ENGLISH



Owner's Manual **AVM-P8000R**

This product conforms to CEMA cord colors.



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Dear Customer:

Selecting fine audio equipment such as the unit you've just purchased is only the start of your musical enjoyment. Now it's time to consider how you can maximize the fun and excitement your equipment offers. This manufacturer and the Electronic Industries Association's Consumer Electronics Group want you to get the most out of your equipment by playing it at a safe level. One that lets the sound come through loud and clear without annoying blaring or distortion—and, most importantly, without affecting your sensitive hearing.

Sound can be deceiving. Over time your hearing "comfort level" adapts to higher volumes of sound. So what sounds "normal" can actually be loud and harmful to your hearing. Guard against this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish a safe level:

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.

Once you have established a comfortable sound level:

· Set the dial and leave it there.

Example

Taking a minute to do this now will help to prevent hearing damage or loss in the future. After all, we want you listening for a lifetime.

We Want You Listening For A Lifetime

Used wisely, your new sound equipment will provide a lifetime of fun and enjoyment. Since hearing damage from loud noise is often undetectable until it is too late, this manufacturer and the Electronic Industries Association's Consumer Electronics Group recommend you avoid prolonged exposure to excessive noise. This list of sound levels is included for your protection.

Decibel Level

30	Quiet library, soft whispers
40	Living room, refrigerator, bedroom away from traffic
50	Light traffic, normal conversation, quiet office
60	Air conditioner at 20 feet, sewing machine
70	Vacuum cleaner, hair dryer, noisy restaurant
80	Average city traffic, garbage disposals, alarm clock at two feet.
THE FO	LLOWING NOISES CAN BE DANGEROUS UNDER CONSTANT EXPOSURE
THE FO	LLOWING NOISES CAN BE DANGEROUS UNDER CONSTANT EXPOSURE Subway, motorcycle, truck traffic, lawn mower
90	Subway, motorcycle, truck traffic, lawn mower
90 100	Subway, motorcycle, truck traffic, lawn mower Garbage truck, chain saw, pneumatic drill

Information courtesy of the Deafness Research Foundation.

Rocket launching pad



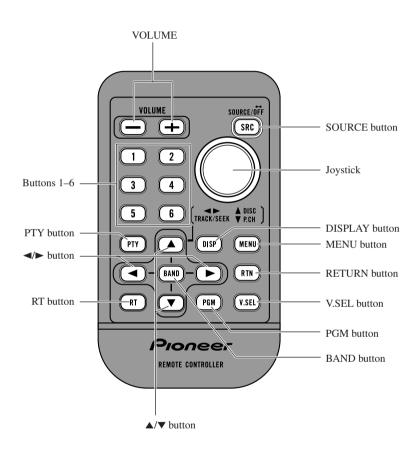
180



Before Using This Product

Key Finder

Remote Controller



About This Product

The tuner frequencies on this product are allocated for use in North America. Use in other areas may result in improper reception.

This product features a "Virtual Theater" Graphical User Interface which is referred to in this manual as the "Virtual Theater Quick Tour". Once you understand the basic structure of the "Virtual Theater", you will be able to navigate quite easily throughout it.

The basic structure of the "Virtual Theater" is actually quite simple. Everything is centralized around a base location known as the "Center Room". (Refer to "Virtual Theater Quick Tour" on page 11.)

Video System of a Connected Component

This product is NTSC system compatible. When connecting an external component to this product, be sure the component is compatible with the same video systems. If it is not, images will not be correctly reproduced.

Output Setting of the DVD Player

When connecting Pioneer's Multi-DVD player such as the XDV-P9, make the "Digital Output Setting (DIGITAL OUTPUT)" and "Digital and Analog Audio Output Setting (OUT SELECTION)" as follows:

Function	Setting
DIGITAL OUTPUT	LPCM
OUT SELECTION	96 kHz

Refer to the DVD Player manual for details on how to make those settings.

Precaution:

• Be sure to set the correct position. If not, no audio can be output.

About This Manual

This product features a number of sophisticated functions ensuring superior reception and operation. All are designed for the easiest possible use, but many are not self-explanatory. This operation manual is intended to help you benefit fully from their potential and to maximize your listening enjoyment.

We recommend that you familiarize yourself with the functions and their operation by reading through the manual before you begin using this product. It is especially important that you read and observe the "Precaution" on page 7 and in other sections.

To Ensure Safe Driving



WARNING

- To avoid the risk of accident and the potential violation of applicable laws, this product is not for use with a video screen that is visible to the driver.
- In some countries or states the viewing of images on a display inside a vehicle even by persons other than the driver may be illegal. Where such regulations apply, they must be obeyed.

To ensure safe vehicle operation, do not operate this product during driving. If you try to view pictures from a DVD-Video disc or other sources on the front display while the parking brake is not engaged, this warning will appear:



When you park your car in a safe place and apply the parking brake, the picture appears on the screen.

When Using a Display connected to Rear Video Output

This product's Rear video output is for connection of a display to enable passengers in the Rear seats to watch the Video or DVD.



WARNING

 NEVER install the display in a location that enables the Driver to watch the Video or DVD while Driving.

Important

The serial number of this device is located on the bottom of this product. For your own security and convenience, be sure to record this number on the enclosed warranty card.

Resetting the Microprocessor

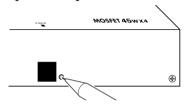
The microprocessor must be reset under the following conditions:

When using this product for the first time after installation.

When the machine fails to operate properly.

When strange (incorrect) messages appear on the display.

 To reset the microprocessor, press the RESET button on the unit with a pen tip or other pointed instrument.



Precaution

- Keep this manual handy as a reference for operating procedures and precautions.
- Always keep the volume low enough for outside sounds to be audible.
- Protect this product from moisture.
- If the battery is disconnected, the preset memory will be erased and must be reprogrammed.

After-sales Service for Pioneer Products

Please contact the dealer or distributor from where you purchased the product for its after-sales service (including warranty conditions) or any other information. In case the necessary information is not available, please contact the companies listed below:

Please do not ship your product to the companies at the addresses listed below for repair without advance contact.

U.S.A.

Pioneer Electronics Service, Inc. CUSTOMER SERVICE DEPARTMENT P.O. Box 1760 Long Beach, CA 90801 800-421-1404

■ CANADA

Pioneer Electronics of Canada, Inc. CUSTOMER SERVICE DEPARTMENT 300 Allstate Parkway Markham, Ontario L3R 0P2 (905) 479-4411 1-877-283-5901

For warranty information please see the Limited Warranty sheet included with your product.

When using the 50-Disc Type Multi-CD Player

The available functions of the 50-Disc Type Multi-CD Player are described in this manual. Note that other 50-Disc Type Multi-CD Player functions cannot be used with this product.

Remote Control and Care

This product is equipped with a remote controller for convenient operation.

 Point the controller in the direction of the signal reception on the color display (sold separately) to operate.

Precaution:

- Do not store the remote controller in high temperatures or direct sunlight.
- The controller may not function properly in direct sunlight.
- Do not let the remote controller fall onto the floor, where it may become jammed under the brake or accelerator pedal.

Battery

• Slide the tray out on the back of the remote controller and insert the battery with the (+) and (-) poles pointing in the proper direction.

(-) pole



Replacing the Lithium Battery:

• Use only lithium battery "CR2025", 3 V.

Precaution:

- Remove the battery if the remote controller is not used for a month or longer.
- If the event of battery leakage, wipe the remote controller completely clean and install a new battery.



 Keep the Lithium Battery out of reach of children. Should the Battery be swallowed, immediately consult a doctor.



- Do not recharge, disassemble, heat or dispose of battery in fire.
- Use a CR2025 (3 V) Lithium Battery only. Never use other types of battery with this product.
- Do not handle the battery with metallic tools.
- Do not store the Lithium Battery with metallic materials.
- When disposing of used batteries, please comply with governmental regulations or environmental public institution's rules that apply in your country/area.
- Always check carefully that you are loading battery with its (+) and (-) poles facing in the proper directions.

Operation for Each Source Unit

To Listen to Music

The following explains the initial operations required before you can listen to music.

1. Select the desired source (e.g. Multi-CD Player).







Each press changes the Source ...

Each press of the SOURCE button selects the desired source in the following order:

DVD Player → TV → VIDEO → Tuner → MD Player → CD Player → Multi-CD

Player → External 1 → External 2 → AUX → Speaker Input

Note:

- External Unit refers to a Pioneer product (such as one available in the future) that, although
 incompatible as a source, enables control of basic functions by this product. Two External
 Units can be controlled by this product, although "External" is displayed whether you select
 External Unit 1 or External Unit 2. When two External Units are connected, the allocation of
 them to External Unit 1 or External Unit 2 is automatically set by this product.
- In the following cases, the sound source will not change:
 - * When the sound source from another product is not connected to this product.
 - * When no magazine is set in the Multi-CD player.
 - * When no magazine is set in the Multi-DVD player.
 - * When no disc is set in the CD player.
 - * When no disc is set in the MD player.
 - * When the AUX (external input), VIDEO and Speaker Input are set to OFF. (See pages 72, 73.)
- When this product's blue/white lead is connected to the car's Auto-antenna relay control terminal, the car's Auto-antenna extends when this product's source is switched ON. To retract the antenna, switch the source OFF.

2. Select the desired picture.







Each press changes the picture ...

Each press of the V.SEL button selects the source in the following order:

Source Screen → Mobile Navigation Unit (NAVI) → TV Tuner Unit (BGTV) → Video (BGVTR)

Note:

- Select "Source Screen" to hear/view playback of normal audio/video sources.
- You can select the Pioneer Mobile Navigation Unit only when that unit is switched on.
- You can select the TV Tuner Unit only when connecting it to this product. (The video source selected with the TV Tuner is displayed.)
- To select the VIDEO mode, switch the VIDEO mode ON in the Set Up Menu. (See page 15.)

3. Raise or lower the volume.







4. Turn the source OFF.







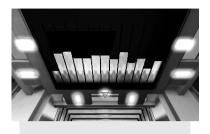
Hold for 1 second

When connecting a Multi-DVD player

You can switch on and off the Multi-DVD player independently from other units. Switching this product off independently does not switch the Multi-DVD player off. You have to switch the Multi-DVD player off separately.

• If, while "DVD" is selected as source, you switch off the Multi-DVD player, you can confirm it on the display.

Virtual Theater Quick Tour



Move the joystick up to move in virtual space to the Spectrum Analyzer Room. The spectrum analyzer features a graph indicating the frequency of the sound currently in play.

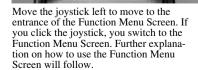




When the power is turned on, the Center Room screen is displayed automatically. The screen appearing at the center of the room can be changed. (See page 71.)





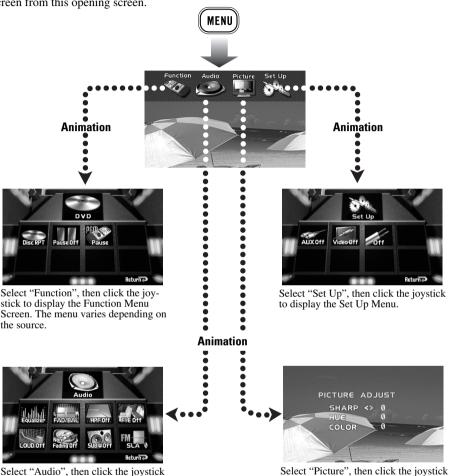




Move the joystick right to move to the Power Band Room. This screen provides a visual image of the volume settings. Click the joystick to change the power band display as below.

Menu Structure

The setting and adjusting operation of this product is done from the Main Menu. Press the MENU button, and four main menu icons appear on the screen: "Function", "Audio", "Picture" and "Set Up". The selected function is highlighted in green. Move to each menu screen from this opening screen.



• The Picture icon appears only when the selected source is a visual medium.

Returning to the Center Room

to display the Audio Setting Menu.

You can return to the Center Room after you are finished in any of the sub-rooms quite simply with either of 2 options. Either use the joystick to select the Return option in that rooms screen, then click the joystick, or simply press the RETURN button on the remote controller. In either case, you are brought back to the Center Room.

Click the joystick

Click the joystick means to press the center of the joystick down and release one time.

to display the Picture Adjust Menu.

Information Screen

By pressing the DISPLAY button on this remote control unit you can show the title list, make changes to the Source Plate Information Screen, etc.

Switching the Information Screen

In the following, the Multi-CD Player is used as an example of source.

■ Multi-CD Player

Pressing the DISPLAY button switches the Information display on the Source Plate as follows. The title list appears on the plate and you can input disc titles here. You can also switch the titles displayed on the Flip-Down Plate.



Source Plate Display



- Entered title is displayed.

■ When playing a CD TEXT disc The Disc Title and Track Title are displayed.

Flip-Down Plate Display



■ When playing a CD TEXT disc Pressing the DISPLAY button switches the display as follows:

> 1 Track Title Disc Title



2 Disc Artist Name Disc Title



3 Track Artist Name Disc Title

No Plate



Note:

 If the Multi-CD Player in use is not CD TEXT compatible, you cannot access CD TEXT-specific display features.

■ Tuner

Source Plate Display

Flip-Down Plate Display
(Preset Frequency List)

Flip-Down Plate Display
(Radio Text Display)

No Plate

TV

Source Plate Display

No Plate

• For televisions, the Source Plate Display disappears after about 8 seconds.

■ Multi-DVD Player

Source Plate Display

↓
Flip-Down Plate Display

↓
No Plate

 For DVDs, Video CDs and CDs, indications appear on the Flip-Down Plate Display as follows:

For DVDs:

Title list only

For Video CDs:

Title list and "Title Edit" for title input

For CDs:

Title list, "Title Edit" for title input, and ITS memory "ITS MEMO", "ITS Clear".

■ CD Player

Source Plate Display

↓
Flip-Down Plate Display

↓
No Plate

■ MD Player

Source Plate Display

No Plate

- Each press of the DISPLAY button switches the display on the Source Plate as follows:
 - 1. Disc Title Track Title
 - 2. Track Title Disc Title

Pressing the DISPLAY button for 2 seconds scrolls the upper title.

■ External Devices

External Devices are VIDEO, AUX, Speaker Input and External Units.

Source Plate Display

No Plate

• For visual sources, the Source Plate Display disappears after about 8 seconds.

Using the Screen Pictures (Selecting the NAVI, VTR etc.)

Selecting the Mobile Navigation Picture

You can switch the picture (separately from the audio) of the Mobile Navigation to another source while listening to the sound from the current source.

Switch the power to your navigation unit ON before performing operations. (Refer to the navigation manual.)

 Select the "NAVI" by pressing the V.SEL button.

Multi-CD P I ONLE R JANUAR DE LIBERT AVE LIB

Note:

- You can select the Pioneer Mobile Navigation Unit only when that unit is switched on.
- If, while "NAVI" is selected as source, you switch off your navigation unit, you can confirm it on the display.

Selecting the Video Source

Switching the Video ON/OFF Mode

You can select the video unit when one is connected to the video input on this product. To select the Video mode, switch the Video in the Set Up Menu On.

- 1. Press the MENU button.
 - The main menu icons whirl down, with "Function" highlighted in green.
- 2. Select "Set Up" by moving the joystick. "Set Up" is highlighted in green.
- 3. Click the joystick.

The Set Up Menu appears.

- **4. Select "Video" by moving the joystick.** "Video" is highlighted in green.
- Click the joystick.Each click toggles Video On/Off.
- 6. Press the RETURN button.

You go back to the Center Room.





Selecting the Video Source

You can enjoy video and audio entertainment from external components connected to video input.

Switch the power to your video unit ON before performing operations. (Refer to the video unit manual.)

 Select "Video" by pressing the SOURCE button.



Selecting the BGTV, BGVTR

You can switch the picture (separately from the audio) of the TV or Video to another source while listening to the sound from the current source.

Switch the power to your video unit ON before performing operations. (Refer to the video unit manual.)

• Select "BGTV" or "BGVTR" by pressing the V.SEL button.



Selecting the Picture to Rear Display

You can also enjoy video and audio entertainment from external components connected to video input on a rear display (sold separately).

This is only possible if a rear display is connected.

Switch the power to your video unit ON before performing operations. (Refer to the video unit manual.)

• Press the V.SEL button for 2 seconds.

Each press of the V.SEL button for 2 seconds selects the source in the following order:

OFF → Link to Front Display Source (F.SRC) → Video (VTR)



Note:

- The rear display will only display audiovisual sources (i.e. Multi-DVD, TV Tuner, etc.). Audio only sources (MD, CD, FM/AM Tuner) cannot be heard from the rear display.
- You cannot switch rear display source audio and video separately.

Adjusting the Picture

You can independently adjust Video, DVD and TV Tuner unit picture quality.

You can also make adjustments to the picture quality when viewing with the car courtesy light ON or OFF, and store both settings in memory.

- 1. Select the desired source (picture) by pressing the SOURCE button.
- 2. Press the MENU button.

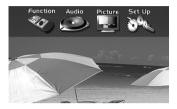
The main menu icons whirl down.

- 3. Select "Picture" by moving the joystick right. "Picture" is highlighted in green.
- 4. Click the joystick.

The "PICTURE ADJUST" screen appears.

5. Select an option by moving the joystick up/down.

The selected option is highlighted in yellow. You can adjust the selected option.





Option	Adjustment
SHARP	You can adjust the sharpness of the picture. • The display changes as the distinction of the picture changes from sharp to dull.
HUE	You can adjust the hue of the picture. • The display changes as the distinction of the picture changes from reddish to greenish.
COLOR	You can adjust the color of the picture. • The display changes as the distinction of the picture changes from light to dark.

- 6. Adjust the selected option by moving the joystick left/right.
- 7. Cancel the "PICTURE ADJUST" screen by pressing the RETURN button.

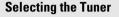


Note:

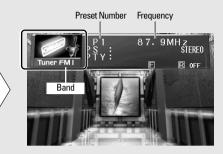
 After entering the "PICTURE ADJUST" screen, if you do not perform an operation within about 30 seconds, the "PICTURE ADJUST" screen is automatically canceled.

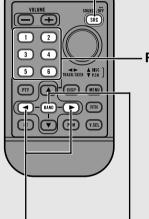
Built-In Tuner

Basics



Select the "Tuner" as source by pressing the SOURCE button as many times as necessary.





Preset Tuning

You can memorize broadcast stations in buttons 1 through 6 for easy, one-touch station recall.

Preset station recall	Less than 2 seconds
Broadcast station preset memory	More than 2 seconds

Note:

- Up to 18 FM stations (6 in FM1, FM2 and FM3) and 6 AM stations can be stored in memory.
- You can also use the ▲/▼ button to recall broadcast stations memorized in buttons 1 through 6.

Band

$$FM1 \rightarrow FM2 \rightarrow FM3 \rightarrow AM$$

Manual and Seek Tuning

You can select the tuning method by changing the length of time you press the **◄/►** button.

Manual Tuning (step by step)	Less than 0.5 seconds
Seek Tuning	More than 0.5 seconds

Note:

- If you continue pressing the button for longer than 0.5 seconds, you can skip broadcasting stations. Seek Tuning starts as soon as you release the button.
- · Stereo indicator "STEREO" lights when a stereo station is selected.

Operation at the Function Menu Screen

Accessing the Tuner Function Menu

1. Press the MENU button.

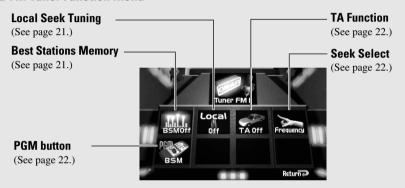
The main menu icons whirl down, with "Function" highlighted in green.

2. Click the joystick.

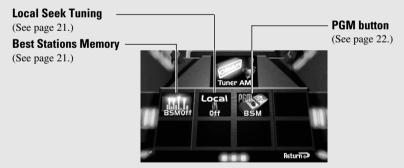
The Tuner Function Menu appears, offering you the following options:

Function Audio Set Up

■ FM Tuner Function Menu



■ AM Tuner Function Menu



3. Select the option by moving the joystick.

The selected option is highlighted in green.

4. Click the joystick.

Refer to detailed operation of each function.

Exit from the Tuner Function Menu

· Press the RETURN button.

Operating Each Function

Best Stations Memory (BSM)

The BSM function stores stations in memory automatically.

Select the band before performing operations. (See "Band" on page 19.)

1. Check to see "BSM" is currently highlighted.

If not, select that option by moving the joystick. "BSM" is highlighted in green.

2. Click the joystick.

The "BSM Off" display changes to "BSM On".

The stations with the strongest signals will be stored under buttons 1–6 and in order of their signal strength.

• To Cancel the process, click the joystick before memorization is complete.



Local Seek Tuning

When Local is ON, you can only select broadcast stations providing strong reception.

1. Select "Local" by moving the joystick.

"Local" is highlighted in green.

2. Click the joystick.

Each click selects the desired Local Seek Sensitivity in the following order:

FM: Off
$$\rightarrow$$
 Level 1 \rightarrow Level 2 \rightarrow Level 3 \rightarrow Level 4 AM: Off \rightarrow Level 1 \rightarrow Level 2



Note:

 The "Level 4" setting allows reception of only the strongest stations, while lower settings let you receive progressively weaker stations.

TA Function

You can switch TA (Traffic Announcements) on/off. (See page 27.)

- 1. Select "TA" by moving the joystick. "TA" is highlighted in green.
- 2. Click the joystick.

Each click toggles TA On/Off.



Seek Select

You can select seek mode between PTY search and Frequency search. (See page 25.)

1. Select "Seek Select Mode" by moving the joystick.

"Seek Select Mode" is highlighted in green.

2. Click the joystick.

Each click toggles the PTY/Frequency.



PGM button

You can create a shortcut for BSM or Local Mode.

If you want to control the function of one of these, without needing to go to the Function Menu each time, do the following:

1. Select "PGM" by moving the joystick.

"PGM" is highlighted in green.

2. Click the joystick.

Each click changes the PGM mode in the following order:

BSM → Local



Press the PGM button in the Tuner source

Function name (Display)	Press	Hold for 2 seconds
Best Stations Memory (BSM)	OFF	ON
Local Seek Tuning (Local)	Switch the Local Seek Sensitivity	

Display the Flip-Down Plate

• Press the DISPLAY button.

Each press of the DISPLAY button changes the Source Plate and Flip-Down Plate in the following order:

Source Plate → Preset Frequency List → Radio Text Display → No Plate

Examples

Source Plate



Radio Text Display (FM band)



Preset Frequency List



Recalling Preset Stations by Preset Frequency List

- 1. Press the DISPLAY button for the Preset Frequency List to appear.
- 2. Select the band by pressing the BAND button.
- 3. Select the preset station by moving the joystick up/down.

Selected station is highlighted.

4. Click the joystick.

Selected station is indicated in yellow and tuned.



Using the RDS Functions

This product features a tuner with RDS functions.

RDS (Radio broadcast Data System) is a system that transmits broadcast station information together with FM programs.

You get display of Program Service Name and PTY (Program Type ID code), tuning to stations broadcasting a desired PTY, automatic tuning to traffic information, and emergency broadcasts and radio text display.

Note:

- The RDS service does not provide AM broadcast information.
- The RDS service may not be provided by all FM stations.

PTY Function

This product allows you to look for a station by PTY information (Program Type ID code). The information is divided into 8 types, such as ROCK, COUNTRY, NEWS and TALK.

PTY	Corresponding PTY
ROCK	TOP 40
	CLS ROCK
	ROCK
	SFT ROCK
EASY LIS	SOFT
	ADLT HIT
	OLDIES
CLS/JAZZ	CLASSICL
	JAZZ
	NOSTALGA
	PUBLIC
COUNTRY	COUNTRY
R & B	R AND B
	SOFT R/B
INFO	SPORTS
	NEWS
	TALK
	INFORM
	PERSNLTY
RELIGION	REL MUSC
	REL TALK
MISC	LANGUAGE
	MISC

Searching the PTY

1. Select PTY search mode by pressing the PTY button.

The PTY indicator appears on the Source Plate. Each press of the PTY button changes the method in the following order:

PTY Search → Frequency Search

Note:

• To search for the same PTY as the currently received broadcast station, perform step 3 only.

2. Select a PTY by pressing the **△**/**▼** button.

A station broadcasting a program with a different PTY from the PTY of the currently received broadcast station is selected.



87.9MHz

3. Select a station by pressing the $\triangleleft / \triangleright$ button.

A station broadcasting a program with the same PTY as the currently received broadcast station is selected.



Note:

- If a PTY code of zero is received from a station, "NONE" will be displayed. This indicates
 that the station has not defined its program contents.
- The program of some stations may differ from that indicated by the transmitted PTY.
- If no station broadcasting the selected programming type is found, "NOT FOUND" is displayed for about 2 seconds, and the tuner returns to the original station.
- You can also switch the station selection mode when in the Function Menu Seek Select mode. (See page 22.)

PTY Alarm

The PTY Alarm function automatically lets you hear broadcasts of emergency announcements concerning natural disasters and other emergencies, regardless of the source you are listening to.

• If the tuner receives a radio alarm code, "ALARM" is indicated in the display, and the tuner switches to reception of an emergency announcement.

Note:

- The system switches back to the original source following emergency announcement reception
- In sources other than tuner, the tuner automatically seeks out the RDS station with the strongest signal in the current area 10 seconds after RDS station reception has become impossible. (This function does not operate when the TA function is active.)

Canceling Announcements

• Press the SOURCE button during announcement reception to cancel the announcement and return to the original source.

TA Function

The TA (Traffic Announcement standby) function lets you receive traffic announcements automatically, no matter what source you are listening to. The TA function can be activated for a TP station (a station that broadcasts traffic information).

Activating/Deactivating the TA Function

Tune in a TP station by pressing the ◄/► button.

The Car icon lights when the tuner is tuned to a TP station



2. Press the MENU button.

The main menu icons whirl down, with "Function" highlighted in green.

3. Click the joystick.

The Tuner Function Menu appears.



4. Select "TA" by moving the joystick.

"TA" is highlighted in green.

5. Activate the TA function by clicking the joystick.

Each click toggles TA On/Off.

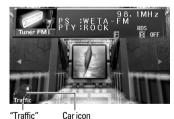


6. Press the RETURN button.

You go back to the Center Room.

The "Traffic" indicator lights, indicating that the tuner is waiting for traffic announcements.

Repeat the preceding operation when no traffic announcement is being received to deactivate the TA function.



Note:

- The system switches back to the original source following traffic announcement reception.
- The TA function can be activated from sources other than tuner if the tuner was last set to the FM band but not if it was last set to the AM band.
- In sources other than tuner, the tuner automatically seeks out the TP station with the strongest signal in the current area 10 seconds after the Car icon disappears from the display. (During seek operation, Car icon disappears.)
- Only TP stations are tuned in during the Seek Tuning mode when the "Traffic" indicator is ON.
- Only TP stations are stored by BSM when the "Traffic" indicator is ON.

Canceling Traffic Announcements

• Press the SOURCE button while a traffic announcement is being received to cancel the announcement and return to the original source.

The announcement is canceled but the tuner remains in the TA mode until the TA function is deactivated.

Adjusting the TA Volume

When a traffic announcement begins, the volume adjusts automatically to a preset level to enable you to hear the announcement clearly.

 Set the volume by adjusting it by pressing the VOLUME during reception of a traffic announcement.

The newly set volume is stored in memory and recalled for subsequent traffic announcements.



Radio Text

This tuner can display Radio Text data transmitted by RDS stations, such as station information, the name of the currently broadcast song and the name of the artist.

Note:

- When an RDS station is received, the "RDS" indicator lights.
- · When Radio Text is received, the "Text" indicator and Note icon light.
- The tuner automatically memorizes the three latest Radio Text broadcasts received, replacing text from the least recent reception with new text when it is received.
- You can store data from up to six Radio Text transmissions in buttons 1–6.
- You can also switch to the Radio Text Display by pressing the DISPLAY button. (Refer to "Display the Flip-Down Plate" on page 23.)

Radio Text display

1. Press the RT button if the RDS indicator is On.

Flip-Down Plate displaying Radio Text Display appears.



Note icon "Text"

Note:

- Press the RT button once more, and the Radio Text mode is canceled.
- When no Radio Text is currently being received, "NO TEXT" is displayed.



3. Click the joystick.

Each click switches the three Radio Text data display left or right.

Note:

• If there is no Radio Text data stored in the tuner, the function does not operate.

Storing Radio Text in memory

1. Perform "Radio Text display" steps 1–3, and then select the Radio Text you want to store in memory.



2. Press one of buttons 1 – 6 for 2 seconds to store the desired Radio Text. (e.g. Press button 4 for 2 seconds.)

The Radio Text is stored in memory under the selected button.



Recalling preset Radio Text

1. Press the RT button.

Flip-Down Plate displaying Radio Text appears.



2. Press one of buttons 1 – 6 to recall a Radio Text preset under that button. (e.g. Press button 4.)



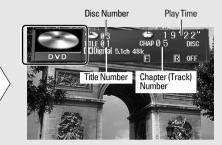
Multi-DVD Player

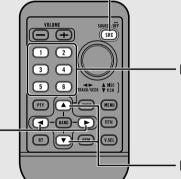
Basics

Selecting the Multi-DVD

Select the "DVD" as source by pressing the SOURCE button as many times as necessary.

The player starts playing automatically.





Disc Number Search

You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Disc Search

Chapter (Track) Search and Fast Forward/Reverse

You can select between Chapter (Track) Search or Fast Forward/Reverse by pressing the $\blacktriangleleft/\triangleright$ button for a different length of time.

Chapter (Track) Search	Less than 0.5 seconds
Fast Forward/Reverse	Continue pressing

Note:

- Although DVD and Video CD images cannot be seen on screen while driving, all functions of the Multi-DVD player can be operated. (Audio can be heard.)
- You can use Multi-DVD player to play DVDs, Video CDs, and CDs. When the source is switched to Multi-DVD player, player plays the disc selected at that time.
- Use your Multi-DVD Player's remote controller to control DVD or Video CD-specific features.
- This unit may not be available to operate the Multi-DVD player momentarily depending on discs and the playing status.

Operation at the Function Menu Screen (DVD, Video CD)

With Multi-DVD player, the Function Menu differs for playing DVDs, Video CDs and CDs. When playing CDs, refer to "Operation at the Function Menu Screen (CD)". (See page 35.)

Accessing the DVD Function Menu (DVD, Video CD)

Begin play of a disc before selecting options from the DVD Function Menu.

1. Press the MENU button.

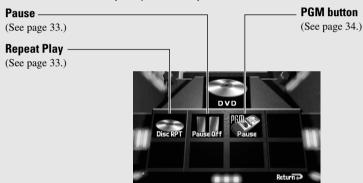
The main menu icons whirl down, with "Function" highlighted in green.

2. Click the joystick.

The DVD Function Menu appears, offering you the following options:



■ DVD Function Menu (DVD, Video CD)



3. Select the option by moving the joystick.

The selected option is highlighted in green.

4. Click the joystick.

Refer to detailed operation of each function.

Exit from the DVD Function Menu (DVD, Video CD)

• Press the RETURN button.

Operating Each Function

Repeat Play

You can select the desired repeat mode play range from the chapter (track), title or disc currently in play.

1. Check to see "RPT" is currently highlighted.

If not, select that option by moving the joystick. "RPT" is highlighted in green.

2. Click the joystick.

Each click changes repeat range in the following order:



Source plate



■ DVD

Disc RPT → Chapter RPT → Title RPT

Display	Repeat range
Chapter RPT	Chapter Repeat
Title RPT	Title Repeat
Disc RPT	Disc Repeat

■ Video CD

Disc RPT → Track RPT

Display	Repeat range
Track RPT	Track Repeat
Disc RPT	Disc Repeat

Pause

Pause pauses the currently playing track.

1. Select "Pause" by moving the joystick.

"Pause" is highlighted in green.

2. Click the joystick.

Each click toggles the Pause On/Off.



PGM button

You can create a shortcut for Pause or Repeat Play Mode.

If you want to control the function of one of these, without needing to go to the Function Menu each time, do the following:

1. Select "PGM" by moving the joystick.

"PGM" is highlighted in green.

2. Click the joystick.

Each click changes the PGM mode in the following order:

Pause → RPT Mode



Press the PGM button when playing a DVD or Video CD in the Multi-DVD source

Function name (Display)	Press	Hold for 2 seconds
Pause (Pause)	ON/OFF	
Repeat play (RPT Mode)	Switch repeat range	

Operation at the Function Menu Screen (CD)

With Multi-DVD player, the Function Menu differs for playing DVDs, Video CDs and CDs. When playing DVDs and Video CDs, refer to "Operation at the Function Menu Screen (DVD, Video CD)". (See page 32.)

Accessing the DVD Function Menu (CD)

Begin play of a disc before selecting options from the DVD Function Menu.

1. Press the MENU button.

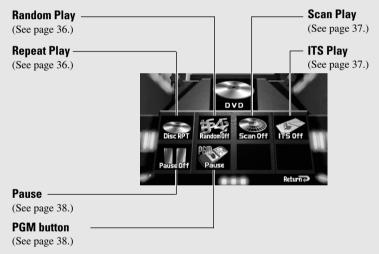
The main menu icons whirl down, with "Function" highlighted in green.

2. Click the joystick.

The DVD Function Menu appears, offering you the following options:



■ DVD Function Menu (CD)



3. Select the option by moving the joystick.

The selected option is highlighted in green.

4. Click the joystick.

Refer to detailed operation of each function.

Exit from the DVD Function Menu (CD)

· Press the RETURN button.

Operating Each Function

Repeat Play

Repeat Play plays the same disc and track repeatedly.

1. Check to see "RPT" is currently highlighted. If not, select that option by moving the joystick. "RPT" is highlighted in green.

2. Click the joystick.

Each click changes the Repeat mode in the following order:

Disc RPT → Track RPT



Source plate



Repeat range

Display	Repeat range
Track RPT	Track repeat
Disc RPT	Disc repeat

Note:

• If you perform Track Search, Repeat Play is automatically canceled.

Random Play

Random Play plays the tracks on a CD in random order for variety.

- 1. Select "Random" by moving the joystick. "Random" is highlighted in green.
- 2. Click the joystick.

Each click toggles the Random On/Off.



Source plate



Random

Scan Play

Scan Play plays the first 10 seconds or so of each track on a CD in succession.

- 1. Select "Scan" by moving the joystick. "Scan" is highlighted in green.
- 2. Switch the Scan Play On by clicking the joystick.
- 3. When you find the desired track, cancel the Scan Play by clicking the joystick.

If the Function Menu has been canceled automatically, select the "Scan" in the Function Menu again.



Source plate



Scan

Note:

• Scan Play is canceled automatically after all the tracks on a disc have been scanned.

ITS Play

ITS Play plays the memorized track. (Refer to "ITS Programming (ITS)" on page 49.)

- 1. Select "ITS" by moving the joystick. "ITS" is highlighted in green.
- 2. Click the joystick.

Each click toggles the ITS Play On/Off.



Source plate



Note:

- If no track in the current range is programmed for ITS Play, "Empty" is displayed.
- For Multi-DVD, ITS play can be done only on the CD in play.

Pause

Pause pauses the currently playing track.

- 1. Select "Pause" by moving the joystick. "Pause" is highlighted in green.
- 2. Click the joystick.

Each click toggles the Pause On/Off.



PGM button

You can create a shortcut for Pause, RPT, Random or ITS Mode.

If you want to control the function of one of these, without needing to go to the Function Menu each time, do the following:

- 1. Select "PGM" by moving the joystick. "PGM" is highlighted in green.
- 2. Click the joystick.

Each click changes the PGM mode in the following order:

Pause \rightarrow RPT Mode \rightarrow Random \rightarrow ITS



Press the PGM button when playing a CD in the Multi-DVD source

Function name (Display)	Press	Hold for 2 seconds
Pause (Pause)	ON/OFF	
Repeat play (RPT Mode)	Switch repeat range	
Random play (Random)	ON/OFF	
ITS play (ITS)	ON/OFF	

Display the Flip-Down Plate

Press the DISPLAY button.

Each press of the DISPLAY button changes the Source Plate and Flip-Down Plate in the following order:

Source Plate → Disc Title List → No Plate

Examples

Source Plate (e.g. for DVDs)



Disc Title List (e.g. for CDs)



Note:

- The Disc Title List varies by the type of disc: DVD, Video CD and CD.
 - * With DVD, "Title Edit", "ITS MEMO" and "ITS Clear" are not displayed.
 - * With Video CD, "ITS MEMO" and "ITS Clear" are not displayed.

Disc Title Input for CD and Video CD

You can input Titles up to 10 letters long. Using this function lets you easily search for and select a desired disc for play. (You can store Disc Title data discs in memory.)

Note:

• For detailed operation, refer to the operation of "Disc Title Input" on page 47.

Selecting Discs by Disc Title List

You can select a disc from Disc Title List you want to listen to and play.

1. Press the DISPLAY button for the Flip-Down Plate to appear.



2. Select the desired disc title by moving the joystick up/down.

"CD" or "VIDEO-CD" is displayed for disc whose titles have not been input.

3. Click the joystick.

The selected disc is indicated in yellow and begins play.



Multi-CD Player

Basics

Selecting the Multi-CD Player

Select the "Multi-CD" as source by pressing the SOURCE button as many times as necessary.

The player starts playing automatically.

4





You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Note:

 When a 12-Disc Multi-CD Player is connected and you want to select disc 7 to 12, press the 1 to 6 buttons for 2 seconds.

Disc Search

Track Search and Fast Forward/Reverse

You can select between Track Search or Fast Forward/Reverse by pressing the **◄/►** button for a different length of time.

Track Search	Less than 0.5 seconds
Fast Forward/Reverse	Continue pressing

Note:

- The Multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- If the Multi-CD player cannot operate properly, an error message such as "ERROR-14" is displayed. Refer to the Multi-CD player owner's manual.
- If there are no discs in the Multi-CD player magazine, "NO DISC" is displayed.

Operation at the Function Menu Screen

Accessing the Multi-CD Function Menu

1. Press the MENU button.

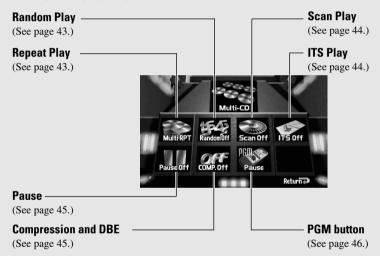
The main menu icons whirl down, with "Function" highlighted in green.

2. Click the joystick.

The Multi-CD Function Menu appears offering you the following options:



■ Multi-CD Function Menu



3. Select the option by moving the joystick.

The selected option is highlighted in green.

4. Click the joystick.

Refer to detailed operation of each function.

Exit from the Multi-CD Function Menu

Press the RETURN button.

Operating Each Function

Repeat Play

There are three repeat play ranges: One-track Repeat, Disc Repeat and Multi-CD player Repeat. Default repeat play range is Multi-CD player Repeat.

1. Check to see "RPT" is currently highlighted.

If not, select that option by moving the joystick. "RPT" is highlighted in green.

2. Click the joystick.

Each click changes the Repeat mode in the following order:

Multi RPT → Track RPT → Disc RPT



Source plate



Repeat range

Display	Repeat range
Track RPT	One-track Repeat
Disc RPT	Disc Repeat
Multi RPT	Multi-CD player Repeat

Random Play

Tracks are played at random within the selected repeat play range as explained in "Repeat Play" above.

1. Select "Random" by moving the joystick.

"Random" is highlighted in green.

2. Click the joystick.

Each click toggles Random play On/Off. After selecting the desired repeat play range from those referred to in "Repeat Play" above, switch Multi-CD Player Random Play ON.



Source plate



Random Play range

Display	Play range
DISC RDM	Disc Repeat
MULTI RDM	Multi-CD player Repeat

Note:

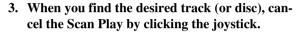
One-track Repeat changes to the Disc Repeat when you switch the Random Play ON.

Scan Play

In the Disc Repeat, the beginning of each track on the selected disc is scanned for about 10 seconds. In the Multi-CD player Repeat, the beginning of the first track on each disc is scanned for about 10 seconds.

- 1. Select "Scan" by moving the joystick. "Scan" is highlighted in green.
- Switch the Scan Play ON by clicking the joystick.

After selecting the desired repeat play range from those referred to in "Repeat Play" on page 43, switch Multi-CD Player Scan Play ON.



If the Function Menu has been canceled automatically, select the "Scan" in the Function Menu again.



Source plate



Scan Play range

Display	Play range
DISC SCAN	Disc Repeat
MULTI SCAN	Multi-CD player Repeat

Note:

- Scan Play is canceled automatically after all the tracks or discs have been scanned.
- One-track Repeat changes to the Disc Repeat when you switch the Scan Play ON.

ITS Play

ITS Play plays the memorized track. (Refer to "ITS Programming (ITS)" on page 49.) ITS play of tracks is performed within the play range explained in the "Repeat Play" section.

1. Select "ITS" by moving the joystick.

"ITS" is highlighted in green.

2. Click the joystick.

Each click toggles ITS play On/Off.

After selecting the desired repeat play range from those referred to in "Repeat Play" on page 43, switch ITS Play ON.



Source plate



ITS Play

Note:

 If no track in the current range is programmed for ITS Play, "Empty" is displayed.

Pause

Pause pauses the currently playing track.

- 1. Select "Pause" by moving the joystick.
 - "Pause" is highlighted in green.
- 2. Click the joystick.

Each click toggles Pause On/Off.



Compression and DBE

Using the COMP (Compression) and DBE (Dynamic Bass Emphasis) functions enables Multi-CD player sound quality adjustment. Each of the functions enables two-step adjustment.

■ COMP

The COMP (Compression) function adjusts imbalances between loud and subdued sounds at higher volumes.

■ DBE

DBE (Dynamic Bass Emphasis) boosts bass levels to give a fuller sound.

COMP/DBE ON/OFF Switching

- 1. Select "COMP." by moving the joystick. "COMP." is highlighted in green.
- 2. Click the joystick.

Each click changes the mode in the following order: COMP. Off \rightarrow COMP. 1 \rightarrow COMP. 2 \rightarrow COMP. Off \rightarrow D.B.E. 1 \rightarrow D.B.E. 2



Note:

You can use these functions with a Multi-CD player that has them. If the player does not feature the COMP/DBE functions, "No COMP" is displayed in "COMP.".

PGM button

You can create a shortcut for Pause, RPT, Random or ITS mode.

If you want to control the function of one of these, without needing to go to the Function Menu each time, do the following:

1. Select "PGM" by moving the joystick.

"PGM" is highlighted in green.

2. Click the joystick.

Each click changes the PGM mode in the following order:

Pause → RPT Mode → Random → ITS



Press the PGM button in the Multi-CD source

Function name (Display)	Press	Hold for 2 seconds
Pause (Pause)	ON/OFF	
Repeat play (RPT Mode)	Switch repeat range	
Random play (Random)	ON/OFF	
ITS play (ITS)	ON/OFF	

Display the Flip-Down Plate

You can display input titles and titles recorded on CD TEXT compatible CDs. For CD TEXT, up to 12 letters of a title can be seen at a time. If the title is longer than 12 letters, the remaining letters can be viewed by scrolling.

Press the DISPLAY button.

Each press of the DISPLAY button changes the Source Plate and Flip-Down Plate in the following order:

Source Plate → Disc Title List → No Plate

Examples

Source Plate



Disc Title List



Note:

- · If a disc title has not been input, "NO TITLE" is displayed.
- For numbers that do not have a disc, no title is shown.

Disc Title Input

You can input Titles up to 10 letters long for up to 100 discs. Using this function lets you easily search for and select a desired disc for play. (You can store ITS program and Disc Title data for up to 100 discs in memory.)

Note:

- When playing a CD TEXT disc on a CD TEXT compatible Multi-CD player, you cannot switch to this mode.
- A CD TEXT disc is a CD featuring recorded text information such as Disc Title, Artist Name and Track Title.
- Don't click the joystick to confirm your entry of title. Doing so cancels the title and you must start from the beginning.
- 1. Press the DISPLAY button for the Flip-Down Plate to appear.
- 2. Play the disc you wish to input the disc title.
- 3. Select "Title Edit" by moving the joystick. "Title Edit" is highlighted in green.



4. Click the joystick.

"Title Edit" is highlighted in yellow and the display changes to show the left most character position highlighted.

5. Select the desired character type by pressing the button 1.

Each press of button 1 changes the character type in the following order:

Alphabet (Upper case), Numbers and Symbols → Alphabet (Lower case)

Note:

• You can select to input Numbers and Symbols by pressing button 2.

6. Select letters, numbers and symbols by moving the joystick up/down.

To insert a space, select the cursor "_".



PION

Move the box left and right by moving the joystick left/right.



8. When you have completed title input, move to the 10th letter position, then memorize by moving the joystick right.



Entered Title

Note:

- Titles remain in memory, even after the disc has been removed from the magazine, and are recalled when the disc is reinserted.
- After the titles for 100 discs have been entered, data for a new disc will overwrite the data for the disc that has not been played back for the longest time.

Getting Text Displayed (for CD TEXT compatible type)

You can use these functions when playing a CD TEXT disc on a CD TEXT compatible Multi-CD player.

Title Display Switching

• Select the desired title display by pressing the DISPLAY button. Refer to "Information Screen" on page 13.

Note:

• If certain text information is not recorded on a CD TEXT disc, "NO TITLE" is displayed.

Title Scroll

This product displays the first 12 letters only of Disc Title, Artist Name and Track Title. With text longer than 12 letters, you can see the rest of the text by scrolling.

• Scroll the upper title display by pressing the DISPLAY button for 2 seconds.

Selecting Discs by Disc Title List

Follow the procedures below to play a disc for which you have input the title in a Multi-CD player or a CD TEXT disc on a CD TEXT compatible Multi-CD player.

- 1. Press the DISPLAY button for the Flip-Down Plate to appear.
- 2. Select the desired disc title by moving the joystick up/down.

"NO TITLE" is displayed for disc whose titles have not been input.



The selected disc is indicated in yellow and begins play.



ITS (Instant Track Selection)

The ITS function allows you to search for the track you wish to play. You can use ITS to program automatic playback of up to 24 tracks per disc from up to 100 discs. (You can store ITS program and Disc Title data for up to 100 discs in memory.)

ITS Programming (ITS)

Programmed tracks are played within the selected repeat play range in the "Repeat Play" on page 43.

- 1. Press the DISPLAY button for the Flip-Down Plate to appear.
- 2. Play the track you wish to program.
- **3. Select "ITS MEMO" by moving the joystick.** "ITS MEMO" is highlighted in green.
- 4. Click the joystick.

The currently playing track is stored.

Note:

After 100 discs have been programmed, data for a new disc will overwrite the data for the disc
that has not been played back for the longest time.



Erase a Track Program

- 1. Press the DISPLAY button for the Flip-Down Plate to appear.
- 2. Select the track you wish to erase, during ITS Play.
- **3.** Select "ITS Clear" by moving the joystick. "ITS Clear" is highlighted in green.
- 4. Click the joystick.

Erase the track program and playback of the next ITS-programmed track begins. If there are no more programmed tracks in the current range, "ITS EMPTY" is displayed and normal play resumes.

Erase a Disc Program

- 1. Press the DISPLAY button for the Flip-Down Plate to appear.
- 2. Select the disc you wish to erase, while the disc is playing.
- 3. Select "ITS Clear" by moving the joystick. "ITS Clear" is highlighted in green.
- 4. Click the joystick.

Erase the disc program.





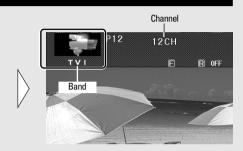
TV Tuner

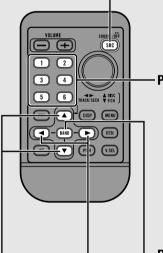
The following explains how to use this product to control TV tuners. For details of TV tuner-specific operations/features, see your TV tuner's manual.

Basics

Selecting the TV Tuner

Select the "TV Tuner" as source by pressing the SOURCE button as many times as necessary.





Preset Memory and Direct Recall

You can memorize broadcast stations in buttons 1 through 6 for easy, one-touch station recall.

Direct recall	Less than 2 seconds
Broadcast station preset memory	More than 2 seconds

Note:

- Up to 12 stations (6 in TV1 and TV2) can be stored in memory.
- You cannot memorize in Preset Channels 7–12 with this function.

Band

TV1 → TV2

Manual and Seek Tuning

You can select the tuning method by changing the length of time you press the **◄/►** button.

Manual Tuning (step by step)	Less than 0.5 seconds
Seek Tuning	More than 0.5 seconds

Preset Tuning

You can recall memorized stations.

Note.

 If you continue pressing the button for longer than 0.5 seconds, you can skip broadcasting stations. Seek Tuning starts as soon as you release the button.

Operation at the Function Menu Screen

Accessing the TV Tuner Function Menu

1. Press the MENU button.

The main menu icons whirl down, with "Function" highlighted in green.

2. Click the joystick.

The TV Tuner Function Menu appears, offering you the following options:

3. Select the option by moving the joystick and click the joystick.

The selected option is highlighted in green.

■ TV Tuner Function Menu

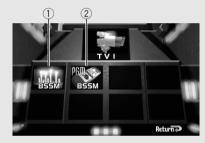
① Best Station Sequential Memory (BSSM)

Switch the BSSM ON by clicking the joystick.

2 PGM button

For TV, you cannot memorize functions other than BSSM in the PGM button.





Exit from the TV Tuner Function Menu

Press the RETURN button.

CD Player

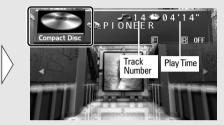
The following explains how to use this product to control CD players. For details of CD player-specific operations/features, see your CD player's manual.

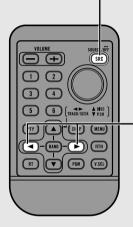
Basics

Selecting the CD Player

Select the "Compact Disc" as source by pressing the SOURCE button as many times as necessary.

The player starts playing automatically.





-Track Search and Fast Forward/Reverse

You can select between Track Search or Fast Forward/Reverse by pressing the ◀/▶ button for a different length of time.

Track Search	Less than 0.5 seconds
Fast Forward/Reverse	Continue pressing

Operation at the Function Menu Screen

Accessing the CD Function Menu

1. Press the MENU button.

The main menu icons whirl down, with "Function" highlighted in green.

2. Click the joystick.

The CD Function Menu appears, offering you the following options:

3. Select the option by moving the joystick and click the joystick.

The selected option is highlighted in green.

■ CD Function Menu

1 Repeat Play

Each click changes the Repeat mode in the following order:

Disc RPT (Disc Repeat) → Track RPT (Track Repeat)

② Random Play

Each click toggles Random play On/Off.

③ Scan Play

Each click toggles Scan play On/Off.

(4) Pause

Each click toggles Pause On/Off.

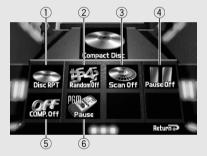
(5) Compression and DBE

Each click changes the COMP in the following order: COMP. Off \rightarrow COMP. $1 \rightarrow$ COMP. $2 \rightarrow$ COMP. Off \rightarrow D.B.E. $1 \rightarrow$ D.B.E. $2 \rightarrow$ COMP.

6 PGM button

Each click changes the PGM mode in the following order: Pause → RPT Mode → Random





Disc Title Input

For detail operation to enter titles, refer to "Disc Title Input" on page 47.

Exit from the CD Player Function Menu

Press the RETURN button.

MD Player

The following explains how to use this product to control MD players. For details of MD player-specific operations/features, see your MD player's manual.

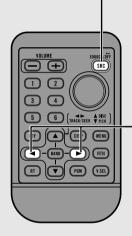
Basics

Selecting the MD Player

Select the "Mini Disc" as source by pressing the SOURCE button as many times as necessary.

The player starts playing automatically.





Track Search and Fast Forward/Reverse

You can select between Track Search or Fast Forward/Reverse by pressing the ◀/▶ button for a different length of time.

Track Search	Less than 0.5 seconds
Fast Forward/Reverse	Continue pressing

Note:

 If "TEMP" is displayed, look it up (or "HEAT") in the error message table in the MD Player's manual.

Operation at the Function Menu Screen

Accessing the MD Function Menu

1. Press the MENU button.

The main menu icons whirl down with "Function" highlighted in green.

2. Click the joystick.

The MD Function Menu appears, offering you the following options:

3. Select the option by moving the joystick and click the joystick.

The selected option is highlighted in green.



■ MD Function Menu

1 Repeat Play

Each click changes the Repeat mode in the following order:

Disc RPT (Disc Repeat) → Track RPT (One-track Repeat)

2 Random Play

Each click toggles Random play On/Off.

③ Scan Play

Each click toggles Scan play On/Off.

(4) Pause

Each click toggles Pause On/Off.

(5) PGM button

Each click changes the PGM mode in the following order:

Pause → RPT Mode → Random



Switching the Title Positions

You can switch the display position of the Disc Title and Track Title. Also with text longer than 12 letters, you can see the rest of the text by scrolling. (Refer to "Information Screen" on page 13.)

Exit from the MD Function Menu

Press the RETURN button.

Adjusting Audio

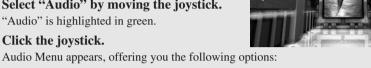
Accessing the Audio Menu

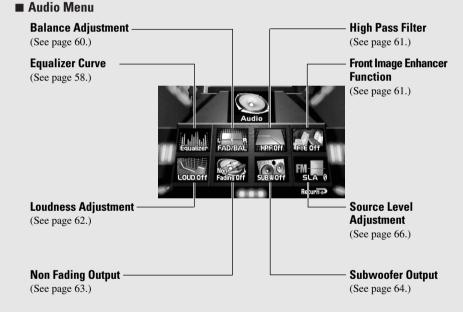
1. Press the MENU button.

The main menu icons whirl down with "Function" highlighted in green.

2. Select "Audio" by moving the joystick.

3. Click the joystick.





4. Select the option by moving the joystick.

The selected option is highlighted in green.

5. Click the joystick.

Refer to detailed operation of each function.

Exit from the Audio Menu

Press the RETURN button.

Equalizer Curve

Selecting the Equalizer Curve

You can switch between Equalizer curves.

1. Check to see "Equalizer" is currently highlighted.

If not, select that option by moving the joystick. "Equalizer" is highlighted in green.

2. Click the joystick.

The Graphic Equalizer Menu appears, with "Band" highlighted in green.

- 3. Select either "EQ+" or "EQ-" by moving the joystick up/down.
- 4. Click the joystick.

Each click changes EQ curve in the following order:

With "EQ+" selected:

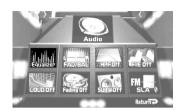
Powerful \rightarrow Natural \rightarrow Vocal \rightarrow Custom \rightarrow Flat \rightarrow Super Bass

With "EQ-" selected:

Powerful \rightarrow Super Bass \rightarrow Flat \rightarrow Custom \rightarrow Vocal \rightarrow Natural

Note:

- "CUSTOM" stores an equalizer curve you have made adjustments to. (Refer to "Equalizer Curve Adjustment" on page 59.)
- You can create a different "CUSTOM" curve for each of the SLA function groups (see page 66). Remember, however, SLA is based on FM volume, so FM and AM curve are always the same.





Equalizer Curve Adjustment

You can adjust the currently selected equalizer curve settings as desired. Adjusted equalizer curve settings are memorized in "CUSTOM".

Before performing the following steps, select the source whose EQ curve you'll adjust. (Refer to "Operation for Each Source Unit" on page 9.)

1. Check to see "Equalizer" is currently highlighted.

If not, select that option by moving the joystick. "Equalizer" is highlighted in green.

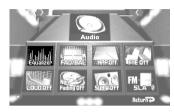
2. Click the joystick.

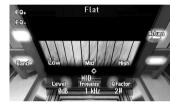
The Graphic Equalizer Menu appears, with "Band" highlighted in green.

3. Select the band by clicking the joystick.

Each click changes band in the following order:

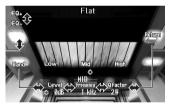
Low → Mid → High





4. Select "Level", "Frequency" or "Q Factor" by moving the joystick.

Selected option is highlighted in green.



5. Adjust the selected option by moving the joystick up/down.

The selectable options are adjustable in the following limits:

As well, "Frequency" differs in adjustable range from Band to Band.



Option	Adjustable Range
Level	-12 dB to +12 dB
Frequency	Low: 40/80/100/160 Hz
	Mid: 200/500/1k/2k Hz
	High: 3.15k/8k/10k/12.5k Hz
Q Factor	2W/1W/1N/2N

6. Select "Band" by moving the joystick.

7. Repeat steps 3 - 6 for other bands.

Note:

- If you make adjustments when a curve other than "CUSTOM" is selected, "CUSTOM" appears and the adjusted curve is stored in "CUSTOM". (See page 58.)
- For how to select EQ curves other than "CUSTOM", refer to "Equalizer Curve".

Balance Adjustment

This function allows you to select a Fader/Balance setting that provides ideal listening conditions in all occupied seats.

1. Select "FAD/BAL" by moving the joystick. "FAD/BAL" is highlighted in green.

2. Click the joystick.

The Audio Setting Menu appears, with "FAD/BAL" highlighted in green.



3. Click the joystick.

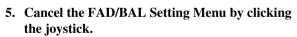
The FAD/BAL Setting Menu appears.



Adjust speaker balance by moving the joystick.

The display shows "F 15" – "R 15" as it moves from front to rear.

The display shows "L 09" – "R 09" as it moves from left to right.



Note:

- When the Rear Speaker Lead setting is "Sub Woofer", you cannot adjust front/rear speaker balance. (See page 68.)
- "F 00" is the proper setting when 2 speakers are in use.



High Pass Filter

When you do not want sound in the Subwoofer output frequency range output from the front or rear speakers, switch the High Pass Filter ON. Only higher frequencies than those in the selected range are output from the front and rear speakers.

1. Select "HPF" by moving the joystick.

"HPF" is highlighted in green.

2. Click the joystick.

The Audio Setting Menu appears, with "HPF" highlighted in green.



3. Click the joystick.

Each click changes cut-off frequency in the following order:

 $50 \text{ Hz} \rightarrow 80 \text{ Hz} \rightarrow 125 \text{ Hz} \rightarrow \text{Off}$



Note:

• When the F.I.E. function is ON, you cannot switch to the H.P.F. mode.

Front Image Enhancer Function

The F.I.E. (Front Image Enhancer) function is a simple method of enhancing front imaging by cutting mid- and high-range frequency output from the rear speakers, limiting their output to low-range frequencies. You can select the frequency you want to cut.

Precaution:

• When the F.I.E. function is deactivated, the rear speakers output sound of all frequencies, not just bass sounds. Reduce the volume before disengaging F.I.E. to prevent a sudden increase in volume.

1. Select "FIE" by moving the joystick.

"FIE" is highlighted in green.

2. Click the joystick.

The Audio Setting Menu appears, with "FIE" high-lighted in green.



3. Click the joystick.

Each click changes frequency in the following order: $100 \text{ Hz} \rightarrow 160 \text{ Hz} \rightarrow 250 \text{ Hz} \rightarrow \text{Off}$



Note:

- When the H.P.F. function is ON, you cannot switch to the F.I.E. mode.
- After switching the F.I.E. function ON, select the Fader/Balance mode in the Audio Menu, and adjust front and rear speaker volume levels until they are balanced.
- When the Rear Speaker Lead setting is "Sub Woofer", you cannot switch the F.I.E. mode. (See page 68.)
- Switch the F.I.E. function OFF when using a 2-speaker system.

Loudness Adjustment

The Loudness function compensates for deficiencies in the low and high sound ranges at low volume. You can select a desired Loudness level.

1. Select "LOUD" by moving the joystick. "LOUD" is highlighted in green.

2. Click the joystick.

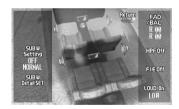
The Audio Setting Menu appears, with "LOUD" highlighted in green.



3. Click the joystick.

Each click changes sound range control in the following order:

 $LOW \rightarrow MID \rightarrow HIGH \rightarrow Off$



Non Fading Output

When the Non Fading Output setting is ON, the audio signal does not pass through this unit's low pass filter (for the Subwoofer), but is output through the RCA output.

When the Non Fading output is ON, you can adjust the level of Non Fading output.

Note:

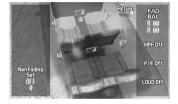
- When the Subwoofer Controller setting is only "External" in the Initial Settings Menu, you can switch "Non Fading Set". (See page 68.)
- 1. Select "Non Fading" by moving the joystick. "Non Fading" is highlighted in green.
- 2. Click the joystick.

The Audio Setting Menu appears, with "Non Fading Set" highlighted in green.



3. Click the joystick.

and shows indicating that you are ready to select a level.



4. Switch the Non Fading Output ON/OFF by moving the joystick up/down.



5. Increase or decrease the output level by moving the joystick left/right.

The display shows "0" – "-15".

6. Cancel the Non Fading Output Setting by clicking the joystick.



Subwoofer Output

Switching the Subwoofer Output ON/OFF

When a Subwoofer is connected, switch Subwoofer output ON. Initially, Subwoofer output is OFF.

The Subwoofer output phase can be switched between normal, or 0° ("NORMAL"), and reverse, or 180° ("REVERSE"). 0° is the default phase.

Note:

- When the Subwoofer Controller setting is "External" in the Initial Settings Menu, you cannot switch the Subwoofer ON/OFF mode. In this case, this setting is not necessary. (See page 68.)
- Select the OFF setting when you do not want the Subwoofer to operate.
- When the Subwoofer output is OFF, you cannot change the phase of Subwoofer output.
- 1. Select "SUB W" by moving the joystick. "SUB W" is highlighted in green.
- 2. Click the joystick.

The Audio Setting Menu appears, with "SUB W Setting" highlighted in green.

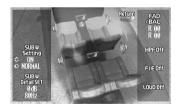


3. Click the joystick.

and hows indicating that you are ready to select a phase.



4. Switch the Subwoofer Output ON/OFF by moving the joystick up/down.



- 5. Change the phase of Subwoofer output by moving the joystick left/right.
- 6. Cancel the Subwoofer Output Setting by clicking the joystick.



Subwoofer Setting Adjustment

When the Subwoofer output is ON, you can adjust the cut-off frequency and the output level of Subwoofer.

Note:

- You can adjust the "SUB W Detail SET" only when Subwoofer output is switched ON in "SUB W Setting".
- 1. Select "SUB W" by moving the joystick. "SUB W" is highlighted in green.
- 2. Click the joystick.

The Audio Setting Menu appears, with "SUB W Setting" highlighted in green.



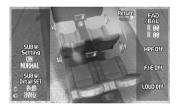
3. Move the joystick down.

"SUB W Detail SET" is highlighted in green.



4. Click the joystick.

and shows indicating that you are ready to select a level.



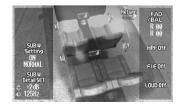
5. Select the frequency to 50 Hz, 80 Hz or 125 Hz by moving the joystick left/right.



6. Increase or decrease the output level by moving the joystick up/down.

The display shows "+12" - "-12".

7. Cancel the Subwoofer Detailed Setting by clicking the joystick.



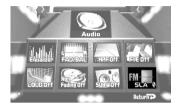
Source Level Adjustment (SLA)

The SLA (Source Level Adjustment) function prevents radical leaps in volume level when switching between sources. Settings are based on the FM volume level, which remains unchanged.

Before performing the following steps, select the source whose volume level you will adjust. (Refer to "Operation for Each Source Unit" on page 9.)

- 1. Select "SLA" by moving the joystick.
 - "SLA" is highlighted in green.
- 2. Click the joystick.

The SLA Setting Menu appears, with the selected source's level highlighted in green.



3. Increase or decrease the level by moving the joystick up/down.

The display shows "+8" - "-8".

4. In a similar manner, adjust the volume level of other sources.

You can perform SLA independently for each of the following groups:



Display	Source
TUN	AM
CD	CD player, Multi-CD player, Multi-DVD player
MD	MD player
TV	TV, Video
AUX	AUX, Speaker Input
EXT	External 1, External 2

Note:

• Since the FM volume is the control, SLA is not possible in the FM modes.

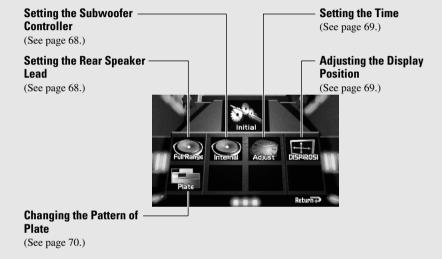
Changing the Initial Settings

Accessing the Initial Settings Menu

- 1. Switch the Power off by pressing the SOURCE button for 1 second.
- 2. Press the MENU button for 2 seconds.

The Initial Settings Menu appears, with "Full Range" highlighted in green.

■ Initial Settings Menu



3. Select the option by moving the joystick.

The selected option is highlighted in green.

4. Click the joystick.

Refer to detailed operation of each function.

Exit from the Initial Settings Menu

Press the RETURN button.

Exit from the Initial Settings Menu and switch power off.

Setting the Rear Speaker Lead

This product's rear speaker leads can be used for full-range speaker ("Full Range") or Subwoofer ("Sub Woofer") connection. If you switch Rear Speaker Lead setting to the "Sub Woofer", you can connect a rear speaker lead directly to a Subwoofer without using an auxiliary amp.

Initially, the unit is set for rear full-range speaker connection ("Full Range").

1. Check to see "Full Range" is currently highlighted.

If not, select that option by moving the joystick. "Full Range" is highlighted in green.

2. Click the joystick.

Each click toggles Full Range/Sub Woofer.



Note:

- When no Subwoofer is connected to the rear speaker lead, select "Full Range".
- When a Subwoofer is connected to the rear speaker lead, set for Subwoofer "Sub Woofer".
- Even if you change to "Sub Woofer", there is no output unless you switch the Subwoofer Output (see page 64) in the Audio Menu ON.

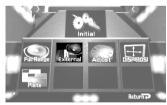
Setting the Subwoofer Controller

When rear speaker leads are connected to full range speakers (when "Full Range" is selected), you can connect the RCA Subwoofer output to a Subwoofer. In this case, you can select whether to use the Subwoofer controller's (Low Pass Filter, Phase) built-in "Internal" or the auxiliary "External".

Select "Internal" by moving the joystick. "Internal" is highlighted in green.

2. Click the joystick.

Each click toggles Internal/External.



Note:

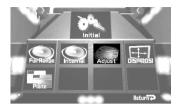
- When the Rear Speaker Lead setting is "Sub Woofer", you cannot change the Subwoofer controller.
- If you change the Subwoofer Controller, Subwoofer output and Non Fading output in the Audio Menu return to the factory settings.
- Even if you change this setting, there is no output unless you switch the Non Fading Output (see page 63) or Subwoofer Output (see page 64) in the Audio Menu ON.

Setting the Time

This is the mode for setting the time on the product's clock display.

- 1. Select "Adjust" by moving the joystick. "Adjust" is highlighted in green.
- 2. Click the joystick.

The clock adjustment display appears on the screen.



- 3. Adjust "Hour" by moving the joystick up/down.
- 4. Adjust "Minute" by moving the joystick left/right.

As soon as you switch to "Minute", the seconds start counting from 00.



The clock adjustment display disappears.

Note:

• How to display the time indication is discussed under the heading of "Switching the Center Screen and Time Display in the Center Room" on page 71.

Adjusting the Display Position

You can adjust the position of the display.

- Select "DISP POSI" by moving the joystick. "DISP POSI" is highlighted in green.
- 2. Click the joystick.



- 3. Adjust the display position by moving the joystick.
- 4. Click the joystick.

The adjusted display position is memorized.



Changing the Pattern of Plate

You can change the pattern of the Source Plate and Flip-Down Plate in sequence.

1. Select "Plate" by moving the joystick.

"Plate" is highlighted in green.



2. Click the joystick.

Each click changes the pattern of the plate in the following order:

Pattern $1 \rightarrow$ Pattern $2 \rightarrow$ Pattern 3



Other Functions

Switching the Center Screen and Time Display in the Center Room

You can change the center screen to show a simple source information, time display in addition to 9 different video clips.

1. Select the desired Display by clicking the joystick.

Each click changes the center screen in the following order:

Video clips → Simple source information → Time display

2. Select a desired video clip by moving the joystick down when the video clip is playing.



Note:

• A simple source information shows nothing when the Source Plate is displayed.

Switching the Color of the Spectrum Analyzer

You can select a color for the spectrum analyzer from among 6 options.

1. Move the joystick up.
The spectrum analyzer appears.

2. Click the joystick.

Each click changes the color of the spectrum analyzer in sequence.



Listening Sounds or Viewing Images from Additional Units

Accessing the Set Up Menu

1. Press the MENU button.

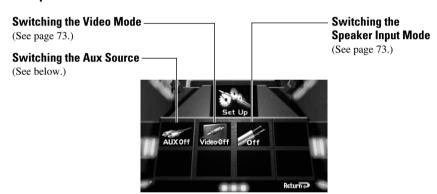
The main menu icons whirl down, with "Function" highlighted in green.

- Select "Set Up" by moving the joystick. "Set Up" is highlighted in green.
- 3. Click the joystick.

The Set Up Menu appears.



■ Set Up Menu



Switching the AUX Source

An IP-BUS-RCA Interconnector such as CD-RB20 (sold separately) enables you to connect this product to auxiliary equipment featuring an RCA output.

For more details, refer to the IP-BUS-RCA Interconnector's Owner's Manual.

- Check to see "AUX" is currently highlighted.
 If not, select that option by moving the joystick.
 "AUX" is highlighted in green.
- **2. Click the joystick.**Each click toggles AUX On/Off.
- **3. Press the RETURN button.** You go back to the Center Room.
- 4. Select "AUX" by pressing the SOURCE button.



Switching the Video Mode

When connecting an external video component to the video input, switch the Video mode ON.

- 1. Select "Video" by moving the joystick. "Video" is highlighted in green.
- **2.** Click the joystick.
 Each click toggles Video On/Off.
- **3. Press the RETURN button.** You go back to the Center Room.
- 4. Select the "Video" by pressing the SOURCE button.



Switching the Speaker Input Mode

When connecting auxiliary equipment to the speaker input terminal, switch the Speaker Input mode ON.

- 1. Select "Off" by moving the joystick. "Off" is highlighted in green.
- **2. Click the joystick.** Each click toggles SP Input/Off.
- **3. Press the RETURN button.** You go back to the Center Room.
- 4. Select the "SP Input" by pressing the SOURCE button.



AUX Title Input

The display title for AUX source can be changed.

Select "AUX" by pressing the SOURCE button.



2. Press the MENU button.

The main menu icons whirl down, with "Function" highlighted in green.

3. Click the joystick.

The Function Menu appears, with "Name Edit" highlighted in green.

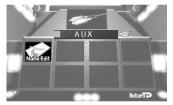
4. Click the joystick.

The title edit display appears on the screen.

5. Input the Aux Title.

Refer to "Disc Title Input" on page 47, and perform procedures 5 to 8 in the same way.





Muting Function

Mobile Navigation Unit Muting

In the following cases, sound from this product's front speakers are muted automatically:

- When the guidance audio is output from Mobile Navigation Unit connected to this product. (The guidance audio is output with muted source sound.)
- When you operate the Mobile Navigation Unit connected to this product by voice.
- When the guidance audio from the Mobile Navigation Unit cannot be heard such as when the Multi-DVD Player is selected as the source or no sounds are being played back (as when a disc menu or a set-up menu is displayed).

Cellular Telephone Muting

Sound from this system is muted automatically when a call is made or received using a cellular telephone connected to this product.

The sound is turned off, "MUTE" is displayed and no audio adjustment is possible. Operation returns to normal when the phone connection is ended.

Troubleshooting

If you think there is something wrong with the unit.

Before requesting repairs, check the following chart.



If the problem remains even after checking.

Reset the unit. (See page 7.)



If the problem still remains.

Request repairs.

■ General

Symptom	Cause	Remedy
The power switch does not work. No functions come on.	Cables or connectors are not correctly connected.	Check whether the cables are plugged in correctly and firmly.
	The fuse is broken.	Remove the cause of the breaking of the fuse, then replace the fuse. Be very sure the same rated proper fuse is installed.
The remote control does not work.	The battery power is running out.	Replace the batteries. (See page 8.)
No sounds are heard. The volume level will not rise.	Cables are not connected correctly.	Connect the cables correctly.
	The volume is turned all the way down.	Increase the volume. (See page 10.)
	The front, rear, left and right speakers are not properly adjusted in level balance.	Adjust the relative levels between the speakers correctly. (See page 60.)
No images come on.	The parking brake is not connected.	Connect the parking brake cord and engage the parking brake.
	The parking brake is not engaged.	

■ DVD Player (if installed)

Symptom	Cause	Remedy
The DVD player's remote control does not operate.	The remote control is not in the correct operation mode.	Switch the remote control to the proper mode. (See the manual for the DVD player.)
No sounds come from the DVD player only.	The optical cable has become detached.	Connect the cable correctly.
	The DVD player is not properly set for output.	Make the correct output setting. (See the manual for the DVD player.)

Installation

Connecting the Units

Note:

- This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.
- Refer to each product's manual for details on connecting the power amp and other units, then make connections correctly.
- Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap adhesive tape around them where they lie against metal parts.
- Route and secure all wiring so it cannot touch any moving parts, such as the gear shift, handbrake and seat rails. Do not route wiring in places that get hot, such as near the heater outlet. If the insulation of the wiring melts or gets torn, there is a danger of the wiring shortcircuiting to the vehicle body.
- Don't pass the yellow lead through a hole into the engine compartment to connect to the battery. This will damage the lead insulation and cause a very dangerous short.
- Do not shorten any leads. If you do, the protection circuit may fail to work when it should.
- Never feed power to other equipment by cutting the insulation of the power supply lead of the unit and tapping into the lead. The current capacity of the lead will be exceeded, causing overheating.

- When replacing fuse, be sure to use only fuse of the rating prescribed on the fuse holder.
- Speakers connected to this unit must be highpower types with minimum rating of 45 W and impedance of 4 to 8 ohms. Connecting speakers with output and/or impedance values other than those noted here may result in the speakers catching fire, emitting smoke or becoming damaged.
- When this product's source is switched ON, a control signal is output through the blue/white lead. Connect to an external power amp's system remote control or the car's Auto-antenna relay control terminal (max. 300 mA 12 V DC). If the car features a glass antenna, connect to the antenna booster power supply terminal.
- When an external power amp is being used with this system, be sure not to connect the blue/white lead to the amp's power terminal. Likewise, do not connect the blue/white lead to the power terminal of the auto-antenna. Such connection could cause excessive current drain and malfunction.
- To avoid short-circuiting, cover the disconnected lead with insulating tape. Especially, insulate the unused speaker leads without fail.
 There is a possibility of short-circuiting if the leads are not insulated.
- To prevent incorrect connection, the input side of the IP-BUS connector is blue, and the output side is black. Connect the connectors of the same colors correctly.

 If this unit is installed in a vehicle that does not have an ACC (accessory) position on the ignition switch, the red lead of the unit should be connected to a terminal coupled with ignition switch ON/OFF operations. If this is not done, the vehicle battery may be drained when you are away from the vehicle for several hours.



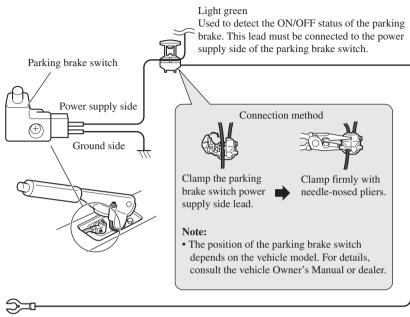


ACC position

No ACC position

- The black lead is ground. Please ground this lead separately from the ground of high-current products such as power amps.
 If you ground the products together and the ground becomes detached, there is a risk of damage to the products or fire.
 - Cords for this product and those for other products may be different colors even if they have the same function. When connecting this product to another product, refer to the supplied Installation manuals of both products and connect cords that have the same function.

Connecting the Power Cord



Black (ground) To vehicle (metal) body.

Red Fuse resistor To electric terminal controlled by ignition switch

(12V DC) ON/OFF.

Yellow Fuse holder

To terminal always supplied with power regardless of ignition switch position.

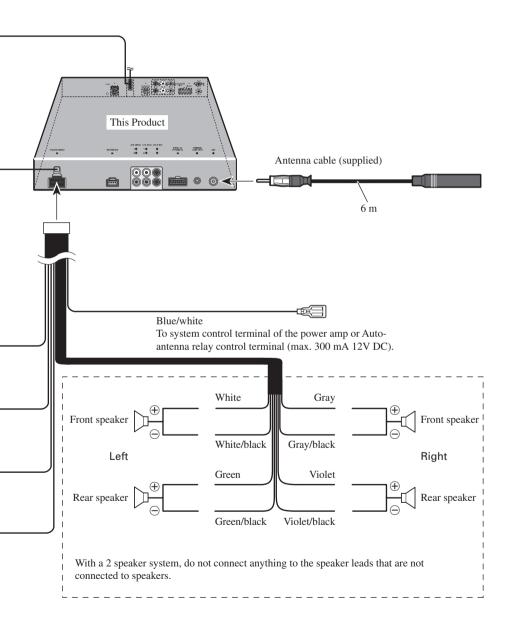
Orange Fuse resistor

To lighting switch terminal.



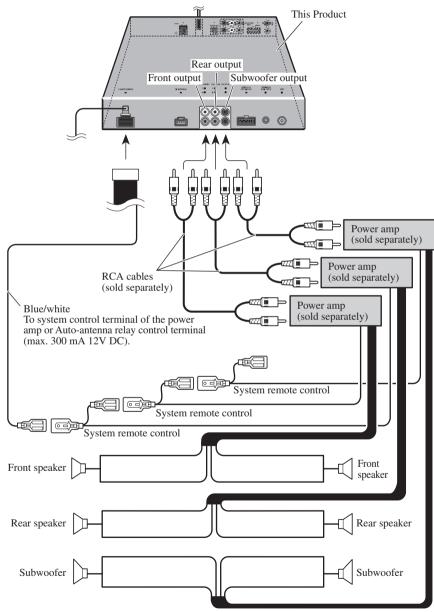
Yellow/black

If you use a cellular telephone, connect it via the Audio Mute lead on the cellular telephone. If not, keep the Audio Mute lead free of any connections.



Connecting to a Sold Separately Power Amp

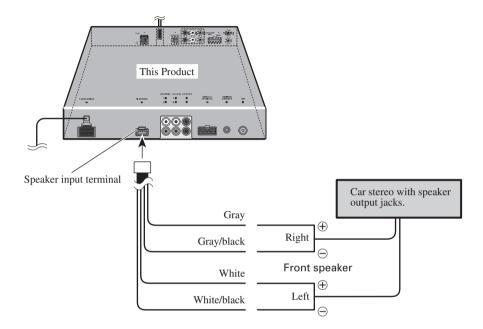
This product can be connected to a sold separately power amp using the RCA output jacks.



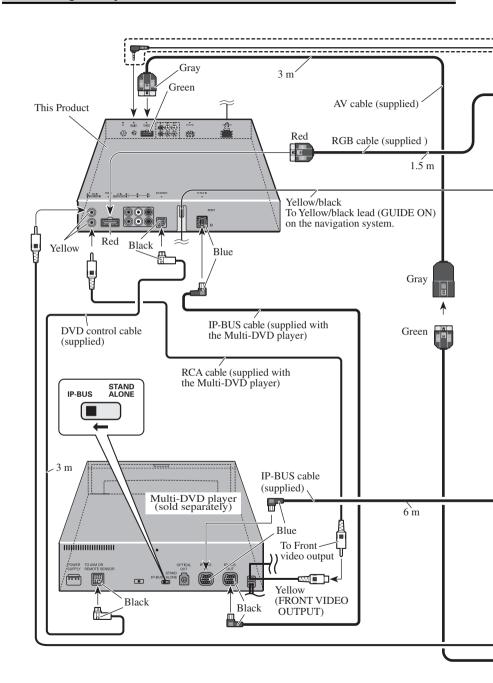
Perform these connections when using a different amp (sold separately).

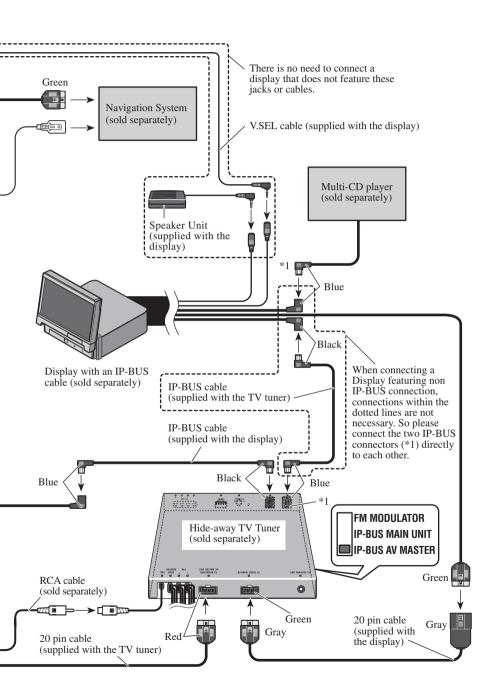
Speaker Input Jack Connection

This product also can be connected to a car stereo without RCA output jacks by using the speaker input jack.

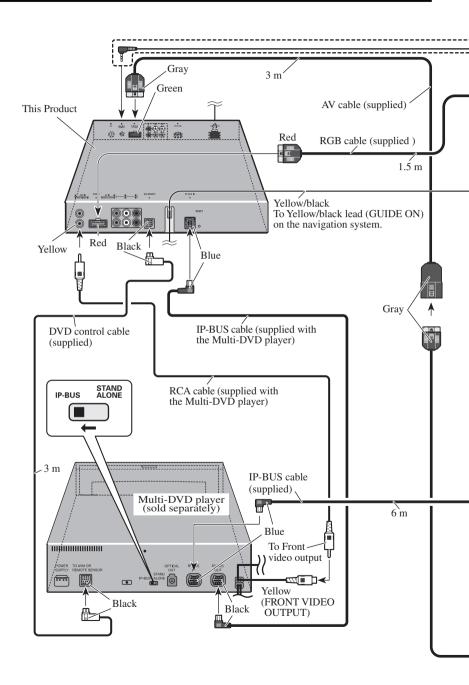


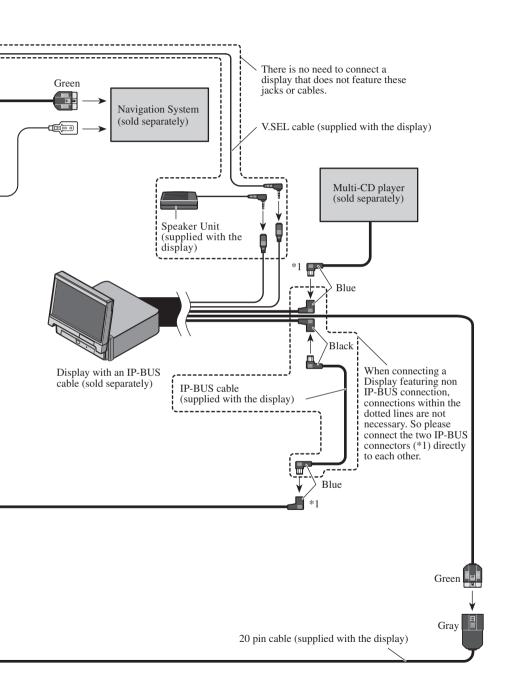
Connecting the System (A)





Connecting the System (B)

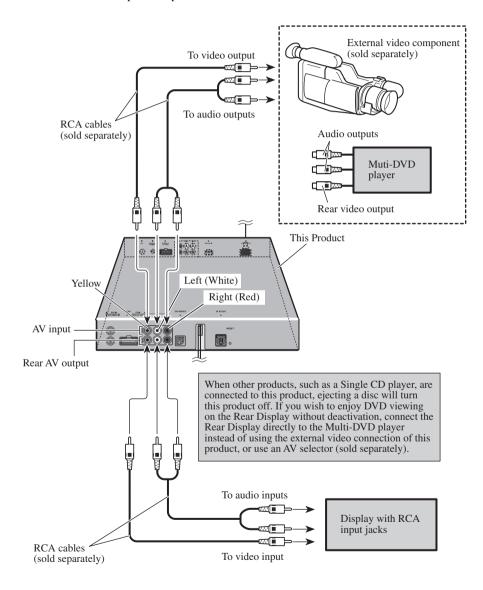




VIDEO Input/Output Connection

It is possible to use an external video component by connecting it to the AV input on this product.

When connecting the Display with RCA input jacks to Rear AV output, you can also watch the external video component's picture.



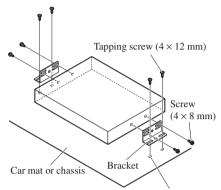
Installation

Note:

- Before finally installing the unit, connect the wiring temporarily, making sure it is all connected up properly, and the unit and the system work properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.
- When mounting this unit, make sure none of the leads are trapped between this unit and the surrounding metalwork or fittings.
- Do not mount this unit near the heater outlet, where it would be affected by heat, or near the doors, where rainwater might splash onto it.
- Before drilling any mounting holes always check behind where you want to drill the holes.
 Do not drill into the gas line, brake line, electrical wiring or other important parts.
- If this unit is installed in the passenger compartment, anchor it securely so it does not break free while the car is moving, and cause injury or an accident.
- If this unit is installed under a front seat, make sure it does not obstruct seat movement. Route all leads and cords carefully around the sliding mechanism so they do not get caught or pinched in the mechanism and cause a short circuit.

Installing the Unit

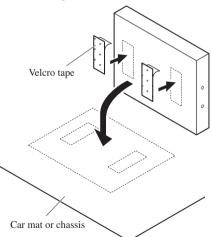
■ Mounting with Brackets



Drill 2 to 2.5 mm diameter holes.

■ Mounting with Velcro Tape

Thoroughly wipe off the surface before affixing the velcro tape.



Specifications

General

Power source 14.4 V DC (10.8 – 15.1 V allowable)		
Grounding system Negative type		
Max. current consumption 10 A		
Dimensions		
$[12-1/8 \text{ (W)} \times 2 \text{ (H)} \times 7-3/8 \text{ (D) in.}]$		
Weight 2.0 kg (4.4 lbs)		
Amplifier		
Continuous power output is 22 W per channel min. into		
4 ohms, both channels driven 50 to 15,000 Hz with no		
more than 5% THD.		
Maximum power output		
45 W × 2 ch/4 Ω + 70 W × 1 ch/2 Ω (for Subwoofer)		
Load impedance		
Preout maximum output level/output		
impedance		

FM tuner

Frequency range 87.9 – 107.9 MHz
Usable sensitivity
10 dBf (0.9 μ V/75 Ω , mono, S/N: 30 dB)
50 dB quieting sensitivity 15 dBf (1.5 μ V/75 Ω , mono)
Signal-to-noise ratio
Distortion 0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response
Stereo separation
Selectivity
Three-signal intermodulation
(desired signal level)
(two undesired signal level: 100 dBf)

AM tuner

Frequency range	530 – 1,710 kHz (10 kHz)
Jsable sensitivity	18 μV (S/N: 20 dB)
Selectivity	50 dB (±10 kHz)

Video	
Composit input level	1 V/75 Ω
	NTSC only
Composit output level	1 V/75 Ω
	NTSC Directly Through Input

Note:

· Specifications and the design are subject to possible modification without notice due to improvements.

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