

## Operating Instructions

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# Operating Instructions

## WARNING



### WARNING

**This symbol means important instructions. Failure to heed them can result in serious injury or death.**

#### **DO NOT OPERATE ANY FUNCTION THAT TAKES YOUR ATTENTION AWAY FROM SAFELY DRIVING YOUR VEHICLE.**

Any function that requires your prolonged attention should only be performed after coming to a complete stop. Always stop the vehicle in a safe location before performing these functions. Failure to do so may result in an accident.

#### **KEEP THE VOLUME AT A LEVEL WHERE YOU CAN STILL HEAR OUTSIDE NOISES WHILE DRIVING.**

Excessive volume levels that obscure sounds such as emergency vehicle sirens or road warning signals (train crossings, etc.) can be dangerous and may result in an accident. LISTENING AT LOUD VOLUME LEVELS IN A CAR MAY ALSO CAUSE HEARING DAMAGE.

#### **DO NOT DISASSEMBLE OR ALTER.**

Doing so may result in an accident, fire or electric shock.

#### **USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND.**

(Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

#### **KEEP SMALL OBJECTS SUCH AS BATTERIES OUT OF THE REACH OF CHILDREN.**

Swallowing them may result in serious injury. If swallowed, consult a physician immediately.

#### **USE THE CORRECT AMPERE RATING WHEN REPLACING FUSES.**

Failure to do so may result in fire or electric shock.

#### **DO NOT BLOCK VENTS OR RADIATOR PANELS.**

Doing so may cause heat to build up inside and may result in fire.

#### **USE THIS PRODUCT FOR MOBILE 12V APPLICATIONS.**

Use for other than its designed application may result in fire, electric shock or other injury.

#### **DO NOT PLACE HANDS, FINGERS OR FOREIGN OBJECTS IN INSERTION SLOTS OR GAPS.**

Doing so may result in personal injury or damage to the product.



### CAUTION

**This symbol means important instructions. Failure to heed them can result in injury or material property damage.**

#### **HALT USE IMMEDIATELY IF A PROBLEM APPEARS.**

Failure to do so may cause personal injury or damage to the product. Return it to your authorized Alpine dealer or the nearest Alpine Service Centre for repairing.

#### **DO NOT MIX NEW BATTERIES WITH OLD BATTERIES. INSERT WITH THE CORRECT BATTERY POLARITY.**

When inserting the batteries, be sure to observe proper polarity (+ and -) as instructed. Rupture or chemical leakage from the battery may cause fire or personal injury.



### PRECAUTIONS

#### **Product Cleaning**

Use a soft dry cloth for periodic cleaning of the product. For more severe stains, please dampen the cloth with water only. Anything else has the chance of dissolving the paint or damaging the plastic.

#### **Temperature**

Be sure the temperature inside the vehicle is between +60°C (+140°F) and -10°C (+14°F) before turning your unit on.

#### **Moisture Condensation**

You may notice the CD playback sound wavering due to condensation. If this happens, remove the disc from the player and wait about an hour for the moisture to evaporate.

#### **Damaged Disc**

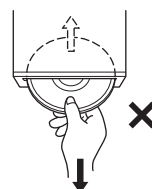
Do not attempt to play cracked, warped, or damaged discs. Playing a bad disc could severely damage the playback mechanism.

#### **Maintenance**

If you have problems, do not attempt to repair the unit yourself. Return it to your Alpine dealer or the nearest Alpine Service Station for servicing.

#### **Never Attempt the Following**

Do not grip or pull out the disc while it is being pulled back into the player by the automatic reloading mechanism. Do not attempt to insert a disc into the unit when the unit power is off.



## Inserting Discs

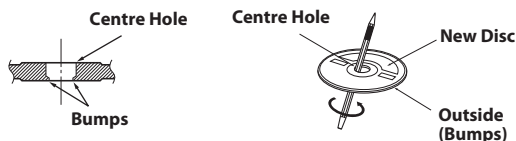
Your player accepts only one disc at a time for playback. Do not attempt to load more than one disc.

Make sure the label side is facing up when you insert the disc. "Error" will be displayed on your player if you insert a disc incorrectly. If "Error" continues to be displayed even though the disc has been inserted correctly, push the RESET switch with a pointed object such as a ballpoint pen.

Playing a disc while driving on a very bumpy road may result in skips, but this will not scratch the disc or damage the player.

## New Discs

To prevent the CD from jamming, "Error" is displayed if discs with irregular surfaces are inserted or if discs are inserted incorrectly. When a new disc is ejected immediately after initial loading, use your finger to feel around the inside of the centre hole and outside edge of the disc. If you feel any small bumps or irregularities, this could inhibit proper loading of the disc. To remove the bumps, rub the inside edge of the hole and outside edge of the disc with a ballpoint pen or other such instrument, then insert the disc again.



## Irregular Shaped Discs

Be sure to use round shape discs only for this unit and never use any special shape discs.

Use of special shape discs may cause damage to the mechanism.



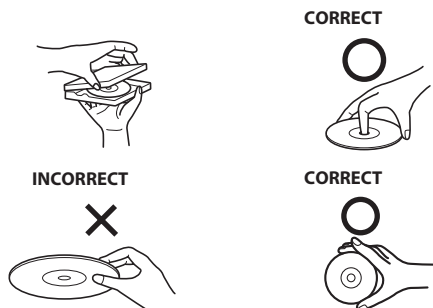
## Installation Location

Make sure this unit will not be installed in a location subjected to:

- Direct sun and heat
- High humidity and water
- Excessive dust
- Excessive vibrations

## Correct Handling

Do not drop the disc while handling. Hold the disc so you will not leave fingerprints on the surface. Do not affix tape, paper, or gummed labels to the disc. Do not write on the disc.



## Disc Cleaning

Fingerprints, dust, or soil on the surface of the disc could cause the CD player to skip. For routine cleaning, wipe the playing surface with a clean, soft cloth from the centre of the disc to the outer edge. If the surface is heavily soiled, dampen a clean, soft cloth in a solution of mild neutral detergent before cleaning the disc.

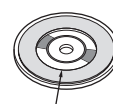


## Disc Accessories

There are various accessories available on the market for protecting the disc surface and improving sound quality. However, most of them will influence the thickness and/or diameter of the disc. Using such accessories can cause the disc to be out of standard specifications and may create operational problems. We recommend not using these accessories on discs played in Alpine CD players.



Transparent Sheet



Disc Stabilizer

## On handling Compact Discs (CD/CD-R/CD-RW)

- Do not touch the surface.
- Do not expose the disc to direct sunlight.
- Do not affix stickers or labels.
- Clean the disc when it is dusty.
- Make sure that there are no bumps around the disc.
- Do not use commercially available disc accessories.

**Do not leave the disc in the car or the unit for a long time. Never expose the disc to direct sunlight.** Heat and humidity may damage the CD and you may not be able to play it again.

## To customers using CD-R/CD-RW

- If a CD-R/CD-RW cannot be played back, make sure the last recording session was closed (finalized).
- Finalize the CD-R/CD-RW if necessary, and attempt playback again.

## About media that can be played

Use only compact discs with the label side showing the CD logo marks below.



If you use unspecified compact discs, correct performance cannot be guaranteed.

You can play CD-Rs (CD-Recordables)/CD-RWs (CD-ReWritable) which have been recorded only on audio devices. You can also play CD-Rs/CD-RWs containing MP3/WMA/AAC formatted audio files.

- Some of the following CDs may not play on this unit: Flawed CDs, CDs with fingerprints, CDs exposed to extreme temperatures or sunlight (e.g., left in the car or this unit), CDs recorded under unstable conditions, CDs on which a recording failed or a re-recording was attempted, copy-protected CDs which do not conform to the audio CD industry standard.
- Use discs with MP3/WMA/AAC files written in a format compatible with this unit. For details, refer to “About MP3/WMA/AAC” on page 11.
- ROM data other than audio files contained in a disc will not produce sound when played back.

### Protecting the USB connector

- Only a USB Memory, iPhone/iPod or Portable audio player can be connected to the USB connector on this unit. Correct performance using other USB products cannot be guaranteed.
- If the USB connector is used, be sure to use a USB extension cable (supplied). A USB hub is not supported.
- Depending on the connected USB Memory device, the unit may not function or some functions may not be performed.
- The audio file format that can be played back on the unit is MP3/WMA/AAC.
- Artist/song name, etc., can be displayed. Certain, special characters may not be correctly displayed.

### On Handling USB Memory

#### CAUTION

**Alpine accepts no responsibility for lost data, etc., even if data, etc. is lost while using this product.**

- To prevent malfunction or damage, note the following points.  
Read the USB Memory Owner's Manual thoroughly.  
Do not touch the terminals by hand or metal.  
Do not subject USB Memory to excessive shock.  
Do not bend, drop, disassemble, modify or soak in water.
- Avoid usage or storage in the following locations:  
Anywhere in the car exposed to direct sunlight or high temperatures.  
Anywhere the possibility of high humidity or corrosive substances are present.
- Fix the USB Memory in a location where driver operation will not be hindered.
- USB Memory may not function correctly at high or low temperature.
- Use only certified USB Memory. Pay attention that even certified USB Memory, may not function correctly depending on its type or state.
- USB Memory function is not guaranteed. Use USB Memory according to the terms of agreement.
- Depending on the settings of the USB Memory type, memory state or encoding software, the unit may not play back or display properly.
- A file that is copy-protected (copyright protection) cannot be played back.
- USB Memory may take time to start playback. If there is a particular file other than audio in the USB Memory, it may take considerable time before the file is played back or searched.
- The unit can play back “mp3”, “wma” or “m4a” file extensions.
- Do not add the above extensions to a file other than audio data. This non-audio data will not be recognized. The resulting playback may contain noise that can damage speakers and/or amplifiers.
- It is recommended to back up important data on a personal computer.
- Do not remove the USB device while playback is in progress. Change SOURCE to something other than USB, then remove the USB device to prevent possible damage to its memory.

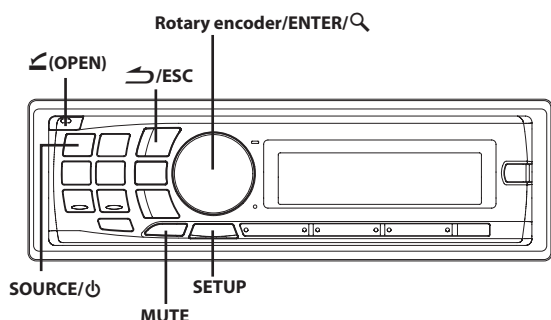
### On Handling Portable audio player

- The unit can control a Portable audio player with the USB interface. Playable audio file formats are MP3 and WMA.

- Portable audio player function is not guaranteed. Use Portable audio player according to the terms of agreement. Read the Portable audio player Owner's Manual thoroughly.
- Avoid usage or storage in the following locations:  
Anywhere in the car exposed to direct sunlight or high temperatures.  
Anywhere the possibility of high humidity or corrosive substances are present.
- Fix the Portable audio player in a location where driver operation will not be hindered.
- Portable audio player may not function correctly at high or low temperature.
- Depending on the settings of the Portable audio player type, memory state or encoding software, the unit may not play back or display properly.
- If the Portable audio player has an MSC/MTP setting, set to MTP.
- A Portable audio player in which data is stored by USB Mass Storage may not be playable on the unit.
- Depending on the Portable audio player settings, USB Mass Storage may be supported. For setting, refer to the Owner's Manual of the player.
- The unit can play back MP3/WMA files synchronized by Windows Media Player (Ver. 7, 8, 9), and are then forwarded to the player. The “mp3” or “wma” file extensions are playable.
- If data is not synchronized by Windows Media Player and is forwarded in another way, the unit may not be able to correctly play back the files.
- A file that is copy-protected (copyright protection) cannot be played back.
- It is recommended to back up important data on a personal computer.
- Do not remove the USB device while playback is in progress. Change SOURCE to something other than USB, then remove the USB device to prevent possible damage to its memory.

- *Windows Media and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.*
- *iPod is a trademark of Apple Inc., registered in the U.S. and other countries.*
- *iPhone is a trademark of Apple Inc.*
- *“Made for iPod” means that an electronic accessory has been designed to connect specifically to iPod and has been certified by the developer to meet Apple performance standards.*
- *“Works with iPhone” means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards.*
- *Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.*
- *The BLUETOOTH word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Alpine Electronics, Inc. is under license.*
- *“MPEG Layer-3 audio coding technology licensed from Fraunhofer IIS and Thomson.”*
- *“Supply of this product only conveys a license for private, non-commercial use and does not convey a license nor imply any right to use this product in any commercial (i.e. revenue-generation) real time broadcasting (terrestrial, satellite, cable and/or any other media), broadcasting/streaming via internet, intranets and/or other networks or in other electronic content distribution systems, such as pay-audio or audio-on-demand applications. An independent license for such use is required. For details, please visit <http://www.mp3licensing.com>”*
- *Audyssey MultEQ XT is a registered trademark of Audyssey Laboratories, Inc.*

# Getting Started



## Accessory List

• Head unit .....	1
• Power cable.....	1
• USB Cable.....	1
• Interface cable for iPod.....	1
• Mounting sleeve.....	1
• Carrying case .....	1
• Bracket key .....	2
• Screw (M5 × 8) .....	4
• Remote Control .....	1
• Battery (AAA size).....	2
• Owner's Manual.....	1 set

## Turning Power On and Off

- 1 Press **SOURCE/⏻** to turn on the unit.

### Note

- The unit can be turned on by pressing any other button.

- 1 Press and hold **SOURCE/⏻** for at least 2 seconds to turn off the unit.

### Note

- The first time power is turned on, the volume will start from level 12.

## Source Selection

- 1 Press **SOURCE/⏻** to change the source.

TUNER → DISC → USB<sup>\*1</sup>/USB iPod<sup>\*2</sup> → AUX+<sup>\*3</sup> → Bluetooth Audio<sup>\*4</sup> → CHANGER<sup>\*5</sup> → TUNER

<sup>\*1</sup> Displayed only when no iPhone/iPod is connected.

<sup>\*2</sup> Displayed only when the iPhone/iPod is connected.

<sup>\*3</sup> Displayed only when the AUX+ SETUP is set to ON, refer to "Setting the AUX+ Setup Mode" on page 19.

<sup>\*4</sup> Displayed only when Bluetooth IN is set to ADAPTER, refer to "Setting the BLUETOOTH Connection" on page 18.

<sup>\*5</sup> Only when the CD changer is connected.

## Detaching and Attaching the Front Panel

### Detaching

- 1 Turn off the unit power.
- 2 Press **(OPEN)** to open the front panel (figure 1).  
To close the front panel, press the left side until it locks as shown in the figure 2.



figure 1

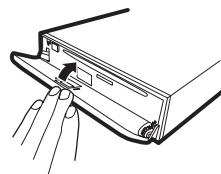
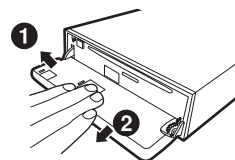


figure 2

- 3 Grasp the front panel firmly, slide to the left ❶, and then pull ❷ to remove.

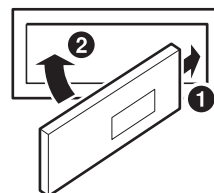


### Notes

- The front panel may become hot in normal usage (especially the connector terminals on the back of the front panel). This is not a malfunction.
- To protect the front panel, place it in the supplied carrying case.
- When detaching the front panel, do not apply excessive force as it may result in malfunction.
- Do not leave the front panel open, or drive the car with the panel open as it may result in an accident or malfunction.

### Attaching

- 1 Insert the right side of the front panel into the main unit. Align the groove on the front panel with the projections on the main unit.
- 2 Push the left side of the front panel until it locks firmly into the main unit.



### Notes


- Before attaching the front panel, make sure that there is no dirt or dust on the connector terminals and no foreign object between the front panel and the main unit.
- Attach the front panel carefully, holding the sides of the front panel to avoid pushing buttons by mistake.

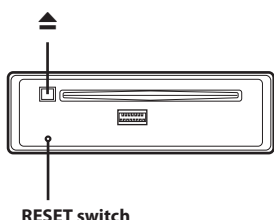
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## Initial System Start-Up

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Be sure to press the RESET switch when using the unit for the first time, after changing the car battery, etc.

- 1 Turn off the unit power.
- 2 Press  (OPEN) to open the front panel, and then remove it.
- 3 Press RESET with a ballpoint pen or similar pointed object.



- If no operation is performed for 60 seconds, SETUP is cancelled.
- To synchronize the clock to another clock/watch or radio time announcement, press and hold **ENTER/Q** for at least 2 seconds after setting the "hour". Minutes will reset to 00. If the display shows over "30" minutes when you do this, the time will advance one hour.

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## Adjusting Volume

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- 1 Turn the Rotary encoder until the desired sound is obtained.

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## Lowering Volume Quickly

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Activating the Audio Mute function will instantly lower the volume level by 20 dB.

- 1 Press MUTE to activate/deactivate the MUTE mode.


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## Setting the Time and Calendar

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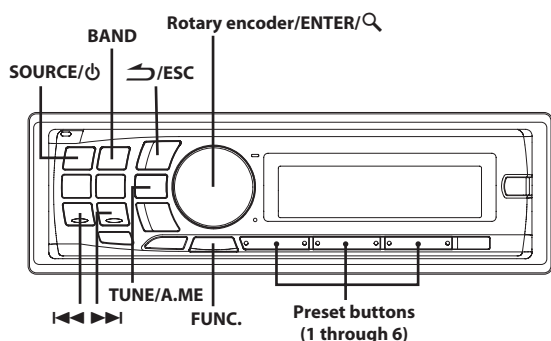
- 1 Press and hold **SETUP** for at least 2 seconds to activate the SETUP selection mode.
- 2 Turn the Rotary encoder to select the General mode, and then press **ENTER/Q**.  
Bluetooth\* ↔ General ↔ Display ↔ Tuner ↔ Bluetooth
- 3 Turn the Rotary encoder to select Clock Adjust, and then press **ENTER/Q**.
- 4 Turn the Rotary encoder to set year.
- 5 Press **ENTER/Q**.
- 6 Repeat steps 4 and 5 above to set month, day, hour and minute.
- 7 Press and hold **SETUP** for at least 2 seconds to return to normal mode.

### Notes

- Pressing /ESC returns to the previous SETUP mode.



# Radio



## Listening to Radio

- 1 Press **SOURCE/⏻** to select **TUNER** mode.
- 2 Press **BAND** repeatedly until the desired radio band is displayed.  
FM1 → FM2 → AM → FM1
- 3 Press **TUNE/A.ME** to select the tuning mode.  
DX (Distance mode) → LOCAL (Local mode) → MANUAL (Manual mode) → DX
 

**Note**

  - The initial mode is Distance mode.

**Distance mode:**  
Both strong and weak stations will be automatically tuned in (Automatic Seek Tuning).

**Local mode:**  
Only strong stations will be automatically tuned in (Automatic Seek Tuning).

**Manual mode:**  
The frequency is manually tuned in steps (Manual tuning).
- 4 Press **↶** or **↷** to tune in the desired station.  
Holding down **↶** or **↷** will change the frequency continuously.

## Presetting Stations Manually

- 1 Tune in the station you want to store. Press and hold, for at least 2 seconds, any one of the **preset buttons (1 through 6)** into which you wish to store the station.  
The display shows the band, preset number and station frequency memorized.

### Notes

- A total of 18 stations can be stored in the preset memory (6 stations for each band; FM1, FM2 and AM).
- If you store a station in a preset memory which already has a station, the current station will be cleared and replaced with the new station.
- If the (F) indicator is illuminated, turn off the indicator by pressing **FUNC.**, then you can perform the operation.

## Presetting Stations Automatically

- 1 Press **BAND** repeatedly until the desired radio band is displayed.
- 2 Press and hold **TUNE/A.ME** for at least 2 seconds.  
The frequency on the display continues to change while the automatic memory is in progress. The tuner will automatically seek and store 6 strong stations in the selected band. They will be stored into preset buttons 1 to 6 in order of signal strength. When the automatic memory has been completed, the tuner goes to the station stored in preset location No.1.

### Note

- If no stations are stored, the tuner will return to the original station you were listening to before the auto memory procedure began.

## Tuning to Preset Stations

- 1 Select the desired band, then press any one of the station **preset buttons (1 through 6)** that has your desired radio station in memory.  
The display shows the band, preset number and frequency of the station selected.

### Note

- If the (F) indicator is illuminated, turn off the indicator by pressing **FUNC.**, then you can perform the operation.

## Frequency Search Function

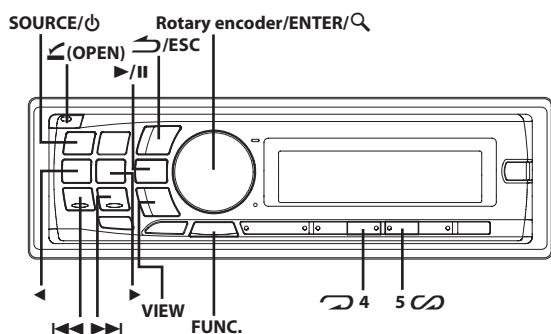
You can search for a radio station by its frequency.

- 1 Press and hold **ENTER/Q** for at least 2 seconds in Radio mode to activate Frequency search mode.
- 2 Turn the **Rotary encoder** to select the desired frequency.
- 3 Press **ENTER/Q** to receive the selected frequency.

### Note

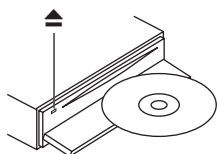
- Press **↶/ESC** in the search mode to cancel. Or, the search mode will be cancelled if no operation is performed for 10 seconds.

# CD/MP3/WMA/AAC



## Playback

- 1 Press **(OPEN)**.  
The front panel will open.
- 2 Insert a disc with the label side facing up.  
The disc will be pulled into the unit automatically.



### Note

- When a disc is already inserted, press **SOURCE/⏻** to switch to the DISC mode.

- 3 While playing back MP3/WMA/AAC, press **◀** or **▶** to select the desired folder.  
Pressing and holding **◀** or **▶** will change folders continuously.
- 4 Press **I◀◀** or **▶▶I** to select the desired track (file).  
Pressing and holding **I◀◀** or **▶▶I** will fast backward/fast forward track continuously.

### Note

- If a song is fast reversed to its beginning in pause mode, the song will be played back automatically.

- 5 To pause playback, press **▶/II**.  
Pressing **▶/II** again will resume playback.
- 6 After pressing **(OPEN)** to open the front panel, press **⏻** to eject the disc.

### Notes

- Do not remove a CD during its eject cycle. Do not load more than one disc at a time. A malfunction may result from doing either.
- Three-inch (8 cm) CDs cannot be used.
- WMA format files that are protected by DRM (Digital Rights Management), AAC format files that have been purchased from iTunes Store and files that are copy-protected (copyright protection) cannot be played back on this unit.
- The track display for MP3/WMA/AAC data playback is the file numbers recorded on the disc.

- The playback time may not be correctly displayed when a VBR (Variable Bit Rate) recorded file is played back.
- Press **VIEW** to switch the display. For details, refer to "Displaying the Text" on page 16.

## Repeat Play

- 1 Press **4**.  
The song is played back repeatedly.  
RPT\*<sup>1</sup> → RPT \*<sup>2</sup> → RPT \*<sup>3</sup> → (off) → RPT

\*<sup>1</sup> Only a track/file is repeatedly played back.

\*<sup>2</sup> Only files in a folder are repeatedly played back (MP3/WMA/AAC mode only).

\*<sup>3</sup> A disc is repeatedly played back (When a CD changer is connected.).

### Notes

- If RPT is set to ON during M.I.X. play in CD changer mode, M.I.X. will apply to the current disc only.
- If a CD changer or an MP3 compatible CD changer is connected: Press **FUNC.** to select the desired function (RPT/M.I.X.). Perform this operation within 5 seconds.

- 2 To cancel repeat play, select (off) with the above procedure.

## M.I.X. (Random Play)

- 1 Press **5**.  
The songs are played back in random sequence.  
MIX\*<sup>1</sup> → MIX \*<sup>2</sup> → MIX \*<sup>3</sup> → (off) → MIX
- \*<sup>1</sup> The tracks are played back in random sequence (CD mode only).
- \*<sup>2</sup> Only files in a folder are played back in random sequence (MP3/WMA/AAC mode only).
- \*<sup>3</sup> For CD, the tracks on all the CDs in the current magazine will be included in the random playback sequence. (When a CD changer equipped with the ALL M.I.X. function is connected.); For MP3/WMA/AAC, files are played back in random sequence. If an MP3 compatible CD changer is connected, all files in a disc are played back in random sequence, and playback shifts to the next disc.

### Note

- If M.I.X. is set to ON during RPT (REPEAT ALL) play in CD changer mode, M.I.X. will apply to the current disc only.

- 2 To cancel M.I.X. play, select (off) with the above procedure.

### Note

- If a CD changer or an MP3 compatible CD changer is connected: Press **FUNC.** to select the desired function (RPT/M.I.X.). Perform this operation within 5 seconds.

## Searching for CD Text

On discs utilizing CD Text, songs can be searched and played by using their recorded titles. For discs without CD Text, searches are made using the track numbers associated with each song.

- 1 Press **ENTER/🔍** during play.  
This will set the search mode.

- 2 Turn the **Rotary encoder** to select the desired track, and then press **ENTER/Q**.

This will play the selected track.

#### Notes

- Press **↵/ESC** in the search mode to cancel. Or, the search mode is cancelled if no operation is performed for 60 seconds.
- When CD Text Search is made during M.I.X. play, the M.I.X. play mode will be cancelled.
- In CD changer mode, searches can only be made using the track numbers associated with each song, even though discs utilize CD text.

## Folder/File Name Search (Concerning MP3/WMA/AAC)

Folder and file names may be searched and displayed during playback.

### Folder Name Search mode

- 1 During MP3/WMA/AAC playback, press **ENTER/Q** to activate the search mode.
- 2 Turn the **Rotary encoder** to select Folder Name Search mode, and then press **ENTER/Q**.
- 3 Turn the **Rotary encoder** to select the desired folder.
- 4 Press and hold **ENTER/Q** for at least 2 seconds to play back the first file in the selected folder.

#### Notes

- Press and hold **↵/ESC** for at least 2 seconds in the search mode to cancel. Or, the search mode is cancelled if no operation is performed for 60 seconds.
- To search for files in the Folder Name Search mode, press **ENTER/Q**. Files in the folder may be searched.
- Press **◀** or **▶** to select folders in which to search for a file.
- Press **↵/ESC** to exit Folder Name Search mode in step 3 in order to select File Name Search mode.
- When Folder Name Search is made during M.I.X. play, the M.I.X. play mode will be cancelled.
- The root folder of a disc is displayed as “\ROOT”.

### File Name Search mode

- 1 During MP3/WMA/AAC playback, press **ENTER/Q** to activate the search mode.
- 2 Turn the **Rotary encoder** to select File Name Search mode, and then press **ENTER/Q**.
- 3 Select the desired file by turning the **Rotary encoder**.
- 4 Press **ENTER/Q** to play back the selected file.

#### Notes

- Press and hold **↵/ESC** for at least 2 seconds in the search mode to cancel. Or, the search mode is cancelled if no operation is performed for 60 seconds.
- Press **↵/ESC** in the search mode to return to the previous mode.
- When File Name Search is made during M.I.X. play, the M.I.X. play mode will be cancelled.

## Quick Search

You can search for tracks (files).

- 1 Press and hold **ENTER/Q** for at least 2 seconds in the CD/MP3/WMA/AAC mode to activate Quick Search mode.
- 2 Turn the **Rotary encoder** to select a desired track (file).  
The selected track is played back immediately.

#### Notes

- Press **↵/ESC** in the search mode to cancel. Or, the search mode is cancelled if no operation is performed for 10 seconds.
- When Quick Search is made during M.I.X. play, the M.I.X. play mode will be cancelled.

## Search Position Memory

During playback, you can quickly return to the last-selected hierarchy level in the search mode.

- 1 Press **↵/ESC**.  
The hierarchy you selected last in the search mode is displayed.

## About MP3/WMA/AAC

### ⚠ CAUTION

**Except for private use, duplicating audio data (including MP3/WMA/AAC data) or distributing, transferring, or copying it, whether for free or for a fee, without permission of the copyright holder is strictly prohibited by the Copyright Act and by international treaty.**

#### What is MP3?

MP3, whose official name is “MPEG-1 Audio Layer 3,” is a compression standard prescribed by the ISO, the International Standardization Organization and MPEG which is a joint activity institution of the IEC. MP3 files contain compressed audio data. MP3 encoding is capable of compressing audio data at extremely high ratios, reducing the size of music files to as much as one-tenth their original size. This is achieved while still maintaining near CD quality. The MP3 format realises such high compression ratios by eliminating the sounds that are either inaudible to the human ear or masked by other sounds.

#### What is WMA?

WMA, or “Windows Media™ Audio,” is compressed audio data. WMA is similar to MP3 audio data and can achieve CD quality sound with small file sizes.

#### What is AAC?

AAC is the abbreviation for “Advanced Audio Coding,” and is a basic format of audio compression used by MPEG2 or MPEG4.

#### Method for creating MP3/WMA/AAC files

Audio data is compressed using software with MP3/WMA/AAC codecs. For details on creating MP3/WMA/AAC files, refer to the user's manual for that software.

MP3/WMA/AAC files that are playable on this device have the file extensions “mp3”/“wma”/“m4a”. Files with no extension cannot be played back (WMA ver. 7, 8 and 9 are supported). Protected files are not supported, neither are raw AAC files (using the “.aac” extension). There are many different versions of the AAC format. Confirm that the software being used conforms to the acceptable formats listed above. It's possible that the format may be unplayable even though the extension is valid.  
Playback of AAC files encoded by iTunes is supported.

## Supported playback sampling rates and bit rates

### MP3

Sampling rates:	48 kHz, 44.1 kHz, 32 kHz, 24 kHz, 22.05 kHz, 16 kHz
Bit rates:	8 - 320 kbps

### WMA

Sampling rates:	48 kHz, 44.1 kHz, 32 kHz
Bit rates:	48 - 192 kbps

### AAC

Sampling rates:	48 kHz, 44.1 kHz, 32 kHz, 24 kHz, 22.05 kHz, 16 kHz, 12 kHz, 11.025 kHz, 8 kHz
Bit rates:	16 - 320 kbps

This device may not play back correctly depending on sampling rates. In the USB mode, the playback time may not be correctly displayed when a VBR (Variable Bit Rate) recorded file is played back.

## ID3 tags/WMA tags

This device supports ID3 tag v1 and v2, and WMA/AAC tag. If tag data is in an MP3/WMA/AAC file, this device can display the title (track title), artist name, and album name ID3 tag/WMA/AAC tag data. This device can only display single-byte alphanumeric characters (up to 30 for ID3 tags and up to 15 for WMA tags) and the underscore. For non-supported characters, "NO SUPPORT" is displayed. If information contains characters other than ID3 tag information, the audio file may not be played back. The tag information may not be correctly displayed, depending on the contents.

## Playing back MP3/WMA/AAC

MP3/WMA/AAC files are prepared, then written to a CD-R, CD-RW using CD-R writing software or stored to a USB Memory. A disc can hold up to 510 files/folders (including Root Folders), and the maximum number of folders is 255. This unit can recognize at most 20 Banks (1,000 files per Bank) stored in USB Memory/Portable audio player. Playback may not be performed if a disc or USB Memory exceeds the limitations described above. Do not make a file's playback time more than 1 hour.

## Media supported

The media that this device can play back are CD-ROMs, CD-Rs, and CD-RWs. This device also can play back USB Memory media.

## Corresponding File Systems

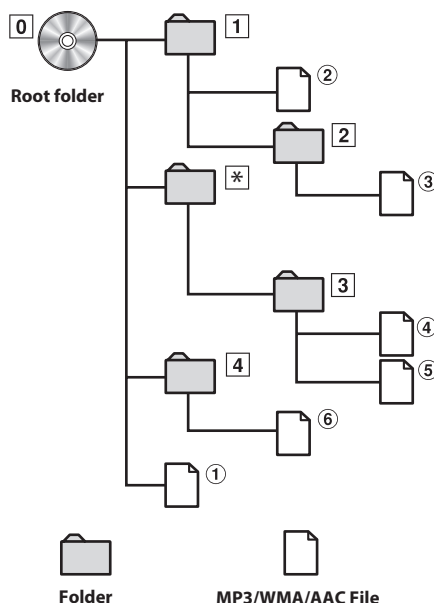
This device supports discs formatted with ISO9660 Level 1 or Level 2. Under the ISO9660 standard, there are some restrictions to remember. The maximum nested folder depth is 8 (including the root directory). The number of characters for a folder/file name is limited. Valid characters for folder/file names are letters A-Z (all caps), numbers 0-9, and '\_' (underscore). This device also can play back discs in Joliet, Romeo, etc., and other standards that conform to ISO9660. However, sometimes the file names, folder names, etc., are not displayed correctly. This device also supports FAT 12/16/32 for USB Memory device.

## Formats supported

This device supports CD-ROM XA, Mixed Mode CD, Enhanced CD (CD-Extra) and Multi-Session. This device cannot correctly play back discs recorded with Track At Once or packet writing.

## Order of files

Files are played back in the order that the writing software writes them to the disc. Therefore, the playback order may not be what is expected. Verify the writing order in the software's documentation. The playback order of the folders and files is as follows.



\* The folder No./ folder Name will not be displayed if no file is contained in the folder.

## Terminology

### Bit rate

This is the "sound" compression rate specified for encoding. The higher the bit rate, the higher the sound quality, but also the larger the files.

### Sampling rate

This value shows how many times per second the data is sampled (recorded). For example, music CDs use a sampling rate of 44.1 kHz, so the sound is sampled (recorded) 44,100 times per second. The higher the sampling rate, the higher the sound quality, but also the larger the volume of data.

### Encoding

Converting music CDs, WAVE (AIFF) files, and other sound files into the specified audio compression format.

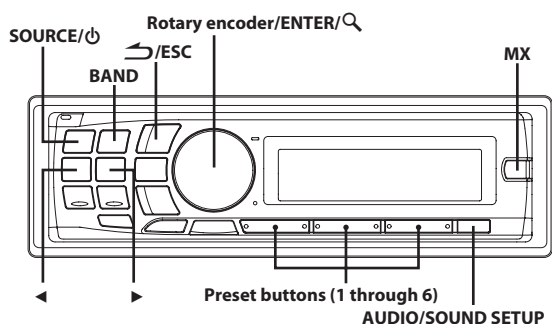
### Tag

Song information such as track titles, artist names, album names, etc., written into MP3/WMA/AAC files.

### Root folder

The root folder (or root directory) is found at the top of the file system. The root folder contains all folders and files. It is created automatically for all burned discs.

# Sound Setting



## Adjusting Subwoofer Level/Balance (Between Left and Right)/Fader (Between Front and Rear)/Black Out/Deaf

- Press **AUDIO** repeatedly to choose the desired mode.  
Each press changes the mode as follows:  
SUBWOOFER\*<sup>1</sup> → BALANCE → FADER → BLACK OUT\*<sup>2</sup> → DEFEAT → VOLUME → SUBWOOFER
- \*<sup>1</sup> When the subwoofer mode is set to OFF, its level cannot be adjusted, refer to "Turning Subwoofer ON/OFF" on page 14.
- \*<sup>2</sup> When Blackout mode is turned on, after 5 seconds, all display indications on this unit will turn off to reduce power consumption. This additional power enhances the sound quality.

Subwoofer level	0 ~ 15
Balance	-15 (L) ~ 15 (R)
Fader	-15 (R) ~ 15 (F)
Black Out	ON/OFF
Deafeat	ON/OFF
Volume	0 ~ 35

### Notes

- If no operation is performed for 5 seconds after selecting the SUBWOOFER, BALANCE, FADER, BLACK OUT or DEFEAT mode, the unit automatically returns to normal mode.
- If any button on the unit is pressed during the Blackout Mode, the function is displayed for 5 seconds before returning to Blackout mode.

- Turn the **Rotary encoder** until the desired sound is obtained in each mode.

### Note

- Depending on the connected devices, some functions and display indications do not work.

## Setting the MX Mode

MX (Media Xpander) makes vocals or instruments sound distinct regardless of the music source. The FM radio, CD, and iPod, will be able to reproduce the music clearly even in cars with a lot of road noise.

- Press **SOURCE/⏻** to select the source to which you want to apply Media Xpander.
- Press **MX** to switch to Media Xpander mode, and then press **ENTER/⌂**.
- Turn the **Rotary encoder** to select **ON**, and then press **ENTER/⌂**.  
The MX Level setting item is displayed.
- Turn the **Rotary encoder** to select the **MX Level**, and then press **ENTER/⌂**.
- Turn the **Rotary encoder** to select the desired Media Xpander level, and then press **ENTER/⌂**.

### FM (MX level 1 to 3):

The medium to high frequencies become clearer, and produces well balanced sound at all frequencies.

### CD (MX level 1 to 3):

CD mode processes a large amount of data during playback. MX takes advantage of this large data quantity to reproduce a more clear, clean output.

### CMPM (MX level 1 to 3):

This corrects information that was lost at the time of compression. This reproduces a well-balanced sound close to the original.

### DVD (Video CD) (MOVIE MX level 1 to 2):

The dialogue portion of a video is reproduced more clearly.

### (DVD MUSIC):

A DVD or Video CD contains a large quantity of data such as music clip. MX uses this data to reproduce the sound accurately.

### AUX (MX level 1):

Choose the MX mode (CMPM, MOVIE, or MUSIC) that corresponds to the media connected.

- Press and hold **↶/ESC** for at least 2 seconds to return to normal mode.





### Notes

- If **↶/ESC** is pressed during setting, the unit returns to the previous item.
- Each music source, such as FM radio, CD, and MP3/WMA/AAC can have its own MX setting.
- On disks with both MP3/WMA/AAC and CD-DA, when the source changes from "MP3/WMA/AAC to CD-DA" or "CD-DA to MP3/WMA/AAC", MX-mode switching may delay playback slightly.
- Setting to Non Effect sets MX mode of each music source to OFF.
- The function is inoperable when DEFEAT is set to ON.
- There is no MX mode for AM radio.
- If an audio processor with the MX function (PXA-H701, etc.) is connected, its own MX processing is applied to the music source. Since the processor MX settings may not match the head unit, the audio processor needs to be adjusted. For details, refer to the Owner's Manual of the audio processor.
- "CMPM" is applied for MP3/WMA/AAC and iPhone/iPod.


## Sound Setting

You can flexibly customize the unit to suit your own preference and usage. From the SOUND SETUP menu, Audio Setting can be modified.

**Use steps 1 to 4 to select one of the setting modes to modify. See the applicable section below for details about the selected setting item.**

- 1** Press and hold **SOUND SETUP** for at least 2 seconds to activate the Sound Setting mode.
- 2** Turn the **Rotary encoder** to select the desired sound setting menu, and then press **ENTER/** .  
HPF\*1 ↔ Subwoofer ↔ SUBW. System\*2 ↔ SUBW. Phase\*2 ↔ SUBW. Channel\*2 ↔ EQ Mode ↔ TCR Parameter ↔ Sound Field\*3 ↔ HPF
  - \*1 Adjustment cannot be performed when an external audio processor is connected or Defeat is set to ON.
  - \*2 These functions are inoperable when Subwoofer is set to OFF.
  - \*3 In step 2, two sound adjustment items (Parametric EQ/Graphic EQ, T.Correction) can be selected in Sound Field Adjustment mode, turn the **Rotary encoder** to select the desired item, and then press **ENTER/**  to continue to step 3.
- 3** Turn the **Rotary encoder** to change the setting, and then press **ENTER/** .  
(e.g. Select Subwoofer ON or Subwoofer OFF)
- 4** Press and hold /ESC for at least 2 seconds to return to normal mode.

### Notes

- Parametric EQ/Graphic EQ Adjustment and EQ Mode are inoperable when Defeat is set to ON.
- Pressing /ESC returns to the previous Sound menu mode.
- If no operation is performed for 60 seconds, Sound menu mode is cancelled.

## Adjusting the High Pass Filter

The High Pass Filter on this unit can be adjusted to suit your personal taste.

### Setting item: HPF

#### Setting contents:

OFF (Initial setting) / 60 Hz / 80 Hz / 100 Hz

## Turning Subwoofer ON/OFF

When the subwoofer is on, you can adjust the subwoofer output level (refer to "Sound Setting" on page 14).

### Setting item: Subwoofer

#### Setting contents:

ON (Initial setting) / OFF

#### ON:

The subwoofer signal is output from the Subwoofer RCA Connectors (refer to "Connections" on page 42).

#### OFF:

No subwoofer signal is output from the Subwoofer RCA Connectors (refer to "Connections" on page 42).

## Setting the Subwoofer System

When the subwoofer is on, you can select either System 1 or System 2 for the desired subwoofer effect.

### Setting item: SUBW. System

#### Setting contents:

SYSTEM 1 (Initial setting) / SYSTEM 2

#### SYSTEM 1:

Subwoofer level changes according to the main volume setting.

#### SYSTEM 2:

Subwoofer level change is different from the main volume setting. For example, even at low volume settings, the subwoofer is still audible.

## Setting the Subwoofer Phase

The subwoofer output phase is toggled SUBWOOFER NORMAL (0°) or SUBWOOFER REVERSE (180°). To adjust the level, turn the **Rotary encoder**.

### Setting item: SUBW. Phase

#### Setting contents:

0° (Initial setting) / 180°

## Setting the Subwoofer Channel (SUBW. Channel)

You can set the subwoofer output to stereo or monaural. Make sure to set the correct output for your subwoofer type.

### Setting item: SUBW. Channel

#### Setting contents:

STEREO (Initial setting) / MONO

#### STEREO:

Subwoofer stereo (L/R) output

#### MONO:

Subwoofer monaural output

## Setting EQ mode

This setting gives you a choice of 5-band parametric, or 7-band graphic equalizer.

### Setting item: EQ Mode

#### Setting contents:

Parametric EQ (Initial setting) / Graphic EQ

#### PEQ:

5-band Parametric EQ

#### GEQ:

7-band Graphic EQ

## Setting the Time Correction Unit (TCR Parameter)

You can change the unit, (cm or inch) of time correction.

### Setting item: TCR Parameter

#### Setting contents:

cm (Initial setting) / inch

## Sound Field Adjustment

The setting of Parametric EQ/Graphic EQ and Time Correction can be adjusted in this mode.

### Adjusting the Parametric Equalizer Curve

You can modify the Equalizer settings to create a response curve more appealing to your personal taste. To adjust the Parametric Equalizer Curve, set the EQ Mode to Parametric EQ. For details, refer to "Setting EQ mode" on page 14.

- 1 After selecting Parametric EQ from the Sound Field mode, press **BAND** to select the band to be adjusted.

Band 1 → Band 2 → Band 3 → Band 4 → Band 5 → Band 1

- 2 Press **◀** or **▶** to select frequency bands.

Adjustable frequency bands: 63 Hz to 17.5 kHz (in 1/3 octave steps).

Band-1	63 Hz~200 Hz
Band-2	160 Hz~1 kHz
Band-3	630 Hz~4 kHz
Band-4	1.6 kHz~10 kHz
Band-5	10 kHz~17.5 kHz

- 3 Turn the Rotary encoder to adjust the level.

Adjustable level: -6 to +6 dB

- 4 Press **SOURCE/⏻** to set the bandwidth (Q).

Adjustable bandwidth: 1, 2, 3, 4

- 5 To adjust another band, repeat steps 1 to 4 and adjust all bands.

#### Notes

- While adjusting the Parametric EQ, you should consider the frequency response of the connected speakers.
- The frequency value range of the current band should be higher than the previous band's setting value and lower than the next band's setting value.

### Adjusting the Graphic Equalizer Curve

You can modify the equalizer settings to create a response curve more appealing to your personal taste. To adjust the graphic equalizer curve, set the EQ Mode to Graphic EQ. For details, refer to "Setting EQ mode" on page 14.

- 1 After selecting Graphic EQ from the Sound Field mode, press **BAND** to select the band to be adjusted.

Band 1 → Band 2 → Band 3 → Band 4 → Band 5 → Band 6 → Band 7 → Band 1

Band-1	80 Hz
Band-2	250 Hz
Band-3	500 Hz
Band-4	1 kHz
Band-5	4 kHz
Band-6	8 kHz
Band-7	16 kHz

- 2 Turn the Rotary encoder to adjust the level.

Adjustable output level: -6 to +6 dB

- 3 To adjust another band, repeat steps 1 and 2, and then adjust all bands.

## Adjusting the Time Correction

Before performing the following procedures, refer to "About Time Correction" on page 31.

- 1 After selecting T.Correction from the Sound Field mode, press **BAND** to select a speaker to be adjusted.

F-L\*<sup>1</sup> → F-R\*<sup>2</sup> → R-L\*<sup>3</sup> → R-R\*<sup>4</sup> → SW-L → SW-R → F-L

\*1 Front-L (Initial setting)

\*2 Front-R

\*3 Rear-L

\*4 Rear-R

- 2 Turn the Rotary encoder to adjust the distance correction value (0.0 to 336.6cm).

$L = (\text{distance to farthest speaker}) - (\text{distance to other speakers})$

- 3 Repeat steps 1 and 2 to set another speaker.

By setting these values to make its sound reach the listening position at the same time as the sound of other speakers.

#### Note

- The total adjustment distance for all speakers should be less than 680cm (268.1 inch).

### Storing the Sound Field Adjustment Settings

The Sound Field Settings containing Parametric EQ/Graphic EQ and T.Correction settings can be stored in the preset memory.

- 1 When the settings of Sound Field have been completed, select any one of the preset buttons (1 through 6) in any item of the Sound Field mode (e.g. Parametric EQ), press and hold the desired preset buttons for at least 2 seconds.

- 2 Turn the Rotary encoder to select PROTECT YES/NO, and then press **ENTER/⏻** to store the adjusted contents.

PROTECT YES (Initial setting) ↔ PROTECT NO

#### Notes

- If YES is selected, the adjusted contents are protected and stored into the preset buttons. When you want to store the parameter into a protected preset button, "Replace NO/YES" can be selected.
- If NO is selected, the preset is stored.
- While performing this operation, all adjusted contents of Parametric EQ/Graphic EQ and T.Correction will be stored in the preset buttons.
- The stored contents are not deleted even when resetting the unit or disconnecting the battery.
- The stored contents can be recalled by performing operation (refer to "Recalling the Stored Sound Field Adjustment Settings" on page 15).

### Recalling the Stored Sound Field Adjustment Settings

The stored Sound Field Settings contain Parametric EQ/Graphic EQ and T.Correction settings that are stored in the preset memory.

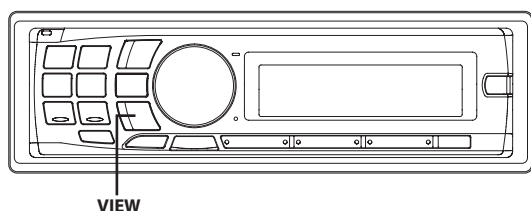
- 1 After selecting any item of the Sound Field mode (e.g. Parametric EQ), press any one of the preset buttons (1 through 6) that has your desired characteristic in memory to recall the stored settings.

- 2 Press the preset buttons (1 through 6) again to return to the Sound Field mode.

#### Note

- While performing this operation, all adjustment contents of Parametric EQ/Graphic EQ and T.Correction stored in the preset buttons will be recalled.

# Other Functions



## Displaying the Text

Text information, such as the disc name and the track name, will be displayed if playing a CD text compatible disc. It is also possible to display the folder name, the file name and the tag, etc. while playing MP3/WMA/AAC files.

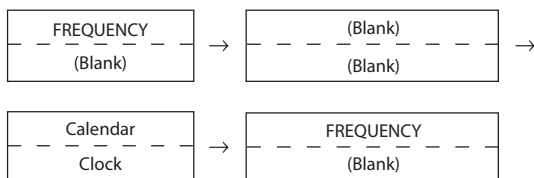
### 1 Press VIEW.

The display will change every time the button is pressed.

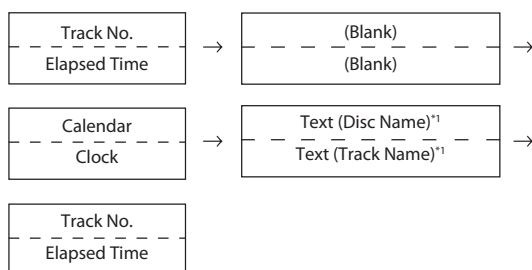
#### Note

- When the Text Scroll is set to Manual, press and hold **VIEW** for at least 2 seconds, the current text will be scrolled one time (except Radio mode).

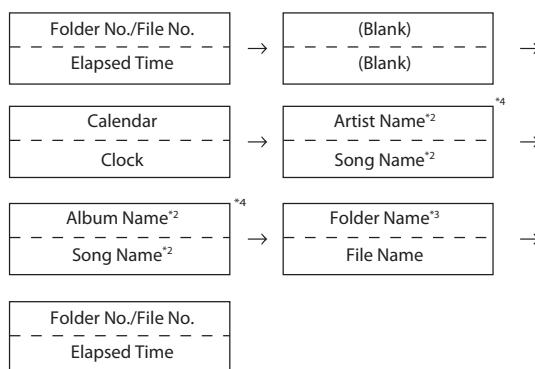
#### The display in Radio mode:



#### The display in CD mode:



#### The display in MP3/WMA/AAC mode:



- \*1 Displayed during playback of a disc with CD Text. If there is no text information, nothing will be displayed.
- \*2 If an MP3/WMA/AAC file contains ID3 tag/WMA tag information, the ID3 tag/WMA tag information is displayed (e.g., song name, artist name, and album name). All other tag data is ignored. If there is no text information, nothing will be displayed.
- \*3 The root folder of disc/USB Memory is displayed as “\ROOT”. If there is no text information, nothing will be displayed.
- \*4 When the Text Scroll (refer to “Scroll Setting (Text Scroll)” on page 20) is set to “Auto”, the display cannot be switched by pressing **VIEW**. The display contents switch alternately.

## About the indication display

When displaying Text, the following indicators are lit according to the mode.

Indicator/ Mode	CD Mode	MP3/WMA/ AAC Mode	iPod Mode
	—	Folder Name being displayed	—
	—	Artist Name being displayed	Artist Name being displayed
	—	Album Name being displayed	Album Name being displayed
	—	File Name being displayed	—
	Text (Disc Name) being displayed	—	—
	Text (Track Name) being displayed	Song Name being displayed	Song Name being displayed



## About "Text"

Text compatible CDs contain text information such as the disc name and track name. Such text information is referred to as "text".

### Notes

- Some characters may not be displayed correctly with this device, depending on the character type.
- The CD changer must also be CD Text compatible for the Text information to be displayed.
- If there is no TEXT information, the display is blank.
- The text or tag information may not be correctly displayed, depending on the contents.

## Displaying Time

- 1 Press **VIEW** repeatedly until the time is displayed.

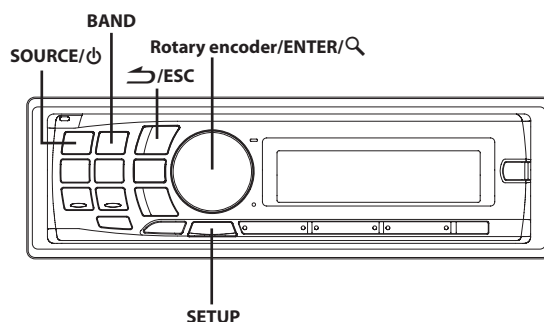
Each press changes the display.

For details, refer to "Displaying the Text" on page 16.

### Note

- Selecting any tuner or CD function while in the clock priority mode will interrupt the time display momentarily. The function selected will be displayed for about 5 seconds before the time returns to the display.

# SETUP



## Setting

You can flexibly customize the unit to suit your own preferences and usage. From the **SETUP** menu, General Setting, Display Setting, etc., can be modified.

**Use steps 1 to 5 to select one of the **SETUP** modes to modify. See the applicable section below for details about the selected **SETUP** item.**

- 1 Press and hold **SETUP** for at least 2 seconds to activate the **SETUP** mode.

- 2 Turn the **Rotary encoder** to select the desired item, and then press **ENTER/Q**.

Bluetooth\*1 ↔ General ↔ Display ↔ Tuner ↔ Bluetooth  
(e.g. Select General)

- 3 Turn the **Rotary encoder** to select a setting item, and then press **ENTER/Q**.

(e.g. Select Power IC)

#### Bluetooth:

Bluetooth IN

#### General:

Birthday Set ↔ Clock Mode ↔ Clock Adjust\*2 ↔ Calendar ↔  
Play Mode ↔ Beep ↔ INT Mute\*3 ↔ AUX+ Setup ↔ AUX+  
Name\*4 ↔ AUX IN GAIN\*4 ↔ Digital AUX ↔ D.AUX Name\*5 ↔  
AUX IN ↔ AUX Name\*6 ↔ Power IC ↔ Demo ↔ Birthday Set

#### Display:

Illumination ↔ Dimmer ↔ Dimmer Level ↔ Scroll Type ↔  
Text Scroll ↔ Font Select ↔ BGV Select ↔ Opening MSG ↔  
Illumination

#### Tuner:

FM Tuner Set

\*1 Displayed only when INT Mute is OFF and the mode is set to other than Bluetooth Audio.

\*2 Refer to "Setting the Time and Calendar" on page 8.

\*3 Displayed only when Bluetooth IN is OFF.

\*4 Displayed only when AUX+ Setup is ON.

\*5 Displayed only when Digital AUX is ON.


\*6 Displayed only when AUX IN is ON.

- 4 Turn the **Rotary encoder** to change the setting, and then press **ENTER/Q**.

(e.g. Select Power IC ON or Power IC OFF)

- 5** Press and hold **SETUP** for at least 2 seconds to return to normal mode.

#### Notes

- Pressing  / **ESC** returns to the previous **SETUP** mode.
- If no operation is performed for 60 seconds, **SETUP** is cancelled.

## BLUETOOTH Setting

Select Bluetooth from the setup main menu in step 2 above.

### Setting the BLUETOOTH Connection


If an optional BLUETOOTH INTERFACE (KCE-400BT) is connected, you can place a hands-free call by a BLUETOOTH-equipped mobile phone. Make this setting when the BLUETOOTH INTERFACE (KCE-400BT) is connected and the BLUETOOTH function is used. For details, refer to the Owner's Manual of the optional BLUETOOTH INTERFACE (KCE-400BT). Set **ADAPTER** when the BLUETOOTH INTERFACE (KCE-400BT) is connected.

#### Setting item: Bluetooth IN

##### Setting contents:

ADAPTER / OFF (Initial setting)


#### Notes

- The  button can be used only when the optional BLUETOOTH INTERFACE (KCE-400BT) is connected.
- If the mobile phone compatible with the Voice Dial function is connected, the Voice Dial function can be used.
- When **INT Mute** is set to **ON**, the BLUETOOTH setting cannot be made. When the BLUETOOTH INTERFACE (KCE-400BT) is connected, set **INT Mute** to **OFF**. Refer to "Turning Mute Mode On/Off (INT Mute)" on page 18.

## General Setting

General is selected on the setup main menu in step 2.

### Birthday Opening Message Setting (Birthday Set)

While Opening MSG is set to **ON** (refer to "Opening Message ON/OFF Setting" on page 20), and then input your birthday details, a message can be displayed on that day. Turn the **Rotary encoder** to set "mm" (Month), and then press **ENTER** / . Turn the **Rotary encoder** again to set "dd" (Date).

#### Setting item: Birthday Set

##### Setting contents:

mm/dd

### Setting the Clock Display (Clock Mode)

You can select the clock display type, 12-hour or 24-hour, depending on your preference.

#### Setting item: Clock Mode

##### Setting contents:

AM (Before noon) 12:00 (12-hour) (Initial setting) / 00:00 (24-hour)

## Setting of Calendar Display Pattern Switching (Calendar)

You can switch the calendar display pattern to be shown when the time is displayed.

#### Setting item: Calendar

##### Setting contents:

dd/mm/yyyy / yyyy/mm/dd / mm/dd/yyyy (Initial setting)

##### yyyy :

Shows the year

##### mm :

Shows the month

##### dd :

Shows the day

ex. dd/mm/yyyy → 01/11/2009

### Playing MP3/WMA/AAC Data (Play Mode)

This unit can play back CDs containing both CD and MP3/WMA/AAC data (created in Enhanced CD (CD Extra) format). However, in some situations, playback of an enhanced CD may be difficult. In this case, you can select playback of a single session only, containing the CD data. When a disc contains both CD and MP3/WMA/AAC data, playback starts from the CD data portion of the disc.

#### Setting item: Play Mode

##### Setting contents:

CD-DA (Initial setting) / CDDA&MP3/WMA

##### CD-DA:

Only the CD data in Session 1 can be played back.

##### CDDA&MP3/WMA:

CD data, MP3/WMA/AAC files in mixed mode, and multi-session discs can be played back.

#### Note

- Perform this setting before inserting a disc. If a disc has already been inserted, remove it first. (If you use an MP3 changer, you have to change discs.)

### Sound (Beep) Guide Function

This function will give audible feedback with varying tones depending upon the button pressed.

#### Setting item: Beep

##### Setting contents:

ON (Initial setting) / OFF

### Turning Mute Mode On/Off (INT Mute)

If a device having the interrupt feature is connected, audio will be automatically muted whenever the interrupt signal is received from the device.

#### Setting item: INT Mute

##### Setting contents:

ON / OFF (Initial setting)

## Setting the AUX+ Setup Mode

You can input the audio of an external device, (such as a Portable audio player) to the BLUETOOTH interface connector of this unit. A special Conversion cable (KCE-237B) is necessary to adapt the BLUETOOTH interface connector as an AUX IN.


A portable music device and a BLUETOOTH INTERFACE (KCE-400BT) cannot be connected to the BLUETOOTH interface connector at the same time.



### Setting item: AUX+ Setup

#### Setting contents:

ON / OFF (Initial setting)

#### ON\*:

Set to ON when a portable device is connected. If SOURCE/  is pressed and AUX+ is selected, the sound of the portable device is input to the unit.

\* You can change the AUX+ Name display when AUX+ Setup is set to ON. Press **ENTER/**  when AUX+ SETUP is set to ON, and select AUX+ Name by turning the **Rotary encoder**, then press **ENTER/** . After that, turn the **Rotary encoder** to select the desired AUX+ Name.

#### OFF:

When set to OFF, AUX+ source cannot be selected.

## Setting the AUX+ Level (AUX IN GAIN)

After setting to ON in "Setting the AUX+ Setup Mode", this setting can be carried out.

### Setting item: AUX IN GAIN

#### Setting contents:

Low (Initial setting) / High

#### Low:



Decreases the external input audio level.

#### High:

Increases the external input audio level.

## Setting the External Digital Input

When an ALPINE Ai-NET compatible digital audio processor (PXA-H701) and a DVD player (DVE-5207) not compatible with Ai-NET are connected, set Digital AUX to ON to enjoy 5.1-channel surround sound.


You can change the Digital AUX name display when Digital AUX is set to ON. Press **ENTER/**  when Digital AUX is set to ON, and select Digital AUX name by turning the **Rotary encoder**, then press **ENTER/** . After that, turn the **Rotary encoder** to select the desired Digital AUX name.

### Setting item: Digital AUX

#### Setting contents:



ON / OFF (Initial setting)

#### Notes

- Press **SOURCE/** , and select the D.Aux mode, and adjust the volume, etc.
- After input selection is completed, turn the ignition off and back on again. Setting of the optical digital input switch is completed.
- Depending on the connected audio processor, DVD player sound may continue to be output, even though the source is changed to another one. If this occurs, set the DVD player's power to OFF.

## Setting the AUX Mode (V-Link)

You can input TV/video sound by connecting an optional Ai-NET/RCA Interface cable (KCA-121B) or Versatile Link Terminal (KCA-410C) to this component.

You can change the AUX name display when AUX IN is set to ON. Press **ENTER/**  when AUX IN is set to ON, and select AUX Name by turning the **Rotary encoder**, and then press **ENTER/** .


After that, turn the **Rotary encoder** to select the desired AUX name. If the KCA-410C is connected, it is possible to select two AUX names.

### Setting item: AUX IN

#### Setting contents:

ON / OFF (Initial setting)

#### Note

- Via KCA-410C, up to 2 external devices with RCA output can be connected. In this case, press **SOURCE/**  to select AUX mode and then press **BAND** to select your desired device.

## Connecting to an External Amplifier

When an external amplifier is connected, sound quality can be improved by stopping the power supply of the built-in amplifier.

### Setting item: Power IC

#### Setting contents:

ON (Initial setting) / OFF

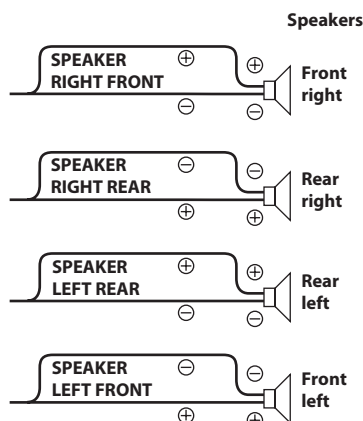
#### Power IC ON:

The speakers are driven by the built-in amplifier.

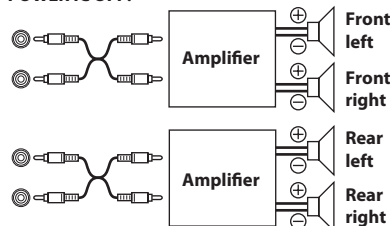
#### Power IC OFF:

Use this mode when the line output of this unit is used to drive an external amplifier. In this setting, the head unit's internal amplifier is turned OFF and can not drive speakers.

#### POWER IC ON:



#### POWER IC OFF:



#### Note

- No sound is produced by the system when the Power IC is set to OFF.

## Demonstration

This unit has a demonstration feature for the display.

### ■ Setting item: Demo

#### Setting contents:

ON / OFF (Initial setting)

#### Note





- To quit Demo mode, set to Demo OFF.

## Display Setting

Display is selected on the setup main menu in step 2.

## Changing Lighting Colour

You can change the lighting colour of the following six buttons.

**SOURCE** /  **BAND**, , , , .

### ■ Setting item: Illumination

#### Setting contents:

TYPE1 (Initial setting) / TYPE2 / TYPE3

#### TYPE 1:

When the colour of the six buttons is blue, the colour of the other is blue.

#### TYPE 2:

When the colour of the six buttons is blue, the colour of the other is red.

#### TYPE 3:

When the colour of the six buttons is red, the colour of the other is red.

## Dimmer Control

Set the Dimmer control to Auto to decrease the illumination brightness of the unit with the head lights of the vehicle ON. This mode is useful if you feel the unit's backlighting is too bright at night.

### ■ Setting item: Dimmer

#### Setting contents:

Auto (Initial setting) / Manual

## Dimmer Level Setting

In the Dimmer Level setting, three levels are available, the highest level (Lev3) being the dimmest when the car headlights are on.

### ■ Setting item: Dimmer Level

#### Setting contents:

Lev1 (Initial setting) / Lev2 / Lev3

## Scroll Type Setting

Choose from two scrolling methods.

Select the type you prefer.

### ■ Setting item: Scroll Type

#### Setting contents:

TYPE 1 / TYPE 2 (Initial setting)

#### TYPE 1:

The characters scroll from right to left, one character at a time, until the entire title has scrolled.

#### TYPE 2:

Words are built up from left to right, a single character at a time. When the display is full, it is cleared and the subsequent words are displayed the same way until all words of the title have been shown.

## Scroll Setting (Text Scroll)

This CD player can scroll the disc and track names recorded on CD-TEXT discs, as well as text information of MP3/WMA/AAC files, folder names and tags.

### ■ Setting item: Text Scroll

#### Setting contents:

Auto / Manual (Initial setting)

#### Text Scroll Auto:

CD text information, folder and file names are scrolled continuously. In addition, all tag information is automatically rotated in the display continuously, without pressing the VIEW button.

#### Text Scroll Manual:

The above information is scrolled only when a disc is loaded, a channel or track is changed, etc.

#### Note

- In parts of the display, scrolling may not occur, or scroll content may differ.

## Switching the Character Font

Two types of font can be selected.

You can select the font type you like.

### ■ Setting item: Font Select

#### Setting contents:

TYPE 1 (Initial setting) / TYPE 2

## Switching the Animation Display Type (BGV Select)

You can select your favorite animation display for background from 4 types.

### ■ Setting item: BGV Select

#### Setting contents:

OFF (Initial setting) / TYPE 1 / TYPE 2 / TYPE 3 / TYPE 4

## Opening Message ON/OFF Setting

This unit includes a special message feature with various patterns, which when enabled displays opening messages for certain occasions.

For example, when you turn this unit on December 25th (according to the unit's date setting), a Christmas greeting is displayed if the Opening Message is set to ON.

### ■ Setting item: Opening MSG

#### Setting contents:

ON / OFF (Initial setting)

## Tuner Setting

TUNER is selected on the setup main menu in step 2.

## Setting the TUNER (FM) tone quality

This unit can set your preferred tone quality for FM radio source.

### ■ Setting item: FM Tuner Set

#### Setting contents:

Normal (Initial setting) / HiFi / Stable

#### Normal:

Standard setting

#### HiFi:

High-quality setting

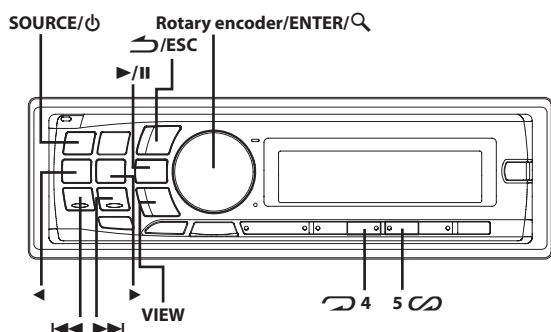
#### Stable:

Control noise

#### Note

- Noise may be more noticeable when HiFi is set, depending on the reception status. In this case, the Normal setting is recommended.

# USB Memory/Portable audio player (optional)



## Connecting the USB Memory (optional)

If a USB memory device/Portable audio player is connected to the unit, MP3/WMA/AAC files can be played back.

### Note

- In the USB mode, when this unit is reset, ACC is switched from OFF to ON, or when the USB is connected to this unit, "Banking" is displayed for several seconds.

## Using the USB Memory/Portable audio player Banking Function

### What is a Bank?

A bank is a unit of up to 1,000 songs, which is stored in memory/Portable audio player. "Banking" refers to the grouping of songs available in USB Memory/Portable audio player, in banks of 1,000 songs each. However, when a USB Memory is connected, 1BANK can store up to 1,000 songs under the following conditions. Otherwise, the number of songs that can be stored may be less than 1,000. Conditions (general estimate values)

Playlists: 20 (32 characters; 64 bytes)  
 Genres: 10 (32 characters; 64 bytes)  
 Composers: 30 (32 characters; 64 bytes)  
 Artists: 30 (32 characters; 64 bytes)  
 Albums: 100 (32 characters; 64 bytes)  
 Titles: 1,000 (32 characters; 64 bytes)  
 Folders: 100 (32 characters; 64 bytes)  
 Files: 1,000 (32 characters; 64 bytes)  
 File Paths: 1,000 (128 characters; 256 bytes)

### About Banking

While a bank is being built up, "Banking" is displayed. Banking occurs whenever a USB Memory device/Portable audio player is connected or after power to the head unit turns on. It can take anywhere from a few seconds to up to several minutes for banking to complete. This depends on the number of files and folders in USB Memory/Portable audio player.

### Available operations while Banking

- During Banking, the information display changes so the VIEW operation is not available.
- With a song playing, Regular fast-forwarding and next song selection is available.
- While Banking, the song playback order may differ from the song order in the USB Memory device/Portable audio player.

- Searching is not recommended during the Banking process as the database is under construction at this time, and malfunction may result in some cases.

This unit has a BANK function that automatically divides every 1,000 songs stored in USB Memory/Portable audio player into individual banks to make searching and playing back a song easier. A maximum of 1,000 songs for one bank can be stored according to the order stored in USB Memory/Portable audio player. A maximum of 20 banks (20,000 songs) can be recognized.

Bank No.	Song number
Bank1	1~1,000
Bank2	1,001~2,000
⋮	⋮
Bank20	19,001~20,000

## Playback

- Press **SOURCE/⏻** to select the USB mode.

- Press **<<II** or **>>II** to select the desired track (file).

Pressing and holding **<<II** or **>>II** will fast backward/fast forward track continuously.

### Notes

- If a song is fast reversed to its beginning in pause mode, the song will be played back automatically.
- Depending on the connected portable audio player, fast-forwarding/fast-reversing may not be available.

- To pause playback, press **>II**.

Pressing **>II** again will resume playback.

### Notes

- WMA format files that are protected by DRM (Digital Rights Management), AAC format files that have been purchased from the iTunes Store and files that are copy-protected (copyright protection) cannot be played back on this unit.
- The playback time may not be correctly displayed when a VBR (Variable Bit Rate) recorded file is played back.
- If there is tag information, artist name/album name/track name is displayed.
- If an MP3/WMA/AAC file contains ID3 tag/WMA tag information, the ID3 tag/WMA tag information is displayed (e.g., song name, artist name, and album name). All other tag data is ignored.
- If text information is not compatible with this unit, the display is "NO SUPPORT".
- Before disconnecting USB Memory, be sure to change to another source or set to pause.
- Press **VIEW** to switch the display. For details, refer to "Displaying the Text" on page 16.

## Repeat Play

- Press **↺ 4**.

The song is played back repeatedly.

RPT\*1 → RPT \*2 → RPT \*3 → (off) → RPT

\*1 Only a file is repeatedly played back.

\*2 According to the artist information of the current song, a playlist about all the songs with the same artist of the Bank are made into a playlist, which then starts to play back.

\*3 According to the album information of the current song, a playlist about all the songs with the same album of the Bank are made into a playlist, which then starts to play back.

- 2 To cancel repeat play, select (off) with the above procedure.

#### Note

- During repeat play, setting M.I.X. to ON will cancel the repeat play.

## M.I.X. (Random Play)

- 1 Press 5 .

The songs are played back in random sequence.

MIX\*1 → MIX ALL\*2 → (off) → MIX

- \*1 Song shuffle randomly plays back songs within a selected category (playlist, album, etc.). The songs within the category are played just once until all songs have been played.
- \*2 All songs in the current Bank are played back in random sequence. Any one song does not play back again until all songs have been played back.

- 2 To cancel M.I.X. play, select (off) with the above procedure.

#### Notes

- When a song is played back during Random (M.I.X.) play in the USB mode, the song can be played back again randomly even if not all songs in the current Bank have been played back.
- During M.I.X. play, setting repeat play to ON will cancel the M.I.X. play.
- During repeat play, etc., the track number display for M.I.X. play may be incorrect.

## Searching for a desired Song

A USB Memory or Portable audio player can contain hundreds of songs. By using file tag information and keeping these songs organised in playlists, this unit's search functions will ease song searches. Each music category has its own individual hierarchy. Use the Bank/Playlists\*1/Artists/Albums/Songs/Genres/Composers/Folders/Files search mode to narrow searches based on the table below.

Hierarchy 1	Hierarchy 2	Hierarchy 3	Hierarchy 4	Hierarchy 5
Bank	Playlist*1	Song	—	—
Bank	Artist*	Album*	Song	—
Bank	Album*	Song	—	—
Bank	Song	—	—	—
Bank	Genre*	Artist*	Album*	Song
Bank	Composer*	Album*	Song	—
Bank	Folder	File	—	—
Bank	File	—	—	—

- \*1 Playlist search is not available when a Portable audio player is connected.

#### For example:



Searching by Artist name

The following example explains how an Artists search is performed. Another search mode can be used for the same operation, although the hierarchy differs.

## Searching by artist name

- 1 Press ENTER/Q to activate the search selection mode.
- 2 Turn the Rotary encoder to select a desired Bank, and then press ENTER/Q.  
The "Banking" may be displayed for a few seconds.
- 3 Turn the Rotary encoder to select the Artist search mode, and then press ENTER/Q.  
Playlist ↔ Artist ↔ Album ↔ Song ↔ Genre ↔ Composer ↔ Folder ↔ File ↔ Playlist
- 4 Turn the Rotary encoder to select the desired Artist, and then press ENTER/Q.
- 5 Turn the Rotary encoder to select an album, and then press ENTER/Q.
- 6 Turn the Rotary encoder to select a song and press ENTER/Q.  
The selected song is played back.

#### Notes

- After pressing and holding ENTER/Q for at least 2 seconds while in each hierarchy (except Song and File hierarchy), all songs of the selected hierarchy are played back.
- After selecting [ALL] in the search mode with "a", press and hold ENTER/Q for at least 2 seconds to play back all songs in the selected search mode.
- While in the search mode, if you press and hold /ESC for at least 2 seconds, or no operation is performed for 60 seconds, the search mode is cancelled.
- The root folder of USB Memory/Portable audio player is displayed as "ROOT".
- When the bank is changed during Repeat play, the Repeat play will be cancelled.
- In the search mode, pressing /ESC will return to the previous mode.
- When search is made during M.I.X. play, the M.I.X. play mode will be cancelled.
- In the search mode, a search can be made quickly by Alphabet skip function to find the desired artist or song, etc. For details, refer to "Alphabet Skip Function" on page 23.
- When searching for a song, artist, etc., in a USB Memory, the display order may be incorrect if the character code of the file tag information is mixed.

## Select Playlist\*/Artist/Album/Genre/Composer/Folder

Playlist\*/Artist/Album/Genre/Composer/Folder can be easily changed. For example, if you listen to a song from a selected album, the album can be changed.

- 1 Press ◀ or ▶ to select the desired Playlist\*/Artist/Album/Genre/Composer/Folder.

- \* This item is invalid when a portable audio player is connected.

#### Notes

- If the song search mode was used to select a song, this function is inactive.
- If an album is selected during an artist search, other albums by that artist are searchable.
- This function is inactive during shuffle (M.I.X.) playback.

## Alphabet Skip Function

The initial skip function is skipped to the next number, symbol or letter such as from A to B, B to C.

You can skip in reverse order such as B to A by pressing ◀.

- 1 During search mode, press ◀ or ▶ to perform the Alphabet Skip Function.

A list is skipped to the next number, symbol or letter.

### Notes

- The alphabet select object is only the alphabet that is recorded by UTF-16 character code.
- If the Song search mode is activated in Playlist search, this function is invalid.

## Quick Search

You can search a song from all songs in current bank of USB Memory/portable audio player without selecting an album, artist, etc.

- 1 Press and hold ENTER/🔍 for at least 2 seconds to activate Quick Search mode.
- 2 Turn the Rotary encoder to select a desired track (file).  
The selected track is played back immediately.

### Note

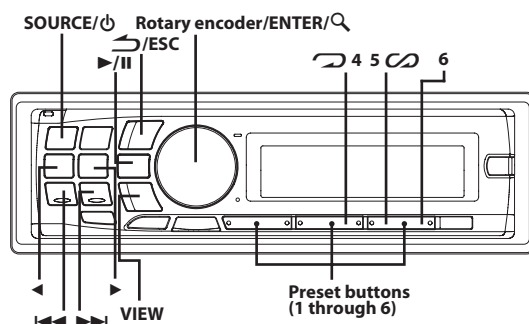
- Press ⏮/ESC in the search mode to cancel. Or, the search mode is cancelled if no operation is performed for 10 seconds.

## Search Position Memory

During playback, you can quickly return to the last-selected hierarchy level in the search mode.

- 1 Press ⏮/ESC.  
The hierarchy you selected last in the search mode is displayed.

## iPhone/iPod (optional)



## Connecting an iPhone/iPod

An iPhone/iPod can be connected to this unit by using the Interface cable for iPod (supplied). When this unit is connected by using the cable, the controls on the iPod are not functional.

### Notes

- Internet and telephone functions of the iPod touch or iPhone, etc. can also be used while connected to this unit. Using these functions will stop or pause the currently playing songs. During this time, do not operate the unit to avoid a malfunction.
- If you connect an iPhone to this unit, it can be used as an iPod. If you use iPhone as a hands-free phone, you need the optional BLUETOOTH INTERFACE (KCE-400BT).

### iPhone/iPod models usable with this unit

- Confirmed devices regarding Made for iPod. Correct function of earlier versions cannot be guaranteed.  
iPod touch (2nd generation): Ver.3.0  
iPod nano (4th generation): Ver.1.0.2  
iPod classic (120 GB only): Ver.2.0.1  
iPod touch (1st generation): Ver.3.0  
iPod nano (3rd generation): Ver.1.1.3 PC  
iPod classic (80 GB, 160 GB only): Ver.1.1.2 PC  
iPod nano (2nd generation): Ver.1.1.3  
iPod with video: Ver.1.3  
iPod nano (1st generation): Ver.1.3.1
- Confirmed devices regarding Works with iPhone. Correct function of earlier versions cannot be guaranteed.  
iPhone 3GS: Ver.3.1  
iPhone 3G: Ver.3.0  
iPhone: Ver.3.0
- For clarity in identifying your model of iPod, please see Apple's own document "Identifying iPod models" at <http://support.apple.com/kb/HT1353>.
- This unit does not support video playback from iPhone/iPod, even using a video-compatible cable.

## Playback

- 1 Press SOURCE/⏻ to switch to the USB iPod mode.
- 2 Press ⏮ or ⏭ to select the desired song.  
Pressing and holding ⏮ or ⏭ will fast backward/fast forward the current song.

- 3 To pause playback, press ►/II.**  
Pressing ►/II again will resume playback.

### Notes

- A song playing on the iPhone/iPod while it is connected to this unit will continue to play from where it was paused after disconnection.
- If you listen to an episode from a selected podcast or audiobook, the episode can be changed by pressing ◀ or ▶.
- An episode may have several chapters. The chapter can be changed by pressing ◀◀ or ▶▶.
- When an iPhone 3GS or an iPod (Ver.3.x) is connected to this unit, after changing the source or received interruption, etc., to return to USB iPod mode, "No USB Unit" may be displayed. In this case, reconnect the iPhone 3GS/iPod.

## Searching for a desired Song

An iPhone/iPod can contain hundreds of songs. By using file tag information and keeping these songs organised in playlists, this unit's search functions will ease song searches. Each music category has its own individual hierarchy. Use the Playlist/Artist/Album/Song/Podcast/Genre/Composer/Audiobook search mode to narrow searches based on the table below.

Hierarchy 1	Hierarchy 2	Hierarchy 3	Hierarchy 4
Playlist	Song	—	—
Artist*	Album*	Song	—
Album*	Song	—	—
Song	—	—	—
Podcast	Episode	—	—
Genre*	Artist*	Album*	Song
Composer*	Album*	Song	—
Audiobook	—	—	—

### For example:

Searching by Artist name.

The following example explains how an Artist search is performed.

Another search mode can be used for the same operation, although the hierarchy differs.

## Searching by artist name

- 1 Press ENTER/Q** to activate the search selection mode.
- 2 Turn the Rotary encoder to select the Artist search mode, and then press ENTER/Q.**  
Playlist ↔ Artist ↔ Album ↔ Song ↔ Podcast ↔ Genre ↔ Composer ↔ Audiobook ↔ Playlist
- 3 Turn the Rotary encoder to select the desired Artist, and then press ENTER/Q.**
- 4 Turn the Rotary encoder to select the desired Album, and then press ENTER/Q.**
- 5 Turn the Rotary encoder to select the desired Song, and then press ENTER/Q.**  
The selected song is played back.

### Notes

- After pressing and holding ENTER/Q for at least 2 seconds while in each hierarchy (except Song and Audiobook hierarchy), all songs of the selected hierarchy are played back.
- After selecting [ALL] in the search mode with <sup>ac</sup>, press and hold ENTER/Q for at least 2 seconds to play back all songs in the iPhone/iPod or selected search mode.

- While in the search mode, if you press and hold ⏮/ESC for 2 seconds, or no operation is performed for 60 seconds, the search mode is cancelled.
- In the search mode, pressing ⏮/ESC will return to the previous mode.
- When search is made during M.I.X. play, the M.I.X. play mode will be cancelled.
- "No Song" will be displayed if there are no songs in the selected playlist in the Playlist search mode.
- "No Podcast" will be displayed if there is no podcast data in the iPhone/iPod in the Podcast search mode.
- "No Audiobook" will be displayed if there is no audiobook data in the iPhone/iPod in the Audiobook search mode.
- If "iPod name" stored in the iPhone/iPod is selected in the desired Playlist search mode, and ENTER/Q is pressed, you can search for all songs in the iPhone/iPod. Also, if you press and hold ENTER/Q for at least 2 seconds, all songs in the iPhone/iPod are played back.
- Depending on the iPhone/iPod, podcast search is not supported.
- If Alphabet Skip Function is activated in the search mode, a search can be made quickly by Alphabet skip function to find the desired artist or song, etc. For details, refer to "Alphabet Skip Function" on page 25.
- If any one of the **preset buttons (1 through 6)** is pressed in the search mode, a search can be made quickly by skipping to the specified location. For details, refer to "Direct Search Function" on page 24.

## Quick Search

You can search a song from all songs in the iPhone/iPod without selecting an album, artist, etc.

- 1 Press and hold ENTER/Q** for at least 2 seconds to activate the Quick Search mode.
- 2 Turn the Rotary encoder to select a desired song.**  
The selected song is played back immediately.

### Notes

- Press ⏮/ESC in the search mode to cancel. Or, the search mode is cancelled if no operation is performed for 10 seconds.
- If many songs are in iPhone/iPod, it takes time to search for songs.
- If any one of the **preset buttons (1 through 6)** is pressed in the search mode, a search can be made quickly by skipping to the specified location. For details, refer to "Direct Search Function" on page 24.
- This function is inactive during repeat (RPT) playback.

## Direct Search Function

The unit's direct search function can be used to search for an album, song, etc., more efficiently. In Playlist/Artist/Album/Song/Podcast/Genre/Composer/Audiobook mode, you can quickly target any song.

- 1 In the search mode, press any one of the preset buttons (1 through 6) to quickly skip over a designated percent of your song content.**

### Song search example:

If there are 100 songs in your iPhone/iPod, they are divided into 6 groups using percentages (shown below). These groups are assigned to preset buttons 1 through 6.

### Example 1:

Suppose the song you are searching for is located at around the middle (50%) of your library: press button 4 to jump to the 50th song and turn the **Rotary encoder** to find the desired song.



### Example 2:

Suppose the song you are searching for is located near the end (83%) of your library: press button 6 to jump to the 83rd song and turn the **Rotary encoder** to find the desired song.

	All 100 songs (100%)					
	0%	17%	33%	50%	67%	83%
Preset buttons	1	2	3	4	5	6
Songs	1st song	17th song	33rd song	50th song	67th song	83rd song

## Select Playlist/Artist/Album/Genre/Composer/Episode

Playlist/Artist/Album/Genre/Composer/Episode can be easily changed. For example, if you listen to a song from a selected album, the album can be changed.

- 1 Press ◀ or ▶ to select the desired Playlist/Artist/Album/Genre/Composer/Episode.

### Notes

- If the song search mode was used to select a song, this function is inactive.
- If an album is selected during an artist search, other albums by that artist are searchable.
- This function is inactive during shuffle (M.I.X.) playback.

## Alphabet Skip Function

The initial skip function is skipped to the next number, symbol or letter such as from A to B, B to C.

You can skip in reverse order such as B to A by pressing ◀.

- 1 During search mode, press ◀ or ▶ to perform the Alphabet Skip Function.

A list is skipped to the next number, symbol or letter.

### Note

- Titles are listed alphabetically, and can be skipped every 200 titles. If there are fewer than 200 titles, titles beginning with the next alphabetical character are selected.

## Search Position Memory

During iPhone/iPod playback, you can quickly return to the last-selected hierarchy level in the search mode.

- 1 Press ↶/ESC.

The hierarchy you selected last in the search mode is displayed.

## Random Play Shuffle (M.I.X.)

The Shuffle function of the iPhone/iPod is displayed as M.I.X. on this unit.

### Shuffle Albums:



The songs on each album are played back in proper order. Upon completion of all the songs on the album, the next album is selected randomly. This continues until all albums have been played.

### Shuffle Songs:

Song shuffle randomly plays back songs within a selected category (playlist, album, etc.). The songs within the category are played just once until all songs have been played.

- 1 Press 5 .

The songs are played back in random sequence.

MIX  \*1 → MIX \*2 → (off) → MIX 

\*1 Shuffle Albums.

\*2 Shuffle Songs.

- 2 To cancel M.I.X. play, select (off) with the above procedure.

### Note

- If a song is selected in the album search mode before selecting M.I.X. play, the songs will not play back randomly even when Shuffle Albums is selected.

### Shuffle ALL:

Shuffle ALL plays all songs in the iPhone/iPod randomly. Any one song does not play back again until all songs have been played back.

- 1 Press 6.

The songs are played back in random sequence.

MIX ALL \* → (off) → MIX ALL

\* Shuffle ALL.

- 2 To cancel M.I.X. play, select (off) with the above procedure.

### Note

- If Shuffle ALL is selected, the selected songs being played back in the search mode are cancelled.

## Repeat Play

Only Repeat One is available for the iPhone/iPod.

### Repeat One:

A single song is repeatedly played back.

- 1 Press  4.

The song is played back repeatedly.

RPT \* → (off) → RPT

\* Repeat One.

- 2 To cancel repeat play, select (off) with the above procedure.

### Note

- Depending on the connected iPod, track up/down may be not available during Repeat play.

## Displaying the Text

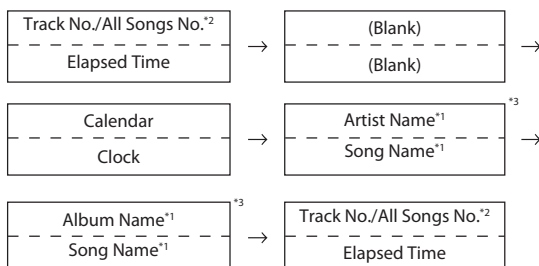
You can display the tag information of a song in the iPhone/iPod.

### 1 Press VIEW.

Each press changes the display.

#### Note

- When the Text Scroll is set to Manual, press and hold **VIEW** for at least 2 seconds, the current text will be scrolled one time.



#### \*1 TAG information

If the Text Scroll (refer to "Scroll Setting (Text Scroll)" on page 20) is set to "Auto," the tag information will scroll automatically.

If there is no text information, nothing will be displayed.

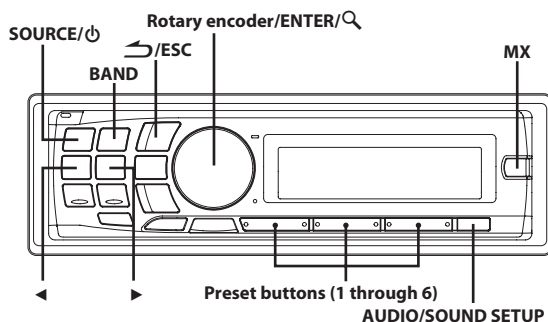
#### \*2 The numbers of all songs displayed vary depending on the songs selected by the search.

#### \*3 When the Text Scroll (refer to "Scroll Setting (Text Scroll)" on page 20) is set to "Auto," the display cannot be switched by pressing **VIEW**. The display contents switch alternately.

#### Notes

- Only alphanumeric characters (ASCII) can be displayed.
- The maximum number of characters for the head unit is 128 (128 byte).
- Some characters may not be correctly displayed.
- The display is "NO SUPPORT" when text information is not compatible with this unit.

## IMPRINT Operation (optional)



Alpine introduces IMPRINT - the world's first technology that thoroughly eliminates in-car acoustic problems that normally degrade sound quality, which enables us to experience music the way the artist intended.

When the IMPRINT audio processor (PXA-H100) (sold separately) is connected to this unit, MultEQ and the following sound adjustment can be performed.

## Changing MultEQ mode

MultEQ, developed by Audyssey Labs, automatically corrects the audio for the listening environment. The system is optimized for selected positions in the vehicle. To accomplish this, MultEQ must take measurements of the vehicles response characteristics. For details on the set up procedure, consult your authorized Alpine dealer.

- Press and hold **SOUND SETUP** for at least 2 seconds to activate the Sound menu selection mode.
- Turn the **Rotary encoder** to select MultEQ Mode, and then press **ENTER/↻**.
- Turn the **Rotary encoder** to select the desired MultEQ Mode, and then press **ENTER/↻**.

OFF (Manual Mode) ↔ Curve 1 (MultEQ-1) ↔ Curve 2 (MultEQ-2)

#### Notes

- The Curve mode can be selected only when Curve 1 and Curve 2 are stored.
- When using MultEQ, MX, X-Over, T.Correct, Factory's EQ, SUBW. Phase, SUBW. Channel, TW Setup, EQ Mode, Filter Type and Parametric EQ/Graphic EQ are set automatically. They are no longer user adjustable.
- When an external audio processor is connected, the MultEQ function cannot be used.

## Adjusting Subwoofer Level/Bass Level/Treble Level/Fader (Between Front and Rear)/Balance (Between Left and Right)/Black Out in MultEQ mode

You can change these settings to create your own preference in MultEQ (Curve 1 or Curve 2) mode.

### 1 Press **AUDIO** repeatedly to select the MultEQ adjustment item.

SUBWOOFER LEVEL\*<sup>1</sup> → BASS LEVEL\*<sup>2</sup> → TREBLE LEVEL\*<sup>2</sup> → BALANCE → FADER\*<sup>3</sup> → BLACK OUT\*<sup>4</sup> → DEFEAT → VOLUME → SUBWOOFER LEVEL

- \*<sup>1</sup> When the SUBWOOFER mode is set to OFF, its level cannot be adjusted.
- \*<sup>2</sup> This function is inoperable when MultEQ is set to OFF.
- \*<sup>3</sup> If you set the 2.2ch (3WAY)/4.2ch (FRONT/REAR/SUBW.) switch of the IMPRINT audio processor (PXA-H100) to 2.2ch (3WAY), you cannot adjust the FADER mode. For details, refer to the Owner's Manual of PXA-H100.
- \*<sup>4</sup> When Blackout mode is turned on, all display indications on this unit will turn off to reduce power consumption. This additional power enhances the sound quality.  
If any button on the unit is pressed during the Blackout Mode, the function is displayed for 5 seconds before returning to Blackout mode.

#### Note

- If no operation is performed for 5 seconds after selecting the SUBWOOFER LEVEL, BASS LEVEL, TREBLE LEVEL, FADER, BALANCE, BLACK OUT or DEFEAT mode the unit automatically returns to normal mode.

### 2 Turn the Rotary encoder to change the setting as below.

Subwoofer level	0 ~ 15
Bass level	-7~+7
Treble level	-7~+7
Balance	-15 (L) ~ 15 (R)
Fader	-15 (R) ~ 15 (F)
Black Out	ON/OFF
Defeat	ON/OFF
Volume	0 ~ 35

#### Note

- Depending on the connected devices, some functions and display indications do not work.

## Setting the MX Mode

MX (Media Xpander) makes vocals or instruments sound distinct regardless of the music source. The FM radio, CD, and iPod, will be able to reproduce the music clearly even in cars with a lot of road noise.

### 1 Press **SOURCE**/ to select the source to which you want to apply Media Xpander.

### 2 Press **MX** to switch to Media Xpander mode, and then press **ENTER**/.

### 3 Turn the Rotary encoder to select ON, and then press **ENTER**/.

The MX Level setting item is displayed.

### 4 Turn the Rotary encoder to select the MX Level, and then press **ENTER**/.

### 5 Turn the Rotary encoder to select the desired Media Xpander level, and then press **ENTER**/.

#### FM (MX level 1 to 3):

The medium to high frequencies become clearer, and produces well balanced sound at all frequencies.

#### CD (MX level 1 to 3):

CD mode processes a large amount of data during playback. MX takes advantage of this large data quantity to reproduce a more clear, clean output.

#### CMPM (MX level 1 to 3):

This corrects information that was lost at the time of compression. This reproduces a well-balanced sound close to the original.

#### DVD (Video CD) (MOVIE MX level 1 to 2):

The dialogue portion of a video is reproduced more clearly.

#### (DVD MUSIC):


A DVD or Video CD contains a large quantity of data such as music clip. MX uses this data to reproduce the sound accurately.

#### AUX (MX level 1):

Choose the MX mode (CMPM, MOVIE, or MUSIC) that corresponds to the media connected.

### 6 Press and hold /ESC for at least 2 seconds to return to normal mode.

#### Notes

- If /ESC is pressed during setting, the unit returns to the previous item.
- Each music source, such as FM radio, CD, and MP3/WMA/AAC can have its own MX setting.
- On disks with both MP3/WMA/AAC and CD-DA, when the source changes from "MP3/WMA/AAC to CD-DA" or "CD-DA to MP3/WMA/AAC", MX-mode switching may delay playback slightly.
- Setting to Non Effect sets MX mode of each music source to OFF.
- The function is inoperable when DEFEAT is set to ON.
- There is no MX mode for AM radio.
- If an audio processor with the MX function (PXA-H701, etc.) is connected, its own MX processing is applied to the music source. Since the processor MX settings may not match the head unit, the audio processor needs to be adjusted. For details, refer to the Owner's Manual of the audio processor.
- "CMPM" is applied for MP3/WMA/AAC and iPhone/iPod.

## Adjusting Sound Setting in Manual Mode

You can change these sound settings to create your own preference when the MultEQ mode is set to Mult EQ OFF (Manual Mode).

**Use steps 1 to 4 to select one of the Sound menu modes to modify. See the applicable section below for details about the selected item.**

### 1 Press and hold **SOUND/SETUP** for at Least 2 seconds to activate the Sound menu selection mode.

### 2 Turn the Rotary encoder to select the desired item, and then press **ENTER**/.

MultEQ Mode ↔ Subwoofer ↔ SUBW. System\*<sup>1</sup> ↔ SUBW. Phase\*<sup>1</sup> ↔ SUBW. Channel\*<sup>1</sup> ↔ Factory's EQ ↔ TW Setup\*<sup>2</sup> ↔ Filter Type ↔ EQ Mode ↔ TCR Parameter ↔ Sound Field\*<sup>3</sup> ↔ MultEQ Mode (e.g. Select Subwoofer)

\*<sup>1</sup> These functions are inoperable when Subwoofer is set to OFF.

\*<sup>2</sup> This function can be operable only when PXA-H100 (sold separately) is connected and 2.2ch (3WAY) mode is set. For details, refer to the Owner's Manual of PXA-H100.

\*3 In step 2, three sound adjustment items (Parametric EQ/ Graphic EQ, T.Correction, X-Over) can be selected in Sound Field Adjustment mode, turn the **Rotary encoder** to select the desired item, and then press **ENTER/Q** to continue to step 3.

### 3 Turn the **Rotary encoder** to change the setting, and then press **ENTER/Q**.

(e.g. Select Subwoofer ON or Subwoofer OFF)

### 4 Press and hold **↵/ESC** for at least 2 seconds to return to normal mode.

#### Notes

- Factory's EQ, Parametric EQ/Graphic EQ and EQ Mode are inoperable when DEFEAT is set to ON.
- Pressing **↵/ESC** returns to the previous Sound menu mode.
- If no operation is performed for 60 seconds, Sound menu mode is cancelled.

## Turning Subwoofer ON/OFF

When the subwoofer is on, you can adjust the subwoofer output level.

### Setting item: Subwoofer

#### Setting contents:

ON (Initial setting) / OFF

#### ON:

The subwoofer signal is output from the Subwoofer RCA Connectors (refer to "Connections" on page 42).

#### OFF:

No subwoofer signal is output from the Subwoofer RCA Connectors (refer to "Connections" on page 42).

## Setting the Subwoofer System

When the subwoofer is on, you can select either System 1 or System 2 for the desired subwoofer effect.

### Setting item: SUBW. System

#### Setting contents:

System 1 (Initial setting) / System 2

#### System 1:

Subwoofer level changes according to the main volume setting.

#### System 2:

Subwoofer level change is different from the main volume setting. For example, even at low volume settings, the subwoofer is still audible.

## Setting the Subwoofer Phase

The subwoofer output phase is toggled SUBWOOFER NORMAL (0°) or SUBWOOFER REVERSE (180°). To adjust the level, turn the **Rotary encoder**.

### Setting item: SUBW. Phase

#### Setting contents:

PHASE 0° (Initial setting) / PHASE 180°

## Setting the Subwoofer Channel (SUBW. Channel)

You can set the subwoofer output to stereo or monaural. Make sure to set the correct output for your subwoofer type.

### Setting item: SUBW. Channel

#### Setting contents:

STEREO (Initial setting) / MONO

#### STEREO:

Subwoofer stereo (L/R) output

#### MONO:

Subwoofer monaural output

## Equalizer Presets (Factory's EQ)

10 typical equalizer settings are preset at the factory for a variety of musical source material.

Flat ↔ Pops ↔ Rock ↔ News ↔ Jazz&Blues ↔ Electrical Dance  
↔ Hip Hop&Rap ↔ Easy Listening ↔ Country ↔ Classical ↔  
User1 ↔ User2 ↔ User3 ↔ User4 ↔ User5 ↔ User6

#### Note

- By selecting User's 1 to 6, you can recall the stored preset number (refer to "Adjusting the Graphic Equalizer Curve" on page 29 or refer to "Adjusting the Parametric Equalizer Curve" on page 29).

## Setting the Response Slope for the High Range Speaker (TW Setup)

Setting the response characteristic of tweeter to FLAT in 2.2ch (3WAY) mode could damage the speaker. Make sure the Crossover cut-off is appropriate for the tweeter being used (Refer to "Adjusting the Crossover Settings" on page 30).

### Setting item: TW Setup

#### Setting contents:

FACTORY'S (Initial setting) / USER'S

#### FACTORY'S:

As protection from possible speaker damage, FLAT cannot be set for the response slope of the high range speaker in 2.2ch (3WAY) mode.

#### USER'S:

The FLAT setting is possible in 2.2ch (3WAY) mode.

## Setting the Filter type

### Setting item: Filter Type

#### Setting contents:

NORMAL (Initial setting) / INDIVIDUAL

#### NORMAL (L=R):

Left and right speakers are adjusted equally.

#### INDIVIDUAL (L/R):

Left and right speakers are individually adjusted.

## Setting EQ mode

This setting gives you a choice of 5-band parametric, or 7-band graphic equalizer.

### Setting item: EQ Mode

#### Setting contents:

Parametric EQ (Initial setting) / Graphic EQ

#### PEQ:

5-band Parametric EQ

#### GEQ:

7-band Graphic EQ

## Setting the Time Correction Unit (TCR Parameter)

You can change the unit, (cm or inch) of time correction.

### Setting item: TCR Parameter

#### Setting contents:

cm (Initial setting) / inch

## Sound Field Adjustment

The setting of Parametric EQ/Graphic EQ, Time Correction and X-Over can be adjusted in this mode.

## Adjusting the Parametric Equalizer Curve

You can modify the Equalizer settings to create a response curve more appealing to your personal taste. To adjust the Parametric Equalizer Curve, set the EQ Mode to Parametric EQ. For details, refer to "Setting EQ mode" on page 29.

### 1 After selecting Parametric EQ from the Sound Field Adjustment mode, press **BAND** to select the band to be adjusted.

Band 1 → Band 2 → Band 3 → Band 4 → Band 5 → Band 1

### 2 Press **◀** or **▶** to select frequency bands.

Adjustable frequency bands: 20 Hz to 20 kHz (in 1/3 octave steps).

Band-1	20 Hz~80 Hz (63 Hz)
Band-2	50 Hz~200 Hz (150 Hz)
Band-3	125 Hz~3.2 kHz (400 Hz)
Band-4	315 Hz~8 kHz (1 kHz)
Band-5	800 Hz~20 kHz (2.5 kHz)

### 3 Turn the Rotary encoder to adjust the level.

Adjustable level: -6 to +6 dB

### 4 Press **SOURCE/** to set the bandwidth (Q).

Adjustable bandwidth: 1, 1.5, 3

### 5 To adjust another band, repeat steps 1 to 4 and adjust all bands.

#### Notes

- The frequencies of adjacent bands cannot be adjusted within 4 steps.
- While adjusting the Parametric EQ, you should consider the frequency response of the connected speakers.

## Adjusting the Graphic Equalizer Curve

You can modify the equalizer settings to create a response curve more appealing to your personal taste. To adjust the graphic equalizer curve, set the EQ Mode to Graphic EQ. For details, refer to "Setting EQ mode" on page 29.

### 1 After selecting Graphic EQ from the Sound Field Adjustment mode, press **BAND** to select the band to be adjusted.

Band 1 → Band 2 → Band 3 → Band 4 → Band 5 → Band 6 → Band 7 → Band 1

Band-1	63 Hz
Band-2	150 Hz
Band-3	400 Hz
Band-4	1 kHz
Band-5	2.5 kHz
Band-6	6.3 kHz
Band-7	17.5 kHz

### 2 Turn the Rotary encoder to adjust the level.

Adjustable output level: -6 to +6 dB

### 3 To adjust another band, repeat steps 1 and 2, and then adjust all bands.

## Adjusting the Time Correction

Before performing the following procedures, refer to "About Time Correction" on page 31.

### 1 After selecting T.Correction from the Sound Field Adjustment mode, press **BAND** to select a speaker to be adjusted.

#### 2.2ch (3WAY) System

F-L<sup>\*1</sup> → F-R<sup>\*2</sup> → R-L<sup>\*3</sup> → R-R<sup>\*4</sup> → SW-L → SW-R → F-L

\*1 Mid-L (Initial setting)

\*2 Mid-R

\*3 High-L

\*4 High-R

#### 4.2ch (FRONT/REAR/SUBW.) System

F-L<sup>\*1</sup> → F-R<sup>\*2</sup> → R-L<sup>\*3</sup> → R-R<sup>\*4</sup> → SW-L → SW-R → F-L

\*1 Front-L (Initial setting)

\*2 Front -R

\*3 Rear-L

\*4 Rear-R

### 2 Turn the Rotary encoder to adjust the distance correction value (0.0 to 336.6cm).

L = (distance to farthest speaker) - (distance to other speakers)

### 3 Repeat steps 1 and 2 to set another speaker.

By setting these values to make its sound reach the listening position at the same time as the sound of other speakers.

## Adjusting the Crossover Settings

Before performing the following procedures, refer to “About the Crossover” on page 32.

### 2.2ch (3WAY) System

- 1 After selecting X-Over from the Sound Field Adjustment mode, press **BAND** to select the band to be adjusted.

NORMAL (L=R)

■ **Setting items:** LOW / MID-L / MID-H / HIGH

INDIVIDUAL (L/R)

■ **Setting items:** LOW-L / LOW-R / MID-L-L / MID-L-R / MID-H-L / MID-H-R / HIGH-L / HIGH-R


- 2 Press ◀ or ▶ to select the desired cut-off frequency (Crossover Point).

Adjustable frequency bands:

LOW / MID-L	20 Hz~200 Hz
MID-H	20 Hz~20 kHz
HIGH	(1 kHz~20 kHz) <sup>*1</sup> / (20 Hz~20 kHz) <sup>*2</sup>

<sup>\*1</sup> When FACTORY'S is selected, refer to “Setting the Response Slope for the High Range Speaker (TW Setup)” on page 28.

<sup>\*2</sup> When USER'S is selected, refer to “Setting the Response Slope for the High Range Speaker (TW Setup)” on page 28.

- 3 Press **SOURCE** /  to adjust the slope.

Adjustable slope: FLAT\*, 6 dB/oct., 12 dB/oct., 18 dB/oct., 24 dB/oct.

\* FLAT can be set for the HIGH slope only when TW Setup is set to USER'S (refer to “Setting the Response Slope for the High Range Speaker (TW Setup)” on page 28). Depending on the response characteristics of the speaker, care should be taken when setting the response slope to FLAT, as speaker damage may result. With this unit, a message is displayed when the response slope for the high range speaker is set to FLAT.

- 4 Turn the Rotary encoder to adjust the output level.

Adjustable output level: -12 to 0 dB.

- 5 Repeat steps 1 to 4 to make adjustment to the other bands.

### 4.2ch (FRONT/REAR/SUBW.) System

- 1 After selecting X-Over from the Sound Field Adjustment mode, press **BAND** to select the band to be adjusted.

NORMAL (L=R)


■ **Setting items:** LOW (SUB-W) / MID (REAR) / HIGH (FRONT)

INDIVIDUAL (L/R)

■ **Setting items:** LOW (SUB-W)-L / LOW (SUB-W)-R / MID (REAR)-L / MID (REAR)-R / HIGH (FRONT)-L / HIGH (FRONT)-R

- 2 Press ◀ or ▶ to select the desired cut-off frequency (Crossover Point).

Adjustable frequency bands: 20 Hz~200 Hz

- 3 Press **SOURCE** /  to adjust the slope.

Adjustable slope: FLAT, 6 dB/oct., 12 dB/oct., 18 dB/oct., 24 dB/oct.

- 4 Turn the Rotary encoder to adjust the output level.

Adjustable output level: -12 to 0 dB.

- 5 Repeat steps 1 to 4 to make adjustment to the other bands.


#### Notes

- While adjusting the X-Over, you should consider the frequency response of the connected speakers.
- About the 2.2ch (3WAY)/4.2ch (FRONT/REAR/SUBW.) system, you can switch to 2.2ch (3WAY)/4.2ch (FRONT/REAR/SUBW.) system mode with the 2.2ch (3WAY)/4.2ch (FRONT/REAR/SUBW.) switch on the PXA-H100. For details, refer to the Owner's Manual of PXA-H100.

## Storing the Sound Field Adjustment Settings

The Sound Field Adjustment Settings containing Parametric EQ/ Graphic EQ, T.Correction and X-Over settings can be stored in the preset memory.

- 1 When the settings of Sound Field Adjustment have been completed, select any one of the preset buttons (1 through 6) in any item of the Sound Field Adjustment mode (e.g. X-Over), press and hold the desired preset buttons for at least 2 seconds.

- 2 Turn the Rotary encoder to select PROTECT YES/NO, and then press **ENTER** /  to store the adjusted contents.

PROTECT YES (Initial setting) ↔ PROTECT NO

#### Notes

- If YES is selected, the adjusted contents are protected and stored into the preset buttons. When you want to store the parameter into a protected preset button, “Replace NO/YES” can be selected.
- If NO is selected, the preset is stored.
- While performing this operation, all adjusted contents of Parametric EQ/Graphic EQ, T.Correction and X-Over will be stored in the preset buttons.
- The stored contents are not deleted even when resetting the unit or disconnecting the battery.
- The stored contents can be recalled by performing operation (refer to “Recalling the Stored Sound Field Adjustment Settings” on page 30).

## Recalling the Stored Sound Field Adjustment Settings

The stored Sound Field Adjustment Settings contain Parametric EQ/ Graphic EQ, T.Correction and X-Over settings that are stored in the preset memory.

- 1 After selecting any item of the Sound Field Adjustment mode (e.g. X-Over), press any one of the preset buttons (1 through 6) that has your desired characteristic in memory to recall the stored settings.

- 2 Press the preset buttons (1 through 6) again to return to the Sound Field Adjustment mode.

#### Note

- While performing this operation, all adjustment contents of Parametric EQ/Graphic EQ, T.Correction and X-Over stored in the preset buttons will be recalled.

## About Time Correction

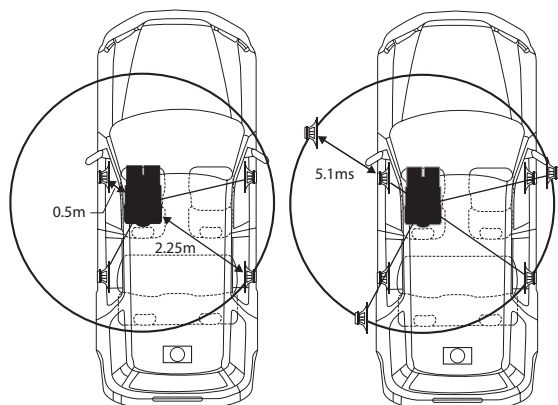
The distance between the listener and the speakers in a car vary widely due to the complex speaker placement. This difference in the distances from the speakers to the listener creates a shift in the sounds image and frequency characteristics. This is caused by the time delay between the sound reaching the listener's right versus the left ear.

To correct this, this unit is able to delay the audio signal to the speakers closest to the listener. This effectively creates a perception of increased distance for those speakers. The listener can be placed at an equal distance between the left and right speakers for optimum staging. The adjustment will be made for each speaker in 3.4cm steps.

Listening Position example as follows:

### Example 1: Front Left Seat

Adjust the time correction level of the front left speaker to a high value and the rear right to zero or a low value.



The sound is not balanced because the distance between the listening position and the various speakers is different.

The difference in distance between the front left speaker and the rear right speaker is 1.75 m (68-7/8").

Here we calculate the time correction value for the front left speaker in the diagram on the above.

#### Conditions:

Farthest Speaker - listening position : 2.25 m (88-9/16")

Front left speaker - listening position : 0.5 m (19-11/16")

Calculation:  $L = 2.25 \text{ m} - 0.5 \text{ m} = 1.75 \text{ m} (68-7/8")$

Time correction =  $1.75 \div 343^{*1} \times 1000 = 5.1 \text{ (ms)}$

*\*1 Speed of sound: 343 m/s (765 mph) at 20°C*

In other words, giving the front left speaker a time correction value of 5.1 ms makes it seem as if its distance from the listener is the same as the distance to the farthest speaker.

Time correction eliminates the differences in the time required for the sound to reach the listening position.

The time of the front left speaker is corrected by 5.1 ms so that its sound reaches the listening position at the same time as the sound of other speakers.

### Example 2: All Seats

Adjust the time correction level of each speaker to almost the same level.

**1** Sit in the listening position (driver's seat, etc.) and measure the distance (in meters) between your head and the various speakers.

**2** Calculate the difference between the distance correction value to the farthest speaker and the other speakers.

$L = (\text{distance to farthest speaker}) - (\text{distance to other speakers})$

These values are the time correction values for the different speakers. Setting these values to make each sound reach the listening position at the same time as the sound of other speakers.

### Time Correction Value List

Delay Number	Time Difference (ms)	Distance (cm)	Distance (inch)
0	0.0	0.0	0.0
1	0.1	3.4	1.3
2	0.2	6.8	2.7
3	0.3	10.2	4.0
4	0.4	13.6	5.4
5	0.5	17.0	6.7
6	0.6	20.4	8.0
7	0.7	23.8	9.4
8	0.8	27.2	10.7
9	0.9	30.6	12.1
10	1.0	34.0	13.4
11	1.1	37.4	14.7
12	1.2	40.8	16.1
13	1.3	44.2	17.4
14	1.4	47.6	18.8
15	1.5	51.0	20.1
16	1.6	54.4	21.4
17	1.7	57.8	22.8
18	1.8	61.2	24.1
19	1.9	64.6	25.5
20	2.0	68.0	26.8
21	2.1	71.4	28.1
22	2.2	74.8	29.5
23	2.3	78.2	30.8
24	2.4	81.6	32.2
25	2.5	85.0	33.5
26	2.6	88.4	34.8
27	2.7	91.8	36.2
28	2.8	95.2	37.5
29	2.9	98.6	38.9
30	3.0	102.0	40.2
31	3.1	105.4	41.5
32	3.2	108.8	42.9
33	3.3	112.2	44.2
34	3.4	115.6	45.6
35	3.5	119.0	46.9
36	3.6	122.4	48.2
37	3.7	125.8	49.6
38	3.8	129.2	50.9
39	3.9	132.6	52.3
40	4.0	136.0	53.6
41	4.1	139.4	54.9
42	4.2	142.8	56.3
43	4.3	146.2	57.6
44	4.4	149.6	59.0
45	4.5	153.0	60.3
46	4.6	156.4	61.6
47	4.7	159.8	63.0
48	4.8	163.2	64.3
49	4.9	166.6	65.7

Delay Number	Time Difference (ms)	Distance (cm)	Distance (inch)
50	5.0	170.0	67.0
51	5.1	173.4	68.3
52	5.2	176.8	69.7
53	5.3	180.2	71.0
54	5.4	183.6	72.4
55	5.5	187.0	73.7
56	5.6	190.4	75.0
57	5.7	193.8	76.4
58	5.8	197.2	77.7
59	5.9	200.6	79.1
60	6.0	204.0	80.4
61	6.1	207.4	81.7
62	6.2	210.8	83.1
63	6.3	214.2	84.4
64	6.4	217.6	85.8
65	6.5	221.0	87.1
66	6.6	224.4	88.4
67	6.7	227.8	89.8
68	6.8	231.2	91.1
69	6.9	234.6	92.5
70	7.0	238.0	93.8
71	7.1	241.4	95.1
72	7.2	244.8	96.5
73	7.3	248.2	97.8
74	7.4	251.6	99.2
75	7.5	255.0	100.5
76	7.6	258.4	101.8
77	7.7	261.8	103.2
78	7.8	265.2	104.5
79	7.9	268.6	105.9
80	8.0	272.0	107.2
81	8.1	275.4	108.5
82	8.2	278.8	109.9
83	8.3	282.2	111.2
84	8.4	285.6	112.6
85	8.5	289.0	113.9
86	8.6	292.4	115.2
87	8.7	295.8	116.6
88	8.8	299.2	117.9
89	8.9	302.6	119.3
90	9.0	306.0	120.6
91	9.1	309.4	121.9
92	9.2	312.8	123.3
93	9.3	316.2	124.6
94	9.4	319.6	126.0
95	9.5	323.0	127.3
96	9.6	326.4	128.6
97	9.7	329.8	130.0
98	9.8	333.2	131.3
99	9.9	336.6	132.7

## About the Crossover

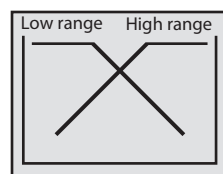
### Crossover (X-OVER):

This unit is equipped with an active crossover. The crossover limits the frequencies delivered to the outputs. Each channel is controlled independently. Thus, each speaker pair can be driven by the frequencies for which they have been optimally designed. The crossover adjusts the HPF (high pass filter) or LPF (low pass filter) of each band, and also the slope (how fast the filter rolls off the highs or lows).

Adjustments should be made according to the reproduction characteristics of the speakers. Depending on the speakers, a passive network may not be necessary. If you are unsure about this point, consult your authorized Alpine dealer.

### 4.2ch (FRONT/REAR/SUBW.) mode

	Cut-off frequency (1/3 octave steps)		Slope		Level
	HPF	LPF	HPF	LPF	
Low range speaker	---	20 Hz - 200 Hz	---	FLAT, 6, 12, 18, 24 dB/oct.	0 to -12 dB
Rear high range speaker	20 Hz - 200 Hz	---	FLAT, 6, 12, 18, 24 dB/oct.	---	0 to -12 dB
Front high range speaker	20 Hz - 200 Hz	---	FLAT, 6, 12, 18, 24 dB/oct.	---	0 to -12 dB



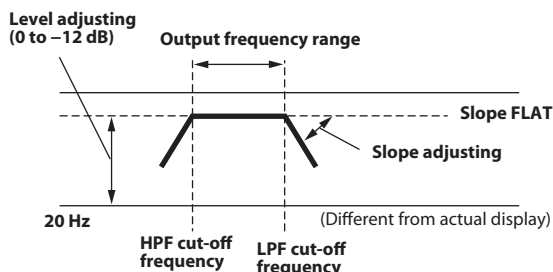
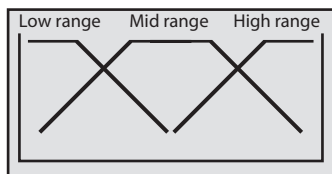
(Different from actual display)

### 2.2ch (3WAY) mode

	Cut-off frequency (1/3 octave steps)		Slope		Level
	HPF	LPF	HPF	LPF	
Low range speaker	---	20 Hz - 200 Hz	---	FLAT, 6, 12, 18, 24 dB/oct.	0 to -12 dB
Mid range speaker	20 Hz - 200 Hz	20 Hz - 20 kHz	FLAT, 6, 12, 18, 24 dB/oct.	FLAT, 6, 12, 18, 24 dB/oct.	0 to -12 dB
High range speaker	1 kHz - 20 kHz, (20 Hz ~ 20 kHz)*	---	FLAT*, 6, 12, 18, 24 dB/oct.	---	0 to -12 dB

\* Only when TW Setup is set to USER'S (refer to "Setting the Response Slope for the High Range Speaker (TW Setup)" on page 28).



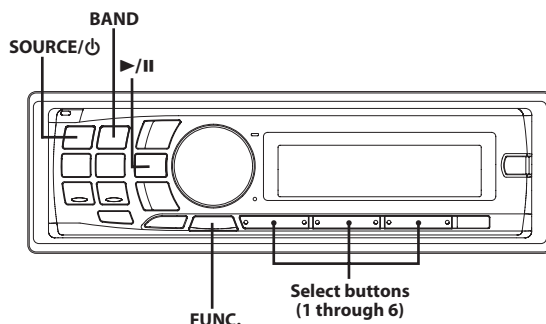


#### Notes

- **HPF (high pass filter):** Cuts the lower frequencies and allows the higher frequencies to pass.
- **LPF (low pass filter):** Cuts the higher frequencies and allows the lower frequencies to pass.
- **Slope:** The level change (in dB) for a frequency change of one octave.
- The higher the slope value, the steeper the slope becomes.
- Adjust the slope to **FLAT** to bypass the HP or LP filters.
- Do not use a tweeter without the HPF on or set to a low frequency, as it may cause damage to the speaker due to the low frequency content.
- You cannot adjust the crossover frequency higher than the HPF or lower than the LPF.
- Adjustment should be made according to the recommended crossover frequency of the connected speakers. Determine the recommended crossover frequency of the speakers. Adjusting to a frequency range outside that recommended may cause damage to the speakers. For the recommended crossover frequencies of Alpine speakers, refer to the respective Owner's Manual.

We are not responsible for damage or malfunction of speakers caused by using the crossover outside the recommended value.

## Changer (optional)



### Controlling CD Changer (optional)

An optional 6-disc or 12-disc CD Changer may be connected to this unit if it is Ai-NET compatible. With a CD Changer connected to the Ai-NET input of this unit, the CD Changer will be controllable from this unit.

Using the KCA-400C (Multi-Changer Switching device) or the KCA-410C (Versatile Link Terminal) multiple changers can be controlled by this unit.

Refer to "Multi-Changer Selection (optional)" on page 34 for selecting the CD Changers.

#### Notes

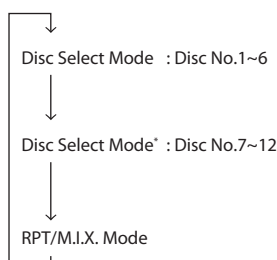
- The controls on this unit for CD Changer operation are operative only when a CD Changer is connected.
- The DVD changer (optional) is controllable from this unit as well as the CD changer.
- Depending on the connected DVD Changer, some functions may not be available.

- 1 Press **SOURCE/II** to activate the **CHANGER** mode.  
The display shows the disc number and track number.

#### Notes

- The source indicator varies depending on the connected source.
- Press **BAND** to switch the Disc mode in the Changer mode.

- 2 Press **FUNC.** to activate **Disc Select** mode.



\* When a 12-disc CD changer is connected.

- 3 Press the disc select buttons (1 through 6) corresponding to one of the discs loaded in the CD Changer.  
The selected disc number appears in the display and CD/MP3 playback starts.

### Note

- After selecting the desired disc, you can operate in the same way as for the CD player of this unit. For details, see the CD/MP3/WMA/AAC section.

## Playing MP3 Files with the CD Changer (optional)

If you connect a changer compatible with MP3, you can play CD-ROMs, CD-Rs, and CD-RWs containing MP3 files on this unit.

- Press **SOURCE/** to switch to the **CHANGER** mode.
- Press any one of the disc select buttons (1 through 6) corresponding to one of the discs loaded in the CD Changer.
- To pause playback, press **►/II**.  
Pressing **►/II** again will resume playback.

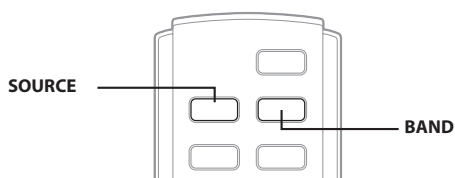
### Notes

- The unit can play discs containing both audio data and MP3 data.
- For operating MP3 with an MP3 compatible CD Changer, refer to "CD/MP3/WMA/AAC" on page 10.

## Multi-Changer Selection (optional)

Alpine's Ai-NET system will support up to 6 CD Changers. When operating two or more changers, the KCA-400C (Multi-Changer Switching device) must be used. If you use 1 Switching device, you can connect up to 4 CD Changers. If you use 2 Switching devices, you can connect up to 6 CD Changers. When using KCA-410C (Versatile Link Terminal), you can connect two changers and two external outputs (AUX).

- Press **SOURCE/** on this unit to activate the CD Changer mode.  
Alternatively, press **SOURCE** on the remote control (RUE-4202) to activate the CD Changer mode.

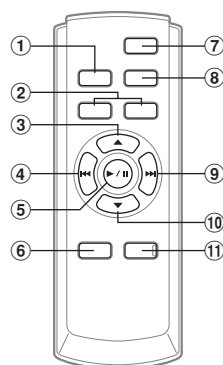


- Press **BAND** to activate the CD Changer Selection mode.  
The CD Changer Selection mode remains active for several seconds.
- Press **BAND** until the desired CD Changer indicator appears on the display.

### Notes

- If the selected CD Changer is not connected, the display will show "NO CHANGER-(No.)".
- To operate the selected changer, refer to "CD/MP3/WMA/AAC" on page 10.
- For further details about the external input (AUX) when using KCA-410C, refer to "Setting the AUX Mode (V-Link)" on page 19.

## Remote Control



## Controls on Remote Control

### ① Source Button

Press this button to select the audio source.

### ② Volume Adjustment Buttons

To increase the volume level:

Press the **▲** button

To decrease the volume level:

Press the **▼** button

### ③ ▲ Button

#### Radio mode:

Pressing this button will select, in ascending order, stations programmed into the radio's presets as shown below.

**1** → **2** ... **6** → **1**

#### CD Changer mode:

DISC Select (UP) button.

Press this button to select a disc in ascending order.

#### MP3/WMA/AAC mode:

Folder Select (UP) button.

Press this button to select the folder.

#### MP3 compatible CD changer mode:

Folder Select (UP) / DISC Select (UP) button. Press this button to select a folder in ascending order. Press and hold this button to select a disc in ascending order.

#### iPod mode:

Switches Playlist/Artist/Album/Genre/Composer.

### ④ ◀◀ DN Button

#### Radio mode:

SEEK (DN) Button.

#### CD/iPod mode:

Press this button to go back to the beginning of the current track.

### ⑤ ►/II Button

Press this button to switch between the Play and Pause modes for CD.

## ⑥ Audio Processor Button

Each press of the button changes the audio processor mode. For details, refer to "Operating the Audio Processor" as shown below. Press the button to activate the external audio processor mode when the external audio processor is connected.\*

\* For the operation of external audio processor, refer to the Owner's Manual of the external audio processor you purchased. When the IMPRINT audio processor (PXA-H100) (sold separately) is connected, refer to "IMPRINT Operation (optional)" on page 26.

## ⑦ Power Button

Press this button to turn the power on/off.

## ⑧ Band Button

### Radio mode:

BAND Button.

Press this button and the band will change.

### Changer mode:

To switch the changer.

## ⑨ ►► UP Button

### Radio mode:

SEEK (UP) button.

### CD/iPod mode:

Press this button to advance to the beginning of the next track.

## ⑩ ▼ Button

### Radio mode:

Pressing this button will select, in descending order, stations programmed into the radio's presets as shown below.

6 → 5 ... 1 → 6

### CD Changer mode:

DISC Select (DN) button.

Press this button to select a disc in descending order.

### MP3/WMA/AAC mode:

Folder Select (DN) button.

Press this button to select the folder.

### MP3 compatible CD changer mode:

Folder Select (DN) / DISC Select (DN) button.

Press this button to select a folder in descending order.

Press and hold this button to select a disc in descending order.

### iPod mode:

Switches Playlist/Artist/Album/Genre/Composer.

## ⑪ Mute Button

Press this button to lower the volume by 20 dB instantly. Press this button again to cancel.

## Operating the Audio Processor

### 1 Press A.PROC to select the mode.

Normal mode → Time Correction → X-OVER → Normal mode

### 2 Press ▲ or ▼ to select the item.

#### Time Correction mode/Crossover (X-OVER) mode:

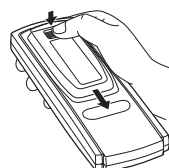
Select from MEMORY 1 through 6.

## Battery Replacement

Applicable battery: Use two "AAA" sized dry batteries or equivalent.

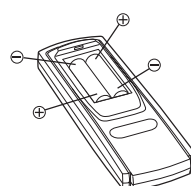
### 1 Opening the battery cover

Slide out the battery cover while firmly pressing in the direction of the arrow.



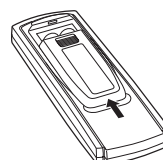
### 2 Replacing the battery

Insert the batteries, observing the polarities as illustrated.



### 3 Closing the cover

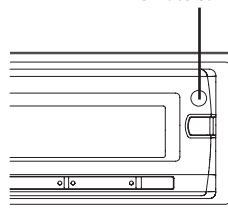
Slide the cover as illustrated until a click is heard.



## Controllable With Remote Control

Point the remote control transmitter at the remote control sensor.

Remote control sensor



## Connectable to Remote Control Interface Box

This unit may be controlled from the vehicle's audio controls. An optional Alpine Remote Control Interface Box must be used. For details, contact your Alpine dealer.

# Information

## In Case of Difficulty

If you encounter a problem, turn the power off, then on again. If the unit is still not functioning normally, review the items in the following checklist. This guide will help you isolate the problem if the unit is at fault. Otherwise, make sure the rest of your system is properly connected or consult your authorized Alpine dealer.

### Basic

#### No function or display.

- Vehicle's ignition is off.
  - If connected following instructions, the unit will not operate with the vehicle's ignition off.
- Improper power lead (Red) and battery lead (Yellow) connections.
  - Check power lead and battery lead connections.
- Blown fuse.
  - Check the fuse of the unit; replace with the proper value if necessary.
- Internal micro-computer malfunctioned due to interference noise etc.
  - Press the RESET switch with a ballpoint pen or other pointed article.

### Radio

#### Unable to receive stations.

- No antenna or open connection in cable.
  - Make sure the antenna is properly connected; replace the antenna or cable if necessary.

#### Unable to tune stations in the seek mode.

- You are in a weak signal area.
  - Make sure the tuner is in the DX mode.
- If the area you are in is a primary signal area, the antenna may not be grounded and connected properly.
  - Check your antenna connections; make sure the antenna is properly grounded at its mounting location.
- The antenna may not be the proper length.
  - Make sure the antenna is fully extended; if broken, replace the antenna with a new one.

#### Broadcast is noisy.

- The antenna is not the proper length.
  - Extend the antenna fully; replace it if it is broken.
- The antenna is poorly grounded.
  - Make sure the antenna is grounded properly at its mounting location.

### CD

#### CD Player not functioning.

- Out of operating temperature range +50°C (+120°F) for CD.
  - Allow the vehicle's interior (or trunk) temperature to cool.

#### CD playback sound is wavering.

- Moisture condensation in the CD Module.
  - Allow enough time for the condensation to evaporate (about 1 hour).

#### CD insertion not possible.

- A CD is already in the CD player.
  - Eject the CD and remove it.

- The CD is being improperly inserted.
  - Make sure the CD is being inserted following instructions in the CD Player Operation section.

#### Unable to fast forward or backward the CD.

- The CD has been damaged.
  - Eject the CD and discard it; using a damaged CD in your unit can cause damage to the mechanism.

#### CD playback sound skips due to vibration.

- Improper mounting of the unit.
  - Securely re-mount the unit.
- The disc is very dirty.
  - Clean the disc.
- The disc has scratches.
  - Change the disc.
- The pick-up lens is dirty.
  - Do not use a commercially available lens cleaner disc. Consult your nearest Alpine dealer.

#### CD playback sound skips without vibration.

- The disc is dirty or scratched.
  - Clean the disc; damaged disc should be replaced.

#### Error displays (built-in CD player only).

- Mechanical error.
  - Press . After the error indication disappears, insert the disc again. If the above-mentioned solution does not solve the problem, consult your nearest Alpine dealer.

#### CD-R/CD-RW playback not possible.

- Close session (finalization) has not been performed.
  - Perform finalization and attempt playback again.

### MP3/WMA/AAC

#### MP3, WMA or AAC is not played back.

- Writing error occurred. The MP3/WMA/AAC format is not compatible.
  - Make sure the MP3/WMA/AAC has been written in a supported format. Refer to "About MP3/WMA/AAC" on page 11, then rewrite in the format supported by this device.

### Audio

#### The sound is not output from the speakers.

- There is no signal output from the internal amplifier.
  - Power IC is switched to "ON" (refer to "Connecting to an External Amplifier" on page 19).

### iPod

#### iPod does not play and no sound is output.

- The iPod has not been recognized.
  - Reset this unit and the iPod. Refer to "Initial System Start-Up" on page 8. To reset the iPod, refer to the Owner's Manual of the iPod.

### Indication for CD Player

#### No Disc

- No CD is inserted.
  - Insert a CD.
- Although a disc is inserted, "No Disc" is displayed and the unit does not start to play or eject the disc.
  - Remove the disc by following these steps:  
Press the button again for at least 2 seconds.  
If the disc still does not eject, consult your Alpine dealer.

## Error

- Mechanism error.
  - 1 Press the **▲** button and eject the CD.  
If not ejecting, consult your Alpine dealer.
  - 2 When the error indication remains after ejecting, press the **▲** button again.  
If the error indication still does not turn off after pressing the **▲** button for a few times, consult your Alpine dealer.
- When "Error" is displayed:  
If the disc cannot be ejected by pressing **▲**, press the RESET switch (refer to "Initial System Start-Up" on page 8) and press **▲** again.  
If the disc still cannot be ejected, consult your Alpine dealer.

## PROTECT

- A copy-protected WMA file was played back.
  - You can only play back non-copy-protected files.

## UNSUPPORTED

- A sampling rate/bit rate not supported by the unit is used.
  - Use a sampling rate/bit rate that is supported by the unit.

## Indication for CD Changer

### High Temperature

- Protective circuit is activated due to high temperature.
  - The indication will disappear when the temperature returns to normal operating range.

### Error 01

- Malfunction in the CD Changer.
  - Consult your Alpine dealer. Press the magazine eject button and pull out the magazine.  
Check the indication. Insert the magazine again.  
If the magazine cannot be pulled out, consult your Alpine dealer.
- Magazine ejection not possible.
  - Press the magazine eject button. If the magazine does not eject, consult your Alpine dealer.

### Error 02

- A disc is left inside the CD Changer.
  - Press the eject button to activate the eject function. When the CD Changer finishes the eject function, insert an empty CD magazine into the CD Changer to receive the disc left inside the CD Changer.

### No Magazine

- No magazine is loaded into the CD Changer.
  - Insert a magazine.

### No Disc

- No indicated disc.
  - Choose another disc.

## Indication for USB Memory/Portable audio player

### Error 01

- Database error or decoder error.
  - You can solve the problem by switching the source.

### Error 02

- Communication error or boot error, etc.
  - You can solve the problem by reconnecting the USB memory/Portable audio player or changing source.

### Error 03

- The Portable audio player is not verified.
  - You can solve the problem by reconnecting the Portable audio player.

### Current Error

- Abnormal current is run to the USB connector device.
  - You can solve the problem by switching the source.

### Device Error

- A USB device/Portable audio player that is not supported by the unit is connected.
  - Connect a USB device/Portable audio player that is supported by the unit.

### No USB Unit

- A USB Memory/Portable audio player is not connected.
  - Make sure the USB Memory device/Portable audio player is correctly connected and the cable is not excessively bent.

### NO FILE

- No song (file) is stored in the USB Memory/Portable audio player.
  - Connect the USB Memory device/Portable audio player after storing songs (files).

## UNSUPPORTED

- A sampling rate/bit rate not supported by the unit is used.
  - Use a sampling rate/bit rate that is supported by the unit.

## PROTECT

- A copy-protected WMA file was played back.
  - You can only play back non-copy-protected files.

## Indication for iPhone/iPod Mode

### No USB Unit

- The iPhone/iPod is not connected.
  - Make sure the iPhone/iPod is correctly connected (refer to “Connections” on page 42).
  - Make sure the cable is not bent excessively.

### NO SONG

- There are no songs in the iPhone/iPod.
  - Download songs to the iPhone/iPod and connect to this unit.

### Error 01

- Database error or decoder error.
  - You can solve the problem by switching the source.

### Error 02

- Communication error or boot error, etc.
  - You can solve the problem by reconnecting the iPhone/iPod or changing source.

### Error 03

- The iPhone/iPod is not verified.
  - You can solve the problem by reconnecting the iPhone/iPod.

### Current Error

- Abnormal current is run to the USB connector device.
  - You can solve the problem by switching the source.

### Device Error

- A USB device that is not supported by the unit is connected.
  - Connect a USB device that is supported by the unit.

## Specifications

### FM TUNER SECTION

Tuning Range	87.5-108.0 MHz
Mono Usable Sensitivity	9.3 dBf (0.8 $\mu$ V/75 ohms)
50 dB Quieting Sensitivity	13.5 dBf (1.3 $\mu$ V/75 ohms)
Alternate Channel Selectivity	80 dB
Signal-to-Noise Ratio	65 dB
Stereo Separation	35 dB
Capture Ratio	2.0 dB

### AM TUNER SECTION

Tuning Range	531-1,602 kHz
Sensitivity (IEC Standard)	22.5 $\mu$ V/27 dB

### CD PLAYER SECTION

Frequency Response	5-20,000 Hz ( $\pm$ 1 dB)
Wow & Flutter (% WRMS)	Below measurable limits

Total Harmonic Distortion	0.008% (at 1 kHz)
Dynamic Range	95 dB (at 1 kHz)
Signal-to-Noise Ratio	105 dB
Channel Separation	85 dB (at 1 kHz)

### USB SECTION

USB requirements	USB 1.1/2.0
Max. Power Consumption	500 mA
USB Class	Mass Storage
File System	FAT 12/16/32
MP3 Decoding	MPEG-1/2 AUDIO Layer-3
WMA Decoding	Windows Media™ Audio
AAC Decoding	AAC-LC format “.m4a” file
Number of Channels	2-Channel (Stereo)
Frequency Response*	5-20,000 Hz ( $\pm$ 1 dB)
Total Harmonic Distortion	0.008% (at 1 kHz)
Dynamic Range	95 dB (at 1 kHz)
Signal-to-Noise Ratio	105 dB
Channel Separation	85 dB (at 1 kHz)

\* Frequency response may differ depending on the encoder software/bit rate.

### PICKUP

Wave length	795 nm
Laser power	CLASS I

### REMOTE CONTROL

Battery Type	AAA batteries (2 pcs.)
Width	42 mm (1-21/32")
Height	121 mm (4-25/32")
Depth	23 mm (29/32")
Weight	50 g (1.8 oz)

### GENERAL

Power Requirement	14.4 V DC (11-16 V allowable)
Maximum Power Output	50 W $\times$ 4
Maximum Pre-Output Voltage	4 V/10 k ohms
Bass	+14/-14 dB at 100 Hz
Treble	$\pm$ 14 dB at 10 kHz
Weight	1.6 kg (3 lbs. 8 oz)

### CHASSIS SIZE

Width	178 mm (7")
Height	50 mm (2")
Depth	160 mm (6-1/4")

### NOSEPIECE SIZE

Width	170 mm (6-3/4")
Height	46 mm (1-13/16")
Depth	23 mm (15/16")

### Note

- Due to continuous product improvement, specifications and design are subject to change without notice.

# Installation and Connections

Before installing or connecting the unit, please read the following and refer to "Operating Instructions" on page 4 for proper use.

## Warning

### **MAKE THE CORRECT CONNECTIONS.**

Failure to make the proper connections may result in fire or product damage.

### **USE ONLY IN CARS WITH A 12 VOLT NEGATIVE GROUND.**

(Check with your dealer if you are not sure.) Failure to do so may result in fire, etc.

### **BEFORE WIRING, DISCONNECT THE CABLE FROM THE NEGATIVE BATTERY TERMINAL.**

Failure to do so may result in electric shock or injury due to electrical shorts.

### **DO NOT SPLICE INTO ELECTRICAL CABLES.**

Never cut away cable insulation to supply power to other equipment. Doing so will exceed the current carrying capacity of the wire and result in fire or electric shock.

### **DO NOT DAMAGE PIPE OR WIRING WHEN DRILLING HOLES.**

When drilling holes in the chassis for installation, take precautions so as not to contact, damage or obstruct pipes, fuel lines, tanks or electrical wiring. Failure to take such precautions may result in fire.

### **DO NOT USE BOLTS OR NUTS IN THE BRAKE OR STEERING SYSTEMS TO MAKE GROUND CONNECTIONS.**

Bolts or nuts used for the brake or steering systems (or any other safety-related system), or tanks should NEVER be used for installations or ground connections. Using such parts could disable control of the vehicle and cause fire etc.

### **KEEP SMALL OBJECTS SUCH AS BATTERIES OUT OF THE REACH OF CHILDREN.**

Swallowing them may result in serious injury. If swallowed, consult a physician immediately.

### **DO NOT INSTALL IN LOCATIONS WHICH MIGHT HINDER VEHICLE OPERATION, SUCH AS THE STEERING WHEEL OR SHIFT LEVER.**

Doing so may obstruct forward vision or hamper movement etc. and results in serious accident.

## Caution

### **HAVE THE WIRING AND INSTALLATION DONE BY EXPERTS.**

The wiring and installation of this unit requires special technical skill and experience. To ensure safety, always contact the dealer where you purchased this product to have the work done.

### **USE SPECIFIED ACCESSORY PARTS AND INSTALL THEM SECURELY.**

Be sure to use only the specified accessory parts. Use of other than designated parts may damage this unit internally or may not securely install the unit in place. This may cause parts to become loose resulting in hazards or product failure.

### **ARRANGE THE WIRING SO IT IS NOT CRIMPED OR PINCHED BY A SHARP METAL EDGE.**

Route the cables and wiring away from moving parts (like the seat rails) or sharp or pointed edges. This will prevent crimping and damage to the wiring. If wiring passes through a hole in metal, use a rubber grommet to prevent the wire's insulation from being cut by the metal edge of the hole.

### **DO NOT INSTALL IN LOCATIONS WITH HIGH MOISTURE OR DUST.**

Avoid installing the unit in locations with high incidence of moisture or dust. Moisture or dust that penetrates into this unit may result in product failure.

## Precautions

- Be sure to disconnect the cable from the (–) battery post before installing your CDA-117E. This will reduce any chance of damage to the unit in case of a short-circuit.
- Be sure to connect the colour coded leads according to the diagram. Incorrect connections may cause the unit to malfunction or damage to the vehicle's electrical system.
- When making connections to the vehicle's electrical system, be aware of the factory installed components (e.g. on-board computer). Do not tap into these leads to provide power for this unit. When connecting the CDA-117E to the fuse box, make sure the fuse for the intended circuit of the CDA-117E has the appropriate amperage. Failure to do so may result in damage to the unit and/or the vehicle. When in doubt, consult your Alpine dealer.
- The CDA-117E uses female RCA-type jacks for connection to other units (e.g. amplifier) having RCA connectors. You may need an adaptor to connect other units. If so, please contact your authorized Alpine dealer for assistance.
- Be sure to connect the speaker (–) leads to the speaker (–) terminal. Never connect left and right channel speaker cables to each other or to the vehicle body.

### **IMPORTANT**

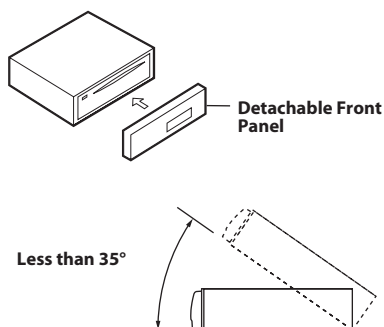
Please record the serial number of your unit in the space provided below and keep it as a permanent record. The serial number or the engraved serial number is located on the bottom of the unit.

SERIAL NUMBER:	[ ]
INSTALLATION DATE:	[ ]
INSTALLATION TECHNICIAN:	[ ]
PLACE OF PURCHASE:	[ ]

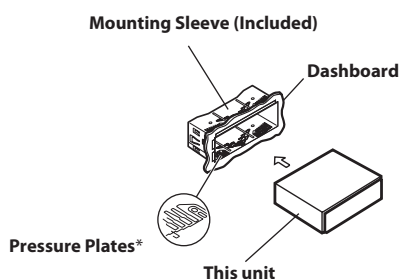
## Installation

### ⚠ Caution

When you install this unit in your car, do not remove the detachable front panel.  
If the detachable front panel is removed during installation, you might press too hard and warp the metal plate that holds it in place.  
The main unit must be mounted within 35 degrees of the horizontal plane, back to front.



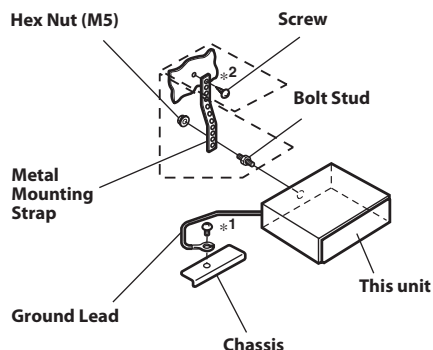
- 1 Remove the mounting sleeve from the main unit (refer to "Removal" on page 40).



\* If the installed mounting sleeve is loose in the dashboard, the pressure plates may be bent slightly to remedy the problem.

- 2 Reinforce the head unit with the metal mounting strap (not supplied). Secure the ground lead of the unit to a clean metal spot using a screw (\*1) already attached to the vehicle's chassis.

Connect each input lead coming from an amplifier or equalizer to the corresponding output lead coming from the left rear of the CDA-117E. Connect all other leads of the CDA-117E according to details described in the CONNECTIONS section.



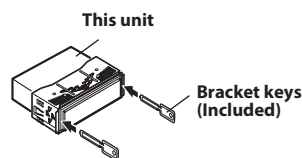
### Note

- For the screw marked "2", use an appropriate screw for the chosen mounting location.

- 3 Slide the CDA-117E into the dashboard until it clicks. This ensures that the unit is properly locked and will not accidentally come out from the dashboard.

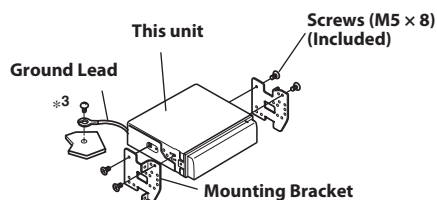
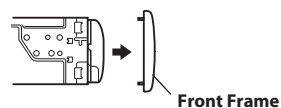
## Removal

- 1 Remove the detachable front panel.
- 2 Insert the bracket keys into the unit, along the guides on either side. The unit can now be removed from the mounting sleeve.



- 3 Pull the unit out, keeping it unlocked as you do so.

### JAPANESE CAR



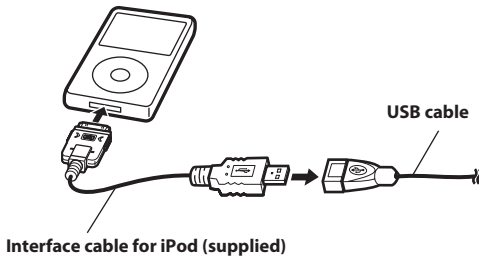
### Note

- Secure the ground lead of the unit to a clean metal spot using a screw (\*3) already attached to the vehicle's chassis.



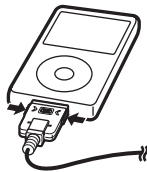
## iPhone/iPod Connection (sold separately)

Connect USB cable to an iPhone/iPod with Interface cable for iPod.



## Remove the iPhone/iPod

Remove the iPhone/iPod from Interface cable for iPod.



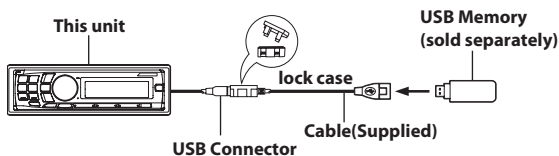
### Notes

- After changing the unit to a source other than the USB iPod, remove the iPhone/iPod. If the iPhone/iPod is removed in the USB iPod mode, data may cause damage.
- If sound is not output or the iPhone/iPod is not recognized even when the iPhone/iPod is connected, remove the iPhone/iPod once, then connect it again, or reset the iPod.
- Do not leave the iPhone/iPod in a vehicle for a long time. Heat and humidity may damage the iPhone/iPod and you may not be able to play it again.

## USB Memory Connection (sold separately)

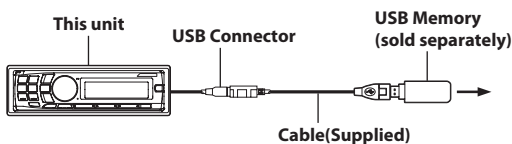
### Connect USB Memory

Connect the USB cable to the USB connector of the unit, and then secure the connection using the lock case supplied with USB cable as shown below.



### Remove USB Memory

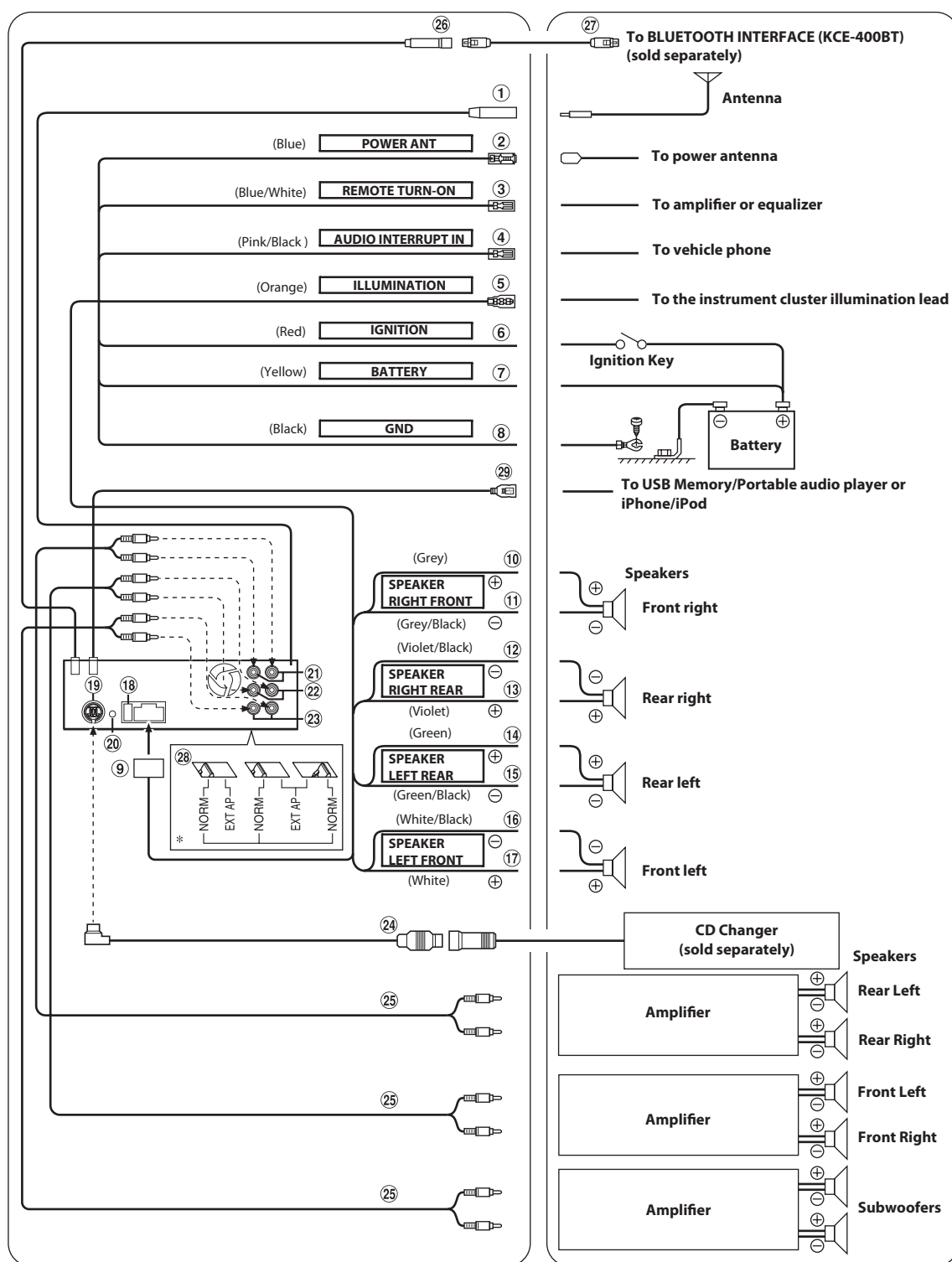
Pull out USB Memory squarely from the USB cable.



### Notes

- When removing USB Memory, pull it out straight.
- If sound is not output or USB Memory is not recognized even when USB Memory is connected, remove USB Memory once, then connect it again.
- Change to a source other than the USB Memory mode, then remove the USB Memory. If the USB Memory is removed in the USB Memory mode, data may be damaged.
- Route the USB cable away from another cables.

## Connections



\* The system switch is located on the bottom of the unit.

**① Antenna Receptacle**

**② Power Antenna Lead (Blue)**

Connect this lead to the +B terminal of your power antenna, if applicable.

**Note**

- This lead should be used only for controlling the vehicle's power antenna. Do not use this lead to turn on an amplifier, or a signal processor, etc.

**③ Remote Turn-On Lead (Blue/White)**

Connect this lead to the remote turn-on lead of your amplifier or signal processor.

**④ Audio Interrupt In Lead (Pink/Black)**

Connect this lead to the Audio interface output of a cellular phone which provides ground shorting when a call is received.

**⑤ Illumination Lead (Orange)**

This lead may be connected to the vehicle's instrument cluster illumination lead. This will allow the backlighting of the CDA-117E to dim whenever the vehicle's lights are turned on.

**⑥ Switched Power Lead (Ignition) (Red)**

Connect this lead to an open terminal on the vehicle's fuse box or another unused power source which provides (+)12V only when the ignition is turned on or in the accessory position.

**⑦ Battery Lead (Yellow)**

Connect this lead to the positive (+) post of the vehicle's battery.

**⑧ Ground Lead (Black)**

Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using the sheet metal screw provided.

**⑨ Power Supply Connector**

**⑩ Right Front (+) Speaker Output Lead (Grey)**

**⑪ Right Front (-) Speaker Output Lead (Grey/Black)**

**⑫ Right Rear (-) Speaker Output Lead (Violet/Black)**

**⑬ Right Rear (+) Speaker Output Lead (Violet)**

**⑭ Left Rear (+) Speaker Output Lead (Green)**

**⑮ Left Rear (-) Speaker Output Lead (Green/Black)**

**⑯ Left Front (-) Speaker Output Lead (White/Black)**

**⑰ Left Front (+) Speaker Output Lead (White)**

**⑱ Fuse Holder (10A)**

**⑲ Ai-NET Connector**

Connect this to the output or input connector of other product (CD changer, IMPRINT audio processor, Equalizer, etc.) equipped with Ai-NET.

**Notes**

- Interface adapter for iPod (KCA-420i) is not recommended for use with this product.
- You can input TV/video sound by connecting an optional Ai-NET/ RCA Interface cable (KCA-121B) to this component.
- Be sure to set "Setting the Connected Head Unit (MODEL SETUP)" to "CD CHG", when the DHA-S690 is connected.

**⑳ Steering Remote Control Interface Connector**

To steering Remote control interface box.

**㉑ Rear Output/Input RCA Connectors**

It can be used as Rear Output or Input RCA Connectors. RED is right and WHITE is left.

**㉒ Front Output/Input RCA Connectors**

It can be used as Front Output or Input RCA Connectors. RED is right and WHITE is left.

**㉓ Subwoofer RCA Connectors**

RED is right and WHITE is left.

**㉔ Ai-NET Cable (Included with CD Changer)**

**㉕ RCA Extension Cable (sold separately)**

**㉖ BLUETOOTH interface connector (Blue)**

Connect this to an optional BLUETOOTH INTERFACE (KCE-400BT). To use a hands-free mobile phone, an optional BLUETOOTH INTERFACE (KCE-400BT) connection is required. For details on connection, refer to the Owner's Manual of the BLUETOOTH INTERFACE (KCE-400BT). You can also connect this to an external device (such as a portable player) by using Conversion cable (KCE-237B) for building up the AUX IN (sold separately).

**Note**

- Refer to "Setting the AUX+ Setup Mode" on page 19.
- AUX+ ON :  
When the external device is connected.  
AUX+ OFF :  
When set to OFF, AUX+ source cannot be selected.

**㉗ KCE-400BT Connection Cable (Included with KCE-400BT)**

**㉘ System Switch**

When connecting a processor or divider using Ai-NET, place the three switches in the EXT AP position. When no device is connected, leave the switch in the NORM position.

**Notes**

- Do not make the three switches to different settings.
- Be sure to turn the power off to the unit before changing the switch position.

**㉙ USB Connector**

Connect this to an USB Memory/Portable audio player or to an iPhone/iPod. To use an iPhone/iPod, Interface cable for iPod connection is required.

**Notes**

- Use the supplied USB cable. If a USB cable other than the supplied is used, correct performance cannot be guaranteed.
- Route the USB cable away from other cables.

**To prevent external noise from entering the audio system.**

- Locate the unit and route the leads at least 10 cm away from the car harness.
- Keep the battery power leads as far away from other leads as possible.
- Connect the ground lead securely to a bare metal spot (remove any paint, dirt or grease if necessary) of the car chassis.
- If you add an optional noise suppressor, connect it as far away from the unit as possible. Your Alpine dealer carries various noise suppressors, contact them for further information.
- Your Alpine dealer knows best about noise prevention measures so consult your dealer for further information.