clarion®

Owner's manual & Installation manual

CZ500A

Bluetooth® CD/USB/MP3/WMA RECEIVER
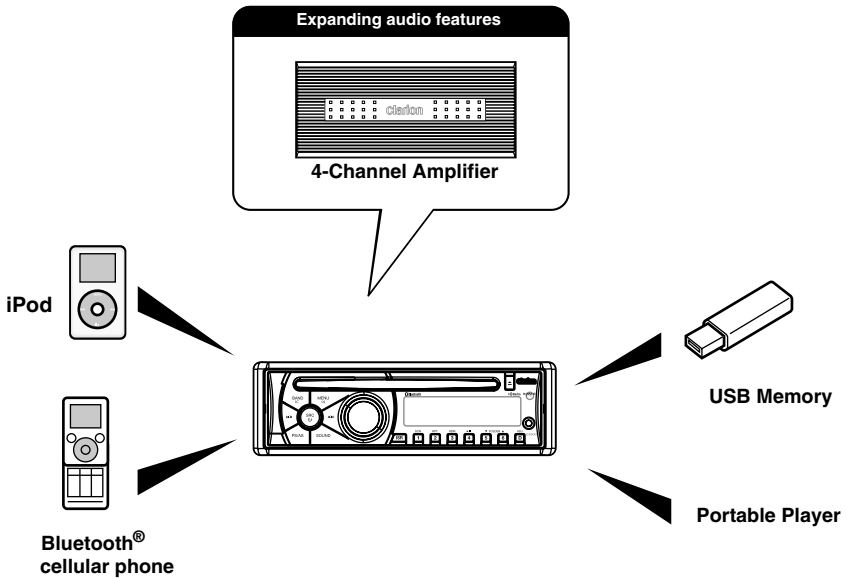
Contents

CZ500A

1. FEATURES

- **Built in Bluetooth handsfree (HFP) and audio streaming (A2DP & AVRCP)**
- **Front USB and SD card available**
- **IR remote controller included**

USB — COMPACT disc DIGITAL AUDIO — MP3 ID3 TAG — Made for iPod

Bluetooth™ — Made for iPhone

Expanding Systems

Expanding audio features

clarion

4-Channel Amplifier

iPod

USB Memory

Portable Player
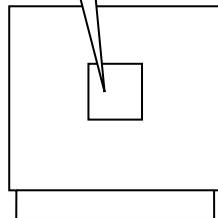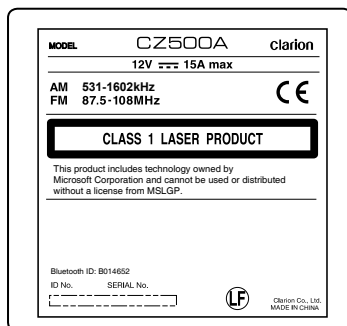
Bluetooth® cellular phone

Note:
The items listed outside of the frames are the commercial products generally sold.

2. PRECAUTIONS

⚠ WARNING

For your safety, the driver should not operate the controls while driving.
Also, while driving, keep the volume to a level at which external sounds can be heard.

1. When the inside of the car is very cold and the player is used soon after switching on the heater, moisture may form on the disc or the optical parts of the player and proper playback may not be possible. If moisture forms on the disc, wipe it off with a soft cloth. If moisture forms on the optical parts of the player, do not use the player for about one hour. The condensation will disappear naturally allowing normal operation.

2. Driving on extremely bumpy roads which cause severe vibration may cause the sound to skip.

3. This unit uses a precision mechanism. Even in the event that trouble arises, never open the case, disassemble the unit, or lubricate the rotating parts.

MODEL	CZ500A	clarion
	12V 15A max	
AM 531-1602kHz FM 87.5-108MHz		C€

CLASS 1 LASER PRODUCT

This product includes technology owned by Microsoft Corporation and cannot be used or distributed without a license from MSLGP.

Bluetooth ID: B014652
ID No.   SERIAL No.
⟪LF⟫   Clarion Co., Ltd.
MADE IN CHINA

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Front Panel / Generalities

For a longer service life, be sure to read the following cautions.

• Do not allow any liquids on the set from drinks, umbrellas, etc. Doing so may damage the internal circuitry.
• Do not disassemble or modify the set in any way. Doing so may result in damage.
• Do not let cigarettes burn the display. Doing so may damage or deform the body.
• If a problem should occur, have the set inspected at your store of purchase.
• The remote control unit may not work if the remote control sensor is exposed to direct sunlight.

Cleaning the body

Use a soft, dry cloth and gently wipe off the dirt.
For tough dirt, apply some neutral detergent diluted in water to a soft cloth, wipe off the dirt gently, then wipe again with a dry cloth.
Do not use benzene, thinner, car cleaner, etc., as these substances may damage the body or cause the paint to peel. Also, leaving rubber or plastic products in contact with the body for long periods of time may cause stains.

Remove the DCP

The control panel can be detached to prevent theft. When detaching the control panel, store it in the DCP (DETACHABLE CONTROL PANEL) case to prevent scratches.
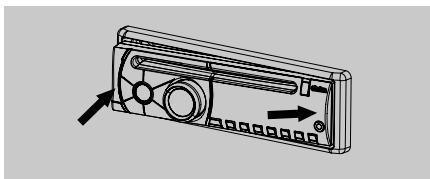We recommend taking the DCP with you when leaving the car.
1. Press the [⏻] button (2 sec.) to turn off the power.
2. Deeply push in [OPEN] button to unlock the DCP.
3. Hold the side popped out, take off the DCP.
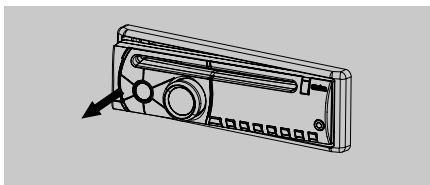
Re-attach the DCP

1. Hold the DCP and ensure that the panel faces towards you. Set the right side of the DCP into the DCP bracket.
2. Press the left side of the DCP until it locks.

Storing the DCP in the DCP Case

Hold the DCP, in the orientation as shown in the figure below, and put it into the supplied DCP case. (Ensure the DCP is in the correct orientation.)

DCP

DCP case
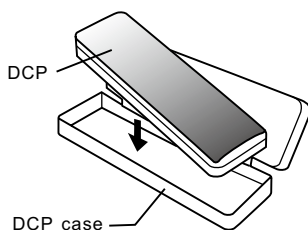
Note:
If the DCP is dirty, wipe off the dirt with a soft, dry cloth only.

⚠ CAUTION

• The DCP can easily be damaged by shocks. After removing it, be carefully not to drop it or subject it to strong shocks.
• If the FLIP DOWN PANEL is kept open, the DCP may drop due to vibration of the car. This results in damage to the DCP. So close the FLIP DOWN PANEL or remove the DCP to store into the case.
• The connector connecting the source unit and the DCP is an extremely important part. Be careful not to damage it by pressing on it with fingernails, screwdrivers, etc.

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3. CONTROLS

Operational Panel

[BAND/ ⌐] [MENU/ ⌐] Disc Slot [▲]

[◄◄ , ►►|] [PS/AS] [SOUND] [ISR] [1~6] AUX Jack

[OPEN] [POWER/SRC] [VOLUME] [ADJ]
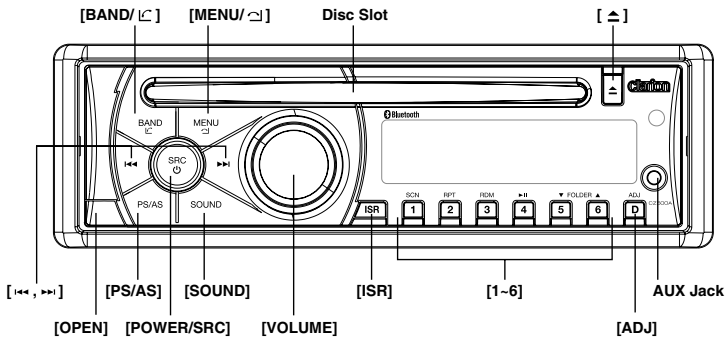
Names of Buttons

[⏻ / SRC] Key
• Power / Toggle the audio source

[BAND / ⌐] Key
• Select tuner band / Dial / Answer

[MENU / ⌐] Key
• System menu / Terminate call

[▲] Key
• Eject the disc in the unit.

[◄◄ , ►►|] Key
• Previous(Next) / Search

[Open] Key
• Unlock the front panel.

[PS / AS] Key
Auto memory store / MP3 search

[SOUND] Key
• Sound effect setting

[VOLUME] Key
• Adjust volume level / Confirm

[ISR] Key
• Traffic announcement

[1~6] Key
• [1] Key: Scan play / Preset station 1.
• [2] Key: Repeat play / Preset station 2.
• [3] Key: Random play / Preset station 3.
• [4] Key: Play / Pause / Preset station 4.
• [5] Key: Previous folder / Preset station 5.
          10 tracks down (long press)
• [6] Key: Next folder / Preset station 6.
          10 tracks up (long press)

[ADJ] Key
• Display switch / System menu

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Remote Control

[POWER/SRC] Key
• POWER / Toggle the audio source

[|◄◄ , ►►|] Key
• Previous(Next) / Search

[SCN/PS/AS] Key
• Scan play / Auto memory store / MP3 search

[BND/DISC UP/TOP] Key
• Select tuner band / Top play

[▲ , ▼] Key
• Tune / MP3/WMA search

[►||] Key
• Play / Pause

[ISR] Key
• Traffic announcement

[DISP] Key
• Display switch

[RDM/TV/VTR] Key
• Random play

[RPT] Key
• Repeat play

[POWER/ SRC]
[|◄◄ , ►►|]
[MUTE]
[SCN/ PS/AS]

SRC
POWER
▲
►||
|◄◄   ►►|
▼
MUTE   ISR   DISP
SCN   RPT   RDM
PS/AS   TV/VTR

BND
DISC UP TOP

[BND/DISC UP/TOP]
[▲ , ▼]
[►||]
[ISR]
[DISP]
[RDM/ TV/VTR]
[RPT]

clarion
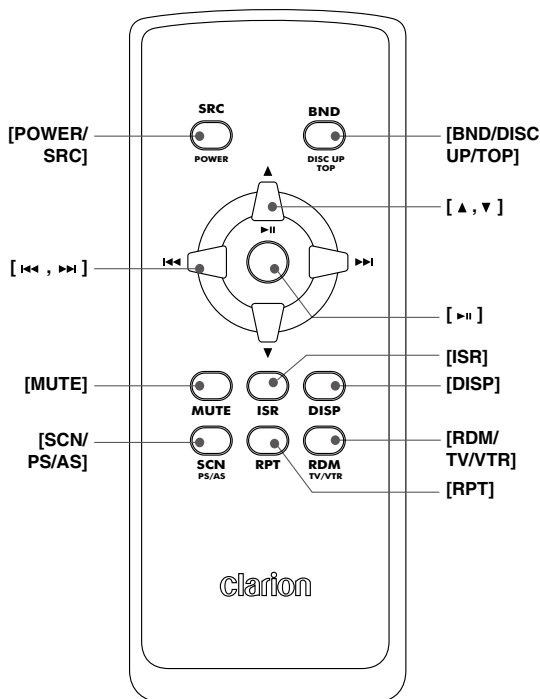
Notes of remote control using

1. Aim the remote control at the remote sensor on the unit.
2. Remove the battery from the remote control or insert a battery insulator if the battery has not been used for a month or longer.
3. DO NOT store the remote control under direct sunlight or in high temperature environment, or it may not function properly.
4. The battery can work for 6 months under normal condition. If the remote control can't work, please change the battery.
5. Use "button shaped" lithium battery "CR2025" (3V) only.
6. DO NOT recharge, disassemble, heat or expose the battery in fire.

7. Insert the battery in proper direction according to the (+) and (-) poles.
8. Store the battery in a place where children cannot reach to avoid the risk of accident.
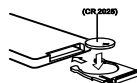
Uninstall Battery

Pull out the battery holder while pressing the stopper.
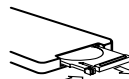
Install Battery

Insert the button-type battery with the stamped(+) mark facing upward.
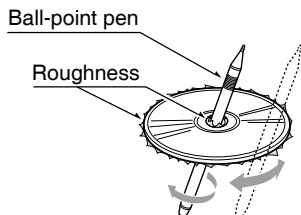Insert the battery holder into the remote control.

(CR 2025)

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4. CAUTIONS ON HANDLING

Handling Discs

Handling

- New discs may have some roughness around the edges. If such discs are used, the player may not work or the sound may skip. Use a ball-point pen or the like to remove any roughness from the edge of the disc.

Ball-point pen

Roughness

- Never stick labels on the surface of the disc or mark the surface with a pencil or pen.
- Never play a disc with any cellophane tape or other glue on it or with peeling off marks. If you try to play such a disc, you may not be able to get it back out of the player or it may damage the player.
- Do not use discs that have large scratches, are misshapen, cracked, etc. Use of such discs may cause misoperation or damage.
- To remove a disc from its storage case, press down on the center of the case and lift the disc out, holding it carefully by the edges.
- Do not use commercially available disc protection sheets or discs equipped with stabilizers, etc. These may damage the disc or cause breakdown of the internal mechanism.

Storage

- Do not expose discs to direct sunlight or any heat source.
- Do not expose discs to excess humidity or dust.
- Do not expose discs to direct heat from heaters.

Cleaning

- To remove fingermarks and dust, use a soft cloth and wipe in a straight line from the center of the disc to the circumference.
- Do not use any solvents, such as commercially available cleaners, anti-static spray, or thinner to clean discs.
- After using special disc cleaner, let the disc dry off well before playing it.

On Discs

- Exercise a good precaution when loading a disc. The operation panel will close automatically when leaving it open for a while.
- Never turn off the power and remove the unit from the car with a disc loaded.

⚠ CAUTION

For your safety, the driver should not insert or eject a disc, opening the operation panel while driving.

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5. OPERATIONS

Basic Operations

Note:
• Be sure to read this chapter referring to the chapter "3. CONTROLS"

> **⚠ CAUTION**
>
> **When the unit is turned on, starting and stopping the engine with its volume raised to the maximum level may harm your hearings.**
> **Be careful about adjusting the volume.**

Power on / off

Notes:
• Start the engine before using this unit.
• Be careful about using this unit for a long time without running the engine. If you drain the car's battery too far, you may not be able to start the engine and this can reduce the service life of the battery.
1. Start the engine. The power button / knob illumination on the unit will light up.

Engine ON position

2. Press the [⏻] key on the front panel or [**POWER**] key on the remote control to turn on the power under standby mode. The unit goes back to the last status after power on.
3. Press and hold the [⏻] key on the front panel or press the [**POWER**] key on the remote control to turn off the power under work mode.

CT (Clock Time) display
• The displayed clock data is based on the CT (clock time) data in the RDS signal.

Mute

Press the [**MUTE**] key on the remote control to mute the volume from the unit.
Note:
Doing the operation above again or adjusting volume will release muting.

Volume adjustment

Turn the volume knob on the front panel or press the [▲ , ▼] key on the remote control. The adjustable range of volume is 0 to 40.

> **⚠ CAUTION**
>
> **While driving, keep the volume level at which external sounds can be heard.**

Playing source selection

Press [**SRC**] key on the front panel and remote control repeatedly to choose desired playing source.

Notes:
1. Playing source selection means selecting work mode, such as DISC mode, Radio mode, Aux mode, etc.
2. When some devices are not ready, they cannot be selected.

Display system time

Press the [**ADJ**] key on the front panel or [**DISP**] key on the remote control to switch the display information between RDS information, system time and playing source.

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Radio Operations

Select tuner as playing source

Press [**SRC**] button once or more to enter radio mode.

Select one radio band

Press the [**BAND**] key on the panel or [**BND**] key on the remote control to select one radio band among FM1, FM2, FM3, MW1 and MW2.

Manual tuning

During manual tuning, the frequency will be changed in steps.
Press the [▶▶|]/[|◀◀] key on the panel or remote control to tune in a higher / lower station.

Auto tuning

Press and hold the [▶▶|]/[|◀◀] key on the panel or remote control to seek a higher / lower station.
To stop searching, repeat the operation above or press other keys having radio functions.

Note:

When a station is received, searching stops and the station is played.
If the unit receives a stereo broadcasting, the indicator light of stereo 'ST' on the LCD display will be lighted.

Auto save

Only stations with sufficient signal strength will be detected and stored in the memory.
Press and hold the [**PS/AS**] (2 sec.) to start automatic station search.
To stop auto save, press other keys having radio functions.

Notes:

1. After auto save, the previous saved stations will be overwritten.
2. The unit has 5 bands, such as FM1, FM2, FM3, MW1, MW2 and each band can store 6 stations; hence CZ500 can store 30 stations in total.
3. During automatic station search, the detected 6 stations will be stored only to FM3 band.

Manual save

When one expected radio station has been detected, press and hold number key 1~6 to save it in the memory.

Recall the stored stations

Press one numeric key among 1 to 6 on the panel or on the remote control to select the corresponding stored station.

Local seeking

When LOCAL seeking is on, only those radio stations with strong radio signal could be received.
To open or close LOCAL function, press and hold the [**ADJ**] key on the front panel, then press [▶▶|] key repeatedly until LO or DX displays on the screen, rotate the knob to select Local or Distant mode.

Note:

The number of radio stations that can be received will decrease after the local seeking mode is on.

HD Radio

After connect to HD radio box, [HD] lights up on the screen.
Press [MENU] key and rotate the knob to choose PTY or SUB-CH. Press the knob to confirm selection.

CD/MP3/WMA Operations

This unit can play back MP3/WMA files

📝 Notes:

• If you play a file with DRM (Digital Rights Management) for WMA remaining ON, no audio is output (The WMA indicator blinks).

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

To disable DRM (Digital Rights Management)

When using Windows Media Player 9/10/11, click on TOOL OPTIONS MUSIC RECORD tab, then under Recording settings, unclick the Check box for RECORD PROTECTED MUSIC. Then, reconstruct files.

Personally constructed WMA files are used at your own responsibility.

Precautions when creating MP3/WMA file

Usable sampling rates and bit rates

1. MP3: Sampling rate 8 kHz-48 kHz, Bit rate 8 kbps-320 kbps / VBR
2. WMA: Bit rate 8 kbps-320 kbps

File extensions

1. Always add a file extension ".MP3", ".WMA" or ".M4A" to MP3, WMA file by using single byte letters. If you add a file extension other than specified or forget to add the file extension, the file cannot be played.
2. Files without MP3/WMA data will not play. The files will be played soundlessly if you attempt to play files without MP3/WMA data.
   * When VBR files are played, the play time display may differ the play location.
   * When MP3/WMA files are played, a little no sound part is caused between tunes.

Logical format (File system)

1. When writing MP3/WMA file on a CD-R disc or CD-RW disc, please select "ISO9660 level 1, 2 or JOLIET or Romeo" or APPLE ISO as the writing software format. Normal play may not be possible if the disc is recorded on another format.

2. The folder name and file name can be displayed as the title during MP3/WMA play but the title must be within 64 single byte alphabetical letters and numerals (including an extension).
3. Do not affix a name to a file inside a folder having the same name.

Folder structure

A disc with a folder having more than 8 hierarchical levels will be impossible.

Number of files or folders

1. Up to 999 files can be recognized per folder.
   Up to 65535 files can be played.
2. Tracks are played in the order that they were recorded onto a disc. (Tracks might not always be played in the order displayed on the PC.)
3. Some noise may occur depending on the type of encoder software used while recording.

Backup Eject function

Just pressing the [⏏] button, ejects the disc even if the power to the unit was not turned on.

Notes:

• If you force a CD into before auto reloading, this can damage the CD.
• If a CD (12 cm) is left in the ejected position for 15 seconds, the CD is automatically reloaded (Auto reload).

Listening to a disc already loaded in the unit

Press the [**SRC**] button to select the CD/MP3/WMA mode.

When the unit enters the CD/MP3/WMA mode, play starts automatically.

If there is no disc loaded, the indication "**NO DISC**" appears in the title display.

Loading a CD

Insert a CD into the center of the CD SLOT with the labeled side facing up. The CD plays automatically after loading.

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CD/MP3/WMA Operations

Notes:
- Never insert foreign objects into the CD SLOT.
- If the CD is not inserted easily, there may be another CD in the mechanism or the unit may require service.
- Discs not bearing the disc or disc mark and CD-ROMs cannot be played by this unit.
- Some CDs recorded in CD-R/CD-RW mode may not be usable.

Pausing play
1. Press the [**4** / ►❚❚] button to pause play. "PAUSE" appears in the display.
2. To resume CD play, press the [**4** / ►❚❚] button again.

Displaying CD titles
This unit can display title data for CD-text/MP3/WMA disc and user titles input with this unit.
Each time you press the [**BAND**] button to change the title display.

CD-TEXT disc
User > Track > Disc/Artist > User...

MP3/WMA disc
Track > Folder > Title/Album > Artist > Track ...

Notes:
- If the CD playing is not a CD-text CD or no user title has been input, "NO TITLE" appears in the display.
- If MP3/WMA disc is not input TAG, "NO TITLE" appears in the display.
- Only ASCII characters can be displayed in Tags.

Selecting a track
Track-up
1. Press the [►►❘] button to move ahead to the beginning of the next track.
2. Each time you press the [►►❘] button, the track advances ahead to the beginning of the next track.

3. Press and hold the [**6**] button to move ahead to +10 tracks.

Track-down
1. Press the [❘◄◄] button to move back to the beginning of the current track.
2. Press the [❘◄◄] button twice to move back to the beginning of the previous track.
3. Press and hold the [**5**] button to move back to -10 tracks.

Fast-forward/Fast-reverse
Fast-forward
Press and hold the [►►❘] button .
Fast-reverse
Press and hold the [►►❘] button .
* For MP3/WMA discs, it takes some time until the start of searching and between tracks. In addition, the playing time may have a margin of error.

Folder Select
This function allows you to select a folder containing MP3/WMA files and start playing from the first track in the folder.
1. Press the [**5**] or [**6**] button.
   Press the [**6**] button to move the next folder. Press the [**5**] button to move the previous folder.
2. To select a track, press the [❘◄◄] or [►►❘] button.

Top function
The top function resets the CD player to the first track of the disc. Press [**TOP**] button on the remote to play the first track (track No. 1) on the disc.
* In case of MP3/WMA, the first track of a folder being played will be returned.

Other various play functions
Scan play
This function allows you to locate and play the first 10 seconds of all the tracks recorded on a disc.
Press the [**SCN**] button to perform scan play.

CD/MP3/WMA Operations

Repeat play
This function allows you to play the current track repeatedly or play a track currently being played in the MP3/WMA folder repeatedly.
1. Press the [**RPT**] button once or more until [**RPT TRK**] appears on the LCD to perform repeat play.
2. Press [**RPT**] button repeatedly until [**RPT FOLD**] appears on the LCD for folder repeat play.

3. Press [**RPT**] button repeatedly until [**RPT OFF**] appears on the LCD to cancel repeat playback.

Random play
This function allows you to play all tracks recorded on a disc in a random order.
Press the [**RDM**] button to perform random play.

USB Operations

1. Insert a USB device into the USB connector.
   When connecting a USB device, the unit will read the files automatically.
2. To remove the USB device, you should first select another source, in order to avoid damaging the USB device. Then take off the USB device.
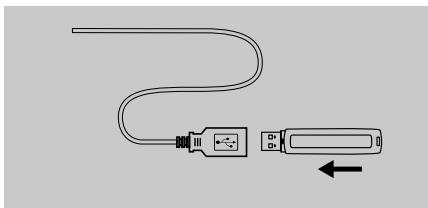
AUX Operations

Press [**SRC**] button on the panel or remote control to select AUX.
AUX is just for Audio content with 3.5mm Jack connector plugged into audio-in socket on the front panel.

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Bluetooth Operations

The Bluetooth allows you to utilize your car's built-in audio system for wireless mobile phone or music handsfree communication. Some Bluetooth mobile phones have the audio features, and some portable audio players support Bluetooth feature. This system can play audio data stored in a Bluetooth audio device. The car stereo with Bluetooth installed will be able to retrieve phonebook contacts, received call, dialed call, missed call, incoming calls, outgoing call and listen to music.

Notes:
• Do not leave the microphone of Bluetooth handsfree in the places with wind passing such as air outlet of the air conditioner, etc. This may cause a malfunction.
• If leave it in the places subjected to direct sun, high temperature can cause distortion, discoloration which may result in a malfunction.
• This system will not operate or may operate improperly with some Bluetooth audio players.
• Clarion cannot guarantee the compatibility of all mobile phones together with CZ500.
• Audio playback will be set to the same volume level as set during telephone call. This might cause problems, if extreme volume level is set during telephone call.

Handsfree Operations
Pairing
1. Turn on Bluetooth function of your mobile phone.
2. Enter mobile phone's Bluetooth setup menu.
3. Search for new Buetooth devices.
4. Select CEM250 BTROM from the pairing list on the mobile phone.
5. Enter "0000" as the password.

Disconnecting
If you want to disconnect the Bluetooth from the phone, press [**SRC**] for more than 2 seconds.

Reconnecting
Press [**SRC**] button for more than 2 seconds to reconnect manually.

Make a call
Direct Number Call
Press the [⌞] button to select DIAL NUM.
1. Use number buttons on the remote control or rotate and press the volume knob to select phone number.
   • Press [⏮] / [⏭] to change digit position.
   • Press [⌐] button to reset entered number.
2. Press [⌐] to dial out.

Operation from Bluetooth menu
Press the [**SRC**] button to switch the source to "**BT MUSIC**". Press MENU button to select a way to make outgoing call:

• Dial Number
Same operation as "Direct Number Call".

• Dialled/Missed/ Received Call History
You can search any Dialled/Missed/Received Call History.
1. Rotate the knob to select "**DIALLED**", "**MISSED**" or "**RECEIVED**".
2. Press the volume knob to enter the selected call history.
3. Use the [▼] / [▲] buttons on the remote control or rotate the volume knob to scroll the contacts.
4. When the contact name or mobile phone No. is displayed, press the [⌞] button to call the mobile phone No. of that contact.
   * Press the [⌐] button to end the call.

• Call from Phonebook
User can search the contact name in the phonebook and make call.
1. Rotate the knob to select "SIM PHONE BOOK", "MEMORY PHONE BOOK" or "TETEPHONE BOOK" .
2. Press the volume knob to enter the selected phonebook.
3. Use the [▼] / [▲] buttons on the remote control or rotate the volume knob to scroll

Bluetooth Operations

the contacts.
4. When the contact name is displayed, press the [☎] button to call the mobile phone No. of that contact.
   * Press the [☎] button to end the call.

• Answering a call
1. You can answer an incoming call by pressing the [☎] button.
   * Press the [☎] button to reject an incoming call.

Audio Streaming Operations
What is audio streaming?

Audio streaming is a technique for transferring audio data such that it can be processed as a steady and continuous stream. Users can stream music from their external audio player to their car stereo wirelessly and listen to the tracks through the car's speakers. Please consult your nearest Clarion dealer for more information on the product of wireless audio streaming transmitter offered.

⚠ CAUTION

Please avoid operating your connected mobile phone while audio streaming as this may cause noise or sound choppy on the song playback.
**Audio streaming may or may not resume after telephone interrupt as this is dependent on mobile phone.**
**System will always return to Radio mode if audio streaming is disconnected.**

Note:
Be sure to read the chapter "Pairing before proceeding.

Play / Pause a track
1. Push the [**4** / ▶❙❙] button to pause audio playback.
2. To resume audio playback, push the [**4** / ▶❙❙] knob again.

Selecting a track
Track-up
1. Press the [▶▶❙] button to move to the beginning of the next track.
2. Each time the [▶▶❙] button is pressed, playback proceeds to another track in the advancing direction.

Track-down
1. Press the [❙◀◀] button to move the to beginning of the previous track.
2. Each time the [❙◀◀] button is pressed, playback proceeds to previous track in the reverse direction.

Note:
Playing order will depend on Bluetooth® audio player. When [❙◀◀] button is pressed, some A2DP devices will restart the current track depends on the duration of playback.
During music streaming playback, "**A2DP**" will be shown on the display. Information about tracks (e.g. the elapsed playtime, song title, etc.) cannot be displayed on this unit. When A2DP device is disconnected, "**BT DISCONNECT**" will be shown on the display and return to previously selected audio source. Some Bluetooth® audio players may not have play / pause synchronized with this unit. Please make sure both device and main unit are in the same play / pause status in BT MUSIC mode.

Audio Setup

Press the **[SOUND]** key to enter sound effect setting mode. First Press shows current EQ. Rotate the volume knob to changes BEAT EQ in this order:
OFF -> B-BOOST -> IMPACT -> EXCITE -> CUSTOM

Press the **[SOUND]** key, then press [I◄◄ , ►►I] to select USER preset including:
BALANCE -> FADER -> M-B EX -> LPF(low pass filter) -> SUBW VOL, rotate the volume knob to select a value.

System Setup

At radio mode, press and hold [**ADJ]** button to enter system MENU. Press [I◄◄ , ►►I] to select options, rotate the volume knob to adjust.

LANGUAGE
Rotate the knob to choose display language.

DX/LO
Rotate the knob to choose radio local or distant.
LO: Only stations with strong signal can be broadcast.
DX: Stations with strong and weak signals can be broadcast.

SCRN SVR: ON/OFF
Rotate the knob to choose screen saver on or off.

ROLL: ON/OFF
For track information that is longer than the display panel:
When ROLL is ON, the LCD will display ID3 TAG information cyclely, e.g: TRACK->FOLDER->FILE->ALBUM->TITLE->ARTIST->TRACK->...
When ROLL is OFF, the LCD will display one of the ID3 TAG information, the default is TRACK, but user can adjust it to other ID3 TAG information by press DISP.

DIMMER: ON/OFF
Rotate the knob to choose dimmer on or off.

BEEP: ON/OFF
Rotate the knob to choose button beep sound on or off.

12/24H
Rotate the knob to choose time format 12 or 24 HOURS mode.

BT MENU
At BT mode, press and hold [**ADJ]** button to enter BT MENU. Press [I◄◄ , ►►I] to select options, rotate the volume knob to adjust.

RING VOL
Rotate the knob to choose ring volume.

AUTO CON
Rotate the knob to choose connect automatically or not.

PIN CODE
Rotate and press the knob to choose a 4-digit password. Press the knob more than 2 seconds to confirm.

6. TROUBLESHOOTING

GENERAL

Problem	Cause	Measure
Unit can not power on	Unit fuse blown.	Install new fuse with correct rating.
	Car battery fuse blown.	Install new fuse with correct rating.
Unit can not power on Nothing happens when buttons are pressed. Display is not accurate.	Illegal operation	Turn off the power, then press the [OPEN] button and remove the DCP. Press the reset button with a thin rod. **Note:** When the Reset button is pressed, turn off the ACC power. * When the Reset button is pressed, frequencies of radio stations, titles, etc. stored in memory are cleared.
Remote control does not work	Battery depleted.	Change the battery.
	Battery installed incorrectly.	Install the battery correctly.
No/low audio output	Improper audio output connection.	Check wiring and correct.
	Volume set too low.	Increase volume level.
	Speakers damaged.	Replace speakers.
	Heavily biased volume balance.	Adjust the channel balance to center position.
	Speaker wiring is in contact with metal part of car.	Insulate all speaker wiring connections.
Poor sound quality or distortion	Piratic disc is in use.	Use original disc.
	Speaker power rating does not match unit.	Replace speakers.
	Wrong connections.	Check wiring and correct.
	Speaker is shorted.	Check wiring and correct.
Unit resets itself when engine is off	Incorrect connection between ACC and BATT.	Check wiring and correct.

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USB Devices

Problem	Cause	Measure
USB device cannot be inserted.	The USB device has been inserted with wrong direction.	Reversing the connection direction of the USB device, try it again.
	The USB connector is broken.	Replace with a new USB device.
USB device is not recognized.	The USB device is damaged.	Disconnect the USB device and reconnect. If the device is still not recognized, try replacing with a different USB device.
	Connectors are loose.	
No sound heard with the display "**No File**" shown.	No MP3/WMA file is stored in the USB device.	Store these files properly in the USB device.
Sound skips or is noisy.	MP3/WMA files are not encoded properly.	Use MP3/WMA files encoded properly.
The iPod's video image is disturbed.	The TV Signal setting of the iPod is not set correctly.	Set the TV Signal setting (NTSC/PAL) of the iPod correctly.

7. SPECIFICATIONS

FM Tuner

Frequency range: 87.5-108.0MHz (Europe)
Usable sensitivity: 8dBµ
Frequency response: 30Hz-15kHz
Stereo separation: 30dB(1kHz)
Signal/noise ratio: >55dB

AM Tuner

Frequency range: 531-1602kHz
Usable sensitivity (S/N=20dB): 30dBµ

CD

System: Disc digital audio system
Frequency response: 20Hz-20kHz
Signal/noise ratio: >75dB
Total harmonic distortion: Less than 0.1% (1kHz)
Channel separation: >60dB

MP3/WMA mode

MP3 sampling rate: 8 kHz to 48 kHz
MP3 bit rate: 8 kbps to 320 kbps / VBR
WMA bit rate: 8 kbps to 320 kbps
Logical format: ISO9660 level 1,2
                Joliet or Romeo file system

USB

Specification: USB 1.0/2.0
Playable audio format:
    MP3(.mp3): MPEG 1/2/Audio Layer-3
    WMA(.wma): Ver 7/8/9.1/9.2

Bluetooth

Specification: Bluetooth Ver. 2.0
Profile: HFP (Hands-Free Profile)
        OPP (Object Push Profile)
        A2DP (Advanced Audio Distribution Profile)
Send/Receive Sensitivity: Class 2

Audio Amplifier

Maximum power output:
    160W (40W x 4)
Output Power:
    4 x 22W (DIN 45324, +B=14.4V)
Speaker impedance: 4Ω (4 to 8 Ω allowable)

Input

Audio input sensitivity:
    High: 0.65 V (at 2V output)
    Mid: 1.3V (at 2V output)
    Low: 2.0V (at 2V output)
    (input impedance 10 kΩ or greater)
Aux-in level: $\geqslant$500mV

General

Power supply voltage:
    14.4VDC (10.8 to 15.6V allowable),
    negative ground
Pre-Amp output voltage:
    2.0V (CD play mode: 1kHz, 0dB, 10kΩ load)
Fuse: 15A
Dimensions of the Main Unit:
    188mm Width × 58mm Height × 190mm Depth
Weight of the Main Unit: 1.42kg
Dimensions of the Remote Control unit:
    52.5mm Width × 7.8mm Height × 115.5mm Depth
Weight of the Remote Control Unit:
    36g (including battery)
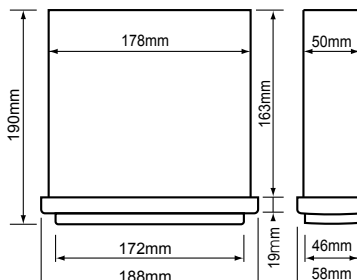
Notes:
- Specifications comply with JEITA Standards.
- Specifications and design are subject to change without notice for further improvement.

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8. INSTALLATION / WIRE CONNECTION GUIDE

CONTENTS

1) Before Starting

1. This set is exclusively for use in cars with a negative ground 12 V power supply.
2. Read these instructions carefully.
3. Be sure to disconnect the battery" "terminal before starting. This is to prevent short circuit during installation. (Figure 1)
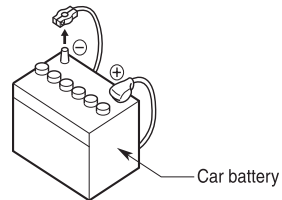

Car battery

Figure 1

2) Package Contents

Source unit 1
Front panel 1
Trim plate.. 1
Owner's manual.. 1
Screws M5x6 mm 4
L-key... 2
Rubber cushion 1
Wire connector 1
Remote control unit (with battery)................. 1
DCP case 1
Microphone... 1

3) General Cautions

1. Do not open the case. There are no user- serviceable parts inside. If you drop anything into the unit during installation, consult your dealer or an authorized Clarion service center.

2. Use a soft, dry cloth to clean the case. Never use a rough cloth, thinner, benzine, or alcohol etc. For tough dirt, apply a little cold or warm water to a soft cloth and wipe off the dirt gently.

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4) Cautions on Installation

1. Prepare all articles necessary for installing the source unit before starting.
2. Install the unit within 30° of the horizontal plane. (Figure 2)
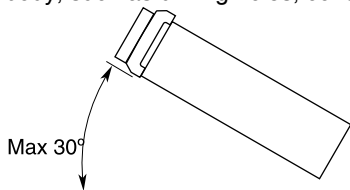3. If you have to do any work on the car body, such as drilling holes, consult your car dealer beforehand.
4. Use the enclosed screws for installation.
   Using other screws can cause damage.
   (Figure 3)

Max 30°

Figure 2

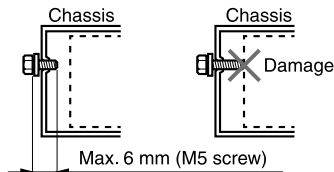Chassis   Chassis

Damage

Max. 6 mm (M5 screw)

Figure 3

5) Installing the Source Unit

1. Place the mounting bracket into the instrument panel, use a screwdriver to bend each stopper of the universal mounting bracket inward, then secure the stopper.
2. Wire as shown in Section 7) .
3. Insert the source unit into the mounting bracket until it locks.
4. Take care of the top and bottom of the outer escutcheon and mount it so that all the hooks are locked.

Notes:
1. Some car models require special mounting kits for proper installation.
   Consult your Clarion dealer for details.
2. Fasten the front stopper securely to prevent the source unit from coming loose.

• Console opening dimensions

7-3/16″
(182 mm)

Hole

2-1/8″
53 mm

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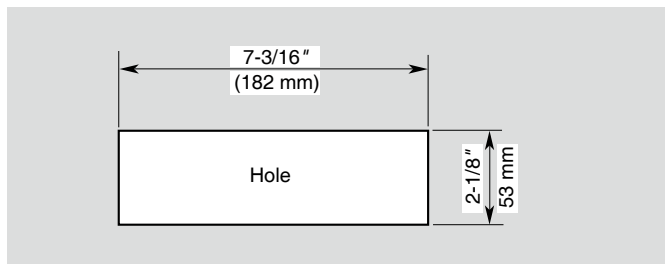
Notes of installation

1. Before installation, please make sure proper connections are conducted and the unit operates normally. Improper connection may result in damage to the unit.
2. Use only accessories designed and manufactured for this unit and other unauthorized accessories may result in damage to the unit.
3. Before installation, please fasten all power cables.
4. DO NOT install the unit in the place where close to hot area to prevent damage to electrical components such as the laser head.
5. Install the unit horizontally. Installing the unit more than 30 degree vertically may result in worse performance.
6. To prevent electric spark, connect the positive pole first and then the negative pole.
7. DO NOT block the cooling fan exit to ensure sufficient heating dissipation of this unit, or it may result in damage to this unit.

Unit Installation
Method A

1. Insert mounting bracket into dash board, choose appropriate mounting tab according to the gap width, bending the mounting tab outwards with a screwdriver to fix the mounting bracket in place.

2. Screw in 1 piece of M4×42 to the hole of the unit back and put on a rubber sheath over the screw. (see picture below)

3. Slide the unit into the bracket until you hear a click sound.

Dashboard

Screwdriver

Rubber Sheath

Special Screw

Mounting Bracket

Method B

M5 X 6
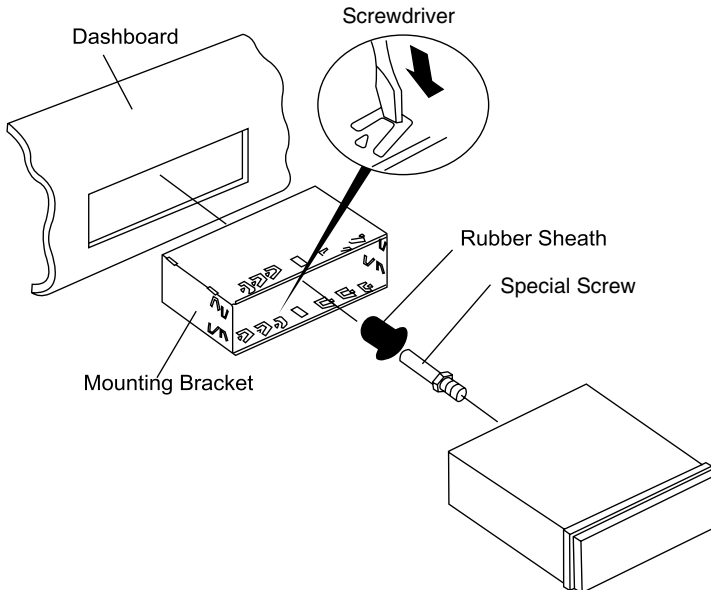
Mounting Frame   Dashboard
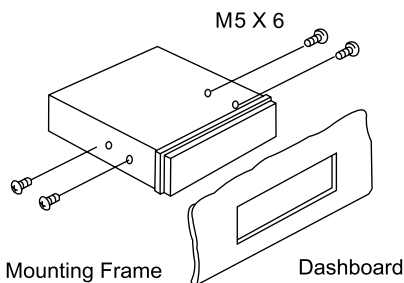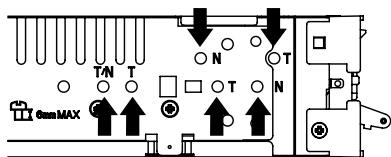
1. Insert this unit directly to the opening of the dashboard.
2. Place M5×6 cylindrical screw through the holes of the mounting frame located inside the opening to holes of the unit and fasten the screws to left & right.

Trim Ring installation

Attach the trim ring around the front panel.
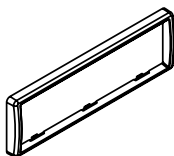
6) Removing the Source Unit

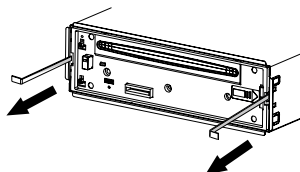### *Disassemble trim ring*

1. Push the trim ring upward and pull out the upper part.
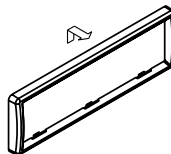
2. Push the trim ring downward and pull out the lower part.
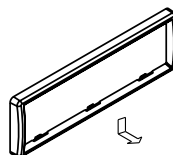
Disassemble the unit

1. Switch off the power.
2. Remove the panel.
3. Remove the trim ring.
4. Insert the removal keys straight back until they lock, then pull the unit out.

5. Disconnect all the wires.

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7) Wiring and Connectors

Purple — Subwoofer output 1 (SUB OUT 1)

Rear audio output terminal — Left White, Right Red, Black

Purple — Subwoofer output 2 (SUB OUT 2)

Front audio output terminal — Left White, Right Red, Gray

Black Black — Steering wheel control terminal (SWC)

Black Black — Microphone (MIC)

4-Channel Amplifier

Black — USB connector

M4X8 MAX

Refer to the right.

Fuse 15A

ANTENNA
(Black)

16-Pin Connector Extension Lead
(attched to the source unit)

Front Right
⊕ Gray
⊖ Gray/Black

Front Left
⊕ White
⊖ White/Black

Rear Right
⊕ Purple
⊖ Purple/Black

Rear Left
⊕ Green
⊖ Green/Black

4-Speaker system

or

2-Speaker system

Front Right
⊕ Gray
⊖ Gray/Black

Front Left
⊕ White
⊖ White/Black

⊕ Purple

Not used.
Insulate each wire

⊖ Purple/Black

⊕ Green

⊖ Green/Black

Yellow wire (Memory back-up lead)
Connect directly to battery

Red wire (Power lead)
Accessory ⊕ 12V

Blue/White wire (Amplifier turn-on lead)
Connect to remote turn-on lead of amplifier

Black wire (Ground lead)
Connect to vehicle chassis ground

Orange/White wire (Illumination lead)
Connect it to the car power supply terminal
for illumination

Blue wire (Auto antenna lead)
Connect it to the car power supply terminal
for antenna

8) Connecting the accessories

• **Connecting to the external amplifier**
External amplifiers can be connected to the 2 channel RCA output connections.
Ensure that the connectors are not grounded or shorted to prevent damage to the
unit.

CZ500A

CE

Clarion Co., Ltd.

FCC WARNING STATEMENT

FCC NOTE:

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: 1. This device may not cause harmful interference, and 2. This device must accept any interference received, including interference that may cause undesired operation.