

INSTALLATION/OWNER'S MANUAL

Marine CD Receiver



















Preparation

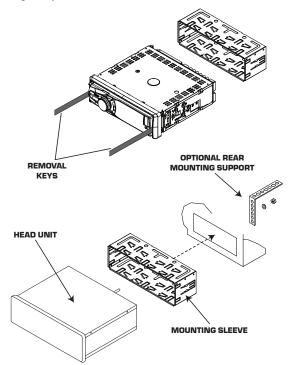
Please read entire manual before installation.

Before You Start

- Disconnect negative battery terminal. Consult a qualified technician for instructions.
- Avoid installing the unit where it would be subject to high temperatures, such as from direct sunlight, or where it would be subject to dust, dirt or excessive vibration.

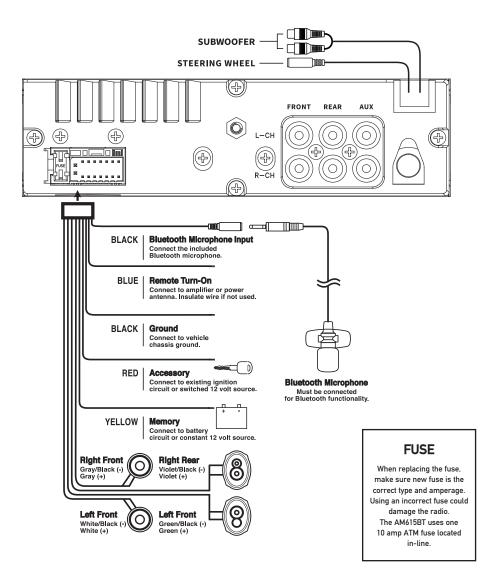
Getting Started

- Remove trim ring from unit.
- Remove 2 transit screws located on top of the unit.
- Insert the supplied keys into the slots as shown, and slide the unit out of the mounting sleeve.
- Install mounting sleeve into opening, bending tabs to secure.
- Connect wiring harness and antenna. Consult a qualified technician if you are unsure.
- Certain vehicles may require an installation kit and/or wiring harness adapter (sold separately).
- Test for correct operation and slide into mounting sleeve to secure.
- Snap trim ring into place.

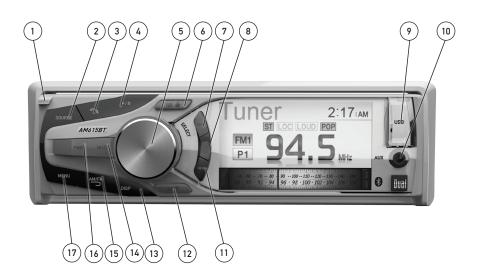


TYPICAL DIN FRONT-LOAD MOUNTING METHOD

Wiring Diagram



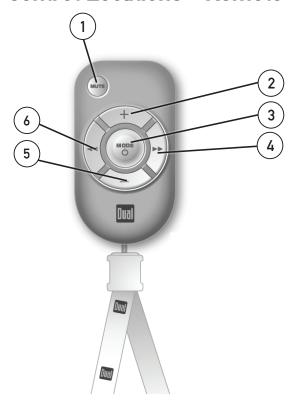
Control Locations - Receiver



- 1 Open
- 2 Source
- 3 Bluetooth Talk
- (4) Play / Pause
- 5 Volume Knob/ Select (push)
- 6 Preset Up / Thumbs Up
- (7) Tune / Track Up
- (8) Function
- 9 USB Port

- (10) Auxiliary Input
- (11) Tune / Track Down
- (12) Preset Down / Thumbs Down
- (13) Display
- (14) Mute
- (15) Band / Go Back
- (16) Power
- (17) Menu

Control Locations - Remote



- 1 Mute
- 2 Volume Up
- (3) Mode / Power

- 4 Tune / Track Up
- 5 Volume Down
- 6 Tune / Track Down

General Operation

Faceplate Removal | Press OPEN to open the face plate, then pull away from the right side to remove. To re-install, insert right side of

faceplate first then push left side to secure.

Power On/Off Press O or any other button to turn the unit on. Press O to

turn the unit off.

Source | Press SOURCE to enter the Source Menu, then press

SOURCE or rotate the volume knob to select between Tuner, Disc, Auxiliary Input, USB, iPod, Bluetooth and Pandora modes. Modes of operation are shown in the display.

Auxiliary Input The AM615BT offers an auxiliary input ports for connecting

an audio device, MP3 player, etc. Press SOURCE to select

auxiliary input mode.

Volume Adjust volume using volume knob (00-46).

Display Press DISP to toggle between ID3 tag and file/folder name for MP3/WMA files being played from CDs or USB devices.

101 MF3/WMA lites being played from CDS of OSB devices.

Press RESET upon initial installation or if abnormal operation occurs. Reset button is located behind the front

panel.

Reset

Set the Clock The unit will display the time on the LCD display. Clock

settings are adjusted in the General setup menu.

12/24-hour Clock The clock will display 12-hour AM/PM time or 24-hour time (22:00). Frequency spacing is adjusted in the General setup

menu (refer to page 8).

General Operation

Setup Menu

Press **MENU** to toggle through and select one of the following setup menus: Audio, General, Gain and Screen.

- Once the desired menu is displayed, rotate the volume knob to scroll through the list of menu features.
- Press SELECT to select a specific feature to adjust, then rotate the volume knob left/right to adjust or activate the desired feature.
- 3. Press SELECT to confirm and save the changes.

Audio Setup Menu

Menu Function	Options	
Equalization Curves	Rotate the volume knob to cycle through the following equalization curves: Flat, Pop, Jazz, Classic, Beat, Rock and User. Any manual adjustment to the Bass or Treble settings are automatically saved as User.	
Bass Level	Rotate the volume knob to adjust the bass level setting (-6 minimum / +6 maximum).	
Bass Frequency	Rotate the volume knob to select one of the following bass frequency settings: 60 Hz, 80 Hz, 100 Hz or 200 Hz.	
Middle Level	Rotate the volume knob to adjust the middle level setting (-6 minimum / +6 maximum).	
Middle Frequency	Rotate the volume knob to select one of the following middle frequency settings: 500 Hz, 1 kHz, 1.5 kHz or 2.5 kHz.	
Treble Level	Rotate the volume knob to adjust the treble level setting (-6 minimum / +6 maximum).	
Treble Frequency	Rotate the volume knob to select one of the following treble frequency settings: 10 KHz, 12.5 KHz, 15 KHz or 17.5 KHz.	
Balance	Rotate the volume knob to adjust the balance setting. (12-L to 12-R; 0 represents equal balance).	
Fader	Rotate the volume knob to adjust the fader setting. (12-F to 12-R; 0 represents equal balance)	
Subwoofer	Rotate the volume knob to turn subwoofer output ON or OFF.	
Subwoofer Level	Rotate the volume knob to adjust subwoofer level between 0 and 12.	
Subwoofer Frequency	Rotate the volume knob to select one of the following subwoofer center frequency settings: Off, 80 Hz. 120 Hz and 160 Hz. "Off" represents a full range subwoofer output.	

General Operation

General Setup Menu

Menu Function	Options	Action	
Tuner Frequency Spacing	USA	Programs the unit to USA tuner spacing. (200kHz for FM and 10kHz for AM).	
	S-America	Programs the unit to South American tuner spacing. (100kHz for FM and 10kHz for AM).	
Opacing	Europe	Programs the unit to European tuner spacing. (50kHz for FM and 9kHz for AM).	
Auto Station Store	AUTO STORE	Press SELECT to seek and save 6 strong stations in the current band.	
Local/Distance	Off	Activates distance tuning.	
Tuning	On	Activates local tuning for strong station reception only.	
Set the Clock	Clock	Rotate the volume knob to adjust the hours, then press SELECT to confirm. Repeat to adjust the minutes, and repeat again to adjust AM/PM setting.	
Clock Mode	12 Hour	Programs the unit to display 12-hour AM/PM time (example: 10:00 PM)	
	24 Hour	Programs the unit to display 24-hour time (example: 22:00)	
	Off	Programs the unit to not scroll any information on the display.	
Scrolling	Once	Programs the unit to only scroll information once.	
Option	15Sec	Programs unit to scroll information once every 15 seconds (default).	
	On	Programs unit to scroll information continuously.	
iPod Control	Full	Programs the head unit to advanced control of the iPod/iPhone device.	
	Manual	Programs the head unit to manual control of the iPod/iPhone device and allows music to be controlled from the iPod/iPhone device.	
Веер	Off	Disables the confirmation beep.	
Confirmation	On	Enables the confirmation beep.	
Programmable Turn On Volume	Variable Value	Programs unit to always turn on at a specific volume (default is Off). A volume level of 1-30 can be selected.	

General Operation

Gain Setup Menu

Menu Function	Options
Tuner Gain	Rotate the volume knob to adjust the tuner gain. (-6 minimum / +6 maximum)
Disc Gain	Rotate the volume knob to adjust the gain for disc playback. (-6 minimum / +6 maximum)
Aux Front Gain	Rotate the volume knob to adjust the gain for the front auxiliary input. (-6 minimum / +6 maximum)
Aux Rear Gain	Rotate the volume knob to adjust the gain for the rear auxiliary input. (-6 minimum / +6 maximum)
USB Gain	Rotate the volume knob to adjust the gain for USB playback. (-6 minimum / +6 maximum)
iPod Gain	Rotate the volume knob to adjust the gain for iPod playback. (-6 minimum / +6 maximum)
Pandora Gain	Rotate the volume knob to adjust the gain for Pandora playback. (-6 minimum / +6 maximum)

Screen Setup Menu

Menu Function	Options	
Color	Rotate the volume knob to adjust the color settings of the display screen from 0 to 50.	
Contrast	Rotate the volume knob to adjust the contrast settings of the display screen from 0 to 50.	
Brightness	Rotate the volume knob to adjust the brightness settings of the display screen from 0 to 50.	
Demo	Rotate the volume knob to to enable (ON) or disable (OFF) the demonstration mode.	

AM/FM Tuner Operation

Manual Tuning Press TUNE

✓ or TUNE

momentarily to change

radio frequency up or down one step at a time. Press and

hold to advance quickly.

(then release) to automatically seek and tune to the next

strong station.

Band Press BAND to select between FM1, FM2, FM3, AM1 and

AM2 bands.

Storing Station Presets | Select the desired band and station. Press the

(F)unction button, turn the volume knob until the desired preset number is highlighted, then press SELECT to store

the preset.

Recalling Station Presets | Press the P+ or P- buttons to cycle through the 1-6 presets

in the current band.

CD Operation

Insert CD

Press **OPEN** to fold down the front panel and expose the CD slot. With the label facing up, insert a standard size CD into the CD slot. The CD will automatically begin playback.

Eject CD

With the front panel open, press **EJECT** to eject the CD. The unit will change to previous mode of operation. If the disc is not removed within 10 seconds, the unit will reload the disc. The unit does not have to be turned on to eject CD.

Track Select

Press TRACK ►► to skip to the beginning of the next track. Press TRACK ◄◄ to return to the beginning of the current track. Pressing TRACK ◄◄ again skips to the beginning of the previous track.

Fast Forward/Reverse

Press and hold **TRACK** ►► or **TRACK** ◀ on the remote control to fast forward or reverse a track.

Pause

Press /II to temporarily stop CD playback.

Press /II again to resume playback.

Repeat

Press (F)unction and choose Repeat to continuously repeat the selected track.

Random

Press (F)unction and choose Random to play all the tracks in random order.

Intro

Press (F)unction and choose Intro to play the first 10 seconds of each track.

CD-R/CD-RW Compatibility

Some CD-Rs and CD-RWs may be incompatible with this unit, depending on media type and recording method. In addition, the following CDs may be incompatible with this unit:

CDs exposed to extreme temperatures or direct sunlight for extended periods of time, CDs recorded in which a recording session failed or a re-recording was attempted and, or encrypted or copy-protected CDs which do not conform to the audio CD-DA red book recording standard.

MP3/WMA Operation

Playing MP3/WMA Files

To play MP3/WMA files, insert a data CD or USB device containing MP3/WMA files. "Loading" will flash in the display. Depending on the number of files and folders, this may take several seconds.

Displaying Information

Press DISP to cycle between track information and file/folder information.

*Song title, artist name and album name will only be displayed if included with the MP3/WMA file.

When referring to MP3/WMA playback, the following terms are synonymous:

- File name and track name
- · Folder name and directory name

Repeat

Press (F)unction to enter the Function Menu, then rotate the volume knob until Repeat is highlighted. Press SELECT, then rotate the volume knob to select one of the following repeat options.

- All Plays all songs on disc or device.
- Track Continuously repeats selected song.
- Folder Continuously repeats all songs in selected folder.

Random

Press (F)unction to enter the Function Menu, then rotate the volume knob until Random is highlighted. Press SELECT, then rotate the volume knob to select one of the following options for random playback.

- Off Cancels the Random function.
- All Plays all songs in random order.
- Folder Plays all songs in folder in random order.

Intro

Press (F)unction to enter the Function Menu, then rotate the volume knob until Intro is highlighted. Press SELECT, then rotate the volume knob to select one of the following options for intro playback.

- Off Cancels the Intro function.
- All Plays first 10 seconds of each song.
- Folder Plays first 10 seconds of each song in folder.

Note: Folder repeat, random and intro options only function on MP3/WMA discs or devices recorded with more than one folder.

MP3/WMA Operation

File/Folder Search

Begin Searching

Press **SELECT** to enter the file/folder search mode. A list of all the folders from the disc or device will be displayed.

Note: Any files located in the root directory will be located in the folder named "ROOT".

Choose a Song

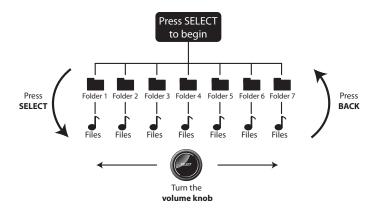
Turn the **volume knob** to cycle through all the folders on the disc or device, and press **SELECT** to choose the desired folder. The list of files in the selected folder will be displayed. Turn the **volume knob** to cycle through the list of files.

Menu Navigation

Pressing GO BACK when viewing the contents of a folder will return to the list of folders on the disc or device. Press GO BACK again to exit the search menu.

Playing a Song

Once the desired song is displayed, press SELECT to begin



MP3/WMA Operation

File/Folder Compatibility and Support - CD

Туре	Specification	
Compatible File Types	CD-ROM (ISO), CD-R, CD-RW CD-DA (digital audio) MP3 data (.mp3) WMA data (.wma)	
 DRM protected files WMA lossless Apple lossless WMA Pro MP3 Pro MP3 playlists WAV lossless M4A/AAC data 		
Recording Format Compatibility • IS09660 level 1 & level 2 • Yellow book MODE 1 & MODE 2 FORM 1 • Multi session		
Sampling Frequency Rate Compatibility	·	
Transfer Bit Rate Compatibility	MP3: 32kbps - 320kbps WMA: 32kbps - 192kbps	
Song Title: 32 characters Artist Name: 32 characters Album Name: 32 characters File Name: 32 characters Folder Name: 32 characters		
ID3 Tag Support	Support • MP3 Tags: Version 1.0 - 2.4 • WMA Tags	
File/Folder Limit	 Maximum files: 999 Maximum folders: 500 Maximum folder levels: 8 	

MP3/WMA Operation

File/Folder Compatibility and Support - USB

Туре	Specification	
Compatible File Types	• MP3 data (.mp3)	
Compatible Tite Types	WMA data (.wma)	
	DRM protected files	
	WMA lossless	
	Apple lossless	
Incompatible File	• WMA Pro	
Types	• MP3 Pro	
	MP3 playlists	
	M4A/AAC data	
	WAV lossless	
Sampling Frequency		
Rate Compatibility	lity • WMA: 32kHz - 48kHz	
Transfer Bit Rate	• MP3: 32kbps - 320kbps	
Compatibility	• WMA: 32kbps - 192kbps	
	Song Title: 32 characters	
	Artist Name: 32 characters	
Character Support	Album Name: 32 characters	
	• File Name: 32 characters	
	Folder Name: 32 characters	
ID3 Tag Support	• MP3 Tags: Version 1.0 - 2.4	
100 rag Support	WMA Tags	
	Maximum number of files: 50000	
	Maximum number of folders: 500 (plus the root folder)	
File/Folder Limit	Maximum number of files in each folder: 50000	
Tite/Totaer Little	Note: For devices with more than the maximum number of	
	files/folders, some files will be ingnored and may not function	
	properly.	
USB/SD File System	FAT/FAT32 file system supported.	
COD/OU FILE DYSIEIII	HFS/NTFS/EXT2/EXT3 not supported.	

iPod Operation

Connect an iPod Device (Not Included)



The AM615BT features a direct USB control system for iPod. To play music from an iPod device, connect the USB cable (included with your iPod device) to the USB port on the front panel.

Once connected, "Loading" will flash in the display, then playback will begin automatically. If a song is playing on the iPod device before it is connected, it will continue to play.

Search Mode

Search Menu Functions (step 1)

Press SELECT once to enter the search mode.

(step 2)

Rotate the **volume knob** to choose between **playlist**, **songs**, **artists**, **albums** and **podcasts**. Press **SELECT** to select the desired search type.

(step 3)

Navigate to the desired song and press **SELECT** to begin playback of that song. Use the table below for reference when navigating through the menu options.

Note: Press GO BACK to access the previous level (up one level). Pressing GO BACK from the search main menu will exit the search.

See the below table for a list of the search menu navigation options.

Search Item	Menu Navigation	
Playlist	Menu → Playlists → Songs	
Songs	Menu → Songs	
Artists	Menu → Artists → Albums → Songs	
Albums	Menu → Albums → Songs	
Podcase	Menu → Podcasts	

Full/Manual Control

The AM615BT features both full and manual control modes for iPod/iPhone devices. See page 8 for details to toggle the control between full and manual modes.

Important: To support manual control for iPod/iPhone, the iPod device must be updated to the newest firmware.

Note: Not all iPod/iPhone devices are compatible with manual control mode.

iPod Operation

Song Select

Press ▶▶ to skip to the beginning of next song. Press

■ to return to the beginning of current song. Pressing

again skips to the beginning of previous song.

Fast Forward and Reverse

Press and hold $\triangleright \triangleright$ or $\blacktriangleleft \blacktriangleleft$ to fast forward or reverse a song.

Pause

Press ►/ II to temporarily stop playback.

Press ►/ II again to resume playback.

Repeat

Press (F)unction to enter the Repeat menu, then turn the volume knob to select one of the following options:

- · Off Repeats all tracks.
- Current Song Repeats selected track.

Random

Press (F)unction to enter the Random menu, then turn the volume knob to select one of the following options:

- · Off Cancels the RDM function.
- All Songs Plays all tracks in random order.
- Current Album Plays all tracks in the selected album in random order.

Intro

Press (F)unction to enter the Intro menu, then turn the volume knob to select one of the following options:

- Off Cancels the INT function.
- . On Plays first 10 seconds of each track.

Character Support

Only alphanumeric characters can be displayed (ASCII type). "NO SUPPORT" will be displayed if the file contains characters that can not be displayed. "NO FILE" will be displayed if there are no songs in the selected playlist.

Maximum character display information

- *Song title 32 character maximum
- *Artist name 32 character maximum
- *Album name 32 character maximum

*Song Title, Artist Name and Album name will only be displayed if included with the file.

Bluetooth Operation Pairing a Device

Preparation

Before you can use a Bluetooth device, it must be paired and connected. Make sure that Bluetooth is activated on your device before you begin the pairing process.

Pairing a New Device

The AM615BT broadcasts the pairing signal constantly when no devices are currently connected. Complete the pairing sequence from your Bluetooth device. Refer to the owner's manual for your device for more details.

The device name is "DUAL BT" The Bluetooth passcode "1234"

Note: The AM615BT can be in any mode of operation when pairing is performed.

Pairing Additional Devices

If a device is currently connected, press and hold extstyle ext

Connecting a Paired Device

Most Bluetooth devices support the auto-connect feature, and will connect automatically if the device is in range when the AM615BT is powered-on. If your device was previously paired but does not connect, use these instructions below.

- If your most recently connected Bluetooth device becomes disconnected or does not reconnect, press from Bluetooth mode to reconnect your mobile device.
- To connect a previously paired device that was not recently connected:
- 1) If applicable, press and hold \frown to disconnect any connected mobile devices.
- 2) From Bluetooth mode, press SELECT. "Paired Devices" will appear on the LCD.
- 3) Turn the volume knob to cycle through the list of devices.
- 4) Press SELECT or
 to connect to the desired device. It must be in range to connect.

Note: If the Auto Connect setup menu setting is set to OFF, you must press \uparrow to connect you device after pairing, and each time the AM615BT is powered-on.

Disconnecting a Device

Press and hold for 3 seconds to disconnect a connected device. The device will remain paired and appear in the PAIRED DEVICES menu but will not be connected.

Bluetooth Operation

Disconnecting a Device

Manual Dialing

Press once. "Enter Phone Number" appear on the display. Using the remote control, enter the phone number using the 0-9 buttons. Press or SELECT on the remote control or front panel to begin dialing.

Note: Placing a phone call from your cell phone will also initiate Bluetooth function.

Recent Calls List

Press SELECT from Bluetooth mode to view recent calls dialed, received or missed while connected to the head unit. Turn the volume knob to cycle through the recent phone numbers. Press SELECT or to dial the number.

Redialing the last number

To redial the last phone number, press \uparrow two times from Bluetooth mode. Press \uparrow or **SELECT** again to redial the phone number.

Receiving a Phone Call

Incoming phone calls will automatically appear on the display and a ring tone will be heard.

Note: The volume of the ring tone depends on the volume level of the head unit and may not be heard if the volume is set to a low level or mute is activated.

- Press \(\bullet \) to receive the incoming phone call.
- Press and hold to refuse the incoming phone call.

Note: If Auto Answer is set to ON in the setup menu, all phone calls will be received automatically.

Ending a Phone Call

During an active phone call, press \(\bullet \) to end a phone call. If the phone call was received when listening to music in another mode, the head unit will resume the previous mode.

Streaming Audio

The head unit supports A2DP wireless streaming audio from a Bluetooth mobile device directly to your head unit. The following functions can be used to control the music:

- Press ➤➤ to skip to the next available audio track.
- Press >/ II to toggle between play and pause during playback.

Bluetooth Operation Streaming Audio Operation

The AM615BT supports A2DP (advanced audio distribution profile) wireless streaming audio from your Bluetooth mobile device directly to your head unit. You can also control your music from the front panel of the head unit using AVRCP (audio video remote control profile).

- To stream music to your head unit, your mobile device must support the A2DP and AVRCP Bluetooth profiles. Check the owner's manual of your mobile device for details.
- Streaming audio must be enabled from your mobile device. This option will vary depending on the device. Some devices allow streaming audio to be disabled.

After pairing, connecting and enabling streaming audio from a compatible mobile device, begin playing music using the music player on your mobile device. Once the music is playing, the following functions can be used to control the music:

- The ►► button will skip to the next available audio track.
- The

 ¬button will skip to the previous audio track.
- The ►/ II button will toggle between play and pause during playback.

Note: Some Bluetooth devices may not fully support these commands.

Bluetooth Reset

Resetting the Bluetooth module will remove the list of paired phones and delete the list of recent calls from memory.

To reset Bluetooth, perform the following steps:

- 1) Press SOURCE until the head unit is in Bluetooth mode.
- 2) Press and hold MENU for 3 seconds to reset Bluetooth settings back to factory default.

Compatibility Note:

Due to the differences in Bluetooth technology, some mobile devices may be incompatible, function improperly or may not support all features when used with the AM615BT.

Bluetooth Setup Menu Options

Function	Options	Action	
Bluetooth	BL'TOOTH (ON/OFF)	Enables/disables Bluetooth functionality.	
Auto Connect	AUTO CON (ON/OFF)	Set to On to allow a Bluetooth device to connect automatically or Off to require manual connection.	
Auto Answer	AUTO ANS (OFF/ON)	When set to ON, incoming calls will all be answered after 2-3 rings. When set to off, the to button must be pressed to answer incoming calls.	
Speaker Output	BT SPRKS (FRONT/ALL)	Set to FRONT to direct Bluetooth output to the fron speakers only. Set to ALL to enable Bluetooth aud to output from all 4 speakers.	

Pandora Operation

Requirements

Control for Pandora requires:

- An iPhone device with a reliable data connection, or an iPod touch that is connected to wireless internet.
- The Pandora App installed on the iPhone/iPod device.
- An active account with Pandora. Sign up at www.pandora. com.
- The USB sync cable that came with your iPod/iPhone device.

USB Connection

Connect an iPod touch or iPhone device (required, sold separately) to the USB port, using the USB sync cable included with your iPhone device.

Changing Stations

- 1. Press SELECT to display the Stations Menu.
- Rotate the volume knob to choose to sort channels by date or alphabetically.
- 3. Press **SELECT** to confirm, then turn the **volume knob** to cycle through the list of stations.
- Press SELECT when the desired station is highlighted, and playback will begin.

Note: Stations must be created on your account prior to connecting your iPod/iPhone device to the head unit.

Shuffle

Press **SELECT** to display the Stations Menu. Choose "Shuffle" from the stations menu to shuffle songs from all of your stations.

Skipping Tracks

Press >> to skip the current song.

Play/Pause

Press ►/ II to temporarily stop playback.

Press ►/ II again to resume playback.

Thumbs Up

Press & to tell Pandora you like the current track. Pandora will play more tracks with similar qualities.

Thumbs Down

Press • to tell Pandora you do not like the current track. Pandora will not play the current track again, and will avoid playing tracks with similar qualities.

Device Compatibility

Refer to <u>www.pandora.com/everywhere/mobile</u> for devices compatible with the Pandora mobile application.

Troubleshooting

Note: Pandora is an internet service, carrier and data charges may apply.

Limited One-Year Warranty

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

Dual Electronics Corp. warrants this product to the original purchaser to be free from defects in material and workmanship for a period of one year from the date of the original purchase.

Dual Electronics Corp. agrees, at our option, during the warranty period, to repair any defect in material or workmanship or to furnish an equal new, renewed or comparable product (whichever is deemed necessary) in exchange without charges, subject to verification of the defect or malfunction and proof of the date of purchase. Subsequent replacement products are warranted for the balance of the original warranty period.

Who is covered? This warranty is extended to the original retail purchaser for products purchased from an authorized Dual dealer and used in the U.S.A.

What is covered? This warranty covers all defects in material and workmanship in this product. The following are not covered: software, installation/removal costs, damage resulting from accident, misuse, abuse, neglect, product modification, improper installation, incorrect line voltage, unauthorized repair or failure to follow instructions supplied with the product, or damage occurring during return shipment of the product. Specific license conditions and copyright notices for the software can be found via www.dualav.com.

What to do?

- Before you call for service, check the troubleshooting guide in your owner's manual. A slight adjustment of any custom controls may save you a service call.
- If you require service during the warranty period, you must carefully pack the product (preferably in the original package) and ship it by prepaid transportation with a copy of the original receipt from the retailer to an authorized service center.
- Please describe your problem in writing and include your name, a return UPS shipping address (P.O. Box not acceptable), and a daytime phone number with your shipment.
- 4. For more information and for the location of the nearest authorized service center please contact us by one of the following methods:
 - Call us toll-free at 1-866-382-5476
 - E-mail us at cs@dualav.com

Exclusion of Certain Damages: This warranty is exclusive and in lieu of any and all other warranties, expressed or implied, including without limitation the implied warranties of merchantability and fitness for a particular purpose and any obligation, liability, right, claim or remedy in contract or tort, whether or not arising from the company's negligence, actual or imputed. No person or representative is authorized to assume for the company any other liability in connection with the sale of this product. In no event shall the company be liable for indirect, incidental or consequential damages.

Troubleshooting

Problem	Cause	Action	
Unit will not turn on (no power)	Yellow wire not connected or incorrect voltage Red wire not connected or incorrect voltage	Check connections for proper voltage (11-16VDC)	
(iii periei)	Black wire not connected	Check connection to ground	
	Fuse blown	Replace fuse	
	Speaker wires not connected	Check connections at speakers	
Unit has power (but no sound)	One or more speaker wires touching each other or touching chassis ground	Insulate all bare speaker wires from each other and chassis ground	
	Yellow or red wire touching chassis ground	Check for pinched wire	
Unit blows fuses	Speaker wires touching chassis ground	Check for pinched wire	
	Incorrect fuse rating	Use fuse with correct rating	
	Unit is not mounted correctly or backstrap is not secure	Check mounting sleeve and backstrap support	
Excessive skipping	Physical defect in media (CD, CD-R or CD-RW)	Check media for scratches	
	Disc read error	Press eject or RESET	
	Focus error or disc is upside down	Press eject or RESET	
NO FILE appears on display	WMA file is protected by DRM (Digital Rights Management)	Write disc using WMA files that are not protected	
	No playable MP3/WMA files found on the device	Check the device for valid MP3/WMA files	
	Communication error	Remove and reconnect the device	
Unit will not accept a disc	CD mechanism position out of alignment	Press EJECT to reset CD mechanism position	
	CD transit screws still in place	Remove 2 transit screws located on top of the unit	
NO SUPPORT appears on display	An invalid ID3 tag version is present	Version 1.0 to 2.4 ID3 tags are supported.	

Specifications

CD Player | Frequency response: 20Hz-20kHz

Channel separation @ 1kHz: >65dB

D/A converter: 1 Bit

FM Tuner Tuning range: 87.5MHz-107.9MHz

Usable sensitivity: **8.5dBf**

50dB quieting sensitivity: **10dBf** Stereo separation @ 1kHz: **>30dB** Frequency response: **30Hz-13kHz**

AM Tuner | Tuning range: 530kHz-1710kHz

Usable sensitivity: 22uV

Frequency response: 30Hz-2.2kHz

General | Speaker output impedance: 4-8 ohms

Line output voltage: 2 Volts RMS

Dimensions: 7" x 7" x 2" (178 x 178 x 50 mm)

Design and specifications subject to change without notice.



CEA-2006 Power Standard Specifications (reference: 14.4VDC +/- 0.2V, 20Hz-20kHz)

Power Output: 18 Watts RMS x 4 channels at 4 ohms and \leq 1% THD+N Signal to Noise Ratio: 70dBA (reference: 1 watt into 4 ohms)

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

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

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

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



Dual Electronics Corp. Toll Free: 1-866-382-5476 Monday-Friday, 9AM-5PM, EST

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