

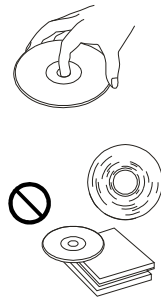
Safety Information

PRECAUTIONS

- Use only in a 12-volt DC negative-ground electrical system.
- Disconnect the vehicle's negative battery terminal while mounting and connecting the unit.
- When replacing the fuse, be sure to use one with an identical amperage rating.
Using a fuse with a higher amperage rating may cause serious damage to the unit.
- DO NOT attempt to disassemble the unit. Laser beams from the optical pickup are dangerous to the eyes.
- Make sure that pins or other foreign objects do not get inside the unit; they may cause malfunctions, or create safety hazards such as electrical shock or laser beam exposure.
- If you have parked the car for a long time in hot or cold weather, wait until the temperature in the car becomes normal before operating the unit.
- Keep the volume at a level at which you can hear outside warning sounds (horns sirens, etc.).

CD Notes

- Playing a defective or dusty CD can cause dropouts in sound.
- Hold CDs as illustrated.
- DO NOT touch the unlabeled side.
- DO NOT attach any seal, label or data protection sheet to either side of a disc.
- DO NOT expose a CD to direct sunlight or excessive heat.
- Wipe a dirty CD from the center outward with a cleaning cloth.
Never use solvents such as benzene or alcohol.
- This unit cannot play 3-inch (8cm) CDs.
- NEVER insert a 3-inch CD contained in the adapter or an irregularly shaped CD.
The unit may not be able to eject it, resulting in a malfunction.



Before operation

- DO NOT raise the volume level too much, as this will block outside sounds, making driving dangerous.
- Stop the car before performing any complicated operation.

CAUTION


DO NOT open covers and do not repair yourself. Consult the dealer or an experienced technician for help.

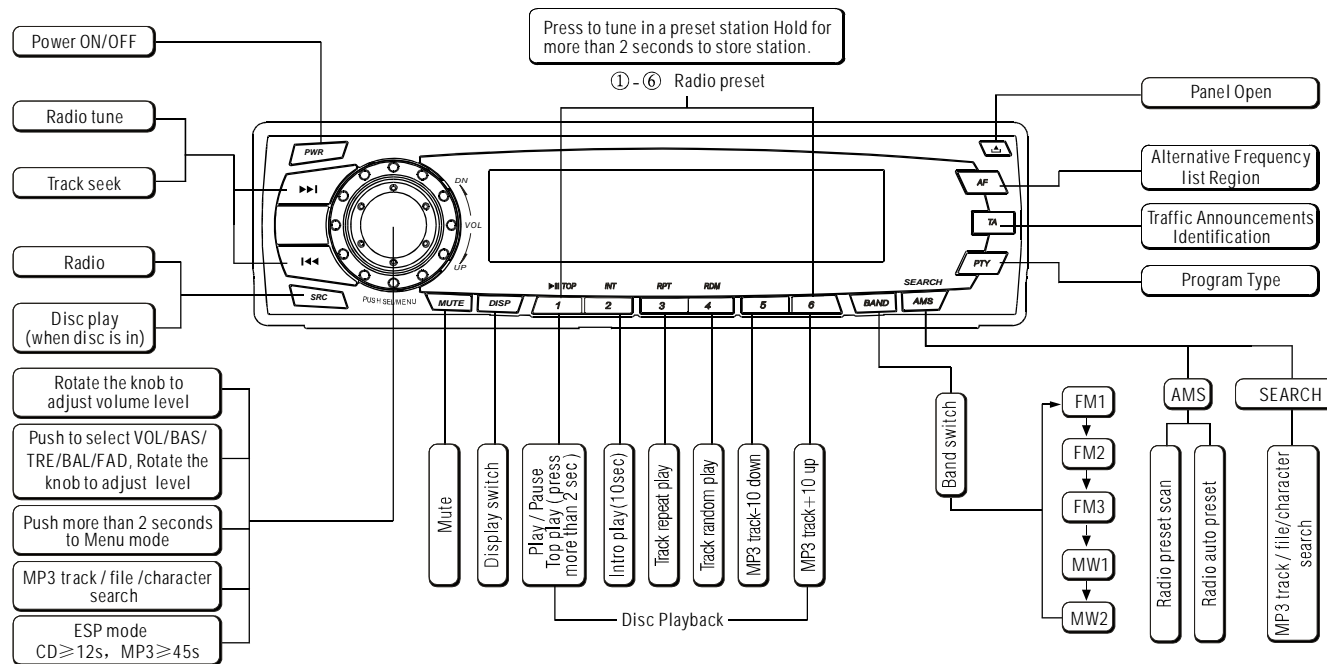
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* In addition to ordinary CDs, this unit can play back a CD - R or CD - RW,MP3 .

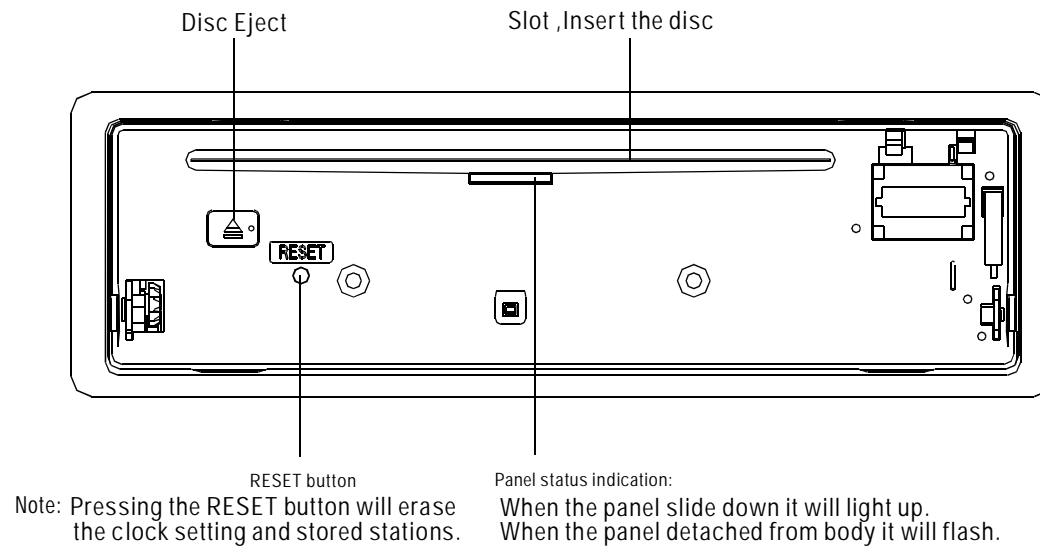
Panel Controls

Power on : press any button on the panel except  to turn on the unit.






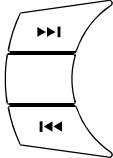

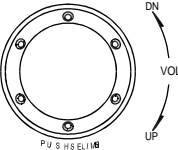



Other Instruction

Press the  button to open the panel and press  to eject the disc.



Button Tips

| | | | |
|--|--|--|---|
|  | Disc Load / Eject Load : press  button to slide down the panel. Insert the disc into the slot. | Eject : press  button to slide down the panel. Press  to eject the disc. |  |
| Radio: Radio tune by step: press less than 0.5 seconds. Radio seek automatic : press more than 0.5 seconds. Disc Playback: Track skip : press less than 0.5 seconds to go to the next or previous track. Track seek : press more than 0.5 seconds and hold it to forward or reverse back the track. | | |  |
| AMS : Auto Memory Store Press briefly to scan the preset station ①-⑥ for 5 seconds each. Hold more than 2 seconds, the 6 strongest available station will be automatically saved in the memory of preset button ①-⑥ . | | |  |
|  | SET CLOCK Press DISP button, time displays. Press again more than 2 seconds, time display blinks. Rotate the knob clockwise to set hours. Rotate the knob anticlockwise to set minutes. | |  |

MP3 Overview

Note on MP3

- MP3 is short for MPEG Audio Layer 3 and refers to an audio compression technology standard.
- This product allows playback of MP3 files on CD-ROM, CD-R or CD-RW discs.
- The unit can read MP3 files written in the format compliant with ISO 9660.
However it does not support the MP3 data written by the method of packet write.
- The unit can not read an MP3 file that has a file extension other than ".mp3".
- If you play a non-MP3 file that has the ".mp3" extension, you may hear some noise.
- In this manual, we refer to what are called "MP3 file" and "folder" in PC terminology as "track" and "Album," respectively.
- Maximum number of directory level is 8, including the root directory. Maximum number of files and folders per disc is 256.
- The unit may not play tracks in the order of Track numbers.
- The unit plays only the audio Tracks if a disc contains both audio tracks and MP3 files.
- When playing a disc of 8k bps or VBR, the elapsed playing time in the display window will not be correct and also the intro Play may not function properly. VBR: Variable Bit Rate

Note on creating your own CD-Rs or CD-RWs containing MP3 files

- To enjoy high quality sound, we recommend converting to MP3 files with a sampling frequency of 44.1 kHz and a fixed bit rate of 128 kbps.
- DO NOT store more than 256 MP3 files per disc.
- For ISO 9660-compliant format, the maximum allowable depth of nested folders is 8, including the root directory(folder).
- When CD-R disc is used, playback is possible only for discs which have been finalized.
- Make sure that when MP3 CD-R or CD-RW is burned that it is formatted as a data disc and NOT as an audio disc.
- You should not write non-MP3 files or unneeded folders along with MP3 files on the disc otherwise it takes a long time until the unit starts to play MP3 files.
- With some CD-R or CD-RW media, data may not be properly written depending on their manufacturing quality.
In this case, data may not be reproduced correctly. High quality CD-R or CD-RW disc is recommended.
- Up to 16 characters are displayed for the name of an Album or a Track. ID3TAG version 1.x is required.
- Note that the unit may not play Tracks in the order that you wrote them to the disc.

MP3 Play Back



ONLY YOU

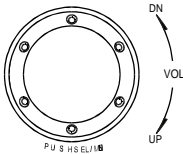
While playing MP3 disc, the folder/file name and ID3 TAG (Song title, Album and Artist) can entirely scroll displayed on the LCD display.

Elapsed playing time & Track number → Folder name & number → File name & number → Song title → Album title → Artist name



SEARCH

AMS



MP3 Track search

Press AMS button to select "TRACK SCH" mode.

Press SEL button and LCD display will show "001".

If your desired track number is less than 100,

Rotate the knob to select the first digit and press SEL button once again

And rotate the knob to set the tenth digit of the track number.

Press SEL button again more than 0.5 seconds to play the track.

If your desired track number is more than 100,

Rotate the knob to select the first digit and press SEL button to confirm,

Rotate the knob to select the tenth digit and press SEL button to confirm,

Rotate the knob to select the hundredth digit and press SEL button to confirm,

Press SEL button again to play the track.



TRK SCH



001

* If the track number you enter is beyond the maximum file number, last song will be played.

MP3 File search

Press AMS button twice to select "FILE SCH" mode.

Press SEL button to enter.

Rotate the knob to select folder.



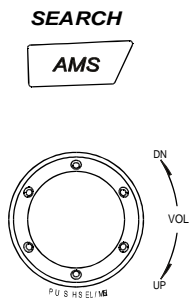
FILE SCH

If you just want to play songs of this folder, press SEL button more than 0.5 seconds to play the first track of the folder.

If you want to play desired track of the folder, press SEL button and rotate the knob to select the track you want.

Press SEL button again to play the track.

MP3 Character Search



Press AMS button three times to select "CHAR SCH" mode.

Press SEL button and "A" displayed.

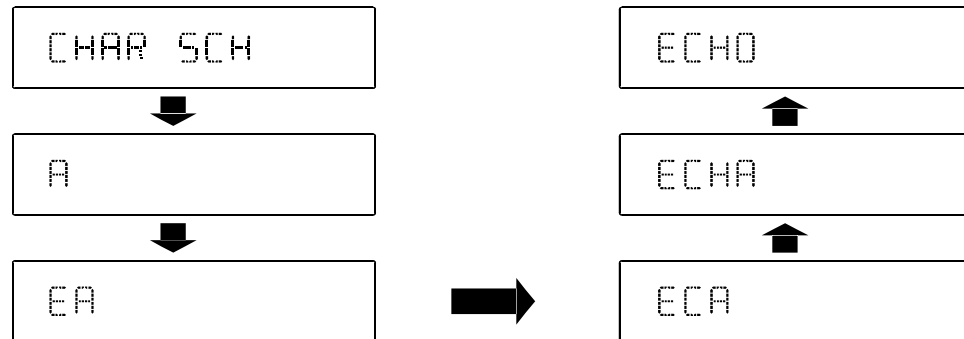
Now If press SEL button more than 0.5 seconds. the track which first character of its name is "A" will be played.

Rotate the knob to select the 1st character of the desired track name and press SEL button to confirm.

Then "A" flashes at the next place, select 2nd and other character of the desired track name as steps above.

Press SEL more than 0.5 seconds to play the track of the select name.

Example :to search character "ECHO".



RDS (Radio Data System)

RDS service availability varies with areas. Please understand if RDS service is not available in you area, the following service is not available, either. The following functions are available when receiving RDS stations.

RDS Basics

AF(Alternative Frequency list) When reception is poor, an RDS station broadcasting the same program is tuned in automatically.

PS Display (Program Service name) The name of station is displayed instead of frequency.

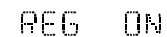
AF Mode : Press AF button less than 1 second to switch AF mode on and off.

AF indication on LCD will flash until RDS information is received.



REG Mode : Press AF button more than 1 second to switch REG mode on and off.

The frequency is changed only for programs within the region.



The frequency is changed alsofor programs outside the region.



During FM mode when AF is on, radio seek, scan and AMS functions can only receive and save RDS program.

CT Service (Clock Time)

When receiving an RDS station, the CT (Clock Time) service automatically adjusts the time.

NO CT is displayed in areas where CT service is not available.



RDS (continued)

Traffic Announcements

Some RDS FM stations periodically provide traffic information.

TP (Traffic Program Identification)
Broadcasting of traffic information

TA (Traffic Announcements Identification)
Radio announcements on traffic conditions

TA Mode: Press TA button to turn on / off TA.

When TA mode is on and TA indicator on LCD is displayed.

When traffic announcement is transmitted, regardless of the mode, reception will begin at volume level 20 if volume level is below 20.

After the traffic announcement is over, it will return to previous mode and volume level.

When TA is turned on, SEEK, SCAN, AMS function can be received or saved when traffic program identification (TP) code is received.



TRAF INF

EON (Enhanced Other Networks)

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

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

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

RDS (continued)

PTY Reception (Program Type)

RDS FM stations provide a program type identification signal.

Example: news, rock, info, sport, etc.

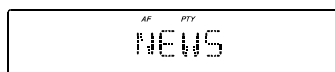
PTY Mode: press PTY button to turn PTY on, previous PTY type

is displayed and searched if no button

is pressed for 2 seconds.

If there's no corresponding program type.

NO PTY is displayed.



PTY Type Preset

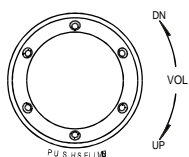
Press PTY once to enter MUSIC type or

press PTY twice to enter SPEECH type.

Then use buttons ①—⑥ to select the desired program type.

| PRESET NO. | MUSIC TYPE | SPEECH TYPE |
|------------|------------|-------------|
| 1 | POP M | NEWS |
| | ROCK M | AFFAIRS |
| 2 | M. O. R. M | INFO |
| | LIGHT M | SPORT |
| 3 | CLASSIC M | EDUCATE |
| | OTHER M | DRAMA |
| 4 | JAZZ M | CULTURE |
| | COUNTRY M | SCIENCE |
| 5 | NATIONAL M | VARIED |
| | OLDIES M | WEATHER |
| 6 | FOLK M | FINANCE |
| | FOLK | CHILDREN |
| | | SOCIAL |
| | | RELIGION |
| | | PHONE IN |
| | | TRAVEL |
| | | HOBBIES |
| | | DOCUMENT |

Menu Function



Press the button more than 2 seconds to enter menu mode , then each press changes the mode as follows:

TA mode → MASK mode → DSP mode → LOUD ON / OFF mode → ESP mode → BEEP ON / OFF
(CD ≥ 12s, MP3 ≥ 45s)
 ↓
 ← VOL mode ← LOCAL / DX mode ← ST / MO mode ← SEEK1/2 mode
(only in tuner mode) (only in tuner mode) (only in tuner mode)

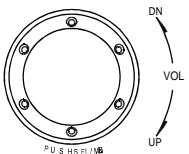
TA mode: Rotate the knob to choose TA ALARM or TA SEEK mode, When TA is turned on and no traffic program identification code has been received during the specified time, no TA/TP is displayed and according to the MENU SELECT, alarm is set off, or TA SEEK is activated.

TA ALARM mode : NO TA/TP is displayed and alarm is set off.

TA SEEK mode: TA SEEK is activated.

TA ALARM

TA SEEK



MASK mode:
rotate the knob
to choose MASK DPI
or MASK ALL mode.

MASK DPI mode :

Only the AF which has different program identification is masked.

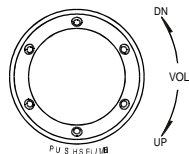
MASK ALL mode :

The AF which has different program identification and NO RDS signal with high field strength is masked.

MASK DPI

MASK ALL

Menu Function (continued)



DSP mode: Rotate the knob to choose DSP sound effect: POP → ROCK → CLASS → FLAT → DSP OFF
 LOUD mode: Rotate the knob to choose loud on or off.
 BEEP ON/OFF mode: Rotate the knob to choose button beep sound on or off.

ESP: 12/45s { ESP12: Selected as CD-ESP time 12seconds.
 ESP45: Selected as MP3-ESP time 45 seconds.

SEEK 1/2 mode: Rotate the knob to choose radio seek mode 1 or 2 .

SEEK 1: searching station will stop when next station is received.

SEEK 2: searching station will stop when ►► or ◄◄ button is released and next station is received.

SEEK 1

SEEK 2

LO/DX mode: Rotate the knob to choose tuner sensitivity local or distant.

ST/MO mode: Rotate the knob to choose FM stereo or mono.

VOL LAST / ADJUST MODE

VOL LAST

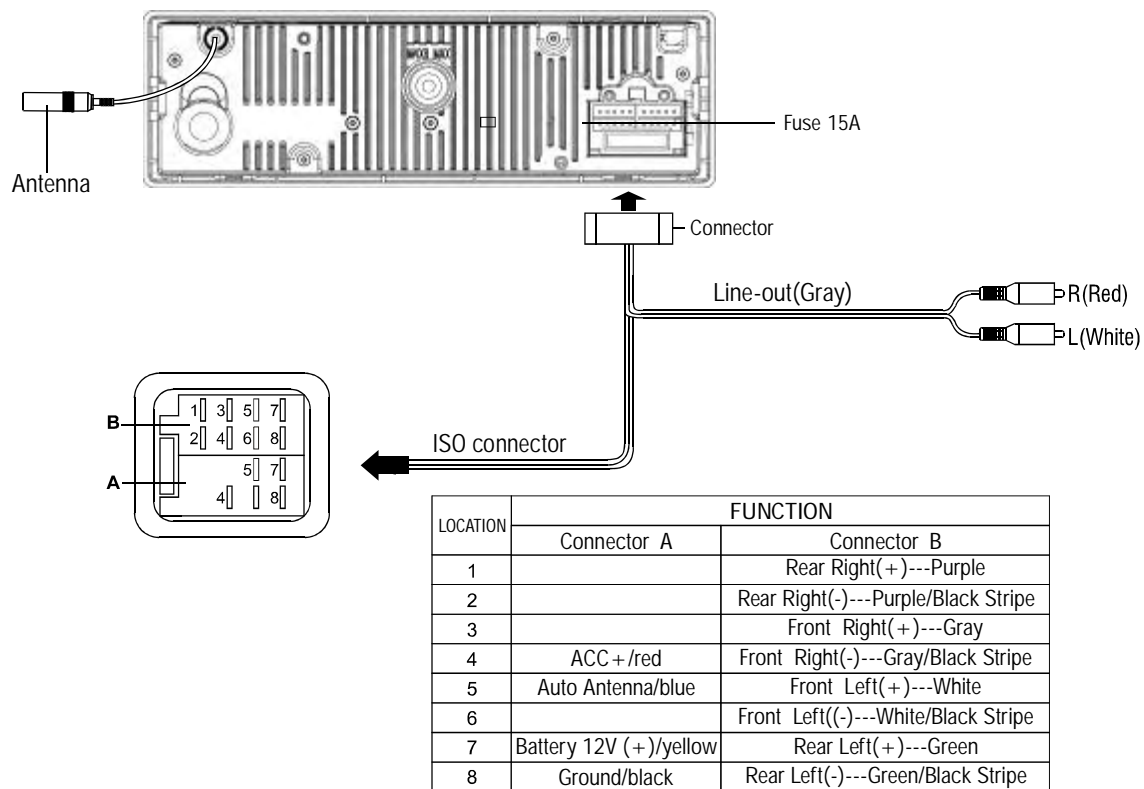
Press knob to choose VOL LAST : the turn-on volume level is the volume level of latest power off.

Rotate knob to choose VOL ADJ, then rotate the knob to set the turn-on volume level .

VOL ADJ

Electrical Connections

■ Wiring Diagram




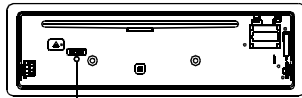
Installation Guide

■ Installation Procedures

First complete the electrical connections, and then check them for correctness.


■ Reset

Press  button to slide down the panel. Then press the Reset button with a pointed to reset the unit to the original status.

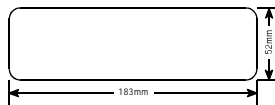


Reset

Note: Press the RESET button will erase the clock setting and stored stations.

 Important: Remove these two screws before installation. Otherwise, the CD/MP3 Player will not work.

■ Installation Opening

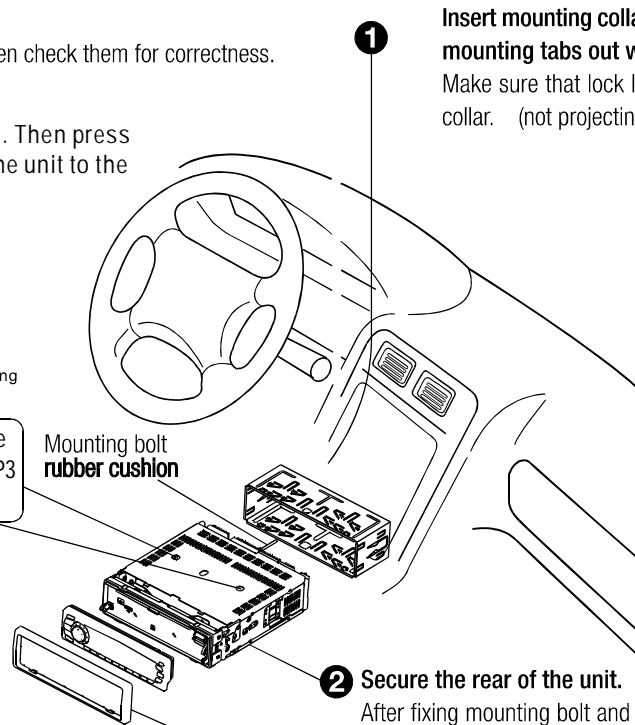
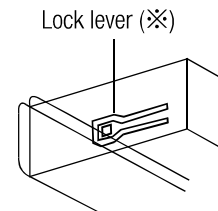


This unit can be installed in any dashboard having an opening as shown above. The dashboard should be 4.75 mm - 5.56 mm thick in order to be able to support the unit.

1

Insert mounting collar into the dashboard, and bend the mounting tabs out with a screwdriver.

Make sure that lock lever (※) is flush with the mounting collar. (not projecting outward)



2

Secure the rear of the unit.

After fixing mounting bolt and power connector, fix the rear of the unit to the car body by rubber cushion.


3

Insert trim plate.

Anti-Theft System

This unit is equipped with a slide-down detachable panel.
Panel can be detached and taken with you, helping to deter theft.

Removing the panel

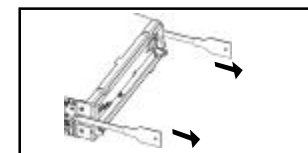
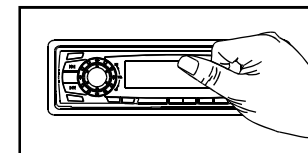
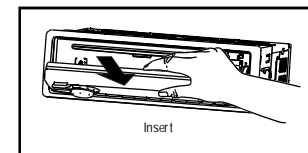
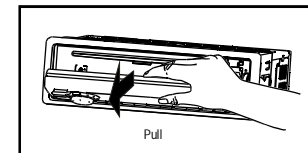
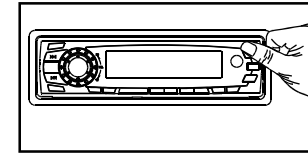
1. Press PWR button to switch off the power of the unit.
2. Press  button to slide down the panel.
3. Hold the panel to pull it out.
4. Place the panel into the case and take it with you when you leave the car.

Install the panel

1. Hold the panel and ensure the panel faces toward you, and set the right side of the panel in the panel bracket at slide down state.
2. Press the right side of the panel until it locks.

Remove the unit

1. Remove the panel and the trim plate.
2. Insert both T-Keys into hole on the front of the set until they lock.
3. Pull out the unit.



Trouble shooting

If You Suspect Something Wrong Immediately switch power off. Do not use the unit in abnormal condition, for example without sound, or with smoke or foul smell, can cause fire or electric shock. Immediately stop using it and call the store where you purchased it. Never try to repair the unit yourself because it is dangerous to do so.

■ General

No power or
no sound

Car's engine switch is not on.
Turn your car's key to ACC or ON.
Cable is not correctly connected.
Check connection.
Fuse is burnt. Replace fuse.
Check volume or mute on / off.
If the above solutions cannot help,
Press the RESET button.

■ Disc

Disc is inside but
no sound.

Disc is upside down.
Place disc in the correct direction,
and the label side up.
Disc is dirty or damaged
Clean disc or change another disc.

Disc sound skips,
tone quality is low.

Disc is dirty or damaged.
Clean CD or change another CD.

Sound skips due
to vibration.

Mounting angle is over 30°.
Adjust mounting angle to less than 30°.

Installable mounting.
mount the unit securely with the
mounting parts.

■ Radio

Much noise in
broadcasts

Station is too far, or signals are too weak.
Select other stations of higher signal level.

Preset station
is reset.

Battery cable is not correctly connected.
Connect the battery cable to the
terminal that is always live.

■ Error Display Messages

NO FILE

Disc is not CD or contains no MP3 files.

ERR-7

Disc upside down.

ERR-10

Recovery error, check the disc.

ERR-11

MP3 error, check the disc.

ERR-3

Disc mechanism error:
Press [▲] button to eject the disc.
In case that the disc cannot be
ejected by pressing [▲] button,
press the RESET switch and press
the [▲] button again.
If still not ejecting consult your
dealer.

ERR-4

Specifications

■ General

| | |
|-----------------------------|--|
| Power supply: | 12V DC(11V-16V) Test voltage 14.4V, negative ground |
| Maximum power output: | 45Wx4 channels |
| Continuous power output: | 20Wx4 channels (4 Ω 10% T.H.D.) |
| Suitable speaker impedance: | 4-8 ohm |
| Pre-Amp output voltage: | 2.0V(CD play mode: 1KHz, 0 dB, 10 K Ω load) |
| Fuse: | 15A |
| Dimensions(WxHxD) | 178x50x166mm |
| Weight: | 1.7kg |
| ESP mode: | CD \geq 12s, MP3 \geq 45s |

■ FM Stereo Radio

| | |
|-----------------------|--------------------------------|
| Frequency range: | 87.5 - 108.0 MHz (Europe mode) |
| Usable sensitivity: | 8 dB μ |
| Frequency response: | 30 Hz-15KHz |
| Stereo separation: | 30dB(1KHz) |
| Image response ratio: | 50dB |
| IF response ratio: | 70dB |
| Signal/noise ratio: | 55dB |

Note: Specifications and the design are subject to change without notice due to improvements in technology.

■ MW Radio

| | |
|-------------------------------|----------------------------|
| Frequency range: | 522-1620 KHz (Europe mode) |
| Usable sensitivity(S/N=20dB): | 30 dB μ |

■ Disc Player

| | |
|----------------------------|---------------------------|
| System: | Disc digital audio system |
| Frequency response: | 20 Hz - 20 KHz |
| Signal/noise ratio: | > 86 dB |
| Total harmonic distortion: | Less than 0.20%(1 KHz) |
| Wow and flutter: | Below measurable limits |
| Channel separation: | > 60 dB |

■ Components

| | |
|--------------------------|---|
| Mountingcollar | 1 |
| Machine screws M5x6 mm | 4 |
| M4x6 mm | 4 |
| Mountingbolt (50 mm) | 1 |
| Wireconnector | 1 |
| Removable face platecase | 1 |
| Trimplate | 1 |
| T-key | 2 |
| Operatinginstructions | 1 |
| Rubbercushion | 1 |