

This Manual is an overseas version and some details may differ from Instructions enclosed with products sold in Australia

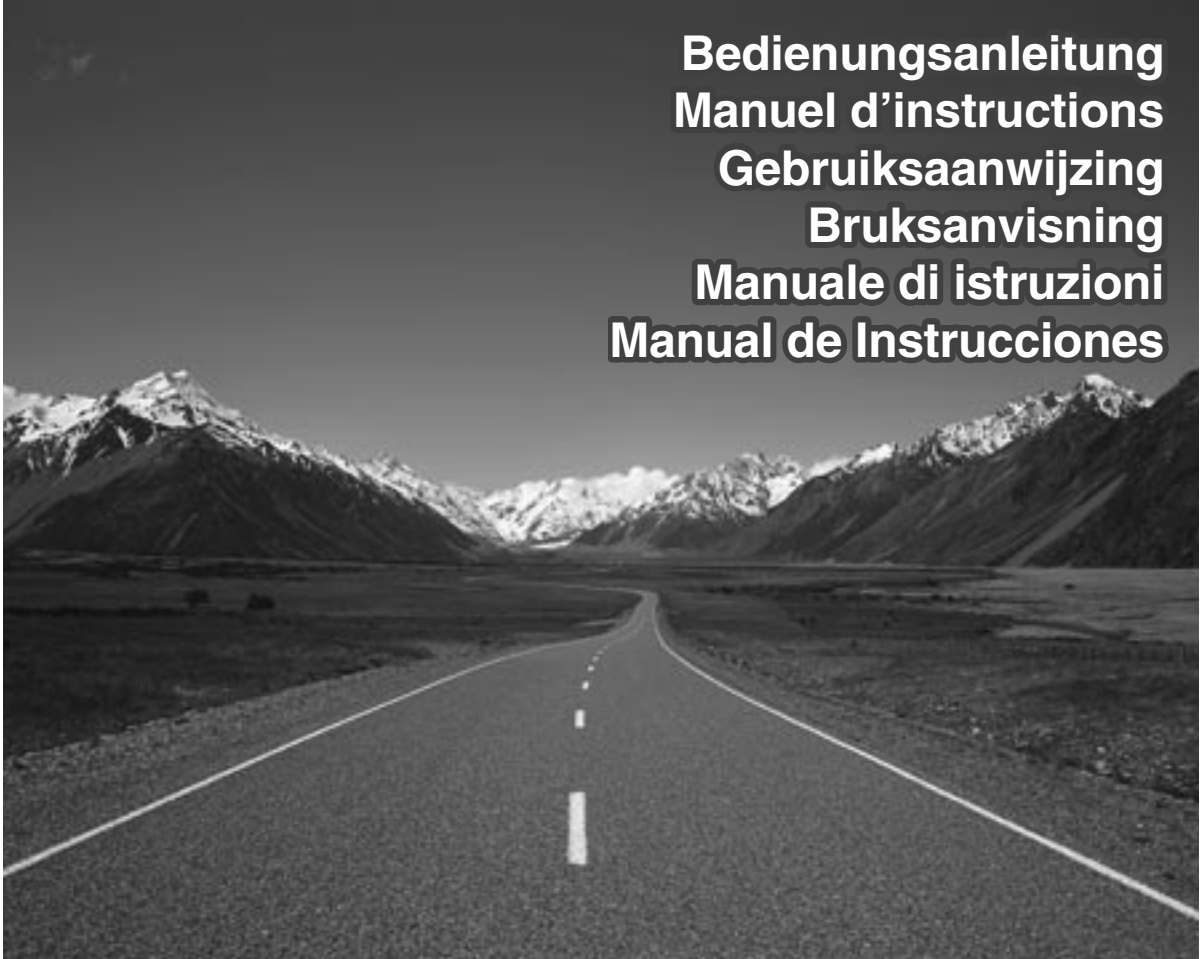
Panasonic

MP3 CD Player/Receiver with Full Dot Matrix Display and CD Changer Control

CQ-DFX972N Operating Instructions



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



MP3



- Please read these instructions carefully before using this product and keep this manual for future reference.
- 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.
- Leest 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.

Contents	Page
Precautions	4
Components	5
General	6
Radio	8
Radio Data System (RDS)	10
CD Player	16
MP3 Player	18

Inhaltsverzeichnis	Seite
Vorsichtsmaßnahmen	46
Komponenten	47
Allgemeines	48
Radio	50
Radio-Daten-System (RDS)-Empfang	52
CD-Spieler	58
MP3-Spieler	60

Table des matières	Page
Mesures de précaution	88
Éléments constitutifs	89
Généralités	90
Autoradio	92
Réception radio RDS	94
Lecteur de CD	100
Lecteur de MP3	102

Inhoudsopgave	Bladzijde
Voorzorgen	130
Componenten	131
Algemeen	132
Radio	134
Radio Data Systeem (RDS)	136
CD-speler	142
MP3-speler	144

Innehåll	Sida
Observera	172
Medföljande delar	173
Allmänt	174
Radiomottagning	176
RDS (Radio Data System)	178
CD-spelare	184
MP3-spelare	186

Contenuto	Pag.
Precauzioni	214
Componenti	215
Generali	216
Radio	218
RDS (Radio Data System)	220
Lettore CD	226
Lettore MP3	228

Indice	Pag.
Precauciones	256
Componentes	257
Generalidades	258
Radio	260
Sistema de datos radiofónicos (RDS)	262
Reproductor de CD	268

CD Changer Control	22	Speaker Connections	38
Audio Setting-AUDIO MENU	24	Fuse	38
Display Setting-PICTURE MENU	26	Maintenance	39
Function Setting-FUNCTION MENU	28	Troubleshooting	40
Installation	30	Specifications	45
Anti-Theft System	33		
Electrical Connections	34		
<hr/>			
Steuerung des CD-Wechslers	64	Anschluß der Lautsprecher	80
Audio-Einstellung <AUDIO-Menü>	66	Sicherung	80
Bildeinstellung <PICTURE-Menü>	68	Pflege	81
Funktionseinstellung <FUNCTION-Menü>	70	Störungsbehebung	82
Einbau	72	Technische Daten	87
Diebstahlschutz	75		
Elektrischer Anschluß	76		
<hr/>			
Commande de changeur de CD	106	Branchement des haut-parleurs	122
Définition de sortie audio-Menu AUDIO	108	Fusible	122
Définition d'image-Menu PICTURE	110	Entretien	123
Définition de fonction-Menu FUNCTION	112	En cas de difficulté	124
Installation	114	Données techniques	129
Système antivol	117		
Branchements électriques	118		
<hr/>			
Bediening van de CD-wisselaar	148	Aansluitingen luidsprekers	164
Geluidsinstelling - AUDIO Menu	150	Zekering	164
Beeldinstelling - PICTURE Menu	152	Onderhoud	165
Functie-instelling - FUNCTION Menu	154	Verhelpen van storingen	166
Installatie	156	Technische gegevens	171
Anti-diefstal systeem	159		
Elektrische aansluitingen	160		
<hr/>			
CD-växlarstyrning	190	Anslutning av högtalare	206
Ljudinställningar-ljudmeny	192	Säkring	206
Bildskärmsinställningar-bildmeny	194	Underhåll	207
Visning av funktionsmeny	196	Felsökning	208
Montering	198	Tekniska data	213
Stöldskyddsanordning	201		
Elektriska anslutningar	202		
<hr/>			
Controllo del cambia CD	232	Sistema antifurto	243
Impostazione dell'audio-Menu AUDIO	234	Collegamenti elettrici	244
Impostazione dell'immagine		Collegamenti degli altoparlanti	248
-Menu PICTURE	236	Fusibile	248
Impostazione della funzione		Manutenzione	249
-Menu FUNCTION	238	Correzione dei difetti di funzionamento	250
Installazione	240	Dati tecnici	255
<hr/>			
Reproductor MP3	270	Conexiones eléctricas	286
Control del cambiador de discos CD	274	Conexiones de los altavoces	290
Ajuste de audio-Menú de AUDIO	276	Fusible	290
Ajuste de la imagen-Menú de PICTURE	278	Mantenimiento	291
Ajuste de la función-Menú de FUNCTION	280	Solución de problemas	292
Instalación	282	Especificaciones	297
Sistema antirrobo	285		

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 CDs) 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 a 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.

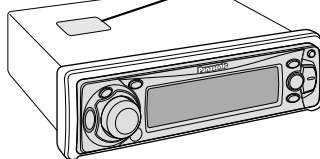
Note: The preset memory is cleared to return to the original factory setting when the power connector or battery is disconnected.

Laser Product

Label Indications and Their Locations

DANGER!

Invisible laser radiation when open. Avoid direct exposure to beam.



CLASS 1 LASER PRODUCT

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

Caution Label

DANGER! Invisible laser radiation when open. Avoid direct exposure to beam.

ADVARSEL! Usynligt laserlys udstråles ved åbning. Undgå direkte bestråling.

VARO! Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

WARNING! Osynlig laserstråling när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

ADVERSEL! Usynlig laserstråling når deksel åpnes og sikkerhedslås brytes. Unngå eksponering for strålen.

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:

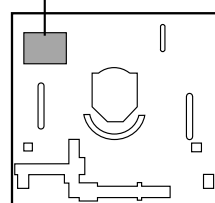
Wave Length 780 nm

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 compact 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.



Deck Ass'y
(Upper Side)

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

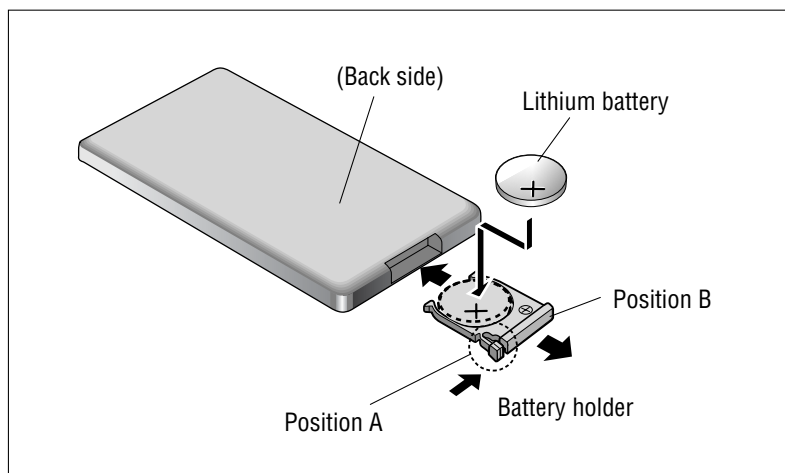
Components

• Operating Instructions	1
• Supplied Hardware	1 set (→ Page 30)
• Remote Control Unit	1
• Lithium Battery (CR2025)	1
• Warranty Card	1

Remote Control Preparation

Battery Installation

1. Remove the battery holder.
Pull the holder out at position B while pushing position A as indicated.
2. Install the battery on the battery holder.
Place the battery in the holder with its (+) side upwards as shown.
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.

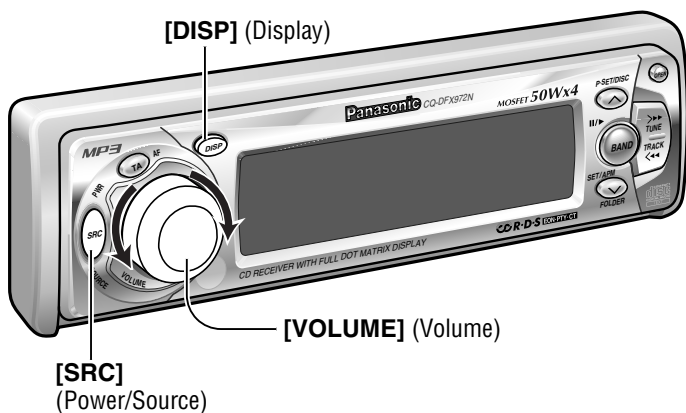
Battery Information:

- Battery Type: Panasonic lithium battery (CR2025) (Included)
- 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 battery. Do not throw a battery into a fire.
- Keep batteries away from children to avoid the risk of accidents.
- Follow local regulations when disposing of batteries.

General



Demonstration Message

When you use this unit for the first time, a demonstration message appears on the display.

Press [DISP] to change to regular mode.



Note: To display the message again, press [SRC] / [SOURCE] for 4 seconds or more when turning power on. (**ACC ON**)

Turn your car's ignition key to ACC or ON position.

Power

ON : Press [SRC] / [SOURCE].

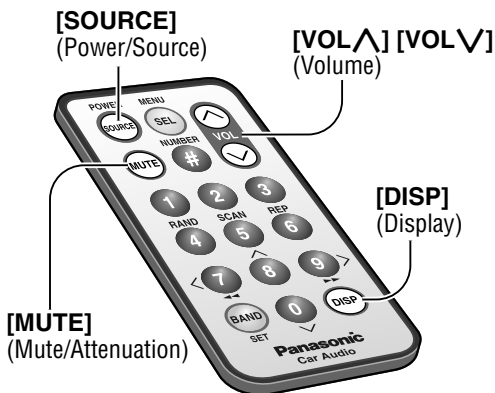


OFF : Press [SRC] / [SOURCE] again and hold for more than 1 second.

Note: If the security function is set to ON, the security message is shown with a warning alarm. (→ Page 28 about Security Function setting)

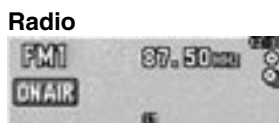
ACC Selection

If your car has the ACC position on the ignition switch, set the ACC selection to ON. (**Default: ACC OFF**) (→ Page 28) **ACC ON** is attached to the functional descriptions under the ACC selection ON condition.



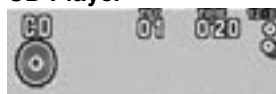
Source

Press [SRC] / [SOURCE] to change the source.



(→ Page 8)

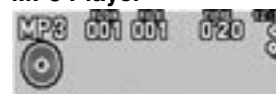
CD Player



(CD is in the player. → Page 16)

OR

MP3 Player



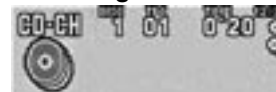
(MP3 data disc is in the player. → Page 18)

Auxiliary



Note: Connect to external devices.

CD Changer



(Optional CD changer is connected and magazine is in the changer. → Page 22)

Volume

[VOLUME] (Clockwise) / [VOL▲] : Up
 [VOLUME] (Counterclockwise) / [VOL▼] : Down



Setting Range : 0 to 40

Note: The sound level for each source is stored in memory. (For radio, one volume setting for AM, one volume setting for all FMs)

Mute / Attenuation


(Only for remote control)

ON : Press [MUTE].

OFF : Press again.

Decreasing volume range depends on setting.
 (Mute / Attenuation setting → Page 28)

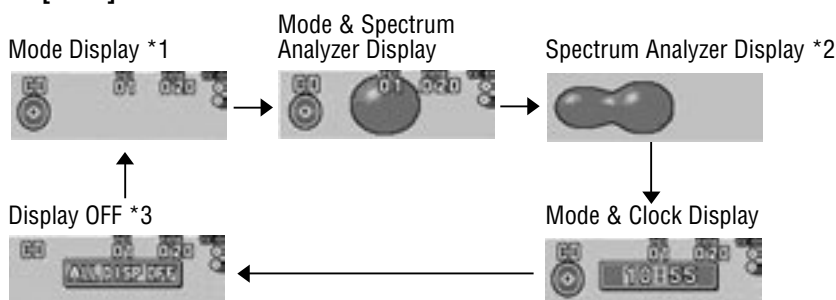
 : No sound

 : Decrease the volume to 1/10 of previous level.

Display Change

When Power is ON...

Press [DISP].



*1 The title information can be displayed in the CD/MP3/CD changer mode. (→ Page 17, 19 and 23)

*2 If you press a button, the Mode & Spectrum Analyzer Display appears for 5 seconds.

*3 If you press a button, the light is turned on, the Mode Display appears, and the light is turned off approximately 5 seconds later.

Notes:

- If title or name display is set to ON in any mode, mode display is automatically selected. (→ Page 17, 19 and 23)
- Set the Spectrum Analyzer pattern in a separate procedure. (→ Page 26)
- When RDS's Clock Time (CT) service is not received, "NO CT" is displayed. Adjust the clock. (→ Page 26)
- Do not watch moving images or title/name scroll on the LCD while driving.

Press and hold [DISP] for more than 2 seconds.
 Indicators which are not displayed on Mode Display are displayed.
 (Audio setting and MP3 data information, etc.)

AUDIO Indicator



Press [DISP] again to cancel.

When Power is OFF... (ACC ON)

Press [DISP].

Clock Display



(Back light is on)

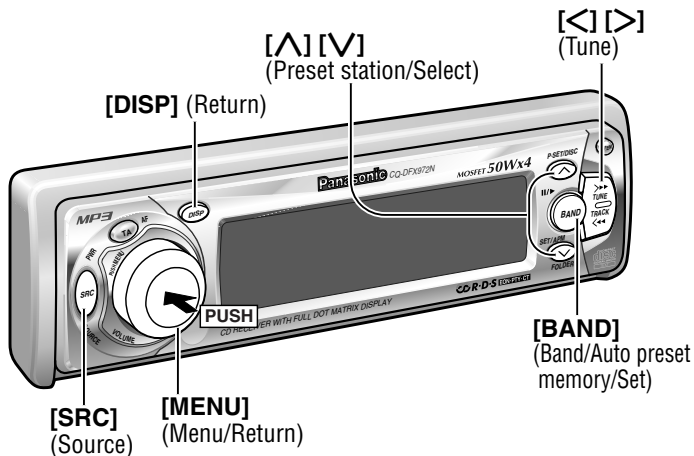
Display OFF



(Back light is off)

Note: When RDS's Clock Time (CT) service is not received, "NO CT" is displayed. Adjust the clock. (→ Page 26)

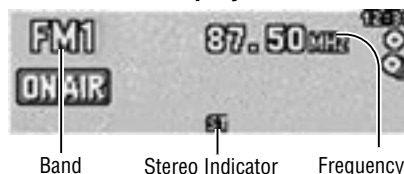
Radio



1 Radio Mode

Press [SRC] / [SOURCE] to select the radio mode.

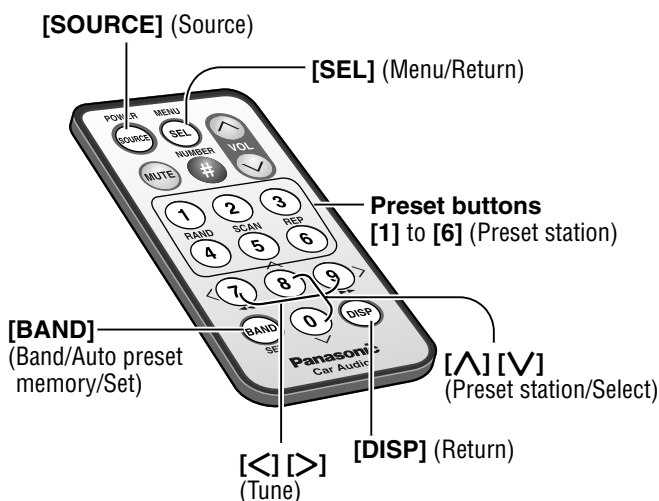
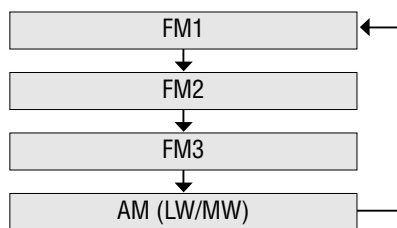
Radio Mode Display



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

2 Band

Press [BAND].



3 Tuning

[>] : Higher frequency
 [<] : Lower frequency
 Press and hold [>] or [<] for more than 0.5 seconds, then release. Seeking will start.

Mono / Local Selection (Menu Setting)

- Press [MENU] / [SEL] during radio (FM or AM) mode.
- Press [^] or [v] to select MONO or LOCAL.
(In AM mode, only LOCAL can be selected.)
- Press [BAND] to switch on or off in turn.

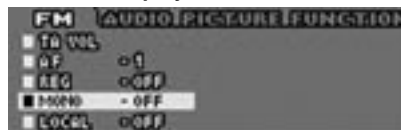
MONO ON : Noise is significantly decreased when weak signals are received from an FM broadcast station.

LOCAL ON : In seek tuning, only strong stations are detected.

LOCAL OFF : Relatively weak stations are picked up.

Note: Press [MENU] / [SEL] or [DISP] to return to the regular mode.

FM Menu Display



AM Menu Display



Station Preset

Up to 6 stations can be stored in each of the FM1, FM2, FM3 and AM (LW/MW) band selections.


Manual Preset Memory

Manually save a station in the preset memory.

Select a band and frequency (step ② and ③ on the previous page)

- ① Press and hold [**^**] or [**v**] for more than 2 seconds until the preset number blinks.
- ② Press [**^**] or [**v**] to select a preset number.
- ③ Press and hold [**^**] or [**v**] for more than 2 seconds to memorize.

The display blinks once, and a receiving station is saved in the memory.



Notes:

- Frequency setting can be performed even after selecting a preset number.
- To suspend preset write, press [**DISP**].

Entering numbers directly from the remote control

Select a band and frequency (step ② and ③ on the previous page)
Press and hold one of the preset button from [**1**] to [**6**] on the remote control for more than 2 seconds.


Auto Preset Memory

Automatically save stations with good reception in the preset memory.


Select a band (step ② on the previous page)

Press and hold [**BAND**] for more than 2 seconds.

Searching



Scanning



- The 6 stations with good reception will be automatically saved in the memory under preset numbers 1 to 6.
- Once set, the preset stations are sequentially scanned for 5 seconds each.
- To stop the scanning, press [**^**] or [**v**].
(Pressing one of the preset button from [**1**] to [**6**] on the remote control also can stop the scanning.)

Note: Only RDS stations will be saved at default setting (AF ON). To select non RDS stations too, set AF OFF. (→ Page 11)

Note: New stations are overwritten on existing saved stations after following this procedure.

Preset Station Calling

Select a band (step ② on the previous page)

Press [**^**] or [**v**] to select the preset number for tuning in the preset station.

Entering numbers directly from the remote control

Press one of the preset button from [**1**] to [**6**] on the remote control.

Radio Data System (RDS)

RDS Basics

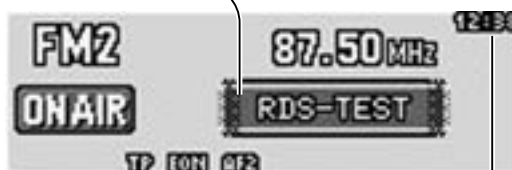
Some FM stations are broadcasting added data compatible with RDS. This radio set offers convenient functions using such data.

RDS service availability varies with areas. Please understand if RDS service is not available in your area, the following service is not available, either. This chapter explains the summary and operation regarding RDS.

The following functions are available when receiving RDS stations.

Program Service Name (PS) Display

The name of station is displayed.



Alternative Frequency (AF)

When reception is poor, an RDS station broadcasting the same program is tuned in automatically.

Clock Time (CT) Service

When receiving an RDS station, the CT service automatically adjusts the time.

“--:--” is displayed in areas where CT service is not available. (⇒ Page 26 for Clock Adjustment)

Traffic Program (TP)

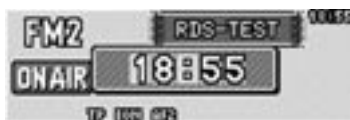
Some RDS FM stations periodically provide traffic announcement.

The station which broadcast the traffic announcement is called Traffic Program (TP).

Traffic Announcement (TA)

Radio announcements on traffic conditions.

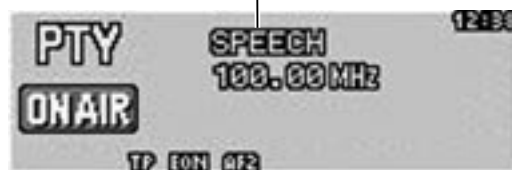
Note: If Mode & Clock display is selected by pressing [DISP], the frequency disappears and the following display appears. (⇒ Page 7 for Display Change)



Program Type (PTY) Display

RDS FM stations provide a program type identification signal.

Example: news, rock, classical music, etc. (⇒ Page 13)



Alternative Frequency (AF)

Alternative Frequency (AF) Mode

Default : AF mode is active.

(Press and hold [TA] on the main unit for more than 2 seconds to switch the AF mode on or off.)

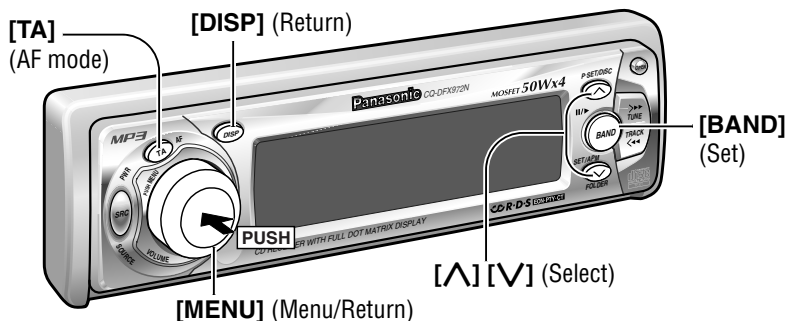
AF ON : AF, Best Station and PI Seek function are active.



Lights when AF is on

Auto Preset Memory
When AF ON is selected, only RDS stations will be memorized automatically.
(→ Page 9 for auto preset memory)

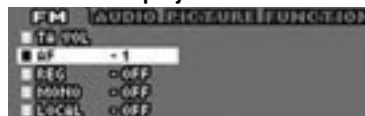
Note: When AF is set to OFF, stations other than RDS stations will also be saved in the memory.



AF Level and Region (REG) Mode (Menu Setting)

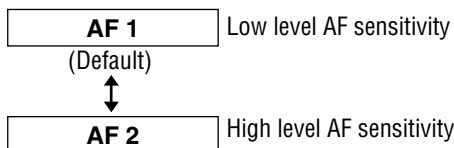
- 1 Press [MENU] / [SEL] to display the menu.
- 2 Press [^] or [v] to select an item.

FM Menu Display



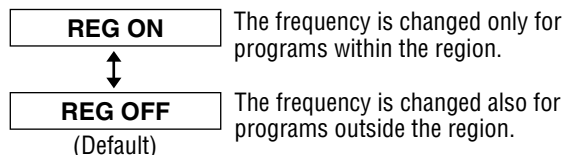
AF Level

Press [BAND] to change the AF level.



REG Mode

Changes the selection range of AF and PI Seek.
Press [BAND] to switch on or off in turn.



Notes:

- When REG mode is switched from OFF to ON or vice versa, AF mode turns on automatically.
- Press [MENU] / [SEL] or [DISP] to return to the regular mode.

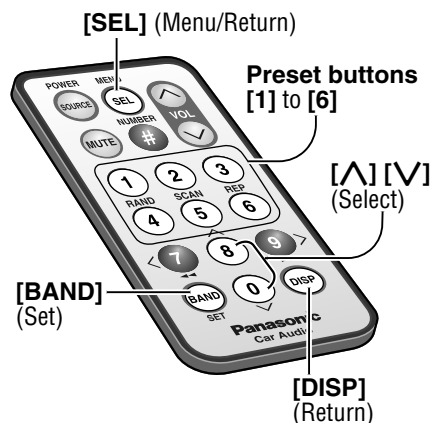
Preset Memory (AF ON Setting)

Preset Station Calling (Best Station)

AF self-tuning selects a station with good reception when the preset tuning is activated.

For Poor Sound Quality (PI Seek) (Only for remote control)

If reception is poor when tuning in a preset station, press the same preset number button. The same station with better reception will be searched for.
Press the same preset number button again to cancel.



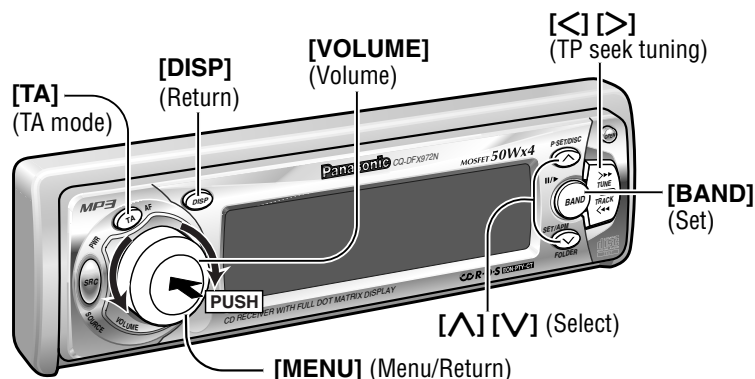
Radio Data System (RDS) (continued)

Traffic Announcement (TA)

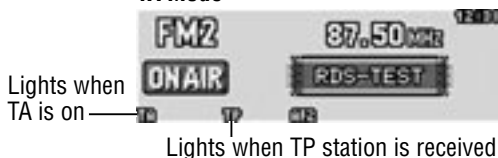
Traffic Announcement (TA) Mode

Press **[TA]** on the main unit to switch the TA mode on.
(Press again to switch the TA mode off.)

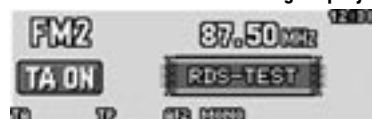
TA ON : If the station received is not a TP station, the unit automatically searches for a TP station to tune in to.
When the TP station received begins a traffic announcement, you can hear it from the unit.



TA Mode



Traffic Announcement receiving display



TP Seek Tuning

When TA ON is selected, only TP station will be searched.
Press and hold **[>]** or **[<]** for more than 0.5 seconds, then release. Seeking will start.

TP Auto Preset Memory

When TA ON is selected, only TP stations will be memorized automatically. (→ Page 9 for auto preset memory)

TP Auto Search

When reception of a TP station is poor, TP Auto Search will automatically search for a TP station with better reception.
(Enabled only in the Muting in TA mode.)

TA Volume Set (Menu Setting)

Traffic announcements are broadcast at the TA volume level.

- 1 Press **[MENU]** / **[SEL]** to display the menu.
- 2 Press **[^]** or **[v]** to select TA VOL.
- 3 Press **[BAND]** to set the current volume level as the TA volume level.

FM Menu Display



Note: Press **[MENU]** / **[SEL]** or **[DISP]** to return to the regular mode.

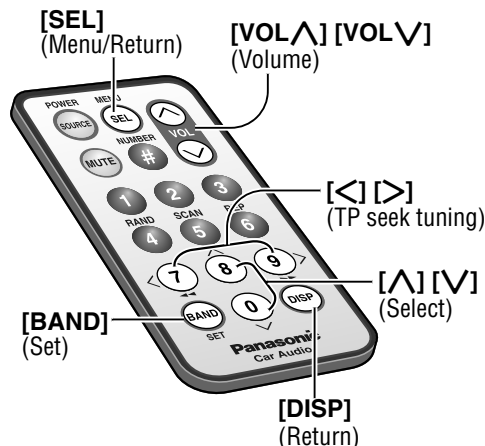
Muting in TA Mode

To listen to only traffic announcements. While listening to an FM station which is not currently broadcasting traffic announcement, turn the **[VOLUME]** counterclockwise or press **[VOLV]** (remote control) to set the volume to 0. The traffic announcement will be output at the TA volume level.

TA Standby Mode

When set to TA on with the unit in another mode (CD, MP3, CD changer, AUX), it will automatically switch to radio mode and output the traffic announcement.

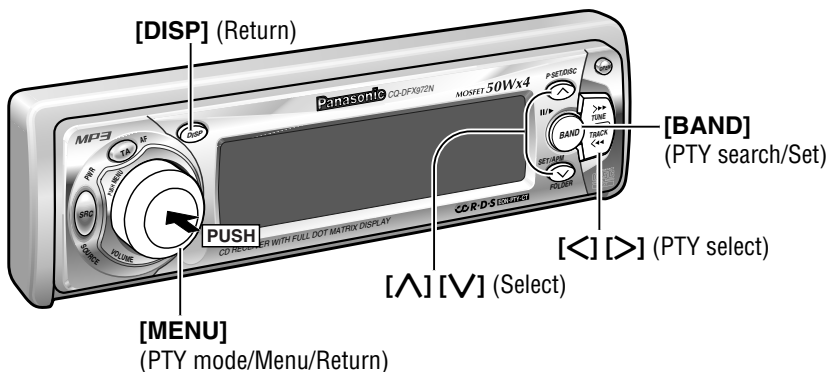
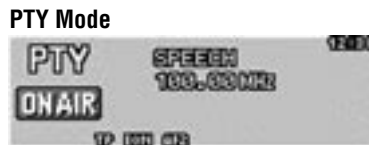
When the traffic announcement has finished, the unit will return to the previous mode.



Program Type (PTY) Reception

Program Type (PTY) Mode

Press and hold **[MENU] / [SEL]** for more than 2 seconds to switch the PTY display mode on. (Press and hold again to switch the PTY display mode off.)
PTY ON : The PTY function described below becomes enabled after selecting to the PTY mode.



PTY Language Selection (Menu Setting)

- Press **[MENU] / [SEL]** to display the RDS-PTY menu and press **[BAND]**.
- Press **[^]** or **[v]** to select the language, and press **[BAND]** to set.



(Default : English)

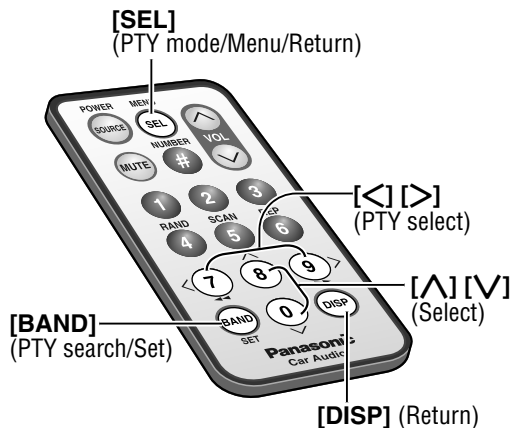
Note: Press **[MENU] / [SEL]** or **[DISP]** to return to the regular mode.

PTY Selection

- Press **[>]** to change the program type as shown below. (**[<]** : opposite direction)
- Select the desired program type and press **[BAND]**. Seek will start to tune in to a station broadcasting the selected program type. Press **[BAND]** again to cancel.



SPEECH	MUSIC	NEWS	AFFAIRS	→
INFO	SPORT	EDUCATE	DRAMA	→
CULTURE	SCIENCE	VARIED	POP M	→
ROCK M	EASY M	LIGHT M	CLASSICS	→
OTHER M	WEATHER	FINANCE	CHILDREN	→
SOCIAL	RELIGION	PHONE IN	TRAVEL	→
LEISURE	JAZZ	COUNTRY	NATION M	→
OLDIES	FOLK M	DOCUMENT		



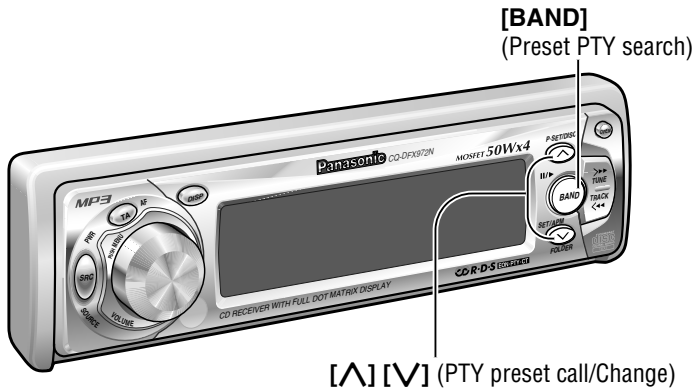
Note: When there is no corresponding program type station, "NONE" is displayed for 2 seconds.

Radio Data System (RDS) (continued)

Program Type (PTY) Reception

PTY Preset Call

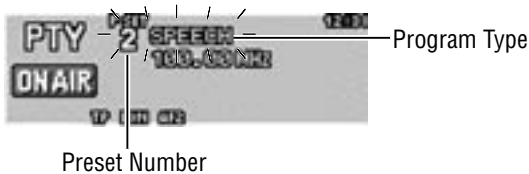
Program types are stored in memory under preset memory number 1 to 6 as shown in the table on the next page. To select the desired program type, press [^] or [v] or preset buttons on the remote control.



PTY Preset Change

- ❶ Select the desired program type by using PTY Selection or PTY Preset Call.
- ❷ Press and hold [^] or [v] for more than 2 seconds until the preset number blinks.
- ❸ Press [^] or [v] to select the desired preset number.
- ❹ Press and hold [^] or [v] for more than 2 seconds to memorize.

*On the remote control, select the program type and press and hold the preset button for more than 2 seconds.



Note: To suspend preset write, press [DISP].

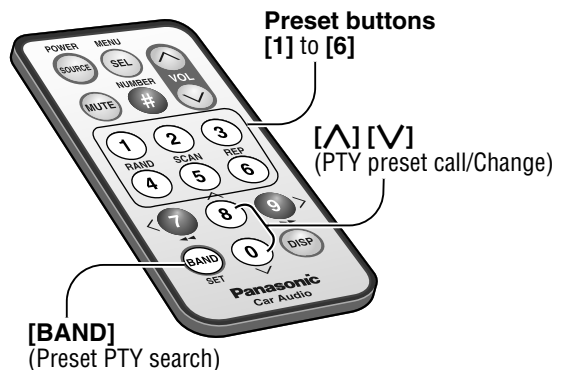
Preset PTY Search

- ❶ Select a desired program type by PTY preset call.
- ❷ Press [BAND] to tune in the same program type station.



Press [BAND] again to cancel.

Note: When there is no corresponding program type station, "NONE" is displayed for 2 seconds.



Program Type (PTY) Reception

PTY Preset (Default)

Preset No.	Program Type	When PTY search is activated, these program type is receivable.
1	NEWS	NEWS
2	SPEECH	AFFAIRS, INFO, EDUCATE, DRAMA, CULTURE, SCIENCE, VARIED, WEATHER, FINANCE, CHILDREN, SOCIAL, RELIGION, PHONE IN, TRAVEL, LEISURE, DOCUMENT
3	SPORT	SPORT
4	POP M	POP M
5	CLASSICS	CLASSICS
6	MUSIC	ROCK M, EASY M, LIGHT M, OTHER M, JAZZ, COUNTRY, NATION M, OLDIES, FOLK M

Other RDS functions

Enhanced Other Network (EON)

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

TA : Traffic information from the current and other network stations can be received.

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

EON enables the radio to make fuller use of RDS information. It constantly updates the AF list of preset stations, including that currently tuned in to. For example, if you preset a station far from home, you will later be able to receive the same station at an alternative frequency, or any other station serving the same program. EON also keeps track of locally available TP stations for quick reception.

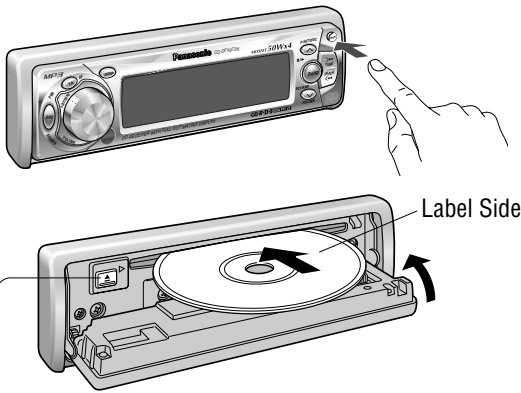
Emergency Announcement Reception

When an emergency announcement is broadcast, the unit is automatically switched to receiving that broadcast. (Even when in CD mode, MP3 mode, CD changer mode and AUX mode.). During receiving the emergency announcement, "ALARM" blinks on the display.



Note: Emergency announcements are broadcast at the TA volume level. (→ Page 12)

CD Player



1 Open the Front Panel

Press **[OPEN]** on the front panel.

2 Insert a Disc

Insert a disc and close the front panel. Playback will start automatically after the unit recognized the loaded disc as an ordinary music CD. (When a CD-R or CD-RW which has CD-DA formatted data is loaded, this unit recognizes it as an ordinary music CD.)



(Data reading)



(Ordinary music CD recognized and playback starts.)

Notes:

- Do not insert a disc when indicator lights because a disc is already loaded.
- The power will be turned on automatically when a disc is loaded. (**ACC ON**)
- If a disc contains both CD-DA and MP3 data, only first-recorded data is played.

When a disc is in the player...

Press **[SRC]** / **[SOURCE]** to select the CD player mode and playback starts.

CD Player Mode Display



Track Number Play Time

Lights when a disc is in the player

Track Selection

- [>>>]** : Next track
- [<<<]** : Beginning of the current track Previous track (Press twice.)

Fast Forward / Fast Reverse

- Press and hold **[>>>]** : Fast forward
- [<<<]** : Fast reverse
- Release to resume the playback.

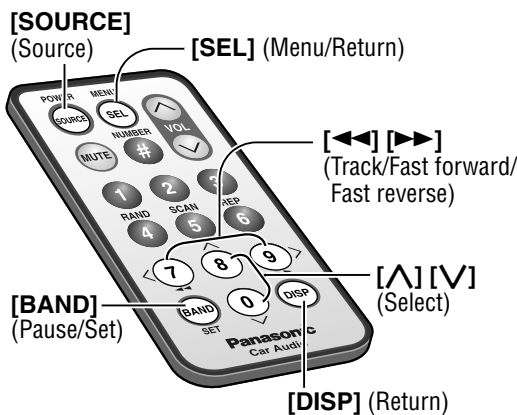
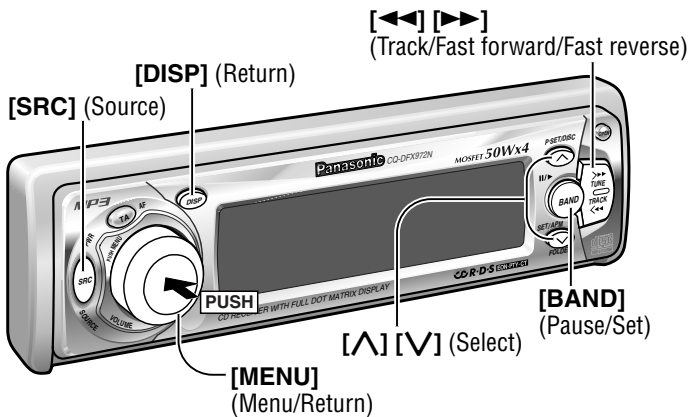
Pause

- Press **[BAND]** to pause.
- Press **[BAND]** again to resume the playback.

To Stop and Eject the Disc

Open the front panel and press **[▲]**.

Note: The unit returns to the previous mode when the disc is ejected in the CD player mode.



Cautions:

- Do not use irregularly shaped discs.
- Do not use discs that have a seal or label attached.
- Be sure to close the front panel while CD playback.
- To avoid damaging the front panel, do not push it down or place objects on it while it is open.
- Do not pinch your finger or hand in the front panel. Do not insert foreign matter into the disc slots.



Note: Refer to the section on “Notes on CD-Rs/RWs” (→ Page 39).

CD Menu Setting

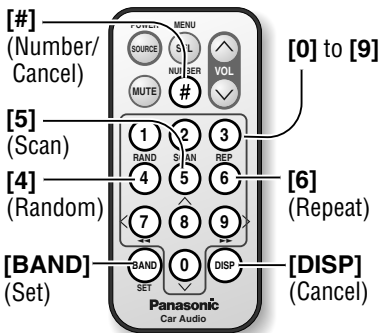
- ① Press **[MENU]** / **[SEL]** during CD playing.
- ② Press **[^]** or **[V]** to select an item.
- ③ Press **[BAND]** to switch on or off in turn.

CD Menu Display



Note: Press **[MENU]** / **[SEL]** or **[DISP]** to return to the regular mode.

Random Play	Select <input type="text" value="RAND"/>	<input type="text" value="ON"/> : All the available tracks are played in a random sequence. <input type="text" value="OFF"/> : Cancel
Repeat Play	Select <input type="text" value="REP"/>	<input type="text" value="ON"/> : Repeat the current selection. <input type="text" value="OFF"/> : Cancel
Title Display Default : ON	Select <input type="text" value="TITLE"/>	<input type="text" value="ON"/> : Display <input type="text" value="OFF"/> : No display <div style="text-align: center; margin-top: 10px;"> </div> <ul style="list-style-type: none"> ● “NO TITLE” is displayed when there is no information. <p>Note: Use a CD having CD text information. (Up to 62 letters can be displayed in scroll mode.)</p>
Title Scroll Default : ON	Select <input type="text" value="TITLE SCROLL"/>	<input type="text" value="ON"/> : Continuous scroll <input type="text" value="OFF"/> : Scroll stops after a circle scroll Press and hold [BAND] for more than 2 seconds to have an another circle scroll.



Direct Track Selection (Only for remote control)

Example: Track number 10

- ① Press **[#]**.
- ② Press **[1]** and **[0]**.
- ③ Press **[BAND]** to set.
The corresponding track starts playing.



Notes:

- To suspend direct track selection, press **[#]** or **[DISP]**.
- Random, repeat and scan play are canceled when **[#]** is pressed.

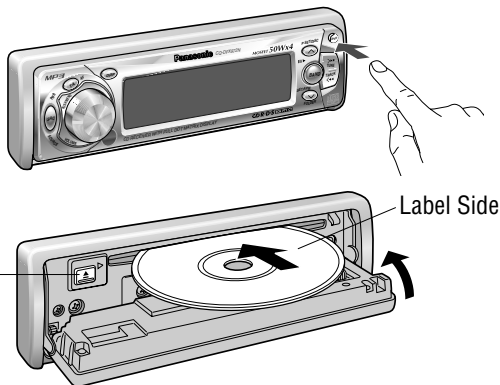
Random and Repeat Play (Setting with Remote Control)

Press **[4]** (Random) / **[6]** (Repeat).
Press again to cancel.

Scan Play (Only for remote control)

Press **[5]**. The first 10 seconds of each track play in sequence.
Press **[5]** again to cancel.

MP3 Player



To Stop and Eject the Disc

Open the front panel and press [▲].

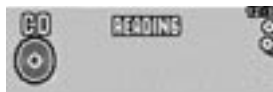
Note: The unit returns to the previous mode when the disc is ejected in the MP3 player mode.

1 Open the Front Panel

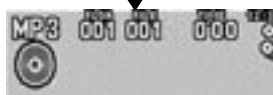
Press [OPEN] on the front panel.

2 Insert a Disc

Insert a disc and close the front panel. Playback will start automatically when an MP3 file has been recognized on the disc.



(Data reading)



(MP3 data recognized and playback starts)

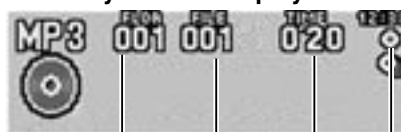
Notes:

- Do not insert a disc when the disc indicator lights because a disc is already loaded.
- The power will be turned on automatically when a disc is loaded. ([ACC ON])
- If you record many folders and MP3 files onto a disc, it may take up to a few minutes before playback starts.
- If a disc contains both CD-DA and MP3 data, only first-recorded data is played.

When a disc is in the player...

Press [SRC] / [SOURCE] to select the MP3 player mode and playback starts.

MP3 Player Mode Display



Folder Number File Number Play Time Lights when a disc is in the player

Folder Selection

- [^]: Next folder
- [v]: Previous folder

File Selection

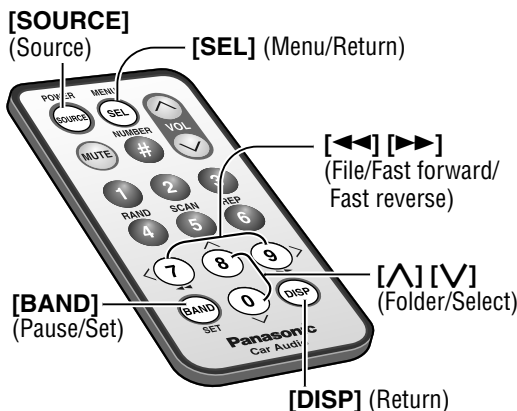
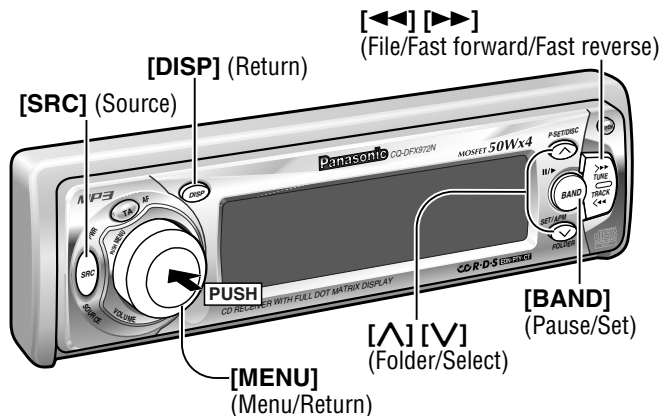
- [▶▶]: Next MP3 file
- [◀◀]: Beginning of the current MP3 file
Previous MP3 file (Press twice.)

Fast Forward / Fast Reverse

- Press and hold [▶▶]: Fast forward
- [◀◀]: Fast reverse
- Release to resume the playback.

Pause

- Press [BAND] to pause.
- Press [BAND] again to resume the playback.



Cautions:

- Do not use irregularly shaped discs.
- Do not use discs that have a seal or label attached.
- Be sure to close the front panel while MP3 playback.
- To avoid damaging the front panel, do not push it down or place objects on it while it is open.
- Do not pinch your finger or hand in the front panel. Do not insert foreign matter into the disc slots.

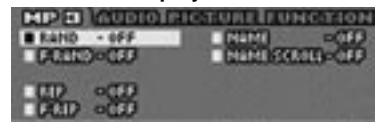


Note: Refer to the section on “Points to remember when recording an MP3 disc” (→ Page 20) and “Notes on CD-Rs/RWs” (→ Page 39).

MP3 Menu Setting

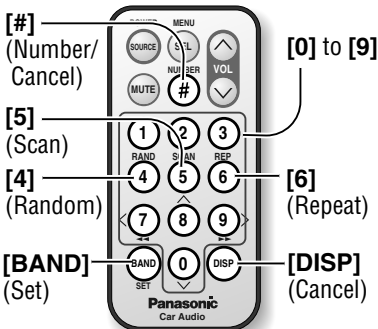
- ① Press **[MENU]** / **[SEL]** during MP3 playing.
- ② Press **[^]** or **[v]** to select an item.
- ③ Press **[BAND]** to switch on or off in turn.

MP3 Menu Display



Note: Press **[MENU]** / **[SEL]** or **[DISP]** to return to the regular mode.

Random Play	Select RAND	ON : All the available MP3 files in all folders are played in a random sequence.
		OFF : Cancel
	Select F. RAND (Folder)	ON : All the available MP3 files in current folder are played in a random sequence.
		OFF : Cancel
Repeat Play	Select REP	ON : Repeat the current MP3 file selection.
		OFF : Cancel
	Select F. REP (Folder)	ON : Repeat the current folder selection.
		OFF : Cancel
Name Display Default : ON	Select NAME	ON : Display
		OFF : No display
		<ul style="list-style-type: none"> • “NO NAME” is displayed when there is no information.
Name Scroll Default : ON	Select NAME SCROLL	ON : Continuous scroll
		OFF : Scroll stops after a circle scroll Press and hold [BAND] for more than 2 seconds to have another circle scroll.



Random and Repeat Play (Setting with Remote Control)

Press **[4]** (Random) / **[6]** (Repeat). Press again to cancel.

Press and hold **[4]** (Folder Random) / **[6]** (Folder Repeat) for more than 2 seconds. Press and hold again to cancel.

Direct Folder Selection (Only for remote control)

Folder number selection (Example: Folder number 005)

- ① Press **[#]**.
- ② Press **[5]**.
- ③ Press **[BAND]** to set. The corresponding folder starts playing.



Folder name selection

- ① Press and hold **[#]** for more than 2 seconds.
- ② Press **[^]** or **[v]** to select the folder.
- ③ Press **[BAND]** to set. The corresponding folder starts playing.



Notes:

- To suspend direct folder selection, press **[#]** or **[DISP]**.
- If there is no file in the specified folder, error message “CD E4” appears. (→ Page 44)
- Random, repeat and scan play are canceled when **[#]** is pressed.

Scan Play (Only for remote control)

Press **[5]**. The first 10 seconds of each MP3 file in all folders are played in sequence. Press **[5]** again to cancel.

Press and hold **[5]** for more than 2 seconds. From the next folder, the beginning 10 seconds of the first MP3 file in each folders are played in sequence. Press and hold **[5]** again to cancel.

MP3 Player (continued)

Points to remember when recording an MP3 disc

This player allows you to play MP3 files recorded on CD-ROMs, CD-Rs (Recordable) and CD-RWs (Rewritable).

What is MP3

MP3, short for MPEG Audio Layer-3, is a standard for compressing digital audio data adopted for video CDs and similar media. It is one of the audio compression systems covered by MPEG's (Motion Picture Experts Group) digital audio compression standards. What it does is reduce the number of bytes in a song without detracting from the sound quality by eliminating big sound waves within the sound range that is imperceptible to the human ear. This compression allows you to reduce the contents of a conventional music CD by a factor of around 10. This means that you can record the contents of 10 music CDs on a single CD-R or CD-RW. (The figures refer to data recorded on a 650 MB CD-R or CD-RW at a fixed bit rate of 128 kbps and a sampling frequency of 44.1 kHz.)

■ Converting (encoding) audio data to an MP3 file

- It is recommended to set the bit rate to "128 kbps or more" and "Fixed".
- Bit rate 8 kbps of MPEG-2 and sampling frequency 16 kHz of MPEG-2 can not be reproduced.
- If set to VBR (Variable Bit Rate), the file playing time may not be displayed correctly, and the bit rate value on the AUDIO indicator may flicker.
- The playback sound quality differs depending on the encoding software and the bit rate. For details refer to the user manual of your encoding software.

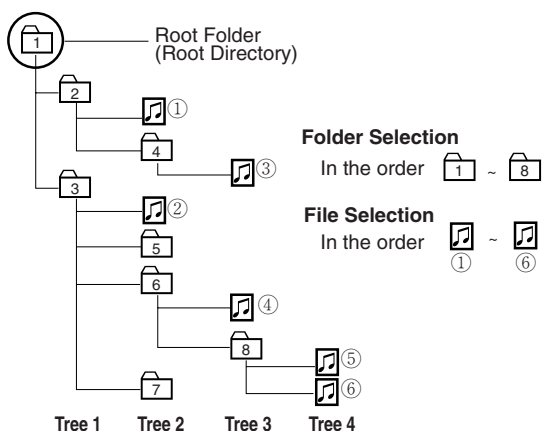
■ Recording MP3 files on a CD-R/RW

- Do not record files other than MP3s or unnecessary folders on a disc. If many folders or files other than MP3s are recorded on a disc, it may take up to 150 seconds before playback starts, and you may have difficulties using fast forward and fast reverse.
- Use ISO 9660 file system (Extension of the ISO 9660 file systems are included.) APPLE HFS file system is not supported. If they do not conform to ISO 9660 file system, the file may not play normally, or the file or folder names may not be displayed correctly.
- Make sure to add the ".mp3" extension to each MP3 file name. A file with a different file name extension or none at all will not play.
- Although Multi session recording is supported, the use of Disc-at-Once is recommended. Make sure to close the session when you finished recording on a disc.
- ID3Tag character information is not displayed. A file in which character information was recorded by use of ID3Tag 2.0 or later version may not be reproduced normally. For example, the file playing time may not be displayed correctly.
- Packet writing software is not supported.
- A playlist function is not supported. Record files and folders in the order in which you want them to be played. Some writing software lets you specify the recording order by adding a prefix in the range of "01" - "99", etc. to the file name. For details refer to the user manual of your writing software.

Note: You may encounter trouble in playing MP3s or displaying the information of MP3 files recorded with certain writing softwares or CD recorders (CD-R/RW drives).

Caution: Never assign the ".mp3" file name extension to a file that is not in the MP3 format. This may not only produce noise from the speakers and speaker damage, but can damage your hearing.

Folder Selection Order / MP3 file playback order (Example)



Notes:

- This unit counts the number of folders irrespective of the presence or absence of MP3 file.
- If the selected folder does not contain any MP3 files, the nearest MP3 files in the order of playback will be played.
- Playback order may be different from other MP3 players even if the same disc is used.
- "ROOT" appears when displaying the root folder's folder name.

Maximum number of files/folders

- Maximum number of trees: 8
- Maximum number of files/folders: 254 (files + folders. Root folder is not included.)

Note: If the total of files and folders exceeds 254, successful playback may not be performed.

Supported file systems and file names

Supported file system	Displayable folder names and file names
ISO 9660 Level 1	<p>Name files and folders in accordance with the standard of each file system. Refer to the instructions of writing software for details.</p> <ul style="list-style-type: none"> • This player can display file names of up to 31 letters in scroll mode. * Up to 15 letters can be displayed when scrolling in the Joliet system. • ASCII character set and special characters in each language can be displayed. Undisplayable characters and symbols will be converted into an asterisk (*). <p>ASCII character set: ASCII character set consisting of A to Z, a to z, digits 0 to 9, and the following symbols: (space) ! " # \$ % & ' () * + , - . / : ; < = > ? @ [\] ^ _ ` { } ~</p>
ISO 9660 Level 2	
Joliet*	
Romeo	
Apple Extension to ISO 9660	

Glossary

ISO 9660: The most common international standard for the logical format for files and directories.

APPLE HFS: The file system used by the Macintosh operating system to organize data. **(Not supported)**

Multi-session: A method of adding data incrementally to a CD-R or CD-RW in more than one recording session.

Disc-at-Once: A method of writing data in a media by just one operation and no more writing after that.

ID3Tag: A function that allows character information (title, artist, album title, date, etc.) to be written onto the disc. **(Not displayed → Page 20)**

Packet writing: A method of writing data on a CD media in small increments. **(Not supported)**

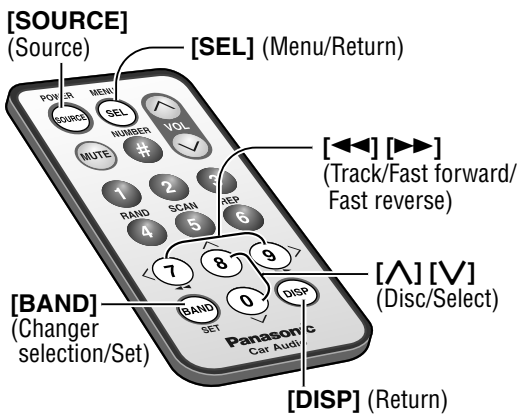
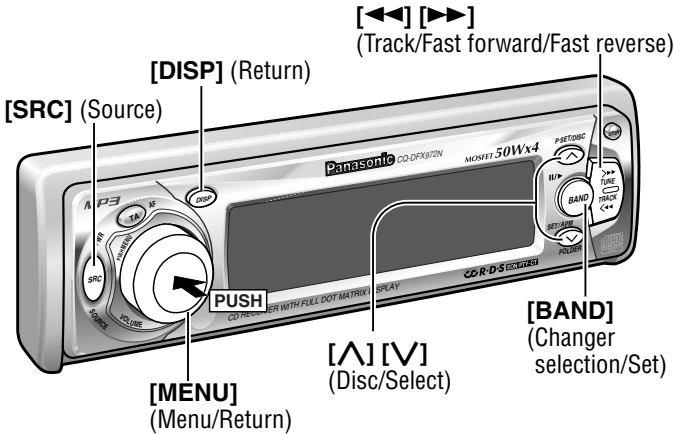
Copyright

It is prohibited by copyright laws to copy, distribute and deliver copyrighted materials such as music without the approval of copyright holder except enjoying yourself personally.

Note: MP3 encode software and writing software are not supplied to this model.

CD Changer Control

CD changer functions are designed for optional Panasonic CD changer unit. (→ Page 36 and 37 for connection)



Insert the Magazine

Playback starts.

Notes:

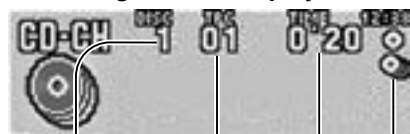
- The power will be turned on automatically when a magazine is loaded. (**ACC ON**)
- The unit returns to previous mode when the magazine is ejected in the CD changer mode.

When the magazine is in the changer...

Press [SRC] / [SOURCE] to select the CD changer mode and playback starts.

Note: Load a magazine with CDs when "NO DISC" is displayed.

CD Changer Mode Display



Disc Number Track Number Play Time
Lights when a CD changer is connected

Disc Selection

- [^] : Next disc
- [v] : Previous disc

Track Selection

- [>>] : Next track
- [<<] : Beginning of the current track Previous track (Press twice.)

Fast Forward / Fast Reverse

Press and hold

[>>] : Fast forward

[<<] : Fast reverse

Release to resume the playback.

CD Changer Selection

Preparation: Connect another CD changer by using an optional dual CD changer selector (CA-CD55EN).

Press [BAND] to select CD changer 1 or CD changer 2.



Example: CD changer 2 is selected.

Note: This selection is not possible when there is no magazine in the CD changer.

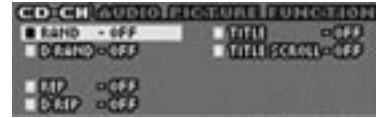


Note: CD text is displayed when the unit is connected to a CD changer capable of recognizing CD text (CX-DP9061EN, for example).

CD Changer Menu Setting

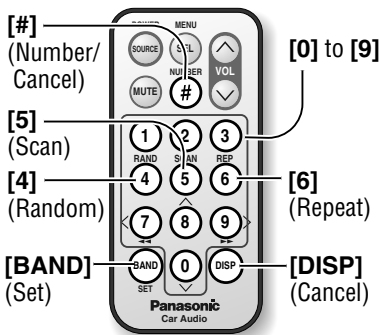
- ① Press **[MENU]** / **[SEL]** during CD changer playing.
- ② Press **[^]** or **[v]** to select an item.
- ③ Press **[BAND]** to switch on or off in turn.

CD Changer Menu Display



Note: Press **[MENU]** / **[SEL]** or **[DISP]** to return to the regular mode.

Random Play	Select	ON	: All the available tracks on all discs in the magazine are played in a random sequence.
	RAND	OFF	: Cancel
	Select	ON	: All the available tracks on current disc are played in a random sequence.
	D. RAND (Disc)	OFF	: Cancel
Repeat Play	Select	ON	: Repeat the current track selection.
	REP	OFF	: Cancel
	Select	ON	: Repeat the current disc selection.
	D. REP (Disc)	OFF	: Cancel
Title Display Default : ON	Select	ON	: Display
	TITLE	OFF	: No display
		<ul style="list-style-type: none"> ● "NO TITLE" is displayed when there is no information. Note: Use a CD having CD text information. (Up to 62 letters can be displayed in scroll mode.) 	
Title Scroll Default : ON	Select	ON	: Continuous scroll
	TITLE SCROLL	OFF	: Scroll stops after a circle scroll Press and hold [BAND] for more than 2 seconds to have an another circle scroll.



Direct Disc Selection (Only for remote control)

Example: Disc number 05

- ① Press **[#]**.
- ② Press **[5]**.
- ③ Press **[BAND]** to set.
The corresponding disc starts playing.



Notes:

- To suspend direct disc selection, press **[#]** or **[DISP]**.
- Random, repeat and scan play are canceled when **[#]** is pressed.

Scan Play (Only for remote control)

Press **[5]**. The first 10 seconds of each track on all discs are played in sequence. Press **[5]** again to cancel.

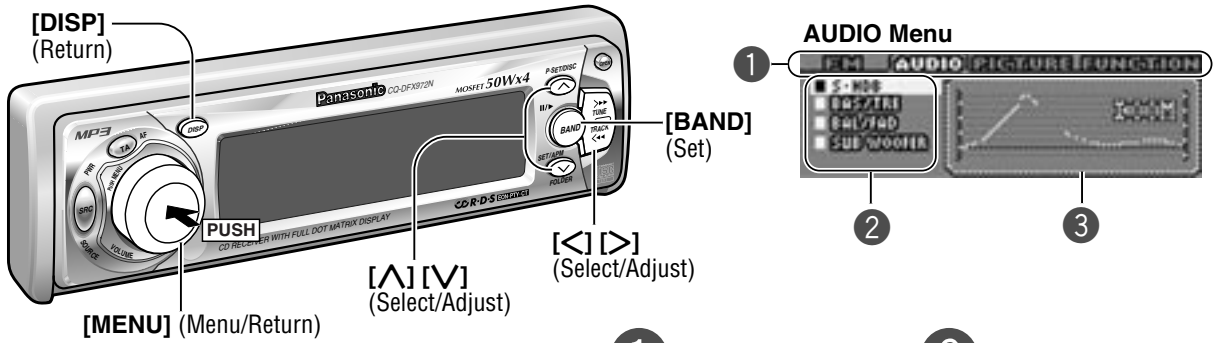
Press and hold **[5]** for more than 2 seconds. From the next disc, the beginning 10 seconds of the first track on each discs are played in sequence. Press and hold **[5]** again to cancel.

Random and Repeat Play (Setting with Remote Control)

Press **[4]** (Random) / **[6]** (Repeat). Press again to cancel.

Press and hold **[4]** (Disc Random) / **[6]** (Disc Repeat) for more than 2 seconds. Press and hold again to cancel.

Audio Setting - AUDIO Menu



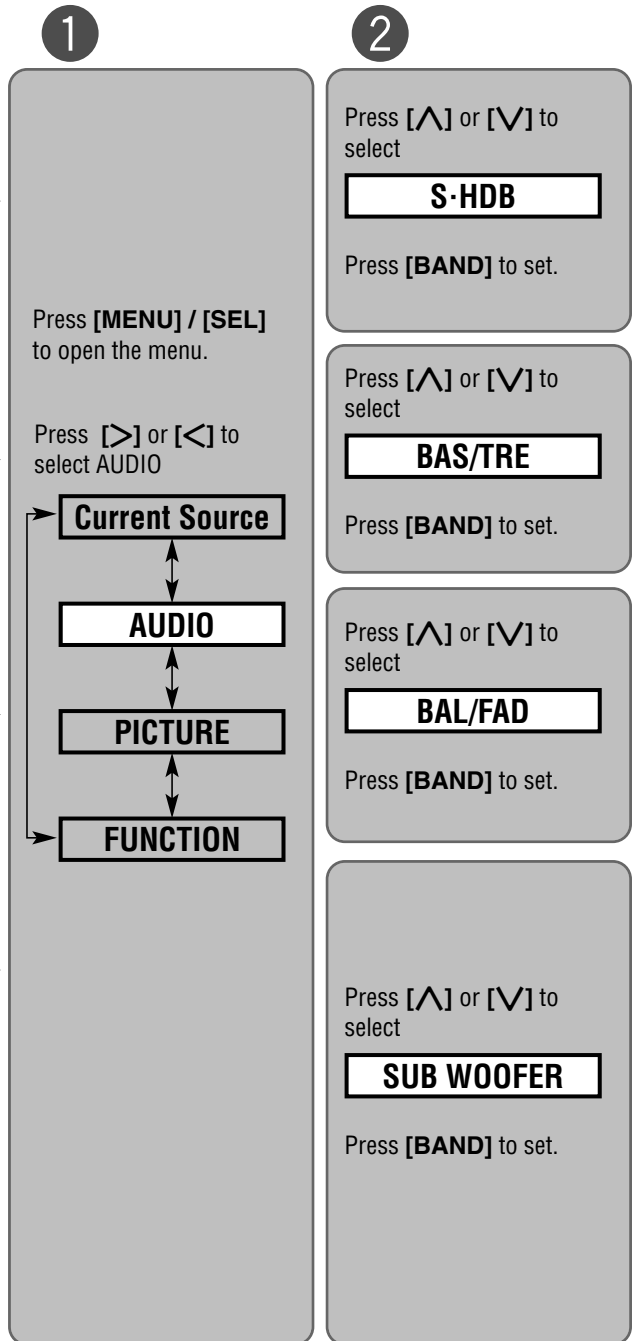
Super High Definition Bass (S-HDB)
Especially for rock music, the bass-sound will be more powerful.
Default : S-HDB OFF

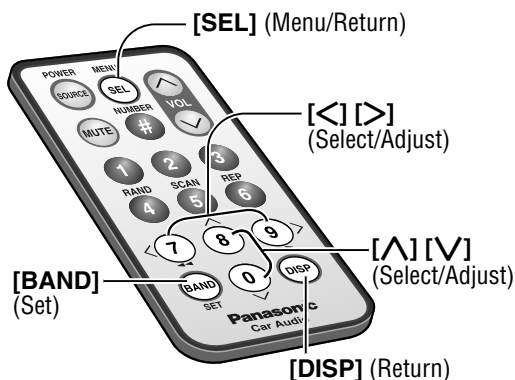
Bass and Treble
Turn the bass/treble level up and down.
Default : (BAS) 0 (TRE) 0
Setting range : -12 to +12 dB (in 2 dB step)

Balance and Fader
You can adjust the sound balance among the front, rear, right and left speakers.
Default : (BAL) Center (FAD) Center
Setting range : 15 levels each

Sub-Woofer Volume
Default : 0
Setting range : Mute (-∞), -6 to +6 dB (in 2 dB step)

Sub-Woofer Low Pass Filter
Select the upper limit frequency of the sound from Sub-Woofer.
Default : 120 Hz
Setting range : 80 Hz or 120 Hz





Note: Press [MENU] / [SEL] or [DISP] to return to the regular mode.

3

[^] or [v] to change.

- S:HDB OFF** : S:HDB off
- BOOM** : The bass sound of the speakers are strongly emphasized.
- TIGHT** : The bass sounds of the speakers are moderately emphasized. (The sound of the Sub-Woofers can be heard clearly.)



- ① Press [>] or [<] to select "BAS" (Bass) or "TRE" (Treble).
- ② [^] : Enhanced
[v] : Decrease



- [>] : Right enhanced
- [<] : Left enhanced
- [^] : Front enhanced
- [v] : Rear enhanced



- ① Press [^] or [v] to select "LEVEL".
- ② [>] : Up
[<] : Down

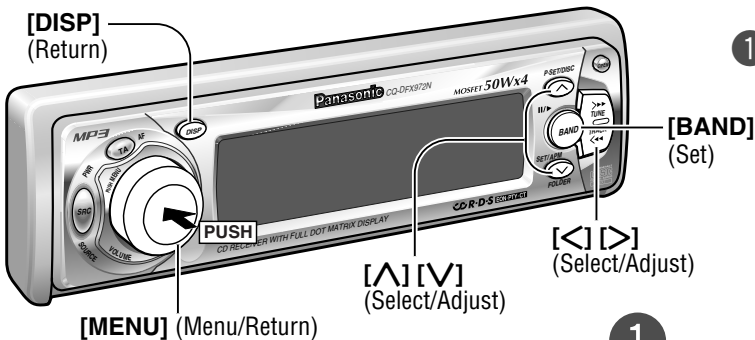


- ① Press [^] or [v] to select "LPF".
- ② Press [>] or [<] to change.

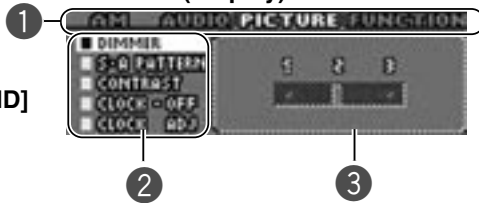
- 80Hz** : No more than 80 Hz
- 120Hz** : No more than 120 Hz



Display Setting - PICTURE Menu



PICTURE (Display) Menu



Dimmer

Default : DIMMER 3

Spectrum Analyzer Display Pattern

Default : Pattern A
Variety : 6 types

Contrast

Default : Level 3
Setting range : Level 1 to Level 5

Small Clock Display

Default : ON (Not adjusted. "-- : --" will appear.)

Clock Adjustment

When receiving an RDS station, the Clock Time (CT) service automatically adjusts the time. (→ Page 10) If CT service is not available, adjust the clock.

1 Press [MENU] / [SEL] to open the menu.

Press [>] or [<] to select PICTURE

Current Source

AUDIO

PICTURE

FUNCTION

2 Press [^] or [V] to select

DIMMER

Press [BAND] to set.

Press [^] or [V] to select

S-A PATTERN

Press [BAND] to set.

Press [^] or [V] to select

CONTRAST

Press [BAND] to set.

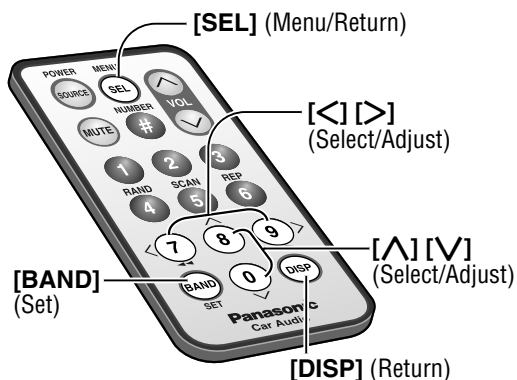
Press [^] or [V] to select

CLOCK

Press [^] or [V] to select

CLOCK ADJ

Press [BAND] to set.



Note: Press [MENU] / [SEL] or [DISP] to return to the regular mode.

3

[>] or [<] to change.

- 3 : Brighter
- 2 : Medium
- 1 : Darker



[>] or [<] to change.

- A : Display showing a cube that continues to change.
- B : Display showing a globe that continues to change.
- C : Display showing the image of a soccer.
- D : Display showing a text.
- E : Display showing the image of a circuit.
- STD : Standard spectrum analyzer display (9 band).



Note: Switch the screen display to have the Spectrum Analyzer Display. (→ Page 7)

[>]: Decrease the contrast.

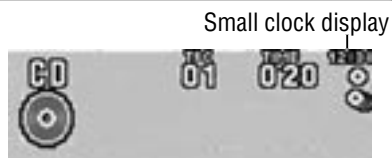
[<]: Increase the contrast.



Increase Decrease

Press [BAND] to switch on or off in turn.

- ON : Small clock display is on.
- OFF : Small clock display is off.



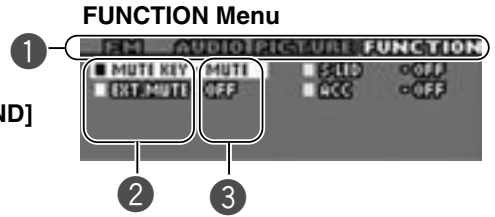
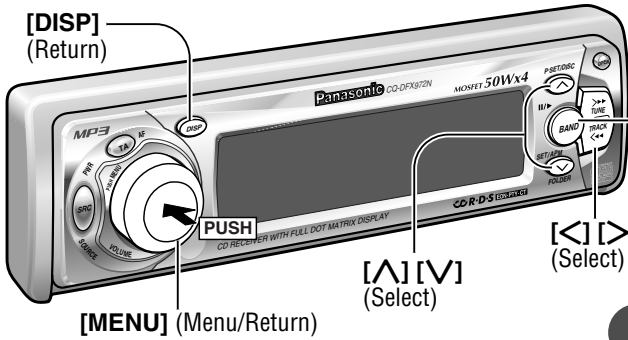
Small clock display

- ① Press [>] or [<] to select hour or minute display.
- ② [^] : Put forward hour/minute.
[v] : Put back hour/minute.
- ③ Press [BAND] to set.



(24 hour system)

Function Setting - FUNCTION Menu



Mute / Attenuation

Decreasing range by pressing [MUTE] button can be selected. (→ Page 7)

Default : MUTE

External Mute

Allows you to mute the current source while your navigation system provides voice guidance or car telephone conversation is in progress. (→ Page 35 about External Mute Lead connection)
Default : LV 0

Security Function

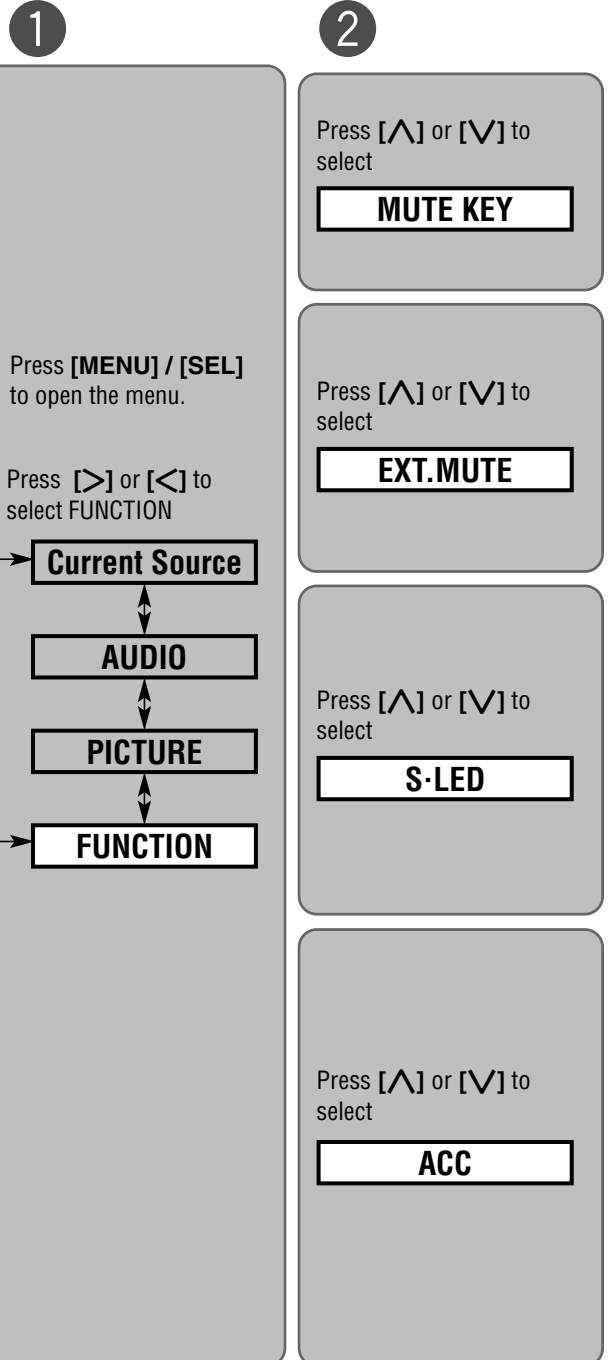
Allows you to activate the anti-theft function when leaving your car.

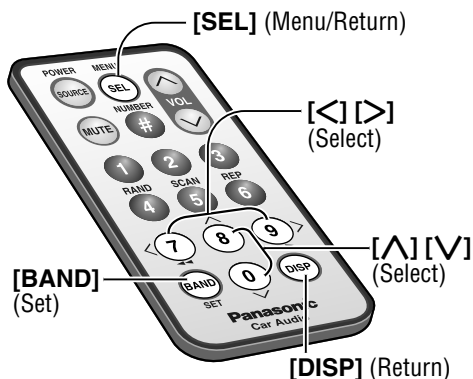
Default : ON

ACC Selection

Default : OFF

Caution: Be sure to select OFF when your car has no ACC position in the ignition switch. Failure to do this could cause the battery to go dead.





Note: Press [MENU] / [SEL] or [DISP] to return to the regular mode.

3

Press [BAND] to switch between mute or attenuation in turn.

- MUTE : No sound
- ATT : Decrease to 1/10

Press [BAND] to change the volume level of the sound source as shown.

- LV0 : No sound
- LV1 : Decrease 15 levels
- LV2 : Decrease 5 levels
- OFF : Unchanged

Note: The setting state of the External Mute is displayed when the voice guidance or car telephone is used (except when the setting state is OFF).



Press [BAND] to activate the function or inactivate it in turn.

- ON : Security function is activate.
- OFF : Security function is not activate.

Security Function

When the power of this unit is turned OFF...
When the key in the ignition is turned OFF... (**ACC ON**)

- Security message will be displayed.
- The panel removal alarm will be active. (⇒ Page 33)

When the front panel is removed...
● The security indicator blinks.
(⇒ Page 33)



(Security message)

Press [BAND] to switch the ACC on or off in turn.

- ON : Set to ON if your car has ACC position.
- OFF : Set to OFF if your car has no ACC position.

ACC ON

- The demonstration message is shown when [SRC] / [SOURCE] is pressed for 4 seconds or more to turn on the power.
- The ending is shown when power is switched off.
- Power is turned on when a disc or magazine is inserted while power is off.
- The Clock Time can be displayed while power is off.
- When the ignition key is turned to OFF, the security message is shown and the panel removal alarm sounds (at Security Function ON setting).

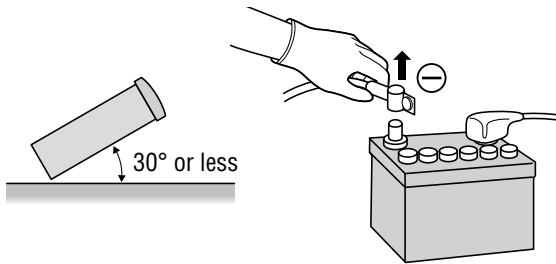
ACC OFF

- When power is turned off, the security message is shown and the panel removal alarm sounds (at Security Function ON setting).

Installation

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°.

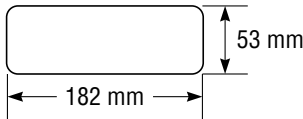


Caution: Do not disconnect the battery terminals of a car with trip or navigational computer since all user settings stored in memory will be lost. Instead take extra care with installing the unit to prevent shorts.

Dashboard Installation

Installation Opening

The unit can be installed in any dashboard having an opening as shown at right. The dashboard should be 4.5 mm - 6 mm thick in order to be able to support the unit.



Installation Precautions

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

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

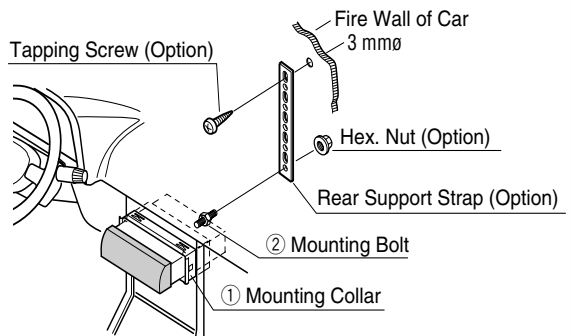
1. This system is to be used only in a 12-volt, DC battery system (car) with negative ground.
2. Follow the electrical connections carefully (→ Page 34). Failure to do so may result in damage to the unit.
3. Connect the power lead (red) after all other connections are made.
4. Be sure to connect the 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 equipment before connecting it to this unit.

Supplied Hardware

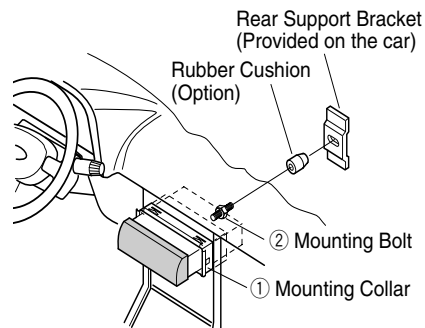
No.	Item	Diagram	Q'ty
①	Mounting Collar		1
②	Mounting Bolt (5 mmø)		1
③	Power Connector		1
④	Removable Face Plate Case		1
⑤	Trim Plate		1
⑥	ISO Antenna Adapter		1
⑦	Lock Cancel Plate		2

Methods for Fixing the Rear of the Unit

(a) Using the Rear Support Strap (Option)



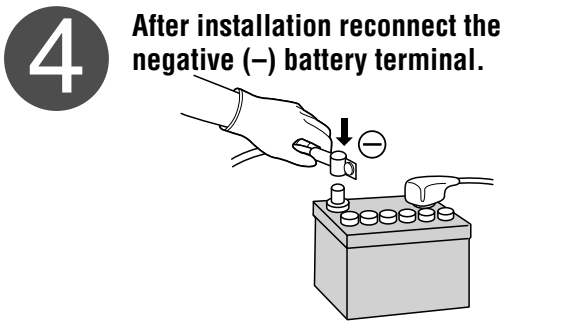
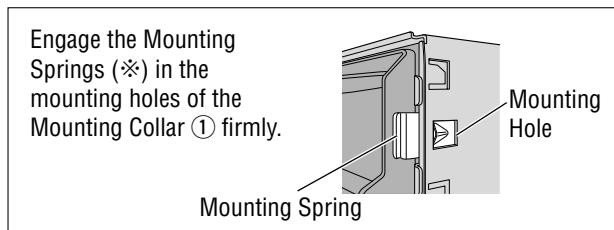
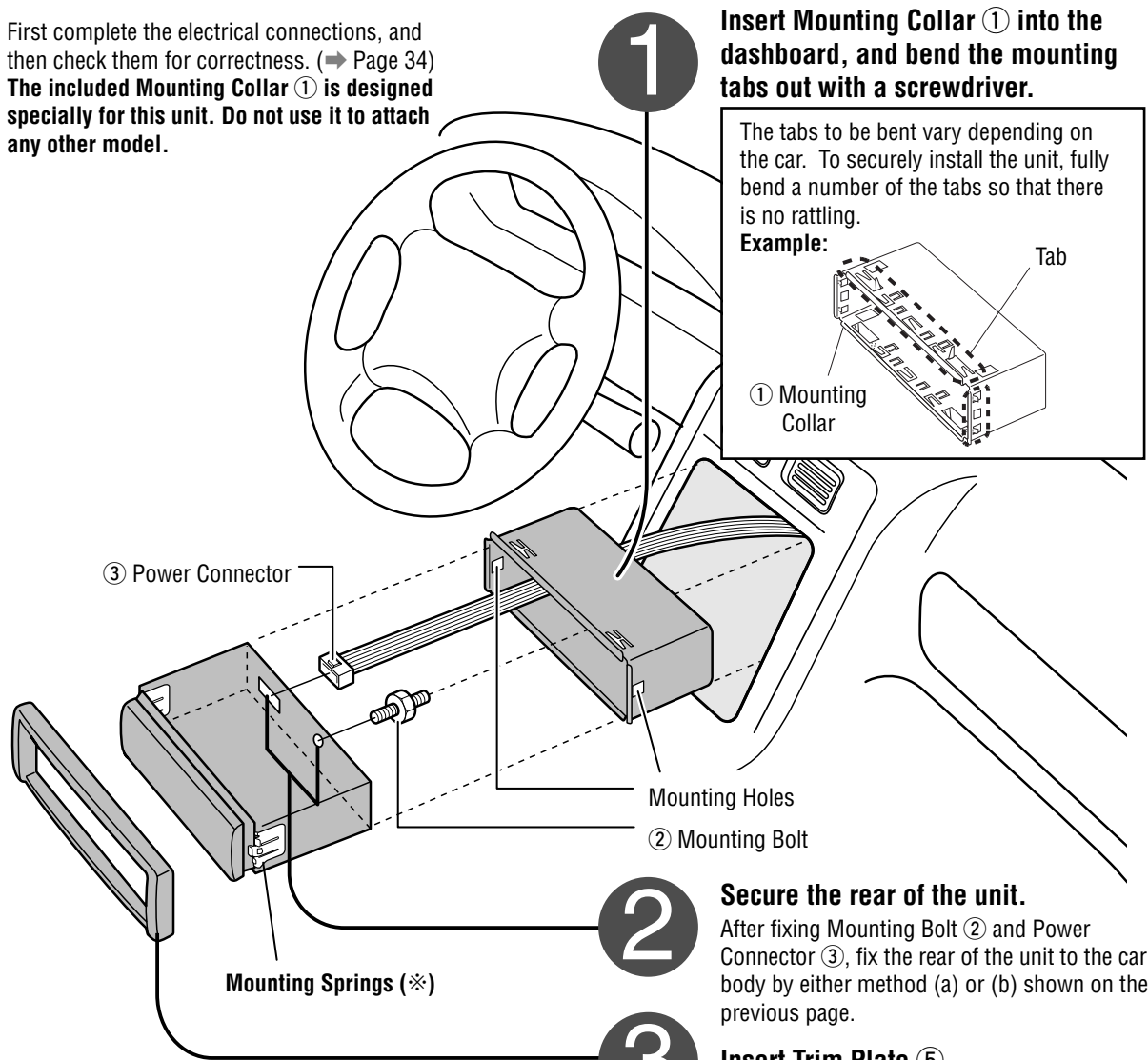
(b) Using the Rubber Cushion (Option)



Cautions:

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

First complete the electrical connections, and then check them for correctness. (➔ Page 34)
The included Mounting Collar ① is designed specially for this unit. Do not use it to attach any other model.

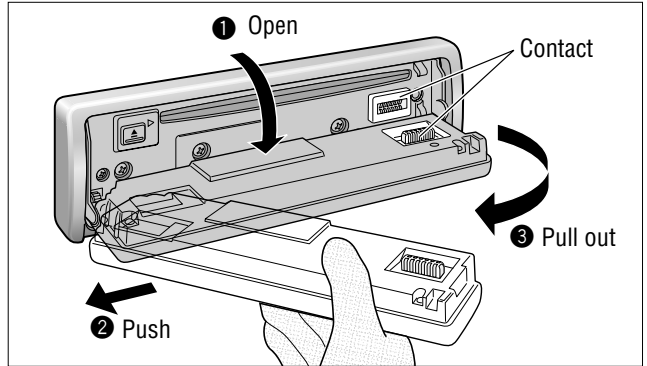
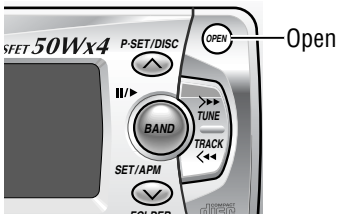


Installation (continued)

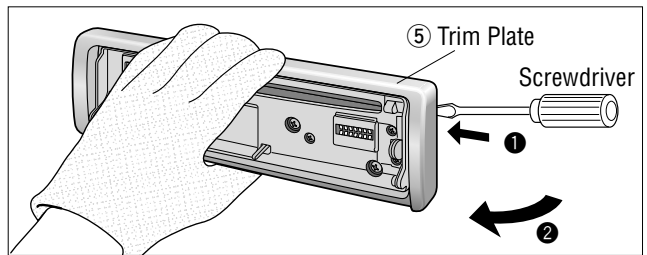
To Remove the Unit

Switch off the power of the unit.

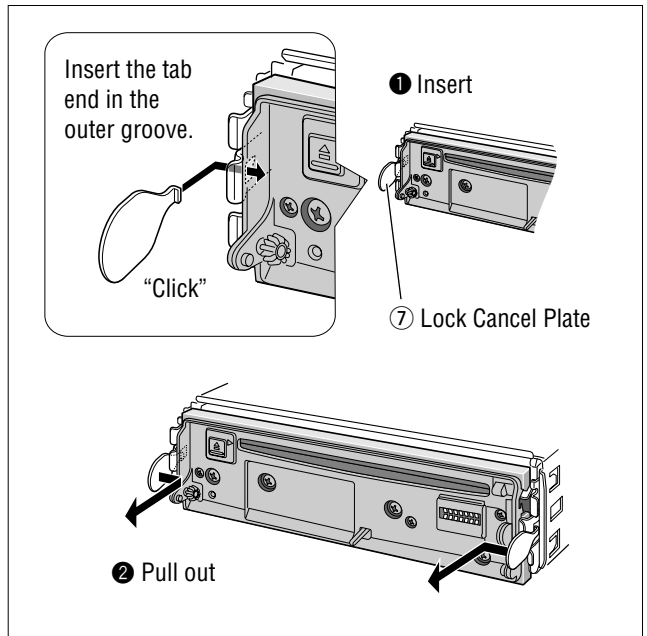
- 1 Remove the removable face plate.
 - 1 Press **[OPEN]**. The removable face plate will be opened.
 - 2 Push the face plate to either the right or left.
 - 3 Pull it out toward you.



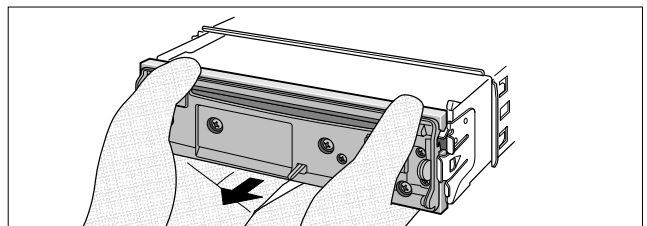
- 2 Remove the Trim Plate ⑤ with a screwdriver.



- 3
 - 1 Insert the Lock Cancel Plates ⑦ along the grooves on both sides of the main unit until "click" is heard.
 - 2 Pull out the unit while pushing the plates further inside.



- 4 Remove the unit pulling with both hands.

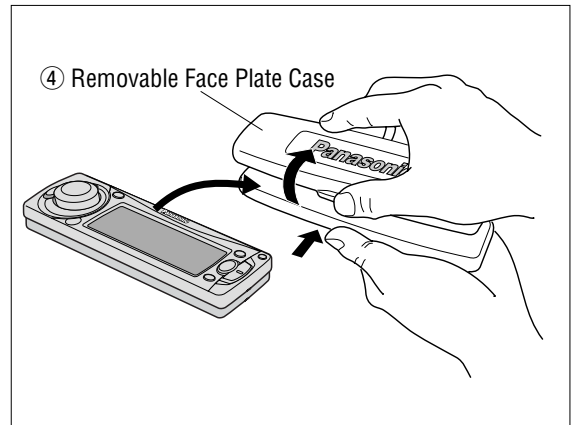


Anti-Theft System

This unit is equipped with a removable face plate. Removing this face plate makes the radio totally inoperable. The security indicator will blink.

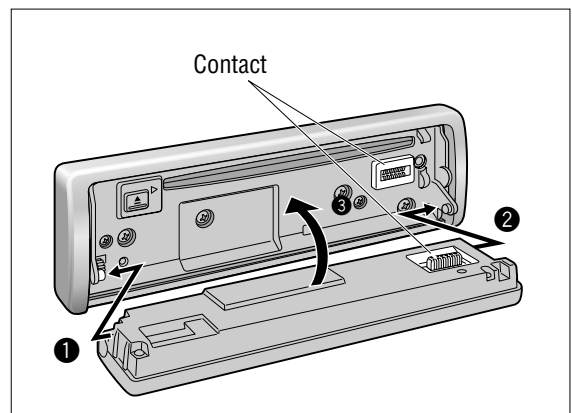
Place Removable Face Plate into Case

- 1 Switch off the power of the unit.
- 2 Remove the removable face plate.
(⇒ Page 32)
- 3 Gently press the bottom of the case and open the cover. Place the face plate into the case and take it with you when you leave the car.



Install Removable Face Plate

- 1 Fit the face plate with its right or left hole on one of the pins provided on the main unit.
- 2 Fit the other hold on the other pin applying slight pressure.
- 3 Move the face plate up and down a few times to make sure it is secure. Then close the front panel and press down the right side of the face plate until it clicks into place.



Security Indicator

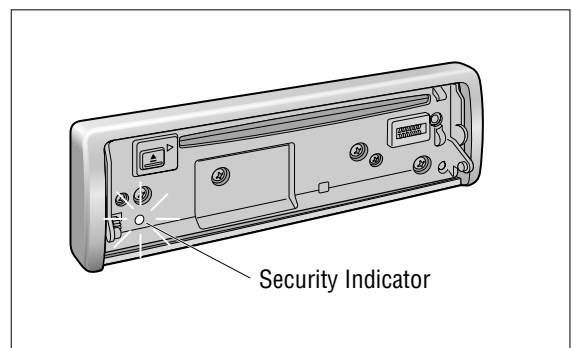
The security indicator blinks when the removable face plate is removed from the unit.

This function is activated when the Security Function is ON.
(⇒ Page 28)

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 Function is ON.
(⇒ Page 28)



Cautions:

- This face plate is not waterproof. Do not expose it to water or excessive moisture.
- Do not remove the face plate while driving your car.
- Do not place the face plate on the dashboard or nearby areas where the temperature rises to high levels.
- Do not touch the contacts on the face plate or on the main unit, since this may result in poor electrical contacts.
- If dirt or other foreign substances get on the contacts, wipe them off with clean and dry cloth.
- To avoid damaging the front panel, do not push it down or place objects on it while it is open.

Electrical Connections

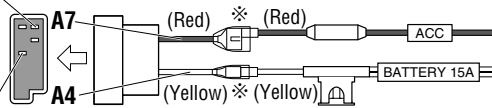
Precautions (ISO Connector)

- The pin arrangement of the power connector conforms to ISO standard.
- The pin arrangement of ISO connectors in some cars may differ from the ISO standard.
- Please check that the pin arrangement of the connector in your car conforms to ISO standard.
- For car types A and B, change the wiring of the red and yellow leads as shown at below.
- After connection, insulate the portions marked (*) with insulating tape.

Note: For cars other than types A and B, please consult your local car shop.

ISO Standard ISO

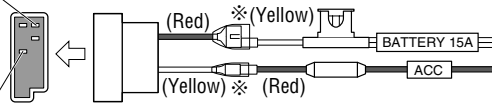
A7: IGN or ACC switched 12 V supply



A4: +12 V Battery (Permanent supply)

A Car Type A

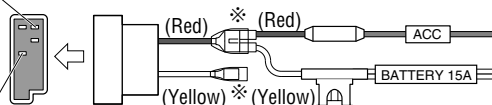
A7: +12 V Battery (Permanent supply)



A4: IGN or ACC switched 12 V supply

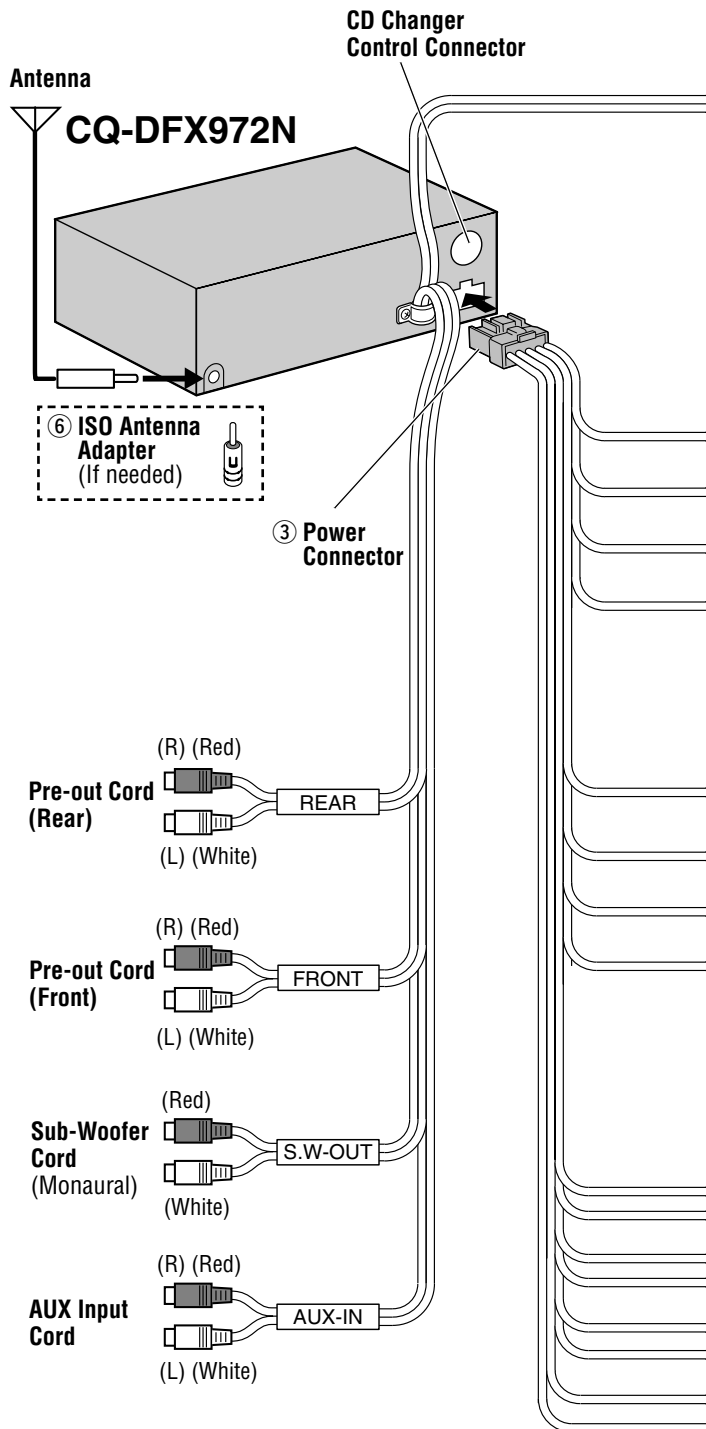
B Car Type B

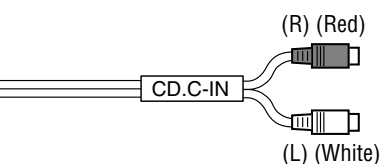
A7: +12 V Battery (Permanent supply)



A4: No connection

Wiring Diagram

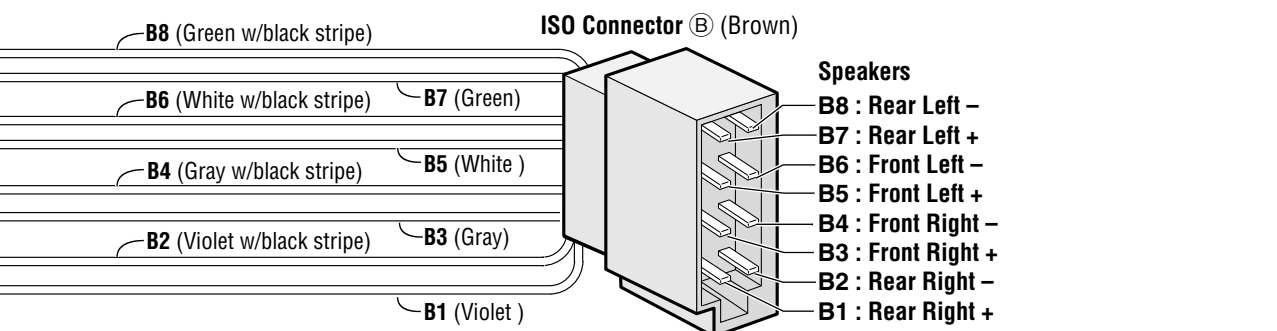
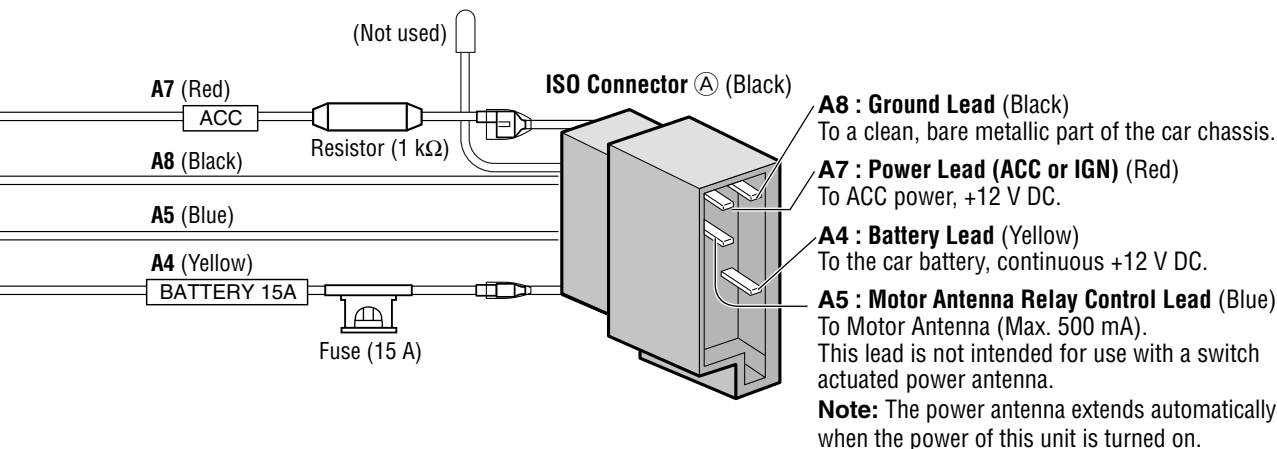
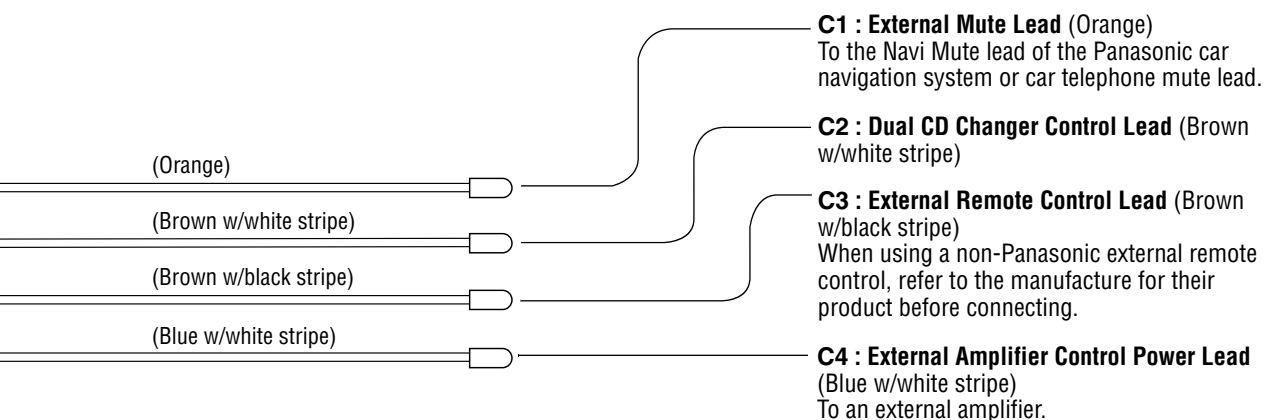




CD Changer Input Cord

Cautions:

- Check the connectors provided on your car (see precaution below) before connecting the system.
- This unit is designed for use in a car having a 12-volt negative ground battery system.
- To prevent damage to the unit, be sure to follow the connection diagram.
- Strip about 5 mm of the lead ends for connection (only non-ISO connector cords).
- Do not insert the power connector into the unit until the wiring is completed.
- Be sure to insulate any exposed wires to prevent short circuiting with the car chassis. Bundle all cables, and prevent cable terminals from touching any metal parts.



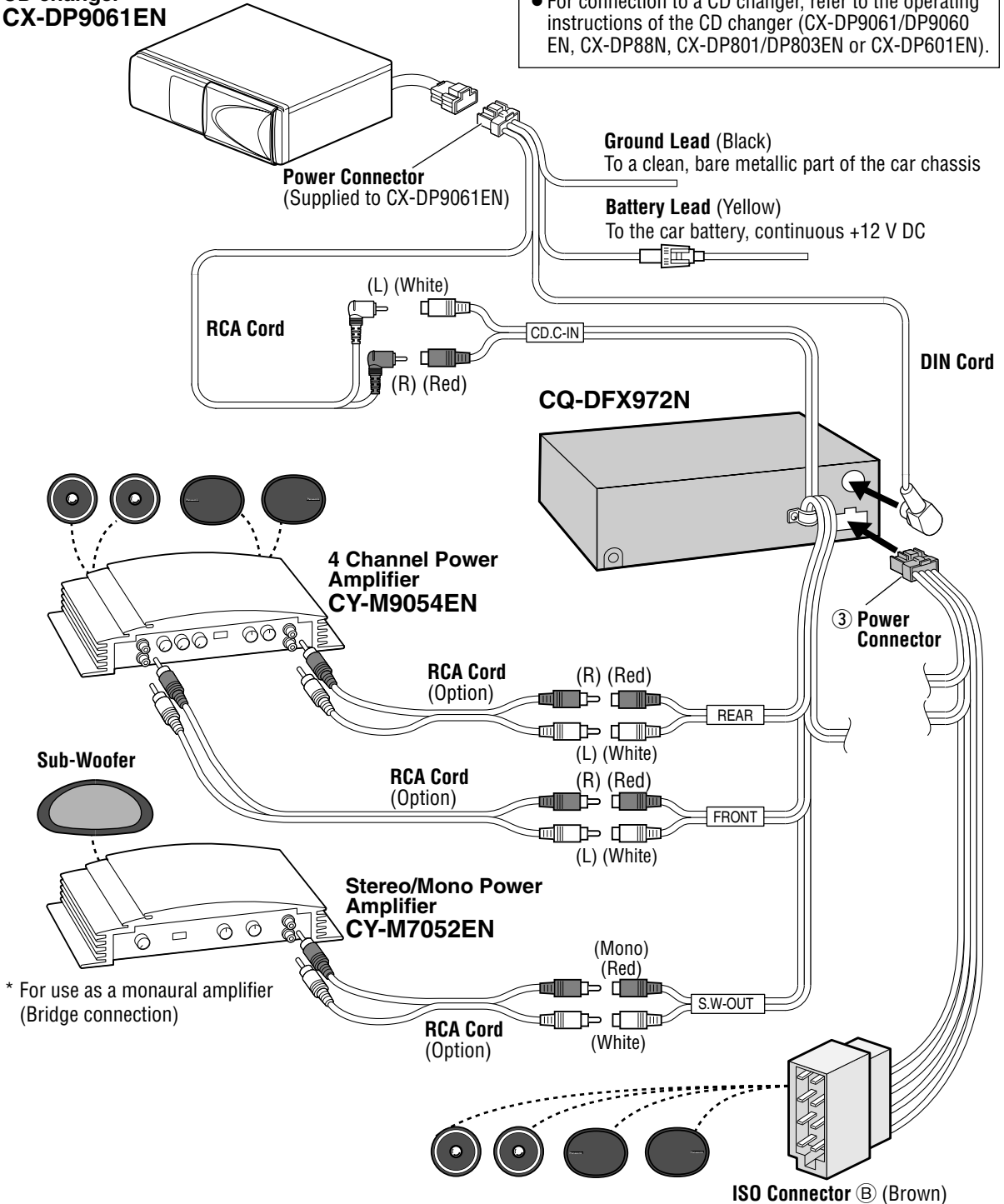
Electrical Connections (continued)

System Upgrade Example 1 : Nine Speakers and CD Changer

Combination: CD Changer (CX-DP9061EN),
4 Channel Power Amplifier (CY-M9054EN) and
Stereo/Mono Power Amplifier (CY-M7052EN)

CD text recognizable
CD changer
CX-DP9061EN

- This unit can be connected to an optional CD changer (CX-DP9061/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).

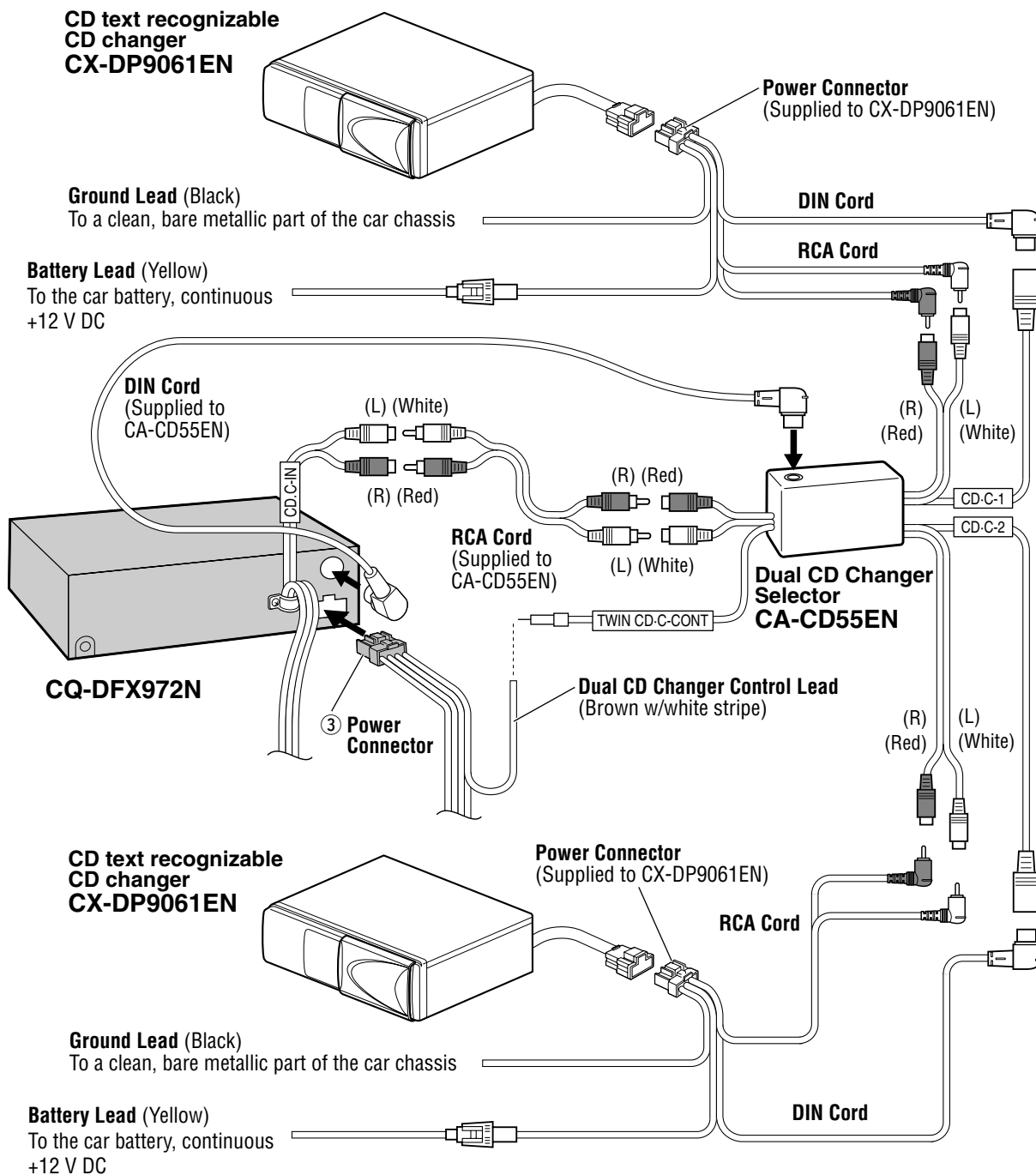


* For use as a monaural amplifier
(Bridge connection)

System Upgrade Example 2 : Connecting Two CD Changers

Combination: Two CD Changer (CX-DP9061EN)

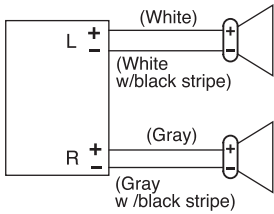
Note: To connect two CD changers, the optional dual CD changer selector (CA-CD55EN) is necessary.



Speaker Connections

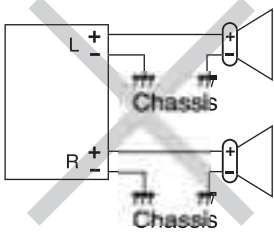
Caution: Please follow the instructions given below. Failure to do so will cause damage to the unit and speakers.

<Right>

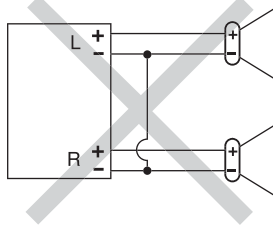


- Use ungrounded speaker only.
- The maximum speaker output should be 50 W or more. (If used with the optional power amplifier, the speaker output should be higher than the maximum amplifier output.)
- The speaker impedance should be 4 - 8 Ω .
- This unit uses the BTCL circuit, so each speaker should be connected separately using parallel vinyl insulated cords.
- The speaker cords and the power amplifier unit should be kept away (about 30 cm apart) from the antenna and antenna extension cord.

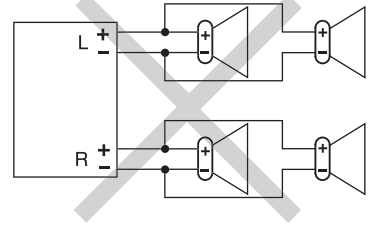
<Wrong>



- Never connect the speaker cord to the body of the car.



- Do not use a 3-wire type speaker system having a common earth lead.



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

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 fails, contact your nearest authorized Panasonic Service Center.

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.

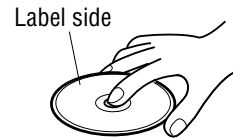
Notes on CD / CD Media (CD-ROM, CD-R, CD-RW)

If you use commercial CDs, they must have either of these labels shown at right.



How to hold the disc

- Do not touch the underside of the disc.
- Do not scratch on the disc.
- Do not bend disc.
- When not in use, keep disc in the case.



Do not use irregularly shaped discs.

Do not leave discs in the following places:

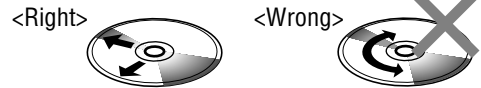
- Direct sunlight
- Near car heaters
- Dirty, dusty and damp areas
- Seats and dashboards



Do not use irregularly shaped discs.

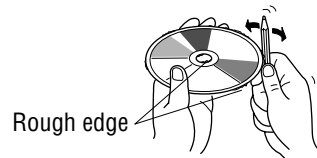
Disc cleaning

Use a dry, soft cloth to wipe from the center outward.



Caution on new discs

A new disc may have rough edges on its inner and outer perimeter. These may cause malfunction. Remove the rough edges using a pencil, etc.



Do not attach any seals or labels to your discs.

Do not write on the disc label in a heavy pen or ballpoint pen.

Notes on CD-Rs/RWs

- You may have trouble playing back some CD-R/RW discs recorded on CD recorders (CD-R/RW drives), either due to their recording characteristics or dirt, fingerprints, scratches, etc. on the disc surface.
- CD-R/RW discs are less resistant to high temperatures and high humidity than ordinary music CDs. Leaving them inside a car for extended periods may damage and make playback impossible.
- Some CD-R/RWs cannot be played back successfully thanks to incompatibility among writing software, a CD recorder (CD-R/RW drive) and the discs.
- This player cannot play the CD-R/RW discs if the session is not closed.
- This player cannot play the CD-R/RW discs which contains other than CD-DA or MP3 data (Video CD, etc.).
- Be sure to observe the instructions of CD-R/RW disc for handling it.

Troubleshooting

Preliminary Steps

Check and take steps as described in the tables below.

If You Suspect Something Wrong

Immediately switch power off.

Disconnect the power cable and check that there is neither smoke nor heat from the unit before asking for repairs. Never try to repair the unit yourself because it is dangerous to do so.

Cautions:

- Do not use the unit if it malfunctions or something is wrong.
- Do not use the unit in an irregular condition, for example, without sound, or with smoke or foul smell, which can cause ignition or electric shock. Immediately stop using the unit and call the store where you purchased it.

Product Service

If the suggestions in the charts do not solve the problem, we recommend that you take it to your nearest authorized Panasonic Service Center. The product should be serviced only by a qualified technician.

Common

Problem	Possible cause / Possible solution
No power.	<p>Car's engine switch is not on. → Turn your car's ignition switch to ACC or ON.</p> <p>Cables are not correctly connected. → Connect cables correctly. Battery cable: Connect the battery cable to the terminal that is always live. Accessory cable: Connect the accessory cable to your car's ACC source. Grounding wire: Connect the grounding wire to a metal part of your car.</p> <p>Fuse is burnt. → Call the store where you purchased the unit, or your nearest Panasonic Service Center and ask for replacement fuse.</p>
No sound.	<p>Mute is set to ON. → Set it to OFF.</p> <p>Cables are not correctly connected. → Connect cables correctly.</p> <p>External Mute lead is not correctly connected. → Connect the External Mute lead correctly.</p> <p>Condensation (dew). → Wait for a while before use.</p>
Only sound, no display.	<p>The display is set to Display OFF. → Press [DISP] to change the display. (→ Page 7)</p>
Noise.	<p>A mobile phone is used near the unit. → Keep the mobile phone away from the unit.</p>
Buttons unusable (each source operation).	<p>Menu is displayed. → Press [MENU] / [SEL] or [DISP] to return to the regular mode.</p>
Audio sound is output but the display shows demonstration message.	<p>Demonstration mode is ON. → Press [DISP] to cancel the demonstration mode.</p>

Radio

Problem	Possible cause / Possible solution
Poor reception of FM stereo and monaural broadcasts.	<p>Station is too far, or signals are too weak. → Select other stations of higher signal level.</p> <p>The radio antenna is not extended enough. → Extend the radio antenna enough.</p> <p>The motor antenna relay control lead is not connected correctly. → If there is a motor antenna in the car, connect the motor antenna relay control lead to the motor antenna lead that is installed in the car correctly.</p>
Preset station is reset.	<p>Battery cable is not correctly connected. → Connect the battery cable to the terminal that is always live.</p>

CD / MP3

Problem	Possible cause / Possible solution
Disc is in the CD compartment but no sound is made, or disc is ejected automatically.	<p>Disc is upside down. → Place disc in the correct direction with the label side up.</p> <p>Disc is dirty. → Clean disc, referring to the section on “Notes on CD / CD Media (CD-ROM, CD-R, CD-RW)” (→ Page 39).</p> <p>A disc that has data other than CD-DA or MP3 type is loaded. → Discs that have CD-DA or MP3 type data should be used.</p> <p>→ Some CD-R/RWs cannot be played back successfully thanks to incompatibility among writing software, a CD recorder (CD-R/RW drive) and the discs. Refer to instructions for the concerned devices for details.</p>
Sound skips, bad sound quality. (e.g. caused by noise)	<p>Disc is dirty. → Clean disc, referring to the section on “Notes on CD / CD Media (CD-ROM, CD-R, CD-RW)” (→ Page 39).</p> <p>→ Some CD-R/RWs cannot be played back successfully thanks to incompatibility among writing software, a CD recorder (CD-R/RW drive) and the discs. Refer to instructions for the concerned devices for details.</p>
Sound skip due to vibration.	<p>Mounting angle is over 30 degrees. → Adjust mounting angle to less than 30 degrees.</p> <p>Unstable mounting. → Mount the unit securely with the mounting parts, referring to the section on Installation.</p>
Disc is not ejected.	<ul style="list-style-type: none"> ● Disc is defective. ● Mechanical trouble. <p>→ Open the panel and press [▲]. If normal operation is not restored, call the store where you purchased the unit or the nearest Panasonic Service Center to ask for repairs.</p>

Troubleshooting (continued)

■ CD

Problem	Possible cause / Possible solution
CD text is not displayed normally.	Disc is dirty, or has scratches. → Clean disc, referring to the section on “Notes on CD / CD Media (CD-ROM, CD-R, CD-RW)” (→ Page 39).
Time is counted but no sound comes out.	The 1st track of a mix mode disc was reproduced. (Mix mode is a format in which data except music is recorded on the 1st track and music data is recorded on other than the 1st track in a session.) → Playback music data recorded on other than the 1st track.

■ MP3

Problem	Possible cause / Possible solution
No playback.	The disc does not conform to any of the file systems supported by this player. → Insert a disc that conforms to the file systems supported by this player. For supported file systems, see “Points to remember when recording an MP3 disc” (→ Page 20).
	The MP3 file is missing the “.mp3” file name extension. → Make sure to add the “.mp3” extension to each MP3 file name.
It takes too long for playback to start.	The folders and files recorded on the disc are layered too much. → As checking of files takes longer in this case, do not record any unnecessary folders or files other than MP3s on the disc. (If there are many hierarchies of files and folders, it may take up to 150 seconds to start playback.)
Poor recording quality, sound skipping.	→ The recording quality differs depending on the encoding software used, and on settings such as the bit rate. Set the bit rate within the range specified in the specifications chart (→ Page 45). It is recommended to set the bit rate to “128 kbps or more” and “Fixed”. High-speed writing was executed when MP3 data was recorded on the disc. → Decrease writing speed as low as possible.
Files are not played in the desired order.	Files or folders are not recorded in the desired playback order. → Some writing software lets you specify the recording order by adding a prefix in the range of “01” - “99”, etc. to the file name. For details refer to the user manual of your writing software.
Folder / file name is not displayed correctly.	The disc does not conform to the file systems supported by this player. → Insert a disc that conforms to the file systems supported by this player. For supported file systems see “Points to remember when recording an MP3 disc” (→ Page 20). → There may be a problem with your writing software or CD recorder (CD-R/RW drive). For details refer to the user manual of your writing software.

■ MP3 (Continued)

Problem	Possible cause / Possible solution
File playing time is not displayed correctly.	<p>You ran the file in fast forward or fast reverse during playback or turned off the ignition switch of the car during playback. → Playing another file will return the file playing time to normal.</p>
	<p>You played a VBR (Variable Bit Rate) format MP3 file. → The file playing time of VBR (Variable Bit Rate) format MP3 file is sometimes displayed incorrectly.</p>
	<p>You played a file in which character information had been recorded by use of ID3Tag 2.0 or later version. → A file in which character information was recorded by use of ID3Tag 2.0 or later version may not be reproduced normally. For example, the file playing time may not be displayed correctly.</p>

■ Sound Setting

Problem	Possible cause / Possible solution
No sound from left, right, front, or rear speaker.	<p>Left and right balance, or front and rear balance is off on one side. → Adjust BAL/FAD as appropriate (→ Page 24).</p>
Left and right sounds are reversed .	<p>Cables are not correctly connected. → Connect the cables correctly.</p>
	<p>The speaker leads are connected in reverse between right and left. → Connect the speaker leads to the correct one.</p>



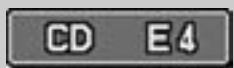
■ Remote Control

Problem	Possible cause / Possible solution
Buttons are invalid for operation.	<p>Battery polarities (+) (-) are reversed. → Insert the battery correctly.</p>
	<p>Wrong battery. → Check the battery.</p>
	<p>Battery has run down. → Replace the battery.</p>
	<p>Remote control is in the wrong direction. → Direct the remote controller at REMOTE (sensor) on the panel.</p>

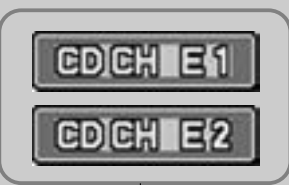


Troubleshooting (continued)

Error Display Messages

■ CD / MP3

Display	Possible cause / Possible solution
 <p>After 5 seconds</p>  <p>After 5 seconds</p> <p>Return to previous mode</p>	<p>Disc is dirty, or is upside down. A disc that has data other than CD-DA or MP3 type is loaded.</p> <p>Disc has scratches.</p> <p>No operation by some cause.</p> <p>→ Open the panel and press [▲].</p> <ul style="list-style-type: none"> • Check disc. • Load the disc again.
	<p>When there is no MP3 files in the specified folder during direct MP3 folder selection.</p> <p>→ Press [^] or [v] to select another folder which contains MP3 files.</p>
	<p>The player for some reason cannot read the file you are trying to play. (File recorded in an unsupported file system, compression scheme, data format, file name extension, damaged data, etc.)</p> <p>→ Select a file that the player can read. Confirm the type of data recorded on the disc. Create a new disc if necessary.</p>

■ CD Changer

Display	Possible cause / Possible solution
 <p>To next disc automatically</p>	<p>Disc is dirty, or is upside down. A disc that has data other than CD-DA type is loaded.</p> <p>Disc has scratches.</p> <p>→ Eject the magazine.</p> <ul style="list-style-type: none"> • Check disc. • Load the disc again.
 <p>Return to previous mode</p>	<p>No operation by some cause.</p> <p>→ Eject the magazine. If failure persists, press the reset switch on the CD changer. If normal operation is not restored, call the store where you purchased the unit or the nearest Panasonic Service Center to ask for repairs.</p> <p>The display continues if the power is not turned off automatically.</p>
	<p>No disc is in the CD Changer (magazine).</p> <p>→ Insert discs into the changer (magazine).</p>

Note: Displays and the steps to be taken for errors vary in part from changer to changer. For details, refer to the Operating Instructions for the changer used.

Specifications

General		CD Player	
Power Supply	: DC 12 V (11 V - 16 V), Test Voltage 14.4 V, Negative Ground	Sampling Frequency	: 8 times oversampling
Current Consumption	: Less than 2.5 A (CD mode, 0.5 W 4-Speaker)	DA Converter	: MASH•1 bit/4 DAC System
Maximum Power Output	: 50 W x 4 (at 4 Ω)	Error Correction System	: Panasonic Super Decoding Algorithm
Power Output	: 22 W x 4 (DIN45 324, at 4 Ω)	Pick-Up Type	: Astigma 3-beam
Speaker Impedance	: 4 - 8 Ω	Light Source	: Semiconductor laser
External Input Impedance	: 10 kΩ (AUX IN)	Wavelength	: 780 nm
External Input Sensitivity	: Max. 2 V (AUX IN)	Frequency Response	: 5 Hz - 20 kHz (±1 dB)
Pre-Amp Output Voltage	: 5 V (CD mode)	Signal to Noise Ratio	: 90 dB
Pre-Amp Output Impedance	: 60 Ω	Total Harmonic Distortion	: 0.01 % (1 kHz)
Sub-Woofer Output Voltage	: 5 V	Wow and Flutter	: Below measurable limits
Dimensions	: 178 (W) x 50 (H) x 150 (D) mm	Channel Separation	: 70 dB
Weight	: 1.6 kg	MP3 decoding	: MPEG 1 Audio Layer 3 MPEG 2 Audio Layer 3
FM Stereo Radio		Bit Rate	
Frequency Range	: 87.5 - 108 MHz	(MPEG 1 Audio Layer 3)	: 32 kbps - 256 kbps, VBR (Variable Bit Rate)
Usable Sensitivity	: 7 dB/μV (S/N 30 dB)	(MPEG 2 Audio Layer 3)	: 16 kbps - 160 kbps, VBR (Variable Bit Rate)
Stereo Separation	: 35 dB (at 1 kHz)	Sampling Frequency	
MW Radio		(MPEG 1 Audio Layer 3)	: 32 kHz, 44.1 kHz, 48 kHz
Frequency Range	: 531 - 1,602 kHz	(MPEG 2 Audio Layer 3)	: 22.05 kHz, 24 kHz
Usable Sensitivity	: 29 dB/μV (S/N 20 dB)		
LW Radio			
Frequency Range	: 153 - 279 kHz		
Usable Sensitivity	: 34 dB/μV (S/N 20 dB)		

Note: Specifications and design are subject to modification without notice due to improvements.

Matsushita Electric Industrial Co., Ltd.

Central P.O. Box 288, Osaka 542-8588, Japan

Dalian Matsushita Communication Industrial Co., Ltd.

Daxinzhaizi, Ganjingzi District, Dalian, China P.C. 116033

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