

CDX-C860/C860RDS

SERVICE MANUAL

US Model
CDX-C860

AEP Model

UK Model
CDX-C860RDS

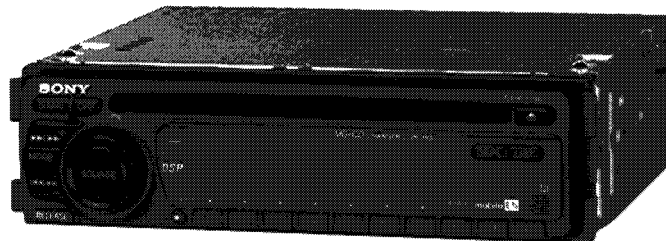


Photo : CDX-C860

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (C860)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

15 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1 % total harmonic distortion.

CD player section

System	Compact disc digital audio system
Signal-to-noise ratio	93 dB
Frequency response	10 - 20,000 Hz
Wow and flutter	Below measurable limit
Laser Diode Properties	
Material	GaAlAs
Wavelength	780 nm
Emission Duration	Continuous
Laser output power	Less than 44.6 μ W*

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

Tuner section

FM

Tuning range	87.5 - 107.9 MHz (C860) 87.5 - 108.0 MHz (C860RDS)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	10 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	62 dB (stereo), 65 dB (mono)
Harmonic distortion at 1 kHz	0.9% (stereo), 0.5% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 - 15,000 Hz
Capture ratio	2 dB

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-333T-121
Optical Pick-up Name	KSS-520A

AM (C860)

Tuning range	530 - 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	30 μ V

MW/LW (C860RDS)

Tuning range	MW 531 - 1,602 kHz LW 153 - 281 kHz
Aerial terminal	External aerial connector
Intermediate frequency	10.71 MHz/450 kHz
Sensitivity	MW 30 μ V LW 50 μ V

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 - 8 ohms
Maximum power output	40 W \times 4 (at 4 ohms)

— Continued on next page —

FM/AM COMPACT DISC PLAYER

CDX-C860

FM/MW/LW COMPACT DISC PLAYER

CDX-C860RDS



992557411

SONY®

General

Outputs	Line outputs (2) Sub output Power antenna relay control lead Power amplifier control lead
Tone controls	Bass ± 10 dB at 100 Hz Treble ± 10 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 188 × 58 × 177 mm (7 1/2 × 2 3/8 × 7 in) (w/h/d)
Mounting dimension	Approx. 178 × 50 × 154 mm (7 1/8 × 2 × 6 1/8 in) (w/h/d)
Mass	Approx. 1.5 kg (3 lb 4.9 oz)
Supplied accessories	Rotary remote (RM-X2S) (1) Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

SERVICE NOTE

CAUTION

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

Notes on Chip Component Replacement

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

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

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

During repair, pay attention to electrostatic breakdown 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

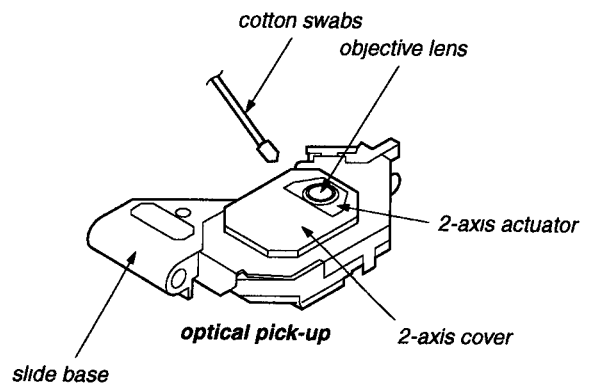
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

NOTES ON PICK-UP FLEXIBLE BOARD

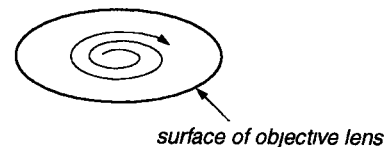
The pick-up flexible board in this set is secured to the optical pick-up with an adhesive tape. Once the tape is removed, an adhering force becomes weak, and it cannot be reused.

Therefore, if the optical pick-up is replaced, replace also the pick-up flexible board with a new one.

NOTES ON CLEANING THE OBJECTIVE LENS



Apply CD lens cleaner B-4 (Part No.:J-2501-000-A) to cotton swabs (narrow type) (Part No.:J-2501-023-A) to be lightly wet. Use a force (about 5 g (0.18 oz)) to make the objective lens in contact with the bottom lightly, and clean the lens by spirals as following below. Replace the cotton swab and repeat this cleaning two or three times.



Notes:

Do not force to push the objective lens. Otherwise, the plate spring supporting the objective lens will be bent, causing a deteriorated RF waveform.

Never touch anything other than the objective lens. Otherwise, a significant deterioration occurs in the RF waveform.

SAFETY-RELATED COMPONENT WARNING!!

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

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SECTION 1 GENERAL

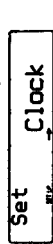
This section extracted from
CDX-C860RDS's instruction manual.

Setting the clock

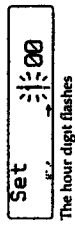
The clock uses a 24-hour digital indication.

Example: Set the clock to 10:08

- 1 Press **(SHIFT)**, then press **(SET UP)**.



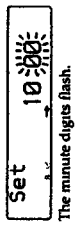
- 2 Press **(←)**.



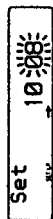
- 3 Set the hour.



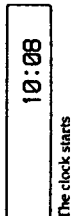
- 4 Press **(→)**.



- 5 Set the minute.



- 6 Press **(SHIFT)**.



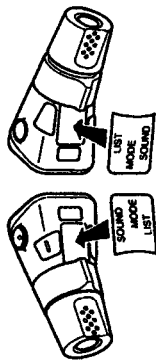
- 7 Press **(SHIFT)**.

After the mode setting is complete, the display goes back to normal playback mode.

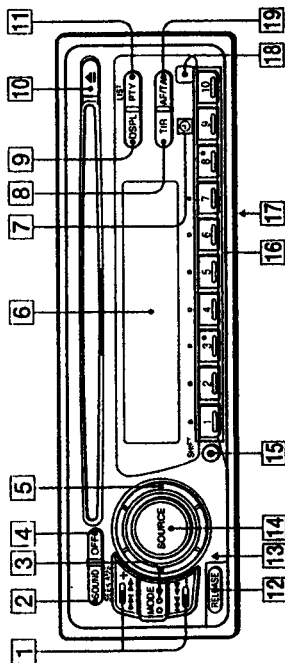
Note
If the **POWER SELECT** switch on the bottom of the unit is set to the **(OFF)** position, turn the power on first, then set the clock.

Preparing the rotary remote

When you mount the rotary remote, attach the label in the illustration below.



Location of controls



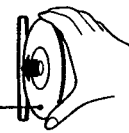
Refer to the pages for details.

- 1 SEEK/AMS (seek/Automatic Music Sensor/manual search) button 6, 7, 8, 9, 10, 11, 12, 14, 15, 23, 24, 25, 26, 29
- 2 SOUND button 16, 17, 18, 19, 21
- 3 MODE (band/changer select) button 10, 11, 23, 25, 28
- 4 OFF button 4, 6
- 5 Dial (volume/surround menu/listening position/sub woofer volume/bass/treble/balance/fader control) 5, 16, 17, 18, 19, 21, 27
- 6 Display window
- 7 TIR indicator 4, 14
- 8 TIR button 14
- 9 DSP (display mode change) button 6, 11, 23, 27, 28
- 10 (eject) button 6
- 11 PTY/LIST button
Disc Memo 27, 28
List-up 28
- 12 RDS Programme 15
- 13 RESET button (located on the front side of the unit behind by the front panel) 4
- 14 SOURCE (source select) button 6, 10, 11, 16, 17, 18, 19, 23, 25, 28
- 15 SHIFT button
PLAY MODE 7, 8, 9, 10, 11, 12, 13, 17, 24, 25, 26, 29
REP 7, 24
SET UP 5, 6, 16, 22, 23, 27
SHUF 7, 24
- 16 During radio reception:
Number buttons 10, 11, 12, 13
During CD/MD playback:
Direct disc selection buttons 24
- 17 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT Switch" in the Installation/Connections manual
- 18 Receptor for the optional wireless remote
- 19 AFTA button 12, 13

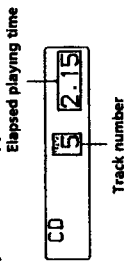
CD Player

Listening to a CD

Simply insert the CD.
Playback starts automatically.
Labelled side up



If a CD is already inserted, press **(SOURCE)** repeatedly until "CD" appears.

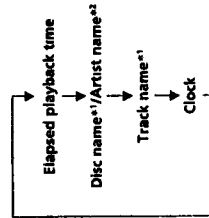


Note
To play back an 8 cm CD, use the optional Sony compact disc single adapter (CSA-8).

To **Press**
Stop playback **(STOP)** or **(OFF)**
Eject the CD **(EJECT)**

Changing the displayed item

Each time you press **(DISP)**, the item changes as follows



**1 If you inserted a non-CD-TLXT disc, "NO D Name" or "NO T Name" appears in the display.
**2 If you play a CD-TLXT disc, the artist name appears in the display after the disc name (Only for CD-TLXT discs with the artist name.)

Tip
If the name of the CD-TEXT disc is too long, you can scroll it across the display by pressing **(SHIFT)**, then **(←)**.

Automatically scrolling a disc name

- Auto Scroll
- If the disc name/artist name or track name on a CD-TEXT disc exceeds 10 characters and the Auto Scroll function is on, automatically scrolls on the display as follows
 - The disc name appears when the disc has changed (if the disc name is selected)
 - The track name appears when the track has changed (if the track name is selected)
 - The disc or track name appears depending on the setting when you press **(SOURCE)** to select a CD-TEXT disc

If you press **(DISP)** to change the display item, the disc or track name of the CD-TEXT disc is scrolled automatically whether you set the function on or off

- 1 During playback, press **(SHIFT)**.
- 2 Press **(SET UP)** repeatedly until "A.Scri" appears.
- 3 Press **(←)** to select "A.Scri on."
- 4 Press **(SHIFT)**.

To cancel Auto Scroll, select "A.Scri off" in step 2 above

Note
For some CD-TEXT discs with extremely many characters, the following cases may happen:
— Some of the characters are not displayed
— Auto Scroll disc not work

Locating a specific track

- Automatic Music Sensor (AMS)

During playback, press either side of **(SEEK/AMS)** momentarily.

To locate succeeding tracks

To locate preceding tracks

Locating a specific point in a track

- Manual Search

During playback, press and hold either side of **(SEEK/AMS)**. Release the button when you have found the desired point.

To search forward

To search backward

Note
If "LLLL" or "RRRR" appears in the display, that means you have reached the beginning or the end of the disc and you cannot go any further.

Playing a CD in various modes

You can play CDs in various modes

- Intro (Intro Scan) lets you play the first 10 seconds of all the tracks
- Repeat (Repeat Play) repeats the current track
- Shuf (Shuffle Play) plays all the tracks in random order

Searching for the desired track

- Intro scan

1 Press **(SHIFT)**.
Every time you press **(SHIFT)**, only the items you can select light up



- 2 Press **(PLAY MODE)** repeatedly until "Intro" appears.

Each time you press **(PLAY MODE)**, the item changes as follows

Intro → PGM → DSM set

CD Intro off

- 3 Press **(←)** to select "Intro on."

CD Intro on

Intro Scan starts

- 4 Press **(SHIFT)**.

To go back to normal playback mode, select "Intro off" in step 3 above.

Playing tracks repeatedly

- Repeat Play

- 1 During playback, press **(SHIFT)**.

2 Press **(REP)** repeatedly until "Repeat 1" appears.



Repeat Play starts

- 3 Press **(SHIFT)**.

To go back to normal playback mode, select "Repeat off" in step 2 above

Playing tracks in random order

- Shuffle Play

- 1 During playback, press **(SHIFT)**.

2 Press **(SHUF)** repeatedly until "Shuf 1" appears.



Shuffle Play starts

- 3 Press **(SHIFT)**.

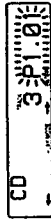
To go back to normal playback mode, select "Shuf off" in step 2 above

Creating a programme

— CD Programme Memory

You can play the tracks in the order you want by making your own programme. You can make two programmes: Programme 1 and Programme 2. You can select up to 12 tracks for each programme. You can store the programmes in memory.

- 1 Press **(SHIFT)**, then press **(PLAY MODE)** for two seconds.

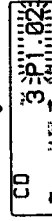


"P 1" shows Programme 1 is selected.

To select Programme 2, press **(←)** repeatedly until "P 2" appears.

- 2 Press either side of **(SEEK/AMS)** to select the track you want.

- 3 Press **(ENTER)** momentarily.



- 4 To continue entering tracks, repeat steps 2 and 3.

- 5 When you finish selecting tracks, press **(PLAY MODE)** for two seconds.

- 6 Press **(SHIFT)**.

Notes

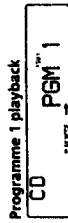
- "Mem" appears in the display while the unit is reading the data.
- "Mem Full" appears in the display when you try to enter more than 12 tracks into a programme.

Playing the stored programme

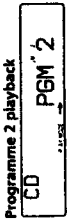
You can select:

- PGM 1 to play Programme 1.
- PGM 2 to play Programme 2.
- PGM 1+2 to play Programmes 1 and 2.

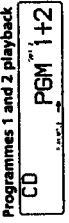
- 1 Press **(SHIFT)**.
- 2 Press **(PLAY MODE)** repeatedly until "PGM" appears.
- 3 Press **(←)** repeatedly until the desired programme appears.



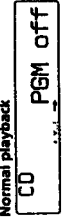
↓



↓



↓



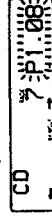
Programme Play starts

- 4 Press **(SHIFT)**.
To go back to normal playback mode, select "PGM off" in step 3 above.

Note
"NO Data" appears in the display if no track is stored in the programme.

Erasing an entire programme

- 1 Press **(SHIFT)**, then press **(PLAY MODE)** for two seconds.



"P 1" shows Programme 1 is selected

- 2 Press **(←)** repeatedly until "DEL" appears.



Erasing tracks in a programme

- 1 Press **(SHIFT)**, then press **(PLAY MODE)** for two seconds.

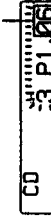


"P 1" shows Programme 1 is selected.

To select Programme 2, press **(←)** repeatedly until "P 2" appears.

- 2 Press **(←)** or **(→)** to select the track you want to erase.

Track slot number



The track currently registered in slot 6 of Programme 1.

- 3 Press **(ENTER)** for two seconds.
When you erase a track from a slot number, the succeeding tracks shift up to fill the gap.



↓



- 4 To continue erasing tracks, repeat steps 2 and 3.

- 5 When you finish erasing tracks, press **(PLAY MODE)** for two seconds.

- 6 Press **(SHIFT)**.

To delete Programme 2, press **(←)** repeatedly until "PGM 2" appears.

- 3 Press **(ENTER)** for two seconds.



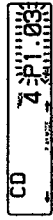
The entire programme is erased.

- 4 When you finish erasing programmes, press **(PLAY MODE)** for two seconds.

- 5 Press **(SHIFT)**.

Adding tracks to a programme

- 1 Press **(SHIFT)**, then press **(PLAY MODE)** for two seconds.

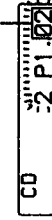


"P 1" shows Programme 1 is selected.

To select Programme 2, press **(←)** repeatedly until "P 2" appears.

- 2 Press **(←)** or **(→)** to select the track slot number where you want to insert a track.

Track slot number



- 3 Press either side of **(SEEK/AMS)** to select the track you want to insert.

- 4 Press **(ENTER)** momentarily to enter the track.

The current track in that slot number and the succeeding tracks shift down.

- 5 To continue inserting tracks, repeat steps 2 through 4.

Note
Once all 12 slots have been filled, "Mem Full" appears in the display, and you cannot insert tracks.

- 6 When you finish inserting tracks, press **(PLAY MODE)** for two seconds.

- 7 Press **(SHIFT)**.

Radio

Memorising stations automatically

— Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals and memorises them in the order of their frequencies. You can store up to 10 stations on each band (FM1, FM2, MW and LW).

Caution

When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

- 1 Press **(SOURCE)** repeatedly to select the tuner. Each time you press **(SOURCE)**, the source changes as follows:

CD → TUNER

- 2 Press **(MODE)** repeatedly to select the band.

Each time you press **(MODE)**, the band changes as follows:

FM1 → FM2 → MW → LW

- 3 Press **(SHIFT)**, then press **(PLAY MODE)** repeatedly until "B.T.M" appears.

- 4 Press **(←)**.

The unit stores stations in the order of their frequencies on the number buttons. A beep sound and the setting is stored.

- 5 Press **(SHIFT)**.

Notes

- The unit does not store stations with weak signals. If only a few stations are received, some number buttons will retain their former setting.
- When a number is indicated in the display, the unit starts storing stations from the one currently displayed.

Memorising only the desired stations

You can store up to 10 stations on each band (20 for FM1 and FM2, 10 for each MW and LW) in the order of your choice.

- 1 Press **(SOURCE)** repeatedly to select the tuner.

- 2 Press **(MODE)** repeatedly to select the band (FM1, FM2, MW or LW).

- 3 Press either side of **(SEEK/AMS)** to tune in the station you want to store on the number button.

- 4 Keep the desired number button **(1)** to **(10)** pressed for two seconds until "MEM" appears. The number button indication appears in the display.

Note

If you try to store another station on the same number button, the previously stored station will be erased.

Receiving the memorised stations

- 1 Press **(SOURCE)** repeatedly to select the tuner.

- 2 Press **(MODE)** repeatedly to select the band (FM1, FM2, MW or LW).

- 3 Press the number button **(1)** to **(10)** momentarily where the desired station is stored.

If you cannot tune in a preset station

Press either side of **(SEEK/AMS)** momentarily to search for the station (automatic tuning).

Scanning stops when the unit receives a station. Press either side of **(SEEK/AMS)** repeatedly until the desired station is received.

Note

If the automatic tuning stops too frequently, press **(SHIFT)**, then press **(PLAY MODE)** repeatedly until "Local seek mode" is displayed. Then press **(←)** to select "Local on". Press **(SHIFT)**. Only the stations with relatively strong signals will be tuned in.

Tip

If you know the frequency of the station you want to listen to, press and hold either side of **(SEEK/AMS)** for two seconds, until the desired frequency appears (manual tuning).

If FM stereo reception is poor

— Monaural Mode

- 1 Press **(SHIFT)**, then press **(PLAY MODE)** repeatedly until "Mono" appears.

- 2 Press **(←)** repeatedly until "Mono on" appears.

The sound improves, but becomes monaural ("ST" disappears).

- 3 Press **(SHIFT)**.

To go back to normal mode, select "Mono off" in step 2 above.

Changing the displayed items

Each time you press **(DISP)**, the item changes as follows:

Frequency → Clock

RDS

Overview of the RDS function

Radio Data System (RDS) is a broadcasting service that allows FM stations to send additional digital information along with the regular radio programme signal. Your car stereo offers you a variety of services. Here are just a few: re-tuning the same programme automatically, listening to traffic announcements and locating a station by programme type.

Notes

- Depending on the country or region, not all of the RDS functions are available.
- RDS may not work properly if the signal strength is weak or if the station you are tuned to is not transmitting RDS data.

Displaying the station name

The name of the current station lights up in the display.

Select an FM station (page 10).

When you tune in an FM station that transmits RDS data, the station name appears in the display.

FM1 BBC 1 FM

Note

The "r" indication means that an RDS station is being received.

Changing the displayed items

Each time you press **(DISP)**, the item changes as follows:

→ Frequency → Clock → Station Name

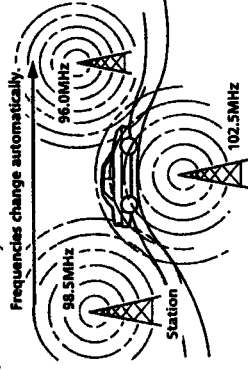
Note

"NO Name" appears if the received station does not transmit RDS data.

Re-tuning the same programme automatically

— Alternative Frequencies (AF)

The Alternative Frequencies (AF) function automatically selects and re-tunes the station with the strongest signal in a network. By using this function, you can continuously listen to the same programme during a long-distance drive without having to re-tune the station manually.



Frequencies change automatically.

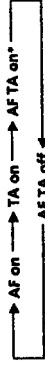
- 1 Select an FM station (page 10).

- 2 Press **(A/F TA)** repeatedly until "AF on" appears.

The unit starts searching for an alternative station with a stronger signal in the same network.

Note
When there is no alternative station in the area and you do not need to search for an alternative station, turn the AF function off by pressing **(A/F TA)** repeatedly until "AF TA off" appears.

Changing the displayed items
Each time you press **(A/F TA)**, the item changes as follows:



* Select this to turn on both the AF and TA functions

Notes

- * "NO AF" and the station name flash alternately, if the unit cannot find an alternative station in the network
- * If the station name starts flashing after selecting a station with the AF function on, this indicates that no alternative frequency is available. Press **(SEEK/AMS)** while the station name is flashing (within eight seconds). The unit starts searching for another frequency with the same PI (Programme Identification) data (PI seek another frequency). "NO PI" appears, and the unit returns to the originally selected frequency

Press **(A/F TA)** repeatedly until "TA on" or "AF TA on" appears.

The unit starts searching for traffic information stations. "TP" appears in the display when the unit finds a station broadcasting traffic announcements. When the traffic announcement starts, "TA" flashes. The flashing stops when the traffic announcement is over.

Tip
If the traffic announcement starts while you are listening to another programme source, the unit automatically switches to the announcement and goes back to the original source when the announcement is over.

- Notes**
- * "NO TP" flashes for five seconds if the received station does not broadcast traffic announcements. Then, the unit starts searching for a station that broadcasts traffic announcements.
 - * When "EON" appears with "TP" in the display, the current station makes use of broadcast traffic announcements by other stations in the same network

To cancel the current traffic announcement

Press **(A/F TA)** momentarily.

To cancel all traffic announcements, turn off the function by pressing **(A/F TA)** until "AF TA off" appears.

Presetting the volume of traffic announcements

You can preset the volume level of the traffic announcements beforehand so you won't miss the announcement. When a traffic announcement starts, the volume will be automatically adjusted to the preset level.

- 1 Select the desired volume level.
- 2 Press **(A/F TA)** for two seconds. "TA" appears and the setting is stored.

Receiving emergency announcements

If an emergency announcement comes in while you are listening to the radio, the programme will automatically switch to the other than the radio, the emergency announcements will be heard if you set AF or TA on. The unit will then automatically switch to these announcements no matter what you are listening to at the time.

Presetting the RDS stations with the AF and TA data

When you preset RDS stations, the unit stores each station's data as well as its frequency, so you don't have to turn on the AF or TA function every time you tune in the preset station. You can select a different setting (AF, TA, or both) for individual preset station, or the same setting for all preset stations.

Presetting the same setting for all preset stations

- 1 Select an FM band (page 10).
- 2 Press **(A/F TA)** repeatedly to select either "AF on", "TA on" or "AF TA on" (for both AF and TA functions).
Note that selecting "AF TA off" stores not only RDS stations, but also non-RDS stations.
- 3 Press **(SHIFT)**, then press **(3)** (PLAY MODE) repeatedly until "B.T.M" appears.
- 4 Press **(4)** (→).
- 5 Press **(SHIFT)**.

Presetting different settings for each preset station

- 1 Select an FM band, and tune in the desired station.
- 2 Press **(A/F TA)** repeatedly to select either "AF on", "TA on" or "AF TA on" (for both AF and TA functions).
- 3 Press the desired number button for two seconds until "MEM" appears.
Repeat from step 1 for presetting other stations.

Tip
If you want to change the preset AF and/or TA setting after you tune in the preset station, you can do so by turning the AF or TA function on or off.

Recording the traffic announcements

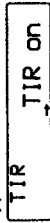
—Traffic Information Replay (TIR)

You can listen to the latest traffic announcement by recording them. Every time a traffic announcement starts, the unit automatically records and stores up to eight traffic announcements. If the recording exceeds four minutes, the recorded announcements are updated, so you can always listen to the latest information. The TIR function turns on the unit automatically and records the traffic announcements for up to two hours before and after a preset time.

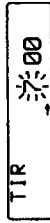
Presetting the time and the station

- 1 Press **(TIR)** for two seconds until "TIR" lights up in the display.

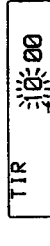
- 2 Press **(←)** repeatedly until "TIR on" appears.



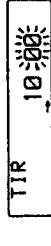
- 3 Press **(TIR)** repeatedly until the time indication appears.



- 4 Set the hour by rotating the dial.



- 5 Press **(→)** until the minute digit flashes.

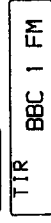


- 6 Set the minute by rotating the dial.



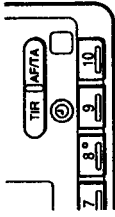
- 4 Press **(TIR)**.

- 5 Select the desired station by pressing the preset number button or either side of **(SEEK/AMS)**.



- 6 Press **(TIR)** for two seconds to return to the original display.

⊙ lights up.



The unit turns on automatically and stands by for traffic announcements for four hours (two hours before and after the preset time).

If the preset station does not broadcast the traffic announcement while searching, it starts searching for other traffic programme (TP) stations.

To cancel the TIR function

Select "TIR off" in step 2 above.

Tips

- While the unit is recording the traffic announcement, ⊙ and "TA" flash.
- If the unit still cannot find a TP station, it starts searching every five minutes until it finds one.
- If you pull out the ignition key while the TIR function is on, "TIR on" and ⊙ flash a few times.

Notes

- The unit also stands by for traffic announcements for two hours after you turn off the engine, as long as the TIR function is on.
- If you have a power aerial, it automatically extends every time the unit searches for a traffic programme station.
- If you have a manual aerial, make sure that the aerial is fully extended.
- If you do not use your car for about ten days, the TIR function will turn off automatically to avoid battery wear even if the TIR function is on.

Playing back the recorded traffic announcements

When there are recorded traffic announcements you have not listened to, ⊙ flashes.

- 1 Press **(TIR)**.

The latest traffic announcement is played back. To listen to the previous ones, press **(TIR)** or + side of **(SEEK/AMS)**.

To replay the announcements, press the - side of **(SEEK/AMS)**.

"NO Data" appears if no traffic announcements were recorded.

- 2 Press **(TIR)** to go back to the original programme.

Locating a station by programme type

You can locate the station you want by selecting one of the programme types shown below.

Note

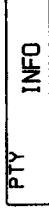
If you are in a country or region where EON data is not transmitted, you can use this function only for the stations you have tuned in once.

Programme types	Display
News	NEWS
Current Affairs	AFFAIRS
Information	INFO
Sports	SPORT
Education	EDUCATE
Drama	DRAMA
Culture	CULTURE
Science	SCIENCE
Varied	VARIED
Popular Music	POP.M
Rock Music	ROCK.M
Middle of the Road Music	MOR.M
Light Classical	LIGHT.M
Classical	CLASSICS
Other Music Type	OTHER.M
Weather	WEATHER
Finance	FINANCE
Children's programmes	CHILDREN
Social Affairs	SOCIAL.A
Religion	RELIGION
Phone In	PHONE.IN
Travel	TRAVEL
Leisure	LEISURE
Jazz Music	JAZZ
Country Music	COUNTRY
National Music	NATION.M
Oldies Music	OLDIES
Folk Music	FOLK.M
Documentary	DOCUMENT
Not specified	NONE

Note

You cannot use this function in some countries where no PTY (Programme Type) data is available.

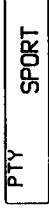
- 1 Press **(PTYLIST)** during FM reception until "PTY" appears.



The current programme type name appears if the station is transmitting the PTY data. "-----" appears if the received station is not an RDS station, or if the RDS data has not been received.

- 2 Press **(PTYLIST)** repeatedly until the desired programme type appears.

The programme types appear in the order shown in the above table. Note that you cannot select "NONE" (Not specified) for searching.



- 3 Press either side of **(SEEK/AMS)**.

The unit starts searching for a station broadcasting the selected programme type. When the unit finds the programme, the programme type appears again for five seconds. "NO" and the programme type appear alternately for five seconds if the unit cannot find the programme type. It then returns to the previous station.

Setting the clock automatically

The CT (Clock Time) data from the RDS transmission sets the clock automatically.

- 1 Press **SHIFT**, then press **2** (SET UP) repeatedly until "CT" appears.

SET CT off

- 2 Press **4** (←) repeatedly until "CT on" appears.

The clock is set.

SET CT on

- 3 Press **SHIFT** to return to the normal display.

To cancel the CT function

Select "CT off" in step 2 above.

Notes

- The CT function may not work even though an RDS station is being received.
- There might be a difference between the time set by the CT function and the actual time.

DSP

Selecting a surround menu

You can select a surround mode to best fit the audio source. The following modes can simulate different sound fields and enhance the sound so you feel as if you are at a live performance.

Surround menu

Defeat	Normal sound without any surround effects
Stadium	Open-air concert in a stadium
Disco	Disco with thick walls
Theater	Movie theater
Church	Church/chapel with a lot of reverb
Hall	Concert hall
Studio	Recording studio

- 1 Press **SOURCE** to select a source (tuner, CD or MD).

- 2 Press **SOUND** repeatedly until "SUR" appears.

SUR Defeat

- 3 Rotate the dial to select the desired surround menu.

The surround menu appear in the order shown above

After three seconds, the display goes back to normal mode

Adjusting the effect level

- 1 Press **SOURCE** to select a source (tuner, CD or MD).

- 2 Press **SOUND** repeatedly until "SUR" appears.

SUR Defeat

- 3 Rotate the dial until the desired surround menu appears.

SUR Hall

- 4 Press **SOUND** for two seconds.

SUR Effect 8

- 5 Rotate the dial to adjust the level. You can adjust the level from 0 to 10. Increase the level to enhance the effect.

SUR Effect 10

- 6 Press **SOUND** for two seconds.

Registering a surround menu onto each disc

— Disc Sound Memory (DSM) (CD/MD changer with the program memory function)

Once you have registered the desired surround menu and the sound characteristics (bass, treble and subwoofer) onto a disc, you can enjoy the same surround menu every time you play that disc. You can register them at a maximum of 126 discs

- 1 Press **SHIFT**, then press **3** (PLAY MODE) repeatedly until "DSM set" appears.

CD1 DSM set

- 2 Press **5** (ENTER)

After the DSM setting is complete, the display goes back to normal playback mode

- 3 Press **SHIFT**.

Changing the stored surround effect

Play the disc whose surround mode you wish to change, and follow the procedure in "Registering a surround menu onto each disc"

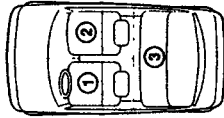
Erasing the stored surround effect

Press **5** (ENTER) for two seconds in step 2 of "Registering a surround menu onto each disc."

DSM +Delete

Selecting the listening position

You can set the time for the sound to reach the listeners from the speakers. The unit can simulate a natural sound field so that you can feel as if you are in the centre of the sound field wherever you sit in the car.



Display window	Center of sound field
All	Normal settings (1 + 2 + 3)
Front	Front part (1 + 2)
Front-R	Right front (2)
Front-L	Left front (1)
Rear	Rear part (3)

- 1 Press **SOUND** momentarily until "POS" appears.

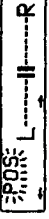

POS All

- 2 Rotate the dial to select the desired listening position.

The listening positions appear in the order shown in the table

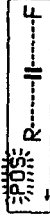
After three seconds, the display goes back to normal playback mode.

Adjusting the listening position

- 1 Press **(SOURCE)** repeatedly until "POS" appears.
- 2 Rotate the dial to select the desired listening position.
- 3 Press **(SOUND)** for two seconds.

- 4 Rotate the dial to adjust the centre of the sound field to the left or right. Then set the centre of the sound field.


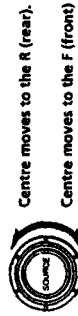
Centre moves to the L (left).
Centre moves to the R (right).

- 5 Press **(←)** (**→**).



To go back to select the listening position, press **(←)** (**→**).

- 6 Rotate the dial to adjust the centre of the sound field to the front or rear.



- 7 Press **(SOUND)** for two seconds.
When the effect setting is complete, normal mode display appears.

Adjusting the fader (FAD)

Normally, with the DSP mode on, the volume of the output sound from the rear speakers is lowered automatically to improve the efficiency of the listening position setting. If you want to raise the rear speaker volume, adjust the fader.

- 1 Follow steps 1 through 3 of "Selecting a surround menu" (page 16).
- 2 Press **(SOUND)** repeatedly until "FAO" appears.

- 3 Rotate the dial to adjust the fader.



Decreases front speaker volume
Increases front speaker volume
After three seconds, the display goes back to normal playback mode

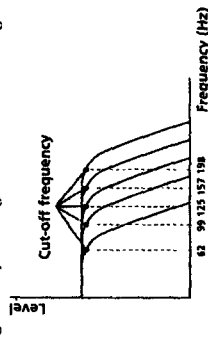
Adjusting the volume of the subwoofer(s)

- 1 Press **(SOURCE)** to select a source (tuner, CD or MD).
- 2 Press **(SOUND)** repeatedly until "SUB" appears.
- 3 Rotate the dial to adjust the volume.
After three seconds, the display goes back to the normal playback mode

Tip
When you rotate the dial to turn the volume all the way down, "Sub mute" appears, and the output frequency of the subwoofer is disabled

Adjusting the frequency of the subwoofer(s)

To match the characteristics of the connected subwoofer(s), you can cutout the unwanted high and middle frequency signals entering the subwoofer(s). By setting the cut-off frequency (see the diagram below), the subwoofer(s) will output only low frequency signals so you can get a clearer sound image



- 1 Press **(SOURCE)** to select a source (tuner, CD or MD).
- 2 Press **(SOUND)** repeatedly until "SUB" appears.

- 3 Press **(SOUND)** for two seconds.



- 4 Rotate the dial to select the desired cut-off frequency.

62 Hz → 99 Hz → 125 Hz* → 157 Hz → 198 Hz
* Factory-set frequency

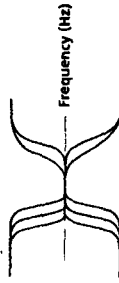
- 5 Press **(SOUND)** for two seconds.

To adjust the volume of the subwoofer, press **(←)** (**→**).

Adjusting the volume of the bass and treble

— Digital Tone Control

The CDX-C86/RDS has a built-in DSP IC that uses digital processing to create clearer adjustments to the bass and treble volume than analog circuits. The sharper tone slopes used in this unit produce more obvious and effective tone responses. For example, you can enhance the background music with the bass volume and effectively isolate the main vocals



- 1 Press **(SOURCE)** to select a source (tuner, CD or MD).
- 2 Press **(SOUND)** repeatedly until "BAS" or "TRE" appears.
- 3 Rotate the dial to adjust the volume.
After three seconds, the display goes back to normal playback mode

Adjusting the turn-over frequency

You can adjust the bass and treble turn-over frequencies

- 1 Press **(SOURCE)** to select a source (tuner, CD or MD).
- 2 Press **(SOUND)** repeatedly until "BAS" or "TRE" appears.

- 3 Press **(SOUND)** for two seconds.

Bass adjust mode



Treble adjust mode



- 4 Rotate the dial to select the turn-over frequency.

The turn-over frequencies change as follows

Bass 125 Hz → 157 Hz* → 198 Hz

Treble: 5.0 kHz → 7.1 kHz*

* Factory-set frequency

- 5 Press **(SOUND)** for two seconds.

To adjust the volume of the bass and treble, press **(←)** (**→**)

Listening to each programme source in its registered surround mode

— Source Sound Memory (SSM)

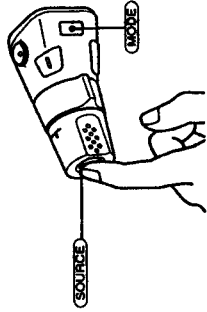
You can listen to the same source always in the surround menu and the sound characteristics (bass, treble and subwoofer) even after changing the programme source or turning the unit on and off again.

Other Functions

Using the rotary remote

The rotary remote works by pressing buttons and/or rotating controls. You can control an optional CD or MD changer with the rotary remote.


By pressing buttons (the SOURCE and MODE buttons)



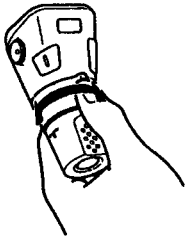
Each time you press **(SOURCE)**, the source changes as follows:
TUNER → CD → MD

Pressing **(MODE)** changes the operation

- in the following ways:
- Tuner: FM1 → FM2 → MW → LW
 - CD changer: CD1 → CD2 → ...
 - MD changer: MD1 → MD2 → ...

Tip
When the POWER SELECT switch is set to position , you can turn on this unit by pressing **(SOURCE)** on the rotary remote.

By rotating the control (the SEEK/AMS control)



Rotate the control momentarily and release it to:

- Locate a specific track on a disc. Rotate and hold the control until you locate the specific point in a track, then release it to start playback.
- Tune in the stations automatically. Rotate and hold the control to tune in the specific station.

By pressing in and rotating the control (the PRESET/DISC control)

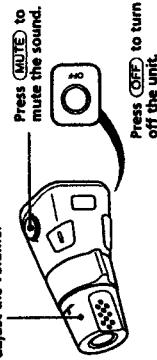


Push in and rotate the control to:

- Receive the stations memorised on the number buttons
- Change the disc

Other operations

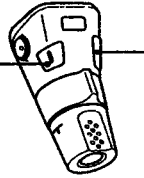
Rotate the VOL control to adjust the volume.



Press **(MUTE)** to mute the sound.

Press **(OFF)** to turn off the unit.

Press **(SOUND)** to adjust the volume and sound menu.



Press **(LIST)** to:

- Display the memorised names.
- Display the programme type.

Changing the operative direction

The operative direction of controls is factory-set as in the illustration below.



To increase

If you need to mount the rotary remote on the right side of the steering column, you can reverse the operative direction



Press **(SOUND)** for two seconds while pushing the VOL control.

Tip
You can control the operative direction of controls with the unit (page 22).

Adjusting the sound characteristics

You can adjust the bass, treble, balance and fader. Each source can store the bass and treble levels respectively.

- 1 Select the item you want to adjust by pressing **(SOUND)** repeatedly.
VOL (volume) → SUR (surround menu) → POS (listening position) → SUB (sub woofer volume) → BAS (bass) → TRE (treble) → BAL (balance) → FAD (fader)
- 2 Adjust the selected item by rotating the dial.
Adjust within three seconds after selecting the item. (After three seconds, the dial functions as the volume control.)

Muting the sound

Press **(MUTE)** on the rotary remote or wireless remote.

"Mute on" flashes momentarily

To restore the previous volume level, press **(MUTE)** again.

Tip
The unit decreases the volume automatically when a telephone call comes in (Telephone mute function)

Changing the sound and display settings

You can set:

- Clock (page 5).
- CT (Clock Time) (page 16).
- D.Info (Dual Information) to display the clock and the play mode at the same time (ON) or to display the information alternately (OFF).
- Amber/Green to change the illumination colour to amber or green.
- Dimmer to change the brightness of the display.
 - Select "Auto" to dim the display only when you turn the lights on.
 - Select "on" to dim the display.
- Contrast to adjust the contrast if the indications in the display are not recognizable because of the unit's installed position.
- Beep to turn on or off the beeps.
- RM (Rotary Remote) to change the operative direction of the controls of the rotary remote.
 - Select "norm" to use the rotary remote as the factory-set position.
 - Select "rev" when you mount the rotary remote on the right side of the steering column.
- Loud (Loudness) to enjoy bass and treble even at low volume. The bass and treble will be reinforced.
- A.Scr (Auto Scroll) (page 6, 23)
- Disc MEMO/TEXT name (Disc memo/CD-TEXT name) to set the priority display item when you connect an optional CD changer with the CD-TEXT and disc memo function (page 27)

1 Press **(SHIFT)**.

2 Press **(SET UP)** repeatedly until the desired item appears.

Each time you press **(SET UP)**, the item changes as follows:

Clock → CT → D.Info* → Amber/Green → Dimmer → Contrast → Beep → RM → Loud* → A.Scr* → Disc MEMO/TEXT name*

* When you have not tune the station or there is no CD/MD being played, these items will not appear.

Note

The operation is in effect after the unit is started on the next.

With Optional Equipment CD/MD Changer

You can control up to 7 CD and MD changers with this unit.

If you connect an optional CD changer with the CD-TEXT function, the CD-TEXT information will appear in the display when you play back a CD-TEXT disc.

Playing a CD or MD

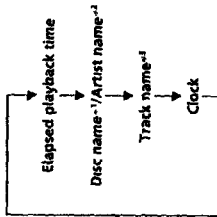
1 Press **(SOURCE)** repeatedly to select the CD or MD.

2 Press **(MODE)** until the desired changer appears. CD/MD playback starts.

When a CD/MD changer is connected, all the tracks play from the beginning.

Changing the displayed item

Each time you press **(DISP)** during CD, CD-TEXT or MD playback, the item changes as follows:



* If you have not labeled the disc or there is no disc name provided on the MD, "NO D Name" appears in the display.

* If you play a CD-TEXT disc, the artist name appears in the display after the disc name (Only for CD-TEXT discs).

* If the track name of a CD-TEXT disc or MD is not provided, "NO T Name" appears in the display.

You can label a personalized name for CDs and CD-TEXT discs with the disc memo and function refer to "Labeling a CD" (page 27)

Tip

If the name of the MP3 or CD-TEXT disc is too long, you can scroll it across the display by pressing **(SHIFT)** in the

Automatically scrolling a disc name

- Auto Scroll
 - If the disc name/artist name or track name on a CD-TEXT disc or MD exceeds 10 characters and the Auto Scroll function is on, automatically scrolls on the display as follows.
 - The disc name appears when the disc has changed if the disc name is selected.
 - The track name appears when the track has changed if the track name is selected.
 - The disc or track name appears depending on the setting when you press **(SOURCE)** to select an MD or CD-TEXT disc.

If you press **(DISP)** to change the display item, the disc or track name of the MD or CD-TEXT disc is scrolled automatically whether you set the function on or off.

1 During playback, press **(SHIFT)**.

2 Press **(SET UP)** repeatedly until "A.Scr" appears.

3 Press **(←)** to select "A.Scr on."

4 Press **(SHIFT)**

To cancel Auto Scroll, select "A.Scr off" in step 2 above.

Note

- For some CD-TEXT discs, only external memory characters are playback, cases may happen.
- Some of the characters are not displayed.
- Auto Scroll does not work.

Displaying the recording date of the current MD

Press **(DISP)** for two seconds during MD playback.

The recording date of the track is displayed for about three seconds.

Locating a specific track

— Automatic Music Sensor (AMS)

During playback, press either side of **(SEEK/AMS)** once for each track you want to skip.



To locate succeeding tracks



To locate preceding tracks

Locating a specific point in a track

— Manual Search

During playback, press and hold either side of **(SEEK/AMS)**. Release the button when you have found the desired point.



To search forward



To search backward

— Direct Disc Selection

Press the number button that corresponds with the desired disc number. The desired disc in the current changer begins playback.

Scanning the tracks

— Intro Scan

You can play the first 10 seconds of all the tracks on the current disc.

1 During playback, press **(SHIFT)**, then press **(PLAY MODE)** repeatedly until "Intro" appears.

2 Press **(←)** to select "Intro on."

3 Press **(SHIFT)**.

To go back to normal playback mode, select "Intro off" in step 2 above.

Playing tracks repeatedly

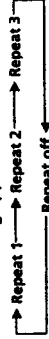
— Repeat Play

You can select

- Repeat 1 to repeat a track.
- Repeat 2 to repeat a disc.
- Repeat 3 to repeat all the discs in the current changer.

1 During playback, press **(SHIFT)**.

2 Press **(REP)** repeatedly until the desired setting appears.



Repeat Play starts.

3 Press **(SHIFT)**.

To go back to normal playback mode, select "Repeat off" in step 2 above.

Note

When you play back a CD on this unit, Repeat 3 has the same function as Repeat 2.

Playing tracks in random order

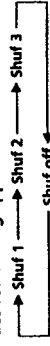
order — Shuffle Play

You can select.

- Shuf 1 to play the tracks on the current disc in random order
- Shuf 2 to play the tracks in the current changer in random order
- Shuf 3 to play all the tracks in random order

1 During playback, press **(SHIFT)**.

2 Press **(SHUF)** repeatedly until the desired setting appears.



Shuffle Play starts

3 Press **(SHIFT)**.

To go back to normal playback mode, select "Shuf off" in step 2 above.

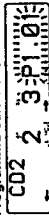
Creating a programme

— Programme Memory (CD/MD changer with the programme memory function)

You can play tracks in the order you want by making your own programme. You can make two programmes: Programme 1 and Programme 2. You can select up to 12 tracks for each programme. You can store the programmes in memory.

1 Press **(SHIFT)**, then press **(PLAY MODE)** for two seconds.

Programme edit mode



"P 1" shows Programme 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press **(PLAY MODE)** to display "P 1" above

To select Programme 2, press **(←)** repeatedly until "P 2" appears.

2 Select the track you want.

1 Press **(SOURCE)** repeatedly to select CD or MD.

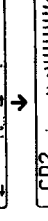
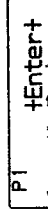
2 Press **(MODE)** repeatedly to select the changer.

3 Press **(SHIFT)**, then press the number button to select the disc.

4 Press **(SHIFT)**.

5 Press either side of **(SEEK/AMS)** to select the track.

3 Press **(ENTER)** momentarily.



4 To continue entering tracks, repeat steps 2 and 3.

5 When you finish entering tracks, press **(PLAY MODE)** for two seconds.

6 Press **(SHIFT)**.

Notes

- "Wait" appears in the display while the unit is reading the data, or when a disc has not been put into the unit
- "Mem Full" appears in the display when you try to enter more than 12 tracks into a programme

Playing the stored programme

Changing the disc order in the changer will not affect programme memory play.

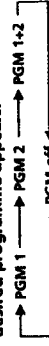
You can select

- PGM 1 to play Programme 1
- PGM 2 to play Programme 2
- PGM 1+2 to play Programmes 1 and 2.

1 Press **(SHIFT)**.

2 Press **(PLAY MODE)** repeatedly until "PGM" appears.

3 Press **(←)** repeatedly until the desired programme appears.



Programme Play starts

4 Press **(SHIFT)**.

To go back to normal playback mode, select "PGM off" in step 3 above

Notes

- If you press a number button during programme memory play, programme memory play is interrupted and playback of the selected disc starts
- "No Data" appears in the display if no track is stored in the programme
- If a track stored into the programme memory is not in the disc magazine, the tracks will be skipped
- When the disc magazine contains no tracks stored into the programme memory, or when the programme information has not been loaded yet, "Not Ready" appears

Erasing an entire programme

- 1 Press **(SHIFT)**, then press **(PLAY MODE)** for two seconds.
- 2 Press **(←)** repeatedly until "DEL" appears.

To erase Programme 2, press **(←)** repeatedly until "PGM 2" appears.

- 3 Press **(ENTER)** for two seconds.
- The entire programme is erased

When you finish erasing programmes, press (PLAY MODE) for two seconds.

- 5 Press **(SHIFT)**.

Adding tracks to a programme

- 1 Press **(SHIFT)**, then press **(PLAY MODE)** for two seconds.
- "P 1" shows Programme 1 is selected.
- If you have labelled the disc, the bank edit mode appears. Press **(PLAY MODE)** to display "P 1" above.
- To select Programme 2, press **(←)** repeatedly until "P 2" appears

- 2 Press **(←)** or **(→)** to select the track slot number where you want to insert a track.
Track slot number



- 3 Press either side of **(SEEK/AMS)** to select the track you want to insert.

4 Press (ENTER) momentarily to enter the track.

The current track in that slot number and the succeeding tracks shift down. To continue inserting tracks, repeat steps 2 through 4.

Note
Once all 12 slots have been filled, "Max Full" appears in the display, and you cannot insert tracks.

- 5 When you finish inserting tracks, press **(PLAY MODE)** for two seconds.
- 6 Press **(SHIFT)**.

Erasing tracks in a programme

- 1 Press **(SHIFT)**, then press **(PLAY MODE)** for two seconds.
- "P 1" shows Programme 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press **(PLAY MODE)** to display "P 1" above.

To select Programme 2, press **(←)** repeatedly until "P 2" appears

- 2 Press **(←)** or **(→)** to select the track you want to erase.
Track slot number



The track currently registered in slot 6 of Programme 1.

- 3 Press **(ENTER)** for two seconds.

When you erase a track from a slot number, the succeeding tracks shift up to fill the gap

- 4 To continue erasing tracks, repeat steps 2 and 3.

- 5 When you finish erasing tracks, press **(PLAY MODE)** for two seconds.

- 6 Press **(SHIFT)**.

Labeling a CD — Disc Memo (CD changer with the custom file function)

You can label each disc with a personalized name. You can enter up to eight characters for a disc. If you label a CD, you can locate a disc by name (page 28) and select the specific tracks for playback (page 29).

- 1 Play the CD and press **(PLAYLIST)** for two seconds.

- 2 Enter the characters.
 - 1 Rotate the dial clockwise to select the desired characters.
(A → B → C → ... Z → 0 → 1 → 2 → ... 9 → * → # → / → \ → > → < → . → -)

If you rotate the dial clockwise, the characters appear in the reverse order.
If you want to put a blank space between characters, select " " (underscore bar)

- 2 Press **(←)** after locating the desired character.
The flashing cursor moves to the next space



If you press **(←)**, the flashing cursor moves to the left

- 3 Repeat steps 1 and 2 to enter the entire name.
- 3 To return to normal CD playback mode, press **(PLAYLIST)** for two seconds.

Tip
To erase/correct a name enter " " (underscore bar) for each character

Displaying the disc memo name or CD-TEXT name

When you play back a CD-TEXT disc, you can set the priority display item to be the disc memo name or the CD-TEXT name.

- 1 Press **(SHIFT)** during CD-TEXT disc playback.
- 2 Press **(SET UP)** repeatedly until "Disc MEMO" or "TEXT name" appears.
- 3 Press **(←)** to select "Disc MEMO" or "TEXT name."
- 4 Press **(SHIFT)**.
After the mode setting is complete, the display goes back to normal playback mode.

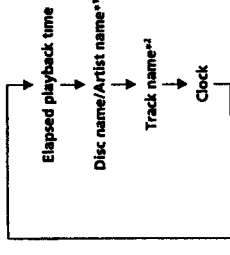
If you want to change to the other setting, you can change in step 2

Displaying the disc memo name

Press **(DISP)** during CD or CD-TEXT disc playback.



Each time you press **(DISP)** during CD or CD-TEXT disc playback, the item changes as follows



*1 When you connect an optional CD changer with the CD-TEXT function, the personalized label on the CD-TEXT disc name appears. See below to change the display
 → To change the displayed item press **(←)**
 → To change the display using display settings
 → Displaying the disc memo name or CD-TEXT name

continue to next page →

The display item will change depending on the setting as follows.

Type of disc	Priority display setting	Actual display
A	Disc MEMO	Disc memo
	TEXT name	CD-TEXT information
B	Disc MEMO	Disc memo
	TEXT name	CD-TEXT information
C	Disc MEMO	CD-TEXT information
	TEXT name	NO D Name
D	Disc MEMO	NO D Name
	TEXT name	NO D Name

A: CD-TEXT disc with disc memo

B: Normal CD with disc memo

C: CD-TEXT disc without disc memo

D: Normal CD without disc memo

*2: If you connect an optional CD changer with the CD-TEXT function, the CD-TEXT information will appear in the display when you playback a CD-TEXT disc.

Erasing the disc memo

- 1 Press **(SOURCE)** repeatedly to select CD.
- 2 Press **(MODE)** repeatedly to select the CD changer.
- 3 Press **(PLAYLIST)** for two seconds.
- 4 Press **(DISP.)** for two seconds.
- 5 Rotate the dial to select the name you want to erase.
- 6 Press **(ENTER)** for two seconds.
The name is erased.
Repeat steps 5 and 6 if you want to erase other names.
- 7 Press **(PLAYLIST)** for two seconds.
The unit returns to normal CD playback mode.

Locating a disc by name

— List-up (CD changer with the custom file function or MD changer)

You can use this function for discs that have been assigned a custom name. For more information on disc names, refer to "Labeling a CD" (page 27).

- 1 Press **(PLAYLIST)** momentarily.

The name assigned to the current disc appears in the display.

LST ↑ SCHUBERT

If you add disc memo labels to a CD-TEXT disc, the display setting you make will determine which information is displayed. If the disc has only one set of information (either CD-TEXT or disc memo labels), that information will be displayed regardless of the display setting you make.

- 2 Press **(PLAYLIST)** repeatedly until you find the desired disc.

- 3 Press **(ENTER)** to play back the disc.

Notes

- After a disc name has been displayed for five seconds, the display goes back to normal playback mode. To turn off the display, press **(DISP.)**.
- The track names are not displayed during MD playback.
- If there are no discs in the magazine, "NO Disc" appears in the display.
- If a disc has not been assigned a custom file, "*****" appears in the display.
- If the disc information has not been read by the unit, "??" appears in the display. To load the disc, first press the number button, then choose the disc that has not been loaded.
- The information appears only in upper case. There are also some letters which cannot be displayed (during MD playback).

Selecting specific tracks for playback

— Bank

(CD changer with the custom file function)

If you label the disc, you can set the unit to skip tracks and play only the tracks you want.

- 1 Start playing the disc and press **(SHIFT)**. Then press **(3)** (PLAY MODE) for two seconds.

Bank edit mode.

CD2 5 1 Play

Note

If you have not labeled the disc, the bank edit mode does not appear and the program edit mode appears. To go back to normal playback mode, press **(SHIFT)**.

- 2 Press either side of **(SEEK/ANS)** to select the track number you want to skip and press **(ENTER)**.

CD2 5 3 Skip

The indication changes from "Play" to "Skip." If you want to return to "Play," press **(ENTER)** again.

- 3 Repeat step 2 to set the "Play" or "Skip" mode on all the tracks.

- 4 Press **(3)** (PLAY MODE) for two seconds.
The unit returns to normal CD playback mode.

- 5 Press **(SHIFT)**.

Notes

- You can set the "Play" and "Skip" mode on up to 24 tracks.
- You cannot set the "Skip" mode on all the tracks.

Playing the specific tracks only

You can select

- Bank on to play the tracks with the "Play" setting.
- Bank Inv (Inverse) to play the tracks with the "Skip" setting.

- 1 During playback, press **(SHIFT)**, then press **(3)** (PLAY MODE) repeatedly until "Bank" appears.

- 2 Press **(←)** to repeatedly until the desired setting appears.

Bank on → Bank Inv → Bank off

CD1 Bank on

Playback starts from the track following the current one.

- 3 Press **(SHIFT)**.

To go back to normal playing mode, select "Bank off" in step 2 above.

EN

CD/MD Changer

Connections

Caution

- This unit is designed for negative earth 12 V DC operation only
- Connect the power connecting cord ① to the unit and speakers before connecting it to the auxiliary power connector
- Run all earth wires to a common earth point.
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off

If Your Car has No Accessory Position on the Ignition Key Switch — POWER SELECT Switch

The illumination on the front panel is factory-set to be on even when the unit is not being used. However, this setting may cause some car battery wear if your car has no accessory position on the ignition key switch. To avoid this battery wear, set the POWER SELECT switch located on the bottom of the unit to the ② position, then press the reset button. The illumination is reset to stay off while the unit is not being used

Note
The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ② position

Reset Button

When the installation and connections are complete, be sure to press the reset button with a ballpoint pen etc.

Note on the control leads
The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner or when you activate the AF (Alternative Frequency) the TA (Traffic Announcement) or the TIR (Traffic Information Replay) function

Memory hold connection
When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key switch is turned off

- Notes on speaker connection**
- Before connecting the speakers, turn the unit off
 - Use speakers with an impedance of 4 to 8 ohms and with adequate power handling capacities. Otherwise, the speakers may be damaged
 - Do not connect the terminals of the speaker system to the car chassis and do not connect the terminals of the right speaker with those of the left speaker
 - Do not attempt to connect the speakers in parallel
 - Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals

Warning
If you have a power aerial without a relay box, connecting this unit with the supplied power connecting cord ① may damage the aerial

Conexiones

Precauciones

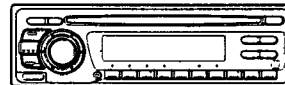
- Esta unidad ha sido diseñada para alimentarse solamente con 12 V CC, negativo a masa
- Conecte el cable de conexión de alimentación ① a la unidad y a los altavoces antes de hacerlo al conector de alimentación auxiliar
- Conecte todos los conductores de puesta a masa a un punto común.
- Conecte el cable amarillo a un circuito libre del automóvil que tenga una capacidad superior a la del fusible de la unidad. Si conecta esta unidad en serie con otros componentes estereofónicos, el circuito del automóvil al que se encuentran conectados debe tener una capacidad superior a la de la suma de las capacidades de los fusibles de cada componente. Si ningún circuito del automóvil tiene una capacidad tan alta como la del fusible de la unidad, conecte ésta directamente a la batería. Si el automóvil no dispone de ningún circuito para conectar esta unidad, conéctela a un circuito del automóvil con capacidad superior a la del fusible de la unidad, de forma que si se funde el fusible de esta, no se interrumpa ningún otro circuito

Si el automóvil no dispone de posición para accesorios en la llave de encendido — Selector POWER SELECT

La iluminación del panel frontal ha sido ajustada en fábrica para que permanezca activada aunque la unidad no se encuentre en funcionamiento. Sin embargo, este ajuste puede provocar cierta descarga de la batería del automóvil si éste no dispone de posición para accesorios en la llave de encendido. Para evitar esto, coloque el selector POWER SELECT, situado en la base de la unidad, en la posición ② y, después, presione el botón de reposición. La iluminación estará desactivada cuando la unidad no se encuentre en funcionamiento

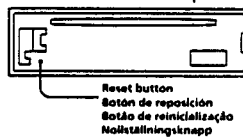
Nota
La alarma de precaución del panel frontal no se activará cuando el selector POWER SELECT se encuentre en la posición ②

Change the position with a jeweler's screwdriver, etc.
Cambie la posición con un destornillador de relojero, etc.
Altere a posição do interruptor com uma chave de fendas de precisão, etc.
Använd en skruvmejsel för finmekaniker eller ett liknande verktyg för att ändra på omkopplingsläget



Botón de reposición

Cuando finalice la instalación y las conexiones, cerciórese de presionar el botón de reposición con un bolígrafo etc.



Nota sobre conductores de control
El conductor de control de la antena motorizada (azul) suministra alimentación de +12 V CC al circuit de sintonización o las funciones de frecuencia alternativa (AF) anuncio de tráfico (TA) o de repetición de información sobre tráfico (TIR)

Conexión para protección de la memoria
Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, incluso aunque esté la llave de encendido en la posición OFF

- Notas sobre la conexión de los altavoces**
- Antes de conectar los altavoces, desconecte la alimentación de la unidad
 - Utilice altavoces con una impedancia de 4 a 8 ohmios y con la potencia máxima admisible adecuada, ya que de lo contrario podría dañarlos
 - No conecte los terminales del sistema de altavoces al chasis del automóvil ni los del altavoz izquierdo a los del derecho
 - No intente conectar los altavoces en paralelo
 - No conecte altavoces activos (con amplificadores incorporados) a los terminales de altavoces de la unidad. Si lo hiciera, podría dañar tales altavoces. Por lo tanto, cerciórese de conectar altavoces pasivos a estos terminales.

Advertencia
Si dispone de una antena motorizada sin dispositivo de relé, la conexión de esta unidad con el cable de conexión de alimentación ① suministrado puede dañar la antena

Connexions

Advertência

- Este aparelho foi projectado para funcionar somente com corrente continua de 12 V com massa negativa
- Ligue o cabo de alimentação de corrente ① ao aparelho e aos alifalantes antes de o ligar ao conector de corrente auxiliar
- Ligue todos os fios de terra num ponto de massa comum.
- Ligue o cabo amarelo a um circuito livre do automóvel com uma capacidade nominal superior à do fusível do aparelho. Se ligar este aparelho em série com outros componentes estéreo, o circuito do automóvel a que estão ligados deve ter uma capacidade nominal superior à soma da capacidade dos fusíveis de cada componente. Se nenhum circuito do automóvel tiver uma capacidade tão alta como a do fusível do aparelho, ligue o aparelho directamente à bateria. Se o automóvel não tiver nenhum circuito disponível para ligação do aparelho, ligue-o a um circuito do automóvel com uma capacidade superior à do fusível do aparelho para que se o fusível do aparelho se fundir, nenhum dos outros circuitos seja cortado

Se o seu automóvel não estiver equipado com uma chave de ignição com posição acessórios — Interruptor POWER SELECT

A iluminação do painel frontal é regulada na fábrica para se manter acesa, mesmo quando o aparelho não estiver ligado. No entanto, esta regulação pode provocar a descarga da bateria se o aparelho for utilizado em automóveis sem chave de ignição com posição acessórios. Para evitar a descarga da bateria, regule o interruptor POWER SELECT, situado na base do aparelho, para a posição ②. Em seguida, carregue no botão de reinitialização. A iluminação e regular para ficar apagada enquanto o aparelho estiver desligado

Nota
O alarme de advertência do painel frontal não é activado quando o interruptor POWER SELECT estiver regulado para a posição ②

Anslutning

Säkerhetsföreskrifter

- Denna bilstereo är endast avsedd för anslutning till ett negativt jordat, 12 V bilbatteri
- Anslut strömkabeln ① till enheten och högtalarna innan du ansluter den till den yttre strömanslutningen.
- Dra samtliga jordledningar till en och samma jordningspunkt.
- Anslut den gula kabeln till en ledig bilbatterets har en säkring med ett högre ampere än enheten. Om du seriekopplar denna enhet med andra stereokomponenter, måste den bilbatterets är kopplade till ha en säkring med ett högre ampere än summan av de enskilda komponenternas ampere. Om det inte finns någon bilbatterets har en säkring med ett lika högt ampere som enheten, ska du ansluta enheten direkt till batteriet. Om det inte finns några bilbatterets att ansluta denna enhet till ska du ansluta enheten till en enhet som har en säkring med ett högre ampere än enheten för att förhindra att unga andra kretsar klipps av om säkringen smälter

Montera bilstereon i en bil vars tändlås inte har något strömläge — Omkopplaren POWER SELECT

Innan bilstereon levererades från fabriken ställdes belysningen i teckenfönstret in så att den lyser också när bilstereon inte används. Detta kan emellertid orsaka urladdning av batteriet när du använder bilstereon i en bil, vars tändlås saknar läget ACC (strömläge). Skjut omkopplaren POWER SELECT på bilstereons undersida till läge ②, och tryck sedan på återställningsknappen för att undvika att bilbatteriet laddas ur. Nu lyser inte längre belysningen i teckenfönstret när bilstereon inte används

Observera
Varningssignalen som varnar om du inte har tagit loss frontpanelen, lyder inte när omkopplaren POWER SELECT står i läge ②

Nollställningsknappen

Kom ihåg att använda en penna eller något annat spetsigt föremål för att trycka på nollställningsknappen när anslutningen och monteringen är klar

Att observera angående de olika styrkablarna
Strömledningens styrkabel (blå) har +12 V likström när du växlar på tunern eller när du aktiverar funktionerna AF (Alternative Frequency) TA (Traffic Announcement) eller TIR (Traffic Information Replay)

Anslutning för minnesstöd
När du ansluter den gula ingående strömkabeln försörjs minneskretsen med ström hela tiden även när tändlåset står utslä

- Att observera angående högtalarnas anslutning**
- Sätt ut bilstereon innan du ansluter högtalarna
 - Anslut endast högtalare vars impedans varierar från 4 till 8 ohm och som har tillräcklig effekthanteringskapacitet för att skydda högtalarna mot skador
 - Anslut inte något av högtalarna till bilens chassi
 - Anslut inte heller uttagen på höger högtalare till uttagen på vänster högtalare
 - Anslut inte högtalarna parallellt
 - Anslut inte aktiva högtalare (med inbyggda förstärkare) till bilstereons högtalartuttag eftersom de kan skada de aktiva högtalarna

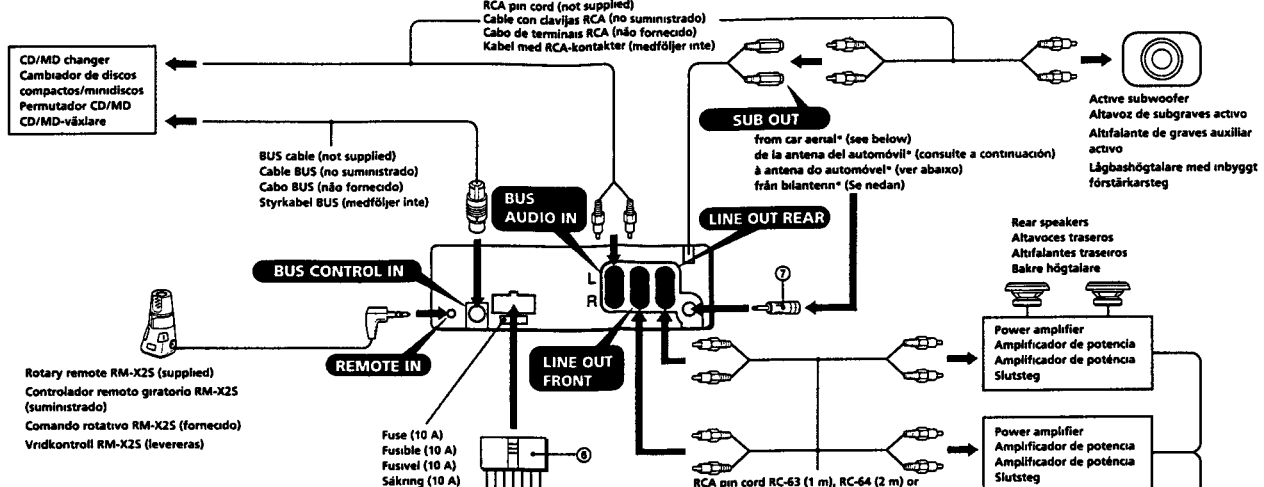
Varning
Om du har en motoriserad utan reläbox kan antennen skadas om du ansluter enheten med den medföljande strömkabeln ①

Connection Example

Ejemplo de conexiones

Exemplo de ligações

Anslutningarna enligt exemplet



WARNING
Auxiliary power connectors may vary depending on the car. Be sure to check the power connection diagram sheet supplied with the unit. Improper connections may damage your car. If the supplied power connecting cord cannot be used with your car, consult your nearest Sony dealer.

ADVERTENCIA
Los conectores de alimentación auxiliar pueden variar en función del automóvil. Asegúrese de consultar el diagrama de conexión de alimentación suministrado con la unidad. Las conexiones incorrectas pueden dañar el automóvil. Si no es posible utilizar el cable de conexión de alimentación suministrado con el automóvil, póngase en contacto con el proveedor Sony más próximo.

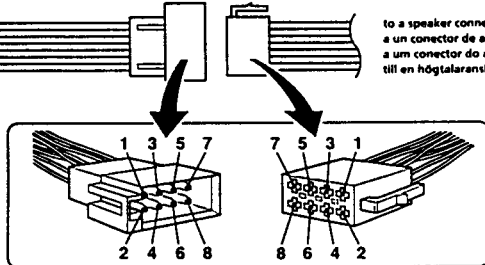
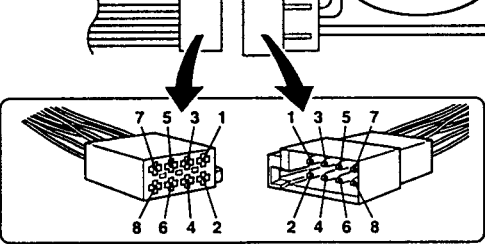
ATENÇÃO
Os conectores de corrente auxiliares podem variar de carro para carro. Não se esqueça de verificar o diagrama de ligação de corrente fornecido com o aparelho. As ligações mal executadas podem danificar o seu carro. Se não puder utilizar o cabo de alimentação fornecido no seu carro, contacte o agente Sony da sua zona.

WARNING
Typen av yttre strömanslutning varierar från bil till bil. Kontrollera strömanslutningsschemat som medföljer enheten så att du ansluter på rätt sätt. Felaktig anslutning kan skada bilen. Kontakta närmaste Sony-återförsäljare om den medföljande strömkabeln inte passar till din bil.

Max. supply current 0.3 A
Corriente máx. de alimentación de 0,3 A
Corrente máxima de 0,3 A
Maximal strömtillförsel 0,3 A

To connect to AMP REMOTE IN of the optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.
Para conectar a AMP REMOTE IN del amplificador de potencia opcional
Esta conexión es solo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.
Para ligação a AMP REMOTE IN do amplificador de potência adicional
Esta ligação destina-se apenas aos amplificadores. A ligação de qualquer outro sistema pode processar danos no aparelho.
Anslut till AMP REMOTE IN på den valfria effektförstärkaren. Denna anslutning gäller endast för högtalare. Om du ansluter något annat system kan enheten skadas.

to an auxiliary power connector
A un conector de alimentación auxiliar
till en yttre strömanslutning



Pin Pino Polo	Colour Color Cor Färg	Function Función Função Funktion	Pin Pino Polo	Colour Color Cor Färg	Function Función Função Funktion
4	Yellow Amarillo Amarelo Gul	continuous power supply suministro de alimentación continua alimentação de corrente contínua kontinuerlig strömförsörjning	7	Red Rojo Vermelho Röd	switched power supply suministro de alimentación conmutada alimentação de corrente comutada switchad strömförsörjning
5	Blue Azul Azul Blå	power aerial control antena motorizada antena eléctrica elektrisk seriell	8	Black Negro Preto Svart	earth toma de tierra Terra jord
6	Orange/ White Naranja/ blanco Cor de laranja/ branco Orange/ vit	switched illumination power supply fuente de alimentación de iluminación conmutada fonte de alimentação comutada para iluminação Switchad strömförsörjning till belysning	Positions 1, 2, 3 and 0 do not have pins Las posiciones 1, 2, 3 u 0 no disponen de pines As posições 1, 2, 3 e 0 não têm pines Positionerna 1, 2, 3 och 0 saknar stift		

Pin Pino Polo	Colour Color Cor Färg	Function Función Função Funktion	Pin Pino Polo	Colour Color Cor Färg	Function Función Função Funktion
1	Purple Púrpura Violeta Morkkila	+ Speaker, Rear, Right +, Altavoz, trasero, derecho Altifalante, Parte de trás, Direito +, Högtalare, bakre, höger	5	White Blanco Branco Vit	+ Speaker, Front, Left +, Altavoz, delantero, izquierdo Altifalante, Parte da frente, Esquerdo Högtalare, främre, vänster
2		- Speaker, Rear, Right -, Altavoz, trasero, derecho Altifalante, Parte de trás, Direito Högtalare, bakre, höger	6		- Speaker, Front, Left -, Altavoz, delantero, izquierdo Altifalante, Parte da frente, Esquerdo Högtalare, främre, vänster
3	Grey Gris Cinza Grå	+ Speaker, Front, Right +, Altavoz, delantero, derecho Altifalante, Parte da frente, Direito Högtalare, främre, höger	7	Green Verde Verde Grön	+ Speaker, Rear, Left +, Altavoz, trasero, izquierdo Altifalante, Parte de trás, Esquerdo Högtalare, bakre, vänster
4		- Speaker, Front, Right -, Altavoz, delantero, derecho Altifalante, Parte da frente, Direito Högtalare, främre, höger	8		- Speaker, Rear, Left -, Altavoz, trasero, izquierdo Altifalante, Parte de trás, Esquerdo Högtalare, bakre, vänster

Negative polarity positions 2, 4, 6, and 8 have striped cords
Las posiciones de polaridad negativa 2, 4, 6 y 8 tienen cables con rayas
As posições 2, 4, 6 e 8 (polaridade negativa) têm cabos das riscas
De negativa polipositiverna 2, 4, 6 och 8 har randiga kablar

Note for the aerial connecting
If your car aerial is an ISO (International Organization for Standardization) type use the supplied adapter ① to connect it.
First connect the car aerial to the supplied adapter then connect it to the aerial jack of the master unit.

Nota sobre la conexión de la antena
Si la antena del automóvil es del tipo ISO (International Organization for Standardization) emplee el adaptador ① suministrado para conectarla.
En primer lugar, conecte la antena del automóvil al adaptador suministrado u a continuación a la toma de antena de la unidad principal.

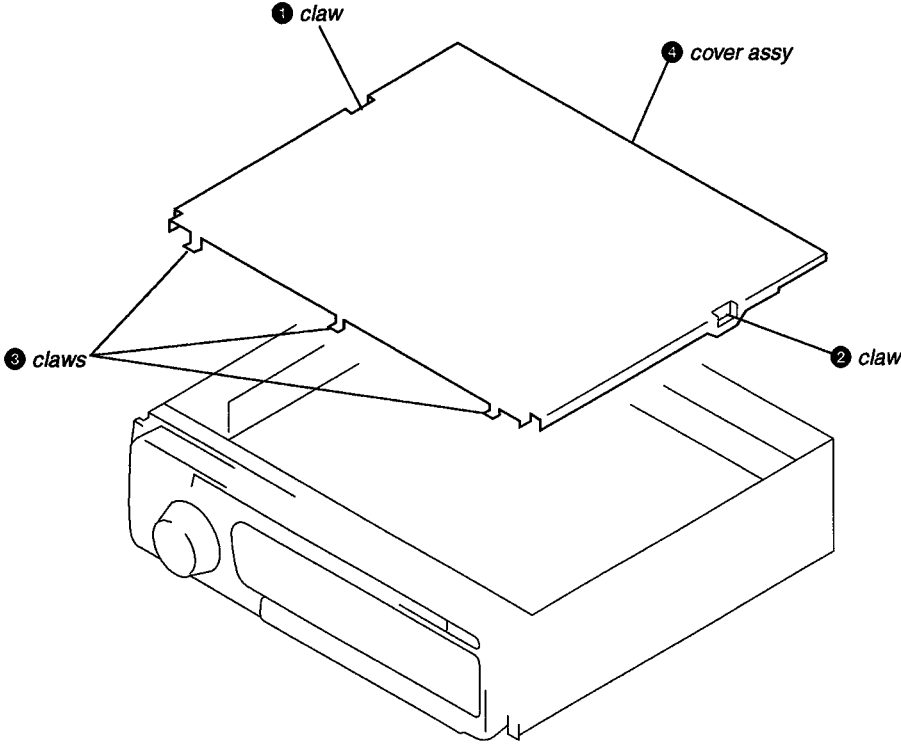
Nota referente à ligação da antena
Se a antena do automóvel for uma antena de tipo ISO (International Organization for Standardization) utilize o adaptador fornecido ① para fazer a ligação respectiva.
Ligue primeiro a antena do automóvel ao adaptador fornecido e depois à ficha tipo jack do sistema principal.

Angående antennanslutning
Om motorantennen är av ISO-typ (International Organization for Standardization) använd den medföljande adapter ① för att ansluta den.
Anslut först motorantennen till medföljande adapter och därefter till antennuttaget på huvudentheten.

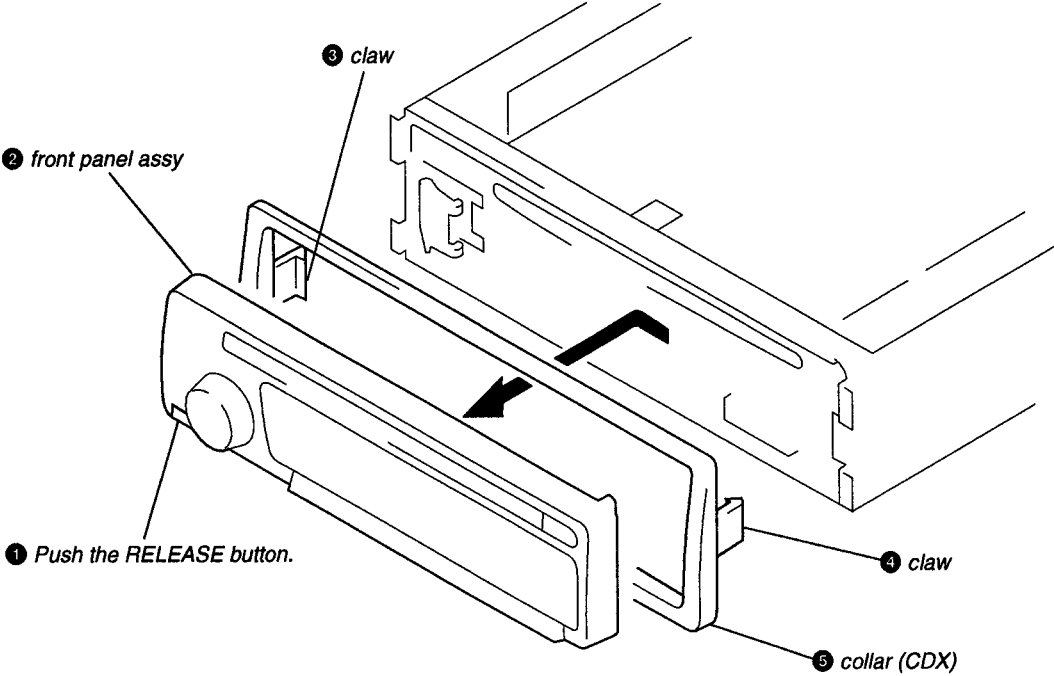
SECTION 2 DISASSEMBLY

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

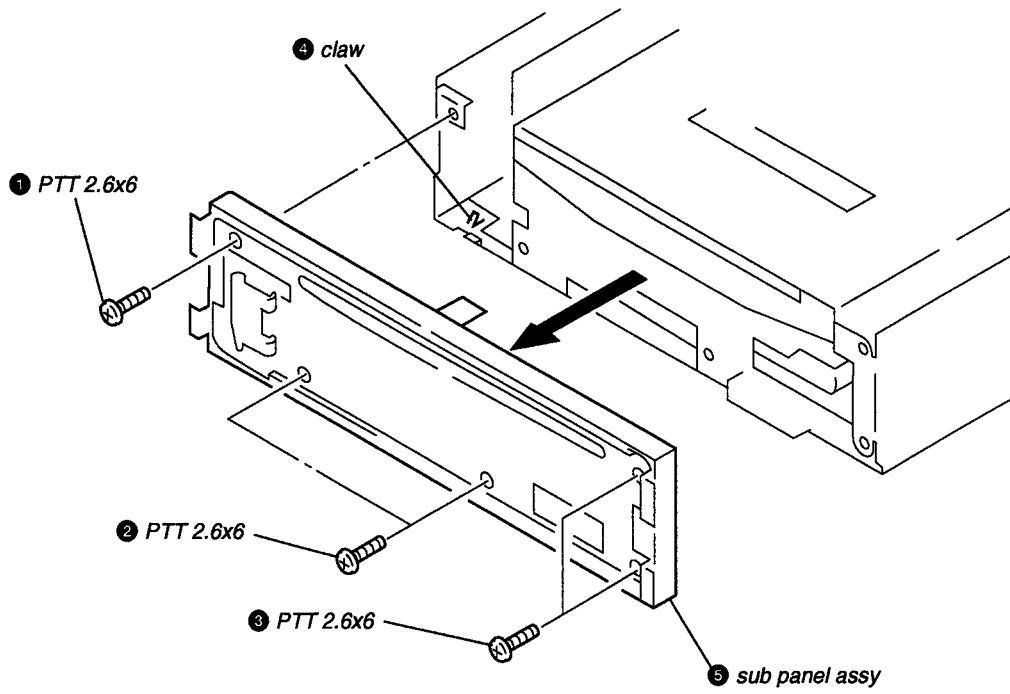
2-1. COVER ASSY



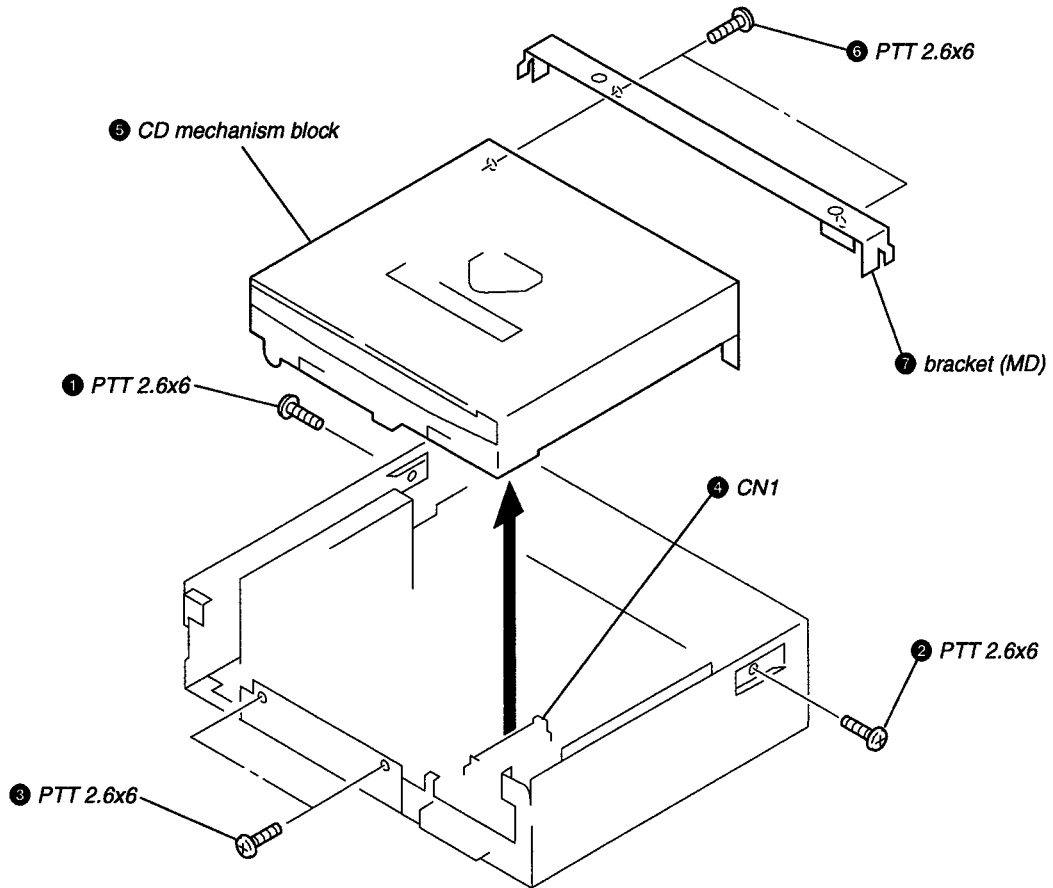
2-2. FRONT PANEL ASSY



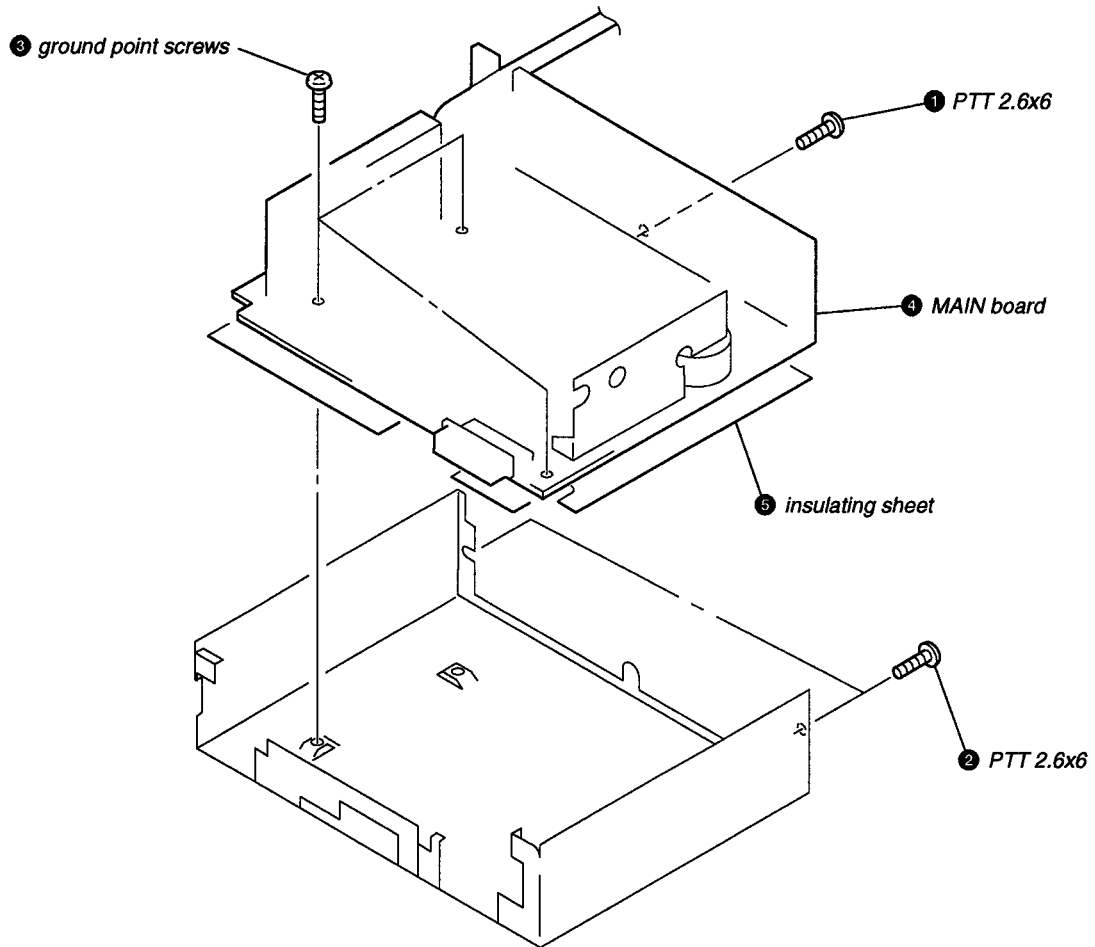
2-3. SUB PANEL ASSY



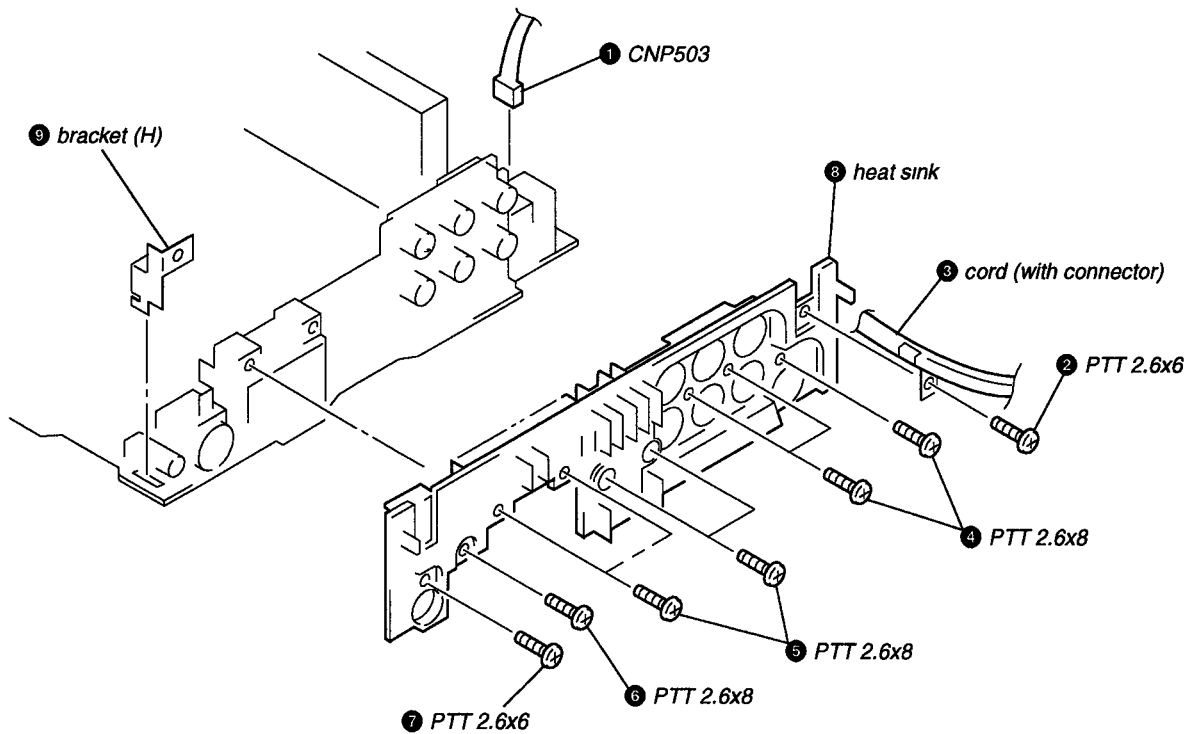
2-4. CD MECHANISM BLOCK



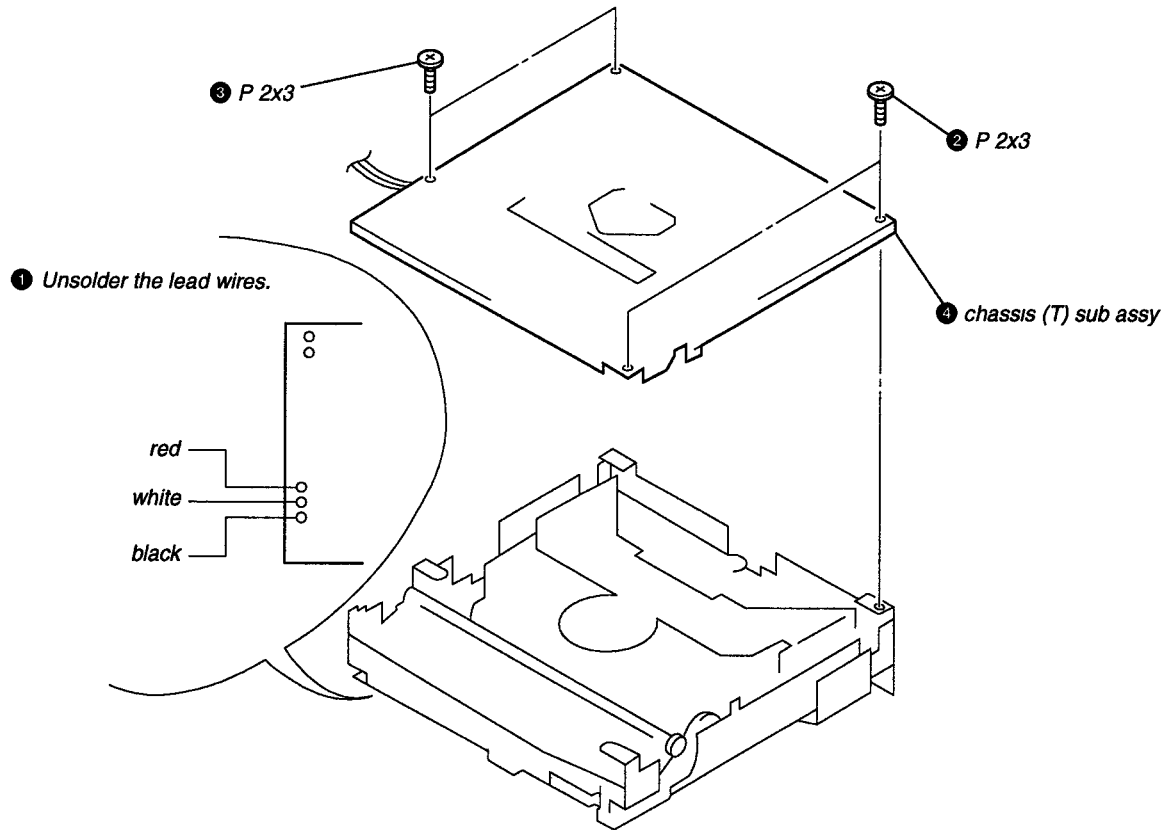
2-5. MAIN BOARD



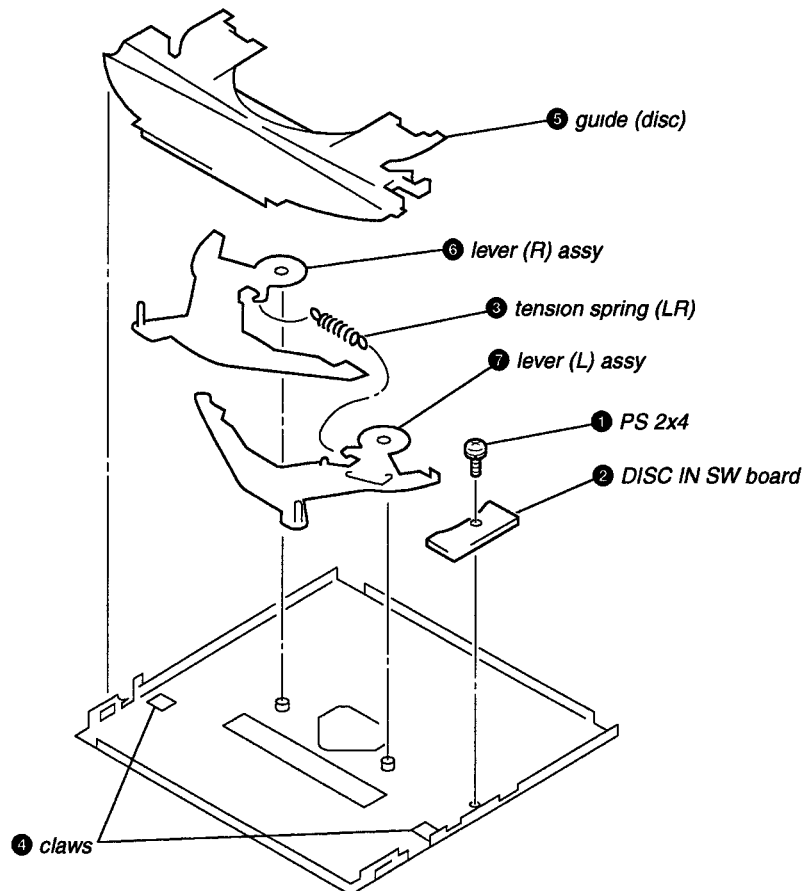
2-6. HEAT SINK



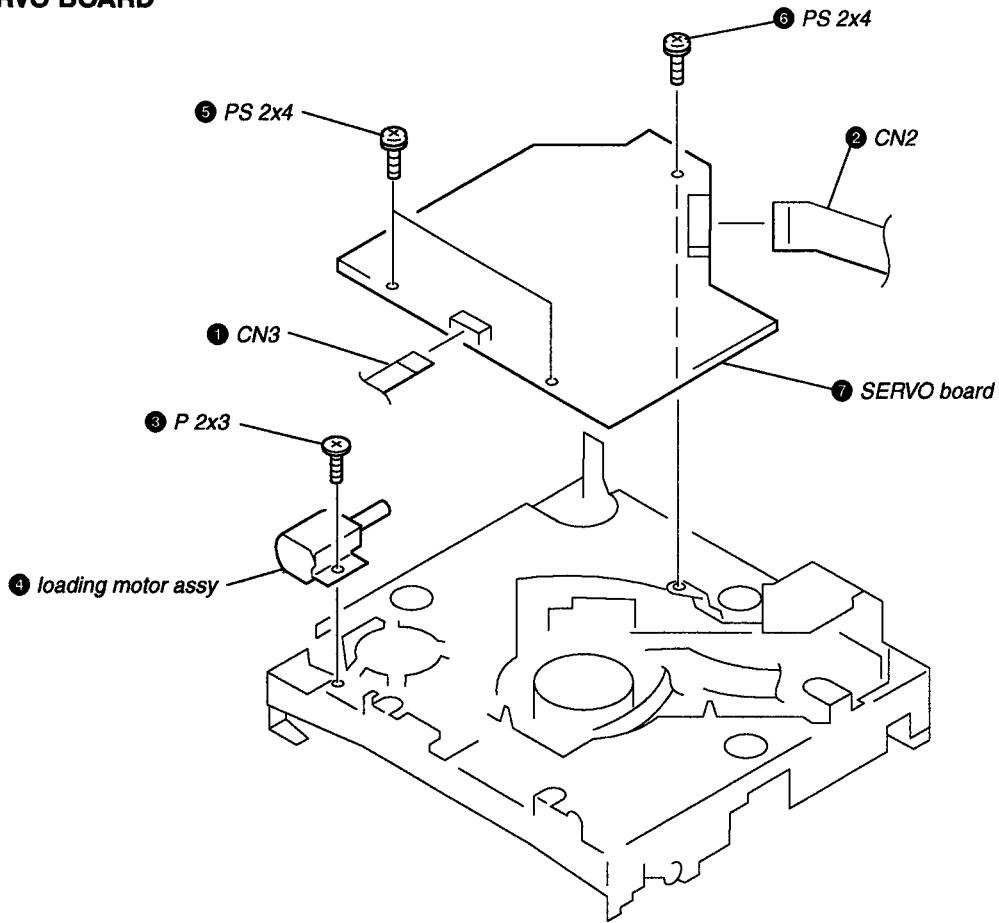
2-7. CHASSIS (T) SUB ASSY



2-8. LEVER ASSY

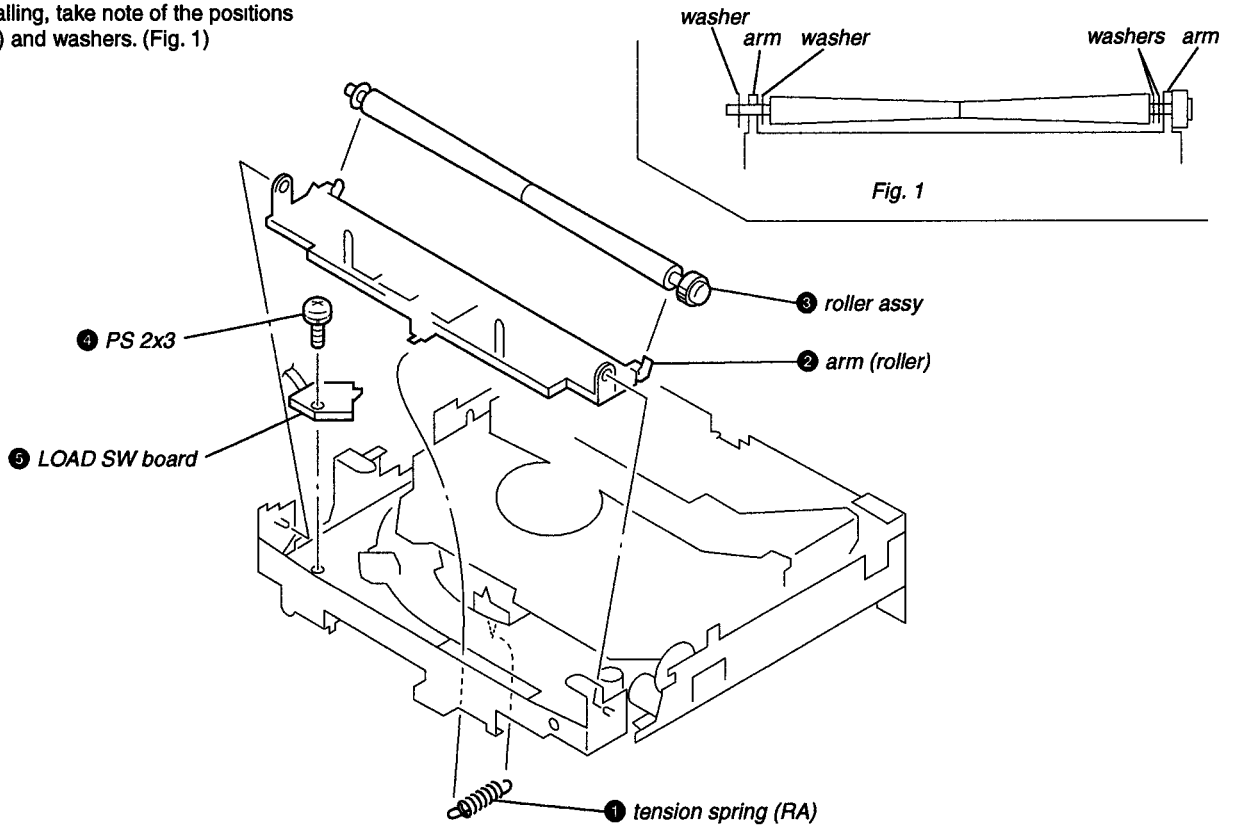


2-9. SERVO BOARD

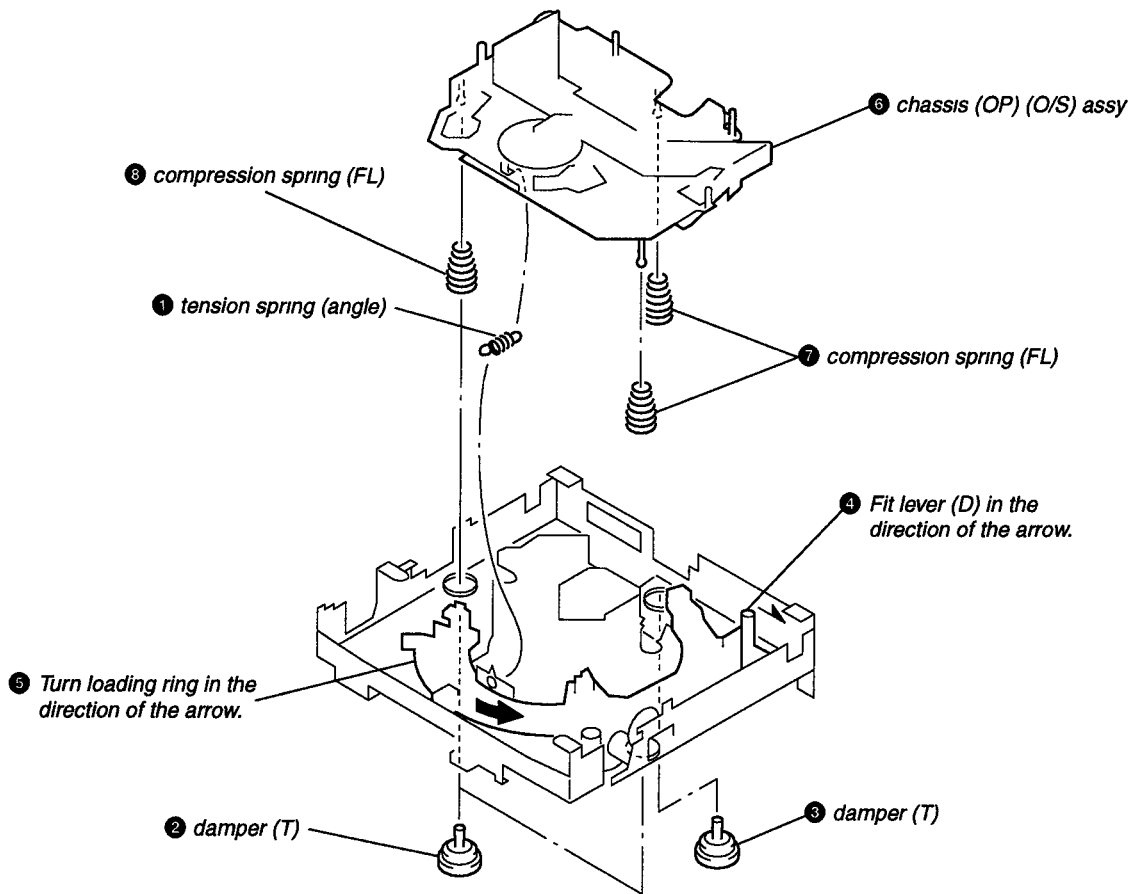


2-10. ROLLER ASSY

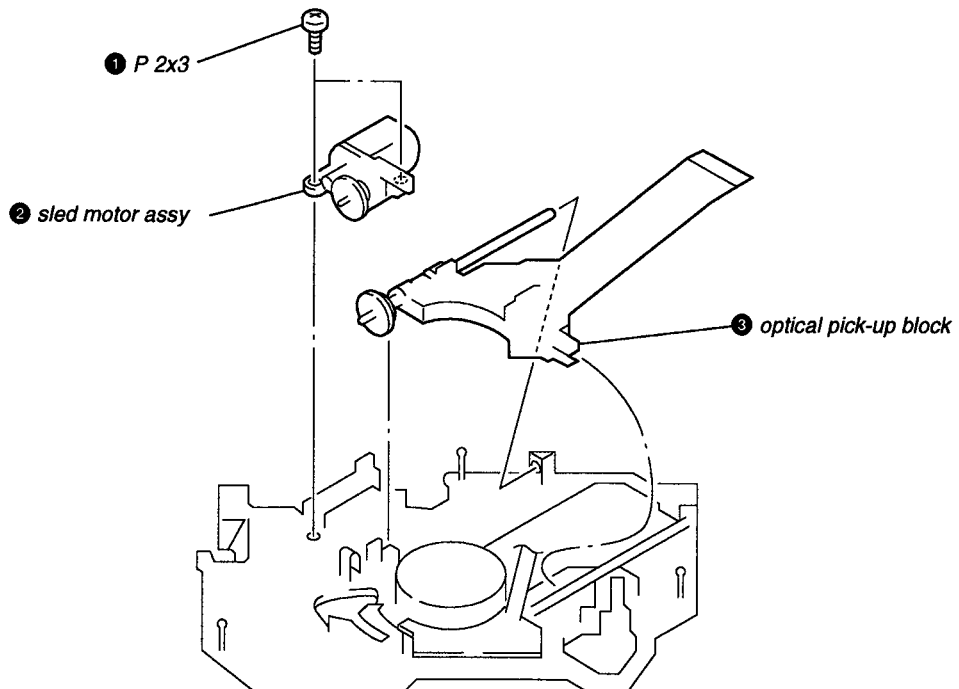
• When installing, take note of the positions arm (roller) and washers. (Fig. 1)



2-11. CHASSIS (OP) (O/S) ASSY



2-12. OPTICAL PICK-UP BLOCK



SECTION 3 ELECTRICAL ADJUSTMENTS

TUNER SECTION

0 dB = 1 μ V

Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and AM (MW) Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>

1. Set the "OFF" mode.
2. Push the preset **[4]** button.
3. Push the preset **[5]** button.
4. Press the preset **[1]** button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

<Release the Test Mode>

1. Push the **[OFF]** button.

Note on Adjustment

The adjustments of tuner section, should be performed according to the following sequence.

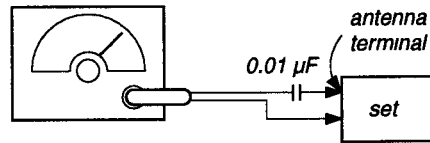
1. FM Auto Scan/Stop Level Adjustment
2. FM Stereo Separation Adjustment
3. FM RDS S-Meter Adjustment (CDX-C860RDS only)
4. AM (MW) Auto Scan/Stop Level Adjustment

FM Auto Scan/Stop Level Adjustment

Setting :

SOURCE button : FM

FM RF signal generator

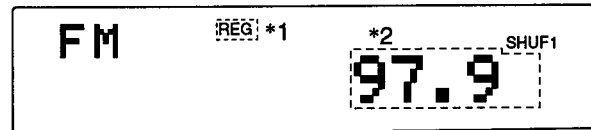


Carrier frequency : 97.9 MHz (C860)
 : 98.00 MHz (C860RDS)
 Output level : 22 dB (12.6 μ V)
 Mode : mono
 Modulation : 1 kHz, 22.5 kHz deviation (30%)

Procedure :

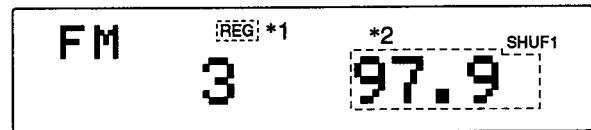
1. Set to the test mode.
2. Push the **[SOURCE]** button and set to FM.

Display



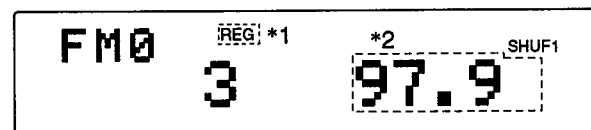
3. Push the preset **[3]** button.

Display



4. Adjust with the volume RV2 on FE601 so that the "FM" indication turns to "FM0" indication on the display window. But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

Display



*1 : "REG" is displayed only for CDX-C860RDS.

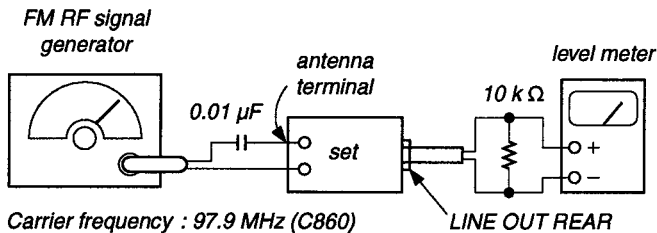
*2 : CDX-C860RDS has the "98.00" displayed.

Adjustment Location : See page 27.

FM Stereo Separation Adjustment

Setting :

SOURCE button : FM



Carrier frequency : 97.9 MHz (C860)
 : 98.00 MHz (C860RDS)
 Output level : 70 dB (3.2 mV)
 Mode : stereo
 Modulation : main : 1 kHz, 33.75 kHz deviation (45%) (C860)
 : 1 kHz, 20 kHz deviation (26.5%) (C860RDS)
 sub : 1 kHz, 33.75 kHz deviation (45%) (C860)
 : 1 kHz, 20 kHz deviation (26.5%) (C860RDS)
 19 kHz pilot : 1 kHz, 7.5 kHz deviation (10%)

Procedure :

FM stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on FE601 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on FE601 for minimum reading.

L-CH stereo separation : Ⓐ – Ⓑ

R-CH stereo separation : Ⓒ – Ⓓ

The separations of both channels should be equal.

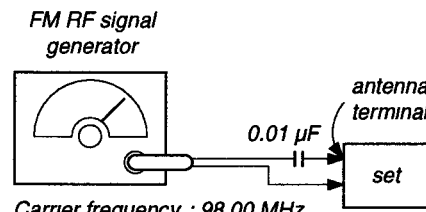
Specification : Separation more than 25 dB

Adjustment Location : See page 27.

FM RDS S-Meter Adjustment (CDX-C860RDS only)

Setting :

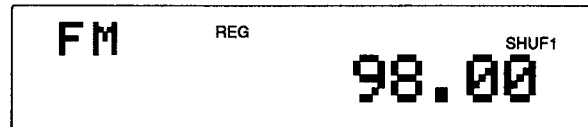
SOURCE button : FM



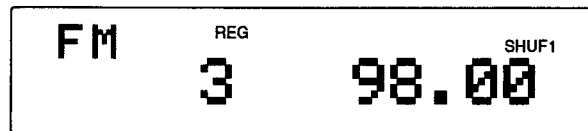
Carrier frequency : 98.00 MHz
 Output level : 35 dB (56.2 µV)
 Mode : mono
 Modulation : no modulation

Procedure :

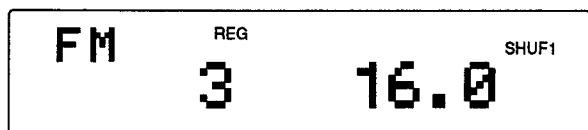
1. Set to the test mode. (See page 25.)
2. Push the **SOURCE** button and set to FM.
Display



3. Push the preset **3** button.
Display



4. Push the preset **10** button.
5. Adjust RV601 so that the display indication is "16.0".
Display



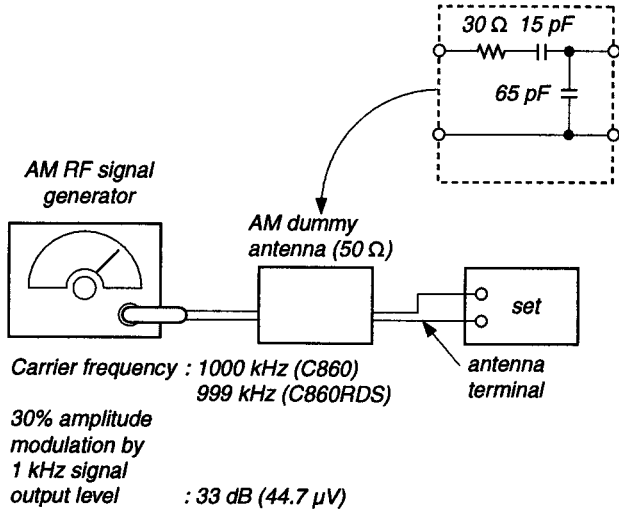
Specification : Display indication : 15.8 to 16.2.

Adjustment Location : See page 27.

AM (MW) Auto Scan/Stop Level Adjustment

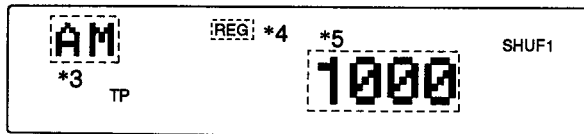
Setting :

SOURCE → MODE button : AM (C860)
: MW (C860RDS)

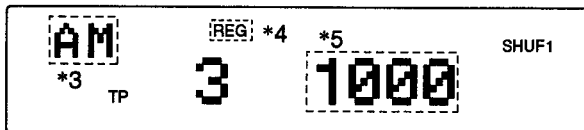


Procedure :

1. Set to the test mode. (See page 25.)
2. Push the **SOURCE** button.
3. Push the **MODE** button and set to AM (C860) or MW (C860RDS).
Display

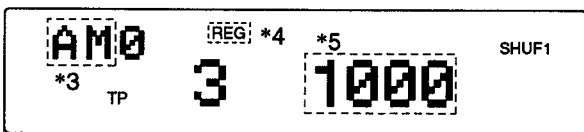


4. Push the preset **3** button.
Display



5. Adjust with the volume RV1 on FE601 so that the "AM" (C860) or "MW" (C860RDS) indication turns to "AM0" (C860) or "MW0" (C860RDS) indication on the display window. But, in case of already indicated "AM0" (C860) or "MW0" (C860RDS), turn the RV1 so that put out light "0" indication and adjustment.

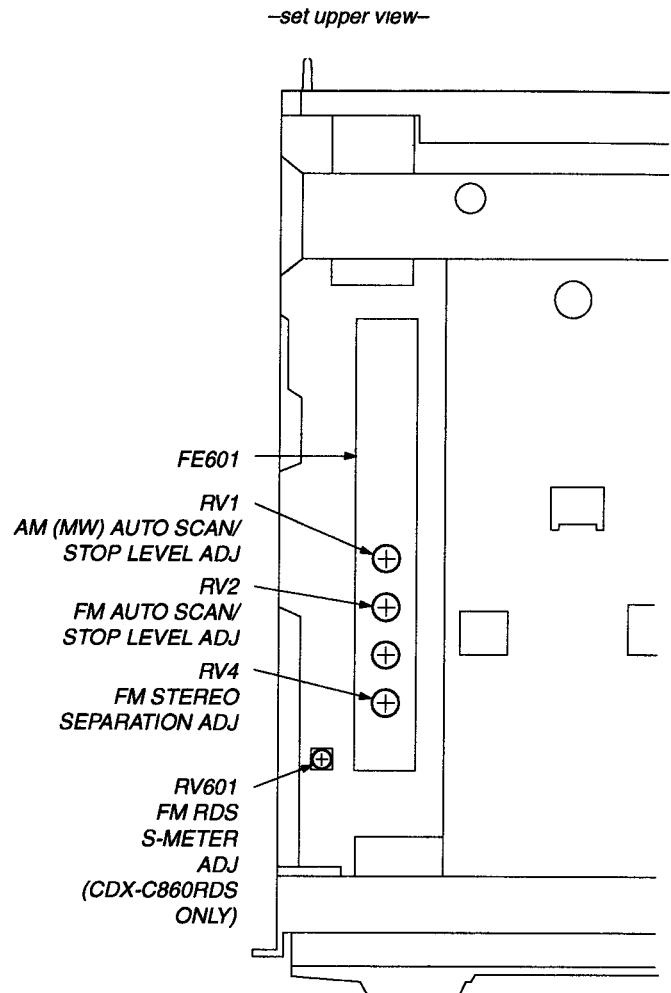
Display



- *3 : CDX-C860RDS has the "MW" displayed.
- *4 : "REG" is displayed only for CDX-C860RDS.
- *5 : CDX-C860RDS has the "999" displayed.

Adjustment Location : tuner unit (FE601)

Adjustment Location : tuner unit (FE601)



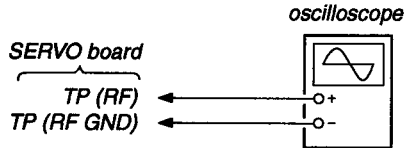
CD SECTION

Note :

1. CD Block basically constructed 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 the oscilloscope with more than 10 M Ω impedance.
4. Clean an objective lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

Focus Bias Adjustment

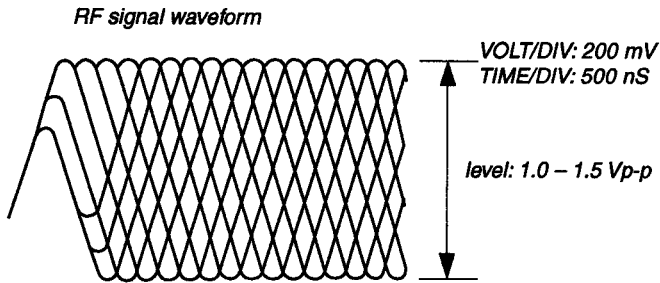
Setting : This adjustment is performed with the set placed horizontally.



Procedure :

1. Connect an oscilloscope between TP (RF) and TP (RF GND) on the SERVO board.
2. Connect the power supply.
3. Push the **RESET** button (S502) on the main board.
4. Insert the disc (YEDS-18) and playback.
5. Adjust RV1 so that the oscilloscope waveform is clear and check RF signal level is correct or not.

Note : Clear RF signal waveform means that the sharp “◇” can be clearly distinguished at the center of the waveform.



- When observing the eye pattern, set the oscilloscope to AC range and raise the vertical sensitivity so that it may be easily seen.

Adjustment Location : servo board

Focus Gain Adjustment (Coarse adjustment)

This adjustment is not required unless the following parts are replaced:

- Optical pick-up
- RV4

Procedure :

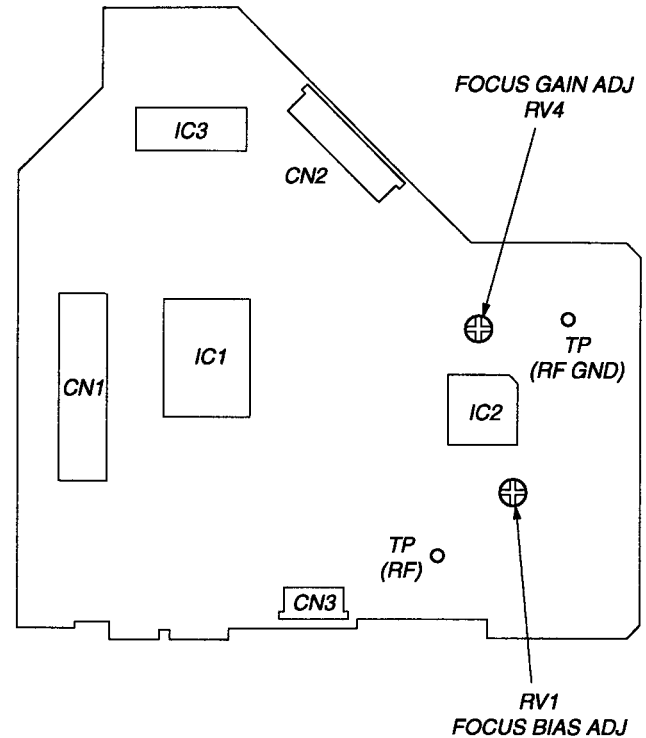
1. Set RV4 to the standard position. (mechanical center)
2. Check whether operation noise (while noise type) caused by the 2-axis device (lens section of the optical pick-up) is abnormally loud.

If the operation noise is too loud, turn RV4 slightly counter-clockwise.

- If the gain is too low :
Focus does not function and no music is selected.
- If the gain is too high :
Noise caused by scratches and dust is heard and the operation becomes unstable.

Adjustment Location : servo board

Adjustment Location : servo board (component side)



SECTION 4 DIAGRAMS

4-1. IC PIN DESCRIPTIONS • IC301 CXD2710R (DSP)

Pin No.	Pin Name	I/O	Pin Description
1	AMPIN	I	Loop filter amplifier input for PLL.
2	AMPOUT	O	Loop filter amplifier output for PLL.
3	VDD	—	Power supply pin (+5 V)
4	VSS	—	GND
5	AVSS1	—	GND for PLL.
6	VCOC	I	VCO control signal input
7	AVDD1	—	Power supply pin for PLL VCO. (+5 V)
8	—	—	Not used.
9	MCK1	I	Master clock input (768Fs) (Fixed at “H”.)
10	MCK2	I	Master clock input (384Fs) (Fixed at “H”.)
11	MCKOUT	O	Master clock output (Not used.)
12	MCKSEL	I	MCK1/internal VCO select pin (“H” : MCK1, “L” : internal VCO) (Fixed at “L”.)
13	XMUTE	I	Mute signal input of serial interface from DSP system control (IC505).
14	DIN	I	Program data serial input from DSP system control (IC505).
15	VSS	—	GND
16	SCK	I	Program data serial clock input from DSP system control (IC505).
17	XLD	I	Program data load input from DSP system control (IC505).
18	DOUT	O	Internal serial data output to DSP system control (IC505).
19	BUSY	O	Data transfer busy signal output to DSP system control (IC505).
20	XCLK	I	Reset signal input from DSP system control (IC505).
21 – 27	—	—	Connect to GND.
28	VDD	—	Power supply pin (+5 V)
29	VSS	—	GND
30 – 38	—	—	Connect to GND.
39	M1	O	Parallel data output (MSB) (Connect to GND.)
40	VSS	—	GND
41 – 52	M2 – M13	O	Parallel data output (Connect to GND.)
53	VDD	—	Power supply pin (+5 V)
54	VSS	—	GND
55, 56	M14, M15	O	Parallel data output (Connect to GND.)
57	M16	O	Parallel data output (LSB) (Connect to GND.)
58 – 64	—	—	Connect to GND.
65	VSS	—	GND
66 – 74	—	—	Connect to GND.
75, 76	—	—	Fixed at “H”.
77	D.SEL1	I	Serial/parallel select pin (Fixed at “L”.)
78	VDD	—	Power supply pin (+5 V)
79	GND	—	GND
80	D.SEL2	I	Serial/parallel select pin (Fixed at “L”.)
81, 82	—	—	Connect to GND.
83	AVDD2	—	Power supply pin for DRAM. (+5 V)
84	AVSS2	—	GND for D-RAM.
85	AVDD3	—	Power supply pin for DRAM. (+5 V)
86	AVSS3	—	GND for DRAM.
87	SUBDOUT	O	Serial data (1 sampling, 2 channel) output for the sub-woofer speaker.
88	RDOUT	O	Serial data (1 sampling, 2 channel) output for the rear side speaker.

Pin No.	Pin Name	I/O	Pin Description
89	FDOUT	O	Serial data (1 sampling, 2 channel) output for the front side speaker.
90	VSS	—	GND
91	CDDIN	I	Serial data (1 sampling, 2 channel) input for the CD. (Not used.)
92	ADIN	I	Serial data (1 sampling, 2 channel) input for the tuner or bus audio signal.
93	MDIN	I	Serial data (1 sampling, 2 channel) input for the mini-disc. (Fixed at "L".)
94	BCK	I	Bit clock input of the serial I/O data.
95	LRCK	I	Sampling clock input of the serial I/O data.
96	PCPOUT	O	Error signal output of the PLL phase comparator to DSP system control (IC505)
97	V	O	Divider output for the PLL.
98	VAR	I	PLL phase comparator variable input
99	REF	I	PLL phase comparator reference input
100	PD	I	PLL phase comparator charge pump input

• IC501 μ PD78058GC-451-3B9 (MAIN SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	RE1	I	Rotary encoder (VOLUME) input 1
2, 3	NIL	I	Connect to GND.
4	AVSS	—	GND for A/D conversion
5	$\overline{\text{TIMPOL}}$	I	Time poling with/without setting input (Connect to GND.)
6	NIL	I	CONTRAST select input
7	AVREF	—	Reference voltage for D/A conversion.
8	SQ SI	I	Sub Q data input
9	NIL	I	Connect to GND
10	SQ CKO	O	Sub Q clock output
11	SRDT	I	Text data input
12	XMODE	O	CD-Text decoder Reset & Power down mode select
13	SCLK	O	Text data clock
14, 15	NIL	I	Connect to GND.
16	UNI-SI	I	Serial data input
17	UNI-SO	O	Serial data output
18	UNI-CKI	I	Serial clock input
19	UNI-CKO	O	Serial clock output
20	$\overline{\text{BUSON}}$	O	BUS ON control output
21 – 23	NCO	—	Not used.
24	CDMON	O	CD mechanism power control output
25	CD ON	O	CD power control output
26	NIL	I	Connect to GND.
27	P ON	O	System power control output
28	NIL	I	Connect to GND.
29	$\overline{\text{ILL IN}}$	I	Illuminator detection input
30	$\overline{\text{TEL-MUTE}}$	I	Telephone mute detection input
31	$\overline{\text{SYSRST}}$	O	System reset control output
32	TSTINO	I	Loading/Eject inhibit setting input
33	VSS	—	GND
34	CAUTION	I	Caution alarm initial setting input (Fixed at "L".)
35	TV SEL	I	Connect to GND.
36	FBTOSEL	I	Connect to GND.
37	$\overline{\text{TEST}}$	I	TEST mode direct setting
38	$\overline{\text{PW SEL}}$	I	Power select initial setting
39	$\overline{\text{NOSESW}}$	I	Detachable panel detection
40	A MUTE	O	Audio mute control output
41	NCO	—	Not used
42	$\overline{\text{AD ON}}$	O	Power control output for A/D conversion.
43	$\overline{\text{LD ON}}$	O	Laser ON/OFF control output
44	$\overline{\text{EMPH-O}}$	O	Emphasis control output
45	$\overline{\text{L SW}}$	I	Sled limit switch input
46	BEEP	O	Buzzer control output
47	CD LAT	O	CD signal process latch output
48	CD SO	O	CD signal process serial data output
49	CD CKO	O	CD signal process serial clock output
50	CD RST	O	CD signal process IC reset output
51	F OK	I	Focus OK signal detection input

Pin No.	Pin Name	I/O	Pin Description
52	ACC-IN	I	Accessory power voltage detection input
53	GFS	I	GFS signal detection input
54	IN SW	I	Disc insert detection input
55, 56	CTL1, 2	O	Driver IC control output 1, 2
57	D SW	I	DOWN switch detection input
58	LM EJ	O	Loading motor control output (Eject direction)
59	LM LOD	O	Loading motor control output (Loading direction)
60	RESET	I	Reset input
61	SIRCS	I	Remote commander input
62	BU IN	I	Back-up power detection input
63	KEYACK	I	Key input acknowledge (WAKE UP)
64	SELF SW/SCORE	I	Disc self store detection input
65	SENS	I	SENS signal detection input
66	CNIN	I	Track jump number count input
67	DQSY	I	Text data request input
68	VDD	—	Power supply for microcomputer.
69	X2	O	Main crystal oscillator output pin (5 MHz)
70	X1	I	Main crystal oscillator input pin (5 MHz)
71	GND	—	GND for microcomputer.
72	XT2	O	Sub crystal oscillator output pin (32.768 kHz)
73	XT1	I	Sub crystal oscillator input pin (32.768 kHz)
74	AVDD	—	Power supply for A/D conversion.
75	AVREF	—	Reference power supply for A/D conversion.
76, 77	KEYIN0, 1	I	Key input 0, 1
78, 79	RC IN0, 1	I	Rotary commander input 0, 1
80	RE0	I	Rotary encoder (VOLUME) input 0

• IC505 μ PD78058GC-452-3B9 (DSP SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1, 2	NIL	I	Connect to GND.
3	TIR IND	O	TIR indicator output
4	GND	—	GND for A/D conversion.
5	$\overline{\text{DSPMUTE}}$	O	Audio data output mute control of DSP IC.
6	LCD ANGL	O	Output for LCD view angle adjustment. (Connect to GND.)
7	AVREF	—	Reference voltage for D/A conversion.
8	LCDCE	O	LCD serial chip enable output
9	LCDSO	O	LCD serial data output
10	LCDCO	O	LCD serial clock output
11	DSPSI	I	DSP serial data input
12	DSPSO	O	DSP serial data output
13	DSPCKO	O	DSP serial clock output
14	DSPCE	O	DSP signal process IC strobe control signal output
15	DSPBUSY	I	DSP signal process IC busy signal input
16	UNISI	I	Serial data input
17	UNISO	O	Serial data output
18	UNICKI	I	Serial clock input
19	NCO	O	Not used.
20	$\overline{\text{LINKOFF}}$	O	Link off output (Not used.)
21	BST	O	Built-in amplifier boost control output
22 – 25	NCO	—	Not used.
26	$\overline{\text{C PDN}}$	O	Codec IC power down output
27	C CLK	O	Codec IC clock output
28	C CE	O	Codec IC chip enable output
29	C SO	O	Codec IC serial data output
30	C SI	I	Codec IC serial clock input
31	ILLON	O	Illumination power control output
32	NIL	I	Connect to GND.
33	VSS	—	GND for microcomputer
34 – 39	NIL	I	Connect to GND.
40	A MUTE	O	Audio mute control output
41	$\overline{\text{AMPMUTE}}$	O	Power amplifier mute control output
42, 43	NIL	I	Connect to GND.
44	EECKO	O	EEPROM clock output
45	EESIO	I/O	EEPROM serial data input/output
46 – 54	NIL	I	Connect to GND.
55	AMP REM	O	AMP REM control output
56	LCD ON	O	LCD power control output
57	AMPON	O	COM + 8 V power control output
58	DSPON	O	P.ON + 5 V power control output
59	PWONIN	I	System power control input
60	$\overline{\text{RESET}}$	I	Reset input
61	$\overline{\text{PCPIN}}$	I	PLL phase comparator error detection input
62	BU.IN	I	Back-up power detection input
63	NIL	I	Connect to GND.
64	$\overline{\text{BUSON}}$	I	BUS.ON control output

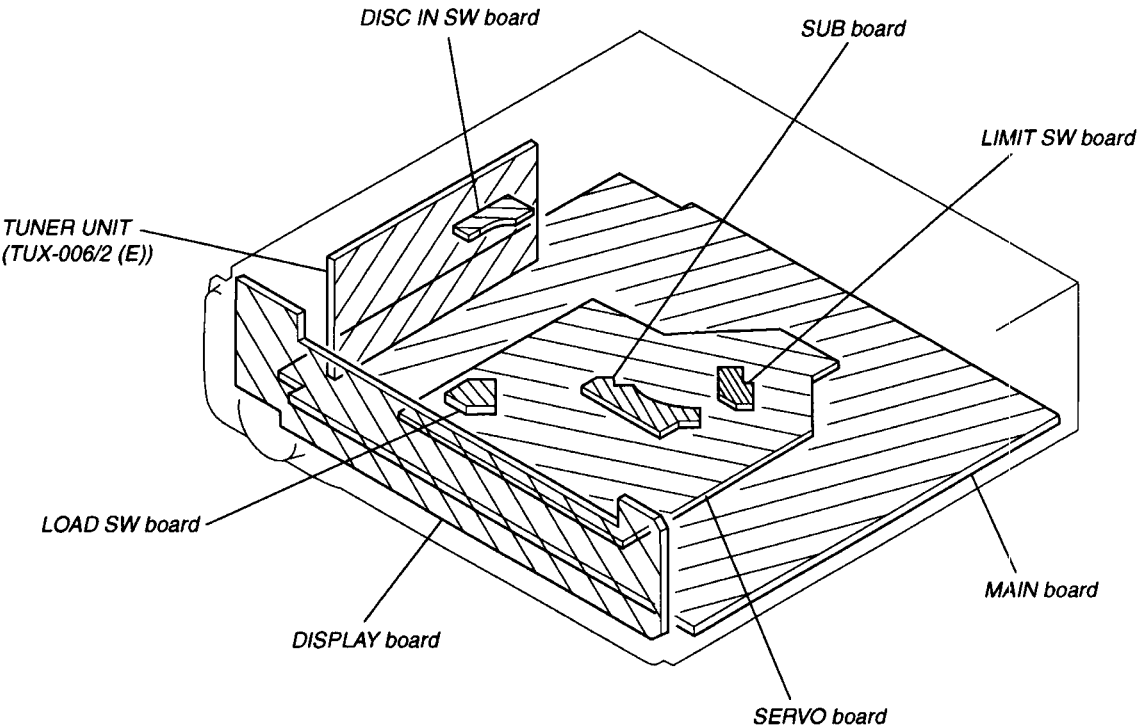
Pin No.	Pin Name	I/O	Pin Description
65	CDON IN	I	CD ON input
66	$\overline{\text{DSPRES}}$	O	DSP signal process IC reset output
67	NIL	I	Connect to GND.
68	VDD	—	Power supply for microcomputer.
69	X2	O	Main crystal oscillator output pin (5 MHz)
70	X1	I	Main crystal oscillator input pin (5 MHz)
71	GND	—	GND for microcomputer.
72	NIL	I	Connect to GND.
73	GND	—	GND for microcomputer.
74	AVDD	—	Power supply for A/D conversion.
75	AVREF	—	Reference power supply for A/D conversion.
76 – 80	NIL	I	Connect to GND.

• IC601 MN1883220Y5A (CDX-C860) (TUNER SYSTEM CONTROL)
 IC601 MN1883220Y5E (CDX-C860RDS) (TUNER SYSTEM CONTROL)

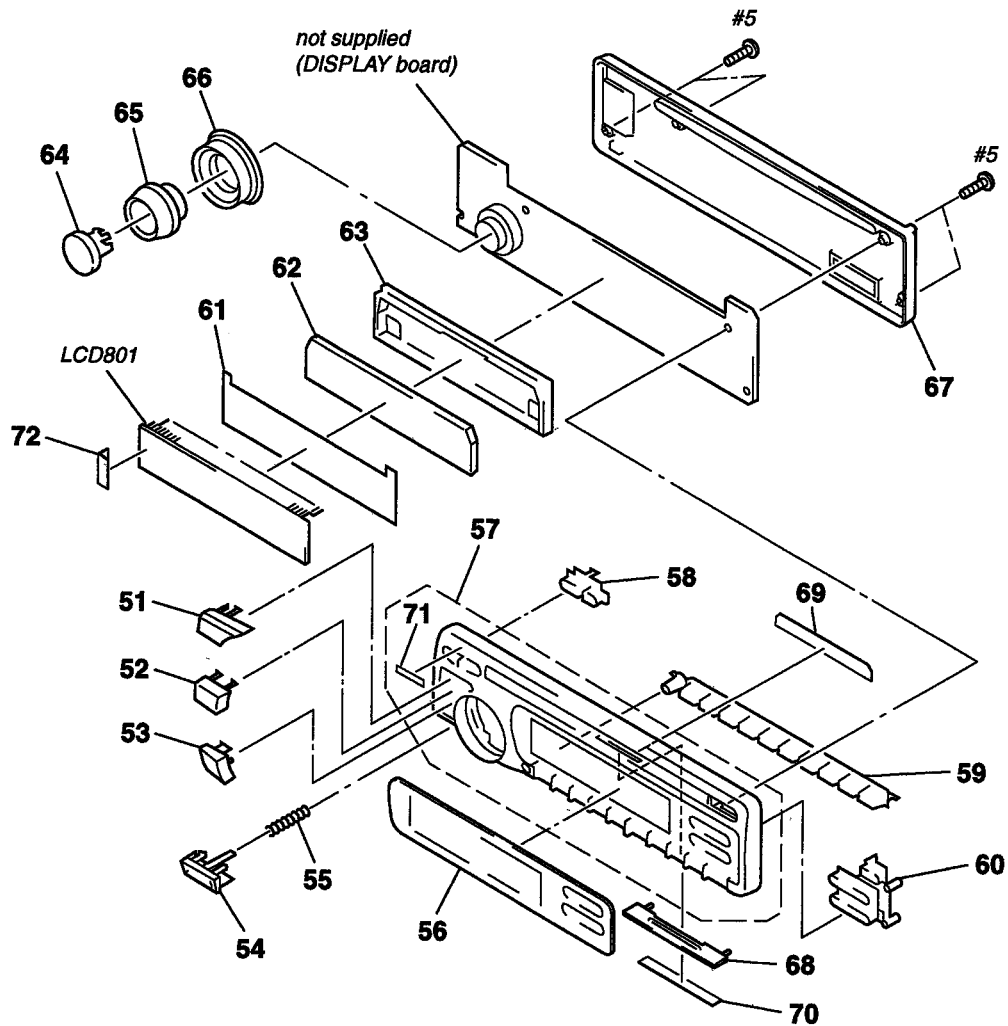
Pin No.	Pin Name	I/O	Pin Description
1	A5	O	TIR-IC data read pulse output pin (C860RDS)
2	A4	I	TIR-IC busy output monitor input pin (C860RDS)
3 – 6	A3 – A0	I/O	TIR-IC command input/output pin (C860RDS)
7	VDD	—	Power supply pin
8	X1	I	Ceramic oscillator connection input pin (8 MHz)
9	X2	O	Ceramic oscillator connection output pin (8 MHz)
10	GND	—	GND
11	XTI	I	Connect to GND.
12	XTO	O	Not used.
13	X0	—	Connect to GND.
14	$\overline{\text{RESET}}$	I	Reset input pin
15	RDCKI	I	RDS clock input pin (C860RDS)
16	BU IN	I	Back-up detection input pin
17	BUSON	I	Bus interface bus on input pin
18 – 25	D7 – D0	O	Not used.
26	RE	O	Not used.
27	WE	O	Not used.
28, 29	—	O	Not used.
30	RDSSI	I	RDS data input pin (C860RDS)
31	TIR4/8MIN	I	TIR recording time setting pin (Fixed at “L” (C860), “H” (C860RDS).)
32	AM STIN	I/O	AM STEREO indicator input/output pin (Fixed at “L”.)
33 – 35	—	—	Not used.
36, 37	—	—	Connect to GND.
38	PLLSI	I	PLL data input pin
39	PLL SO	O	PLL data output pin
40	PLLCKO	O	PLL clock output pin
41	PLLCE	O	PLL chip enable output pin
42	UNIREQ	O	Bus interface request output pin
43	LIKOFF	O	Bus interface link output pin
44	UNICKO	I	Bus interface serial clock-in input pin
45	UNISI	I	Bus interface serial data-in input pin
46	UNISO	I/O	Bus interface serial data-out input/output pin
47	VDD	—	Power supply pin
48	AVDD	—	Power supply pin for A/D conversion input.
49	VREF	—	Reference voltage input pin for A/D conversion input. (+ side)
50	—	I	Fixed at “L” (C860).
51	—	I	Fixed at “H” (C860).
52	SRAMRST	I	RAM reset detection input pin (C860)
53	MUTSEL	I	Mute operation select pin (Fixed at “L”.)
54	DSTSEL0	I	Destination select setting pin (Fixed at “L”.)
55	DSTSEL1	I	Destination select setting pin (Fixed at “H” (C860), “L” (C860RDS))
56	AM VSM	I	AM S-meter voltage detection input pin
57	FM VSM	I	FM S-meter voltage detection input pin
58	VREF	—	Reference voltage input pin for A/D conversion input. (– side)
59	—	—	GND for A/D conversion input.

Pin No.	Pin Name	I/O	Pin Description
60	VSS	—	GND
61	TU ON	O	TUNER-ON output pin
62	DX LO	O	DX/LOCAL output pin (Not used.)
63	SEEK	O	SEEK OUT output pin
64	AM ON	O	AM-ON output pin (Not used.)
65	FM ON	O	FM-ON output pin
66	TUNMUT	O	MUTE output pin
67	AF SEK	O	AF-SEEK output pin (Not used.)
68	SRAM	I	Not used.
69	A15	O	Not used.
70	ST-IN-MONO	I/O	Used in conjunction with ST indicator input/force MONO output.
71	SD IN	I	Signal detector input pin
72, 73	A14, A13	O	Not used.
74	CE	O	Not used.
75	A11	O	Not used.
76	A10	O	TIR-IC power down output pin (C860RDS)
77	A9	O	TIR-IC reset/power down output pin (C860RDS)
78	A8	O	TIR-IC chip enable output pin (C860RDS)
79	A7	O	TIR-IC chip enable inversion output pin (C860RDS)
80	A6	O	TIR-IC data write pulse output pin (C860RDS)

4-4. CIRCUIT BOARDS LOCATION

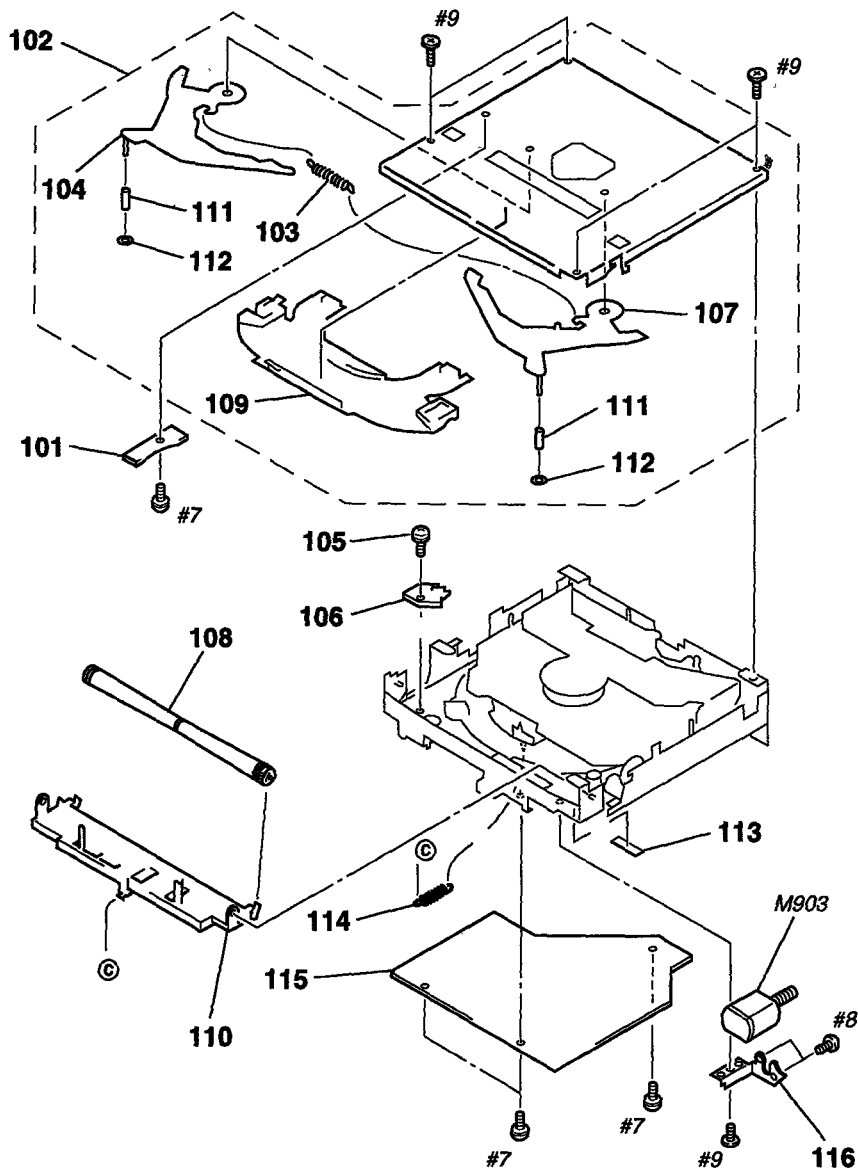


5-2. FRONT PANEL SECTION



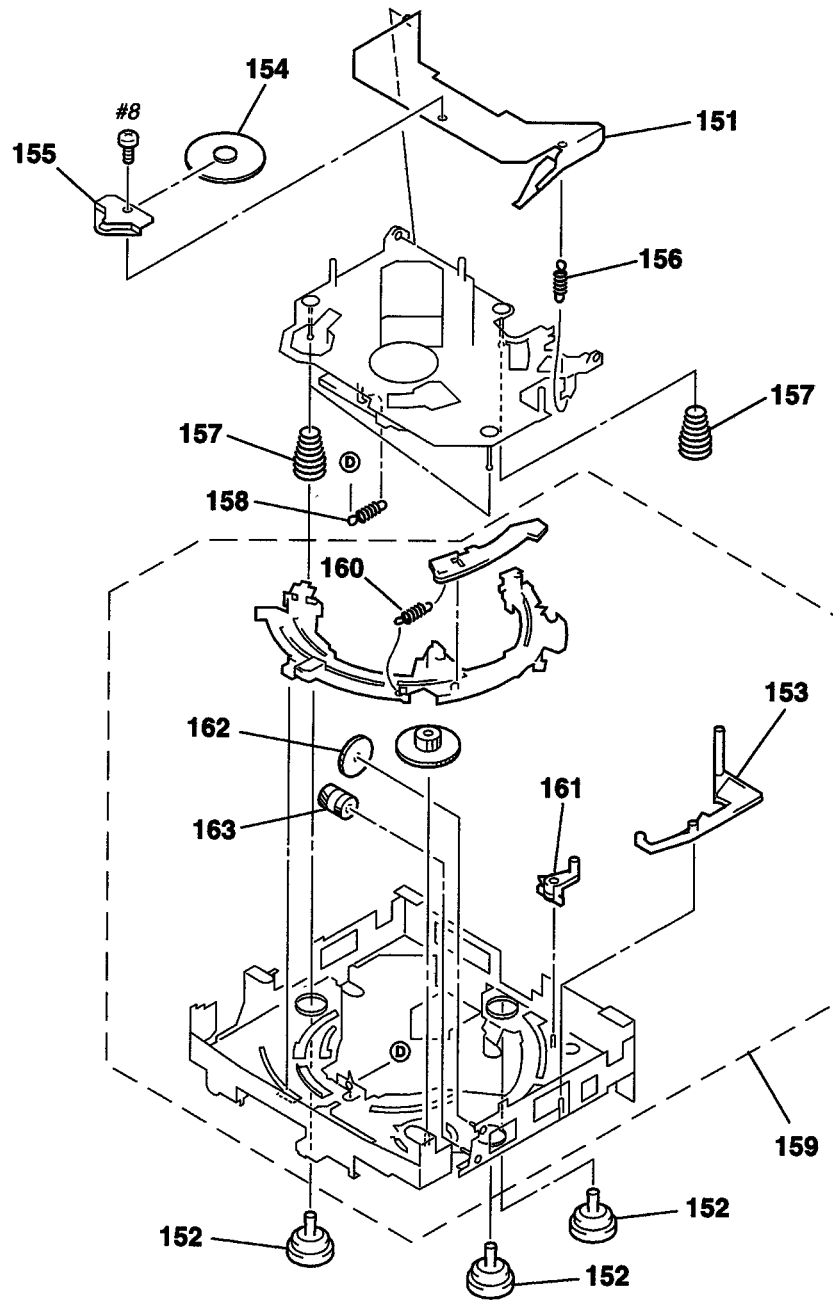
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	3-010-432-01	BUTTON (+)		* 61	3-009-268-01	SHEET,DIFFUSION	
52	3-010-433-01	BUTTON (MODE)		* 62	3-010-426-01	PLATE (LCD), LIGHT GUIDE	
53	3-010-434-01	BUTTON (-)		* 63	3-010-427-01	HOLDER (LCD)	
54	3-010-431-01	BUTTON (RELEASE)		64	X-3373-271-1	BUTTON (SOURCE) ASSY	
55	3-008-667-01	SPRING (RELEASE)		65	3-010-713-01	KNOB	
56	X-3373-314-1	WINDOW ASSY (C860)		66	3-010-714-01	PLATE (RING), LIGHT GUIDE	
56	X-3373-319-1	WINDOW ASSY (C860RDS)		67	3-010-435-01	PANEL, BACK	
57	X-3372-976-1	PANEL ASSY, FRONT (C860)		68	3-932-889-01	PLATE (F), LIGHT GUIDE	
57	X-3372-979-1	PANEL ASSY, FRONT (C860RDS)		69	3-932-898-01	SHEET (F)	
58	3-010-430-01	BUTTON (SOUND)		* 70	3-013-531-01	SHEET (CD)	
59	3-932-892-01	BUTTON (10 KEY)		71	3-904-194-01	EMBLEM (NO. 2.5), SONY	
60	3-008-660-01	BUTTON (EJECT) (C860RDS)		* 72	3-014-992-01	SHEET (L)	
60	3-008-660-11	BUTTON (EJECT) (C860)		LCD801	1-801-660-11	DISPLAY PANEL, LIQUID CRYSTAL	

**5-3. CD MECHANISM SECTION (1)
(MG-333T-121)**



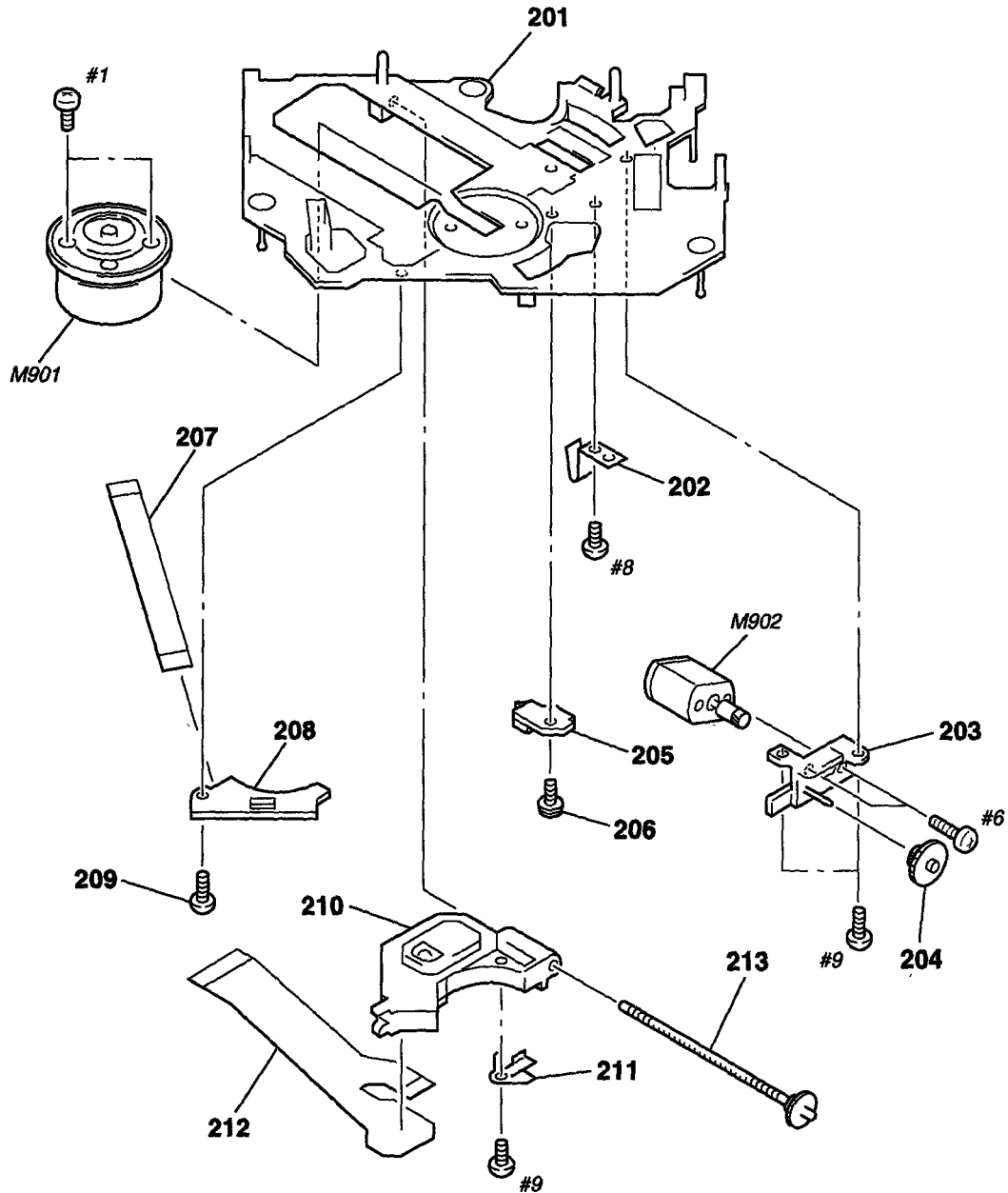
<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
* 101	1-659-836-11	DISC IN SW BOARD		110	3-931-902-01	ARM (ROLLER)	
* 102	A-3291-816-A	CHASSIS (T) SUB ASSY		111	3-936-756-01	ROLLER (D)	
103	3-931-909-01	SPRING (LR), TENSION		112	3-321-393-01	WASHER, STOPPER	
104	X-3371-501-1	LEVER (L) ASSY		* 113	3-939-139-01	SPACER	
105	3-338-737-01	SCREW (2X3), + PS		114	3-931-918-01	SPRING (RA), TENSION	
* 106	1-659-837-11	LOAD SW BOARD		* 115	A-3309-694-A	SERVO BOARD, COMPLETE	
107	X-3371-502-1	LEVER (R) ASSY		* 116	3-007-530-01	BRACKET (MOTOR)	
108	A-3291-672-A	ROLLER ASSY		M903	A-3291-676-A	MOTOR SUB ASSY, LOADING	
109	3-931-908-01	GUIDE (DISC)					

5-4. CD MECHANISM SECTION (2)
(MG-333T-121)



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
151	3-931-893-01	ARM, CHUCKING		158	3-931-914-01	SPRING (ANGLE), TENSION	
152	3-931-897-01	DAMPER (T)		* 159	A-3291-677-A	CHASSIS (M) ASSY, COMPLETE	
153	3-931-879-02	LEVER (D)		160	3-931-883-01	SPRING (TR), TENSION	
* 154	3-913-404-11	RETAINER (DISC)		161	3-931-881-01	LEVER (LOCK)	
155	3-931-894-01	BRACKET (CP)		162	3-931-882-02	GEAR (MDL)	
156	3-931-895-01	SPRING (CH), TENSION		163	3-007-537-01	WHEEL (U), WORM	
157	3-931-898-01	SPRING (FL), COMPRESSION					

5-5. CD MECHANISM SECTION (3)
(MG-333T-121)



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 201	X-3371-503-1	CHASSIS (OP) (O/S) ASSY		209	3-909-607-01	SCREW	
202	3-931-829-01	SPRING (SL), PLATE		Δ 210	8-848-402-02	PICK-UP, OPTICAL KSS-520A/J2NP	
203	X-3371-504-1	BASE (DRIVING) ASSY		211	3-931-834-01	SPRING (FEED), PLATE	
204	3-931-832-01	GEAR (SL MIDWAY)		212	1-659-881-11	PICK-UP FLEXIBLE BOARD	
* 205	1-659-835-12	LIMIT SW BOARD		213	A-3291-669-A	SHAFT (FEED) ASSY	
206	3-338-737-01	SCREW (2X3), + PS		M901	X-3371-664-2	MOTOR ASSY (SPINDLE)	
207	1-659-880-11	MOTOR FLEXIBLE BOARD		M902	A-3291-674-A	MOTOR ASSY, SLED	
* 208	1-659-834-11	SUB BOARD					

DISC IN SW **DISPLAY**

**SECTION 6
ELECTRICAL PARTS LIST**

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Abbreviation
G : German model

- 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

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-659-836-11	DISC IN SW BOARD *****				< IC >	
		< SWITCH >		IC801	8-759-331-68	IC uPD16432AGC-011-9EU	
				IC802	8-749-012-17	IC RS-140-T	
SW1	1-572-288-11	SWITCH, PUSH (DISC IN)				< LIQUID CRYSTAL DISPLAY >	
SW2	1-572-288-11	SWITCH, PUSH (SELF)					

		DISPLAY BOARD *****		LCD801	1-801-660-11	DISPLAY PANEL, LIQUID CRYSTAL	
						< DIODE >	
	X-3373-271-1	BUTTON (SOURCE) ASSY		LED801	8-719-987-45	LED CL-155Y/PG-CD (SOURCE)	
*	3-009-268-01	SHEET, DIFFUSION		LED802	8-719-987-45	LED CL-155Y/PG-CD (SOURCE)	
*	3-010-426-01	PLATE (LCD), LIGHT GUIDE		LED803	8-719-987-45	LED CL-155Y/PG-CD (SOURCE)	
*	3-010-427-01	HOLDER (LCD)		LED804	8-719-987-45	LED CL-155Y/PG-CD (SOURCE)	
	3-010-713-01	KNOB		LED805	8-719-987-45	LED CL-155Y/PG-CD (SOURCE)	
	3-010-714-01	PLATE (RING), LIGHT GUIDE		LED806	8-719-987-45	LED CL-155Y/PG-CD (SOURCE)	
		< CAPACITOR >		LED901	8-719-052-72	LED CL-220HR-C (C) (C860RDS)	
C801	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V		LED902	8-719-033-13	LED CL-170Y-CD-T (SOURCE)	
C802	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V		LED903	8-719-033-14	LED CL-170PG-CD-T (SOURCE)	
C804	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V				< SWITCH >	
C805	1-164-489-11	CERAMIC CHIP 0.22uF 10% 16V		LSW801	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (Δ)	
C806	1-107-725-11	CERAMIC CHIP 0.1uF 10% 16V		LSW802	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (LIST)	
		< CONNECTOR >		LSW803	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (DSPL)	
CNP801	1-764-423-11	PIN, CONNECTOR 12P		LSW804	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (AF/TA)	(C860RDS)
		< DIODE >		LSW805	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (TIR)	(C860RDS)
D801	8-719-977-12	DIODE DTZ6.8B		LSW806	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (10)	
D802	8-719-977-12	DIODE DTZ6.8B		LSW807	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (9)	
D803	8-719-977-12	DIODE DTZ6.8B		LSW808	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (8)	
D804	8-719-420-51	DIODE MA729		LSW809	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (7)	
D805	8-719-420-90	DIODE MA8051-M		LSW810	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (6)	
D806	8-719-420-90	DIODE MA8051-M		LSW811	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (5)	
D807	8-719-420-90	DIODE MA8051-M		LSW812	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (4)	
D808	8-719-420-90	DIODE MA8051-M		LSW813	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (3)	
				LSW814	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (2)	
				LSW815	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (1)	
				LSW816	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (OFF)	
				LSW817	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)	
				LSW818	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SHIFT)	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
LSW819	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (◀◀◀◀ - (SEEK/AMS))		R833	1-216-025-00	METAL GLAZE 100 5% 1/10W	
LSW820	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (MODE)		R834	1-216-029-00	METAL CHIP 150 5% 1/10W	
LSW821	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (▶▶▶▶ + (SEEK/AMS))		R835	1-216-025-00	METAL GLAZE 100 5% 1/10W	
LSW822	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SOUND)		R836	1-216-037-00	METAL CHIP 330 5% 1/10W	
		< PILOT LAMP >		R837	1-216-033-00	METAL CHIP 220 5% 1/10W	
PL801	1-517-630-31	LAMP, PILOT		R841	1-216-041-00	METAL CHIP 470 5% 1/10W	
PL802	1-517-630-31	LAMP, PILOT		R842	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
		< TRANSISTOR >		R843	1-216-073-00	METAL CHIP 10K 5% 1/10W	
Q803	8-729-904-78	TRANSISTOR DTD113ZK		R844	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
Q804	8-729-904-66	TRANSISTOR DTD113EK		R845	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
Q805	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R846	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
Q806	8-729-106-60	TRANSISTOR 2SB1115A		R847	1-216-029-00	METAL CHIP 150 5% 1/10W	(C860RDS)
Q807	8-729-106-60	TRANSISTOR 2SB1115A		R848	1-216-025-00	METAL GLAZE 100 5% 1/10W	(C860RDS)
		< RESISTOR >		R849	1-216-037-00	METAL CHIP 330 5% 1/10W	(C860)
R801	1-216-647-11	METAL CHIP 680 0.5% 1/10W		R850	1-216-033-00	METAL CHIP 220 5% 1/10W	(C860)
R802	1-216-647-11	METAL CHIP 680 0.5% 1/10W		R852	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R803	1-216-647-11	METAL CHIP 680 0.5% 1/10W		R853	1-216-033-00	METAL CHIP 220 5% 1/10W	
R804	1-208-437-41	METAL GLAZE 1K 2% 1/10W		R854	1-216-041-00	METAL CHIP 470 5% 1/10W	
R805	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W		R855	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R806	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W		R856	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R807	1-208-445-41	METAL GLAZE 2.2K 2% 1/10W		R857	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R808	1-208-449-41	METAL GLAZE 3.3K 2% 1/10W		R858	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R809	1-208-453-41	METAL GLAZE 4.7K 2% 1/10W		R859	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R810	1-216-671-11	METAL CHIP 6.8K 0.5% 1/10W		R860	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R811	1-208-462-41	METAL GLAZE 10K 2% 1/10W		R863	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R812	1-208-810-11	METAL GLAZE 15K 2% 1/10W		R864	1-216-045-00	METAL CHIP 680 5% 1/10W	(C860RDS)
R813	1-208-518-41	METAL GLAZE 22K 2% 1/10W		R865	1-216-190-00	METAL GLAZE 470 5% 1/8W	(C860)
R814	1-208-526-41	METAL GLAZE 47K 2% 1/10W		R866	1-216-186-00	METAL GLAZE 330 5% 1/8W	(C860)
R815	1-216-647-11	METAL CHIP 680 0.5% 1/10W		R871	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R816	1-216-647-11	METAL CHIP 680 0.5% 1/10W		R872	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R817	1-216-647-11	METAL CHIP 680 0.5% 1/10W		R873	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R818	1-208-437-41	METAL GLAZE 1K 2% 1/10W		R874	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R819	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W		R875	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R820	1-216-655-11	METAL CHIP 1.5K 0.5% 1/10W		R876	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R822	1-216-033-00	METAL CHIP 220 5% 1/10W		R877	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R823	1-216-037-00	METAL CHIP 330 5% 1/10W		R878	1-216-041-00	METAL CHIP 470 5% 1/10W	
R824	1-216-025-00	METAL GLAZE 100 5% 1/10W		R879	1-216-049-11	METAL GLAZE 1K 5% 1/10W	
R825	1-216-029-00	METAL CHIP 150 5% 1/10W		R880	1-216-295-00	CONDUCTOR, CHIP (2012) (C860RDS)	
R826	1-216-029-00	METAL CHIP 150 5% 1/10W		R881	1-216-295-00	CONDUCTOR, CHIP (2012) (C860RDS)	
R827	1-216-025-00	METAL GLAZE 100 5% 1/10W		R888	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R828	1-216-037-00	METAL CHIP 330 5% 1/10W	(C860RDS)				
R829	1-216-033-00	METAL CHIP 220 5% 1/10W	(C860RDS)				
R832	1-216-029-00	METAL CHIP 150 5% 1/10W					
		< ROTARY ENCODER >					
				RE801	1-475-014-11	ENCODER, ROTARY	

DISPLAY**LIMIT SW****LOAD SW****MAIN**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< THERMISTOR >					
TH801	1-810-421-11	THERMISTOR NTH5G36B103K01TE		C119	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
*****				C126	1-126-288-11	ELECT 4.7uF	20% 16V
*	1-659-835-12	LIMIT SW BOARD		C127	1-162-959-11	CERAMIC CHIP 330PF	5% 50V
		*****		C128	1-164-473-11	CERAMIC CHIP 820PF	5% 50V
		< SWITCH >		C130	1-162-957-11	CERAMIC CHIP 220PF	5% 50V
SW3	1-572-688-11	SWITCH, PUSH (1 KEY) (LIMIT)		C131	1-124-234-00	ELECT 22uF	20% 16V
*****				C132	1-164-346-11	CERAMIC CHIP 1uF	16V
*	1-659-837-11	LOAD SW BOARD		C133	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
		*****		C134	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
		< SWITCH >		C135	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
SW4	1-572-288-11	SWITCH, PUSH (DOWN)		C136	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
*****				C137	1-164-363-11	CERAMIC CHIP 560PF	5% 50V
*	A-3294-254-A	MAIN BOARD, COMPLETE (C860)		C139	1-126-288-11	ELECT 4.7uF	20% 16V
*	A-3294-256-A	MAIN BOARD, COMPLETE (AEP,UK)		C141	1-163-009-11	CERAMIC CHIP 0.001uF	10% 50V
*	A-3294-269-A	MAIN BOARD, COMPLETE (G)		C142	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
*****				C143	1-163-259-00	CERAMIC CHIP 220PF	5% 50V
*	3-008-663-01	HEAT SINK		C144	1-126-288-11	ELECT 4.7uF	20% 16V
*	3-008-665-01	BRACKET (IC)		C145	1-164-161-11	CERAMIC CHIP 0.0022uF	10% 100V
*	3-010-436-01	BRACKET (H)		C161	1-124-234-00	ELECT 22uF	20% 16V
*	3-014-349-01	HEAT SINK (REG 3)		C162	1-124-589-11	ELECT 47uF	20% 16V
	7-685-791-09	SCREW +PTT 2.6X5 (S)		C163	1-115-175-11	ELECT 100uF	20% 16V
	7-685-792-09	SCREW +PTT 2.6X6 (S)		C164	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
	7-685-793-09	SCREW +PTT 2.6X8 (S)		C171	1-124-234-00	ELECT 22uF	20% 16V
		< BUZZER >		C172	1-124-589-11	ELECT 47uF	20% 16V
BZ501	1-504-920-11	BUZZER		C173	1-115-175-11	ELECT 100uF	20% 16V
		< CAPACITOR >		C174	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C100	1-164-346-11	CERAMIC CHIP 1uF	16V	C200	1-164-346-11	CERAMIC CHIP 1uF	16V
C101	1-164-506-11	CERAMIC CHIP 4.7uF	16V	C201	1-164-506-11	CERAMIC CHIP 4.7uF	16V
C102	1-164-346-11	CERAMIC CHIP 1uF	16V	C202	1-164-346-11	CERAMIC CHIP 1uF	16V
C106	1-126-288-11	ELECT 4.7uF	20% 16V	C206	1-126-288-11	ELECT 4.7uF	20% 16V
C107	1-162-959-11	CERAMIC CHIP 330PF	5% 50V	C207	1-162-959-11	CERAMIC CHIP 330PF	5% 50V
C108	1-164-473-11	CERAMIC CHIP 820PF	5% 50V	C208	1-164-473-11	CERAMIC CHIP 820PF	5% 50V
C110	1-162-957-11	CERAMIC CHIP 220PF	5% 50V	C210	1-162-957-11	CERAMIC CHIP 220PF	5% 50V
C111	1-124-234-00	ELECT 22uF	20% 16V	C211	1-124-234-00	ELECT 22uF	20% 16V
C112	1-164-346-11	CERAMIC CHIP 1uF	16V	C212	1-164-346-11	CERAMIC CHIP 1uF	16V
C113	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V	C213	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C114	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V	C214	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V
C115	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V	C215	1-163-037-11	CERAMIC CHIP 0.022uF	10% 25V
C115	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V	C215	1-163-989-11	CERAMIC CHIP 0.033uF	10% 25V
C116	1-164-346-11	CERAMIC CHIP 1uF	16V	C216	1-164-346-11	CERAMIC CHIP 1uF	16V
		(C860RDS)		C226	1-126-288-11	ELECT 4.7uF	20% 16V
		(C860)		C227	1-162-959-11	CERAMIC CHIP 330PF	5% 50V
				C228	1-164-473-11	CERAMIC CHIP 820PF	5% 50V
				C230	1-162-957-11	CERAMIC CHIP 220PF	5% 50V
				C231	1-124-234-00	ELECT 22uF	20% 16V
				C232	1-164-346-11	CERAMIC CHIP 1uF	16V
				C233	1-164-004-11	CERAMIC CHIP 0.1uF	10% 25V

Ref. No.	Part No.	Description	Remark
C234	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C235	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C236	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C237	1-164-363-11	CERAMIC CHIP	560PF 5% 50V
C239	1-126-288-11	ELECT	4.7uF 20% 16V
C241	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C242	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C243	1-163-259-00	CERAMIC CHIP	220PF 5% 50V
C244	1-126-288-11	ELECT	4.7uF 20% 16V
C245	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V
C261	1-124-234-00	ELECT	22uF 20% 16V
C262	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C263	1-115-175-11	ELECT	100uF 20% 16V
C271	1-124-234-00	ELECT	22uF 20% 16V
C272	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C273	1-115-175-11	ELECT	100uF 20% 16V
C301	1-124-584-00	ELECT	100uF 20% 10V
C302	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C303	1-124-584-00	ELECT	100uF 20% 10V
C304	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C305	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C306	1-163-259-00	CERAMIC CHIP	220PF 5% 50V (C860)
C307	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C308	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C310	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C311	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C312	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C313	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C314	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C315	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V
C316	1-126-153-11	ELECT	22uF 20% 6.3V
C317	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C318	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
C319	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C320	1-128-526-11	ELECT	100uF 20% 16V
C321	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C322	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C323	1-124-234-00	ELECT	22uF 20% 16V
C324	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C325	1-163-235-11	CERAMIC CHIP	22PF 5% 50V
C326	1-124-584-00	ELECT	100uF 20% 10V
C327	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C328	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V
C329	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C330	1-126-163-11	ELECT	4.7uF 20% 50V
C331	1-164-346-11	CERAMIC CHIP	1uF 16V
C332	1-107-826-11	CERAMIC CHIP	0.1uF 10% 16V
C333	1-164-156-11	CERAMIC CHIP	0.1uF 25V

Ref. No.	Part No.	Description	Remark
C336	1-117-757-11	ELECT	100uF 20% 25V
C352	1-124-234-00	ELECT	22uF 20% 16V
C356	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
C357	1-164-337-11	CERAMIC CHIP	2.2uF 16V
C358	1-162-919-11	CERAMIC CHIP	22PF 5% 50V
C360	1-164-182-11	CERAMIC CHIP	0.0033uF 10% 50V
C370	1-124-584-00	ELECT	100uF 20% 10V
C371	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C380	1-124-584-00	ELECT	100uF 20% 10V
C381	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C501	1-115-469-21	ELECT	4700uF 20% 16V
C502	1-126-160-11	ELECT	1uF 20% 50V
C503	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C504	1-164-346-11	CERAMIC CHIP	1uF 16V
C505	1-128-074-11	ELECT	22uF 20% 16V
C506	1-124-234-00	ELECT	22uF 20% 16V
C507	1-128-074-11	ELECT	22uF 20% 16V
C508	1-128-074-11	ELECT	22uF 20% 16V
C509	1-128-074-11	ELECT	22uF 20% 16V
C510	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C511	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C512	1-125-701-11	DOUBLE LAYERS	0.047F 5.5V
C513	1-107-889-11	ELECT	220uF 20% 10V
C514	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V
C515	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C516	1-165-128-11	CERAMIC CHIP	0.22uF 16V
C517	1-164-346-11	CERAMIC CHIP	1uF 16V
C518	1-164-346-11	CERAMIC CHIP	1uF 16V
C519	1-164-346-11	CERAMIC CHIP	1uF 16V
C520	1-126-161-11	ELECT	2.2uF 20% 50V
C521	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C522	1-126-163-11	ELECT	4.7uF 20% 50V
C523	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C524	1-124-455-00	ELECT	100uF 20% 16V
C525	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C526	1-124-455-00	ELECT	100uF 20% 16V
C527	1-126-163-11	ELECT	4.7uF 20% 50V
C528	1-124-455-00	ELECT	100uF 20% 16V
C529	1-124-584-00	ELECT	100uF 20% 10V
C530	1-164-161-11	CERAMIC CHIP	0.0022uF 10% 100V
C531	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C532	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C533	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C534	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C535	1-163-229-11	CERAMIC CHIP	12PF 5% 50V
C536	1-163-229-11	CERAMIC CHIP	12PF 5% 50V
C537	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C538	1-163-038-00	CERAMIC CHIP	0.1uF 25V
C539	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< DISCHARGE GAP >					
CP601	1-519-504-11	GAP, DISCHARGE		D543	8-719-022-90	DIODE MA8160M	
		< DIODE >		D544	8-719-404-49	DIODE MA111	
D301	8-719-053-18	DIODE 1SR154-400TE-25		D545	8-719-404-49	DIODE MA111	
D302	8-719-404-49	DIODE MA111		D546	8-719-423-32	DIODE MA8120-M	
D501	8-719-404-49	DIODE MA111		D547	8-719-977-12	DIODE DTZ6.8B	
D502	8-719-022-90	DIODE MA8160M		D548	8-719-404-49	DIODE MA111	
D503	8-719-017-67	DIODE MA8068H		D549	8-719-977-12	DIODE DTZ6.8B	
D504	8-719-977-12	DIODE DTZ6.8B		D550	8-719-801-78	DIODE 1SS184	
D505	8-719-977-03	DIODE DTZ5.6B		D551	8-719-017-98	DIODE MA8200-TX	
D506	8-719-977-03	DIODE DTZ5.6B		D560	8-719-977-12	DIODE DTZ6.8B	
D507	8-719-017-98	DIODE MA8200-TX		D581	8-719-404-49	DIODE MA111	
D508	8-719-017-98	DIODE MA8200-TX		D582	8-719-404-49	DIODE MA111	
D509	8-719-017-94	DIODE MA8180		D601	8-719-977-03	DIODE DTZ5.6B	
D510	8-719-404-49	DIODE MA111		D602	8-719-404-49	DIODE MA111	
D511	8-719-420-14	DIODE MA8082-M		D699	8-719-981-59	DIODE FC805	
D512	8-719-977-12	DIODE DTZ6.8B				< FERRITE BEAD >	
D513	8-719-977-12	DIODE DTZ6.8B		FB300	1-414-235-11	INDUCTOR, FERRITE BEAD	
D514	8-719-977-12	DIODE DTZ6.8B		FB301	1-414-233-21	INDUCTOR, FERRITE BEAD	
D515	8-719-977-12	DIODE DTZ6.8B		FB302	1-414-233-21	INDUCTOR, FERRITE BEAD	
D516	8-719-404-49	DIODE MA111		FB303	1-414-233-21	INDUCTOR, FERRITE BEAD	
D517	8-719-977-12	DIODE DTZ6.8B		FB304	1-414-385-11	INDUCTOR, FERRITE BEAD	
D518	8-719-977-12	DIODE DTZ6.8B		FB305	1-414-385-11	INDUCTOR, FERRITE BEAD	
D519	8-719-404-49	DIODE MA111		FB306	1-414-385-11	INDUCTOR, FERRITE BEAD	
D520	8-719-022-90	DIODE MA8160M		FB309	1-414-233-21	INDUCTOR, FERRITE BEAD	
D521	8-719-104-34	DIODE 1S2836		FB502	1-414-233-21	INDUCTOR, FERRITE BEAD	
D522	8-719-977-12	DIODE DTZ6.8B		FB503	1-414-233-21	INDUCTOR, FERRITE BEAD	
D523	8-719-977-12	DIODE DTZ6.8B		FB504	1-414-233-21	INDUCTOR, FERRITE BEAD	
D524	8-719-404-49	DIODE MA111		FB510	1-414-233-21	INDUCTOR, FERRITE BEAD	
D525	8-719-914-44	DIODE DAP202K		FB511	1-414-633-21	INDUCTOR, FERRITE BEAD	
D526	8-719-404-49	DIODE MA111		FB602	1-414-233-21	INDUCTOR, FERRITE BEAD	
D527	8-719-017-98	DIODE MA8200-TX		FB603	1-414-233-21	INDUCTOR, FERRITE BEAD (C860RDS)	
D528	8-719-017-98	DIODE MA8200-TX		FB604	1-414-233-21	INDUCTOR, FERRITE BEAD (C860RDS)	
D529	8-719-977-12	DIODE DTZ6.8B		FB605	1-414-233-21	INDUCTOR, FERRITE BEAD (C860RDS)	
D530	8-719-404-49	DIODE MA111		FB606	1-414-233-21	INDUCTOR, FERRITE BEAD	
D531	8-719-423-23	DIODE MA8110-M				< IC >	
D532	8-719-404-49	DIODE MA111		IC101	8-759-710-55	IC NJM2100M	
D533	8-719-422-12	DIODE MA8039		IC105	8-759-444-50	IC TDA8574(T)	
D534	8-719-422-12	DIODE MA8039		IC106	8-759-444-50	IC TDA8574(T)	
D535	8-719-049-38	DIODE 1N5404TU		IC301	8-752-372-30	IC CXD2710R	
D536	8-719-033-72	LED CL-181UR-C-TS (TIR) (C860RDS)		IC302	8-759-428-57	IC LC89170M-TLM	
D537	8-719-053-18	DIODE 1SR154-400TE-25		IC303	8-759-082-61	IC TC4W53FU	
D538	8-719-053-18	DIODE 1SR154-400TE-25		IC309	8-759-448-61	IC HA13156	
D539	8-719-017-98	DIODE MA8200-TX		IC310	8-759-234-20	IC TC7S08F	
D540	8-719-017-98	DIODE MA8200-TX		IC311	8-759-451-01	IC CS4226-BQ	
D541	8-719-977-12	DIODE DTZ6.8B		IC313	8-759-909-71	IC BA4558F	
D542	8-719-977-12	DIODE DTZ6.8B		IC314	8-759-909-71	IC BA4558F	
				IC315	8-759-909-71	IC BA4558F	

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
IC316	8-759-909-71	IC BA4558F		Q513	8-729-421-22	TRANSISTOR UN2211 (C860RDS)	
IC318	8-759-909-71	IC BA4558F		Q514	8-729-020-67	TRANSISTOR XN1A312-TX	
IC501	8-759-453-84	IC uPD78058GC-451-3B9		Q515	8-729-424-59	TRANSISTOR UN2212	
IC502	8-759-347-50	IC BA3918-V3		Q516	8-729-019-00	TRANSISTOR 2SD2394-G	
IC503	8-759-449-89	IC BA8270F-E2		Q517	8-729-020-67	TRANSISTOR XN1A312-TX	
IC504	8-759-443-41	IC RH5VL40AA-T1C		Q518	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC505	8-759-453-85	IC uPD78058GC-452-3B9		Q519	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
IC506	8-759-353-44	IC ST24C08FM6TR		Q520	8-729-106-60	TRANSISTOR 2SB1115A	
IC601	8-759-456-14	IC MN1883220Y5A (C860)		Q521	8-729-020-67	TRANSISTOR XN1A312-TX	
IC601	8-759-456-17	IC MN1884820Y5E (C860RDS)		Q522	8-729-920-85	TRANSISTOR 2SD1664-QR	
IC602	8-759-448-86	IC TB2114FN(EL)		Q523	8-729-421-22	TRANSISTOR UN2211	
IC603	8-759-391-88	IC BU4066BCFV-E2 (C860RDS)		Q531	8-729-424-59	TRANSISTOR UN2212	
IC605	8-759-163-63	IC TDA7330BD-013TR (C860RDS)		Q532	8-729-822-84	TRANSISTOR 2SB1202FAST	
IC606	8-759-344-91	IC RN5VD23AA-TL (C860)		Q561	8-729-020-67	TRANSISTOR XN1A312-TX	
IC607	8-759-374-66	IC MSM6688GS-2K (C860RDS)		Q581	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
IC608	8-759-448-87	IC MSM6684JSDR1 (C860RDS)		Q601	8-729-920-85	TRANSISTOR 2SD1664-QR	
		< JACK >		Q602	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
J501	1-764-270-21	JACK (REMOTE IN)		Q605	8-729-920-21	TRANSISTOR DTC314TKH04	
		< JUMPER RESISTOR >		Q606	8-729-920-21	TRANSISTOR DTC314TKH04	
JC1	1-216-295-00	CONDUCTOR, CHIP (2012)		Q607	8-729-920-21	TRANSISTOR DTC314TKH04	
JC2	1-216-295-00	CONDUCTOR, CHIP (2012)		Q610	8-729-020-67	TRANSISTOR XN1A312-TX (C860RDS)	
JR308	1-216-864-11	METAL CHIP 0 5% 1/16W		Q631	8-729-230-49	TRANSISTOR 2SC2712-YG (C860RDS)	
		< COIL >		Q661	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
L501	1-411-670-21	COIL, CHOKE 400uH				< RESISTOR >	
		< TRANSISTOR >		R101	1-216-073-00	METAL CHIP 10K 5% 1/10W	
Q101	8-729-920-21	TRANSISTOR DTC314TKH04		R102	1-216-081-00	METAL CHIP 22K 5% 1/10W	
Q102	8-729-920-21	TRANSISTOR DTC314TKH04		R103	1-216-073-00	METAL CHIP 10K 5% 1/10W (C860)	
Q103	8-729-920-21	TRANSISTOR DTC314TKH04		R103	1-216-077-00	METAL CHIP 15K 5% 1/10W (AEP,UK)	
Q201	8-729-920-21	TRANSISTOR DTC314TKH04		R103	1-216-081-00	METAL CHIP 22K 5% 1/10W (G)	
Q202	8-729-920-21	TRANSISTOR DTC314TKH04		R104	1-216-864-11	METAL CHIP 0 5% 1/16W (C860)	
Q203	8-729-920-21	TRANSISTOR DTC314TKH04		R105	1-216-067-00	METAL CHIP 5.6K 5% 1/10W	
Q312	8-729-424-59	TRANSISTOR UN2212		R106	1-216-077-00	METAL CHIP 15K 5% 1/10W	
Q501	8-729-429-92	TRANSISTOR XN1211		R121	1-216-833-11	METAL CHIP 10K 5% 1/16W	
Q502	8-729-020-67	TRANSISTOR XN1A312-TX		R122	1-216-833-11	METAL CHIP 10K 5% 1/16W	
Q503	8-729-422-29	TRANSISTOR 2SD601A-S		R123	1-216-864-11	METAL CHIP 0 5% 1/16W	
Q504	8-729-424-12	TRANSISTOR UN2112		R125	1-216-864-11	METAL CHIP 0 5% 1/16W	
Q505	8-729-024-31	TRANSISTOR XN1111-TX		R126	1-216-833-11	METAL CHIP 10K 5% 1/16W	
Q506	8-729-402-84	TRANSISTOR XN4601		R127	1-216-841-11	METAL CHIP 47K 5% 1/16W	
Q507	8-729-424-59	TRANSISTOR UN2212		R128	1-216-833-11	METAL CHIP 10K 5% 1/16W	
Q508	8-729-807-12	TRANSISTOR 2SD1802-S		R129	1-218-716-11	METAL CHIP 10K 0.5% 1/16W	
Q509	8-729-020-67	TRANSISTOR XN1A312-TX		R130	1-216-864-11	METAL CHIP 0 5% 1/16W	
Q510	8-729-807-12	TRANSISTOR 2SD1802-S		R131	1-216-082-00	METAL GLAZE 24K 5% 1/10W	
Q511	8-729-019-00	TRANSISTOR 2SD2394-G		R132	1-216-086-00	METAL GLAZE 36K 5% 1/10W	
Q512	8-729-020-67	TRANSISTOR XN1A312-TX		R133	1-216-033-00	METAL CHIP 220 5% 1/10W	
				R134	1-216-081-00	METAL CHIP 22K 5% 1/10W	
				R135	1-216-085-00	METAL CHIP 33K 5% 1/10W	
				R136	1-216-864-11	METAL CHIP 0 5% 1/16W	
				R137	1-218-714-11	METAL CHIP 8.2K 0.5% 1/16W	

Ref. No.	Part No.	Description	Remark		
R138	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R139	1-216-086-00	METAL GLAZE	36K	5%	1/10W
R140	1-216-033-00	METAL CHIP	220	5%	1/10W
R141	1-216-081-00	METAL CHIP	22K	5%	1/10W
R142	1-216-085-00	METAL CHIP	33K	5%	1/10W
R144	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R145	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R146	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R147	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R148	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R150	1-218-714-11	METAL CHIP	8.2K	0.5%	1/16W
R151	1-216-841-11	METAL CHIP	47K	5%	1/16W
R152	1-216-841-11	METAL CHIP	47K	5%	1/16W
R153	1-216-845-11	METAL CHIP	100K	5%	1/16W
R154	1-216-073-00	METAL CHIP	10K	5%	1/10W
R155	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R156	1-216-033-00	METAL CHIP	220	5%	1/10W
R157	1-216-081-00	METAL CHIP	22K	5%	1/10W
R158	1-216-841-11	METAL CHIP	47K	5%	1/16W
R201	1-216-073-00	METAL CHIP	10K	5%	1/10W
R202	1-216-081-00	METAL CHIP	22K	5%	1/10W
R203	1-216-073-00	METAL CHIP	10K	5%	1/10W (C860)
R203	1-216-077-00	METAL CHIP	15K	5%	1/10W (AEP,UK)
R203	1-216-081-00	METAL CHIP	22K	5%	1/10W (G)
R204	1-216-864-11	METAL CHIP	0	5%	1/16W (C860)
R205	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R206	1-216-077-00	METAL CHIP	15K	5%	1/10W
R211	1-216-833-11	METAL CHIP	10K	5%	1/16W
R222	1-216-833-11	METAL CHIP	10K	5%	1/16W
R223	1-216-864-11	METAL CHIP	0	5%	1/16W
R225	1-216-864-11	METAL CHIP	0	5%	1/16W
R226	1-216-833-11	METAL CHIP	10K	5%	1/16W
R227	1-216-841-11	METAL CHIP	47K	5%	1/16W
R228	1-216-833-11	METAL CHIP	10K	5%	1/16W
R229	1-218-716-11	METAL CHIP	10K	0.5%	1/16W
R230	1-216-864-11	METAL CHIP	0	5%	1/16W
R231	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R232	1-216-086-00	METAL GLAZE	36K	5%	1/10W
R233	1-216-033-00	METAL CHIP	220	5%	1/10W
R234	1-216-081-00	METAL CHIP	22K	5%	1/10W
R235	1-216-085-00	METAL CHIP	33K	5%	1/10W
R236	1-216-864-11	METAL CHIP	0	5%	1/16W
R237	1-218-714-11	METAL CHIP	8.2K	0.5%	1/16W
R238	1-216-082-00	METAL GLAZE	24K	5%	1/10W
R239	1-216-086-00	METAL GLAZE	36K	5%	1/10W
R240	1-216-033-00	METAL CHIP	220	5%	1/10W
R241	1-216-081-00	METAL CHIP	22K	5%	1/10W
R242	1-216-085-00	METAL CHIP	33K	5%	1/10W
R244	1-218-716-11	METAL CHIP	10K	0.5%	1/16W

Ref. No.	Part No.	Description	Remark		
R245	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R246	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R247	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R248	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R250	1-218-714-11	METAL CHIP	8.2K	0.5%	1/16W
R251	1-216-841-11	METAL CHIP	47K	5%	1/16W
R252	1-216-841-11	METAL CHIP	47K	5%	1/16W
R253	1-216-845-11	METAL CHIP	100K	5%	1/16W
R254	1-216-073-00	METAL CHIP	10K	5%	1/10W
R255	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R256	1-216-033-00	METAL CHIP	220	5%	1/10W
R257	1-216-081-00	METAL CHIP	22K	5%	1/10W
R258	1-216-841-11	METAL CHIP	47K	5%	1/16W
R301	1-216-833-11	METAL CHIP	10K	5%	1/16W
R302	1-216-833-11	METAL CHIP	10K	5%	1/16W
R303	1-216-045-00	METAL CHIP	680	5%	1/10W
R304	1-216-095-00	METAL CHIP	82K	5%	1/10W
R305	1-216-815-11	METAL CHIP	330	5%	1/16W
R306	1-216-833-11	METAL CHIP	10K	5%	1/16W
R307	1-216-833-11	METAL CHIP	10K	5%	1/16W
R308	1-216-841-11	METAL CHIP	47K	5%	1/16W
R309	1-414-385-11	INDUCTOR, FERRITE BEAD			
R310	1-216-033-00	METAL CHIP	220	5%	1/10W
R311	1-216-841-11	METAL CHIP	47K	5%	1/16W
R312	1-414-385-11	INDUCTOR, FERRITE BEAD			
R313	1-216-809-11	METAL CHIP	100	5%	1/16W
R320	1-216-081-00	METAL CHIP	22K	5%	1/10W
R321	1-216-073-00	METAL CHIP	10K	5%	1/10W
R322	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R326	1-216-845-11	METAL CHIP	100K	5%	1/16W
R327	1-216-845-11	METAL CHIP	100K	5%	1/16W
R329	1-216-295-00	CONDUCTOR, CHIP			(2012)
R330	1-216-833-11	METAL CHIP	10K	5%	1/16W
R331	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R332	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R334	1-414-385-11	INDUCTOR, FERRITE BEAD			
R335	1-414-385-11	INDUCTOR, FERRITE BEAD			
R336	1-414-385-11	INDUCTOR, FERRITE BEAD			
R337	1-414-385-11	INDUCTOR, FERRITE BEAD			
R340	1-216-833-11	METAL CHIP	10K	5%	1/16W
R350	1-216-833-11	METAL CHIP	10K	5%	1/16W
R360	1-216-833-11	METAL CHIP	10K	5%	1/16W
R500	1-216-017-00	METAL GLAZE	47	5%	1/10W
R501	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W
R503	1-216-841-11	METAL CHIP	47K	5%	1/16W
R504	1-216-073-00	METAL CHIP	10K	5%	1/10W
R505	1-216-837-11	METAL CHIP	22K	5%	1/16W
R506	1-216-833-11	METAL CHIP	10K	5%	1/16W

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R507	1-216-837-11	METAL CHIP	22K	5%	1/16W	R566	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R508	1-216-833-11	METAL CHIP	10K	5%	1/16W	R567	1-216-833-11	METAL CHIP	10K	5%	1/16W
R509	1-216-049-91	METAL GLAZE	1K	5%	1/10W	R568	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R510	1-216-025-00	METAL GLAZE	100	5%	1/10W	R569	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R511	1-216-025-00	METAL GLAZE	100	5%	1/10W	R570	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R512	1-216-089-00	METAL GLAZE	47K	5%	1/10W	R571	1-216-809-11	METAL CHIP	100	5%	1/16W
R513	1-216-049-11	METAL GLAZE	1K	5%	1/10W	R572	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R514	1-208-462-41	METAL GLAZE	10K	2%	1/10W	R574	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R515	1-208-462-41	METAL GLAZE	10K	2%	1/10W						(C860RDS)
R516	1-216-097-00	METAL GLAZE	100K	5%	1/10W	R575	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R517	1-216-089-00	METAL GLAZE	47K	5%	1/10W	R576	1-216-206-00	METAL GLAZE	2.2K	5%	1/8W
R518	1-216-049-11	METAL GLAZE	1K	5%	1/10W	R577	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R519	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	R578	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R520	1-216-049-11	METAL GLAZE	1K	5%	1/10W	R579	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R521	1-216-049-11	METAL GLAZE	1K	5%	1/10W	R580	1-216-073-00	METAL CHIP	10K	5%	1/10W
R522	1-216-025-00	METAL GLAZE	100	5%	1/10W	R581	1-216-045-00	METAL CHIP	680	5%	1/10W
R523	1-216-025-00	METAL GLAZE	100	5%	1/10W	R582	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R524	1-216-045-00	METAL CHIP	680	5%	1/10W	R583	1-216-081-00	METAL CHIP	22K	5%	1/10W
R525	1-216-845-11	METAL CHIP	100K	5%	1/16W	R584	1-216-073-00	METAL CHIP	10K	5%	1/10W
R526	1-216-089-00	METAL GLAZE	47K	5%	1/10W	R598	1-216-073-00	METAL CHIP	10K	5%	1/10W
R527	1-216-089-00	METAL GLAZE	47K	5%	1/10W	R599	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/16W	R601	1-216-815-11	METAL CHIP	330	5%	1/16W
R529	1-216-049-11	METAL GLAZE	1K	5%	1/10W	R602	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R530	1-208-462-41	METAL GLAZE	10K	2%	1/10W	R603	1-216-073-00	METAL CHIP	10K	5%	1/10W
R531	1-208-462-41	METAL GLAZE	10K	2%	1/10W	R604	1-216-849-11	METAL CHIP	220K	5%	1/16W
R532	1-216-809-11	METAL CHIP	100	5%	1/16W	R605	1-216-025-00	METAL GLAZE	100	5%	1/10W
R533	1-216-809-11	METAL CHIP	100	5%	1/16W	R606	1-216-841-11	METAL CHIP	47K	5%	1/16W
R534	1-216-045-00	METAL CHIP	680	5%	1/10W	R607	1-216-809-11	METAL CHIP	100	5%	1/16W
R538	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	R608	1-216-822-11	METAL CHIP	1.2K	5%	1/16W
R539	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	R609	1-216-073-00	METAL CHIP	10K	5%	1/10W
R540	1-216-045-00	METAL CHIP	680	5%	1/10W	R610	1-216-037-00	METAL CHIP	330	5%	1/10W
R542	1-216-109-00	METAL CHIP	330K	5%	1/10W	R611	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R543	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R612	1-216-841-11	METAL CHIP	47K	5%	1/16W
R544	1-216-097-00	METAL GLAZE	100K	5%	1/10W	R614	1-216-073-00	METAL CHIP	10K	5%	1/10W
R548	1-216-849-11	METAL CHIP	220K	5%	1/16W	R615	1-216-837-11	METAL CHIP	22K	5%	1/16W
R551	1-216-097-00	METAL GLAZE	100K	5%	1/10W	R616	1-216-835-11	METAL CHIP	15K	5%	1/16W
R552	1-216-849-11	METAL CHIP	220K	5%	1/16W	R617	1-216-295-00	CONDUCTOR, CHIP			(2012)
R553	1-216-849-11	METAL CHIP	220K	5%	1/16W	R618	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R554	1-216-845-11	METAL CHIP	100K	5%	1/16W						(C860RDS)
R555	1-216-833-11	METAL CHIP	10K	5%	1/16W	R618	1-216-073-00	METAL CHIP	10K	5%	1/10W
R556	1-216-841-11	METAL CHIP	47K	5%	1/16W	R619	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R557	1-216-841-11	METAL CHIP	47K	5%	1/16W						(C860RDS)
R558	1-216-837-11	METAL CHIP	22K	5%	1/16W	R620	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R559	1-216-105-00	METAL GLAZE	220K	5%	1/10W	R622	1-216-105-00	METAL GLAZE	220K	5%	1/10W
R561	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	R623	1-216-849-11	METAL CHIP	220K	5%	1/16W
R562	1-216-845-11	METAL CHIP	100K	5%	1/16W	R624	1-216-839-11	METAL CHIP	33K	5%	1/16W
R563	1-216-845-11	METAL CHIP	100K	5%	1/16W						(C860RDS)
R564	1-216-075-00	METAL CHIP	12K	5%	1/10W	R626	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R565	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	R627	1-216-295-00	CONDUCTOR, CHIP			(2012)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R628	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R659	1-216-864-11	METAL CHIP	0 5% 1/16W (C860)
R629	1-216-073-00	METAL CHIP	10K 5% 1/10W	R661	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R630	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R662	1-216-085-00	METAL CHIP	33K 5% 1/10W
			(C860RDS)	R701	1-216-809-11	METAL CHIP	100 5% 1/16W
R631	1-216-841-11	METAL CHIP	47K 5% 1/16W	R702	1-216-809-11	METAL CHIP	100 5% 1/16W
R632	1-216-097-00	METAL GLAZE	100K 5% 1/10W			< VARIABLE RESISTOR >	
			(C860RDS)	RV601	1-238-716-11	RES, ADJ, METAL GLAZE 100K	(C860RDS)
R633	1-216-845-11	METAL CHIP	100K 5% 1/16W			< SWITCH >	
R634	1-216-089-00	METAL GLAZE	47K 5% 1/10W	S502	1-571-532-21	SWITCH, TACTILE (RESET)	
			(C860RDS)	S503	1-571-478-11	SWITCH, SLIDE (POWER SELECT)	
R635	1-216-057-00	METAL CHIP	2.2K 5% 1/10W			< TUNER >	
			(C860RDS)	* FE601	A-3282-029-A	TUNER UNIT (TUX-006/2 (E))	
R636	1-216-129-00	METAL CHIP	2.2M 5% 1/10W			< THERMISTOR >	
			(C860RDS)	TH501	1-809-148-11	THERMISTOR PTH8L07AR2R0M1B510	
R637	1-216-081-00	METAL CHIP	22K 5% 1/10W			< VIBRATOR >	
R638	1-216-841-11	METAL CHIP	47K 5% 1/16W (C860)	X301	1-579-280-31	VIBRATOR, CRYSTAL (16MHz)	
R639	1-216-841-11	METAL CHIP	47K 5% 1/16W	X501	1-760-489-11	VIBRATOR, CERAMIC (5MHz)	
			(C860RDS)	X502	1-579-886-21	VIBRATOR, CRYSTAL (32kHz)	
R640	1-216-853-11	METAL CHIP	470K 5% 1/16W (C860)	X503	1-760-489-11	VIBRATOR, CERAMIC (5MHz)	
R641	1-216-097-00	METAL GLAZE	100K 5% 1/10W	X601	1-579-952-21	VIBRATOR, CERAMIC (8MHz)	
			(C860RDS)	X602	1-577-126-51	VIBRATOR, CRYSTAL (7.2MHz)	
R642	1-216-097-00	METAL GLAZE	100K 5% 1/10W	X603	1-760-556-11	VIBRATOR, CRYSTAL (4.332MHz) (C860RDS)	
			(C860RDS)	X604	1-760-096-11	VIBRATOR, CRYSTAL (4.19MHz) (C860RDS)	
			(C860RDS)	*****			
R643	1-216-089-00	METAL GLAZE	47K 5% 1/10W	A-3309-694-A	SERVO BOARD, COMPLETE		
			(C860RDS)	*****			
R644	1-216-065-00	METAL CHIP	4.7K 5% 1/10W			< CAPACITOR >	
			(C860RDS)	C1	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V
R645	1-216-097-00	METAL GLAZE	100K 5% 1/10W	C2	1-164-232-11	CERAMIC CHIP	0.01uF 50V
			(C860RDS)	C3	1-135-145-11	TANTALUM CHIP	0.47uF 10% 35V
R646	1-216-105-00	METAL GLAZE	220K 5% 1/10W	C4	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
			(C860RDS)	C5	1-164-182-11	CERAMIC CHIP	0.0033uF 10% 50V
R647	1-216-845-11	METAL CHIP	100K 5% 1/16W	C6	1-163-011-11	CERAMIC CHIP	0.0015uF 10% 50V
			(C860RDS)	C7	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V
R648	1-216-097-00	METAL GLAZE	100K 5% 1/10W	C9	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V
			(C860RDS)	C10	1-126-206-11	ELECT CHIP	100uF 20% 6.3V
R649	1-216-089-00	METAL GLAZE	47K 5% 1/10W (G)	C11	1-135-259-11	TANTAL. CHIP	10uF 20% 6.3V
R649	1-216-093-00	METAL GLAZE	68K 5% 1/10W (AEP,UK)	C12	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V
R650	1-216-089-00	METAL GLAZE	47K 5% 1/10W	C13	1-164-232-11	CERAMIC CHIP	0.01uF 50V
			(C860RDS)	C14	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V
R651	1-216-097-00	METAL GLAZE	100K 5% 1/10W	C15	1-164-232-11	CERAMIC CHIP	0.01uF 50V
			(C860RDS)				
R652	1-216-845-11	METAL CHIP	100K 5% 1/16W				
			(C860RDS)				
R653	1-216-845-11	METAL CHIP	100K 5% 1/16W				
			(C860RDS)				
R654	1-216-845-11	METAL CHIP	100K 5% 1/16W				
			(C860RDS)				
R655	1-216-845-11	METAL CHIP	100K 5% 1/16W				
			(C860RDS)				
R656	1-216-845-11	METAL CHIP	100K 5% 1/16W (AEP,UK)				
R657	1-216-001-00	METAL CHIP	10 5% 1/10W				
R658	1-216-097-00	METAL GLAZE	100K 5% 1/10W				

SERVO

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C16	1-163-989-11	CERAMIC CHIP	0.033uF 10% 25V	JR14	1-216-296-00	CONDUCTOR, CHIP	(3216)
C17	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR15	1-216-296-00	CONDUCTOR, CHIP	(3216)
C18	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR16	1-216-296-00	CONDUCTOR, CHIP	(3216)
C19	1-163-037-11	CERAMIC CHIP	0.022uF 10% 25V	JR17	1-216-296-00	CONDUCTOR, CHIP	(3216)
C20	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V	JR18	1-216-296-00	CONDUCTOR, CHIP	(3216)
C21	1-163-809-11	CERAMIC CHIP	0.047uF 10% 25V	JR19	1-216-296-00	CONDUCTOR, CHIP	(3216)
C22	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	JR20	1-216-296-00	CONDUCTOR, CHIP	(3216)
C23	1-135-259-11	TANTAL. CHIP	10uF 20% 6.3V	JR21	1-216-296-00	CONDUCTOR, CHIP	(3216)
C24	1-163-259-00	CERAMIC CHIP	220PF 5% 50V	JR22	1-216-296-00	CONDUCTOR, CHIP	(3216)
C25	1-107-823-11	CERAMIC CHIP	0.47uF 10% 16V	JR23	1-216-296-00	CONDUCTOR, CHIP	(3216)
C26	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR24	1-216-296-00	CONDUCTOR, CHIP	(3216)
C27	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR25	1-216-296-00	CONDUCTOR, CHIP	(3216)
C28	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V	JR26	1-216-296-00	CONDUCTOR, CHIP	(3216)
C29	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR27	1-216-296-00	CONDUCTOR, CHIP	(3216)
C30	1-126-603-11	ELECT CHIP	4.7uF 20% 35V	JR28	1-216-296-00	CONDUCTOR, CHIP	(3216)
C31	1-164-232-11	CERAMIC CHIP	0.01uF 50V	JR29	1-216-296-00	CONDUCTOR, CHIP	(3216)
C32	1-163-023-00	CERAMIC CHIP	0.015uF 5% 50V	JR30	1-216-296-00	CONDUCTOR, CHIP	(3216)
C33	1-124-779-00	ELECT CHIP	10uF 20% 16V	JR31	1-216-296-00	CONDUCTOR, CHIP	(3216)
C34	1-109-982-11	CERAMIC CHIP	1uF 10% 10V	JR32	1-216-296-00	CONDUCTOR, CHIP	(3216)
C35	1-164-232-11	CERAMIC CHIP	0.01uF 50V	JR33	1-216-296-00	CONDUCTOR, CHIP	(3216)
C36	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR34	1-216-296-00	CONDUCTOR, CHIP	(3216)
C37	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR35	1-216-296-00	CONDUCTOR, CHIP	(3216)
C38	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR36	1-216-296-00	CONDUCTOR, CHIP	(3216)
C39	1-126-204-11	ELECT CHIP	47uF 20% 16V	JR37	1-216-296-00	CONDUCTOR, CHIP	(3216)
C40	1-164-004-11	CERAMIC CHIP	0.1uF 10% 25V	JR38	1-216-296-00	CONDUCTOR, CHIP	(3216)
< CONNECTOR >				JR40	1-216-296-00	CONDUCTOR, CHIP	(3216)
CN1	1-764-616-12	HOUSING, CONNECTOR (PC BOARD) 30P		JR41	1-216-296-00	CONDUCTOR, CHIP	(3216)
CN2	1-565-728-11	CONNECTOR, FPC 17P		JR42	1-216-296-00	CONDUCTOR, CHIP	(3216)
CN3	1-770-347-21	CONNECTOR, FPC 6P		JR43	1-216-296-00	CONDUCTOR, CHIP	(3216)
< IC >				JR44	1-216-296-00	CONDUCTOR, CHIP	(3216)
IC1	8-752-372-94	IC CXD2507AQ		JR45	1-216-296-00	CONDUCTOR, CHIP	(3216)
IC2	8-752-069-56	IC CXA1782BQ		JR46	1-216-296-00	CONDUCTOR, CHIP	(3216)
IC3	8-759-354-16	IC BA6796FP-T1		JR47	1-216-296-00	CONDUCTOR, CHIP	(3216)
< JUMPER RESISTOR >				JR48	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR5	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR49	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR7	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR50	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR01	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR51	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR03	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR52	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR04	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR53	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR06	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR54	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR08	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR55	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR09	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR56	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR10	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR57	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR11	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR58	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR12	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR59	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR13	1-216-296-00	CONDUCTOR, CHIP	(3216)	JR60	1-216-296-00	CONDUCTOR, CHIP	(3216)
				JR61	1-216-296-00	CONDUCTOR, CHIP	(3216)
				JR62	1-216-296-00	CONDUCTOR, CHIP	(3216)
				JR63	1-216-296-00	CONDUCTOR, CHIP	(3216)

Ref. No.	Part No.	Description	Remark
JR64	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR65	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR66	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR67	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR68	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR69	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR70	1-216-296-00	CONDUCTOR, CHIP	(3216)
JR71	1-216-296-00	CONDUCTOR, CHIP	(3216)
< COIL >			
L1	1-412-058-11	INDUCTOR CHIP 10uH	
L2	1-412-058-11	INDUCTOR CHIP 10uH	
L3	1-412-058-11	INDUCTOR CHIP 10uH	
< TRANSISTOR >			
Q1	8-729-904-60	TRANSISTOR DTB113ZK	
Q2	8-729-904-86	TRANSISTOR 2SB1197K-Q	
Q3	8-729-025-41	TRANSISTOR UPA602T-T2	
Q4	8-729-025-41	TRANSISTOR UPA602T-T2	
Q5	8-729-027-59	TRANSISTOR DTC144EKA-T146	
Q6	8-729-025-41	TRANSISTOR UPA602T-T2	
< RESISTOR >			
R1	1-216-073-00	METAL CHIP	10K 5% 1/10W
R2	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R3	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R4	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R5	1-216-061-00	METAL CHIP	3.3K 5% 1/10W
R6	1-216-073-00	METAL CHIP	10K 5% 1/10W
R7	1-216-009-00	METAL CHIP	22 5% 1/10W
R8	1-216-119-00	METAL CHIP	820K 5% 1/10W
R9	1-216-119-00	METAL CHIP	820K 5% 1/10W
R10	1-216-073-00	METAL CHIP	10K 5% 1/10W
R11	1-216-073-00	METAL CHIP	10K 5% 1/10W
R14	1-216-085-00	METAL CHIP	33K 5% 1/10W
R15	1-216-085-00	METAL CHIP	33K 5% 1/10W
R16	1-216-077-00	METAL CHIP	15K 5% 1/10W
R17	1-216-081-00	METAL CHIP	22K 5% 1/10W
R19	1-216-079-00	METAL CHIP	18K 5% 1/10W
R20	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R21	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R22	1-216-085-00	METAL CHIP	33K 5% 1/10W
R23	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R24	1-216-073-00	METAL CHIP	10K 5% 1/10W
R27	1-216-295-00	CONDUCTOR, CHIP	(2012)
R28	1-216-101-00	METAL CHIP	150K 5% 1/10W
R29	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R30	1-216-097-00	METAL GLAZE	100K 5% 1/10W

Ref. No.	Part No.	Description	Remark
R31	1-216-081-00	METAL CHIP	22K 5% 1/10W
R32	1-216-109-00	METAL CHIP	330K 5% 1/10W
R33	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R34	1-216-009-00	METAL CHIP	22 5% 1/10W
R35	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R36	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R37	1-216-117-00	METAL CHIP	680K 5% 1/10W
R38	1-216-109-00	METAL CHIP	330K 5% 1/10W
R39	1-216-101-00	METAL CHIP	150K 5% 1/10W
R40	1-216-114-00	METAL GLAZE	510K 5% 1/10W
R41	1-216-093-00	METAL CHIP	68K 5% 1/10W
R42	1-216-107-00	METAL CHIP	270K 5% 1/10W
R43	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R44	1-216-085-00	METAL CHIP	33K 5% 1/10W
R45	1-216-081-00	METAL CHIP	22K 5% 1/10W
R46	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R47	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R48	1-216-073-00	METAL CHIP	10K 5% 1/10W
R49	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R50	1-216-065-00	METAL CHIP	4.7K 5% 1/10W
R51	1-216-295-00	CONDUCTOR, CHIP	(2012)
R56	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R57	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R58	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R59	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R60	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R61	1-208-291-11	METAL GLAZE	4.7M 5% 1/10W
R62	1-208-291-11	METAL GLAZE	4.7M 5% 1/10W
< VARIABLE RESISTOR >			
RV1	1-238-091-11	RES, ADJ, CERMET	22K
RV4	1-238-091-11	RES, ADJ, CERMET	22K

*	1-659-834-11	SUB BOARD	*****
< CONNECTOR >			
CN1	1-770-347-21	CONNECTOR, FPC	6P

Ref. No.	Part No.	Description	Remark
MISCELLANEOUS *****			
14	1-751-000-51	CORD (WITH CONNECTOR) (SUB OUT)	
15	1-776-207-11	CORD (WITH CONNECTOR) (POWER) (C860)	
16	1-776-527-41	CORD (WITH CONNECTOR) (ISO) (POWER)	(C860RDS)
△ 210	8-848-402-02	PICK-UP, OPTICAL KSS-520A/J2NP	
F501	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
M901	X-3371-664-2	MOTOR ASSY (SPINDLE)	
M902	A-3291-674-A	MOTOR ASSY, SLED	
M903	A-3291-676-A	MOTOR SUB ASSY, LOADING	

ACCESSORIES & PACKING MATERIALS

1-473-067-31	REMOTE COMMANDER (RM-X2S)
3-339-410-01	COVER (2), PIN JACK
3-856-246-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH, GERMAN, SPANISH, DUTCH, SWEDISH, ITALIAN, PORTUGUESE, CHINESE) (RM-X2S) (C860RDS)
3-859-505-11	MANUAL, INSTRUCTION (ENGLISH) (C860)
3-859-506-11	MANUAL, INSTRUCTION (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)
3-859-506-21	MANUAL, INSTRUCTION (FRENCH, GERMAN, DUTCH, ITALIAN) (AEP)
3-859-506-31	MANUAL, INSTRUCTION (GERMAN) (G)
3-859-510-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH) (C860)
3-859-511-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH, SWEDISH, PORTUGUESE) (AEP, UK)
3-859-511-21	MANUAL, INSTRUCTION, INSTALL (FRENCH, GERMAN, DUTCH, ITALIAN) (AEP, G)

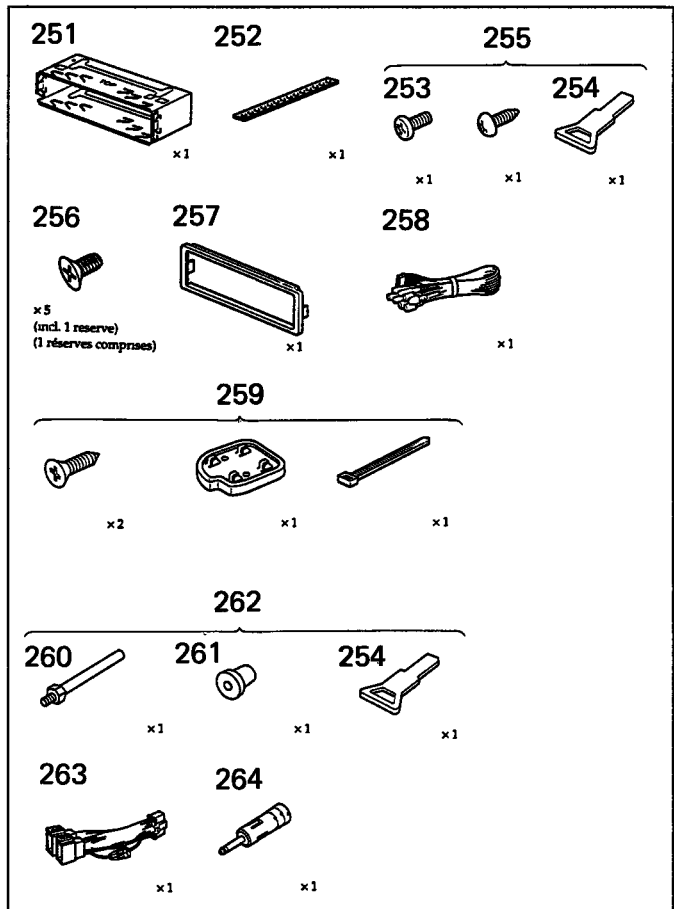
X-3373-617-1 CASE ASSY

HARDWARE LIST

#1	7-627-000-00	SCREW, PRECISION +P 1.7X2.2 TYPE3
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)
#4	7-621-772-10	SCREW +B 2X4
#5	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT
#6	7-627-850-28	SCREW, PRECISION +P 1.4X3
#7	7-628-253-00	SCREW +PS 2X4
#8	7-627-553-17	PRECISION SCREW +P 2X2 TYPE 3
#9	7-627-553-37	PRECISION SCREW +P 2X3 TYPE 3

Ref. No.	Part No.	Description	Remark
PARTS FOR INSTALLATION AND CONNECTIONS *****			

251	3-009-613-21	FRAME	
252	3-914-406-01	SUPPORT (ND), FITTING (C860)	
253	7-682-560-04	SCREW +P 4X6 (C860)	
254	3-388-078-01	KEY	
255	X-3370-076-1	SCREW ASSY (U.KEY), FITTING (C860)	
256	X-3371-913-1	SCREW ASSY (J) (C860)	
257	3-932-910-01	COLLAR (CDX)	
258	1-776-207-11	CORD (WITH CONNECTOR) (POWER) (C860)	
259	X-3369-817-1	BRACKET ASSY (RM-X2S)	
260	3-386-828-01	SCREW, FITTING (C860RDS)	
261	3-349-410-01	BUSHING (C860RDS)	
262	X-3370-077-1	SCREW ASSY (AE.KEY), FITTING (C860RDS)	
263	1-776-527-41	CORD (WITH CONNECTOR) (ISO) (POWER)	(C860RDS)
264	1-465-459-21	ADAPTOR, ANTENNA (C860RDS)	



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