

HCD-EC50

SERVICE MANUAL

Ver. 1.3 2006.03



*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model*

HCD-EC50 is the Amplifier, CD player, Tape Deck and Tuner section in MHC-EC50.

CD Section	Model Name Using Similar Mechanism	NEW
	Base Unit Name	BU-K6BD83S-WOD
	Optical Pick-up Name	KSM-213DCP/C2NP
TAPE Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	H21SB-C05

SPECIFICATIONS

Main unit

AUDIO POWER SPECIFICATIONS
POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
(The United States model only)

With 6 ohm loads, both channels driven, from 120 – 10,000 Hz; rated 50 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

North-American model :

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

European model :

DIN power output (rated): 24 + 24W (6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference): 30 + 30W (6 ohms at 1 kHz, 10% THD)

Music power output (reference): 60 + 60W

The following are measured at AC 240V, 50/60 Hz (Australian model) ,

AC 120V, 220 or 240V, 50/60 Hz (other models)

DIN power output (rated): 40 + 40W (6 ohms at 1 kHz, DIN)

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

Inputs

AUDIO IN (stereo mini jack): Sensitivity 800 mV, impedance 47 kilohms

Outputs

PHONES (stereo mini jack): Accepts headphones with an impedance of 8 ohms or more

SPEAKER: Accepts impedance of 6 ohms

CD player section

System: Compact disc and digital audio system

Laser Diode Properties

Emission duration: continuous

Laser Output*: Less than 44.6µW

* This output is the value measurement at a distance of 200mm from the objective lens surface on the Optical Pick-up Block with 7mm aperture.

Frequency response: 20 Hz – 20 kHz

Signal-to-noise ratio: More than 90 dB

Dynamic range: More than 90 dB

Tape deck section

Recording system: 4-track 2-channel, stereo

Tuner section

FM stereo, FM/AM superheterodyne tuner

Antenna:

FM lead antenna

AM loop antenna

FM tuner section:

Tuning range

North American models: 87.5 – 108.0 MHz (100 kHz step)

Other models: 87.5 – 108.0 MHz (50 kHz step)

Intermediate frequency: 10.7 MHz

AM tuner section:

Tuning range

Northe American models: 530 – 1,710 kHz (with 10 kHz tuning interval)

531 – 1,710 kHz (with 9 kHz tuning interval)

European model: 530 – 1,602 kHz (with 9 kHz tuning interval)

Other models: 530 – 1,710 kHz (with 10 kHz tuning interval)

531 – 1,602 kHz (with 9 kHz tuning interval)

Intermediate frequency: 450 kHz

General

Power requirements

North American model: AC 120V, 60Hz

European model: AC 230V, 50/60Hz

Australian model: AC 230-240V, 50/60Hz

Other models: AC 120V, 220-230V or 240V, 50/60Hz

Adjustable with voltage selector

Power consumption

North American model: 75W

European model: 70W 0.5W (in Power off)

Other models: 95W

Dimensions (w/h/d) (excl. speakers): Approx. 200 × 306 × 359.5 mm

Mass (excl. speakers): North American and European models: Approx. 5.3 kg

Other models: Approx. 5.7 kg

Design and specifications are subject to change without notice.

COMPACT DISC DECK RECEIVER

9-879-904-04
2006C16-1
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Sony Corporation
Personal Audio Division
Published by Sony Techno Create Corporation

SONY®

TABLE OF CONTENTS

1. SERVICING NOTES	3	6-3. Block Diagram — MAIN Section —	20
2. GENERAL	4	6-4. Printed Wiring Board — BD Section —	21
3. DISASSEMBLY		6-5. Schematic Diagram — BD Section —	22
3-1. Disassembly Flow	6	6-6. Printed Wiring Board — MAIN Section —	23
3-2. Side Panel (L) And Side Panel (R)	7	6-7. Schematic Diagram — MAIN Section (1/3) —	24
3-3. Top Section	7	6-8. Schematic Diagram — MAIN Section (2/3) —	25
3-4. Front Panel Section	8	6-9. Schematic Diagram — MAIN Section (3/3) —	26
3-5. PANEL Board	8	6-10. Printed Wiring Board — PANEL Section —	27
3-6. JACK Board	9	6-11. Schematic Diagram — PANEL Section —	28
3-7. MAIN Board	9	6-12. Printed Wiring Board — AMP Section —	29
3-8. CD Section And Base Unit (BU-K6BD83S-WOD) Section	10	6-13. Schematic Diagram — AMP Section —	30
3-9. Chassis (main mold)	11	6-14. Printed Wiring Board — POWER Section —	31
3-10. PT Board And Power Transformer	11	6-15. Schematic Diagram — POWER Section —	31
4. MECHANICAL ADJUSTMENTS	12	7. EXPLODED VIEWS	
5. ELECTRICAL ADJUSTMENTS	12	7-1. Overall Section	38
6. DIAGRAMS		7-2. Front Panel Section	39
6-1. Block Diagram — BD/DRIVER Section —	18	7-3. Chassis Section	40
6-2. Block Diagram — TUNER Section —	19	7-4. Top Section	41
		7-5. CD Section And Base Unit (BU-K6BD83S-WOD) Section	42
		8. ELECTRICAL PARTS LIST	43

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle 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.

ATTENTION AU COMPOSANT AYANT RAPPORT
À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE \triangle SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COM- POSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 SERVICING NOTES

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.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.

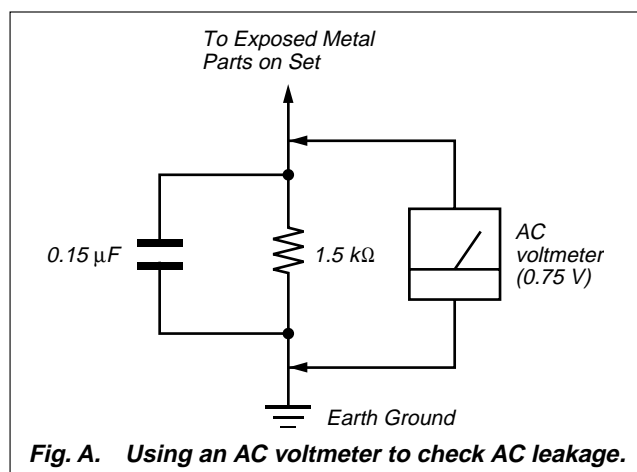
Check leakage as described below.

LEAKAGE TEST

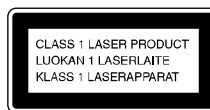
The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



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

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 OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveforms is output three times.

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)

LF: LEAD FREE MARK

Unleaded solder has the following characteristics.

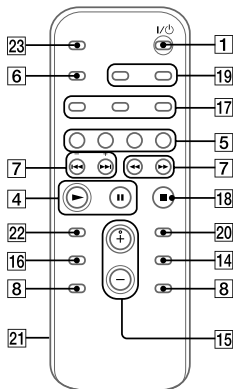
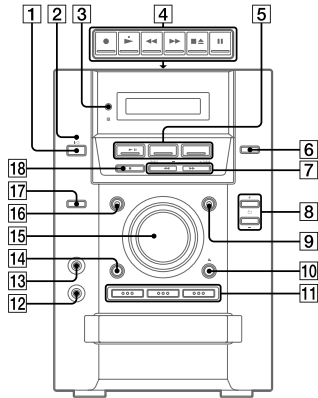
- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350 °C.
Caution: The printed pattern (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.

CAUTION

When carrying this system

- 1 Remove all discs to protect the CD mechanism.
- 2 Hold down CD ►|| (play/pause) on the unit, and press I/⏻ until “STANDBY” appears.
- 3 After “LOCK” appears, unplug the power cord.

Basic Operations



Adjusting the sound

To adjust the volume

Press VOLUME +/- on the remote (or turn the VOLUME control on the unit) [15].

To add a sound effect

To	Press
Generate a more dynamic sound (Dynamic Sound Generator X-tra)	DSGX [9] on the unit.
Set the sound effect	EQ [16].

Playing a CD/MP3 disc

1 Select the CD function.

Press CD on the remote (or FUNCTION repeatedly) [5].

2 Place a disc.

Press ▲ (eject) [10] on the unit, and place a disc with the label side up on the disc tray. To place additional discs, slide the disc tray with your finger as shown below.

To close the disc tray, press ▲ [10] on the unit. Do not force the disc tray closed with your finger, as this may damage the unit.



3 Select a disc.

If the discs are currently stopped, press DISC SKIP on the remote (or DISC SKIP/EX-CHANGE on the unit) [14]. To change discs while in other functions, press DISC 1 - 3 [11] on the unit.

4 Start playback.

Press ► (play) [4] (or CD ► (play/pause) [5] on the unit).

To exchange other discs during playback, press DISC SKIP/EX-CHANGE [14] on the unit.

To	Press
Pause playback	⏸ (pause) [4] on the remote (or CD ► [5] on the unit). To resume play, press it again.
Stop playback	■ (stop) [18].
Select a folder on an MP3 disc	📁 +/- [8].
Select a track or file	◀◀/▶▶ (go back/go forward) on the remote (◀◀ ▶▶ on the unit) [7].
Find a point in a track or file	Hold down ◀◀/▶▶ (rewind/fast forward) [7] during playback, and release it at the desired point.
Select Repeat Play	REPEAT [17] on the remote repeatedly until "REP" appears.

To change the play mode

Press PLAY MODE [17] repeatedly while the player is stopped. You can select normal play (no display for all discs or "1 DISC" for a disc or "📁" for all MP3 files in the folder on the disc), shuffle play ("SHUF" for all discs shuffle, "1 DISC SHUF" for one disc shuffle or "📁 SHUF*" for folder shuffle), or program play ("PGM").

*When playing a CD-DA disc, 📁 (SHUF) Play performs the same operation as 1 DISC (SHUF) Play.

Notes on Repeat Play

- All tracks or files on a disc are played repeatedly up to five times.
- You cannot select "REP" and "SHUF" (all discs shuffle) at the same time.
- "REP1" indicates that a single track or file is repeated until you stop it.

Notes on playing MP3 discs

- Do not save other types of tracks or files or unnecessary folders on a disc that has MP3 files.
- Folders that have no MP3 files are skipped.
- MP3 files are played back in the order that they are recorded onto the disc.
- The system can only play MP3 files that have a file extension of ".MP3".
- If there are files on the disc that have the ".MP3" file extension, but that are not MP3 files, the unit may produce noise or may malfunction.
- The maximum number of:
 - folders is 150 (including the root folder).
 - MP3 files is 255.
 - MP3 files and folders that can be contained on a single disc is 256.
 - folder levels (the tree structure of files) is eight.
- Compatibility with all MP3 encoding/writing software, recording device, and recording media cannot be guaranteed. Incompatible MP3 discs may produce noise or interrupted audio or may not play at all.

Notes on playing multisection discs

- If the disc begins with a CD-DA (or MP3) session, it is recognized as a CD-DA (or MP3) disc, and playback continues until another session is encountered.
- A disc with a mixed CD format is recognized as a CD-DA (audio) disc.

Listening to the radio

1 Select "FM" or "AM."

Press TUNER/BAND [5] repeatedly.

2 Select the tuning mode.

Press TUNING MODE [17] repeatedly until "AUTO" appears.

3 Tune in the desired station.

Press +/- on the remote (or TUNING + or - on the unit) [7]. Scanning stops automatically when a station is tuned in.

Tip

To stop automatic scanning, press ■ (stop) [18].

To tune in a station with a weak signal

Press TUNING MODE [17] repeatedly until "MANUAL" appears, and then press +/- on the remote repeatedly (or TUNING + or - on the unit) [7] to tune in the desired station.

To reduce static noise on a weak FM stereo station

Press FM MODE [17] on the remote repeatedly until "MONO" appears to turn off stereo reception.

Playing a tape

Use buttons on the unit for the operation.

1 Select a tape function.

Press FUNCTION repeatedly (or TAPE on the remote) [5].

2 Insert a tape.

Press ■▲ (stop/eject) [4] on the unit, and insert the tape into the cassette holder. Make sure there is no slack in the tape to avoid damaging the tape or the tape deck.

3 Start playback.

Press ► (play) [4] on the unit.

To	Press
Pause playback	⏸ (pause) [4] on the unit. To resume play, press it again.
Stop playback	■▲ (stop/eject) [4] on the unit.
Rewind or fast forward*	◀◀/▶▶ [4] on the unit.

* Be sure to press ■▲ (stop/eject) [4] on the unit after the tape has been wound or rewound to the end.

Note

Do not turn off the system during playback or recording.

Changing the display

To change	Press
Information on the display ¹⁾	DISPLAY [6] repeatedly when the system is on.
Display mode (Clock)	DISPLAY [6] when the system is off ²⁾ . The clock is displayed for eight seconds.

¹⁾ For example, you can view CD/MP3 disc information, such as the track or file number or folder name during normal play, or the total play time while the player is stopped.

²⁾ The STANDBY indicator [2] lights up when the system is turned off.

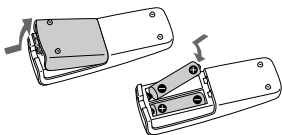
Notes on the display information

- The following are not displayed correctly:
 - total playing time for a disc with MP3 files.
 - elapsed playing time and remaining time of an MP3 file encoded using a VBR (variable bit rate) when the file is played or is shifted with fast forward or fast reverse.
 - folder and file names that do not follow either the ISO9660 Level 1 or 2 standard.
- The following are displayed:
 - ID3 tag information for MP3 files when ID3 version 1 and version 2 tags are used.
 - up to 15 characters of ID3 tag information using uppercase letters (A to Z), numbers (0 to 9), and symbols '<> * + - / @ [\] _'.

Before using the system

To use the remote

Slide and remove the battery compartment lid [21], and insert the two R6 (size AA) batteries (not supplied), ⚡ side first, matching the polarities shown below.



Notes on using the remote

- With normal use, the batteries should last for about six months.
- Do not mix an old battery with a new one or mix different types of batteries.
- If you do not use the remote for a long period of time, remove the batteries to avoid damage from battery leakage and corrosion.

To set the clock

1 Turn on the system.

Press I/O (power) [1].

2 Select the clock set mode.

Press CLOCK/TIMER SET [19] on the remote. If the current mode appears on the display, press ◀◀/▶▶ [7] on the remote repeatedly to select "CLOCK," and then press ENTER [20] on the remote.

3 Set the time.

Press ◀◀/▶▶ [7] on the remote repeatedly to set the hour, and then press ENTER [20] on the remote. Use the same procedure to set the minutes.

The clock settings are lost when you disconnect the power cord or if a power failure occurs.

Selecting a music source

Press the following buttons (or press FUNCTION [5] repeatedly).

To select	Press
CD	CD [5] on the remote.
Tuner	TUNER/BAND [5].
Tape	TAPE [5] on the remote.
Component* (connected using an audio cord)	FUNCTION [5] repeatedly until "AUDIO IN" appears.

* If the component has the AVLS (Automatic Volume Limiter System) or BASS BOOST function, turn off the function to avoid distorted sound from the speakers.

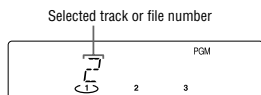
Other Operations

Creating your own CD program (Program Play)

Use buttons on the remote to create your own program.

- 1 Press CD [5] to select the CD function.
- 2 Press PLAY MODE [17] repeatedly until "PGM" appears while the player is stopped.
- 3 Press DISC SKIP [14] to select a disc.
- 4 Press [11] (or [12] > [13]) on the unit [7] repeatedly until the desired track number appears.

When programing MP3 files, press [8] repeatedly to select the desired folder, and then select the desired file.



- 5 Press ENTER [20] to add the track or file to the program.
- 6 Repeat steps 3 through 5 to program additional tracks or files, up to a total of 15 tracks or files.
- 7 To play your program of tracks or files, press [4] (or CD [5]) on the unit.

The program remains available until you open the disc tray. To play it again, select the CD function, and press [4] (or CD [5]) on the unit.

To cancel Program Play, press PLAY MODE [17] repeatedly until "PGM" disappears while the player is stopped.

To delete the last track or file of the program, press CLEAR [22] on the remote while the player is stopped.

To view program information, such as total track number of the program, press DISPLAY [6] repeatedly.

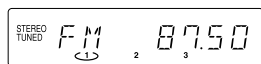
Presetting radio stations

You can preset your favorite radio stations and tune them in instantly by selecting the corresponding preset number.

Use buttons on the remote to preset stations.

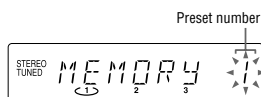
- 1 Press TUNER/BAND [5] repeatedly to select "FM" or "AM."
- 2 Press TUNING MODE [17] repeatedly until "AUTO" appears (or "MANUAL" appears, for a station with a weak signal).
- 3 Press +/- (or TUNING + or - on the unit) [7] to tune in the desired station.

Scanning stops automatically when a station is tuned in, and then "TUNED" and "STEREO" (for stereo programs) appear.



If "TUNED" does not appear and the scanning does not stop, press TUNING MODE [17] until "MANUAL" appears and press +/- (or TUNING + or - on the unit) [7] repeatedly to tune in the desired station.

- 4 Press TUNER MEMORY [17] on the remote.



- 5 Press +/- (or TUNING + or - on the unit) [7] repeatedly to select your desired preset number. If another station is already assigned to the selected preset number, the station is replaced by the new stations.
- 6 Press ENTER [20].
- 7 Repeat steps 1 through 6 to store other stations. You can preset up to 20 FM and 10 AM stations. The preset stations are retained for about half a day even if you disconnect the power cord or if a power failure occurs.
- 8 To call up a preset radio station, press TUNING MODE [17] repeatedly until "PRESET" appears, and then press +/- (or TUNING + or - on the unit) repeatedly [7] to select the desired preset number.

To change the AM tuning interval from the factory preset to 9 kHz (or 10 kHz, for some areas; this function is not available on the European, Russian and Saudi Arabian models), tune in any AM station, and then turn off the system. Press DISPLAY [6] to display the clock and while hold down TUNING + [7] on the unit, press I/⏻ [1] on the unit. All the AM preset stations are erased. To reset the interval to the factory preset, repeat the procedure.

Recording onto a tape

Use a TYPE I (normal) tape only.

You can record just the portions you like from a sound source, including connected audio components.

Use buttons on the unit to control tape recording.

- 1 Insert a recordable tape into the cassette holder with the side you want to record facing up.
- 2 Prepare the recording source. Select the desired source to record. Place the disc you want to record and press DISC SKIP [14] to select a disc. When recording a folder from an MP3 disc, press PLAY MODE [17] repeatedly to select "CD" and then press [8] repeatedly to select the desired folder. To record only your favorite CD tracks or MP3 files in your desired order, perform steps 2 to 5 of "Creating your own CD program."

3 Start recording.

Press ● (record) [4], and then start playing the desired recording source.

The CD starts playing automatically.

If there is noise while recording from the tuner, reposition the appropriate antenna to reduce the noise.

While recording, you cannot listen to other sources.

To stop recording, press ■▲ [4].

Tip

We recommend that you press [4] first, and then press ■▲ [4] to avoid noise being recorded when you stop recording.

Using the timers

The system offers two timer functions. If you use both timers, the Sleep Timer has priority.

Sleep Timer:

You can fall asleep to music. This function works even if the clock is not set.

Press SLEEP [23] on the remote repeatedly. If you select "AUTO," the system automatically turns off after the current disc or tape stops or in 100 minutes.

If the tape deck is still playing or recording at the set time, the system turns off after the tape deck stops.

Play Timer:

You can wake up to CD or tuner at a preset time.

Use buttons on the remote to control the Play Timer. Make sure you have set the clock.

- 1 Prepare the sound source. Prepare the sound source, and then press VOLUME +/- (or turn the VOLUME control on the unit) [15] to adjust the volume. To start from a specific CD track or MP3 file, create your own CD program.
- 2 Press CLOCK/TIMER SET [19].
- 3 Press [11] [7] repeatedly to select "PLAY," and then press ENTER [20]. "ON TIME" appears, and the hour indication flashes.
- 4 Set the time to start playing. Press [11] [7] repeatedly to set the hour, and then press ENTER [20]. The minute indication flashes. Use the procedure above to set the minute.
- 5 Use the same procedure as in step 4 to set the time to stop playing.
- 6 Select the sound source. Press [11] [7] repeatedly until the desired sound source appears, and then press ENTER [20]. The display shows the timer settings.
- 7 Press I/⏻ [1] to turn off the system. If the system is on at the preset time, the Play Timer will not play.

To activate or check the timer again, press CLOCK/TIMER SELECT [19], press [11] [7] repeatedly until "PLAY" appears, and then press ENTER [20].

To cancel a timer, repeat the same procedure as above until "OFF" appears, and then press ENTER [20].

To change the setting, start over from step 1.

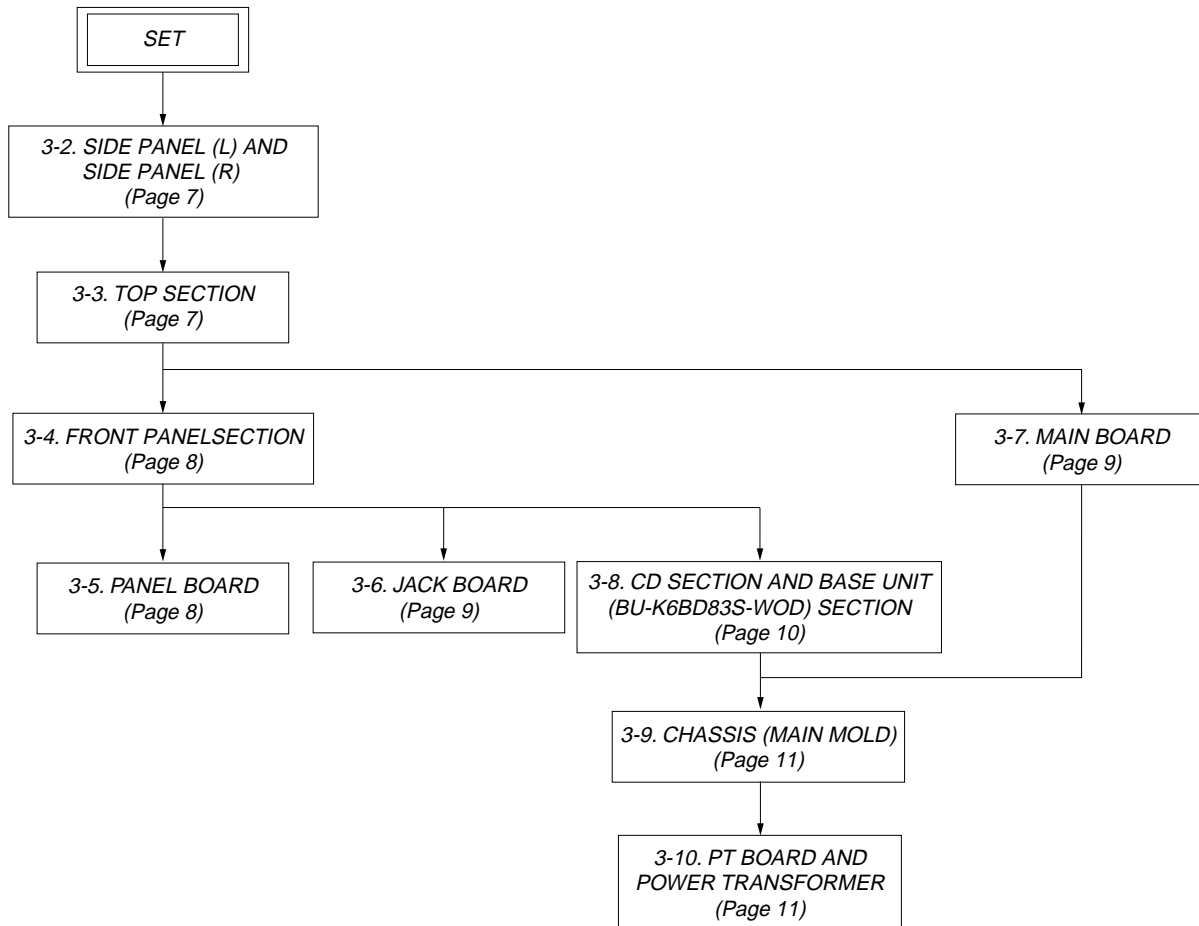
Tip

The Play Timer setting remains as long as the setting is not canceled manually.

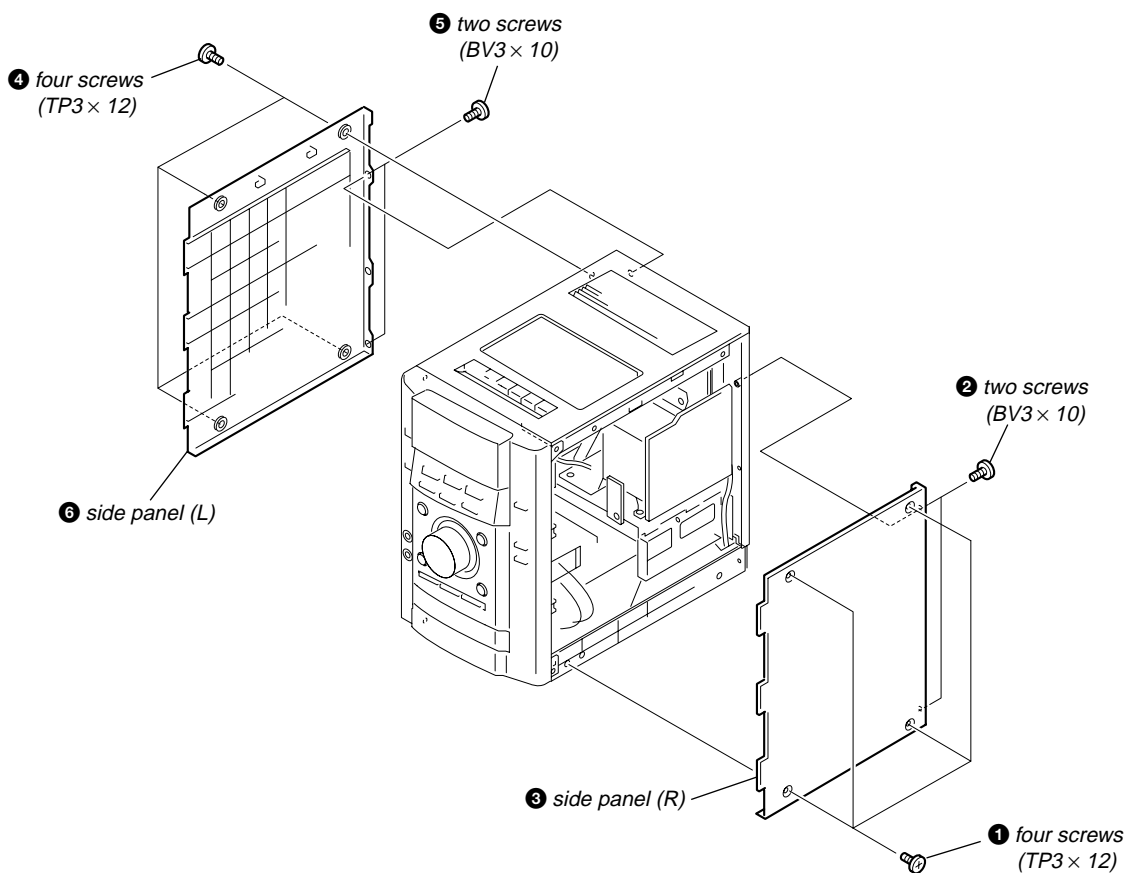
SECTION 3 DISASSEMBLY

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

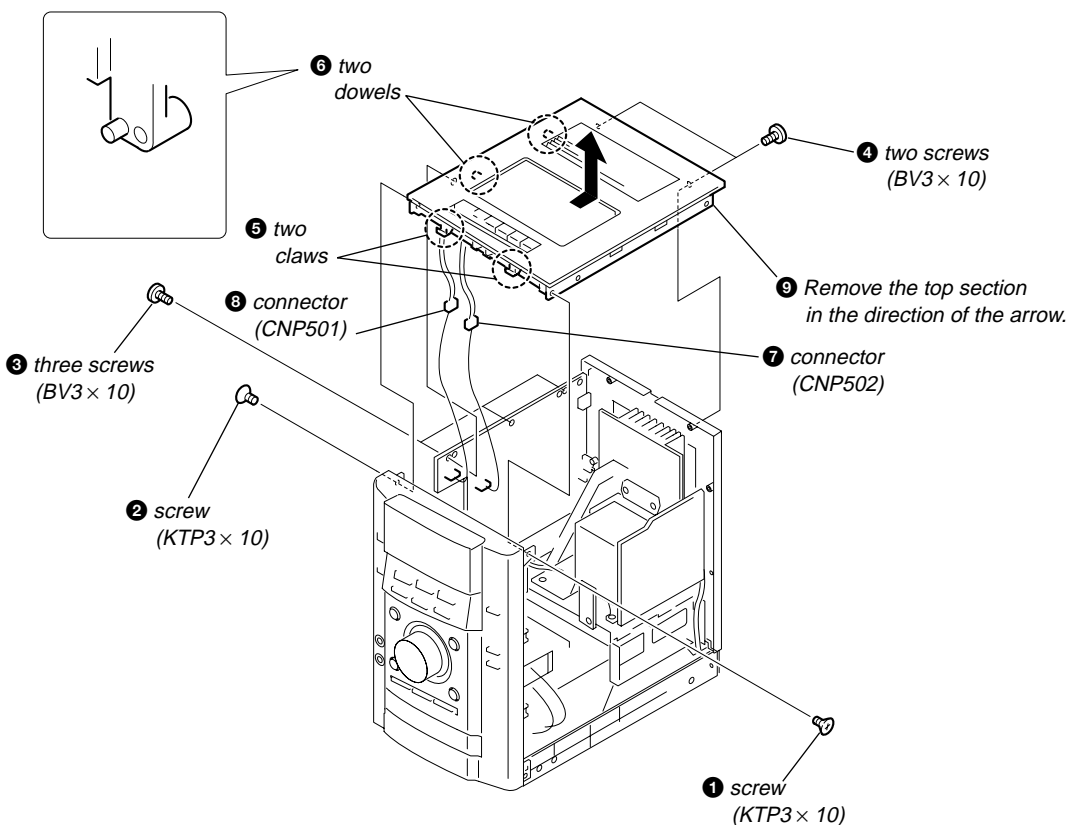
3-1. DISASSEMBLY FLOW



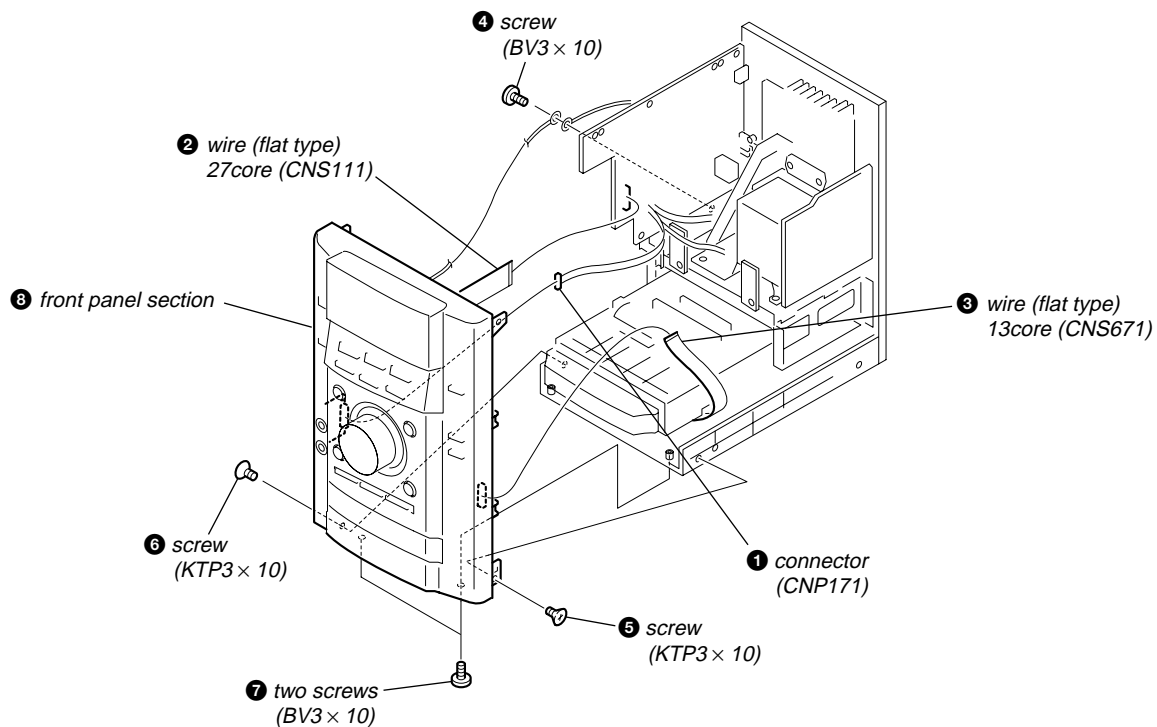
3-2. SIDE PANEL (L) AND SIDE PANEL (R)



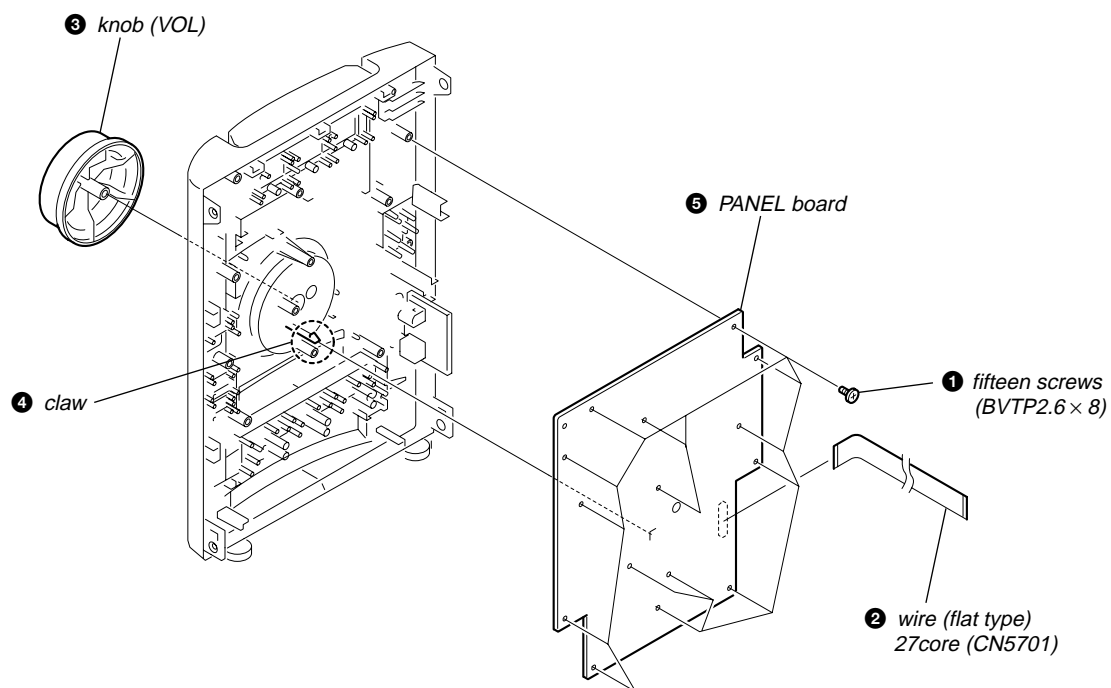
3-3. TOP SECTION



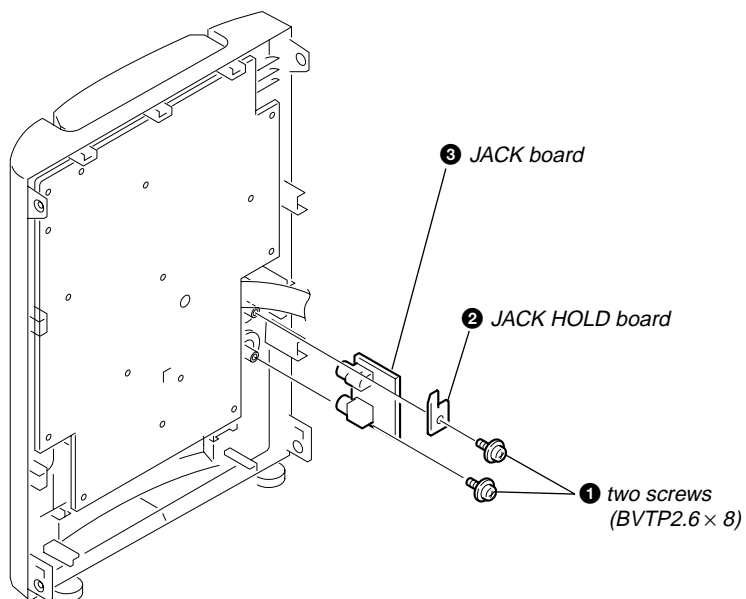
3-4. FRONT PANEL SECTION



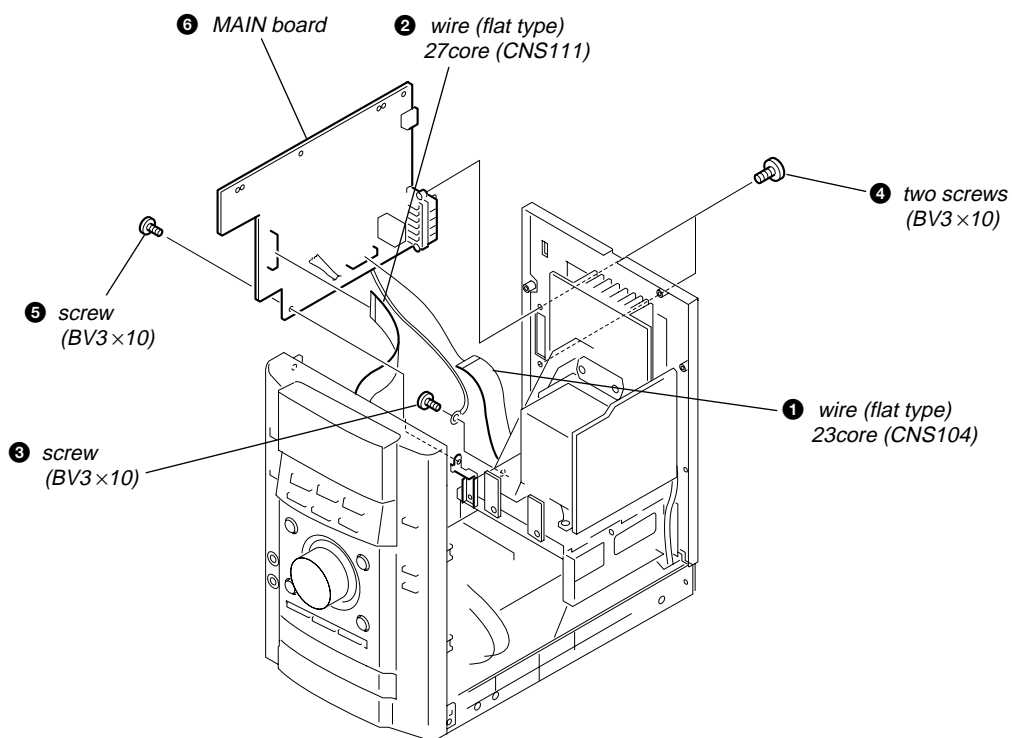
3-5. PANEL BOARD



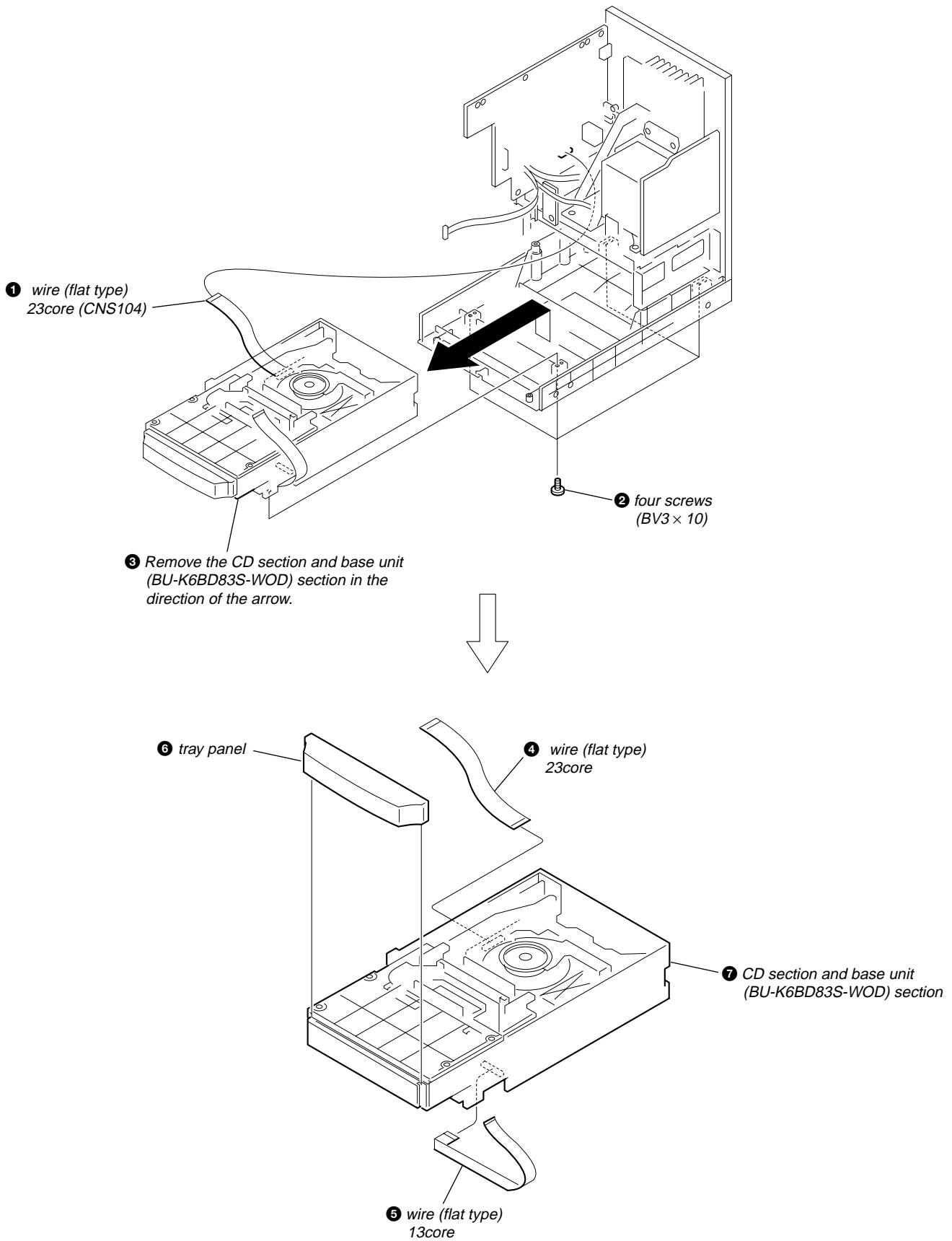
3-6. JACK BOARD



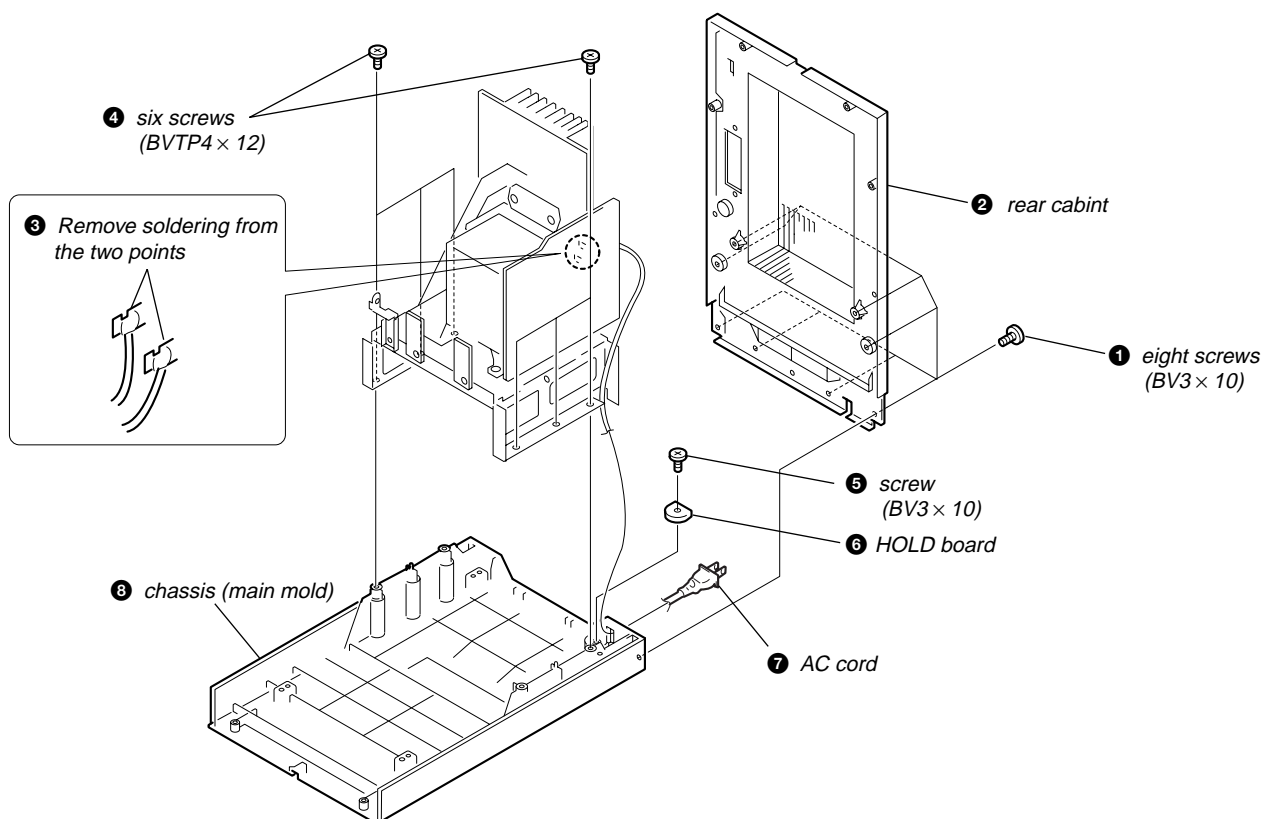
3-7. MAIN BOARD



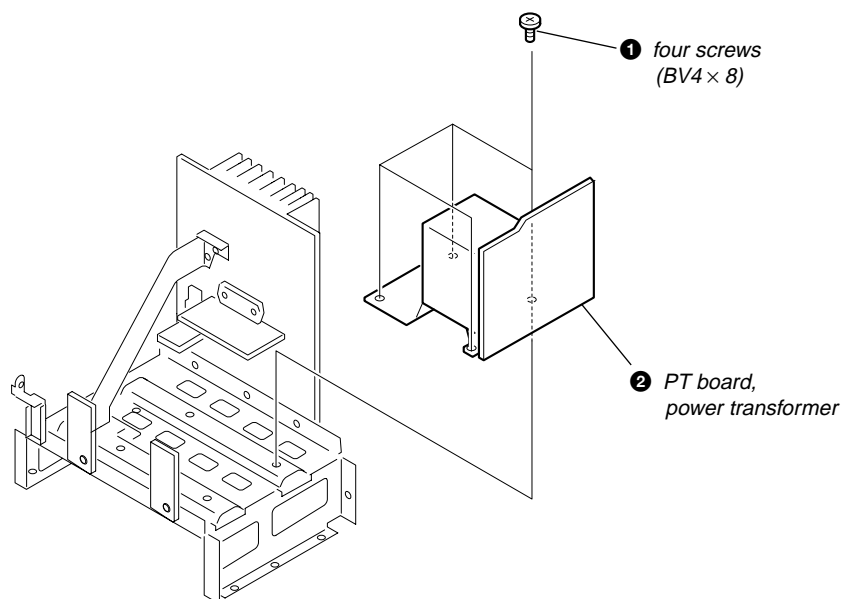
3-8. CD SECTION AND BASE UNIT (BU-K6BD83S-WOD) SECTION



3-9. CHASSIS (MAIN MOLD)



3-10. PT BOARD AND POWER TRANSFORMER



**SECTION 4
MECHANICAL ADJUSTMENTS**

• **Precaution**

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

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
- 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-102AS	2.0 – 8.0 mN • m (20 to 80 g • cm) (0.28 – 1.12 oz • inch)
FWD back tension	CQ-102C	0.15 – 0.6 mN • m (1.5 to 6 g • cm) (0.021 – 0.083 oz • inch)
FF	CQ-201AS	5 – 17.7 mN • m (50 to 177 g • cm) (0.7 – 2.48 oz • inch)
REW	CQ-201B	5 – 17.7 mN • m (50 to 177 g • cm) (0.7 – 2.48 oz • inch)

• **Tape Tension Measurement**

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 80 g (more than 2.82 oz)

**SECTION 5
ELECTRICAL ADJUSTMENTS**

DECK SECTION

0 dB=0.775 V

- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.

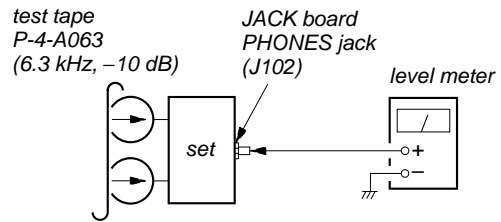
• **Test Tape**

Tape	Signal	Used for
P-4-A063	6.3 kHz, -10 dB	Azimuth Adjustment

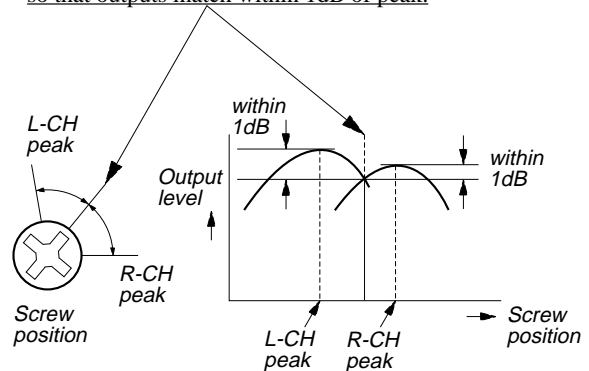
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Procedure:

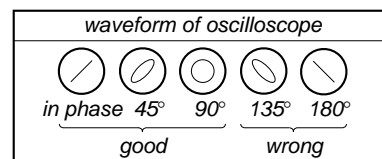
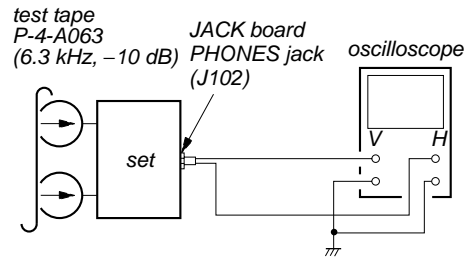
- Mode: Playback



- 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 1dB of peak.

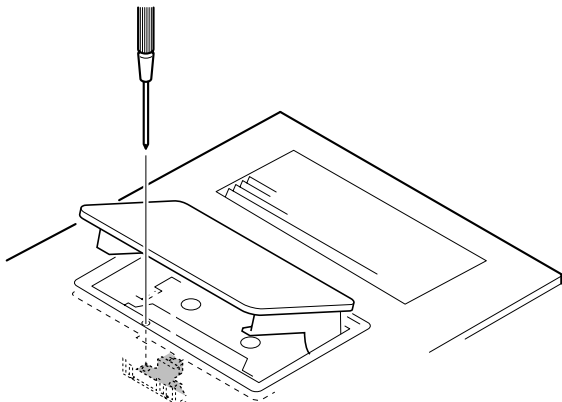


- Mode: Playback



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

Adjustment Location: Record/Playback/Erase Head

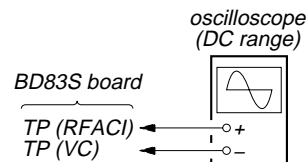


CD SECTION

Note:

1. CD Block is basically constructed to operate without adjustment.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Check the focus bias check when optical pick-up block is replaced.

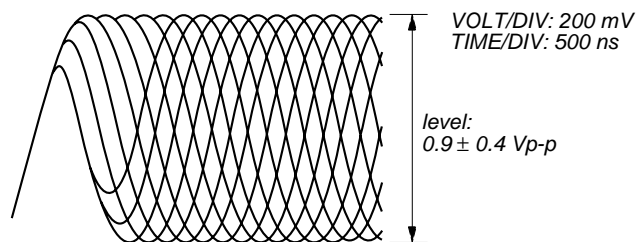
FOCUS BIAS CHECK



Procedure :

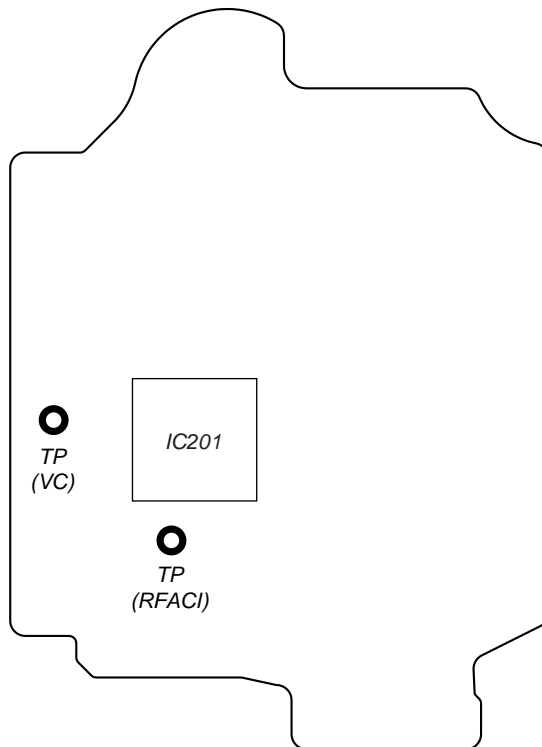
1. Connect oscilloscope to TP (RFACI) and TP (VC) on the BD83S board.
2. Press the **[I/O]** button to turn the power ON, and press the **[▶]** (CD) button to open the CD disc tray.
3. Set disc (YEDS-18) on the tray and press the **[CD ▶▶]** button to playback.
4. Confirm that oscilloscope waveform is as shown in the figure below. (eye pattern)

A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.



Checking Location:

– BD83S Board (Side B) –



TUNER SECTION

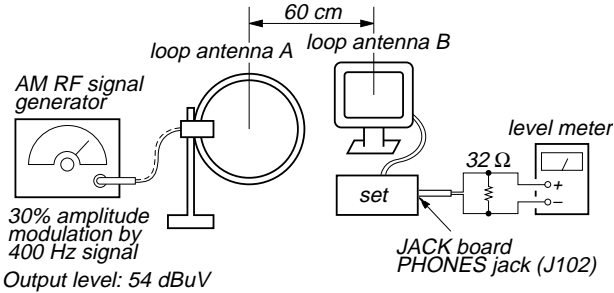
0 dB=1 μ V

[AM]

Setting:

FUNCTION: TUNER

TUNER/BAND button: AM

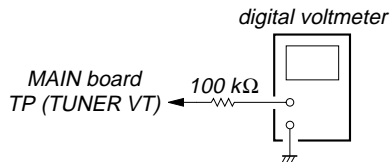
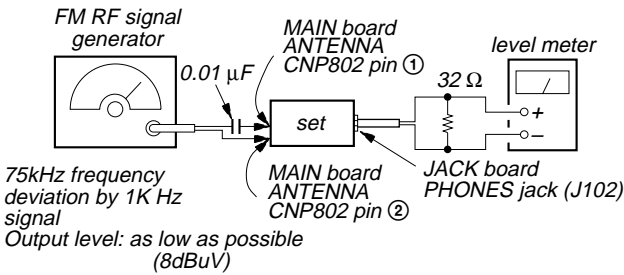


[FM]

Setting:

FUNCTION: TUNER

TUNER/BAND button: FM



- Repeat the procedures in each adjustment several times.

AM FREQUENCY COVERAGE ADJUSTMENT (US and Canadian models)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L852	530 kHz	1.5 \pm 0.1 V
Confirmation	1,710 kHz	8 \pm 0.5 V

AM FREQUENCY COVERAGE ADJUSTMENT (Other models)		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L852	531 kHz	1.5 \pm 0.1 V
Confirmation	1,602 kHz	7.2 \pm 0.5 V

AM TRACKING ADJUSTMENT (US and Canadian models)		
Adjust for a maximum reading on level meter		
L851		530 kHz

AM TRACKING ADJUSTMENT (Other models)		
Adjust for a maximum reading on level meter		
L851		531 kHz

FM FREQUENCY COVERAGE ADJUSTMENT		
Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L805	87.5 kHz	1.75 \pm 0.1 V
Confirmation	108 kHz	6.2 \pm 0.5 V

FM TRACKING ADJUSTMENT		
Adjust for a maximum reading on level meter		
L804		98 MHz

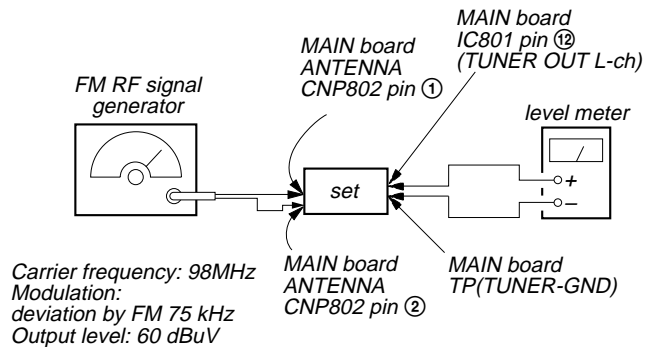
Adjustment Location: MAIN board (See page 15).

[FM DETECTOR ADJUSTMENT]

Setting:

FUNCTION: TUNER

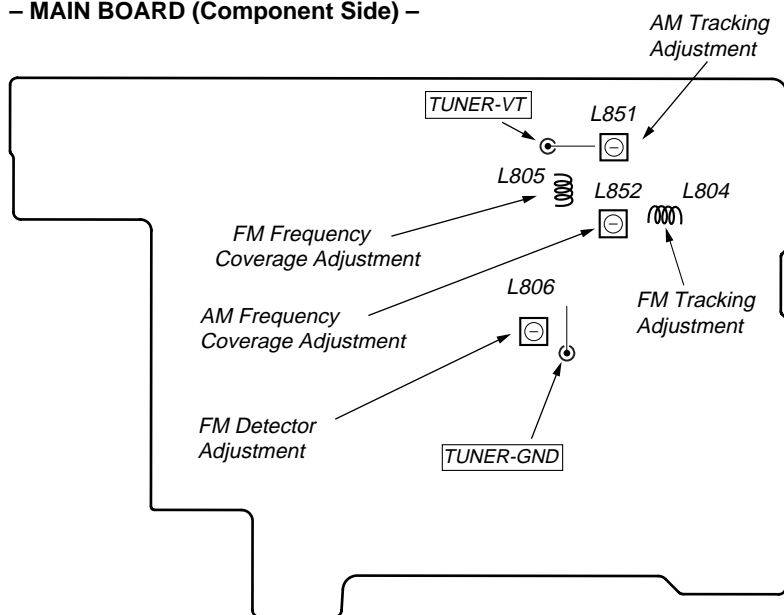
TUNER/BAND button: FM



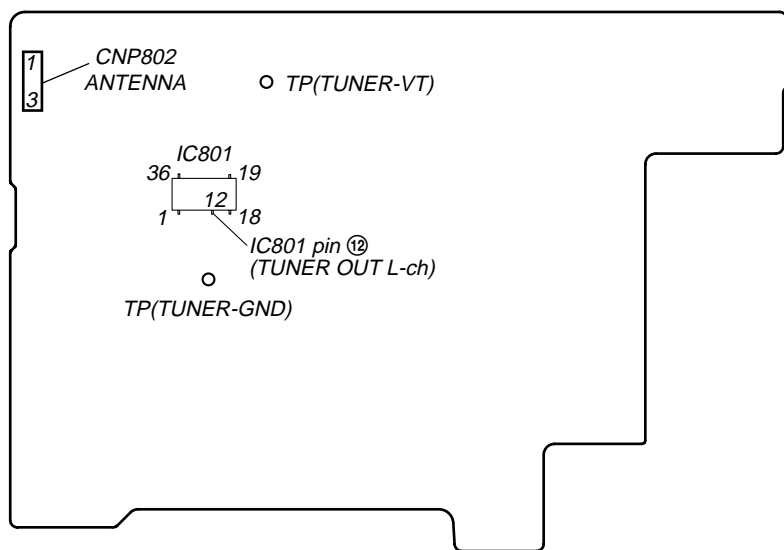
- Tune the set to 98 MHz.
- Adjust L806 so that modulation distortion may become the best in the vicinity of the maximum value where the tuner out level becomes -15 dBuV or more.

Adjustment Location and Connecting Points

– MAIN BOARD (Component Side) –






– MAIN BOARD (Conductor Side) –



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.)

Note on Schematic Diagram:













- 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 $1/4\text{W}$ or less unless otherwise specified.
- \triangle : internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : 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.

Note:

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

-  : adjustment for repair.
-  : B+ Line.
-  : B- Line.
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$).
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.
- BD Section –
No mark: CD PLAY
- Other Section –
No mark: FM
- (): TAPE PLAY
- < ): TAPE REC
- []: CD STOP
- Circled numbers refer to waveforms.
- Signal path.
-  : TUNER (FM)
-  : TUNER (AM)
-  : CD
-  : AUX
-  : PB (TAPE)
-  : REC (TAPE)
- Abbreviation
- AUS : Australian model
- CET : East European and Russian models
- CND : Canadian model
- E3 : 240V AC area in E model
- KR : Korean model
- SP : Singapore model

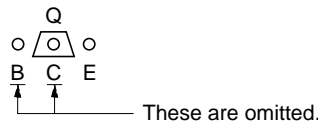
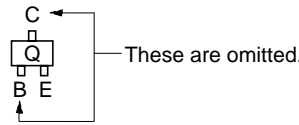
Note on Printed Wiring Boards:

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

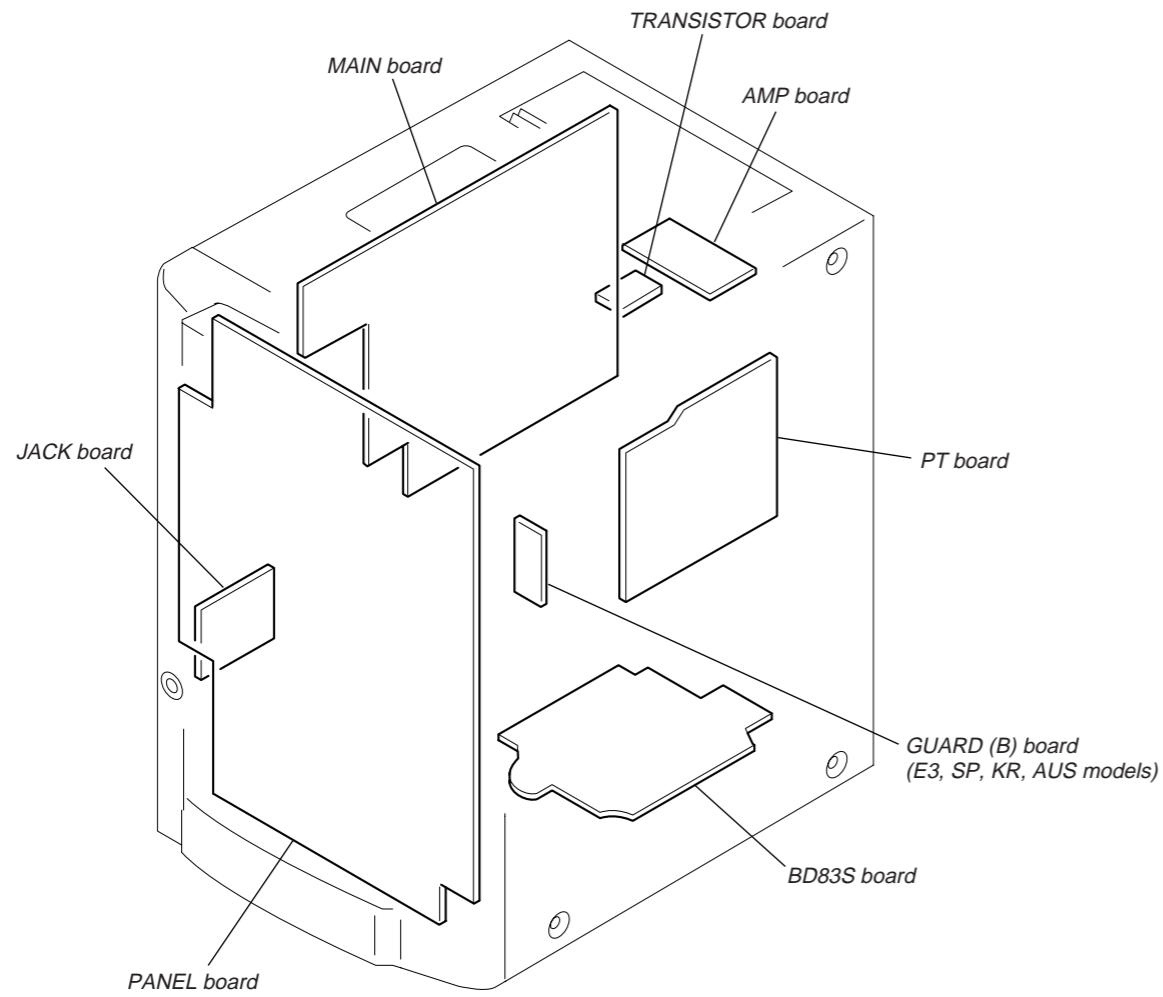
Caution:

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

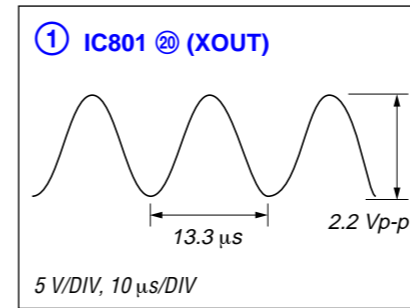
- Indication of transistor.



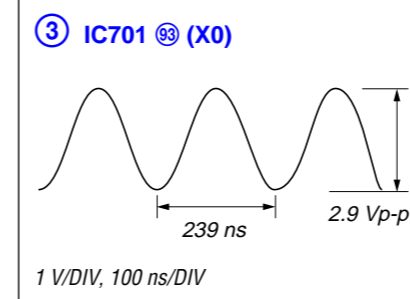
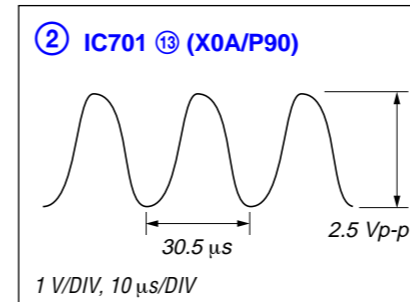
• Circuit Boards Location



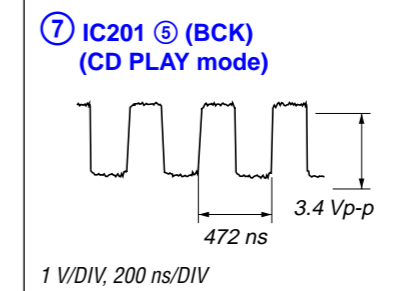
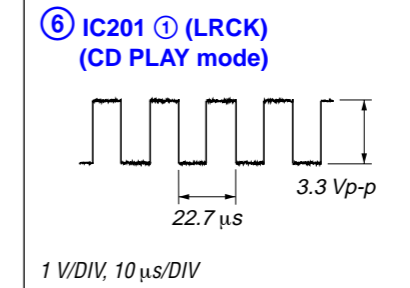
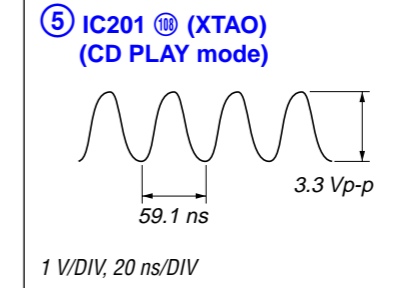
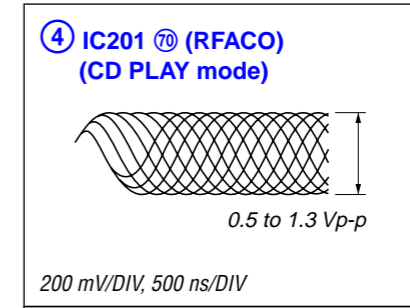
• Waveforms
– MAIN Board –



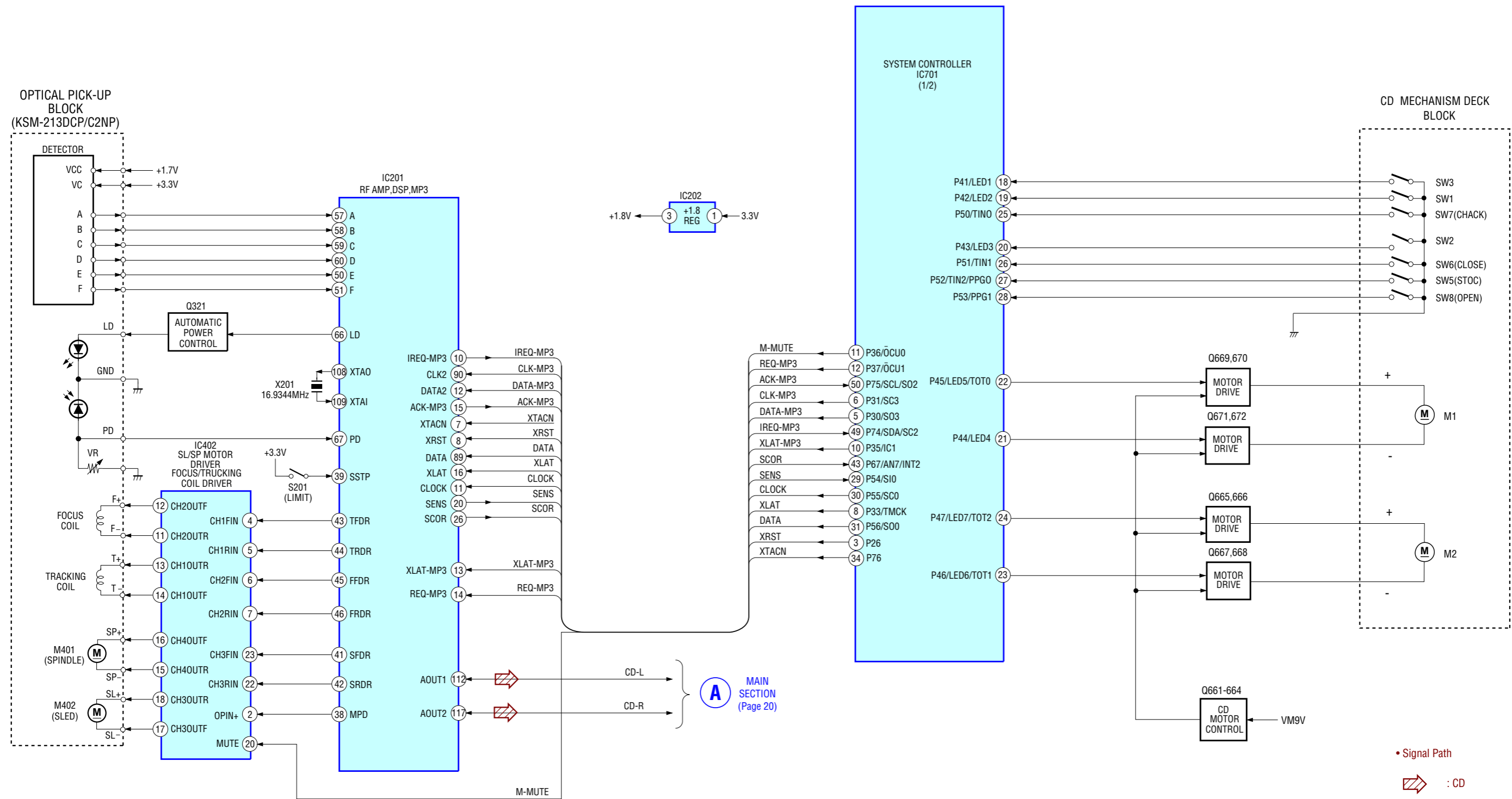
– PANEL Board –



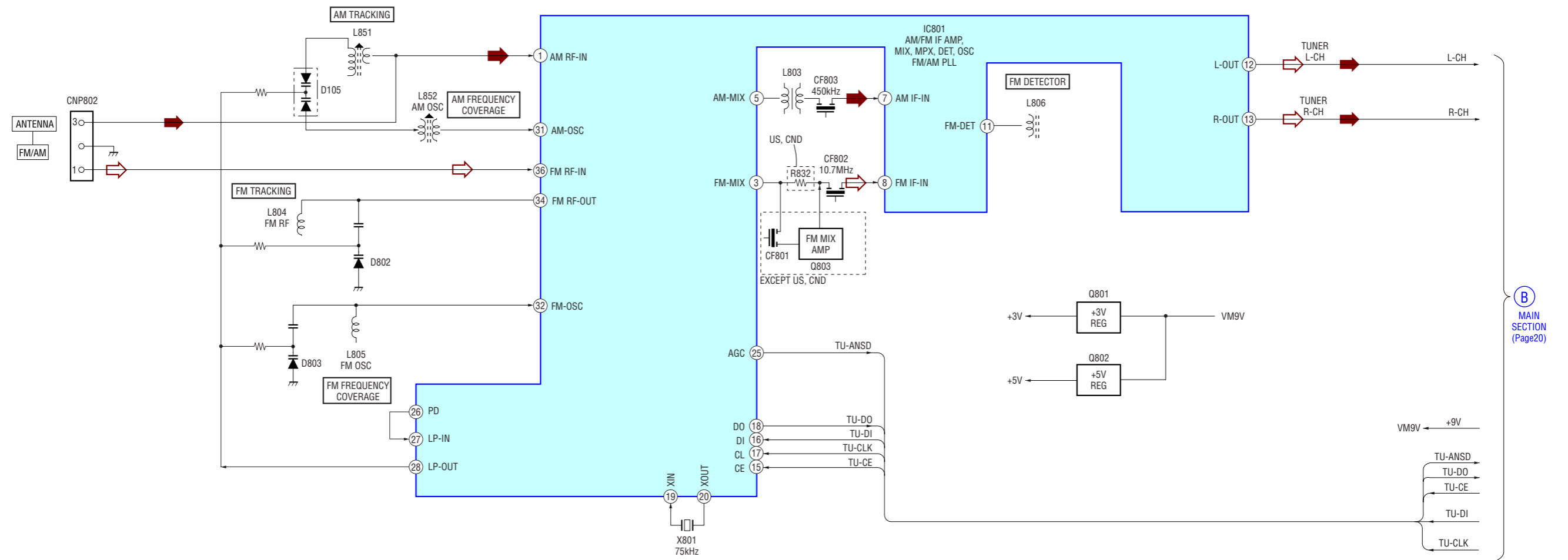
– BD83S Board –



6-1. BLOCK DIAGRAM — BD/DRIVER SECTION —

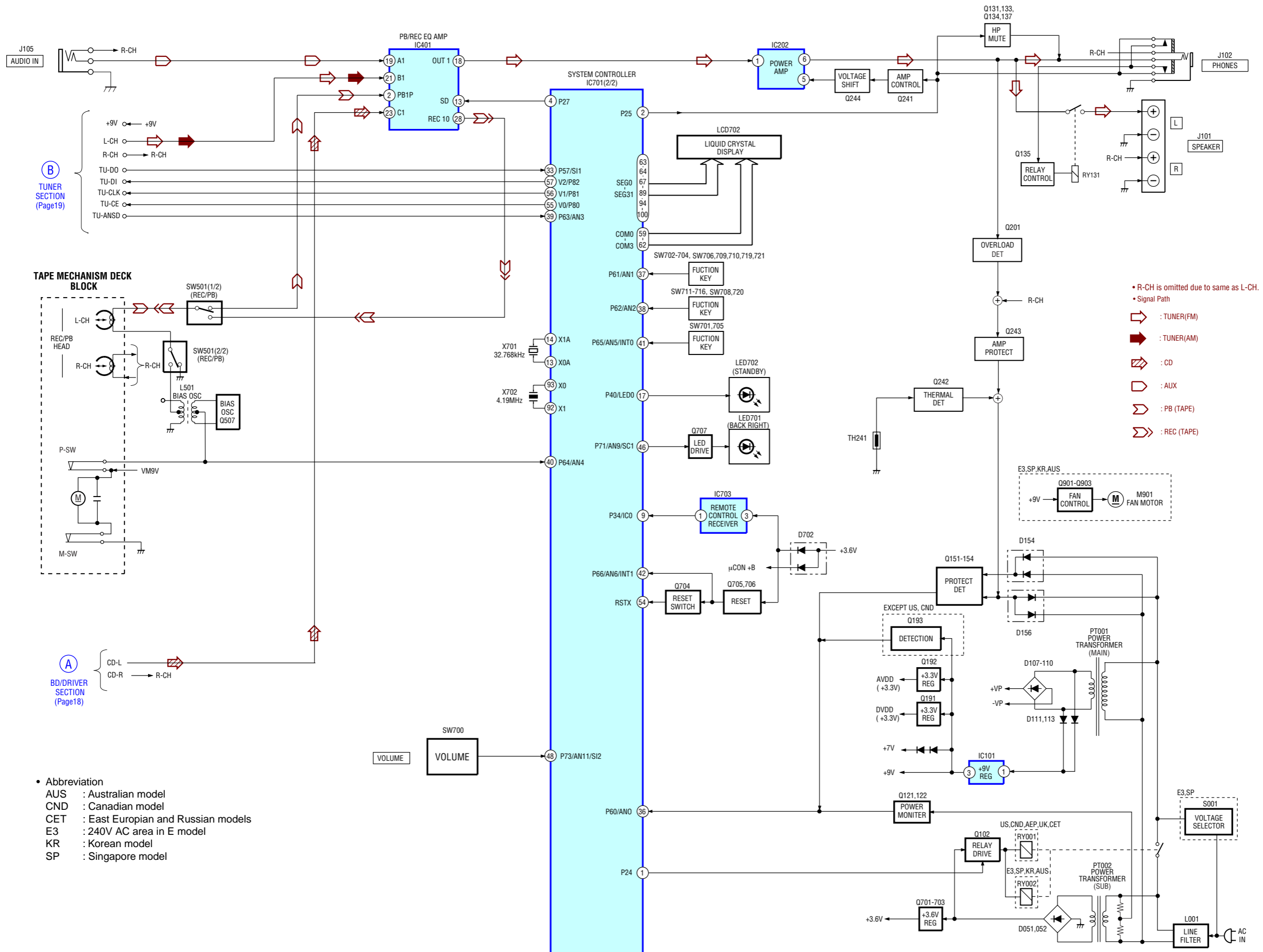


6-2. BLOCK DIAGRAM — TUNER SECTION —




(B)
MAIN SECTION
(Page20)

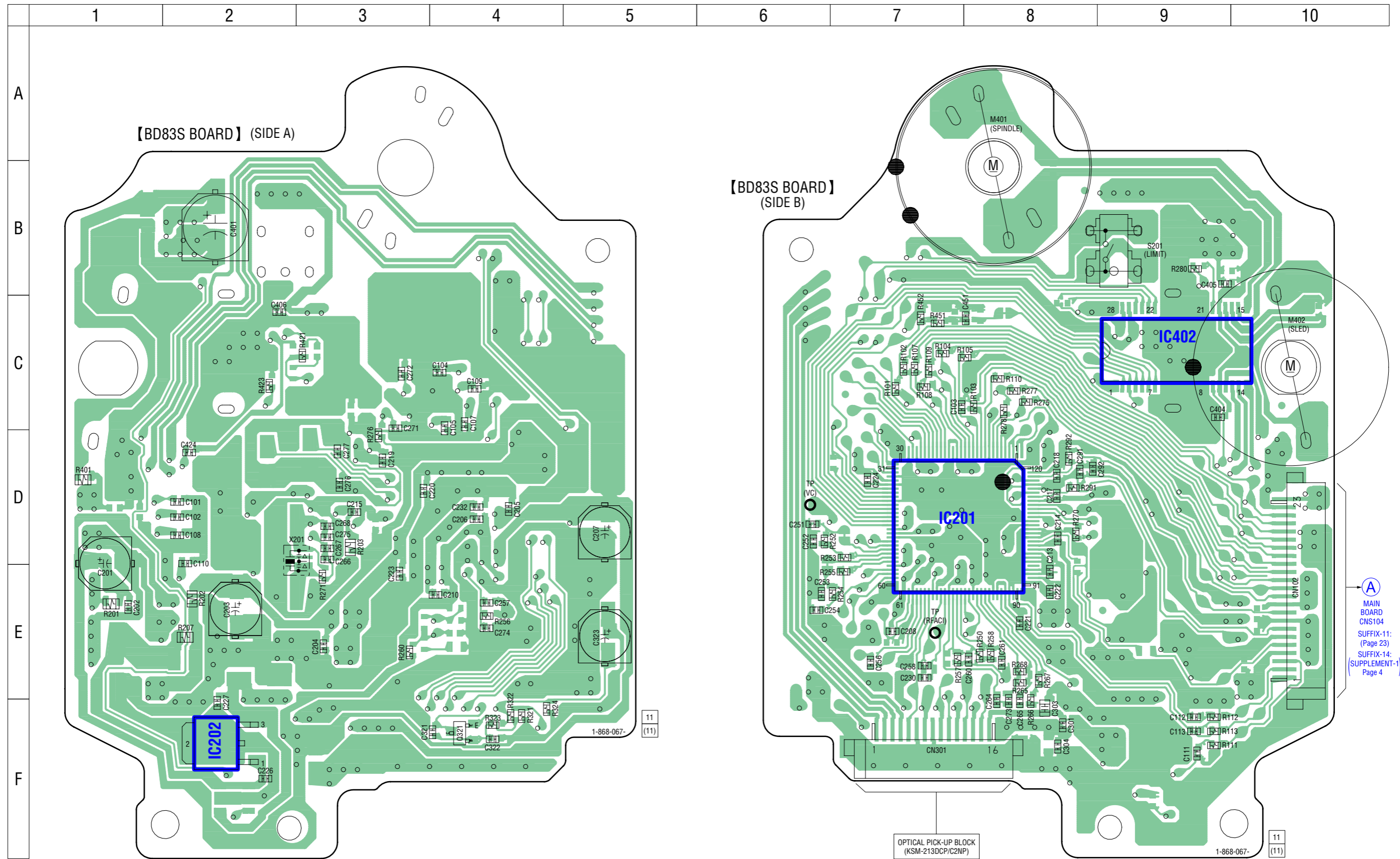
6-3. BLOCK DIAGRAM — MAIN SECTION —

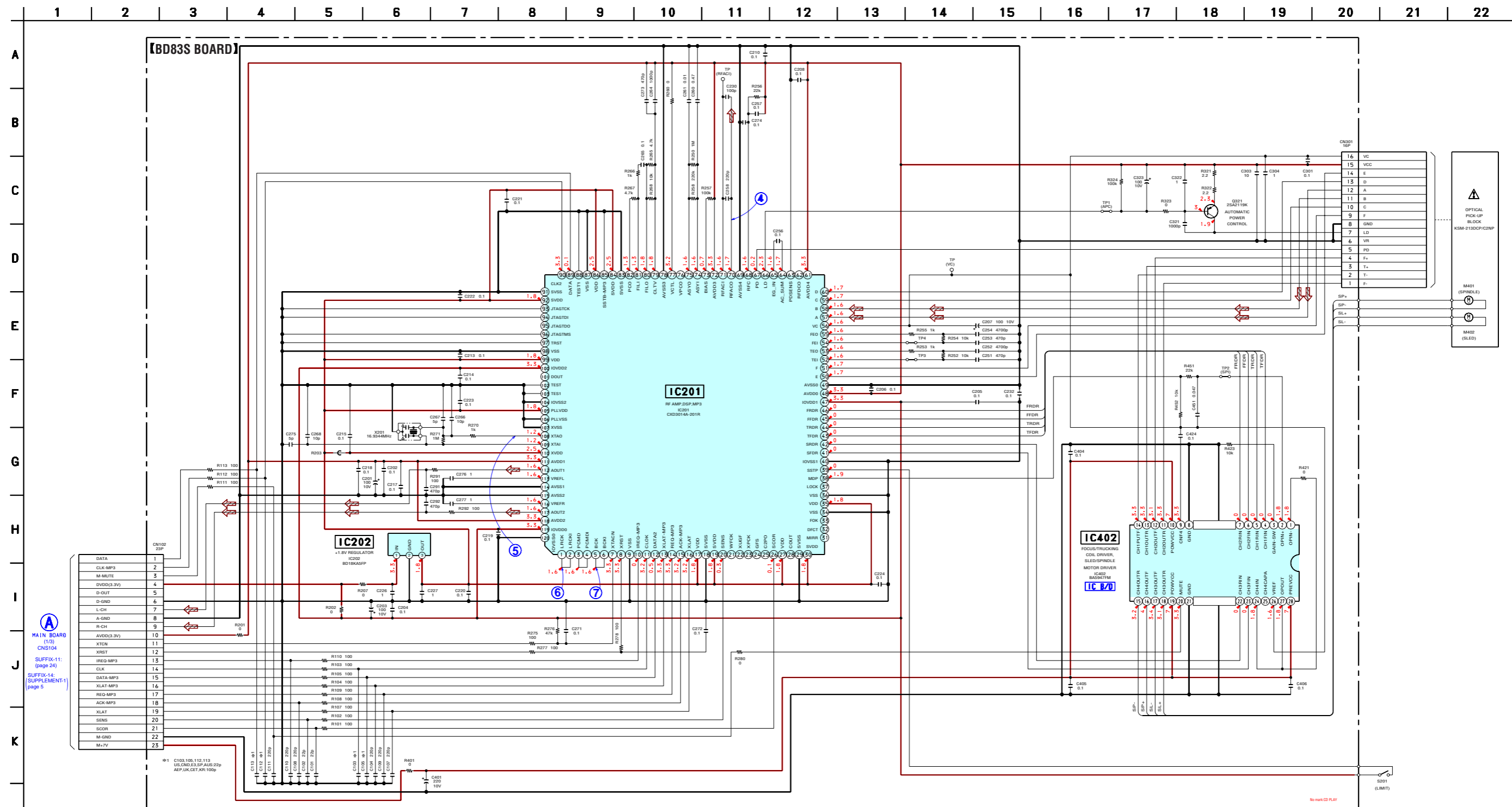


- R-CH is omitted due to same as L-CH.
- Signal Path
- ➡ : TUNER(FM)
- ➡ : TUNER(AM)
- ➡ : CD
- ➡ : AUX
- ➡ : PB (TAPE)
- ➡ : REC (TAPE)

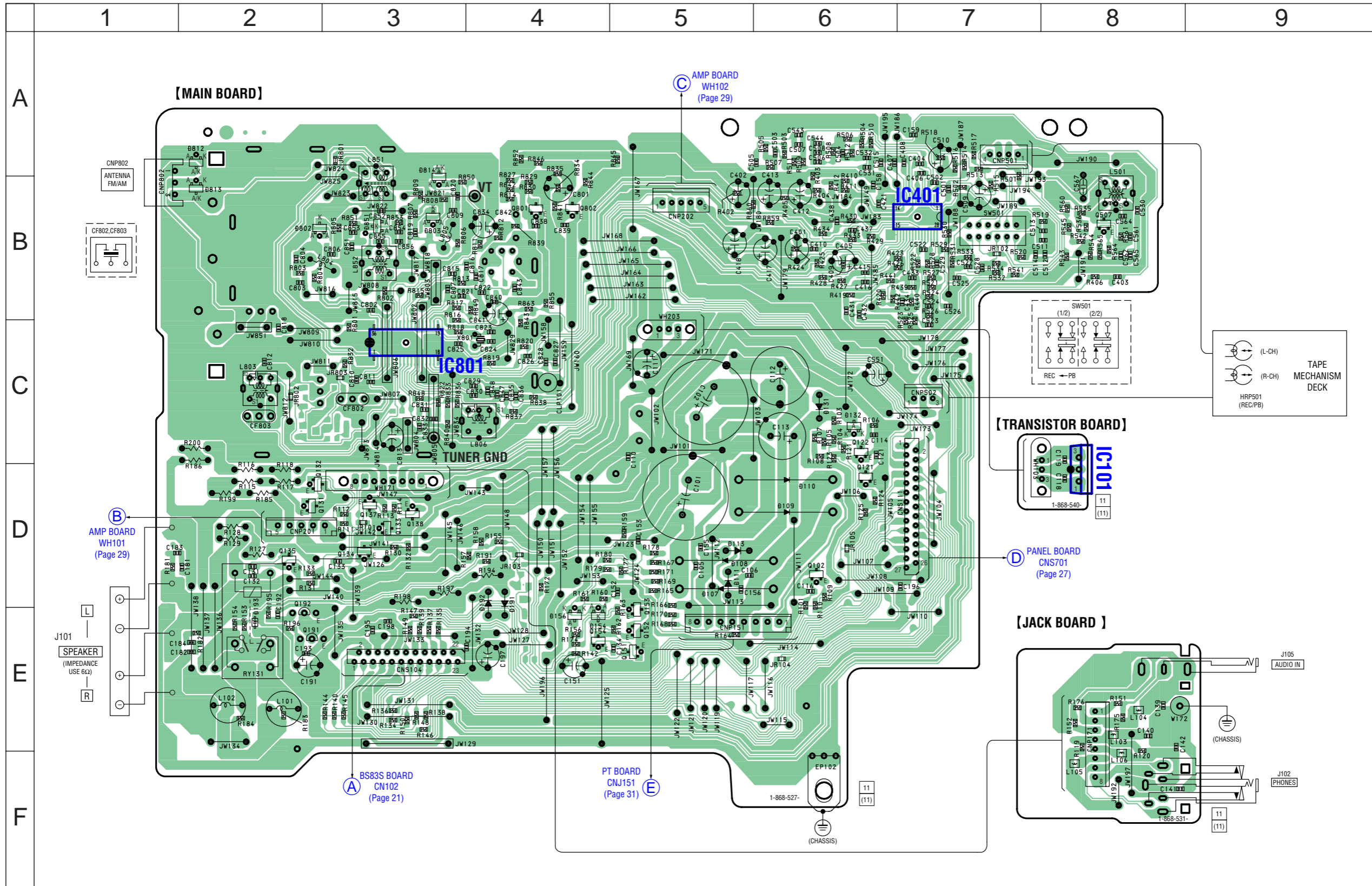
- Abbreviation
- AUS : Australian model
 - CND : Canadian model
 - CET : East European and Russian models
 - E3 : 240V AC area in E model
 - KR : Korean model
 - SP : Singapore model

6-4. PRINTED WIRING BOARD — BD SECTION — • See page 17 for Circuit Boards Location.  :Uses unleaded solder.



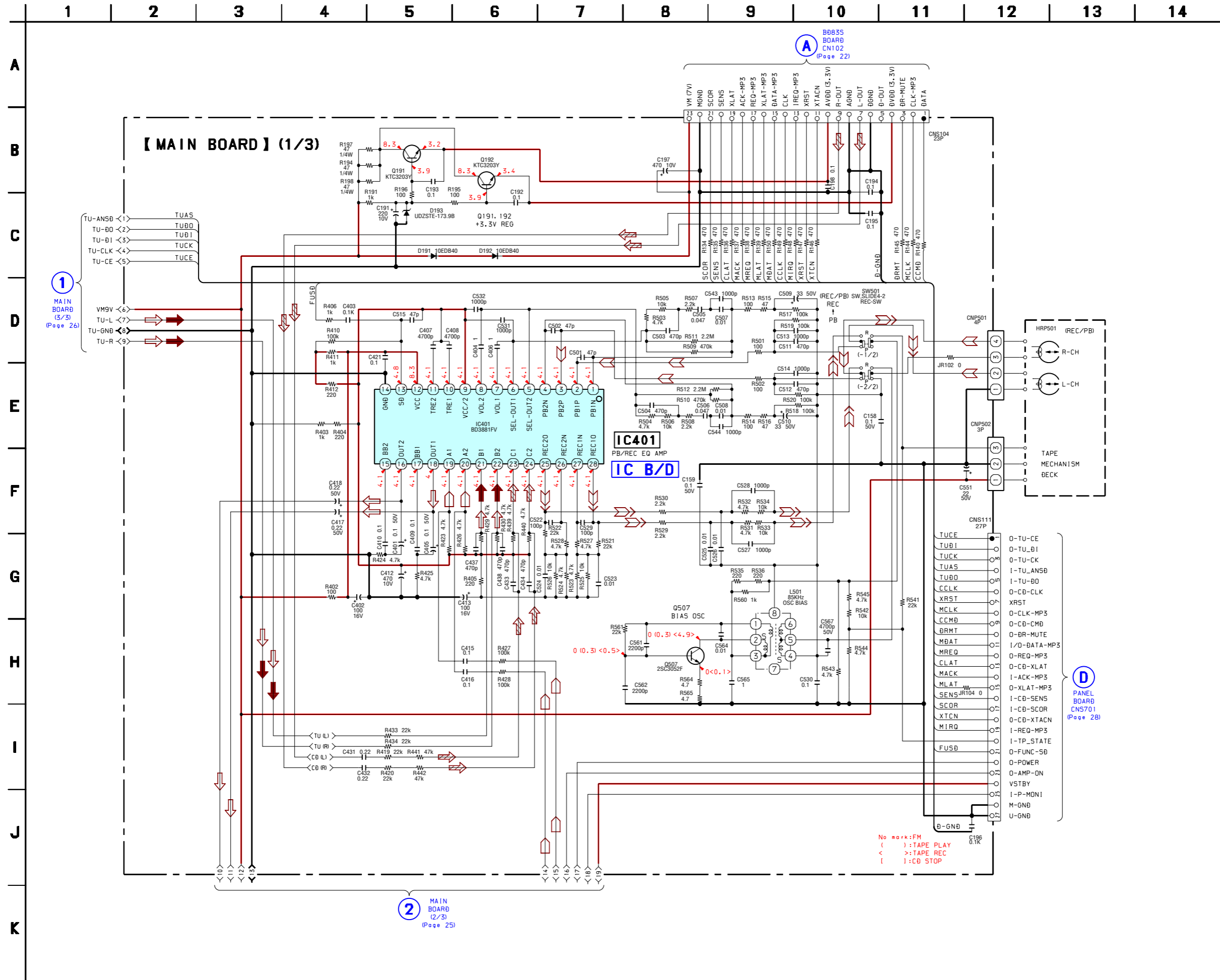


6-6. PRINTED WIRING BOARD — MAIN SECTION — • See page 17 for Circuit Boards Location.  :Uses unleaded solder.

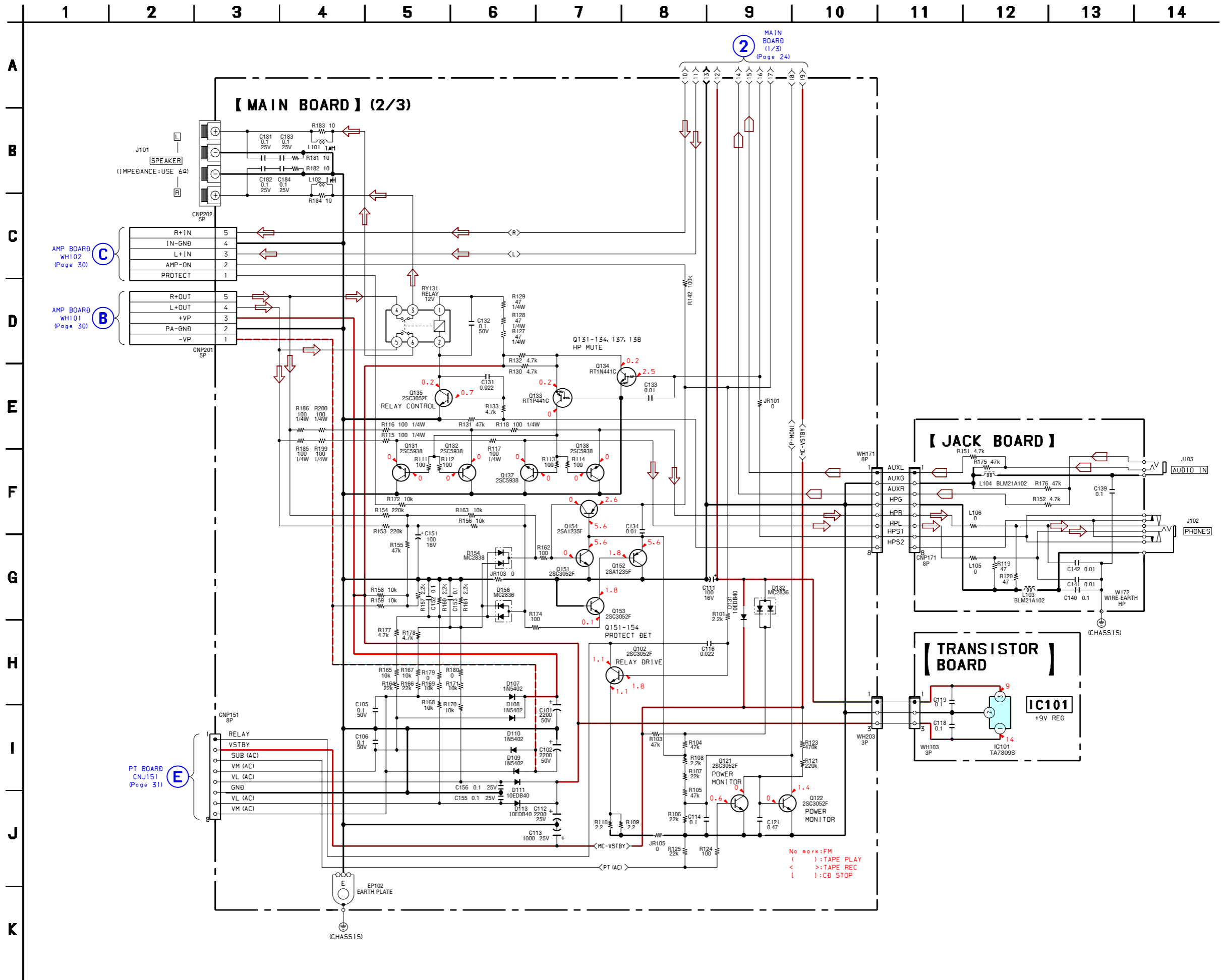


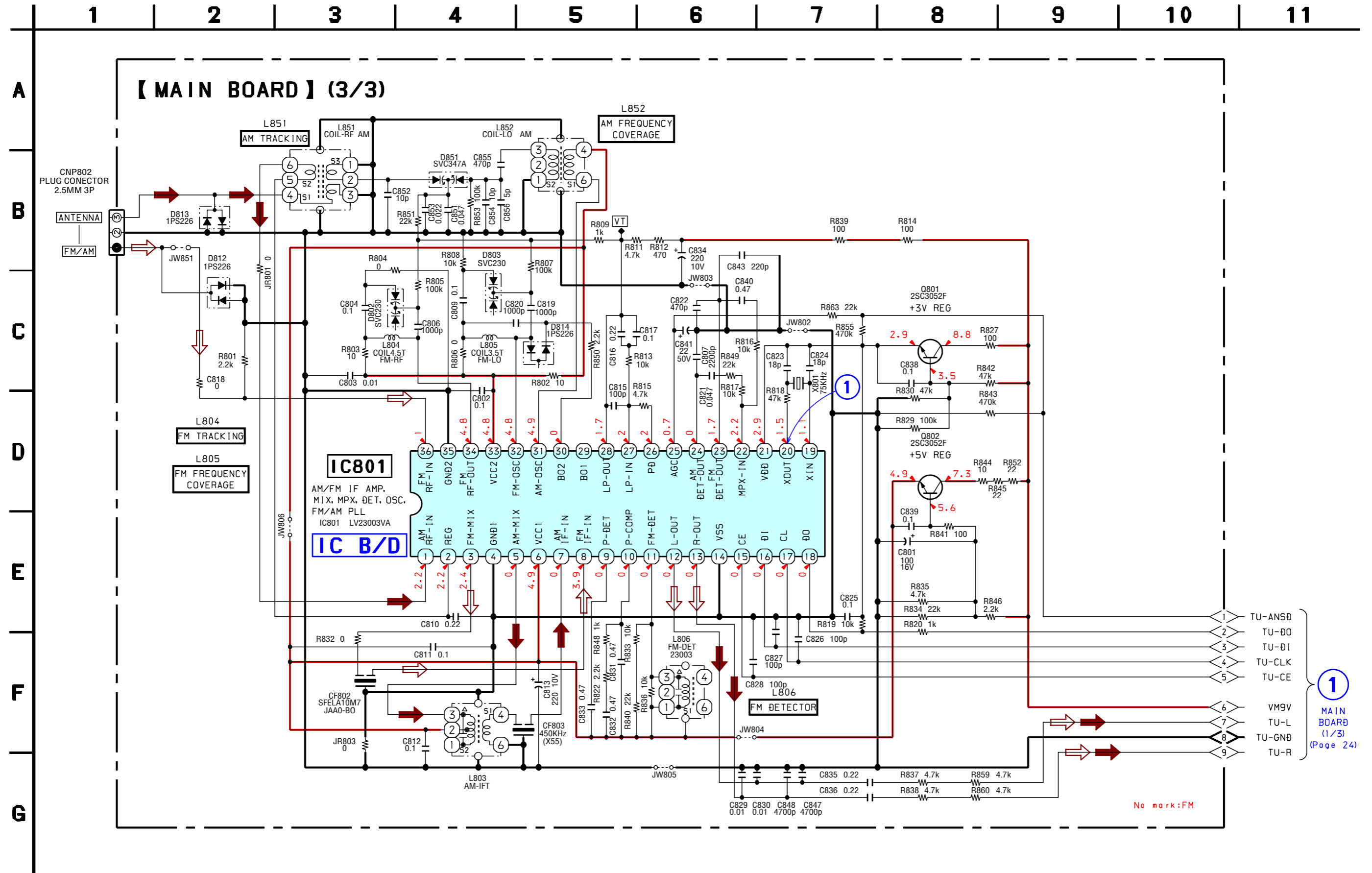
• Semiconductor Location

Ref. No.	Location
D107	D-5
D108	D-5
D109	D-6
D110	D-6
D111	D-5
D113	D-5
D131	C-6
D132	C-6
D154	E-4
D156	E-4
D191	E-4
D192	E-4
D193	E-2
D802	B-2
D803	B-3
D812	A-2
D813	B-2
D814	A-3
D851	B-3
IC101	D-8
IC401	B-7
IC801	C-3
Q102	D-6
Q121	D-6
Q122	C-6
Q131	D-2
Q132	D-2
Q133	D-3
Q134	D-3
Q135	D-2
Q137	D-3
Q138	D-3
Q151	E-5
Q152	E-5
Q153	E-5
Q154	E-4
Q191	E-2
Q192	D-3
Q801	B-4
Q802	B-4

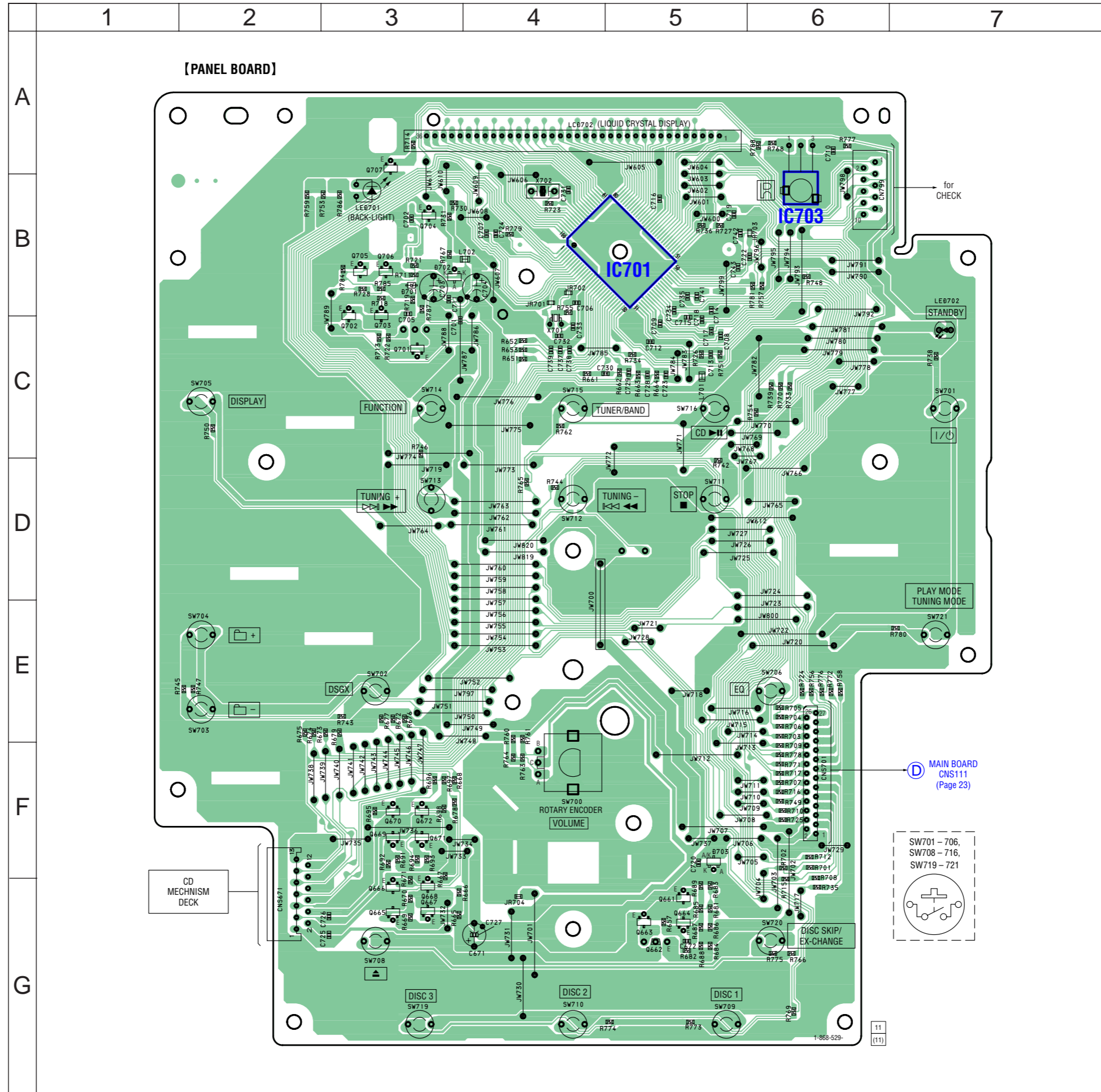


6-8. SCHEMATIC DIAGRAM — MAIN SECTION (2/3) —






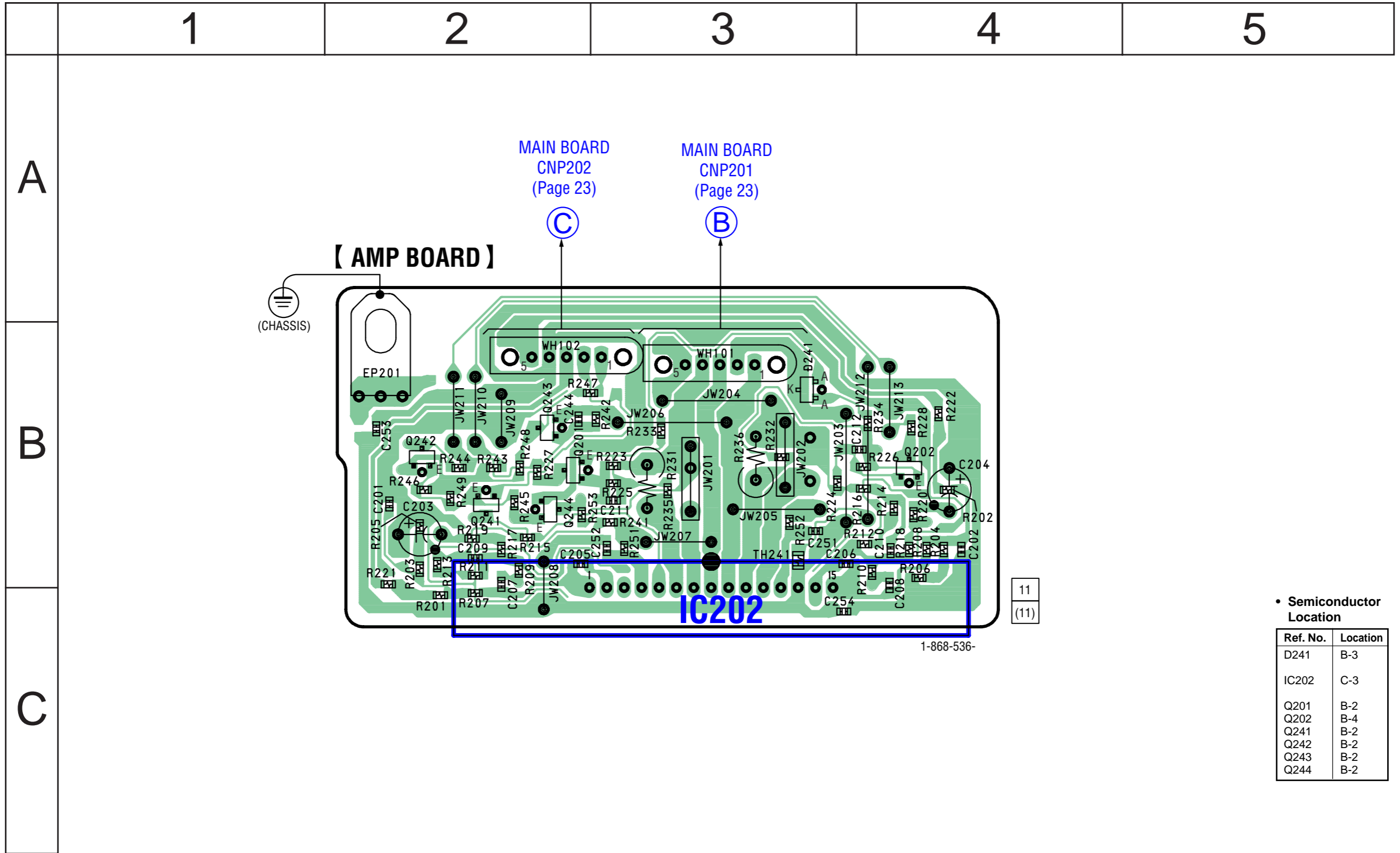
6-10. PRINTED WIRING BOARD — PANEL SECTION — • See page 17 for Circuit Boards Location.  :Uses unleaded solder.



• Semiconductor Location

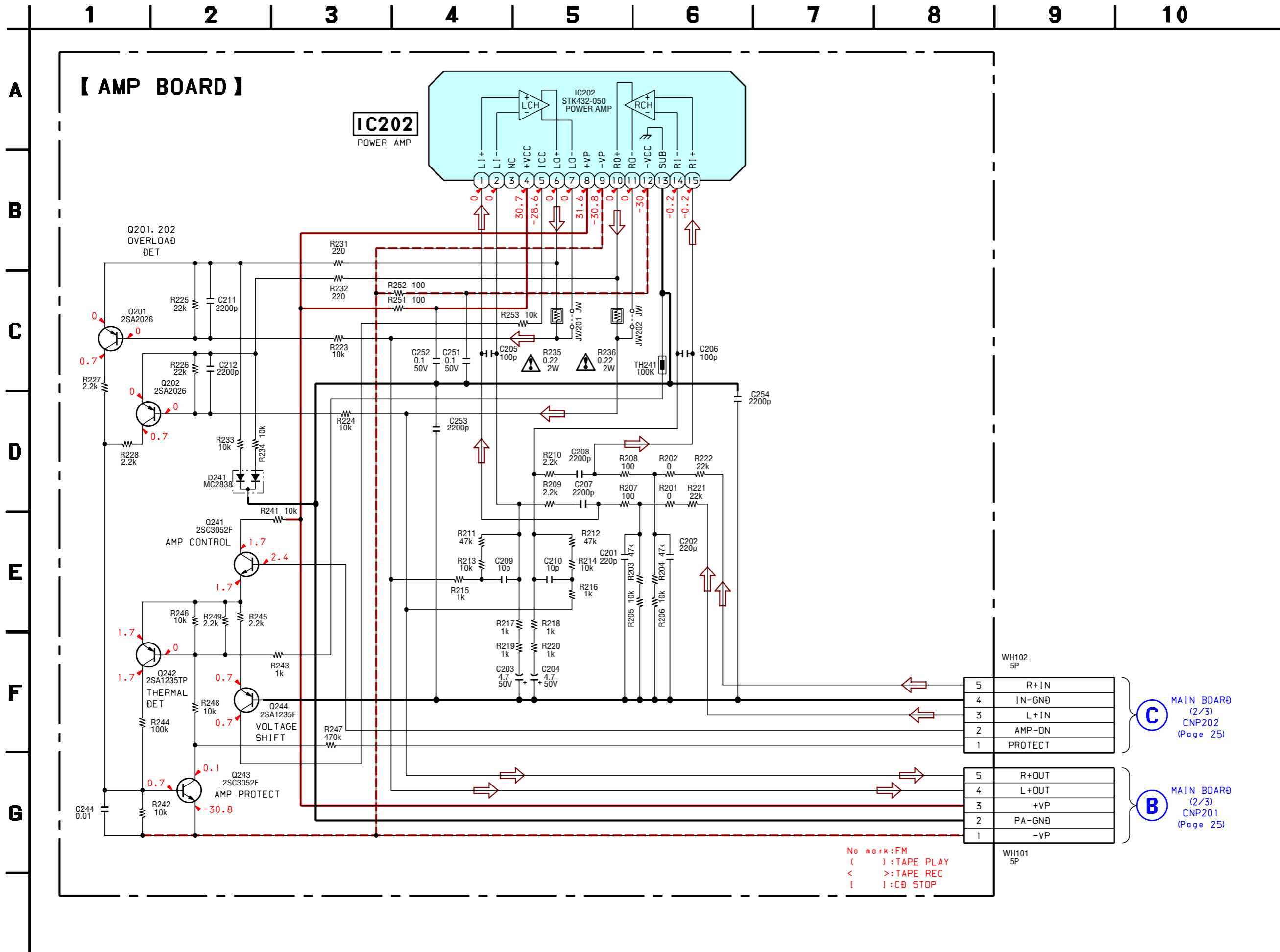
Ref. No.	Location
D701	B-3
D702	B-3
D703	F-5
IC701	B-5
IC703	B-6
LED701	B-3
LED702	B-7
Q661	G-5
Q662	G-5
Q663	G-5
Q664	G-5
Q665	G-3
Q666	G-3
Q667	G-3
Q668	G-3
Q669	F-3
Q670	F-3
Q671	F-3
Q672	F-3
Q701	C-3
Q702	C-3
Q703	C-3
Q704	B-3
Q705	B-3
Q706	B-3
Q707	B-3

6-12. PRINTED WIRING BOARD — AMP SECTION — • See page 17 for Circuit Boards Location.  :Uses unleaded solder.



• Semiconductor Location

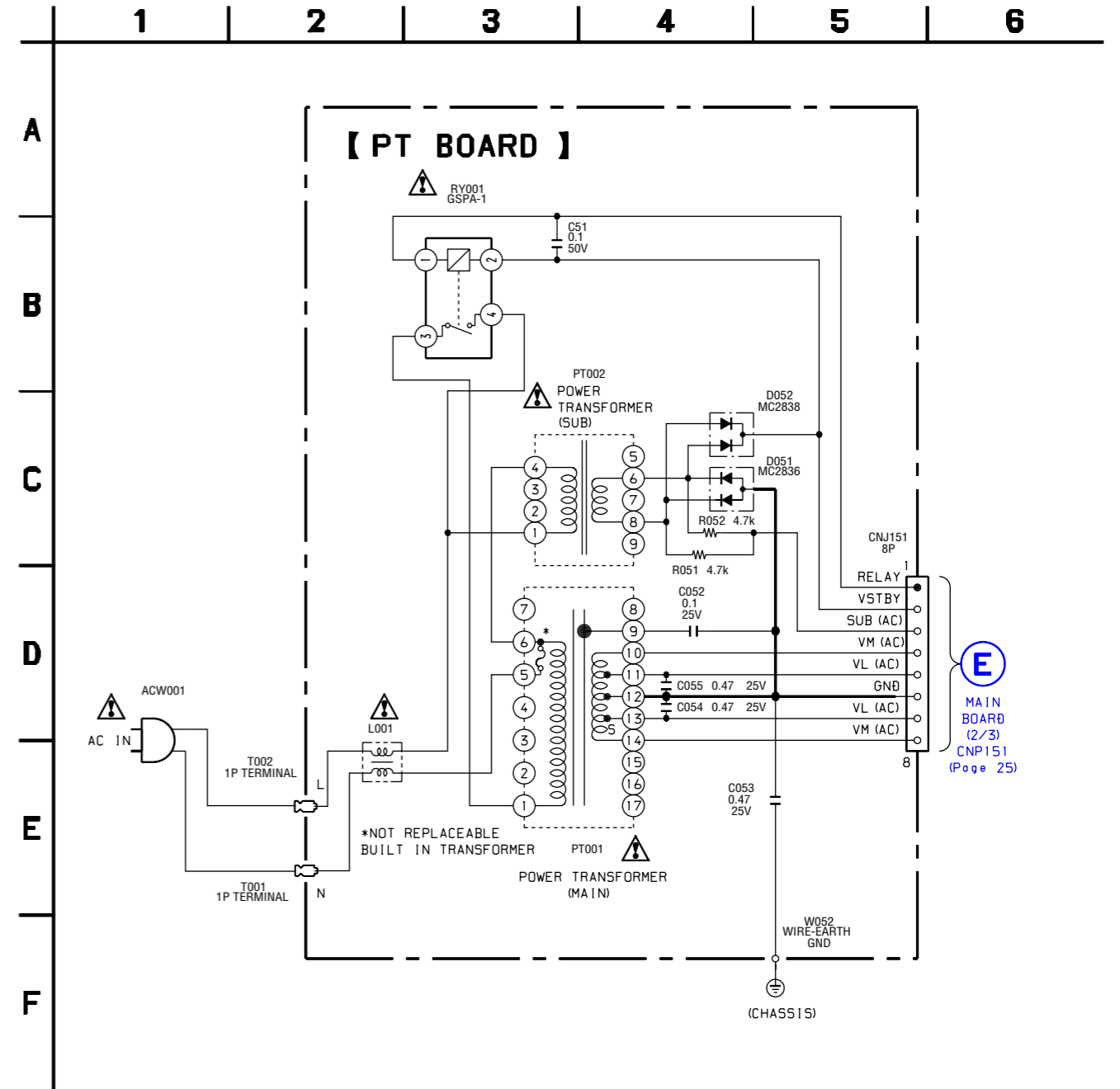
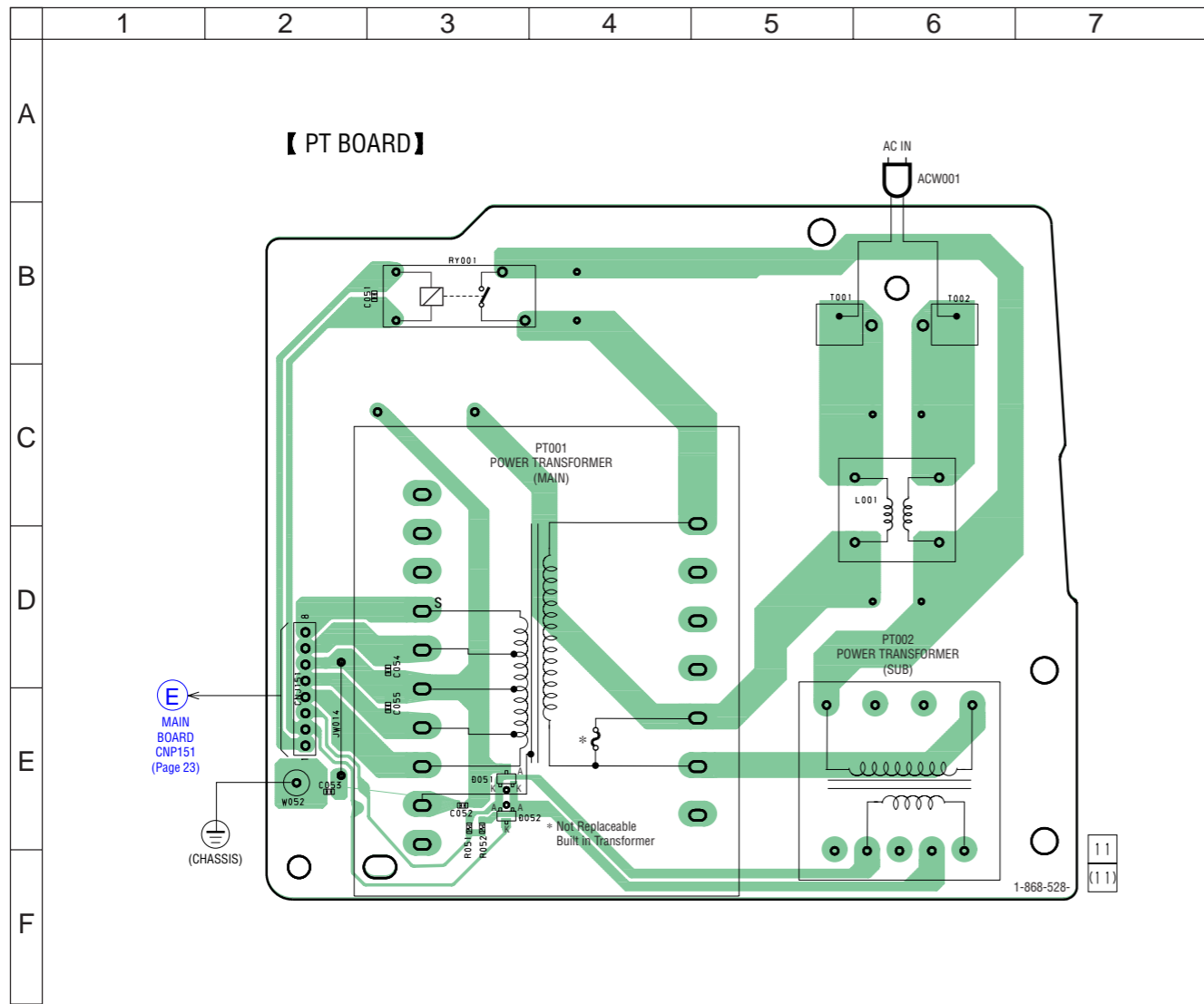
Ref. No.	Location
D241	B-3
IC202	C-3
Q201	B-2
Q202	B-4
Q241	B-2
Q242	B-2
Q243	B-2
Q244	B-2



6-14. PRINTED WIRING BOARD — POWER SECTION —

• See page 17 for Circuit Boards Location.  :Uses unleaded solder.

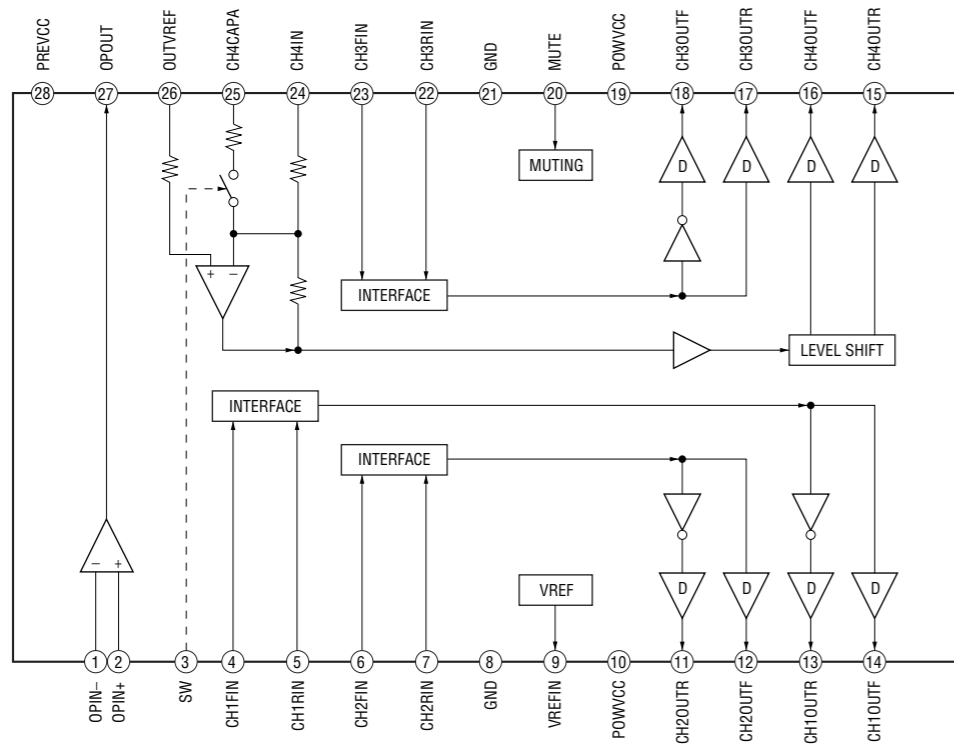
6-15. SCHEMATIC DIAGRAM — POWER SECTION —



• IC Block Diagrams

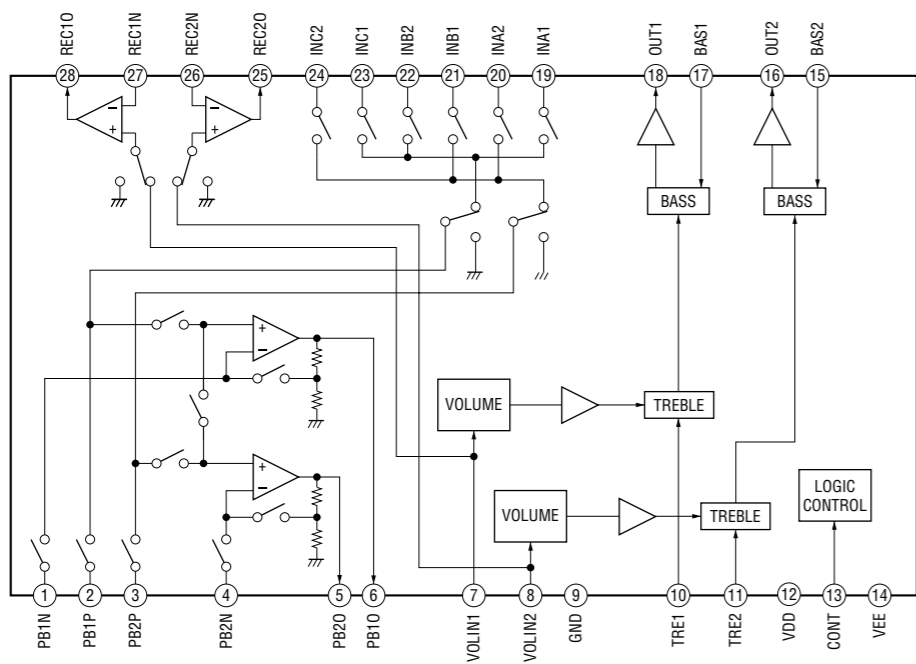
– BD83S Board –

IC402 BA5947FM-E2



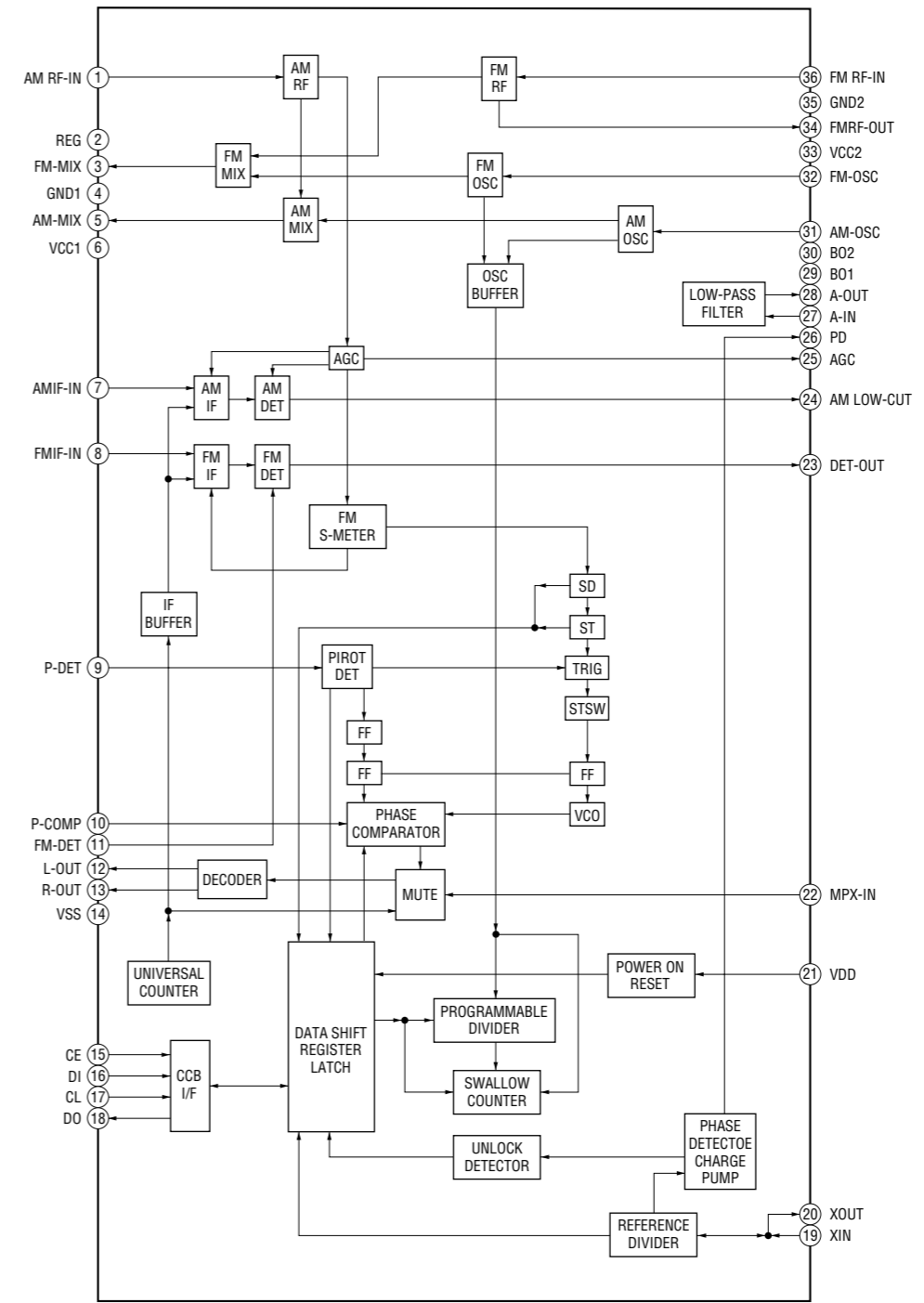
– MAIN Board –

IC401 BD3881FV



– MAIN Board –

IC801 LV23003VA



• **IC Pin Function Description**
BD83S BOARD IC201 CXD3014A-201R (RF AMP, DSP, MP3)

Pin No.	Pin Name	I/O	Description
1	LRCK	O	L/R sampling clock signal output terminal
2	LRCKI	I	L/R sampling clock signal input terminal
3	PCMD	O	Serial data output terminal
4	PCMDI	I	Serial data input terminal
5	BCK	O	Bit clock signal output terminal
6	BCKI	I	Bit clock signal input terminal
7	XTACN	I	Oscillation circuit on/off switch control signal input from the system controller “L”: oscillation stop, “H”: self-oscillation
8	XRST	I	System reset signal input from the system controller “L”: reset
9	VSS	—	Ground terminal
10	IREQ-MP3	O	MP3 data request signal output to the system controller
11	CLOK	I	CD serial data transfer clock signal input from the system controller
12	DATA2	I	MP3 serial data input from the system controller
13	XLAT-MP3	I	MP3 serial data latch pulse signal input from the system controller
14	REQ-MP3	I	MP3 data request signal input from the system controller
15	ACK-MP3	O	MP3 acknowledge signal output to the system controller
16	XLAT	I	CD serial data latch pulse signal input from the system controller
17	VDD	—	Power supply terminal (+1.8V)
18	SVSS	—	Ground terminal
19	SVDD	—	Power supply terminal (+1.8V)
20	SENS	O	Internal status (SENSE) signal output to the system controller
21	WFCK	O	WFCK output (Not used)
22	XUGF	O	XUGF output (Not used)
23	XPCK	O	XPCK output (Not used)
24	GFS	O	GFP output (Not used)
25	C2PO	O	C2PO output (Not used)
26	SCOR	O	Subcode sync (S0+S1) detection signal output to the system controller
27	VDD	—	Power supply terminal (+1.8V)
28	COUT	I/O	Track number count signal input/output (Not used)
29	SVSS	—	Ground terminal
30	SVDD	—	Power supply terminal (+1.8V)
31	MIRR	I/O	Mirror signal input/output (Not used)
32	DFCT	I/O	Defect signal input/output (Not used)
33	FOK	I/O	Focus OK signal input/output (Not used)
34	VSS	—	Ground terminal
35	VDD	—	Power supply terminal (+1.8V)
36	VSS	—	Ground terminal
37	LOCK	I/O	Not used
38	MDP	O	Spindle motor servo control signal output terminal
39	SSTP	I	Disc inner position detection signal input terminal
40	IOVSS1	—	Ground terminal
41	SFDR	O	Sled servo drive signal (+) output to the coil/motor driver
42	SRDR	O	Sled servo drive signal (-) output to the coil/motor driver
43	TFDR	O	Tracking servo drive signal (+) output to the coil/motor driver
44	TRDR	O	Tracking servo drive signal (-) output to the coil/motor driver
45	FFDR	O	Focus servo drive signal (+) output to the coil/motor driver
46	FRDR	O	Focus servo drive signal (-) output to the coil/motor driver

Pin No.	Pin Name	I/O	Description
47	IOVDD1	—	Power supply terminal (+3.3V)
48	AVDD0	—	Power supply terminal (+3.3V)
49	AVSS0	—	Ground terminal
50	E	I	E signal input from the optical pick-up block
51	F	I	F signal input from the optical pick-up block
52	TEI	I	Tracking error signal input terminal
53	TEO	O	Tracking error signal output terminal
54	FBI	I	Focus error signal input terminal
55	FEO	O	Focus error signal output terminal
56	VC	O	Middle point voltage output terminal
57	A	I	A signal input from the optical pick-up block
58	B	I	B signal input from the optical pick-up block
59	C	I	C signal input from the optical pick-up block
60	D	I	D signal input from the optical pick-up block
61	AVDD4	—	Power supply terminal (+3.3V)
62	RFDCO	O	RFDC signal output (Not used)
63	PDSSENS	I	Reference voltage pin (Connected to ground)
64	AC_SUM	O	RFAC summing amplifier signal output terminal
65	EQ_IN	I	RF equalizer circuit input terminal
66	LD	O	Laser diode on/off control signal output to the automatic power control circuit “L”: laser off, “H”: laser on
67	PD	I	Light amount monitor input from the optical pick-up block laser diode
68	RFC	I	Equalizer cut off frequency adjustment terminal
69	AVSS4	—	Ground terminal
70	RFACO	O	EFM signal output terminal
71	RFACI	I	EFM signal input terminal
72	AVDD3	—	Power supply terminal (+3.3V)
73	BIAS	I	Asymmetry circuit constant current input terminal
74	ASYI	I	Playback EFM asymmetry comparator voltage input terminal
75	ASYO	O	Playback EFM full-swing output terminal
76	VPCO	O	Charge pump output terminal for broad-band EFM PLL (Not used)
77	VCTL	I	VCO2 control voltage input terminal for broad-band EFM PLL
78	AVSS3	—	Ground terminal
79	CLTV	I	VCO1 control voltage input terminal for multiplier
80	FILO	O	Filter output terminal for master PLL
81	FILI	I	Filter input terminal for master PLL
82	PCO	O	Charge pump output terminal for master PLL
83	SVSS	—	Ground terminal
84	SVDD	—	Power supply terminal (+1.8V)
85	SSTB-MP3	I	MP3 standby control signal input terminal “L”: standby (Connected to ground)
86	VDD	—	Power supply terminal (+1.8V)
87	VSS	—	Ground terminal
88	TEST1	I	Test terminal (Connected to ground)
89	DATA	I	CD serial data input from the system controller
90	CLK2	I	MP3 serial data transfer clock signal input from the system controller
91	SVSS	—	Ground terminal
92	SVDD	—	Power supply terminal (+2.5V)
93	JTAGTCK	—	Connected to ground
94	JTAGTDI	—	Connected to ground

Pin No.	Pin Name	I/O	Description
95	JTAGTDO	—	Not used
96	JTAGTMS	—	Connected to ground
97	TRST	—	Connected to ground
98	VSS	—	Ground terminal
99	VDD	—	Power supply terminal (+1.8V)
100	IOVDD2	—	Power supply terminal (+3.3V)
101	DOUT	O	Digital audio signal output terminal (Not used)
102	TEST	I	Test terminal (Connected to ground)
103	TES1	I	Test terminal (Connected to ground)
104	IOVSS2	—	Ground terminal
105	PLLVD	—	Power supply terminal (+1.8V)
106	PLLVS	—	Ground terminal
107	XVSS	—	Ground terminal
108	XTAO	O	System clock output terminal (16.9344 MHz)
109	XTAI	I	System clock input terminal (16.9344 MHz)
110	XVDD	—	Power supply terminal (+1.8V)
111	AVDD1	—	Power supply terminal (+3.3V)
112	AOUT1	O	L-ch analog audio signal output terminal
113	VREFL	O	L-ch reference voltage output terminal
114	AVSS1	—	Ground terminal
115	AVSS2	—	Ground terminal
116	VREFR	O	R-ch reference voltage output terminal
117	AOUT2	O	R-ch analog audio signal output terminal
118	AVDD2	—	Power supply terminal (+3.3V)
119	IOVDD0	—	Power supply terminal (+3.3V)
120	IOVSS0	—	Ground terminal

PANEL BOARD IC701 MB90802-108 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	P24	O	Power relay control signal output
2	P25	O	Amp control signal output
3	P26	O	System reset signal output to the RF AMP
4	P27	O	Control signal output to the PB/REC EQ AMP
5	P30/SO3	O	Serial data output to the MP3 decoder
6	P31/SC3	O	Serial data transfer clock signal output to the MP3 decoder
7	P32/SI3	I	Serial data input
8	P33/TMCK	O	Latch pulse signal output to the RF AMP
9	P34/IC0	I	Remote sencer signal input
10	P35/IC1	O	Serial data latch pulse output to the MP3 decoder
11	P36/OCU0	O	M-MUTE signal output to the MP3 decoder
12	P37/OCU1	O	Data transfer request signal output to the MP3 decoder
13	X0A/P90	O	Resonator output terminal (32.768kHz)
14	X1A/P91	I	Resonator input terminal (32.768kHz)
15	VCC	—	Power supply terminal (+3.3V)
16	VSS	—	Ground terminal
17	P40/LED0	O	STANDBY LED control signal output
18	P41/LED1	I	CD switch (SW3) input terminal
19	P42/LED2	I	CD switch (SW1) input terminal
20	P43/LED3	I	CD switch (SW2) input terminal
21	P44/LED4	O	Loading motor control signal output
22	P45/LED5/TOT0	O	Loading motor control signal output
23	P46/LED6/TOT1	O	Elevator up/down motor control signal output
24	P47/LED7/TOT2	O	Elevator up/down motor control signal output
25	P50/TIN0	I	CD chuck switch (SW7) input terminal
26	P51/TIN1	I	CD close switch (SW6) input terminal
27	P52/TIN2/PPG0	I	CD stoc switch (SW5) input terminal
28	P53/PPG1	I	CD open switch (SW8) input terminal
29	P54/SI0	I	Internal status (SENSE) input from the CD DSP
30	P55/SC0	O	Serial data transfer clock signal output to the CD DSP
31	P56/SO0	O	Serial data output to the CD DSP
32	AVCC	—	Power supply terminal (+3.3V)
33	P57/SI1	I	Data input from the the tuner
34	P76	O	Oscillator control signal output to the CD DSP
35	AVSS	—	Ground terminal
36	P60/AN0	I	Power detection signal input
37	P61/AN1	I	Key AD input1
38	P62/AN2	I	Key AD input2
39	P63/AN3	I	Tuner tuned status signal input
40	P64/AN4	I	Bias signal input from the bias oscillation circuit
41	P65/AN5/INT0	I	Key AD input3
42	P66/AN6/INT1	I	Power down detection signal input
43	P67/AN7/INT2	I	Subcode data request signal input terminal
44	VSS	—	Ground terminal
45	P70/AN8/INT3	—	Not used (open)
46	P71/AN9/SC1	O	Back light LED control signal output
47	P72/AN10/SO1	I	SUFIX signal input (Connected to +3.3V)

Pin No.	Pin Name	I/O	Description
48	P73/AN11/SI2	I	Signal input from the volume encoder
49	P74/SDA/SC2	I	Data transfer request signal input from the MP3 decoder
50	P75/SCL/SO2	I	Acknowledge signal input from the MP3 decoder
51	MD2	I	Input pin for selecting operation mode
52	MD1	I	Input pin for selecting operation mode (Connected to +3.3V)
53	MD0	I	Input pin for selecting operation mode
54	RSTX	I	System reset signal input terminal
55	V0/P80	O	Tuner chip enable signal output to the tuner
56	V1/P81	O	Clock signal output to the tuner
57	V2/P82	O	Data output to the the tuner
58	V3	I	Reference power terminal of LCD controller/driver
59, 60	COM0, COM1	O	Common signal output to the LCD
61, 62	P83/COM2, P84/COM3	O	Common signal output to the LCD
63, 64	SEG0, SEG1	O	Segment signalL output to the LCD
65	VCC	—	Power supply terminal (+3.3V)
66	VSS	—	Grounnd terminal
67 to 84	SEG2 to SEG19	O	Segment signal output to the LCD
85 to 89	SEG20/P10 to SEG24/P14	O	Segment signal output to the LCD
90	VCC	—	Power supply terminal (+3.3V)
91	VSS	—	Grounnd terminal
92	X1	I	Resonator input terminal (4.19MHz)
93	X0	O	Resonator output terminal (4.19MHz)
94 to 96	SEG25/P15 to SEG27/P17	O	Segment signal output to the LCD
97 to 100	SEG28/P20 to SEG31/P23	O	Segment signal output to the LCD

SECTION 7 EXPLODED VIEWS

NOTE:

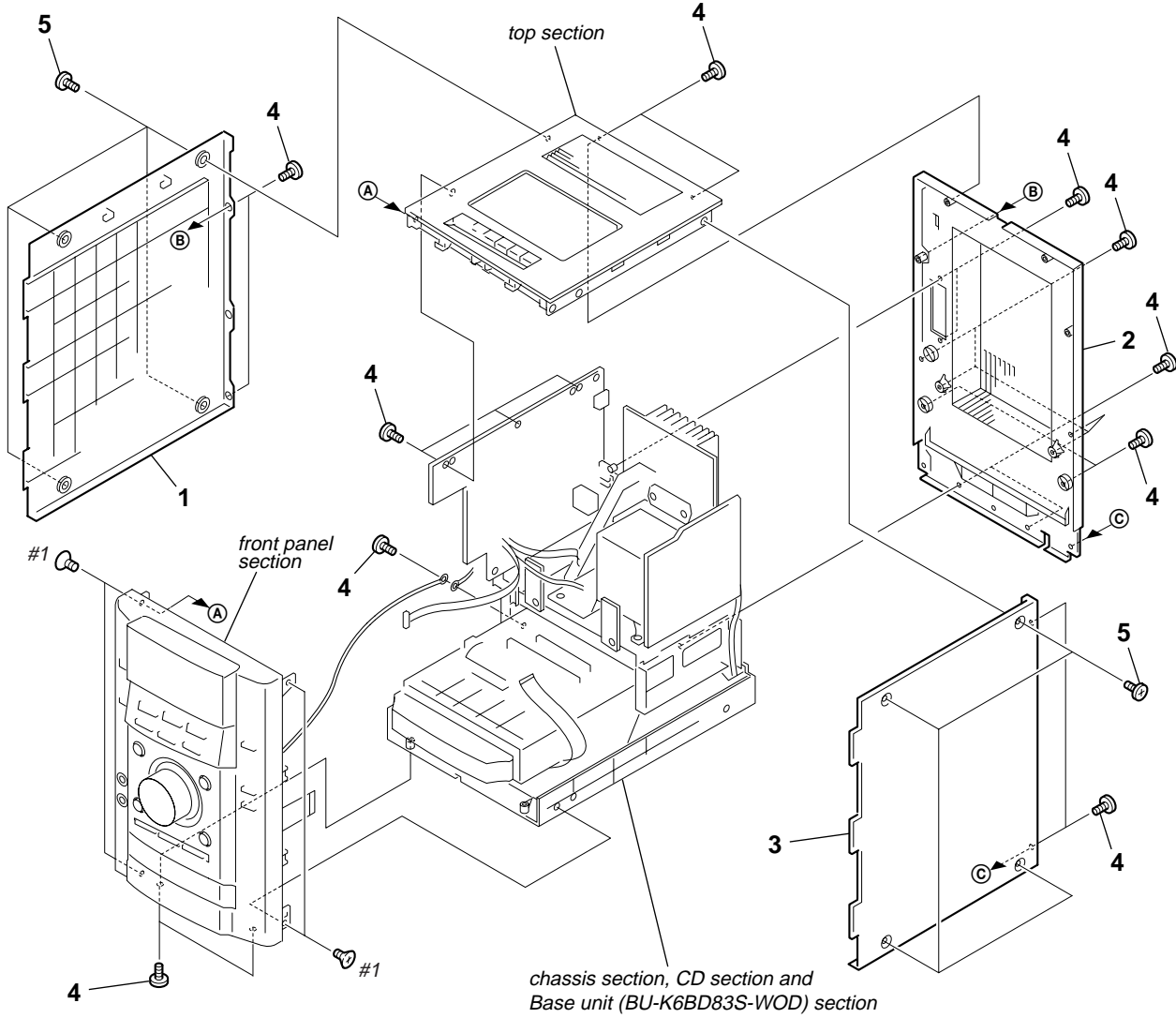
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
 AUS : Australian model
 CET : East European and Russian models
 CND : Canadian model
 E3 : 240V AC area in E model
 KR : Korean model
 SP : Singapore model

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

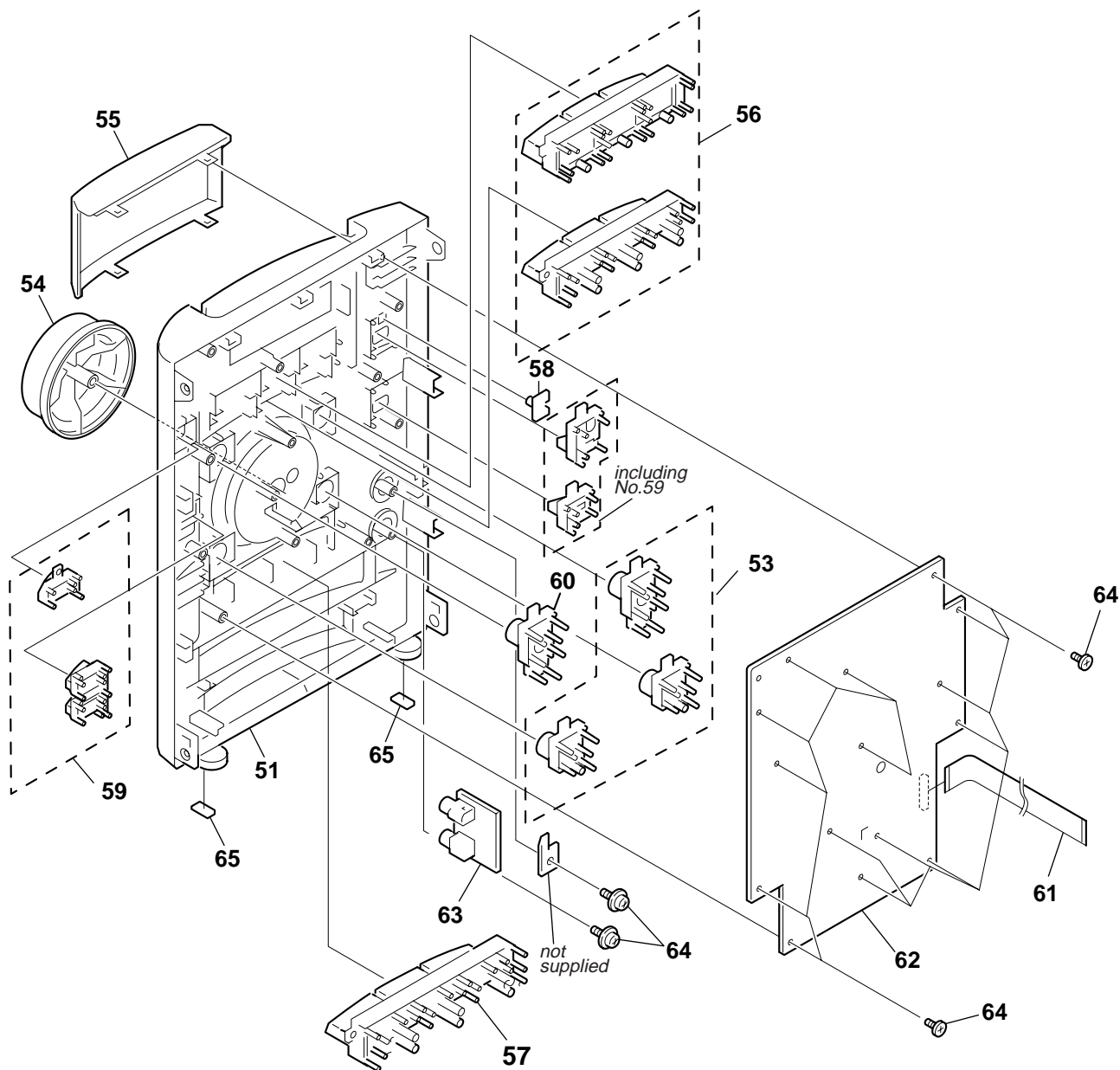
Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. OVERALL SECTION



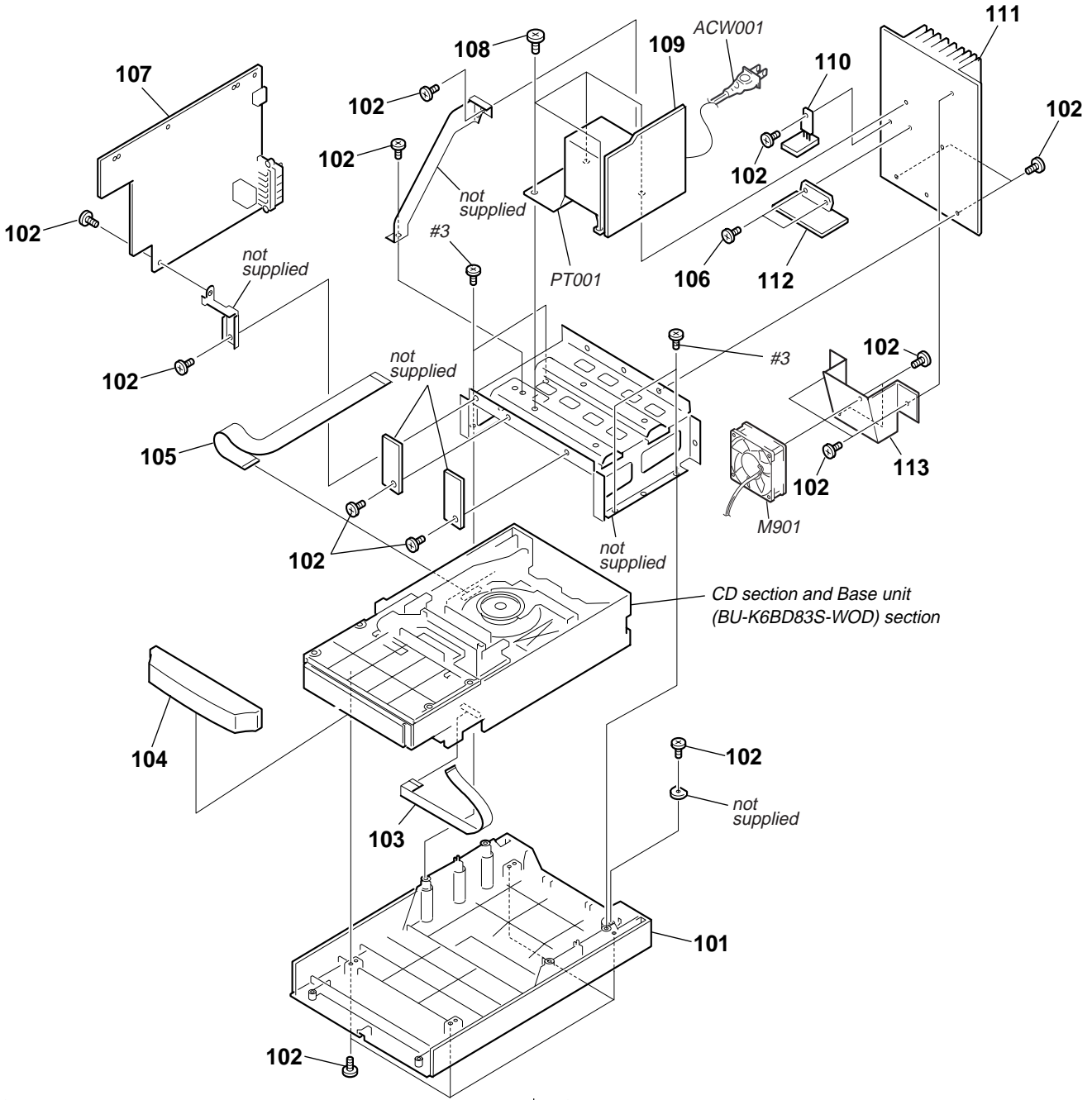
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	2-649-129-11	PANEL (L), SIDE (EXCEPT US)		2	2-649-133-41	CABINET, REAR (KR, AUS)	
1	2-649-129-21	PANEL (L), SIDE (US)		3	2-649-130-11	PANEL (R), SIDE (EXCEPT US)	
2	2-649-133-01	CABINET, REAR (US)		3	2-649-130-21	PANEL (R), SIDE (US)	
2	2-649-133-11	CABINET, REAR (CND)		4	3-254-143-11	SCREW (B3), (+) BV TAPPING	
2	2-649-133-21	CABINET, REAR (E3, SP)		5	3-363-099-32	SCREW (CASE 3 TP2)	
2	2-649-133-31	CABINET, REAR (AEP, UK, CET)		#1	7-685-247-14	SCREW +KTP 3X10 TYPE2 NON-SLIT	

7-2. FRONT PANEL SECTION



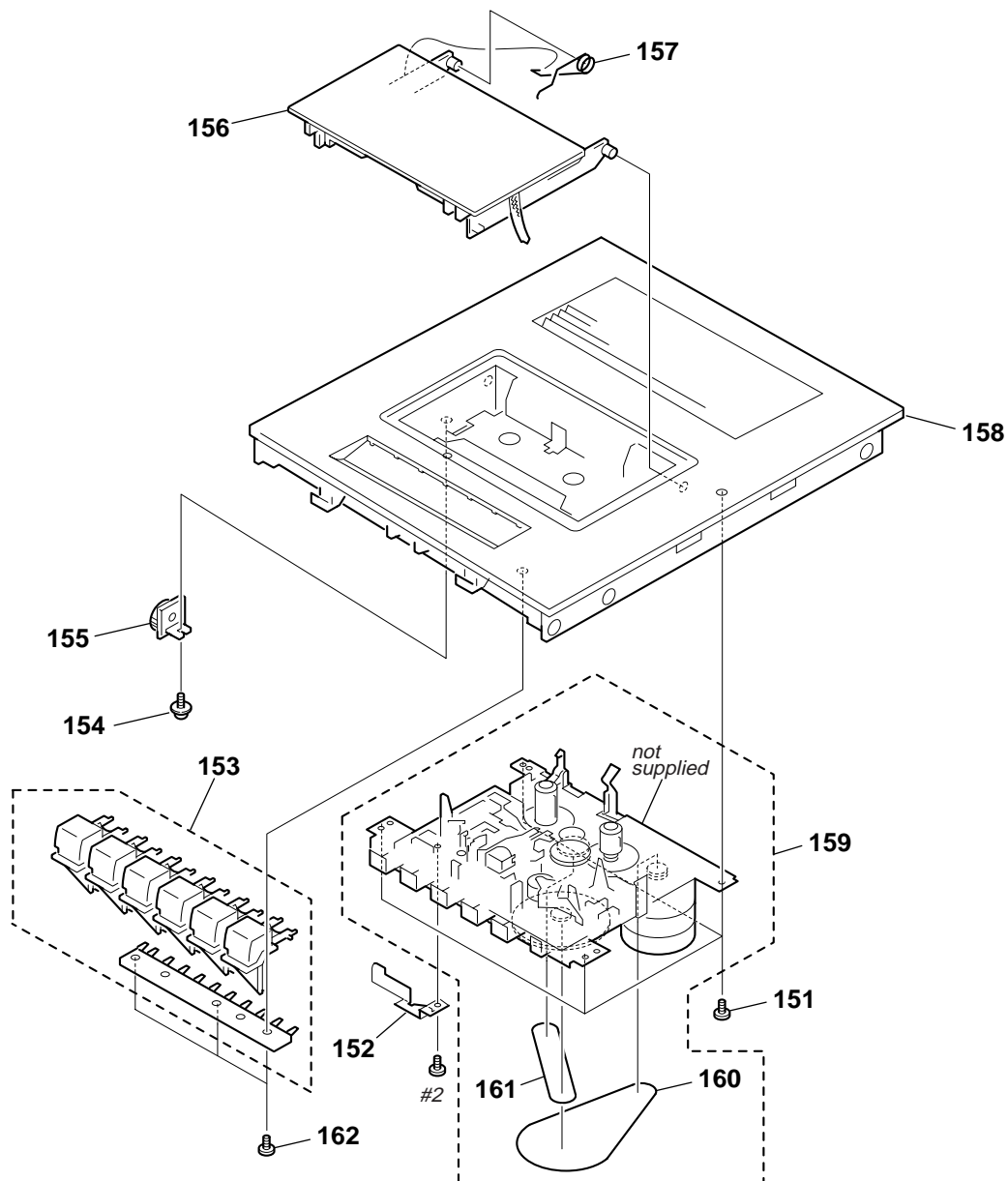
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	2-649-118-11	CABINET, FRONT (EXCEPT US)		61	1-824-048-21	WIRE (FLAT TYPE) (27 CORE)	
51	2-649-118-21	CABINET, FRONT (US)		62	A-1144-849-A	PANEL BOARD, COMPLETE (US, CND)	
53	2-649-123-01	BUTTON (EQ)		62	A-1169-449-A	PANEL BOARD, COMPLETE (E3, SP, AUS)	
54	2-649-126-01	KNOB (VOL)		62	A-1169-450-A	PANEL BOARD, COMPLETE (AEP, UK, CET)	
55	2-649-119-01	WINDOW (DISPLAY)		62	A-1183-181-A	PANEL BOARD, COMPLETE (KR)	
56	2-649-122-01	BUTTON (OPE)		63	A-1144-828-A	JACK BOARD, COMPLETE	
57	2-649-124-01	BUTTON (DISC)		64	4-951-620-01	SCREW (2.6X8), +BVTP	
58	2-649-120-01	REFLECTOR (POWER)		65	4-225-252-01	CUSHION (FOOT)	
59	2-649-121-01	BUTTON (POWER)					
60	2-649-648-01	BUTTON (DSGX)					

7-3. CHASSIS SECTION



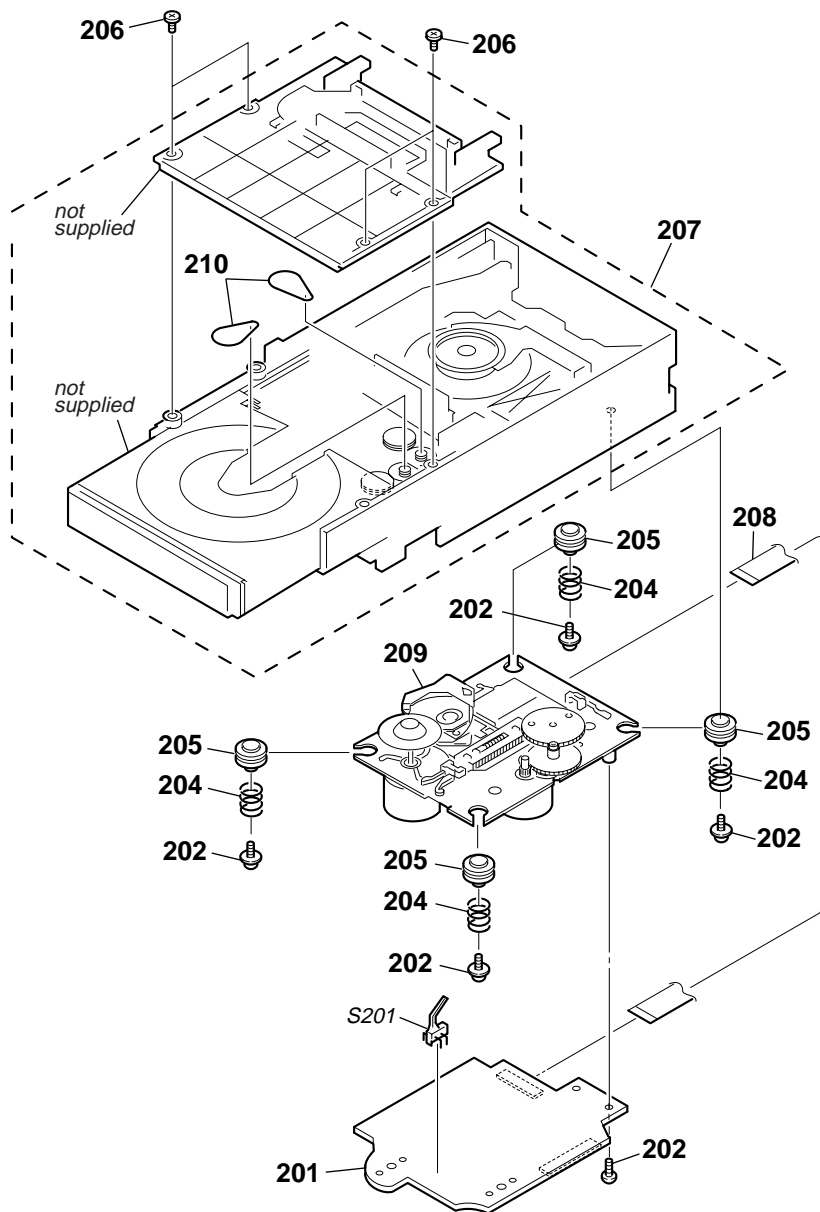
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	2-649-153-01	CHASSIS (MAIN MOLD) (US)		109	A-1181-750-A	PT BOARD, COMPLETE (KR)	
101	2-649-153-11	CHASSIS (MAIN MOLD) (CND)		110	A-1146-444-A	TRANSISTOR BOARD, COMPLETE	
101	2-649-153-21	CHASSIS (MAIN MOLD) (AEP, UK, CET, SP, KR, AUS)		111	X-2102-477-1	HEAT SINK ASSY (US, CND, AEP, UK, CET)	
101	2-649-153-41	CHASSIS (MAIN MOLD) (E3)		111	X-2108-555-1	HEAT SINK ASSY (50W SP2) (E3, SP, KR, AUS)	
102	3-254-143-11	SCREW (B3), (+) BV TAPPING		112	A-1144-850-A	AMP BOARD, COMPLETE (US, CND)	
103	1-828-974-21	WIRE (FLAT TYPE) (13 CORE)		112	A-1171-961-A	AMP BOARD, COMPLETE (AEP, UK, CET)	
104	2-649-127-01	PANEL, TRAY		112	A-1175-788-A	AMP BOARD, COMPLETE (E3, SP, KR, AUS)	
105	1-828-643-21	WIRE (FLAT TYPE) (23 CORE)		113	2-671-683-01	HOLDER (FAN50) (E3, SP, KR, AUS)	
106	3-905-609-31	SCREW (TRANSISTOR)		△ACW001	1-769-079-51	CORD, POWER (KR)	
107	A-1144-848-A	MAIN BOARD, COMPLETE (US, CND)		△ACW001	1-775-790-81	CORD, POWER (AUS)	
107	A-1169-435-A	MAIN BOARD, COMPLETE (E3, SP, AUS)		△ACW001	1-790-757-51	CORD, POWER (US, CND)	
107	A-1169-436-A	MAIN BOARD, COMPLETE (AEP, UK, CET)		△ACW001	1-830-891-11	CORD, POWER (UK)	
107	A-1181-748-A	MAIN BOARD, COMPLETE (KR)		△ACW001	1-831-370-11	CORD, POWER (AEP, CET, SP)	
108	4-900-386-01	SCREW		△ACW001	1-832-377-11	CORD, POWER (E3)	
109	A-1144-825-A	PT BOARD, COMPLETE (US, CND)		M901	1-787-396-11	D.C. FAN (50 SQUARE) (E3, SP, KR, AUS)	
109	A-1169-506-A	PT BOARD, COMPLETE (E3, SP)		△PT001	1-443-845-11	TRANSFORMER, POWER (US, CND)	
109	A-1169-507-A	PT BOARD, COMPLETE (AUS)		△PT001	1-443-910-11	TRANSFORMER, POWER (AEP, UK, CET)	
109	A-1169-540-A	PT BOARD, COMPLETE (AEP, UK, CET)		△PT001	1-443-911-11	TRANSFORMER, POWER (E3, SP, KR, AUS)	
				#3	7-685-661-14	SCREW +BVTP 4X12 TYPE2 IT-3	

7-4. TOP SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-951-620-01	SCREW (2.6X8), +BVTP		158	2-649-128-11	PANEL, TOP (EXCEPT US)	
152	2-649-154-01	LEVER (REC)		158	2-649-128-21	PANEL, TOP (US)	
153	2-649-132-01	BUTTON (CASS)		159	1-797-375-11	DECK, MECHANICAL	
154	3-921-725-01	SCREW (2.6X10), +PWH		160	2-670-389-01	BELT (1)	
155	3-047-468-01	DAMPER		161	2-670-390-01	BELT (2)	
156	2-649-131-01	BOX, CASSETTE		162	3-252-827-01	SCREW (B2.6), (+) BV TAPPING	
157	2-649-152-01	SPRING (CASS)		#2	7-685-850-04	SCREW +BVTT 2X3 (S)	

7-5. CD SECTION AND BASE UNIT (BU-K6BD83S-WOD) SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	A-1134-279-A	BD83S BOARD, COMPLETE (US, CND, E3, SP, AUS)		206	4-951-620-01	SCREW (2.6X8), +BVTP	
201	A-1179-506-A	BD83S BOARD, COMPLETE (AEP, UK, CET, KR)		207	1-797-193-12	MECHANICAL, CD (DLM3A23-11)	
202	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING		208	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
204	4-227-045-31	SPRING (INSULATOR), COIL		△209	A-4735-357-A	OP BASE ASSY (KSM213DHAP/ZRP1)	
205	4-227-549-11	INSULATOR		210	2-632-062-01	BELT (DLM3A)	
				S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	

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.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- CAPACITORS
uF: μ F
- COILS
uH: μ H
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . uPA. . : μ PA. .
uPB. . : μ PB. . uPC. . : μ PC. .
uPD. . : μ PD. .
- Abbreviation
AUS : Australian model
CET : East European and Russian models
CND : Canadian model
E3 : 240V AC area in E model
KR : Korean model
SP : Singapore model

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

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

Les composants identifiés par une marque \triangle sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark	Remark
	A-1144-850-A	AMP BOARD, COMPLETE *****		R203	1-216-841-11	METAL CHIP	47K	5% 1/10W
		< CAPACITOR >		R204	1-216-841-11	METAL CHIP	47K	5% 1/10W
C201	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	R205	1-216-833-11	METAL CHIP	10K	5% 1/10W
C202	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	R206	1-216-833-11	METAL CHIP	10K	5% 1/10W
C203	1-126-963-11	ELECT	4.7uF 20% 50V	R207	1-216-809-11	METAL CHIP	100	5% 1/10W
C204	1-126-963-11	ELECT	4.7uF 20% 50V	R208	1-216-809-11	METAL CHIP	100	5% 1/10W
C205	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	R209	1-216-825-11	METAL CHIP	2.2K	5% 1/10W
C206	1-162-927-11	CERAMIC CHIP	100PF 5% 50V	R210	1-216-825-11	METAL CHIP	2.2K	5% 1/10W
C207	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R211	1-216-841-11	METAL CHIP	47K	5% 1/10W
C208	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R212	1-216-841-11	METAL CHIP	47K	5% 1/10W
C209	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	R213	1-216-833-11	METAL CHIP	10K	5% 1/10W
C210	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	R214	1-216-833-11	METAL CHIP	10K	5% 1/10W
C211	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R215	1-216-821-11	METAL CHIP	1K	5% 1/10W
C212	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R216	1-216-821-11	METAL CHIP	1K	5% 1/10W
C244	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R217	1-216-821-11	METAL CHIP	1K	5% 1/10W
C251	1-165-621-91	CERAMIC CHIP	0.1uF 50V	R218	1-216-821-11	METAL CHIP	1K	5% 1/10W
C252	1-165-621-91	CERAMIC CHIP	0.1uF 50V	R219	1-216-821-11	METAL CHIP	1K	5% 1/10W
C253	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R220	1-216-821-11	METAL CHIP	1K	5% 1/10W
C254	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R221	1-216-837-11	METAL CHIP	22K	5% 1/10W
		< DIODE >		R222	1-216-837-11	METAL CHIP	22K	5% 1/10W
D241	6-500-335-01	DIODE MC2838-T112-1		R223	1-216-833-11	METAL CHIP	10K	5% 1/10W
		< EARTH TERMINAL >		R224	1-216-833-11	METAL CHIP	10K	5% 1/10W
EP201	1-537-770-21	TERMINAL BOARD, GROUND		R225	1-216-837-11	METAL CHIP	22K	5% 1/10W
		< IC >		R226	1-216-837-11	METAL CHIP	22K	5% 1/10W
IC202	6-708-919-01	IC STK432-050		R227	1-216-825-11	METAL CHIP	2.2K	5% 1/10W
		< TRANSISTOR >		R228	1-216-825-11	METAL CHIP	2.2K	5% 1/10W
Q201	6-551-270-01	TRANSISTOR	2SA2026	R231	1-216-813-11	METAL CHIP	220	5% 1/10W
Q202	6-551-270-01	TRANSISTOR	2SA2026	R232	1-216-813-11	METAL CHIP	220	5% 1/10W
Q241	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R233	1-216-833-11	METAL CHIP	10K	5% 1/10W
Q242	8-729-600-22	TRANSISTOR	2SA1235-F	R234	1-216-833-11	METAL CHIP	10K	5% 1/10W
Q243	8-729-120-28	TRANSISTOR	2SC1623-L5L6	\triangle R235	1-216-361-31	METAL OXIDE	0.22	5% 2W
Q244	8-729-600-22	TRANSISTOR	2SA1235-F	\triangle R236	1-216-361-31	METAL OXIDE	0.22	5% 2W
		< RESISTOR >		R241	1-216-833-11	METAL CHIP	10K	5% 1/10W
R201	1-216-864-11	SHORT CHIP	0	R242	1-216-833-11	METAL CHIP	10K	5% 1/10W
R202	1-216-864-11	SHORT CHIP	0	R243	1-216-821-11	METAL CHIP	1K	5% 1/10W
				R244	1-216-845-11	METAL CHIP	100K	5% 1/10W
				R245	1-216-825-11	METAL CHIP	2.2K	5% 1/10W
				R246	1-216-833-11	METAL CHIP	10K	5% 1/10W
				R247	1-216-853-11	METAL CHIP	470K	5% 1/10W
				R248	1-216-833-11	METAL CHIP	10K	5% 1/10W
				R249	1-216-825-11	METAL CHIP	2.2K	5% 1/10W
				R251	1-216-809-11	METAL CHIP	100	5% 1/10W
				R252	1-216-809-11	METAL CHIP	100	5% 1/10W

HCD-EC50

Ver. 1.3

AMP **BD83S**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R253	1-216-833-11	METAL CHIP 10K 5%	1/10W	C232	1-164-360-11	CERAMIC CHIP 0.1uF	16V
		< THERMISTOR >		C251	1-164-315-11	CERAMIC CHIP 470PF 5%	50V
TH241	1-805-217-21	THERMISTOR (1012)		C252	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
		< CABLE HOLDER >		C253	1-164-315-11	CERAMIC CHIP 470PF 5%	50V
WH101	1-824-030-21	HOLDER, CABLE 5P		C254	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V
WH102	1-824-030-21	HOLDER, CABLE 5P		C256	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V

A-1134-279-A	BD83S BOARD, COMPLETE			C257	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
	(US, CND, E3, SP, AUS)			C258	1-164-230-11	CERAMIC CHIP 220PF 5%	50V
A-1179-506-A	BD83S BOARD, COMPLETE (AEP, UK, CET, KR)			C260	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V
	*****			C261	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
		< CAPACITOR >		C264	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
C101	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	C265	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C102	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	C266	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V
C103	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	C267	1-162-910-11	CERAMIC CHIP 5PF 0.25PF	50V
		(US, CND, E3, SP, AUS)		C268	1-162-915-11	CERAMIC CHIP 10PF 0.5PF	50V
C103	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C271	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		(AEP, UK, CET, KR)		C272	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C104	1-164-230-11	CERAMIC CHIP 220PF 5%	50V	C273	1-164-315-11	CERAMIC CHIP 470PF 5%	50V
C105	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	C274	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		(US, CND, E3, SP, AUS)		C275	1-162-910-11	CERAMIC CHIP 5PF 0.25PF	50V
C105	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C276	1-165-908-11	CERAMIC CHIP 1uF 10%	10V
		(AEP, UK, CET, KR)		C277	1-165-908-11	CERAMIC CHIP 1uF 10%	10V
C107	1-164-230-11	CERAMIC CHIP 220PF 5%	50V	C291	1-164-315-11	CERAMIC CHIP 470PF 5%	50V
C108	1-164-230-11	CERAMIC CHIP 220PF 5%	50V	C292	1-164-315-11	CERAMIC CHIP 470PF 5%	50V
C109	1-164-230-11	CERAMIC CHIP 220PF 5%	50V	C301	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C110	1-164-230-11	CERAMIC CHIP 220PF 5%	50V	C303	1-137-710-11	CERAMIC CHIP 10uF 20%	6.3V
C111	1-164-230-11	CERAMIC CHIP 220PF 5%	50V	C304	1-165-908-11	CERAMIC CHIP 1uF 10%	10V
C112	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	C321	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V
		(US, CND, E3, SP, AUS)		C322	1-165-908-11	CERAMIC CHIP 1uF 10%	10V
C112	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C323	1-128-995-21	ELECT CHIP 100uF 20%	10V
		(AEP, UK, CET, KR)		C401	1-128-394-11	ELECT CHIP 220uF 20%	10V
C113	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	C404	1-164-360-11	CERAMIC CHIP 0.1uF	16V
		(US, CND, E3, SP, AUS)		C405	1-164-360-11	CERAMIC CHIP 0.1uF	16V
		< CONNECTOR >		C406	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C113	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	C424	1-164-360-11	CERAMIC CHIP 0.1uF	16V
		(AEP, UK, CET, KR)		C451	1-165-176-11	CERAMIC CHIP 0.047uF 10%	16V
C201	1-128-995-21	ELECT CHIP 100uF 20%	10V			< IC >	
C202	1-164-360-11	CERAMIC CHIP 0.1uF	16V	CN301	1-770-425-51	CONNECTOR, FFC/FPC 16P	
C203	1-128-995-21	ELECT CHIP 100uF 20%	10V			< IC >	
C204	1-164-360-11	CERAMIC CHIP 0.1uF	16V	IC201	8-753-246-30	IC CXD3014A-201R	
C205	1-164-360-11	CERAMIC CHIP 0.1uF	16V	IC202	6-708-736-01	IC BD18KA5FP-E2	
C206	1-164-360-11	CERAMIC CHIP 0.1uF	16V	IC402	6-705-808-01	IC BA5947FM-E2	
C207	1-128-995-21	ELECT CHIP 100uF 20%	10V			< TRANSISTOR >	
C208	1-164-360-11	CERAMIC CHIP 0.1uF	16V	Q321	6-551-120-01	TRANSISTOR 2SA2119K	
C210	1-164-360-11	CERAMIC CHIP 0.1uF	16V			< RESISTOR >	
C213	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R101	1-216-809-11	METAL CHIP 100 5%	1/10W
C214	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R102	1-216-809-11	METAL CHIP 100 5%	1/10W
C215	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R103	1-216-809-11	METAL CHIP 100 5%	1/10W
C217	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R104	1-216-809-11	METAL CHIP 100 5%	1/10W
C218	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R105	1-216-809-11	METAL CHIP 100 5%	1/10W
C219	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R107	1-216-809-11	METAL CHIP 100 5%	1/10W
C220	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R108	1-216-809-11	METAL CHIP 100 5%	1/10W
C221	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R109	1-216-809-11	METAL CHIP 100 5%	1/10W
C222	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R110	1-216-809-11	METAL CHIP 100 5%	1/10W
C223	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R111	1-216-809-11	METAL CHIP 100 5%	1/10W
C224	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R112	1-216-809-11	METAL CHIP 100 5%	1/10W
C226	1-165-908-11	CERAMIC CHIP 1uF 10%	10V				
C227	1-165-908-11	CERAMIC CHIP 1uF 10%	10V				
C230	1-162-927-11	CERAMIC CHIP 100PF 5%	50V				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R113	1-216-809-11	METAL CHIP	100 5%	1/10W	L105	1-216-295-91	SHORT CHIP 0
R201	1-216-295-91	SHORT CHIP	0		L106	1-216-295-91	SHORT CHIP 0
R202	1-216-295-91	SHORT CHIP	0				
R203	1-500-445-21	FERRITE, EMI (SMD) (2012)					< RESISTOR >
R207	1-216-295-91	SHORT CHIP	0		R119	1-216-805-11	METAL CHIP 47 5% 1/10W
R250	1-216-857-11	METAL CHIP	1M 5%	1/10W	R120	1-216-805-11	METAL CHIP 47 5% 1/10W
R252	1-216-833-11	METAL CHIP	10K 5%	1/10W	R151	1-216-829-11	METAL CHIP 4.7K 5% 1/10W
R253	1-216-821-11	METAL CHIP	1K 5%	1/10W	R152	1-216-829-11	METAL CHIP 4.7K 5% 1/10W
R254	1-216-833-11	METAL CHIP	10K 5%	1/10W	R175	1-216-841-11	METAL CHIP 47K 5% 1/10W
R255	1-216-821-11	METAL CHIP	1K 5%	1/10W	R176	1-216-841-11	METAL CHIP 47K 5% 1/10W
R256	1-216-837-11	METAL CHIP	22K 5%	1/10W	*****		
R257	1-216-845-11	METAL CHIP	100K 5%	1/10W	A-1144-848-A	MAIN BOARD, COMPLETE	
R258	1-216-849-11	METAL CHIP	220K 5%	1/10W	*****		
R260	1-216-864-11	SHORT CHIP	0				< CAPACITOR >
R265	1-216-829-11	METAL CHIP	4.7K 5%	1/10W	C101	1-128-550-11	ELECT 2200uF 20% 50V
R266	1-216-821-11	METAL CHIP	1K 5%	1/10W	C102	1-128-550-11	ELECT 2200uF 20% 50V
R267	1-216-829-11	METAL CHIP	4.7K 5%	1/10W	C105	1-165-621-91	CERAMIC CHIP 0.1uF 50V
R268	1-216-833-11	METAL CHIP	10K 5%	1/10W	C106	1-165-621-91	CERAMIC CHIP 0.1uF 50V
R270	1-216-821-11	METAL CHIP	1K 5%	1/10W	C110	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
R271	1-216-857-11	METAL CHIP	1M 5%	1/10W	C111	1-126-933-11	ELECT 100uF 20% 16V
R275	1-216-809-11	METAL CHIP	100 5%	1/10W	C112	1-126-943-11	ELECT 2200uF 20% 25V
R276	1-216-841-11	METAL CHIP	47K 5%	1/10W	C113	1-126-942-61	ELECT 1000uF 20% 25V
R277	1-216-809-11	METAL CHIP	100 5%	1/10W	C114	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
R278	1-216-809-11	METAL CHIP	100 5%	1/10W	C116	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V
R280	1-216-864-11	SHORT CHIP	0		C121	1-117-863-11	CERAMIC CHIP 0.47uF 10% 6.3V
R291	1-216-809-11	METAL CHIP	100 5%	1/10W	C131	1-164-227-11	CERAMIC CHIP 0.022uF 10% 25V
R292	1-216-809-11	METAL CHIP	100 5%	1/10W	C132	1-165-621-91	CERAMIC CHIP 0.1uF 50V
R321	1-216-789-11	METAL CHIP	2.2 5%	1/10W	C133	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V
R322	1-216-789-11	METAL CHIP	2.2 5%	1/10W	C134	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V
R323	1-216-864-11	SHORT CHIP	0		C151	1-126-933-11	ELECT 100uF 20% 16V
R324	1-216-845-11	METAL CHIP	100K 5%	1/10W	C152	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
R401	1-216-295-91	SHORT CHIP	0		C153	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
R421	1-216-864-11	SHORT CHIP	0		C155	1-164-156-11	CERAMIC CHIP 0.1uF 25V
R423	1-216-833-11	METAL CHIP	10K 5%	1/10W	C156	1-164-156-11	CERAMIC CHIP 0.1uF 25V
R451	1-216-837-11	METAL CHIP	22K 5%	1/10W	C158	1-165-621-91	CERAMIC CHIP 0.1uF 50V
R452	1-216-833-11	METAL CHIP	10K 5%	1/10W	C159	1-165-621-91	CERAMIC CHIP 0.1uF 50V
		< VIBRATOR >			C181	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
X201	1-795-101-21	VIBRATOR, CERAMIC (16.9344MHz)			C182	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
*****					C183	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
	A-1144-828-A	JACK BOARD, COMPLETE			C184	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
		*****			C191	1-126-923-91	ELECT 220uF 20% 10V
		< CAPACITOR >			C192	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
C139	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C193	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
C140	1-164-156-11	CERAMIC CHIP	0.1uF	25V	C194	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
C141	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V	C195	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
C142	1-162-970-11	CERAMIC CHIP	0.01uF 10%	25V	C196	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
		< CONNECTOR >			C197	1-126-925-91	ELECT 470uF 20% 10V
CNP171	1-815-449-11	PIN, CONNECTOR (PWB) 8P			C198	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
		< JACK >			C401	1-126-956-91	ELECT 0.1uF 20% 50V
J102	1-815-629-11	JACK (PHONES)			C402	1-126-933-11	ELECT 100uF 20% 16V
J105	1-566-822-51	JACK (AUDIO IN)			C403	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
		< COIL >			C404	1-125-837-91	CERAMIC CHIP 1uF 10% 6.3V
L103	1-469-152-11	FERRITE, EMI (SMD) (2012)			C405	1-126-956-91	ELECT 0.1uF 20% 50V
L104	1-469-152-11	FERRITE, EMI (SMD) (2012)			C406	1-125-837-91	CERAMIC CHIP 1uF 10% 6.3V
					C407	1-162-968-11	CERAMIC CHIP 0.0047uF 10% 50V
					C408	1-162-968-11	CERAMIC CHIP 0.0047uF 10% 50V
					C409	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
					C410	1-100-566-91	CERAMIC CHIP 0.1uF 10% 25V
					C412	1-126-925-91	ELECT 470uF 20% 10V

HCD-EC50

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C413	1-126-933-11	ELECT	100uF	20%	16V	C816	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C415	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C817	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C416	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V						
C417	1-126-957-11	ELECT	0.22uF	20%	50V	C818	1-216-864-11	SHORT CHIP	0		
C418	1-126-957-11	ELECT	0.22uF	20%	50V	C819	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
						C820	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C421	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C821	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C431	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	C822	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C432	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V						
C433	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C823	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C434	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C824	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
						C825	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C437	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C826	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C438	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C827	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C501	1-162-923-11	CERAMIC CHIP	47PF	5%	50V						
C502	1-162-923-11	CERAMIC CHIP	47PF	5%	50V	C828	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C503	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C829	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
						C830	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C504	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C831	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C505	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C832	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C506	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V						
C507	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C833	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C508	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C834	1-126-923-91	ELECT	220uF	20%	10V
						C835	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C509	1-126-966-11	ELECT	33uF	20%	50V	C836	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C510	1-126-966-11	ELECT	33uF	20%	50V	C838	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C511	1-162-962-11	CERAMIC CHIP	470PF	10%	50V						
C512	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C839	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C840	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
						C841	1-126-965-91	ELECT	22uF	20%	50V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C843	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C515	1-162-923-11	CERAMIC CHIP	47PF	5%	50V	C847	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C522	1-162-927-11	CERAMIC CHIP	100PF	5%	50V						
C523	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C848	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C524	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C851	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
						C852	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C525	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C853	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C526	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C854	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C527	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
C528	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C855	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C529	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C856	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C530	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V			< FILTER >			
C531	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
C532	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	CF802	1-579-554-21	FILTER, CERAMIC			
C543	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	CF803	1-781-962-21	FILTER, CERAMIC			
C544	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
								< CONNECTOR >			
C551	1-126-965-91	ELECT	22uF	20%	50V	CNP151	1-819-136-11	PIN, CONNECTOR 8P			
C561	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	CNP201	1-819-133-11	PIN, CONNECTOR			
C562	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	CNP202	1-815-446-11	PIN, CONNECTOR (PWB) 5P			
C564	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	CNP501	1-815-445-11	PIN, CONNECTOR (PWB) 4P			
C565	1-115-156-11	CERAMIC CHIP	1uF		10V	CNP502	1-815-444-11	PIN, CONNECTOR (PWB) 3P			
C567	1-130-479-00	MYLAR	0.0047uF	5%	50V	* CNP802	1-506-680-11	PLUG, CONNECTOR (2.5MM) 3P (ANTENNA)			
C801	1-126-933-11	ELECT	100uF	20%	16V	CNS104	1-779-291-11	CONNECTOR, FFC (LIF (NON-ZIF)) 23P			
C802	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	CNS111	1-779-295-11	CONNECTOR, FFC (LIF (NON-ZIF)) 27P			
C803	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						
C804	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V			< DIODE >			
C806	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	D107	6-501-046-01	DIODE 1N5402-F46			
C807	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	D108	6-501-046-01	DIODE 1N5402-F46			
C809	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	D109	6-501-046-01	DIODE 1N5402-F46			
C810	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	D110	6-501-046-01	DIODE 1N5402-F46			
C811	1-164-156-11	CERAMIC CHIP	0.1uF		25V	D111	6-500-522-31	DIODE 10EDB40-TB5			
C812	1-164-156-11	CERAMIC CHIP	0.1uF		25V						
C813	1-126-923-91	ELECT	220uF	20%	10V	D113	6-500-522-31	DIODE 10EDB40-TB5			
C815	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D131	6-500-522-31	DIODE 10EDB40-TB5			

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D132	8-719-000-07	DIODE MC2836		Q153	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D154	6-500-335-01	DIODE MC2838-T112-1		Q154	8-729-600-22	TRANSISTOR 2SA1235-F	
D156	8-719-000-07	DIODE MC2836		Q191	8-729-036-86	TRANSISTOR KTC3203Y-AT	
D191	6-500-522-31	DIODE 10EDB40-TB5		Q192	8-729-036-86	TRANSISTOR KTC3203Y-AT	
D192	6-500-522-31	DIODE 10EDB40-TB5		Q507	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D193	8-719-083-58	DIODE UDZSTE-173.9B		Q801	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D802	6-501-369-01	DIODE SV230-TB-E		Q802	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D803	6-501-369-01	DIODE SV230-TB-E				< RESISTOR >	
D812	8-719-062-51	DIODE 1PS226-115		R101	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
D813	8-719-062-51	DIODE 1PS226-115		R103	1-216-841-11	METAL CHIP 47K 5% 1/10W	
D814	8-719-062-51	DIODE 1PS226-115		R104	1-216-841-11	METAL CHIP 47K 5% 1/10W	
D851	6-501-142-01	DIODE SVC347A-TL-E		R105	1-216-841-11	METAL CHIP 47K 5% 1/10W	
		< EARTH TERMINAL >		R106	1-216-837-11	METAL CHIP 22K 5% 1/10W	
EP102	1-537-770-21	TERMINAL BOARD, GROUND		R107	1-216-837-11	METAL CHIP 22K 5% 1/10W	
		< IC >		R108	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
IC401	6-702-895-01	IC BD3881FV		R109	1-216-789-11	METAL CHIP 2.2 5% 1/10W	
IC801	6-708-840-01	IC LV23003VA		R110	1-216-789-11	METAL CHIP 2.2 5% 1/10W	
		< JACK >		R111	1-216-809-11	METAL CHIP 100 5% 1/10W	
J101	1-536-708-81	TERMINAL BOARD, PUSH (4P) (SPEAKER)		R112	1-216-809-11	METAL CHIP 100 5% 1/10W	
		< JUMPER RESISTOR >		R113	1-216-809-11	METAL CHIP 100 5% 1/10W	
JR101	1-216-864-11	SHORT CHIP 0		R114	1-216-809-11	METAL CHIP 100 5% 1/10W	
JR102	1-216-864-11	SHORT CHIP 0		R115	1-247-807-31	CARBON 100 5% 1/4W	
JR103	1-216-864-11	SHORT CHIP 0		R116	1-247-807-31	CARBON 100 5% 1/4W	
JR104	1-216-864-11	SHORT CHIP 0		R117	1-247-807-31	CARBON 100 5% 1/4W	
JR105	1-216-864-11	SHORT CHIP 0		R118	1-247-807-31	CARBON 100 5% 1/4W	
JR801	1-216-864-11	SHORT CHIP 0		R121	1-216-849-11	METAL CHIP 220K 5% 1/10W	
JR802	1-216-864-11	SHORT CHIP 0		R123	1-216-853-11	METAL CHIP 470K 5% 1/10W	
JR803	1-216-864-11	SHORT CHIP 0		R124	1-216-809-11	METAL CHIP 100 5% 1/10W	
		< COIL >		R125	1-216-837-11	METAL CHIP 22K 5% 1/10W	
L101	1-456-107-11	COIL, AIR-CORE		R127	1-249-401-11	CARBON 47 5% 1/4W	
L102	1-456-107-11	COIL, AIR-CORE		R128	1-249-401-11	CARBON 47 5% 1/4W	
L501	1-456-094-11	TRANSFORMER, BIAS OSCILLATION		R129	1-249-401-11	CARBON 47 5% 1/4W	
L803	1-433-741-11	TRANSFORMER, IF		R130	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
L804	1-457-163-11	COIL, AIR-CORE		R131	1-216-841-11	METAL CHIP 47K 5% 1/10W	
L805	1-457-162-11	COIL, AIR-CORE		R132	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
L806	1-457-168-11	COIL, DET		R133	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
L851	1-457-161-11	COIL, AM ANTENNA		R134	1-216-817-11	METAL CHIP 470 5% 1/10W	
L852	1-456-596-11	COIL, MW OSC		R135	1-216-817-11	METAL CHIP 470 5% 1/10W	
		< TRANSISTOR >		R136	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R137	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R138	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q122	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R139	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q131	6-550-889-01	TRANSISTOR 2SC5938-T112-1B		R140	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q132	6-550-889-01	TRANSISTOR 2SC5938-T112-1B		R142	1-216-845-11	METAL CHIP 100K 5% 1/10W	
Q133	8-729-027-38	TRANSISTOR DTA144EKA-T146		R144	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q134	1-801-806-11	TRANSISTOR DTC144EKA		R145	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q135	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R146	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q137	6-550-889-01	TRANSISTOR 2SC5938-T112-1B		R147	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q138	6-550-889-01	TRANSISTOR 2SC5938-T112-1B		R148	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q151	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R149	1-216-817-11	METAL CHIP 470 5% 1/10W	
Q152	8-729-600-22	TRANSISTOR 2SA1235-F		R150	1-216-817-11	METAL CHIP 470 5% 1/10W	
				R153	1-216-849-11	METAL CHIP 220K 5% 1/10W	
				R154	1-216-849-11	METAL CHIP 220K 5% 1/10W	
				R155	1-216-841-11	METAL CHIP 47K 5% 1/10W	
				R156	1-216-833-11	METAL CHIP 10K 5% 1/10W	
				R157	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
				R158	1-216-833-11	METAL CHIP 10K 5% 1/10W	

HCD-EC50

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R159	1-216-833-11	METAL CHIP	10K	5%	1/10W	R501	1-216-809-11	METAL CHIP	100	5%	1/10W
R160	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R161	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R503	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R162	1-216-809-11	METAL CHIP	100	5%	1/10W	R504	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R163	1-216-833-11	METAL CHIP	10K	5%	1/10W	R505	1-216-833-11	METAL CHIP	10K	5%	1/10W
R164	1-216-837-11	METAL CHIP	22K	5%	1/10W	R506	1-216-833-11	METAL CHIP	10K	5%	1/10W
R165	1-216-833-11	METAL CHIP	10K	5%	1/10W	R507	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R166	1-216-837-11	METAL CHIP	22K	5%	1/10W	R508	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R167	1-216-833-11	METAL CHIP	10K	5%	1/10W	R509	1-216-853-11	METAL CHIP	470K	5%	1/10W
R168	1-216-833-11	METAL CHIP	10K	5%	1/10W	R510	1-216-853-11	METAL CHIP	470K	5%	1/10W
R169	1-216-833-11	METAL CHIP	10K	5%	1/10W	R511	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R170	1-216-833-11	METAL CHIP	10K	5%	1/10W	R512	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R171	1-216-833-11	METAL CHIP	10K	5%	1/10W	R513	1-216-809-11	METAL CHIP	100	5%	1/10W
R172	1-216-833-11	METAL CHIP	10K	5%	1/10W	R514	1-216-809-11	METAL CHIP	100	5%	1/10W
R174	1-216-809-11	METAL CHIP	100	5%	1/10W	R515	1-216-805-11	METAL CHIP	47	5%	1/10W
R177	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R516	1-216-805-11	METAL CHIP	47	5%	1/10W
R178	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R517	1-216-845-11	METAL CHIP	100K	5%	1/10W
R179	1-216-864-11	SHORT CHIP	0			R518	1-216-845-11	METAL CHIP	100K	5%	1/10W
R180	1-216-864-11	SHORT CHIP	0			R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R181	1-216-797-11	METAL CHIP	10	5%	1/10W	R520	1-216-845-11	METAL CHIP	100K	5%	1/10W
R182	1-216-797-11	METAL CHIP	10	5%	1/10W	R521	1-216-837-11	METAL CHIP	22K	5%	1/10W
R183	1-216-797-11	METAL CHIP	10	5%	1/10W	R522	1-216-837-11	METAL CHIP	22K	5%	1/10W
R184	1-216-797-11	METAL CHIP	10	5%	1/10W	R523	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R185	1-247-807-31	CARBON	100	5%	1/4W	R524	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R186	1-247-807-31	CARBON	100	5%	1/4W	R525	1-216-833-11	METAL CHIP	10K	5%	1/10W
R191	1-216-821-11	METAL CHIP	1K	5%	1/10W	R526	1-216-833-11	METAL CHIP	10K	5%	1/10W
R194	1-249-401-11	CARBON	47	5%	1/4W	R527	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R195	1-216-809-11	METAL CHIP	100	5%	1/10W	R528	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R196	1-216-809-11	METAL CHIP	100	5%	1/10W	R529	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R197	1-249-401-11	CARBON	47	5%	1/4W	R530	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R198	1-249-401-11	CARBON	47	5%	1/4W	R531	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R199	1-247-807-31	CARBON	100	5%	1/4W	R532	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R200	1-247-807-31	CARBON	100	5%	1/4W	R533	1-216-833-11	METAL CHIP	10K	5%	1/10W
R402	1-216-809-11	METAL CHIP	100	5%	1/10W	R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R403	1-216-821-11	METAL CHIP	1K	5%	1/10W	R535	1-216-813-11	METAL CHIP	220	5%	1/10W
R404	1-216-813-11	METAL CHIP	220	5%	1/10W	R536	1-216-813-11	METAL CHIP	220	5%	1/10W
R405	1-216-813-11	METAL CHIP	220	5%	1/10W	R541	1-216-837-11	METAL CHIP	22K	5%	1/10W
R406	1-216-821-11	METAL CHIP	1K	5%	1/10W	R542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R410	1-216-845-11	METAL CHIP	100K	5%	1/10W	R543	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R411	1-216-821-11	METAL CHIP	1K	5%	1/10W	R544	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R412	1-216-813-11	METAL CHIP	220	5%	1/10W	R545	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R419	1-216-837-11	METAL CHIP	22K	5%	1/10W	R560	1-216-821-11	METAL CHIP	1K	5%	1/10W
R420	1-216-837-11	METAL CHIP	22K	5%	1/10W	R561	1-216-837-11	METAL CHIP	22K	5%	1/10W
R423	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R564	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R424	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R565	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R425	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R801	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R426	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R802	1-216-797-11	METAL CHIP	10	5%	1/10W
R427	1-216-845-11	METAL CHIP	100K	5%	1/10W	R803	1-216-797-11	METAL CHIP	10	5%	1/10W
R428	1-216-845-11	METAL CHIP	100K	5%	1/10W	R804	1-216-864-11	SHORT CHIP	0		
R429	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R805	1-216-845-11	METAL CHIP	100K	5%	1/10W
R430	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R806	1-216-864-11	SHORT CHIP	0		
R433	1-216-837-11	METAL CHIP	22K	5%	1/10W	R807	1-216-845-11	METAL CHIP	100K	5%	1/10W
R434	1-216-837-11	METAL CHIP	22K	5%	1/10W	R808	1-216-833-11	METAL CHIP	10K	5%	1/10W
R439	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R809	1-216-821-11	METAL CHIP	1K	5%	1/10W
R440	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R811	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R441	1-216-841-11	METAL CHIP	47K	5%	1/10W	R812	1-216-817-11	METAL CHIP	470	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W	R813	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R814	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R815	1-216-829-11	METAL CHIP	4.7K 5% 1/10W		A-1144-849-A	PANEL BOARD, COMPLETE *****	
R816	1-216-833-11	METAL CHIP	10K 5% 1/10W		2-649-117-01	HOLDER (LCD)	
R817	1-216-833-11	METAL CHIP	10K 5% 1/10W		2-649-178-01	PLATE, LIGHT GUIDE	
R818	1-216-841-11	METAL CHIP	47K 5% 1/10W		2-649-179-01	SHEET (LCD)	
R819	1-216-833-11	METAL CHIP	10K 5% 1/10W		2-665-175-01	SHEET REFLECTOR	
R820	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R822	1-216-825-11	METAL CHIP	2.2K 5% 1/10W			< CAPACITOR >	
R827	1-216-809-11	METAL CHIP	100 5% 1/10W		C671	1-126-965-91 ELECT	22uF 20% 50V
R829	1-216-845-11	METAL CHIP	100K 5% 1/10W		C672	1-100-566-91 CERAMIC CHIP	0.1uF 10% 25V
R830	1-216-841-11	METAL CHIP	47K 5% 1/10W		C701	1-164-156-11 CERAMIC CHIP	0.1uF 25V
R832	1-216-864-11	SHORT CHIP	0		C702	1-162-970-11 CERAMIC CHIP	0.01uF 10% 25V
R833	1-216-833-11	METAL CHIP	10K 5% 1/10W		C703	1-126-933-11 ELECT	100uF 20% 16V
R834	1-216-837-11	METAL CHIP	22K 5% 1/10W		C704	1-126-925-91 ELECT	470uF 20% 10V
R835	1-216-829-11	METAL CHIP	4.7K 5% 1/10W		C705	1-162-970-11 CERAMIC CHIP	0.01uF 10% 25V
R836	1-216-833-11	METAL CHIP	10K 5% 1/10W		C706	1-164-156-11 CERAMIC CHIP	0.1uF 25V
R837	1-216-829-11	METAL CHIP	4.7K 5% 1/10W		C707	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
R838	1-216-829-11	METAL CHIP	4.7K 5% 1/10W		C708	1-162-923-11 CERAMIC CHIP	47PF 5% 50V
R839	1-216-809-11	METAL CHIP	100 5% 1/10W		C709	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
R840	1-216-837-11	METAL CHIP	22K 5% 1/10W		C710	1-115-467-11 CERAMIC CHIP	0.22uF 10% 10V
R841	1-216-809-11	METAL CHIP	100 5% 1/10W		C711	1-164-156-11 CERAMIC CHIP	0.1uF 25V
R842	1-216-841-11	METAL CHIP	47K 5% 1/10W		C712	1-164-156-11 CERAMIC CHIP	0.1uF 25V
R843	1-216-853-11	METAL CHIP	470K 5% 1/10W		C713	1-162-923-11 CERAMIC CHIP	47PF 5% 50V
R844	1-216-797-11	METAL CHIP	10 5% 1/10W		C714	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
R845	1-216-801-11	METAL CHIP	22 5% 1/10W		C715	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
R846	1-216-825-11	METAL CHIP	2.2K 5% 1/10W		C716	1-164-156-11 CERAMIC CHIP	0.1uF 25V
R848	1-216-821-11	METAL CHIP	1K 5% 1/10W		C717	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
R849	1-216-837-11	METAL CHIP	22K 5% 1/10W		C718	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
R850	1-216-825-11	METAL CHIP	2.2K 5% 1/10W		C719	1-165-176-11 CERAMIC CHIP	0.047uF 10% 16V
R851	1-216-837-11	METAL CHIP	22K 5% 1/10W		C720	1-164-156-11 CERAMIC CHIP	0.1uF 25V
R852	1-216-801-11	METAL CHIP	22 5% 1/10W		C722	1-162-968-11 CERAMIC CHIP	0.0047uF 10% 50V
R853	1-216-845-11	METAL CHIP	100K 5% 1/10W		C723	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
R855	1-216-853-11	METAL CHIP	470K 5% 1/10W		C724	1-162-923-11 CERAMIC CHIP	47PF 5% 50V
R859	1-216-829-11	METAL CHIP	4.7K 5% 1/10W		C725	1-164-156-11 CERAMIC CHIP	0.1uF 25V
R860	1-216-829-11	METAL CHIP	4.7K 5% 1/10W		C726	1-164-156-11 CERAMIC CHIP	0.1uF 25V
R863	1-216-837-11	METAL CHIP	22K 5% 1/10W		C727	1-164-156-11 CERAMIC CHIP	0.1uF 25V
		< RELAY >			C728	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
					C729	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
RY131	1-755-307-11	RELAY			C730	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
		< SWITCH >			C731	1-164-156-11 CERAMIC CHIP	0.1uF 25V
					C732	1-162-919-11 CERAMIC CHIP	22PF 5% 50V
SW501	1-762-369-11	SWITCH, SLIDE (REC/PB)			C733	1-162-919-11 CERAMIC CHIP	22PF 5% 50V
		< CABLE HOLDER >			C734	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
					C735	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
WH171	1-819-972-11	HOLDER, CABLE 8P			C737	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
WH203	1-824-027-21	HOLDER, CABLE 3P			C738	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
		< VIBRATOR >			C739	1-162-964-11 CERAMIC CHIP	0.001uF 10% 50V
					C741	1-162-960-11 CERAMIC CHIP	220PF 10% 50V
X801	1-767-388-21	VIBRATOR, CRYSTAL (75kHz)			C742	1-162-960-11 CERAMIC CHIP	220PF 10% 50V
*****					C743	1-162-960-11 CERAMIC CHIP	220PF 10% 50V
						< CONNECTOR >	
					CNS671	1-784-735-11 CONNECTOR, FFC 13P	
					CNS701	1-779-295-11 CONNECTOR, FFC (LIF (NON-ZIF)) 27P	
						< DIODE >	
					D701	8-719-083-57 DIODE UdzSTE-173.6B	

HCD-EC50

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D702	8-719-000-07	DIODE MC2836		R668	1-216-817-11	METAL CHIP 470	5% 1/10W
D703	8-719-062-51	DIODE 1PS226-115		R669	1-216-841-11	METAL CHIP 47K	5% 1/10W
		< IC >		R670	1-216-817-11	METAL CHIP 470	5% 1/10W
IC701	6-806-138-01	IC MB90802-108		R671	1-216-841-11	METAL CHIP 47K	5% 1/10W
IC703	6-600-446-01	IC RPM7240-H18		R672	1-216-837-11	METAL CHIP 22K	5% 1/10W
		< JUMPER RESISTOR >		R673	1-216-837-11	METAL CHIP 22K	5% 1/10W
JR701	1-216-864-11	SHORT CHIP 0		R674	1-216-837-11	METAL CHIP 22K	5% 1/10W
JR702	1-216-864-11	SHORT CHIP 0		R675	1-216-837-11	METAL CHIP 22K	5% 1/10W
JR703	1-216-864-11	SHORT CHIP 0		R676	1-216-837-11	METAL CHIP 22K	5% 1/10W
JR704	1-216-864-11	SHORT CHIP 0		R677	1-216-837-11	METAL CHIP 22K	5% 1/10W
		< COIL >		R678	1-216-817-11	METAL CHIP 470	5% 1/10W
L701	1-216-864-11	SHORT CHIP 0		R679	1-216-837-11	METAL CHIP 22K	5% 1/10W
L702	1-216-864-11	SHORT CHIP 0		R681	1-216-837-11	METAL CHIP 22K	5% 1/10W
		< LIQUID CRYSTAL DISPLAY >		R682	1-216-849-11	METAL CHIP 220K	5% 1/10W
LCD702	1-805-973-11	DISPLAY PANEL, LIQUID CRYSTAL		R683	1-216-841-11	METAL CHIP 47K	5% 1/10W
		< LED >		R684	1-216-789-11	METAL CHIP 2.2	5% 1/10W
LED701	6-501-139-01	DIODE SELU2B10A-SLF62 (BACK LIGHT)		R685	1-216-837-11	METAL CHIP 22K	5% 1/10W
LED702	8-719-060-44	DIODE SLR-342VRT32 (STANDBY)		R686	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
		< TRANSISTOR >		R687	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
Q661	1-801-806-11	TRANSISTOR DTC144EKA		R688	1-216-789-11	METAL CHIP 2.2	5% 1/10W
Q662	8-729-040-76	TRANSISTOR KTA1273-Y-AT		R689	1-216-833-11	METAL CHIP 10K	5% 1/10W
Q663	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R691	1-216-841-11	METAL CHIP 47K	5% 1/10W
Q664	8-729-600-22	TRANSISTOR 2SA1235-F		R692	1-216-817-11	METAL CHIP 470	5% 1/10W
Q665	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF		R693	1-216-841-11	METAL CHIP 47K	5% 1/10W
Q666	8-729-047-62	TRANSISTOR 2SC3440-T12-1F		R694	1-216-817-11	METAL CHIP 470	5% 1/10W
Q667	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF		R695	1-216-841-11	METAL CHIP 47K	5% 1/10W
Q668	8-729-047-62	TRANSISTOR 2SC3440-T12-1F		R696	1-216-817-11	METAL CHIP 470	5% 1/10W
Q669	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF		R697	1-216-817-11	METAL CHIP 470	5% 1/10W
Q670	8-729-047-62	TRANSISTOR 2SC3440-T12-1F		R698	1-216-841-11	METAL CHIP 47K	5% 1/10W
Q671	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF		R701	1-216-821-11	METAL CHIP 1K	5% 1/10W
Q672	8-729-047-62	TRANSISTOR 2SC3440-T12-1F		R702	1-216-821-11	METAL CHIP 1K	5% 1/10W
Q701	8-729-600-22	TRANSISTOR 2SA1235-F		R703	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
Q702	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R704	1-216-821-11	METAL CHIP 1K	5% 1/10W
Q703	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R705	1-216-821-11	METAL CHIP 1K	5% 1/10W
Q704	1-801-806-11	TRANSISTOR DTC144EKA		R706	1-216-821-11	METAL CHIP 1K	5% 1/10W
Q705	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R707	1-216-821-11	METAL CHIP 1K	5% 1/10W
Q706	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R708	1-216-821-11	METAL CHIP 1K	5% 1/10W
Q707	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R709	1-216-821-11	METAL CHIP 1K	5% 1/10W
		< RESISTOR >		R710	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
R651	1-216-841-11	METAL CHIP 47K	5% 1/10W	R711	1-216-837-11	METAL CHIP 22K	5% 1/10W
R652	1-216-841-11	METAL CHIP 47K	5% 1/10W	R712	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
R653	1-216-841-11	METAL CHIP 47K	5% 1/10W	R713	1-216-833-11	METAL CHIP 10K	5% 1/10W
R657	1-216-853-11	METAL CHIP 470K	5% 1/10W	R714	1-216-833-11	METAL CHIP 10K	5% 1/10W
R661	1-216-841-11	METAL CHIP 47K	5% 1/10W	R715	1-216-821-11	METAL CHIP 1K	5% 1/10W
R662	1-216-841-11	METAL CHIP 47K	5% 1/10W	R716	1-216-821-11	METAL CHIP 1K	5% 1/10W
R663	1-216-841-11	METAL CHIP 47K	5% 1/10W	R717	1-216-821-11	METAL CHIP 1K	5% 1/10W
R664	1-216-841-11	METAL CHIP 47K	5% 1/10W	R718	1-216-821-11	METAL CHIP 1K	5% 1/10W
R665	1-216-841-11	METAL CHIP 47K	5% 1/10W	R719	1-216-821-11	METAL CHIP 1K	5% 1/10W
R666	1-216-817-11	METAL CHIP 470	5% 1/10W	R721	1-216-817-11	METAL CHIP 470	5% 1/10W
R667	1-216-841-11	METAL CHIP 47K	5% 1/10W	R722	1-216-849-11	METAL CHIP 220K	5% 1/10W
				R723	1-216-825-11	METAL CHIP 2.2K	5% 1/10W
				R724	1-216-821-11	METAL CHIP 1K	5% 1/10W
				R725	1-216-821-11	METAL CHIP 1K	5% 1/10W
				R726	1-216-845-11	METAL CHIP 100K	5% 1/10W
				R727	1-216-833-11	METAL CHIP 10K	5% 1/10W
				R728	1-216-833-11	METAL CHIP 10K	5% 1/10W
				R730	1-216-833-11	METAL CHIP 10K	5% 1/10W
				R731	1-216-833-11	METAL CHIP 10K	5% 1/10W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R733	1-216-841-11	METAL CHIP	47K 5% 1/10W	SW705	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)	
R734	1-216-817-11	METAL CHIP	470 5% 1/10W	SW706	1-762-875-21	SWITCH, KEYBOARD (EQ)	
R735	1-216-821-11	METAL CHIP	1K 5% 1/10W	SW708	1-762-875-21	SWITCH, KEYBOARD (▲)	
R736	1-216-833-11	METAL CHIP	10K 5% 1/10W	SW709	1-762-875-21	SWITCH, KEYBOARD (DISC 1)	
R738	1-216-833-11	METAL CHIP	10K 5% 1/10W	SW710	1-762-875-21	SWITCH, KEYBOARD (DISC 2)	
R739	1-216-833-11	METAL CHIP	10K 5% 1/10W	SW711	1-762-875-21	SWITCH, KEYBOARD (STOP ■)	
R742	1-216-821-11	METAL CHIP	1K 5% 1/10W	SW712	1-762-875-21	SWITCH, KEYBOARD (TUNING -/I<<</<<<)	
R743	1-216-821-11	METAL CHIP	1K 5% 1/10W	SW713	1-762-875-21	SWITCH, KEYBOARD (TUNING +/I>>>/>>>)	
R744	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	SW714	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)	
R745	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	SW715	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)	
R746	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	SW716	1-762-875-21	SWITCH, KEYBOARD (CD ▶▶)	
R747	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	SW719	1-762-875-21	SWITCH, KEYBOARD (DISC 3)	
R748	1-216-841-11	METAL CHIP	47K 5% 1/10W	SW720	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)	
R749	1-216-821-11	METAL CHIP	1K 5% 1/10W	SW721	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE/TUNING MODE)	
R750	1-216-821-11	METAL CHIP	1K 5% 1/10W			< VIBRATOR >	
R751	1-216-845-11	METAL CHIP	100K 5% 1/10W	X701	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	
R753	1-216-809-11	METAL CHIP	100 5% 1/10W	X702	1-795-054-51	VIBRATOR, CERAMIC (4.19MHz)	
R754	1-216-833-11	METAL CHIP	10K 5% 1/10W	*****			
R755	1-216-864-11	SHORT CHIP	0	A-1144-825-A	PT BOARD, COMPLETE		
R756	1-216-821-11	METAL CHIP	1K 5% 1/10W	*****			
R757	1-216-845-11	METAL CHIP	100K 5% 1/10W			< CAPACITOR >	
R758	1-216-821-11	METAL CHIP	1K 5% 1/10W	C051	1-165-621-91	CERAMIC CHIP 0.1uF	50V
R759	1-216-809-11	METAL CHIP	100 5% 1/10W	C052	1-164-156-11	CERAMIC CHIP 0.1uF	25V
R760	1-216-845-11	METAL CHIP	100K 5% 1/10W	C053	1-100-385-91	CERAMIC CHIP 0.47uF	25V
R761	1-216-841-11	METAL CHIP	47K 5% 1/10W	C054	1-100-385-91	CERAMIC CHIP 0.47uF	25V
R762	1-216-833-11	METAL CHIP	10K 5% 1/10W	C055	1-100-385-91	CERAMIC CHIP 0.47uF	25V
R763	1-216-837-11	METAL CHIP	22K 5% 1/10W			< DIODE >	
R764	1-216-837-11	METAL CHIP	22K 5% 1/10W	D051	8-719-000-07	DIODE MC2836	
R765	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	D052	6-500-335-01	DIODE MC2838-T112-1	
R766	1-216-837-11	METAL CHIP	22K 5% 1/10W			< COIL >	
R767	1-216-849-11	METAL CHIP	220K 5% 1/10W	△L001	1-402-663-11	TRANSFORMER, LINE FILTER (LFT)	
R768	1-216-833-11	METAL CHIP	10K 5% 1/10W			< TRANSFORMER >	
R769	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	△PT002	1-443-846-11	TRANSFORMER, POWER	
R770	1-216-841-11	METAL CHIP	47K 5% 1/10W			< RESISTOR >	
R771	1-216-821-11	METAL CHIP	1K 5% 1/10W	R051	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
R772	1-216-817-11	METAL CHIP	470 5% 1/10W	R052	1-216-829-11	METAL CHIP 4.7K	5% 1/10W
R773	1-216-833-11	METAL CHIP	10K 5% 1/10W			< RELAY >	
R774	1-216-837-11	METAL CHIP	22K 5% 1/10W	△RY001	1-755-334-11	RELAY, AC POWER	
R775	1-216-841-11	METAL CHIP	47K 5% 1/10W	*****			
R776	1-216-821-11	METAL CHIP	1K 5% 1/10W	A-1146-444-A	TRANSISTOR BOARD, COMPLETE		
R777	1-216-817-11	METAL CHIP	470 5% 1/10W	*****			
R778	1-216-821-11	METAL CHIP	1K 5% 1/10W			< CAPACITOR >	
R779	1-216-809-11	METAL CHIP	100 5% 1/10W	C118	1-164-156-11	CERAMIC CHIP 0.1uF	25V
R780	1-216-841-11	METAL CHIP	47K 5% 1/10W	C119	1-100-566-91	CERAMIC CHIP 0.1uF	10% 25V
R781	1-216-833-11	METAL CHIP	10K 5% 1/10W			< IC >	
R784	1-216-845-11	METAL CHIP	100K 5% 1/10W	IC101	8-759-701-59	IC NJM78M09FA	
R785	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R786	1-216-797-11	METAL CHIP	10 5% 1/10W				
R787	1-216-805-11	METAL CHIP	47 5% 1/10W				
R788	1-216-864-11	SHORT CHIP	0				
		< SWITCH >					
SW700	1-786-417-11	SW, RTRY RE012307PVB30F (VOLUME)					
SW701	1-762-875-21	SWITCH, KEYBOARD (I/⏏)					
SW702	1-762-875-21	SWITCH, KEYBOARD (DSGX)					
SW703	1-762-875-21	SWITCH, KEYBOARD (⏏-)					
SW704	1-762-875-21	SWITCH, KEYBOARD (⏏+)					

HCD-EC50

Ver. 1.3

TRANSISTOR

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
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< CABLE HOLDER >

WH103	1-824-027-21	HOLDER, CABLE 3P	
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MISCELLANEOUS

61	1-824-048-21	WIRE (FLAT TYPE) (27 CORE)	
103	1-828-974-21	WIRE (FLAT TYPE) (13 CORE)	
105	1-828-643-21	WIRE (FLAT TYPE) (23 CORE)	
159	1-797-375-11	DECK, MECHANICAL (H21SB-C05)	
207	1-797-193-12	MECHANICAL, CD (DLM3A23-11)	
208	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
△ 209	A-4735-357-A	OP BASE ASSY (KSM213DHAP/ZRP1)	
△ ACW001	1-769-079-51	CORD, POWER (KR)	
△ ACW001	1-775-790-81	CORD, POWER (AUS)	
△ ACW001	1-790-757-51	CORD, POWER (US,CND)	
△ ACW001	1-830-891-11	CORD, POWER (UK)	
△ ACW001	1-831-370-11	CORD, POWER (AEP, CET, SP)	
△ ACW001	1-832-377-11	CORD, POWER (E3)	
M901	1-787-396-11	D. C. FAN (50 SQUARE) (E3, SP, KR, AUS)	
△ PT001	1-443-845-11	TRANSFORMER, POWER (US, CND)	
△ PT001	1-443-910-11	TRANSFORMER, POWER (AEP, UK, CET)	
△ PT001	1-443-911-11	TRANSFORMER, POWER (E3, SP, KR, AUS)	
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	

HCD-EC50

SONY[®]

SERVICE MANUAL

Ver. 1.3 2006.03

*US Model
Canadian Model
AEP Model
UK Model
E Model
Australian Model*

SUPPLEMENT-1

Subject:

- Board changed to suffix-14 from suffix-11.
- **GUARD (B)** board added for destination AUS, E3, KR, SP models.

Parts number of printed wiring board changed to suffix-14 from suffix-11.

It has any difference between suffix-11 and suffix-14.

This supplement-1 describes printed wiring boards, schematic diagrams and electrical parts list about printed wiring boards suffix-14.

Refer to original service manual (9-879-904-0[]) for other information.

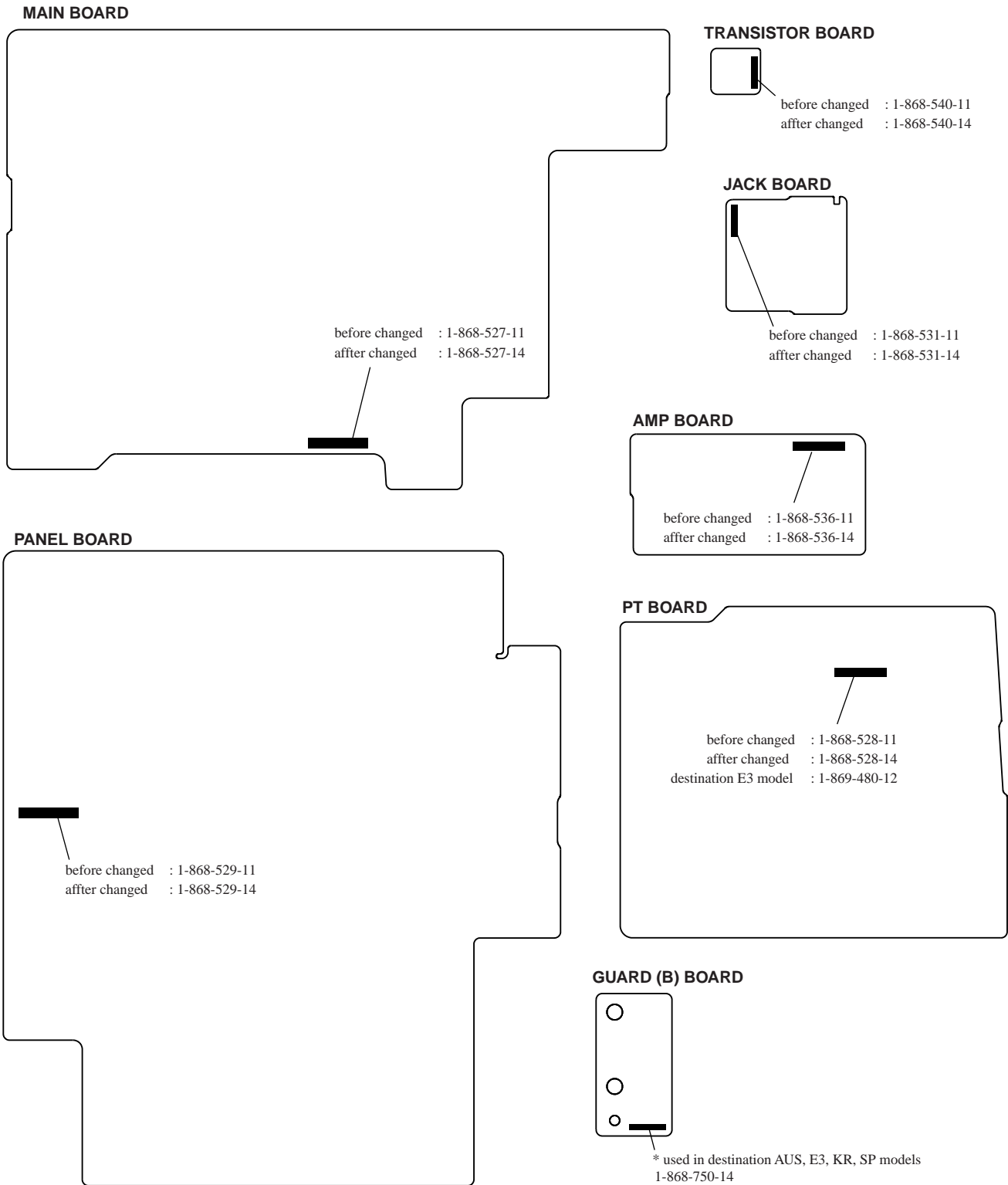
- Abbreviation
 - AUS : Australian model
 - E3 : 240V AC area in E model
 - KR : Korean model
 - SP : Singapore model

HCD-EC50

Ver. 1.3

• How to distinguish




Location of parts number on changed printed wiring board



- Abbreviation
 - AUS : Australian model
 - E3 : 240V AC area in E model
 - KR : Korean model
 - SP : Singapore model










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

Note on Schematic Diagram:




- 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 $1/4\text{ W}$ or less unless otherwise specified.
- Δ : internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : panel designation.

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

Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

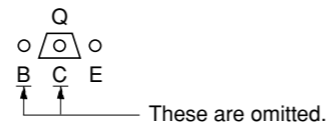
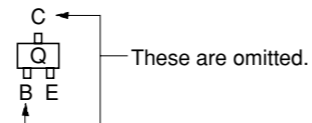
-  : adjustment for repair.
-  : B+ Line.
-  : B- Line.
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- BD Section –
No mark: CD PLAY
- Other Section –
No mark: FM
- (): TAPE PLAY
- <): TAPE REC
- [): CD STOP
- Circled numbers refer to waveforms.
- Signal path.
-  : TUNER (FM)
-  : TUNER (AM)
-  : CD
-  : AUX
-  : PB (TAPE)
-  : REC (TAPE)
- Abbreviation
- AUS : Australian model
- CET : East European and Russian models
- CND : Canadian model
- E3 : 240V AC area in E model
- KR : Korean model
- SP : Singapore model

Note on Printed Wiring Boards:

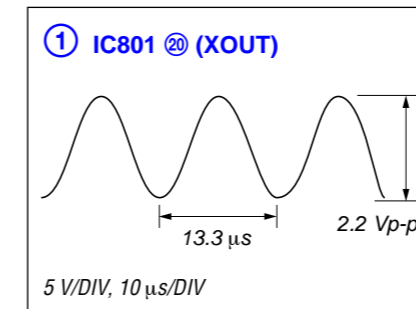
-  : parts extracted from the component side.
-  : parts extracted from the conductor side.
- Δ : internal component.
-  : Pattern from the side which enables seeing.

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

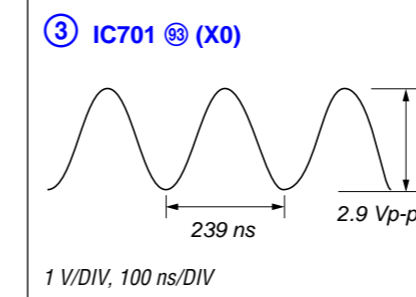
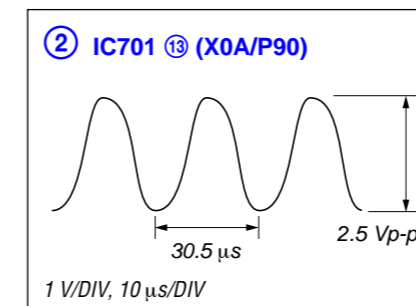
- Indication of transistor.

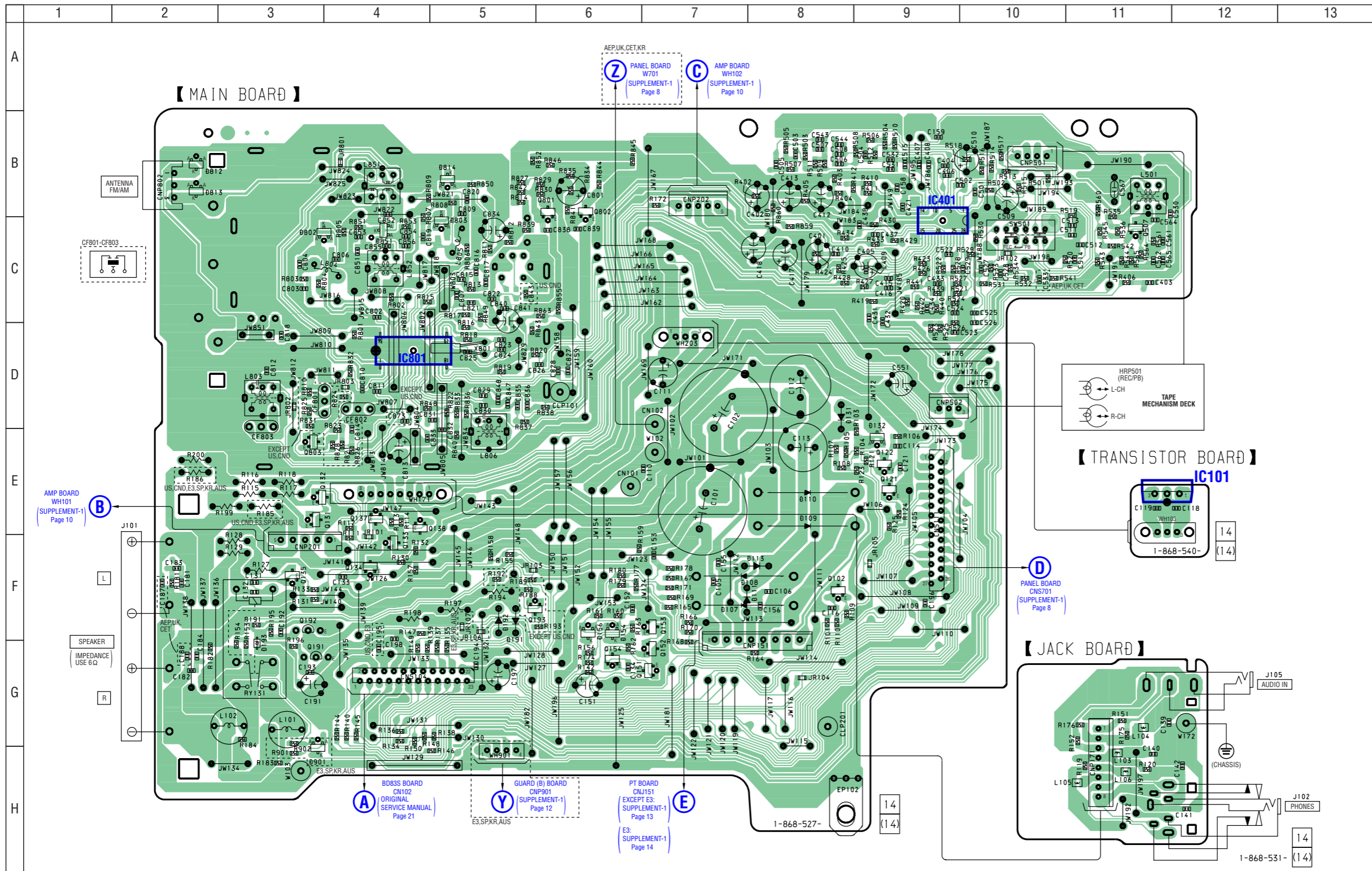


• Waveforms
– MAIN Board –



– PANEL Board –

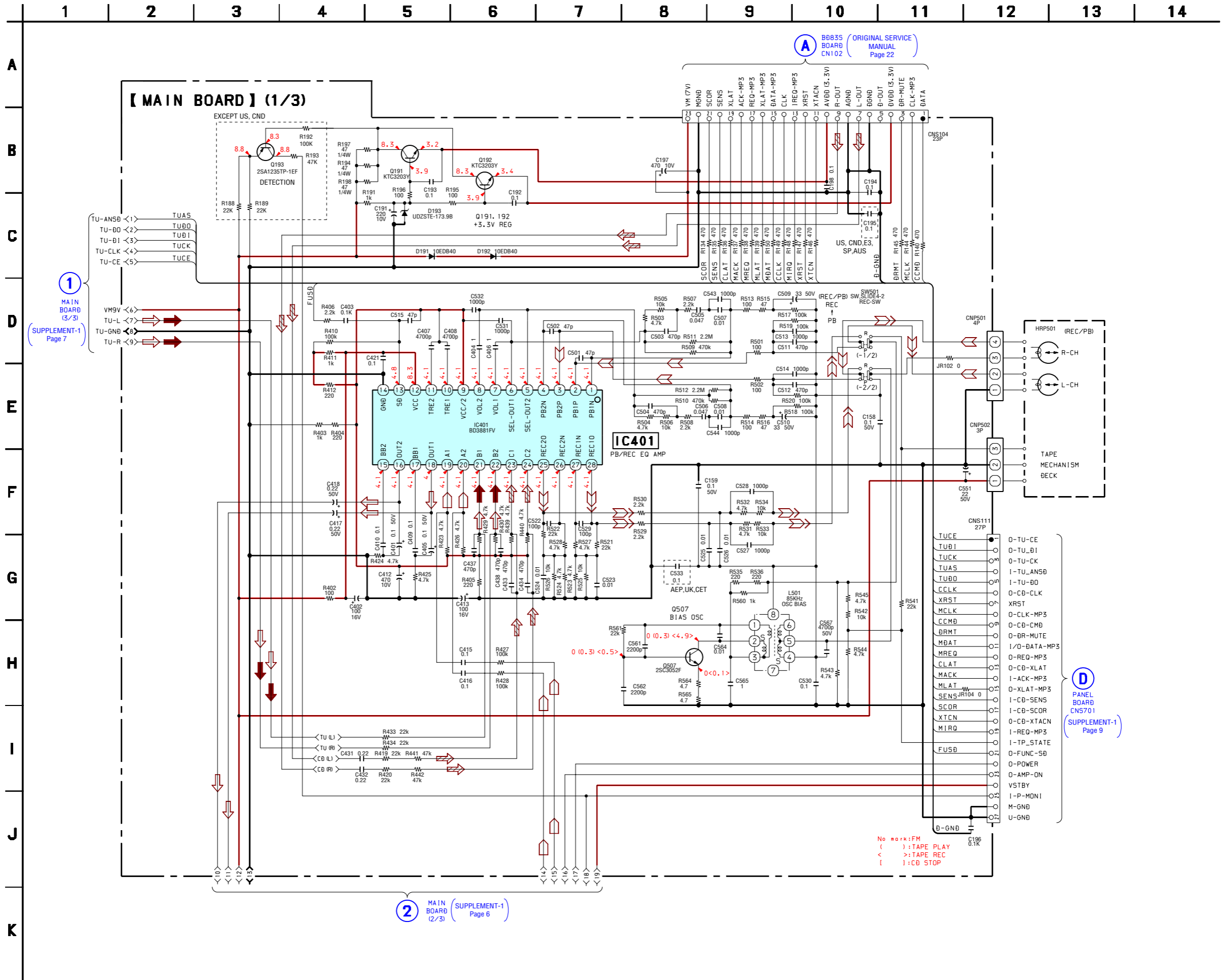


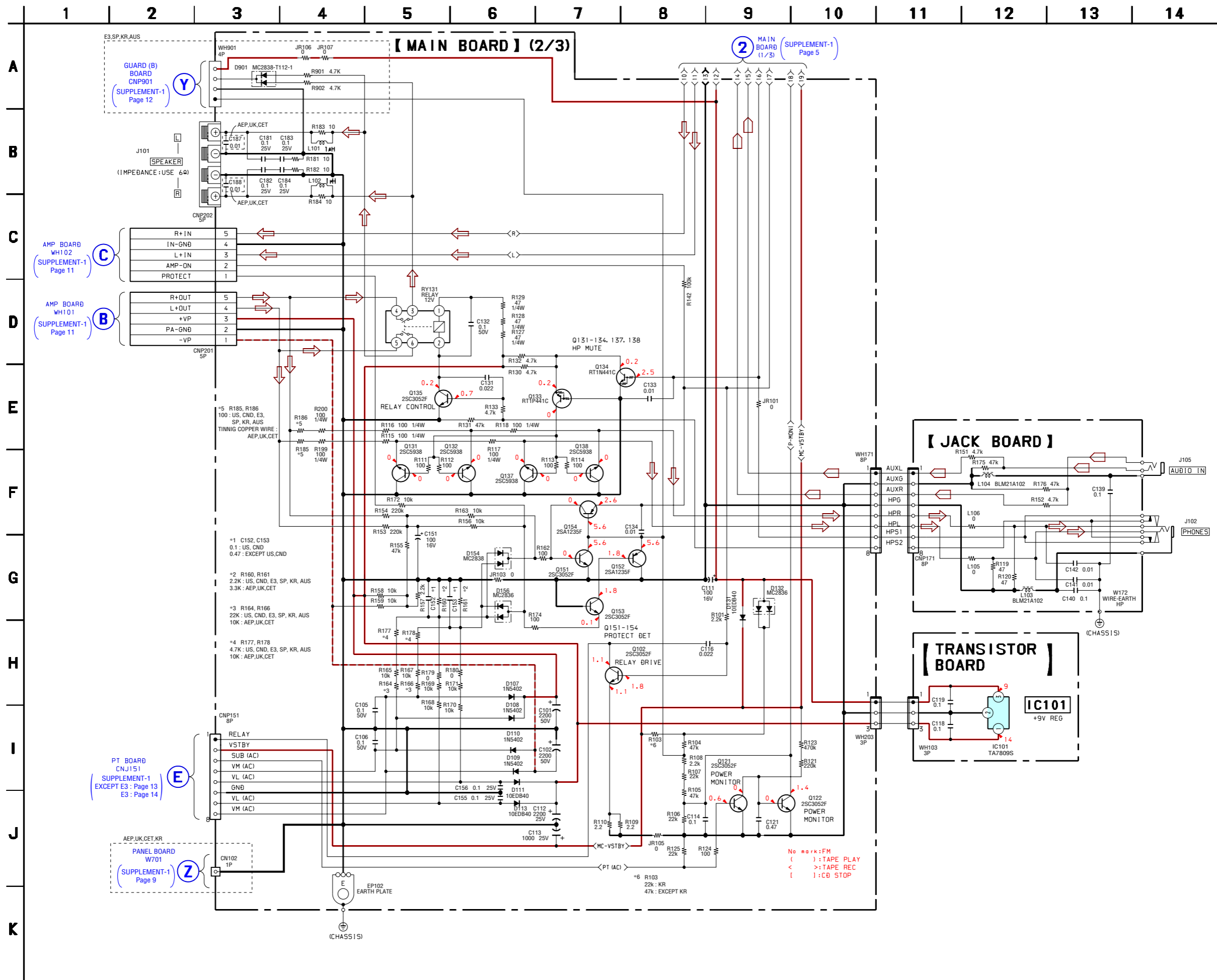


• Semiconductor Location

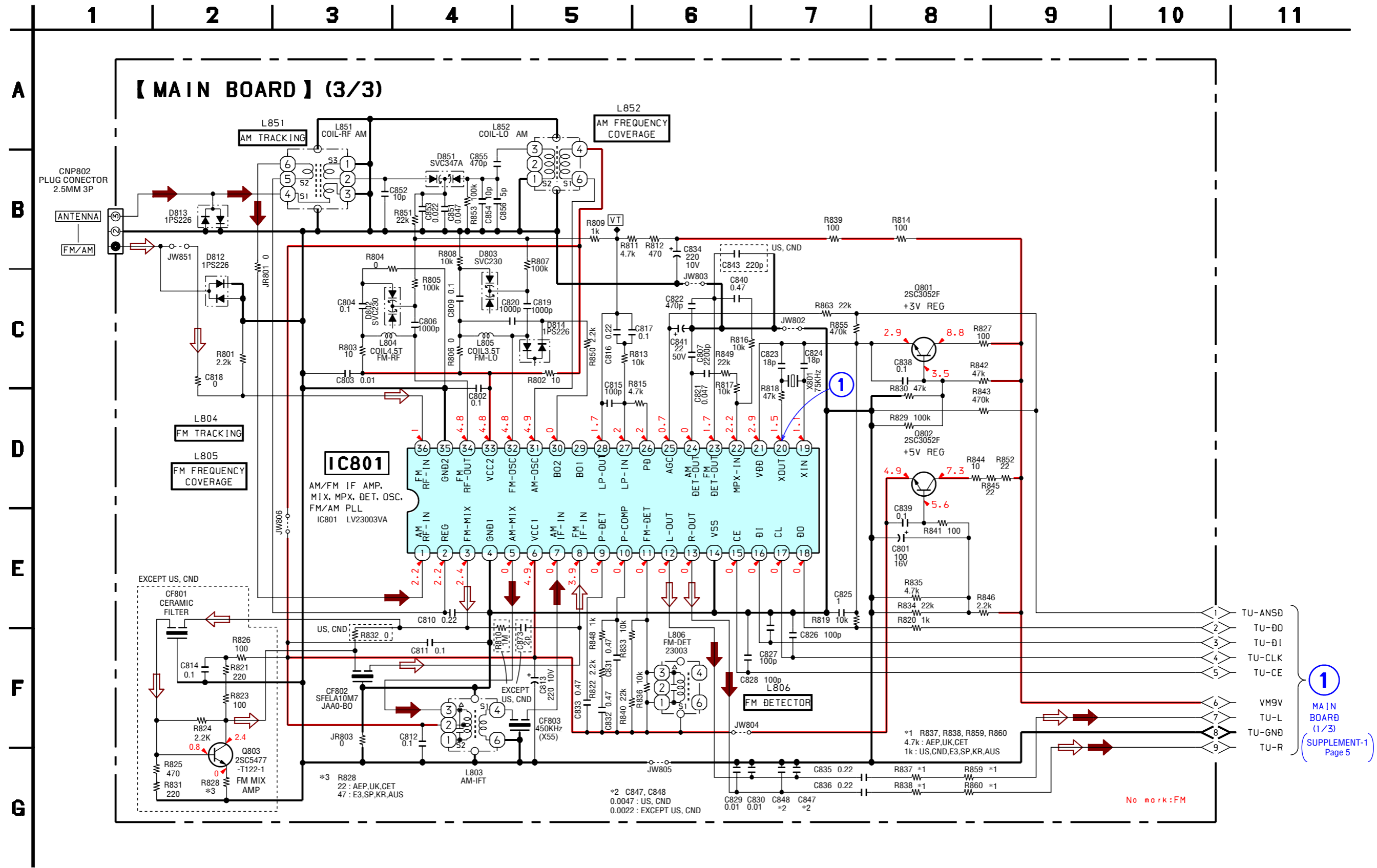
Ref. No.	Location
D107	F-7
D108	F-8
D109	E-8
D110	E-8
D111	F-8
D113	F-8
D131	D-8
D132	E-9
D154	F-6
D156	F-6
D191	G-5
D192	F-5
D193	G-3
D802	C-3
D803	C-5
D812	B-3
D813	B-3
D814	B-5
D851	C-4
D901	H-3
IC101	E-12
IC401	B-9
IC801	D-4
Q102	F-8
Q121	E-9
Q122	E-9
Q131	E-4
Q132	E-3
Q133	F-4
Q134	F-4
Q135	F-3
Q137	E-4
Q138	E-5
Q151	G-6
Q152	G-7
Q153	F-7
Q154	G-6
Q191	G-3
Q192	F-3
Q193	F-6
Q507	C-11
Q801	B-6
Q802	B-6
Q803	E-3

SCHEMATIC DIAGRAM – MAIN BOARD (1/3) –





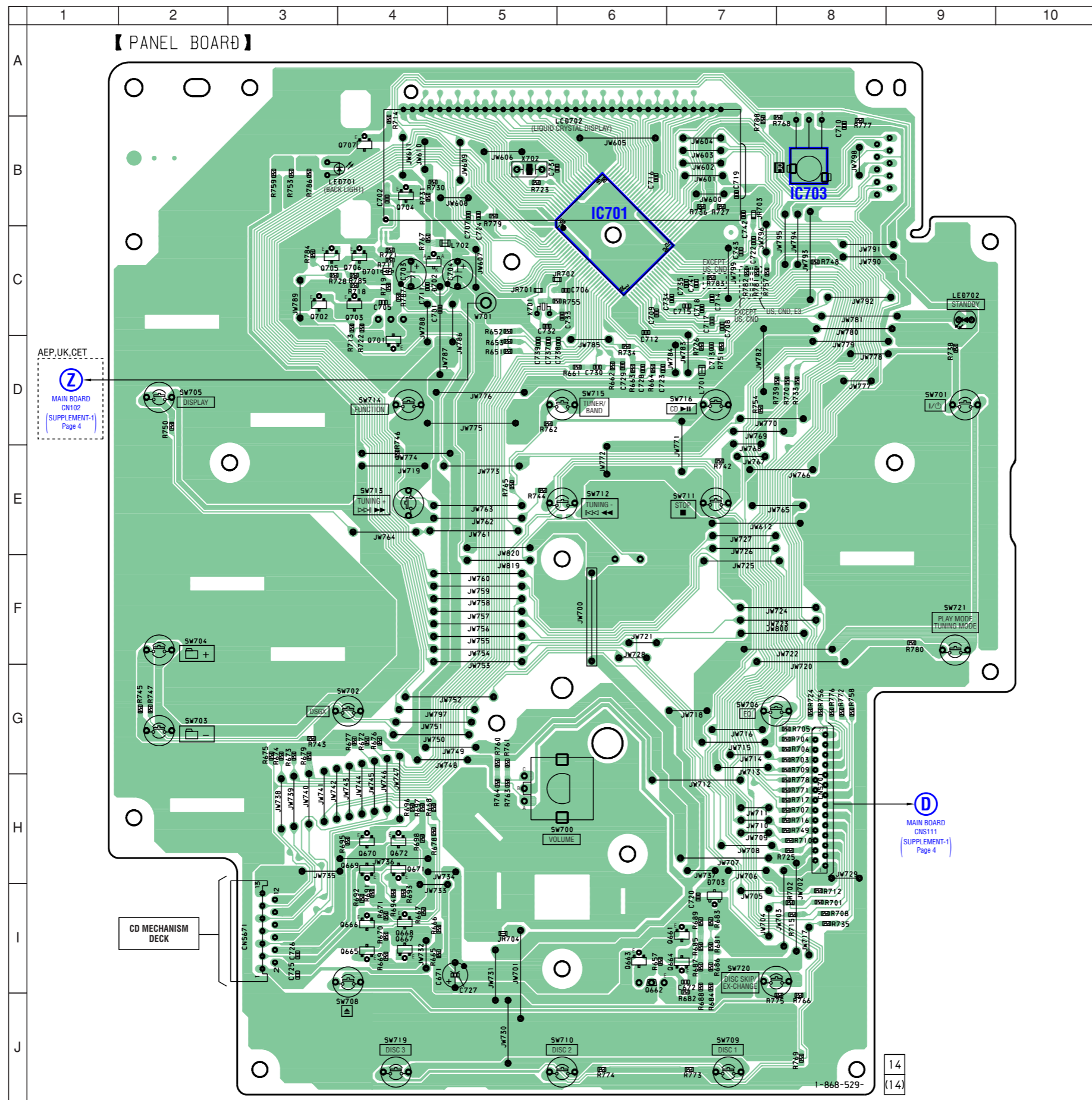
SCHEMATIC DIAGRAM - MAIN BOARD (3/3) -



1
MAIN BOARD (1/3)
SUPPLEMENT-1
Page 5



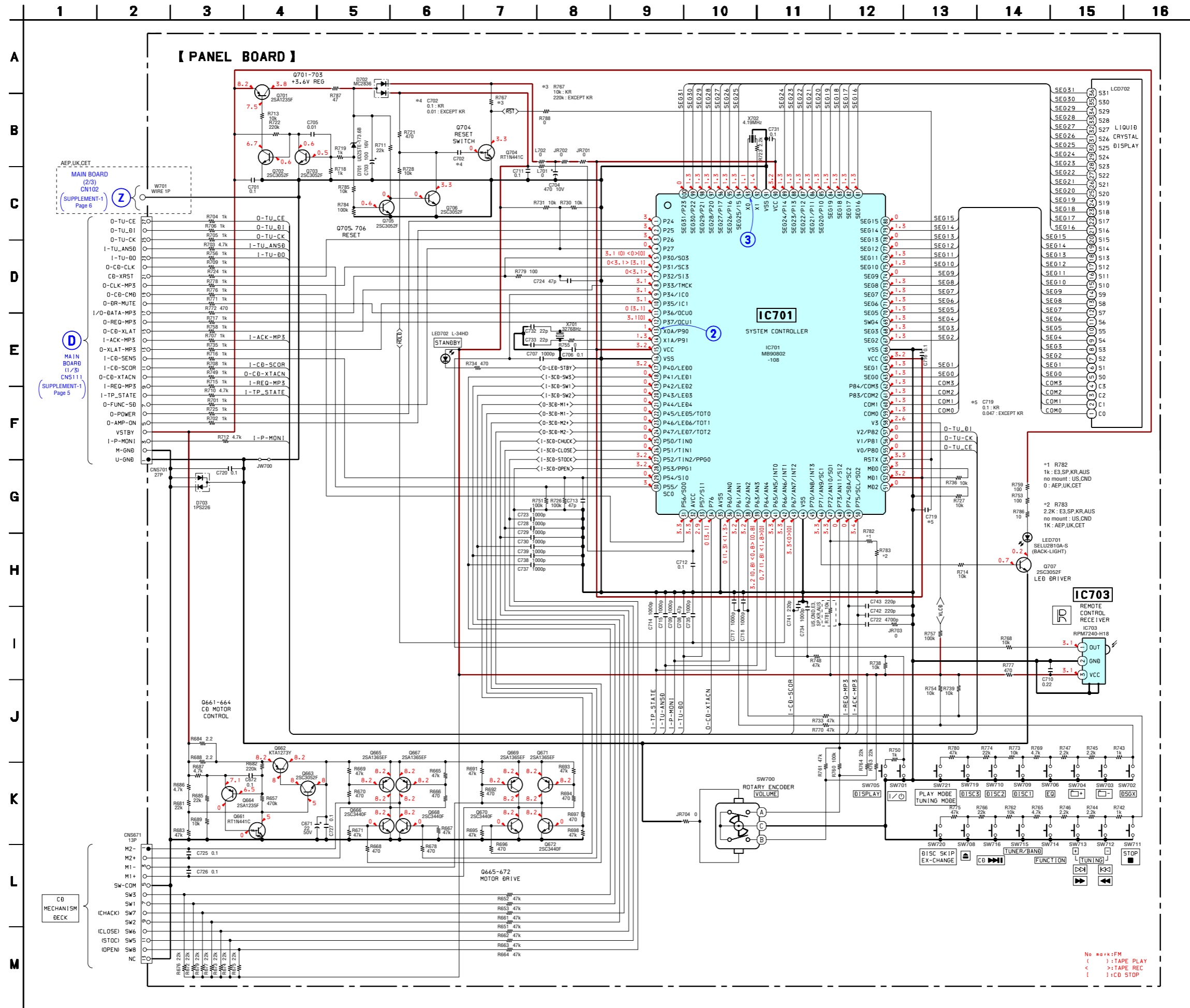
:Uses unleaded solder.

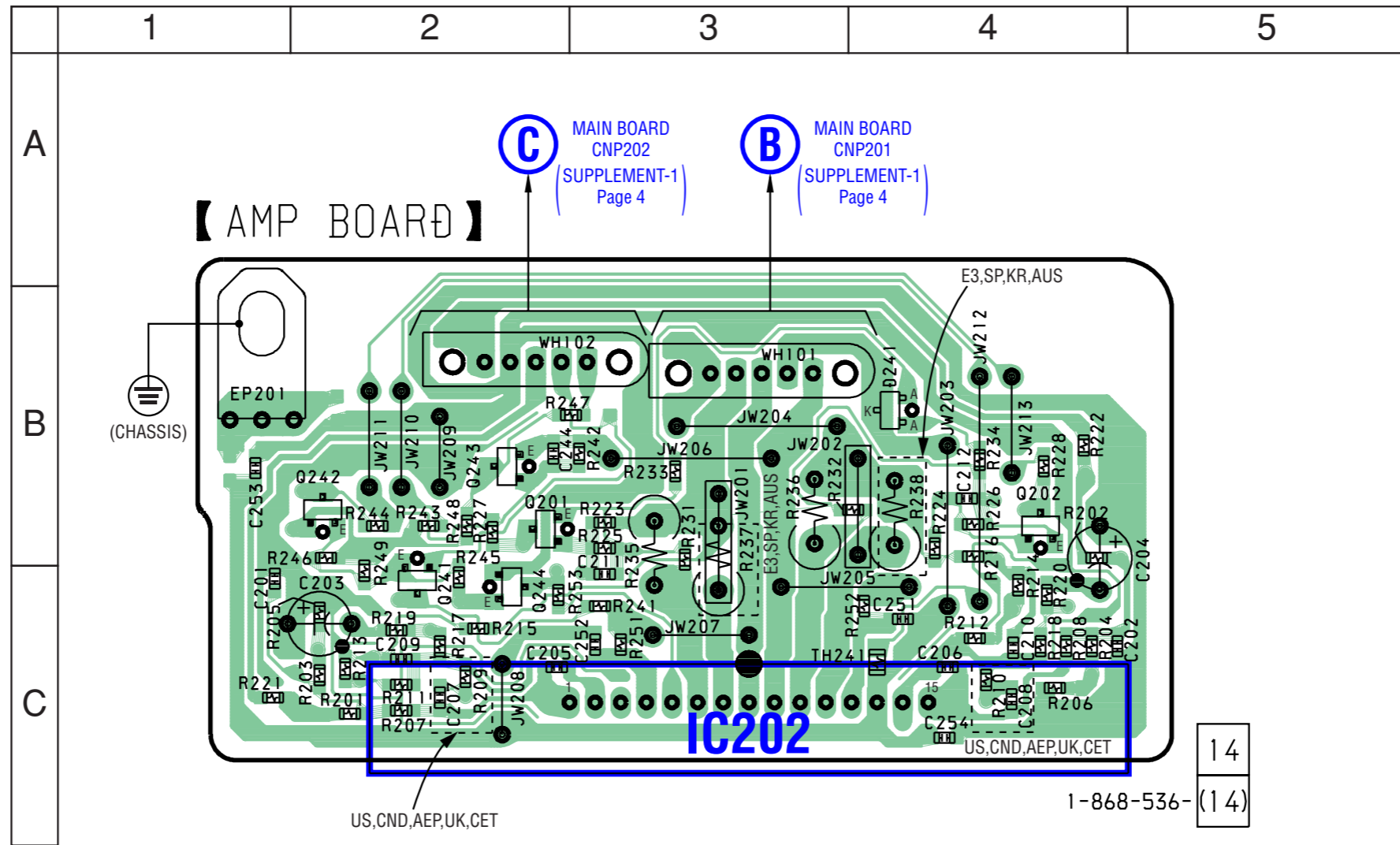


• Semiconductor Location

Ref. No.	Location
D701	C-4
D702	C-4
D703	I-7
IC701	B-6
IC703	B-8
Q661	I-7
Q662	I-6
Q663	I-6
Q664	I-7
Q665	I-4
Q666	I-4
Q667	I-4
Q668	I-4
Q669	H-4
Q670	H-4
Q671	H-4
Q672	H-4
Q701	D-4
Q702	C-3
Q703	C-4
Q704	B-4
Q705	C-3
Q706	C-4
Q707	B-4

SCHEMATIC DIAGRAM - PANEL BOARD -

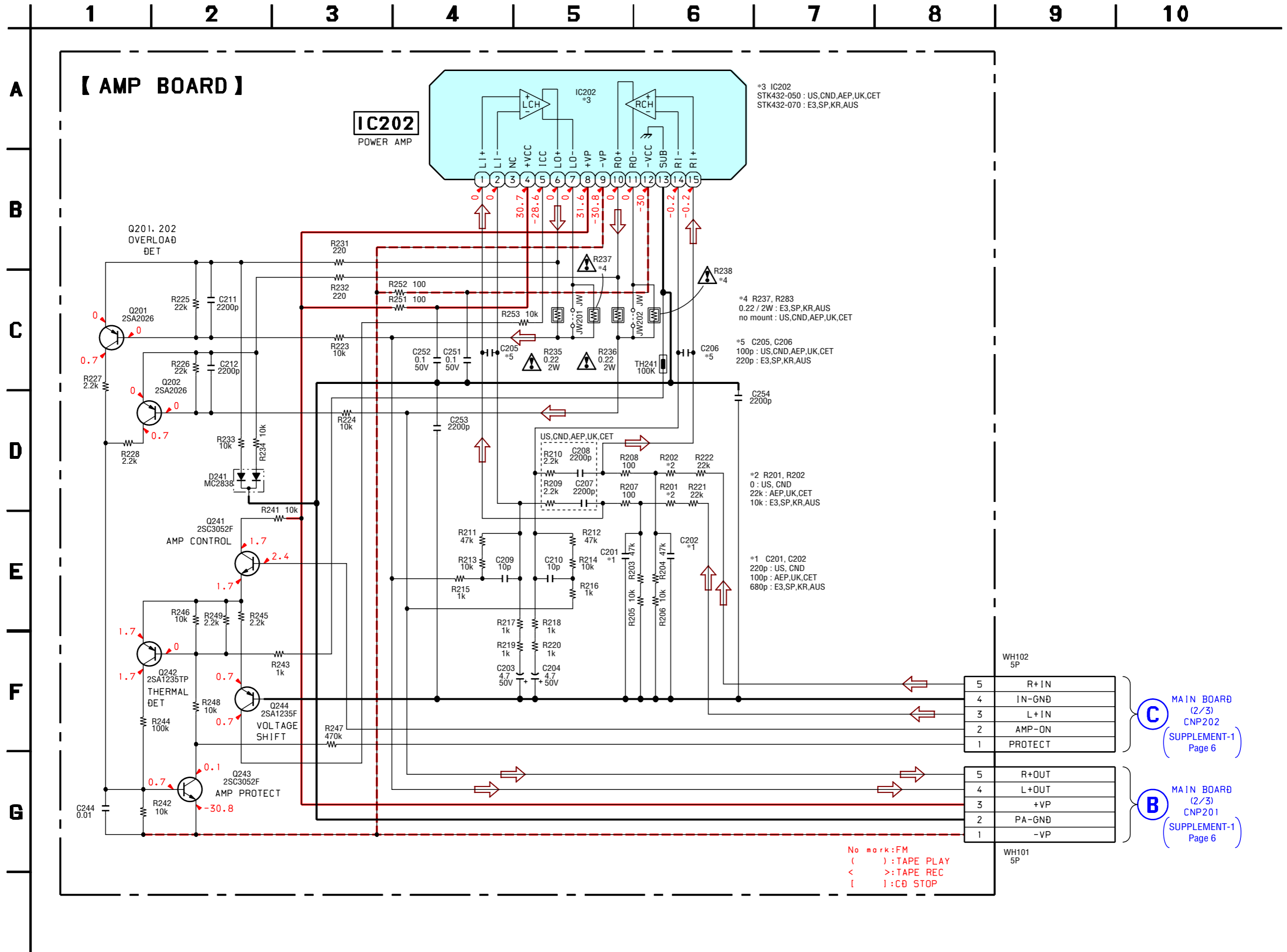




• Semiconductor Location

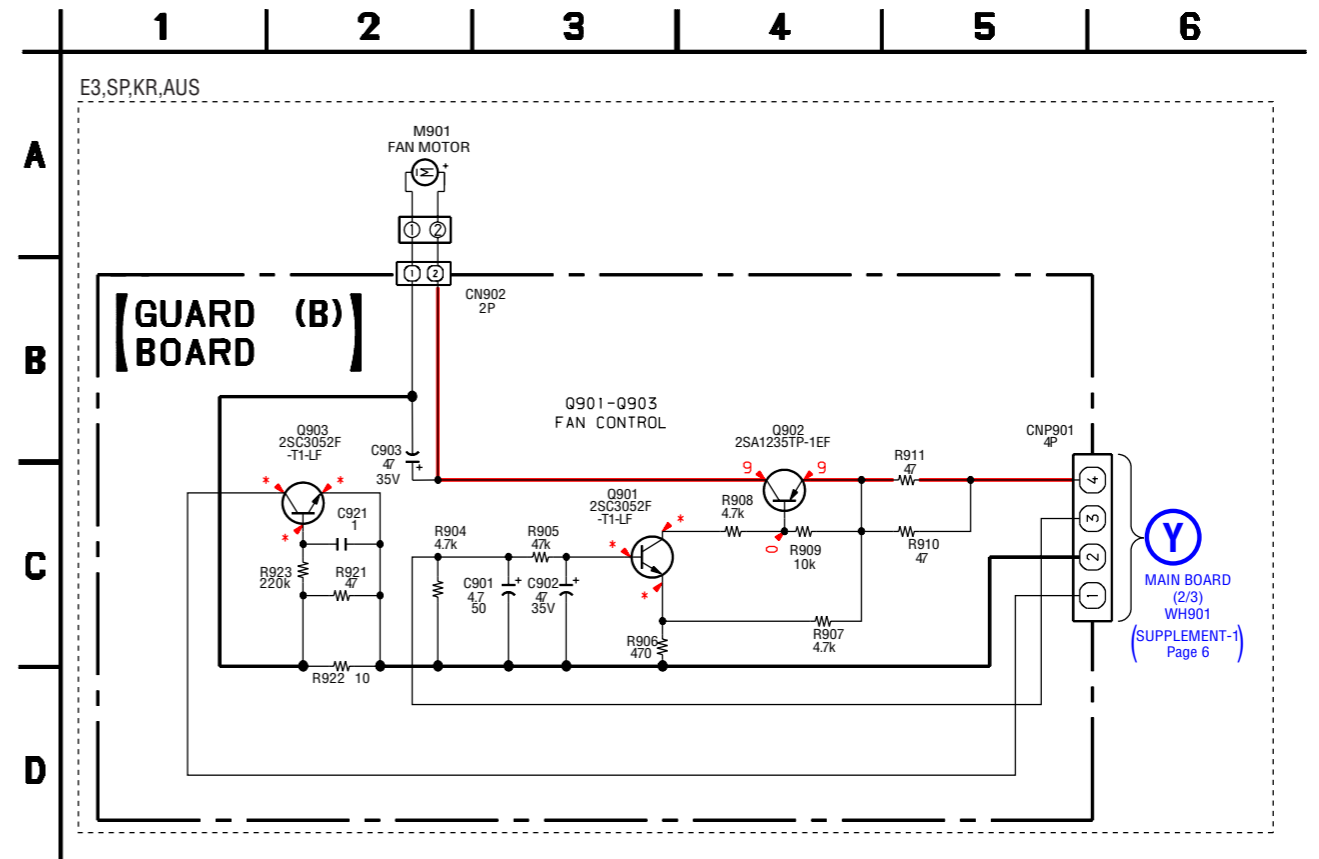
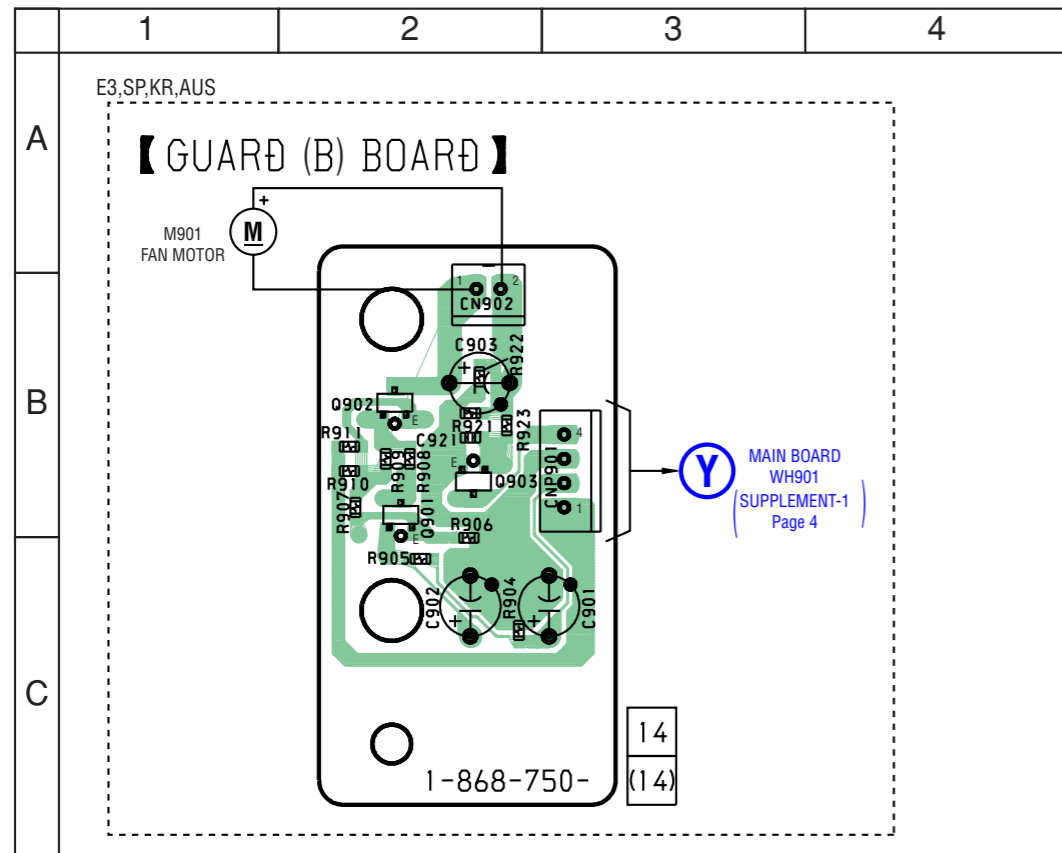
Ref. No.	Location
D241	B-4
IC202	C-3
Q201	B-2
Q202	B-4
Q241	C-2
Q242	B-2
Q243	B-2
Q244	C-2

SCHEMATIC DIAGRAM - AMP BOARD -



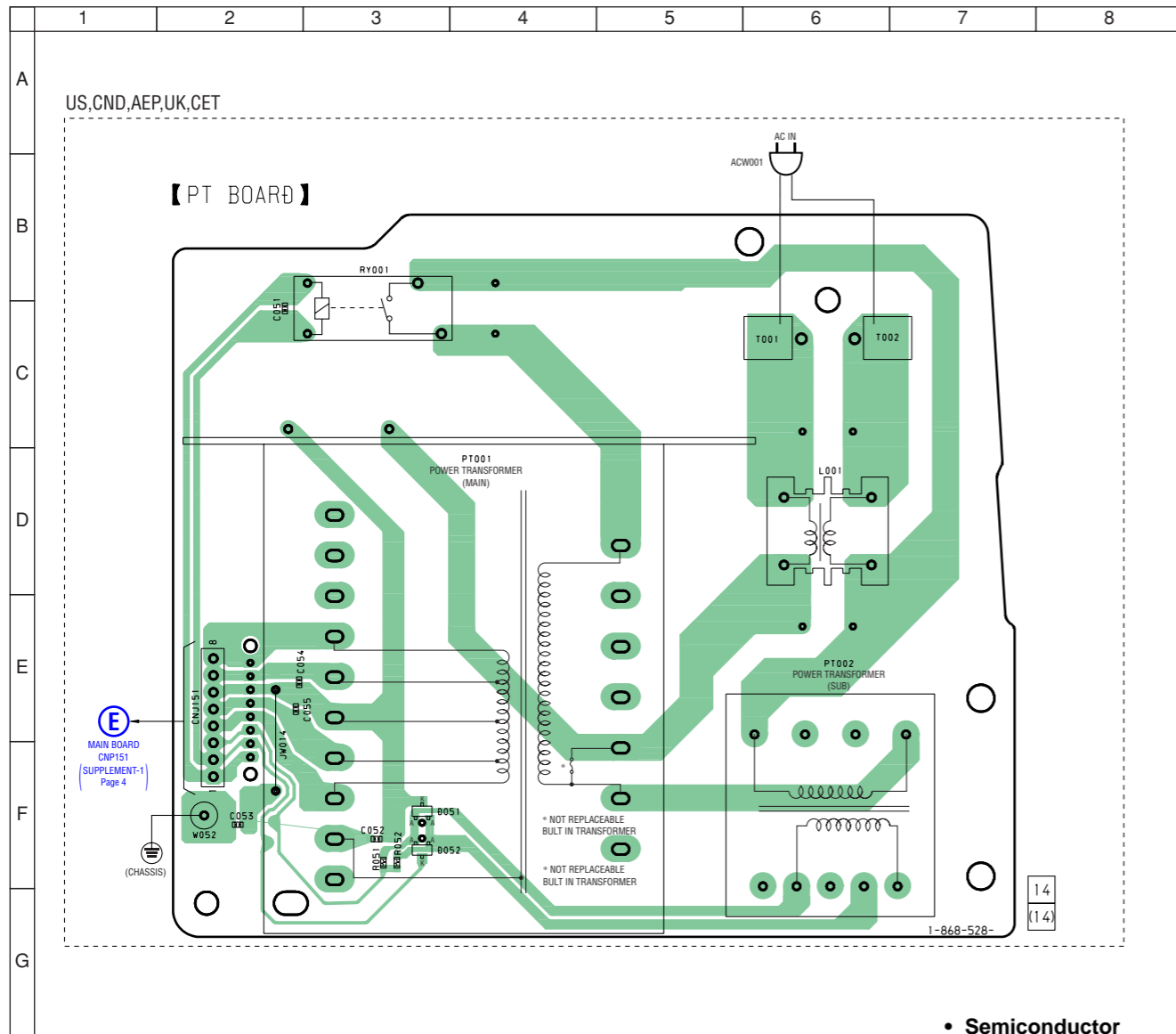


:Uses unleaded solder.



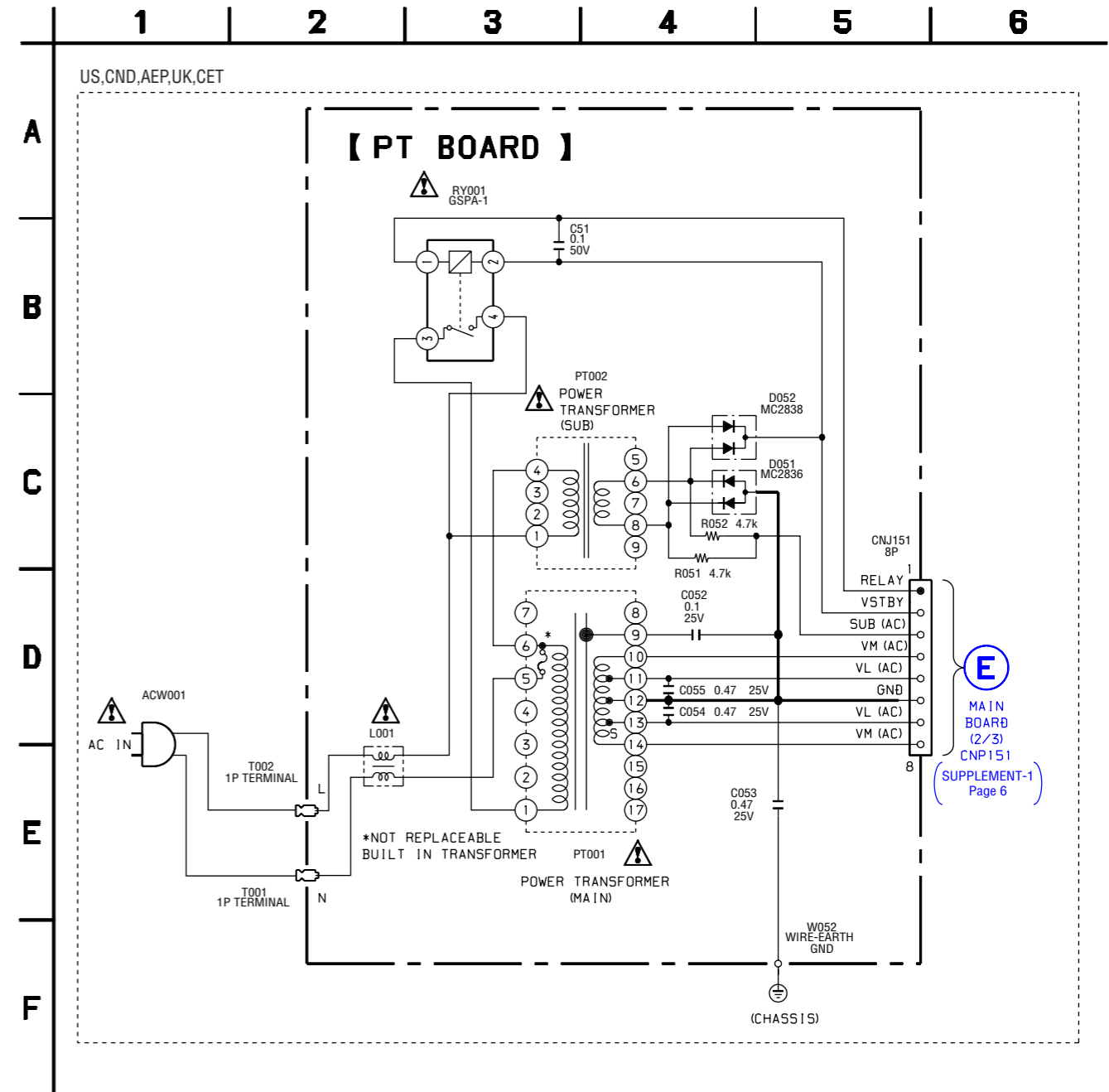
• Semiconductor Location

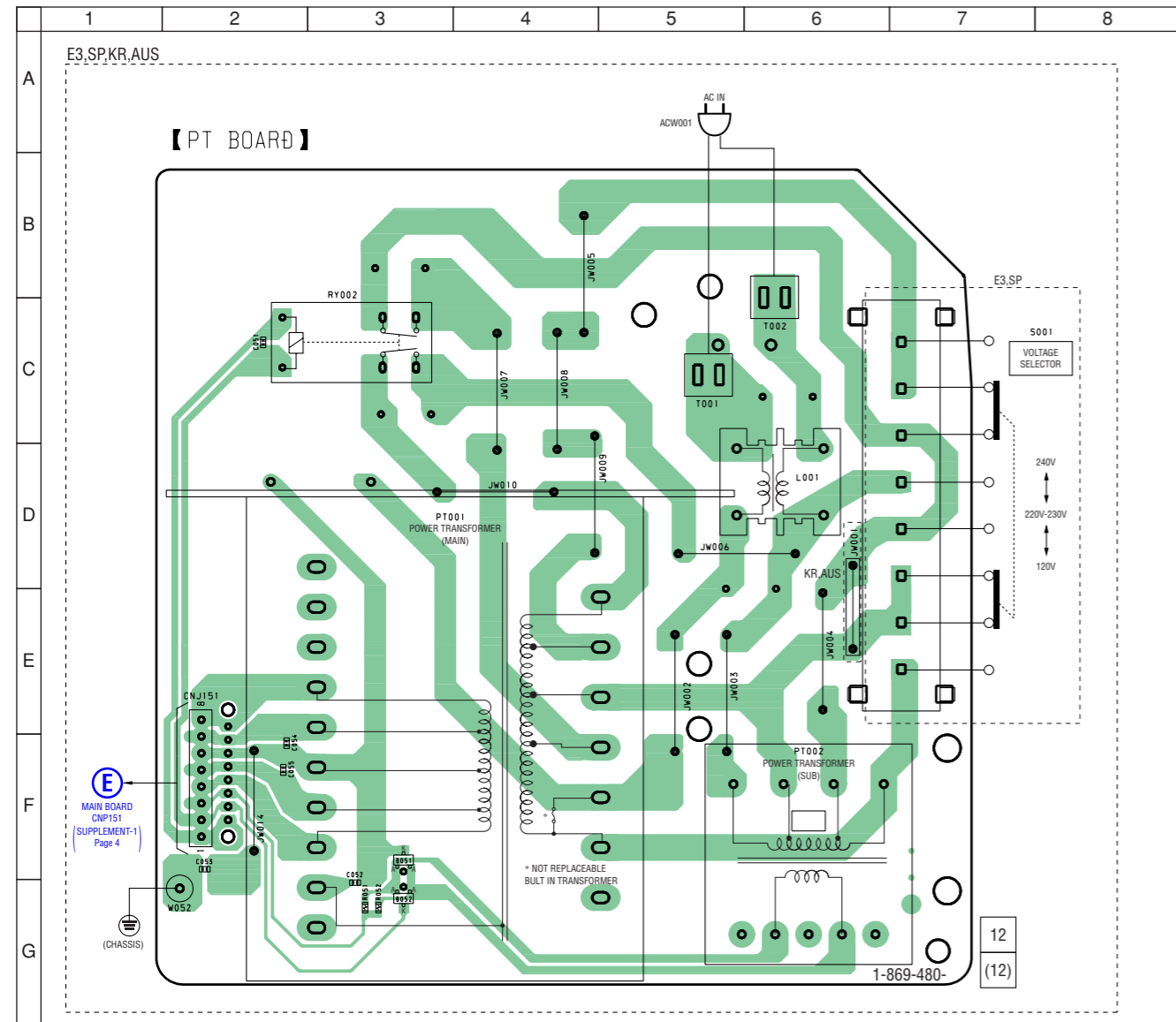
Ref. No.	Location
Q901	B-2
Q902	B-2
Q903	B-2



• Semiconductor Location

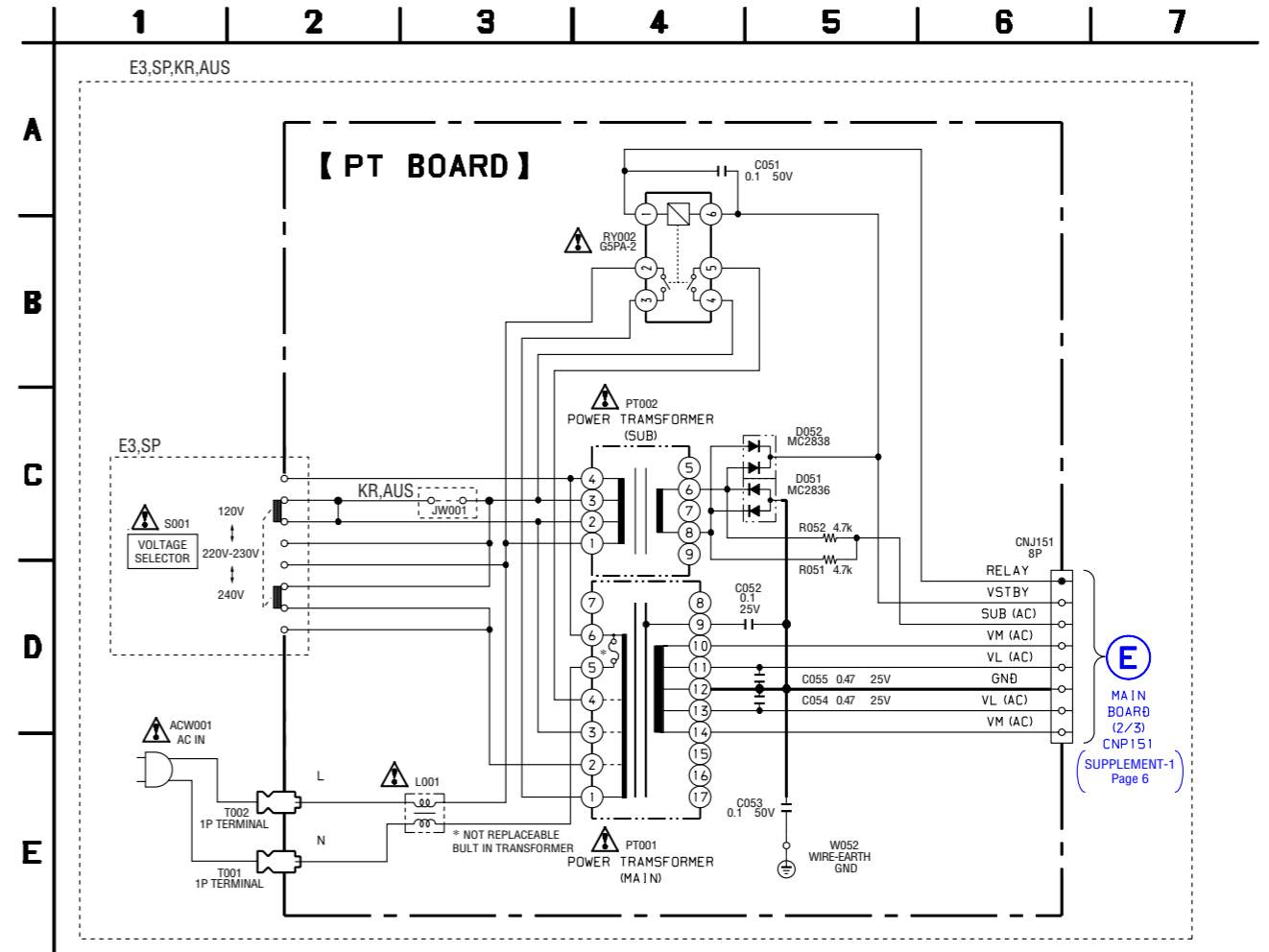
Ref. No.	Location
D051	F-4
D052	F-4





• Semiconductor Location

Ref. No.	Location
D051	F-3
D052	G-3



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.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- CAPACITORS
uF: μ F
- COILS
uH: μ H
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . uPA. . : μ PA. .
uPB. . : μ PB. . uPC. . : μ PC. .
uPD. . : μ PD. .
- Abbreviation
AUS : Australian model
CET : East European and Russian models
CND : Canadian model
E3 : 240V AC area in E model
KR : Korean model
SP : Singapore model

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

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

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-1144-850-A	AMP BOARD, COMPLETE (US, CND)				< IC >	
	A-1171-961-A	AMP BOARD, COMPLETE (AEP, UK, CET)					
	A-1175-788-A	AMP BOARD, COMPLETE (E3, SP, KR, AUS)		IC202	6-708-919-01	IC STK432-050 (US, CND, AEP, UK, CET)	
		*****		IC202	6-709-529-01	IC STK432-070 (E3, SP, KR, AUS)	
		< CAPACITOR >				< TRANSISTOR >	
C201	1-162-927-11	CERAMIC CHIP	100PF 5% 50V (AEP, UK, CET)	Q201	6-551-270-01	TRANSISTOR	2SA2026
C201	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (US, CND)	Q202	6-551-270-01	TRANSISTOR	2SA2026
C201	1-162-963-11	CERAMIC CHIP	680PF 10% 50V (E3, SP, KR, AUS)	Q241	8-729-120-28	TRANSISTOR	2SC1623-L5L6
C202	1-162-927-11	CERAMIC CHIP	100PF 5% 50V (AEP, UK, CET)	Q242	8-729-600-22	TRANSISTOR	2SA1235-F
C202	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (US, CND)	Q243	8-729-120-28	TRANSISTOR	2SC1623-L5L6
C202	1-162-963-11	CERAMIC CHIP	680PF 10% 50V (E3, SP, KR, AUS)	Q244	8-729-600-22	TRANSISTOR	2SA1235-F
C203	1-126-963-11	ELECT	4.7uF 20% 50V			< RESISTOR >	
C204	1-126-963-11	ELECT	4.7uF 20% 50V	R201	1-216-833-11	METAL CHIP	10K 5% 1/10W (E3, SP, KR, AUS)
C205	1-162-927-11	CERAMIC CHIP	100PF 5% 50V (US, CND, AEP, UK, CET)	R201	1-216-837-11	METAL CHIP	22K 5% 1/10W (AEP, UK, CET)
C205	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (E3, SP, KR, AUS)	R201	1-216-864-11	SHORT CHIP	0 (US, CND)
C206	1-162-927-11	CERAMIC CHIP	100PF 5% 50V (US, CND, AEP, UK, CET)	R202	1-216-833-11	METAL CHIP	10K 5% 1/10W (E3, SP, KR, AUS)
C206	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (E3, SP, KR, AUS)	R202	1-216-837-11	METAL CHIP	22K 5% 1/10W (AEP, UK, CET)
C207	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V (US, CND, AEP, UK, CET)	R202	1-216-864-11	SHORT CHIP	0 (US, CND)
C208	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V (US, CND, AEP, UK, CET)	R203	1-216-841-11	METAL CHIP	47K 5% 1/10W
C209	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	R204	1-216-841-11	METAL CHIP	47K 5% 1/10W
C210	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	R205	1-216-833-11	METAL CHIP	10K 5% 1/10W
C211	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R206	1-216-833-11	METAL CHIP	10K 5% 1/10W
C212	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R207	1-216-809-11	METAL CHIP	100 5% 1/10W
C244	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	R208	1-216-809-11	METAL CHIP	100 5% 1/10W
C251	1-165-621-91	CERAMIC CHIP	0.1uF 50V	R209	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (US, CND, AEP, UK, CET)
C252	1-165-621-91	CERAMIC CHIP	0.1uF 50V	R210	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (US, CND, AEP, UK, CET)
C253	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R211	1-216-841-11	METAL CHIP	47K 5% 1/10W
C254	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V	R212	1-216-841-11	METAL CHIP	47K 5% 1/10W
		< DIODE >		R213	1-216-833-11	METAL CHIP	10K 5% 1/10W
D241	6-500-335-01	DIODE MC2838-T112-1		R214	1-216-833-11	METAL CHIP	10K 5% 1/10W
		< EARTH TERMINAL >		R215	1-216-821-11	METAL CHIP	1K 5% 1/10W
EP201	1-537-770-21	TERMINAL BOARD, GROUND		R216	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R217	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R218	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R219	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R220	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R221	1-216-837-11	METAL CHIP	22K 5% 1/10W
				R222	1-216-837-11	METAL CHIP	22K 5% 1/10W

HCD-EC50

Ver. 1.3

AMP **GUARD (B)** **JACK** **MAIN**

Ref. No.	Part No.	Description	Remark
R223	1-216-833-11	METAL CHIP 10K 5%	1/10W
R224	1-216-833-11	METAL CHIP 10K 5%	1/10W
R225	1-216-837-11	METAL CHIP 22K 5%	1/10W
R226	1-216-837-11	METAL CHIP 22K 5%	1/10W
R227	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R228	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R231	1-216-813-11	METAL CHIP 220 5%	1/10W
R232	1-216-813-11	METAL CHIP 220 5%	1/10W
R233	1-216-833-11	METAL CHIP 10K 5%	1/10W
R234	1-216-833-11	METAL CHIP 10K 5%	1/10W
R235	1-216-361-31	METAL OXIDE 0.22 5%	2W
R236	1-216-361-31	METAL OXIDE 0.22 5%	2W
R237	1-216-361-31	METAL OXIDE 0.22 5%	2W (E3, SP, KR, AUS)
R238	1-216-361-31	METAL OXIDE 0.22 5%	2W (E3, SP, KR, AUS)
R241	1-216-833-11	METAL CHIP 10K 5%	1/10W
R242	1-216-833-11	METAL CHIP 10K 5%	1/10W
R243	1-216-821-11	METAL CHIP 1K 5%	1/10W
R244	1-216-845-11	METAL CHIP 100K 5%	1/10W
R245	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R246	1-216-833-11	METAL CHIP 10K 5%	1/10W
R247	1-216-853-11	METAL CHIP 470K 5%	1/10W
R248	1-216-833-11	METAL CHIP 10K 5%	1/10W
R249	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R251	1-216-809-11	METAL CHIP 100 5%	1/10W
R252	1-216-809-11	METAL CHIP 100 5%	1/10W
R253	1-216-833-11	METAL CHIP 10K 5%	1/10W
< THERMISTOR >			
TH241	1-805-217-21	THERMISTOR (1012)	
< CABLE HOLDER >			
WH101	1-824-030-21	HOLDER, CABLE 5P	
WH102	1-824-030-21	HOLDER, CABLE 5P	

GUARD (B) BOARD (E3, SP, KR, AUS)			

< CAPACITOR >			
C901	1-126-963-11	ELECT 4.7uF 20%	50V
C902	1-126-947-11	ELECT 47uF 20%	35V
C903	1-126-947-11	ELECT 47uF 20%	35V
C921	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V
< CONNECTOR >			
CN902	1-564-704-41	PIN, CONNECTOR (SMALL TYPE) 2P	
CNP901	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	
< TRANSISTOR >			
Q901	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q902	8-729-600-22	TRANSISTOR 2SA1235-F	
Q903	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
< RESISTOR >			
R904	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R905	1-216-841-11	METAL CHIP 47K 5%	1/10W
R906	1-216-817-11	METAL CHIP 470 5%	1/10W
R907	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R908	1-216-829-11	METAL CHIP 4.7K 5%	1/10W

Ref. No.	Part No.	Description	Remark
R909	1-216-833-11	METAL CHIP 10K 5%	1/10W
R910	1-216-805-11	METAL CHIP 47 5%	1/10W
R911	1-216-805-11	METAL CHIP 47 5%	1/10W
R921	1-216-805-11	METAL CHIP 47 5%	1/10W
R922	1-216-797-11	METAL CHIP 10 5%	1/10W
R923	1-216-849-11	METAL CHIP 220K 5%	1/10W

A-1144-828-A JACK BOARD, COMPLETE			

< CAPACITOR >			
C139	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C140	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C141	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C142	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
< CONNECTOR >			
CNP171	1-815-449-11	PIN, CONNECTOR (PWB) 8P	
< JACK >			
J102	1-815-629-11	JACK (PHONES)	
J105	1-566-822-51	JACK (AUDIO IN)	
< COIL >			
L103	1-469-152-11	FERRITE, EMI (SMD) (2012)	
L104	1-469-152-11	FERRITE, EMI (SMD) (2012)	
L105	1-216-295-91	SHORT CHIP 0	
L106	1-216-295-91	SHORT CHIP 0	
< RESISTOR >			
R119	1-216-805-11	METAL CHIP 47 5%	1/10W
R120	1-216-805-11	METAL CHIP 47 5%	1/10W
R151	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R152	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R175	1-216-841-11	METAL CHIP 47K 5%	1/10W
R176	1-216-841-11	METAL CHIP 47K 5%	1/10W

A-1144-848-A MAIN BOARD, COMPLETE (US, CND)			
A-1169-435-A MAIN BOARD, COMPLETE (E3, SP, AUS)			
A-1169-436-A MAIN BOARD, COMPLETE (AEP, UK, CET)			
A-1181-748-A MAIN BOARD, COMPLETE (KR)			

< CAPACITOR >			
C101	1-128-550-11	ELECT 2200uF 20%	50V
C102	1-128-550-11	ELECT 2200uF 20%	50V
C105	1-165-621-91	CERAMIC CHIP 0.1uF	50V
C106	1-165-621-91	CERAMIC CHIP 0.1uF	50V
C110	1-100-566-91	CERAMIC CHIP 0.1uF 10%	25V
C111	1-126-933-11	ELECT 100uF 20%	16V
C112	1-126-943-11	ELECT 2200uF 20%	25V
C113	1-126-942-61	ELECT 1000uF 20%	25V
C114	1-100-566-91	CERAMIC CHIP 0.1uF 10%	25V
C116	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
C121	1-117-863-11	CERAMIC CHIP 0.47uF 10%	6.3V
C131	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
C132	1-165-621-91	CERAMIC CHIP 0.1uF	50V
C133	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C134	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V
C151	1-126-933-11	ELECT 100uF 20%	16V

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C152	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V (US, CND)	C510	1-126-966-11	ELECT	33uF	20%	50V
C152	1-165-647-91	CERAMIC CHIP	0.47uF	10%	6.3V (EXCEPT US, CND)	C511	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C153	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V (US, CND)	C512	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C153	1-165-647-91	CERAMIC CHIP	0.47uF	10%	6.3V (EXCEPT US, CND)	C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C155	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C156	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C515	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C158	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C522	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C159	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C523	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C181	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C524	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C182	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C525	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C183	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C526	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C184	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C527	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C187	1-162-974-11	CERAMIC CHIP	0.01uF		50V (AEP, UK, CET)	C528	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C188	1-162-974-11	CERAMIC CHIP	0.01uF		50V (AEP, UK, CET)	C529	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C191	1-126-923-91	ELECT	220uF	20%	10V	C530	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C192	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C531	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C193	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C532	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C194	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C533	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V (AEP, UK, CET)
C195	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V (US, CND, E3, SP, AUS)	C533	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V (AEP, UK, CET)
C196	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C543	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C197	1-126-925-91	ELECT	470uF	20%	10V	C544	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C198	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C551	1-126-965-91	ELECT	22uF	20%	50V
C401	1-126-956-91	ELECT	0.1uF	20%	50V	C561	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C402	1-126-933-11	ELECT	100uF	20%	16V	C562	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C403	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C564	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C404	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C565	1-115-156-11	CERAMIC CHIP	1uF		10V
C405	1-126-956-91	ELECT	0.1uF	20%	50V	C567	1-130-479-00	MYLAR	0.0047uF	5%	50V
C406	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C801	1-126-933-11	ELECT	100uF	20%	16V
C407	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	C802	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C408	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	C803	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C409	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C804	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C410	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C806	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C412	1-126-925-91	ELECT	470uF	20%	10V	C807	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C413	1-126-933-11	ELECT	100uF	20%	16V	C809	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C415	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C810	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C416	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C811	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C417	1-126-957-11	ELECT	0.22uF	20%	50V	C812	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C418	1-126-957-11	ELECT	0.22uF	20%	50V	C813	1-126-923-91	ELECT	220uF	20%	10V
C421	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	C814	1-164-156-11	CERAMIC CHIP	0.1uF		25V (EXCEPT US, CND)
C431	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	C815	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C432	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	C816	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C433	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C817	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
C434	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C818	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C437	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C819	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C438	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C820	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C501	1-162-923-11	CERAMIC CHIP	47PF	5%	50V	C821	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C502	1-162-923-11	CERAMIC CHIP	47PF	5%	50V	C822	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C503	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C823	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C504	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C824	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C505	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C825	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
C506	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C826	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C507	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C827	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C508	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C828	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C509	1-126-966-11	ELECT	33uF	20%	50V	C829	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
						C830	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
						C831	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
						C832	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
						C833	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
						C834	1-126-923-91	ELECT	220uF	20%	10V

HCD-EC50

Ver. 1.3

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C835	1-115-467-11	CERAMIC CHIP	0.22uF 10% 10V	D812	8-719-062-51	DIODE 1PS226-115	
C836	1-115-467-11	CERAMIC CHIP	0.22uF 10% 10V	D813	8-719-062-51	DIODE 1PS226-115	
C838	1-100-566-91	CERAMIC CHIP	0.1uF 10% 25V	D814	8-719-062-51	DIODE 1PS226-115	
C839	1-100-566-91	CERAMIC CHIP	0.1uF 10% 25V	D851	6-501-142-01	DIODE SVC347A-TL-E	
C840	1-117-863-11	CERAMIC CHIP	0.47uF 10% 6.3V	D901	6-500-335-01	DIODE MC2838-T112-1 (E3, SP, KR, AUS)	
C841	1-126-965-91	ELECT	22uF 20% 50V			< EARTH TERMINAL >	
C843	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (US, CND)	EP102	1-537-770-21	TERMINAL BOARD, GROUND	
C847	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V (EXCEPT US, CND)			< IC >	
C847	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V (US, CND)	IC401	6-702-895-01	IC BD3881FV	
C848	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V (EXCEPT US, CND)	IC801	6-708-840-01	IC LV23003VA	
C848	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V (US, CND)			< JACK >	
C851	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V	J101	1-536-708-81	TERMINAL BOARD, PUSH (4P) (SPEAKER)	
C852	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V			< JUMPER RESISTOR >	
C853	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V	JR101	1-216-864-11	SHORT CHIP 0	
C854	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V	JR102	1-216-864-11	SHORT CHIP 0	
C855	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	JR103	1-216-864-11	SHORT CHIP 0	
C856	1-162-910-11	CERAMIC CHIP	5PF 0.25PF 50V	JR104	1-216-864-11	SHORT CHIP 0	
C873	1-162-907-11	CERAMIC CHIP	2PF 0.25PF 50V (EXCEPT US, CND)	JR105	1-216-864-11	SHORT CHIP 0	
		< FILTER >		JR106	1-216-864-11	SHORT CHIP 0 (E3, SP, KR, AUS)	
CF801	1-795-426-11	FILTER, CERAMIC (EXCEPT US, CND)		JR107	1-216-864-11	SHORT CHIP 0 (E3, SP, KR, AUS)	
CF802	1-579-554-21	FILTER, CERAMIC		JR801	1-216-864-11	SHORT CHIP 0	
CF803	1-781-962-21	FILTER, CERAMIC		JR802	1-216-864-11	SHORT CHIP 0	
		< CONNECTOR >		JR803	1-216-864-11	SHORT CHIP 0	
* CN102	1-564-187-00	PIN, CONNECTOR (AEP, UK, CET, KR)				< COIL >	
CNP151	1-819-136-11	PIN, CONNECTOR 8P		L101	1-456-107-11	COIL, AIR-CORE	
CNP201	1-819-133-11	PIN, CONNECTOR		L102	1-456-107-11	COIL, AIR-CORE	
CNP202	1-815-446-11	PIN, CONNECTOR (PWB) 5P		L501	1-456-094-11	TRANSFORMER, BIAS OSCILLATION	
CNP501	1-815-445-11	PIN, CONNECTOR (PWB) 4P		L803	1-433-741-11	TRANSFORMER, IF	
CNP502	1-815-444-11	PIN, CONNECTOR (PWB) 3P		L804	1-457-163-11	COIL, AIR-CORE	
* CNP802	1-506-680-11	PLUG, CONNECTOR (2.5MM) 3P (ANTENNA)		L805	1-457-162-11	COIL, AIR-CORE	
CNS104	1-779-291-11	CONNECTOR, FFC (LIF (NON-ZIF)) 23P		L806	1-457-168-11	COIL, DET	
CNS111	1-779-295-11	CONNECTOR, FFC (LIF (NON-ZIF)) 27P		L851	1-457-161-11	COIL, AM ANTENNA	
		< DIODE >		L852	1-456-596-11	COIL, MW OSC	
D107	6-501-046-01	DIODE 1N5402-F46				< TRANSISTOR >	
D108	6-501-046-01	DIODE 1N5402-F46		Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D109	6-501-046-01	DIODE 1N5402-F46		Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D110	6-501-046-01	DIODE 1N5402-F46		Q122	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D111	6-500-522-31	DIODE 10EDB40-TB5		Q131	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
D113	6-500-522-31	DIODE 10EDB40-TB5		Q132	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
D131	6-500-522-31	DIODE 10EDB40-TB5		Q133	8-729-027-38	TRANSISTOR DTA144EKA-T146	
D132	8-719-000-07	DIODE MC2836		Q134	1-801-806-11	TR DTC144EKA	
D154	6-500-335-01	DIODE MC2838-T112-1		Q135	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D156	8-719-000-07	DIODE MC2836		Q137	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
D191	6-500-522-31	DIODE 10EDB40-TB5		Q138	6-550-889-01	TRANSISTOR 2SC5938-T112-1B	
D192	6-500-522-31	DIODE 10EDB40-TB5		Q151	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D193	6-501-164-01	DIODE UDZW-TE17-3.9B		Q152	8-729-600-22	TRANSISTOR 2SA1235-F	
D802	6-501-369-01	DIODE SV230-TB-E		Q153	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D803	6-501-369-01	DIODE SV230-TB-E		Q154	8-729-600-22	TRANSISTOR 2SA1235-F	
				Q191	8-729-036-86	TRANSISTOR KTC3203Y-AT	
				Q192	8-729-036-86	TRANSISTOR KTC3203Y-AT	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q193	8-729-600-22	TRANSISTOR	2SA1235-F			R158	1-216-833-11	METAL CHIP	10K	5%	1/10W
			(EXCEPT US, CND)			R159	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q507	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R160	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q801	8-729-120-28	TRANSISTOR	2SC1623-L5L6								(US, CND, E3, SP, KR, AUS)
Q802	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R160	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
											(AEP, UK, CET)
Q803	6-550-304-01	TRANSISTOR	2SC5477-T122-1			R161	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
			(EXCEPT US, CND)								(US, CND, E3, SP, KR, AUS)
		< RESISTOR >				R161	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
											(AEP, UK, CET)
R101	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R162	1-216-809-11	METAL CHIP	100	5%	1/10W
R103	1-216-837-11	METAL CHIP	22K	5%	1/10W	R163	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R164	1-216-833-11	METAL CHIP	10K	5%	1/10W
R103	1-216-841-11	METAL CHIP	47K	5%	1/10W						(AEP, UK, CET)
						R164	1-216-837-11	METAL CHIP	22K	5%	1/10W
R104	1-216-841-11	METAL CHIP	47K	5%	1/10W						(US, CND, E3, SP, KR, AUS)
R105	1-216-841-11	METAL CHIP	47K	5%	1/10W	R165	1-216-833-11	METAL CHIP	10K	5%	1/10W
R106	1-216-837-11	METAL CHIP	22K	5%	1/10W	R166	1-216-833-11	METAL CHIP	10K	5%	1/10W
R107	1-216-837-11	METAL CHIP	22K	5%	1/10W						(AEP, UK, CET)
R108	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R166	1-216-837-11	METAL CHIP	22K	5%	1/10W
R109	1-216-789-11	METAL CHIP	2.2	5%	1/10W						(US, CND, E3, SP, KR, AUS)
R110	1-216-789-11	METAL CHIP	2.2	5%	1/10W	R167	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R168	1-216-833-11	METAL CHIP	10K	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W	R169	1-216-833-11	METAL CHIP	10K	5%	1/10W
R112	1-216-809-11	METAL CHIP	100	5%	1/10W						
R113	1-216-809-11	METAL CHIP	100	5%	1/10W	R170	1-216-833-11	METAL CHIP	10K	5%	1/10W
R114	1-216-809-11	METAL CHIP	100	5%	1/10W	R171	1-216-833-11	METAL CHIP	10K	5%	1/10W
R115	1-247-807-31	CARBON	100	5%	1/4W	R172	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R174	1-216-809-11	METAL CHIP	100	5%	1/10W
R116	1-247-807-31	CARBON	100	5%	1/4W	R177	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R117	1-247-807-31	CARBON	100	5%	1/4W						(US, CND, E3, SP, KR, AUS)
R118	1-247-807-31	CARBON	100	5%	1/4W						
R121	1-216-849-11	METAL CHIP	220K	5%	1/10W	R177	1-216-833-11	METAL CHIP	10K	5%	1/10W
R123	1-216-853-11	METAL CHIP	470K	5%	1/10W						(AEP, UK, CET)
						R178	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R124	1-216-809-11	METAL CHIP	100	5%	1/10W						(US, CND, E3, SP, KR, AUS)
R125	1-216-837-11	METAL CHIP	22K	5%	1/10W	R178	1-216-833-11	METAL CHIP	10K	5%	1/10W
R127	1-249-401-11	CARBON	47	5%	1/4W						(AEP, UK, CET)
R128	1-249-401-11	CARBON	47	5%	1/4W	R179	1-216-864-11	SHORT CHIP	0		
R129	1-249-401-11	CARBON	47	5%	1/4W	R180	1-216-864-11	SHORT CHIP	0		
R130	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R181	1-216-797-11	METAL CHIP	10	5%	1/10W
R131	1-216-841-11	METAL CHIP	47K	5%	1/10W	R182	1-216-797-11	METAL CHIP	10	5%	1/10W
R132	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R183	1-216-797-11	METAL CHIP	10	5%	1/10W
R133	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R184	1-216-797-11	METAL CHIP	10	5%	1/10W
R134	1-216-817-11	METAL CHIP	470	5%	1/10W	R185	1-247-807-31	CARBON	100	5%	1/4W
											(US, CND, E3, SP, KR, AUS)
R135	1-216-817-11	METAL CHIP	470	5%	1/10W						
R136	1-216-817-11	METAL CHIP	470	5%	1/10W	R186	1-247-807-31	CARBON	100	5%	1/4W
R137	1-216-817-11	METAL CHIP	470	5%	1/10W						(US, CND, E3, SP, KR, AUS)
R138	1-216-817-11	METAL CHIP	470	5%	1/10W	R188	1-216-837-11	METAL CHIP	22K	5%	1/10W
R139	1-216-817-11	METAL CHIP	470	5%	1/10W						(EXCEPT US, CND)
						R189	1-216-837-11	METAL CHIP	22K	5%	1/10W
R140	1-216-817-11	METAL CHIP	470	5%	1/10W						(EXCEPT US, CND)
R142	1-216-845-11	METAL CHIP	100K	5%	1/10W	R191	1-216-821-11	METAL CHIP	1K	5%	1/10W
R144	1-216-817-11	METAL CHIP	470	5%	1/10W	R192	1-216-845-11	METAL CHIP	100K	5%	1/10W
R145	1-216-817-11	METAL CHIP	470	5%	1/10W						(EXCEPT US, CND)
R146	1-216-817-11	METAL CHIP	470	5%	1/10W						
						R193	1-216-841-11	METAL CHIP	47K	5%	1/10W
R147	1-216-817-11	METAL CHIP	470	5%	1/10W						(EXCEPT US, CND)
R148	1-216-817-11	METAL CHIP	470	5%	1/10W	R194	1-249-401-11	CARBON	47	5%	1/4W
R149	1-216-817-11	METAL CHIP	470	5%	1/10W	R195	1-216-809-11	METAL CHIP	100	5%	1/10W
R150	1-216-817-11	METAL CHIP	470	5%	1/10W	R196	1-216-809-11	METAL CHIP	100	5%	1/10W
R153	1-216-849-11	METAL CHIP	220K	5%	1/10W	R197	1-249-401-11	CARBON	47	5%	1/4W
R154	1-216-849-11	METAL CHIP	220K	5%	1/10W	R198	1-249-401-11	CARBON	47	5%	1/4W
R155	1-216-841-11	METAL CHIP	47K	5%	1/10W	R199	1-247-807-31	CARBON	100	5%	1/4W
R156	1-216-833-11	METAL CHIP	10K	5%	1/10W	R200	1-247-807-31	CARBON	100	5%	1/4W
R157	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						

HCD-EC50

Ver. 1.3

MAIN

Ref. No.	Part No.	Description	Quantity	Unit	Percentage	Remark	Ref. No.	Part No.	Description	Quantity	Unit	Percentage	Remark
R402	1-216-809-11	METAL CHIP	100		5%	1/10W	R535	1-216-813-11	METAL CHIP	220		5%	1/10W
R403	1-216-821-11	METAL CHIP	1K		5%	1/10W	R536	1-216-813-11	METAL CHIP	220		5%	1/10W
R404	1-216-813-11	METAL CHIP	220		5%	1/10W	R541	1-216-837-11	METAL CHIP	22K		5%	1/10W
R405	1-216-813-11	METAL CHIP	220		5%	1/10W	R542	1-216-833-11	METAL CHIP	10K		5%	1/10W
R406	1-216-825-11	METAL CHIP	2.2K		5%	1/10W	R543	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R410	1-216-845-11	METAL CHIP	100K		5%	1/10W	R544	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R411	1-216-821-11	METAL CHIP	1K		5%	1/10W	R545	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R412	1-216-813-11	METAL CHIP	220		5%	1/10W	R560	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R419	1-216-837-11	METAL CHIP	22K		5%	1/10W	R561	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R420	1-216-837-11	METAL CHIP	22K		5%	1/10W	R564	1-216-793-11	METAL CHIP	4.7	5%	1/10W	
R423	1-216-829-11	METAL CHIP	4.7K		5%	1/10W	R565	1-216-793-11	METAL CHIP	4.7	5%	1/10W	
R424	1-216-829-11	METAL CHIP	4.7K		5%	1/10W	R801	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R425	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R802	1-216-797-11	METAL CHIP	10	5%	1/10W	
R426	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R803	1-216-797-11	METAL CHIP	10	5%	1/10W	
R427	1-216-845-11	METAL CHIP	100K	5%	1/10W		R804	1-216-864-11	SHORT CHIP	0			
R428	1-216-845-11	METAL CHIP	100K	5%	1/10W		R805	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R429	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R806	1-216-864-11	SHORT CHIP	0			
R430	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R807	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R433	1-216-837-11	METAL CHIP	22K	5%	1/10W		R808	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R434	1-216-837-11	METAL CHIP	22K	5%	1/10W		R809	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R439	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R810	1-216-857-11	METAL CHIP	1M	5%	1/10W	(EXCEPT US, CND)
R440	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R811	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R441	1-216-841-11	METAL CHIP	47K	5%	1/10W		R812	1-216-817-11	METAL CHIP	470	5%	1/10W	
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W		R813	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R501	1-216-809-11	METAL CHIP	100	5%	1/10W		R814	1-216-809-11	METAL CHIP	100	5%	1/10W	
R502	1-216-809-11	METAL CHIP	100	5%	1/10W		R815	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R503	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R816	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R504	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R817	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R505	1-216-833-11	METAL CHIP	10K	5%	1/10W		R818	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R506	1-216-833-11	METAL CHIP	10K	5%	1/10W		R819	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R507	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		R820	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R508	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		R821	1-216-813-11	METAL CHIP	220	5%	1/10W	(EXCEPT US, CND)
R509	1-216-853-11	METAL CHIP	470K	5%	1/10W		R822	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R510	1-216-853-11	METAL CHIP	470K	5%	1/10W		R823	1-216-809-11	METAL CHIP	100	5%	1/10W	(EXCEPT US, CND)
R511	1-216-861-11	METAL CHIP	2.2M	5%	1/10W		R824	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	(EXCEPT US, CND)
R512	1-216-861-11	METAL CHIP	2.2M	5%	1/10W		R825	1-216-817-11	METAL CHIP	470	5%	1/10W	(EXCEPT US, CND)
R513	1-216-809-11	METAL CHIP	100	5%	1/10W		R826	1-216-809-11	METAL CHIP	100	5%	1/10W	(EXCEPT US, CND)
R514	1-216-809-11	METAL CHIP	100	5%	1/10W		R827	1-216-809-11	METAL CHIP	100	5%	1/10W	
R515	1-216-805-11	METAL CHIP	47	5%	1/10W		R828	1-216-801-11	METAL CHIP	22	5%	1/10W	(AEP, UK, CET)
R516	1-216-805-11	METAL CHIP	47	5%	1/10W		R828	1-216-805-11	METAL CHIP	47	5%	1/10W	(E3, SP, KR, AUS)
R517	1-216-845-11	METAL CHIP	100K	5%	1/10W		R829	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R518	1-216-845-11	METAL CHIP	100K	5%	1/10W		R830	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W		R831	1-216-813-11	METAL CHIP	220	5%	1/10W	(EXCEPT US, CND)
R520	1-216-845-11	METAL CHIP	100K	5%	1/10W		R832	1-216-864-11	SHORT CHIP	0 (US, CND)			
R521	1-216-837-11	METAL CHIP	22K	5%	1/10W		R833	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R522	1-216-837-11	METAL CHIP	22K	5%	1/10W		R834	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R523	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R835	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R524	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R836	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R525	1-216-833-11	METAL CHIP	10K	5%	1/10W		R837	1-216-821-11	METAL CHIP	1K	5%	1/10W	(AEP, UK, CET)
R526	1-216-833-11	METAL CHIP	10K	5%	1/10W		R837	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	(US, CND, E3, SP, KR, AUS)
R527	1-216-829-11	METAL CHIP	4.7K	5%	1/10W								
R528	1-216-829-11	METAL CHIP	4.7K	5%	1/10W								
R529	1-216-825-11	METAL CHIP	2.2K	5%	1/10W								
R530	1-216-825-11	METAL CHIP	2.2K	5%	1/10W								
R531	1-216-829-11	METAL CHIP	4.7K	5%	1/10W								
R532	1-216-829-11	METAL CHIP	4.7K	5%	1/10W								
R533	1-216-833-11	METAL CHIP	10K	5%	1/10W								
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W								

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R838	1-216-821-11	METAL CHIP	1K	5%	1/10W	C701	1-164-156-11	CERAMIC CHIP	0.1uF		25V
					(AEP, UK, CET)	C702	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R838	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						(KR)
					(US, CND, E3, SP, KR, AUS)	C702	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R839	1-216-809-11	METAL CHIP	100	5%	1/10W						(EXCEPT KR)
R840	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R841	1-216-809-11	METAL CHIP	100	5%	1/10W	C703	1-126-933-11	ELECT	100uF	20%	16V
R842	1-216-841-11	METAL CHIP	47K	5%	1/10W	C704	1-126-925-91	ELECT	470uF	20%	10V
R843	1-216-853-11	METAL CHIP	470K	5%	1/10W	C705	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R844	1-216-797-11	METAL CHIP	10	5%	1/10W	C706	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R845	1-216-801-11	METAL CHIP	22	5%	1/10W	C707	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R846	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C708	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
R848	1-216-821-11	METAL CHIP	1K	5%	1/10W	C709	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V
R849	1-216-837-11	METAL CHIP	22K	5%	1/10W	C710	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
R850	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C711	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R851	1-216-837-11	METAL CHIP	22K	5%	1/10W	C712	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R852	1-216-801-11	METAL CHIP	22	5%	1/10W	C713	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
R853	1-216-845-11	METAL CHIP	100K	5%	1/10W	C714	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R855	1-216-853-11	METAL CHIP	470K	5%	1/10W	C715	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R859	1-216-821-11	METAL CHIP	1K	5%	1/10W	C716	1-164-156-11	CERAMIC CHIP	0.1uF		25V
					(AEP, UK, CET)	C717	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R859	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C718	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
					(US, CND, E3, SP, KR, AUS)	C719	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R860	1-216-821-11	METAL CHIP	1K	5%	1/10W						(KR)
					(AEP, UK, CET)	C719	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
R860	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						(EXCEPT KR)
					(US, CND, E3, SP, KR, AUS)	C720	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R863	1-216-837-11	METAL CHIP	22K	5%	1/10W	C722	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
R901	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C723	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R902	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C724	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
					(E3, SP, KR, AUS)	C725	1-164-156-11	CERAMIC CHIP	0.1uF		25V
					(E3, SP, KR, AUS)	C726	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< RELAY >				C727	1-164-156-11	CERAMIC CHIP	0.1uF		25V
RY131	1-755-307-11	RELAY				C728	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< SWITCH >				C729	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
SW501	1-762-369-11	SWITCH, SLIDE (REC/PB)				C730	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CABLE HOLDER >				C731	1-164-156-11	CERAMIC CHIP	0.1uF		25V
WH171	1-819-972-11	HOLDER, CABLE 8P				C732	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
WH203	1-824-027-21	HOLDER, CABLE 3P				C733	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
		< VIBRATOR >				C734	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
X801	1-767-388-21	VIBRATOR, CRYSTAL (75kHz)				C735	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		*****				C737	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		A-1144-849-A	PANEL BOARD, COMPLETE (US, CND)			C738	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		A-1169-449-A	PANEL BOARD, COMPLETE (E3, SP, AUS)								< CONNECTOR >
		A-1169-450-A	PANEL BOARD, COMPLETE (AEP, UK, CET)			CNS671	1-784-735-11	CONNECTOR, FFC 13P			
		A-1183-181-A	PANEL BOARD, COMPLETE (KR)			CNS701	1-779-295-11	CONNECTOR, FFC (LIF (NON-ZIF)) 27P			
		*****									< DIODE >
		2-649-117-01	HOLDER (LCD)			D701	6-501-163-01	DIODE UDZW-TE17-3.6B			
		2-649-178-01	PLATE, LIGHT GUIDE			D702	8-719-000-07	DIODE MC2836			
		2-649-179-01	SHEET (LCD)			D703	8-719-062-51	DIODE 1PS226-115			
		2-665-175-01	SHEET (REFLECTOR)								< IC >
		< CAPACITOR >				IC701	6-806-138-01	IC MB90802-108			
C671	1-126-965-91	ELECT	22uF	20%	50V	IC703	6-600-446-01	IC RPM7240-H18			
C672	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V						

HCD-EC50

Ver. 1.3

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< JUMPER RESISTOR >				R676	1-216-837-11	METAL CHIP 22K 5%	1/10W
JR701	1-216-864-11	SHORT CHIP 0		R677	1-216-837-11	METAL CHIP 22K 5%	1/10W
JR702	1-216-864-11	SHORT CHIP 0		R678	1-216-817-11	METAL CHIP 470 5%	1/10W
JR703	1-216-864-11	SHORT CHIP 0		R679	1-216-837-11	METAL CHIP 22K 5%	1/10W
JR704	1-216-864-11	SHORT CHIP 0		R681	1-216-837-11	METAL CHIP 22K 5%	1/10W
< COIL >				R682	1-216-849-11	METAL CHIP 220K 5%	1/10W
L701	1-216-864-11	SHORT CHIP 0		R683	1-216-841-11	METAL CHIP 47K 5%	1/10W
L702	1-216-864-11	SHORT CHIP 0		R684	1-216-789-11	METAL CHIP 2.2 5%	1/10W
< LIQUID CRYSTAL DISPLAY >				R685	1-216-837-11	METAL CHIP 22K 5%	1/10W
LCD702	1-805-973-11	DISPLAY PANEL, LIQUID CRYSTAL		R686	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
< LED >				R687	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
LED701	6-501-139-01	DIODE SELU2B10A-SLF62 (BACK LIGHT)		R688	1-216-789-11	METAL CHIP 2.2 5%	1/10W
LED702	8-719-060-44	DIODE SLR-342VRT32		R689	1-216-833-11	METAL CHIP 10K 5%	1/10W
< TRANSISTOR >				R691	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q661	1-801-806-11	TR DTC144EKA		R692	1-216-817-11	METAL CHIP 470 5%	1/10W
Q662	8-729-040-76	TRANSISTOR KTA1273-Y-AT		R693	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q663	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R694	1-216-817-11	METAL CHIP 470 5%	1/10W
Q664	8-729-600-22	TRANSISTOR 2SA1235-F		R695	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q665	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF		R696	1-216-817-11	METAL CHIP 470 5%	1/10W
Q666	8-729-047-62	TRANSISTOR 2SC3440-T12-1F		R697	1-216-817-11	METAL CHIP 470 5%	1/10W
Q667	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF		R698	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q668	8-729-047-62	TRANSISTOR 2SC3440-T12-1F		R701	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q669	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF		R702	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q670	8-729-047-62	TRANSISTOR 2SC3440-T12-1F		R703	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
Q671	8-729-024-43	TRANSISTOR 2SA1365-T112-1EF		R704	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q672	8-729-047-62	TRANSISTOR 2SC3440-T12-1F		R705	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q701	8-729-600-22	TRANSISTOR 2SA1235-F		R706	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q702	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R707	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q703	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R708	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q704	1-801-806-11	TR DTC144EKA		R709	1-216-821-11	METAL CHIP 1K 5%	1/10W
Q705	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R710	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
Q706	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R711	1-216-837-11	METAL CHIP 22K 5%	1/10W
Q707	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R712	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
< RESISTOR >				R713	1-216-833-11	METAL CHIP 10K 5%	1/10W
R651	1-216-841-11	METAL CHIP 47K 5%	1/10W	R714	1-216-833-11	METAL CHIP 10K 5%	1/10W
R652	1-216-841-11	METAL CHIP 47K 5%	1/10W	R715	1-216-821-11	METAL CHIP 1K 5%	1/10W
R653	1-216-841-11	METAL CHIP 47K 5%	1/10W	R716	1-216-821-11	METAL CHIP 1K 5%	1/10W
R657	1-216-853-11	METAL CHIP 470K 5%	1/10W	R717	1-216-821-11	METAL CHIP 1K 5%	1/10W
R661	1-216-841-11	METAL CHIP 47K 5%	1/10W	R718	1-216-821-11	METAL CHIP 1K 5%	1/10W
R662	1-216-841-11	METAL CHIP 47K 5%	1/10W	R719	1-216-821-11	METAL CHIP 1K 5%	1/10W
R663	1-216-841-11	METAL CHIP 47K 5%	1/10W	R721	1-216-817-11	METAL CHIP 470 5%	1/10W
R664	1-216-841-11	METAL CHIP 47K 5%	1/10W	R722	1-216-849-11	METAL CHIP 220K 5%	1/10W
R665	1-216-841-11	METAL CHIP 47K 5%	1/10W	R723	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R666	1-216-817-11	METAL CHIP 470 5%	1/10W	R724	1-216-821-11	METAL CHIP 1K 5%	1/10W
R667	1-216-841-11	METAL CHIP 47K 5%	1/10W	R725	1-216-821-11	METAL CHIP 1K 5%	1/10W
R668	1-216-817-11	METAL CHIP 470 5%	1/10W	R726	1-216-845-11	METAL CHIP 100K 5%	1/10W
R669	1-216-841-11	METAL CHIP 47K 5%	1/10W	R727	1-216-864-11	SHORT CHIP 0	
R670	1-216-817-11	METAL CHIP 470 5%	1/10W	R728	1-216-833-11	METAL CHIP 10K 5%	1/10W
R671	1-216-841-11	METAL CHIP 47K 5%	1/10W	R730	1-216-833-11	METAL CHIP 10K 5%	1/10W
R672	1-216-837-11	METAL CHIP 22K 5%	1/10W	R731	1-216-833-11	METAL CHIP 10K 5%	1/10W
R673	1-216-837-11	METAL CHIP 22K 5%	1/10W	R733	1-216-841-11	METAL CHIP 47K 5%	1/10W
R674	1-216-837-11	METAL CHIP 22K 5%	1/10W	R734	1-216-817-11	METAL CHIP 470 5%	1/10W
R675	1-216-837-11	METAL CHIP 22K 5%	1/10W	R735	1-216-821-11	METAL CHIP 1K 5%	1/10W
				R736	1-216-864-11	SHORT CHIP 0	
				R738	1-216-833-11	METAL CHIP 10K 5%	1/10W
				R739	1-216-833-11	METAL CHIP 10K 5%	1/10W
				R742	1-216-821-11	METAL CHIP 1K 5%	1/10W
				R743	1-216-821-11	METAL CHIP 1K 5%	1/10W

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R744	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	SW704	1-762-875-21	SWITCH, KEYBOARD (☐+)	
R745	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	SW705	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)	
R746	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	SW706	1-762-875-21	SWITCH, KEYBOARD (EQ)	
R747	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	SW708	1-762-875-21	SWITCH, KEYBOARD (▲)	
R748	1-216-841-11	METAL CHIP	47K 5% 1/10W	SW709	1-762-875-21	SWITCH, KEYBOARD (DISC1)	
R749	1-216-821-11	METAL CHIP	1K 5% 1/10W	SW710	1-762-875-21	SWITCH, KEYBOARD (DISC2)	
R750	1-216-821-11	METAL CHIP	1K 5% 1/10W	SW711	1-762-875-21	SWITCH, KEYBOARD (STOP ■)	
R751	1-216-845-11	METAL CHIP	100K 5% 1/10W	SW712	1-762-875-21	SWITCH, KEYBOARD (TUNING -/I<<</<<<)	
R753	1-216-809-11	METAL CHIP	100 5% 1/10W	SW713	1-762-875-21	SWITCH, KEYBOARD (TUNING +/D>>>/>>>)	
R754	1-216-833-11	METAL CHIP	10K 5% 1/10W	SW714	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)	
R755	1-216-864-11	SHORT CHIP	0	SW715	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)	
R756	1-216-821-11	METAL CHIP	1K 5% 1/10W	SW716	1-762-875-21	SWITCH, KEYBOARD (CD ▶▶)	
R757	1-216-845-11	METAL CHIP	100K 5% 1/10W	SW719	1-762-875-21	SWITCH, KEYBOARD (DISC 3)	
R758	1-216-821-11	METAL CHIP	1K 5% 1/10W	SW720	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)	
R759	1-216-809-11	METAL CHIP	100 5% 1/10W	SW721	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE/TUNING MODE)	
R760	1-216-845-11	METAL CHIP	100K 5% 1/10W			< VIBRATOR >	
R761	1-216-841-11	METAL CHIP	47K 5% 1/10W	X701	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	
R762	1-216-833-11	METAL CHIP	10K 5% 1/10W	X702	1-795-054-51	VIBRATOR, CERAMIC (4.19MHz)	
R763	1-216-837-11	METAL CHIP	22K 5% 1/10W			*****	
R764	1-216-837-11	METAL CHIP	22K 5% 1/10W	A-1144-825-A	PT BOARD, COMPLETE (US, CND)		
R765	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	A-1169-506-A	PT BOARD, COMPLETE (E3, SP)		
R766	1-216-837-11	METAL CHIP	22K 5% 1/10W	A-1169-507-A	PT BOARD, COMPLETE (AUS)		
R767	1-216-833-11	METAL CHIP	10K 5% 1/10W	A-1169-540-A	PT BOARD, COMPLETE (AEP, UK, CET)		
			(KR)	A-1181-750-A	PT BOARD, COMPLETE (KR)		
R767	1-216-849-11	METAL CHIP	220K 5% 1/10W			*****	
			(EXCEPT KR)			< CAPACITOR >	
R768	1-216-833-11	METAL CHIP	10K 5% 1/10W	C051	1-165-621-91	CERAMIC CHIP 0.1uF	50V
R769	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	C052	1-164-156-11	CERAMIC CHIP 0.1uF	25V
R770	1-216-841-11	METAL CHIP	47K 5% 1/10W	C053	1-100-385-91	CERAMIC CHIP 0.47uF	25V
R771	1-216-821-11	METAL CHIP	1K 5% 1/10W	C054	1-100-385-91	CERAMIC CHIP 0.47uF	25V
R772	1-216-817-11	METAL CHIP	470 5% 1/10W	C055	1-100-385-91	CERAMIC CHIP 0.47uF	25V
R773	1-216-833-11	METAL CHIP	10K 5% 1/10W			< DIODE >	
R774	1-216-837-11	METAL CHIP	22K 5% 1/10W	D051	8-719-000-07	DIODE MC2836	
R775	1-216-841-11	METAL CHIP	47K 5% 1/10W	D052	6-500-335-01	DIODE MC2838-T112-1	
R776	1-216-821-11	METAL CHIP	1K 5% 1/10W			< COIL >	
R777	1-216-817-11	METAL CHIP	470 5% 1/10W	△L001	1-402-663-11	TRANSFORMER, LINE FILTER (LFT)	
R778	1-216-821-11	METAL CHIP	1K 5% 1/10W			< TRANSFORMER >	
R779	1-216-809-11	METAL CHIP	100 5% 1/10W	△PT002	1-443-846-11	TRANSFORMER, POWER (US, CND)	
R780	1-216-841-11	METAL CHIP	47K 5% 1/10W	△PT002	1-443-912-11	TRANSFORMER, POWER (AEP, UK, CET)	
R781	1-216-833-11	METAL CHIP	10K 5% 1/10W	△PT002	1-443-913-11	TRANSFORMER, POWER (E3, SP, KR, AUS)	
			(US, CND, E3, SP, KR, AUS)			< RESISTOR >	
R782	1-216-821-11	METAL CHIP	1K 5% 1/10W	R051	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
			(E3, SP, KR, AUS)	R052	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
R782	1-216-864-11	SHORT CHIP	0 (AEP, UK, CET)			< RELAY >	
R783	1-216-821-11	METAL CHIP	1K 5% 1/10W	△RY001	1-755-334-11	RELAY, AC POWER (US, CND, AEP, UK, CET)	
			(AEP, UK, CET)	△RY002	1-755-496-11	RELAY (E3, SP, KR, AUS)	
R783	1-216-825-11	METAL CHIP	2.2K 5% 1/10W			< SWITCH >	
			(E3, SP, KR, AUS)	△S001	1-786-408-11	SELECTOR, VOLTAGE (SWS-2301)	
R784	1-216-845-11	METAL CHIP	100K 5% 1/10W			(VOLTAGE SELECTOR)(E3, SP)	
R785	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R786	1-216-797-11	METAL CHIP	10 5% 1/10W				
R787	1-216-805-11	METAL CHIP	47 5% 1/10W				
R788	1-216-864-11	SHORT CHIP	0				
			< SWITCH >				
SW700	1-786-417-11	ENCODER, ROTARY (VOLUME)					
SW701	1-762-875-21	SWITCH, KEYBOARD (1/☐)					
SW702	1-762-875-21	SWITCH, KEYBOARD (DSGX)					
SW703	1-762-875-21	SWITCH, KEYBOARD (☐-)					

HCD-EC50

PT **TRANSISTOR**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
		< CABLE HOLDER >	
CNJ151	1-819-972-11	HOLDER, CABLE 8P	

	A-1146-444-A	TRANSISTOR BOARD, COMPLETE	

		< CAPACITOR >	
C118	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C119	1-100-566-91	CERAMIC CHIP	0.1uF 10% 25V
		< IC >	
IC101	8-759-701-59	IC NJM78M09FA	
		< CABLE HOLDER >	
WH103	1-824-027-21	HOLDER, CABLE 3P	

MEMO

