GM DSP Interface With Amp Bypass Harness 2014-2018

INTERFACE COMPONENTS

- AXDSPL-MST1 interface
- AXDSPL-MST1 interface harness
- AXDSPL-MST1 amp bypass harness
- Bass knob
- GM MOST® Interface

APPLICATIONS

Visit axxessinterfaces.com for current application list

INTERFACE FEATURES

- Includes a DSP (Digital Signal Processor)
- 15 Band graphic EQ
- 4 inputs and 6 individually assignable outputs
- Independent equalization for front, rear, and sub
- Selectable low pass, band pass, and high pass filters
- Selectable crossover slopes; 12db, 24db, 36db, 48db
- Each channel can be delayed independently up to 10ms
- Clipping detection and limiting circuits
- Retains factory parking sensor chimes
- Retains OnStar® voice prompts
- Adjustable chime level
- Designed for MOST® amplified models
- Includes an amp bypass harness
- Internal header port for adding interface modules
- Bass knob included for level control of subwoofer amp
- Settings adjusted via Bluetooth® in a smart device application (tablet or mobile phone), compatible with both Android and Apple devices
- Read, write, and store configurations for future recall
- Password protect feature available in the mobile app
- Micro-B USB updatable

TABLE OF CONTENTS

Connections....2
Installation....3-4
AXDSPL-BT Installation....5
AXDSPL-SP Installation....6
Mobile App....7-15
Specifications....16

TOOLS & INSTALLATION ACCESSORIES REQUIRED

- Crimping tool and connectors, or solder gun, solder, and heat shrink • Tape • Wire cutter
- Zip ties • Multimeter

Google Play Store

Apple App Store
iOS 12.1 or higher

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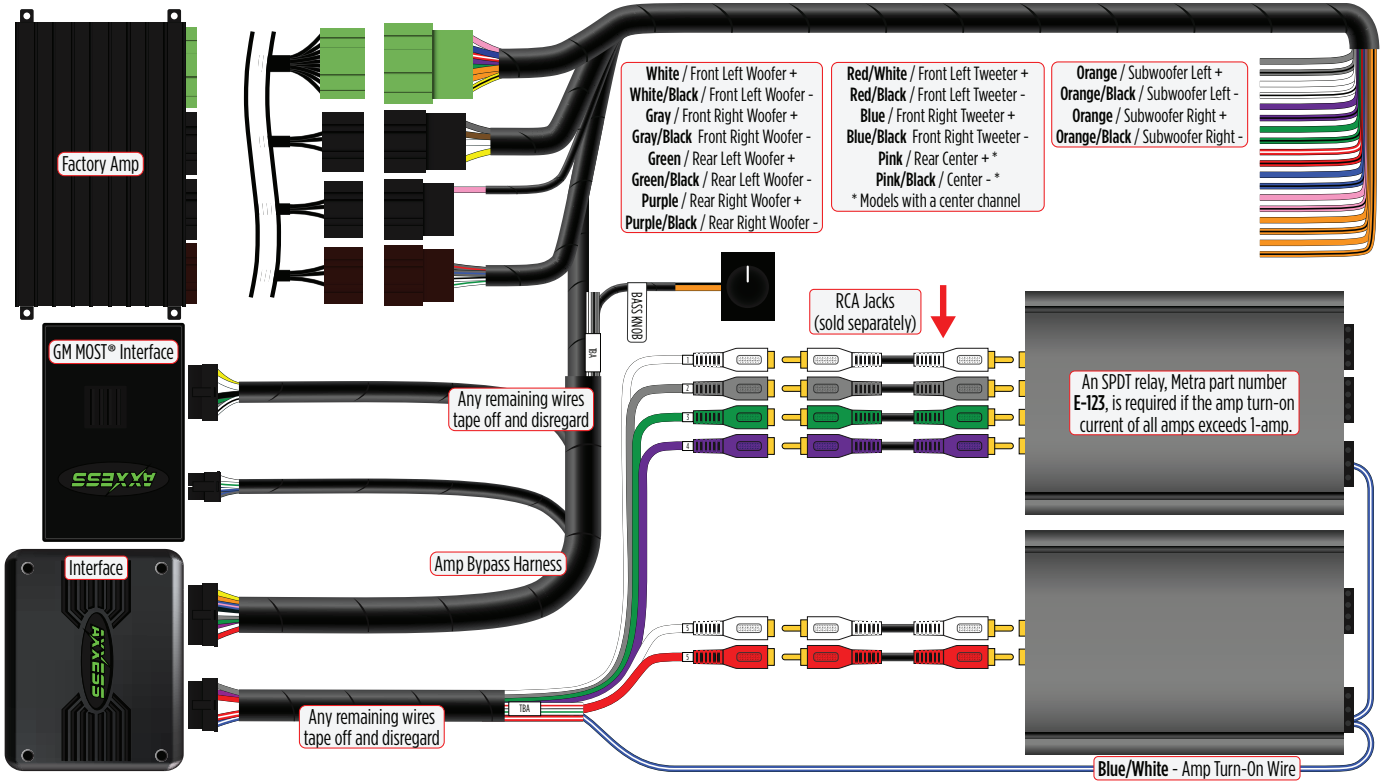
CONNECTIONS



INSTALLATION

1. Locate the factory amp. Unplug and remove the amp.

   Note: Amp location is on the following page.

2. Install the **AX-DSPX-MST1 amp bypass harness** to the vehicle and make all necessary connections, but leave the amp turn-on wire disconnected.
3. Connect the **AX-DSPX-MST1 amp bypass harness** to the **AX-DSPX-MST1 interface**.
4. Connect the **AX-DSPX-MST1 interface harness** to the **AX-DSPX-MST1 interface**.
5. Download and install the **AX-DSP-XL app** from the **Google Play Store** or **Apple App Store**.
6. Cycle the ignition on.
7. Open the app then select the **Bluetooth Connection** tab. Follow the instructions to pair the mobile device to the interface. Refer to page 8 for more information. (Figure A)
8. Scroll to the **Configuration** tab then select the vehicle type. Press the **Lock Down** ‡ button to save the configuration. Refer to page 9 for more information. (Figure B)
9. Connect the amp turn-on wire.

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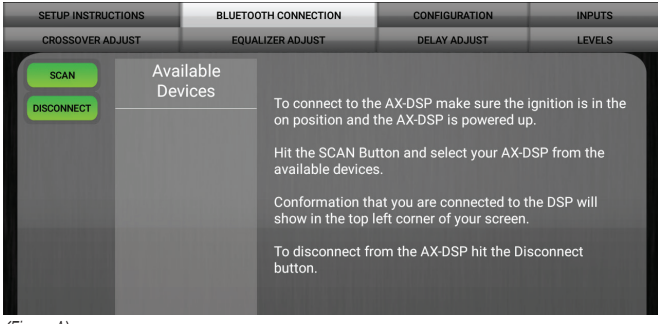
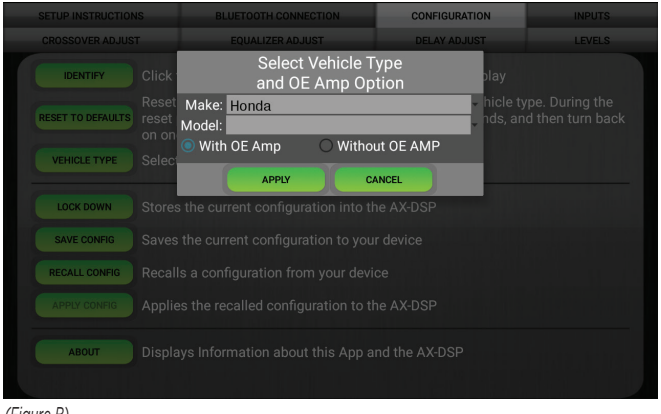


(Figure A)



(Figure B)

10. Click the **Identify** button to confirm the interface is connected properly. A chime will be heard from the front left speaker. Test all functions of the installation for proper operation.

Note: The outputs may need to be configured within the **Outputs** tab.

11. Adjust the settings in the app as desired. Press the **Lock Down** ‡ button to save any new configurations.

‡ Anytime the interface is locked down the key must be cycled off then back on

Note: The interface provides a 12-volt 1-amp output to turn on aftermarket amp(s). If installing multiple amps, an SPDT automotive relay will be required if the amp turn-on current of all amps combined exceeds 1-amp. Use Metra part number E-123 (sold separately) for best results.

Amplifier Location

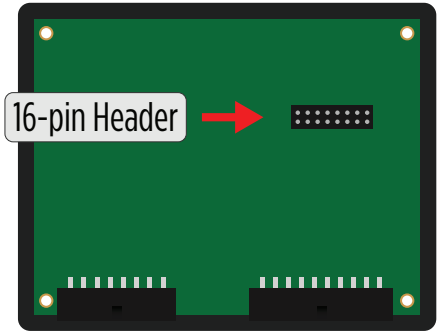
Chevrolet

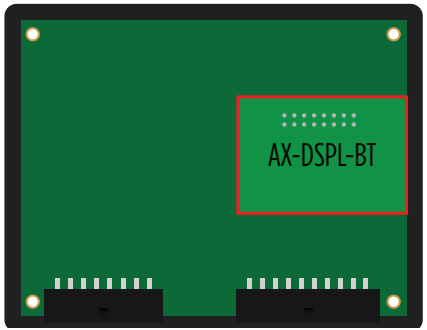
Camaro: Right side of trunk
Colorado: Behind glove-box
Corvette: Middle of luggage compartment floor
Cruze: Right side of trunk
Equinox: Front of center console
Impala: Right side of luggage compartment
Malibu: Right side of trunk
Silverado: Rear of passenger compartment, behind seat
Suburban: Rear left side quarter panel
Tahoe: Rear left side quarter panel
Traverse: Front of center console

GMC

Canyon: Behind glove-box
Sierra: Rear of passenger compartment, behind seat
Yukon: Rear left side quarter panel
Yukon XL: Rear left side quarter panel

BLUETOOTH STREAMING INTERFACE





- The **AXDSPL-BT** Bluetooth streaming interface can be used to stream media directly to the interface.
- While streaming media the volume on the phone will be used. As an option, the **AXBK-1** (sold separately) can be used to control the volume.

  Note: The bass knob included with the **AXDSPL-MST1** can be used if it will not be used to control a subwoofer.

1. **Important!** Unplug the interface from the vehicle.
2. Remove (4) Phillips screws securing the interface, then remove the top cover, exposing the circuit board within.
3. Locate the 16-pin header on the circuit board.
4. **Important!** Referencing how the **AXDSPL-BT** is laid out in the picture, carefully line up the header pins to the interface. Gently press down to secure.

   Note: Both interfaces may be damaged if installed wrong.
5. Reinstall the top cover to complete the installation.

AXBK-1 Installation:

6. Connect the **Brown** wire from the interface to the **Orange** wire from the **AXBK-1**. Ground the **Black** wire from the **AXBK-1**.

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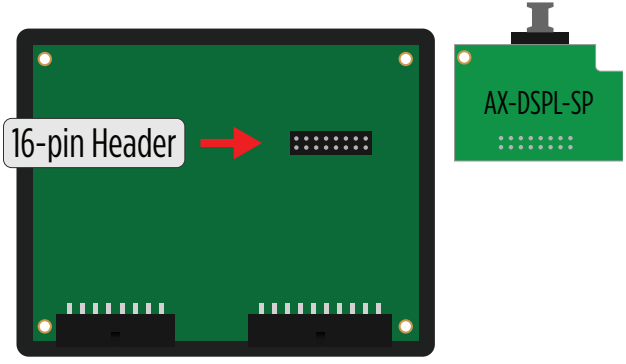
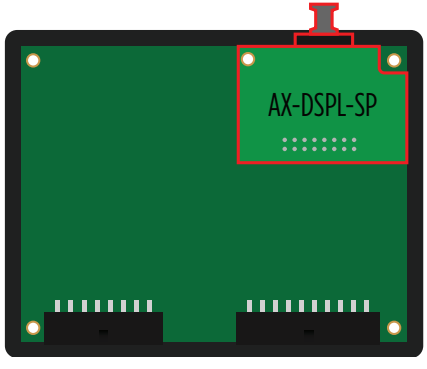
TOSLINK DIGITAL OUTPUT



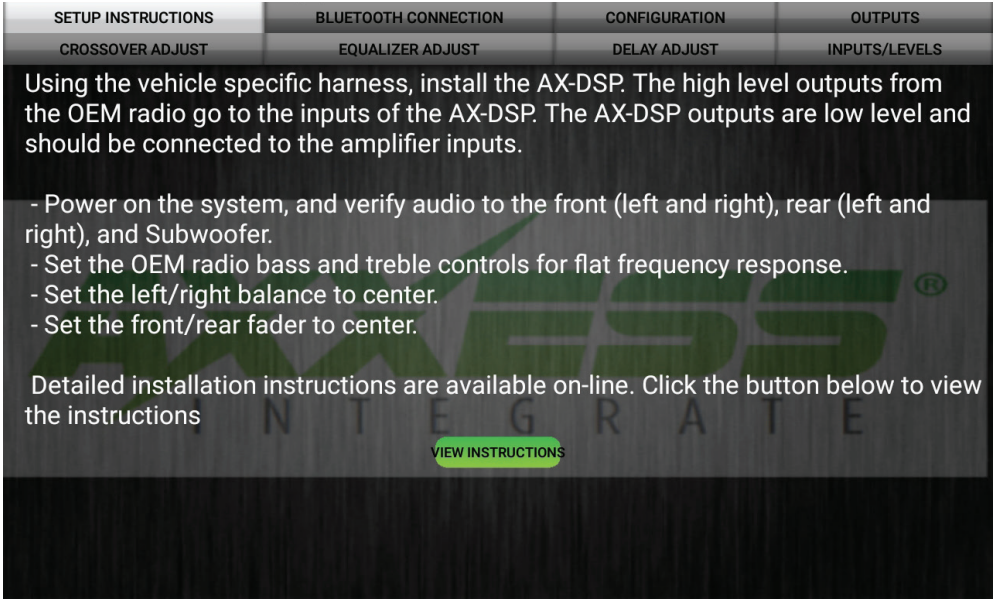


- The **AXDSPL-SP** Toslink digital output can be used for adding a digital output to the interface.

1. **Important!** Unplug the interface from the vehicle.
2. Remove (4) Phillips screws securing the interface, then remove the top cover, exposing the circuit board within.
3. Locate the 16-pin header on the circuit board.
4. **Important!** Carefully line up the header pins to the **AXDSPL-SP**, with the Toslink port facing outward. Gently press down to secure.

   Note: Both interfaces may be damaged if installed wrong.
5. Reinstall the top cover provided with the **AXDSPL-SP** to complete the installation.

Setup Instructions



• General information tab for installing the interface.

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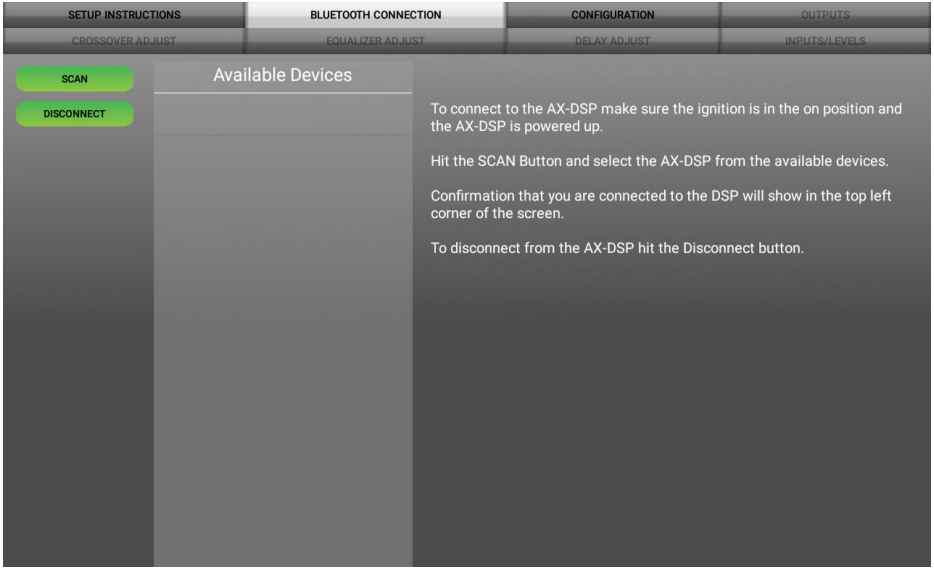
Bluetooth Connection



- **Scan** - Press this button to start the Bluetooth pairing process, then select the interface once it is found. "Connected" will appear in the top left corner of the app once paired.

  Note: The ignition must be cycled on during this process.

- **Disconnect** - Disconnects the interface from the app.

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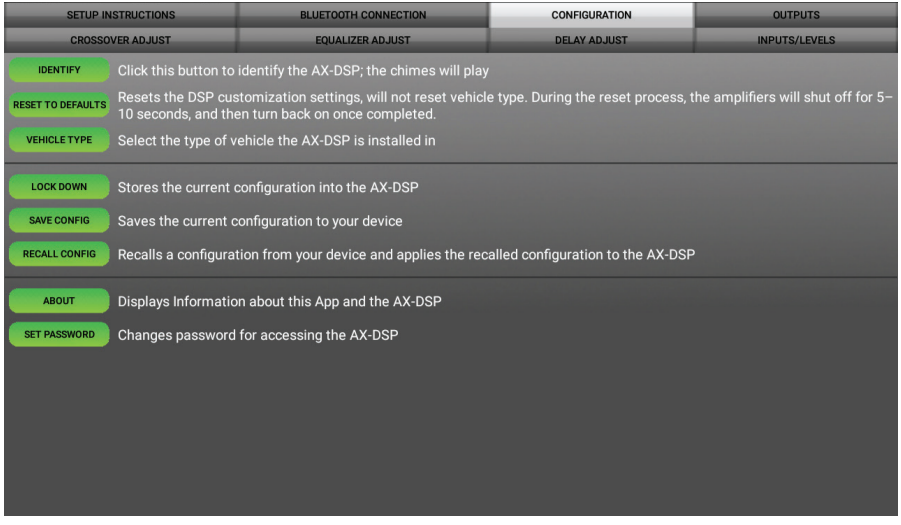
Configuration



- **Identify** - Click this button to send a test tone to the front left speaker.
- **Reset to Defaults** - Resets the interface to factory settings. During the reset process the amp(s) will shut off for 5-10 seconds.
- **Vehicle Type** - Select the vehicle type from the drop down box, then click the apply button.
- **Lock Down** - Click this button to save the selected settings.

  Attention! This must be done before closing the app or cycling the ignition off otherwise all new changes will be lost!
- **Save Configuration** - Saves the current configuration to the mobile device.
- **Recall Configuration** - Recalls a configuration from the mobile device.
- **About** - Displays information about the app, vehicle, interface, and mobile device.
- **Set Password** - Assign a 4-digit password to lock the interface. If no password is desired, use "0000". This will clear out any currently set password. It is not necessary to lock down the interface when setting a password.

  Note: A 4-digit only password must be chosen otherwise the interface will show "password not valid for this device".

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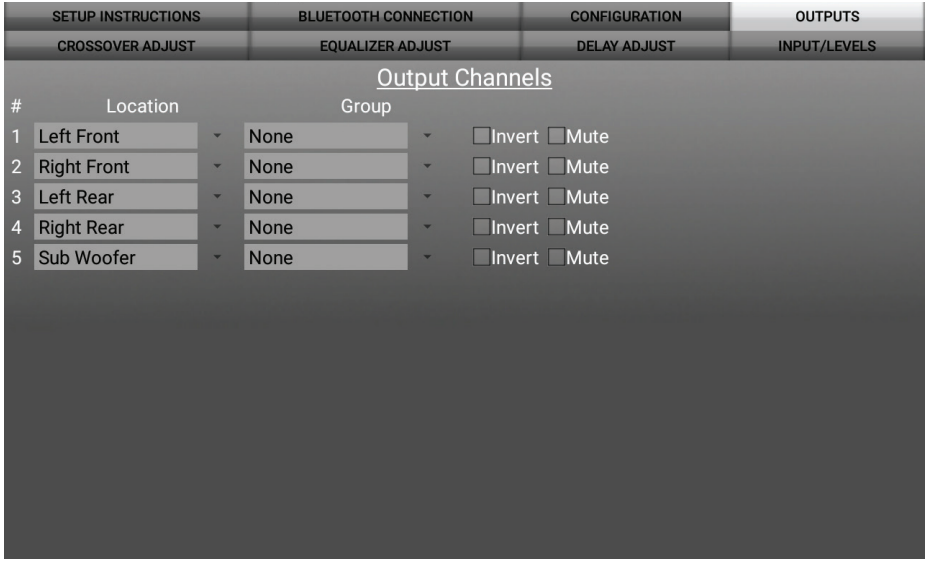
Outputs



Output Channels

- **Location** - Location of speaker.
- **Group** - Used to join channels together for simple equalization. Example, left front woofer/midrange and left front tweeter will be considered simply left front. The letter **M** indicates the speaker assigned as the master speaker.
- **Invert** - Will invert the phase of the speaker.
- **Mute** - Will mute desired channel(s) for tuning individual channels.

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Crossover Adjust

- Select the desired crossover filter per channel, low pass, band pass, or high pass
- Select the desired crossover slope per channel, 12db, 24db, 36db, or 48db
- Select the desired crossover frequency per channel, 20hz to 20khz

Note: The front and rear channels default to a 100Hz high pass filter to keep the low frequency signals out. If a subwoofer is not being installed, change the front and rear crossover points down to 20Hz for a full range signal, or to the lowest frequency the speakers will play down to.

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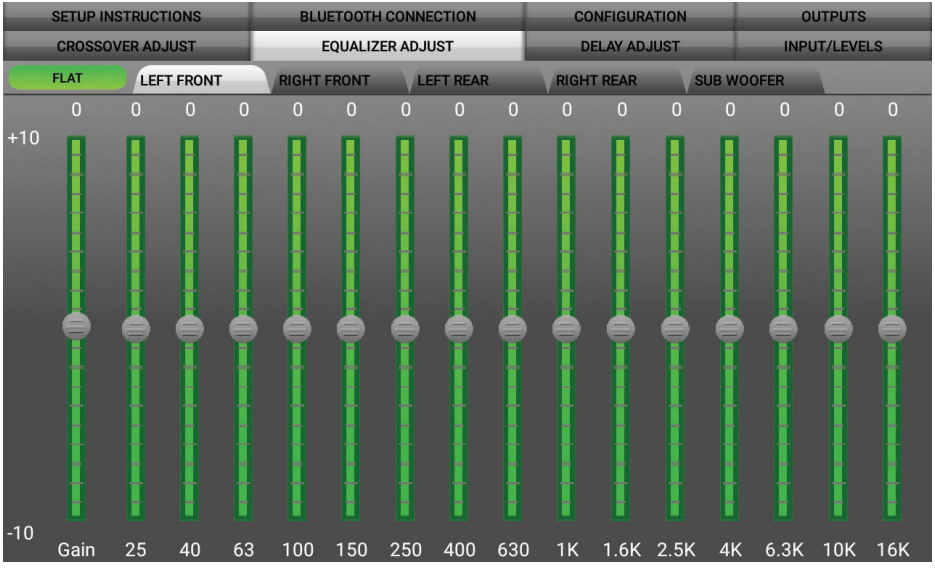
Equalizer Adjust



- All channels can be adjusted independently within this tab with 15 bands of available equalization. It is best to tune this by using an RTA (Real Time Analyzer).
- The **Gain** slider on the far left is for the channel selected.

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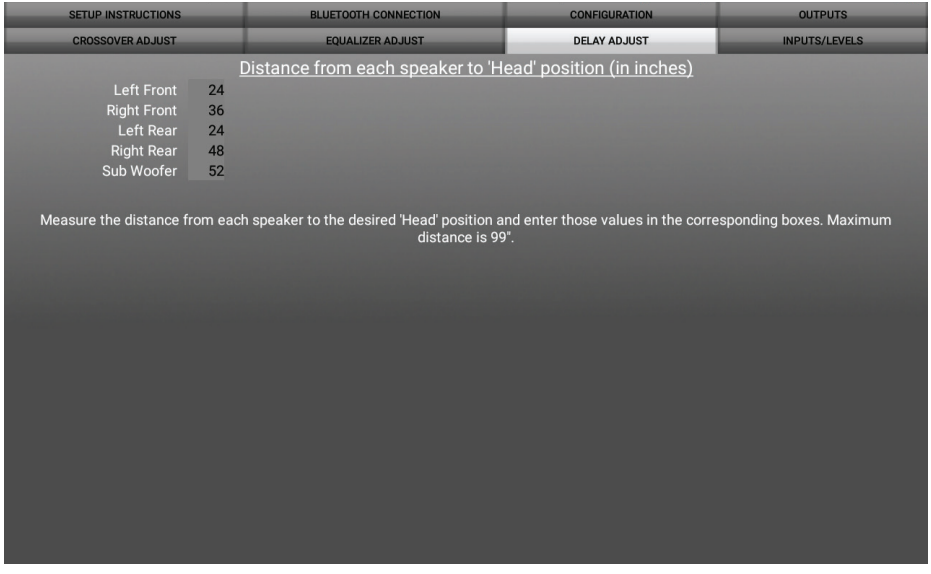
Delay Adjust



- Allows a delay of each channel. If a delay is desired, first measure the distance (in inches) from each speaker to the listening position, then enter those values to the corresponding speaker. Add (in inches) to the desired speaker to delay it.

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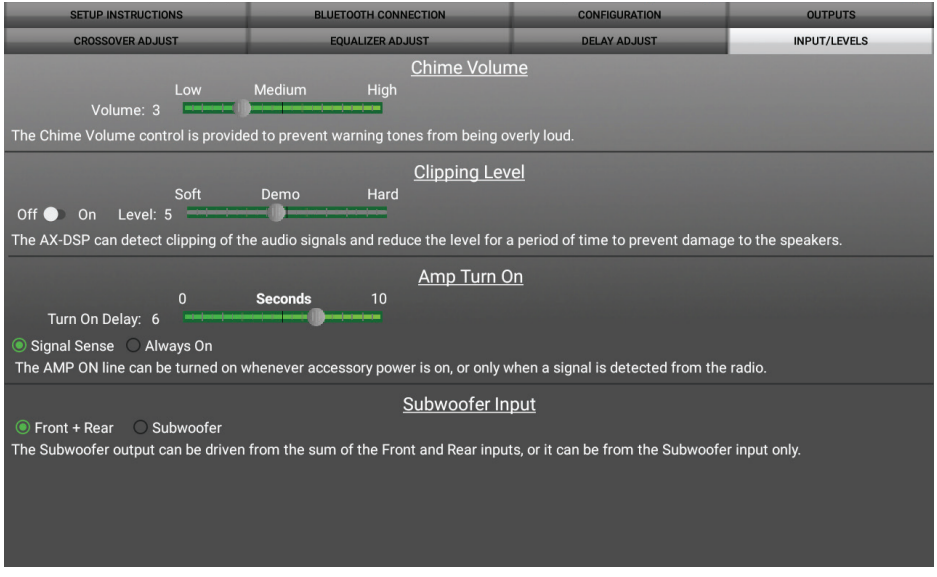
Inputs/Levels



- **Chime Volume** - Allows the chime volume to be adjusted up or down.
- **Clipping Level** - Use this feature to protect sensitive speakers like tweeters from being driven past their capabilities. If the output signal of the interface clips the audio will be reduced by 20dB. Turning down the stereo will allow the audio to come back at a normal level. The sensitivity of this feature can be adjusted to the listening preference of the user.
- **Amp Turn On**
  - **Signal Sense** - Will turn the amp(s) on when an audio signal is detected, and keep on for 10 seconds after the last signal. This ensures the amp(s) won't shut off between tracks.
  - **Always On** - Will keep the amp(s) on as long as the ignition is cycled on.
  - **Turn on Delay** - Can be used to delay audio output to avoid turn-on pops.
- **Subwoofer Input** - Select **Front + Rear**

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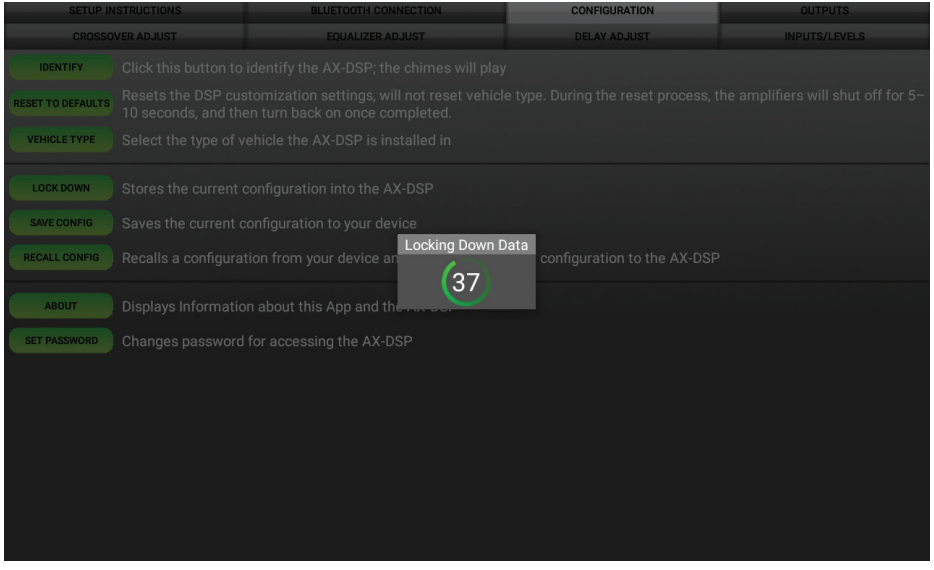
Locking Down Data



Last and the most important.
You must lock down your configuration and cycle the key!!!

SPECIFICATIONS

Input Impedance	1M Ohm
Input Channels	6
Input Options	High Level or Low Level
Input Type	Differential balanced
Input Voltage (high level range)	0 - 28-volts (peak-to-peak)
Input Voltage (low level range)	0 - 4.9-volts (peak-to-peak)
Ouput Channels	6
Output Voltage	Up to 5-volts RMS
Output Impedance	50 Ohms
Equalizer Type	15 Band Graphic EQ, +/- 10dB
THD	<0.03%
Frequency Response	20Hz - 20kHz
Crossover Filter	Low pass, band pass, high pass
Crossover Frequency	Selectable 20hz to 20khz
Crossover Slope	12db/24db/36db/48db
Crossover Type	Linkwitz-Riley
Sampling	48kHz
S/N Ratio	105dB @ 5-volts RMS
Operating Voltage	10-16 volts DC
Standby Current Draw	7mA
Operation Current Draw	150mA
Adjustments/Controls	Application via Bluetooth
Remote Output	12 volts DC (signal sense or with ignition

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)

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