

# clarion®

**Owner's manual & Installation manual**  
**Mode d'emploi et manuel d'installation**  
**Manual de instrucciones y de instalacion**

## FZ501

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**Bluetooth® /USB/MP3/WMA RECEIVER**  
**LECTEUR Bluetooth® /USB/MP3/WMA**  
**RECEPTOR Bluetooth® /USB/MP3/WMA**

## **CLARION PRODUCT REGISTRATION INFORMATION**

For USA and Canada only  
[www.clarion.com](http://www.clarion.com)

Dear Customer:

Congratulations on your purchase of a Clarion mobile electronic products. We are confident that you'll enjoy your Clarion experience.

There are many benefits to registering your product. We invite you to visit our website at [www.clarion.com](http://www.clarion.com) to register your Clarion product.

We have made product registration simple with our easy to use website. The registration form is short and easy to complete. Once you're registered, we can keep you informed of important product information.

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Pour les États Unis et le Canada seulement  
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Nous vous remercions d'avoir acheté ce produit électronique mobile Clarion. Nous sommes confiants que vous apprécierez votre expérience Clarion.

Il y a beaucoup d'avantage à enregistrer votre produits. Nous vous invitons à visiter notre site Web [www.clarion.com](http://www.clarion.com) pour enregistrer votre produit Clarion.

Nous avons facilité la tâche d'enregistrement de produit simple et facile grâce à notre site Web. Le formulaire d'enregistrement est court et facile à compléter. Lorsque vous êtes enregistrer, nous pouvons vous tenir informé des informations important de produits.

Enregistrer à [www.clarion.com](http://www.clarion.com) - c'est facile de mettre à jour votre produit Clarion.

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Querido Cliente:

Felicitaciones por su compra de producto electrónico móvil de Clarion. Estamos seguros que usted gozará de su experiencia con el producto de Clarion.

Hay muchas ventajas al registrar su producto. Le invitamos a que visite nuestro sitio en internet [www.clarion.com](http://www.clarion.com) para registrar su producto de Clarion.

Hemos hecho el registro de producto fácil en nuestro sitio. La forma de registro es corta y fácil de completar. Una vez que lo registre, podremos proporcionarle la información de su producto.

Regístrese en [www.clarion.com](http://www.clarion.com) - es fácil mantener su producto de Clarion actualizado.

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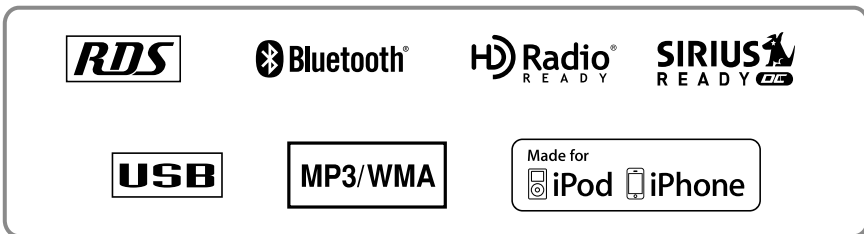
Thank you for purchasing this **Clarion** product.

- Please fully read this owner's manual before operating this equipment.
- Check the contents of the enclosed warranty card and store it in a safe place with this manual.

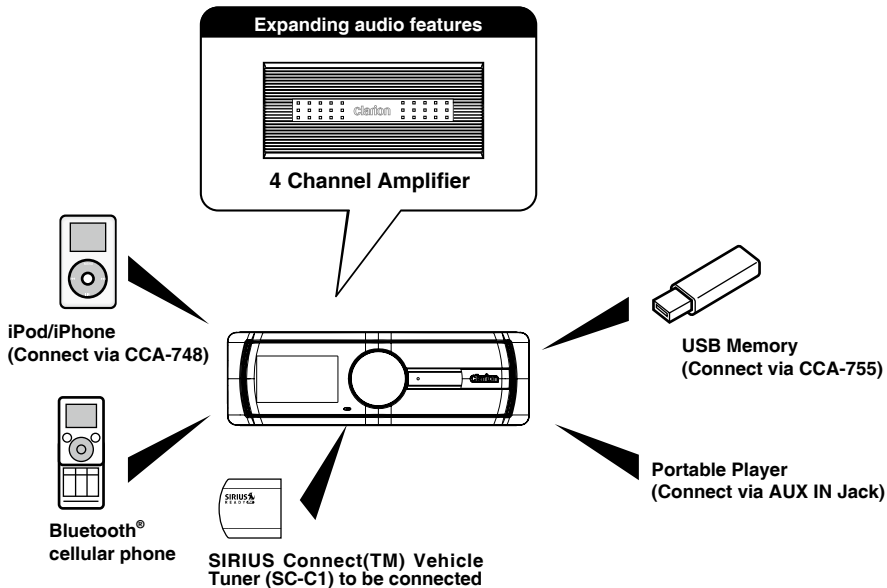
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# 1. FEATURES

- Compatible with iPod® / iPhone® via USB
- 4ch/2V RCA Output with Subwoofer Control and BEAT-EQ with 3 Band Parametric Equalizer
- MP3/WMA compatible with ID3-TAG display
- Built in Bluetooth handsfree (HFP) and audio streaming (A2DP & AVRCP)
- Front USB
- IR remote controller included
- OEM Steering Wheel Remote Ready



## Expanding Systems



### Note:

- The items listed outside of the frames are the commercial products generally sold.
- CCA-748 and CCA-755: Sold by separately.

## 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. 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.
2. Do not open the case, disassemble the unit, or lubricate the rotating parts.
3. SIRIUS, the SIRIUS Dog logo and related marks are trademarks of SIRIUS XM Radio, Inc.
4. HD Radio™ and the HD Radio Ready logo are proprietary trademarks of iBiquity Digital Corp.

#### **About the Registered Marks, etc.**

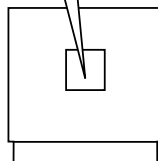
“Made for iPod” means that an electronic accessory has been designed to connect specifically to iPod and has been certified by the developer to meet Apple performance standards.

“Works with iPhone” means that an electronic accessory has been designed to connect specifically to iPhone and has been certified by the developer to meet Apple performance standards.

Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

iPhone is a trademark of Apple Inc.



### INFORMATION FOR USERS:

Changes or modifications to this product unapproved by the manufacturer will void the warranty and will violate FCC approval.

## ***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.

### **Cleaning the body**

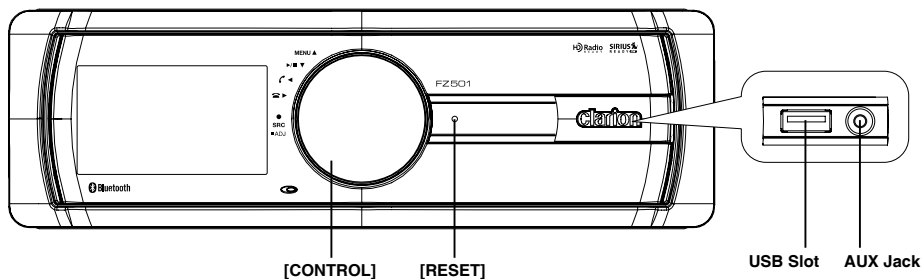
- Use a soft, dry cloth and gently wipe off the dirt.
- For tough dirt, apply some neutral detergent diluted in water to a soft cloth, wipe off the dirt gently, then wipe again with a dry cloth.
- Do not use benzene, thinner, car cleaner, etc., as these substances may damage the body or cause the paint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

## ***USB Port***

- The USB memory stick may stick out when inserted, so it may cause danger during driving. When connect USB memory stick to the main unit, please use a USB extension cable (CCA-755).
- The USB memory sticks must be recognized as "USB mass storage class" to work properly. Some models may not operate correctly.  
**When the memorized data is lost or damaged by any chance, Clarion shall not be liable for any damage.**  
When using an USB memory stick, we recommend that you backup your data stored on it before by using a personal computer etc.
- Data files may be broken when using USB memory sticks in the following situation: When disconnecting the USB memory stick or turning the power off during reading data.  
When affected by static electricity or electric noise.  
Connect/disconnect the USB memory stick when it is not accessed.
- Connecting with the computer is not covered.

## 3. CONTROLS

### Operational Panel



### Names of Button

#### [CONTROL] Knob

- Power on (press)
- Power off (press "**2.sec.**" -> rotate it select "**POWER OFF**" ->press)
- Adjust volume level (rotate)
- Toggle the audio source (press)
- Previous/Next Search (press - left/right )
- Select tuner band (press - up)(1sec.)
  
- **MP3/WMA** mode – Search function.
- **BT** mode – Terminate call
- **RADIO** mode – PTY select.
- **AUX** mode – No function.
- **USB** mode – Search function
- **iPod** mode – iPod menu

## Remote Control

### [SRC] Button

- Toggle the audio source

### [◀, ▶] Buttons

- Preset station up / down
- Previous / next track
- Search (long press)

### [SCN/PS/AS] Button

- Scan play / Preset scan
- Auto memory store (long press)

### [BAND/TOP] Button

- Select tuner band
- Top play (long press)

### [▲, ▼] Buttons

- Volume up / down

### [▶||] Button

- Play / Pause

### [ISR] Button

- Recall ISR station stored in memory
- Store current station in ISR memory (long press)
- iTunes Tagging (when connected with HD Radio tuner)

### [DISP] Button

- Display switch

### [RDM] Button

- Random play

### [RPT] Button

- Repeat play

### [MUTE] Button

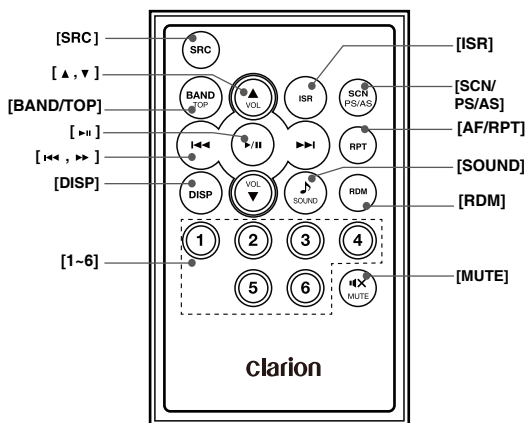
- Mute the volume

### [1~6] Buttons

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

### [SOUND] Button

- Sound effect setting

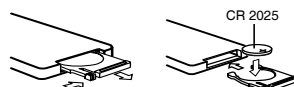


## Notes of remote control using

### Replacing the lithium battery of remote control unit.

When the range of the operation of the card remote control becomes short or no functions while operating. Replace the battery with a new lithium battery. Make sure the battery Polarity replacement is correct.

1. Pull out the battery holder while pressing the stopper.
2. Insert the button-type battery with the stamped(+) mark facing upward.  
Insert the battery holder into the remote control.





# 5. OPERATIONS

## Basic Operations

### Note:

- Refer to the diagrams in “3. CONTROLS” when reading this chapter.

### 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.
- Start the engine. The power button / knob illumination on the unit will light up.



- Press the [CONTROL] knob on the front panel to turn on the power under standby mode. The unit goes back to the last status after power on.
- Press the [CONTROL] knob on the front panel to turn off the power.

### Mute

Press the [MUTE] button 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 [CONTROL] knob on the front panel.  
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 [CONTROL] knob on the front panel repeatedly to choose desired playing source.

### Notes:

- Playing source selection means selecting work mode, such as **HD RADIO** mode, and **AUX** mode, etc.

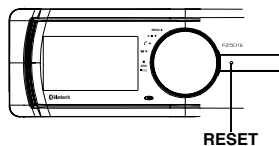
### Display system time

Press the [DISP] button on the remote control to switch the display information, system time and playing source.

### RESET

#### Note:

\* When the [RESET] button is pressed, frequencies of radio stations, titles, etc. stored in memory are cleared.



## System Setup

At all mode, press and hold **[CONTROL]** knob (2sec.), and rotate the **[CONTROL]** knob choose **ADJUST**, then press the **[CONTROL]** knob to enter system setup. Press **[CONTROL]** knob (left / right) to select options, rotate the **[CONTROL]** knob to adjust.

### CLOCK

Press the **[CONTROL]** knob (right) to choose minute, and rotate the **[CONTROL]** knob set minute.

Press the **[CONTROL]** knob (left) to choose hour, and rotate the **[CONTROL]** knob set hour.

### PASSWORD (SIRIUS mode)

Press the **[CONTROL]** knob to enter old password, rotate the **[CONTROL]** knob to select a digit, press the **[CONTROL]** knob (left / right) to move the cursor. Press the **[CONTROL]** knob to confirm after input all 4 digit. Then input a new 4-digit number as above. (Original password: 0000)

### LOCK (SIRIUS mode)

Press the **[CONTROL]** knob to lock current station, rotate the **[CONTROL]** the knob to select a digit, press the **[CONTROL]** knob (left / right) to move the cursor. Long press the knob to confirm after input all 4 digit password.

### UNLOCK (SIRIUS mode)

Press the **[CONTROL]** knob to unlock all locked stations, rotate the **[CONTROL]** knob to select a digit, press the **[CONTROL]** knob (left / right) to move the cursor. Press the **[CONTROL]** knob to confirm after input all 4 digit password.

### UNSKIP (SIRIUS mode)

Press and hold the **[CONTROL]** knob to unskip all channels.

### DX/LO (RADIO mode)

Rotate the **[CONTROL]** knob to choose radio local or distant at **RADIO** mode.

- **LO**: Only stations with strong signal can be received.
- **DX**: Stations with strong and weak signals can be received.

### PCH MEMO (RADIO mode)

Rotate the **[CONTROL]** knob to choose PCH 1 / PCH 2 / PCH 3 / PCH 4 / PCH 5 or PCH 6, press and hold **[CONTROL]** knob (2sec.) to store it in the memory.

### AUX SENS (AUX mode)

Rotate the **[CONTROL]** knob to choose AUX Input sensitivity LOW, MID or HIGH at **AUX** mode.

### AUTO CON (BT mode): ON/OFF

Rotate the **[CONTROL]** knob to choose AUTO CON ON or OFF.

### PIN CODE

Press the **[CONTROL]** knob, rotate the **[CONTROL]** knob to select a digit, press the **[CONTROL]** knob (left / right) to move the cursor. Press the **[CONTROL]** knob to confirm.

The PIN CODE default setting is "0000".

### MIC SEL (BT mode)

Rotate the **[VOLUME]** knob to choose microphone EXTERNAL or INTERNAL.

### MIC GAIN (BT mode)

Rotate the **[VOLUME]** knob to choose Mic gain: 1, 2, 3, 4, 5.

You can change the gain of MIC when a telephone partner cannot hear your voice.

### SCRN SVR: ON/OFF

Rotate the **[CONTROL]** knob to choose SCRN SVR (screen saver) ON or OFF.

### SCROLL: ON/OFF

For track information that is longer than the display panel:

When SCROLL is ON, the LCD will display ID3 TAG information cyclely, e.g.: TRACK->FOLDER->FILE->ALBUM->TITLE->ARTIST->TRACK->...

When SCROLL 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]** button on the remote control.

## System Setup

### S-CTRL (IPOD mode) : ON/OFF

Rotate the [CONTROL] knob to choose S-CTRL (Simple control) ON or OFF.

\* Refer to P15.

### DIMMER: ON/OFF

Rotate the [CONTROL] knob to choose DIMMER ON or OFF.

- **ON:** LCD dimmer is active when small light of vehicle is turned ON.
- **OFF:** LCD always maximum brightness regardless of the vehicle small light.

### REAR/S-W

Rotate the [CONTROL] knob to choose REAR or S-WOOFER(SUB-WOOFER).

### SW PHASE

Rotate the [CONTROL] knob to choose REVERSE or NORMAL.

### BEEP: ON/OFF

Rotate the [CONTROL] knob to choose button beep sound ON or OFF.

### SOUND

Press the [CONTROL] knob to enter sound effect setting mode. First press shows current EQ. Rotate the [CONTROL] knob to changes

BEAT EQ in this order:

OFF -> B-BOOST -> IMPACT -> EXCITE -> CUSTOM

Rotate the [CONTROL] knob to changes CUSTOM, and press the [CONTROL] knob, the press [CONTROL] knob (right/left) to select it including: BASS-G -> BASS-F -> BASS-Q -> MID-G -> MID-F -> MID-Q -> TREBLE-G -> TREBLE-F, rotate the [CONTROL] knob to select a value.

BASS-G / MID-G / TREBLE-G: (-7)- (+7)

BASS-F: 50 / 100 / 200

BASS-Q / TREBLE-Q: 0.7 / 1.0 / 1.4 / 2.0

MID-F: 500 / 1K / 2K

MID-Q: 0.7 / 1.0 / 1.4 / 2.0

TREBLE-F: 5K / 10K / 15K

Then press [CONTROL] knob (left / right) to select USER preset including:

BALANCE -> FADER -> M-B EX -> HPF(high pass filter) -> LPF(low pass filter) -> S-W VOL (Subwoofer Volume), rotate the [CONTROL] knob to select a value.

BALANCE:LEFT 1-7->CENTER->RIGHT 1-7

FADER:FRONT 1-7->CENTER->REAR 1-7

M-B EX: ON/OFF

HPF: THROUGH/60/90/120

LPF: THROUGH/60/90/120

SUBW VOL: (-6)-(+6)

## HD Radio Operations

### About HD Radio™ technology

HD Radio technology allows CD-quality digital broadcasting of your local AM and FM radio stations. HD Radio broadcasts can include multiple channels on the same frequency, which is called multicasting. With multicasting, you can receive up to eight additional multicast channels: HD1~HD8.

With an HD Radio tuner connected, you will receive HD Radio digital broadcasts automatically when tuned to a station that offers HD Radio technology.

**NOTE: Not all FM or AM stations offer HD Radio (digital) broadcasting. You can receive both analog and digital stations with the unit.**

### Accessing radio mode

Press the [CONTROL] knob or [SRC] button on the remote control to switch to the HD RADIO source, and HD icon will illuminate.

### Select a band

Press and hold the [CONTROL] knob (up 2sec.) on the panel or [BAND/TOP] button on the remote control to change between three FM and one AM bands. Each band stores up to six preset stations.

## HD Radio Operations

### Tuning

#### - Seek Tuning

Press and hold the [CONTROL] knob (left / right) on the panel or [◀◀, ▶▶] buttons on the remote control to seek the next/previous station automatically.

#### - Manual Tuning

Press the [CONTROL] knob (left / right) on the panel or [◀◀, ▶▶] buttons on the remote control to move the radio frequency number up or down one step.

### HD Radio multicast channels

To tune to an HD Radio multicast channel, tune to the main signal and then press the [CONTROL] knob on the panel. PTY and SUB CH are displayed. Select PTY or SUB CH by rotate [CONTROL] knob and push to confirm.

- Select PTY type from the category list by rotate [CONTROL] knob and push.
- Select SUB CH by rotate [CONTROL] knob and push.
- Multi channel is available when a digital signal is detected, the DIGITAL icon will illuminate. If the digital signal becomes unavailable, the unit will revert to Analog reception.

### Preset stations

Up to six stations on each band can be stored as presets, which can then be instantly recalled by pressing the associated preset button. To store a station, turn the radio on and select the desired band and station. Press and hold the desired preset button (numbered one through six on the face of the radio or remote control) for more than two seconds. When stored, the preset number

will appear in the display. The station is now stored and can be recalled by pressing the corresponding preset button. Repeat for the remaining five presets on the current band and for presets on the other four bands.

**NOTE: Multicast stations can be stored as presets, but the unit must be in Digital or Auto reception mode to receive them.**

### Preset scan

Press [SCN/PS/AS] button on the remote control to scan and play all preset stations for 10 seconds each. Press [SCN/PS/AS] button on the remote control again to stop scanning and play the current station.

### Automatic store (AS)

Press the [CONTROL] knob (down 2 sec.) or [SCN/PS/AS] button on the remote control to select six strong stations and store them in the FM3 or AM band using the Auto Store feature. After entering the stations into memory, the unit will automatically stop at each station for five seconds, allowing you to preview each selection. When using the Auto Store feature, the new stations replace any stations already stored in preset memory.

#### Note:

You can stop the Auto Store function at any time by pressing the [CONTROL] knob (down 2 sec.) or [SCN/PS/AS] button on the remote control again.

## Satellite Radio Mode

Listeners can subscribe to SIRIUS® Radio on the Web by visiting [www.sirius.com](http://www.sirius.com), or by calling (888) 539-SIRIUS. Customers should have their SIRIUS ID ready (SIRIUS ID is located on the SCC1: SIRIUS Connect Vehicle Tuner, sold separately). Customers can listen to music samples by tuning to channel 184.

### Accessing satellite radio mode

Press the [CONTROL] knob or [SRC] button on the remote control to switch to the SAT source.

### Displaying the Identification (ID) Code

Before you listen to satellite radio, you must

## Satellite Radio Mode

subscribe to the service using your radio's identification number. To display the radio ID, use the [CONTROL] knob (left) or [◀◀] tuning button on the remote control to tune to channel "000". The screen displays the radio ID where the channel name is usually displayed.

### Check SCC1-SIRIUS Connect Vehicle TUNER

If SIRIUS tuner is not connected, "NO TUNER" will appear on the LCD.

### Select a band

Press the the [CONTROL] knob (up 2sec.) on the panel or [BAND/TOP] button on the remote control to change between three SAT bands (SR1, SR2 and SR3). Each band stores up to six preset stations.

### Select a station

Press the [CONTROL] knob (left / right) on the panel or [◀◀, ▶▶] buttons on the remote control to tune to another station.

### Preset mode

Six numbered preset buttons store and recall stations for each band.

### Preset scan

Short press the [SCN/PS/AS] button on the remote control to start category scanning. Long press the [SCN/PS/AS] button (1 sec.) on the remote control to start preset station scanning for 10 seconds each.

## iTunes® Tagging

The unit offers iTunes® Tagging, which allows the user to "Tag" songs playing on HD Radio™ stations for purchase later through iTunes. When press ISR button, the unit stores the title and artist song information that can then be transferred to your iPod when connected to the unit. A list titled "Tagged" will appear in iTunes, allowing you the option to purchase your tagged songs.

### Storing a station

1. Select a band (if needed), then select a station.
2. Press and hold a preset button (numbers 1-6) on the remote control.
3. The preset number and station is displayed and highlighted.

### Recalling a station

1. Select a band (if needed).
2. Press a remote control preset button (numbers 1-6) to select the corresponding stored station.

### Category and Channel search

To access Category and Channel Search mode, press the [CONTROL] knob (up 2sec.) on the panel or [BAND/TOP] button on the remote control more than 1 second.

1. Rotate the rotary knob on the panel to select the desired category.
2. Press the [CONTROL] knob (left / right) on the panel or [◀◀, ▶▶] buttons to select the channel name.

### Direct search

To access Direct Search mode, press the [CONTROL] knob button on the front panel.

1. Rotate the rotary knob on the panel to select the desired direct, and press the [CONTROL] knob to confirm the selection.
2. Rotate the rotary knob on the panel or press the [▲] or [▼] button on the remote control to select the direct name, and press the knob to confirm the selection.

### Note:

"iTunes® Tagging" function works by connecting THD301 (sold separately).

### iPod compatibility

For detailed information on the playable iPod models, see our home page: [www.clarion.com](http://www.clarion.com)

## iTunes® Tagging

### Note:

- iPhones can also be connected to this system and “iPod” appearing in this manual should be referred to as “iPod/iPhone”.
- This system will not operate or may operate improperly with unsupported versions.

### Tagging music

To begin tagging music, tune to an HD Radio station. The DIGITAL icon at the display must be illuminated, indicating a digital station is being received. TAG icon lights up when Tagging function is ready. Press the **[ISR]** button on the remote control. The tagging function is highly depends on the receptions of the radio station. If the channel reception is insufficient, it will effect the operation of the tagging function.

“**Stored Tag ## of 64**” will appear in the display. The song information is saved to the unit memory until an iPod is connected. You can tag up to 64 songs before the tags must be transferred to an iPod or deleted. When the Tag memory reaches capacity (64 tags) the bottom of the screen displays “**Memory Full**”.

Table 5: TAG Messages

| Tag Message         | Reason  |
|---------------------|---|
| STORED TAG ## OF 64 | If the Tag data is ready, and <b>[ISR]</b> button on the remote control is pressed                  |
| SENDING TAG ##      | Tag data is sending to iPod   |
| MEMORY FULL         | Tag storage is full   |
| DEFICIENT TAG DATA  | Tag data is not available   |
| IPOD FULL           | iPod memory is full   |
| TAG NOT SUPPORT     | When connect and press <b>[ISR]</b> button on the remote control, the iPod without Tagging function |

### Note:

Tags saved to your iPod can be managed using the iTunes software, available at [www.apple.com/itunes](http://www.apple.com/itunes).

### Downloading tags to your iPod

To download tags to your iPod, plug an iPod into the unit. All existing tags are automatically transferred to the iPod and deleted from the head unit’s memory. If an iPod is connected when a song is tagged, the Tag will be immediately transferred to the iPod.

### Note:

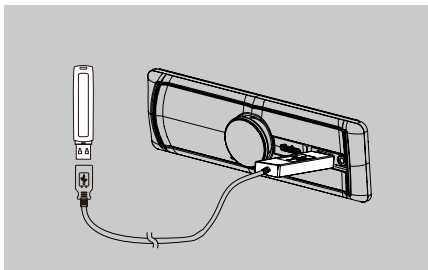
When transferring Tags to an iPod, the unit must remain in RADIO mode. To purchase tagged songs, you must sync your iPod to iTunes and then click the “Tagged” list on the left side of the iTunes software screen. Click the “view” button for purchasing information.

### Note:

1. How to enter the iTunes tagging function?  
“TAG” and “DIGITAL” light up when Tagging function is ready, press **[ISR]** button on the remote control to start iTunes Tagging.
2. What is seen on the radio’s display to let me know I have tagged the tune?  
Press **[ISR]** button on the remote control to show “**STORED TAG ## OF 64**”. After connect to a iPod, the display shows “**SENDING TAG ##**”.  
If no connection, the display will show “**STORED TAG ## OF 64**”. You could save 64 Tag into E2PROM in total. When you connect to a iPod, Tag information will be saved in the iPod, and the data in E2PROM will be cleared.
3. Then how do I get the tagged tune from my iPod to the computer?  
If you have install iTunes, connect your iPod to your computer and buy songs online.

## USB Operations

1. Push the cover of the USB connector to the right. Insert a USB cable (CCA-755) into the USB connector. Insert a USB device into the USB cable.  
When connecting a USB device, the unit will read the files automatically.
2. To remove the USB device, you should first select another source or turn off the power, in order to avoid damaging the USB device. Then take off the USB device. Push the cover to the left.
3. Operation is same as MP3/WMA operation.



## iPod & iPhone Operations

### Connect

Connect an iPod or iPhone to the USB connector via CCA-748 cable.

When connecting a device, the unit will read the files automatically. The track information display on the screen once playback start.

### MENU

In the S-CTRL OFF mode, press the **[CONTROL]** knob (up), rotate the knob select "MUSIC" or "VIDEO".

Select "MUSIC", press the **[CONTROL]** knob, then rotate the **[CONTROL]** knob to show PLAY LISTS / ARTISTS / ALBUMS / GENRES / SONGS / COMPOSERS, then press the **[VOLUME]** knob to confirm.

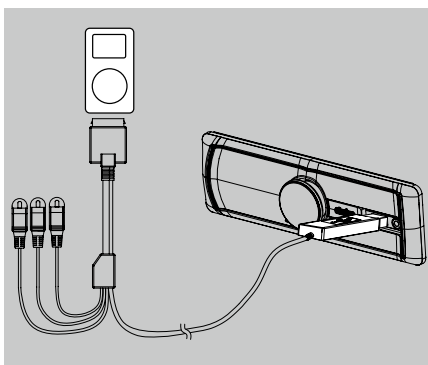
Select "VIDEO", press the **[CONTROL]** knob, then rotate the **[CONTROL]** knob to show MOVIES MUSIC VIDEO TV SGIWS VIDEO PODCASTS RENTALS, then press the **[CONTROL]** knob to confirm.

### NOTE:

VIDEO MENU item is different by the model of connected iPod and language setting.

### Repeat play

This function allows you to play the current track repeatedly or play all tracks in your iPod/iPhone repeatedly.



1. Press the **[AF/RPT]** button on the remote control once or more until "RPT ON" appears on the LCD to perform repeat play.
2. Press **[AF/RPT]** button on the remote control repeatedly until "RPT OFF" appears on the LCD to cancel repeat playback.

### Random play

This function allows you to play all tracks in a random order.

## iPod & iPhone Operations

1. Press the **[PTY/RDM]** button on the remote control once or more until **"ALBUM RDM"** appears on the LCD for album random play.
2. Press the **[PTY/RDM]** button on the remote control once or more until **"SONG RDM"** appears on the LCD to perform random play.
3. Press the **[PTY/RDM]** button on the remote control once or more until **"RDM OFF"** appears on the LCD to cancel random playback.

### Setting iPod simple control mode

Use this function if you wish to operate through your iPod connected to this unit via the USB cable.

\* The factory default setting is **"OFF"**.

1. press and hold **[CONTROL]** knob (2sec.), and rotate the **[CONTROL]** knob choose **ADJUST**, then press the **[CONTROL]** knob to enter system setup.
2. Press the **[CONTROL]** knob (left / right) to select **"S-CTRL"**.
3. Rotate the **[CONTROL]** knob to SELECT **"ON"** or **"OFF"**.
  - **ON**: Operations are made through your iPod.
  - **OFF**: Operations cannot be made through your iPod.

#### Notes:

- When performing iPod operations using simple control mode, make the operations

slowly. If repetitive operations are performed too quickly, unforeseen errors may occur.

- When performing iPod operations using simple control mode, please do not operate the iPod and the unit at the same time, otherwise there may be unexpected event happened.
- Some iPod models do not support this function. Consult your nearest **Clarion** dealer or website to confirm which models do not support this function.

### iPod menu alphabet search

This function searches the subfolders for desired alphabetical letters.

1. Press the **[CONTROL]** knob, and rotate **[CONTROL]** knob to select the iPod menu mode.
2. Rotate the **[CONTROL]** knob to switch between categories.  
MUSIC: PLAYLISTS, ARTISTS, ALBUMS, GENRES, SONGS, COMPOSERS  
VIDEO: MOVIES, MUSIC VIDEOS, TV SHOWS VIDEO PODCASTS, RENTALS
3. Press the **[CONTROL]** knob. (The contents of the category are displayed.)
4. Press and hold the **[CONTROL]** knob (2 sec.).
5. Rotate the **[CONTROL]** knob to select the desired letter to search.
6. Press the **[CONTROL]** knob to perform search.

## AUX Operations

Press the **[CONTROL]** knob on the panel or **[SRC]** button on the remote control once or more to select **"AUX"**.

AUX is just for Audio content with 3.5mm Jack connector plugged into audio-in socket on the front panel on the right of USB connector.

### AUX Input sensitivity setting

1. Press and hold the **[CONTROL]** knob (2 sec.).

2. Turn the **[CONTROL]** knob to select **"AUX SENS"**.
3. If the output level of connected external audio player is **"HIGH"**, rotate the **[CONTROL]** knob and choose **"LOW"**. And if the output level is **"LOW"**, choose **"HIGH"**.



## 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 will be able to retrieve phonebook contacts, received call, dialed call, missed call, incoming calls, outgoing call and listen to music.

### Note:

- 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 unit.
- 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 Bluetooth devices.
4. Select **FZ501** from the pairing list on the mobile phone.
5. Enter "**0000**" as the password (The password default setting is "**0000**").
6. After pairing successfully, the unit will enter Bluetooth mode automatically, and "**BLUETOOTH CONNECTED**" will appear on the LCD.

## Making a call

### Operation from Bluetooth menu

Press the **[CONTROL]** knob to switch the source to "**BLUETOOTH**".

#### • Dial Number

Press the **[CONTROL]** knob (up), rotate the **[CONTROL]** knob select **DIAL NUM.**

1. Press the **[CONTROL]** knob.
2. Rotate the **[CONTROL]** knob on the front panel to switch: **DIAL NUMBER / DIALLED CALL / MISSED CALL / RECEIVED CALL / MEMORY PHONEBOOK / SIM PHONEBOOK**
3. Press the **[CONTROL]** knob to confirm the selection, "**WAITING**" will appear on the LCD.
4. Press the **[CONTROL]** knob to dial.
5. Press the **[CONTROL]** knob (right) to terminate call.

#### • Dialed/Missed/ Received Call History

You can search any Dialed/Missed/Received Call History.

1. Rotate the knob to select "**DIAL NUMBER**", "**MISSED CALL**" or "**RECEIVED CALL**".
2. Press the knob to enter the selected call history.
3. Rotate the **[CONTROL]** knob to scroll the contacts.
4. When the contact name or mobile phone No. is displayed, press the **[CONTROL]** knob to call the mobile phone No. of that contact.  
\* Press the **[CONTROL]** knob (right) to end the call.

#### • Call from Phonebook

User can search the contact name in the phonebook and make call.

1. Rotate the **[CONTROL]** knob to select "**SIM PHONE BOOK**" or "**MEMORY PHONE BOOK**".
2. Press the **[CONTROL]** knob to enter the selected phonebook.
3. Rotate the **[CONTROL]** knob to scroll the contacts.
4. When the contact name is displayed, press the **[CONTROL]** knob to call the mobile phone No. of that contact.

## Bluetooth Operations

\* Press the [CONTROL] knob (right) to end the call.

### • Answering a call

You can answer an incoming call by pressing the [CONTROL] knob.

\* Press the [CONTROL] knob (right) 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 [CONTROL] knob (down) to pause audio playback.
2. To resume audio playback, push the [CONTROL] knob (down) again.

## Selecting a track

### Track-up

1. Press the [CONTROL] knob (right) to move to the beginning of the next track.
2. Each time the [CONTROL] knob (right) is pressed, playback proceeds to another track in the advancing direction.

### Track-down

1. Press the [CONTROL] knob (left) to move the to beginning of the previous track.
2. Each time the [CONTROL] knob (left) is pressed, playback proceeds to previous track in the reverse direction.

### **Note:**

Playing order will depend on Bluetooth audio player. When [CONTROL] knob (left) 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.

# 6. TROUBLE SHOOTING

## GENERAL

| Problem   | Cause   | Measure   |
|---|---|---|
| Unit can not power on.  | Unit fuse blown.  | Replace with new fuse of correct rating.  |
|   | Car battery fuse blown.                                 | Replace with new fuse of correct rating.  |
| Unit can not power on.<br>Nothing happens when buttons are pressed.<br><br>Display is not accurate. | The microprocessor has malfunctioned due to noise, etc. | Turn off the power.<br>Press the <b>[RESET]</b> button with a thin rod.<br><br>Note:<br>When the <b>[RESET]</b> button is pressed, turn off the ACC power.* |
|   |   | * When the <b>[RESET]</b> button is pressed, frequencies of radio stations, titles, etc. stored in memory are cleared..                                     |
| 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.  |
| Poor sound quality or distortion.   | Speaker wiring is in contact with metal part of car.    | Insulate all speaker wiring connections.  |
|   | Speaker power rating does not match unit.               | Replace speakers.   |
|   | Wrong connections.                                      | Check wiring and correct.   |
| Tel-Mute malfunction  | Speaker is shorted.                                     | Check wiring and correct.   |
|   | MUTE wire is grounded.                                  | Check the MUTE wiring and correct.  |
| Unit resets itself when engine is off.  | Incorrect connection between ACC and Battery.           | Check wiring and correct.   |

## 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.  |

## Bluetooth

| Problem   | Cause   | Measure  |
|---|---|--|
| Cannot pair the Bluetooth enabled device with the car audio system.         | The device does not support the profiles required for the system. | Use another device to connect.   |
|   | The Bluetooth function of the device is not enabled.              | Refer to the user manual of the device for how to enable the function.   |
| The audio quality is poor after connection with a Bluetooth-enabled device. | The microphone is not correctly positioned.                       | Adjust the position of the microphone. For example, stick the microphone onto the dashboard where close to the driver. |
|   | The Bluetooth reception is poor.                                  | Move the device closer to the car audio system or remove any obstacle between the device and the system.               |

# 7. ERROR DISPLAYS

If an error occurs, one of the following displays is displayed. Take the measures described below to solve the problem.

| Display | Cause                         | Measure   |
|---------|-------------------------------|---|
| ERROR 2 | Do not support iPod & iPhone. | Change another device.<br>* The head unit will return to <b>RADIO</b> mode. |

If an error display other than the ones described above appears, press the Reset button. If the problem persists, turn off the power and consult your store of purchase.

\* When the Reset button is pressed, frequencies of radio stations, titles, etc. stored in memory are cleared.

## 8. SPECIFICATIONS

### FM Tuner

Frequency range: 87.5-107.9MHz  
 Usable sensitivity: 8dB $\mu$   
 Frequency response: 30Hz-15kHz  
 Stereo separation: 30dB(1kHz)  
 Signal/noise ratio: >55dB

### AM Tuner

Frequency range: 530-1710kHz  
 Usable sensitivity (S/N=20dB): 30dB $\mu$

### 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)  
 AVRCP (AV Remote Control Profile)  
 Send/Receive Sensitivity: Class 2

### Audio Amplifier

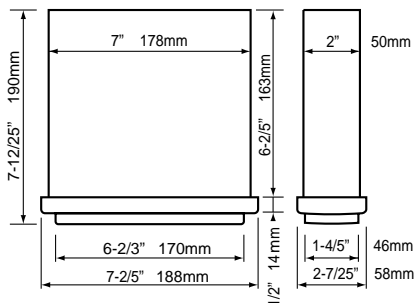
Maximum power output:  
 200W (50W x 4)  
 Speaker impedance: 4 $\Omega$  (4 to 8  $\Omega$  allowable)

### Input

Audio input sensitivity:  
 High: 320mV (at 1V output)  
 Mid: 650mV (at 1V output)  
 Low: 1.3V (at 1V output)  
 (input impedance 10 k $\Omega$  or greater)  
 Aux-in level:  $\leq$ 2V

### General

Power supply voltage:  
 14.4VDC (10.8 to 15.6V allowable),  
 negative ground  
 Pre-Amp output voltage:  
 Fuse: 15A  
 Dimensions of the Main Unit:  
 188mm Width x 58mm Height x 190mm Depth  
 7-2/5(width) x 2-7/25(Height) x 7-12/25(Depth)  
 Weight of the Main Unit: 1.94lb. (0.88kg)  
 Dimensions of the Remote Control unit:  
 52mm Width x 7.5mm Height x 85.5mm Depth  
 2.0472(Width) x 0.2953(Height) x 3.3661(Depth)  
 Weight of the Remote Control Unit:  
 0.77oz. (24g) (including battery)



### Notes:

- Specifications and design are subject to change without notice for further improvement.

**Power Output:**  
 19W x 4 Channels RMS  
 (4 $\Omega$  @ 14.4V  $\leq$  1% THD+N)

**Signal to Noise Ratio:**  
 80 dBA (reference: 1 W into 4  $\Omega$ )



# 9. INSTALLATION / WIRE CONNECTION GUIDE

## CONTENTS

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### 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 circuits during installation. (Figure 1)

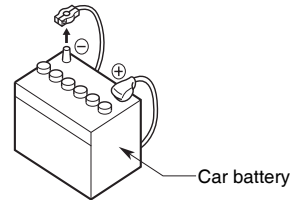


Figure 1

### 2) Package Contents

|                       |   |   |   |
|-----------------------|---|---|---|
| Source unit .....     | 1 | Wire connector .....                    | 1 |
| Front panel .....     | 1 | Owner's manual.....                     | 1 |
| Trim ring .....       | 1 | Warranty card.....                      | 1 |
| Mounting bracket..... | 1 | Special screw (Front panel lock) .....  | 1 |
| Screws M5x6 mm.....   | 4 | Microphone.....                         | 1 |
| L-key.....            | 2 | Remote control unit (with battery)..... | 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, benzene, or alcohol etc. For tough dirt, apply a little cold or warm water to a soft cloth and wipe off the dirt gently.

## 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

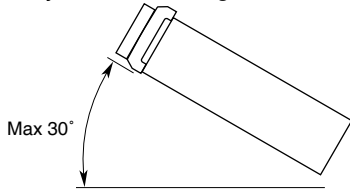


Figure 2

- your car dealer beforehand.
4. Use the enclosed screws for installation. Using other screws can cause damage. (Figure 3)

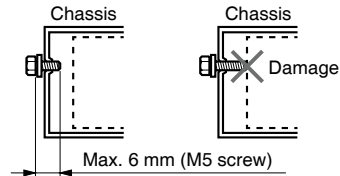


Figure 3

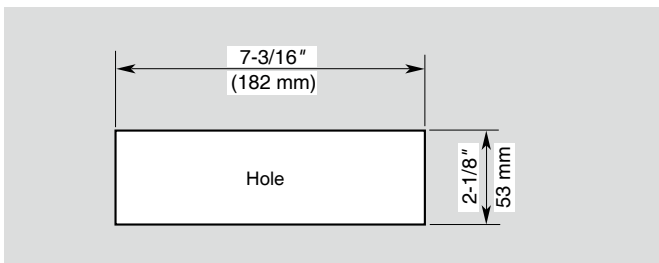
## 5) Installing the Source Unit

1. Place the mounting bracket into the instrument panel, use a screwdriver to bend each stopper of the 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 trim ring 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



## Notes of installation

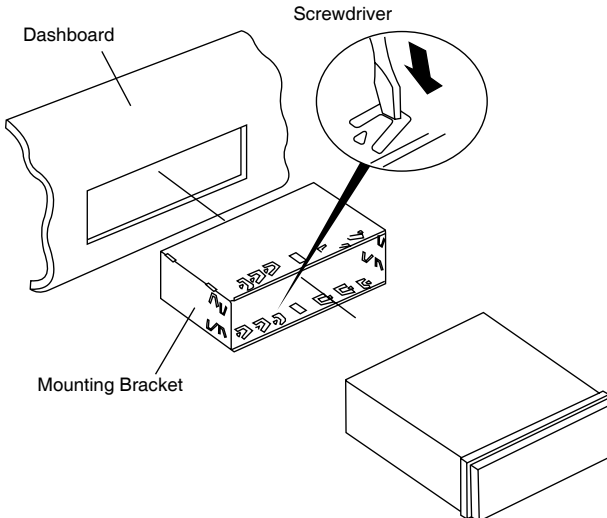
1. Before installation, please make sure proper connections are conducted and the unit operates normally. Improper connection may result in damage to the unit.
2. Use only accessories designed and manufactured for this unit and other unauthorized accessories may result in damage to the unit.
3. Before 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.

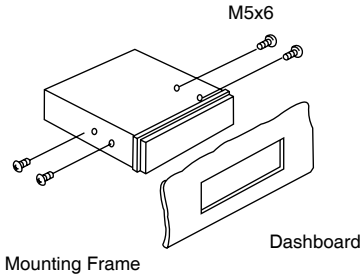
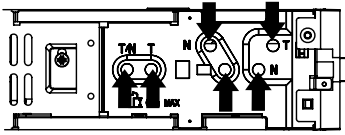
## Unit installation

### 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 cap over the screw. (see picture below)
3. Slide the unit into the bracket until you hear a click sound.



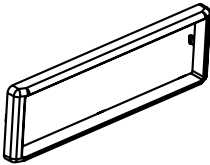


**Method B**

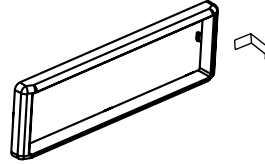
1. Insert this unit directly to the opening of the dashboard.
2. Place M5x6 cylindrical screw through the holes of the mounting frame located inside the opening to holes of the unit and fasten the screws to left & right.

**Trim ring installation**

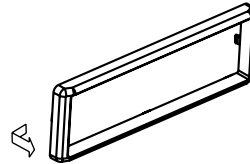
Attach the trim ring around the front panel.

**6) Removing the Source Unit****Disassemble trim ring**

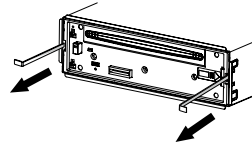
1. Push the trim ring to right and pull out the right part.



2. Push the trim ring to left and pull out the left part.

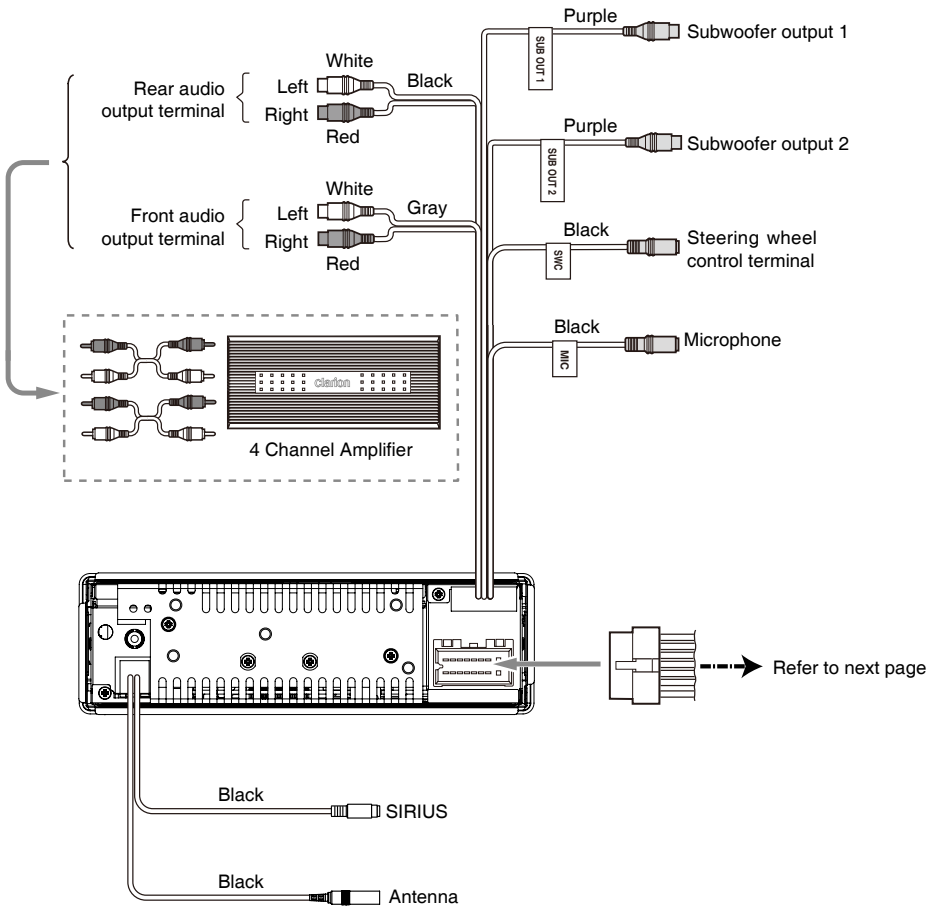
**Disassemble the unit**

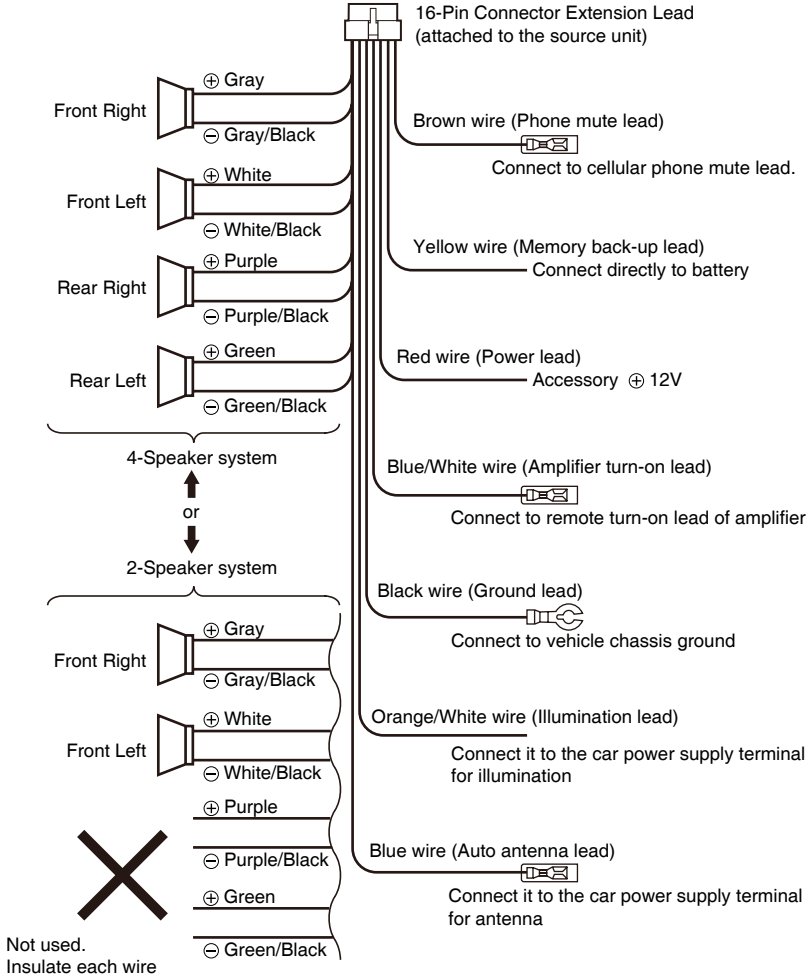
1. Switch off the power.
2. Remove the panel.
3. Remove the trim ring.
4. Insert the removal keys straight back until they lock, then pull the unit out.



5. Disconnect all the wires.

# 7) Wiring and Connections





## 8) Connecting the Accessories

### • Connecting to the external amplifier

External amplifiers can be connected to the 4 channel RCA output connections. Ensure that the connectors are not grounded or shorted to prevent damage to the unit.

## **FCC warning statement**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum 20 cm between the radiator and your body. This transmitter must not be collocated or operating in conjunction with any other antenna or transmitter unless authorized to do so by the FCC.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# Clarion Co., Ltd.

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