



XD230M

INSTALLATION/OWNER'S MANUAL

AM/FM/CD/PA Ready Receiver

COMPACT
disc
DIGITAL AUDIO

Dual[®]



Preparation

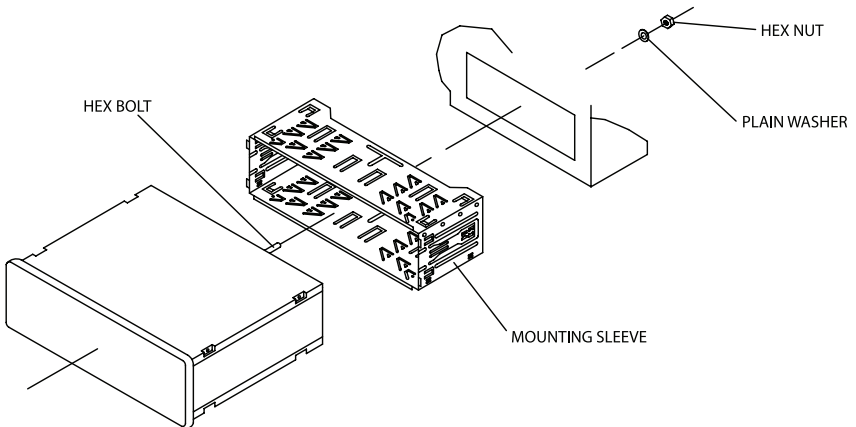
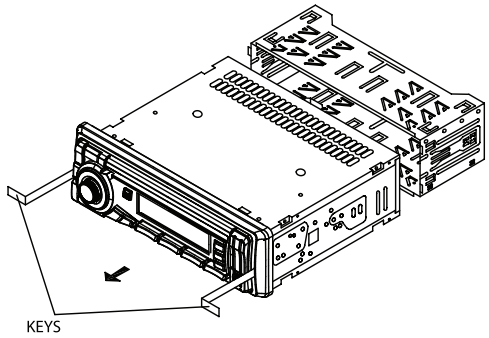
Please read entire manual before installation.

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.

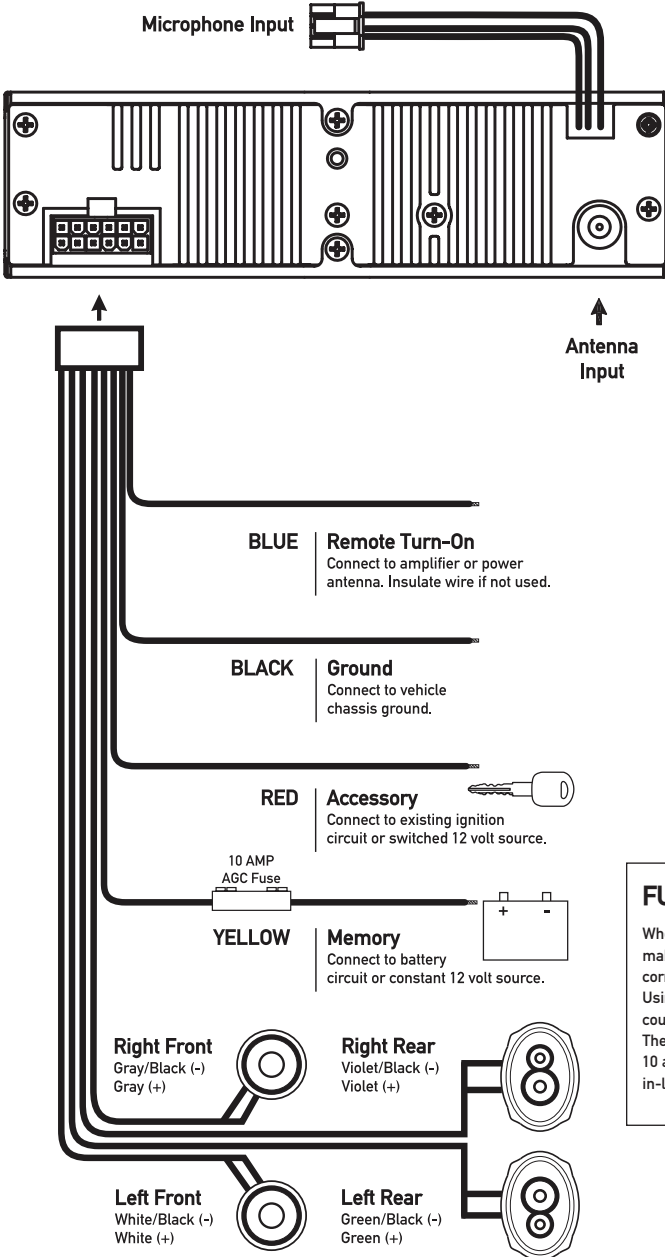
Getting Started

- Remove 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 FRONT-LOAD DIN MOUNTING METHOD

Wiring Diagram



FUSE

When replacing the fuse, make sure new fuse is the correct type and amperage. Using an incorrect fuse could damage the radio. The XD230M uses one 10 amp AGC fuse located in-line.



Control Locations



- | | |
|----------------------|--------------------------|
| ① Eject | ⑫ Preset 5 |
| ② Mode | ⑬ Preset 4 |
| ③ Volume/Audio/Setup | ⑭ Preset 3/Intro |
| ④ Tune/Track Up | ⑮ Preset 2/Random |
| ⑤ EQ | ⑯ Preset 1/Repeat |
| ⑥ Loudness | ⑰ Auto Store/Preset Scan |
| ⑦ Display | ⑱ Band |
| ⑧ Auxiliary Input | ⑲ Tuner Scan |
| ⑨ Local/Distance | ⑳ Mute |
| ⑩ Play/Pause | ㉑ Tune/Track Down |
| ⑪ Preset 6 | ㉒ Power |

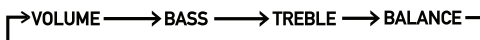
General Operation

Power On/Off	Press POWER or any other button (except eject) to turn the unit on. Inserting a disc will turn the unit on automatically. Press POWER to turn the unit off.
Mode	Press MODE to select between Tuner, CD player and auxiliary input. Modes of operation are indicated in the display. Note: CD mode will not appear unless a CD is inserted.
Auxiliary Input	Insert 3.5mm plug to connect the headphone or line output from your portable audio device.
Volume	Adjust volume using rotary encoder (00-46).
Programmable Turn-On Volume	To set the turn-on volume level, press and hold POWER for 3 seconds to store the currently selected volume level in memory. "P-VOL" and the current volume level will momentarily appear in the display. If no volume level is programmed, the unit will remember the last volume level.
Mute	Press MUTE to silence the audio. "MUTE" will flash in the display. Press MUTE again to cancel.
Preset EQ Curves	Press EQ to select between POP, JAZZ, CLASSIC, BEAT, ROCK and OFF (default) equalization curves. Any adjustment to the Bass or Treble settings automatically cancels the current EQ curve (if one is selected).
Display	Press DISP to select between clock and different types of information, such as radio frequency or the CD track/elapsed time information.
Set the Clock	From Tuner or CD mode, press and hold DISP until the clock begins to flash, then release. Press TUNE ◀◀ to adjust the hours and TUNE ▶▶ to adjust the minutes. Press DISP momentarily to save the selected time.
12/24-hour Clock	The clock will display 12-hour time in USA frequency spacing mode (10:00). In European frequency spacing mode, the clock will display 24-hour time (22:00).



General Operation

Audio Press volume knob momentarily to select between Volume (default), Bass, Treble & Balance.



Bass Press volume knob until **BAS** appears then rotate encoder left/right to adjust (-6 minimum / +6 maximum).

Treble Press volume knob until **TRE** appears then rotate encoder left/right to adjust (-6 minimum / +6 maximum).

Balance Press volume knob until **BAL** appears then rotate encoder left/right to adjust (BAL L 12-BAL 00-BAL R 12). BAL 00 represents equal balance

Source Audio Memory Individual Bass and Treble settings are retained in memory for Tuner, CD and AUX modes. This allows you to save the Bass and Treble settings separately for each mode.

Note:
Any adjustment to the Bass or Treble settings automatically cancels the current EQ curve (if one is selected).

Setup Menu Press and hold the volume knob for more than 3 seconds to access the setup menu. Press the volume knob momentarily to select between the menu functions and rotate the volume knob left/right to adjust or activate the desired function.

Setup Menu

Menu Function	Options	Action
Tuner Frequency Spacing	FREQ USA	Programs the unit to USA tuner spacing. (200kHz for FM and 10kHz for AM)
	FREQ EUR	Programs the unit to European tuner spacing. (50kHz for FM and 9kHz for AM)
Beep Confirmation	BEEP OFF	Disables the confirmation beep.
	BEEP ON	Enables the confirmation beep.

AM/FM Tuner Operation

Manual Tuning	Press TUNE ◀◀ or TUNE ▶▶ momentarily to move radio frequency up or down one step at a time. Press and hold to advance quickly.
Seek Tuning	Press TUNE ◀◀ or TUNE ▶▶ for one second, then release to seek the next strongest station.
Scan Tuning	Press SCAN to preview strong stations on the current band, pausing for five seconds at each. Press SCAN again to cancel.
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 two 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 AS/PS for more than two seconds to automatically store the six strongest stations in the current band. Automatic local tuning is activated during the initial band scan.
Preset Scan	Press AS/PS for less than two seconds to scan presets 1-6 on the current band, pausing for five seconds at each. Press AS/PS again to cancel.
NOTE:	This unit has a manual tuning, seek tuning and AS/PS lockout feature. See troubleshooting section.



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 (Tuner or AUX). 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. NOTE: This unit has an Eject CD lockout feature. See troubleshooting section.
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 and 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.
Scan	Press INT to play the first 10 seconds of each track. Press INT again to cancel.
Repeat	Press RPT to continuously repeat selected track. Press RPT again to cancel.
Random	Press RDM to play all tracks in random order. Press RDM again to cancel. Random mode is retained in memory when selecting between Tuner, CD and AUX modes and when the unit is turned on/off.
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>



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.



Troubleshooting

Problem	Cause	Action
Unit will not turn on (no power)	Yellow wire not connected or incorrect voltage	Check connections for proper voltage (11~16VDC)
	Red wire not connected or incorrect voltage	
	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
Unit will not tune, seek or autostore (AS/PS) stations	Unit has Manual Tuning Lockout feature enabled	See your supervisor for the code
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
ERROR 1 appears on display	Disc read error	Press EJECT
ERROR 2 appears on display	Focus error or disc is in upside down	Press EJECT
Unit will not accept a disc	CD mechanism position out of alignment	Press and hold EJECT for 3 seconds to reset CD mechanism position
	CD transit screws still in place	Remove 2 transit screws located on top of the unit
Unit will not eject a disc	Unit has Eject CD Lockout feature enabled	See your supervisor for the code



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: 80dBA (reference: 1 watt into 4 ohms)

Specifications

CD Player	Frequency response: 10Hz-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: 12dBf Stereo separation @ 1kHz: 35dB Frequency response: 30Hz-13kHz
AM Tuner	Tuning range: 530kHz-1710kHz Usable sensitivity: 24uV Frequency response: 40Hz-2.1kHz
General	Operating voltage: 11-16 VDC, negative ground Speaker output impedance: 4~8 ohms Dimensions: 7" x 7" x 2" (178 x 178 x 51 mm)

Design and specifications subject to change without notice.

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