

HCD-D60/GR7/GR7J/RX70

SERVICE MANUAL

RTV servis Horvat

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Croatia

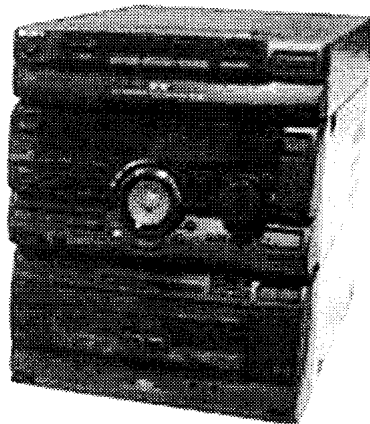


Photo: HCD-RX70

US Model

HCD-D60/RX70

Canadian Model

AEP Model

UK Model

HCD-RX70


E Model

HCD-GR7/GR7J

Australian Model

HCD-GR7

HCD-D60/ GR7/GR7J/RX70 is the tuner, deck, CD and amplifier section in MHC-D60/ GR7/GR7J/RX70.

* Dolby noise reduction manufactured under license from Dolby Laboratories Licensing corporation. "DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM38-5BD29AL
	Base Unit Name	BU-5BD29AL
	Optical Pick-up Name	KSS-213D/Q-NP
Tape deck Section	Model Name Using Similar Mechanism	HCD-H881
	Tape Transport Mechanism Type	TCM-220WR2

SPECIFICATIONS

For the US model

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8 ohm loads, both channels driven, from 70-20,000 Hz; rated 100 watts per channel minimum RMS power, with no more than 0.9% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

Continuous RMS power output

Canadian model

100+100 watts

(8 ohms at 1 kHz, 5% THD)

AEP, German, East European, UK and CIS models

55+55 watts

(6 ohms at 1 kHz, 10% THD)

Other models

70+70 watts

(6 ohm sat 1 kHz, 10% THD)

Peak music power output (GR7/GR7J) :

1000 watts

Music power output

(AEP, German, East European, UK and CIS model):

95+95 watts

(6 ohms at 1kHz, 10% THD)

Inputs

VIDEO/MD IN (phono jacks) : voltage 250 mV, impedance 47 kilo ohms

MIX MIC (phone jack):

sensitivity 1 mV,

impedance 10 kilo ohms

Outputs

VIDEO/MD OUT (phono jacks) : voltage 250 mV impedance 1 kilo ohms

PHONES (stereo phone jack) :

accepts headphones of 8 ohms or more.

SPEAKER : accepts impedance of 8 to 16 ohms (D60/RX70)

accepts impedance of 6 to 16 ohms (GR7/GR7J)

SURROUND SPEAKER

(US and Canadian models):

accepts impedance of 16 ohms.

SUPER WOOFER (GR7/GR7J/

RX70 : US and Canadian models):

Voltage 1 V, impedance 1 kilo ohm

CD player section

System

Compact disc and digital audio system

Laser

Semiconductor laser ($\lambda=780\text{nm}$)

Emission duration: continuous

Max. 44.6 μW^*

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

Laser output

Frequency response 2 Hz - 20 kHz (± 0.5 dB)

Wavelength 780-790 nm

Signal-to-noise ratio More than 90 dB

Dynamic range More than 90 dB

CD OPTICAL DIGITAL OUT

(Square optical connector jack, rear panel)

(Except US model)

Wavelength 600 nm

Output Level -18 dBm

- Continued on next page -

COMPACT DISC DECK RECEIVER



SONY®

Tape player section

Recording system 4-track 2-channel stereo
 Frequency response 60 - 13,000 Hz (± 3 dB), using Sony TYPE I cassette
 (DOLBY NR OFF) 60 - 14,000 Hz (± 3 dB), using Sony TYPE II cassette
 Wow and flutter $\pm 0.15\%$ W. Peak (IEC)
 0.1% W.RMS (NAB)
 $\pm 0.2\%$ W.Peak (DIN)

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range

East European and CIS models:

65.0 - 74.0 MHz
 87.5 - 108.0 MHz

Other models 87.5 - 108.0 MHz

Antenna terminals 75 ohm unbalanced

Intermediate frequency 10.7 MHz

UKV tuner section (East European and CIS models)

Tuning range 65.0 - 74.0 MHz Polar stereo

AM tuner section

Tuning range

US and Canadian models:

530 - 1,710 kHz
 (with the AM tuning interval set at 10kHz)
 531 - 1,710 kHz
 (with the AM tuning interval set at 9 kHz)

EA4, E2, Mexican, Australian and Thailand models:

531 - 1,602 kHz
 (with the AM tuning interval set at 9 kHz)
 530 - 1,710 kHz
 (with the AM tuning interval set at 10 kHz)

AEP, German, East European, UK and CIS models:

MW 531 - 1,602 kHz
 (with the MW tuning interval set at 9 kHz)
 LW 153 - 279 kHz
 (with the LW tuning interval set at 3 kHz)

Other models:

MW 531 - 1,602 kHz
 (with the MW tuning interval set at 9 kHz)
 530 - 1,710 kHz
 (with the MW tuning interval set at 10 kHz)
 SW 5.95 - 17.90 MHz
 (with the SW tuning interval set at 5 kHz)

Intermediate frequency 450 kHz

Antenna AM loop antenna

External antenna terminal

General

Power requirements

US and Canadian models:

120 V AC, 60 Hz

Mexican model: 120 V AC, 50/60 Hz

AEP, German, East European, UK and CIS models:

220 - 230 V AC, 50/60 Hz

Australian and South African models:

220 - 240 V AC, 50/60 Hz

EA4 and Thailand model:

220 - 240 V AC, 50/60 Hz

Other models:

110 - 120 V or 220 - 240 V AC,

50/60 Hz Adjustable with voltage selector

Power consumption

US and Canadian models:

195 watts

AEP, German, East European, UK and CIS models:

115 watts

Other models:

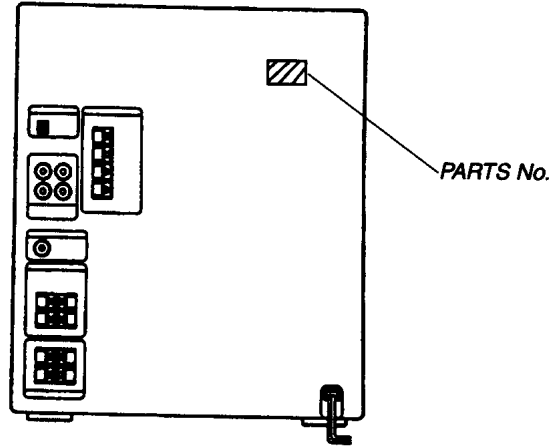
135 watts

Dimensions (w/h/d) Approx. 280x330x366 mm

Mass Approx. 9.3 kg

MEDEL IDENTIFICATION

- BACK PANEL -



MODEL	PARTS NO.
D60 : US model	4-986-844-7□
GR7 : E3 model	4-988-019-0□
GR7 : E2 model	4-988-019-1□
GR7 : MY, SP model	4-988-019-2□
GR7 : EA3, TW model/GR7J: EA3 model	4-988-019-3□
GR7 : HK model	4-988-019-4□
GR7 : AUS model	4-988-019-5□
GR7 : MX model	4-988-019-6□
GR7 : EA4, SAF, TH model	4-988-019-7□
RX70 : US model	4-986-844-0□
RX70 : CND model	4-986-844-1□
RX70 : AEP, AED, G, UK model	4-986-844-2□
RX70 : CIS, EE model	4-986-844-3□

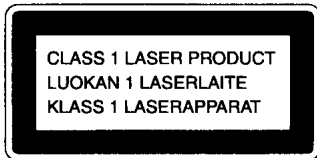
• Abbreviation

AED : Northern European model
 AUS : Australian
 CND : Canadian
 E2 : 120 V AC Area in E model
 E3 : 240 V AC Area in E model
 EA3 : Saudi Arabia
 EA4 : Israeli
 EE : East European
 G : German
 HK : Hong Kong
 MX : Mexican
 MY : Malaysia
 SAF : South African
 SP : Singapore
 TH : Thailand
 TW : Taiwan

CAUTION

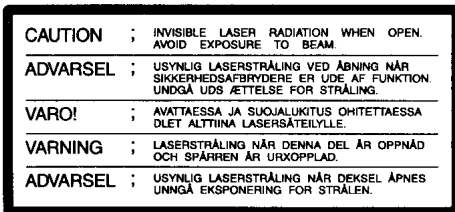
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

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



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

The following caution label is located inside the unit.



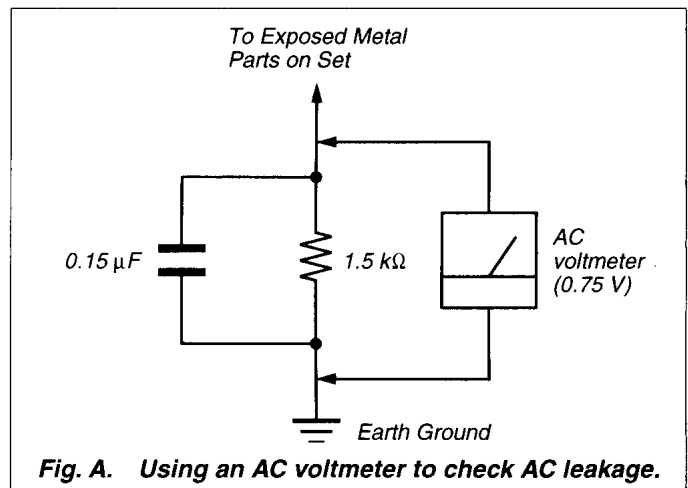
SAFETY CHECK-OUT

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 microampers.). 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)



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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SERVICING NOTES

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

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

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

NOTES ON LASER DIODE EMISSION CHECK

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

Notes on chip component replacement

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

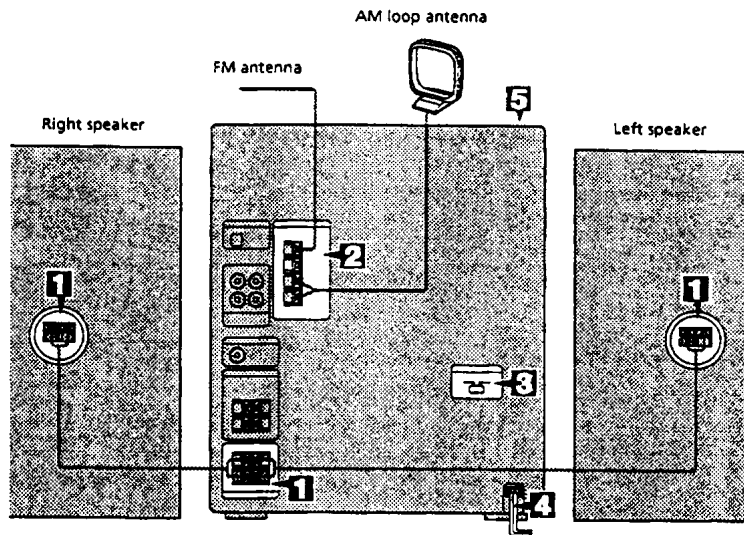
Flexible Circuit Board Repairing

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

Getting Started

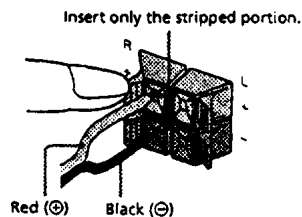
Step 1: Hooking up the system

Do the following procedure 1 to 5 to hook up your system using the supplied cords and accessories.



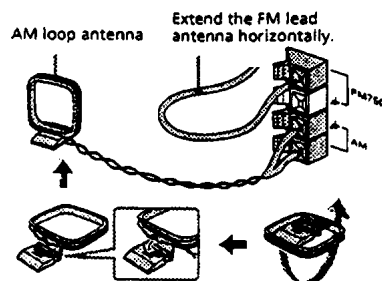
1 Connect the speakers.

Connect the speaker cords to the SPEAKER jacks of the same color. Keep the speaker cords away from the antennas to prevent noise.

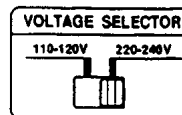


2 Connect the FM/AM antennas.

Set up the AM loop antenna, then connect it.



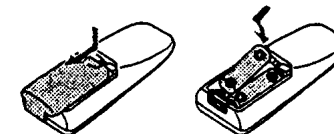
- 3 Set VOLTAGE SELECTOR to position of your local power line voltage (except for North American, Mexican, and Australian models).



- 4 Connect the power cord to a wall outlet. Demo mode appears in the display. If the plug on this unit does not fit your wall outlet, detach the supplied adapter from the plug (except for North and South American countries, Australia and Malaysia).

- 5 Deactivate the demo mode by pressing DISPLAY/DEMO when the system power is turned off. The demo mode is also deactivated when you set the time.

Inserting two size AA (R6) batteries into the remote



Tip

With normal use, the batteries should last for about six months. When the remote no longer operates the system, replace both batteries with new ones.

Note

If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage.

When carrying this system

Do the following to protect the CD mechanism.

- 1 Press FUNCTION repeatedly until "CD" appears in the display.
- 2 Hold down PLAY MODE and press POWER to turn off the power.

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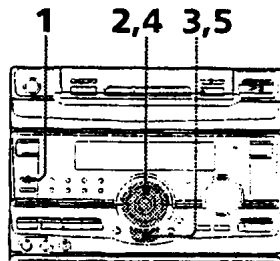
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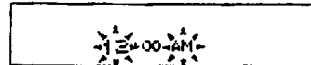
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Step 2: Setting the time

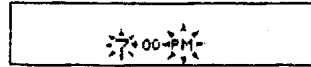
You must set the time before using the timer functions.



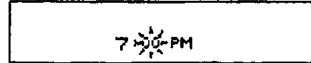
- 1 Press **CLOCK TIMER SET**.
The hour indication flashes.



- 2 Turn the jog dial to set the hour.
The clock is on a 12-hour system.



- 3 Press **ENTER/NEXT**.
The minute indication flashes.



- 4 Turn the jog dial to set the minute.

- 5 Press **ENTER/NEXT**.
The clock starts working.

Tips

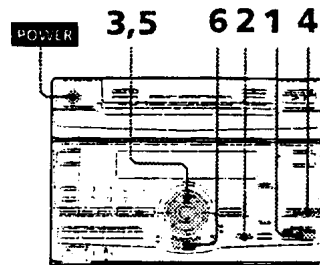
- If you've made a mistake, start over from step 1.
- Setting the time deactivates the demo mode.
If you want to display the demo mode, press **DISPLAY/DEMO** when the power is off.

Note

When setting the time, set the equalizer display to anything other than Spectrum analyzer pattern 3. (See "To change the equalizer display" on page 30.)

Step 3: Presetting radio stations

You can preset up to 40 stations, 20 for FM, 10 for MW and 10 for SW. For North and South American, Australian and Thai models, you can preset up to 30 stations, 20 for FM and 10 for AM.



- 1 Press **TUNER/BAND** repeatedly until the band you want appears in the display.

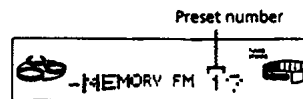
Every time you press this button, the band changes as follows:
North and South American, Australian and Thai models:

FM ↔ AM
Other models:
FM → MW → SW

- 3 Turn the jog dial.
The frequency indication changes and scanning stops when the system tunes in a station. "TUNED" and "STEREO" (for a stereo program) appear.



- 4 Press **TUNER MEMORY**.
A preset number appears in the display.



- 5 Turn the jog dial to select the preset number you want.

- 6 Press **ENTER/NEXT**.
The station is stored.

- 7 Repeat steps 1 to 6 to store other stations.

To tune in a station with a weak signal

Press **TUNING MODE** repeatedly to select "MANUAL" in step 2, then turn the jog dial to tune in the station.

To change the preset number

Start over from step 1.

To change the AM tuning interval (Except for the Middle Eastern model)

The AM tuning interval is factory-preset to 9 kHz (10 kHz in some areas). To change the AM tuning interval, tune in any AM station first, then turn off the power. While holding down the **ENTER/NEXT** button, turn the power back on. When you change the interval, AM preset stations will be erased. To reset the interval, repeat the same procedure.

Tip

The preset stations are retained for half a day even if you unplug the power cord or if a power failure occurs.

Connecting optional AV components

To enhance your system, you can connect optional components. Refer to the instructions of each component.

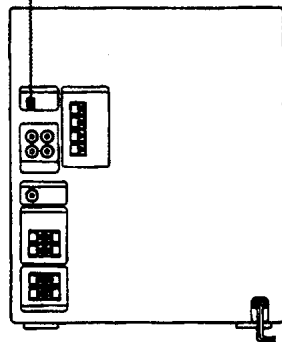
Connecting audio components

Select one of the following two connections, depending on the equipment to be connected and method of connecting.

Connecting an MD deck for digital recording (except U.S. model)

You can record from CD into the MD deck digitally by connecting an optical cable.

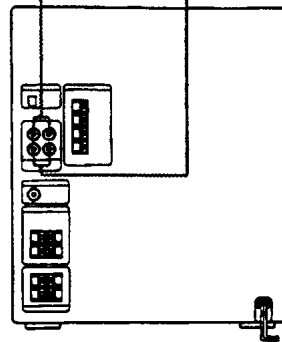
To the DIGITAL IN jack of the MD deck



Connecting an MD deck for analog recording

Make sure to match the color of the plugs and the connectors. To listen to the sound of the connected MD deck, press FUNCTION repeatedly until "MD" appears.

To the audio output of the MD deck To the audio input of the MD deck



Note

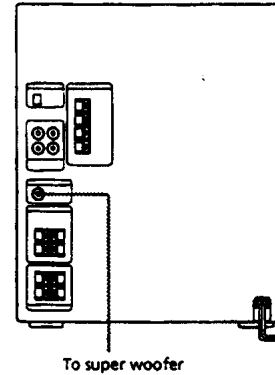
If you cannot select "MD" even when you have pressed FUNCTION, press POWER while pressing FUNCTION when the power is turned off. "VIDEO" will be switched to "MD". To return to "VIDEO" do the same procedure.

Tip

If you connect a turntable with MM cartridge, connect it to VIDEO/MD IN using the optional MM cartridge equalizer EQ-2 and an audio connecting cord. To listen to the sound, press FUNCTION repeatedly until "VIDEO" appears.

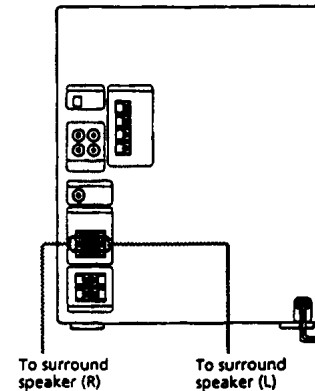
Connecting a super woofer speaker (except for MHC-D60)

You can connect an optional super woofer speaker.



Connecting surround speakers (U.S. and Canadian models only)

You can connect an optional surround speakers.



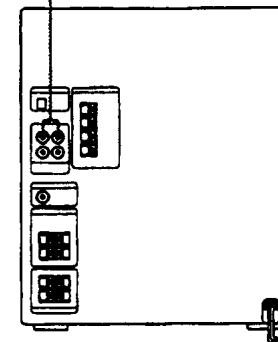
Note

You need to connect both left and right surround speakers. Otherwise, the sound will not be heard.

Connecting a VCR

Make sure to match the color of the plugs and the connectors. To listen to the sound of the connected VCR, press FUNCTION repeatedly until "VIDEO" appears.

To the audio output of the VCR



Note

If the sound is distorted when selecting "VIDEO", switch to "MD" (see "Note" on page 8).

continued

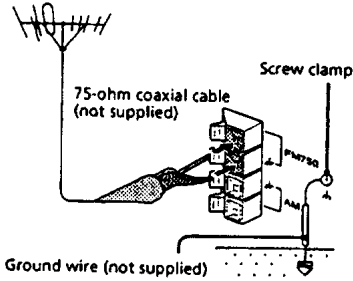
Connecting optional AV components (continued)

Connecting outdoor antennas

Connect the outdoor antenna to improve the reception.

FM antenna

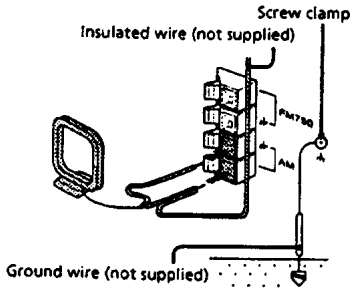
Connect the optional FM outdoor antenna. You can also use the TV antenna instead.



Ground wire (not supplied)

AM antenna

Connect a 6- to 15- meter (20- to 50- feet) insulated wire to the AM antenna terminal. Leave the supplied AM loop antenna connected.



Ground wire (not supplied)

Important

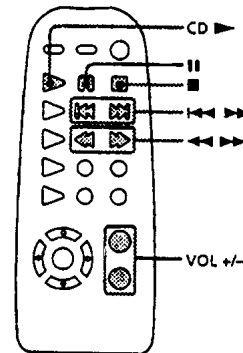
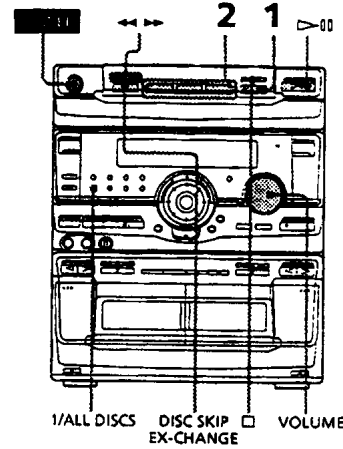
If you connect an outdoor antenna, ground from *h* terminal with the screw clamp. To prevent a gas explosion, do not connect the ground wire to a gas pipe.

Basic Operations

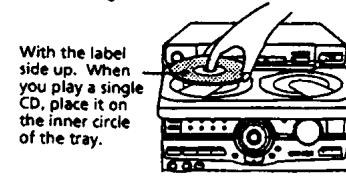
Playing a CD

— Normal play

You can play up to three CDs in a row.

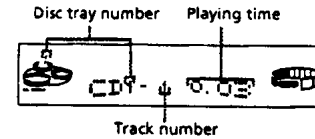


- 1 Press **OPEN/CLOSE** and place up to two CDs on the disc tray. If a disc is not placed properly it will not be recognized.



To insert a third disc, press **DISC SKIP EX-CHANGE** to rotate the disc tray.

- 2 Press one of the **DISC 1-3** buttons. The disc tray closes and play starts. If you press **DISC 1-3** (or **DISC 1-3** on the remote) when the disc tray is closed, play starts from the CD loaded on the tray whose button is lit green.



continued

Playing a CD (continued)

To	Do this
Stop play	Press □ (■ on the remote).
Pause	Press ▷ (on the remote). Press again to resume play.
Select a track	During play or pause, turn the jog dial clockwise (to go forward) or counterclockwise (to go back) and release it when you reach the desired track. Or press ► (to go forward) or ◄ (to go back) on the remote.
Find a point in a track	Press and hold down ►► or ◄◄ (or ►►/◄◄ on the remote) during play and release it at the desired point.
Select a CD in stop mode	Press a DISC 1-3 button or DISC SKIP EX-CHANGE.
Play only the CD you have selected	Press 1/ALL DISCS repeatedly until "1 DISC" appears.
Play all CDs	Press 1/ALL DISCS repeatedly until "ALL DISCS" appears.
Remove the CD	Press △ OPEN/CLOSE.
Exchange other CDs while playing	Press DISC SKIP EX-CHANGE.
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

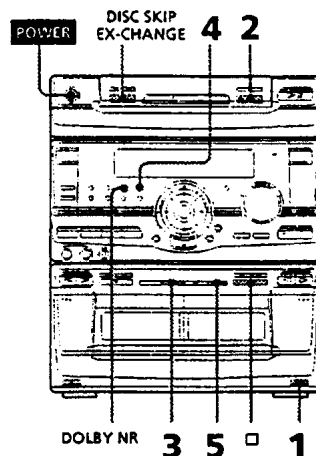
Tips

- Pressing ▷|| when the power is off automatically turns the power on and starts CD playback if there is a CD in the tray (One Touch Play).
- You can switch from another source to the CD player and start playing a CD just by pressing ▷|| or the DISC 1-3 buttons (Automatic Source Selection).
- If there is no CD in the player, "CD NO DISC" appears in the display.
- When a disc tray is selected or the CD placed on that tray is playing, the DISC 1-3 button for the respective tray lights green.

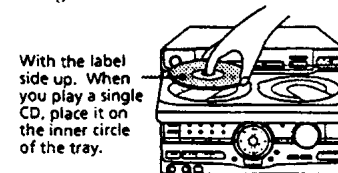
Recording a CD

— CD Synchro Recording

The CD SYNCHRO button lets you record from a CD to a tape easily. You can use TYPE I (normal) or TYPE II (CrO₂) tapes. The recording level is adjusted automatically.



- 2 Press △ OPEN/CLOSE and place a CD. Then press again to close the disc tray. If the indicator for the tray you want to record is not lit green, press DISC SKIP EX-CHANGE repeatedly so that it lights green.



- 3 Press CD SYNCHRO. Deck B stands by for recording and the CD player stands by for playback. ▷ (for front side) lights up.
- 4 Press DIRECTION repeatedly to select ◄ to record on one side. Select ◄ (or RELAY) to record on both sides.
- 5 Press || on deck B. Recording starts.

To stop recording

Press □ on deck B or on the CD player.

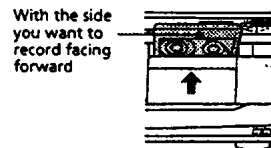
Tips

- If you want to record from the reverse side, press ◄ so that ◄ (for reverse side) lights up.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- When you want to reduce the hiss noise in low-level high-frequency signals, press DOLBY NR so that "DOLBY NR B" appears after pressing CD SYNCHRO.

Note

You cannot listen to other sources while recording.

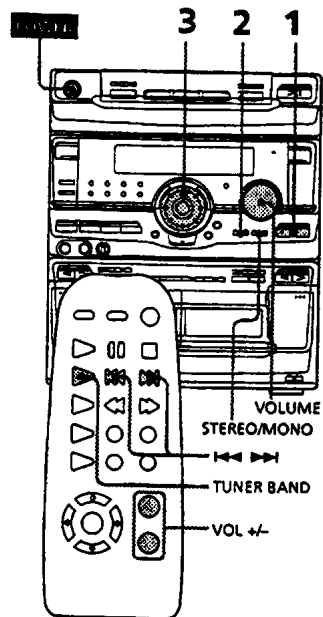
- 1 Press △ EJECT and insert a blank tape into deck B.



Listening to the radio

— Preset Tuning

Preset radio stations in the tuner's memory first (see "Step 3: Presetting radio stations").



- 1 Press TUNER/BAND repeatedly until the band you want appears in the display.

Every time you press the button, the band changes as follows:
North and South American, Australian and Thai models:

FM → AM

Other models:

FM → MW → SW

- 2 Press TUNING MODE repeatedly so that "PRESET" appears in the display.

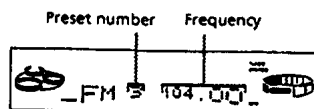
MANUAL → AUTO → PRESET

- 3 Turn the jog dial (or press ◀◀ or ▶▶ on the remote) to tune in the desired preset station.

Turn counter-clockwise (or press ◀◀ on the remote) for lower preset numbers.



Turn clockwise (or press ▶▶ on the remote) for higher preset numbers.



To	Do this
Turn off the radio	Press POWER.
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

To listen to non-preset radio stations

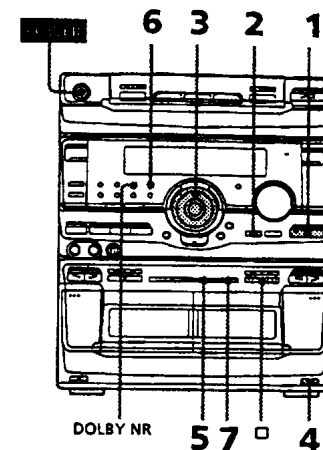
Press TUNING MODE repeatedly so that "MANUAL" appears in step 2, then tune in the station by turning the jog dial.

Tips

- Pressing TUNER/BAND when the power is off automatically turns the power on and tunes to the last received station (One Touch Play).
- You can switch from another source to the radio just by pressing TUNER/BAND (Automatic Source Selection).
- When an FM program is noisy, press STEREO/MONO so that "MONO" appears in the display. There will be no stereo effect, but the reception will improve. Press the button again to restore the stereo effect.
- To improve broadcast reception, reorient the supplied antennas.

Recording from the radio

You can record the radio program on a tape by calling up a preset station. You can use TYPE I (normal) or TYPE II (CrO₂) tapes. The recording level is automatically adjusted.



- 1 Press TUNER/BAND to select the band you want.

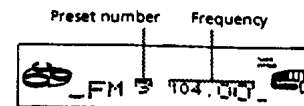
- 2 Press TUNING MODE so that "PRESET" appears in the display.

- 3 Turn the jog dial to tune in a preset station.

Turn counter-clockwise for lower preset numbers.



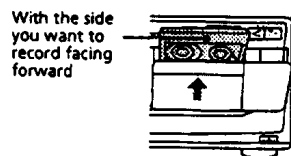
Turn clockwise for higher preset numbers.



continued

Recording from the radio (continued)

- Press **EJECT** and insert a blank tape into deck B.



- Press **●**. Deck B stands by for recording.
- Press **DIRECTION** repeatedly to select **▶▶** to record on one side. Select **◀◀** (or **RELAY**) to record on both sides.
- Press **⏏** on deck B. Recording starts.

To stop recording

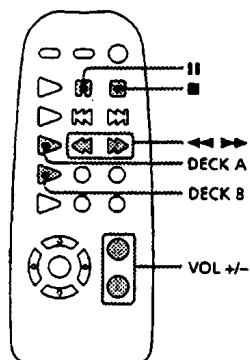
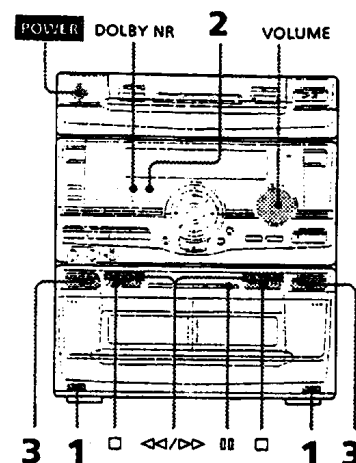
Press **□** on deck B.

Tips

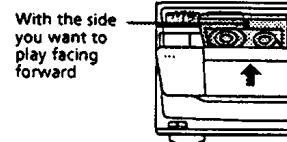
- If you want to record from the reverse side, press **◀** so that **◀** (for reverse side) lights up.
- When you record on both sides, be sure to start from the front side. If you start from the reverse side, recording stops at the end of the reverse side.
- To record non-preset stations, select "MANUAL" in step 2, then turn the jog dial to tune in the desired station.
- When you want to reduce the hiss noise in low-level high-frequency signals, press **DOLBY NR** so that "DOLBY NR B" appears after pressing **●**.
- If noise is heard while recording from the radio, move the respective antenna to reduce the noise.

Playing a tape

You can use any type of tape, TYPE I (normal), TYPE II (CrO₂) or TYPE IV (metal), since the deck automatically detects the tape type. To select either deck A or B, press **DECK A** or **DECK B** on the remote.



- Press **EJECT** and insert a recorded tape in deck A or B.



- Press **DIRECTION** repeatedly to select **▶▶** to play one side. Select **◀◀** to play both sides. To play both decks in succession, select **RELAY** (relay play).**
- Press **▶**. Press **◀** to play the reverse side. The tape starts playing.

- The deck stops automatically after repeating the sequence five times.
- Relay play always follows the following sequence:
Deck A (front side), Deck A (reverse side), Deck B (front side), Deck B (reverse side).

To	Do this
Stop play	Press □ (or ■ on the remote).
Pause (Deck B only)	Press ⏏ . Press again to resume play.
Fast-forward	Press ▶▶ while playing the front side or ◀◀ while playing the reverse side.
Rewind	Press ◀◀ while playing the front side or ▶▶ while playing the reverse side.
Remove the cassette	Press EJECT .
Adjust the volume	Turn VOLUME (or press VOL +/- on the remote).

Tips

- Pressing **▶** or **◀** when the power is off automatically turns the power on and starts tape playback if there is a tape in the deck (One Touch Play).
- You can switch from another source to the tape deck just by pressing **▶** or **◀** (Automatic Source Selection).
- When you want to reduce the hiss noise in low-level high-frequency signals, press **DOLBY NR** so that "DOLBY NR B" appears.
- When dubbing tapes originally recorded with Dolby NR B, the dubbed tape is automatically played with Dolby NR B.

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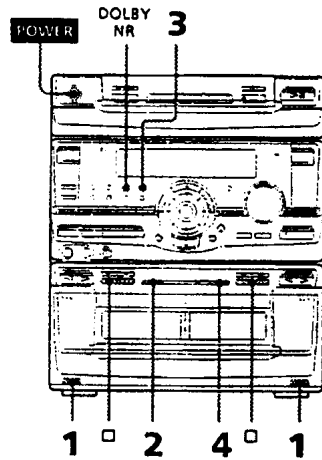
rtv-servis-horvat@os.tel.hr

Croatia

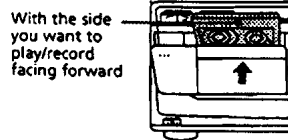
Recording from a tape

— High-speed Dubbing

You can use TYPE I (normal) or TYPE II (CrO₂) tapes. The recording level is automatically adjusted.



- 1 Press **EJECT** and insert a recorded tape in deck A and a blank tape in deck B.



- 2 Press **HIGH SPEED DUBBING**. Deck B stands by for recording.
- 3 Press **DIRECTION** repeatedly to select to record on one side. Select (or **RELAY**) to record on both sides.

- 4 Press **00**. Dubbing starts.

To stop dubbing

Press **□** on deck A or B.

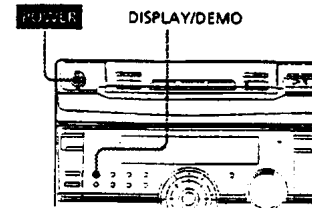
Tips

- When you dub on both sides, start recording from the front side. If you record from the reverse side, recording stops at the end of the reverse side.
- If you set **DIRECTION** to when the tapes you use have different lengths, the tape in each deck reverses independently. If you select **RELAY**, the tapes in both decks reverse together.
- You don't have to set **DOLBY NR**, since the tape in deck B is automatically recorded in the same state as the tape in deck A.

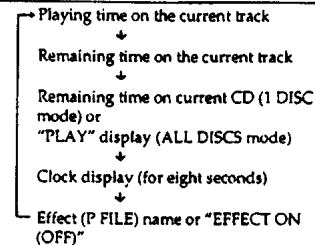
The CD Player

Using the CD display

You can check the remaining time of the current track or that of the CD.



- Press **DISPLAY/DEMO** during playback. Each time you press the button during normal playback, the display changes as follows:



To check the total playing time and the number of tracks on a CD

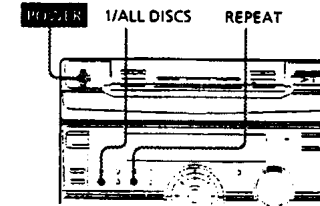
Press **DISPLAY/DEMO** in the stop mode.

If you press **DISPLAY/DEMO** again, the clock display appears for eight seconds then the display returns to the previous indication.

Playing the CD tracks repeatedly

— Repeat Play

This function lets you repeat a single CD or all CDs in normal play, Shuffle Play and Program Play.



- Press **REPEAT** during playback until "REPEAT" appears in the display.

Repeat Play starts. Do the following procedure to change the repeat mode.

To repeat	Press
All the tracks on the current CD	1/ALL DISCS repeatedly until "1 DISC" appears in the display.
All the tracks on all CDs	1/ALL DISCS repeatedly until "ALL DISCS" appears in the display.
Only one track*	REPEAT repeatedly until "REPEAT 1" appears in the display while playing the track you want to repeat.

* You can't repeat a single track during Shuffle Play and Program Play.

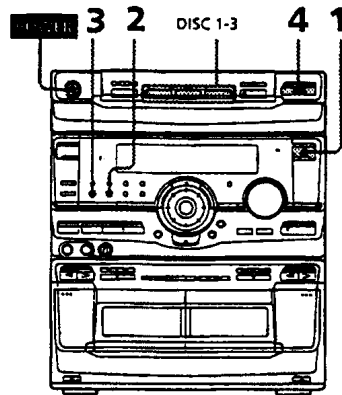
To cancel Repeat Play

Press **REPEAT** so that "REPEAT" or "REPEAT 1" disappears from the display.

Playing the CD tracks in random order

— Shuffle Play

You can play all the tracks on one CD or all CDs in random order.



- 1 Press FUNCTION repeatedly until "CD" appears in the display, then place a CD.
- 2 Press PLAY MODE repeatedly until "SHUFFLE" appears in the display.
- 3 Press 1/ALL DISCS to choose "1 DISC" or "ALL DISCS". "ALL DISCS" shuffles all the CDs in the player. "1 DISC" shuffles the CD whose DISC indicator is green.
- 4 Press \triangleright . "t" appears and then all the tracks play in random order.

To cancel Shuffle Play

Press PLAY MODE repeatedly until "SHUFFLE" or "PROGRAM" disappears from the display. The tracks continue playing in their original order.

To select a desired CD

Press DISC 1-3.

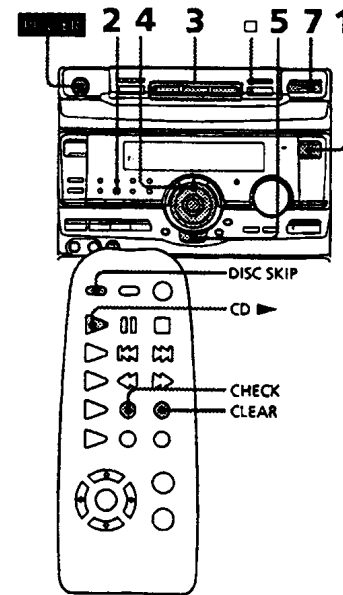
Tips

- You can start Shuffle Play during normal play by pressing PLAY MODE repeatedly to select "SHUFFLE".
- To skip a track, turn the jog dial clockwise (or press \triangleright on the remote).

Programming the CD tracks

— Program Play

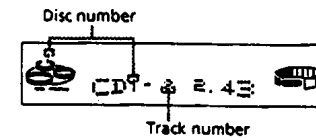
You can make a program of up to 32 tracks from all the CDs in the order you want them to be played.



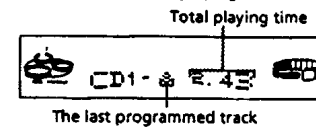
- 1 Press FUNCTION repeatedly until "CD" appears in the display, then place a CD.
- 2 Press PLAY MODE repeatedly until "PROGRAM" appears in the display.

- 3 Press one of the DISC 1-3 buttons to select a CD.

- 4 Turn the jog dial until the desired track appears in the display.



- 5 Press ENTER/NEXT. The track is programmed. "STEP" and the programmed playing order appear, followed by the total playing time.



- 6 To program additional tracks, repeat steps 3 to 5. Skip step 3 to select tracks from the same disc.

- 7 Press \triangleright . All the tracks play in the order you selected.

To cancel Program Play

Press PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears from the display.

continued

Programming the CD tracks (continued)

To	Press
Check the program	CHECK on the remote repeatedly. After the last track, "CHECK END" appears.
Clear a track from the end	CLEAR on the remote in stop mode.
Clear a specific track	CHECK on the remote repeatedly until the number of the track to be erased lights up, then press CLEAR.
Add a track to the program	1 Select the disc tray with a DISC 1-3 button. 2 Select the track by turning the jog dial. 3 Press ENTER/NEXT.
Clear the entire program	□ once in stop mode or twice while playing.

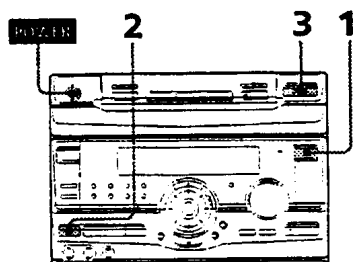
Tips

- The program you made remains in the CD player even after it has been played back. Press ▷00 to play the same program again.
- If "... " appears instead of the total playing time during programming, this means:
 - you have programmed a track number which exceeds 20
 - the total playing time has exceeded 100 minutes.

Playing CDs without interruption

— Non Stop Play

You can play CDs without pausing between tracks.



1 Press FUNCTION repeatedly until "CD" appears in the display, then place a CD.

2 Press NON-STOP so that the indicator on the button lights up.

3 Press ▷00.

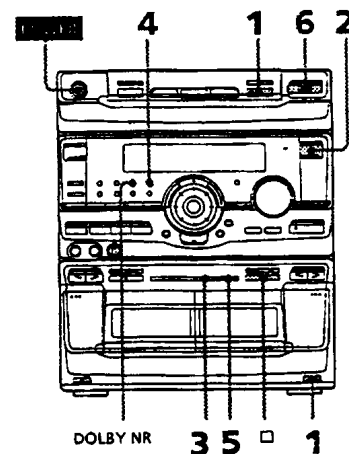
To cancel Non Stop Play

Press NON-STOP so that the indicator on the button goes out.

The Tape Deck

Recording on a tape manually

You can record from CD, tape, or radio as you like. For example, you can record just the songs you want or record from the middle of the tape. The recording level is adjusted automatically.



1 Insert a blank tape into deck B.

2 Press FUNCTION repeatedly until the source you want to record (e.g., CD) appears.

3 Press ●.
Deck B stands by for recording. ▷ (for front side) lights up.

4 Press DIRECTION repeatedly to select = to record on one side. Select □ (or RELAY) to record on both sides.

5 Press 00 on deck B.
Recording starts.

6 Start playing the source to be recorded.

To	Press
Stop recording	□ on the deck B
Pause recording	00 on the deck B

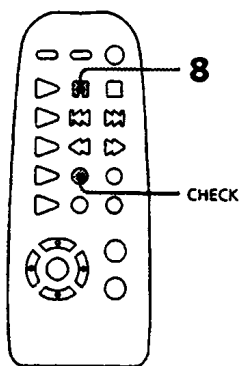
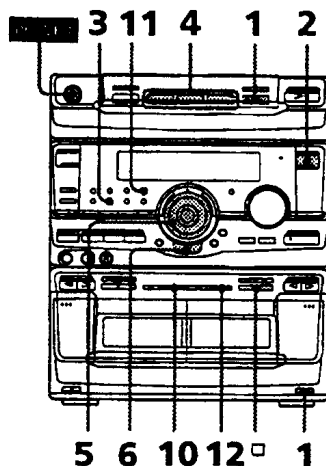
Tips

- If you want to record from the reverse side, press ◀ so that ◀ (for reverse side) lights up.
- When you want to reduce the hiss noise in low-level high-frequency signals, press DOLBY NR so that "DOLBY NR B" appears after pressing ●.
- To skip tracks while recording from a tape, press ▷▷ or ◀◀ on deck A. Deck B stands by for recording, and you can skip tracks. To resume dubbing, press 00 on deck B.

Recording a CD by specifying track order

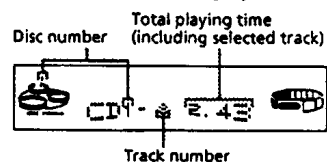
— Program Edit

You can record tracks from all the CDs in the order you want. When programming, make sure the playing times for each side do not exceed the length of one side of the tape.

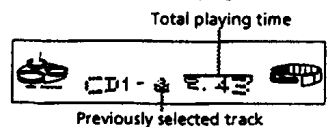


- 1** Place a CD and insert a blank tape into deck B.
- 2** Press FUNCTION repeatedly until "CD" appears in the display.
- 3** Press PLAY MODE repeatedly until "PROGRAM" appears in the display.
- 4** Press one of the DISC 1-3 buttons to select a CD.

- 5** Turn the jog dial until the desired track appears in the display.



- 6** Press ENTER/NEXT. The track is programmed. "STEP" and the programmed playing order appear, followed by the total playing time.



- 7** To program additional tracks to be recorded on side A, repeat steps 4 to 6. Skip step 4 to select tracks from the same disc.

- 8** Press **||** on the remote to insert a pause at the end of side A. "P" appears in the display and the total playing time resets to "0.00" in the display.

- 9** Repeat steps 5 and 6 for tracks from the same disc or steps 4 to 6 for tracks from another disc to program the remaining tracks to be recorded on side B.

- 10** Press CD SYNCHRO. Deck B stands by for recording and the CD player stands by for playback. **▷** (for front side) lights up.

- 11** Press DIRECTION repeatedly to select **⇐** to record on one side. Select **⇨** (or RELAY) to record on both sides.

- 12** Press **||** on deck B. Recording starts.

To stop recording

Press **□** on the deck B or on the CD player.

To check the order

Press CHECK on the remote repeatedly. After the last track, "CHECK END" appears.

To cancel Program Edit

Press PLAY MODE repeatedly until "PROGRAM" or "SHUFFLE" disappears from the display.

Selecting tape length automatically

— Tape Select Edit

You can check the most suitable tape length for recording a CD. Note that you cannot use Tape Select Edit for discs containing more than 20 tracks.

➔ After inserting a CD, press EDIT once, so that "EDIT" flashes.

The required tape length for the currently selected CD appears, followed by the total playing time and tracks for side A and side B.

Note

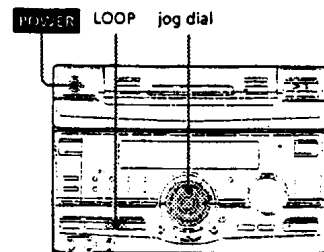
You cannot use this function after programming. In order to use this function, you must first erase the program (see "To clear the entire program" on page 22).

DJ Effects

Looping part of a CD

— Loop

With the loop function, you can repeat part of a CD during playback. This lets you create original recordings.



→ Press and hold LOOP during playback at the point you want to start the Loop function, and release to resume normal play.

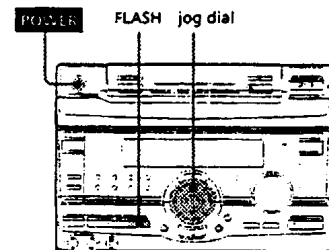
To adjust the loop length

Turn the jog dial while holding LOOP (or press MUSIC MENU ◀ or ▶ while holding LOOP on the remote) to select different loop lengths (LOOP 1-20).

Flashing part of a CD

— Flash

With the flash function, you can “flash” the CD sound during playback. This lets you create original recordings.



→ Press and hold FLASH during playback at the point you want to start the Flash function, and release to resume normal play.

To adjust the flash length

Turn the jog dial while holding FLASH (or press MUSIC MENU ◀ or ▶ while holding FLASH on the remote) to select different flash lengths (FLASH 1-20).

To use LOOP and FLASH together

Press and hold both LOOP and FLASH at the same time.

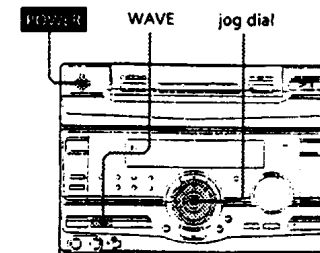
Notes

- The loop and flash length cannot be adjusted during this operation. Adjust the loop and flash lengths independently beforehand if necessary.
- To record the flash effect, use the analog (VIDEO/MD OUT) connections or this unit's tape deck.

Waving the equalizer

— Wave

With the Wave function, you can fluctuate the graphic equalizer automatically. This effect can be used with any source, but it cannot be recorded.



→ Press and hold WAVE to start the Wave function, and release to resume normal listening.

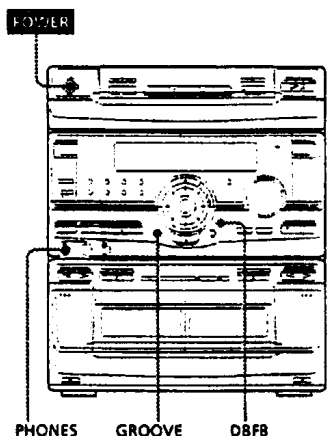
To adjust the wave length

Turn the jog dial while holding WAVE to select a different wave length (WAVE 1-10).

Sound Adjustment

Adjusting the sound

You can reinforce the bass, create a more powerful sound, and listen with headphones.



To reinforce bass (DBFB)

Press DBFB*.

Every time you press the button, the display changes as follows:

DBFB → DBFB → display off

"DBFB " is more effective than "DBFB ".

* DBFB = Dynamic Bass Feedback

For a powerful sound (GROOVE)

Press GROOVE. The volume switches to power mode, DBFB is automatically set to full strength, the equalizer curve changes, and the "GROOVE" button lights up. Press GROOVE again to return to the previous volume.

Notes

- With some songs, the music will sound distorted when you use the DBFB system with the graphic equalizer if the bass is too strong. Adjust the bass slowly while listening to music so that you can monitor the effect of the adjustment.
- Cancelling GROOVE sets DBFB to "DBFB " and flattens the equalizer curve. To cancel the DBFB level, press DBFB until the indication disappears. Adjust the equalization to obtain the effect you desire.

To listen through the headphones

Connect the headphones to PHONES jack. No sound will come from the speakers.

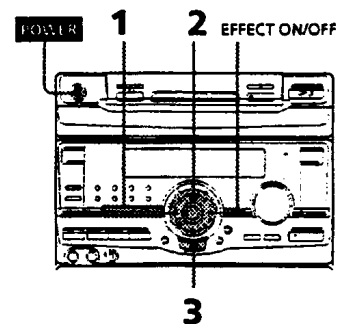
Note

If you have connected a super woofer, please note that sound comes from the super woofer even when the headphones are connected. Turn off the power of the super woofer when using headphones (except for MHC-D60).

Selecting the audio emphasis

The audio emphasis menu lets you select the sound characteristic according to the sound you are listening to.

The personal file function (see "Making a personal audio emphasis file") lets you store your own effects.



1 Press MUSIC, MOVIE, or GAME (or MUSIC MENU on the remote repeatedly) to select a menu.

See the chart "Music menu options" below. The last effect chosen from that menu appears in the display.

2 Use the jog dial (or press MUSIC MENU on the remote repeatedly) to select the preset you desire.

The preset name appears in the display.

3 Press ENTER/NEXT. You don't need to press ENTER/NEXT when you use the remote.

To cancel the effect

Press EFFECT ON/OFF repeatedly (or MUSIC MENU ON/OFF on the remote) so that "EFFECT OFF" appears in the display.

Music menu options

"SUR " appears if you select an effect with surround effects.

MENU button	Effect	For
MUSIC	ROCK	Standard music sources
	POP	
	JAZZ	
	DANCE	
	SOUL	
MOVIE	ACTION	Soundtracks and special listening situations
	SF	
	ROMANCE	
	DRAMA	
	SPORTS	
GAME	SHOOTING	Video games
	RACING	
	RPC	
	BATTLE	
	ADVENTURE	

continued

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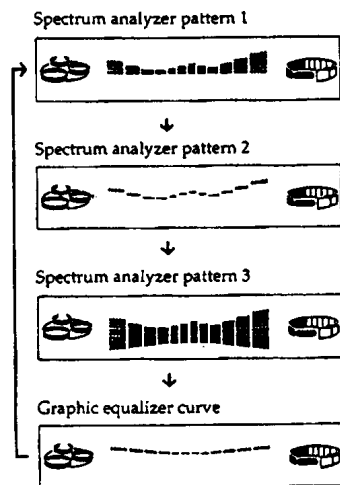
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Croatia

Selecting the audio emphasis (continued)

To change the equalizer display
Each time you press DISPLAY/DEMO, the
equalizer display changes to show one of the
four displays below.



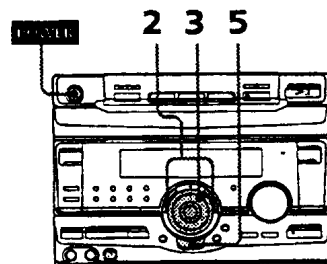
Adjusting the audio emphasis

You can adjust the audio emphasis using the
graphic equalizer and surround effect.

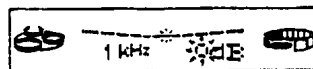
Adjusting the graphic equalizer

You can adjust the sound by raising or
lowering the levels of specific frequency
ranges.

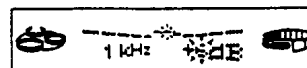
Before operation, first select the audio
emphasis you want for your basic sound.



- 1 Select the audio emphasis you want
for your basic sound (see "Selecting the
audio emphasis").
- 2 Press HIGH FREQUENCY or LOW
FREQUENCY repeatedly to select a
frequency band.



- 3 Turn the jog dial to adjust level.



- 4 Repeat steps 2 and 3.

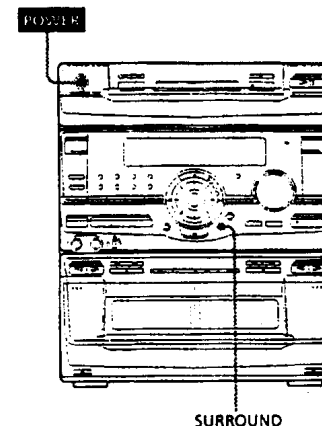
- 5 Press ENTER/NEXT when finished.

Note

If you choose another menu audio emphasis (other
than "EFFECT OFF") the adjusted sound effect is
lost. To retain the adjusted sound effect for future
use, store it in a personal file. (See "Making a
personal audio emphasis file".)

Activating the surround effect

You can enjoy the surround effect.



- Press SURROUND repeatedly so
that "SUR" appears in the
display.

Note

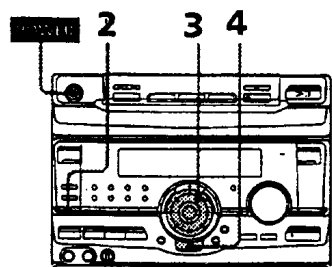
When you choose other sound effects, the surround
effects will be canceled. If you want to memorize
the effect, store it into a personal file (see "Making a
personal audio emphasis file").

Making a personal audio emphasis file

— Personal file

You can create a personal file of audio patterns (surround effect and graphic equalizer) and store them in the memory of the unit. Later call up an audio pattern to play a favorite tape, CD, or radio program. Create up to five audio files.

Before operation, first select the audio emphasis you want for your basic sound.



- 1 Obtain the sound effect you want by using the graphic equalizer and surround effect.
- 2 Press P FILE MEMORY. The personal file number appears in the display.
- 3 Use the jog dial to select the file number (P FILE) where you want to store the sound effect.
- 4 Press ENTER/NEXT. The adjusted sound effects are stored under the selected file number. The settings previously stored at this memory location are erased and replaced by the new settings.

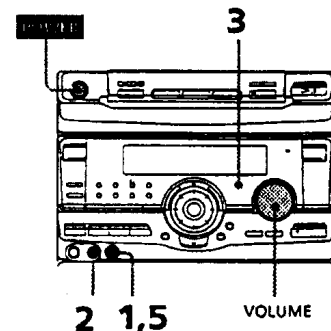
To call up the personal file

- 1 Press P FILE (or MUSIC MENU $\blacktriangle/\blacktriangleright$ on the remote repeatedly) to display the last selected personal file.
- 2 Use the jog dial (or press MUSIC MENU $\blacktriangle/\blacktriangleright$ on the remote repeatedly) to select the personal file you desire.
- 3 Press ENTER/NEXT. You don't need to press ENTER/NEXT when you use the remote.

Other Features

Singing along: Karaoke

You can sing along with any stereo CD or tape by turning down the singer's voice. You need to connect an optional microphone.

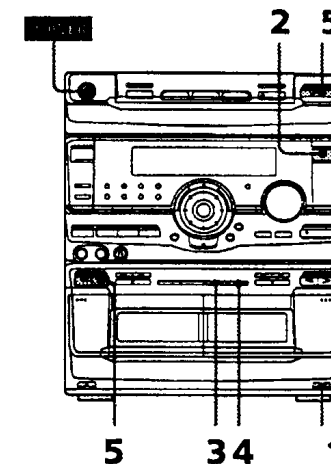


- 1 Turn MIC LEVEL to MIN to turn down the microphone control level.
- 2 Connect an optional microphone to MIX MIC.
- 3 Press KARAOKE PON/MPX repeatedly to obtain the karaoke effect you desire. Every time you press the button, the display changes as follows:
 KARAOKE PON → MPX R → MPX L
 └── EFFECT OFF ──┘
 The \blacktriangle indicator appears in the display when a karaoke mode is activated. To sing karaoke with decreasing the vocal level of a CD, select KARAOKE PON. To sing karaoke of multiplex CD or tape, select MPX R or MPX L.
- 4 Start playing the music and adjust the volume.
- 5 Adjust the microphone volume by turning MIC LEVEL.

When you are done

Turn MIC LEVEL to MIN and disconnect the microphone from MIX MIC, then press KARAOKE PON/MPX repeatedly so that \blacktriangle disappears.

Mixing and recording sounds



- 1 Do the above steps 1 to 5. Then, insert a tape in deck B.
- 2 Press FUNCTION repeatedly to select the source you desire and set it to pause mode.

continued

Singing along: Karaoke (continued)

- 3 Press ●.
- 4 Press 00.
- 5 Press ▷ to start playing the CD player (or tape deck A). Playback starts. Start singing along with the music.

To stop recording

Press ■ on deck B and the CD player.

Tips

- If acoustic feedback (howling) occurs, move the microphone away from the speakers or change the direction of the microphone.
- If you want to record your voice through the microphone only, you can do so by selecting the CD function and not playing a CD.

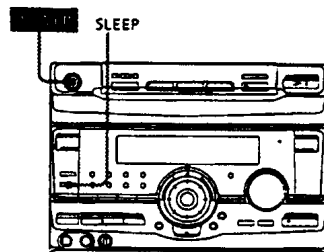
Notes

- If you press EFFECT ON/OFF or recall a sound effect, the karaoke mode is cancelled.
- The instrumental sound may be reduced as well as the singer's voice when the sound is recorded in monaural.
- The singer's voice may not be reduced when:
 - only a few instruments are playing
 - a duet is being played
 - the source has strong echoes or chorus
 - the singer's voice deviates from the center.
 - the voice on the source is singing in high soprano or tenor.

Falling asleep to music

— Sleep Timer

You can let the system turn off at the preset time, so you can sleep to the music. You can preset the time to be turned off by 10 minutes.



→ Press SLEEP.

Every time you press the button, the minute display (the turn-off time) changes as follows:

AUTO → 90min → 80min → 70min
→ ... → 10min → OFF → AUTO ...

When you choose auto

The power turns off when the current CD or tape finishes playback (for up to 100 minutes).

To check the remaining time

Press SLEEP once.

To change the time to turn off

Select the time you want by pressing SLEEP.

To cancel the Sleep Timer function

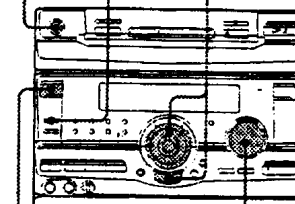
Press SLEEP repeatedly until "OFF" appears.

Waking up to music

— Wake-up Timer

You can wake up to music at a preset time every day. Make sure you have set the clock (see "Step 2: Setting the time").

9 2 3,4,5,6,8

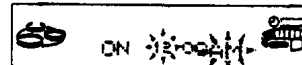


TIMER SELECT

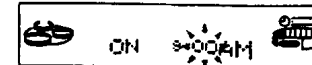
- 1 Prepare the music source you want to play.
 - CD: Insert a CD. To start from a specific track, make a program (see "Programming the CD tracks").
 - Tape: Insert a tape with the side you want to play facing forward.
 - Radio: Tune in the preset station you want (see "Step 3: Presetting radio stations").

- 2 Press CLOCK TIMER SET. "SET (DAILY 1)" appears.

- 3 Turn jog dial to select DAILY 1 or 2, then press ENTER/NEXT. "ON" appears and the hour digits flash in the display.



- 4 Set the time to start playback. Turn jog dial to set the hour, then press ENTER/NEXT. The minute indication starts flashing.



Turn jog dial to set the minute, then press ENTER/NEXT. The hour indication flashes again.

- 5 Set the time to stop playback following the above procedure.
- 6 Turn jog dial until the music source you want appears. The indications change as follows: TUNER → CD PLAY → TAPE PLAY
- 7 Adjust the volume.
- 8 Press ENTER/NEXT. The start time, followed by the stop time and the music source, appears, then the original display appears.
- 9 Turn off the power.

continued

Waking up to music (continued)

To check the setting

Press **TIMER SELECT** and turn the jog dial to select the respective mode (DAILY 1 or DAILY 2), then press **ENTER/NEXT**. To change the setting, start over from step 1.

To cancel the timer operation

Press **TIMER SELECT** and turn the jog dial to select "OFF", then press **ENTER/NEXT**.

Tip

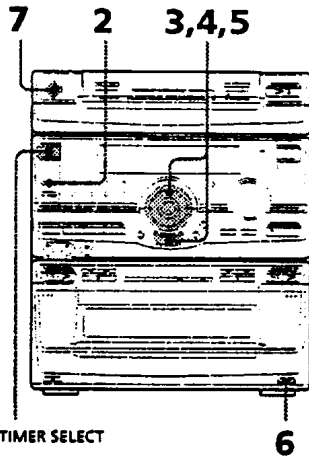
The power turns on 15 seconds before the preset time.

Note

When setting the wake-up timer, set the equalizer display to anything other than Spectrum analyzer pattern 3. (See "To change the equalizer display" on page 30.)

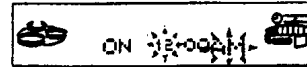
Timer-recording radio programs

To timer-record, you must preset the radio station (see "Step 3: Presetting radio stations") and set the clock (see "Step 2: Setting the time") beforehand.

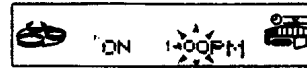


- 1** Tune in the preset radio station (see "Listening to the radio").
- 2** Press **CLOCK TIMER SET**. "SET (DAILY 1)" appears.

- 3** Turn jog dial to select **REC**, then press **ENTER/NEXT**. "ON" appears and the hour digits flash in the display.



- 4** Set the time to start recording. Turn jog dial to set the hour, then press **ENTER/NEXT**. The minute indication starts flashing.



Turn jog dial to set the minute, then press **ENTER/NEXT**. The hour indication flashes again.

- 5** Set the time to stop recording following the above procedure. The start time appears, followed by the stop time, the recording source and the radio station, then the original display appears.
- 6** Insert a recordable tape.
- 7** Turn off the power. When the recording starts, the volume level is set to the minimum.

To check the setting

Press **TIMER SELECT** and turn the jog dial to select "REC", then press **ENTER/NEXT**. To change the setting, start over from step 1.

To cancel the timer operation

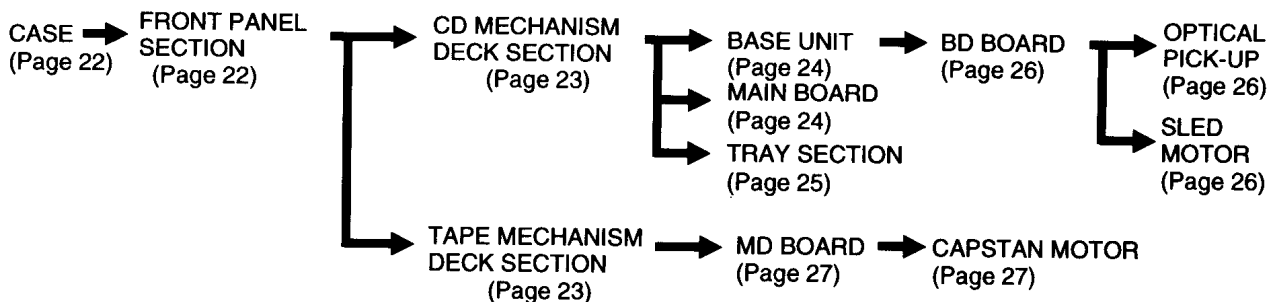
Press **TIMER SELECT** and turn the jog dial to select "OFF", then press **ENTER/NEXT**.

Notes

- When setting the timer-recording, set the equalizer display to anything other than Spectrum analyzer pattern 3. (See "To change the equalizer display" on page 30.)
- If the power is on at the preset time, the recording will not be made.

SECTION 2 DISASSEMBLY

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



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

CASE

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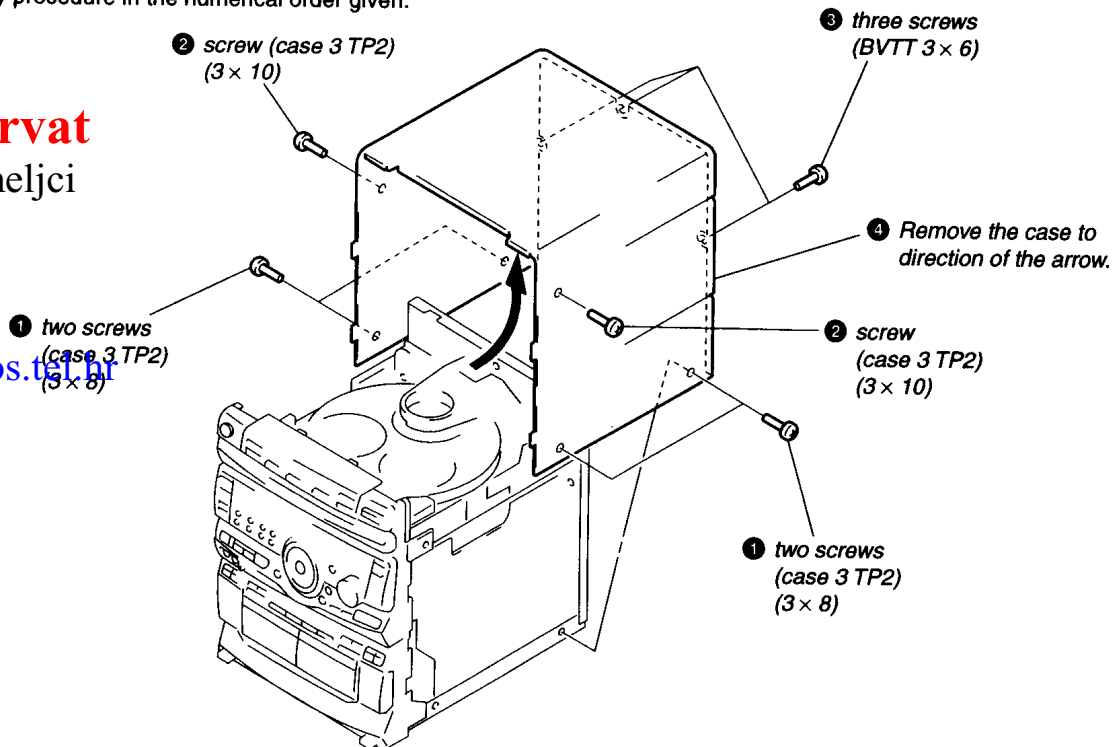
031-856-139

031-856-637

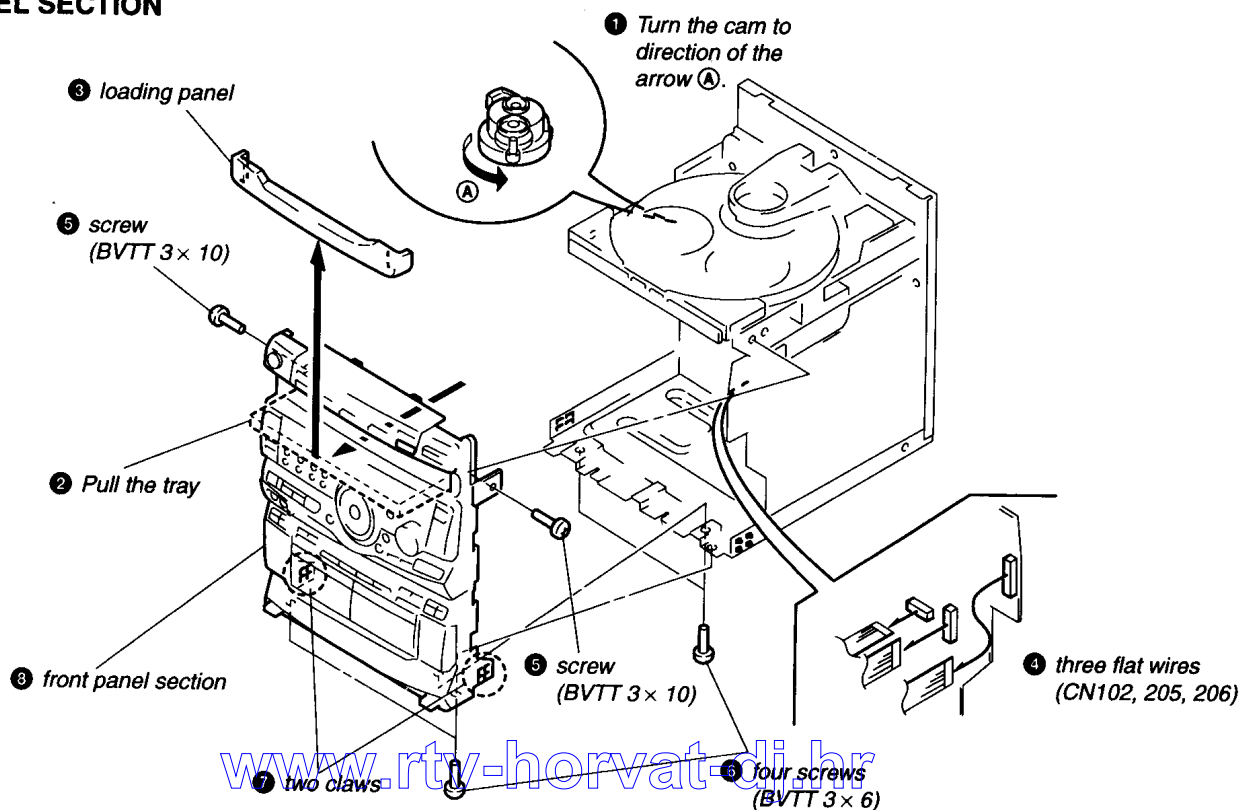
098-788-319

rtv-servis-horvat@os.tgi.hr

Croatia

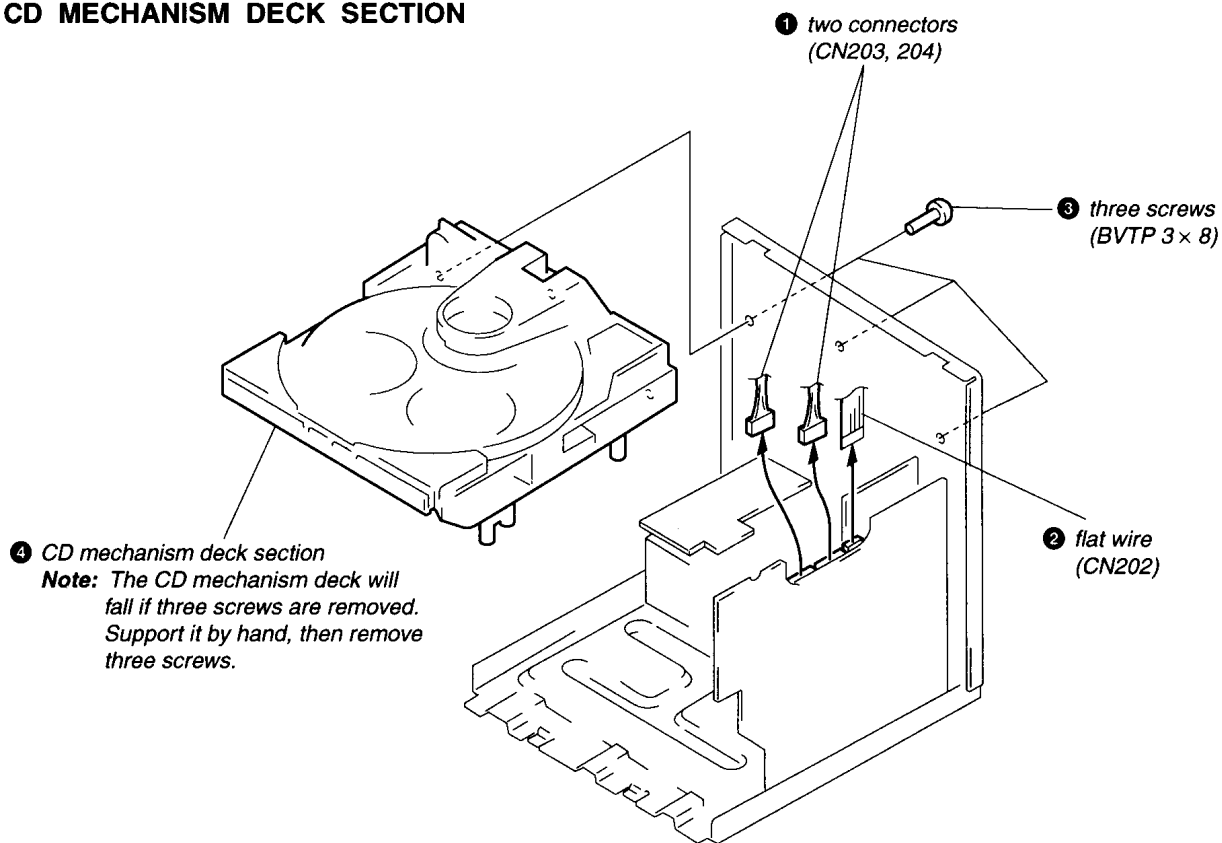


FRONT PANEL SECTION

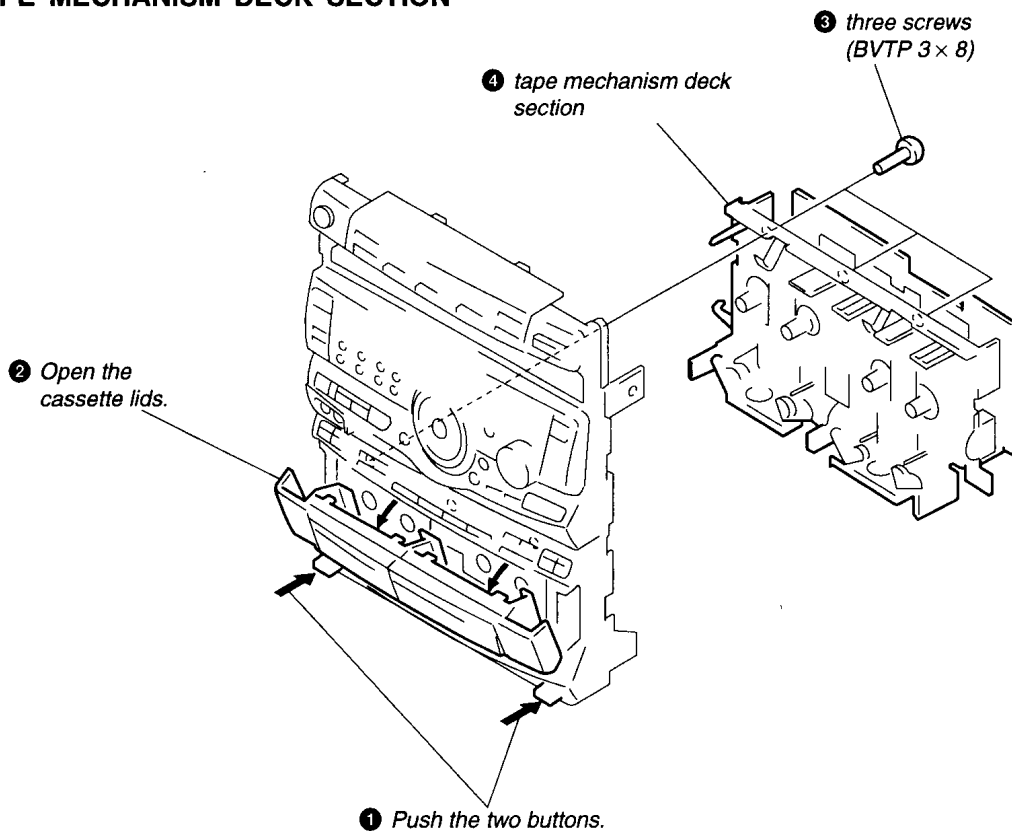


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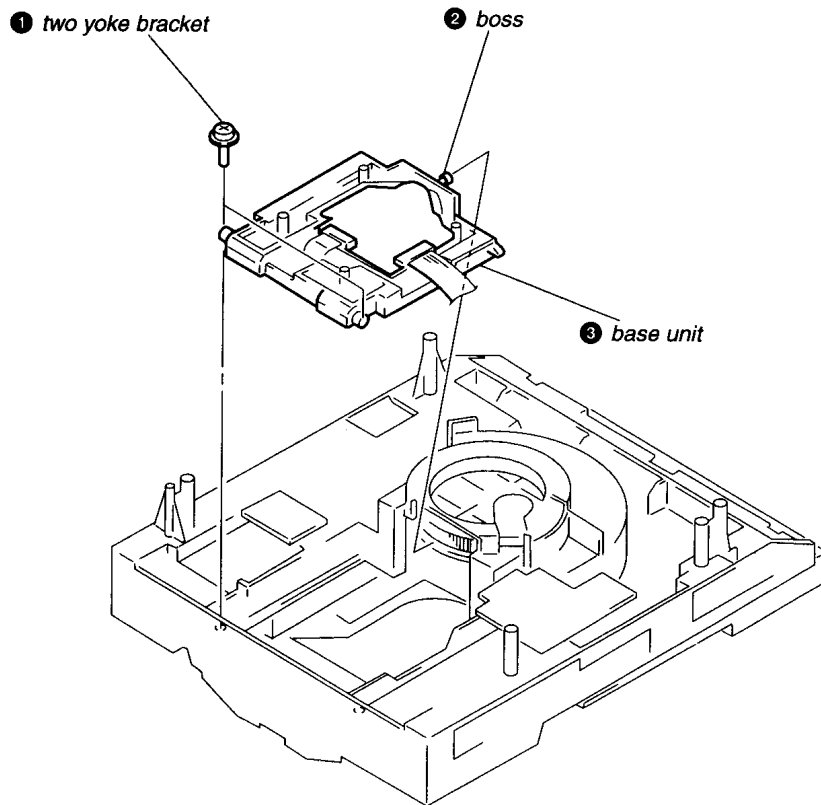
CD MECHANISM DECK SECTION



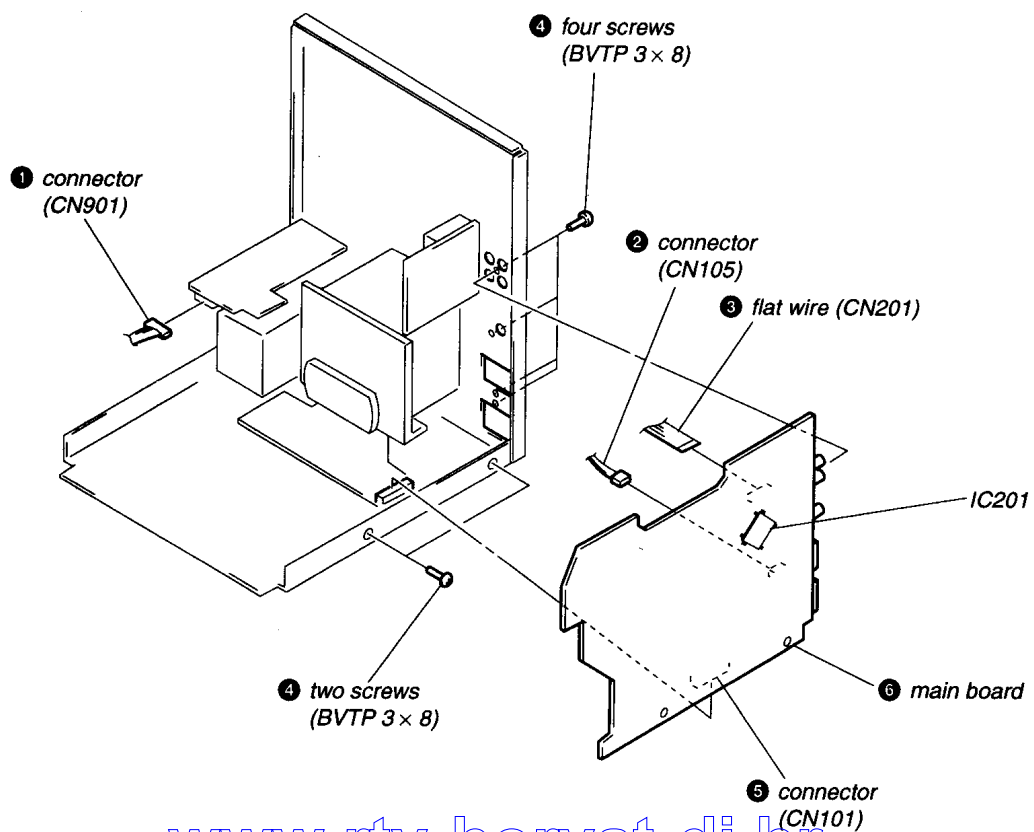
TAPE MECHANISM DECK SECTION



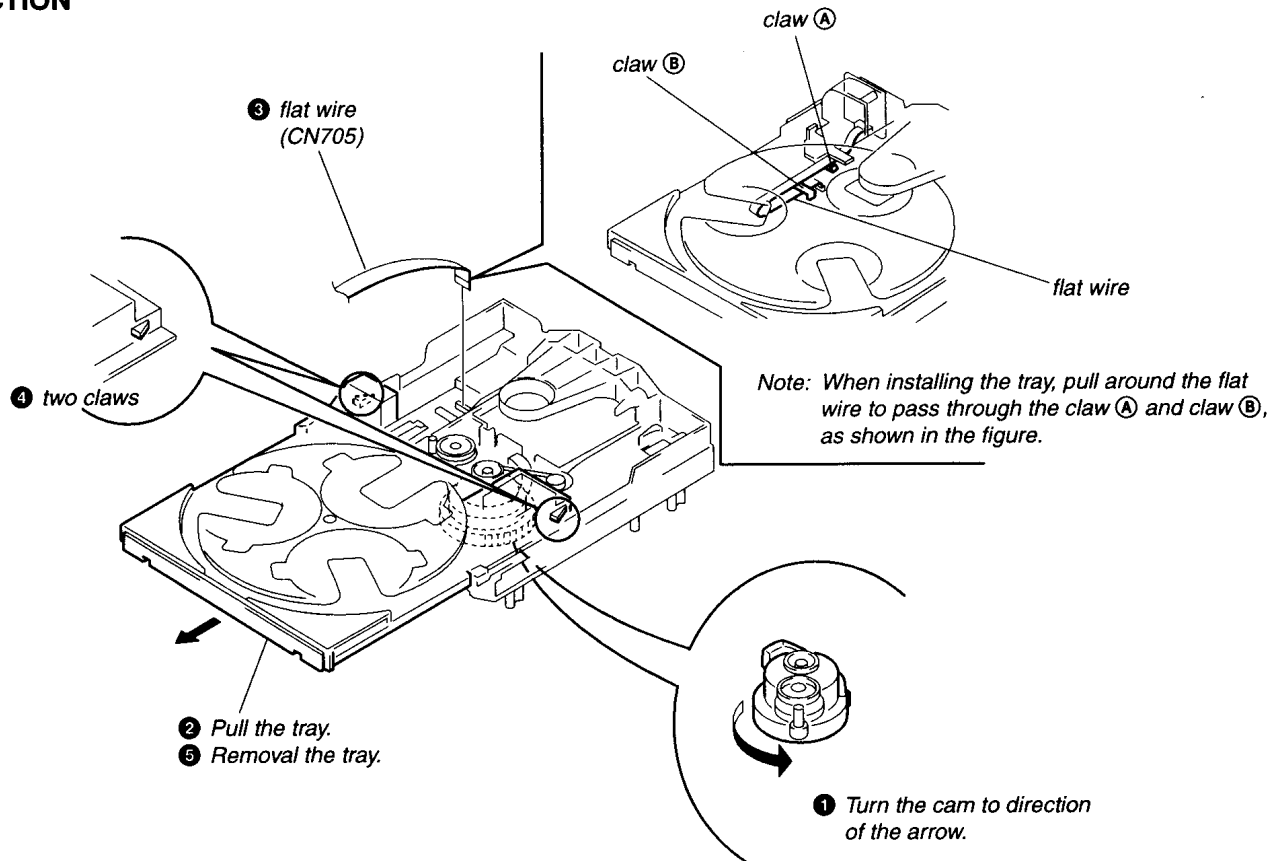
BASE UNIT



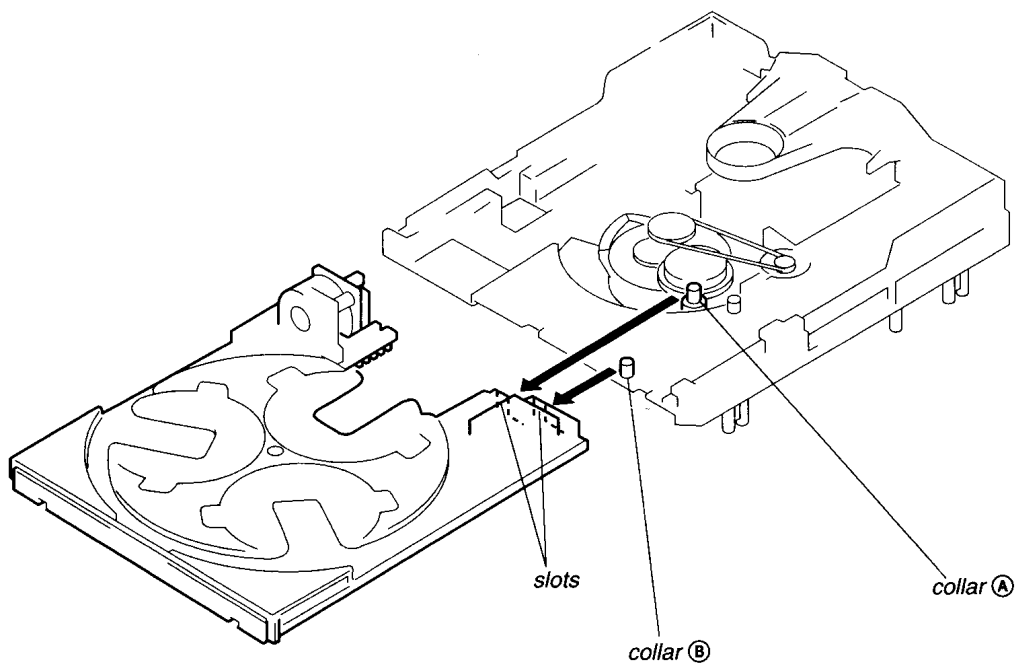
MAIN BOARD



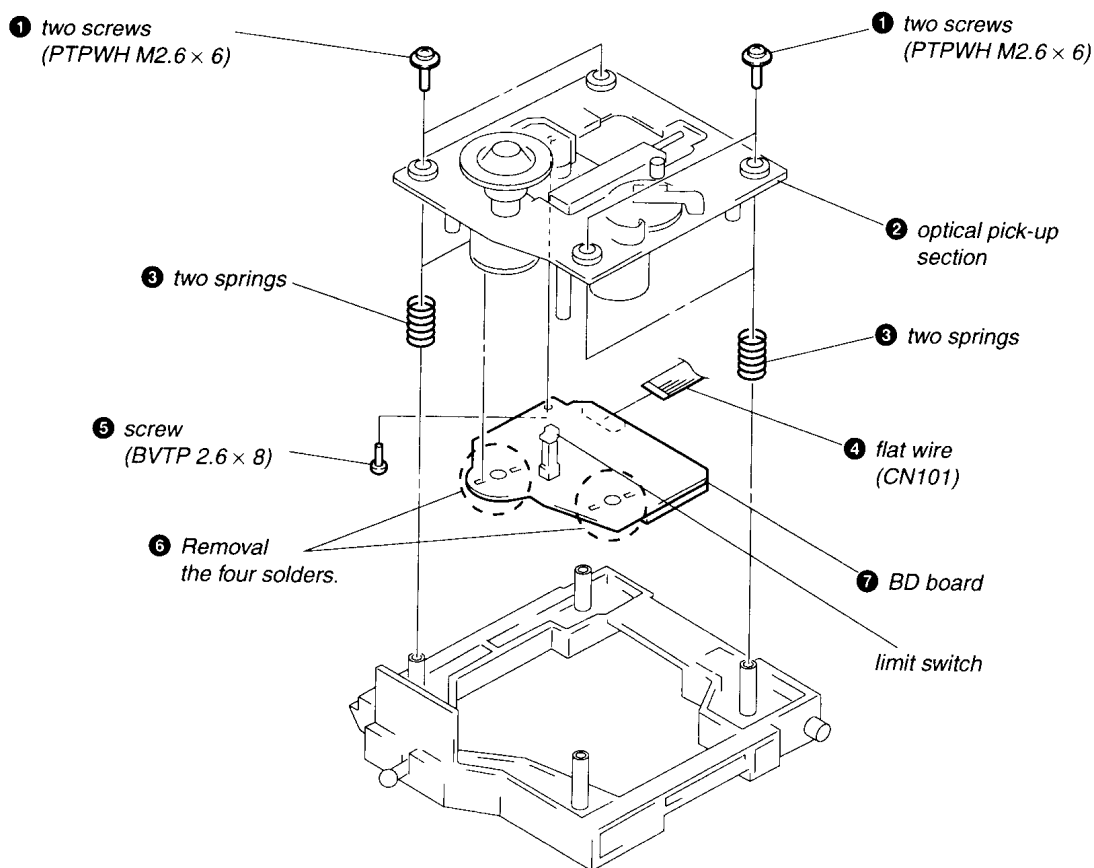
TRAY SECTION



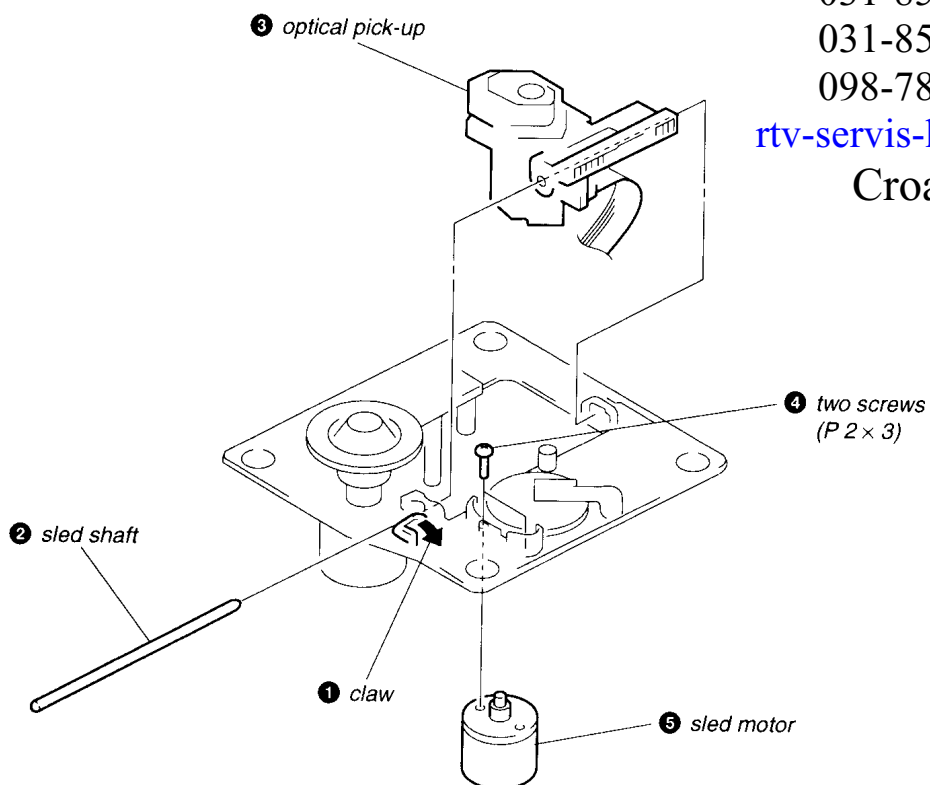
Note: When installing the tray, take care so that the collars (A) and (B) are properly inserted into the slots.



BD BOARD



OPTICAL PICK-UP, SLED MOTOR



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031-856-139

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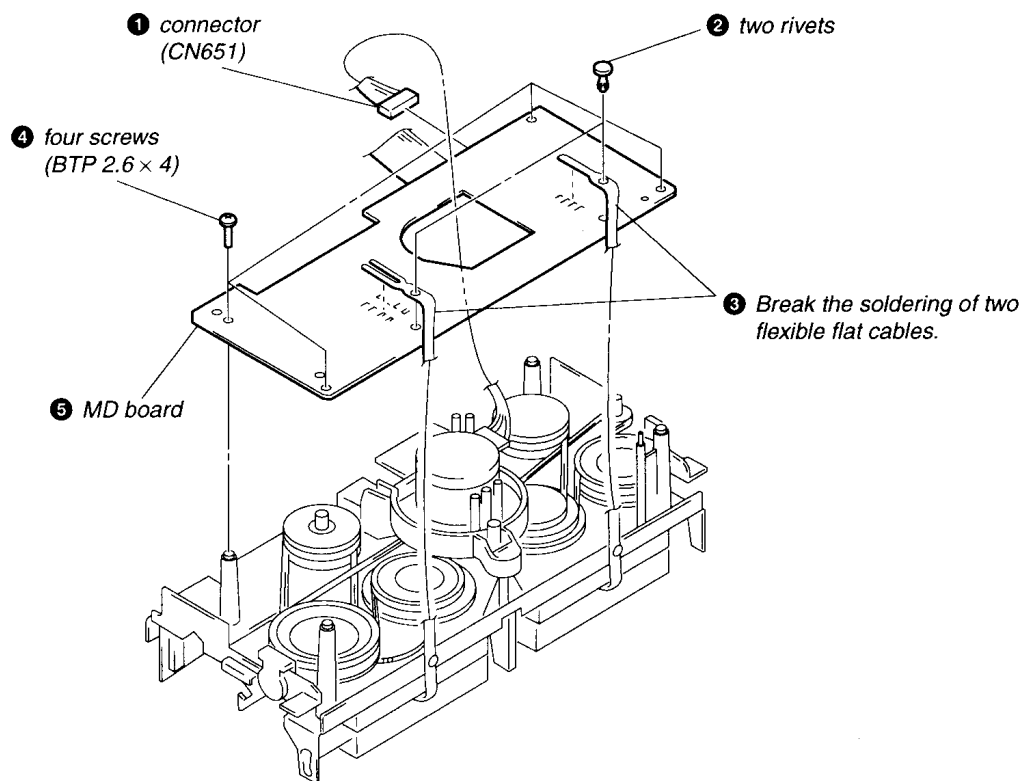
098-788-319

rtv-servis-horvat@os.tel.hr

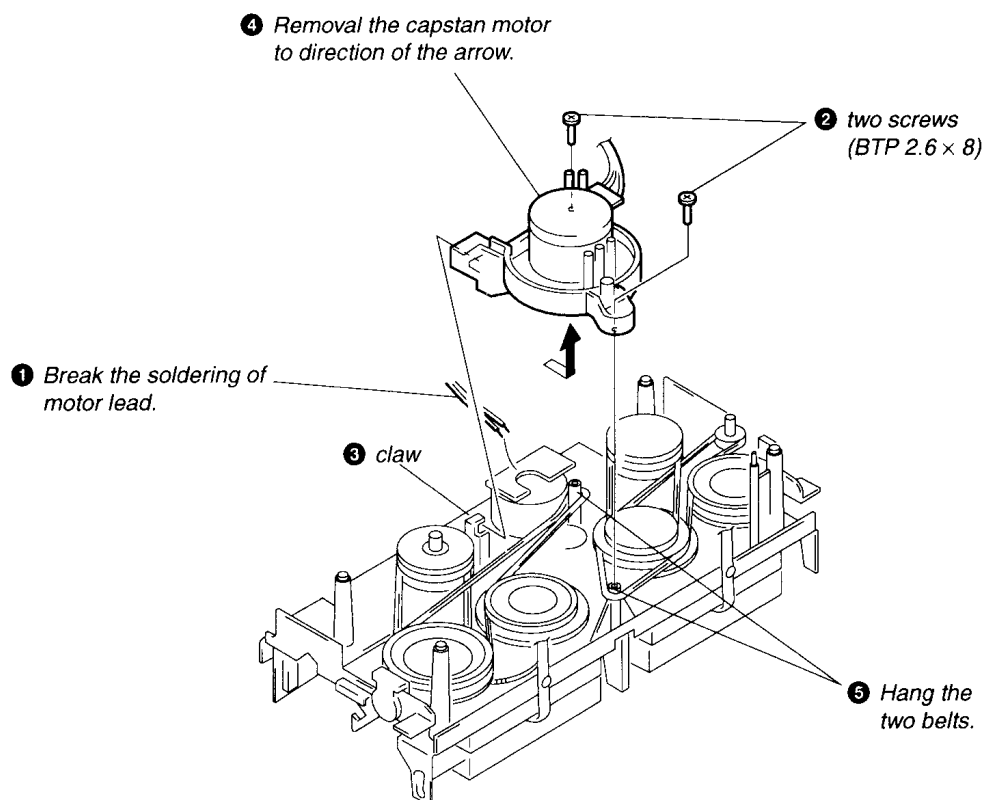
Croatia

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MD BOARD



CAPSTAN MOTOR



SECTION 3 TEST MODE

[MC Cold Reset]

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

Procedure:

1. Press three buttons **SPECTRUM ANALYZER**, **ENTER/NEXT**, and **DISC 1** simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[CD Delivery Mode]

- This mode moves the pickup to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press **POWER** button to turn the set ON.
2. Press **PLAY** button and **POWER** button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

[MC Hot Reset]

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

1. Press three buttons **SPECTRUM ANALYZER**, **ENTER/NEXT**, and **DISC 2** simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[Sled Servo Mode]

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pickup.

Procedure:

1. Select the function "CD".
2. Press three buttons **SPECTRUM ANALYZER**, **ENTER/NEXT**, and **FUNCTION** simultaneously.
3. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
4. With the CD in stop status, press **▶▶** button in CD section to move the pickup to outside track, or **◀◀** button to inside track.
5. To exit from this mode, perform as follows:
 - 1) Move the pickup to the most inside track.
 - 2) Press three buttons in the same manner as step 2.

Note:

- Always move the pickup to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

[Change-over of FUNCTION Name]

- The FUNCTION name of external input terminal can be changed over to VIDEO or MD.

Procedure:

1. Press **POWER** button to turn the set OFF.
2. Press **POWER** button together with **FUNCTION** button, and the power is turned on, the display of fluorescent indicator tube changes to "MD" or "VIDEO" instantaneously, and thus the FUNCTION is changed over.

[Change-over of AM Tuner Step between 9kHz and 10kHz]

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

Procedure:

1. Press **POWER** button to turn the set ON.
2. Select the function "TUNER", and press **TUNER/BAND** button to select the BAND "AM".
3. Press **POWER** button to turn the set OFF.
4. Press **ENTER/NEXT** and **POWER** buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9k STEP" or "AM 10k STEP", and thus the channel step is changed over.

[LED and Fluorescent Indicator Tube All Lit, Key Check Mode]

Procedure:

1. Press three buttons **SPECTRUM ANALYZER**, **ENTER/NEXT**, and **DISC 3** simultaneously.
2. LEDs and fluorescent indicator tube are all turned on. Press **DISC 2** button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1 V0 J0". Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.
 - "J" value increases like 1, 2, 3 ... if rotating **JOG** knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
 - "V" value increases like 1, 2, 3 ... if rotating **VOLUME** knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[Aging Mode]

This mode can be used for operation check of CD section and tape deck section.

- If an error occurred:
The aging operation stops.
- If no error occurs:
The aging operation continues repeatedly.

1. Aging Mode in CD Section

1-1. Operating Method of Aging Mode

1. Set discs in DISC1 and DISC2 trays.
 2. Select the function "CD".
 3. Press three buttons [SPECTRUM ANALYZER], [ENTER/NEXT], and [KARAOKE PON/MPX] simultaneously.
 4. The aging mode is activated, if a roulette mark on the fluorescent indicator tube is blinking.
 5. In the aging mode, the aging is executed in a sequence given in "1-2. Operation during Aging Mode".
The aging continues unless an alarm occurred.
 6. To exit from the aging mode, press [POWER] button to turn the set OFF.
- If a button other than buttons in CD section is pressed during aging, the aging in the CD section is finished.
 - To execute aging to the tape deck section successively, press [▶] button in the deck A.
"AGING" is displayed on the fluorescent indicator tube. (For the aging in tape deck, see "2. Aging Mode in Tape Deck Section".)

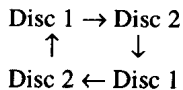
1-2. Operation during aging Mode

In the aging mode, the program is executed in the following sequence.

1. The disc table is ejected.
2. The disc tray turns to select a disc. (For a disc selection sequence, see Section 1-3.)
3. TOC of disc is read.
4. The pickup accesses to the last track.
5. A disc is ejected.
6. Steps 2 through 5 are repeated.

1-3. Disc Selection Sequence

- During the aging mode, discs are selected in the following sequence:



2. Aging Mode in Tape Deck Section

2-1. Operating Method of Aging Mode

1. Load a commercially available 10-minute tape into the decks A and B respectively.
(If a 10-minute tape is not available, another tape may be used but a cycle time will be longer.)
2. Select the function "TAPE".
3. Rewind tapes in advance by pressing [◀◀] button respectively on decks A and B.
4. Press three buttons [SPECTRUM ANALYZER], [ENTER/NEXT], and [KARAOKE PON/MPX] simultaneously.
5. Press [▶] button on deck A. (This button triggers the aging mode.)
6. The aging mode is activated if "AGING A" is displayed on the fluorescent indicator tube.

7. In the aging mode, the aging is executed in a sequence given in "2-2. Operation during Aging Mode".
The aging continues unless an alarm occurred.
8. To exit from the aging mode, press [POWER] button to turn the set OFF.

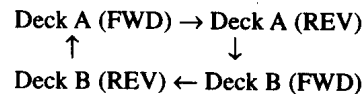
2-2. Operation during Aging Mode

In the aging mode, the program is executed in the following sequence.

1. A tape on FWD side is played for one minute.
2. PAUSE STOP is made.
3. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, [▶] LED does not light up.)
4. FF is executed up to the end of tape.
5. A tape is reversed, and the tape on REV side is played for one minute.
6. PAUSE STOP is made.
7. Recording is made for 3 minutes. (For the deck not having the record function, the play is executed. In this case, [◀] LED does not light up.)
8. FF is executed up to the end of tape.
9. Steps 1 through 8 are executed for the other deck.
10. Steps 1 through 9 are repeated unless an alarm occurred.

2-3. Deck Selection Sequence

- During the aging mode, decks are selected in the following sequence:



SECTION 4 MECHANISM ADJUSTMENTS

PRECAUTION

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

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

• Torque Measurement

Mode	Torque Meter	Meter Reading
Forward	CQ-102C	36 to 61g·cm (0.50 – 0.84 oz·inch)
Forward Back Tension	CQ-102C	2 to 6g·cm (0.026 – 0.082 oz·inch)
Reverse	CQ-102RC	36 to 61g·cm (0.50 – 0.84 oz·inch)
Reverse Back Tension	CQ-102RC	2 to 6g·cm (0.026 – 0.082 oz·inch)
FF, REW	CQ-201B	61 to 143g·cm (0.85 – 1.98 oz·inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
Forward	CQ-403A	more than 100g (3.53 oz)
Reverse	CQ-403R	more than 100g (3.53 oz)

SECTION 5 ELECTRICAL ADJUSTMENTS

DECK SECTION

0dB=0.775V

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-ch.
7. Switches and controls should be set as follows unless otherwise specified.
8. Set to test mode. (Press key switch same time **SPECTRUM ANALYZER** **ENTER/NEXT** and **EFFECT ON/OFF** button.)

• Test Tape

Tape	Signal	Used for
P-4-A100	10kHz, -10 dB	Azimuth Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment
P-4-L300	315Hz 0dB	Level Adjustment

Record/Playback Head Azimuth Adjustment

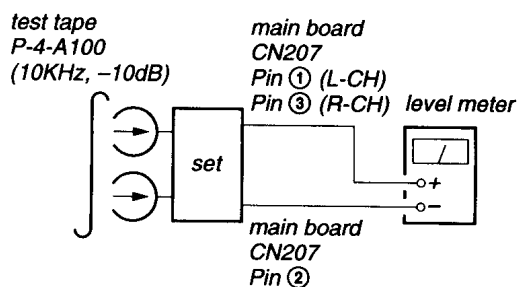
DECK A

DECK B

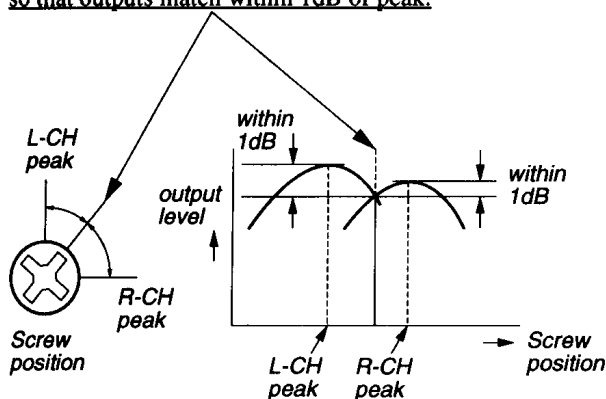
Note: Perform this adjustments for both decks

Procedure:

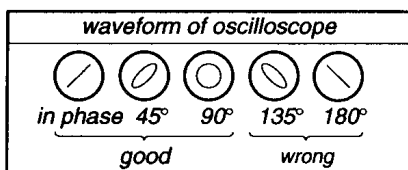
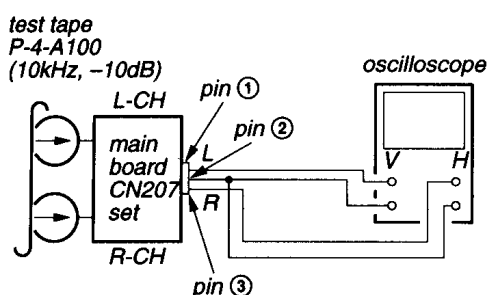
1. Mode: Playback (FWD)



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

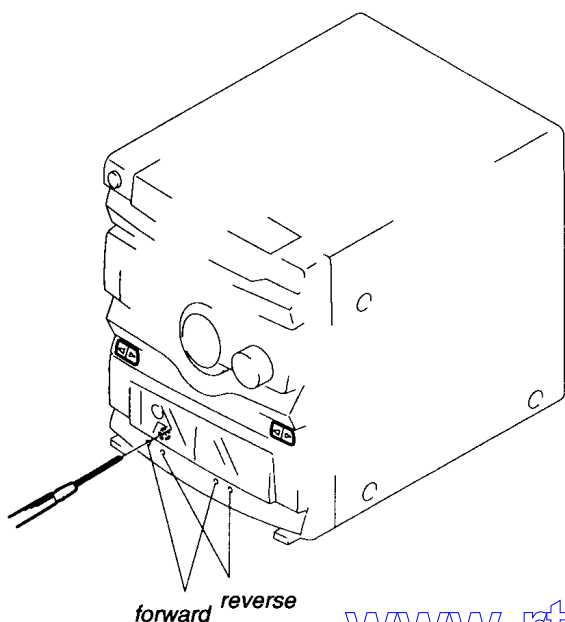


- Mode: Playback (FWD)



- Repeat steps 1 to 3 in playback (REV) mode.
- After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Record/Playback Head (Deck A and B) and main board.



Tape Speed Adjustment **DECK A**

Note: Start the Tape Speed adjustment as below after setting to the test mode.

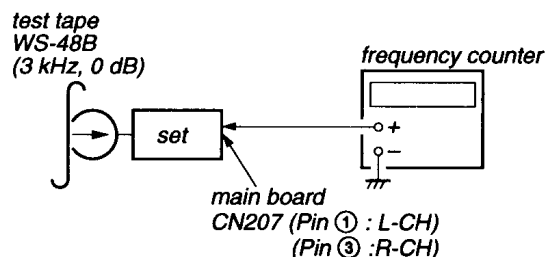
In the test mode, the tape speed is high during pressing the **HIGH SPEED DUBBING** button.

Procedure:

- Turn the power switch on.
- Press the **SPECTRUM ANALYZER** button, **ENTER/NEXT** button and **EFFECT ON/OFF** button simultaneously.

To exit from the test mode, press the **POWER** button.

Mode: Playback (FWD)



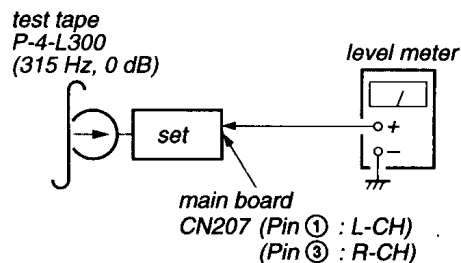
- Insert the WS-48B into the deck A and the blank tape into the deck B.
- Press the **REC** button and **▶** button on the deck B. Then the deck B is at recording mode.
- Set the deck A to playback mode.
- Keep pressing the **HIGH SPEED DUBBING** button in playback mode. Then at HIGH speed mode.
- Adjust RV652 on the AUDIO board so that frequency counter reads $6,000 \pm 60$ Hz.
- Take off the **HIGH SPEED DUBBING** button. Then at NORMAL speed mode.
- Adjust RV651 on the AUDIO board so that frequency counter reads $3,000 \pm 30$ Hz.
- Frequency difference between deck A and deck B the beginning of the tape should be within $\pm 1.5\%$.

Adjustment Location: AUDIO board

Playback level Adjustment **DECK A** **DECK B**

Procedure:

Mode: Playback (FWD)



Deck A is RV311 (L-CH) and RV411 (R-CH), Deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level:

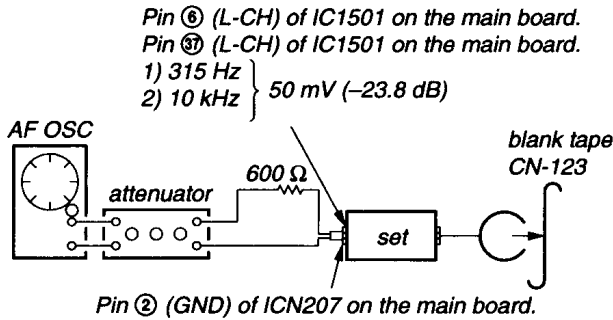
CN207 PB level: 301.5 to 338.3 mV (-8.2 to -7.2 dB) level difference between the channels: within ± 0.5 dB

Adjustment Location: AUDIO and main boards

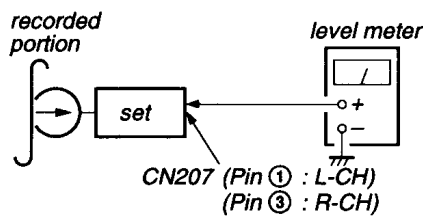
Record bias Current Adjustment **DECK B**

Procedure:

1. Mode: record



2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

If these levels do not adjustable limits, adjustment the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 1 and 2.

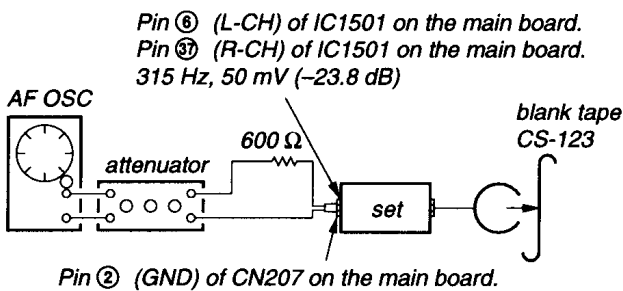
Adjustable limits: Playback output of 315 Hz to playback output of 10kHz: ± 0.5 dB

Adjustment Location: AUDIO and main boards

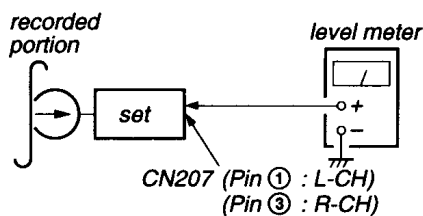
Record Level Adjustment **DECK B**

Procedure:

1. Mode: record



2. Mode: Playback



Confirm playback the signal recorded in step 1 become adjustable limits as follows.

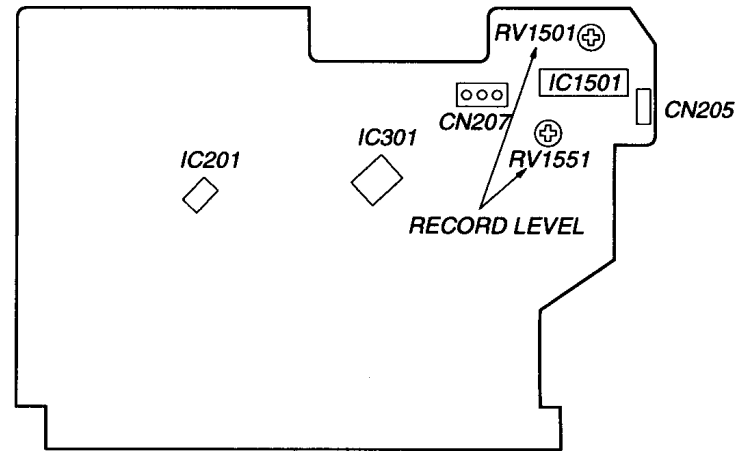
If these levels do not adjustable limits, adjustment the RV1501 (L-CH) and RV1551 (R-CH) on the main board to repeat steps 1 and 2.

Adjustable limits:

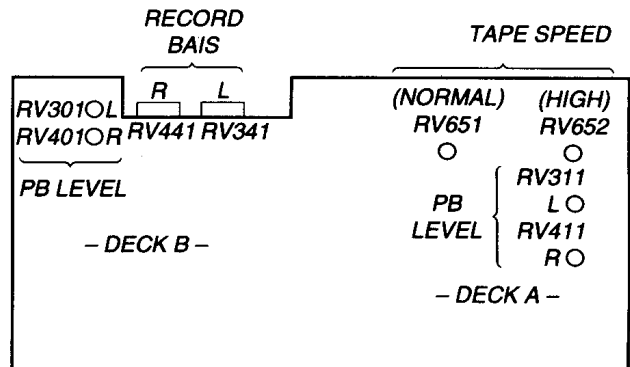
CN207 PB level: 47.3 to 53.1 mV (-24.3 to -23.3 dB)

Adjustment Location: main board

[MAIN BOARD] (Component Side)



[AUDIO BOARD] (Conductor Side)



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Kešinci, 31402 Semeljci

031-856-139

031-856-637

098-788-319

rtv-servis-horvat@os.tel.hr

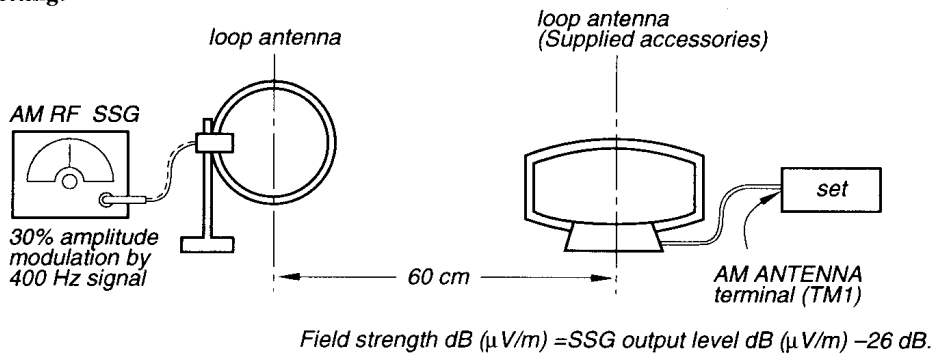
Croatia

TUNER SECTION

0dB=1µV

(HCD-RX70: AEP, German, UK model only)

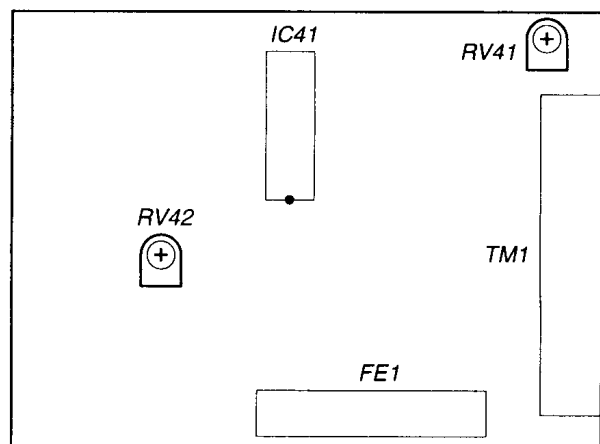
Note: As a front-end (FE1) is difficult to repair if faulty, replace it with new one.

AM Section Adjustment**Setting:****AM Tuned Level Adjustment**

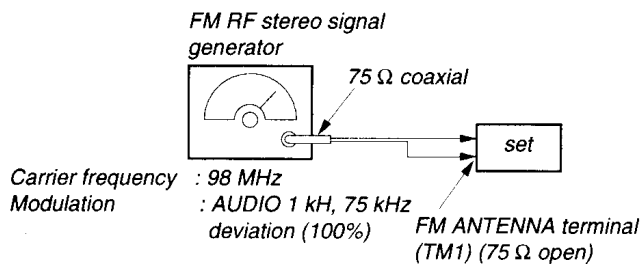
Band: AM or MW

Procedure:

1. Set the output of SSG so that the input level of the set becomes 55 dB.
2. Tune the set to 999 kHz.
3. Adjust RV41 to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location : TCB board**Adjustment Location:****[TCB BOARD]** (Component Side)**FM Section Adjustment**

Note: This adjustment should be performed after the AM Tuned Level Adjustment due to the same adjustment element.

Setting:**FM Tuned Level Adjustment**

Band: FM

Procedure:

1. Supply a 25dBµ 98 MHz signal from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. If the TUNED indicator does not light, adjust RV42 to the point (moment) when the TUNED indicator will change from going off to going on.

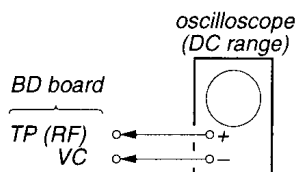
Adjustment Location: TCB board

CD SECTION

Note:

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Adjust the focus bias adjustment when optical block is replaced.

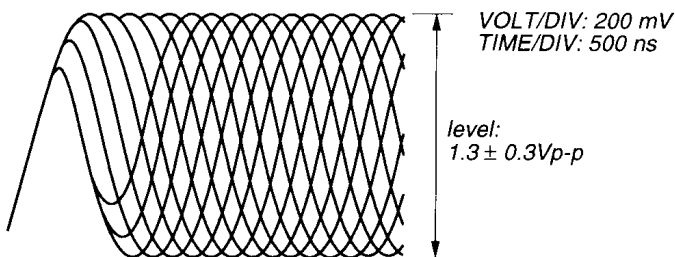
Focus Bias check



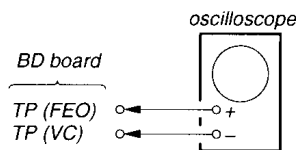
Procedure:

1. Connect oscilloscope to test point TP (RF). (GND terminal : VC)
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that the shape "◇" can be clearly distinguished at the center of the waveform and check the RF signal level.

• RF signal



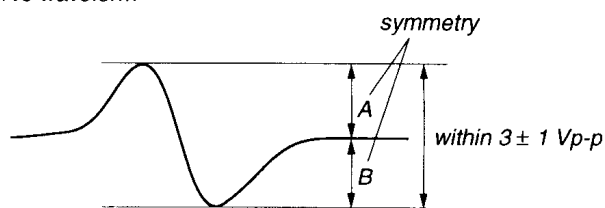
S Curve Check



Procedure:

1. Connect oscilloscope to test point TP (FEO).
2. Connect between test point TP (FOK) and GND by lead wire.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and turned Power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out.)
5. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 1 V_{p-p}$.

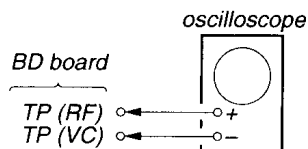
S-curve waveform



6. After check, remove the lead wire connected in step 2.

- Note:**
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check



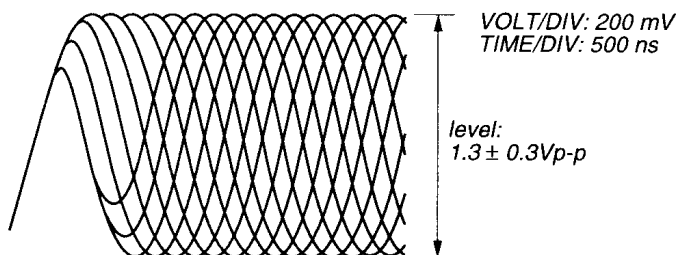
Procedure:

1. Connect oscilloscope to test point TP (RF) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

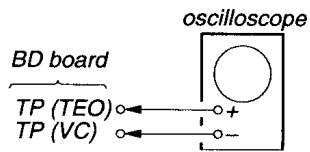
Note:

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

• RF signal



**E-F Balance (1 Track Jump) check
(Without remote commander)**



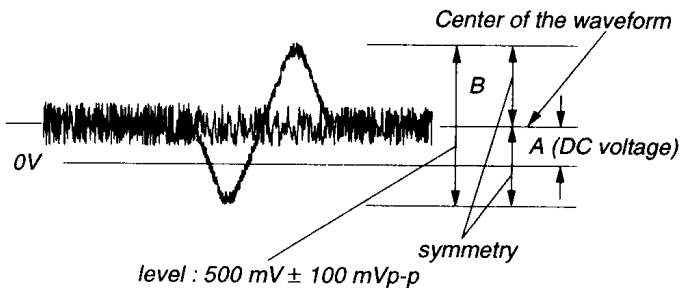
Procedure:

1. Connect oscilloscope to test point TP (TEO) on BD board.
2. Turned Power switch on.
3. Put disc (YEDS-18) in to play the number five track.
4. Press the "||| (Pause)" button. (Becomes the 1 track jump mode)
5. Check the level B of the oscilloscope's waveform and the A (DC voltage) of the center of the Traverse waveform.

Confirm the following:

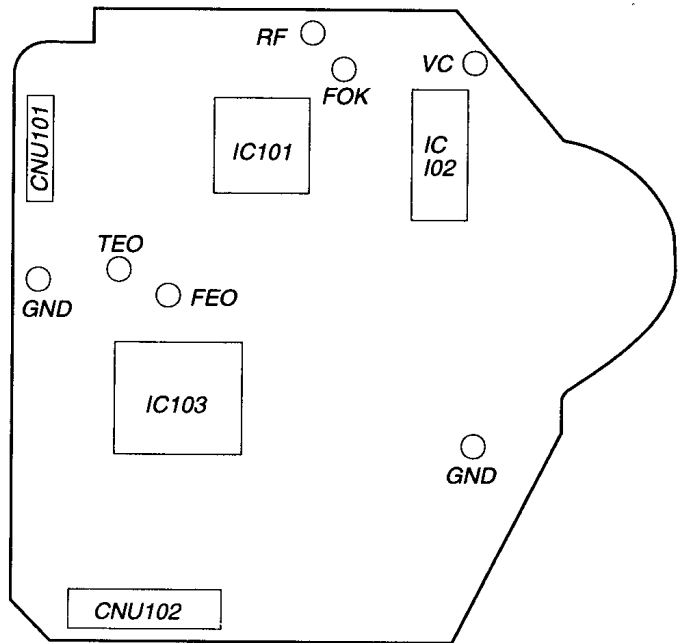
$$\frac{A - B}{2(A + B)} \times 100 = \pm 7 (\%)$$

1 track jump waveform



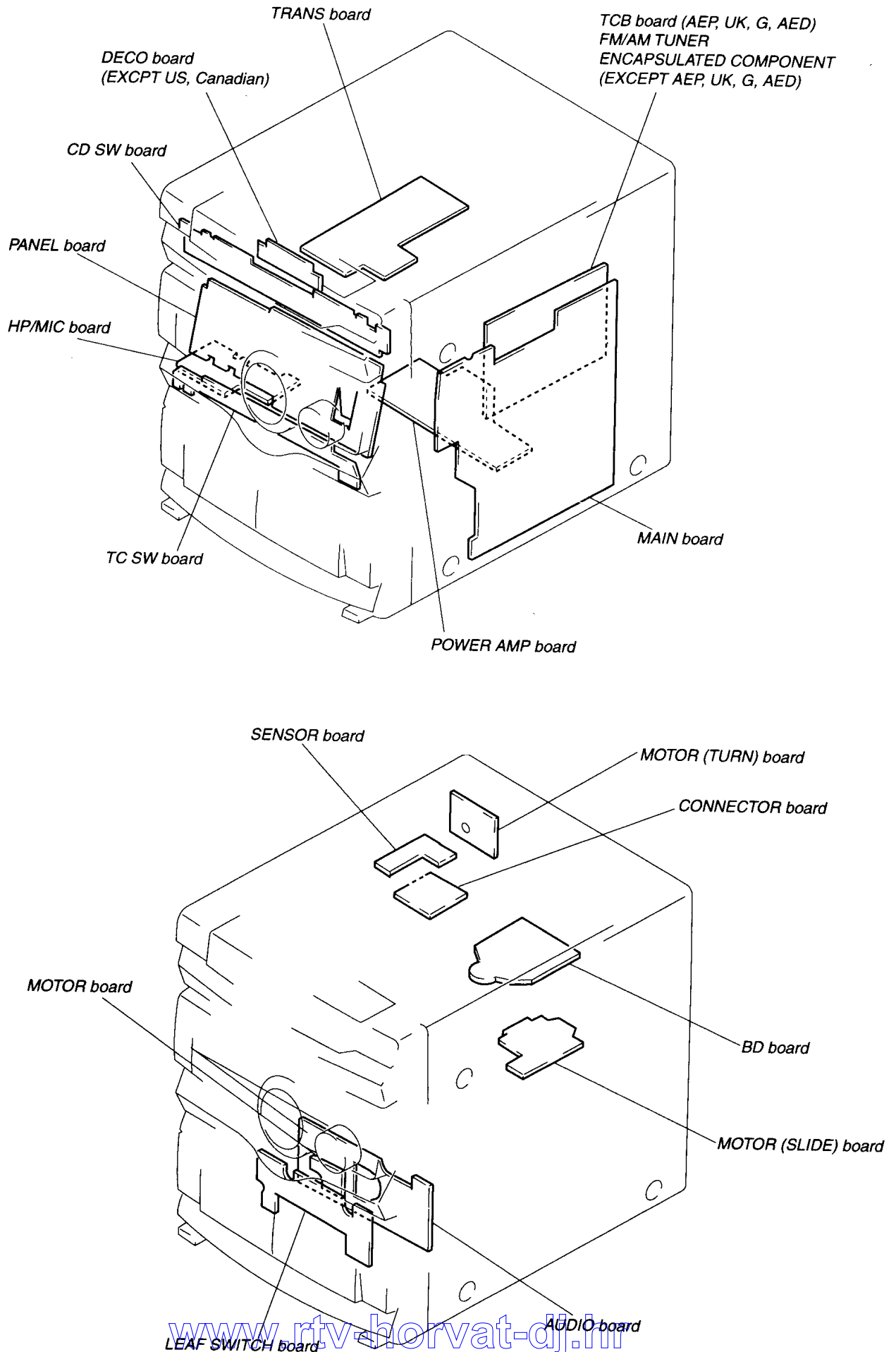
Adjustment Location:

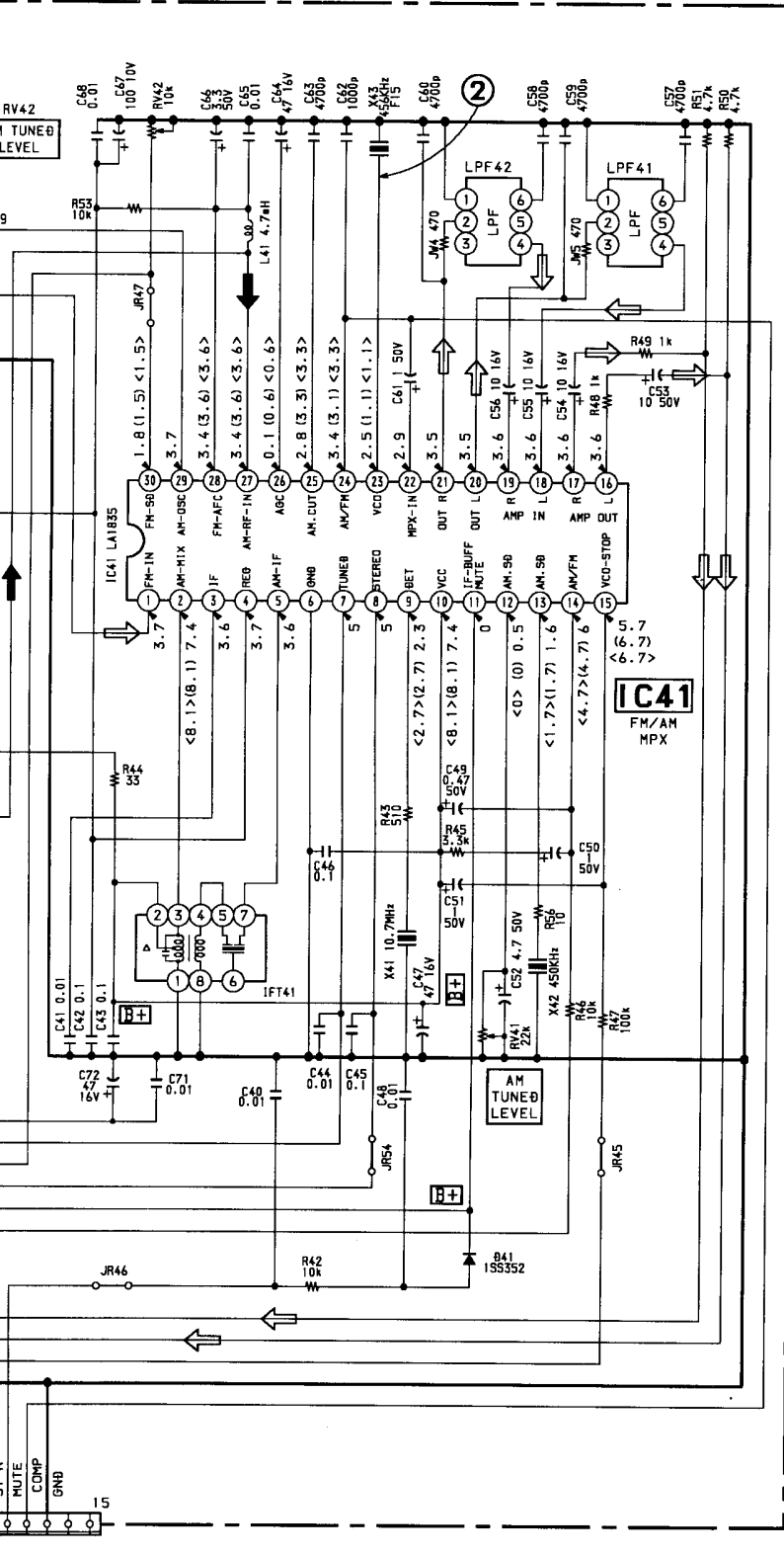
[BD BOARD] (Conductor Side)



SECTION 6 DIAGRAMS

• Circuit Boards Location



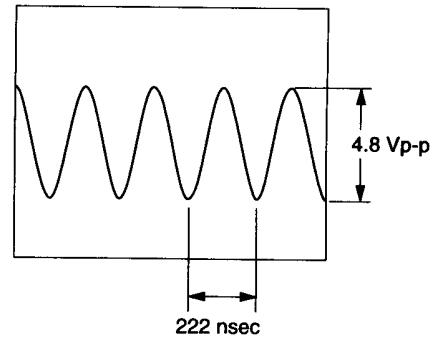


NOTE

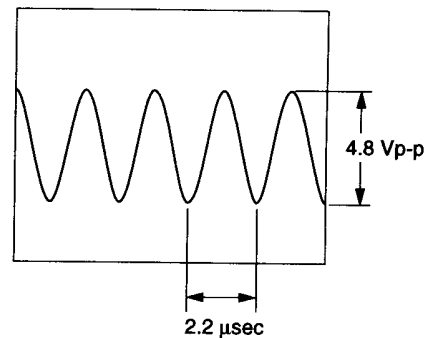
- All capacitors are in μF unless otherwise noted. $\text{pF} = \mu\mu\text{F}$. 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- \square : panel designation.
- **B+** : B+ Line.
- \square : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
(): MW
< >: LW
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 \Rightarrow : FM
 \Rightarrow : AM

• Waveforms

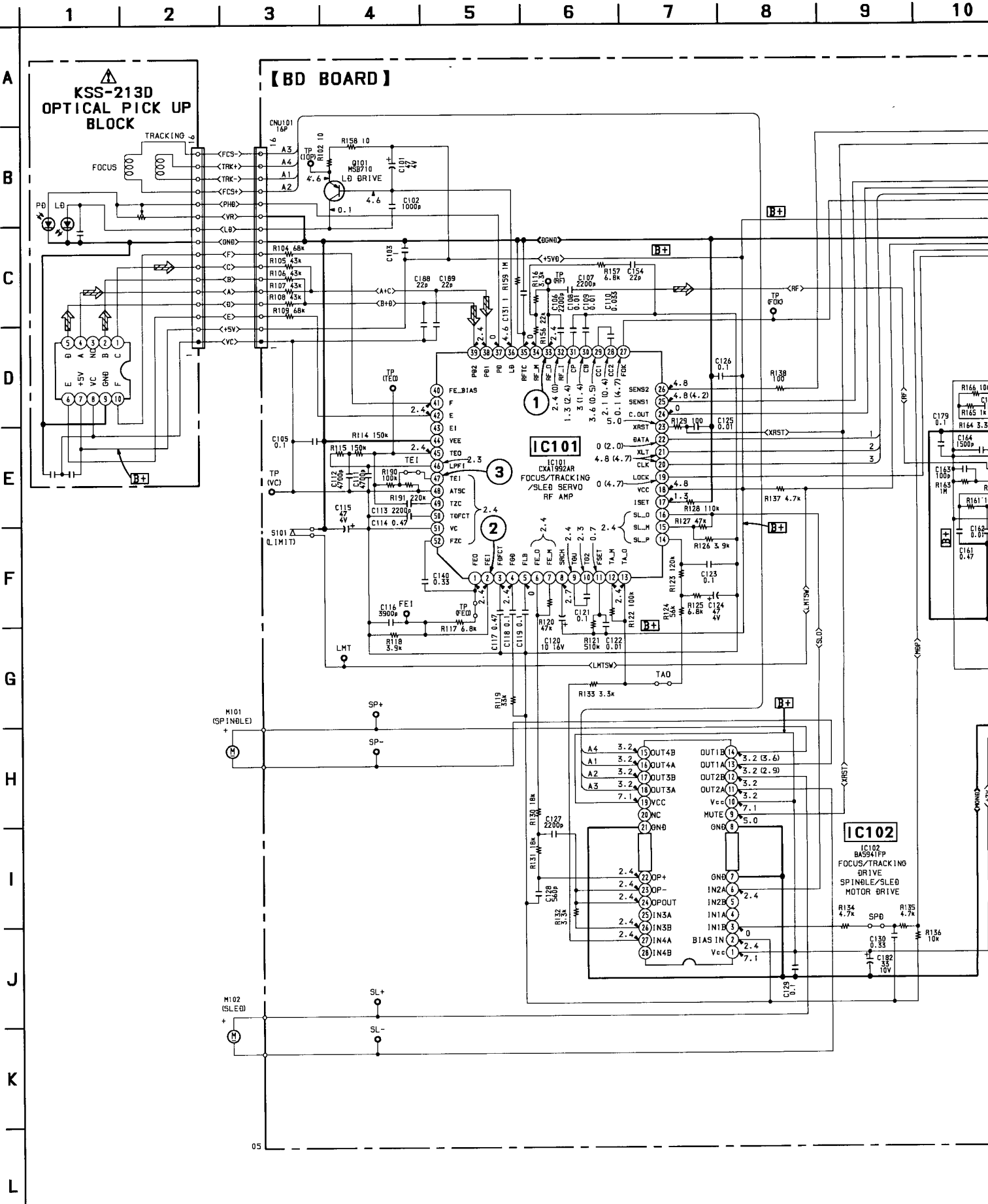
① IC21 ⑫ pin (X OUT)



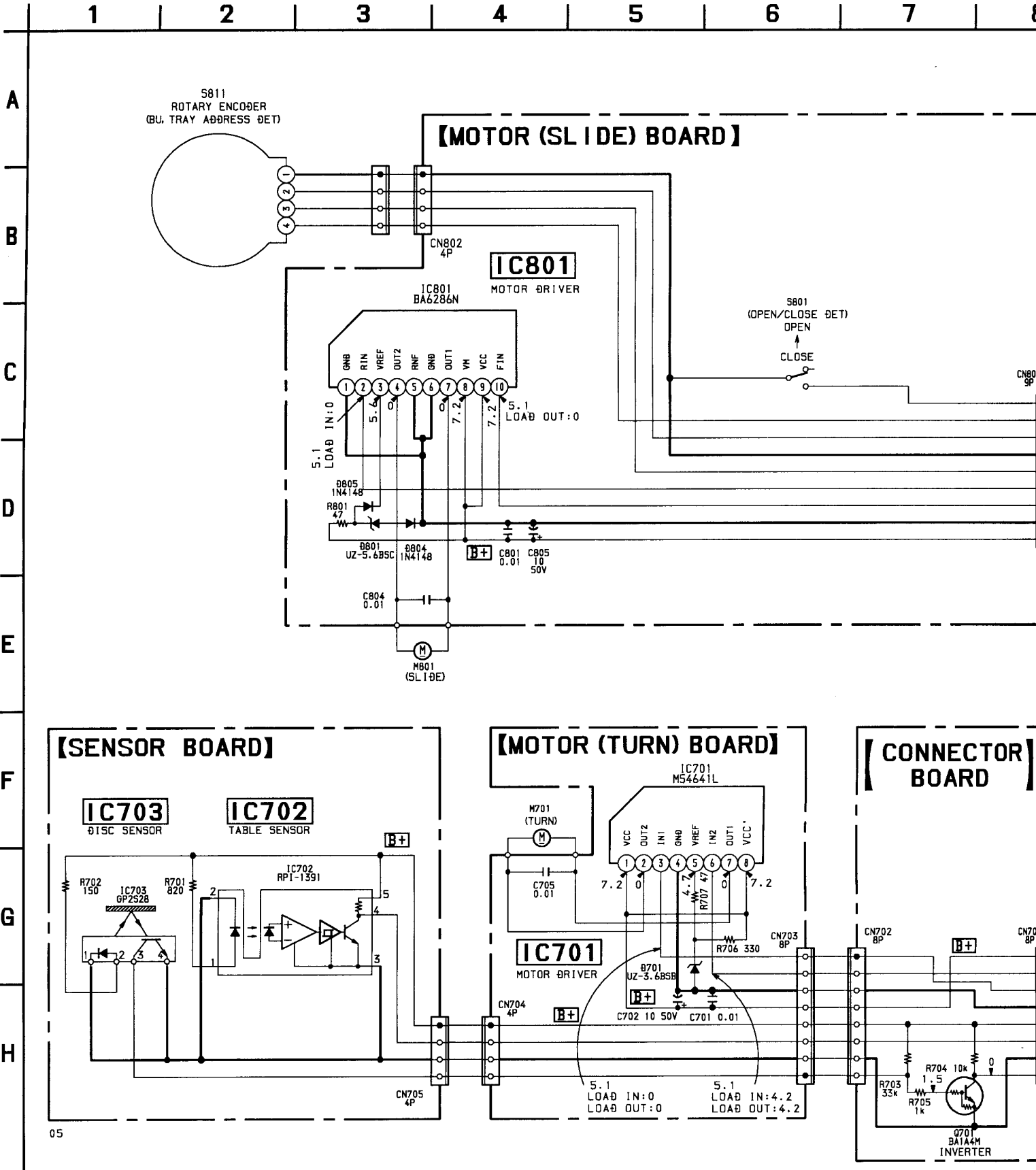
② IC41 ⑫ pin VCO



6-4. SCHEMATIC DIAGRAM – CD SECTION – • See page 74 for IC Block Diagrams



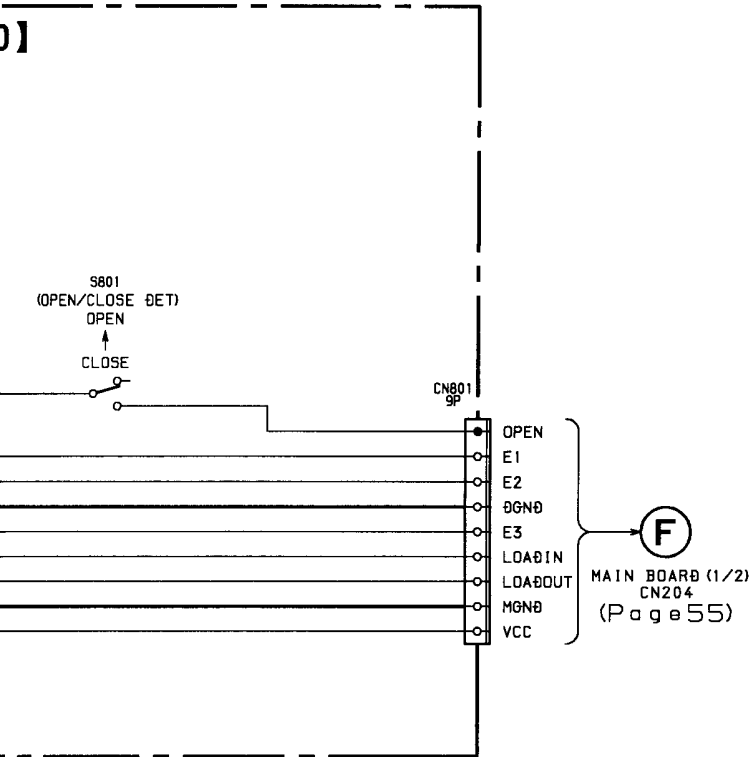
6-6. SCHEMATIC DIAGRAM – CD MOTOR SECTION – • See page 74 for IC Block Diagrams



05

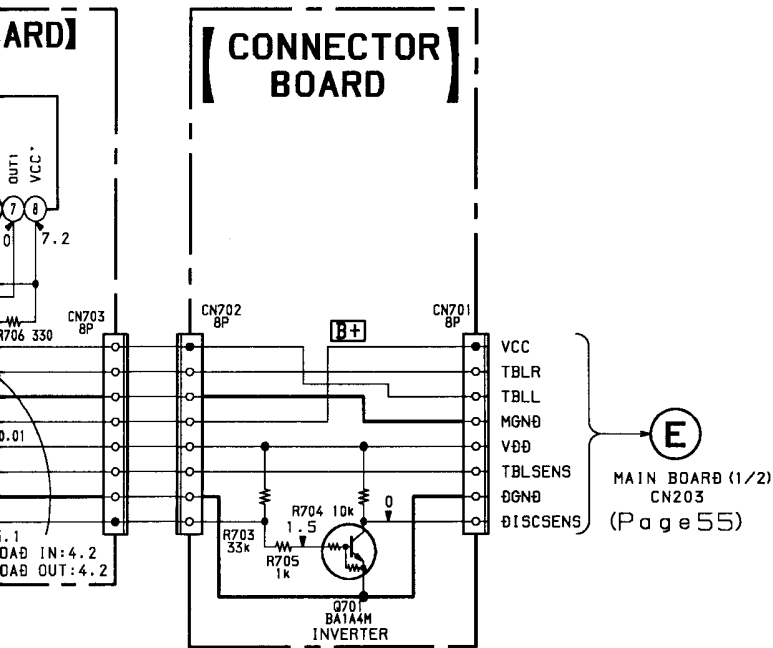
grams

6 | 7 | 8 | 9 | 10 | 11 | 12

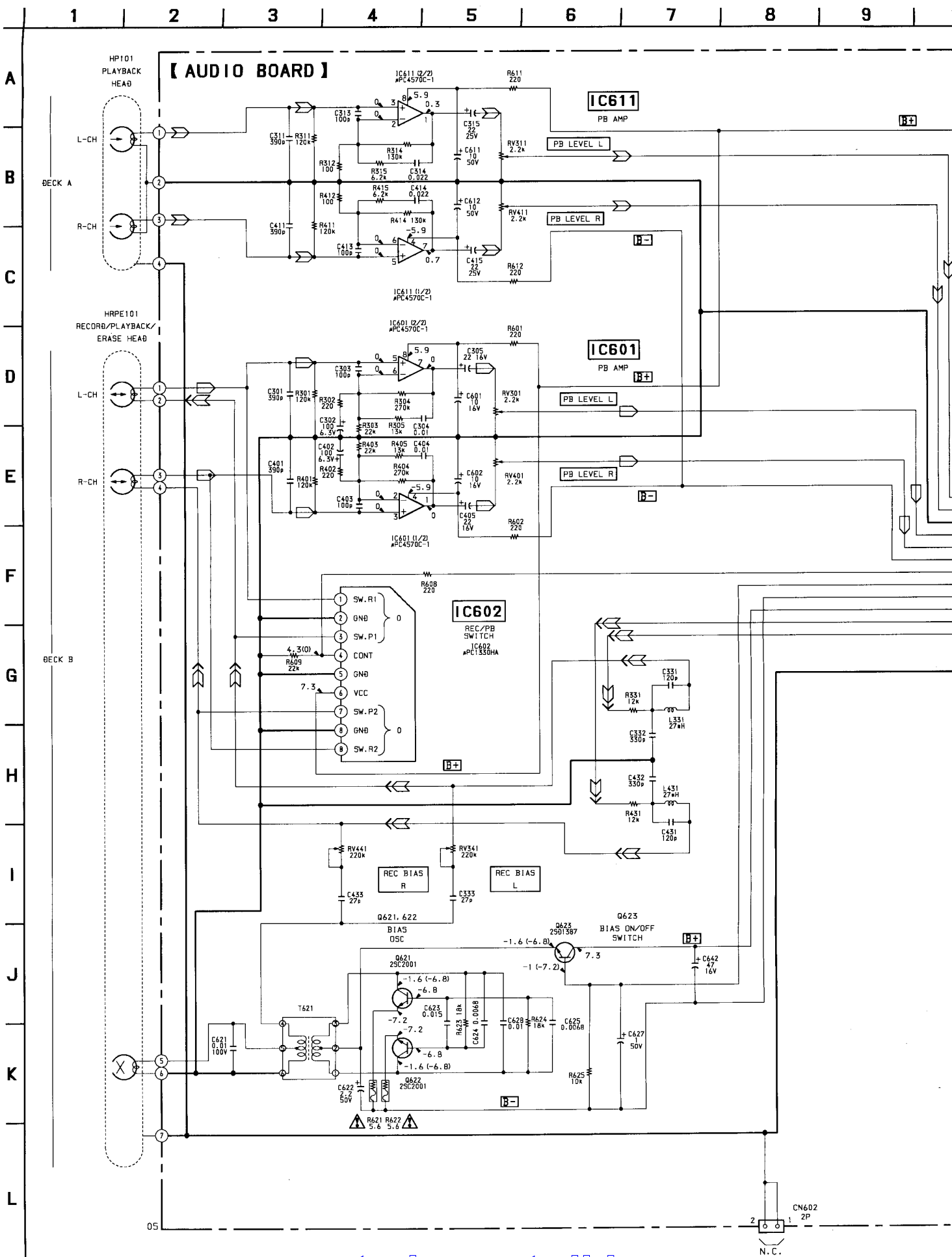


NOTE

- All capacitors are in μF unless otherwise noted. $\text{pF} : \mu\text{F}$
- 50W or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- **[B+]** :B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark: STOP
- Voltages are taken with a VOM (Input impedance $10\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.



6-8. SCHEMATIC DIAGRAM – DECK SECTION – • See page 74 for IC Block Diagrams and page 59 for Printed Wiring



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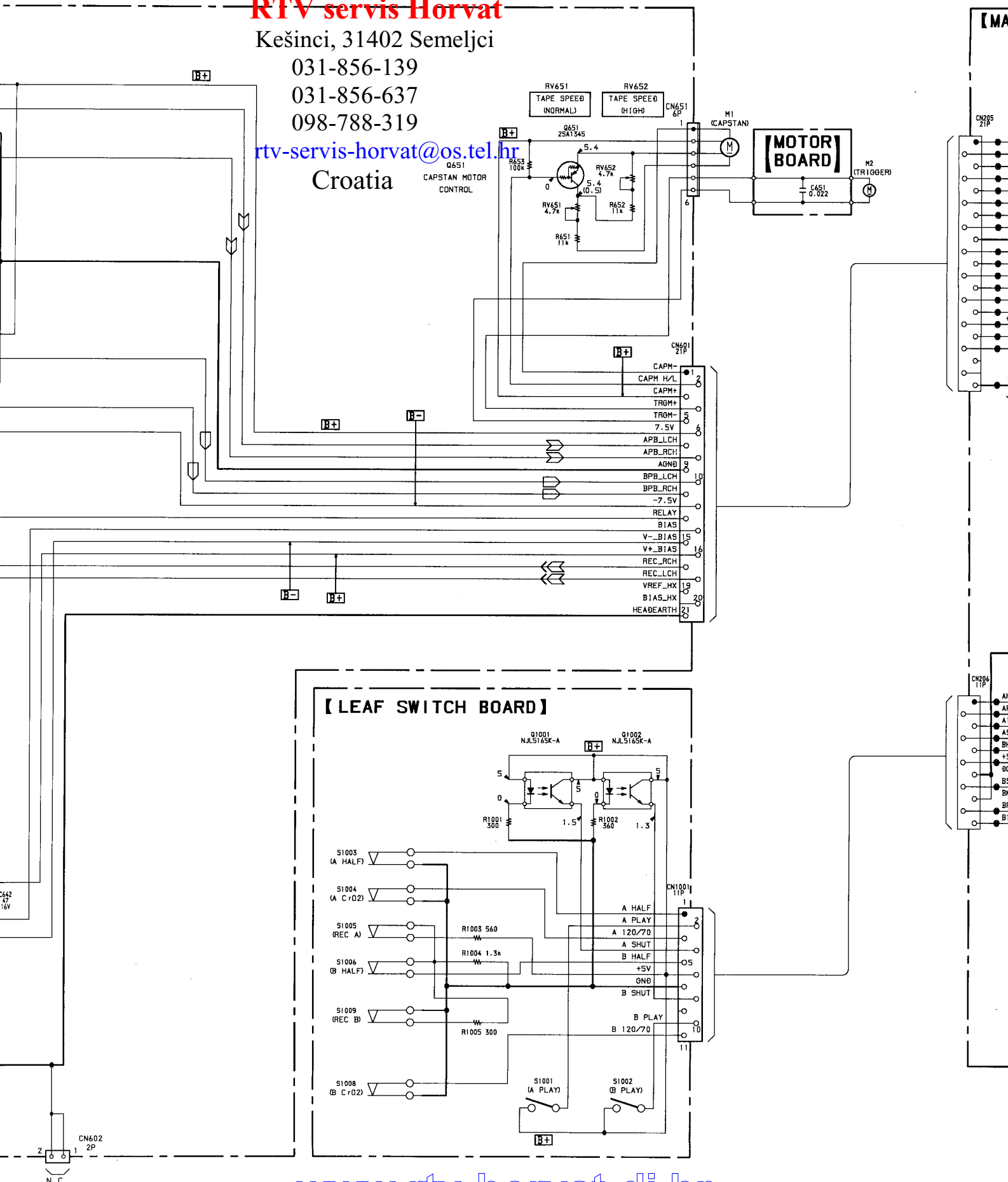
031-856-139

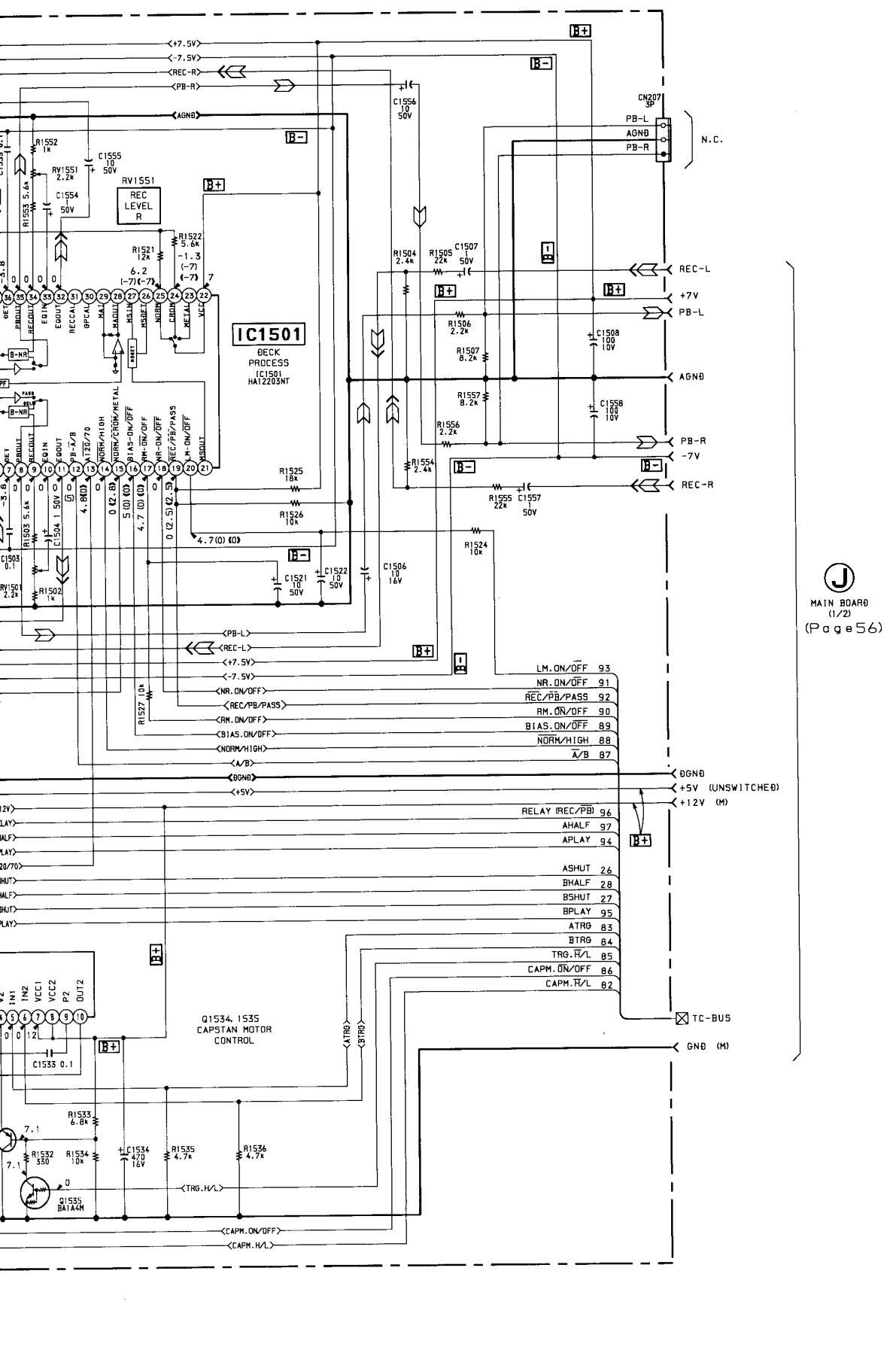
031-856-637

098-788-319

rtv-servis-horvat@os.tel.hr

Croatia





J
MAIN BOARD
(1/2)
(Page 56)

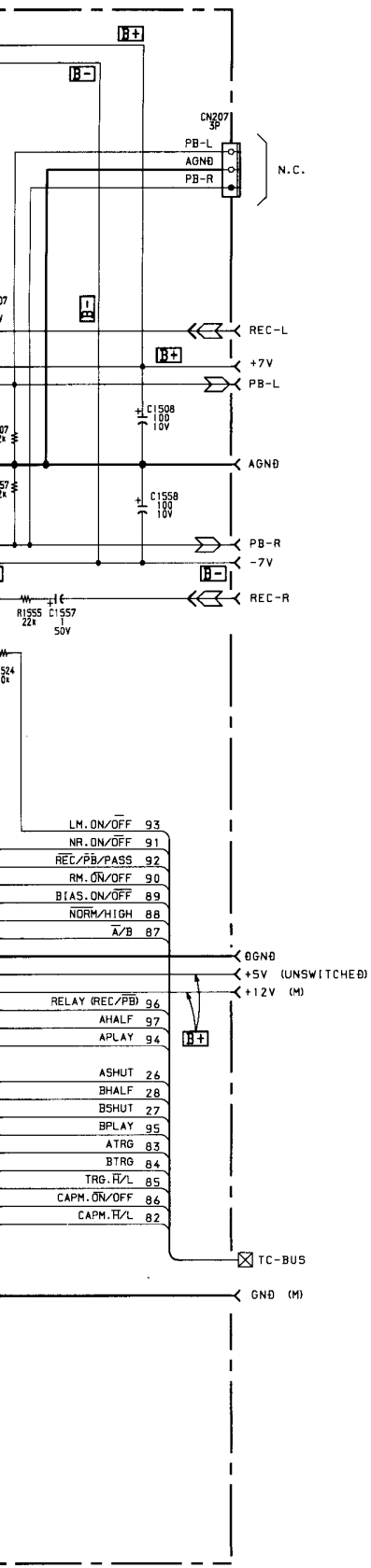
Note on Schem

- All capacitors 50 WV or less tantalums.
- All resistors specified.
- : fus

Note:
The compone
fied by mark Δ
line with mark
cal for safety.
Replace only
number specifi

- B+** : B+
- B-** : B-
- ad** : ad
- Voltages are conditions. no mark : RE () : PE << >> : PE
- Voltages are Voltage vari tion tolerance
- Signal path. : PB (D) : REC (D) : PB (D)

27 | 28 | 29 | 30



J
 MAIN BOARD
 (1/2)
 (Page 56)

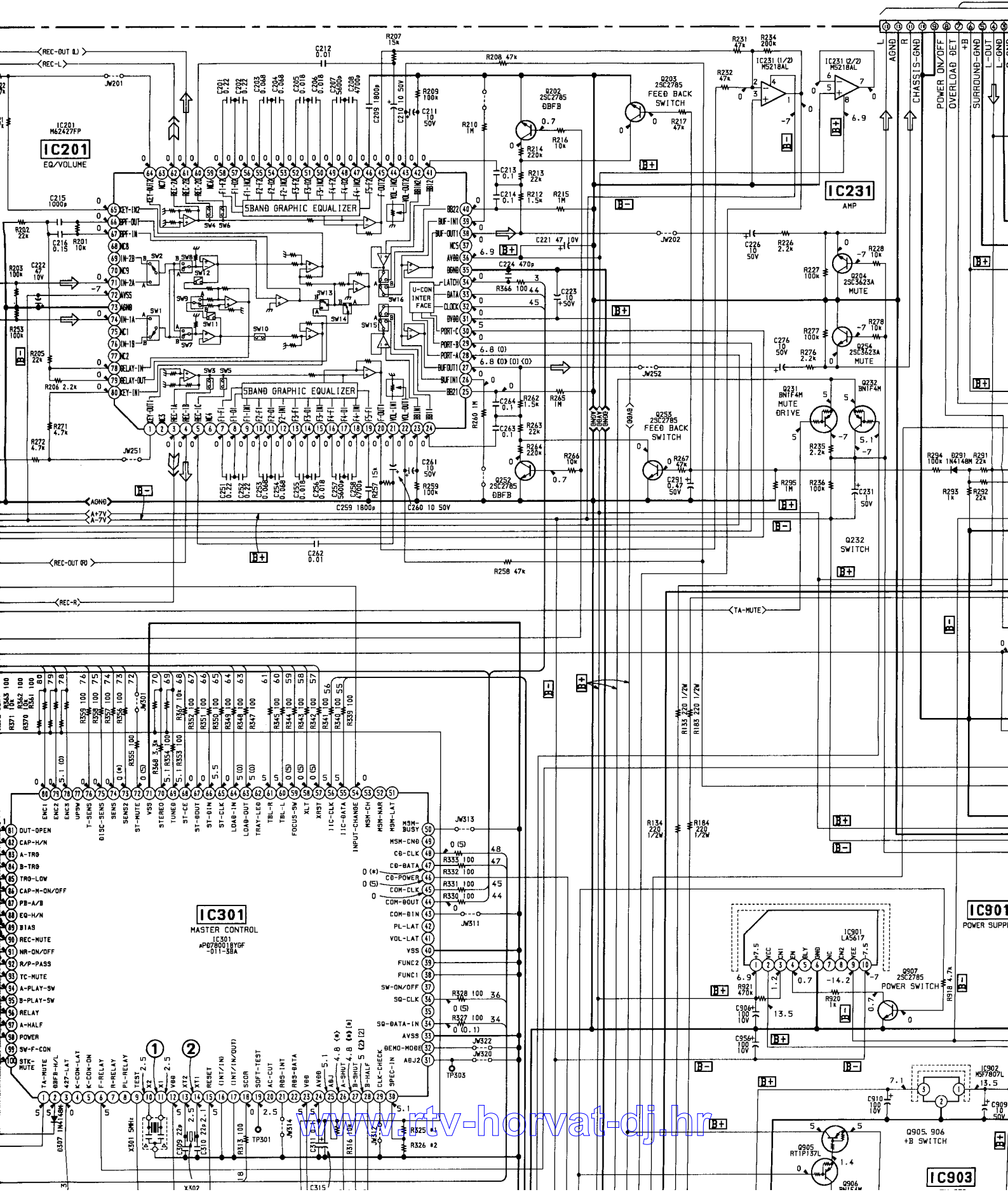
A
 B
 C
 D
 E
 F
 G
 H
 I
 J
 K
 L

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μpF 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.
- : fusible resistor.

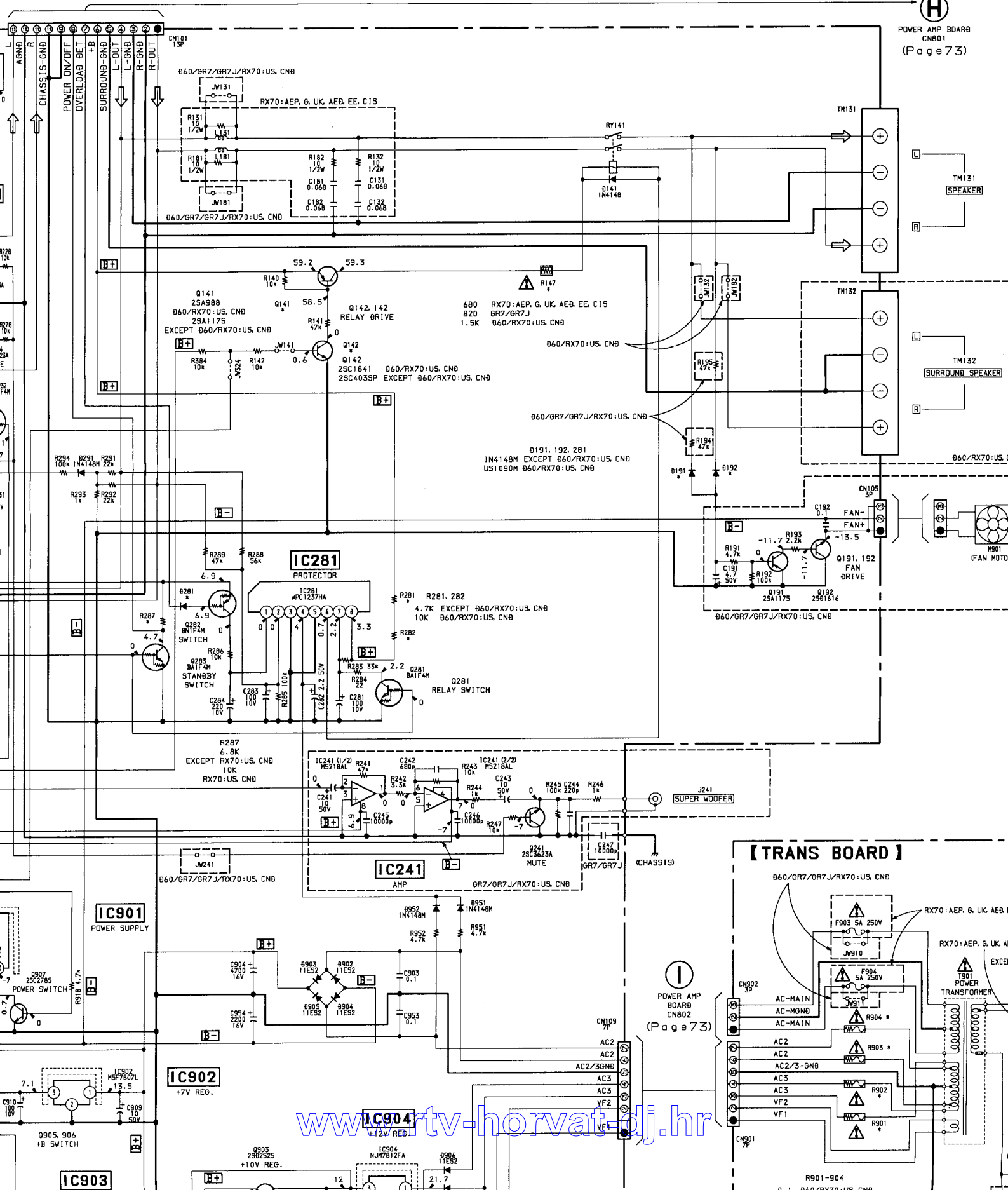
<p>Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
---	---

- : B+ Line.
- : B- Line.
- : adjustment for repair.
- Voltages are dc with respect to ground under no-signal conditions.
 no mark : REC (DECK B)
 () : PB (DECK B)
 << >> : PB (DECK A)
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 : PB (DECK A)
 : REC (DECK B)
 : PB (DECK B)





POWER AMP BOARD
CN801
(Page 73)



TM131
SPEAKER

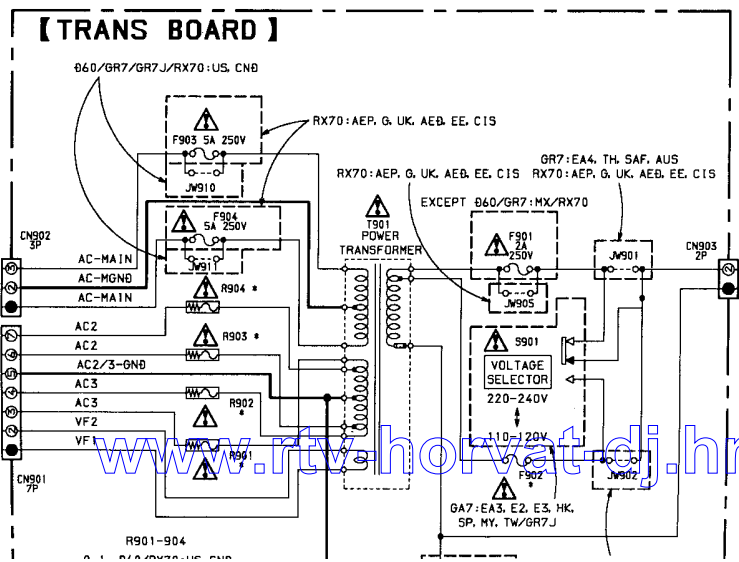
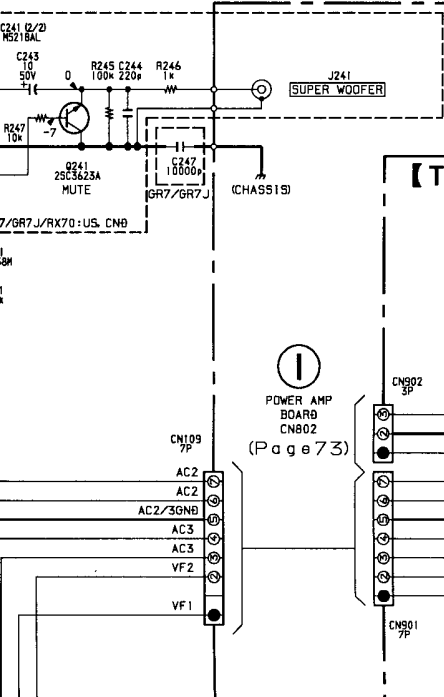
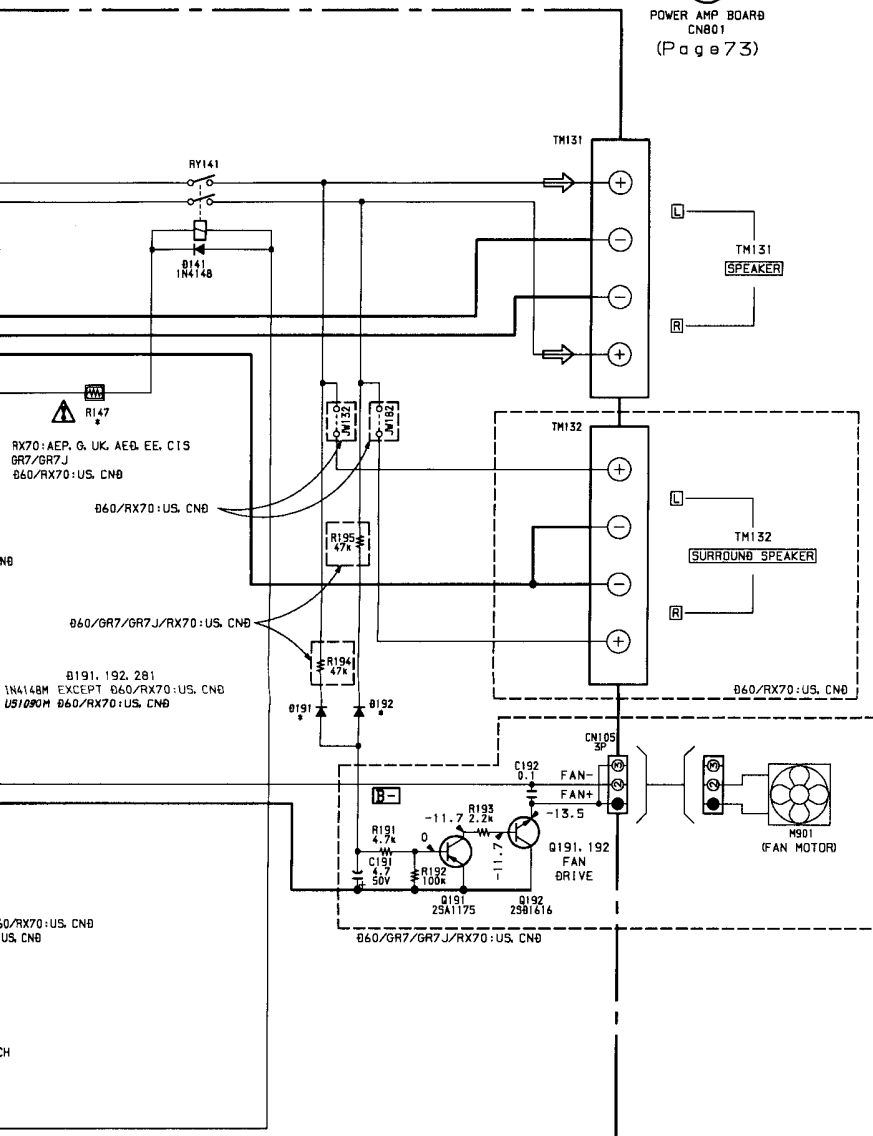
TM132
SURROUND SPEAKER

M801
FAN MOTOR

POWER AMP BOARD
CN802
(Page 73)

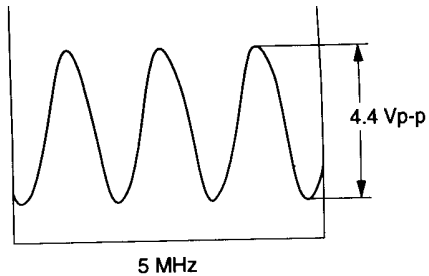
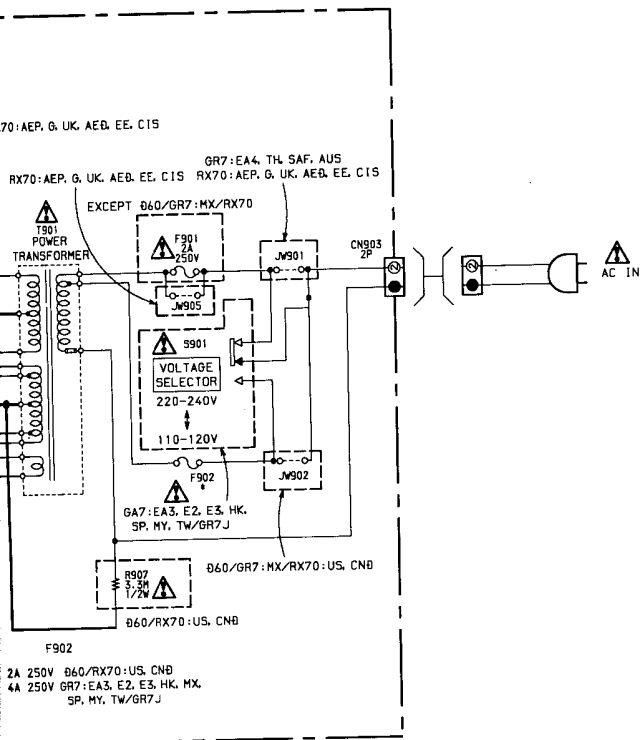
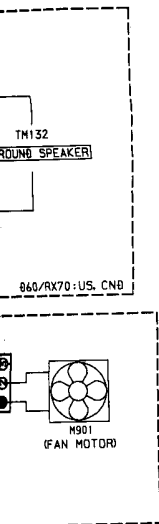
[TRANS BOARD]

(H) POWER AMP BOARD CN801 (Page 73)

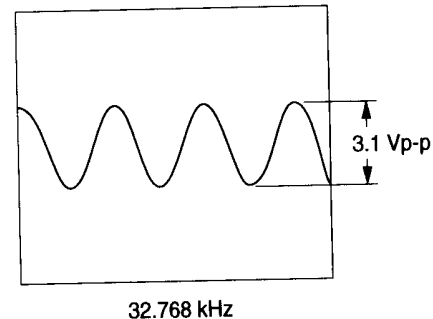


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A B C D E F G H I J K L



② IC301 ⑭



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF : μpF
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.
- Δ : internal component.
- : nonflammable resistor.
- : fusible resistor.

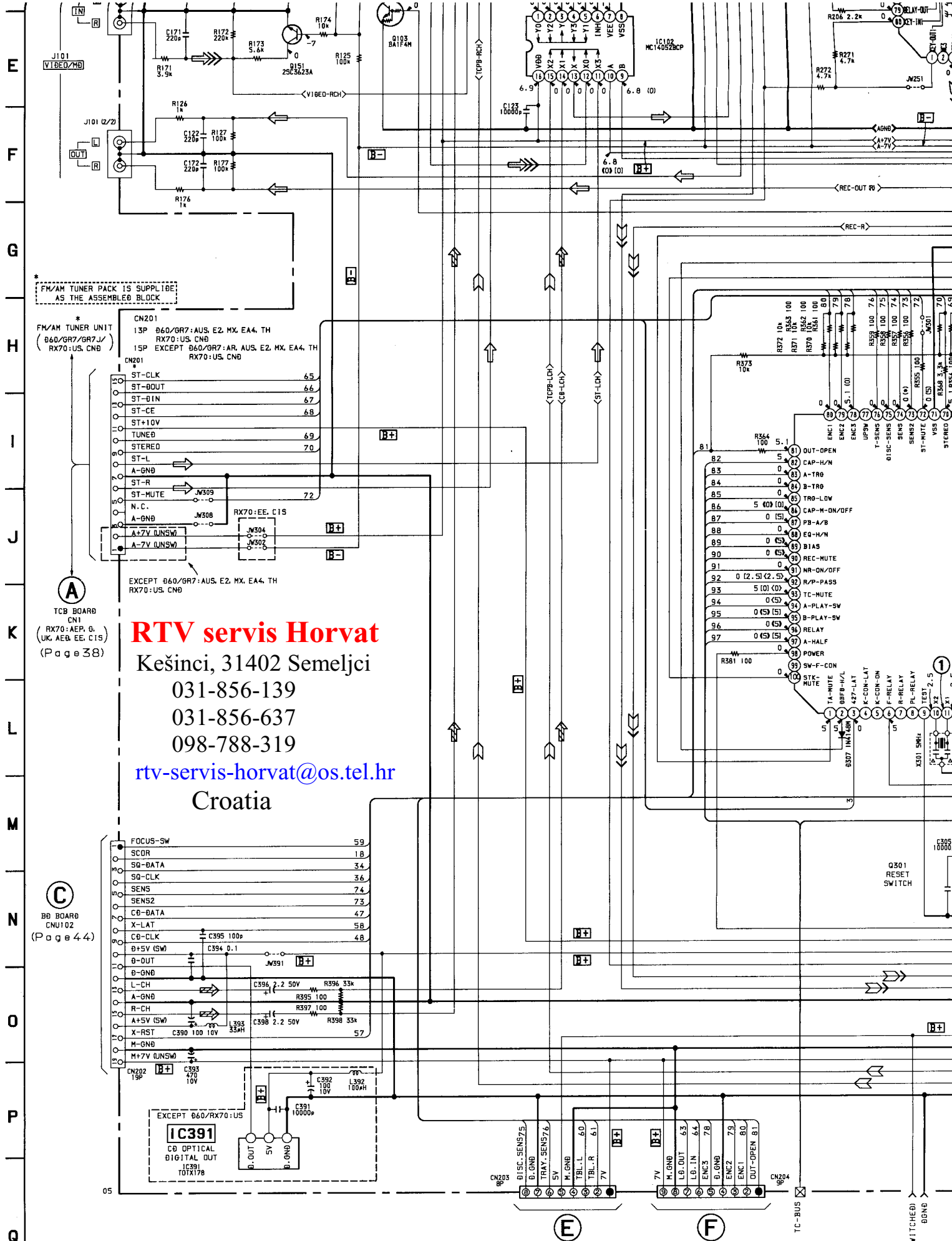
Note:

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

Note:

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

- : B+ Line.
- : B- Line.
- : panel designation.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM
() : CD
<< >> : REC (DECK B)
[] : PB (DECK B)
{ } : PB (DECK A)
* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 : FM
 : PB (DECK A)
 : REC (DECK B)
 : CD
 : VIDEO
- Abbreviation
AED : 220V AC Area in AEP model
AUS : Australian model
CND : Canadian model
EA3 : 240V AC Area in Saudi Arabia model
EA4 : 220V AC Area in Saudi Arabia model
EE : East European model
E2 : 120V AC Area in E model
E3 : 240V AC Area in E model
G : German model
HK : Hong Kong model
MX : Mexican model
MY : Malaysia model
SAF : South African model
SP : Singapore model
TH : Thailand model



* FM/AM TUNER PACK IS SUPPLIED AS THE ASSEMBLED BLOCK

* FM/AM TUNER UNIT (B60/GR7/GR7/L/ RX70-US, CNB)

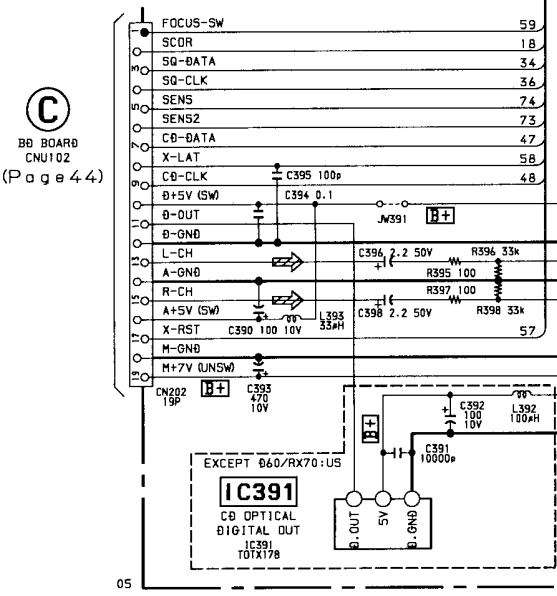
CN201	13P	B60/GR7: AUS. E2. MX. EA4. TH	
		RX70: US, CNB	
CN201	15P	EXCEPT B60/GR7: AR. AUS. E2. MX. EA4. TH	
		RX70: US, CNB	

ST-CLK	65
ST-BDOUT	66
ST-DIN	67
ST-CE	68
ST+10V	69
TUNED	69
STEREO	70
ST-L	
A-GND	
ST-R	
ST-MUTE	72
N.C.	
A-GND	
A+7V (UNSW)	
A-7V (UNSW)	

EXCEPT B60/GR7: AUS. E2. MX. EA4. TH
RX70: US, CNB

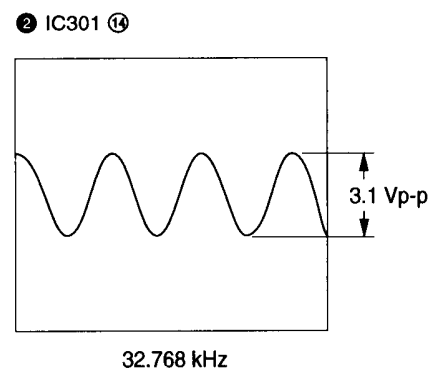
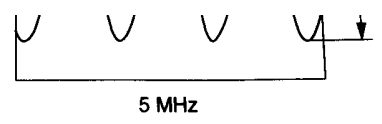
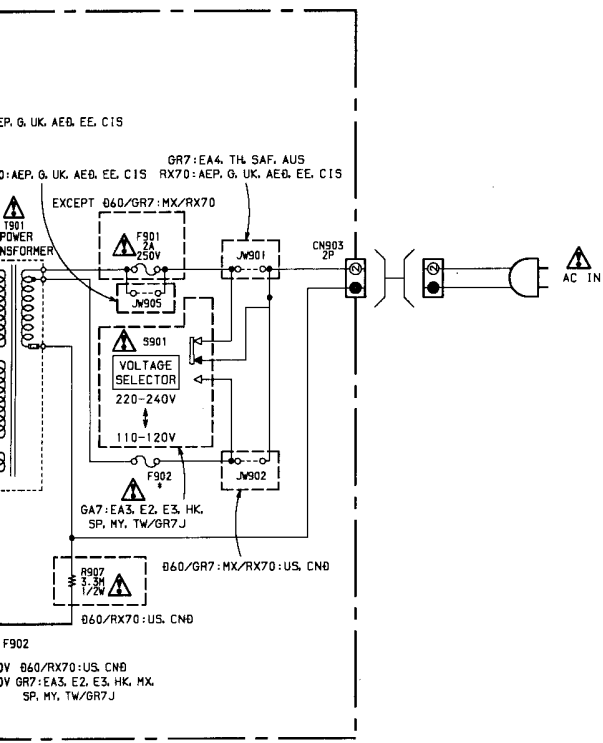
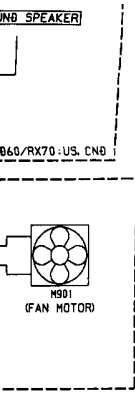
A
TCB BOARD
CNI
(RX70: AEP, G.
UK, AEB, EE, C15)
(Page 38)

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Kešinci, 31402 Semeljci
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031-856-637
098-788-319
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Croatia



E
CONNECTOR BOARD
CN701
(Page 48)

F
MOTOR (SLIDE) BOARD
CN801
(Page 48)



- Note on Schematic Diagram:**
- All capacitors are in μF unless otherwise noted. pF: μpF
50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4} \text{ W}$ or less unless otherwise specified.
 - Δ : internal component.
 - : nonflammable resistor.
 - : fusible resistor.

<p>Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
--	--

- **B+** : B+ Line.
- **B-** : B- Line.
- : panel designation.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- () : CD
- << >> : REC (DECK B)
- [] : PB (DECK B)
- { } : PB (DECK A)
- * : Impossible to measure
- Voltages are taken with a VOM (Input impedance $10 \text{ M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- : FM
- : PB (DECK A)
- : REC (DECK B)
- : CD
- : VIDEO
- Abbreviation
- AED : 220V AC Area in AEP model
- AUS : Australian model
- CND : Canadian model
- EA3 : 240V AC Area in Saudi Arabia model
- EA4 : 220V AC Area in Saudi Arabia model
- EE : East European model
- E2 : 120V AC Area in E model
- E3 : 240V AC Area in E model
- G : German model
- HK : Hong Kong model
- MX : Mexican model
- MY : Malaysia model
- SAF : South African model
- SP : Singapore model
- TH : Thailand model
- TW : Taiwan model

6-11. SCHEMATIC DIAGRAM – PANEL SECTION – • See page 74 for IC Block Diagrams

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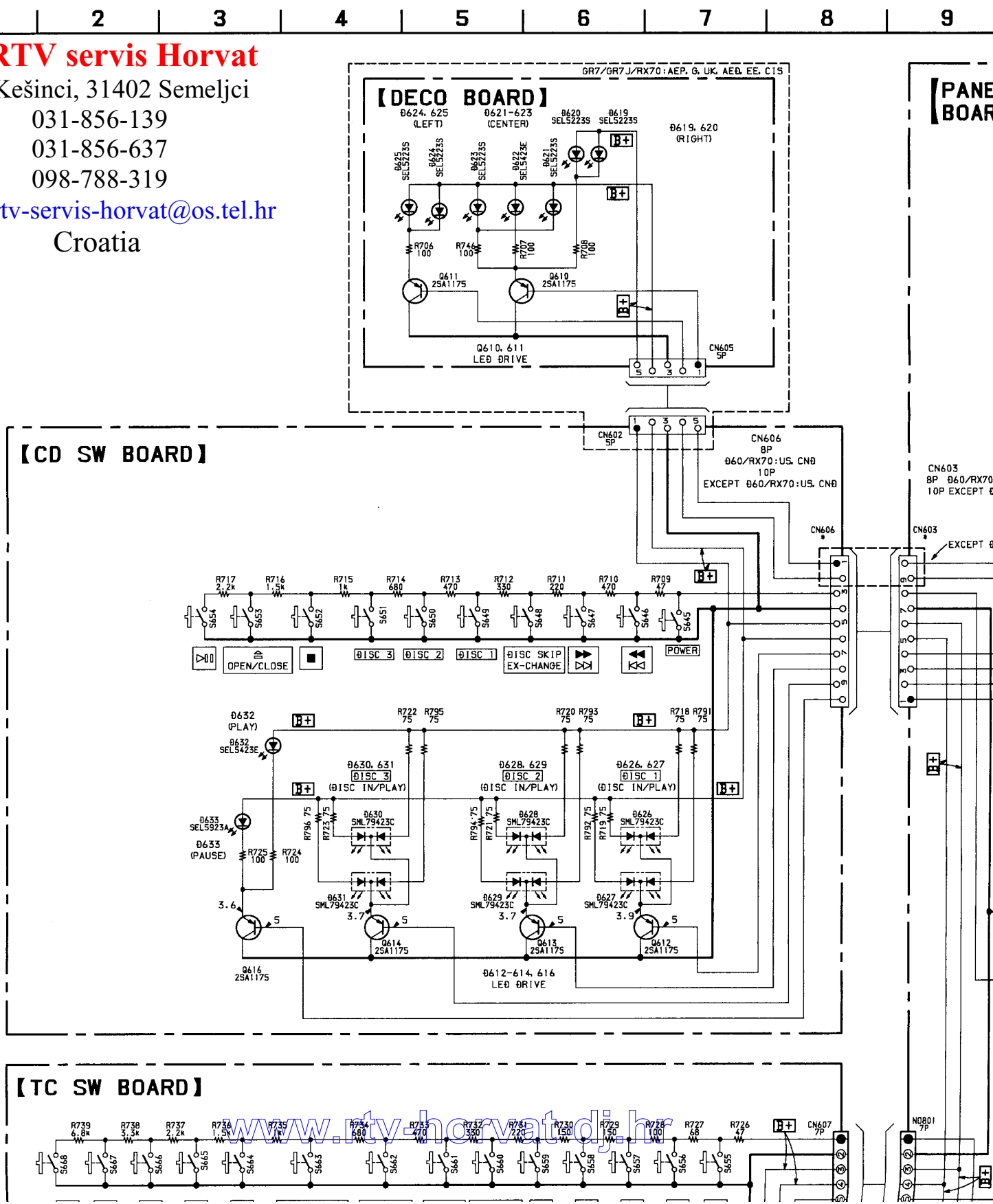
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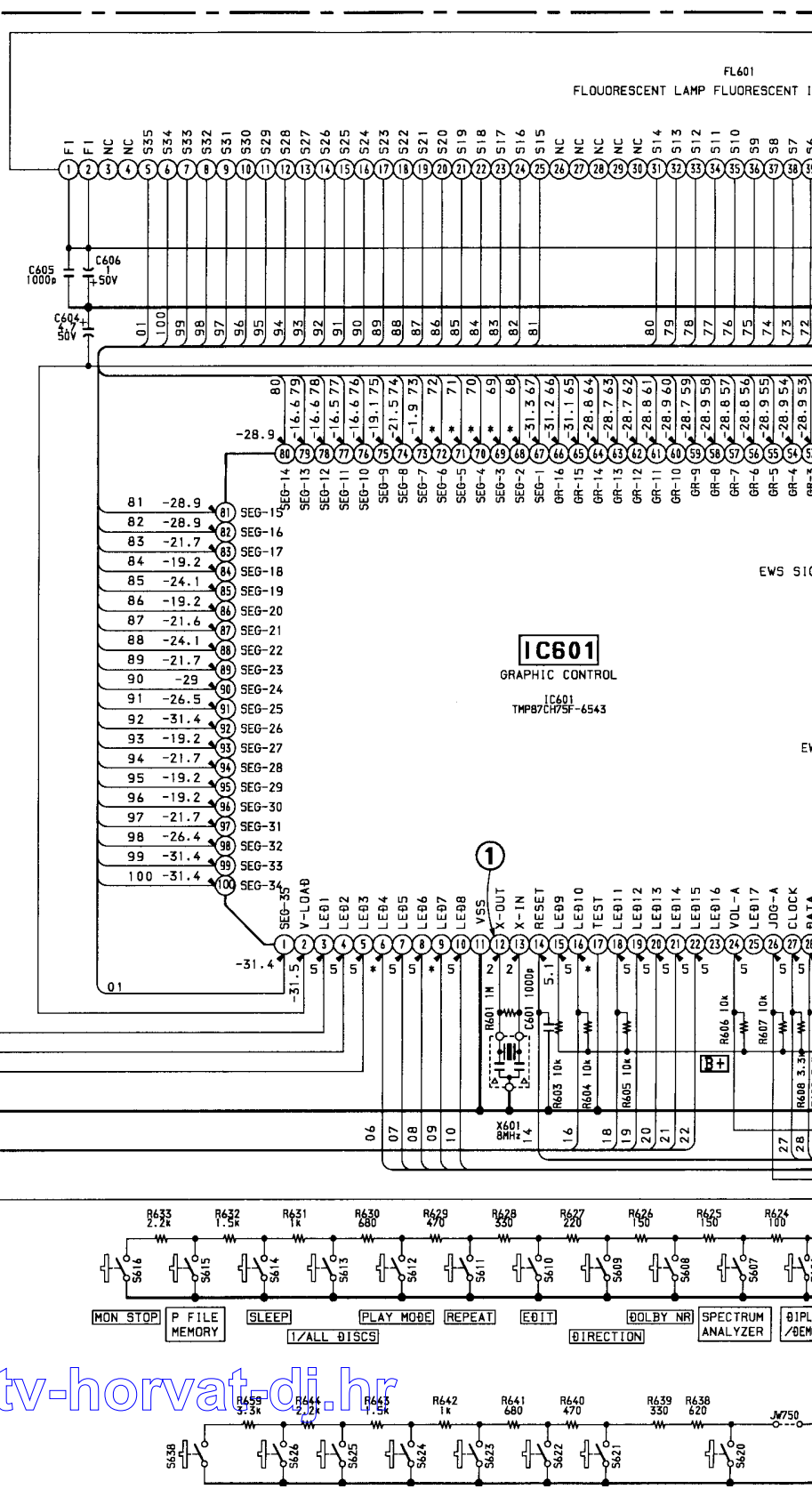
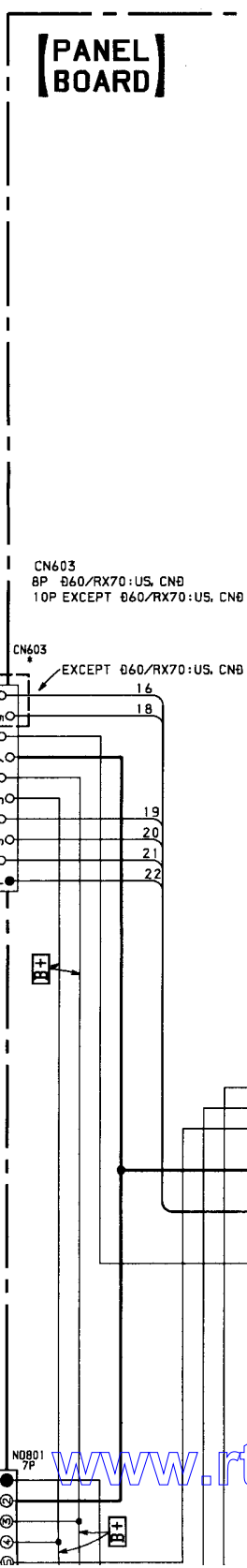
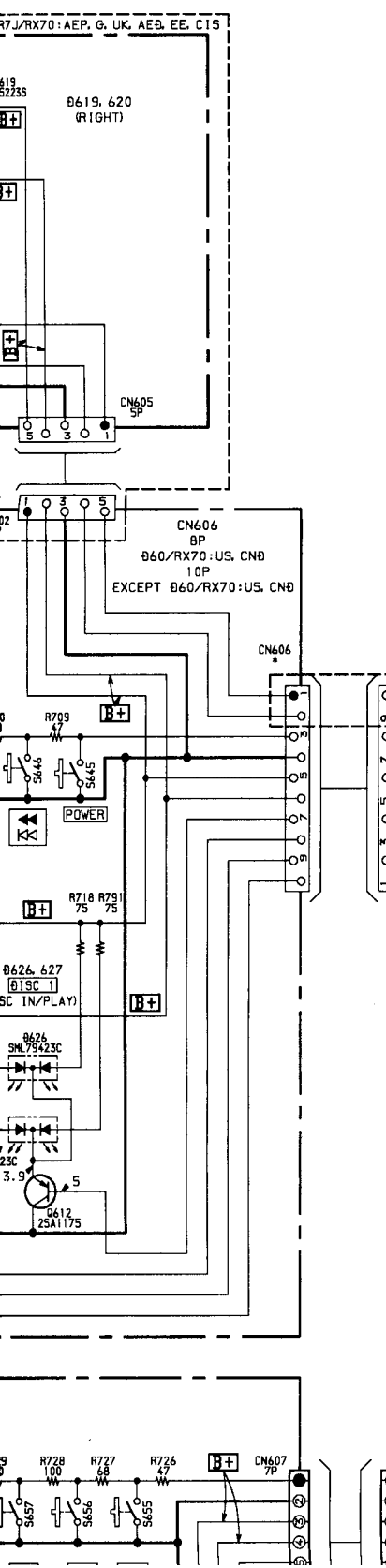
rtv-servis-horvat@os.tel.hr

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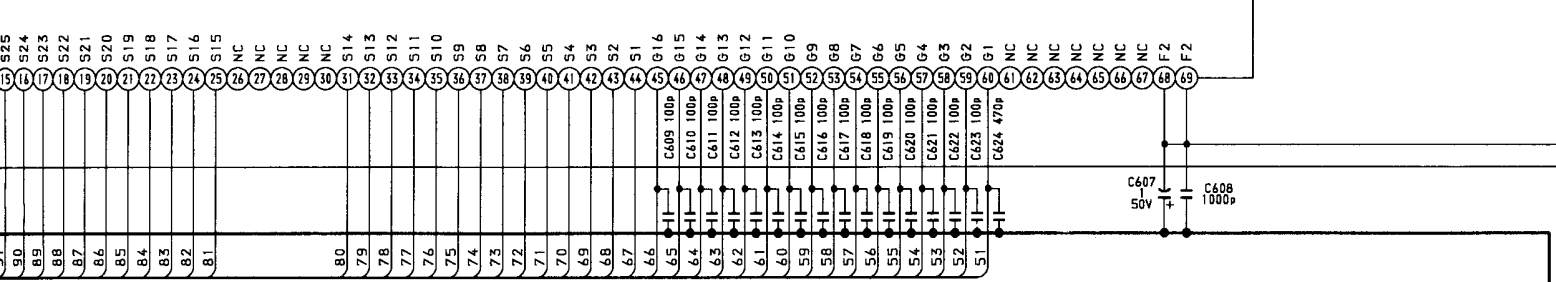


ms

7 8 9 10 11 12 13 14 15

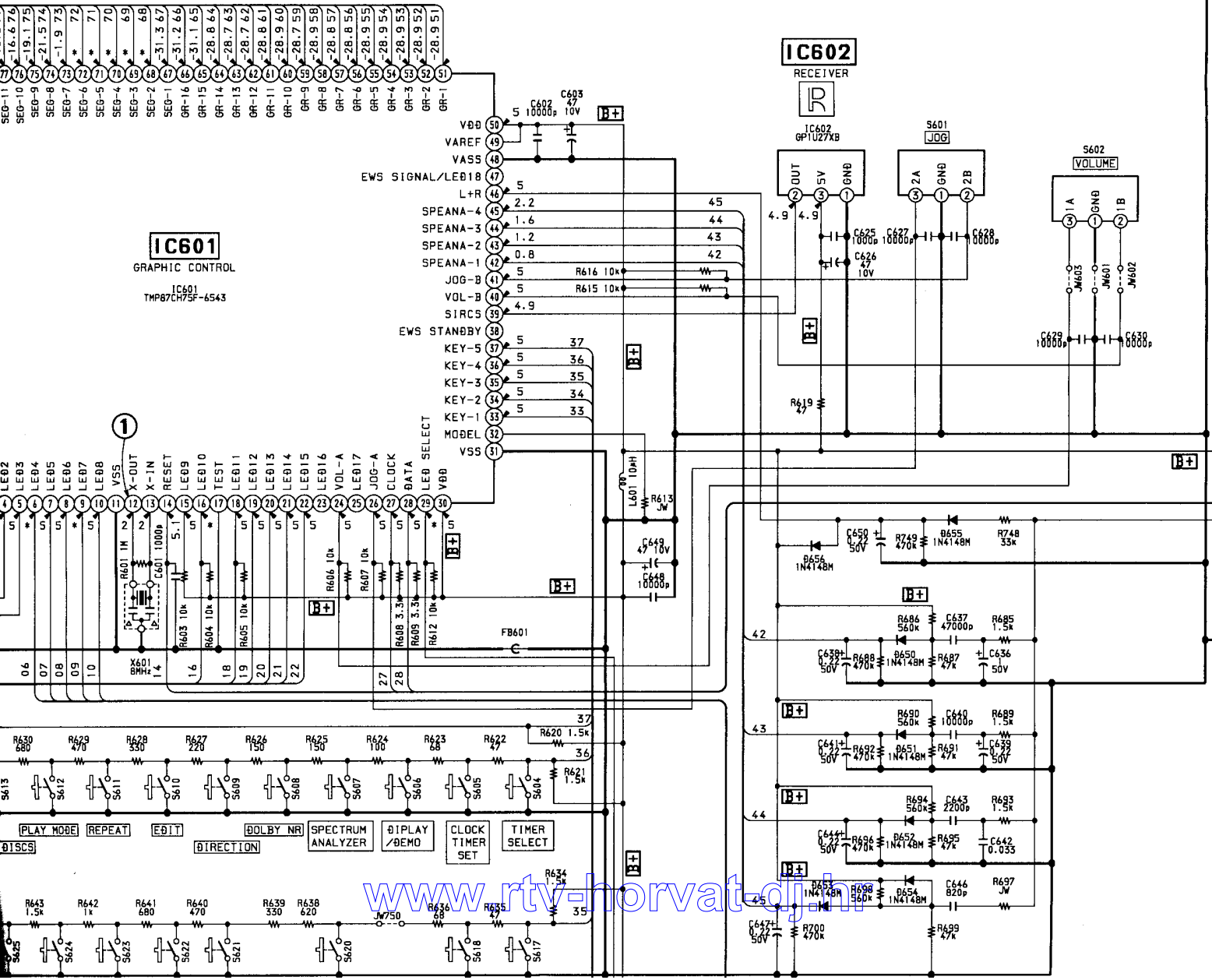


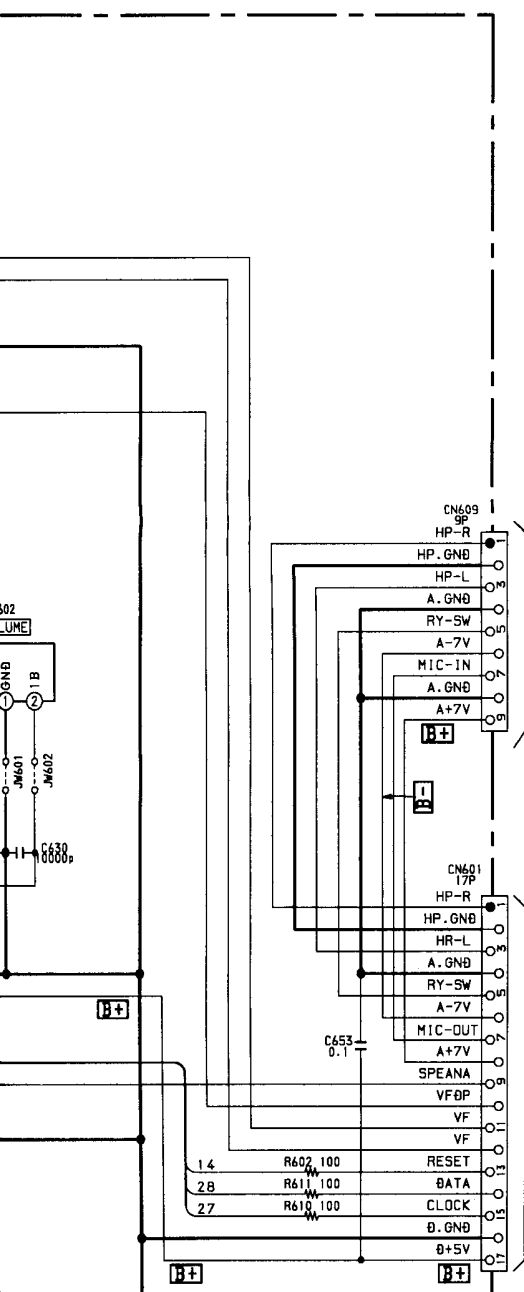
FL601
FLOURESCENT LAMP FLUORESCENT INDICATOR TUBE



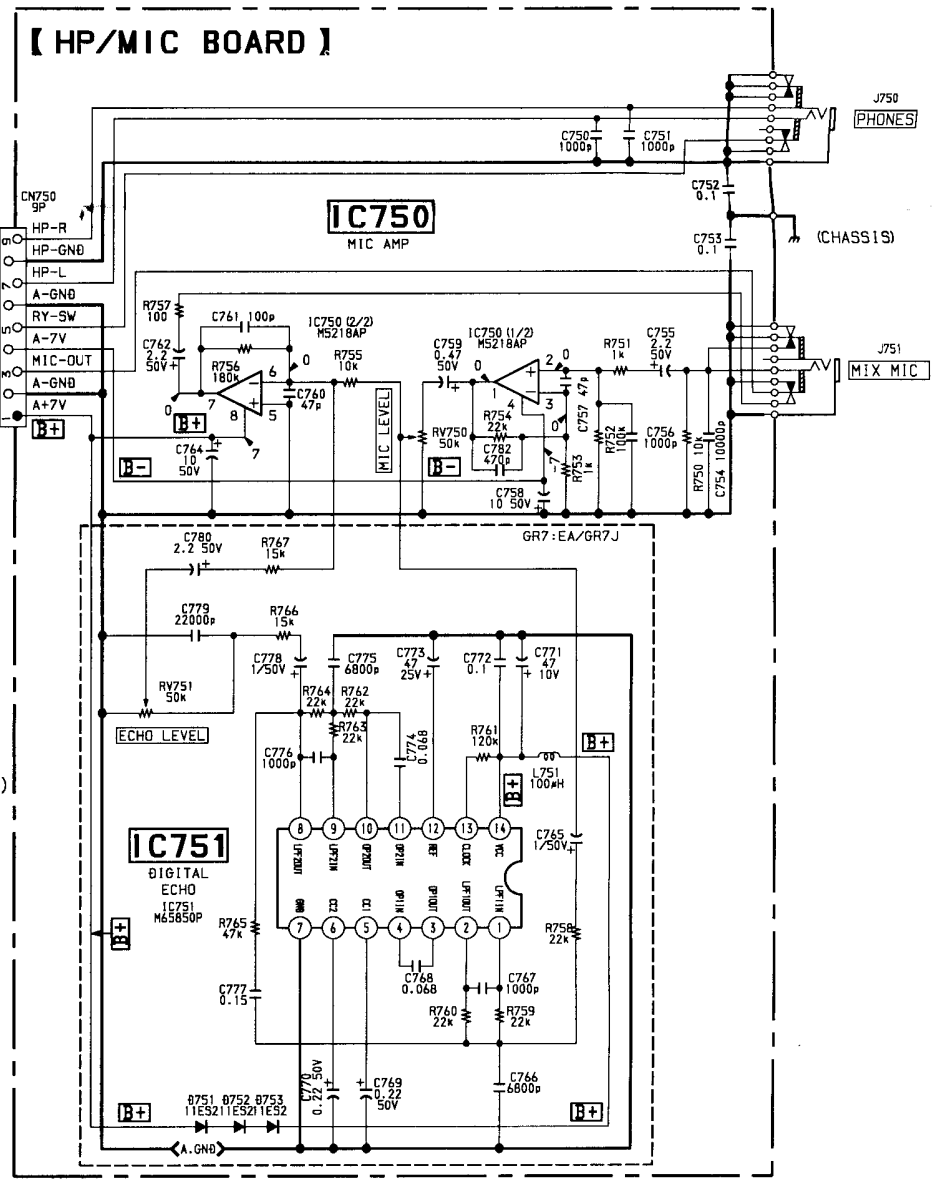
IC601
GRAPHIC CONTROL
IC601
TMP87CH75F-6543

IC602
RECEIVER
IC602
GP1U27XB



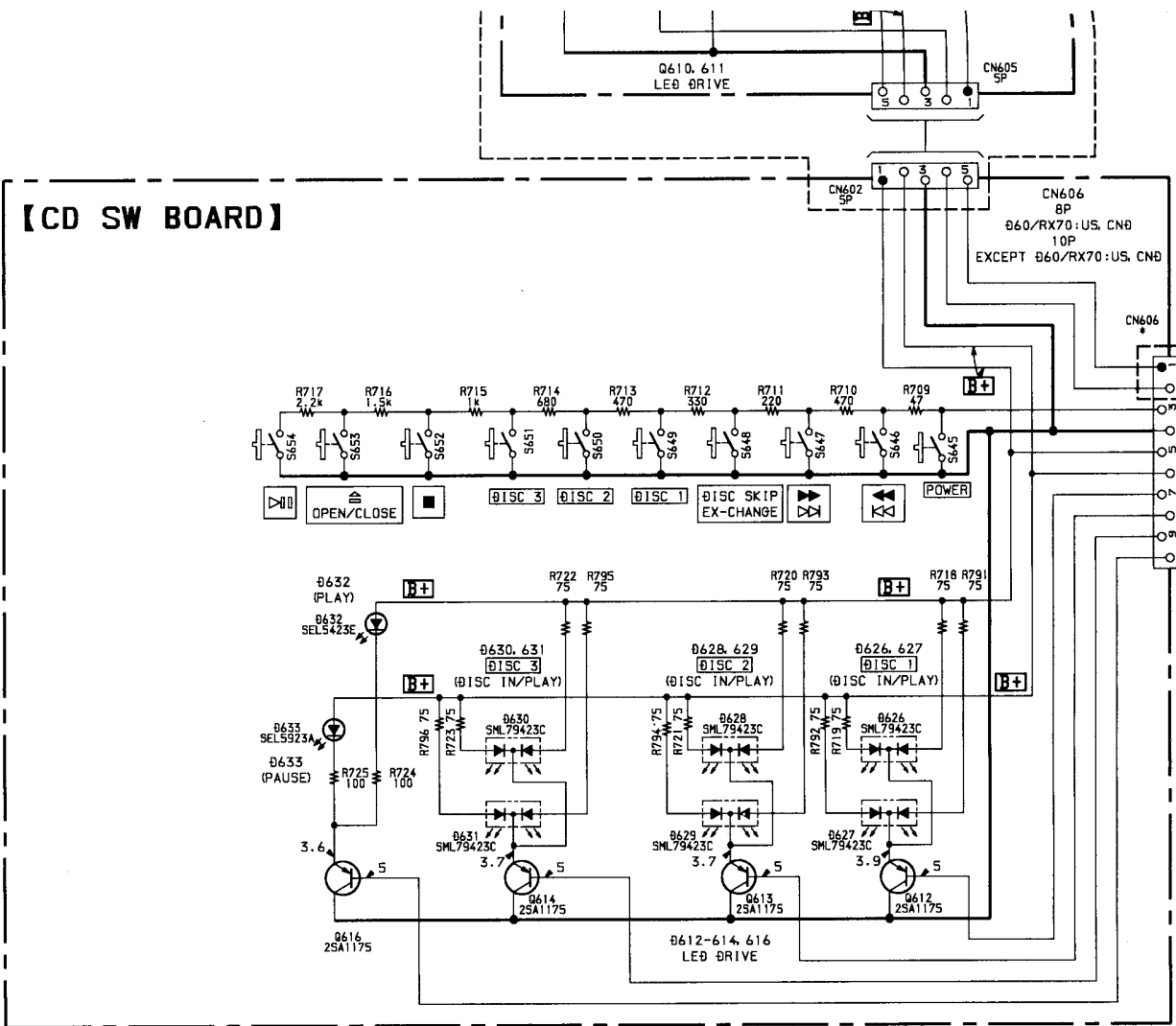


G
 MAIN BOARD
 (1/2)
 CN102
 (Page 56)

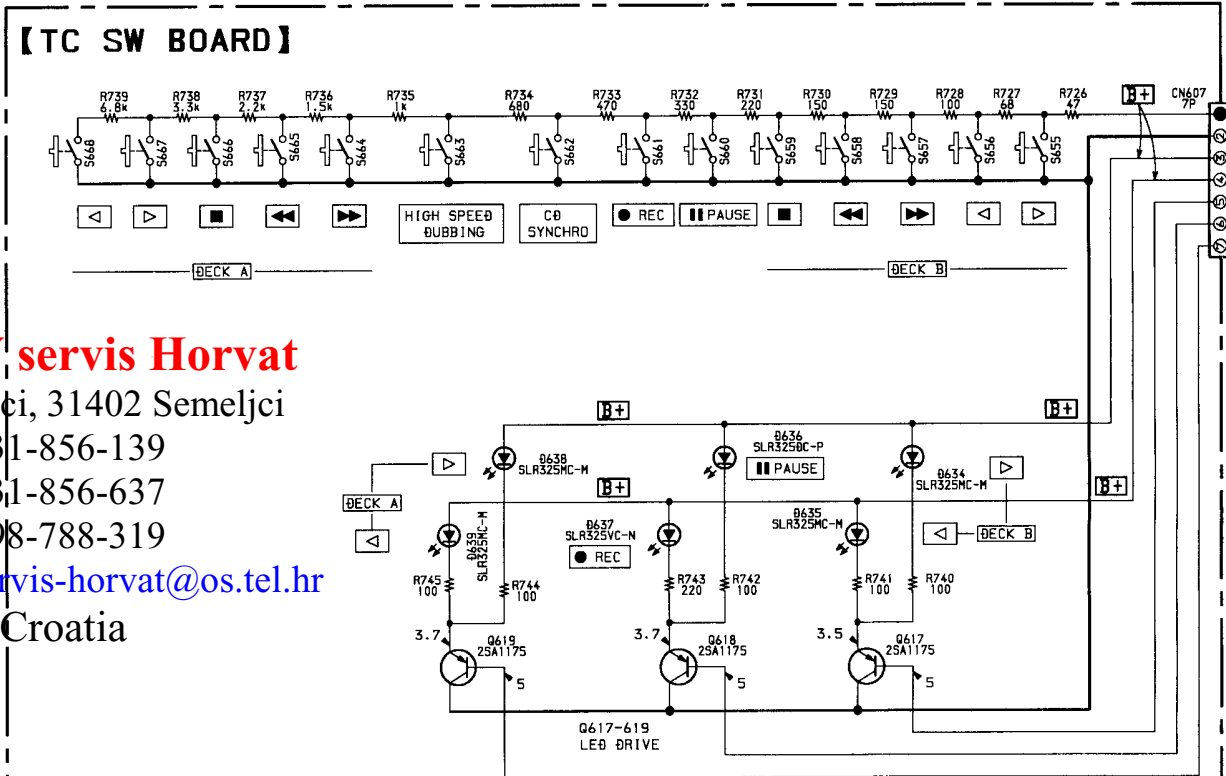


C
D
E
F
G
H
I
J
K
L
M
N

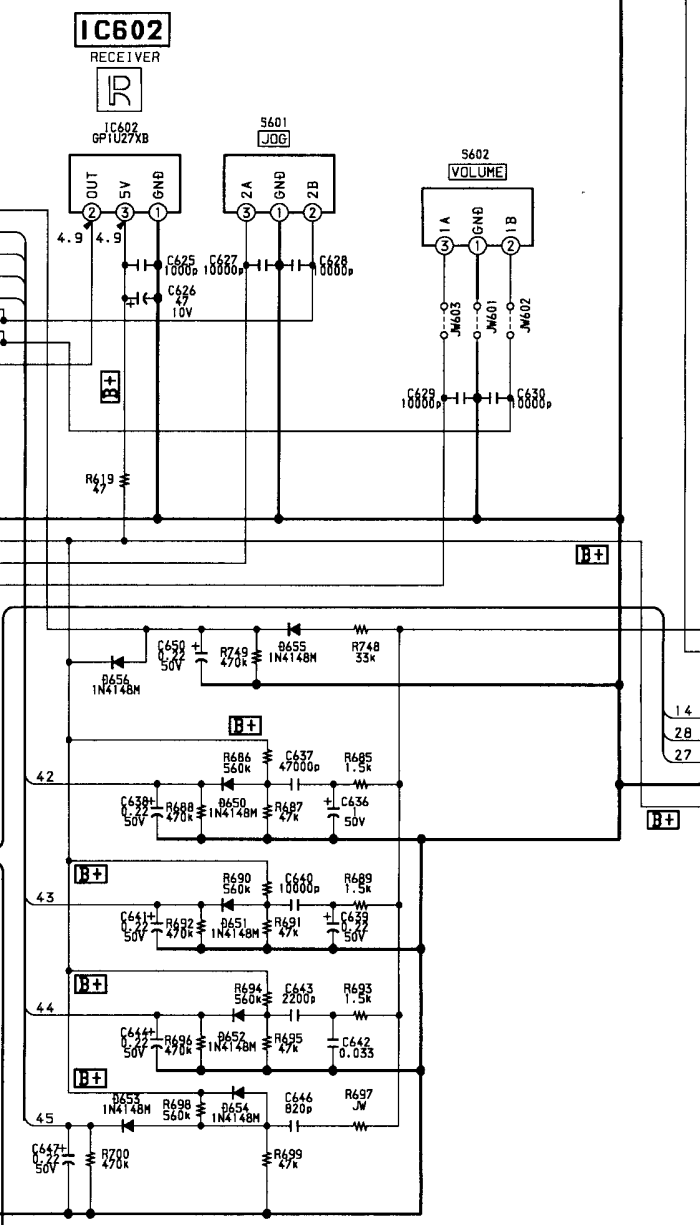
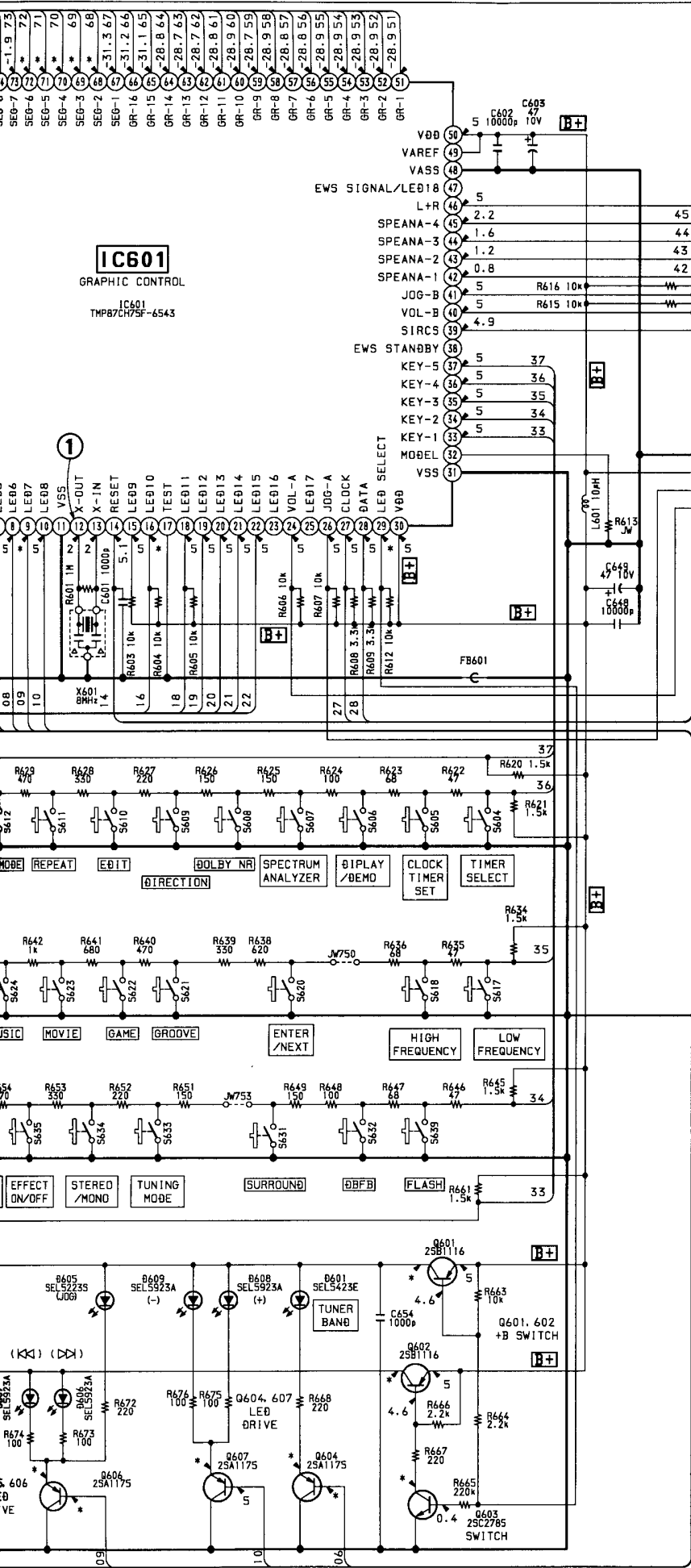
【CD SW BOARD】



【TC SW BOARD】



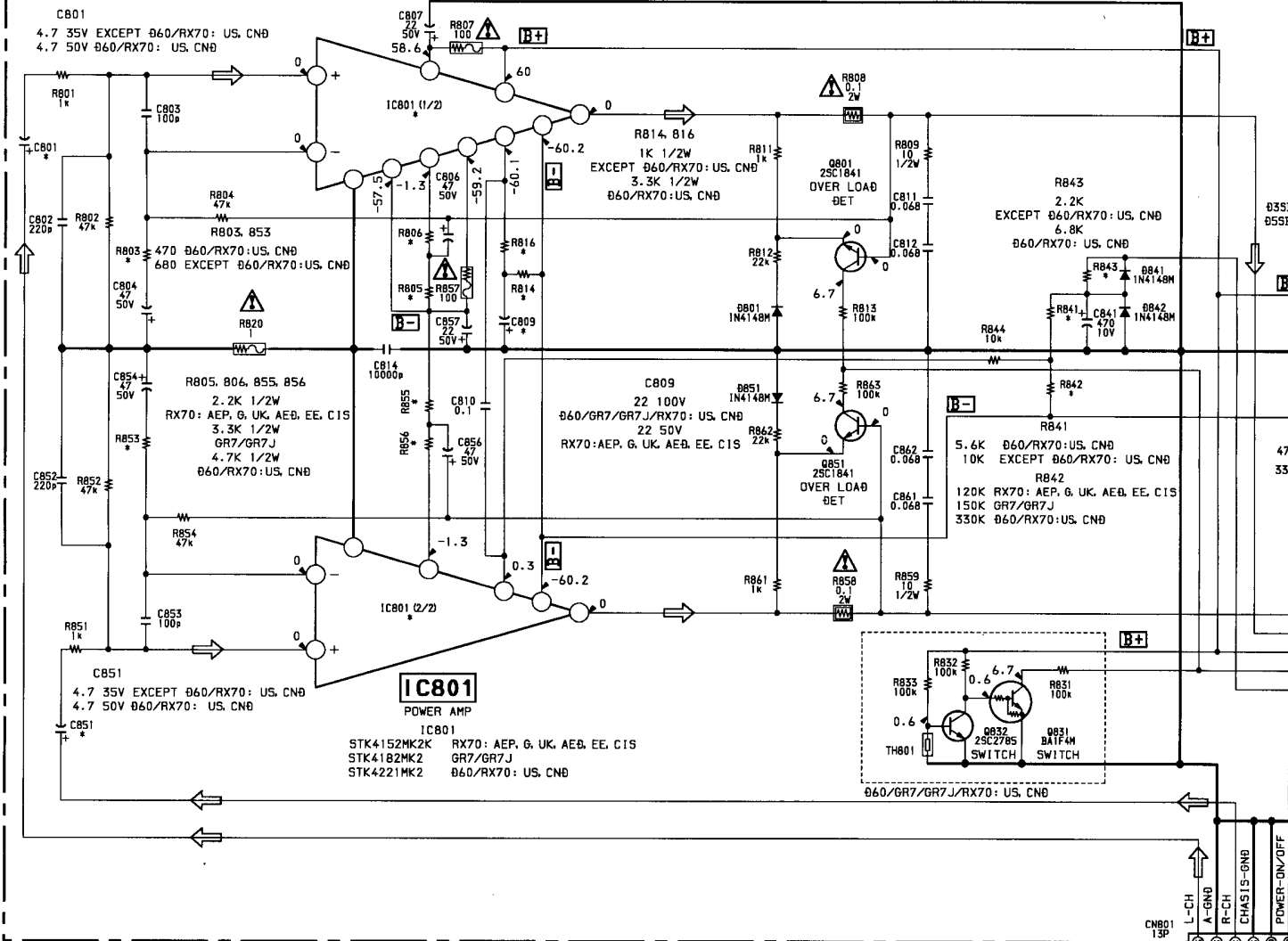
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 Croatia



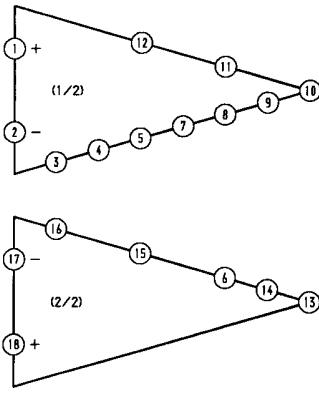
6-14. SCHEMATIC DIAGRAM - POWER AMP SECTION -

1 2 3 4 5 6 7 8 9

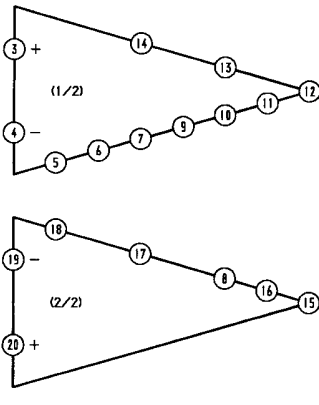
[POWER AMP BOARD]



IC801 PIN LAYOUT
STK4152MK2K, STK4182MK2

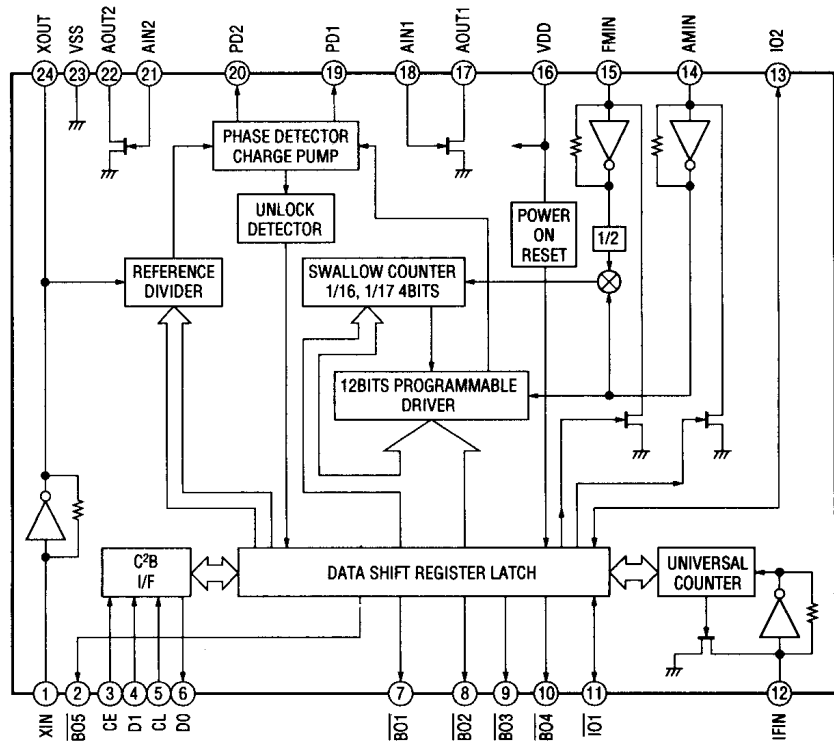


STK4221MK2

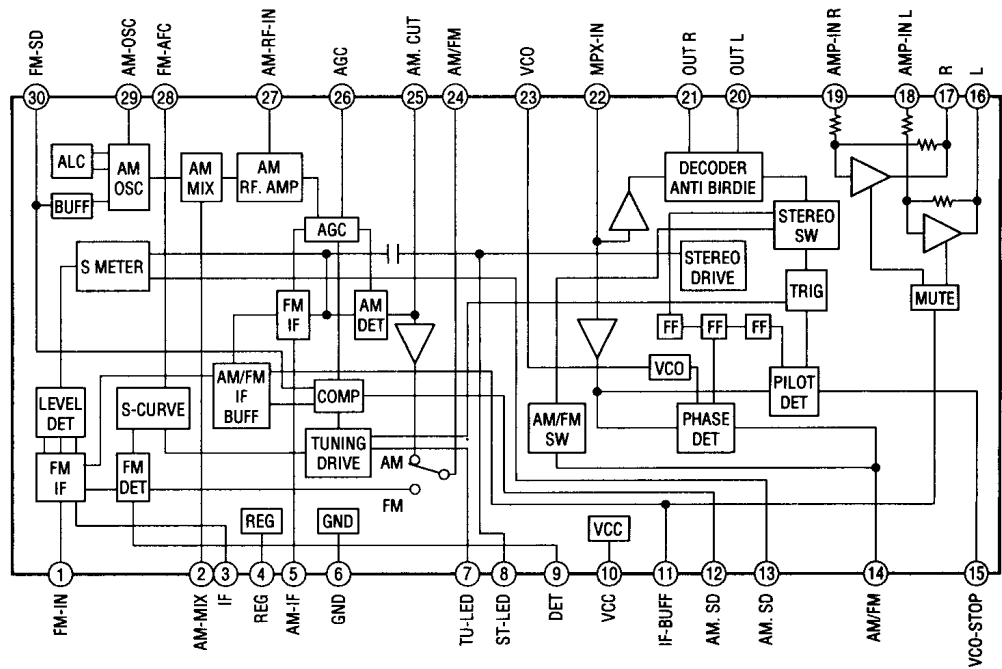


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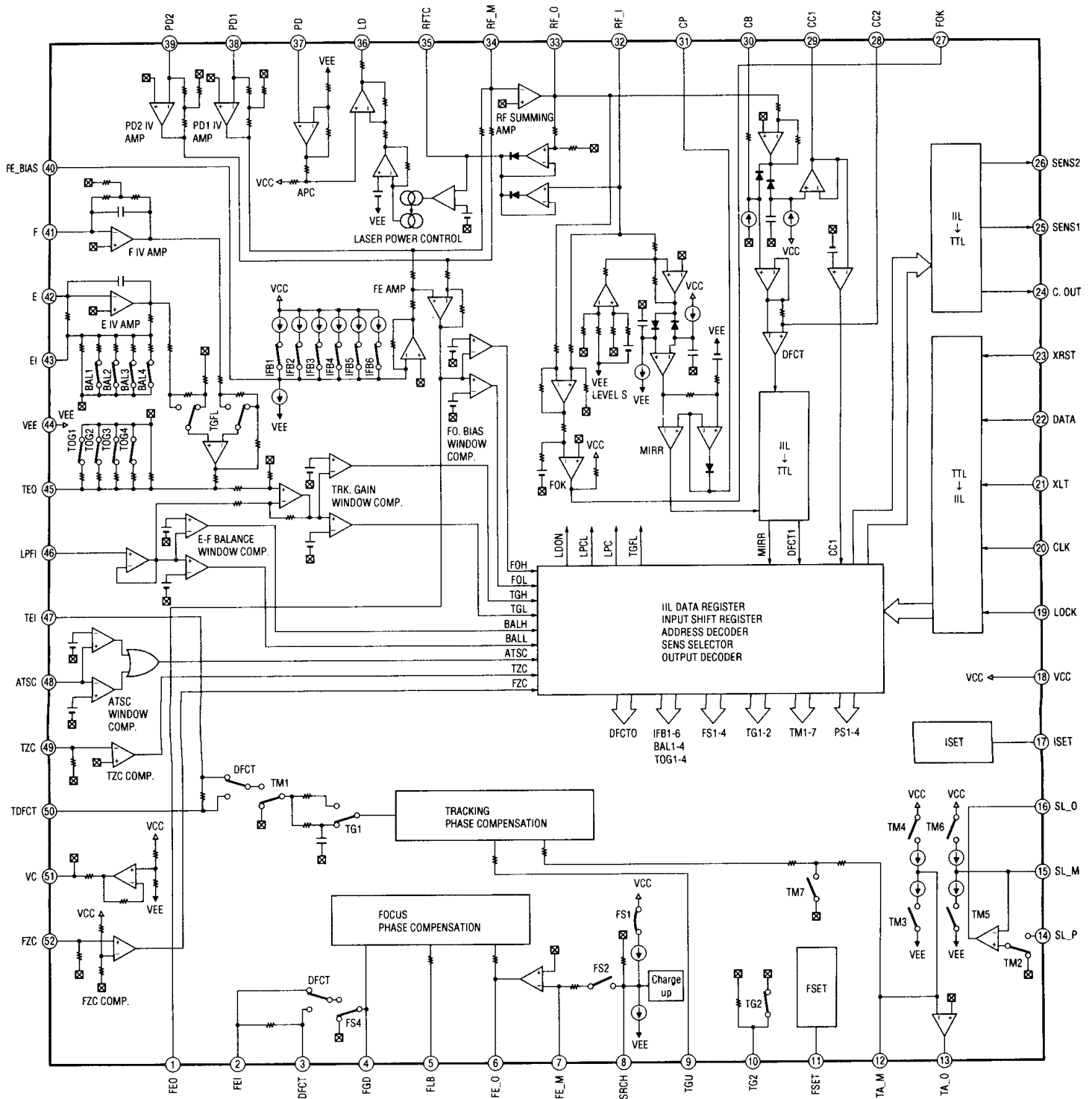
• IC Block Diagrams
IC21 LC72130 (TCB BOARD)



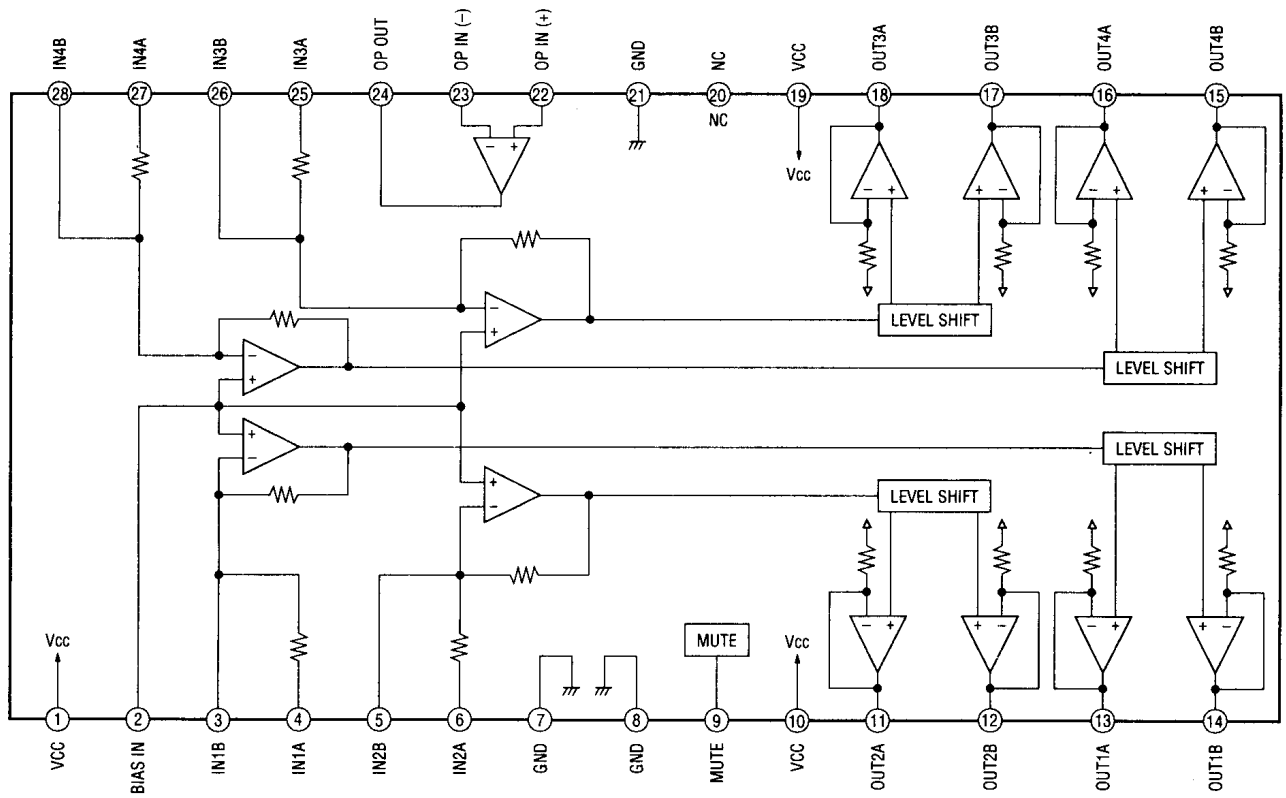
IC41 LA1835 (TCB BOARD)



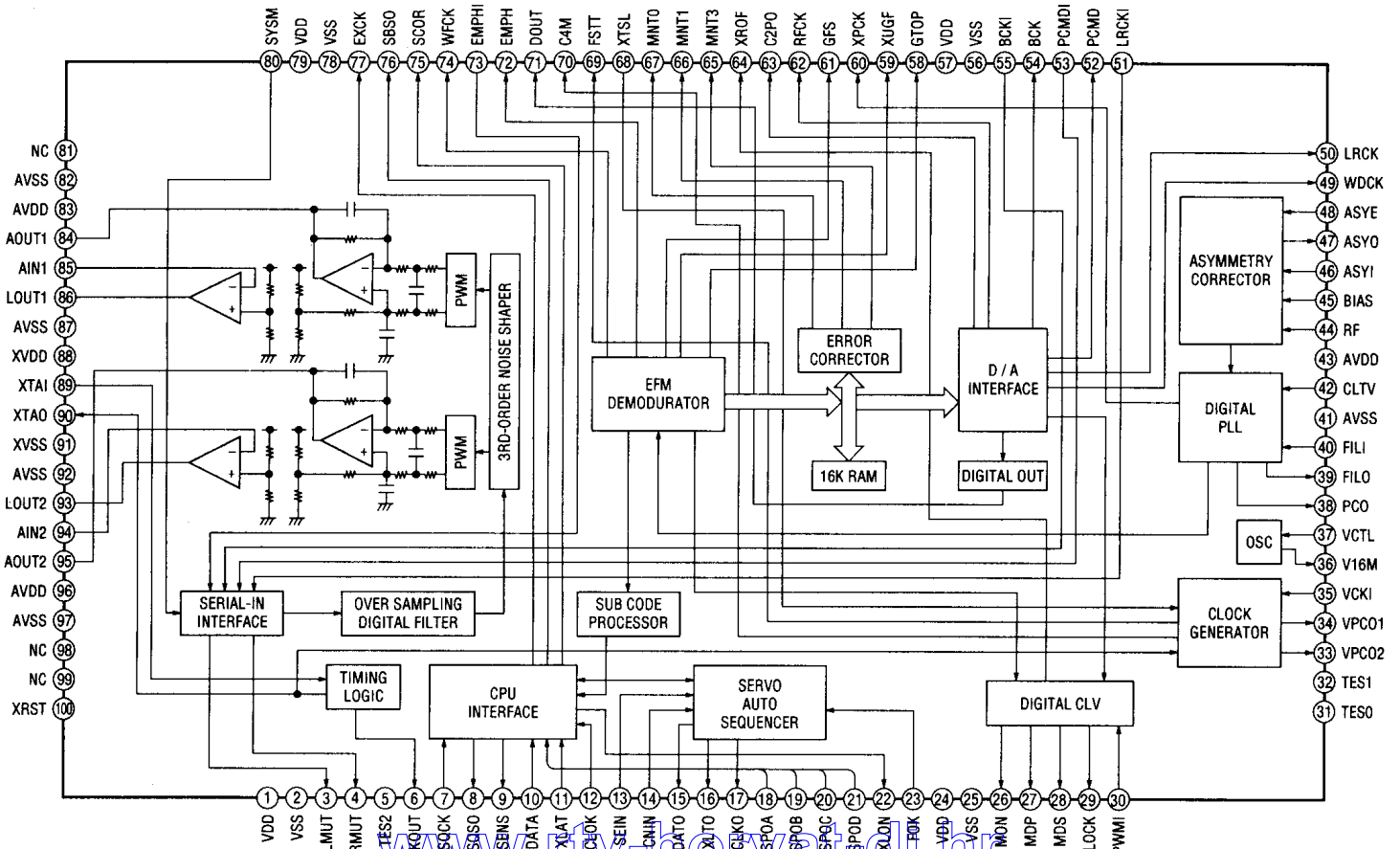
IC101 CXA1992AR (BD BOARD)



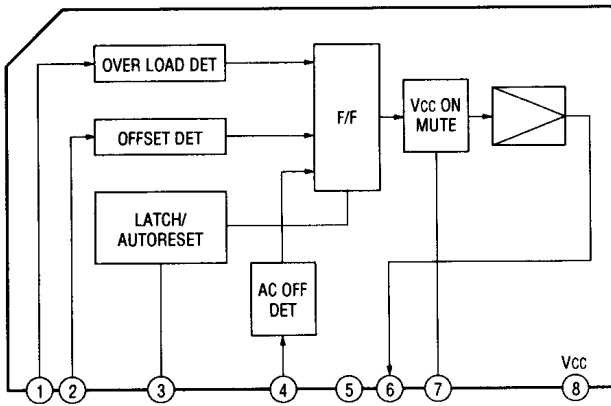
IC102 BA5941FP-E2 (BD BOARD)



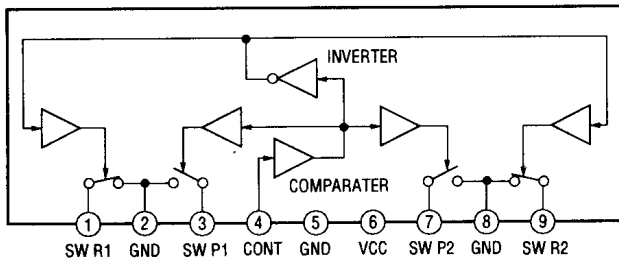
IC103 CXD2519Q (BD BOARD)



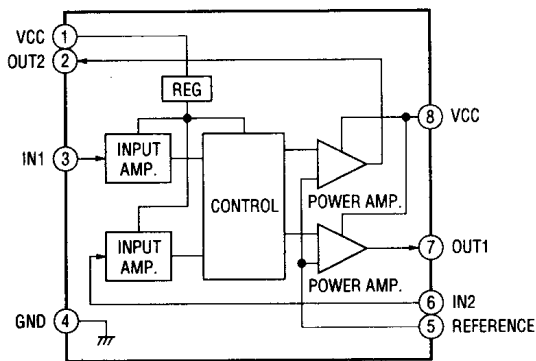
IC281 μ PC1237HA (MAIN BOARD)



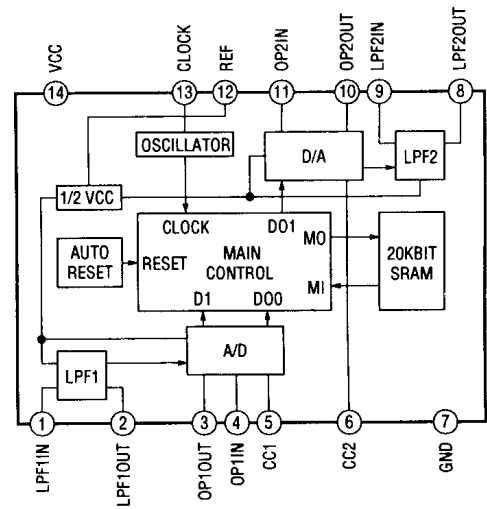
IC602 μ PC1330HA (AUDIO BOARD)



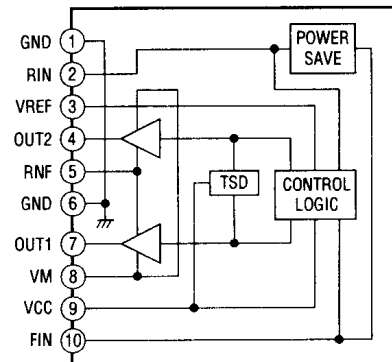
IC701 M54641L (MOTOR (TURN) BOARD)



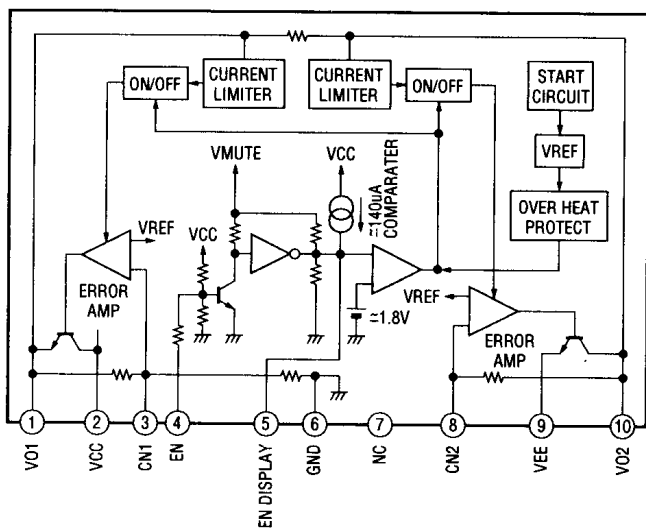
IC751 M65850P (HP/MIC BOARD)



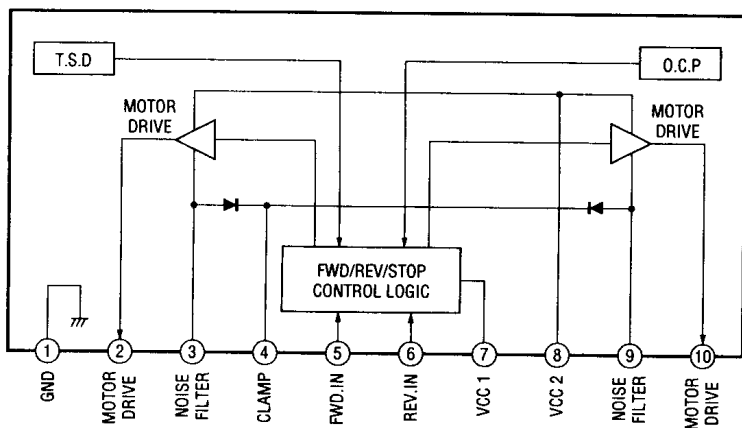
IC801 BA6286N (MOTOR (SLIDE) BOARD)



IC901 LA5617 (MAIN BOARD)



IC1502 LB1641 (MAIN BOARD)



6-15. IC PIN FUNCTION DESCRIPTION
MAIN BOARD IC301 μ PD780018YGF-011-3BA (MASTER CONTROL)

Pin No.	Pin Name	I/O	Function
1	TA-MUTE	O	Line mute signal output
2	DBFB-H/L	O	DBFB H/L select signal output
3	427-LAT	O	Latch signal output for IC201 (M62427FP)
4	K-CON-LAT	O	Not used
5	K-CON-ON	O	
6	F-RELAY	O	Front speaker relay control output
7	R-RELAY	O	Not used
8	PL-RELAY	O	
9	TEST	I	Connected ground
10	X2	O	X'tal (5MHz)
11	X1	I	
12	VDD	-	Power supply (+5V)
13	XT2	O	X'tal (32.768 kHz)
14	XT1	I	
15	RESET	I	Reset signal input
16	(INT/IN)	I	Connected ground
17	(INT/IN/OUT)	I	
18	SCOR	O	Subcode data request signal output
19	SOFT-TEST	O	Software test port
20	AC-CUT	I	Back up signal input (Not used)
21	RDS-INT	I	Connected ground
22	RDS-DATA	I	Not used
23	VDD	-	Power supply (+5V)
24	AVDD	I	Analog reference voltage input
25	ADJ	I	CD adjust point port
26	A-SHUT	I	A Deck reel pulse detector
27	B-SHUT	I	B Deck reel pulse detector
28	B-HALF	I	Half detector signal input
29	CLK-CHECK	I	Connected ground
30	SPEC-IN	I	Version select signal input
31	ADJ 2	I	Connected ground
32	DEMO-MODE	I	DEMO H/L select signal input
33	AVSS	-	Ground
34	SQ-DATA-IN	O	Subcode Q data clock input
35	—	-	Not used
36	SQ-CLK	O	Sub code Q data clock input
37	SW-ON/OFF	O	Not used
38, 39	FUNC 1, 2	I	Connected ground
40	VSS	-	Ground
41	VOL-LAT	O	Not used
42	PL-LAT	O	
43	COM-DIN	I	Connected ground
44	COM-DOUT	O	Common serial data output

Pin No.	Pin Name	I/O	Function
45	COM-CLK	O	Common serial clock output
46	CD-POWER	O	CD power on signal output
47	CD-DATA	O	CD data output
48	CD-CLK	O	CD clock output
49	MSM-CND	O	Not used
50	MSM-BUSY	I	Connected ground
51	MSM-LAT	O	Not used
52	MSM-NAR	I	
53	MSM-CH	O	
54	INPUT-CHANGE	O	GAIN control output
55	IIC-DATA	O	Data output for IC601
56	IIC-CLK	O	Clock output for IC601
57	XRST	O	CD reset signal output
58	XLT	O	CD latch signal output
59	FOUCUS-SW	O	Focus switching signal output
60	TBL-L	O	Table motor control output
61	TBL-R	O	
62	TRAY-LED	O	CD tray LED ON/OFF output
63	LOAD-OUT	O	Loading motor control signal output
64	LOAD-IN	O	
65	ST-CLK	O	Tuner clock output
66	ST-DIN	I	Tuner data input
67	ST-DOUT	O	Tuner data output
68	ST-CE	O	Tuner chip enable output
69	TUNED	I	Tuned detection for tuner
70	STEREO	I	Stereo detection for tuner
71	VSS	-	Ground
72	ST-MUTE	O	Tuner mute signal output
73	SENS2	I	BD Condition signal input
74	SENS	I	
75	DISC-SENS	I	Not used
76	T-SENS	I	CD table detection signal input
77	UPSW	I	Up SW (S201) signal input (Not used)
78	ENC 3	I	Disctray address detect encoder input
79	ENC 2	I	
80	ENC 1	I	
81	OUT-OPEN	I	Out switch signal input
82	CAP-H/N	O	Capstan motor H/N speed select signal output
83	B-TRG	O	Trigger motor control output
84	A-TRG	O	Trigger motor control output
85	TRG-LOW	O	Trigger motor control output
86	CAP-M-ON/OFF	O	Capstan motor ON/OFF signal output
87	PB-A/B	O	PB Deck A/Deck B select output

Pin No.	Pin Name	I/O	Function
88	EQ-H/N	O	Equalizer H/N select output
89	BIAS	O	Bias ON/OFF signal output
90	REC-MUTE	O	REC mute ON/OFF selection output
91	NR-ON/OFF	O	NR ON/OFF signal output
92	R/P-PASS	I	REC/PB/PASS selection output
93	TC-MUTE	O	TC mute ON/OFF selection output
94	A-PLAY-SW	I	Deck A play detect
95	B-PLAY-SW	I	Deck B play detect
96	RELAY	O	REC/PB head selection output for IC602
97	A-HALF	I	Deck A cassette detect
98	POWER	O	POWER ON/OFF signal output
99	SW-F-CON	O	Super woofer mode signal output (Not used)
100	STK-MUTE	O	Power amp ON/OFF signal output

PANEL BOARD IC601 TMP87CH75F-6543 (GRAPHIC CONTROL)

Pin No.	Pin Name	I/O	Function
1	SEG-35	O	Fluorescent display tube segment signal output
2	V-LOAD	-	-30V for Fluorescent display tube
3-10	LED1-LED8	O	LED driver output
11	VSS	-	Ground
12	X-OUT	O	X'tal (8MHz)
13	X-IN	I	X'tal (8MHz)
14	RESET	I	Reset signal input from master control
15, 16	LED9, LED10	O	LED driver output
17	TEST	I	Connected ground
18-23	LED11-LED16	O	LED driver output
24	VOL-A	I	Rotaly encoder pulse input
25	LED 17	O	Not used
26	JOG-A	I	Rotaly encoder pulse input
27	CLOCK	I	Serial clock input from master control
28	DATA	I	Serial data input from master control
29	LED SELECT	O	LED select signal output
30	VDD	-	Power supply (+5V)
31	VSS	-	Ground
32	MODEL	I	Connected Ground
33-37	KEY1-KEY5	I	Key input
38	EWS STANDBY	-	Not used
39	SIRCS	I	Remote commander signal input
40	VOL-B	I	Rotaly encoder pulse input
41	JOG-B	I	Rotaly encoder pulse input
42-45	SPEANA 1-4	I	Spectrum analyzer signal input
46	L + R	I	Spectrum analyzer (high frequency) input
47	EWS SIGNAL /LED 18	I	Not used
48	VASS	-	Ground
49	VAREF	I	Analog reference voltage input
50	VDD	-	Power supply (+5V)
51-66	GR1-GR16	O	Fluorescent display tube gride signal output
67-100	SEG1-SEG34	O	Fluorescent display tube segment signal output

SECTION 7 EXPLODED VIEWS

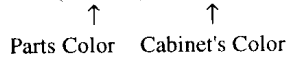
NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

• Color Indication of Appearance Parts

Example:

KNOB, BALANCE (WHITE) . . . (RED)



• Abbreviation

- AED : Northern European model
- AUS : Australian
- CND : Canadian
- EA3 : Saudi Arabia
- EA4 : Israeli

- 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.

- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

- EE : East European
- E2 : 120V AC Area in E model
- E3 : 240V AC Area in E model
- G : German
- HK : Hong Kong

- MX : Mexican
- MY : Malaysia
- SAF : South African
- SP : Singapore
- TH : Thailand
- TW : Taiwan

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

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

(1) CASE, MD ASS'Y SECTION

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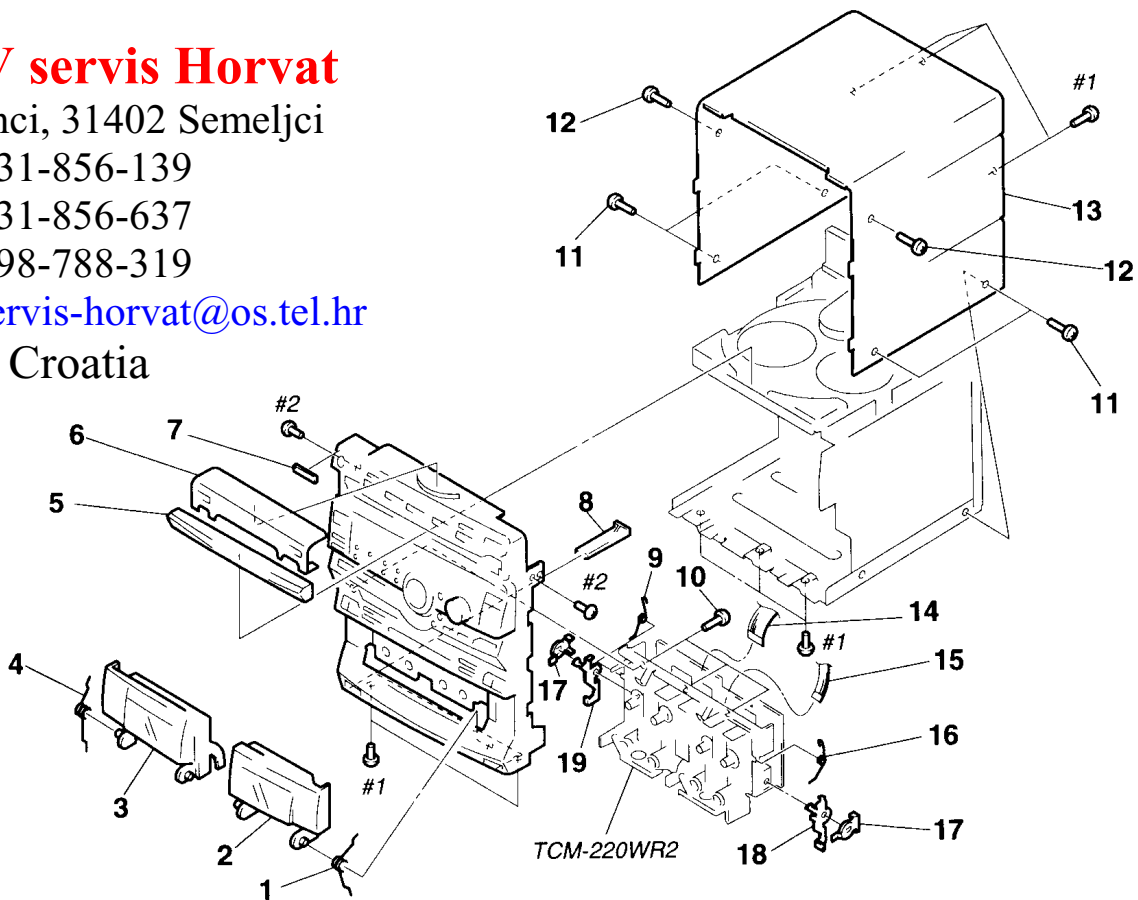
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031-856-637

098-788-319

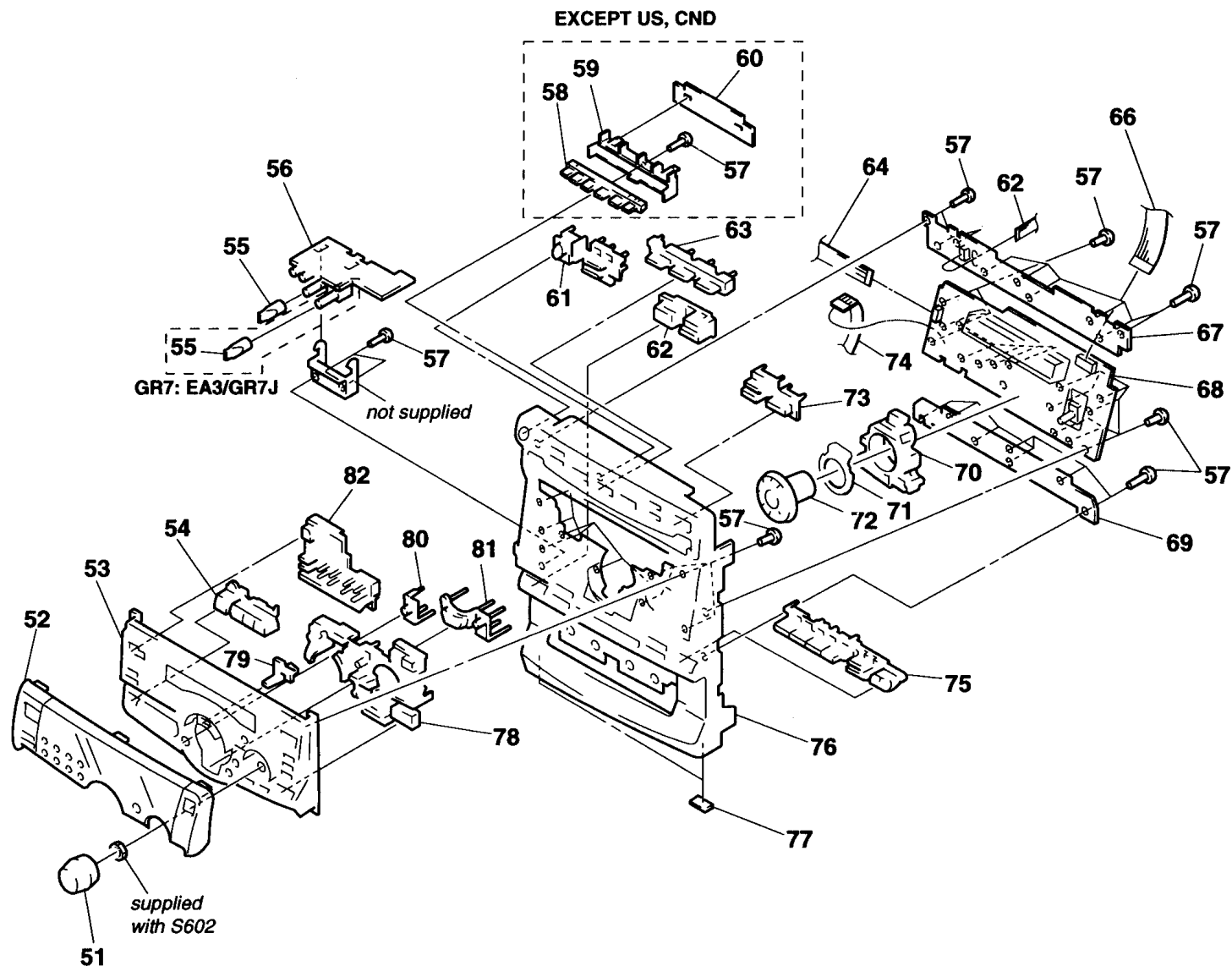
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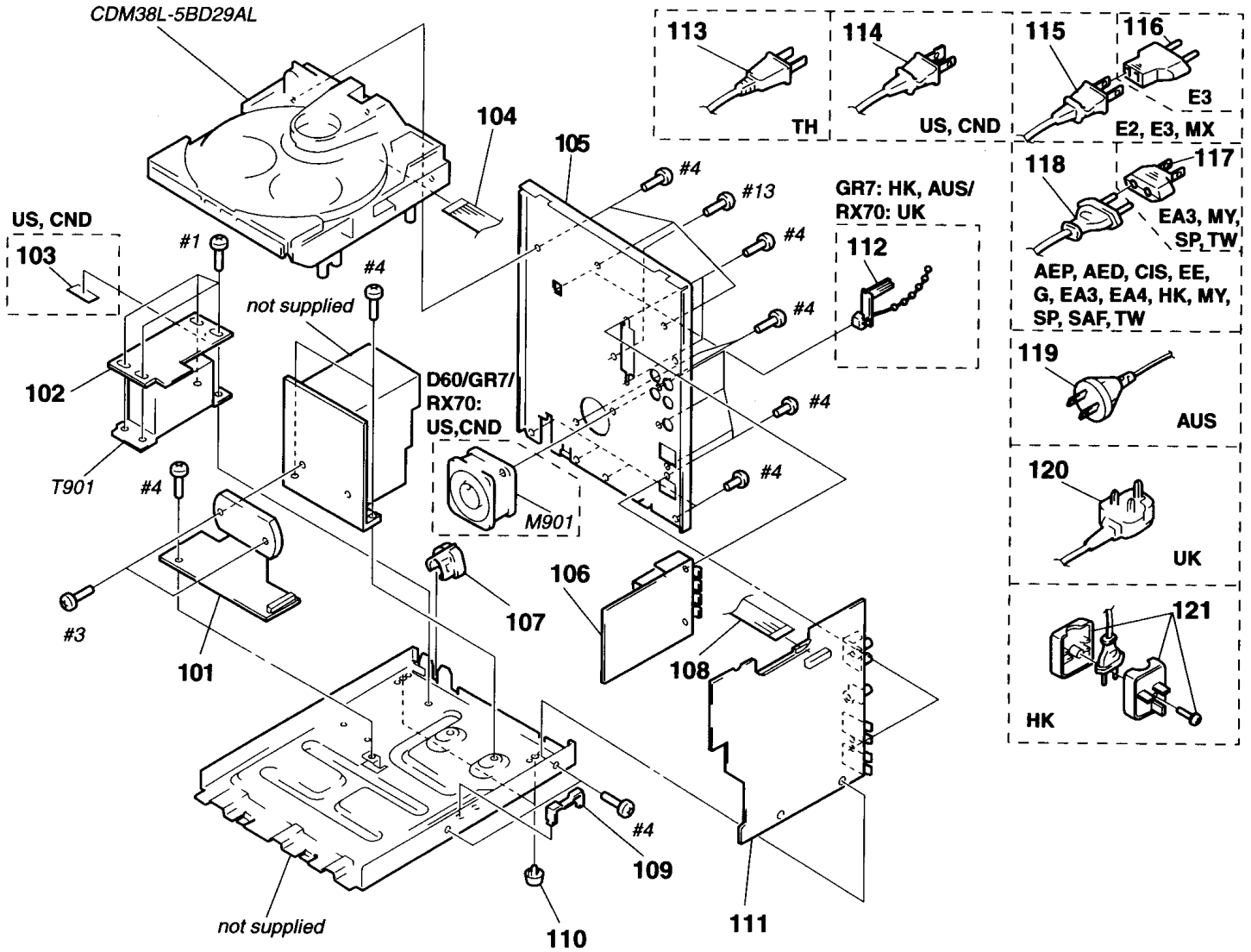
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-987-937-01	SPRING (B DECK)		8	4-986-843-01	BUTTON (EJECT) (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
2	X-4947-914-1	LID (B) ASSY, CASSETTE (BLACK) (D60/GR7: E2, MX, AUS/RX70)		8	4-986-843-21	BUTTON (EJECT) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	
2	X-4948-117-1	LID (B) ASSY, CASSETTE (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		9	4-987-938-01	SPRING (OPEN A)	
3	X-4947-913-1	LID (A) ASSY, CASSETTE (BLACK) (D60/GR7: E2, MX, AUS/RX70)		10	4-951-620-01	SCREW (2.6X8), +BVTP	
3	X-4948-116-1	LID (A) ASSY, CASSETTE (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		11	3-363-099-01	SCREW (CASE 3 TP2) (3X8)	
4	4-987-936-01	SPRING (A DECK)		12	3-363-099-41	SCREW (CASE 3 TP2) (3X10)	
5	4-986-858-01	PANEL, LOADING (BLACK) (RX70)		* 13	4-986-851-11	CASE (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
5	4-986-858-11	PANEL, LOADING (BLACK) (GR7: E2, MX, AUS)		* 13	4-988-767-11	CASE (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	
5	4-986-858-71	PANEL, LOADING (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		14	1-773-160-11	WIRE (FLAT TYPE) (21 CORE)	
5	4-986-858-91	PANEL, LOADING (BLACK) (D60)		15	1-769-947-11	WIRE (FLAT TYPE) (11 CORE)	
6	4-986-859-01	WINDOW (CD)		16	4-987-939-01	SPRING (OPEN B)	
7	4-962-708-11	EMBLEM (4-A), SONY		17	3-354-957-01	JOINT (LOCK LEVER)	
				* 18	3-354-954-01	LEVER (LOCK LEVER R)	
				* 19	3-354-953-01	LEVER (LOCK LEVER L)	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-986-877-01	KNOB (VOL) (BLACK) (D60/GR7: E2, MX, AUS/RX70)		64	1-777-936-11	WIRE (FLAT TYPE) (5 CORE) (EXCEPT US, CND)	
51	4-986-877-21	KNOB (VOL) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		66	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)	
52	4-986-869-01	WINDOW (STR) (BLACK) (D60/GR7: E2, MX, AUS/RX70)		* 67	1-664-002-11	CD SW BOARD	
52	4-986-869-61	WINDOW (STR) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		* 68	A-4392-339-A	PANEL BOARD, COMPLETE (D60/RX70: US, CND)	
53	4-986-866-01	PANEL, SUB (BLACK) (D60/GR7: E2, MX, AUS/RX70)		* 68	A-4392-340-A	PANEL BOARD, COMPLETE (RX70: AEP, AED, CIS, EE, G)	
53	4-986-866-21	PANEL, SUB (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		* 68	A-4392-341-A	PANEL BOARD, COMPLETE (GR7: E2, E3, EA3, HK, MX, MY, SP, TW, AUS/GR7J)	
54	X-4947-910-1	BUTTON (DJ) ASSY (BLACK) (D60/GR7: E2, MX, AUS/RX70)		* 68	A-4392-846-A	PANEL BOARD, COMPLETE (GR7: EA4, SAF, TH)	
54	X-4948-111-1	BUTTON (DJ) ASSY (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		* 69	A-4392-350-A	TC SW BOARD, COMPLETE (EXCEPT GR7: EA4, SAF, TH)	
55	4-986-893-01	KNOB (MICROPHONE) (BLACK) (D60/GR7: E2, MX, AUS/RX70)		* 69	A-4392-850-A	TC SW BOARD, COMPLETE (GR7: EA4, SAF, TH)	
55	4-986-893-21	KNOB (MICROPHONE) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		* 70	4-986-880-01	HOLDER (JOG)	
* 56	A-4392-351-A	HP/MIC BOARD, COMPLETE (EXCEPT GR7: EA3, EA4, SAF, TH/GR7J)		71	4-986-881-01	JOG (PLATE)	
* 56	A-4392-851-A	HP/MIC BOARD, COMPLETE (GR7: EA4, SAF, TH)		72	X-4947-909-1	KNOB (JOG-T5) ASSY (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
* 56	A-4392-857-A	HP/MIC BOARD, COMPLETE (GR7: EA3/GR7J)		72	X-4948-114-1	KNOB (JOG-T5) ASSY (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	
57	4-951-620-01	SCREW (2.6X8), +BVTP		73	4-986-861-01	BUTTON (PLAY) (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
58	4-986-863-01	INDICATOR (CD) (EXCEPT US, CND)		73	4-986-861-21	BUTTON (PLAY) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	
* 59	4-986-865-01	HOLDER (LED) (EXCEPT US, CND)		74	1-769-909-11	WIRE (FLAT TYPE) (9 CORE)	
* 60	1-664-007-11	DECO BOARD (GR7/GR7J/RX70: AEP, AED, CIS, EE, G, UK)		75	4-986-902-01	BUTTON (B DECK) (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
61	4-986-860-01	BUTTON (POWER) (BLACK) (D60/GR7: E2, MX, AUS/RX70)		75	4-986-902-21	BUTTON (B DECK) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	
61	4-986-860-21	BUTTON (POWER) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		76	4-986-856-01	PANEL, FRONT (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
62	4-986-901-01	BUTTON (A DECK) (BLACK) (D60/GR7: E2, MX, AUS/RX70)		76	X-4948-104-1	PANEL ASSY, FRONT (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	
62	4-986-901-21	BUTTON (A DECK) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)		77	4-930-336-61	FOOT (FELT)	
63	4-986-862-01	BUTTON (CD)		78	X-4947-911-1	BUTTON (T/B) ASSY (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
64	1-777-869-11	WIRE (FLAT TYPE) (10 CORE) (EXCEPT US, CND)		78	X-4948-107-1	BUTTON (T/B) ASSY (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	
64	1-777-871-11	WIRE (FLAT TYPE) (8 CORE) (US, CND)		79	4-986-883-01	INDICATOR (JOG)	
				80	4-986-894-01	BUTTON (GROOVE)	
				81	X-4947-912-1	BUTTON (E/S) ASSY (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
				81	X-4948-110-1	BUTTON (E/S) ASSY (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	
				82	4-986-872-01	BUTTON (TIMER) (BLACK) (D60/GR7: E2, MX, AUS/RX70)	
				82	4-986-872-31	BUTTON (TIMER) (METALLIC) (GR7: E3, EA3, EA4, HK, MY, SAF, SP, TH, TW/GR7J)	

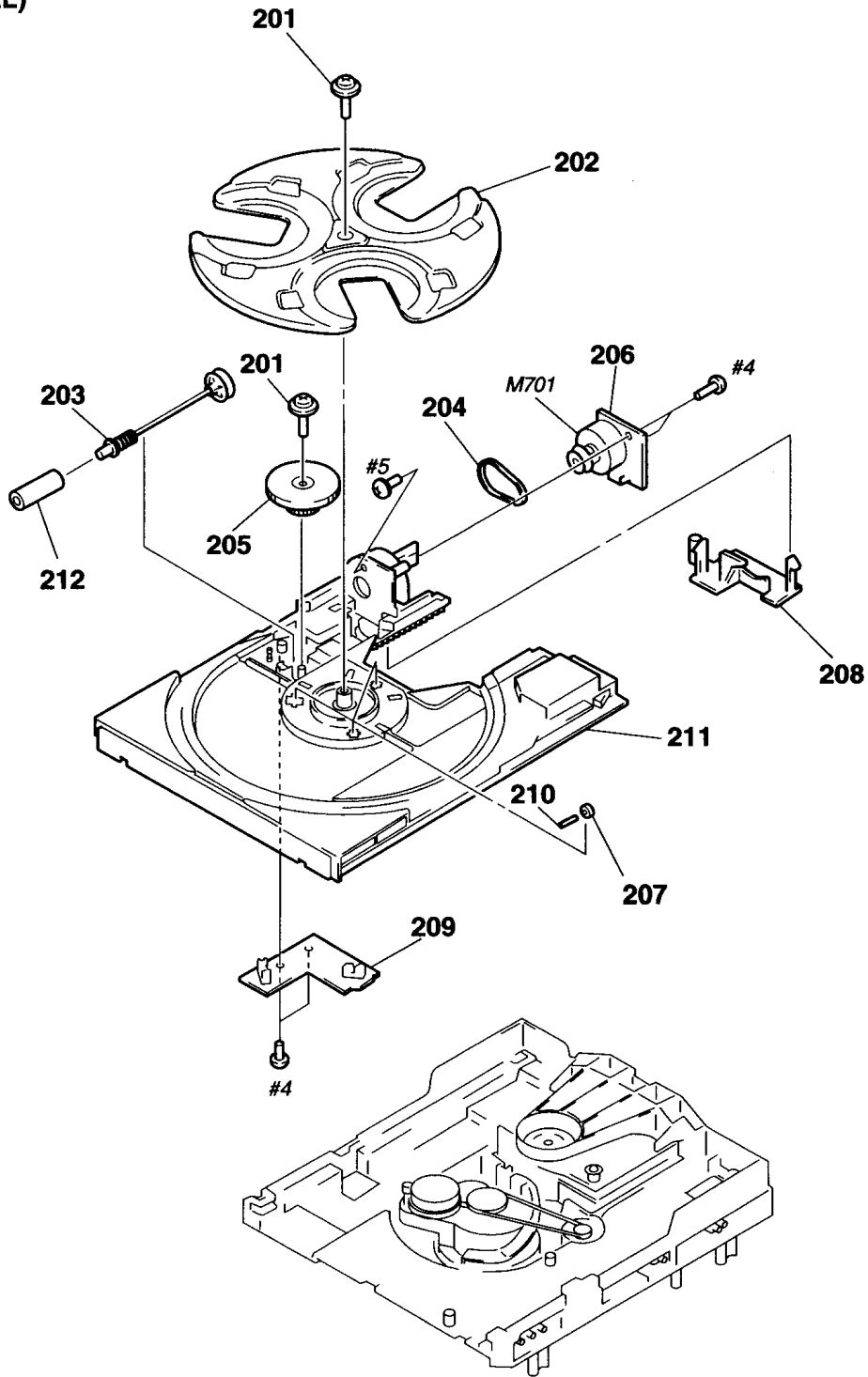
(3) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	A-4392-330-A	POWER AMP BOARD, COMPLETE (D60/RX70: US, CND)		107	3-703-571-11	BUSHING (S) (4516), CORD (GR7: E2, E3, MX, TH)	
* 101	A-4392-331-A	POWER AMP BOARD, COMPLETE (RX70: AEP, AED, CIS, EE, G, UK)		108	1-751-086-11	WIRE (FLAT TYPE) (13 CORE) (D60/GR7: E2, EA4, MX, TH, AUS/RX70: US, CND)	
* 101	A-4392-332-A	POWER AMP BOARD, COMPLETE (GR7: E2, E3, EA3, HK, MX, MY, SP, TW, AUS/GR7J)		108	1-751-688-11	WIRE (FLAT TYPE) (13 CORE) (GR7: E2)	
* 101	A-4392-843-A	POWER AMP BOARD, COMPLETE (GR7: EA4, SAF, TH)		108	1-773-012-11	WIRE (FLAT TYPE) (15 CORE) (GR7: E3, EA3, HK SAF, SP, TW/GR7J/RX70: AEP, AED, CIS, EE, G, UK)	
* 102	1-664-004-11	TRANS BOARD		* 109	4-988-533-01	HOLDER, PCB (EXCEPT GR7: EA4, SAF, TH)	
103	3-701-946-27	LABEL, FUSE RATING (US, CND)		110	4-965-822-01	FOOT	
104	1-777-870-11	WIRE (FLAT TYPE) (19 CORE)		* 111	A-4392-315-A	MAIN BOARD, COMPLETE (RX70: US)	
* 105	4-986-844-01	PANEL, BACK (RX70: US)		* 111	A-4392-316-A	MAIN BOARD, COMPLETE (RX70: AEP, AED, G, UK)	
* 105	4-986-844-11	PANEL, BACK (RX70: CND)		* 111	A-4392-317-A	MAIN BOARD, COMPLETE (GR7: E3, EA3, HK, MY, SP, TW/GR7J)	
* 105	4-986-844-21	PANEL, BACK (RX70: AEP, AED, G, UK)		* 111	A-4392-711-A	MAIN BOARD, COMPLETE (RX70: CND)	
* 105	4-986-844-31	PANEL, BACK (RX70: CIS, EE)		* 111	A-4392-712-A	MAIN BOARD, COMPLETE (RX70: CIS, EE)	
* 105	4-986-844-71	PANEL, BACK (D60)		* 111	A-4392-713-A	MAIN BOARD, COMPLETE (GR7: E2, MX)	
* 105	4-988-019-01	PANEL, BACK (GR7: E3)		* 111	A-4392-714-A	MAIN BOARD, COMPLETE (GR7: AUS)	
* 105	4-988-019-11	PANEL, BACK (GR7: E2)		* 111	A-4392-806-A	MAIN BOARD, COMPLETE (D60)	
* 105	4-988-019-21	PANEL, BACK (GR7: MY, SP)		* 111	A-4392-837-A	MAIN BOARD, COMPLETE (GR7: EA4, TH)	
* 105	4-988-019-31	PANEL, BACK (GR7: EA3, TW/GR7J)		* 111	A-4392-854-A	MAIN BOARD, COMPLETE (GR7: SAF)	
* 105	4-988-019-41	PANEL, BACK (GR7: HK)		112	4-956-370-12	BAND, PLUG FIXED (GR7: HK, AUS/RX70: UK)	
* 105	4-988-019-51	PANEL, BACK (GR7: AUS)		△ 113	1-751-326-31	CORD, POWER (TH)	
* 105	4-988-019-61	PANEL, BACK (GR7: MX)		△ 114	1-690-609-21	CORD, POWER (US, CND)	
* 105	4-988-019-71	PANEL, BACK (GR7: EA4, SAF, TH)		△ 115	1-575-653-11	CORD, POWER (E2, E3, MX)	
* 106	A-4303-574-A	TCB BOARD, COMPLETE (RX70: AEP, AED, G, UK)		△ 116	1-569-007-11	ADAPTOR, CONVERSION 2P (E3)	
106	1-233-514-11	ENCAPSULATED COMPONENT (RX70: CIS, EE)		△ 117	1-569-008-11	ADAPTOR, CONVERSION 2P (EA3, MY, SP, TW)	
106	1-233-544-11	ENCAPSULATED COMPONENT (D60/RX70: US, CND)		△ 118	1-575-651-11	CORD, POWER (EA3, EA4, HK, MY, SAF, SP, TW)	
106	1-233-545-11	ENCAPSULATED COMPONENT (GR7: E2, EA4, MX, TH, AUS)		△ 118	1-575-651-21	CORD, POWER (AEP, AED, CIS, EE, G)	
106	1-233-546-11	ENCAPSULATED COMPONENT (GR7: E3, EA3, HK, MY, SAF, SP, TW/GR7J)		△ 119	1-690-608-11	CORD, POWER (AUS)	
* 107	3-703-244-00	BUSHING (2104), CORD (EXCEPT GR7: E2, E3, MX, TH)		△ 120	1-751-529-11	CORD, POWER (UK)	
				△ 121	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
				M901	1-698-792-11	FAN, DC (D60/GR7/GR7J/RX70: US, CND)	
				△ T901	1-429-997-11	TRANSFORMER, POWER (D60/RX70: US)	
				△ T901	1-429-998-11	TRANSFORMER, POWER (RX70: AEP, AED, CIS, EE, G, UK)	
				△ T901	1-429-999-11	TRANSFORMER, POWER (GR7/GR7J)	
				△ T901	1-431-148-11	TRANSFORMER, POWER (RX70: CND)	

<p>The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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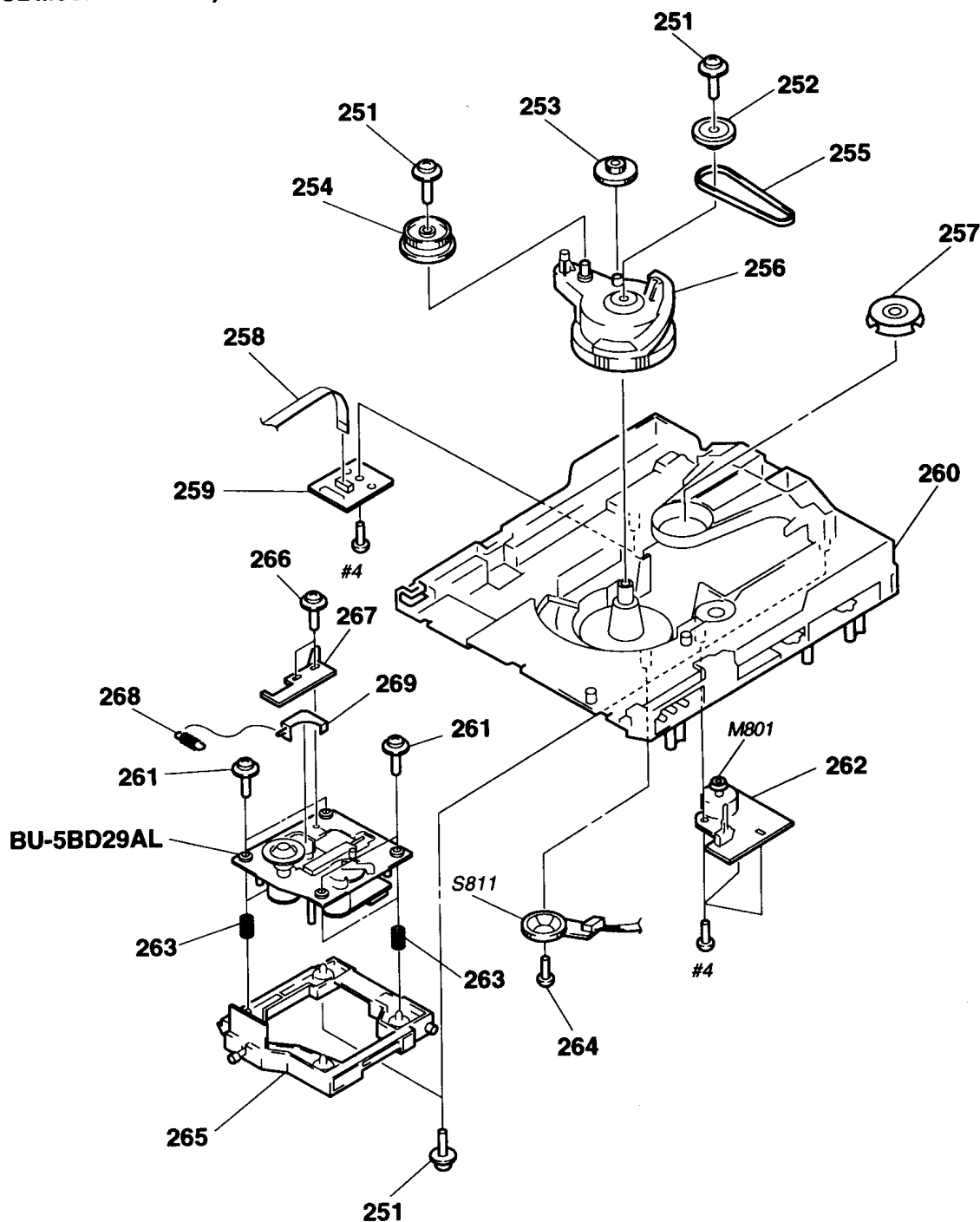
**(4) CD MECHANISM DECK SECTION-1
(CDM38L-58D29AL)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-917-583-21	BRACKET, YOKE		208	4-977-941-01	BEARING (WORM)	
202	4-977-945-01	TRAY (TURN)		* 209	1-658-576-11	SENSOR BOARD	
203	X-4946-665-1	SHAFT ASSY, WORM		210	4-934-376-01	SHAFT (ROLLER)	
204	4-977-943-01	BELT (TURN) (1.2)		211	4-977-944-01	TRAY (SLIDE)	
205	4-977-956-01	WHEEL, WORM		212	4-981-187-01	COLLAR (WORM)	
* 206	1-658-577-11	MOTOR (TURN) BOARD		M701	A-4672-004-A	MOTOR ASSY (TURN)	
207	X-4924-457-1	ROLLER ASSY					

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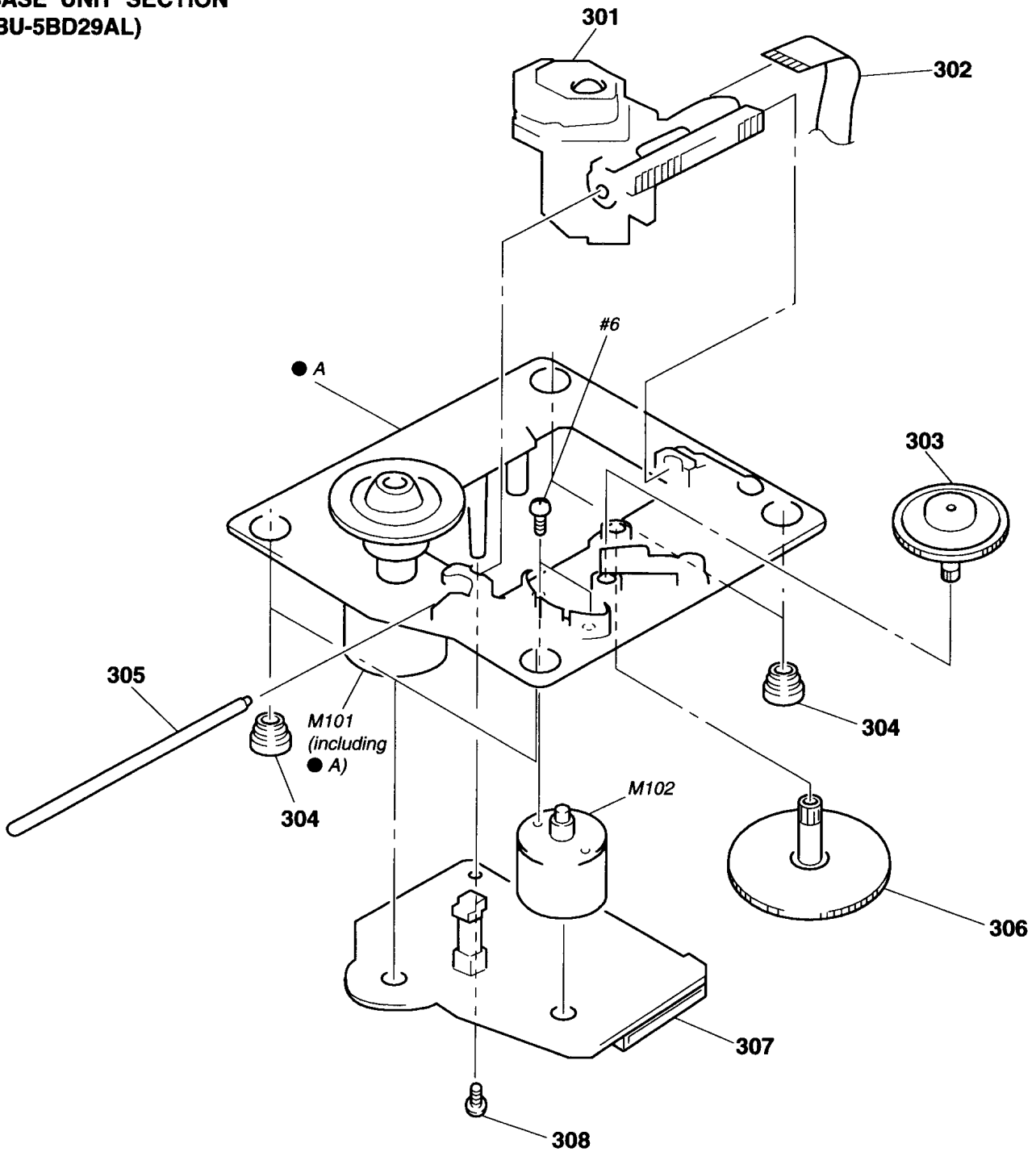
(5) CD MECHANISM DECK SECTION-2
(CDM38L-58D29AL)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-917-583-71	BRACKET, YOKE		* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
252	4-977-954-01	PULLEY (SL)		263	4-982-447-01	SPRING (BU), COMPRESSION	
253	4-977-953-01	GEAR (SL-A)		264	4-951-620-41	SCREW (2.6), +BVTP	
254	4-977-955-01	GEAR (SL-B)		* 265	X-4946-666-1	HOLDER (BU) ASSY	
255	4-977-942-01	BELT (SL) (1.4)		266	4-989-494-01	SCREW (SLIDER), STEP	
256	X-4946-667-1	CAM ASSY, BU		267	4-989-492-11	SLIDER (38)	
257	1-452-538-11	MAGNET		268	4-989-819-01	SPRING, TENSION	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)		269	4-989-491-11	COVER, LENS	
* 259	1-658-575-11	CONNECTOR BOARD		M801	A-4672-004-A	MOTOR ASSY (SLED)	
* 260	X-4946-668-1	CHASSIS (CDM) ASSY		S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING					

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**(6) BASE UNIT SECTION
(BU-5BD29AL)**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
△ 301	8-820-020-01	OPTICAL PICK-UP KSS-213D/Q-NP		306	4-917-564-01	GEAR (P), FLATNESS	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)		* 307	A-4699-515-A	BD BOARD, COMPLETE	
303	4-917-567-01	GEAR (M)		308	4-951-620-01	SCREW (2.6X8), +BVTP	
304	4-951-940-01	INSULATOR (BU)		M101	X-4917-523-4	MOTOR ASSY SPINDLE	
305	4-917-565-01	SHAFT, SLED		M102	X-4917-504-1	MOTOR ASSY SLED	

The components identified by mark △ or dotted line with mark △ 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.

RTV servis Horvat

Kešinci, 31402 Semeljci

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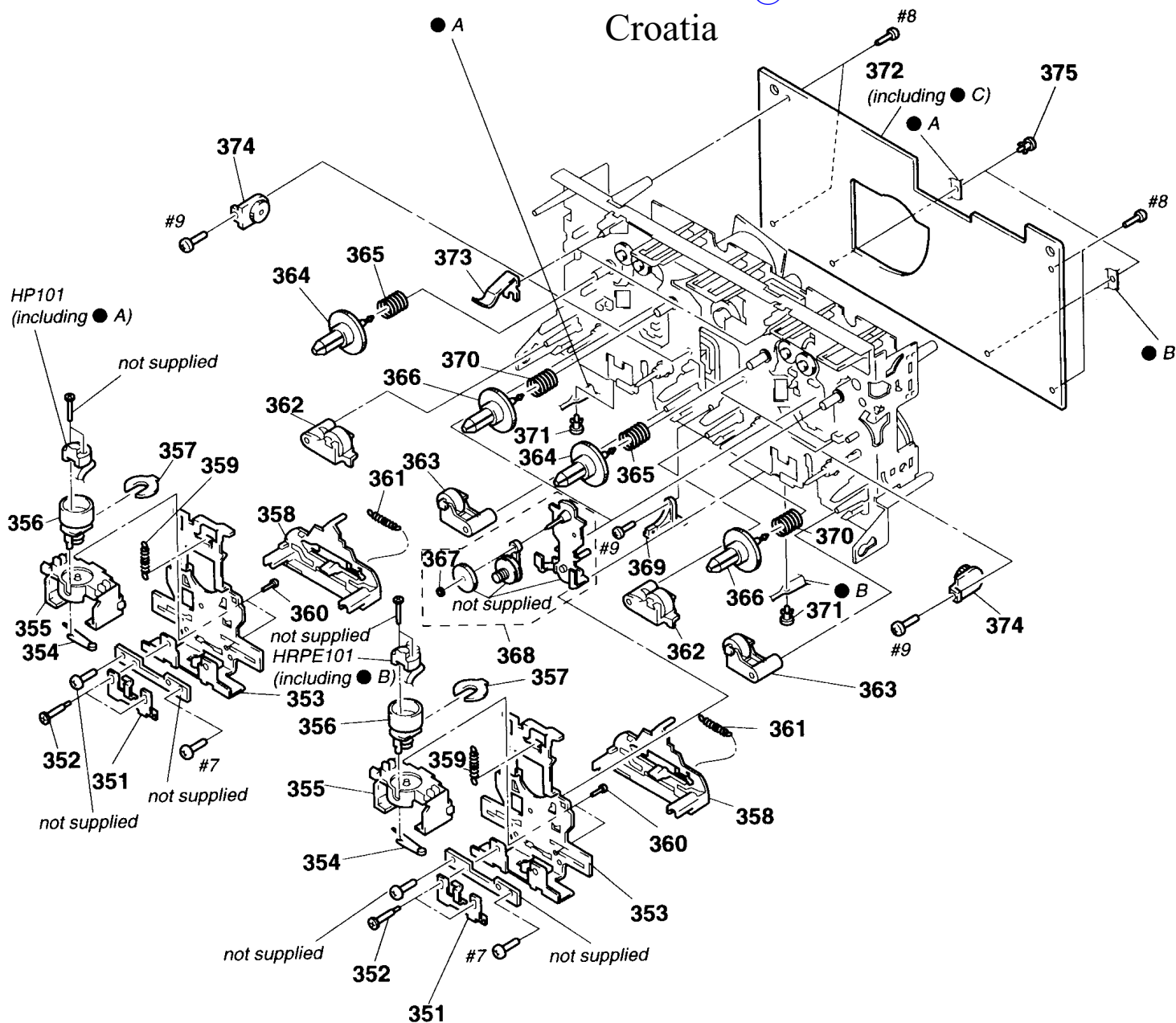
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(7) TAPE MECHANISM DECK SECTION-1 (TCM-220WR2)

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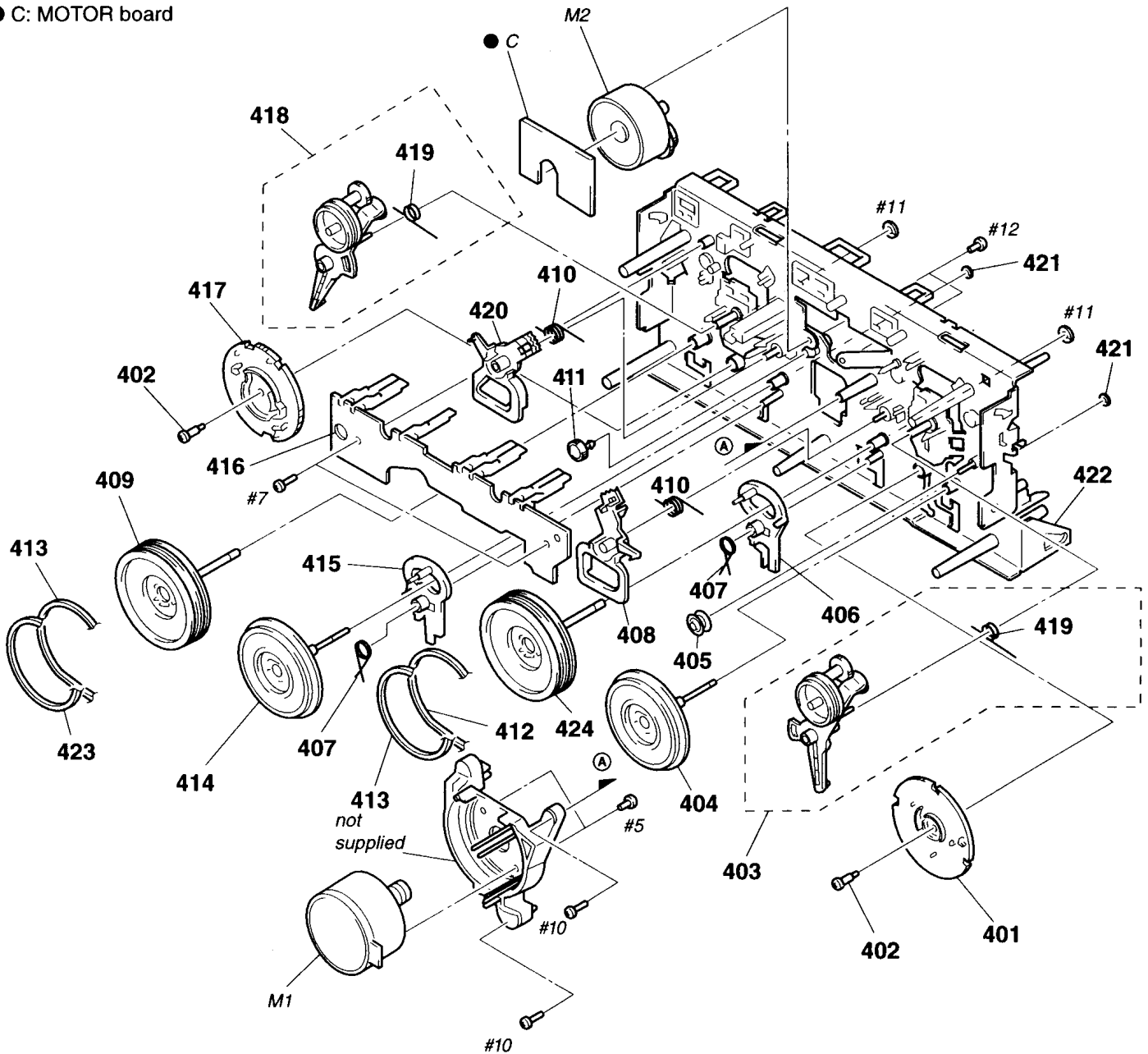
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	3-908-560-01	SPRING, AZIMUTH ADJUSTMENT		365	3-917-141-01	SPRING, COMPRESSION	
352	3-919-684-01	SCREW, AZIMUTH ADJUSTMENT		366	X-3371-305-1	REEL (T) ASSY	
353	X-3373-113-1	SLIDER (HEAD) ASSY		367	3-669-465-01	WASHER (1.5), STOPPER	
354	3-908-556-01	SPRING, HEAD TOGGLE		368	X-3370-173-1	TU ASSY	
355	3-908-558-02	FITTING BLOCK, HEAD		* 369	4-980-439-01	FULCRUM, HOLDER	
356	3-908-557-02	ROTARY BLOCK, HEAD		370	3-917-142-01	SPRING, COMPRESSION	
* 357	3-908-559-01	STOPPER, AZIMUTH		371	3-911-116-21	RIVET, PUSH	
358	3-908-555-01	SLIDER (REV SLIDER)		* 372	A-2007-131-A	AUDIO BOARD, COMPLETE	
359	3-917-143-11	SPRING, TENSION		373	3-930-972-01	DETENT, HALF	
360	3-388-848-01	SCREW (P2X6) (B TIGHT)		374	3-354-963-01	DAMPER	
361	3-939-371-01	SPRING (1), TENSION		375	3-911-116-11	RIVET, PUSH	
362	X-3369-909-1	PINCH LEVER (REV) ASSY		HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK) (DECK A)	
363	X-3369-908-1	PINCH LEVER (FWD) ASSY		HRPE101	1-500-094-11	HEAD, MAGNETIC (REC/PB/ERASE) (DECK B)	
364	3-908-613-01	GEAR (S), REEL					

**(8) TAPE MECHANISM DECK SECTION-2
(TCM-220WR2)**

● C: MOTOR board



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
401	3-908-597-01	CAM (A)		414	X-3370-171-1	FLYWHEEL (BR) ASSY	
402	3-908-608-11	SCREW, STEP		415	3-908-600-01	LEVER (REV-B)	
403	X-3372-930-1	ARM (A) ASSY, FR		* 416	1-650-669-11	LEAF SWITCH BOARD	
404	X-3370-169-1	FLYWHEEL (AR) ASSY		417	3-908-598-01	CAM (B)	
405	3-928-047-01	PULLEY, TENSION		418	X-3372-931-1	ARM (B) ASSY, FR	
406	3-908-599-01	LEVER (REV-A)		419	3-914-111-01	SPRING (FR), TORSION	
407	3-908-601-01	SPRING (REV LEVER), TORSION		420	3-908-604-01	LEVER (TRIGGER B)	
408	3-908-603-01	LEVER (TRIGGER A)		421	3-911-115-01	WASHER, STOPPER	
409	X-3367-593-1	FLYWHEEL (BF) ASSY		422	X-3371-441-1	CHASSIS ASSY, MECHANICAL	
410	3-908-605-01	SPRING (TRIGGER), TORSION		423	3-917-176-11	BELT (B)	
411	3-908-609-01	GEAR, TRIGGER		424	X-3370-172-1	FLYWHEEL (AF) ASSY	
412	3-913-845-11	BELT (A)		M1	X-3371-223-1	MOTOR ASSY, CAPSTAN	
413	3-913-846-11	BELT (FR)		M2	A-2004-410-A	MOTOR ASSY, DC (TRIGGER)	

SECTION 8 ELECTRICAL PARTS LIST

AUDIO

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

- -XX and -X mean standardized parts, so they may have some difference from the original one.

RESISTORS

All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

SEMICONDUCTORS

In each case, u: μ , for example:
uA... : μ A... uPA... : μ PA...
uPB... : μ PB... uPC... : μ PC...
uPD... : μ PD...

CAPACITORS

uF: μ F

COILS

uH: μ H

Abbreviation

AED : Northern European model
AUS : Australian
CND : Canadian
EA3 : Saudi Arabia
EA4 : Israeli

EE : East European
E2 : 120V AC Area in E model
E3 : 240V AC Area in E model
G : German
HK : Hong Kong

MX : Mexican
MY : Malaysia
SAF : South African
SP : Singapore
TH : Thailand
TW : Taiwan

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

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-2007-131-A	AUDIO BOARD, COMPLETE *****					
		< CAPACITOR >					
C301	1-162-289-31	CERAMIC	390PF 10% 50V				
C302	1-126-968-11	ELECT	100uF 20% 6.3V				
C303	1-162-282-31	CERAMIC	100PF 10% 50V				
C304	1-130-483-00	MYLAR	0.01uF 5% 50V				
C305	1-107-715-11	ELECT	22uF 20% 16V				
C311	1-162-289-31	CERAMIC	390PF 10% 50V				
C313	1-162-282-31	CERAMIC	100PF 10% 50V				
C314	1-130-487-00	MYLAR	0.022uF 5% 50V				
C315	1-126-233-11	ELECT	22uF 20% 50V				
C331	1-137-427-11	FILM	120PF 5% 50V				
C332	1-162-288-31	CERAMIC	330PF 10% 50V				
C333	1-162-209-31	CERAMIC	27PF 5% 50V				
C401	1-162-289-31	CERAMIC	390PF 10% 50V				
C402	1-126-968-11	ELECT	100uF 20% 6.3V				
C403	1-162-282-31	CERAMIC	100PF 10% 50V				
C404	1-130-483-00	MYLAR	0.01uF 5% 50V				
C405	1-107-715-11	ELECT	22uF 20% 16V				
C411	1-162-289-31	CERAMIC	390PF 10% 50V				
C413	1-162-282-31	CERAMIC	100PF 10% 50V				
C414	1-130-487-00	MYLAR	0.022uF 5% 50V				
C415	1-126-233-11	ELECT	22uF 20% 50V				
C431	1-137-427-11	FILM	120PF 5% 50V				
C432	1-162-288-31	CERAMIC	330PF 10% 50V				
C433	1-162-209-31	CERAMIC	27PF 5% 50V				
C601	1-104-396-11	ELECT	10uF 20% 16V				
C602	1-104-396-11	ELECT	10uF 20% 16V				
C611	1-124-907-11	ELECT	10uF 20% 50V				
C612	1-124-907-11	ELECT	10uF 20% 50V				
C621	1-137-150-11	FILM	0.01uF 5% 100V				
C622	1-126-961-11	ELECT	2.2uF 20% 50V				
C623	1-136-155-00	FILM	0.015uF 5% 50V				
C624	1-130-481-00	MYLAR	0.0068uF 5% 50V				
		< CONNECTOR >					
		* CN601	1-568-864-11	SOCKET, CONNECTOR 21P			
		CN602	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P			
		* CN651	1-564-521-11	PLUG, CONNECTOR 6P			
		< IC >					
		IC601	8-759-111-44	IC uPC4570C-1			
		IC602	8-759-143-54	IC uPC1330HA			
		IC611	8-759-111-44	IC uPC4570C-1			
		< COIL >					
		L331	1-410-780-11	INDUCTOR 27mH			
		L431	1-410-780-11	INDUCTOR 27mH			
		< TRANSISTOR >					
		Q621	8-729-142-46	TRANSISTOR 2SC2001-LK			
		Q622	8-729-142-46	TRANSISTOR 2SC2001-LK			
		Q623	8-729-801-93	TRANSISTOR 2SD1387			
		Q651	8-729-900-65	TRANSISTOR DTA144ES			
		< RESISTOR >					
		R301	1-247-881-00	CARBON 120K 5% 1/4W			
		R302	1-249-409-11	CARBON 220 5% 1/4W			
		R303	1-249-433-11	CARBON 22K 5% 1/4W			
		R304	1-247-889-00	CARBON 270K 5% 1/4W			
		R305	1-247-858-11	CARBON 13K 5% 1/4W			
		R311	1-247-881-00	CARBON 120K 5% 1/4W			
		R312	1-247-807-31	CARBON 100 5% 1/4W			
		R314	1-247-882-11	CARBON 130K 5% 1/4W			
		R315	1-247-850-11	CARBON 6.2K 5% 1/4W			
		R331	1-249-430-11	CARBON 12K 5% 1/4W			

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R401	1-247-881-00	CARBON	120K	5%	1/4W	C108	1-164-232-11	CERAMIC CHIP	0.01uF		50V
R402	1-249-409-11	CARBON	220	5%	1/4W	C109	1-164-232-11	CERAMIC CHIP	0.01uF		50V
R403	1-249-433-11	CARBON	22K	5%	1/4W	C110	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V
R404	1-247-889-00	CARBON	270K	5%	1/4W	C111	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
R405	1-247-858-11	CARBON	13K	5%	1/4W						
R411	1-247-881-00	CARBON	120K	5%	1/4W	C112	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
R412	1-247-807-31	CARBON	100	5%	1/4W	C113	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
R414	1-247-882-11	CARBON	130K	5%	1/4W	C114	1-164-005-11	CERAMIC CHIP	0.47uF		25V
R415	1-247-850-11	CARBON	6.2K	5%	1/4W	C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
R431	1-249-430-11	CARBON	12K	5%	1/4W	C116	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
R601	1-249-409-11	CARBON	220	5%	1/4W	C117	1-164-005-11	CERAMIC CHIP	0.47uF		25V
R602	1-249-409-11	CARBON	220	5%	1/4W	C118	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
R608	1-249-409-11	CARBON	220	5%	1/4W	C119	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R609	1-249-433-11	CARBON	22K	5%	1/4W	C120	1-124-779-00	ELECT CHIP	10uF	20%	16V
R611	1-249-409-11	CARBON	220	5%	1/4W	C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R612	1-249-409-11	CARBON	220	5%	1/4W	C122	1-164-232-11	CERAMIC CHIP	0.01uF		50V
△R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W	C123	1-163-038-91	CERAMIC CHIP	0.1uF		25V
△R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W	C124	1-126-607-11	ELECT CHIP	47uF	20%	4V
R623	1-249-432-11	CARBON	18K	5%	1/4W	C125	1-164-232-11	CERAMIC CHIP	0.01uF		50V
R624	1-249-432-11	CARBON	18K	5%	1/4W	C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R625	1-249-429-11	CARBON	10K	5%	1/4W	C127	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
R651	1-247-856-00	CARBON	11K	5%	1/4W	C128	1-163-135-00	CERAMIC CHIP	560PF	5%	50V
R652	1-247-856-00	CARBON	11K	5%	1/4W	C129	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R653	1-249-441-11	CARBON	100K	5%	1/4W	C130	1-164-336-11	CERAMIC CHIP	0.33uF		25V
						C131	1-164-346-11	CERAMIC CHIP	1uF		16V
		< VARIABLE RESISTOR >				C140	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K				C154	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K				C161	1-164-005-11	CERAMIC CHIP	0.47uF		25V
RV341	1-238-551-11	RES, ADJ, CARBON 220K				C162	1-164-232-11	CERAMIC CHIP	0.01uF		50V
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K				C163	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K									
RV441	1-238-551-11	RES, ADJ, CARBON 220K				C164	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
RV651	1-238-599-11	RES, ADJ, CARBON 4.7K				C165	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
RV652	1-238-599-11	RES, ADJ, CARBON 4.7K				C166	1-163-137-00	CERAMIC CHIP	680PF	5%	50V
		< TRANSFORMER >				C167	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION				C168	1-163-137-00	CERAMIC CHIP	680PF	5%	50V

*	A-4699-515-A	BD BOARD, COMPLETE				C169	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
		*****				C170	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
		< CAPACITOR >				C171	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C101	1-126-607-11	ELECT CHIP	47uF	20%	4V	C173	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C102	1-163-141-00	CERAMIC CHIP	0.001uF	5%	50V	C174	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C103	1-164-346-11	CERAMIC CHIP	1uF		16V						
C105	1-163-038-91	CERAMIC CHIP	0.1uF		25V	C175	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C106	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	C176	1-163-038-91	CERAMIC CHIP	0.1uF		25V
						C177	1-163-038-91	CERAMIC CHIP	0.1uF		25V
C107	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V	C178	1-163-038-91	CERAMIC CHIP	0.1uF		25V
						C179	1-163-038-91	CERAMIC CHIP	0.1uF		25V
						C181	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
						C182	1-126-393-11	ELECT	33uF	20%	10V
						C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
						C185	1-164-232-11	CERAMIC CHIP	0.01uF		50V
						C188	1-163-235-11	CERAMIC CHIP	22PF	5%	50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C189	1-163-235-11	CERAMIC CHIP 22PF 5% 50V		R132	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
		< CONNECTOR >		R133	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
CNU101	1-777-937-11	CONNECTOR, FFC/FPC 16P		R134	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
CNU102	1-778-874-11	CONNECTOR,FFC(LIF(NON-ZIF))19P		R135	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
		< FERRITE BEAD >		R136	1-216-073-00	METAL CHIP 10K 5% 1/10W	
FB101	1-414-234-11	INDUCTOR, FERRITE BEAD		R137	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
FB103	1-414-234-11	INDUCTOR, FERRITE BEAD		R138	1-216-025-91	METAL GLAZE 100 5% 1/10W	
		< IC >		R156	1-216-081-00	METAL CHIP 22K 5% 1/10W	
IC101	8-752-080-62	IC CXA1992AR		R157	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
IC102	8-759-429-32	IC BA5941FP-E2		R158	1-216-001-00	METAL CHIP 10 5% 1/10W	
IC103	8-752-378-66	IC CXD2519Q					
		< CHIP CONDUCTOR >		R159	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
JW101	1-216-295-00	CONDUCTOR, CHIP (2012)		R161	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
JW104	1-216-295-00	CONDUCTOR, CHIP (2012)		R162	1-216-073-00	METAL CHIP 10K 5% 1/10W	
		< TRANSISTOR >		R163	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
Q101	8-729-010-08	TRANSISTOR MSB710-R		R164	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
		< RESISTOR >					
R102	1-216-001-00	METAL CHIP 10 5% 1/10W		R165	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R104	1-216-093-00	METAL CHIP 68K 5% 1/10W		R166	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R105	1-216-088-00	METAL CHIP 43K 5% 1/10W		R167	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R106	1-216-088-00	METAL CHIP 43K 5% 1/10W		R168	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R107	1-216-088-00	METAL CHIP 43K 5% 1/10W		R169	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R108	1-216-088-00	METAL CHIP 43K 5% 1/10W					
R109	1-216-093-00	METAL CHIP 68K 5% 1/10W		R170	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R114	1-216-101-00	METAL CHIP 150K 5% 1/10W		R171	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R115	1-216-101-00	METAL CHIP 150K 5% 1/10W		R172	1-216-079-00	METAL CHIP 18K 5% 1/10W	
R116	1-216-061-00	METAL CHIP 3.3K 5% 1/10W		R173	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R117	1-216-069-00	METAL CHIP 6.8K 5% 1/10W		R174	1-216-033-00	METAL CHIP 220 5% 1/10W	
R118	1-216-063-00	METAL CHIP 3.9K 5% 1/10W					
R119	1-216-085-00	METAL CHIP 33K 5% 1/10W		R175	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R120	1-216-089-91	METAL GLAZE 47K 5% 1/10W		R176	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R121	1-216-114-00	METAL GLAZE 510K 5% 1/10W		R177	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R122	1-216-097-91	METAL GLAZE 100K 5% 1/10W		R178	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R123	1-216-099-00	METAL CHIP 120K 5% 1/10W		R179	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R124	1-216-091-00	METAL CHIP 56K 5% 1/10W					
R125	1-216-069-00	METAL CHIP 6.8K 5% 1/10W		R180	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R126	1-216-063-91	METAL GLAZE 3.9K 5% 1/10W		R181	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R127	1-216-089-91	METAL GLAZE 47K 5% 1/10W		R188	1-216-037-00	METAL CHIP 330 5% 1/10W	
R128	1-216-098-00	METAL CHIP 110K 5% 1/10W		R190	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
R129	1-216-025-91	METAL GLAZE 100 5% 1/10W		R191	1-216-105-91	METAL GLAZE 220K 5% 1/10W	
R130	1-216-079-00	METAL CHIP 18K 5% 1/10W					
R131	1-216-079-00	METAL CHIP 18K 5% 1/10W					
		< SWITCH >		S101	1-572-085-11	SWITCH, LEAF (LIMIT)	
		< VIBRATOR >					
		X101					
		1-767-408-21					
		VIBRATOR, CRYSTAL (16.9344MHz)					

CD SW

CONNECTOR

DECO

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4392-348-A	CD SW BOARD, COMPLETE ***** (EXCEPT D60/GR7: EA4, SAF, TH/RX70: US, CND)		R719	1-247-804-11	CARBON 75 5% 1/4W	
*	A-4392-349-A	CD SW BOARD, COMPLETE ***** (D60/RX70: US, CND)		R720	1-247-804-11	CARBON 75 5% 1/4W	
*	A-4392-849-A	CD SW BOARD, COMPLETE (GR7: EA4, SAF, TH) *****		R721	1-247-804-11	CARBON 75 5% 1/4W	
		< CONNECTOR >		R722	1-247-804-11	CARBON 75 5% 1/4W	
* CN602	1-568-824-11	SOCKET, CONNECTOR 5P (EXCEPT D60/RX70: US, CND)		R723	1-247-804-11	CARBON 75 5% 1/4W	
* CN606	1-568-851-11	SOCKET, CONNECTOR 8P (D60/RX70: US, CND)		R724	1-247-807-31	CARBON 100 5% 1/4W	
CN606	1-568-853-11	SOCKET, CONNECTOR 10P (EXCEPT D60/RX70: US, CND)		R725	1-247-807-31	CARBON 100 5% 1/4W	
		< DIODE >		R791	1-247-804-11	CARBON 75 5% 1/4W	
D626	8-719-056-13	DIODE SML79423C-TP15 (DISC IN/PLAY: DISC 1)		R792	1-247-804-11	CARBON 75 5% 1/4W	
D627	8-719-056-13	DIODE SML79423C-TP15 (DISC IN/PLAY: DISC 1)		R793	1-247-804-11	CARBON 75 5% 1/4W	
D628	8-719-056-13	DIODE SML79423C-TP15 (DISC IN/PLAY: DISC 2)		R794	1-247-804-11	CARBON 75 5% 1/4W	
D629	8-719-056-13	DIODE SML79423C-TP15 (DISC IN/PLAY: DISC 2)		R795	1-247-804-11	CARBON 75 5% 1/4W	
D630	8-719-056-13	DIODE SML79423C-TP15 (DISC IN/PLAY: DISC 3)		R796	1-247-804-11	CARBON 75 5% 1/4W	
D631	8-719-056-13	DIODE SML79423C-TP15 (DISC IN/PLAY: DISC 3)				< SWITCH >	
D632	8-719-058-03	DIODE SEL5423E-TP15 (PLAY)		S645	1-762-196-21	SWITCH, TACT (POWER)	
D633	8-719-063-91	DIODE SLR325DC-P-T32 (PAUSE)		S646	1-762-196-21	SWITCH, TACT (◀◀ ◀◀)	
		< TRANSISTOR >		S647	1-762-196-21	SWITCH, TACT (▶▶ ▶▶)	
Q612	8-729-119-76	TRANSISTOR 2SA1175-HFE		S648	1-762-196-21	SWITCH, TACT (DISC SKIP EX-CHANGE)	
Q613	8-729-119-76	TRANSISTOR 2SA1175-HFE		S649	1-762-196-21	SWITCH, TACT (DISC 1)	
Q614	8-729-119-76	TRANSISTOR 2SA1175-HFE		S650	1-762-196-21	SWITCH, TACT (DISC 2)	
Q616	8-729-119-76	TRANSISTOR 2SA1175-HFE		S651	1-762-196-21	SWITCH, TACT (DISC 3)	
		< RESISTOR >		S652	1-762-196-21	SWITCH, TACT (■)	
R709	1-249-401-11	CARBON 47 5% 1/4W		S653	1-762-196-21	SWITCH, TACT (⊕ OPEN/CLOSE)	
R710	1-249-413-11	CARBON 470 5% 1/4W		S654	1-762-196-21	SWITCH, TACT (▷▶)	
R711	1-247-815-91	CARBON 220 5% 1/4W		*****			
R712	1-249-411-11	CARBON 330 5% 1/4W		* 1-658-575-11	CONNECTOR BOARD		
R713	1-249-413-11	CARBON 470 5% 1/4W			*****		
R714	1-249-415-11	CARBON 680 5% 1/4W			< CONNECTOR >		
R715	1-249-417-11	CARBON 1K 5% 1/4W		* CN701	1-568-946-11	PIN, CONNECTOR 8P	
R716	1-249-419-11	CARBON 1.5K 5% 1/4W		CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P	
R717	1-249-421-11	CARBON 2.2K 5% 1/4W				< TRANSISTOR >	
R718	1-247-804-11	CARBON 75 5% 1/4W		Q701	8-729-900-80	TRANSISTOR DTC114ES	
						< RESISTOR >	
				R703	1-249-435-11	CARBON 33K 5% 1/4W	
				R704	1-249-429-11	CARBON 10K 5% 1/4W	
				R705	1-249-417-11	CARBON 1K 5% 1/4W	

				* 1-664-007-11	DECO BOARD		

					(GR7/GR7J/RX70: AEP, AED, CIS, EE, G, UK)		
					< CONNECTOR >		
				* CN605	1-568-848-11	SOCKET, CONNECTOR 5P	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< DIODE >		C764	1-126-964-11	ELECT	10uF 20% 50V
				C765	1-126-960-11	ELECT	1uF 20% 50V (GR7: EA3/GR7J)
D619	8-719-058-04	DIODE SEL5223S-TP15 (RIGHT)		C766	1-162-305-11	CERAMIC	0.0068uF 20% 16V (GR7: EA3/GR7J)
D620	8-719-058-04	DIODE SEL5223S-TP15 (RIGHT)		C767	1-162-294-31	CERAMIC	0.001uF 10% 50V (GR7: EA3/GR7J)
D621	8-719-058-04	DIODE SEL5223S-TP15 (CENTER)		C768	1-136-495-11	FILM	0.068uF 5% 50V (GR7: EA3/GR7J)
D622	8-719-058-03	DIODE SEL5423E-TP15 (CENTER)					
D623	8-719-058-04	DIODE SEL5223S-TP15 (CENTER)		C769	1-124-464-11	ELECT	0.22uF 20% 50V (GR7: EA3/GR7J)
D624	8-719-058-04	DIODE SEL5223S-TP15 (LEFT)		C770	1-124-464-11	ELECT	0.22uF 20% 50V (GR7: EA3/GR7J)
D625	8-719-058-04	DIODE SEL5223S-TP15 (LEFT)		C771	1-126-967-11	ELECT	47uF 20% 10V (GR7: EA3/GR7J)
		< TRANSISTOR >		C772	1-164-159-11	CERAMIC	0.1uF 50V (GR7: EA3/GR7J)
Q610	8-729-119-76	TRANSISTOR 2SA1175-HFE		C773	1-104-664-11	ELECT	47uF 20% 25V (GR7: EA3/GR7J)
Q611	8-729-119-76	TRANSISTOR 2SA1175-HFE					
		< RESISTOR >		C774	1-136-495-11	FILM	0.068uF 5% 50V (GR7: EA3/GR7J)
R706	1-247-807-31	CARBON 100 5% 1/4W		C775	1-162-305-11	CERAMIC	0.0068uF 20% 16V (GR7: EA3/GR7J)
R707	1-247-807-31	CARBON 100 5% 1/4W		C776	1-162-294-31	CERAMIC	0.001uF 10% 50V (GR7: EA3/GR7J)
R708	1-247-807-31	CARBON 100 5% 1/4W		C777	1-136-167-00	FILM	0.15uF 5% 50V (GR7: EA3/GR7J)
R746	1-247-807-31	CARBON 100 5% 1/4W		C778	1-126-960-11	ELECT	1uF 20% 50V (GR7: EA3/GR7J)

*	A-4392-351-A	HP/MIC BOARD, COMPLETE		C779	1-161-494-00	CERAMIC	0.022uF 25V (GR7: EA3/GR7J)
		*****		C780	1-126-961-11	ELECT	2.2uF 20% 50V (GR7: EA3/GR7J)
		(EXCEPT GR7: EA3, EA4, SAF, TH/GR7J)		C782	1-162-290-31	CERAMIC	470PF 10% 50V
*	A-4392-851-A	HP/MIC BOARD, COMPLETE					

		(GR7:EA4, SAF, TH)					
*	A-4392-857-A	HP/MIC BOARD, COMPLETE (GR7: EA3/GR7J)					

		< CAPACITOR >					
C750	1-162-294-31	CERAMIC 0.001uF 10% 50V					
C751	1-162-294-31	CERAMIC 0.001uF 10% 50V					
C752	1-164-159-11	CERAMIC 0.1uF 50V					
		(EXCEPT GR7: EA4, SAF, TH)					
C752	1-164-159-21	CERAMIC 0.1uF 50V					
		(GR7: EA4, SAF, TH)					
C753	1-164-159-11	CERAMIC 0.1uF 50V					
		(EXCEPT GR7: EA4, SAF, TH)					
C753	1-164-159-21	CERAMIC 0.1uF 50V					
		(GR7: EA4, SAF, TH)					
C754	1-162-306-11	CERAMIC 0.01uF 20% 16V					
C755	1-126-961-11	ELECT 2.2uF 20% 50V					
C756	1-162-294-31	CERAMIC 0.001uF 10% 50V					
C757	1-162-215-31	CERAMIC 47PF 5% 50V					
C758	1-126-964-11	ELECT 10uF 20% 50V					
C759	1-126-959-11	ELECT 0.47uF 20% 50V					
C760	1-162-215-31	CERAMIC 47PF 5% 50V					
C761	1-162-282-31	CERAMIC 100PF 10% 50V					
C762	1-126-961-11	ELECT 2.2uF 20% 50V					
		< CONNECTOR >					
				* CN750	1-568-828-11	SOCKET, CONNECTOR 9P	
		< DIODE >					
				D751	8-719-024-99	DIODE 11ES2-NTA2B (GR7: EA3/GR7J)	
				D752	8-719-024-99	DIODE 11ES2-NTA2B (GR7: EA3/GR7J)	
				D753	8-719-024-99	DIODE 11ES2-NTA2B (GR7: EA3/GR7J)	
		< IC >					
				IC750	8-759-634-51	IC M5218AP	
				IC751	8-759-450-96	IC M65850P (GR7: EA3/GR7J)	
		< JACK >					
				J750	1-569-112-21	JACK, LARGE TYPE (PHONES)	
				J751	1-569-112-21	JACK, LARGE TYPE (MIX MIC)	

HP/MIC

LEAF SWITCH

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< COIL >		Q1002	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA	
L751	1-410-521-11	INDUCTOR 100uH (GR7: EA3/GR7J)				< RESISTOR >	
		< RESISTOR >		R1001	1-247-818-11	CARBON 300 5% 1/4W	
R750	1-249-429-11	CARBON 10K 5% 1/4W		R1002	1-247-820-11	CARBON 360 5% 1/4W	
R751	1-249-417-11	CARBON 1K 5% 1/4W		R1003	1-249-414-11	CARBON 560 5% 1/4W	
R752	1-249-441-11	CARBON 100K 5% 1/4W		R1004	1-247-834-11	CARBON 1.3K 5% 1/4W	
R753	1-249-417-11	CARBON 1K 5% 1/4W		R1005	1-247-818-11	CARBON 300 5% 1/4W	
R754	1-247-863-91	CARBON 22K 5% 1/4W (GR7: EA4, SAF, TH)				< SWITCH >	
R754	1-249-433-11	CARBON 22K 5% 1/4W (EXCEPT GR7: EA4, SAF, TH)		S1001	1-692-832-11	SWITCH, PUSH (1 KEY) (A PLAY)	
R755	1-249-429-11	CARBON 10K 5% 1/4W		S1002	1-692-832-11	SWITCH, PUSH (1 KEY) (B PLAY)	
R756	1-247-885-00	CARBON 180K 5% 1/4W		S1003	1-571-281-21	SWITCH, LEAF (A HALF)	
R757	1-247-807-31	CARBON 100 5% 1/4W		S1004	1-571-281-21	SWITCH, LEAF (A CrO2)	
R758	1-249-433-11	CARBON 22K 5% 1/4W (GR7: EA3/GR7J)		S1005	1-572-248-11	SWITCH, LEAF (REC A)	
R759	1-249-433-11	CARBON 22K 5% 1/4W (GR7: EA3/GR7J)		S1006	1-572-248-11	SWITCH, LEAF (B HALF)	
R760	1-249-433-11	CARBON 22K 5% 1/4W (GR7: EA3/GR7J)		S1008	1-571-281-21	SWITCH, LEAF (B CrO2)	
R761	1-247-881-00	CARBON 120K 5% 1/4W (GR7: EA3/GR7J)		S1009	1-571-281-21	SWITCH, LEAF (REC B)	
R762	1-249-433-11	CARBON 22K 5% 1/4W (GR7: EA3/GR7J)		*****			
R763	1-249-433-11	CARBON 22K 5% 1/4W (GR7: EA3/GR7J)		*	A-4392-711-A	MAIN BOARD, COMPLETE (RX70: CND) *****	
R764	1-249-433-11	CARBON 22K 5% 1/4W (GR7: EA3/GR7J)		*	A-4392-712-A	MAIN BOARD, COMPLETE (RX70: CIS, EE) *****	
R765	1-249-437-11	CARBON 47K 5% 1/4W (GR7: EA3/GR7J)		*	A-4392-713-A	MAIN BOARD, COMPLETE (GR7: E2, MX) *****	
R766	1-249-431-11	CARBON 15K 5% 1/4W (GR7: EA3/GR7J)		*	A-4392-714-A	MAIN BOARD, COMPLETE (GR7: AUS) *****	
R767	1-249-431-11	CARBON 15K 5% 1/4W (GR7: EA3/GR7J)		*	A-4392-315-A	MAIN BOARD, COMPLETE (RX70: US) *****	
		< VARIABLE RESISTOR >		*	A-4392-316-A	MAIN BOARD, COMPLETE ***** (RX70: AEP, AED, G, UK)	
RV750	1-223-983-11	RES, VAR, CARBON 50K (MIC LEVEL)		*	A-4392-317-A	MAIN BOARD, COMPLETE ***** (GR7: EA3, E3, HK, MY, SP, TW/GR7J)	
RV751	1-223-983-11	RES, VAR, CARBON 50K (ECHO LEVEL) (GR7: EA3/GR7J)		*	A-4392-806-A	MAIN BOARD, COMPLETE (D60) *****	
*****				*	A-4392-837-A	MAIN BOARD, COMPLETE (GR7: EA4, TH) *****	
*	1-650-669-11	LEAF SWITCH BOARD *****		*	A-4392-854-A	MAIN BOARD, COMPLETE (GR7: SAF) *****	
		< CONNECTOR >		*	4-870-539-00	PLATE, GROUND (GR7: EA4, SAF, TH)	
* CN1001	1-568-854-11	SOCKET, CONNECTOR 11P		*	4-870-539-11	PLATE, GROUND (EXCEPT GR7: EA4, SAF, TH)	
		< TRANSISTOR >		*	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
Q1001	8-749-010-90	TRANSISTOR PHOTO REFLECTOR NJL5165KA					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< CAPACITOR >					
C109	1-164-159-11	CERAMIC	0.1uF 50V (RX70: AEP, AED, CIS, EE, G, UK)	C221	1-126-967-11	ELECT	47uF 20% 10V
C121	1-162-286-21	CERAMIC	220PF 10% 50V (GR7: EA4, SAF, TH)	C222	1-126-967-11	ELECT	47uF 20% 10V
C121	1-162-286-31	CERAMIC	220PF 10% 50V (EXCEPT GR7: EA4, SAF, TH)	C223	1-126-964-11	ELECT	10uF 20% 50V
C122	1-162-286-21	CERAMIC	220PF 10% 50V (GR7: EA4, SAF, TH)	C224	1-162-290-31	CERAMIC	470PF 10% 50V
C122	1-162-286-31	CERAMIC	220PF 10% 50V (EXCEPT GR7: EA4, SAF, TH)	C226	1-126-964-11	ELECT	10uF 20% 50V
C123	1-162-306-11	CERAMIC	0.01uF 20% 16V	C231	1-126-960-11	ELECT	1uF 20% 50V
C131	1-136-495-11	FILM	0.068uF 5% 50V (RX70: AEP, AED, CIS, EE, G, UK)	C241	1-126-964-11	ELECT	10uF 20% 50V (GR7/GR7J/RX70: US, CND)
C132	1-136-495-11	FILM	0.068uF 5% 50V (RX70: AEP, AED, CIS, EE, G, UK)	C242	1-162-292-31	CERAMIC	680PF 10% 50V (GR7/GR7J/RX70: US, CND)
C171	1-162-286-21	CERAMIC	220PF 10% 50V (GR7: EA4, SAF, TH)	C243	1-126-964-11	ELECT	10uF 20% 50V (GR7/GR7J/RX70: US, CND)
C171	1-162-286-31	CERAMIC	220PF 10% 50V (EXCEPT GR7: EA4, SAF, TH)	C244	1-162-286-21	CERAMIC	220PF 10% 50V (GR7: EA4, SAF, TH)
C172	1-162-286-21	CERAMIC	220PF 10% 50V (GR7: EA4, SAF, TH)	C244	1-162-286-31	CERAMIC	220PF 10% 50V (EXCEPT D60/GR7: EA4, SAF, TH/RX70: AEP, AED, CIS, EE, G, UK)
C172	1-162-286-31	CERAMIC	220PF 10% 50V (EXCEPT GR7: EA4, SAF, TH)	C245	1-162-306-11	CERAMIC	0.01uF 20% 16V (GR7/GR7J/RX70: US, CND)
C173	1-162-306-11	CERAMIC	0.01uF 20% 16V	C246	1-162-306-11	CERAMIC	0.01uF 20% 16V (GR7/GR7J/RX70: US, CND)
C181	1-136-495-11	FILM	0.068uF 5% 50V (RX70: AEP, AED, CIS, EE, G, UK)	C247	1-162-306-11	CERAMIC	0.01uF 20% 16V (GR7/GR7J)
C182	1-136-495-11	FILM	0.068uF 5% 50V (RX70: AEP, AED, CIS, EE, G, UK)	C251	1-136-169-00	FILM	0.22uF 5% 50V
C191	1-126-963-11	ELECT	4.7uF 20% 50V (D60/GR7/GR7J/RX70: US, CND)	C252	1-136-169-00	FILM	0.22uF 5% 50V
C192	1-164-159-11	CERAMIC	0.1uF 50V (EXCEPT GR7: EA4, SAF, TH/RX70: AEP, AED, CIS, EE, G, UK)	C253	1-130-493-00	MYLAR	0.068uF 5% 50V
C192	1-164-159-21	CERAMIC	0.1uF 50V (GR7: EA4, SAF, TH)	C254	1-130-493-00	MYLAR	0.068uF 5% 50V
C201	1-136-169-00	FILM	0.22uF 5% 50V	C255	1-130-486-00	MYLAR	0.018uF 10% 50V
C202	1-136-169-00	FILM	0.22uF 5% 50V	C256	1-130-486-00	MYLAR	0.018uF 10% 50V
C203	1-130-493-00	MYLAR	0.068uF 5% 50V	C257	1-130-480-00	MYLAR	0.0056uF 5% 50V
C204	1-130-493-00	MYLAR	0.068uF 5% 50V	C258	1-130-479-00	MYLAR	0.0047uF 5% 50V
C205	1-130-486-00	MYLAR	0.018uF 10% 50V	C259	1-130-474-00	MYLAR	0.0018uF 5% 50V
C206	1-130-486-00	MYLAR	0.018uF 10% 50V	C260	1-126-964-11	ELECT	10uF 20% 50V
C207	1-130-480-00	MYLAR	0.0056uF 5% 50V	C261	1-126-964-11	ELECT	10uF 20% 50V
C208	1-130-479-00	MYLAR	0.0047uF 5% 50V	C262	1-130-483-00	MYLAR	0.01uF 5% 50V
C209	1-130-474-00	MYLAR	0.0018uF 5% 50V	C263	1-136-165-00	FILM	0.1uF 5% 50V
C210	1-126-964-11	ELECT	10uF 20% 50V	C264	1-136-165-00	FILM	0.1uF 5% 50V
C211	1-126-964-11	ELECT	10uF 20% 50V	C276	1-126-964-11	ELECT	10uF 20% 50V
C212	1-130-483-00	MYLAR	0.01uF 5% 50V	C281	1-126-933-11	ELECT	100uF 20% 10V
C213	1-136-165-00	FILM	0.1uF 5% 50V	C282	1-126-961-11	ELECT	2.2uF 20% 50V
C214	1-136-165-00	FILM	0.1uF 5% 50V	C283	1-126-933-11	ELECT	100uF 20% 10V
C215	1-162-294-31	CERAMIC	0.001uF 10% 50V	C284	1-126-923-11	ELECT	220uF 20% 10V
C216	1-136-167-00	FILM	0.15uF 5% 50V	C291	1-126-959-11	ELECT	0.47uF 20% 50V
				C301	1-126-965-11	ELECT	22uF 20% 50V
				C302	1-164-159-11	CERAMIC	0.1uF 50V (EXCEPT GR7: EA4, SAF, TH)
				C302	1-164-159-21	CERAMIC	0.1uF 50V (GR7: EA4, SAF, TH)
				C303	1-136-165-00	FILM	0.1uF 5% 50V
				C304	1-126-926-11	ELECT	1000uF 20% 10V
				C305	1-162-306-11	CERAMIC	0.01uF 20% 16V

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C309	1-102-514-11	CERAMIC	22PF	5%	50V	C1504	1-126-960-11	ELECT	1uF	20%	50V (GR7: EA4, SAF, TH)
C310	1-102-514-11	CERAMIC	22PF	5%	50V	C1505	1-126-964-11	ELECT	10uF	20%	50V
C311	1-164-159-11	CERAMIC	0.1uF		50V (EXCEPT GR7: EA4, SAF, TH)	C1506	1-126-157-11	ELECT	10uF	20%	16V (EXCEPT GR7: EA4, SAF, TH)
C311	1-164-159-21	CERAMIC	0.1uF		50V (GR7: EA4, SAF, TH)	C1506	1-126-964-11	ELECT	10uF	20%	50V (GR7: EA4, SAF, TH)
C315	1-126-933-11	ELECT	100uF	20%	10V	C1507	1-126-160-11	ELECT	1uF	20%	50V (EXCEPT GR7: EA4, SAF, TH)
C390	1-126-933-11	ELECT	100uF	20%	10V	C1507	1-126-960-11	ELECT	1uF	20%	50V (GR7: EA4, SAF, TH)
C391	1-162-306-11	CERAMIC	0.01uF	20%	16V (EXCEPT D60/RX70: US)	C1508	1-126-933-11	ELECT	100uF	20%	10V
C392	1-126-933-11	ELECT	100uF	20%	10V (EXCEPT D60/RX70: US)	C1521	1-126-964-11	ELECT	10uF	20%	50V
C393	1-126-925-11	ELECT	470uF	20%	10V	C1522	1-126-964-11	ELECT	10uF	20%	50V
C394	1-164-159-11	CERAMIC	0.1uF		50V (EXCEPT GR7: EA4, SAF, TH)	C1523	1-126-933-11	ELECT	100uF	20%	16V
C394	1-164-159-21	CERAMIC	0.1uF		50V (GR7: EA4, SAF, TH)	C1531	1-164-159-11	CERAMIC	0.1uF		50V (EXCEPT GR7: EA4, SAF, TH)
C395	1-162-282-31	CERAMIC	100PF	10%	50V	C1531	1-164-159-21	CERAMIC	0.1uF		50V (GR7: EA4, SAF, TH)
C396	1-126-961-11	ELECT	2.2uF	20%	50V	C1532	1-164-159-11	CERAMIC	0.1uF		50V (EXCEPT GR7: EA4, SAF, TH)
C398	1-126-961-11	ELECT	2.2uF	20%	50V	C1532	1-164-159-21	CERAMIC	0.1uF		50V (GR7: EA4, SAF, TH)
C903	1-136-165-00	FILM	0.1uF	5%	50V	C1533	1-164-159-11	CERAMIC	0.1uF		50V (EXCEPT GR7: EA4, SAF, TH)
C904	1-126-937-11	ELECT	4700uF	20%	16V	C1533	1-164-159-21	CERAMIC	0.1uF		50V (GR7: EA4, SAF, TH)
C906	1-126-933-11	ELECT	100uF	20%	10V	C1534	1-126-935-11	ELECT	470uF	20%	16V
C909	1-126-964-11	ELECT	10uF	20%	50V	C1551	1-130-479-00	MYLAR	0.0047uF	5%	50V
C910	1-126-933-11	ELECT	100uF	20%	10V	C1552	1-162-290-31	CERAMIC	470PF	10%	50V
C911	1-126-964-11	ELECT	10uF	20%	50V	C1553	1-164-159-11	CERAMIC	0.1uF		50V (EXCEPT GR7: EA4, SAF, TH)
C912	1-126-916-11	ELECT	1000uF	20%	6.3V	C1553	1-164-159-21	CERAMIC	0.1uF		50V (GR7: EA4, SAF, TH)
C913	1-126-943-11	ELECT	2200uF	20%	25V	C1554	1-126-960-11	ELECT	1uF	20%	50V
C914	1-126-952-11	ELECT	1000uF	20%	16V	C1555	1-126-964-11	ELECT	10uF	20%	50V
C915	1-126-967-11	ELECT	47uF	20%	16V	C1556	1-126-964-11	ELECT	10uF	20%	50V
C916	1-164-159-11	CERAMIC	0.1uF		50V (EXCEPT GR7: EA4, SAF, TH)	C1557	1-126-960-11	ELECT	1uF	20%	50V
C916	1-164-159-21	CERAMIC	0.1uF		50V (GR7: EA4, SAF, TH)	C1558	1-126-933-11	ELECT	100uF	20%	10V
C917	1-126-968-11	ELECT	100uF	20%	50V	< CONNECTOR >					
C918	1-126-968-11	ELECT	100uF	20%	50V	CN101	1-778-982-11	CONNECTOR, BOARD TO BOARD	13P		
C919	1-126-964-11	ELECT	10uF	20%	50V	* CN102	1-568-836-11	SOCKET, CONNECTOR	17P		
C920	1-126-947-11	ELECT	47uF	20%	35V	CN105	1-564-506-11	PLUG, CONNECTOR	3P (D60/GR7/GR7J/RX70: US, CND)		
C953	1-136-165-00	FILM	0.1uF	5%	50V	* CN201	1-568-832-11	SOCKET, CONNECTOR	13P (D60/GR7: EA4, E2, MX, TH, AUS/RX70: US, CND)		
C954	1-126-768-11	ELECT	2200uF	20%	16V	* CN201	1-568-834-11	SOCKET, CONNECTOR	15P (EXCEPT D60/GR7: EA4, E2, MX, TH, AUS/RX70: US, CND)		
C956	1-126-933-11	ELECT	100uF	20%	10V	* CN202	1-568-862-11	SOCKET, CONNECTOR	19P		
C1501	1-130-479-00	MYLAR	0.0047uF	5%	50V	* CN203	1-568-946-11	PIN, CONNECTOR	8P		
C1502	1-162-290-31	CERAMIC	470PF	10%	50V						
C1503	1-164-159-11	CERAMIC	0.1uF		50V (EXCEPT GR7: EA4, SAF, TH)						
C1503	1-164-159-21	CERAMIC	0.1uF		50V (GR7: EA4, SAF, TH)						
C1504	1-126-160-11	ELECT	1uF	20%	50V (EXCEPT GR7: EA4, SAF, TH)						

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* CN204	1-568-947-11	PIN, CONNECTOR 9P		D909	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)	
CN205	1-568-838-11	SOCKET, CONNECTOR 21P		D909	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)	
* CN206	1-568-830-11	SOCKET, CONNECTOR 11P		D910	8-719-002-60	DIODE UZL-33L	
				D911	8-719-010-43	DIODE UZ-5.6BSC	
* CN207	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P					
		< DIODE >		D912	8-719-987-63	DIODE 1N4148M	
D141	8-719-987-63	DIODE 1N4148M		D913	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)	
D191	8-719-815-85	DIODE 1S1585 (D60/RX70: US, CND)		D913	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)	
D191	8-719-987-63	DIODE 1N4148M (EXCEPT D60/RX70: US, CND)		D914	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)	
D192	8-719-815-85	DIODE 1S1585 (D60/RX70: US, CND)		D914	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)	
D192	8-719-987-63	DIODE 1N4148M (EXCEPT D60/RX70: US, CND)		D915	8-719-001-42	DIODE UZL-11M1 (EXCEPT GR7: EA4, SAF, TH)	
				D915	8-719-001-43	DIODE UZL-11M1-TA (GR7: EA4, SAF, TH)	
D281	8-719-815-85	DIODE 1S1585 (D60/RX70: US, CND)		D951	8-719-987-63	DIODE 1N4148M	
D281	8-719-987-63	DIODE 1N4148M (EXCEPT D60/RX70: US, CND)		D952	8-719-987-63	DIODE 1N4148M	
						< INDUCTOR >	
D291	8-719-987-63	DIODE 1N4148M		FB302	1-412-473-21	INDUCTOR (SMALL TYPE)	
D301	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)				< IC >	
D301	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)		IC102	8-759-000-48	IC MC14052BCP	
D302	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)		IC201	8-759-331-39	IC M62427FP	
D302	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)		IC231	8-759-634-50	IC M5218AL	
D303	8-719-987-63	DIODE 1N4148M		IC241	8-759-634-50	IC M5218AL (GR7/GR7J/RX70: US, CND)	
D304	8-719-987-63	DIODE 1N4148M		IC281	8-759-111-68	IC uPC1237HA	
D305	8-719-987-63	DIODE 1N4148M					
D306	8-719-987-63	DIODE 1N4148M		IC301	8-759-447-26	IC uPD780018YGF-011-3BA	
D307	8-719-987-63	DIODE 1N4148M		IC302	8-759-635-63	IC M51943BSL	
D902	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)		IC391	8-749-923-04	IC TOTX178 (EXCEPT D60/RX70: US)	
D902	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)		IC901	8-759-288-53	IC LA5617	
D903	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)		IC902	8-759-604-86	IC M5F7807L	
D903	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)		IC903	8-759-231-53	IC TA7805S	
D904	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)		IC904	8-759-231-58	IC TA7812S	
D904	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)		IC1501	8-759-363-21	IC HA12203NT	
D905	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)		IC1502	8-759-822-09	IC LB1641	
D905	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)				< JACK >	
D906	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)		J101	1-695-188-31	JACK, PIN 4P (VIDEO/MD)	
D906	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)		J241	1-774-785-11	JACK, PIN 1P (SUPER WOOFER) (GR7/GR7J/RX70: US, CND)	
D907	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)				< COIL >	
D907	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)		L131	1-420-872-00	COIL, AIR-CORE (RX70: AEP, AED, CIS, EE, G, UK)	
D908	8-719-024-99	DIODE 11ES2-NTA2B (EXCEPT GR7: EA4, SAF, TH)		L181	1-420-872-00	COIL, AIR-CORE (RX70: AEP, AED, CIS, EE, G, UK)	
D908	8-719-200-82	DIODE 11ES2 (GR7: EA4, SAF, TH)		L301	1-408-117-00	INDUCTOR 10uH	
				L392	1-410-521-11	INDUCTOR 100uH (EXCEPT D60/RX70: US)	

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L393	1-410-515-11	INDUCTOR 33uH		R124	1-249-429-11	CARBON 10K 5% 1/4W	
		< TRANSISTOR >		R125	1-249-441-11	CARBON 100K 5% 1/4W	
Q101	8-729-141-30	TRANSISTOR 2SC3623A-LK		R126	1-249-417-11	CARBON 1K 5% 1/4W	
Q102	8-729-900-63	TRANSISTOR DTA124ES		R127	1-249-441-11	CARBON 100K 5% 1/4W	
Q103	8-729-900-36	TRANSISTOR DTC124ES		R131	1-260-076-11	CARBON 10 5% 1/2W	
Q141	8-729-119-76	TRANSISTOR 2SA1175-HFE				(RX70: AEP, AED, CIS, EE, G, UK)	
		(EXCEPT D60/RX70: US, CND)		R132	1-260-076-11	CARBON 10 5% 1/2W	
Q141	8-729-140-82	TRANSISTOR 2SA988-PAFAEA				(RX70: AEP, AED, CIS, EE, G, UK)	
		(D60/RX70:US, CND)		R133	1-260-091-11	CARBON 220 5% 1/2W	
Q142	8-729-119-78	TRANSISTOR 2SC403SP-51		R134	1-260-091-11	CARBON 220 5% 1/2W	
		(EXCEPT D60/RX70: US, CND)		R140	1-249-429-11	CARBON 10K 5% 1/4W	
Q142	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R141	1-249-437-11	CARBON 47K 5% 1/4W	
		(D60/RX70:US, CND)		R142	1-249-429-11	CARBON 10K 5% 1/4W	
Q151	8-729-141-30	TRANSISTOR 2SC3623A-LK		△R147	1-215-891-11	METAL OXIDE 680 5% 2W	F
Q191	8-729-119-76	TRANSISTOR 2SA1175-HFE				(RX70: AEP, AED, CIS, EE, G, UK)	
		(D60/GR7/GR7J/RX70: US, CND)		△R147	1-215-893-11	METAL OXIDE 1.5K 5% 2W	F
Q192	8-729-111-29	TRANSISTOR 2SD1616A-K				(D60/RX70: US, CND)	
		(D60/GR7/GR7J/RX70: US, CND)		△R147	1-216-456-00	METAL OXIDE 820 5% 2W	F
Q202	8-729-119-78	TRANSISTOR 2SC403SP-51				(GR7/GR7J)	
Q203	8-729-119-78	TRANSISTOR 2SC403SP-51		R171	1-249-424-11	CARBON 3.9K 5% 1/4W	
Q204	8-729-141-30	TRANSISTOR 2SC3623A-LK		R172	1-247-887-00	CARBON 220K 5% 1/4W	
Q231	8-729-900-63	TRANSISTOR DTA124ES		R173	1-249-426-11	CARBON 5.6K 5% 1/4W	
Q232	8-729-900-63	TRANSISTOR DTA124ES		R174	1-249-429-11	CARBON 10K 5% 1/4W	
Q241	8-729-141-30	TRANSISTOR 2SC3623A-LK		R176	1-249-417-11	CARBON 1K 5% 1/4W	
		(GR7/GR7J/RX70: US, CND)		R177	1-249-441-11	CARBON 100K 5% 1/4W	
Q252	8-729-119-78	TRANSISTOR 2SC403SP-51		R181	1-260-076-11	CARBON 10 5% 1/2W	
Q253	8-729-119-78	TRANSISTOR 2SC403SP-51				(RX70: AEP, AED, CIS, EE, G, UK)	
Q254	8-729-141-30	TRANSISTOR 2SC3623A-LK		R182	1-260-076-11	CARBON 10 5% 1/2W	
Q281	8-729-900-36	TRANSISTOR DTC124ES				(RX70: AEP, AED, CIS, EE, G, UK)	
Q282	8-729-900-63	TRANSISTOR DTA124ES		R183	1-260-091-11	CARBON 220 5% 1/2W	
Q283	8-729-900-36	TRANSISTOR DTC124ES		R184	1-260-091-11	CARBON 220 5% 1/2W	
Q301	8-729-119-78	TRANSISTOR 2SC403SP-51		R191	1-249-425-11	CARBON 4.7K 5% 1/4W	
Q901	8-729-040-20	TRANSISTOR RT1P137L-TP				(D60/GR7/GR7J/RX70: US, CND)	
Q902	8-729-900-36	TRANSISTOR DTC124ES		R192	1-249-441-11	CARBON 100K 5% 1/4W	
Q903	8-729-030-18	TRANSISTOR 2SD2525				(D60/GR7/GR7J/RX70: US, CND)	
Q904	8-729-030-19	TRANSISTOR 2SB1640		R193	1-249-421-11	CARBON 2.2K 5% 1/4W	
Q905	8-729-040-20	TRANSISTOR RT1P137L-TP				(D60/GR7/GR7J/RX70: US, CND)	
Q906	8-729-900-63	TRANSISTOR DTA124ES		R194	1-249-437-11	CARBON 47K 5% 1/4W	
Q907	8-729-119-78	TRANSISTOR 2SC403SP-51				(D60/GR7/GR7J/RX70: US, CND)	
Q1531	8-729-801-93	TRANSISTOR 2SD1387		R195	1-249-437-11	CARBON 47K 5% 1/4W	
Q1532	8-729-900-80	TRANSISTOR DTC114ES				(D60/GR7/GR7J/RX70: US, CND)	
Q1533	8-729-900-80	TRANSISTOR DTC114ES		R201	1-249-429-11	CARBON 10K 5% 1/4W	
Q1534	8-729-119-77	TRANSISTOR 2SA1175-FEK		R202	1-247-863-91	CARBON 22K 5% 1/4W	
Q1535	8-729-900-80	TRANSISTOR DTC114ES				(GR7: EA4, SAF, TH)	
		< RESISTOR >		R202	1-249-433-11	CARBON 22K 5% 1/4W	
						(EXCEPT GR7: EA4, SAF, TH)	
R121	1-249-424-11	CARBON 3.9K 5% 1/4W		R203	1-249-441-11	CARBON 100K 5% 1/4W	
R122	1-247-887-00	CARBON 220K 5% 1/4W		R205	1-247-863-91	CARBON 22K 5% 1/4W	
R123	1-249-426-11	CARBON 5.6K 5% 1/4W				(GR7: EA4, SAF, TH)	
				R205	1-249-433-11	CARBON 22K 5% 1/4W	
						(EXCEPT GR7: EA4, SAF, TH)	

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R206	1-249-421-11	CARBON	2.2K 5% 1/4W	R266	1-249-429-11	CARBON	10K 5% 1/4W
R207	1-249-431-11	CARBON	15K 5% 1/4W	R267	1-249-437-11	CARBON	47K 5% 1/4W
R208	1-249-437-11	CARBON	47K 5% 1/4W	R271	1-249-425-11	CARBON	4.7K 5% 1/4W
R209	1-249-441-11	CARBON	100K 5% 1/4W	R272	1-249-425-11	CARBON	4.7K 5% 1/4W
R210	1-247-903-00	CARBON	1M 5% 1/4W	R276	1-249-421-11	CARBON	2.2K 5% 1/4W
R212	1-249-419-11	CARBON	1.5K 5% 1/4W	R277	1-249-441-11	CARBON	100K 5% 1/4W
R213	1-247-863-91	CARBON	22K 5% 1/4W	R278	1-249-429-11	CARBON	10K 5% 1/4W
			(GR7: EA4, SAF, TH)	R281	1-249-425-11	CARBON	4.7K 5% 1/4W
R213	1-249-433-11	CARBON	22K 5% 1/4W				(EXCEPT D60/RX70: US, CND)
			(EXCEPT GR7: EA4, SAF, TH)	R281	1-249-429-11	CARBON	10K 5% 1/4W
R214	1-247-887-00	CARBON	220K 5% 1/4W				(D60/RX70: US, CND)
R215	1-247-903-00	CARBON	1M 5% 1/4W	R282	1-249-425-11	CARBON	4.7K 5% 1/4W
R216	1-249-429-11	CARBON	10K 5% 1/4W				(EXCEPT D60/RX70: US, CND)
R217	1-249-437-11	CARBON	47K 5% 1/4W	R282	1-249-429-11	CARBON	10K 5% 1/4W
							(D60/RX70: US, CND)
R221	1-249-425-11	CARBON	4.7K 5% 1/4W	R283	1-249-435-11	CARBON	33K 5% 1/4W
R222	1-249-425-11	CARBON	4.7K 5% 1/4W	R284	1-247-791-91	CARBON	22 5% 1/4W
R226	1-249-421-11	CARBON	2.2K 5% 1/4W				(GR7: EA4, SAF, TH)
R227	1-249-441-11	CARBON	100K 5% 1/4W	R284	1-249-397-11	CARBON	22 5% 1/4W
R228	1-249-429-11	CARBON	10K 5% 1/4W				(EXCEPT GR7: EA4, SAF, TH)
				R285	1-249-441-11	CARBON	100K 5% 1/4W
R231	1-249-437-11	CARBON	47K 5% 1/4W	R286	1-249-429-11	CARBON	10K 5% 1/4W
R232	1-249-437-11	CARBON	47K 5% 1/4W	R287	1-249-427-11	CARBON	6.8K 5% 1/4W
R234	1-247-886-11	CARBON	200K 5% 1/4W				(EXCEPT RX70: US, CND)
R235	1-249-421-11	CARBON	2.2K 5% 1/4W	R287	1-249-429-11	CARBON	10K 5% 1/4W
R236	1-249-441-11	CARBON	100K 5% 1/4W				(RX70: US, CND)
				R288	1-249-438-11	CARBON	56K 5% 1/4W
R241	1-249-437-11	CARBON	47K 5% 1/4W	R289	1-249-437-11	CARBON	47K 5% 1/4W
			(GR7/GR7J/RX70: US, CND)	R291	1-247-863-91	CARBON	22K 5% 1/4W
R242	1-247-843-11	CARBON	3.3K 5% 1/4W				(GR7: EA4, SAF, TH)
			(GR7/GR7J/RX70: US, CND)	R291	1-249-433-11	CARBON	22K 5% 1/4W
R243	1-249-429-11	CARBON	10K 5% 1/4W				(EXCEPT GR7: EA4, SAF, TH)
			(GR7/GR7J/RX70: US, CND)	R292	1-247-863-91	CARBON	22K 5% 1/4W
R244	1-249-417-11	CARBON	1K 5% 1/4W				(GR7: EA4, SAF, TH)
			(GR7/GR7J/RX70: US, CND)	R292	1-249-433-11	CARBON	22K 5% 1/4W
R245	1-249-441-11	CARBON	100K 5% 1/4W				(EXCEPT GR7: EA4, SAF, TH)
			(GR7/GR7J/RX70: US, CND)	R293	1-249-417-11	CARBON	1K 5% 1/4W
R246	1-249-417-11	CARBON	1K 5% 1/4W	R294	1-249-441-11	CARBON	100K 5% 1/4W
			(GR7/GR7J/RX70: US, CND)	R295	1-247-903-00	CARBON	1M 5% 1/4W
R247	1-249-429-11	CARBON	10K 5% 1/4W	R301	1-249-417-11	CARBON	1K 5% 1/4W
			(GR7/GR7J/RX70: US, CND)				
R253	1-249-441-11	CARBON	100K 5% 1/4W	R302	1-249-429-11	CARBON	10K 5% 1/4W
R257	1-249-431-11	CARBON	15K 5% 1/4W	R303	1-249-437-11	CARBON	47K 5% 1/4W
R258	1-249-437-11	CARBON	47K 5% 1/4W	R304	1-249-437-11	CARBON	47K 5% 1/4W
				R305	1-249-429-11	CARBON	10K 5% 1/4W
R259	1-249-441-11	CARBON	100K 5% 1/4W	R313	1-247-807-31	CARBON	100 5% 1/4W
R260	1-247-903-00	CARBON	1M 5% 1/4W				
R262	1-249-419-11	CARBON	1.5K 5% 1/4W	R316	1-249-429-11	CARBON	10K 5% 1/4W
R263	1-247-863-91	CARBON	22K 5% 1/4W	R325	1-247-843-11	CARBON	3.3K 5% 1/4W
			(GR7: EA4, SAF, TH)				(RX70: AEP, AED, G, UK)
R263	1-249-433-11	CARBON	22K 5% 1/4W	R325	1-249-425-11	CARBON	4.7K 5% 1/4W
			(EXCEPT GR7: EA4, SAF, TH)				(GR7: AUS)
R264	1-247-887-00	CARBON	220K 5% 1/4W				
R265	1-247-903-00	CARBON	1M 5% 1/4W				

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R325	1-249-427-11	CARBON	6.8K	5%	1/4W (GR7: E2, MX/RX70: CIS, EE)	R381	1-247-807-31	CARBON	100	5%	1/4W
R325	1-249-431-11	CARBON	15K	5%	1/4W (GR7: EA4, TH)	R384	1-249-429-11	CARBON	10K	5%	1/4W
R326	1-249-415-11	CARBON	680	5%	1/4W (GR7: EA4, TH)	R395	1-247-807-31	CARBON	100	5%	1/4W
R326	1-249-425-11	CARBON	4.7K	5%	1/4W (GR7: AR, E 2, MX)	R396	1-249-435-11	CARBON	33K	5%	1/4W
R326	1-249-427-11	CARBON	6.8K	5%	1/4W (GR7: AUS/RX70: AEP, AED, G, UK)	R397	1-247-807-31	CARBON	100	5%	1/4W
R326	1-249-433-11	CARBON	22K	5%	1/4W (RX70: CIS, EE)	R398	1-249-435-11	CARBON	33K	5%	1/4W
R327	1-247-807-31	CARBON	100	5%	1/4W	R417	1-249-441-11	CARBON	100K	5%	1/4W
R328	1-247-807-31	CARBON	100	5%	1/4W	R913	1-247-815-91	CARBON	220	5%	1/4W (GR7: EA4, SAF, TH)
R330	1-247-807-31	CARBON	100	5%	1/4W	R913	1-249-409-11	CARBON	220	5%	1/4W (EXCEPT GR7: EA4, SAF, TH)
R331	1-247-807-31	CARBON	100	5%	1/4W	R914	1-249-417-11	CARBON	1K	5%	1/4W
R332	1-247-807-31	CARBON	100	5%	1/4W	R915	1-249-425-11	CARBON	4.7K	5%	1/4W
R333	1-247-807-31	CARBON	100	5%	1/4W	R916	1-247-815-91	CARBON	220	5%	1/4W (GR7: EA4, SAF, TH)
R339	1-247-807-31	CARBON	100	5%	1/4W	R916	1-249-409-11	CARBON	220	5%	1/4W (EXCEPT GR7: EA4, SAF, TH)
R340	1-247-807-31	CARBON	100	5%	1/4W	R917	1-247-815-91	CARBON	220	5%	1/4W (GR7: EA4, SAF, TH)
R341	1-247-807-31	CARBON	100	5%	1/4W	R917	1-249-409-11	CARBON	220	5%	1/4W (EXCEPT GR7: EA4, SAF, TH)
R342	1-247-807-31	CARBON	100	5%	1/4W	R918	1-249-425-11	CARBON	4.7K	5%	1/4W
R343	1-247-807-31	CARBON	100	5%	1/4W	R920	1-249-417-11	CARBON	1K	5%	1/4W
R344	1-247-807-31	CARBON	100	5%	1/4W	R921	1-247-895-00	CARBON	470K	5%	1/4W
R345	1-247-807-31	CARBON	100	5%	1/4W	R951	1-249-425-11	CARBON	4.7K	5%	1/4W
R347	1-247-807-31	CARBON	100	5%	1/4W	R952	1-249-425-11	CARBON	4.7K	5%	1/4W
R348	1-247-807-31	CARBON	100	5%	1/4W	R1501	1-249-435-11	CARBON	33K	5%	1/4W
R349	1-247-807-31	CARBON	100	5%	1/4W	R1502	1-249-417-11	CARBON	1K	5%	1/4W
R350	1-247-807-31	CARBON	100	5%	1/4W	R1503	1-249-426-11	CARBON	5.6K	5%	1/4W
R351	1-247-807-31	CARBON	100	5%	1/4W	R1504	1-247-840-00	CARBON	2.4K	5%	1/4W
R352	1-247-807-31	CARBON	100	5%	1/4W	R1505	1-247-863-91	CARBON	22K	5%	1/4W (GR7: EA4, SAF, TH)
R353	1-247-807-31	CARBON	100	5%	1/4W	R1505	1-249-433-11	CARBON	22K	5%	1/4W (EXCEPT GR7: EA4, SAF, TH)
R354	1-247-807-31	CARBON	100	5%	1/4W	R1506	1-249-421-11	CARBON	2.2K	5%	1/4W
R355	1-247-807-31	CARBON	100	5%	1/4W	R1507	1-249-428-11	CARBON	8.2K	5%	1/4W
R356	1-247-807-31	CARBON	100	5%	1/4W	R1521	1-249-430-11	CARBON	12K	5%	1/4W
R357	1-247-807-31	CARBON	100	5%	1/4W	R1522	1-249-426-11	CARBON	5.6K	5%	1/4W
R358	1-247-807-31	CARBON	100	5%	1/4W	R1524	1-249-429-11	CARBON	10K	5%	1/4W
R359	1-247-807-31	CARBON	100	5%	1/4W	R1525	1-249-432-11	CARBON	18K	5%	1/4W
R361	1-247-807-31	CARBON	100	5%	1/4W	R1526	1-249-429-11	CARBON	10K	5%	1/4W
R362	1-247-807-31	CARBON	100	5%	1/4W	R1527	1-249-429-11	CARBON	10K	5%	1/4W
R363	1-247-807-31	CARBON	100	5%	1/4W	R1531	1-247-843-11	CARBON	3.3K	5%	1/4W
R364	1-247-807-31	CARBON	100	5%	1/4W	R1532	1-249-411-11	CARBON	330	5%	1/4W
R366	1-247-807-31	CARBON	100	5%	1/4W	R1533	1-249-427-11	CARBON	6.8K	5%	1/4W
R367	1-249-429-11	CARBON	10K	5%	1/4W	R1534	1-249-429-11	CARBON	10K	5%	1/4W
R368	1-247-843-11	CARBON	3.3K	5%	1/4W	R1535	1-249-425-11	CARBON	4.7K	5%	1/4W
R370	1-249-429-11	CARBON	10K	5%	1/4W	R1536	1-249-425-11	CARBON	4.7K	5%	1/4W
R371	1-249-429-11	CARBON	10K	5%	1/4W	R1541	1-249-425-11	CARBON	4.7K	5%	1/4W
R372	1-249-429-11	CARBON	10K	5%	1/4W	R1542	1-249-425-11	CARBON	4.7K	5%	1/4W
R373	1-249-429-11	CARBON	10K	5%	1/4W						

MAIN
MOTOR
MOTOR (SLIDE)
MOTOR (TURN)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R1543	1-249-425-11	CARBON	4.7K 5% 1/4W	*	1-658-578-11	MOTOR (SLIDE) BOARD *****	
R1544	1-249-417-11	CARBON	1K 5% 1/4W			< CAPACITOR >	
R1545	1-249-437-11	CARBON	47K 5% 1/4W				
R1546	1-249-437-11	CARBON	47K 5% 1/4W	C801	1-162-306-11	CERAMIC 0.01uF 20% 16V	
R1547	1-249-437-11	CARBON	47K 5% 1/4W	C804	1-162-306-11	CERAMIC 0.01uF 20% 16V	
R1548	1-249-437-11	CARBON	47K 5% 1/4W	C805	1-126-964-11	ELECT 10uF 20% 50V	
R1551	1-247-863-91	CARBON	22K 5% 1/4W (GR7: EA4, SAF, TH)			< CONNECTOR >	
R1551	1-249-433-11	CARBON	22K 5% 1/4W (EXCEPT GR7: EA4, SAF, TH)	* CN801	1-568-947-11	PIN, CONNECTOR 9P	
R1552	1-249-417-11	CARBON	1K 5% 1/4W			< DIODE >	
R1553	1-249-426-11	CARBON	5.6K 5% 1/4W	D801	8-719-010-43	DIODE UZ-5.6BSC	
R1554	1-247-840-00	CARBON	2.4K 5% 1/4W	D804	8-719-987-63	DIODE 1N4148M	
R1555	1-247-863-91	CARBON	22K 5% 1/4W (GR7: EA4, SAF, TH)	D805	8-719-987-63	DIODE 1N4148M	
R1555	1-249-433-11	CARBON	22K 5% 1/4W (EXCEPT GR7: EA4, SAF, TH)			< IC >	
R1556	1-249-421-11	CARBON	2.2K 5% 1/4W	IC801	8-759-274-09	IC BA6286N	
R1557	1-249-428-11	CARBON	8.2K 5% 1/4W			< RESISTOR >	
		< VARIABLE RESISTOR >		R801	1-249-401-11	CARBON 47 5% 1/4W	
RV1501	1-238-598-11	RES, ADJ, CARBON 2.2K				< SWITCH >	
RV1551	1-238-598-11	RES, ADJ, CARBON 2.2K		S801	1-762-527-11	SWITCH, ROTARY (OPEN/CLOSE DET)	
		< RELAY >		*****			
RY141	1-755-141-11	RELAY (D60/RX70: US, CND)		*	1-658-577-11	MOTOR (TURN) BOARD *****	
RY141	1-755-126-11	RELAY (EXCEPT D60/RX70: US, CND)				< CAPACITOR >	
		< TERMINAL >		C701	1-162-306-11	CERAMIC 0.01uF 20% 16V	
TM131	1-537-925-41	TERMINAL BOARD (SPEAKER)		C702	1-126-964-11	ELECT 10uF 20% 50V	
TM132	1-537-925-41	TERMINAL BOARD (SURROUND SPEAKER) (D60/RX70: US, CND)		C705	1-162-306-11	CERAMIC 0.01uF 20% 16V	
		< VIBRATOR >				< CONNECTOR >	
X301	1-760-489-11	VIBRATOR, CERAMIC (5MHz)		CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P	
X302	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)		CN704	1-506-469-11	PIN, CONNECTOR 4P	
*****						< DIODE >	
MOTOR BOARD ***** (Included in AUDIO BOARD, COMPLETE)				D701	8-719-010-23	DIODE UZ-3.6BSB	
		< CAPACITOR >				< IC >	
C651	1-161-494-00	CERAMIC 0.022uF 25V		IC701	8-759-633-65	IC M54641L	
*****						< RESISTOR >	
				R706	1-249-411-11	CARBON 330 5% 1/4W	

MOTOR (TURN)

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R707	1-249-401-11	CARBON	47 5% 1/4W	C636	1-126-160-11	ELECT	1uF 20% 50V
*****				C637	1-130-491-00	MYLAR	0.047uF 5% 50V
*	A-4392-339-A	PANEL BOARD, COMPLETE		C638	1-124-464-11	ELECT	0.22uF 20% 50V
		*****		C639	1-124-464-11	ELECT	0.22uF 20% 50V
		(D60/RX70: US, CND)		C640	1-162-306-11	CERAMIC	0.01uF 20% 16V
*	A-4392-340-A	PANEL BOARD, COMPLETE		C641	1-124-464-11	ELECT	0.22uF 20% 50V
		*****		C642	1-130-489-00	MYLAR	0.033uF 5% 50V
		(RX70:AEP, AED, CIS, EE, G, UK)		C643	1-162-302-11	CERAMIC	0.0022uF 30% 16V
*	A-4392-341-A	PANEL BOARD, COMPLETE		C644	1-124-464-11	ELECT	0.22uF 20% 50V
		*****		C646	1-130-470-00	MYLAR	820PF 5% 50V
		(EXCEPT D60/GR7: EA4, SAF, TH/RX70)		C647	1-124-464-11	ELECT	0.22uF 20% 50V
*	A-4392-846-A	PANEL BOARD, COMPLETE (GR7: EA4, SAF, TH)		C648	1-162-306-11	CERAMIC	0.01uF 20% 16V
		*****		C649	1-124-589-11	ELECT	47uF 20% 16V
				C650	1-124-464-11	ELECT	0.22uF 20% 50V
*	4-932-810-11	CUSHION (FL)		C653	1-164-159-11	CERAMIC	0.1uF 50V
*	4-986-870-01	HOLDER, FL TUBE		C654	1-162-294-31	CERAMIC	0.001MF 10% 50V
		< CAPACITOR >				< CONNECTOR >	
C601	1-162-294-31	CERAMIC	0.001uF 10% 50V	CN601	1-568-860-11	SOCKET, CONNECTOR 17P	
C602	1-162-306-11	CERAMIC	0.01uF 20% 16V	* CN603	1-568-851-11	SOCKET, CONNECTOR 8P (D60/RX70: US, CND)	
C603	1-124-589-11	ELECT	47uF 20% 16V	CN603	1-568-853-11	SOCKET, CONNECTOR 10P	(EXCEPT D60/RX70: US, CND)
C604	1-126-163-11	ELECT	4.7uF 20% 50V	CN609	1-691-645-11	SOCKET, CONNECTOR 9P	
C605	1-162-294-31	CERAMIC	0.001uF 10% 50V			< DIODE >	
C606	1-126-160-11	ELECT	1uF 20% 50V	D601	8-719-058-03	DIODE SEL5423E-TP15 (TUNER/BAND)	
C607	1-126-160-11	ELECT	1uF 20% 50V	D604	8-719-058-04	DIODE SEL5223S-TP15 (EFFECT ON/OFF)	
C608	1-162-294-31	CERAMIC	0.001uF 10% 50V	D605	8-719-058-04	DIODE SEL5223S-TP15 (JOG)	
C609	1-162-282-31	CERAMIC	100PF 10% 50V	D606	8-719-057-44	DIODE HLMF-K305 (▷▷)	
C610	1-162-282-31	CERAMIC	100PF 10% 50V	D607	8-719-057-44	DIODE HLMF-K305 (◁◁)	
C611	1-162-282-31	CERAMIC	100PF 10% 50V	D608	8-719-057-44	DIODE HLMF-K305 (+)	
C612	1-162-282-31	CERAMIC	100PF 10% 50V	D609	8-719-057-44	DIODE HLMF-K305 (-)	
C613	1-162-282-31	CERAMIC	100PF 10% 50V	D611	8-719-058-04	DIODE SEL5223S-TP15 (ENTER/NEXT)	
C614	1-162-282-31	CERAMIC	100PF 10% 50V	D614	8-719-057-44	DIODE HLMF-K305 (GROOVE)	
C615	1-162-282-31	CERAMIC	100PF 10% 50V	D615	8-719-058-04	DIODE SEL5223S-TP15 (NON STOP)	
C616	1-162-282-31	CERAMIC	100PF 10% 50V	D650	8-719-987-63	DIODE 1N4148M	
C617	1-162-282-31	CERAMIC	100PF 10% 50V	D651	8-719-987-63	DIODE 1N4148M	
C618	1-162-282-31	CERAMIC	100PF 10% 50V	D652	8-719-987-63	DIODE 1N4148M	
C619	1-162-282-31	CERAMIC	100PF 10% 50V	D653	8-719-987-63	DIODE 1N4148M	
C620	1-162-282-31	CERAMIC	100PF 10% 50V	D654	8-719-987-63	DIODE 1N4148M	
C621	1-162-282-31	CERAMIC	100PF 10% 50V	D655	8-719-987-63	DIODE 1N4148M	
C622	1-162-282-31	CERAMIC	100PF 10% 50V	D656	8-719-987-63	DIODE 1N4148M	
C623	1-162-282-31	CERAMIC	100PF 10% 50V			< INDUCTOR >	
C624	1-162-290-31	CERAMIC	470PF 10% 50V	FB601	1-412-473-21	INDUCTOR (SMALL TYPE)	
C625	1-162-294-31	CERAMIC	0.001uF 10% 50V			< FLUORESCENT INDICATOR >	
C626	1-124-589-11	ELECT	47uF 20% 16V	FL601	1-517-618-11	INDICATOR TUBE, FLUORESCENT	
C627	1-162-306-11	CERAMIC	0.01uF 20% 16V				
C628	1-162-306-11	CERAMIC	0.01uF 20% 16V				
C629	1-162-306-11	CERAMIC	0.01uF 20% 16V				
C630	1-162-306-11	CERAMIC	0.01uF 20% 16V				

PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< IC >		R631	1-249-417-11	CARBON	1K 5% 1/4W
				R632	1-249-419-11	CARBON	1.5K 5% 1/4W
IC601	8-759-446-27	IC TMP87CH75F-6543		R633	1-249-421-11	CARBON	2.2K 5% 1/4W
IC602	8-759-332-18	IC GP1U27XB		R634	1-249-419-11	CARBON	1.5K 5% 1/4W
		< INDUCTOR >		R635	1-249-401-11	CARBON	47 5% 1/4W
L601	1-408-117-00	INDUCTOR 10uH		R636	1-249-403-11	CARBON	68 5% 1/4W
		< TRANSISTOR >		R638	1-247-826-00	CARBON	620 5% 1/4W
Q601	8-729-118-00	TRANSISTOR 2SB1116-L		R639	1-249-411-11	CARBON	330 5% 1/4W
Q602	8-729-118-00	TRANSISTOR 2SB1116-L		R640	1-249-413-11	CARBON	470 5% 1/4W
Q603	8-729-119-78	TRANSISTOR 2SC403SP-51		R641	1-249-415-11	CARBON	680 5% 1/4W
Q604	8-729-119-76	TRANSISTOR 2SA1175-HFE		R642	1-249-417-11	CARBON	1K 5% 1/4W
Q605	8-729-119-76	TRANSISTOR 2SA1175-HFE		R643	1-249-419-11	CARBON	1.5K 5% 1/4W
Q606	8-729-119-76	TRANSISTOR 2SA1175-HFE		R644	1-249-421-11	CARBON	2.2K 5% 1/4W
Q607	8-729-119-76	TRANSISTOR 2SA1175-HFE		R645	1-249-419-11	CARBON	1.5K 5% 1/4W
Q608	8-729-119-76	TRANSISTOR 2SA1175-HFE		R646	1-249-401-11	CARBON	47 5% 1/4W
		< RESISTOR >		R647	1-249-403-11	CARBON	68 5% 1/4W
R601	1-247-903-00	CARBON	1M 5% 1/4W	R648	1-247-807-31	CARBON	100 5% 1/4W
R602	1-247-807-31	CARBON	100 5% 1/4W	R649	1-249-407-11	CARBON	150 5% 1/4W
R603	1-249-429-11	CARBON	10K 5% 1/4W	R651	1-249-407-11	CARBON	150 5% 1/4W
R604	1-249-429-11	CARBON	10K 5% 1/4W	R652	1-247-815-91	CARBON	220 5% 1/4W
R605	1-249-429-11	CARBON	10K 5% 1/4W				(GR7: EA4, SAF, TH)
R606	1-249-429-11	CARBON	10K 5% 1/4W	R652	1-249-409-11	CARBON	220 5% 1/4W
R607	1-249-429-11	CARBON	10K 5% 1/4W				(EXCEPT GR7: EA4, SAF, TH)
R608	1-247-843-11	CARBON	3.3K 5% 1/4W	R653	1-249-411-11	CARBON	330 5% 1/4W
R609	1-247-843-11	CARBON	3.3K 5% 1/4W	R654	1-249-413-11	CARBON	470 5% 1/4W
R610	1-247-807-31	CARBON	100 5% 1/4W	R655	1-249-415-11	CARBON	680 5% 1/4W
R611	1-247-807-31	CARBON	100 5% 1/4W	R656	1-249-417-11	CARBON	1K 5% 1/4W
R612	1-249-429-11	CARBON	10K 5% 1/4W	R657	1-249-419-11	CARBON	1.5K 5% 1/4W
R615	1-249-429-11	CARBON	10K 5% 1/4W	R658	1-249-434-11	CARBON	27K 5% 1/4W
R616	1-249-429-11	CARBON	10K 5% 1/4W	R659	1-247-843-11	CARBON	3.3K 5% 1/4W
R617	1-249-407-11	CARBON	150 5% 1/4W	R661	1-249-419-11	CARBON	1.5K 5% 1/4W
R619	1-249-401-11	CARBON	47 5% 1/4W	R663	1-249-429-11	CARBON	10K 5% 1/4W
R620	1-249-419-11	CARBON	1.5K 5% 1/4W	R664	1-249-421-11	CARBON	2.2K 5% 1/4W
R621	1-249-419-11	CARBON	1.5K 5% 1/4W	R665	1-247-887-00	CARBON	220K 5% 1/4W
R622	1-249-401-11	CARBON	47 5% 1/4W	R666	1-249-421-11	CARBON	2.2K 5% 1/4W
R623	1-249-403-11	CARBON	68 5% 1/4W	R667	1-249-409-11	CARBON	220 5% 1/4W
R624	1-247-807-31	CARBON	100 5% 1/4W	R668	1-249-409-11	CARBON	220 5% 1/4W
R625	1-249-407-11	CARBON	150 5% 1/4W	R671	1-247-815-91	CARBON	220 5% 1/4W
R626	1-249-407-11	CARBON	150 5% 1/4W				(GR7: EA4, SAF, TH)
R627	1-247-815-91	CARBON	220 5% 1/4W	R671	1-249-409-11	CARBON	220 5% 1/4W
			(GR7: EA4, SAF, TH)				(EXCEPT GR7: EA4, SAF, TH)
R627	1-249-409-11	CARBON	220 5% 1/4W	R672	1-247-815-91	CARBON	220 5% 1/4W
			(EXCEPT GR7: EA4, SAF, TH)				(GR7: EA4, SAF, TH)
R628	1-249-411-11	CARBON	330 5% 1/4W	R672	1-249-409-11	CARBON	220 5% 1/4W
R629	1-249-413-11	CARBON	470 5% 1/4W				(EXCEPT GR7: EA4, SAF, TH)
R630	1-249-415-11	CARBON	680 5% 1/4W	R673	1-247-807-31	CARBON	100 5% 1/4W
				R674	1-247-807-31	CARBON	100 5% 1/4W
				R675	1-247-807-31	CARBON	100 5% 1/4W
				R676	1-247-807-31	CARBON	100 5% 1/4W

PANEL

POWER AMP

Ref. No.	Part No.	Description	Remark
R680	1-247-807-31	CARBON	100 5% 1/4W
R681	1-247-815-91	CARBON	220 5% 1/4W (GR7: EA4, SAF, TH)
R681	1-249-409-11	CARBON	220 5% 1/4W (EXCEPT GR7: EA4, SAF, TH)
R685	1-249-419-11	CARBON	1.5K 5% 1/4W
R686	1-247-897-11	CARBON	560K 5% 1/4W
R687	1-249-437-11	CARBON	47K 5% 1/4W
R688	1-247-895-00	CARBON	470K 5% 1/4W
R689	1-249-419-11	CARBON	1.5K 5% 1/4W
R690	1-247-897-11	CARBON	560K 5% 1/4W
R691	1-249-437-11	CARBON	47K 5% 1/4W
R692	1-247-895-00	CARBON	470K 5% 1/4W
R693	1-249-419-11	CARBON	1.5K 5% 1/4W
R694	1-247-897-11	CARBON	560K 5% 1/4W
R695	1-249-437-11	CARBON	47K 5% 1/4W
R696	1-247-895-00	CARBON	470K 5% 1/4W
R698	1-247-897-11	CARBON	560K 5% 1/4W
R699	1-249-437-11	CARBON	47K 5% 1/4W
R700	1-247-895-00	CARBON	470K 5% 1/4W
R748	1-249-435-11	CARBON	33K 5% 1/4W
R749	1-247-895-00	CARBON	470K 5% 1/4W
< SWITCH >			
S601	1-467-968-11	ENCODER, ROTARY (JOG)	
S602	1-467-869-11	ENCODER, ROTARY (VOLUME)	
S604	1-762-196-21	SWITCH, TACT (TIMER SELECT)	
S605	1-762-196-21	SWITCH, TACT (CLOCK TIMER SET)	
S606	1-762-196-21	SWITCH, TACT (DISPLAY/DEMO)	
S607	1-762-196-21	SWITCH, TACT (SPECTRAM ANALYZER)	
S608	1-762-196-21	SWITCH, TACT (DOLBY NR)	
S609	1-762-196-21	SWITCH, TACT (DIRECTION)	
S610	1-762-196-21	SWITCH, TACT (EDIT)	
S611	1-762-196-21	SWITCH, TACT (REPEAT)	
S612	1-762-196-21	SWITCH, TACT (PLAY MODE)	
S613	1-762-196-21	SWITCH, TACT (1/ALL DISCS)	
S614	1-762-196-21	SWITCH, TACT (SLEEP)	
S615	1-762-196-21	SWITCH, TACT (P FILE MEMORY)	
S616	1-762-196-21	SWITCH, TACT (NON STOP)	
S617	1-762-196-21	SWITCH, TACT (LOW FREQUENCY)	
S618	1-762-196-21	SWITCH, TACT (HIGH FREQUENCY)	
S620	1-762-196-21	SWITCH, TACT (ENTER/NEXT)	
S621	1-762-196-21	SWITCH, TACT (GROOVE)	
S622	1-762-196-21	SWITCH, TACT (GAME)	
S623	1-762-196-21	SWITCH, TACT (MOVIE)	
S624	1-762-196-21	SWITCH, TACT (MUSIC)	
S625	1-762-196-21	SWITCH, TACT (P FILE)	
S626	1-762-196-21	SWITCH, TACT (WAVE)	
S631	1-762-196-21	SWITCH, TACT (SURROUND)	

Ref. No.	Part No.	Description	Remark
S632	1-762-196-21	SWITCH, TACT (DBFB)	
S633	1-762-196-21	SWITCH, TACT (TUNING MODE)	
S634	1-762-196-21	SWITCH, TACT (STEREO/MONO)	
S635	1-762-196-21	SWITCH, TACT (EFFECT ON/OFF)	
S636	1-762-196-21	SWITCH, TACT (KARAOKE PON/MPX)	
S637	1-762-196-21	SWITCH, TACT (TUNER/BAND)	
S638	1-762-196-21	SWITCH, TACT (LOOP)	
S639	1-762-196-21	SWITCH, TACT (FLASH)	
S640	1-762-196-21	SWITCH, TACT (TUNER MEMORY)	
S642	1-762-196-21	SWITCH, TACT (FUNCTION)	
< VIBRATOR >			
X601	1-579-125-11	VIBRATOR, CERAMIC (8MHz)	

*	A-4392-330-A	POWER AMP BOARD, COMPLETE	(D60/RX70: US, CND)

*	A-4392-331-A	POWER AMP BOARD, COMPLETE	(RX70: AEP, AED, CIS, EE, G, UK)

*	A-4392-332-A	POWER AMP BOARD, COMPLETE	(EXCEPT D60/GR7: EA4, SAF, TH/RX70)

*	A-4392-843-A	POWER AMP BOARD, COMPLETE	(GR7: EA4, SAF, TH)

< CAPACITOR >			
C801	1-124-720-11	ELECT	4.7uF 20% 35V (EXCEPT D60/RX70: US, CND)
C801	1-126-963-11	ELECT	4.7uF 20% 50V (D60/RX70: US, CND)
C802	1-162-286-21	CERAMIC	220PF 10% 50V (GR7: EA4, SAF, TH)
C802	1-162-286-31	CERAMIC	220PF 10% 50V (EXCEPT GR7: EA4, SAF, TH)
C803	1-162-282-31	CERAMIC	100PF 10% 50V
C804	1-126-967-11	ELECT	47uF 20% 50V
C806	1-126-967-11	ELECT	47uF 20% 50V
C807	1-126-965-11	ELECT	22uF 20% 50V
C809	1-126-965-11	ELECT	22uF 20% 50V (RX70: AEP, AED, CIS, EE, G, UK)
C809	1-128-560-11	ELECT	22uF 20% 100V (D60/GR7/GR7J/RX70: US, CND)
C810	1-164-159-11	CERAMIC	0.1uF 50V (EXCEPT GR7: EA4, SAF, TH)
C810	1-164-159-21	CERAMIC	0.1uF 50V (GR7: EA4, SAF, TH)

POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C811	1-130-493-00	MYLAR	0.068uF 5% 50V	IC801	8-749-920-09	IC STK-4152MK2 (RX70: AEP, AED, CIS, EE, G, UK)	
C812	1-130-493-00	MYLAR	0.068uF 5% 50V	IC801	8-749-922-65	IC STK-4221MK2 (D60/RX70: US, CND)	
C814	1-162-306-11	CERAMIC	0.01uF 20% 16V	< TRANSISTOR >			
C841	1-126-925-11	ELECT	470uF 20% 10V	Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C851	1-124-720-11	ELECT	4.7uF 20% 35V	Q831	8-729-900-36	TRANSISTOR DTC124ES (D60/GR7/GR7J/RX70: US, CND)	
C851	1-126-963-11	ELECT	4.7uF 20% 50V (EXCEPT D60/RX70: US, CND)	Q832	8-729-119-78	TRANSISTOR 2SC403SP-51 (D60/GR7/GR7J/RX70: US, CND)	
C852	1-162-286-21	CERAMIC	220PF 10% 50V (GR7: EA4, SAF, TH)	Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C852	1-162-286-31	CERAMIC	220PF 10% 50V (EXCEPT GR7: EA4, SAF, TH)	< RESISTOR >			
C853	1-162-282-31	CERAMIC	100PF 10% 50V	R801	1-249-417-11	CARBON 1K 5% 1/4W	
C854	1-126-967-11	ELECT	47uF 20% 50V	R802	1-249-437-11	CARBON 47K 5% 1/4W	
C856	1-126-967-11	ELECT	47uF 20% 50V	R803	1-249-413-11	CARBON 470 5% 1/4W (D60/RX70: US, CND)	
C857	1-126-965-11	ELECT	22uF 20% 50V	R803	1-249-415-11	CARBON 680 5% 1/4W (EXCEPT D60/RX70: US, CND)	
C861	1-130-493-00	MYLAR	0.068uF 5% 50V	R804	1-249-437-11	CARBON 47K 5% 1/4W	
C862	1-130-493-00	MYLAR	0.068uF 5% 50V	R805	1-260-103-11	CARBON 2.2K 5% 1/2W (RX70: AEP, AED, CIS, EE, G, UK)	
C901	1-104-482-11	ELECT	4700uF 20% 63V (D60/RX70: US, CND)	R805	1-260-105-11	CARBON 3.3K 5% 1/2W (GR7/GR7J)	
C901	1-126-974-11	ELECT	3300uF 20% 50V (EXCEPT D60/RX70: US, CND)	R805	1-260-107-11	CARBON 4.7K 5% 1/2W (D60/RX70: US, CND)	
C902	1-130-777-00	FILM	0.1uF 10% 100V (D60/RX70: US, CND)	R806	1-260-103-11	CARBON 2.2K 5% 1/2W (RX70: AEP, AED, CIS, EE, G, UK)	
C902	1-136-165-00	FILM	0.1uF 5% 50V (EXCEPT D60/RX70: US, CND)	R806	1-260-105-11	CARBON 3.3K 5% 1/2W (GR7/GR7J)	
C951	1-104-482-11	ELECT	4700uF 20% 63V (D60/RX70: US, CND)	R806	1-260-107-11	CARBON 4.7K 5% 1/2W (D60/RX70: US, CND)	
C951	1-126-974-11	ELECT	3300uF 20% 50V (EXCEPT D60/RX70: US, CND)	△ R807	1-212-881-11	FUSIBLE 100 5% 1/4W F	
C952	1-130-777-00	FILM	0.1uF 10% 100V (D60/RX70: US, CND)	△ R808	1-208-601-11	WIREWOUND 0.1 10% 2W F	
C952	1-136-165-00	FILM	0.1uF 5% 50V (EXCEPT D60/RX70: US, CND)	R809	1-260-076-11	CARBON 10 5% 1/2W	
< CONNECTOR >				R811	1-249-417-11	CARBON 1K 5% 1/4W	
CN801	1-778-981-11	CONNECTOR, BOARD TO BOARD 13P		R812	1-247-863-91	CARBON 22K 5% 1/4W (GR7: EA4, SAF, TH)	
< DIODE >				R812	1-249-433-11	CARBON 22K 5% 1/4W (EXCEPT GR7: EA4, SAF, TH)	
D801	8-719-987-63	DIODE 1N4148M		R813	1-249-441-11	CARBON 100K 5% 1/4W	
D841	8-719-987-63	DIODE 1N4148M		R814	1-260-099-11	CARBON 1K 5% 1/2W (EXCEPT D60/RX70: US, CND)	
D842	8-719-987-63	DIODE 1N4148M		R814	1-260-105-11	CARBON 3.3K 5% 1/2W (D60/RX70: US, CND)	
D851	8-719-987-63	DIODE 1N4148M		R816	1-260-099-11	CARBON 1K 5% 1/2W (EXCEPT D60/RX70: US, CND)	
D901	8-719-028-23	DIODE D3SBA20-4101 (RX70: AEP, AED, CIS, EE, G, UK)		R816	1-260-105-11	CARBON 3.3K 5% 1/2W (D60/RX70: US, CND)	
D901	8-719-510-68	DIODE D5SBA20F01 (D60/GR7/GR7J/RX70: US, CND)		△ R820	1-202-972-61	FUSIBLE 1 5% 1/4W F	
< IC >				R831	1-249-441-11	CARBON 100K 5% 1/4W (D60/GR7/GR7J/RX70: US, CND)	
IC801	8-749-900-34	IC STK-4182MK2 (GR7/GR7J)					

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POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C811	1-130-493-00	MYLAR	0.068uF 5% 50V	IC801	8-749-920-09	IC STK-4152MK2K	
C812	1-130-493-00	MYLAR	0.068uF 5% 50V			(RX70: AEP, AED, CIS, EE, G, UK)	
C814	1-162-306-11	CERAMIC	0.01uF 20% 16V	IC801	8-749-922-65	IC STK-4221MK2 (D60/RX70: US, CND)	
C841	1-126-925-11	ELECT	470uF 20% 10V			< TRANSISTOR >	
C851	1-124-720-11	ELECT	4.7uF 20% 35V	Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C851	1-126-963-11	ELECT	(EXCEPT D60/RX70: US, CND) 4.7uF 20% 50V	Q831	8-729-900-36	TRANSISTOR DTC124ES	
C852	1-162-286-21	CERAMIC	(D60/RX70: US, CND) 220PF 10% 50V	Q832	8-729-119-78	TRANSISTOR 2SC403SP-51	
C852	1-162-286-31	CERAMIC	(GR7: EA4, SAF, TH) 220PF 10% 50V	Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
C853	1-162-282-31	CERAMIC	(EXCEPT GR7: EA4, SAF, TH) 100PF 10% 50V			< RESISTOR >	
C854	1-126-967-11	ELECT	47uF 20% 50V	R801	1-249-417-11	CARBON 1K 5% 1/4W	
C856	1-126-967-11	ELECT	47uF 20% 50V	R802	1-249-437-11	CARBON 47K 5% 1/4W	
C857	1-126-965-11	ELECT	22uF 20% 50V	R803	1-249-413-11	CARBON 470 5% 1/4W	
C861	1-130-493-00	MYLAR	0.068uF 5% 50V	R803	1-249-415-11	CARBON 680 5% 1/4W	
C862	1-130-493-00	MYLAR	0.068uF 5% 50V	R804	1-249-437-11	CARBON 47K 5% 1/4W	
C901	1-104-482-11	ELECT	4700uF 20% 63V	R805	1-260-103-11	CARBON 2.2K 5% 1/2W	
C901	1-126-974-11	ELECT	(D60/RX70: US, CND) 3300uF 20% 50V	R805	1-260-105-11	CARBON 3.3K 5% 1/2W	
C902	1-130-777-00	FILM	(EXCEPT D60/RX70: US, CND) 0.1uF 10% 100V	R805	1-260-107-11	CARBON 4.7K 5% 1/2W	
C902	1-136-165-00	FILM	(D60/RX70: US, CND) 0.1uF 5% 50V	R806	1-260-103-11	CARBON 2.2K 5% 1/2W	
C951	1-104-482-11	ELECT	(EXCEPT D60/RX70: US, CND) 4700uF 20% 63V	R806	1-260-105-11	CARBON 3.3K 5% 1/2W	
C951	1-126-974-11	ELECT	(D60/RX70: US, CND) 3300uF 20% 50V	R806	1-260-107-11	CARBON 4.7K 5% 1/2W	
C952	1-130-777-00	FILM	(EXCEPT D60/RX70: US, CND) 0.1uF 10% 100V	△ R807	1-212-881-11	FUSIBLE 100 5% 1/4W F	
C952	1-136-165-00	FILM	(D60/RX70: US, CND) 0.1uF 5% 50V	△ R808	1-208-601-11	WIREWOUND 0.1 10% 2W F	
		< CONNECTOR >		R809	1-260-076-11	CARBON 10 5% 1/2W	
CN801	1-778-981-11	CONNECTOR, BOARD TO BOARD 13P		R811	1-249-417-11	CARBON 1K 5% 1/4W	
		< DIODE >		R812	1-247-863-91	CARBON 22K 5% 1/4W	
D801	8-719-987-63	DIODE 1N4148M		R812	1-249-433-11	CARBON 22K 5% 1/4W	
D841	8-719-987-63	DIODE 1N4148M				(EXCEPT GR7: EA4, SAF, TH)	
D842	8-719-987-63	DIODE 1N4148M		R813	1-249-441-11	CARBON 100K 5% 1/4W	
D851	8-719-987-63	DIODE 1N4148M		R814	1-260-099-11	CARBON 1K 5% 1/2W	
D901	8-719-028-23	DIODE D3SBA20-4101				(EXCEPT D60/RX70: US, CND)	
		(RX70: AEP, AED, CIS, EE, G, UK)		R814	1-260-105-11	CARBON 3.3K 5% 1/2W	
D901	8-719-510-68	DIODE D5SBA20F01				(D60/RX70: US, CND)	
		(D60/GR7/GR7J/RX70: US, CND)		R816	1-260-099-11	CARBON 1K 5% 1/2W	
		< IC >				(EXCEPT D60/RX70: US, CND)	
IC801	8-749-900-34	IC STK-4182MK2 (GR7/GR7J)		R816	1-260-105-11	CARBON 3.3K 5% 1/2W	
						(D60/RX70: US, CND)	
				△ R820	1-202-972-61	FUSIBLE 1 5% 1/4W F	
				R831	1-249-441-11	CARBON 100K 5% 1/4W	
						(D60/GR7/GR7J/RX70: US, CND)	

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POWER AMP

SENSOR

TC SW

Ref. No.	Part No.	Description	Remark
R832	1-249-441-11	CARBON 100K 5% 1/4W (D60/GR7/GR7J/RX70: US, CND)	
R833	1-249-441-11	CARBON 100K 5% 1/4W (D60/GR7/GR7J/RX70: US, CND)	
R841	1-249-426-11	CARBON 5.6K 5% 1/4W (D60/RX70: US, CND)	
R841	1-249-429-11	CARBON 10K 5% 1/4W (EXCEPT D60/RX70: US, CND)	
R842	1-247-881-00	CARBON 120K 5% 1/4W (RX70: AEP, AED, CIS, EE, G, UK)	
R842	1-247-883-00	CARBON 150K 5% 1/4W (GR7/GR7J)	
R842	1-247-891-00	CARBON 330K 5% 1/4W (D60/RX70: US, CND)	
R843	1-249-421-11	CARBON 2.2K 5% 1/4W (EXCEPT D60/RX70: US, CND)	
R843	1-249-427-11	CARBON 6.8K 5% 1/4W (D60/RX70: US, CND)	
R844	1-249-429-11	CARBON 10K 5% 1/4W	
R851	1-249-417-11	CARBON 1K 5% 1/4W	
R852	1-249-437-11	CARBON 47K 5% 1/4W	
R853	1-249-413-11	CARBON 470 5% 1/4W (D60/RX70: US, CND)	
R853	1-249-415-11	CARBON 680 5% 1/4W (EXCEPT D60/RX70: US, CND)	
R854	1-249-437-11	CARBON 47K 5% 1/4W	
R855	1-260-103-11	CARBON 2.2K 5% 1/2W (RX70: AEP, AED, CIS, EE, G, UK)	
R855	1-260-105-11	CARBON 3.3K 5% 1/2W (GR7/GR7J)	
R855	1-260-107-11	CARBON 4.7K 5% 1/2W (D60/RX70: US, CND)	
R856	1-260-103-11	CARBON 2.2K 5% 1/2W (RX70: AEP, AED, CIS, EE, G, UK)	
R856	1-260-105-11	CARBON 3.3K 5% 1/2W (GR7/GR7J)	
R856	1-260-107-11	CARBON 4.7K 5% 1/2W (D60/RX70: US, CND)	
△ R857	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△ R858	1-208-601-11	WIREWOUND 0.1 10% 2W F	
R859	1-260-076-11	CARBON 10 5% 1/2W	
R861	1-249-417-11	CARBON 1K 5% 1/4W	
R862	1-247-863-91	CARBON 22K 5% 1/4W (GR7: EA4, SAF, TH)	
R862	1-249-433-11	CARBON 22K 5% 1/4W (EXCEPT GR7: EA4, SAF, TH)	
R863	1-249-441-11	CARBON 100K 5% 1/4W	
< THERMISTOR >			
TH801	1-807-796-11	THERMISTOR (D60/GR7/GR7J/RX70: US, CND)	

Ref. No.	Part No.	Description	Remark
*	1-658-576-11	SENSOR BOARD *****	
< IC >			
IC702	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391	
IC703	8-749-924-30	IC PHOTO REFLECTOR GP2S28	
< RESISTOR >			
R701	1-249-416-11	CARBON 820 5% 1/4W	
R702	1-249-407-11	CARBON 150 5% 1/4W	

*	A-4392-350-A	TC SW BOARD, COMPLETE ***** (EXCEPT GR7: EA4, SAF, TH)	
*	A-4392-850-A	TC SW BOARD, COMPLETE (GR7: EA4, SAF, TH) *****	
< CONNECTOR >			
CN607	1-506-486-11	PIN, CONNECTOR 7P	
< DIODE >			
D634	8-719-063-92	DIODE SLR325MC-M (▷: DECK B)	
D635	8-719-063-92	DIODE SLR325MC-M (◁: DECK B)	
D636	8-719-063-91	DIODE SLR325DC-P (■ PAUSE)	
D637	8-719-063-93	DIODE SLR325VC-N (● REC)	
D638	8-719-063-92	DIODE SLR325MC-M (▷: DECK A)	
D639	8-719-063-92	DIODE SLR325MC-M (◁: DECK A)	
< TRANSISTOR >			
Q617	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q618	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q619	8-729-119-76	TRANSISTOR 2SA1175-HFE	
< RESISTOR >			
R726	1-249-401-11	CARBON 47 5% 1/4W	
R727	1-249-403-11	CARBON 68 5% 1/4W	
R728	1-247-807-31	CARBON 100 5% 1/4W	
R729	1-249-407-11	CARBON 150 5% 1/4W	
R730	1-249-407-11	CARBON 150 5% 1/4W	
R731	1-247-815-91	CARBON 220 5% 1/4W (GR7: EA4, SAF, TH)	
R731	1-249-409-11	CARBON 220 5% 1/4W (EXCEPT GR7: EA4, SAF, TH)	
R732	1-249-411-11	CARBON 330 5% 1/4W	
R733	1-249-413-11	CARBON 470 5% 1/4W	
R734	1-249-415-11	CARBON 680 5% 1/4W	

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Ref. No.	Part No.	Description	Remark
R735	1-249-417-11	CARBON	1K 5% 1/4W
R736	1-249-419-11	CARBON	1.5K 5% 1/4W
R737	1-249-421-11	CARBON	2.2K 5% 1/4W
R738	1-247-843-11	CARBON	3.3K 5% 1/4W
R739	1-249-427-11	CARBON	6.8K 5% 1/4W
R740	1-247-807-31	CARBON	100 5% 1/4W
R741	1-247-807-31	CARBON	100 5% 1/4W
R742	1-247-807-31	CARBON	100 5% 1/4W
R743	1-247-815-91	CARBON	220 5% 1/4W
R743	1-249-409-11	CARBON	220 5% 1/4W (EXCEPT GR7: EA4, SAF, TH)
R744	1-247-807-31	CARBON	100 5% 1/4W
R745	1-247-807-31	CARBON	100 5% 1/4W
< SWITCH >			
S655	1-762-196-21	SWITCH, TACT (▷: DECK A)	
S656	1-762-196-21	SWITCH, TACT (◁: DECK A)	
S657	1-762-196-21	SWITCH, TACT (▶▶: DECK A)	
S658	1-762-196-21	SWITCH, TACT (◀◀: DECK A)	
S659	1-762-196-21	SWITCH, TACT (■: DECK A)	
S660	1-762-196-21	SWITCH, TACT (■: PAUSE)	
S661	1-762-196-21	SWITCH, TACT (●: REC)	
S662	1-762-196-21	SWITCH, TACT (CD SYNCHRO)	
S663	1-762-196-21	SWITCH, TACT (HIGH SPEED DUBBING)	
S664	1-762-196-21	SWITCH, TACT (▶▶: DECK B)	
S665	1-762-196-21	SWITCH, TACT (◀◀: DECK B)	
S666	1-762-196-21	SWITCH, TACT (■: DECK B)	
S667	1-762-196-21	SWITCH, TACT (▷: DECK B)	
S668	1-762-196-21	SWITCH, TACT (◁: DECK B)	

*	A-4303-574-A	TCB BOARD, COMPLETE	(RX70: AEP, AED, G, UK)

< CAPACITOR >			
C1	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C2	1-126-967-11	ELECT	47uF 20% 16V
C3	1-163-038-91	CERAMIC	10000PF 25V
C5	1-163-031-11	CERAMIC	10000PF 50V
C6	1-163-038-91	CERAMIC	10000PF 25V
C8	1-163-031-11	CERAMIC	10000PF 50V
C9	1-163-031-11	CERAMIC	10000PF 50V
C10	1-163-031-11	CERAMIC	10000PF 50V
C16	1-163-038-91	CERAMIC	10000PF 25V
C19	1-163-249-11	CHIP CERAMIC	82PF
C21	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C22	1-163-031-11	CERAMIC	10000PF 50V
C23	1-163-235-11	CHIP CERAMIC	22PF 5% 50V

Ref. No.	Part No.	Description	Remark
C24	1-163-239-11	CHIP CERAMIC	33PF 5% 50V
C26	1-126-967-11	ELECT	47uF 20% 16V
C28	1-126-967-11	ELECT	47uF 20% 16V
C29	1-162-306-11	CERAMIC	0.01uF 20% 16V
C30	1-126-961-11	ELECT	2.2uF 20% 50V
C31	1-163-031-11	CERAMIC	10000PF 50V
C32	1-163-038-91	CERAMIC	100000PF 25V
C33	1-163-038-91	CERAMIC	100000PF 25V
C34	1-163-229-11	CHIP CERAMIC	12PF 5% 50V
C35	1-163-038-91	CERAMIC	100000PF 25V
C36	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C37	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C39	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C40	1-163-031-11	CERAMIC	10000PF 50V
C41	1-163-031-11	CERAMIC	10000PF 50V
C42	1-163-038-91	CERAMIC	100000PF 25V
C43	1-163-038-91	CERAMIC	100000PF 25V
C44	1-163-031-11	CERAMIC	10000PF 50V
C45	1-163-038-91	CERAMIC	100000PF 25V
C46	1-163-077-00	CERAMIC CHIP	0.1uF 10% 25V
C47	1-126-967-11	ELECT	47uF 20% 16V
C48	1-163-031-11	CERAMIC	10000PF 50V
C49	1-126-959-11	ELECT	0.47uF 20% 50V
C50	1-126-960-11	ELECT	1.0uF 20% 50V
C51	1-126-960-11	ELECT	1.0uF 20% 50V
C52	1-126-963-11	ELECT	4.7uF 20% 50V
C53	1-126-964-11	ELECT	10uF 20% 50V
C54	1-104-396-11	ELECT	10uF 20% 16V
C55	1-104-396-11	ELECT	10uF 20% 16V
C56	1-104-396-11	ELECT	10uF 20% 16V
C57	1-163-017-00	CERAMIC CHIP	0.0047uF5% 50V
C58	1-163-017-00	CERAMIC CHIP	0.0047uF5% 50V
C59	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
C60	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
C61	1-126-301-11	ELECT	1uF 20% 50V
C62	1-163-141-00	CERAMIC CHIP	0.001uF 5% 50V
C63	1-163-017-00	CERAMIC CHIP	0.0047uF5% 50V
C64	1-126-967-11	ELECT	47uF 20% 16V
C65	1-163-031-11	CERAMIC	10000PF 50V
C66	1-126-162-11	ELECT	3.3uF 20% 50V
C67	1-126-933-11	ELECT	100uF 20% 10V
C68	1-162-306-11	CERAMIC	0.01uF 20% 16V
C71	1-162-306-11	CERAMIC	0.01uF 20% 16V
C72	1-126-967-11	ELECT	47uF 20% 16V
C120	1-163-105-00	CERAMIC CHIP	33PF 5% 50V
< FILTER >			
CF1	1-567-389-11	FILTER, CERAMIC	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CF2	1-760-393-11	FILTER, CERAMIC				< FILTER >	
CF3	1-760-393-11	FILTER, CERAMIC					
		< CONNECTOR >					
* CN1	1-568-834-11	SOCKET, CONNECTOR 15P				< TRANSISTOR >	
		< DIODE >					
D21	8-719-976-99	DIODE UDZ-TE-17-5.1B		Q1	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L	
D41	8-719-016-74	DIODE 1SS352-TPH3		Q2	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L	
		< FRONTEND >		Q3	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L	
FE1	1-693-357-11	FRONT END (4 GANG)		Q4	8-729-201-27	TRANSISTOR 2SC2715Y-TE85L	
FE2	1-233-514-11	ENCAPSULATED COMPONENT		Q5	8-729-424-08	TRANSISTOR MUN2111T1	
		< IC >					
IC21	8-759-288-54	IC LC72130		Q9	8-729-216-22	TRANSISTOR 2SA812-T1-M5M6	
IC41	8-759-176-03	IC LA1835		Q11	8-729-421-22	TRANSISTOR MUN2211T1	
		< IFT >		Q12	8-729-421-22	TRANSISTOR MUN2211T1	
IFT41	1-409-636-11	TRANSFORMER, IF (CERAMIC FILTER)		Q13	8-729-421-22	TRANSISTOR MUN2211T1	
		< CHIP CONDUCTOR >		Q14	8-729-421-22	TRANSISTOR MUN2211T1	
JR2	1-216-295-00	CONDUCTOR, CHIP (2012)				< RESISTOR >	
JR6	1-216-295-00	CONDUCTOR, CHIP (2012)		R1	1-249-401-11	CARBON 47 5% 1/4W	
JR8	1-216-295-00	CONDUCTOR, CHIP (2012)		R2	1-216-037-00	METAL CHIP 330 5% 1/10W	
JR9	1-216-295-00	CONDUCTOR, CHIP (2012)		R3	1-216-037-00	METAL CHIP 330 5% 1/10W	
JR45	1-216-295-00	CONDUCTOR, CHIP (2012)		R5	1-216-037-00	METAL CHIP 330 5% 1/10W	
JR46	1-216-296-00	CONDUCTOR, CHIP (3216)		R6	1-216-081-00	METAL CHIP 22K 5% 1/10W	
JR47	1-216-295-00	CONDUCTOR, CHIP (2012)					
JR48	1-216-295-00	CONDUCTOR, CHIP (2012)		R7	1-216-037-00	METAL CHIP 330 5% 1/10W	
JR49	1-216-296-00	CONDUCTOR, CHIP (3216)		R8	1-216-037-00	METAL CHIP 330 5% 1/10W	
JR51	1-216-295-00	CONDUCTOR, CHIP (2012)		R9	1-216-081-00	METAL CHIP 22K 5% 1/10W	
JR52	1-216-295-00	CONDUCTOR, CHIP (2012)		R10	1-216-037-00	METAL CHIP 330 5% 1/10W	
JR53	1-216-296-00	CONDUCTOR, CHIP (3216)		R11	1-216-081-00	METAL CHIP 22K 5% 1/10W	
JR54	1-216-295-00	CONDUCTOR, CHIP (2012)					
		< JUMPER RESISTOR >		R12	1-216-037-00	METAL CHIP 330 5% 1/10W	
JW4	1-249-413-11	CARBON 470 5% 1/4W		R13	1-216-037-00	METAL CHIP 330 5% 1/10W	
JW5	1-249-413-11	CARBON 470 5% 1/4W		R14	1-216-081-00	METAL CHIP 22K 5% 1/10W	
		< COIL >		R18	1-216-073-00	METAL CHIP 10K 5% 1/10W	
L2	1-414-142-11	INDUCTOR, MICRO 1uH		R19	1-216-073-00	METAL CHIP 10K 5% 1/10W	
L3	1-410-521-11	INDUCTOR, MICRO 100uH					
L4	1-410-515-11	INDUCTOR, MICRO 33uH		R21	1-216-049-91	CHIP 1K 5% 1/10W	
L41	1-407-500-00	MICRO INDUCTOR 4.7mH		R22	1-216-049-91	CHIP 1K 5% 1/10W	
				R23	1-216-049-91	CHIP 1K 5% 1/10W	
				R24	1-216-025-91	CHIP 100 5% 1/10W	
				R25	1-249-417-11	CARBON 1K 5% 1/4W	
				R26	1-249-437-11	CARBON 47K 5% 1/4W	
				R27	1-249-417-11	CARBON 1K 5% 1/4W	
				R28	1-249-417-11	CARBON 3.3K 5% 1/4W	
				R29	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
				R30	1-216-186-00	CHIP 330 5% 1/8W	
				R31	1-216-025-91	CHIP 100 5% 1/10W	
				R32	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R33	1-249-425-11	CARBON 4.7K 5% 1/4W	
				R34	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
				R35	1-216-214-00	CHIP 4.7K 5% 1/8W	
				R36	1-216-025-91	CHIP 100 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R37	1-216-073-00	METAL CHIP	10K 5% 1/10W
R38	1-216-089-91	CHIP	47K 5% 1/10W
R39	1-249-429-11	CARBON	10K 5% 1/4W
R42	1-216-073-00	METAL CHIP	10K 5% 1/10W
R43	1-216-042-00	METAL CHIP	510 5% 1/10W
R44	1-216-013-00	METAL CHIP	33 5% 1/10W
R45	1-247-843-11	CARBON (SMALL)	3.3K 5% 1/4W
R46	1-216-073-00	METAL CHIP	10K 5% 1/10W
R47	1-216-097-91	CHIP	100K 5% 1/10W
R48	1-249-417-11	CARBON	1K 5% 1/4W
R49	1-216-049-91	CHIP	1K 5% 1/10W
R50	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R51	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R53	1-249-429-11	CARBON	10K 5% 1/4W
R54	1-249-399-11	CARBON	33 5% 1/4W
R55	1-216-162-00	CHIP	33 5% 1/8W
R56	1-249-393-11	CARBON	10 5% 1/4W
R91	1-216-295-00	CONDUCTOR, CHIP	(2012)
R92	1-216-073-00	METAL CHIP	10K 5% 1/10W
R94	1-216-073-00	METAL CHIP	10K 5% 1/10W
R99	1-249-399-11	CARBON	33 5% 1/4W
< VARIABLE RESISTOR >			
RV41	1-238-601-11	ADJ, CARBON	22K
RV42	1-238-600-11	ADJ, CARBON	10K
< TERMINAL >			
TM1	1-537-488-11	TERMINAL BOARD (ANT)	
< VIBRATOR >			
X21	1-760-549-31	VIBRATOR, CRYSTAL (4.5MHz)	
X41	1-760-220-11	FILTER, CERAMIC	
X42	1-527-981-00	FILTER, CERAMIC	
X43	1-577-075-21	OSCILLATOR, CERAMIC	

*	1-664-004-11	TRANS BOARD	

	1-533-217-31	HOLDER, FUSE	
< CONNECTOR >			
* CN901	1-564-522-11	PLUG, CONNECTOR 7P	
* CN902	1-564-518-11	PLUG, CONNECTOR 3P	
CN903	1-564-321-00	PIN, CONNECTOR 2P	(D60/GR7/GR7J/RX70: US, CND)
CN903	1-774-108-11	PIN, CONNECTOR (PC BOARD)	(RX70: AEP, AED, CIS, EE, G, UK)

Ref. No.	Part No.	Description	Remark
< FUSE >			
△ F901	1-532-388-31	FUSE (2A, 250V) (EXCEPT D60/GR7: MX/RX70)	
△ F902	1-532-504-31	FUSE (4A, 250V)	(GR7: EA3, E2, E3, HK, MX, MY, SP, TW/GR7J)
△ F902	1-533-420-11	FUSE, GLASS CYLINDRICAL (DIA.5) (2A, 250V)	(D60/RX70: US, CND)
△ F903	1-532-505-31	FUSE (5A, 250V)	(RX70: AEP, AED, CIS, EE, G, UK)
△ F904	1-532-505-31	FUSE (5A, 250V)	(RX70: AEP, AED, CIS, EE, G, UK)
< RESISTOR >			
△ R901	1-219-119-81	FUSIBLE	0.1 5% 1/4W F (D60/RX70: US, CND)
△ R901	1-219-120-11	FUSIBLE	0.15 5% 1/4W F (GR7/GR7J)
△ R901	1-219-121-11	FUSIBLE	0.22 5% 1/4W F (RX70: AEP, AED, CIS, EE, G, UK)
△ R902	1-219-119-81	FUSIBLE	0.1 5% 1/4W F (D60/RX70: US, CND)
△ R902	1-219-120-11	FUSIBLE	0.15 5% 1/4W F (GR7/GR7J)
△ R902	1-219-121-11	FUSIBLE	0.22 5% 1/4W F (RX70: AEP, AED, CIS, EE, G, UK)
△ R903	1-219-119-81	FUSIBLE	0.1 5% 1/4W F (D60/RX70: US, CND)
△ R903	1-219-120-11	FUSIBLE	0.15 5% 1/4W F (GR7/GR7J)
△ R903	1-219-121-11	FUSIBLE	0.22 5% 1/4W F (RX70: AEP, AED, CIS, EE, G, UK)
△ R904	1-219-119-81	FUSIBLE	0.1 5% 1/4W F (D60/RX70: US, CND)
△ R904	1-219-120-11	FUSIBLE	0.15 5% 1/4W F (GR7/GR7J)
△ R904	1-219-121-11	FUSIBLE	0.22 5% 1/4W F (RX70: AEP, AED, CIS, EE, G, UK)
△ R907	1-202-725-00	SOLID	3.3M 10% 1/2W (D60/RX70: US, CND)
< SWITCH >			
△ S901	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE	(VOLTAGE SELECTOR) (GR7: EA3, E2, E3, HK, MY, SP, TW/GR7J)
< TRANSFORMER >			
△ T901	1-429-997-11	TRANSFORMER, POWER (D60/RX70: US)	
△ T901	1-429-998-11	TRANSFORMER, POWER	(RX70: AEP, AED, CIS, EE, G, UK)
△ T901	1-429-999-11	TRANSFORMER, POWER (GR7/GR7J)	
△ T901	1-431-148-11	TRANSFORMER, POWER (RX70: CND)	

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS *****			
14	1-773-160-11	WIRE (FLAT TYPE) (21 CORE)	
15	1-769-947-11	WIRE (FLAT TYPE) (11 CORE)	
64	1-777-869-11	WIRE (FLAT TYPE) (10 CORE)	
64	1-777-871-11	WIRE (FLAT TYPE) (8 CORE) (EXCEPT US, CND)	
65	1-777-936-11	WIRE (FLAT TYPE) (5 CORE) (EXCEPT US, CND)	
66	1-773-051-11	WIRE (FLAT TYPE) (17 CORE)	
74	1-769-909-11	WIRE (FLAT TYPE) (9 CORE)	
104	1-777-870-11	WIRE (FLAT TYPE) (19 CORE)	
106	1-233-514-11	ENCAPSULATED COMPONENT (RX70: AEP, AED, CIS, EE, G, UK)	
106	1-233-544-11	ENCAPSULATED COMPONENT (D60/RX70: US, CND)	
106	1-233-545-11	ENCAPSULATED COMPONENT (GR7: E2, EA4, MX, TH, AUS)	
106	1-233-546-11	ENCAPSULATED COMPONENT (GR7: E3, EA3, HK, MY, SAF, SP, TW/GR7J)	
108	1-751-086-11	WIRE (FLAT TYPE) (13 CORE) (D60/GR7: E2, EA4, MX, TH, AUS/RX70: US, CND)	
108	1-751-688-11	WIRE (FLAT TYPE) (13 CORE) (GR7: E2)	
108	1-773-012-11	WIRE (FLAT TYPE) (15 CORE) (GR7: E3, EA3, HK SAF, SP, TW/GR7J/RX70: AEP, AED, CIS, EE, G, UK)	
△ 113	1-751-326-31	CORD, POWER (TH)	
△ 114	1-690-609-21	CORD, POWER (US, CND)	
△ 115	1-575-653-11	CORD, POWER (E2, E3, MX)	
△ 116	1-569-007-11	ADAPTOR, CONVERSION 2P (E3)	
△ 117	1-569-008-11	ADAPTOR, CONVERSION 2P (EA3, MY, SP, TW)	
△ 118	1-575-651-11	CORD, POWER (EA3, EA4, HK, MY, SAF, SP, TW)	
△ 118	1-575-651-21	CORD, POWER (AEP, AED, CIS, EE, G)	
△ 119	1-690-608-11	CORD, POWER (AUS)	
△ 120	1-751-529-11	CORD, POWER (UK)	
△ 121	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (HK)	
257	1-452-538-11	MAGNET	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
△ 301	8-820-020-01	OPTICAL PICK-UP KSS-213D/Q-NP	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
HP101	1-500-093-11	HEAD, MAGNETIC (PLAYBACK) (DECK A)	
HRPE1011-500-094-11		HEAD, MAGNETIC (REC/PB/ERASE) (DECK B)	
M1	X-3371-223-1	MOTOR ASSY, CAPSTAN	
M101	X-4917-523-4	MOTOR ASSY SPINDLE	
M102	X-4917-504-1	MOTOR ASSY SLED	
M2	A-2004-410-A	MOTOR ASSY, DC (TRIGGER)	
M701	A-4672-004-A	MOTOR ASSY (TURN)	
M801	A-4672-004-A	MOTOR ASSY (SLED)	
M901	1-698-792-11	FAN, DC (D60/GR7/GR7J/RX70: US, CND)	
S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
△ T901	1-429-997-11	TRANSFORMER, POWER (D60/RX70: US)	

Ref. No.	Part No.	Description	Remark
△ T901	1-429-998-11	TRANSFORMER, POWER (RX70: AEP, AED, CIS, EE, G, UK)	
△ T901	1-429-999-11	TRANSFORMER, POWER (GR7/GR7J)	
△ T901	1-431-148-11	TRANSFORMER, POWER (RX70: CND)	

***** HARDWARE LIST *****			
#1	7-685-871-01	SCREW +BVTT 3X6 (S)	
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#5	7-621-775-10	SCREW +B 2.6X4	
#6	7-621-255-15	SCREW +P 2X3	
#7	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	
#8	7-685-131-19	SCREW +BTP 2.6X4 TYPE2 N-S	
#9	7-685-862-09	SCREW +BVTT 2.6X6 (S)	
#10	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
#11	7-623-921-01	RING, RETAINING, CAPSTAN	
#12	7-621-775-00	SCREW +B 2.6X3	
#13	7-685-872-09	SCREW +BVTT 3X8 (S)	

ACCESSORIES & PACKING MATERIALS

- 1-501-374-11 ANTENNA, LOOP (GR7: SAF)
- 1-501-659-11 ANTENNA (FM) (GR7: SAF)
- 8-917-581-90 REMOCON, SONY RM-SD70//M SET (GR7: SAF)

RTV servis Horvat

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031-856-637

098-788-319

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Croatia

The components identified by mark △ or dotted line with mark △ 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.
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