

HCD-AZ1D

SERVICE MANUAL

E Model

Ver. 1.0 2006.05



HCD-AZ1D is the Amplifier, DVD player, Tape Deck and Tuner section in DHC-AZ1D.

This system incorporates Dolby¹⁾ Digital and DTS²⁾ Digital Surround System.

¹⁾ Manufactured under license from Dolby Laboratories. “Dolby” and the double-D symbol are trademarks of Dolby Laboratories.

²⁾ Manufactured under license from Digital Theater Systems, Inc. “DTS” and “DTS 2.0 + Digital Out” are trademarks of Digital Theater Systems, Inc.

DVD Section	Model Name Using Similar Mechanism	NEW
	DVD Mechanism Type	WXD
	Optical Pick-up Name	DM3451-A (SF-HD65F)
TAPE Section	Model Name Using Similar Mechanism	HCD-DV2D
	Tape Transport Mechanism Type	CMAL5Z220C

SPECIFICATIONS

Amplifier section

The following measured at AC 120 V, 240 V, 50/60 Hz
DIN power output (rated): 40 + 40 watts
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):
50 + 50 watts
(6 ohms at 1 kHz, 10% THD)

Inputs

TV IN (phono jacks): voltage 1 V, impedance 47 kilohms

AUDIO IN (stereo mini jack):
voltage 1 V, impedance 47 kilohms

MIC (phone jack): sensitivity 1 mV, impedance 10 kilohms

Outputs

VIDEO OUT (phono jack): max. output level 1 Vp-p, unbalanced, Sync negative, load impedance 75 ohms

COMPONENT VIDEO OUT:

Y: 1 Vp-p, 75 ohms
PB, PR: 0.7 Vp-p, 75 ohms

DIGITAL OUT (OPTICAL) (Square optical connector jack, rear panel)

Wavelength 660 nm
PHONES (stereo mini jack):
accepts headphones of 8 ohms or more
SPEAKER:
accepts impedance of 6 ohms

Disc player section

System Compact disc and digital audio and video system
Laser Semiconductor laser (DVD: $\lambda=650$ nm, CD: $\lambda=790$ nm)
Emission duration: continuous
Frequency response DVD (PCM 48 kHz): 2 Hz – 22 kHz (± 1 dB)
CD: 2 Hz – 20 kHz (± 1 dB)
Video color system format NTSC, PAL

Tape deck section

Recording system 4-track 2-channel stereo
Frequency response 40 – 13,000 Hz, using Sony TYPE I cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section
Tuning range 87.5 – 108.0 MHz (50 kHz step)
Antenna FM lead antenna
Antenna terminals 75 ohms unbalanced
Intermediate frequency 10.7 MHz
AM tuner section
Tuning range 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna AM loop antenna
Antenna terminals External antenna terminal
Intermediate frequency 450 kHz

— Continued on next page —

DVD DECK RECEIVER

General

Power requirements	110 – 120 V, 220 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	120 watts
Dimensions (w/h/d) (excl. speakers)	Approx. 190 × 300 × 335 mm
Mass (excl. speakers)	Approx. 6.1 kg

Design and specifications are subject to change without notice.

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. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

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 viscous (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.

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.

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SECTION 1 SERVICING NOTES

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.

DISC TRAY LOCK

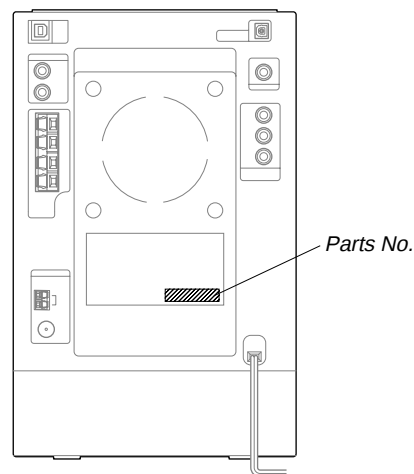
The disc tray lock function for the antitheft of a demonstration disc in the store is equipped.

Procedure :

1. Press the  button to turn the set ON.
2. Press the  button to select "DVD"
3. Set disc on the tray, press the  button and the  button simultaneously for five seconds.
4. The message "LOCKED" is displayed the tray is locked.
5. To release from this mode, press the  button and the  button simultaneously for five seconds again.
6. The message "UNLOCKED" is displayed and the tray is unlocked.

Note: When "LOCKED" is displayed, the slot lock is not released by turning power on/off with the  button.

MODEL IDENTIFICATION – Rear Panel –

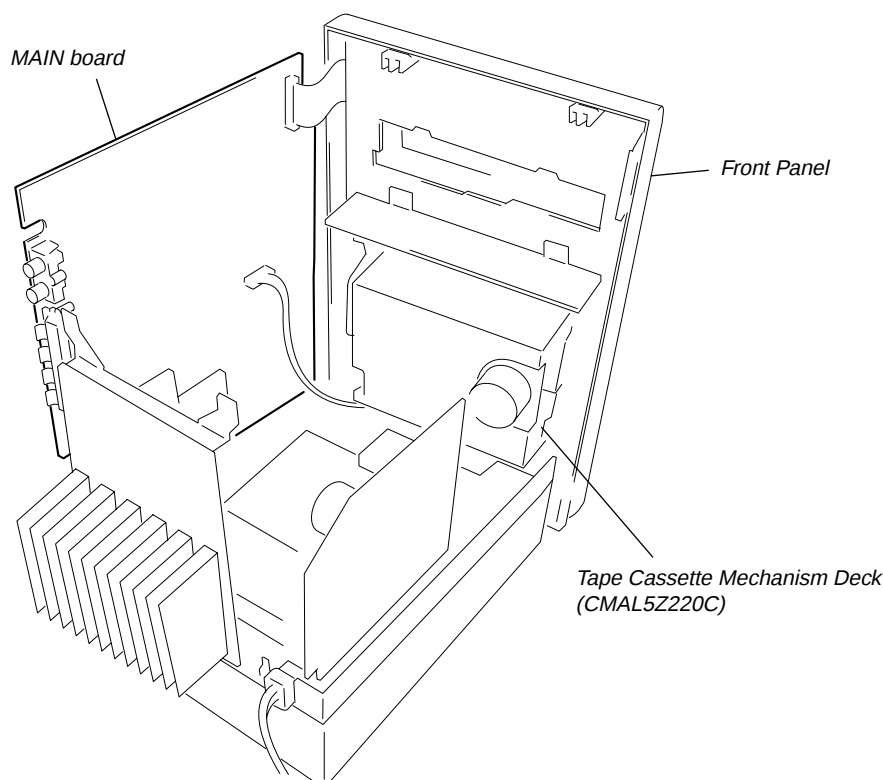


Model	Part No.
E3 model	2-672-998-0□
SP model	2-673-001-0□

• Abbreviation

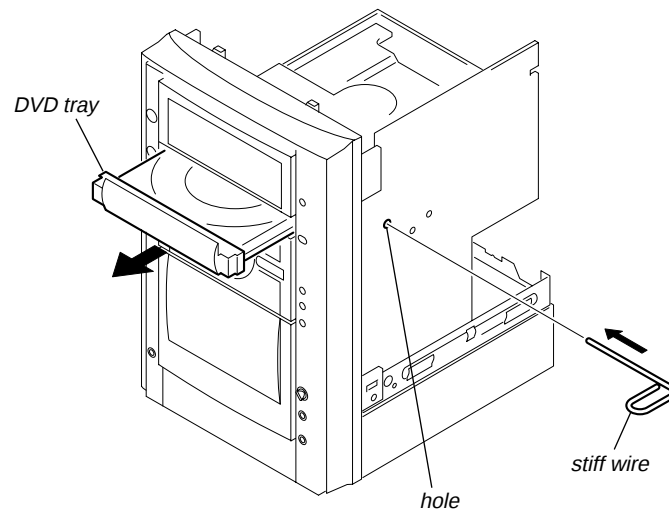
- E3 : 240 V AC Area in E model.
- SP : Singapore model.

• SERVICE POSITION OF THE TAPE CASSETTE MECHANISM DECK

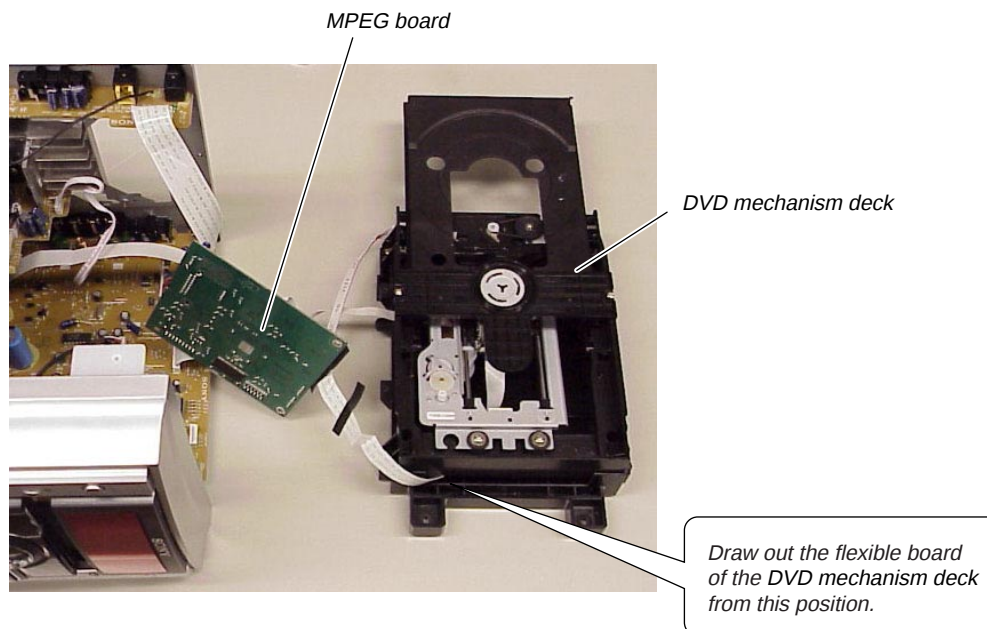


- **HOW TO OPEN THE DVD TRAY MANUALLY**

Insert the stiff wire in the hole. The lock is released and the DVD tray opens.



- **SERVICE POSITION OF THE DVD MECHANISM DECK**

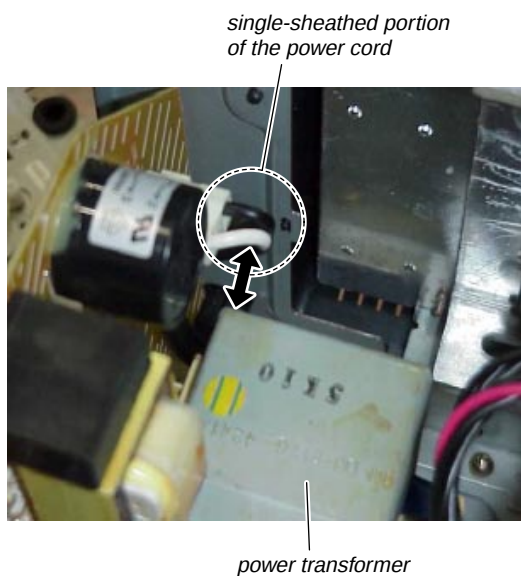


- **CAUTION ON HANDLING POWER CORD (SAFETY STANDARD)**

When you remove or replace the power cord,

(1) Fix the power cord to the POWER board with a binding strap as before.

(2) Check that the single-sheathed portion of the power cord does not contact the transformer even when the single-sheathed portion is pushed toward the transformer with a 200-g force.



SECTION 2 GENERAL

This section is extracted from instruction manual.

List of button locations and reference pages

How to use this page

Use this page to find the location of buttons and other parts of the system that are mentioned in the text.

Illustration number	
TUNER/BAND	11 (27, 28, 31)
Name of button/part	Reference page

Main unit

ALPHABETICAL ORDER

A – O

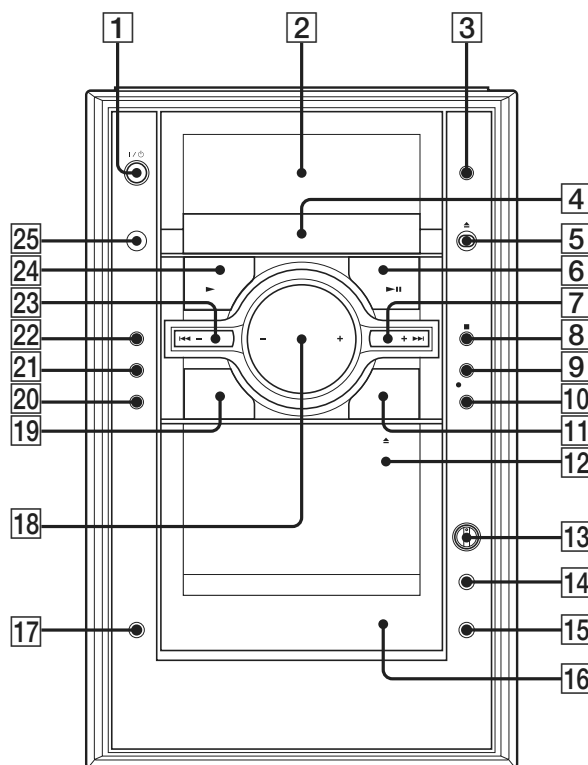
AUDIO IN jack **15** (31, 42, 43)
Cassette compartment **16** (30)
CD SYNC **9** (30)
Disc tray **4** (13)
DISPLAY **3** (36, 37, 38)
Display window **2**
MIC jack **14** (32)
MIC LEVEL **13** (32)

P – Z

PC/TV/AUDIO IN **19** (31, 40, 43)
PHONES jack **17**
PLAY MODE **22** (14, 18, 49)
PRESET EQ **21** (32)
PROGRESSIVE **20** (23)
Remote sensor **25**
TUNER/BAND **11** (27, 28, 31)
TUNING + **7** (27, 29)
TUNING – **23** (27, 29)
VOLUME +/- **18** (14, 29, 30, 40, 43)

BUTTON DESCRIPTIONS

I/⏻ (on/standby) **1** (10, 40, 49)
⏮ (open/close) **5** (13)
DVD ▶⏮ (play/pause) **6** (13, 31, 44, 49)
▶▶ (go forward) **7** (14, 31)
■ (stop) **8** (11, 14, 23, 28, 30, 33, 44, 49)
● REC PAUSE/START (record) **10** (30, 33)
⏭ PUSH OPEN/CLOSE (eject) **12** (30)
◀◀ (go back) **23** (14, 31)
TAPE ▶ (play) **24** (30)



Remote control

ALPHABETICAL ORDER

A – O

ANGLE **[5]** (21)
 AUDIO **[4]** (20, 32)
 CLEAR **[34]** (18, 19, 24)
 CLOCK/TIMER SELECT **[20]**
 (35, 36)
 CLOCK/TIMER SET **[20]** (12, 34,
 35)
 DIMMER **[37]** (36)
 DISPLAY **[17]** (36, 37, 38)
 DVD **[36]** (11, 12, 13, 16, 18, 23,
 25, 30, 44)
 ENTER **[12]** **[25]** (12, 15, 16, 18, 19,
 21, 22, 24, 27, 34, 35, 43, 49)
 FM MODE **[35]** (29)
 FUNCTION +/- **[2]** (11, 12, 13,
 16, 18, 23, 25, 30, 44)
 MENU **[6]** (15, 16)
 MUTING **[26]** (14, 29, 30)
 Number buttons* **[14]** (15, 16, 18,
 19, 24, 41)

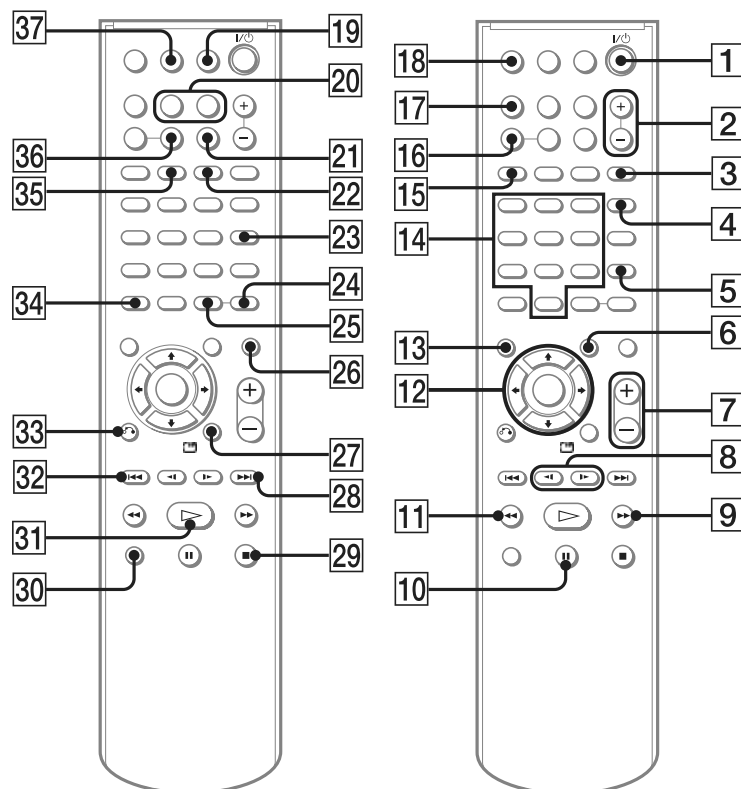
P – Z

PLAY MODE **[15]** (14, 18)
 PRESET + **[28]** (27, 28)
 PRESET – **[32]** (27, 28)
 PRESET EQ **[24]** (32)
 REPEAT **[35]** (17)
 SEARCH **[3]** (19)
 SLEEP **[18]** (34)
 SUBTITLE **[23]** (21)
 TAPE **[16]** (30)
 THEATRE SYNC **[19]** (41)
 TOP MENU **[13]** (15)
 TUNER/BAND **[21]** (27, 28)
 TUNER MEMORY **[22]** (27)
 TUNING + **[9]** (27, 29)
 TUNING – **[11]** (27, 29)
 TV **[30]** (40)
 TV CH + **[28]** (40, 41)
 TV CH – **[32]** (40)
 TV/VIDEO **[18]** (40, 41)
 TV VOL +/-* **[7]** (40)
 VOLUME +/-* **[7]** (14, 29, 30,
 34)

BUTTON DESCRIPTIONS

I/⏻ (on/standby) **[1]** (10, 34, 49)
 TV I/⏻ **[1]** (40)
 ◀◀ SLOW/SLOW ▶▶ **[8]** (14)
 ▶▶ (fast forward) **[9]** (14, 30)
 ⏸ (pause) **[10]** (14)
 ◀◀ (rewind) **[11]** (14, 30)
 ⏮/⏭/⏪/⏩ **[12]** (12, 14, 21, 43,
 49)
 ☐ DISPLAY **[27]** (12, 21, 43, 49)
 ▶▶ (forward) **[28]** (12, 14, 31, 34)
 ■ (stop) **[29]** (11, 14, 23, 30, 44)
 ▷ (play)* **[31]** (13, 30, 44)
 ◀◀ (go back) **[32]** (12, 14, 31, 34)
 ↺ RETURN **[33]** (16)
 -/-- **[34]**

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



Setting the clock

Use buttons on the remote for the operation.

- 1** Press I/⏻ to turn on the system.
- 2** Press CLOCK/TIMER SET.
- 3** Press I◀◀ or ▶▶I repeatedly to set the hour.
- 4** Press ENTER.
- 5** Press I◀◀ or ▶▶I repeatedly to set the minute.
- 6** Press ENTER.

The clock starts working.

To adjust the clock

- 1** Press CLOCK/TIMER SET.
- 2** Press I◀◀ or ▶▶I to select "CLOCK SET," then press ENTER.
- 3** Do the same procedures as step 3 to 6 above.

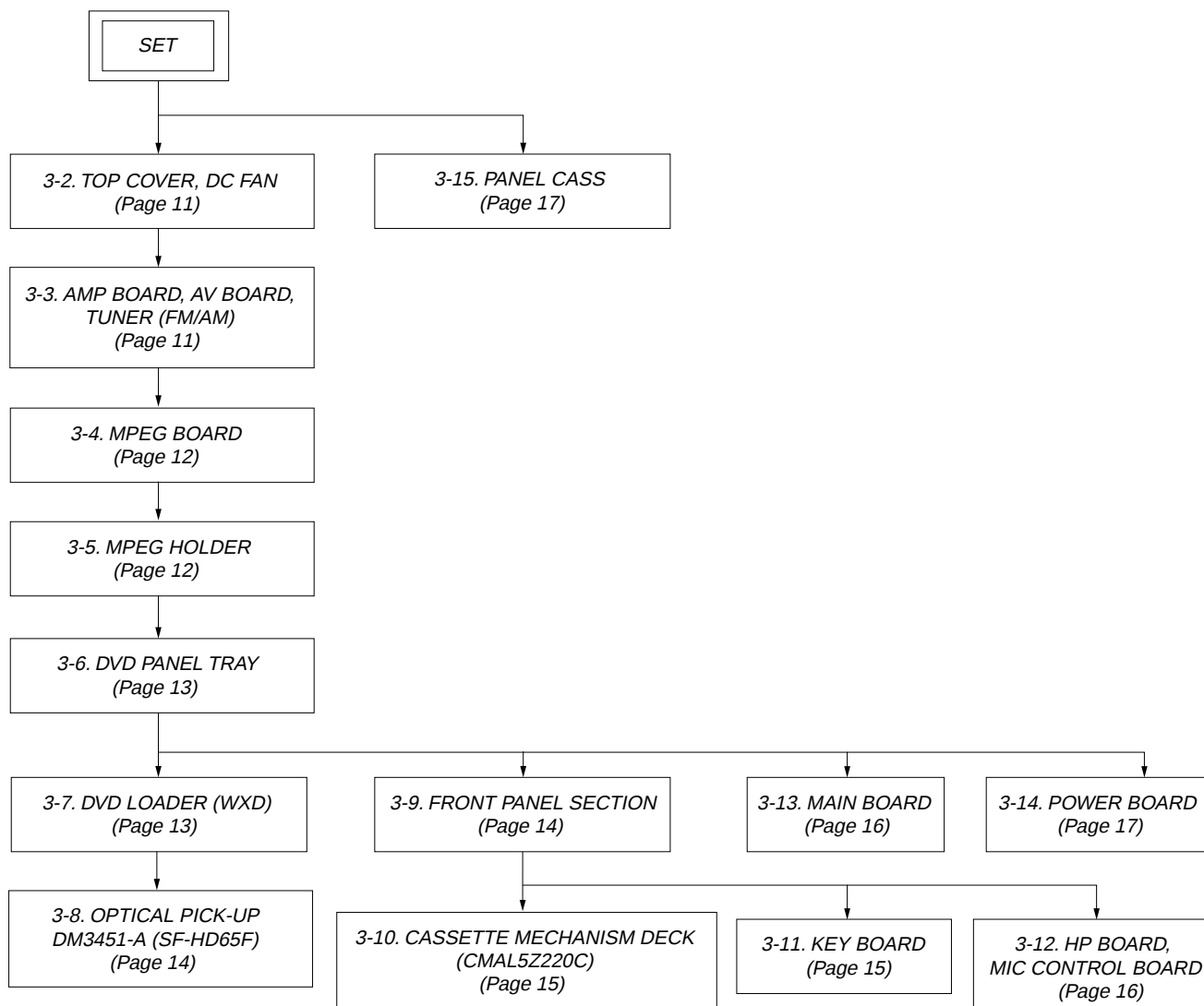
Notes

- The clock settings are canceled when you disconnect the power cord or if a power failure occurs.
- You cannot set the clock in Power Saving Mode (page 36).

SECTION 3 DISASSEMBLY

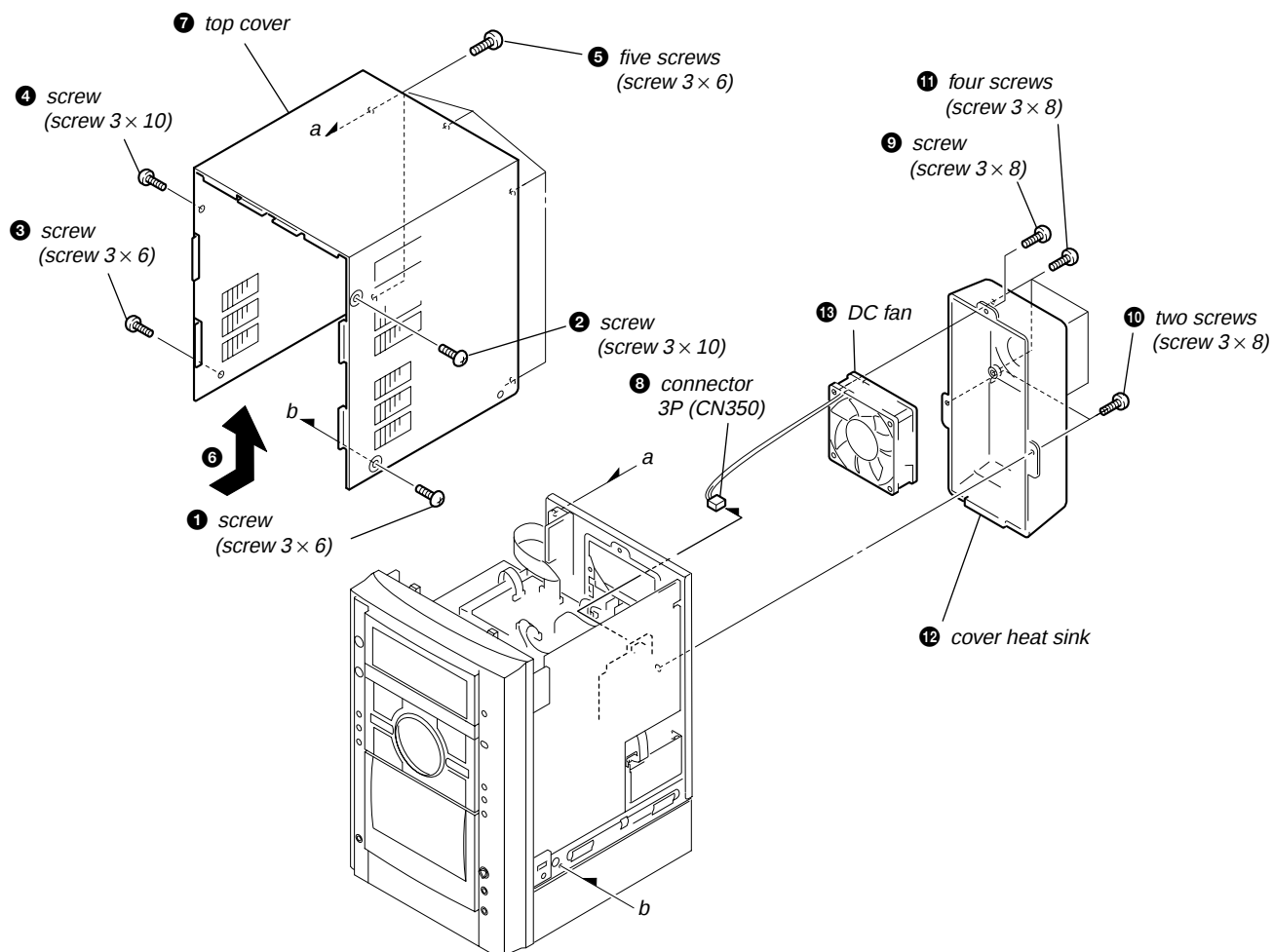
3-1. DISASSEMBLY FLOW

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

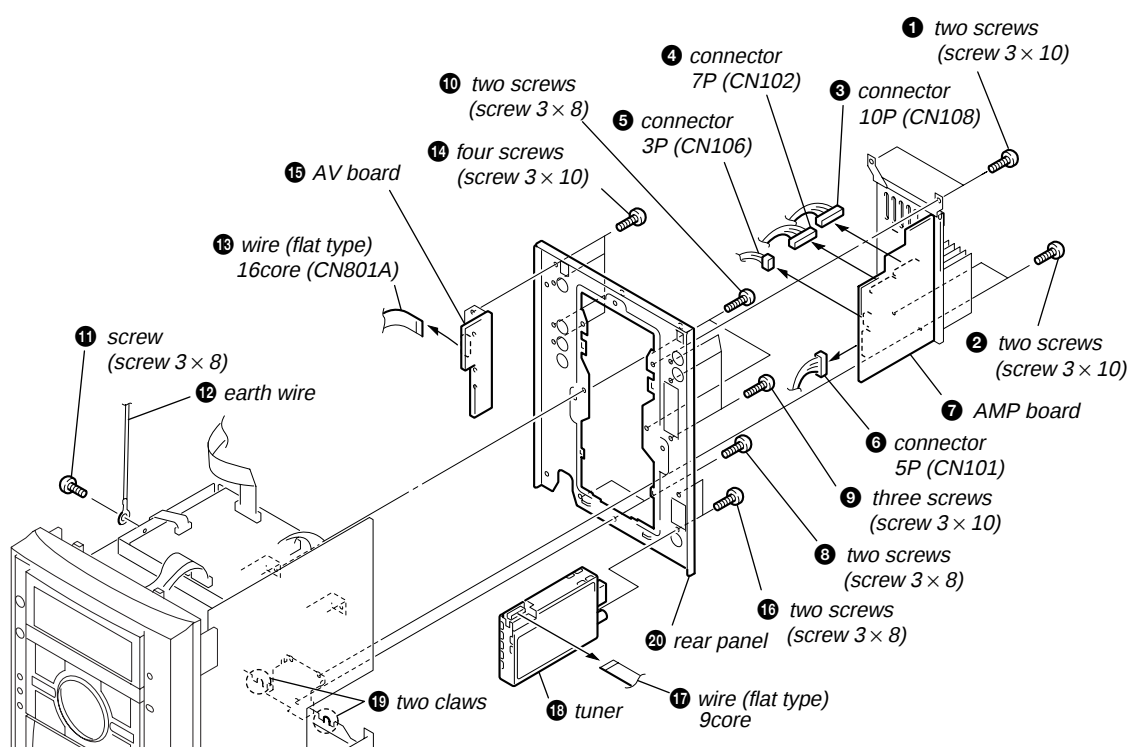


Note: Follow the disassembly procedure in the numerical order given.

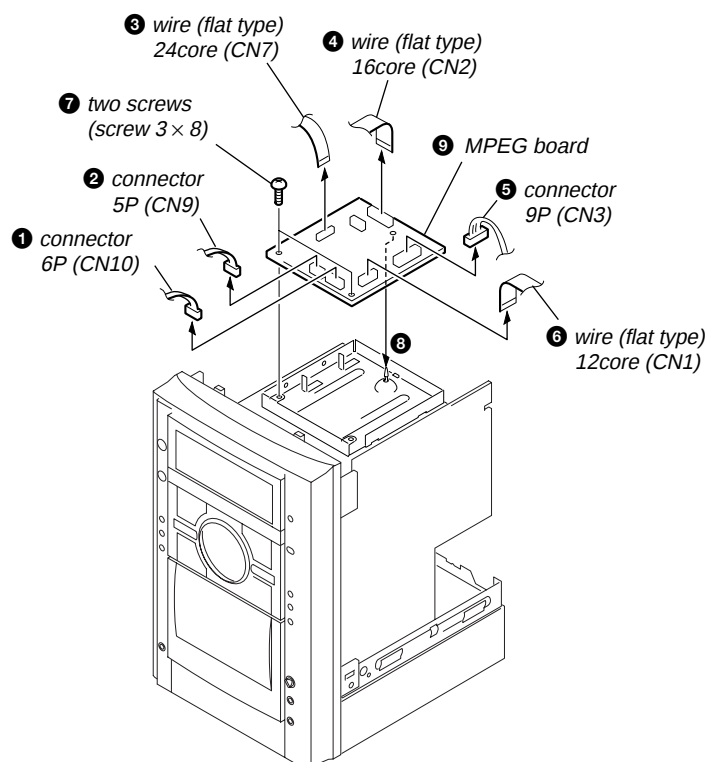
3-2. TOP COVER, DC FAN



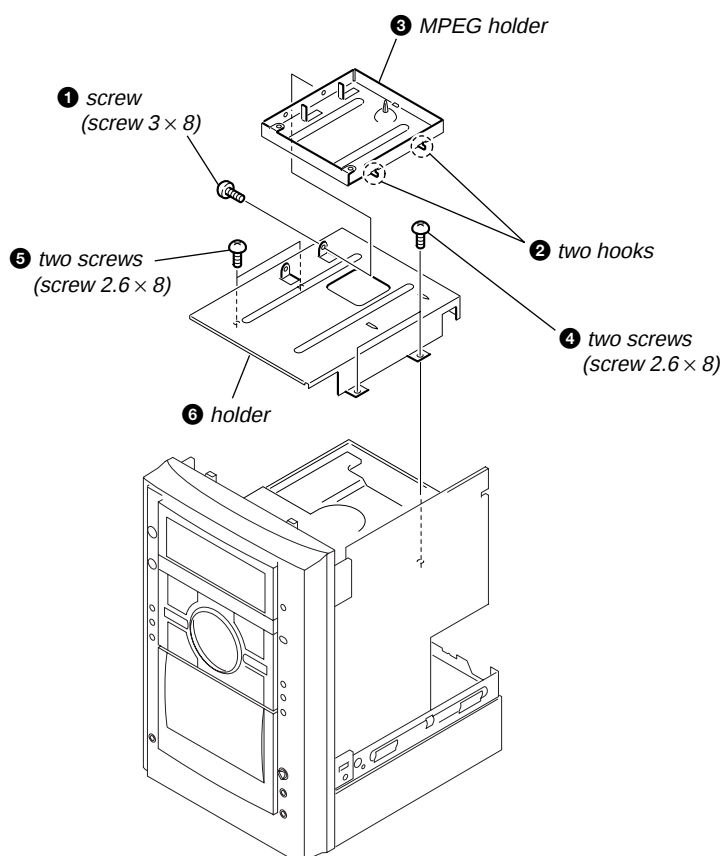
3-3. AMP BOARD, AV BOARD, TUNER (FM/AM)



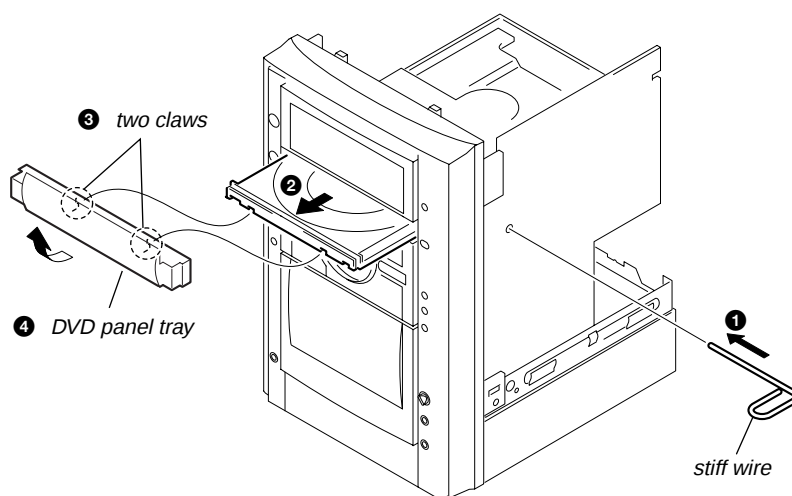
3-4. MPEG BOARD



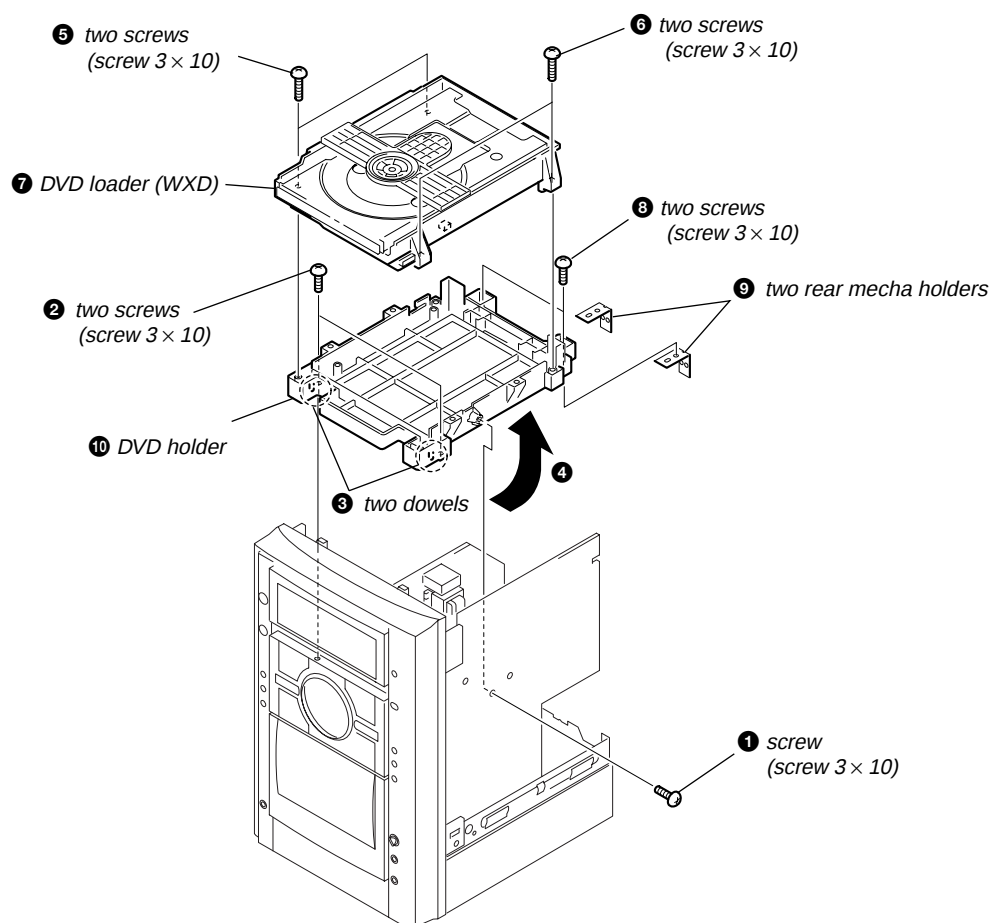
3-5. MPEG HOLDER



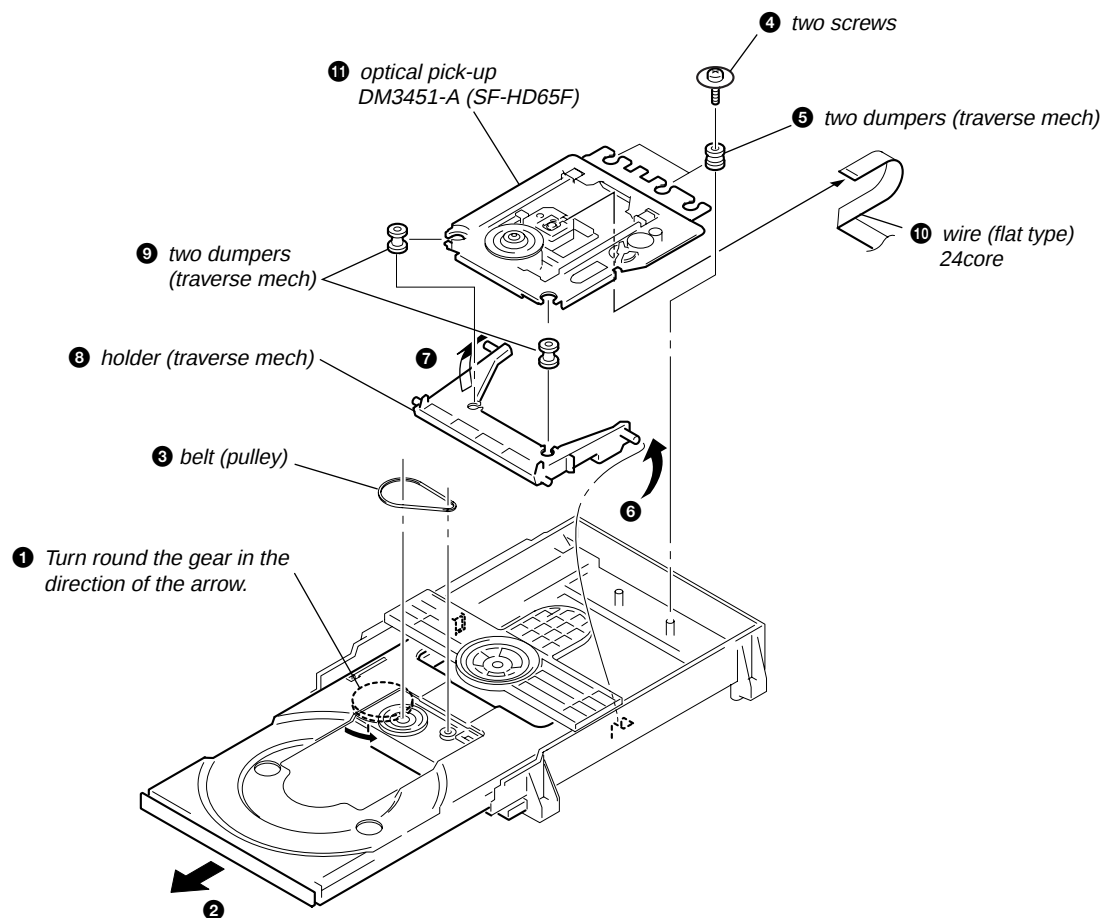
3-6. DVD PANEL TRAY



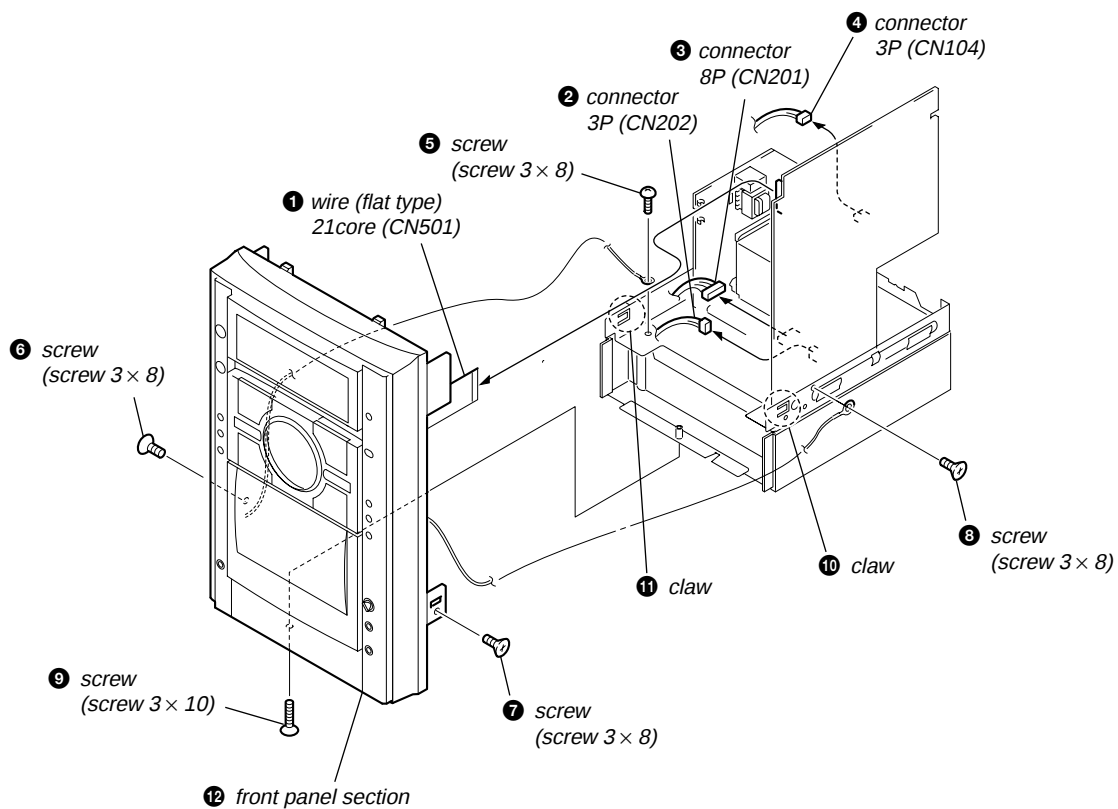
3-7. DVD LOADER (WXD)



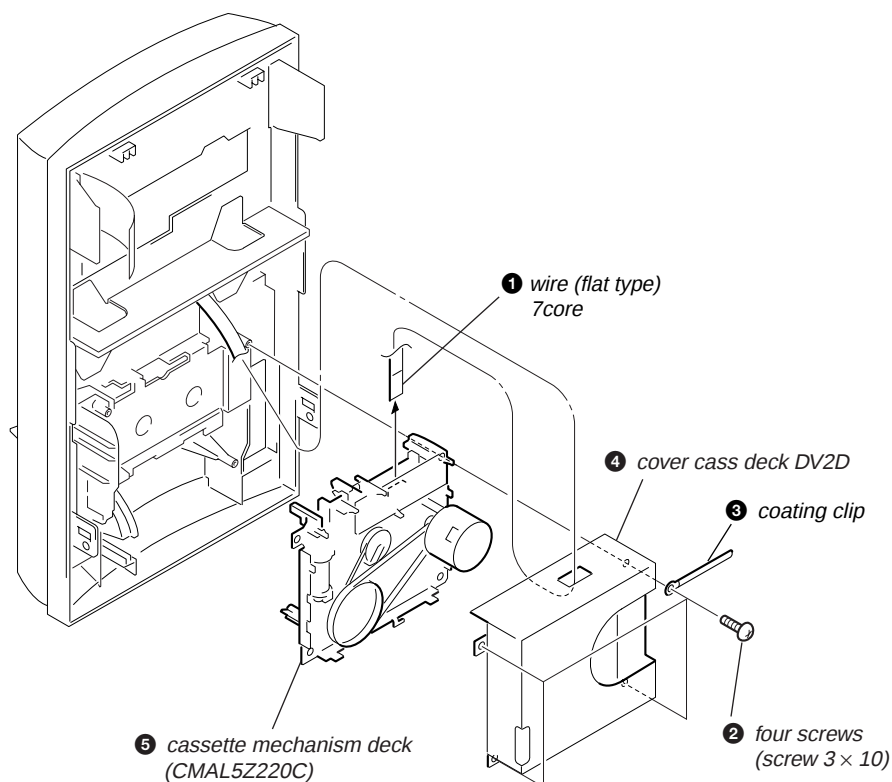
3-8. OPTICAL PICK-UP DM3451-A (SF-HD65F)



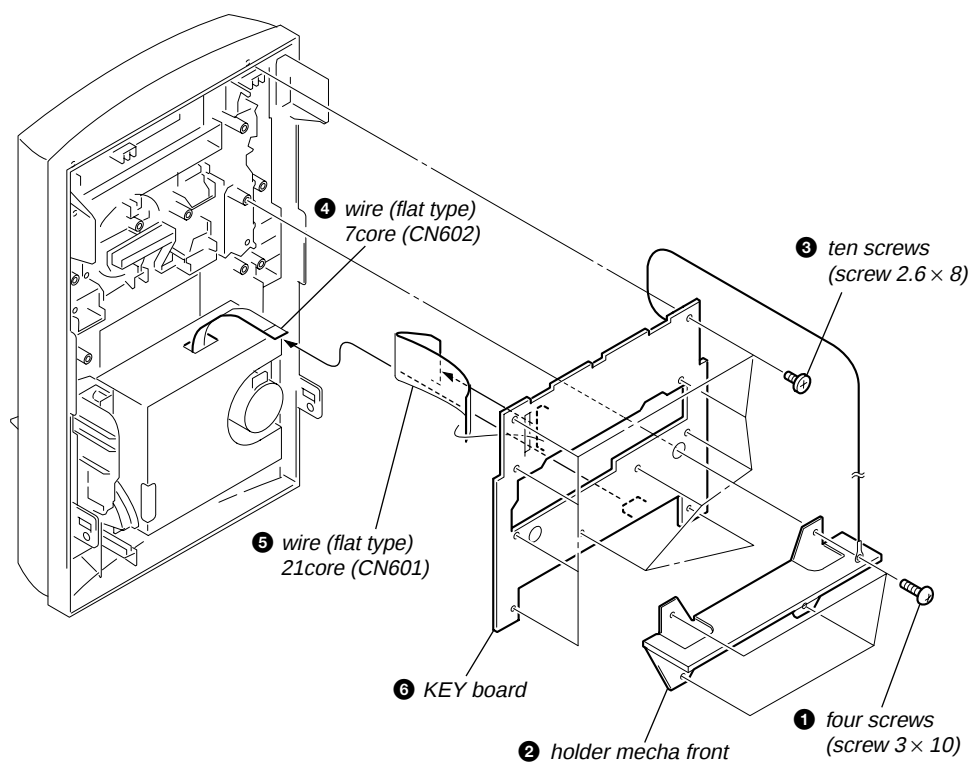
3-9. FRONT PANEL SECTION



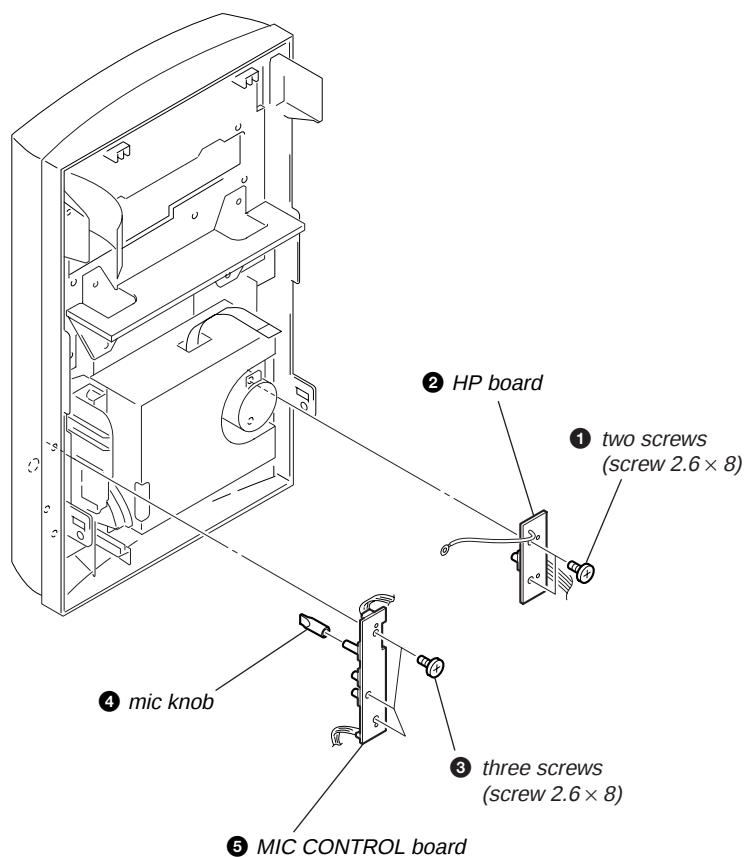
3-10. CASSETTE MECHANISM DECK (CMAL5Z220C)



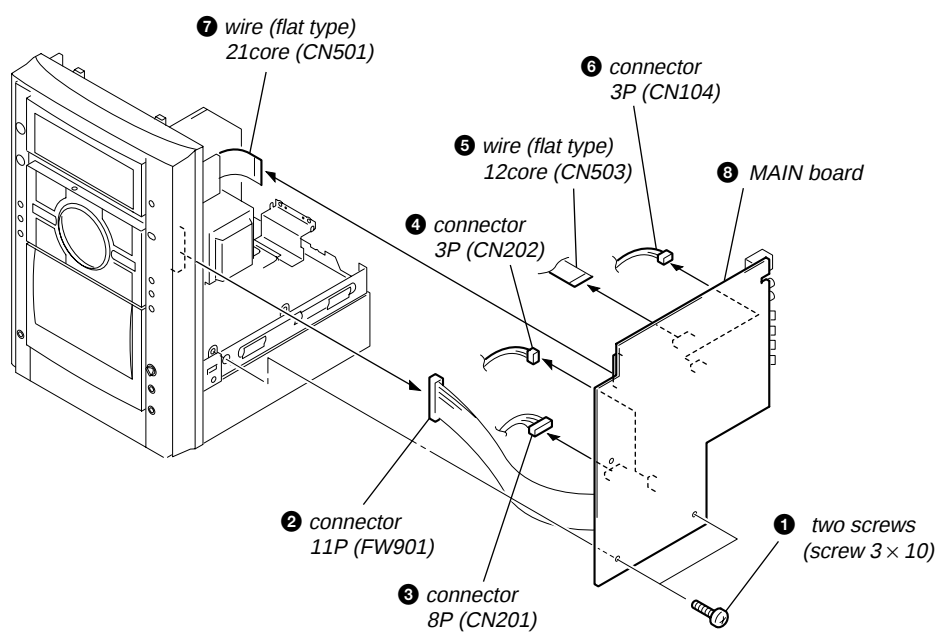
3-11. KEY BOARD



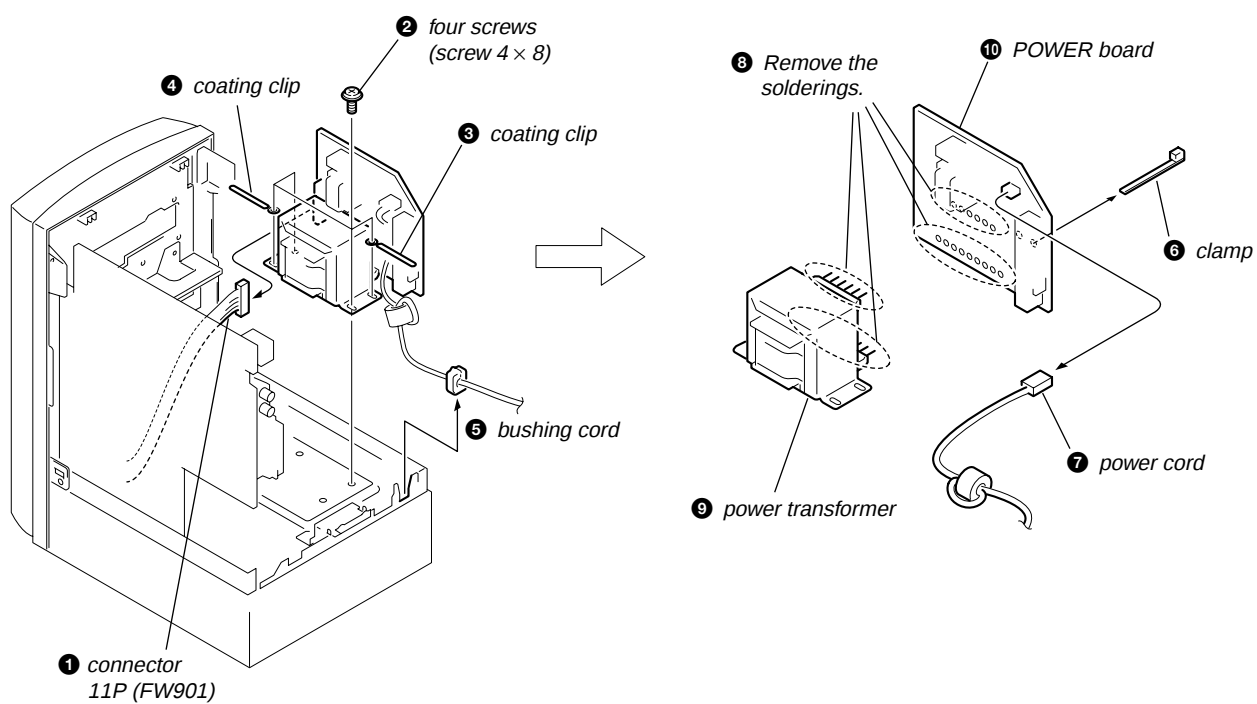
3-12. HP BOARD, MIC CONTROL BOARD



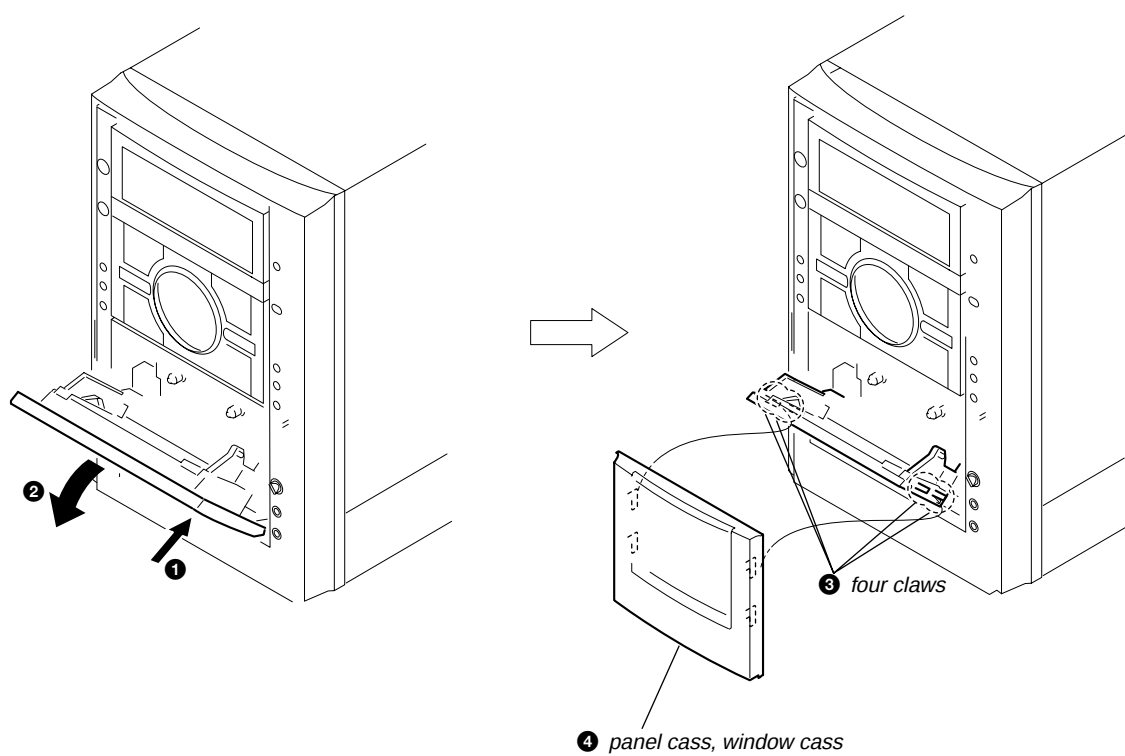
3-13. MAIN BOARD



3-14. POWER BOARD



3-15. PANEL CASS



SECTION 4 TEST MODE

Note 1: Regarding the notification symbol “R”

Because the number of the operating buttons of this product are limited, some operations require use of the operating buttons of the remote commander. When a specific operation requires use of the operating buttons of the remote commander, “R” is added to the specific operating procedure in this manual. Example
 MENU/NO “R” The MENU/NO button of remote commander.

Note 2: Incorrect operations may be performed if the test mode is not entered properly.

In this case, press the  button to turn the power off, and retry to enter the test mode.

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:

- Press the  button to turn the set ON.
- Press three buttons , [PLAY MODE] and  simultaneously.
- The message “COLD RESET” is displayed and the set is reset.

TUNER STEP CHANGE

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

Procedure:

- Press the  button to turn the set ON.
- Select the function “TUNER”, and press [TUNER/BAND] button to select the BAND “AM”.
- Press the  button to turn the set OFF.
- Press the  and [TUNER/BAND] buttons simultaneously, and thus the channel step is changed over.

SHIP RESET

Procedure:

- Press the  button to turn the set ON.
- Press the  button to select “DVD”
- Remove the disc.
- The message “NO DISC” is displayed.
- Press three buttons , [PLAY MODE] and  simultaneously.
- The message “SHIP RESET” is displayed and the set is reset. The DVD function is activated.
- To exit from this mode, press the  button and pull out the AC plug.

DISC TRAY LOCK

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

Procedure :

- Press the  button to turn the set ON.
- Press the  button to select “DVD”
- Set disc on the tray, press the  button and the  button simultaneously for five seconds.
- The message “LOCKED” is displayed the tray is locked.
- To release from this mode, press the  button and the  button simultaneously for five seconds again.
- The message “UNLOCKED” is displayed and the tray is unlocked.

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

PANEL TEST MODE

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

Procedure:

- Press the  button to turn the set ON.
- Press the  button to select “DVD”
- Press three buttons , [PRESET EQ] and  simultaneously.
- When the panel test mode is activated, all segments are turned on.

VERSION DISPLAY

- This mode is used check the model, destination, software version.

Procedure:

- Press the  button to turn the set ON.
- Press the  button to select “DVD”
- Press three buttons , [PRESET EQ] and [TV] simultaneously, the model and destination are displayed.

DVD COLOR SYSTEM CHANGE OVER

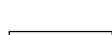
- The color system can be changed over NTSC or PAL.

Procedure:

- Press the  button to turn the set ON.
- Set the function to “DVD”.
- Press the  button to turn the set OFF.
- Press the  button and  button simultaneously. The set will power on automatically.
- The message “COLOR PAL” or “COLOR NTSC” will be displayed on the fluorescent indicator tube. The color system is changed over.

CD REPEAT 5 TIMES LIMIT RELEASE MODE

Procedure:

- Press the  button to turn the set ON.
- Set the function to “DVD”.
- Press three buttons , , and  simultaneously.
- The repeat all mark blinks and then repeat 5 times limit is released.

SECTION 5 MECHANICAL ADJUSTMENTS

Precaution

- Clean the following parts with a denatured alcohol-moistened swab:

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	2.94 – 7.84 mN • m (31 to 71 g • cm) (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	0.15 – 0.59 mN • m (2 to 6 g • cm) (0.02 – 0.08 oz • inch)
REV	CQ-102RC	2.94 – 7.84 mN • m (30 to 79 g • cm) (0.42 – 1.11 oz • inch)
REV back tension	CQ-102RC	0.15 – 0.59 mN • m (2 to 6 g • cm) (0.03 – 0.08 oz • inch)
FF/REW	CQ-201B	6.86 – 17.64 mN • m (71 to 143 g • cm) (0.98 – 2.49 oz • inch)
FWD tension	CQ-403A	9.8 mN • m or more (100 g • cm or more) (1.4 oz • inch or more)
REV tension	CQ-403R	9.8 mN • m or more (100 g • cm or more) (1.4 oz • inch or more)

SECTION 6 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775V

- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- The adjustments should be performed for both L-CH and R-CH.
- Switches and controls should be set as follows unless otherwise specified.

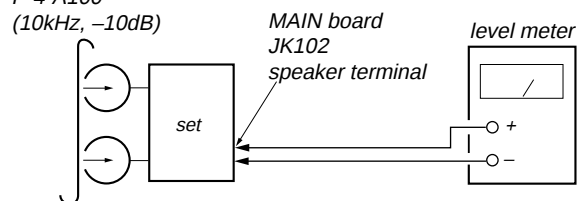
Tape	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment

[Record/Playback Head Azimuth Adjustment]

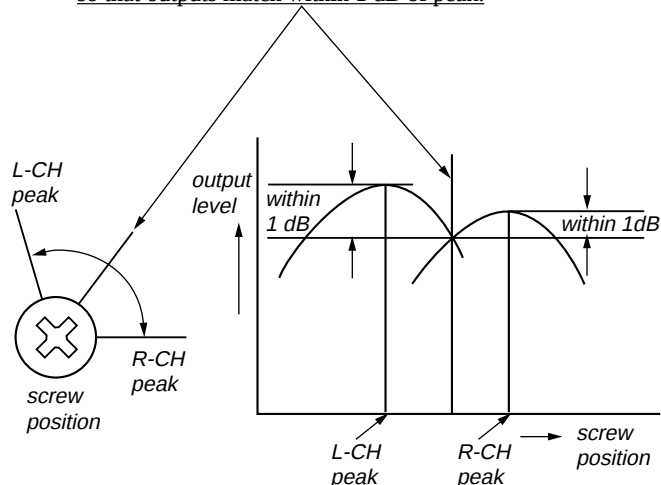
Procedure:

- Mode : Playback

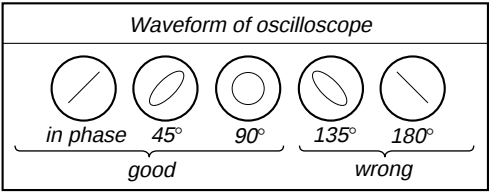
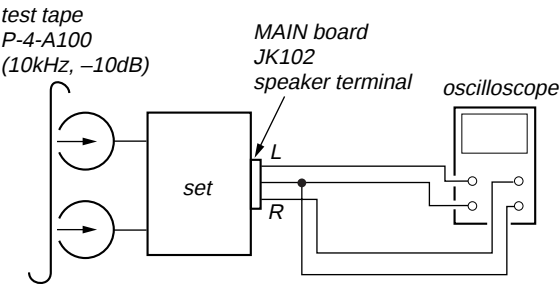
test tape
P-4-A100
(10kHz, -10dB)



- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.

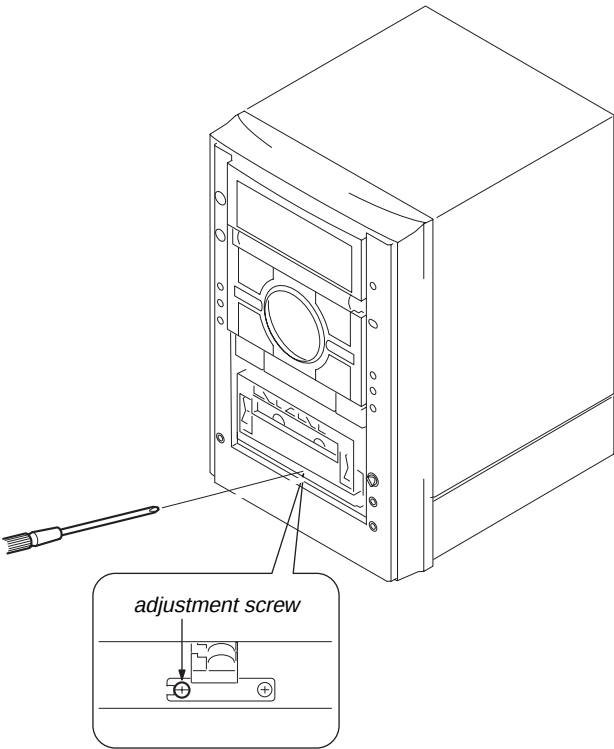


3. Mode: Playback



4. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Record/Playback/Erase Head



Note: Refer to " 3-15. PANEL CASS " (see page 17)

[Tape Speed Check]

Procedure:

1. Turn the power on.
2. Insert the WS-48B into deck.
3. Press the [TAPE ►] button of deck.
4. Check the reading of frequency counter becomes 3000 ± 90 Hz.

Sample Value of Wow and flutter

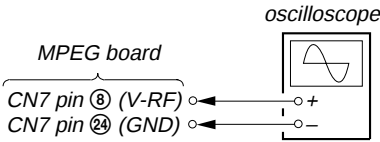
W.RMS (JIS) less than 0.3%
(test tape: WS-48B)

DVD SECTION

[RF Level Check]

Check the RF level when optical pick-up block is replaced.

Connection:



Procedure:

1. Connect an oscilloscope to CN7 pin ⑧ (V-RF) and CN7 pin ⑳ (GND) on the MPEG board.
2. Turn the power on.
3. Set the test disc on the tray and press [DVD ►] button to playback.
4. Observe the waveform of the oscilloscope, and check that the RF level is satisfied to specified value.

[Test Disc List and Specified Value]

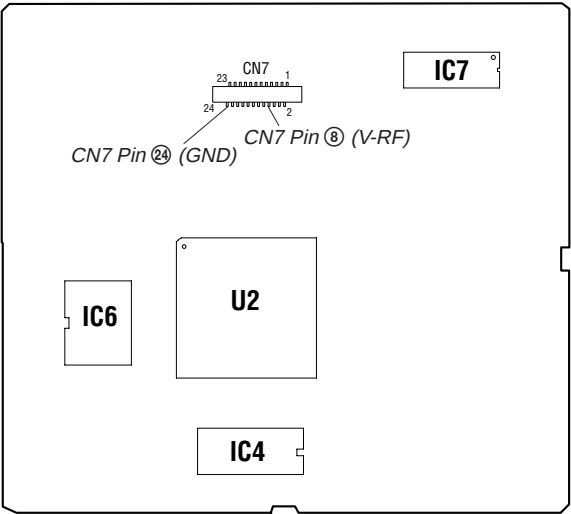
Use the following test disc on adjustment.

TEST DISC		Specified Value
CD	YEDS-18 (Part No.: 3-702-101-01) PATD-012 (Part No.: 4-225-203-01)	0.57 to 1.1 Vp-p
DVD SL (Single Layer)	NTSC : HLX-503 (Part No.: J-6090-069-A) HLX-504 (Part No.: J-6090-088-A) PAL : HLX-506 (Part No.: J-6090-077-A)	0.58 to 1.23 Vp-p
DVD DL (Dual Layer)	NTSC : HLX-501 (Part No.: J-6090-071-A) HLX-505 (Part No.: J-6090-089-A) PAL : HLX-507 (Part No.: J-6090-078-A)	

Note: Do not use existing test disc for DVD.

Checking Location: MPEG board (Side A)

— MPEG Board (SIDE A) —



SECTION 7
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 $\frac{1}{4}W$ or less unless otherwise specified.
 - $\triangle$: internal component.
 - $\square$: panel designation.

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

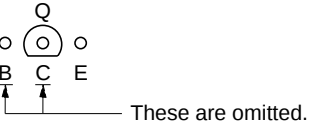
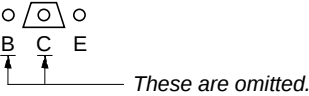
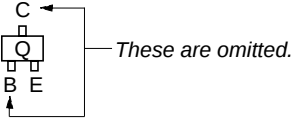
- --- : B+ Line.
- --- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - MPEG Section –
No mark: DVD STOP
 - Other Section –
No mark: FM
 - () : TAPE REC
- Voltages are taken with a VOM (Input impedance 10 M Ω).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - $\rightarrow$: AUDIO
 - $\square$: TUNER
 - $\blacktriangleright$: PB (TAPE)
 - $\blacktriangleright$: REC (TAPE)
 - $\blacktriangleright$: DVD/CD (AUDIO)
 - $\blacktriangleright$: DVD/CD (DIGITAL)
 - $\blacktriangleright$: DVD (RF)
 - $\blacktriangleright$: TV IN
 - $\blacktriangleright$: AUDIO IN
 - $\blacktriangleright$: VIDEO
 - $\blacktriangleright$: CD (RF)
 - $\blacktriangleright$: COMPONENT
 - $\blacktriangleright$: Y
 - $\blacktriangleright$: USB
 - $\blacktriangleright$: MIC
- Abbreviation
 - E3 : 240 V AC Area in E model
 - SP : Singapore model

For Printed Wiring Boards.

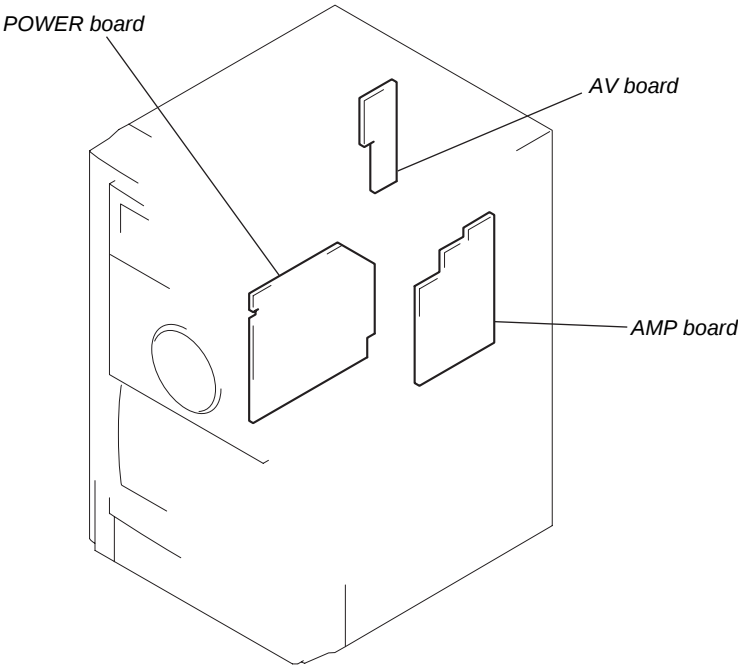
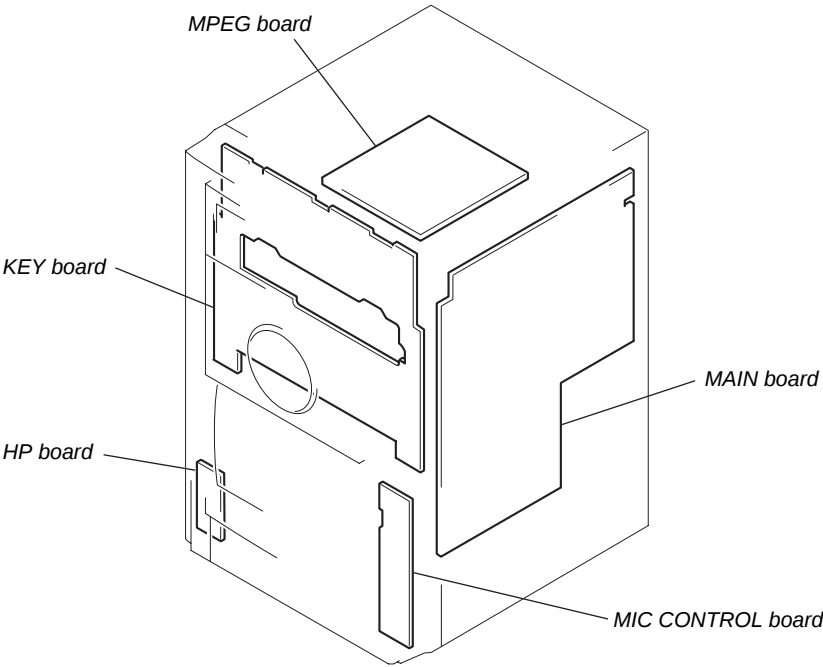
- Note:
- $\circ$: parts extracted from the component side.
 - --- : parts extracted from the conductor side.
 - $\triangle$: internal component.
 - --- : Pattern from the side which enables seeing.

Caution:
Parts face side: Parts on the parts face side seen from the parts face are indicated.
Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.

- Indication of transistor.



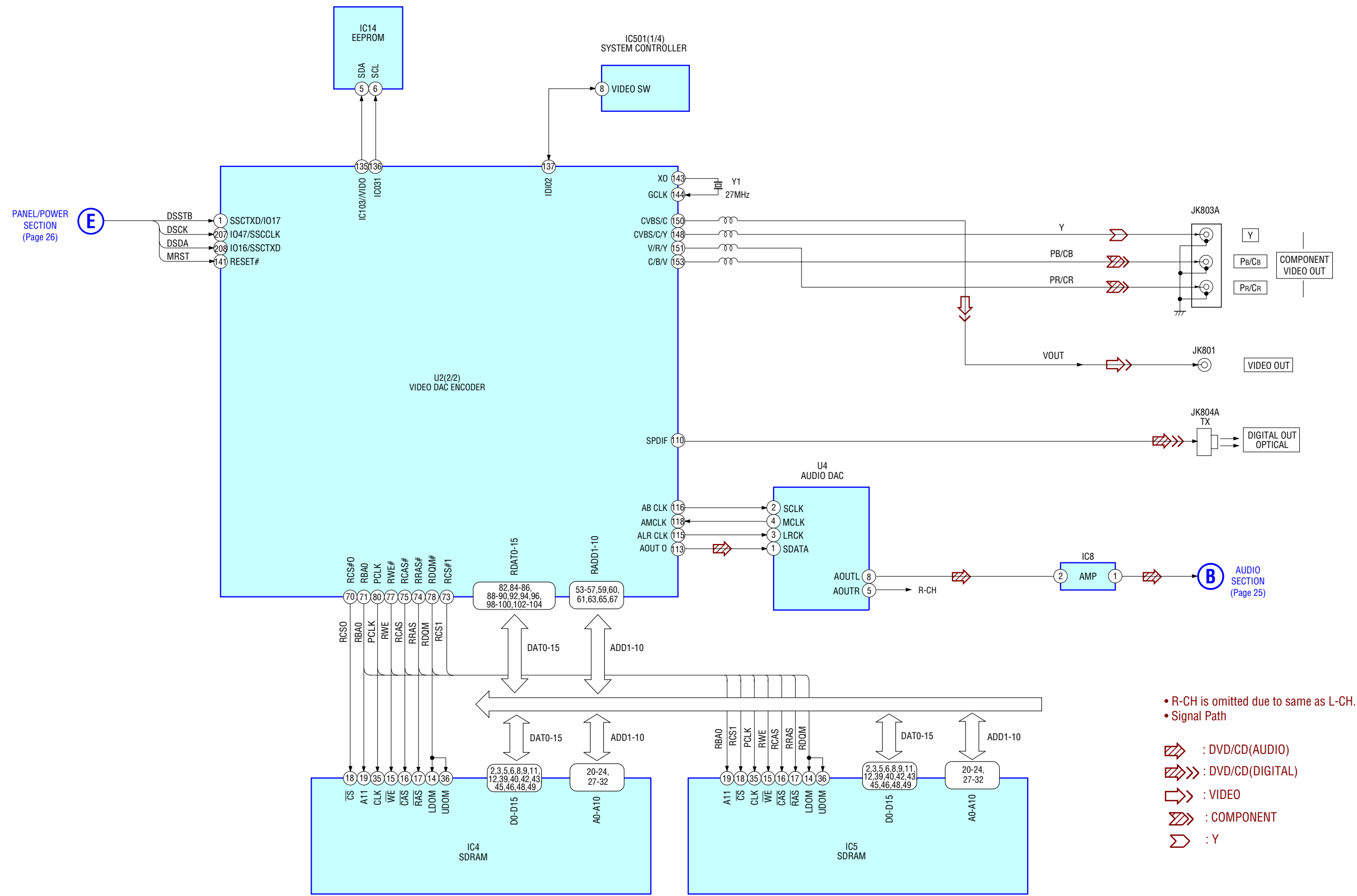
• Circuit Boards Location



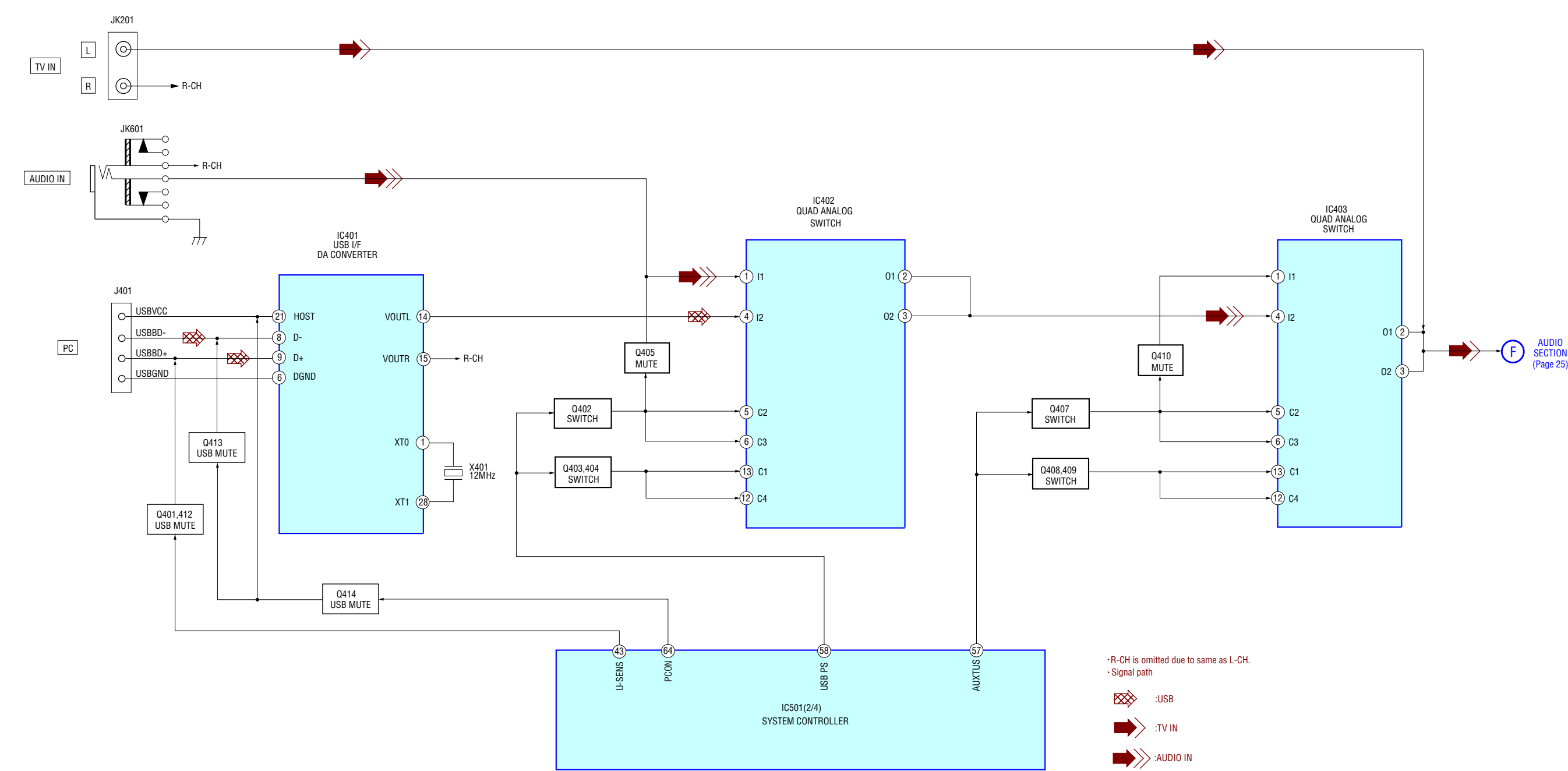
7-1. BLOCK DIAGRAM — MPEG-1 SECTION —



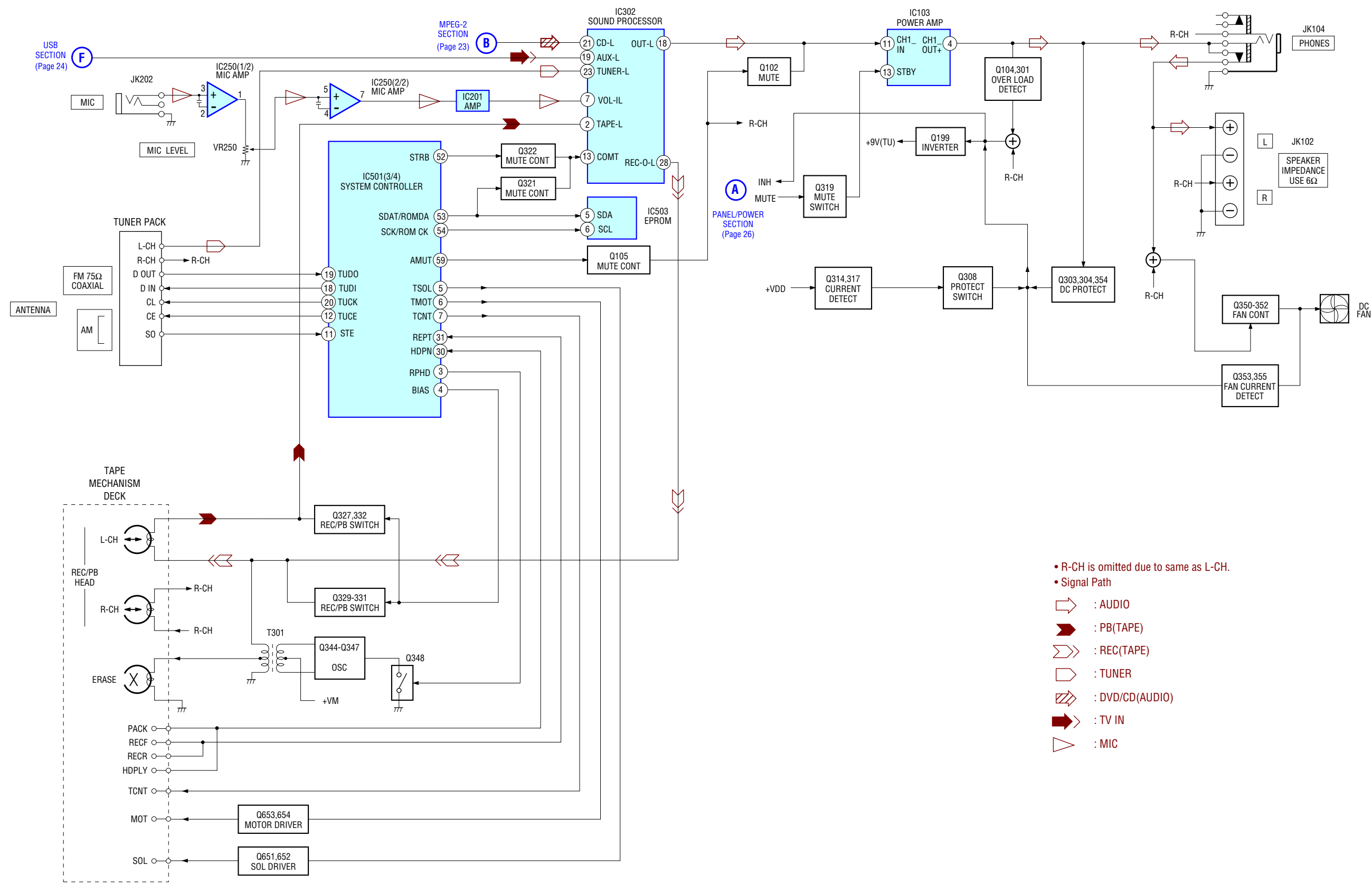
7-2. BLOCK DIAGRAM — MPEG-2 SECTION —



7-3. BLOCK DIAGRAM — USB SECTION —



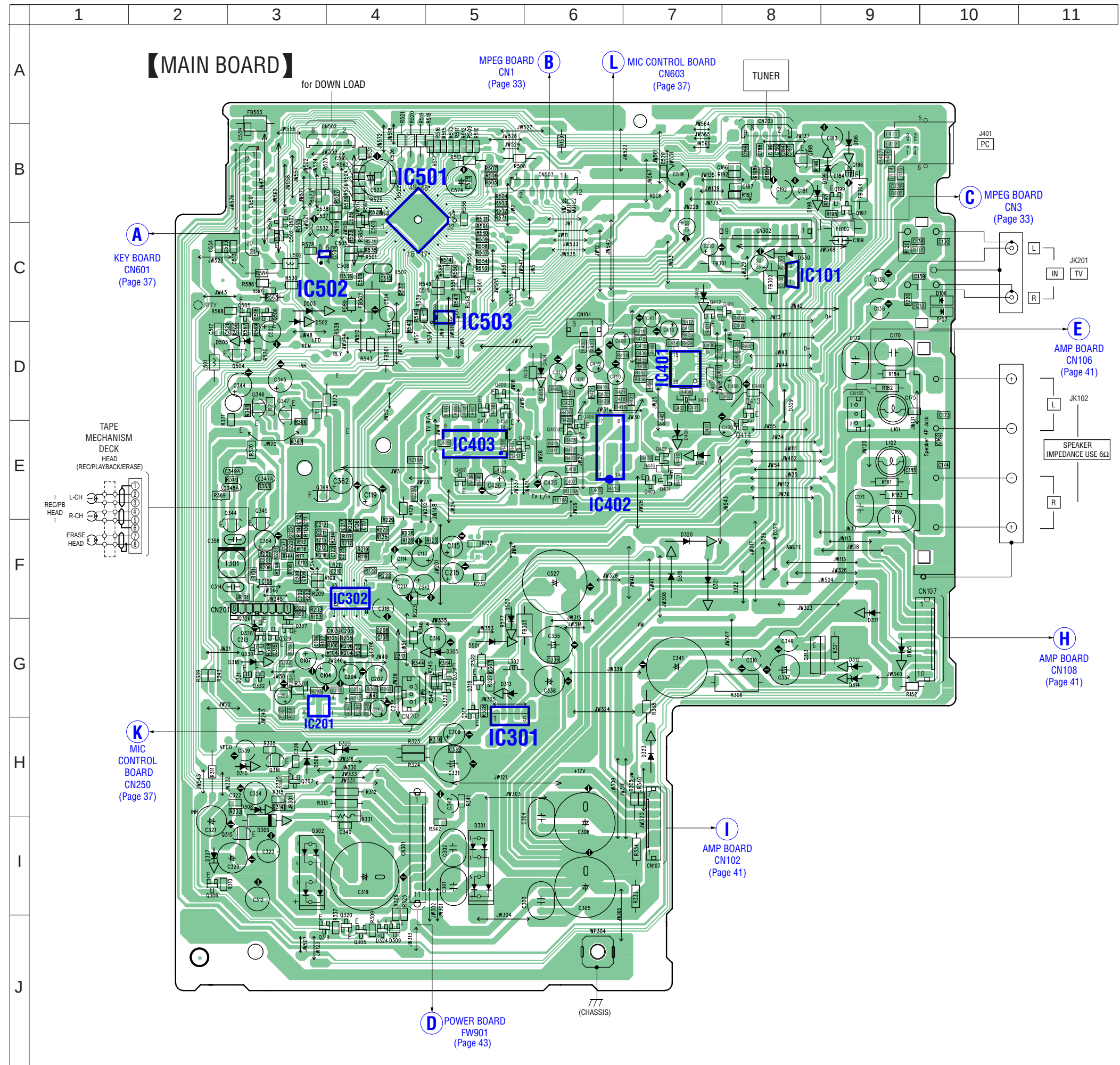
7-4. BLOCK DIAGRAM — AUDIO SECTION —



7-5. BLOCK DIAGRAM — PANEL/POWER SECTION —

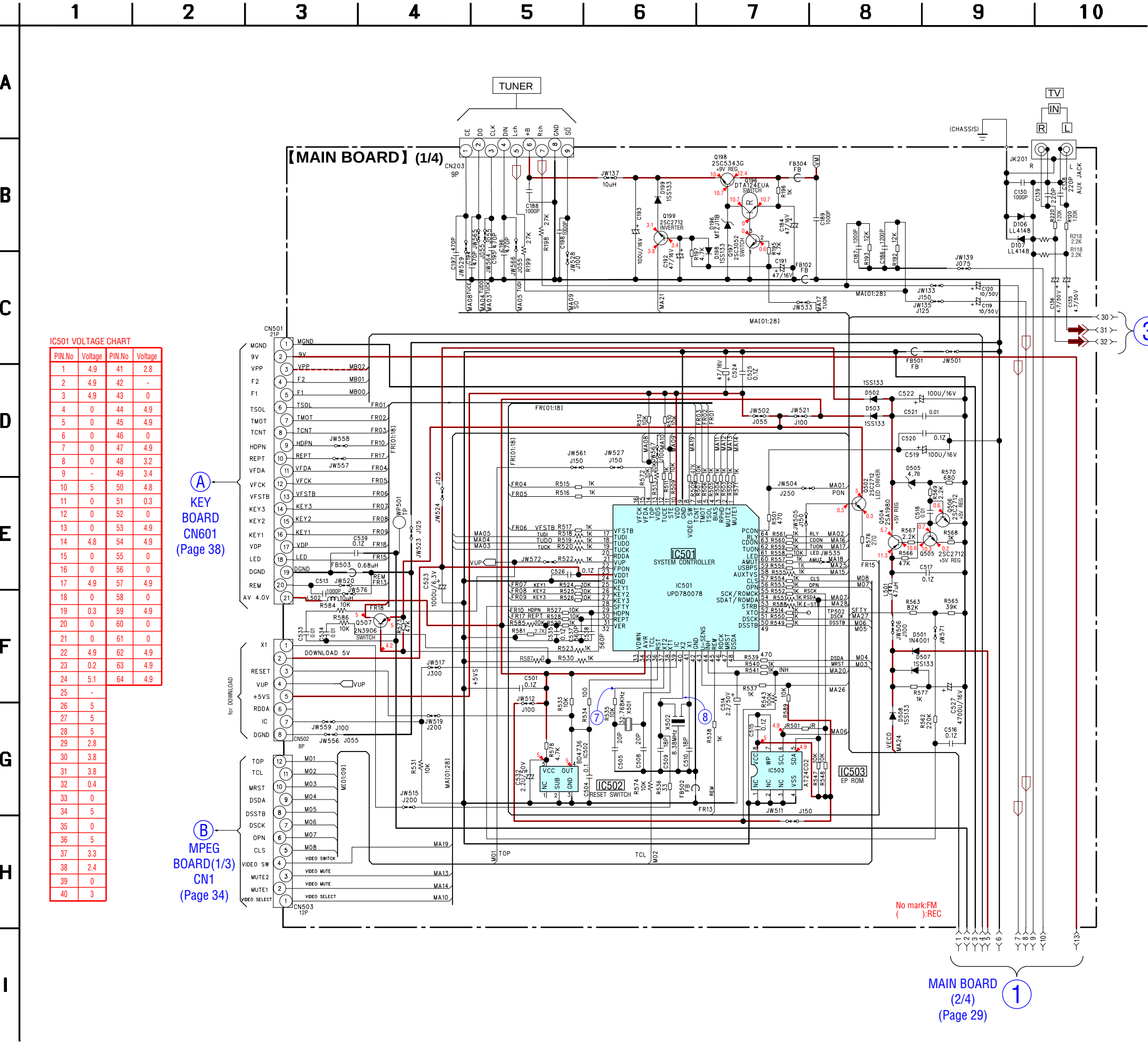


7-6. PRINTED WIRING BOARD — MAIN SECTION — • See page 21 for Circuit Boards Location.



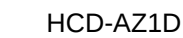
- **Semiconductor Location**

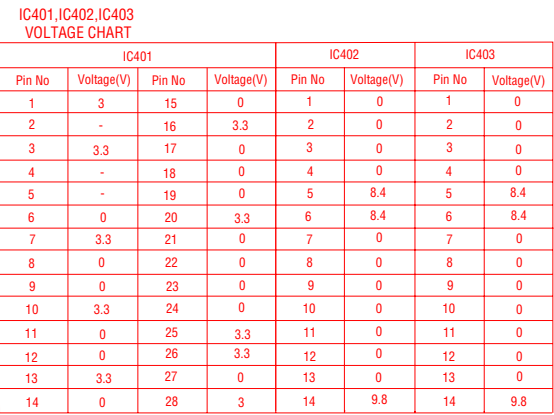
Ref. No.	Location	Ref. No.	Location
D105	G-9	Q196	B-9
D106	C-10	Q197	B-9
D107	C-10	Q198	B-8
D196	B-9	Q199	B-9
D198	B-8	Q305	J-4
D199	B-8	Q306	I-2
D301	I-5	Q307	H-3
D302	I-3	Q313	G-8
D305	G-5	Q315	I-3
D306	I-3	Q316	H-3
D307	I-2	Q317	H-5
D308	H-3	Q318	G-5
D309	J-4	Q319	J-3
D310	H-2	Q320	J-4
D312	G-9	Q321	G-5
D313	G-5	Q322	G-5
D314	G-9	Q326	G-3
D317	G-9	Q327	G-3
D318	G-2	Q328	G-3
D319	F-7	Q329	G-3
D320	F-7	Q330	G-3
D321	F-7	Q331	G-3
D323	I-7	Q332	G-3
D324	J-4	Q344	F-2
D325	H-4	Q345	F-3
D330	C-8	Q346	D-3
D401	E-7	Q347	D-3
D404	D-6	Q348	E-3
D405	C-7	Q401	D-7
D406	E-7	Q402	E-7
D501	G-5	Q403	E-7
D502	D-3	Q404	E-7
D503	C-3	Q405	E-6
D505	D-2	Q406	D-6
D507	F-5	Q407	E-5
D508	H-3	Q408	D-5
		Q409	D-5
IC101	C-8	Q410	E-5
IC201	G-3	Q411	D-5
IC301	H-5	Q412	D-7
IC302	F-4	Q413	D-8
IC401	D-7	Q414	E-8
IC402	E-6	Q502	C-3
IC403	E-5	Q504	D-3
IC501	B-4	Q505	D-3
IC502	C-3	Q506	D-3
IC503	D-5	Q507	C-3



29

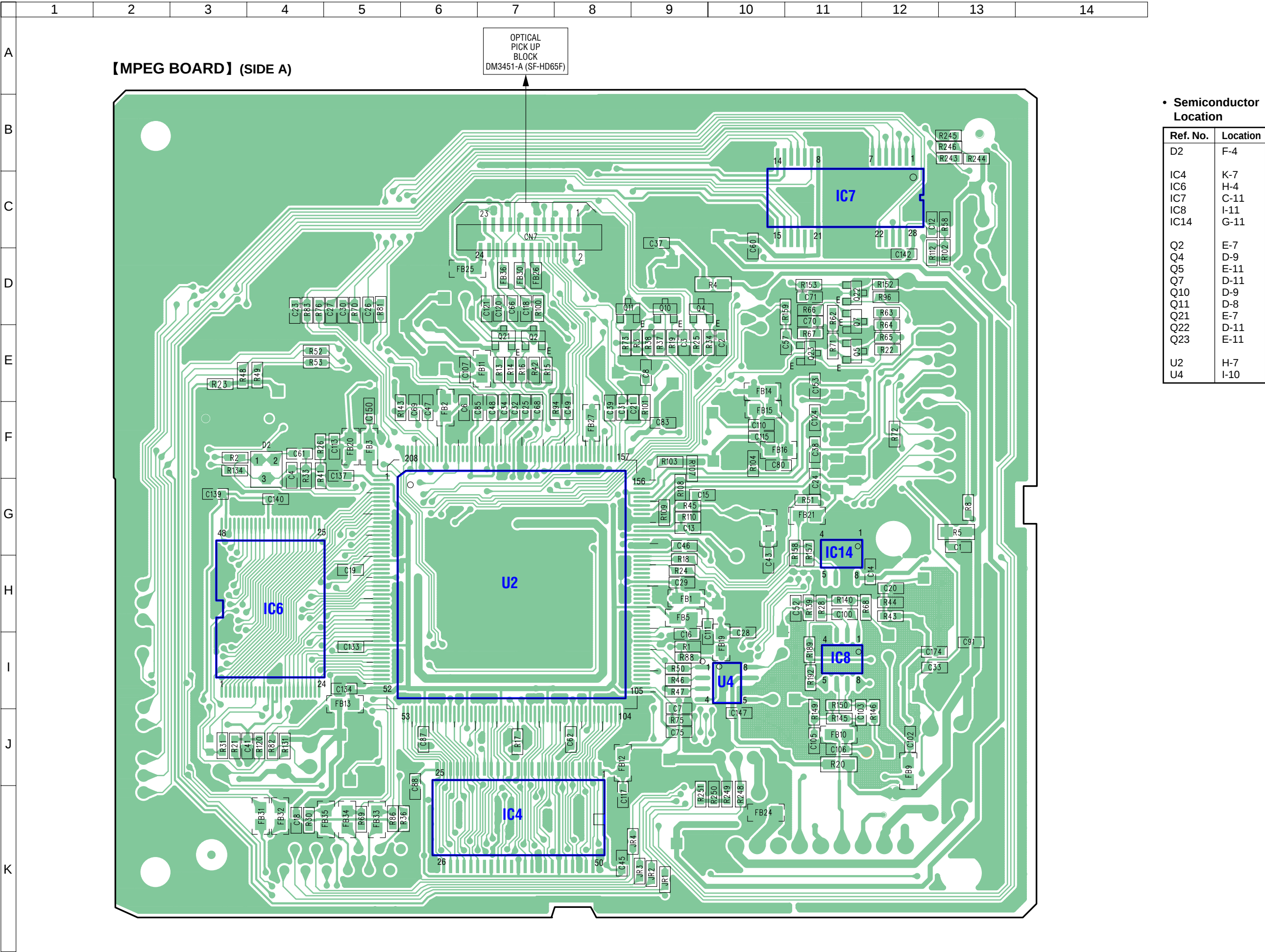




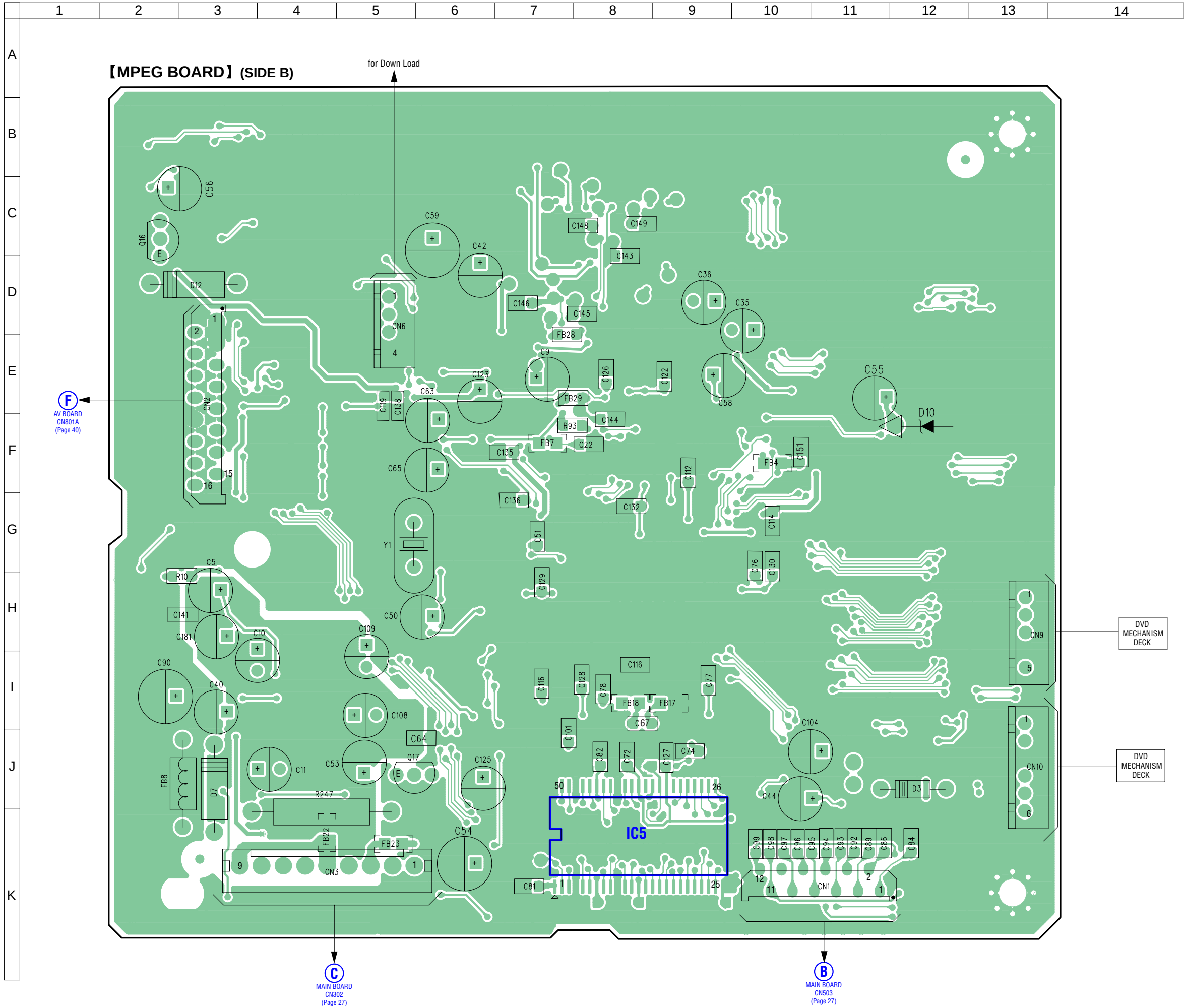


No mark : FM
():REC

7-11. PRINTED WIRING BOARD — MPEG SECTION (SIDE A) — • See page 21 for Circuit Boards Location.



7-12. PRINTED WIRING BOARD — MPEG SECTION (SIDE B) — • See page 21 for Circuit Boards Location.

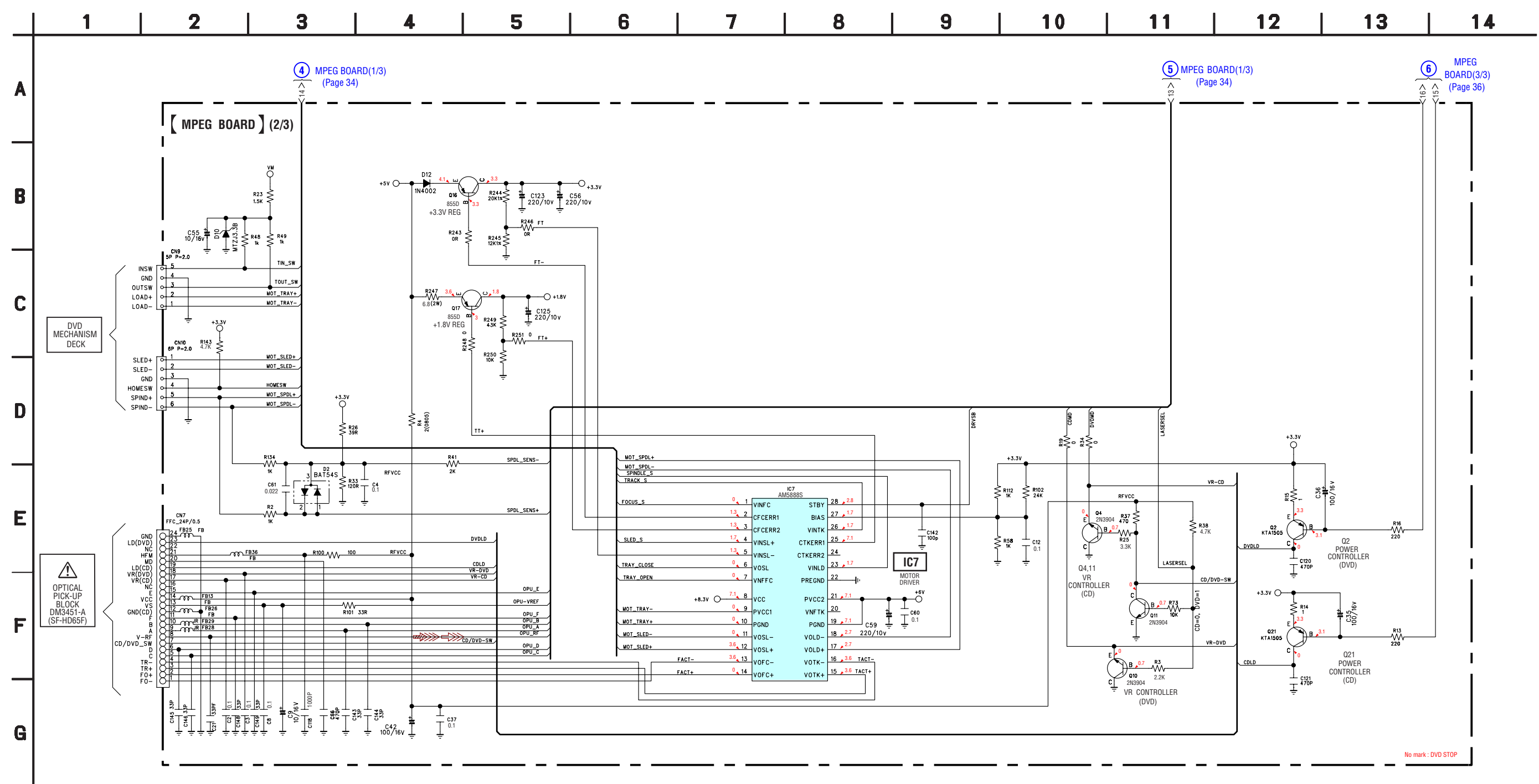


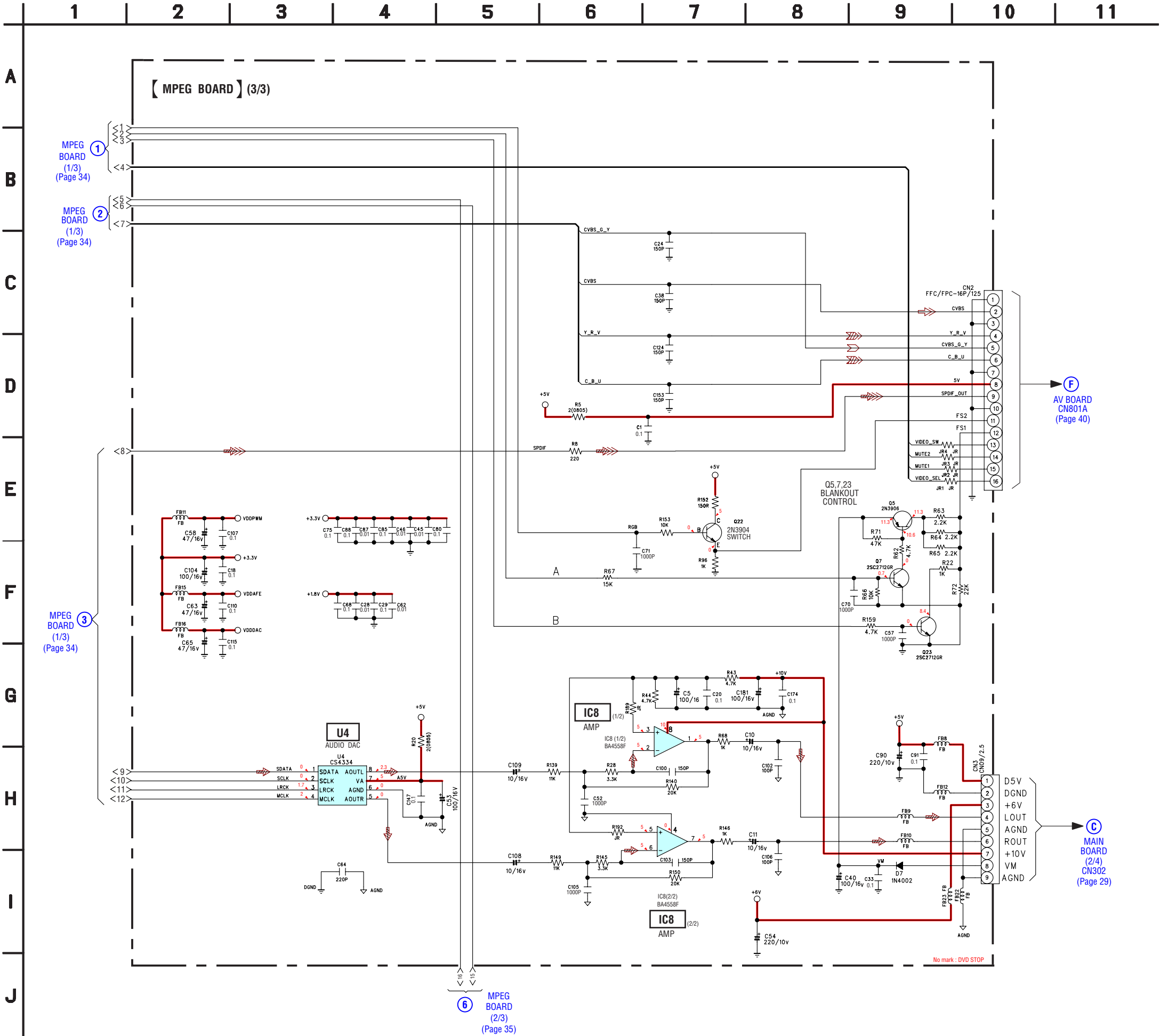
• Semiconductor Location

Ref. No.	Location
D3	J-12
D7	J-3
D10	F-12
D12	D-3
IC5	K-8
Q16	C-2
Q17	J-5

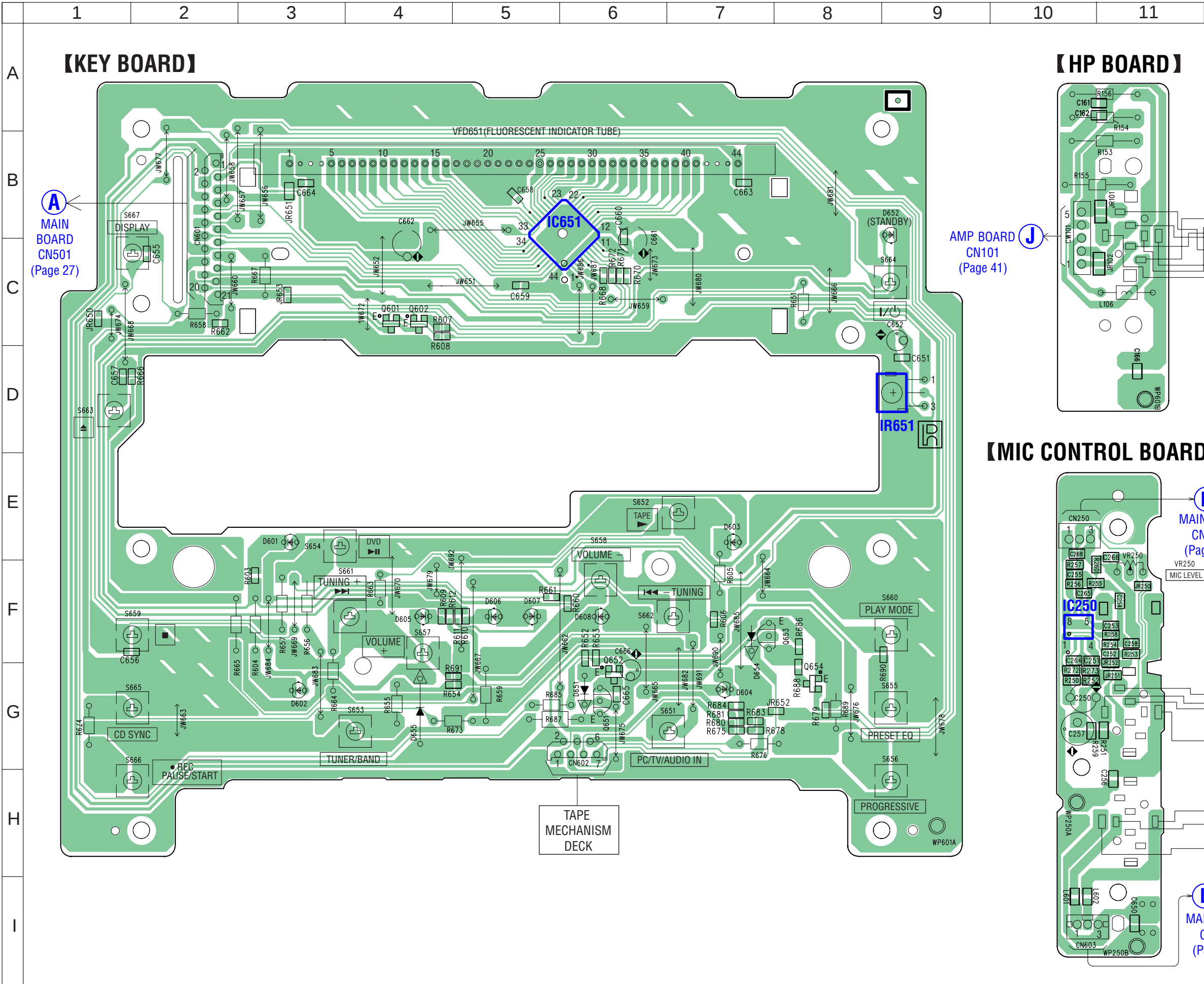


7-14. SCHEMATIC DIAGRAM — MPEG SECTION (2/3) —

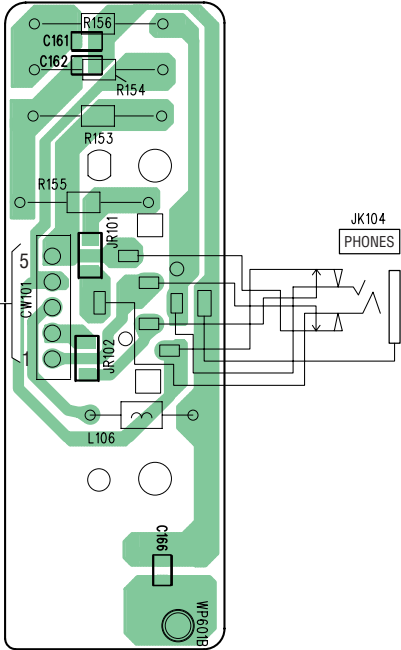




7-16. PRINTED WIRING BOARDS — KEY SECTION — • See page 21 for Circuit Boards Location.  :Uses unleaded solder.



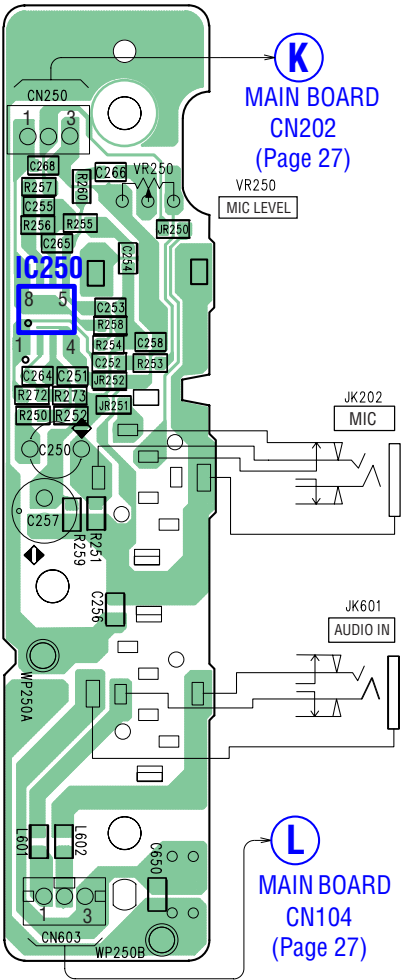
【HP BOARD】

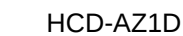


• Semiconductor Location

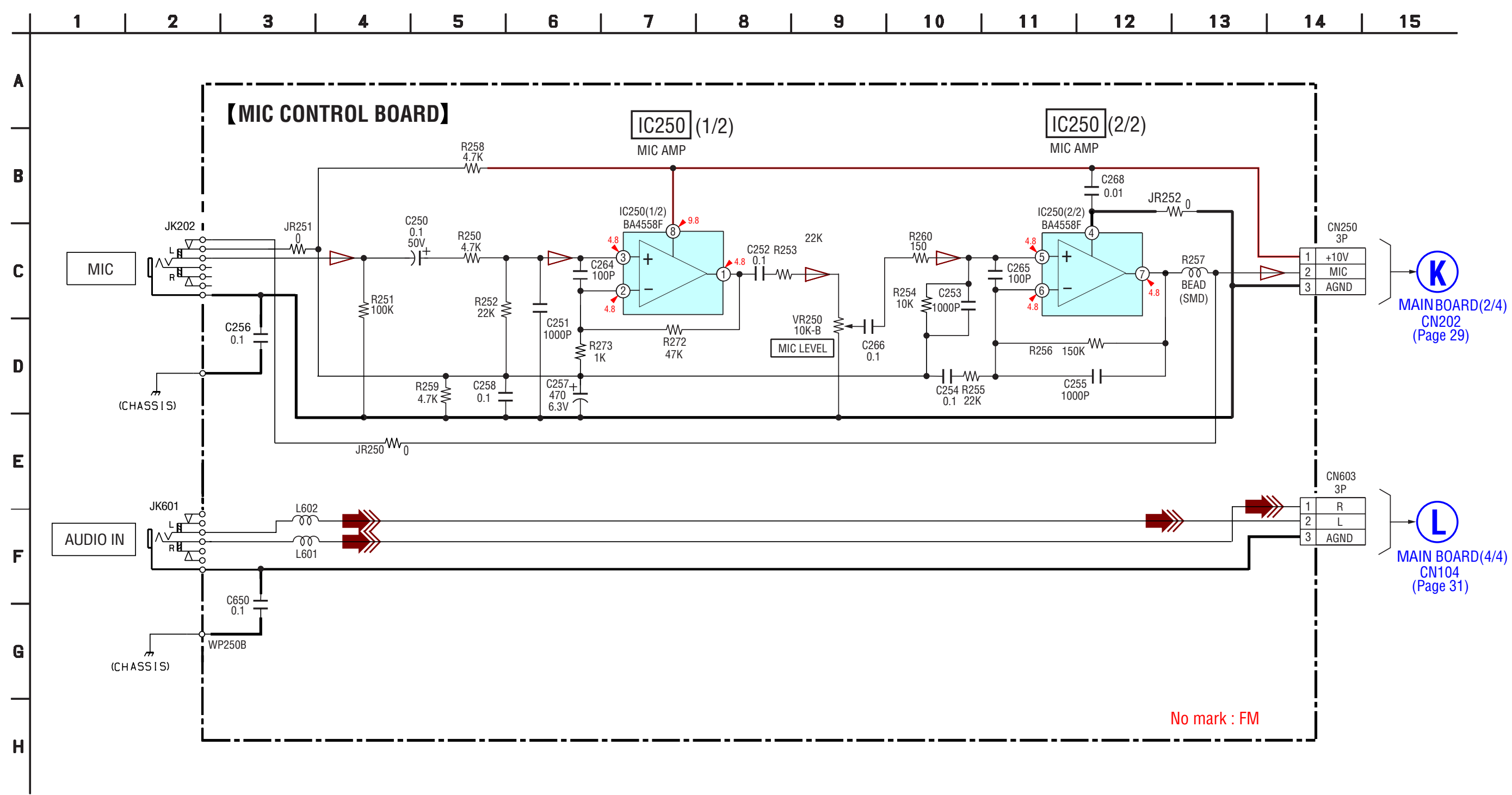
Ref. No.	Location
D601	E-3
D602	G-3
D603	E-7
D604	G-7
D605	F-4
D606	F-5
D607	F-5
D608	F-6
D651	G-6
D652	B-9
D654	F-7
D655	G-4
IC250	F-10
IC651	B-6
IR651	D-9
Q601	C-4
Q602	C-4
Q651	G-6
Q652	F-6
Q653	F-8
Q654	F-8

【MIC CONTROL BOARD】





7-18. SCHEMATIC DIAGRAM — MIC CONTROL SECTION —

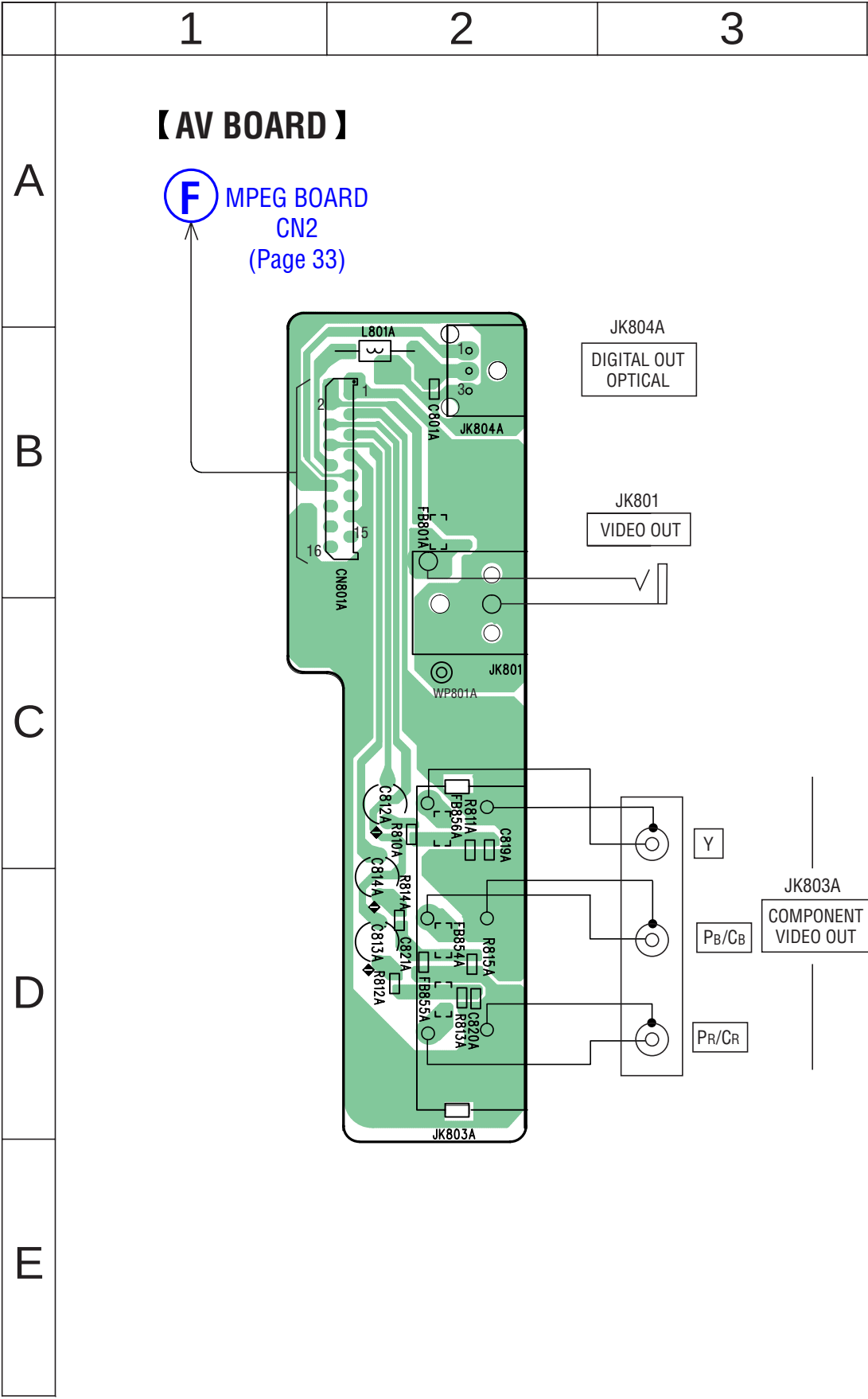


K
MAINBOARD(2/4)
CN202
(Page 29)

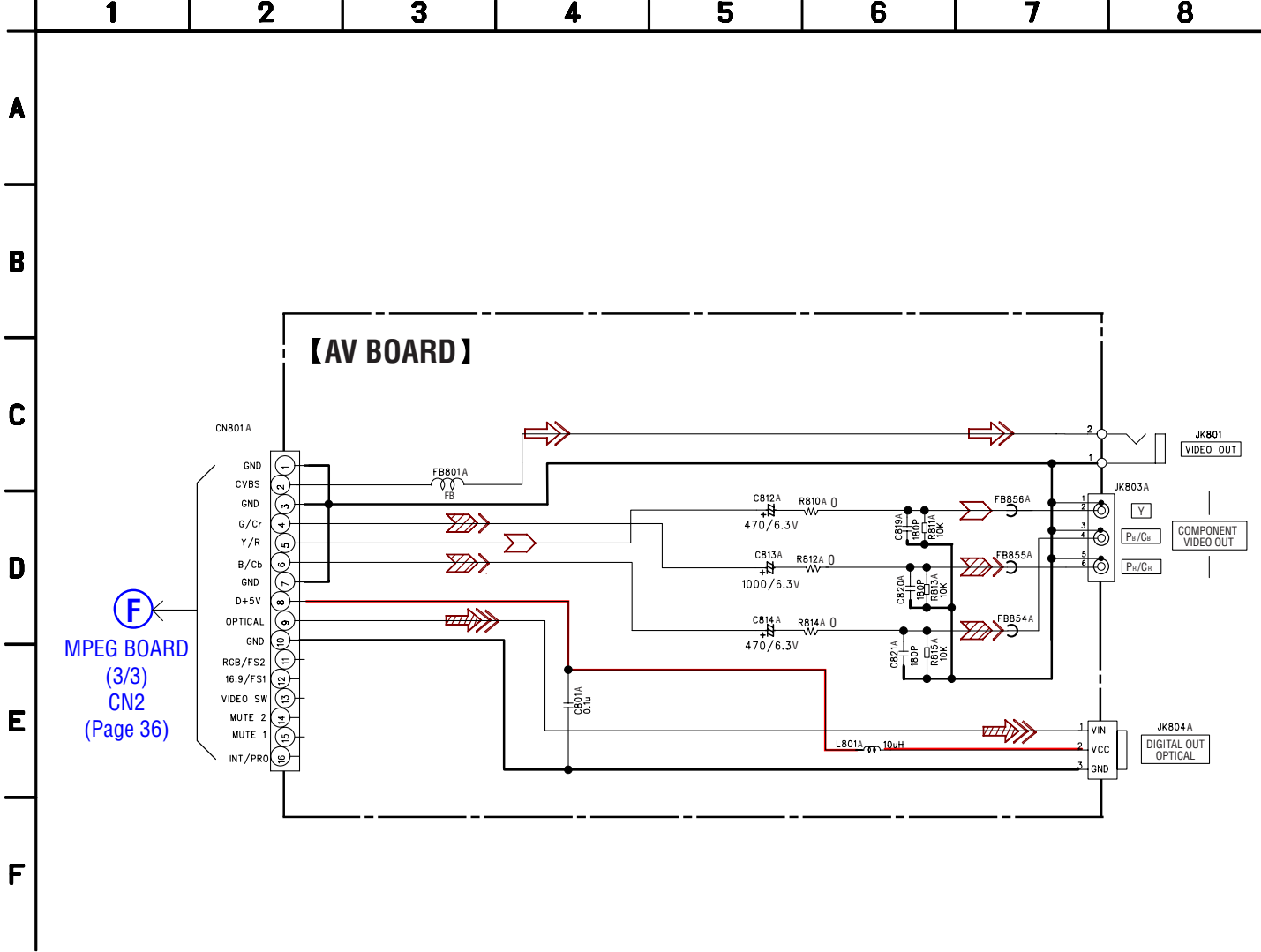
L
MAIN BOARD(4/4)
CN104
(Page 31)

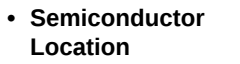
7-19. PRINTED WIRING BOARD — AV SECTION — • See page 21 for Circuit Boards Location.

 :Uses unleaded solder.

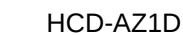


7-20. SCHEMATIC DIAGRAM — AV SECTION —

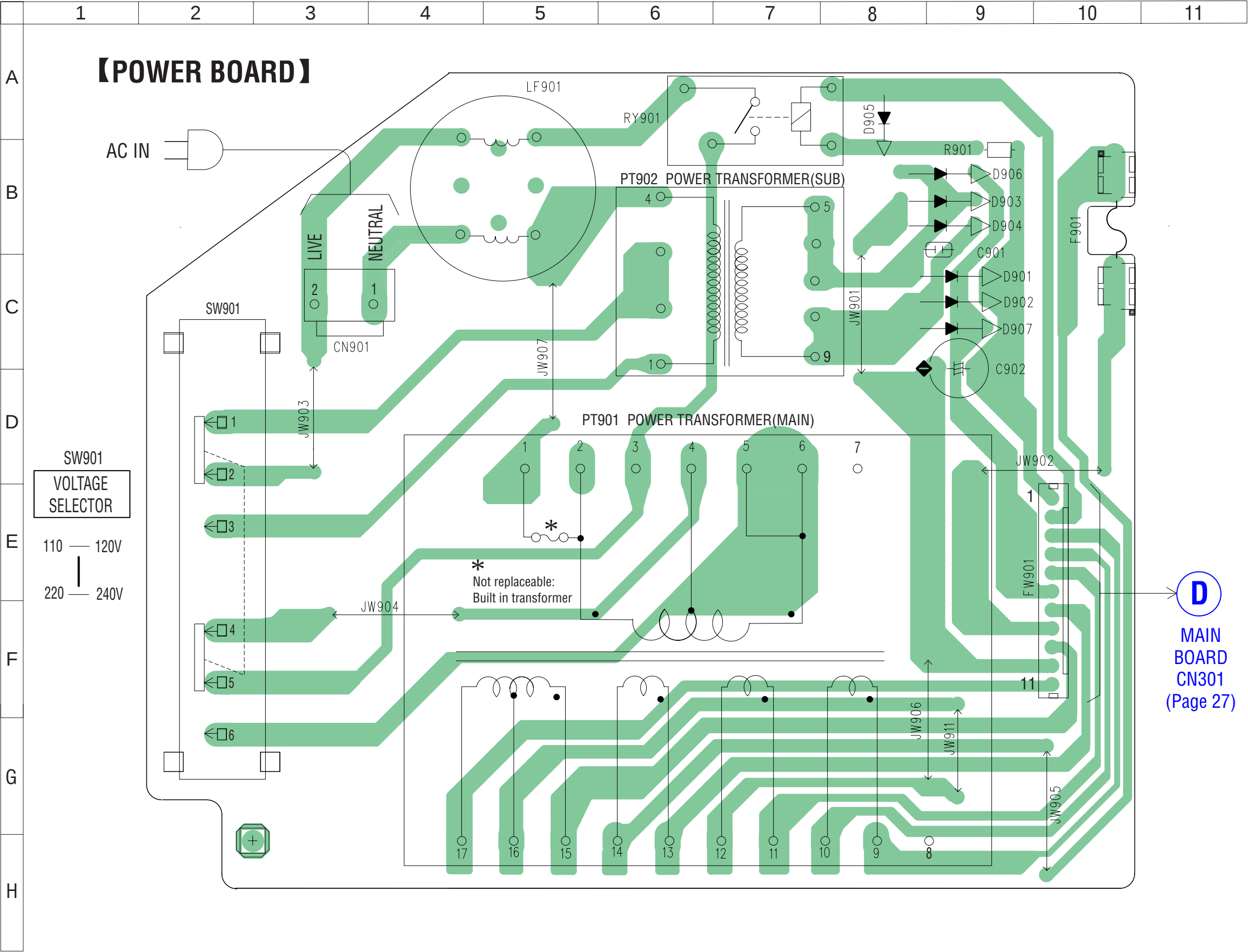




Ref. No.	Location
D101	C-3
D102	B-2
D103	B-2
D104	B-2
D311	C-3
D350	A-1
D352	B-1
D353	C-1
D355	C-4
IC103	D-2
Q101	C-3
Q102	C-3
Q103	B-2
Q104	B-2
Q105	C-3
Q301	B-2
Q303	B-2
Q304	A-3
Q308	B-3
Q309	C-4
Q310	C-4
Q311	D-4
Q312	D-4
Q314	C-4
Q350	B-1
Q351	B-1
Q352	B-1
Q353	B-1
Q354	B-2
Q355	C-1



7-23. PRINTED WIRING BOARD — POWER SECTION — • See page 21 for Circuit Boards Location.  :Uses unleaded solder.

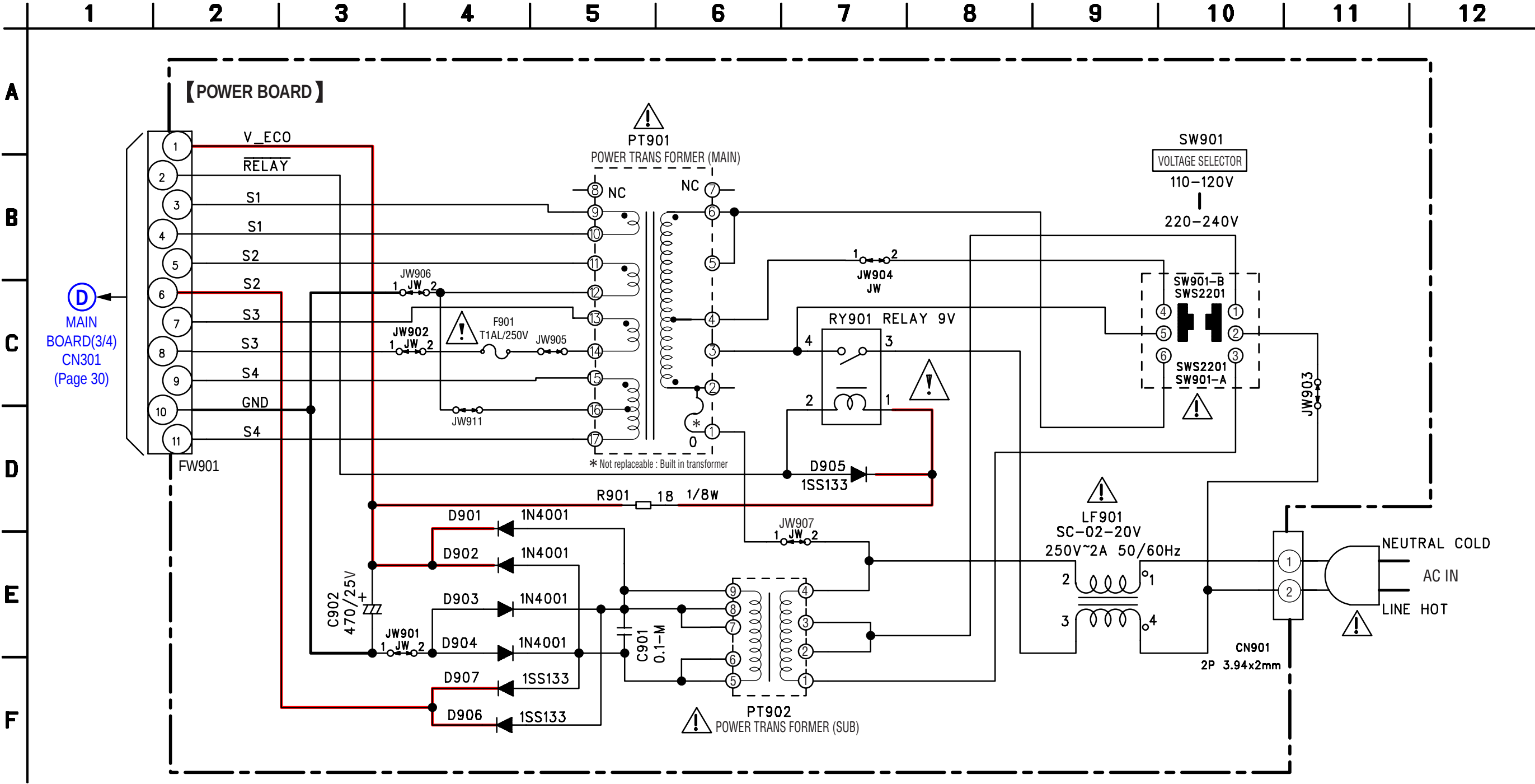


• Semiconductor Location

Ref. No.	Location
D901	C-9
D902	C-9
D903	B-9
D904	B-9
D905	A-8
D906	B-8
D907	C-9

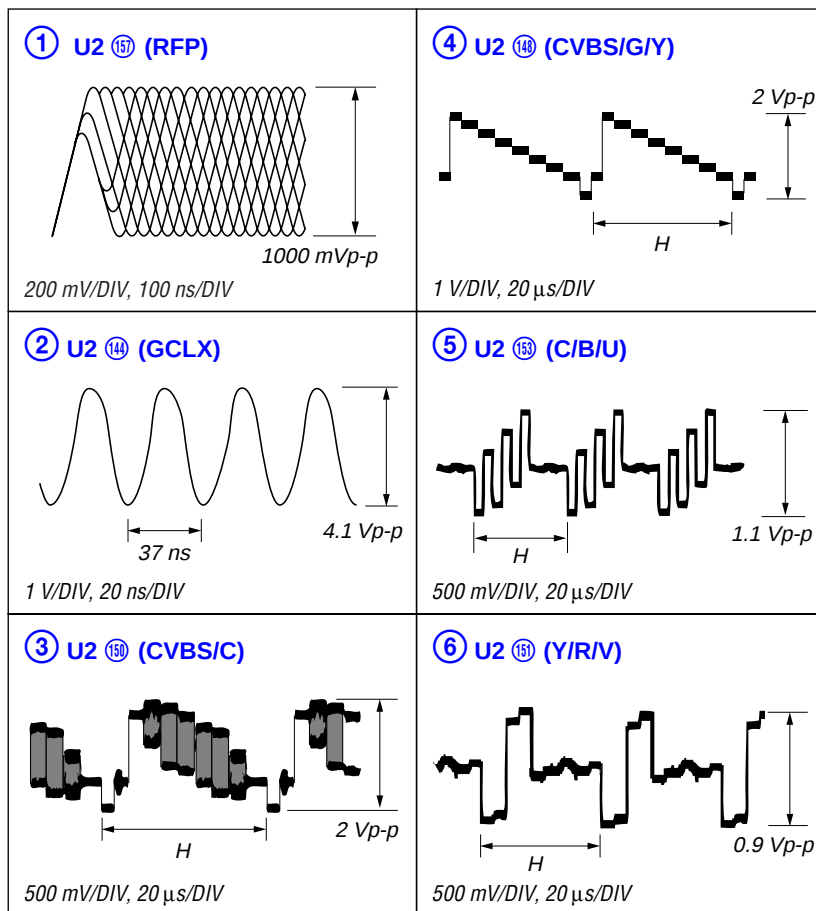
D
MAIN BOARD
CN301
(Page 27)

7-24. SCHEMATIC DIAGRAM — POWER SECTION —

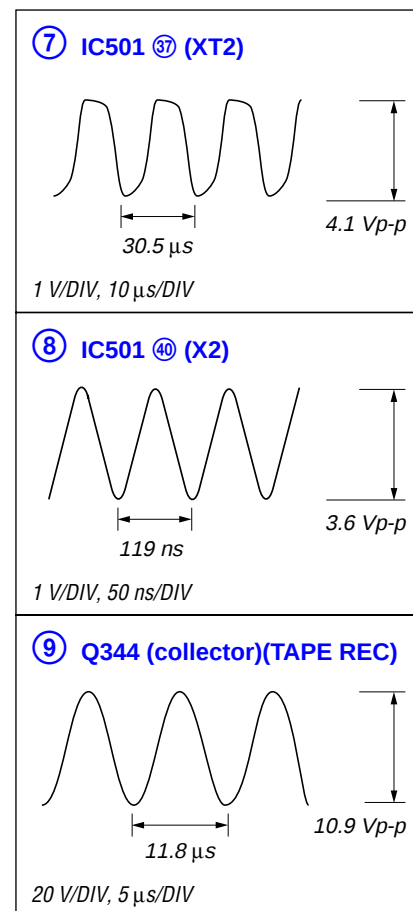


• Waveforms

– MPEG Board –

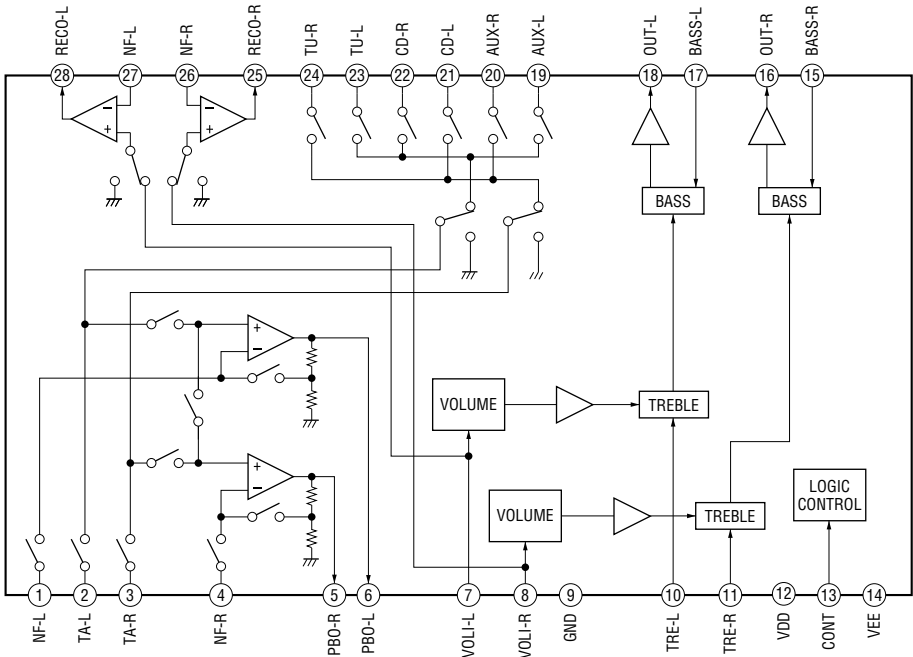


– MAIN Board –

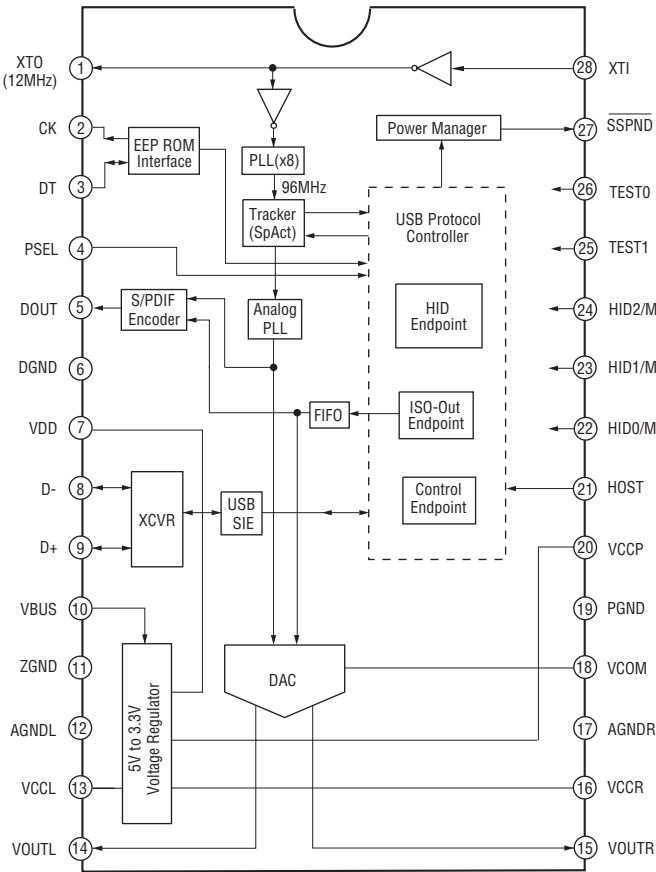


• IC Block Diagrams
– MAIN Board –

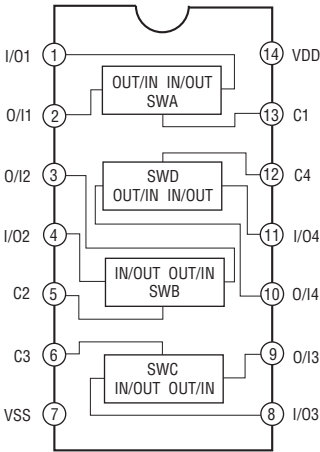
IC302 BD3881FV



IC401 PCM2704

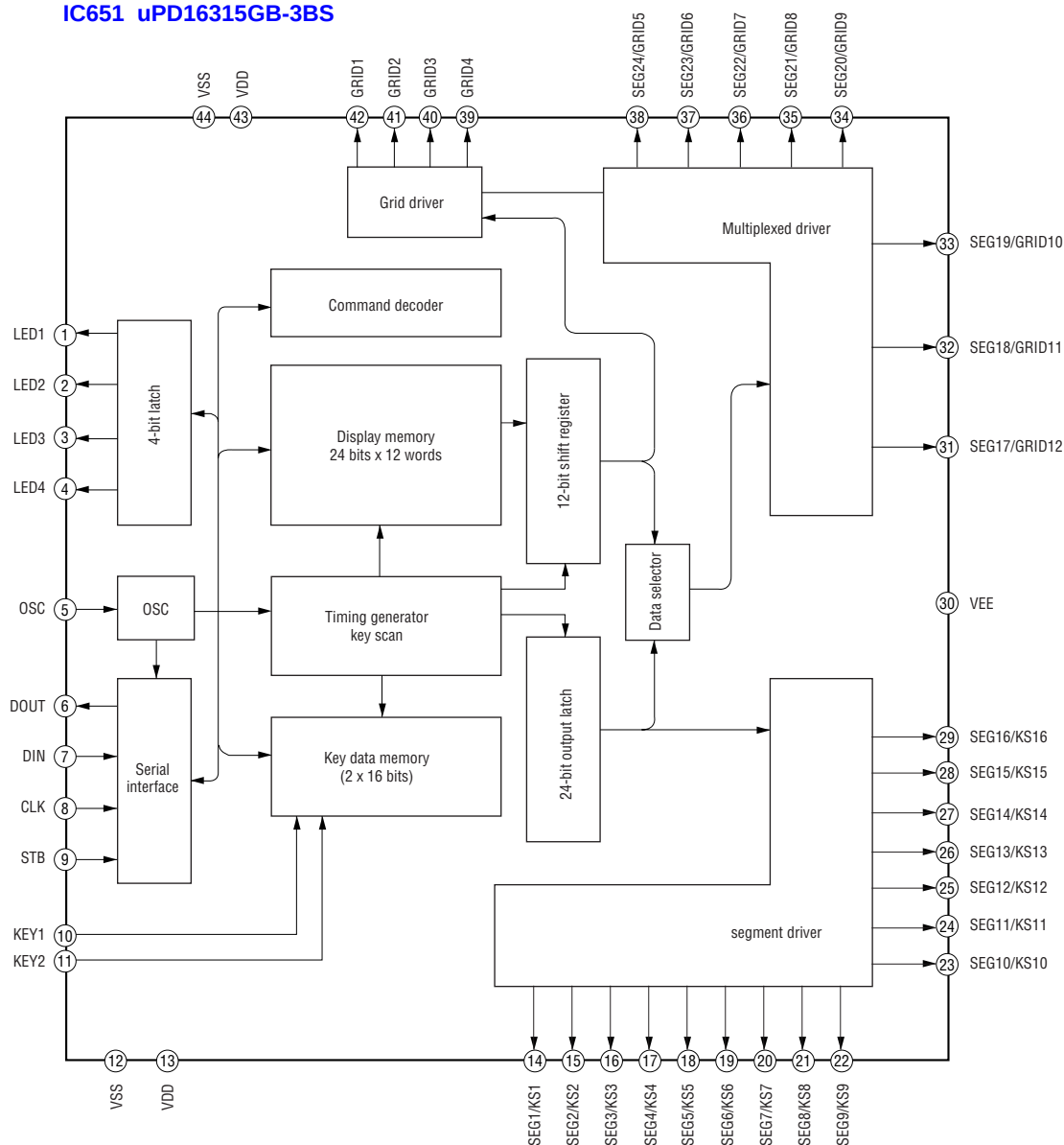


IC402, IC403 BU4066



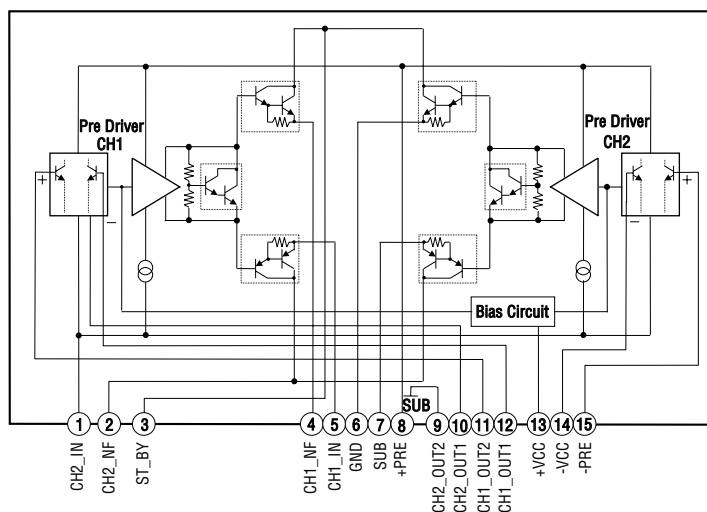
– KEY Board –

IC651 uPD16315GB-3BS



– AMP Board –

IC103 STK433-070



• IC Pin Function Description

MAIN BOARD IC501 uPD780078 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	MUTE1	O	Muting signal output to the VIDEO AMP (not used)
2	MUTE2	O	Muting signal output to the VIDEO AMP (not used)
3	RPHD	O	REC/PLAY control signal output
4	BIAS	O	BIAS ON/OFF control signal output
5	TSOL	O	Tape solenoid control signal output
6	TMOT	O	Tape motor control signal output
7	TCNT	O	Tape control signal output
8	VIDEO SW	I	RGB/COMPONENT select SW signal input (not used)
9	GND	—	Ground terminal
10	VDD	—	Power supply terminal (+5V)
11	STE	I	Stereo signal input
12	TUCE	O	Chip enable signal output to the tuner
13	VIDS	O	INT/PRO signal output (not used)
14	TOP	I	DVD/CD tray open SW signal input
15	VEDA	O	Chip select output to the FL driver
16	VFCK	O	Clock output to the FL driver
17	VFSTB	O	Data output to the FL driver
18	TUDI	O	Data output to the tuner
19	TUDO	I	Data input from the tuner
20	TUCK	O	Clock output to the tuner
21	RDDA	O	Strobe signal output to the tuner (not used)
22	VUP	I	Volume up input (not used)
23	FPON	O	FL power supply control signal output
24	VDD1	—	Power supply terminal (+5V)
25	GND	—	Ground terminal
26	KEY1	I	Function key input
27	KEY2	I	Function key input
28	KEY3	I	Function key input
29	SFTY	I	AC cut detect signal input
30	HDPN	I	Tape SW (PACK, HDPLY) signal input
31	REPT	I	Tape SW (RECF, RECR) signal input
32	VER	I	Destination version setting
33	VDWN	I	Volume down input (not used)
34	AVR	I	Reference voltage terminal
35	TCL	I	DVD/CD tray close SW signal input
36	RST	I	System reset signal input
37	XT2	I	Subclock input (36.768KHz)
38	XT1	O	Subclock output (36.768KHz)
39	IC	—	Not used
40	X2	I	Main system clock input (8.38MHz)
41	X1	O	Main system clock output (8.38MHz)
42	GND	—	Ground terminal
43	U-SENS	O	USB SENS signal output
44	INH	I	Power down detect signal input
45	REM	I	SIRES signal input from the remote control receiver
46	RDCK	O	RDCK signal output to the tuner (not used)
47	MRST	O	MPEG reset signal output

Pin No.	Pin Name	I/O	Description
48	DSDA	O	DAC encoder data signal output
49	DSSTB	O	DAC encoder chip enable signal output
50	DSCK	O	DAC encoder clock signal output
51	XTO	—	Not used
52	STRB	O	Strobe data out to the sound processor
53	SDAT/ROMDA	O	Data output to the EPROM
54	SCK/ROMCK	O	Clock output to the EPROM
55	OPN	O	Loading motor FWD control signal output
56	CLS	O	Loading motor REV control signal output
57	AUXTVS	O	Clock output to the quad analog switch
58	USBPS	O	Data output to the quad analog switch
59	AMUT	O	Audio line muting signal output
60	LED	O	LED control signal output
61	TUON	O	Tuner power supply control signal output
62	CD ON	O	CD power supply control signal output
63	RLY	O	Relay control signal output
64	PCON	O	Power supply control signal output

MPEG BOARD U2 ZR36862 (RF AMP, FOCUS/TRACKING ERROR AMP, VIDEO DAC ENCODER)

Pin No.	Pin Name	I/O	Description
1	SSCRXD/IO17	I	Chip enable signal input from the system controller
2	MCS1/IO18	—	Not used
3	VDDP	—	Power supply terminal (+3.3V)
4 to 7	MAD16 to 13	O	Flash memory address bus
8	MAD12/PLLCFGA	O	Flash memory address bus
9	MDA15	I/O	Flash memory data bus
10	MAD11/PLLCFGP	O	Flash memory address bus
11	MDA7	I/O	Flash memory data bus
12	GND P	—	Ground terminal
13	MAD10	O	Flash memory address bus
14	MDA14	I/O	Flash memory data bus
15	MAD9	O	Flash memory address bus
16	MDA6	I/O	Flash memory data bus
17	MAD8	O	Flash memory address bus
18	MDA13	I/O	Flash memory data bus
19	MDA5	I/O	Flash memory data bus
20	MAD20/IO19/CS2	O	Flash memory address bus (not used)
21	VDDP	—	Power supply terminal (+3.3V)
22	MDA12	I/O	Flash memory data bus
23	MWR#	O	Flash memory write enable signal output
24	MDA4	I/O	Flash memory data bus
25	VDDC	—	Power supply terminal (+1.8V)
26	MDA11	I/O	Flash memory data bus
27	MDA3	I/O	Flash memory data bus
28	MAD19/PLLSEL	O	Flash memory address bus
29	GNDC	—	Ground terminal
30	MDA10	I/O	Flash memory data bus
31	MAD18	O	Flash memory address bus
32	GNDP	—	Ground terminal
33	MDA2	I/O	Flash memory data bus
34	MAD17	O	Flash memory address bus
35	MDA9	I/O	Flash memory data bus
36	MAD7	O	Flash memory address bus
37	MDA1	I/O	Flash memory data bus
38	MAD6	O	Flash memory address bus
39	MDA8	I/O	Flash memory data bus
40	MAD5	O	Flash memory address bus
41	VDDP	—	Power supply terminal (+3.3V)
42	MDA0	I/O	Flash memory data bus
43	MAD4	O	Flash memory address bus
44	MRD#	O	Flash column high address strobe signal output
45	MAD3	O	Flash memory address bus
46	MAD2	O	Flash memory address bus
47	MCS#0	O	Flash memory output enable signal output
48	MAD1/BOOTSEL2	O	Flash memory address bus
49	MAD0/BOOTSEL1	O	Flash memory address bus
50	GNDP	—	Ground terminal
51	VDD-IP	—	Power supply terminal (+3.3V)

Pin No.	Pin Name	I/O	Description
52	VDDP	—	Power supply terminal (+3.3V)
53 to 57	RADD2 to 6	O	Address bus to the D-RAM
58	VDDP	—	Power supply terminal (+3.3V)
59	RADD1	O	Address bus to the D-RAM
60	RADD7	O	Address bus to the D-RAM
61	RADD0	O	Address bus to the D-RAM
62	GNDP	—	Ground terminal
63	RADD8	O	Address bus to the D-RAM
64	VDDC	—	Power supply terminal (+1.8V)
65	RADD10	O	Address bus to the D-RAM
66	GNDC	—	Ground terminal
67	RADD9	O	Address bus to the D-RAM
68	VDDP	—	Power supply terminal (+3.3V)
69	RADD11	O	Address bus to the D-RAM (not used)
70	RCS#0/RBA1	O	Chip select signal output to the D-RAM (IC4)
71	RBA0	O	Address bus to the D-RAM
72	GNDP	—	Ground terminal
73	RCS#1	O	Chip select signal output to the D-RAM (IC5)
74	RRAS#	O	D-RAM Low address strobe signal output
75	RCAS#	O	D-RAM column address strobe signal output
76	VDDP	—	Power supply terminal (+3.3V)
77	RWE#	O	D-RAM write enable signal output
78	RDQM#	O	D-RAM data signal output
79	GNDPCLK	—	Ground terminal
80	PCLK	O	D-RAM clock output
81	VDDPCLK	—	Power supply terminal (+3.3V)
82	RDAT8	I/O	Data bus to the D-RAM
83	GNDP	—	Ground terminal
84	RDAT7	I/O	Data bus to the D-RAM
85	RDAT9	I/O	Data bus to the D-RAM
86	RDAT6	I/O	Data bus to the D-RAM
87	VDDP	—	Power supply terminal (+3.3V)
88	RDAT10	I/O	Data bus to the D-RAM
89	RDAT5	I/O	Data bus to the D-RAM
90	RDAT11	I/O	Data bus to the D-RAM
91	GNDP	—	Ground terminal
92	RDAT4	I/O	Data bus to the D-RAM
93	VDDC	—	Power supply terminal (+1.8V)
94	RDAT12	I/O	Data bus to the D-RAM
95	GNDC	—	Ground terminal
96	RDAT3	I/O	Data bus to the D-RAM
97	VDDP	—	Power supply terminal (+3.3V)
98	RDAT13	I/O	Data bus to the D-RAM
99	RDAT2	I/O	Data bus to the D-RAM
100	RDAT14	I/O	Data bus to the D-RAM
101	GNDP	—	Ground terminal
102	RDAT1	I/O	Data bus to the D-RAM
103	RDAT15	I/O	Data bus to the D-RAM
104	RDAT0	I/O	Data bus to the D-RAM

Pin No.	Pin Name	I/O	Description
105	VDDP	—	Power supply terminal (+3.3V)
106	CPUNM/IO20	—	Not used
107	GNDP	—	Ground terminal
108	ICIO0	—	Not used
109	ICIO0	—	Not used
110	SPDIF	O	SPDIF (DVD/CD) change signal output
111	IO21/AOUT2	—	Not used
112	IO22/AOUT1	—	Not used
113	AOUTO	O	Signal output to the audio DAC
114	GPAIO	—	Not used
115	ALRCLK	O	LRCK signal output to the audio DAC
116	ABCLK	O	BCK signal output to the audio DAC
117	GNDP-A2	—	Ground terminal
118	AMCLK	I	AMCLK signal input from the AV decoder
119	VDDP-A2	—	Power supply terminal (+3.3V)
120	IO23/AIN	—	Not used
121	IO24/VSYN	—	Not used
122	IO25/HSYN	—	Not used
123	GNDP	—	Ground terminal
124	ICI01/VCLK*2	—	Not used
125	VDDP	—	Power supply terminal (+3.3V)
126	IO26/VID7	—	Not used
127	IC102/VID6	—	Not used
128	IOI01/VID5	—	Not used
129	IO27/VID4	—	Not used
130	GNDP	—	Ground terminal
131	VDDC	—	Power supply terminal (+1.8V)
132	IO28/VID3	—	Not used
133	IO29/VID2	—	Not used
134	IO30/VID1	—	Not used
135	IC103/VID0	O	SDA signal output to the EEPROM
136	IO31	O	SCL signal output to the EEPROM
137	IDI02	I	COMPONENT/RGB-SW control signal input
138	VDD	—	Power supply terminal (+3.3V)
139	GNDP	—	Ground terminal
140	GNDP	—	Ground terminal
141	RESET#	I	Reset signal input from the system controller
142	VDDA	—	Power supply terminal (+1.8V)
143	XO	O	System clock output (27MHz)
144	GCLK	I	System clock input (27MHz)
145	GNDP	—	Ground terminal
146	GNDP	—	Ground terminal
147	Y/C	—	Not used
148	CVBS/C/Y	O	Video signal output
149	VDDDAC	—	VDDDAC power supply terminal (+3.3V)
150	CVBC/C	O	Video signal output
151	Y/R/V	O	Video signal output
152	VDDDAC	—	VDDDAC power supply terminal (+3.3V)
153	C/B/V	O	Video signal output

Pin No.	Pin Name	I/O	Description
154	RSET	I	Connected to ground
155	GNDDACP	—	Ground terminal
156	GNDDACBS2	—	Ground terminal
157	RF P	I	Main-beam RF signal input
158	RF N	I	Not used
159	G	I	DC coupled main-beam RF signal input G (not used)
160	A	I	DC coupled main-beam RF signal input A
161	AVDD1	—	Power supply terminal (+3.3V)
162	B	I	DC coupled main-beam RF signal input B
163	SVDD	—	Power supply terminal (+3.3V)
164	AVDD	—	Power supply terminal (+3.3V)
165	C	I	DC coupled main-beam RF signal input C
166	H	I	DC coupled main-beam RF signal input H (not used)
167	D	I	DC coupled main-beam RF signal input D
168	J	—	Not used
169	AGND	—	Ground terminal
170	E	I	DC coupled main-beam RF signal input E
171	K	—	Not used
172	F	I	DC coupled main-beam RF signal input F
173	VC	I	Control signal input from Optical pick-up
174	VBCAP	—	Connected to +3.3V
175	RESOUT	I	Connected to ground
176	CD_MD	O	Volume control signal output to Optical pick-up
177	DVD_MD	O	Volume control signal output to Optical pick-up
178	CD_LD	O	Laser drive output
179	DVD_LD	O	Laser drive output
180	AGND	—	Ground terminal
181	AGND1	—	Ground terminal
182	VDDC	—	Power supply terminal (+1.8V)
183	I032	O	Motor Drive AMP signal output
184	GNDC	—	Ground terminal
185	ICI04	I	SW (close) signal input
186	ICI05	I	SW (open) signal input
187	VDDP	—	Power supply terminal (+3.3V)
188	IDI03	O	Laser select drive output
189	GNDP	—	Ground terminal
190	ICI06	—	Not used
191	ICI07	—	Not used
192	VDD-IP	—	Power supply terminal (+3.3V)
193	IDI06/SLED	—	Not used
194	IDI07/SPINDLE	—	Not used
195	I043/PWMCO2	O	Motor Drive AMP signal output
196	I044/PWMCO3	O	Motor Drive AMP signal output (not used)
197	GNDPWM	—	Ground terminal
198	I045/PWMCO4	O	Motor Drive AMP signal output
199	VDDPWM	—	Power supply terminal (+3.3V)
200	I046/PWMCO5	I	HOME SW signal input
201	IDI04/PWMCO6	O	Motor Drive AMP signal output
202	I04/PWMCO0	O	Motor Drive AMP signal output

Pin No.	Pin Name	I/O	Description
203	IO35/DUPRD0	O	Latch enable signal output to the audio DAC (not used)
204	IO36/DUPTD0	O	Line3 control signal output
205	IO37/DUPRD1	O	Line3 control signal output
206	IO38/DUPTD1	O	Video signal output terminal (D1/S) change signal output
207	IO47/SSCCLK	I	Clock signal input from the system controller
208	IO16/SSCTXD	I	Data signal input from the system controller
209 to 257	HOLE1 to 49	—	Connected to ground

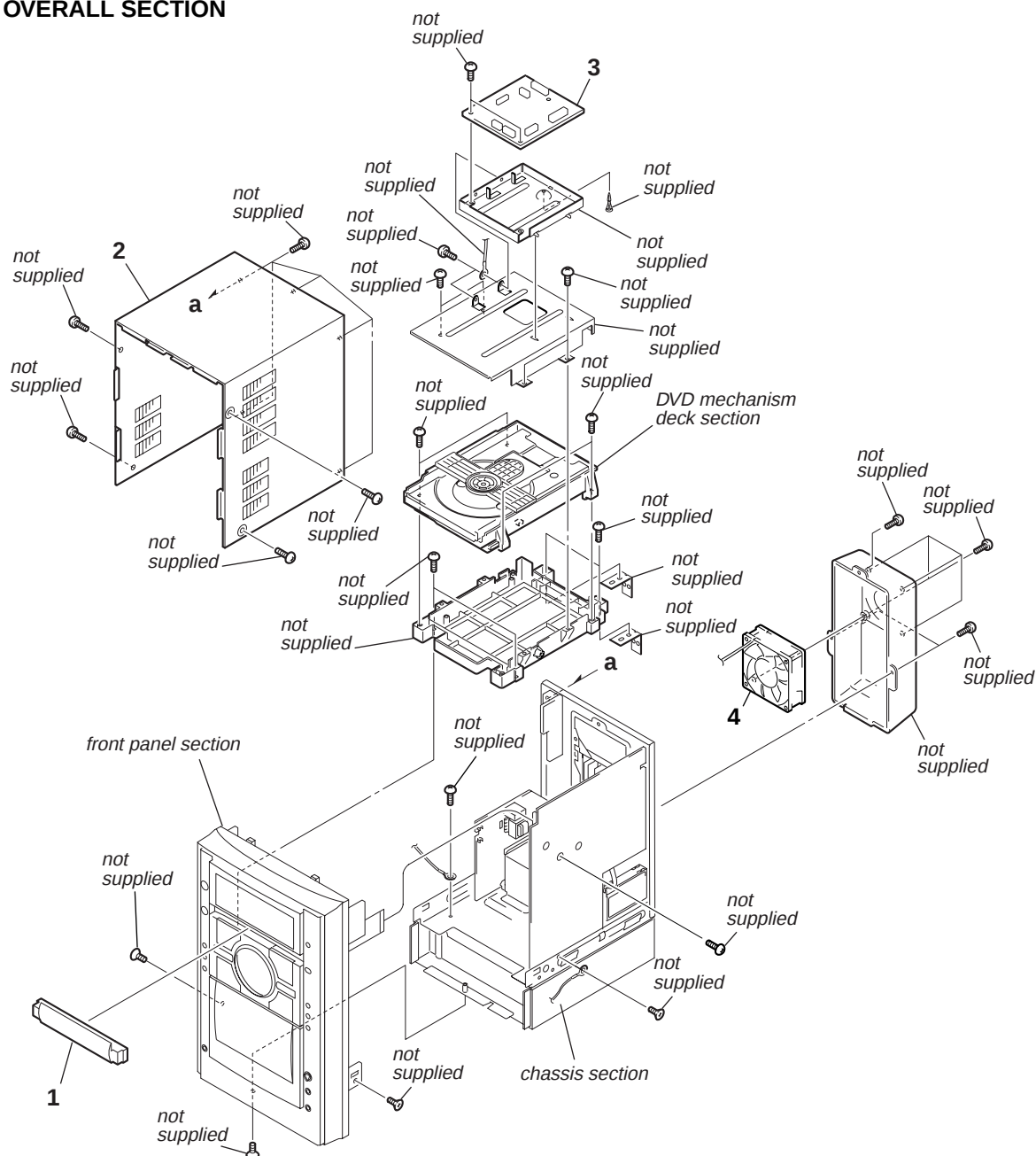
SECTION 8 EXPLODED VIEWS

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.

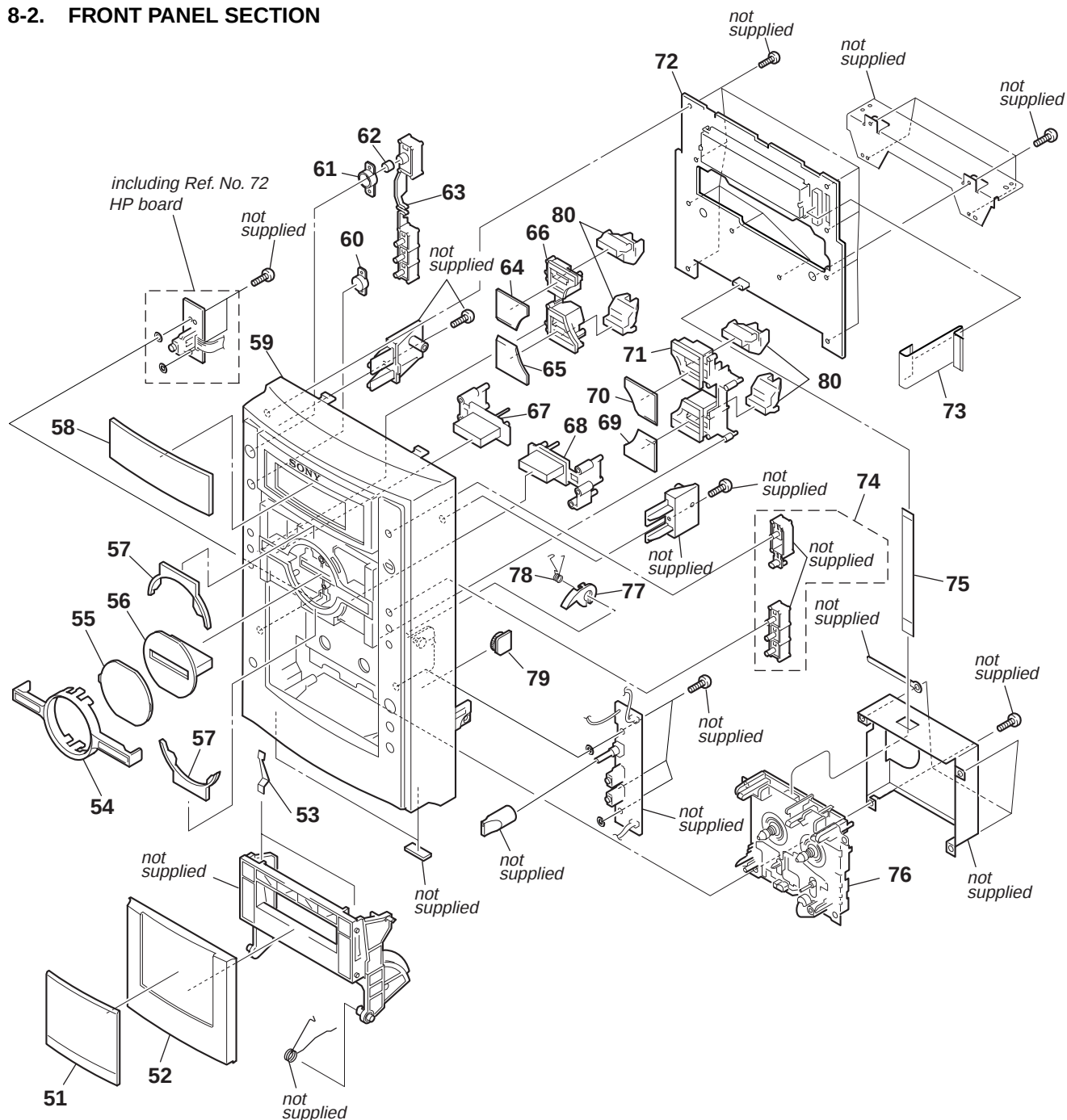
The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

8-1. OVERALL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	9-885-100-50	PANEL TRAY DVD		3	9-885-105-69	MPEG BOARD, COMPLETE	
2	9-885-100-24	TOP COVER		4	9-885-083-69	FAN, DC	

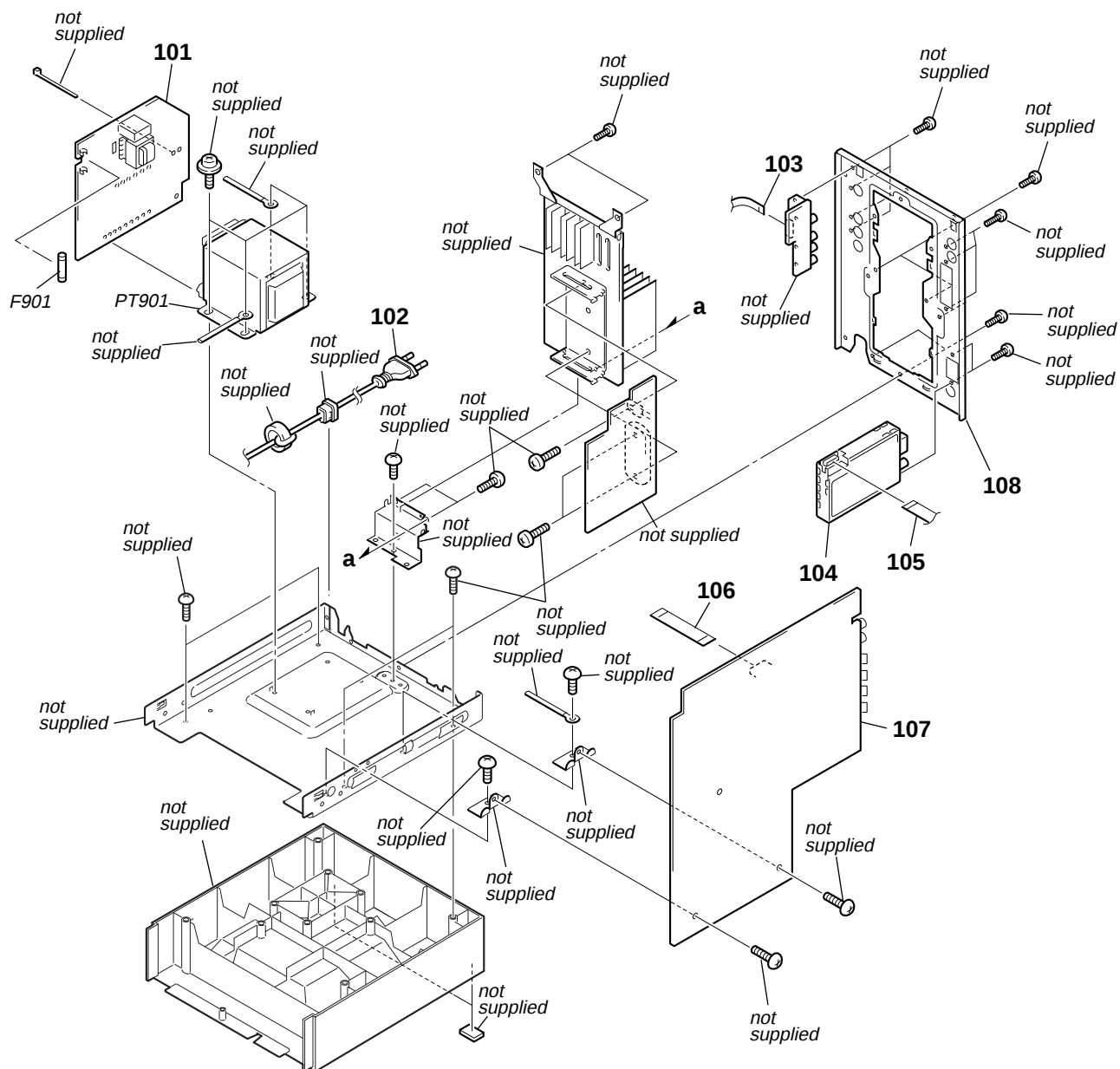
8-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	9-885-100-67	WINDOW CASS		66	9-885-100-53	BASE KEY LEFT	
52	9-885-100-68	PANEL CASS		67	9-885-100-61	KEY SKIP LEFT	
53	4-238-631-01	TAPE SPRING		68	9-885-100-62	KEY SKIP RIGHT	
54	9-885-100-64	RING VOLUME		69	9-885-100-55	LENS TUNER	
55	9-885-100-65	LENS VOLUME		70	9-885-100-56	LENS DVD	
56	9-885-100-63	KEY VOLUME		71	9-885-100-54	BASE KEY RIGHT	
57	9-885-100-66	LENS ORNAMENT		72	9-885-105-25	KEY BOARD, COMPLETE (including HP BOARD)	
58	9-885-100-49	WINDOW DISPLAY		73	9-885-107-27	WIRE (FLAT TYPE)(21 CORE)	
59	9-885-100-48	CABI FRONT		74	9-885-100-52	KEY FUNCTION RIGHT	
60	9-885-100-69	LENS SENSOR		75	9-885-101-01	FFC CABLE 7PIN PITCH=1.25	
61	9-885-100-60	LENS POWER		76	1-796-352-81	DECK, MECHANICAL (CMAL5Z220C)	
62	9-885-100-59	CAP KEY POWER		77	4-231-825-01	CAM (B), HEART	
63	9-885-100-51	KEY FUNCTION LEFT		78	4-231-841-01	SPRING (HEART CAM-B)	
64	9-885-100-58	LENS TAPE		79	4-242-318-01	OIL-DAMPER (70N)	
65	9-885-100-57	LENS TV		80	9-885-100-71	LENS LED	

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

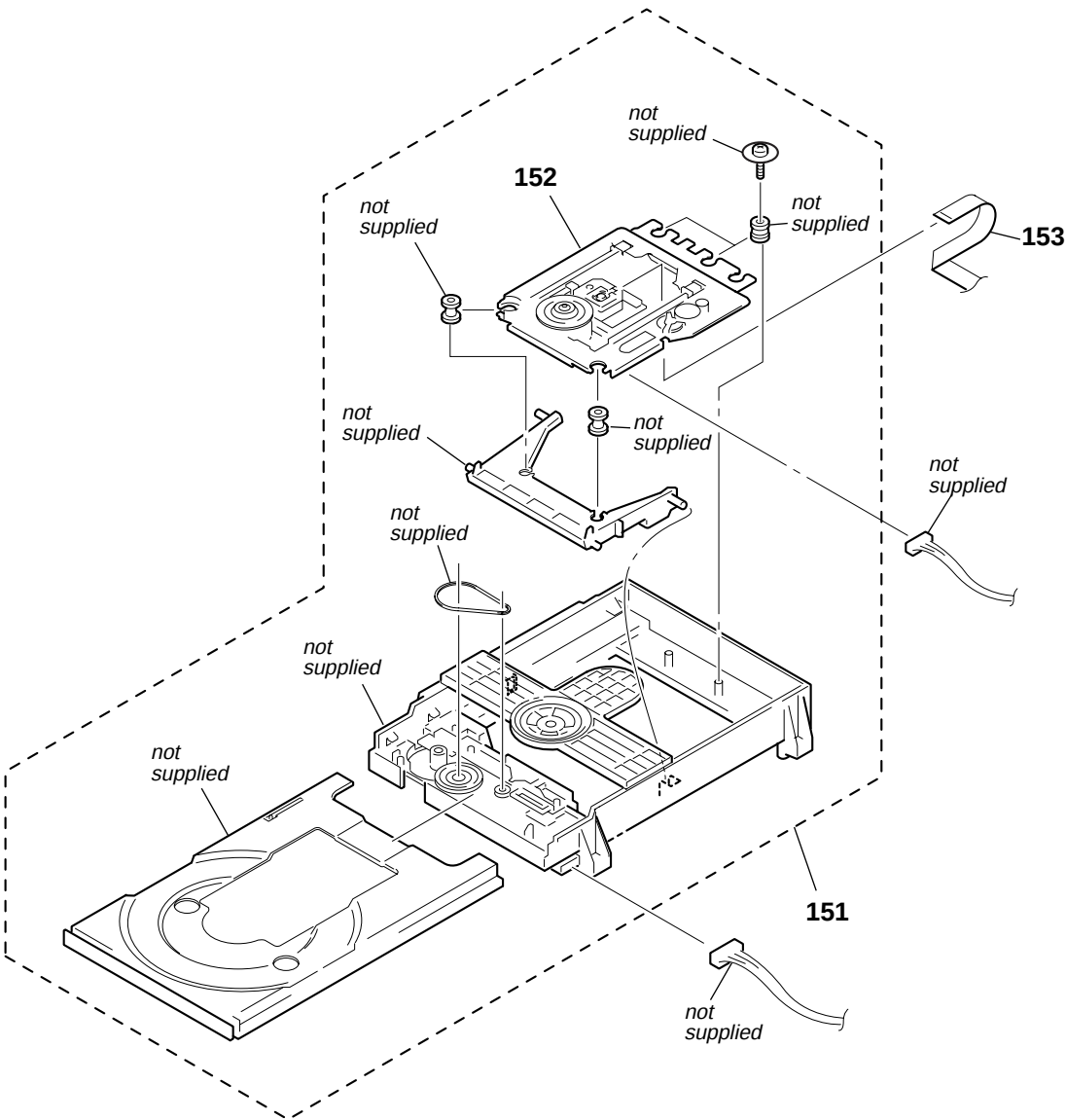
8-3. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	9-885-105-27	POWER BOARD, COMPLETE		106	9-885-101-07	FF-CABLE 12P P=1.25MM L=1	
△ 102	1-769-744-11	CORD, POWER		107	9-885-105-26	MAIN BOARD, COMPLETE	
103	9-885-101-06	FF-CABLE 16P P=1.25MM L=1		108	9-885-100-75	PANEL REAR	
104	1-693-702-11	TUNER (FM/AM) (TM10SE)		△ F901	1-532-463-31	FUSE (T1AL/250V)	
105	9-885-101-08	FF-CABLE 9PINS P=1.25MM R		△ PT901	9-885-105-28	POWER TRANSFORMER	

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

8-4. DVD MECHANISM DECK SECTION



Ref. No.	Part No.	Description	Remark
151	9-885-101-04	MECHANISM LOADER WXD	
▲ 152	9-885-101-00	OPTICAL PICK-UP DM3451-A (SF-HD65F)	
153	9-885-101-02	FF-CABLE 24PINS P=0.5MM	

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

HCD-AZ1D

POWER

Ref. No.	Part No.	Description	Remark
	9-885-105-27	POWER BOARD, COMPLETE *****	
		< TRANSFORMER >	
△ PT902	9-885-059-89	TRANSFORMER, POWER	
		< RELAY >	
△ RY901	9-885-059-96	RELAY, POWER	
		<SWITCH>	
△ SW901	1-786-404-11	SELECTOR, VOLTAGE (SWS-2201) (VOLTAGE SELECTOR) *****	
		MISCELLANEOUS *****	
4	9-885-083-69	FAN, DC	
73	9-885-107-27	WIRE (FLAT TYPE)(21 CORE)	
75	9-885-101-01	FFC CABLE 7PIN PITCH=1.25	
76	1-796-352-81	DECK, MECHANICAL (CMAL5Z220C)	
△ 102	1-769-744-11	CORD, POWER	
103	9-885-101-06	FF-CABLE 16P P=1.25MM L=1	
104	1-693-702-11	TUNER (FM/AM) (TM10SE)	
105	9-885-101-08	FF-CABLE 9PINS P=1.25MM R	
106	9-885-101-07	FF-CABLE 12P P=1.25MM L=1	
151	9-885-101-04	MECHANISM LOADER WXD	
△ 152	9-885-101-00	OPTICAL PICK-UP DM3451-A (SF-HD65F)	
153	9-885-101-02	FF-CABLE 24PINS P=0.5MM	
△ F901	1-532-463-31	FUSE (T1AL/250V)	
△ PT901	9-885-105-28	POWER TRANSFORMER	

MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

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