



# XD5220

## INSTALLATION/OWNER'S MANUAL

AM/FM/CD Receiver with Detach Face





## Preparation

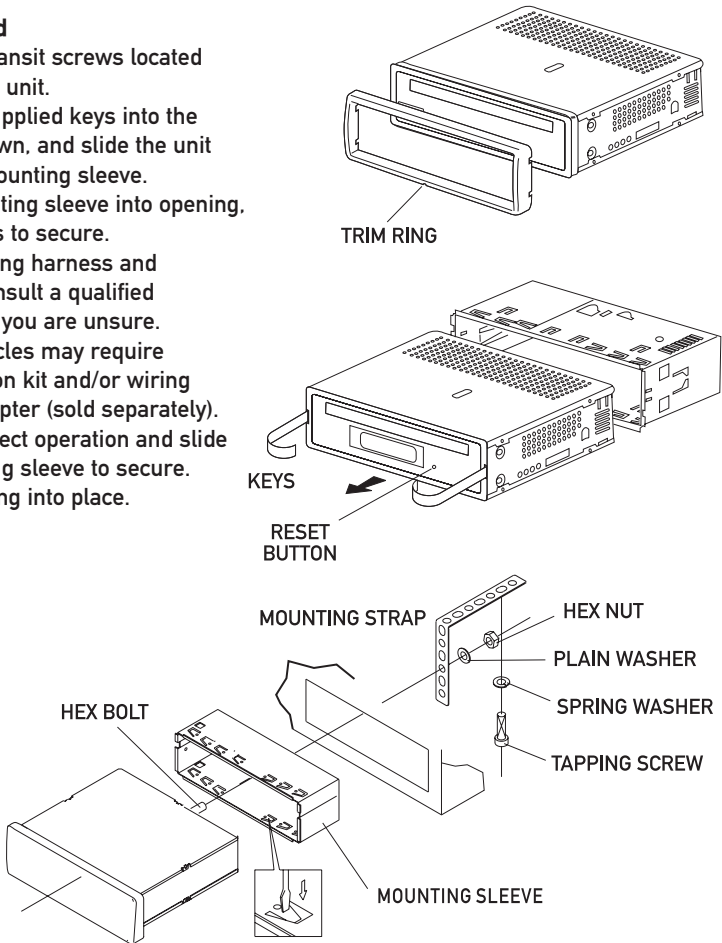
Please read entire manual before installation.

### 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.

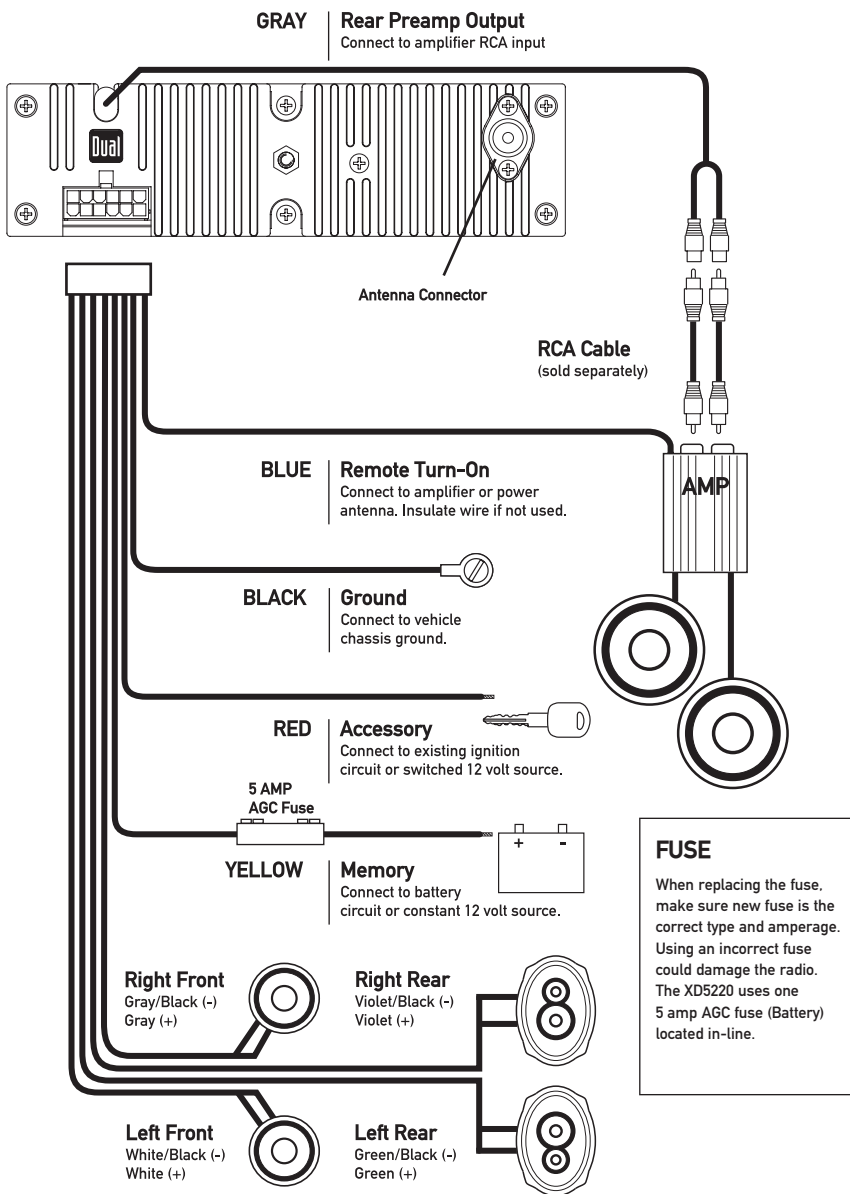
### Getting Started

- 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

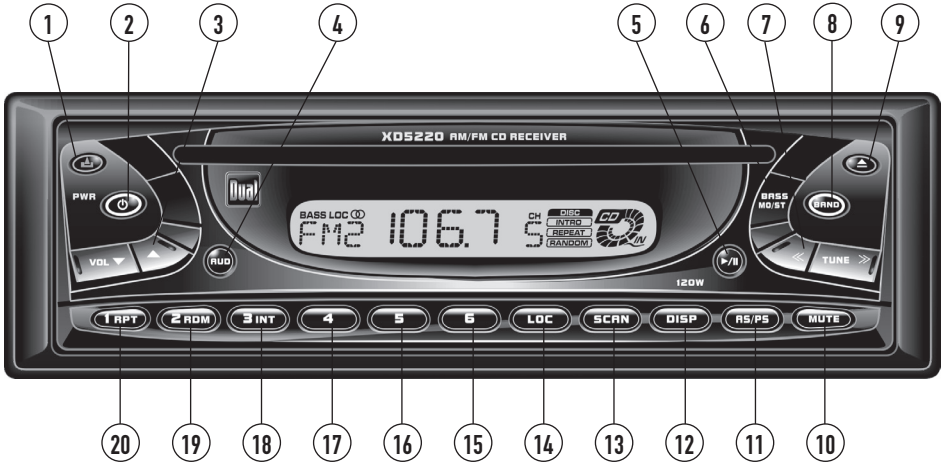
# Wiring Diagram



\* CAUTION - Do not attach any speaker leads to ground as severe damage will occur.



# Control Locations



- |                          |                           |
|--------------------------|---------------------------|
| 1 Release                | 11 Auto Store/Preset Scan |
| 2 Power                  | 12 Display                |
| 3 Volume Up/Down         | 13 Scan                   |
| 4 Audio                  | 14 Local/Distance         |
| 5 Play/Pause             | 15 Preset 6               |
| 6 Bass Boost/Mono/Stereo | 16 Preset 5               |
| 7 Tune/Track Up/Down     | 17 Preset 4               |
| 8 Band                   | 18 Preset 3/CD Intro      |
| 9 Eject                  | 19 Preset 2/CD Random     |
| 10 Mute                  | 20 Preset 1/CD Repeat     |

## General Operation

<b>Faceplate Removal</b>	Press <b>RELEASE</b> and pull away from the left side to remove. To re-install, insert right side of faceplate first then push left side to secure.
<b>Semi-permanent Faceplate Installation</b>	Remove trim ring and install supplied #1 x 7/32" Phillips head screw through left side of mounting frame into faceplate.
<b>Power On/Off</b>	Press <b>PWR</b> or any other button (except eject) to turn the unit on. Inserting a disc will turn the unit on automatically. Press <b>PWR</b> to turn the unit off.
<b>CD Mode</b>	Insert a CD or press <b>▶/  </b> to begin or resume playback.
<b>Tuner Mode</b>	Press <b>PWR</b> or <b>BAND</b> to begin or resume tuner operation.
<b>Bass Boost</b>	Press <b>BASS</b> to activate and deactivate bass boost curve. Activating this feature will enhance the bass frequencies when listening to music at all volumes.
<b>Volume</b>	Adjust volume using <b>VOL ▼</b> / <b>VOL ▲</b> (00-46).
<b>Mute</b>	Press <b>MUTE</b> to silence the audio. "MUTE" will appear in the display. Press <b>MUTE</b> again to cancel.
<b>Display</b>	Press <b>DISP</b> to display the clock. The radio frequency (tuner mode) or CD track/elapsed time (CD player mode) show by default.
<b>Set the Clock</b>	Press <b>DISP</b> to display the clock, then release. Press and hold <b>DISP</b> for 2 seconds, the clock will begin to flash. Press <b>TUNE &lt;&lt;</b> to adjust the hours and <b>TUNE &gt;&gt;</b> to adjust the minutes. Clock settings will be saved after 5 seconds.
<b>12/24-hour Clock</b>	The clock will display 12-hour AM/PM time in U.S. frequency spacing mode (PM 10:00). In European frequency spacing mode, the clock will display 24-hour time (22:00).



## General Operation

**Reset** Press and hold for more than 2 seconds to **RESET** the unit upon initial installation. The **RESET** button is located behind the faceplate. Refer to page 2 for details.

**Audio** Press **AUD** to select between Volume (default), Bass, Treble, Balance & Fader.



**Bass** Press **AUD** until **BA** appears  
Press **VOL** ▼ or ▲ to adjust  
( -7 minimum / 7 maximum)

**Treble** Press **AUD** until **TR** appears  
Press **VOL** ▼ or ▲ to adjust  
( -7 minimum / 7 maximum)

**Balance** Press **AUD** until **B** appears  
Press **VOL** ▼ (LEFT) or ▲ (RIGHT) to adjust  
(BL 15/BR 15) BAL 00 represents equal balance.

**Fader** Press **AUD** until **F** appears  
Press **VOL** ▼ (FRONT) or ▲ (REAR) to adjust  
(FF 15/FR 15) F 00 represents equal balance.

## Tuner Operation

<b>Seek Tuning</b>	Press <b>TUNE</b> << or >> momentarily to seek the next strong station.
<b>Manual Tuning</b>	Press <b>TUNE</b> << or >> for more than 2 seconds, then release. "MANU" will momentarily appear in the display. Press <b>TUNE</b> << or >> momentarily to move radio frequency up or down one step at a time. Press and hold to advance quickly. If tuning is not adjusted for 5 seconds, the unit will return to seek tuning mode (default). "AUTO" will momentarily appear in the display.
<b>Scan Tuning</b>	Press <b>SCAN</b> to preview strong stations on the current band, pausing for 5 seconds at each. Press <b>SCAN</b> again to cancel.
<b>FM Local/Distance</b>	Press <b>LOC</b> to activate local tuning for strong FM station reception only. Press <b>LOC</b> again to cancel and resume distance tuning (default).
<b>FM Mono/Stereo</b>	Press <b>MO/ST</b> for more than 2 seconds during FM tuner operation to select mono or stereo (default) reception of the broadcast signal.
<b>Band</b>	Press <b>BAND</b> to select between FM1, FM2, FM3 and AM1, AM2 bands.
<b>Frequency Spacing</b>	Press and hold <b>BAND</b> then press <b>TUNE</b> << to select European frequency spacing. Press and hold <b>BAND</b> then press <b>TUNE</b> >> to select U.S. frequency spacing (default). Anytime frequency spacing is changed, all station presets are erased.
<b>Storing and Recalling Station Presets</b>	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 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.
<b>Automatically Store Stations</b>	Press <b>AS/PS</b> for more than 2 seconds to automatically store the six strongest stations in the current band.
<b>Preset Scan</b>	Press <b>AS/PS</b> for less than 2 seconds to scan presets 1-6 on the current band, pausing for 5 seconds at each. Press <b>AS/PS</b> again to cancel.



## **CD Player Operation**

<b>Insert CD</b>	With the label facing up, insert a standard size CD into the CD slot. The CD will automatically begin playback.
<b>Eject CD</b>	Press <b>EJECT</b> to eject the CD. The unit will change to tuner mode. 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.
<b>Track Select</b>	Press <b>TRACK &gt;&gt;</b> to skip to the beginning of the next track. Press <b>TRACK &lt;&lt;</b> to return to the beginning of the current track. Pressing <b>TRACK &lt;&lt;</b> again skips to the beginning of the previous track.
<b>Fast Forward and Reverse</b>	Press and hold <b>TRACK &gt;&gt;</b> or <b>TRACK &lt;&lt;</b> to fast forward or reverse a track.
<b>Pause</b>	Press <b>▶/  </b> to temporarily stop CD playback. Press <b>▶/  </b> again to resume playback.
<b>Intro</b>	Press <b>INT</b> to play the first 10 seconds of each track. Press <b>INT</b> to cancel.
<b>Repeat</b>	Press <b>RPT</b> to continuously repeat selected track. Press <b>RPT</b> to cancel.
<b>Random</b>	Press <b>RDM</b> to play all tracks in random order. Press <b>RDM</b> again to cancel. Random mode is retained in memory when selecting between tuner, CD player and auxiliary input modes and when the unit is turned on/off.
<b>CD-R/CD-RW Compatibility</b>	Some CD-Rs and CD-RWs may be incompatible with this unit, depending on media type and recording method.





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## 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 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: 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.

### 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 or connections discussed in your instruction booklet 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
- Email us at [cs@dualav.com](mailto: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	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
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
Unit will not accept a disc	CD mechanism position out of alignment	Press 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.

## Error Codes

Error Code	Cause	Action
ER-1 appears on display	Disc error	Press eject or RESET
ER-2 appears on display	Mechanism error	Press eject or RESET
ER-3 appears on display	Servo error or disc is in upside down	Press eject or RESET

## Specifications

<b>CD Player</b>	Signal-to-noise: <b>&gt;92dB</b> Frequency response: <b>10Hz-20kHz</b> Channel separation @ 1kHz: <b>&gt;65dB</b> D/A converter: <b>1 Bit</b>
<b>FM Tuner</b>	Tuning range: <b>87.5MHz-107.9MHz</b> Usable sensitivity: <b>8.5dBf</b> 50dB quieting sensitivity: <b>10dBf</b> Stereo separation @ 1kHz: <b>40dB</b> Frequency response: <b>30Hz-13kHz</b>
<b>AM Tuner</b>	Tuning range: <b>530kHz-1710kHz</b> Usable sensitivity: <b>22uV</b> Frequency response: <b>30Hz-2.2kHz</b>
<b>General</b>	Total power output: <b>120 Watts Peak</b> Power output: <b>30Wx4 @ 4 ohm, 14.4 VDC</b> Operating voltage: <b>11-16 VDC, negative ground</b> Speaker output impedance: <b>4~8 ohms</b> Line output voltage: <b>2 Volts</b> Dimensions: <b>7" x 7" x 2" (178 x 178 x 51 mm)</b>

Design and specifications subject to change without notice.



Dual Electronics Corp.  
21318 64th Ave. South  
Kent, WA 98032  
Toll Free: 1-866-382-5476

[www.dualav.com](http://www.dualav.com)  
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