HCD-DZ20

SERVICE MANUAL

AEP Model
UK Model
E Model

Self Diagnosis Supported model

Ver. 1.2 2007.06

HCD-DZ20 is the amplifier, DVD/CD and tuner section in DAV-DZ20.

This system incorporates with Dolby* Digital and Dolby Pro Logic (II) adaptive matrix surround decoder and the DTS** Digital Surround System.

* Manufactured under license from Dolby Laboratories.
"Dolby", "Pro Logic", and the double-D symbol are trademarks of Dolby Laboratories.

** Manufactured under license from DTS, Inc.
"DTS" and "DTS Digital Surround" are registered trademarks of DTS, Inc.

Model Name Using Similar Mechanism	HCD-DZ230
Mechanism Type	CDM85-DVBU102
Optical Pick-up Name	KHM-313CAA

SPECIFICATIONS

Amplifier section

Stereo mode (rated): 50 W + 50 W (at 3 ohms, 1 kHz, 1 % THD)

Surround mode (reference): RMS output power
FL/FR/C/SL/SR*: 67 watts (per channel at 3 ohms, 1 kHz, 10 % THD)
Subwoofer*: 65 watts (at 3 ohms, 80 Hz, 10 % THD)

* *Depending on the sound field settings and the source, there may be no sound output.*

Inputs (Analog)
TV (AUDIO IN)(AEP, UK models)
Sensitivity: 450/250 mV
TV/VIDEO (AUDIO IN)(Except AEP, UK models)
Sensitivity: 450/250 mV

DVD system

Laser: Semiconductor laser
(DVD: λ = 650 nm)
(CD: λ = 790 nm)
Emission duration: continuous

Signal format system
Mexican and Latin American models: NTSC
Other models: NTSC/PAL

Tuner section

System: PLL quartz-locked digital synthesizer
FM tuner section
Tuning range: 87.5-108.0 MHz (50 kHz step)
Antenna (aerial): FM wire antenna (aerial)
Antenna (aerial) terminals: 75 ohms, unbalanced
Intermediate frequency: 10.7 MHz
AM tuner section
Tuning range
Mexican and Latin American models:
530 – 1,710 kHz (with the interval set at 10 kHz)
531 – 1,710 kHz (with the interval set at 9 kHz)
European, Russian and Middle Eastern models:
531 – 1,602 kHz (with the interval set at 9 kHz)
Other models:
531 – 1,602 kHz (with the interval set at 9 kHz)
530 – 1,610 kHz (with the interval set at 10 kHz)
Antenna (aerial): AM loop antenna (aerial)
Intermediate frequency: 450 kHz

Video section

Outputs
AEP, UK models: VIDEO: 1 Vp-p 75 ohms
R/G/B: 0.7 Vp-p 75 ohms
Except AEP, UK models: VIDEO: 1 Vp-p 75 ohms
S VIDEO:
Y: 1 Vp-p 75 ohms
C: 0.286 Vp-p 75 ohms
COMPONENT:
Y: 1 Vp-p 75 ohms
P_B/C_B, P_R/C_R: 0.7 Vp-p 75 ohms

General

Power requirements
Mexican models: 120 V AC, 60 Hz
Argentine models: 220 - 240 V AC, 50/60 Hz
Latin American models: 110 - 240 V AC, 50/60 Hz
Other models: 220 - 240 V AC, 50/60 Hz
Power consumption: On: 80 W
Standby: 0.3 W (at the Power Saving mode)
Dimensions (approx.): 430 × 67 × 310 mm (w/h/d) incl. projecting parts
Mass (approx.): 3.2 kg

Design and specifications are subject to change without notice.

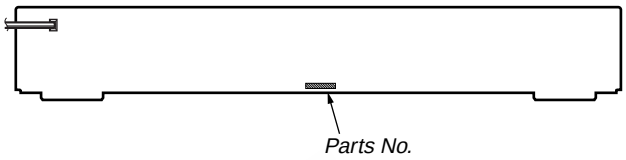
DVD RECEIVER

9-887-568-03
2007F16-1

Sony Corporation
Home Audio Division
Published by Sony Techno Create Corporation

SONY

MODEL IDENTIFICATION
– Rear Panel –



Model	Part No.
AEP, UK models	2-892-575-0
RU model	2-892-575-1
E32 model	2-892-575-2
MX model	2-892-575-3
E3 model	2-892-575-4
E12 model	2-892-575-5
AR model	2-892-575-6
SP model	2-892-575-7
TH model	3-270-984-0

- Abbreviation
  AR : Argentine model
  E3 : 220 – 240 V AC area in E model
  E12 : 220 – 240 V AC area in E model
  E32 : 110 – 240 V AC area in E model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model
  TH : Thai model

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

This appliance is classified as a CLASS 1 LASER product. This marking is located on the rear of the unit.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing
- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

UNLEADED SOLDER
Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK
Unleaded solder has the following characteristics.
- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 °C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

Special Component Notice
The components identified by mark 🔒 contain confidential information.
Strictly follow the instructions whenever the components are repaired and/or replaced.

TABLE OF CONTENTS

SECTION 1
SERVICING NOTE

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH

1. Open the case and turn POWER on with no disc inserted.
2. Confirm that the following operation is performed while observing the objecting lens from the clearance of DVD mechanism deck.
   1) Confirm that laser beam is spread.
   2) Up and down motion of the objective lens. (2 times)

DISC TRAY LOCK

The disc tray lock function for the antitheft of an demonstration disc in the store is equipped.

Setting Procedure :

1. Press the I/⏻ button to turn the set on.
2. Press the FUNCTION button to set DVD function.
3. Insert a disc.
4. Press the ■ button and the ⏏ button simultaneously for five seconds.
5. The message “LOCKED” is displayed and the tray is locked.

Releasing Procedure :

1. Press the ■ button and the ⏏ button simultaneously for five seconds again.
2. The message “UNLOCKED” is displayed and the tray is unlocked.

Note : When “LOCKED” is displayed, the tray lock is not released by turning power on/off with the I/⏻ button.

On cleaning discs, disc/lens cleaners

- Do not use cleaning discs or disc/lens cleaners (including wet or spray types). These may cause the apparatus to malfunction.

IMPORTANT NOTICE

Caution: This system is capable of holding a still video image or on-screen display image on your television screen indefinitely. If you leave the still video image or on-screen display image displayed on your TV for an extended period of time you risk permanent damage to your television screen.
Projection televisions are especially susceptible to this.

Attention when transported

Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ button to turn the set on.
2. Press the FUNCTION button to set the function “DVD”.
3. Remove all discs, and then press two buttons ▷ and I/⏻ simultaneously.
4. After a message “MECHA LOCK” is displayed on the fluorescent indicator tube, pull out the AC plug.
5. To exit from this mode, press the I/⏻ button to turn the set on.

Note about CDs/DVDs

The system can play CD-ROMs/CD-Rs/CD-RWs recorded in the following formats:

– audio CD format
– VIDEO CD format
– MP3 audio tracks, JPEG image files, and DivX video files* of format conforming to ISO 9660 Level 1/Level 2, or its extended format, Joliet

The system can play DVD-ROMs/DVD+RWs/DVD-RWs/DVD+Rs/DVD-Rs recorded in the following formats:

– MP3 audio tracks, JPEG image files, and DivX video files* of format conforming to UDF (Universal Disc Format)

* Except for United Kingdom model.

Example of discs that the system cannot play

The system cannot play the following discs:

- CD-ROMs/CD-Rs/CD-RWs other than those recorded in the formats listed on “Note about CDs/DVDs”
- CD-ROMs recorded in PHOTO CD format
- Data part of CD-Extras
- DVD Audios
- Super Audio CD
- DATA DVDs that do not contain MP3 audio tracks, JPEG image files, or DivX video files*

* Except for United Kingdom model.

- DVD-RAMs

Also, the system cannot play the following discs:

- A DVD VIDEO with a different region code
- A disc that has a non-standard shape (e.g., card, heart)
- A disc with paper or stickers on it
- A disc that has the adhesive of cellophane tape or a sticker still left on it

Notes about CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW

In some cases, CD-R/CD-RW/DVD-R/DVD-RW/DVD+R/DVD+RW cannot be played on this system due to the recording quality or physical condition of the disc, or the characteristics of the recording device and authoring software.
The disc will not play if it has not been correctly finalized. For more information, see the operating instructions for the recording device.
Note that some playback functions may not work with some DVD+RWs/DVD+Rs, even if they have been correctly finalized. In this case, view the disc by normal playback. Also some DATA CDs/DATA DVDs created in Packet Write format cannot be played.

Copyrights

This product incorporates copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of this copyright protection technology must be authorized by Macrovision, and is intended for home and other limited viewing uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

This system incorporates with Dolby* Digital and Dolby Pro Logic (II) adaptive matrix surround decoder and the DTS** Digital Surround System.

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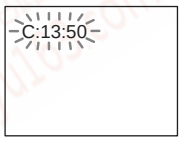
Self-diagnosis Function

(When letters/numbers appear in the display)

When the self-diagnosis function is activated to prevent the system from malfunctioning, a 5-character service number (e.g., C 13 50) with a combination of a letter and 4 digits appears on the TV screen or front panel display. In this case, check the following table.



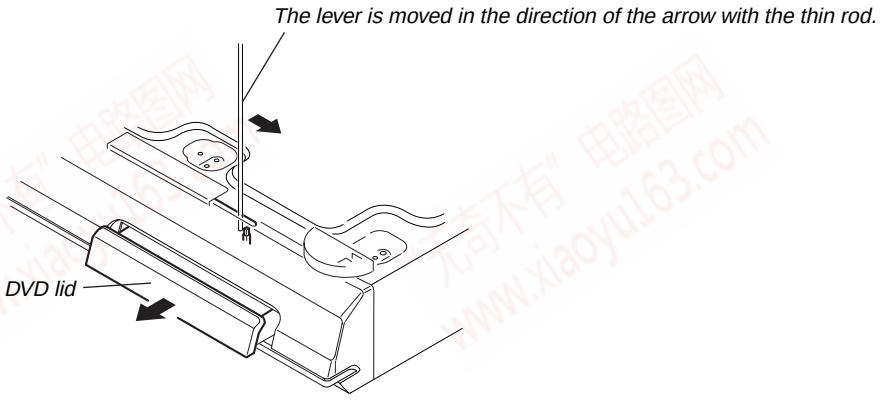
First 3 characters of the service number	Cause and/or corrective action
C 13	The disc is dirty. ➡Clean the disc with a soft cloth.
C 31	The disc is not inserted correctly. ➡Restart the system, then re-insert the disc correctly.
E XX (xx is a number)	To prevent a malfunction, the system has performed the self-diagnosis function. ➡Contact your nearest Sony dealer or local authorized Sony service facility and give the 5-character service number. Example: E 61 10

When displaying the version number on the TV screen

When you turn on the system, the version number [VER.X.XX] (X is a number) may appear on the TV screen. Although this is not a malfunction and for Sony service use only, normal system operation will not be possible. Turn off the system, and then turn on the system again to operate.

How to open the disc table when power switch turns off

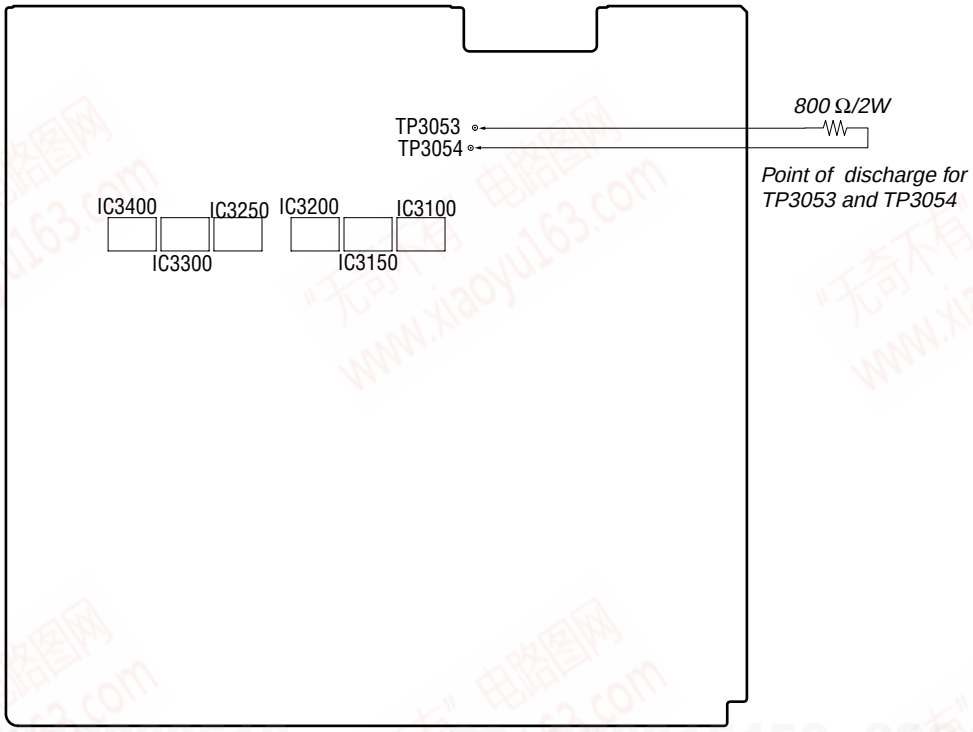
Insert a tapering driver into the aperture of the unit bottom, and slide it in the direction of the arrow.



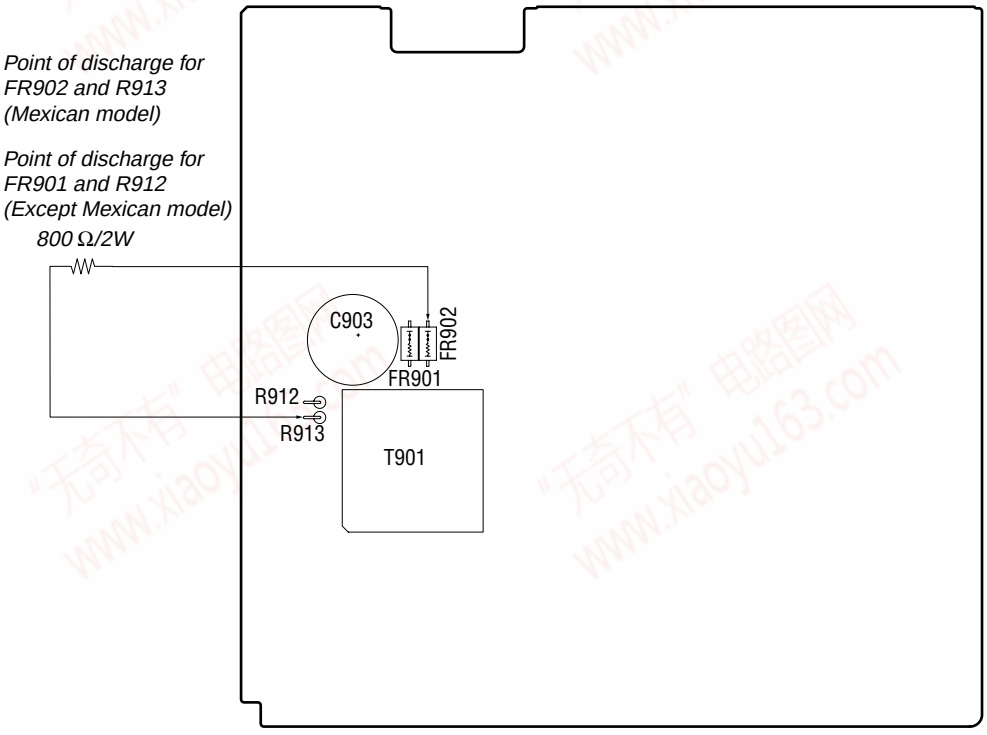
Prevention of electric shock and damage to IC

When disassembling the machine, be sure to discharge the charged electricity in the below point.
Use a resistor of 800 ohms, 2 Watts for discharging.

【MAIN BOARD】(SIDE A)

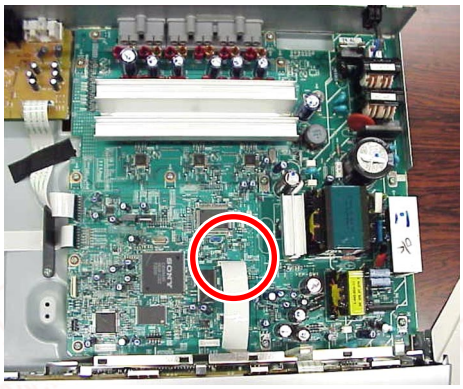


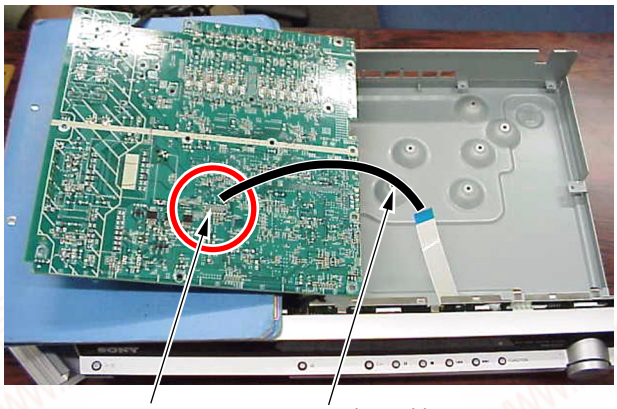
【MAIN BOARD】(SIDE B)



MAIN board service position

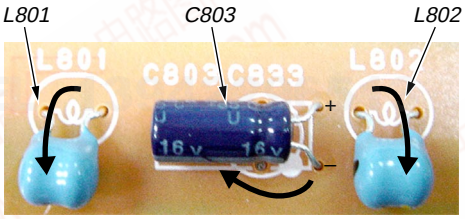
Please take the above-mentioned position in the repair of MAIN board.
In that case, it is necessary the following extension cable during CN801 on FL board and CN509 on MAIN board.



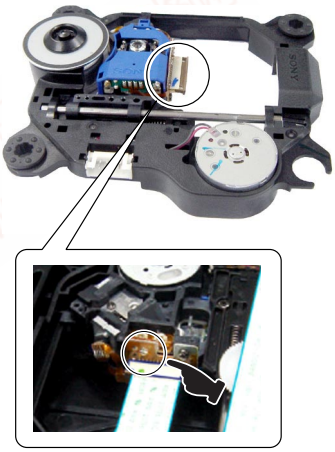


Note on replacement of C803, C802, L801, and L802

Please fold in the direcction of the arrow and set up at replacement of C803, C802, L801, and L802 on FL board.



Precaution when installing a new OP unit /
Precaution before unsoldering the static electricity prevention solder bridge

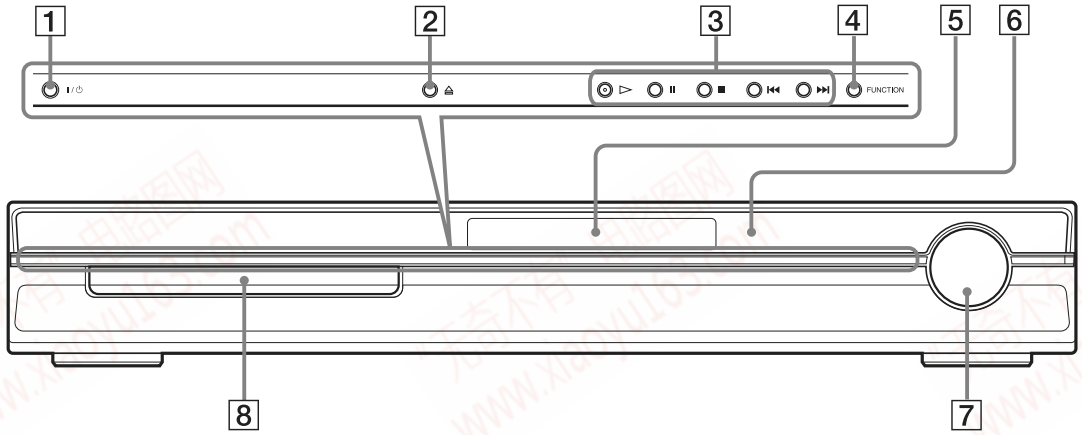


When installing a new OP unit, be sure to connect the flexible printed circuit board first of all before removing the static electricity prevention solder bridge by unsoldering.
Remove the static electricity prevention solder bridge by unsoldering after the flexible printed circuit board has already been connected.
(Do not remove nor unsolder the solder bridge as long as the OP unit is kept standalone.)

SECTION 2
GENERAL

This section is extracted from instruction manual.

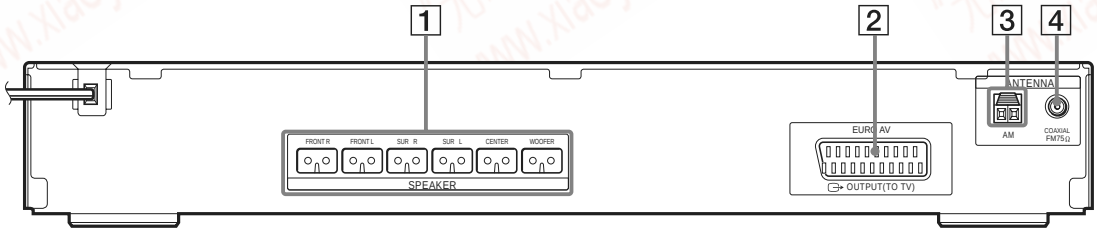
Front panel



1 **I/⏻ (on/standby) (18)**
2 **⏏ (open/close) (18)**
3 **Disc operation (18)**
4 **FUNCTION (18)**
5 **Front panel display (78)**
6 **R (remote sensor) (8)**
7 **VOLUME control (18)**
8 **Disc tray (18)**

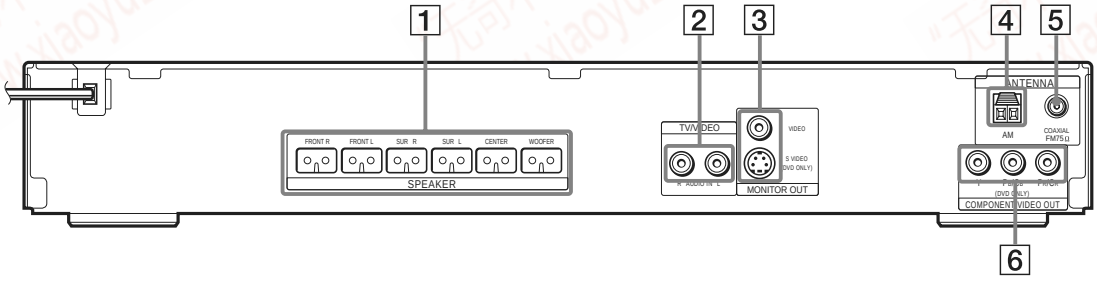
Rear panel

AEP, UK MODEL



1 **SPEAKER jacks (9)**
2 **EURO AV ⇨ OUTPUT (TO TV) jack (9)**
3 **AM terminal (9)**
4 **COAXIAL FM 75Ω jack (9)**

EXCEPT AEP, UK MODEL

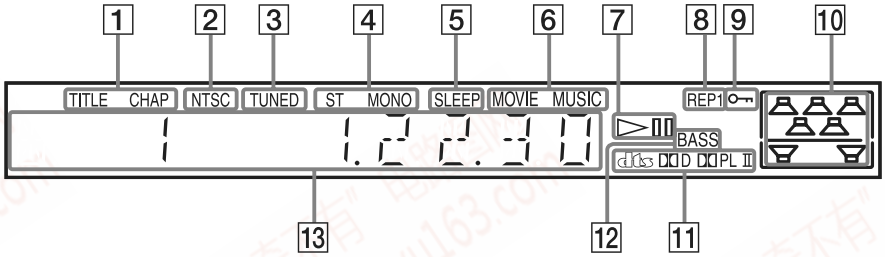


1 **SPEAKER jacks (9)**
2 **TV/VIDEO (AUDIO IN R/L) jacks (21)**
3 **MONITOR OUT (S VIDEO/VIDEO) jacks (18)**
4 **AM terminal (9)**
5 **COAXIAL FM 75Ω jack (9)**
6 **COMPONENT VIDEO OUT jacks (18)**

Front panel display

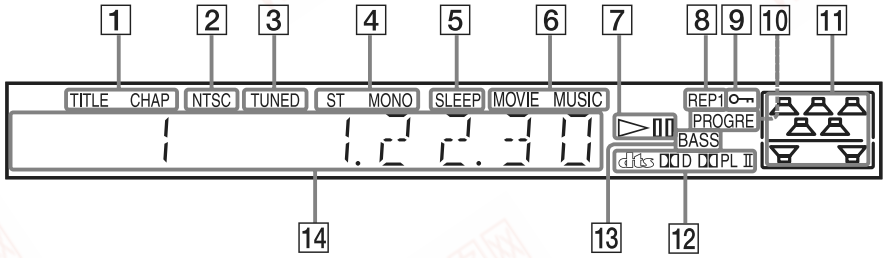
About the indications in the front panel display

AEP, UK MODEL



1. **Lights up when the time information of a title or chapter appears in the front panel display. (DVD only) (34)**
2. **Lights up when an NTSC disc is loaded.**
3. **Lights up when a station is received. (Radio only) (47)**
4. **Stereo/Monaural effect (Radio only)(48)**
5. **Lights up when the sleep timer is set. (52)**
6. **Lights up when the movie or music mode is selected. (21)**
7. **Playing status (DVD function only)**
8. **Current repeat mode (30)**
9. **Lights up when the child lock function is set to on. (53)**
10. **Indicates the selected [SPEAKER FORMATION]. (57)**
11. **Current surround format (Except for JPEG)**
12. **Lights up when the DYNAMIC BASS is selected. (51)**
13. **Displays system's status such as chapter, title, or track number, time information, radio frequency, playing status, sound field, etc.**

EXCEPT AEP, UK MODEL



1. **Lights up when the time information of a title or chapter appears in the front panel display. (DVD only) (38)**
2. **Lights up when the color system is set to NTSC. (Asian, Australian, and Middle Eastern models only)**
3. **Lights up when a station is received. (Radio only) (51)**
4. **Stereo/Monaural effect (Radio only)(52)**
5. **Lights up when the sleep timer is set. (56)**
6. **Lights up when the movie or music mode is selected. (25)**
7. **Playing status (DVD function only)**
8. **Current repeat mode (34)**
9. **Lights up when the child lock function is set to on. (57)**
10. **Lights up when the system outputs progressive signals (DVD function only). (19)**
11. **Indicates the selected [SPEAKER FORMATION]. (61)**
12. **Current surround format (Except for JPEG)**
13. **Lights up when the DYNAMIC BASS is selected. (55)**
14. **Displays system's status such as chapter, title, or track number, time information, radio frequency, playing status, sound field, etc.**

Remote control

ALPHABETICAL ORDER

A – O

ANGLE 5 (36)
AUDIO 4 (31)
CLEAR 34 (25, 50, 60)
D.TUNING 24 (48)
DISC SKIP* 35
DISPLAY 2 (34, 49)
DVD MENU 26 (31, 44, 50)
DVD TOP MENU 14 (31)
DYNAMIC BASS 23 (51)
ENTER 25 (50)
FUNCTION 22 (18, 19, 26, 47, 57)
MOVIE/MUSIC 17 (21)
MUTING 7 (18)
Number buttons** 15 (25, 48, 50, 54)

P – Z

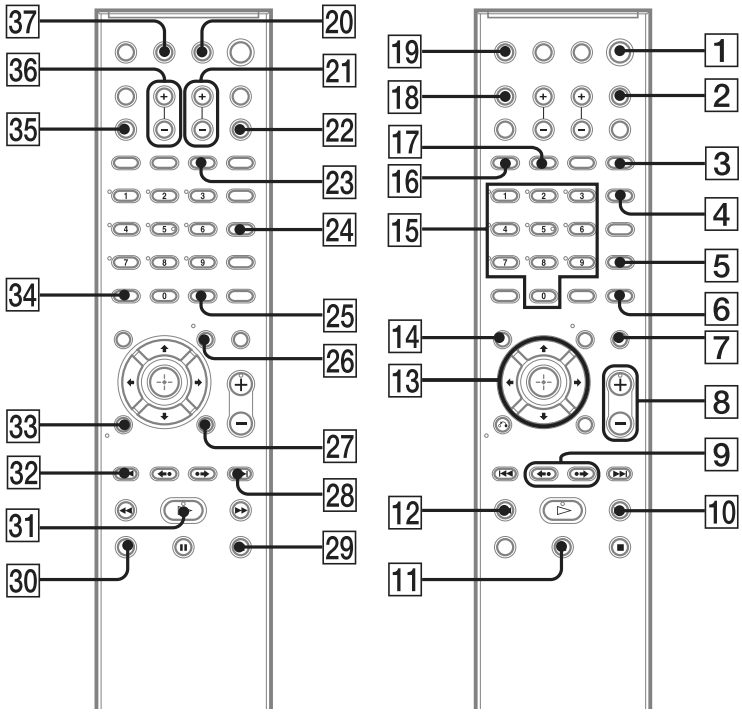
PICTURE NAVI 6 (26, 50)
PRESET +/– 28 32 (48)
SOUND FIELD 16 (22)
SUBTITLE 24 (37)
SYSTEM MENU 25 (16, 19, 50, 52, 83)
THEATRE SYNC 20 (51)
TUNING +/– 10 12 (47)
TV 30 (50)
TV CH +/– 21 (50)
TV INPUT 18 (50)
TV VOL +/– 36 (50)
VIDEO FORMAT 3 (15)
VOLUME +/–** 8 (18, 48, 64)

BUTTON DESCRIPTIONS

I/⏻ (on/standby) 1 (13, 16, 18, 26, 48)
TV I/⏻ (on/standby) 37 (50)
←/↑/↓/→/⊕ 13 (13, 16, 19, 25, 47, 54)
←●/●→ REPLAY/ADVANCE 9 (18)
⏮/⏭ 32 28 (18)
◀◀/▶▶ 12 10 (24)
◀❙/❙▶ SLOW 12 10 (24)
▷ (play)** 31 (18, 26, 56)
◀II/II▶ STEP 9 (24)
■ (stop) 29 (18, 26, 54)
II (pause) 11 (18)
⏏ (open/close) 19 (18)
DISPLAY 27 (15, 25, 54, 79)
RETURN 33 (26)
-/-- 34 (50)

* The DISC SKIP button is not available for this model.

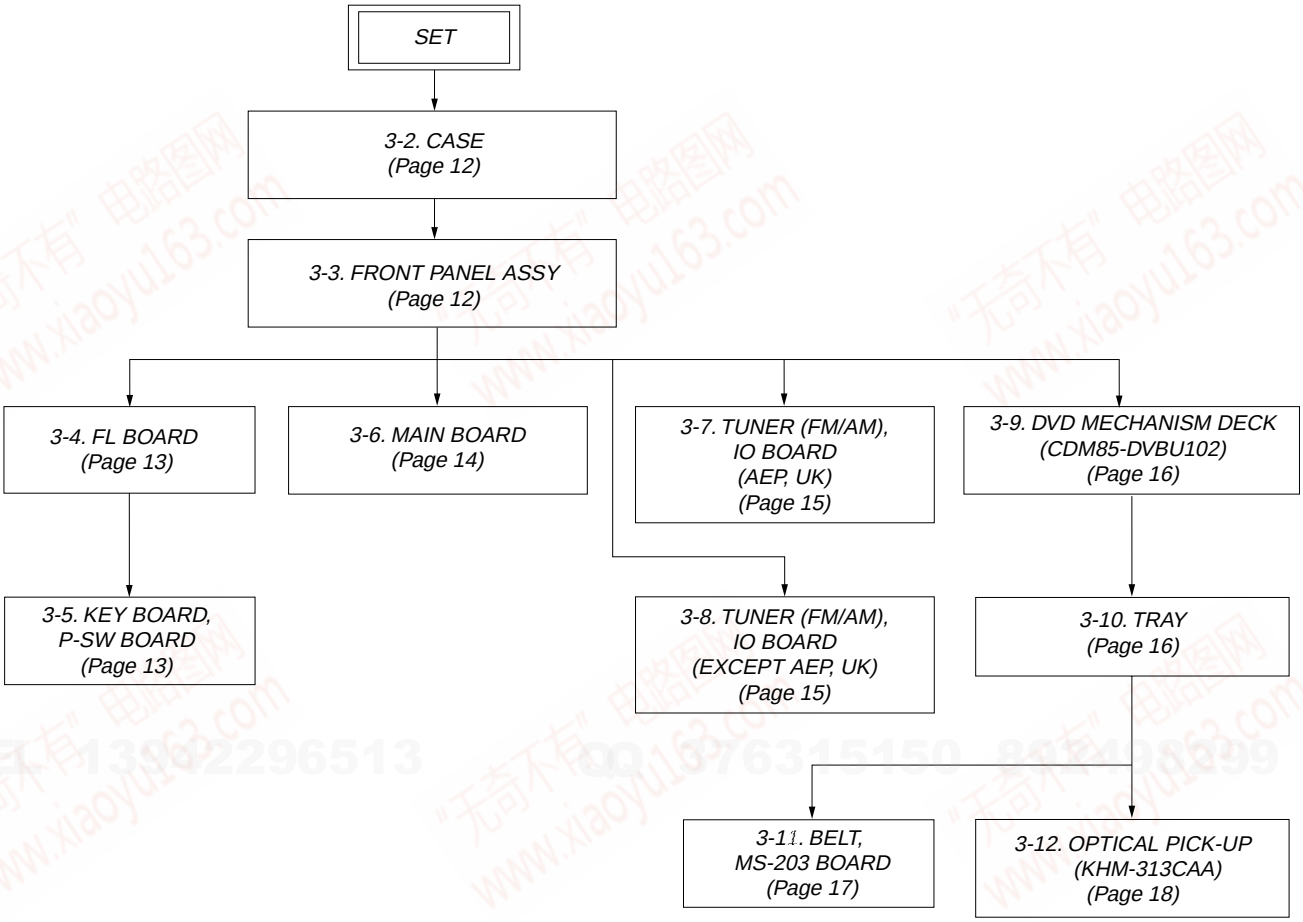
** The ▷, number 5, and VOLUME + buttons have tactile dots. Use the tactile dots as references when operating the system.



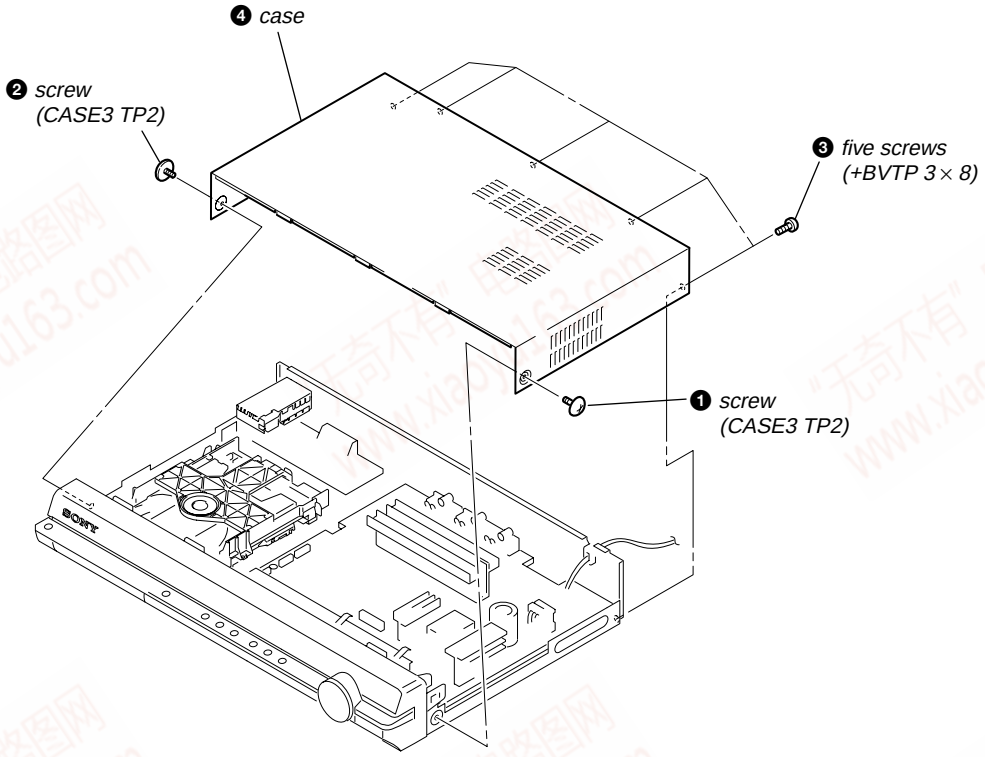
SECTION 3
DISASSEMBLY

3-1. DISASSEMBLY FLOW

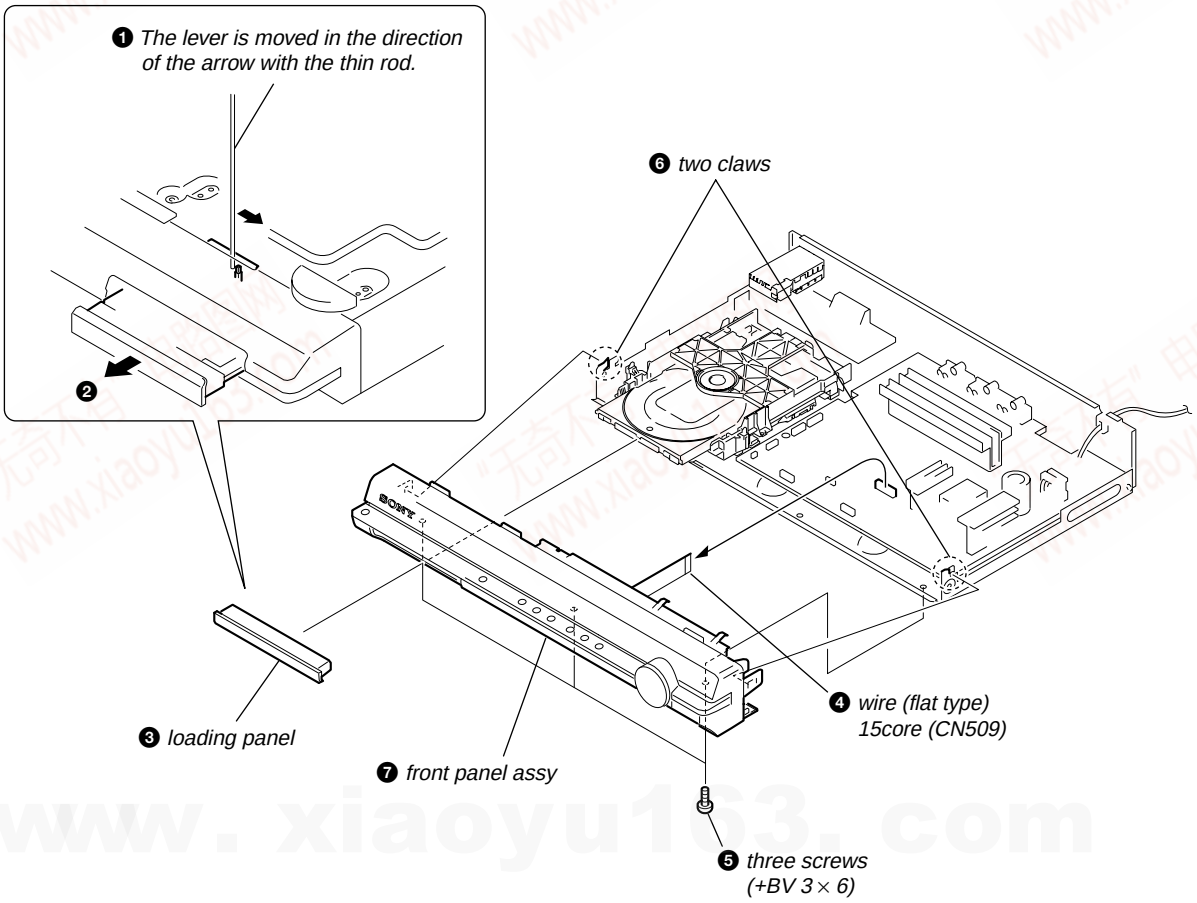
- This set can be disassembled in the order shown below.



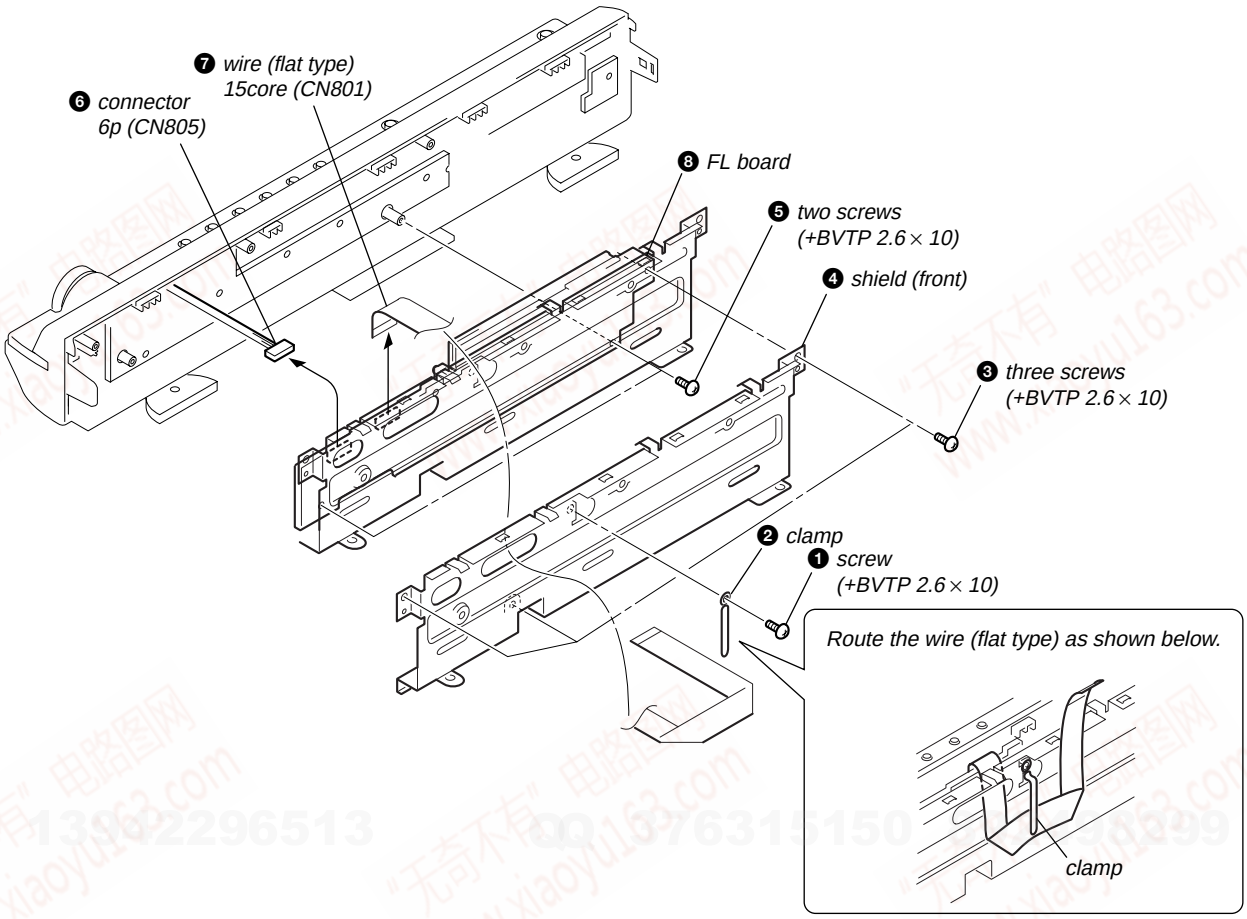
3-2. CASE



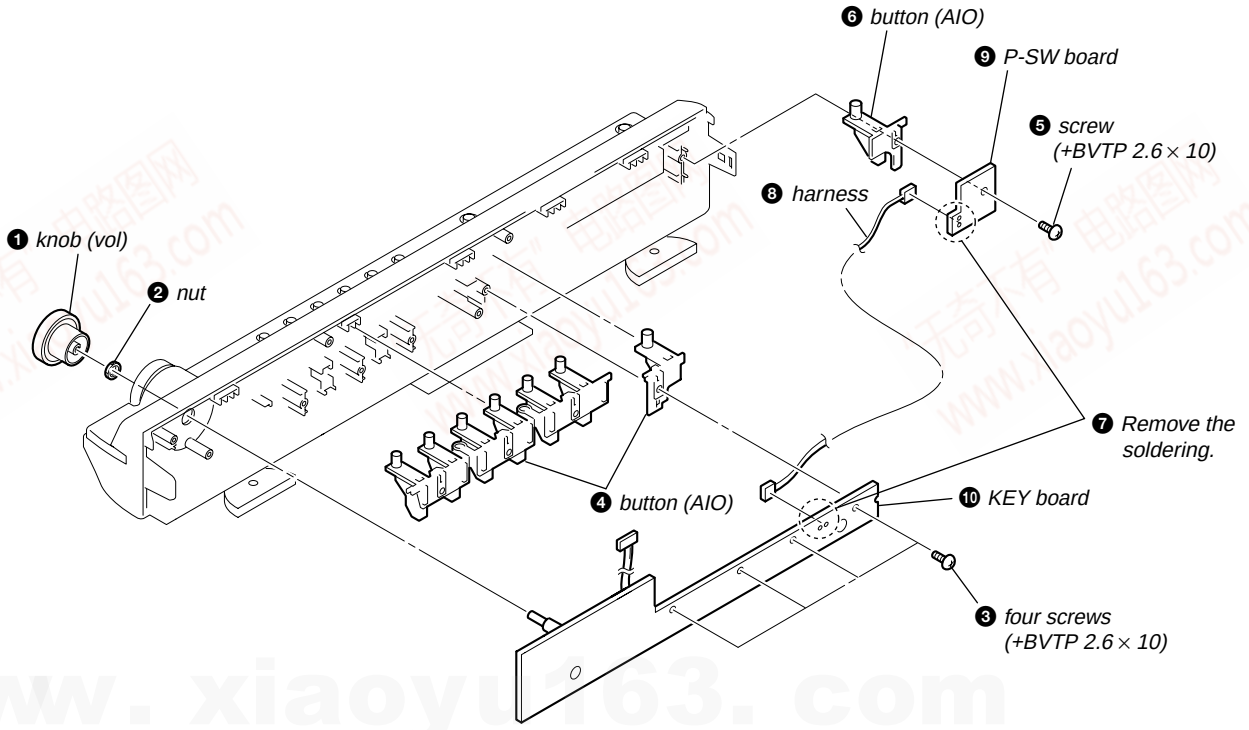
3-3. FRONT PANEL ASSY



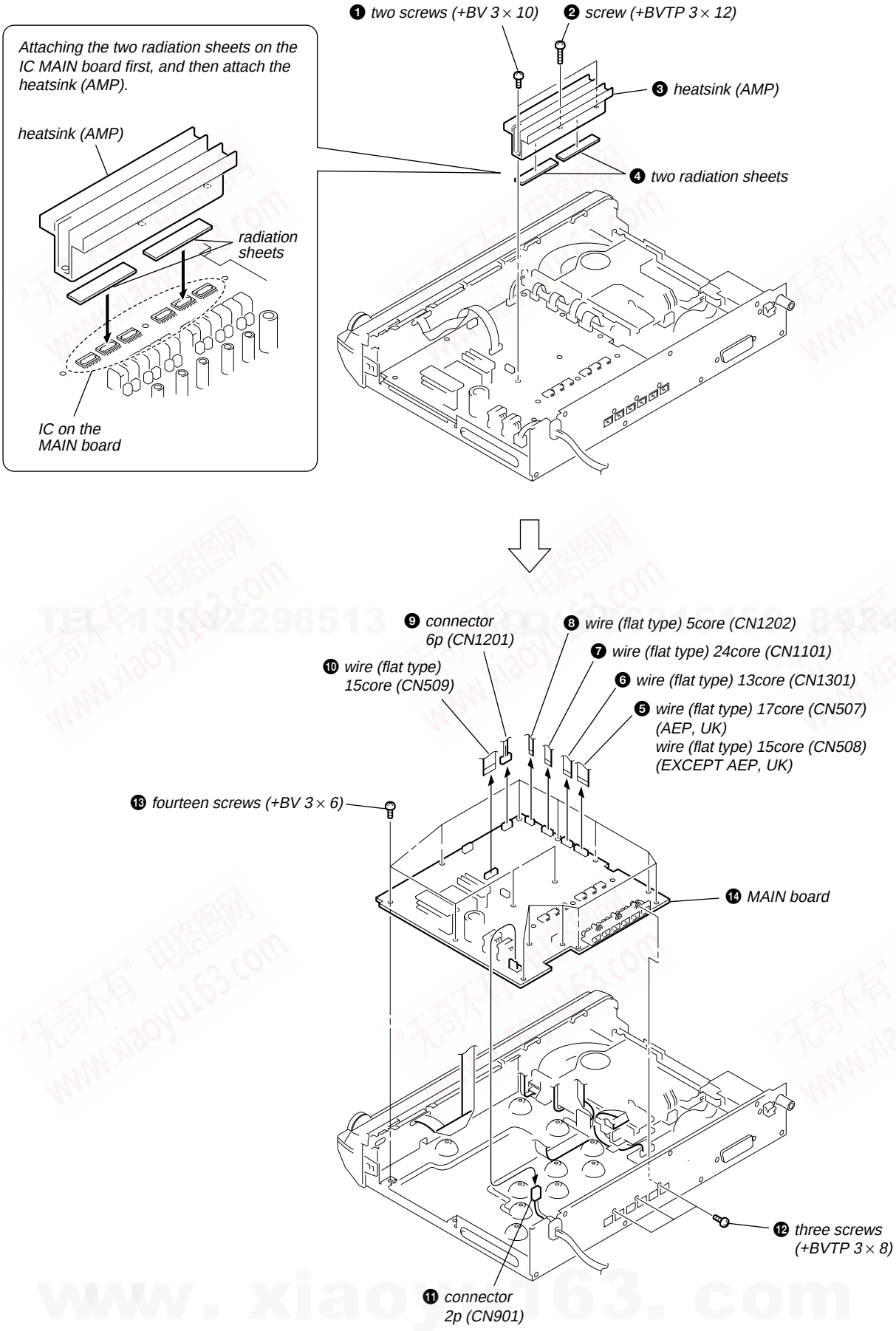
3-4. FL BOARD



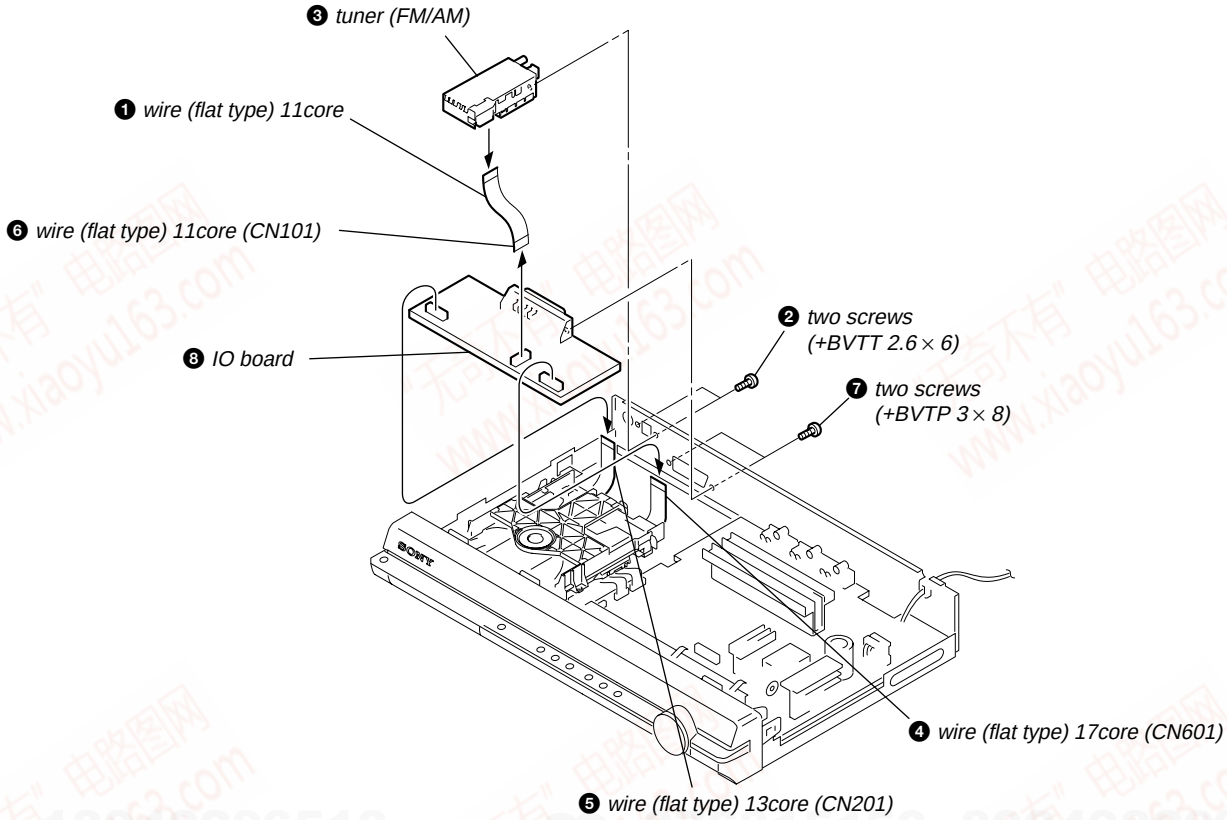
3-5. KEY BOARD, P-SW BOARD



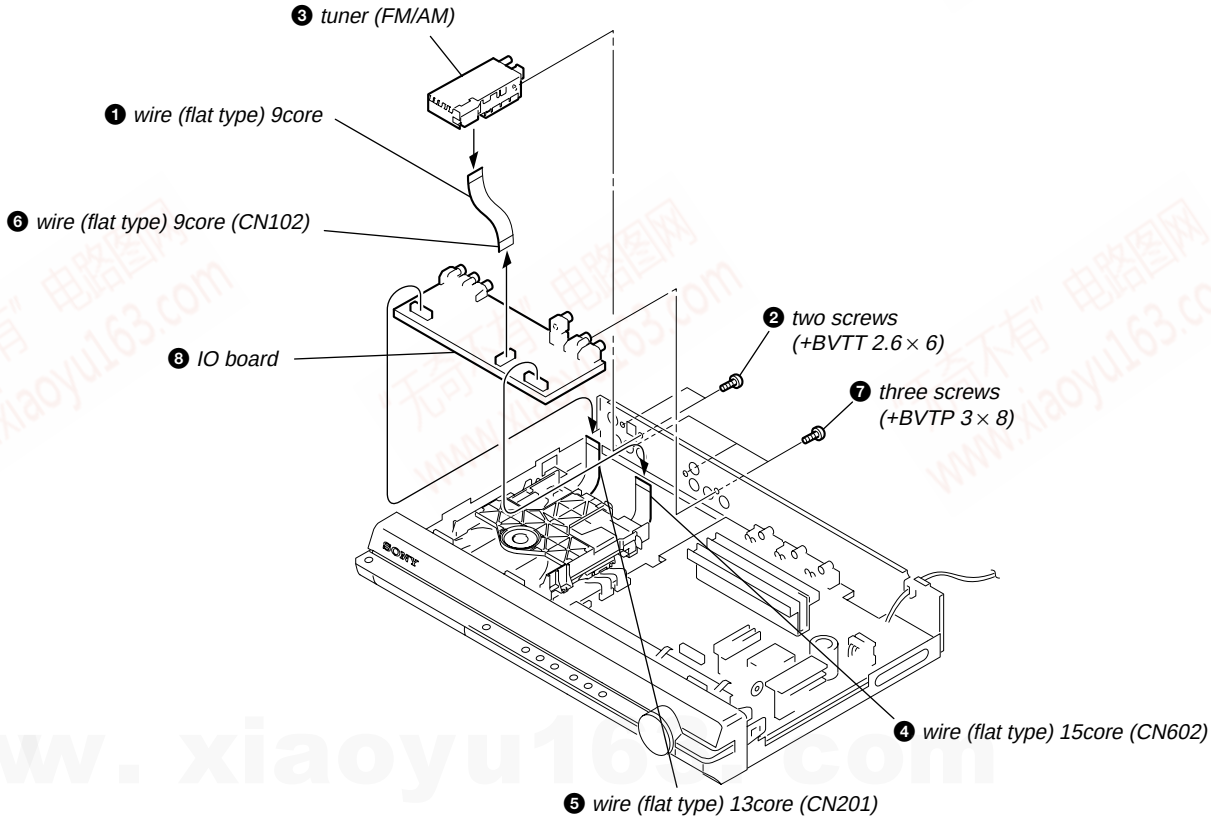
3-6. MAIN BOARD



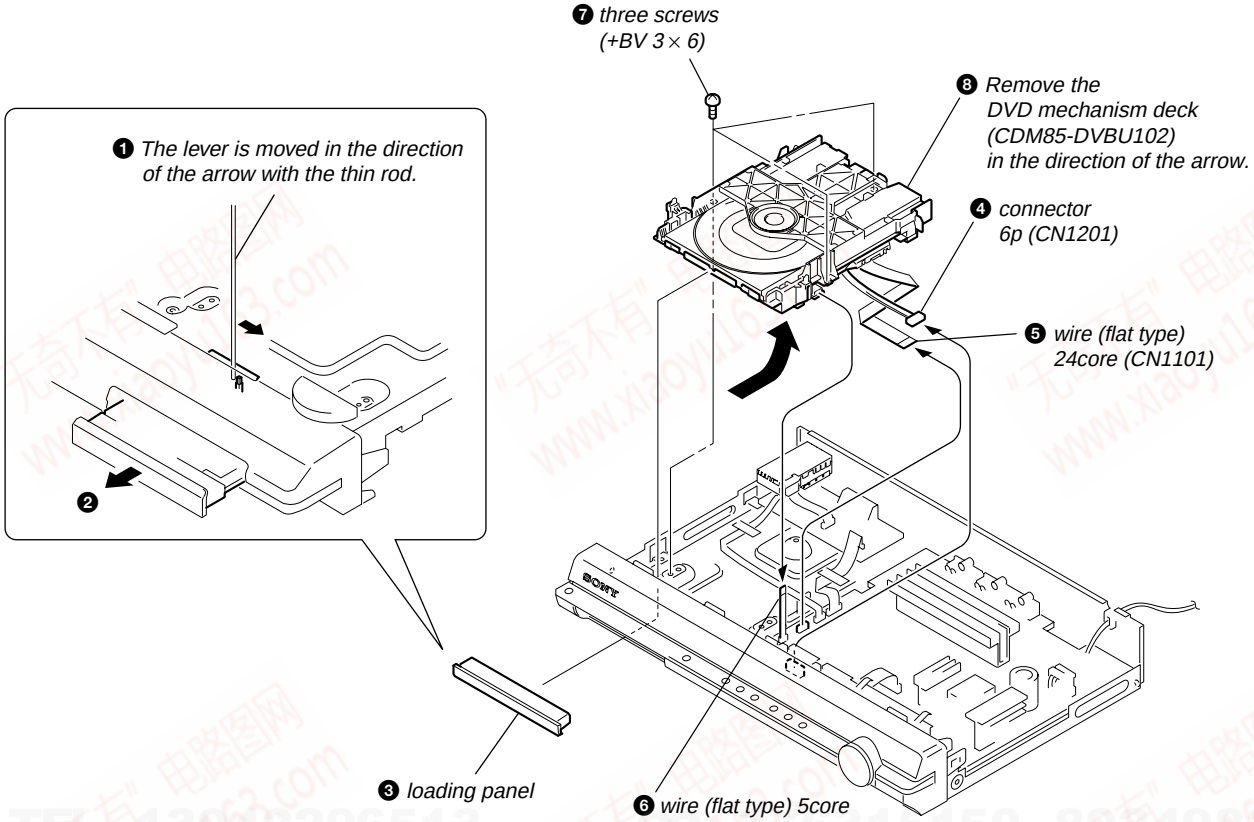
3-7. TUNER (FM/AM), IO BOARD (AEP, UK)



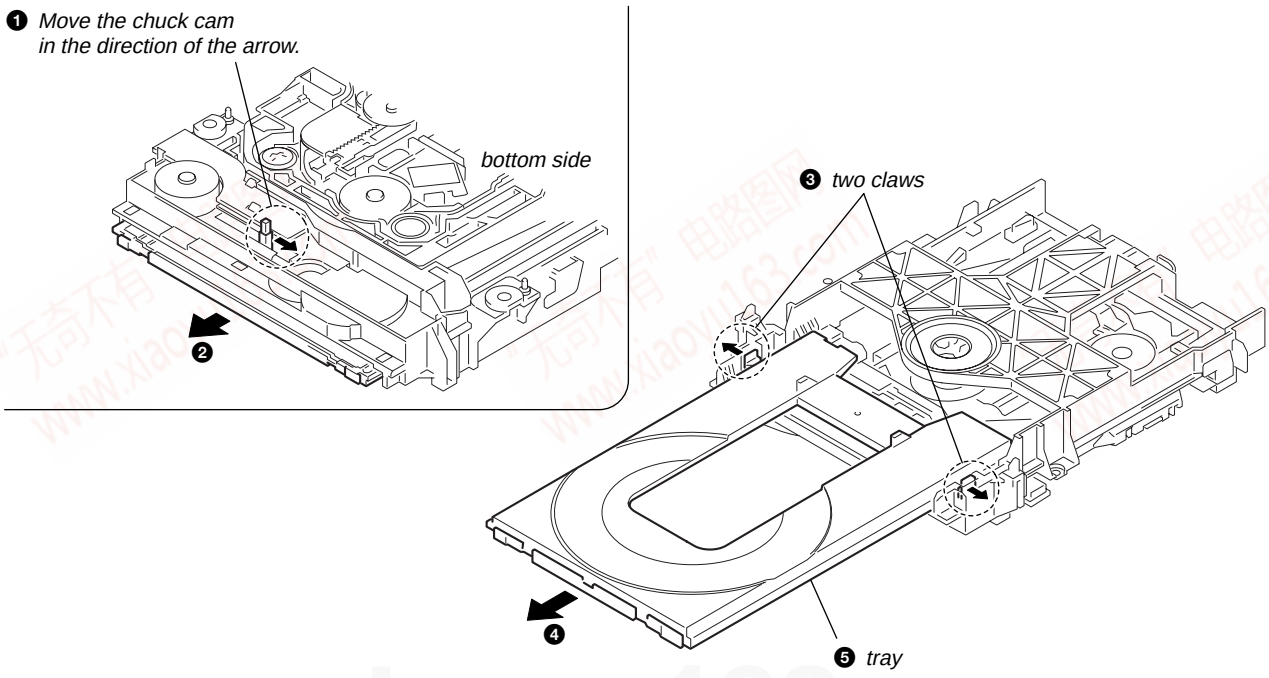
3-8. TUNER (FM/AM), IO BOARD (EXCEPT AEP, UK)



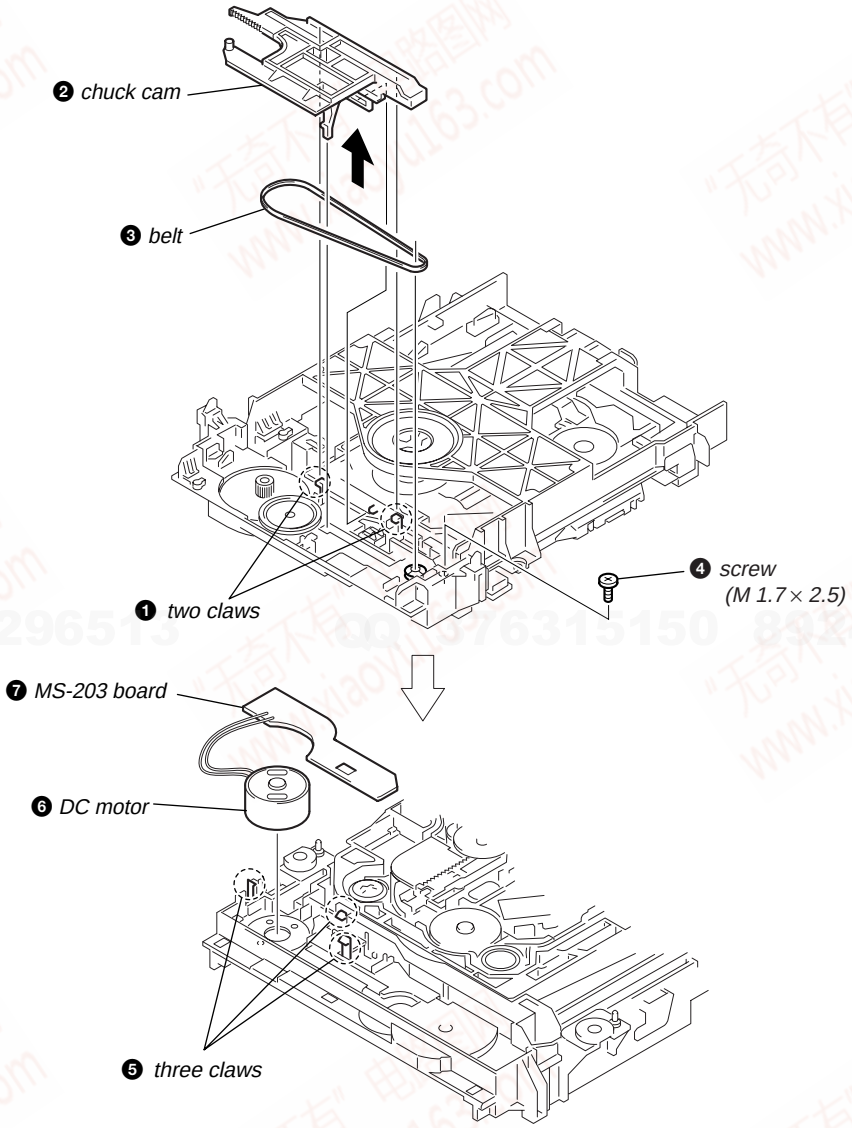
3-9. DVD MECHANISM DECK (CDM85-DVBU102)



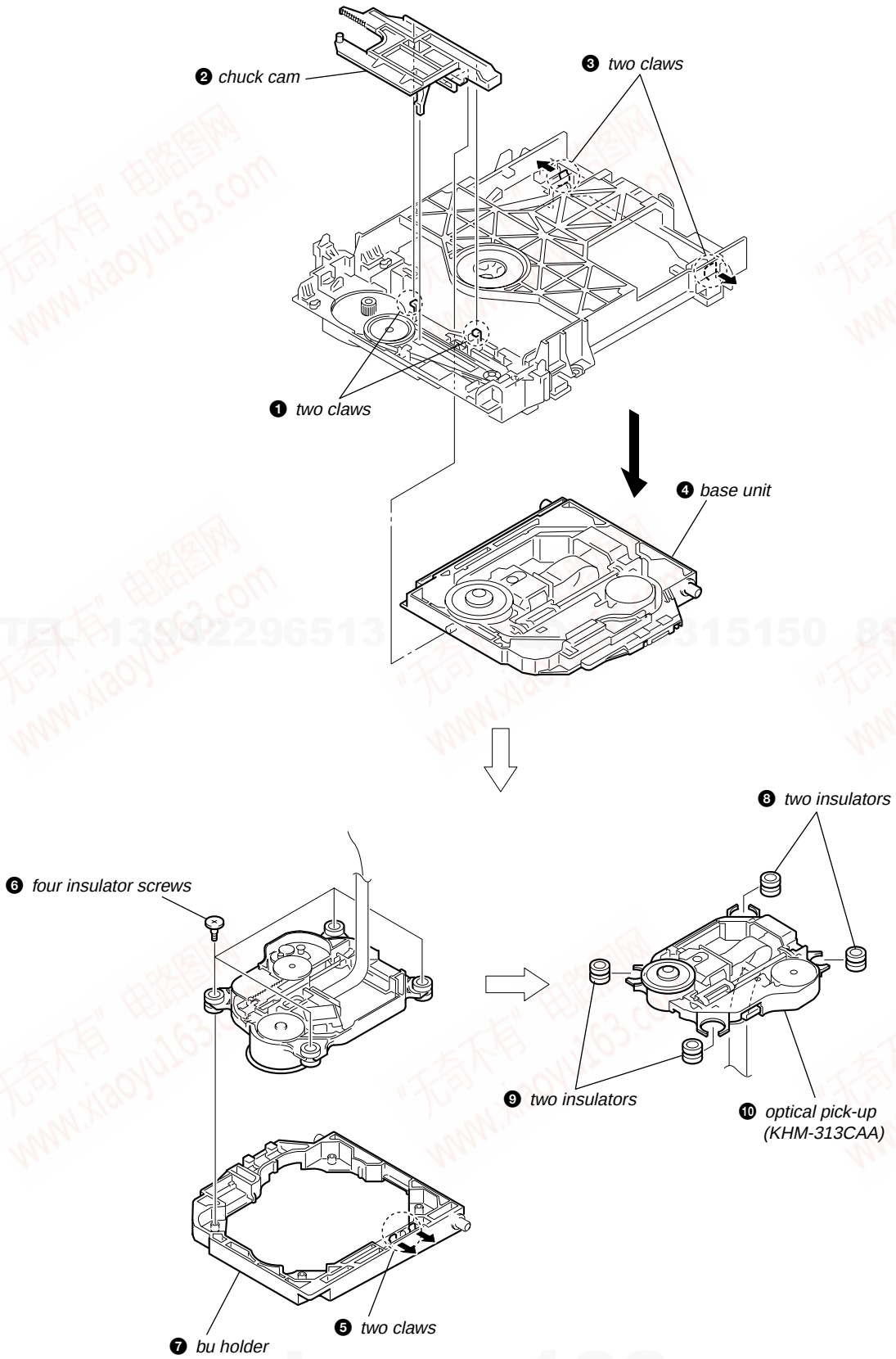
3-10. TRAY



3-11. BELT, MS-203 BOARD



3-12. OPTICAL PICK-UP (KHM-313CAA)



SECTION 4
TEST MODE

Note: Incorrect operations may be performed if the test mode is not entered properly.
In this case, press the I/⏻ button to turn the power off, and retry to enter the test mode.

1. Cold Reset

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customers.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press three buttons ■ , ⏏ and I/⏻ simultaneously.
3. When this button is operated, display as “COLD RESET” for a while and all of the settings are reset.

2. Panel Test Mode

- This mode is used to check the software version, FL, LED and KEY.

2-1. Display Test Mode

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press three buttons ❚❚, ⏮ and ⏏ simultaneously.
3. When the display test mode is activated, all segments are turned on.
4. To exit from this mode, press three buttons ❚❚, ⏮ and ⏏ simultaneously.

2-2. Version Test Mode

Procedure:

1. When the display test mode is activated, press the ⏮ button and the message “AS1” is displayed, the version test mode is activated.
2. Whenever the ⏮ button is pressed, the display changes in the following order.
   “AS1” (Model name) → “CE2*1” (Destination) → MC
   ↑ ↓
   *1: CE2 changes depending on destination.
3. Press the ⏭ button and the date of the software production is displayed.
4. Press the ⏭ button again and the version is displayed.
5. To exit from this mode, press three buttons ❚❚, ⏮ and ⏏ simultaneously.

2-3. Key Test Mode

Procedure:

1. When the display test mode is activated, press the ▷ button, to select the key test mode.
2. To enter the KEY test mode, the fluorescent indicator displays “K0 V0”. Each time an another button is pressed, “KEY” value increases. However, once a button is pressed, it is no longer taken into account. When all keys are pressed correctly, “K8 V0” is displayed.
3. When the VOLUME control is turned in the direction of (+), “V0” is changed to “V1”, then ... “V9”.
   When the VOLUME control is turned in the direction of (–), “V0” is changed to “V9”, then ... “V1”.
4. To exit from this mode, press three buttons ❚❚, ⏮ and ⏏ simultaneously.

3. Disc Tray Lock

The disc tray lock function for the antitheft of an demonstration disc in the store is equipped.

Setting Procedure :

1. Press the I/⏻ button to turn the set on.
2. Press the FUNCTION button to set DVD function.
3. Insert a disc.
4. Press the ■ button and the ⏏ button simultaneously for five seconds.
5. The message “LOCKED” is displayed and the tray is locked.

Releasing Procedure :

1. Press the ■ button and the ⏏ button simultaneously for five seconds again.
2. The message “UNLOCKED” is displayed and the tray is unlocked.

Note: When “LOCKED” is displayed, the tray lock is not released by turning power on/off with the I/⏻ button.

4. DVD Ship Mode

Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ button to turn the set on.
2. Press the FUNCTION button to set the function “DVD”.
3. Remove all discs, and then press two buttons ▷ and I/⏻ simultaneously.
4. After a message “MECHA LOCK” is displayed on the fluorescent indicator tube, pull out the AC plug.
5. To exit from this mode, press the I/⏻ button to turn the set on.

5. AM Step Change (Except AEP, UK)

- A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press the I/⏻ button to turn the set ON.
2. Select the function “TUNER”, and press FUNCTION button to select the BAND “AM”.
3. Press the I/⏻ button to turn the set OFF.
4. Press two buttons ⏭ and I/⏻ simultaneously, and the display of fluorescent indicator tube changes to “AM 9k STEP” or “AM 10k STEP”, and thus the channel step is changed over.

6. Product Out

This mode moves the optical pick-up to the position durable to vibration and clears all data including preset data stored in the RAM to initial conditions. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ button to turn the power on.
2. Press the FUNCTION button to set the function “DVD”.
3. Remove all discs, and then press three buttons ⏭, ⏏ and I/⏻ simultaneously.
4. After the “STANDBY” blinking display finishes, the message “MECHA LOCK” is displayed on the fluorescent indicator tube disconnect the AC power plug, then the ship mode is set.

DVD SECTION

7-1. GENERAL DESCRIPTION

The IOP measurement allows you to make diagnosis and adjustment simply by using the remote commander and monitor TV. The instructions, diagnosis results, etc. are given on the on-screen display (OSD).
Be sure to execute the IOP measurement when a BU (Base Unit) is replaced.

7-2. HOW TO ENTER TEST MODE

While pressing the ■ and ⏏ buttons simultaneously, turn VOLUME control in the direction of (+) with the DVD player in power on.
The Test Mode starts, displayed "SERVICE IN" on this model display then the menu shown below will be displayed on the TV screen.

```
        Remocon Diagnosis Menu

0. External Chip Check
1. Servo Parameter Check
2. Drive Manual Operation
3. Emergency History
4. Version Information


Model Name : AS1_XX*1
IF-con     : Ver. XX.XX (XXXX)
Syscon     : Ver. X.XXX
```

*1: Changes depending on destination

The menu above is the Remocon Diagnosis Menu screen which consists of five main functions. At the bottom of the menu screen, the model name and IF-con version. To exit from the Test Mode, press the power button on the remote commander.

7-3. EXECUTING IOP MEASUREMENT

In order to execute IOP measurement, the following standard procedures must be followed.

(1) In power on, while pressing the ■ and ⏏ buttons simultaneously, turn the VOLUME control in the direction of (+).

```
        Remocon Diagnosis Menu

0. External Chip Check
1. Servo Parameter Check
2. Drive Manual Operation
3. Emergency History
4. Version information


Model Name : AS1_XX*1
IF-con     : Ver. XX.XX (XXXX)
Syscon     : Ver. X.XXX
```

*1: Changes depending on destination

(2) Select "2. Drive Manual Operation" by pressing the 2 button on the remote commander. The screen will appear as shown.

```
        Drive Manual Operation

1. Servo Control
2. Track/Layer Jump
3. Manual Adjustment
4. Tray Aging Mode
5. MIRR time Adjust
0. Return to Top Menu
```

(3) Select "3. Manual Adjustment" by pressing the 3 button on the remote commander. The screen will appear as shown.

```
        Manual Adjust

1. Track Balance Adjust:
2. Track Gain Adjust:
3. Focus Balance Adjust:
4. Focus Gain Adjust:
5. Eq Boost Adjust:
6. Iop:
7. TRV. Level:
8. S curve(FE) Level:
9. RFL(PI) Level:
0. MIRR Time:

↑↓ Change Value
[RETURN] Return to previous menu
```

(4) Select "6.IOP" by pressing the 6 button on the remote commander.

(5) Wait until a hexadecimal number appear.

```
        Manual Adjust

1. Track Balance Adjust:
2. Track Gain Adjust:
3. Focus Balance Adjust:
4. Focus Gain Adjust:
5. Eq Boost Adjust:
6. Iop.(5B)
7. TRV. Level:
8. S curve(FE) Level:
9. RFL(PI) Level:
0. MIRR Time:

↑↓ Change Value
[RETURN] Return to previous menu
```

(6) Convert each data from hexadecimal to decimal using conversion table.

(7) Please find the label on the rear of the BU (Base Unit). The default IOP value is written in the label.

(8) Subtract between these two values.

(9) If the remainder is smaller than 93 (decimal), then it is OK. However if the value is higher than 93, then the BU is defective and need to be change.

(10) Press the RETURN button on the remote commander to return back to previous menu.

(11) Press the 0 button on the remote commander to return to Top Menu.

7-4. EMERGENCY HISTORY

To check the emergency history, please follow the following procedure.

(1) From the Top Menu of Remocon Diagnosis Menu, select "3. Emergency History Check" by pressing the 3 button on the remote commander. The following screen appears on the on-screen display.

```
                Emg. History Check

Laser Hours        CD     999h        59min
                   DVD    999h        59min

01.  01  05  04  04       00  92  46  00
     00  00  00  00       00  00  23  45
02.  02  02  01  01       00  A9  4B  00
     00  00  00  00       00  00  23  45

[Next]   Next Page    [Prev]  Prev Page
[O]  Return to Top Menu
```

(2) You can check the total time when the laser is turned on during playback of DVD and CD from the above menu. The maximum time, which can be displayed are 999h 59min.

(3) You can check the error code of latest 10 emergency history from the above menu. To view the previous or next page of emergency history, press ⏮ or ⏭ button on the remote commander. The error code consists of the following three blocks. The first block indicates the error code. The second block indicates the parameter and the third block indicates the time of error code as shown below.

• Error Code

```
                Emg. History Check

Laser Hours        CD     999h        59min
                   DVD    999h        59min

     *1  *2
01.  01  05  04  04       00  92  46  00
     00  00  00  00       00  00  23  45 *3
02.  02  02  01  01       00  A9  4B  00
     00  00  00  00       00  00  23  45

[Next]   Next Page    [Prev]  Prev Page
[O]  Return to Top Menu
```

*1 : Error Code
*2 : Parameter of error code
*3 : Time of error code

The meaning of error code is as below:

01: Communication error (No reply from syscon)
02: Syscon hung up
03: Power OFF request when syscon hung up
19: Thermal shutdown
24: MoveSledHome error
25: Mechanical move error (5 Changer)
26: Mechanical move stack error
30: DC motor adjustment error
31: DPD offset adjustment error
32: TE balance adjustment error
33: TE sensor adjustment error
34: TE loop gain adjustment error
35: FE loop gain adjustment error
36: Bad jitter after adjustment
40: Focus NG
42: Focus layer jump NG
52: Open kick spindle error
51: Spindle stop error
60: Focus on error
61: Seek fail error
62: Read Q data/ID error
70: Lead in data read fail
71: TOC read time out (CD)
80: Can't buffering
81: Unknown media type

7-4-1. Clear the Laser Hour

Press DISPLAY button and then press CLEAR button on the remote commander. The data for both CD and DVD data are reset.

```
                Emg. History Check

Laser Hours        CD     0h          0min
                   DVD    0h          0min

01.  01  05  04  04       00  92  46  00
     00  00  00  00       00  00  23  45
02.  02  02  01  01       00  A9  4B  00
     00  00  00  00       00  00  23  45

[Next]   Next Page    [Prev]  Prev Page
[O]  Return to Top Menu
```

7-4-2. Clear the Emergency History

Press DVD TOP MENU button and then press CLEAR button on the remote commander. The error code for all emergency history would be reset.

```
                Emg. History Check

Laser Hours        CD     999h        59min
                   DVD    999h        59min

01.  00  00  00  00       00  00  00  00
     00  00  00  00       00  00  00  00
02.  00  00  00  00       00  00  00  00
     00  00  00  00       00  00  00  00

[Next]   Next Page    [Prev]  Prev Page
[O]  Return to Top Menu
```

7-4-3. Clear the Initialize Setup Data

Press DVD MENU button and then press CLEAR button on the remote commander.

```
                Emg. History Check

Laser Hours        CD     999h        59min
                   DVD    999h        59min

                initialize setup data...




[Next]   Next Page    [Prev]  Prev Page
[O]  Return to Top Menu
```

7-4-4. Return to the Top Menu of Remocon Diagnosis Menu

Press [0] button on the remote commander.

• Check Version Information

To check the version information, please follow the following procedure.

(1) From the Top Menu of Remocon Diagnosis Menu, select "4. Version Information" by pressing the [4] button on the remote commander. The following screen appears on the on-screen display.

```
        Version information

Firm (Main) :  Ver. xxxxx
Firm (Sub) :  xxxxx
RISC :  xxxxx
8032 :  xxxxx
Audio DSP :  xxxxx
Servo DSP :  xxxxx


[0]  Return to Top Menu
```

To return to the Top Menu of Remocon Diagnosis Menu, press [0] button on the remote commander.

8. DEMO PLAY OUT

It is a mode to release the demonstration reproduct by the dedicated demonstration disc.

Setting Procedure:

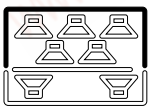
1. Press the [I/⏻] button to turn the set on.
2. Press the [FUNCTION] button to set the function "DVD".
3. During playback the DEMO Disc, press the [■] and [▷] buttons for five seconds simultaneously.
4. The message "DEMO OFF" is displayed, a mode to reproduct the demonstration is released.

9. VOLUME TEST

Procedure:

1. Press the [I/⏻] button to turn the set on.
2. Press three buttons [⏮] , [▷] and [⏭] simultaneously.
3. The message "VOLUME MIN" is displayed.
4. When the [VOLUME] control is turned in the direction of (+), the message "VOLUME MAX" is displayed.
5. When the [VOLUME] control is turned in the direction of (–), the message "VOLUME MIN" is displayed.
6. To exit from this mode, press the [I/⏻] button to turn the set off, the message "COLD RESET" is displayed.

Note: The segments of the frame of SPEAKER FORMATION are blinking while test mode.



10. PROTECTION FACTOR (SD DETECTION/ DC DETECTION) IDENTIFICATION TEST MODE

When an error is detected, the FL tube alternately displays "PROTECTOR ⇔ PUSH POWER".

↓ Press the [I/⏻] button.
* Buttons other than the [I/⏻] button are invalid.

"STANDBY" blinks three times on the FL tube.

↓

The protection release state (POWER OFF) is established.
(No FL tube display)

↓ Press the [I/⏻] button.

The power to the system turns on, and the normal operation is established. (Restore)

During the protection state:

1. If the AC plug is connected or disconnected during the protection state, the protection state is released, and the normal operation is established. (The protection state is not maintained.)
2. The protection factor is displayed by pressing the [FUNCTION], [⏏] and [⏭] buttons at the same time during the protection state
   (during the "PROTECTOR ⇔ PUSH POWER" display).
   ⇨ When SD is detected: Repeats "SD DETECT ⇔ PUSH POWER".
   ⇨ When DC is detected: Repeats "DC DETECT ⇔ PUSH POWER".

PL: SD detection

When the "L" output from the SD (shutdown) port on the S-MASTER POWER Driver is detected, the power system other than that of the FL tube is turned off, and the protection state is established.

DC detection

When the "L" output from the power/speaker error detection circuit (DC detection port) is detected for two seconds continually, the power system other than that of the FL tube is turned off, and the protection state is established.

SECTION 5
ELECTRICAL ADJUSTMENT

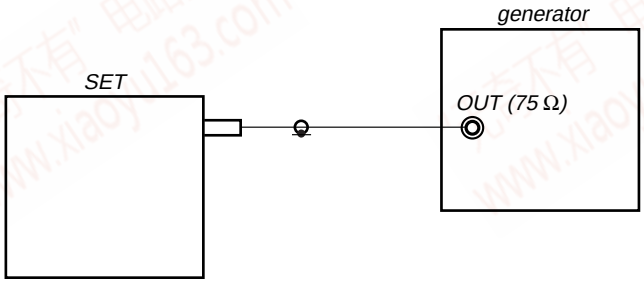
DVD SECTION

When the optical pick-up assy is replaced, perform the "EXECUTING IOP MEASUREMENT".

EXECUTING IOP MEASUREMENT (See page 20)

TUNER SECTION

[FM Tune Level Check]



Procedure:

1. Turn the power on.
2. Input the following signal from Signal Generator to FM antenna input directly.

* Carrier Freq : A = 87.5 MHz, B = 98 MHz, C = 108 MHz
Deviation : 75 kHz
Modulation : 1 kHz
ANT input : 35 dBu (EMF)

Note: Please use 75 ohm "coaxial cable" to connect SG and the set. You cannot use video cable for checking.
Please use SG whose output impedance is 75 ohm.

3. Set to FM tuner function and tune A, B and C signals.
4. Confirm "TUNED" is lit on the display for A, B and C signals.

The mark of "TUNED" means "The selected station signal is received in good condition."

SECTION 6
DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Schematic Diagrams.
Note:

- All capacitors are in µF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬ : B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages and waveforms are dc with respect to ground in service mode.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
  no mark : DVD STOP
  ∗ : Impossible to measure
- Voltages are taken with VOM (Input impedance 10 MΩ).
- Circled numbers refer to waveforms.
- Signal path.
  : AUDIO
  : TUNER
  : VIDEO
  : Y
  : CHROMA
  : COMPONENT VIDEO
  : R, G, B
  : AUDIO IN (TV/VIDEO)
  : CD PLAY
  : DVD PLAY
- Abbreviation

AR	: Argentine model
E3	: 220 – 240 V AC area in E model
E12	: 220 – 240 V AC area in E model
E32	: 110 – 240 V AC area in E model
MX	: Mexican model
RU	: Russian model
SP	: Singapore model
TH	: Thai model

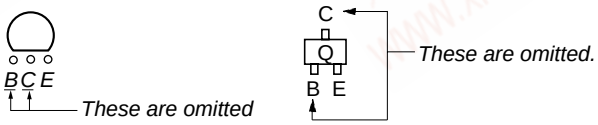
For Printed Wiring Boards.
Note:

- ○——— : parts extracted from the component side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

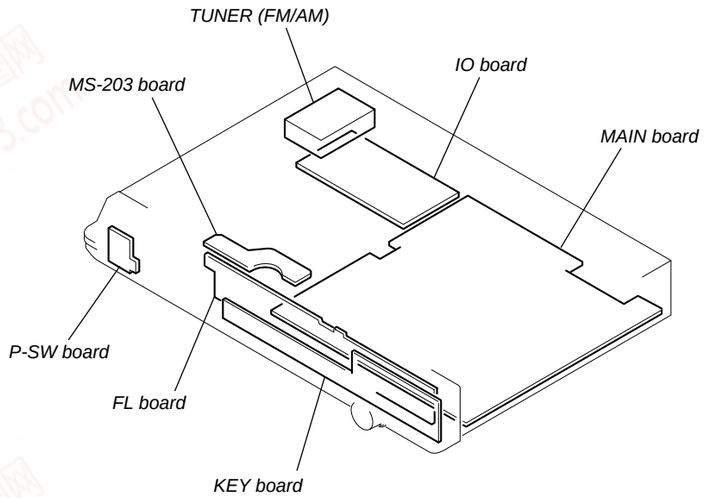
(The other layers' patterns are not indicated.)

Caution:
Parts face side: (SIDE A) Parts on the parts face side seen from the parts face are indicated.
Pattern face side: (SIDE B) Parts on the pattern face side seen from the pattern face are indicated.

- Indication of transistor.



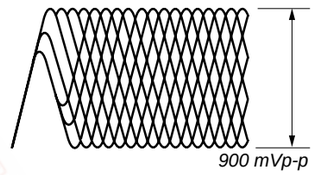
• **Circuit Boards Location**



• **Waveforms**

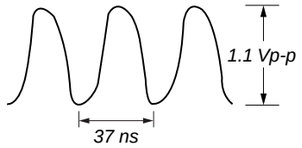
– MAIN Board –

① **IC1101 ⑥ (DVDRFIP)**



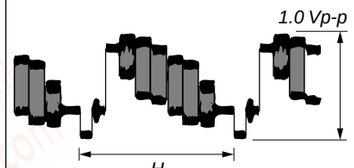
200 mV/DIV, 100 ns/DIV

② **IC1101 ㉙ (XTALI)**



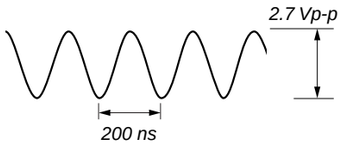
500 mV/DIV, 10 ns/DIV

③ **IC1101 ⑱ (YUV3)**



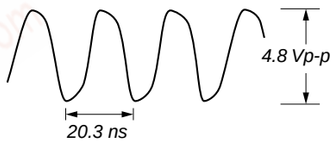
500 mV/DIV, 20 µs/DIV

④ **IC501 ⑮ (XIN)**



1 V/DIV, 100 ns/DIV

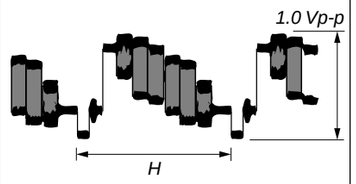
⑤ **IC3010 ㊽ (XFSOIN)**



1 V/DIV, 10 ns/DIV

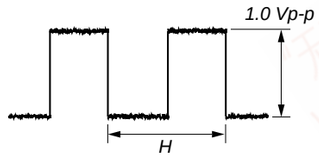
– IO Board –

⑥ **IC201 ㉓ (CVBS)**



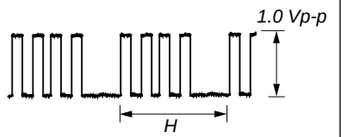
500 mV/DIV, 20 µs/DIV

⑦ **IC201 ⑳ (CYOUT)**



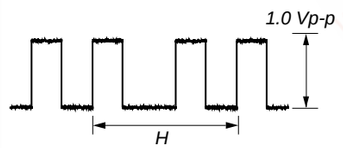
500 mV/DIV, 20 µs/DIV

⑧ **IC201 ⑱ (CbOUT)**



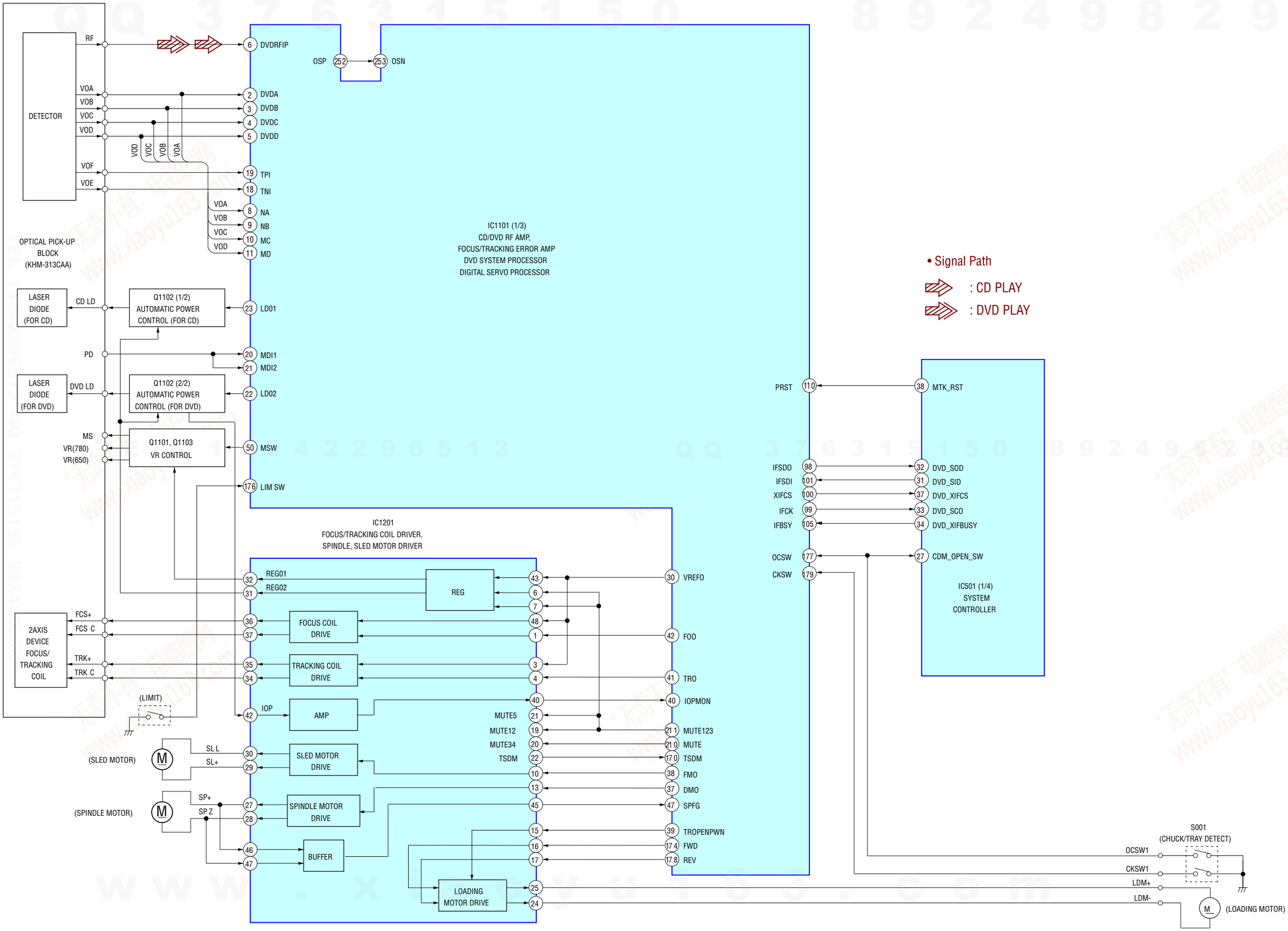
500 mV/DIV, 20 µs/DIV

⑨ **IC201 ⑯ (CrOUT)**

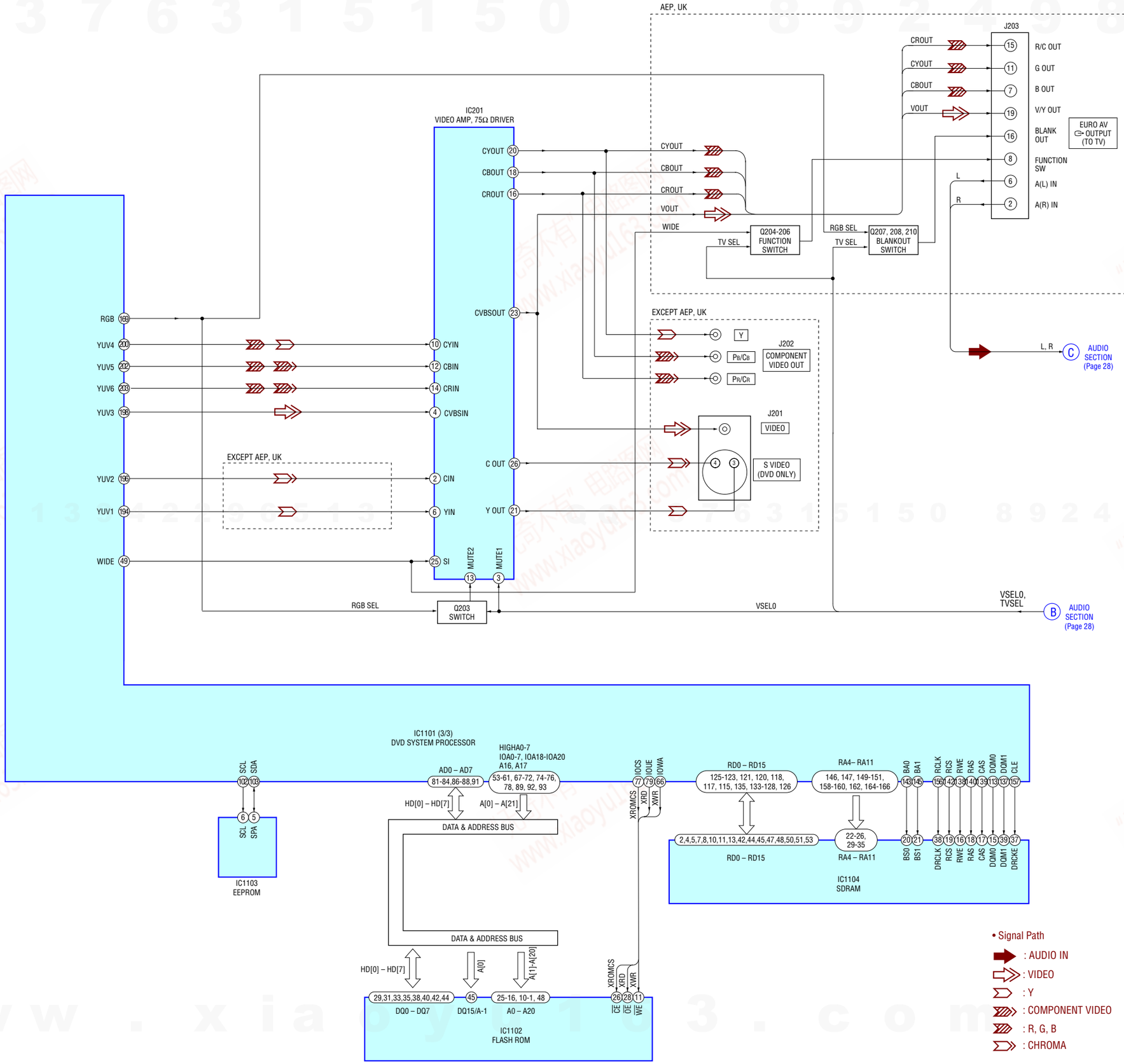


500 mV/DIV, 20 µs/DIV

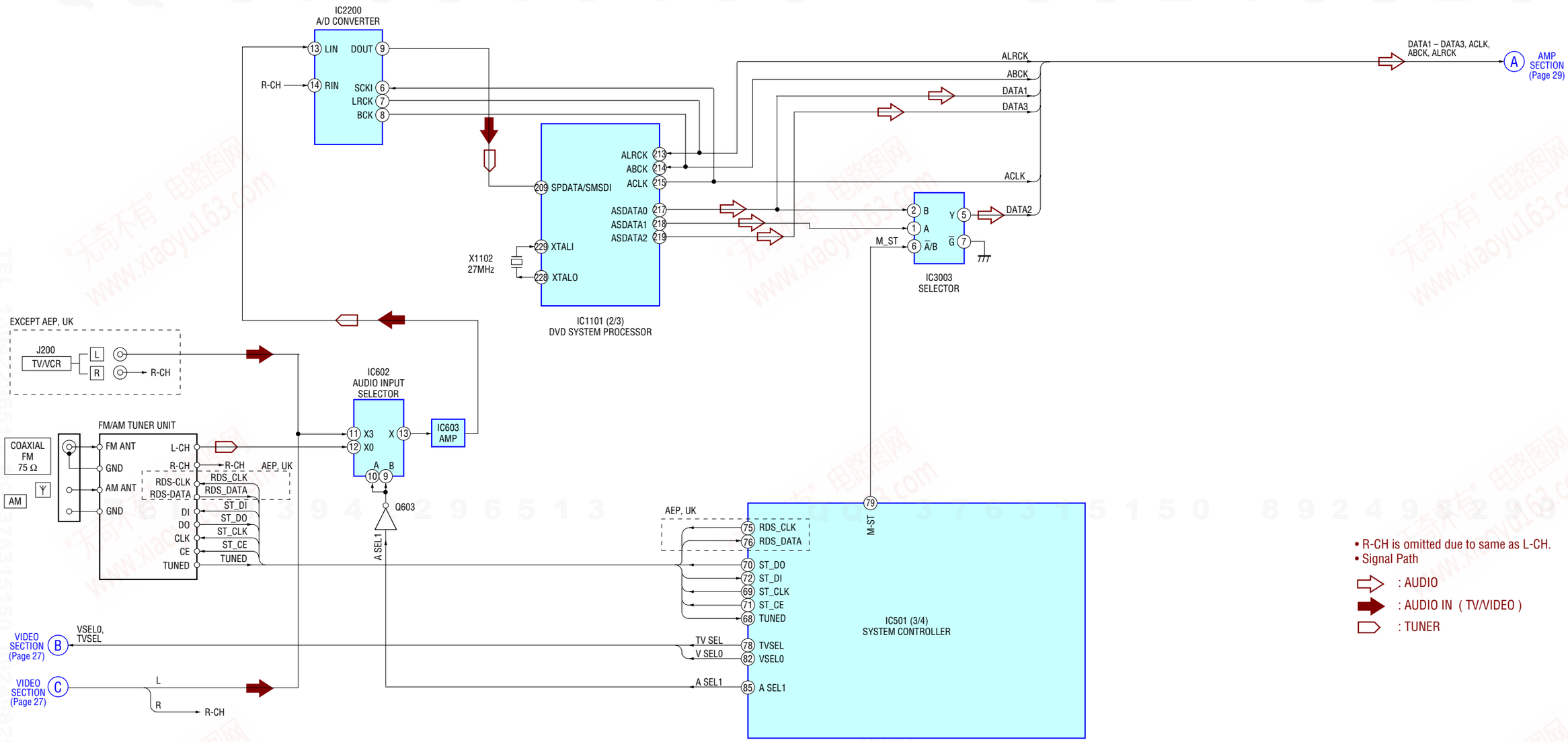
6-1. BLOCK DIAGRAM – RF SECTION –



6-2. BLOCK DIAGRAM – VIDEO SECTION –



6-3. BLOCK DIAGRAM – AUDIO SECTION –



- R-CH is omitted due to same as L-CH.
- Signal Path

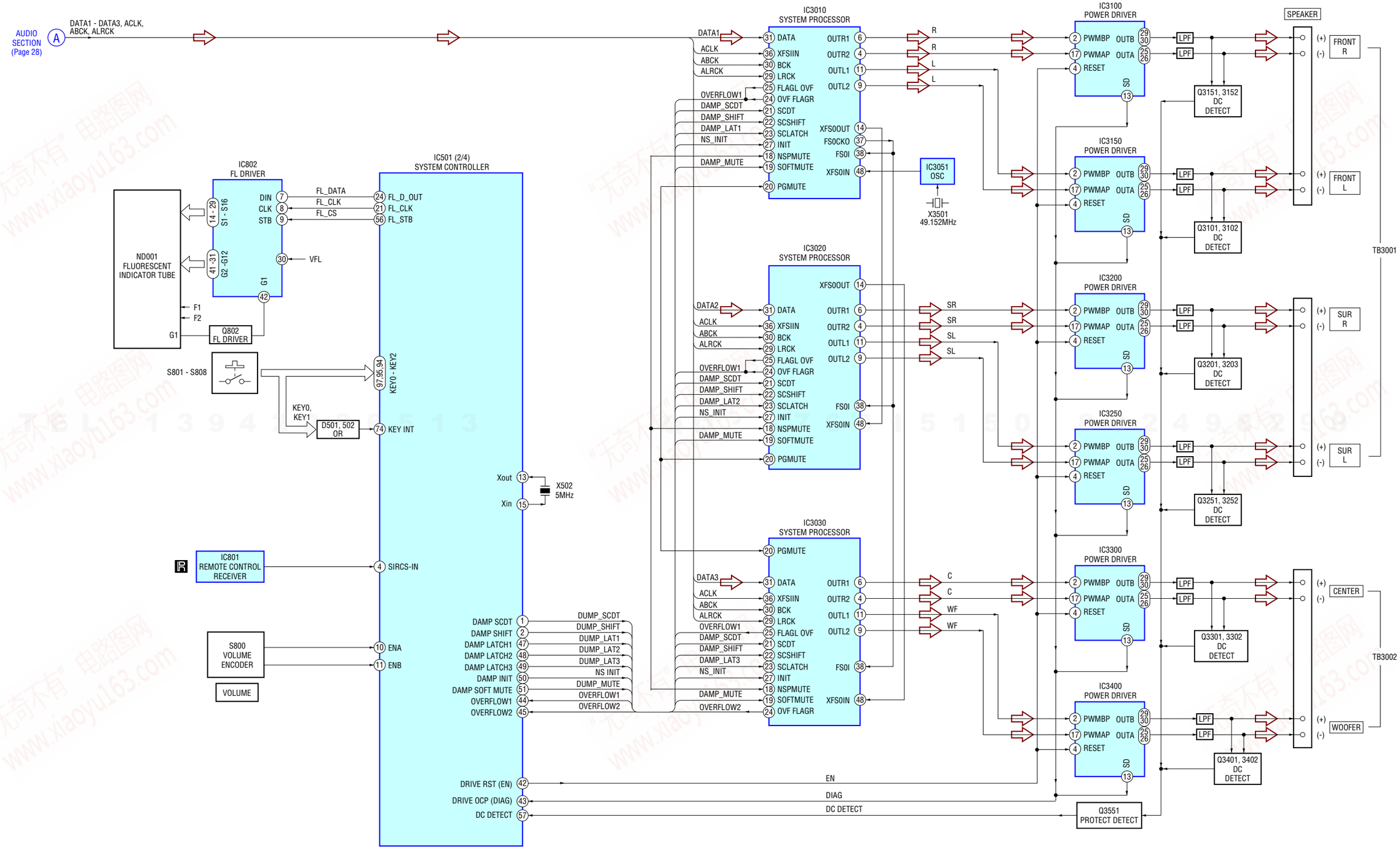
: AUDIO

: AUDIO IN (TV/VIDEO)

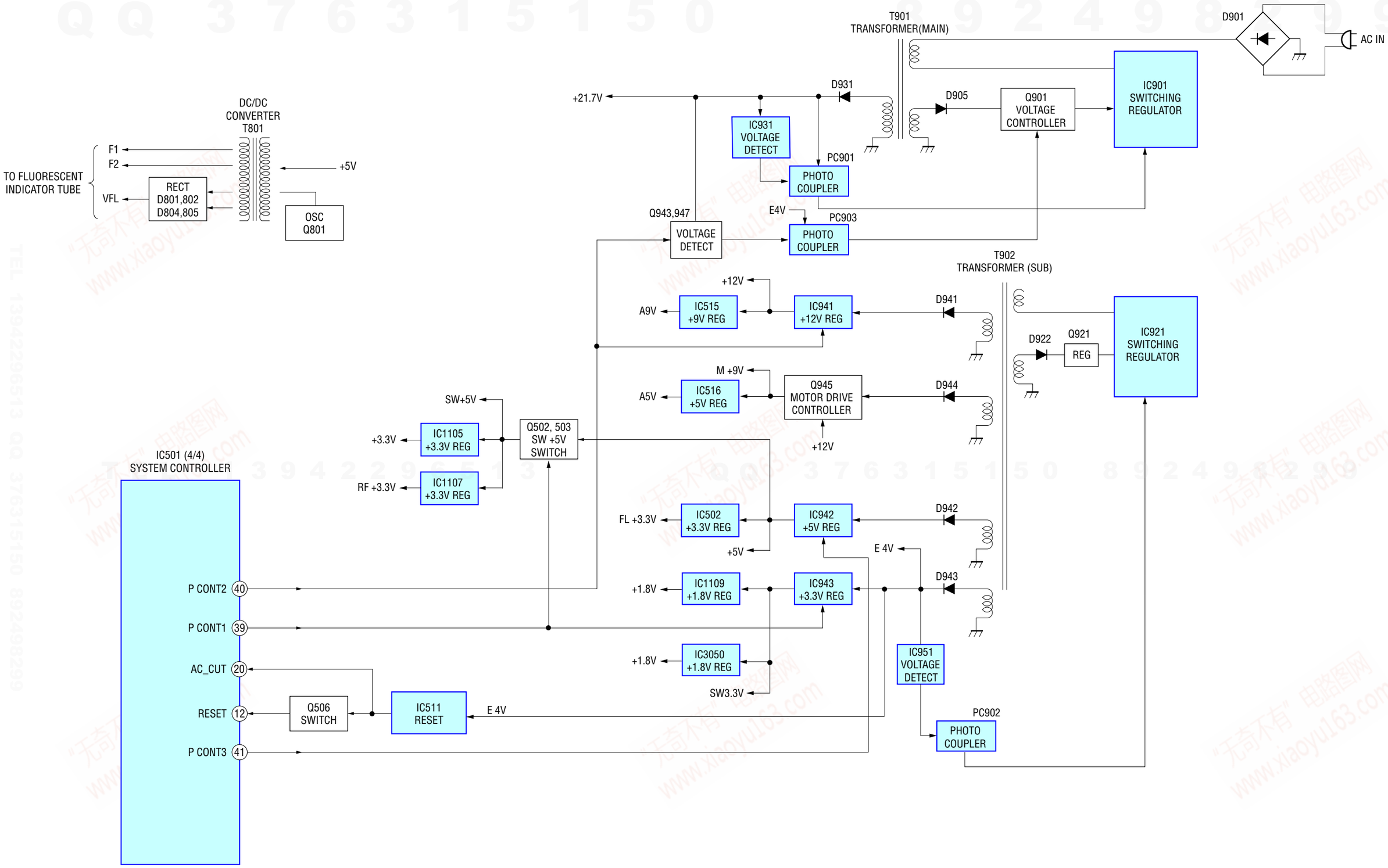
: TUNER

6-4. BLOCK DIAGRAM – AMP SECTION –

• Signal Path
: AUDIO



6-5. BLOCK DIAGRAM – POWER SECTION –

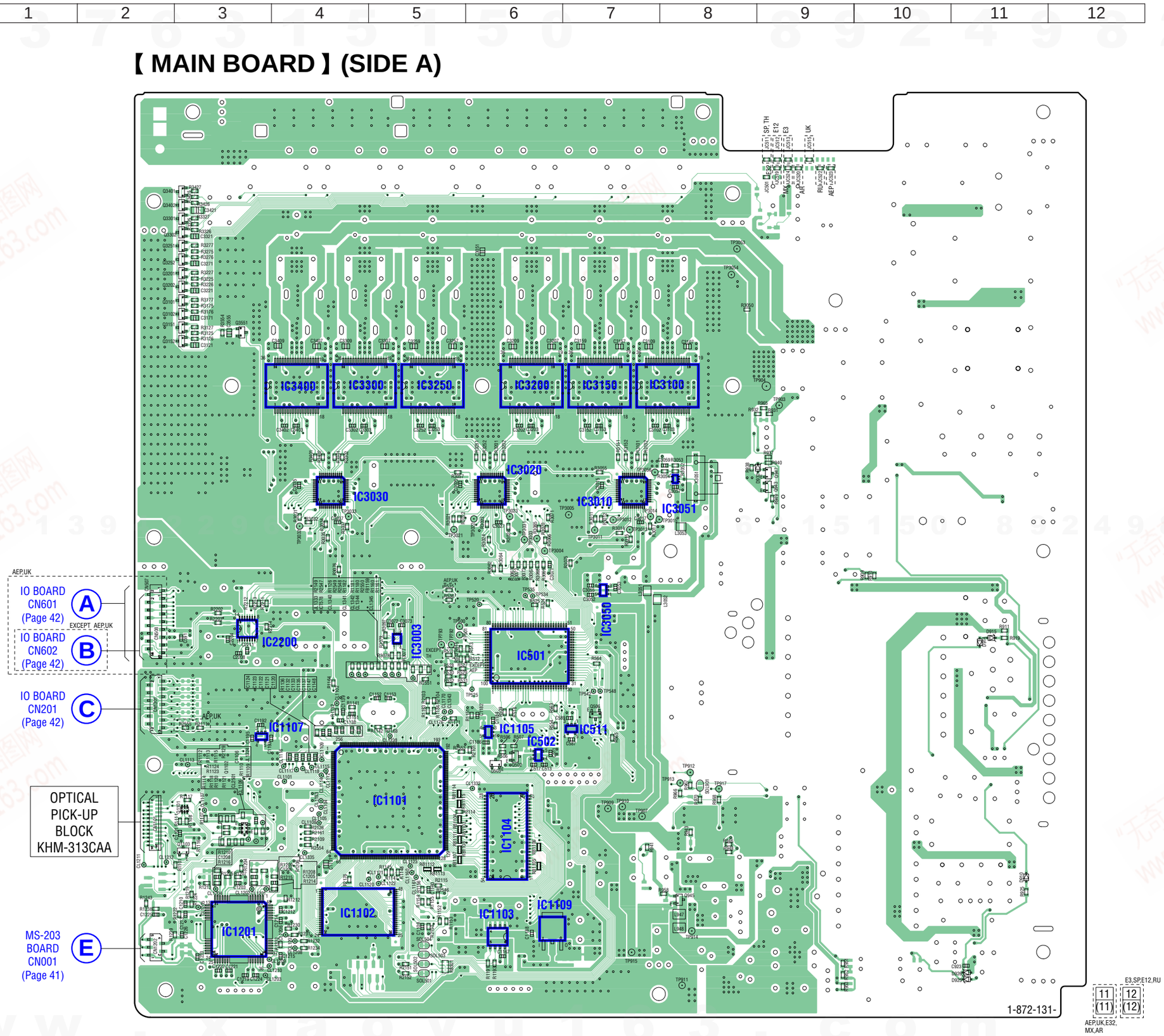


6-6. PRINTED WIRING BOARD – MAIN BOARD (SIDE A) –

• See page 25 for Circuit Boards Location.

:Uses unleaded solder.

【 MAIN BOARD 】(SIDE A)



- **Semiconductor Location**

Ref. No.	Location
D910	I-11
D914	G-11
D915	G-11
D925	J-11
D926	J-11
D932	E-9
IC501	G-6
IC502	H-6
IC511	H-7
IC1101	H-5
IC1102	J-4
IC1103	J-6
IC1104	I-6
IC1105	H-6
IC1107	H-3
IC1109	J-6
IC1201	J-3
IC2200	G-3
IC3003	G-5
IC3010	E-7
IC3020	E-6
IC3030	E-4
IC3050	F-7
IC3051	E-8
IC3100	D-8
IC3150	D-7
IC3200	D-6
IC3250	D-5
IC3300	D-4
IC3400	D-4
Q502	H-6
Q503	H-6
Q506	H-7
Q943	E-9
Q945	J-8
Q947	E-9
Q1101	I-3
Q1102	I-3
Q1103	I-3
Q3101	C-3
Q3102	C-3
Q3151	D-3
Q3152	D-3
Q3201	C-3
Q3202	C-3
Q3251	C-3
Q3252	C-3
Q3301	C-3
Q3302	C-3
Q3401	B-3
Q3402	B-3
Q3551	D-3

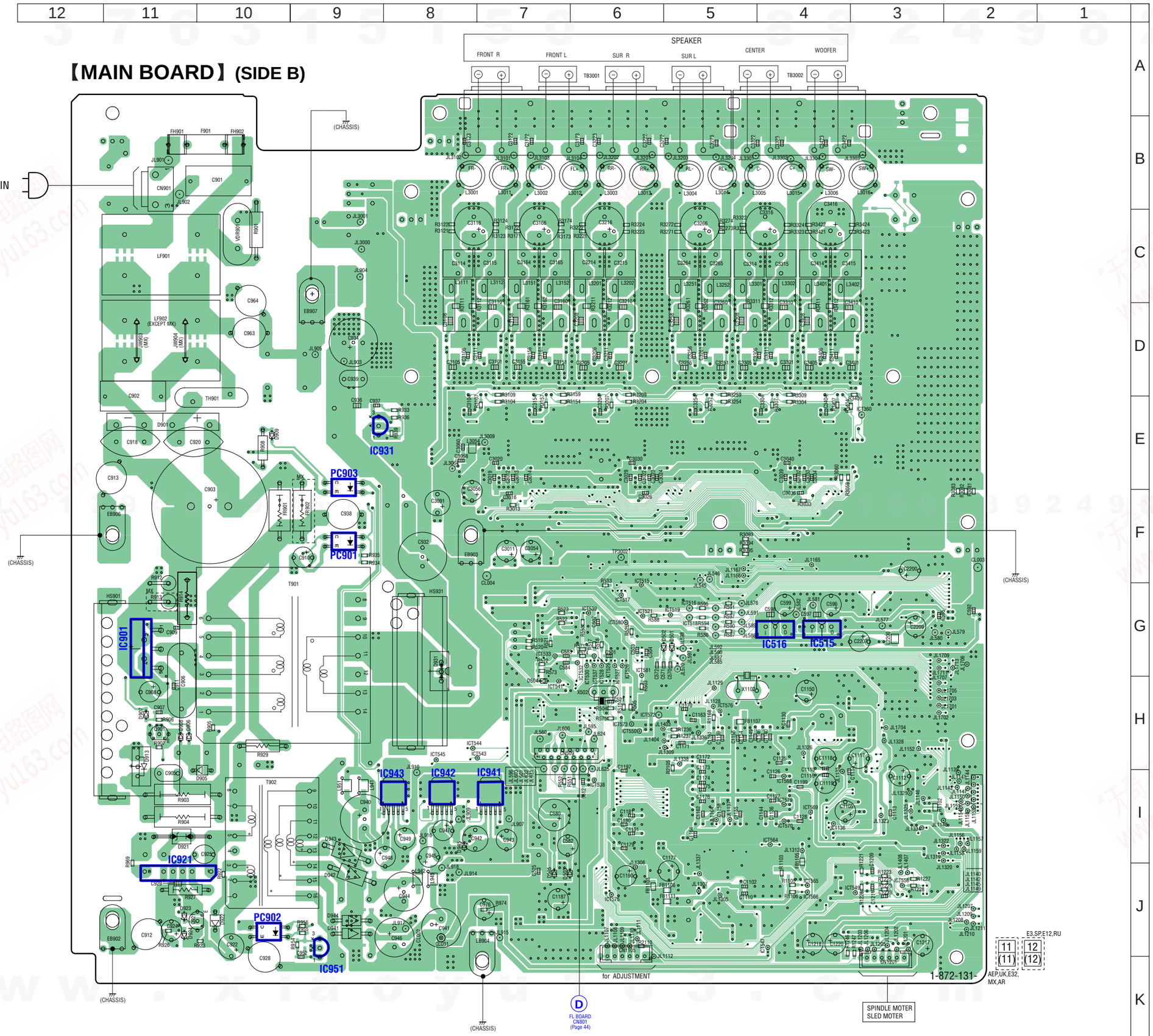
6-7. PRINTED WIRING BOARD – MAIN BOARD (SIDE B) –

• See page 25 for Circuit Boards Location.

:Uses unleaded solder.

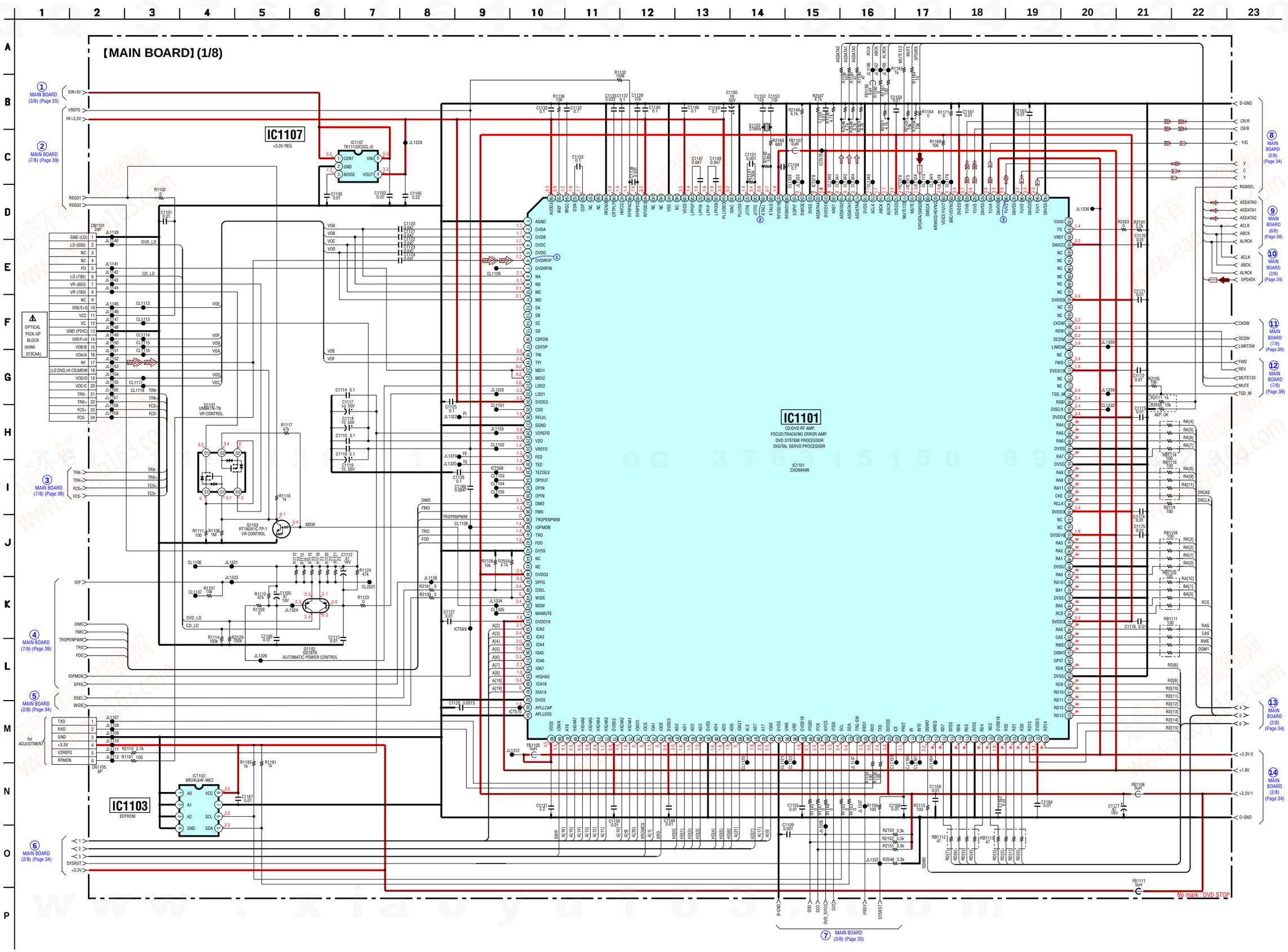
• **Semiconductor Location**

Ref. No.	Location
D501	G-5
D502	G-5
D503	J-7
D504	H-7
D505	J-7
D901	E-11
D905	I-10
D906	H-11
D907	H-11
D908	H-11
D909	E-10
D913	H-11
D921	I-11
D922	J-10
D923	J-11
D924	J-11
D931	G-8
D941	J-9
D942	J-9
D943	I-9
D944	J-9
D945	I-8
IC515	G-4
IC516	G-4
IC901	G-11
IC921	J-11
IC931	E-9
IC941	I-7
IC942	I-8
IC943	I-8
IC951	J-9
Q901	H-11
Q921	J-10



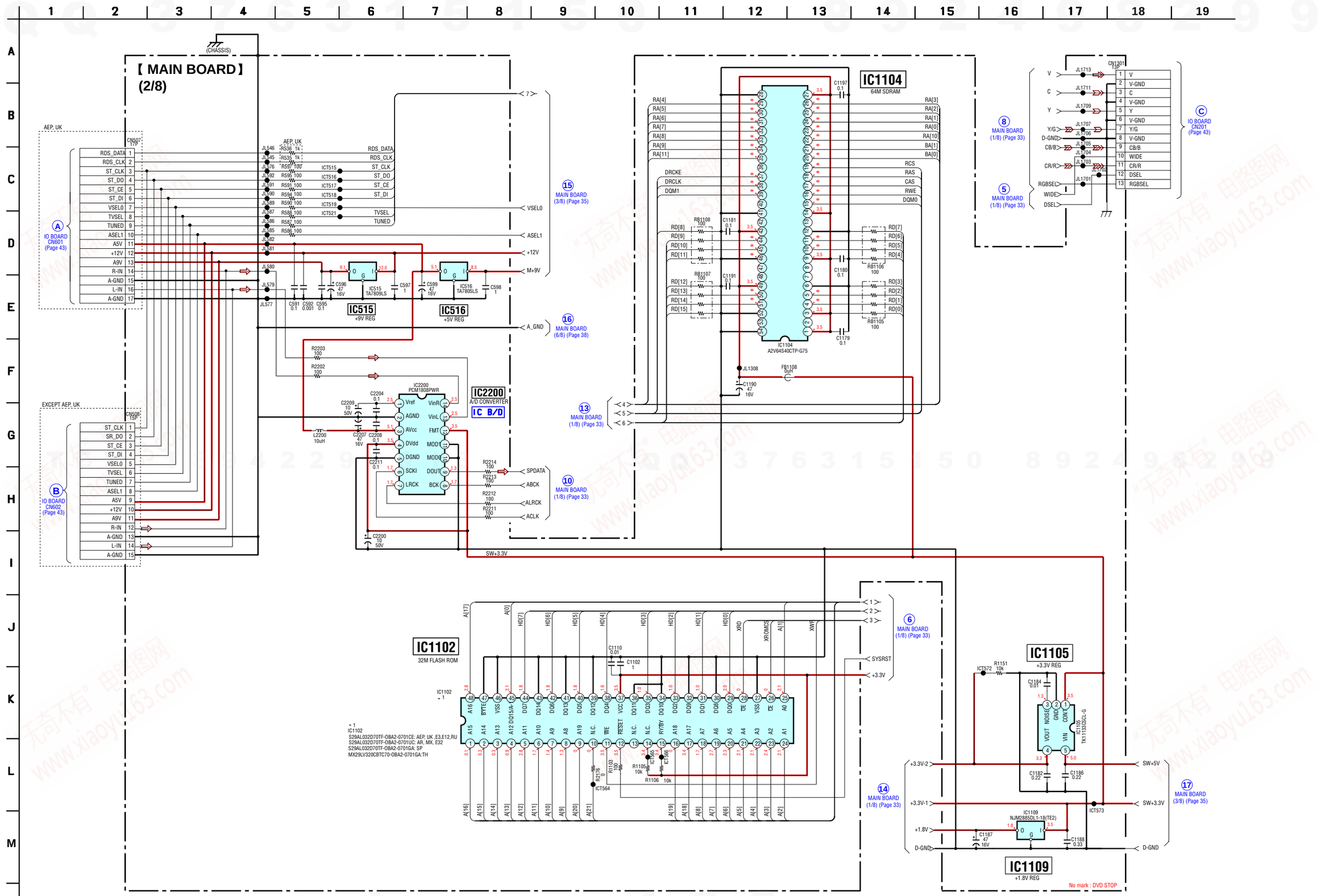
6-8. SCHEMATIC DIAGRAM – MAIN BOARD (1/8) –

• See page 25 for Waveforms. • See page 49 for IC Pin Function Description.



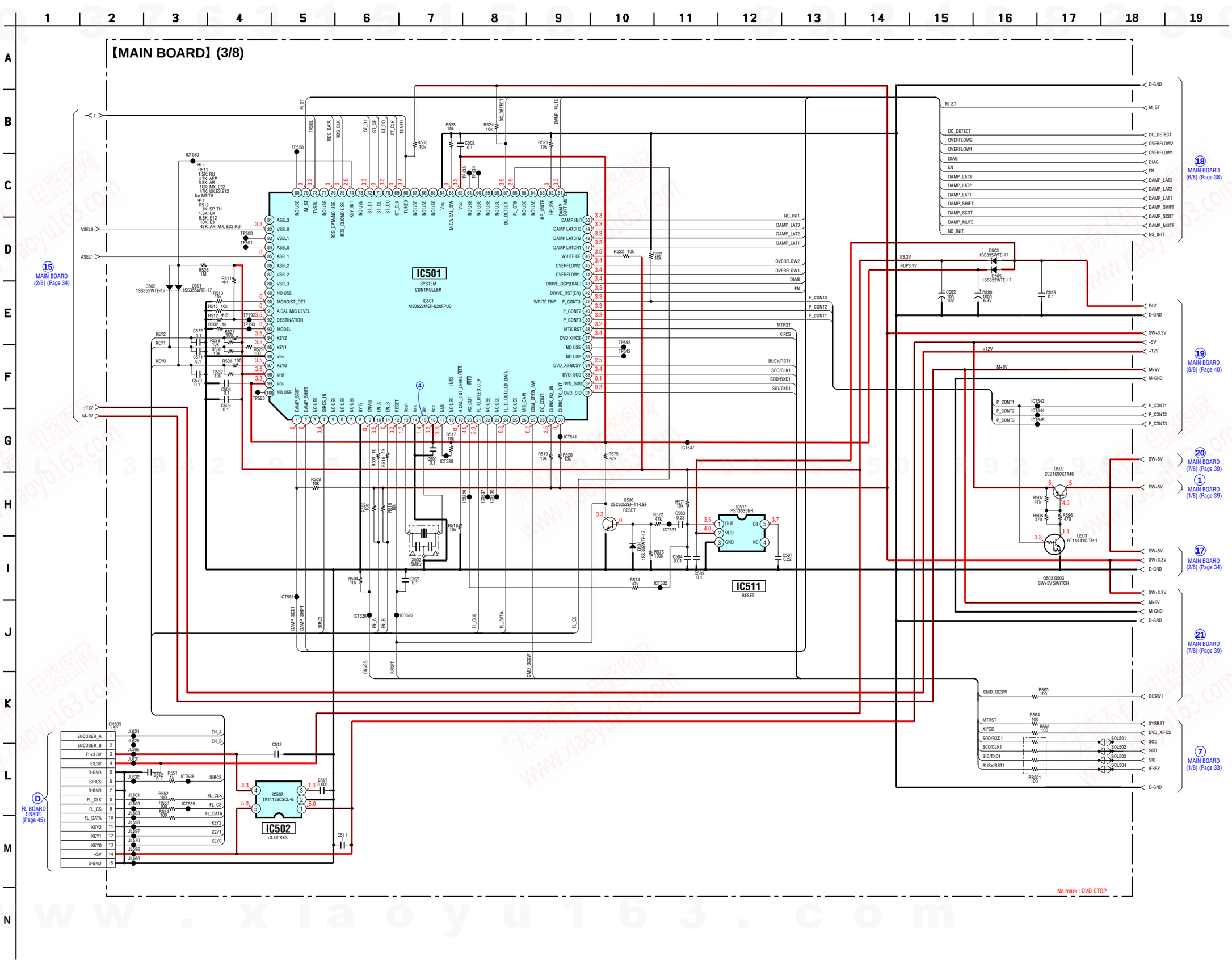
6-9. SCHEMATIC DIAGRAM – MAIN BOARD (2/8) –

• See page 46 for IC Block Diagram.



6-10. SCHEMATIC DIAGRAM – MAIN BOARD (3/8) –

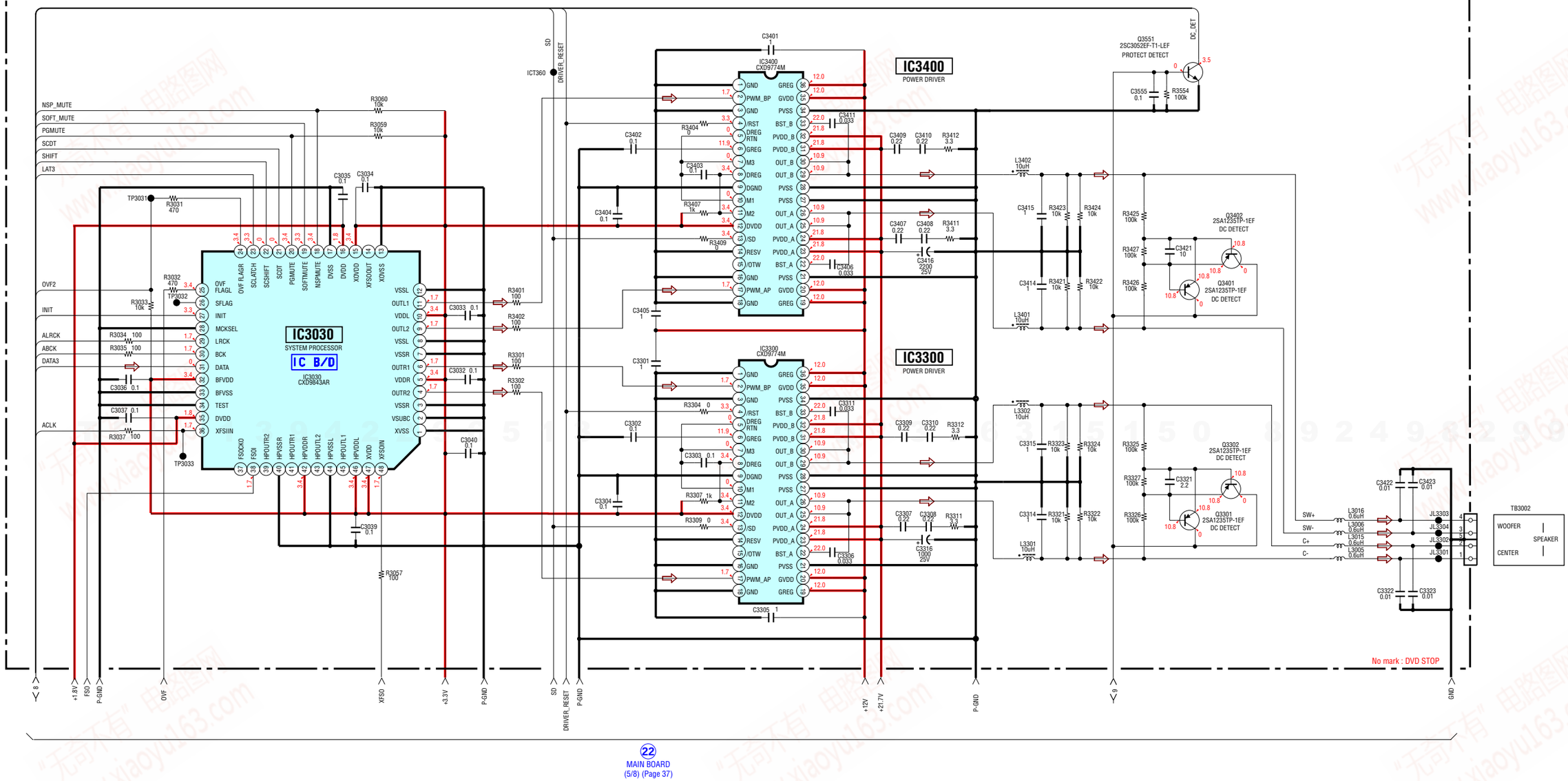
• See page 25 for Waveform. • See page 54 for IC Pin Function Description.



6-11. SCHEMATIC DIAGRAM – MAIN BOARD (4/8) –

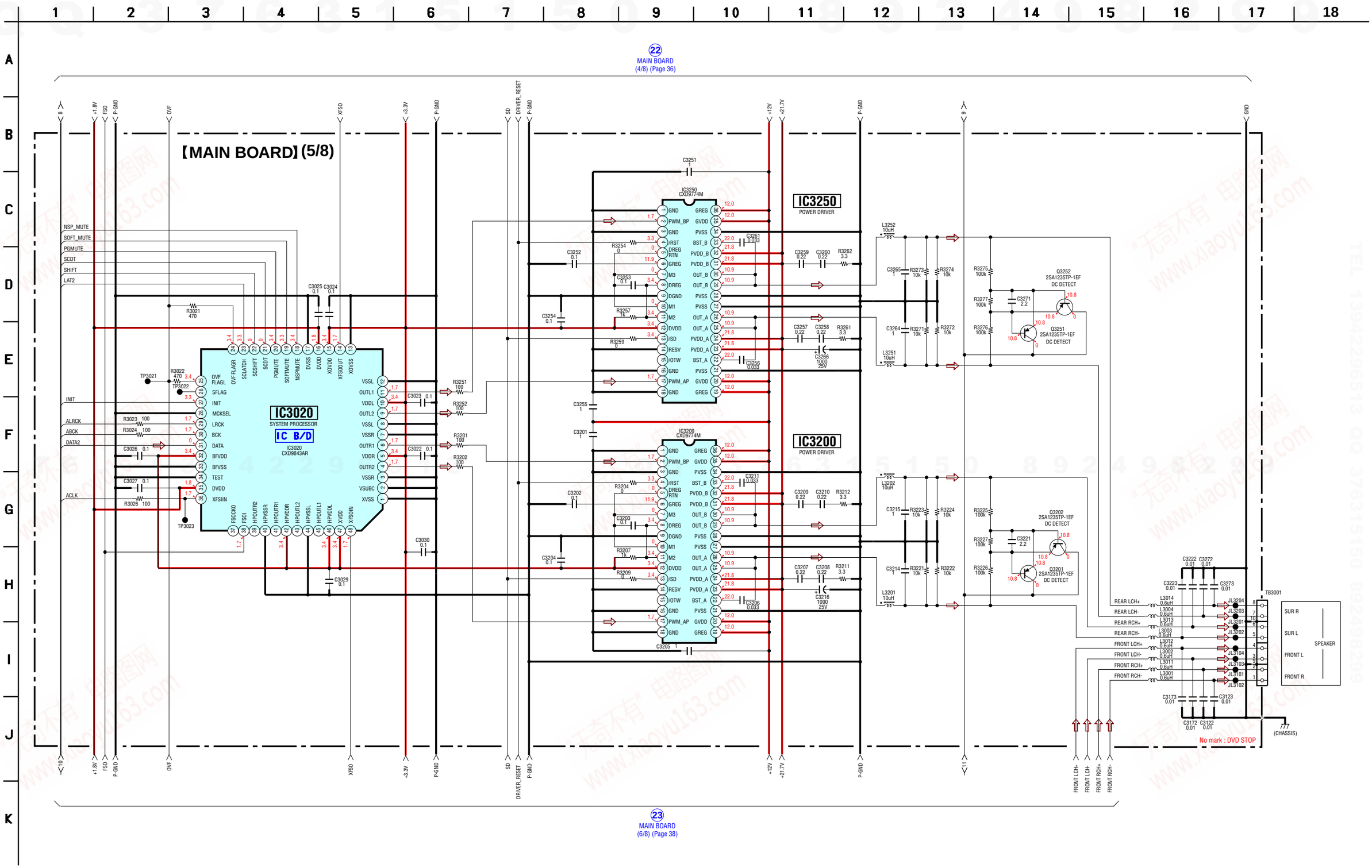
• See page 46 for IC Block Diagram.

【MAIN BOARD】(4/8)



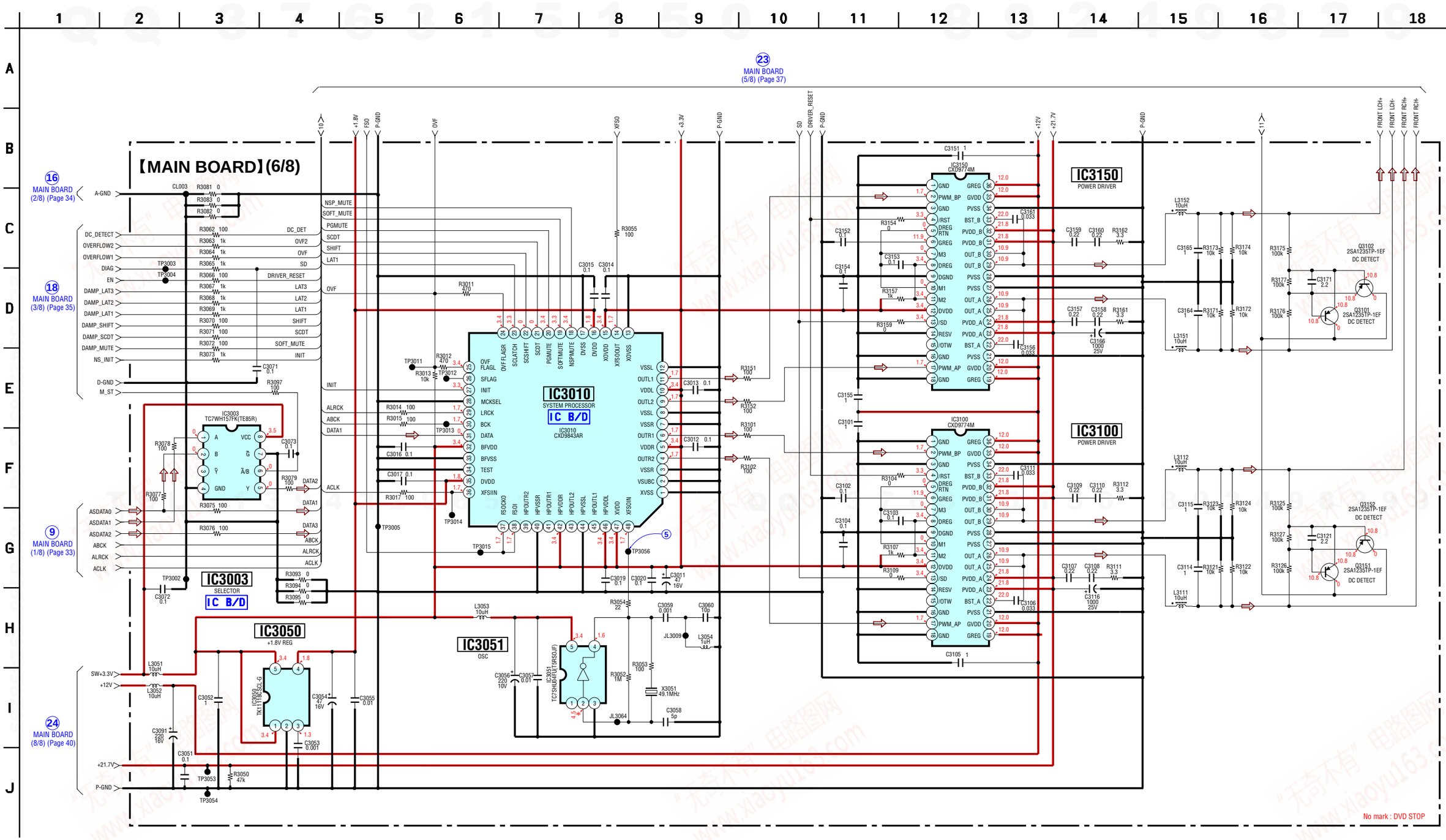
22
MAIN BOARD
(5/8) (Page 37)

6-12. SCHEMATIC DIAGRAM – MAIN BOARD (5/8) – • See page 46 for IC Block Diagram.

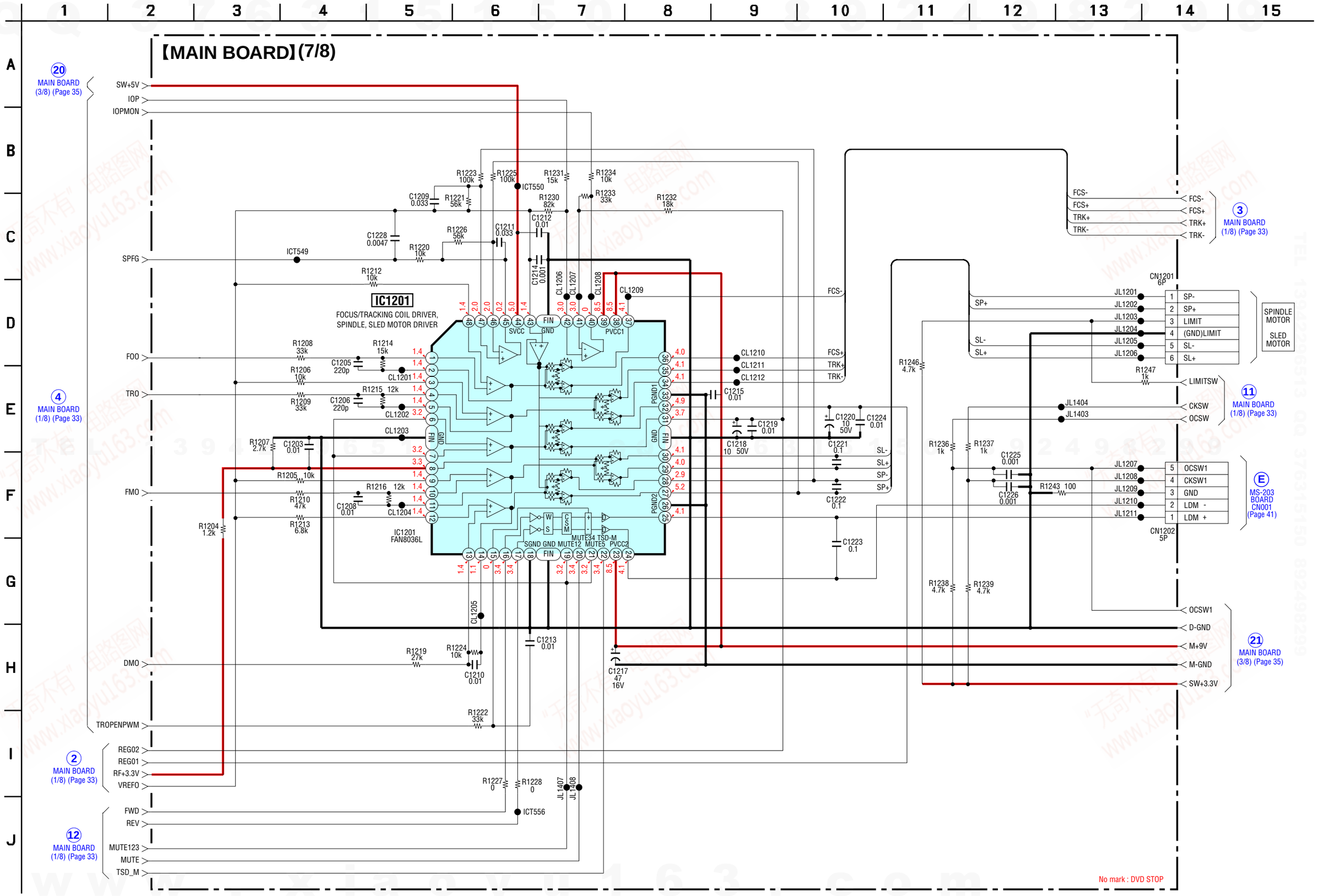


6-13. SCHEMATIC DIAGRAM – MAIN BOARD (6/8) –

• See page 25 for Waveform. • See page 46 for IC Block Diagrams.



6-14. SCHEMATIC DIAGRAM – MAIN BOARD (7/8) –



HCD-DZ20

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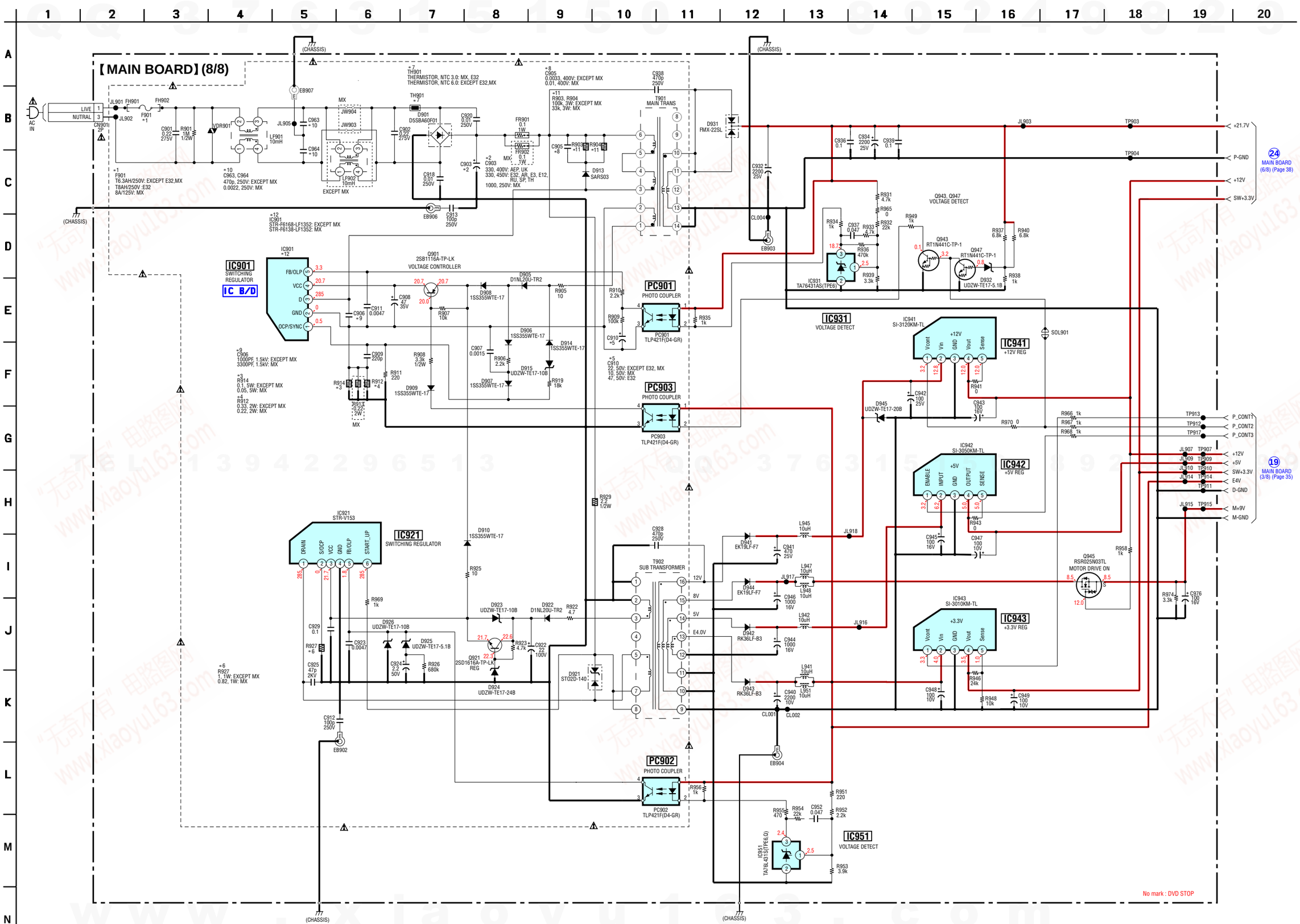
6-15. SCHEMATIC DIAGRAM – MAIN BOARD (8/8) –

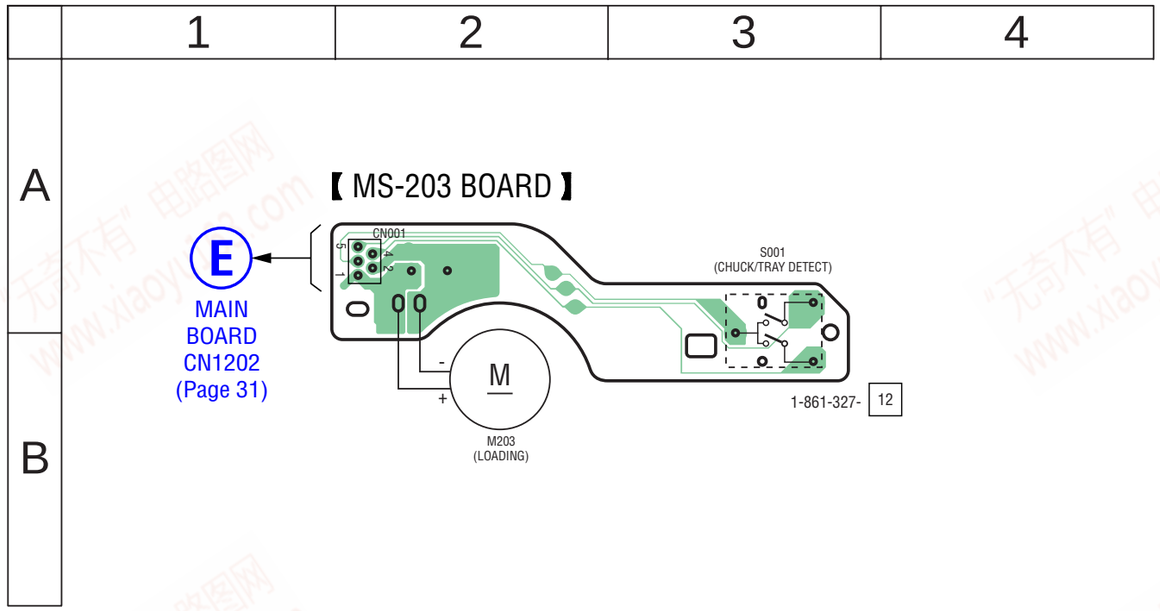
• See page 47 for IC Block Diagram.



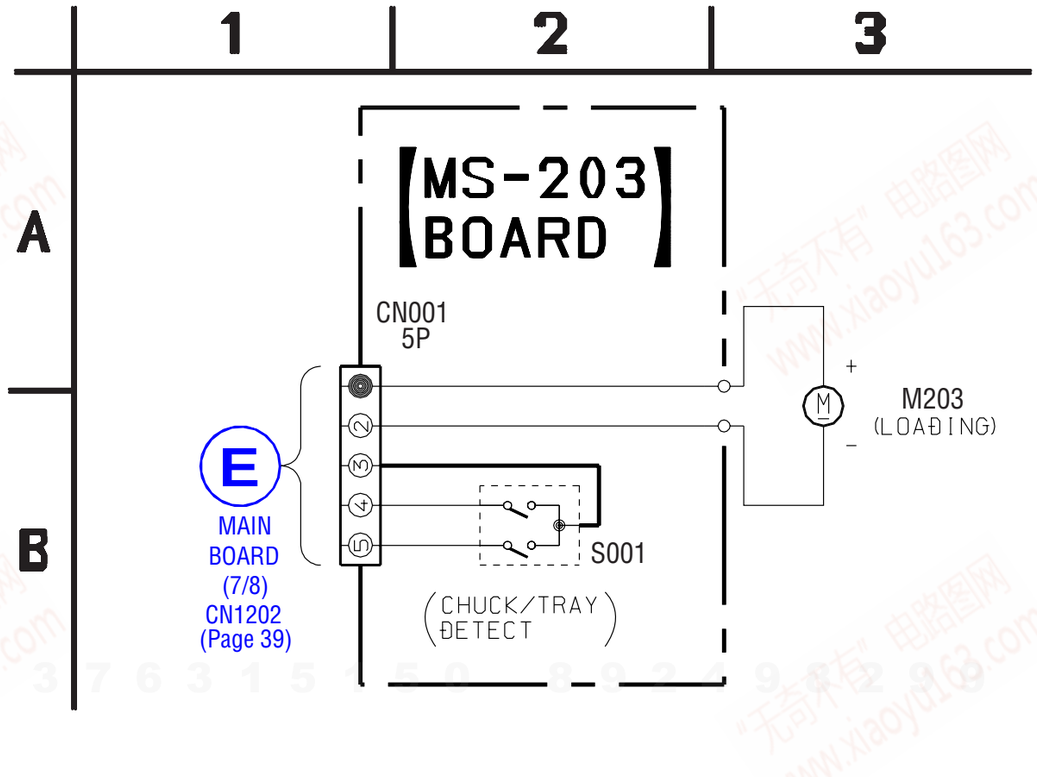
6-16. PRINTED WIRING BOARD – MS-203 BOARD –

• See page 25 for Circuit Boards Location.

:Uses unleaded solder.



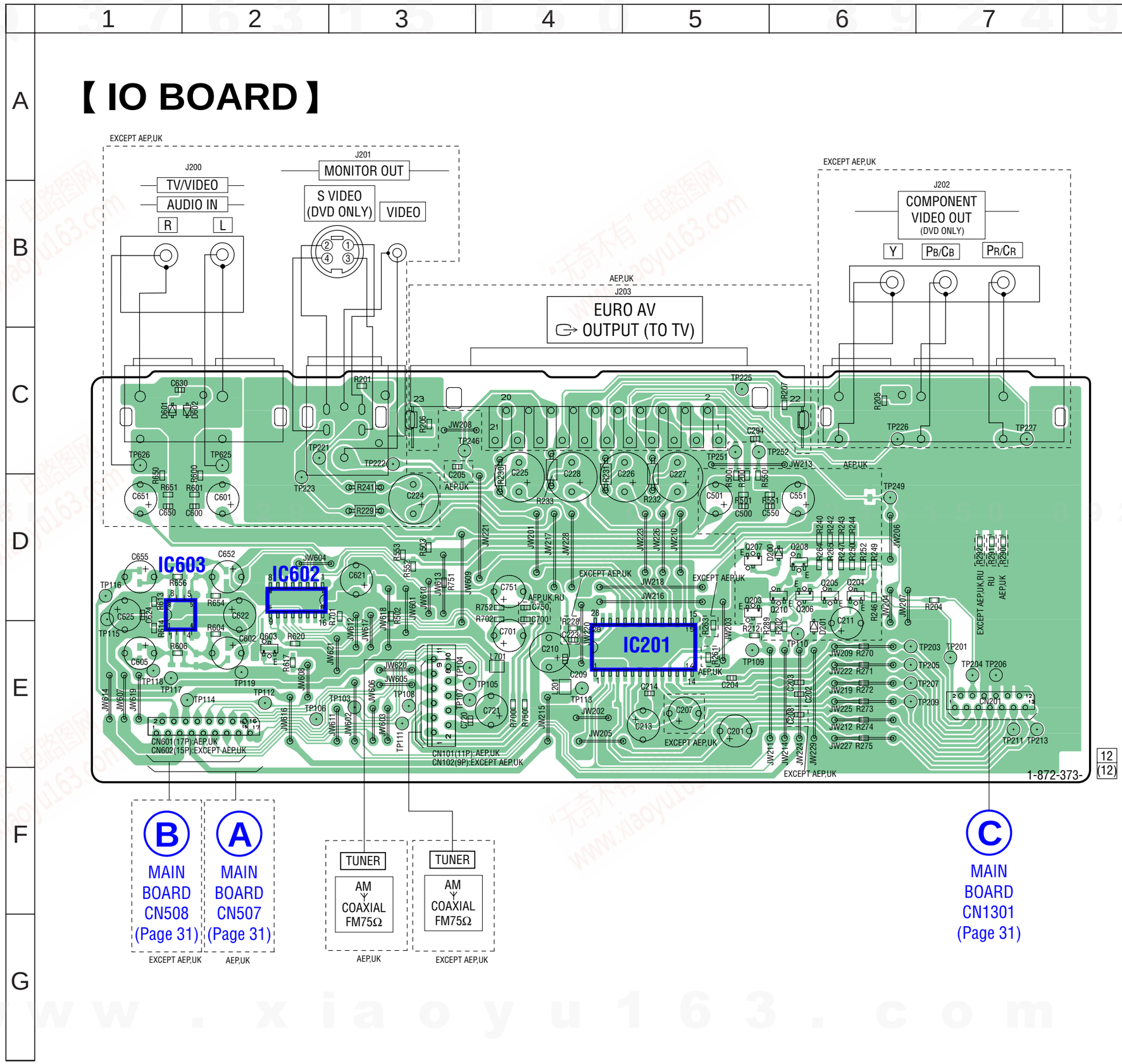
6-17. SCHEMATIC DIAGRAM – MS-203 BOARD –



6-18. PRINTED WIRING BOARD – IO BOARD –

• See page 25 for Circuit Boards Location. :Uses unleaded solder.

【 IO BOARD 】

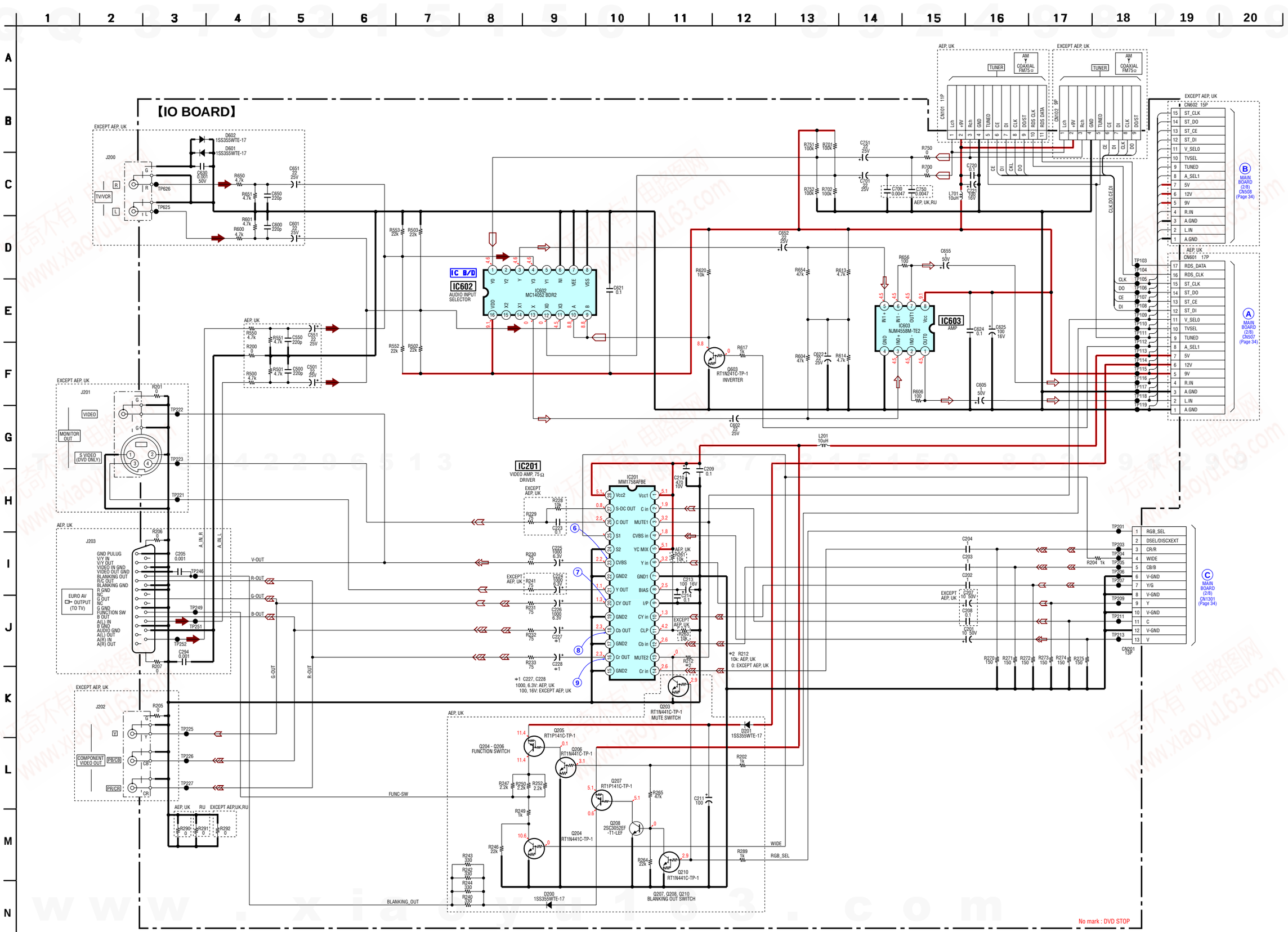


- **Semiconductor Location**

Ref. No.	Location
D200	D-6
D201	E-6
D601	C-1
D602	C-2
IC201	E-5
IC602	D-2
IC603	D-1
Q203	D-5
Q204	D-6
Q205	D-6
Q206	D-6
Q207	D-5
Q208	D-6
Q210	D-6
Q603	E-2

6-19. SCHEMATIC DIAGRAM – IO BOARD –

• See page 25 for Waveforms. • See page 47 for IC Block Diagram.

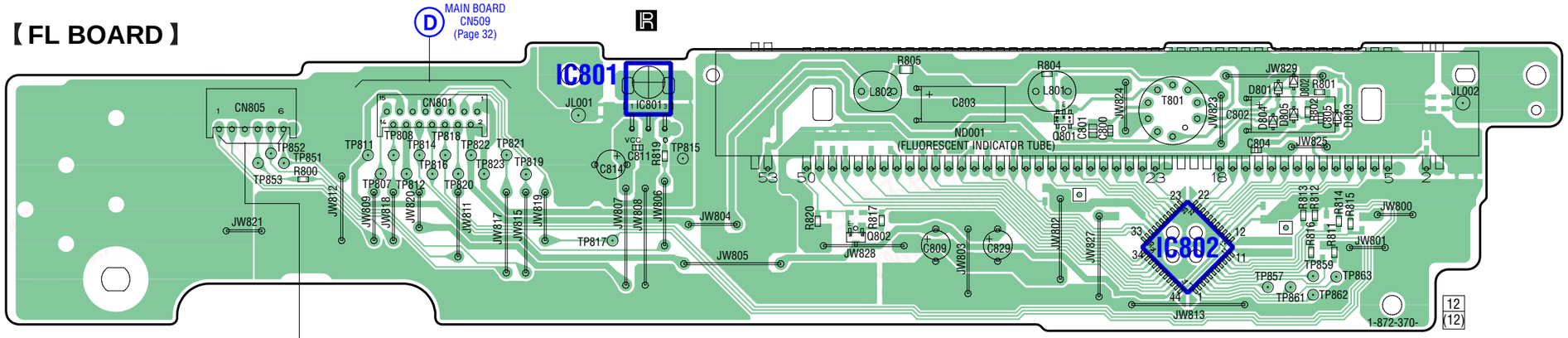


6-20. PRINTED WIRING BOARDS – KEY, FL, P-SW BOARD –

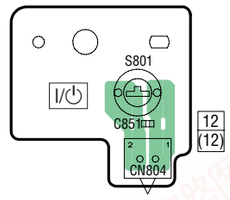
• See page 25 for Circuit Boards Location.

:Uses unleaded solder.

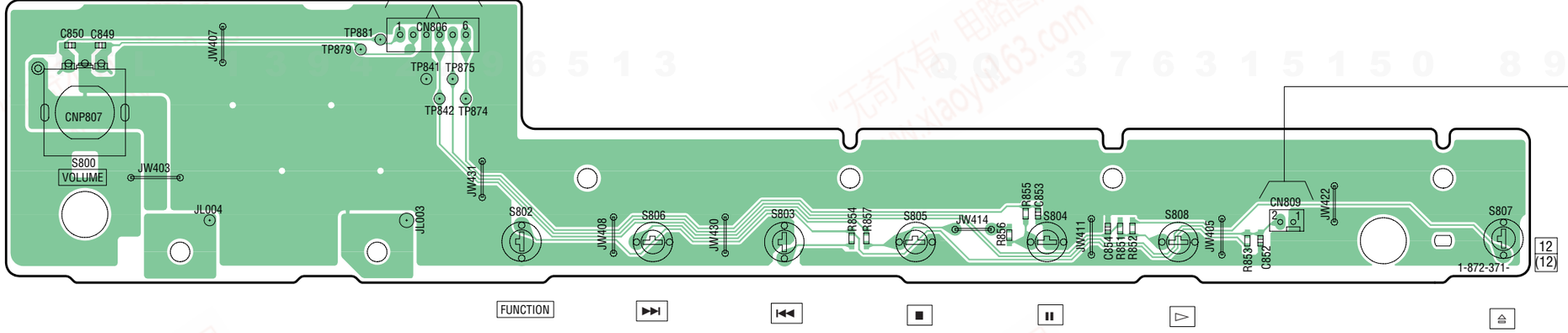
【FL BOARD】



【P-SW BOARD】



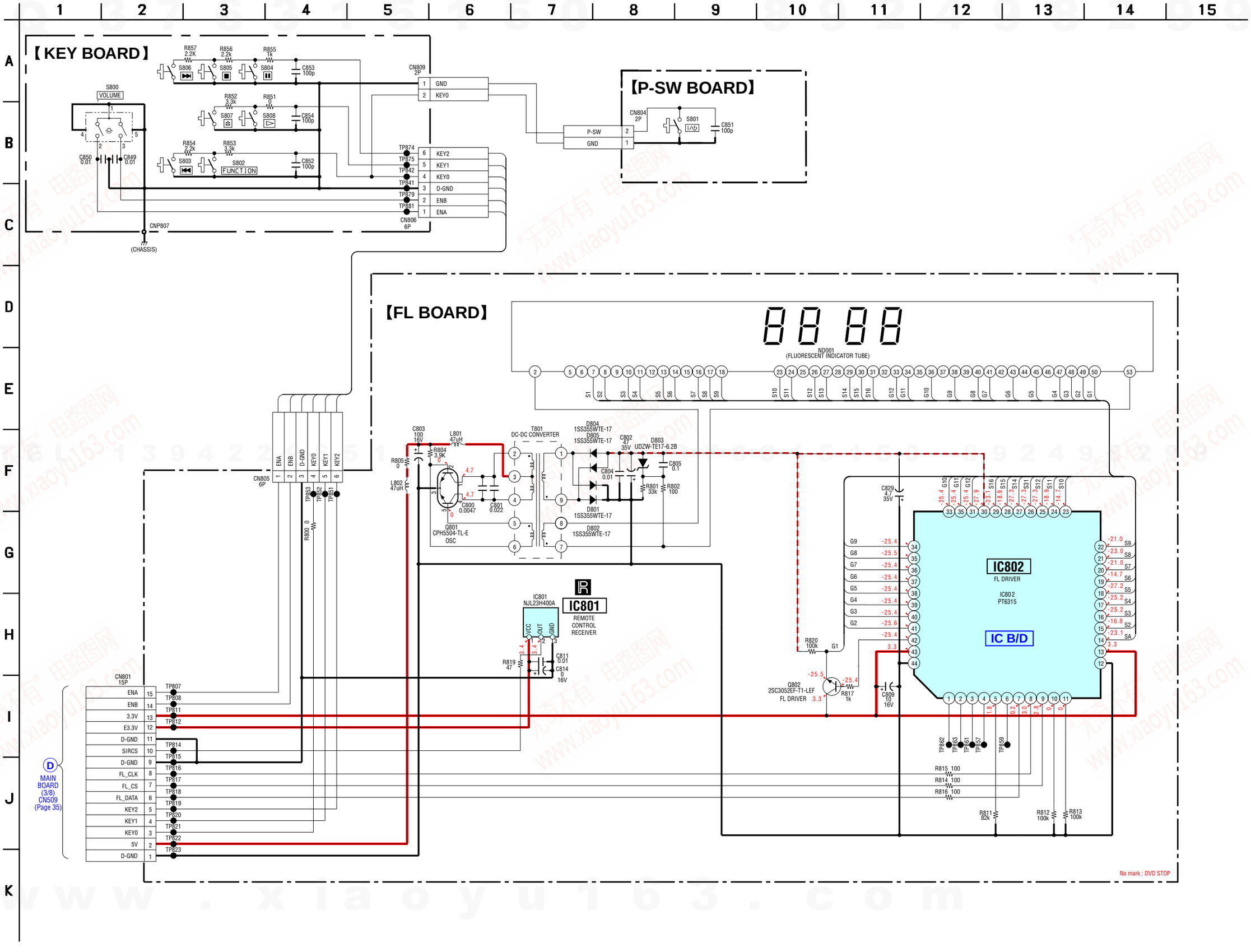
【KEY BOARD】



- **Semiconductor Location**

Ref. No.	Location
D801	A-9
D802	A-9
D803	A-9
D804	A-9
D805	A-9
IC801	A-5
IC802	B-8
Q801	A-7
Q802	B-6

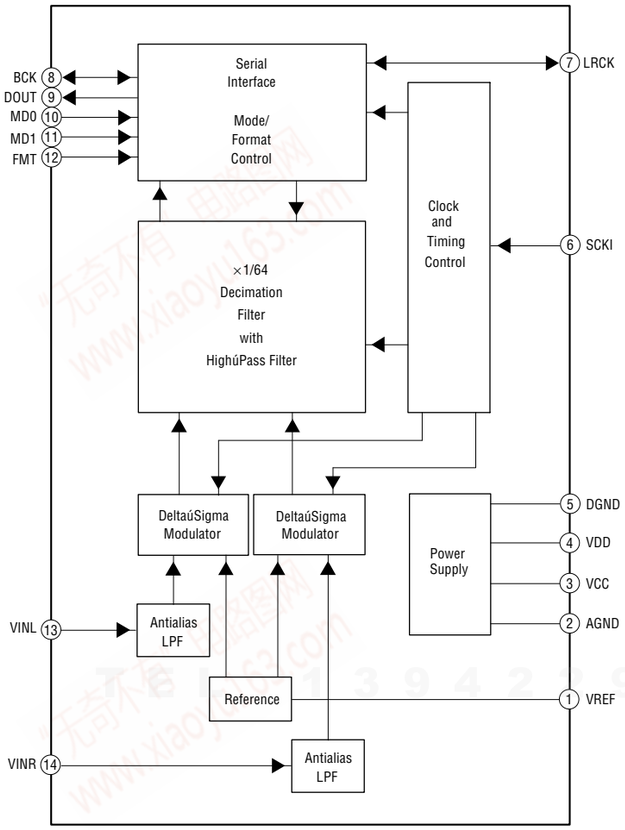
6-21. SCHEMATIC DIAGRAM – KEY, FL, P-SW BOARD – • See page 48 for IC Block Diagram.



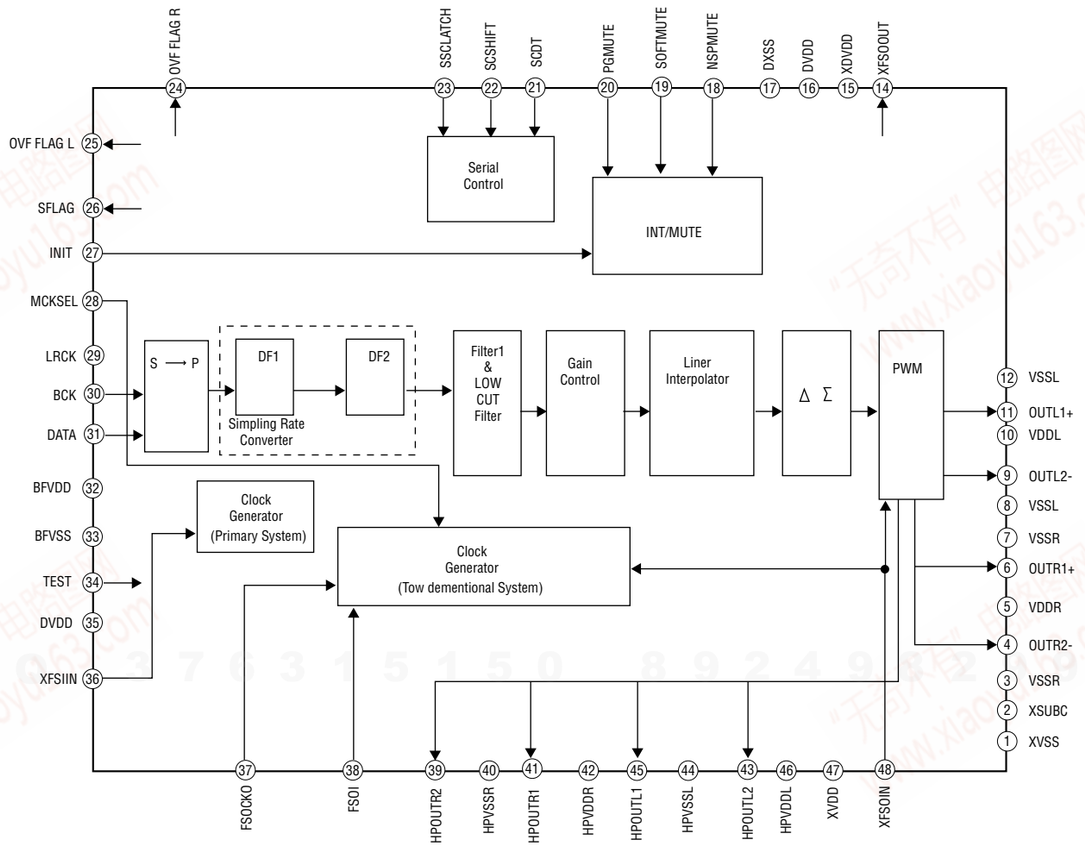
- **IC Block Diagrams**

– MAIN Board –

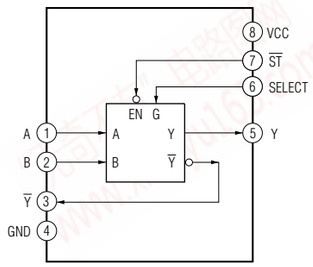
IC2200 PCM1808PWR



IC3010, IC3020, IC3030 CXD9843AR

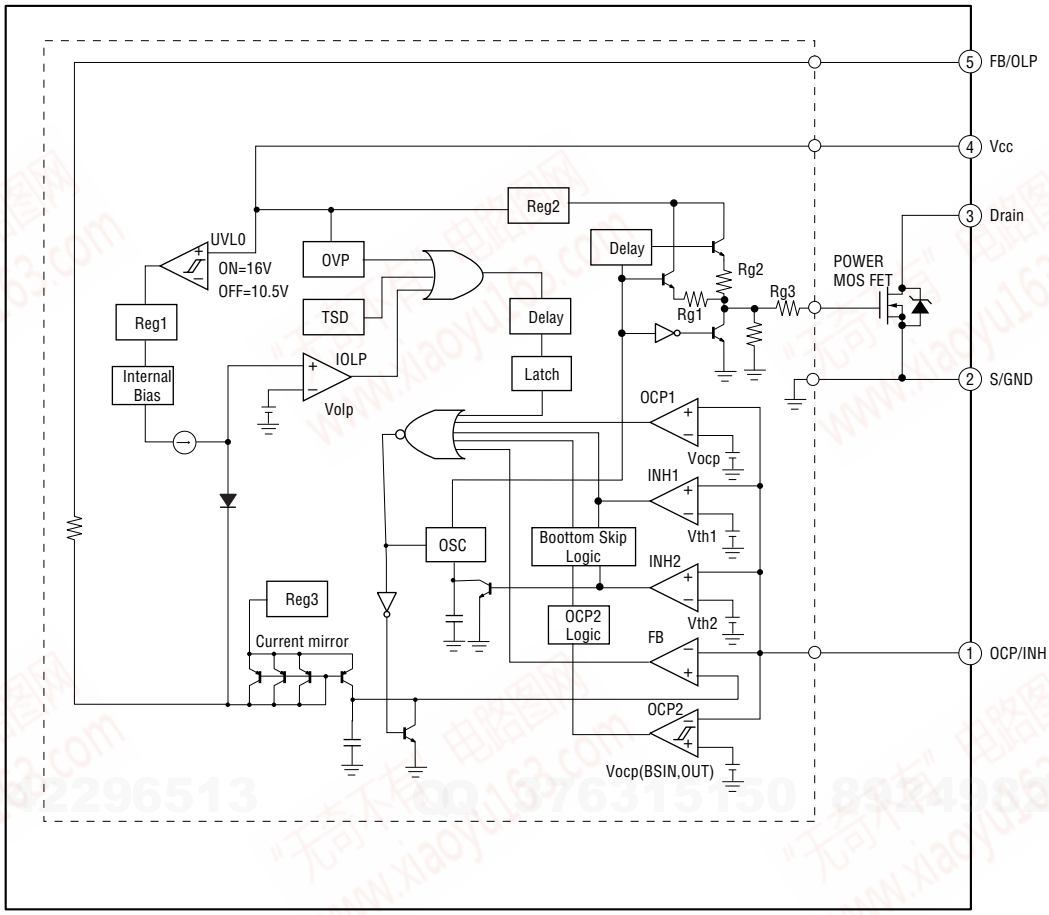


IC3003 TC7WH157FK



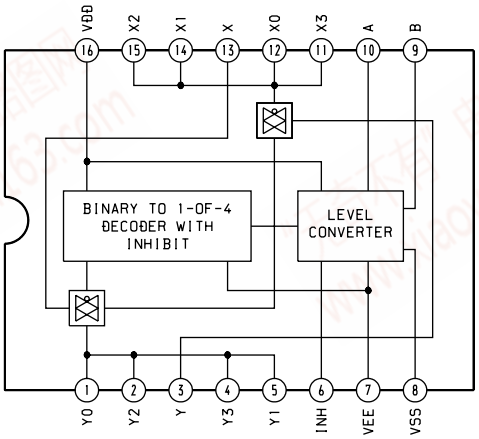
– MAIN Board –

IC901 STR-F6138-LF1352



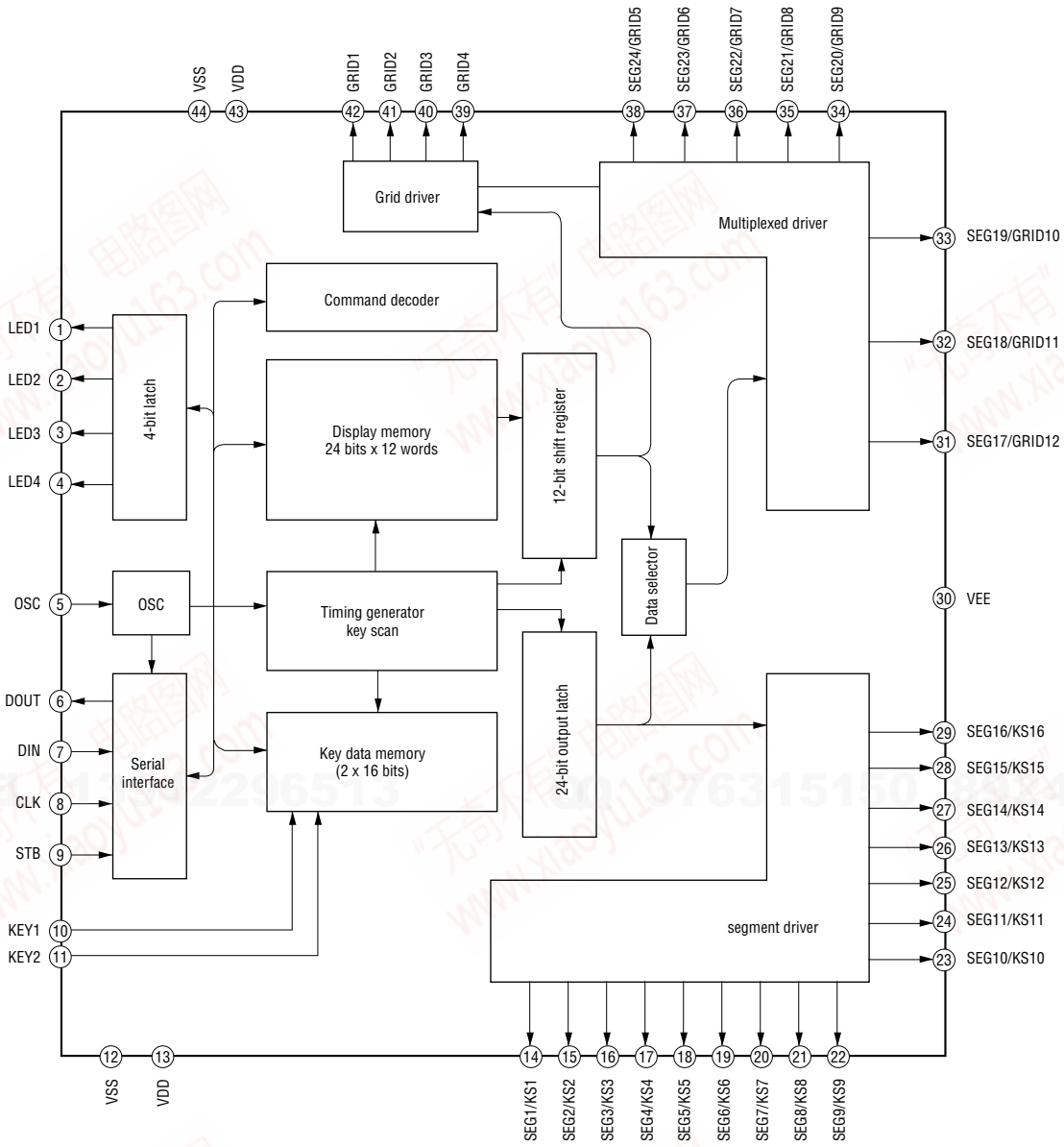
– IO Board –

IC602 MC14052BDR2



– FL Board –

IC802 uPD16315GB-3BS



• IC Pin Function Description

MAIN BOARD IC1101 CXD9849R

(CD/DVD RF AMP, FOCUS/TRACKING ERROR AMP, DVD SYSTEM PROCESSOR, DIGITAL SERVO PROCESSOR)

Pin No.	Pin Name	I/O	Description
1	AGND	—	Ground terminal
2	DVDA	I	AC coupled input path A
3	DVDB	I	AC coupled input path B
4	DVDC	I	AC coupled input path C
5	DVDD	I	AC coupled input path D
6	DVDRFIP	I	AC coupled DVD RF signal input RFIP
7	DVDRFIN	I	AC coupled DVD RF signal input RFIN (not used (Open))
8	NA	I	DC coupled main-beam RF signal input A
9	NB	I	DC coupled main-beam RF signal input B
10	MC	I	DC coupled main-beam RF signal input C
11	MD	I	DC coupled main-beam RF signal input D
12	SA	I	DC coupled sub-beam RF signal input A (not used (Open))
13	SB	I	DC coupled sub-beam RF signal input B (not used (Open))
14	SC	I	DC coupled sub-beam RF signal input C (not used (Open))
15	SD	I	DC coupled sub-beam RF signal input D (not used (Open))
16	CDFON	I	CD focusing error negative input (not used (Open))
17	CDFOP	I	CD focusing error positive input (not used (Open))
18	TNI	I	3 beam satellite PD signal negative input
19	TPI	I	3 beam satellite PD signal positive input
20	MDI1	I	Laser power PD monitor input
21	MDI2	I	Laser power PD monitor input
22	LDO2	O	Laser drive output (for DVD)
23	LDO1	O	Laser drive output (for CD)
24	SVDD3	—	Power Supply (+3.3V)
25	CSD	O	Central servo, Positive main beam summing output (not used (Open))
26	RFLVL	O	RFRP low pass, or Positive main beam summing output (not used (Open))
27	SGND	—	Ground terminal
28	V2REFO	O	Reference voltage 2.8V
29	V2O	O	Reference voltage 2.0V
30	VREFO	O	Reference voltage 1.4V
31	FEO	O	Focus error monitor output (not used (Open))
32	TEO	O	Tracking error monitor output (not used (Open))
33	TEZISLY	O	TE Slicing Level (not used)
34	OPOUT	O	Op amp output (not used (Open))
35	OPIN	I	Op amp negative input (not used (Open))
36	OPIN	I	Op amp positive input (not used (Open))
37	DMO	O	Disk motor control output. PWM output
38	FMO	O	Feed motor control. PWM output
39	TROPENPWM	O	Tray PWM output/Tray open output.
40	IOPMON	O	IOP monitor input
41	TRO	O	Tracking servo output
42	FOO	O	Focus servo output
43	DVSS	—	Ground terminal
44	NC	I	USB port DPLUS analog pin (not used (Open))
45	NC	I	USB port DMINUS analog pin (not used (Open))
46	DVDD3	—	Power Supply (+3.3V)
47	SPFG	I	Spindle motor HALL sensor input

Pin No.	Pin Name	I/O	Description
48	DSEL	—	Not used
49	WIDE	O	SI signal output to VIDEO AMP (IC201)
50	MSW	O	DVD/CD select signal output
51	MAMUTE	O	MAMUTE signal output to System Controller (not used (Open))
52	DVDD18	—	Power Supply (+1.8V)
53 to 58	IOA 2 to 7	O	Address bus 2 to 7 output to PROM (IC1102)
59	HIGHA0	O	Address bus 8 output to PROM (IC1102)
60, 61	IOA18, 19	O	Address bus 18, 19 output to PROM (IC1102)
62	DVSS	—	Ground terminal
63	APLLCAP	I	APLL External Capacitance connection
64	APLLVSS	—	Ground terminal
65	VDD3	—	Power Supply (+3.3V)
66	I OWR	O	WE signal output to PROM (IC1102)
67	A16	O	Address bus 16 output to PROM (IC1102)
68 to 72	HIGHA 7 to 3	O	Address bus 15 to 11 output to PROM (IC1102)
73	DVDD3	—	Power Supply (+3.3V)
74, 75	HIGHA 2, 1	O	Address bus 10, 9 output to PROM (IC1102)
76	IOA20	O	Address bus 20 output to PROM (IC1102)
77	IOCS	O	CE signal output to PROM (IC1102)
78	IOA1	O	Address bus 1 output to PROM (IC1102)
79	IOOE	O	OE signal output to PROM (IC1102)
80	DVDD3	—	Power Supply (+3.3V)
81 to 84	AD 0 to 3	I	Data bus 0 to 3 input from PROM (IC1102)
85	DVSS	—	Ground terminal
86 to 88	AD 4 to 6	I	Data bus 4 to 6 input from PROM (IC1102)
89	IOA21	O	Address bus 21 output to PROM (IC1102)
90	ALE	O	Address latch enable (not used (Open))
91	AD7	I	Data bus 7 input from PROM (IC1102)
92	A17	O	Address bus 17 output to PROM (IC1102)
93	IOA0	O	Address bus 0 output to PROM (IC1102)
94	DVSS	—	Ground terminal
95	UWA	I	System Controller write strobe (not used (Open))
96	URD	I	System Controller read strobe (not used (Open))
97	DVDD18	—	Power Supply (+1.8V)
98	IFSDO	O	DVD SDO signal output to System Controller (IC501)
99	IFCK	O	DVD SCO signal output to System Controller (IC501)
100	XIFCS	O	DVD XIFCS signal output to System Controller (IC501)
101	IFSDI	I	DVD SDI signal input from System Controller (IC501)
102	SCL	O	SCL signal output to EEPROM (IC1103)
103	SDA	I/O	SDA signal output/input to/from EEPROM (IC1103)
104	TRG-SW	O	TRG-SW signal output (not used (Open))
105	IFBSY	I	DVD IF-BUSY signal input from System Controller (IC501)
106	RXD	I	RD232 RXD clock (not used)
107	TXD	I	RD232 TXD data (not used)
108	DVDD3	—	Power Supply (+3.3V)
109	ICE	I	ICE mode enable (not used (Open))
110	PRST	I	MTRST signal input from System Controller (IC501)
111	IR	I	IR control signal input (not used (Open))
112	INT0	I	External interrupt0 (not used (Open))

Pin No.	Pin Name	I/O	Description
113	DQMO	O	DQM0 signal output to SD-RAM (IC1104)
114	MREQ	O	DQM signal output (not used (Open))
115	RD7	I/O	Data bus 7 from SD-RAM (IC1104)
116	DVSS	—	Ground terminal
117, 118	RD 6, 5	I/O	Data bus 6, 5 from SD-RAM (IC1104)
119	DVSS	—	Ground terminal
120, 121	RD 4, 3	I/O	Data bus 4, 3 from SD-RAM (IC1104)
122	DVDD18	—	Power Supply (+1.8V)
123 to 125	RD 2 to 0	I/O	Data bus 2 to 0 from SD-RAM (IC1104)
126	RD15	I/O	Data bus 15 from SD-RAM (IC1104)
127	DVDD3	—	Power Supply (+3.3V)
128 to 133	RD 14 to 9	I/O	Data bus 14 to 9 from SD-RAM (IC1104)
134	DVSS	—	Ground terminal
135	RD8	I/O	Data bus 8 from SD-RAM (IC1104)
136	GPI0	—	Not used (Open)
137	DQM1	O	DQM1 signal output to SD-RAM (IC1104)
138	RWE	O	WE signal output to SD-RAM (IC1104)
139	CAS	O	CAS signal output to SD-RAM (IC1104)
140	RAS	O	RAS signal output to SD-RAM (IC1104)
141	DVDD3	—	Power Supply (+3.3V)
142	RCS	O	RCS signal output to SD-RAM (IC1104)
143	BA0	O	BA0 signal output to SD-RAM (IC1104)
144	DVSS	—	Ground terminal
145	BA1	O	BA1 signal output to SD-RAM (IC1104)
146	RA10	O	Address bus 10 output to SD-RAM (IC1104)
147	RA0	O	Address bus 0 output to SD-RAM (IC1104)
148	DVSS	—	Ground terminal
149 to 151	RA 1 to 3	O	Address bus 1 to 3 output to SD-RAM (IC1104)
152	DVDD18	—	Power Supply (+1.8V)
153	NC	I	Reference voltage (not used (Open))
154	NC	I	Dram clock (not used (Open))
155	DVDD3	—	Power Supply (+3.3V)
156	RCLK	O	CLK signal output to SD-RAM (IC1104)
157	CKE	O	CKE signal output to SD-RAM (IC1104)
158 to 160	RA 11 to 8	O	Address bus 11 to 8 output to SD-RAM (IC1104)
161	DVSS	—	Ground terminal
162	RA7	O	Address bus 7 output to SD-RAM (IC1104)
163	DVSS	—	Ground terminal
164 to 166	RA 6 to 4	O	Address bus 6 to 4 output to SD-RAM (IC1104)
167	DVDD3	—	Power Supply (+3.3V)
168	DISC/X	—	Not used (Open)
169	RGB	O	RGB control signal output
170	TSD_M	—	TSDM signal output to Motor driver (IC1201)
171	NC	O	Not used (Open)
172	NC	—	Not used (Open)
173	DVDD18	—	Power Supply (+1.8V)
174	FWD	O	FWD signal output to Motor driver (IC1201)
175	NC	—	Not used (Open)
176	LIMSW	I	LIMITSW signal input from Optical pick-up

Pin No.	Pin Name	I/O	Description
177	OCSW	I	OCSW signal input
178	REW	O	REW signal output to Motor driver (IC1201)
179	CKSW	I	CKSW signal input
180	NC	—	Not used (Open)
181	NC	—	Not used (Open)
182	DVDD3	—	Power Supply (+3.3V)
183	NC	—	Not used (Open)
184	NC	—	Not used (Open)
185	NC	—	Not used (Open)
186	NC	—	Not used (Open)
187	NC	—	Not used (Open)
188	NC	—	Not used (Open)
189	DAVCC	—	Power Supply (+3.3V)
190	VREF	I	Not used (Open)
191	FS	O	Full scale adjustment (Not used (Fixed to “L”))
192	YUV0	—	Not used (Open)
193	DAVSS	—	Ground terminal
194	YUV1	O	Y signal output to VIDEO AMP (IC201)
195	DAVDD	—	Power Supply (+3.3V)
196	YUV2	O	CHROMA signal output to VIDEO AMP (IC201)
197	DAVSS	—	Ground terminal
198	YUV3	O	VIDEO signal output to VIDEO AMP (IC201)
199	DAVDD	—	Power Supply (+3.3V)
200	YUV4	O	Y/G signal output to VIDEO AMP (IC201)
201	DAVSS	—	Ground terminal
202	YUV5	O	CB/B signal output to VIDEO AMP (IC201)
203	YUV6	O	CR/R signal output to VIDEO AMP (IC201)
204	DVDD3	—	Power Supply (+3.3V)
205	MIC/VSYNC	—	Not used (Fixed to “L”)
206	VOICE/YUV7	—	Not used (Fixed to “H:+3V Line”)
207	KRMOD/HSYNC	—	Not used (Open)
208	SMSCK	—	Not used (Open)
209	SPDATA/SMSDI	I	Audio data of SPDIF input
210	MUTE	O	MUTE signal output to Motor driver (IC1201)
211	MUTE123	O	MUTE signal output to Motor driver (IC1201)
212	DVDD3	—	Power Supply (+3.3V)
213	ALRCK	I	Audio left/right channel clock
214	ABCK	I	Audio bit clock
215	ACLK	O	Audio DAC master clock
216	DVSS	—	Ground terminal
217	ASDATA0	O	Audio serial data0
218	ASDATA1	O	Audio serial data1
219	ASDATA2	O	Audio serial data2
220	XRST	—	Not used (Fixed to “L”)
221	DVDD18	—	Power Supply (+1.8V)
222	ASDATA4	O	Audio serial data (not used (Fixed to “L”))
223	DVSS	—	Ground terminal
224	DWIDE	—	Not used (Fixed to “L”)
225	SDPIF	—	SPDIF output (not used (Open))

Pin No.	Pin Name	I/O	Description
226	RFGND18	—	Ground terminal
227	RFVDD18	—	Power Supply (+1.8V)
228	XTALO	O	Oscillator output signal
229	XTALI	I	Oscillator input signal
230	JITFO	O	RF jitter meter output
231	JITFN	I	Negative input of operation amplifier for RF jitter meter
232	PLLVSS	—	Ground terminal
233	IDAC	—	Not used
234	PLLVDD3	—	Power Supply (+3.3V)
235	LPFON	O	Negative output of loop filter amplifier
236	LPFIP	I	Positive input of loop filter amplifier
237	LPFIN	I	Negative input of loop filter amplifier
238	LPFOP	O	Positive output of loop filter amplifier
239	VDD3	I	Power Supply (+3.3V)
240	NC	I	SACD-Common mode Reference (not used (Open))
241	VSS	—	Ground terminal
242	NC	I	SACD-TOP Reference (not used (Open))
243	NC	I	SACD-Bottom Reference (not used (Open))
244	RFVDD3	—	Power Supply (+3.3V)
245	RFRPDC	I	RFRP signal input
246	RFRPAC	I	RFRP signal input
247	HRFZC	I	High frequency RF ripple zero crossing
248	CRTPLP	O	Defect level filter capacitor connecting
249	RFGND	—	Ground terminal
250	NC	O	EQ offset loop capacitance (not used (Open))
251	NC	O	EQ offset loop capacitance (not used (Open))
252	OSP	O	RF offset cancellation capacitor connecting
253	OSN	I	RF offset cancellation capacitor connecting
254	RFGC	O	RF offset loop capacitor connecting for DVD-ROM
255	IREF	I	Current reference input
256	AVDD3	—	Power Supply (+3.3V)

MAIN BOARD IC501 M30622MEP-B20FPU0 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	DAMP_SCDT	O	Digital amp (IC3010, 3020, 3030) data output
2	DAMP_SHIFT	O	Digital amp (IC3010, 3020, 3030) data output
3	NO USE	O	Not used (Open)
4	SIRCS_IN	I	Sircs input
5	NO USE	O	Not used (Open)
6	NO USE	O	Not used (Open)
7	NO USE	O	Not used (Open)
8	BYTE	I	External data bus (Fixed to “L”)
9	CNVSS	I	Change processor mode (not used)
10	EN_A	I	Volume signal (A) input from ENCODER
11	EN_B	I	Volume signal (B) input from ENCODER
12	RESET	I	System reset signal input
13	XOUT	O	Crystal output for main clock (5MHz)
14	VSS	—	Ground terminal
15	XIN	I	Crystal input for main clock (5MHz)
16	VCC	—	Power supply (+3.3V)
17	NMI	I	Fixed to “H:+3.3V Line”
18	NO USE	O	Not used (Open)
19	A.CAL_OUT_LEVEL	I	OUT level detect for auto calibration (not used (Fixed to “L”))
20	AC_CUT	I	Detect AC-CUT (primary power off)
21	FL_CLK/LED_CLK	O	FL driver (IC802) clock output
22	NO USE	O	Not used (Open)
23	NO USE	O	Not used (Open)
24	FL_D_OUT/LED_DATA	O	FL driver (IC802) data output
25	NO USE	O	Not used (Open)
26	MIC_GAIN	O	MIC gain control output (not used (Open))
27	CDM_OPEN_SW	I	CDM open switch input
28	DC_CONT	O	A.CAL MIC DC Control (not used (Open))
29	CLINK_RX_IN	I	C-Link data input (not used)
30	CLINK_TX_OUT	O	C-Link data output (not used)
31	DVD_SID	O	SID data output to DVD RF (IC1101)
32	DVD_SOD	I	SOD data input from DVD RF (IC1101)
33	DVD_SCO	I	Clock signal input from DVD RF (IC1101)
34	DVD_XIFBUSY	O	IFBUSY signal output to DVD RF (IC1101)
35	NO USE	O	Not used (Open)
36	NO USE	O	Not used (Open)
37	DVDXIFCS	I	DVD RF (IC1101) chip select signal input
38	MTKRST	O	DVD RF (IC1101) reset signal output
39	P_CONT1	O	Power supply control signal 1 output
40	P_CONT2	O	Power supply control signal 2 output
41	P_CONT3	O	Power supply control signal 3 output
42	DRIVE_RST (EN)	O	Power driver (IC3100, 3150, 3200, 3250, 3300, 3400) reset signal output
43	DRIVE_OCP (DIAG)	I	Power driver (IC3100, 3150, 3200, 3250, 3300, 3400) shut down signal input
44	OVERFLOW1	I	Over flow detect input from digital amp F/C/S (IC3010, 3020, 3030)
45	OVERFLOW2	I	Over flow detect input from digital amp SW (IC3030)
46	WRITE CE	I	Flash Write CE (not used (Fixed to “H:+3.3V Line”))
47	DAMP_LATCH1	O	Digital amp (IC3010) chip select1 signal output
48	DAMP_LATCH2	O	Digital amp (IC3020) chip select1 signal output

Pin No.	Pin Name	I/O	Description
49	DAMP_LATCH3	O	Digital amp (IC3030) chip select1 signal output
50	DAMP_INIT	O	Digital amp (IC3010, 3020, 3030) reset signal output
51	DAMP_SOFT_MUTE	O	Digital amp (IC3010, 3020, 3030) soft muting output
52	HP_SW	I	Headphone detect input (not used (Fixed to “L”))
53	HP_MUTE	O	Headphone muting (not used)
54	NO USE	O	Not used
55	NO USE	O	Not used
56	FL_STB	O	FL driver (IC802) chip select signal output
57	DC_DETECT	I	Speaker DC detect input
58	NO USE	O	Not used (Open)
59	NO USE	O	Not used (Open)
60	NO USE	O	Not used (Open)
61	NO USE	O	Not used (Open)
62	VCC	—	Power supply (+3.3V)
63	MIC/A.CAL_SW	I	MIC insert switch input (not used (Fixed to “L”))
64	VSS	—	Ground terminal
65	NO USE	O	Not used (Open)
66	NO USE	O	Not used (Open)
67	NO USE	O	Not used (Open)
68	TUNED	I	Tuner pack tuned input
69	ST_CLK	O	Tuner clock output
70	ST_DO	I	Tuner data input
71	ST_CE	O	Tuner chip enable output
72	ST_DI	O	Tuner data output
73	NO USE	O	Not used (Open)
74	KEY_INT	I	Wakeup from ECO mode by key input
75	RDS_CLK/NO USE	I	Tuner RDS clock input (AEP, UK only)
		O	Not used (Open) (Except AEP, UK)
76	RDS_DATA/NO USE	I	Tuner RDS data input (AEP, UK only)
		O	Not used (Open) (Except AEP, UK)
77	NO USE	O	Not used (Open)
78	TVSEL	O	TV control signal output
79	M_ST	O	LINK(Multi STEREO) control signal output
80	NO USE	O	Not used (Open)
81	ASEL3	O	Audio selector 3 signal output (not used (Open))
82	VSEL0	O	Video selector 0 signal output
83	VSEL1	O	Video selector 1 signal output (not used (Open))
84	ASEL0	O	Audio selector 0 signal output (not used (Open))
85	ASEL1	O	Audio selector 1 signal output
86	ASEL2	O	Audio selector 2 signal output (not used (Open))
87	VSEL2	O	Video selector 2 signal output (not used (Open))
88	VSEL3	O	Video selector 3 signal output (not used (Open))
89	NO USE	O	Not used (Open)
90	MONO/ST_DET	I	Front Jack MONO or STEREO detect input (not used (Fixed to “L”))
91	A.CALMICLEVEL	I	MIC level detect for auto calibration (not used (Fixed to “L”))
92	DESTINATION	I	Destination select input
93	MODEL	I	Model select input
94	KEY2	I	Key input 2
95	KEY1	I	Key input 1

Pin No.	Pin Name	I/O	Description
96	AVSS	—	Ground terminal
97	KEY0	I	Key input 0
98	VREF	—	Reference Voltage (+3.3V)
99	VCC	—	Power supply (+3.3V)
100	NO USE	O	Not used (Open)

SECTION 7
EXPLODED VIEWS

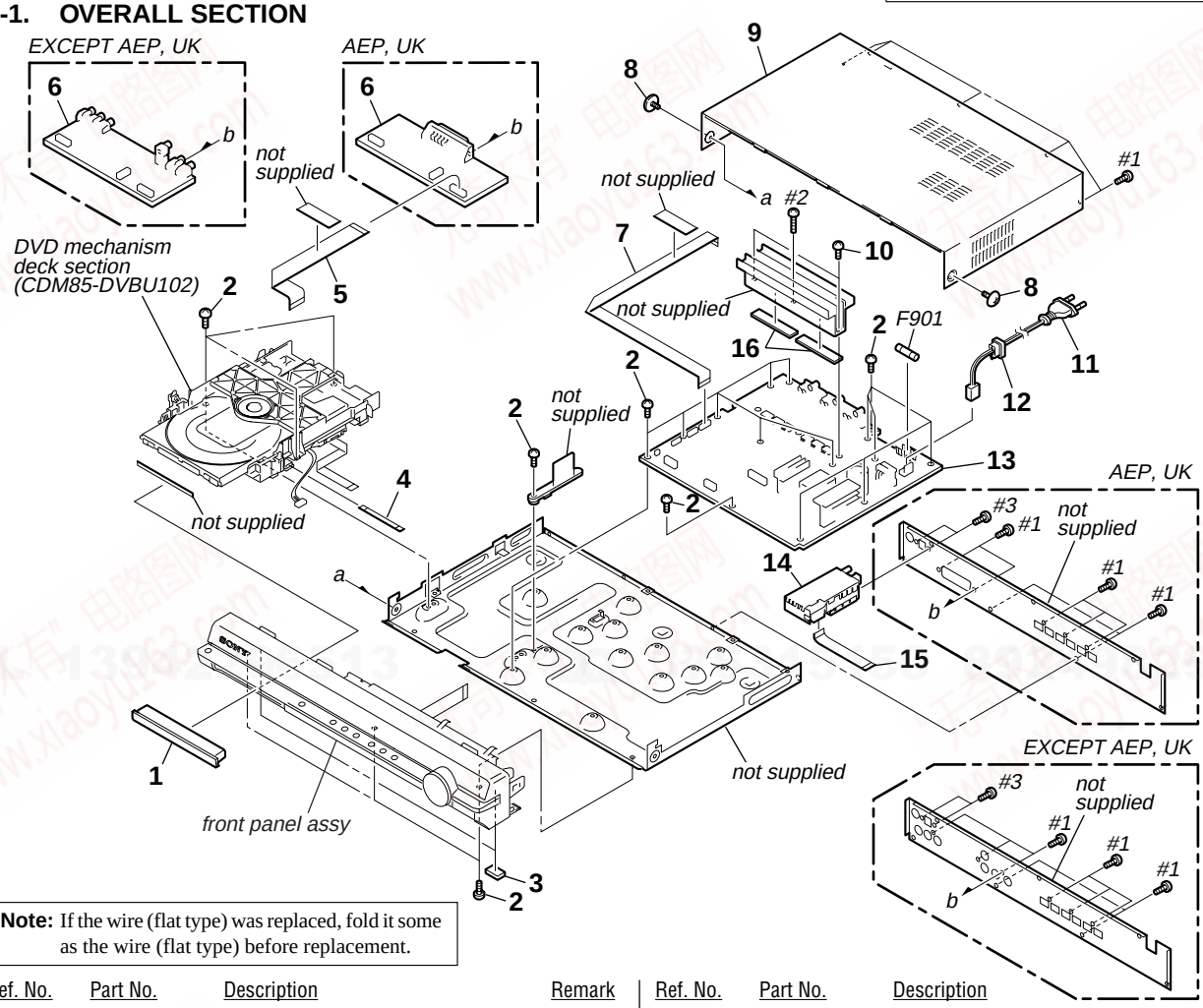
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
  AR : Argentine model
  E3 : 220 – 240 V AC area in E model
  E12 : 220 – 240 V AC area in E model
  E32 : 110 – 240 V AC area in E model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model
  TH : Thai model

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

The components identified by mark 🔒 contain confidential information.
Strictly follow the instructions whenever the components are repaired and/or replaced.

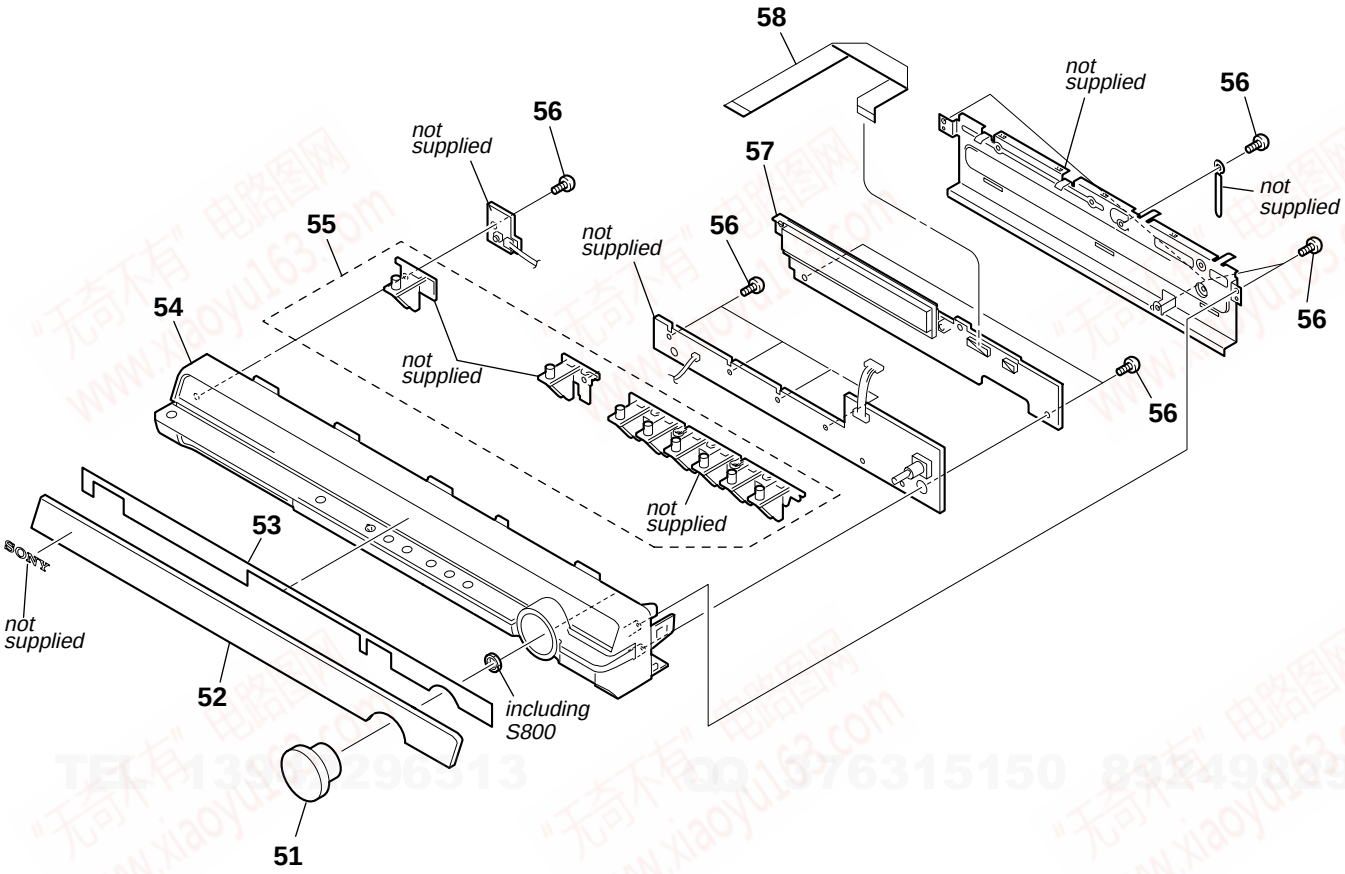
7-1. OVERALL SECTION



Note: If the wire (flat type) was replaced, fold it some as the wire (flat type) before replacement.

Ref. No.	Part No.	Description	Remark
1	2-889-987-01	PANEL, LOADING	
2	3-077-331-21	+BV3 (3-CR)	
3	4-232-478-31	FOOT	
4	1-828-286-51	WIRE (FLAT TYPE) (5 CORE)	
5	1-828-350-51	WIRE (FLAT TYPE)(17 CORE) (AEP, UK)	
5	1-828-340-51	WIRE (FLAT TYPE)(15 CORE) (EXCEPT AEP, UK)	
6	A-1220-177-A	IO BOARD, COMPLETE (AEP, UK)	
6	A-1220-207-A	IO BOARD, COMPLETE (RU)	
6	A-1251-054-A	IO BOARD, COMPLETE (EXCEPT AEP, UK, RU)	
7	1-828-333-51	WIRE (FLAT TYPE)(13 CORE)	
8	3-363-099-51	SCREW (CASE 3 TP2)	
9	2-892-574-11	CASE (AEP, UK, E32, MX, AR)	
9	2-892-574-21	CASE (E3, E12, RU, SP, TH)	
10	3-077-331-11	+BV3 (3-CR)	
⚠11	1-751-520-31	CORD, POWER (UK)	
⚠11	1-777-071-83	CORD, POWER (AEP, E32, E3, E12, RU, SP)	
⚠11	1-827-226-31	CORD, POWER (MX)	
⚠11	1-829-387-11	CORD, POWER (AR)	
⚠11	1-834-288-11	CORD, POWER (TH)	
⚠12	3-703-244-00	BUSHING (2104), CORD (EXCEPT MX, TH)	
⚠* 12	3-703-571-12	BUSHING (S) (4516), CORD (MX)	
⚠12	4-916-783-01	BUSHING, CORD (TH)	
🔒 13	A-1244-319-A	MAIN BOARD, COMPLETE (AEP)	
🔒 13	A-1244-320-A	MAIN BOARD, COMPLETE (UK)	
🔒 13	A-1244-321-A	MAIN BOARD, COMPLETE (RU)	
13	A-1244-322-A	MAIN BOARD, COMPLETE (E12)	
13	A-1244-323-A	MAIN BOARD, COMPLETE (E3)	
13	A-1244-324-A	MAIN BOARD, COMPLETE (E32)	
13	A-1244-325-A	MAIN BOARD, COMPLETE (MX)	
13	A-1244-326-A	MAIN BOARD, COMPLETE (AR)	
13	A-1258-746-A	MAIN BOARD, COMPLETE (SP, TH)	
14	1-693-724-11	TUNER (FM/AM) (AEP, UK)	
14	1-693-725-11	TUNER (FM/AM) (RU)	
14	1-693-726-11	TUNER (FM/AM) (EXCEPT AEP, UK, RU, TH)	
14	1-693-727-11	TUNER (FM/AM) (TH)	
15	1-828-954-51	WIRE (FLAT TYPE)(9 CORE) (EXCEPT AEP, UK)	
15	1-828-964-51	WIRE (FLAT TYPE)(11 CORE) (AEP, UK)	
16	3-100-158-01	SHEET, RADIATION	
⚠F901	1-533-311-12	FUSE, GLASS CYLINDRICAL (DIA.5)(8A/125V)	(MX)
⚠F901	1-576-233-51	FUSE (H.B.C.) (T6.3AH/250V)	(EXCEPT MX, E32)
⚠F901	1-576-300-51	FUSE, H.B.C. (T8AH/250V) (E32)	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
#3	7-685-862-09	SCREW +BVTT 2.6X6 (S)	

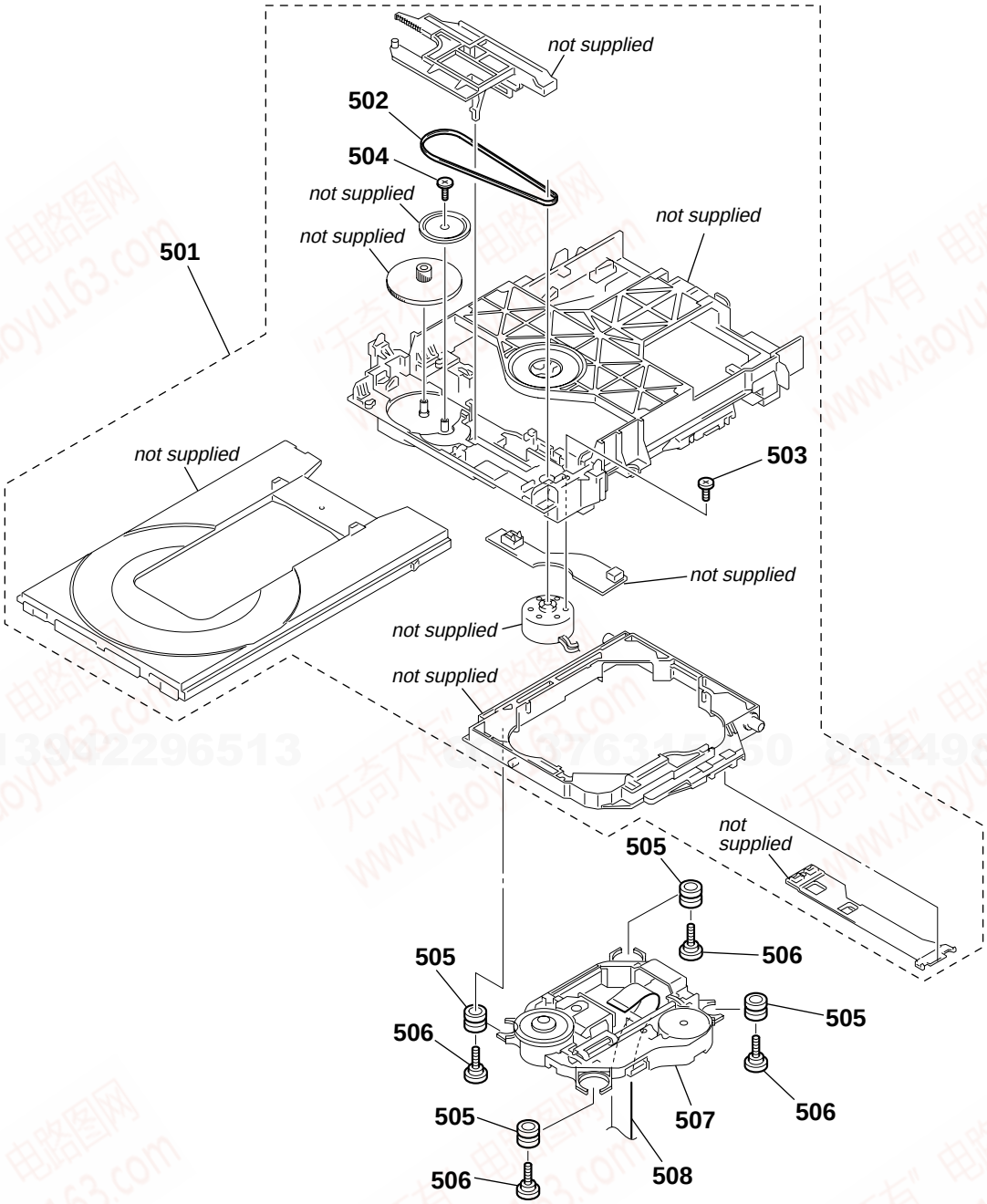
7-2. FRONT PANEL ASSY



Ref. No.	Part No.	Description	Remark
51	2-889-990-11	KNOB (VOL)	
52	2-889-982-41	WINDOW, INDICATION (INJ)	
53	2-898-988-01	SHEET (DS WINDOW), ADHESIVE	
54	2-892-571-01	PANEL, FRONT (AEP)	
54	2-892-571-11	PANEL, FRONT (UK)	
54	2-892-571-21	PANEL, FRONT (EXCEPT AEP, UK)	
55	2-889-983-01	BUTTON (AIO)	
56	3-087-053-11	+BVTP2.6 (3CR)	
57	A-1220-174-A	FL BOARD, COMPLETE	
58	1-828-341-51	WIRE (FLAT TYPE)(15 CORE)	

Note: If the wire (flat type) was replaced, fold it some as the wire (flat type) before replacement.

7-3. DVD MECHANISM DECK SECTION (CDM85-DVBU102)



Ref. No.	Part No.	Description	Remark
501	A-6071-669-A	LOADING ASSY (M)	
502	3-088-371-01	BELT	
503	4-974-725-11	SCREW (M1.7X2.5), P	
504	4-674-137-11	SCREW (PTP2X5)	
505	2-634-618-01	INSULATOR	
506	3-087-599-01	INSULATOR SCREW	
⚠507	8-820-321-05	OPTICAL PICK UP ASSY (KHM-313CAA/C2RP)	
508	1-828-771-51	WIRE (FLAT TYPE)(24 CORE)	

Note: If the wire (flat type) was replaced, fold it some as the wire (flat type) before replacement.

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS
  uF: µF
- COILS
  uH: µH
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. ., uPA. . : µPA. .,
  uPB. . : µPB. ., uPC. . : µPC. .,
  uPD. . : µPD. .
- Abbreviation
  AR : Argentine model
  E3 : 220 – 240 V AC area in E model
  E12 : 220 – 240 V AC area in E model
  E32 : 110 – 240 V AC area in E model
  MX : Mexican model
  RU : Russian model
  SP : Singapore model
  TH : Thai model

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

The components identified by mark 🔒 contain confidential information.
Strictly follow the instructions whenever the components are repaired and/or replaced.

Ref. No.	Part No.	Description			Remark
	A-1220-174-A	FL BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C800	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C801	1-163-037-11	CERAMIC CHIP	0.022uF	10%	50V
C802	1-126-947-11	ELECT	47uF	20%	35V
C803	1-126-933-11	ELECT	100uF	20%	16V
C804	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C805	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C809	1-126-157-11	ELECT	10uF	20%	16V
C811	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C814	1-126-157-11	ELECT	10uF	20%	16V
C829	1-124-259-11	ELECT	4.7uF	20%	50V
		< CONNECTOR >			
CN801	1-779-552-21	CONNECTOR, FFC (LIF (NON-ZIF)) 15P			
CN805	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P			
		< DIODE >			
D801	6-501-193-01	DIODE 1SS355WTE-17			
D802	6-501-193-01	DIODE 1SS355WTE-17			
D803	6-501-169-01	DIODE UDZW-TE17-6.2B			
D804	6-501-193-01	DIODE 1SS355WTE-17			
D805	6-501-193-01	DIODE 1SS355WTE-17			
		< IC >			
IC801	6-600-349-21	IC NJL23H400A			
IC802	8-759-643-83	IC uPD16315GB-3BS			
		< COIL >			
L801	1-410-671-31	INDUCTOR	47uH		
L802	1-410-671-31	INDUCTOR	47uH		
		< FLUORESCENT INDICATOR TUBE >			
ND001	1-451-590-11	VACUUM FLUORESCENT DISPLAYS			
		< TRANSISTOR >			
Q801	6-550-065-01	TRANSISTOR	CPH5504-TL-E		
Q802	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
		< RESISTOR >			
R800	1-216-864-11	SHORT CHIP	0		
R801	1-216-839-11	METAL CHIP	33K	5%	1/10W
R802	1-216-809-11	METAL CHIP	100	5%	1/10W
R804	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R805	1-216-295-91	SHORT CHIP	0		
R811	1-216-844-11	METAL CHIP	82K	5%	1/10W
R812	1-216-845-11	METAL CHIP	100K	5%	1/10W
R813	1-216-845-11	METAL CHIP	100K	5%	1/10W
R814	1-216-809-11	METAL CHIP	100	5%	1/10W
R815	1-216-809-11	METAL CHIP	100	5%	1/10W
R816	1-216-809-11	METAL CHIP	100	5%	1/10W
R817	1-216-821-11	METAL CHIP	1K	5%	1/10W
R819	1-216-805-11	METAL CHIP	47	5%	1/10W
R820	1-216-845-11	METAL CHIP	100K	5%	1/10W
		< TRANSFORMER >			
T801	1-443-645-11	TRANSFORMER, DC CONVERTER			
		**********			
	A-1220-177-A	IO BOARD, COMPLETE (AEP, UK)			
	A-1220-207-A	IO BOARD, COMPLETE (RU)			
	A-1251-054-A	IO BOARD, COMPLETE (EXCEPT AEP, UK, RU)			
		**********			
		< CAPACITOR >			
C201	1-126-964-11	ELECT	10uF	20%	50V
C202	1-115-156-11	CERAMIC CHIP	1uF		10V
C203	1-115-156-11	CERAMIC CHIP	1uF		10V
C204	1-115-156-11	CERAMIC CHIP	1uF		10V
C205	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (AEP, UK)
C207	1-126-964-11	ELECT	10uF	20%	50V (EXCEPT AEP, UK)
C208	1-164-156-11	CERAMIC CHIP	0.1uF		25V (EXCEPT AEP, UK)
C209	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C210	1-126-925-91	ELECT	470uF	20%	10V
C211	1-126-933-11	ELECT	100uF	20%	16V (AEP, UK)
C213	1-126-933-11	ELECT	100uF	20%	16V
C214	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C223	1-164-156-11	CERAMIC CHIP	0.1uF		25V (EXCEPT AEP, UK)
C224	1-126-916-11	ELECT	1000uF	20%	6.3V (EXCEPT AEP, UK)
C225	1-126-916-11	ELECT	1000uF	20%	6.3V
C226	1-126-916-11	ELECT	1000uF	20%	6.3V
C227	1-126-916-11	ELECT	1000uF	20%	6.3V (AEP, UK)

Ref. No.	Part No.	Description			Remark
C227	1-126-933-11	ELECT	100uF	20% 16V	(EXCEPT AEP, UK)
C228	1-126-916-11	ELECT	1000uF	20% 6.3V	(AEP, UK)
C228	1-126-933-11	ELECT	100uF	20% 16V	(EXCEPT AEP, UK)
C294	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(AEP, UK)
C500	1-162-960-11	CERAMIC CHIP	220PF	10% 50V	(AEP, UK)
C501	1-104-662-91	ELECT	22uF	20% 25V	(AEP, UK)
C550	1-162-960-11	CERAMIC CHIP	220PF	10% 50V	(AEP, UK)
C551	1-104-662-91	ELECT	22uF	20% 25V	(AEP, UK)
C600	1-162-960-11	CERAMIC CHIP	220PF	10% 50V	(EXCEPT AEP, UK)
C601	1-104-662-91	ELECT	22uF	20% 25V	(EXCEPT AEP, UK)
C602	1-104-662-91	ELECT	22uF	20% 25V	
C605	1-126-960-11	ELECT	1uF	20% 50V	
C621	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C622	1-104-662-91	ELECT	22uF	20% 25V	
C624	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C625	1-126-933-11	ELECT	100uF	20% 16V	
C630	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	(EXCEPT AEP, UK)
C650	1-162-960-11	CERAMIC CHIP	220PF	10% 50V	(EXCEPT AEP, UK)
C651	1-104-662-91	ELECT	22uF	20% 25V	(EXCEPT AEP, UK)
C652	1-104-662-91	ELECT	22uF	20% 25V	
C655	1-126-960-11	ELECT	1uF	20% 50V	
C700	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V	(AEP, UK, RU)
C701	1-104-662-91	ELECT	22uF	20% 25V	
C720	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
C721	1-126-933-11	ELECT	100uF	20% 16V	
C750	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V	(AEP, UK, RU)
C751	1-104-662-91	ELECT	22uF	20% 25V	
		< CONNECTOR >			
CN101	1-568-830-11	CONNECTOR, FFC 11P (AEP, UK)			
CN102	1-568-828-11	CONNECTOR, FFC 9P (EXCEPT AEP, UK)			
CN201	1-779-281-11	CONNECTOR, FFC (LIF (NON-ZIF)) 13P			
CN601	1-779-285-11	CONNECTOR, FFC (LIF (NON-ZIF)) 17P			(AEP, UK)
CN602	1-779-283-11	CONNECTOR, FFC (LIF (NON-ZIF)) 15P			(EXCEPT AEP, UK)
		< DIODE >			
D200	6-501-193-01	DIODE 1SS355WTE-17 (AEP, UK)			
D201	6-501-193-01	DIODE 1SS355WTE-17 (AEP, UK)			
D601	6-501-193-01	DIODE 1SS355WTE-17 (EXCEPT AEP, UK)			
D602	6-501-193-01	DIODE 1SS355WTE-17 (EXCEPT AEP, UK)			
		< IC >			
IC201	6-710-470-01	IC MM1758AFBE			
IC602	8-759-385-76	IC MC14052 BDR2			

Ref. No.	Part No.	Description			Remark
IC603	8-759-100-96	IC uPC4558G2			
		< JACK >			
J200	1-778-940-11	JACK 2P (TV/VCR)			(EXCEPT AEP, UK)
J201	1-694-920-11	TERMINAL BOARD (S TERMINAL+1P)			(MONITOR OUT) (EXCEPT AEP, UK)
J202	1-817-601-11	JACK, PIN 3P (EXCEPT AEP, UK)			(COMPONENT VIDEO)
J203	1-816-044-11	CONNECTOR, SQUARE TYPE 21P			(EURO AV ⇨ OUTPUT) (AEP, UK)
		< COIL >			
L201	1-469-525-91	INDUCTOR	10uH		
L701	1-469-525-91	INDUCTOR	10uH		
		< TRANSISTOR >			
Q203	1-801-806-11	TR DTC144EKA (AEP, UK)			
Q204	1-801-806-11	TR DTC144EKA (AEP, UK)			
Q205	8-729-027-23	TRANSISTOR	DTA114EKA-T146 (AEP, UK)		
Q206	1-801-806-11	TR DTC144EKA (AEP, UK)			
Q207	8-729-027-23	TRANSISTOR	DTA114EKA-T146 (AEP, UK)		
Q208	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (AEP, UK)		
Q210	1-801-806-11	TR DTC144EKA (AEP, UK)			
Q603	8-729-027-52	TRANSISTOR	DTC124EKA-T146		
		< RESISTOR >			
R200	1-216-864-11	SHORT CHIP	0 (AEP, UK)		
R201	1-216-864-11	SHORT CHIP	0 (EXCEPT AEP, UK)		
R202	1-216-821-11	METAL CHIP	1K	5% 1/10W	(AEP, UK)
R204	1-216-821-11	METAL CHIP	1K	5% 1/10W	
R205	1-216-864-11	SHORT CHIP	0 (EXCEPT AEP, UK)		
R206	1-216-864-11	SHORT CHIP	0 (AEP, UK)		
R207	1-216-864-11	SHORT CHIP	0 (AEP, UK)		
R212	1-216-833-11	METAL CHIP	10K	5% 1/10W	(AEP, UK)
R212	1-216-864-11	SHORT CHIP	0 (EXCEPT AEP, UK)		
R228	1-216-833-11	METAL CHIP	10K	5% 1/10W	(EXCEPT AEP, UK)
R229	1-247-804-11	CARBON	75	5% 1/4W	(EXCEPT AEP, UK)
R230	1-247-804-11	CARBON	75	5% 1/4W	
R231	1-247-804-11	CARBON	75	5% 1/4W	
R232	1-247-804-11	CARBON	75	5% 1/4W	
R233	1-247-804-11	CARBON	75	5% 1/4W	
R240	1-216-815-11	METAL CHIP	330	5% 1/10W	(AEP, UK)
R241	1-247-804-11	CARBON	75	5% 1/4W	(EXCEPT AEP, UK)
R242	1-216-815-11	METAL CHIP	330	5% 1/10W	(AEP, UK)
R243	1-216-815-11	METAL CHIP	330	5% 1/10W	(AEP, UK)
R244	1-216-815-11	METAL CHIP	330	5% 1/10W	(AEP, UK)
R246	1-216-837-11	METAL CHIP	22K	5% 1/10W	(AEP, UK)
R247	1-216-825-11	METAL CHIP	2.2K	5% 1/10W	(AEP, UK)

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Ref. No.	Part No.	Description			Remark
R249	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R250	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (AEP, UK)
R252	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (AEP, UK)
R261	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP, UK)
R263	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT AEP, UK)
R264	1-216-849-11	METAL CHIP	220K	5%	1/10W (AEP, UK)
R265	1-216-841-11	METAL CHIP	47K	5%	1/10W (AEP, UK)
R270	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R271	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R272	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R273	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R274	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R275	1-218-827-11	METAL CHIP	150	0.5%	1/10W
R289	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R290	1-216-864-11	SHORT CHIP	0 (AEP, UK)		
R291	1-216-864-11	SHORT CHIP	0 (RU)		
R292	1-216-864-11	SHORT CHIP	0 (EXCEPT AEP, UK, RU)		
R500	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP, UK)
R501	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP, UK)
R502	1-216-837-11	METAL CHIP	22K	5%	1/10W
R503	1-216-837-11	METAL CHIP	22K	5%	1/10W
R550	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP, UK)
R551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP, UK)
R552	1-216-837-11	METAL CHIP	22K	5%	1/10W
R553	1-216-837-11	METAL CHIP	22K	5%	1/10W
R600	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EXCEPT AEP, UK)
R601	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EXCEPT AEP, UK)
R604	1-216-841-11	METAL CHIP	47K	5%	1/10W
R606	1-216-809-11	METAL CHIP	100	5%	1/10W
R613	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R614	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R617	1-216-821-11	METAL CHIP	1K	5%	1/10W
R620	1-216-833-11	METAL CHIP	10K	5%	1/10W
R650	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EXCEPT AEP, UK)
R651	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EXCEPT AEP, UK)
R654	1-216-841-11	METAL CHIP	47K	5%	1/10W
R656	1-216-809-11	METAL CHIP	100	5%	1/10W
R700	1-216-864-11	SHORT CHIP	0		
R701	1-216-845-11	METAL CHIP	100K	5%	1/10W
R702	1-216-845-11	METAL CHIP	100K	5%	1/10W
R750	1-216-864-11	SHORT CHIP	0		
R751	1-216-845-11	METAL CHIP	100K	5%	1/10W
R752	1-216-845-11	METAL CHIP	100K	5%	1/10W

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Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
		< CAPACITOR >			
C849	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C850	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C852	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C853	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C854	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
		< RESISTOR >			
R851	1-216-864-11	SHORT CHIP	0		
R852	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R853	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R854	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R855	1-216-821-11	METAL CHIP	1K	5%	1/10W
R856	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R857	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
		< SWITCH >			
S800	1-418-725-51	ENCODER, ROTARY (12 TYPE) (VOLUME)			
S802	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)			
S803	1-762-875-21	SWITCH, KEYBOARD (I◀◀)			
S804	1-762-875-21	SWITCH, KEYBOARD (▮▮)			
S805	1-762-875-21	SWITCH, KEYBOARD (■)			
S806	1-762-875-21	SWITCH, KEYBOARD (▶▶I)			
S807	1-762-875-21	SWITCH, KEYBOARD (⏏)			
S808	1-762-875-21	SWITCH, KEYBOARD (▷)			

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	A-1244-319-A	MAIN BOARD, COMPLETE (AEP)
	A-1244-320-A	MAIN BOARD, COMPLETE (UK)
	A-1244-321-A	MAIN BOARD, COMPLETE (RU)
	A-1244-322-A	MAIN BOARD, COMPLETE (E12)
	A-1244-323-A	MAIN BOARD, COMPLETE (E3)
	A-1244-324-A	MAIN BOARD, COMPLETE (E32)
	A-1244-325-A	MAIN BOARD, COMPLETE (MX)
	A-1244-326-A	MAIN BOARD, COMPLETE (AR)
	A-1258-746-A	MAIN BOARD, COMPLETE (SP, TH)
		**********
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3
		< CAPACITOR >
C501	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C502	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C503	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C504	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C511	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C512	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C513	1-165-908-11	CERAMIC CHIP 1uF 10% 10V
C517	1-162-964-11	CERAMIC CHIP 0.001uF 10% 50V
C521	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C525	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C570	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C571	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C572	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C580	1-126-916-11	ELECT 1000uF 20% 6.3V
C582	1-104-658-91	ELECT 100uF 20% 10V
C583	1-127-715-91	CERAMIC CHIP 0.22uF 10% 16V
C584	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V
C587	1-127-715-91	CERAMIC CHIP 0.22uF 10% 16V
C589	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V
C591	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V

Ref. No.	Part No.	Description			Remark
C592	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C595	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C596	1-126-947-11	ELECT	47uF	20%	35V
C597	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C598	1-127-573-11	CERAMIC CHIP	1uF	10%	16V
C599	1-126-947-11	ELECT	47uF	20%	35V
⚠C901	1-165-529-11	MYLAR	0.22uF	10	275V
⚠C902	1-165-529-11	MYLAR	0.22uF	10	275V
⚠C903	1-114-344-11	ELECT (BLOCK)	1000uF	20%	250V (MX)
⚠C903	1-114-346-11	ELECT (BLOCK)	330uF	20%	400V (AEP, UK)
⚠C903	1-114-347-11	ELECT (BLOCK)	330uF	20%	450V (AR, E3, E12, E32, RU, SP, TH)
⚠C905	1-112-334-91	FILM	0.01uF	5%	400V (MX)
⚠C905	1-112-335-91	FILM	0.0033uF	5%	400V (EXCEPT MX)
⚠C906	1-117-815-11	FILM	1000PF	3%	1.5KV (EXCEPT MX)
⚠C906	1-117-828-11	FILM	3300PF	3%	1.5KV (MX)
⚠C907	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
⚠C908	1-104-962-91	ELECT	47uF	20%	50V
⚠C909	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
⚠C910	1-107-906-11	ELECT	10uF	20%	50V (MX)
⚠C910	1-107-907-11	ELECT	22uF	20%	50V (EXCEPT MX, E32)
⚠C910	1-107-909-11	ELECT	47uF	20%	50V (E32)
⚠C911	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
⚠C912	1-117-693-11	CERAMIC	100PF	10%	250V
⚠C913	1-117-693-11	CERAMIC	100PF	10%	250V
⚠C918	1-113-925-11	CERAMIC	0.01uF	20%	250V
⚠C920	1-113-925-11	CERAMIC	0.01uF	20%	250V
⚠C922	1-128-560-11	ELECT	22uF	20%	100V
⚠C923	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
⚠C924	1-126-961-11	ELECT	2.2uF	20%	50V
⚠C925	1-107-974-81	CERAMIC	47PF	5%	2KV
⚠C928	1-117-697-51	CERAMIC	470PF	10%	250V
C929	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C932	1-128-955-21	ELECT	2200uF	20%	25V
C934	1-126-943-11	ELECT	2200uF	20%	25V
C936	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C937	1-100-756-91	CERAMIC CHIP	0.047uF		50V
⚠C938	1-117-697-51	CERAMIC	470PF	10%	250V
C939	1-136-165-00	FILM	0.1uF	5%	50V
C940	1-128-946-31	ELECT	2200uF	20%	10V
C941	1-128-953-31	ELECT	470uF	20%	25V
C942	1-104-665-11	ELECT	100uF	20%	25V
C943	1-126-933-11	ELECT	100uF	20%	16V
C944	1-128-950-21	ELECT	1000uF	20%	16V
C945	1-126-933-11	ELECT	100uF	20%	16V
C946	1-128-950-21	ELECT	1000uF	20%	16V
C947	1-104-658-91	ELECT	100uF	20%	10V
C948	1-104-658-91	ELECT	100uF	20%	10V
C949	1-104-658-91	ELECT	100uF	20%	10V
C952	1-100-756-91	CERAMIC CHIP	0.047uF		50V

Ref. No.	Part No.	Description			Remark
⚠C963	1-117-697-51	CERAMIC	470PF	10%	250V (EXCEPT MX)
⚠C963	1-117-700-51	CERAMIC	0.0022uF	20%	250V (MX)
⚠C964	1-117-697-51	CERAMIC	470PF	10%	250V (EXCEPT MX)
⚠C964	1-117-700-51	CERAMIC	0.0022uF	20%	250V (MX)
C976	1-126-933-11	ELECT	100uF	20%	16V
C1101	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1102	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C1105	1-126-947-11	ELECT	47uF	20%	35V
C1106	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1109	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1110	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1112	1-126-947-11	ELECT	47uF	20%	35V
C1113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1114	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1115	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1117	1-126-964-11	ELECT	10uF	20%	50V
C1118	1-126-964-11	ELECT	10uF	20%	50V
C1119	1-126-964-11	ELECT	10uF	20%	50V
C1120	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1121	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1122	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1123	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1124	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1125	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1126	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1127	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1128	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C1130	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1131	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C1132	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1133	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1135	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C1136	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1137	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1138	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1139	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C1140	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1144	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1146	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1147	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1148	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C1149	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1150	1-126-964-11	ELECT	10uF	20%	50V
C1151	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C1152	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C1153	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C1154	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1155	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1156	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1158	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1159	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1160	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1161	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V

MAIN

Ref. No.	Part No.	Description			Remark
C1162	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1163	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1164	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1167	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1170	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1171	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1172	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1173	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1174	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1175	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1176	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1177	1-126-947-11	ELECT	47uF	20%	35V
C1179	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1180	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1181	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1182	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C1184	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1186	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C1187	1-126-947-11	ELECT	47uF	20%	35V
C1188	1-128-934-91	CERAMIC CHIP	0.33uF	20%	10V
C1190	1-126-947-11	ELECT	47uF	20%	35V
C1191	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1192	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1193	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C1195	1-127-715-91	CERAMIC CHIP	0.22uF	10%	16V
C1197	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1199	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C1203	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1205	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C1206	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
C1208	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1209	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C1210	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1211	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C1212	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1214	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1215	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1217	1-126-786-11	ELECT	47uF	20%	16V
C1218	1-126-964-11	ELECT	10uF	20%	50V
C1219	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1220	1-126-964-11	ELECT	10uF	20%	50V
C1221	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1222	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1223	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C1224	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C1225	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1226	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C1228	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C2200	1-126-964-11	ELECT	10uF	20%	50V
C2204	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2207	1-126-947-11	ELECT	47uF	20%	35V
C2208	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2209	1-126-964-11	ELECT	10uF	20%	50V
C2211	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3011	1-126-947-11	ELECT	47uF	20%	35V
C3012	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C3013	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3014	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3015	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3016	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3017	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3019	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3020	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3022	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3023	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3024	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3025	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3026	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3027	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3029	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3030	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3032	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3033	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3034	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3035	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3036	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3037	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3039	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3040	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3051	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C3052	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C3053	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3054	1-126-947-11	ELECT	47uF	20%	35V
C3055	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3056	1-126-923-91	ELECT	220uF	20%	10V
C3057	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3058	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C3059	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3060	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C3071	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3072	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3073	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C3091	1-126-934-11	ELECT	220uF	20%	16V
C3101	1-164-346-11	CERAMIC CHIP	1uF		16V
C3102	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3103	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3104	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3105	1-164-346-11	CERAMIC CHIP	1uF		16V
C3106	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3107	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3108	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3109	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3110	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3111	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3114	1-136-177-00	FILM	1uF	5%	50V
C3115	1-136-177-00	FILM	1uF	5%	50V
C3116	1-126-942-61	ELECT	1000uF	20%	25V
C3121	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C3122	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3123	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3151	1-164-346-11	CERAMIC CHIP	1uF		16V
C3152	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3153	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3154	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C3155	1-164-346-11	CERAMIC CHIP	1uF		16V
C3156	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3157	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3158	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3159	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3160	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3161	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3164	1-136-177-00	FILM	1uF	5%	50V
C3165	1-136-177-00	FILM	1uF	5%	50V
C3166	1-126-942-61	ELECT	1000uF	20%	25V
C3171	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C3172	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3173	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3201	1-164-346-11	CERAMIC CHIP	1uF		16V
C3202	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3203	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3204	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3205	1-164-346-11	CERAMIC CHIP	1uF		16V
C3206	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3207	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3208	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3209	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3210	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3211	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3214	1-136-177-00	FILM	1uF	5%	50V
C3215	1-136-177-00	FILM	1uF	5%	50V
C3216	1-126-942-61	ELECT	1000uF	20%	25V
C3221	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C3222	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3223	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3251	1-164-346-11	CERAMIC CHIP	1uF		16V
C3252	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3253	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3254	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3255	1-164-346-11	CERAMIC CHIP	1uF		16V
C3256	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3257	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3258	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3259	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3260	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3261	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3264	1-136-177-00	FILM	1uF	5%	50V
C3265	1-136-177-00	FILM	1uF	5%	50V
C3266	1-126-942-61	ELECT	1000uF	20%	25V
C3271	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C3272	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3273	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3301	1-164-346-11	CERAMIC CHIP	1uF		16V
C3302	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3303	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3304	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3305	1-164-346-11	CERAMIC CHIP	1uF		16V
C3306	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3307	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3308	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3309	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3310	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3311	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3314	1-136-177-00	FILM	1uF	5%	50V
C3315	1-136-177-00	FILM	1uF	5%	50V
C3316	1-126-942-61	ELECT	1000uF	20%	25V
C3321	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C3322	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3323	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3401	1-164-346-11	CERAMIC CHIP	1uF		16V
C3402	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3403	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3404	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C3405	1-164-346-11	CERAMIC CHIP	1uF		16V
C3406	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3407	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3408	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3409	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3410	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C3411	1-100-436-91	CERAMIC CHIP	0.033uF	10%	25V
C3414	1-136-177-00	FILM	1uF	5%	50V
C3415	1-136-177-00	FILM	1uF	5%	50V
C3416	1-126-943-11	ELECT	2200uF	20%	25V
C3421	1-117-370-11	CERAMIC CHIP	10uF		10V
C3422	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3423	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3555	1-163-038-91	CERAMIC CHIP	0.1uF		25V

< CONNECTOR >

CN507	1-784-376-51	CONNECTOR, FFC/FPC 17P (AEP, UK)	
CN508	1-784-374-51	CONNECTOR, FFC/FPC 15P (EXCEPT AEP, UK)	
CN509	1-779-283-11	CONNECTOR, FFC (LIF (NON-ZIF)) 15P	
⚠CN901	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P	
CN1101	1-815-763-32	CONNECTOR, FFC/FPC 24P	
* CN1105	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
* CN1201	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P	
CN1202	1-784-365-51	CONNECTOR, FFC/FPC 5P	
CN1301	1-784-372-51	CONNECTOR, FFC/FPC 13P	

< DIODE >

D501	6-501-193-01	DIODE	1SS355WTE-17
D502	6-501-193-01	DIODE	1SS355WTE-17
D503	6-501-193-01	DIODE	1SS355WTE-17
D504	6-501-193-01	DIODE	1SS355WTE-17
D505	6-501-193-01	DIODE	1SS355WTE-17
⚠D901	8-719-082-57	DIODE	D5SBA60F01
⚠D905	8-719-063-74	DIODE	D1NL20U-TR2
⚠D906	6-501-193-01	DIODE	1SS355WTE-17
⚠D907	6-501-193-01	DIODE	1SS355WTE-17
⚠D908	6-501-193-01	DIODE	1SS355WTE-17
⚠D909	6-501-193-01	DIODE	1SS355WTE-17
⚠D910	6-501-193-01	DIODE	1SS355WTE-17
⚠D913	6-500-241-01	DIODE	SARS03
⚠D914	6-501-193-01	DIODE	1SS355WTE-17
⚠D915	6-501-174-01	DIODE	UDZW-TE17-10B
⚠D921	6-501-424-01	DIODE	STO2D-140
⚠D922	8-719-063-74	DIODE	D1NL20U-TR2
⚠D923	6-501-174-01	DIODE	UDZW-TE17-10B
⚠D924	6-501-183-01	DIODE	UDZW-TE17-24B
⚠D925	6-501-167-01	DIODE	UDZW-TE17-5.1B

HCD-DZ20

Ver. 1.2

MAIN

Ref. No.	Part No.	Description	Remark
⚠D926	6-501-174-01	DIODE UDZW-TE17-10B	
D931	6-501-849-01	DIODE FMX-22SL	
D932	6-501-167-01	DIODE UDZW-TE17-5.1B	
D941	6-500-288-11	DIODE EK19LF-F7	
D942	8-719-080-53	DIODE RK36LF-B3	
D943	8-719-080-53	DIODE RK36LF-B3	
D944	6-500-288-11	DIODE EK19LF-F7	
D945	6-501-181-01	DIODE UDZW-TE17-20B	
		< FERRITE BEAD >	
FB1105	1-469-670-21	FERRITE, EMI (SMD) (2012)	
FB1106	1-469-324-21	FERRITE, EMI (SMD) (2012)	
FB1107	1-469-324-21	FERRITE, EMI (SMD) (2012)	
FB1108	1-469-324-21	FERRITE, EMI (SMD) (2012)	
FB1111	1-469-670-21	FERRITE, EMI (SMD) (2012)	
		< FUSE HOLDER >	
FH901	1-533-217-41	HOLDER, FUSE	
FH902	1-533-217-41	HOLDER, FUSE	
		< FUSIBLE RESISTOR >	
⚠FR901	1-242-949-11	FUSIBLE 0.1 10% 1W	
⚠FR902	1-242-949-11	FUSIBLE 0.1 10% 1W	(MX)
		< IC >	
IC501	6-807-417-01	IC M30622MEP-B20FPU0	
IC502	6-702-302-01	IC TK11133CSCL-G	
IC511	6-708-922-01	IC PST3635NR	
IC515	6-703-550-01	IC TA7809LS	
IC516	6-703-547-01	IC TA7805LS	
⚠IC901	6-707-741-01	IC STR-F6138-LF1352 (MX)	
⚠IC901	6-707-742-01	IC STR-F6168-LF1352 (EXCEPT MX)	
⚠IC921	6-707-740-01	IC STR-V153	
IC931	8-759-648-34	IC TA76431AS (TPE6)	
IC941	6-707-746-01	IC SI-3120KM-TL	
IC942	6-707-745-10	IC SI-3050KM-TL	
IC943	6-705-308-01	IC SI-3010KM-TL	
IC951	6-707-743-01	IC TA76L431S (TPE6, Q)	
IC1101	6-707-535-01	IC CXD9849R	
IC1102	6-807-171-01	IC S29AL032D70TF-OBA2-0701UC	(E32, MX, AR)
IC1102	6-807-172-01	IC S29AL032D70TF-OBA2-0701CE	(AEP, UK, E3, E12, RU)
IC1102	6-807-432-01	IC S29AL032D70TF-OBA2-0701GA (SP)	
IC1102	6-807-748-01	IC MX29LV320CBTC70-OBA2-0701GA (TH)	
IC1103	not supplied	IC BR24L64F-WE2	
IC1104	6-709-370-01	IC A2V64S40CTP-G75	
IC1105	6-702-302-01	IC TK11133CSCL-G	
IC1107	6-702-302-01	IC TK11133CSCL-G	
IC1109	6-707-485-01	IC NJM2885DL1-18 (TE2)	
IC1201	6-704-524-01	IC FAN8036L	
IC2200	6-710-554-01	IC PCM1808PWR	
IC3003	8-759-680-48	IC TC7WH157FK (TE85R)	
IC3010	6-707-939-01	IC CXD9843AR	
IC3020	6-707-939-01	IC CXD9843AR	
IC3030	6-707-939-01	IC CXD9843AR	
IC3050	6-702-300-01	IC TK11118CSCL-G	
IC3051	6-706-492-01	IC TC7SHU04FU (T5RSOJF)	
IC3100	6-704-802-01	IC CXD9774M	
IC3150	6-704-802-01	IC CXD9774M	
IC3200	6-704-802-01	IC CXD9774M	
IC3250	6-704-802-01	IC CXD9774M	
IC3300	6-704-802-01	IC CXD9774M	
IC3400	6-704-802-01	IC CXD9774M	
		< JUMPER RESISTOR >	
JC501	1-216-864-11	SHORT CHIP 0	
JC511	1-216-864-11	SHORT CHIP 0 (SP, TH)	
JC512	1-216-864-11	SHORT CHIP 0 (E12)	
JC513	1-216-864-11	SHORT CHIP 0 (E3)	
JC515	1-216-864-11	SHORT CHIP 0 (UK)	
JC519	1-216-864-11	SHORT CHIP 0 (E32)	
JC520	1-216-864-11	SHORT CHIP 0 (AR)	
JC522	1-216-864-11	SHORT CHIP 0 (RU)	
JC523	1-216-864-11	SHORT CHIP 0 (AEP)	
JC524	1-216-864-11	SHORT CHIP 0 (MX)	
		< COIL >	
L941	1-414-398-11	INDUCTOR 10uH	
L942	1-414-398-11	INDUCTOR 10uH	
L945	1-414-398-11	INDUCTOR 10uH	
L947	1-414-398-11	INDUCTOR 10uH	
L948	1-414-398-11	INDUCTOR 10uH	
L951	1-414-398-11	INDUCTOR 10uH	
L2200	1-414-754-11	INDUCTOR 10uH	
L3001	1-457-078-11	AIR-CORE COIL	
L3002	1-457-078-11	AIR-CORE COIL	
L3003	1-457-078-11	AIR-CORE COIL	
L3004	1-457-078-11	AIR-CORE COIL	
L3005	1-457-078-11	AIR-CORE COIL	
L3006	1-457-078-11	AIR-CORE COIL	
L3011	1-457-077-11	AIR-CORE COIL	
L3012	1-457-077-11	AIR-CORE COIL	
L3013	1-457-077-11	AIR-CORE COIL	
L3014	1-457-077-11	AIR-CORE COIL	
L3015	1-457-077-11	AIR-CORE COIL	
L3016	1-457-077-11	AIR-CORE COIL	
L3051	1-414-754-11	INDUCTOR 10uH	
L3052	1-414-754-11	INDUCTOR 10uH	
L3053	1-414-754-11	INDUCTOR 10uH	
L3054	1-412-939-11	INDUCTOR 1uH	
L3111	1-456-680-11	INDUCTOR 10uH	
L3112	1-456-680-11	INDUCTOR 10uH	
L3151	1-456-680-11	INDUCTOR 10uH	
L3152	1-456-680-11	INDUCTOR 10uH	
L3201	1-456-680-11	INDUCTOR 10uH	
L3202	1-456-680-11	INDUCTOR 10uH	
L3251	1-456-680-11	INDUCTOR 10uH	
L3252	1-456-680-11	INDUCTOR 10uH	
L3301	1-456-680-11	INDUCTOR 10uH	
L3302	1-456-680-11	INDUCTOR 10uH	
L3401	1-456-680-11	INDUCTOR 10uH	
L3402	1-456-680-11	INDUCTOR 10uH	
		< LINE FILTER >	
⚠LF901	1-457-054-21	COIL, LINE FILTER	
⚠LF902	1-457-054-21	COIL, LINE FILTER (EXCEPT MX)	
		< PHOTO COUPLER >	
⚠PC901	6-600-438-01	IC TLP421F (D4-GR)	
⚠PC902	6-600-438-01	IC TLP421F (D4-GR)	
⚠PC903	6-600-438-01	IC TLP421F (D4-GR)	

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q502	6-550-363-01	TRANSISTOR	2SB1690KT146		
Q503	1-801-806-11	TR DTC144EKA			
Q506	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
⚠Q901	8-729-141-88	TRANSISTOR	2SB1116A-TP-LK		
⚠Q921	8-729-142-51	TRANSISTOR	2SD1616A-TP-LK		
Q943	1-801-806-11	TR DTC144EKA			
Q945	6-550-718-01	TRANSISTOR	RSR025N03TL		
Q947	1-801-806-11	TR DTC144EKA			
Q1101	6-550-008-01	TRANSISTOR	UM6K1N-TN		
Q1102	6-550-653-01	TRANSISTOR	QST8TR		
Q1103	8-729-027-52	TRANSISTOR	DTC124EKA-T146		
Q3101	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3102	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3151	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3152	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3201	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3202	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3251	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3252	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3301	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3302	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3401	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3402	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3551	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
		< RESISTOR >			
R502	1-216-821-11	METAL CHIP	1K	5%	1/10W
R503	1-216-833-11	METAL CHIP	10K	5%	1/10W
R504	1-216-833-11	METAL CHIP	10K	5%	1/10W
R505	1-216-833-11	METAL CHIP	10K	5%	1/10W
R506	1-216-817-11	METAL CHIP	470	5%	1/10W
R507	1-216-841-11	METAL CHIP	47K	5%	1/10W
R509	1-216-821-11	METAL CHIP	1K	5%	1/10W
R510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R511	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (RU)
R511	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP)
R511	1-216-833-11	METAL CHIP	10K	5%	1/10W (MX, E32)
R511	1-216-841-11	METAL CHIP	47K	5%	1/10W (UK, E3, E12)
R511	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W (AR)
R512	1-216-821-11	METAL CHIP	1K	5%	1/10W (SP, TH)
R512	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (UK)
R512	1-216-833-11	METAL CHIP	10K	5%	1/10W (E3)
R512	1-216-841-11	METAL CHIP	47K	5%	1/10W (E32, MX, AR, RU)
R512	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W (E12)
R513	1-216-833-11	METAL CHIP	10K	5%	1/10W
R515	1-216-833-11	METAL CHIP	10K	5%	1/10W
R516	1-216-821-11	METAL CHIP	1K	5%	1/10W
R517	1-216-833-11	METAL CHIP	10K	5%	1/10W
R518	1-216-833-11	METAL CHIP	10K	5%	1/10W
R519	1-216-833-11	METAL CHIP	10K	5%	1/10W
R520	1-216-833-11	METAL CHIP	10K	5%	1/10W
R521	1-216-833-11	METAL CHIP	10K	5%	1/10W
R522	1-216-833-11	METAL CHIP	10K	5%	1/10W
R523	1-216-833-11	METAL CHIP	10K	5%	1/10W
R524	1-216-833-11	METAL CHIP	10K	5%	1/10W
R525	1-216-833-11	METAL CHIP	10K	5%	1/10W
R526	1-216-857-11	METAL CHIP	1M	5%	1/10W
R527	1-216-809-11	METAL CHIP	100	5%	1/10W
R528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R529	1-216-809-11	METAL CHIP	100	5%	1/10W
R530	1-216-833-11	METAL CHIP	10K	5%	1/10W
R531	1-216-809-11	METAL CHIP	100	5%	1/10W
R532	1-216-833-11	METAL CHIP	10K	5%	1/10W
R533	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R536	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R551	1-216-821-11	METAL CHIP	1K	5%	1/10W
R552	1-216-809-11	METAL CHIP	100	5%	1/10W
R553	1-216-809-11	METAL CHIP	100	5%	1/10W
R554	1-216-809-11	METAL CHIP	100	5%	1/10W
R563	1-216-809-11	METAL CHIP	100	5%	1/10W
R564	1-216-809-11	METAL CHIP	100	5%	1/10W
R565	1-216-809-11	METAL CHIP	100	5%	1/10W
R571	1-216-833-11	METAL CHIP	10K	5%	1/10W
R572	1-216-841-11	METAL CHIP	47K	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W
R574	1-216-841-11	METAL CHIP	47K	5%	1/10W
R575	1-216-841-11	METAL CHIP	47K	5%	1/10W
R586	1-216-809-11	METAL CHIP	100	5%	1/10W
R587	1-216-809-11	METAL CHIP	100	5%	1/10W
R588	1-216-809-11	METAL CHIP	100	5%	1/10W
R590	1-216-809-11	METAL CHIP	100	5%	1/10W
R591	1-216-809-11	METAL CHIP	100	5%	1/10W
R594	1-216-809-11	METAL CHIP	100	5%	1/10W
R595	1-216-809-11	METAL CHIP	100	5%	1/10W
R596	1-216-817-11	METAL CHIP	470	5%	1/10W
R597	1-216-809-11	METAL CHIP	100	5%	1/10W
⚠R901	1-219-759-11	METAL	1M	5%	1/2W
⚠R903	1-215-926-00	METAL OXIDE	33K	5%	3W (MX)
⚠R903	1-215-929-11	METAL OXIDE	100K	5%	3W (EXCEPT MX)
⚠R904	1-215-926-00	METAL OXIDE	33K	5%	3W (MX)
⚠R904	1-215-929-11	METAL OXIDE	100K	5%	3W (EXCEPT MX)
⚠R905	1-216-797-11	METAL CHIP	10	5%	1/10W
⚠R906	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
⚠R907	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠R908	1-260-105-11	CARBON	3.3K	5%	1/2W
⚠R909	1-216-845-11	METAL CHIP	100K	5%	1/10W
⚠R910	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
⚠R911	1-216-813-11	METAL CHIP	220	5%	1/10W
⚠R912	1-216-361-61	METAL OXIDE	0.22	5%	2W (MX)
⚠R912	1-216-363-00	METAL OXIDE	0.33	5%	2W (EXCEPT MX)
⚠R913	1-216-361-61	METAL OXIDE	0.22	5%	2W (MX)
⚠R914	1-220-891-11	METAL	0.1	10%	5W (EXCEPT MX)
⚠R914	1-243-669-11	METAL	0.05	5%	5W (MX)

HCD-DZ20

MAIN

Ref. No.	Part No.	Description			Remark
⚠R919	1-216-836-11	METAL CHIP	18K	5%	1/10W
⚠R922	1-216-793-11	METAL CHIP	4.7	5%	1/10W
⚠R923	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
⚠R925	1-216-797-11	METAL CHIP	10	5%	1/10W
⚠R926	1-216-855-11	METAL CHIP	680K	5%	1/10W
⚠R927	1-216-348-00	METAL OXIDE	0.82	5%	1W (MX)
⚠R927	1-216-349-00	METAL OXIDE	1	5%	1W (EXCEPT MX)
R929	1-246-106-11	METAL OXIDE	2.2	5%	1/2W
R931	1-218-863-11	METAL CHIP	4.7K	0.5%	1/10W
R932	1-218-879-11	METAL CHIP	22K	0.5%	1/10W
R933	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R934	1-216-821-11	METAL CHIP	1K	5%	1/10W
R935	1-216-821-11	METAL CHIP	1K	5%	1/10W
R936	1-216-853-11	METAL CHIP	470K	5%	1/10W
R937	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R938	1-216-821-11	METAL CHIP	1K	5%	1/10W
R939	1-218-859-11	METAL CHIP	3.3K	0.5%	1/10W
R940	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R941	1-216-864-11	SHORT CHIP	0		
R943	1-216-864-11	SHORT CHIP	0		
R946	1-218-725-11	METAL CHIP	24K	0.5%	1/10W
R948	1-216-833-11	METAL CHIP	10K	5%	1/10W
R949	1-216-821-11	METAL CHIP	1K	5%	1/10W
R951	1-218-831-11	METAL CHIP	220	0.5%	1/10W
R952	1-218-855-11	METAL CHIP	2.2K	0.5%	1/10W
R953	1-218-861-11	METAL CHIP	3.9K	0.5%	1/10W
R954	1-216-837-11	METAL CHIP	22K	5%	1/10W
R955	1-216-817-11	METAL CHIP	470	5%	1/10W
R956	1-216-821-11	METAL CHIP	1K	5%	1/10W
R958	1-216-821-11	METAL CHIP	1K	5%	1/10W
R965	1-216-864-11	SHORT CHIP	0		
R966	1-216-821-11	METAL CHIP	1K	5%	1/10W
R967	1-216-821-11	METAL CHIP	1K	5%	1/10W
R968	1-216-821-11	METAL CHIP	1K	5%	1/10W
⚠R969	1-216-821-11	METAL CHIP	1K	5%	1/10W
R970	1-216-864-11	SHORT CHIP	0		
R974	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R1101	1-216-809-11	METAL CHIP	100	5%	1/10W
R1102	1-216-295-91	SHORT CHIP	0		
R1103	1-216-809-11	METAL CHIP	100	5%	1/10W
R1105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1107	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1108	1-216-857-11	METAL CHIP	1M	5%	1/10W
R1109	1-216-864-11	SHORT CHIP	0		
R1110	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1111	1-216-809-11	METAL CHIP	100	5%	1/10W
R1112	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R1113	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R1114	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1115	1-211-977-11	METAL CHIP	22	0.5%	1/10W
R1116	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1117	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1118	1-216-801-11	METAL CHIP	22	5%	1/10W
R1120	1-216-801-11	METAL CHIP	22	5%	1/10W
R1121	1-216-801-11	METAL CHIP	22	5%	1/10W
R1123	1-216-864-11	SHORT CHIP	0		
R1124	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1126	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1132	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1136	1-216-835-11	METAL CHIP	15K	5%	1/10W
R1141	1-218-916-11	METAL CHIP	750K	0.5%	1/10W
R1142	1-216-845-11	METAL CHIP	100K	5%	1/10W
R1145	1-216-864-11	SHORT CHIP	0		
R1147	1-216-864-11	SHORT CHIP	0		
R1148	1-216-864-11	SHORT CHIP	0		
R1151	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1152	1-216-864-11	SHORT CHIP	0		
R1153	1-216-864-11	SHORT CHIP	0		
R1154	1-216-809-11	METAL CHIP	100	5%	1/10W
R1155	1-216-809-11	METAL CHIP	100	5%	1/10W
R1156	1-216-809-11	METAL CHIP	100	5%	1/10W
R1160	1-216-864-11	SHORT CHIP	0		
R1161	1-216-809-11	METAL CHIP	100	5%	1/10W
R1164	1-216-864-11	SHORT CHIP	0		
R1168	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1171	1-216-864-11	SHORT CHIP	0		
R1180	1-216-805-11	METAL CHIP	47	5%	1/10W
R1181	1-216-805-11	METAL CHIP	47	5%	1/10W
R1182	1-216-809-11	METAL CHIP	100	5%	1/10W
R1183	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1184	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1191	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1193	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1204	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R1205	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1206	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1207	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R1208	1-216-839-11	METAL CHIP	33K	5%	1/10W
R1209	1-216-839-11	METAL CHIP	33K	5%	1/10W
R1210	1-216-841-11	METAL CHIP	47K	5%	1/10W
R1212	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1213	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R1214	1-216-835-11	METAL CHIP	15K	5%	1/10W
R1215	1-216-834-11	METAL CHIP	12K	5%	1/10W
R1216	1-216-834-11	METAL CHIP	12K	5%	1/10W
R1219	1-216-838-11	METAL CHIP	27K	5%	1/10W
R1220	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1221	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R1222	1-216-839-11	METAL CHIP	33K	5%	1/10W
R1223	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R1224	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1225	1-218-895-11	METAL CHIP	100K	0.5%	1/10W
R1226	1-218-889-11	METAL CHIP	56K	0.5%	1/10W
R1227	1-216-864-11	SHORT CHIP	0		
R1228	1-216-864-11	SHORT CHIP	0		
R1230	1-218-893-11	METAL CHIP	82K	0.5%	1/10W
R1231	1-218-875-11	METAL CHIP	15K	0.5%	1/10W
R1232	1-218-877-11	METAL CHIP	18K	0.5%	1/10W
R1233	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R1234	1-216-833-11	METAL CHIP	10K	5%	1/10W
R1236	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1237	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R1238	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1239	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1243	1-216-809-11	METAL CHIP	100	5%	1/10W
R1246	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R1247	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2101	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R2103	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2104	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2109	1-216-864-11	SHORT CHIP	0		
R2110	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R2111	1-216-821-11	METAL CHIP	1K	5%	1/10W (AEP, UK)
R2114	1-216-809-11	METAL CHIP	100	5%	1/10W
R2115	1-216-809-11	METAL CHIP	100	5%	1/10W
R2126	1-216-833-11	METAL CHIP	10K	5%	1/10W
R2129	1-216-845-11	METAL CHIP	100K	5%	1/10W
R2149	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2150	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R2151	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R2152	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R2161	1-216-864-11	SHORT CHIP	0		
R2168	1-216-819-11	METAL CHIP	680	5%	1/10W
R2176	1-216-864-11	SHORT CHIP	0		
R2202	1-216-809-11	METAL CHIP	100	5%	1/10W
R2203	1-216-809-11	METAL CHIP	100	5%	1/10W
R2211	1-216-809-11	METAL CHIP	100	5%	1/10W
R2212	1-216-809-11	METAL CHIP	100	5%	1/10W
R2213	1-216-809-11	METAL CHIP	100	5%	1/10W
R2214	1-216-809-11	METAL CHIP	100	5%	1/10W
R2546	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R2547	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2548	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2549	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2550	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2553	1-216-864-11	SHORT CHIP	0		
R2554	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R2555	1-216-833-11	METAL CHIP	10K	5%	1/10W (AEP, UK)
R3011	1-216-817-11	METAL CHIP	470	5%	1/10W
R3012	1-216-817-11	METAL CHIP	470	5%	1/10W
R3013	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3014	1-216-809-11	METAL CHIP	100	5%	1/10W
R3015	1-216-809-11	METAL CHIP	100	5%	1/10W
R3017	1-216-809-11	METAL CHIP	100	5%	1/10W
R3021	1-216-817-11	METAL CHIP	470	5%	1/10W
R3022	1-216-817-11	METAL CHIP	470	5%	1/10W
R3023	1-216-809-11	METAL CHIP	100	5%	1/10W
R3024	1-216-809-11	METAL CHIP	100	5%	1/10W
R3026	1-216-809-11	METAL CHIP	100	5%	1/10W
R3031	1-216-817-11	METAL CHIP	470	5%	1/10W
R3032	1-216-817-11	METAL CHIP	470	5%	1/10W
R3033	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3034	1-216-809-11	METAL CHIP	100	5%	1/10W
R3035	1-216-809-11	METAL CHIP	100	5%	1/10W
R3037	1-216-809-11	METAL CHIP	100	5%	1/10W
R3050	1-216-841-11	METAL CHIP	47K	5%	1/10W
R3052	1-216-857-11	METAL CHIP	1M	5%	1/10W
R3053	1-216-809-11	METAL CHIP	100	5%	1/10W
R3054	1-216-801-11	METAL CHIP	22	5%	1/10W
R3055	1-216-809-11	METAL CHIP	100	5%	1/10W
R3057	1-216-809-11	METAL CHIP	100	5%	1/10W
R3059	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3060	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3062	1-216-809-11	METAL CHIP	100	5%	1/10W
R3063	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3064	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3065	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3066	1-216-809-11	METAL CHIP	100	5%	1/10W
R3067	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3068	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3069	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3070	1-216-809-11	METAL CHIP	100	5%	1/10W
R3071	1-216-809-11	METAL CHIP	100	5%	1/10W
R3072	1-216-809-11	METAL CHIP	100	5%	1/10W
R3073	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3075	1-216-809-11	METAL CHIP	100	5%	1/10W
R3076	1-216-809-11	METAL CHIP	100	5%	1/10W
R3077	1-216-809-11	METAL CHIP	100	5%	1/10W
R3078	1-216-809-11	METAL CHIP	100	5%	1/10W
R3079	1-216-809-11	METAL CHIP	100	5%	1/10W
R3081	1-216-864-11	SHORT CHIP	0		
R3082	1-216-864-11	SHORT CHIP	0		
R3083	1-216-864-11	SHORT CHIP	0		
R3093	1-216-864-11	SHORT CHIP	0		
R3094	1-216-864-11	SHORT CHIP	0		
R3095	1-216-864-11	SHORT CHIP	0		
R3097	1-216-809-11	METAL CHIP	100	5%	1/10W
R3101	1-216-809-11	METAL CHIP	100	5%	1/10W
R3102	1-216-809-11	METAL CHIP	100	5%	1/10W
R3104	1-216-864-11	SHORT CHIP	0		
R3107	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3109	1-216-864-11	SHORT CHIP	0		
R3111	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3112	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3121	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3122	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3123	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3124	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3125	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3126	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3127	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3151	1-216-809-11	METAL CHIP	100	5%	1/10W
R3152	1-216-809-11	METAL CHIP	100	5%	1/10W
R3154	1-216-864-11	SHORT CHIP	0		
R3157	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3159	1-216-864-11	SHORT CHIP	0		
R3161	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3162	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3171	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3172	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3173	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3174	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3175	1-216-845-11	METAL CHIP	100K	5%	1/10W

HCD-DZ20

MAIN **MS-203** **P-SW**

Ref. No.	Part No.	Description			Remark
R3176	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3177	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3201	1-216-809-11	METAL CHIP	100	5%	1/10W
R3202	1-216-809-11	METAL CHIP	100	5%	1/10W
R3204	1-216-864-11	SHORT CHIP	0		
R3207	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3209	1-216-864-11	SHORT CHIP	0		
R3211	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3212	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3221	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3222	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3223	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3224	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3225	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3226	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3227	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3251	1-216-809-11	METAL CHIP	100	5%	1/10W
R3252	1-216-809-11	METAL CHIP	100	5%	1/10W
R3254	1-216-864-11	SHORT CHIP	0		
R3257	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3259	1-216-864-11	SHORT CHIP	0		
R3261	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3262	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3271	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3272	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3273	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3274	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3275	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3276	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3277	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3301	1-216-809-11	METAL CHIP	100	5%	1/10W
R3302	1-216-809-11	METAL CHIP	100	5%	1/10W
R3304	1-216-864-11	SHORT CHIP	0		
R3307	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3309	1-216-864-11	SHORT CHIP	0		
R3311	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3312	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3321	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3322	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3323	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3324	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3325	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3326	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3327	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3401	1-216-809-11	METAL CHIP	100	5%	1/10W
R3402	1-216-809-11	METAL CHIP	100	5%	1/10W
R3404	1-216-864-11	SHORT CHIP	0		
R3407	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3409	1-216-864-11	SHORT CHIP	0		
R3411	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3412	1-220-942-11	METAL CHIP	3.3	1%	1/4W
R3421	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3422	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3423	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3424	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3425	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3426	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3427	1-216-845-11	METAL CHIP	100K	5%	1/10W
R3554	1-216-845-11	METAL CHIP	100K	5%	1/10W
		< NETWORK RESISTOR >			
RB501	1-233-576-11	RES, CHIP NETWORK	100 (3216)		
RB1103	1-234-372-11	RES, NETWORK	100 (1005X4)		
RB1104	1-234-372-11	RES, NETWORK	100 (1005X4)		
RB1105	1-234-372-11	RES, NETWORK	100 (1005X4)		
RB1106	1-234-372-11	RES, NETWORK	100 (1005X4)		
RB1107	1-234-372-11	RES, NETWORK	100 (1005X4)		
RB1108	1-234-372-11	RES, NETWORK	100 (1005X4)		
RB1111	1-234-372-11	RES, NETWORK	100 (1005X4)		
RB1112	1-234-371-21	RES, NETWORK	47 (1005X4)		
RB1113	1-234-371-21	RES, NETWORK	47 (1005X4)		
RB1114	1-234-372-11	RES, NETWORK	100 (1005X4)		
RB1115	1-234-372-11	RES, NETWORK	100 (1005X4)		
		< TRANSFORMER >			
⚠T901	1-443-649-11	TRANSFORMER, CONVERTER (MX)			
⚠T901	1-443-874-11	TRANSFORMER, CONVERTER (EXCEPT MX)			
⚠T902	1-443-650-11	TRANSFORMER, CONVERTER			
		< TERMINAL >			
TB3001	1-780-202-11	TERMINAL BOARD (SP) (4P) (SPEAKER/SUR R, SUR L, FRONT L, FRONT R)			
TB3002	1-780-203-11	TERMINAL BOARD (SP) (2P) (SPEAKER/WOOFER, CENTER)			
		< THERMISTOR >			
⚠TH901	1-805-841-21	THERMISTOR, NTC 3.0 (MX, E32)			
⚠TH901	1-805-842-21	THERMISTOR, NTC 6.0 (EXCEPT MX, E32)			
		< VARISTOR >			
⚠VDR901	1-805-482-11	VARISTOR			
		< VIBRATOR >			
X502	1-795-058-21	VIBRATOR, CERAMIC (5MHz)			
X1102	1-813-539-11	QUARTZ CRYSTAL UNIT (27MHz)			
X3051	1-795-660-21	QUARTZ CRYSTAL UNIT (49.1MHz)			
**********					
		MS-203 BOARD			
		**********			
		< CONNECTOR >			
CN001	1-815-412-11	CONNECTOR, FFC/FPC 5P			
		< SWITCH >			
S001	1-786-693-11	SWITCH, DETECTION (CHUCK / TRAY DETECT)			
**********					
		P-SW BOARD			
		**********			
		< CAPACITOR >			
C851	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S801	1-762-875-21	SWITCH, KEYBOARD (I/⏻)	
**********			
		MISCELLANEOUS	
		**********	
4	1-828-286-51	WIRE (FLAT TYPE) (5 CORE)	
5	1-828-350-51	WIRE (FLAT TYPE)(17 CORE) (AEP, UK)	
5	1-828-340-51	WIRE (FLAT TYPE)(15 CORE) (EXCEPT AEP, UK)	
7	1-828-333-51	WIRE (FLAT TYPE)(13 CORE)	
⚠11	1-751-520-31	CORD, POWER (UK)	
⚠11	1-777-071-83	CORD, POWER (AEP, E32, E3, E12, RU, SP)	
⚠11	1-827-226-31	CORD, POWER (MX)	
⚠11	1-829-387-11	CORD, POWER (AR)	
⚠11	1-834-288-11	CORD, POWER (TH)	
14	1-693-724-11	TUNER (FM/AM) (AEP, UK)	
14	1-693-725-11	TUNER (FM/AM) (RU)	
14	1-693-726-11	TUNER (FM/AM) (EXCEPT AEP, UK, RU, TH)	
14	1-693-727-11	TUNER (FM/AM) (TH)	
15	1-828-954-51	WIRE (FLAT TYPE)(9 CORE) (EXCEPT AEP, UK)	
15	1-828-964-51	WIRE (FLAT TYPE)(11 CORE) (AEP, UK)	
58	1-828-341-51	WIRE (FLAT TYPE)(15 CORE)	
⚠507	8-820-321-05	OPTICAL PICK UP ASSY (KHM-313CAA/C2RP)	
508	1-828-771-51	WIRE (FLAT TYPE)(24 CORE)	
⚠F901	1-533-311-12	FUSE, GLASS CYLINDRICAL (DIA.5)(8A/125V)	(MX)
⚠F901	1-576-233-51	FUSE (H.B.C.) (T6.3AH/250V)	(EXCEPT MX, E32)
⚠F901	1-576-300-51	FUSE, H.B.C. (T8AH/250V) (E32)	

REVISION HISTORY

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Also, clicking the version at the top of the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2007.02	New
1.1	2007.04	Addition of E3 (220 – 240 V AC area in E model), E12 (220 – 240 V AC area in E model), Singapore model and Russian model
1.2	2007.06	Addition of Thai model