

HCD-EC69i/EC79i/EC99i

SERVICE MANUAL

Ver. 1.1 2009.05

US Model
Canadian Model
UK Model
Australian Model



Photo: HCD-EC69i

- HCD-EC69i is the amplifier, CD player, tuner and iPod section in MHC-EC69i.
- HCD-EC79i is the amplifier, CD player, tuner and iPod section in MHC-EC79i.
- HCD-EC99i is the amplifier, CD player, tuner and iPod section in MHC-EC99i.

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Model Name Using Similar Mechanism	CDM76A-K6BD90-WOD	NEW
Mechanism Type	EC79i: UK, Australian/EC99i	CDM76A-K6BD90-WOD
Base Unit Name	EC69i/EC79i: US, Canadian	BU-K8BD90-WOD
	EC79i: UK, Australian/EC99i	BU-K6BD90-WOD
Optical Pick-up Block Name	EC69i/EC79i: US, Canadian	KSM-213CDP
	EC79i: UK, Australian/EC99i	KSM-213DCP

SPECIFICATIONS

Main unit

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
(HCD-EC99i, HCD-EC79i The United States model only)

Low channel:

With 8 ohm loads, both channels driven, from 120 ~ 10,000 Hz; rated 60 watts per channel minimum RMS power, with no more than 0.7% total harmonic distortion from 250 milliwatts to rated output.

High channel:

With 8 ohm loads, both channels driven, from 2,000 ~ 13,000 Hz; rated 60 watts per channel minimum RMS power, with no more than 0.7% total harmonic distortion from 250 milliwatts to rated output.

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
(HCD-EC69i The United States model only)

With 8 ohm loads, both channels driven, from 120 ~ 10,000 Hz; 30 watts per channel minimum RMS power, with no more than 0.7% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

HCD-EC99i

Front Speaker

RMS output power (reference):

Low channel 95 W + 95 W (per channel at 8 Ω, 1 kHz, 10% THD)

High channel

95 W + 95 W (per channel at 8 Ω, 8 kHz, 10% THD)

Subwoofer

RMS output power (reference):

150 W (at 4 Ω, 80 Hz, 10% THD)

HCD-EC79i

RMS output power (reference):

Low channel 95 W + 95 W (per channel at 8 Ω, 1 kHz, 10% THD)

High channel

95 W + 95 W (per channel at 8 Ω, 8 kHz, 10% THD)

HCD-EC69i

RMS output power (reference):

50 W + 50 W (per channel at 6 Ω, 1 kHz, 10% THD)

Inputs (except for HCD-EC69i)

PC IN (stereo mini jack); Sensitivity 800 mV, impedance 22 kilohms

Outputs

PHONES (stereo mini jack); Accepts headphones with an impedance of 8 Ω or more

SPEAKER: impedance

HCD-EC99i/EC79i: 8 Ω

HCD-EC99i: 6 Ω

SUBWOOFER OUT (HCD-EC99i only): impedance 4 Ω

CD player section

System: Compact disc and digital audio system

Laser Diode Protection: Continuous

Laser Output*: Less than 44 mW

* 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 88 dB

Tuner section

FM tuner: FM/AM superheterodyne tuner

Antennas:

FM lead antenna

AM loop antenna

FM tuner section:

Tuning range

North American model: 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

North American model:

530 ~ 1,710 kHz (with 10 kHz tuning interval)

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

Australian model:

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

530 ~ 1,710 kHz (with 9 kHz tuning interval)

UK model:

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

Intermediate frequency: 450 kHz

iPod section

Compatible iPod models:



iPod touch 2nd generation



iPod nano 4th generation (video)



iPod touch 1st generation



iPod nano 3rd generation (video)



iPod classic



iPod nano 2nd generation (aluminum)



iPod 5th generation (video)



iPod nano 1st generation



iPod 4th generation (color display)



iPod 4th generation



iPod mini

General

Power requirements:

North American model: AC 120 V, 60 Hz

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

UK model: AC 230 V, 50/60 Hz

Power consumption:

HCD-EC99i

250 W

(0.5 W at the Power Saving Mode)

HCD-EC79i

200 W

(0.5 W at the Power Saving Mode)

HCD-EC9i

80 W

(0.5 W at the Power Saving Mode)

Dimensions (w/h/d) (excl. speakers):

HCD-EC99i

Approx. 200 x 311 x 375 mm

HCD-EC79i (Australian and UK models only)

Approx. 200 x 311 x 375 mm

HCD-EC79i (North American model only)

Approx. 200 x 306 x 375 mm

Mass (excl. speakers):

HCD-EC99i

Approx. 6.2 kg

HCD-EC79i (Australian and UK models only)

Approx. 6.0 kg

HCD-EC79i (North American model only)

Approx. 5.7 kg

HCD-EC9i

Approx. 3.8 kg

Design and specifications are subject to change without notice.

COMPACT DISC RECEIVER

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 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.

CAUTION

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

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

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

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 microampères.). 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)

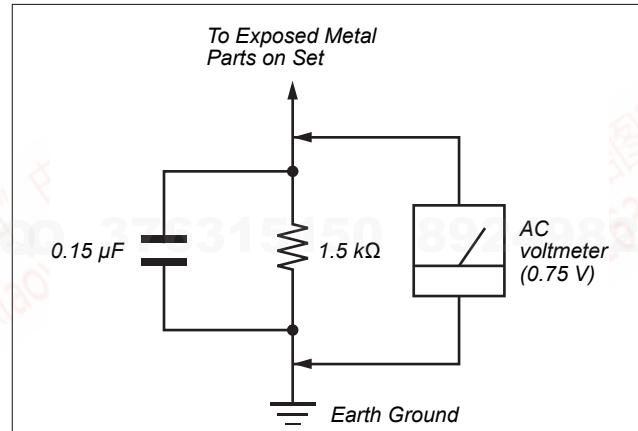


Fig. A. Using an AC voltmeter to check AC leakage.

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 COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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SECTION 1 SERVICING NOTES

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

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

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

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

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.

RELEASING THE DISC TRAY LOCK

(EC79i: UK, Australian/EC99i)

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

Releasing Procedure:

1. Press [I/O] button to turn the power on.
2. Press the [FUNCTION] button to select CD function.
3. While pressing the [■] button, press the [▲] button for more 5 seconds).
4. The message “UNLOCKED” is displayed and the disc tray is unlocked.

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

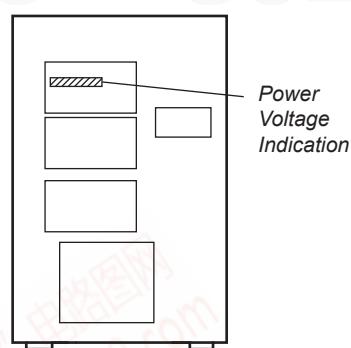
NOTE OF REPLACING THE LOADING BOARD

(EC79i: UK, Australian/EC99i)

When the LOADING board is damaged, exchange the entire CDM76A Assy.

MODEL IDENTIFICATION

- Back Panel -



Model	Power Voltage Indication
EC69i: US and Canadian model	120V ~ 60Hz 80W
EC69i: UK model	230V ~ 50/60Hz 80W
EC69i: Australian model	230~240V ~ 50/60Hz 80W
EC79i: US and Canadian model	120V ~ 60Hz 200W
EC79i: UK model	230V ~ 50/60Hz 200W
EC79i: Australian model	230~240V ~ 50/60Hz 200W
EC99i: US and Canadian model	120V ~ 60Hz 250W
EC99i: UK model	230V ~ 50/60Hz 250W
EC99i: Australian model	230~240V ~ 50/60Hz 250W

LASER DIODE AND FOCUS SEARCH OPERATION CHECK (EC69i/EC79i: US, Canadian models)

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper lid is closed while turning on the SW351. (push switch type)

The following checking method for the laser diode is operable.

• Method

Emission of the laser diode is visually checked.

1. Open the upper lid.

2. Push the SW351 as shown in Fig.1.

Note: Do not push the detection lever strongly, or it may be bent or damaged.

3. Check the object lens for confirming normal emission of the laser diode. If not emitting, there is a trouble in the automatic power control circuit or the optical pick-up.

In this operation, the object lens will move up and down 2 times along with inward motion for the focus search.

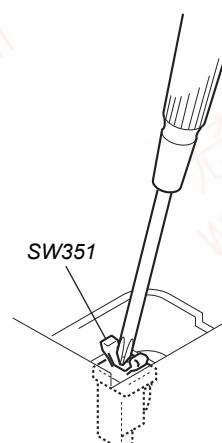
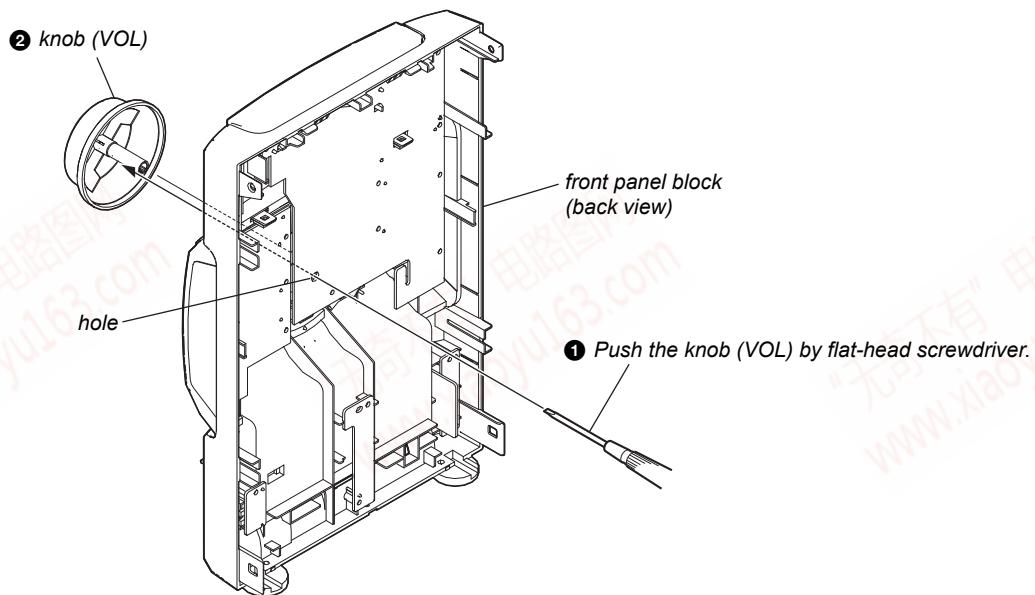


Fig. 1. Method to push the SW351

HOW TO REMOVE THE KNOB (VOL)

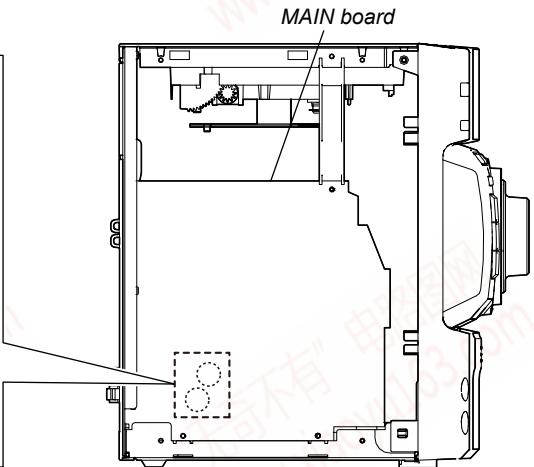
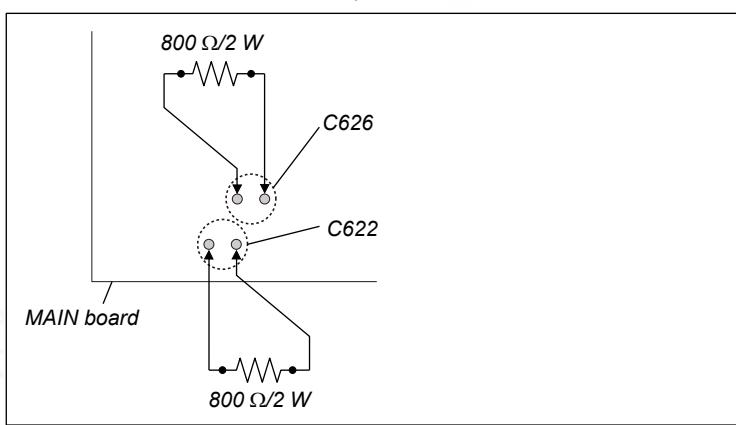
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CAPACITOR DISCHARGE FOR ELECTRIC SHOCK PREVENTION

Note: Please take out the top panel block and side panel (L/R) from a set refer to DISASSEMBLY (from Page 10).

In checking the MAIN board, make a capacitor discharge of C622 and C626 for electric shock prevention.

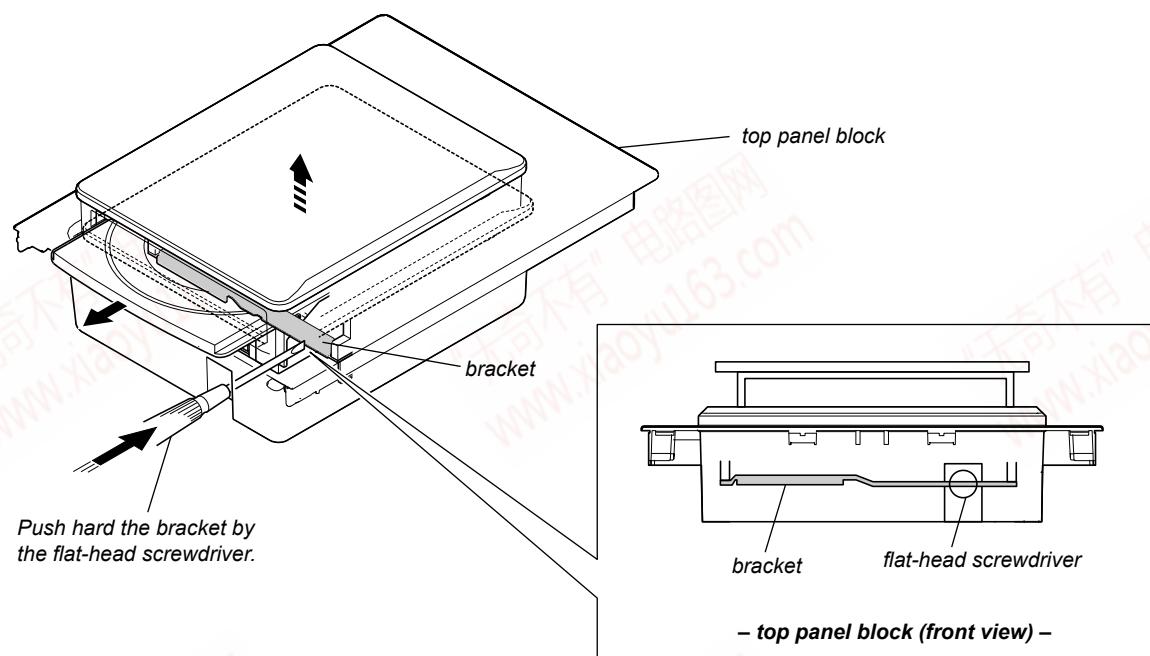


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HOW TO OPEN THE TRAY WHEN POWER SWITCH TURN OFF
(HCD-EC79i: UK, Australian/EC99i only)

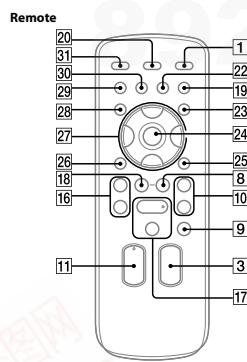
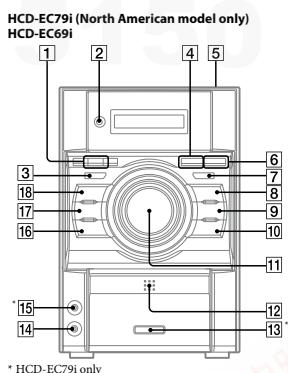
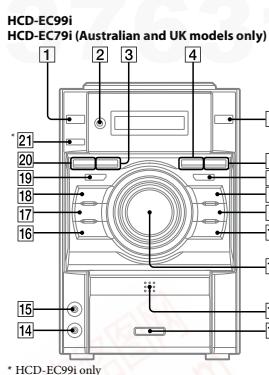
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Note: Please take out the top panel block from a set refer to DISASSEMBLY (from Page 15).



This section is extracted from instruction manual.

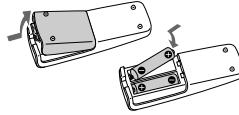
SECTION 2 GENERAL



This manual mainly explains operations using the remote, but the same operations can also be performed using the buttons on the unit having the same or similar names.

To use the remote

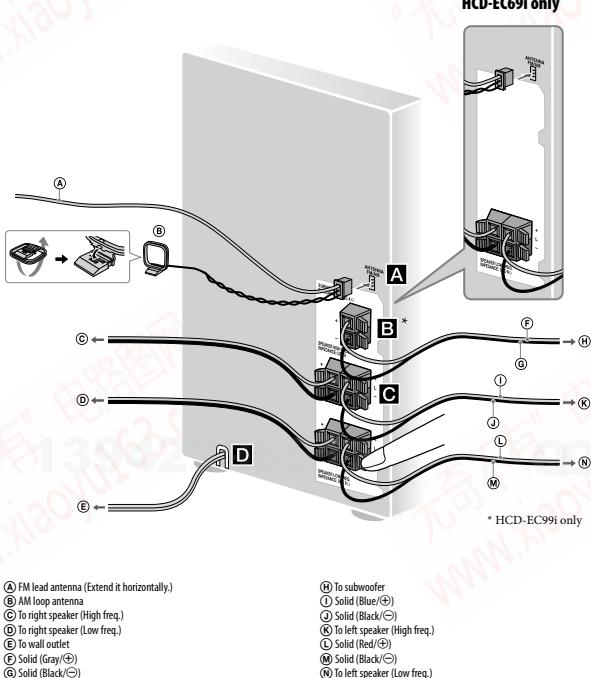
Slide and remove the battery compartment lid, and insert the two R6 (size AA) batteries (supplied, except for HCD-EC69i), **●** side first, matching the polarities shown below.



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.
- Batteries installed devices shall not be exposed to excessive heat such as sunshine, fire or the like.

Getting Started



A Antennas

Find a location and an orientation that provide good reception, and then set up the antenna.
Keep the antennas away from the speaker cords and the power cord to avoid picking up noise.

B Subwoofer (HCD-EC99i only)

Insert only the stripped portion of the cord.
Place the subwoofer vertically to obtain a better bass reproduction. Also, position the subwoofer:
—on a solid floor where resonance is unlikely to occur.
—at least a few centimeters away from the wall.
—away from the center of the room or place a bookshelf against a wall, to avoid generating a standing wave.

C Speakers

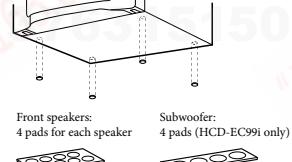
Insert only the stripped portion of the cord.

D Power

Connect the power cord to a wall outlet.
If the plug does not fit the wall outlet, detach the supplied plug adaptor (only for models equipped with an adaptor).

To attach the speaker pads

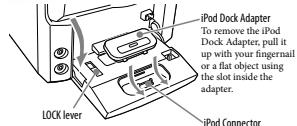
Attach the supplied speaker pads to the bottom of the front speakers and subwoofer to prevent slipping.



To use the iPod

Make sure the iPod indicator **[13]** lights up (except for HCD-EC69i).
Press PUSH **[12]** on the unit to flip-open the iPod Dock, slide the LOCK lever to the HOLD position, and insert an iPod Dock Adapter into the Dock before use.

For details on the iPod Dock Adapters, refer to the instructions supplied with the Dock Adapters.



Notes

- The iPod Dock Adapter is not supplied with the system.
- You can use the iPod only when the iPod indicator **[13]** lights up (except for HCD-EC69i).

To adjust the volume

Press VOLUME +/− (or turn the VOLUME control on the unit) **[11]**.

To connect an optional headphones

Connect headphones to the PHONES jack **[14]** on the unit.

To set the clock

Use buttons on the remote to set the clock.

- Press **I/O** (on/standby) **[1]** to turn on the system.
- Press TIMER MENU **[23]** to select the clock set mode. If "PLAY SET" flashes, press **Ⓐ** **Ⓑ** **㉗** repeatedly to select "CLOCK," and then press **①** (enter) **[24]**.
- Press **Ⓐ** **Ⓑ** **㉗** repeatedly to set the hour, and then press **①** **[24]**.
- Use the same procedure to set the minutes.

Notes

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

To display the clock when the system is off

Press DISPLAY **[20]**. The clock is displayed for about 8 seconds.

Tip
To reduce static noise on a weak FM stereo station, press FM MODE **[29]** repeatedly until "MONO" appears.

Presetting radio stations

Use buttons on the remote to preset stations.

- Tune in the desired station.
- Press TUNER MEMORY **[28]** to select the tuner memory mode.



- Press **+/-** **[16]** repeatedly to select the desired preset number.

If another station is already assigned to the selected preset number, the station is replaced by the new stations.

- Press **①** **[24]** to store the station.
- Repeat steps 1 through 4 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.

- To call up a preset radio station, press TUNING MODE **[29]** repeatedly until "PRESET" appears, and then press **+/-** **[16]** repeatedly to select the desired preset number.

Operations

Playing a CD/MP3 disc

- Select the CD function.
Press FUNCTION +/− **[3]** repeatedly (or CD **[4]** on the unit).

- Place a disc.

HCD-EC99i

HCD-EC79i (Australian and UK models only)

Press **▲** (open/close) **[5]** on the unit, and place a disc with the label side up on the disc tray.

To close the disc tray, press **▲** **[5]** on the unit.

Do not force the disc tray closed with your finger, as this may damage the unit.



Press **▲** PUSH OPEN/CLOSE **[5]** on the unit, and place a disc with the label side up on the CD compartment.

To close the CD compartment, press **▲** PUSH OPEN/CLOSE **[5]** on the unit.



- Start playback.
Press **▶** (play) or **▶■** (play/pause) on the unit) **[17]**.

To

Press

Pause playback **■** (pause) (or **▶■** (play/pause) on the unit) **[17]**. To resume play, press the button again.

Stop playback **■** (stop) **[9]**.

Select a folder on an MP3 disc **[2]** (select folder) + **[8]** **[-]** **[18]**.

Select a track or file **◀▶** (go back) **[16]** **▶▶** (go forward) **[10]**.

Find a point in a track or file Hold down **◀▶** (fast rewind) **[16]** **▶▶** (fast forward) **[10]** during playback, and release the button at the desired point.

Select Repeat Play REPEAT **[30]** repeatedly until "REP" or "REP1" appears.

To change the play mode

Press PLAY MODE **[29]** repeatedly while the player is stopped. You can select normal play ("▶") for all MP3 files in the folder on the unit), shuffle play ("SHUF" or "SHUF* for folder shuffle), or program play ("PGM").

When playing a CD-DA (audio) disc, "SHUF" Play performs the same operation as normal (SHUF Play).

Note on the CD compartment (HCD-EC79i (North American model only) and HCD-EC69i)

Do not open the CD compartment when "READING" appears or during playback, as this may cause a malfunction.

Notes on Repeat Play

All tracks or files on a disc are played repeatedly up to five times.

"REP1" indicates that a single track or file is repeated until you stop it.

Note on shuffle play mode

When you turn off the system, the selected shuffle play mode ("SHUF" or "SHUF") is cleared and the play mode returns to normal play mode ("▶").

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".

*Even when file name has the ".mp3" file extension, if the actual file differs, playing this file may generate a loud noise which damage the speaker system and the system may malfunction.

*The maximum number of folders is 150 (including the root folder).

*MP3 files and folders that can be contained on a single disc is 300.

*Folders (the tree structure of files) is 8.

*Compatibility with all MP3 encoding/writing software, recording devices, and recording media cannot be guaranteed. Incompatible MP3 discs may produce noise or interrupted audio or may not play at all.

Notes on playing multisession 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 disc.

Listening to the radio

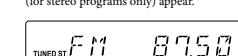
- Select "TUNER FM" or "TUNER AM".

Press FUNCTION +/− (or FUNCTION on the unit) **[3]** repeatedly.

- Perform tuning.

For automatic scanning

Press TUNING MODE **[29]** repeatedly until "AUTO" appears, and then press **⑩** **[-]** **[16]** (or TUNING + **⑩** **[-]** **[16]** on the unit). Scanning stops automatically when a station is tuned in, and "TUNED" and "ST" (for stereo programs only) appear.



If "TUNED" does not appear and the scanning does not stop, press **⑨** to stop scanning, then perform manual tuning (below).

For manual tuning

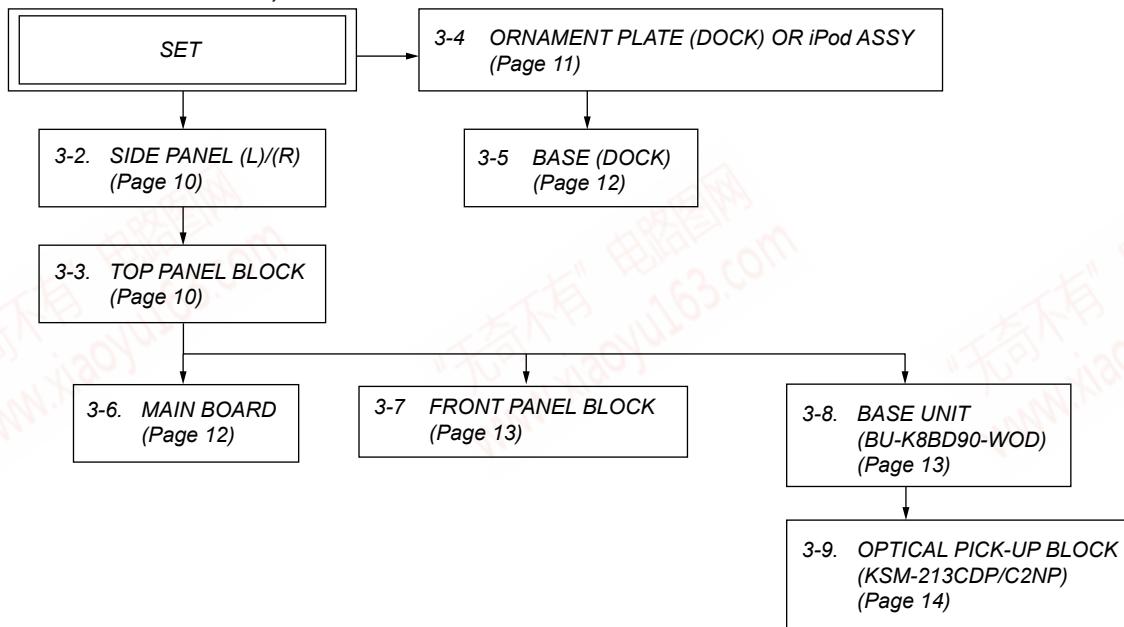
Press TUNING MODE **[29]** repeatedly until "MANUAL" appears, and then press **⑩** **[-]** **[16]** (or TUNING + **⑩** **[-]** **[16]** on the unit) repeatedly to tune in the desired station.

SECTION 3 DISASSEMBLY

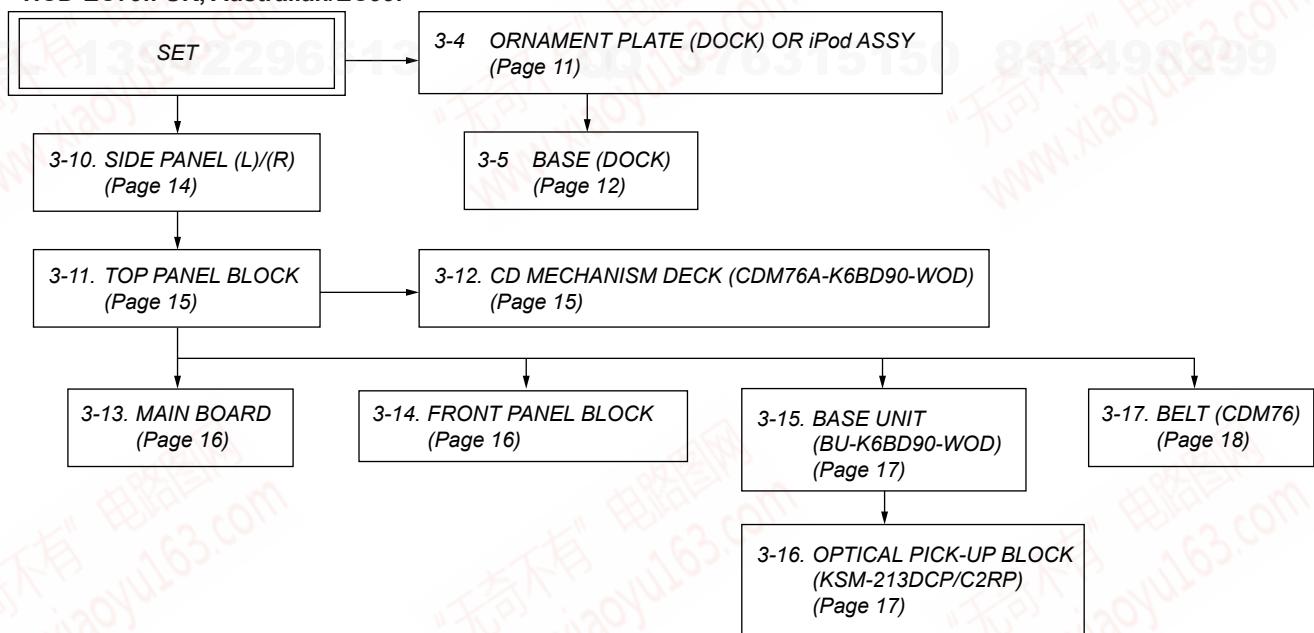
- This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

- HCD-EC69i/EC79i: US, Canadian

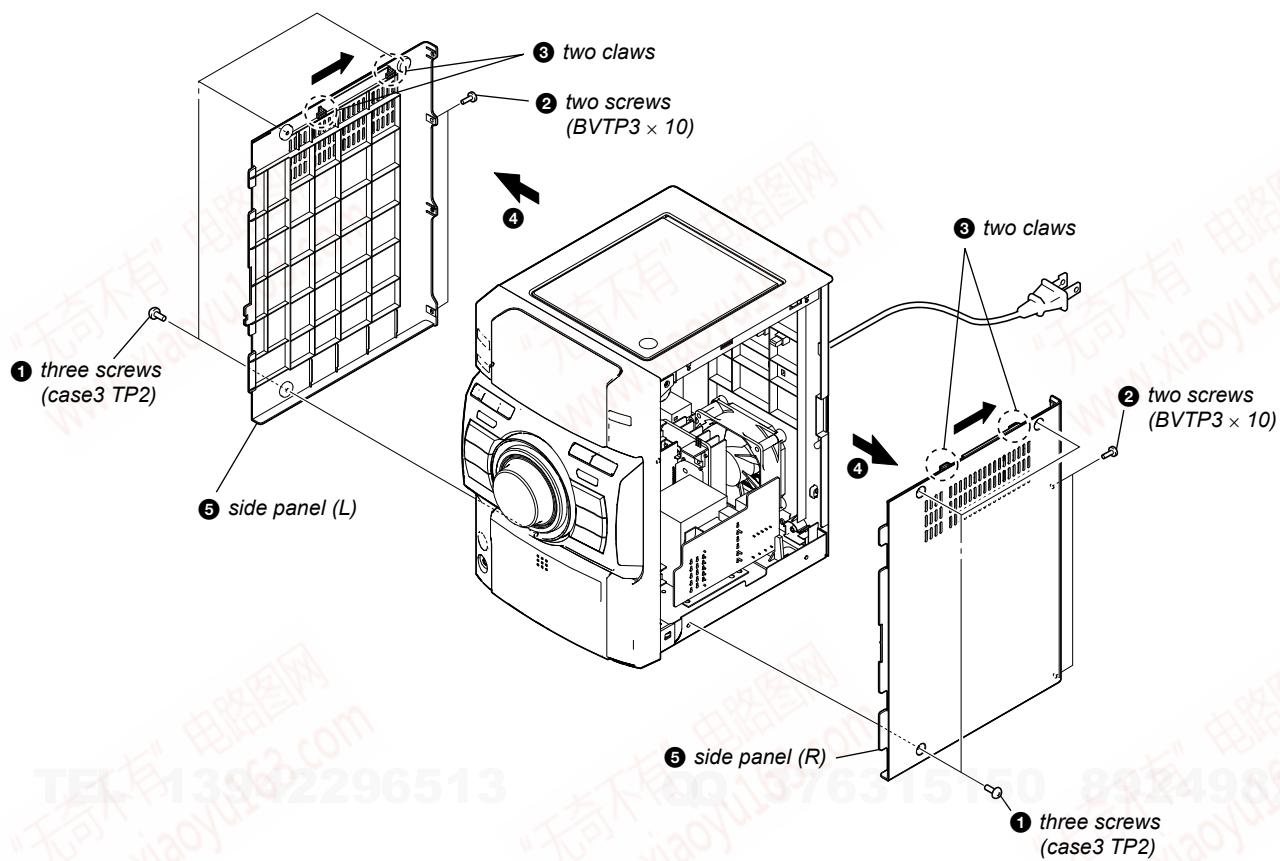


- HCD-EC79i: UK, Australian/EC99i

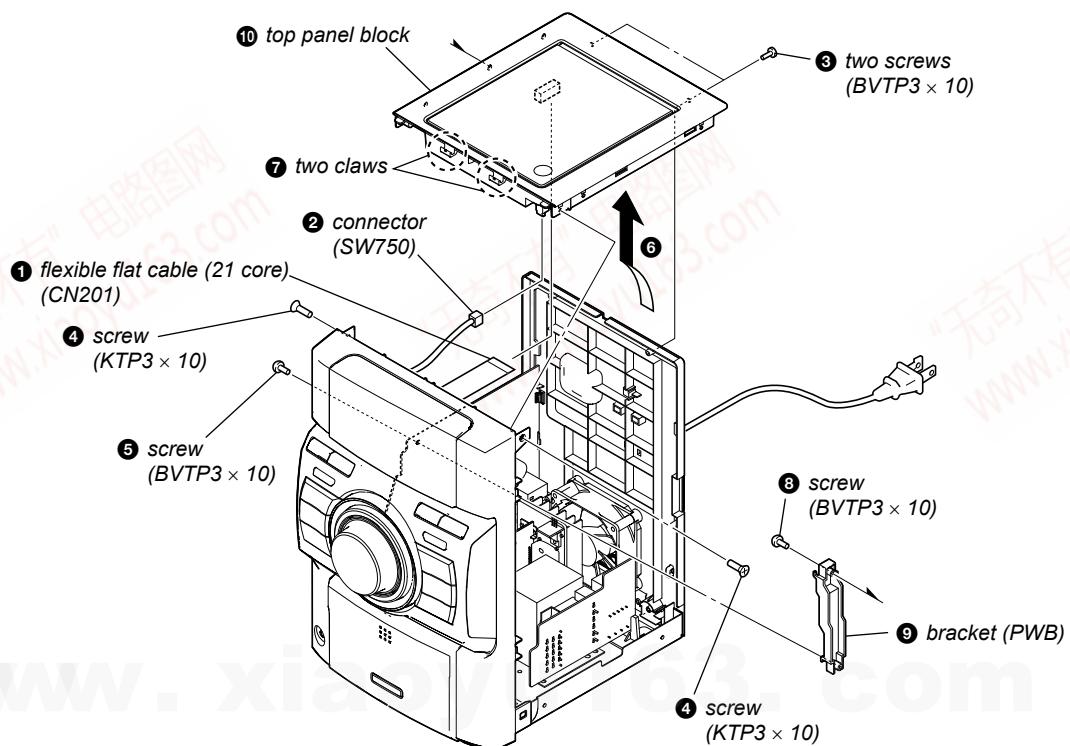


Note: Follow the disassembly procedure in the numerical order given.

3-2. SIDE PANEL (L)/(R) (HCD-EC69i/EC79i: US, Canadian)



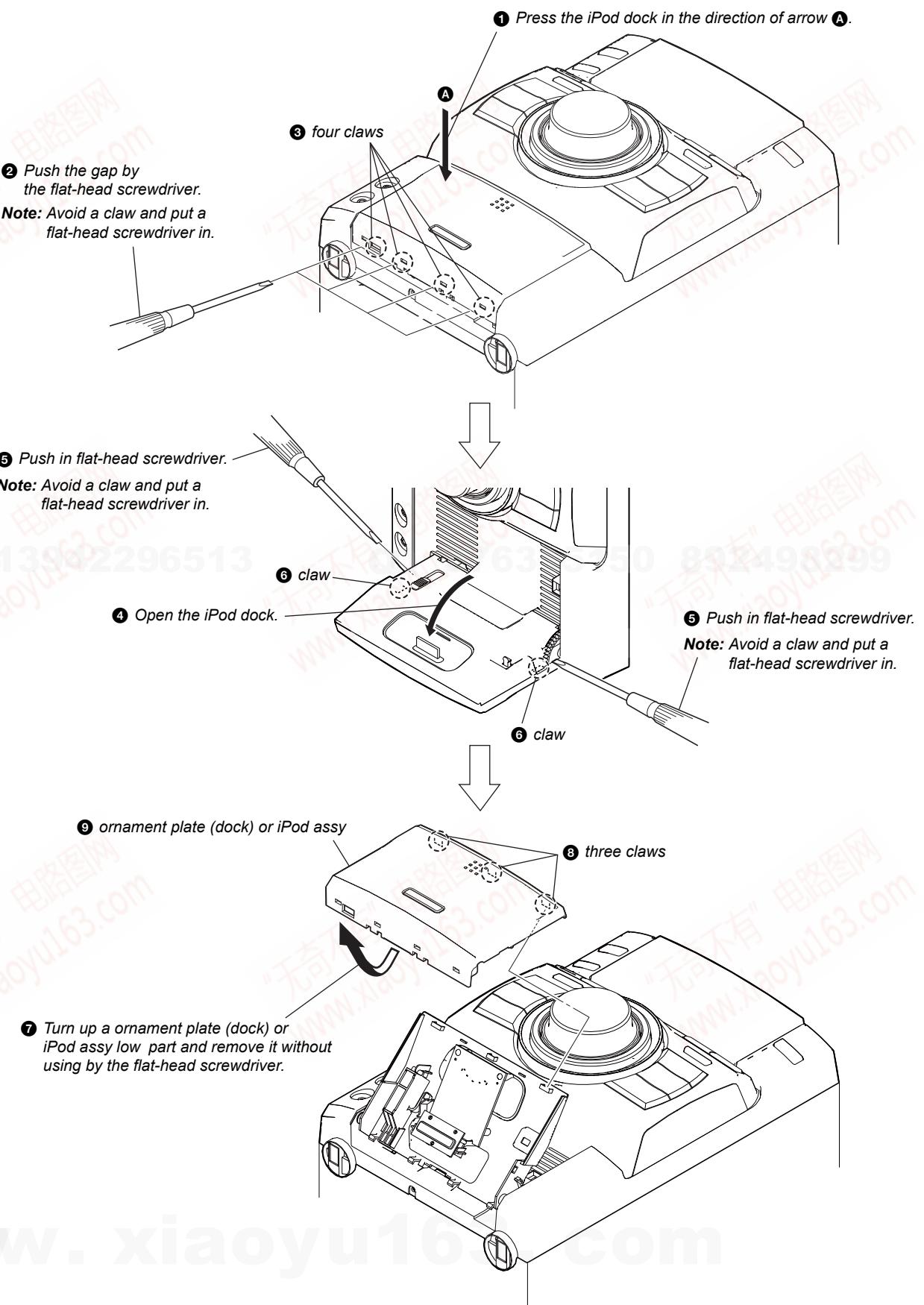
3-3. TOP PANEL BLOCK (HCD-EC69i/EC79i: US, Canadian)



3-4. ORNAMENT PLATE (DOCK) OR iPod ASSY

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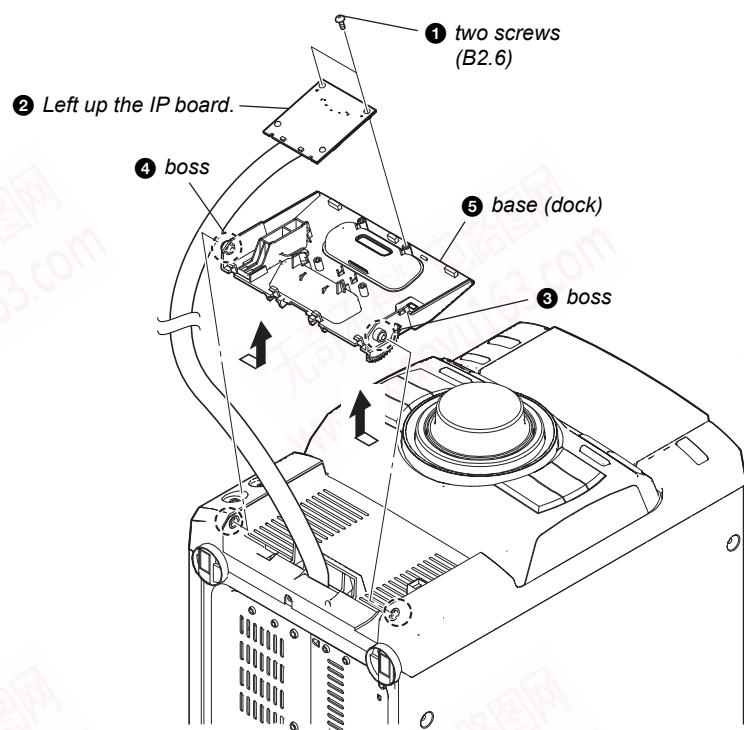
Note: This illustration sees the front panel from bottom side.



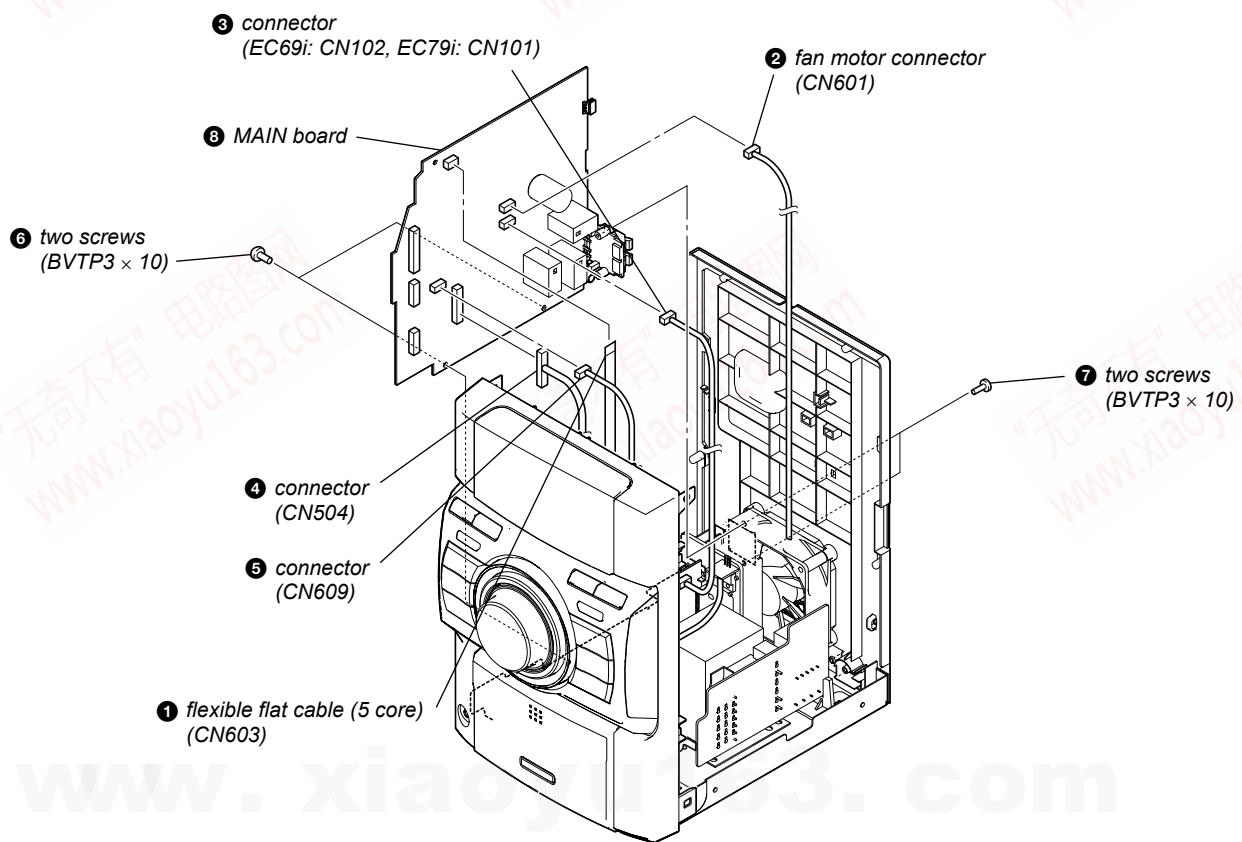
www.xiaoyu163.com

3-5. BASE (DOCK)

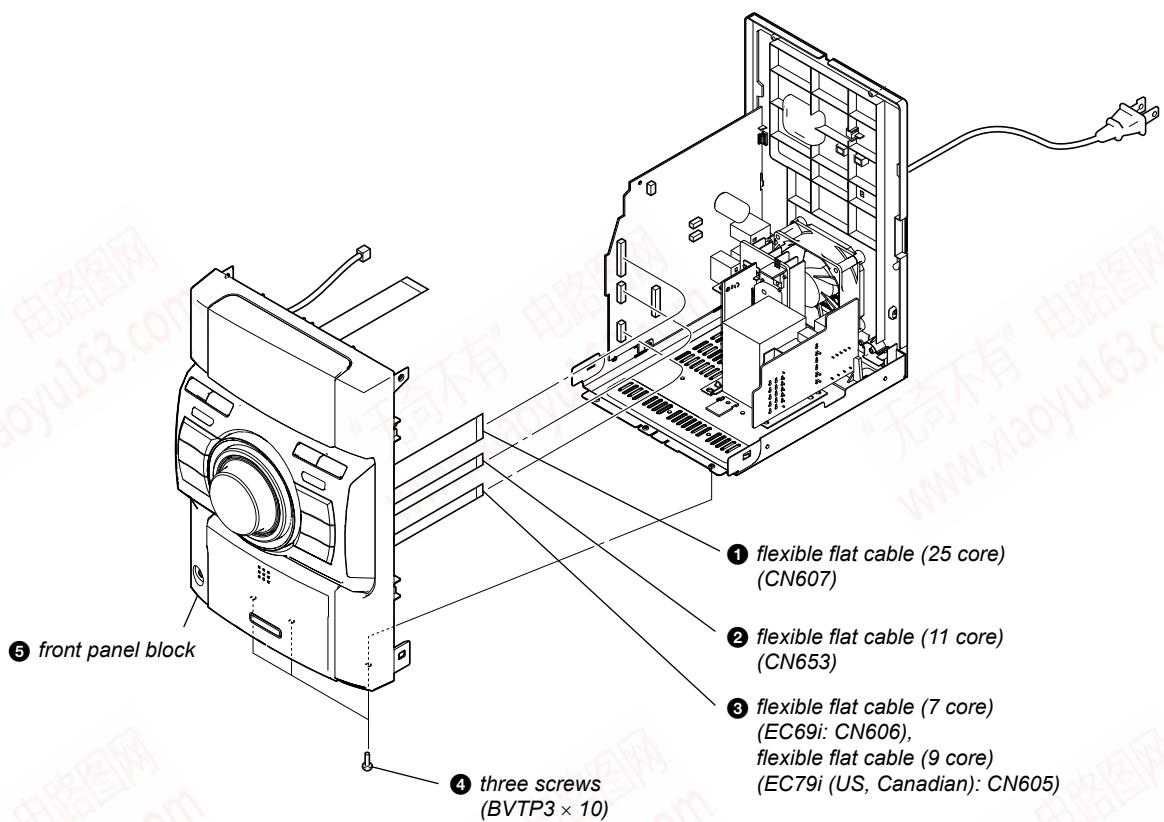
Note: This illustration sees the front panel from bottom side.



3-6. MAIN BOARD (HCD-EC69i/EC79i: US, Canadian)

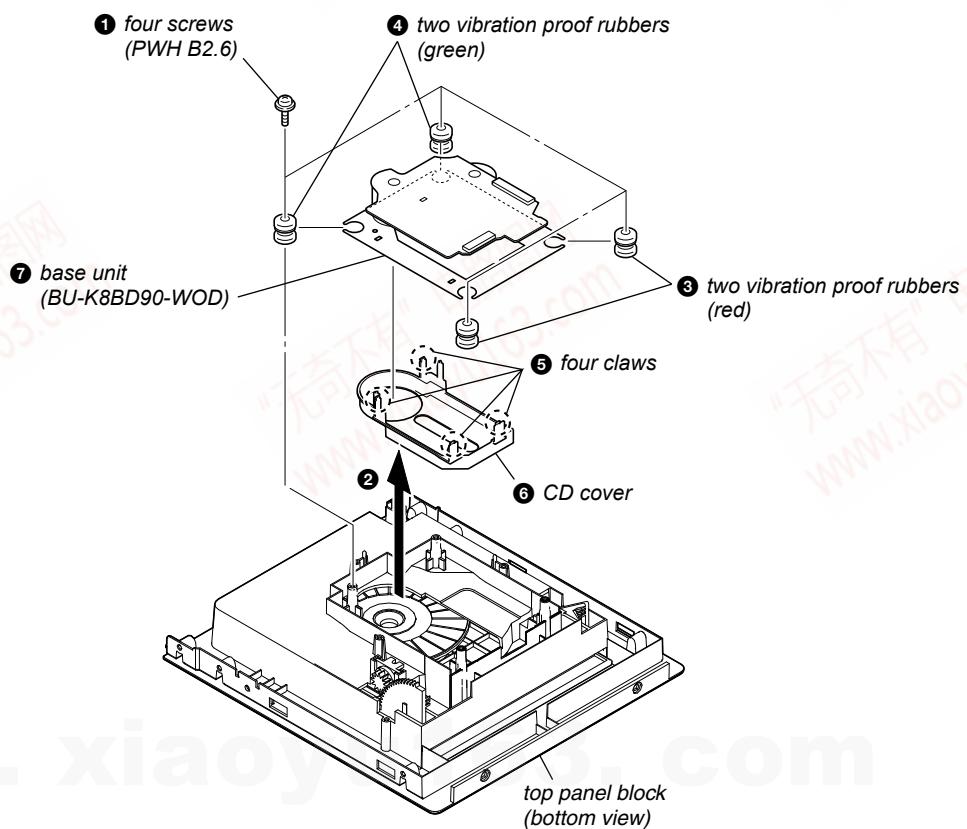


**3-7. FRONT PANEL BLOCK
(HCD-EC69i/EC79i: US, Canadian)**



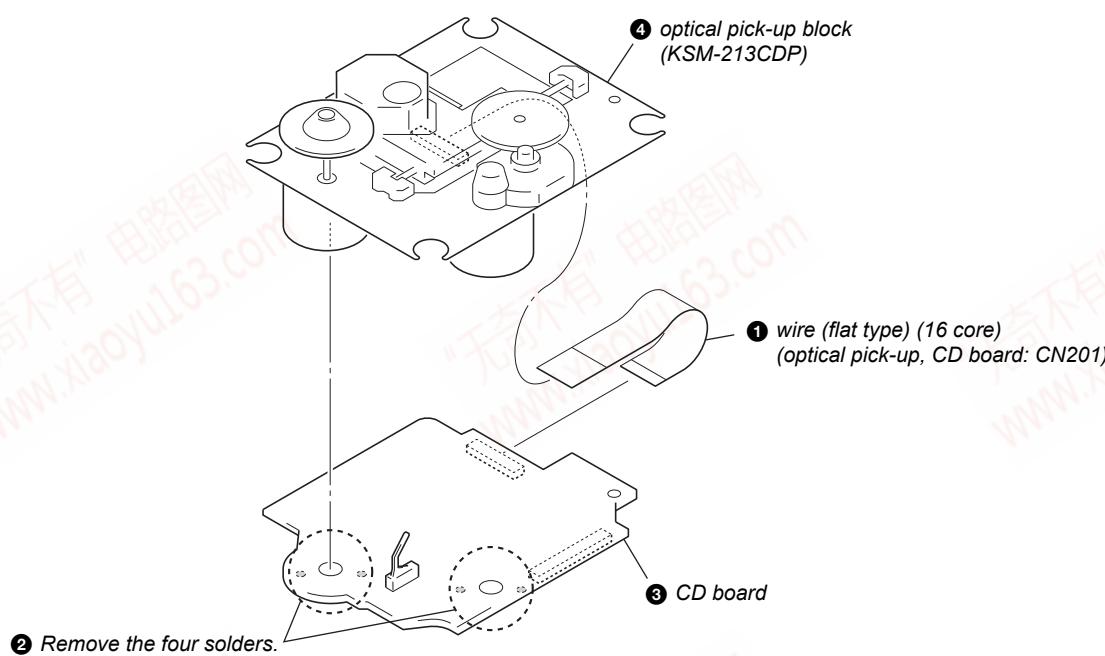
**3-8. BASE UNIT BLOCK (BU-K8BD90-WOD)
(HCD-EC69i/EC79i: US, Canadian)**

Note: This illustration sees the base unit from CD board side.

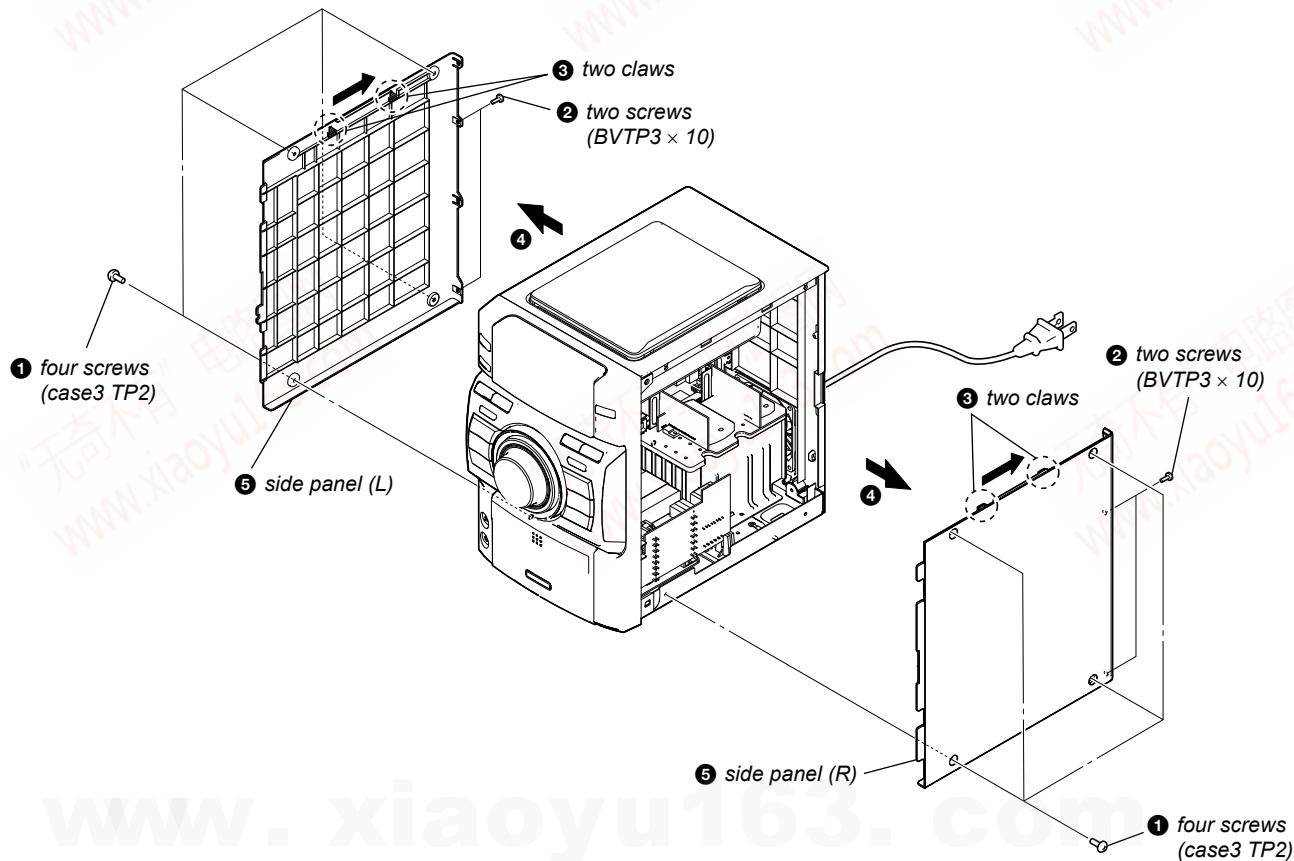


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3-9. OPTICAL PICK-UP BLOCK (KSM-213CDP)
(HCD-EC69i/EC79i: US, Canadian)

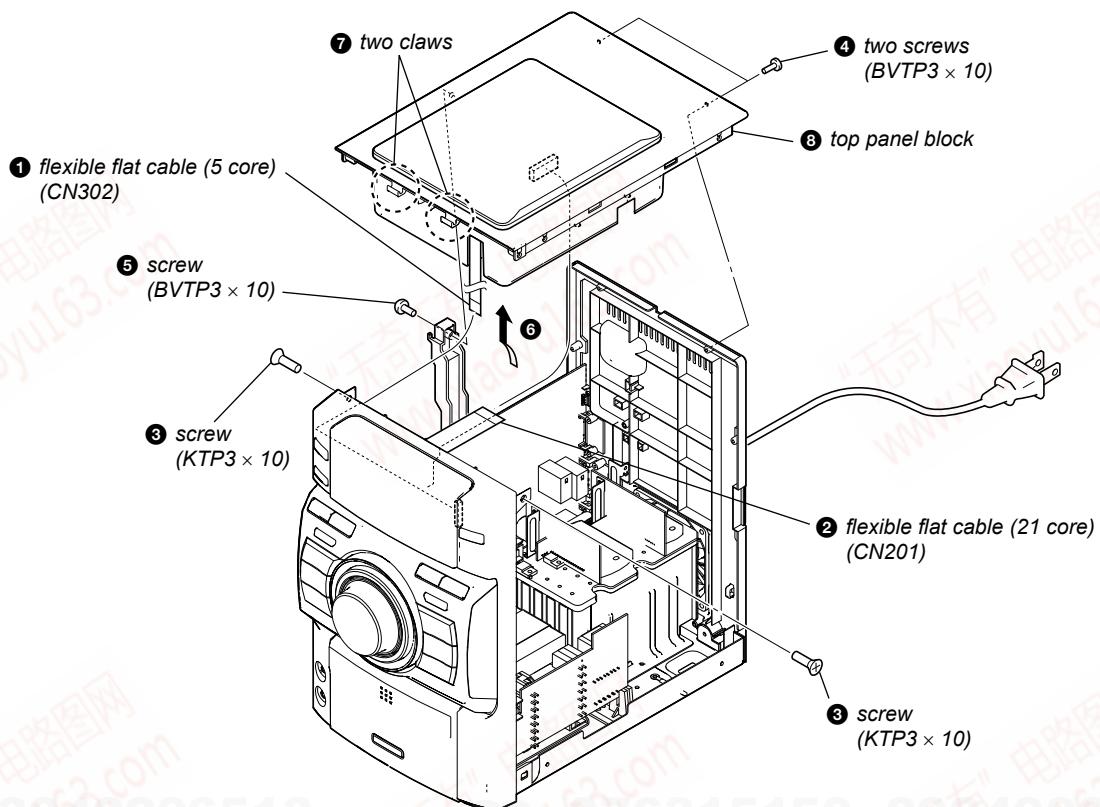


3-10. SIDE PANEL (L)/(R)
(HCD-EC79i: UK, Australian/EC99i)



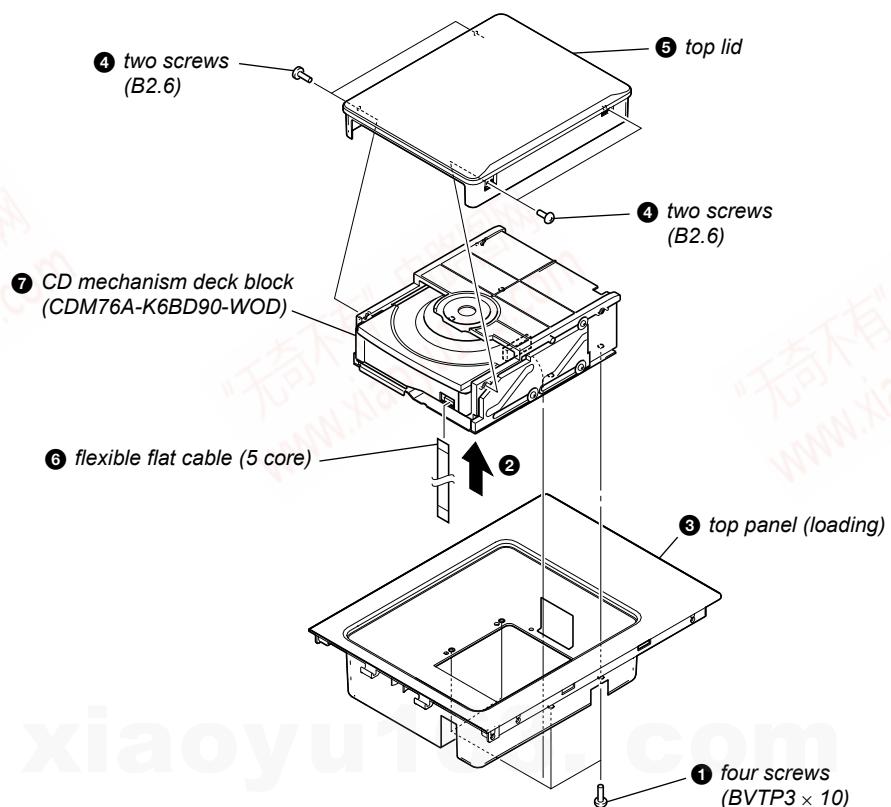
3-11. TOP PANEL BLOCK

(HCD-EC79i: UK, Australian/EC99i)

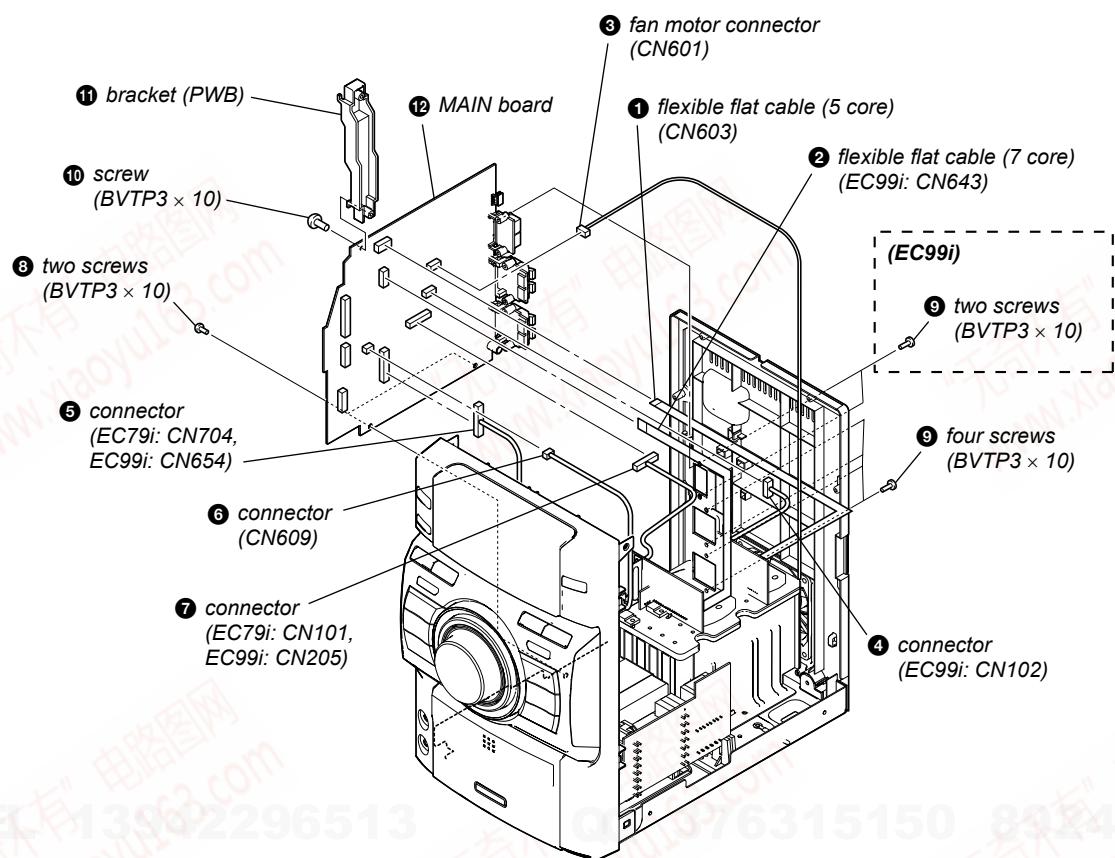


3-12. CD MECHANISM DECK (CDM76A-K6BD90-WOD)

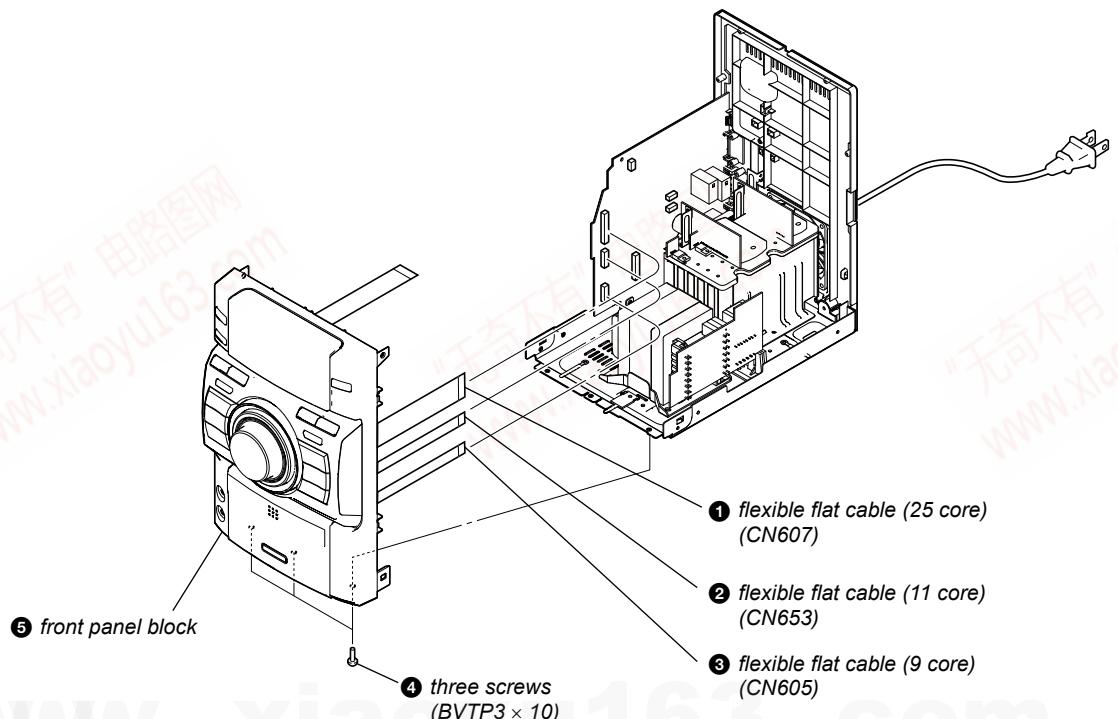
(HCD-EC79i: UK, Australian/EC99i)



3-13. MAIN BOARD
(HCD-EC79i: UK, Australian/EC99i)

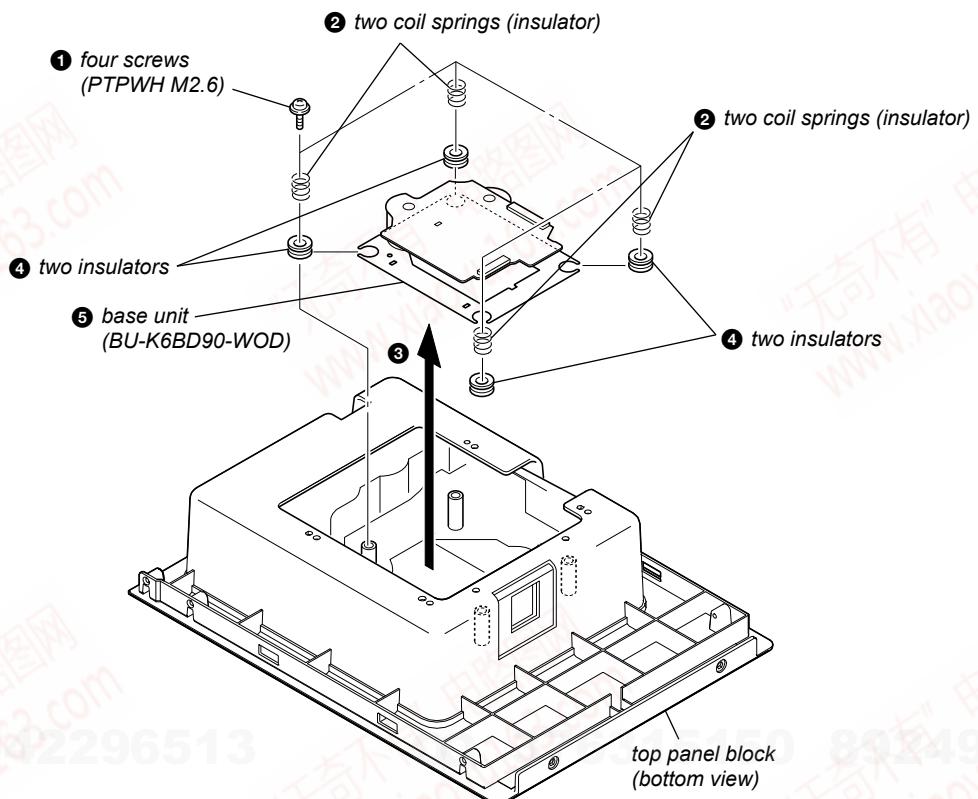


3-14. FRONT PANEL BLOCK
(HCD-EC79i: UK, Australian/EC99i)

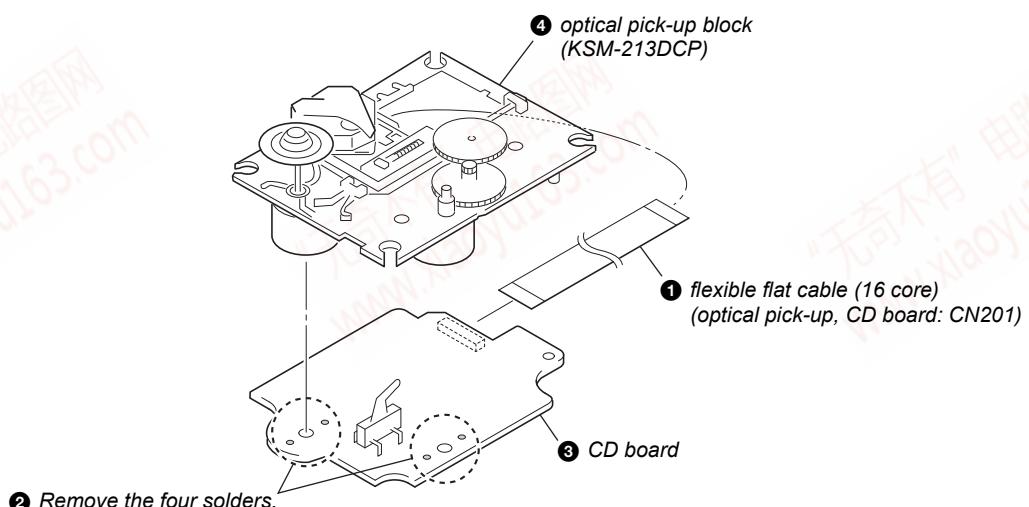


3-15. BASE UNIT (BU-K6BD90-WOD) (HCD-EC79i: UK, Australian/EC99i)

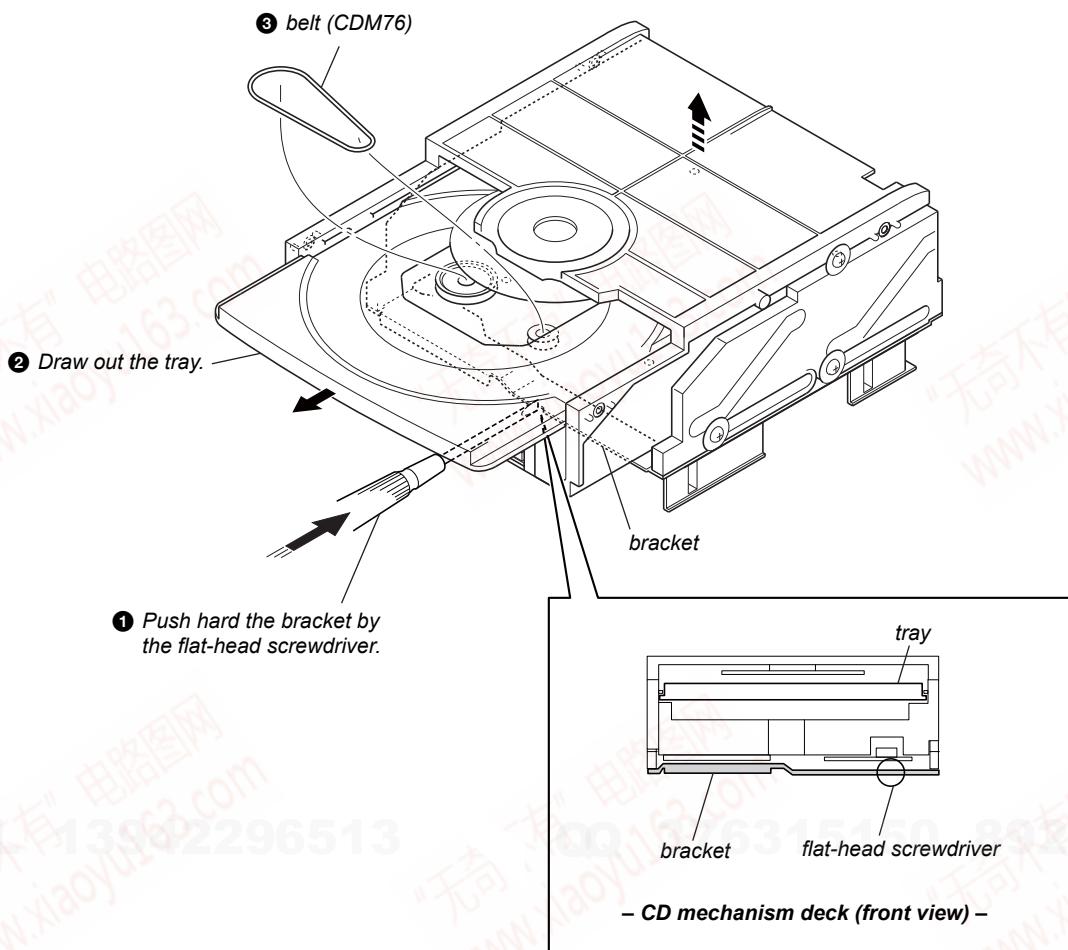
Note: This illustration sees the base unit from CD board side.



3-16. OPTICAL PICK-UP BLOCK (KSM-213DCP) (HCD-EC79i: UK, Australian/EC99i)



3-17. BELT (CDM76)
(HCD-EC79i: UK, Australian/EC99i)



SECTION 4 TEST MODE

COLD RESET

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

Procedure:

1. In the standby status, press the [I/O] button to turn the power on.
2. Press three buttons of [■], [CD] and [I/O] simultaneously.
3. When “RESET” appears, the set enters standby status.

PANEL TEST MODE

Enter The Panel Test Mode

Procedure:

1. In the standby status, press the [I/O] button to turn the power on.
2. Press three buttons of [■], [iPod] and [I/O] simultaneously (EC69i/EC79i: US, Canadian models).
Press three buttons of [DISPLAY], [■] and [iPod] simultaneously (EC79i: UK, Australian/EC99i).
3. When the panel test mode is activated, LEDs and segments of the liquid crystal display are all turned on.

Version Check

Procedure:

1. In the panel test mode (all LEDs and segments of the liquid crystal display are turned on), press the [FUNCTION] button.
2. On the liquid crystal display, date and version are displayed “xxxxxxxx”.
3. From this status, press the [▶▷] button, and the destination and model name are displayed.
4. To release from this mode, press three button of [■], [iPod] and [I/O] simultaneously (EC69i/EC79i: US, Canadian models).
To release from this mode, press three buttons of [DISPLAY], [■] and [iPod] simultaneously (EC79i: UK, Australian/EC99i).

Key Test Mode

Procedure:

1. In the panel test mode (all LEDs and segments of the liquid crystal display are turned on), press the [■] button.
2. The message “KEY0 0 0” displayed. Whenever any buttons are pressed and the [VOLUME] dial is turned, the value is changed.
3. To release from this mode, press three button of [■], [iPod] and [I/O] simultaneously (EC69i/EC79i: US, Canadian models).
To release from this mode, press three buttons of [DISPLAY], [■] and [iPod] simultaneously (EC79i: UK, Australian/EC99i).

CD REPEAT 5 LIMIT CANCEL MODE

Number of repeats for CD playback is 5 times when the repeat mode is “REPEAT”. This mode enables CD to repeat playback for limitless times.

Procedure:

1. Press the [I/O] button to turn the power on.
2. Press the [FUNCTION] button to select CD function.
3. Press three buttons of [■], [TUNING + ▶▶ ▷▷] and [I/O] simultaneously (EC69i/EC79i: US, Canadian models).
Press three buttons of [DISPLAY], [■] and [TUNING + ▶▶ ▷▷] simultaneously (EC79i: UK, Australian/EC99i).
4. It enters the CD repeat 5 limit cancel mode and displays “NO LIMIT”.
5. To release this mode, press the [I/O] button to turn the power off.

CD TRAY LOCK (EC79i: UK, Australian/EC99i)

This mode is for the antitheft of CD disc in shop. (not for transport)

Procedure:

1. Press the [I/O] button to turn the power on.
2. Press the [FUNCTION] button to select CD function.
3. Insert a disc.
4. While pressing the [■] button, press the [▲] button for more 5 seconds.
5. The message “LOCKED” is displayed and the disc tray is locked. (Even if exiting from this mode, the disc tray is still locked)
6. If press the [▲] button to eject the disc, the message “LOCKED” is displayed and can not eject the disc.
7. To release this lock, while pressing the [■] button, press the [▲] button for 5 seconds again.
8. The message “UNLOCKED” is displayed and the disc tray is unlocked.

CD POWER MANAGE

This mode is for switch the CD power supply on/off. Even if this state pulls out AC plug, it is held.

Procedure:

1. Press the [I/O] button to turn the power on.
2. Press the [FUNCTION] button to select CD function.
3. Press the [I/O] button again to turn the power off (standby).
4. After pressing the [DISPLAY] button on the remote commander, while pressing the [■] button, press the [I/O] button.
5. It turns power on and display “CD POWER”, then display “ON” or “OFF”.

CHANGE-OVER THE AM TUNING INTERVAL

(EC69i: US, Canadian, Australian/EC79i: US, Canadian, Australian/EC99i: US, Canadian and Australian models)

The AM tuning interval can be changed over 9 kHz or 10 kHz.

Procedure:

1. Press the [I/O] button to turn the power on.
2. Press the [FUNCTION] button to select TUNER (AM) function.
3. Press the [I/O] button again to turn the power off (standby).
4. After pressing the [DISPLAY] button on the remote commander, while pressing the [TUNING + ▶▶ ▷▷] button, press the [I/O] button.
5. It turns power on and display “9k STEP” or “10k STEP”, and thus the tuning interval is changed over.

CD SERVO TEST MODE

This mode can check the servo system operations of the optical pick-up system (= optical unit + CD board).

Note 1: Do not enter the this mode while any other test mode is in progress.

Note 2: Do not enter any other test mode while the this mode is in progress.

How to Enter the CD Servo Test Mode**Procedure:**

1. Press the [I/O] button to turn the power on.
2. Press the [FUNCTION] button to select CD function.
3. Press three buttons of [$\blacktriangleright\text{II}$], [TUNING + $\blacktriangleright\blacktriangleright$] and [I/O] simultaneously.
4. It enters the CD servo test mode and displays “BDT S CU”.

How to Exit from the CD Servo Test Mode**Procedure:**

1. Press three buttons of [$\blacktriangleright\text{II}$], [TUNING + $\blacktriangleright\blacktriangleright$] and [I/O] simultaneously.
2. It releases from the CD Servo Test Mode and returns to the ordinary CD function.

Key Operation:

[$\square +$], [$\square -$]:

Use these keys to move between the five modes contained in the CD Servo Test Mode, that are the S-Curve Mode, the RAM Read Mode, the RAM Write Mode, the Command Out Mode and the Error Rate Mode as described below. Also, use these keys to move between the menus within the respective five modes. When [$\square +$] is pressed, the screen advances to the next menu or to the next mode. When [$\square -$] is pressed, the screen returns back to the previous menu or to the previous mode. Use these keys also to increase or decrease the numeric value when changing the numeric value. Pressing [$\square +$] increases the value and pressing [$\square -$] decreases the value.

[DSGX], [iPod]:

Use these keys to move between the different layers of the hierarchy of the CD Servo Test Mode shown below. Press [DSGX] to move down to the lower layer, and press [iPod] to move up to the higher layer.

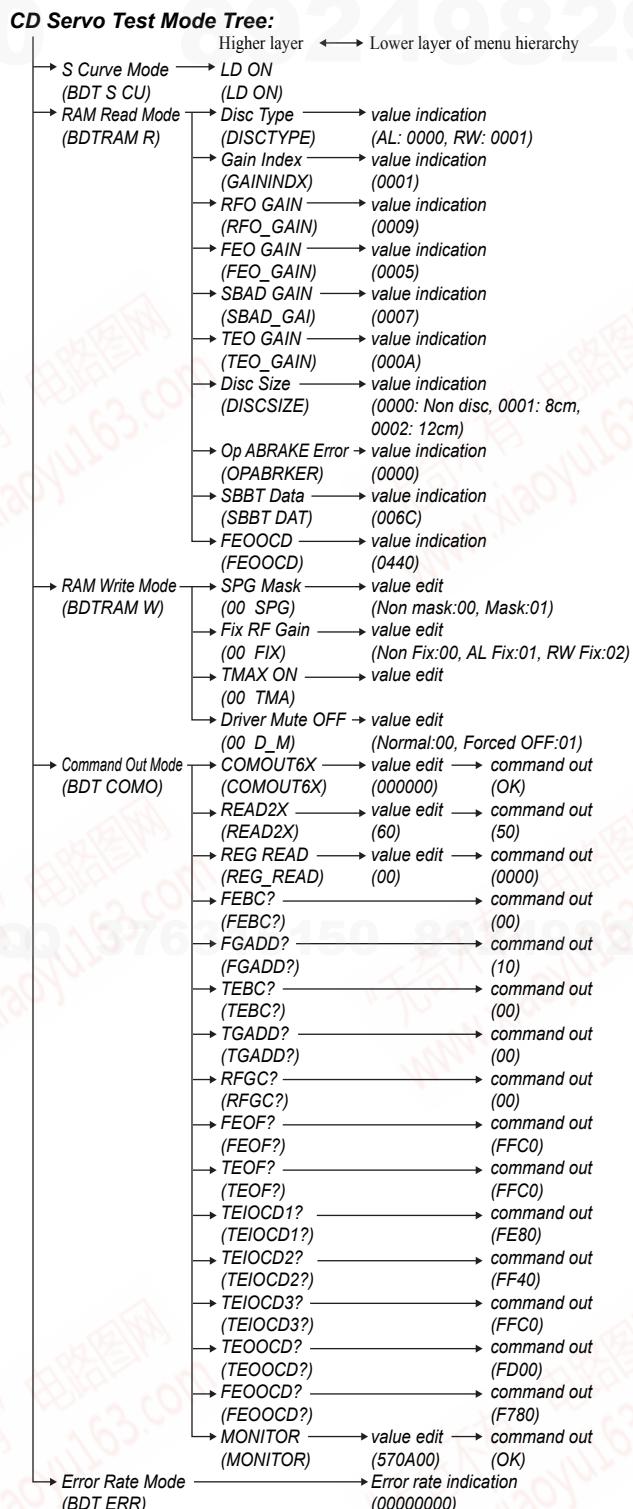
[TUNING + $\blacktriangleright\blacktriangleright$], [- TUNING $\blacktriangleleft\blacktriangleleft$]:

Use these keys to move the cursor to the right digit or to the left digit in the six-digit number, when changing the numeric value.

Press [TUNING + $\blacktriangleright\blacktriangleright$] to move the cursor to the right, and press [- TUNING $\blacktriangleleft\blacktriangleleft$] to return the cursor to the left.

[FUNCTION]:

Use this key to execute Command Out in the Command Out Mode.



CD SERVICE MODE

This mode can move the SLED of the optical pick-up, and also can turn the optical pick-up laser power on and off.

Procedure:

1. Press the [I/O] button to turn the power on.
2. Press three buttons of [▶▶], [□+] and [I/O] simultaneously.
3. Press the [FUNCTION] button to select CD function.
4. It enters the CD service mode and displays “SERVICE”.
5. To exit from this mode, press three buttons of [▶▶], [□+] and [I/O] simultaneously.

Key Operation:

[TUNING + ▶▶ ▷▷], [- TUNING ◁◁ ◁◁]:

Use these keys to move the SLED. When [TUNING + ▶▶ ▷▷] is pressed in this mode, the SLED moves to outer circumference and the message “SLED OUT” is displayed.

When [- TUNING ◁◁ ◁◁] is pressed in this mode, the SLED moves to inner circumference and the message “SLED IN” is displayed.

[DISPLAY]:

Use this key to turn the optical pick-up laser power on and off. When the laser power is turned on, the message “LD ON” is displayed. When the laser power is turned off, the message “LD OFF” is displayed.

CD ERROR CODE

The past errors of the optical pick-up system (= optical unit + CD board) are displayed as the BD Errors as shown below.

Procedure:

1. Press the [I/O] button to turn the power on.
2. Press the [FUNCTION] button to select CD function.
3. Press three buttons of [■], [DSGX] and [I/O] simultaneously (EC69i/EC79i: US, Canadian models). Press three buttons of [□+], [■] and [DISPLAY] simultaneously (EC79i: UK, Australian/EC99i).
4. Then, the BD error code is displayed as “D0xxxxxx” (x means hexadecimal number) on the liquid crystal display as shown below.
5. Every pressing of the [TUNING + ▶▶ ▷▷] button in this mode increments the number after “D” starting from “D0” up to “D9”, and then returns to “D0”. Every pressing of the [- TUNING ◁◁ ◁◁] button in this mode decrements the number after “D”. The smaller the error code number is, the newer the error content is.
6. To release from this mode, press the [I/O] button to turn the power off.

Contents of “BD Errors”

Error display example

D	<u>0</u>	02	09	01
①	②	③	④	

- ① It indicates the error history number

0 to 9: The error code number 0 indicates the newest error.

- ② It indicates the error content

- 01: The focus servo cannot lock-in.
- 02: GFS is no good (NG).
- 03: The startup time exceeds the specified period of time (time over)
- 04: The focus servo is unlocked continuously.
- 05: Q code cannot be obtained within the specified period of time.
- 06: The tracking servo cannot lock-in.
- 07: Blank disc

- ③ It indicates the on-going processing of optical pick-up system (= optical unit + CD board) when the trouble has occurred.

- 01: The CD SHIP mode processing is in progress.
- 02: The POWER OFF processing is in progress.
- 03: The INITIALIZE processing is in progress.
- 04: The optical pick-up system (= optical unit + CD board) is in the stop state.
- 05: The STOP operation is in progress.
- 06: The startup processing is in progress.
- 07: The TOC read-in processing is in progress.
- 08: The SEARCH operation is in progress.
- 09: The PLAY operation is in progress.
- 0A: The PAUSE operation is in progress.
- 0B: The PLAY – MANUAL SEARCH operation is in progress.
- 0C: The PAUSE – MANUAL SEARCH operation is in progress.

- ④ It indicates the operation that is being processed when the trouble has occurred.

It indicates the step number of each processing specified by ③. Because the numbers of steps are different in each processing, this number is different in each processing.

CD FACTORY MODE

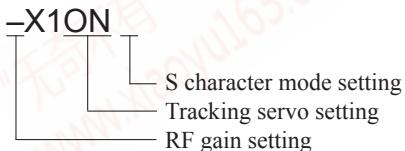
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Note 1: Do not enter the this mode while any other test mode is in progress.

Note 2: Do not enter any other test mode while the this mode is in progress.

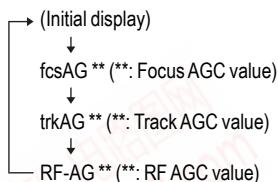
Procedure:

1. Press the [I/O] button to turn the power on.
2. Press the [FUNCTION] button to select CD function
3. Press three buttons of [$\text{▶} \text{II}$], [iPod] and [I/O] simultaneously.
4. It enters the CD factory mode and the message “FACTORY” is displayed. When the [CD] button is pressed four times, the following message (initial display) is displayed.

**Key Operation:**

[CD]:

The display changes in the following order whenever the button is pressed.



[DSGX]:

RF gain setting changes whenever the button is pressed.

“_”: No gain fixation.

“AL”: Fix to the gain for AL disc.

“RW”: Fix to the gain for RW disc.

[iPod]:

Tracking servo setting changes whenever the button is pressed.

“ON”: Tracking servo ON.

“OFF”: Tracking servo OFF.

[FUNCTION]:

S character mode setting changes whenever the button is pressed.

“ ”: S character mode OFF.

“S”: S character mode ON.

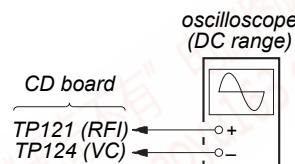
5. To release from this mode, press three buttons of [$\text{▶} \text{II}$], [iPod] and [I/O] simultaneously.

SECTION 5 ELECTRICAL ADJUSTMENTS

CD SECTION

- Note:**
- CD Block is basically constructed to operate without adjustment.
 - Use YEDS-18 disc (Part No. 3-702-101-01) unless otherwise indicated.
 - Use an oscilloscope with more than $10\text{ M}\Omega$ impedance.
 - Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
 - Check the focus bias check when optical pick-up block is replaced.

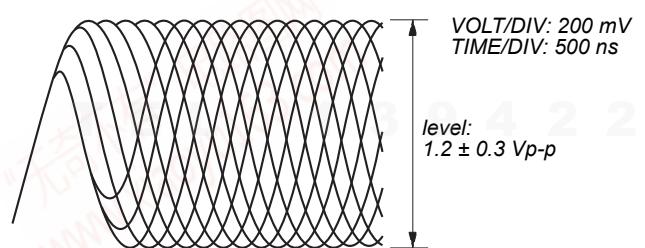
FOCUS BIAS CHECK



Procedure:

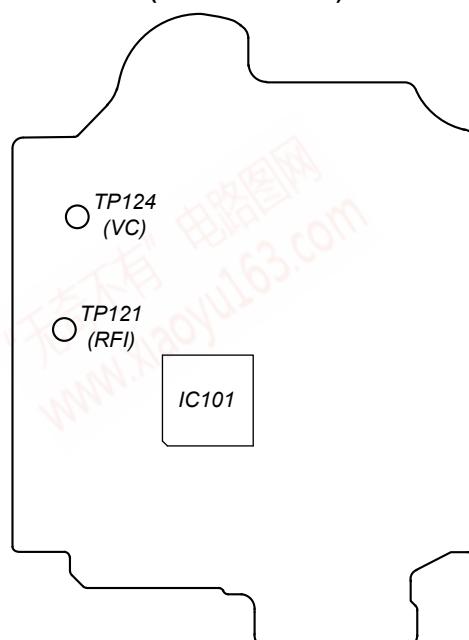
- Connect the oscilloscope to TP121 (RFI) and TP124 (VC) on the CD board.
- Press the [I/O] button to turn the power on, and press the [FUNCTION] button to select CD function.
- Set disc (YEDS-18) and press the [$\text{▶} \text{II}$] button to playback.
- Confirm that oscilloscope waveform is as shown in the figure below (eye pattern).

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



Checking Location:

- CD Board (Conductor Side) -

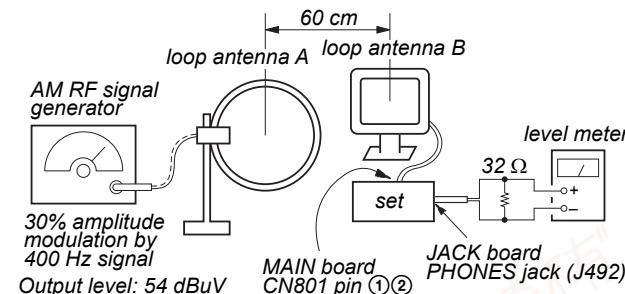


TUNER SECTION

$0\text{ dB} = 1\text{ }\mu\text{V}$

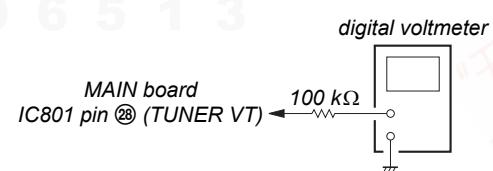
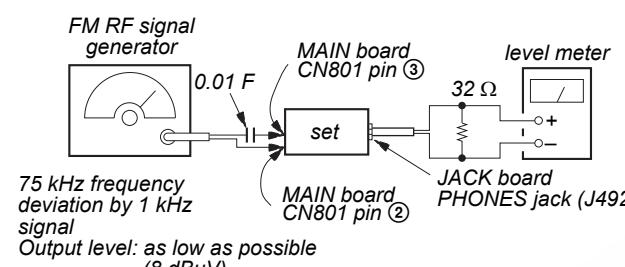
[AM]

Setting:
FUNCTION: AM



[FM]

Setting:
FUNCTION: FM



- Repeat the procedures in each adjustment several times.

AM FREQUENCY COVERAGE CONFIRMATION (US, Canadian and Australian models)

Frequency Display	Reading on Digital Voltmeter
530 kHz	$1.45 \pm 0.3\text{ V}$
1,710 kHz	$7.7 \pm 0.5\text{ V}$

AM FREQUENCY COVERAGE CONFIRMATION (UK model)

Frequency Display	Reading on Digital Voltmeter
531 kHz	$1.45 \pm 0.3\text{ V}$
1,602 kHz	$7.2 \pm 0.5\text{ V}$

AM TRACKING ADJUSTMENT (US, Canadian and Australian models)

Adjust for a maximum reading on level meter

L805 530 kHz

AM TRACKING ADJUSTMENT (UK model)

Adjust for a maximum reading on level meter

L805 531 kHz

FM FREQUENCY COVERAGE ADJUSTMENT

Adjustment Part	Frequency Display	Reading on Digital Voltmeter
L803	87.5 kHz	$1.75 \pm 0.1\text{ V}$
Confirmation	108 kHz	$6.2 \pm 0.5\text{ V}$

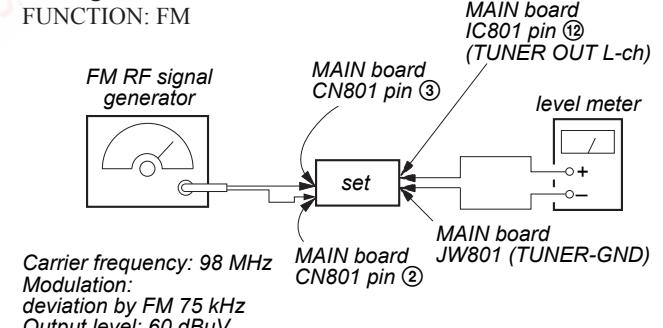
FM TRACKING ADJUSTMENT

Adjust for a minimum reading on level meter

L804 98 MHz

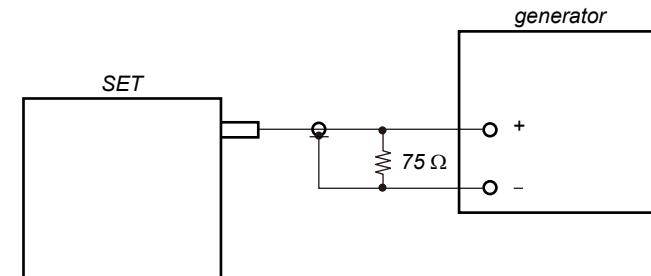
FM DETECTOR ADJUSTMENT

Setting:
FUNCTION: FM



- Turn the set to 98 MHz.
- Adjust L802 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.

FM AUTO STOP CHECK



Procedure :

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

Carrier frequency : A = 87.5 MHz, B = 98 MHz, C = 108 MHz

Deviation : 75 kHz

Modulation : 1 kHz

ANT input : 35 dBu (EMF)

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

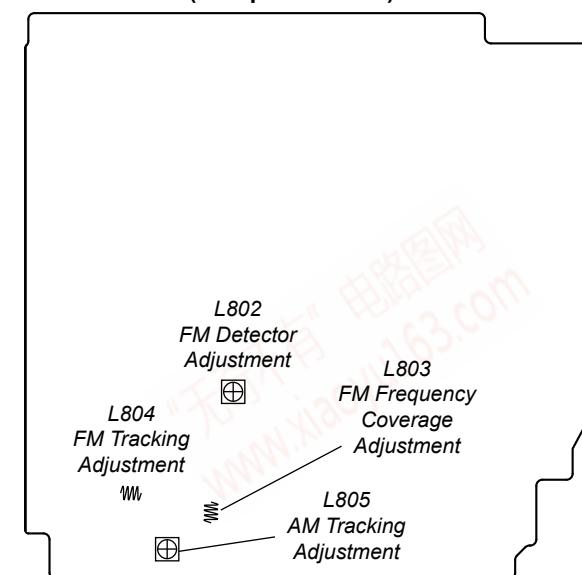
Please use SG whose output impedance is 75 ohm.

- Set to FM tuner function and scan the input FM signal with automatic scanning.
- Confirm that input Frequency of A, B and C detected and automatic scanning stops.

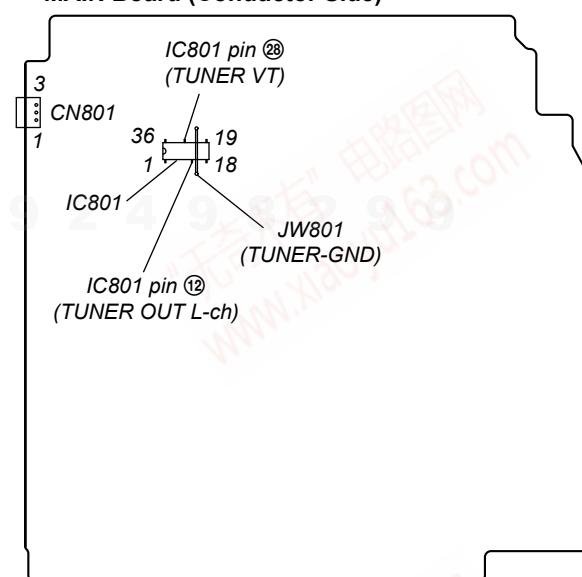
The stop of automatic scanning means "The station signal is received in good condition".

Adjustment Location and Connecting Points:

- MAIN Board (Component Side) -

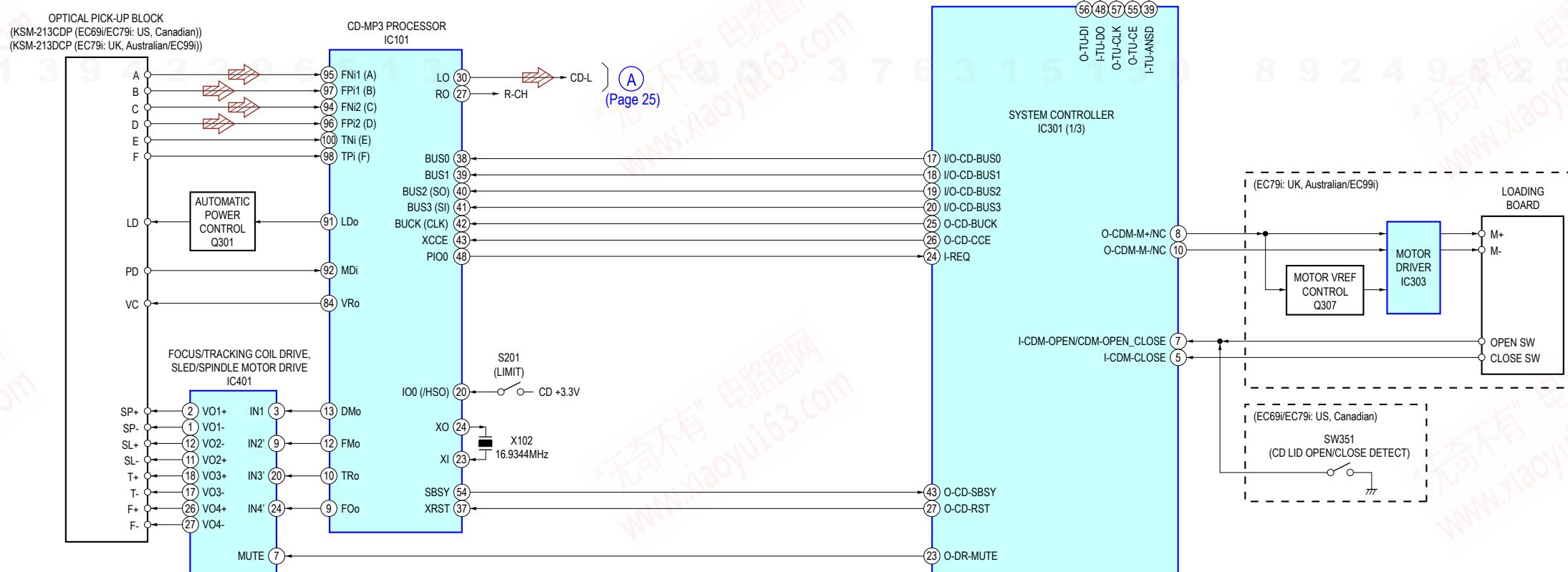
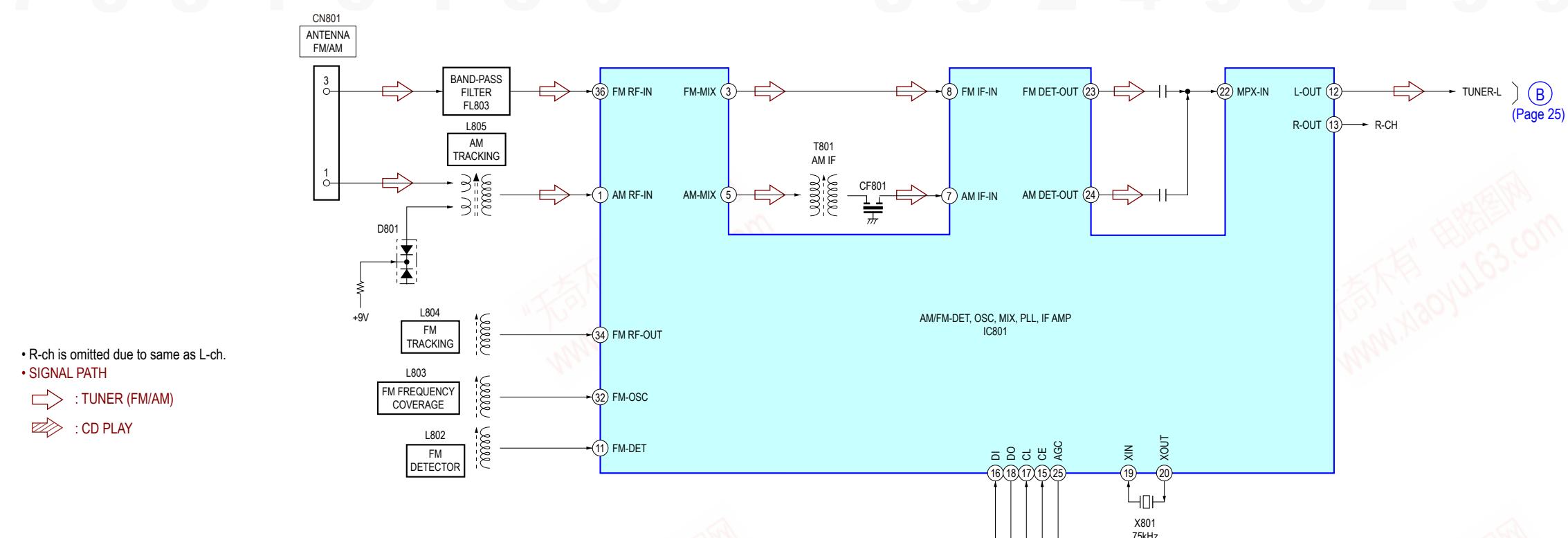


- MAIN Board (Conductor Side) -



SECTION 6 DIAGRAMS

6-1. BLOCK DIAGRAM - CD, TUNER Section -



6-2. BLOCK DIAGRAM - MAIN Section -

• R-ch is omitted due to same as L-ch.

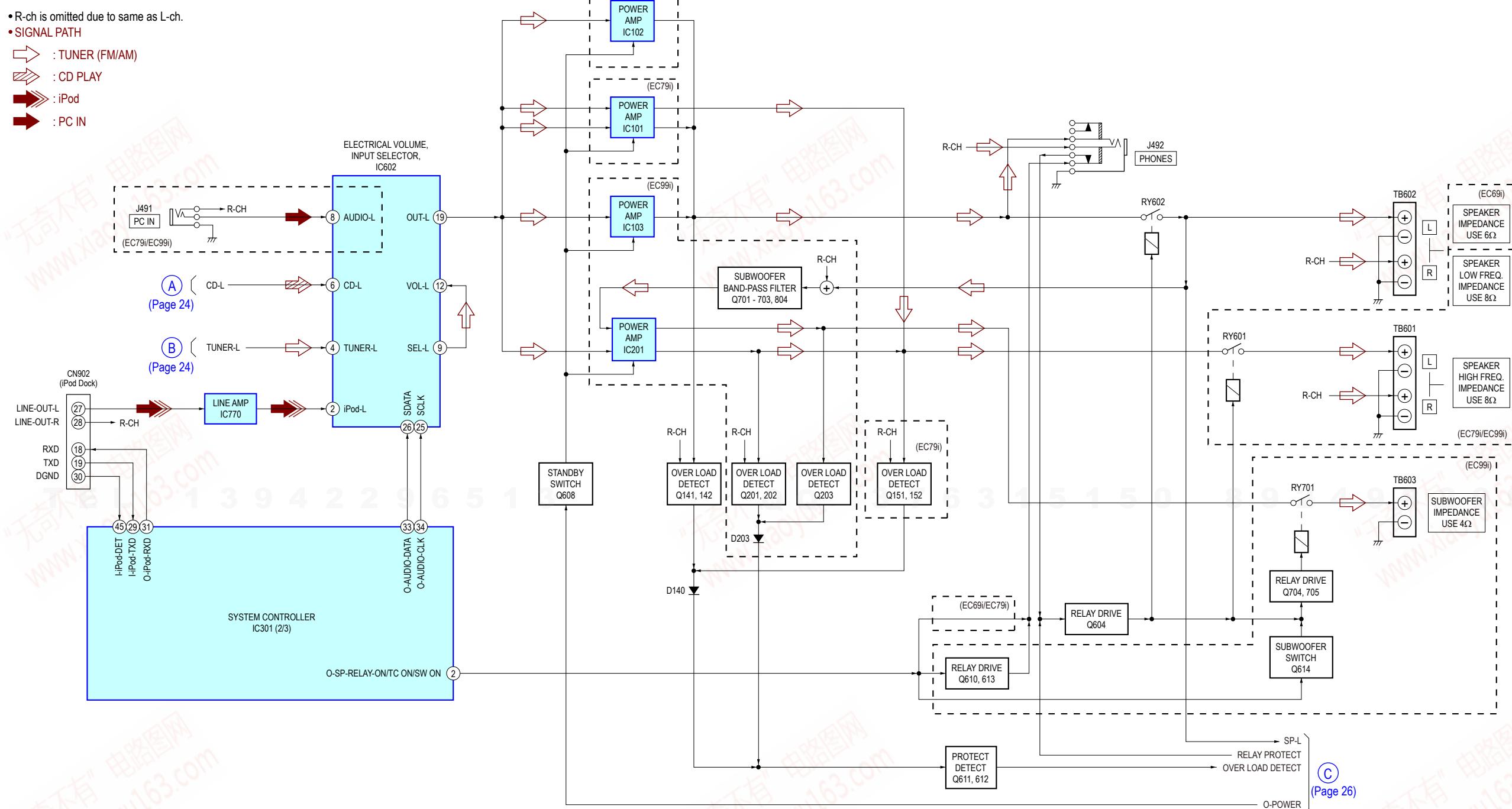
• SIGNAL PATH

→ : TUNER (FM/AM)

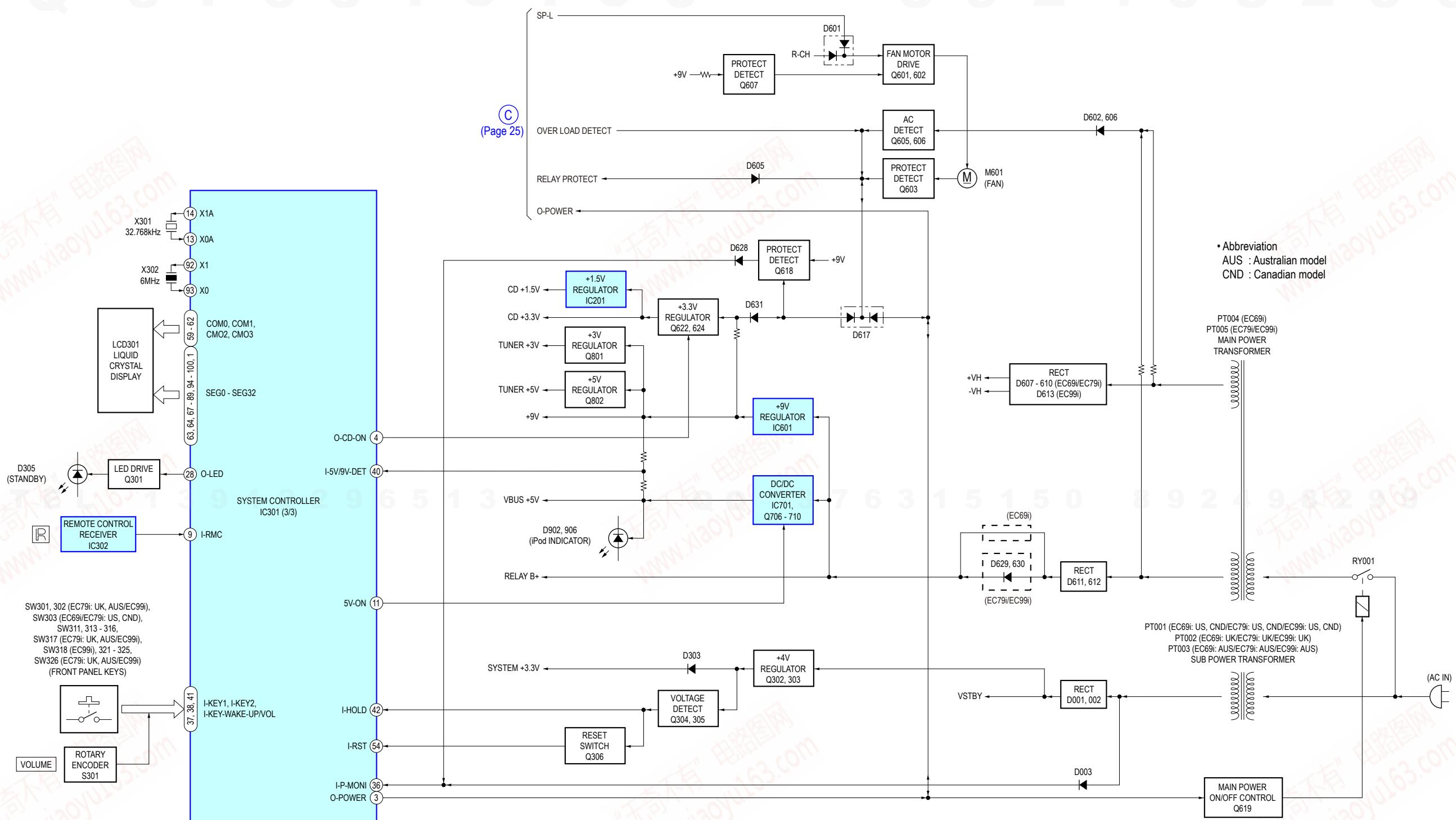
→ : CD PLAY

→ : iPod

→ : PC IN



6-3. BLOCK DIAGRAM - PANEL, POWER SUPPLY Section -



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

For Printed Wiring Boards.

Note:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : indicates side identified with part number.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

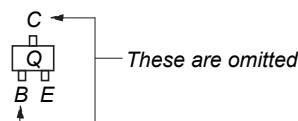
Caution:

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

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.



- Abbreviation

AUS : Australian model
CND : Canadian model

For Schematic Diagrams.

Note:

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

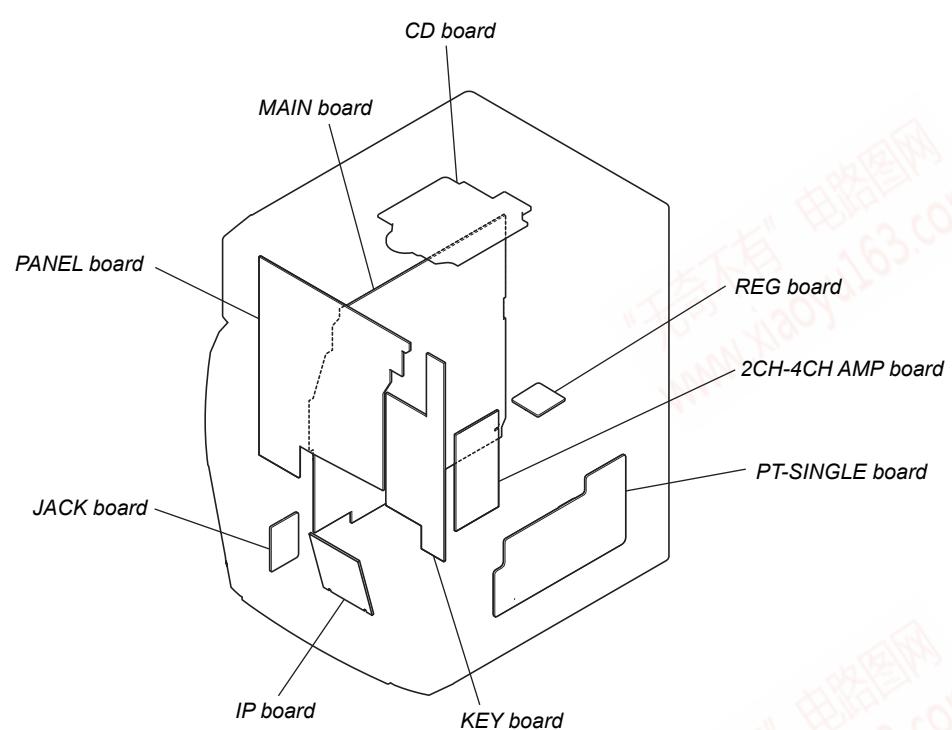
Les composants identifiés par une marque \triangle sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line.
- : B- Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD Board –
no mark: CD PLAY
- Other Boards –
no mark: TUNER (FM/AM)
- Voltages are taken with VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- \Rightarrow : TUNER (FM/AM)
 \Rightarrow : CD PLAY
 \Rightarrow : iPod
 \Rightarrow : PC IN
- Abbreviation

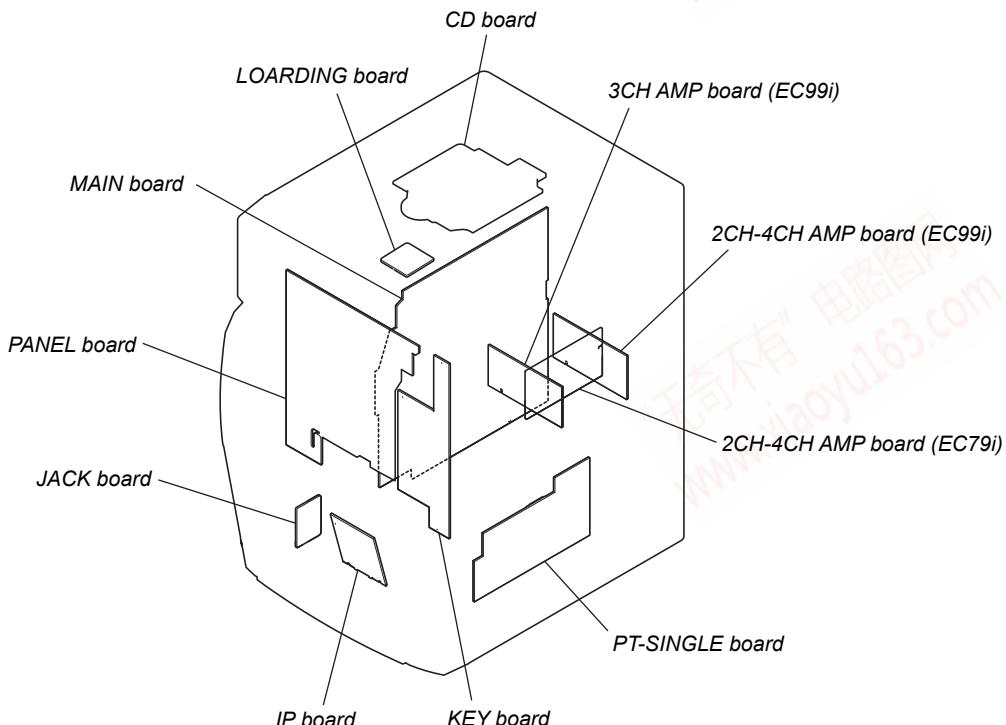
AUS : Australian model
CND : Canadian model

• Circuit Boards Location

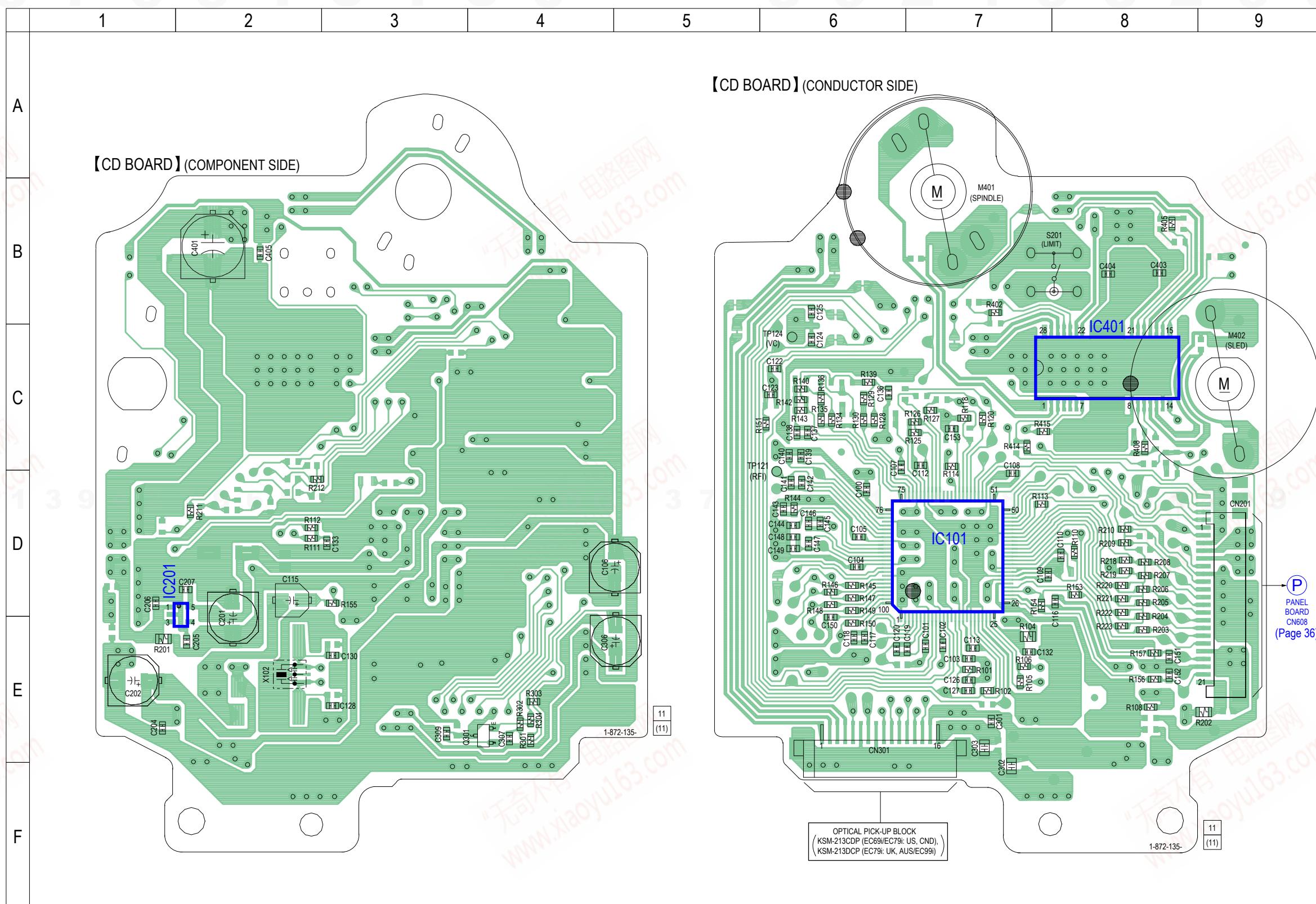
- EC69i -



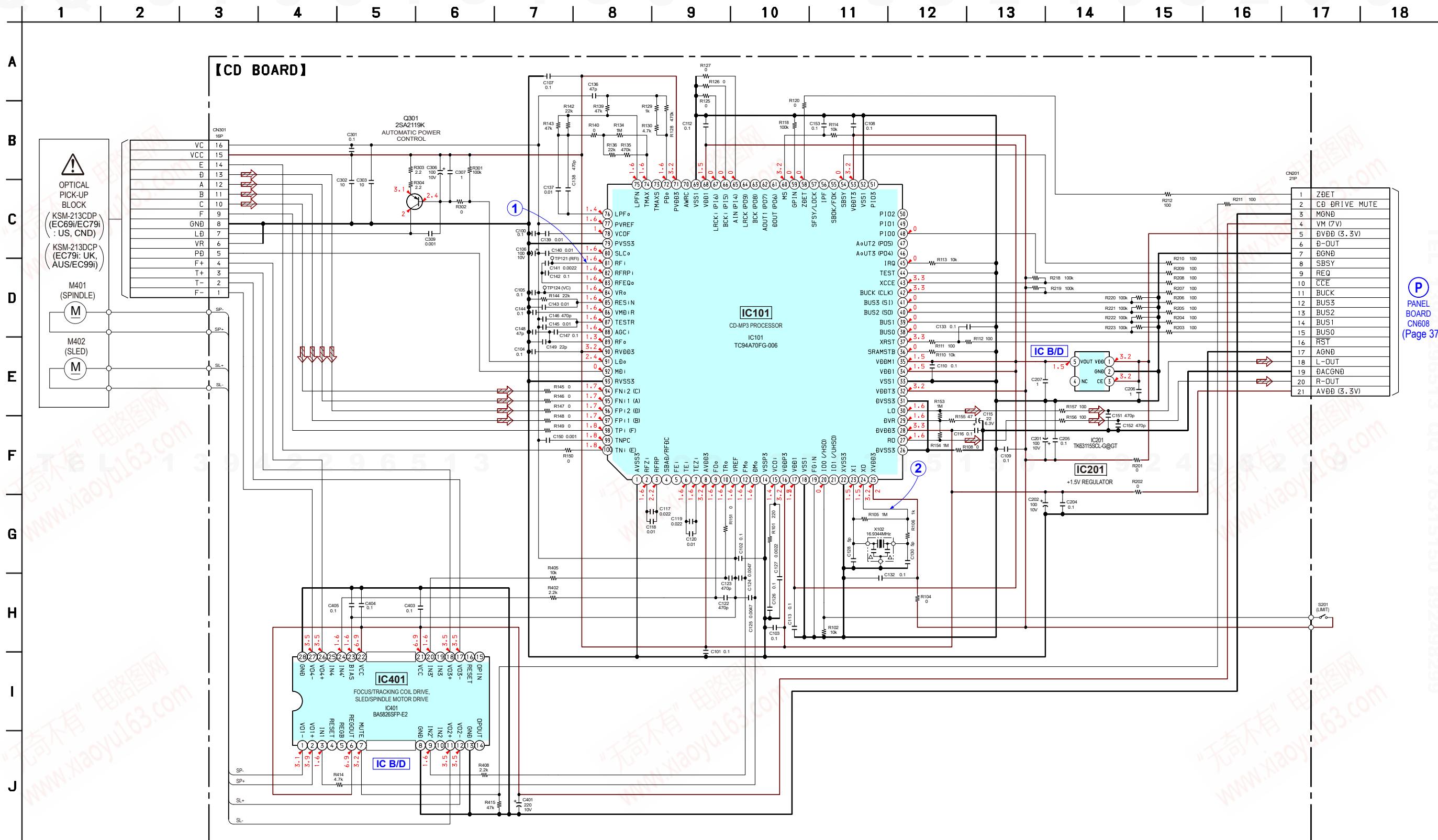
- EC79i/EC99i -



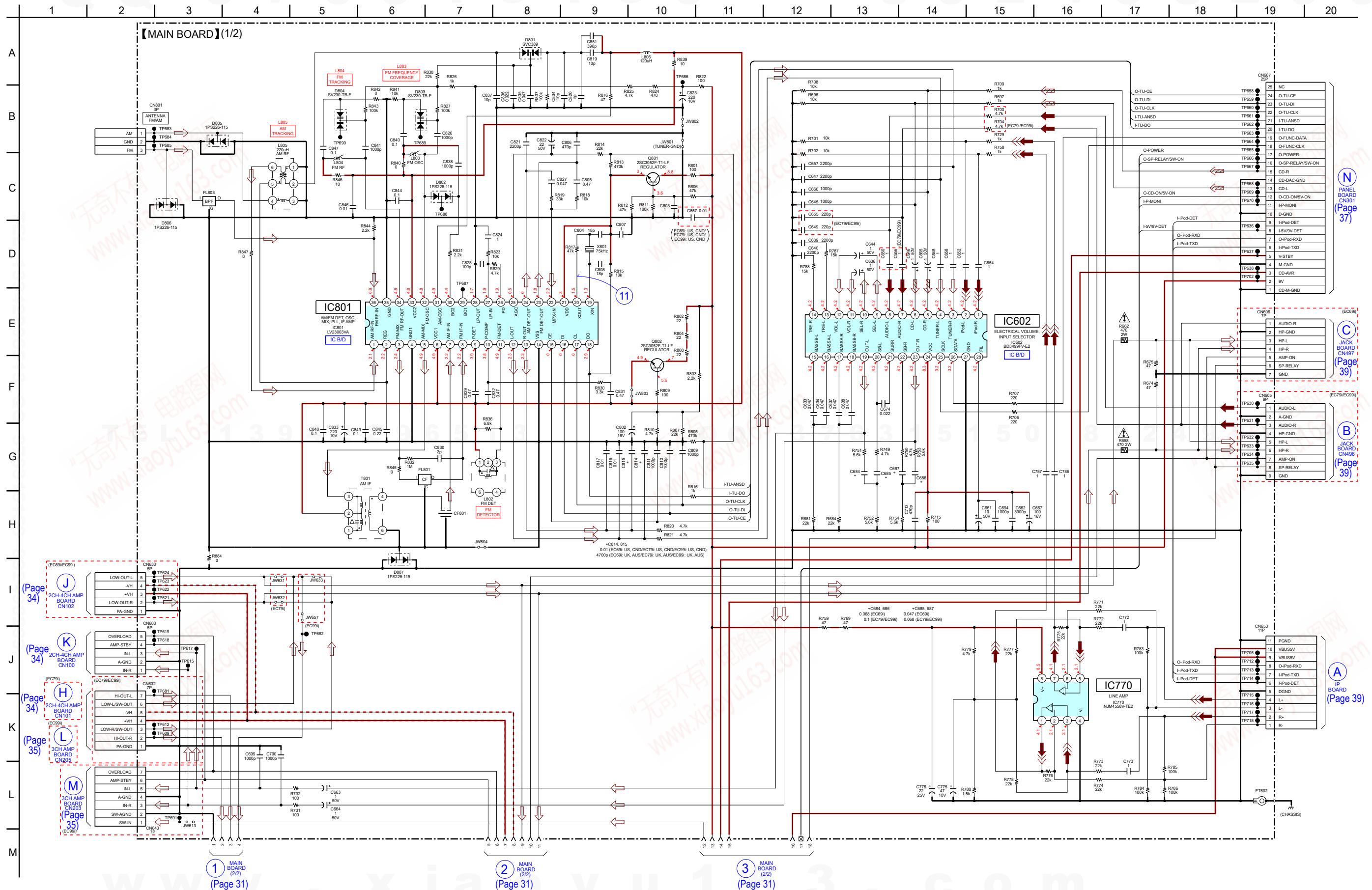
Q Q 9 9 1 9 9 9 2 4 9 8 2 9 9
6-4. PRINTED WIRING BOARD - CD Board - • See page 27 for Circuit Boards Location. • LF : Uses unleaded solder.



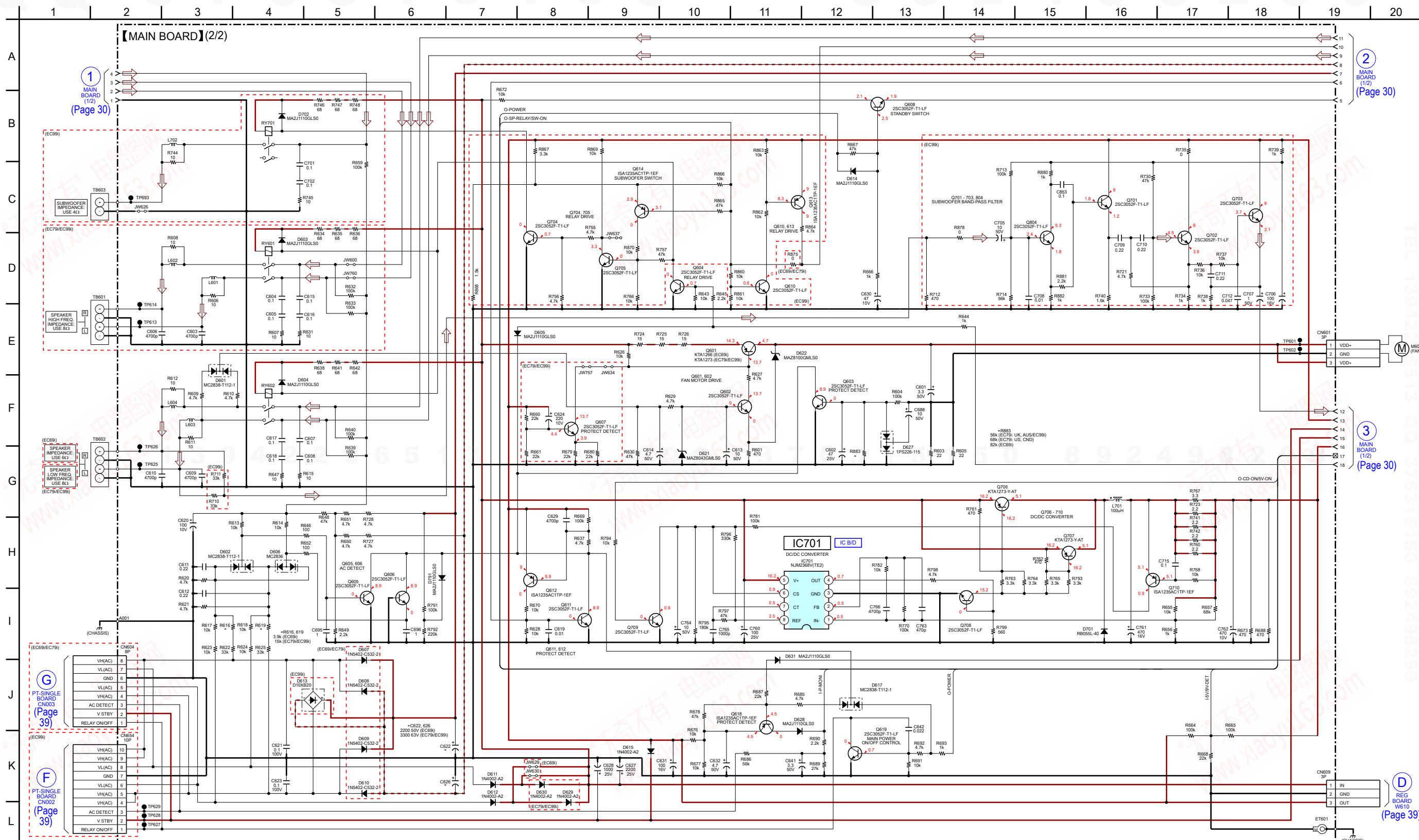
6-5. SCHEMATIC DIAGRAM - CD Board - • See page 40 for Waveforms. • See page 40 for IC Block Diagrams. • See page 42 for IC Pin Function Description.



6-6. SCHEMATIC DIAGRAM - MAIN Board (1/2) - • See page 40 for Waveforms. • See page 40 for IC Block Diagrams.



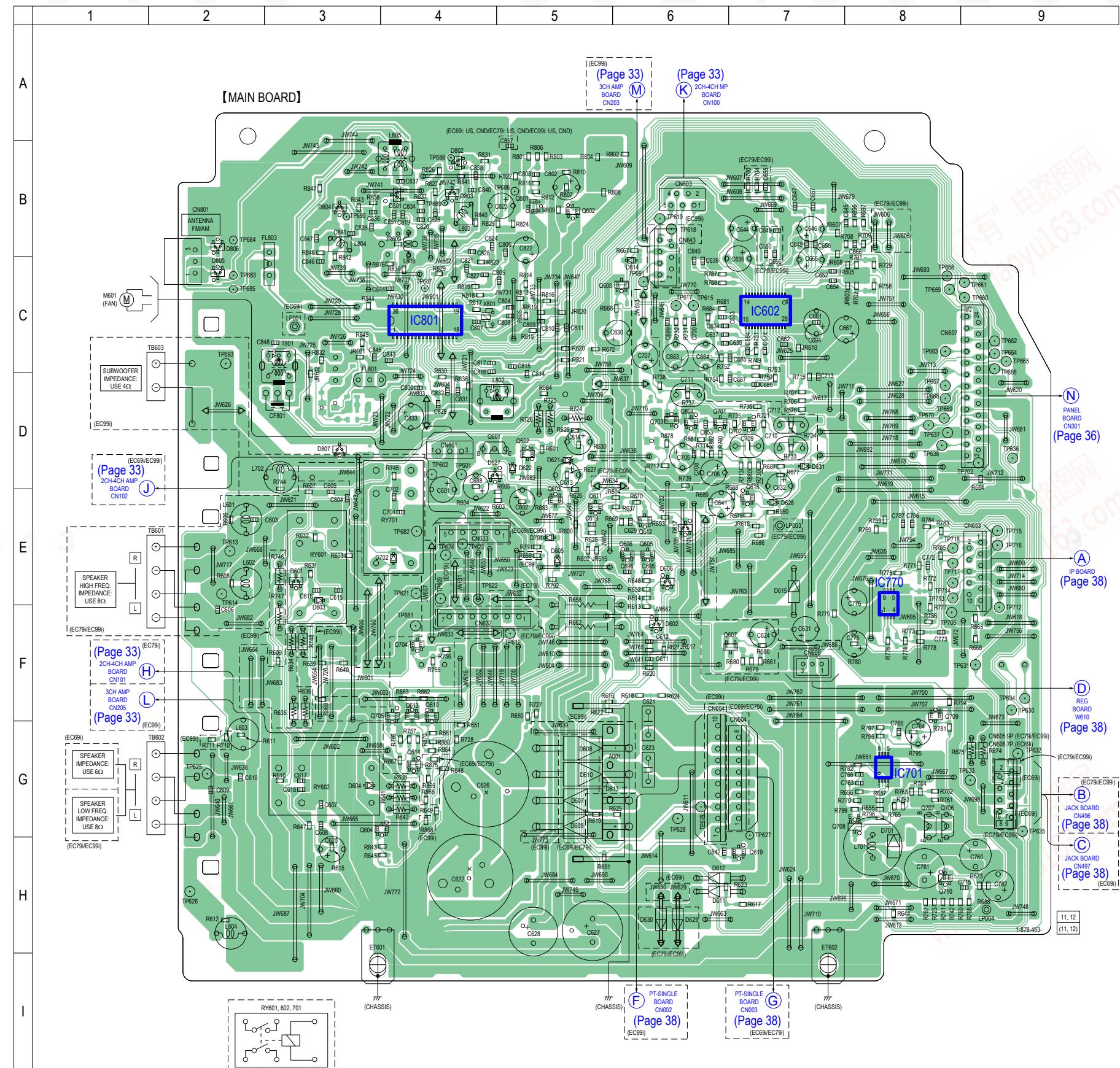
6-7. SCHEMATIC DIAGRAM - MAIN Board (2/2) - • See page 40 for IC Block Diagrams.



6-8. PRINTED WIRING BOARD - MAIN Board - • See page 27 for Circuit Boards Location. •  : Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
D601	E-3
D602	F-6
D603	E-3
D604	G-3
D605	E-5
D606	E-6
D607	G-5
D608	G-5
D609	G-5
D610	G-5
D611	H-6
D612	H-6
D613	G-6
D614	C-6
D615	E-7
D617	E-6
D621	D-5
D622	D-5
D627	D-4
D628	E-7
D629	H-6
D630	H-6
D631	D-7
D701	H-8
D702	E-4
D791	E-5
D801	B-4
D802	B-4
D803	B-4
D804	B-3
D805	C-2
D806	B-2
D807	D-3
IC602	C-7
IC701	G-8
IC770	E-8
IC801	C-4
Q601	D-4
Q602	D-5
Q603	E-5
Q604	G-3
Q605	E-6
Q606	E-6
Q607	F-7
Q608	C-6
Q610	F-4
Q611	E-5
Q612	E-6
Q613	F-4
Q614	G-4
Q618	E-7
Q619	H-7
Q701	D-6
Q702	D-7
Q703	D-6
Q704	F-4
Q705	F-4
Q706	G-8
Q707	G-8
Q708	G-8
Q709	F-8
Q710	H-8
Q801	B-5
Q802	B-5
Q804	D-6



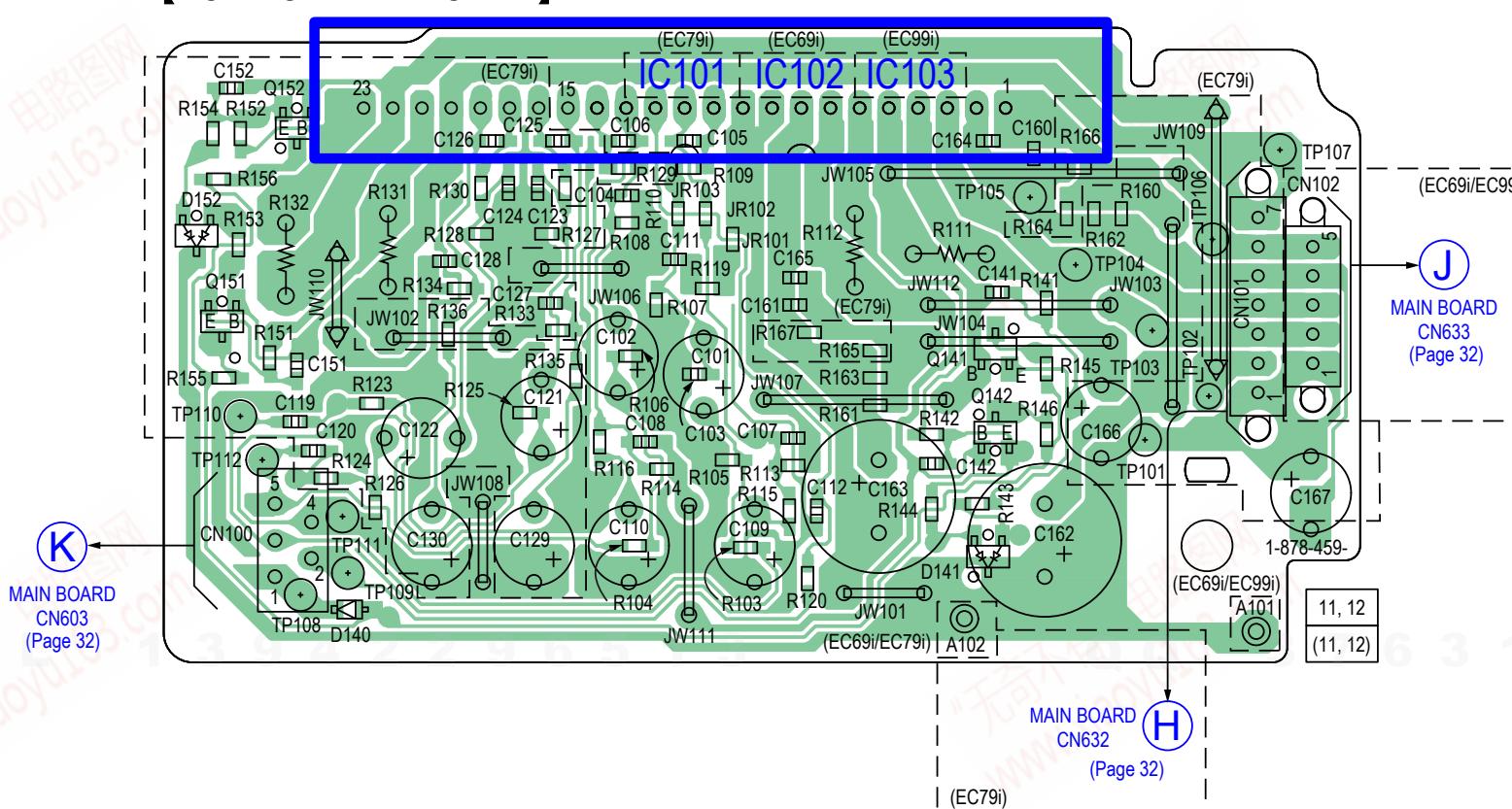
6-9. PRINTED WIRING BOARDS - AMP Section - • See page 27 for Circuit Boards Location. •  : Uses unleaded solder.

	1	2	3	4	5
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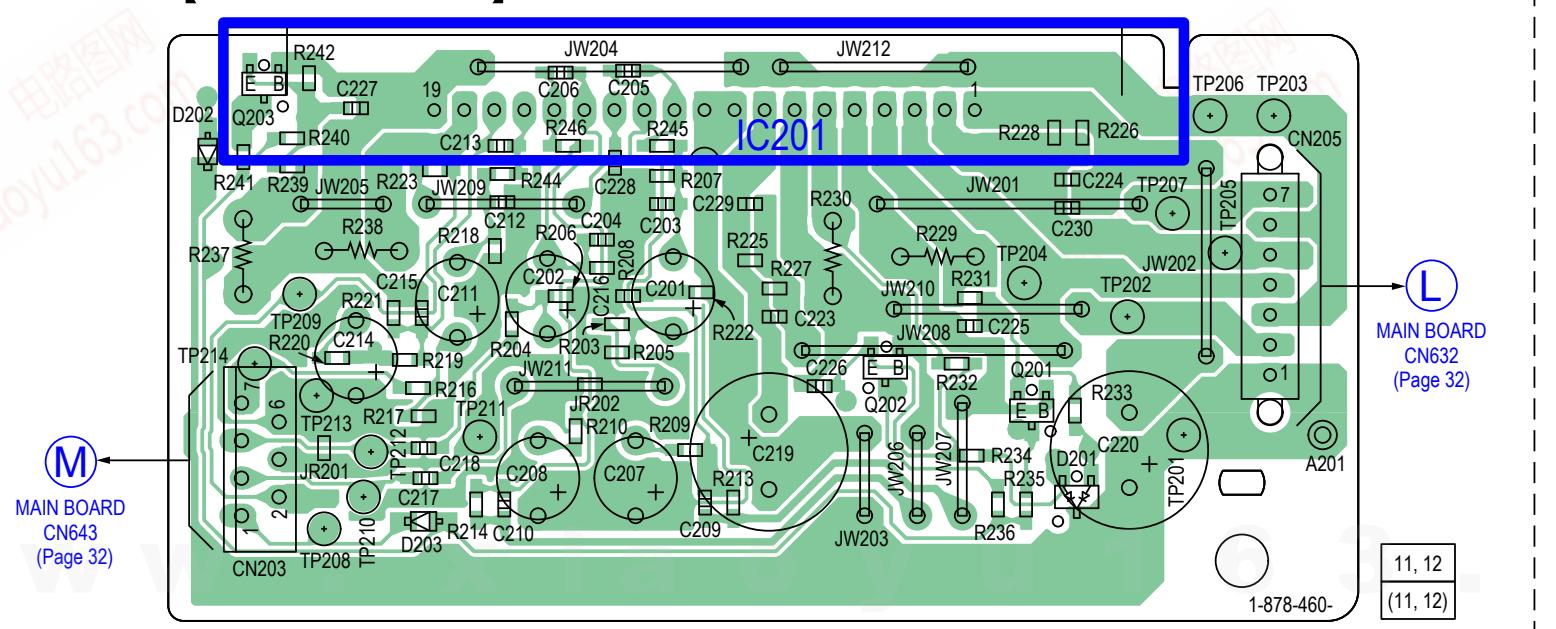
• Semiconductor Location

Ref. No.	Location
D140	C-2
D141	B-3
D152	B-1
D201	E-4
D202	D-1
D203	E-2
IC101	A-3
IC102	A-3
IC103	A-3
IC201	D-3
Q141	B-3
Q142	B-3
Q151	B-1
Q152	A-2
Q201	E-4
Q202	E-3
Q203	D-1

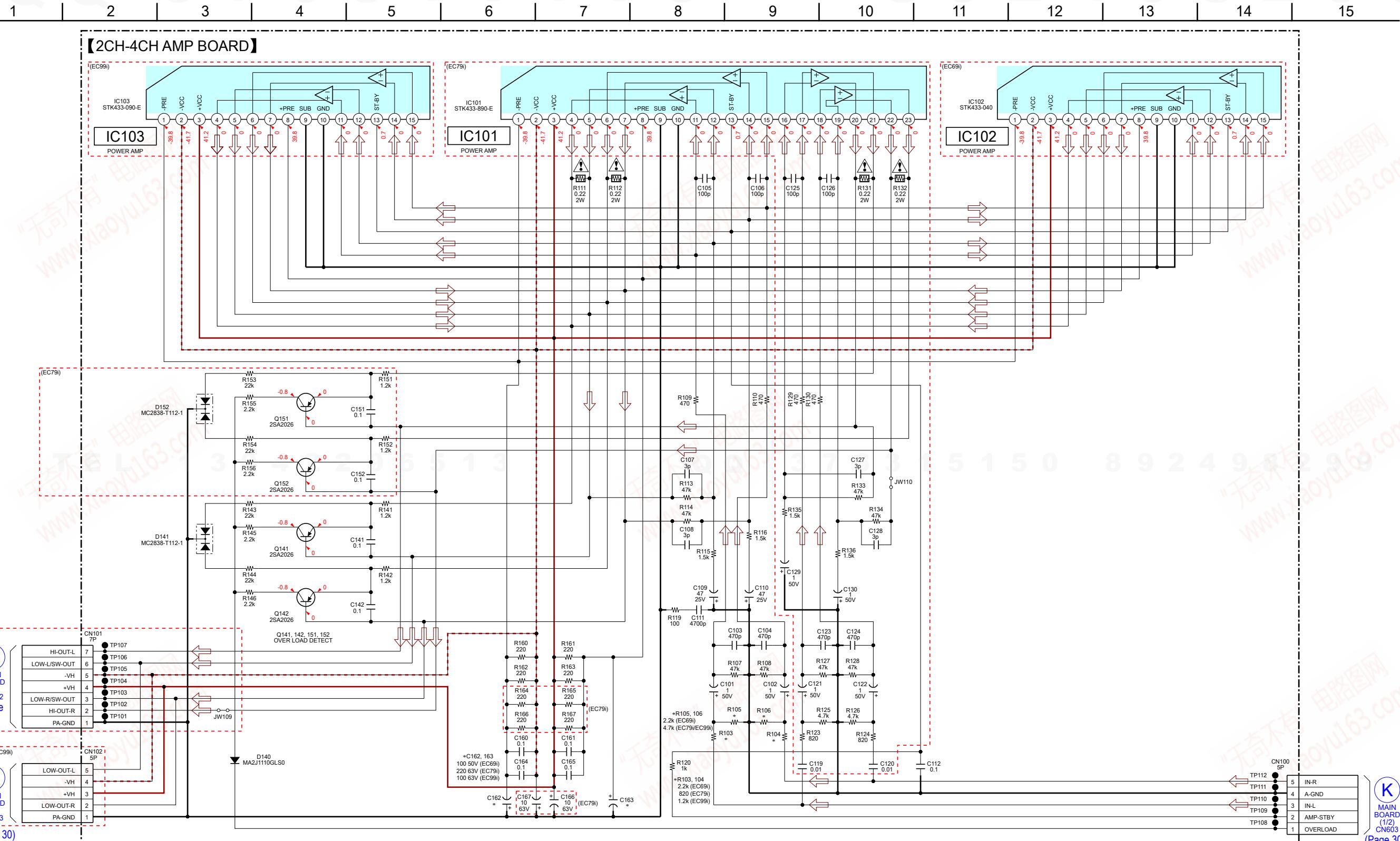
【2CH-4CH AMP BOARD】



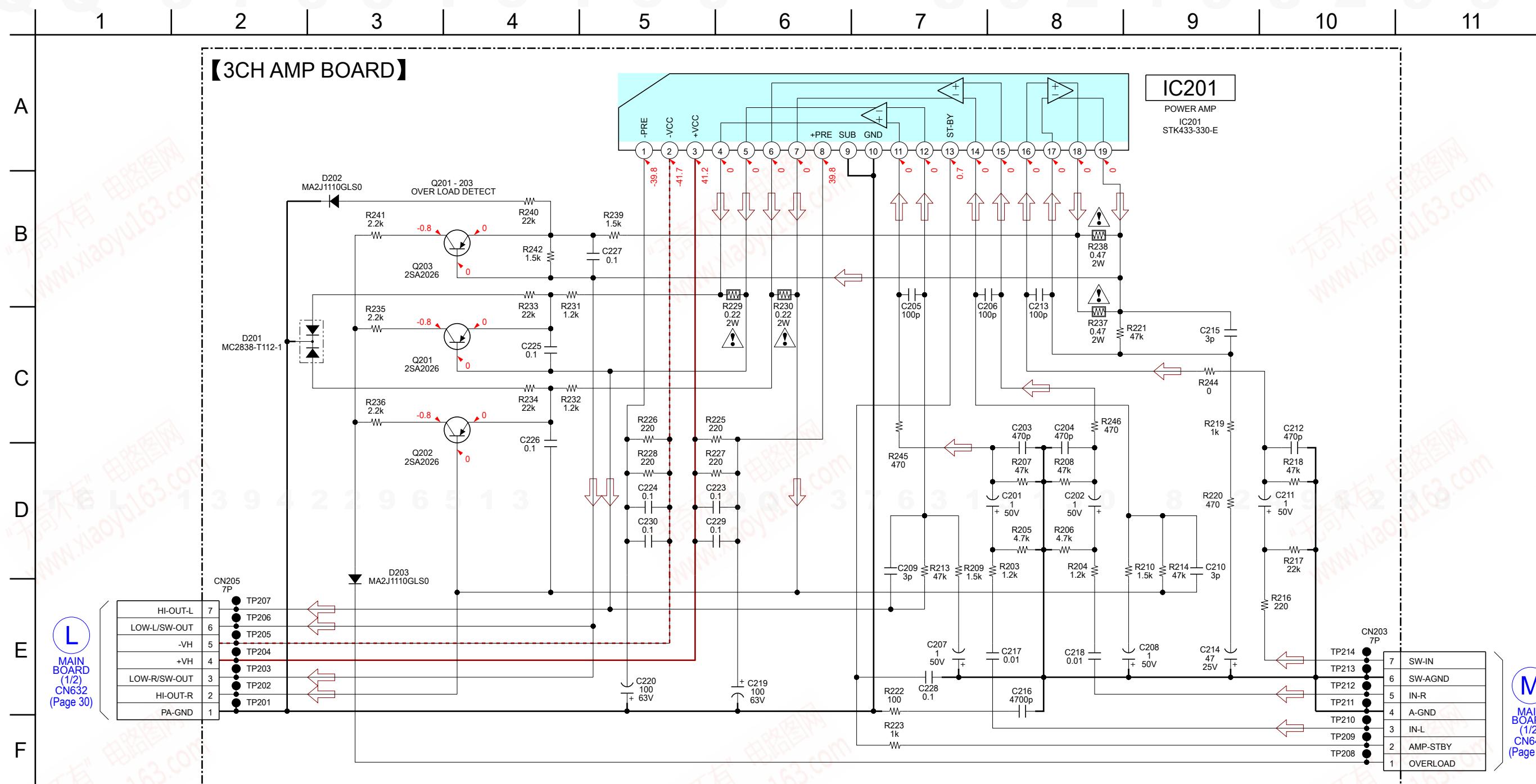
【3CH AMP BOARD】



6-10. SCHEMATIC DIAGRAM - 2CH-4CH AMP Board -



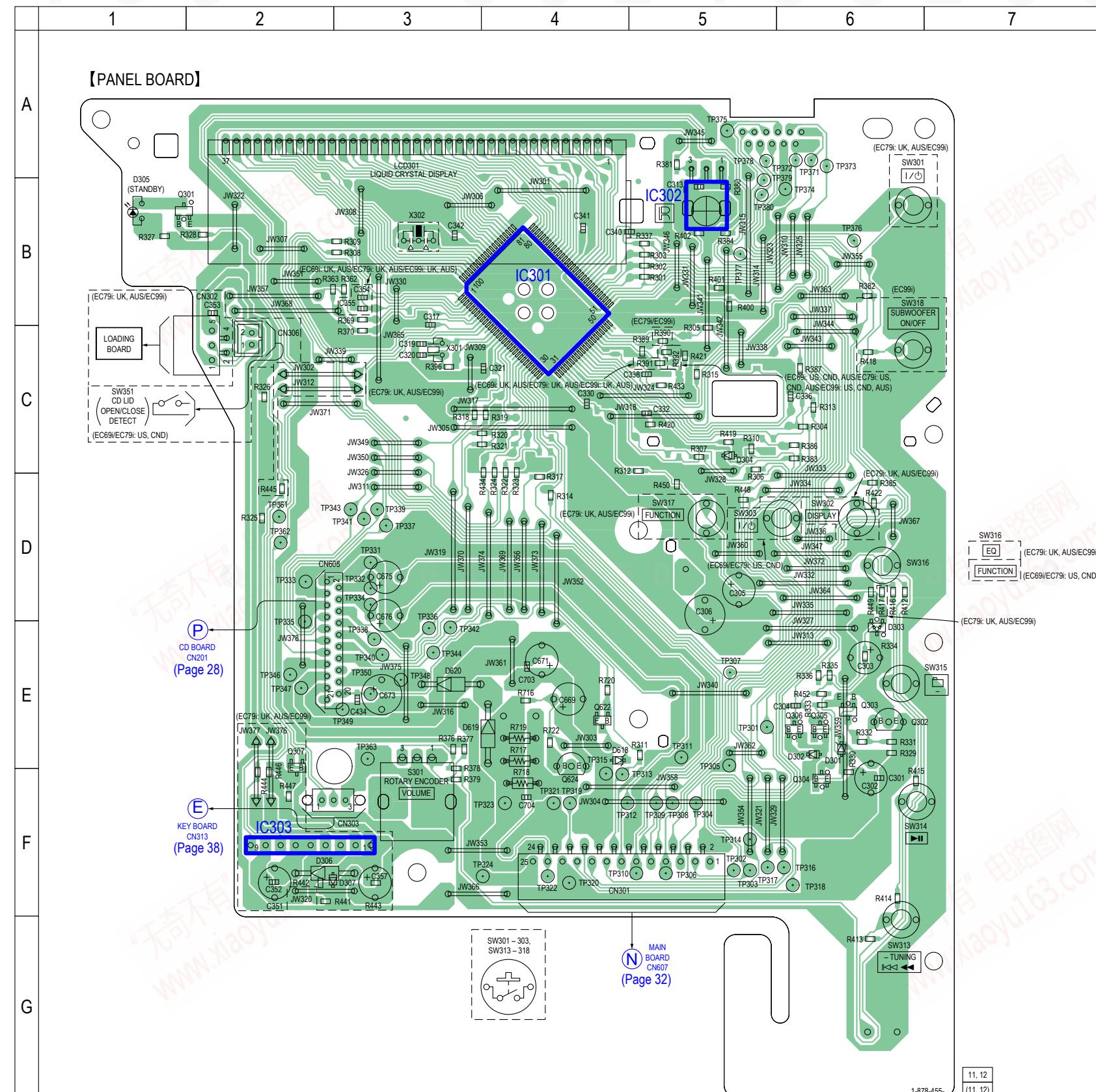
6-11. SCHEMATIC DIAGRAM - 3CH AMP Board (EC99i) -



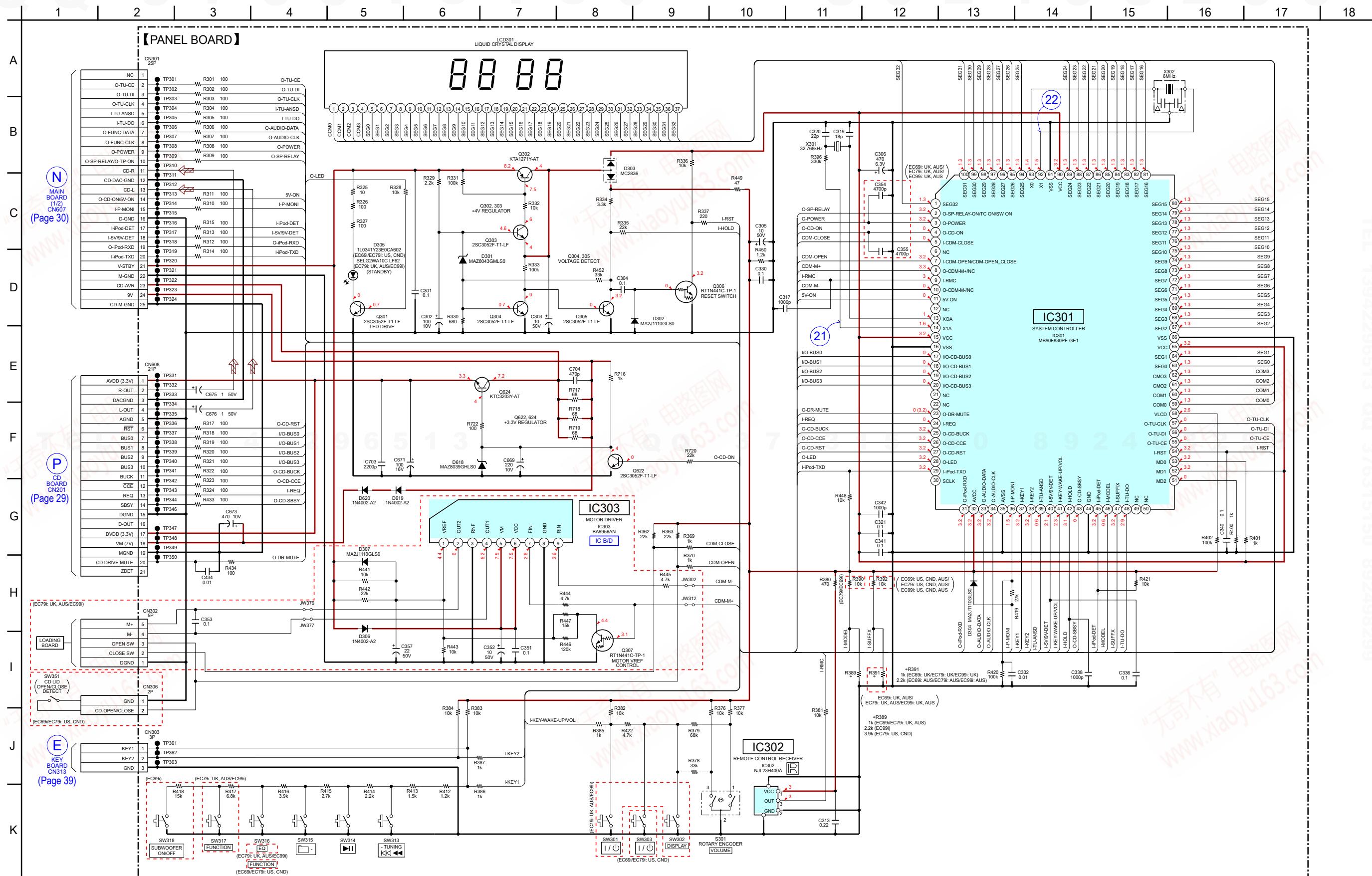
6-12. PRINTED WIRING BOARDS - PANEL Section - • See page 27 for Circuit Boards Location. •  : Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
D301	E-6
D302	E-6
D303	E-6
D304	C-5
D305	B-1
D306	F-2
D307	F-2
D618	E-4
D619	E-4
D620	E-3
IC301	B-4
IC302	B-5
IC303	F-2
Q301	B-1
Q302	E-6
Q303	E-6
Q304	F-6
Q305	E-6
Q306	E-6
Q307	E-2
Q622	E-4
Q624	F-4



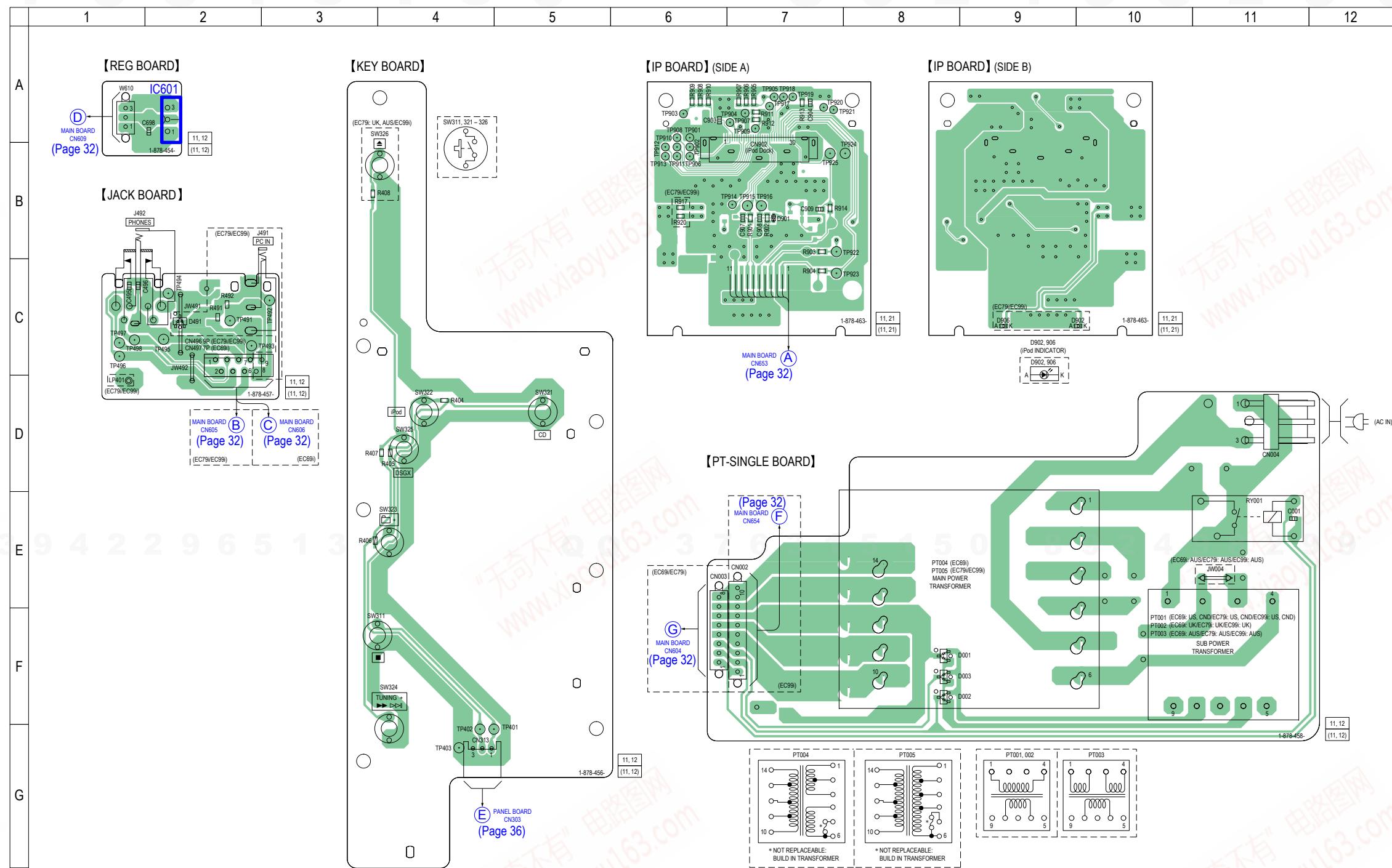
6-13. SCHEMATIC DIAGRAM - PANEL Section - • See page 40 for Waveforms. • See page 40 for IC Block Diagrams. • See page 42 for IC Pin Function Description.



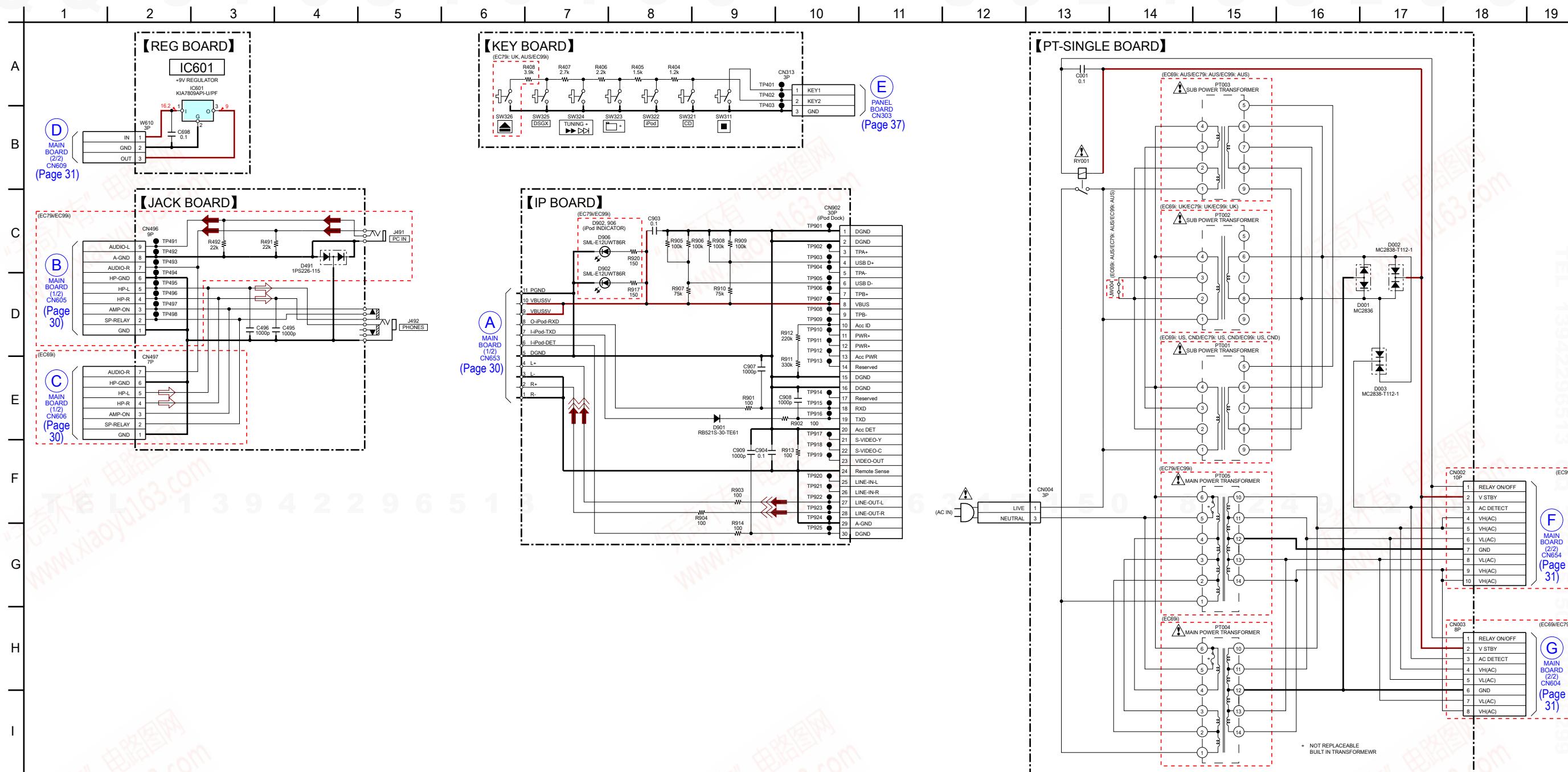
6-14. PRINTED WIRING BOARDS - AUDIO IN/OUT, KEY, POWER SUPPLY Section - • See page 27 for Circuit Boards Location. •  : Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
D001	F-8
D002	F-8
D003	F-8
D491	C-2
D901	B-7
D902	C-10
D906	C-9
IC601	A-2

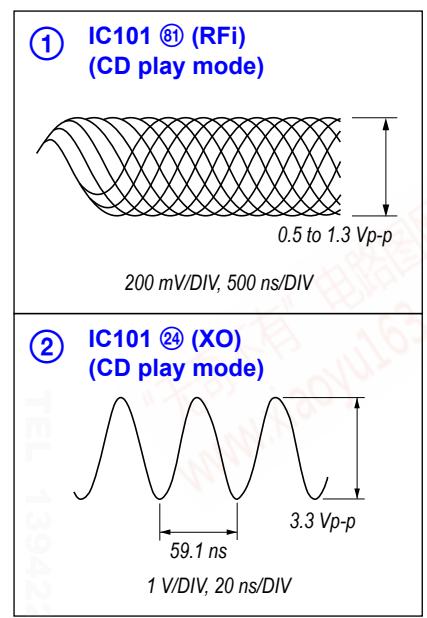


6-15. SCHEMATIC DIAGRAM - AUDIO IN/OUT, KEY, POWER SUPPLY Section -

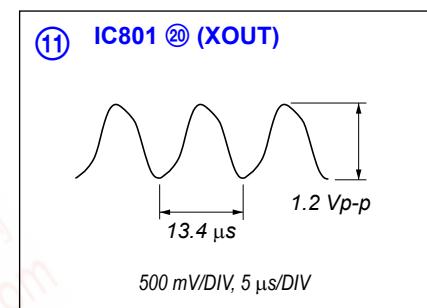


• Waveforms

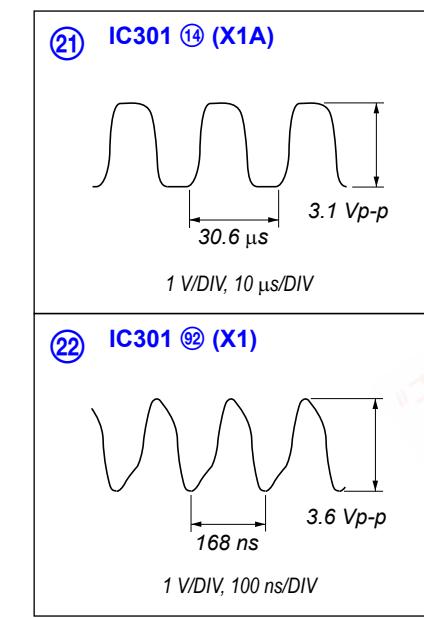
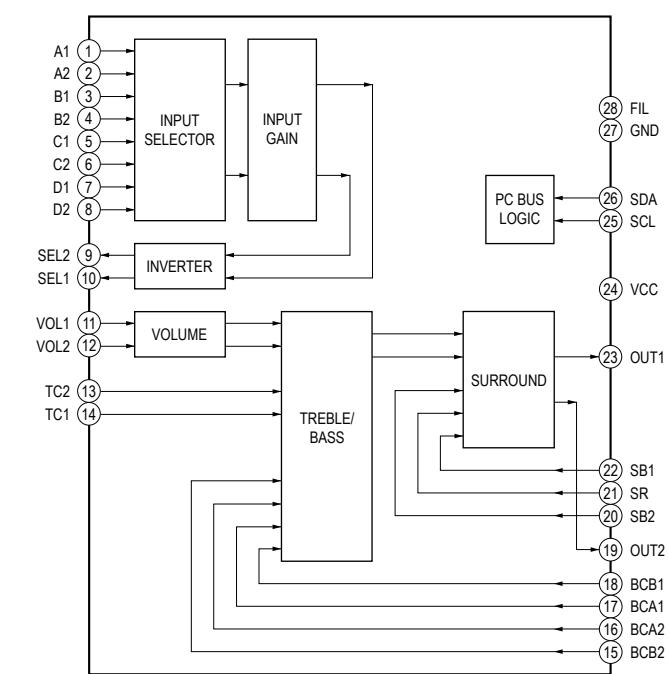
- CD Board -



- MAIN Board -



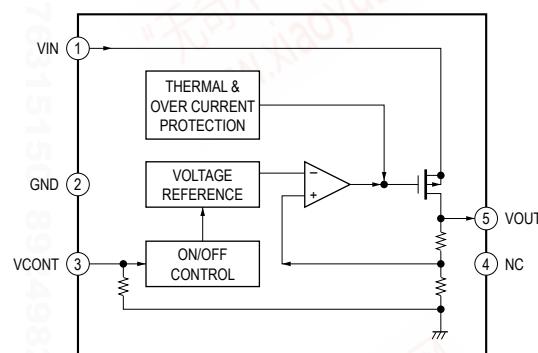
- PANEL Board -

- MAIN Board -
IC602 BD3499FV-E2

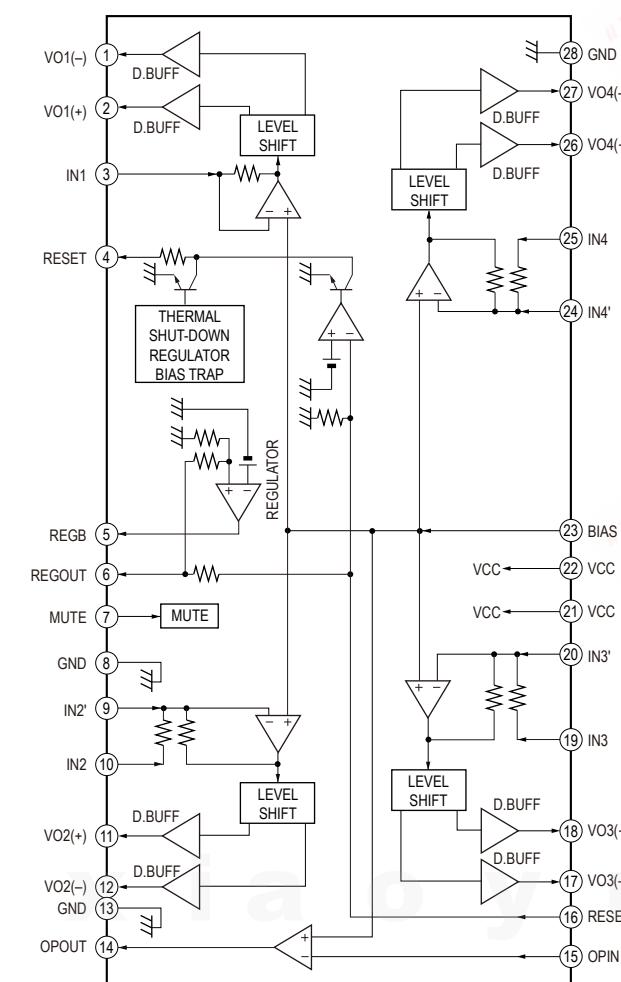
• IC Block Diagrams

- CD Board -

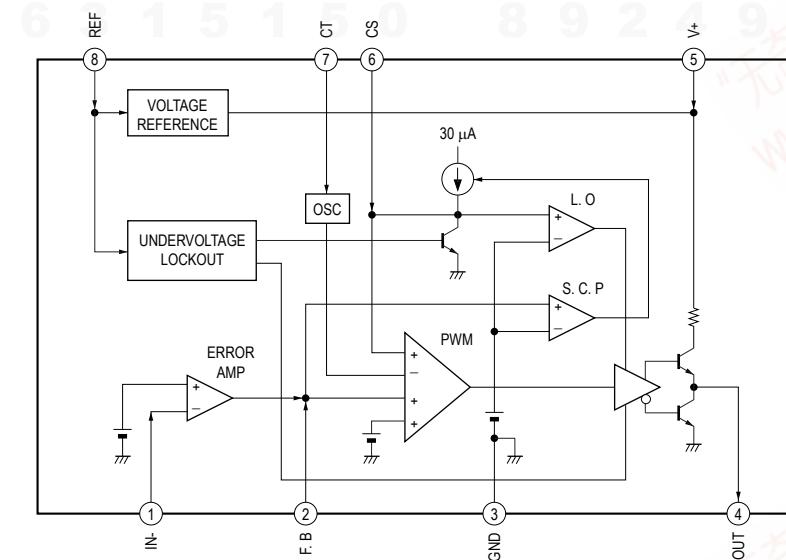
IC201 TK63115SCL-G@GT



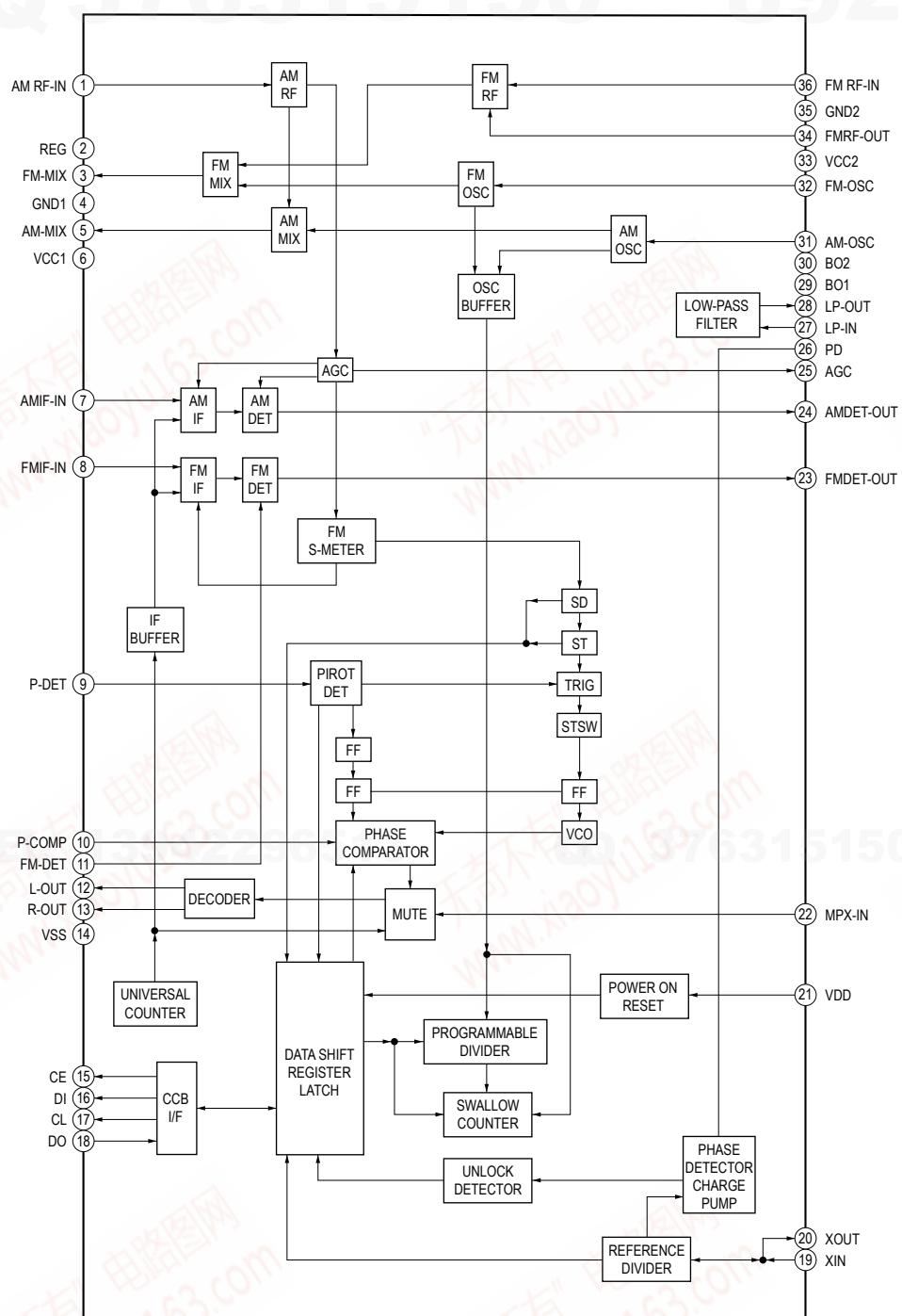
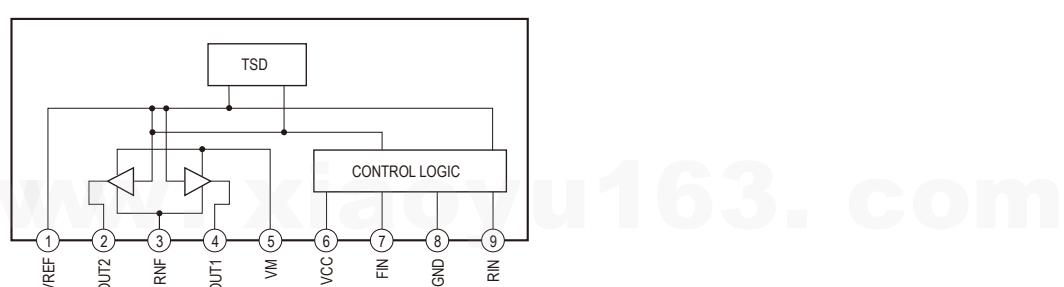
IC401 BA5826SFP-E2



IC701 NJM2368V (TE2)



IC801 LV23003VA

– PANEL Board –
IC303 BA6956AN

- IC Pin Function Description

CD BOARD IC101 TC94A70FG-006 (CD-MP3 PROCESSOR)

Pin No.	Pin Name	I/O	Description
1	AVSS3	-	Ground terminal
2	RFZi	I	RF ripple zero crossing signal input terminal
3	RFRP	O	RF ripple signal output terminal
4	SBAD/RFDc	O	Sub beam addition signal or RF peak detection signal output terminal Not used
5	FEi	O	Focus error signal output terminal Not used
6	TEi	O	Tracking error signal output terminal
7	TEZi	I	Tracking error zero crossing signal input terminal
8	AVDD3	-	Power supply terminal (+3.3V)
9	FOo	O	Focus coil drive signal output terminal
10	TRo	O	Tracking coil drive signal output terminal
11	VREF	I	Reference voltage (+1.65V) input terminal
12	FMo	O	Sled motor drive signal output terminal
13	DMo	O	Spindle motor drive signal output terminal
14	VSSP3	-	Ground terminal
15	VCOi	I	VCO control voltage input terminal
16	VDDP3	-	Power supply terminal (+3.3V)
17	VDD1	-	Power supply terminal (+1.5V)
18	VSS1	-	Ground terminal
19	FGiN	I	FG signal input terminal Not used
20	IO0 (/HSO)	I	Disc inner position detection signal input terminal
21	IO1 (/UHSO)	O	Not used
22	XVSS3	-	Ground terminal
23	XI	I	System clock input terminal (16.9344 MHz)
24	XO	O	System clock output terminal (16.9344 MHz)
25	XVDD3	-	Power supply terminal (+3.3V)
26	DVSS3	-	Ground terminal
27	RO	O	Audio data (R-ch) output to the electrical volume
28	DVDD3	-	Power supply terminal (+3.3V)
29	DVR	O	Reference voltage (+1.65V) output terminal
30	LO	O	Audio data (L-ch) output to the electrical volume
31	DVSS3	-	Ground terminal
32	VDDT3	-	Power supply terminal (+3.3V)
33	VSS1	-	Ground terminal
34	VDD1	-	Power supply terminal (+1.5V)
35	VDDM1	-	Power supply terminal (+1.5V)
36	SRAMSTB	I	S-RAM standby mode control signal input terminal Fixed at "L" in this set
37	XRST	I	Reset signal input from the system controller "L": reset
38, 39	BUS0, BUS1	I	Serial data input from the system controller
40	BUS2 (SO)	I	Serial data input from the system controller
41	BUS3 (SI)	I	Serial data input from the system controller
42	BUCK (CLK)	I	Serial data transfer clock signal input from the system controller
43	XCCE	I	Chip enable signal input from the system controller
44	TEST	I	Setting terminal for test mode Normally fixed at "L"
45	IRQ	I	Interrupt request signal input terminal Not used
46	AoUT3 (PO4)	O	Request signal output terminal Not used
47	AoUT2 (PO5)	O	Audio data output terminal Not used
48	PIO0	O	Request signal output to the system controller
49, 50	PIO1, PIO2	O	Not used
51	PIO3	I	Gate signal input terminal Not used
52	VSS1	-	Ground terminal
53	VDDT3	-	Power supply terminal (+3.3V)
54	SBSY	O	Subcode block sync signal output to the system controller
55	SBOK/FOK	O	Not used

Pin No.	Pin Name	I/O	Description
56	IPF	O	Not used
57	SFSY/LOCK	O	Not used
58	ZDET	O	Zero detection signal output terminal Not used
59	GPIN	I	Not used
60	MS	I	Microcomputer interface mode selection signal input terminal Fixed at "H" in this set
61	DOUT (PO6)	O	Digital audio data output terminal Not used
62	AOUT1 (PO7)	O	Audio data output terminal Not used
63	BCK (PO8)	O	Bit clock signal output terminal Not used
64	LRCK (PO9)	O	L/R sampling clock signal output terminal Not used
65	AIN (PI4)	I	Digital audio data input terminal Not used
66	BCKi (PI5)	I	Bit clock signal input terminal Not used
67	LRCKi (PI6)	I	L/R sampling clock signal input terminal Not used
68	VDD1	-	Power supply terminal (+1.5V)
69	VSS1	-	Ground terminal
70	AWRC	-	Not used
71	PVDD3	-	Power supply terminal (+3.3V)
72	PDo	O	Phase error margin signal between EFM signal and PLCK signal output terminal
73	TMAXS	O	TMAX detection signal output terminal Not used
74	TMAX	O	TMAX detection signal output terminal
75	LPFN	I	Inverted signal input from the operation amplifier for PLL loop filter
76	LPFo	O	Signal output from the operation amplifier for PLL loop filter
77	PVREF	I	Reference voltage (+1.65V) input terminal
78	VCOF	O	VCO filter output terminal
79	PVSS3	-	Ground terminal
80	SLCo	O	EFM slice level output terminal
81	RFi	I	RF signal input terminal
82	RFRPi	I	RF ripple signal input terminal
83	RFEQo	O	EFM slice level output terminal
84	VRo	O	Reference voltage (+1.65V) output terminal
85	RESiN	O	External resistor connection terminal
86	VMDiR	O	Reference voltage (+1.65V) output terminal for automatic power control circuit
87	TESTR	O	Low-pass filter terminal for RFEQO offset correction
88	AGCi	I	RF signal amplitude adjustment amplification input terminal
89	RFo	O	RF signal generation amplification output terminal
90	RVDD3	-	Power supply terminal (+3.3V)
91	LDo	O	Laser diode on/off control signal output to the automatic power control circuit "H": laser diode on
92	MDi	I	Light amount monitor input from the laser diode of optical pick-up block
93	RVSS3	-	Ground terminal
94	FNi2 (C)	I	Main beam (C) input from the optical pick-up block
95	FNi1 (A)	I	Main beam (A) input from the optical pick-up block
96	FPi2 (D)	I	Main beam (D) input from the optical pick-up block
97	FPi1 (B)	I	Main beam (B) input from the optical pick-up block
98	TPi (F)	I	Sub beam (F) input from the optical pick-up block
99	TNPC	O	External capacitor connection terminal
100	TNi (E)	I	Sub beam (E) input from the optical pick-up block

PANEL BOARD IC301 MB90F830PF-GE1 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	SEG32	O	Segment drive signal output to the liquid crystal display
2	O-SP-RELAY-ON/ TC ON/SW ON	O	Relay drive signal output terminal (for speaker), and subwoofer function on/off control signal output terminal (EC99i)
3	O-POWER	O	Main power on/off control signal output terminal "H": main power on
4	O-CD-ON	O	CD power on/off control signal output terminal "H": CD power on
5	I-CDM-CLOSE	I	Detection switch input from the CD mechanism section (EC79i: UK, Australian/EC99i)
6	NC	-	Not used
7	I-CDM-OPEN/ CDM-OPEN_CLOSE	I	Detection switch input from the CD lid open/close detect switch (EC69i/EC79i: US, Canadian models), or Detection switch input from the CD mechanism section (EC79i: UK, Australian/EC99i)
8	O-CDM-M+/NC	O	Motor drive signal output terminal (EC79i: UK, Australian/EC99i)
9	I-RMC	I	Remote control signal input from the remote control receiver
10	O-CDM-M-/NC	O	Motor drive signal output terminal (EC79i: UK, Australian/EC99i)
11	5V-ON	O	VBUS power supply on/off control signal output terminal
12	NC	-	Not used
13	X0A	I	Sub system clock input terminal (32.768 kHz)
14	X1A	O	Sub system clock output terminal (32.768 kHz)
15	VCC	-	Power supply terminal (+3.3V)
16	VSS	-	Ground terminal
17 to 20	I/O-CD-BUS0 to I/O-CD-BUS3	O	Serial data output to the CD-MP3 processor
21, 22	NC	-	Not used
23	O-DR-MUTE	O	Motor drive on/off control signal output to the motor/coil driver
24	I-REQ	I	Request signal input from the CD-MP3 processor
25	O-CD-BUCK	O	Serial data transfer clock signal output to the CD-MP3 processor
26	O-CD-CCE	O	Chip enable signal output to the CD-MP3 processor
27	O-CD-RST	O	System reset signal output to the CD-MP3 processor "L": reset
28	O-LED	O	LED drive signal output terminal for standby indicator
29	I-iPod-TXD	I	Serial data input from the iPod connector
30	SCLK	-	Not used
31	O-iPod-RXD	O	Serial data output to the iPod connector
32	AVCC	-	Power supply terminal (+3.3V)
33	O-AUDIO-DATA	O	Serial data output to the electrical volume
34	O-AUDIO-CLK	O	Serial data transfer clock signal output to the electrical volume
35	AVSS	-	Ground terminal
36	I-P-MONI	I	Power monitor signal input terminal
37, 38	I-KEY1, I-KEY2	I	Front panel key input terminal (A/D input)
39	I-TU-ANS	I	Auto gain control signal input terminal
40	I-5V/9V-DET	I	Power supply voltage detection signal input terminal
41	I-KEY-WAKE-UP/VOL	I	Front panel key input terminal (A/D input)
42	I-HOLD	I	Hold signal input terminal
43	O-CD-SBSY	I	Subcode block sync signal input from the CD-MP3 processor
44	GND	-	Ground terminal
45	I-iPod-DET	I	iPod detection signal input terminal
46	I-MODEL	I	Model setting terminal
47	I-SUFFIX	I	Suffix setting terminal
48	I-TU-DO	I	Serial data input from the AM/FM DET
49, 50	NC	-	Not used
51 to 53	MD2 to MD0	-	Not used
54	I-RST	I	Reset signal input from the reset switch "L": reset
55	O-TU-CE	O	Chip enable signal output to the AM/FM DET
56	O-TU-DI	O	Serial data output to the AM/FM DET
57	O-TU-CLK	O	Serial data transfer clock signal output to the AM/FM DET
58	VLCD	-	Terminal for doubler circuit capacitor connection to develop liquid crystal display drive voltage

Pin No.	Pin Name	I/O	Description
59 to 62	COM0, COM1, CMO2, CMO3	O	Common drive signal output to the liquid crystal display
63, 64	SEG0, SEG1	O	Segment drive signal output to the liquid crystal display
65	VCC	-	Power supply terminal (+3.3V)
66	VSS	-	Ground terminal
67 to 89	SEG2 to SEG24	O	Segment drive signal output to the liquid crystal display
90	VCC	-	Power supply terminal (+3.3V)
91	VSS	-	Ground terminal
92	X1	I	Main system clock output terminal (6 MHz)
93	X0	O	Main system clock input terminal (6 MHz)
94 to 100	SEG25 to SEG31	O	Segment drive signal output to the liquid crystal display

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.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)
 ↑ ↑
 Parts Color Cabinet's Color
- Abbreviation
AUS : Australian model
CND : Canadian model

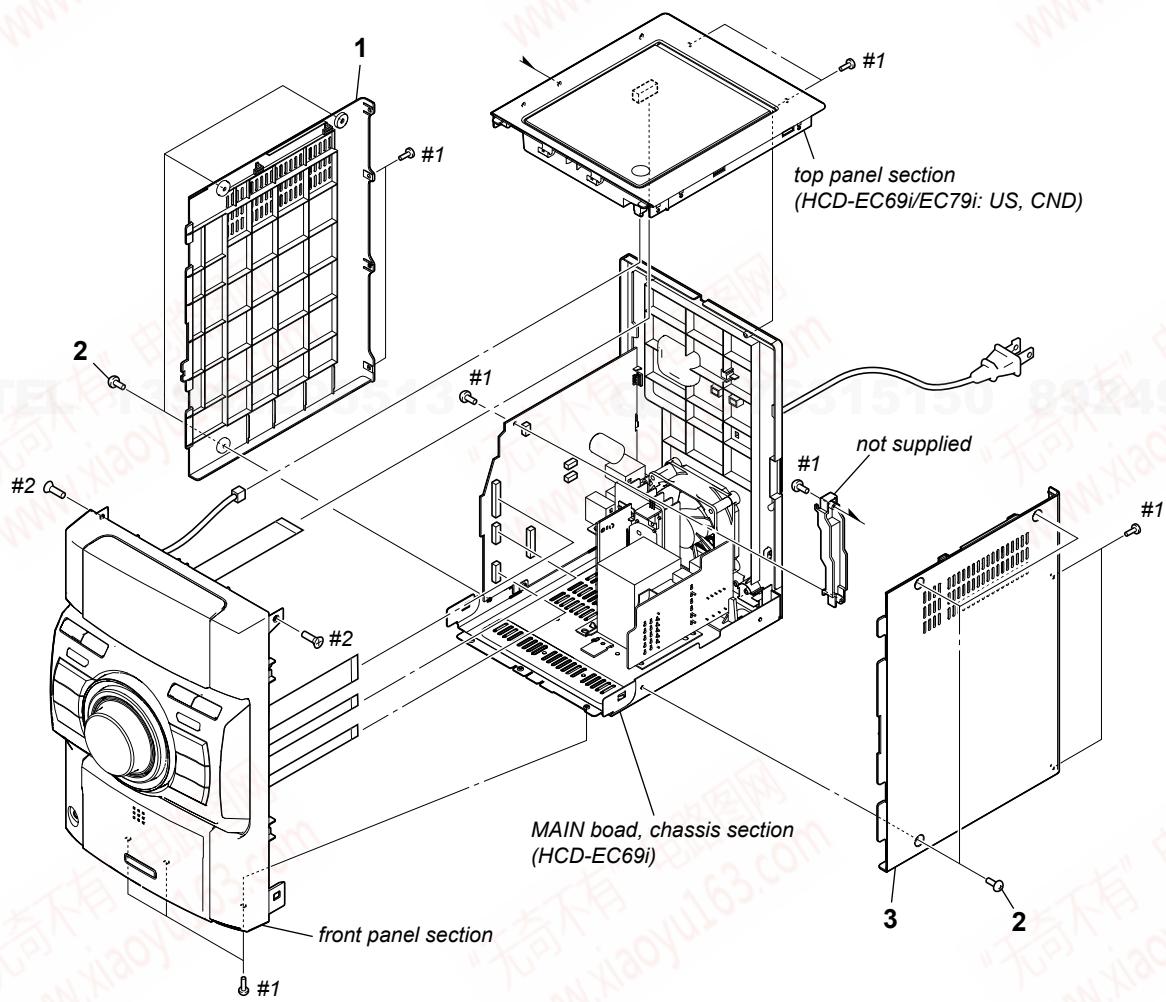
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.

Replace only with part number specified.

Les composants identifiés par une marque \triangle sont critiques pour la sécurité.

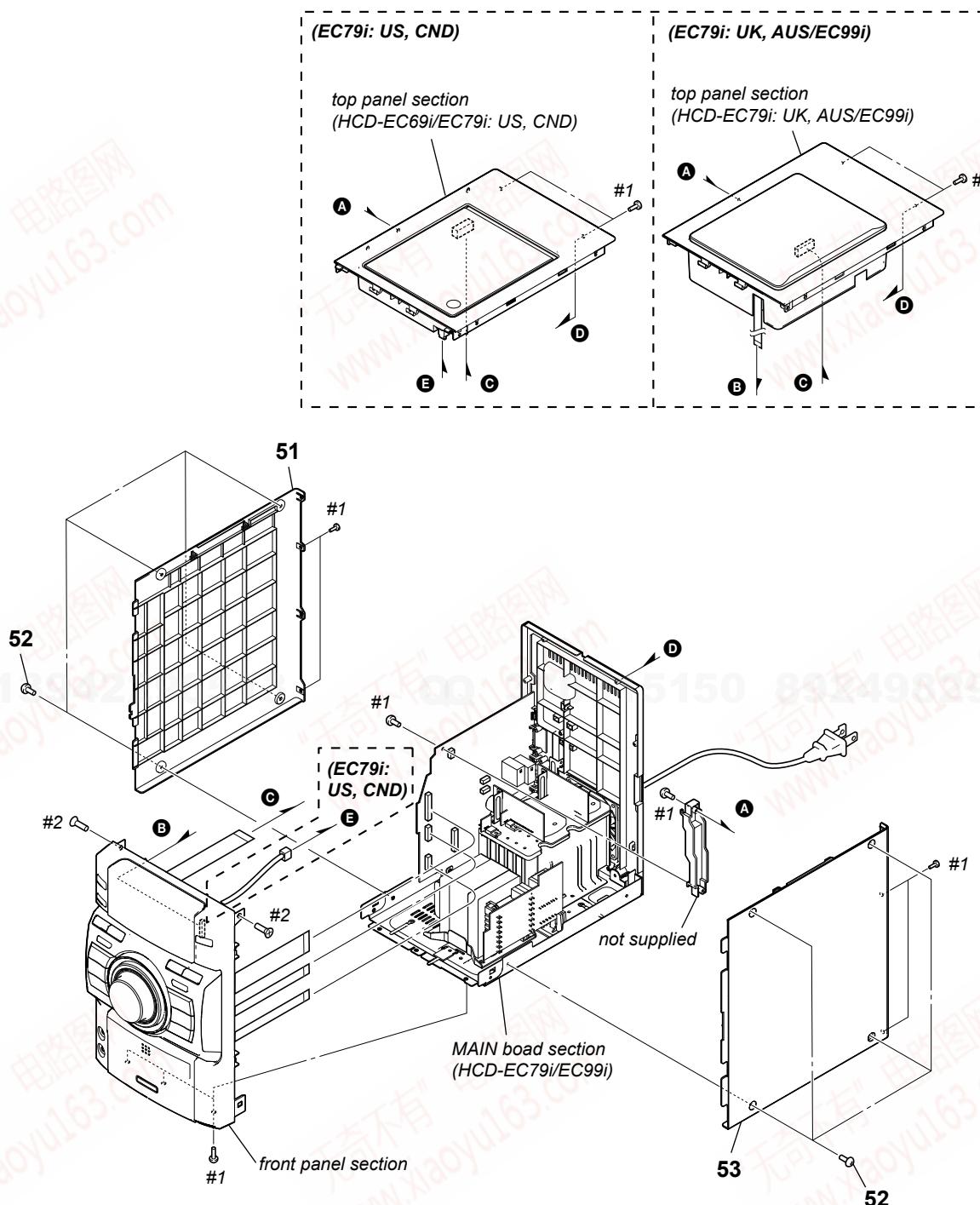
Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. OVERALL SECTION (HCD-EC69i)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-120-682-02	PANEL (L), SIDE (US, CND)		3	4-120-683-12	PANEL (R), SIDE (UK, AUS)	
1	4-120-682-12	PANEL (L), SIDE (UK, AUS)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
2	3-363-099-32	SCREW (CASE 3 TP2)		#2	7-685-247-14	SCREW +KTP 3X10 TYPE2 NON-SLIT	
3	4-120-683-02	PANEL (R), SIDE (US, CND)					

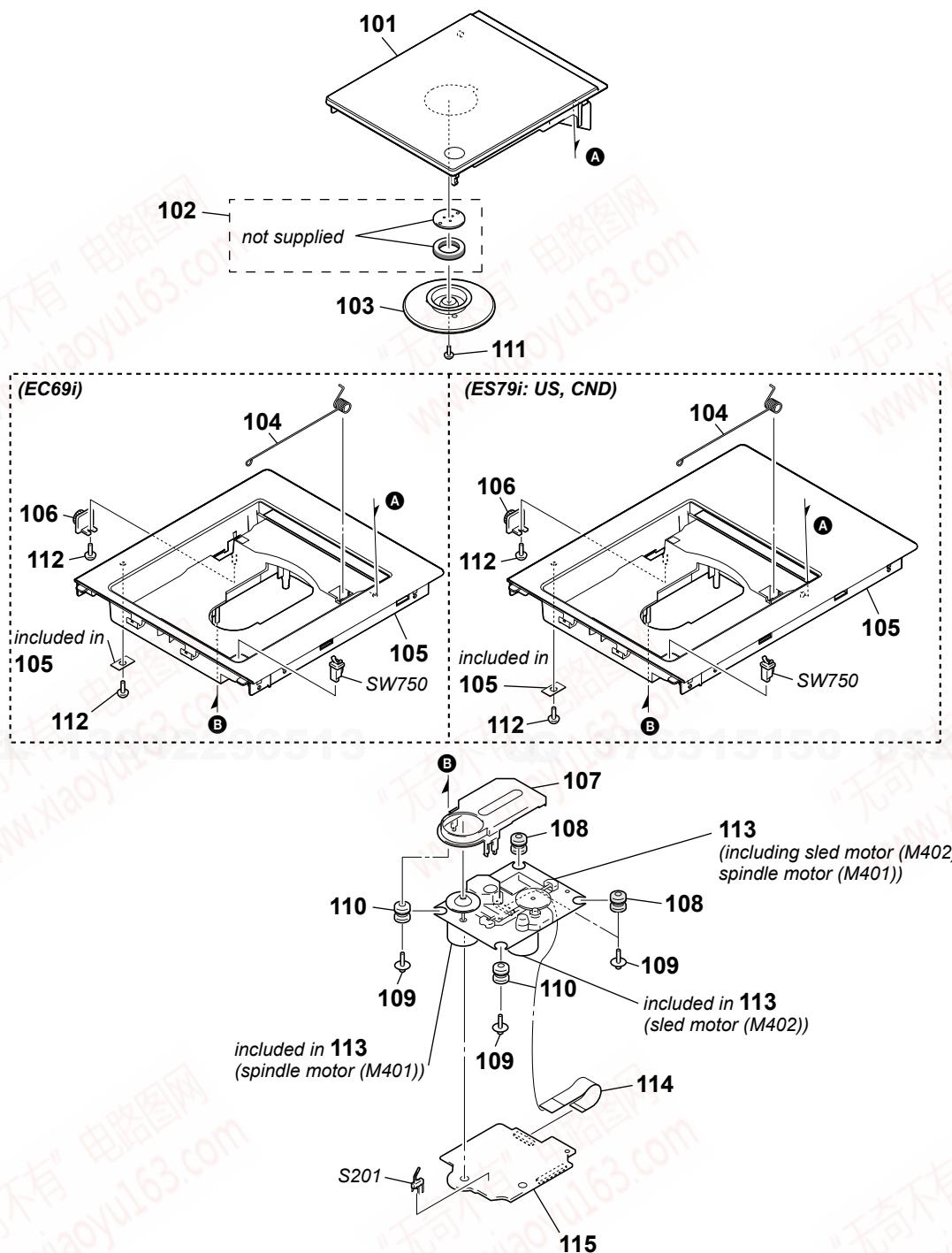
7-2. OVERALL SECTION
(HCD-EC79i/EC99i)



Ref. No.	Part No.	Description
51	2-890-831-01	PANEL (L), SIDE (US, CND)
51	2-890-831-11	PANEL (L), SIDE (UK, AUS)
52	3-363-099-32	SCREW (CASE 3 TP2)
53	2-890-830-01	PANEL (R), SIDE (US, CND)

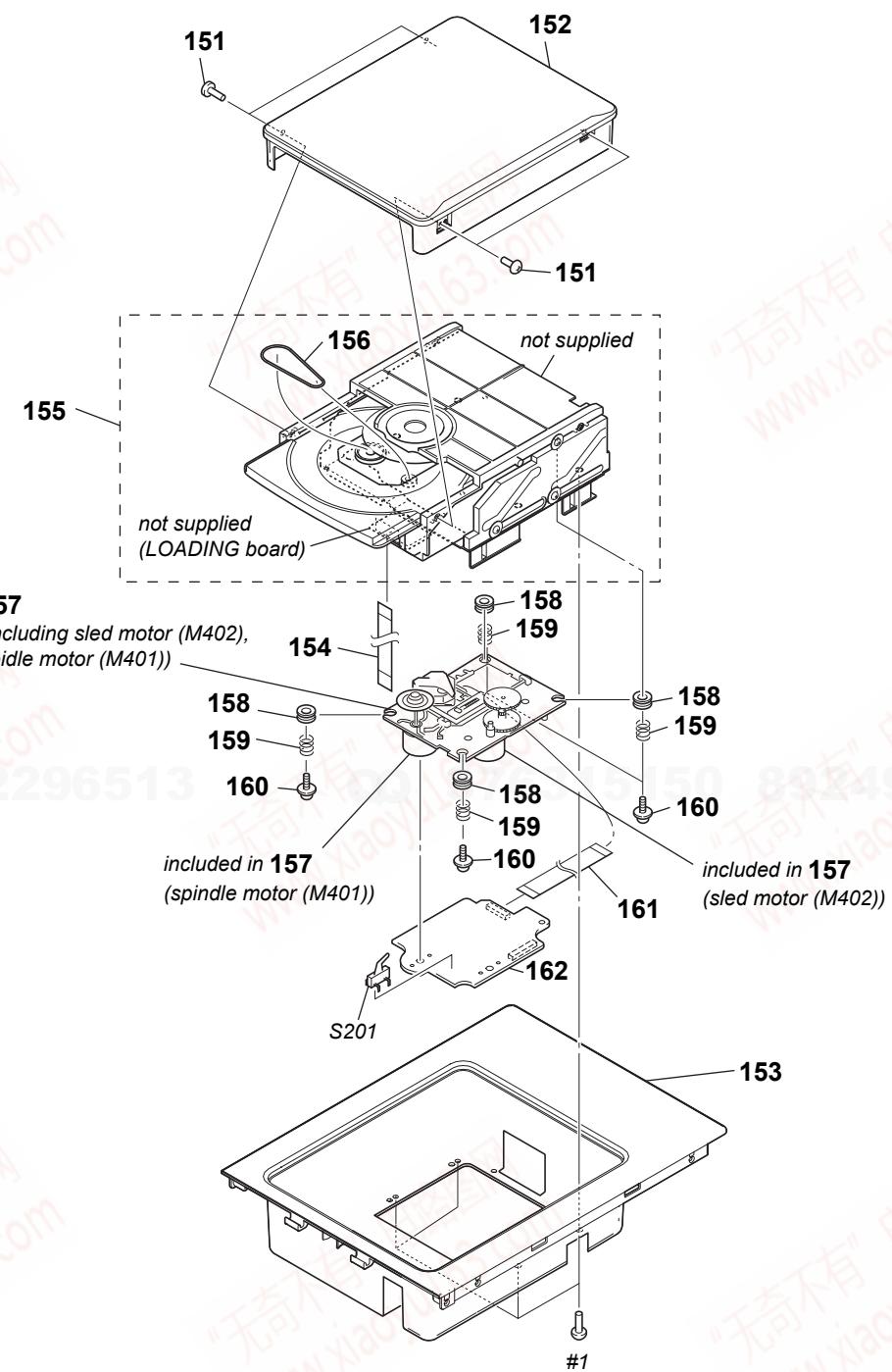
Ref. No.	Part No.	Description	Remark
53	2-890-830-11	PANEL (R), SIDE (UK, AUS)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-247-14	SCREW +KTP 3X10 TYPE2 NON-SLIT	

7-3. TOP PANEL SECTION (HCD-EC69i/EC79i: US, CND)



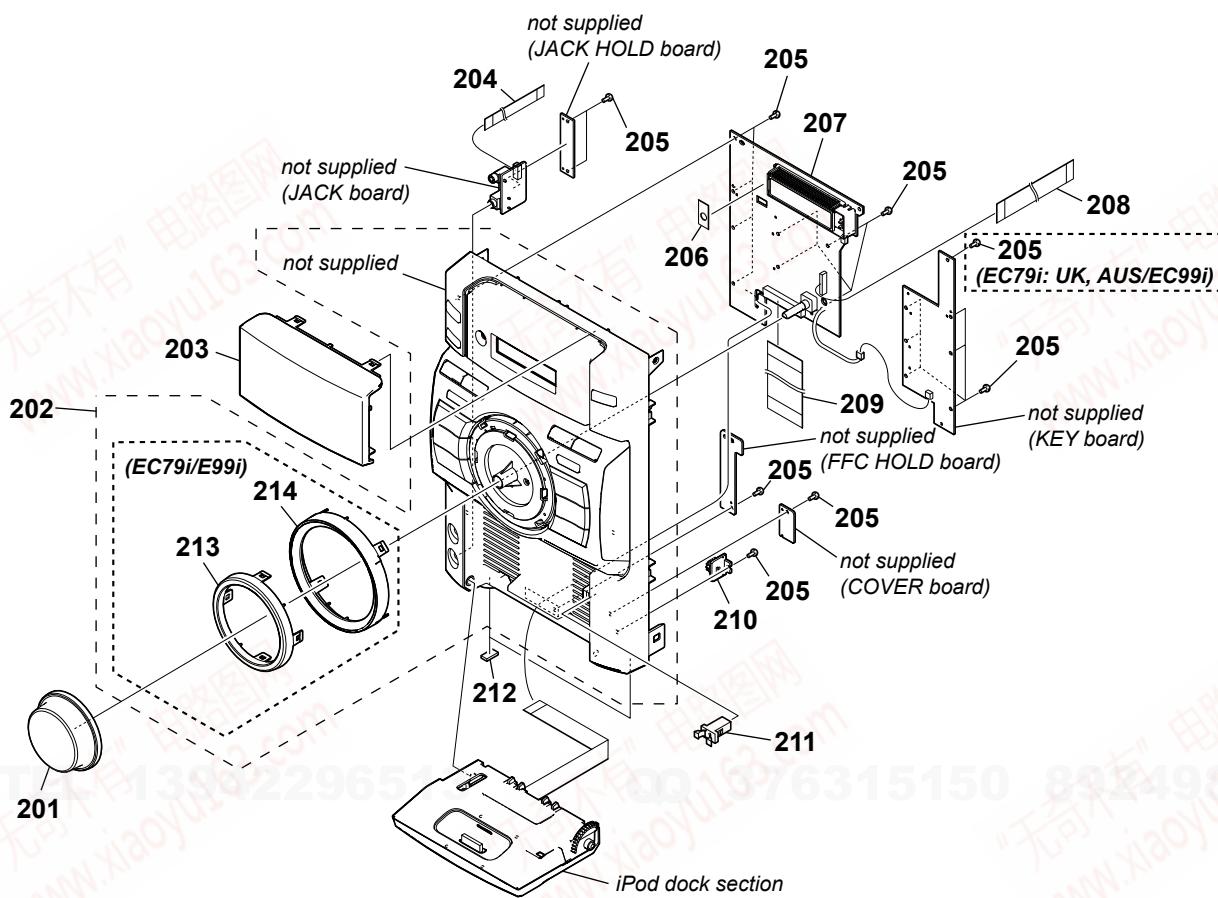
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-120-740-02	LID (CD)		109	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
102	1-452-899-11	MAGNET		110	3-931-379-31	RUBBER, VIBRATION PROOF (GREEN)	
103	3-019-395-01	PLATE, CHUCKING		111	3-253-143-01	SCREW (B2.6), (+) P TAPPING	
104	4-145-341-01	SPRING (LID)		112	3-087-053-01	+BVTP2.6 (3CR)	
105	4-120-739-01	PANEL, TOP (EC69i: US, CND)		△ 113	8-820-126-02	OPTICAL PICK-UP BLOCK (KSM-213CDP/C2NP)	
105	4-120-739-11	PANEL, TOP (EC69i: UK, AUS)		114	1-834-268-21	WIRE (FLAT TYPE) (16 CORE)	
105	4-136-037-01	PANEL, TOP (1) (EC79i: US, CND)		115	A-1217-914-A	CD BOARD, COMPLETE	
106	3-047-468-11	DAMPER		S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
107	4-247-493-01	COVER, CD		SW750	1-692-960-11	SWITCH, PUSH (1 KEY) (CD LID OPEN/CLOSE DETECT)	
108	3-931-379-21	RUBBER, VIBRATION PROOF (RED)					

**7-4. TOP PANEL SECTION
(HCD-EC79i: UK, AUS/EC99i)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	3-253-143-01	SCREW (B2.6), (+) P TAPPING		157	A-4735-357-A	BASE ASSY, OP (KSM-213D)	
152	4-120-662-01	LID, TOP		158	4-227-549-11	INSULATOR	
153	4-120-661-01	PANEL, TOP (LOADING) (EC99i: US, CND)		159	4-227-045-31	SPRING (INSULATOR), COIL	
153	4-120-661-11	PANEL, TOP (LOADING) (EC79i: UK, AUS/EC99i: UK, AUS)		160	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
154	1-836-761-21	CABLE, FLEXIBLE FLAT (5 CORE) (EC79i: UK, AUS/EC99i)		161	1-832-404-21	CABLE, FLEXIBLE FLAT (16 CORE)	
				162	A-1217-914-A	CD BOARD, COMPLETE	
155	A-1579-622-A	CDM76A ASSY		S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
156	4-120-079-01	BELT (CDM76)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

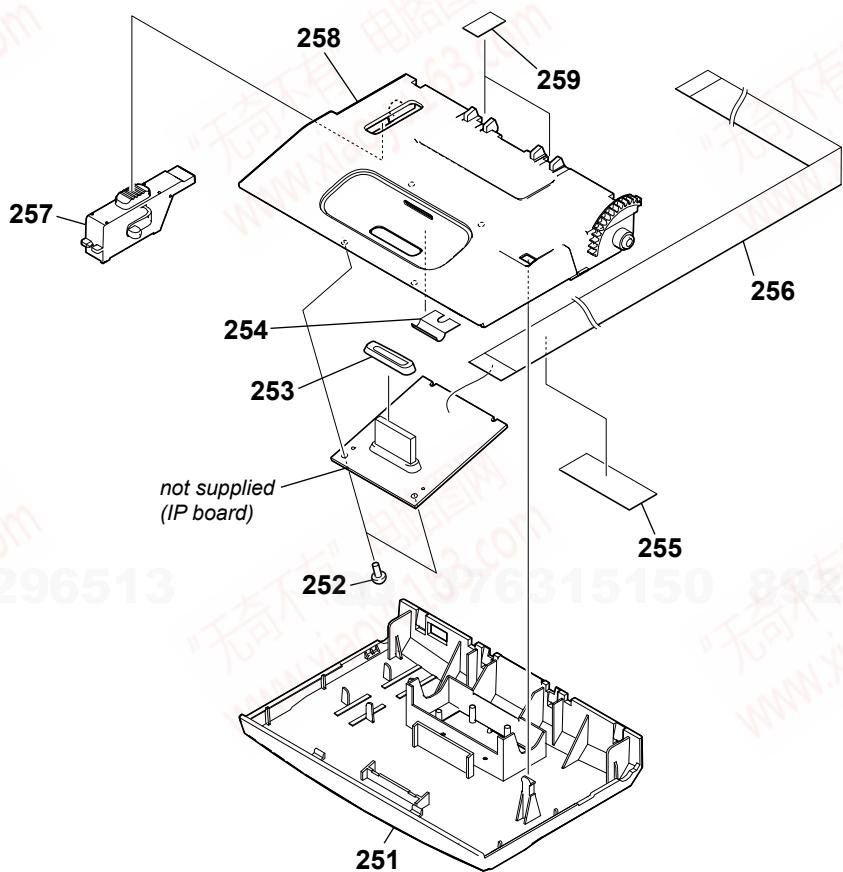
7-5. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-120-663-01	KNOB (VOL)		207	A-1599-065-A	PANEL BOARD, COMPLETE (EC99i: US, CND)	
202	A-1616-644-A	PANEL ASSY, FRONT (EC99i: US, CND)		207	A-1599-078-A	PANEL BOARD, COMPLETE (EC99i: AUS)	
202	A-1616-645-A	PANEL ASSY, FRONT (EC99i: AUS)		207	A-1599-084-A	PANEL BOARD, COMPLETE (EC79i: US, CND)	
202	A-1616-646-A	PANEL ASSY, FRONT (EC79i: US, CND)		207	A-1599-090-A	PANEL BOARD, COMPLETE (EC79i: UK)	
202	A-1616-647-A	PANEL ASSY, FRONT (EC79i: UK)		207	A-1599-094-A	PANEL BOARD, COMPLETE (EC79i: AUS)	
202	A-1616-648-A	PANEL ASSY, FRONT (EC79i: AUS)		207	A-1599-116-A	PANEL BOARD, COMPLETE (EC69i: US, CND)	
202	A-1616-649-A	PANEL ASSY, FRONT (EC69i: US, CND)		207	A-1599-133-A	PANEL BOARD, COMPLETE (EC69i: UK)	
202	A-1616-650-A	PANEL ASSY, FRONT (EC69i: UK)		207	A-1599-136-A	PANEL BOARD, COMPLETE (EC69i: AUS)	
202	A-1616-651-A	PANEL ASSY, FRONT (EC69i: AUS)		207	A-1731-204-A	PANEL BOARD, COMPLETE (EC99i: UK)	
202	A-1731-504-A	PANEL ASSY, FRONT (EC99i: UK)		208	1-836-760-21	CABLE, FLEXIBLE FLAT (21 CORE) (EC69i/ EC79i: US, CND)	
203	4-120-650-01	WINDOW (EC99i: US, CND, AUS)		208	1-836-762-21	CABLE, FLEXIBLE FLAT (21 CORE) (EC79i: UK, AUS/EC99i)	
203	4-120-650-11	WINDOW (EC79i: UK)		209	1-832-896-21	CABLE, FLEXIBLE FLAT (25 CORE) (EC69i)	
203	4-120-650-21	WINDOW (EC79i: US, CND, AUS)		209	1-832-897-21	CABLE, FLEXIBLE FLAT (25 CORE) (EC79i/EC99i)	
203	4-120-650-31	WINDOW (EC69i: UK)		210	3-047-468-62	DAMPER	
203	4-120-650-41	WINDOW (EC69i: US, CND, AUS)		211	3-876-249-01	LATCH	
203	4-120-650-51	WINDOW (EC99i: UK)		212	4-225-252-01	CUSHION (FOOT)	
204	1-832-804-21	CABLE, FLEXIBLE FLAT (7 CORE) (EC69i)		213	4-120-658-01	RING (VOL) (EC79i/EC99i)	
204	1-832-815-21	CABLE, FLEXIBLE FLAT (9 CORE) (EC79i/EC99i)		214	4-120-657-01	RING, ORNAMENT (EC79i/EC99i)	
205	3-087-053-01	+BVTP2.6 (3CR)					
206	3-297-298-01	SHEET (RM)					

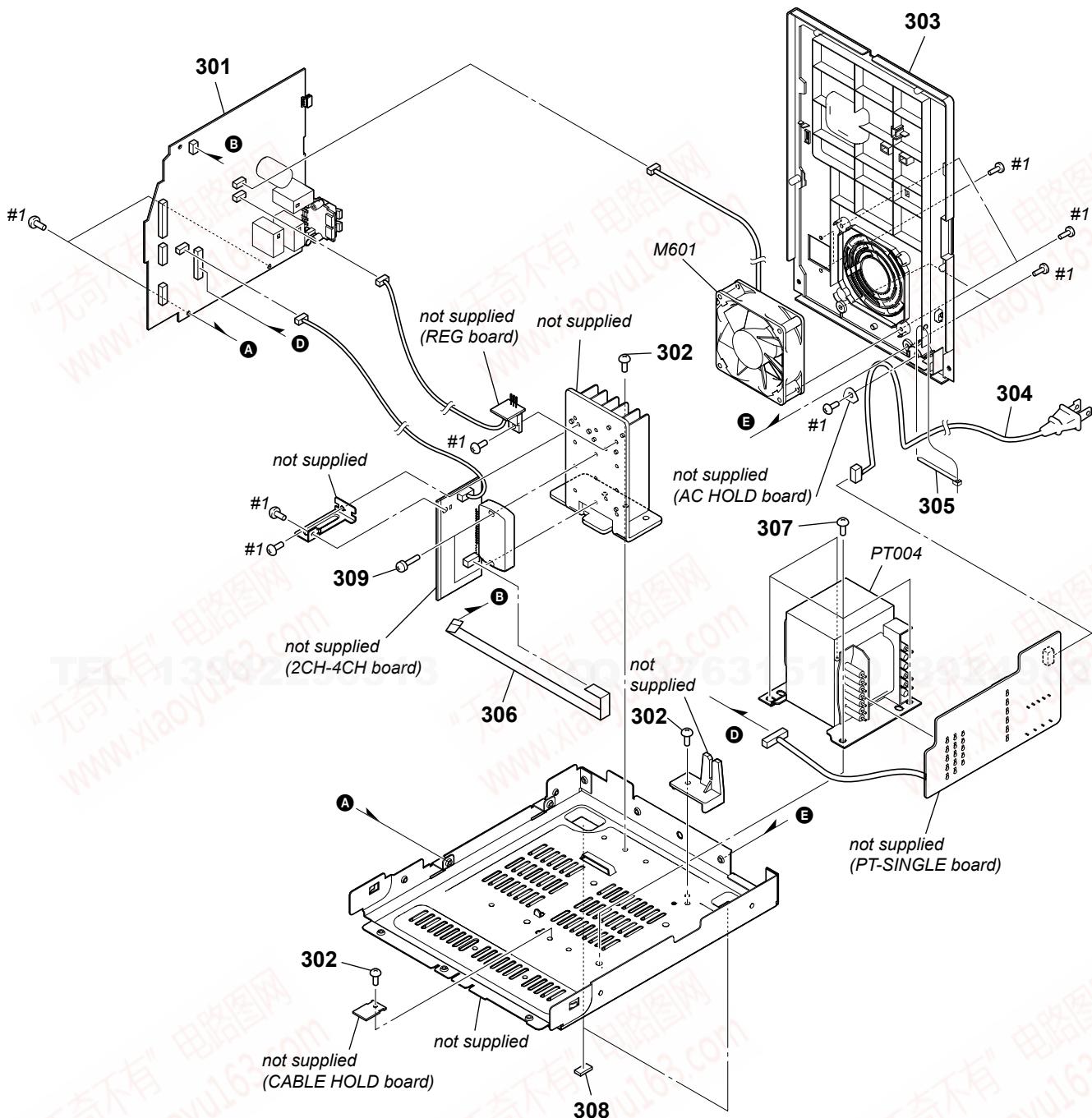
7-6. iPod DOCK SECTION

892498299

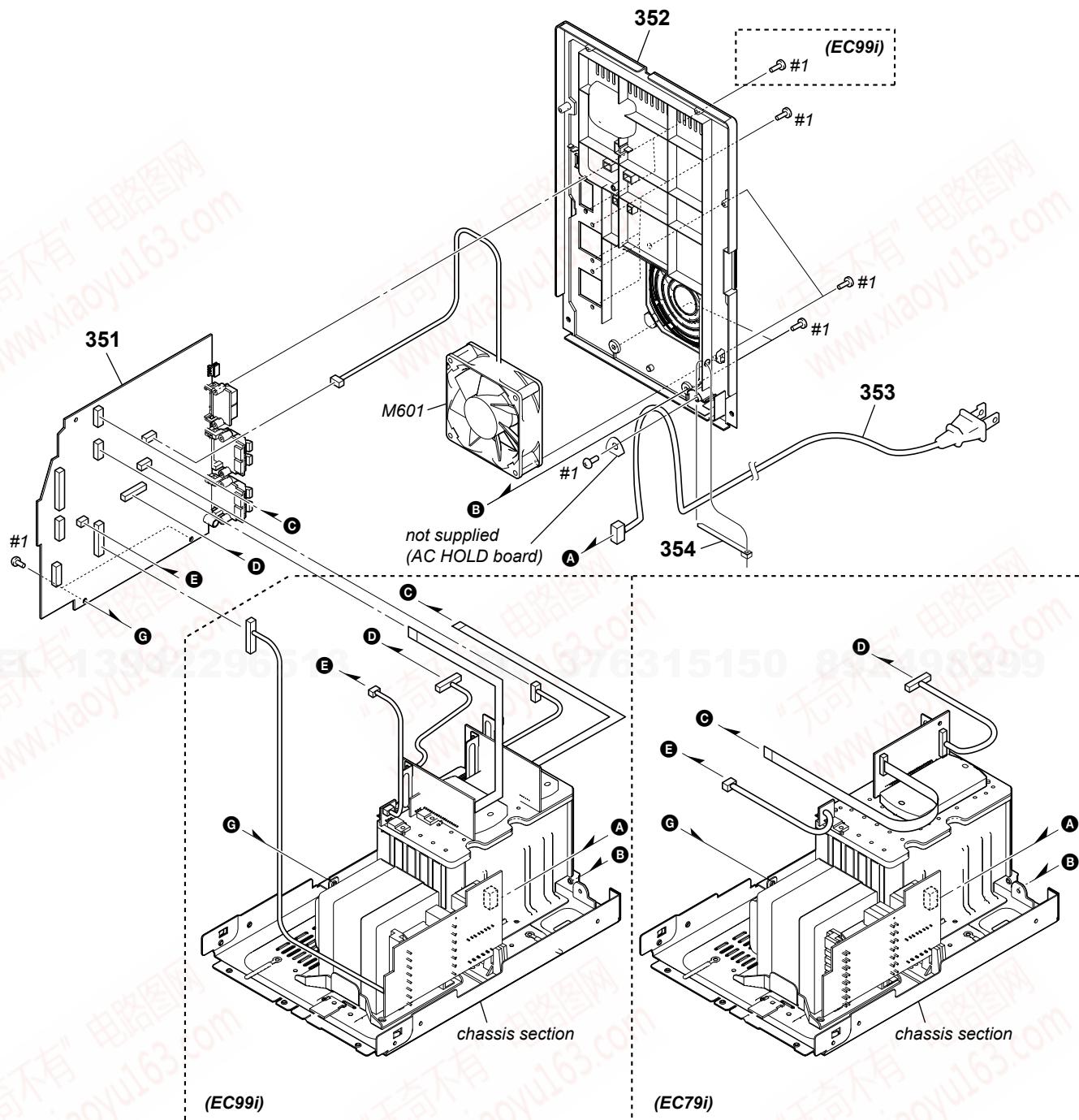


Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	X-2348-584-1	IPOD ASSY (EC79i/EC99i)		256	1-836-763-21	CABLE, FLEXIBLE FLAT (11 CORE) (EC79i/EC99i)	
251	4-120-664-01	PLATE, ORNAMENT (DOCK) (EC69i)		256	1-836-766-21	CABLE, FLEXIBLE FLAT (11 CORE) (EC69i)	
252	3-253-143-01	SCREW (B2.6), (+) P TAPPING		257	4-120-666-01	LOCK (DOCK)	
253	3-277-576-01	ESCUTCHEON		258	4-120-665-01	BASE (DOCK)	
254	3-277-577-01	SPRING		259	4-127-708-01	SHEET	
255	4-127-709-01	SHEET					

**7-7. MAIN BOARD, CHASSIS SECTION
(HCD-EC69i)**

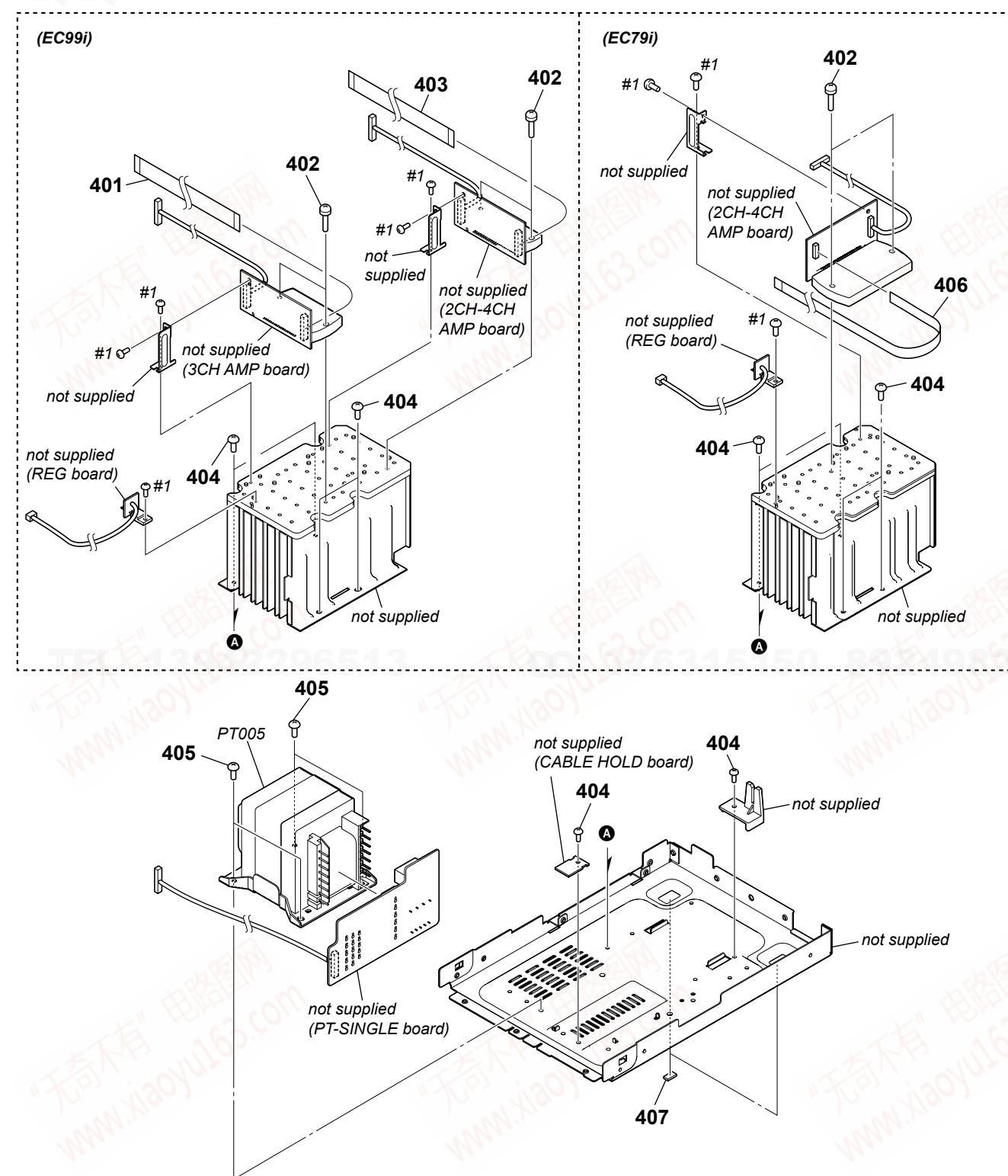


Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	A-1599-114-A	MAIN BOARD, COMPLETE (EC69i: US, CND)		306	1-831-744-21	CABLE, FLEXIBLE FLAT (5 CORE)	
301	A-1599-131-A	MAIN BOARD, COMPLETE (EC69i: UK, AUS)		307	4-900-386-01	SCREW	
302	3-077-331-01	+BV3 (3-CR)		308	4-225-252-01	CUSHION (FOOT)	
303	4-120-681-02	PANEL, BACK (EC69i: US)		309	3-905-609-31	SCREW (TRANSISTOR)	
303	4-120-681-12	PANEL, BACK (EC69i: UK, AUS)		M601	1-787-319-12	FAN, DC (EC69i)	
303	4-120-681-22	PANEL, BACK (EC69i: CND)		△ PT004	1-445-562-11	TRANSFORMER, POWER (EC69i: UK)	
△ 304	1-834-965-22	CORD, POWER (US, CND)		△ PT004	1-445-564-11	TRANSFORMER, POWER (EC69i: US, CND)	
△ 304	1-834-966-41	POWER-SUPPLY CORD (UK)		△ PT004	1-445-574-11	TRANSFORMER, POWER (EC69i: AUS)	
△ 304	1-834-967-21	CORD, POWER (AUS)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
305	3-701-748-00	CLAMP					

7-8. MAIN BOARD SECTION
(HCD-EC79i/EC99i)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	A-1599-061-A	MAIN BOARD, COMPLETE (EC99i: US, CND)		352	4-124-521-52	PANEL, BACK (EC79i: CND)	
351	A-1599-076-A	MAIN BOARD, COMPLETE (EC99i: UK, AUS)		▲ 353	1-834-965-22	CORD, POWER (US, CND)	
351	A-1599-082-A	MAIN BOARD, COMPLETE (EC79i: US, CND)		▲ 353	1-834-966-41	POWER-SUPPLY CORD (UK)	
351	A-1599-088-A	MAIN BOARD, COMPLETE (EC79i: UK, AUS)		▲ 353	1-834-967-21	CORD, POWER (AUS)	
352	4-124-521-02	PANEL, BACK (EC99i: US)		354	3-701-748-00	CLAMP (EC79i/EC99i: US, CND, AUS)	
352	4-124-521-12	PANEL, BACK (EC99i: UK, AUS)		354	4-147-421-01	HOLDER WIRE (EC99i: UK)	
352	4-124-521-22	PANEL, BACK (EC79i: US)		M601	1-787-344-11	FAN, DC (EC79i/EC99i)	
352	4-124-521-32	PANEL, BACK (EC79i: UK, AUS)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
352	4-124-521-42	PANEL, BACK (EC99i: CND)					

**7-9. CHASSIS SECTION
(HCD-EC79i/EC99i)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
401	1-832-806-21	CABLE, FLEXIBLE FLAT (7 CORE) (EC99i)		△ PT005	1-445-565-11	TRANSFORMER, POWER (EC79i: US, CND/ EC99i: US, CND)	
402	3-905-609-31	SCREW (TRANSISTOR)		△ PT005	1-445-566-11	TRANSFORMER, POWER (EC79i: UK/EC99i: UK)	
403	1-831-744-21	CABLE, FLEXIBLE FLAT (5 CORE) (EC99i)		△ PT005	1-445-569-11	TRANSFORMER, POWER (EC79i: AUS/EC99i: AUS)	
404	3-077-331-01	+BV3 (3-CR)					
405	4-900-386-01	SCREW		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
406	1-832-795-21	CABLE, FLEXIBLE FLAT (5 CORE) (EC79i)					
407	4-225-252-01	CUSHION (FOOT)					

SECTION 8

ELECTRICAL PARTS LIST

2CH-4CH AMP

Note:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
 - -XX and -X mean standardized parts, so they may have some difference from the original one.
 - Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - RESISTORS

All resistors are in ohms.

METAL : Metal-film resistor

METAL-OXIDE: Metal-oxide-film resistor

E: nonflammable

- CAPACITORS
uF: μ F
 - COILS
uH: μ H
 - 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
CND : Canadian 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 △ 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	
		2CH-4CH AMP BOARD			*****	C162	1-126-968-11	ELECT	100uF	20%	50V (EC69i)
		< CAPACITOR >				C162	1-128-553-11	ELECT	220uF	20%	63V (EC79i)
C101	1-126-960-11	ELECT	1uF	20%	50V	C162	1-128-576-11	ELECT	100uF	20%	63V (EC99i)
C102	1-126-960-11	ELECT	1uF	20%	50V	C163	1-126-968-11	ELECT	100uF	20%	50V (EC69i)
C103	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	C163	1-128-553-11	ELECT	220uF	20%	63V (EC79i)
C104	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	C164	1-165-621-91	CERAMIC CHIP	0.1uF	50V	
C105	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C165	1-165-621-91	CERAMIC CHIP	0.1uF	50V	
C106	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C166	1-128-582-11	ELECT	10uF	20%	100V (EC79i)
C107	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V	C167	1-128-582-11	ELECT	10uF	20%	100V (EC79i)
C108	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V	CN100	1-784-766-11	CONNECTOR, FFC 5P			
C109	1-126-947-11	ELECT	47uF	20%	35V	CN101	1-820-831-11	HOLDER, CABLE 7P	(EC79i)		
C110	1-126-947-11	ELECT	47uF	20%	35V	CN102	1-824-030-21	HOLDER, CABLE 5P	(EC69i/EC99i)		
C111	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V						< CONNECTOR >
C112	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	D140	6-501-817-01	DIODE	MA2J1100GLS0		
C119	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (EC79i)	D141	6-500-335-01	DIODE	MC2838-T112-1		
C120	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (EC79i)	D152	6-500-335-01	DIODE	MC2838-T112-1	(EC79i)	
C121	1-126-960-11	ELECT	1uF	20%	50V (EC79i)						< DIODE >
C122	1-126-960-11	ELECT	1uF	20%	50V (EC79i)						
C123	1-164-315-11	CERAMIC CHIP	470PF	5%	50V (EC79i)	IC101	6-600-732-01	IC	STK433-890-E	(EC79i)	
C124	1-164-315-11	CERAMIC CHIP	470PF	5%	50V (EC79i)	IC102	6-705-625-01	IC	STK433-040	(EC69i)	
C125	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EC79i)	IC103	6-600-580-01	IC	STK433-090-E	(EC99i)	
C126	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (EC79i)						< IC >
C127	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V (EC79i)						
C128	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V (EC79i)	JR101	1-216-864-11	SHORT CHIP	0		
C129	1-126-960-11	ELECT	1uF	20%	50V (EC79i)	JR102	1-216-864-11	SHORT CHIP	0		
C130	1-126-960-11	ELECT	1uF	20%	50V (EC79i)	JR103	1-216-864-11	SHORT CHIP	0		
C141	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V						< TRANSISTOR >
C142	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	Q141	6-551-270-01	TRANSISTOR	2SA2026		
C151	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V (EC79i)	Q142	6-551-270-01	TRANSISTOR	2SA2026		
C152	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V (EC79i)	Q151	6-551-270-01	TRANSISTOR	2SA2026	(EC79i)	
C152	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V (EC79i)	Q152	6-551-270-01	TRANSISTOR	2SA2026	(EC79i)	
C160	1-165-621-91	CERAMIC CHIP	0.1uF		50V						
C161	1-165-621-91	CERAMIC CHIP	0.1uF		50V						

HCD-EC69i/EC79i/EC99i

2CH-4CH AMP	3CH AMP
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
< RESISTOR >											
R103	1-216-820-11	METAL CHIP	820 5% 1/10W (EC79i)	R144	1-216-837-11	METAL CHIP	22K 5% 1/10W				
R103	1-216-822-11	METAL CHIP	1.2K 5% 1/10W (EC99i)	R145	1-216-825-11	METAL CHIP	2.2K 5% 1/10W				
R103	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (EC69i)	R146	1-216-825-11	METAL CHIP	2.2K 5% 1/10W				
R104	1-216-820-11	METAL CHIP	820 5% 1/10W (EC79i)	R151	1-216-822-11	METAL CHIP	1.2K 5% 1/10W (EC79i)				
R104	1-216-822-11	METAL CHIP	1.2K 5% 1/10W (EC99i)	R152	1-216-822-11	METAL CHIP	1.2K 5% 1/10W (EC79i)				
R104	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (EC69i)	R153	1-216-837-11	METAL CHIP	22K 5% 1/10W (EC79i)				
R105	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (EC69i)	R154	1-216-837-11	METAL CHIP	22K 5% 1/10W (EC79i)				
R105	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (EC69i)	R155	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (EC79i)				
R105	1-216-829-11	METAL CHIP	4.7K 5% 1/10W (EC79i/EC99i)	R156	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (EC79i)				
R106	1-216-825-11	METAL CHIP	2.2K 5% 1/10W (EC69i)	R160	1-216-813-11	METAL CHIP	220 5% 1/10W				
R106	1-216-829-11	METAL CHIP	4.7K 5% 1/10W (EC79i/EC99i)	R161	1-216-813-11	METAL CHIP	220 5% 1/10W				
R107	1-216-841-11	METAL CHIP	47K 5% 1/10W	R162	1-216-813-11	METAL CHIP	220 5% 1/10W				
R108	1-216-841-11	METAL CHIP	47K 5% 1/10W	R163	1-216-813-11	METAL CHIP	220 5% 1/10W				
R109	1-216-817-11	METAL CHIP	470 5% 1/10W	R164	1-216-813-11	METAL CHIP	220 5% 1/10W (EC79i)				
R110	1-216-817-11	METAL CHIP	470 5% 1/10W	R165	1-216-813-11	METAL CHIP	220 5% 1/10W (EC79i)				
△ R111	1-216-361-31	METAL OXIDE	0.22 5% 2W F	R166	1-216-813-11	METAL CHIP	220 5% 1/10W (EC79i)				
△ R112	1-216-361-31	METAL OXIDE	0.22 5% 2W F	R167	1-216-813-11	METAL CHIP	220 5% 1/10W (EC79i)				
R113	1-216-841-11	METAL CHIP	47K 5% 1/10W	*****							
R114	1-216-841-11	METAL CHIP	47K 5% 1/10W	3CH AMP BOARD (EC99i)							
R115	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	*****							
R116	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	< CAPACITOR >							
R119	1-216-809-11	METAL CHIP	100 5% 1/10W	C201	1-126-960-11	ELECT	1uF 20% 50V				
R120	1-216-821-11	METAL CHIP	1K 5% 1/10W	C202	1-126-960-11	ELECT	1uF 20% 50V				
R123	1-216-820-11	METAL CHIP	820 5% 1/10W (EC79i)	C203	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
R124	1-216-820-11	METAL CHIP	820 5% 1/10W (EC79i)	C204	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
R125	1-216-829-11	METAL CHIP	4.7K 5% 1/10W (EC79i)	C205	1-162-927-11	CERAMIC CHIP	100PF 5% 50V				
R126	1-216-829-11	METAL CHIP	4.7K 5% 1/10W (EC79i)	C206	1-162-927-11	CERAMIC CHIP	100PF 5% 50V				
R127	1-216-841-11	METAL CHIP	47K 5% 1/10W (EC79i)	C207	1-126-960-11	ELECT	1uF 20% 50V				
R128	1-216-841-11	METAL CHIP	47K 5% 1/10W (EC79i)	C208	1-126-960-11	ELECT	1uF 20% 50V				
R129	1-216-817-11	METAL CHIP	470 5% 1/10W (EC79i)	C209	1-162-908-11	CERAMIC CHIP	3PF 0.25PF 50V				
R130	1-216-817-11	METAL CHIP	470 5% 1/10W (EC79i)	C210	1-162-908-11	CERAMIC CHIP	3PF 0.25PF 50V				
△ R131	1-216-361-31	METAL OXIDE	0.22 5% 2W F (EC79i)	C211	1-126-960-11	ELECT	1uF 20% 50V				
△ R132	1-216-361-31	METAL OXIDE	0.22 5% 2W F (EC79i)	C212	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
R133	1-216-841-11	METAL CHIP	47K 5% 1/10W (EC79i)	C213	1-162-927-11	CERAMIC CHIP	100PF 5% 50V				
R134	1-216-841-11	METAL CHIP	47K 5% 1/10W (EC79i)	C214	1-126-947-11	ELECT	47uF 20% 35V				
R135	1-216-823-11	METAL CHIP	1.5K 5% 1/10W (EC79i)	C215	1-162-908-11	CERAMIC CHIP	3PF 0.25PF 50V				
R136	1-216-823-11	METAL CHIP	1.5K 5% 1/10W (EC79i)	C216	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V				
R141	1-216-822-11	METAL CHIP	1.2K 5% 1/10W	C217	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
R142	1-216-822-11	METAL CHIP	1.2K 5% 1/10W	C218	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
R143	1-216-837-11	METAL CHIP	22K 5% 1/10W	C219	1-128-576-11	ELECT	100uF 20% 63V				
				C220	1-128-576-11	ELECT	100uF 20% 63V				
				C223	1-165-621-91	CERAMIC CHIP	0.1uF 50V				
				C224	1-165-621-91	CERAMIC CHIP	0.1uF 50V				
				C225	1-100-566-91	CERAMIC CHIP	0.1uF 10% 25V				
				C226	1-100-566-91	CERAMIC CHIP	0.1uF 10% 25V				
				C227	1-100-566-91	CERAMIC CHIP	0.1uF 10% 25V				
				C228	1-100-566-91	CERAMIC CHIP	0.1uF 10% 25V				
				C229	1-165-621-91	CERAMIC CHIP	0.1uF 50V				
				C230	1-165-621-91	CERAMIC CHIP	0.1uF 50V				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
< CONNECTOR >											
CN203	1-568-826-11	CONNECTOR, FFC 7P		R245	1-216-817-11	METAL CHIP	470 5% 1/10W				
CN205	1-820-831-11	HOLDER, CABLE 7P		R246	1-216-817-11	METAL CHIP	470 5% 1/10W				

< DIODE >											
D201	6-500-335-01	DIODE MC2838-T112-1		< CAPACITOR >							
D202	6-501-817-01	DIODE MA2J110GLS0		C100	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
D203	6-501-817-01	DIODE MA2J110GLS0		C101	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
< IC >				C102	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
IC201	6-712-141-01	IC STK433-330-E		C103	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
< JUMPER RESISTOR >				C104	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
JR201	1-216-864-11	SHORT CHIP 0		C105	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
JR202	1-216-864-11	SHORT CHIP 0		C106	1-128-995-21	ELECT CHIP	100uF 20% 10V				
< TRANSISTOR >				C107	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
Q201	6-551-270-01	TRANSISTOR 2SA2026		C108	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
Q202	6-551-270-01	TRANSISTOR 2SA2026		C109	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
Q203	6-551-270-01	TRANSISTOR 2SA2026		< RESISTOR >							
R203	1-216-822-11	METAL CHIP 1.2K	5% 1/10W	C110	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
R204	1-216-822-11	METAL CHIP 1.2K	5% 1/10W	C112	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
R205	1-216-829-11	METAL CHIP 4.7K	5% 1/10W	C113	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
R206	1-216-829-11	METAL CHIP 4.7K	5% 1/10W	C115	1-124-778-00	ELECT CHIP	22uF 20% 6.3V				
R207	1-216-841-11	METAL CHIP 47K	5% 1/10W	C116	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
R208	1-216-841-11	METAL CHIP 47K	5% 1/10W	C117	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V				
R209	1-216-823-11	METAL CHIP 1.5K	5% 1/10W	C118	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
R210	1-216-823-11	METAL CHIP 1.5K	5% 1/10W	C119	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V				
R211	1-216-841-11	METAL CHIP 47K	5% 1/10W	C120	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
R212	1-216-841-11	METAL CHIP 47K	5% 1/10W	C122	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
R213	1-216-841-11	METAL CHIP 47K	5% 1/10W	C123	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
R214	1-216-841-11	METAL CHIP 47K	5% 1/10W	C124	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V				
R215	1-216-813-11	METAL CHIP 220	5% 1/10W	C125	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V				
R216	1-216-813-11	METAL CHIP 220	5% 1/10W	C126	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V				
R217	1-216-837-11	METAL CHIP 22K	5% 1/10W	C127	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V				
R218	1-216-841-11	METAL CHIP 47K	5% 1/10W	C128	1-162-910-11	CERAMIC CHIP	5PF 0.25PF 50V				
R219	1-216-821-11	METAL CHIP 1K	5% 1/10W	C130	1-162-910-11	CERAMIC CHIP	5PF 0.25PF 50V				
R220	1-216-817-11	METAL CHIP 470	5% 1/10W	C132	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
R221	1-216-841-11	METAL CHIP 47K	5% 1/10W	C133	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V				
R222	1-216-809-11	METAL CHIP 100	5% 1/10W	C136	1-162-923-11	CERAMIC CHIP	47PF 5% 50V				
R223	1-216-821-11	METAL CHIP 1K	5% 1/10W	C137	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
R224	1-216-813-11	METAL CHIP 220	5% 1/10W	C138	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
R225	1-216-813-11	METAL CHIP 220	5% 1/10W	C139	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
R226	1-216-813-11	METAL CHIP 220	5% 1/10W	C140	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
R227	1-216-813-11	METAL CHIP 220	5% 1/10W	C141	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V				
R228	1-216-813-11	METAL CHIP 220	5% 1/10W	C142	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V				
▲ R229	1-216-361-31	METAL OXIDE 0.22	5% 2W F	C143	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
▲ R230	1-216-361-31	METAL OXIDE 0.22	5% 2W F	C144	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V				
R231	1-216-822-11	METAL CHIP 1.2K	5% 1/10W	C145	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V				
R232	1-216-822-11	METAL CHIP 1.2K	5% 1/10W	C146	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
R233	1-216-837-11	METAL CHIP 22K	5% 1/10W	C147	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V				
R234	1-216-837-11	METAL CHIP 22K	5% 1/10W	C148	1-162-923-11	CERAMIC CHIP	47PF 5% 50V				
R235	1-216-825-11	METAL CHIP 2.2K	5% 1/10W	C149	1-162-919-11	CERAMIC CHIP	22PF 5% 50V				
R236	1-216-825-11	METAL CHIP 2.2K	5% 1/10W	C150	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V				
▲ R237	1-216-365-61	METAL OXIDE 0.47	5% 2W F	C151	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
▲ R238	1-216-365-61	METAL OXIDE 0.47	5% 2W F	C152	1-164-315-11	CERAMIC CHIP	470PF 5% 50V				
R239	1-216-823-11	METAL CHIP 1.5K	5% 1/10W	C153	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
R240	1-216-837-11	METAL CHIP 22K	5% 1/10W	C201	1-128-995-21	ELECT CHIP	100uF 20% 10V				
R241	1-216-825-11	METAL CHIP 2.2K	5% 1/10W	C202	1-128-995-21	ELECT CHIP	100uF 20% 10V				
R242	1-216-823-11	METAL CHIP 1.5K	5% 1/10W	C204	1-164-360-11	CERAMIC CHIP	0.1uF 16V				
R244	1-216-864-11	SHORT CHIP 0		C205	1-164-360-11	CERAMIC CHIP	0.1uF 10% 10V				
				C206	1-165-908-11	CERAMIC CHIP	1uF 10% 10V				
				C207	1-165-908-11	CERAMIC CHIP	1uF 10% 10V				

CD IP

Ref. No.	Part No.	Description	Value	Unit	Remark	Ref. No.	Part No.	Description	Value	Unit	Remark						
C301	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R154	1-216-857-11	METAL CHIP	1M	5%	1/10W						
C302	1-137-710-91	CERAMIC CHIP	10uF	20%	6.3V	R155	1-216-805-11	METAL CHIP	47	5%	1/10W						
C303	1-137-710-91	CERAMIC CHIP	10uF	20%	6.3V	R156	1-216-809-11	METAL CHIP	100	5%	1/10W						
C306	1-128-995-21	ELECT CHIP	100uF	20%	10V	R157	1-216-809-11	METAL CHIP	100	5%	1/10W						
C307	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	R201	1-216-295-91	SHORT CHIP	0								
C309	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	R202	1-216-295-91	SHORT CHIP	0								
C401	1-128-394-11	ELECT CHIP	220uF	20%	10V	R203	1-216-809-11	METAL CHIP	100	5%	1/10W						
C403	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R204	1-216-809-11	METAL CHIP	100	5%	1/10W						
C404	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R205	1-216-809-11	METAL CHIP	100	5%	1/10W						
C405	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R206	1-216-809-11	METAL CHIP	100	5%	1/10W						
< CONNECTOR >																	
CN201	1-784-833-51	CONNECTOR, FFC (LIF (NON-ZIF)) 21P				R207	1-216-809-11	METAL CHIP	100	5%	1/10W						
CN301	1-770-425-51	CONNECTOR, FFC/FPC 16P				R208	1-216-809-11	METAL CHIP	100	5%	1/10W						
< IC >																	
IC101	6-709-624-01	IC TC94A70FG-006				R209	1-216-809-11	METAL CHIP	100	5%	1/10W						
IC201	6-710-808-01	IC TK63115SCL-G@GT				R210	1-216-809-11	METAL CHIP	100	5%	1/10W						
IC401	6-710-637-01	IC BA5826SFP-E2				R211	1-216-809-11	METAL CHIP	100	5%	1/10W						
< TRANSISTOR >																	
Q301	6-551-120-01	TRANSISTOR	2SA2119K			R212	1-216-809-11	METAL CHIP	100	5%	1/10W						
< RESISTOR >																	
R101	1-216-813-11	METAL CHIP	220	5%	1/10W	R218	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R102	1-216-833-11	METAL CHIP	10K	5%	1/10W	R219	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R104	1-216-295-91	SHORT CHIP	0			R220	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R105	1-216-857-11	METAL CHIP	1M	5%	1/10W	R221	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R106	1-216-821-11	METAL CHIP	1K	5%	1/10W	R222	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R108	1-216-864-11	SHORT CHIP	0			R223	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R110	1-216-833-11	METAL CHIP	10K	5%	1/10W	R301	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R111	1-216-809-11	METAL CHIP	100	5%	1/10W	R302	1-216-864-11	SHORT CHIP	0								
R112	1-216-809-11	METAL CHIP	100	5%	1/10W	R303	1-216-789-11	METAL CHIP	2.2	5%	1/10W						
R113	1-216-833-11	METAL CHIP	10K	5%	1/10W	R304	1-216-789-11	METAL CHIP	2.2	5%	1/10W						
R114	1-216-833-11	METAL CHIP	10K	5%	1/10W	R402	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R118	1-216-845-11	METAL CHIP	100K	5%	1/10W	R405	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R120	1-216-864-11	SHORT CHIP	0			R408	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R125	1-216-864-11	SHORT CHIP	0			R414	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R126	1-216-864-11	SHORT CHIP	0			R415	1-216-841-11	METAL CHIP	47K	5%	1/10W						
< VIBRATOR >																	
X102	1-795-101-21	VIBRATOR, CERAMIC (16.9344MHz)				IP BOARD											

< CAPACITOR >																	
R127	1-216-864-11	SHORT CHIP	0			C903	1-164-156-11	CERAMIC CHIP	0.1uF		25V						
R128	1-216-853-11	METAL CHIP	470K	5%	1/10W	C904	1-164-156-11	CERAMIC CHIP	0.1uF		25V						
R129	1-216-821-11	METAL CHIP	1K	5%	1/10W	C907	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
R130	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C908	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
R134	1-216-857-11	METAL CHIP	1M	5%	1/10W	C909	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V						
R135	1-216-853-11	METAL CHIP	470K	5%	1/10W	< CONNECTOR >											
R136	1-216-837-11	METAL CHIP	22K	5%	1/10W	CN902	1-820-701-11	PIN, CONNECTOR 30P (iPod Dock)									
R139	1-216-841-11	METAL CHIP	47K	5%	1/10W	< DIODE >											
R140	1-216-864-11	SHORT CHIP	0			D901	8-719-071-34	DIODE RB521S-30-TE61									
R142	1-216-837-11	METAL CHIP	22K	5%	1/10W	D902	6-502-733-01	LED SML-E12UWT86R (iPod INDICATOR) (EC79i/EC99i)									
R143	1-216-841-11	METAL CHIP	47K	5%	1/10W	D906	6-502-733-01	LED SML-E12UWT86R (iPod INDICATOR) (EC79i/EC99i)									
R144	1-216-837-11	METAL CHIP	22K	5%	1/10W	< RESISTOR >											
R145	1-216-864-11	SHORT CHIP	0			R901	1-216-809-11	METAL CHIP	100	5%	1/10W						
R146	1-216-864-11	SHORT CHIP	0			R902	1-216-809-11	METAL CHIP	100	5%	1/10W						
R147	1-216-864-11	SHORT CHIP	0			R903	1-216-809-11	METAL CHIP	100	5%	1/10W						
R148	1-216-864-11	SHORT CHIP	0			R904	1-216-809-11	METAL CHIP	100	5%	1/10W						
R149	1-216-864-11	SHORT CHIP	0														
R150	1-216-864-11	SHORT CHIP	0														
R151	1-216-864-11	SHORT CHIP	0														
R153	1-216-857-11	METAL CHIP	1M	5%	1/10W												

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark		
R905	1-218-895-11	METAL CHIP	100K	0.5%	1/10W	SW325	1-771-410-21	SWITCH, TACTILE (DSGX)			
R906	1-218-895-11	METAL CHIP	100K	0.5%	1/10W	SW326	1-771-410-21	SWITCH, TACTILE (▲) (EC79i: UK, AUS/EC99i)		*****	
R907	1-218-892-11	METAL CHIP	75K	0.5%	1/10W						
R908	1-218-895-11	METAL CHIP	100K	0.5%	1/10W				LOADING BOARD (EC79i: UK, AUS/EC99i)		
R909	1-218-895-11	METAL CHIP	100K	0.5%	1/10W				*****		
R910	1-218-892-11	METAL CHIP	75K	0.5%	1/10W						
R911	1-218-907-11	METAL CHIP	330K	0.5%	1/10W				When the LOADING board is damaged, exchange the entire CDM76A Assy (EC79i: UK, Australian/EC99i).		
R912	1-218-903-11	METAL CHIP	220K	0.5%	1/10W				*****		
R913	1-216-809-11	METAL CHIP	100	5%	1/10W						
R914	1-216-809-11	METAL CHIP	100	5%	1/10W						
R917	1-216-811-11	METAL CHIP	150	5%	1/10W	A-1599-061-A	MAIN BOARD, COMPLETE (EC99i: US, CND)				
					(EC79i/EC99i)	A-1599-076-A	MAIN BOARD, COMPLETE (EC99i: UK, AUS)				
R920	1-216-811-11	METAL CHIP	150	5%	1/10W	A-1599-082-A	MAIN BOARD, COMPLETE (EC79i: US, CND)				
					(EC79i/EC99i)	A-1599-088-A	MAIN BOARD, COMPLETE (EC79i: UK, AUS)				
						A-1599-114-A	MAIN BOARD, COMPLETE (EC69i: US, CND)				

JACK BOARD											

< CAPACITOR >											
C495	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C601	1-126-962-11	ELECT	3.3uF	20%	50V
C496	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C602	1-126-947-11	ELECT	47uF	20%	35V
						C603	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
< CONNECTOR >											
CN496	1-784-770-11	CONNECTOR, FFC 9P (EC79i/EC99i)				C604	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
CN497	1-568-826-11	CONNECTOR, FFC 7P (EC69i)				C605	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
										(EC79i/EC99i)	
< DIODE >											
D491	8-719-062-51	DIODE 1PS226-115 (EC79i/EC99i)				C606	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
										(EC79i/EC99i)	
< JACK >											
J491	1-566-822-51	JACK (PC IN) (EC79i/EC99i)				C607	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
J492	1-815-629-21	JACK (PHONES)				C608	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
						C609	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
< RESISTOR >											
R491	1-216-837-11	METAL CHIP	22K	5%	1/10W	C610	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
R492	1-216-837-11	METAL CHIP	22K	5%	1/10W						
										(EC79i/EC99i)	
< CONNECTOR >											
CN313	1-815-551-11	PIN, CONNECTOR (PWB) 3P				C611	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
						C612	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
< RESISTOR >											
R404	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	C613	1-126-964-11	ELECT	10uF	20%	50V
R405	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	C614	1-126-963-11	ELECT	4.7uF	20%	50V
R406	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C615	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
R407	1-216-826-11	METAL CHIP	2.7K	5%	1/10W						
R408	1-216-828-11	METAL CHIP	3.9K	5%	1/10W						
										(EC79i/EC99i)	
< SWITCH >											
SW311	1-771-410-21	SWITCH, TACTILE (■)				C616	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
SW321	1-771-410-21	SWITCH, TACTILE (CD)									
SW322	1-771-410-21	SWITCH, TACTILE (iPod)				C617	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
SW323	1-771-410-21	SWITCH, TACTILE (FOLDER +)				C618	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V
SW324	1-771-410-21	SWITCH, TACTILE (TUNING +, ▶▶ ▷▷)				C619	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
						C620	1-104-658-91	ELECT	100uF	20%	10V
< KEY BOARD >											
						C621	1-130-777-00	MYLAR	0.1uF	5%	100V

< RESISTOR >											
R404	1-216-822-11	METAL CHIP	1.2K	5%	1/10W	C622	1-128-550-11	ELECT	2200uF	20%	50V
R405	1-216-823-11	METAL CHIP	1.5K	5%	1/10W						
R406	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C623	1-130-777-00	MYLAR	0.1uF	5%	100V
R407	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	C624	1-126-923-91	ELECT	220uF	20%	10V
R408	1-216-828-11	METAL CHIP	3.9K	5%	1/10W						
										(EC79i/EC99i)	
< SWITCH >											
SW311	1-771-410-21	SWITCH, TACTILE (■)				C626	1-114-471-51	ELECT	3300uF	20%	63V
SW321	1-771-410-21	SWITCH, TACTILE (CD)									
SW322	1-771-410-21	SWITCH, TACTILE (iPod)				C626	1-128-550-11	ELECT	2200uF	20%	50V
SW323	1-771-410-21	SWITCH, TACTILE (FOLDER +)									
SW324	1-771-410-21	SWITCH, TACTILE (TUNING +, ▶▶ ▷▷)				C627	1-126-943-11	ELECT	2200uF	20%	25V
						C628	1-126-942-61	ELECT	1000uF	20%	25V
						C629	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V

HCD-EC69i/EC79i/EC99i**Ver. 1.1****MAIN**

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark	
C630	1-126-947-11	ELECT	47uF	20%	35V	C705	1-126-964-11	ELECT	10uF	20% 50V (EC99i)
C631	1-126-933-11	ELECT	100uF	20%	16V	C706	1-126-933-11	ELECT	100uF	20% 16V (EC99i)
C632	1-126-963-11	ELECT	4.7uF	20%	50V	C707	1-126-960-11	ELECT	1uF	20% 50V (EC99i)
C633	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C708	1-107-726-91	CERAMIC CHIP	0.01uF	10% 16V (EC99i)
C634	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C709	1-137-190-91	FILM	0.22uF	5% 50V (EC99i)
C636	1-126-960-11	ELECT	1uF	20%	50V	C710	1-137-190-91	FILM	0.22uF	5% 50V (EC99i)
C637	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C711	1-137-190-91	FILM	0.22uF	5% 50V (EC99i)
C638	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	C712	1-136-161-00	FILM	0.047uF	5% 50V (EC99i)
C639	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C713	1-162-962-11	CERAMIC CHIP	470PF	10% 50V
C640	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C715	1-164-156-11	CERAMIC CHIP	0.1uF	25V
C641	1-126-962-11	ELECT	3.3uF	20%	50V	C760	1-104-665-11	ELECT	100uF	20% 25V
C642	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C761	1-126-935-11	ELECT	470uF	20% 16V
C644	1-126-960-11	ELECT	1uF	20%	50V	C762	1-126-925-91	ELECT	470uF	20% 10V
C645	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C763	1-164-315-11	CERAMIC CHIP	470PF	5% 50V
C646	1-126-960-11	ELECT	1uF	20%	50V	C764	1-126-964-11	ELECT	10uF	20% 50V
C647	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C765	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C648	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C766	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V
C649	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	C772	1-125-837-91	CERAMIC CHIP	1uF	10% 6.3V
					(EC79i/EC99i)	C773	1-125-837-91	CERAMIC CHIP	1uF	10% 6.3V
C650	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C775	1-126-947-11	ELECT	47uF	20% 35V
					(EC79i/EC99i)	C776	1-104-662-91	ELECT	22uF	20% 25V
C652	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C786	1-125-837-91	CERAMIC CHIP	1uF	10% 6.3V
C654	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C787	1-125-837-91	CERAMIC CHIP	1uF	10% 6.3V
C655	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	C802	1-126-933-11	ELECT	100uF	20% 16V
					(EC79i/EC99i)	C803	1-125-837-91	CERAMIC CHIP	1uF	10% 6.3V
C656	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C804	1-162-918-11	CERAMIC CHIP	18PF	5% 50V
					(EC79i/EC99i)	C805	1-117-863-11	CERAMIC CHIP	0.47uF	10% 6.3V
C657	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C806	1-162-962-11	CERAMIC CHIP	470PF	10% 50V
C658	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V	C807	1-125-837-91	CERAMIC CHIP	1uF	10% 6.3V
					(EC79i/EC99i)	C808	1-162-918-11	CERAMIC CHIP	18PF	5% 50V
C661	1-126-964-11	ELECT	10uF	20%	50V	C809	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C662	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V	C810	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C663	1-126-960-11	ELECT	1uF	20%	50V	C811	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
C664	1-126-960-11	ELECT	1uF	20%	50V	C814	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V
C665	1-126-960-11	ELECT	1uF	20%	50V					(EC69i: UK, AUS/EC79i: UK, AUS/EC99i: UK, AUS)
C666	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C814	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
C667	1-126-933-11	ELECT	100uF	20%	16V					(EC69i: US, CND/EC79i: US, CND/EC99i: US, CND)
C674	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C815	1-162-968-11	CERAMIC CHIP	0.0047uF	10% 50V
C684	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V					(EC69i: UK, AUS/EC79i: UK, AUS/EC99i: UK, AUS)
					(EC79i/EC99i)	C815	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
C684	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	C816	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
					(EC69i)	C817	1-162-970-11	CERAMIC CHIP	0.01uF	10% 25V
C685	1-100-756-91	CERAMIC CHIP	0.047uF	10%	50V	C819	1-162-915-11	CERAMIC CHIP	10PF	0.5PF 50V
					(EC69i)	C820	1-162-910-11	CERAMIC CHIP	5PF	0.25PF 50V
C685	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	C821	1-162-966-11	CERAMIC CHIP	0.0022uF	10% 50V
					(EC79i/EC99i)	C822	1-126-965-91	ELECT	22uF	20% 50V
C686	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V	C823	1-126-923-91	ELECT	220uF	20% 10V
					(EC79i/EC99i)	C824	1-165-908-11	CERAMIC CHIP	1uF	10% 10V
C686	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	C826	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V
					(EC69i)	C827	1-165-176-11	CERAMIC CHIP	0.047uF	10% 16V
C687	1-100-756-91	CERAMIC CHIP	0.047uF	10%	50V	C828	1-162-927-11	CERAMIC CHIP	100PF	5% 50V
					(EC69i)	C829	1-117-863-11	CERAMIC CHIP	0.47uF	10% 6.3V
C688	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V	C830	1-162-907-11	CERAMIC CHIP	2PF	0.25PF 50V
					(EC79i/EC99i)					
C694	1-126-964-11	ELECT	10uF	20%	50V					
C695	1-125-837-91	CERAMIC CHIP	0.001uF	10%	50V					
C696	1-125-837-91	CERAMIC CHIP	1uF	10%	6.3V					
C699	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V					
C700	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V					
C701	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V					
					(EC99i)					
C702	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V					
					(EC99i)					

MAIN

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description	Remark	
C831	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V	D627	8-719-062-51	DIODE 1PS226-115	
C832	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V	D628	6-501-817-01	DIODE MA2J1110GLS0	
C833	1-126-923-91	ELECT	220uF	20%	10V	D629	6-501-582-01	DIODE 1N4002-A2 (EC79i/EC99i)	
C834	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	D630	6-501-582-01	DIODE 1N4002-A2 (EC79i/EC99i)	
C835	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V	D631	6-501-817-01	DIODE MA2J1110GLS0	
C836	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	D701	6-502-161-01	DIODE RB055L-40TE25	
C837	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	D702	6-501-817-01	DIODE MA2J1110GLS0 (EC99i)	
C838	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	D791	6-501-817-01	DIODE MA2J1110GLS0	
C840	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	D801	6-502-623-01	DIODE SVC389	
C841	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	D802	8-719-062-51	DIODE 1PS226-115	
C843	1-164-156-11	CERAMIC CHIP	0.1uF		25V	D803	6-501-369-01	DIODE SVC230-TB-E	
C844	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	D804	6-501-369-01	DIODE SVC230-TB-E	
C845	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	D805	8-719-062-51	DIODE 1PS226-115	
C846	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	D806	8-719-062-51	DIODE 1PS226-115	
C847	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	D807	8-719-062-51	DIODE 1PS226-115	
C848	1-164-156-11	CERAMIC CHIP	0.1uF		25V			< FILTER >	
C851	1-164-392-11	CERAMIC CHIP	390PF	5%	50V	FL801	1-760-393-11	FILTER, CERAMIC	
C853	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	FL803	1-236-711-21	FILTER, BAND PASS	
C857	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V			< IC >	
						IC602	6-712-055-01	IC BD3499FV-E2	
						IC701	6-600-113-01	IC NJM2368V (TE2)	
						IC770	8-759-278-58	IC NJM4558V-TE2	
						IC801	6-708-840-01	IC LV23003VA	
								< JUMPER RESISTOR >	
CN601	1-819-131-11	PIN, CONNECTOR 3P				JR600	1-216-864-11	SHORT CHIP	0
CN603	1-784-766-11	CONNECTOR, FFC 5P				JR601	1-216-864-11	SHORT CHIP	0
CN604	1-819-136-11	PIN, CONNECTOR 8P (EC69i/EC79i)				JR602	1-216-864-11	SHORT CHIP	0
CN605	1-784-770-11	CONNECTOR, FFC 9P (EC79i/EC99i)				JR603	1-216-864-11	SHORT CHIP	0
CN606	1-568-826-11	CONNECTOR, FFC 7P (EC69i)				JR605	1-216-864-11	SHORT CHIP	0
CN607	1-784-786-11	CONNECTOR, FFC 25P				JR607	1-216-864-11	SHORT CHIP	0
CN609	1-815-444-11	PIN, CONNECTOR (PWB) 3P				JR608	1-216-864-11	SHORT CHIP	0
CN632	1-819-135-11	PIN, CONNECTOR 7P (EC79i/EC99i)				JR609	1-216-864-11	SHORT CHIP	0
CN633	1-819-133-11	PIN, CONNECTOR (EC69i/EC99i)				JR610	1-216-864-11	SHORT CHIP	0
CN643	1-568-826-11	CONNECTOR, FFC 7P (EC99i)				JR614	1-216-864-11	SHORT CHIP	0
CN653	1-568-830-11	CONNECTOR, FFC 11P				JR615	1-216-864-11	SHORT CHIP	0
CN654	1-819-138-11	PIN, CONNECTOR 10P (EC99i)				JR617	1-216-864-11	SHORT CHIP	0
* CN801	1-506-680-11	PLUG, CONNECTOR (2.5mm) 3P (ANTENNA FM/AM)				JR618	1-216-864-11	SHORT CHIP	0
						JR619	1-216-864-11	SHORT CHIP	0
						JR620	1-216-864-11	SHORT CHIP	0
								< COIL >	
D601	6-500-335-01	DIODE MC2838-T112-1				L601	1-456-107-11	COIL, AIR-CORE (EC79i/EC99i)	
D602	6-500-335-01	DIODE MC2838-T112-1				L602	1-456-107-11	COIL, AIR-CORE (EC79i/EC99i)	
D603	6-501-817-01	DIODE MA2J1110GLS0 (EC79i/EC99i)				L603	1-456-107-11	COIL, AIR-CORE	
D604	6-501-817-01	DIODE MA2J1110GLS0				L604	1-456-107-11	COIL, AIR-CORE	
D605	6-501-817-01	DIODE MA2J1110GLS0				L701	1-456-467-11	INDUCTOR 100uH	
D606	6-500-334-01	DIODE MC2836-T112-1				L702	1-456-107-11	COIL, AIR-CORE (EC99i)	
D607	6-502-619-01	DIODE 1N5402-C532-2 (EC69i/EC79i)				L802	1-457-168-11	COIL, DET	
D608	6-502-619-01	DIODE 1N5402-C532-2 (EC69i/EC79i)				L803	1-457-162-22	COIL, AIR-CORE	
D609	6-502-619-01	DIODE 1N5402-C532-2 (EC69i/EC79i)				L804	1-457-163-22	COIL, AIR-CORE	
D610	6-502-619-01	DIODE 1N5402-C532-2 (EC69i/EC79i)				L805	1-457-161-11	COIL, AM ANTENNA	
D611	6-501-582-01	DIODE 1N4002-A2				L806	1-410-522-11	INDUCTOR 120uH	
D612	6-501-582-01	DIODE 1N4002-A2						< TRANSISTOR >	
D613	6-500-360-01	DIODE D10XB20 (EC99i)				Q601	8-729-037-03	TRANSISTOR KTA1266GR-AT (EC69i)	
D614	6-501-817-01	DIODE MA2J1110GLS0				Q601	8-729-040-76	TRANSISTOR KTA1273-Y-AT (EC79i/EC99i)	
D615	6-501-582-01	DIODE 1N4002-A2				Q602	8-729-120-28	TRANSISTOR 2SC1623-L5L	
D617	6-500-335-01	DIODE MC2838-T112-1							
D621	6-501-722-01	DIODE MAZ8043GMLS0							
D622	6-501-760-01	DIODE MAZ8100GMLS0							

HCD-EC69i/EC79i/EC99i**MAIN**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q603	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R626	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q604	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R627	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q605	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R628	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q606	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R629	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q607	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (EC79i/EC99i)	R630	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q608	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R631	1-216-797-11	METAL CHIP	10 5% 1/10W (EC79i/EC99i)
Q610	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (EC99i)	R632	1-216-845-11	METAL CHIP	100K 5% 1/10W (EC79i/EC99i)
Q611	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R633	1-216-845-11	METAL CHIP	100K 5% 1/10W (EC79i/EC99i)
Q612	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R634	1-249-403-11	CARBON	68 5% 1/4W (EC79i/EC99i)
Q613	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF (EC99i)				
Q614	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF (EC99i)				
Q618	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF				
Q619	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R635	1-249-403-11	CARBON	68 5% 1/4W (EC79i/EC99i)
Q701	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (EC99i)	R636	1-249-403-11	CARBON	68 5% 1/4W (EC79i/EC99i)
Q702	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (EC99i)	R637	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
Q703	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (EC99i)	R638	1-249-403-11	CARBON	68 5% 1/4W
Q704	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (EC99i)	R639	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q705	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (EC99i)				
Q706	8-729-040-76	TRANSISTOR	KTA1273-Y-AT	R640	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q707	8-729-040-76	TRANSISTOR	KTA1273-Y-AT	R641	1-249-403-11	CARBON	68 5% 1/4W
Q708	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R642	1-249-403-11	CARBON	68 5% 1/4W
Q709	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R643	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q710	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF	R644	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q801	8-729-120-28	TRANSISTOR	2SC1623-L5L6				
Q802	8-729-120-28	TRANSISTOR	2SC1623-L5L6	R645	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q804	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (EC99i)	R646	1-216-809-11	METAL CHIP	100 5% 1/10W
< RESISTOR >							
R601	1-216-817-11	METAL CHIP	470 5% 1/10W	R650	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R603	1-216-801-11	METAL CHIP	22 5% 1/10W	R651	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R604	1-216-845-11	METAL CHIP	100K 5% 1/10W	R652	1-216-809-11	METAL CHIP	100 5% 1/10W
R605	1-216-801-11	METAL CHIP	22 5% 1/10W	R655	1-216-833-11	METAL CHIP	10K 5% 1/10W
R606	1-216-797-11	METAL CHIP	10 5% 1/10W (EC79i/EC99i)	R656	1-216-821-11	METAL CHIP	1K 5% 1/10W
R607	1-216-797-11	METAL CHIP	10 5% 1/10W (EC79i/EC99i)	R657	1-216-843-11	METAL CHIP	68K 5% 1/10W
R608	1-216-797-11	METAL CHIP	10 5% 1/10W (EC79i/EC99i)	△ R658	1-215-890-51	METAL OXIDE	470 5% 2W F
R609	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R659	1-216-845-11	METAL CHIP	100K 5% 1/10W (EC99i)
R610	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R660	1-216-837-11	METAL CHIP	22K 5% 1/10W (EC79i/EC99i)
R611	1-216-797-11	METAL CHIP	10 5% 1/10W	R661	1-216-837-11	METAL CHIP	22K 5% 1/10W (EC79i/EC99i)
R612	1-216-797-11	METAL CHIP	10 5% 1/10W	△ R662	1-215-890-51	METAL OXIDE	470 5% 2W F
R613	1-216-833-11	METAL CHIP	10K 5% 1/10W	R664	1-216-845-11	METAL CHIP	100K 5% 1/10W
R614	1-216-833-11	METAL CHIP	10K 5% 1/10W	R665	1-216-845-11	METAL CHIP	100K 5% 1/10W
R615	1-216-797-11	METAL CHIP	10 5% 1/10W	R666	1-216-821-11	METAL CHIP	1K 5% 1/10W
R616	1-216-828-11	METAL CHIP	3.9K 5% 1/10W (EC69i)	R667	1-216-841-11	METAL CHIP	47K 5% 1/10W
R617	1-216-833-11	METAL CHIP	15K 5% 1/10W (EC79i/EC99i)	R668	1-216-837-11	METAL CHIP	22K 5% 1/10W
R618	1-216-833-11	METAL CHIP	10K 5% 1/10W	R669	1-216-845-11	METAL CHIP	100K 5% 1/10W
R619	1-216-828-11	METAL CHIP	3.9K 5% 1/10W (EC69i)	R670	1-216-833-11	METAL CHIP	10K 5% 1/10W
R620	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R672	1-216-833-11	METAL CHIP	10K 5% 1/10W
R621	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R673	1-216-817-11	METAL CHIP	470 5% 1/10W
R622	1-216-839-11	METAL CHIP	33K 5% 1/10W	R674	1-249-401-11	CARBON	47 5% 1/4W
R623	1-216-833-11	METAL CHIP	10K 5% 1/10W	R675	1-249-401-11	CARBON	47 5% 1/4W
R624	1-216-833-11	METAL CHIP	10K 5% 1/10W	R676	1-216-833-11	METAL CHIP	10K 5% 1/10W
R625	1-216-839-11	METAL CHIP	33K 5% 1/10W	R677	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R678	1-216-841-11	METAL CHIP	47K 5% 1/10W
				R679	1-216-837-11	METAL CHIP	22K 5% 1/10W (EC79i/EC99i)
				R680	1-216-837-11	METAL CHIP	22K 5% 1/10W (EC79i/EC99i)

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description		Remark	
R681	1-216-837-11	METAL CHIP	22K	5%	1/10W	R742	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R684	1-216-837-11	METAL CHIP	22K	5%	1/10W	R744	1-216-797-11	METAL CHIP	10	5%	1/10W (EC99i)
R685	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R745	1-216-797-11	METAL CHIP	10	5%	1/10W (EC99i)
R686	1-216-842-11	METAL CHIP	56K	5%	1/10W	R746	1-249-403-11	CARBON	68	5%	1/4W (EC99i)
R687	1-216-837-11	METAL CHIP	22K	5%	1/10W	R747	1-249-403-11	CARBON	68	5%	1/4W (EC99i)
R688	1-216-817-11	METAL CHIP	470	5%	1/10W	R748	1-249-403-11	CARBON	68	5%	1/4W (EC99i)
R689	1-216-838-11	METAL CHIP	27K	5%	1/10W	R749	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R690	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R750	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R691	1-216-833-11	METAL CHIP	10K	5%	1/10W	R751	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R692	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R752	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R693	1-216-821-11	METAL CHIP	1K	5%	1/10W	R753	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R696	1-216-833-11	METAL CHIP	10K	5%	1/10W	R754	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R697	1-216-821-11	METAL CHIP	1K	5%	1/10W	R755	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EC99i)
R700	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EC79i/EC99i)	R756	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EC99i)
R701	1-216-833-11	METAL CHIP	10K	5%	1/10W	R757	1-216-841-11	METAL CHIP	47K	5%	1/10W (EC99i)
R702	1-216-833-11	METAL CHIP	10K	5%	1/10W	R758	1-216-821-11	METAL CHIP	1K	5%	1/10W
R704	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EC79i/EC99i)	R759	1-216-805-11	METAL CHIP	47	5%	1/10W
R706	1-216-813-11	METAL CHIP	220	5%	1/10W	R760	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R707	1-216-813-11	METAL CHIP	220	5%	1/10W	R761	1-216-817-11	METAL CHIP	470	5%	1/10W
R708	1-216-833-11	METAL CHIP	10K	5%	1/10W	R762	1-216-817-11	METAL CHIP	470	5%	1/10W
R709	1-216-821-11	METAL CHIP	1K	5%	1/10W	R763	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R710	1-216-839-11	METAL CHIP	33K	5%	1/10W (EC99i)	R764	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R711	1-216-839-11	METAL CHIP	33K	5%	1/10W (EC99i)	R765	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R712	1-216-817-11	METAL CHIP	470	5%	1/10W (EC99i)	R766	1-216-833-11	METAL CHIP	10K	5%	1/10W (EC99i)
R713	1-216-845-11	METAL CHIP	100K	5%	1/10W (EC99i)	R767	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R714	1-216-842-11	METAL CHIP	56K	5%	1/10W (EC99i)	R768	1-216-833-11	METAL CHIP	10K	5%	1/10W
R715	1-216-809-11	METAL CHIP	100	5%	1/10W	R769	1-216-805-11	METAL CHIP	47	5%	1/10W
R721	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (EC99i)	R770	1-216-845-11	METAL CHIP	100K	5%	1/10W
R723	1-216-789-11	METAL CHIP	2.2	5%	1/10W	R771	1-216-879-11	METAL CHIP	22K	0.5%	1/10W
R724	1-249-395-11	CARBON	15	5%	1/4W	R772	1-216-879-11	METAL CHIP	22K	0.5%	1/10W
R725	1-249-395-11	CARBON	15	5%	1/4W	R773	1-216-879-11	METAL CHIP	22K	0.5%	1/10W
R726	1-249-395-11	CARBON	15	5%	1/4W	R774	1-216-879-11	METAL CHIP	22K	0.5%	1/10W
R727	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R775	1-216-879-11	METAL CHIP	22K	0.5%	1/10W
R728	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R776	1-216-879-11	METAL CHIP	22K	0.5%	1/10W
R729	1-216-821-11	METAL CHIP	1K	5%	1/10W	R777	1-216-879-11	METAL CHIP	22K	0.5%	1/10W
R730	1-216-841-11	METAL CHIP	47K	5%	1/10W (EC99i)	R778	1-216-879-11	METAL CHIP	22K	0.5%	1/10W
R731	1-216-809-11	METAL CHIP	100	5%	1/10W	R779	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R732	1-216-809-11	METAL CHIP	100	5%	1/10W	R780	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R733	1-216-845-11	METAL CHIP	100K	5%	1/10W (EC99i)	R781	1-216-845-11	METAL CHIP	100K	5%	1/10W
R734	1-216-821-11	METAL CHIP	1K	5%	1/10W (EC99i)	R782	1-216-833-11	METAL CHIP	10K	5%	1/10W
R735	1-216-864-11	SHORT CHIP	0 (EC99i)			R783	1-216-845-11	METAL CHIP	100K	5%	1/10W
R736	1-216-833-11	METAL CHIP	10K	5%	1/10W (EC99i)	R784	1-216-845-11	METAL CHIP	100K	5%	1/10W
R737	1-216-833-11	METAL CHIP	10K	5%	1/10W (EC99i)	R785	1-216-845-11	METAL CHIP	100K	5%	1/10W
R738	1-216-821-11	METAL CHIP	1K	5%	1/10W (EC99i)	R786	1-216-845-11	METAL CHIP	100K	5%	1/10W
R739	1-216-821-11	METAL CHIP	1K	5%	1/10W (EC99i)	R787	1-216-835-11	METAL CHIP	15K	5%	1/10W
R740	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (EC99i)	R788	1-216-835-11	METAL CHIP	15K	5%	1/10W
R741	1-216-789-11	METAL CHIP	2.2	5%	1/10W	R791	1-216-845-11	METAL CHIP	100K	5%	1/10W
						R792	1-216-849-11	METAL CHIP	220K	5%	1/10W
						R793	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
						R794	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R795	1-216-848-11	METAL CHIP	180K	5%	1/10W
						R796	1-216-851-11	METAL CHIP	330K	5%	1/10W

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark		
R797	1-216-841-11	METAL CHIP	47K	5%	1/10W	R868	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (EC99i)
R798	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R869	1-216-833-11	METAL CHIP	10K	5%	1/10W (EC99i)
R799	1-216-818-11	METAL CHIP	560	5%	1/10W	R870	1-216-833-11	METAL CHIP	10K	5%	1/10W (EC99i)
R801	1-216-809-11	METAL CHIP	100	5%	1/10W	R875	1-216-864-11	SHORT CHIP	0 (EC69i/EC79i)		
R802	1-216-801-11	METAL CHIP	22	5%	1/10W	R876	1-216-805-11	METAL CHIP	47	5%	1/10W
R803	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R878	1-216-864-11	SHORT CHIP	0 (EC99i)		
R804	1-216-801-11	METAL CHIP	22	5%	1/10W	R880	1-216-821-11	METAL CHIP	1K	5%	1/10W (EC99i)
R805	1-216-853-11	METAL CHIP	470K	5%	1/10W	R881	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (EC99i)
R806	1-216-841-11	METAL CHIP	47K	5%	1/10W	R882	1-216-821-11	METAL CHIP	1K	5%	1/10W (EC99i)
R807	1-216-837-11	METAL CHIP	22K	5%	1/10W	R883	1-216-842-11	METAL CHIP	56K	5%	1/10W (EC79i: UK, AUS/EC99i)
R808	1-216-801-11	METAL CHIP	22	5%	1/10W	R883	1-216-843-11	METAL CHIP	68K	5%	1/10W
R809	1-216-809-11	METAL CHIP	100	5%	1/10W	R883	1-216-844-11	METAL CHIP	82K	5%	1/10W
R810	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R884	1-216-864-11	SHORT CHIP	0		
R811	1-216-845-11	METAL CHIP	100K	5%	1/10W					< RELAY >	
R812	1-216-841-11	METAL CHIP	47K	5%	1/10W	RY601	1-755-307-21	RELAY (EC79i/EC99i)			
R813	1-216-853-11	METAL CHIP	470K	5%	1/10W	RY602	1-755-307-21	RELAY			
R814	1-216-837-11	METAL CHIP	22K	5%	1/10W	RY701	1-755-307-21	RELAY (EC99i)			
R815	1-216-833-11	METAL CHIP	10K	5%	1/10W					< TRANSFORMER >	
R816	1-216-821-11	METAL CHIP	1K	5%	1/10W	T801	1-433-741-11	TRANSFORMER, IF			
R817	1-216-841-11	METAL CHIP	47K	5%	1/10W					< TERMINAL >	
R818	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R819	1-216-839-11	METAL CHIP	33K	5%	1/10W						
R820	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R821	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R822	1-216-809-11	METAL CHIP	100	5%	1/10W						
R823	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R824	1-216-817-11	METAL CHIP	470	5%	1/10W						
R825	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R826	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R827	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R829	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R830	1-216-827-11	METAL CHIP	3.3K	5%	1/10W						
R831	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R832	1-216-857-11	METAL CHIP	1M	5%	1/10W						
R836	1-216-867-11	METAL CHIP	6.8K	0.5%	1/10W						
R837	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R838	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R839	1-216-797-11	METAL CHIP	10	5%	1/10W						
R840	1-216-864-11	SHORT CHIP	0								
R841	1-216-833-11	METAL CHIP	10K	5%	1/10W					< VIBRATOR >	
R842	1-216-864-11	SHORT CHIP	0								
R843	1-216-845-11	METAL CHIP	100K	5%	1/10W	X801	1-813-917-11	VIBRATOR, CRYSTAL (75kHz)			
R844	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R845	1-216-864-11	SHORT CHIP	0								
R846	1-216-797-11	METAL CHIP	10	5%	1/10W						
R847	1-216-864-11	SHORT CHIP	0								
R860	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R861	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R862	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R863	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R864	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R865	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R866	1-216-833-11	METAL CHIP	10K	5%	1/10W					< CAPACITOR >	
R867	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	C301	1-164-156-11	CERAMIC CHIP	0.1uF	25V	
						C302	1-104-658-91	ELECT	100uF	20%	10V

Ref. No.	Part No.	Description		Remark		Ref. No.	Part No.	Description		Remark	
C303	1-126-964-11	ELECT	10uF	20%	50V			< IC >			
C304	1-100-597-91	CERAMIC CHIP	0.1uF	10%	25V	IC301	A-1711-704-A	IC MB90F830PF-GE1 (for SERVICE) (EC79i: UK, AUS/EC99i)			
C305	1-126-964-11	ELECT	10uF	20%	50V	IC301	A-1711-705-A	IC MB90F830PF-GE1 (for SERVICE) (EC69i/EC79i: US, CND)			
C306	1-104-655-91	ELECT	470uF	20%	6.3V	IC302	6-600-349-21	IC NJL23H400A			
C313	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V	IC303	8-759-598-69	IC BA6956AN (EC79i: UK, AUS/EC99i)			
C317	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V			< LIQUID CRYSTAL DISPLAY >			
C319	1-162-918-11	CERAMIC CHIP	18PF	5%	50V	LCD301	1-802-840-11	DISPLAY PANEL, LIQUID CRYSTAL (EC69i/EC79i: US, CND)			
C320	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	LCD301	1-802-841-11	DISPLAY PANEL, LIQUID CRYSTAL (EC79i: UK, AUS/EC99i)			
C321	1-164-156-11	CERAMIC CHIP	0.1uF		25V			< TRANSISTOR >			
C330	1-164-156-11	CERAMIC CHIP	0.1uF		25V	Q301	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
C332	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	Q302	8-729-037-13	TRANSISTOR	KTA1271Y		
C336	1-164-156-11	CERAMIC CHIP	0.1uF		25V	Q303	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
C338	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	Q304	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
C340	1-164-156-11	CERAMIC CHIP	0.1uF		25V	Q305	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
C341	1-164-156-11	CERAMIC CHIP	0.1uF		25V			< RESISTOR >			
C342	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	Q306	8-729-038-28	TRANSISTOR	RT1N441C-TP-1		
C351	1-164-156-11	CERAMIC CHIP	0.1uF		25V	Q307	8-729-038-28	TRANSISTOR	RT1N441C-TP-1 (EC79i: UK, AUS/EC99i)		
C352	1-126-964-11	ELECT	10uF	20%	50V	Q622	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
					(EC79i: UK, AUS/EC99i)	Q624	8-729-036-86	TRANSISTOR	KTC3203Y-AT		
C353	1-164-156-11	CERAMIC CHIP	0.1uF		25V			< CONNECTOR >			
					(EC79i: UK, AUS/EC99i)			< DIODE >			
C354	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	R301	1-216-809-11	METAL CHIP	100	5%	1/10W
					(EC69i: UK, AUS/EC79i: UK, AUS/EC99i: UK, AUS)	R302	1-216-809-11	METAL CHIP	100	5%	1/10W
C355	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	R303	1-216-809-11	METAL CHIP	100	5%	1/10W
					(EC69i: UK, AUS/EC79i: UK, AUS/EC99i: UK, AUS)	R304	1-216-809-11	METAL CHIP	100	5%	1/10W
C357	1-126-965-91	ELECT	22uF	20%	50V	R305	1-216-809-11	METAL CHIP	100	5%	1/10W
					(EC79i: UK, AUS/EC99i)			< RESISTOR >			
C434	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	R306	1-216-809-11	METAL CHIP	100	5%	1/10W
C669	1-126-923-91	ELECT	220uF	20%	10V	R307	1-216-809-11	METAL CHIP	100	5%	1/10W
C671	1-126-933-11	ELECT	100uF	20%	16V	R308	1-216-809-11	METAL CHIP	100	5%	1/10W
C673	1-126-925-91	ELECT	470uF	20%	10V	R309	1-216-809-11	METAL CHIP	100	5%	1/10W
C675	1-126-960-11	ELECT	1uF	20%	50V	R310	1-216-809-11	METAL CHIP	100	5%	1/10W
C676	1-126-960-11	ELECT	1uF	20%	50V			< CONNECTOR >			
C703	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	R311	1-216-809-11	METAL CHIP	100	5%	1/10W
C704	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	R312	1-216-809-11	METAL CHIP	100	5%	1/10W
					(EC79i: UK, AUS/EC99i)	R313	1-216-809-11	METAL CHIP	100	5%	1/10W
CN301	1-784-747-11	CONNECTOR, FFC 25P				R314	1-216-809-11	METAL CHIP	100	5%	1/10W
CN302	1-784-727-11	CONNECTOR, FFC 5P (EC79i: UK, AUS/EC99i)				R315	1-216-809-11	METAL CHIP	100	5%	1/10W
CN303	1-824-027-21	HOLDER, CABLE 3P						< DIODE >			
CN608	1-779-289-11	CONNECTOR, FFC (LIF (NON-ZIF)) 21P				R317	1-216-809-11	METAL CHIP	100	5%	1/10W
						R318	1-216-809-11	METAL CHIP	100	5%	1/10W
D301	6-501-722-01	DIODE	MAZ8043GMLS0			R319	1-216-809-11	METAL CHIP	100	5%	1/10W
D302	6-501-817-01	DIODE	MA2J1110GLS0			R320	1-216-809-11	METAL CHIP	100	5%	1/10W
D303	6-500-334-01	DIODE	MC2836-T112-1			R321	1-216-809-11	METAL CHIP	100	5%	1/10W
D304	6-501-817-01	DIODE	MA2J1110GLS0					< RESISTOR >			
D305	6-501-479-01	LED	1L0341Y23E0CA602 (STANDBY) (EC69i/EC79i: US, CND)			R322	1-216-809-11	METAL CHIP	100	5%	1/10W
						R323	1-216-809-11	METAL CHIP	100	5%	1/10W
						R324	1-216-809-11	METAL CHIP	100	5%	1/10W
D305	6-502-773-01	LED	SELG2WA10C LF62 (STANDBY) (EC79i: UK, AUS/EC99i)			R325	1-216-797-11	METAL CHIP	10	5%	1/10W
D306	6-501-582-01	DIODE	1N4002-A2 (EC79i: UK, AUS/EC99i)			R326	1-216-809-11	METAL CHIP	100	5%	1/10W
D307	6-501-817-01	DIODE	MA2J1110GLS0 (EC79i: UK, AUS/EC99i)					< CONNECTOR >			
D618	6-501-719-01	DIODE	MAZ8039GHL50			R327	1-216-809-11	METAL CHIP	100	5%	1/10W
D619	6-501-582-01	DIODE	1N4002-A2			R328	1-216-833-11	METAL CHIP	10K	5%	1/10W
D620	6-501-582-01	DIODE	1N4002-A2			R329	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
						R330	1-216-819-11	METAL CHIP	680	5%	1/10W
						R331	1-216-845-11	METAL CHIP	100K	5%	1/10W
						R332	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R333	1-216-845-11	METAL CHIP	100K	5%	1/10W
						R334	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
						R335	1-216-837-11	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description		Remark	Ref. No.	Part No.	Description		Remark	
R336	1-216-833-11	METAL CHIP	10K	5%	1/10W	R446	1-216-846-11	METAL CHIP	120K	5% (EC79i: UK, AUS/EC99i)
R337	1-216-813-11	METAL CHIP	220	5%	1/10W	R447	1-216-835-11	METAL CHIP	15K	5% (EC79i: UK, AUS/EC99i)
R362	1-216-837-11	METAL CHIP	22K	5%	1/10W	R448	1-216-833-11	METAL CHIP	10K	5% 1/10W
R363	1-216-837-11	METAL CHIP	22K	5%	1/10W	R449	1-216-805-11	METAL CHIP	47	5% 1/10W
R369	1-216-821-11	METAL CHIP	1K	5%	1/10W	R450	1-216-822-11	METAL CHIP	1.2K	5% 1/10W
R370	1-216-821-11	METAL CHIP	1K	5%	1/10W	R452	1-216-839-11	METAL CHIP	33K	5% 1/10W
R376	1-216-833-11	METAL CHIP	10K	5%	1/10W	R716	1-216-821-11	METAL CHIP	1K	5% 1/10W
R377	1-216-833-11	METAL CHIP	10K	5%	1/10W	R717	1-249-403-11	CARBON	68	5% 1/4W
R378	1-216-839-11	METAL CHIP	33K	5%	1/10W	R718	1-249-403-11	CARBON	68	5% 1/4W
R379	1-216-843-11	METAL CHIP	68K	5%	1/10W	R719	1-249-403-11	CARBON	68	5% 1/4W
R380	1-216-817-11	METAL CHIP	470	5%	1/10W	R720	1-216-837-11	METAL CHIP	22K	5% 1/10W
R381	1-216-833-11	METAL CHIP	10K	5%	1/10W	R722	1-216-809-11	METAL CHIP	100	5% 1/10W
R382	1-216-833-11	METAL CHIP	10K	5%	1/10W				< ROTARY ENCODER >	
R383	1-216-833-11	METAL CHIP	10K	5%	1/10W	S301	1-786-417-11	ENCODER, ROTARY (VOLUME)		
R384	1-216-833-11	METAL CHIP	10K	5%	1/10W				< SWITCH >	
R385	1-216-821-11	METAL CHIP	1K	5%	1/10W	SW301	1-771-410-21	SWITCH, TACTILE (I/□)	(EC79i: UK, AUS/EC99i)	
R389	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	SW302	1-771-410-21	SWITCH, TACTILE (DISPLAY)	(EC79i: UK, AUS/EC99i)	
R389	1-216-828-11	METAL CHIP	3.9K	5%	1/10W	SW303	1-771-410-21	SWITCH, TACTILE (I/□)	(EC69i/EC79i: US, CND)	
				(EC79i: US, CND)	SW313	1-771-410-21	SWITCH, TACTILE (- TUNING, ▲▼)			
					SW314	1-771-410-21	SWITCH, TACTILE (►●)			
R390	1-216-833-11	METAL CHIP	10K	5%	1/10W	SW315	1-771-410-21	SWITCH, TACTILE (FOLDER -)		
				(EC79i/EC99i)	SW316	1-771-410-21	SWITCH, TACTILE (FUNCTION)	(EC69i/EC79i: US, CND)		
R391	1-216-821-11	METAL CHIP	1K	5%	1/10W	SW316	1-771-410-21	SWITCH, TACTILE (EQ)	(EC79i: UK, AUS/EC99i)	
				(EC69i: UK/EC79i: UK/EC99i: UK)	SW317	1-771-410-21	SWITCH, TACTILE (FUNCTION)	(EC79i: UK, AUS/EC99i)		
R391	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	SW318	1-771-410-21	SWITCH, TACTILE (SUBWOOFER ON/OFF)	(EC79i: UK, AUS/EC99i)	
R392	1-216-833-11	METAL CHIP	10K	5%	1/10W				(EC99i)	
				(EC69i: US, CND, AUS/EC79i: US, CND, AUS/EC99i: US, CND, AUS)						
R396	1-216-851-11	METAL CHIP	330K	5%	1/10W				< VIBRATOR >	
R400	1-216-821-11	METAL CHIP	1K	5%	1/10W	X301	1-814-067-11	OSCILLATOR, CRYSTAL (32.768kHz)		
R401	1-216-821-11	METAL CHIP	1K	5%	1/10W	X302	1-813-548-31	VIBRATOR, CERAMIC (6MHz)		
R402	1-216-845-11	METAL CHIP	100K	5%	1/10W	*****	*****	*****	*****	*****
R412	1-216-822-11	METAL CHIP	1.2K	5%	1/10W					
R413	1-216-823-11	METAL CHIP	1.5K	5%	1/10W					
R414	1-216-825-11	METAL CHIP	2.2K	5%	1/10W				PT-SINGLE BOARD	
R415	1-216-826-11	METAL CHIP	2.7K	5%	1/10W				*****	
R416	1-216-828-11	METAL CHIP	3.9K	5%	1/10W				< CAPACITOR >	
R417	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W					
				(EC79i: UK, AUS/EC99i)	C001	1-165-621-91	CERAMIC CHIP	0.1uF	50V	
R418	1-216-835-11	METAL CHIP	15K	5%	1/10W				< CONNECTOR >	
R419	1-216-838-11	METAL CHIP	27K	5%	1/10W	CN002	1-820-973-11	HOLDER, CABLE 10P	(EC99i)	
R420	1-216-845-11	METAL CHIP	100K	5%	1/10W	CN003	1-819-972-11	HOLDER, CABLE 8P	(EC69i/EC79i)	
R421	1-216-833-11	METAL CHIP	10K	5%	1/10W	* CN004	1-568-226-11	PIN, CONNECTOR (3.96mm PITCH) 2P		
R422	1-216-829-11	METAL CHIP	4.7K	5%	1/10W				< DIODE >	
R433	1-216-809-11	METAL CHIP	100	5%	1/10W					
R434	1-216-809-11	METAL CHIP	100	5%	1/10W	D001	6-500-334-01	DIODE MC2836-T112-1		
R441	1-216-833-11	METAL CHIP	10K	5%	1/10W	D002	6-500-335-01	DIODE MC2838-T112-1		
				(EC79i: UK, AUS/EC99i)	D003	6-500-335-01	DIODE MC2838-T112-1			
R442	1-216-837-11	METAL CHIP	22K	5%	1/10W				< TRANSFORMER >	
R443	1-216-833-11	METAL CHIP	10K	5%	1/10W	△ PT001	1-445-563-11	TRANSFORMER, POWER	(EC69i: US, CND/EC79i: US, CND/EC99i: US, CND)	
				(EC79i: UK, AUS/EC99i)	△ PT002	1-443-912-11	TRANSFORMER, POWER	(EC69i: UK/EC79i: UK/EC99i: UK)		
R444	1-216-829-11	METAL CHIP	4.7K	5%	1/10W					
				(EC79i: UK, AUS/EC99i)	△ PT003	1-445-105-11	TRANSFORMER, POWER	(EC69i: AUS/EC79i: AUS/EC99i: AUS)		
R445	1-216-829-11	METAL CHIP	4.7K	5%	1/10W					
				(EC79i: UK, AUS/EC99i)						

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark				
< RELAY >											
△ RY001	1-755-334-11	RELAY, AC POWER		△ PT005	1-445-569-11	TRANSFORMER, POWER	(EC79i: AUS/EC99i: AUS)				

REG BOARD											

< CAPACITOR >											
C698	1-100-566-91	CERAMIC CHIP	0.1uF	10%	25V	△	1-770-019-71				
< IC >											
IC601	6-713-032-01	IC KIA7809API-U/PF		ADAPTOR, CONVERSION PLUG 3P (UK)							
< CABLE HOLDER >											
W610	1-824-027-21	HOLDER, CABLE 3P		*****							

MISCELLANEOUS											

△ 102	1-452-899-11	MAGNET (EC69i/EC79i: US, CND)									
△ 113	8-820-126-02	OPTICAL PICK-UP BLOCK (KSM-213CDP/C2NP)									
		(EC69i/EC79i: US, CND)									
114	1-834-268-21	WIRE (FLAT TYPE) (16 CORE)									
		(EC69i/EC79i: US, CND)									
154	1-836-761-21	CABLE, FLEXIBLE FLAT (5 CORE)									
		(EC79i: UK, AUS/EC99i)									
155	A-1579-622-A	CDM76A ASSY (EC79i: UK, AUS/EC99i)									
△ 157	A-4735-357-A	BASE ASSY, OP (KSM-213D)									
		(EC79i: UK, AUS/EC99i)									
161	1-832-404-21	CABLE, FLEXIBLE FLAT (16 CORE)									
		(EC79i: UK, AUS/EC99i)									
204	1-832-804-21	CABLE, FLEXIBLE FLAT (7 CORE) (EC69i)									
204	1-832-815-21	CABLE, FLEXIBLE FLAT (9 CORE) (EC79i/EC99i)									
208	1-836-760-21	CABLE, FLEXIBLE FLAT (21 CORE)									
		(EC69i/EC79i: US, CND)									
208	1-836-762-21	CABLE, FLEXIBLE FLAT (21 CORE)									
		(EC79i: UK, AUS/EC99i)									
209	1-832-896-21	CABLE, FLEXIBLE FLAT (25 CORE) (EC69i)									
209	1-832-897-21	CABLE, FLEXIBLE FLAT (25 CORE) (EC79i/EC99i)									
256	1-836-763-21	CABLE, FLEXIBLE FLAT (11 CORE) (EC79i/EC99i)									
256	1-836-766-21	CABLE, FLEXIBLE FLAT (11 CORE) (EC69i)									
△ 304	1-834-965-22	CORD, POWER (US, CND)									
△ 304	1-834-966-41	POWER-SUPPLY CORD (UK)									
△ 304	1-834-967-21	CORD, POWER (AUS)									
306	1-831-744-21	CABLE, FLEXIBLE FLAT (5 CORE) (EC69i)									
△ 353	1-834-965-22	CORD, POWER (US, CND)									
△ 353	1-834-966-41	POWER-SUPPLY CORD (UK)									
△ 353	1-834-967-21	CORD, POWER (AUS)									
401	1-832-806-21	CABLE, FLEXIBLE FLAT (7 CORE) (EC99i)									
403	1-831-744-21	CABLE, FLEXIBLE FLAT (5 CORE) (EC99i)									
406	1-832-795-21	CABLE, FLEXIBLE FLAT (5 CORE) (EC79i)									
M601	1-787-319-12	FAN, DC (EC69i)									
M601	1-787-344-11	FAN, DC (EC79i/EC99i)									
△ PT004	1-445-562-11	TRANSFORMER, POWER (EC69i: UK)									
△ PT004	1-445-564-11	TRANSFORMER, POWER (EC69i: US, CND)									
△ PT004	1-445-574-11	TRANSFORMER, POWER (EC69i: AUS)									
△ PT005	1-445-565-11	TRANSFORMER, POWER									
		(EC79i: US, CND/EC99i: US, CND)									
△ PT005	1-445-566-11	TRANSFORMER, POWER (EC79i: UK/EC99i: UK)									

REVISION HISTORY

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