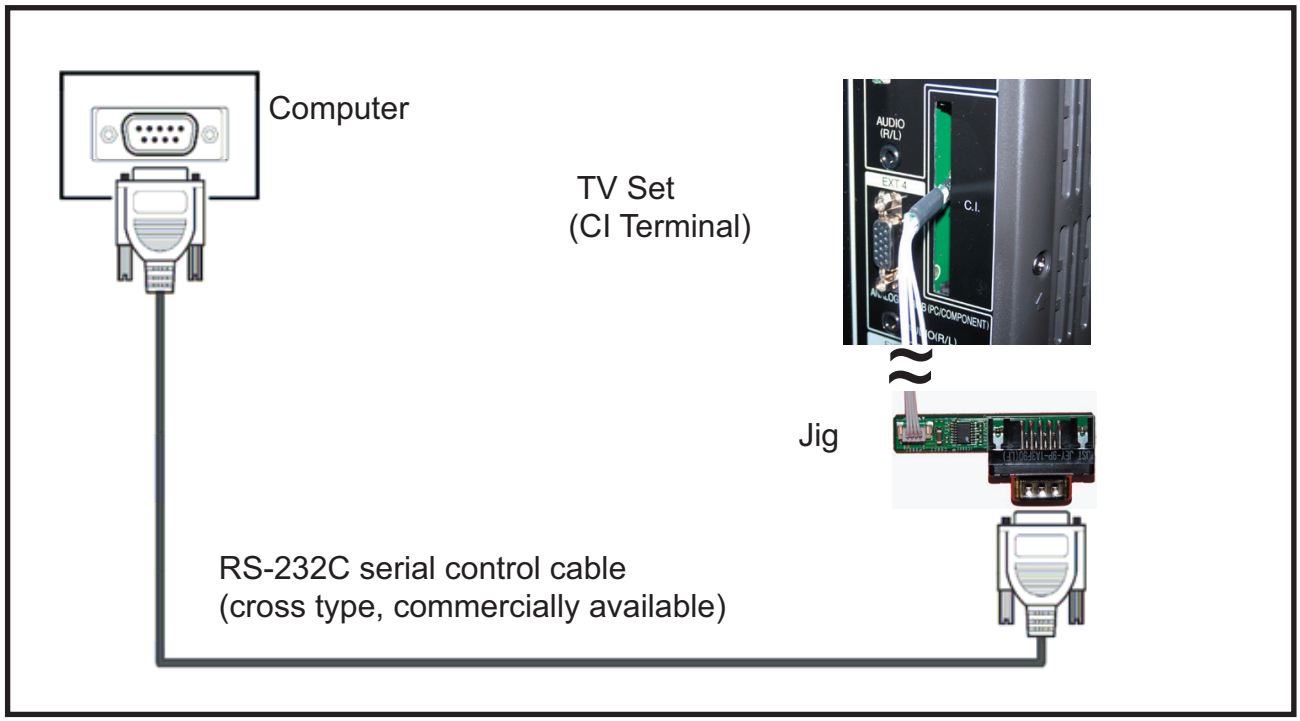
- Jig RS-232 Method (From PC trough RS-232C COM port).
- PCMCIA CARD (Compact Flash Memory) Method.

NOTE: *The PCMCIA method is only compatible with those PCs running XP Windows Version.*

4.1. Jig RS-232 Method Description

- **Hardware requirements:**

1. A modem null (Cross type) DB9 female to DB9 female cable.
2. The Jig Kit (Sharp Code: QCNWKA012WJZZ)
3. Make the connections as in the below figure.

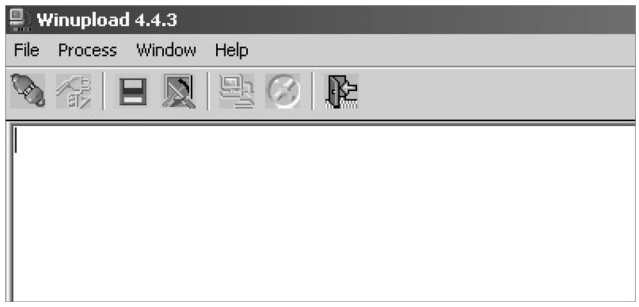


- **Software requirements :**

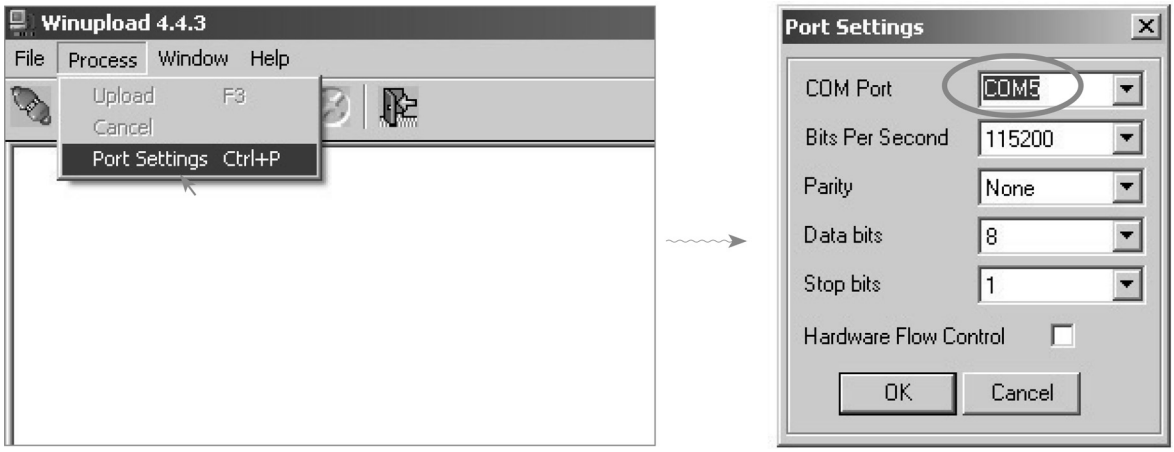
1. “Winupload” application software on PC.

- **How to setup the "Winupload" software for the first time:**

1. Start "Winupload". It will appear the following picture.



2. Select the most suitable RS232 Serial Port from "Port Setting" - "Process" Menu.



3. Select the following settings from "Port Settings" Menu.

Bits Per Second: 115200

Parity: None

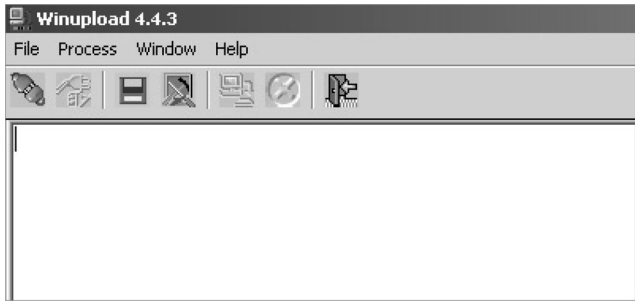
Data bits: 8

Stop bits: 1

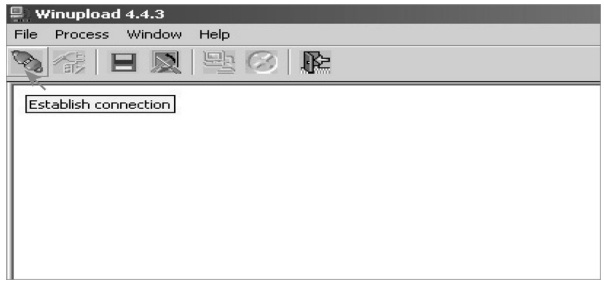
Hardware Flow Control: OFF

- **Procedure for updating the TV set.**

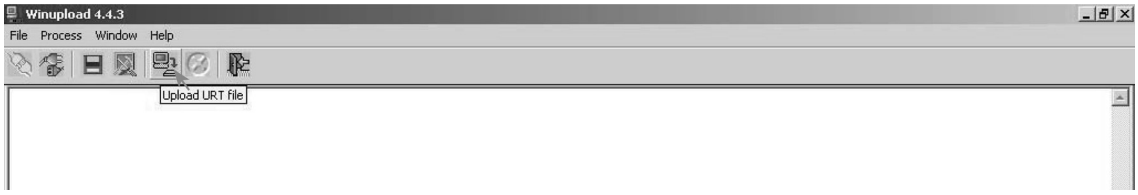
1. Switch off the TV set to be updated, in DTV mode.
2. Start "Winupload". It will appear the following picture on PC.



3. Establish connection on Winupload Software.

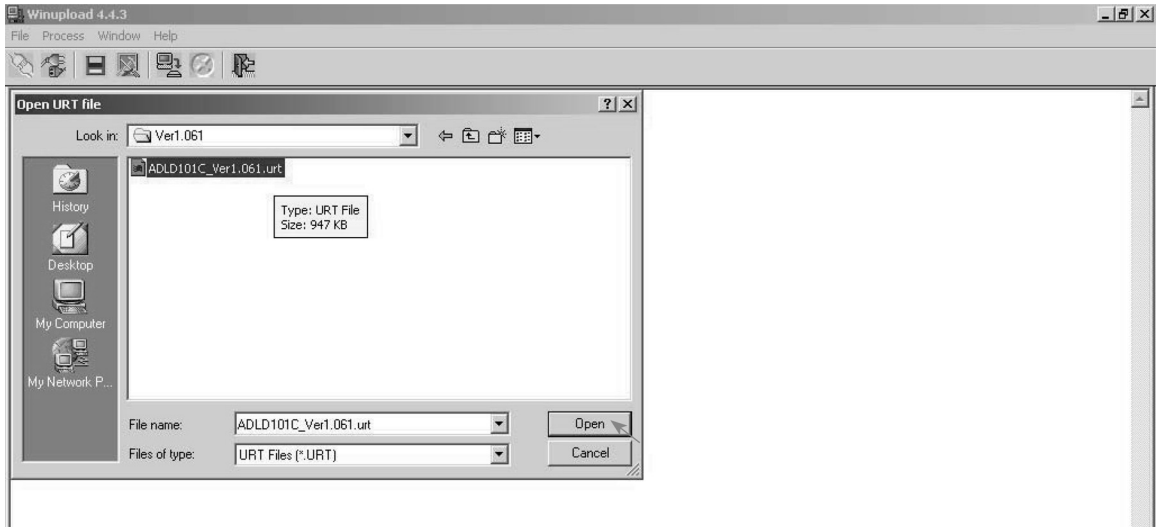


4. Select “Upload URT file”

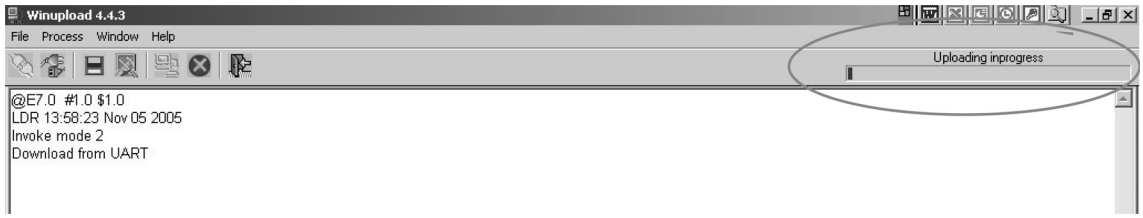


5. Select and open the “.urt” data file from data directory

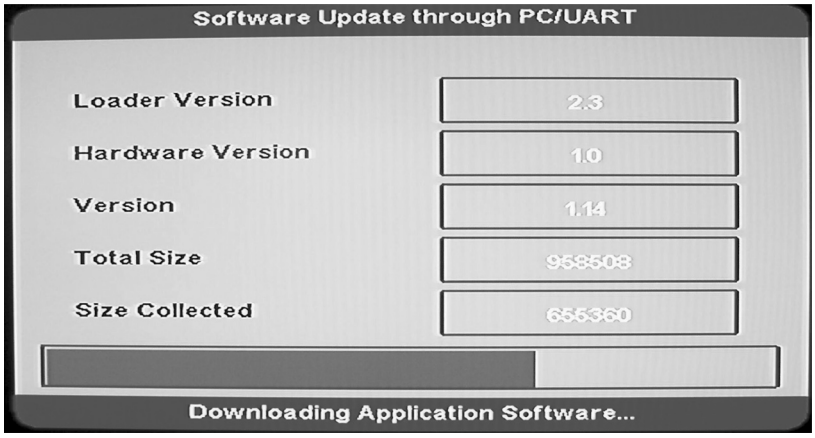
NOTE: Consider the version shown below just an example, may be is not the latest one, and could be different depending on the TV set destination (market/Country) or model.



6. Switch On the TV Set (previously in DTV Mode). The Uploading Process starts automatically.



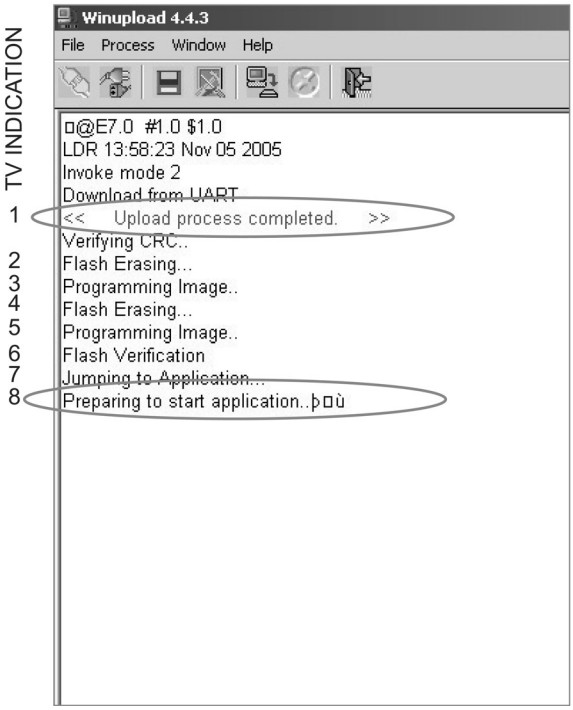
While the TV set is uploading the software, the following information is shown on the TV set screen.



Then, data transfer from PC to TV set finishes when the “Upload progress completed” label appears in the “Winupload” screen. Now, the TV set made some additional verification (Items #2 to #7). When the full uploading process is finished, in the “Winupload” window appears the label “Preparing to start application” for a new TV Set, and just now, in the TV screen of the updated set, appears a congratulations label (Item #8).

PC SCREEN PROGRESS

TV SCREEN PROGRESS



NOTE: *Do not turn off the TV set while the software updating was in progress.*

7. Unplug the AC cord.

8. Disconnect the Jig from TV Set.

- **Software Version verification procedure.**

1. Connect the AC cord and Switch On the TV Set.

2. Select DTV Menu on TV Set. The following On Screen Display will appear.

3. Select “Version”. The updated version can be verified.

NOTE: Consider the version shown above just as example, may be is not the latest one, and could be different depending on the TV set destination (market/Country) or model.

4.2. PCMCIA Card (Compact Flash) Method.

- **Hardware requirements:**

1. Compact Flash Memory Card.
2. PCMCIA Compact Flash Adapter or USB Multi Card Reader.

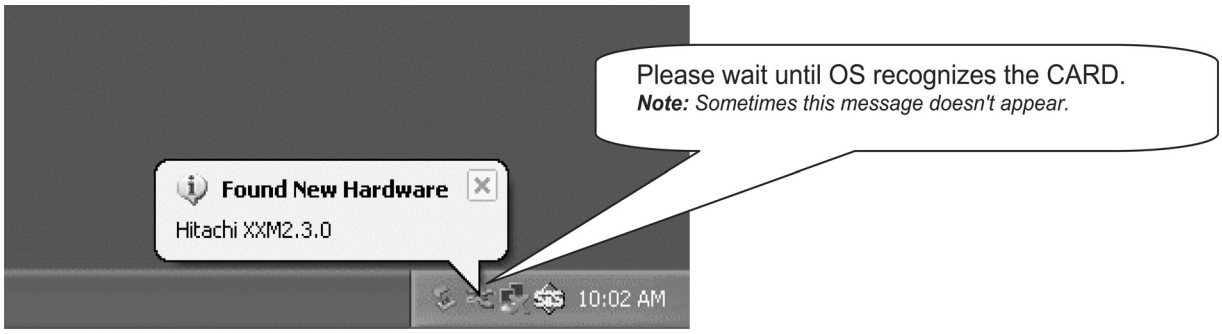
- **Software requirements:**

1. “StorageMediaManager1.0.1” application software, installed on PC.
2. “Loader 2.2” or higher application software, installed on DTV Set.

NOTE: *Storage Media Manager only for Windows XP.*

- **How to prepare the CF Card using the “Storage Media Manager 1.0.1” (SMM):**

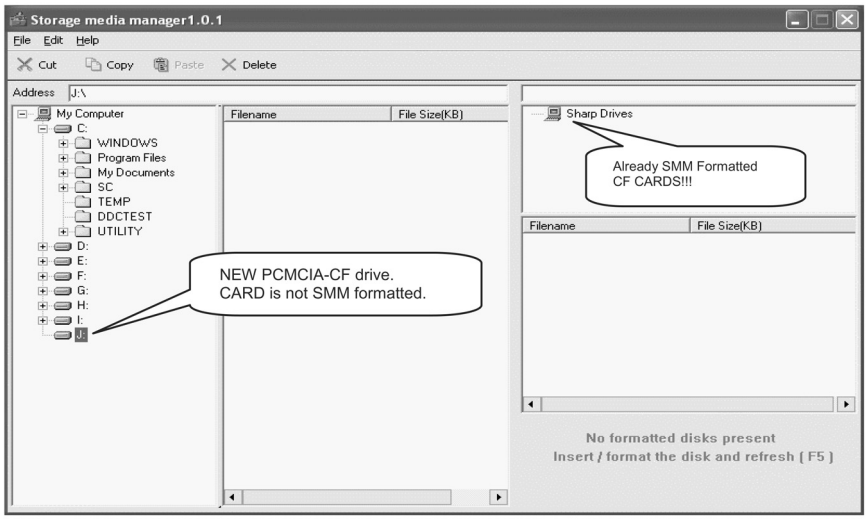
1. Insert PCMCIA (Compact Flash(CF) + CF-Adapter)



2. Execute SMM. If SMM does not appear or a Windows Error Box appears, please verify there are no USB media drives connected to the PC.

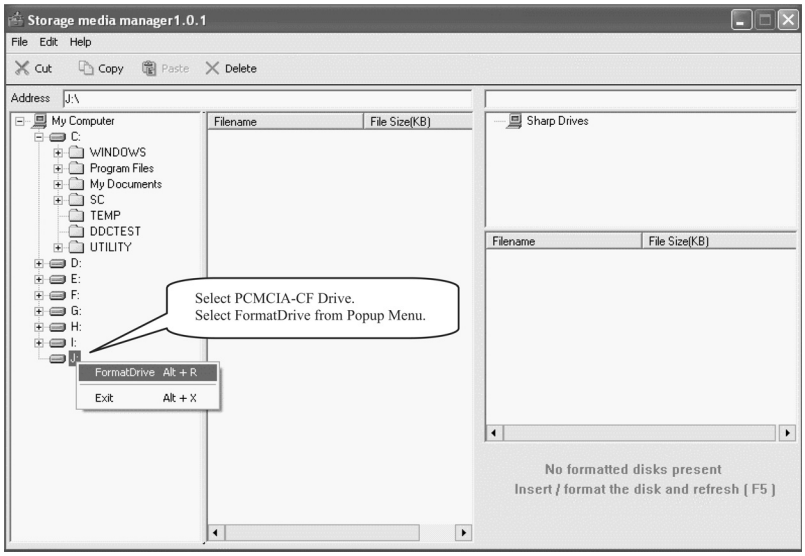
NOTE: *Consider that it's recommended remove unnecessary media during SMM execution. Probably, If you try to use an USB Multi Card Reader with SMM doesn't work fine.*

3. If the CF card has never been formatted for the SMM (is not same format type used in Windows), the SMM will show you the PCMCIA-CF drive as a Windows Media Drives, hanged of the “My Computer” tree (“J” Drive in the picture showed below).



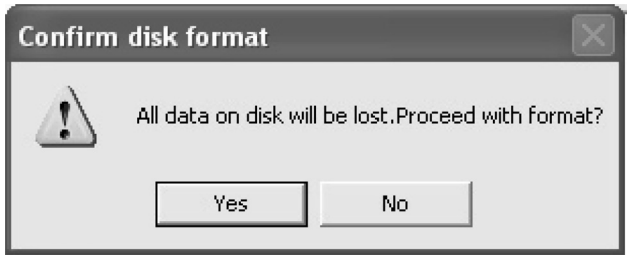
But, if the PCMCIA-CF card had been formatted previously by SMM, directly the PCMCIA-CF drive will appear in the SMM formatted Drives box (Sharp Drives). Please go to Item #6.

4. In case of not SMM formatted card, select PCMCIA-CD Drive and using the Right-Click Pop up Menu please format the Drive.

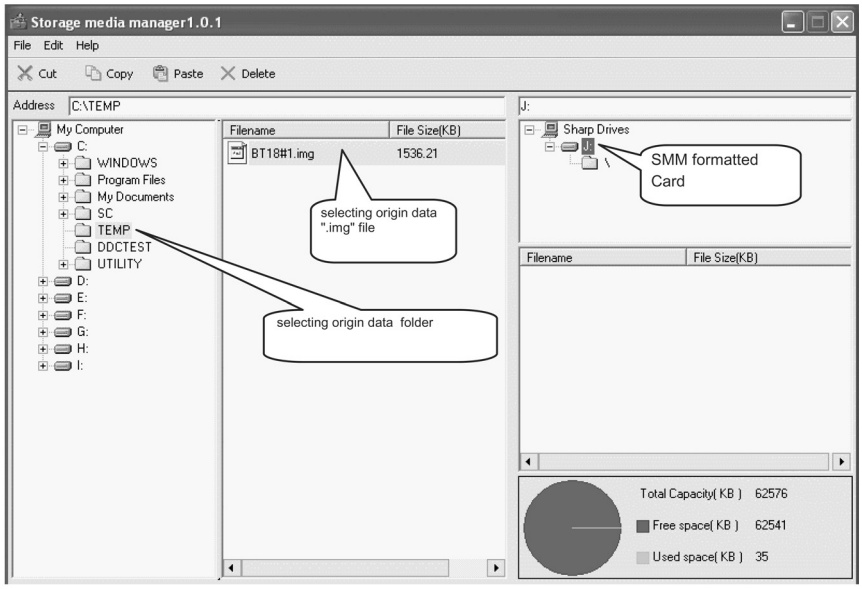


5. Formatting the CF card. Select “Yes” to confirm the action.

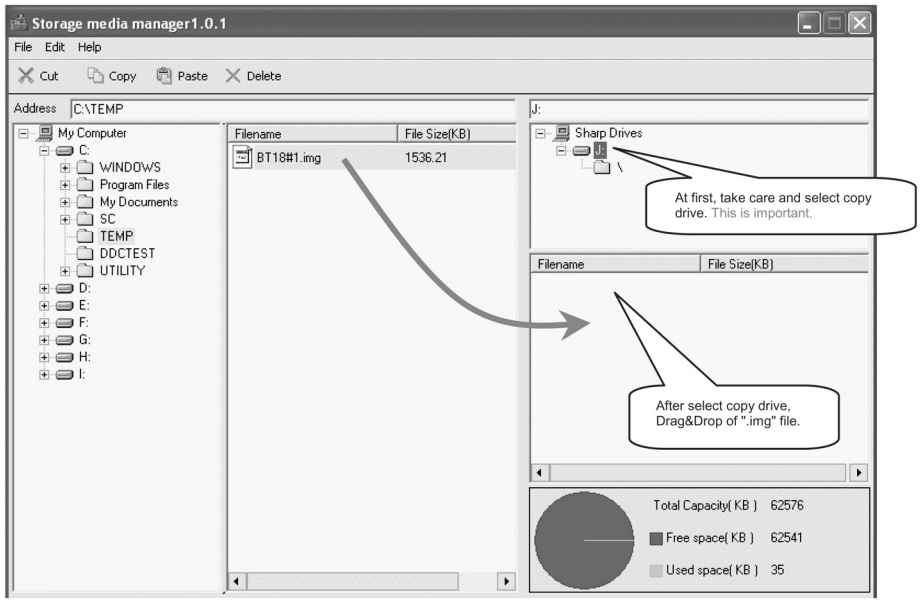
NOTE: *All FC’s data of the inside are erased.*



6. If SMM formatted card already appears under SHARP DRIVES box please continue, if not try to repeat from item #1. Select origin folder and “.img” data file to be written in the CF card.

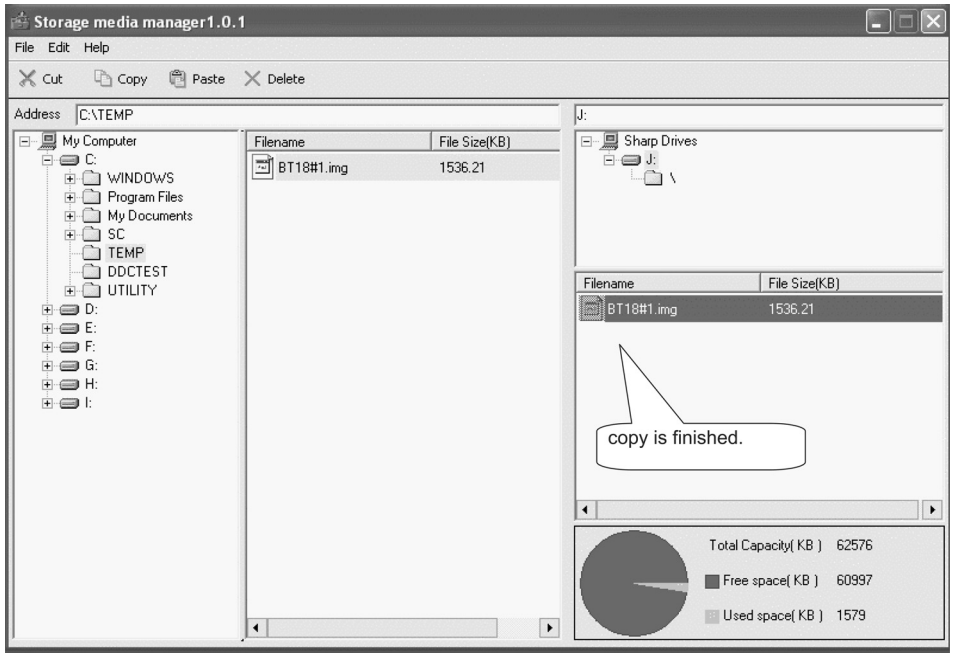


7. First of all, select copy target drive and then use Drag & drop for the “.img” file.



8. Wait, copy is in process.

9. Copy is finished, when the Copying progress bar disappears and the name of data file appears in the File Box.



10. Close SMM application.

11. Remove PCMCIA safely using the Windows Task bar pop up menu (Right-click over the Tray Icon).

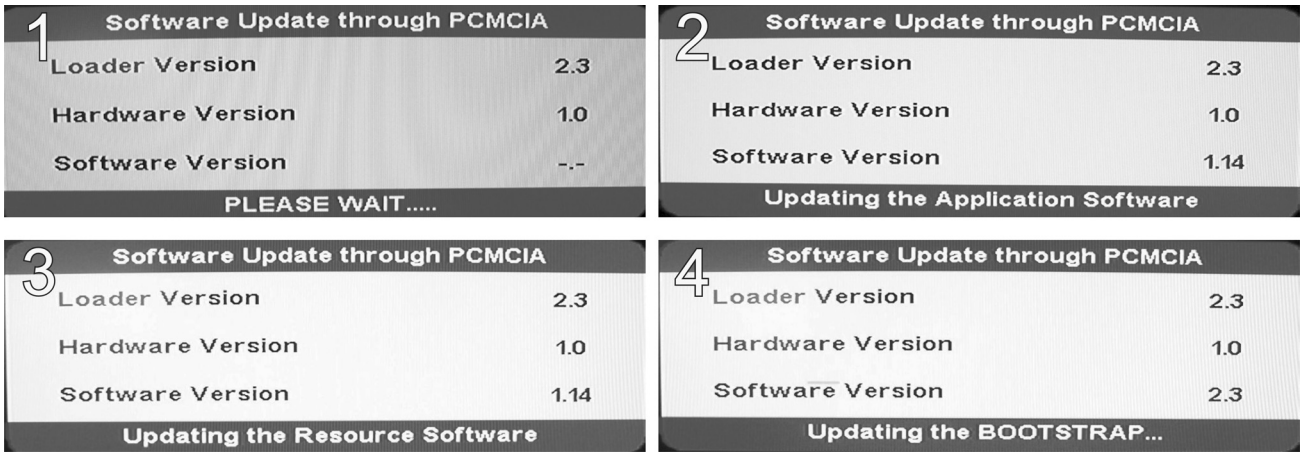
12. Now, the PCMCIA-CF card is prepared to update the TV set.

Procedure to update the TV Set using PCMCIA-CF Card:

1. Switch Off the LCD TV Set.

2. Insert PCMCIA Card (already prepared according the details before given at **"How to prepare the CF Card using the "Storage Media Manager 1.0.1" (SMM))".**

3. Switch On the LCD TV Set (it starts automatically the updating, Items #1 to #4).



4. Wait till the finishing indication is shown.

5. For checking the correct update, please Select DTV Menu on TV Set. The following On Screen Display will appear.

6. Select "Version". The updated version can be verified.

[3] Entering and exiting the adjustment process mode

1) Unplug the AC power cord of running TV set to force off the power.
2) While holding down the “VOL (-)” and “INPUT” keys on the set at once, plug in the AC power cord to turn on the power.

   The letter [K] appears on the screen.
3) Next, hold down the “VOL (-)” and “P(∨)” keys on the set at once.

   Multiple lines of orange characters appearing on the screen indicate that the set is now in the adjustment Process mode.

   If you fail to enter the adjustment process mode (the display is the same as normal startup), retry the procedure.
4) To exit the adjustment process mode after the adjustment is done, unplug the AC power cord to force off the power. (When the power is turned off with the remote controller, once unplug the AC power cord and plug it in again. In this case, wait 10 seconds or so before plugging.)

Caution: Use due care in handling the information described here lest the users should know how to enter the adjustment process mode. If the settings are tampered with in this mode, unrecoverable system damage may result.

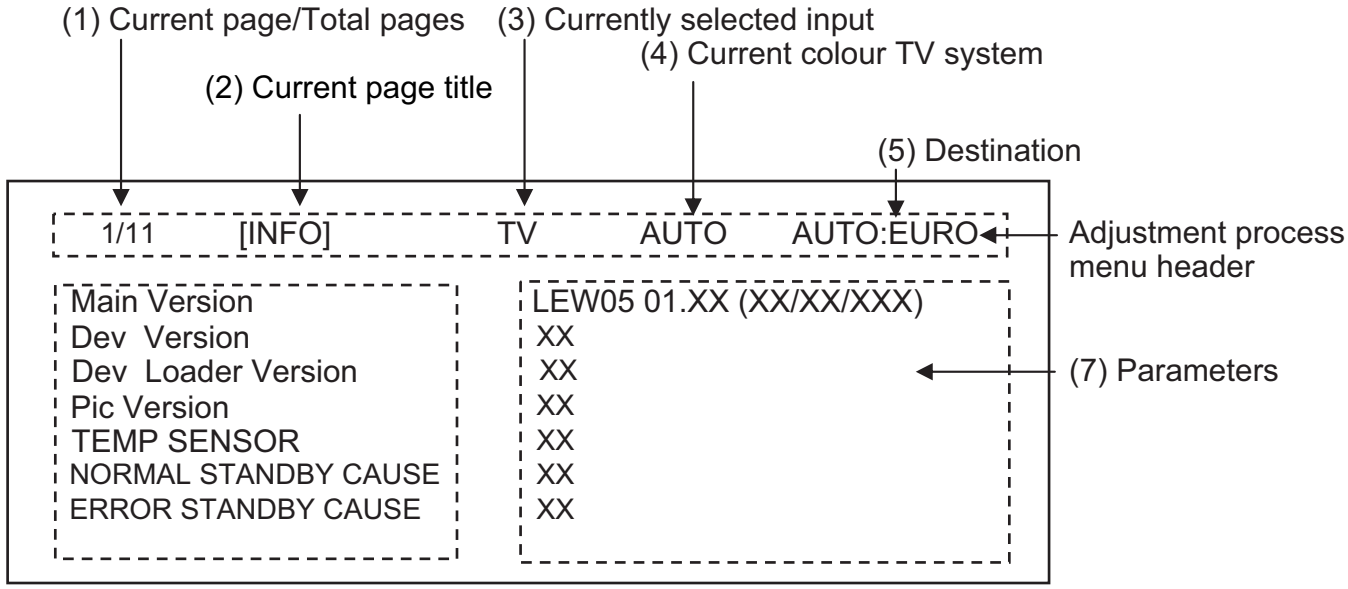
[4] Remote controller key operation and description of display in adjustment process mode.

1. key operation

Remote controller key	Main unit key	Function
P (∧ / ∨)	P (∧ / ∨)	Moving an item (line) by one (UP/DOWN)
◿ (+ / –)	◿ (+ / –)	Changing a selected item setting (+1/–1)
Cursor (▲ / ▼)	————	Turning a page (PREVIOUS/NEXT)
Cursor (◀ / ▶)	————	Changing a selected line setting (+10/–10)
⏎ on remote controller	⏎ button	Input source switching (toggle switching) (TV→EXT1→EXT2→EXT3→EXT4)
OK	————	Executing a function

* Input mode is switched automatically when relevant adjustment is started so far as the necessary input signal is available.

2. Description of display



[5] Adjustment process mode menu

The character string in brackets [ ] will appear as a page title in the adjustment process menu header.

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
1/11		[INFO]		
	1	Main Version	LEW05 01.001(2006/10/15A)	Main microprocessor version
	2	Dev Version	1.10	DTV microprocessor version
	3	Dev Loader Version	2.3	DTV microprocessor-Loader version
	4	Pic Version	xxxxxx	Pic MICON version
	5	TEMP SENSOR	xxxxxx	
	6	NORMAL STANDBY CAUSE	RC_STANDBY	
	7	ERROR STANDBY CAUSE	[1] 00H 00M	Error standby cause Total operating time before error
			[2] 00H 00M	
			[3] 00H 00M	
			[4] 00H 00M	
			[5] 00H 00M	
2/11		[INIT]		
	1	Factory Init	[EURO/UK/ITALY/FRANCE/ RUSSIA] ENTER	Initialization to factory settings execution
	2	Inch Setting	26/32/37/42	Inch present setting
	3	Public Mode	OFF/ON	HOTEL MODE flag setting
	4	Center Acutime	xxH xxM	Main operating hours
	5	RESET	OFF/ON	Main operating hours reset
	6	Backlight Acutime	xxH xxM	Backlight operating hours
	7	RESET	OFF/ON	Backlight operating hours reset
	8	Picture Read Pos X	0-xxx	x-axis setting of picture data
	9	Picture Read Pos Y	0-xxx	y-axis setting of picture data
	10	Picture Read	ON/OFF	Start/stop of picture data
3/11		[PAL.SECAM.N358]		
	1	RF-AGC ADJ	ENTER	RF-AGC auto adjustment execution
	2	PAL+TUNER ADJ	ENTER	PAL TUNER auto adjustment execution
	3	PAL ADJ	ENTER	PAL auto adjustment execution
	4	TUNER ADJ	ENTER	TUNER auto adjustment execution
	5	CONTRAST SD	32	PAL contrast adjustment
	6	SECAM CB OFFSET	1	SECAM offset adjustment
	7	SECAM CR OFFSET	1	SECAM offset adjustment
	8	TUNER A DAC	32	TUNER DAC adjustment
	9	RF AGC	20	RF AGC adjustment
4/11		[COMP 15K]		
	1	COMP 15K ADJ	ENTER	COMP15K auto adjustment execution
	2	COMP 15K CONTRAST	32	Contrast adjustment
5/11		[HDTV]		
	1	HDTV CONTRAST	32	HDTV Contrast adjustment
6/11		[SMPTE]		
	1	RF-AGC ADJ	ENTER	RF-AGC auto adjustment execution
	2	PAL-AGC ADJ	ENTER	PAL AGC auto adjustment execution
	3	PAL ADJ	ENTER	PAL auto adjustment execution
	4	TUNER ADJ	ENTER	TUNER auto adjustment execution
	5	CONTRAST SD	30	PAL contrast adjustment
	6	SECAM CB OFFSET	1	SECAM offset adjustment
	7	SECAM CR OFFSET	1	SECAM offset adjustment
	8	TUNER A DAC	36	TUNER DAC adjustment
	9	RF AGC	18	RF AGC adjustment
7/11		[M GAMMA INFO]		
	1	M GAMMA IN 1	160	W/B adjustment, gradation 1 input setting
	2	M GAMMA IN 2	320	W/B adjustment, gradation 2 input setting
	3	M GAMMA IN 3	480	W/B adjustment, gradation 3 input setting
	4	M GAMMA IN 4	640	W/B adjustment, gradation 4 input setting
	5	M GAMMA IN 5	800	W/B adjustment, gradation 5 input setting
	6	M GAMMA IN 6	960	W/B adjustment, gradation 6 input setting
	7	M GAMMA WRITE	OFF/ON	EEP writing of adjustment values
	8	M GAMMA RESET	OFF/ON	Initialization of adjustment values

Page	Line	Item	Description	Remarks (adjustment detail, etc.)
8/11		[M GAMMA 1-3]		
	1	M GAMMA R 1	0	W/B adjustment, gradation 1R adjustment value
	2	M GAMMA G 1	0	W/B adjustment, gradation 1G adjustment value
	3	M GAMMA B 1	0	W/B adjustment, gradation 1B adjustment value
	4	M GAMMA R 2	0	W/B adjustment, gradation 2R adjustment value
	5	M GAMMA G 2	0	W/B adjustment, gradation 2G adjustment value
	6	M GAMMA B 2	0	W/B adjustment, gradation 2B adjustment value
	7	M GAMMA R 3	0	W/B adjustment, gradation 3R adjustment value
	8	M GAMMA G 3	0	W/B adjustment, gradation 3G adjustment value
	9	M GAMMA B 3	0	W/B adjustment, gradation 3B adjustment value
	10	M GAMMA WRITE	OFF/ON	EEP writing of adjustment values
9/11		[M GAMMA 4-6]		
	1	M GAMMA R 4	0	W/B adjustment, gradation 4R adjustment value
	2	M GAMMA G 4	0	W/B adjustment, gradation 4G adjustment value
	3	M GAMMA B 4	0	W/B adjustment, gradation 4B adjustment value
	4	M GAMMA R 5	0	W/B adjustment, gradation 5R adjustment value
	5	M GAMMA G 5	0	W/B adjustment, gradation 5G adjustment value
	6	M GAMMA B 5	0	W/B adjustment, gradation 5B adjustment value
	7	M GAMMA R 6	0	W/B adjustment, gradation 6R adjustment value
	8	M GAMMA G 6	0	W/B adjustment, gradation 6G adjustment value
	9	M GAMMA B 6	0	W/B adjustment, gradation 6B adjustment value
	10	M GAMMA WRITE	OFF/ON	EEP writing of adjustment values
10/11		[ETC]		
	1	EEP CLEAR	OFF/ON	Clear of all adjustment value
	2	EEP CLEAR B	OFF/ON	Clear of adjustment value of B mode
	3	STANDBYCAUSE RESET	OFF/ON	Reset of STANDBY CAUSE
	4	AUTO INSTALLATION SW	0/1	1: * * * 0: * * *
	5	OPTION	0	
	6	COUNTRY	AUTO/EURO/UK	Destination setting
	7	L ERR RESET	0	LAMP ERR RESET Initializatio of L_ERR
	8	L ERR STOP	0/1	LAMP ERR Inhibit L_LRR detection
	9	I2C-OFF	ENTER	I2C DATA execution
11/11		[LCD]		
	1	OSC FREQ50	62	INVERTER drive frequency setting
	2	OSC FREQ60	62	INVERTER drive frequency setting
	3	PWM FREQ50	0	Frequency setting for INVERTER dimmer
	4	PWM FREQ60	0	Frequency setting for INVERTER dimmer
	5	PWM FREQ	409	Dimmer frequency adjustment
	6	PWM DUTY	227	Dimmer DUTY adjustment
	7	PWM CTRL	0	Dimmer CONTROL adjustment

[6] Special features

* ERROR STANDBY CAUSE (Page 1/11)

  The total time when the unit enters the standby due to operational error and cause of error are recorded on EEPROM as much as possible.

  The values can be used to locate the fault for repair.

* EEP CLEAR (Page10/11)

  Clear of process adjustment EEP value.

[7] Video signal adjustment procedure

* The adjustment process mode menu is listed in Section 5.

1. Signal check

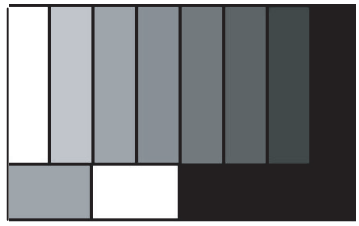
1. Signal generator level adjustment check (Adjustment to the specified level)

- Composite signal PAL : 0.7Vp-p ±0.02Vp-p (Pedestal to white level)
- 15K component signal (50 Hz) : Y level 0.7Vp-p ±0.02Vp-p (Pedestal to white level)
  PB, PR level 0.7Vp-p ±0.02Vp-p

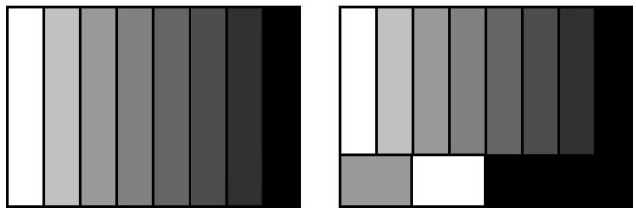
2. Entering the adjustment process mode

1. Enter the adjustment process mode according to Section 3.

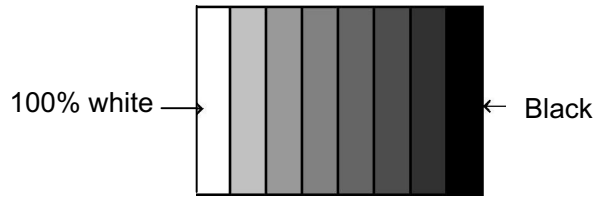
3. RF AGC adjustment

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] PAL Sprit Field Colour Bar RF signal UV [Terminal] TUNER	• Feed the PAL Sprit Field colour bar signal to TUNER. Signal level: 52 dB μV +0dB, -1dB (75Ω LOAD) [E-12CH]  ↑ 100% white
2	Auto adjustment performance	Adjustment process Page3	Bring the cursor on [■ RF AGC ADJ] and press [OK] [■ RF AGC ADJ OK] appears when finished.

4. PAL signal & tuner adjustment

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] PAL Full Field Color Bar Composite or RF signal [Terminal] EXT3 VIDEO IN TUNER	• Feed the PAL full field colour bar signal (75% colour saturation) to EXT3 VIDEO IN. • Feed the RF signal (PAL colour bar) to TUNER. • Make sure the PAL colour bar pattern has the sync level of 7:3 with the picture level. [VIDEO IN SIGNAL] [RF Signal]  ↑ 100% white ↑ 100% white
2	Auto adjustment performance	Adjustment process Page3	Bring the cursor on [■ PAL + TUNER ADJ] and press [OK] [■ PAL + TUNER ADJ OK] appears when finished.

5. ADC adjustment (Component 15K)

	Adjustment point	Adjustment Conditions	Adjustment procedure
1	Setting	[Signal] COMP15K, 50Hz 100% Full Field Colour Bar [Terminal] EXT4 COMPONENT IN	• Feed the COMPONENT 15K 100% full field colour bar signal (100% colour saturation) to EXT4 COMPONENT IN. 
2	Auto adjustment performance	Adjustment process Page4	Bring the cursor on [■ COMP15K ADJ] and press [OK] [■ COMP15K ADJ OK] appears when finished.

[8] White Balance Adjustment

Adjustment gradation values (IN) appear on page 7/11 of process adjustment, and adjustment initial values (offset value) appear on pages 8/11 and 9/11. For white balance adjustment, adjust the offset values on pages 8/11 and 9/11.

[Condition of the unit for inspection] Modulated light: MAX (+8)

[Adjustment reference device] Minolta CA-210

[Adjustment]

Check that the values on page 7/11 of process adjustment are set as below. If not, change them accordingly.

M GAMMA IN 1	160	M GAMMA IN 2	320
M GAMMA IN 3	480	M GAMMA IN 4	640
M GAMMA IN 5	800	M GAMMA IN 6	960

1) Display the current adjustment status at point 6. (Page 8/11 of process adjustment)

   The display for checking the adjustment status is toggled by pressing the “6” button on the remote control.

   (Normal OSD display → “6”→ display for check (OSD disappears) → “6” →normal OSD display → • • •)

2) Read the value of the luminance meter.

3) Change M GAMMA R6/M GAMMA B6 (Adjustment offset value) on page 9/11 of process adjustment so that the values of the luminance meter approach x = 0.272 and y = 0.277.

   (Basically, G is not changed. If adjustment fails with R and B, change G. When G is lowered, the weaker of R and B must be fixed.)

4) If G is changed in step 3), change the values of M GAMMA G1-M GAMMA G5 on pages 8/11 and 9/11 of process adjustment as follows. When not changed, go to step5).

   Offset value of M GAMMA G1 = (Offset value of M GAMMA G6) * (160/960)

   Offset value of M GAMMA G2 = (Offset value of M GAMMA G6) * (320/960)

   Offset value of M GAMMA G3 = (Offset value of M GAMMA G6) * (480/960)

   Offset value of M GAMMA G4 = (Offset value of M GAMMA G6) * (640/960)

   Offset value of M GAMMA G5 = (Offset value of M GAMMA G6) * (800/960)

5) Display the adjustment status of the current point 5. (Each time the “5” button on the remote control is pressed, the adjustment status check display is toggled.)

   (Normal OSD display → “5” → Check display (OSD disappears) → “5” → Normal OSD display → • • •)

   Change M GAMMA R5/M GAMMA B5 (adjustment offset value) on page 9/11 of process adjustment so that the values of the luminance meter approach x = 0.272 and y = 0.277.

6) Repeat step 5) for points 4, 3, 2, and 1.

[Adjustment reference standard value]

Adjustment spec	±0.004	Inspection spec	±0.006 (point 1)
Adjustment spec	±0.002	Inspection spec	±0.004 (Excluding the above-mentioned)

[9] Initialization to factory settings

Caution: When the factory settings have been made, all user setting data, including the channel settings, are initialized. (The adjustments done in the adjustment process mode are not initialized.) Keep this in mind when initializing these settings.

	Adjustment item	Adjustment conditions	Adjustment procedure
1	Factory settings	Forcibly turn off the power (See to below caution)	• Enter the adjustment process mode. • Move the cursor to [Factory Init] on page 2/11. • Use the R/C ◄ ► key to select a destination [EURO/UK/ITALY/ FRANCE/RUSSIA]. and size32/37]. And, press the [OK] key. • "EXECUTING..." appears and initialization starts. • After a while, "*** OK ***" appears and the setting is complete. NOTE: Never turn the power off during initialization.
			The following settings will be back to their factory ones. 1. User settings 2. Channel data (e.g. broadcast frequencies) 3. Maker option setting 4. Password data

After adjustments, exit the adjustment process mode. To exit the adjustment process mode, unplug the AC power cord from the outlet to forcibly turn off the power. When the power is turned off with the remote control, unplug the AC power cord and plug it back in (wait approximately 10 seconds before plugging in the AC power cord).

[10] Lamp error detection

1. Function description

This LCD colour television has a function (lamp error detection) to be turned OFF automatically for safety when the lamp or lamp circuit is abnormal.

If the lamp or lamp circuit is abnormal, or some other errors happen, and the lamp error detection is executed, the following occur.

1- The main unit of television is turned OFF 5 seconds after it is turned ON. (The power LED on the front side of TV turns from green to red.)

2 - If the situation "1" happens 5 times sequentially, the power is turned on (relay is turned ON).

However, the backlight is not turned on, and then the relay is turned OFF after 5 to 6 seconds. (The power LED turn from green to red.)

2. Countermeasures

When television is turned OFF by the lamp error detection mentioned above, it enters the adjustment process with the power LED red. Entering the adjustment process turns OFF the error detection and turns ON TV. This enables the operation check to detect errors in the lamp or lamp circuit

Check whether "L ERROR RESET" on point 7, page 10/11 of the adjustment process is 1 or more. If it is 1 or more, it indicates the lamp error detection was executed. After confirming that the lamp or lamp circuit is normal, reset the lamp error counter pushing "OK" in the R/C. After resetting counter the label "***OK***" appears on Screen.

3. Reset standby cause error list

After confirming that the lamp error counter has been erased, select "STAND BY CAUSE RESET" on point 3, page 10/11 of the adjustment process and select ON using the right cursor. For execute press "OK" in the R/C and the label "***OK***" appears on Screen.

[11] Public Mode (Hotel Mode)

1. How to Enter in the Public Mode (Hotel Mode).

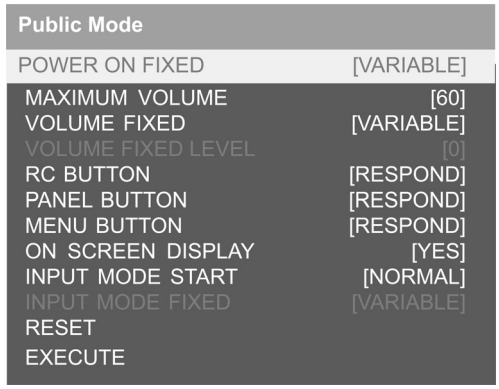
Turn on the power and enter in the Adjustment Process mode (ADJ1 or Service Mode) as usual.

In the [INIT], Page 2/11 of Service, turns ON the Public Mode option.

Turn off TV by pressing Main Power switch.

While pressing “VOL+” and “P^” keys at the same time, press Main Power switch for more than 2 seconds.

After this sequence the TV will turn on showing the Public Mode setting screen as follows:



Is possible to select each item of function by pressing cursor UP/DOWN keys on the remote control or CH(^)(v) keys on the LCD TV. (Except DTV)

The setting position of each item of functions is made by pressing cursor RIGHT/LEFT keys on the remote control or VOL (+) (-) keys on the LCD TV.

Select EXECUTE position after you set all function, and press cursor RIGHT/LEFT keys on the remote control or VOL (+)/(-) keys on the LCD TV for confirmation.

2. Public Mode Settings.

1. POWER ON FIXED [VARIABLE ⟷ FIXED]

   When it is set to “FIXED” the TV is impossible to be switch off by Main Switch or Remote Control.

2. MAXIMUM VOLUME [0 ⟷ 60]

   Is possible to set the maximum volume at limited level.

3. VOLUME FIXED [VARIABLE ⟷ FIXED]

   Is possible to fix the sound volume at limited level.

   When “FIXED” is selected the sound volume before limited is fixed.

4. VOLUME FIXED LEVEL [0 ⟷ 60]

   If “FIXED” has been selected, is possible to set a fixed volume at the level that is chosen.

5. RC BUTTON [RESPOND ⟷ NO RESPOND]

   If “NO RESPOND” is selected, the remote control keys are inoperative.

6. PANEL BUTTON [RESPOND ⟷ NO RESPOND]

   If “NO RESPOND” has been selected, the set’s keys remain deactivated (Except POWER key).

7. MENU BUTTON [RESPOND ⟷ NO RESPOND]

   If “NO RESPOND” has been selected, “MENU” key, of remote control, is inoperative.

8. ON SCREEN DISPLAY [YES ⟷ NO]

   If “NO” has been selected, the On Screen Display does not appear.

9. INPUT MODE START [NORMAL → TV (X) → INPUT1 → INPUT2 → INPUT3 → INPUT4 → INPUT5 ↻]

   When any other item than “NORMAL” has been selected, the sets will start in a selected input mode at the next power-on.

10. INPUT MODE FIXED [VARIABLE → FIXED]

    “FIXED” has been selected, any channels and input modes other than those selected at the start mode cannot be picked up.

11. RESET

    Cancel all Public Mode settings. (It returns to the factory settings)

12. EXECUTE

    Select this item, and press cursor RIGHT/LEFT keys on the remote control or VOL(+)/(-) keys on the LCD TV for confirmation the functions settings.

CHAPTER 4. TROUBLESHOOTING TABLE

[1] TROBLESHOOTING TABLE

Power unit operation check.

Are the power cord and harness in the unit properly connected?
- No → Connect the power cord and harness properly, and turn on the power.
- Yes ↓

Is F701 normal?
- No → Are both ends of C704 and C705 (32")/C715 (37") short-circuited when checking their resistance values?
  - No → Replace F701.
  - Yes → C704 • • • Check VA701, VA702 and D701.
    C705 (32")/C715 (37") • • • Check IC704 and IC705.
- Yes ↓

Is a voltage of BU5V applied to pin (20) of P701?
(Set the main power SW to OFF.)
- No ↓

Is a voltage of approx. 8 - 15V to pin (4) of IC705?
- No → Check IC705, IC708, D725 and Q724.
- Yes → Check short circuit of 5V line (D737, C752, etc.).

Yes ↓

Is it a symptom that the relay clatters twice as soon as the main power SW is set to ON and the power is not supplied?
- Yes ↓

Does the same symptom appear even if R858 (2.7k) is removed and the power is supplied again?
- No → Check IC704, D728, D762 and D736.
  If there are no problems, check the resistance value between pins (1) and (6) of P704.
  When the value is low (several Ω - several hundred Ω), disconnect P704.
  If the value is still low, the parts of 24V line are defective.
  When the resistance value is several kΩ, check the inverter unit.
- Yes → Check Q724, D731, D734, IC707, D751, D753, D754, D741, D759 and D746.

Yes ↓

Does a relay noise sound? (Once)
- No → Are PCON1 and 2 [pins (1) and (2) of P702] at Hi (3V or more)?
  - Yes → Check peripheral circuits of Q712, Q713, Q721, Q723 and RY701.
  - No → There is a possibility that control by P-CON is not performed properly. Check whether the "PCON1" and "PCON2" signals are sent from pins (97)and (91) of IC1710 (FPGA) of MAIN-UNIT.
- Yes → Check peripheral circuits of D738, R828 and D735.

No sound (1) (during the reception of TV broadcasting)

No audio output during UHF/VHF reception

Checklist;
1) Is the volume set to MIN or MUTE on the remote control? ••• Set the desired volume.
2) Are headphones connected to HEADPHONE (J1301)? ••• Disconnect them.
3) Is ANT-CABLE disconnected or connected improperly? ••• Connect it correctly as per the operation manual.

Is the audio signal (L/R) sent from pins (28) and (27) of IC3002 (VCT)?

NO →

Is the SIF signal (SIF_IN+) sent to pin (31) of IC3002 (VCT)?

YES → Check whether +5V and +8V are supplied to pins (33) and (18) of IC3002 respectively. Or, check peripheral circuits.

(AV-UNIT) YES ↓

Is the audio signal of pins (3) and (5) of IC303 (OP-AMP) sent properly?

NO → Check SC2704 and P1201 or peripheral circuits. Is the S-MUTE signal "L"?

YES ↓

Is the audio signal of pin (4) of IC301/IC302 (AUDIO-AMP) sent properly?

NO → Check HEAD-PHONE (J1301) or peripheral circuits.

YES ↓

Is the audio signal output of pins (2) and (4) of P301 (AUDIO-CONNECTOR) normal?

NO → Check P301 (AUDIO-CONNECTOR) and peripheral circuits.

YES ↓

Check Speaker Box (right and left) and wire harness.

NO ↓

Is the audio signal (SIF) sent from pin (1) of CONNECTOR (SC2705)?

YES → Check pin (31) of IC3002 (VCT) and peripheral circuits.

(TUNER) NO ↓

Is the audio signal (SIF) sent from pin (12) of IC201 (IF-DEMOD)?

YES → Check Q203 (AMP) and peripheral circuits.

NO ↓

Is the SIF signal sent to pins (23) and (24) of IC201 (IF-DEMOD)?

YES → Check IC201 and peripheral circuits.

NO ↓

Is the IF signal sent from pin (11) of TUNER (TU201)?

YES → Check FL202 and peripheral circuits.

NO ↓

Check whether 33V and 5V are supplied to pins (9) and (7) of TUNER (TU201) respectively.
Check SDA/SCL and AGC signal.

YES → Replace TUNER (TU201).

No sound from external input devices (2)

↓

No sound from an external input device connected to EXT1 (SCART1).

↓

<EXT1>
Is IN1-L audio signal sent from pin (6) of SCART1 terminal (J1101) to pin (14) of IC3002 (VCT)?
Is IN1-R audio signal sent from pin (2) of SCART1 terminal (J1101) to pin (13) of IC3002 (VCT)?

NO → Check pins (6) and (2) of SCART1 and connection to an external input device.

↓ YES

Is the audio signal properly sent from pins (28) and (27) of IC3002?

NO → Check IC3002 or peripheral circuits.

↓ YES

Is the audio signal of pins (1) and (7) of IC303 (OP-AMP) sent properly?

NO → Check IC303 or peripheral circuits.

↓ YES

Is the audio output signal of pins (13) and (16) of IC302/IC301 (MAIN-AMP) normal?

NO → Check IC302/IC301 (MAIN-AMP), HEADPHONE and peripheral circuits.

↓ YES

Check CONNECTOR (P301) and Speaker (right and left).

No sound from external input devices (2)

↓

No sound from an external input device connected to EXT2 (SCART2).

↓

<EXT2>
Is IN2-L audio signal sent from pin (27) of SCART2 terminal (J1101) to pin (12) of IC3002 (VCT)?
Is IN2-R audio signal sent from pin (23) of SCART2 terminal (J1101) to pin (11) of IC3002 (VCT)?

NO → Check pins (27) and (23) of SCART2 and connection to an external input device.

↓ YES

Is the audio signal properly sent from pins (28) and (27) of IC3002?

NO → Check IC3002 or peripheral circuits.

↓ YES

Is the audio signal of pins (1) and (7) of IC303 (OP-AMP) sent properly?

NO → Check IC303 or peripheral circuits.

↓ YES

Is the audio output signal of pins (13) and (16) of IC302/IC301 (MAIN-AMP) normal?

NO → Check IC302/IC301 (MAIN-AMP), HEADPHONE and peripheral circuits.

↓ YES

Check CONNECTOR (P301) and Speaker (right and left).

No sound from external input devices (2)

No sound from an external input device connected to EXT3.

<EXT3>
Is IN3-L audio signal sent from pin (3) of J1201 terminal to pin (16) of IC3002?
Is IN3-R audio signal sent from pin (5) of J1201 terminal to pin (15) of IC3002?

NO → Check pins (3) and (5) of EXT3 (J1201) and connection to an external input device.

YES

Is the audio signal properly sent from pins (28) and (27) of IC3002?

NO → Check IC3002 or peripheral circuits.

YES

Is the audio signal of pins (1) and (7) of IC303 (OP-AMP) sent properly?

NO → Check IC303 or peripheral circuits.

YES

Is the audio output signal of pins (13) and (16) of IC302/IC301 (MAIN-AMP) normal?

NO → Check IC302/IC301 (MAIN-AMP), HEADPHONE and peripheral circuits.

YES

Check CONNECTOR (P301) and Speaker (right and left).

No sound from external input devices (2)

No sound from EXT4 (AUDIO) connecting an external input device.

<EXT4>
Is D-SUB-L audio signal sent from J2702 to pin (15) of IC2704?
Is D-SUB-R audio signal sent from J2702 to pin (2) of IC2704?

YES

Is D-SUB-L audio signal sent to pin (10) of IC3002?
Is D-SUB-R audio signal sent to pin (9) of IC3002?

YES

Is the audio signal properly sent from pins (28) and (27) of IC3002?

NO → Check IC3002 or peripheral circuits.

YES

Is the audio signal of pins (1) and (7) of IC303 (OP-AMP) sent properly?

NO → Check IC303 or peripheral circuits.

YES

Is the audio output signal of pins (13) and (16) of IC302/IC301 (MAIN-AMP) normal?

NO → Check IC302/IC301 (MAIN-AMP), HEADPHONE and peripheral circuits.

YES

Check CONNECTOR (P301) and Speaker (right and left).

No sound from external input devices (2)

No sound from EXT5 (AUDIO) connecting an external input device.

<EXT5>
Is HDMI-L audio signal sent from J2701 to pin (14) of IC2704?
Is HDMI-R audio signal sent from J2701 to pin (5) of IC2704?

YES

Is HDMI-L audio signal sent to pin (10) of IC3002?
Is HDMI-R audio signal sent to pin (9) of IC3002?

NO → Check output of pins (13) and (3) of IC2704 and peripheral circuits.

YES

Check that Option-HDMI Setup-Audio select is set to “Analog”.

OK

Is the audio signal properly sent from pins (28) and (27) of IC3002?

NO → Check IC3002 or peripheral circuits.

YES

Is the audio signal of pins (1) and (7) of IC303 (OP-AMP) sent properly?

NO → Check IC303 or peripheral circuits.

YES

Is the audio output signal of pins (13) and (16) of IC302/IC301 (MAIN-AMP) normal?

NO → Check IC302/IC301 (MAIN-AMP), HEADPHONE and peripheral circuits.

YES

Check CONNECTOR (P301) and Speaker (right and left).

No sound except from speakers (3)

↓

No audio output from the headphones.

↓

Is there audio output on pins (2) and (3) of the headphone terminal (J1301)?

↓ NO

Is audio input/output signal of pins (3) and (5)/(1) and (7) of IC303 (OP-AMP) normal?

↓ NO

Is audio output signal (SPK-OUT L/R) properly sent from pins (28) and (27) of IC3002 (VCT)?

↓ NO

Check audio input signal of pin (31) of IC3002 (VCT), pins (18) and (33) of the power line, pins (84) and (83) of I2C-LINE, and peripheral circuits.

No sound except from speakers (3)

↓

No audio output from EXT1 (SCART) terminal.

↓

Checklist:
1) Is the MUTE button on the remote control set to ON? ••• Set to OFF.
2) Check the connection to external devices. ••• Is there any improper connection?

↓

Is audio signal sent to pins (3) and (1) of EXT1 (J1101)? → YES → Check the connection to EXT1 (J1101) and external devices.

↓ NO

Is S-MUTE-LINE [IC1710 (pin 100)] at H?
(Check Q1106/Q1105 operation.)

↓ NO

Is audio signal sent from pins (24) and (23) of IC3002? → NO → Check the power supply 8/5 V pins (18) and (33) of IC3002 and peripheral circuits.

↓ YES

Check the audio signal output line from pins (24) and (23) of IC3002 to pins (3) and (1) of EXT1.

No sound except from speakers (3)

No audio output from EXT2 (SCART) terminal.

Checklist:
1) Is the MUTE button on the remote control set to ON? ••• Set to OFF.
2) Check the connection to external devices. ••• Is there any improper connection?

Is audio signal sent to pins (24) and (22) of EXT2 (J1101)? — YES → Check the connection to EXT2 (J1101) and external devices.

NO

Is S-MUTE-LINE [IC1710 (pin 100)] or S2-MUTE-LINE [IC3003 (pin26)] at H?
(Check Q1102/Q1101 operation.)

NO

Is audio signal sent from pins (22) and (21) of IC3002? — NO → Check the power supply 8/5 V pins (18) and (33) of IC3002 and peripheral circuits.

YES

Check the audio signal output line from pins (22) and (21) of IC3002 to Q1103/Q1104/Q1201/Q1202.

No sound except from speakers (3)

No audio output from AUDIO OUTPUT terminal.

Checklist:
1) Is the MUTE button on the remote control set to ON? ••• Set to OFF.
2) Check the connection to external devices. ••• Is there any improper connection?

Is audio signal sent to pins (13) and (15) [L/R (white) (red)] of AUDIO OUTPUT terminal (J1201)? — YES → Check the connection to AUDIO OUTPUT terminal (J1201) and external devices.

NO

Is S-MUTE-LINE [IC1710 (pin 100)] at H?
(Check Q1204/Q1203 operation.)

NO

Is audio signal sent from pins (22) and (21) of IC3002? — NO → Check the power supply 8/5 V pins (18) and (33) of IC3002 and peripheral circuits.

YES

Check the audio signal output line from pins (22) and (21) of IC3002 to Q1103/Q1104/Q1201/Q1202.

<On input of the tuner (U/V)> **No picture on the display (1)**

No picture appears on LCD during the tuner (U/V) reception.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “TV”.
2) Is MENU-PICTURE-Contrast/Brightness set to “MIN”? ••• Set it to an appropriate level.
3) Is ANT-CABLE disconnected or connected improperly? ••• Connect it correctly as per the operation manual.

YES

Is level of pins (5) and (4) of tuner (TU201) and pins (10) and (11) of IC201 (IF-DEMOD) at H?

NO → These are communications lines for control (I2C). Follow the path and check whether they are forced to L (PULL_DOWN).

YES

Is the video signal (IF) sent from pin (11) of tuner (TU201)?

NO → Check the tuner (TU201) and peripheral circuits.

YES

Is video signal sent from pin (17) of IC201 (IF-DEMOD)?

NO → Check FL201 (SAW-FIL), IC201 and peripheral circuits.

YES

Is the video signal VIN1 (ATUNER-CVBS) sent to pin (191) of IC3002 (VCT)?

NO → Check IC201 (IF-DEMOD), CONNECTOR (P201 /SC2705) and peripheral circuits.

YES

Is LVDS video signal (LVDS_0N/0P-3N/3P) sent to pins (141)/(140) - (129)/(128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent to pins (132)/(131)?

NO → Check pins (192)/(170)/(133) of BU3.3V line of IC3002 (VCTP), pins (185)/(169)/(142) of BU1.8V line and peripheral circuits.

YES

Is LVDS video signal (LVDS_0N/0P-3N/3P) sent to pins (12)/(13) -(24)/(25) of CONNECTOR CN1 of LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21)/(22)?

NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).

YES

Is power (LCD5V) supplied to pins (1) - (4) (LC-32RD1E/RU)/(1) - (5) (LC-32RA1E/RU) of CONNECTOR CN1 in LCD-CONT-UNIT?

NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).

YES

Replace LCD-CONT-UNIT.

<During external connection> **No picture on the monitor (2)**

SCART1:
No picture appears on EXT1 - connected monitor during the tuner (U/V) reception.

Checklist:

1) Are input terminal on back of TV and “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” appropriately.
2) Is the Signal Type (item) in MENU-Option-Input Select equal to Signal Type of an external device? ••• Set it to “CVBS”, “Y/C” or “RGB”.
3) Is ANT-CABLE disconnected or connected improperly? ••• Connect it correctly as per the operation manual.
4) The picture is sent to the monitor in a CVBS signal if the source during display is TV, CVBS or Y/C of EXT1-3.
   When sent by component, etc., that signal is not sent to the monitor.
5) When the monitor picture is not sent and is not displayed on the monitor, refer to “No picture” for each terminal.
6) The video output from EXT1 is not the monitor output (output of the picture now watching).
   The picture of the last selected TV channel is always sent to EXT1. (Specification)

Is video signal sent to pin (19) of SCART1 (J1101)?
YES → Check SCART1, external connection or input setting.

NO ↓

Is video signal (V-OUT1) sent from pin (2) of IC1102 (SW)?
YES → Check SCART1 (J1101) and peripheral circuits.

NO ↓

Is video signal (V-OUT1) sent from pin (195) of IC3002 (VCT)?
YES → Check IC1102 (SW), Connector (P1101, SC2702) and peripheral circuits.

NO ↓

Is video signal (CVBS) sent to pin (191) of IC3002 (VCT)?
YES → Check power supply of IC3002 (VCT) and peripheral circuits.

NO ↓

Is video signal (CVBS) sent from pin (17) of IC201 (IF-DEMOD)?
YES → Check CONNECTOR (P201, SC2705) and peripheral circuits.

NO ↓

Is video signal (IF) sent from pin (11) of tuner (TU201)?
YES → Check IC201, FL201 (SAW-FIL), Q202 and peripheral circuits.

NO ↓

Check 5/35 V power supply pins (7) and (9), I2C line pins (5) and (4) of tuner (TU201) and peripheral circuits.

<During external connection> **No picture on the monitor (2)**

SCART2:
No picture from EXT1 appears on EXT2-connected monitor.

NOTE: Normally, if the screen during display is sent to EXT2, no picture is sent to EXT2.

Checklist:

1) Are input terminal on back of TV and “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” appropriately.
2) Is the Signal Type (item) in MENU-Option-Input Select equal to Signal Type of an external device? ••• Set it to “CVBS”, “Y/C” or “RGB”.
3) Is ANT-CABLE disconnected or connected improperly? ••• Connect it correctly as per the operation manual.
4) The picture is sent to the monitor in a CVBS signal if the source during display is TV, CVBS or Y/C of EXT1-3. When sent by component, etc., that signal is not sent to the monitor.
5) When the monitor picture is not sent and is not displayed on the monitor, refer to “No picture” for each terminal.
6) The video output from EXT1 is not the monitor output (output of the picture now watching). The picture of the last selected TV channel is always sent to EXT1. (Specification)

Is video signal sent to pin (40) of SCART2 (J1101)? — YES → Check SCART2, external connection or input setting.

NO

Is video signal (V-OUT2) sent from pin (2) of IC1101 (SW)? — YES → Check SCART2 (J1101) and peripheral circuits.

NO

Is video signal (V-OUT2) sent from pin (194) of IC3002 (VCT)? — YES → Check IC1101 (SW), Connector (P1102, SC2703) and peripheral circuits.

NO

Is video signal (VIN1) from EXT1 sent to pin (190) of IC3002 (VCT)? — YES → Check power supply of IC3002 (VCT) and peripheral circuits.

NO

Check whether video signal is sent to pin (20) of SCART1. — YES → Check SCART1, IC2702 (SW), CONNECTOR (SC2702, P1101) and peripheral circuits.

NO

Check SCART1, external connection or input setting.

<During external connection> **No picture on the monitor (2)**

SCART2:
No picture from EXT3 appears on EXT2- connected monitor.

Checklist:

1) Are input terminal on back of TV and “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” appropriately.
2) Is the Signal Type (item) in MENU-Option-Input Select equal to Signal Type of an external device? ••• Set it to “CVBS”, “Y/C” or “RGB”.
3) Is ANT-CABLE disconnected or connected improperly? ••• Connect it correctly as per the operation manual.
4) The picture is sent to the monitor in a CVBS signal if the source during display is TV, CVBS or Y/C of EXT1-3.
   When sent by component, etc., that signal is not sent to the monitor.
5) When the monitor picture is not sent and is not displayed on the monitor, refer to “No picture” for each terminal.
6) The video output from EXT1 is not the monitor output (output of the picture now watching).
   The picture of the last selected TV channel is always sent to EXT1. (Specification)

Is video signal sent to pin (40) of SCART2 (J1101)? — YES → Check SCART2, external connection or input setting.

NO ↓

Is video signal (V-OUT2) sent from pin (2) of IC1101 (SW)? — YES → Check SCART2 (J1101) and peripheral circuits.

NO ↓

Is video signal (V-OUT2) sent from pin (194) of IC3002 (VCT)? — YES → Check IC1101 (SW), Connector (P1102, SC2703) and peripheral circuits.

NO ↓

Is video signal (VIN7) from EXT3 sent to pin (184) of IC3002 (VCT)? — YES → Check power supply of IC3002 (VCT) and peripheral circuits.

NO ↓

Is video signal (IN3YV) sent to pin (2) of IC1201 (SW)? — YES → Check pin (184) of IC3002 (VCT), CONNECTOR (SC2703, P1102) and peripheral circuits.

NO ↓

Is video signal (CVBS) sent from pin (1) of A/V-TERMINAL (J1201=EXT3)? — YES → Check pin (1) (IN3SW) of IC1201 (SW), power supply and peripheral circuits.

NO ↓

Check A/V-TERMINAL (J1201), external connection or input setting.

<When EXT1 is used for external input> **No picture on the display (3)**

No EXT1-Composite output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXIT”.
2) Is MENU-PICTURE-CONTRAST/BRIGHTNESS set to “MIN”? ••• Set it to an appropriate level.
3) Check the connection to the external device ••• Connect it correctly as per the operation manual for the device.

Is composite video signal sent to pin (20) of SCART1 (J1101)?
- NO → Check external connection, input setting, SCART1 and peripheral circuits.
- YES ↓

Is composite video signal (VIN_1) sent to input terminal pin (6) of IC2702 (SW)?
- NO → Check CONNECTOR (SC2702/P1101), SCART1 (J1101) and peripheral circuits.
- YES ↓

Is composite video signal (CVBS1=VIN2) sent to input terminal pin (190) of IC3002 (VCT)?
- NO → Check IC2702 (SW) and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?
- NO → Check pins (192), (170) and (133) of BU3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?
- NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).
- YES ↓

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?
- NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).
- YES ↓

Replace LCD-CONT-UNIT.

<When EXT1 is used for external input> **No picture on the display (3)**

No EXT1-RGB output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXIT”.
2) Is MENU-PICTURE-CONTRAST/BRIGHTNESS set to “MIN”? ••• Set it to an appropriate level.
3) Check the connection to the external device ••• Connect it correctly as per the operation manual for the device.

Is RGB signal sent to pins (15),(11) and (7) of SCART1 (J1101)?
- NO → Check external connection, input setting, SCART1 (J1101) and peripheral circuits.
- YES ↓

Is RGB signal (R1/G1/B1=VIN_6/5/9) sent to input terminal pins (187), (175) and (182) of IC3002 (VCT)?
- NO → Check CONNECTOR (SC2702/P1101), SCART1 (J1101) and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?
- NO → Check pins (192), (170) and (133) of BU3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?
- NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).
- YES ↓

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?
- NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).
- YES ↓

Replace LCD-CONT-UNIT.

<When EXT1 is used for external input> **No picture on the display (3)**

No EXT1-Y/C output of the external input system.

Checklist:
1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXIT”.
2) Is MENU-PICTURE-CONTRAST/BRIGHTNESS set to “MIN”? ••• Set it to an appropriate level.
3) Check the connection to the external device ••• Connect it correctly as per the operation manual for the device.

Is Y/C signal sent to pins (20) and (15) of SCART1 (J1101)?
NO → Check external connection, input setting, SCART1 (J1101) and peripheral circuits.

YES

Is Y/C signal (VIN1=Y1/C1) sent to input terminal pins (190) and (187) of IC3002 (VCT)?
NO → Check CONNECTOR (SC2702/P1101), SCART1 (J1101) and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?
NO → Check pins (192), (170) and (133) of BU3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?
NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).

YES

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?
NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).

YES

Replace LCD-CONT-UNIT.

<When EXT2 is used for external input> **No picture on the display (4)**

No EXT2-Composite output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXT2”.
2) Is MENU-PICTURE-CONTRAST/BRIGHTNESS set to “MIN”? ••• Set it to an appropriate level.
3) Check the connection to the external device ••• Connect it correctly as per the operation manual for the device.

Is composite video signal sent to pin (41) of SCART2 (J1101)?
- NO → Check external connection, input setting, SCART2 (J1101) and peripheral circuits.
- YES ↓

Is composite video signal (VIN-2) sent to input terminal pin (4) of IC2702 (SW)?
- NO → Check CONNECTOR (SC2703/P1102), SCART2 (J1101) and peripheral circuits.
- YES ↓

Is composite video signal (CVBS2=VIN2) sent to input terminal pin (190) of IC3002 (VCT)?
- NO → Check IC2702 (SW) and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?
- NO → Check pins (192), (170) and (133) of BU 3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?
- NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).
- YES ↓

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?
- NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).
- YES ↓

Replace LCD-CONT-UNIT.

<When EXT2 is used for external input> **No picture on the display (4)**

No EXT2-RGB output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXT2”.
2) Is MENU-PICTURE-CONTRAST/BRIGHTNESS set to “MIN”? ••• Set it to an appropriate level.
3) Check the connection to the external device ••• Connect it correctly as per the operation manual for the device.

Is RGB signal sent to pins (36), (32) and (28) of SCART2 (J1101)?
- NO → Check external connection, input setting, SCART2 (J1101) and peripheral circuits.
- YES ↓

Is RGB signal (R2/G2/B2=VIN_15/16/17) sent to Input terminal pins (178), (177) and (176) of IC3002 (VCT)?
- NO → Check CONNECTOR (SC2703/P1102), SCART2 (J1101) and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?
- NO → Check pins (192), (170) and (133) of BU 3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?
- NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).
- YES ↓

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?
- NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).
- YES ↓

Replace LCD-CONT-UNIT.

<When EXT2 is used for external input> **No picture on the display (4)**

No EXT2-Y/C output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXT2”.
2) Is MENU-PICTURE-CONTRAST/BRIGHTNESS set to “MIN”? ••• Set it to an appropriate level.
3) Check the connection to the external device ••• Connect it correctly as per the operation manual for the device.

Is Y/C signal sent to pins (41) and (36) of SCART2 (J1101)?
NO → Check external connection, input setting, SCART2 (J1101) and peripheral circuits.

YES

Is Y/C signal (VIN2 =Y2/C2) sent to input terminal pins (190) and (178) of IC3002 (VCT)?
NO → Check CONNECTOR (SC2703/P1102), SCART2 (J1101) and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?
NO → Check pins (192), (170) and (133) of BU 3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?
NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).

YES

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?
NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).

YES

Replace LCD-CONT-UNIT.

<When EXT3 is used for external input> **No picture on the display (5)**

No EXT3 output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXT3”.
2) Is MENU-PICTURE-CONTRAST/BRIGHTNESS set to “MIN”? ••• Set it to an appropriate level.
3) Check the connection to the external device ••• Connect it correctly as per the operation manual for the device.

Is composite video signal sent to pin (1) of A/V-IN-TERMINAL (J1201)?
- NO → Check external connection, input setting, A/V-IN-TERMINAL (J1201) and peripheral circuits.
- YES ↓

Is composite video signal (IN3-CVBS) sent to input terminal pin (4) of IC1201 (SW)?
- NO → Check A/V-I N-TERMINAL (J1201) and peripheral circuits.
- YES ↓

Is composite video signal (IN3-CVBS=VIN7) sent to input terminal pin (184) of IC3002 (VCT)?
- NO → Check CONNECTOR (SC2703/P1102), IC3002 (VCT) and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?
- NO → Check pins (192), (170) and (133) of BU3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.
- YES ↓

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?
- NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).
- YES ↓

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?
- NO → Is LCD5V supplied to pin (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).
- YES ↓

Replace LCD-CONT-UNIT.

<When EXT3 is used for external input> **No picture on the display (5)**

No EXT3-Y/C output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXT3”.
2) Is MENU-PICTURE-CONTRAST/BRIGHTNESS set to “MIN”? ••• Set it to an appropriate level.
3) Check the connection to the external device ••• Connect it correctly as per the operation manual for the device.

Is Y/C signal sent to pins (11) and (7) of S-TERMINAL (J1201)?
NO → Check external connection, input setting, S-TERMINAL (J1201) and peripheral circuits.

YES

Is Y3 signal (IN3-Y) sent to Input terminal pin (6) of IC1201 (SW)?
NO → Check S-TERMINAL (J1201) and peripheral circuits.

YES

Is Y/C signal (VIN7/VIN8) sent to input terminal pins (184) and (183) of IC3002 (VCT)?
NO → Check CONNECTOR (SC2703/P1102), IC3002 (VCT) and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?
NO → Check pins (192), (170) and (133) of BU3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?
NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).

YES

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?
NO → Is LCD5V supplied to pin (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).

YES

Replace LCD-CONT-UNIT.

<When EXT4 is used for external input> **No picture on the display (6)**

No EXT4 (15pin-D-SUB terminal) output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual set “INPUT SOURCE” to “EXT4”.
2) Connect the included D-SUB-Adapter-Cable to the COMPONENT terminal of an external device. ••• See the operation manual (use a commercially available Component-Cable to connect to the external device).
3) Is ANT-CABLE disconnected or connected improperly? ••• Connect it correctly as per the operation manual.

YES

Is “EXT4” selected with “INPUT SOURCE” button on the remote control?

NO → Select “EXT4” with “INPUT SOURCE” button on the remote control.

YES

Is D-SUB-COMPONENT signal (PCV_R/G/B) sent to pins (1), (2) and (3) of EXT4-TERMINAL (SC2303)?

NO → Check D-SUB-adaptor and external connection.

YES

Is D-SUB-COMPONENT signal (PCV_R/G/B=VIN19/20/21) sent to pins (174), (173) and (172) of IC3002 (VCT)?

NO → Check EXT4-TERMINAL and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?

NO → Check pins (192), (170) and (133) of BU3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?

NO → Check CONNECTOR (P2305, CN1) and HARNESS WIRE (LV).

YES

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?

NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).

YES

Replace LCD-CONT-UNIT.

<When EXT5 is used for external input> **No picture on the display (7)**

No EXT5 (HDMI) output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXT5”.
2) Have you checked the type video signal sent from HDMI-connected external device? ••• Confirm the type (it should “RGB”, “YCbCr 4:4:4” or “YCbCr 4:2:2”).
3) Have you checked the type of Color Matrix sent from HDMI-connected external device? ••• Confirm the type (it should be “ITU601” or “ITU709”.)
4) Is ANT-CABLE disconnected or connected improperly? ••• Connect it correctly as per the operation manual.

YES

Is “EXT5” selected with “INPUT SOURCE” button on the remote control?

NO → Select “EXT5” with “INPUT SOURCE” button on the remote control.

YES

Is the type of video signal (Signal Type) from HDMI-connected external device set?

NO → From MENU-Option-HDMI Setup-Signal Type, select a signal type (“RGB”, “YCbCr 4:4:4” or “YCbCr 4:2:2”).

YES

Is the type of color signal (Color Matrix) from HDMI-connected external device set?

NO → From Option-HDMI Setup-Color Matrix, select a color signal type (“ITU601” or “ITU709”)

YES

Is TMDS data (RX*±signal) sent to pins (1) - (12) of EXT5 (HDMI) terminal (SC1901)?

NO → Is I2C signal (SDA/SCL signal) sent to pins (16) and (15) of EXT5 (HDMI) terminal?
Check external connection and peripheral circuits.

YES

Is 8bit-DIGITAL signal (HDMI- R/G/B) sent from pins (110) - (144) of IC1905 (HDMI-RECEIVER)?

NO → Check power supply (3.3/1.8V) pins (99) and (74) of IC1905, SDA/SCL signal pins (29) and (30), and peripheral circuits.

YES

Is 8bit-DIGITAL signal (HDMI- R/G/B) sent to pins (73) - (50) of IC3002 (VCT)?

NO → Check SDA3/SCL3 signal pins (27) and (28), interface between IC1905 and IC3002, and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?

NO → Check pins (192), (170) and (133) of BU3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?

NO → Check CONNECTOR (P2305,CN1) and HARNESS WIRE (LV).

YES

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?

NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).

YES

Replace LCD-CONT-UNIT.

<When EXT6 is used for external input> **No picture on the display (8)**

No EXT6 (HDMI) output of the external input system.

Checklist:

1) Is “INPUT SOURCE” button on the remote control set up correctly? ••• See the operation manual and set “INPUT SOURCE” to “EXT6”.
2) Have you checked the type video signal sent from HDMI-connected external device? ••• Confirm the type (it should “RGB”, “YCbCr 4:4:4” or “YCbCr 4:2:2”).
3) Have you checked the type of Color Matrix sent from HDMI-connected external device? ••• Confirm the type (it should be “ITU601” or “ITU709”.)
4) Is ANT-CABLE disconnected or connected improperly? ••• Connect it correctly as per the operation manual.

YES

Is “EXT6” selected with “INPUT SOURCE” button on the remote control?

NO → Select “EXT6” with “INPUT SOURCE” button on the remote control.

YES

Is the type of video signal (Signal Type) from HDMI-connected external device set?

NO → From MENU-Option-HDMI Setup-Signal Type, select a signal type (“RGB”, “YCbCr 4:4:4” or “YCbCr 4:2:2”).

YES

Is the type of color signal (Color Matrix) from HDMI-connected external device set?

NO → From Option-HDMI Setup-Color Matrix, select a color signal type (“AUTO”, “ITU601” or “ITU709”)

YES

Is TMDS data (RX*±signal) sent to pins (1) - (12) of EXT6 (HDMI) terminal (SC1902)?

NO → Is I2C signal (SDA/SCL signal) sent to pins (16) and (15) of EXT6 (HDMI) terminal?
Check external connection and peripheral circuits.

YES

Is 8bit-DIGITAL signal (HDMI- R/G/B) sent from pins (110) - (144) of IC1905 (HDMI-RECEIVER)?

NO → Check power supply (3.3/1.8V) pins (99) and (74) of IC1905, SDA/SCL signal pins (29) and (30), and peripheral circuits.

YES

Is 8bit-DIGITAL signal (HDMI- R/G/B) sent to pins (73) - (50) of IC3002 (VCT)?

NO → Check SDA3/SCL3 signal pins (27) and (28), interface between IC1905 and IC3002, and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent from pins (141) and (140) - (129) and (128) of IC3002 (VCT), and is CLK signal (LVDS_CN/CP) sent from pins (132) and (131)?

NO → Check pins (192), (170) and (133) of BU3.3V power line and pins (185), (169) and (142) of BU1.8V power line of IC3002 (VCT), and peripheral circuits.

YES

Is LVDS signal (LVDS_0N/0P-3N/3P) sent to pins (12) and (13) - (24) and (25) of CONNECTOR CN1 in LCD-CONT-UNIT, and is CLK signal (LVDS_CN/CP) sent to pins (21) and (22)?

NO → Check CONNECTOR (P2305,CN1) and HARNESS WIRE (LV).

YES

Is power (LCD5V) supplied to pins (1) - (4) of CONNECTOR CN1 in LCD-CONT-UNIT?

NO → Is LCD5V supplied to pins (31) - (28) of CONNECTOR (P2305)? Check HARNESS WIRE (LV).

YES

Replace LCD-CONT-UNIT.

FRC circuit failure

NOTE: The SD signal (576i 480i) alone passes through the FRC circuit. (The HD signal does not go through.)

Does the image appear with the HD signal, but not with the SD signal?	Does anything unusual (which or blackish screen, block noise, for example) appear on the screen?	Does the image look unusual with the power switch turned on?
↓ YES	↓ YES	↓ YES
Is the power supplied to IC3301 (FRC)? Is there the FRC-IN signal input at pins (142) and (13) of IC3301? Check the soldering condition.	Is there the specified FRC-RESET signal input at pin (39) of IC3301 (FRC)? (60 ms delay design)	Check the connection between pin (R208) of IC3002 (VCT) and pin (13) of IC3301 (FRC) as well as that between pin (4) of IC3302 and pin (6) of IC3301.
↓ YES	↓ YES	
Replace IC3301 (FRC).	Check “FRC-RESET” signal pin (1) of IC3302 (RESET).	

Backlight failure to light up (LC-32RA1E/RU)

Do all the fluorescent tubes light up?	NO →	Check the individual fluorescent tubes for light-up failure.	YES →	Replace any defective fluorescent tubes with new ones.
↓ YES				
Is the power supplied to the inverter unit? (24V) (CN7501 1-5pin)	NO →	Check the connection between power unit and inverter unit.		
↓ YES				
Is the fuse (F7501) in the inverter unit circuit functioning?	NO →	Replace the blown-out fuse on the inverter unit. Turn on the power again. If the fuse gets blown out again, check the short-circuited	YES →	Check drive trans and their peripheral circuits as well as drive FET and their peripheral circuits.
↓ YES				
Is the VCC power supplied to the inverter control IC on the inverter unit?	NO →	Check the circuit connected with the VCC terminal on the inverter control IC.		
↓ YES				
Are there control signals (STB (INV-ON), OFL, OSC) at LB (CN7502) on the inverter unit?	NO →	Check pins (5), (7) and (8) of IC1710 (main PWB).		
↓ YES				
Is the specified control signal inputted at INV-CTL-IC (Z7601) on the inverter unit?	NO →	Check the line between LB (CN7502) and INV-CTL-IC (Z7601).		
↓ YES				
Are the DRIVE-FET at the primary side of DRIVE-TRANS functioning? (Q7501/Q7502/Q7503/Q7504)	NO →	Replace INV-CTL-IC (Z7601) or check its peripheral circuits.		
↓ YES				
Is the secondary circuit of DRIVE-TRANS functioning? (T7501 ••• T7508)	NO →	Replace the DRIVE-TRANS for the fluorescent tubes, or check their peripheral circuits.		

Backlight failure to light up (LC-37RA1E)/RU)

Do all the fluorescent tubes light up?
- NO → Check the individual fluorescent tubes for light-up failure.
  - YES → Replace any defective fluorescent tube (s) with new one (s).
- YES ↓

Is the power supplied to the inverter unit? (24V)
(CN7501 1-5pin)
- NO → Check the connection between power unit and inverter unit.
- YES ↓

Is the fuse (F7501) in the inverter unit circuit functioning?
- NO → Replace the blown-out fuse on the inverter unit.
  Turn on the power again.
  If the fuse gets blown out again, check the short-circuited
  - YES → Check drive trans and their peripheral circuits as well as drive FET and their peripheral circuits.
- YES ↓

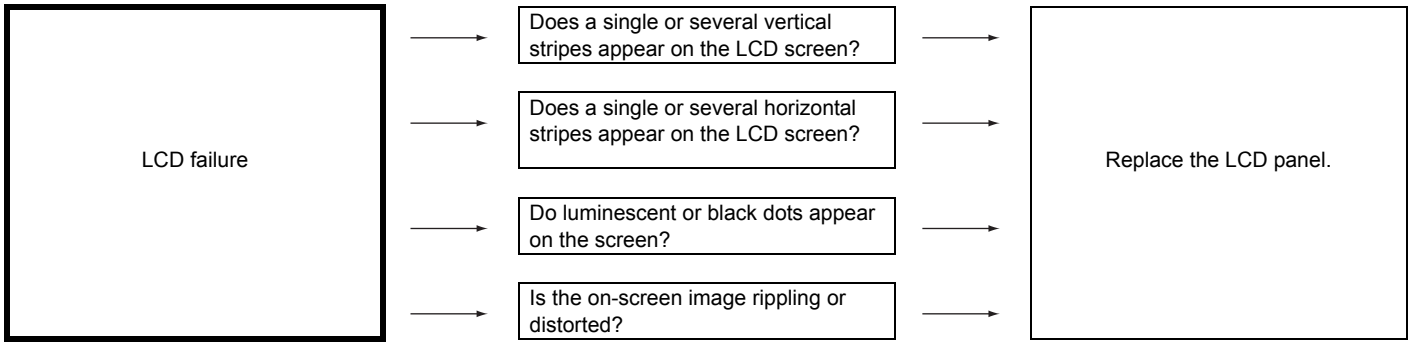
Is the VCC power supplied to the inverter control IC on the inverter unit?
- NO → Check the circuit connected with the VCC terminal on the inverter control IC.
- YES ↓

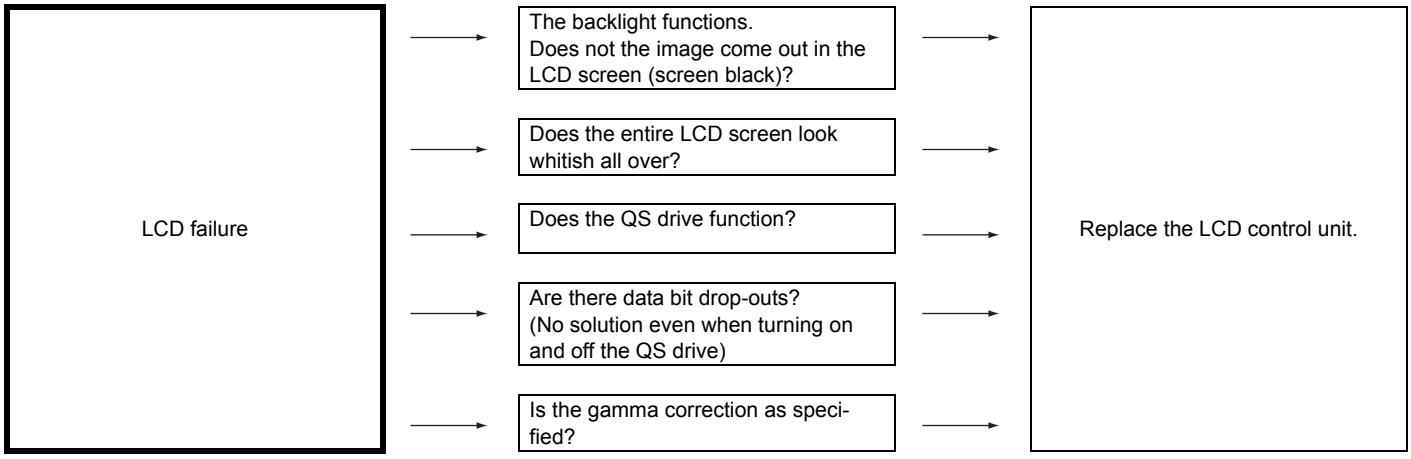
Are there control signals (STB (INV-ON), OFL, OSC) at LB (CN7502) on the inverter unit?
- NO → Check pins (5), (7) and (8) of IC1710 (main PWB).
- YES ↓

Is the specified control signal inputted at INV-CTL-IC (IC7501) on the inverter unit?
- NO → Check the line between LB (CN7502) and INV-CTL-IC (IC7501).
- YES ↓

Are the DRIVE-FET at the primary side of DRIVE-TRANS functioning? (Q7528/Q7527/Q7526/Q7525)
- NO → Replace INV-CTL-IC (IC7501) or check its peripheral circuits.
- YES ↓

Is the secondary circuit of DRIVE-TRANS functioning?
(T7501 ••• T7505, T7701•••T7704)
- NO → Replace the DRIVE-TRANS for the fluorescent tubes, or check their peripheral circuits.


LCD failure
Does a single or several vertical stripes appear on the LCD screen?
Does a single or several horizontal stripes appear on the LCD screen?
Do luminescent or black dots appear on the screen?
Is the on-screen image rippling or distorted?
Replace the LCD panel.


LCD failure
The backlight functions.
Does not the image come out in the LCD screen (screen black)?
Does the entire LCD screen look whitish all over?
Does the QS drive function?
Are there data bit drop-outs?
(No solution even when turning on and off the QS drive)
Is the gamma correction as specified?
Replace the LCD control unit.

CHAPTER 5. MAJOR IC INFORMATIONS

[1] MAJOR IC INFORMATIONS

1. General ICs Information

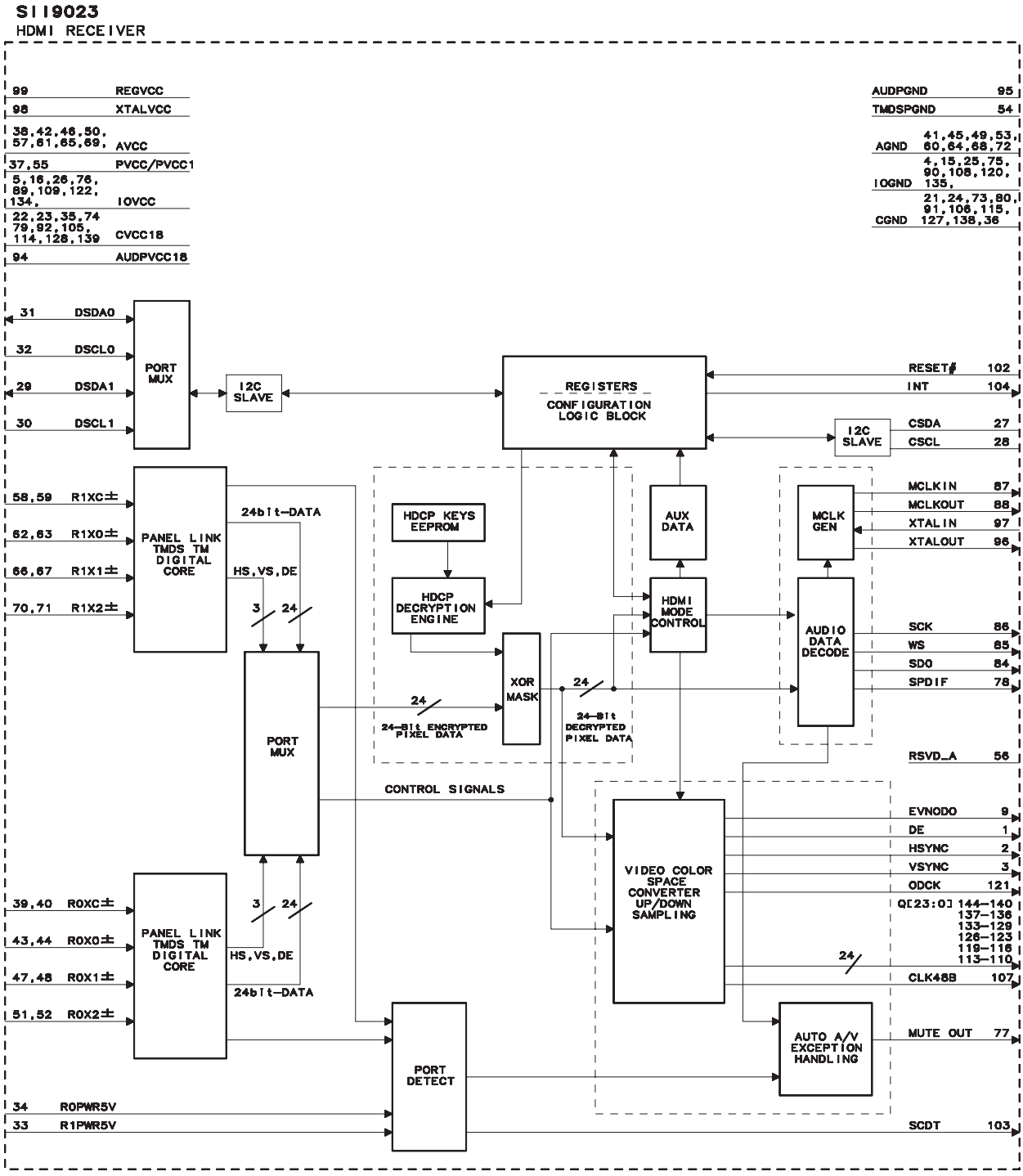
Ref No.	Name	Part Code	Description	Drawing No.
KD890FM (MAIN UNIT)				
IC1905	HDMI-Receiver	VHISII9023+-1Q	The SiI9023 is a second generation panel Link Cinema receiver that is compatible with the HDMI 1.1 (High Definition Multimedia interface) specification. The SiI9023 is capable of receiving and outputting two channel digital audio at up to 192KHz - an excellent solution for Digital TVs. The feature of this IC is as follows. 1) Digital video interface supports video processors: 2) Analog RGB and YPbPr output: 10-bit DAC. 3) Digital audio interface supports high-end audio systems:	M1
IC2701	4CH-MULTIPLEXER	VHITVHC153T-1Y	This IC is a super high speed CMOS 4-channel multiplexer using the CMOS technology and incorporates 2 circuits. The input consists of 2 addresses A, B, 4 channel inputs C0-C3 and strobe input G, and the signal of the channel selected by the address input sent as the output Y. The strobe input is used for prohibition of data output. That means, when G input is “H” the output becomes “L” unconditionally. In this model, this IC operates the switch of H/V-SYNC on each signal condition. In this equipment, H/V-SYNC is switched under each signal condition.	M2
IC3002	VIDEO PROCESSOR	RH-IXB698WJZZQ	The VCT 6wxyP family is based on functional blocks contained and approved in existing products like VCT 49xxl, VSP 94x5B, and DPS 94xxA. That is, the following 6 major functions are included: 1) Audio Processing 2) Video Processing 3) Motion Adaptive Upconversion 4) Scaling, Display Processing and FPD 5) Unified memory for Audio, Video and Text Control, 3D Combfilter PC Connectivity 6) Controlling, OSD and Text	M3
IC3003	Microcontroller	RH-IXB664WJZZY	This IC is based on LCD Driver and nano Watt Technology and is RISC microprocessor to control peripheral functions necessary for the system configuration. In this equipment, the R/C LED on the AVC side and system on the display side are controlled.	M3
IC3301	FRC B2 Version	RH-IXB064WJN1Q	This is an IC for Frame Rate Converter. This IC mainly processes I/P conversion: Standard 50/60 Hz interlaced to 50/60 Hz progressive. It also has the following functions: 1) Image Improvement: (Chroma Transient Improvement, Luminance Transient Improvement, Dynamic Contrast Improvement, Back Stretcher) 2) Film mode detection (2-2/3-2 pull down) 3) Film judder cancellation.	M4
IC2301	RS232C Transmitters	VHIISL83220-1Y	This IC is a line driver receiver in conformity with EIA/TIA-232-E (former RS-232C) standard. By connecting a PC, the system can be controlled externally.	M5
IC1710	FPGA	RH-IXB823WJZZQ	This IC is F.P.G.A. (Field Programmable Gate Arrays) for signal selector and synchronous processing of each digitalized input signal. This IC functions as extended I/O of the main microcontroller and controls timing of bus signals among ICs, etc.	M6
IC3001	E2PROM	VHIBR24L64F-1Y	The BR24L64F is a 2-wire (I2C bus type) serial EEPROM that is electrically programmable. This IC saves adjustment values of the adjustment process mode, etc. The data is given out by commands from the main microprocessor.	M3
IC1901 IC1902	E2PROM	VHI24LC2BIN-1Y	This IC is a 2-wire (I2C bus type) serial EEPROM this is electrically programmable. This EEPROM chip stores EDID data of the input for HDMI. This data is controlled by the I2C signal.	M1
IC2303	E2PROM	VHIBR24C21F-1Y	This IC is a 2-wire (I2C bus type) serial EEPROM this is electrically programmable. This EEPROM chip stores EDID data of the input for PC. This data is controlled by the I2C signal.	M5
IC1701	POWER RESET	VHIBU4239G+-1Y	Low voltage detector IC with adjustable output delay. Standard Detection Voltage = 3.9V.	M6

Ref No.	Name	Part Code	Description	Drawing No.
IC1702	BU+3.3V	VHIPQ20WZ11-1Y	Low power-loss voltage regulators. Variable Output. Output current 1A. Built-in overcurrent, overheat protection functions, ASO protection circuit.	M6
IC1703	S+8V	VHIPQ20WZ11-1Y	Low power-loss voltage regulators. Variable Output. Output current 1A. Built-in overcurrent, overheat protection functions, ASO protection circuit.	M6
IC1707	+3.3V	VHIPQ20WZ11-1Y	Low power-loss voltage regulators. Variable Output. Output current 1A. Built-in overcurrent, overheat protection functions, ASO protection circuit.	M6
IC1708	+1.8V	VHIMP1410ES-1Y	DC to DC Converter. 2A Step down switch mode regulator with a built in internal Power Mosfet. Fault condition protection includes cycle-by-cycle current limiting and thermal shut-down.	M6
IC1706	BU+1.8V	VHIMP1410ES-1Y	DC to DC Converter. 2A Step down switch mode regulator with a built in internal Power Mosfet. Fault condition protection includes cycle-by-cycle current limiting and thermal shut-down.	M6
KD604FM (AV UNIT)				
IC301 IC302	Sound Amp	VHITDA8931T-1Y	The TDA8931 is a switching power stage for high efficiency class-D audio power amplifier systems. With this amplifier a compact 1x 20 W closed loop self-oscillating digital amplifier system can be built. In this model, Audio amplifier is 10watt.	AV1
KD787FM (POWER UNIT)				
IC705	Switching Regulator	VHIMR4020++-1	This IC is a power supply for the switching regulator on the primary side. Overvoltage/overcurrent protection circuit, other protection circuits and control cir-cuits are built in this IC.	P1
IC704 32inch	Switching Regulator	VHIMR4030++-1	This IC is a power supply for the switching regulator on the primary side. Overvoltage/overcurrent protection circuit, other protection circuits and control cir-cuits are built in this IC.	P1
IC704 37inch	Switching Regulator	VHIMR4040++-1	This IC is a power supply for the switching regulator on the primary side. Overvoltage/overcurrent protection circuit, other protection circuits and control cir-cuits are built in this IC.	P1
KD608FM (ANALOG TUNER UNIT)				
IC201	IF-Demodurator/ PLL	VHITDA9886+-1Y	The TDA9886 is an alignment-free multistandard (PAL, SECAM and NTSC) vision and sound IF signal PLL demodulator for positive and negative modulationin cluding sound AM and FM processing. The feature of this IC is as follows. • Gain controlled wide-band vision intermediate frequency (VIF) amplifier, AC-coupled. • Multistandard true synchronous demodulation with active carrier regeneration: very linear demodulation, good intermodulation figures, reduced harmonics, and excellent pulse response. • Gated phase detector for L and L-accent standard. • Fully integrated VIF Voltage Controlled Oscillator (VCO), alignment-free, frequencies switchable for all negative modulated standards via I2C-bus. • 4MHz reference frequency input: signal from Phase-Locked Loop (PLL) tuning system or operating as crystal oscillator. • VIF Automatic Gain control (AGC) detector for gain control, operating as peak sync detector for negative modulated signals and as a peak white detector for positive modulated signals.	TUNER

2. Detailed ICs Information

2.1. IC1905 (VHISII9023+-1Q)

2.1.1 Block Diagram



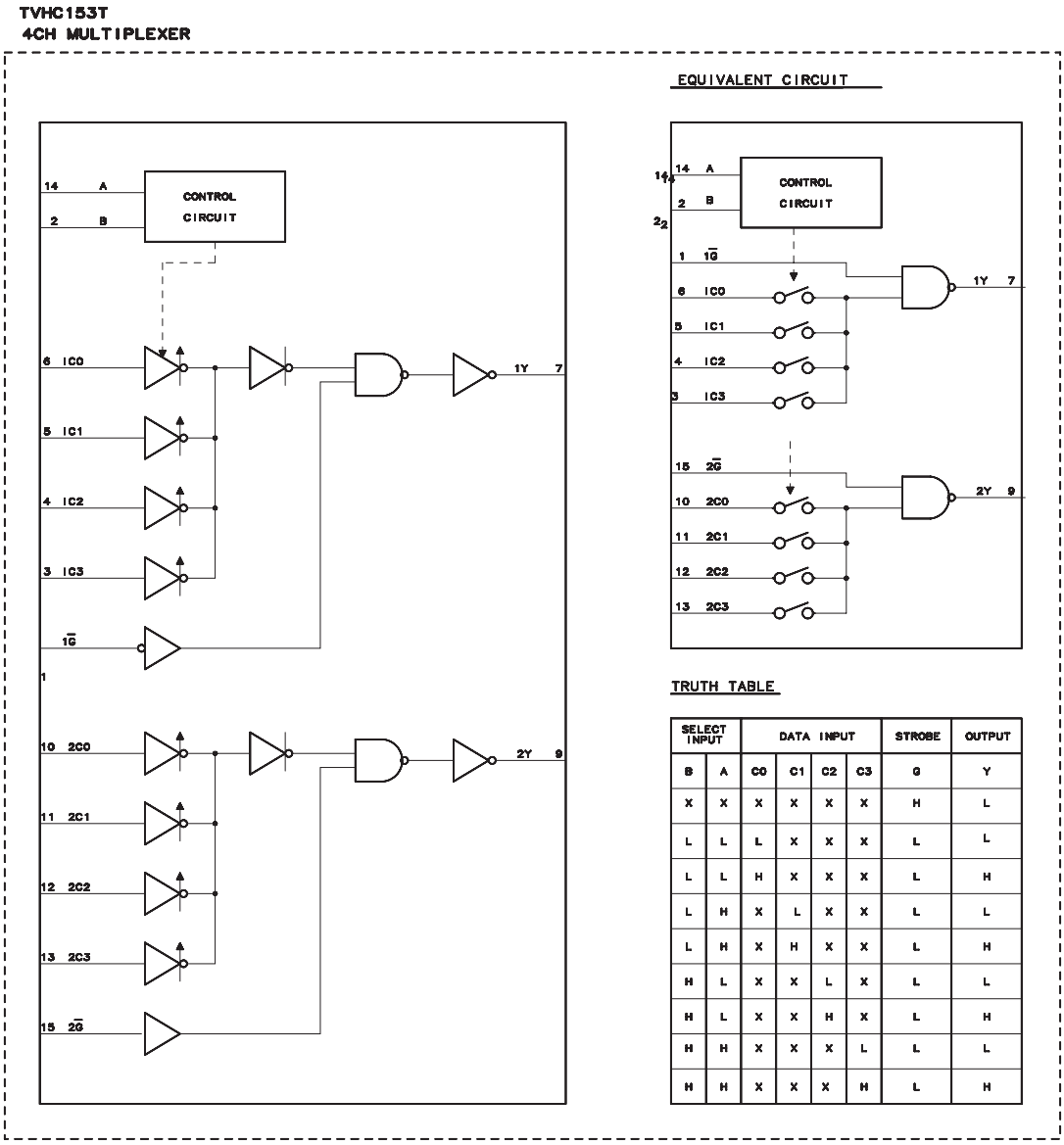
2.1.2 Pin Connections and short description

Pin No.	Pin Name	I/O	Pin Function
144	Q0	O	24-bit Output Pixel Data Bus
143	Q1	O	24-bit Output Pixel Data Bus
142	Q2	O	24-bit Output Pixel Data Bus
141	Q3	O	24-bit Output Pixel Data Bus
140	Q4	O	24-bit Output Pixel Data Bus
137	Q5	O	24-bit Output Pixel Data Bus
136	Q6	O	24-bit Output Pixel Data Bus
133	Q7	O	24-bit Output Pixel Data Bus
132	Q8	O	24-bit Output Pixel Data Bus
131	Q9	O	24-bit Output Pixel Data Bus
130	Q10	O	24-bit Output Pixel Data Bus
129	Q11	O	24-bit Output Pixel Data Bus
126	Q12	O	24-bit Output Pixel Data Bus
125	Q13	O	24-bit Output Pixel Data Bus
124	Q14	O	24-bit Output Pixel Data Bus
123	Q15	O	24-bit Output Pixel Data Bus
119	Q16	O	24-bit Output Pixel Data Bus
118	Q17	O	24-bit Output Pixel Data Bus
117	Q18	O	24-bit Output Pixel Data Bus
116	Q19	O	24-bit Output Pixel Data Bus
113	Q20	O	24-bit Output Pixel Data Bus
112	Q21	O	24-bit Output Pixel Data Bus
111	Q22	O	24-bit Output Pixel Data Bus
110	Q23	O	24-bit Output Pixel Data Bus
1	DE	O	Data enable
2	HSYNC	O	Horizontal Sync Output control signal
3	VSYNC	O	Vertical Sync Output control signal
121	ODCK	O	Output Data Clock
97	XTALIN	I	Crystal Clock Input
96	XTALOUT	O	Crystal Clock Output
88	MCLKOUT	O	Audio Master Clock Output
87	MCLKIN	I	Audio Master Clock Input Reference
86	SCK	O	I2S Serial Clock Output
85	WS	O	I2S Word Select Output
84	SDO	O	I2S Serial Data Output
78	SPDIF	O	S/PDIF Audio Output
77	MUTEOUT	O	Mute Audio Output
104	INT	O	Interrupt Output
102	RESET#	I	Reset Pin. Active LOW. 5V Tolerant
32	DSCL0	I	DDC I2C Clock for Port 0. 5V Tolerant
31	DSDA0	Bi-Di	DDC I2C Data for Port 0. 5V Tolerant
30	DSCL1	I	DDC I2C Clock for Port 1. 5V Tolerant
29	DSDA1	Bi-Di	DDC I2C Data for Port 1. 5V Tolerant
28	CSCL	I	Configuration I2C Clock. 5V Tolerant
27	CSDA	Bi-Di	Configuration I2C Data. 5V Tolerant
103	SCDT	O	Indicates active video at HDMI input port
107	CLK48B	Bi-Di	Data Bus Latch Enable. 2
34	R0PWR5V	I	Port 0 Transmitter Detect. 5V Tolerant
33	R1PWR5V	I	Port 1 Transmitter Detect. 5V Tolerant
101	RSVDL	I	Reserved, must be tied Low
56	RSVD_A	Bi-Di	Reserved Pin, leave unconnected
6, 7, 8, 10, 11, 12, 13, 14, 17, 18, 19, 20, 81, 82, 83, 87, 93, 100	NC	—	No internal connection
9	EVNODD	O	Even/Odd field for interlaced modes
40	R0XC+	I	TMDS input clock pair. HDMI Port 0
39	R0XC-	I	TMDS input clock pair. HDMI Port 0
44	R0X0+	I	TMDS input data pair. HDMI Port 0
43	R0X0-	I	TMDS input data pair. HDMI Port 0
48	R0X1+	I	TMDS input data pair. HDMI Port 0
47	R0X1-	I	TMDS input data pair. HDMI Port 0
52	R0X2+	I	TMDS input data pair. HDMI Port 0

Pin No.	Pin Name	I/O	Pin Function
51	R0X2-	I	TMDS input data pair. HDMI Port 0
59	R1XC+	I	TMDS input clock pair. HDMI Port 1
58	R1XC-	I	TMDS input clock pair. HDMI Port 1
63	R1X0+	I	TMDS input data pair. HDMI Port 1
62	R1X0-	I	TMDS input data pair. HDMI Port 1
67	R1X1+	I	TMDS input data pair. HDMI Port 1
66	R1X1-	I	TMDS input data pair. HDMI Port 1
71	R1X2+	I	TMDS input data pair. HDMI Port 1
70	R1X2-	I	TMDS input data pair. HDMI Port 1
22, 23, 35, 74, 79, 92, 105, 114, 128, 139	CVCC18	—	Digital Logic VCC
21, 24, 36, 73, 80, 91, 106, 115, 127, 138	CGND	—	Digital Logic GND
5, 16, 26, 76, 89, 109, 122, 134	IOVCC	—	Input/Output Pin VCC
4, 15, 25, 75, 90, 108, 120, 135	IOGND	—	Input/Output Pin GND
38, 42, 46, 50, 57, 61, 65, 69	AVCC	—	TMDS Analog VCC
41, 45, 49, 53, 60, 64, 68, 72	AGND	—	TMDS Analog GND
37	PVCC0	—	TMDS Port 0 PLL VCC
55	PVCC1	—	TMDS Port 1 PLL VCC
54	TMDSPGND	—	TMDS PLL GND
94	AUDPVCC18	—	ACR PLL VCC
95	AUDPGND	—	ACR PLL GND
98	XTALVCC	—	ACR PLL Crystal Input VCC
99	REGVCC	—	ACR PLL Regulator VCC

2.2. IC2701 (VHITVHC153T-1Y)

2.2.1 Block Diagram



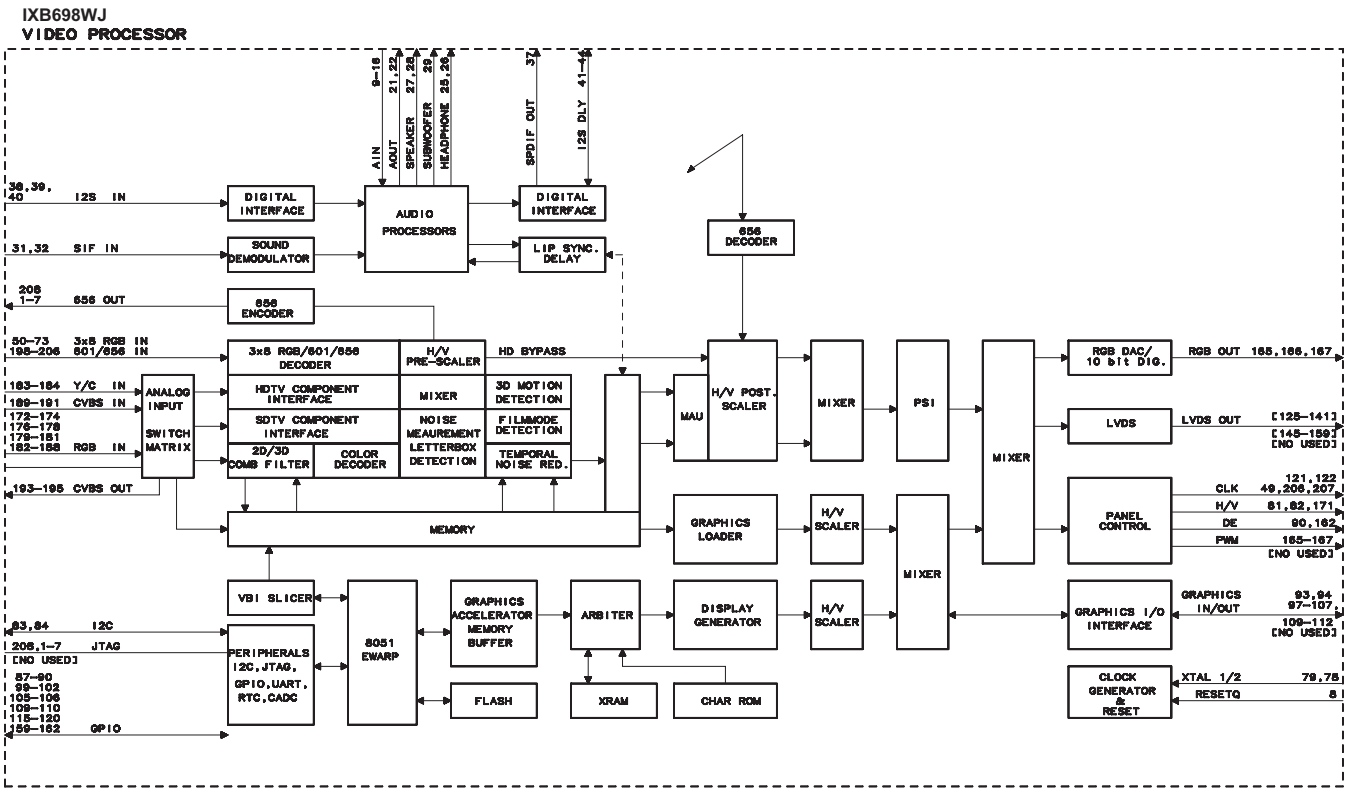
SELECT INPUT		DATA INPUT				STROBE	OUTPUT
B	A	C0	C1	C2	C3	G	Y
X	X	X	X	X	X	H	L
L	L	L	X	X	X	L	L
L	L	H	X	X	X	L	H
L	H	X	L	X	X	L	L
L	H	X	H	X	X	L	H
H	L	X	X	L	X	L	L
H	L	X	X	H	X	L	H
H	H	X	X	X	L	L	L
H	H	X	X	X	H	L	H

2.2.2 Pin Connections and short description

Pin No.	Pin Name	I/O	Pin Function
1	$\overline{1G}$	I	Strobe input 1G
2	B	I	Address input B
3	1C3	I	Channel input 1C3
4	1C2	I	Channel input 1C2
5	1C1	I	Channel input 1C1
6	1C0	I	Channel input 1C0
7	1Y	O	Output signal 1Y
8	GND	—	Ground
9	2Y	O	Output signal 2Y
10	2C0	I	Channel input 2C0
11	2C1	I	Channel input 2C1
12	2C2	I	Channel input 2C2
13	2C3	I	Channel input 2C3
14	A	I	Address input A
15	$\overline{2G}$	I	Strobe input 2G
16	VCC	—	Power Source

2.3. IC3002 (RH-IXB698WJN1Q)

2.3.1 Block Diagram



2.3.2 Pin Connections and short description

Pin No.	Pin Name	I/O	Pin Function	Sheet Name
1	656O6	O	Digital 656 Bit 6 Output	FRCI [6]
2	656O5	O	Digital 656 Bit 5 Output	FRCI [5]
3	656O4	O	Digital 656 Bit 4 Output	FRCI [4]
4	656O3	O	Digital 656 Bit 3 Output	FRCI [3]
5	656O2	O	Digital 656 Bit 2 Output	FRCI [2]
6	656O1	O	Digital 656 Bit 1 Output	FRCI [1]
7	656O0	O	Digital 656 Bit 0 Output (LSB)	FRCI [0]
8	RESETQ	I/O	Reset Input/Output	RESET-N
9	AIN1R	I	Analog Audio 1 Input, Right	AUDIO2_R
10	AIN1L	I	Analog Audio 1 Input, Left	AUDIO2_L
11	AIN2R	I	Analog Audio 2 Input, Right	EXT2 A_IN_R
12	AIN2L	I	Analog Audio 2 Input, Left	EXT2_A_IN_L
13	AIN3R	I	Analog Audio 3 Input, Right	EXT1 A_IN_R
14	AIN3L	I	Analog Audio 3 Input, Left	EXT1 A_IN_L
15	AIN4R	I	Analog Audio 4 Input, Right	EXT3 A_IN_R
16	AIN4L	I	Analog Audio 4 Input, Left	EXT3 A_IN_L
17	VREFAU	—	Reference Voltage, Audio	—
18	VSUP8.0AU	—	Supply Voltage Analog Audio, 8.0 V	S8V
19	GNDA	—	Ground Analog Audio, Platform Ground	GND
20	SGND	—	Analog Signal GND	GND
21	AOUT2R	O	Analog Audio 2 Output, Right	OUT2_R
22	AOUT2L	O	Analog Audio 2 Output, Left	OUT2_L
23	AOUT1R	O	Analog Audio 1 Output, Right	OUT1_R
24	AOUT1L	O	Analog Audio 1 Output, Left	OUT1_L
25	HEADPHONER	O	Analog Headphone Output, Right	Open
26	HEADPHONEL	O	Analog Headphone Output, Left	Open
27	SPEAKERR	O	Analog Loudspeaker Output, Right	SPK_OUT_R
28	SPEAKERL	O	Analog Loudspeaker Output, Left	SOK_OUT_L
29	SUBWOOFER	I/O	Analog SUBWOOFER Output	SBW_TEST
30	VREFSIF	ANA	Reference Voltage, Audio SIF	—

Pin No.	Pin Name	I/O	Pin Function	Sheet Name
31	SIFIN+	I	Differential Sound IF Input	SIF
32	SIFIN-	I	Differential Sound IF Input	—
33	VSUP5.0	—	Supply Voltage Analog, 5.0 V	+5V
34	GNDA	—	Ground Analog, Platform Ground	GND
35	GND3.3DIG	—	Ground Digital Interfaces	GND
36	VSUP3.3DIG	—	Supply Voltage Digital Interfaces, 3.3 V	3.3V
37	SPDIF_OUT	O	SPDIF Output	Open
38	I2S_DA_IN	I	Audio Bus Data Input	I2S_D1
39	I2S_CL	I	Audio Bus Clock Input	A2S-CL
40	I2S_WS	I	Audio Bus Word Strobe Input	I2S_WS
41	I2S_DEL_OUT	I/O	Audio Delay Line Bus Data Output/Input	Open
42	I2S_DEL_IN	I/O	Audio Delay Line Bus Data Input/Output	Open
43	I2S_DEL_CL	I/O	Audio Delay Line Bus Clock Output/Input	Open
44	I2S_DEL_WS	I/O	Audio Delay Line Word Strobe Output/Input	Open
45	VSUP3.3RAM	—	Supply Voltage Ram, 3.3 V	3.3V
46	GND3.3RAM	—	Ground Ram	GND
47	DVS	I	Digital or Analog Video VSYNC HD Input	DVSYNC
48	DEN	I	Digital or Analog Video VSYNC HD Input	DINEN
49	DCLK	I	Digital Video Clock Input	DINCK
50	DRI7	I	Digital Video Red 7 Input	DINR [7]
51	DRI6	I	Digital Video Red 6 Input	DINR [6]
52	DRI5	I	Digital Video Red 5 Input	DINR [5]
53	DRI4	I	Digital Video Red 4 Input	DINR [4]
54	DRI3	I	Digital Video Red 3 Input	DINR [3]
55	DRI2	I	Digital Video Red 2 Input	DINR [2]
56	DRI1	I	Digital Video Red 1 Input	DINR [1]
57	DRI0	I	Digital Video Red 0 Input (LSB)	DINR [0]
58	DGI7	I	Digital Video Green 7 Input	DING [7]
59	DGI6	I	Digital Video Green 6 Input	DING [6]
60	DGI5	I	Digital Video Green 5 Input	DING [5]
61	DGI4	I	Digital Video Green 4 Input	DING [4]
62	DGI3	I	Digital Video Green 3 Input	DING [3]
63	DGI2	I	Digital Video Green 2 Input	DING [2]
64	DGI1	I	Digital Video Green 1 Input	DING [1]
65	DGI0	I	Digital Video Green 0 Input (LSB)	DING [0]
66	DBI7	I	Digital Video Blue 7 Input	DINB [7]
67	DBI6	I	Digital Video Blue 6 Input	DINB [6]
68	DBI5	I	Digital Video Blue 5 Input	DINB [5]
69	DBI4	I	Digital Video Blue 4 Input	DINB [4]
70	DBI3	I	Digital Video Blue 3 Input	DINB [3]
71	DBI2	I	Digital Video Blue 2 Input	DINB [2]
72	DBI1	I	Digital Video Blue 1 Input	DINB [1]
73	DBI0	I	Digital Video Blue 0 Input (LSB)	DINB [0]
74	GND3.3DRI	—	Ground Digital Ram Interface	GND
75	VSUP3.3DRI	—	Supply Voltage Digital Ram Interface, 3.3 V	3.3V
76	GND3.3COM	—	Ground Common	GND
77	VSUP3.3COM	—	Supply Voltage Common, 3.3V	3.3V
78	XTALIN	I	Analog Crystal Input	X_IN
79	XTALOUT	O	Analog Crystal Output	X_OUT
80	CLKOUT	O	Digital 20MHz Clock Output	Open
81	VSO	O	Vertical Sync Output, Frontend	Open
82	HSO	O	Horizontal Sync Output, Frontend	Open
83	SCL	I/O	I2C Bus Clock Input/Output	BU_SCL3
84	SDA	I/O	I2C Bus Data Input/Output	BU_SDA3
85	GND3.3FL	—	Ground Flash	GND
86	VSUP3.3FL	—	Supply Voltage Flash, 3.3 V	3.3V
87	P2_0	I/O	Port 2, Bit 0 Input/Output	AVLK1
88	P2_1	I/O	Port 2, Bit 1 Input/Output	AVLK2
89	P2_2	I/O	Port 2, Bit 2 Input/Output	IRIN
90	P2_3	I/O	Port 2, Bit 3 Input/Output	KEY-PSW
91	P2_4	I/O	Port 2, Bit 4 Input/Output	TXD
92	P2_5	I/O	Port 2, Bit 5 Input/Output	RXD
93	OSDV	I/O	Graphic Vertical Sync Input/Output	Open
94	OSDH	I/O	Graphic Horizontal Sync Input/Output	Open

Pin No.	Pin Name	I/O	Pin Function	Sheet Name
95	GND3.3IO1	—	Ground Digital Input/Output Port 1	GND
96	VSUP3.3IO1	—	Supply Voltage Input/Output Port 1, 3.3 V	3.3V
97	OSDCLK	I/O	Graphic Clock Input/Output	Open
98	OSDFSW	I/O	Graphic Fast Switch Input/Output	Open
99	P3_7	I/O	Port3,bit7 Input/Output	HP JSW (HP PLUG)
100	P3_6	I/O	Port3,bit6 Input/Output	HOTP_CONT1
101	P3_5	I/O	Port3,bit5 Input/Output	HOTP_CONT0
102	P3_4	I/O	Port3,bit4 Input/Output	HDMI_INT
103	OSDB1	I/O	Graphic Blue 1 Input/Output	Open
104	OSDB0	I/O	Graphic Blue 0 Input/Output	Open
105	P3_3	I/O	Port3,bit3 Input/Output	P3_3
106	P3_2	I/O	Port3,bit2 Input/Output	Open
107	OSDG1	I/O	Graphic Green 1 Input/Output	Open
108	OSDG0	I/O	Graphic Green 0 Input/Output	Open
109	P3_1	I/O	Port3,bit1 Input/Output	BL_ERR
110	P3_0	I/O	Port3,bit0 Input/Output	DTM_IRQ
111	OSDR1	I/O	Graphic Red 1 Input/Output	Open
112	OSDR0	I/O	Graphic Red 0 Input/Output (LSB)	Open
113	GND3.3IO1	—	Ground Digital Input/Output Port 1	GND
114	VSUP3.3IO1	—	Supply Voltage Input/Output Port 1, 3.3 V	3.3V
115	P2_7	I/O	Port2,bit7 Input/Output	FPGA_SDA
116	P2_6	I/O	Port2,bit6 Input/Output	FPGA_SCK
117	P4_1	I/O	Port4,bit1 Input/Output	FPGA_SDE
118	P4_0	I/O	Port4,bit0 Input/Output	SVIJSW
119	P4_3	I/O	Port4,bit3 Input/Output	HSYNC_OSC
120	P4_2	I/O	Port4,bit2 Input/Output	VSYNC_OSC
121	PCLK2	O	Flat Panel Control Clock 2 Output	Open
122	PCLK1	O	Flat Panel Control Clock 1 Output	PCLK
123	GND1.8DIG	—	Ground Digital Core	GND
124	VSUP1.8DIG	—	Supply Voltage Digital Core, 1.8 V	1.8V
125	LVDSA_4P	O	LVDS Channel 1 bit 4 Positive Output 2)	Open
126	LVDSA_4N	O	LVDS Channel 1 bit 4 Negative Output 2)	Open
127	VSUP3.3LVDS	—	Supply Digital Voltage LVDS2) Port, 3.3 V	3.3V
128	LVDSA_3P	O	LVDS Channel 1 bit 3 Positive Output 2)	LVDS3P
129	LVDSA_3N	O	LVDS Channel 1 bit 3 Negative Output 2)	LVDS3N
130	GND3.3LVDS	—	Ground Digital LVDS2), 3.3 V	GND
131	LVDSA_CLKP	O	LVDS Channel 1 Clock Positive Output 2)	LVDSCP
132	LVDSA_CLKN	O	LVDS Channel 1 Clock Negative Output 2)	LVDSCN
133	VSUP3.3LVDS	—	Supply Digital Voltage LVDS2), 3.3 V	3.3V
134	LVDSA_2P	O	LVDS Channel 1 bit 2 Positive Output 2)	LVDS2P
135	LVDSA_2N	O	LVDS Channel 1 bit 2 Negative Output 2)	LVDS2N
136	GND3.3LVDS	—	Ground Digital LVDS2), 3.3 V	GND
137	LVDSA_1P	O	LVDS Channel 1 bit 1 Positive Output 2)	LVDS1P
138	LVDSA_1N	O	LVDS Channel 1 bit 1 Negative Output 2)	LVDS1N
139	VSUP3.3LVDS	—	Supply Digital Voltage LVDS2), 3.3 V	3.3V
140	LVDSA_0P	O	LVDS Channel 1 bit 0 Positive Output 2)	LVDS0P
141	LVDSA_0N	O	LVDS Channel 1 bit 0 Negative Output 2)	LVDS0N
142	VSUP1.8LVDS	—	Supply Analog Voltage LVDS2), 1.8 V	1.8V
143	REXT	—	LVDS External Resistor2)	REXT
144	GND1.8LVDS	—	Ground Analog LVDS2), 1.8 V	GND
145	LVDSB_3P	O	Dual-LVDS Channel 2 bit 3 Positive Output 2)	Open
146	LVDSB_3N	O	Dual-LVDS Channel 2 bit 3 Negative Output 2)	Open
147	GND3.3LVDS	—	Ground Digital LVDS2), 3.3 V	GND
148	LVDSBCLKP	O	Dual-LVDS Channel 2 Clock Positive Output 2)	Open
149	LVDSBCLKN	O	Dual-LVDS Channel 2 Clock Negative Output 2)	Open
150	VSUP3.3LVDS	—	Supply Digital Voltage LVDS2), 3.3 V	3.3V
151	LVDSB_2P	O	Dual-LVDS Channel 2 bit 2 Positive Output 2)	Open
152	LVDSB_2N	O	Dual-LVDS Channel 2 bit 2 Negative Output 2)	Open
153	GND3.3LVDS	—	Ground Digital LVDS2), 3.3 V	GND
154	LVDSB_1P	O	Dual-LVDS Channel 2 bit 1 Positive Output 2)	Open
155	LVDSB_1N	O	Dual-LVDS Channel 2 bit 1 Negative Output 2)	Open
156	VSUP3.3LVDS	—	Supply Digital Voltage LVDS2), 3.3 V	3.3V
157	LVDSB_0P	O	Dual-LVDS Channel 2 bit 0 Positive Output 2)	Open
158	LVDSB_0N	O	Dual-LVDS Channel 2 bit 0 Negative Output 2)	Open

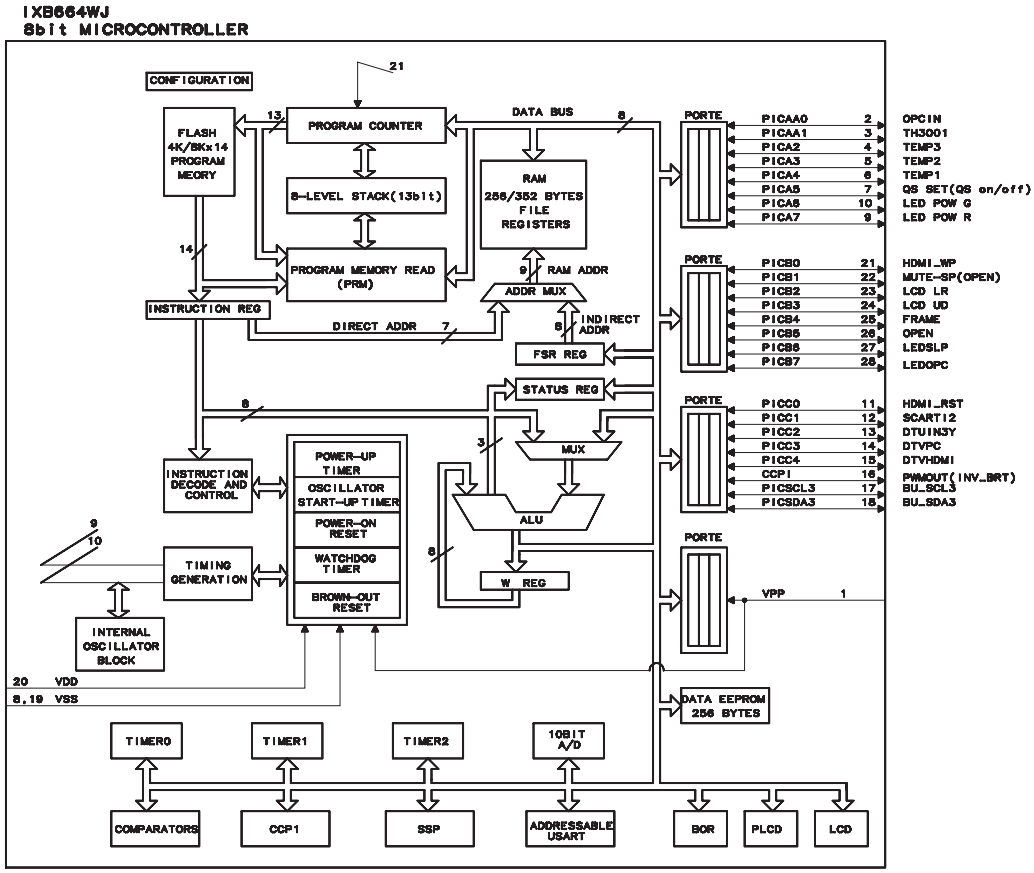
Pin No.	Pin Name	I/O	Pin Function	Sheet Name
159	P1_7	I/O	Port 1, Bit 7 Input/Output	IF_AGC
160	P1_6	I/O	Port 1, Bit 6 Input/Output	SLOW SW1
161	P1_5	I/O	Port 1, Bit 5 Input/Output	SLOW SW2
162	P1_4	I/O	Port 1, Bit 4 Input/Output	KEY_ETC
163	GND3.3DAC	—	Ground DAC	GND
164	VSUP3.3DAC	—	Supply Voltage DAC, 3.3V	3.3V
165	P1_3	I/O	Port 1, Bit 3 Input/Output	Open
166	P1_2	I/O	Port 1, Bit 2 Input/Output	Open
167	P1_1	I/O	Port 1, Bit 1 Input/Output	Open
168	P1_0	I/O	Port 1, Bit 0 Input/Output	Open
169	VSUP1.8FE	—	Supply Voltage Analog Video Frontend, 1.8 V	1.8V
170	VSUP3.3FE	—	Supply Voltage Analog Video Frontend, 3.3 V	3.3V
171	DHS	I	Digital Video H-sync Input	DHSYNC
172	VIN21	I	Analog Video 21B HD Input	PC_V_B
173	VIN20	I	Analog Video 20 G HD Input	PC_V_G
174	VIN19	I	Analog Video 19 R HD Input	PC_V_R
175	VIN18	I	Analog Video 18 Fast Blank 2 Input	IN2_FSW
176	VIN17	I	Analog Video 17 B HD Input	BLUE2
177	VIN16	I	Analog Video 16 G HD Input	GREEN2
178	VIN15	I	Analog Video 15 R HD Input	RED/C2
179	VIN13	I	Analog Video 13 B HD Input	D TUNER_B
180	VIN12	I	Analog Video 12 G HD Input	D_TUNER_G
181	VIN11	I	Analog Video 11 R HD Input	D_TUNER_R
182	VIN9	I	Analog Video 9 Y or B SD Input	BLUE1
183	VIN8	I	Analog Video 8 C or Fast Blank 1 Input	IN3C
184	VIN7	I	Analog Video 7 Y or G SD Input	IN3Y
185	VSUP1.8FE	—	Supply Voltage Analog Video Frontend, 1.8 V	1.8V
186	VSUP1.8FE	—	Analog Video Frontend, Platform Ground	GND
187	VIN6	I	Analog Video 6 C or R SD Input	RED/C1
188	VIN5	I	Analog Video 5 Y/CVBS Input	GREEN1
189	VIN3	I	Analog Video 3 CVBS Input	IN1_FSW
190	VIN2	I	Analog Video 2 CVBS Input	VIN_2
191	VIN1	I	Analog Video 1 CVBS Input	A_TUNER_CVBS
192	VSUP3.3VO	—	Supply Voltage Analog Video Output, 3.3 V	3.3V
193	VOUT3	O	Analog CVBS Video 3 Output	Open
194	VOUT2	O	Analog CVBS Video 2 Output	CV02 (outV)
195	VOUT1	O	Analog CVBS Video 1 Output	CV01 (outNV)
196	GND3.3IO3	—	Ground Digital Input/Output Port 1	GND
197	VSUP3.3IO3	—	Supply Voltage Input/Output Port 1, 3.3 V	3.3V
198	656I0	I	Digital 656 Bit 0 Input (LSB)	FRCO [0]
199	656I1	I	Digital 656 Bit 1 Input	FRCO [1]
200	656I2	I	Digital 656 Bit 2 Input	FRCO [2]
201	656I3	I	Digital 656 Bit 3 Input	FRCO [3]
202	656I4	I	Digital 656 Bit 4 Input	FRCO [4]
203	656I5	I	Digital 656 Bit 5 Input	FRCO [5]
204	656I6	I	Digital 656 Bit 6 Input	FRCO [6]
205	656I7	I	Digital 656 Bit 7 Input	FRCO [7]
206	656CLKI	I	Digital 656 Clock Input	FRCCKO
207	656CLKO	O	Digital 656 Clock Output	FRCCKI
208	656O7	O	Digital 656 Bit 7 Output	FRCI [7]

1) TTL output version only

2) LVDS output version only

2.4. IC3003 (RH-IXB664WJZZY)

2.4.1 Block Diagram

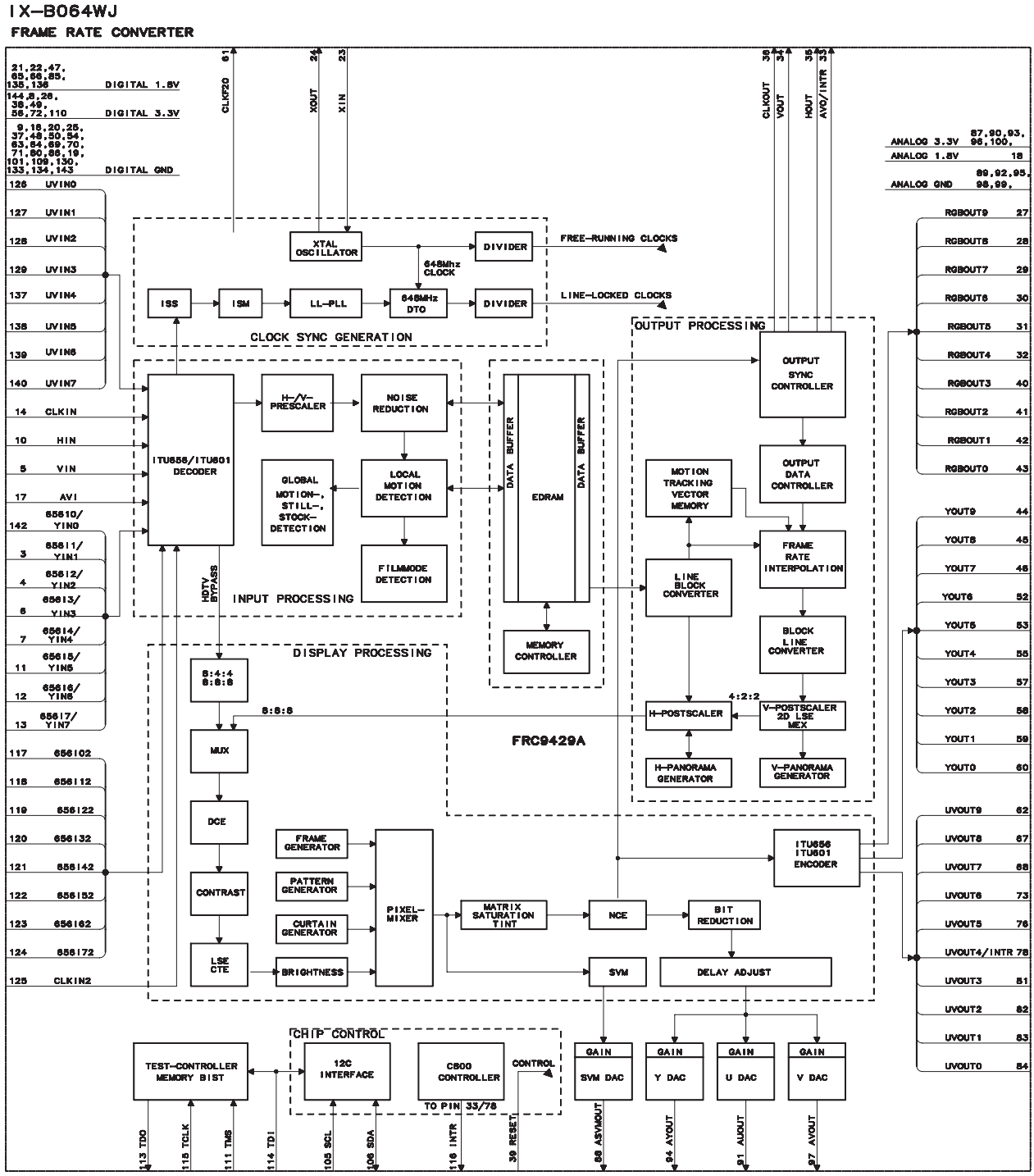


2.4.2 Pin Connections and short description

Pin No.	Pin Name	I/O	Pin Function	Sheet Name
2	PICAA0	I	OPC_in Signal.	OPCIN
3	PICAA1	I	Connect to TH3001.	TH3001
4	PICA2	O	TEM3 Signal.	TEMP3
5	PICA3	O	TEMP2 Signal.	TEMP2
6	PICA4	O	TEMP1 Signal.	TEMP1
7	PICA5	O	QS' on/off Signal.	QS SET (QS on/off)
10	PICA6	I	LED Power Green Signal.	LED POW G
9	PICA7	I	LED Power Red Signal.	LED POW R
21	PICBO	O	HDMI_Write Protect Signal.	HDMI_WP
22	PICB1	O	Mute_SP Signal.	MUTE-SP (Open)
23	PICB2	O	LCD, S_LBR Signal.	LCD LR
24	PICB3	O	LCD, G_LBR Signal.	LCD UD
25	PICB4	O	50/60Hz Ds_Select Signal.	FRAME
26	PICB5	—	—	Open
27	PICB6	I	LED Sleep LED IN Signal.	LEDSLP
28	PICB7	I	LED OPC IN Signal.	LED OPC
11	PICCO	O	Reset Signal to HDMI.	HDMI_RST
12	PICC1	O	SCART1/SCART2 Select Signal.	SCART12
13	PICC2	O	DTU/IN3Y Select Signal.	DTUIN3Y
14	PICC3	O	DTV/PC Select Signal.	DTVPC
15	PICC4	O	DTV/HDMI Select Signal.	DTVHDMI
16	CCPI	O	INVERTER_BRT Signal.	PWMOUT (INV_BRT)
17	PICSCL3	I/O	I2C clock.	BU_SCL3
18	PICSDA3	I/O	I2C data.	BU_SDA3
1	VPP	—	Open	Open
20	3.3V	—	Power Supply for microcontroller	VSUP3.3DRI
8, 19	GND	—	Ground reference for microcontroller	GND

2.5. IC3301 (RH-IXB064WJN1Q)

2.5.1 Block Diagram



2.5.2 Pin Connections and short description

Pin No.	Pin Name	I/O	Pin Function
1	NC	—	No Connection
2	NC	—	Test, do not use
3	656I1/YIN1	I	Digital (luminance) input
4	656I2/YIN2	I	Digital (luminance) input
5	VIN	I	Vertical sync input
6	656I3/YIN3	I	Digital (luminance) input
7	656I4/YIN4	I	Digital (luminance) input
8	VDDP0	S	Supply digital pad (3.3 V)
9	VSSP0	S	Supply digital pad (0 V)
10	HIN	I	Horizontal sync input
11	656I5/YIN5	I	Digital (luminance) input
12	656I6/YIN6	I	Digital (luminance) input
13	656I7/YIN7	I	Digital (luminance) input [MSB]
14	CLKIN	I	Clock input (max. 81.0 MHz)
15	VDDD0	S	Supply digital pad (1.8 V)
16	VSSD0	S	Supply digital pad (0 V)
17	AVI	I	Active video input
18	VDDAPLL	S	Supply analog PLL (1.8 V)
19	VSSAPLL	S	Supply analog PLL (0 V)
20	VSSD1	S	Supply digital core (0 V)
21	VDDD10	S	Supply digital core (1.8 V)
22	VDDD11	S	Supply digital core (1.8 V)
23	XIN	I	Crystal connection 1
24	XOUT	O	Crystal connection 2
25	VSSP1	S	Supply digital pad (0 V)
26	VDDP1	S	Supply digital pad (3.3 V)
27	RGBOUT9	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output [MSB] (SELOMODE=1)
28	RGBOUT8	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output (SELOMODE=1)
29	RGBOUT7	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output (SELOMODE=1)
30	RGBOUT6	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output (SELOMODE=1)
31	RGBOUT5	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) output (SELOMODE=1)
32	RGBOUT4	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output (SELOMODE=1)
33	AVO/ITR	O	Active video output (CPUIRQ=0) Interrupt signal output from μC (CPUIRQ=1) Static 0 (CPUIRQ=2) Static 1 (CPUIRQ=3)
34	VOUT	O	Vertical sync output
35	HOUT	O	Horizontal sync output. (Synchronized to 40.5-81 MHz CLKOUTSEL72=1) (Synchronized to 20.25-40.5 MHz CLKOUTSEL72=0 and CLKOUTSEL=1) (Synchronized to 15.1875-30.75 MHz CLKOUTSEL72=0 and CLKOUTSEL=0)
36	CLKOUT	O	Output clock disabled (CLKOUTON=0) Output clock (max. 81 MHz) (CLKOUT=1) (40.5-81 MHz CLKOUT72=1 20.25-40.5 MHz CLKOUT72=0 and CLKOUTSEL=1 1515.1875-30.37 MHz CLKOUT72=0 and CLKOUTSEL=0)
37	VSSP2	S	Supply digital pad (0 V)
38	VDDP2	S	Supply digital pad (3.3 V)
39	RESET	I	Reset input

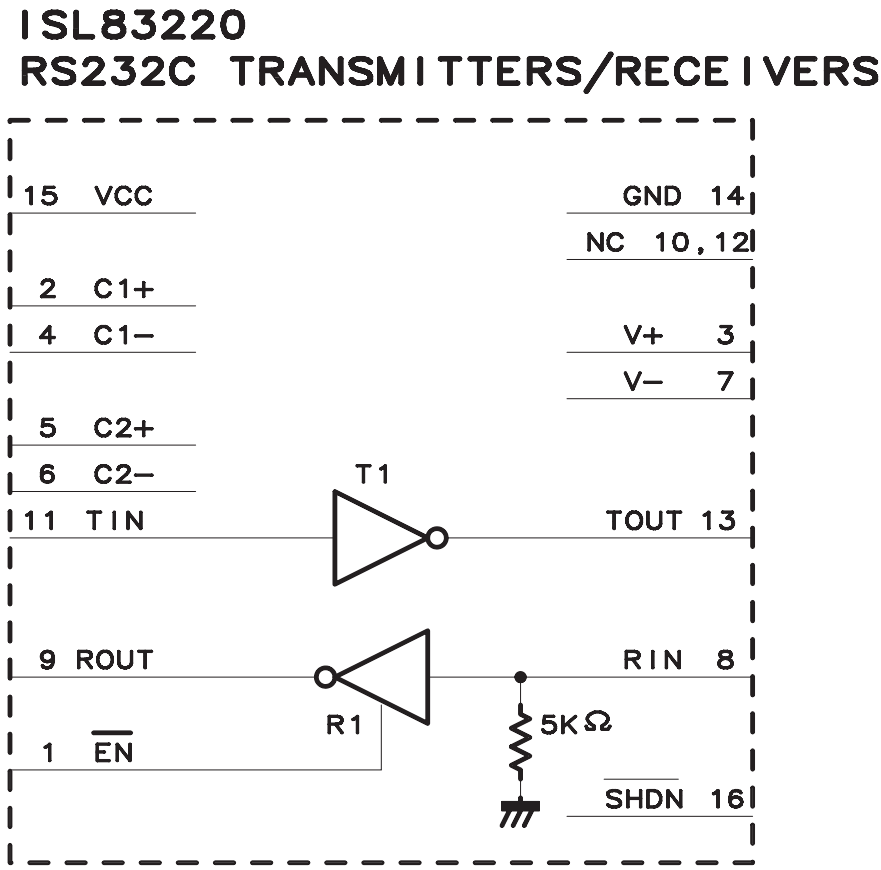
Pin No.	Pin Name	I/O	Pin Function
40	RGBOUT3	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output (SELOMODE=1)
41	RGBOUT2	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output (SELOMODE=1)
42	RGBOUT1	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output (SELOMODE=1)
43	RGBOUT0	O	Tristate (SELOMODE=0) Digital (red: SELRB=0; blue: SELRB=1;) Output [LSB] (SELOMODE=1)
44	YOUT9	O	Tristate (ENITUE=0) Digital (luminance/green) output [MSB] (ENITUE=1)
45	YOUT8	O	Tristate (ENITUE=0) Digital (luminance/green) output (ENITUE=1)
46	YOUT7	O	Tristate (ENITUE=0) Digital (luminance/green) output (ENITUE=1)
47	VDDD2	S	Supply digital core (1.8 V)
48	VSSD2	S	Supply digital core (0 V)
49	VDDP3	S	Supply digital pad (3.3 V)
50	VSSP3	S	Supply digital pad (0 V)
51	NC	—	No Connection
52	YOUT6	O	Tristate (ENITUE=0) Digital (luminance/green) output (ENITUE=1)
53	YOUT5	O	Tristate (ENITUE=0) Digital (luminance/green) output (ENITUE=1)
54	VSSP4	S	Supply digital pad (0 V)
55	YOUT4	O	Tristate (ENITUE=0) Digital (luminance/green) output (ENITUE=1)
56	VDDP4	S	Supply digital pad (3.3 V)
57	YOUT3	O	Tristate (ENITUE=0) Digital (luminance/green) output (ENITUE=1)
58	YOUT2	O	Tristate (ENITUE=0) Digital (luminance/green) output (ENITUE=1)
59	YOUT1	O	Tristate (ENITUE=0) Digital (luminance/green) output (ENITUE=1)
60	YOUT0	O	Tristate (ENITUE=0) Digital (luminance/green) output [LSB] (ENITUE=1)
61	CLKF20	O	Output clock 20.25 MHz disabled (CLKF20ON=0) Output clock 20.25 MHz enabled (CLKF20ON=1)
62	UVOUT9	O	Tristate (ENITUE=0) Digital (chrominance/blue) output [MSB] (ENITUE=1and SELRB=0) Digital (chrominance/red) output [MSB] (ENITUE=1and SELRB=1)
63	VSSD30	S	Supply digital core (0 V)
64	VSSD31	S	Supply digital core (0 V)
65	VDDD30	S	Supply digital core (1.8 V)
66	VDDD31	S	Supply digital core (1.8 V)
67	UVOUT8	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1)
68	UVOUT7	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1)
69	VSSP50	S	Supply digital pad (0 V)
70	VSSP51	S	Supply digital pad (0 V)
71	VSSP52	S	Supply digital pad (0 V)
72	VDDP5	S	Supply digital pad (3.3 V)
73	UVOUT6	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1)
74	NC	—	No Connection
75	NC	—	No Connection
76	UVOUT5	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1)
77	NC	—	No Connection

Pin No.	Pin Name	I/O	Pin Function
78	UVOUT4/ INTR	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1) Interrupt signal output from μC (CPUIRQ=5) Static 0 (CPUIRQ=6) Static 1 (CPUIRQ=7)
79	VDDP6	S	Supply digital pad (3.3 V)
80	VSSP6	S	Supply digital pad (0 V)
81	UVOUT3	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1)
82	UVOUT2	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1)
83	UVOUT1	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1)
84	UVOUT0	O	Tristate (ENITUE=0) Digital (chrominance/blue) output (ENITUE=1 and SELRB=0) Digital (chrominance/red) output (ENITUE=1 and SELRB=1)
85	VDDD4	S	Supply digital core (1.8 V)
86	VSSD4	S	Supply digital core (0 V)
87	VDDA0	S	Supply analog DAC SVM (3.3 V)
88	ASVMOUT	O	Middle level (STANDBY=1) Analog SVM output (ACTFBL=0 and STANDBY=1) Analog SVM output (control by SVMOFF possible) (ACTFBL=1 and STANDBY=0)
89	VSSA0	S	Supply analog DAC SVM (0 V)
90	VDDA1	S	Supply analog DAC B/U (3.3 V)
91	AUOUT	O	Middle level (STANDBY=0) Chrominance output (STANBY=1)
92	VSSA1	S	Supply analog DAC B/U (0 V)
93	VDDA2	S	Supply analog DAC G/Y (3.3 V)
94	AYOUT	O	Middle level (STANDBY=0) Luminance output (STANDBY=1)
95	VSSA2	S	Supply analog DAC G/Y (0 V)
96	VDDA3	S	Supply analog DAC R/V (3.3 V)
97	AVOUT	O	Middle level (STANDBY=0) Chrominance output (STANDBY=1)
98	VSSA3	S	Supply analog DAC R/V (0 V)
99	VSSA4	S	Supply analog band gap (0 V)
100	VDDA4	S	Supply analog band gap (3.3 V)
101	VSSD5	S	Supply digital core (0 V)
102	VDDD5	S	Supply digital core (1.8 V)
103	NC	—	No Connection
104	NC	—	No Connection
105	SCL	I/O	I2C bus clock
106	SDA	I/O	I2C bus data
107	NC	—	No Connection
108	NC	—	No Connection
109	VSSP7	S	Supply digital pad (0 V)
110	VDDP7	S	Supply digital pad (3.3 V)
111	TMS	I	Test mode select (3.3 V)
112	NC	—	No Connection
113	TDO/ SVMOFF	O/I	Test data out (ACTSVMOFF=1) SVM input signal (ACTSVMOFF=0)
114	TDI	I	Test data in (0V)
115	TCLK	I	Test clock (3.3 V)
116	INTR	O	Interrupt signal Static 0 (CPUIRQ2=00) Static 1 (CPUIRQ2=01) Interrupt signal output from μC (CPUIRQ2= 1x)
117	656I02	I	Digital (luminance) input [LSB]
118	656I12	I	Digital (luminance) input
119	656I22	I	Digital (luminance) input
120	656I32	I	Digital (luminance) input
121	656I42	I	Digital (luminance) input

Pin No.	Pin Name	I/O	Pin Function
122	656I52	I	Digital (luminance) input
123	656I62	I	Digital (luminance) input
124	656I72	I	Digital (luminance) input
125	CLKIN2	I	Clock input [max. 81.0 MHz]
126	UVIN0	I	Digital (chrominance) input [LSB]
127	UVIN1	I	Digital (chrominance) input
128	UVIN2	I	Digital (chrominance) input
129	UVIN3	I	Digital (chrominance) input
130	VSSP8	S	Supply digital core (0 V)
131	VDDP8	S	Supply digital core (3.3 V)
132	VDD8M	S	Supply memory (1.8 V)
133	VSSD60	S	Supply digital core (0 V)
134	VSSD61	S	Supply digital core (0 V)
135	VDDD60	S	Supply digital core (1.8V)
136	VDDD61	S	Supply digital core (1.8 V)
137	UVIN4	I	Digital (chrominance) input
138	UVIN5	I	Digital (chrominance) input
139	UVIN6	I	Digital (chrominance) input
140	UVIN7	I	Digital (chrominance) input [MSB]
141	NC	—	No Connection
142	656I0/YIN0	I	Digital (luminance) input [LSB]
143	VSSP9	S	Supply digital pad (0 V)
144	VDDP9	S	Supply digital pad (3.3 V)

2.6. IC2301 (VHIISL83220-1Y)

2.6.1 Block Diagram

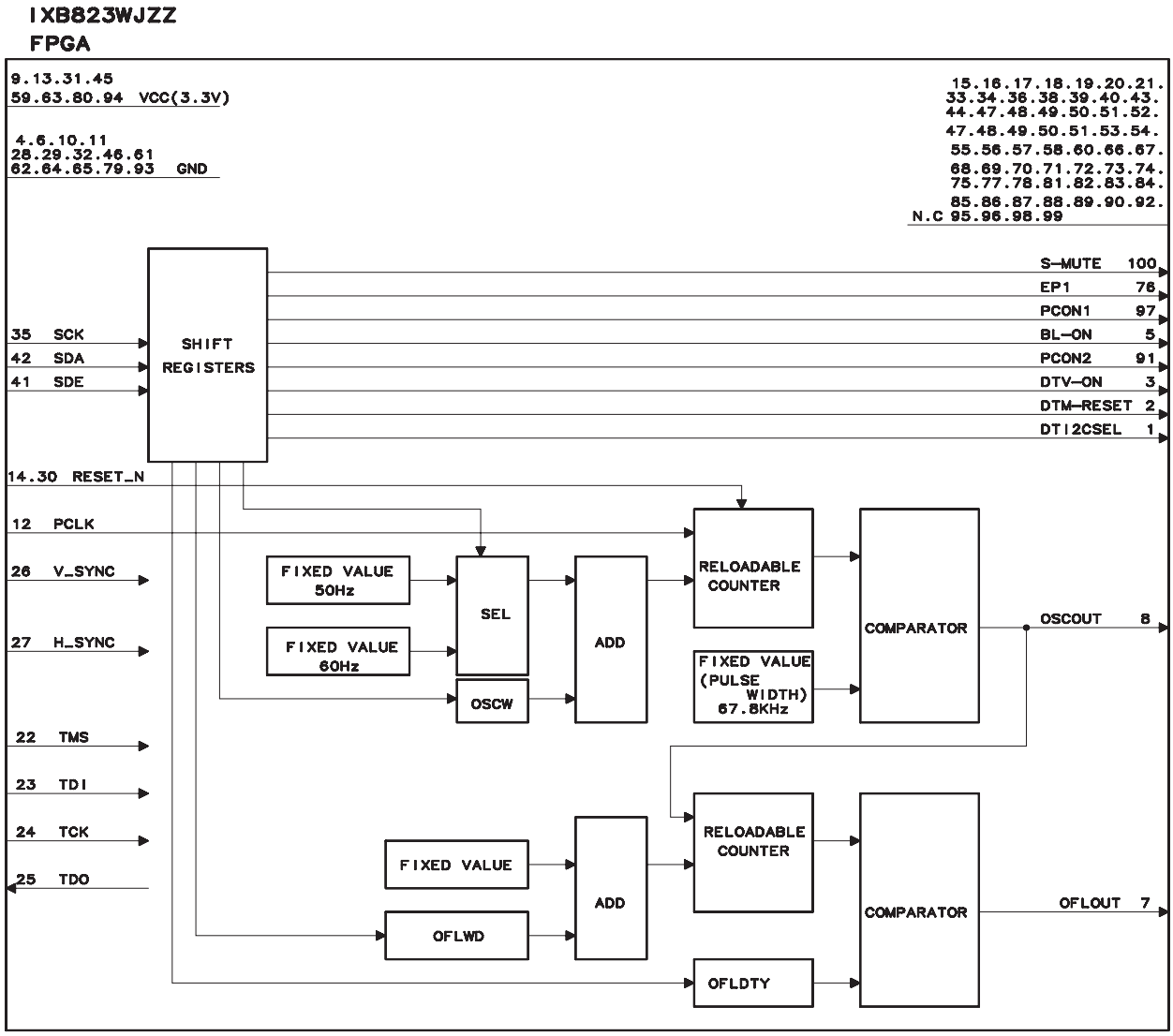


2.6.2 Pin Connections and short description

Pin No.	Pin Name	I/O	Pin Function
15	VCC	—	System power supply input (3.0V to 5.5V).
3	V+	—	Intemally generated positive transmitter supply (+5.5V).
7	V-	—	Internally generated negative transmitter supply (-5.5V).
14	GND	—	Ground connection.
2	C1+	—	External capacitor (voltage doubler) is connected to this lead.
4	C1-	—	External capacitor (voltage doubler) is connected to this lead.
5	C2+	—	External capacitor (voltage doubler) is connected to this lead.
6	C2-	—	External capacitor (voltage doubler) is connected to this lead.
11	TIN	I	TTL/CMOS compatible transmitter inputs.
13	TOUT	O	±15KV ESD Protected, RS-232 level (nominally ±5.5V) transmitter output.
8	RIN	I	±15KV ESD Protected, RS-232 compatible receiver inputs.
9	ROUT	O	TTL/CMOS level receiver output.
1	$\overline{EN}$	O	Active low receiver enable control; doesn't disable ROUTB output.
16	$\overline{SHDN}$	—	Active low input shuts down transmitters and on-board power supply, to place device in low power mode.
10	N.C.	—	No internal connection.

2.7. IC1710 (RH-IXB823WJZZQ)

2.7.1 Block Diagram



2.7.2 Pin Connections and short description

Pin No.	Pin Name	I/O	Pin Function	NET_NAME
1	EXP[7]	O	Outport [7] I2C SEL Signal	DTI2CSEL
2	EXP[6]	O	Outport [6] Digital circuit reset signal	DTM_RESET
3	EXP[5]	O	Outport [5] Digital circuit power control signal	DTV_ON
4	GND*	—	Ground	N.C.
5	EXP[3]	O	Outport [3] inverter ON control signal	BL_ON
6	GND*	—	Ground	N.C.
7	OFLOUT	O	OFL Signal Output	OFLOUT
8	OSCOUT	O	OSC Signal Output	OSCOUT
9	VCCIO1	—	VCC (3.3V)	FPGA_VCC
10	GNDIO	—	Ground	Ground.
11	GNDINT	—	Ground.	Ground.
12	PCLK	I	Reference clock input	PCLK
13	VCCINT	—	VCC (3.3V)	FPGA_VCC
14	GCLR	I	RESE Terminal (L: RESET, H: Normal)	RESET_N
15	GND*	—	N.C.	N.C.
16	GND*	—	N.C.	N.C.
17	GND*	—	N.C.	N.C.
18	GND*	—	N.C.	N.C.
19	GND*	—	N.C.	N.C.
20	GND*	—	N.C.	N.C.

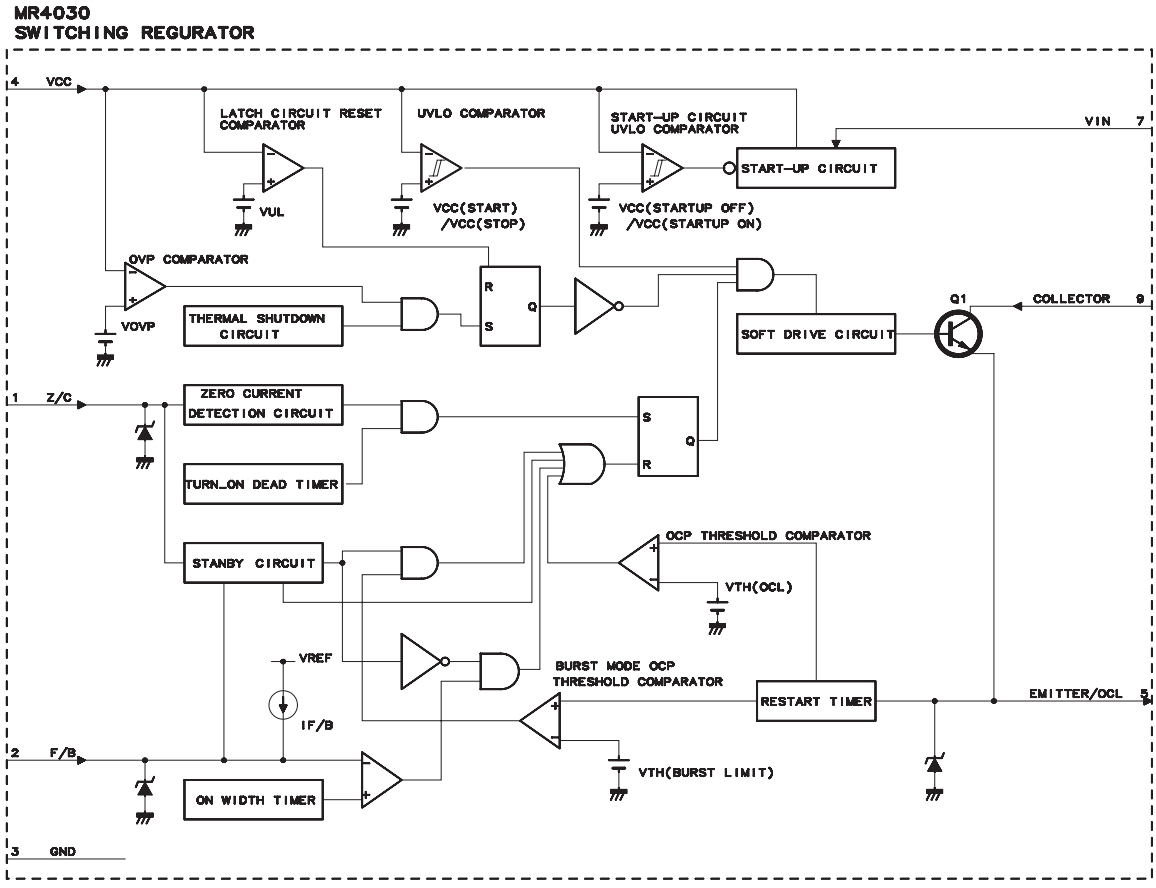
Pin No.	Pin Name	I/O	Pin Function	NET_NAME
21	GND*	—	N.C.	N.C.
22	#TMS	I	Pin for JTAG write only (Test Mode Select)	FPGA_TMS
23	#TDI	I	Pin for JTAG write only (Test Data Input)	FPGA_TDI
24	#TCK	I	Pin for JTAG write only (Test Clock)	FPGA_TCK
25	#TDO	O	Pin for JTAG write only (Test Data Input)	FPGA_TDO
26	VSYNC	I	V SYNC Input	V_SYNC
27	HSYNC	I	H SYNC Input	H_SYNC
28	GND*	—	N.C.	N.C.
29	GND*	—	N.C	N.C.
30	DMY_IN	I	Dummy pin for RESET line wiring (no affect on the operation)	RESET_N
31	VCCIO1	—	VCC (3.3V)	FPGA_VCC
32	GNDIO	—	Ground.	Ground
33	GND*	—	N.C.	N.C.
34	GND*	—	N.C.	N.C.
35	SCK	I	Microprocessor control bus clock	SCK
36	GND*	—	N.C.	N.C.
37	GND*	—	N.C.	N.C.
38	GND*	—	N.C.	N.C.
39	GND*	—	N.C.	N.C.
40	GND*	—	N.C.	N.C.
41	SEN	I	Microprocessor control bus enable	SDE
42	SDA	I	Microprocessor control bus data	SDA
43	GND*	—	N.C.	N.C.
44	GND*	—	N.C.	N.C.
45	VCCIO1	—	VCC (3.3V)	FPGA_VCC
46	GNDIO	—	Ground.	Ground.
47	GND*	—	N.C.	N.C.
48	GND*	—	N.C.	N.C
49	GND*	—	N.C.	N.C.
50	GND*	—	N.C.	N.C.
51	GND*	—	N.C.	N.C.
52	GND*	—	N.C.	N.C.
53	GND*	—	N.C.	N.C.
54	GND*	—	N.C.	N.C.
55	GND*	—	N.C.	N.C.
56	GND*	—	N.C.	N.C.
57	GND*	—	N.C.	N.C.
58	GND*	—	N.C.	N.C.
59	VCCIO2	—	VCC (3.3V)	FPGA_VCC
60	GNDIO	—	Ground.	Ground.
61	GND*	—	Ground.	N.C.
62	GND*	—	Ground.	Ground.
63	VCCINT	—	VCC (3.3V)	FPGA_VCC
64	GND*	—	Ground.	Ground.
65	GNDINT	—	Ground.	Ground.
66	GND*	—	N.C.	N.C.
67	GND*	—	N.C	N.C.
68	GND*	—	N.C	N.C.
69	GND*	—	N.C	N.C.
70	GND*	—	N.C	N.C.
71	GND*	—	N.C	N.C.
72	GND*	—	N.C	N.C.
73	GND*	—	N.C	N.C.
74	GND*	—	N.C	N.C.
75	GND*	—	N.C	N.C.
76	EXP[1]	O	Outport [1] (Power Control Signal ANT5V)	EP1
77	GND*	—	N.C	N.C.
78	GND*	—	N.C.	N.C.
79	GNDIO	—	Ground.	Ground.
80	VCCIO2	—	VCC (3.3V)	FPGA_VCC
81	GND*	—	N.C.	N.C
82	GND*	—	N.C.	N.C
83	GND*	—	N.C.	N.C
84	GND*	—	N.C.	N.C

Pin No.	Pin Name	I/O	Pin Function	NET_NAME
85	GND*	—	N.C.	N.C
86	GND*	—	N.C.	N.C
87	GND*	—	N.C.	N.C
88	GND*	—	N.C.	N.C
89	GND*	—	N.C.	N.C
90	GND*	—	N.C.	N.C
91	EXP[4]	O	Outport [4] (Power Control Signal 2)	PCON2(EP4)
92	GND*	—	N.C.	N.C
93	GNDIO	—	Ground.	Ground.
94	VCCIO2	—	VCC (3.3V)	FPGA_VCC
95	GND*	—	N.C.	N.C
96	GND*	—	N.C.	N.C
97	EXP[2]	O	Outport [2] (Power Control Signal 1)	PCON1(EP2)
98	GND*	—	N.C	N.C
99	GND*	—	N.C.	N.C
100	EXP[0]	O	Outport [0] (S-MUTE Signal)	S_MUTE

GND* is OPEN or GND.

2.8. IC704 (VHIMR4030++-1) (LC-32RA1E/RU)

2.8.1 Block Diagram

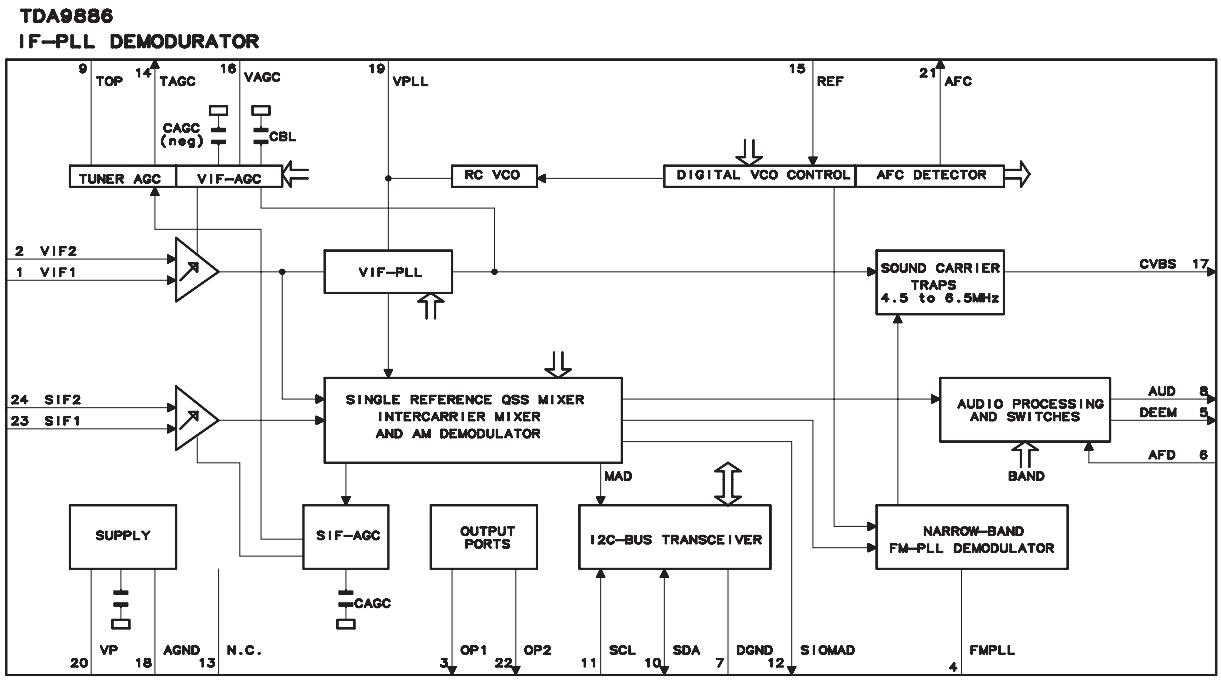


2.8.2 Pin Connections and short description

Pin No.	Pin Name	I/O	Pin Function
1	Z/C	I	Zero Current Detection Terminal.
2	F/B	I	Feed Back terminal.
3	GND	–	Ground Terminal.
4	VCC	–	VCC Terminal.
5	Emitter/OCL	O	Emitter/OCL terminal.
7	VIN	I	VIN Terminal.
8	Collector	I	Collector Terminal.

2.9. IC201 (VHITDA9886+-1Y)

2.9.1 Block Diagram



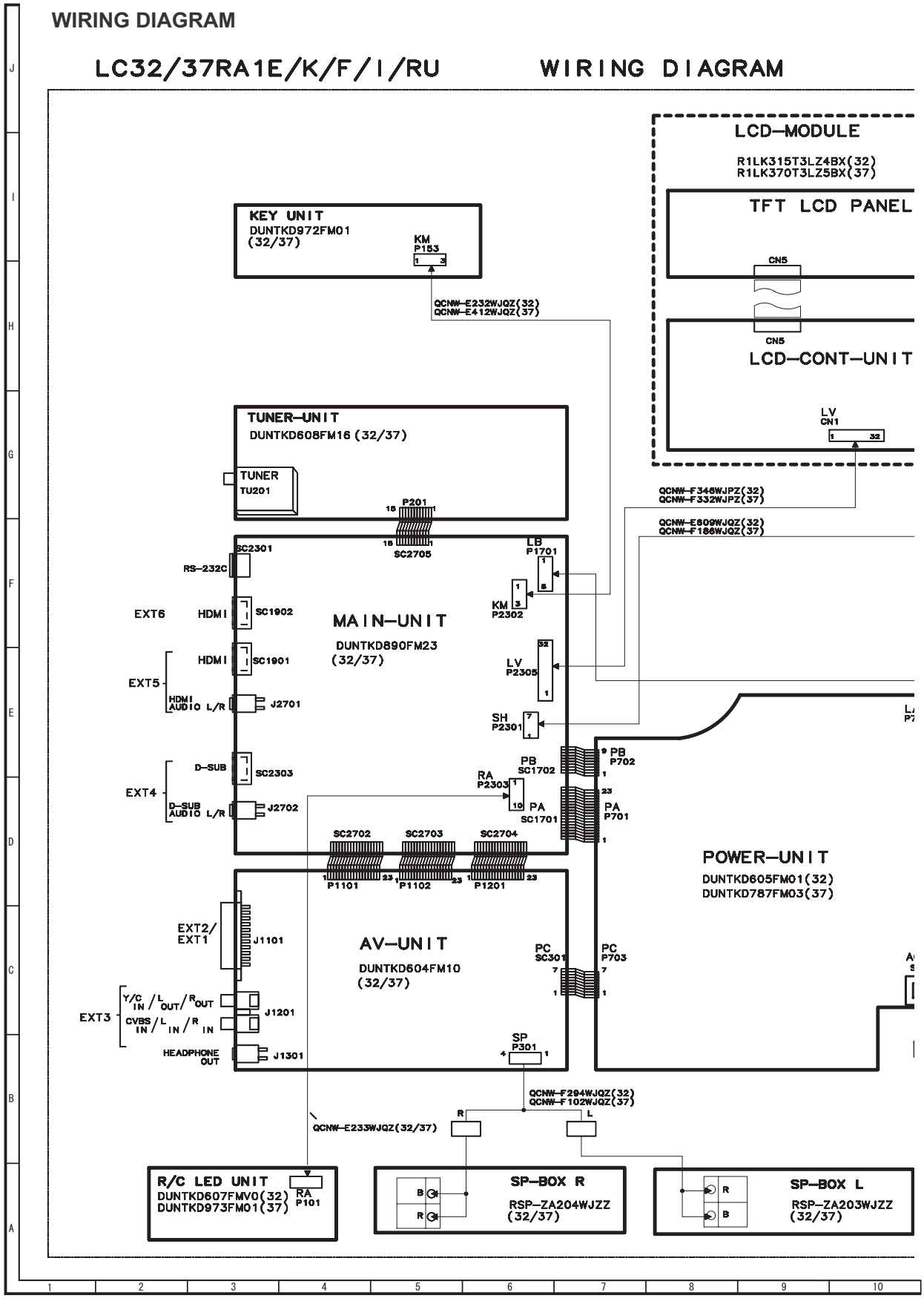
2.9.2 Pin Connections and short description

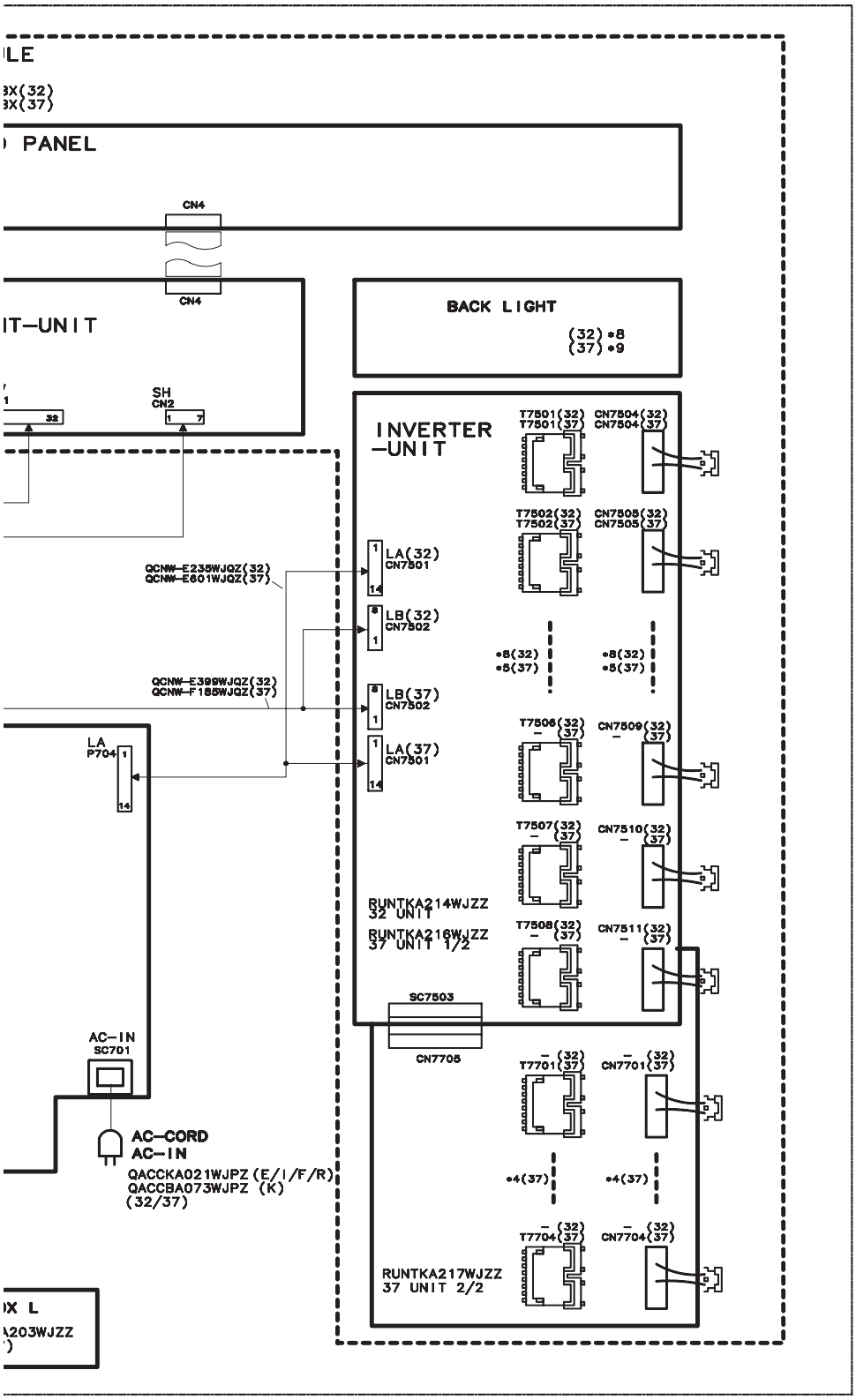
Pin No.	Pin Name	I/O	Pin Function
1	VIF1	I	VIF differential input 1
2	VIF2	I	VIF differential input 2
3	OP1	O	Output port 1; open-collector.
4	FMPLL	I	FM-PLL for loop filter.
5	DEEM	O	De-emphasis output for capacitor.
6	AFD	I	AF decoupling input for capacitor
7	DGND	—	Digital ground.
8	AUD	O	Audio output.
9	TOP	I	Tuner AGC TakeOver Pint (TOP) for resistor adjustment.
10	SDA	I/O	I2C-bus data input and output.
11	SCL	I	I2C-bus clock input.
12	SIOMAD	O	Sound intercarrier output and MAD select with resistor.
13	N.C.	—	Not connected.
14	TAGC	O	Tuner AGC output.
15	REF	I	4 MHz crystal or reference signal input.
16	VAGC(1)	I	VIF-AGC for capacitor.
17	CVBS	O	Composite video output.
18	AGND	—	Analog ground.
19	VPLL	I	VIF-PLL for loop filter.
20	VP	—	Supply voltage.
21	AFC	O	AFC output.
22	OP2	O	Output port 2; open-collector.
23	SIF1	I	SIF differential input 1 and MAD select with resistor.
24	SIF2	I	SIF differential input 2 and MAD select with resistor.

— MEMO —

CHAPTER 6. OVERALL WIRING DIAGRAM/BLOCK DIAGRAM

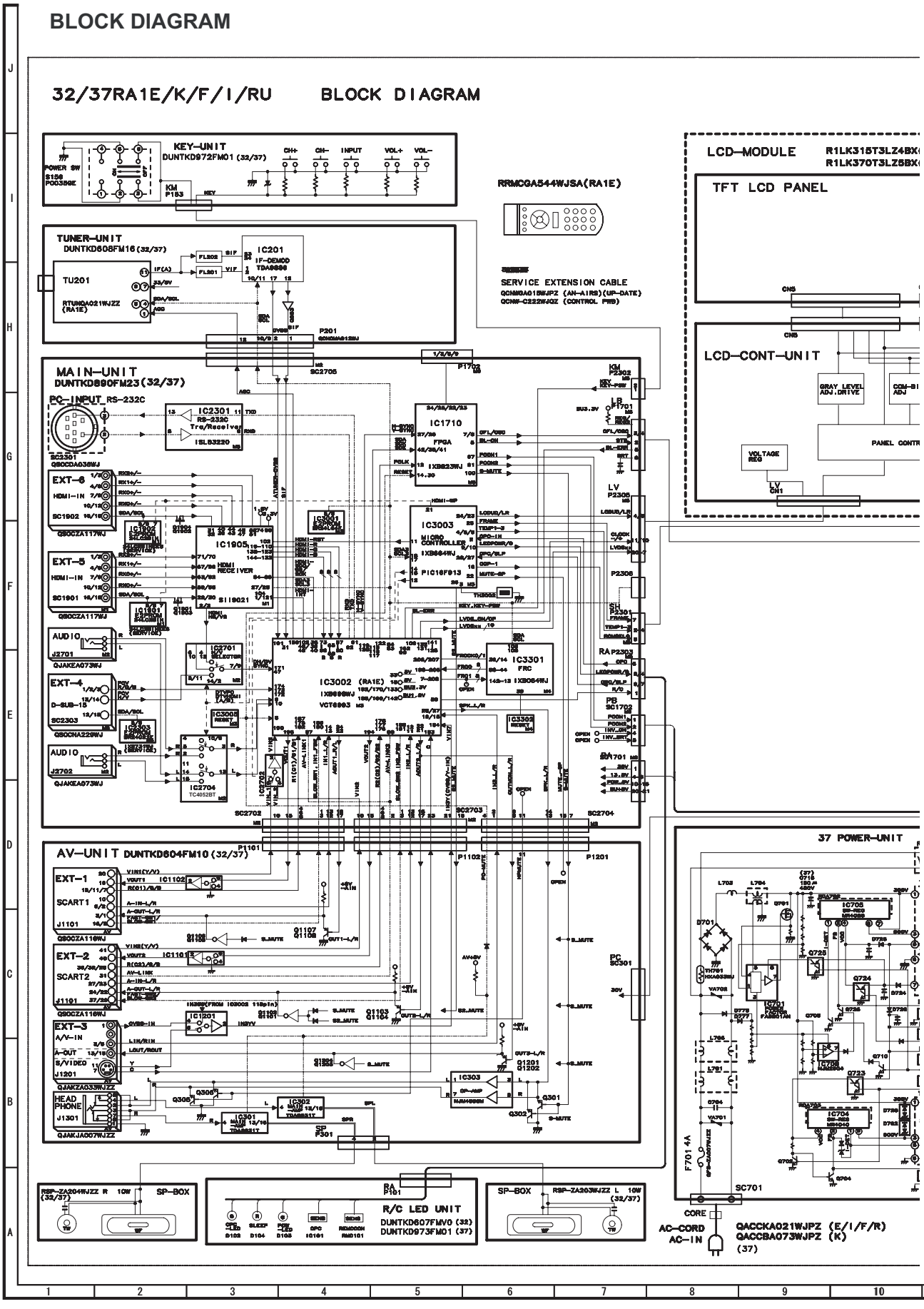
[1] OVERALL WIRING DIAGRAM

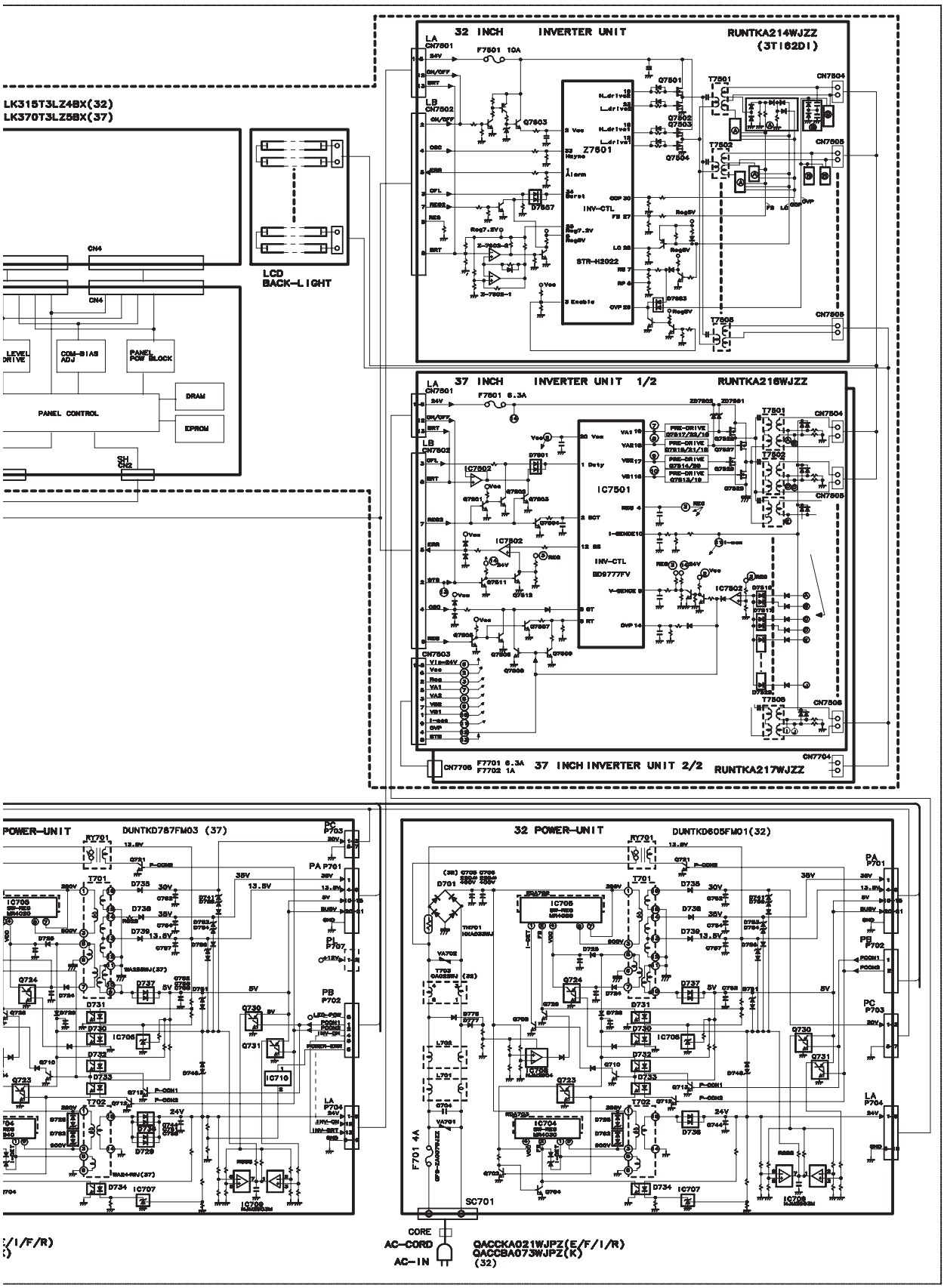



PANEL
CN4
CN4
BACK LIGHT
(32) *8
(37) *9
SH
CN2
INVERTER
–UNIT
T7501(32)
T7501(37)
CN7504(32)
CN7504(37)
T7502(32)
T7502(37)
CN7505(32)
CN7505(37)
LA(32)
CN7501
LB(32)
CN7502
*8(32)
*5(37)
QCNW–E235WJQZ(32)
QCNW–E601WJQZ(37)
QCNW–E399WJQZ(32)
QCNW–F185WJQZ(37)
LB(37)
CN7502
LA(37)
CN7501
LA
P704
T7506(32)
– (37)
CN7509(32)
– (37)
T7507(32)
– (37)
CN7510(32)
– (37)
RUNTKA214WJZZ
32 UNIT
RUNTKA216WJZZ
37 UNIT 1/2
T7508(32)
– (37)
CN7511(32)
– (37)
SC7503
CN7705
AC–IN
SC701
AC–CORD
AC–IN
QACCKA021WJPZ (E/I/F/R)
QACCBA073WJPZ (K)
(32/37)
– (32)
T7701(37)
– (32)
CN7701(37)
*4(37)
– (32)
T7704(37)
– (32)
CN7704(37)
RUNTKA217WJZZ
37 UNIT 2/2

[2] BLOCK DIAGRAM

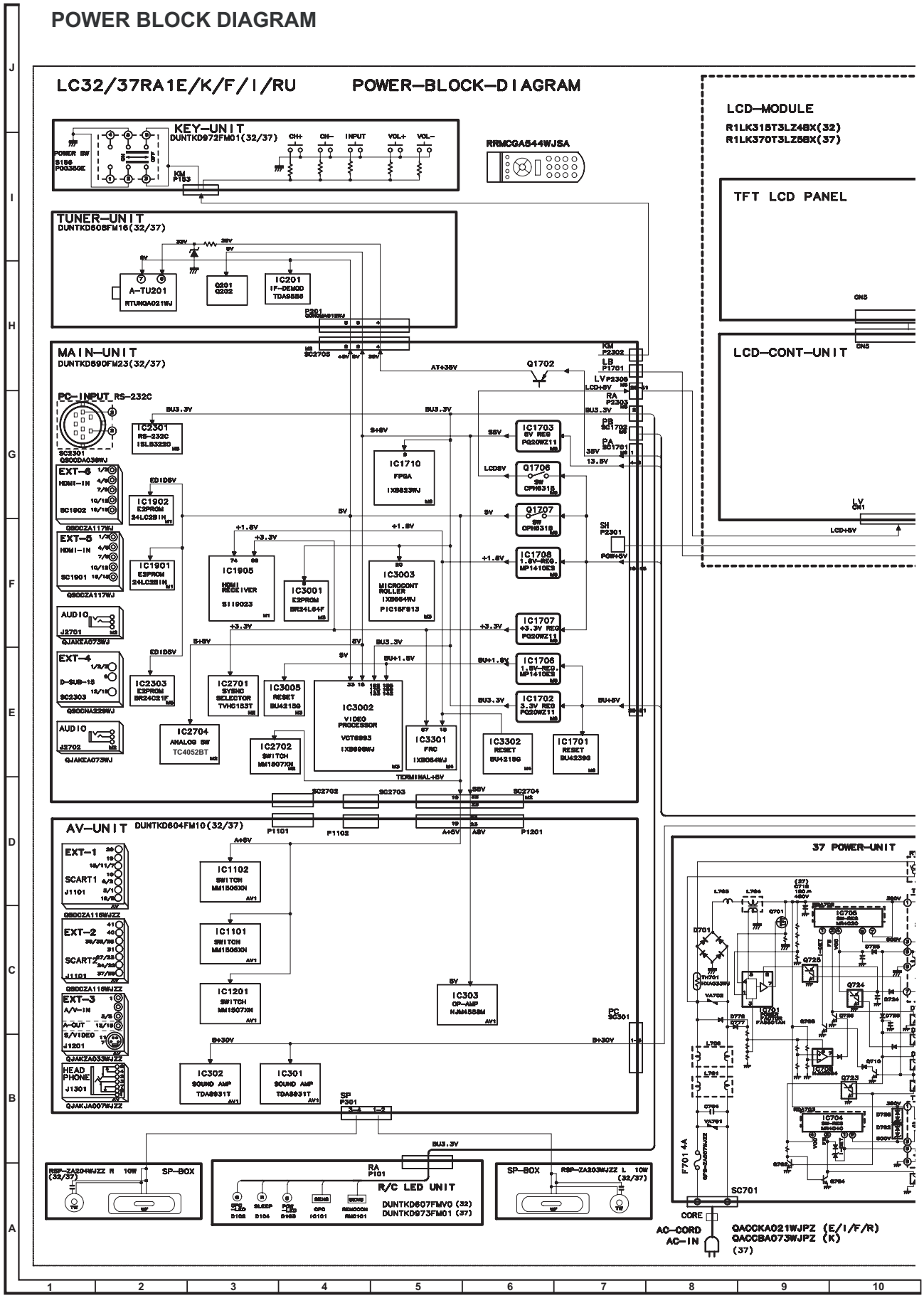
BLOCK DIAGRAM

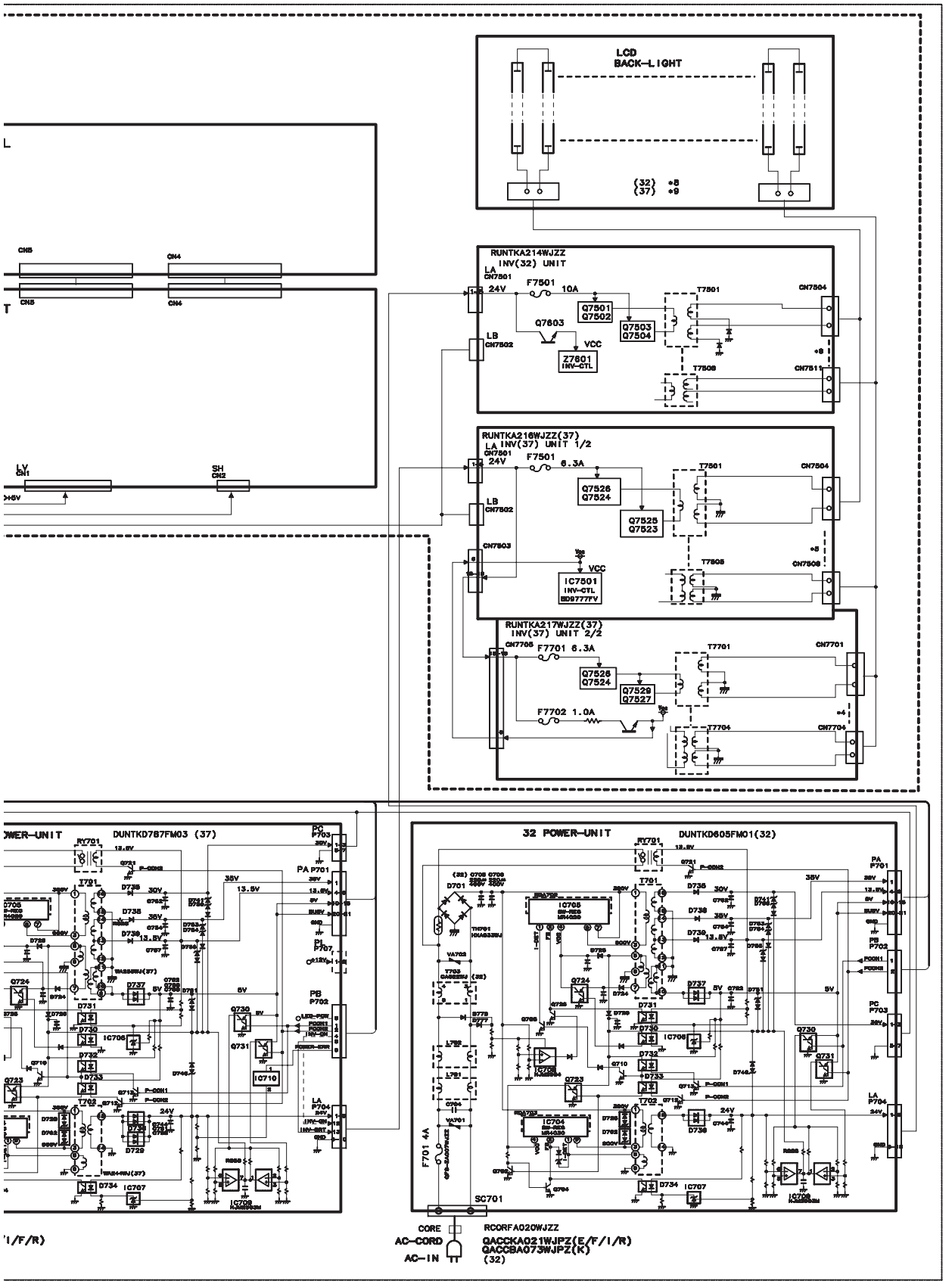




11	12	13	14	15	16	17	18	19

[3] POWER BLOCK DIAGRAM

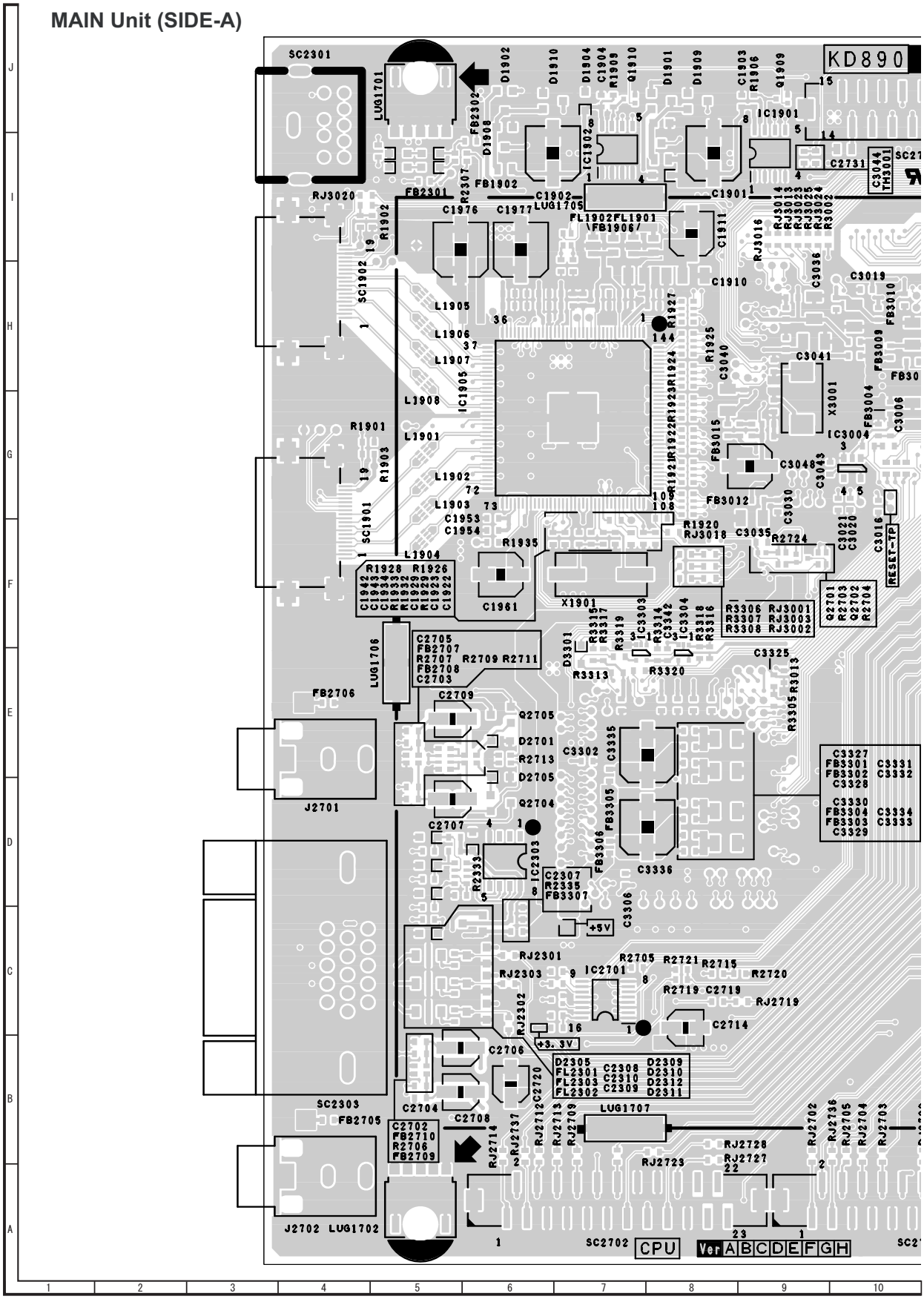


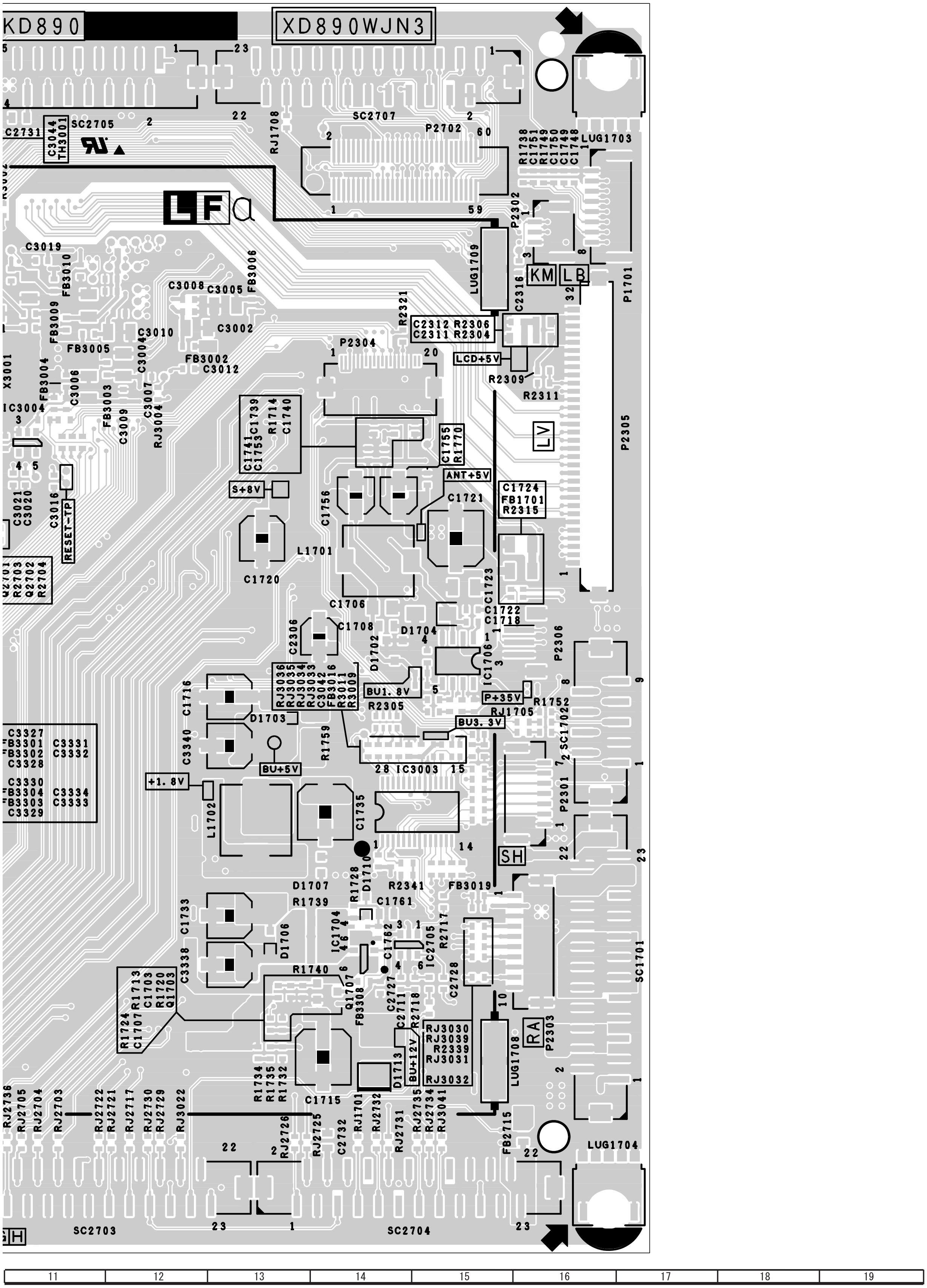

LCD
BACK-LIGHT
(32) *8
(37) *9
RUNTKA214WJZZ
INV(32) UNIT
F7501 10A
Q7501
Q7502
Q7503
Q7504
Q7603
VCC
Z7601
INV-CTL
RUNTKA216WJZZ(37)
LA INV(37) UNIT 1/2
F7501 6.3A
Q7526
Q7524
Q7525
Q7523
IC7501
INV-CTL
RUNTKA217WJZZ(37)
INV(37) UNIT 2/2
F7701 6.3A
Q7529
Q7527
F7702 1.0A
DUNTKD787FM03 (37)
DUNTKD605FM01(32)
SC701
CORE
AC-CORD
AC-IN
RCORFA020WJZZ
QACCKA021WJPZ(E/F/I/R)
QACCBA073WJPZ(K)
(32)

CHAPTER 7. PRINTED WIRING BOARD

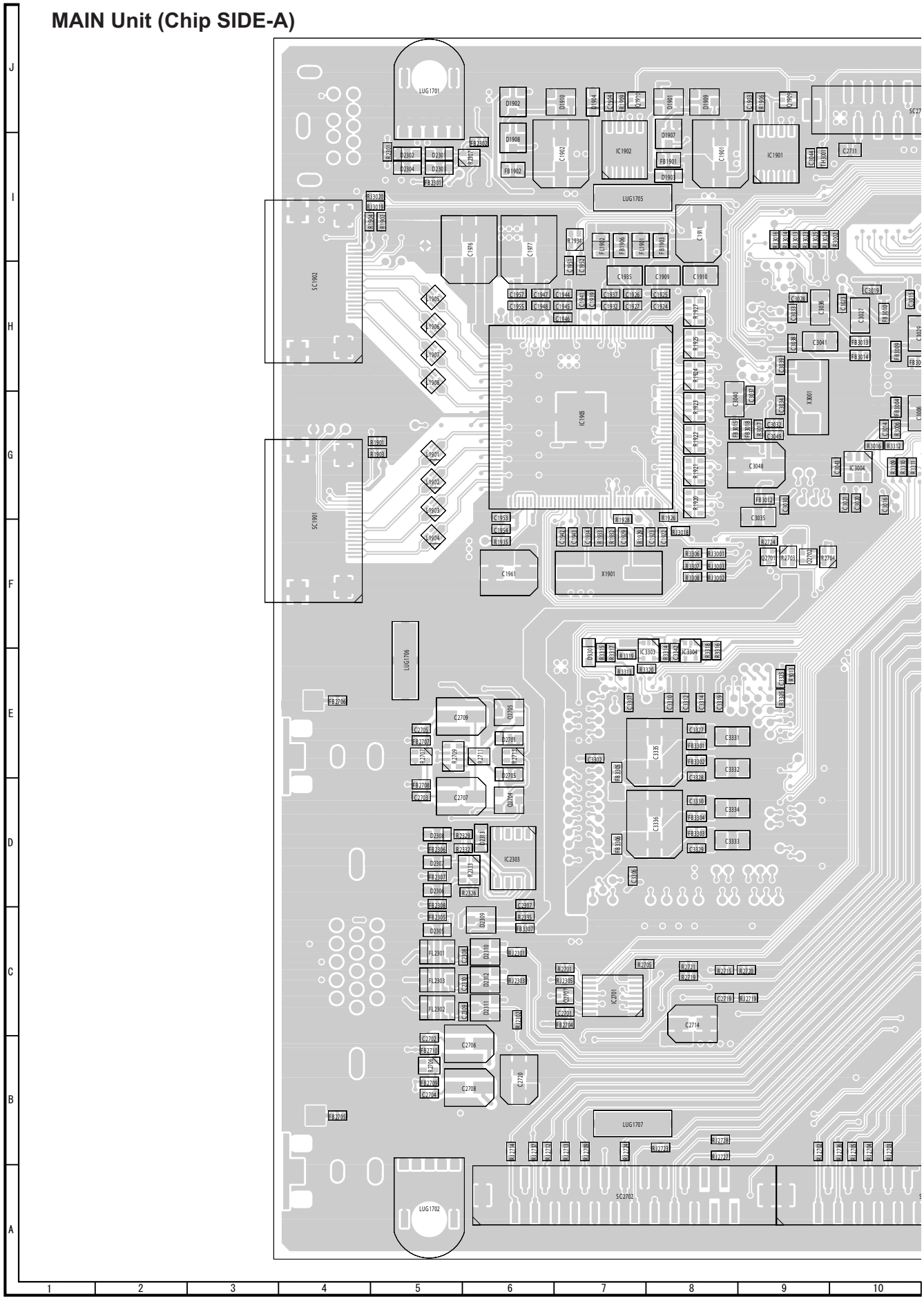
[1] MAIN UNIT PRINTED WIRING BOARD

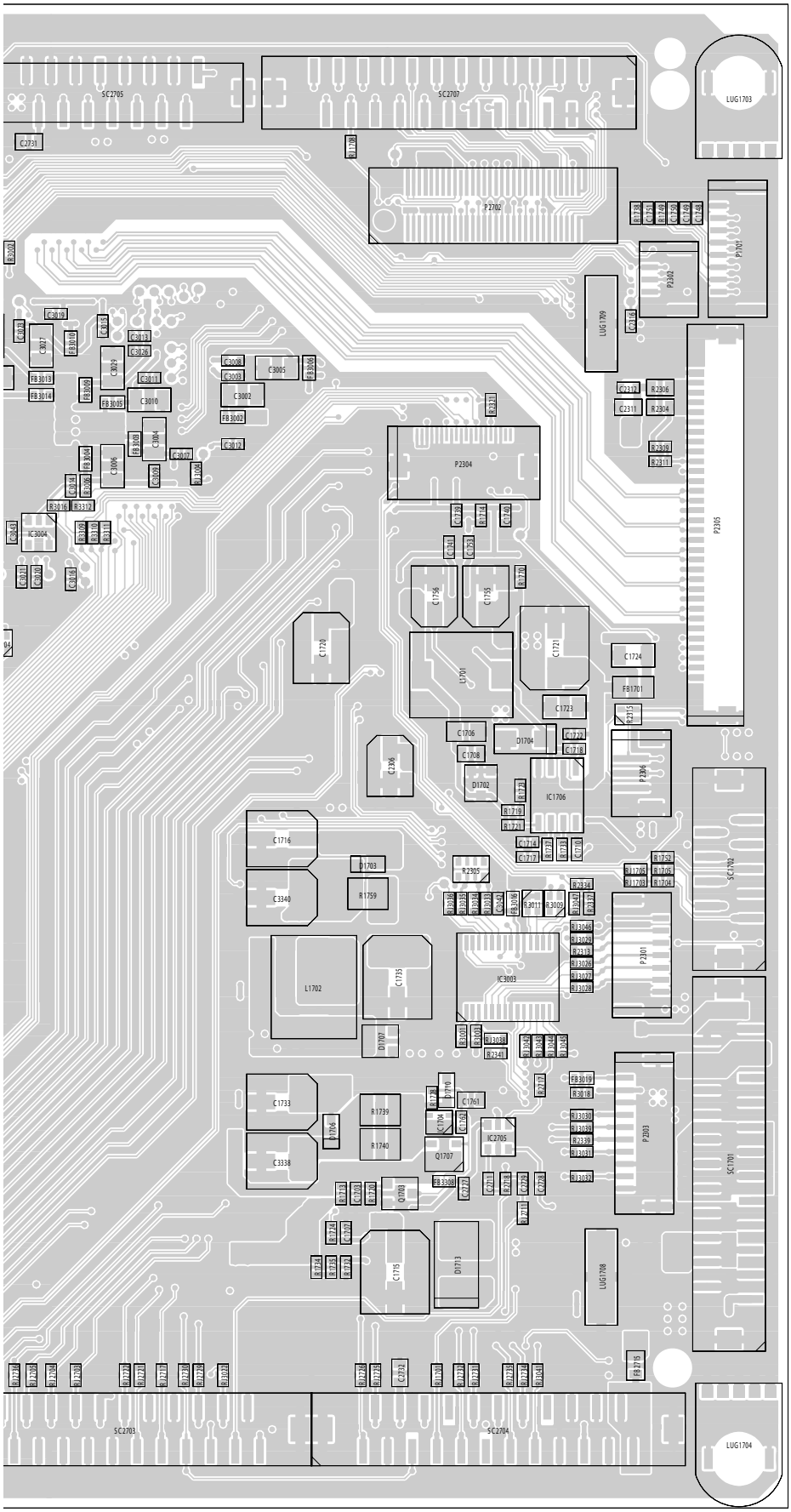
MAIN Unit (SIDE-A)




XD890
XD890WJN3
SC2705
SC2707
P2702
LUG1703
P2302
LUG1709
KM
LB
P1701
P2304
LCD+5V
P2305
LV
ANT+5V
S+8V
L1701
C1720
C1721
C1706
C1708
D1704
IC1706
P2306
BU1.8V
P+35V
BU3.3V
BU+5V
+1.8V
IC3003
L1702
SH
P2301
SC1702
SC1701
FB3019
IC1704
IC2705
RA
P2303
LUG1708
BU+12V
C1715
LUG1704
SC2703
SC2704
RESET-TP
X3001
IC3004
11
12
13
14
15
16
17
18
19

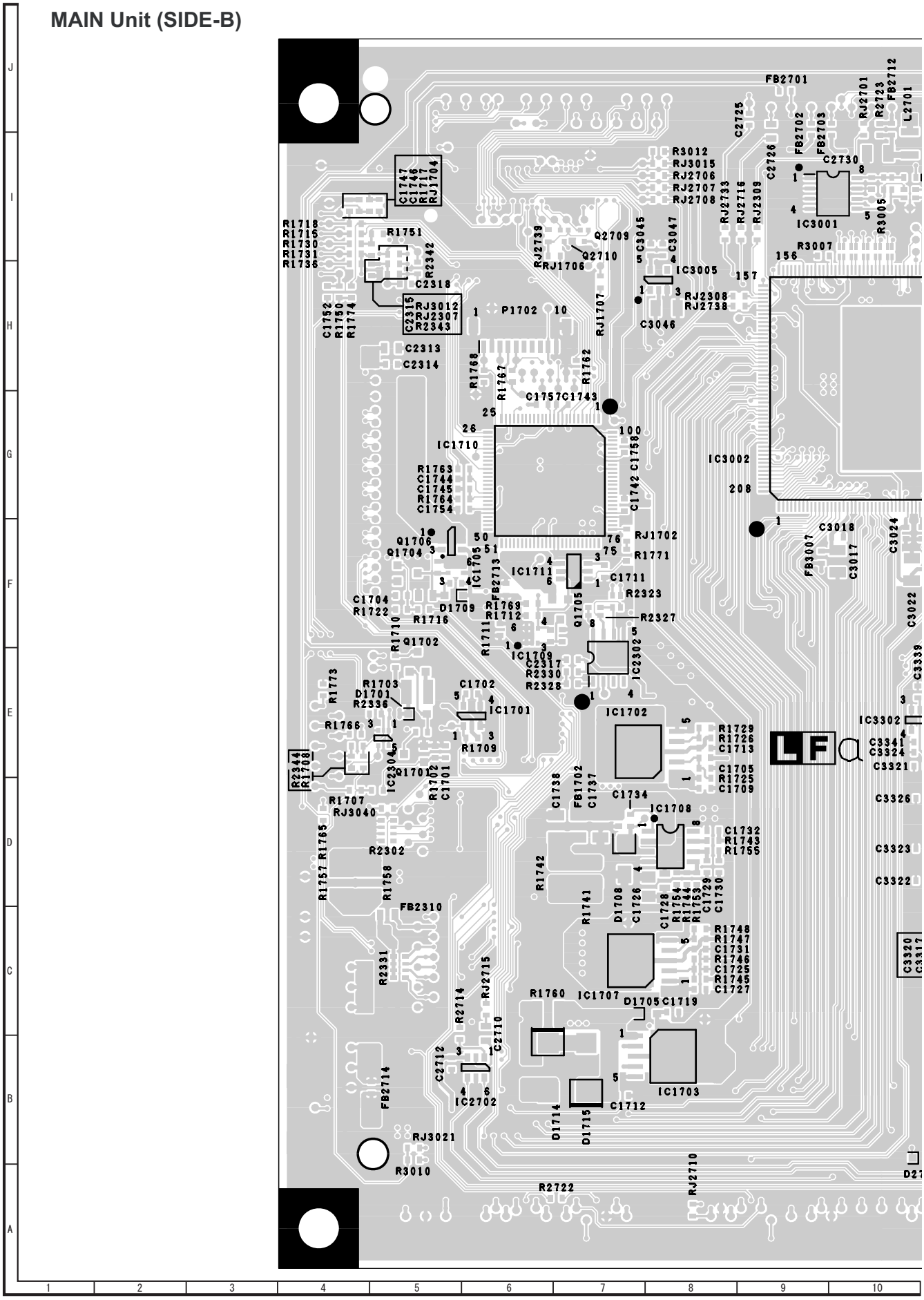
MAIN Unit (Chip SIDE-A)

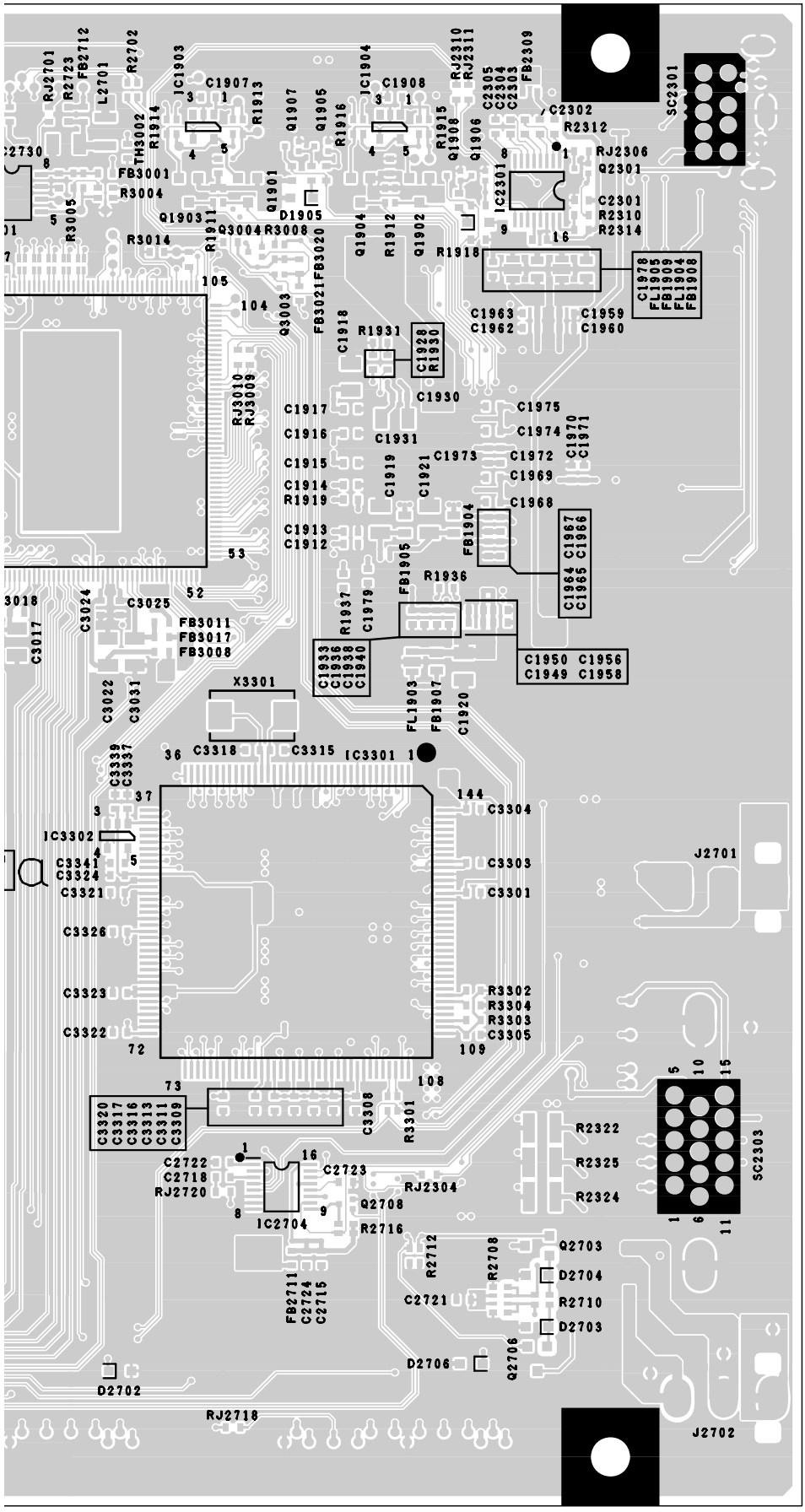




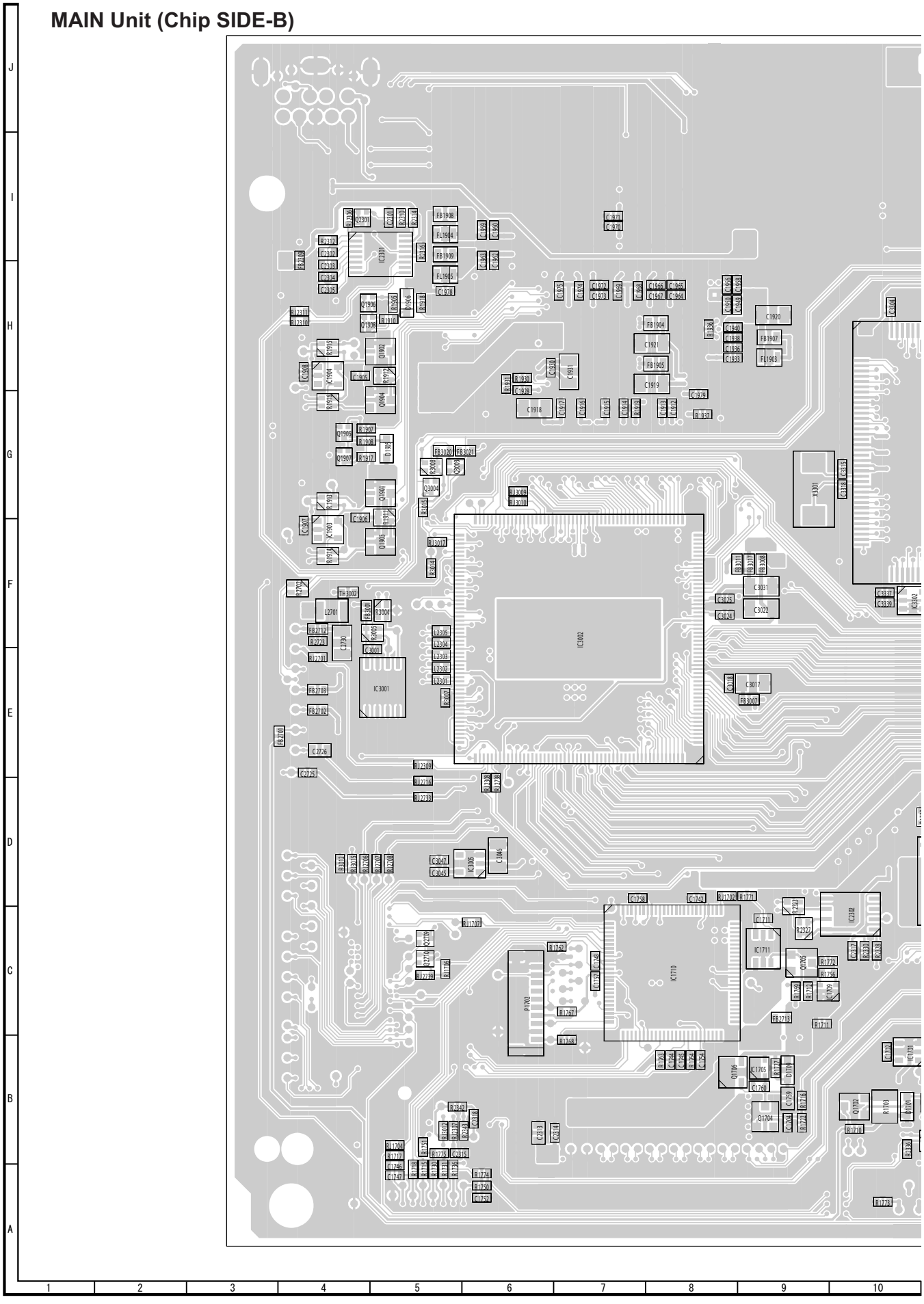
11	12	13	14	15	16	17	18	19

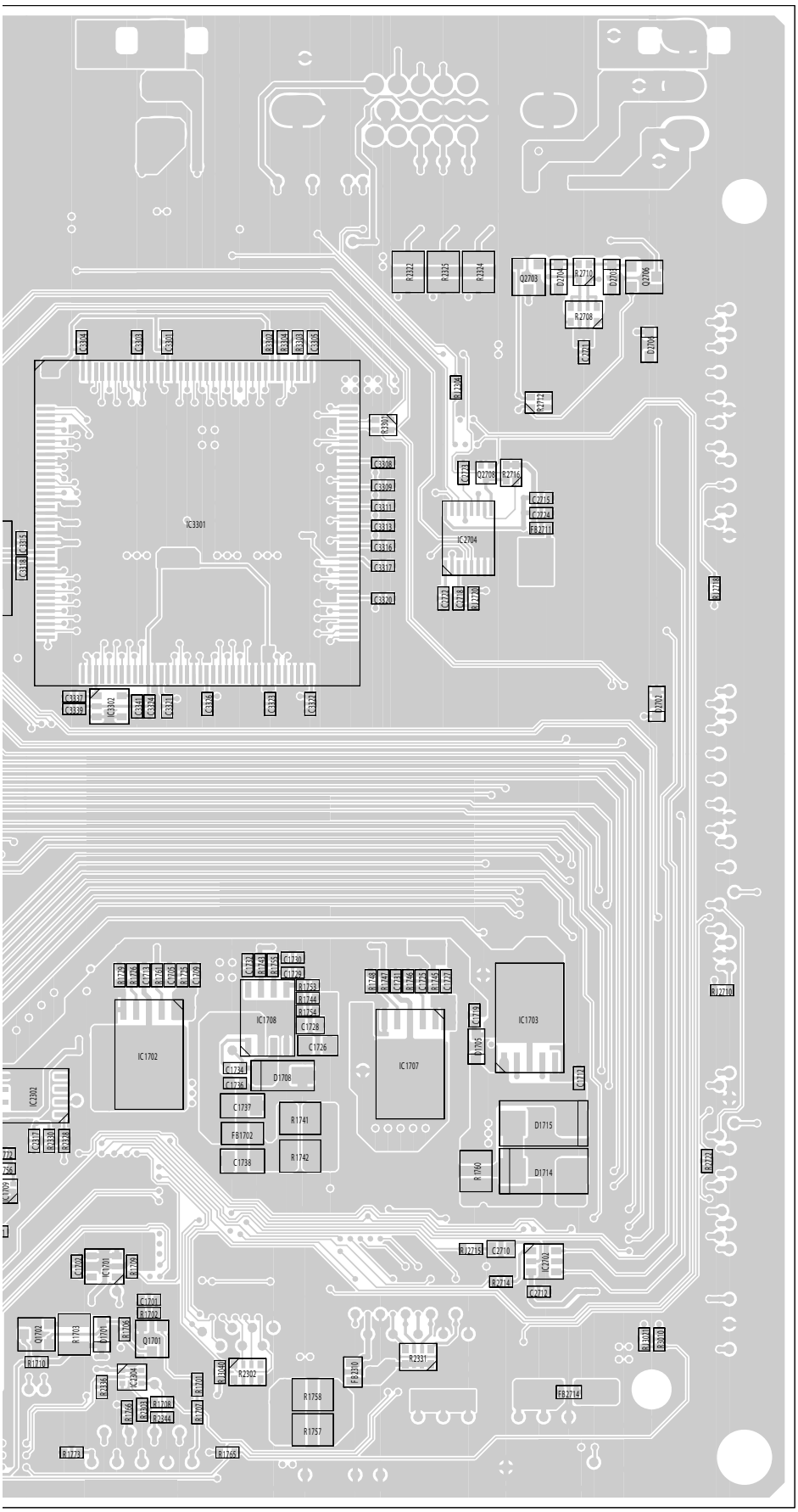
MAIN Unit (SIDE-B)




RJ2701
R2723
FB2712
L2701
R2702
IC1903
C1907
R1913
Q1907
Q1905
R1916
IC1904
C1908
RJ2310
RJ2311
C2305
C2304
C2303
FB2309
C2302
R2312
SC2301
RJ2306
Q2301
C2301
R2310
R2314
IC2301
Q1906
Q1908
R1915
FB3001
R3004
TH3002
R1914
R3005
Q1901
D1905
Q19903
R1911
Q3004
R3008
FB3021
R3020
Q1904
R1912
Q1902
R1918
R3014
C1978
FL1905
FB1909
FL1904
FB1908
C1963
C1962
C1959
C1960
C1918
R1931
C1928
R1930
C1930
Q3003
RJ3010
RJ3009
C1917
C1916
C1915
C1914
R1919
C1913
C1912
C1931
C1919
C1921
C1973
C1975
C1974
C1972
C1970
C1971
C1969
C1968
FB1904
C1967
C1966
C1964
C1965
FB1905
R1936
R1937
C1979
C1933
C1936
C1938
C1940
C1950
C1956
C1949
C1958
FL1903
FB1907
C1920
X3301
C3018
C3024
C3025
C3017
FB3011
FB3017
FB3008
C3022
C3031
C3318
C3315
IC3301
C3339
C3337
IC3302
C3341
C3324
C3321
C3326
C3323
C3322
C3304
C3303
C3301
R3302
R3304
R3303
C3305
J2701
C3320
C3317
C3316
C3313
C3311
C3309
C3308
R3301
R2322
R2325
R2324
SC2303
C2722
C2718
RJ2720
C2723
RJ2304
Q2708
R2716
IC2704
R2712
R2708
Q2703
D2704
R2710
D2703
FB2711
C2724
C2715
C2721
D2706
Q2706
D2702
RJ2718
J2702

MAIN Unit (Chip SIDE-B)

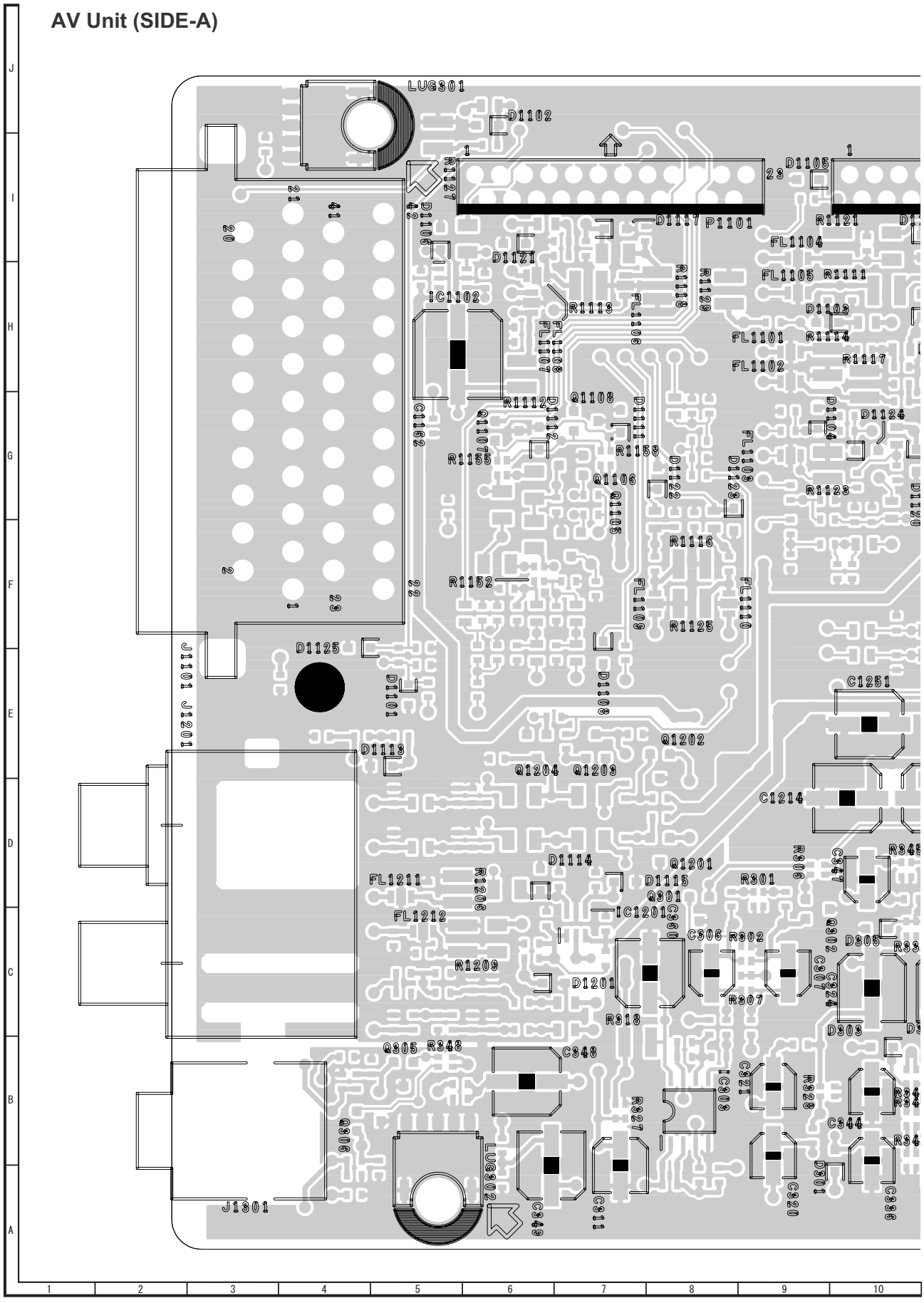


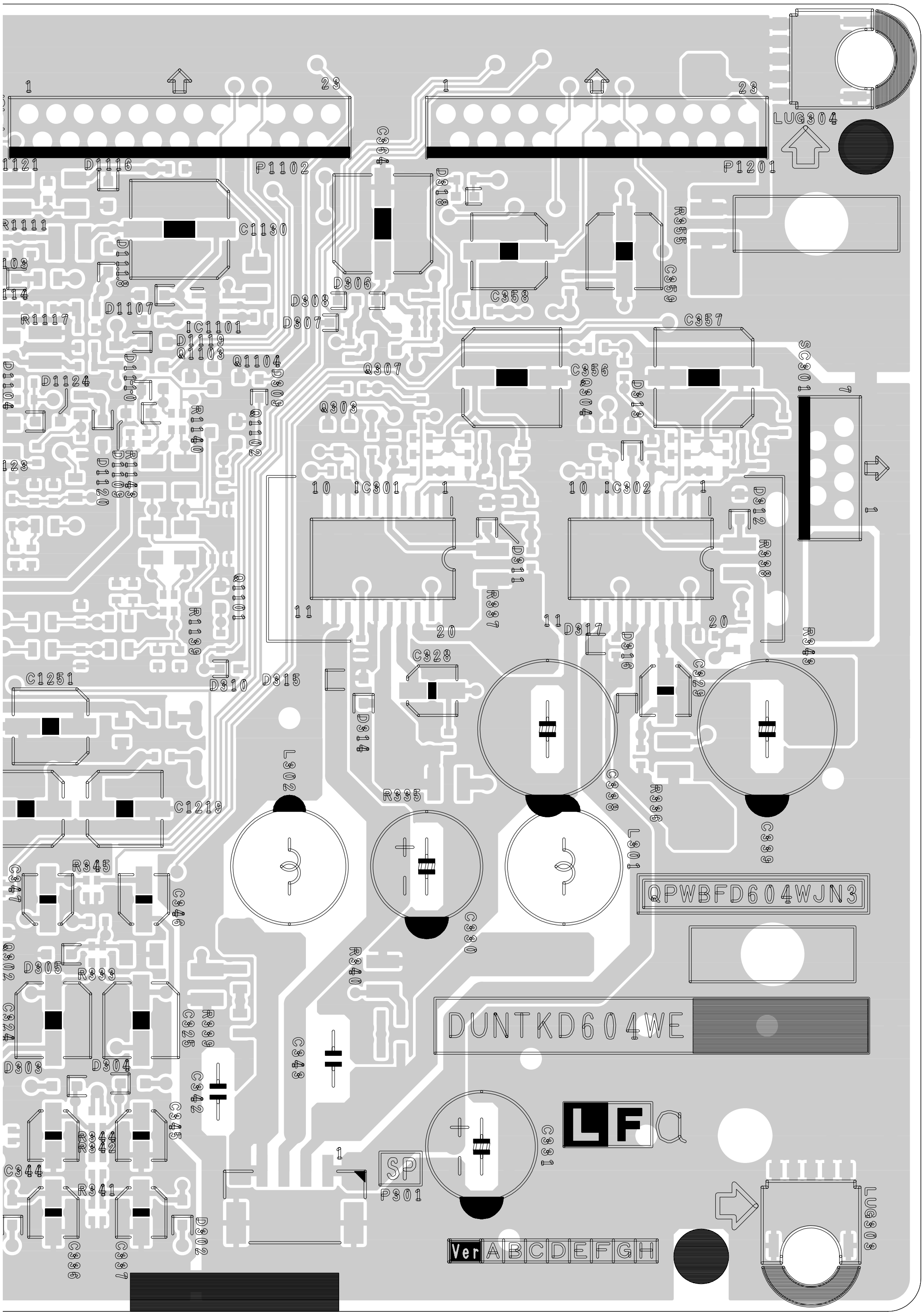


11	12	13	14	15	16	17	18	19

[2] AV UNIT PRINTED WIRING BOARD

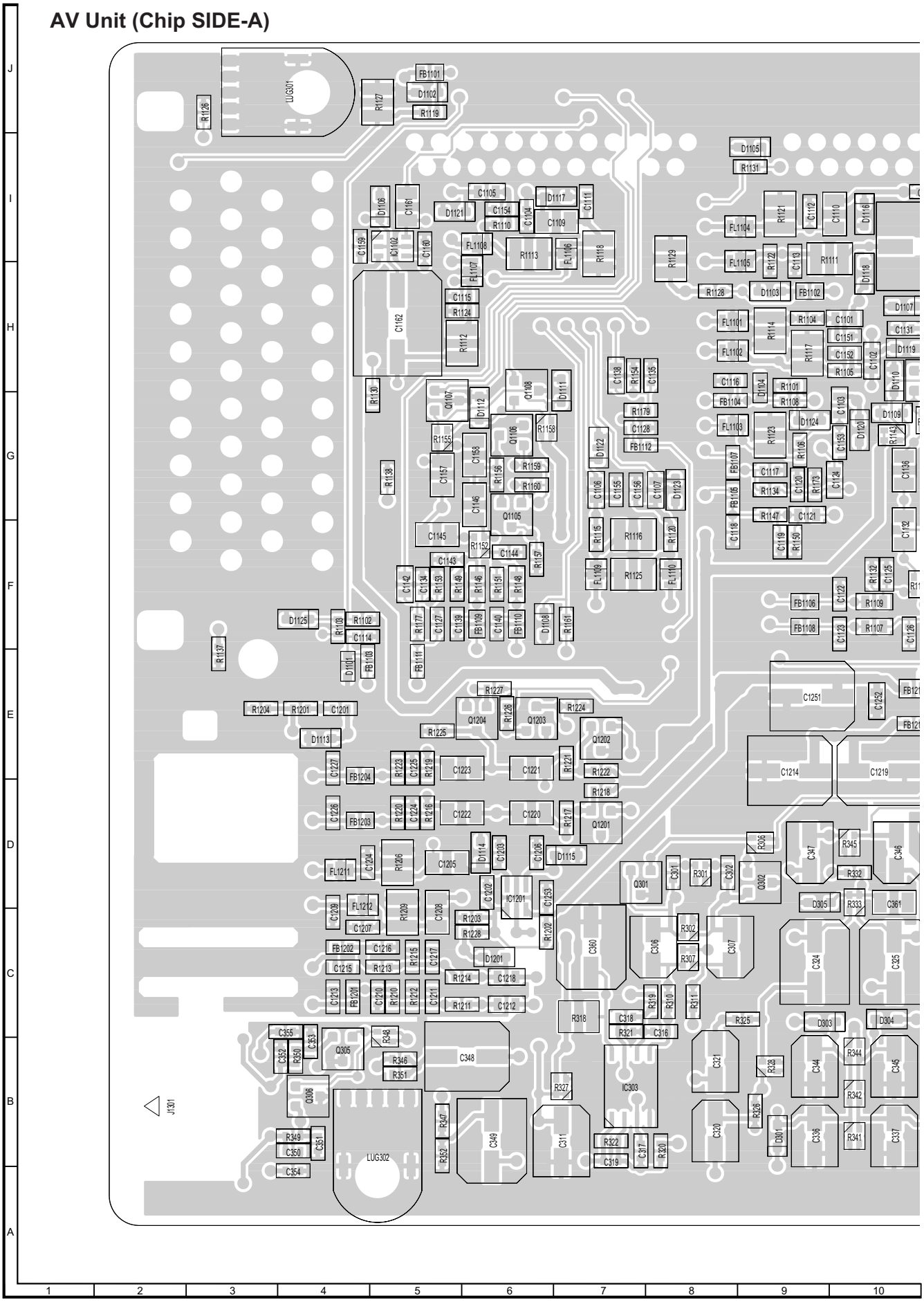
AV Unit (SIDE-A)

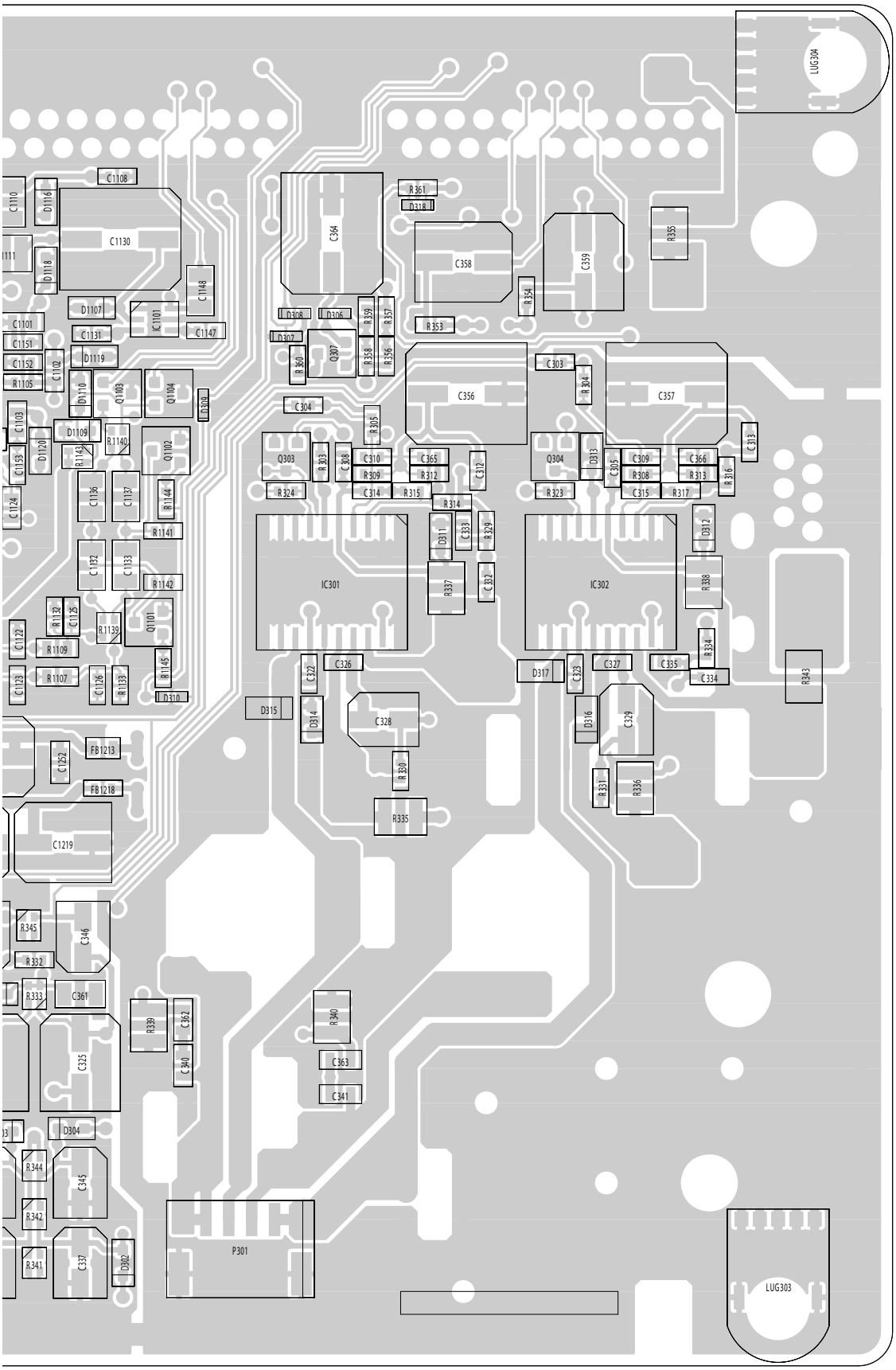




11	12	13	14	15	16	17	18	19

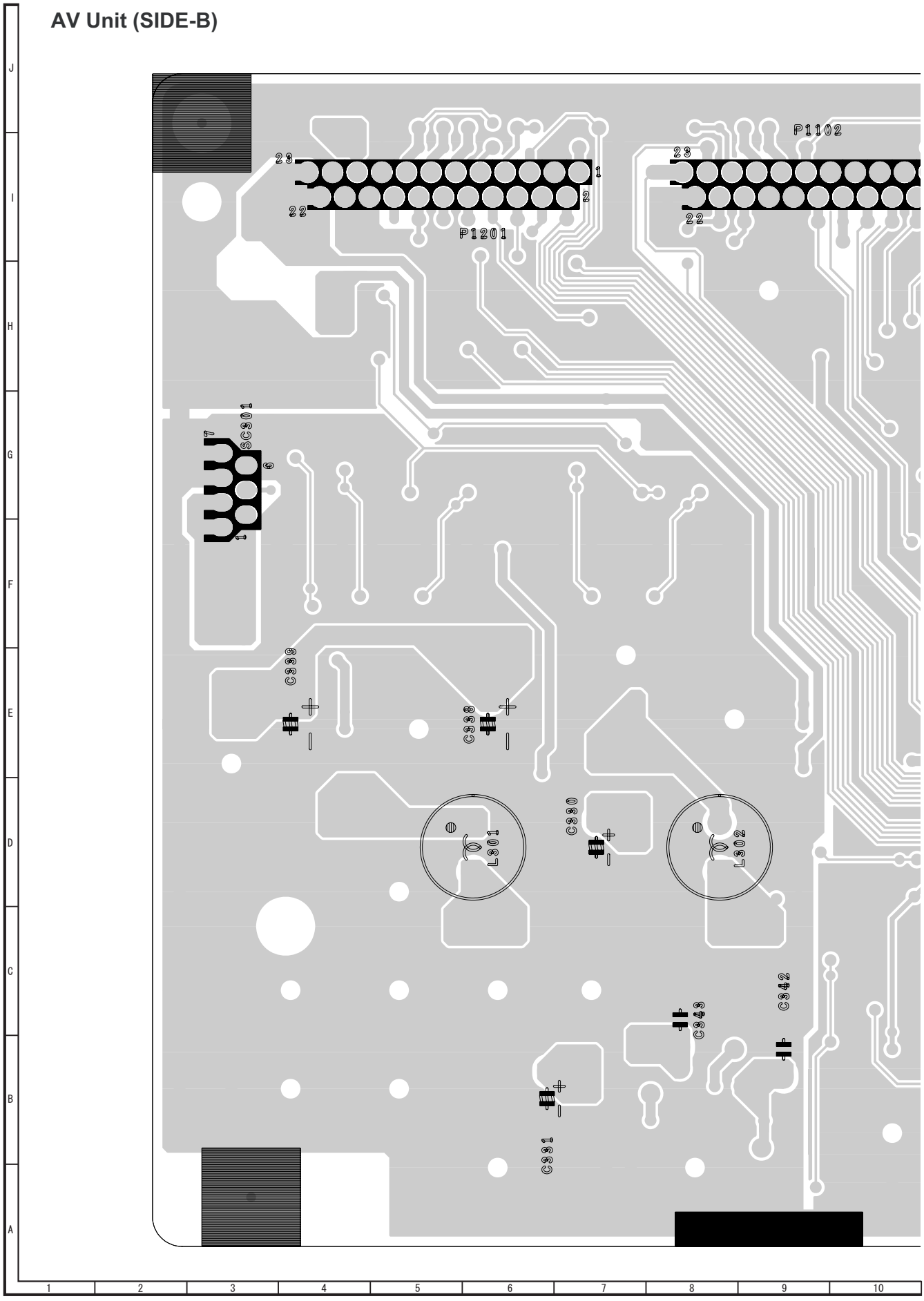
AV Unit (Chip SIDE-A)

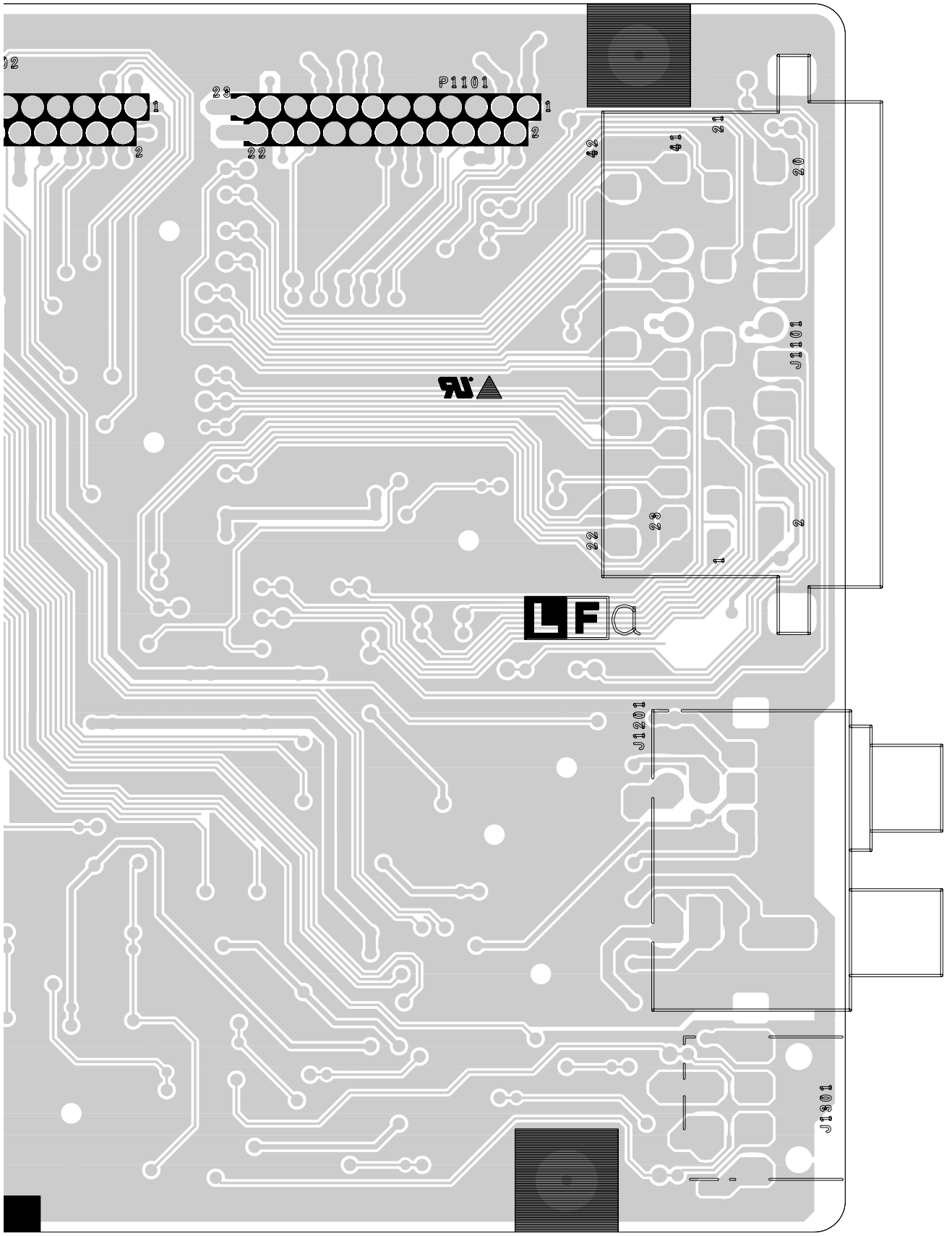




11	12	13	14	15	16	17	18	19

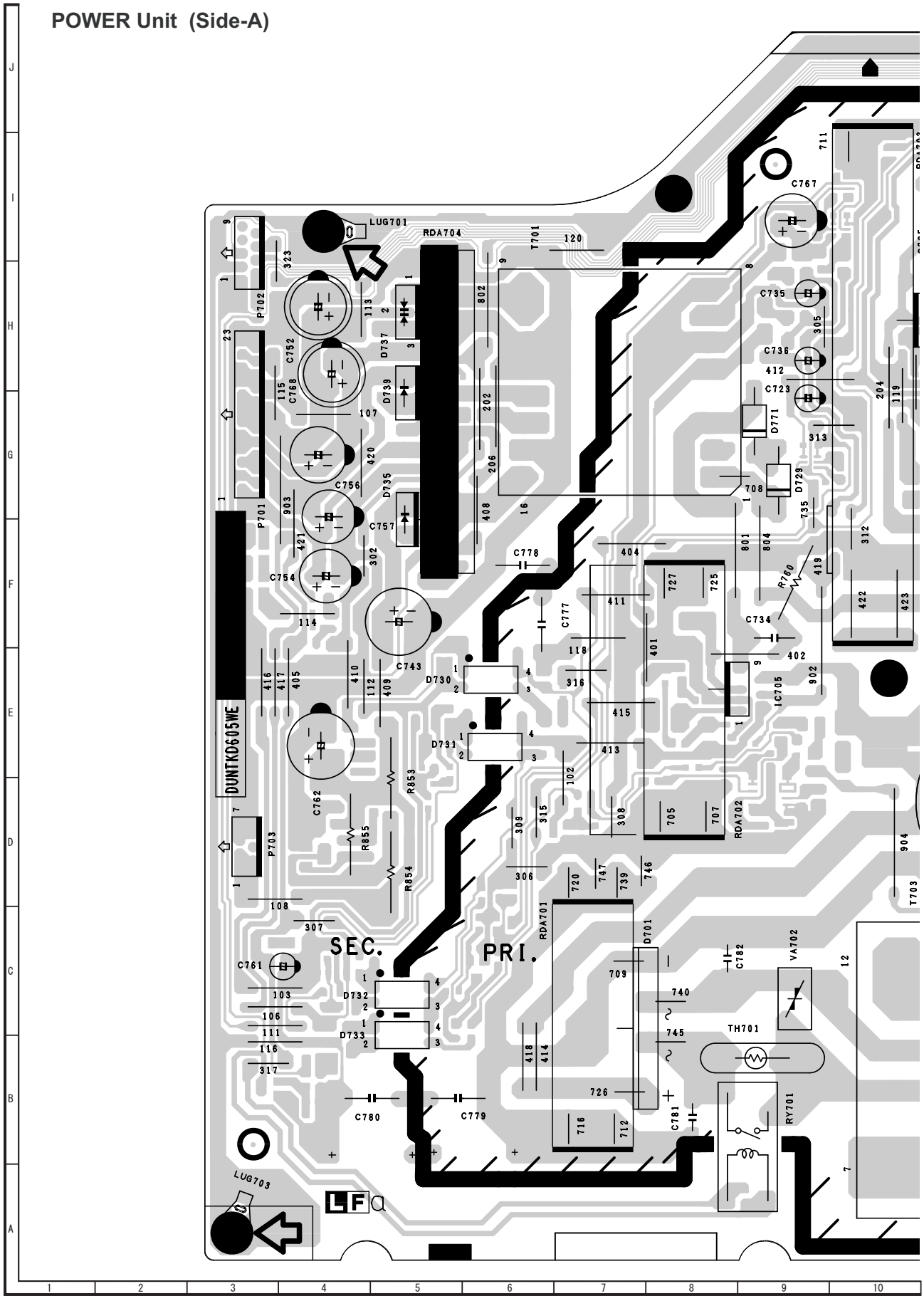
AV Unit (SIDE-B)

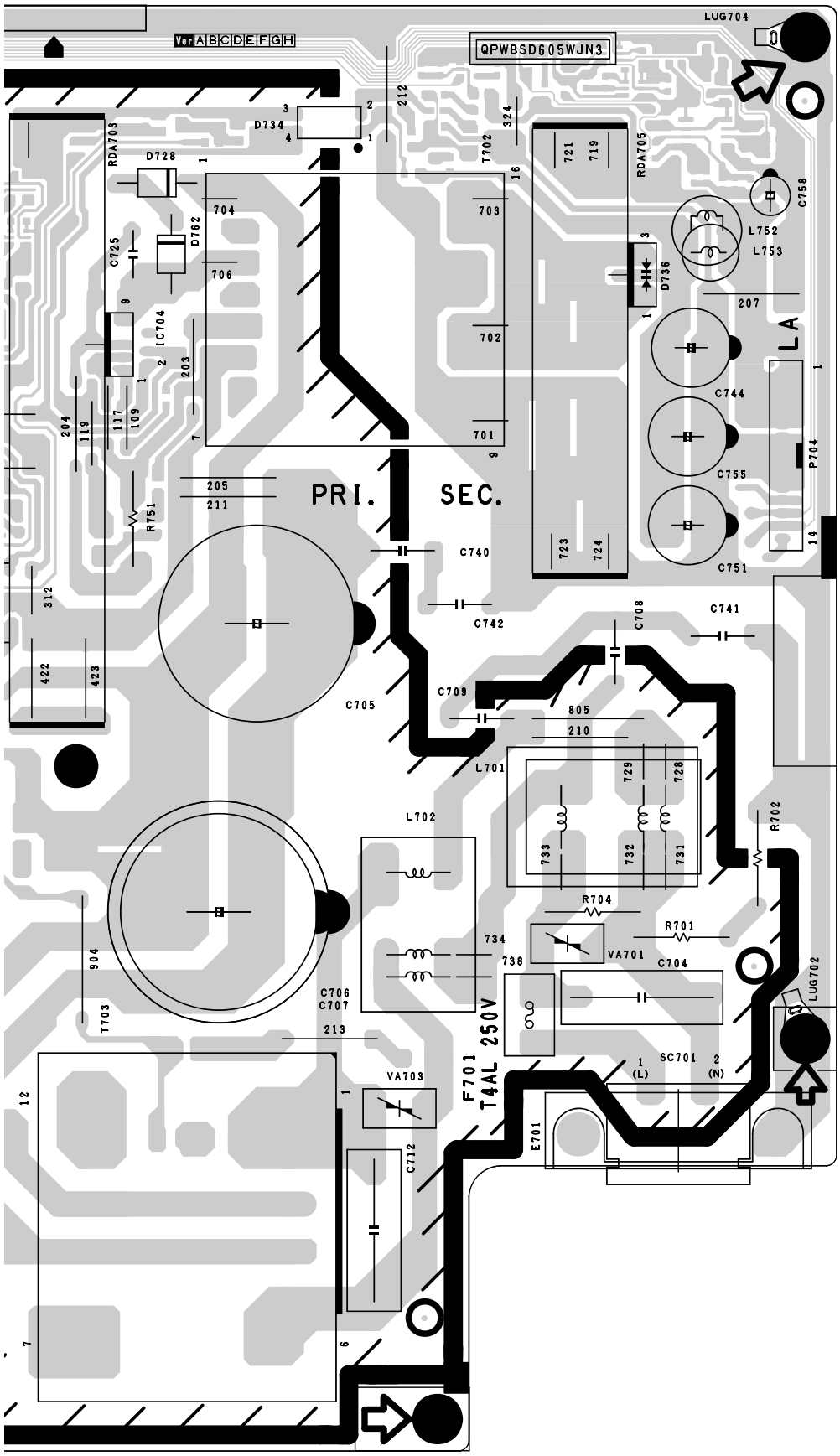



P1101
J1101
J1201
J1301

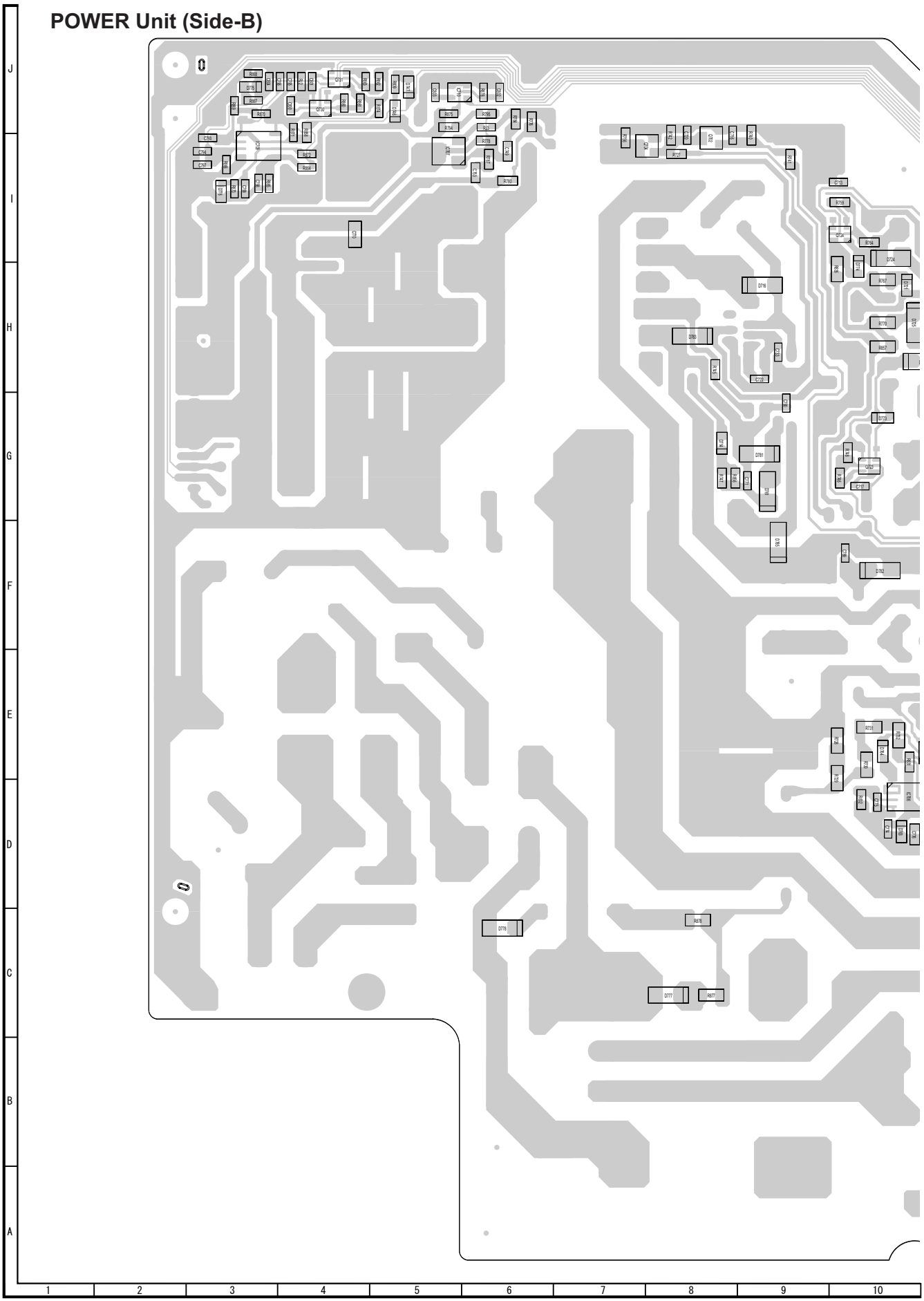
[3] POWER UNIT PRINTED WIRING BOARD (LC-32RA1E/RU)

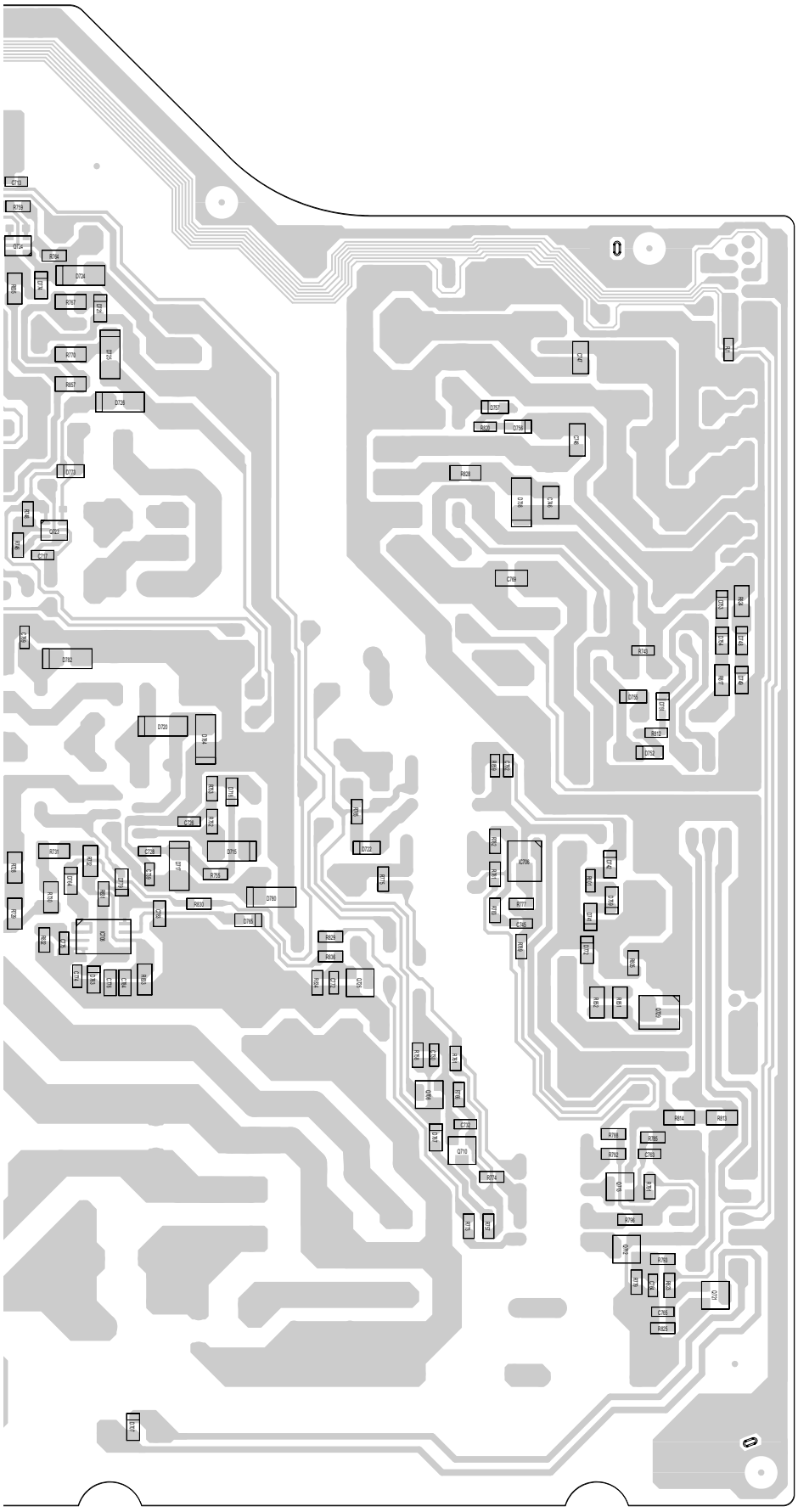
POWER Unit (Side-A)




Ver A B C D E F G H
QPWBSD605WJN3
LUG704
D734
RDA703
D728
D782
C725
IC704
T702
RDA705
C758
L752
L753
D736
207
LA
C744
C755
C751
P704
PRI.
SEC.
C740
C742
C741
C708
C709
C705
805
210
L701
L702
R702
R704
R701
VA701
C704
LUG702
C706
C707
T703
213
VA703
C712
F701
T4AL 250V
SC701
1 (L)
2 (N)
E701
704
706
703
702
701
205
211
204
119
117
109
203
312
422
423
904
12
721
719
723
724
729
728
733
732
731
734
738
324
212

POWER Unit (Side-B)

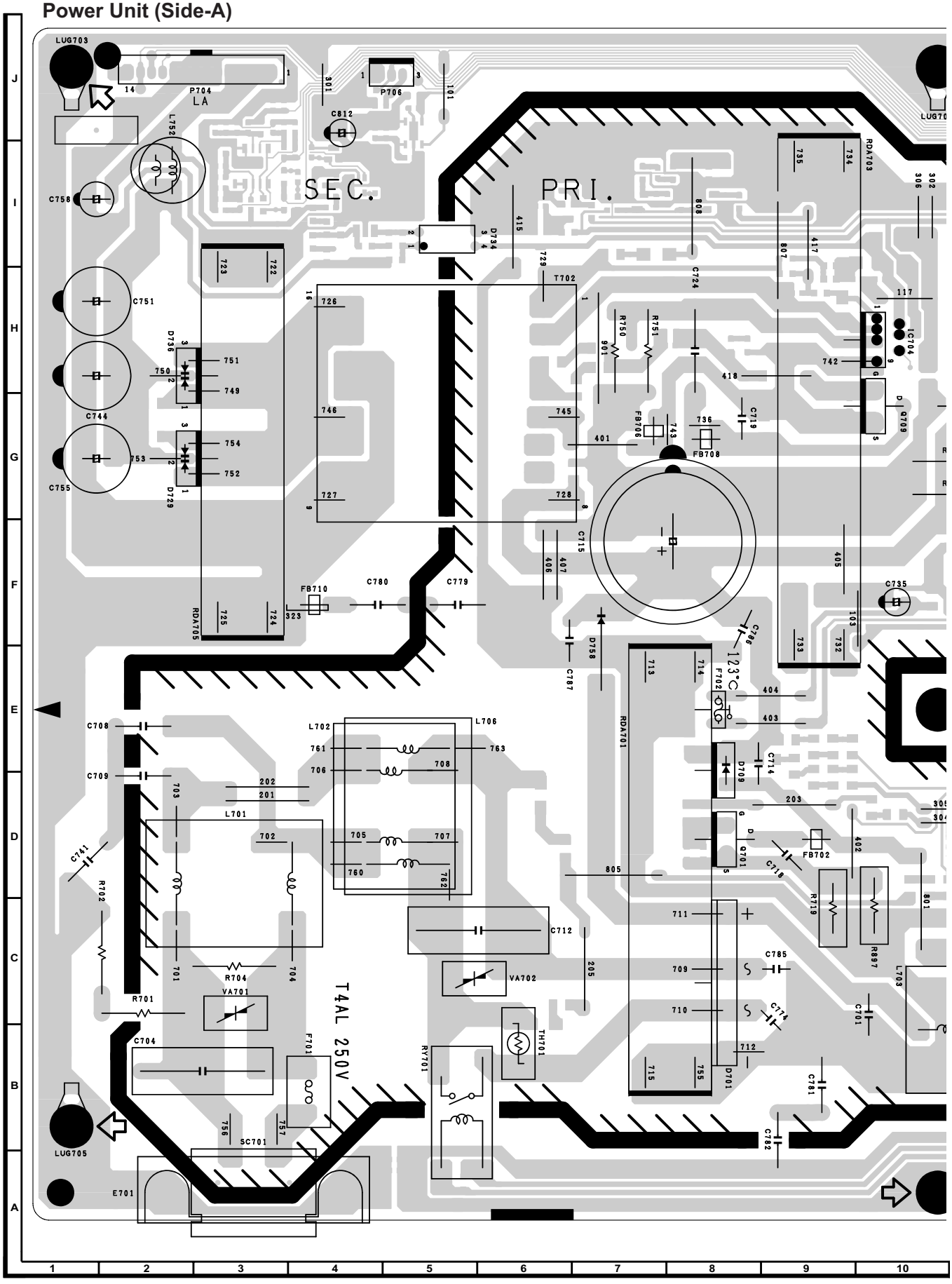


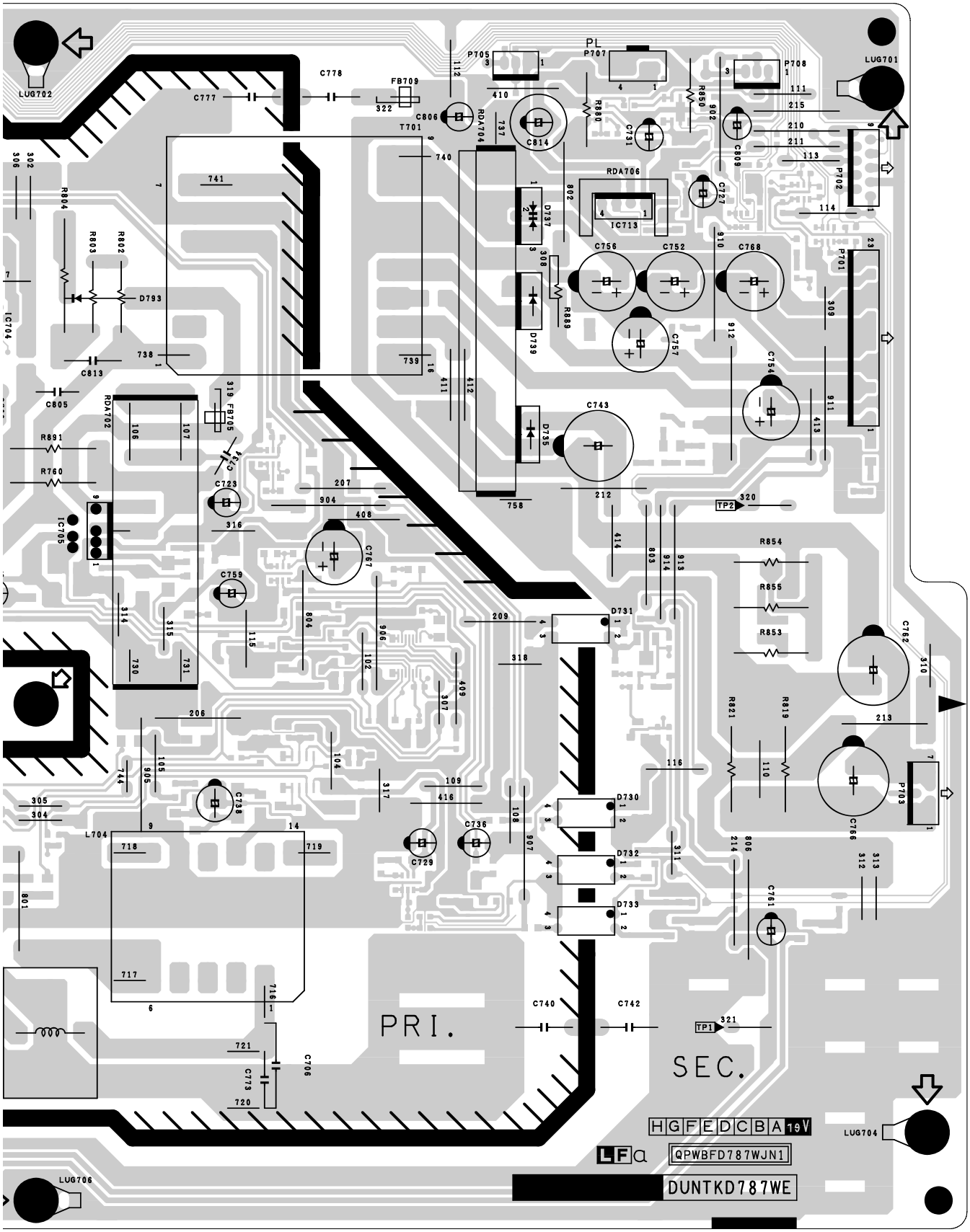


11	12	13	14	15	16	17	18	19

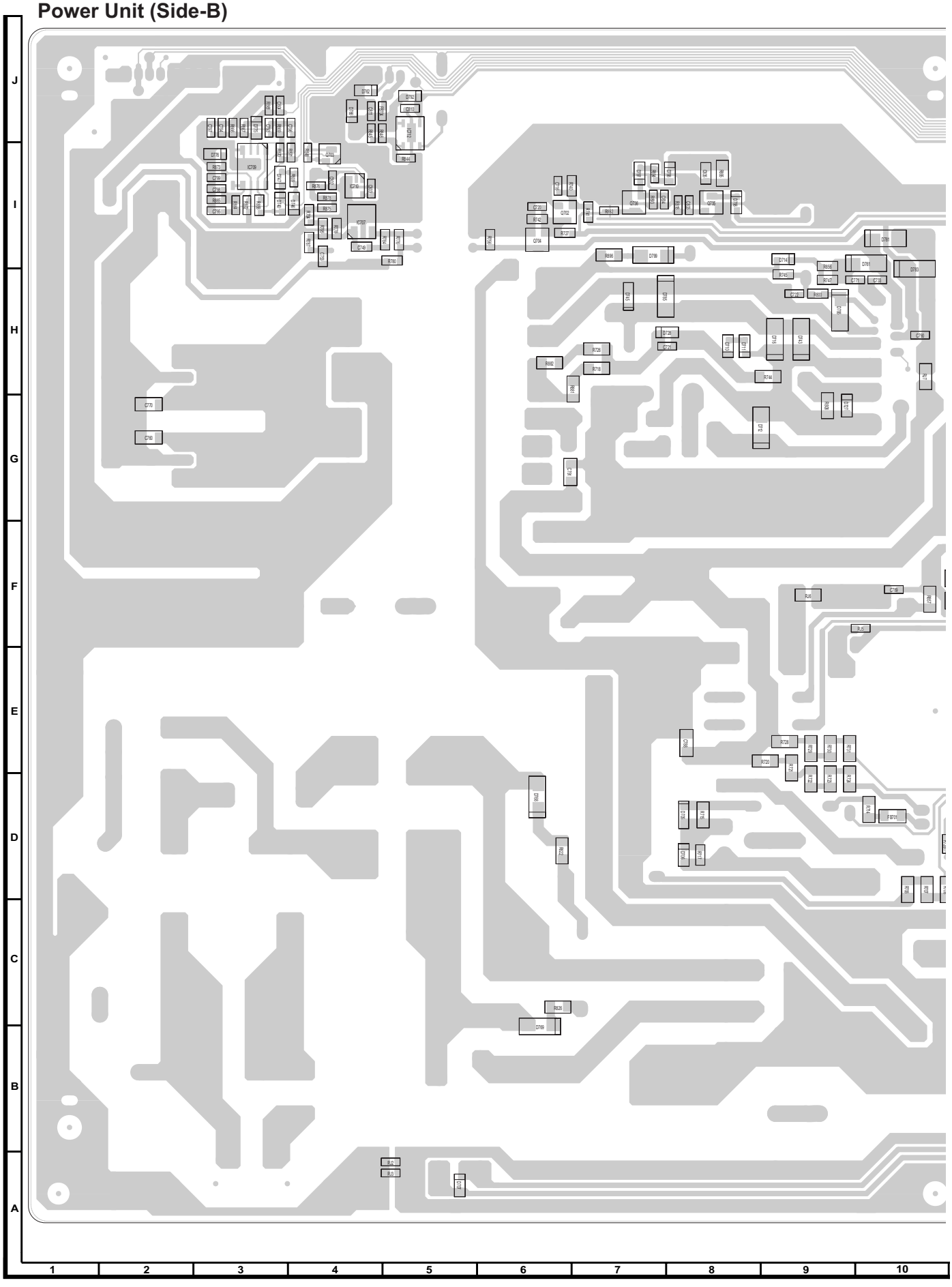
[4] POWER UNIT PRINTED WIRING BOARD (LC-37RA1E/RU)

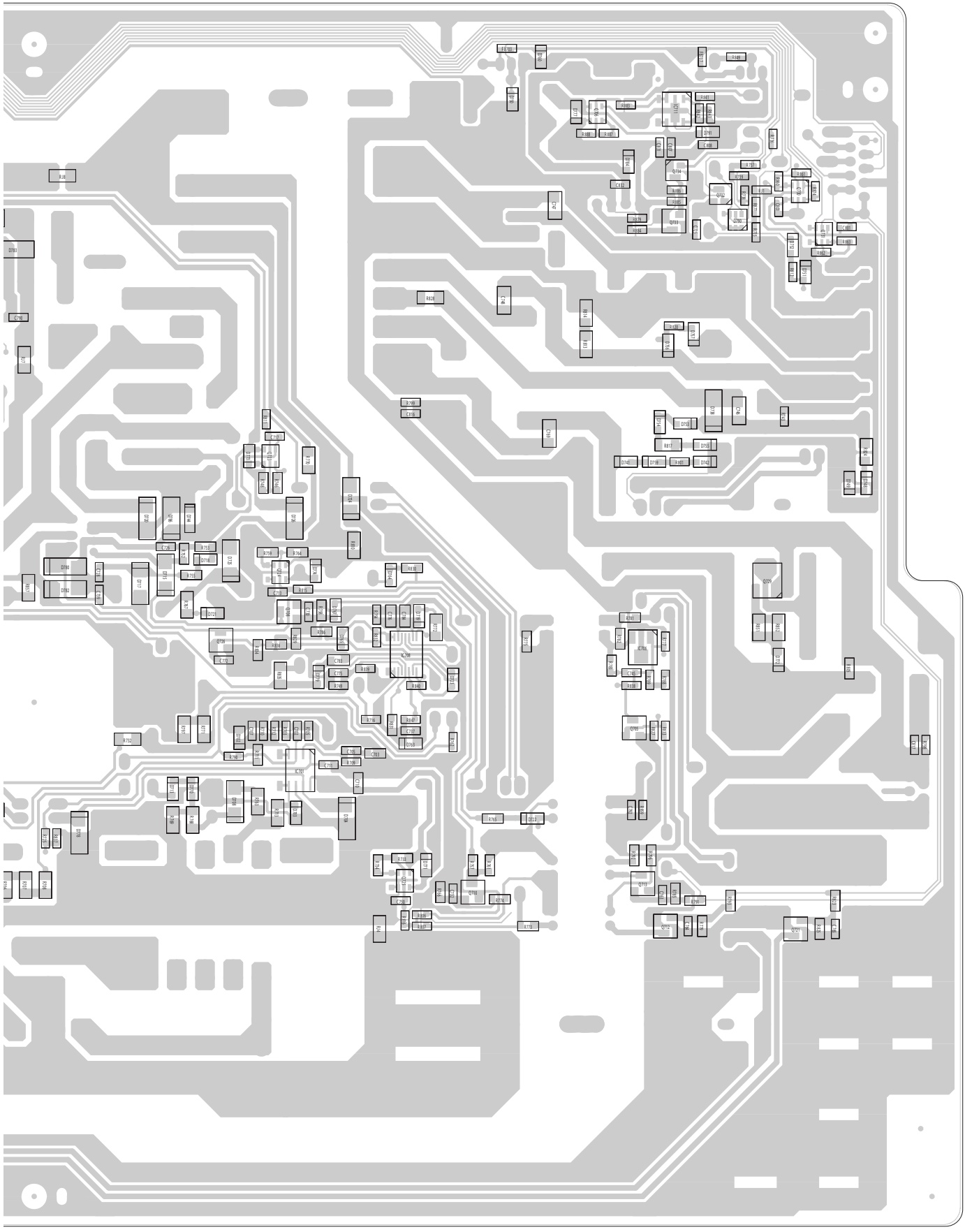
Power Unit (Side-A)




PRI.
SEC.
LUG701
LUG702
LUG704
LUG706
P705
P707
P708
P702
P701
P703
C778
C777
FB709
C806
C814
C731
C809
C727
C756
C752
C768
C757
C754
C743
C762
C766
C761
C813
C805
C723
C759
C767
C738
C729
C736
C740
C742
C706
C773
RDA704
RDA706
RDA702
T701
IC713
IC704
IC705
D737
D739
D735
D731
D730
D732
D733
R804
R803
R802
D793
R891
R760
R880
R859
R889
R854
R855
R853
R821
R819
L704
FB705
TP2
TP1
HGFEDCBA19V
QPWBFD787WJN1
DUNTKD787WE

Power Unit (Side-B)

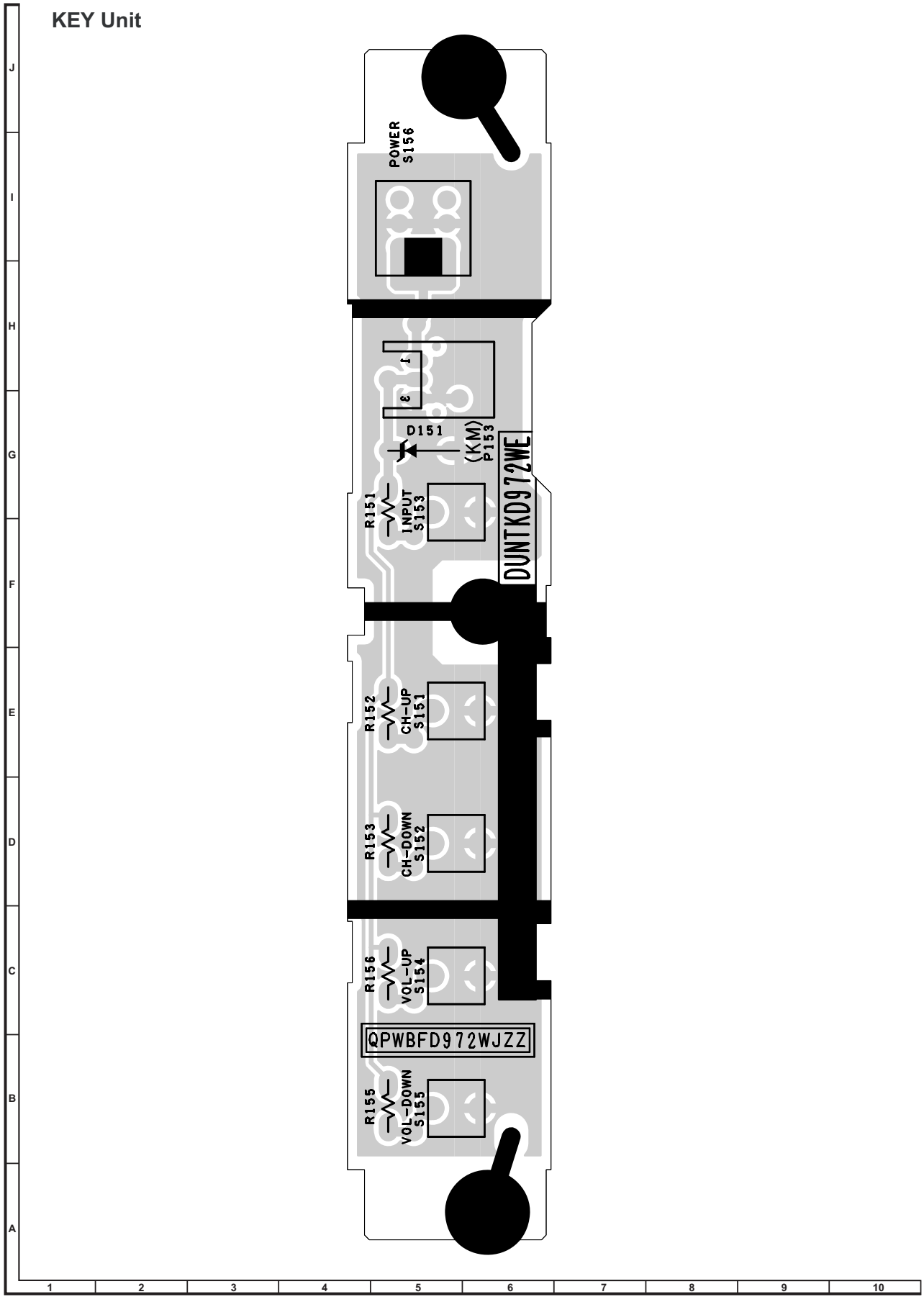




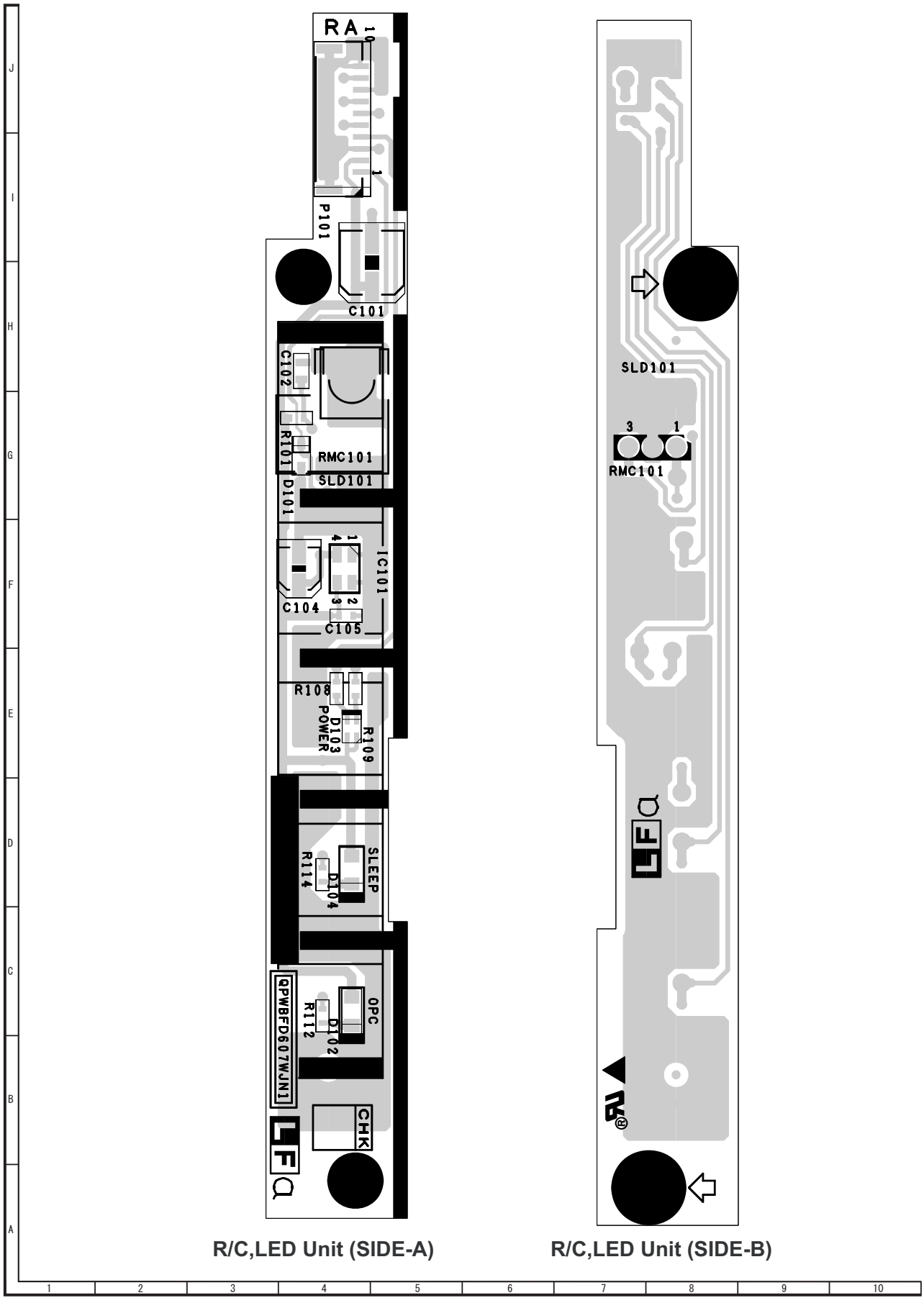
11	12	13	14	15	16	17	18	19	20

[5] KEY UNIT PRINTED WIRING BOARD

KEY Unit



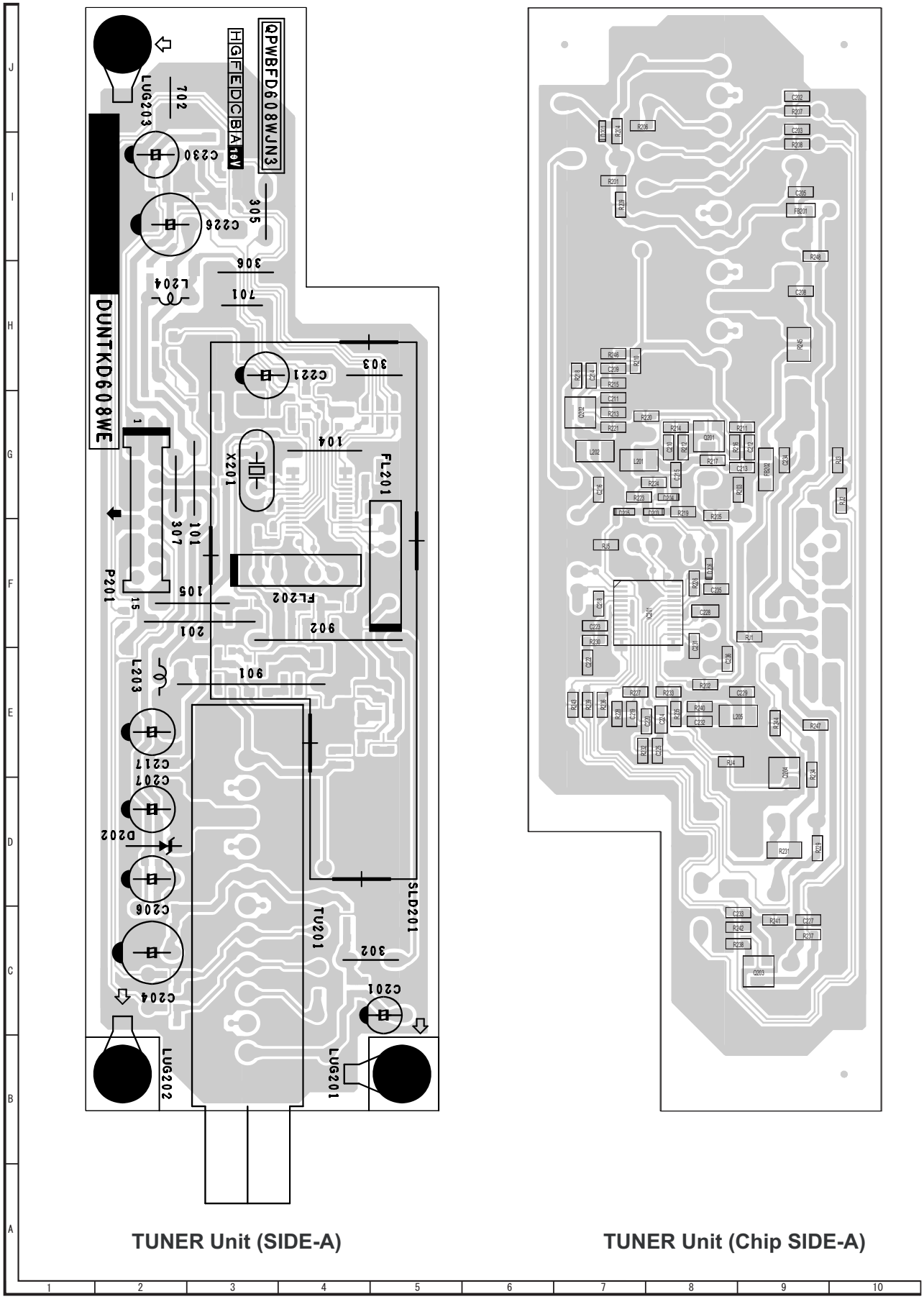
[6] R/C, LED UNIT PRINTED WIRING BOARD



R/C,LED Unit (SIDE-A)

R/C,LED Unit (SIDE-B)

[7] TUNER UNIT PRINTED WIRING BOARD



TUNER Unit (SIDE-A)

TUNER Unit (Chip SIDE-A)

CHAPTER 8. SCHEMATIC DIAGRAM

[1] DESCRIPTION OF SCHEMATIC DIAGRAM

VOLTAGE MEASUREMENT CONDITION:

1. The voltages at test points are measured on exclusive AC adaptor and the stable supply voltage of AC 230V.

   Signals are fed by a colour bar signal generator for servicing purpose and the above voltages are measured with a 20k ohm/V tester.

INDICATION OF RESISTOR & CAPACITOR:

RESISTOR

1. The unit of resistance "Ω" is omitted.

   (K=kΩ=1000 Ω, M=MΩ).

2. All resistors are ± 5%, unless otherwise noted.

   (K= ± 10%, F= ± 1%, D= ± 0.5%)

3. All resistors are 1/16W, unless otherwise noted.

CAPACITOR

1. All capacitors are μF, unless otherwise noted.

   (P=pF=μμF).

2. All capacitors are 50V, unless otherwise noted.

CAUTION:
This circuit diagram is original one, therefore there may be a slight difference from yours.

SAFETY NOTES:

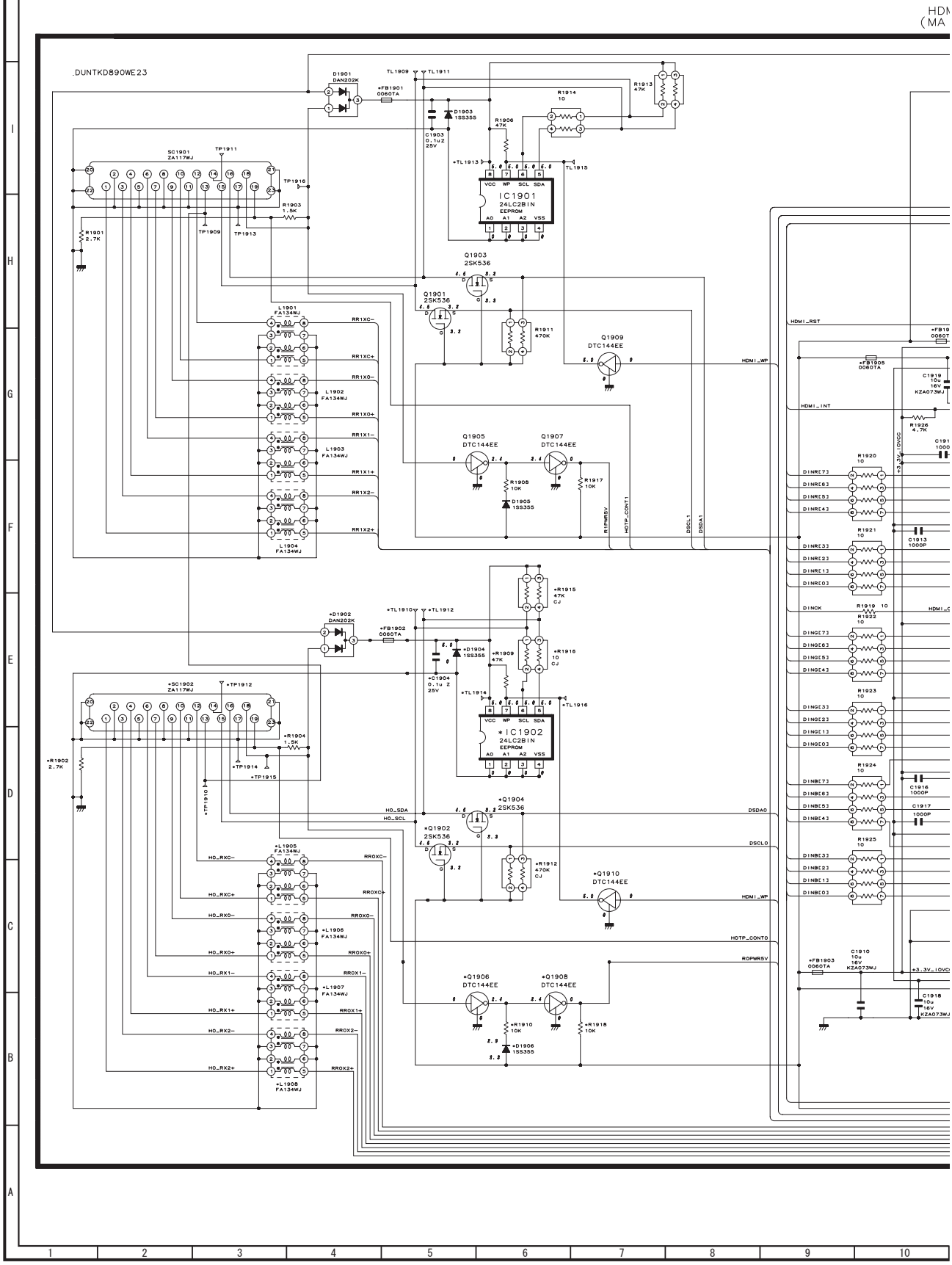
1. DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.
2. SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.

IMPORTANT SAFETY NOTICE:

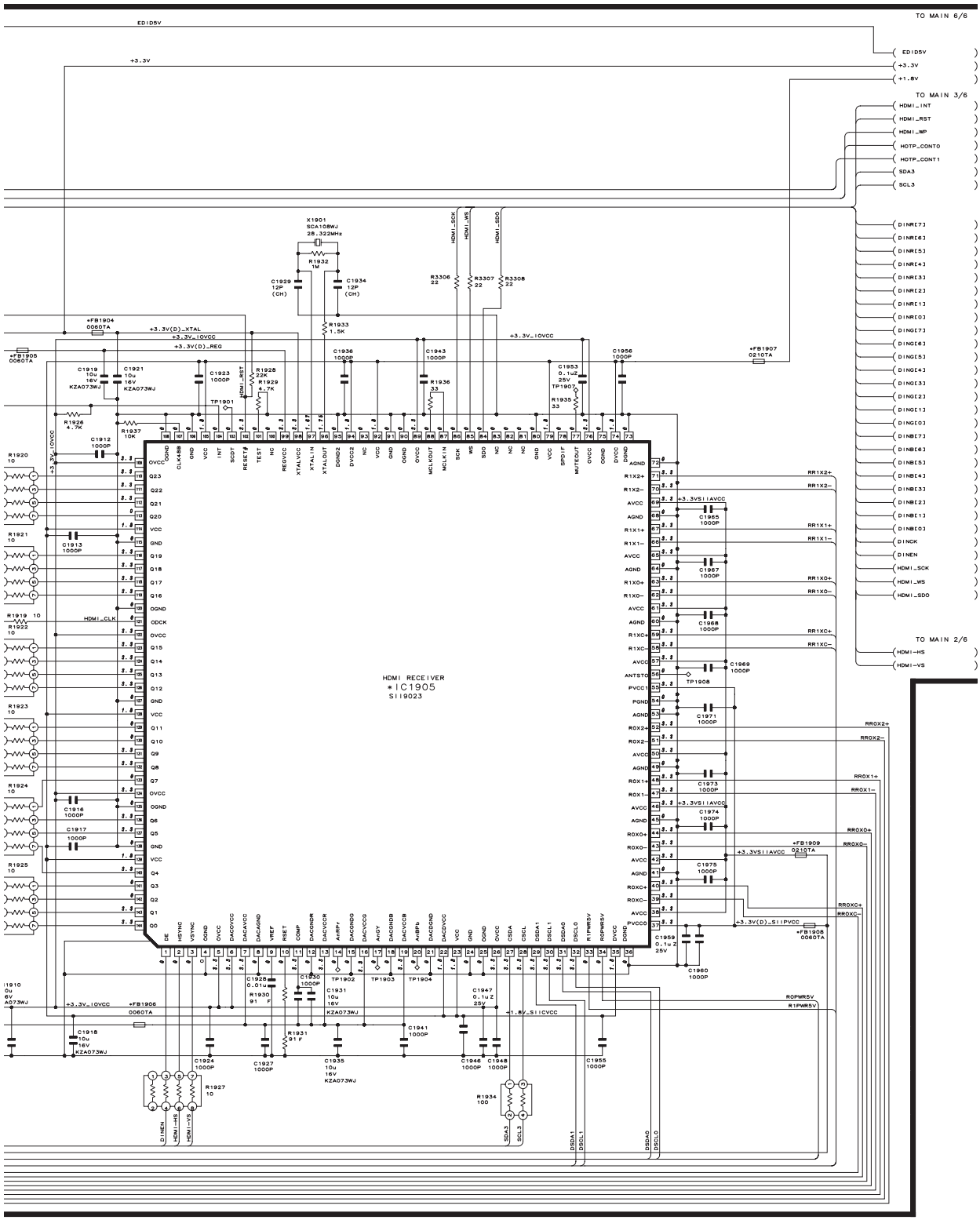
PARTS MARKED WITH " ⚠ " ( ) ARE IMPORTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

[2] SCHEMATIC DIAGRAM

MAIN Unit-1

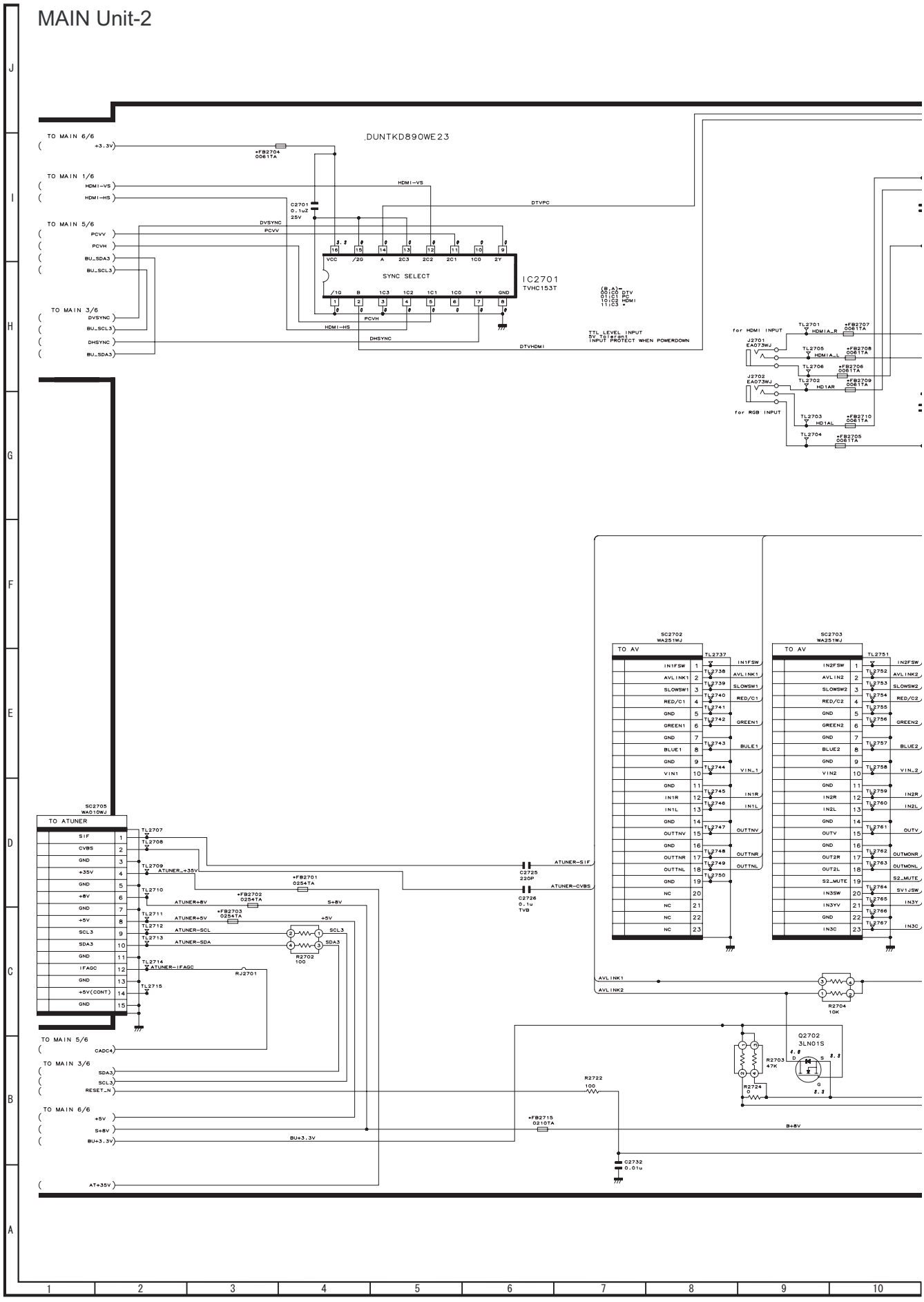


HDMI
(MAIN 1)

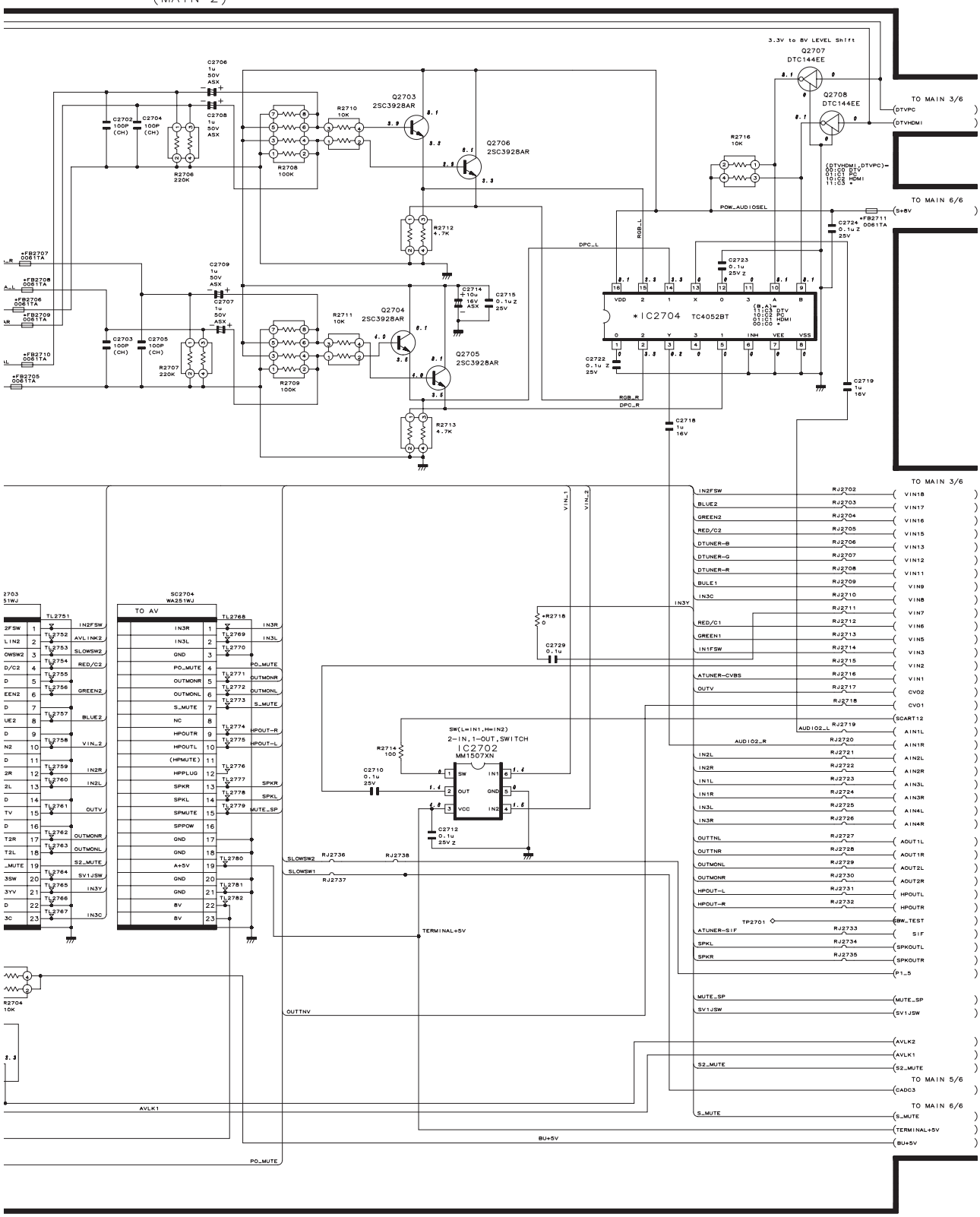


11	12	13	14	15	16	17	18	19

MAIN Unit-2

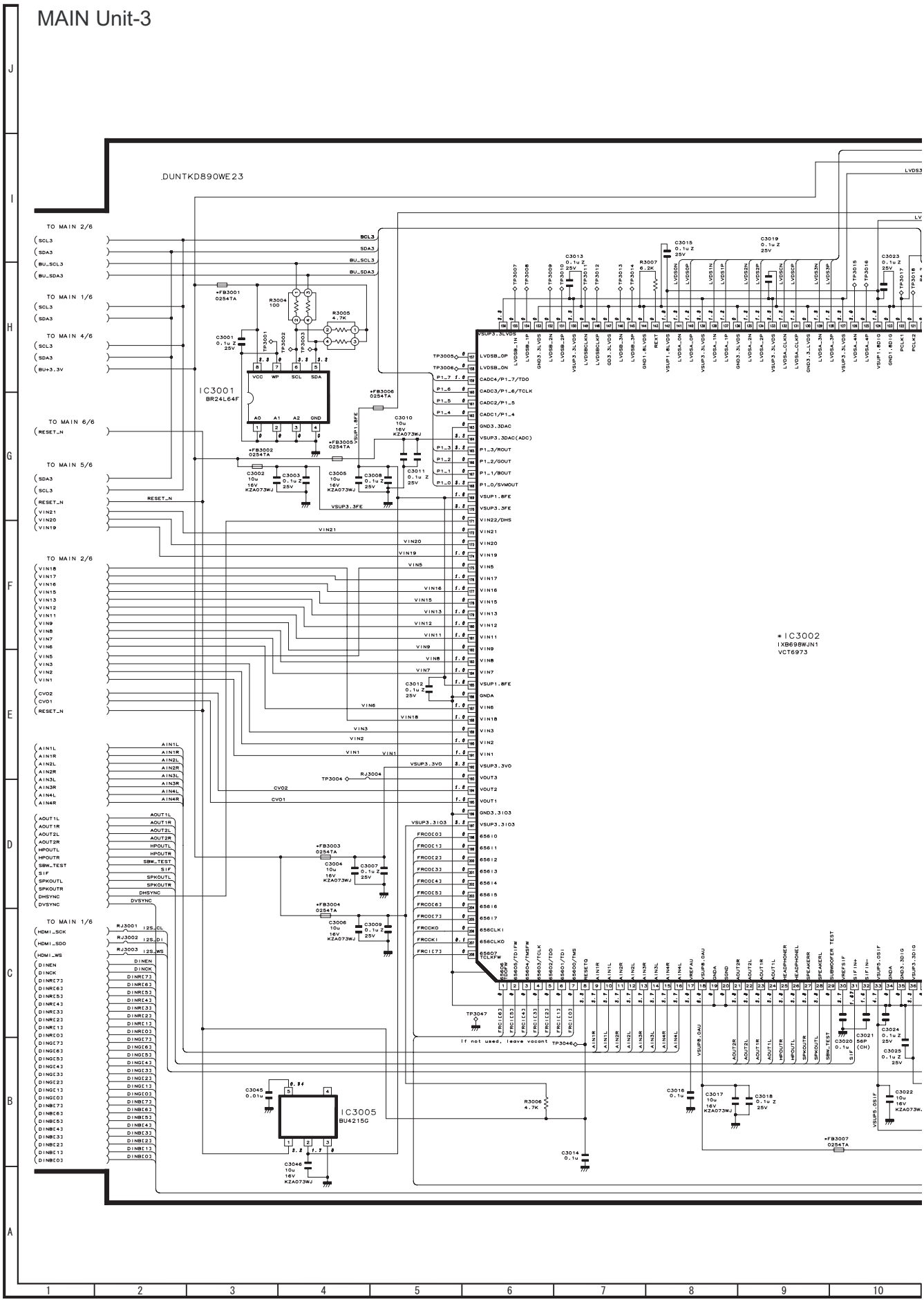

.DUNTKD890WE23
IC2701
TVHC153T
SYNC SELECT
TO MAIN 6/6
TO MAIN 1/6
TO MAIN 5/6
TO MAIN 3/6
HDMI-VS
HDMI-HS
DVSYNC
PCVV
PCVH
BU_SDA3
BU_SCL3
DHSYNC
DTVPC
DTVHDMI
TTL LEVEL INPUT
5V Tolerant
INPUT PROTECT WHEN POWERDOWN
for HDMI INPUT
for RGB INPUT
J2701 EA073WJ
J2702 EA073WJ
SC2702 WA251WJ
SC2703 WA251WJ
SC2705 WA010WJ
TO AV
TO ATUNER
ATUNER-SIF
ATUNER-CVBS
ATUNER-SCL
ATUNER-SDA
ATUNER-IFAGC
AVLINK1
AVLINK2
Q2702 3LN01S
R2722 100
R2724 0
R2703 47K
R2704 10K
C2725 220P
C2726 0.1u TVB
C2732 0.01u
B+8V
BU+3.3V
S+8V
+5V
AT+35V

Signal INOUT
(MAIN 2)

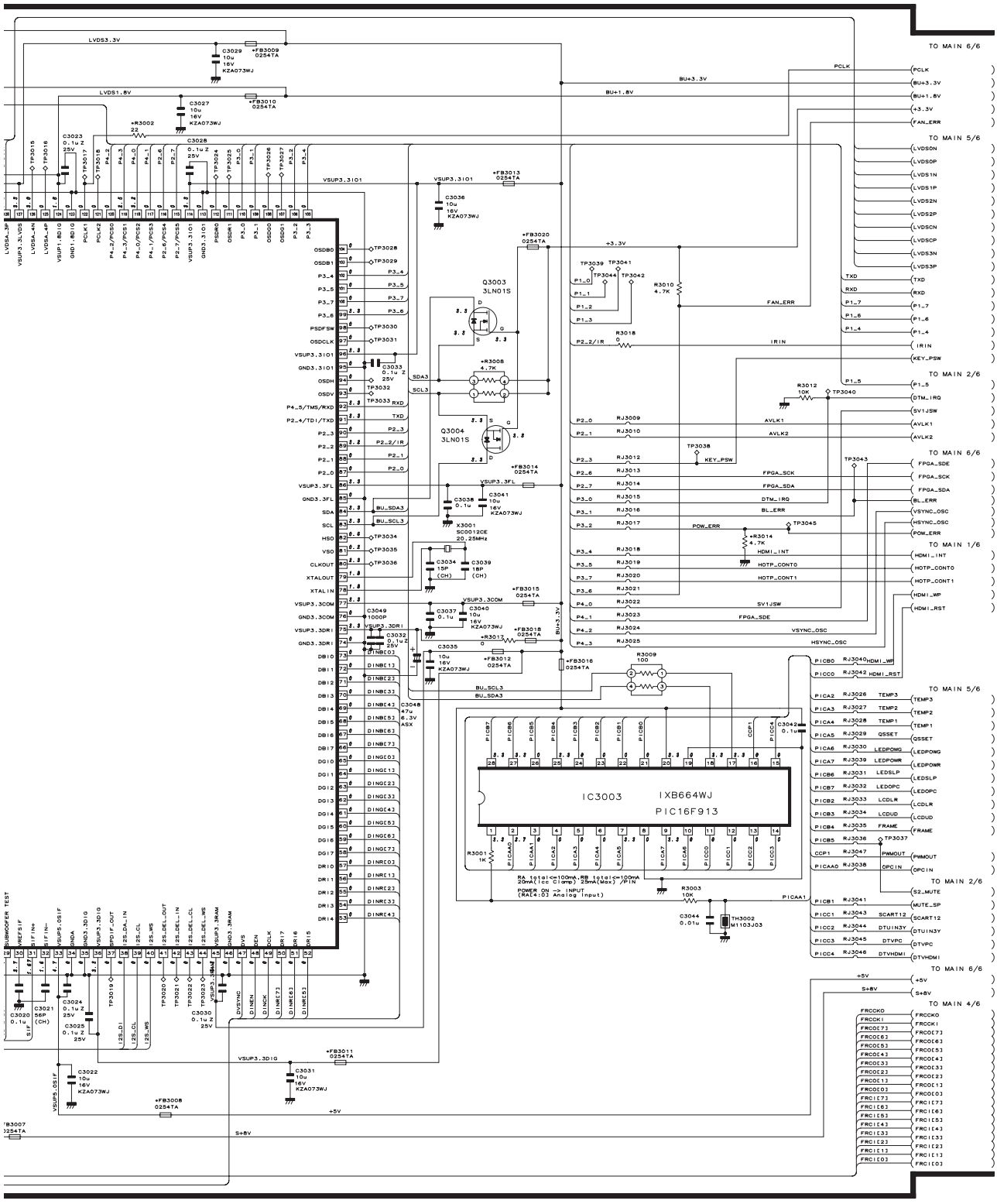


11	12	13	14	15	16	17	18	19

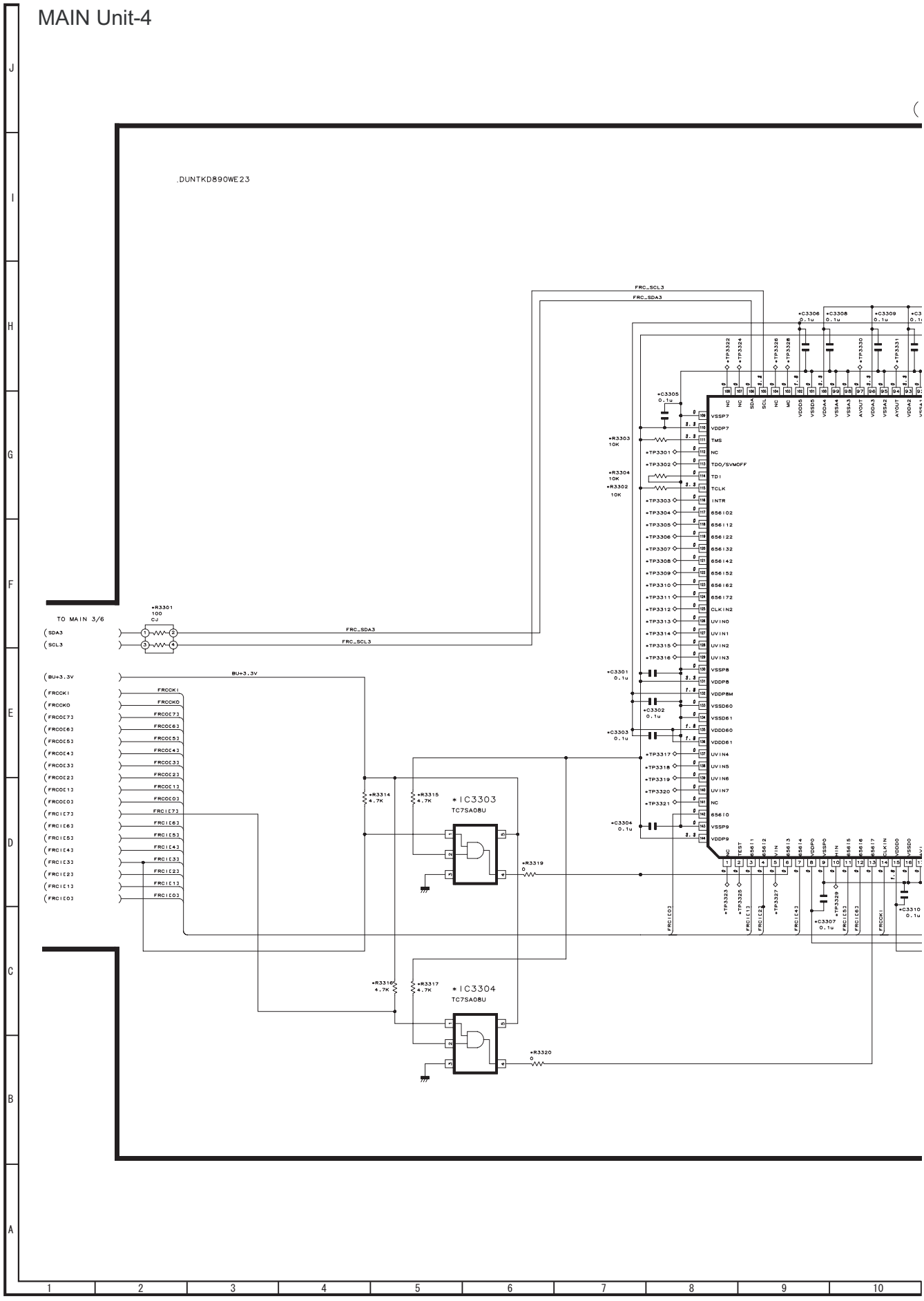
MAIN Unit-3


.DUNTKD890WE23
IC3001
BR24L64F
IC3002
IXB698WJN1
VCT6973
IC3005
BU4215G
If not used, leave vacant
TO MAIN 2/6
TO MAIN 1/6
TO MAIN 4/6
TO MAIN 6/6
TO MAIN 5/6
TO MAIN 2/6
TO MAIN 1/6

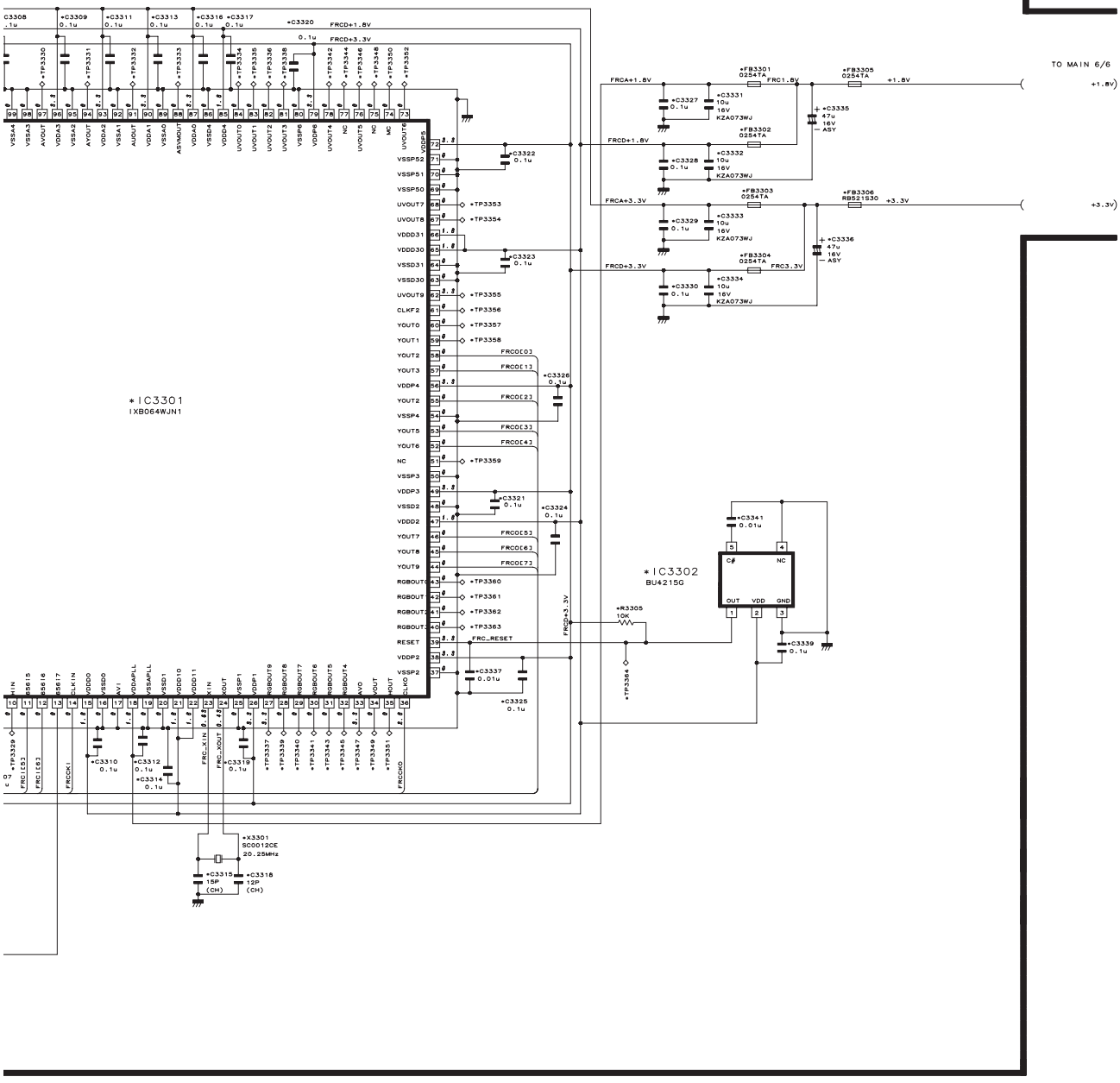
VCTP
(MAIN 3)


IC3003
IXB664WJ
PIC16F913
Q3003
3LN01S
Q3004
3LN01S
X3001
SC0012CE
20.25MHz
TH3002
M1103J03
TO MAIN 6/6
TO MAIN 5/6
TO MAIN 2/6
TO MAIN 1/6
TO MAIN 4/6
LVDS3.3V
LVDS1.8V
VSUP3.3IO1
VSUP3.3FL
VSUP3.3COM
VSUP3.3DRI
VSUP3.3DIG
VSUP5.OSIF
BU+3.3V
BU+1.8V
+3.3V
+5V
S+8V
PCLK
FAN_ERR
IRIN
KEY_PSW
TXD
RXD
LVDS0N
LVDS0P
LVDS1N
LVDS1P
LVDS2N
LVDS2P
LVDSCN
LVDSCP
LVDS3N
LVDS3P
DTM_IRQ
SV1JSW
AVLK1
AVLK2
FPGA_SDE
FPGA_SCK
FPGA_SDA
BL_ERR
VSYNC_OSC
HSYNC_OSC
POW_ERR
HDMI_INT
HOTP_CONT0
HOTP_CONT1
HDMI_WP
HDMI_RST
TEMP3
TEMP2
TEMP1
QSSET
LEDPOWG
LEDPOWR
LEDSLP
LEDOPC
LCDLR
LCDUD
FRAME
PWMOUT
OPCIN
S2_MUTE
MUTE_SP
SCART12
DTUIN3Y
DTVPC
DTVHDMI
BU_SCL3
BU_SDA3
SDA3
SCL3
DINBE13
DINBE23
DINBE33
DINBE43
DINBE53
DINBE63
DINBE73
DINGE03
DINGE13
DINGE23
DINGE33
DINGE43
DINGE53
DINGE63
DINGE73
DINRE03
DINRE13
DINRE23
DINRE33
DINRE43
DINRE53
DINRE63
DINRE73
DINBO03
DINBO13
DINBO23
DINBO33
DINBO43
DINBO53
DINBO63
DINBO73
DINGO03
DINGO13
DINGO23
DINGO33
DINGO43
DINGO53
DINGO63
DINGO73
DINRO03
DINRO13
DINRO23
DINRO33
DINRO43
DINRO53
DINRO63
DINRO73
FRCCKO
FRCCKI
FRCOE73
FRCOE63
FRCOE53
FRCOE43
FRCOE33
FRCOE23
FRCOE13
FRCOE03
FRCIE73
FRCIE63
FRCIE53
FRCIE43
FRCIE33
FRCIE23
FRCIE13
FRCIE03

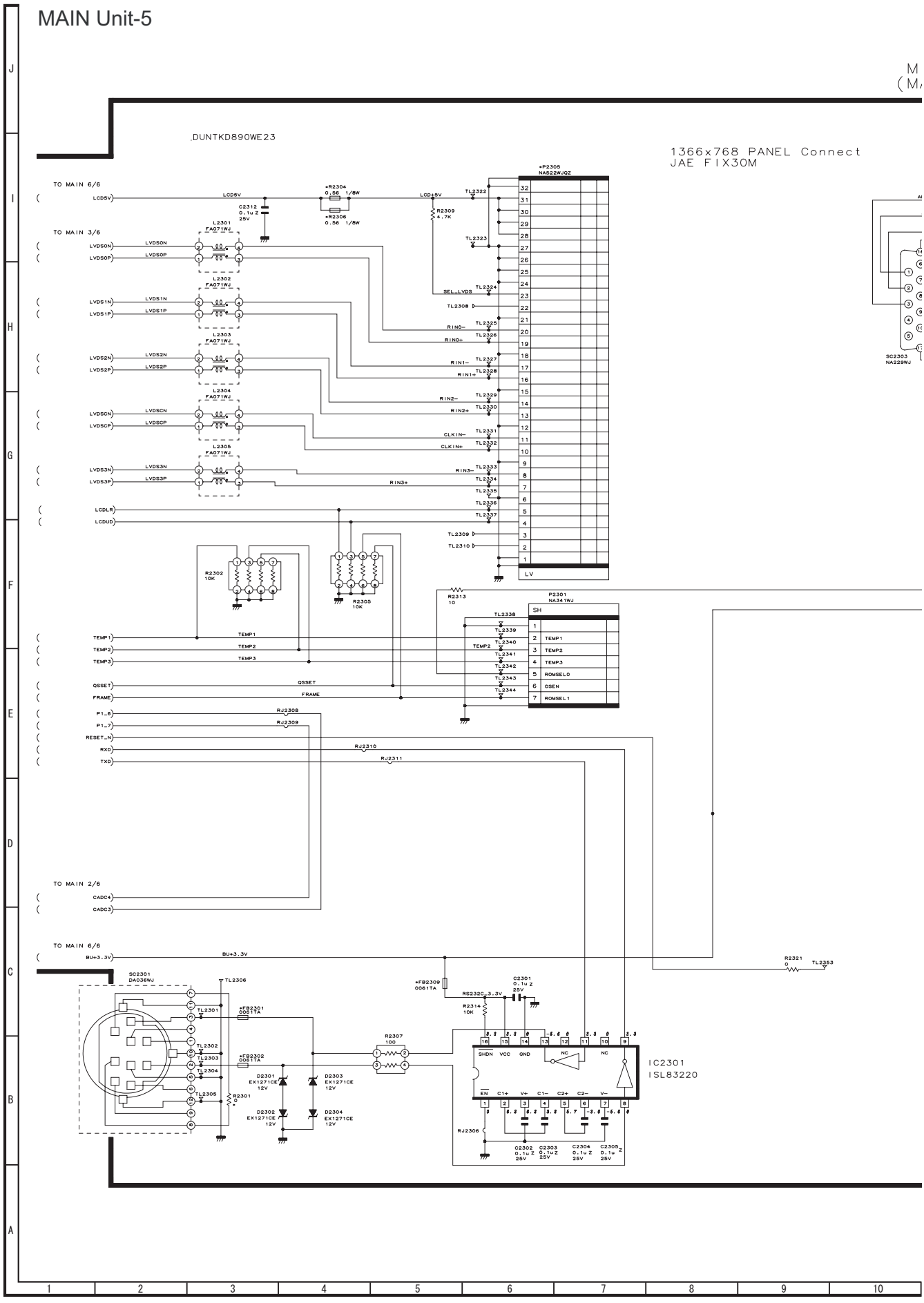
MAIN Unit-4


.DUNTKD890WE23
FRC_SCL3
FRC_SDA3
TO MAIN 3/6
SDA3
SCL3
BU+3.3V
FRCCKI
FRCCKO
*IC3303
TC7SA08U
*IC3304
TC7SA08U
VSSP7
VDDP7
TMS
TDO/SVMOFF
TDI
TCLK
INTR
CLKIN2
UVIN0
UVIN1
UVIN2
UVIN3
VSSP8
VDDP8
VDDP8M
VSSD60
VSSD61
VDDD60
VDDD61
UVIN4
UVIN5
UVIN6
UVIN7
VSSP9
VDDP9

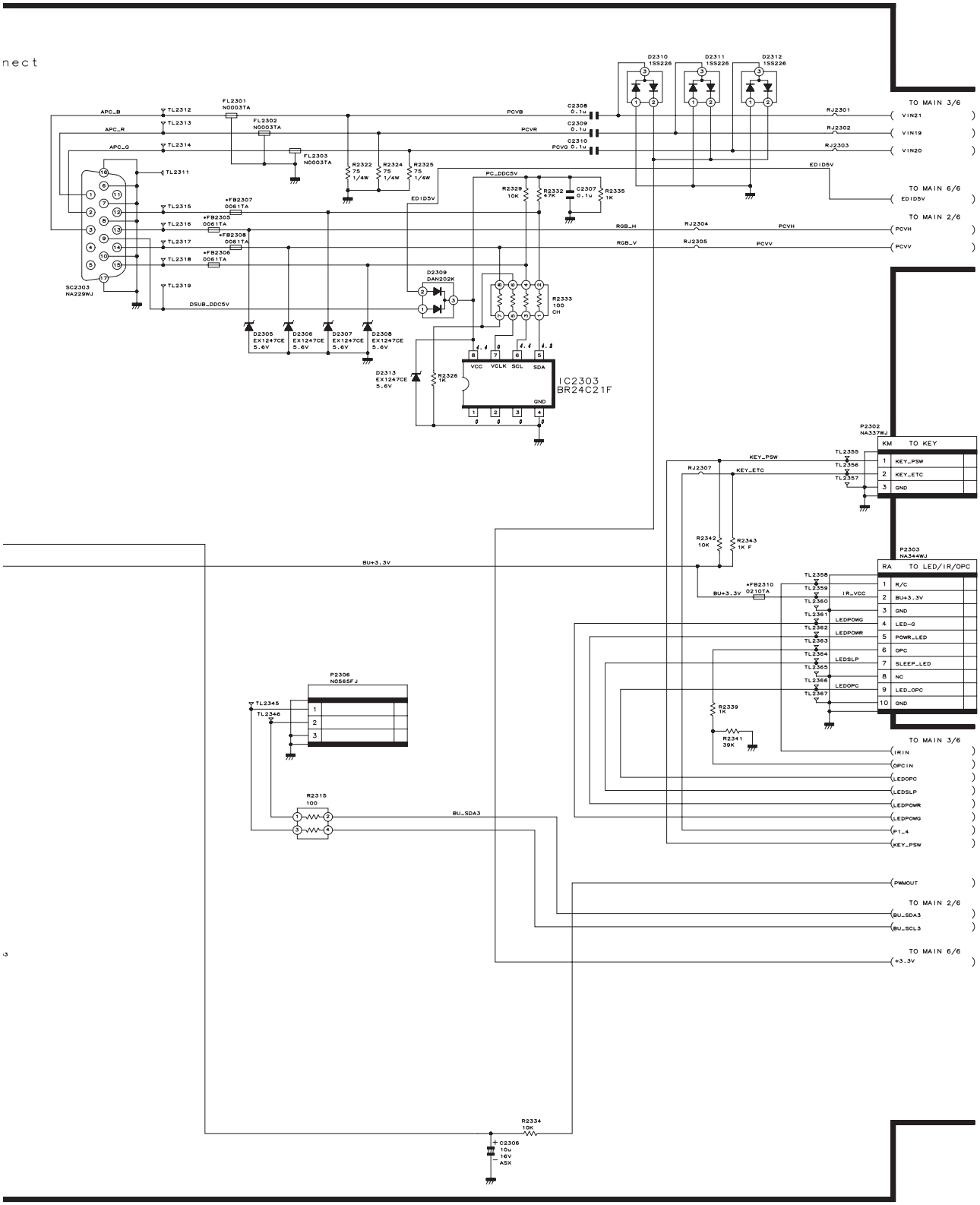
FRC
(MAIN 4)


TO MAIN 6/6
*IC3301
IXB064WJN1
*IC3302
BU4215G
*X3301
SC0012CE
20.25MHz
FRCD+1.8V
FRCD+3.3V
FRCA+1.8V
FRCA+3.3V
FRC_RESET
+1.8V
+3.3V

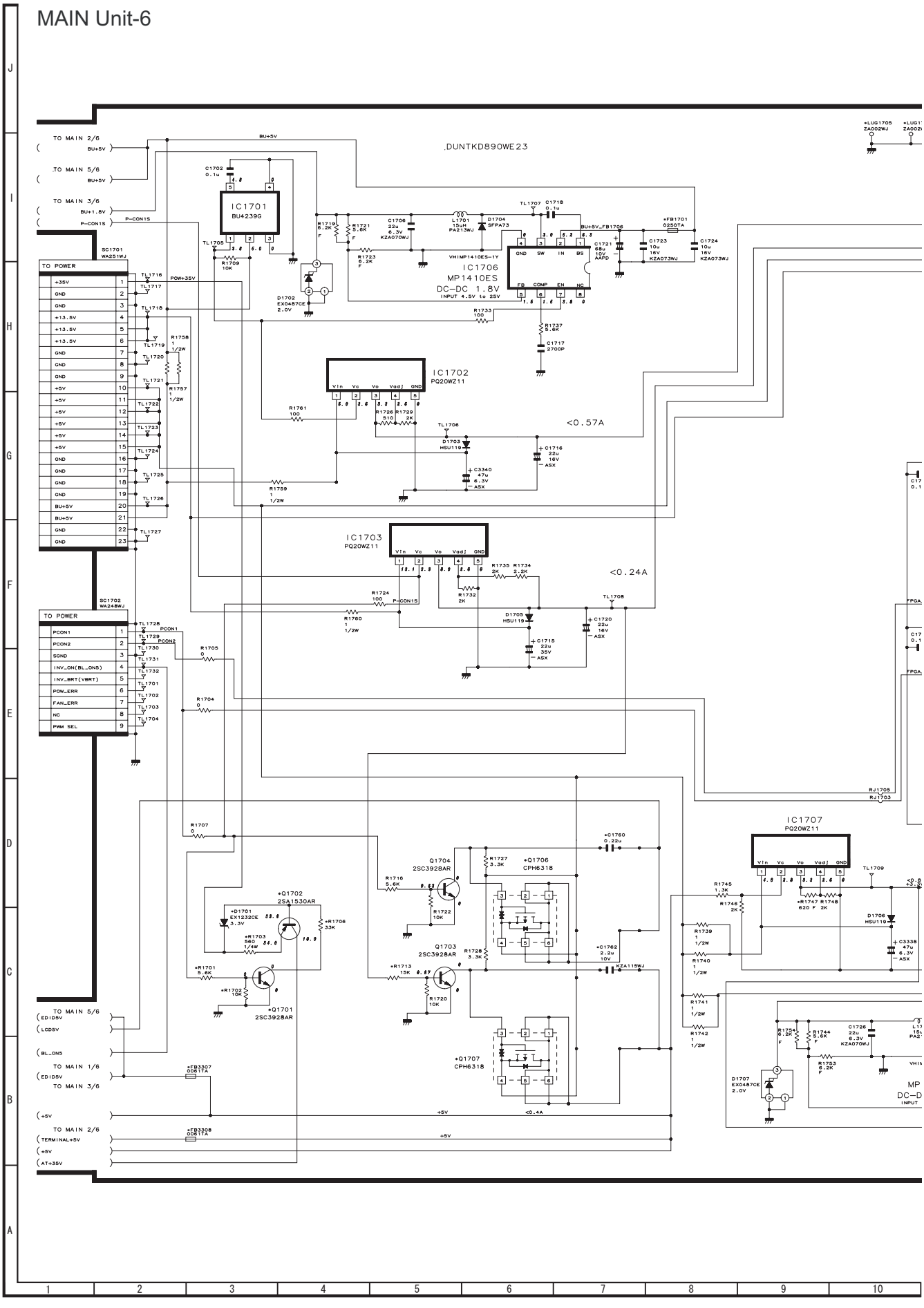
MAIN Unit-5


.DUNTKD890WE23
1366x768 PANEL Connect
JAE FIX30M
*P2305
NAS22WJGZ
TO MAIN 6/6
TO MAIN 3/6
TO MAIN 2/6
LCD5V
*R2304 0.56 1/8W
*R2306 0.56 1/8W
C2312 0.1u Z 25V
R2309 4.7K
L2301 FA071WJ
L2302 FA071WJ
L2303 FA071WJ
L2304 FA071WJ
L2305 FA071WJ
LVDS0N
LVDS0P
LVDS1N
LVDS1P
LVDS2N
LVDS2P
LVDSCN
LVDSCP
LVDS3N
LVDS3P
SEL_LVDS
RIN0-
RIN0+
RIN1-
RIN1+
RIN2-
RIN2+
CLKIN-
CLKIN+
RIN3-
RIN3+
LCDLR
LCDUD
R2302 10K
R2305 10K
R2313 10
P2301 NA341WJ
SH
TEMP1
TEMP2
TEMP3
ROMSEL0
OSEN
ROMSEL1
QSSET
FRAME
P1_6
P1_7
RESET_N
RXD
TXD
RJ2308
RJ2309
RJ2310
RJ2311
CADC4
CADC3
BU+3.3V
SC2301 DA036WJ
*FB2301 0061TA
*FB2302 0061TA
*FB2309 0061TA
R2307 100
R2301 0
D2301 EX1271CE 12V
D2302 EX1271CE 12V
D2303 EX1271CE 12V
D2304 EX1271CE 12V
C2301 0.1u Z 25V
R2314 10K
RS232C_3.3V
R2321 0
IC2301
ISL83220
SHDN
VCC
GND
NC
EN
C1+
V+
C1-
C2+
C2-
V-
RJ2306
C2302 0.1u Z 25V
C2303 0.1u Z 25V
C2304 0.1u Z 25V
C2305 0.1u Z 25V
SC2303 NA229WJ

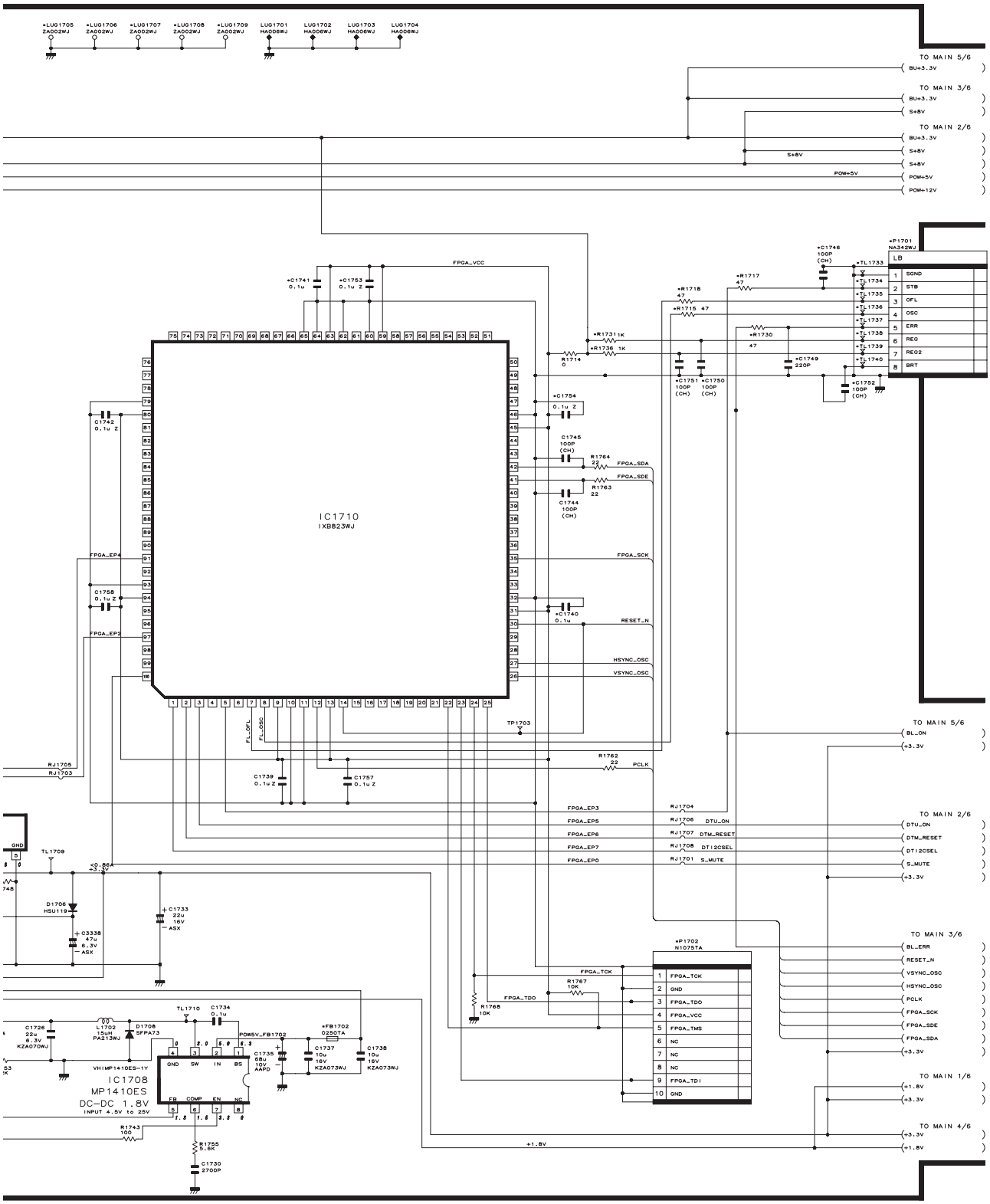
MISC
(MAIN 5)


TO MAIN 3/6
TO MAIN 6/6
TO MAIN 2/6
TO MAIN 3/6
TO MAIN 6/6
TO KEY
TO LED/IR/OPC
IC2303
BR24C21F
SC2303
NA229WJ
P2306
N0565FJ
P2352
NA337WJ
P2303
NA344WJ
D2309
DAN202K
D2305
EX1247CE
5.6V
D2306
EX1247CE
5.6V
D2307
EX1247CE
5.6V
D2308
EX1247CE
5.6V
D2313
EX1247CE
5.6V
D2310
1SS226
D2311
1SS226
D2312
1SS226
APC_B
APC_R
APC_G
PCVB
PCVR
PCVG
EDID5V
DSUB_DDC5V
PC_DDC5V
RGB_H
RGB_V
PCVH
PCVV
KEY_PSW
KEY_ETC
BU+3.3V
BU_SDA3
IR_VCC
LEDPOWG
LEDPOWR
LEDSLP
LEDOPC
VIN21
VIN19
VIN20
IRIN
OPCIN
LEDOPC
LEDSLP
LEDPOWR
LEDPOWG
P1-4
KEY_PSW
PWMOUT
BU_SDA3
BU_SCL3
+3.3V

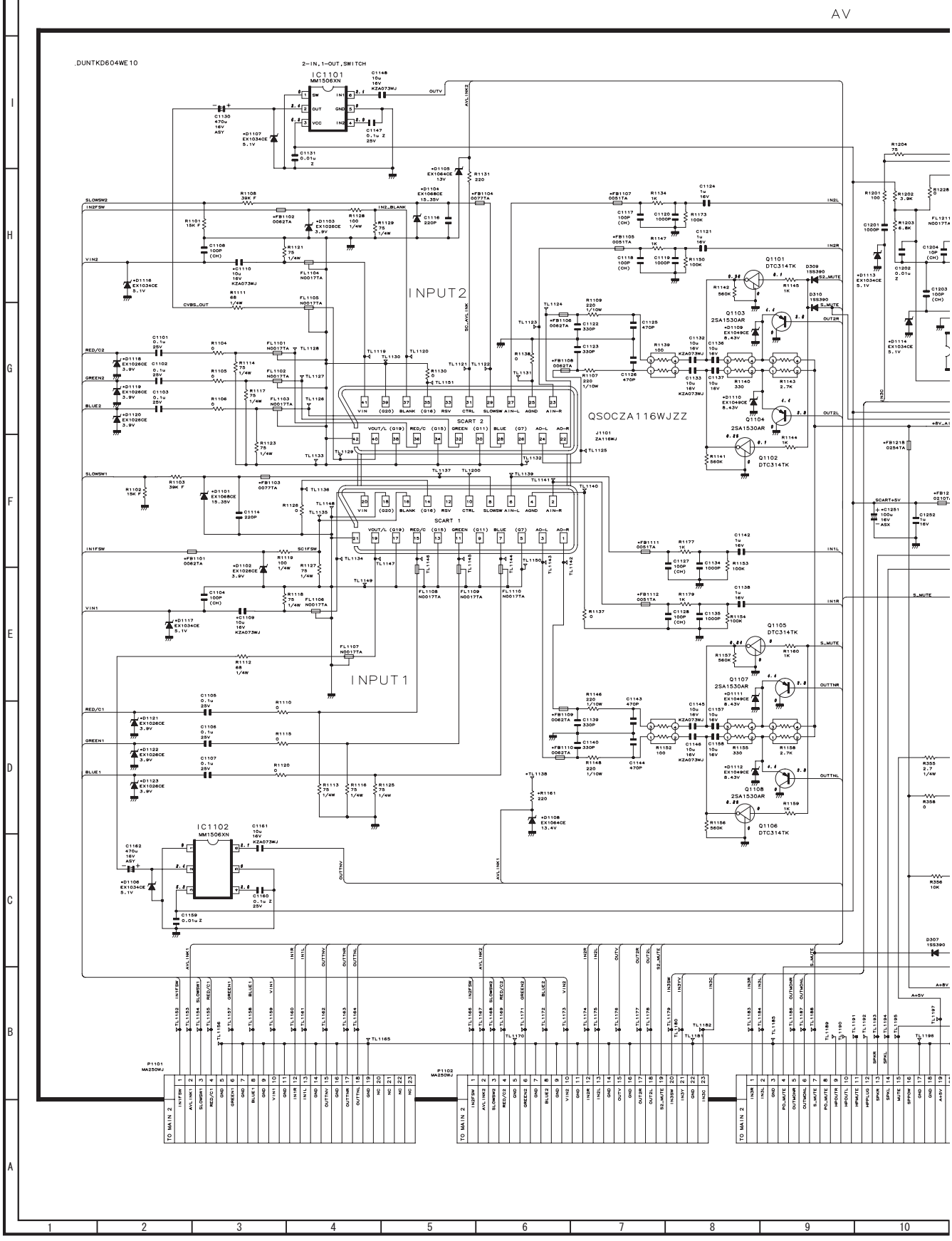
MAIN Unit-6

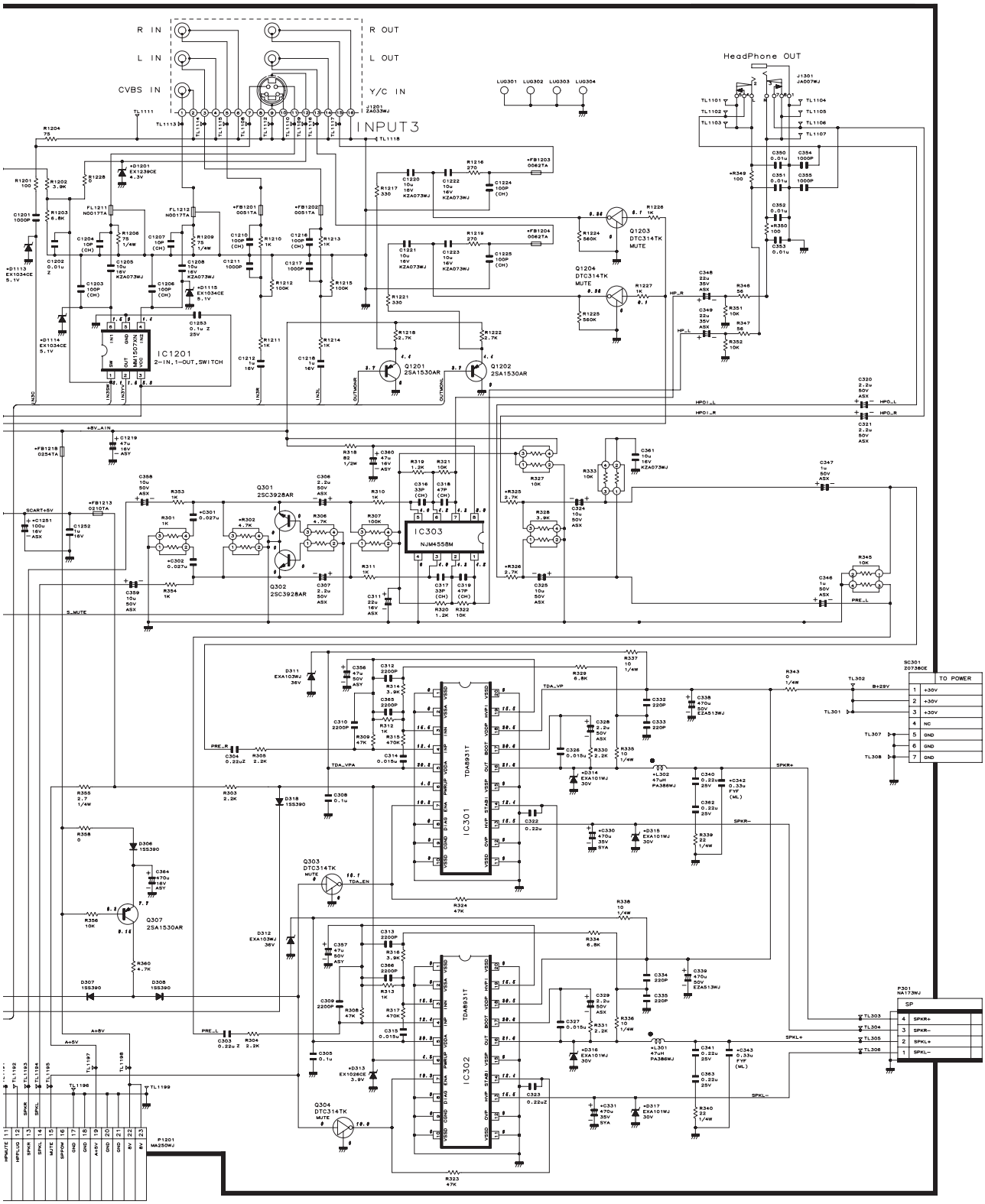

.DUNTKD890WE23
IC1701
BU4239G
IC1706
MP1410ES
DC–DC 1.8V
INPUT 4.5V to 25V
IC1702
PQ20WZ11
IC1703
PQ20WZ11
IC1707
PQ20WZ11
SC1701
WA251WJ
TO POWER
SC1702
WA248WJ
TO POWER
<0.57A
<0.24A
<0.4A
Q1704
2SC3928AR
Q1703
2SC3928AR
*Q1701
2SC3928AR
*Q1702
2SA1530AR
*Q1706
CPH6318
*Q1707
CPH6318
TO MAIN 2/6
TO MAIN 5/6
TO MAIN 3/6
TO MAIN 1/6
TO MAIN 2/6

Power DC–DC
(MAIN 6)



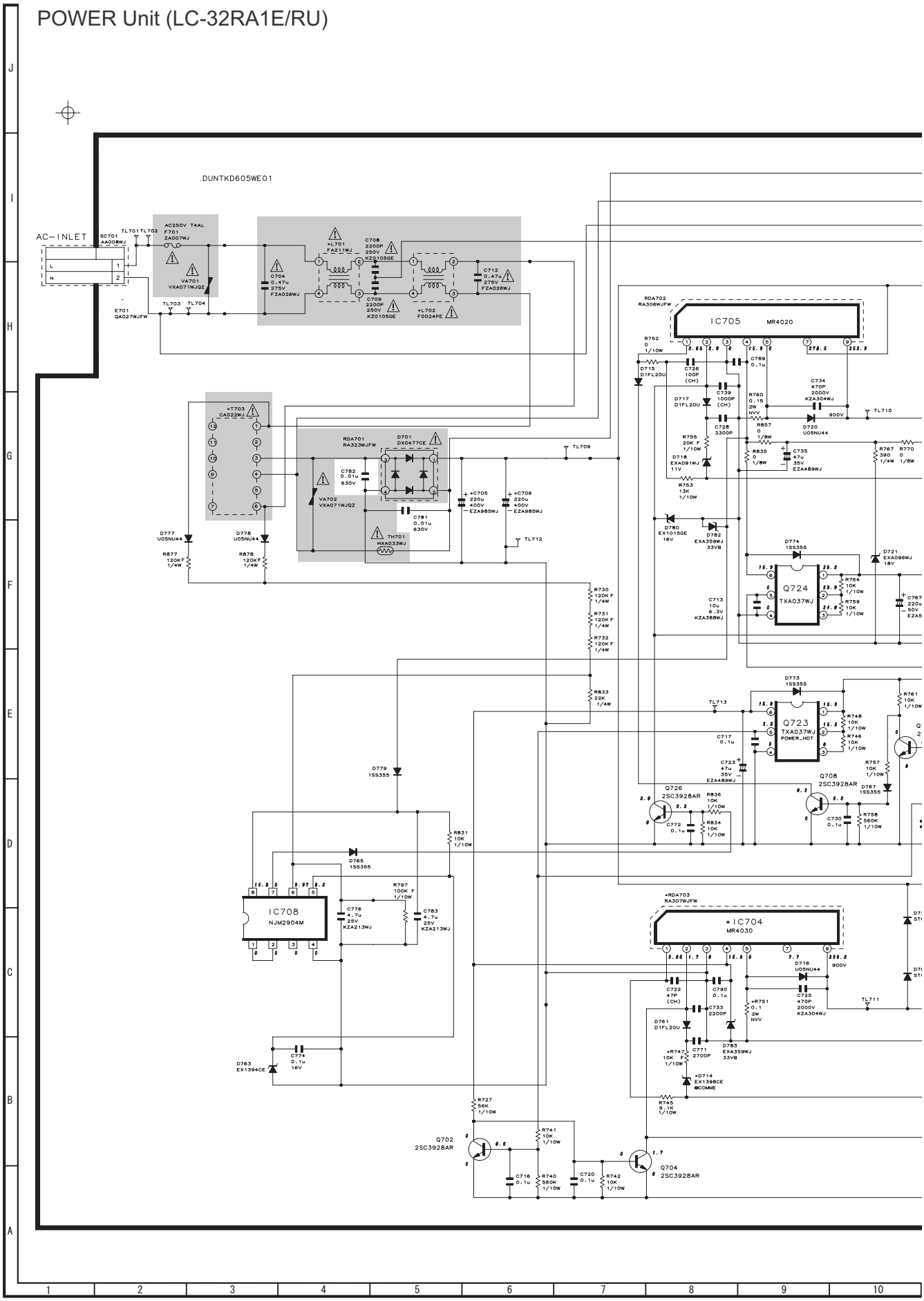
AV Unit


AV
.DUNTKD604WE10
2-IN,1-OUT,SWITCH
IC1101
MM1506XN
IC1102
MM1506XN
INPUT2
INPUT1
QSOCZA116WJZZ
SCART 2
SCART 1
J1101
ZA116WJ
Q1101
DTC314TK
Q1102
DTC314TK
Q1103
2SA1530AR
Q1104
2SA1530AR
Q1105
DTC314TK
Q1106
DTC314TK
Q1107
2SA1530AR
Q1108
2SA1530AR
P1101
MA250WJ
P1102
MA250WJ
TO MAIN 2
TO MAIN 2
TO MAIN 2

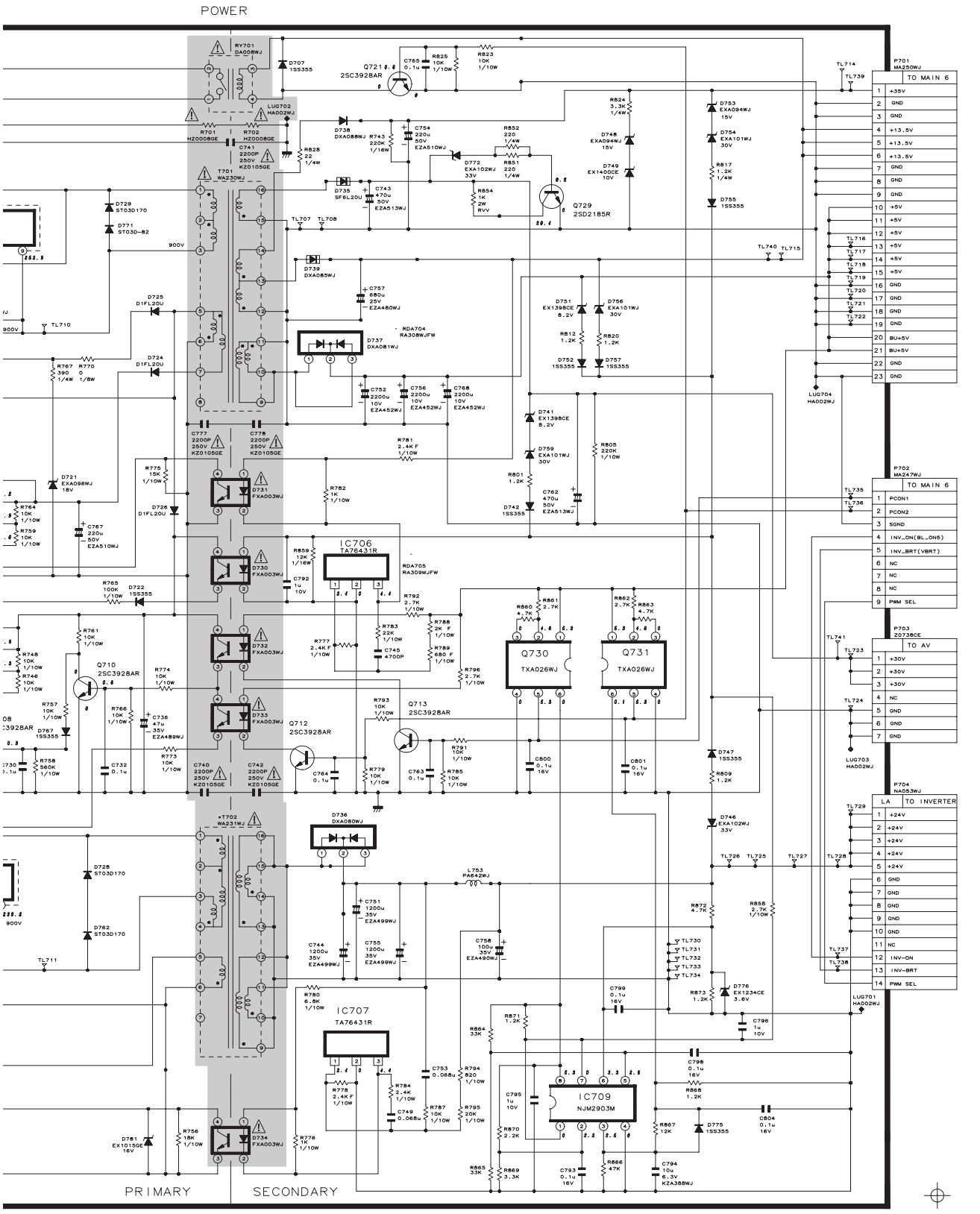


11	12	13	14	15	16	17	18	19

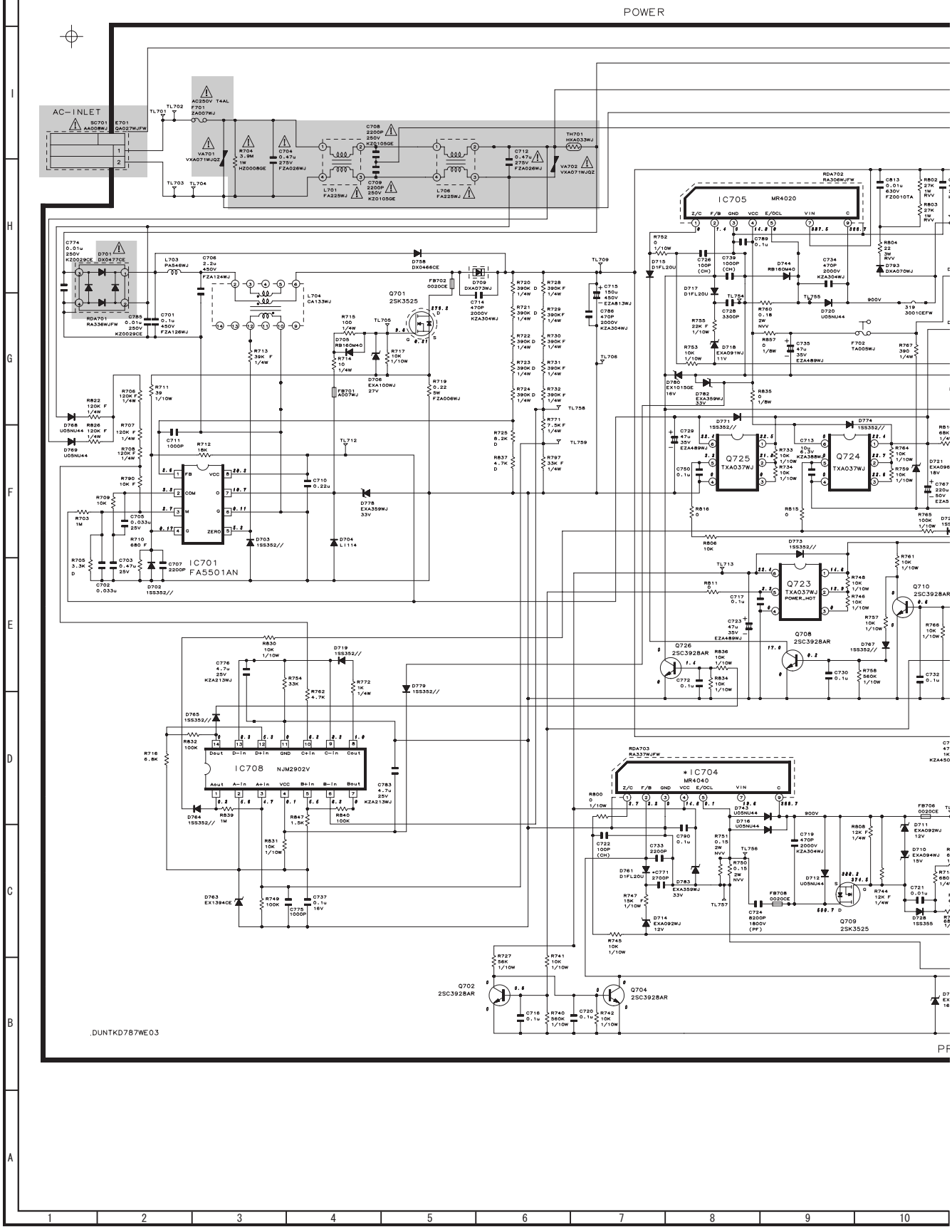
POWER Unit (LC-32RA1E/RU)



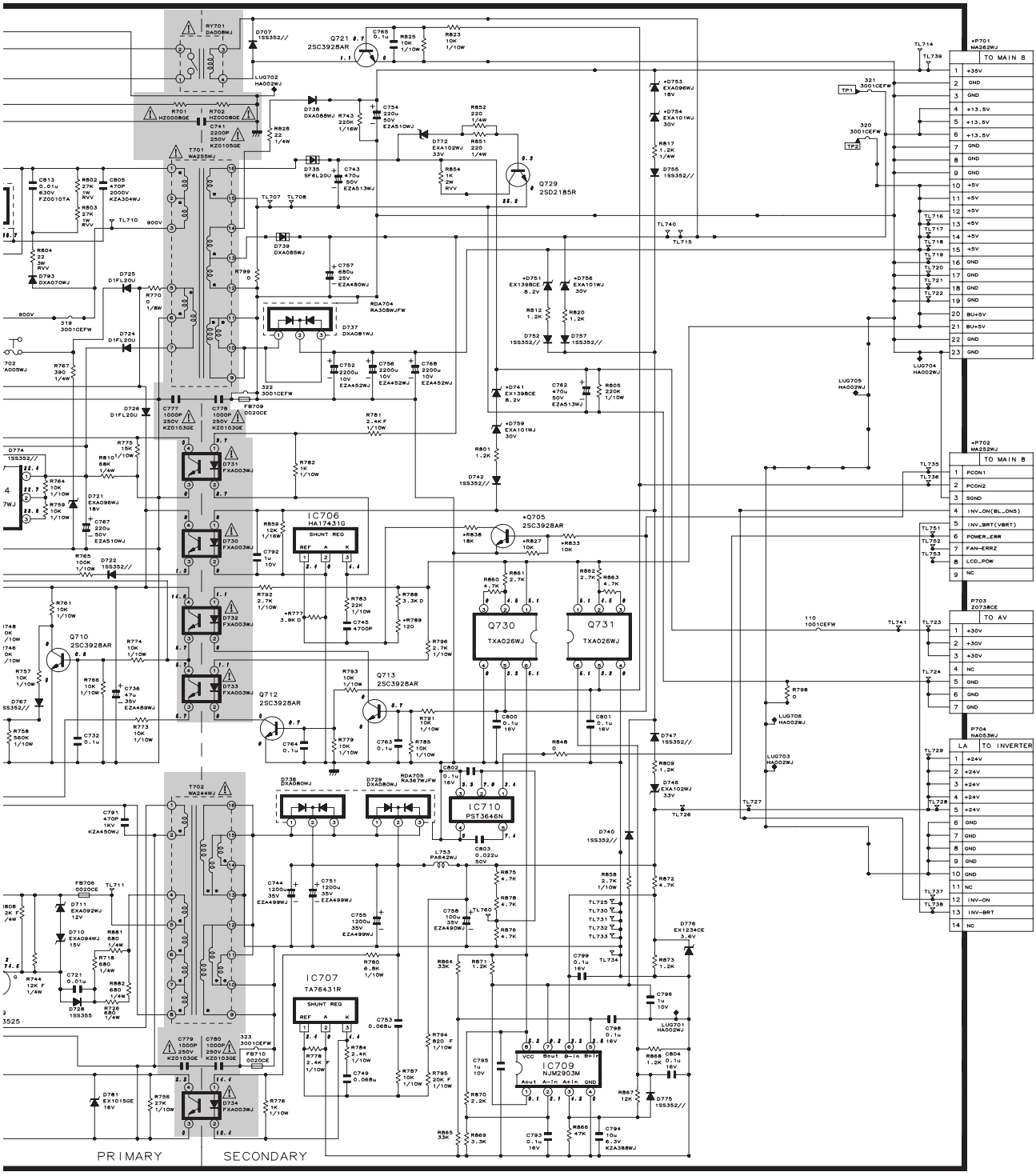
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



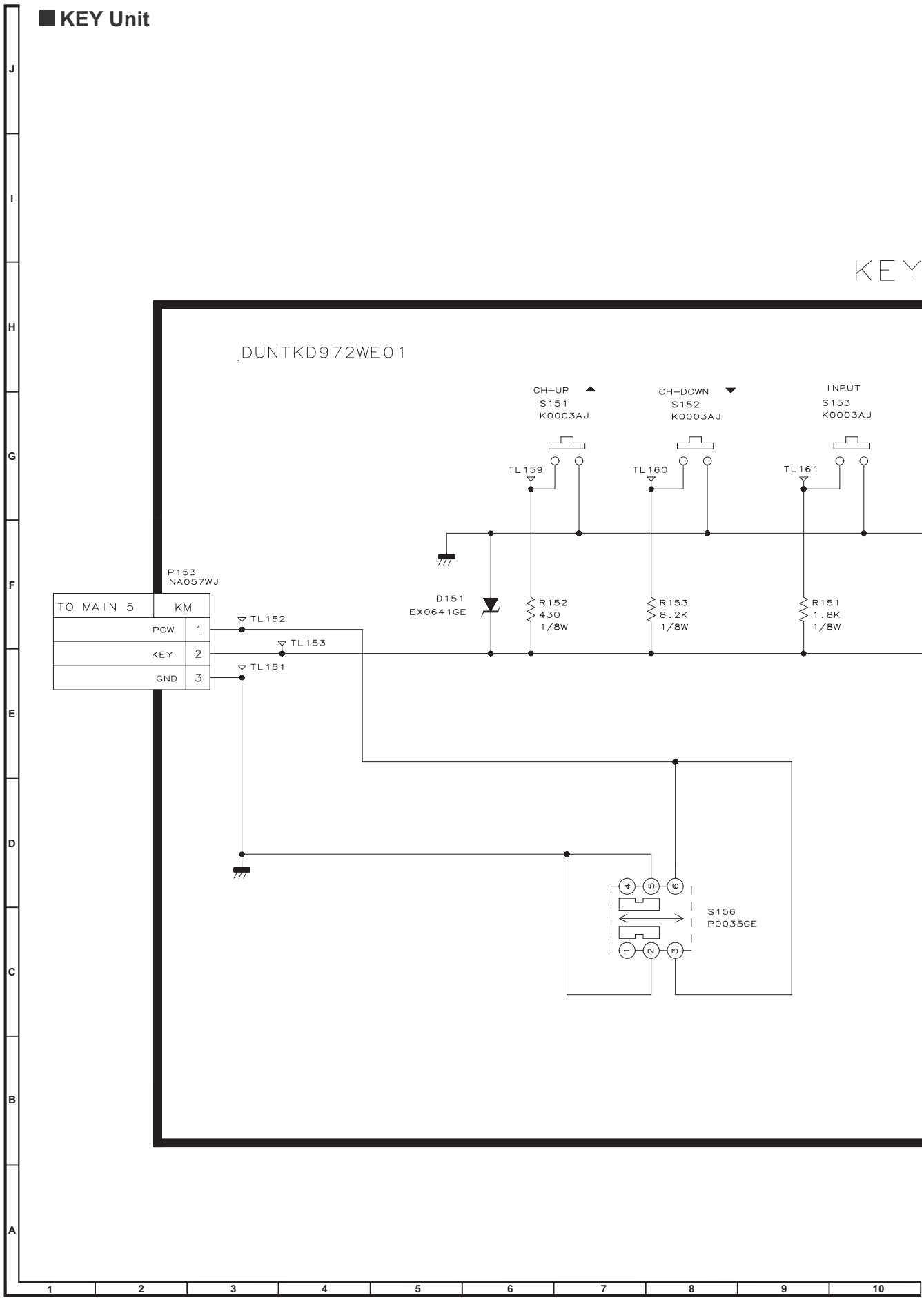
POWER Unit (LC-37RA1E/RU)



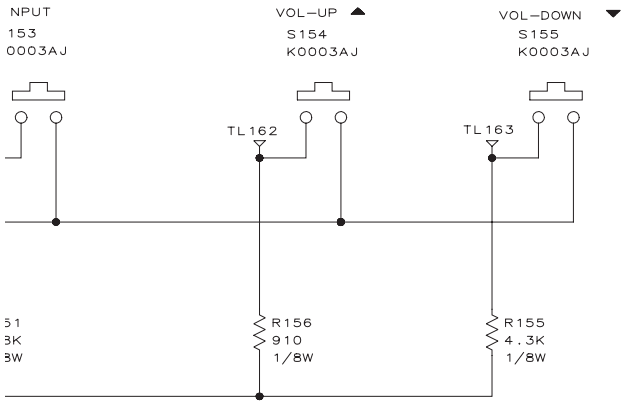
⚠ AND SHADED COMPONENTS=SAFETY RELATED PARTS



■ KEY Unit

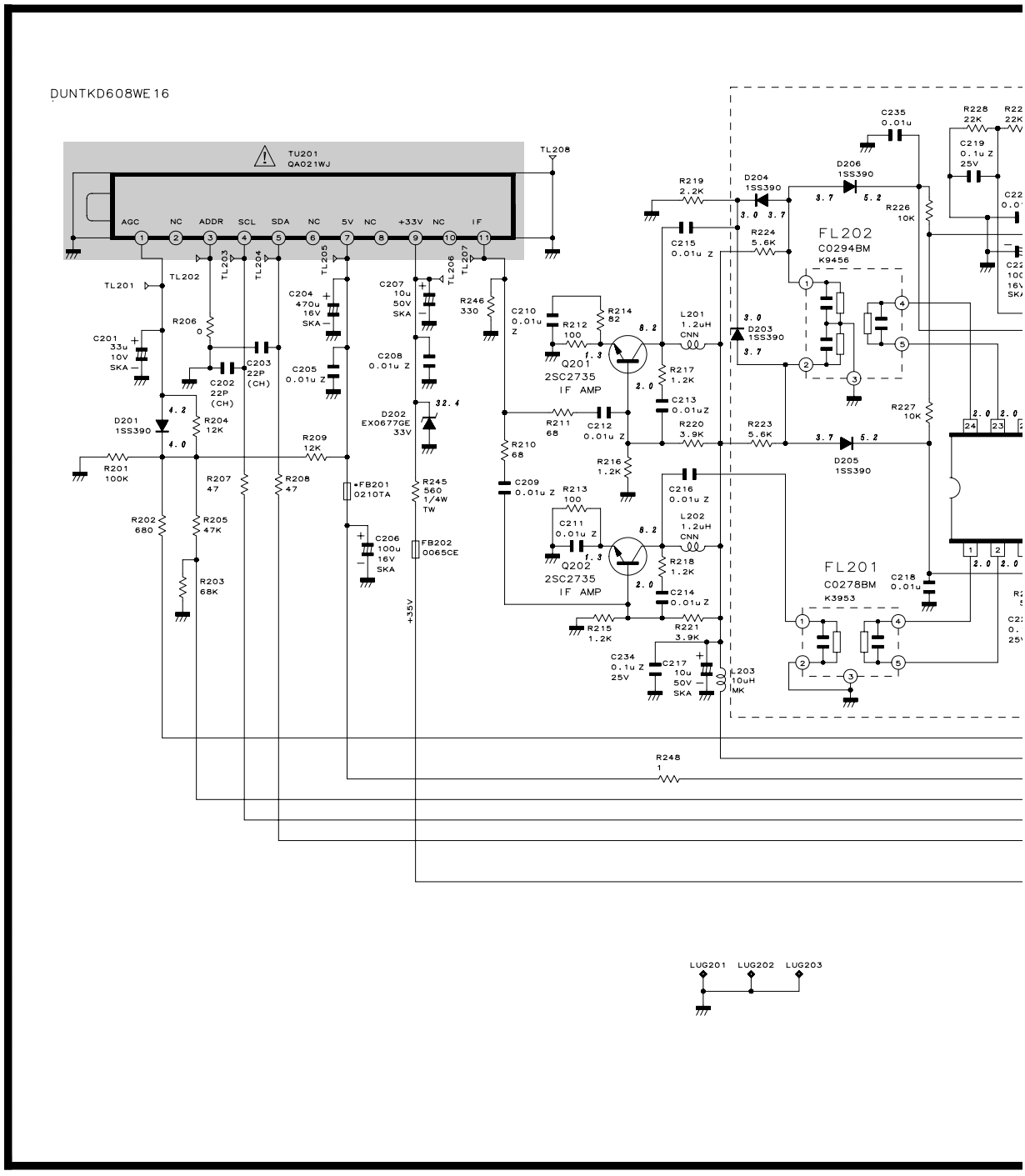

KEY
DUNTKD972WE01
CH–UP
S151
K0003AJ
CH–DOWN
S152
K0003AJ
INPUT
S153
K0003AJ
TL159
TL160
TL161
P153
NA057WJ
TO MAIN 5
KM
POW 1
KEY 2
GND 3
TL152
TL153
TL151
D151
EX0641GE
R152
430
1/8W
R153
8.2K
1/8W
R151
1.8K
1/8W
S156
P0035GE
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

KEY

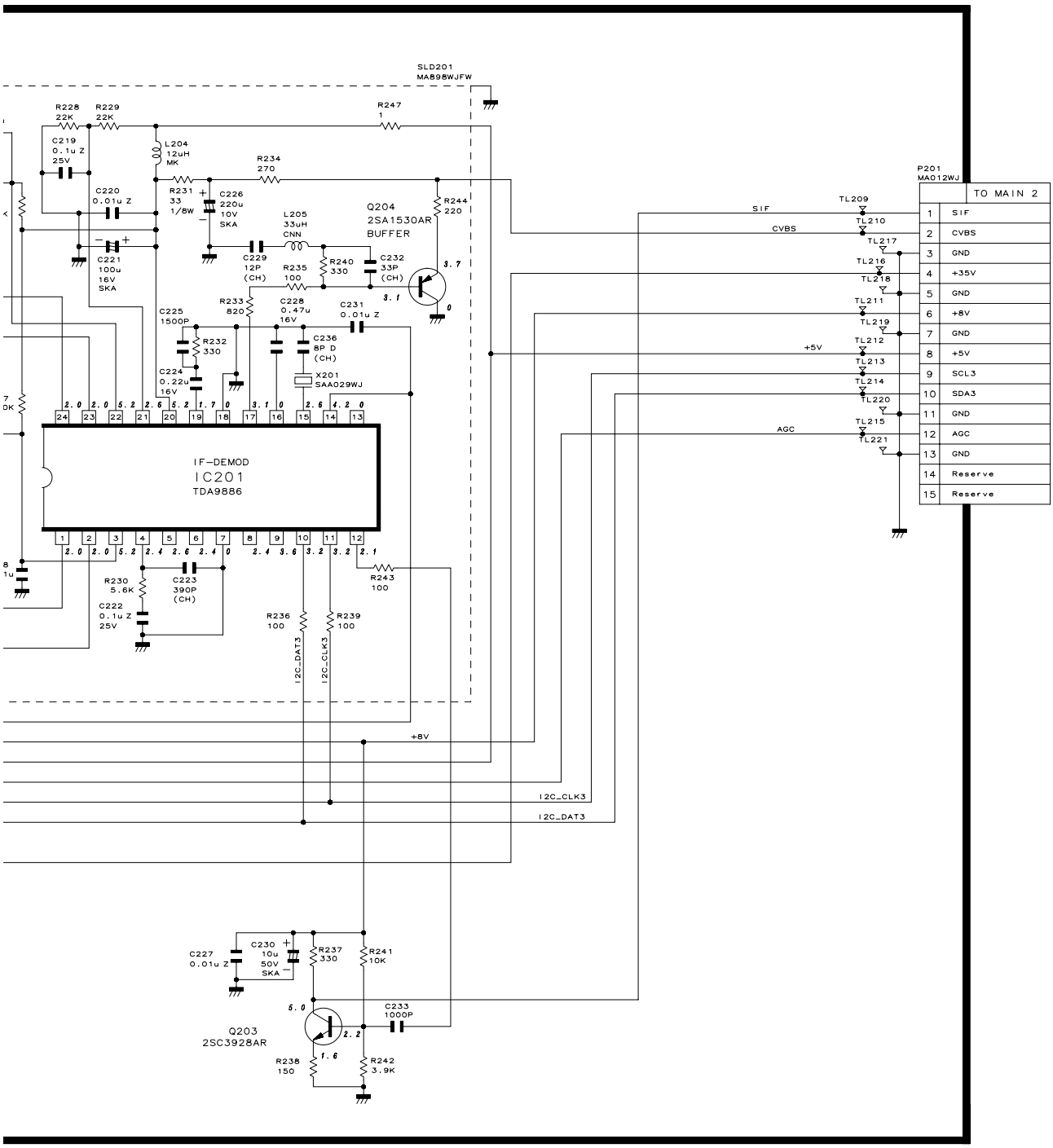


11	12	13	14	15	16	17	18	19

TUNER Unit

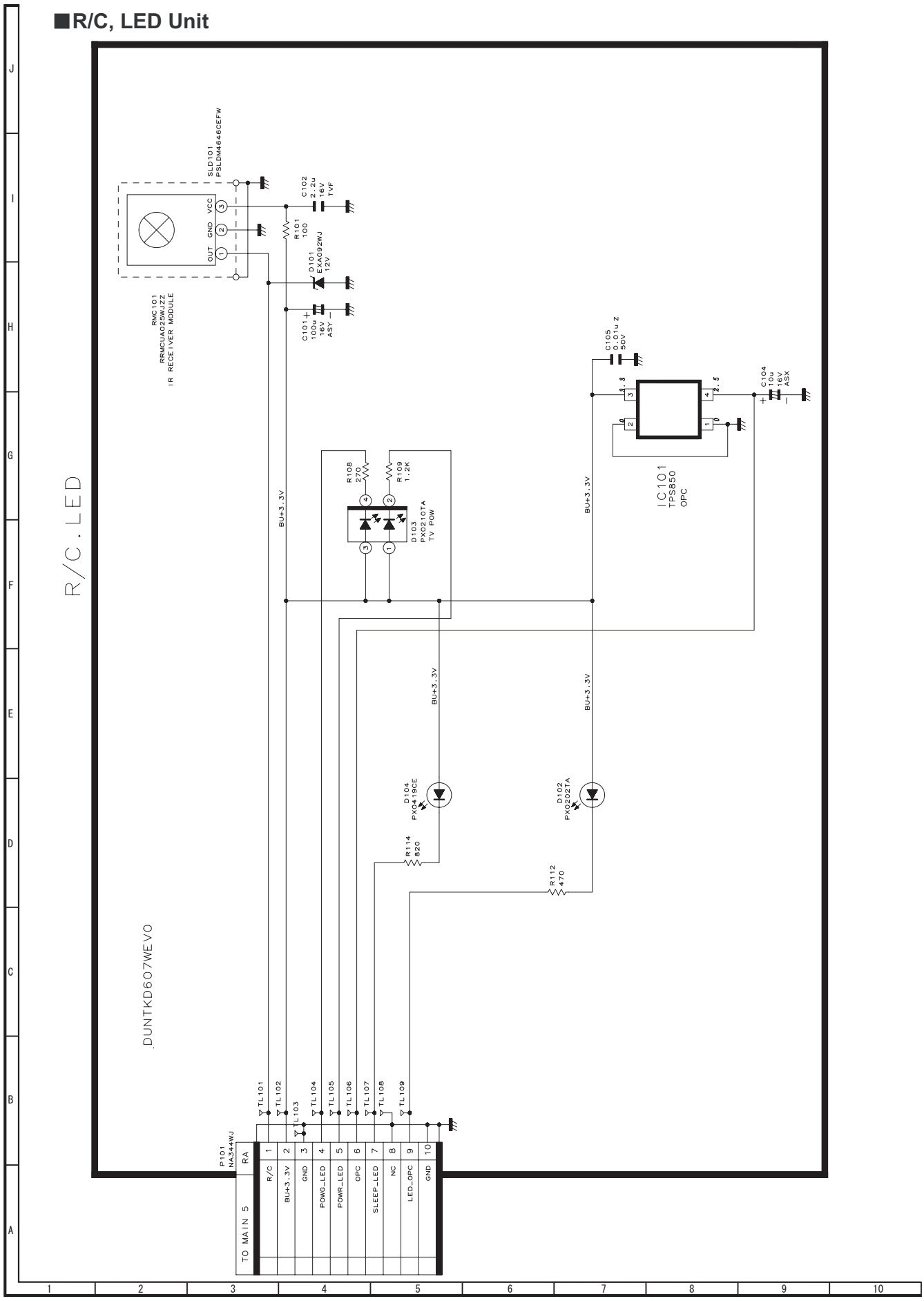

DUNTKD608WE16
TU201
QA021WJ
AGC
NC
ADDR
SCL
SDA
NC
5V
NC
+33V
NC
IF
TL208
TL201
TL202
TL203
TL204
TL205
TL206
TL207
R206
0
C201
33u
10V
SKA
C202
22P
(CH)
C203
22P
(CH)
C204
470u
16V
SKA
C205
0.01u Z
C207
10u
50V
SKA
C208
0.01u Z
D201
1SS390
R204
12K
D202
EX0677GE
33V
R209
12K
R201
100K
R207
47
R208
47
*FB201
0210TA
R245
560
1/4W
TW
R202
680
R205
47K
R203
68K
C206
100u
16V
SKA
FB202
0065CE
+35V
R246
330
C210
0.01u
Z
R212
100
R214
82
Q201
2SC2735
IF AMP
L201
1.2uH
CNN
R217
1.2K
C213
0.01uZ
R211
68
C212
0.01u Z
R210
68
C209
0.01u Z
R216
1.2K
R220
3.9K
R223
5.6K
C216
0.01u Z
R213
100
C211
0.01u Z
Q202
2SC2735
IF AMP
L202
1.2uH
CNN
R218
1.2K
C214
0.01uZ
R215
1.2K
R221
3.9K
C234
0.1u Z
25V
C217
10u
50V
SKA
L203
10uH
MK
R219
2.2K
D204
1SS390
C215
0.01u Z
R224
5.6K
D203
1SS390
D205
1SS390
C235
0.01u
D206
1SS390
R226
10K
R228
22K
C219
0.1u Z
25V
FL202
C0294BM
K9456
FL201
C0278BM
K3953
R227
10K
C218
0.01u
R248
1
LUG201
LUG202
LUG203

TUNER

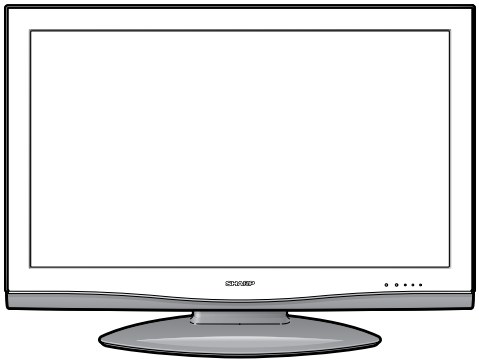


11	12	13	14	15	16	17	18	19

■R/C, LED Unit


R/C.LED
DUNTKD607WEV0
SLD101
PSLDM4646CEFW
OUT GND VCC
RMC101
RRMCUAC004WJZZ
IR RECEIVER MODULE
C102
2.2u
16V
TVF
R101
100
D101
EXA092WJ
12V
C101
100u
16V
ASY
BU+3.3V
R108
270
R109
1.2K
D103
PX0210TA
TV POW
C105
0.01u Z
50V
C104
10u
16V
ASX
IC101
TPS850
OPC
D104
PX0419CE
D102
PX0202TA
R114
820
R112
470
P101
NA344WJ
TO MAIN 5
RA
R/C
BU+3.3V
GND
POWG_LED
POWR_LED
OPC
SLEEP_LED
NC
LED_OPC
GND
TL101
TL102
TL103
TL104
TL105
TL106
TL107
TL108
TL109

SHARP PARTS GUIDE



LCD COLOUR TELEVISION

MODELS LC-32RA1E/RU
LC-37RA1E/RU

CONTENTS

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[1] PRINTED WIRING BOARD ASSEMBLIES (NOT REPLACEMENT ITEM)					
N	DUNTKD890FM23	CL	N	R	MAIN Unit
N	DUNTKD604FM10	BM	N	R	AV Unit
N	DUNTKD605FM01	BU	N	R	POWER Unit (LC-32RA1E/RU)
N	DUNTKD787FM03	BW	N	R	POWER Unit (LC-37RA1E/RU)
N	DUNTKD972FM01	AM	N	R	KEY Unit
N	DUNTKD607FMV0	AQ	N	R	R/C, LED Unit
N	DUNTKD608FM16		N	S	TUNER Unit
[2] LCD PANEL (NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT NOT INDEPENDENTLY.)					
N	R1LK315T3LZ4BX	EE		V	32 WXGA PANEL (LC-32RA1E/RU)
N	R1LK370T3LZ5BX	EZ		V	37 WXGA LCD Panel Module Unit (LC-37RA1E/RU)
TU201	RTUNQA021WJZZ	AW		S	Analog Tuner
[3] DUNTKD890FM23/FM24 (MAIN Unit)					
C1702	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1706	RC-KZA070WJZZY	AD		R	Capacitor, 22 6.3V Ceramic
C1715	VCEASX1VN226MY	AC		R	Capacitor, 22 35V Electrolytic
C1716	VCEASX1CN226MY	AC		R	Capacitor, 22 16V Electrolytic
C1717	VCKYCY1HB272KY	AA		R	Capacitor, 2700p 50V Ceramic
C1718	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1720	VCEASX1CN226MY	AC		R	Capacitor, 22 16V Electrolytic
C1721	VCAAPD1AJ686MY	AE		R	Capacitor, 68 10V Electrolytic
C1723	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1724	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1726	RC-KZA070WJZZY	AD		R	Capacitor, 22 6.3V Ceramic
C1730	VCKYCY1HB272KY	AA		R	Capacitor, 2700p 50V Ceramic
C1733	VCEASX1CN226MY	AC		R	Capacitor, 22 16V Electrolytic
C1734	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1735	VCAAPD1AJ686MY	AE		R	Capacitor, 68 10V Electrolytic
C1737	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1738	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1739	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1740	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1741	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1742	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1744	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1745	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1746	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1749	VCKYCY1HB221KY	AA		R	Capacitor, 220p 50V Ceramic
C1750	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1751	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1752	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1753	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1754	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1757	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1758	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1760	VCKYCY1HF224ZY	AA		R	Capacitor, 0.22 50V Ceramic
C1762	RC-KZA115WJZZY	AB		R	Capacitor
C1903	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1904	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1910	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1912	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1913	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1916	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1917	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1918	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1919	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1921	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1923	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1924	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1927	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1928	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C1929	VCCCCY1HH120JY	AA		R	Capacitor, 12p 50V Ceramic
C1930	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1931	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1934	VCCCCY1HH120JY	AA		R	Capacitor, 12p 50V Ceramic
C1935	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1936	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1941	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1943	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1946	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1947	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1948	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1953	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1955	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1956	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1959	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1960	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1965	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1967	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1968	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1969	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1971	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[3] DUNTKD890FM23/FM24 (MAIN Unit)					
C1973	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1974	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1975	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C2301	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2302	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2303	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2304	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2305	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2306	VCEASX1CN106MY	AC		R	Capacitor, 10 16V Electrolytic
C2307	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2308	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C2309	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C2310	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C2312	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2701	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2702	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C2703	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C2704	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C2705	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C2706	VCEASX1HN105MY	AB		R	Capacitor, 1 50V Electrolytic
C2707	VCEASX1HN105MY	AB		R	Capacitor, 1 50V Electrolytic
C2708	VCEASX1HN105MY	AB		R	Capacitor, 1 50V Electrolytic
C2709	VCEASX1HN105MY	AB		R	Capacitor, 1 50V Electrolytic
C2710	VCKYTV1EB104KY	AB		R	Capacitor, 0.1 25V Ceramic
C2712	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2714	VCEASX1CN106MY	AC		R	Capacitor, 10 16V Electrolytic
C2715	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2718	VCKYCY1CF105ZY	AA		R	Capacitor, 1.0 16V Ceramic
C2719	VCKYCY1CF105ZY	AA		R	Capacitor, 1.0 16V Ceramic
C2722	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2723	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2724	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C2725	VCKYCY1HB221KY	AA		R	Capacitor, 220p 50V Ceramic
C2726	VCKYTV1EB104KY	AB		R	Capacitor, 0.1 25V Ceramic
C2729	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C2732	VCKYTV1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C3001	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3002	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3003	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3004	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3005	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3006	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3007	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3008	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3009	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3010	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3011	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3012	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3013	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3014	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C3015	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3016	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C3017	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3018	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3019	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3020	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C3021	VCCCCY1HH560JY	AB		R	Capacitor, 56p 50V Ceramic
C3022	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3023	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3024	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3025	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3027	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3028	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3029	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3030	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3031	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3032	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3033	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3034	VCCCCY1HH150JY	AA		R	Capacitor, 15p 50V Ceramic
C3035	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3036	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3037	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3038	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3039	VCCCCY1HH180JY	AA		R	Capacitor, 18p 50V Ceramic
C3040	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3041	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3042	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3044	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C3045	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C3046	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3048	VCEASX0JN476MY	AC		R	Capacitor, 47 6.3V Electrolytic
C3049	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C3301	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3302	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3303	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[3] DUNTKD890FM23/FM24 (MAIN Unit)					
C3304	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3305	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3306	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3307	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3308	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3309	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3310	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3311	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3312	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3313	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3314	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3315	VCCCCY1HH150JY	AA		R	Capacitor, 15p 50V Ceramic
C3316	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3317	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3318	VCCCCY1HH120JY	AA		R	Capacitor, 12p 50V Ceramic
C3319	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3320	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3321	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3322	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3323	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3324	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3325	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3326	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3327	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3328	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3329	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3330	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3331	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3332	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3333	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3334	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C3335	VCEASY1CN476MY	AC		R	Capacitor, 47 16V Electrolytic
C3336	VCEASY1CN476MY	AC		R	Capacitor, 47 16V Electrolytic
C3337	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C3338	VCEASX0JN476MY	AC		R	Capacitor, 47 6.3V Electrolytic
C3339	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C3340	VCEASX0JN476MY	AC		R	Capacitor, 47 6.3V Electrolytic
C3341	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
D1701	RH-EX1232CEZZY	AB		R	Zener Diode, EX1232CE
D1702	RH-EX0487CEZZY	AC		R	Zener Diode, HZM2.0NBTL-E
D1703	VHDHSU119//-1Y	AB		R	Diode, HSU119TRF-E
D1704	VHDSFPA73//2EY	AD		R	Diode, SFPA-73VL
D1705	VHDHSU119//-1Y	AB		R	Diode, HSU119TRF-E
D1706	VHDHSU119//-1Y	AB		R	Diode, HSU119TRF-E
D1707	RH-EX0487CEZZY	AC		R	Zener Diode, HZM2.0NBTL-E
D1708	VHDSFPA73//2EY	AD		R	Diode, SFPA-73VL
D1901	VHDDAN202K/-1Y	AB		R	Diode, DAN202KT146
D1902	VHDDAN202K/-1Y	AB		R	Diode, DAN202KT146
D1903	VHD1SS355//-1Y	AB		R	Diode, 1SS355TE-17
D1904	VHD1SS355//-1Y	AB		R	Diode, 1SS355TE-17
D1905	VHD1SS355//-1Y	AB		R	Diode, 1SS355TE-17
D1906	VHD1SS355//-1Y	AB		R	Diode, 1SS355TE-17
D2301	RH-EX1271CEZZY	AB		R	Zener Diode, HZU12B2TRF
D2302	RH-EX1271CEZZY	AB		R	Zener Diode, HZU12B2TRF
D2303	RH-EX1271CEZZY	AB		R	Zener Diode, HZU12B2TRF
D2304	RH-EX1271CEZZY	AB		R	Zener Diode, HZU12B2TRF
D2305	RH-EX1247CEZZY	AB		R	Zener Diode, HZU5.6B2TRF
D2306	RH-EX1247CEZZY	AB		R	Zener Diode, HZU5.6B2TRF
D2307	RH-EX1247CEZZY	AB		R	Zener Diode, HZU5.6B2TRF
D2308	RH-EX1247CEZZY	AB		R	Zener Diode, HZU5.6B2TRF
D2309	VHDDAN202K/-1Y	AB		R	Diode, DAN202KT146
D2310	VHD1SS226//-1Y	AC		R	Diode, 1SS226(T5L,F,T)
D2311	VHD1SS226//-1Y	AC		R	Diode, 1SS226(T5L,F,T)
D2312	VHD1SS226//-1Y	AC		R	Diode, 1SS226(T5L,F,T)
D2313	RH-EX1247CEZZY	AB		R	Zener Diode, HZU5.6B2TRF
FB1701	RBLN-0250TAZZY	AC		R	Balun, BLN-0250TA
FB1702	RBLN-0250TAZZY	AC		R	Balun, BLN-0250TA
FB1901	RBLN-0060TAZZY	AB		R	Balun, BLN-0060TA
FB1902	RBLN-0060TAZZY	AB		R	Balun, BLN-0060TA
FB1903	RBLN-0060TAZZY	AB		R	Balun, BLN-0060TA
FB1904	RBLN-0060TAZZY	AB		R	Balun, BLN-0060TA
FB1905	RBLN-0060TAZZY	AB		R	Balun, BLN-0060TA
FB1906	RBLN-0060TAZZY	AB		R	Balun, BLN-0060TA
FB1907	RBLN-0210TAZZY	AB		R	Balun, BLN-0210TA
FB1908	RBLN-0060TAZZY	AB		R	Balun, BLN-0060TA
FB1909	RBLN-0210TAZZY	AB		R	Balun, BLN-0210TA
FB2301	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2302	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2305	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2306	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2307	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2308	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2309	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2310	RBLN-0210TAZZY	AB		R	Balun, BLN-0210TA
FB2701	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[3] DUNTKD890FM23/FM24 (MAIN Unit)					
FB2702	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB2703	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB2704	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2705	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2706	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2707	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2708	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2709	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2710	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2711	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB2715	RBLN-0210TAZZY	AB		R	Balun, BLN-0210TA
FB3001	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3002	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3003	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3004	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3005	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3006	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3007	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3008	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3009	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3010	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3011	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3012	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3013	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3014	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3015	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3016	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3018	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3020	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3301	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3302	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3303	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3304	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3305	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FB3306	VHDRB521S30-1Y	AC		R	Diode, RB521S30
FB3307	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FB3308	RBLN-0061TAZZY	AD		R	Balun, BLN-0061TA
FL2301	RFiLN0003TAZZY	AD		R	Filter
FL2302	RFiLN0003TAZZY	AD		R	Filter
FL2303	RFiLN0003TAZZY	AD		R	Filter
IC1701	VHiBU4239G+-1Y	AE		R	IC, BU4239G-TR
IC1702	VHiPQ20WZ11-1Y	AF		R	IC, PQ20WZ1UJ00H
IC1703	VHiPQ20WZ11-1Y	AF		R	IC, PQ20WZ1UJ00H
IC1706	VHiMP1410ES-1Y	AP		R	IC, MP1410ES-LF-Z
IC1707	VHiPQ20WZ11-1Y	AF		R	IC, PQ20WZ1UJ00H
IC1708	VHiMP1410ES-1Y	AP		R	IC, MP1410ES-LF-Z
IC1710	RH-iXB823WJZZQ	AR	N	R	IC, EPM240T100C5N
IC1901	VHi24LC2BiNDES			J	IC, EDID (HDMI)
IC1902	RH-iXC023WJZZS			J	IC, EDID (HDMI)
IC1905	VHiSii9023+-1Q	BD		R	IC, SII9023
IC2301	VHiiSL83220-1Y	AQ		R	IC, ISL83220ECVZ-T
IC2303	RH-iXB731WJZZS	AH		J	IC, EDID (PC)
IC2701	VHiTVHC153T-1Y	AE		R	IC, TC74VHC153FT(EL,M)
IC2702	VHiMM1507XN-1Y	AD		R	IC, MM1507XNRE
IC2704	VHiTC4052BT-1Y	AF		R	IC, TC4052BT
IC3001	VHiBR24L64F-1Y	AK		R	IC, BR24L64F-WE2
IC3002	RH-iXB698WJN1Q	BV	N	R	IC, IXB698WJ
IC3003	RH-iXB664WJZZY	AY		R	IC, PIC16F913-I/SS-G-GW902T
IC3005	VHiBU4215G+-1Y	AE		R	IC, BU4215G-TR
IC3301	RH-iXB064WJN1Q	BR		R	IC, IXB064WJ
IC3302	VHiBU4215G+-1Y	AE		R	IC, BU4215G-TR
IC3303	VHiTC7SA08U-1Y	AE		R	IC, TC7SA08U
IC3304	VHiTC7SA08U-1Y	AE		R	IC, TC7SA08U
J2701	QJAKEA073WJZZ	AD		R	Jack, HDMI INPUT
J2702	QJAKEA073WJZZ	AD		R	Jack, HDMI INPUT
L1701	RCiLPA213WJZZY	AG		R	Coil, Peaking 15μH
L1702	RCiLPA213WJZZY	AG		R	Coil, Peaking 15μH
L1901	RCiLFA134WJZZY	AF		R	Coil
L1902	RCiLFA134WJZZY	AF		R	Coil
L1903	RCiLFA134WJZZY	AF		R	Coil
L1904	RCiLFA134WJZZY	AF		R	Coil
L1905	RCiLFA134WJZZY	AF		R	Coil
L1906	RCiLFA134WJZZY	AF		R	Coil
L1907	RCiLFA134WJZZY	AF		R	Coil
L1908	RCiLFA134WJZZY	AF		R	Coil
L2301	RCiLFA071WJZZY	AD		R	Coil
L2302	RCiLFA071WJZZY	AD		R	Coil
L2303	RCiLFA071WJZZY	AD		R	Coil
L2304	RCiLFA071WJZZY	AD		R	Coil
L2305	RCiLFA071WJZZY	AD		R	Coil
LUG1701	QLUGHA006WJZZY	AC		R	Lug
LUG1702	QLUGHA006WJZZY	AC		R	Lug
LUG1703	QLUGHA006WJZZY	AC		R	Lug
LUG1704	QLUGHA006WJZZY	AC		R	Lug
LUG1705	QLUGZA002WJZZY	AC		R	Lug

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[3] DUNTKD890FM23/FM24 (MAIN Unit)					
LUG1706	QLUGZA002WJZZY	AC		R	Lug
LUG1707	QLUGZA002WJZZY	AC		R	Lug
LUG1708	QLUGZA002WJZZY	AC		R	Lug
LUG1709	QLUGZA002WJZZY	AC		R	Lug
P1701	QPLGNA342WJZZY	AD		R	Plug
P1702	QPLGN1075TAZZY	AD		R	Plug
P2301	QPLGNA341WJZZY	AD		R	Plug, 7Pin(SH)
P2302	QPLGNA337WJZZY	AC		R	Plug, 3Pin(KM)
P2303	QPLGNA344WJZZY	AD		R	Plug, 10Pin(RA)
P2305	QPLGNA522WJQZY	AL		R	Plug, 32Pin(LV)
P2306	QPLGN0565FJZZY	AE		R	Plug, 3Pin
Q1701	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q1702	VS2SA1530ARS1Y	AC		R	Transistor, 2SA1530A-T112-1R
Q1703	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q1704	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q1706	VSCPH6318++-1Y	AE	N	R	Transistor, CPH6318-TL-E
Q1707	VSCPH6318++-1Y	AE	N	R	Transistor, CPH6318-TL-E
Q1901	VS2SK536///-1Y	AE		R	Transistor, 2SK536-TB-E
Q1902	VS2SK536///-1Y	AE		R	Transistor, 2SK536-TB-E
Q1903	VS2SK536///-1Y	AE		R	Transistor, 2SK536-TB-E
Q1904	VS2SK536///-1Y	AE		R	Transistor, 2SK536-TB-E
Q1905	VSDTC144EE/-1Y	AA		R	Transistor, DTC144EETL
Q1906	VSDTC144EE/-1Y	AA		R	Transistor, DTC144EETL
Q1907	VSDTC144EE/-1Y	AA		R	Transistor, DTC144EETL
Q1908	VSDTC144EE/-1Y	AA		R	Transistor, DTC144EETL
Q1909	VSDTC144EE/-1Y	AA		R	Transistor, DTC144EETL
Q1910	VSDTC144EE/-1Y	AA		R	Transistor, DTC144EETL
Q2702	VS3LN01S///-1Y	AC		R	Transistor, 3LN01S-TL-E
Q2703	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q2704	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q2705	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q2706	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q2707	VSDTC144EE/-1Y	AA		R	Transistor, DTC144EETL
Q2708	VSDTC144EE/-1Y	AA		R	Transistor, DTC144EETL
Q3003	VS3LN01S///-1Y	AC		R	Transistor, 3LN01S-TL-E
Q3004	VS3LN01S///-1Y	AC		R	Transistor, 3LN01S-TL-E
R1701	VRS-CY1JF562JY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R1702	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1703	VRS-TW2ED561JY	AA		R	Resistor, 560 1/4W Metal Oxide
R1704	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R1705	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R1706	VRS-CY1JF333JY	AA		R	Resistor, 33k 1/16W Metal Oxide
R1707	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R1709	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1713	VRS-CY1JF153JY	AA		R	Resistor, 15k 1/16W Metal Oxide
R1714	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R1715	VRS-CY1JF470JY	AA		R	Resistor, 47 1/16W Metal Oxide
R1716	VRS-CY1JF562JY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R1717	VRS-CY1JF470JY	AA		R	Resistor, 47 1/16W Metal Oxide
R1718	VRS-CY1JF470JY	AA		R	Resistor, 47 1/16W Metal Oxide
R1719	VRS-CY1JF622FY	AA		R	Resistor, 6.2k 1/16W Metal Oxide
R1720	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1721	VRS-CY1JF562FY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R1722	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1723	VRS-CY1JF622FY	AA		R	Resistor, 6.2k 1/16W Metal Oxide
R1724	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R1726	VRS-CY1JF511FY	AA		R	Resistor, 510 1/16W Metal Oxide
R1727	VRS-CY1JF332JY	AA		R	Resistor, 3.3k 1/16W Metal Oxide
R1728	VRS-CY1JF332JY	AA		R	Resistor, 3.3k 1/16W Metal Oxide
R1729	VRS-CY1JF202FY	AA		R	Resistor, 2k 1/16W Metal Oxide
R1730	VRS-CY1JF470JY	AA		R	Resistor, 47 1/16W Metal Oxide
R1731	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R1732	VRS-CY1JF202FY	AA		R	Resistor, 2k 1/16W Metal Oxide
R1733	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R1734	VRS-CY1JF222FY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R1735	VRS-CY1JF202FY	AA		R	Resistor, 2k 1/16W Metal Oxide
R1736	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R1737	VRS-CY1JF562JY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R1739	VRS-TW2HF1R0JY	AA		R	Resistor, 1 1/2W Metal Oxide
R1740	VRS-TW2HF1R0JY	AA		R	Resistor, 1 1/2W Metal Oxide
R1741	VRS-TW2HF1R0JY	AA		R	Resistor, 1 1/2W Metal Oxide
R1742	VRS-TW2HF1R0JY	AA		R	Resistor, 1 1/2W Metal Oxide
R1743	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R1744	VRS-CY1JF562FY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R1745	VRS-CY1JF132JY	AG		R	Resistor, 1.3k 1/16W Metal Oxide
R1746	VRS-CY1JF202JY	AA		R	Resistor, 2k 1/16W Metal Oxide
R1747	VRS-CY1JF621FY	AA		R	Resistor, 620 1/16W Metal Oxide
R1748	VRS-CY1JF202FY	AA		R	Resistor, 2k 1/16W Metal Oxide
R1753	VRS-CY1JF622FY	AA		R	Resistor, 6.2k 1/16W Metal Oxide
R1754	VRS-CY1JF622FY	AA		R	Resistor, 6.2k 1/16W Metal Oxide
R1755	VRS-CY1JF562JY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R1757	VRS-TW2HF1R0JY	AA		R	Resistor, 1 1/2W Metal Oxide
R1758	VRS-TW2HF1R0JY	AA		R	Resistor, 1 1/2W Metal Oxide
R1759	VRS-TW2HF1R0JY	AA		R	Resistor, 1 1/2W Metal Oxide
R1760	VRS-TW2HF1R0JY	AA		R	Resistor, 1 1/2W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[3] DUNTKD890FM23/FM24 (MAIN Unit)					
R1761	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R1762	VRS-CY1JF220JY	AA		R	Resistor, 22 1/16W Metal Oxide
R1763	VRS-CY1JF220JY	AA		R	Resistor, 22 1/16W Metal Oxide
R1764	VRS-CY1JF220JY	AA		R	Resistor, 22 1/16W Metal Oxide
R1767	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1768	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1901	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R1902	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R1903	VRS-CY1JF152JY	AA		R	Resistor, 1.5k 1/16W Metal Oxide
R1904	VRS-CY1JF152JY	AA		R	Resistor, 1.5k 1/16W Metal Oxide
R1906	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R1908	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1909	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R1910	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1911	VRS-CJ1JF474JY	AA		R	Resistor, 470k 1/16W Metal Oxide
R1912	VRS-CJ1JF474JY	AA		R	Resistor, 470k 1/16W Metal Oxide
R1913	VRS-CJ1JF473JY	AB		R	Resistor, 47k 1/16W Metal Oxide
R1914	VRS-CJ1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1915	VRS-CJ1JF473JY	AB		R	Resistor, 47k 1/16W Metal Oxide
R1916	VRS-CJ1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1917	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1918	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R1919	VRS-CY1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1920	VRS-CH1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1921	VRS-CH1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1922	VRS-CH1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1923	VRS-CH1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1924	VRS-CH1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1925	VRS-CH1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1926	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R1927	VRS-CH1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R1928	VRS-CY1JF223JY	AA		R	Resistor, 22k 1/16W Metal Oxide
R1929	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R1930	VRS-CY1JF910FY	AA		R	Resistor, 91 1/16W Metal Oxide
R1931	VRS-CY1JF910FY	AA		R	Resistor, 91 1/16W Metal Oxide
R1932	VRS-CY1JF105JY	AA		R	Resistor, 1M 1/16W Metal Oxide
R1933	VRS-CY1JF152JY	AA		R	Resistor, 1.5k 1/16W Metal Oxide
R1934	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R1935	VRS-CY1JF330JY	AA		R	Resistor, 33 1/16W Metal Oxide
R1936	VRS-CY1JF330JY	AA		R	Resistor, 33 1/16W Metal Oxide
R1937	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2301	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R2302	VRS-CH1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2304	RBLN-0210TAZZY	AB		R	Balun, BLN-0210TA
R2305	VRS-CH1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2306	RBLN-0210TAZZY	AB		R	Balun, BLN-0210TA
R2307	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R2309	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R2313	VRS-CY1JF100JY	AA		R	Resistor, 10 1/16W Metal Oxide
R2314	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2315	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R2321	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R2322	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
R2324	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
R2325	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
R2326	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R2329	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2332	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R2333	VRS-CH1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R2334	VRS-CY1JF103FY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2335	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R2339	VRS-CY1JF102FY	AA		R	Resistor, 1k 1/16W Metal Oxide
R2341	VRS-CY1JF393FY	AA		R	Resistor, 39k 1/16W Metal Oxide
R2342	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2343	VRS-CY1JF102FY	AA		R	Resistor, 1k 1/16W Metal Oxide
R2702	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R2703	VRS-CJ1JF473JY	AB		R	Resistor, 47k 1/16W Metal Oxide
R2704	VRS-CJ1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2706	VRS-CJ1JF224JY	AA		R	Resistor, 220k 1/16W Metal Oxide
R2707	VRS-CJ1JF224JY	AA		R	Resistor, 220k 1/16W Metal Oxide
R2708	VRS-CH1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
R2709	VRS-CH1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
R2710	VRS-CJ1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2711	VRS-CJ1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2712	VRS-CJ1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R2713	VRS-CJ1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R2714	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R2716	VRS-CJ1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R2718	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R2722	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R2724	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R3001	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R3002	VRS-CY1JF220JY	AA		R	Resistor, 22 1/16W Metal Oxide
R3003	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R3004	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[3] DUNTKD890FM23/FM24 (MAIN Unit)					
R3005	VRS-CJ1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3006	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3007	VRS-CY1JF622JY	AA		R	Resistor, 6.2k 1/16W Metal Oxide
R3008	VRS-CJ1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3009	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R3010	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3012	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R3014	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3017	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R3018	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R3301	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R3302	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R3303	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R3304	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R3305	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R3306	VRS-CY1JF220JY	AA		R	Resistor, 22 1/16W Metal Oxide
R3307	VRS-CY1JF220JY	AA		R	Resistor, 22 1/16W Metal Oxide
R3308	VRS-CY1JF220JY	AA		R	Resistor, 22 1/16W Metal Oxide
R3314	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3315	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3316	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3317	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R3319	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R3320	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
SC1701	QCNCWA251WJZZY	AH		R	Connector, 23Pin
SC1702	QCNCWA248WJZZY	AD		R	Connector, 9Pin
SC1901	QSOCZA117WJZZQ	AK		R	Socket, 23Pin
SC1902	QSOCZA117WJZZQ	AK		R	Socket, 23Pin
SC2301	QSOCDA036WJZZ	AF		R	Socket, 12Pin
SC2303	QSOCNA229WJZZ	AH		R	Socket, 16Pin
SC2702	QCNCWA251WJZZY	AH		R	Connector, 23Pin
SC2703	QCNCWA251WJZZY	AH		R	Connector, 23Pin
SC2704	QCNCWA251WJZZY	AH		R	Connector, 23Pin
SC2705	QCNCWA010WJZZY	AE		R	Connector, 15Pin
TH3002	VHHM1103J03-1Y	AC		R	Thermistor
X1901	RCRSCA108WJZZY	AF		R	Crystal, 28.322MHz
X3001	RCRSC0012CEZZY	AH		R	Crystal, 20.25MHz
X3301	RCRSC0012CEZZY	AH		R	Crystal, 20.25MHz
[4] DUNTKD604FM10 (AV Unit)					
C301	VCKYCY1CB273KY	AB		R	Capacitor, 0.027 16V Ceramic
C302	VCKYCY1CB273KY	AB		R	Capacitor, 0.027 16V Ceramic
C303	VCKYCY1HF224ZY	AA		R	Capacitor, 0.22 50V Ceramic
C304	VCKYCY1HF224ZY	AA		R	Capacitor, 0.22 50V Ceramic
C305	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C306	VCEASX1HN225MY	AB		R	Capacitor, 2.2 50V Electrolytic
C307	VCEASX1HN225MY	AB		R	Capacitor, 2.2 50V Electrolytic
C308	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C309	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
C310	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
C311	VCEASX1CN226MY	AC		R	Capacitor, 22 16V Electrolytic
C312	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
C313	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
C314	VCKYCY1HB153KY	AA		R	Capacitor, 0.015 50V Ceramic
C315	VCKYCY1HB153KY	AA		R	Capacitor, 0.015 50V Ceramic
C316	VCCCCY1HH330JY	AA		R	Capacitor, 33p 50V Ceramic
C317	VCCCCY1HH330JY	AA		R	Capacitor, 33p 50V Ceramic
C318	VCCCCY1HH470JY	AA		R	Capacitor, 47p 50V Ceramic
C319	VCCCCY1HH470JY	AA		R	Capacitor, 47p 50V Ceramic
C320	VCEASX1HN225MY	AB		R	Capacitor, 2.2 50V Electrolytic
C321	VCEASX1HN225MY	AB		R	Capacitor, 2.2 50V Electrolytic
C322	VCKYCY1HF224ZY	AA		R	Capacitor, 0.22 50V Ceramic
C323	VCKYCY1HF224ZY	AA		R	Capacitor, 0.22 50V Ceramic
C324	VCEASX1HN106MY	AC		R	Capacitor, 10 50V Electrolytic
C325	VCEASX1HN106MY	AC		R	Capacitor, 10 50V Electrolytic
C326	VCKYCY1HB153KY	AA		R	Capacitor, 0.015 50V Ceramic
C327	VCKYCY1HB153KY	AA		R	Capacitor, 0.015 50V Ceramic
C328	VCEASX1HN225MY	AB		R	Capacitor, 2.2 50V Electrolytic
C329	VCEASX1HN225MY	AB		R	Capacitor, 2.2 50V Electrolytic
C330	VCESYA1VM477M+	AF	N	R	Capacitor, 470 35V Electrolytic
C331	VCESYA1VM477M+	AF	N	R	Capacitor, 470 35V Electrolytic
C332	VCKYCY1HB221KY	AA		R	Capacitor, 220p 50V Ceramic
C333	VCKYCY1HB221KY	AA		R	Capacitor, 220p 50V Ceramic
C334	VCKYCY1HB221KY	AA		R	Capacitor, 220p 50V Ceramic
C335	VCKYCY1HB221KY	AA		R	Capacitor, 220p 50V Ceramic
C338	RC-EZA513WJZZ	AH		R	Capacitor, 470 50V Electrolytic
C339	RC-EZA513WJZZ	AH		R	Capacitor, 470 50V Electrolytic
C340	VCKYTV1EB224KY	AA		R	Capacitor, 0.22 25V Ceramic
C341	VCKYTV1EB224KY	AA		R	Capacitor, 0.22 25V Ceramic
C342	VCFYFA1HA334J+	AB		R	Capacitor, 0.33 50V
C343	VCFYFA1HA334J+	AB		R	Capacitor, 0.33 50V
C346	VCEASX1HN105MY	AB		R	Capacitor, 1 50V Electrolytic
C347	VCEASX1HN105MY	AB		R	Capacitor, 1 50V Electrolytic
C348	VCEASX1VN226MY	AC		R	Capacitor, 22 35V Electrolytic
C349	VCEASX1VN226MY	AC		R	Capacitor, 22 35V Electrolytic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKD604FM10 (AV Unit)					
C350	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C351	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C352	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C353	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C354	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C355	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C356	VCEASY1HN476MY	AD		R	Capacitor, 47 50V Electrolytic
C357	VCEASY1HN476MY	AD		R	Capacitor, 47 50V Electrolytic
C358	VCEASX1HN106MY	AC		R	Capacitor, 10 50V Electrolytic
C359	VCEASX1HN106MY	AC		R	Capacitor, 10 50V Electrolytic
C360	VCEASY1CN476MY	AC		R	Capacitor, 47 16V Electrolytic
C361	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C362	VCKYTV1EB224KY	AA		R	Capacitor, 0.22 25V Ceramic
C363	VCKYTV1EB224KY	AA		R	Capacitor, 0.22 25V Ceramic
C364	VCEASY1CN477MY	AD		R	Capacitor, 470 16V Electrolytic
C365	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
C366	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
C1101	VCKYTV1EB104KY	AB		R	Capacitor, 0.1 25V Ceramic
C1102	VCKYTV1EB104KY	AB		R	Capacitor, 0.1 25V Ceramic
C1103	VCKYTV1EB104KY	AB		R	Capacitor, 0.1 25V Ceramic
C1104	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1105	VCKYTV1EB104KY	AB		R	Capacitor, 0.1 25V Ceramic
C1106	VCKYTV1EB104KY	AB		R	Capacitor, 0.1 25V Ceramic
C1107	VCKYTV1EB104KY	AB		R	Capacitor, 0.1 25V Ceramic
C1108	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1109	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1110	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1114	VCKYCY1HB221KY	AA		R	Capacitor, 220p 50V Ceramic
C1116	VCKYCY1HB221KY	AA		R	Capacitor, 220p 50V Ceramic
C1117	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1118	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1119	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1120	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1121	VCKYTV1CB105KY	AC		R	Capacitor, 1 16V Ceramic
C1122	VCKYCY1HB331KY	AA		R	Capacitor, 330p 50V Ceramic
C1123	VCKYCY1HB331KY	AA		R	Capacitor, 330p 50V Ceramic
C1124	VCKYTV1CB105KY	AC		R	Capacitor, 1 16V Ceramic
C1125	VCKYCY1HB471KY	AA		R	Capacitor, 470p 50V Ceramic
C1126	VCKYCY1HB471KY	AA		R	Capacitor, 470p 50V Ceramic
C1127	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1128	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1130	VCEASY1CN477MY	AD		R	Capacitor, 470 16V Electrolytic
C1131	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C1132	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1133	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1134	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1135	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1136	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1137	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1138	VCKYTV1CB105KY	AC		R	Capacitor, 1 16V Ceramic
C1139	VCKYCY1HB331KY	AA		R	Capacitor, 330p 50V Ceramic
C1140	VCKYCY1HB331KY	AA		R	Capacitor, 330p 50V Ceramic
C1142	VCKYTV1CB105KY	AC		R	Capacitor, 1 16V Ceramic
C1143	VCKYCY1HB471KY	AA		R	Capacitor, 470p 50V Ceramic
C1144	VCKYCY1HB471KY	AA		R	Capacitor, 470p 50V Ceramic
C1145	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1146	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1147	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1148	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1157	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1158	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1159	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C1160	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C1161	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1162	VCEASY1CN477MY	AD		R	Capacitor, 470 16V Electrolytic
C1201	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1202	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C1203	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1204	VCCCCY1HH100DY	AA		R	Capacitor, 10p 50V Ceramic
C1205	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1206	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1207	VCCCCY1HH100DY	AA		R	Capacitor, 10p 50V Ceramic
C1208	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1210	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1211	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1212	VCKYTV1CB105KY	AC		R	Capacitor, 1 16V Ceramic
C1216	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1217	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C1218	VCKYTV1CB105KY	AC		R	Capacitor, 1 16V Ceramic
C1219	VCEASY1CN476MY	AC		R	Capacitor, 47 16V Electrolytic
C1220	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1221	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1222	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1223	RC-KZA073WJZZY	AD		R	Capacitor, 10 16V Ceramic
C1224	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKD604FM10 (AV Unit)					
C1225	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C1251	VCEASX1CN107MY	AC		R	Capacitor, 100 16V Electrolytic
C1252	VCKYTV1CB105KY	AC		R	Capacitor, 1 16V Ceramic
C1253	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
D306	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D307	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D308	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D309	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D310	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D311	RH-EXA103WJZZY	AB		R	Zener Diode, UDZSTE-1736B
D312	RH-EXA103WJZZY	AB		R	Zener Diode, UDZSTE-1736B
D313	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D314	RH-EXA101WJZZY	AB		R	Zener Diode, UDZSTE-1730B
D315	RH-EXA101WJZZY	AB		R	Zener Diode, UDZSTE-1730B
D316	RH-EXA101WJZZY	AB		R	Zener Diode, UDZSTE-1730B
D317	RH-EXA101WJZZY	AB		R	Zener Diode, UDZSTE-1730B
D318	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D1101	RH-EX1068CEZZY	AB	N	R	Zener Diode, EX1068CE
D1102	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D1103	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D1104	RH-EX1068CEZZY	AB	N	R	Zener Diode, EX1068CE
D1105	RH-EX1064CEZZY	AB	N	R	Zener Diode, EX1064CE
D1106	RH-EX1034CEZZY	AB	N	R	Zener Diode, EX1034CE
D1107	RH-EX1034CEZZY	AB	N	R	Zener Diode, EX1034CE
D1108	RH-EX1064CEZZY	AB	N	R	Zener Diode, EX1064CE
D1109	RH-EX1049CEZZY	AB	N	R	Zener Diode, EX1049CE
D1110	RH-EX1049CEZZY	AB	N	R	Zener Diode, EX1049CE
D1111	RH-EX1049CEZZY	AB	N	R	Zener Diode, EX1049CE
D1112	RH-EX1049CEZZY	AB	N	R	Zener Diode, EX1049CE
D1113	RH-EX1034CEZZY	AB	N	R	Zener Diode, EX1034CE
D1114	RH-EX1034CEZZY	AB	N	R	Zener Diode, EX1034CE
D1115	RH-EX1034CEZZY	AB	N	R	Zener Diode, EX1034CE
D1116	RH-EX1034CEZZY	AB	N	R	Zener Diode, EX1034CE
D1117	RH-EX1034CEZZY	AB	N	R	Zener Diode, EX1034CE
D1118	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D1119	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D1120	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D1121	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D1122	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D1123	RH-EX1026CEZZY	AB	N	R	Zener Diode, 3.9V
D1201	RH-EX1239CEZZY	AB		R	Zener Diode, EX1239CE
FB1101	RBLN-0062TAZZY	AB		R	Balun, BLN-0062TA
FB1102	RBLN-0062TAZZY	AB		R	Balun, BLN-0062TA
FB1103	RBLN-0077TAZZY	AB		R	Balun, BLN-0077TA
FB1104	RBLN-0077TAZZY	AB		R	Balun, BLN-0077TA
FB1105	RBLN-0051TAZZY	AC		R	Balun, BLN-0051TA
FB1106	RBLN-0062TAZZY	AB		R	Balun, BLN-0062TA
FB1107	RBLN-0051TAZZY	AC		R	Balun, BLN-0051TA
FB1108	RBLN-0062TAZZY	AB		R	Balun, BLN-0062TA
FB1109	RBLN-0062TAZZY	AB		R	Balun, BLN-0062TA
FB1110	RBLN-0062TAZZY	AB		R	Balun, BLN-0062TA
FB1111	RBLN-0051TAZZY	AC		R	Balun, BLN-0051TA
FB1112	RBLN-0051TAZZY	AC		R	Balun, BLN-0051TA
FB1201	RBLN-0051TAZZY	AC		R	Balun, BLN-0051TA
FB1202	RBLN-0051TAZZY	AC		R	Balun, BLN-0051TA
FB1203	RBLN-0062TAZZY	AB		R	Balun, BLN-0062TA
FB1204	RBLN-0062TAZZY	AB		R	Balun, BLN-0062TA
FB1213	RBLN-0210TAZZY	AB		R	Balun, BLN-0210TA
FB1218	RBLN-0254TAZZY	AB		R	Balun, BLN-0254TA
FL1101	RFiLN0017TAZZY	AC		R	Filter
FL1102	RFiLN0017TAZZY	AC		R	Filter
FL1103	RFiLN0017TAZZY	AC		R	Filter
FL1104	RFiLN0017TAZZY	AC		R	Filter
FL1105	RFiLN0017TAZZY	AC		R	Filter
FL1106	RFiLN0017TAZZY	AC		R	Filter
FL1107	RFiLN0017TAZZY	AC		R	Filter
FL1108	RFiLN0017TAZZY	AC		R	Filter
FL1109	RFiLN0017TAZZY	AC		R	Filter
FL1110	RFiLN0017TAZZY	AC		R	Filter
FL1211	RFiLN0017TAZZY	AC		R	Filter
FL1212	RFiLN0017TAZZY	AC		R	Filter
IC301	VHiTDA8931T-1Y	AS	N	R	IC, TDA8931T/N1,118
IC302	VHiTDA8931T-1Y	AS	N	R	IC, TDA8931T/N1,118
IC303	VHiNJM4558M-1Y	AD		R	IC, NJM4558M-TE1
IC1101	VHiMM1506XN-1Y	AD		R	IC, MM1506XNRE
IC1102	VHiMM1506XN-1Y	AD		R	IC, MM1506XNRE
IC1201	VHiMM1507XN-1Y	AD		R	IC, MM1507XNRE
J1101	QSOCZA116WJZZ	AK	N	R	Socket
J1201	QJAKZA033WJZZ	AK	N	R	Jack, 16Pin
J1301	QJAKJA007WJZZ	AD		R	Jack, Headphone Out
L301	RCiLPA386WJZZ	AF		R	Coil, Peaking 47μH
L302	RCiLPA386WJZZ	AF		R	Coil, Peaking 47μH
LUG301	QLUGHA009WJZZY	AC		R	Lug
LUG302	QLUGHA009WJZZY	AC		R	Lug
LUG303	QLUGHA009WJZZY	AC		R	Lug

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[4] DUNTKD604FM10 (AV Unit)					
LUG304	QLUGHA009WJZZY	AC		R	Lug
P301	QPLGNA173WJZZY	AD		R	Plug, 4PIN(SP)
P1101	QCNCMA250WJZZ	AE		R	Connector, 23Pin
P1102	QCNCMA250WJZZ	AE		R	Connector, 23Pin
P1201	QCNCMA250WJZZ	AE		R	Connector, 23Pin
Q301	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q302	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q303	VSDTC314TK/-1Y	AC		R	Transistor, DTC314TKT146
Q304	VSDTC314TK/-1Y	AC		R	Transistor, DTC314TKT146
Q307	VS2SA1530AR-1Y	AB		R	Transistor, 2SA1530A-T112-1R
Q1101	VSDTC314TK/-1Y	AC		R	Transistor, DTC314TKT146
Q1102	VSDTC314TK/-1Y	AC		R	Transistor, DTC314TKT146
Q1103	VS2SA1530AR-1Y	AB		R	Transistor, 2SA1530A-T112-1R
Q1104	VS2SA1530AR-1Y	AB		R	Transistor, 2SA1530A-T112-1R
Q1105	VSDTC314TK/-1Y	AC		R	Transistor, DTC314TKT146
Q1106	VSDTC314TK/-1Y	AC		R	Transistor, DTC314TKT146
Q1107	VS2SA1530AR-1Y	AB		R	Transistor, 2SA1530A-T112-1R
Q1108	VS2SA1530AR-1Y	AB		R	Transistor, 2SA1530A-T112-1R
Q1201	VS2SA1530AR-1Y	AB		R	Transistor, 2SA1530A-T112-1R
Q1202	VS2SA1530AR-1Y	AB		R	Transistor, 2SA1530A-T112-1R
Q1203	VSDTC314TK/-1Y	AC		R	Transistor, DTC314TKT146
Q1204	VSDTC314TK/-1Y	AC		R	Transistor, DTC314TKT146
R301	VRS-CJ1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R302	VRS-CJ1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R303	VRS-CY1JF222JY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R304	VRS-CY1JF222JY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R305	VRS-CY1JF222JY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R306	VRS-CJ1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R307	VRS-CJ1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
R308	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R309	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R310	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R311	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R312	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R313	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R314	VRS-CY1JF392JY	AA		R	Resistor, 3.9k 1/16W Metal Oxide
R315	VRS-CY1JF474JY	AA		R	Resistor, 470k 1/16W Metal Oxide
R316	VRS-CY1JF392JY	AA		R	Resistor, 3.9k 1/16W Metal Oxide
R317	VRS-CY1JF474JY	AA		R	Resistor, 470k 1/16W Metal Oxide
R318	VRS-TW2HF820JY	AB	N	R	Resistor, 82 1/2W Metal Oxide
R319	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R320	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R321	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R322	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R323	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R324	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R325	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R326	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R327	VRS-CJ1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R328	VRS-CJ1JF392JY	AA		R	Resistor, 3.9k 1/16W Metal Oxide
R329	VRS-CY1JF682JY	AA		R	Resistor, 6.8k 1/16W Metal Oxide
R330	VRS-CY1JF222JY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R331	VRS-CY1JF222JY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R333	VRS-CJ1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R334	VRS-CY1JF682JY	AA		R	Resistor, 6.8k 1/16W Metal Oxide
R335	VRS-TW2ED100JY	AA		R	Resistor, 10 1/4W Metal Oxide
R336	VRS-TW2ED100JY	AA		R	Resistor, 10 1/4W Metal Oxide
R337	VRS-TW2ED100JY	AA		R	Resistor, 10 1/4W Metal Oxide
R338	VRS-TW2ED100JY	AA		R	Resistor, 10 1/4W Metal Oxide
R339	VRS-TW2ED220JY	AB		R	Resistor, 22 1/4W Metal Oxide
R340	VRS-TW2ED220JY	AB		R	Resistor, 22 1/4W Metal Oxide
R343	VRS-TW2ED000JY	AB		R	Resistor, 0 1/4W Metal Oxide
R345	VRS-CJ1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R346	VRS-CY1JF560JY	AA		R	Resistor, 56 1/16W Metal Oxide
R347	VRS-CY1JF560JY	AA		R	Resistor, 56 1/16W Metal Oxide
R349	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R350	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R351	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R352	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R353	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R354	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R355	VRS-TW2ED2R7JY	AB		R	Resistor, 2.7 1/4W Metal Oxide
R356	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R358	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R360	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R1101	VRS-CY1JF153FY	AA		R	Resistor, 15k 1/16W Metal Oxide
R1102	VRS-CY1JF153FY	AA		R	Resistor, 15k 1/16W Metal Oxide
R1103	VRS-CY1JF393FY	AA		R	Resistor, 39k 1/16W Metal Oxide
R1104	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R1105	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R1106	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R1107	VRS-TV1JD221JY	AA		R	Resistor, 220 1/16W Metal Oxide
R1108	VRS-CY1JF393FY	AA		R	Resistor, 39k 1/16W Metal Oxide
R1109	VRS-TV1JD221JY	AA		R	Resistor, 220 1/16W Metal Oxide
R1110	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide

	NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
	[4] DUNTKD604FM10 (AV Unit)					
	R1111	VRS-TW2ED680JY	AA		R	Resistor, 68 1/4W Metal Oxide
	R1112	VRS-TW2ED680JY	AA		R	Resistor, 68 1/4W Metal Oxide
	R1113	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1114	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1115	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
	R1116	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1117	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1118	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1119	VRS-TW2ED101JY	AA		R	Resistor, 100 1/4W Metal Oxide
	R1120	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
	R1121	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1123	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1125	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1126	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
	R1127	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1128	VRS-TW2ED101JY	AA		R	Resistor, 100 1/4W Metal Oxide
	R1129	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1130	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
	R1131	VRS-CY1JF221JY	AA		R	Resistor, 220 1/16W Metal Oxide
	R1134	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1137	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
	R1138	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
	R1139	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
	R1140	VRS-CJ1JF331JY	AA		R	Resistor, 330 1/16W Metal Oxide
	R1141	VRS-CY1JF564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
	R1142	VRS-CY1JF564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
	R1143	VRS-CJ1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
	R1144	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1145	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1146	VRS-TV1JD221JY	AA		R	Resistor, 220 1/16W Metal Oxide
	R1147	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1148	VRS-TV1JD221JY	AA		R	Resistor, 220 1/16W Metal Oxide
	R1150	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
	R1152	VRS-CJ1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
	R1153	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
	R1154	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
	R1155	VRS-CJ1JF331JY	AA		R	Resistor, 330 1/16W Metal Oxide
	R1156	VRS-CY1JF564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
	R1157	VRS-CY1JF564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
	R1158	VRS-CJ1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
	R1159	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1160	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1161	VRS-CY1JF221JY	AA		R	Resistor, 220 1/16W Metal Oxide
	R1173	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
	R1177	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1179	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1201	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
	R1202	VRS-CY1JF392JY	AA		R	Resistor, 3.9k 1/16W Metal Oxide
	R1203	VRS-CY1JF682JY	AA		R	Resistor, 6.8k 1/16W Metal Oxide
	R1204	VRS-CY1JF750JY	AA		R	Resistor, 75 1/16W Metal Oxide
	R1206	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1209	VRS-TW2ED750JY	AA		R	Resistor, 75 1/4W Metal Oxide
	R1210	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1211	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1212	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
	R1213	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1214	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1215	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
	R1216	VRS-CY1JF271JY	AA		R	Resistor, 270 1/16W Metal Oxide
	R1217	VRS-CY1JF331JY	AA		R	Resistor, 330 1/16W Metal Oxide
	R1218	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
	R1219	VRS-CY1JF271JY	AA		R	Resistor, 270 1/16W Metal Oxide
	R1221	VRS-CY1JF331JY	AA		R	Resistor, 330 1/16W Metal Oxide
	R1222	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
	R1224	VRS-CY1JF564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
	R1225	VRS-CY1JF564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
	R1226	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1227	VRS-CY1JF102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
	R1228	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
	SC301	QSOCZ0738CEZZ	AE		R	Socket, 7Pin
	[5] DUNTKD605FM01 (POWER Unit) (LC-32RA1E/RU)					
⚠	C704	RC-FZA026WJZZ	AE		R	Capacitor, 0.47 275V
	C705	RC-EZA985WJZZ	AR	N	R	Capacitor, 220 400V Electrolytic
	C706	RC-EZA985WJZZ	AR	N	R	Capacitor, 220 400V Electrolytic
⚠	C708	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
⚠	C709	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
⚠	C712	RC-FZA026WJZZ	AE		R	Capacitor, 0.47 275V
	C713	RC-KZA388WJZZY	AC		R	Capacitor, 10 6.3V Ceramic
	C716	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C717	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C720	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C722	VCCCCY1HH470JY	AA		R	Capacitor, 47p 50V Ceramic
	C723	RC-EZA489WJZZ+	AC		R	Capacitor, 47 35V Electrolytic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[5] DUNTKD605FM01 (POWER Unit) (LC-32RA1E/RU)					
C725	RC-KZA304WJZZ	AD	N	R	Capacitor, 470p 2kV Ceramic
C726	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
C728	VCKYCY1HB332KY	AA		R	Capacitor, 3300p 50V Ceramic
C730	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C732	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C733	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
C734	RC-KZA304WJZZ	AD	N	R	Capacitor, 470p 2kV Ceramic
C735	RC-EZA489WJZZ+	AC		R	Capacitor, 47 35V Electrolytic
C736	RC-EZA489WJZZ+	AC		R	Capacitor, 47 35V Electrolytic
C739	VCCCCY1HH102JY	AB		R	Capacitor, 1000p 50V Ceramic
⚠ C740	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
⚠ C741	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
⚠ C742	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
C743	RC-EZA513WJZZ	AH	N	R	Capacitor, 470 50V Electrolytic
C744	RC-EZA499WJZZ	AH	N	R	Capacitor, 1200 35V Electrolytic
C745	VCKYCY1HB472KY	AA		R	Capacitor, 4700p 50V Ceramic
C749	VCKYTV1HB683KY	AB		R	Capacitor, 0.068 50V Ceramic
C751	RC-EZA499WJZZ	AH	N	R	Capacitor, 1200 35V Electrolytic
C752	RC-EZA452WJZZ	AG	N	R	Capacitor, 2200 10V Electrolytic
C753	VCKYTV1HB683KY	AB		R	Capacitor, 0.068 50V Ceramic
C754	RC-EZA510WJZZ	AF	N	R	Capacitor, 220 50V Electrolytic
C755	RC-EZA499WJZZ	AH	N	R	Capacitor, 1200 35V Electrolytic
C756	RC-EZA452WJZZ	AG	N	R	Capacitor, 2200 10V Electrolytic
C757	RC-EZA480WJZZ	AD		R	Capacitor, 680 25V Electrolytic
C758	RC-EZA490WJZZ+	AD		R	Capacitor, 100 35V Electrolytic
C762	RC-EZA513WJZZ	AH	N	R	Capacitor, 470 50V Electrolytic
C763	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C764	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C765	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C767	RC-EZA510WJZZ	AF	N	R	Capacitor, 220 50V Electrolytic
C768	RC-EZA452WJZZ	AG	N	R	Capacitor, 2200 10V Electrolytic
C771	VCKYCY1HB272KY	AA		R	Capacitor, 2700p 50V Ceramic
C772	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C774	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
C776	RC-KZA213WJZZY	AC		R	Capacitor, 4.7 25V Ceramic
⚠ C777	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
⚠ C778	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
C781	VCFYAA2JA103K+	AC		R	Capacitor, 0.01 630V
C782	VCFYAA2JA103K+	AC		R	Capacitor, 0.01 630V
C783	RC-KZA213WJZZY	AC		R	Capacitor, 4.7 25V Ceramic
C789	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C790	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
C792	VCKYCY1AB105KY	AB		R	Capacitor, 1 10V Ceramic
C793	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
C794	RC-KZA388WJZZY	AC		R	Capacitor, 10 6.3V Ceramic
C795	VCKYCY1AB105KY	AB		R	Capacitor, 1 10V Ceramic
C796	VCKYCY1AB105KY	AB		R	Capacitor, 1 10V Ceramic
C798	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
C799	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
C800	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
C801	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
C804	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
⚠ D701	RH-DX0477CEZZ	AF		R	Diode, D5SB60
D707	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D714	RH-EX1398CEZZY	AB		R	Zener Diode, UDZSTE-178.2B
D715	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D716	VHDU05NU44+-1Y	AE	N	R	Diode, U05NU44(TE12L,Q)
D717	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D718	RH-EXA091WJZZY	AB		R	Zener Diode, UDZSTE-1711B
D720	VHDU05NU44+-1Y	AE	N	R	Diode, U05NU44(TE12L,Q)
D721	RH-EXA096WJZZY	AB		R	Zener Diode, UDZSTE-1718B
D722	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D724	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D725	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D726	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D728	VHEST03D170-1	AG	N	R	Zener Diode, HEST03D170
D729	VHEST03D170-1	AG	N	R	Zener Diode, HEST03D170
⚠ D730	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
⚠ D731	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
⚠ D732	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
⚠ D733	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
⚠ D734	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
D735	VHDSF6L20U+-1	AG		R	Diode, SF6L20U
D736	RH-DXA080WJZZ	AK		R	Diode, SF20JC10-7100
D737	RH-DXA081WJZZ	AH		R	Diode, D15SCA4M-7000
D738	RH-DXA088WJZZY	AD	N	R	Diode, D1FL40-5063
D739	RH-DXA085WJZZ	AK	N	R	Diode, D5S9M-7000
D741	RH-EX1049CEZZY	AB		R	Zener Diode, EX1049CE
D742	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D746	RH-EXA102WJZZY	AB	N	R	Zener Diode, UDZSTE-1733B
D747	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D748	RH-EXA094WJZZY	AB		R	Zener Diode, UDZSTE-1715B
D749	RH-EX1400CEZZY	AB		R	Zener Diode, UDZSTE-1710B
D751	RH-EX1049CEZZY	AB		R	Zener Diode, EX1049CE

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[5] DUNTKD605FM01 (POWER Unit) (LC-32RA1E/RU)					
D752	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D753	RH-EX1074CEZZY				Zener Diode, X1074CE
D754	RH-EX1089CEZZY				Zener Diode, EX1089CE
D755	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D756	RH-EX1089CEZZY				Zener Diode, EX1089CE
D757	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D759	RH-EX1089CEZZY				Zener Diode, EX1089CE
D761	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D762	VHEST03D170-1	AG	N	R	Zener Diode, HEST03D170
D763	RH-EX1394CEZZY	AB		R	Zener Diode, UDZSTE-175.6B
D765	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D767	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D771	VHEST03D-82-1	AG	N	R	Zener Diode, HEST03D-82
D772	RH-EXA102WJZZY	AB	N	R	Zener Diode, UDZSTE-1733B
D773	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D774	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D775	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D776	RH-EX1234CEZZY	AE		R	Zener Diode, HZU3.6B2TRF
D777	VHDU05NU44+-1Y	AE	N	R	Diode, U05NU44(TE12L,Q)
D778	VHDU05NU44+-1Y	AE	N	R	Diode, U05NU44(TE12L,Q)
D779	VHD1SS355//-1Y	AB	N	R	Diode, 1SS355TE-17
D780	RH-EX1015GEZZY	AD		R	Zener Diode, PTZTE2516B
D781	RH-EX1015GEZZY	AD		R	Zener Diode, PTZTE2516B
D782	RH-EXA359WJZZY	AE	N	R	Zener Diode, PTZTE2533B
D783	RH-EXA359WJZZY	AE	N	R	Zener Diode, PTZTE2533B
E701	LANGQA027WJFW	AE	N	R	Inlet Angle
⚠ F701	QFS-ZA007WJZZ	AC		R	Fuse, T4AL/250V
IC704	VHiMR4030++-1	AR		R	IC, MR4030
IC705	VHiMR4020++-1	AQ		R	IC, MR4020-7101
IC706	VHiTA76431R-1Y	AE	N	R	IC, TA76431FR(TE12L,F)
IC707	VHiTA76431R-1Y	AE	N	R	IC, TA76431FR(TE12L,F)
IC708	VHiNJM2904M-1Y	AE		R	IC, NJM2904M-TE1
IC709	VHiNJM2903M-1Y	AE	N	R	IC, NJM2903M-TE1
⚠ L701	RCiLFA211WJZZ	AG	N	R	Coil
⚠ L702	RCiLF0024PEZZ	AN		R	Coil
L753	RCiLPA642WJZZ	AE	N	R	Coil
LUG701	QLUGHA002WJZZ	AB		R	Lug
LUG702	QLUGHA002WJZZ	AB		R	Lug
LUG703	QLUGHA002WJZZ	AB		R	Lug
LUG704	QLUGHA002WJZZ	AB		R	Lug
P701	QCNCMA250WJZZ	AE		R	Connector, 23Pin
P702	QCNCMA247WJZZ	AD		R	Connector, 9Pin
P703	QPLGZ0738CEZZ	AC		R	Plug, 7Pin
P704	QPLGNA053WJZZ	AF	N	R	Plug, 14Pin(LA)
Q702	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q704	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q708	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q710	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q712	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q713	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q721	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q723	RH-TXA037WJZZY	AE	N	R	Transistor, PBLS6003D,115
Q724	RH-TXA037WJZZY	AE	N	R	Transistor, PBLS6003D,115
Q726	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q729	VS2SD2185R+-1Y	AF	N	R	Transistor, 2SD21850RL
Q730	RH-TXA026WJZZY	AD		R	Transistor, PBLS2001D,115
Q731	RH-TXA026WJZZY	AD		R	Transistor, PBLS2001D,115
⚠ R701	RR-HZ0008GEZZY	AE	N	R	Resistor
⚠ R702	RR-HZ0008GEZZY	AE	N	R	Resistor
R727	VRS-TV1JD563JY	AA		R	Resistor, 56k 1/16W Metal Oxide
R730	VRS-TQ2EF124FY	AA	N	R	Resistor, 120k 1/4W Metal Oxide
R731	VRS-TQ2EF124FY	AA	N	R	Resistor, 120k 1/4W Metal Oxide
R732	VRS-TQ2EF124FY	AA	N	R	Resistor, 120k 1/4W Metal Oxide
R740	VRS-TV1JD564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
R741	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R742	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R743	VRS-CY1JF224JY	AA		R	Resistor, 220k 1/16W Metal Oxide
R745	VRS-TV1JD912JY	AA		R	Resistor, 9.1k 1/16W Metal Oxide
R746	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R747	VRS-TV1JD103FY	AA		R	Resistor, 10k 1/16W Metal Oxide
R748	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R751	VRN-VV3DBR10J	AB		R	Resistor, 0.1 2W Metal Film
R752	VRS-TV1JD000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R753	VRS-TV1JD133JY	AA		R	Resistor, 13k 1/16W Metal Oxide
R755	VRS-TV1JD203FY	AA		R	Resistor, 20k 1/16W Metal Oxide
R756	VRS-TV1JD183FY	AA		R	Resistor, 18k 1/16W Metal Oxide
R757	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R758	VRS-TV1JD564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
R759	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R760	VRN-VV3DBR15J	AB		R	Resistor, 0.15 2W Metal Film
R761	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R764	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R765	VRS-TV1JD104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
R766	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R767	VRS-TQ2EF391JY	AA		R	Resistor, 390 1/4W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[5] DUNTKD605FM01 (POWER Unit) (LC-32RA1E/RU)					
R770	VRS-TQ2BD000JY	AA		R	Resistor, 0 1/8W Metal Oxide
R773	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R774	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R775	VRS-TV1JD153FY	AA		R	Resistor, 15k 1/16W Metal Oxide
R776	VRS-TV1JD102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R777	VRS-TV1JD242FY	AA		R	Resistor, 2.4k 1/16W Metal Oxide
R778	VRS-TV1JD242FY	AA		R	Resistor, 2.4k 1/16W Metal Oxide
R779	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R780	VRS-TV1JD682JY	AA		R	Resistor, 6.8k 1/16W Metal Oxide
R781	VRS-TV1JD242FY	AA		R	Resistor, 2.4k 1/16W Metal Oxide
R782	VRS-TV1JD102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R783	VRS-TV1JD223JY	AA		R	Resistor, 22k 1/16W Metal Oxide
R784	VRS-TV1JD242JY	AA		R	Resistor, 2.4k 1/16W Metal Oxide
R785	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R787	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R788	VRS-TV1JD202FY	AA		R	Resistor, 2.0k 1/16W Metal Oxide
R789	VRS-TV1JD681FY	AA		R	Resistor, 680 1/16W Metal Oxide
R791	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R792	VRS-TV1JD272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R793	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R794	VRS-TV1JD821FY	AA		R	Resistor, 820 1/16W Metal Oxide
R795	VRS-TV1JD203FY	AA		R	Resistor, 20k 1/16W Metal Oxide
R796	VRS-TV1JD272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R797	VRS-TV1JD104FY	AA		R	Resistor, 100k 1/16W Metal Oxide
R801	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R805	VRS-TV1JD224JY	AA		R	Resistor, 220k 1/16W Metal Oxide
R809	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R812	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R817	VRS-TQ2EF122JY	AA		R	Resistor, 1.2k 1/4W Metal Oxide
R820	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R823	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R824	VRS-TQ2EF332JY	AA		R	Resistor, 3.3k 1/4W Metal Oxide
R825	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R828	VRS-TQ2EF220JY	AA		R	Resistor, 22 1/4W Metal Oxide
R831	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R833	VRS-TQ2EF223FY	AA	N	R	Resistor, 22k 1/4W Metal Oxide
R834	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R835	VRS-TQ2BD000JY	AA		R	Resistor, 0 1/8W Metal Oxide
R836	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R851	VRS-TQ2EF221JY	AA		R	Resistor, 220 1/4W Metal Oxide
R852	VRS-TQ2EF221JY	AA		R	Resistor, 220 1/4W Metal Oxide
R854	VRS-VV3DB102J	AA		R	Resistor, 1k 2W Metal Oxide
R857	VRS-TQ2BD000JY	AA		R	Resistor, 0 1/8W Metal Oxide
R858	VRS-TV1JD272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R859	VRS-CY1JF123JY	AA		R	Resistor, 12k 1/16W Metal Oxide
R860	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R861	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R862	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R863	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R864	VRS-CY1JF333JY	AA		R	Resistor, 33k 1/16W Metal Oxide
R865	VRS-CY1JF333JY	AA		R	Resistor, 33k 1/16W Metal Oxide
R866	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R867	VRS-CY1JF123JY	AA		R	Resistor, 12k 1/16W Metal Oxide
R868	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R869	VRS-CY1JF332JY	AA		R	Resistor, 3.3k 1/16W Metal Oxide
R870	VRS-CY1JF222JY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R871	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R872	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R873	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R877	VRS-TQ2EF124FY	AA	N	R	Resistor, 120k 1/4W Metal Oxide
R878	VRS-TQ2EF124FY	AA	N	R	Resistor, 120k 1/4W Metal Oxide
⚠ RDA701	PRDARA323WJFW	AG	N	R	Heat Sink (for D701)
RDA702	PRDARA306WJFW	AG	N	R	Heat Sink (for IC705)
RDA703	PRDARA307WJFW	AK	N	R	Heat Sink (for IC704)
RDA704	PRDARA308WJFW	AH	N	R	Heat Sink (for SUB-C)
RDA705	PRDARA309WJFW	AH	N	R	Heat Sink (for INV-C)
RJ1	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ2	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ3	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ4	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
⚠ RY701	RRLYDA008WJZZ	AG		R	Relay
SC701	QSOCAA008WJZZ	AE		R	Socket, 2Pin(AC Inlet)
⚠ T701	RTRNWA230WJZZ	AP		R	Transformer
⚠ T702	RTRNWA231WJZZ	AR	N	R	Transformer
⚠ T703	RTRNCA022WJZZ	AW	N	R	Choke Transformer
⚠ TH701	RH-HXA033WJZZ	AG	N	R	Thermistor, 16D2-13LCS
⚠ VA701	RH-VXA071WJQZ	AD	N	R	Varista, ERZV10D471CS
VA702	RH-VXA071WJQZ	AD	N	R	Varista, ERZV10D471CS

	NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
	[6] DUNTKD787FM03 (POWER Unit) (LC-37RA1E/RU)					
	C701	RC-FZA126WJZZ	AE		R	Capacitor, 0.1 450V Metallized Polyester Film
	C702	VCKYCY1HB333KY	AA		R	Capacitor, 0.033 50V Ceramic
	C703	VCKYTV1EB474KY	AC		R	Capacitor, 0.47 25V Ceramic
⚠	C704	RC-FZA026WJZZ	AE		R	Capacitor, 0.47 275V Metallized Polyester Film
	C705	VCKYCY1EB333KY	AA		R	Capacitor, 0.033 25V Ceramic
	C706	RC-FZA124WJZZ	AG		R	Capacitor, 2.2 450V Metallized Polyester Film
	C707	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
⚠	C708	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
⚠	C709	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
	C710	VCKYTV1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
	C711	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
⚠	C712	RC-FZA026WJZZ	AE		R	Capacitor, 0.47 275V Metallized Polyester Film
	C713	RC-KZA388WJZZY	AC		R	Capacitor, 10 6.3V Ceramic
	C714	RC-KZA304WJZZ	AD		R	Capacitor, 470p 2kV Ceramic
	C715	RC-EZA813WJZZ	AT		R	Capacitor, 150 450V Electrolytic
	C716	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C717	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C719	RC-KZA304WJZZ	AD		R	Capacitor, 470p 2kV Ceramic
	C720	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C721	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
	C722	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
	C723	RC-EZA489WJZZ+	AC		R	Capacitor, 47 35V Electrolytic
	C724	VCFPVC3ZA822H	AE		R	Capacitor, 8200p 1800V Metallized Polyester Fil
	C726	VCCCCY1HH101JY	AA		R	Capacitor, 100p 50V Ceramic
	C728	VCKYCY1HB332KY	AA		R	Capacitor, 3300p 50V Ceramic
	C729	RC-EZA489WJZZ+	AC		R	Capacitor, 47 35V Electrolytic
	C730	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C732	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C733	VCKYCY1HB222KY	AA		R	Capacitor, 2200p 50V Ceramic
	C734	RC-KZA304WJZZ	AD		R	Capacitor, 470p 2kV Ceramic
	C735	RC-EZA489WJZZ+	AC		R	Capacitor, 47 35V Electrolytic
	C736	RC-EZA489WJZZ+	AC		R	Capacitor, 47 35V Electrolytic
	C737	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
	C739	VCCCCY1HH102JY	AB		R	Capacitor, 1000p 50V Ceramic
⚠	C741	RC-KZ0105GEZZ	AD		R	Capacitor, 2200p 250V Ceramic
	C743	RC-EZA513WJZZ	AH		R	Capacitor, 470 50V Electrolytic
	C744	RC-EZA499WJZZ	AH		R	Capacitor, 1200 35V Electrolytic
	C745	VCKYCY1HB472KY	AA		R	Capacitor, 4700p 50V Ceramic
	C749	VCKYTV1HB683KY	AB		R	Capacitor, 0.068 50V Ceramic
	C750	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C751	RC-EZA499WJZZ	AH		R	Capacitor, 1200 35V Electrolytic
	C752	RC-EZA452WJZZ	AG		R	Capacitor, 2200 10V Electrolytic
	C753	VCKYTV1HB683KY	AB		R	Capacitor, 0.068 50V Ceramic
	C754	RC-EZA510WJZZ	AF		R	Capacitor, 220 50V Electrolytic
	C755	RC-EZA499WJZZ	AH		R	Capacitor, 1200 35V Electrolytic
	C756	RC-EZA452WJZZ	AG		R	Capacitor, 2200 10V Electrolytic
	C757	RC-EZA480WJZZ	AD		R	Capacitor, 680 25V Electrolytic
	C758	RC-EZA490WJZZ+	AD		R	Capacitor, 100 35V Electrolytic
	C762	RC-EZA513WJZZ	AH		R	Capacitor, 470 50V Electrolytic
	C763	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C764	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C765	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C767	RC-EZA510WJZZ	AF		R	Capacitor, 220 50V Electrolytic
	C768	RC-EZA452WJZZ	AG		R	Capacitor, 2200 10V Electrolytic
	C771	VCKYCY1HB272KY	AA		R	Capacitor, 2700p 50V Ceramic
	C772	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C774	RC-KZ0029CEZZ	AC		R	Capacitor, 0.01 250V Ceramic
	C775	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
	C776	RC-KZA213WJZZY	AC		R	Capacitor, 4.7 25V Ceramic
⚠	C777	RC-KZ0103GEZZ	AD		R	Capacitor, 1000p 250V Ceramic
⚠	C778	RC-KZ0103GEZZ	AD		R	Capacitor, 1000p 250V Ceramic
⚠	C779	RC-KZ0103GEZZ	AD		R	Capacitor, 1000p 250V Ceramic
⚠	C780	RC-KZ0103GEZZ	AD		R	Capacitor, 1000p 250V Ceramic
	C783	RC-KZA213WJZZY	AC		R	Capacitor, 4.7 25V Ceramic
	C785	RC-KZ0029CEZZ	AC		R	Capacitor, 0.01 250V Ceramic
	C786	RC-KZA304WJZZ	AD		R	Capacitor, 470p 2kV Ceramic
	C789	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C790	VCKYCY1HB104KY	AA		R	Capacitor, 0.1 50V Ceramic
	C791	RC-KZA450WJZZY	AD		R	Capacitor, 470p 1kV Ceramic
	C792	VCKYCY1AB105KY	AB		R	Capacitor, 1 10V Ceramic
	C793	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
	C794	RC-KZA388WJZZY	AC		R	Capacitor, 10 6.3V Ceramic
	C795	VCKYCY1AB105KY	AB		R	Capacitor, 1 10V Ceramic
	C796	VCKYCY1AB105KY	AB		R	Capacitor, 1 10V Ceramic
	C798	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
	C799	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
	C800	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
	C801	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
	C802	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
	C803	VCKYCY1HB223KY	AA		R	Capacitor, 0.022 50V Ceramic
	C804	VCKYCY1CB104KY	AB		R	Capacitor, 0.1 16V Ceramic
	C805	RC-KZA304WJZZ	AD		R	Capacitor, 470p 2kV Ceramic
	C813	RC-FZ0010TAZZ	AC		R	Capacitor, 0.01 630V Metallized Polyester
⚠	D701	RH-DX0477CEZZ	AF		R	Diode, D5SB60

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[6] DUNTKD787FM03 (POWER Unit) (LC-37RA1E/RU)					
D702	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D703	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D704	VHDLi114+++-1Y	AC		R	Diode, Li114
D705	VHDRB160M40-1Y	AC		R	Diode, RB160M-40TR
D706	RH-EXA100WJZZY	AC		R	Zener Diode, UDZS TE-17 27B
D707	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D709	RH-DXA073WJZZ	AM		R	Diode, YG97S6R
D710	RH-EXA094WJZZY	AB		R	Zener Diode, UDZSTE-1715B
D711	RH-EXA092WJZZY	AB		R	Zener Diode, UDZSTE-1712B
D712	VHDU05NU44+-1Y	AE		R	Diode, U05NU44(TE12L,Q)
D714	RH-EXA092WJZZY	AB		R	Zener Diode, UDZSTE-1712B
D715	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D716	VHDU05NU44+-1Y	AE		R	Diode, U05NU44(TE12L,Q)
D717	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D718	RH-EXA091WJZZY	AB		R	Zener Diode, UDZSTE-1711B
D719	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D720	VHDU05NU44+-1Y	AE		R	Diode, U05NU44(TE12L,Q)
D721	RH-EXA096WJZZY	AB		R	Zener Diode, UDZSTE-1718B
D722	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D724	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D725	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D726	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D728	VHD1SS355//-1Y	AB		R	Diode, 1SS355TE-17
D729	RH-DXA080WJZZ	AK		R	Diode, SF20JC10-7100
⚠ D730	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
⚠ D731	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
⚠ D732	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
⚠ D733	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
⚠ D734	RH-FXA003WJZZ	AD		R	Photo Coupler, PC123Y82
D735	VHDSF6L20U+-1	AG		R	Diode, SF6L20U
D736	RH-DXA080WJZZ	AK		R	Diode, SF20JC10-7100
D737	RH-DXA081WJZZ	AH		R	Diode, D15SCA4M-7000
D738	RH-DXA088WJZZY	AD		R	Diode, D1FL40-5063
D739	RH-DXA085WJZZ	AK	N	R	Diode, D5S9M-7000
D740	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D741	RH-EX1049CEZZY	AB		R	Zener Diode, EX1049CE
D742	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D743	VHDU05NU44+-1Y	AE		R	Diode, U05NU44(TE12L,Q)
D744	VHDRB160M40-1Y	AC		R	Diode, RB160M-40TR
D746	RH-EXA102WJZZY	AB		R	Zener Diode, UDZSTE-1733B
D747	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D751	RH-EX1049CEZZY	AB		R	Zener Diode, EX1049CE
D752	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D753	RH-EX1074CEZZY				Zener Diode, X1074CE
D754	RH-EX1089CEZZY				Zener Diode, EX1089CE
D755	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D756	RH-EX1089CEZZY				Zener Diode, EX1089CE
D757	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D758	RH-DX0466CEZZ	AE		R	Diode, S3L60
D759	RH-EX1089CEZZY				Zener Diode, EX1089CE
D761	VHDD1FL20U/-1Y	AC		R	Diode, D1FL20U
D763	RH-EX1394CEZZY	AB		R	Zener Diode, UDZSTE-175.6B
D764	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D765	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D767	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D768	VHDU05NU44+-1Y	AE		R	Diode, U05NU44(TE12L,Q)
D769	VHDU05NU44+-1Y	AE		R	Diode, U05NU44(TE12L,Q)
D771	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D772	RH-EXA102WJZZY	AB		R	Zener Diode, UDZSTE-1733B
D773	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D774	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D775	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D776	RH-EX1234CEZZY	AE		R	Zener Diode, HZU3.6B2TRF
D778	RH-EXA359WJZZY	AE		R	Zener Diode, PTZTE2533B
D779	VHD1SS352//-1Y	AB		R	Diode, 1SS352(TPH3,F)
D780	RH-EX1015GEZZY	AD		R	Zener Diode, PTZTE2516B
D781	RH-EX1015GEZZY	AD		R	Zener Diode, PTZTE2516B
D782	RH-EXA359WJZZY	AE		R	Zener Diode, PTZTE2533B
D783	RH-EXA359WJZZY	AE		R	Zener Diode, PTZTE2533B
D793	RH-DXA070WJZZY	AE		R	Diode, SARS01V1
E701	LANGQA027WJFW	AE		R	Inlet Angle
⚠ F701	QFS-ZA007WJZZ	AC		R	Fuse, T4AL/250V
F702	QFS-TA005WJZZ	AG	N	R	Fuse
FB701	RBLN-A007WJZZY	AC		R	Balun, BLN-A007WJ
FB702	RBLN-0020CEZZ+	AB		R	Balun, BLN-0020CE
FB706	RBLN-0020CEZZ	AB		R	Balun, BLN-0020CE
FB708	RBLN-0020CEZZ	AB		R	Balun, BLN-0020CE
FB709	RBLN-0020CEZZ	AB		R	Balun, BLN-0020CE
FB710	RBLN-0020CEZZ	AB		R	Balun, BLN-0020CE
IC701	VHiFA5501AN-1Y	AQ		R	IC, FA55501AN-D1-TE1
IC704	VHiMR4040++-1	AS		R	IC, MR4040-7101
IC705	VHiMR4020++-1	AQ		R	IC, MR4020-7101
IC706	VHiHA17431G-1Y	AG		R	IC, HA17431GUPTL-E
IC707	VHiTA76431R-1Y	AE		R	IC, TA76431FR(TE12L,F)
IC708	VHiNJM2902V-1Y	AD		R	IC, NJM2902V(TE1)

	NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
	[6] DUNTKD787FM03 (POWER Unit) (LC-37RA1E/RU)					
	IC709	VHiNJM2903M-1Y	AE		R	IC, NJM2903M-TE1
	IC710	VHiPST3646N-1Y	AE		R	IC, IC-PST3646NR
⚠	L701	RCiLFA225WJZZ	AL		R	Coil
	L703	RCiLPA546WJZZ	AH		R	Coil
	L704	RCiLCA133WJZZ	AP		R	Coil
⚠	L706	RCiLFA225WJZZ	AL		R	Coil
	L753	RCiLPA642WJZZ	AE		R	Coil
	LUG701	QLUGHA002WJZZ	AB		R	Lug
	LUG702	QLUGHA002WJZZ	AB		R	Lug
	LUG703	QLUGHA002WJZZ	AB		R	Lug
	LUG704	QLUGHA002WJZZ	AB		R	Lug
	LUG705	QLUGHA002WJZZ	AB		R	Lug
	LUG706	QLUGHA002WJZZ	AB		R	Lug
	P701	QCNCMA262WJZZ		N		Connector
	P702	QCNCMA252WJZZ		N		Connector
	P703	QPLGZ0738CEZZ	AC		R	Plug, 7Pin
	P704	QPLGNA053WJZZ	AF		R	Plug, 14Pin(LA)
	Q701	VS2SK3525++-1	AM		R	Transistor, 2SK3525-01MR-F119
	Q702	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q704	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q705	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q708	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q709	VS2SK3525++-1	AM		R	Transistor, 2SK3525-01MR-F119
	Q710	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q712	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q713	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q721	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q723	RH-TXA037WJZZY	AE		R	Transistor, PBLS6003D,115
	Q724	RH-TXA037WJZZY	AE		R	Transistor, PBLS6003D,115
	Q725	RH-TXA037WJZZY	AE		R	Transistor, PBLS6003D,115
	Q726	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
	Q729	VS2SD2185R+-1Y	AF		R	Transistor, 2SD21850RL
	Q730	RH-TXA026WJZZY	AD		R	Transistor, PBLS2001D,115
	Q731	RH-TXA026WJZZY	AD		R	Transistor, PBLS2001D,115
⚠	R701	RR-HZ0008GEZZY	AE		R	Resistor
⚠	R702	RR-HZ0008GEZZY	AE		R	Resistor
	R703	VRS-CY1JF105JY	AA		R	Resistor, 1M 1/16W Metal Oxide
⚠	R704	RR-HZ0008GEZZY	AE		R	Resistor
	R705	VRS-CY1JF332DY	AA		R	Resistor, 3.3k 1/16W Metal Oxide
	R706	VRS-TQ2EF124FY	AA		R	Resistor, 120k 1/4W Metal Oxide
	R707	VRS-TQ2EF124FY	AA		R	Resistor, 120k 1/4W Metal Oxide
	R708	VRS-TQ2EF124FY	AA		R	Resistor, 120k 1/4W Metal Oxide
	R709	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R710	VRS-CY1JF681FY	AA		R	Resistor, 680 1/16W Metal Oxide
	R711	VRS-TV1JD390JY	AA		R	Resistor, 39 1/16W Metal Oxide
	R712	VRS-CY1JF183JY	AA		R	Resistor, 18k 1/16W Metal Oxide
	R713	VRS-TQ2EF393FY	AA		R	Resistor, 39k 1/4W Metal Oxide
	R714	VRS-TQ2EF100JY	AA		R	Resistor, 10 1/4W Metal Oxide
	R715	VRS-TQ2EF101JY	AA		R	Resistor, 100 1/4W Metal Oxide
	R716	VRS-CY1JF682JY	AA		R	Resistor, 6.8k 1/16W Metal Oxide
	R717	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R718	VRS-TQ2EF681JY	AA		R	Resistor, 680 1/4W Metal Oxide
	R719	RR-FZA006WJZZ	AG		R	Resistor
	R720	VRS-TQ2EF394DY	AB		R	Resistor, 390k 1/4W Metal Oxide
	R721	VRS-TQ2EF394DY	AB		R	Resistor, 390k 1/4W Metal Oxide
	R722	VRS-TQ2EF394DY	AB		R	Resistor, 390k 1/4W Metal Oxide
	R723	VRS-TQ2EF394DY	AB		R	Resistor, 390k 1/4W Metal Oxide
	R724	VRS-TQ2EF394DY	AB		R	Resistor, 390k 1/4W Metal Oxide
	R725	VRS-CY1JF822DY	AA		R	Resistor, 8.2k 1/16W Metal Oxide
	R726	VRS-TQ2EF681JY	AA		R	Resistor, 680 1/4W Metal Oxide
	R727	VRS-TV1JD563JY	AA		R	Resistor, 56k 1/16W Metal Oxide
	R728	VRS-TQ2EF394FY	AA		R	Resistor, 390k 1/4W Metal Oxide
	R729	VRS-TQ2EF394FY	AA		R	Resistor, 390k 1/4W Metal Oxide
	R730	VRS-TQ2EF394FY	AA		R	Resistor, 390k 1/4W Metal Oxide
	R731	VRS-TQ2EF394FY	AA		R	Resistor, 390k 1/4W Metal Oxide
	R732	VRS-TQ2EF394FY	AA		R	Resistor, 390k 1/4W Metal Oxide
	R733	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R734	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R740	VRS-TV1JD564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
	R741	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R742	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R743	VRS-CY1JF224JY	AA		R	Resistor, 220k 1/16W Metal Oxide
	R744	VRS-TQ2EF123FY	AA		R	Resistor, 12k 1/4W Metal Oxide
	R745	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R746	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R747	VRS-TV1JD153FY	AA		R	Resistor, 15k 1/16W Metal Oxide
	R748	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R749	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
	R750	VRN-VV3DBR15J	AB		R	Resistor, 0.15 2W Metal Film
	R751	VRN-VV3DBR15J	AB		R	Resistor, 0.15 2W Metal Film
	R752	VRS-TV1JD000JY	AA		R	Resistor, 0 1/16W Metal Oxide
	R753	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
	R754	VRS-CY1JF333JY	AA		R	Resistor, 33k 1/16W Metal Oxide
	R755	VRS-TV1JD223FY	AA		R	Resistor, 22k 1/16W Metal Oxide
	R756	VRS-TV1JD273FY	AA		R	Resistor, 27k 1/16W Metal Oxide

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[6] DUNTKD787FM03 (POWER Unit) (LC-37RA1E/RU)					
R757	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R758	VRS-TV1JD564JY	AA		R	Resistor, 560k 1/16W Metal Oxide
R759	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R760	VRN-VV3DBR18J	AD		R	Resistor, 0.18 2W Metal Film
R761	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R762	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R764	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R765	VRS-TV1JD104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
R766	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R767	VRS-TQ2EF391JY	AA		R	Resistor, 390 1/4W Metal Oxide
R770	VRS-TQ2BD000JY	AA		R	Resistor, 0 1/8W Metal Oxide
R771	VRS-TQ2EF752FY	AA		R	Resistor, 7.5k 1/4W Metal Oxide
R772	VRS-TQ2EF102JY	AA		R	Resistor, 1k 1/4W Metal Oxide
R773	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R774	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R775	VRS-TV1JD153FY	AA		R	Resistor, 15k 1/16W Metal Oxide
R776	VRS-TV1JD102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R777	VRS-CY1JF392DY	AA		R	Resistor, 3.9k 1/16W Metal Oxide
R778	VRS-TV1JD242FY	AA		R	Resistor, 2.4k 1/16W Metal Oxide
R779	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R780	VRS-TV1JD682JY	AA		R	Resistor, 6.8k 1/16W Metal Oxide
R781	VRS-TV1JD242FY	AA		R	Resistor, 2.4k 1/16W Metal Oxide
R782	VRS-TV1JD102JY	AA		R	Resistor, 1k 1/16W Metal Oxide
R783	VRS-TV1JD223JY	AA		R	Resistor, 22k 1/16W Metal Oxide
R784	VRS-TV1JD242JY	AA		R	Resistor, 2.4k 1/16W Metal Oxide
R785	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R787	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R788	VRS-CY1JF332DY	AA		R	Resistor, 3.3k 1/16W Metal Oxide
R789	VRS-CY1JF121DY				Resistor, 120 1/16W Metal Oxide
R790	VRS-CY1JF103FY	AA		R	Resistor, 10k 1/16W Metal Oxide
R791	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R792	VRS-TV1JD272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R793	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R794	VRS-TV1JD821FY	AA		R	Resistor, 820 1/16W Metal Oxide
R795	VRS-TV1JD203FY	AA		R	Resistor, 20k 1/16W Metal Oxide
R796	VRS-TV1JD272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R797	VRS-TQ2EF333FY	AA		R	Resistor, 33k 1/4W Metal Oxide
R798	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R799	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R800	VRS-TV1JD000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R801	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R802	VRS-VV3AB273J	AA		R	Resistor, 27k 1W Metal Oxide
R803	VRS-VV3AB273J	AA		R	Resistor, 27k 1W Metal Oxide
R804	VRS-VV3LB220J	AB		R	Resistor, 22 3.0W Metal Oxide
R805	VRS-TV1JD224JY	AA		R	Resistor, 220k 1/16W Metal Oxide
R806	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R808	VRS-TQ2EF123FY	AA		R	Resistor, 12k 1/4W Metal Oxide
R809	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R810	VRS-TQ2EF683JY	AA		R	Resistor, 68k 1/4W Metal Oxide
R811	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R812	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R815	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R816	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R817	VRS-TQ2EF122JY	AA		R	Resistor, 1.2k 1/4W Metal Oxide
R820	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R822	VRS-TQ2EF124FY	AA		R	Resistor, 120k 1/4W Metal Oxide
R823	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R825	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R826	VRS-TQ2EF124FY	AA		R	Resistor, 120k 1/4W Metal Oxide
R827	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R828	VRS-TQ2EF220JY	AA		R	Resistor, 22 1/4W Metal Oxide
R830	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R831	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R832	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
R833	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R834	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R835	VRS-TQ2BD000JY	AA		R	Resistor, 0 1/8W Metal Oxide
R836	VRS-TV1JD103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R837	VRS-CY1JF472DY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R838	VRS-CY1JF183DY	AA		R	Resistor, 18k 1/16W Metal Oxide
R839	VRS-CY1JF105JY	AA		R	Resistor, 1M 1/16W Metal Oxide
R840	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
R847	VRS-CY1JF152JY	AA		R	Resistor, 1.5k 1/16W Metal Oxide
R848	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R851	VRS-TQ2EF221JY	AA		R	Resistor, 220 1/4W Metal Oxide
R852	VRS-TQ2EF221JY	AA		R	Resistor, 220 1/4W Metal Oxide
R854	VRS-VV3DB102J	AA		R	Resistor, 1k 2W Metal Oxide
R857	VRS-TQ2BD000JY	AA		R	Resistor, 0 1/8W Metal Oxide
R858	VRS-TV1JD272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R859	VRS-CY1JF123JY	AA		R	Resistor, 12k 1/16W Metal Oxide
R860	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R861	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R862	VRS-CY1JF272JY	AA		R	Resistor, 2.7k 1/16W Metal Oxide
R863	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R864	VRS-CY1JF333JY	AA		R	Resistor, 33k 1/16W Metal Oxide

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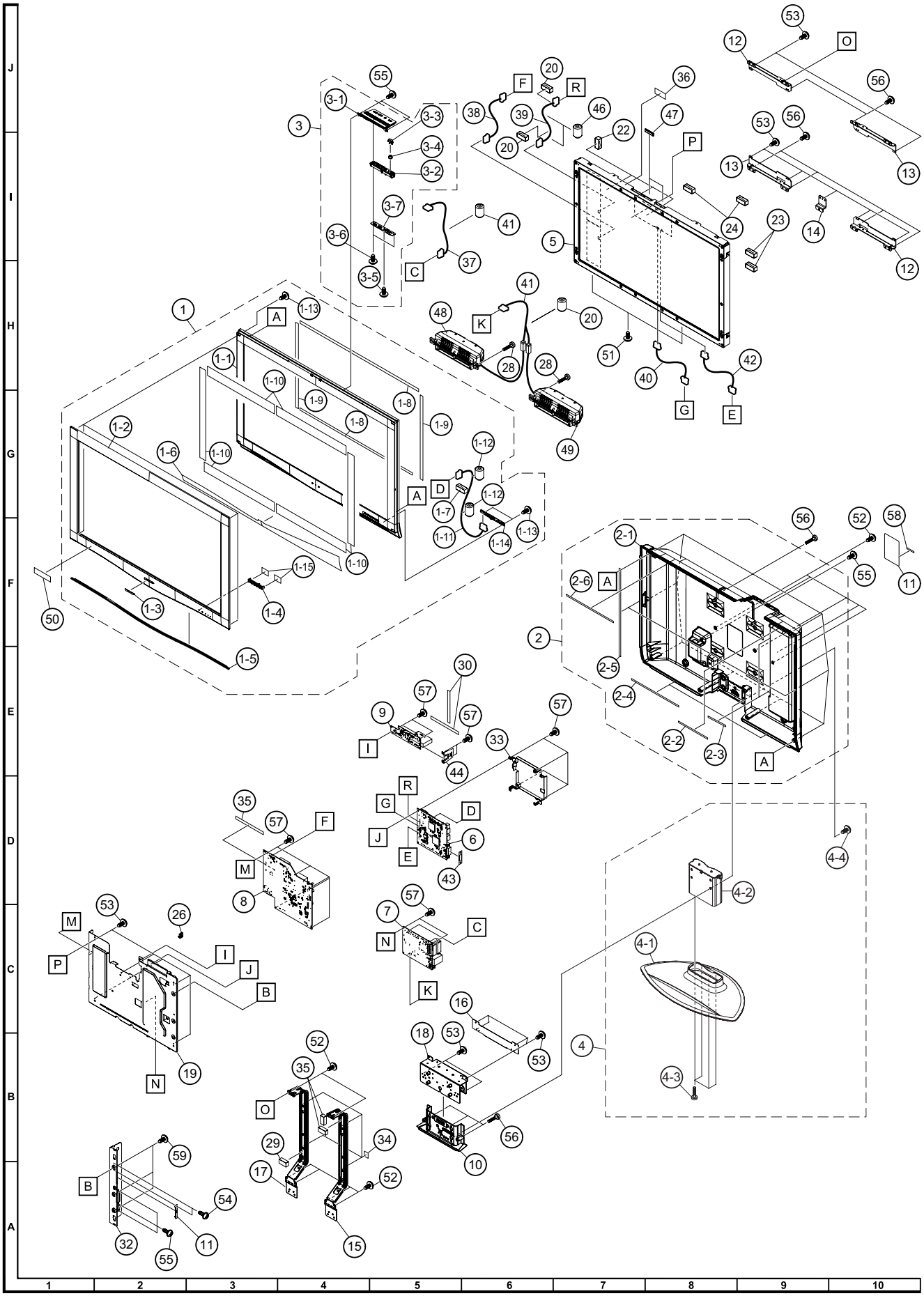
[6] DUNTKD787FM03 (POWER Unit) (LC-37RA1E/RU)					
R865	VRS-CY1JF333JY	AA		R	Resistor, 33k 1/16W Metal Oxide
R866	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R867	VRS-CY1JF123JY	AA		R	Resistor, 12k 1/16W Metal Oxide
R868	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R869	VRS-CY1JF332JY	AA		R	Resistor, 3.3k 1/16W Metal Oxide
R870	VRS-CY1JF222JY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R871	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R872	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R873	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R875	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R876	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R878	VRS-CY1JF472JY	AA		R	Resistor, 4.7k 1/16W Metal Oxide
R881	VRS-TQ2EF681JY	AA		R	Resistor, 680 1/4W Metal Oxide
R882	VRS-TQ2EF681JY	AA		R	Resistor, 680 1/4W Metal Oxide
RDA701	PRDARA336WJFW	AK	N	R	Heat Sink
RDA702	PRDARA306WJFW	AG	N	R	Heat Sink (for IC705)
RDA703	PRDARA337WJFW	AK	N	R	Heat Sink
RDA704	PRDARA308WJFW	AH	N	R	Heat Sink (for SUB-C)
RDA705	PRDARA367WJFW	AK	N	R	Heat Sink
RJ1	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ2	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ3	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
⚠ RY701	RRLYDA008WJZZ	AG		R	Relay
SC701	QSOCAA008WJZZ	AE		R	Socket, 2Pin(AC Inlet)
⚠ T701	RTRNWA255WJZZ	AQ		R	Tranceformer
⚠ T702	RTRNWA244WJZZ	AU		R	Tranceformer
⚠ TH701	RH-HXA033WJZZ	AG		R	Thermistor, 16D2-13LCS
⚠ VA701	RH-VXA071WJQZ	AD		R	Varista, ERZV10D471CS
⚠ VA702	RH-VXA071WJQZ	AD		R	Varista, ERZV10D471CS
N	LX-BZ3049GEF7	AA		R	Screw, x12
N	LX-BZA165WJZZ	AB		R	Screw, x2 (Inlet)
[7] DUNTKD972FM01 (KEY Unit)					
D151	RH-EX0641GEZZY	AA		R	Zener Diode, MTZJT-7212C
P153	QPLGNA057WJZZ	AB		R	Plug, 3Pin(KM)
R151	VRD-RA2BE182JY	AA		R	Resistor, 1.8k 1/8W Carbon
R152	VRD-RA2BE431JY	AA	N	R	Resistor, 430 1/8W Carbon
R153	VRD-RA2BE822JY	AA		R	Resistor, 8.2k 1/8W Carbon
R155	VRD-RA2BE432JY	AA	N	R	Resistor, 4.3k 1/8W Carbon
R156	VRD-RA2BE911JY	AA	N	R	Resistor, 910 1/8W Carbon
S151	QSW-K0003AJZZ+	AB		R	Switch, CH UP
S152	QSW-K0003AJZZ+	AB		R	Switch, CH DOWN
S153	QSW-K0003AJZZ+	AB		R	Switch, MENU
S154	QSW-K0003AJZZ+	AB		R	Switch, VOL UP
S155	QSW-K0003AJZZ+	AB		R	Switch, VOL DOWN
S156	QSW-P0035GEZZ	AF		R	Switch
[8] DUNTKD607FMV0 (R/C, LED Unit)					
C101	VCEASY1CN107MY	AC		R	Capacitor, 100 16V Electrolytic
C102	VCKYTV1CF225ZY	AB		R	Capacitor, 2.2 16V Ceramic
C104	VCEASX1CN106MY	AC		R	Capacitor, 10 16V Electrolytic
C105	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
D101	RH-EXA092WJZZY	AB		R	Zener Diode, UDZSTE-1712B
D102	RH-PX0202TAZZY	AC		R	LED, PG1102W-330-TR
D103	RH-PX0210TAZZY	AC		R	LED, BRPG1211C-TR
D104	RH-PX0419CEZZY	AC		R	LED, SML-010LTT86
IC101	VHiTPS850++-1Y	AG		R	IC, TPS850
P101	QPLGNA344WJZZY	AD		R	Plug, 10Pin(RA)
R101	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R108	VRS-CY1JF271JY	AA		R	Resistor, 270 1/16W Metal Oxide
R109	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R112	VRS-CY1JF471JY	AA		R	Resistor, 470 1/16W Metal Oxide
R114	VRS-CY1JF821JY	AA		R	Resistor, 820 1/16W Metal Oxide
RMC101	RRMCUA053WJZZ	AE		R	Remote Receiver
SLD101	PSLDM4646CEFW	AD		R	Shield
[9] DUNTKD608FM16 (TUNER Unit)					
C201	VCESKA1AM336M+	AC		R	Capacitor, 33 10V Electrolytic
C202	VCCCCY1HH220JY	AA		R	Capacitor, 22p 50V Ceramic
C203	VCCCCY1HH220JY	AA		R	Capacitor, 22p 50V Ceramic
C204	VCESKA1CM477M+	AD		R	Capacitor, 470 16V Electrolytic
C205	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C206	VCESKA1CM107M+	AC		R	Capacitor, 100 16V Electrolytic
C207	VCESKA1HM106M+	AC		R	Capacitor, 10 50V Electrolytic
C208	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C209	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C210	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C211	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C212	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C213	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C214	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C215	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C216	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C217	VCESKA1HM106M+	AC		R	Capacitor, 10 50V Electrolytic

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[9] DUNTKD608FM16 (TUNER Unit)					
C218	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C219	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C220	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C221	VCESKA1CM107M+	AC		R	Capacitor, 100 16V Electrolytic
C222	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C223	VCCCCY1HH391JY	AB		R	Capacitor, 390p 50V Ceramic
C224	VCKYTV1CB224KY	AB		R	Capacitor, 0.22 16V Ceramic
C225	VCKYCY1HB152KY	AA		R	Capacitor, 1500p 50V Ceramic
C226	VCESKA1AM227M+	AD		R	Capacitor, 220 10V Electrolytic
C227	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C228	VCKYTV1CB474KY	AC		R	Capacitor, 0.47 16V Ceramic
C229	VCCCCY1HH120JY	AA		R	Capacitor, 12p 50V Ceramic
C230	VCESKA1HM106M+	AC		R	Capacitor, 10 50V Electrolytic
C231	VCKYCY1HF103ZY	AA		R	Capacitor, 0.01 50V Ceramic
C232	VCCCCY1HH330JY	AA		R	Capacitor, 33p 50V Ceramic
C233	VCKYCY1HB102KY	AA		R	Capacitor, 1000p 50V Ceramic
C234	VCKYCY1EF104ZY	AA		R	Capacitor, 0.1 25V Ceramic
C235	VCKYCY1HB103KY	AA		R	Capacitor, 0.01 50V Ceramic
C236	VCCCCY1HH8R0DY	AA		R	Capacitor, 8p 50V Ceramic
D201	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D202	RH-EX0677GEZZY	AC		R	Zener Diode, MTZJT-7233D
D203	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D204	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D205	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
D206	VHD1SS390++-1Y	AB		R	Diode, 1SS390TE61
FB201	RBLN-0210TAZZY	AB		R	Balun, BLN-0210TA
FB202	RBLN-0065CEZZY	AC		R	Balun, BLN-0065CE
FL201	RFiLC0278BMZZ	AM		R	Filter
FL202	RFiLC0294BMZZ	AR		R	Filter
IC201	VHiTDA9886+-1Y	AV		R	IC, TDA9886TS/V4
L201	VPCNN1R2JR58NY	AB		R	Coil, Peaking 0.5μH
L202	VPCNN1R2JR58NY	AB		R	Coil, Peaking 0.58μH
L203	VP-MK100J0000+	AB		R	Coil, Peaking 10μH
L204	VP-MK120J0000+	AB		R	Coil, Peaking 12μH
L205	VPCNN330J4R2NY	AC		R	Coil, Peaking 33μH
LUG201	QLUGHA002WJZZ	AB		R	Lug
LUG202	QLUGHA002WJZZ	AB		R	Lug
LUG203	QLUGHA002WJZZ	AB		R	Lug
P201	QCNCMA012WJZZ	AD		R	Connector, 15Pin
Q201	VS2SC2735//1EY	AC		R	Transistor, 2SC2735JC21TL
Q202	VS2SC2735//1EY	AC		R	Transistor, 2SC2735JC21TL
Q203	VS2SC3928AR-1Y	AB		R	Transistor, 2SC3928A-T112-1R
Q204	VS2SA1530AR-1Y	AB		R	Transistor, 2SA1530A-T112-1R
R201	VRS-CY1JF104JY	AA		R	Resistor, 100k 1/16W Metal Oxide
R202	VRS-CY1JF681JY	AA		R	Resistor, 680 1/16W Metal Oxide
R203	VRS-CY1JF683JY	AA		R	Resistor, 68k 1/16W Metal Oxide
R204	VRS-CY1JF123JY	AA		R	Resistor, 12k 1/16W Metal Oxide
R205	VRS-CY1JF473JY	AA		R	Resistor, 47k 1/16W Metal Oxide
R206	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
R207	VRS-CY1JF470JY	AA		R	Resistor, 47 1/16W Metal Oxide
R208	VRS-CY1JF470JY	AA		R	Resistor, 47 1/16W Metal Oxide
R209	VRS-CY1JF123JY	AA		R	Resistor, 12k 1/16W Metal Oxide
R210	VRS-CY1JF680JY	AA		R	Resistor, 68 1/16W Metal Oxide
R211	VRS-CY1JF680JY	AA		R	Resistor, 68 1/16W Metal Oxide
R212	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R213	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R214	VRS-CY1JF820JY	AA		R	Resistor, 82 1/16W Metal Oxide
R215	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R216	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R217	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R218	VRS-CY1JF122JY	AA		R	Resistor, 1.2k 1/16W Metal Oxide
R219	VRS-CY1JF222JY	AA		R	Resistor, 2.2k 1/16W Metal Oxide
R220	VRS-CY1JF392JY	AA		R	Resistor, 3.9k 1/16W Metal Oxide
R221	VRS-CY1JF392JY	AA		R	Resistor, 3.9k 1/16W Metal Oxide
R223	VRS-CY1JF562JY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R224	VRS-CY1JF562JY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R226	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R227	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R228	VRS-CY1JF223JY	AA		R	Resistor, 22k 1/16W Metal Oxide
R229	VRS-CY1JF223JY	AA		R	Resistor, 22k 1/16W Metal Oxide
R230	VRS-CY1JF562JY	AA		R	Resistor, 5.6k 1/16W Metal Oxide
R231	VRS-TQ2BD330JY	AA		R	Resistor, 33 1/8W Metal Oxide
R232	VRS-CY1JF331JY	AA		R	Resistor, 330 1/16W Metal Oxide
R233	VRS-CY1JF821JY	AA		R	Resistor, 820 1/16W Metal Oxide
R234	VRS-CY1JF271JY	AA		R	Resistor, 270 1/16W Metal Oxide
R235	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R236	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R237	VRS-CY1JF331JY	AA		R	Resistor, 330 1/16W Metal Oxide
R238	VRS-CY1JF151JY	AA		R	Resistor, 150 1/16W Metal Oxide
R239	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R240	VRS-CY1JF331JY	AA		R	Resistor, 330 1/16W Metal Oxide
R241	VRS-CY1JF103JY	AA		R	Resistor, 10k 1/16W Metal Oxide
R242	VRS-CY1JF392JY	AA		R	Resistor, 3.9k 1/16W Metal Oxide
R243	VRS-CY1JF101JY	AA		R	Resistor, 100 1/16W Metal Oxide
R244	VRS-CY1JF221JY	AA		R	Resistor, 220 1/16W Metal Oxide

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[9] DUNTKD608FM16 (TUNER Unit)					
R245	VRS-TW2ED561JY	AA		R	Resistor, 560 1/4W Metal Oxide
R246	VRS-CY1JF331JY	AA		R	Resistor, 330 1/16W Metal Oxide
R247	VRS-CY1JF1R0JY	AA		R	Resistor, 1 1/16W Metal Oxide
R248	VRS-CY1JF1R0JY	AA		R	Resistor, 1 1/16W Metal Oxide
RJ1	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ2	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ3	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ4	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
RJ5	VRS-CY1JF000JY	AA		R	Resistor, 0 1/16W Metal Oxide
X201	RCRSAA029WJZZ	AF		R	Crystal

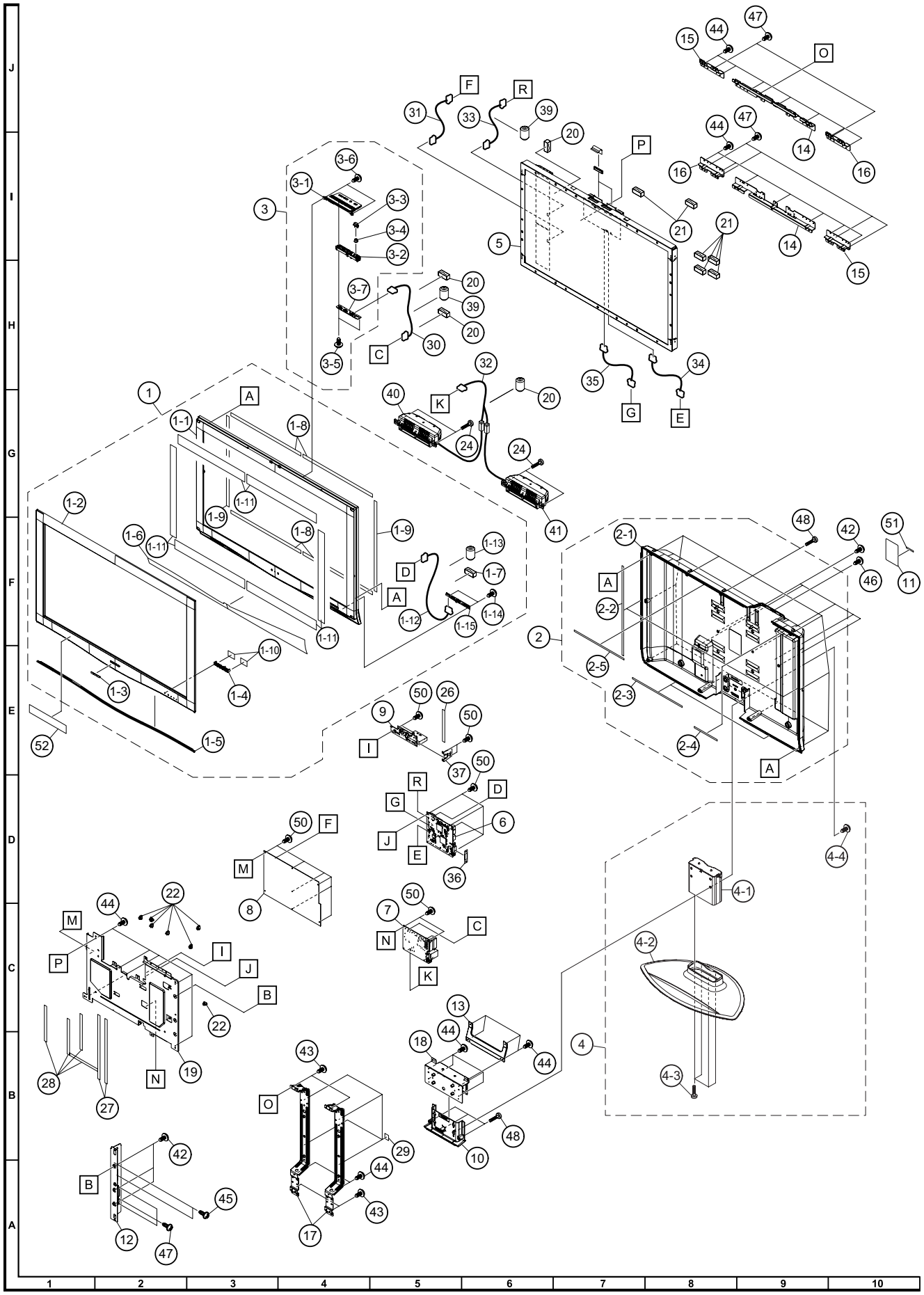
[10] CABINET PARTS (LC-32RA1E/RU)



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[10] CABINET PARTS (LC-32RA1E/RU)					
1	CCABAB613WJ01		N	S	Front Cabinet Ass'y
1-1	−	−	N	−	Front Cabinet
1-2	GCOVAB935WJKA		N	S	Front Cover
1-3	−			−	Badge, SHARP
1-4	HDECQA684WJSA		N	S	LED Cover
1-5	HDECSA005WJKA		N	S	Shine Trim
1-6	HPNLSA098WJSA		N	S	Speaker Sheet
1-7	LHLDW1033CE00	AA		R	Cable Tie
1-8	PSPAHB079WJZZ		N	S	Spacer, x2 (T-B)
1-9	PSPAHB080WJZZ		N	S	Spacer, x2 (Side)
1-10	PSPAZB264WJZZ			S	Spacer, x6 (Front)
1-11	QCNW-E233WJQZ			S	Connecting Cord (RA)
1-12	RCORF0103CEZZ	AK		R	Core, x2 for RA Wire
1-13	XEBS930P08000	AA		R	Screw, x6 (R/C, LED PWB)
1-14	DUNTKD607FMV0	AQ	N	R	R/C, LED Unit
1-15	PSPAHB085WJZZ			S	Himelon, x2
2	CCABBA953WJ01	BN		S	Rear Cabinet Ass'y
2-1	−	−	N	−	Rear Cabinet
2-2	−	−	N	−	Himelon (Not available for selling)
2-3	PSPAHB074WJZZ		N	S	Spacer, x2 (S)
2-4	PSPAHB076WJZZ		N	S	Spacer, x2 (M)
2-5	PSPAHB077WJZZ		N	S	Spacer, x2 (L)
2-6	PSPAHB102WJZZ			S	Himelon
3	CCOVAB945WJ01		N	S	Top Control Cover Ass'y
3-1	−	−	N	−	Top Control Cover
3-2	JBTN-A618WJKA		N	S	Button, Control
3-3	JBTN-A619WJKA		N	S	Button, Power
3-4	MSPRCA068WJFW		N	S	Spring
3-5	XEBS930P08000	AA		R	Screw, x1 (R/C, LED PWB)
3-6	XEBS930P16000	AB		R	Screw, x2
3-7	DUNTKD972FM01	AM	N	R	KEY Unit
4	CDAi-A334WJ02		N	S	Stand Ass'y
4-1	CDAi-A334WJ01		N	S	Stand Base Ass'y
4-2	CDAi-A335WJ01		N	S	Stand Support Ass'y
4-3	LX-BZA146WJF7	AC		R	Screw, x4 (Stand)
4-4	LX-BZA147WJF8	AE		R	Screw, x4 (Stand)
5	R1LK315T3LZ4BX	EE		V	32WXGA PANEL
6	DUNTKD890FM23	CL	N	R	MAIN Unit (LC-32RA1E/RU)
7	DUNTKD604FM10	BM		R	AV Unit
8	DUNTKD605FM01	BU	N	R	POWER Unit
9	DUNTKD608FM16		N	S	ANALOG TUNER Unit (LC-32RA1E/RU)
10	GCOVAB937WJKA	AL		R	Bottom Cover
11	HiNDPC025WJSA	AH	N	R	Model Label (LC-32RA1E/K/F)
11	HiNDPC026WJSA		N	S	Model Label (LC-32RA1I)
11	HiNDPC027WJSA		N	S	Model Label (LC-32RA1RU)
12	LANGKA638WJFW			S	LCD Angle A
13	LANGKA639WJFW			S	LCD Angle B
14	LANGKA672WJFW			S	LCD Angle C
15	LANGKA907WJFW		N	S	Center Angle (R)
16	LANGKA908WJFW		N	S	Support Angle
17	LANGKA934WJFW		N	S	Center Angle (L)
18	LANGTA413WJFW		N	S	Stand Angle
19	LCHSMA353WJZZ		N	S	Chassis Tray
20	LHLDW1033CE00	AA		R	Cable Tie
21	LHLDW1072GEZZ	AA		R	Wire Holder (Tuner Shield)
22	LHLDW1123GEZZ	AB		R	Wire Holder, x2
23	LHLDW1173CEZZ	AD		R	Wire Holder, x2 (LED)
24	LHLDW1187CEKZ	AB		R	Wire Holder, x2 (LED)
25	LHLDW1205CEZZ	AC	N	R	Wire Holder, x2 (Chassis Tray)
26	LHLDWA055WJKZ	AC	N	R	Wire Holder
27	LX-BZA165WJZZ	AB	N	R	Screw, x2 (Inlet)
28	LX-HZA003WJFN	AC		R	Screw, x2 (Speaker Box)
29	PCUSGA024WJKZ		N	S	Cushion
30	PFLT-A004WJZZ	AE		R	Spacer, x2
31	PMLT-A315WJZZ	AP	N	R	Spacer, x2
32	PSLDMA898WJFW	AD	N	R	Tuner IF Shield
33	PSLDMA974WJFW	AG	N	R	Main Shield
34	PSPAGA344WJZZ	AC		R	Spacer, x4
35	PSPAGA366WJZZ		N	S	Inlet Spacer
36	PSPAHA702WJZZ		N	S	Spacer (Blacket)
37	QCNW-E232WJQZ	AG	N	R	Connecting Cord (KM)
38	QCNW-E235WJQZ	AN	N	R	Connecting Cord (LA)
39	QCNW-E399WJQZ	AL	N	R	Connecting Cord (MAIN-INV(LB))
40	QCNW-E609WJQZ	AH	N	R	Connecting Cord (SH)
41	QCNW-F294WJQZ			S	Connecting Cord (SP)
42	QCNW-F346WJPZ		N	S	Connecting Cord (MAIN-LCD CONT)
43	QEARPA212WJFW	AE	N	R	Earth Plate
44	QEARZA096WJFW			S	Tuner Earth Plate
45	RCORF0103CEZZ	AK		R	Core for RA Wire
46	RCORFA023WJZZ	AK		R	Core, x2 (LB)
47	RCORFA064WJZZ		N	S	Core, x2 (Panel FPC)
48	RSP-ZA203WJZZ		N	S	Speaker (L)
49	RSP-ZA204WJZZ		N	S	Speaker (R)
50	−	−	N	−	POP Label (Not available for selling)
51	XBBS740P06000	AA		R	Screw, x2 (Angle-Panel)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[10] CABINET PARTS (LC-32RA1E/RU)					
52	XBBS930P06000	AA		R	Screw, x5 (AC Angle/Cabinet)
53	XBPS730P06WS0	AA		R	Screw, x26 (Center Angle/LCD Angle)
54	XBPS830P06000	AA		R	Screw, x2 (HDMI)
55	XEBS930P08000	AA		R	Screw, x6 (Top Cover/Terminal)
56	XEBS940P16000	AB		R	Screw, x19 (Cabinet B)
57	XJPS730P08WS0	AA		R	Screw, x15 (PWB)
58	–	–		–	No. Label (Not available for selling)
59	XJPS730P04WS0	AB		R	Screw, x3

[11] CABINET PARTS (LC-37RA1E/RU)

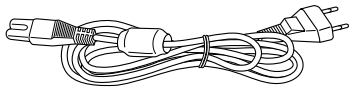


NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[11] CABINET PARTS (LC-37RA1E/RU)					
1	CCABAB582WJ02		N	S	Front Cabinet Ass'y
1-1	–	–	N	–	Front Cabinet
1-2	GCOVAB883WJKA		N	S	Front Cover
1-3	–			–	Badge, SHARP
1-4	HDECQA667WJSA			S	LED Cover
1-5	HDECSA004WJKA		N	S	Shine Trim
1-6	HPNLSA097WJSA		N	S	SP Sheet
1-7	LHLDW1033CE00	AA		R	Wire Holder
1-8	PSPAHA933WJZZ		N	S	Spacer, x2 (Top/Bottom)
1-9	PSPAHA934WJZZ		N	S	Spacer, x2 (Side)
1-10	PSPAHB085WJZZ		N	S	Spacer, x2 (LED Cover)
1-11	PSPAZB264WJZZ		N	S	Spacer, x6 (Front)
1-12	QCNW-E233WJQZ			S	Connecting Cord (RA:MAIN-RC)
1-13	RCORF0103CEZZ	AK		R	Core, x2 for RA Wire
1-14	XEBS930P10000	AA		R	Screw, x6
1-15	DUNTKD973FM01	AS	N	R	R/C, LED Unit
2	CCABBA933WJ01	BN	N	S	Rear Cabinet Ass'y
2-1	–	–	N	–	Rear Cabinet
2-2	PSPAHA850WJZZ			S	Spacer, x2 (L)
2-3	PSPAHB086WJZZ		N	S	Spacer, x2 (S)
2-4	–	–		–	Himelon (Not available for selling)
2-5	–	–		–	Himelon (Not available for selling)
3	CCOVAB945WJ01		N	S	Top Control Cover Ass'y
3-1	–	–	N	–	Top Control Cover
3-2	JBTN-A618WJKA		N	S	Button, Control
3-3	JBTN-A619WJKA		N	S	Button, Power
3-4	MSPRCA068WJFW		N	S	Spring
3-5	XEBS930P08000	AA		R	Screw, x1 (KEY PWB)
3-6	XEBS930P16000	AB		R	Screw, x2 (KEY PWB)
3-7	DUNTKD972FM01	AM	N	R	KEY Unit
4	CDAi-A336WJ02		N	S	Stand Ass'y
4-1	CDAi-A328WJ01			S	Supprt Ass'y
4-2	CDAi-A336WJ01		N	S	Stand Base Ass'y
4-3	LX-BZA146WJF7	AC		R	Screw, x4 (Stand)
4-4	LX-BZA147WJF8	AE		R	Screw, x4 (Stand)
5	R1LK370T3LZ5BX	EZ		V	37 WXGA LCD Panel Module Unit
6	DUNTKD890FM23	CL	N	R	MAIN Unit
7	DUNTKD604FM10	BM	N	R	AV Unit
8	DUNTKD787FM03	BW	N	R	POWER Unit
9	DUNTKD608FM16		N	S	ANALOG TUNER Unit
10	GCOVAB907WJKA	AL	N	S	Bottom Cover
11	HiNDPC019WJSA	AH	N	S	Model Label (LC-37RA1E/K/F)
11	HiNDPC020WJSA		N	S	Model Label (LC-37RA1I)
11	HiNDPC021WJSA		N	S	Model Label (LC-37RA1RU)
12	LANGFA329WJSA		N	S	Chassis Plate
13	LANGFA330WJFW		N	S	Supprt Angle
14	LANGKA938WJFW		N	S	LCD Angle C, x2
15	LANGKA939WJFW		N	S	LCD Angle L, x2
16	LANGKA940WJFW		N	S	LCD Angle R, x2
17	LANGTA403WJFW		N	S	Center Angle, x2
18	LANGTA421WJFW		N	S	Stand Angle
19	LCHSMA312WJZZ	BA		R	Chassis Tray
20	LHLDW1033CE00	AA		R	Wire Holder, x2 (KM/BK-1)
21	LHLDW1173CEZZ	AD		R	Wire Holder, x8 (LED)
22	LHLDWA043WJKZ	AB		R	Wire Holder, x4 (Chassis Tray)
23	LHLDWA137WJZZ	AB		R	Wire Holder, x3 (LED wire)
24	LX-HZA003WJFN	AC		R	Screw, x4 (Speaker)
25	PCUSGA023WJKZ		N	S	Cushion
26	PFLT-A076WJZZ			S	Felt
27	PMLT-A360WJZZ			S	Gasket, x2 (Tray)
28	PMLT-A362WJZZ			S	Gasket, x2 (Tray)
29	PSPAGA344WJZZ	AC		R	Spacer, x4 (VESA Bracket)
30	QCNW-E412WJQZ	AG		R	Connecting Cord (KM:MAIN-KEY)
31	QCNW-E601WJQZ	AN		R	Connecting Cord (LA:POWER-INV.)
32	QCNW-F102WJQZ			S	Connecting Cord (SP:AV-SP)
33	QCNW-F185WJQZ	AN	N	R	Connecting Cord (LB:MAIN-INV.)
34	QCNW-F186WJQZ		N	S	Connecting Cord (SH:MAIN-TCON)
35	QCNW-F332WJPZ		N	S	Connecting Cord (LV:MAIN-TCON)
36	QEARPA212WJFW	AE		R	Earth Plate
37	QEARZA096WJFW			S	Tuner Earth Plate
38	RCORF0103CEZZ	AK		R	Core, x2 for SP Wire
39	RCORFA023WJZZ	AK		R	Core, x2 (LB)
40	RSP-ZA203WJZZ			S	Speaker (L)
41	RSP-ZA204WJZZ			S	Speaker (R)
42	XBBS930P06000	AA		R	Screw, x5 (Rear Cabinet/Chassis)
43	XBBS940P06000	AB		R	Screw, x4
44	XBPS730P06WS0	AA		R	Screw, x23 (Center Angle/LCD Angle)
45	XBPS830P06000	AA		R	Screw, x2 (HDMI)
47	XEBS930P10000	AA		R	Screw, x9 (LED Front Cover)
48	XEBS940P16000	AB		R	Screw, x13 (Cabinet B)
49	XJPS730P04WS0	AB		R	Screw, x3 (Control Shield)
50	XJPS730P08WS0	AA		R	Screw, x18 (PWB)
51	–	–		–	No. Label (Not available for selling)
52	–	–	N	–	POP Label (Not available for selling)

[12] SUPPLIED ACCESSORIES

X2 Remote control unit

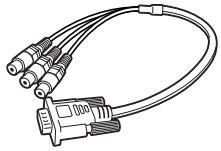
X1 AC cord



Product shape varies in some countries.

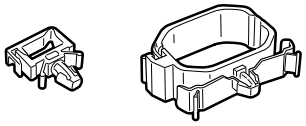
X3

3 RCA to 15-pin D-sub adapter



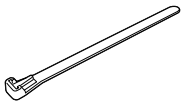
X4 , X6

Cable clamp (Small × 1, Large × 1)

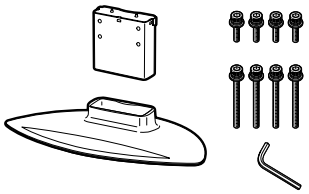


X5

Cable tie



X11 Stand unit



X7, X8, X9, X10

- Operation manual

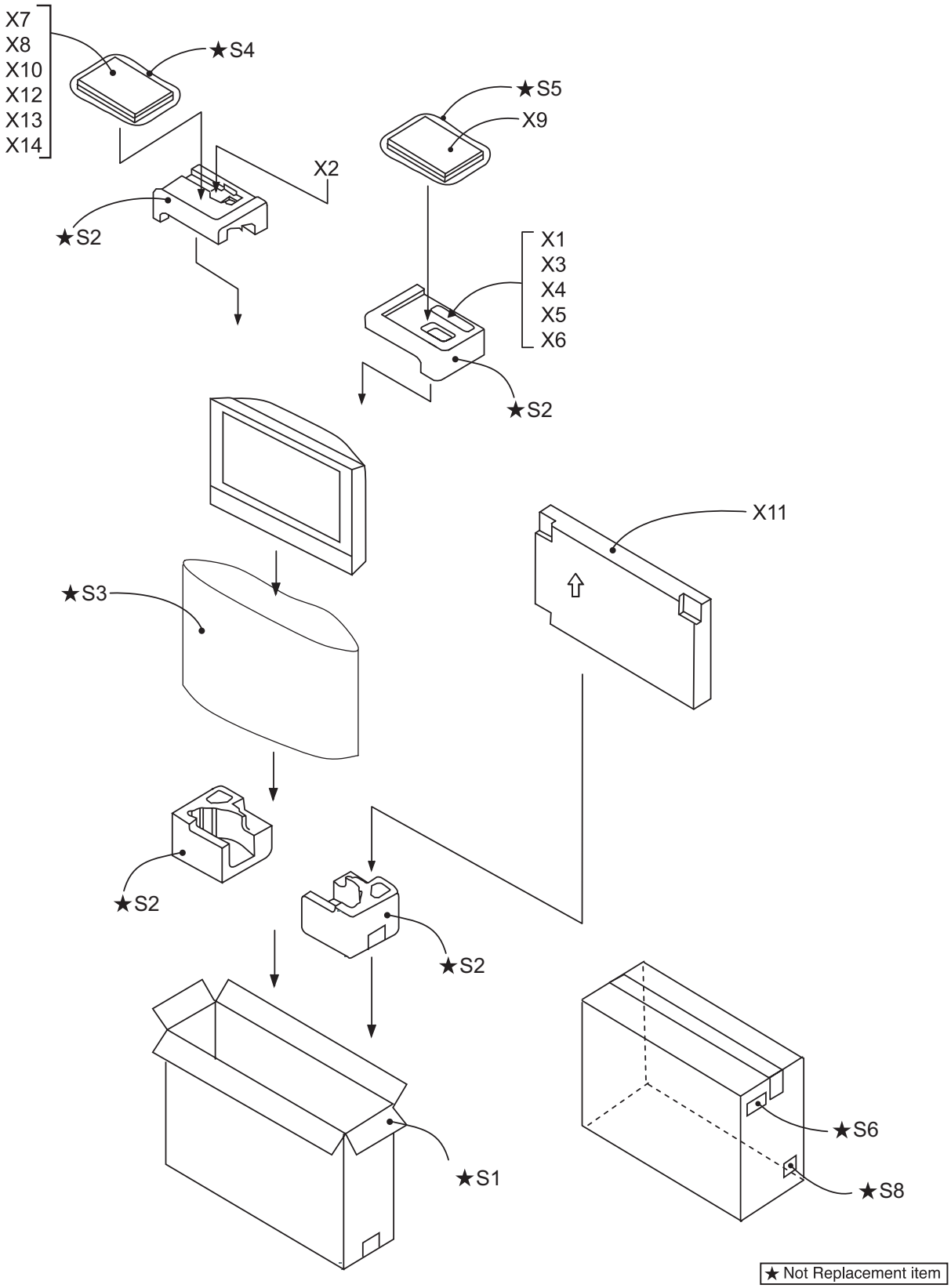
X12 Guarantee Card (For U.K.)

X13 AQUOS Care Plan (for U.K.)

X14 Guarantee Card (for Russia)

NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[12] SUPPLIED ACCESSORIES					
⚠ X1	QACCKA021WJPZ			S	AC Cord for Europe without U.K
⚠ X1	QACCBA073WJPZ		N	S	AC Cord for U.K.
X2	RRMCGA544WJSA		N	S	Remote Control
X3	QCNWGA075WJPZ	AU		R	3 RCA to 15-pin D-sub Adaptor
X4	LHLDWA012WJKZ	AC		R	Cable Clamp
X5	LHLDWA083WJ00	AD		R	Cable Tie
X6	LHLDWA131WJKZ	AE		R	Cable Clamp
X7	TiNS-C790WJZZ	AX	N	S	Operation Manual (ENGLISH)
X8	TiNS-C791WJZZ	AX	N	S	Operation Manual (SWEDISH..)
X9	TiNS-C792WJZZ	AW	N	S	Operation Manual (POLISH..)
X10	TiNS-C793WJZZ			S	Operation Manual (RUSSIAN..)
X11	CDAi-A334WJ02		N	S	Stand Ass'y
X12	TGAN-A342WJZZ			S	Guarrantee Card (LC-32RA1K/37RA1K)
X13	TGAN-A512WJZZ			S	AQUOS Care Plan (LC-32RA1K/37RA1K)
X14	TGAN-A077WJZZ	AE		R	Guarantee Card (LC-32RA1K/37RA1K)

[13] PACKING PARTS (Not available for selling)



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[13] PACKING PARTS (Not available for selling)					
S1	SPAKCD114WJZZ	–	N	–	Packing Case (LC-32RA1E/F/I/K)
S1	SPAKCD115WJZZ	–		–	Packing Case (LC-32RA1RU)
S1	SPAKCD110WJZZ	–	N	–	Packing Case (LC-37RA1E/K/I/F)
S1	SPAKCD111WJZZ	–	N	–	Packing Case (LC-37RA1RU)
S2	SPAKXB307WJZZ	–	N	–	Buffer Material (LC-32RA1E/RU)
S2	SPAKXB270WJZZ	–	N	–	Buffer Material (LC-37RA1E/RU)
S3	SPAKPA382WJZZ	–		–	Wraapping Paper (LC-32RA1E/RU)
S3	SPAKPA338WJZZ	–		–	Wraapping Paper (LC-37RA1E/RU)
S4	SSAKAA010WJZZ	–		–	Polyethylene bag
S5	SSAKAA009WJZZ	–		–	Polyethylene bag
S6	TLABKA002WJZZ	–		–	Case No. Label
S7	TLABN0134BMZZ	–		–	SEES No. Label
S8	TLABSA050WJZZ	–	N	–	Green Dot Label (LC-32RA1F/37RA1F)
[14] SERVICE JIGS					
N	QCNW-C222WJQZ	AW		J	Extension Cable, 80pins FFCx2 LCD Controller to LCD Panel
N	QCNW-E542WJZZ	BH		J	Extension Cable, 23pins Main to AV/Power
N	QCNW-E543WJZZ	BB		J	Extension Cable, 9pins Main to Power
N	QCNW-E544WJZZ	BE		J	Extension Cable, 15pins Main tu Tuner
N	QCNW-E546WJZZ	BA		J	Extension Cable, 7pins AV to Power
N	QCNWKA011WJZZ			S	Extension Cable for Digital Unit
N	QCNWGA015WJPZ	AK		J	Interface Cable L=165mm, 9pin D-sub - Mini DIN (AN-AIRS)
N	QCNWKA012WJZZ			S	Digital Software Writiing Jig

SHARP

SHARP CORPORATION
AV Systems Group
CS Promotion Center
Yaita,Tochigi 329-2193, Japan

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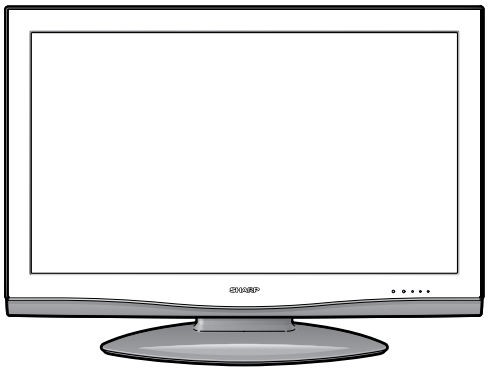
TQ -S SH. DS

SHARP SERVICE MANUAL

No. S47H2LC32RA1E

SUPPLEMENT



LCD COLOUR TELEVISION

MODELS LC-32RA1E/RU LC-32RD1E/RU LC-32SA1EA/RUA LC-32SD1EA/RUA LC-32ST1EA/RUA LC-32SV1EA/RUA

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

OUTLINE

In this Service Manual, only parts in the LCD module are shown.
For the other points, refer to the LC-32RA1E/RU/LC-32RD1E/RU/LC-32SA1EA/RUA/LC-32SD1EA/RUA/LC-32ST1EA/RUA/LC-32SV1EA/RUA (SY6Z6LC37RA1E/S06X6LC37RA1E/S17A8LC32SA1E/S17A7LC32SD1E) Service Manual.

Parts marked with " ⚠ " are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

OUTLINE AND ADJUSTMENT

[1] Outline

In this Service Manual, only parts in the LCD module are shown. For the other points, refer to the LC-32RA1E/RU/LC-32RD1E/RU/LC-32SA1EA/RUA/LC-32SD1EA/RUA/LC-32ST1EA/RUA/LC-32SV1EA/RUA (SY6Z6LC37RA1E/S06X6LC37RA1E/S17A8LC32SA1E/S17A7LC32SD1E) Service Manual.

[2] Adjustment

When replacing the LCD control PCB, follow these steps to adjust VCOM.

1) Remove the wire from the LCD control PCB CN3.
2) Connect a wire of the VCOM adjustment jig (electronic volume adjustment BOX) to CN3 (see Fig. 1).
3) Turn on the TV set.
4) Turn on the jig (connect to the AC).
5) Enter the process mode to display the item “LCD TEST PATTERN OFF” (see Fig. 2).
6) Press the volume up key once to display a flicker pattern.
7) Press the jig's UP/DOWN switch while looking at the screen to adjust the point so that the flicker is minimized (see Fig. 3).
8) After completing adjustment, press the WRITE switch and make sure the lamp of the WRITE button goes out. (Writing is complete when the lamp goes out.)
9) Turn off the jig (turn the AC off).
10) Turn off the TV set.
11) Remove the jig’s wire connected to CN3.
12) Reconnect the wire of the set to CN3.

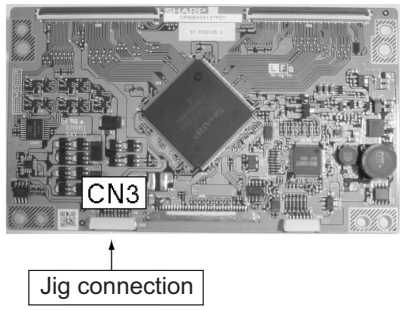


Fig. 1 Jig connecting location

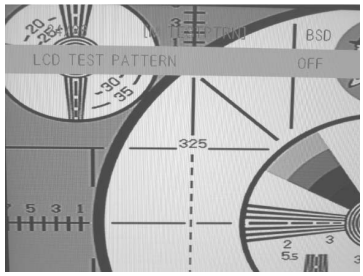


Fig. 2 Test pattern selection screen

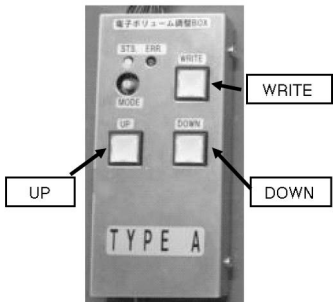
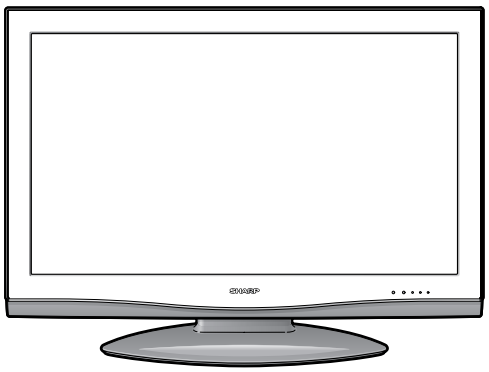


Fig. 3 VCOM adjustment jig (RUNTZA059WJZZ)

SHARP PARTS GUIDE

No. S47H2LC32RA1E



LCD COLOUR TELEVISION

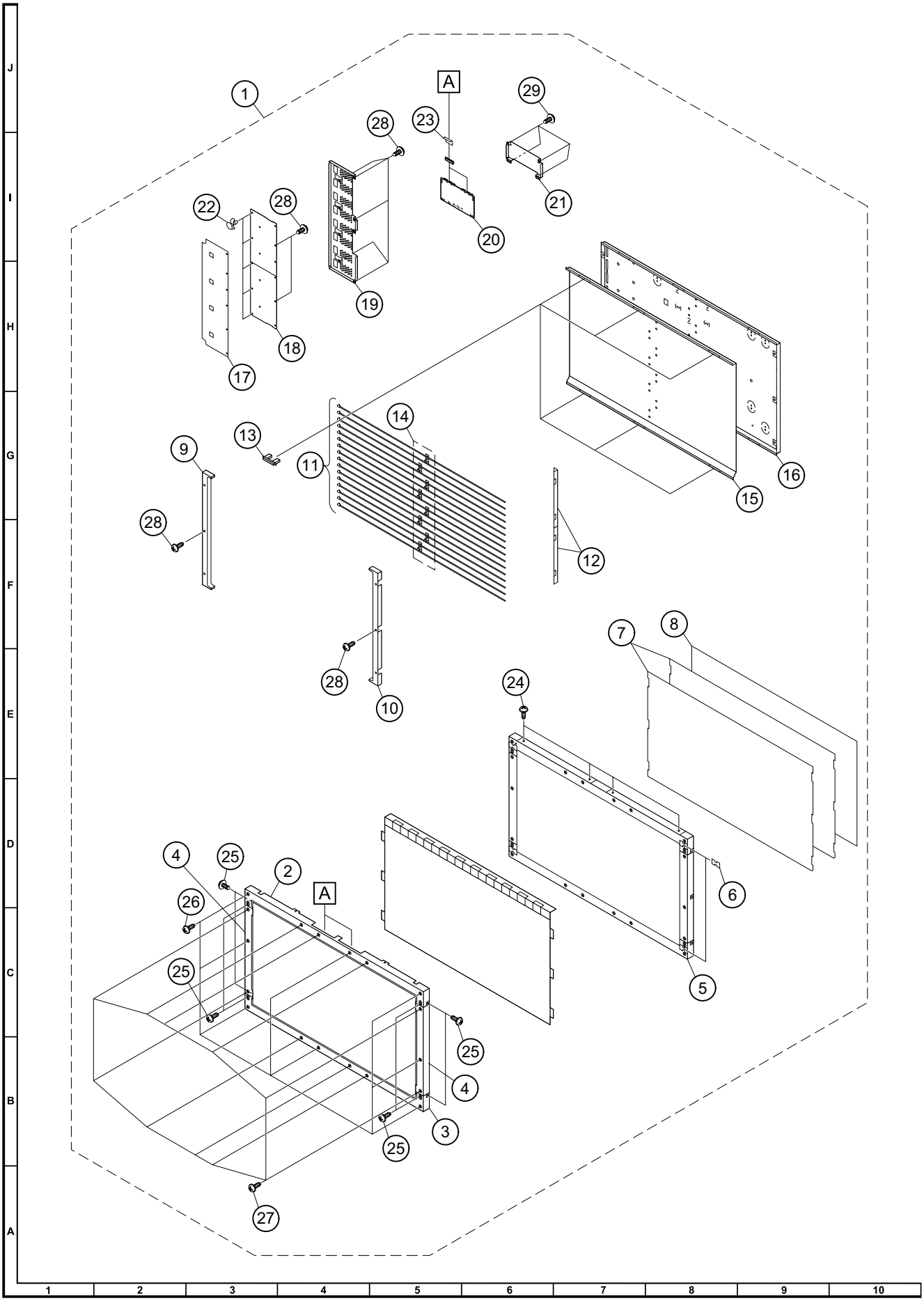
LC-32RA1E/RU
LC-32RD1E/RU
LC-32SA1EA/RUA
LC-32SD1EA/RUA
LC-32ST1EA/RUA
MODELS LC-32SV1EA/RUA

CONTENTS

Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

SHARP CORPORATION

[1] LCD MODULE Assembly



NO.	PARTS CODE	PRICE RANK	NEW MARK	PART DELIVERY	DESCRIPTION
[1] LCD MODULE Assembly					
1	R1LK315T3LZ4BX	EE	N	J	LCD Module Ass'y
2	CANGTA272WJ01	AW	N	J	Vessel (Top)
3	CANGTA272WJ02	AW	N	J	Vessel (Bottom)
4	CANGTA273WJ01	AP	N	J	Vessel (L, R), x2
5	CHLDZA697WJ01	BC	N	J	Panel Holder Ass'y
6	CHLDZA692WJ01	AD	N	J	Spacer Ass'y, x2
7	PSLDK2673TPGZ	AX	N	J	Reflection Sheet, x2
8	PSLDK2676TPGZ	AZ	N	J	Diffusion Panel
9	CHLDZA700WJ01	AQ	N	J	Lamp Holder-L
10	CHLDZA699WJ01	AP	N	J	Lamp Holder-R
11	CLMPCA002WJ01	BB	N	J	Lamp Unit, x8
12	LHLDZA708WJKZ	AE	N	J	Lamp Holder (Bottom), x2
13	LHLDZA709WJKZ	AC	N	J	Sheet Holder, x6
14	LHLDZA698WJKZ	AC	N	J	Lamp clip, x8
15	PREFL2377TPGZ	AW	N	J	Reflection Mirror
16	LCHSMA279WJM1	BD	N	J	Chassis
17	PZETKA175WJKZ	AL	N	J	Insulation Sheet
18	RUNTKA214WJZZ	BR	N	J	INVERTER Unit A
19	PSLDMA891WJFW	AP	N	J	Shield Plate (for Inverter)
20	CPWBX3508TPZP	BK	N	J	LCD CONTROL Unit
21	PSLDMA893WJFW	AK	N	J	Shield Plate (for LCD CONTROL Unit)
22	PSPAZB030WJKZ	AB	N	J	Spacer, x5
23	QPWBMD670WJGZ	AK	N	J	CS-FPC1, x2
24	LX-LZA101WJZZ	AC	N	J	Clip, x4
25	LX-BZ2102TPZZ	AB	N	J	Screw, x8
26	XEPS930P10000	AA	N	J	Screw, x8
27	XBPSN30P14000	AA	N	J	Screw, x10
28	XBPS730P06WS0	AA	N	J	Screw, x9
29	XBPS730P06000	AA	N	J	Screw, x4

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TQ2259-S YK. DS