

5. OPERATIONS

Basic Operations

Note: Be sure to read this chapter referring to the front diagrams of chapter "2. CONTROLS" on page 5 (unfold).

CAUTION

Be sure to lower the volume before switching off the unit power or the ignition key. The unit remembers its last volume setting. If you switch the power off with the volume up, when you switch the power back on, the sudden loud volume may hurt your hearing and damage the unit.

Turning on/off the power

Note:

- 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. Press the [SRC] button.
2. The illumination and display on the unit light up. The unit automatically remembers its last operation mode and will automatically switch to display that mode.
3. Press and hold the [SRC] button for 1 second or longer to turn off the power for the unit.

Selecting a mode

1. Press the [SRC] button to change the operation mode.
2. Each time you press the [SRC] button, the operation mode changes in the following order:
Radio mode → CD mode → Radio mode...

Note:

- If the CD mode is selected when no disc is inserted, the display shows "NO DISC".

Adjusting the volume

Turning the [ROTARY] knob clockwise increases the volume; turning it counterclockwise decreases the volume.

- * The volume level is from 0 (minimum) to 33 (maximum).

Setting the Z-Enhancer

This unit are provided with 3 types of sound tone effects stored in memory. Select the one you prefer.

- * The factory default setting is Z-EHCR OFF.

Each time you press the [Z] button, the tone effect changes in the following order:

Z-ENHANCER 1 → Z-ENHANCER 2 → Z-ENHANCER 3 → Z-EHCR OFF → Z-ENHANCER 1...

- Z-ENHANCER 1 : bass emphasized
- Z-ENHANCER 2 : treble emphasized
- Z-ENHANCER 3 : bass and treble emphasized
- Z-EHCR OFF : no sound effect

Audio mode adjustments

1. Press the [A-M] button to select the adjustment mode. The mode switches as follows each time the [A-M] button is pressed:

BASS → TREB → BAL → FAD → Previous mode

- * When the Z-Enhancer function is turned on, BASS (Bass) and TREB (Treble) cannot be selected.

2. Turning the [ROTARY] knob to adjust the selected audio mode.

BASS (Bass) : Adjustment range: -7 to +7

TREB (Treble) : Adjustment range: -7 to +7

BAL (Balance) : Adjustment range: L13 to R 13

FAD (Fader) : Adjustment range: F12 to R12

3. When the adjustment is complete, press the [A-M] button several times until the function.

Basic Operations

Turning on/off MAGNA BASS EX

The MAGNA BASS EX does not adjust the low sound area like the normal sound adjustment function, but emphasizes the deep bass sound area to provide you with a dynamic sound.

* The factory default setting is off.

Press and hold the **[A-M]** button for 1 second or longer to turn the MAGNA BASS EX and "M-B EX" in the display lights on or off.

Switching display

Press and hold the **[BND]** button, and then press the **[DISP]** button to select the desired display.

The display switches in the following order:

Main Display → Clock (CT) Display →
Main Display ...

* If the display is changed by other button operation when the clock (CT) is displayed, the clock display returns automatically after the operation.

CT (Clock Time) function

The CT function enables you to display clock time only when CT data is received.

Press and hold the **[BND]** button, and then press the **[DISP]** button, the display switches to CT (Clock Time).

* When no CT data is received, "CT—:—" appears in the display.

Note:

- There are some countries and stations where clock time data are not transmitted. In some areas, the CT may not be displayed correctly.

Triggered audio mute for cellular telephones

This unit requires special wiring to mute the audio signal automatically when a cellular telephone rings in the car.

* This function is not compatible with all cellular telephones. Contact your local authorized Clarion dealer for information on proper installation and compatibility.

* The factory default setting is "TEL OFF".

Press and hold the **[BND]** button, and then press the **[▶||]** to select the "TEL MUTE" or "TEL OFF".

TEL MUTE: mutes the audio sound.

TEL OFF: does not mute the audio sound.

▶ TEL MUTE → TEL OFF]

* During telephone interrupt, the display shows "TEL"

Illumination dimmer function

When the illumination line of this unit is connected with the car-side illumination signal line, the display illumination of this unit dims in connection with turning on the car-side illumination.

Turning the screen saver function on or off

This unit is provided with the screen saver function. You can turn on or off this function.

If the button operation is performed with the screen saver function on, the operation display corresponding to the button operation is shown for about 30 seconds and the display returns to the screen saver display.

* The factory default setting is on.

Press the **[SS]** button while keeping the **[BND]** button pressed, to turn the screen saver function on or off.

Radio Operations

Listening to the radio

1. Press the **[SRC]** button and select the radio mode. The frequency or PS appears in the display.
 - * PS: Programme service name
2. To select a preset band, press the **[BND]** button, then select one of the preset bands such as FM1, FM2, FM3 or AM. Every time the **[BND]** button is pressed, the display will change as: F1→F2→F3→AM→F1...
3. Press the **[◀]** or **[▶]** button to tune in the desired station.

Tuning

There are 3 types of tuning mode available, seek tuning, manual tuning and preset tuning.

Seek tuning

There are 2 types of seek tuning: DX SEEK and LOCAL SEEK.

DX SEEK can automatically tune in to receivable broadcast stations; LOCAL SEEK can tune in to only broadcast stations with a good reception sensitivity.

1. Press the **[BND]** button and select the desired band (FM or AM (MW, LW)).
2. Tune into a station.
 - * If **"MANU"** is lit in the display, press and hold the **[BND]** button for 1 second or longer.
 - * If **"TA"** is lit in the display, TP stations are automatically sought.

● DX SEEK

Press the **[◀]** or **[▶]** button to automatically seek a station.

When the **[▶]** button is pressed, the station is sought in the direction of higher frequencies; if the **[◀]** button is pressed, the station is sought in the direction of lower frequencies.

* When seek tuning starts, **"DX"** appears in the display.

● LOCAL SEEK

If you press and hold the **[◀]** or **[▶]** button for 1 second or longer, local seek tuning is carried out. Broadcast stations with good reception sensitivity are selected.

* When local seeking starts, **"LO"** appears in the display.

Manual tuning

There are 2 ways available: Quick tuning and step tuning.

When you are in the step tuning mode, the frequency changes one step at a time. In the quick tuning mode, you can quickly tune the desired frequency.

1. Press the **[BND]** button and select the desired band (FM or AM (MW/LW)).
 - * If **"MANU"** is not lit in the display, press and hold the **[BND]** button for 1 second or longer. **"MANU"** is lit in the display and manual tuning is now available.
2. Tune into a station.

● Quick tuning:

Press and hold the **[◀]** or **[▶]** button for 1 second or longer to tune in a station.

● Step tuning:

Press the **[◀]** or **[▶]** button to manually tune in a station.

Recalling a preset station

A total of 24 preset positions (6-FM1, 6-FM2, 6-FM3, 6-AM) exists to store individual radio stations in memory. Pressing the corresponding **[DIRECT]** button recalls the stored radio frequency automatically.

1. Press the **[BND]** button and select the desired band (FM or AM (MW/LW)).
2. Press the corresponding **[DIRECT]** button to recall the stored station.
 - * Press and hold one of the **[DIRECT]** buttons for 1 second or longer to store that station into preset memory.

Manual memory

1. Select the desired station with seek tuning, manual tuning or preset tuning.
2. Press and hold one of the **[DIRECT]** buttons for 1 second or longer to store the current station into preset memory.

Radio Operations

Auto store

Auto store is a function for storing up to 6 stations that are automatically tuned in sequentially. If 6 receivable stations cannot be received, a previously stored station remains unoverwritten at the memory position.

Notes:

- The only FM band that can store the stations will automatically be stored in FM3.
 - When the auto store is performed, the station previously stored in the memory at that position is overwritten.
 - If there are fewer than 6 stations with good reception, the stations previously stored at the remaining [DIRECT] buttons are not overwritten.
 - A station already stored in one of [DIRECT] buttons cannot be stored in another [DIRECT] buttons.
1. Press the [BND] button and select the desired band (FM or AM (MW/LW)).
 2. Press and hold the [P/A] button for 1 second or longer. The stations with good reception are stored automatically to the preset channels.
 - * If auto store is performed in the FM bands, the stations are stored in FM3 even if FM1 or FM2 was chosen for storing stations.

Preset scan

Preset scan receives the stations stored in preset memory in order. This function is useful when searching for a desired station in memory.

1. Press the [P/A] button.
2. When a desired station is tuned in, press the [P/A] button again to continue receiving that station.

Note:

- Be careful not to press and hold the [P/A] button for 1 second or longer, otherwise the auto store function is engaged and the unit starts storing stations.

RDS Operations

RDS (Radio Data System)

This unit has a built-in RDS decoder system that supports broadcast stations transmitting RDS data.

This system can display the name of the broadcast station being received (PS) and can automatically switch to the broadcast station with the best reception as you move long distances (AF switching).

Also, if a traffic announcement or programme type is broadcast from an RDS station, no matter what mode you are in, this broadcast is received.

Additionally, if EON information is received, this information enables automatic switching of other preset stations on the same network and interruption of the station being received with traffic information from other stations (TP). This function is not available in some areas.

When using the RDS function, always set the radio to FM mode.

- AF : Alternative Frequency
- PS : Programme Service Name
- PTY : Programme Type
- EON : Enhanced Other Network
- TP : Traffic Programme

* RDS interrupt does not function during AM radio reception.

AF function

The AF function switches to a different frequency on the same network in order to maintain optimum reception.

* The factory default setting is "ON".

● Switching OFF the AF function

Press the [AF] button. "AF" in the display goes off and the AF function turns off.

● Switching ON the AF function

Press the [AF] button. "AF" in the display lights and the AF function turns on.

* If the reception of the current broadcast station deteriorates, "SEARCH" appears in the display and the radio searches for the same programme on another frequency.

RDS Operations

REG (Regional Programme) function

When the REG function is ON, the optimum regional station can be received. When this function is OFF, if the regional station area switches as you drive, a regional station for that region is received.

* The factory default setting is "OFF".

Notes:

- This function is disabled when a national station such as BBC R2 is being received.
- The REG function ON/OFF setting is valid when the AF function is ON.

● Switching the REG function ON

Press and hold the [AF] button for 1 second or longer.

"REG" in the display lights and the REG function turns on.

● Switching the REG function OFF

Press and hold the [AF] button for 1 second or longer.

"REG" in the display goes off and the REG function turns off.

Manually tuning a regional station in the same network

1. This function is valid when the AF function is ON and the REG function is OFF.

Note:

- This function can be used when a regional broadcast of the same network is received.
2. Press any one of the [DIRECT] buttons to call out the regional station.
 3. If the reception condition of the called out station is bad, press the [DIRECT] button of the same number. The unit receives a local station on the same network.

TA (Traffic Announcement)

In the TA standby mode, when a traffic announcement broadcast starts, the traffic announcement broadcast is received as top priority regardless of the function mode so you can listen to it. Traffic programme (TP) automatic tuning is also possible.

* This function can only be used when "TP" is lit in the display. When "TP" is lit, this means that the RDS broadcast station being received has traffic announcement programmes.

● Setting the TA standby mode

If you press the [TA] button when only "TP" is lit in the display, "TP" and "TA" light in the display and the unit is set into the TA standby mode until a traffic announcement is broadcast. When a traffic announcement broadcast starts, "TRA INFO" appears in the display. If you press the [TA] button while a traffic announcement broadcast is being received, the traffic announcement broadcast reception is cancelled and the unit goes into the TA standby mode.

● Cancelling the TA standby mode

With "TP" and "TA" lit in the display, press the [TA] button. The "TA" in the display goes off and the TA standby mode is cancelled.

* If "TP" is not lit, pressing the [TA] button searches for a TP station.

● Searching for a TP station

When "TP" is not lit, if you press the [TA] button, "TA" in the display lights and the unit automatically receives a TP station.

Note:

- If a TP station is not received, the unit continues the search operation. Pressing [TA] button again goes off "TA" in the display and stops TP station searching.

Auto store function for TP stations

You can automatically store up to 6 TP stations into preset memory. If the number of TP that can be received is less than 6, broadcast stations already stored in memory are left without being overwritten.

With "TA" lit in the display, press and hold the [P/A] button for 2 seconds or longer. The TP stations with the good reception sensitivity are stored into present memory.

* Even if you select FM1 or FM2, a TP station is stored into memory for FM3.

PTY

This function enables you to listen to a broadcast of the selected programme type when it starts even if the unit is on a function mode other than radio.

- * Some countries do not yet have PTY broadcast.
- * In the TA standby mode, a TP station has priority over a PTY broadcast station.

RDS Operations

● Setting the PTY standby mode

When you press the [PTY] button, "PTY" lights in the display and the PTY standby mode is turned on. When the selected PTY broadcast starts, the PTY item name appears in the display.

● Cancelling the PTY standby mode

When you press and hold the [PTY] button for 1 second or longer, "PTY" goes off in the display and PTY standby mode is cancelled.

● Cancelling a PTY interrupt broadcast

Press the [PTY] button during the PTY interrupt broadcast, the PTY interrupt is cancelled and the unit returns to PTY standby mode.

Selecting PTY

1. When you press the [PTY] button, the unit goes into PTY select mode.
2. Press any one of the [DIRECT] buttons. Alternatively, turn the [ROTARY] knob clockwise or counterclockwise to select the desired PTY.

* Below are the factory default settings stored for the [DIRECT] buttons.

Preset number	PTY item	
	ENGLISH	Contents
1	NEWS	News
2	INFO	Information
3	POP M	Pop Music
4	SPORT	Sport
5	CLASSICS	Serious Classical Music
6	EASY M	Easy Listening Music

3. The PTY select mode is cancelled automatically 7 seconds after a PTY is selected.

PTY seek

1. When you press the [PTY] button, the PTY select mode is turned on.
2. Select PTY.
3. Press the [◀] or [▶] button. If you press the [▶] button, the unit seeks a PTY broadcast moving up the frequencies; if you press the [◀] button, it seeks moving down the frequencies.

PTY preset memory

1. When you press the [PTY] button, the PTY select mode is turned on.
2. Turn the [ROTARY] knob clockwise or counterclockwise to select the desired PTY.

The 29 types of PTY below can be selected.

PTY item	
ENGLISH	Contents
NEWS	News
AFFAIRS	Today's events
INFO	Information
SPORT	Sports
EDUCATE	Education
DRAMA	Drama
CULTURE	Culture
SCIENCE	Science
VARIED	Variety
POP M	Pop music
ROCK M	Rock music
EASY M	Easy music
LIGHT M	Light music
CLASSICS	Classics
OTHER M	Other music
WEATHER	Weather
FINANCE	Finance
CHILDREN	For children
SOCIAL	Social
RELIGION	Religion
PHONE IN	Phone in
TRAVEL	Travel
LEISURE	Leisure
JAZZ	Jazz
COUNTRY	Country
NATION M	Nation music
OLDIES	Oldies
FOLK M	Folk music
DOCUMENT	Documentaries

3. If you press and hold any one of the [DIRECT] buttons for 2 seconds or longer, the selected PTY is stored into that preset channel memory.

RDS Operations

Emergency broadcast

If an emergency broadcast is received, all the function mode operations are stopped. "ALARM" appears in the display and the emergency broadcast can be heard.

● Cancelling an emergency broadcast

If you press the [AF] button, emergency broadcast reception is cancelled.

Volume setting of TA, emergency broadcast (ALARM) and PTY

The volume for TA, ALARM and PTY interrupts can be set during TA, ALARM or PTY interrupt.

* The factory default setting is "15".

During a TA, ALARM or PTY interrupt, turn the [ROTARY] knob clockwise or counterclockwise to set the volume to the desired level (0 to 33).


* When the TA, ALARM or PTY interrupt ends, the volume returns to the level it had before the interrupt.

CD Mode Operations

Loading a CD

1. Press the [OPEN] button to access the CD SLOT behind the FLIP DOWN PANEL.
2. Insert a CD into the center of the CD SLOT with the label side facing up. The CD plays automatically after loading.

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  mark and CD-ROMs cannot be played by this unit.
 - Some CDs recorded in CD-R/CD-RW mode may not be usable.
3. Close the FLIP DOWN PANEL.

CAUTION

Be careful not to catch your hand or fingers while closing the FLIP DOWN PANEL.

Notes:

- If the FLIP DOWN PANEL does not open fully, gently open with your hand.
- After loading a CD, always close the FLIP DOWN PANEL.

Listening to the disc already inserted

Press the [SRC] button to select the CD mode, the CD will start playing.

Stopping (Pausing) playback

While the CD playing pressing the [▶||] button will stop the CD and "PAUSE" indicate.

Press the [▶||] button again to resume playback.

Ejecting a CD

1. Press the [OPEN] button to open the FLIP DOWN PANEL.
 2. Press the [▲] to eject the CD. Take it out from the ejected position.
 3. Close the FLIP DOWN PANEL.
- * If a CD is left in the ejected position for 15 seconds, the CD is automatically reloaded (Auto reload).

Notes:

- If you force a CD into before auto reloading, this can damage the CD.

CD Mode Operations

Top function

Press the **[BND]** button, then the CD will start playing from the first song (track number 1).

Selecting tracks (Songs)

Press the [**◀**] or [**▶**] button.

- ▶ : Playback will start from the next track.
- ◀ : Playback will start from the beginning of the track currently playing. When this button is pressed again, the CD will play from the previous track.

Fast-forward and fast-backward

Press and hold the [**◀◀**] or [**▶▶**] button.

- ▶▶ : To fast-forward
- ◀◀ : To fast-backward

* For Audio CD mode pressing the [**◀◀**] or [**▶▶**] button for 1 second or longer will move forward or backward 5 times faster than normal play, and pressing it for 3 seconds or longer will do the operation 30 times faster.

Scan play (Intro Music Scan)

At Audio CD press the **[SCN]** button, the "SCN" is lit, then the CD will play the first 10 seconds of each track of the whole disc. Press the **[SCN]** button again to disengage the unit from scan play.

* A scan play will start from the track following the one currently playing.

Repeat play

At Audio CD press the **[RPT]** button, the "RPT" is lit, then the track currently playing will be played repeatedly. Press the **[RPT]** button again to disengage the unit from repeat play.

Random play

At Audio CD press the **[RDM]** button, the "RDM" is lit, then the entire tracks on the disc will be played at random. Press the **[RDM]** button again to disengage the unit from random play.

6. IN CASE OF DIFFICULTY

Problem	Cause	Solution
Power does not turn on. (No sound is produced)	Fuse is blown.	Replace with a fuse of the same amperage. If the fuse blows again, consult your store of purchase.
	Incorrect wiring.	Consult your store of purchase.
Compact disc cannot be loaded.	Another compact disc is already loaded.	Eject the compact disc before loading the new one.
Sound skips or is noisy.	Compact disc is dirty.	Clean the compact disc with a soft cloth.
	Compact disc is heavily scratched or warped.	Replace with a compact disc with no scratches.
Sound is bad directly after power is turned on.	Water droplets may form on the internal lens when the car is parked in a humid place.	Let dry for about 1 hour with the power on.
Nothing happens when button are pressed. Display is not accurate.	The microprocessor has malfunctioned due to noise, etc.	Turn off the power, then press the [OPEN] button and remove the DCP.
	DCP or main unit connectors are dirty.	Wipe the dirt off with a soft cloth moistened with cleaning alcohol.

7. ERROR DISPLAYS

- To protect the system, this unit has been equipped with self diagnostic functions. If a fault arises, a warning is issued by various error displays. Follow the corrective measures and remove the fault.

Error Display	Corrective Measure
ERROR 2	This error display indicates that a fault has arisen in the mechanism of the source unit (for example, the disc cannot be ejected). → Check the source unit.
ERROR 3	This error display indicates that the pickup focus is off because of a scratched disc or some other factor during source unit play. → Check the compact disc.
ERROR 6	This indicates that the CD's TOC (table of contents) cannot be read, for example because the selected disc is upside-down.

8. SPECIFICATIONS

FM tuner

Frequency Range: 87.5 MHz to 108 MHz
 Usable Sensitivity: 11 dBf
 50 dB Quieting Sensitivity: 17 dBf
 Alternate Channel Selectivity: 75 dB
 Stereo Separation (1 kHz): 35 dB
 Frequency Response (± 3 dB): 30 Hz to 15 kHz

AM tuner

Frequency Range:
 MW 531 kHz to 1602 kHz
 LW 153 kHz to 279 kHz
 Usable Sensitivity: 25 μ V

CD player

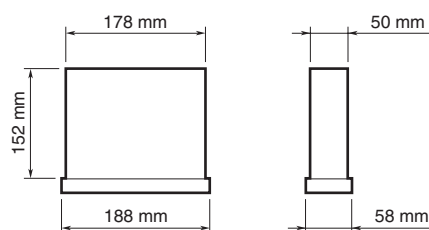
System: Compact disc audio system
 Usable Discs: Compact disc
 Frequency Response: 10 Hz to 20 kHz (± 1 dB)
 Signal-to-Noise Ratio: 100 dB (1 kHz) IHF-A
 Dynamic Range: 95 dB (1 kHz)
 Harmonic Distortion: 0.01%

Audio

Maximum Power Output: 204 W (51 W X 4 ch)
 Continuous Average Power Output:
 25 W X 4, into 4 Ω , 20 Hz to 20 kHz, 1% THD
 Bass Control Action (100 Hz): ± 14 dB
 Treble Control Action (10 kHz): ± 14 dB
 Line Output (with A/C 1 kHz, 10 k Ω): 1.8 V

General

Power Supply Voltage:
 14.4 V DC (10.8 V to 15.6 V allowable), negative ground
 Current Consumption: Less than 15 A
 Speaker Impedance: 4 Ω (4 Ω to 8 Ω allowable)
 Weight: 2.42 lb. (1.1 kg)
 Dimensions:
 178 mm Width X 50 mm Height X 152 mm Depth



Notes:

- Specifications comply with JEITA Standards.
- Specifications and design are subject to change without notice for further improvement.
- Please make sure when connecting external power amplifier, that you properly, to the car chassis, ground the amplifier.
- If this is not done, severe damage to the source unit may happen.