

# Operating Instructions Bedienungsanleitung Manuel d'instructions Gebruiksaanwijzing Bruksanvisning Manuale di istruzioni Manual de Instrucciones

High-Power MD Player / RDS Receiver with Changer Control  
Hochleistungs-RDS-Autoradio mit MD-Spieler incl. CD Wechslersteuerung  
Lecteur MD à haute puissance/Poste récepteur RDS avec commande de changeur  
Hoog-vermogen MD-speler/RDS radio met wisselaar bediening  
Höeffekts MD-spelare/RDS-mottagare med skivväxlarreglage  
Sintonizzatore RDS/lettore MD ad alta potenza con controllo cambiadischi (AUTORADIO)  
Reproductor de discos MD/Receptor RDS de alta potencia con control de cambiador

## CQ-MR505/MR303N



## Panasonic

- Please read these instructions carefully before using this product and save this manual for future use.
- Bitte lesen Sie diese Bedienungsanleitung vor der Verwendung dieses Produktes aufmerksam durch und bewahren Sie sie danach für spätere Nachschlagzwecke sorgfältig auf.
- Prière de lire ces instructions attentivement avant d'utiliser le produit et garder ce manuel pour l'utilisation ultérieure.
- Lees u deze instructie alstublieft zorgvuldig door voor u dit product in gebruik neemt en bewaar deze handleiding voor later gebruik.
- Läs igenom denna bruksanvisning noga innan produkten tas i bruk. Spara bruksanvisningen för framtida behov.
- Si prega di leggere attentamente queste istruzioni prima di usare questo prodotto e di conservare questo manuale per usi futuri.
- Lea con atención estas instrucciones antes de utilizar el producto y guarde este manual para poderlo consultar en el futuro.

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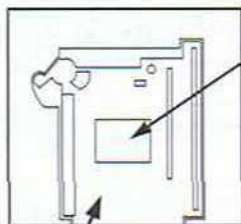
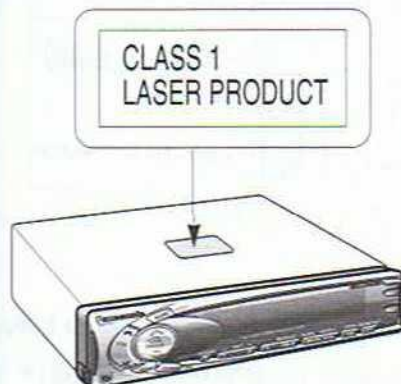
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- Label Indications and Their Locations
- Warnetiketten und deren Anbringungsort
- Indications portées les étiquettes et emplacement

- APPAREIL À LASER DE CLASSE 1
- KLASS 1 LASER APPARAT
- LUOKAN 1 LASERPLAITE

- Aanduiding van de labels en hun plaats
- Varningsskyltarna, och deras placering
- Indicazioni delle etichette e le loro posizioni
- Indicaciones de las etiquetas y su ubicación

VORSICHT! UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET IST, NICHT DEM LASERSTRAHL AUSSETZEN.



DANGER! Invisible laser radiation when open. Avoid direct exposure to beam.  
ADVARSSEL! Usynligt laserlys utstråles ved åbning. Undgå direkte bestråling.  
VARO! Avattaessa ja suojaluukitus ohjeltaessa diet alttina näkymättömälle lasersträhtelylle. Älä kasto säteeseen.  
VARNING! Ösynlig laserstråling när denna del är öppnad och spårren är urkopplad. Beträkta ej strålen.  
ADVERSEL! Usynlig laserstråling når deksel åpnes og sikkerhetslås brytes. Unngå eksponering for strålen.

- Caution Mark
- Warnzeichen
- Marque d'avertissement
- Waarschuwingsteken
- Varningsmärke
- Marca di precauzione
- Marka de advertencia

- Deck Ass'y (Upper Side)
- Geräteansicht (Oberseite)
- Assemblage de la table lecture (Côté supérieur)
- Dekkbevestig (Bovenkant)
- Däcksenhet (Topp)
- Gruppo della piastra (Lato superiore)
- Conjunto de la platina (Lado superior)

# Precautions (ISO Connector)

- Wiring for the power connector conforms to the arrangement of standard ISO connectors.
- In case of some car types, the arrangement of connector may differ from the standard ISO as shown in Table 1, even though ISO connectors are adopted.

Table 1

	Fig. 1 Pin No.	
	A4	A7
Car for standard ISO	Battery (permanent 12 V supply)	"IGN" or "ACC" (switched 12 V supply)
In case of Car type A	"IGN" or "ACC" (switched 12 V supply)	Battery (permanent 12 V supply)
In case of Car type B	No Connection	Battery (permanent 12 V supply)

- Make sure the ISO connector arrangement in your car side is as the same as the standard ISO. (Table 1, Fig. 1)
- In case of arrangement for Car type A or B, change connections of the red/yellow leads at the re-connectable joint (\*) as shown in Fig.1.

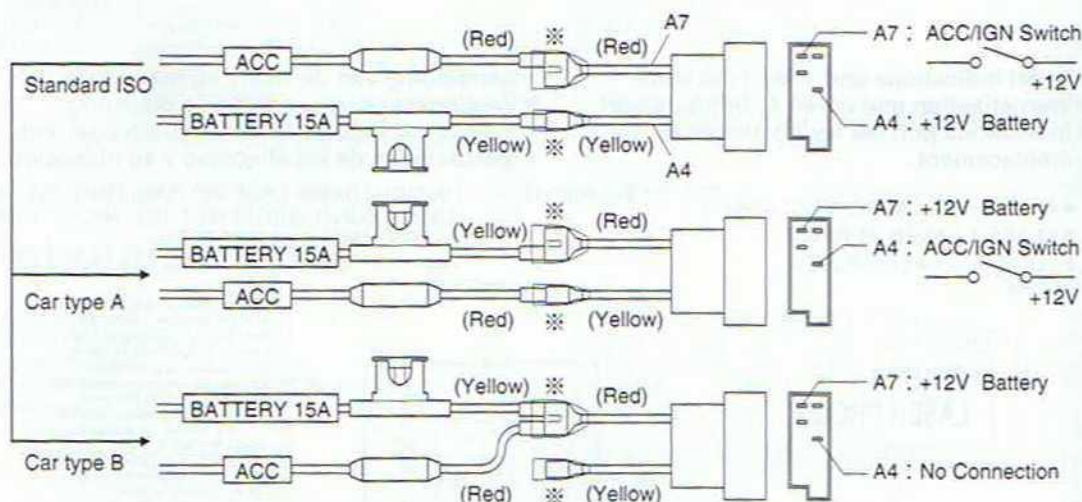


Fig.1

- After fixing the connections, the part (\*) should be insulated with electrical tape to keep away from unit damage.

Panasonic welcomes you to their constantly growing family of electronic products owners.

We endeavor to give you the advantages of precise electronic and mechanical engineering, manufactured with carefully selected components, and assembled by people who are proud of the reputation their work has built for our company. We know this product will bring you many hours of enjoyment, and after you discover the quality, value and reliability we have built into it, you too will be proud to be a member of our family.

## Precautions

### Volume Level

For your driving safety, keep the volume level low enough to be aware of road and traffic conditions.

### Car Washing

To avoid electrical shorts which may cause fire, or other damage, do not expose this product (including the speakers and MDs) to water or excessive moisture.

### Car Ventilation

If your car is parked for several hours in direct sunlight, the temperature inside the car may become very high. It is advisable to drive the car and give the interior a chance to cool down before switching the unit on.

### Power Supply

This product is designed to be used in a car having 12-volt negative ground battery system.

### Disc Mechanism

Do not insert coins or any small objects. Keep screwdrivers and other metallic objects away from the disc mechanism and disc.

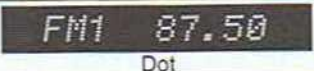

### Service

This product is made of precision parts. Do not attempt to disassemble or adjust any parts. For repair, please consult your nearest authorized Panasonic Service Center.

### About Preset Memory

The preset memory is cleared to return to the original factory setting when the power connector or battery is disconnected.

**Note:** This operating instruction manual is for two models CQ-MR505N and CQ-MR303N. The differences between these models are mentioned below. All illustrations throughout this manual represent model CQ-MR505N unless otherwise specified.

Features	Model	CQ-MR505N	CQ-MR303N
Max Output Power		45 W x 4	40 W x 4
Sub-Woofer Out		Yes	None
LCD Color		Blue	Multi Color
Display			

## Laser Products

### Caution:

This product utilizes a laser. Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

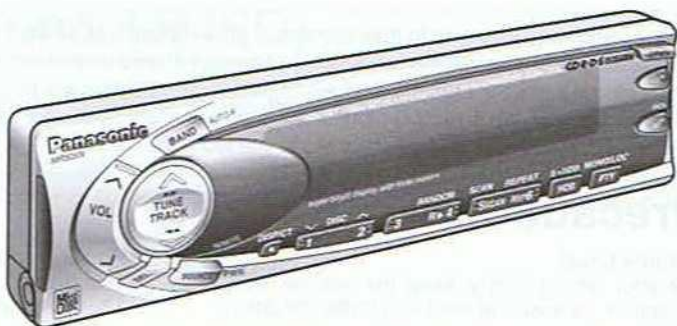
### Laser products:

Wave Length 790 nm  
Laser Power No hazardous radiation is emitted with safety protection.

### Do not take apart this unit or attempt to make any changes yourself.

This unit is a very intricate device that uses a laser pickup to retrieve information from the surface of Mini discs. The laser is carefully shielded so that its rays remain inside the cabinet. Therefore, never try to disassemble the player or alter any of its parts since you may be exposed to laser rays and dangerous voltages.

# Power and Sound Controls



## Power

Turn the key in the ignition until the accessory indicator lights. Press **[SOURCE](PWR)** to switch on the power.

Press and hold **[SOURCE](PWR)** again for more than 2 seconds to switch off the power. When the power is switched off, the panel removal alarm sounds. (See page 34 about the panel removal alarm.)

**Note:** When the power is switched on for the first time, a demonstration message appears on the display. To cancel this display, press **[ ] (DISP/CT)**.

## Volume

- Press **[^VOL]** or **[vVOL]** to increase or decrease the volume.

**VOLUME 20** — Volume Level (0 to 40)

- Press and hold **[^VOL]** or **[vVOL]** for more than 0.5 seconds to change the numeric level in sequence.

**Note:** In the VOLUME mode, the display will be back to regular operation mode with no operation for more than 2 seconds.

### Anti-Volume-Blast Circuit

This unit has a safety function which slowly raises volume level when power is switched back on after it is turned off at a specific level (20) or higher.

## Mute (Only for Remote Control)

- Press **[MUTE]** to mute the sound completely.

**MUTE**

- Press **[MUTE]** again to cancel.





## S+HDB (Super High Definition Bass)

Especially for rock music, the bass-sound will be more powerful.

- Press [HDB](S+HDB) to be able to listen to high-definition bass.

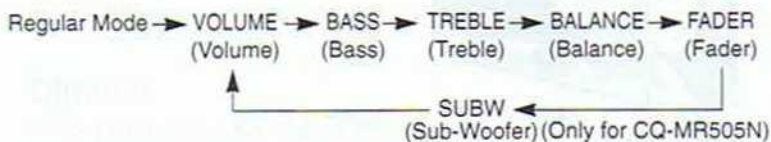
S+HDB

- Press [HDB](S+HDB) again to cancel.



## Audio Mode

Press [SEL] to change the audio mode setting as follows.



**Note:** In the audio mode (BASS/TREBLE/BALANCE/FADER/SUBW), the display will be back to regular operation mode with no operation for more than 5 seconds (2 seconds in the VOLUME mode).

## Bass and Treble

Press [SEL] to change to the bass (or treble) mode. Press [^VOL] or [vVOL] to increase or decrease the bass (or treble) level by 3 dB step.

BASS + 3dB

-12 to +12

TREBLE + 3dB

-12 to +12



## Balance

Press [SEL] to change to the balance mode. Press [^VOL] or [vVOL] to shift the sound volume to the right or left speakers.

BALANCE L 2

1 to 15

BALANCE CNT

Balance Center

BALANCE R 2

1 to 15

## Fader

Press [SEL] to change to the fader mode. Press [^VOL] or [vVOL] to shift the sound volume to the front or rear speakers.

FADER F 3

1 to 15

FADER CNT

Fader Center

FADER R 3

1 to 15

# Power and Sound Controls (continued)

## Sub-Woofer

<Only for CQ-MR505N>



### Sub-Woofer Volume

(Only for CQ-MR505N)

Press [SEL] to change to the Sub-Woofer mode. Press [^VOL] or [vVOL] to increase or decrease the Sub-Woofer volume.

SUBW 4

Sub-Woofer

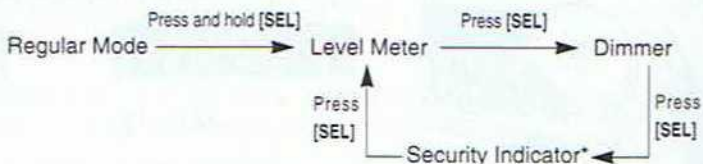
Volume Level: MUTE (0) to 8 (Default: level 4)

## Display Controls



### Change to the Display Control Mode

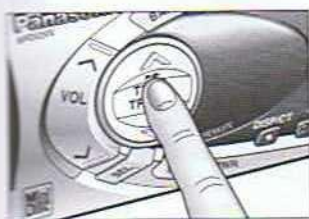
- ① Press and hold [SEL] for more than 2 seconds to change to the display control mode.
- ② Press [SEL] to change the display control mode as follows.



\* See page 34 about Security Indicator.

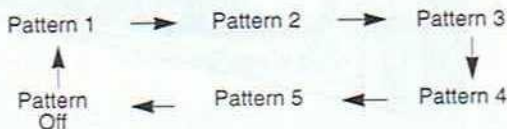
**Note:** In the display control mode, the display will be back to the previous mode with no operation for more than 5 seconds.





## Level Meter

Press **[SEL]** during the display control mode to change to the level meter mode. Press **[^TUNE]** to change the level meter setting as follows. Select your desired pattern.

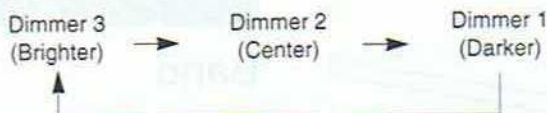


([V TUNE]: opposite direction)



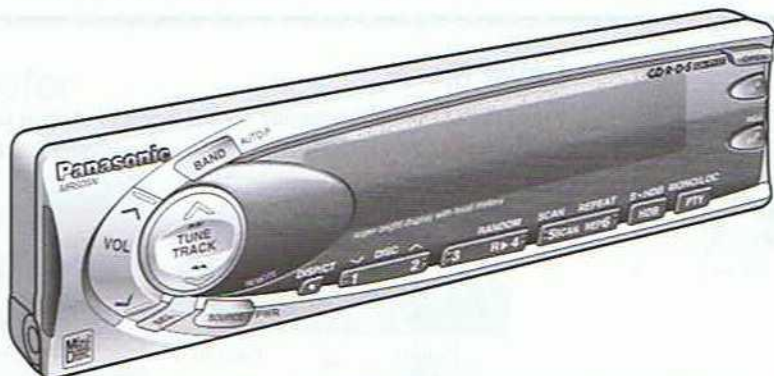
## Dimmer

Press **[SEL]** during the display control mode to change to the dimmer change mode. Press **[V TUNE]** to change the dimmer level setting as follows. (Default: Dimmer 3)



([^ TUNE]: opposite direction)

# Radio Basics



## Tuner Mode

Press [SOURCE] to change the source as follows.

Radio → MD → CD Changer Control  
 (When a disc is inserted) (When a CD Changer is connected)

FM1 87.50

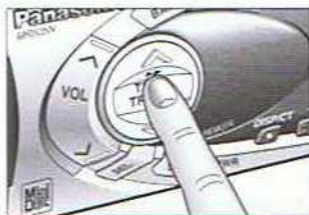


## Band

Press [BAND] to change the band setting as follows.

FM1 → FM2 → FM3 → AM(LW/MW)

The stereo indicator lights during reception of an FM stereo broadcast.



## Manual Tuning

Press [▲TUNE] or [▼TUNE] to tune in a higher or lower frequency.

FM1 102.50



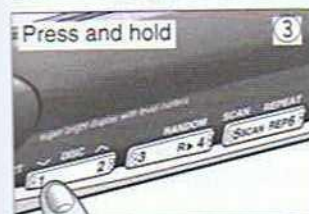
## Seek Tuning

Press and hold [▲TUNE] or [▼TUNE] for more than 0.5 seconds, then release it. Seeking will automatically stop when a signal of the next broadcast station is received.

## Station Preset

FM1, FM2, FM3 and AM (LW/MW) can save maximum 6 stations each in their preset station memories.

**Caution:** To ensure safety, never attempt to preset stations while you are driving.



### Manual Station Preset

- ① Press **[BAND]** to select a desired band.
- ② Use manual or seek tuning to find a station which is to be preset in the memory.
- ③ Press and hold one of the preset buttons **[1]** to **[6]** for more than 2 seconds until the display blinks once.

FM1 102.501 — Preset Number

**Note:** You can change the memory setting by repeating the above procedure.

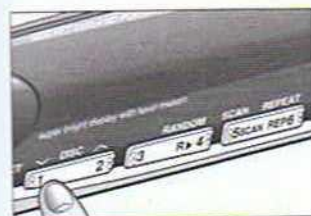


### Auto Station Preset

Select the band, press and hold **[BAND](AUTO•P)** for more than 2 seconds (Auto Preset Memory).

- The 6 strongest available stations will be automatically saved in the memory on preset buttons **[1]** to **[6]**.
- Once set, the preset stations are sequentially scanned for 5 seconds each.

**Note:** The stations manually preset on the selected band will be deleted.



### Tuning in a Preset Station

Press the corresponding preset buttons **[1]** to **[6]** to tune in a preset station.

# Radio Basics (continued)

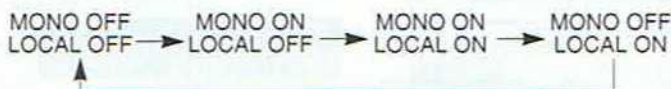
## MONO/LOCAL Selection

- At the MONO setting, noise is significantly decreased when weak signals are received from an FM broadcast station.
- At the LOCAL setting, only strong signals of stations are searched in seek tuning, while at the LOCAL OFF setting, relatively weak signals are also searched.



### ① FM Broadcasts

Press and hold [PTY](MONO/LOC) to change the mode until the desired mode is reached, then release it.



### ② AM Broadcasts

Press [PTY](MONO/LOC) to switch the Local mode as follows.



# RDS (Radio Data System) Reception

Many FM stations are broadcasting added data compatible with RDS. This radio set offers convenient functions using such data.

## AF (Alternative Frequency)

When receiving condition becomes poor, an RDS station with the same program will be automatically selected.

## EON (Enhanced Other Networks)

When EON data is received, the EON indicator lights and the TA and AF functions are expanded.

**TA:** Traffic information from not only the station now tuned in to but also other network stations can be received.

**AF:** The frequency list of the RDS stations preset by received EON data is updated.

## PS (Program Service Name)

When an RDS station is received, the name of that station automatically displays instead of the frequency. When [•](DISP/CT) is pressed during PS display, the frequency appears on the display for 3 seconds, then PS display returns.

## PI (Program Identification)

If a preset RDS station is poor in receiving condition when it is selected, the automatic seek (PI Seek) starts to seek the same program and tune in to it.

## PTY (Program Type)

Program type identification signal

**Example :** News, rock, classical music, etc.

## TA (Traffic Announcement)

When an FM station that periodically provides the latest traffic information is received, the TP indicator lights. If TA ON is set, FM traffic information automatically interrupts your listening to a MD or CD changer until it ends, then you will listen again to whatever you have been listening to.

## Best Station Research

If a preset RDS station is in poor condition of reception when you try to tune in to it, the best frequency is selected from the AF list of that station.

## REG (Region)

The AF, Best Station Research, PI Seek functions will be as follows:

**REG ON :** The frequency changes only with the same regional program. This function is mainly used while driving in the same area, for example, in a city.

**REG OFF:** The frequency changes even with a different regional program if the station is in the same network. The broadcast may be different depending on the case. This function is mainly used when driving far from one region to another.

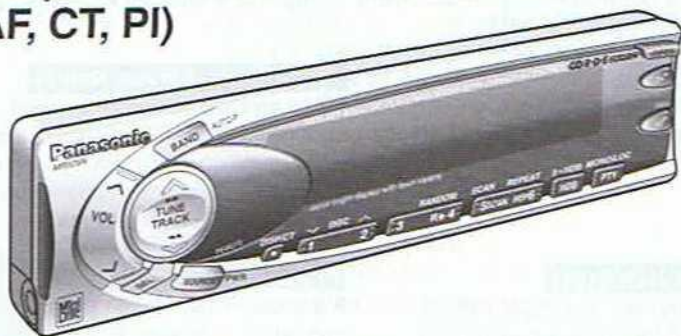
## What Provides EON Capabilities

EON lets the radio set take advantage of RDS information much more than before. It constantly updates the AF list of all presets, including the station currently tuned in to. So, even if you change preset far from home, you will be able to receive the same station at an alternative frequency, or another station serving the same program if any. EON also keeps track of locally available TP stations for quick reception.

**Note:** When you're in **AF ON** mode, auto preset memory only works for RDS station. When in **TA ON** mode, it only works for TP stations. To make auto preset for ordinary stations, cancel AF mode and change to TA off in advance.

# RDS (Radio Data System) Reception (continued)

## A. Basic Operation in RDS Reception (PS, AF, CT, PI)



### RDS Reception

Press **[AF]** when receiving a station in the FM1, FM2 or FM3 band.

- AF ON/OFF can be set common to all FM bands.

BBC R4

- Select AF ON if you wish to use the AF network of an RDS station. Best station research is activated at the same time.
- Select AF OFF if the AF network of an RDS station is not necessary.



### Changing AF Mode

Press **[AF]** to change AF ON and activate Best Station Research at the same time. (3 seconds maximum)

AF 1 ON

..... AF 1 Mode (Default) ←

AF 2 ON

..... AF 2 Mode

AF OFF

..... AF OFF Mode

#### Notes:

1. Default mode is AF1.
2. AF1 has a low level of AF operating sensitivity in urban areas. Therefore, AF does not frequently operate even when sensitivity is temporarily lowered between skyscrapers, for example.
3. AF2 is for suburban areas with a higher level of sensitivity than AF1.

For Seek Tuning, RDS Station Preset, Tuning in a RDS preset station, and Auto RDS Station Preset, please refer to Radio Basics (pages 16 to 18).



### RDS seek tuning (PI seek)

The PI seek function may be used if an RDS station selected from the memory is poor in receiving condition. Press the preset button again for the station now tuned in to.

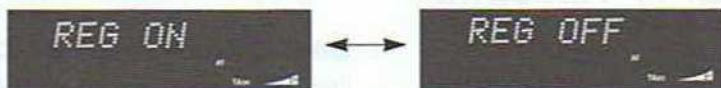


**PI Seek:** If Best Station Research fails in selecting the best station, the PI seek function operates to automatically tune in to the same program.



### Region (REG) Switching

Press and hold [AF](REG) for more than 2 seconds in AF mode to alternately select between REG ON and REG OFF.



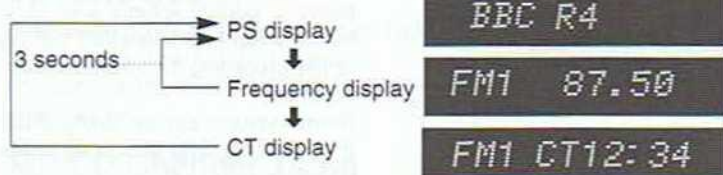
**Note:** If you wish to stay with the same program, keep REG ON. In REG OFF mode, there is a higher possibility of returning to an AF station in better receiving condition. The relationship of the PI seek function with REG ON and REG OFF is as described above.



### Changing Display

Press [•](DISP/CT) to change the display as follows.

(Frequency display continues for only 3 seconds, returning to PS display after that.)



### Clock Time (CT) System

The CT (24-hour) system may not properly operate in areas where RDS CT service is not available. Once CT service is received, the CT system keeps operating. "NO CT" appears on the display in areas where no CT service is available.

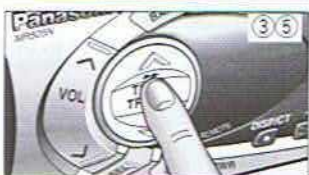


### Clock Display

Press [•](DISP/CT) to indicate the clock display.



# RDS (Radio Data System) Reception (continued)



## Initial Time Setting

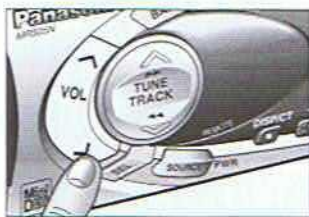
Press [BAND] to change to AM mode.

- Press [•](DISP/CT), "NO CT" appears on the display.
- Press and hold [•](DISP/CT) again for more than 2 seconds, "hours" blinks and the time setting mode is activated.
- To set hours, press [^TUNE] or [vTUNE].  
Hold [^TUNE] or [vTUNE] to change numbers rapidly.
- Press [•](DISP/CT) again for minutes setting.
- To set minutes, press [^TUNE] or [vTUNE].
- After setting the time, press [•](DISP/CT).

### Notes:

- If CT display is kept on, it remains on even if [SOURCE](PWR) and accessory are turned off and back on again.
- In other modes, press [•](DISP/CT) to get RDS CT-service.

## B. TP Reception



## Select Traffic Announcement (TA on) Mode

Press [TA] to switch on and keep it there when you wish to listen to traffic information. Press [TA] again to switch off.



### Volume Setting (Only for TA on mode)

Adjust the volume as desired by pressing [^VOL] or [vVOL] while receiving Traffic Announcement. (TA)

After volume for Traffic Announcement (TA) is set, the difference between normal volume and TA volume is automatically stored in the memory (up to 5 levels) so that next traffic information will be received at the preceding TA volume which may be higher or lower than normal volume.

Normal volume can be changed up to 5 levels upward or downward.

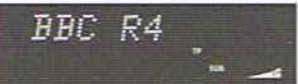
If the volume level is over 40 or less than 0, any further change will not be made.

### When receiving a station other than TP station (including EON stations)

A traffic information station is automatically searched for and the radio automatically stops tuning at the next available TP station.

#### EON Capabilities:

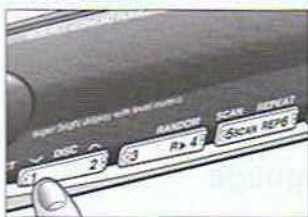
EON lets the radio take advantage of much more RDS information than before. It constantly updates the AF lists for all switch presets far from home, you will receive an alternative frequency for the same station, or another station carrying the same program, when such exists. EON also keeps track of locally available TP station.



→  
Press [TA]







## TP Seek Tuning

Press and hold [ $\wedge$ TUNE] or [ $\vee$ TUNE] for more than 0.5 seconds, then release. The seeking automatically stops at the next available TP station.

## Auto TP Station Preset

Press and hold [BAND](AUTO•P) for more than 2 seconds. The six strongest available TP stations are automatically saved in the memory on the preset button [1] to [6].

Once saved, the preset stations are sequentially scanned for 5 seconds each.

## Tuning in a TP station preset

Press any of the preset buttons [1] to [6] that you want to listen to. Best Station Research function is activated to automatically select the strongest available frequency for the TP station (through the built-in frequency) lists, if reception is weak.



## Muting TA on

Press and hold [TA] for more than 2 seconds to light "TA on". Then Traffic Announcement (TA) function is activated to operate, allowing you to listen to only Traffic Program whenever it is available.

### Muting TA on canceling (Muting TA on → TA on)

Press [TA] again.  
Or press [ $\wedge$ VOL] to increase the volume level.

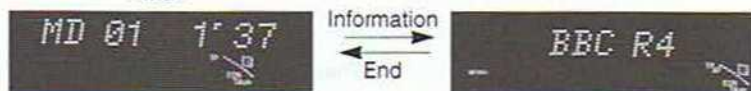
## TP Auto Search

If receiving conditions are poor when TA is on during muting and if there is no other alternative frequency in the same network, a traffic announcement station in good receiving condition is automatically searched for.

## MD/CD Changer TA on

Press [TA] during MD, CD changer mode.  
When TA on mode is selected while listening to the source in that mode, wait for Traffic Announcement to begin.

<MD>



## Switching to TA off Mode

Select either one of the following steps.

- Press [TA] when TA is on.
- Press and hold [TA] for more than 2 seconds when Muting TA is on.
- Press [TA] when MD/CD changer TA is on.

# RDS (Radio Data System) Reception (continued)

## C. PTY Reception

(There are some areas where PTY service may not be available.)

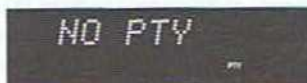


### Switching to PTY Mode

Press [PTY] to select PTY display mode, and the PTY of the broadcast now received is displayed.

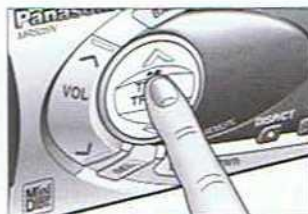


"NO PTY" appears on the display if there is no corresponding program type.



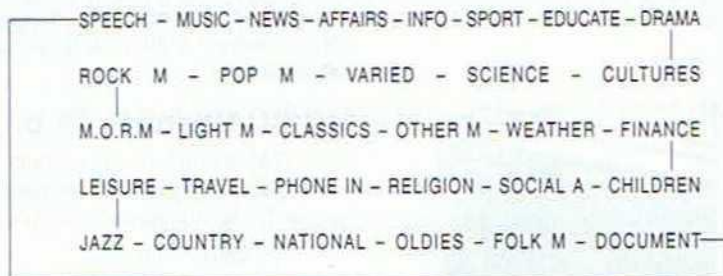
### Changing PTY Display Language

The display language can be changed to Swedish as required. Press [•](DISP/CT) in PTY mode to alternate the language between English and Swedish.



### Program Type Selection

Press [^TUNE] or [vTUNE] to select the program type as follows.



When a desired selection has been made, press [BAND]. Then automatic seek will start to tune into the station broadcasting the selected program type.

**Note:** Seek tuning does not operate as long as "NO PTY" appears on the display.



### Table of PTY Code and Program Type

Press any of the preset buttons [1] to [6] according to your preference. Those buttons already have the program types as follows. (Default setting)

#### <Preset PTY>

Preset No.	1	2	3	4	5	6
Program Type	News	Speech	Sport	Pop. Music	Classics	Music
Display	NEWS 1	SPEECH 2	SPORT 3	POP M 4	CLASSICS 5	MUSIC 6
	NEWS	AFFAIRS INFO EDUCATE DRAMA CULTURES SCIENCE VARIED WEATHER FINANCE CHILDREN SOCIAL A RELIGION PHONE IN TRAVEL LEISURE DOCUMENT	SPORT	POP M	CLASSICS	ROCK M M.O.R.M LIGHT M OTHER M JAZZ COUNTRY NATIONAL OLDIES FOLK M



### Program Type Preset

Press and hold one of the buttons [1] to [6] for more than 2 seconds to preset the desired program type selection in the button.



### Tuning in a PTY Preset Station

Press any of the preset buttons [1] to [6] that you want to listen to.

# RDS (Radio Data System) Reception (continued)



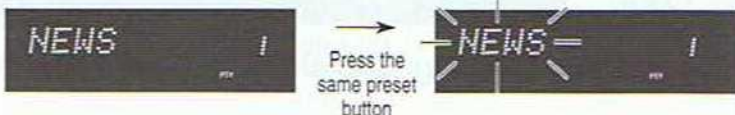
## Searching for PTY

- ① Select the desired station from preset in the preset number buttons [1] to [6]. Then, the preset PTY and that preset number appear on the display for 5 seconds.



- ② While the desired type from 6 presets appears on the display, take either of the following two steps.
  - a) Press the same preset button again.
  - b) Press **[BAND]**.

If the desired PTY station is available, it is directly received. If it is not, "NO PTY" blinks and the radio returns to the station that was received before the search.



Press the same button again to cancel.



## Canceling of PTY Mode

Press **[PTY]** to cancel.

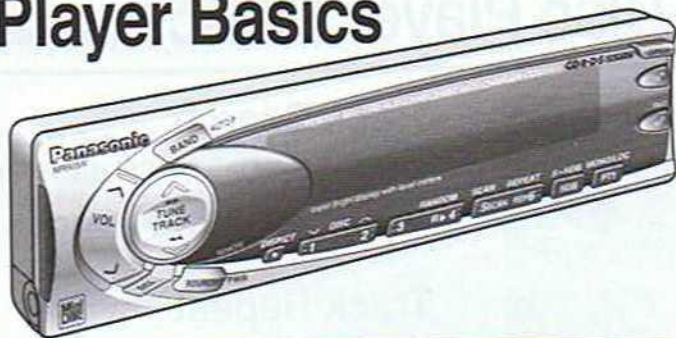
The set returns to the state existing before PTY mode while the receiving frequency remains unchanged.

## Emergency Announcement Reception

(Some areas are not covered by emergency announcement service.)

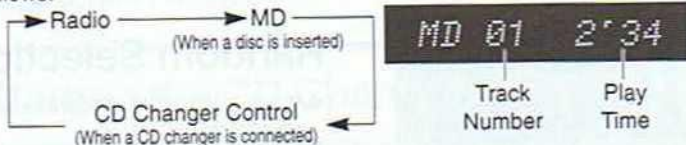
When an emergency announcement is broadcast, the unit is automatically switched to receiving that broadcast. If this happens in a mode other than radio mode (MD mode and CD Changer mode) or in Muting in TA mode, "ALARM" blinks on the display.

# Mini Disc Player Basics



## Mode Selection

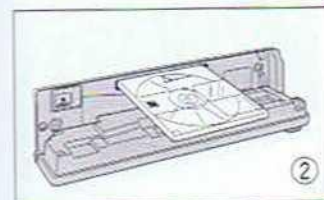
When a disc is in the deck, press [SOURCE] to change the source as follows.



## Disc Insert

- 1 Press [OPEN] to open the front panel.
- 2 With the label side up, insert the disc.  
Close the front panel manually, and playback starts automatically.

**Caution:** When the front panel is opened, do not force it down and do not put anything on it since these may result in damage to the unit.



**Note:** While a disc is inserted, no sound is heard (MUTE). And the volume is back to the previous level when the front panel is closed completely.

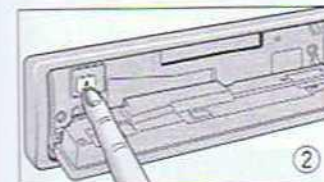
**Note:** When a disc is in the deck, the disc indicator will light.



## Disc Eject

- 1 Press [OPEN] to open the front panel.
- 2 Press [▲] to stop disc play, and the disc will be ejected automatically. Remove it from the MD slot, and close the front panel manually.

**Caution:** When ejecting a disc, do not close the front panel until the disc is ejected and removed from the disc slot completely.



**Note:** While the disc is ejected, no sound is heard (MUTE). And the volume is back to the previous level when the front panel is closed completely.



## Track Selection

- Press [▶▶TRACK] once to go to the next track.
- Press [◀◀TRACK] once to play from the beginning of the track you are listening to. Press twice to play the previous track.
- Press repeatedly to skip the desired number of tracks.

# Mini Disc Player Basics (continued)



## Track Search

- Press and hold [▶▶TRACK] or [◀◀TRACK] for more than 0.5 seconds to activate fast forward or reverse.
- Release [◀◀TRACK] or [▶▶TRACK] to resume the normal MD play.



## Track Repeat

- Press [6](REP) to repeat the current selection.

- Press [6](REP) again to cancel.



## Random Selection

- Press [4](R▶). A random selection of music is played from all available tracks.

- Press [4](R▶) again to cancel.



## Track Scan

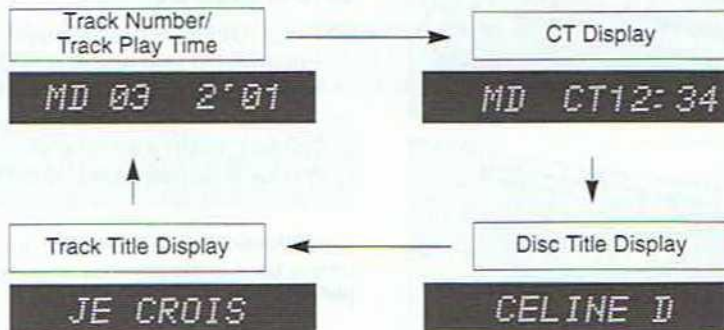
- Press [5](SCAN). The display will blink and the first 10 seconds of each track on the disc play in order.

- Press [5](SCAN) again to cancel.



## Changing the Display

Press [•](DISP/CT) to change the display as follows.

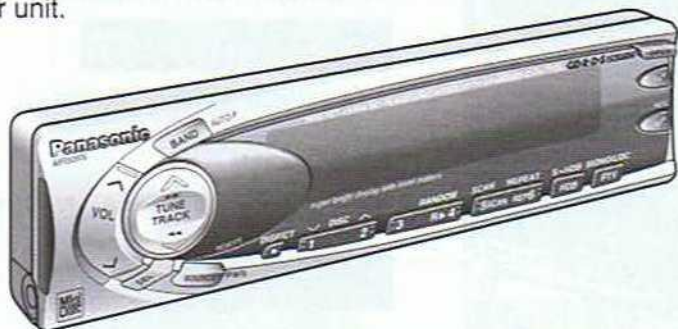


When [•](DISP/CT) is pressed for more than 2 seconds while the Track Title or Disc Title appears on the display, the Title display scroll can be switched on or off. (Default: the Title display scroll on)

# CD Changer Basics

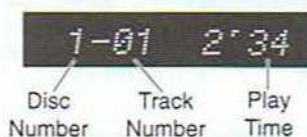
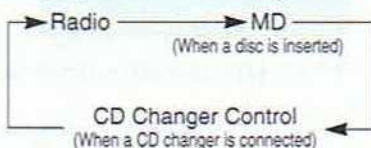
When the unit is connected with a CD text recognizable CD changer (CX-DP9061EN, for example), CD text can appear on the display.

**Note:** CD changer functions are designed for an optional CD changer unit.



## Starting the CD Changer

Once the CD changer has been connected, press [SOURCE] to change to the CD changer mode as follows. When a disc magazine is inserted, CD play starts automatically.



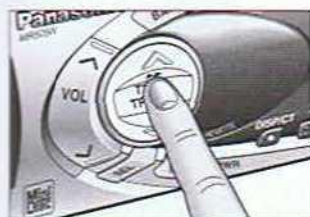
## Disc Selection

Press [1](∇DISC) or [2](∧DISC) to select a disc in descending or ascending order.



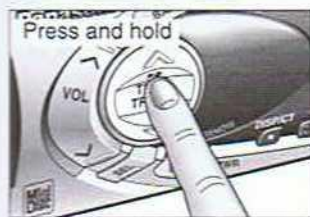
Then, the selected disc will start to play from the first track.

**Note:** The number of discs you can load the CD changer with is specific to each model.



## Track selection

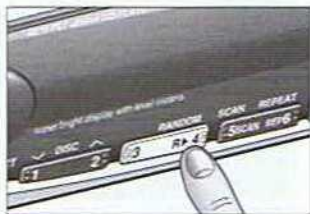
- Press [▶▶TRACK] to advance to the next track.
- Press [◀◀TRACK] to start play from the beginning of the track now playing.
- Press [▶▶TRACK] or [◀◀TRACK] repeatedly to skip the desired number of tracks.



## Track Search

- Press and hold [▶▶TRACK] or [◀◀TRACK] for more than 0.5 seconds to activate fast forward or reverse.
- Release [▶▶TRACK] or [◀◀TRACK] to resume regular CD changer play from the released position.

# CD Changer Basics (continued)



## Track Repeat

- Press [6](REPEAT) to repeat the current selection.



- Press [6](REPEAT) again to cancel.

## Disc Repeat

- Press and hold [6](REPEAT) for more than 2 seconds to repeat the current disc selection.



- Press [6](REPEAT) again to cancel.

## Track Random

- Press [4](RANDOM). All the available tracks on all discs in the magazine will be played in a random sequence.



- Press [4](RANDOM) again to cancel.

## Disc Random

- Press and hold [4](RANDOM) for more than 2 seconds. All the available tracks on the current disc will be played in a random sequence.



- Press [4](RANDOM) again to cancel.

**Note:** When [6](REPEAT) is pressed in the random mode, random play stops and repeat play starts.

## Track Scan

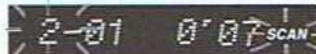
- Press [5](SCAN). The display blinks and the first 10 seconds of each track on the discs play in sequence.



- Press [5] (SCAN) again to cancel.

## Disc Scan

- Press and hold [5](SCAN) for more than 2 seconds. The 1st track of all the discs in the magazine is played for 10 seconds each.



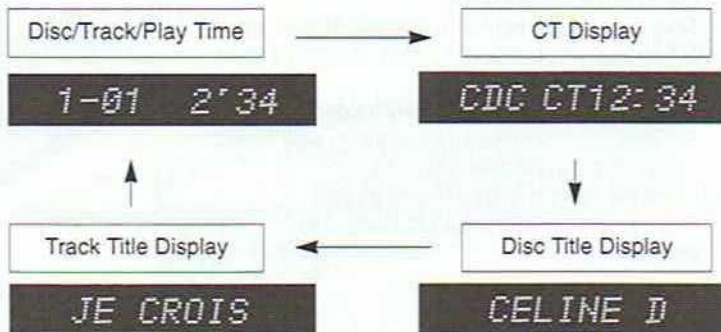
- Press [5](SCAN) again to cancel.





## Changing the Display

Press [•](DISP/CT) to change the display as follows.



When [•](DISP/CT) is pressed for more than 2 seconds while the Track Title or Disc Title appears on the display, the Title display scroll can be switched on or off. (Default: the title display scroll on)

### Notes:

- Track title or disc title appears on the display only when the unit is connected to a CD changer that can recognize CD text (CX-DP9061EN, for example).
- "NO TITLE" appears on the display if a disc which does not support the text display has been loaded.

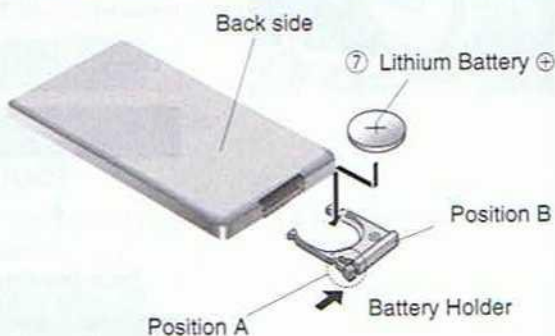
## Error Display Messages for MD Player/CD Changer

E1	Displays when the mini disc or compact disc is dirty. In case of MD, the mini disc is ejected automatically. In case of CD changer, the compact disc is skipped and the next disc is selected.
E2	Displays when mini disc or compact disc is scratched. The disc is ejected automatically.
E3	Displays when the mini disc or compact disc stops operating for some reason. Please eject the MD or CD. If the error message E3 is still displayed, please turn off the car engine (ACC off) and remove the fuse from the battery lead (yellow) for 1 minute. Then reinstall the fuse.
0000	Displays when there is no compact disc in the magazine. (This message is only for CD Changer.)

# Remote Control Basics

## Battery Installation

1. Remove the battery holder.  
Take hold of the holder at position B and pull it out by pushing position A in the direction shown by the arrow.
2. Install the battery on the battery holder.  
Set a new battery properly with its (+) side facing up as shown in the figure.
3. Insert the battery holder.  
Push in the battery holder back into its original position.



## Battery Notes

Remove and dispose of an old battery immediately.

Battery Information:

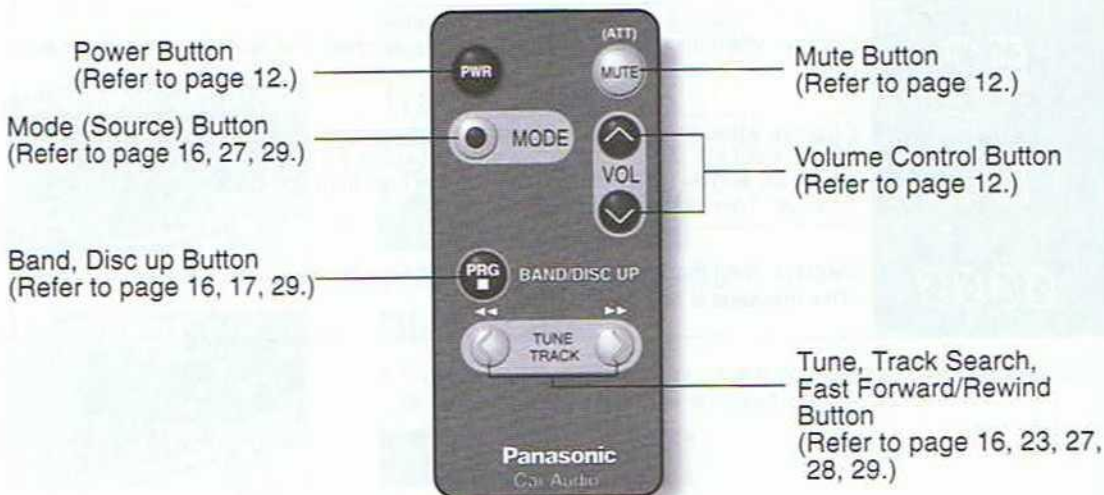
- Battery Type: Panasonic Lithium Battery (CR2025)
- Battery Life: Approximately 6 months under normal use (at room temperature)

**Caution:** Improper use of batteries may cause overheating, an explosion or ignition, resulting in injury or a fire. Battery leakage may damage the unit.

- Do not disassemble or short the batteries. Do not throw the batteries into a fire.
- Keep batteries away from children to avoid the risk of accidents.
- Be careful to the disposal rules when you dispose of batteries.

## Main Controls

For details of each function, refer to the pages in parentheses. Some of the functions may not be usable even if they are shown.

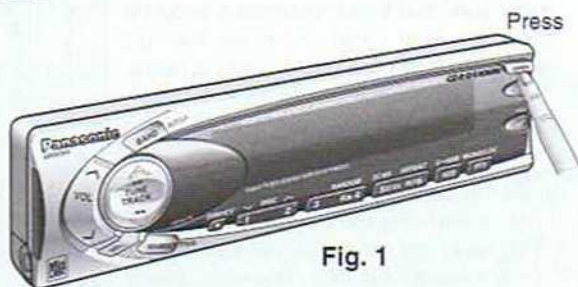


# Anti-Theft System

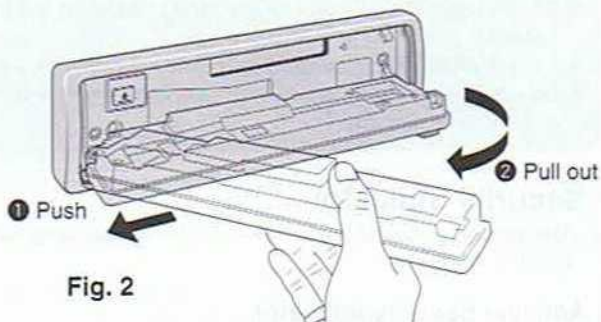
This unit is equipped with a removable face plate. By removing this face plate, the radio becomes totally inoperable. The security indicator will blink.

## To Remove the Removable Face Plate

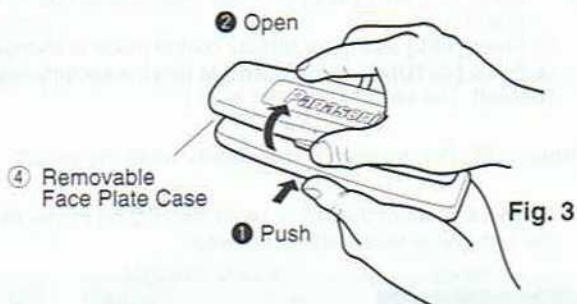
- 1 Switch off the power.
- 2 Press [OPEN]. The face plate will be opened.



- 3 Push the face plate to either the right or left, then pull it out toward you.



- 4 As shown in Fig.3, gently push the lower side of the case and open its cover. Keep the face plate in the case. Then, you can bring the plate safely.

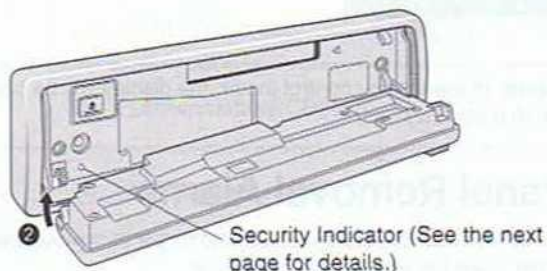


## To install the Removable Face Plate

- 1 Fit either the edge of the right or left hole in the face plate over the main unit's pins.
- 2 Fit it over on the other side while pushing it.



Fig. 4



# Anti-Theft System (continued)

- ③ After fitting the face plate holes, try moving the face plate up and down a few times to make sure that it has been fitted securely. Close the front panel and press the right side of the face plate until a "click" is heard.

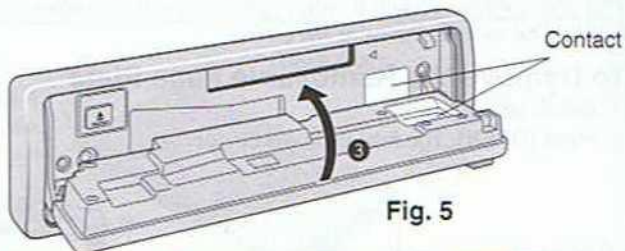


Fig. 5

### Cautions:

1. Before removing the face plate, make sure the power is off.
2. This face plate is not water-proof. Do not expose it to water or excessive moisture.
3. Do not remove the face plate while driving your car.
4. Do not place the face plate on the dashboard or nearby areas where the temperature rises to high levels.
5. Do not touch the contacts on the face plate or on the main unit, since this may result in poor electrical contacts.
6. If dirt or other foreign substances get on the contacts, wipe them off with clean and dry cloth.
7. Do not apply a strong downward force onto the face plate and do not put anything on it while it is open, or it might be damaged.

## Security Indicator

The security indicator blinks when the removable face plate is removed from the unit. (See Fig.4 on the previous page.)

### Activate Security Indicator

1. ① Press and hold [SEL] for more than 2 seconds to change to the display control mode when the power is on.
- ② Press [SEL] during the display control mode to change to the security indicator mode. (See page 14.)
- ③ Press [∧TUNE] or [∨TUNE] to turn the security indicator on or off. (LED ON or OFF)  
(Default: The security indicator is on.)

**Note:** "LED ON" appears on the display when the security indicator is on.

2. To check whether the unit is set in the LED on mode, make sure that the security indicator blinks when the removable face plate is removed.

Display	Security Indicator	Panel Removal Alarm
LED ON	Blinks (Press [∧TUNE] or [∨TUNE].)	ON
LED OFF	OFF	OFF

**Note:** In the display control mode, the display will be back to the previous mode with no operation for more than 5 seconds.

## Panel Removal Alarm

This alarm sounds to warn you not to forget to remove the panel before leaving your car. This function is activated when the security indicator is on.

## Preparation

- Before installation, check the radio operation with antenna and speakers.
- Disconnect the cable from the negative (-) battery terminal. (See caution below).
- Unit should be installed in a horizontal position with the front end up at a convenient angle, but not more than 30°.

**Caution:** For installation to cars with trip or navigational computers, all electronic memory settings previously registered in the computer will be lost when the battery terminal is disconnected. For this type of car, battery could not be disconnected. Therefore, extra care should be taken to prevent short circuiting.

## In-dash Installation

### Installation Opening

In-dash installation can be done if the car's dashboard has an opening for this unit as shown in Fig. 6. The car's dashboard should have a thickness of 4.5 mm - 6 mm in order to make the installation of the unit.

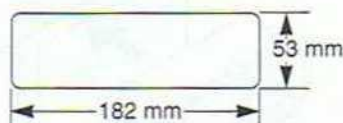


Fig. 6

### Installation Precautions

This product, if possible, should be installed by a professional installer.

In case of difficulty, please consult your nearest authorized Panasonic Service Center.

1. This system is to be used only in a 12-volt, DC battery system (car) with negative ground.
2. Follow the electrical connections on pages 38 to 39 carefully. Failure to do so may result in damage to the unit.
3. Connect the power lead (red) after all other connections are made.
4. Be sure to connect the battery lead (yellow) to the positive terminal (+) of the battery or fuse block (BAT) terminal.
5. Insulate all exposed wires to prevent short circuiting.
6. Secure all loose wires after installing the unit.
7. Please carefully read the operating and installation instructions of the respective product before connecting it to this unit.

## Supplied Hardware

No.	Item	Diagram	Q'ty
①	Mounting Collar		1
②	Mounting Bolt (5 mmø)		1
③	Power Connector		1
④	Removable Face Plate Case		1

No.	Item	Diagram	Q'ty
⑤	Remote Control Unit		1
⑥	Trim Plate		1
⑦	Lithium Battery (CR2025)		1
⑧	ISO Antenna Adaptor		1

# Installation (continued)

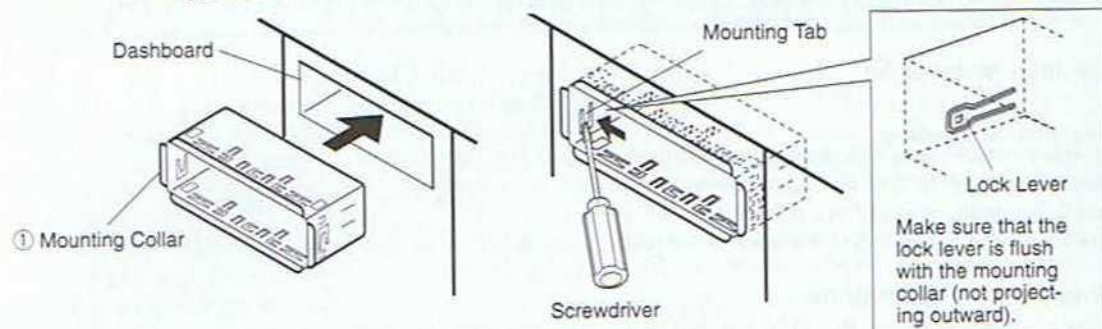
- When bending the mounting tab of the mounting collar with a screwdriver, be careful not to injure your hands and fingers.
- We strongly recommend you to wear gloves for installation work to protect yourself from injuries.

## Installation Procedures

Note: Disconnect the cable from the negative (-) battery terminal.

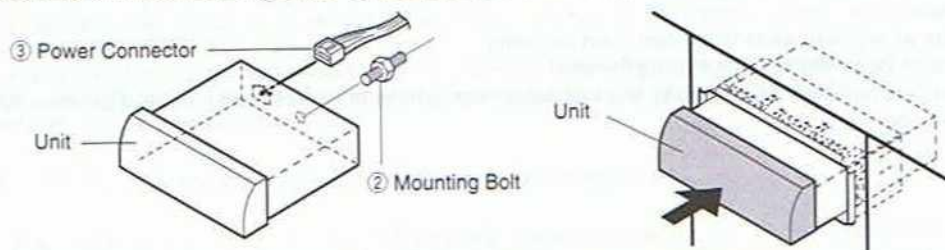
### 1. Secure the Mounting Collar ①.

Insert Mounting Collar ① into the dashboard, and bend the mounting tabs out with a screwdriver.



### 2. Secure the rear of the unit.

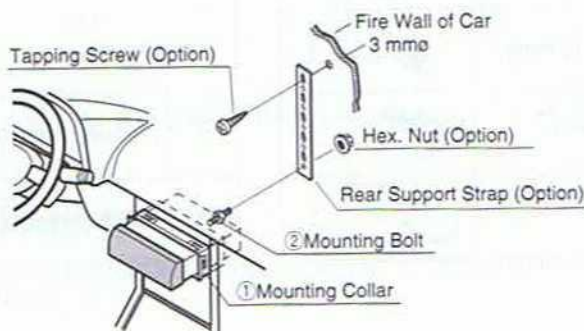
- Check the electrical connections by referring to this operating instructions.
- Connect Mounting Bolt ②, using a suitable wrench.
- Insert Power Connector ③ to the unit.
- Insert the unit into Mounting Collar ① and push it in until a "click" is heard.



- Secure the rear of the unit to the car by either of the two recommended methods.

#### • Using the Rear Support Strap (Option)

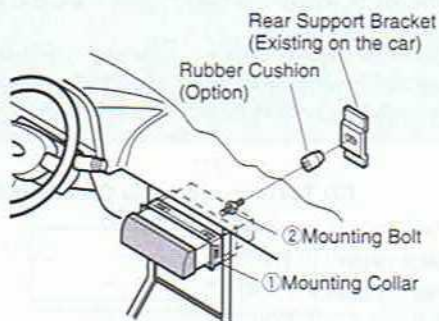
Affix one end of the Rear Support Strap to the rear of the unit, and the other end to the fire wall of car, or some other metallic area.



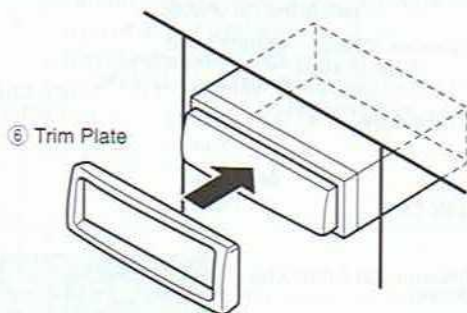
• Using the Rubber Cushion (Option)

(If there is an existing Rear Support Bracket on the fire wall of car.)

Cover Mounting Bolt ② on the rear of the unit with Rubber Cushion, and mount it into the existing Rear Support Bracket.



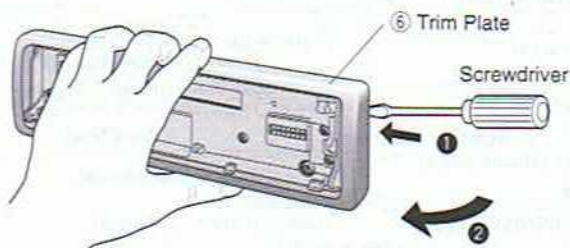
3. Insert Trim Plate ⑥.



4. After installation reconnect the negative (-) battery terminal.

To Remove the Unit

- Remove the removable face plate. (See page 33.)
- Remove Trim Plate ⑥ with a screwdriver as shown in the figure.



- Pull out the unit while pushing the lock lever using screwdriver. (Fig. 7, Fig. 8)
- Remove the unit pulling with both hands. (Fig. 9)

Fig. 7

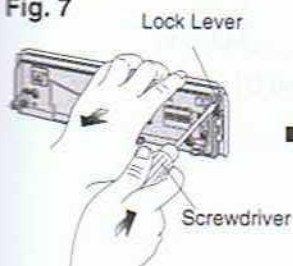


Fig. 8

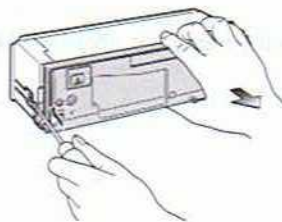
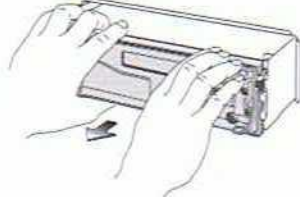


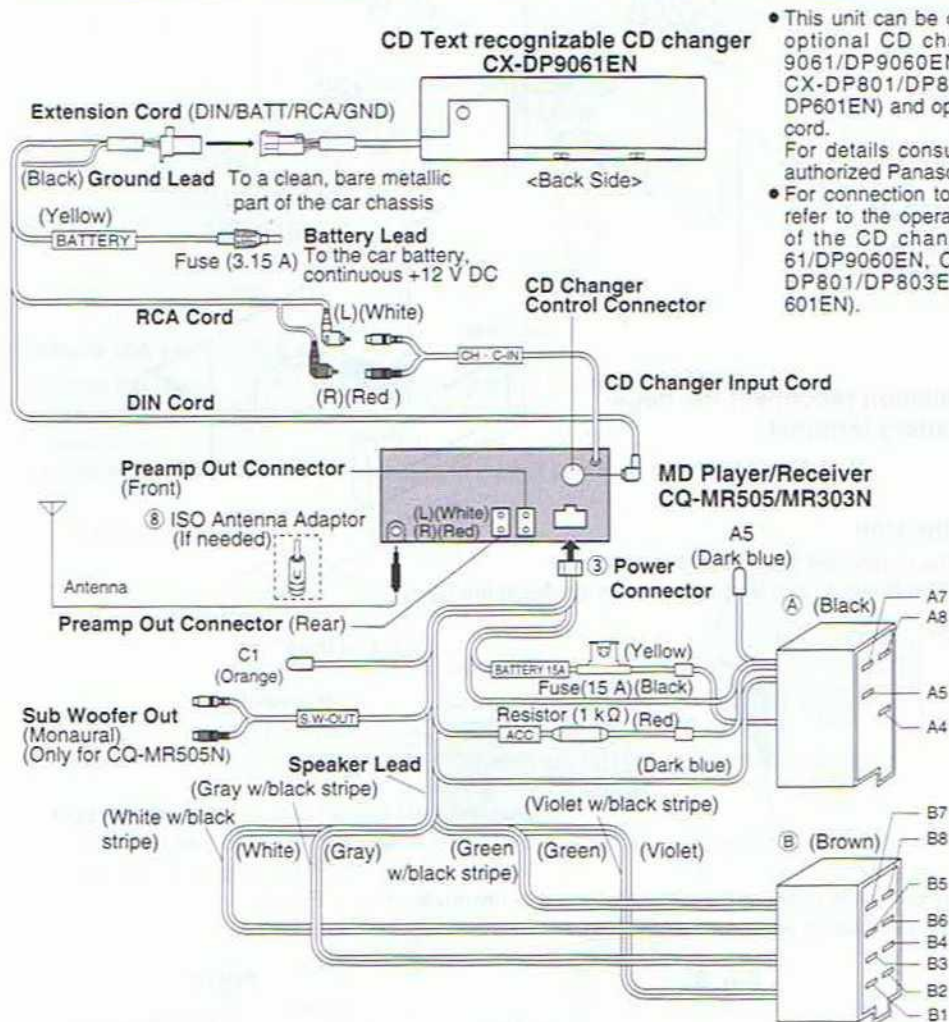
Fig. 9



# Electrical Connection

## Cautions:

- Confirm the note on page 4, and make connections to the connectors on car side.
- This unit is designed to be used in a car having 12-volt negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram below.
- Remove the covering of the leads about 5 mm long from their end before connecting. (except for ISO connector's cords)
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires from a possible short-circuit from the car chassis. Bundle all cables and keep cable terminals free from touching any metal parts.



- This unit can be connected to an optional CD changer (CX-DP 9061/DP9060EN, CX-DP88N, CX-DP801/DP803EN or CX-DP601EN) and optional extension cord. For details consult your nearest authorized Panasonic Dealer.
- For connection to a CD changer, refer to the operating instructions of the CD changer (CX-DP9061/DP9060EN, CX-DP88N, CX-DP801/DP803EN or CX-DP601EN).

(See the next page about A1-A8, B1-B8 and C1.)



**Loudspeakers (connector ② : B1 - B8)**

	Left +	Left -	Right +	Right -
Front	B5 (White)	B6 (White w/black stripe)	B3 (Gray)	B4 (Gray w/black stripe)
Rear	B7 (Green)	B8 (Green w/black stripe)	B1 (Violet)	B2 (Violet w/black stripe)

**A4****Battery Lead (Yellow)**

To the car battery, continuous +12 V DC

**A5****Motor Antenna Relay Control Lead (Dark blue)**  
(To Motor Antenna) (Max. 500mA)

This lead is not intended for use with switch actuated power antenna.

**Amp. Relay Control Power Lead (Dark blue)**

This lead is for connection to Panasonic power amplifier.

**A7****Power Lead (ACC or IGN) (Red)**

To ACC power, +12 V DC

**A8****Ground Lead (Black)**

To a clean, bare metallic part of the car chassis

**C1****Telephone Mute Lead (Orange)**

Connect to the car telephone mute lead.

**Note:** This telephone mute lead is for connection only to the radio mute lead. Be sure to ascertain this because it will not work with other type of output system.

**Navi Mute Lead (Orange)**

Connect to the Navi Mute lead of the Panasonic car navigation system (for example, CN-DV2000EN).

**Notes:****Telephone Mute**

The sound from the speakers cannot be heard while the telephone conversation is in progress.

**Navi Mute**

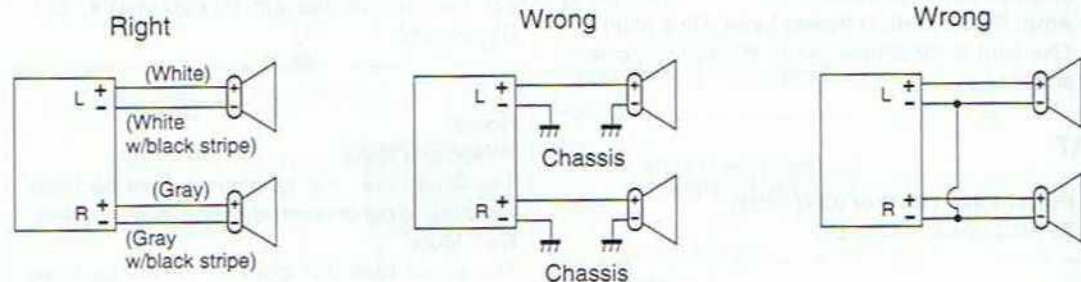
The sound from the speakers cannot be heard while the navigation voice guide is on.

# Speaker Connections

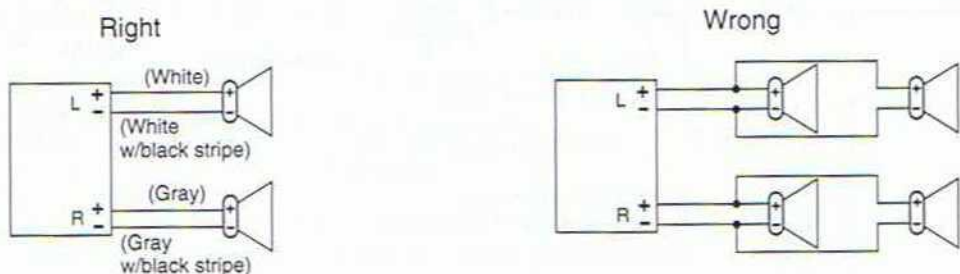
## Cautions:

1. Use ungrounded speakers only.
2. The speakers to be used with this unit should be able to handle more than 45W(CQ-MR505N), 40W(CQ-MR303N) of audio power. If an optional amplifier is used, the speakers should be able to handle the maximum output power of the amplifier. Use of speakers with small input ratings can cause damage to the speakers.
3. The speaker impedance should be 4 - 8  $\Omega$ . If the impedance is too large or too small, it affects the output and may cause damage to the speakers or this unit.
4. Do not use 3-wire type speaker system having a common earth lead. Never connect the speaker cord to the body of the car. This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
5. The speaker cords and the power amplifier unit should be kept away (about 30cm apart) from the antenna and antenna extension cord.
6. Follow the connection diagram below carefully. Failure to do so may cause damage to both unit and speakers.

- Unit will be damaged if speakers (Front, Rear) are not connected properly.



- Do not connect more than one speaker to one set of speaker leads.

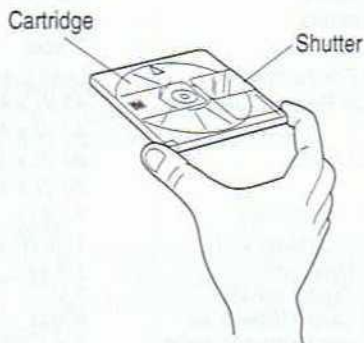


# Notes on Mini Discs (MD)

## ■ How to Handle MDs

An MD is held in a cartridge to protect the MD from foreign matter and fingerprints. Great care must be taken in dealing with an MD in consideration of the following because a dirty or deformed cartridge can cause malfunction or sound quality deterioration.

- Never open the shutter of an MD cartridge to avoid damaging to the cartridge.
- Never insert an MD cartridge if a label on it is about to come off. Otherwise, the label might be stuck in the unit and cause a trouble.
- Data MD is not available for the unit. Make sure to use music MDs.



## ■ How to Store MDs

- If you do not play an MD for a long time, remove the MD from the unit and keep it in an exclusive case to protect it from dust, scratch, curvature or other damage.
- Avoid leaving MDs at any of the following places.
  1. A place exposed to direct sunlight for a long time
  2. A humid or dusty place
  3. A place exposed to direct heat from heaters.
  4. Seats or dashboard in a car

## ■ How to clean MDs

If an MD cartridge became dirty, use dry cloth to wipe a stain off. Even when cleaning, never open the shutter.

## Fuse

Use fuses of the same specified rating (15 A). Using different substitutes or fuses with higher ratings, or connecting the unit directly without a fuse, could cause fire or damage to the unit.

If the replacement fuse falls, contact your nearest authorized Panasonic Service Center.

## Maintenance

Your product is designed and manufactured to ensure the minimum of maintenance. Use a soft cloth for routine exterior cleaning. Never use benzine, thinner, or other solvents.

# Specifications

## General

Power Supply	:	DC 12 V (11 V - 16 V), Test Voltage 14.4 V, Negative Ground
Tone Controls	:	Bass; $\pm 12$ dB at 100 Hz Treble; $\pm 12$ dB at 10 kHz
Current Consumption	:	Less than 2.5 A (MD mode, 0.5 W 4-Speaker)
Maximum Power Output	:	45 W x 4 (at 4 $\Omega$ )(CQ-MR505N) 40 W x 4 (at 4 $\Omega$ )(CQ-MR303N)
Power Output	:	22 W x 4 (DIN45 324, at 4 $\Omega$ )(CQ-MR505N) 20 W x 4 (DIN45 324, at 4 $\Omega$ )(CQ-MR303N)
Speaker Impedance	:	4 - 8 $\Omega$
Dimensions (Main unit)	:	178(W) x 50(H) x 150(D) mm
Weight (Main unit)	:	1.4 kg
Pre-Amp Output Voltage	:	2 V
Pre-Amp Output Impedance	:	600 $\Omega$
Sub-Woofer Output Voltage:	:	2 V (Only for CQ-MR505N)

## FM Stereo Radio

Frequency Range	:	87.5 - 108 MHz
Usable Sensitivity	:	6 dB/ $\mu$ V(S/N 30 dB)
Stereo Separation	:	35 dB(at 1 kHz)

## MW Radio

Frequency Range	:	531 - 1,602 kHz
Usable Sensitivity	:	28 dB/ $\mu$ V (S/N 20 dB)

## LW Radio

Frequency Range	:	153 - 279 kHz
Usable Sensitivity	:	32 dB/ $\mu$ V (S/N 20 dB)

## MD Player

Channel	:	2 channels
DA Conversion	:	16-bit linear
Frequency response	:	5 to 20,000 Hz
Signal to Noise Ratio	:	90 dB (1 kHz)
Wow and flutter	:	Below measurable limits

**Note:** Specifications and the design are subject to modification without notice due to improvements in technology.