

Clarion

Owner's manual / Mode d'emploi
Bedienungsanleitung / Istruzioni per l'uso
Gebruiksaanwijzing / Manual de instrucciones
Bruksanvisning / Manual de instruções

DB248R/DB248RB **DB148R/BD149R** **BD149RG**

RDS-EON/FM/MW/LW RADIO CD COMBINATION

COMBINE RADIO FM/PO/GO RDS-EON-LECTEUR DE CD

RDS-EON UKW/MW/LW RADIO-CD-KOMBINATION

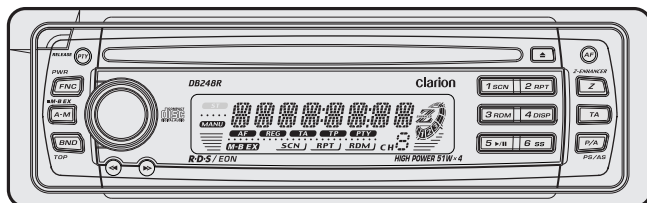
COMBINAZIONE DI RADIO RDS-EON FM/MW/LW E LETTORE CD

RDS-EON FM/MW/LW RADIO CD COMBINATIE

COMBINACIÓN DE RADIO RDS-EON DE FM/MW/LW Y
REPRODUCTOR DE CD

KOMBINERAD FM/MV/LV-RADIO MED RDS-EON OCH CD-
SPELARE

COMBINAÇÃO DE CD COM RÁDIO FM/MW/LW RDS-EON



COMPACT
disc
DIGITAL AUDIO

RDS
EON

ISO
CONNECTOR

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

- * Please read this owner's manual in its entirety before operating this equipment.
- * After reading this manual, be sure to keep it in a handy place (e.g., glove compartment).
- * Check the contents of the enclosed warranty card and keep it carefully with this manual.

CAUTIONS:

This appliance contains a laser system and is classified as a "CLASS 1 LASER PRODUCT". To use this model properly, read this Owner's Manual carefully and keep this manual for your future reference. In case of any trouble with this player, please contact your nearest "AUTHORIZED service station". To prevent direct exposure to the laser beam, do not try to open the enclosure.

!CAUTION

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED IN THE OWNER'S MANUAL MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

ADVARSEL.

Denne mærking er anbragt udvendigt på apparatet og indikerer, at apparatet arbejder med laserstråler af klasse 1, hvilket betyder, at der anvendes laserstråler af svageste klasse, og at man ikke på apparatets yderside kan blive udsat for utilsigelig kraftig stråling.

APPARATET BØR KUN ÅBNES AF FAGFOLK MED SÆRLIGT KENDESKAB TIL APPARATER MED LASERSTRÅLER!

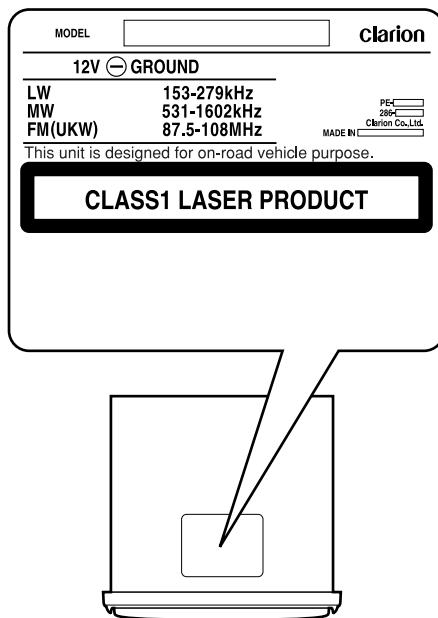
Indvendigt i apparatet er anbragt den her gengivne advarselmærkning, som advarer imod at foretage sådanne indgreb i apparatet, at man kan komme til at udsætte sig for laserstråling.

OBS!

Apparatet innehåller laserkomponenten som avger laserstrålning överstigande gränsen för laserklass 1.

VAROITUS

Suojakoteloja si saa avata. Laite sisältää laserdiodin, joka lähettää näkymätöntä silmille vaarallista lasersäteilyä.



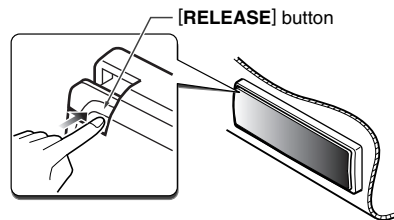
4. DCP

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.

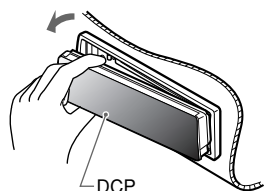
Removing the DCP

1. Press the [FNC] button for 1 second or longer to switch off the power.
2. Press in the [RELEASE] button.



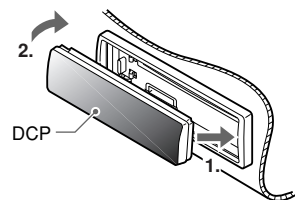
* The DCP is unlocked

3. Remove the DCP.



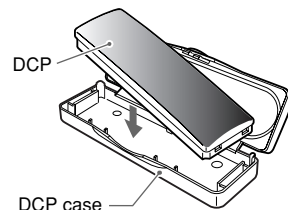
Attaching the DCP

1. Insert the right side of the DCP into the main unit.
2. Insert the left side of the DCP into the main unit.



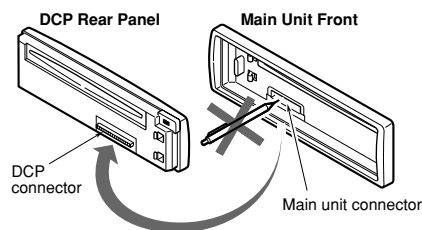
Storing the DCP in the DCP Case

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.)



CAUTION

- The DCP can easily be damaged by shocks. After removing it, be careful not to drop it or subject it to strong shocks.
- When the Release button is pressed and the DCP is unlocked, the car's vibrations may cause it to fall. To prevent damage to the DCP, always store it in its case after detaching it. (see figure below.)
- The connector connecting the main unit and the DCP is an extremely important part. Be careful not to damage it by pressing on it with fingernails, screwdrivers, etc.



Note:

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

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1. PRECAUTIONS

1. This unit is applicable for on-road 4 wheel vehicle purpose only. Use for tractor, fork truck, bulldozer, off road vehicle, 2 or 3 wheel motor bicycle, marine boat or other special purpose vehicle is not appropriate.
2. 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.
3. Driving on extremely bumpy roads which cause severe vibration may cause the sound to skip.

INFORMATION FOR USERS:

CHANGES OR MODIFICATIONS TO THIS PRODUCT NOT APPROVED BY THE MANUFACTURER WILL VOID THE WARRANTY.

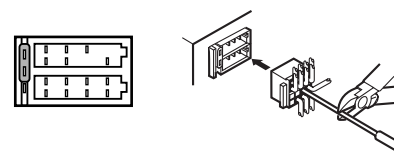
For VW and Audi Vehicles

1. When the car stereo is installed in 1998 and later Volkswagen models, make sure to cut the car lead wire connected the A-5 terminal. (A breakdown could occur if the lead wire is not cut.) After cutting the lead wire, insulate the front end of the lead wire with insulation tape to prevent the risk of short-circuits.


Note:

Before cutting the lead wire, disconnect the car battery - (negative) cable.

2. When the main unit is also connected to an external amplifier, connect REMOTE on the external amplifier to the previously cut lead wire on the side of the connector.
3. Volkswagen models have already changed position of the fuse for installation in such vehicles.



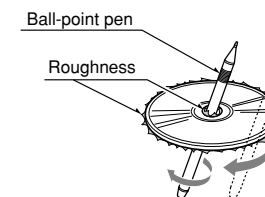
Handling Compact Discs

Use only compact discs bearing the  mark.

Do not play heart-shaped, octagonal, or other specially shaped compact discs.

Handling

- Compared to ordinary music CDs, CD-R and CD-RW discs are both easily affected by high temperature and humidity and some of CD-R and CD-RW discs may not be played. Therefore, do not leave them for a long time in the car.
- 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.

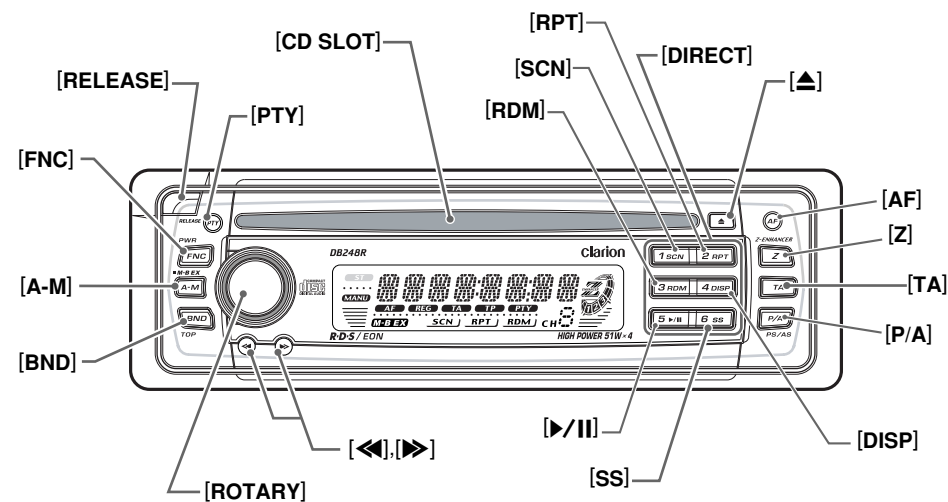


- Never stick labels on the surface of the compact disc or mark the surface with a pencil or pen.
- Never play a compact disc with any cellophane tape or other glue on it or with peeling off marks. If you try to play such a compact disc, you may not be able to get it back out of the CD player or it may damage the CD player.
- Do not use compact discs that have large scratches, are misshapen, cracked, etc. Use of such discs may cause misoperation or damage.
- To remove a compact 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 CD protection sheets or discs equipped with stabilizers, etc. These may damage the disc or cause breakdown of the internal mechanism.

Be sure to unfold and read the next page. / Veuillez déplier et vous référer à la page suivante.
Bitte ausbreiten und die nächste Seite lesen. / Assicurarsi di aprire e leggere la pagina successiva.
Volgende pagina uitvouwen en doorlezen a.u.b. / Cerciórese de desplegar y de leer la página siguiente.
Glöm inte att vika ut och läsa nästa sida. / Não deixe de abrir e ler a próxima página.

2. CONTROLS / LES COMMANDES / REGLER / CONTROLLI REGELAARS / CONTROLES / KONTROLLER / CONTROLOS

Main unit / Appareil principal / Hauptgerät / Apparecchio principale
Hoofdtoestel / Unidad principal / Huvudenhet / Unidade principal



Note: Be sure to unfold this page and refer to the front diagrams as you read each chapter.

Remarque: Veuillez déplier cette page et vous référer aux schémas quand vous lisez chaque chapitre.

Hinweis: Bitte diese Seite ausfallen und beim Lesen der einzelnen Kapitel die Frontdiagramme beachten.

Nota: Assicurarsi di aprire questa pagina e fare riferimento a questi diagrammi quando si legge ciascun capitolo.

Opmerking: Vouw deze pagina uit en zie tevens de afbeeldingen van het voorpaneel tijdens het doorlezen van de volgende hoofdstukken.

Nota: Cuando lea los capítulos, despliegue esta página y consulte los diagramas.

Observera: Vik ut denna sida för att kunna se figurerna över bilstereons framsida medan du läser de olika kapitlen.

Nota: Certifique-se de abrir esta página e consulte os diagramas frontais conforme realiza a leitura de cada capítulo.

3. NOMENCLATURE

Note:

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

Names of the Buttons and their Functions

[FNC] button

- Press the button to turn on the power.
Press and hold the button for 1 second or longer to turn off the power.
- Switches the operation mode among the radio mode, etc.

[RELEASE] button

- Press the [RELEASE] button to unlock the DCP.

[PTY] button

- Use the button to set the PTY (Programme Type) standby mode or PTY items.

[CD SLOT]

- CD insertion slot.

[RDM] button

- Performs random play while in the CD mode.

[SCN] button

- Performs scan play for 10 seconds for each track while in the CD mode.

[RPT] button

- Plays repeatedly while in the CD mode.

[DIRECT] button

- Stores a station into memory or recall it directly while in the radio mode.

[▲] button

- Ejects a CD when it is loaded into the unit.

[AF] button

- Press the button to turn on or off the AF (Alternative Frequency) function.
- When the button is pressed and held, Regional function can select ON or OFF.

[Z] button

- Use the button to select one of the three types of sound characteristics already stored in memory. (Z-Enhancer)

[TA] button

- Use the button to set the TA (Traffic Announcement) standby mode.

[P/A] button

- Performs preset scan while in the radio mode. When the button is pressed and held, auto store is performed.

[DISP] button

- Press the [DISP] button while keeping the [BND] button pressed, to switch the display indication (Main display, clock display).

[SS] button

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

[▶/||] button

- Plays or pauses a CD while in the CD mode.

[◀], [▶] button

- Selects a station while in the radio mode or selects a track when listening to a CD.
- Press and hold the button for 1 second or longer to switches the fast-forward/fast-backward.

[ROTARY] knob

- Adjust the volume by turning the knob clockwise or counterclockwise.
- Use the knob to perform various settings.

[BND] button

- Switches the band, or seek tuning or manual tuning while in the radio mode.
- Plays a first track while in the CD mode.

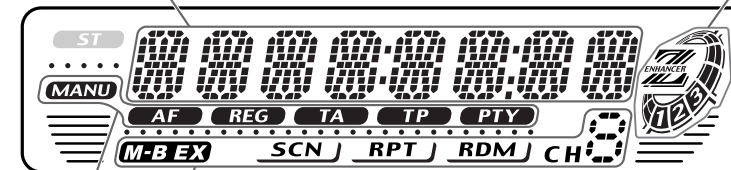
[A-M] button

- Press and hold the button for 1 second or longer to switch the MAGNA BASS EXTEND on/off.
- Use the button to switch to the audio mode (bass/treble, balance/fader)

Display Items

Operation status indication
PS names, PTYS, CT (clock), etc. are displays.

Z-enhancer indication



M-B EX : M-B EX (MAGNA BASS EXTEND) indication

SCN : Scan indication

RPT : Repeat indication

RDM : Random indication

CH : Preset channel indication (1 to 6)

MANU : Manual indication

AF : Alternative frequency indication

REG : Regional indication

TA : Traffic announcement indication

TP : Traffic programme indication

PTY : Programme type indication

LCD Screen

In extreme cold, the screen movement may slow down and the screen may darken, but this is normal. The screen will recover when it returns to normal temperature.

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 [FNC] 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 [FNC] button for 1 second or longer to turn off the power for the unit.

Selecting a mode

1. Press the [FNC] button to change the operation mode.
2. Each time you press the [FNC] 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).

Audio Mode Adjustments

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 TRE (treble) cannot be selected.

Switching display

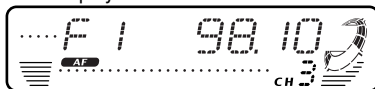
Press and hold the [BND] button, and then press the [DISP] button to select the desired display.

The display switches in the following order:

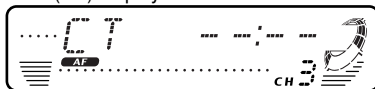
Main → Clock (CT) → Main ...

- * If the display is changed by other button operation when the clock (CT) is displayed, the clock display returns automatically after the operation.
- * The example shows the display in radio mode.

Main display



Clock(CT) display



Main display

Setting the Z-nhancer

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

Basic Operations

Adjusting the bass

1. Press the [A-M] button and select "BASS".
2. Turning the [ROTARY] knob clockwise emphasizes the bass; turning it counterclockwise attenuates the bass.
 - * The factory default setting is "0". (Adjustment range: -7 to +7)
3. When the adjustment is complete, press the [A-M] button several times until the function mode is reached.

Adjusting the treble

1. Press the [A-M] button and select "TREB".
2. Turning the [ROTARY] knob clockwise emphasizes the treble; turning it counterclockwise attenuates the treble.
 - * The factory default setting is "0". (Adjustment range: -7 to +7)
3. When the adjustment is complete, press the [A-M] button several times until the function mode is reached.

Adjusting the balance

1. Press the [A-M] button and select "BAL".
2. Turning the [ROTARY] knob clockwise emphasizes the sound from the right speaker; turning it counterclockwise emphasizes the sound from the left speaker.
 - * The factory default setting is "0". (Adjustment range: L13 to R13)
3. When the adjustment is complete, press the [A-M] button several times until the function mode is reached.

Adjusting the fader

1. Press the [A-M] button and select "FAD".
2. Turning the [ROTARY] knob clockwise emphasizes the sound from the front speakers; turning it counterclockwise emphasizes the sound from the rear speakers.
 - * The factory default setting is "0". (Adjustment range: F12 to R12)
3. When the adjustment is complete, press the [A-M] button several times until the function mode is reached.

Turning on/off MAGNA BASS EXTEND

To adjust the MAGNA BASS EXTEND

The MAGNA BASS EXTEND 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 EXTEND and "M-B EX" in the display lights on or off.

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 ON" or "TEL OFF".

TEL ON: mutes the audio sound.

TEL OFF: does not mute the audio sound.

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

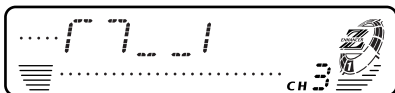
This unit is provided with the screen saver function. You can turn on and off this function.

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.

* The following illustration presents one of the patterns which are shown when the screen saver function is turned on.



Listening to the radio

1. Press the [FNC] button and select the radio mode. The frequency or PS appears in the display.
 - * PS: Programme service name
2. Press the [BND] button and select the radio band. Each time the button is pressed, the radio reception band changes in the following order:

FM1 → FM2 → FM3 → AM (MW/LW) → FM1...
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. "MANU" in the display goes off and seek tuning is now available.
 - * 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.

Radio Operations

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 2 seconds 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 2 seconds or longer to store the current station into preset memory.

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 2 seconds 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 2 seconds 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.

Note:

- The AF mode can only be turned on and off in the RDS mode.

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

RDS Operations

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 preset 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.

● 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.

* If no station with the selected PTY broadcast can be received, the unit returns to the PTY select mode.

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.

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 "19".

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.

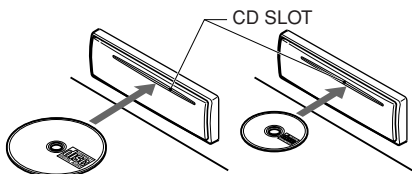
CD Operations

Loading a CD


Insert a CD into the centre of the CD SLOT with the labeled side facing up. "LOADING" appears in the display, the CD enters into the slot, and the play starts.

For CD (12 cm)

For single CD (8 cm)



Notes:

- Do not put your hand, fingers, or foreign objects into the CD SLOT.
- If a CD has already been loaded, another CD cannot be inserted. Do not insert another one forcefully.
- Discs not bearing the  mark cannot be played with the unit. CD-ROMs cannot be played.
- Single CDs (8 cm) shall be loaded without adapter into the right side of the slot.

Listening to a CD already inserted

Press the [FNC] button to select the CD mode. Play starts automatically. If no CD is loaded in the unit, "NO DISC" appears in the display.

Pausing play

1. Press the [▶/||] button to pause play. "PAUSE" appears in the display.
2. To resume CD play, press the [▶/||] button again.

Ejecting a CD

1. Press the [▲] to eject the CD. Take it out from the ejected position.

Note:

- 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).
- * 8 cm CDs are not auto reloaded. Be sure to remove it when ejected.

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.

●Track-down

1. Press the [◀◀] button to move back to the beginning of the current track.
2. Press the [◀◀] button twice to move to the beginning of the previous track.

Fast-forward/fast-backward

●Fast-forward

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

●Fast-backward

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

Top function

The top function resets the CD player to the first track of the disc. Press the [BND] button to play the first track (track No. 1) on the disc.

Scan play

The scan play locates and plays the first 10 seconds of each track on a disc automatically. This function continues on the disc until it is cancelled.

* The scan play is useful when you want to select a desired track.

1. Press the [SCN] button to start scan play. "SCN" lights in the display.
2. To cancel the scan play, press the [SCN] button again. "SCN" goes off from the display and the current track continues to play.

Repeat play

The repeat play continuously plays the current track. This function continues automatically until it is cancelled.

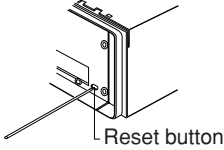
1. Press the [RPT] button. "RPT" lights in the display and the current track is repeated.
2. To cancel the repeat play, press the [RPT] button again. "RPT" goes off from the display and normal play resumes.

Random play

The random play selects and plays individual tracks on a disc in no particular order. This function continues automatically until it is cancelled.

1. Press the [RDM] button. "RDM" lights in the display, an individual track is selected randomly and play begins.
2. To cancel the random play, press the [RDM] button again. "RDM" goes off and normal play resumes.

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 buttons are pressed. Display is not accurate.	Microprocessor has malfunctioned due to noise, etc.	Turn off the power, then press the Release button and remove the DCP. Press the reset button for about 2 seconds with a thin rod. 
	DCP or main unit connectors are dirty.	Wipe the dirt off with a soft cloth moistened with cleaning alcohol.

7. ERROR DISPLAYS

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

Error Display	Cause	Measure
ERROR 2	A CD is caught inside the CD deck and is not ejected.	This is a failure of CD deck's mechanism and consult your store of purchase.
ERROR 3	A CD cannot be played due to scratches, etc.	Replace with a non-scratched, non-warped-disc.
AMP GRD	The speaker protection circuit is operating. During this operation, if any volume operation is performed, the display shows "AMP GRD".	<ol style="list-style-type: none"> 1. Turn down sound volume. Function can also be restored by turning the power off and on again. (Speaker volume is reduced automatically when the speaker protection circuit operates). 2. If the sound is muted again, consult our service department.

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.

8. SPECIFICATIONS

Radio section

Tuning System: PLL synthesizer tuner

Receiving Frequencies:

- FM : 87.5 to 108 MHz (0.05 MHz steps)
- MW : 531 to 1602 kHz (9 kHz steps)
- LW : 153 to 279 kHz (3 kHz steps)

CD player section

System: Compact disc digital audio system

Frequency Response: 10 Hz to 20 kHz (± 1 dB)

Signal to Noise Ratio: 100 dB (1 kHz) IHF-A

Dynamic Range: 93 dB (1 kHz)

Distortion: 0.03%

General

Output Power: 4×27 W (DIN 45324, +B=14.4V)

Power Supply Voltage:
14.4 V DC (10.8 to 15.6 V allowable),
negative ground

Power Consumption: Less than 15 A

Speaker Impedance: 4Ω (4 to 8Ω allowable)

Auto Antenna Rated Current: 500 mA or less

Weight:

Main unit: 1.2 kg

Dimensions:

Main unit :
178 (W) \times 50 (H) \times 155 (D) mm

Note:

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