

SOUNDSTREAM

**IN-DASH CAR MONITOR WITH
DVD PLAYER/TV/RADIO TUNER**

VIR-7880TS

USER'S MANUAL

Thank you for buying a SOUNDSTREAM VIR-7880TS.

- This user's manual covers the VIR-7880TS model.
- Please read through this user's manual before using the product.
- After reading this manual, please keep it within easy reach.
- This user's manual includes instructions on how to use the DVD/CD, TV tuner, radio tuner and CD changer.

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Precaution

Warning

To avoid the risk of accident, drivers should not watch the video screen or operate the product while driving. 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.

This product detect whether your car's parking brake is engaged or not, and prevents you from watching a DVD or TV on this display while driving. When you attempt to watch a DVD or TV, the warning VIDEO VIEWING IS NOT AVAILABLE WHILE DRIVING will appear on the screen.

To watch a DVD or TV on this display, park your car in a safe place and apply the parking brake.

Warning

While driving, maintain a volume that will allow you to hear sounds outside the car.

1. When the temperature of the car inside the car is low, do NOT use the player right after turning on the heater. If moisture forms on the disc(DVD/CD) surface or the optical parts of the player, disc playback may not work well.
If moisture forms on the disc(DVD/CD), wipe it off thoroughly with a soft cloth. If moisture forms on the optical parts of the player, do NOT use the player for an hour or so. When the moisture is allowed to dry naturally, the player will work normally again.
2. Driving the car on unpaved roads, with severe vibration, may cause the sound to skip.
3. This equipment uses a precision mechanism. Even if problems occur, do NOT open the case, take it apart or lubricate any of the moving parts.
4. When receiving TV broadcasts while driving, the strength of signals may change and you may not receive a clear picture.
 - Signals are weak due to obstacles such as mountains or buildings.
 - The pictures may be interrupted, or noise may occur, due to external factors such as electrical train lines, high voltage lines and other signaling equipment.
5. This product has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interface in a residential installation. This product generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product does cause harmful interference to radio or TV reception, which can be determined by turning the equipment off and on, the user is encouraged to consult the dealer or an experienced radio/TV technician for help.
6. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the product.

Precautions for handling discs

Handling

- The edges around new discs may be rough. When using discs with rough edges, the player may not work normally, or the sound may skip. Use a ballpoint pen or other similar tool to remove any roughness around the edges of the discs before using them.
- Do not attach labels to the surface of the disc, or mark the surface with a pencil or pen.
- Do not play discs that have scotch tape or other adhesives on them, or from which the surface has peeled. Using such discs may prevent the disc ejecting from the DVD player or may damage it.
- Do not use discs that are badly scratched, deformed or cracked. Using such discs may cause the product to operate abnormally or be damaged.
- When removing a disc from its storage case, press the center of the case, hold the disc by the edges and lift it carefully.
- Use neither commercially available CD protection sheets nor disc stabilizers. They may damage the discs or cause breakdown of the internal mechanism.

Storage

- Do not expose discs to direct sunlight or radiators.
- Do not expose discs to moisture or dust.
- Do not expose discs to direct heat from heaters.

Cleaning

- Use a soft cloth to wipe discs, working from the center of the disc out towards the circumference. Do not wipe discs with commercially available cleaners, anti-static spray or thinners.

Inserting discs

- If the LCD panel is open, load discs with care.
When a disc is loaded, do not remove the unit from the car, or turn off the power.



With the LCD panel open, it is not easy to see the disc insertion slot. For the sake of safety, the driver should insert discs with the LCD panel closed.

Playable discs and region

Playable disc

DVD Video disc



Single or double-sided disc
Single or double-layered disc

DVD Video stored in DVD-R, DVD-RW, DVD+R, DVD+RW discs



CD, VCD, MP3 audio files stored in CD-R, CD-RW discs



Video CD



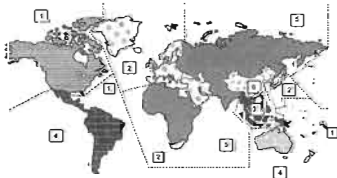
Region code

DVD video systems assign a specific region code to each DVD video player and DVD disc according to sales regions. For example, DVD video players sold in the United States can only play discs suited to the U.S. region code ('1', 'ALL', or a combination of numbers including '1', 'ALL').

The DVD region code is indicated on the disc jacket, as the following picture shows.



The region codes of each country are as follows. Refer to them when purchasing DVD titles.



TV color system

The DVD player plays NTSC or PAL discs only, and cannot play SECAM discs. TV tuner of this unit is only compatible with NTSC color system.

About the registered trademark

- This product includes copyright protection technology that is protected under certain U.S. patents, and other intellectual property rights owned by Macrovision Corporation. Unless authorized by Macrovision Corporation, this copyright protection technology can be used only at home or in other limited places. Disassembly and reverse engineering are prohibited.
- Manufactured under license from Dolby Laboratories.
"Dolby" and the double-D symbols are registered trademarks of Dolby Laboratories.
- "DTS" is the registered trademark of Digital Theater Systems, Inc.



Basic unit operation





Warning

For safe driving, adjust the volume to a level that allows you to hear sounds outside the car. When you turn on the power, the volume is adjusted to 10, the maximum volume level for safety.

■ Power on/off

1. Press the [ /SRC] button, and the unit's initial display lights up. The main unit remembers the last operation source used and displays it accordingly.
2. In the case of a DVD source, it automatically plays back from the point of the last operation.
3. Press the [ /SRC] button for 3 seconds or longer to turn off the power. Even after the power is turned off, the buttons are illuminated when the car sidelights are switched on.

■ Selecting a source

1. Press briefly the [ /SRC] button to change the source.
2. When you press the [ /SRC] button, the sources are selected in the following order.
Radio ▶ TV ▶ DVD (▶ CD Changer) ▶ EXTERN
The CD Changer is indicated only if one is connected.

■ Adjusting the volume

Press [VOL] to adjust the volume.

- '+' increases the volume.
- '-' decreases the volume.
- The volume level indicated on the display is in 32 steps from 0 to 31.



- Use this unit while the engine is running.

If you use this unit for a long time with the engine stopped, you may not be able to start the engine again, due to a discharged battery, or you may shorten the service life of the battery. If you intend to use this product for prolonged periods, please make sure that you use it only when the engine is running.

■ Display with the LCD panel closed

When the LCD panel is closed, you can check the status of the unit's operation from the 'Information indication window'. The initial display shows the status of the source operation.

Press the [DISPLAY] button to change to clock display. Press the [DISPLAY] button again to return to the status of the current source.

■ Opening and turning on the display

Warning

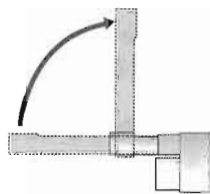
When the LCD panel is in operation, be careful not to get your hand or fingers caught between the panel and the main unit, or between the car instrumentation.

■ Opening up the LCD panel

Press the [OPEN] button, and the LCD panel emerges and automatically comes upright.

[NOTE]

- If the LCD panel stops in the middle of this operation, press the [OPEN] button again to house the LCD panel back in its original position. Then press the [OPEN] button again to make the LCD panel come upright. The LCD panel moves back to its last adjusted position.



■ Adjusting the angle, etc. of the LCD panel

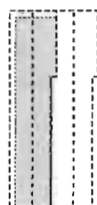
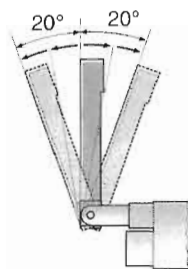
You can adjust the angle of the LCD panel or the amount by which it protrudes from the main unit according to the angle at which the unit is loaded, or the amount of light in the car.

- Adjusting the angle

Each time you press the [TILT] button briefly, the LCD panel tilts forward or backward by 10° up to a maximum of 20° , and the movement is accompanied by a beep sound. Once the angle is set, the adjustment is saved in the memory.

- Adjusting the protruding length

Press the [TILT] button longer, and the LCD panel moves forward or backward, and the beep sounds twice. Once it is adjusted as place you want, the location is stored in the memory. The distance can be adjusted in three fixed intervals.



[NOTE]

- Do not use force on the LCD panel

■ Making the LCD panel go horizontal

[Air conditioner operation mode]

In case the LCD panel obstructs the operation of the air conditioner, you can temporarily make the LCD panel go horizontal.

1. When the LCD panel is upright, press and hold the [OPEN] button and wait until a beep is heard.
2. The LCD panel goes horizontal.
 - When the LCD panel is in the horizontal position, press the [OPEN] button to return it to its original position.
 - If 10 seconds pass without the [OPEN] button being pressed, the LCD panel returns to its original position with a warning sound.

■ Turning the monitor on and off

Press the [ZONE] button for 3 seconds or longer to turn off the monitor. Press the [ZONE] button again to turn on the monitor.

■ Mute

When the sound is audible, press the [MUTE] button to mute sound. When the sound is muted, the speaker icon changes into a mute icon.

If no sound is heard despite increasing the volume, check if the unit is set to mute mode.

Press the [MUTE] button again to end the mute status.

How to operate the LCD panel

[NOTE]

- Please read the following precautions to lengthen the service life of the LCD panel.
- If you are going to park the car outdoors for a long time, keep the LCD panel inside the main unit.
- Be careful not to let any liquid from drinks or wet umbrellas get into the main unit. Liquids may damage the internal circuitry.
- Do not disassemble or modify the product in any way. Such actions may lead to damage, in which case you may have to pay for an A/S service. Please have the product repaired in the store of purchase or other designated A/S agency.
- Do not pull the LCD panel out by force, or use the back of the LCD panel as a tray. Do not subject the LCD panel to any impact. It may cause breakage, deformation or other damage.
- Be careful not to allow cigarettes to burn the display. Any breakage or damage may prevent the display from working normally.
- When tilting the LCD panel, do not place any foreign objects between the LCD panel and the main unit. Failure of the panel may result.
- Do not place anything on the display when tilting the LCD panel.
- When it is cold, the display movement may slow down, the display may darken, and an after-image may be visible. This is not a malfunction. When the temperature of the main unit and its surroundings increases, the unit will work normally again.
However, if the unit does not work properly in normal temperatures, it may be malfunctioning. Please have the product repaired in the store of purchase or other designated A/S agency.
- The small black shiny spots in the LCD panel are a temporary phenomenon.
- When the engine stops, or when it is cold, the LCD panel may stop working temporarily while it opens or closes.
- Do not press the casing around the touchkey panel with too much force. Doing so may result in malfunction.

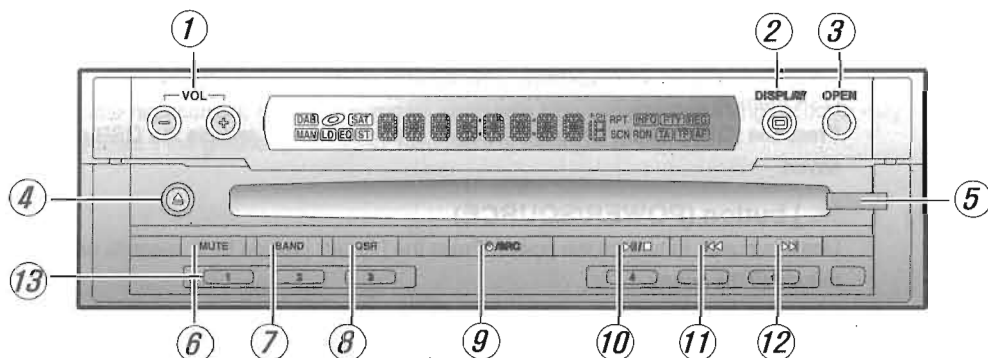
■ Operating the touch panel

When you press the relevant icons, the touch panel allows them to operate accordingly.

If these icons do not show up on the screen, press the LCD screen once to display them.


How to use the buttons

■ When the LCD display closed





- ① **[VOL] button**
Use this button to increase or decrease the volume.
- ② **[DISPLAY] button**
Use this button to switch the Information indication window panel to playback or clock status, etc.
- ③ **[OPEN] button**
Use this button to open and close the LCD panel.
- ④ **[△] button (EJECT)**
Use this button to eject a disc from the unit.
- ⑤ **[RELEASE] button**
Use this button to separate the burglarproof front panel from the main unit.
- ⑥ **[MUTE] button**
Use this button to mute the sound. When the sound is muted, press this button again to obtain sound output.
- ⑦ **[BAND] button**
 - Use this button to switch the receiving bandwidth in radio/TV/external input mode. Press the [BAND] button in radio mode to switch between FM1/FM2/FM3/AM. Doing so in TV mode switches between TV1/TV2, while the same action in external input switches between EXTERN1/ EXTERN2/ EXTERN3. Using the button in CD Changer changes discs.
 - Press the [BAND] button 3 seconds or longer when in radio or TV source to switch channel search to AUTO or MANUAL.



8 [QSR] button

- Use this button to listen to radio broadcasting that has been set in advance, in radio mode.
- While QSR (Quick Station Recall) is activated, press the [QSR] button again to move into the pre-QSR source. When you press the [ /SRC] button as well as the [QSR] button, the same procedure follows.
- Press and hold the [QSR] button in radio mode to save a broadcasting station in the QSR memory.
- Press the [QSR] button for longer in other source modes to release the QSR setting saved.


9 [/SRC] button (POWER/SOURCE)

- Use this button to turn on the power. Press the [ /SRC] button for 3 seconds or more to turn off the power.
- Press the [ /SRC] button briefly, when the power is on, to switch sources. Sources are switched in the following order:
Radio ► TV ► DVD (► CD Changer) ► EXTERN
- Switching to the CD Changer is available only when a CD Changer is installed.
- Insert a CD or DVD while the power is off to automatically turn the power on and play it back.


10 [] button (PLAY/PAUSE/STOP)

- Use this button to switch to PLAY/PAUSE mode in CD/DVD/CD Changer source. Press the [] button longer to stop playback.
- Press the [] button longer in radio/TV source to automatically search stations or store a current station in the preset memory.

11 [] button

- Use this button to move the broadcasting channel back to the previous one in radio/TV source.
- Press this button to go back to the previous track in CD/CD Changer source.
- Press this button to move back to the previous chapter in DVD source.
- Press and hold the [] button in CD/DVD source to playback with fast-rewind.

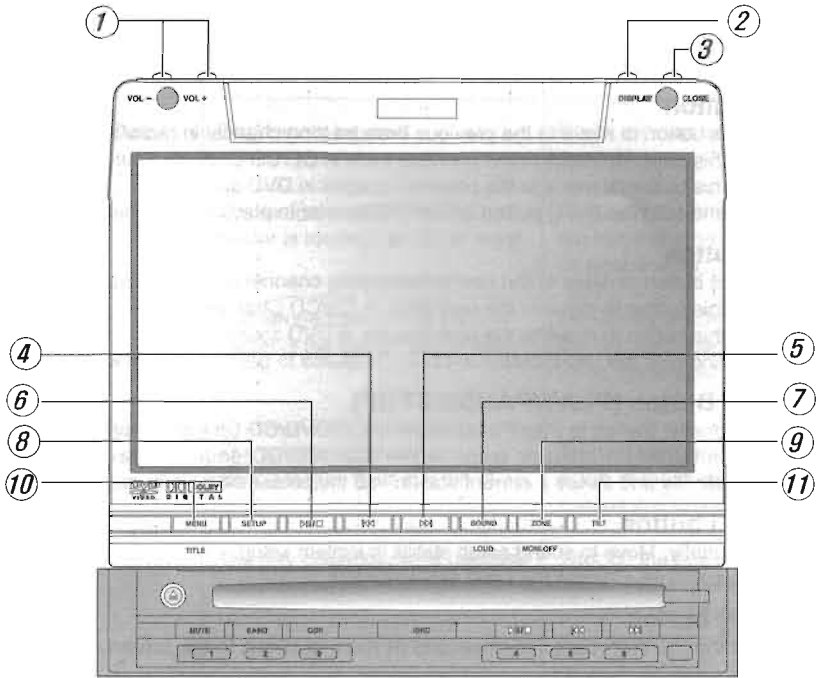
12 [] Button

- Use this button to move to the next broadcasting channel in radio/TV source.
- Press this button to move to the next track in CD/CD Changer source.
- Press this button to move to the next chapter in DVD source.
- Press and hold the [] button in CD/DVD source to get fast playback.

13 [PRESET] button

- Use this button to select a preset station in radio/TV source.

■ When the LCD display opened



① [VOL] button

Use this button to increase or decrease the volume.

② [DISPLAY] button

- Press briefly: Use this button to display, it displays the status of the current source on the screen.
- Press and hold: For the radio and CD Changer, use this button to select a background movie screen. For DVD/VCD/TV, use this button to change the screen size.

Every time you press this button, the screen size changes in the following order:

FULL ▶ CINEMA ▶ NORMAL ▶ WIDE ▶ ZOOM.

[FULL]



[CINEMA]



[NORMAL]



[WIDE]



[ZOOM]



3 [OPEN/CLOSE] button

- Press briefly: Use this button to open and close the LCD panel.
- Press and hold: Use this button to make the LCD panel go horizontal , or air conditioner operation mode, see page 11 for detail usage.

4 [◀◀] button

- Use this button to move to the previous broadcasting channel in radio/TV source.
- Press this button to move to the previous track in CD/CD Changer source.
- Press this button to move to the previous chapter in DVD source.
- Press and hold the [◀◀] button in CD/DVD source to playback with fast-rewind.

5 [▶▶] button

- Use this button to move to the next broadcasting channel in radio/TV source.
- Press this button to move to the next track in CD/CD Changer source.
- Press this button to move to the next chapter in DVD source
- Press and hold the [▶▶] button in CD/DVD source to get fast playback.

6 [▶□/□] Button (PLAY/PAUSE/STOP)

- Press briefly: Switch to Play/Pause mode in CD/DVD/CD Changer source.
- Press and hold: Playback stops in the CD/DVD/CD source. Searches stations automatically and stores a current station into the preset memory in radio/TV source.

7 [SOUND] button

- Press briefly: Move to sound setup status in system setup.
- Press and hold: Change the Loud setting On/Off.

8 [SETUP] button

- Press the [SETUP] button for 1 second or more to switch to the screen where system settings can be changed.

9 [ZONE] button

- Press briefly: In system setup, the screen and audio setting screen are displayed by region.
- Press and hold: The main unit LCD indication turns on or off. Press the [ZONE] button with the LCD off to switch into the screen indication.

10 [MENU] button

- Press briefly: Display the root menu while a DVD video plays back.
- Press and hold: Press and hold this button while a DVD video is in playback to display the title menu.
Press the button again while in menu, to return to playback status.

11 [TILT] button

- Use this button to adjust angle and position of the LCD Panel. See page 10 for detail usege.
- Press and hold: The LCD panel moves forward and backward and can be adjusted to three stages.

Information indication window

Operational status indicator

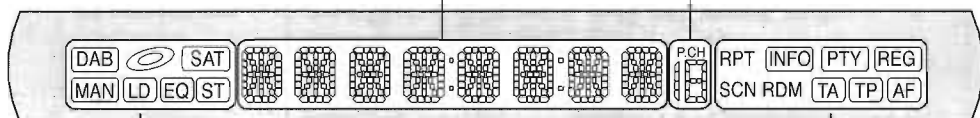
Indicate frequency, playback time and clock.

Preset channel indicator

Preset channel number indication

Disc number

CD Changer disc number indicator



DAB	Digital broadcasting indicator*
	Disc indicator
SAT	Satellite radio indicator*
MAN	Manual tuning indicator
LD	Loudness indicator
EQ	Equalizer indicator
ST	Stereo indicator

RPT	Repeat indicator
SCN	Scan indicator
RDM	Random indicator

INFO/PTY/REG/TA/TP/AF
Indication when the RDS
function is supported*

(* mark is optional, so is displayed only when an optional device is loaded.)

① **[PWR/SRC] button**

Performs the same function as the [PWR/SRC] button in the main unit.

② **[BAND/DISC] button**

Performs the same function as the [BAND/DISC] button in the main unit.

③ **[NUMBER KEYS] button**

- For the radio/TV source, the preset numbers are selected. Only buttons 1 to 6 out of the numeric buttons are valid.
- For DVD/CD/VCD/MP3 playback, playback occurs from each selected chapter and track number.
- For radio/TV source, press and hold this button to store a current broadcasting station in the selected key number preset memory. (Use preset numbers 1 to 6.)

④ **[MUTE] button**

Use this button to mute the sound. When the sound is muted, press this button again to release muting.

⑤ **[DIRECT] button**

- Radio/TV : Display numeric window for direct frequency, channel input.
- DVD : Display a screen where you can change the title, audio, subtitle, angle, title playback time & location, chapter playback time & location, and repeat playback, etc when a DVD is being played back.
- VCD : Display a screen where you can change the track, disc playback time & location, track playback time & location, and repeat playback setting, etc.
- CD/MP3 : Display a screen where you can change the track number to play back. Select your choices by using the arrow buttons while the relevant screen is displayed. Then enter the number you want by using the [NUMBER KEYS] button.

⑥ **[VOLUME DOWN/UP] button**

Use this button to increase or decrease the volume.

⑦ **[UP/DOWN/LEFT/RIGHT] button**

- For radio/TV source, use [UP/DOWN] key to increase or decrease preset number.
- When playing back a DVD/VCD, move the cursor on the screen with the [DIRECT] or [MENU] button.
- When playing back MP3, select the track to play by using the [UP/DOWN] key. Use the [LEFT/RIGHT] key to move the track title by page.

⑧ **[ENTER] button**

- Determine the function in setup.
- DVD: Select and determine each function in setup.

⑨ **[RETURN] button**

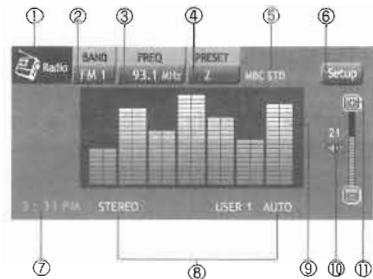
Execute the return function in setup.

- ⑩ **[MENU] button**
When playing back DVD, move to the root menu. While the root menu is activated, return to playback mode.
- ⑪ **[▶/⏸] button (PLAY/PAUSE)**
Performs the same function as the [PLAY/PAUSE] button in the main unit.
- ⑫ **[▶▶] button**
Performs the same function as the [▶▶] button in the main unit.
- ⑬ **[◀◀] button**
Performs the same function as the [◀◀] button in the main unit.
- ⑭ **[■] button (STOP)**
- Execute the stop command in CD/VCD/MP3/DVD source playback.
 - When stopped, press this button again to cancel the resume playback.
- ⑮ **[RDM] button**
Play back a chapter or a track randomly in DVD source.
- ⑯ **[SCAN] button**
Search the track you want by playing back only the first part of the track in CD playback.
- ⑰ **[RPT] button**
Repeat a chapter/track or a title/folder in DVD source.
- ⑱ **[SUBT] button**
Change the method for indicating titles.
- ⑲ **[AUDIO] button**
Change the method for playing back audio when playing back a DVD.
- ⑳ **[TITLE] button**
When playing back a DVD, switch to the title menu.
- ㉑ **[ANGLE] button**
In the case of a multi-angle recording, change the playback angle.
- ㉒ **[SLOW] button**
Plays back the DVD slowly. Each time you press the button, the playback speed decreases by 1/2, 1/4, 1/8 and 1/16 respectively.
- ㉓ **[DISP] button**
Use this button to change the display mode
- ㉔ **[ZONE] button**
Switch to the setting mode where you can set multi-zone functions.

How to use this unit

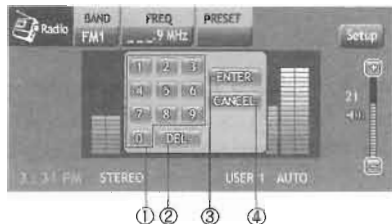
How to use the radio

- ① Show the contents of the source in current use.
Touch the icon to switch to the next source.
- ② Show the frequency band in current use. On touching this icon, the frequency bands are changed in the order FM1, FM2, FM3 and AM.
- ③ Show the frequency of the station you are currently listening to. Touch this icon to display a screen where you can enter the frequency directly (See Figure below).
- ④ Show the preset number, if the station is stored in preset. Each time you touch this icon, it changes to the next preset station.
- ⑤ Display the name information designated at NAME SET in Setup.
- ⑥ Switch to a screen where you can change settings related to radio reception.
- ⑦ Indicate the current time.
- ⑧ Show the current audio setting status, and information related to broadcasting reception.
- ⑨ This window displays the current sound status in graphics. Long press the [DISPLAY] button on the upper part of the LCD panel to change the graphics indication method.
- ⑩ This icon is for muting sound. The speaker indicator is displayed when sound is not muted. Touch the muting indicator to mute the sound. Touch the muting indicator to have sound output again.
- ⑪ This icon is for adjusting the audio volume. Touch the '+' and '-' icons to increase or decrease the volume.



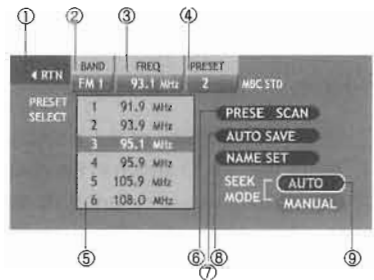
After touching 'FREQ' in radio, use this screen to enter a frequency directly.

- ① Enter a desired frequency by touching the relevant numbers.
- ② This icon is used to delete the entered numbers.
- ③ After number entry, set the frequency.
- ④ This icon is used to cancel the entered numbers and return to the original status.



After touching 'Setup' icon in radio, use this screen to change radio settings.

- ① Return to the previous screen for radio reception.
- ② Change the frequency band for setting.
- ③ Display the screen where you can enter a frequency directly.
- ④ Used to change the preset.
- ⑤ Display the status of preset, scan, automatic storage, name setting, etc. You can move to a preset number directly by touching the line of preset number.



- ⑥ This function enables you to listen to preset broadcasting for a short time and move to the next preset automatically, so that you can check what is being broadcast in the saved presets. While the preset scan is under way, press the 'PRESET SCAN' icon again to end scanning.
- ⑦ Search all the frequencies in the relevant frequency band and save them in the preset memory.

This unit can tune in to stations with good reception signals and store them automatically.

While auto saving is under way, press the 'AUTO SAVE' icon to end automatic saving.

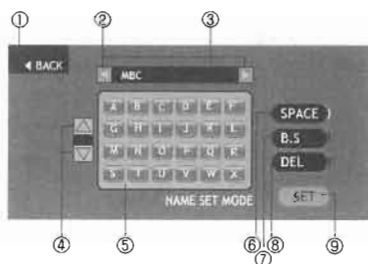
- ⑧ Switch to a screen where you can assign names to the selected stations.
- ⑨ Select the method for searching stations: manual or automatic.

When selecting 'AUTO': When pressing the [▶▶] (or [◀◀]) button in the radio source, the frequency increases (or decreases) automatically and stops at the next broadcasting station.

When selecting 'MANUAL': When pressing the [▶▶] button in the radio source, the frequency increases by frequency step. Conversely, pressing the [◀◀] button, decreases the frequency by frequency step.

Selecting 'NAME SET' on the radio setup screen displays a screen where you can designate a station name.

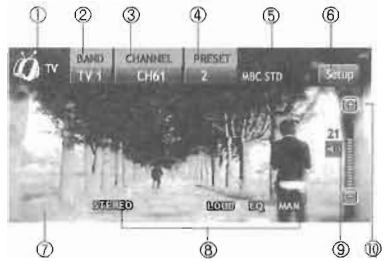
- ① Return to the previous screen for radio setup.
- ② Use this icon to move the cursor left and right in the window.
- ③ Designed to display the contents entered. A maximum of 6 characters can be entered.
- ④ This icon is for switching to other character sets.
- ⑤ Touching the character icon displays that character in the window.
- ⑥ Touch this to enter spaces between characters.
- ⑦ Use this to delete characters one by one in the character window.
- ⑧ Use this to delete the characters placed under the cursor in the character window.
- ⑨ Use this to confirm the contents that have been entered in the window and end character entering.



■ How to use the TV

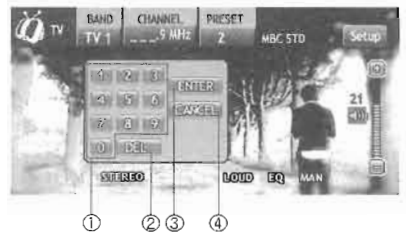
Touch the LCD screen during TV reception to display a screen for adjusting TV functions.

- ① Show the contents of sources in current use. Touch the icon to switch to the next source.
- ② Show the TV band in current use. Touch the icon to switch to TV1 or TV2.
- ③ Display the channel number of the currently showing program. Touch the icon to display a screen where you can enter channels directly. (See Figure below).
- ④ If the station is stored in preset, it displays the corresponding preset number. Each time you touch the icon, it changes to the next preset tuning.
- ⑤ This area displays the name information designated at 'NAME SET' in 'Setup'.
- ⑥ Switch to a screen where you can change the setting on TV reception.
- ⑦ This area indicates the current time.
- ⑧ This area shows the current audio setting status, or information on broadcasting reception.
- ⑨ This icon is for the mute function. The speaker indicator is displayed when sound is not muted. Touch the speaker indicator to mute the sound. Touch the icon when sound is muted, to have sound output again.
- ⑩ This icon is for adjusting the audio volume. Press the '+' or '-' icons to increase or decrease the volume.



When touching the 'CHANNEL' icon in TV, this screen appears and allows you to enter channel numbers directly.

- ① Touch the numbers to enter a channel number.
- ② Use this icon to delete the entered numbers.
- ③ Finish entering numbers and set the channel numbers.
- ④ This icon is for canceling the numbers entered and returning to the original status.



After touching 'Setup' icon in TV, use this screen to change TV settings.

① This icon is for returning to the previous screen for TV reception.

② Press this icon to switch to TV1 or TV2.

③ A screen appears that allows you to enter channel numbers directly.

④ This icon is for changing presets.

⑤ Display the status of preset, scan, auto store, name setting, etc. You can move to a preset number directly by touching the line of preset number.

⑥ This function briefly scans the preset broadcasts and moves to the next preset automatically, so that you can check the broadcasting stations stored in preset. End the scan by touching the 'PRESET SCAN' icon during scanning.

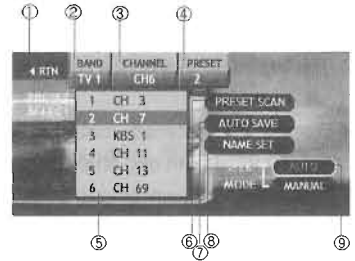
⑦ Automatically save channels with satisfactory reception in the preset memory by searching all channels. This unit can tune in to stations with good reception and save them automatically. While auto saving is under way, touch the 'AUTO SAVE' icon to end auto saving.

⑧ Switch to a screen where you can assign a name to the tuned stations.

⑨ Select the method for searching stations: Auto or Manual.

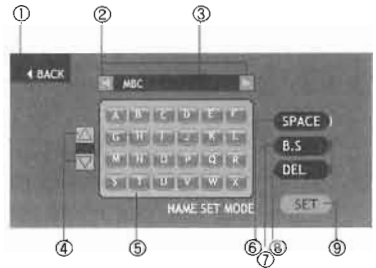
When selecting 'AUTO': When pressing the [▶▶] (or [◀◀]) button in the TV source, the channel number increases (or decreases) automatically and stops at the next station received.

When selecting 'MANUAL': When pressing the [▶] (or [◀]) button in the TV source, the channel number increases (or decreases) digit by digit.



When selecting 'NAME SET' on the TV setup screen, a screen appears that allows you to designate a name for a station.

- ① Return to the previous screen for TV setup.
- ② This icon is for moving the cursor in the window right and left.
- ③ Display the entered contents. You are allowed to enter a maximum of 6 characters.
- ④ This icon is for switching to other character sets.
- ⑤ When you touch a character icon, that character is displayed in the window.

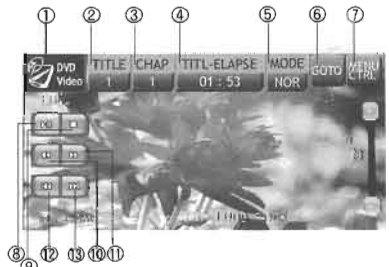


- ⑥ Touch this to enter a space between characters.
- ⑦ Use this to delete characters one by one in the window.
- ⑧ Use this to delete characters under the cursor in the window.
- ⑨ Use this to confirm the contents that have been entered in the window and end character entering.

■ How to play DVD videos

When you press the LCD screen in the DVD source, a screen appears that allows you to adjust the DVD player functions.

- ① Show the source contents in current use. Touch the icon to switch to the next source.
- ② Display the title number currently playing. When touching the icon, a window appears that allows you to enter a number, and move to the desired title within the currently played disc.
- ③ Indicate the number of the currently playing chapter. When touching the icon, a window appears that allows you to enter a number and move to the desired chapter within the currently played disc.
- ④ Display time information on the current playback. Touch this icon to change the method of indicating time information. Methods of time indication are as follows :
 TITL-ELAPSE : Indicates the elapsed time in the current title.
 TITL-REMAIN : Indicates the remaining time in the current title.
 CHAP-ELAPSE : Indicates the elapsed time in the current chapter.
 CHAP-REMAIN : Indicates the remaining time in the current chapter.
- ⑤ Indicate the methods of playback. Press the icon to change the disc playback method. The methods are as follows :
 NOR : Normal playback.
 RPT : Repeats the currently played chapter.
 D.RPT : Repeats the currently played title.
 RDM : Plays chapters randomly.
- ⑥ Display playback methods for the currently played title, chapter, audio status, subtitle, time and disc, and display menus that you can change directly. (Refer to the next figure.)
 Touch the 'MENU CTRL' icon to move the cursor displayed in the menu.
- ⑦ Use it to display arrow icons for selecting DVD menu items on the screen. (Refer to the next figure.)
- ⑧ Switch to playback or pause.
- ⑨ DVD playback stops.
- ⑩ Touch the icon while a DVD is playing to get fast rewind. Each time you touch the icon, the speed increases by 2x, 4x, 8x, 16x and 32x.
- ⑪ Touch the icon while a DVD is playing to get fast forward. Each time you touch the icon, the speed increases by 2x, 4x, 8x, 16x and 32x.
- ⑫ Touch the icon while a DVD is playing to get playback from the beginning of the current chapter. Touch it again to get playback from the beginning of the previous chapter.
- ⑬ Press the icon while a DVD is playing to get playback from the beginning of the next chapter.

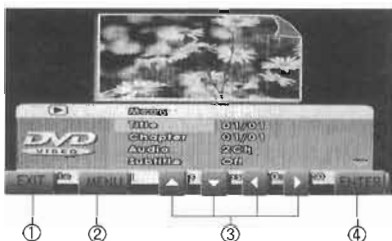


When touching the 'GOTO' icon while a DVD is playing, this screen appears, allowing you to adjust the DVD playback status.



This adjustment icon appears when touching the 'MENU CTRL' icon in 'GOTO' status while a DVD is playing.

- ① End the 'MENU CTRL' screen.
- ② Use this to view the DVD disc main menu screen.
- ③ Use this icon to move the cursor in the DVD screen.



- ④ Use this to select an item placed under the cursor.

Use the remote controller number keys to enter the numbers required.

■ How to play audio and video CDs

Touch the LCD panel in Audio or video CD source to display a screen designed to set CD player functions.

① Show the source contents in current use. Touch the icon to switch to the next source.

② Indicate the track number of the currently playing CD. Touch the icon to display a number window where you can move to the desired track within the currently played disc.

③ Indicate playback time information.

④ Show the methods of indicating playback time. Touch the icon to change the method of indicating time information. The methods of time indication are as follows:

SNGL-ELAPSE : Indicates the elapsed time of the current track.

SNGL-REMAIN : Indicates the remaining time of the current track.

TOTL-ELAPSE : Indicates the total elapsed time of a disc.

TOTL-REMAIN : Indicates the total remaining time of a disc.

⑤ Indicate disc playback methods. Touch the icon to change the method of disc playback. The methods of disc playback are as follows :

NORMAL : Normal playback.

RPT : Repeats the currently played track.

D.RPT : Repeats an entire disc playback.

RDM : Plays chapters randomly.

⑥ Select playback and pause.

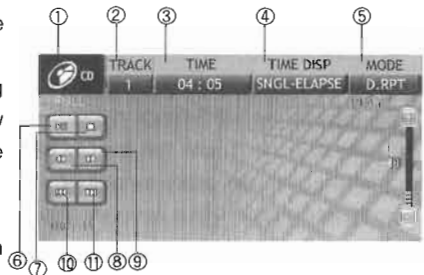
⑦ CD playback stops.

⑧ Touch the icon while the CD is playing to get fast rewind. Every time you touch the icon, the rewind speed increases by 2, 4, 8, 16 and 32 times.

⑨ Touch the icon while the CD is playing to get fast playback. Each time you touch the icon, the playback speed increases by 2, 4, 8, 16 and 32 times.

⑩ Touch the icon while the CD is playing to go back to and play the beginning of the current track. Touch it again to play from the beginning of the previous track.

⑪ Touch the icon while the CD is playing to play from the beginning of the next track.

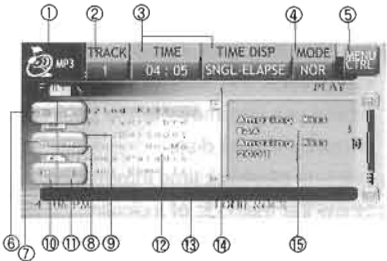


■ How to play MP3 discs

Touch the LCD panel in MP3 source to display a screen where you can set MP3 player functions.

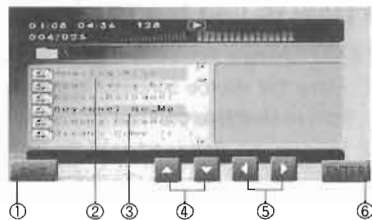
The setting functions for MP3 are similar to those for audio CD.

- ① Show the source contents in current use. Touch the icon to switch to the next source.
- ② Indicate the MP3 track number currently being played back. Touch the icon to display a window where you can enter a number and move to the desired track within a currently played disc.
- ③ Show the playback time.
- ④ Indicate disc playback methods. Touch the icon to change the disc playback method. The playback methods available are as follows:
NOR : Normal playback.
RPT : Repeats the currently played file.
F.RPT: Repeats a file in the currently played folder.
RDM : Random playback.
- ⑤ Display the direction indicator to select a folder of file. (See the next figure.)
- ⑥ Select playback and pause.
- ⑦ MP3 playback stops.
- ⑧ Touch the icon while the MP3 is playing to get fast rewind. Every time you touch the icon, the rewind speed increases by 2, 4, 8, 16 and 32 times.
- ⑨ Touch the icon while the MP3 is playing to get fast playback. Each time you touch the icon, the speed increases by 2x, 4x, 8x, 16x and 32x.
- ⑩ Touch the icon while the MP3 is playing to go back to and play the beginning of the current track. Touch it again to get playback from the beginning of the previous track.
- ⑪ Touch the icon while the MP3 is playing to get playback from the beginning of the next track.
- ⑫ Show the file structure and the MP3 file name.
- ⑬ This window shows the status of repeat, playback, etc.
- ⑭ Show the folder name in the currently playing MP3 file.
- ⑮ This window shows the ID3 tag information of MP3 files.



This screen appears when touching 'MENU CTRL' icon.

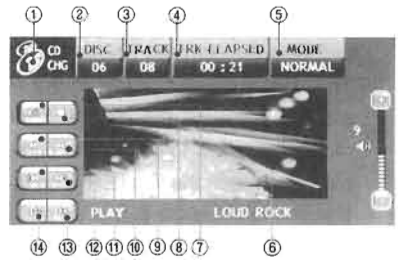
- ① Delete the arrow icon indicator for adjusting the cursor.
- ② The blue cursor shown in the file name window indicates the currently played MP3 file.
- ③ The yellow cursor indicates the file selected for playback. Touch the direction indicator icon to move the yellow icon. Put the cursor on the file to play, and touch the 'ENTER' icon to select it.
- ④ Use this to move the cursor up and down for selecting files.
- ⑤ Use this to move the cursor by page.
- ⑥ Use this to play the file placed under the yellow cursor.



■ How to use the CD Changer

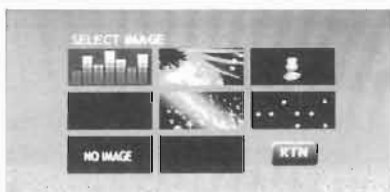
If a CD Changer is installed, you can select the CD Changer as a source.

- ① Show the source contents in current use. Touch the icon to switch to the next source.
- ② Indicate the disc number of the disc currently played in the CD Changer. Touch the icon to display a number window where you can enter the number of the disc in the CD Changer magazine. If there is no disc corresponding to the number entered, the disc number entered is cancelled.
- ③ Indicate the track number of the currently displayed disc. Touch the icon to display a number window where you can move to the desired track within the currently played disc.
- ④ Indicate the remaining time of the song played.
- ⑤ Indicate the disc playback methods. Touch the icon to change the disc playback method. The methods of disc playback are as follows:
NORMAL: Normal playback.
REPEAT : Repeats the currently playing track.
- ⑥ This window shows a graphic equalizer or moving picture. Press and hold the [DISPLAY] button on the upper part of the monitor to display a screen where you can change the displayed picture.
- ⑦ Select playback and pause.
- ⑧ The CD Changer playback stops.
- ⑨ Touch the icon while the CD Changer is playing to get fast rewind. Every time you press the icon, the rewind speed increases.
- ⑩ Touch the icon while the CD Changer is playing to get fast playback. Each time you touch the icon, the playback speed increases.
- ⑪ Touch the icon while the CD Changer is playing to go back to and play from the beginning of the current track. Touch it again to play from the beginning of the previous track.
- ⑫ Touch the icon while the CD Changer is playing to play from the beginning of the next track.
- ⑬ Move to the next disc in the CD Changer magazine.
- ⑭ Move to the previous disc in the CD Changer magazine.



■ How to select a visual screen during audio playback

You can select a moving picture for display in the LCD screen during audio playback. Press and hold the [DISPLAY] button on the upper part of the LCD screen to open the screen for selecting a moving picture. Touch the moving picture you want to change to on the screen and touch the 'RTN' icon.



How to set the system up

■ Main setup

Press the [SETUP] button on the main unit for 1 second or longer to display the screen where you can change system setup. You can change and save the system setup in main setup.

◆ SCREEN

Screen setup consists of two modes; one is normal image (CVBS) mode, used for entering TV and EXTERN signals, and the other is the RGB image mode used for DVD playback.



TV (Composite) status



DVD (RGB) status

You may adjust each item of screen setup by touching the '+' or '-' icon by the sides of the item.

CONTRAST: Adjust the screen contrast.

TINT: Adjust the screen tint.

COLOR: Adjust the screen color.

BRIGHT: Adjust the screen brightness.

Press the 'Default' icon during adjustment to return to the factory default value.

◆ DIMMER

This function is designed to adjust the brightness of the LCD screen.

AUTO DIMMER: When ON, LCD brightness is automatically adjusted, depending on the surrounding brightness, by means of the sensor attached to the main unit.

USER DIMMER: Adjust the brightness manually while AUTO DIMMER is set to OFF. Adjust the brightness by touching the '+' and '-' icons directly. Touch the 'Default' icon to return the USER DIMMER setup to the factory default value.



◆ ILLUMINATION

Use to adjust the illumination of the button in the main unit.

KEY ILLUMINATION: You can change the color of the button's illumination. The colors available are green or red. The factory default color is set to green.



◆ VIDEO STANDARD

Switch to NTSC or PAL manually according to the video signal specifications.

(PAL is not supported in this product.)



◆ BEEP

Set whether or not to have sound when pressing a button or a touch panel screen. When ON, a beep is heard. When OFF, no beep is heard.



◆ CLOCK

You can set the current time. Adjust the hour with the up and down HOUR icons, whilst the minutes can be adjusted with the up and down MINUTE icon.

12-HRS DISP: Used for the 12 hour display. Displays icons for selecting AM or PM. Each time you touch the arrow icon, it changes to AM or PM.

24-HRS DISP: Set when using the 24 hour clock display. The icon for selection of AM or PM is not displayed.

SET: Save the time set.



■ Sound setup

Press the [SETUP] button on the main unit for 1 second or longer and touch the SOUND tab to display the sound setup screen.

Also briefly press the [SOUND] button at the bottom of the monitor to display the sound setup screen.

◆ AUDIO CONTROL: You can set audio effects.

LOUD: Make a natural tone by boosting Treble and Bass. Recommended when listening to music at low volume. When LOUD is set to ON, the LOUD or LD indicator is displayed at the bottom of the LCD screen and the information window.

BASS EX: Set when listening to loud sounds, boosting the Bass.

BAL/FADER: Set the right and left volumes, and front and rear speakers.

NON FADER: Use when adjusting the volume of the NON FADER.



◆ EQ SELECT: Set the equalizer.

Fixed values for JAZZ, CLASSICAL and ROCK are provided in the basic equalizer. Three user modes are also provided, that users can adjust and save according to their taste.

JAZZ: Most suitable for Jazz.

CLASSICAL: Most suitable for classical music.

ROCK: Most suitable for rock.

USER 1/2/3: For saving the choices made by users according to taste. All the frequencies are set to 0dB, which is the factory default value. Set these values in MY EQ.

DEPEAT: Press when not using the equalizer. Touch the icon to delete the EQ indicator from the LCD screen and the information window.



◆ MY EQ

Set the equalizer according to your own taste. This unit provides a parametric equalizer setup function where you can make fine adjustments. Sound setup allows you to adjust GAIN, FREQ and Q values in the three frequency areas BASS, MID and TRE.



BASS

- GAIN: +16dB ~ -12dB
- FREQ: 50, 80, 120 Hz
- Q: 1, 1.25, 1.5, 2

MID

- GAIN: +12dB ~ -12dB
- FREQ: 700Hz, 1, 2 kHz
- Q: 1.5, 2

TRE

- GAIN: +12dB ~ -12dB
- FREQ: 8, 12kHz

To change the setup in each frequency area, select BASS, MID or TRE and change the value by using the arrow icon.

If you touch the 'MID' icon, this screen appears and allows you to adjust the GAIN, FREQ and Q values displayed when setting the mid frequency area of 'MY EQ'. Select the 'BASS' and 'TRE' icons to adjust the Treble and Bass areas in the same way. Press the number corresponding to 'SAVE TO USER' in order to save the adjusted value into USER 1, 2 or 3. The setup contents are saved into the user area. You can select the saved user setup in EQ SELECT.



■ DVD setup

[NOTE]

- ◆ You can only change the DVD setup when DVD sources are selected and DVD discs are inserted.

To change the DVD setup, press the [SETUP] button on the main unit for 1 second or longer. Then select the DVD tab at the upper part of the LCD screen to display the screen for changing the DVD setup.

To move to the menu in the DVD setup change screen, use the direction move button at the lower part of the LCD screen or in the remote controller. Select the menu by using the 'ENTER' icon.

DVD setup change consists of five items. The first is 'General', to set general DVD information, the second is 'AUDIO', to change the DVD sound-related setup, the third is 'PREFERENCE', to change the user setup, the fourth is 'PASSWORD', to change password setup, and the last is 'EXIT' to end setup. You can select these items by using the right and left arrow icon.

■ General DVD setup ■

◆ TV Display

This function is designed to adjust the ratio (width and height) of the TV screen according to the monitor type.

Select 'WIDE' if the TV monitor for movies is a wide type. If it is a '4:3' type, select 'NORMAL/PS' or 'NORMAL/LB'.

NORMAL/PS: Select for viewing the full image on the TV screen.

The right and left side of the image may not be visible in the NORMAL/PS screen mode.

NORMAL/NB: Select for viewing the original image ratio (width and height). In some cases, a black stripe can appear at the top and bottom of the screen.

WIDE: Select when the TV monitor used is a wide type.

◆ Angle Mark

Use when displaying angle information on the screen.

ON: Display angle information on disc playback.

OFF: Do not display angle information on disc playback.

◆ OSD Language

Select the OSD language to be used in the DVD setup change screen. You can select English or Chinese.



◆ Captions

Select whether or not to show captions.

◆ Last Memory

Save the playback location in the memory and select whether or not to play from the location in the memory.

■ DVD Audio Setup ■

Change the audio setup during DVD playback.

◆ Speaker Setup

Downmix

Select when listening to multi-channel audio with 2-channel audio.

LT/RT : Multi-channel audio information is mixed and displayed in the right and left channels.

Stereo : Stereo output.

V SURR : Virtual surround output.

OFF : Select when not using the Downmix function.

Front Speaker

Select Large or Small according to the size of the front speaker used.

Center Speaker

Select whether Large, Small or Off, depending on the size of the center speaker in use. If a center speaker is not installed, set Off.

The item for selecting the center speaker is only activated when Off is selected for Downmix.

Rear Speaker

Select either Large, Small or Off according to the size of the rear speaker in use.

Subwoofer

Select on or off the subwoofer output.



◆ Selecting a digital output method (SPDIF Setup)

When playing DVD audio using other audio playback devices, select SPDIF for the audio signal output method.

SPDIF Output

SPDIF OFF: Stop external digital signal output.

SPDIF/RAW: Direct Dolby Digital or DTS bit stream output. Select when the external audio playback device has a Dolby Digital decoding function.

SPDIF/PCM: Decoded Dolby Digital or DTS bit stream output. Select when the external device is a 2-channel digital stereo amp. On selecting this item, DVD video discs recorded in the Dolby Digital, MPEG1, or MPEG2 methods are generated in the PCM 2-channel type.

MANUAL: Designate each digital output method manually.

CD

Select the CD sound digital output method. This item is activated only when SPDIF Output is set to MANUAL.

Dolby Digital

Select the digital output method for sound recorded in Dolby digital. This item is activated only when SPDIF Output is set to MANUAL.

DTS

Select the digital output method for sound recorded in DTS. This item is activated only when SPDIF Output is set to MANUAL.

MPEG

Select the digital output method for sound recorded in MPEG. This item is activated only when SPDIF Output is set to MANUAL.

LPCM Out

Select the digital output method for sound recorded in LPCM. You can select a 48K or 96K bit rate.

◆ Dolby Digital Setup

Dual Mono setup

Select the method of Dolby digital audio output.

Stereo: Stereo output.

L-Mono: Left side output

R-Mono: Right side output.

Mix-Mono: Left and right side outputs mixed.

◆ **Channel Delay time setup**

Set the delay time by channel according to the speaker setup location.

◆ **Equalizer setup**

EQ Type

This product allows you to enjoy a 3D surround function by using 3D surround sound technology in DVD playback.

The preset equalizers provided are as follows :

Rock, pop, dance, techno, classical and soft.

Bass Boost

Boost the bass sound without distortion for other frequency areas.

Super Bass Boost

Boost the super bass sound without distortion for other frequency areas.

Treble Boost

Boost the Treble sound without distortion for other frequency areas.

◆ **3D sound effect processing**

Set a Reverb Mode.

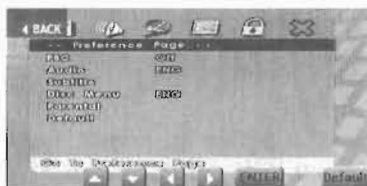
You can select and enjoy the various sound effects as follows:

Concert, Living room, Hall, Bathroom, Cave, Arena, and Church

■ Preference Setup ■

[NOTE]

Preference Setup is only activated when DVD playback is stopped by pressing STOP twice.



◆ PBC

Select whether or not to use the PBC (Playback Control) menu for video CD playback.

◆ Audio

Select the preferred audio language. The language is only generated if the selected language is available on the played disc.

◆ Subtitle

Select the preferred subtitle language. The language is only displayed if the selected subtitle language is on the played disc.

◆ Disc Menu

Select a language to be used when displaying a DVD disc menu.

◆ Parental

Rating is designed to limit viewing, like the movie rating system. You can use the rating function if a DVD disc is rated.

◆ Default

Initialize the DVD setup to the factory default. Password setup, protection grade and area code setups will not be changed.

■ Password setup ■

◆ Password Mode

Select whether or not to use a password.



◆ Password setup or change

Select the password change item



Enter the existing 4-digit password into the Old Password space. Enter a new 4-digit number into the New Password box. Then re-enter the same new password in the Confirm PWD box. After finishing the entries, press the [OK] button. Factory default password is set to '1234'.

[NOTE]

- When you forgot the password, use the factory default password.

■ Exit DVD setup ■

To finish the DVD setup, select the Exit menu. You can also touch the 'BACK' icon to end DVD setup mode.

■ Tuner setup

To set the tuner, press the [SETUP] button on the main unit for 1 second or longer. When selecting the tuner tab on the LCD screen, the tuner adjusting screen appears.

- ◆ **RADIO:** Set the radio frequency unit changes by region. Each time you press the button, setup is changed.

Area1 (America) : AM10kHz/FM100kHz

Area2 (Europe) : AM9kHz/FM50kHz

Area3 (Korea/Japan/Australia)

: AM9kHz/FM100kHz

Area4 : AM9kHz/FM200kHz



[NOTE]

- Changing the frequency setup deletes the contents of the preset memory.

- ◆ **TV:** Set the status of a diversity antenna. When ON, the diversity antenna changes the connection by automatically searching for the antenna with the best reception, from among 4 channels. This function is only applied when a diversity antenna is connected.

When set to OFF, only the antenna connected to antenna connector No. 1 is used.



Multi-zone setup

The multi-zone function separates the interior of a car into front seats and back seats, in which users can enjoy separate video and audio.

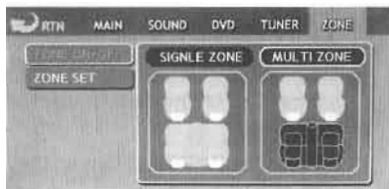
To enjoy separate images in front and back areas, it is necessary to install a separate monitor for the back seats.

Press the [SETUP] button on the main unit for 1 second or longer and select the ZONE tab. Also briefly press the [ZONE] button to display the multi-zone setup screen.

- ◆ **ZONE ON/OFF:** Set whether to have the multi-zone function available or not.

SINGLE ZONE: You can enjoy the same video and audio in both front and back car seats.

MULTI ZONE: You can enjoy different video and audio in front and back seats according to the ZONE SET setup.



◆ ZONE SET

Image-related multi-zone setup

Select ZONE SET and touch the MONITOR icon.

You can select the source to be displayed in the back seat monitor. The sources to be selected include DVD, TV and external input signals.



Audio-related multi-zone setup

Select ZONE SET and touch the Speaker icon.

When it comes to audio, you can select one of two methods; one is to listen to only one audio source inside a car, and the other is to listen to audio from the front and rear speakers corresponding to the audio selected for the front and rear monitors.

Select 'SINGLE AUDIO' when listening to only one audio source.

Select 'FRONT SRC' to have audio output corresponding to the contents displayed on the front monitor.

Select 'REAR SRC' to have audio output corresponding to the contents displayed on the rear monitor.

Select 'DUAL AUDIO' when listening to audio from each monitor, that corresponds to the selection made for each of the front and rear monitors.

[NOTE]

- You are not allowed to change setups such as the volume from the back seats. After switching to the appropriate source in the main unit on the front panel, you can change setups such as the volume.

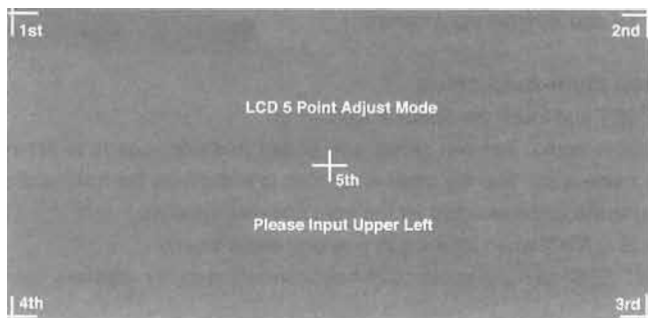
■ Initializing the Touch Screen

When icon buttons do not operate properly in the touch screen functions,

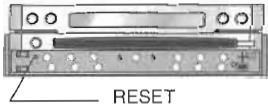
- Check that appropriate icon is pressed for the function you intend.
- Check that area of the icon is pressed correctly.

If problem persists, re-initialize the touch screen with the following sequences:

1. Enter SETUP mode by pressing [SETUP] button on the main unit for 1 second or longer.
2. Press the [MENU] button on the main unit for 3 seconds or longer. And display for the touch screen initialization will appear.(see picture bellow)
3. Press upper left cornet of the display which is indicated by a crosshair and '1st'.
4. Press upper right corner of the display which is indicated by a crosshair and '2nd'.
5. Press lower right corner of the display which is indicated by a crosshair and '3rd'.
6. Press lower left corner of the display which is indicated by a crosshair and '4th'.
7. Press center of the display which is indicated by a crosshair and '5th'.
8. Press [MENU] button in the main unit or [RETURN] button on the remote controller to finish the initialization.



Trouble shooting

	Symptoms	Cause	Solutions
General matters	Power does not turn on.	The lead line or connector is wrongly connected.	Check if both of them are connected properly.
		A fuse has blown.	Replace the fuse after determining the cause and solving the problem. When replacing the fuse, use the same kind of fuse.
	The unit does not work though the power is turned on.	The temperature is too high or low.	The unit may not work in extremes of cold or hot. Try it again after an appropriate room temperature is reached, using an air conditioner or car heater.
	The button does not work. The screen display is not accurate.	The microprocessor works abnormally due to surrounding interference or other causes.	Turn off the unit and press the [RELEASE] button to remove the burglarproof panel. Press the [RESET] button with something sharp/pointed as shown in the following figure. 
	The touch panel does not work correctly.	The touch screen alignment is wrong.	Press the [MENU] button for 2 seconds or longer in the setup menu and execute LCD adjustment according to instructions.
	The remote controller does not work.	The batteries are dead.	Check if the remote controller batteries are functioning. Check if the operating angle of the remote controller is appropriate, if it is too far away, or if there is any obstacle between the unit and the remote controller. Check if you have pressed the buttons properly.

	Symptoms	Cause	Solutions
Disc operation	Disc does not play.	Disc is loaded the wrong way round.	Load the disc with the printed part facing upwards.
	Disc sound skips or there is interference.	The disc is dirty.	Clean the disc.
		If a disc is heavily scratched or warped.	Replace it with a normal disc.
		Dew has condensed on a disc.	Check if dew has condensed on the disc. If there is dew on the disc, dry it off before use.
	The disc cannot be loaded.	Another disc is already loaded.	Eject the existing disc before loading the new one.
		There are foreign bodies present.	Remove the foreign bodies.
The disc will not eject.	A communication error occurs due to surrounding interference.	Press the [EJECT] button for 1 second or longer to eject the disc by force.	
Screen indication	The screen image is not displayed.	The parking brake lead is not connected.	Connect the unit's parking brake lead to the parking brake.
		The parking brake is not applied.	To view the TV, DVD, VIDEO and VCD screens, it is necessary for the parking brake to be applied.
		The monitor is set to OFF.	Press the [ZONE] button to release the monitor OFF mode.
	The screen is dark.	The brightness control is too low.	Increase the BRIGHT value in the screen setup in main setup.
		The temperature of the unit is too low.	When the interior temperature of a car is too low, the screen can be too dark or changes sluggishly. Check it again after increasing the temperature.
	The screen appears longer, or different, in terms of the ratio of width to height.	Screen setup is not appropriate.	Press and hold the [DISPLAY] button to change the screen setup to an appropriate mode. Change the TV Display setup in the General Setup item in DVD setup.

	Symptoms	Cause	Solutions
Audio signal	No sound is heard.	The speaker level is too low.	Increase the speaker volume.
		The speaker lead is not connected properly.	Connect the speaker lead properly.
		The sound is muted.	Check if the sound is in mute mode.
		The speaker is set to OFF in the DVD setup.	Set the size of the DVD speaker to LARGE or SMALL.
	No sound is heard from a particular speaker.	The right and left BAL/FAD setup is wrong.	Check the BAL/FAD setup in AUDIO SETUP.
Sound outputs from the front and rear speaker are different.	The center speaker is set to SMALL or LARGE, but no center speaker is installed.	Set the center speaker to OFF in the DVD speaker setup.	
	The sources corresponding to the front and rear speaker are set differently in the multi-zone.	Press the [ZONE] button to check if it is set to 'MULTI ZONE'. Switch to 'SINGLE ZONE'	
DVD	The DVD will not play.	A DVD video with a different area setup is being used.	Replace the DVD disc with a new one that has an area code that is displayed on the main unit.
	The parental lock mode is on, and the disc will not play.	The parental lock mode is set.	Turn off the parental lock mode or change the level.
	A pause occurs during DVD playback.	It is a dual layer disc.	It is normal that a dual layer disk pauses for a while and then starts playing again during playback.
MP3	An MP3 file will not play.	The specifications for disc recording are wrong.	Check if the disc on which the MP3 file is stored complies with ISO9660 level1/level2. Check if the file name extension is .mp3.

	Symptoms	Cause	Solutions
TV reception	TV screen is not clear.	The reception status is not good.	Signals are weak due to obstacles such as mountains or buildings. Check it again after changing location or direction.
		The antenna connection is poor.	Check if the antenna is connected properly. For an antenna with a booster function, check if the booster power is connected properly. When antenna diversity is OFF, connect the antenna to the Number 1 connector.
	TV screen is ghosting (showing overlapping pictures).	The reception status is not good.	Signals are weak due to obstacles such as mountains or buildings. Check operation again after changing location or direction.
	TV screen has spots or lines in the image.	There is electromagnetic interference.	Electromagnetic interference from other cars, overhead cables, neon signs, etc. may be occurring. Check operation again after changing location.

Error messages

Message	Contents	Solution
Please Check Disc	Disc cannot be read.	Clean the disc or replace it with another one.
Err 0	The temperature of the DVD loader is too high at 75° or more.	Decrease the interior temperature of the car. Turn the unit off to decrease its temperature.
Err 1	The temperature of the DVD loader is too low at -30° or less.	Increase the interior temperature of the car, and check operation again when the temperature of the unit is normal.
Err 5	The spindle motor runs abnormally or does not run at all.	Turn off the power and turn it on again. If the problem continues, consult the service center for repair.
Tray Error	The tray does not move because a disc is caught.	Turn off the power and turn it on again. Press and hold the [EJECT] button to eject the disc by force. If the problems continue, consult the service center for repair.
⊗ Input Invalid	An incorrect button is pressed.	Press the correct button or icon.
⊗ Play Back Only	You entered a playback command that is not provided for in the current mode.	Press the correct button or icon.

Installation

Warning

Information on the installation of this unit has not been designed for non-professionals, but for skilled professional technicians. Therefore it does not include any warnings or cautions that might be relevant to non-professionals during installation.

Secure all the wires safely with wiring clamps or insulating tape. Do not leave bare wires twisted together.

Do not drill through the engine partition in order to connect the yellow wire with the vehicle battery. This is because the insulation status of the partition is likely to deteriorate as a result of engine vibration. Therefore care should be taken with the engine partition area.

It is very dangerous to allow the wiring of the main unit to become entangled with the steering column or gear shift. Complete the wiring of the main unit so as not to interfere with driving.

Be careful not to allow the wiring to interfere with moving parts such as the gear shift, parking brake, seat sliding mechanism, etc.

Do not randomly cut any wires short. Doing so may prevent the protection circuit from working properly.

Precautions:




















- This unit is designed for cars with 12V DC batteries and negative ground. Before connecting this unit to recreational vehicles, trucks or buses, be sure to check the battery voltage.
- To avoid short circuits in the electrical system, be sure to disconnect the (-) battery cable before fitting the unit.
- Secure all the wires so that they cannot come into contact with moving parts within a vehicle, such as the gearshift, parking brake, sheet rail, etc. Do not locate wires next to heat sources such as heaters. If the installed wiring is melted or damaged, a short circuit may result.
- Do not supply power to any other equipment by stripping the insulation from power supply wires.
- When replacing a fuse, it is necessary to use a fuse of the type indicated on the fuse holder.

The speaker connected with this unit should be a high power type. For the speaker specifications, the impedance value should be between 4 and 8 Ω and should be at least 50 Watts. If you use a speaker with different output or impedance values from those specified here, problems may result.

- When the power of this product is turned on, the automatic antenna control signals are generated through the blue wire. Connect the blue wire to a vehicle antenna relay control terminal. Be careful not to connect the blue wire to the power terminal of the automatic antenna. Doing so may cause excessive current use and malfunction.

- When the power of this product is turned on, the control signals of the external power amp are generated via the blue/white wires. Be careful not to connect the blue/white wires to the power terminal of the external power amp.
- Protect exposed wiring with insulation tape to avoid short circuits. Take particular care to insulate the wiring of any unused speaker. If the wires are not insulated, they might cause a short circuit.
- This unit cannot be fitted to vehicles that have no ACC (accessories) and ON.
- The black wire is the ground. Earth the black wire separately from units such as power amps that consume high current. Having a common earth with high current-consuming products may harm the product if the ground is damaged. Also there is a danger of fire.

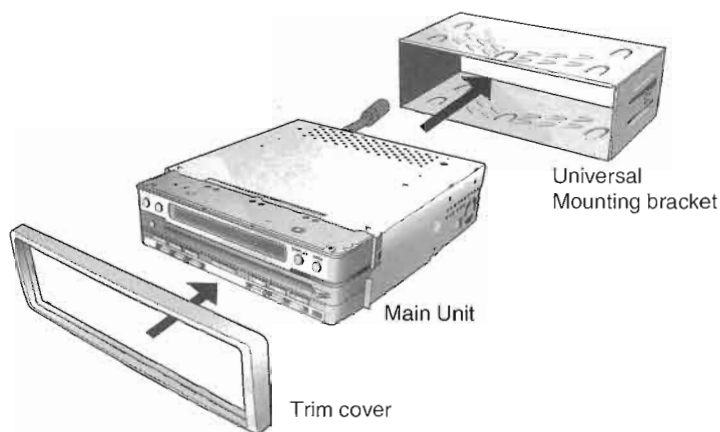
Package contents

- | | | | | | |
|---|---|--------------------------------|---|---|---------------------------------------|
| ① |  | Main Unit x 1 | ⑪ |  | Remote Controller x 1 |
| ② |  | Tuner/Amp Unit x 1 | ⑫ |  | Installation Bracket x 2 |
| ③ |  | Power Cable set x 1 | ⑬ |  | Double-sided Adhesive Tape x 2 |
| ④ |  | 20Pin Cable x 1 | ⑭ |  | Battery x 2 |
| ⑤ |  | Antenna Ext. Cable(3m) x 1 | ⑮ |  | User's Manual x 1 |
| ⑥ |  | Universal Mounting Bracket x 1 | ⑯ |  | Mounting Screw(M5x6) x 1 |
| ⑦ |  | Carrying Case x 1 | ⑰ |  | Tapping Screw(TAP5x16) x 5 |
| ⑧ |  | Trim Cover x 1 | ⑱ |  | Machine Screw(M4x4) x 4 |
| ⑨ |  | Bar Split x 2 | ⑲ |  | Machine Screw for Main Unit(M5x6) x 6 |
| ⑩ |  | Rear Support Strap x 1 | ⑳ |  | Machine Screw for Main Unit(M4x3)x 4 |

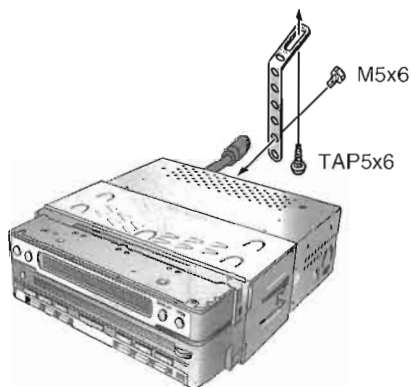
■ Installing the main unit

Installation using a universal mount

1. Insert the universal mounting bracket into the instrument panel. Then use a screwdriver to bend each of the universal mounting case stoppers inwards. Be careful to have the stoppers fitted as follows.
2. Prepare the wires you already checked in <system connection> and <power connection>.
3. Insert the main unit into the mounting bracket until it fits snugly.
4. Fit the trim cover. Make sure all the hooks connect properly. Fit the trim cover. Make sure all the hooks connect properly.



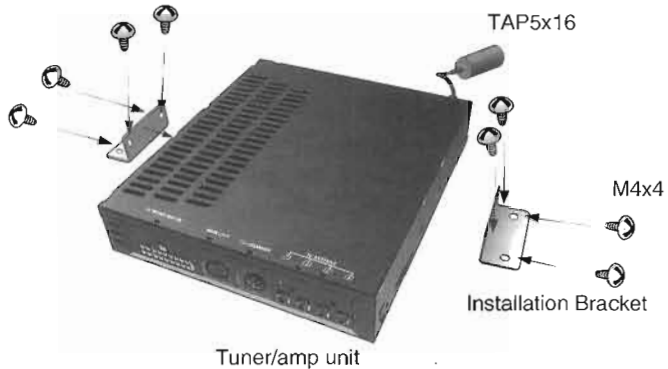
Using a rear support strap



■ Installing a tuner/amp unit

(1) Installation using a bracket

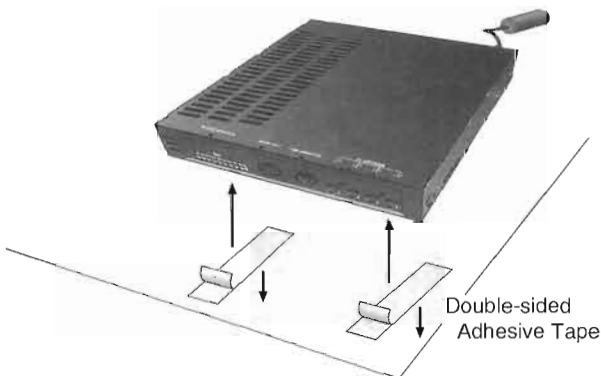
1. Use a screw (M4 x 4 (18)) to fix the enclosed installation bracket (12) onto the tuner/amp unit.
2. Make a 3.5mm diameter hole to match the hole in the bracket.
3. Use the self-tapping screw (17) to fix the tuner/amp unit to the floor.



(2) Installation using double-sided adhesive tape

1. Attach the enclosed Velcro tape (13) to the underneath of the tuner/amp unit.
2. Fix the tuner/amp unit under the seat.

[Note] It may not be possible to fix the adhesive tape depending on the type of carpet in the car.

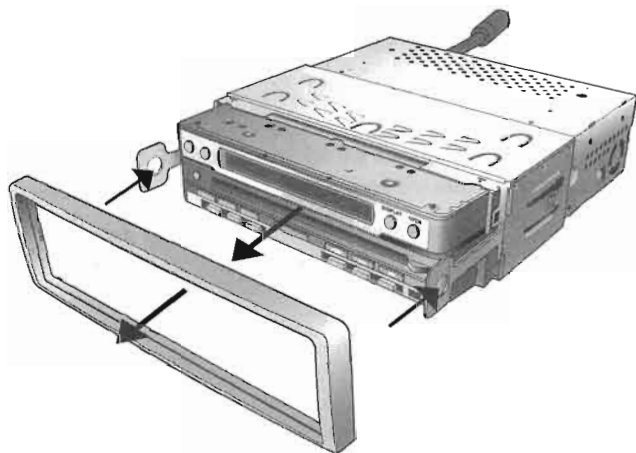


■ Removing the main unit

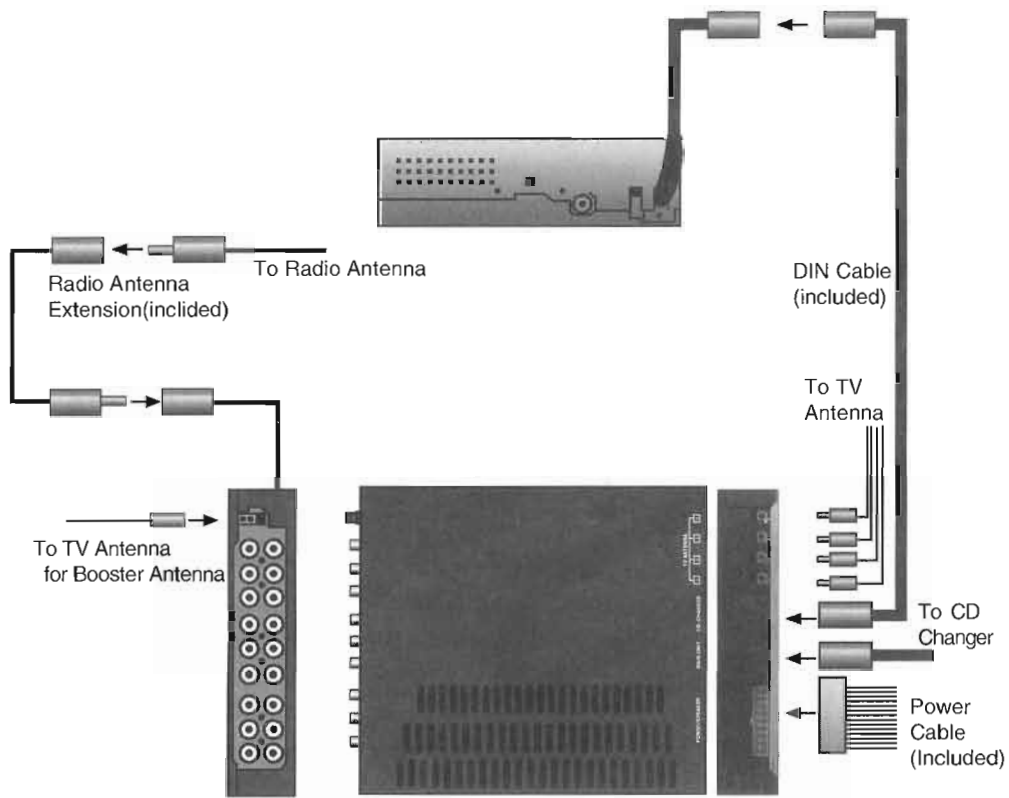
1. After dealing with the rear of the main unit according to the method shown in <How to install the main unit>, unfasten the special screw.
2. Remove the trim cover.
3. Insert the bar split between the spring and the universal mounting bracket. Then pull the main unit out using the bar split.

[NOTE]

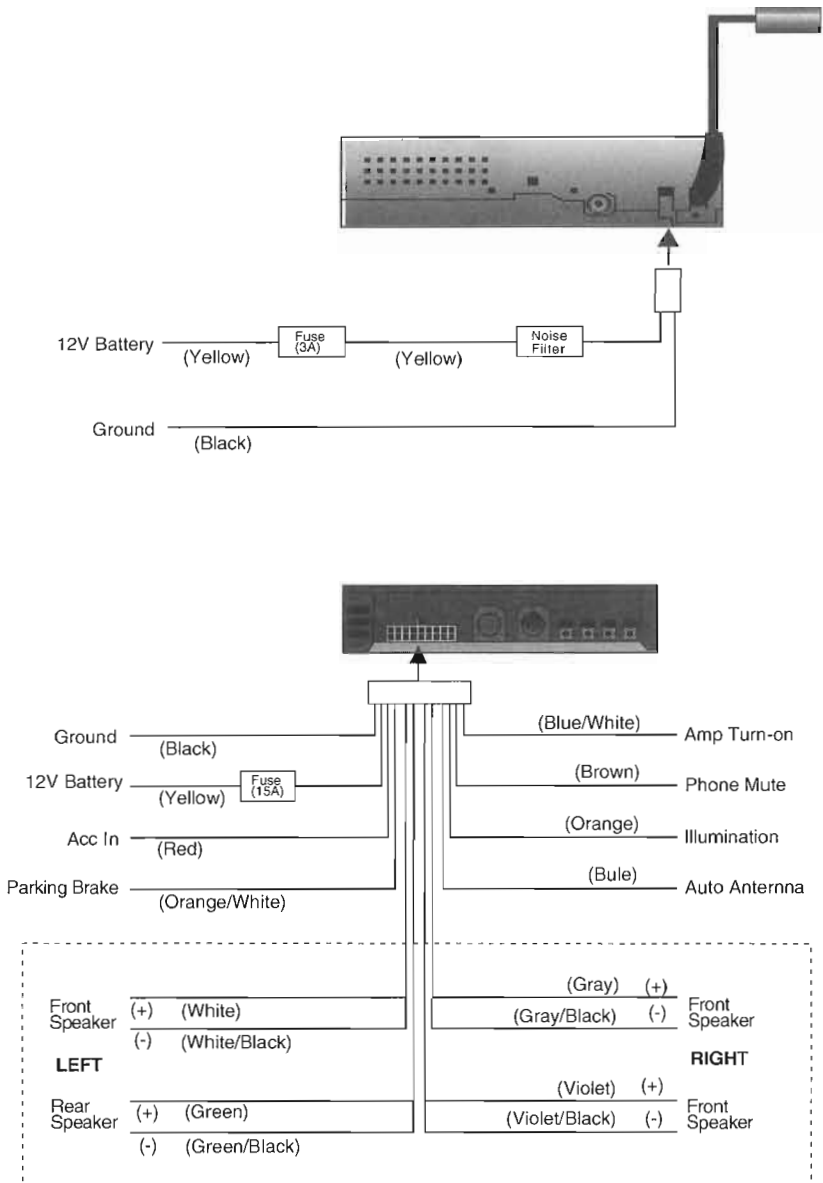
You cannot remove the main unit without the bar split. So keep it in a safe place.



■ System connection



■ Power connection



Specification

■ Main specification

Monitor

Screen size:	7 inch-wide format 154.08mm (wide) X 86.58mm (high)
Display method:	TFT active matrix LCD
Pixel count:	336, 960 [1,440 (wide) X 234 (high)]
Color system:	NTSC

DVD driver

Playable disc:	DVD-Video, CD-DA, MP3, Video CD
Frequency characteristics:	Sampling frequency 96KHz: 20Hz ~ 44KHz Sampling frequency 48KHz: 20Hz ~ 22KHz Sampling frequency 44.1Hz: 20Hz ~ 20KHz
Distortion:	0.3% or less (1KHz)
Signal vs. noise:	70dB(1KHz) or more
Digital output format:	Dolby Digital/DTS/LPCM

FM tuner

Receiving frequency	(Japan): 76.0MHz ~ 90.0MHz (U.S.A.): 87.5MHz ~ 107.9MHz
Usable Sensitivity:	12dB μ or less
Stereo Separation:	25dB(98.1MHz) or more
Frequency Response:	30Hz ~ 15KHz

AM tuner

Receiving frequency:	530KHz ~ 1710KHz
Usable Sensitivity:	22dB μ

TV tuner

Color system:	NTSC
Receiving channel:	VHF 2~13Ch, UHF 14~69Ch
Antenna input:	75 Ω , 4-Ch Diversity

Audio amp

Power Output (THD=10%):	29W X 4 (1KHz, 4 Ω)
Maximum output:	48W X 4
Speaker Impedance:	4~8 Ω

General

Power input voltage:	14.4V (10.5~16V Allowable)
Power consumption:	4.0A (1W)
Operating temperatures:	-15°C ~ +60°C
Storage temperatures:	-30°C ~ +85°C
Size	
Main unit:	178mm(W) X 50mm(H) X 198mm(D)
Tuner/amp unit:	178mm(W) X 38.5mm(H) X 200mm(D)
Weight:	
Main unit:	2.4 Kg
Tuner/amplifier unit:	1.3 Kg