



INTERFACE COMPONENTS

- AXDSPX-ETH1 interface
- AXDSPX-ETH1 harness
- LD-DSP-ETH1
- LD-DSP-ETH2
- AXBK-1
- LD-ETH-ADAPT harness
- Amplifier bypass harness (female connectors: 8-pin black, 20-pin green)

For **Dash Disassembly Instructions**, refer to metraonline.com. Enter the year, make, and model of the vehicle in the **Vehicle Fit Guide** for **Radio Install kits**.



DSP Data Interface

Fits Select General Motors Models **2019-UP**

FEATURES & SPECIFICATIONS

- Designed for Ethernet amplifiers
- Package includes the AXDSP-X interface and vehicle-specific T-harness
- Chimes and voice prompts go through the aftermarket amplifier
- Install location: At the factory amplifier
- Selectable 31-band Graphic EQ or 5-band parametric EQ on each channel with high pass, low pass, and bandpass filters
- 6 inputs and 10 individually assignable outputs
- Selectable slope (12, 24, 36, or 48db per octave)
- Selectable Graphic or Parametric EQ
- Independent equalization on each of the 10 outputs
- Each channel can be delayed independently up to 10 ms
- Chime control for GM vehicles
- Clipping detection & limiting circuits
- Retains OE voice prompts (OnStar[®]) if vehicle is equipped
- Retains factory chimes, including parking sensor and cross path detection alerts if equipped
- Bass knob included
- Settings adjusted wirelessly in the free AX-DSP-XL app available for smartphones and tablets
- To be used with factory radios
- Read, write, & store configurations for future recall
- Password protect feature available in the app
- Micro "B" USB updatable
- 1-year limited warranty

TABLE OF CONTENTS

Connections: Adding Amp & Sub	2-3
Channel Assignments.....	4-7
Installation	8
Quick Setup Steps: AX-DSP-XL App.....	9
Specifications	10
Troubleshooting	11
LED Feedback	11
Speaker Assignment QR Code.....	12

Visit MetraOnline.com for more detailed information about the product and up-to-date vehicle specific applications

APPLICATIONS

Visit Axxessinterfaces.com for current application list

TOOLS REQUIRED

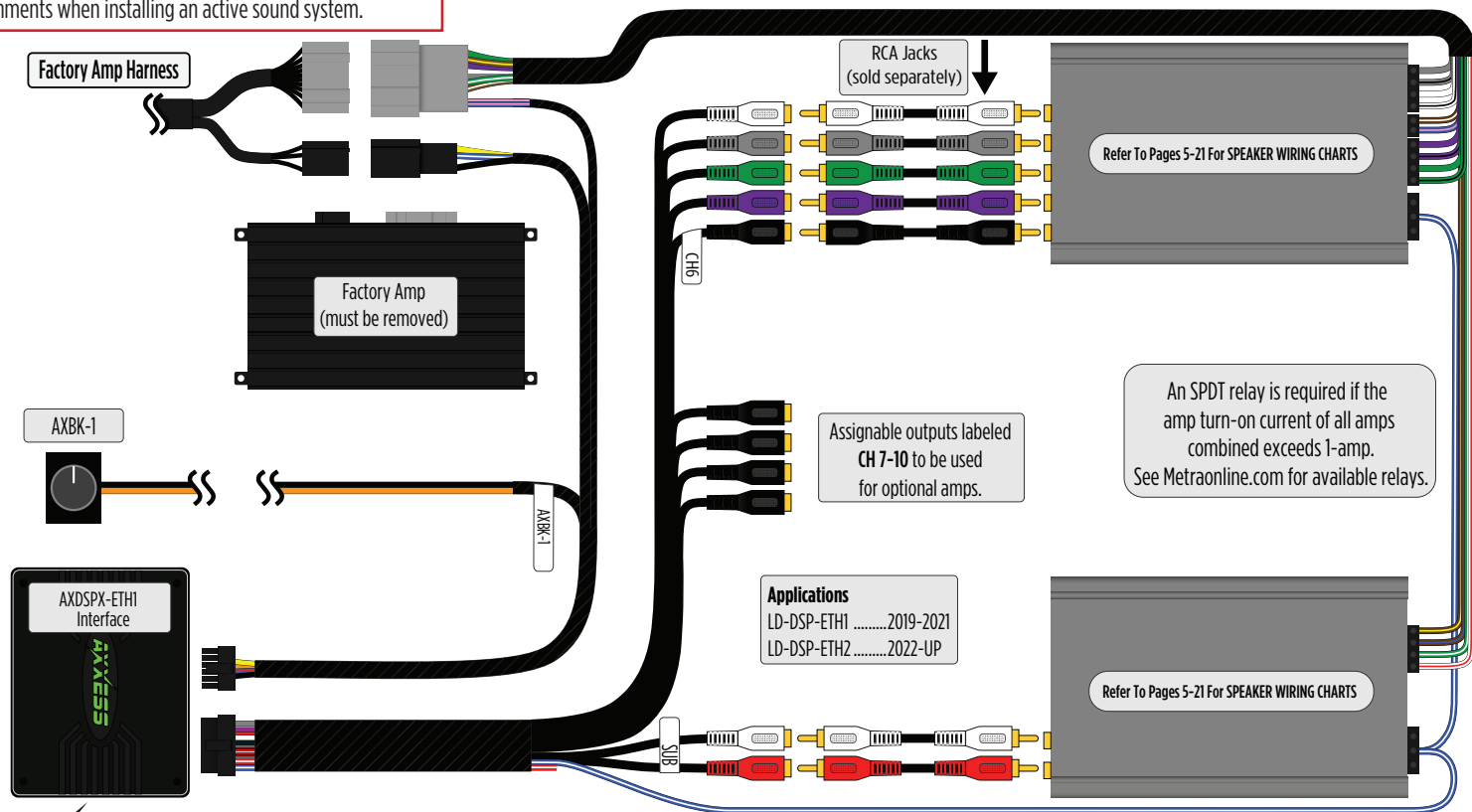
- Crimping tool & connectors, or solder gun, solder, & heat shrink
- Tape
- Wire cutter
- Zip ties

ATTENTION: With the key out of the ignition, disconnect the negative battery terminal before installing this product. Ensure that all installation connections, especially the air bag indicator lights, are plugged in before reconnecting the battery or cycling the ignition to test this product.

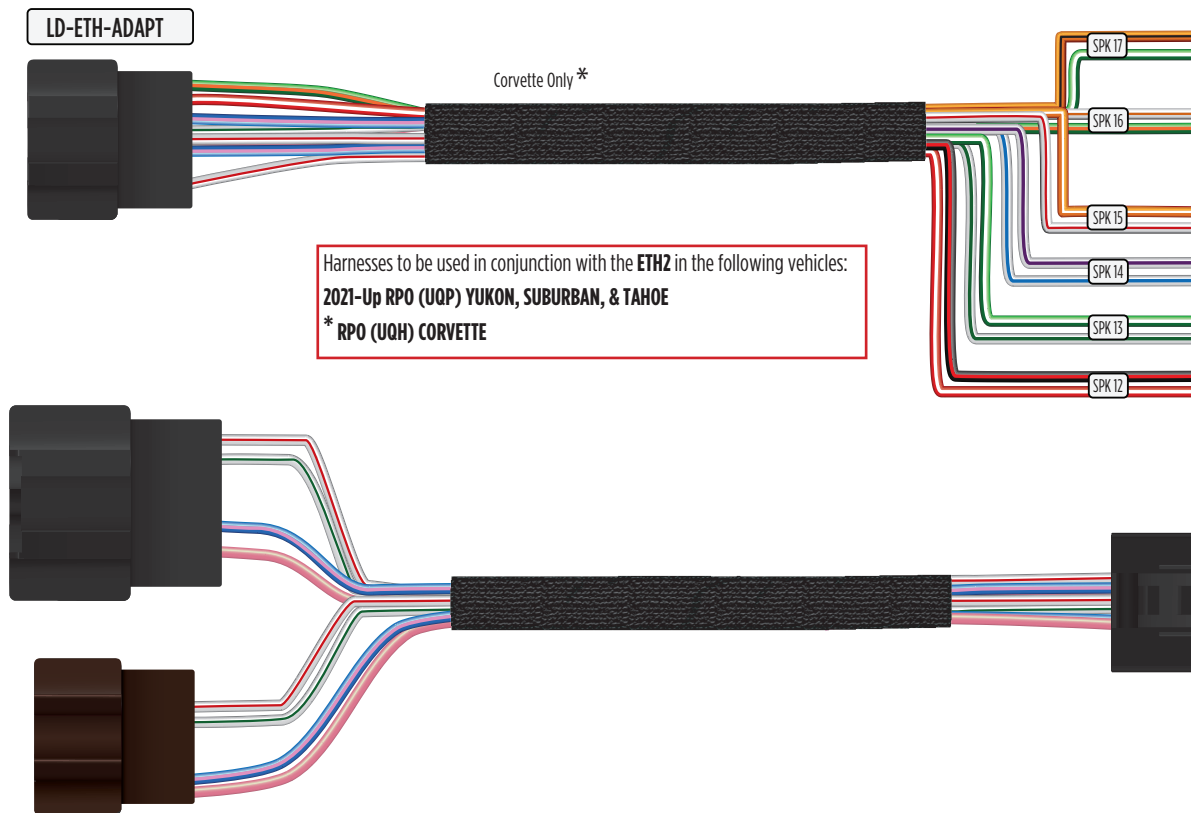
NOTE: Refer also to the instructions included with the aftermarket radio.

CONNECTIONS: ADDING A FULL-RANGE AMP & SUB TO A FACTORY SYSTEM

NOTE: Refer to pages 4-5 for detailed instructions on channel assignments when installing an active sound system.



CONNECTIONS: LD-ETH-ADAPT



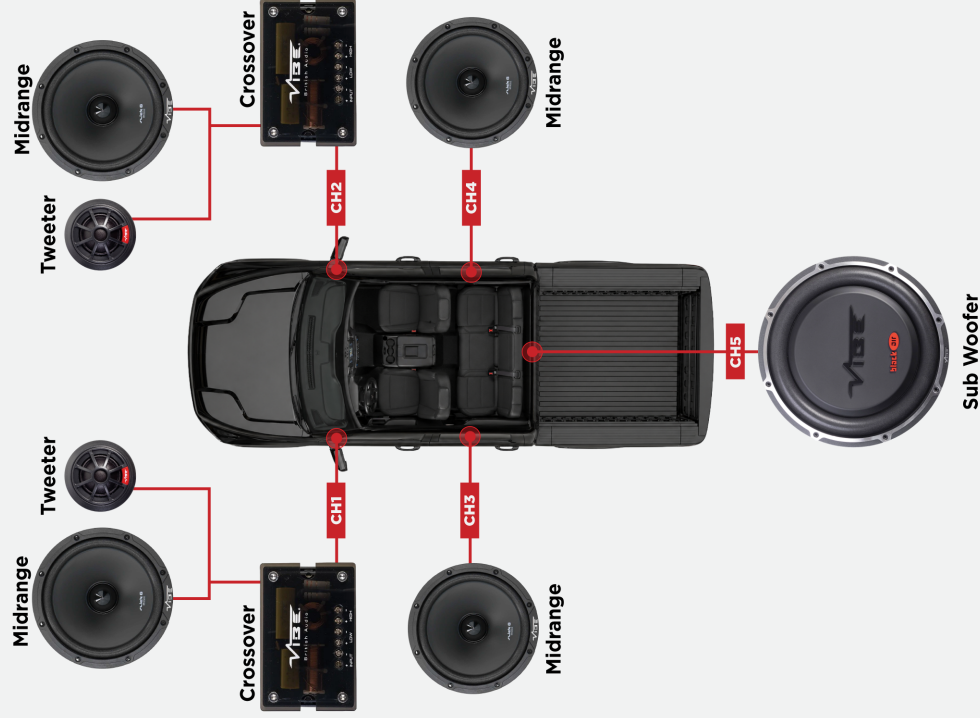
NOTE: When more than 5 channels (LF, RF, LR, RR, Sub) Any output that is named as either a Left or Right Front Tweeter will be the channels that Phone audio is routed to.

NOTE: When using the Graphic EQ, Channels 9 & 10 will pass full range audio, but their EQs only allow adjustment between 20-500Hz. Because of this, they should only be assigned to Subwoofer or Midbass speakers.

CHANNEL ASSIGNMENTS: 5 CHANNEL SYSTEM

5 Channel System w/ Front Coaxials or Components w/ Passive Crossover

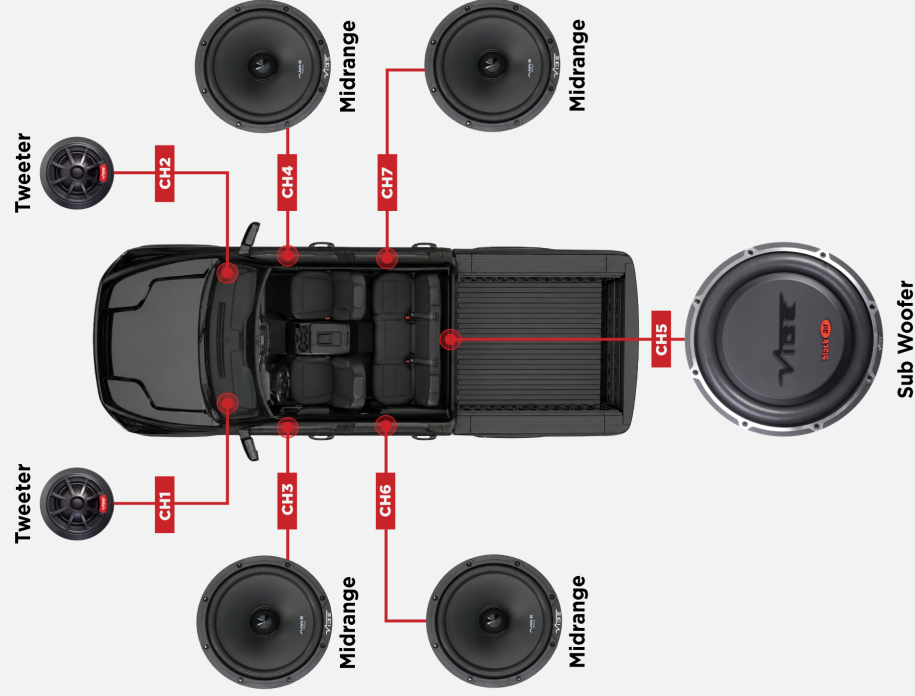
Channel #	Labeled:	RCA End Color	Wire Color	Assign Channel Location as:	Speaker Location	Plays Phone
1	No Label	White	White and White/Black	Left Front	LF Door & passive tweeter in dash	Yes
2	No Label	Gray	Gray and Gray/Black	Right Front	RF Door & passive tweeter in dash	Yes
3	No Label	Green	Green and Green/Black	Left Rear	LR Door	No
4	No Label	Purple	Purple and Purple/Black	Right Rear	RR Door	No
5	Sub	Red & White	White and White/Black Red and Black	Sub Woofer	Rear of Vehicle	No
6	CH6	Black	Red and Black	Not Used	N/A	No
7	CH7	Black	Red and Black	Not Used	N/A	No
8	CH8	Black	Red and Black	Not Used	N/A	No
9	CH9	Black	Red and Black	Not Used	N/A	No
10	CH10	Black	Red and Black	Not Used	N/A	No



CHANNEL ASSIGNMENTS: 7 CHANNEL SYSTEM

7 Channel System w/ Front Active Tweeters and Active Mids

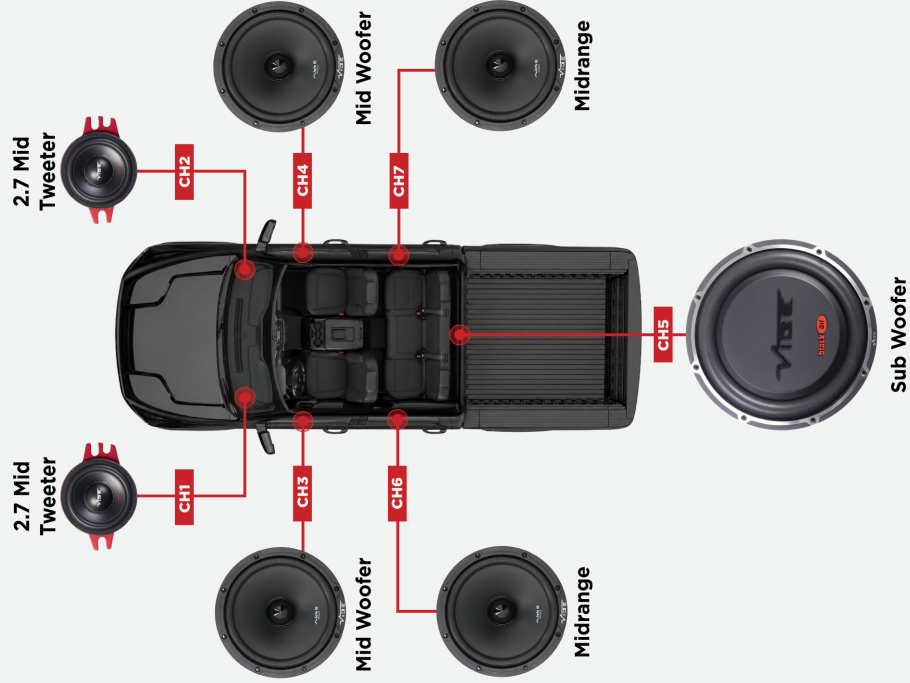
Channel #	Labeled:	RCA End Color	Wire Color	Assign Channel Location as:	Speaker Location	Plays Phone
1	No Label	White	White and White/Black	Left Front	Left Front Dash Twt Actively Filtered	No
2	No Label	Gray	Gray and Gray/Black	Right Front	Right Front Dash Twt Actively Filtered	No
3	No Label	Green	Green and Green/Black	Left Front Tweeter	LF Door Mid	Yes
4	No Label	Purple	Purple and Purple/Black	Right Front Tweeter	RF Door Mid	Yes
5	Sub	Red & White	White and White/Black Red and Black	Sub Woofer	Rear of Vehicle	No
6	CH6	Black	Red and Black	Left Rear	Left Rear Door	No
7	CH7	Black	Red and Black	Right Rear	Right Rear Door	No
8	CH8	Black	Red and Black	Not Used	N/A	No
9	CH9	Black	Red and Black	Not Used	N/A	No
10	CH10	Black	Red and Black	Not Used	N/A	No



CHANNEL ASSIGNMENTS: 7 CHANNEL SYSTEM

7 Channel System w/ Front Active Wideband / 2.7" in Dash and Active Mid Woofers in Door

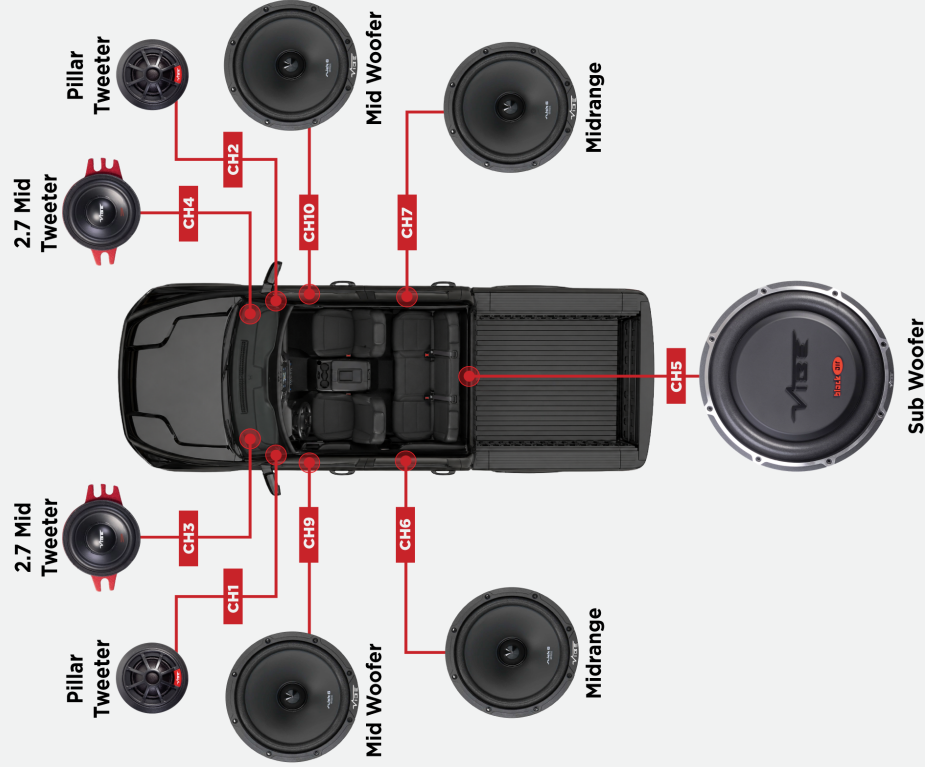
Channel #	Labeled:	RCA End Color	Wire Color	Assign Channel Location as:	Speaker Location	Plays Phone
1	No Label	White	White and White/Black	Left Front Tweeter	Left Front Dash Mid Twt W/ Active Filter	Yes
2	No Label	Gray	Gray and Gray/Black	Right Front Tweeter	Right Front Dash Mid Twt W/ Active Filter	Yes
3	No Label	Green	Green and Green/Black	Left Front	LF Door Mid Woofer	No
4	No Label	Purple	Purple and Purple/Black	Right Front	RF Door Mid Woofer	No
5	Sub	Red & White	White and White/Black Red and Black	Sub Woofer	Rear of Vehicle	No
6	CH6	Black	Red and Black	Left Rear	Left Rear Door	No
7	CH7	Black	Red and Black	Right Rear	Right Rear Door	No
8	CH8	Black	Red and Black	Not Used	N/A	No
9	CH9	Black	Red and Black	Not Used	N/A	No
10	CH10	Black	Red and Black	Not Used	N/A	No



CHANNEL ASSIGNMENTS: 9 CHANNEL SYSTEM

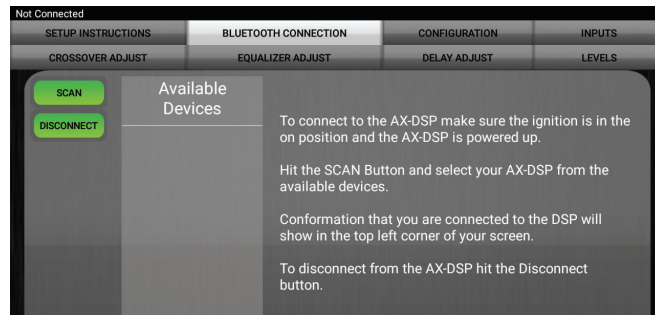
9 Channel System w/ Front Active Tweeters in Pillars + Wideband/2.7" in dash and Active Mid Woofers in door

Channel #	Labeled:	RCA End Color	Wire Color	Assign Channel Location as:	Speaker Location	Plays Phone
1	No Label	White	White and White/Black	Left Front	Left Pillar Tweeter	No
2	No Label	Gray	Gray and Gray/Black	Right Front	Right Pillar Tweeter	No
3	No Label	Green	Green and Green/Black	Left Front Tweeter	Left Front Dash Mid Twt W/ Active Filter	Yes
4	No Label	Purple	Purple and Purple/Black	Right Front Tweeter	Right Front Dash Mid Twt W/ Active Filter	Yes
5	Sub	Red & White	White and White/Black Red and Black	Sub Woofer	Rear of Vehicle	No
6	CH6	Black	Red and Black	Left Rear	Left Rear Door	No
7	CH7	Black	Red and Black	Right Rear	Right Rear Door	No
8	CH8	Black	Red and Black	Not Used	N/A	No
9	CH9	Black	Red and Black	Left Front	LF Door Mid Woofer	No
10	CH10	Black	Red and Black	Right Front	RF Door Mid Woofer	No

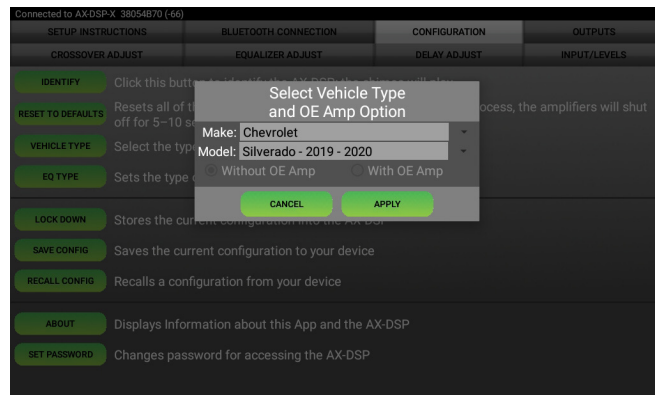


INSTALLATION

1. Locate the factory amp (*), unplug all connectors, then remove the amp.
2. Install the **AXDSPX-ETH1 harness** and make all necessary connections, but leave the amp turn-on wire disconnected.
3. Plug the 8-pin and 16-pin connectors from the **AXDSPX-ETH1 harness** into the **AXDSPX-ETH1 interface**.
4. Download and install the **AX-DSP-XL** app for your smart device.
5. Open the app and follow the instructions on the **Bluetooth Connection** tab to pair the mobile device to the **AXDSPX-ETH1**. (Figure A)
6. Scroll to the **Configuration** tab then select the vehicle type. Press the **Lock Down** button to save the configuration. (Figure B)
7. Connect the amp turn-on wire from the **AXDSPX-ETH1 harness**.
8. Click the **Identify** button to confirm that the **AXDSPX-ETH1** is connected properly. If so, a chime will be heard from the front left speaker or gauge cluster. Test all functions of the installation for proper operation.
9. Adjust the DSP settings in the app as desired. Refer to the instructions under the **Setup Instructions** tab, or online at Axxessinterfaces.com for an explanation of each tab in the app.



(Figure A)



(Figure B)

QUICK SETUP STEPS THROUGH AX-DSP-XL APP

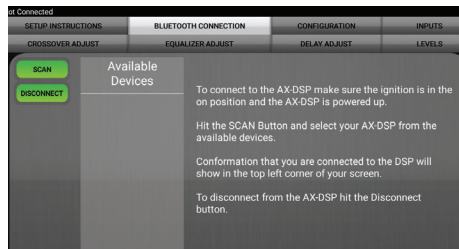
Android™ 9 or higher



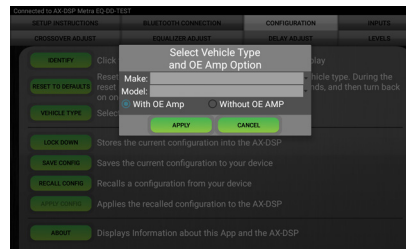
iOS® 12.1 or higher



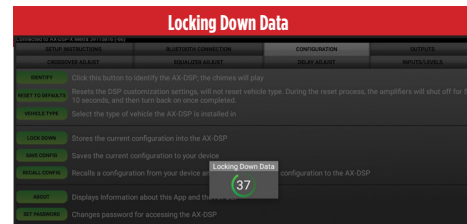
1. Download and install the **AX-DSP-XL app** for your smart device.
2. Turn Vehicle Ignition on. Make sure the Remote Turn on lead is disconnected.
3. Open the app: Select **Bluetooth Connections** page.
 - Select **Scan**, all available AXDSP devices within range will be displayed. Select your AXDSP and hit connect. (Figure A)
4. Select the Configuration page.
 - Select **Vehicle Type** Icon
 - Select the Vehicle Make: _____
 - Select the Vehicle's model: _____
 - Select **With OE Amp**
 - Hit **Apply** (Figure B)
5. Make sure radio volume is all the way down.
6. Connect the amp turn-on wire from the **AXDSPX-ETH1** harness to the aftermarket amplifiers.
7. From the **Configuration** page click the **Identify** button to confirm that the **AXDSPX-ETH1** is connected properly. If so, a chime will be heard from the front left speaker.
8. Press the **Lock Down** button to save the configuration. (Do not turn ignition off until this process is completed) (Figure C)
9. Select the **Bluetooth Configurations** page and disconnect the DSPX.
10. Turn ignition off, close all door then lock vehicle using the key fob. The vehicle will need to sit uninterrupted for 10 minutes while the vehicle goes to sleep. (Make sure Key fob is 15 feet away from the vehicle)
11. Unlock Vehicle, turn ignition on and test radio's functions.
12. Adjust the DSP settings in the app as desired. Refer to the instructions under the **Setup Instructions** tab, or online at Axxessinterfaces.com for an explanation of each tab in the app.



(Figure A)



(Figure B)



(Figure C)

**Last and the most important:
You MUST lock down your configuration and cycle the key!!!**

SPECIFICATIONS

Specifications

Input Impedance	1M Ohm
Input Channels	6 High/Low Level Selectable
Input Options	High Level or Low Level
Input Type	Differential-Balanced
Input Voltage	
High Level Range	0 - 28v Peak to Peak
Input Voltage	
Low Level Range	0 - 4.9v Peak to Peak
Output Channels	10
Output Voltage	Up to 5v RMS
Output Impedance	50 Ohms
Equalizer Type	31 Band Graphic EQ, +/- 10dB
THD	<0.03%
Frequency Response	20Hz - 20kHz
Crossover	3-Way LPF, BPF, HPF THP per channel
Crossover Type	Linkwitz-Riley 24DB Slope, Fixed
Sampling	48kHz
S/N Ratio	105dB @ 5V RMS

General

Operating Voltage	10 - 16VDC
Standby Current Draw	~7mA
Operation Current Draw	~150mA
Adjustments/Controls	Application via Bluetooth®
Remote Output	12VDC, Signal Sense or with Ignition

TROUBLESHOOTING

If the **Red** light in the **AXDSPX-ETH1** interface is blinking 2 or 3 times every 5 seconds, it is not communicating with the vehicle properly. Remove the key from the ignition, unplug the connectors from the interface, then inspect all connections made. If everything is proper, connect the harnesses back into the interface, cycle the key to ignition, then re-inspect. The **Red** light should blink once every 5 seconds.

LED FEEDBACK

BLINK RATE	CONDITION/STATUS
1 Blink Every 5 Seconds	ALL GOOD
2 Blinks Every 5 Seconds	MISSING ETHERNET FRAMES
3 Blinks Every 5 Seconds	MISSING CAN FRAMES



Visit AxxessInterfaces.com for more detailed information about the product and up-to-date vehicle specific applications

Speaker Assignment QR Code



AXDSPX-ETH1

INSTALLATION INSTRUCTIONS

Having difficulties? We're here to help.



Contact our Tech Support line at:

386-257-1187



Or via email at:

techsupport@metra-autosound.com

Tech Support Hours (Eastern Standard Time)

Monday - Friday: 9:00 AM - 7:00 PM

Saturday: 10:00 AM - 5:00 PM

Sunday: 10:00 AM - 4:00 PM



**Metra recommends MECP
certified technicians**