

Owner's manual Mode d'emploi Manual de instrucciones

## UDB275MP

CD/USB/MP3/WMA RECEIVER RÉCEPTEUR CD/USB/MP3/WMA RECEPTOR CD/USB/MP3/WMA

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## **1. FEATURES**

- Front USB and 3.5mm AUX Input
- 728-Variable Color Display and Illumination Keys
- 50W x 4 Built in MOS-FET Amplifier and 4ch RCA Output



Be sure to unfold and read the next page. Veuillez déployer et vous référer à la page suivante. Cerciórese de desplegar y de leer la página siguiente.



## 2. CONTROLS / COMMANDES / CONTROLES

English

## MAIN UNIT / APPAREIL PRINCIPAL / UNIDAD 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 guand vous lisez chaque chapitre. Nota: Cuando lea los capítulos, despliegue esta página y consulte los diagramas.

## **3. NOMENCLATURE**

## Note:

• Be sure to read this chapter referring to the front diagrams of chapter "2. CONTROLS" on page 3.

## Names of the Buttons and Their Functions

## [CD SLOT]

CD insertion slot.

## [ **\_**] button

• Eject a CD when it is loaded in the unit.

## [SRC] button

- Press the button to turn on the power.
- Press and hold the button for 1 second or longer to turn off the power.
- Switch the Operation mode among the Radio mode, etc.

## [COLOR] button

• Press to change display color.

## [ROTARY] knob

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

## [TITLE] button

- Press the button to switch the track titles, while in the MP3/WMA mode.
- Press and hold the button for 1 second or longer to scroll the title during title display, while in the MP3/WMA mode.

## [I◀◀,►►I] buttons

- Select a station while in the Radio mode or select a track when listening to a CD/USB. These buttons are used to make various settings.
- Press and hold the button for 1 second or longer to enter the fast-forward or fast-backward in CD/USB mode.

## [DISP] button

- During Radio/CD-DA/AUX mode, switch the display indication (Main display, Clock display).
- During MP3/WMA mode, switch the display indication in the following order:

Track No./Play time → Folder No./Track No.→ Title Display → Clock Display → Track No./ Play time...

## [►/II] button

- Perform preset scan while in the Radio mode.
- Press and hold the button for 2 seconds or longer to perform auto store.
- Play or pause a track while in the CD/USB mode.

## [SENSOR]

- Receiver for remote controller.
- Operating range: 30° in all directions.

## [USB PORT]

USB memory device insertion port.

## [AUX] input

Auxiliary jack insertion.

## [PUSH OPEN] cover

• Push to open the flip down cover.

## [SCN] button

- Perform scan play for 10 seconds of each track while in the CD-DA/MP3/WMA mode.
- Press and hold the button for 1 second or longer to perform all scan play while in the MP3/WMA mode.

## [RPT] button

- Perform repeat play while in the CD-DA/MP3/ WMA mode.
- Press and hold the button for 1 second or longer to perform all repeat play while in the MP3/WMA mode.

## [RDM] button

- Perform random play while in the CD-DA/MP3/ WMA mode.
- Press and hold the button for 1 second or longer to perform all random play while in the MP3/WMA mode.

## [F-UP], [F-DN] buttons

- Select the folder in MP3/WMA disc or USB memory device.
- Press the button to select CD-DA or MP3/WMA playback on a multi-session disc.

## Names of the Buttons and Their Functions

## [BAND] button

- Switch the band, seek tuning or manual tuning while in the Radio mode.
- Play the first track while in the CD/USB mode.

## [A-M] button

- Press the button to switch to the Audio mode (Bass, Treble, Balance, Fader).
- Press and hold for 1 second or longer to turn on or off the M-B EX mode.

### [Z-EHCR] button

 Press the button to select one of the 3 types of sound characteristics already stored in memory.

## [ADJ] button

• Press the button to switch to the ADJ mode.

## [ISR] button

- Recall ISR radio station in memory.
- Press and hold for 2 seconds or longer: Store current station into ISR memory (Radio mode only).

## [DIRECT] buttons

• Store a station into memory or recall it directly while in the Radio mode.

## **Display Items**



## **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.

## 4. PRECAUTIONS

- During extreme cold temperatures, condensation may form on the disc and/or the optical part of the player. If the disc exhibits condensation, carefully wipe off the disc with a soft cloth. In the event the disc still does not play properly, eject the disc and allow the condensation to disappear naturally from the optical parts of the player. Radio, Auxiliary and USB functions can still be used during this time which may take up to an hour.
- Driving on extremely bumpy roads may cause the CD to skip.
- 3. 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.

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 consult the dealer or an experienced radio/TV technician for help.

**Bottom View of Source Unit** 



## 

USE OF CONTROLS, ADJUSTMENTS, OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN, MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

THECOMPACT DISC PLAYER SHOULD NOT BE ADJUSTED OR REPAIRED BY ANYONE EXCEPT PROPERLY QUALIFIED SERVICE PERSONNEL.

#### INFORMATION FOR USERS:

CHANGES OR MODIFICATIONS TO THIS PRODUCT NOT APPROVED BY THE MANU-FACTURER WILL VOID THE WARRANTY AND WILL VIOLATE FCC APPROVAL.

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## **5. HANDLING COMPACT DISCS**

This unit has been designed specifically for playback of compact discs bearing the disc mark. No other discs can be played.

To remove the 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.



Always handle the compact disc by the edges. Never touch the surface.

To remove fingermarks and dust, use a soft cloth, and wipe in a straight line from the center of the compact disc to the circumference.



New discs may have some roughness around the edges. The unit may not work or the sound may skip if such discs are used. Use a ball-point pen, etc. to remove roughness from the edge of the disc.



## Note on compact discs

Never stick labels on the surface of the compact disc or mark the surface with a pencil or pen.



Do not use any solvents such as commercially available cleaners, anti-static spray, or thinner to clean compact discs.



Do not use compact discs that have large scratches, are misshapen, or cracked, etc. Use of such discs will cause misoperation or damage.



Do not expose compact discs to direct sunlight or any heat source.



#### Note:

• Do not use commercially available CD protection sheets or discs equipped with stabilizers, etc. These may get caught in the internal mechanism and damage the disc.

## 6. REMOTE CONTROL



## **Inserting the Battery**

- 1. Turn over the remote control unit and slide the cover in the direction indicated by the arrow in the illustration.
- 2. Insert the battery (CR2025) into the insertion guides, with the printed side (+) facing upwards.
- Press the battery in the direction indicated by the arrow so that it slides into the compartment.
- 4. Replace the cover and slide in until it clicks into place.



#### Notes:

Misuse may result in rupture of the battery, producing leakage of fluid and resulting in personal injury or damage to surrounding materials. Always follow these safety precautions:

- Use only the designated battery.
- When replacing the battery, insert properly, with +/- polarities oriented correctly.
- Do not subject battery to heat, or dispose of in fire or water. Do not attempt to disassemble the battery.
- Dispose of used batteries properly.



## **Functions of Remote Control Unit Buttons**

Mode Button	Radio	CD-DA	MP3/WMA (Disc and USB)	AUX
[SRC]		ne button to power on. nd hold the button for 1 second or longer: Power off. among radio, CD, USB and AUX.		
[BND]	Switch reception band.	Play the first track.Top	play.	No function.
[▲],[▼]	Increase and decrease	volume (in all modes).		
[I◀◀],[▶▶Ⅰ]	Move preset chan- nels up and down.	Move tracks up and do Press and hold the but longer: Fast-forward/fa	ton for 1 second or	No function.
[►/Ⅲ]	Turn mute on and off.	Switch between playba	ick and pause.	No function.
[MUTE]				Turn mute on and off
[ISR]		Recall ISR radio station in memory. Press and hold for 2 seconds or longer: Store current station into ISR memory (Radio mode only).		
[DISP]	Switch among main dis display.	witch among main display and clock splay. Switch among main display, title display and clock display.		Switch among main display and clock display.
[SCN]	Preset scan. Press and hold the button for 2 seconds or longer: Auto store.	Scan play.	Scan play. Press and hold the button for 1 second or longer to perform all scan play while in the MP3/WMA mode.	No function.
[RPT]	No function.	Repeat play.	Repeat play. Press and hold the button for 1 second or longer to perform all repeat play while in the MP3/WM mode.	No function.
[RDM]	No function.	Random play.	Random play. Press and hold the button for 1 second or longer to perform all random play while in the MP3/WM mode.	No function.

\* Some of the corresponding buttons on the main unit and remote control unit have different functions.

## 7. OPERATIONS

## **Basic Operations**

Note: Be sure to read this chapter referring to the front diagrams of chapter "2. CONTROLS" on page 3 (unfold).

## 

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 much, 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 of the 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 $\rightarrow$ CD mode $\rightarrow$ (USB mode) $\rightarrow$ AUX mode $\rightarrow$ Radio mode...

The 3-digit message knob indication will display the correspondence mode as the following:

Radio mode : [11], [112], [113], [114

- If the CD mode is selected when no disc is inserted, the display shows "NO DISC".
- If no USB drive is inserted, USB mode will not be displayed.

## Switching the display

- 1. Press the [**DISP**] button to select the desired display.
- 2. Each time you press the [**DISP**] button, the display switches in the following order:
- Radio/CD (CD-DA)/AUX Mode:

#### Main display $\rightarrow$ Clock display $\rightarrow$ Main display

• MP3/WMA (Disc and USB) Mode:

Main-1 display (Track No., play time) → Main-2 Display (Folder No., Track No.) → Title Display → Clock Display → Main-1 Display...

\* Once selected, the preferred display becomes the display default. When a function adjustment such as volume is made, the screen will momentarily switch to that function's display, then revert back to the preferred display several seconds after the adjustment.

## Adjusting the volume

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

"VOLUME:XX" will be shown in the display while "VXX" will be displayed in the message knob indication where"XX" is the volume level from 0 (minimum) to 33 (maximum).

\* The factory default setting for volume is "17".

### **Displaying additional buttons**

- 1. Push the [**PUSH OPEN**] cover to open the flip down cover that consists of the following buttons:
  - [DIRECT]
  - [BAND]
  - [A-M]
  - [Z-EHCR]
  - [ADJ]
  - [ISR]

Note: • Try to avoid pushing down the cover further after flipping down.



2. Close the cover properly when not in use.

### Note:

 If you accidently push down the cover further after flipping down, you can close the cover back and push 2 sides of the cover to return to normal condition.



## 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**  $\rightarrow$  **TREB**  $\rightarrow$  **BAL**  $\rightarrow$  **FAD**  $\rightarrow$  previous display.

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 : L12 to R12

FAD (Fader) : Adjustment range : F12 to R12

\* The display returns to the previous mode 7 seconds after the adjustment.

### Note:

- Bass and Treble can only be adjusted when the "Z-Enhancer" is off.
- When the adjustment is complete, press the [A-M] button several times until the Function mode is reached.

## Adjusting the bass

- 1-1 Press the [A-M] button and select "BASS 0".
- 2-1. Turning the [ROTARY] knob clockwise emphasizes the bass; turning it counterclockwise attenuates the bass.
  - \* The factory default setting is "BASS 0".

## Adjusting the treble

- 1-1. Press the [A-M] button and select "TREB 0".
- 2-1. Turning the [ROTARY] knob clockwise emphasizes the bass; turning it counterclockwise attenuates the bass.
  - \* The factory default setting is "BASS 0".

## Adjusting the balance

- 1. Press the [A-M] button and select "BAL 0".
- 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 "BAL 0".

## Adjusting the fader

- 1. Press the [A-M] button and select "FAD 0".
- 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 "FAD 0".

## Setting the Z-Enhancer

This unit is 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-EHCR**] button, the tone effect changes in the following order:



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

## Adjusting 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 on the MAGNA BASS EX effect. M-BEX lights in the display.
- Press and hold the [A-M] button for 1 second or longer to turn off the MAGNA BASS EX effect. M-BEX goes off from the display.

## AUX function

This system has an external jack input in the front panel where you can listen to sounds and music from external devices connected to this unit.

1. Connect the external music player to the [AUX] input. Display will automatically switch to AUX mode. Alternatively, user can press the [SRC] button to select the AUX mode.

### Notes:

- Use only the 3.5mm stereo jack for the AUX jack input.
- Volume can be adjusted through the unit. If you face difficulties of hearing sound even after volume has been adjusted, please refer section "Selecting AUX IN sensitivity" on page 24 for details.
- Remove the audio jack from [AUX] input during AUX mode will revert to Radio mode automatically.



## **Radio Operations**

## Listening to the radio

- 1. Press the [SRC] button and select the Radio mode, then the radio will be on.
- To select a preset band, press the [BAND] button, then select one of the preset bands such as FM1, FM2, FM3 or AM. Every time the [BAND] button is pressed, the display will change as:

 $\mathsf{FM1} \rightarrow \mathsf{FM2} \rightarrow \mathsf{FM3} \rightarrow \mathsf{AM} \rightarrow \mathsf{FM1}...$ 

3. Press the [I◀◀, ▶▶I] button to tune in the desired station.

## Seek tuning

- 1 Press the [**BAND**] button and select the desired band (FM or AM).
  - \* If **MANU** is not lit in the display, press and hold the [**BAND**] button for 1 second or longer.

**MANU** in the display goes off and seek tuning is now available.

Press the [I◄◀, ►►I] button to start automatic station tuning.

When the [▶▶] button is pressed, search will be performing in the direction of higher frequencies. When the [I◄] button is pressed, search will be performed in the direction of lower frequencies.

## 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 [**BAND**] button and select the desired band (FM or AM).
  - \* If MANU is not lit in the display, press and hold the [BAND] 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 [I◀◀, ►►I] button for 1 second or longer to begin station tuning.

## • Step tuning:

Press the [I◀◀,▶▶I] button to perform manual tuning.

## **Preset memory function**

Preset memory function can store up to 24 stations:

six stations for each of FM1, FM2, FM3 and AM.

## Manual memory function

- 1. Press the [**BAND**] button, to select a band you want to store in the memory.
- 2. Press the [I◄◀, ▶►I] button to tune into a desired station.
- 3. 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.

- 1. Press the [**BAND**] button and select the desired band (FM or AM).
- Press and hold the [▶/II] button for 2 seconds or longer. The stations with good reception are stored automatically to the preset channels.

## 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 [▶/II] button.
- When a desired station is tuned in, press the [▶/II] button again to continue receiving that station.

#### Note:

• Be careful not to press and hold the [ >/II] button for 2 seconds or longer, otherwise the auto store function is engaged and the unit starts storing stations.

## **Radio Operations**

## **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 [**BAND**] button and select the desired band (FM or AM).
- 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.

## Instant station recall (ISR)

Instant station recall is a special radio preset that instantly accesses a favorite radio station at a touch of a button. The ISR function even operates with the unit in other modes.

#### ISR memory

- 1. Select the station that you wish to store in ISR memory.
- 2. Press and hold the **[ISR]** button for 2 seconds or longer.

#### • Recalling a station with ISR

In any mode, press the **[ISR]** button to turn on the radio function and tune the selected radio station. "**ISR**" appears in the display. Press the **[ISR]** button again to return to the previous mode.

## **CD/MP3/WMA** Operations

## What is MP3?

MP3 is an audio compression method and classified into audio layer 3 of MPEG standards. This audio compression method has penetrated into PC users and become a standard format. This MP3 features the original audio data compression to about 12 percent of its initial size with a high quality sound. This means that about 10 music CDs can be recorded on a CD-R disc or CD-RW disc to allow a long listening time without having to change CDs.

## What is WMA?

WMA is the abbreviation of Windows Media Audio, an audio file format developed by Microsoft Corporation.

#### Notes:

- If you play a file with DRM (Digital Rights Management) enabled for WMA, no audio is output. "--:--" will be blinking for several seconds before it skips to next track.
- Windows Media<sup>™</sup>, and the Windows<sup>®</sup> logo are trademarks, or registered trademarks of Microsoft Corporation in the United States and/or other countries.

## To disable DRM (Digital Rights Management):

- When using Windows Media Player 8, click on TOOLS → OPTIONS → COPY MUSIC tab, then under COPY SETTINGS unclick the check box for PROTECT CONTENT. Then, reconstruct files.
- When using Windows Media Player 9, click on TOOL → OPTIONS → MUSIC RECORD tab, then under Recording settings, unclick the check box for RECORD PROTECTED MUSIC. Then, reconstruct files.
- When using Windows Media Player 10, click on TOOL → OPTIONS → RIP MUSIC tab, then under Rip settings, unclick the check box for COPY PROTECT MUSIC. Then, reconstruct files.

#### Notes:

- Personally constructed WMA files are used at your own responsibility.
- Disabling DRM can be done if the file is ripped from CD.

#### Precautions when creating MP3/WMA disc

Usable sampling rates and bit rates:

MP3	
Decode Format	MPEG 1, 2 and 2.5 - Layer 3
Sampling rate (kHz)	MPEG-1 : 32, 44.1, 48 MPEG-2 : 16, 22.05, 24 MPEG-2.5 : 8, 12
Bit-rate (kbps)	MPEG-1 : 32 - 320 MPEG-2 : 8 - 160 MPEG-2.5 : 8 - 160 VBR
CD-ROM Format	ISO 9660 Level 1, 2, Romeo and Joliet
WMA	
Sampling rate (kHz)	8, 16, 22.05, 32, 44.1
Bit-rate (kbps)	48, 64, 80, 96, 128, 160, 192
CD-ROM Format	ISO 9660 Level 1, 2, Romeo and Joliet

#### • File extensions

Always add a file extension "**.MP3**" or "**.WMA**" to MP3 or WMA file by using single byte letters. If you add a file extension other than specified or forget to add the file extension, the file cannot be played.

### • Logical format (File system)

- When writing MP3/WMA file on a CD-R disc or CD-RW disc, please select "ISO9660 level 1, 2 or JOLIET or Romeo" as the writing software format. Normal play may not be possible if the disc is recorded on another format. such as packet write disc (UDF) format.
- 2. The folder name and file name can be displayed as the title during MP3/WMA play but the title must be within 28 single byte alphabetical letters and numerals (including an extension).
- 3. Do not affix a name to a file inside a folder having the same name.

### • Folder structure

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

### • Number of files or folders

- 1. Up to 255 files can be recognized per folder. Up to 255 files can be played.
- 2. Up to a maximum of 255 folders can be supported. However, actual folders support will still be depended on total files.
- 3. Tracks are played in the order that they were recorded onto a disc. (Tracks might not always be played in the order displayed on the PC.)
- 4. Some noise may occur depending on the type of encoder software used while recording.

## CD-DA/MP3/WMA selection on multi-session CD

If a multi-session CD which contains CD-DA and MP3/WMA files is being inserted, user can select either CD-DA or MP3/WMA files to be played.

#### Notes:

- CD-DA files will always be the first to be played while MP3/WMA files will be playing subsequently.
- The first folder is always CD-DA files (CD-extra or mixed CD).
- If there is no MP3/WMA files in CD-extra/mixed CD, the unit may mute for a while and start to play from top (CD-DA files).
- 1. Press the [F-UP] button will move to the next folder and MP3/WMA files to be played.
- Press the [F-DN] button will move to the previous folder (if it is first folder) and CD-DA files to be played.

## **Disc-In-Play function**

As long as the ignition key is turned to the ON or ACC position, this function allows you to turn the power to the unit and start playing the disc automatically when the disc is inserted even if the power is not turned on.

## **A** CAUTION

- Do not try to put your hand or fingers in the disc insertion slot. Also never insert foreign objects into the slot.
- Do not insert discs where adhesive comes out from cellophane tape or a rental CD label, or discs with marks where cellophane tape or rental CD labels were removed. It may be impossible to extract these discs from the unit and they may cause the unit to break down.
- This unit is designed for play of 12cm compact disc only. Do not attempt to use 8cm CD singles in this unit, either with or without an adaptor, as damage to the player and/or disc can occur. Such damage will not be covered by the warranty on this product.
- Do not insert transparent disc as it would not be detected by the unit. It may cause difficulties of loading/ejecting the disc even if it is detected.

## **Backup eject function**

Just pressing the  $[\triangle]$  button ejects the disc even if the power to the unit was not turned on. Remove the disc after it is ejected.

#### Notes:

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

## Listening to a disc already loaded in the unit

Press the [SRC] button to select the CD mode.

When the unit enters the CD mode, play starts automatically.

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

 $\mathsf{Radio} \rightarrow \mathsf{CD} \rightarrow (\mathsf{USB}) \rightarrow \mathsf{AUX} \rightarrow \mathsf{Radio}...$ 

## Loading a CD

Insert a CD into the center of the CD SLOT with the labeled side facing up. "**LOADING**" appears in the display, the CD plays automatically after loading.

**MP3** indicator will lit on if the current audio file is MP3 format while **WMA** indicator will lit on if the current audio file is WMA format.

#### Notes:

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

## **Ejecting the CD**

Press the [ $\triangleq$ ] button, then the CD will be ejected.

#### Notes:

- If there is no disc loaded, the indication "NO DISC" appears in the display and return to Radio mode after 4 seconds.
- If the CD is not removed after ejecting, CD will be automatically reloaded after 15 seconds and this will not automatically switch to CD/MP3/WMA mode.

For CD/MP3/WMA playback, please refer to "CD/USB Common Operations".

## USB memory device operation

## Note:

- The following operations are available in USB mode
  - \* Pause
  - \* Track selection
  - \* Fast-forward/fast-backward
  - Top function
  - \* Scan play
  - \* Repeat play
  - \* Random play
  - \* Folder selection

See "CD/USB Common Operations" on page 20.

## About USB

- USB is the abbreviation of Universal Serial Bus, an external bus standard that supports data transfer rates of 12Mbps. The main unit is compatible with USB 1.1/2.0 with maximum data transfer rates of 12Mbps (Full Speed).
- USB memory devices that can be played by connecting to the unit's USB cable are limited to those recognized as "USB mass storage class devices"; operation is not guaranteed with all USB memory devices. For USB memory devices compatibility, please consult Clarion dealer for more information.
  - \* Devices compatible with "**USB Mass Storage Class**" can be used merely by connecting to the host device, without need for special drivers or application software.
- Consult the manufacturer of your USB memory device for information regarding whether it is supported by "USB Mass Storage Class" standards. Please take note that iPod shuffle/nano and harddisk drive (HDD) is not supported.
- To prevent the accidental loss of data, always back up important data to your computer.
- This unit does not support connections to a computer. In addition, connections made through a USB hub device are also not supported.
- If the USB memory device supports multiple partitions, only the first partition will be supported.

- The order in which tracks are recorded may differ depending on the USB memory device connected (the actual playback order may not be the same as that indicated on your computer's display).
- More than 480mA DC to extenal USB memory device is not supported.
- Audio files playable on this unit are limited to MP3/WMA files. For further information on MP3/WMA playback, please refer to "CD/USB Common Operations".

## 

• Do not try to put your hand or fingers in the USB insertion port. Also never insert foreign objects into the port.

USB memory device insertion may result in protruding as it might be dangerous to the user while driving. For safety purposes, it is advisable to use an USB extension cable to connect between the USB memory device and the USB port on the main unit.

- Do not leave a USB memory device unattended in an automobile. Exposure to direct sunlight or high temperatures may cause deformation or other malfunction of the USB memory device.
- When the device is subjected to static electricity or electric noise, this may result in the loss of data.

#### Folder structure

1. An USB memory device with a folder having more than 8 hierarchical levels will be impossible.

### Number of files or folders

1. Up to 15,000 files can be recognized per folder.

Up to 15,000 files can be played.

#### Note:

- Exceeding the files limitation may cause unexpected operation failure.
- 2. Up to a maximum of 255 folders can be supported. However, actual folders support will still be depended on total files.

#### Precautions when creating MP3/WMA on USB memory device

Usable sampling rates and bit rates:

MP3	
Decode Format	MPEG 1, 2 and 2.5 - Layer 3
Sampling rate (kHz)	MPEG-1 : 32, 44.1, 48 MPEG-2 : 16, 22.05, 24 MPEG-2.5 : 8,12
Bit-rate (kbps)	MPEG-1 : 32 - 320 MPEG-2 : 8 - 160 MPEG-2.5 : 8 - 160 VBR
WMA	
Sampling rate (kHz)	8, 16, 22.05, 32, 44.1
Bit-rate (kbps)	48, 64, 80, 96, 128, 160, 192

## Hot plugging function

This unit has the ability to recognize the changes of connecting and disconnecting an USB memory device.

When the unit is powered on, this function allows you to start playing the tracks automatically when the USB memory device is inserted.

## Connecting a USB memory device

- 1. Open the USB cover at the USB port.
- 2. Connect the USB memory device into the port with the correct direction. The use indicator will lit on. **MP3** or **WMA** indicator will lit on according to the audio format of the current track.

Playback will begin from the first track on the USB memory device.

- Always insert the USB memory device fully into the port. Incomplete connections may cause the USB memory device not be recognized.
- Depending on the number of tracks recorded, some amount of time may be required until all tracks are read into the unit.
- USB memory devices may have different shape depends on brands. Some USB memory devices may not be able to plug into the port due to the shape design. Please use an extension cable instead.
- \* Please reconnect the USB memory device when it cannot be detected properly.

#### Note:

 Do not forcibly connect the USB memory device to the port with incorrect direction as this will damage the USB memory device as well as the USB port.



## Listening to a track with USB memory device already connect to the unit

Press the [SRC] button to select the USB mode.

When the unit enters the USB mode, track will start to play automatically.

If there is no USB memory device inserted, USB mode will not be shown for selection.

\* The mode changes each time the [SRC] button is pressed.

 $\mathsf{Radio} \rightarrow \mathsf{CD} \rightarrow (\mathsf{USB}) \rightarrow \mathsf{AUX} \rightarrow \mathsf{Radio}...$ 

## Unplug the USB memory device

Remove the USB memory device from the port during USB mode, the unit will revert to Radio mode automatically.

Alternatively, user can remove USB memory device at any mode. It is safe to remove USB memory device during track playing.

## **CD/USB Common Operations**

Note: CD-DA disc and MP3/WMA disc/USB drive will have different functionalities in some cases. Please read carefully where differences applied.

## Pausing play

- Press the [▶/II] button to pause play. "PAUSE" appears in the display.
- 2. To resume track play, press the [►/II] button again.

## **Display selection**

- 1. You can choose the display type by pressing the [**DISP**] button.
- 2. To select the next type, press the [DISP] button again.

## • CD-DA:

The arrangement is shown below.



#### • MP3/WMA:

The arrangement is shown below.



\* For track number more than 999, only the last 3 digits will be displayed.

## Title display mode

#### • MP3/WMA:

- 1. There are 5 types of display for the Title Display mode.
- 2. To select the next type, press the [TITLE] button for less than 1 second.

The arrangement is shown below.



- 3. The displayed item can be scrolled by pressing the [TITLE] button for more than 1 second.
- 4. If a MP3/WMA file encode with ID3 TAG header but not consist of any TAG information, the following will be displayed respectively.

"NO ALBUM NAME" for Album Tag "NO ARTIST NAME" for Artist Tag

"NO SONG NAME" for Title Tag

#### Notes:

- For MP3, supports ID3 Tags V2.4/2.3/2.2/1.1/1.0.
- The MP3 player decodes each file ID3 TAG ver 2 by default, if ID3 TAG ver 2 is unavailable, ID3 TAG ver 1 will be decoded.
- In the case of album Tags for WMA, the information written into the extension header is displayed.
- Only ASCII characters can be displayed in Tags.
- The folder name will be displayed as "**ROOT**" which the file allocates in the root folder.
- UNICODE ID3 (Chinese, Japanese and etc) is not supported.
- If ID3 TAG has Japanese, Chinese character or other non supported characters, "\*" will be displayed as substitution.

## Selecting a track

#### • Track-up

- 1. Press the [▶▶I] button to move to the beginning of the next track.
- 2. Each time the [►►I] button is pressed, playback proceeds to another track in the advancing direction.

### • Track-down

- Press the [I44] button to move to the beginning of the current track.
- Press the [I◄] button twice to move to the beginning of the previous track.

## Fast-forward/fast-backward

### Fast-forward

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

### Fast-backward

Press and hold the [I

- \* For CD-DA, pressing the [I◄, ►I] 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.
- ∗ For MP3/WMA, pressing the [I◄◄, ►►I] button for 1 second or longer will move forward or backward 10 times faster than normal play per second.

## MP3/WMA playing order

When selected for playing folder up down functions, files and folders are accessed in the order in which they were written by the CD-ROM writer or USB memory device. Because of this, the order in which they are expected to be played may not match the order in which they are actually played. You may be able to set the order in which MP3/WMA are to be played by writing them onto a medium such as a CD-R/USB memory device with their file names beginning with play sequence numbers such as "**01**" to "**99**", depending on your CD writer (CD).

For example, a medium with the following folder/ file hierarchy is shown below. Example of a medium's folder/file hierarchy.



## **Folder Select**

This function allows you to select a folder containing MP3/WMA files and start playing from the first track in the folder.

- 1. Press the [F-UP] button to move the next folder.
- 2. Press the [F-DN] button to move the previous folder.



## **CD/USB Common Operations**

# English

- Press the [F-UP] button while in the final folder will shift to the first folder.
- Folder without a MP3/WMA file is not selectable.
- The first track will always be selected when shifting to next/previous folder.

## Top function

Press the **[BAND**] button, then the CD/USB will start playing from the top.

## CD-DA:

Start to play the first track of the disc.

## MP3/WMA:

Start to play the first track of current folder.

## Other various play functions

## Scan play

#### CD-DA :

This function allows you to locate and play the first 10 seconds of all the tracks recorded on a disc.

#### MP3/WMA:

This function allows you to locate and play the first 10 seconds of all the tracks in current folder.

1. Press the [SCN] button to perform scan play.

The SCN indicator lights in the display.

\* Scan play starts from the next track after the track currently being played.

### All scan play

#### MP3/WMA:

This function allows you to locate and play the first 10 seconds of the first track of all the folders on an MP3/WMA disc/USB memory device.

1. Press and hold the [SCN] button for 1 second or longer to perform all scan play.

The YALLY and SCN indicators light in the display.

\* All scan play starts from the next track after the track currently being played.

#### Repeat play

#### CD-DA, MP3/WMA :

This function allows you to play the current track repeatedly.

 Press the [RPT] button to perform repeat play. The RPT indicator lights in the display.

### All repeat play

#### MP3/WMA:

This function allows you to play all tracks in the MP3/WMA folder repeatedly.

1. Press and hold the **[RPT]** button for 1 second or longer to perform all repeat play.

The  $\gamma$  and **RPT** indicators light in the display.

### • Random play

#### CD-DA:

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

#### MP3/WMA :

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

1. Press the **[RDM]** button to perform random play.

The RDM indicator lights in the display.

### All random play

#### MP3/WMA :

This function allows you to play all the tracks of all the folders recorded on an MP3/WMA disc/ USB memory device in a random order.

1. Press and hold the **[RDM]** button for 1 second or longer to perform all random play.

The YALLY and **RDM** indicators light in the display.

#### • To cancel play

1. Press the operating button previously selected.

## **Operations Common to Each Mode**

## Adjustment Mode

- 1. Press the [ADJ] button to switch to the adjustment selection display.
- Press the [I◄◄, ►►I] button to select the "Item name".

 $\begin{array}{l} \text{``CLOCK(E)''} \longleftrightarrow \text{``KNOB LED''} \leftrightarrow \\ \text{``SCRN SVR''} \longleftrightarrow \text{``A-SCROLL''} \leftrightarrow \\ \text{``AUX SENS''} \longleftrightarrow \text{``TEL-SP''} \leftrightarrow \text{``TEL-SW''} \end{array}$ 

- 3. Turn the [ROTARY] knob to select the "Desired setting value".
  - \* After completing settings, press the **[ADJ]** button to return to the previous mode.

### • Setting the clock

- 2-1. Select "CLOCK (E)".
- 3-1. Press the [▶/II] button.
- 3-2. Press the [I◀◀ , ►► ] button to select the hour or the minute.
- 3-3. Turn the [ROTARY] knob to set the correct time.
  - \* The clock is displayed in 12-hour format.
- 3-4. Press the [▶/II] button to store the time into memory.

#### Note:

 You cannot set the clock when it is displayed with only the ignition on. If you drain or remove the car's battery or take out this unit, the clock is reset. While setting the clock, if another button or operation is selected, the clock set mode is canceled.

### • Setting the message knob indication

User can turn on or off the message knob indication.

- \* The factory default setting is "ON".
- 2-1. Select "KNOB LED".
- 3-1. Turn the [ROTARY] knob to select "ON" or "OFF".

#### • LED ON:

To turn on message knob indication. Message knob indication is display all the time.

#### • LED OFF:

To turn off message knob indication. Message knob indication in power saving mode.

## • Turning the screen saver function on or off

This unit is provided with the screen saver function which allows you to show various kinds of patterns in a random order in the operation status indication area of the display. 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".

- 2-1. Select "SCRN SVR".
- 3-1. Turn the [ROTARY] knob to select "SS ON" or "SS OFF".

#### • SS ON:

Screen saver is enabled.

#### • SS OFF:

Screen saver is disabled.

#### • Setting the method for title scroll

Set how to scroll in MP3/WMA title.

- \* The factory default setting is "ON".
- 2-1. Select "A-SCROLL".
- 3-1. Turn the [ROTARY] knob to select "ON" or "OFF".

#### • ON:

To scroll automatically.

#### • OFF:

To scroll just 1 time when the title was changed or the [**TITLE**] button was pressed for 1 second or longer.

## **Operations Common to Each Mode**

### • Selecting AUX IN sensitivity

Make the following settings to select the sensitivity when sounds from external devices connected to this unit are difficult to hear even after adjusting the volume.

- \* The factory default setting is "MID".
- 2-1. Select "AUX SENS".
- 3-1. Turn the [ROTARY] knob to select "LOW", "MID" or "HIGH".

#### Note:

- This adjustment only affects music playing via [AUX] input. Telephone interrupt will be using "MID" as default.
- Setting the car speaker output for the cellular phone
- \* The factory default setting is "RIGHT".
- \* To output the telephone calls, set the cellular phone interrupt to ON.
- 2-1. Select "TEL-SP".
- 3-1. Turn the [ROTARY] knob to select "RIGHT", or "LEFT".

#### RIGHT

Telephone calls can be heard on the front right speaker connected to this unit.

#### • LEFT

Telephone calls can be heard on the front left speaker connected to this unit.

#### • Cellular phone interrupt setting

If you connect this unit and your cellular phone with a separately sold unit, you can listen to your telephone calls on your car speakers.

- \* The factory default setting is "OFF".
- 2-1. Select "TEL-SW".
- 3-1. Turn the [ROTARY] knob to select the setting.

Each time you turn the [**ROTARY**] knob, the setting changes in the following order:

#### $OFF \leftrightarrow ON \leftrightarrow MUTE$

#### • OFF:

This unit continues normal operation even when the cellular phone is used.

#### • ON:

You can listen to your telephone calls from the speakers connected to this unit.

#### • MUTE:

The sound from this unit is muted during telephone calls.

#### Notes:

- When the "TEL-SW" is set to "ON" or "MUTE" and telephone is connected, system will automatically power ON (Initially power OFF). When telephone is disconnected, system will return to power OFF.
- This unit requires hands-free kit that supports [AUX] input as a cellular phone audio input. Please consult your local authorized Clarion dealer for more information on the handsfree kit offered.
- If connecting a hands-free kit, please ensure the setting is ON to receive the telephone audio through the system.
- When listening to your calls on your car speakers, you can adjust the volume by turning the [ROTARY] knob, it will be memorized as new telephone volume.
- The factory default setting for this volume is "19".
- 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. Please contact your local authorized Clarion dealer for information on proper installation and compatibility.

## Setting the button and screen illumination

Press the [**COLOR**] button to select a color type. Each time you press the [**COLOR**] button, the type changes in the following orders:

COLOR-SCAN → INDIGO-BLUE → SURF-BLUE → SILKY-WHITE → AQUA-GREEN → FRESH-GREEN → LEAF-GREEN → WARM-AMBER → PASSION-RED → VIVID-PINK → PALE-PINK → DARK-VIOLET → PURE-PURPLE → U-COLOR1 → U-COLOR2 → U-COLOR3 → COLOR-SCAN...

#### Setting COLOR SCAN mode

As selecting "COLOR-SCAN", the color automatically changes.

- \* The factory default setting is "COLOR-SCAN".
- \* After 3 seconds the color changes to the other.

#### • Setting USER mode

As selecting "**U-COLOR 1, 2, 3**", press and hold the [**COLOR**] button for 1 second or longer to enter the setting.

- 1. "R8 G8 B8" appears in the display.
  - \* The factory default setting is "**R8 G8 B8**" (R: red, G: green, B: blue) for all user colors.
- Press the [I◄4, ►►I] button to move the cursor for adjusting the R, G or B value. The value of R is blinking by default.
- 3. Turn the [ROTARY] knob to select from 0 to 8.
- Press the [►/II] button to store the color in memory and cancel setting mode.

#### Note:

 Since "R0 G0 B0" will not display anything, thus all values are prevented from setting to 0 at the same time.

COLOR	R	G	В
INDIGO-BLUE	0	0	8
SURF-BLUE	0	4	8
SILKY-WHITE	8	8	7
AQUA-GREEN	0	8	2
FRESH-GREEN	0	8	0
LEAF-GREEN	3	8	0
WARM-AMBER	8	3	0
PASSION-RED	8	0	0
VIVID-PINK	8	0	3
PALE-PINK	8	2	3
DARK-VIOLET	3	0	8
PURE-PURPLE	6	0	8
U-COLOR1	8	8	8
U-COLOR2	8	8	8
U-COLOR3	8	8	8

## 8. TROUBLESHOOTING

	Problem	Cause	Measure
	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.
General	No sound output when operating the unit with amplifiers or power an- tenna attached.	Power antenna lead is shorted to ground or excessive current is re- quired for remote-on the amplifiers or power an- tenna.	<ol> <li>Turn the unit off.</li> <li>Remove all wires attached to the power antenna lead. Check each wire for a possible short to ground using an ohm meter.</li> <li>Turn the unit back on.</li> <li>Reconnect each amplifier remote wire to the power antenna lead one by one. If the amplifiers turn off before all wires are attached, use an external relay to provide remote-on voltage (excessive current required).</li> </ol>
	Nothing happens when button are pressed. Display is not accurate.	The microprocessor has malfunctioned due to noise,etc	Turn off the power, then push the [ <b>PUSH OPEN</b> ] cover to flip down. Press the reset button with a thin rod.
	No sound heard.	The speaker protection circuit is operating.	<ol> <li>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).</li> <li>If the sound is muted again, consult our service department.</li> </ol>

## Troubleshooting

	Problem	Cause	Measure
	No sound heard.	MP3/WMA files are ab- sent in a disc.	Write MP3/WMA files onto the disc properly.
		Files are not recognized as an MP3/WMA file.	Use MP3/WMA files encoded properly.
		File system is not cor- rect.	Use ISO9660 level 1, 2 or JOLIET or Romeo file system.
	Sound skips or is noisy.	Disc is dirty.	Clean the disc with a soft cloth.
A DISC		Disc is heavily scratched or warped.	Replace with a disc with no scratches.
CD/MP3/WMA	Sound is cut or skipped. Noise is generated or noise is mixed with sound.	MP3/WMA files are not encoded properly.	Use MP3/WMA files encoded properly.
	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.
	Wrong filename.	File system is not cor- rect.	Use ISO9660 level 1, 2 or JOLIET or Romeo file system.
	WMA file has no sound output and skip to next track.	The song may be copy protected (DRM).	Disable DRM as describe in the chapter "To disable DRM (Digital Rights Management)."

## Troubleshooting

	Problem	Cause	Measure
	No sound heard.	MP3/WMA files are ab- sent in a USB memory device.	Write MP3/WMA files onto the USB memory device properly.
		Files are not recognized as an MP3/WMA file.	Use MP3/WMA files encoded properly.
	Sound is cut or skipped. Noise is generated or noise is mixed with sound.	MP3/WMA files are not encoded properly.	Use MP3/WMA files encoded properly.
	USB memory device cannot be detected.	USB memory device may be damaged.	Reinsert the USB memory device to try again. Replace with a new USB memory device if failed.
e)		USB memory device con- nector is in bad condi- tion.	Talled.
devic		Compatibility issue	Please consult your Clarion dealer for USB memory device compatibility.
MP3/WMA (USB memory device)	USB memory device is unable to plug into the USB port.	The USB memory de- vice connector may be inserted to the port in the wrong direction.	Reinsert the USB memory device with the correct direction.
A (US		The USB memory device connector is damaged.	Replace with a new USB memory device.
IP3/WI		The shape design of the USB memory device.	Use an USB extension cable.
W	USB card reader cannot be detected.	USB card reader is con- nected to main unit first before inserting memory card to the card reader.	Insert the memory card to USB card reader first before connecting to the main unit.
	iPod shuffle, nano or USB harddisk drive (HDD) cannot playback or error display is shown.	These devices are not supported.	However, the device may be able to playback by reconnecting the device or power off and on the main unit.
	Unable to playback songs.	Compatibility issue.	Please consult your Clarion dealer for USB memory device compatibility.
		Too many songs are stored, some amount of time are required to read all the tracks available.	Reduce the number of songs in the USB memory device.

English

# English

## 9. ERROR DISPLAYS

	Error Display	Cause	Measure
DISC	ERROR 2	A DISC 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.
CD/MP3/WMA	ERROR 3	A DISC cannot be played due to scratches, loaded upside- down inside the CD deck etc.	Replace with a non-scratched, non-warped- disc. Eject the disc then reload it properly.
CD/M	NO FILE	No audio file is detected in the DISC.	Replace with audio contents loaded DISC.

	Error Display	Cause	Measure
ORY	MNT ERR	Failure detection of USB mem- ory device when it is plugged into the port.	Unplug the USB memory device and re-plug into the port.
USB MEMORY DEVICE	NO FILE	No audio file is detected in the media.	Replace with audio contents loaded USB memory device.
nse	USB ERR	USB connector short circuit/ overloaded.	Unplug the USB memory device , turn off the car stereo power and then turn on the power again.

## **10. SPECIFICATIONS**

## FM tuner

Frequency Range: 87.9 MHz to 107.9 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

 $\begin{array}{lll} \mbox{Frequency Range:} \\ \mbox{AM} & 530 \mbox{ kHz to } 1710 \mbox{ kHz} \\ \mbox{Usable Sensitivity: } 25 \mbox{ } \mu \mbox{V} \end{array}$ 

## CD player

System: Compact disc audio system Usable Discs: Compact disc Frequency Response: 10 Hz to 20 kHz (±3 dB) Signal-to-Noise Ratio: 85 dB (1 kHz) IHF-A Dynamic Range: 80 dB (1 kHz) Harmonic Distortion: 0.01%

## Specifications

### Audio

Maximum Power Output: 200 W (50 W X 4 ch) Power Output: 4 X 19 W (DIN 45324,  $\pm$ B=14.4 V) Bass Control Action (100 Hz):  $\pm$ 14 dB Treble Control Action (10 kHz):  $\pm$ 14 dB Line Output (with A/C 1 kHz, 10 k $\Omega$ ): 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  $\Omega$  (4  $\Omega$  to 8  $\Omega$  allowable)

Weight: 2.42 lb. (1.7 kg)

#### Dimensions:

178 mm Width X 100 mm Height X 156 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.



## 19 W RMS x 4 Channels at 4 $\Omega$ and $\leq$ 1% THD+N

## Signal to Noise Ratio:

86 dB (reference: 1 W into  $4\Omega$ )

## Clarion Co., Ltd.

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