

[FM•AM] button

[v ^] buttons

## u **How to operate the tuner**

First, press the [FM•AM] button to start tuner operation. There are automatic and manual methods for setting stations in memory. The receiver will accept up to 24 stations in memory: six in AM and 18 in FM (6 each for FM1, FM2 and FM3.)

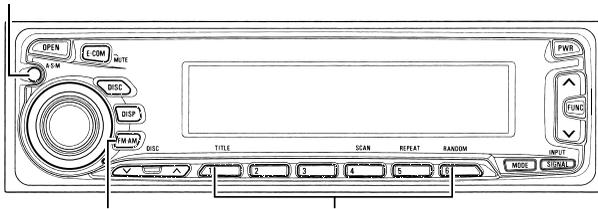
### n Tuning to a station

**1 . Tap the [FM•AM] button to switch to the desired FM or AM mode.**  
Each tap will switch modes from FM1 FM2 FM3 AM.

**2 . Press the [v ^] button to tune to a station.**  
Tap the [v] or [^] button for less than one second to tune to a station manually.  
To start searching for a station automatically, hold the button down for more than one second.  
[^] button: Tunes to higher frequencies.  
[v] button: Tunes to lower frequencies.

## How to operate the tuner

[ASM] button



[FM•AM] button

Buttons [1] to [6]

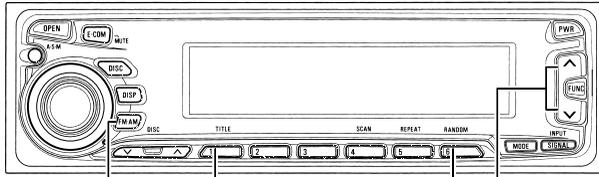


- At times, it may be difficult to maintain optimum reception because the antenna affixed to your vehicle is in motion constantly (relative to the broadcast antenna), encountering continuous variation in the received radio signals' strength. Other factors affecting reception include interference from natural obstacles, sign posts, etc.

## n Entering stations into memory automatically (The automatic preset mode: ASM)

**1** . Tap the [FM•AM] button to switch to the desired FM or AM mode.  
Each tap switches modes from FM1 FM2 FM3  
AM.

**2** . Press the [ASM] button for more than two seconds until a beep is heard.  
The automatic preset mode starts.  
The [ASM] indicator on the screen flashes, and stations are automatically entered in memory under buttons [1] to [6].  
These buttons are called preset buttons.



[FM•AM] button

Buttons [1] to [6]

[v ^] buttons

### ATTENTION

- Press any numbered button to select the station whose frequency is indicated right above the button.
- When a new station is set in memory, the station previously set in memory will be deleted.
- If there are fewer than six receivable stations, the stations set in the remaining buttons will be retained.

## n Manually setting stations into memory

This section covers the setting of stations in memory under the numbered buttons.

**1** . Press the [FM•AM] button to switch between FM and AM.

**2** . Use the [v ^] button to tune to the station to be entered in memory.

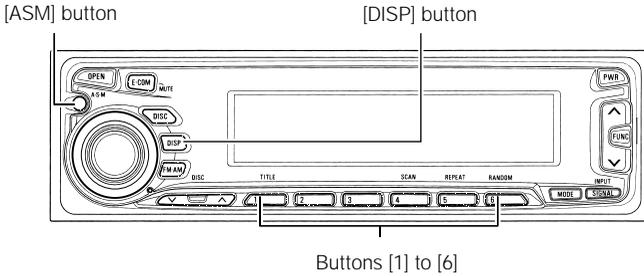
**3** . Select any button, from [1] to [6], and press it for more than two seconds.

The tuned station is now memorized and set in the button selected. Repeat the procedure to set additional manually tuned stations in memory, in turn, for buttons [1] to [6]. These buttons are called the preset buttons.

### 1 Caution 1

- If the vehicle's battery is disconnected (for repairs to the vehicle or for removing the receiver), all stations in memory will be lost. In such a case, set stations in memory again.

## How to operate the tuner



### n Preset station scan

This function enables reception of all the stations stored in the preset buttons for five seconds each.

- 1 . Press the [ASM] button for less than two seconds.**  
[P SCAN] will appear at the top of the display, and stations stored under preset buttons [1] through [6] will be played for five seconds each.
- 2 . To stop the preset scan mode at a desired station, press the [ASM] button again.**  
The receiver will stay tuned to the desired station.

### n Switching the display

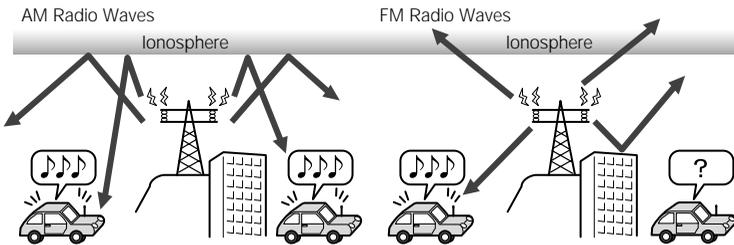
- 1 . Press the [DISP] button for less than one second.**  
Each press of the button switches the display between the clock and the spectrum analyzer mode.

## n FM reception characteristics

In general, FM has much better tonal quality than AM. However, FM and FM stereo reception encounter several characteristic problems not encountered with AM. FM is more difficult to receive than AM in a moving vehicle. The following are explanatory notes on what to expect from FM reception and on how to get satisfactory performance.

### 1. FM RECEPTION DIFFERS FROM AM

A characteristic of transmitted signals is that lower frequencies travel further. FM frequencies are much higher than AM's (similar to a ray of light): they won't bend but they will reflect. Often, they will be interrupted by tall buildings, mountains, etc., taking direct and indirect paths to your vehicle's antenna. The distance at which FM stations can be received satisfactorily is usually not nearly as far as that which AM stations can be received.

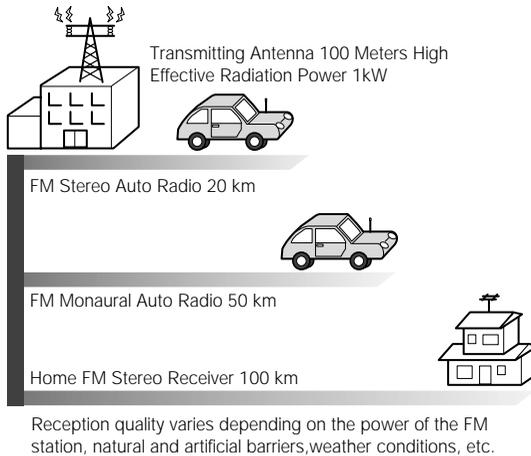


### 2. FADING OUT

In weak signal or "fringe" reception areas, FM stations may fade out completely, or fade in and out. When driving in weak signal areas, such as near hills, through valleys or tunnels, among tall buildings, etc., you may encounter unusual noise interference. THIS IS NOT A TUNER PROBLEM. In this case, you can only wait until you are in a better reception area, tune to a stronger station, or reduce the treble level.

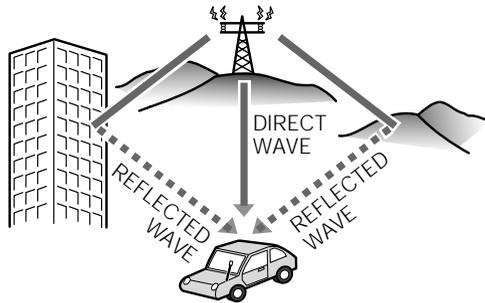
### 3. RECEPTION AREA OF FM BROADCASTS

A home receiver can catch weak FM stereo signals through the use of a tall, directional or ultra-sensitive antenna. In a moving vehicle, the area for good reception is limited because of varying conditions encountered while driving, including the types and heights of broadcast antenna structures, signal strength, engine noise, etc. For best reception with manual antennae, extend the antenna mast as far as possible.



## 4. MULTIPATH

The reflection characteristics of FM waves cause another problem called multipath—FM wave signals reflecting off of buildings, mountains, etc. When the antenna receives direct and reflected waves at the same time, distortion of sound in the treble range often occurs, such as static or harsh-sounding voices. THIS IS NOT A TUNER PROBLEM. Only moving to another area with a clearer signal path can remedy the situation.



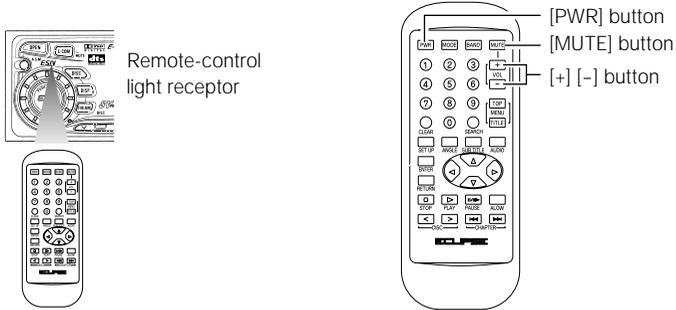
## *u* **How to use the special remote control**

### **Precautions in use of the remote control**

- Be careful when handling the control, especially because it is small and light. Dropping or striking it hard may damage it, wear out the battery or cause a malfunction.
- Keep the remote control free of moisture, dust and water. Do not subject it to shock.
- Do not place the remote control unit where it will get hot, such as on the dashboard or near a heater vent. Allowing the remote control unit to overheat may warp its case or cause other problems.
- Do not operate the remote control unit while driving because doing so could cause an accident.
- When using the remote control, point it directly at the remote control light receptor.
- The light receptor may not operate correctly if it is exposed to bright light such as direct sunlight.
- Be sure to press the [PWR] button on the main unit to shut it down before leaving the car, or the car battery may be run down. When the main unit is shut down, the remote control will not work.
- Remove the batteries from the remote control unit whenever it is not to be used for a long time.

### **Cleaning the remote control**

- Use a dry cloth to keep the unit clean. If the remote control unit gets extremely dirty, clean it with a cloth moistened in dilute liquid detergent. Do not use alcohol or thinner; these compounds may damage the finish.
- In no event should benzine or thinner be used. These substances will damage the case or finish.



## n Turning the power on/off

1 . Press the [PWR] button.

The power turns on or off each time the button is pressed.



- When the main unit is shut down, the remote control will not work.

## n Adjusting the audio volume

1 . Press the [+] or [-] button.

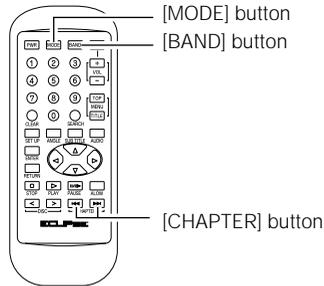
[+] button: Increases the volume.

[-] button: Decreases the volume.

t **Cutting the volume instantly (muting):**

Press the [MUTE] button for more than two seconds to cut the volume or restore it instantly.

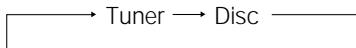
## How to use the special remote control



### n Switching playback modes

#### 1. Press the [MODE] button.

Tap the button to switch modes in the following sequence:



### n How to play the tuner

Select the tuner mode first.

#### t Selecting the FM/AM band

##### 1. Tap the [BAND] button.

Each tap will switch tuner modes from FM1 FM2  
FM3 AM.

#### t Selecting a station (manually or automatically)

A short tap of the button will allow manual station tuning.  
Pressing for more than one second will start automatic tuning.

##### 1. Press the [ CHAPTER ] button.

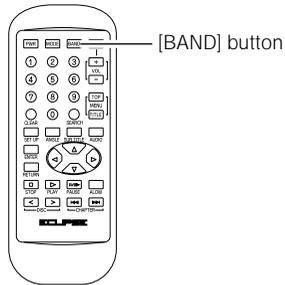
[ ►► ] button: Tunes to higher frequency stations.

[ ◀◀ ] button: Tunes to lower frequency stations.



## How to use the special remote control

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### t **Switching disc modes**

#### 1. Press the [BAND] button.

When one or two CD changers are connected, tap the [BAND] button to change modes from DVD(CD) player

CD changer 1    CD changer 2.

The indicator will skip a changer or player that has no discs loaded in it.



- Refer to "DVD operations" on page 31 for details on using DVDs.

## n Replacing the battery

### **Warning**

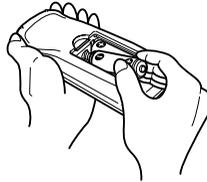
To prevent accidents, store batteries out of the reach of children.  
If a child has swallowed one, consult a doctor immediately.

Use two AA-size batteries.

- 1** . Remove the back cover of the remote control unit by gently pressing and sliding it in the direction indicated by the arrow.



- 2** . Install the two batteries provided into the compartment as illustrated inside the compartment.



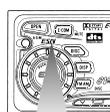
- 3** . Return the back cover into place by sliding it in the direction indicated by the arrow.



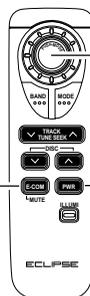
### ***1 Caution 1***

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- Be extremely careful not to swallow the battery.
- The battery life is approximately one year. If the remote control unit does not operate correctly or if the button lamp gets dim, replace the batteries.
- Be sure to orient the batteries correctly so that the positive and negative poles match the diagram.
- Do not use one new battery and one old one; use two new batteries.
- Use only two of the same kind of battery.
- If any liquid is seen leaking from the batteries, remove both batteries and dispose of them properly. Thoroughly clean the battery compartment with a dry cloth. Then install new batteries.



Remote-control light receptor



[AUDIO CONTROL] button

[MUTE] button

[PWR] button

## u **How to use an optional NOB remote control**

### n Turning the power on/off

1

Press the [PWR] button.

The power turns on or off each time the button is pressed.



- When the main unit is shut down, the remote control will not work.

### n Adjusting the audio volume

1

Press the [AUDIO CONTROL] button, and turn it to the left or right.

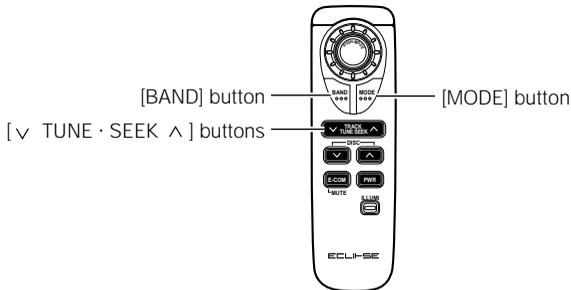
Each press of the button will switch the audio control modes from volume BASS MID TREB.

Turn to the right: Increases the volume.

Turn to the left : Decreases the volume.

### t Cutting the volume instantly (muting):

Press the [MUTE] button for more than two seconds to cut the volume or restore it instantly.

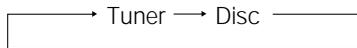


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## n Switching playback modes

1. Press the [MODE] button.

Tap the button to switch modes in the following sequence:



## n How to play the tuner

Select the tuner mode first.

### t Selecting the FM/AM band

1. Tap the [BAND] button.

Each tap will switch tuner modes from FM1 FM2  
FM3 AM.

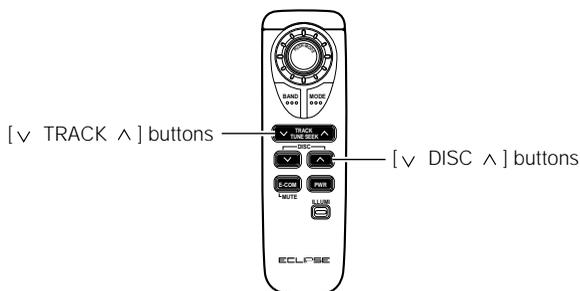
### t Selecting a station (manually or automatically)

A short tap of the button will allow manual station tuning.  
Pressing for more than one second will start automatic tuning.

1. Press the [∨ TUNE · SEEK ∧] button.

[∧] button: Tunes to higher frequency stations.

[∨] button: Tunes to lower frequency stations.



### t **Selecting preset stations**

A total of six stations may be selected (preset tuning) out of those already set in memory through the main unit. (Refer to “Manually setting stations into memory,” page 62.)

1. Press the [v DISC ^] button.

[^] button: Selects the next higher number preset button.

[v] button: Selects the next lower number preset button.

## n **How to play CDs**

Select the disc mode first.

### t **Advancing to the next track or returning to the beginning of the track being played**

1. Press the [v TRACK ^] button.

[^] button: Skips to the next track.

[v] button: Returns to the beginning of the track being played. (Press repeatedly to move to previous tracks.)



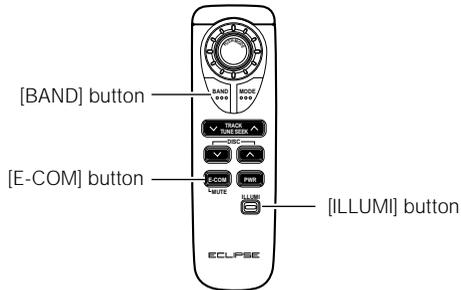
- Hold the [^] button down to fast-forward, or the [v] button to fast-reverse through the track being played.

### t **Skipping to the next or previous disc**

1. Press the [v DISC ^] button.

[^] button: Selects the next higher number disc.

[v] button: Selects the next lower number disc.



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### t **Switching disc modes**

#### 1. Press the [BAND] button.

When one or two CD changers are connected, tap the [BAND] button to change modes from DVD(CD) player  
CD changer 1    CD changer 2.

The indicator will skip a changer or player that has no discs loaded in it.

### n **Illuminating the NOB remote control**

The buttons of the NOB remote control will be illuminated by pressing the [ILLUMI] button.

### n **Enabling the optional E-COM feature**

Pressing the [E-COM] button for one second will switch the E-COM feature on or off.

## n Replacing the battery

### **Warning**

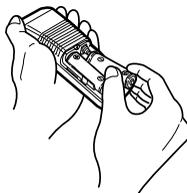
To prevent accidents, store batteries out of the reach of children. If a child has swallowed one, consult a doctor immediately.

Use two AA-size batteries.

- 1** . Remove the back cover of the remote control unit by gently pressing and sliding it in the direction indicated by the arrow.



- 2** . Install the two batteries provided into the compartment as illustrated inside the compartment.

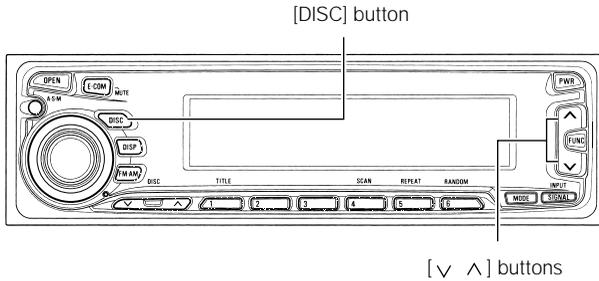


- 3** . Return the back cover into place by sliding it in the direction indicated by the arrow.



### **1 Caution 1**

- Be extremely careful not to swallow the battery.



## u **How to operate the receiver with an optional CD changer connected**

### n **Basic operation**

This section covers the operation of an optional CD changer that is connected to the receiver.

To switch from another mode, press the [DISC] button.

#### t **Listening to a CD**

1. Press the [DISC] button

Each press of the button switches the mode from DVD(CD) Player CD Changer 1 CD Changer 2.

#### t **Advancing to the next track or returning to the beginning of the track being played**

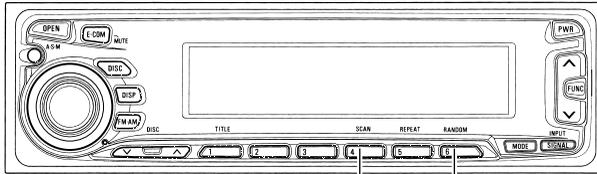
1. Press the [v ^] button.

[^] button: Advances to the next track.

[v] button: Returns to the beginning of the track being played. (Press repeatedly to move to previous tracks.)



- Hold down the [^] button to fast-forward, or the [v] button to fast-reverse within the disc being played.



Buttons [4] to [6]

† **Playing the beginning of tracks (SCAN):**

1. Press button [4 (SCAN)].

Tapping the button causes the changer to move up to the next track and play it for 10 seconds, then move up to the next track and play it for 10 seconds, and so on, on one CD, until the button is tapped again.

Hold the button until the [ALL SCAN] display appears to play the first 10 seconds of the first track of every CD loaded.

† **Repeating the same track (REPEAT):**

1. Press button [5 (RPT)].

Tapping on the button causes the changer to repeat the track currently being played, until the button is tapped again.

Hold the button until the [ALL REPEAT] display appears to repeat all tracks on the CD being played.

† **Playing tracks in random order (RANDOM):**

1. Press button [6 (RAND)].

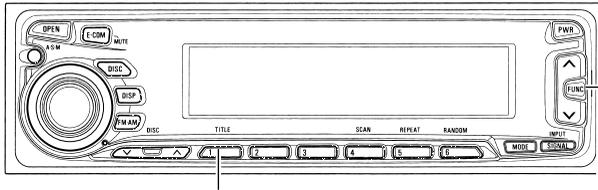
Tapping on the button causes the changer to play the tracks on the currently playing CD in random order.

Hold the button until the [ALL RANDOM] display appears to play tracks from all of CDs loaded in the currently selected changer, in random order.



How to operate the receiver with an optional DIGITAL SOUND PROCESSOR  
DORBY DIGITAL & DOLBY PRO-LOGIC/DTS DECODER connected

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Button [1]

[FUNC] button

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## u ***How to operate the receiver with an optional DIGITAL SOUND PROCESSOR DORBY DIGITAL & DOLBY PRO-LOGIC/DTS DECODER connected***

### n **How to operate the DSP functions**

The DSP feature adds reverberations to simulate ambience in different types of surroundings (room sizes).

When playing back signals which have been recorded in Dolby Digital DTS format, the DSP setting cannot be turned on or off.

- 1** . After pressing the [FUNC] button, tap button [1].

Each tap of the button [1] will switch the room size.

### t **Switching room sizes**

- 1. Tap button [1] to switch room sizes.**

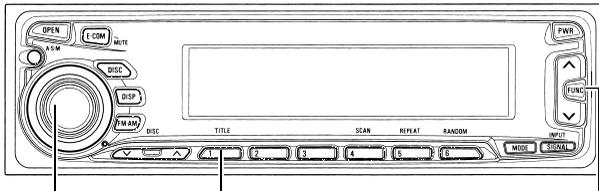
Six room sizes are available for selection in the following sequence:

1. CONCERT (a concert hall)
2. LIVE (a live house)
3. CATHEDRAL (a church with rich reverberations)
4. STADIUM (an outdoor stadium)
5. CLUB
6. DEFEAT (DSP OFF)

- 2. Push the [FUNC] button.**

This cancels the adjustment mode; the selected room size will now take effect.

How to operate the receiver with an optional DIGITAL SOUND PROCESSOR  
 DORBY DIGITAL & DOLBY PRO-LOGIC/DTS DECODER connected



[AUDIO CONTROL] button Button [1]

[FUNC] button

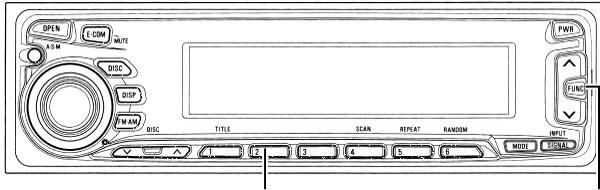


- The following patterns are preset at the factory:

Button	Indicator display
1	CONCERT
2	LIVE
3	CATHEDRAL
4	STADIUM
5	CLUB
6	CONCERT



- Easy-operation is used in normal audio control mode. (Refer to page 27.)



button [2]

[FUNC] button

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## n How to operate the EQ functions

The EQ functions enable level adjustments of various frequency groups for optimum listening conditions with a specific kind of music or musical instrument.

### t **Switching equalizer modes**

1. After pressing the [FUNC] button, tap button [2] to switch equalizer modes.

Six kinds of music categories are available for selection in the following sequence:

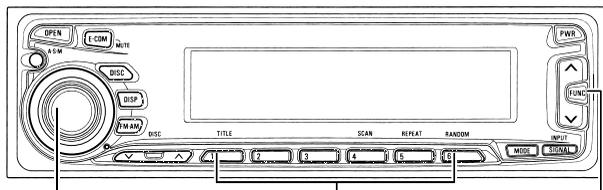
1. POPS
2. ROCK
3. JAZZ
4. CLASSICAL
5. VOCAL
6. MOVIE
7. DEFEAT (EQ OFF)

2. Push the [FUNC] button.

The adjustment mode will be canceled and the selected equalizer mode will now take effect.



- The initial EQ settings are factory preset.



[AUDIO CONTROL] button

Buttons [1] to [6]

[FUNC] button

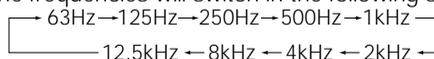
## t Fine-tuning EQ functions

1. After pressing the [FUNC] button, hold button [2] down for more than one second.

The EQ adjustment mode starts.

2. Tap button [2] until the desired equalizer mode is displayed.
3. Tap the [AUDIO CONTROL] button to switch frequencies.

The frequencies will switch in the following sequence:



4. Turn the [AUDIO CONTROL] button to adjust the level.  
Right :Increases the value.  
Left :Decreases the value.
5. Hold down a button, [1] to [6], for more than two seconds to preset a value.

The preset value is overwritten by the value set using the above steps.



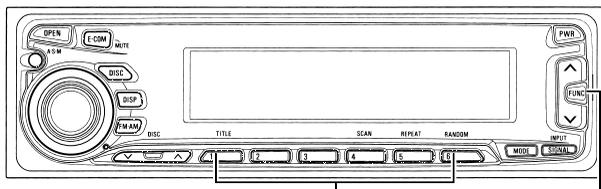
- When the preset value is changed, the display shows as follows:

USER ○  
↑ 1~6

6. Push the [FUNC] button.

This cancels the adjustment mode. The selected value will now take effect.

How to operate the receiver with an optional DIGITAL SOUND PROCESSOR  
DORBY DIGITAL & DOLBY PRO-LOGIC/DTS DECODER connected



Buttons [1] to [6]

[FUNC] button

### t **Selecting an equalizer mode from memory**

Press a preset button to select the equalizer mode set in memory for the button.

The buttons that set equalizer modes in memory are called preset buttons.

1. After pressing the [FUNC] button, hold button [2] down for more than one second.
2. Press the button, [1] to [6].
3. Press the [FUNC] button.

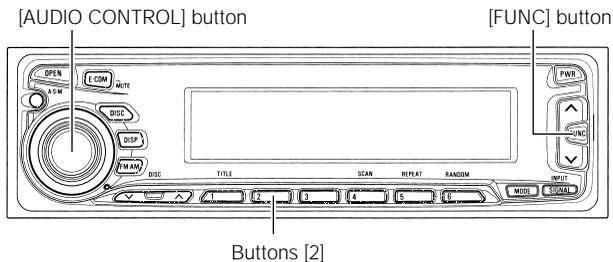
The selected equalizer mode will now take effect, and the EQ adjustment mode will be canceled.



- Easy-operation is used in normal audio control mode. (Refer to page 27.)



How to operate the receiver with an optional DIGITAL SOUND PROCESSOR  
DORBY DIGITAL & DOLBY PRO-LOGIC/DTS DECODER connected



**3. Press the [FUNC] button.**

Speaker setting mode will be cleared and the player will return to setting mode.

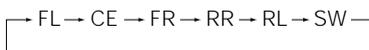
**Adjusting the speaker levels**

**1. Press button [2].**

The player will change to speaker level adjustment mode.

**2. Press the [AUDIO CONTROL] button.**

The level will change in the following order each time the button is pressed.



**3. Turn the [AUDIO CONTROL] button to the left or right to adjust the speaker level.**

Right ..... Becomes stronger

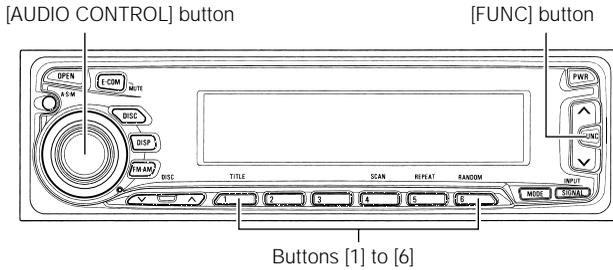
Left ..... Becomes weaker

**4. Press the [FUNC] button.**

Speaker level setting mode will be cleared and the player will return to setting mode.

How to operate the receiver with an optional DIGITAL SOUND PROCESSOR  
DORBY DIGITAL & DOLBY PRO-LOGIC/DTS DECODER connected

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t **Saving the current adjustment level settings**

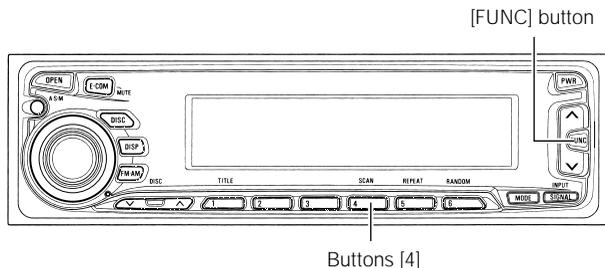
1. Press the [FUNC] button.
2. Press button [3].
3. Hold down a button, [1] to [6], for more than two seconds to preset a value.  
[P1~6 MEMO] will appear on the display.
4. Press the [FUNC] button.  
[ADJUST] will appear on the display and memory mode will be cleared.

t **Retrieving adjustment level settings**

1. Press the [FUNC] button.
2. Press button [3].  
[LEVEL MEMO] will appear on the display and the player will change to level memory mode.
3. Press a button, [1] to [6].
4. Press the [FUNC] button.  
[ADJUST] will appear on the display and the selected level will be loaded.



- [USER] will appear when a preset pattern is retrieved.

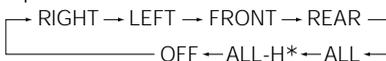


## n Switching the position selector

This lets you adjust the time that the sound has to travel from the speakers to the position where the listeners are seated.

1. Press the [FUNC] button.
2. Press button [4].

The setting will change as follows each time the button is pressed.



\* The Haas effect will turn on.

3. Press the [FUNC] button once more.

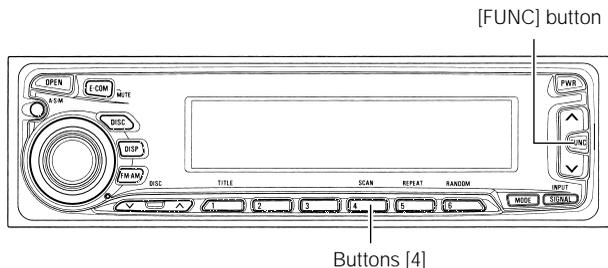
Function mode will be cleared.



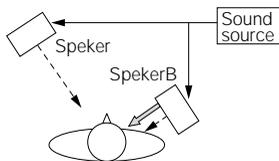
\*The Haas effect will turn on.

The Haas effect is an effect whereby when the same sound is being output from several sound sources, it feels as though the sound source is in the direction of the sound which reaches the listener's ear first. This player takes this effect into consideration when processing the signals so that the sounds which are being output from each speaker are optimized for each sitting position. As a result, regardless of where the listener is sitting, the impression is given that the speakers are located all around the listener, so that the listener can enjoy listening to sound with a good degree of ambience.

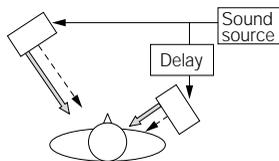
## How to operate the receiver with an optional DIGITAL SOUND PROCESSOR DORBY DIGITAL & DOLBY PRO-LOGIC/DTS DECODER connected



<When no processing is carried out>



When the same sound is played back from two speakers, the listener hears that the sound is coming from the nearest speaker.



If the sound from the nearest speaker is delayed so that it arrives after the sound from the furthest speaker, the listener hears that the sound is coming from the furthest speaker.

## n Switching the dynamic range

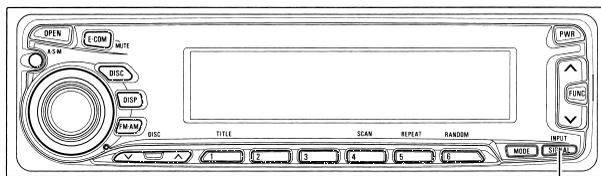
1. Press the [FUNC] button.
2. Press and hold button [4] for more than one second.

The setting will change as follows each time the button is pressed.



3. Press the [FUNC] button once more.

Function mode will be cleared.



[SIGNAL] Buttons

## n Switching the input channel

If the [SIGNAL] button is pressed during normal radio (TV) reception, or when playing back a DVD, CD or MD, the input channel being used at that time will be displayed, and you can then select an external input channel.

### 1 . Press the [SIGNAL] button.

The setting changes to Digital 1 Digital 2 Digital 3  
Analog 1 Analog 2 each time the button is pressed.  
[DIGITAL 1/DIGITAL 2/DIGITAL 3] OR [ANALOG 1 /  
ANALOG 2] will appear on the display.

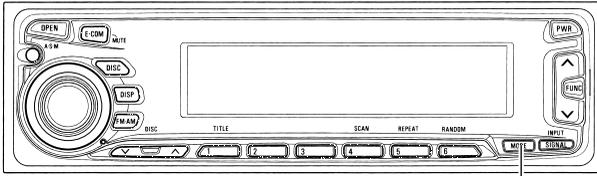
Initial settings

Radio mode : ANALOG 1  
DVD player mode : DIGITAL 1 (optical input)  
CD player mode : DIGITAL 1 (optical input)  
CD changer mode : ANALOG 1  
MD changer mode : ANALOG 1  
TV mode : ANALOG 1

Use this operation to set the input channels for each mode.



- For example, if the ANALOG 2 channel is connected to an external source, it can be selected even if the sound is being output in DVD player mode.



[MODE] Buttons

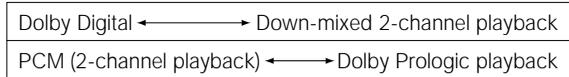
---

## n Switching the surround playback mode

### 1. Press the [MODE] button.

The surround mode will change in the following order each time the button is pressed.

<For digital input>



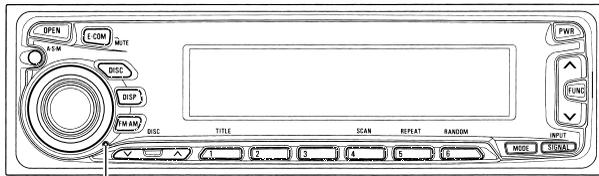
Do not change the setting if DTS signals are being played.

<For digital input>



**DIGITAL** , **DOLBY DIGITAL** or **DOLBY PROLOGIC** will appear on the display.

If you have a question:



[Reset] button

## u ***If you have a question:***

First check the items mentioned below before attempting to troubleshoot problems.

### ***1 Caution 1***

- If a problem occurs, for instance when the unit does not respond to any button presses, or the display doesn't work correctly, press the reset button using a sharp tool.

Pressing the reset button will delete all the entries from memory. The settings will return to those made at the factory prior to shipment.

A CD that has been loaded will be ejected. Open the front panel and remove the ejected CD.

If you have a question:

## n Displayed information (for troubleshooting)

The information listed in the chart below is displayed to show the status of the tape player and CD changer. Refer to the chart for the appropriate action.

Information Code Table	When "INFO"  flashes on the indicator ↑ Nos.2-8 are displayed.
Information Contents	Explanation and remedial action to take
2 NO DISC LOADED IN THE MAGAZINE	There is no disc in the magazine or player. Load a disc in the magazine. (Load a music disc.)
3 DISCS ARE DIRTY OR DAMAGED	The loaded disc is dirty or upside down. Check it for proper orientation and verify it is clean.
4 *PROBLEM WITH DISCS CHANGING	Re-insert the discs or remove them.
5 CD CHANGER FAILS MECHANICALLY	<ul style="list-style-type: none"> <li>The CD changer is inoperative for some reason. Go through the magazine removal procedure.</li> <li>If a magazine fails to eject, have your dealer fix the problem.</li> </ul>
6 WHEN THE CD CHANGER INTERNAL TEMPERATURE IS HIGH (TO PROTECT PLOKUP UNIT)	<ul style="list-style-type: none"> <li>The temperature in the CD changer is too high for operation. Wait till it cools down.</li> <li>Resume playing after the "High temperature sensed and CD stopped" display disappears. If the CD still cannot play, have your dealer repair it.</li> </ul>
7 AN INTERNAL POWER SUPPLY FAILURE IS OCCURRING WITH THE AUTO CHANGER	<ul style="list-style-type: none"> <li>Turn the ACC off once before turning it on once again to resume the operation.</li> <li>If the function still cannot be resctred, contact your dealer.</li> </ul>
8 *DISC IS BLANK	Replace the disc with one which has tracks recorded.

Information Contents	Explanation and remedial action to take
LOAD	CD changer is in the process of verifying the presence of CDs after a magazine has been inserted into the CD changer.
DATA FULL	Indicates that additional title entry has been attempted when the title memory (maximum capacity: 30 titles) of CDs is full.

\* The following is only applicable to MD changers.

If you have a question:

Mode	Problem	Causes	Remedial action to take	Refer to page
Common to all	Dead or weak sound	Is the volume control up sufficiently?	Turn up the volume control.	25
		Is the muting function in effect (MUTE)?	Cancel the muting (MUTE) function.	25
		Is the fader or balance control set far to one side?	Readjust the fader and balance controls to more normal positions.	27
		Other probable causes include broken audio-signal wiring or a faulty speaker.	Have your dealer check the problem.	
	Power does not turn on.	Are too many electrical items installed, causing a lack of power?	Have your dealer check the problem.	
		Other probable causes include a run-down car battery, broken power or interconnection wiring.	Have your dealer check the problem.	
	Frequencies or titles set in memory are deleted.	Has the car battery been disconnected for repair or checked out?	Reenter them into memory.	61, 62
		Are too many electrical items installed and causing lack of available power?	Have your dealer check the problem.	
		Other probable causes include run-down car battery, broken power or interconnection wiring.	Have your dealer check the problem.	
	No guide tone sounds.	Is the guide tone disabled?	Enable the guide tone.	26
	The remote control does not work.	Is the battery low?	Replace battery.	72, 78
		Is the battery installed in reverse polarity?	Reinstall the battery in the correct polarity.	72, 78
		Is direct sunlight hitting the remote control light receptor?	Use the remote control close to the receptor.	
		Other probable causes include a malfunctioning remote control.	Have your dealer check the problem.	

If you have a question:

Mode	Problem	Causes	Remedial action to take	Refer to page
DVD CD	The disc cannot be inserted. The disc is ejected as soon as it is inserted. Or, the disc cannot be ejected. The disc cannot be changed.	Is an extra label or seal applied to the disc?	Do not apply labels or seals to the disc.	12
		Are there rough edges, deformations or damaged areas on the disc?	Try inserting another disc. Removed any burrs. Do not use a deformed or damaged disc.	12
	Sound skips around. Sound is intermittent. Sound is bad in quality.	Is the disc damaged? (scratched, warped, etc.)	Try another disc. Do not play a damaged disc.	12
		Is the disc clean?	Clean the disc.	14
		Is the player mounted at a proper angle? Is the player mounted loosely?	Have your dealer check it out.	
Are you driving over a rough surface?	Avoid playback while driving over rough surfaces.	10		

Mode	Problem	Causes	Remedial action to take	Refer to page
Tuner	Receives no stations, or receives static noise.	Is the antenna retracted?	Extend the antenna.	
		Is the tuner correctly tuned to a station?	Tune to a station.	60
		Are you driving outside the service area of your preset stations?	Tune to a local station. (Please note, there may be no local stations servicing the area where you are currently driving.)	60
		Are you operating other equipment with a computer, or a mobile phone, in your vehicle at the same time as your receiver?	Avoid operating such equipment while using the receiver.	
		Other problems may include a loose or disconnected antenna cable, a bad antenna cable or a bad antenna	Have your authorized Eclipse retailer check the problem.	

Mode	Problem	Causes	Remedial action to take	Refer to page
DVD	DVDs cannot be played back	The inserted disc cannot be played back by this player.	Only DVDs with the symbol shown on this player can be used.	10
		The inserted DVD has a region code which does not match the code for this player.	Insert a DVD with a region code that matches the code for this player.	44
		Audio-visual playback has been restricted.	Change the audio-visual restriction level.	41
	Picture or sound is distorted	Vibration during playback	The picture may have a small amount of distortion during playback, but this is usually normal.	
		Fast-forward or rewind was used.	The picture may have a small amount of distortion during playback, but this is usually normal.	
		The DVD being played back has a copy-prevention signal included.	The picture may have a small amount of distortion during playback, but this is usually normal.	
	Operations such as stop, search and slow do not work.	The DVD being played back does not allow these operations to be carried out.	Refer to the instructions which are provided with the DVD.	
	Playback stops, or switch operations are not being received.	The DVD is carrying out some other process.	Stop playback and then start it again.	
	⊘ mark appears on the screen when a switch is pressed.	The DVD being played back does not allow these operations to be carried out.	The operation cannot be carried out.	
	The audio language cannot be changed. The subtitle language cannot be changed.	The DVD being played back does not have any multiplex audio language channels or subtitles recorded on it.	The language of the audio track or subtitles cannot be changed. Refer to the instructions which are provided with the DVD.	
The DVD being played back has been prevented from changing the audio or subtitle language.		The language of the audio track or subtitles cannot be changed. Refer to the instructions which are provided with the DVD.		

If you have a question:

Mode	Problem	Causes	Remedial action to take	Refer to page
DVD	Subtitles cannot be cleared.	The DVD being played back has been prevented from having the subtitles cleared.	Refer to the instructions which are provided with the DVD.	
	Playback is not restricted even though an audio-visual restriction level has been set.	The DVD being played back has no audio-visual restriction settings.	Audio-visual restriction setting cannot be made. Refer to the instructions which are provided with the DVD.	
	No sound is heard, or sound is distorted.	Playback has been paused or is in slow playback mode.	Press the [▶ (PLAY)] button.	

# u **Specifications**

## <GENERAL>

Power Supply	14.4 V DC (11-16 V)
Current Drain	2A MAX
Dimensions (W x H x D)	
In-Dash Unit	7" x 2" x 6 - 1/2" (178 x 50 x 165 mm)

## <FM TUNER>

Frequency Range	87.75~107.9 MHz (200 kHz step)
Usable Sensitivity	13 dBf
50dB Quieting Sensitivity	21 dBf
Frequency Response	20~15,000 Hz, $\pm 3$ dB
Stereo Separation	38 dB

## <AM TUNER>

Frequency Range	530~1,710 kHz (10 kHz step)
Usable Sensitivity	20 $\mu$ V

## <CD SECTION>

Frequency Response	20~20,000 Hz, $\pm 3$ dB
Wow & Flutter	Below measurable limits
Stereo Separation	85 dB
S/N Ratio (A-weighted)	92 dB
Dynamic Range	92 dB
Total Harmonic Distortion	0.03 %

## <DVD SECTION>

Frequency Response	20~20,000Hz (48kHz LPCM) 20~20,000Hz (96kHz LPCM) 20~20,000Hz (AC-3)
Wow & Flutter	Below measurable limits
Stereo Separation	85dB
S/N Ratio (A-Weighted)	90dB
Dynamic Range	90dB
Total Harmonic Distortion	0.04%

## Specifications

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### <AUDIO AMPLIFIER>

Output Level/Impedance	8 V (0 dB CD) / 55 $\Omega$ line-out impedance
Tone Action	Bass : $\pm 12$ dB at 60 Hz Mid : $\pm 12$ dB at 600 Hz Treble : $\pm 12$ dB at 10 kHz
Loudness	+9 dB at 100 Hz/+7.5 dB at 10 kHz

## *u* **Before installation**

### Notes

Be sure to disconnect the vehicle battery's negative terminal before installing the receiver.

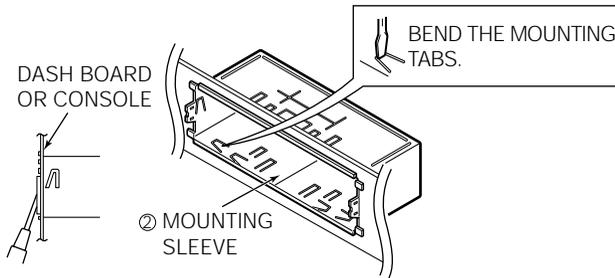
### ■ Components

No.	Item	Q'ty
1	Main unit	1
2	Mounting sleeve	1
3	Side bracket	2
4	Rear bracket	1
5	Bezel	1
6	Bushing	1
7	Self-tapping screw (6 x 16 mm)	2
8	Stud bolt	1
9	Flat Head screw (5 x 8 mm)	4
10	Hex-head bolt (5 x 20 mm)	2
11	Hex nut (5 mm)	2
12	Interconnecting cable	1
13	Interconnecting cable	1
14	Remote control	1
15	Battery (R6P)	1

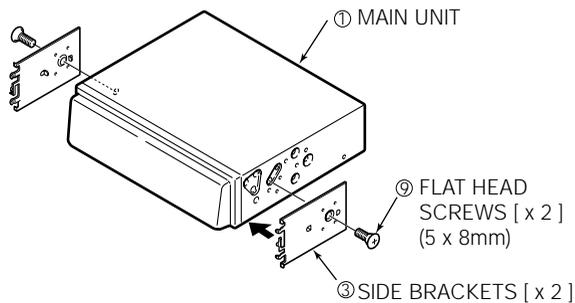
## u **Mounting instruction**

### n **Mounting the main unit**

- 1** . Insert the mounting sleeve into the opening in the vehicle console.
- 2** . Use a screwdriver or the like to bend the tabs in the mounting sleeve to secure the mounting sleeve.

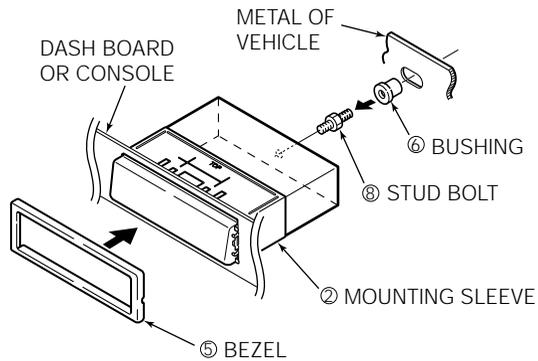


- 3** . Attach the side brackets to the main unit using flathead screws.

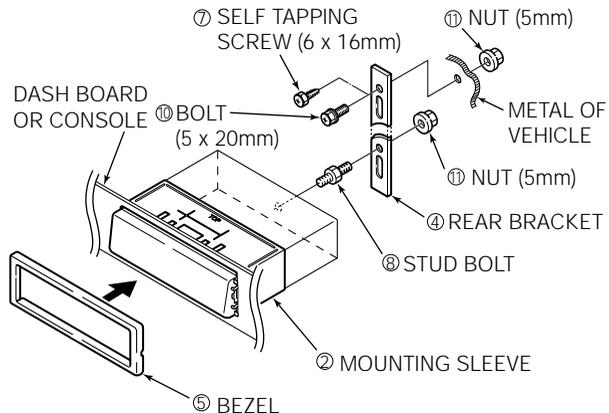


- 4** . Mount the stud bolt to the main unit.
- 5** . Insert the main unit into the mounting sleeve until it locks in place.
- 6** . Fasten the rear of the main unit using either method [A] or [B].  
 Select method [A] or [B] to suit the interior configuration of the vehicle.
- 7** . Install the bezel on the main unit.

**[A]**



**[B]**



## Notes

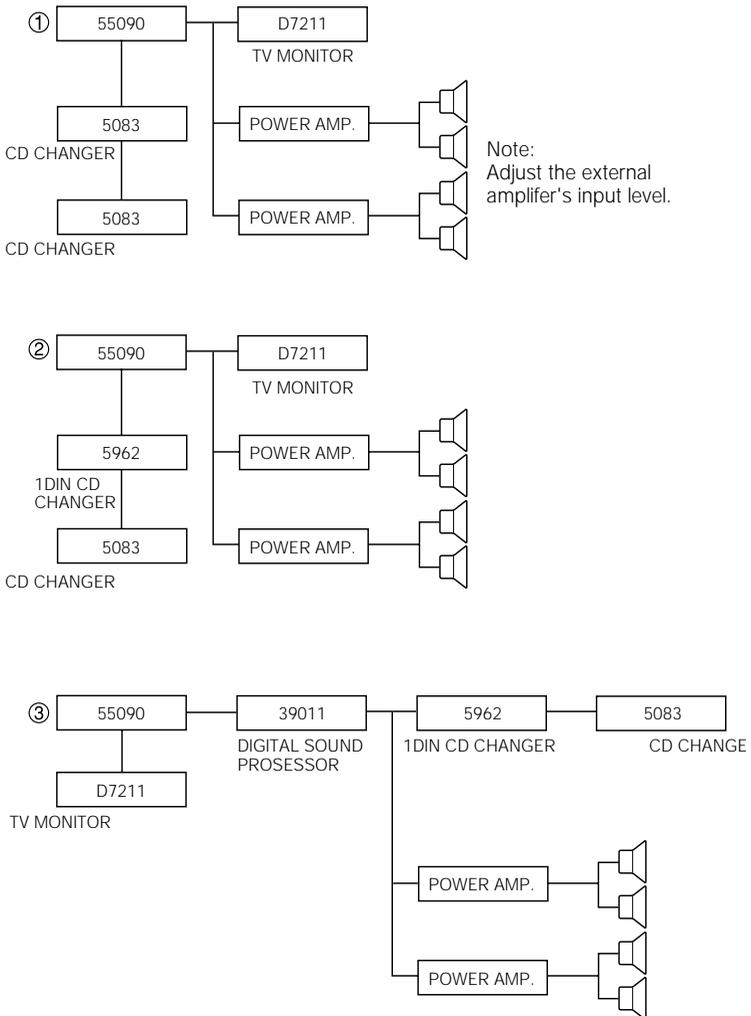
To prevent unconnected leads from shorting out, insulate them by wrapping their tips with electrical tape. Similarly, insulate the ends of connected leads.

If an external amplifier is to be connected to the receiver, be sure to ground its outside housing to the vehicle body (a metal part).

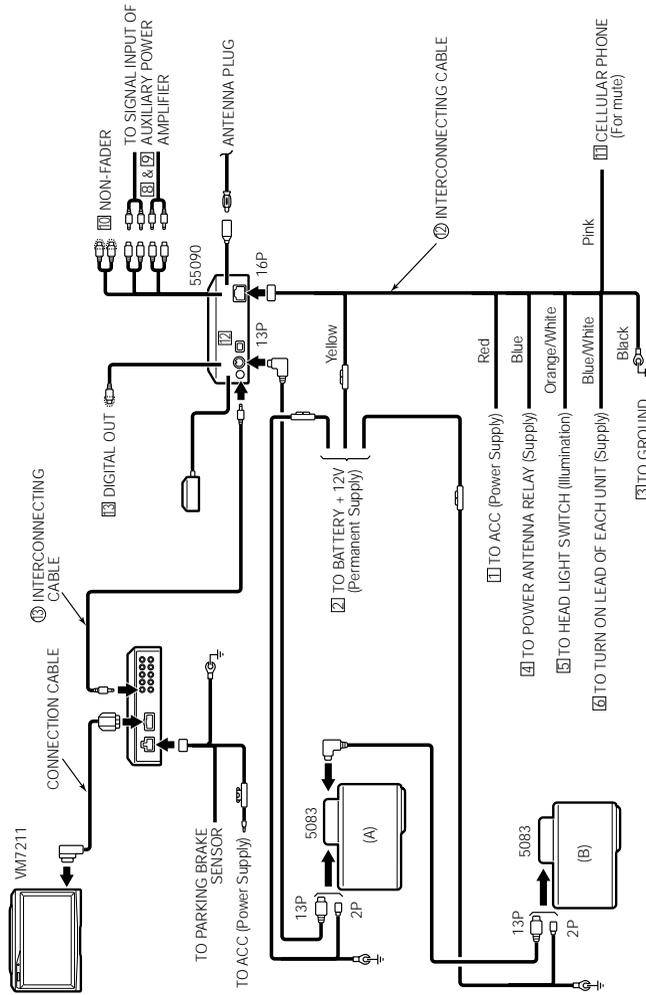
## ■ Names of lead wires and destinations (refer to Page 106)

No.	Name	Wire color	Destination
1	ACC	Red	Connect where the power comes on when the ignition is in the ACC position.
2	B+	Yellow	Connect where power is constantly available, regardless of the ignition switch's position.
3	Ground	Black	Connect where good body grounding is available.
4	Antenna power supply	Blue	Connect to the automatic-antenna control terminal of the vehicle.
5	Lamp power supply	Orange/White	Connect to where power comes on when the headlights are turned on.
6	Control power supply	Blue/White	Connect to the control terminal for the external amplifier, etc.
7	E-LAN terminal		Connect to the E-LAN terminal of the CD changer, DSP, etc.
8 & 9	Line-out terminals		Connect to the RCA input connectors of an external amplifier or Digital sound processor.
10	Line-out terminals (Nonfader)		Connect to the RCA input connectors of a DSP or EQ, or the RCA input connectors of a woofer amplifier.
11	Cellular phone mute	Pink	Connect to the ground output terminal on a mobile phone.
12	Eclipse Commander terminal		Connect to the Eclipse Commander module.
13	Digital out terminals		Connect to digital terminals of the Eclipse Commander module.

## System

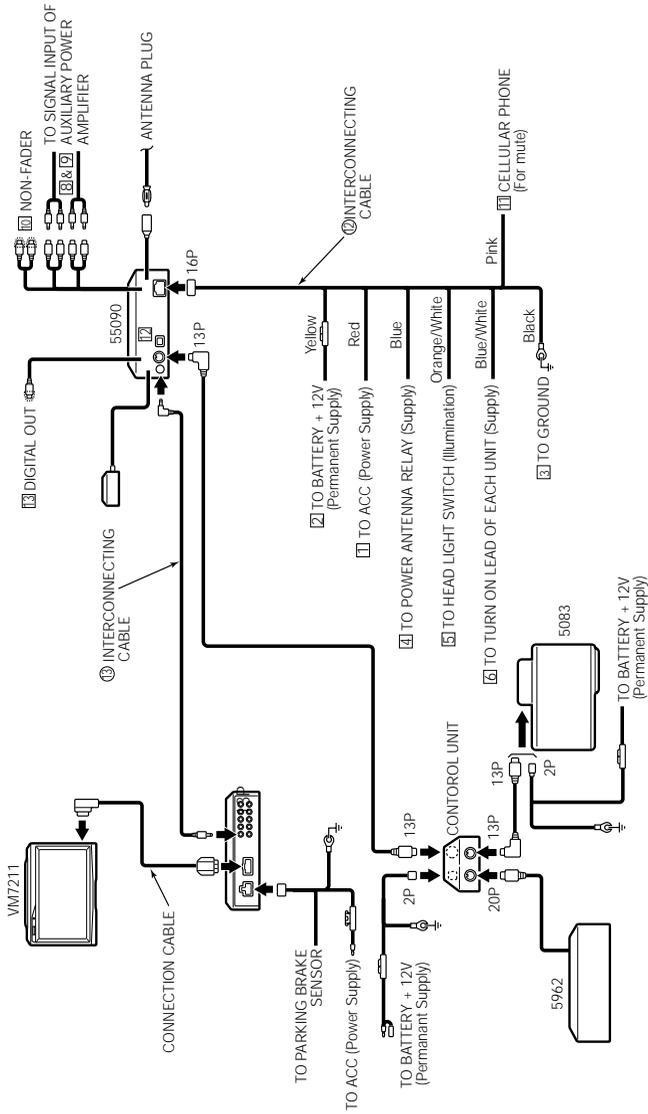


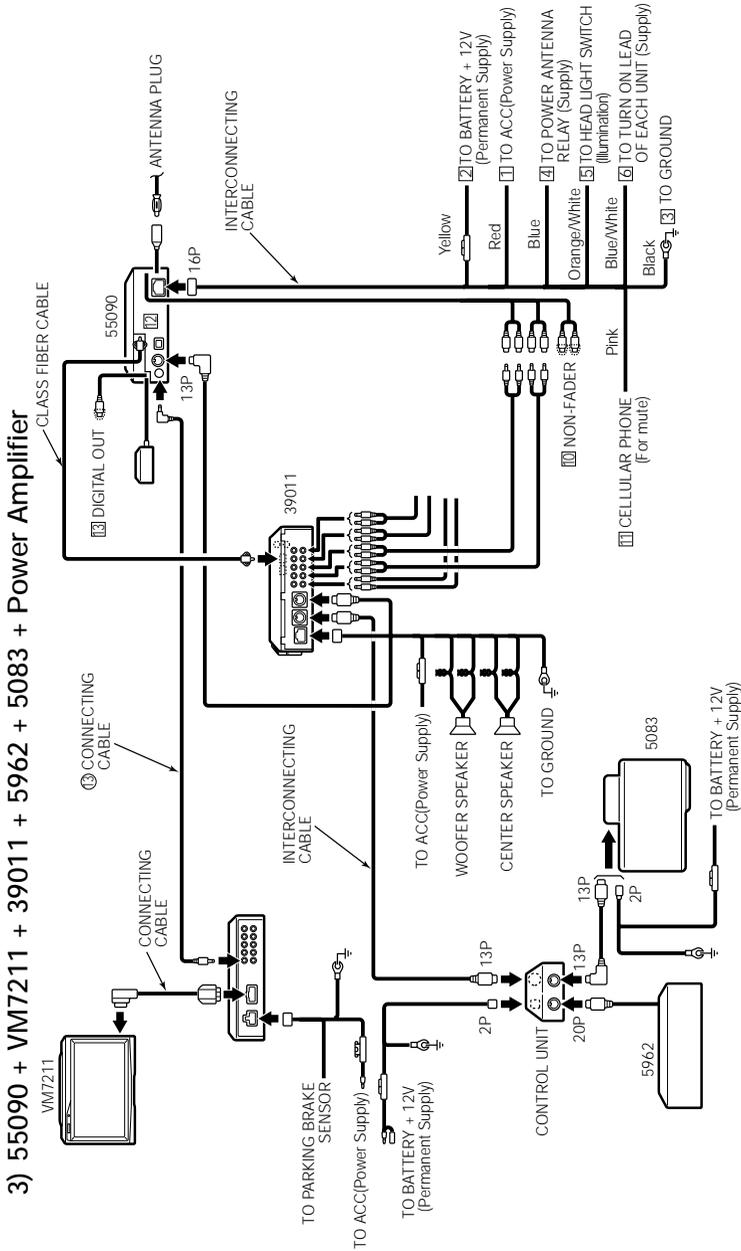
1) 55090 + VM7211 + 5083 + 5083 + Power Amplifier



NOTE : 1. The switch on the back side of CD changer(A) must be set to the "H" position  
 : 2. The switch on the back side of CD changer(B) must be set to the "H" position

2) 55090 + VM7211 + 5962 + 5083 + Power Amplifier







*MEMO*

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# **IMPORTANT**

**RECORD YOUR "KEY  
CD" HERE...**

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**STORE YOUR "KEY CD"  
ALONG WITH YOUR  
OWNER'S MANUAL IN  
YOUR SOCK DRAWER.**



This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

CUSTOMER NOTICE

Please retain this booklet and write in the serial number of your 55090 for identification. The serial number is labeled or stamped on the chassis.

Serial No. \_\_\_\_\_



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