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CEM2000B



EN User manual

PHILIPS

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1 Important

Safety

- Read and understand all instructions before you use your apparatus. If damage is caused by failure to follow instructions, the warranty does not apply.
- This apparatus is designed for negative ground (earth) 12 V DC operation only.
- To ensure safe driving, adjust the volume to a safe and comfortable level.
- Improper fuses can cause damage or fire. When you need to change the fuse, consult a professional.
- Use only the supplied mounting hardware for a safe and secure installation.
- To avoid short circuit, do not expose the apparatus, remote control or remote control batteries to rain or water.
- Never insert objects into the ventilation slots or other openings on the apparatus.
- Clean the apparatus and frame with a soft, damp cloth. Never use substances such as alcohol, chemicals or household cleaners on the apparatus.
- Never place any objects other than discs into the apparatus.
- Never use solvents such as benzene, thinner, cleaners available commercially, or anti-static sprays intended for discs.
- Visible and invisible laser radiation when open. Avoid exposure to beam.
- Risk of damage to the apparatus screen! Never touch, push, rub or strike the screen with any object.



Caution

- Use of controls or adjustments or performance of procedures other than herein may result in hazardous radiation exposure or other unsafe operation.

Notice



Be responsible
Respect copyrights

The making of unauthorized copies of copy-protected material, including computer programs, files, broadcasts and sound recordings, may be an infringement of copyrights and constitute a criminal offence. This equipment should not be used for such purposes.



Windows Media and the Windows logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.

This apparatus includes this label:



Recycling



Your product is designed and manufactured with high quality materials and components, which can be recycled and reused. When you see the crossed-out wheel bin symbol attached to a product, it means the product is covered by the European Directive 2002/96/EC:



Never dispose of your product with other household waste. Please inform yourself about the local rules on the separate collection of electrical and electronic products. The correct disposal of your old product helps prevent potentially negative consequences on the environment and human health.

Your product contains batteries covered by the European Directive 2006/66/EC, which cannot be disposed of with normal household waste.

Please inform yourself about the local rules on separate collection of batteries. The correct disposal of batteries helps prevent potentially negative consequences on the environment and human health.



This product complies with the radio interference requirements of the European Community.

Environmental information

All unnecessary packaging has been omitted. We have tried to make the packaging easy to separate into three materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet.)

Your system consists of materials which can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries and old equipment.

Any changes or modifications made to this device that are not expressly approved by Philips Consumer Lifestyle may void the user's authority to operate the equipment.

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2 Your car audio system

Congratulations on your purchase, and welcome to Philips! To fully benefit from the support that Philips offers, register your product at www.philips.com/welcome.

Introduction

With the in-car audio system, you can enjoy your drive while listening to:

- FM or AM (MW) radio
- DAB radio
- Audio from CD or MP3 disc
- Audio from USB devices
- Audio from other external devices

The unit supports the following media format:

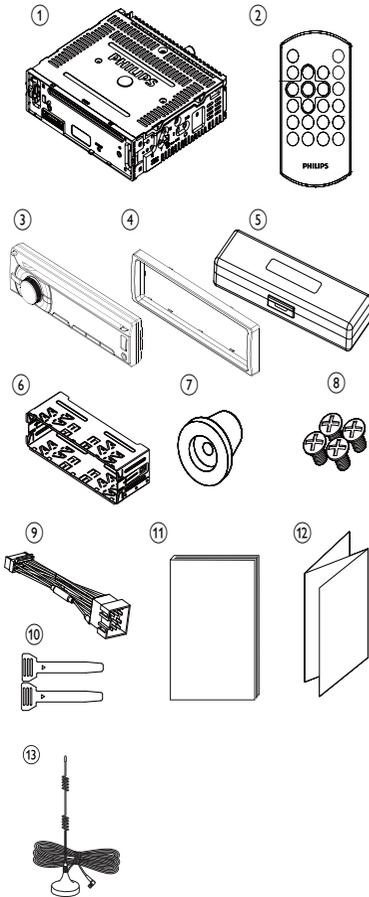


What's in the box

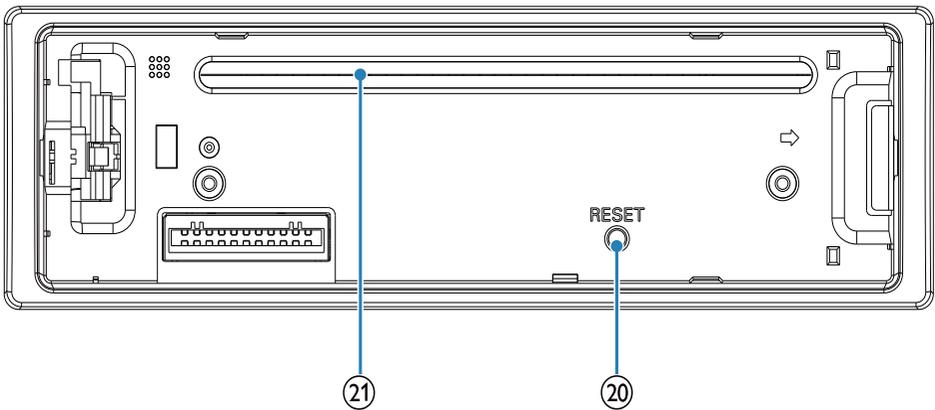
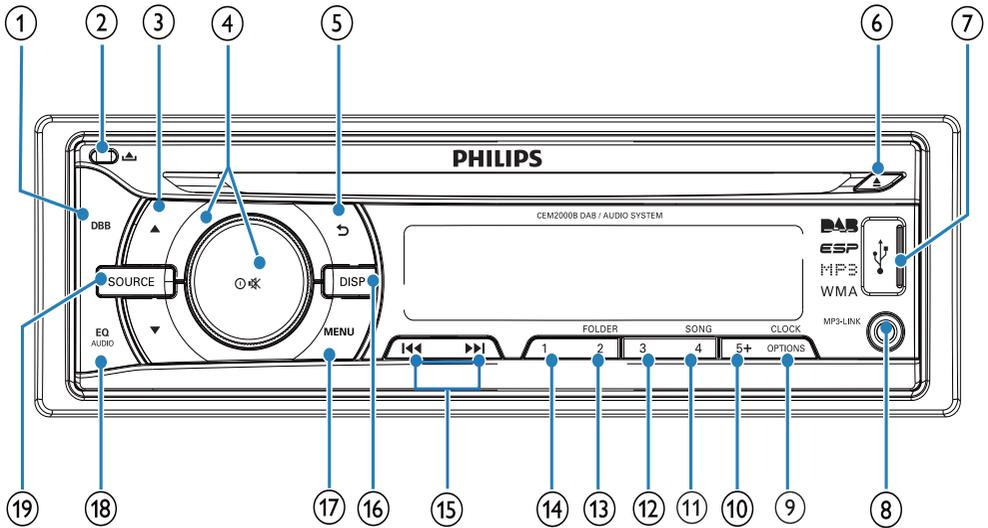
Check and identify the contents of your package:

- ① Main unit
- ② Remote control
- ③ Front panel
- ④ Trim plate
- ⑤ Carrying case for front panel
- ⑥ Sleeve
- ⑦ Rubber cushion
- ⑧ Screws x 4 pcs
- ⑨ Standard ISO connector

- ⑩ Disassembly tools x 2 pcs
- ⑪ User manual
- ⑫ Quick start guide
- ⑬ DAB Antenna



Overview of the main unit



① DBB

- Turn on or off Dynamic Bass Boost (DBB) sound.

②

- Unlock the panel.

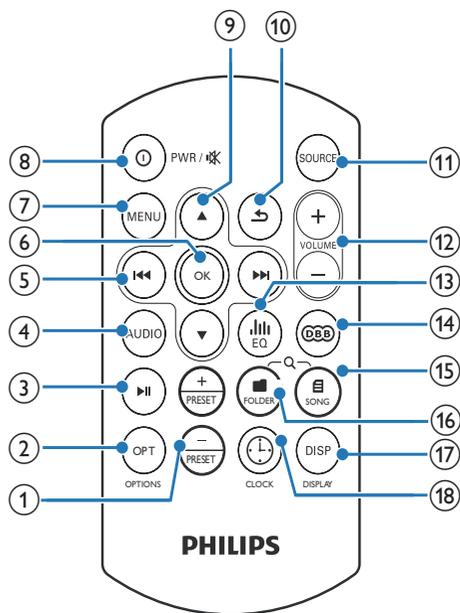
③

- Navigate MP3/WMA folders.
- Select radio bands.
- Scroll up/down menu.

- ④ **⏻/⏸**
 - Switch the unit on or off.
 - Confirm selection.
 - Mute or unmute sound.
 - Rotate to adjust volume.
- ⑤ **↶**
 - Return to previous menu.
- ⑥ **▲**
 - Eject disc.
- ⑦ **⏪**
 - USB connector.
- ⑧ **MP3 LINK**
 - Connect external audio device.
- ⑨ **OPTIONS/CLOCK**
 - Access option menu.
 - Display the DAB related information.
 - View clock.
- ⑩ **5+**
 - Select/Store preset radio station 1-10.
 - Select/Store preset DAB station 1-20.
- ⑪ **SONG/4**
 - Search for track.
 - Select/Store preset station no.4.
- ⑫ **3**
 - Select/Store preset station no.3.
- ⑬ **FOLDER/2**
 - Search for folder.
 - Select/Store preset station no.2.
- ⑭ **1**
 - Select/Store preset station no.1.
- ⑮ **⏮⏭**
 - Tune for radio/DAB station.
 - Skip/search for track.
 - Fast forward/backward playback.
- ⑯ **DISP**
 - In Radio mode, press briefly to display radio info.
 - In DAB mode, press briefly to display DAB radio station list.

- ⑰ **MENU**
 - Access system menu.
- ⑱ **EQ AUDIO**
 - Select equalizer (EQ) setting.
 - Access audio setting menu.
- ⑲ **SOURCE**
 - Select audio source.
- ⑳ **RESET**
 - Restore default settings.
- ㉑ **Disc slot**

Overview of the remote control



- ① **PRESET +/-**
 - Select preset radio station.
- ② **OPT**
 - Access option menu.
- ③ **▶||**
 - Start play.
 - Pause or resume play.

- ④ **AUDIO**
 - Access audio setting menu.
- ⑤ **⏮️/⏭️**
 - Tune to a radio station
 - Skip track.
 - Fast backward/forward playback
- ⑥ **OK**
 - Confirm selection.
- ⑦ **MENU**
 - Access system menu.
- ⑧ **Ⓛ/PWR/Ⓜ️**
 - Turn the unit on or off.
 - Mute or restore volume.
- ⑨ **▲/▼**
 - Select tuner band.
 - Scroll up/down menu.
 - Select MP3/WMA folder.
- ⑩ **↶**
 - Return to previous menu.
- ⑪ **SOURCE**
 - Select audio source.
- ⑫ **VOLUME +/-**
 - Adjust volume.
- ⑬ **EQ**
 - Select equalizer (EQ) setting.
- ⑭ **DBB**
 - Turn on or off Dynamic Bass Boost (DBB) sound.
- ⑮ **SONG**
 - Search for track.
- ⑯ **FOLDER**
 - Search for folder.
- ⑰ **DISP**
 - In Radio mode, press briefly to display radio info.
 - In DAB mode, press briefly to display DAB radio station list.
- ⑱ **CLOCK**
 - View clock.

3 Get started



Caution

- Use the controls only as stated in this user manual.

Always follow the instructions in this chapter in sequence.

If you contact Philips, you will be asked for the model and serial number of your apparatus. The model number and serial number are on the bottom of your apparatus. Write the numbers here:

Model No. _____

Serial No. _____

Install the car audio

These instructions are for a typical installation. However, if your car has different requirements, make the corresponding adjustment. If you have any questions regarding installation kits, consult your Philips car audio dealer.



Caution

- This unit is designed for negative ground (earth) 12 V DC operation only.
- Always install this unit in the car dashboard. Other locations can be dangerous as the rear of the unit heats up during use.
- To avoid short-circuit: before you connect, ensure that the ignition is off.
- Ensure that you connect the yellow and red power supply leads after all other leads are connected.
- Ensure that all loose leads are insulated with electrical tape.
- Ensure that the leads do not get caught under screws or in parts that will move (e.g. seat rail).
- Ensure that all ground (earth) leads are run to a common ground (earth) point.
- Use only the supplied mounting hardware for a safe and secure installation.
- Improper fuses can cause damage or fire. When you need to change the fuse, consult a professional.

Note on the power supply lead (yellow)

- When you connect other devices to this apparatus, ensure that the rating of the car circuit is higher than the total fuse value of all the connected devices.

Notes on speaker connection

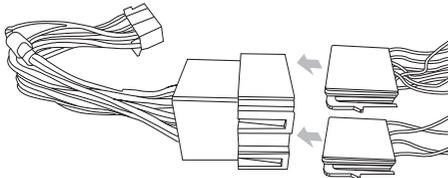
- Never connect speaker wires to the metal body or chassis of the car.
- Never connect speaker wires with stripes to one another.

Connection: for cars with ISO connectors

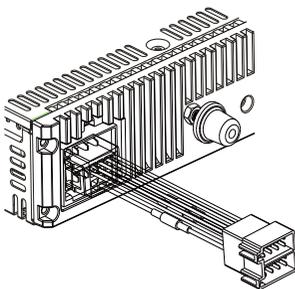
! Caution

- Ensure that all loose leads are insulated with electrical tape.

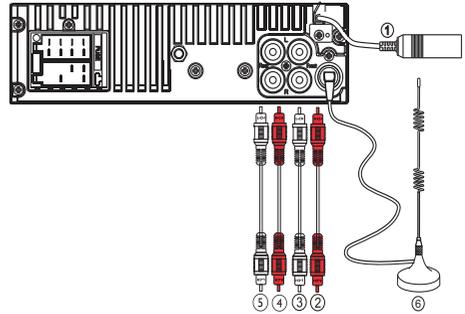
- 1 Pull out the ISO connectors from car dashboard and connect them to the bigger end of the supplied standard connector.



- 2 Connect the other end of the supplied standard connector to the unit.



- 3 Connect the antenna and amplifier as illustrated, if applicable. You can connect the car audio to the amplifier through RCA-TO-RCA cables (not supplied).



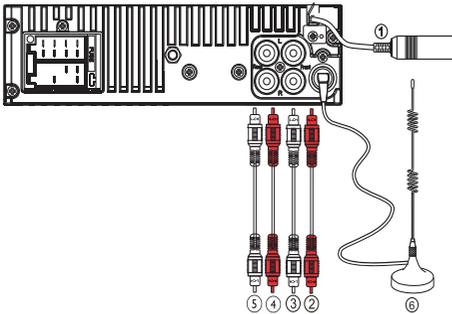
	Connector	Connect to
1	ANTENNA	Antenna
2	FRONT LINE OUT R (Socket)	Front right speaker
3	FRONT LINE OUT L (Socket)	Front left speaker
4	REAR LINE OUT R (Socket)	Rear right speaker
5	REAR LINE OUT L (Socket)	Rear left speaker
6	DAB Antenna	DAB Antenna

Connection: for cars without ISO connectors

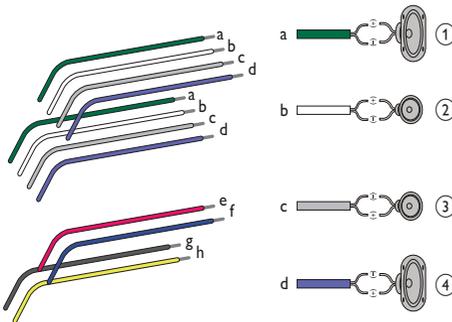
! Caution

- Be sure to connect the black ground (earth) lead first.

- 1 Connect the antenna and amplifier as illustrated, if applicable.



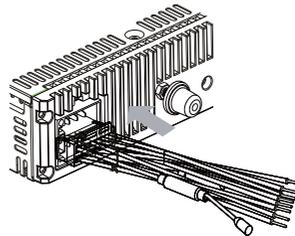
	Connector	Connect to
1	ANTENNA	Antenna
2	FRONT LINE OUT R (Socket)	Front right speaker
3	FRONT LINE OUT L (Socket)	Front left speaker
4	REAR LINE OUT R (Socket)	Rear right speaker
5	REAR LINE OUT L (Socket)	Rear left speaker
6	DAB Antenna	DAB Antenna



- 2 Cut off the bigger end of the supplied standard connector.
- 3 Check the car's wiring carefully and connect them to the supplied standard connector.

1	Green/black strip	Left speaker (Rear)
2	White/black strip	Left speaker (Front)
3	Gray/black strip	Right speaker (Front)
4	Purple/black strip	Right speaker (Rear)
e	RED	Ignition key +12V DC when ON/ACC
f	BLUE	Motor/electric antenna relay control lead/ Amplifier relay control lead
g	BLACK	Ground
h	YELLOW	To the +12V car battery which is energized at all times

- 4 Connect the supplied standard connector to the unit.

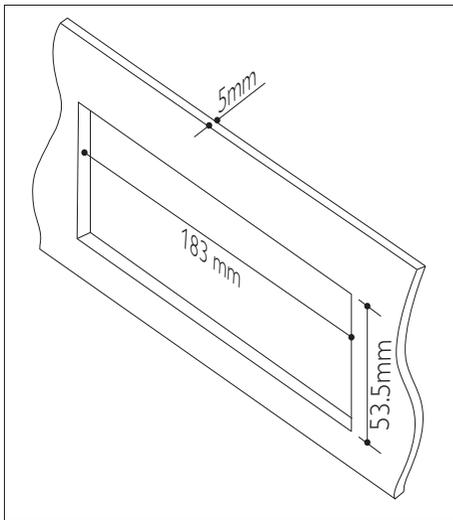


Tip

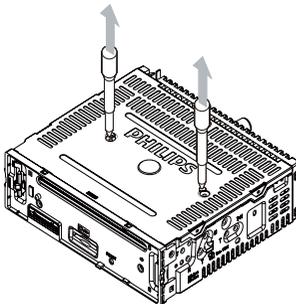
- The pin arrangement for the ISO connectors depends on the type of vehicle you drive. Be sure to make proper connections to prevent damage to the unit.

Mount into the dashboard

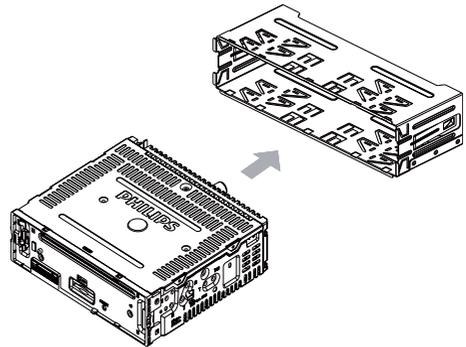
- 1 If the car does not have an on-board drive or navigation computer, disconnect the negative terminal of the car battery.
 - If you disconnect the car battery in a car that has an on-board drive or navigation computer, the computer may lose its memory.
 - If the car battery is not disconnected, to avoid short-circuit, ensure that the bare wires do not touch each other.
- 2 Ensure that car dashboard opening is within these measurements:



- 3 Remove the two screws on the top of the unit.



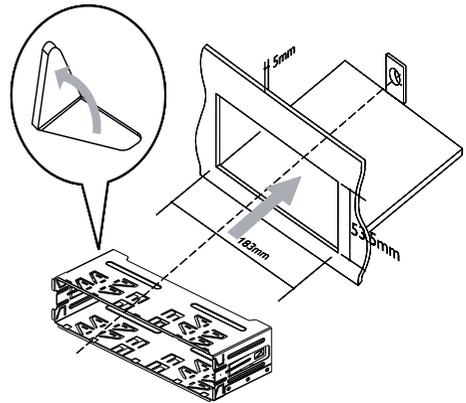
- 4 Remove the mounting sleeve with the supplied disassembly tools.



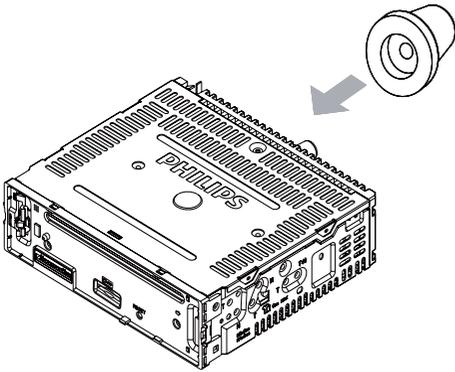
- 5 Install the sleeve into the dashboard and bend the tabs outward to fix the sleeve.

Note

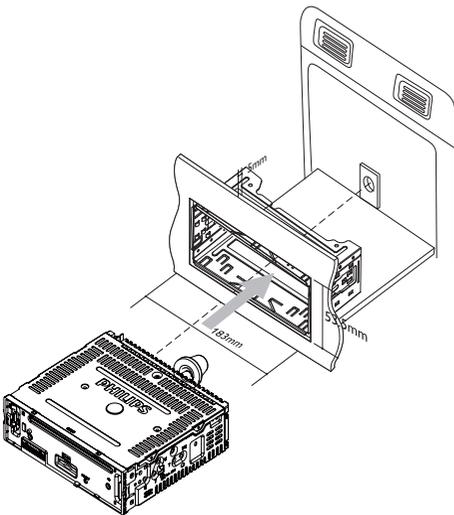
- If the unit is not fixed by sleeve but by the supplied screws, skip this step.



- 6 Place the supplied rubber cushion over the end of the mounting bolt.



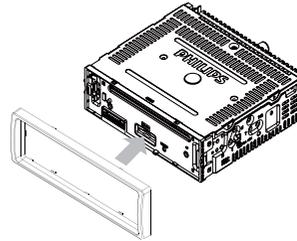
- 7 Slide the unit into the dashboard until you hear a click sound.



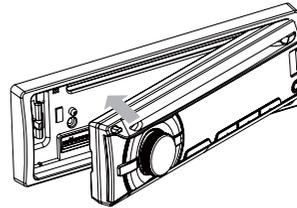
- 8 Reconnect the negative terminal of the car battery.

Attach the front panel

- 1 Attach the trim plate.



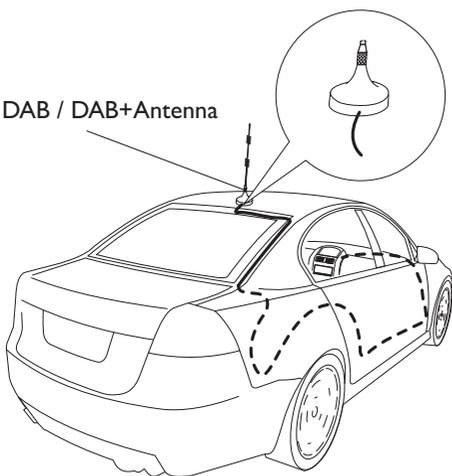
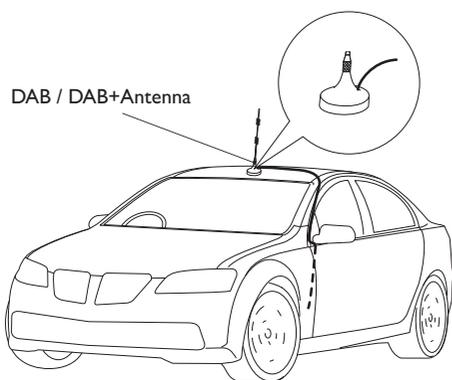
- 2 Insert the right side of the panel in the chassis until it is correctly engaged.
- 3 Press the left side of the panel until the mechanism locks it into place.



Place the DAB antenna

Warning

- Make sure the antenna cable does not interfere with the safe operation of driving wheel, air bags and seatbelts or other equipment.
- Before entering low overhangs, car washes, or other places with obstacles which may catch on or touch the antenna, remove the antenna to avoid potential damage.
- Damage caused by not following the installation instructions is not covered by warranty.



- 1 Find a location as flat as possible on the outside of your car. For example, the roof near the windshield, or rear window. Note: The magnetic base of the antenna will remain secure at normal vehicle speeds in non-windy conditions. Antennae installed on curved surfaces may become detached in windy conditions.
- 2 Make sure the selected surface is clean and free of dirt, water, or other substances which could inhibit attachment to the surface.
- 3 Gently place the magnetic steel base of the DAB/DAB+ antenna on the surface

you selected. The magnetic steel base will stick to any metallic surface.
 Note: Damage may be caused to the paintwork of the car if the antenna slides or rotates on the car surface.

- 4 Route the cable: Tuck the cable under weather strip of the door and run the cable through the passenger doorway or tailgate. Reserve enough slack in your cable to fit open doors or deck lids. Secure cables to avoid cable being pinched between hinges and the door.

Install remote control battery

! Caution

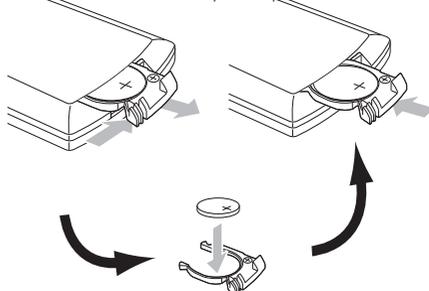
- Risk of explosion! Keep batteries away from heat, sunshine or fire. Never discard batteries in fire.
- Risk of decreased battery life! Never mix different brands or types of batteries.
- Risk of product damage! When the remote control is not used for long periods, remove the batteries.
- Perchlorate Material - special handling may apply. See www.dtsc.ca.gov/hazardouswaste/perchlorate.

For first-time use:

- 1 Remove the protective tab to activate the remote control battery.

To replace the remote control battery:

- 1 Open the battery compartment.
- 2 Insert one CR2025 battery with correct polarity (+/-) as indicated.
- 3 Close the battery compartment.



Turn on

- 1 Press **⏻** to turn on the unit.
 - To turn off the unit, press **⏻** for over 3 seconds.
-

Set clock

- 1 Press **MENU**.
 - 2 Press **▲** or **▼** repeatedly until current time is displayed.
 - 3 Turn **⏻** to set hour.
 - 4 Press **⏻** to confirm.
 - 5 Turn **⏻** to set minute.
 - 6 Press **⏻** to confirm.
-

View clock

- 1 Press and hold **CLOCK** until the clock is displayed.

4 Listen to radio

Select tuner region

You can select suitable country/region of the radio.

- 1 Press **SOURCE** to select radio mode.
 - 2 Press **MENU** repeatedly to select region.
 - 3 Rotate **⏻** to select:
 - **[USA]**
 - **[LATIN]**
 - **[Europe]**
 - **[ASIA]**
 - **[M-EAST]**
 - **[RUSSIA]**
-

Select tuner sensitivity

To receive more radio stations or only stations with strong signal, you can adjust the tuner sensitivity.

- 1 Press **OPTIONS** repeatedly until **[LOCAL]** is displayed.
 - 2 Rotate **⏻** to select a setting:
 - **[LOCAL SEEK ON]**: Only stations with strong signal can be broadcast.
 - **[LOCAL SEEK OFF]**: Stations with strong and weak signals can be broadcast.
-

Listen to FM/AM radio

Tune to a radio station

- 1 Press **SOURCE** repeatedly to select Tuner.
- 2 Press **▲** or **▼** to select band: **[FM1]**, **[FM2]**, **[FM3]**, **[AM1]**, or **[AM2]**.

- 3 Press **◀** or **▶** to tune to a radio station manually.
 - ↳ The radio station is broadcast.
 - ↳ To search for a radio station automatically, press **◀** or **▶** for over 3 seconds.

Store radio stations in memory

You can store up to 10 stations in each band.

Store stations automatically

- 1 Press **OPTIONS** repeatedly until **[AUTO-STORE]** displays.
- 2 Press **⊕** to confirm.
 - ↳ The 10 strongest stations of the selected band are saved in preset channel automatically.

Store stations manually

- 1 Tune to a station that you want to store. (see 'Tune to a radio station' on page 16)
- 2
 - For preset 1 to preset 4, press and hold button **1** to **4** to store the corresponding station.
 - For preset 5 to 10, press and hold button **5+** and rotate **⊕** to select a number (1-10) for the preset.
- 3 Press **⊕** to confirm.
 - ↳ The station is saved in the selected channel.
 - ↳ The preset number lights up on the LCD screen.

Tune to a preset station

- 1 Press **▲** or **▼** to select band.
- 2 Press **5+** and rotate **⊕** to select the preset number.
- 3 Press **⊕** to confirm the selection.

Play with RDS

The RDS (Radio Data System) function operates only in areas with FM stations broadcasting RDS signals. If you tune to an RDS station, an RDS icon and information about the presenter, station or program is displayed.

Turn on RDS



Note

- The default setting for RDS is on.

- 1 Press **MENU**.
- 2 Press **▲/▼** repeatedly until **[RDS]** displays.
- 3 Rotate **⊕** to select option:
 - **[RDS ON]**: The RDS function is turned on.
 - **[RDS OFF]**: The RDS function is turned off.

Select program type

Before tuning to RDS stations, you can select program type and let the unit search only for programs of the selected category.

- 1 Press **OPTIONS** until **[PTY SCH]** is displayed.
- 2 Turn **⊕** to select a type, then press **⊕** to confirm.

Item	Program type	Description
1	NEWS	News services
2	AFFAIRS	Politics and current affairs
3	INFO	Special information programs
4	SPORT	Sports
5	EDUCATE	Education and advanced training
6	DRAMA	Radio plays and literature
7	CULTURE	Culture, religion and society
8	SCIENCE	Science
9	VARIED	Entertainment programs
10	POP M	Pop music
11	ROCK M	Rock music
12	EASY M	Light music
13	LIGHT M	Light classical music
14	CLASSICS	Classical music
15	OTHER M	Special music programs
16	WEATHER	Weather
17	FINANCE	Finance
18	CHILDREN	Children's programs
19	SOCIAL	Social Affairs
20	RELIGION	Religion
21	PHONE IN	Phone In
22	TRAVEL	Travel
23	LEISURE	Leisure
24	JAZZ	Jazz Music
25	COUNTRY	Country Music

Item	Program type	Description
26	NATION M	National Music
27	OLDIES	Oldies Music
28	FOLK M	Folk Music
29	DOCUMENT	Documentary
30	TEST	Alarm Test
31	ALARM	Alarm

Select alternate frequencies

If the radio signal come from the current station is poor, you can turn on the AF (Alternate Frequency) function to let the unit searches for another station with stronger signal but with the same program identification as the current station automatically.

- 1 Press **MENU**.
- 2 Press **▲** or **▼** repeatedly until **[AF]** is displayed.
- 3 Rotate **⊕** to select a setting:
 - **[AF ON]**: Turn on the AF mode.
 - **[AF OFF]**: Turn off the AF mode.

Set region for AF tuning

You can define AF tuning region:

- | | |
|------------------|--|
| [REG ON] | Only stations in current region can be tuned to automatically. |
| [REG OFF] | All stations can be tuned to automatically. |

- 1 Press **MENU**.
- 2 Press **▲** or **▼** repeatedly until **[REG]** (Regional Radio) is displayed.
- 3 Rotate **⊕** to select a setting.

Receive traffic announcement

If you do not want to miss traffic announcement when enjoying music, turn on the TA (Traffic Announcement) function.

- 1 Press **MENU** or **OPTIONS**.
- 2 Press **▲** or **▼** repeatedly until **[TA]** is displayed.
- 3 Rotate **⊕** to select a setting:
 - **[TA ON]**: When there is traffic announcement, the unit switches to the tuner mode (regardless of the current mode) and begins to broadcast the traffic conditions. When the traffic announcement is over, it returns to the previous mode.
 - **[TA OFF]**: Traffic announcement does not cut in.

Set RDS clock

You can use time signal that is broadcast together with the RDS signal to set the clock of the unit automatically.

- 1 Press **MENU**.
- 2 Press **▲** or **▼** repeatedly until **[CT]** is displayed.
- 3 Rotate **⊕** to select a setting:
 - **[CT ON]**: Turn on the RDS clock. Time shown on the unit synchronizes with that on the RDS station.
 - **[CT OFF]**: Turn off the RDS clock.

 **Tip**

- The accuracy of the transmitted time depends on the RDS station that transmits the time signal.

Listen to Digital Audio Broadcasts (DAB)

Digital Audio Broadcasting (DAB), is a way of broadcasting radio digitally through a network of transmitters. It provides you with more choice, better sound quality and more information.

For the first time when DAB mode is switched on.

- 1 Press **SOURCE** on the main unit repeatedly to select **DAB/DAB+**.
 - ↳ The system performs auto scan.
 - ↳ All the available DAB stations is stored.
 - ↳ The radio tunes to the first available station.

 **Tip**

- The display shows a rectangle. The position of the rectangle indicates the degree of signal strength. (The further towards the right, the greater the signal strength.)
- If there is no DAB coverage currently available, or DAB signal is too weak in your area, no DAB station will be found, and message like "No Station Found, Scan Again" displays.

Tune to DAB radio station manually

- 1 Under DAB mode, press and hold **◀▶▶▶** to enter manual seek mode.
 - ↳ "MANUAL" blinks on LCD screen.
- 2 Press **◀▶▶▶** repeatedly until the the desired channel/frequency appears.

Scan for new DAB stations

- 1 Under DAB mode, press **MENU** repeatedly until **[DAB SCAN]** is displayed.
- 2 Press **⊕** to confirm.
 - ↳ The system scans for all available DAB radio stations and broadcasts the first station.

 Tip

- New stations and services will be added in the DAB broadcast. To make new DAB stations and services available on your car audio, scan on a regular base.

Store DAB stations automatically

- 1 In DAB mode, press **MENU** to enter the menu options.
- 2 Press **▲** or **▼** repeatedly until **[DAB STORE]** displays.
- 3 Press **⊙** to confirm.
 - ↳ The 20 strongest stations of the selected band are saved in preset channel automatically.

Program DAB radio stations manually

You can program a maximum of 20 preset DAB radio stations.

- 1 Tune to a DAB station.
- 2
 - For preset 1 to preset 4, press and hold button **1** to **4** to store the corresponding station.
 - For preset 5 to 10, press and hold button **5+** and rotate **⊙** to select a number (1-20) for the preset.
- 3 Press **⊙** to confirm.
 - ↳ The station is saved in the selected channel.
 - ↳ The preset number is displayed on the LCD screen.

 Note

- If a DAB station is already stored under a preset location, new DAB station assigned to this location will overwrite the old DAB station.
- DAB station presets will not overwrite FM presets.

Tune to a preset station

- 1 Press **5+** and rotate **⊙** to select the preset number.
- 2 Press **⊙** to confirm the selection.

 Note

- If the Scanned/Preset DAB station signal is not available at particular time/region, **[No]** is displayed.

Display DAB information

On the display of DAB broadcasting, the first line shows station name, and the second line shows the service information for the current station. 6 types of service information are available.

- 1 Tune to a DAB station.
- 2 Press **OPTIONS/CLOCK** repeatedly to scroll through the display information (if available).
 - Multiplex name: Displays the name of the DAB multiplex in which the current station is broadcast.
 - Multiplex info: Displays the channel and frequency of the current DAB multiplex.
 - Program type: Describes the content of the current DAB station.
 - Scrolling text: Information broadcast by most DAB stations (may include song titles, news, etc)
 - Signal Strength: Displays a meter illustrating the strength of the DAB signal 0-100.
 - Signal Quality: Display DAB signal quality, from 0 to 100.

 Tip

- If any information above is selected, when you tune to another DAB station, you can press **OPTIONS/CLOCK** once to display the selected information, no need to scroll through the list.

Weak DAB signal

Select the switch over option when DAB signal is weak.

- 1 In the DAB mode, press **MENU** to enter the menu options.
- 2 Press **▲** or **▼** repeatedly until **[WEAK DAB]** displays.
- 3 Rotate **⊖** to select an option.
 - **[WEAK MUTE]**: When the DAB signal is weak, fade out the DAB audio and mute it until the DAB signal is strong, then the audio will fade in to the original volume level.
 - **[WEAK TO FM]**: When the DAB signal is weak, switch to the last listened FM station. Switch back to DAB when signal is strong.

DAB Dynamic Range Control

DRC adds or removes a degree of compensation for the differences in the dynamic range between radio stations.

- 1 In DAB mode, press **MENU** to enter the menu options.
- 2 Press **▲** or **▼** repeatedly until **[DAB DRC]** displays.
- 3 Rotate **⊖** to select an option.
 - **[DRC Off]**: No compensation applied. (the default)
 - **[DRC Low]**: Medium compensation applied.
 - **[DRC High]**: Maximum compensation applied.

 **Note**

- The best way to determine which of these DRC value settings suits you best is to experiment with them on a variety of source material.

Use DAB menu

- 1 In DAB mode, press **MENU** to enter the menu options.
- 2 Press **▲** or **▼** repeatedly until DAB antenna option displays.
- 3 Rotate **⊖** to select an option.
 - **[ANTENNA OFF]**: Select when using the DAB aerial without the booster.
 - **[ANTENNA 12V]**: Select when using the DAB aerial with the booster (12V).

DAB Sorting

With this option, you can select the way that the station list is arranged.

- 1 In DAB mode, press **MENU** to enter the menu options.
- 2 Press **▲** or **▼** repeatedly until **[DAB SORTING]** displays.
- 3 Rotate **⊖** to select an option.
 - **[SORT ACTIVE]**: Lists active stations first on the station list.
 - **[SORT A-Z]**: Lists all stations in alphanumeric order (0-9, A-Z).
 - **[SORT MULTIPLEX]**: Lists stations in groups according to their multiplex (a group of stations broadcast by the same operator).

You can tune to a DAB station through the sorted DAB station list.

- 1 Under **DAB** mode, press **DISP** once to display the DAB station list.
- 2 Rotate **⊖** to scroll through the DAB station list in the order set above.
- 3 Press **⊖** to switch to the selected DAB station.

5 Play audio files

Note

- Ensure that the disc or device contains playable files.

Play a disc

Note

- You cannot play CDs encoded with copyright protection technologies.

You can play commercially available audio CDs and these discs:

- CD-Recordables (CD-R)
- CD-Re-writables (CD-RW)
- MP3 CDs
- WMA CDs

Note

- Ensure that the disc contains playable content.

- 1 Insert a CD with the printed side facing up.
 - ↳ Play starts automatically.
- To pause CD play, press **⏸**.
- To resume CD play, press **⏸** again.
- To skip to the previous/next track, press **⏮** or **⏭**.
- To search backward/forward rapidly within the current track, press **⏮** or **⏭** for 3 seconds.

Remove the CD

To take out the CD, press **⏏** on the front panel.

Tip

- If the disc is blocked in the disc compartment, press and hold **⏏** until the disc comes out.

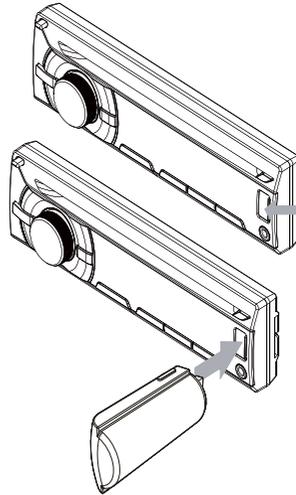
Play from USB

Note

- Ensure that the USB device contains playable music.

Insert the USB device

- 1 Slide the USB socket cover marked **↔** to the left.
- 2 Insert the USB device into the USB socket.
 - ↳ The unit starts playing from the USB device automatically.



Remove the USB device

- 1 Press **⏸** to turn off the unit.
- 2 Remove the USB device.

Search for an MP3/WMA track

Search within the current folder

- 1 Press **SONG**.

↳ The name of the current track is displayed.

2 Rotate \odot to select another track in current folder

3 Press \odot to confirm.

Search in other folder

1 Press **FOLDER**.

↳ The name of the current folder is displayed.

2 Rotate \odot to navigate through all folders.

3 Press \odot to access the selected folder.

4 Rotate \odot to select a track in the folder.

5 Press \odot to start play.



Tip

- To go back to upper level of a folder, press \leftarrow .

View play information

1 During playing, press **DISP** repeatedly to view:

- Track number and elapsed play time
- Artist
- Album
- Title
- Folder
- File

Repeat play

1 During play, press **OPTIONS** repeatedly until **[REPEAT]** displays.

2 Rotate \odot to select a setting.

- **[REPEAT ALL]**: Play all tracks repeatedly.
- **[REPEAT TRK]**: Play current track repeatedly.
- **[REPEAT FLD]**: Play all tracks in the current folder repeatedly.

Shuffle play

You can play the tracks in random order:

1 During play, press **OPTIONS** repeatedly until **[RANDOM]** displays.

2 Rotate \odot to select a setting:

- **[RANDOM OFF]**: Turn off random play.
- **[RANDOM FLD]**: start random play for all tracks in the current folder.
- **[RANDOM ALL]**: start random play for all tracks.

Intro play

You can play the first 10 seconds of each track.

1 During play, press **OPTIONS** repeatedly until **[INTRO]** displays.

2 Rotate \odot to select a setting:

- **[INTRO OFF]**: Cancel intro play and start normal play.
- **[INTRO FLD]**: Start intro play in the current folder.
- **[INTRO ALL]**: Play the first 10 seconds of each track.

Connect external sound source

1 Connect the external sound source to **MP3 LINK** socket with a 3.5 mm cable.

2 Press **SOURCE** repeatedly until **[MP3 LINK]** is displayed.

3 Operate the external component (refer to the instructions supplied with the external component).

6 Adjust sound

Adjust volume

- 1 Turn \odot clockwise/anticlockwise to increase/decrease volume.

Mute

You can turn off the sound of your audio.

- 1 During play, press \odot .
 - To resume sound, press \odot again.

Turn DBB on/off

- 1 Press **DBB**.
 - ↳ The current DBB setting is displayed.
 - ↳ **[DBB ON]** :The Dynamic Bass Boost (DBB) function is on.
 - ↳ **[DBB OFF]** :The DBB function is off.

Select preset equalizer

- 1 Press **EQ/Audio**.
 - ↳ Current Equalizer setting is displayed.
- 2 Press **EQ/Audio** again to select a preset EQ setting:
 - **[OPTIMAL]** (optimal)
 - **[FLAT]** (flat)
 - **[POP]** (pop)
 - **[USER]** (user)
 - **[TECHNO]** (techno)
 - **[ROCK]** (rock)
 - **[CLASSIC]** (classic)
 - **[JAZZ]** (jazz)

Other sound settings

You can also adjust the preset **EQ/Audio** settings.

- 1 Press **EQ/Audio** for 3 seconds.
- 2 Press \blacktriangle or \blacktriangledown repeatedly to select the item to be adjusted:
 - **[BASS LEVEL]**: -7 to +7
 - **[BASS CFQ]** (bass center frequency) range: 60, 80, 100, 200.
 - **[MIDDLE LEVEL]** range:-7 to +7
 - **[MIDDLE CFQ]** (middle center frequency) range: 0.5k, 1.0k, 1.5k, 2.5k.
 - **[TREBLE LEVEL]** range: -7 to +7
 - **[TREBLE CFQ]** (treble center frequency) range: 10.0k, 12.5k, 15.0k, 17.5k.
 - **[BALANCE]** range: 12L to 12R. (L= left speaker; R = right speaker)
 - **[FADER]** range: 12R to 12F. (R = rear speaker; F = front speaker)
 - **[RESUME]**: Resume the preset EQ value to factory default value.
- 3 Rotate \odot to select a value.

7 Adjust system settings

Turn beep sound on/off

Each time you press a button, the unit beeps. You can turn on or off this beep sound.

- 1 Press **MENU**.
- 2 Press **▲** or **▼** repeatedly to until **[BEEP]** is displayed.
- 3 Rotate **⊙** to select a setting:
 - **[BEEP ON]**: Turn on the beep sound.
 - **[BEEP OFF]**: Turn off the beep sound.

Select blackout setting

You can set the screen to turn off automatically after the unit is idle for 10 or 20 seconds.

- 1 Press **MENU**.
- 2 Press **▲** or **▼** repeatedly until **[BLKOUT]** is displayed.
- 3 Rotate **⊙** to select a setting:
 - **[BKO 10 S]**: Turn off the screen automatically 10 seconds after last operation.
 - **[BKO 20 S]**: Turn off the screen automatically 20 seconds after last operation.
 - **[BKO OFF]**: Never turn off the screen.

Dimmer

- 1 Press **MENU**
- 2 Press **▲** or **▼** repeatedly until **[DIMMER]** is displayed.

- 3 Rotate **⊙** to toggle between the settings
 - **[DIMMER Hi]** (dimmer hi)
 - **[DIMMER Lo]** (dimmer low)

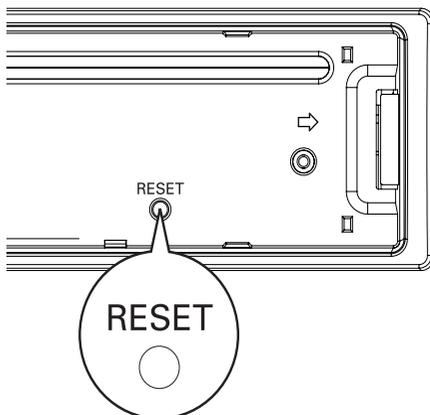
Turn demo mode on/off

- 1 Press **MENU**.
- 2 Press **▲** or **▼** repeatedly until **[DEMO]** is displayed.
 - ↳ The screen shows current Demo mode setting.
- 3 Rotate **⊙** to select a setting:
 - **[DEMO ON]**: Turn on the demo mode. When the unit is idle for more than 10 seconds, all functions are displayed.
 - **[DEMO OFF]**: Turn off the demo mode.

Reset

You can reset the unit to its default setting.

- 1 Detach the front panel.
- 2 Press the reset button by using a ball-point pen or a similar tool.
 - ↳ Preset adjustments such as preset channels and sound adjustments are erased.

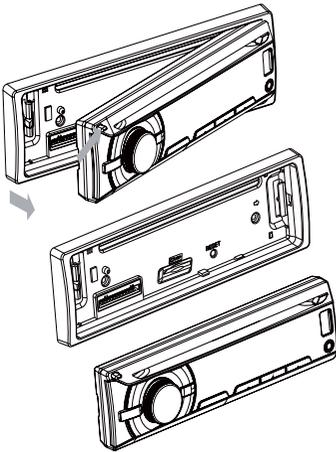


8 Additional information

Detach the front panel

You can detach the front panel to deter theft.

- 1 Press  to release the panel.
- 2 Push the left side of the panel rightward.

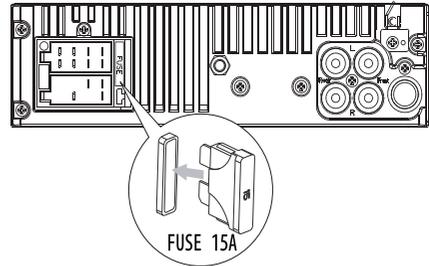


- 3 Pull the panel towards you to disengage it from the chassis.
- 4 Store the panel in the supplied carry case to protect it from dirt or damage.

Replace fuse

If the fuse is damaged,

- 1 Check the electric connection.
- 2 Buy a fuse that matches the voltage of the damaged fuse.
- 3 Replace the fuse.



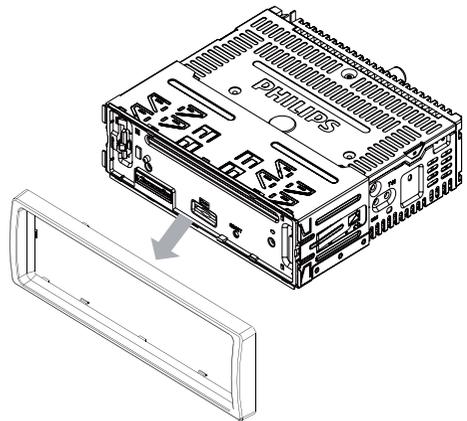
Note

- If the new fuse gets damaged again, there may be an internal malfunction. Consult your Philips dealer.

Remove the unit

You can remove the unit from the dashboard.

- 1 Detach the front panel.
- 2 Pull out the unit by using the disassembly tools.



9 Product information

Note

- Product information is subject to change without prior notice.

Power supply	12 V DC (11 V - 16 V), negative ground
Fuse	15 A
Suitable speaker impedance	4 - 8 Ω
Maximum power output	45 W x 4 channels
Continuous power output	22 W x 4 RMS (4 Ω 10% T.H.D.)
Pre-Amp output voltage	2.5 V
Aux-in level	\geq 500 mV
Dimensions (W x H x D)	188 x 58 x 201 mm
Weight	1.47 kg

Radio

Frequency range - FM	87.5 - 108.0 MHz (100kHz per step in auto search and 50kHz per step in manual search)
Frequency range - AM (MW)	522 - 1620 KHz (9 kHz) 530 - 1710 kHz (10 kHz)
Usable sensitivity - FM	8 μ V
Usable sensitivity - AM (MW) (S/N = 20 dB)	30 μ V

DAB Tuner

Frequency range	174 - 240 MHz
Sensitivity	-100dBm(Band III)
Selectivity	40dB

Compatible USB devices:

- USB flash memory: USB 1.1 host with interface reading all speed support (1.1, 2.0)
- USB flash players: USB 1.1 host with interface reading all speed support (1.1, 2.0)

Supported formats:

- USB or memory file format: FAT16, FAT32
- MP3 bit rate (data rate): 32-320 Kbps and variable bit rate
- WMA V4, V7, V8, V9 (L1, L2)
- ISO9660, Joliet
- Maximum title number: 512 (depending on file name length)
- Maximum album number: 255
- Supported sampling frequencies: 2 kHz, 44.1 kHz, 48 kHz
- Supported Bit-rates: 2~256 (kbps), variable bit rates
- Directory nesting up to a maximum of 8 levels
- Number of albums/ folders: CD maximum 99, USB maximum 199
- Number of tracks/titles: maximum 999
- ID3 tag v2.0 to v2.4
- File name in Unicode UTF8 (maximum length 64 bytes)

Unsupported formats:

- Empty albums: an empty album is an album that does not contain MP3/WMA files, and is not be shown in the display.
- Unsupported file formats are skipped. For example, Word documents (.doc) or MP3 files with extension .dlf are ignored and not played.
- AAC, WAV, PCM audio files
- DRM protected WMA files (.wav, .m4a, .m4p, .mp4, .aac)
- WMA files in Lossless format

10 Troubleshooting



Caution

- Never remove the casing of this apparatus.

To keep the warranty valid, never try to repair the system yourself.

If you encounter problems when using this apparatus, check the following points before requesting service.

No power or no sound.

- Car engine is not on. Turn the car engine on.
- Cable is not correctly connected. Check connections.
- Fuse is burnt. Replace fuse.
- Volume is too low. Adjust volume.
- If the above solutions cannot help, press the RESET button.
- Ensure that the track played is of a compatible format.

Noise in broadcasts.

- Signals are too weak. Select other stations with stronger signals.
- Check the connection of the car antenna.
- Change broadcast from Stereo to mono.

Cannot play disc

- Ensure that the disc label is inserted with the printed side facing up.
- Wipe the disc with fibre cleaning cloth from the centre to the edge in a straight line.
- This disc may be defective. Play another disc.
- Ensure that the CD is a finalised CD/CD-R/CD-RW.
- Ensure that the CD is not encoded with copyright protection technologies.

The CD skips tracks

- Ensure that the CD is not damaged or dirty.
- Ensure that random mode is deactivated.

Disc cannot be ejected

- Press and hold ▲.

Preset stations lost.

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

Display show ERR-12

- USB data error. Check the USB device.

11 Glossary

M

MP3

A file format with a sound data compression system. MP3 is the abbreviation of Motion Picture Experts Group 1 (or MPEG-1) Audio Layer 3. With the MP3 format, one CD-R or CD-RW can contain about 10 times more data than a regular CD.

W

WMA (Windows Media Audio)

An audio format owned by Microsoft, is a part of Microsoft Windows Media technology. Includes Microsoft Digital Rights Management tools, Windows Media Video encoding technology, and Windows Media Audio encoding technology.



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