



DXDM228BT

INSTALLATION/OWNER'S MANUAL

AM/FM/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.

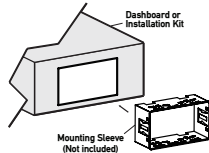
Mounting the Head Unit: Typical DIN mounting

Step 1:

Insert the mounting sleeve into the installation kit or dashboard.

*Mounting Sleeve is Not included.

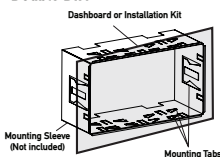
Double DIN



Step 2:

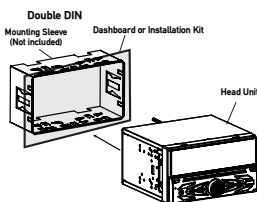
Bend multiple mounting tabs around the mounting sleeve until the mounting sleeve is secure.

Double DIN



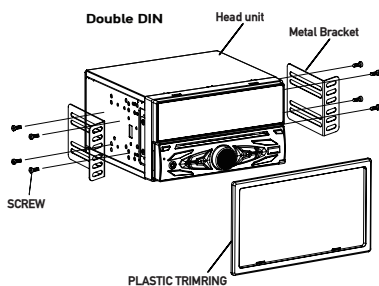
Step 3:

Connect all wiring harnesses and slide the head unit into the mounting sleeve until it clicks into place.

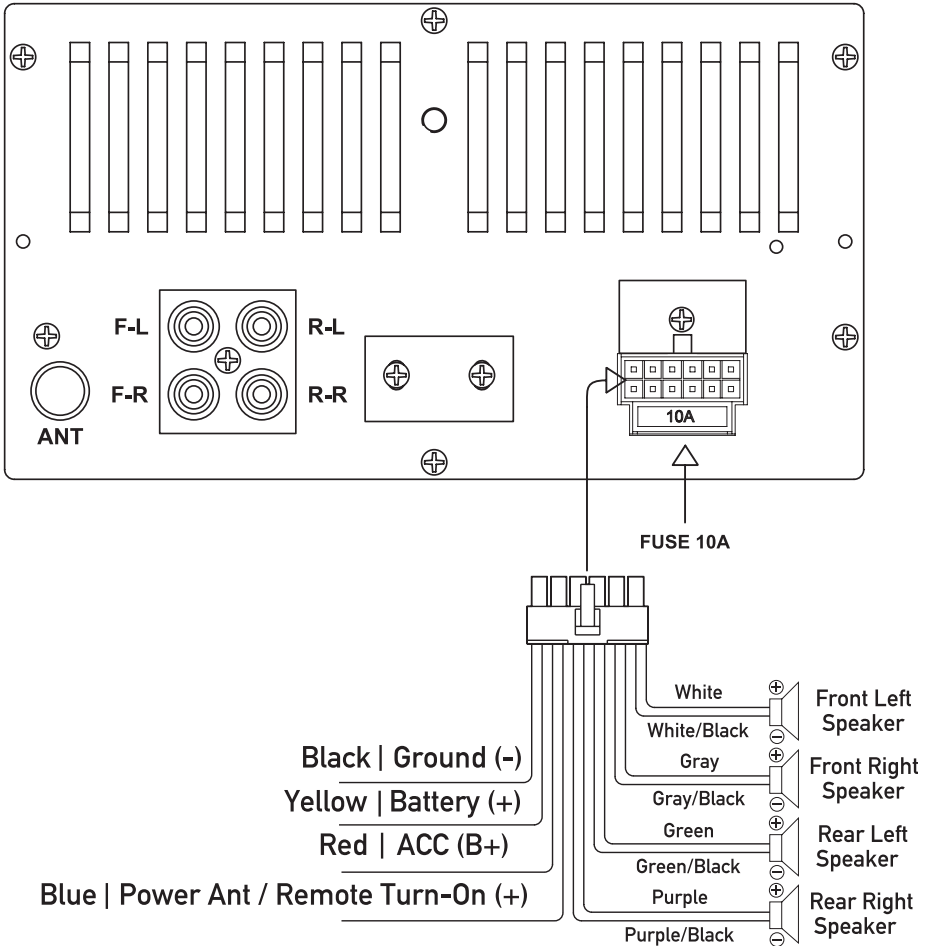


Mounting the Head Unit: ISO mounting

Using the existing brackets or the brackets supplied with the installation kit, mount the brackets to the sides of the head unit with the screws supplied with the head unit.



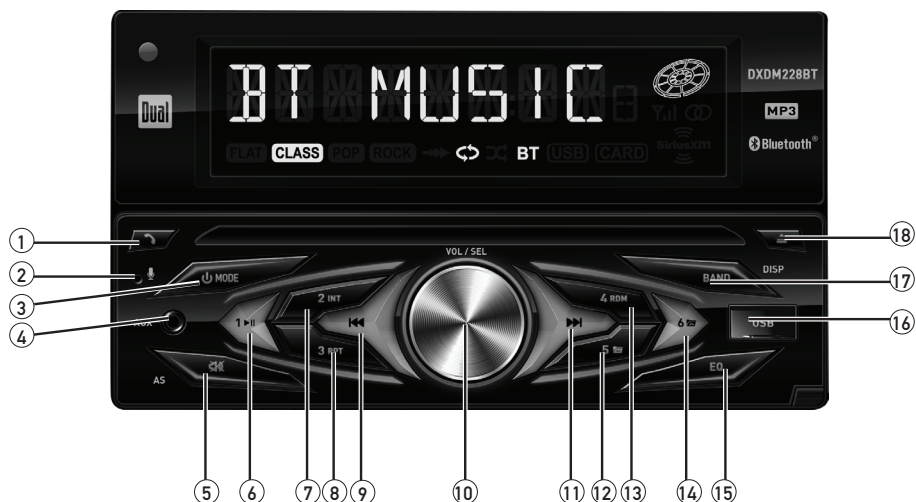
Wiring Diagram





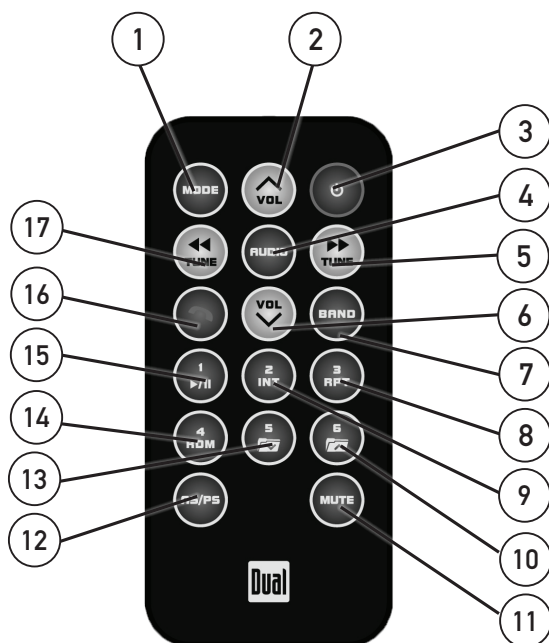
DXDM228BT OPERATION

Control Locations



- | | |
|-------------------------|--------------------------|
| ① Bluetooth Talk | ⑩ Volume / Select |
| ② Microphone | ⑪ Tune/Track Up |
| ③ Power / Mode | ⑫ Preset 5 / Folder Down |
| ④ Auxiliary Input | ⑬ Preset 4 / Random |
| ⑤ Mute / Auto Store | ⑭ Preset 6 / Folder Up |
| ⑥ Preset 1 / Play/Pause | ⑮ EQ |
| ⑦ Preset 2 / Intro | ⑯ USB Port |
| ⑧ Preset 3 / Repeat | ⑰ Band/Disp |
| ⑨ Tune/Track Down | ⑱ Eject |



Remote Control




- | | |
|---------------------|--------------------------|
| ① Mode | ⑩ Preset 6 / Folder Up |
| ② Volume Up | ⑪ Mute |
| ③ Power | ⑫ AS/PS |
| ④ Audio | ⑬ Preset 5 / Folder Down |
| ⑤ Tune / Track Up | ⑭ Preset 4 / Random |
| ⑥ Volume Down | ⑮ Preset 1 / Play/Pause |
| ⑦ Band | ⑯ Bluetooth Talk |
| ⑧ Preset 3 / Repeat | ⑰ Tune / Track Down |
| ⑨ Preset 2 / Intro | |



General Operation

Power On/Off	Press  or any other button (except EJECT) to turn the unit on. Press and hold  to turn the unit off.
Mode	<p>Press MODE to select between Radio, Disc, USB, Auxiliary Input and Bluetooth. Modes of operation are shown in the display.</p> <p>NOTE: CD and USB modes will not appear unless a CD is inserted or USB device is connected.</p>
Auxiliary Input	Insert a 3.5mm cable into the unit's front AUX port. Press MODE to select auxiliary input mode.
USB Port	Insert a USB device into the unit's front AUX port. Press MODE to select auxiliary input mode.
Volume	Adjust volume using volume knob (00-40).
Mute	Press to silence the audio. Press again to resume listening at the previously selected volume.
Display	Press and hold DISP to momentarily display the clock.
Reset	Press RESET upon initial installation or if abnormal operation occurs.
Setup Menu	Press and hold the volume knob to enter the setup menu. Press the volume knob quickly to step through the available menu functions, then rotate the volume knob left/right to adjust.

General Operation - Setup Menu

Menu Function	Options	Action
Turn On Volume	VOL ADJ	Programs the unit to turn on at a specific volume selected by the user.
	VOL LAST	Programs the unit to turn on at the volume selected at the time the unit was last powered off.
Adjusted Volume	A-VOL #	Enables the user to select the desired volume for each time the unit is powered on. This option only appears when VOL ADJ is selected in the Turn On Volume menu.
Tuner Frequency Spacing	AREA US	Programs the unit to USA tuner spacing. (200kHz for FM and 10kHz for AM). (Tuner mode only)
	AREA EU	Programs the unit to European tuner spacing. (50kHz for FM and 9kHz for AM). (Tuner mode only)
Clock Format	CLOCK 12	Sets the clock display to 12-hour format.
	CLOCK 24	Sets the clock display to 24-hour format.
Bluetooth Auto Answer	BT_AUTO	Programs unit to automatically answer every incoming phone call after 2-3 rings.
	BT_MANU	Programs unit to require the  button to be pressed to answer incoming phone calls (default).
Beep Confirmation	BEEP OFF	Disables the confirmation beep.
	BEEP ON	Enables the confirmation beep.
Local/Distance Tuning	LOC	Activates distance tuning (Tuner mode only) .
	DX	Activates local tuning for strong station reception only (Tuner mode only) .
Stereo/Mono	STEREO	Programs unit for stereo playback (Tuner mode only) .
	MONO	Programs unit for mono playback (Tuner mode only) . Selecting MONO can improve listening in areas with a weak FM signal.



General Operation

Audio Menu

Press **volume knob** to step through the following menu functions, then rotate the **volume knob** left/right to adjust:

- **Bas** - Adjust Bass between -7 and +7.
- **Tre** - Adjust Treble between -7 and +7.
- **Bal** - Adjust Balance between 10L (left) and 10R (right).
- **Fad** - Adjust Fader between 10F (front) and 10R (rear).
- **EQ** - Select a preset equalization curve (Rock, Pop, Classic, Flat), or select Off to adjust audio manually.
- **Loudness** - Turn Loudness feature on or off.
- **Dimmer** - Choose HI, LOW or ADJ (adjustable).
When ADJ is selected, the unit will prompt you to program AM and PM times for the dimmer to adjust automatically.

AM/FM Tuner Operation

Seek Tuning	Press TUNE ◀◀ or TUNE ▶▶ momentarily to seek to the next strong station.
Manual Tuning	Press and hold TUNE ◀◀ or TUNE ▶▶ until "MANUAL" appears, then press TUNE ◀◀ or TUNE ▶▶ momentarily to change radio frequency up or down one step at a time. Press and hold to advance quickly.
Band	Press BAND to select between FM1, FM2, FM3, AM1 and AM2 bands.
Storing and Recalling Station Presets	Up to 18 FM stations and 12 AM stations can be stored. To store a station, select the desired band and station. Press and hold the desired preset button (1-6) for more than 2 seconds. When stored, the preset number will appear in the display. The station can be recalled anytime by pressing the corresponding preset button.
Automatically Store Stations	Press and hold AS to automatically store strong 6 stations in the current band.



CD Player Operation

Insert CD	With the label facing up, insert a standard size CD into the CD slot. The CD will automatically begin playback.
Eject CD	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 ◄◄ to fast forward or reverse a track.
Pause	Press ►/ to temporarily stop CD playback. Press ►/ again to resume playback.
Intro	Press INT to play the first 10 seconds of each track; press again to cancel the INT function.
Repeat	Press RPT to enter the Repeat menu, then turn the volume knob to select one of the following options: <ul style="list-style-type: none">• ALL - Plays all tracks on CD.• ONE - Continuously repeats selected track.
Random	Press RDM to play tracks in random order; press again to cancel the RDM function.
CD-R/CD-RW Compatibility	<p>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:</p> <p>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.</p>



USB Operation

Playing MP3 Files	To play MP3 files, insert a USB device containing MP3 files.
Track Select	Press TUNE ►► to skip to the beginning of the next track. Press TUNE ◄◄ to skip to the beginning of the previous track.
Fast Forward and Reverse	Press and hold TUNE ►► or TUNE ◄◄ to fast forward or reverse a track.
Pause	Press ►/ to temporarily stop USB playback. Press ►/ again to resume playback.
Folder Access	Folders can be found by pressing Folder Up or Folder Down. About one second after the folder name is displayed, the first file under the selected folder will be displayed and playback will begin.
Repeat	Press RPT to toggle between RPT ALL and RPT ONE. <ul style="list-style-type: none"> • RPT FLD - Continuously repeats selected folder. • RPT ALL - Plays all tracks on USB device. • RPT ONE - Continuously repeats selected track.
Random	Press RDM to play tracks in random order; press again to cancel the RDM function.
Intro	Press INT to play the first 10 seconds of each track; press again to cancel the INT function.



Bluetooth Operation

Preparation	<p>Before using a Bluetooth device, it must be paired and connected. Ensure that Bluetooth is activated on your device before beginning the pairing process.</p>
Pairing a New Device	<p>The head unit broadcasts the pairing signal constantly when no devices are connected. Complete the pairing sequence from your Bluetooth device. Refer to the owner's manual for your device for more details.</p> <p>The device name is "DXDM2288BT". The Bluetooth passcode is "1234".</p> <p>Note: The head unit can be in any mode of operation when pairing is performed.</p>
Streaming Audio Troubleshooting	<p>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:</p> <ul style="list-style-type: none">• Press ►► to skip to the next available audio track.• Press ◀◀ to skip to the previous audio track.• Press ►/ to toggle between play and pause during playback.

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)
	Black wire not connected	Check connection to ground
	Fuse blown	Replace fuse
Unit has power (but no sound)	Speaker wires not connected	Check connections at speakers
	One or more speaker wires touching each other or touching chassis ground	Insulate all bare speaker wires from each other and chassis ground
Unit blows fuses	Yellow or red wire touching chassis ground	Check for pinched wire
	Speaker wires touching chassis ground	Check for pinched wire
	Incorrect fuse rating	Use fuse with correct rating
Excessive skipping	Unit is not mounted correctly or backstrap is not secure	Check mounting sleeve and backstrap support
	Physical defect in media (CD, CD-R or CD-RW)	Check media for scratches
ERR FILE appears on display	Disc read error	Press eject or RESET
	Focus error or disc is in upside down	Press eject or RESET
NO FILE appears on display	No playable MP3 files found on the device	Check the device for valid MP3 files
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 2.0 ID3 tags are supported.



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?

1. 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.
2. 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.
3. 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.



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.



Specifications

CD Player	Frequency response: 20Hz-20kHz Channel separation @ 1kHz: >60dB 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: <42dBu Frequency response: 30Hz-2.2kHz
General	USB Charge: 1A Speaker output impedance: 4~8 ohms Line output voltage: 1.2 Volts RMS Dimensions: 7" x 7" x 4" (178 x 178 x 100 mm)

Design and specifications subject to change without notice.



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

Power Output: 16 Watts RMS x 4 channels at 4 ohms and $\leq 1\%$ THD+N
Signal to Noise Ratio: 80dBA (reference: 1 watt into 4 ohms)



Notes



Dual Electronics Corp.
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