



Harley Davidson DSP Package with Water Resistant Enclosure 1998-2013

INTERFACE FEATURES

- BC-9716 pre-wired harness included for ease of installation
- 15-band graphic EQ, or 5 band parametric EQ per channel
- All programming is done using the AXXESS DSP XL app on Android devices ONLY
- Up to 6 channels of programmable output
- Fully adjustable crossover

RECOMMENDED PARTS

Visit metraonline.com to view the available installation parts and Motorcycle accessories.

WHAT'S IN THE BOX

- Saddle Tramp DSP
- BC-9716 Harness
- Instruction Sheet

IMPORTANT: For the best performance, and to ensure you're able to use all the features of your Saddle Tramp DSP powered by Axxess technology, we recommend downloading the free Axxess updating software for Windows operating systems at the URL link below:

axsessinterfaces.com/resources/updater-software

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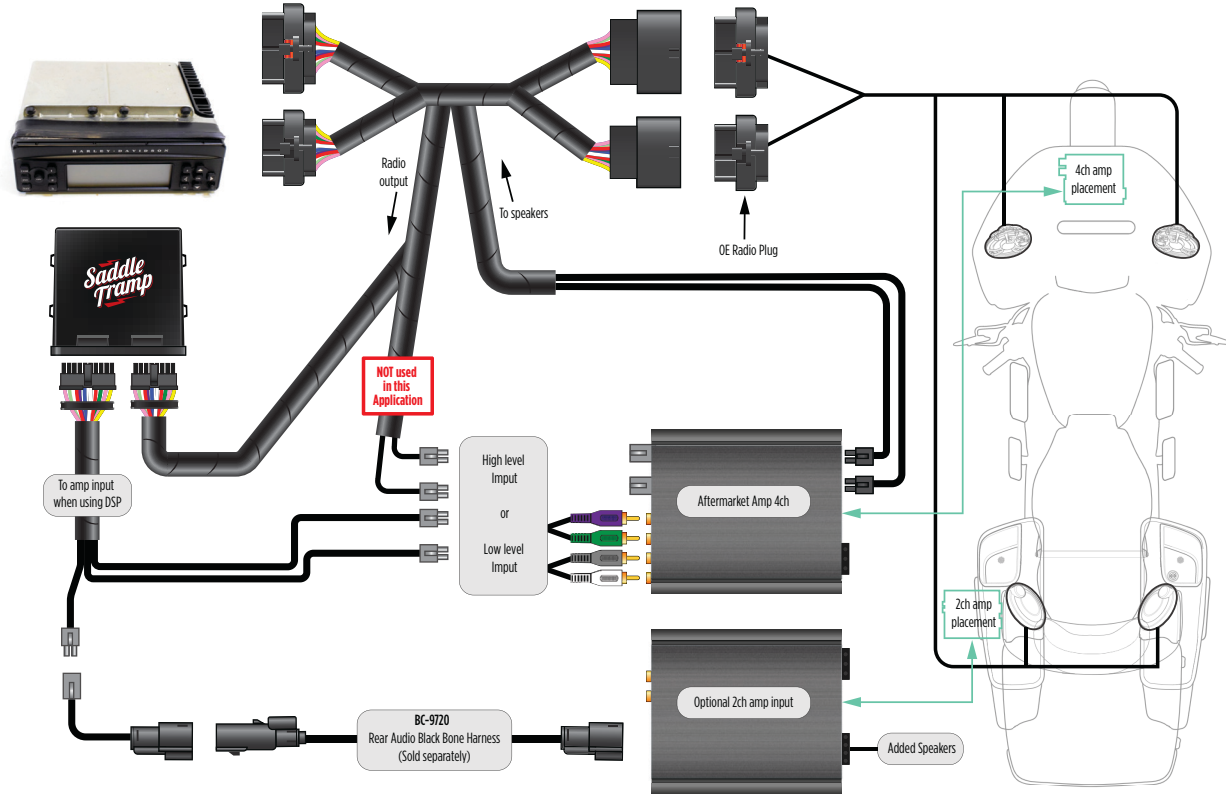
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TOOLS REQUIRED

- Panel removal tool
- Phillips screwdriver
- Allen wrenches
- Torx screwdrivers

ATTENTION: With the key out of the ignition, disconnect the negative battery terminal before installing this product. Ensure that all installation connections are secure before cycling the ignition to test this product. **NOTE:** Refer also to the instructions included with the aftermarket radio.

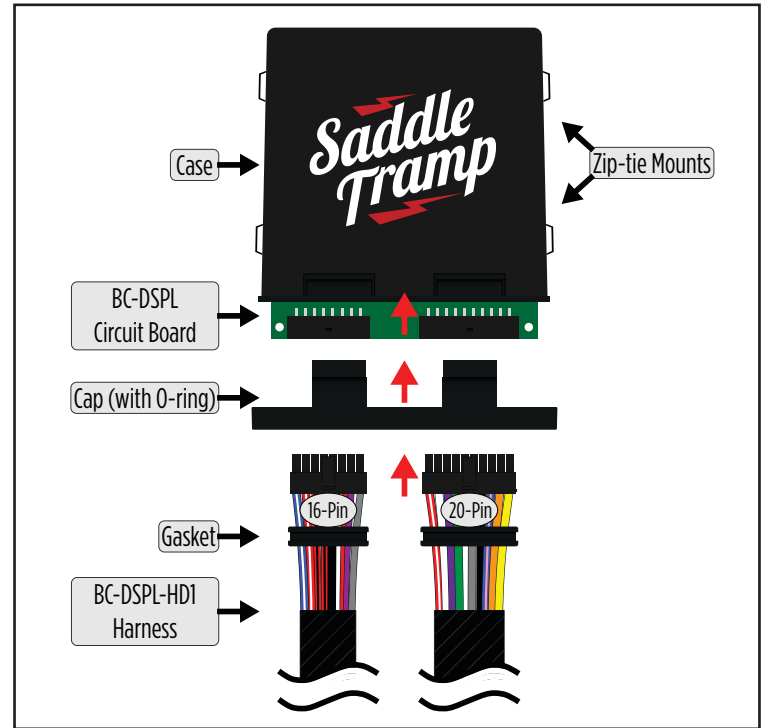
CONNECTIONS



INSTALLATION

1. Remove the fairing to access the back of the factory radio. Refer to [MetraOnline](#), part number 99-9600 for fairing disassembly instructions.
2. Install the **BC-DSPL-HD1 harness** and make all necessary connections, but leave the amp turn-on wire disconnected.
3. With the arrow stamped onto the cap facing upwards, push the 16-pin connector from the **BC-DSPL-HD1 harness** into the left side of the cap. The locking clip on the connector should face upward. Make sure the gasket is seating properly in the cap. (Figure A)
4. With the arrow stamped onto the cap still facing upwards, push the 20-pin connector from the **BC-DSPL-HD1 harness** into the right side of the cap. The locking clip on the connector should face upward. Make sure the gasket is seating properly in the cap. (Figure A)
5. Plug the 16-pin and 20-pin connectors from the **BC-DSPL-HD1 harness** into the **BC-DSPL circuit board**. (Figure A)
6. Slide the assembly into the case, then click it shut. Zip-tie the enclosure to a secure location in the fairing to secure it. Make sure the Saddle Tramp logo is facing up to further ensure that no outside elements can enter the enclosure.

Continued on the next page



(Figure A)

INSTALLATION (CONT'D)

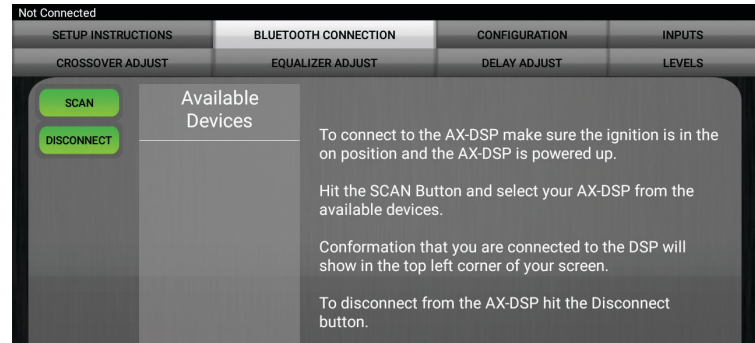
SETUP INSTRUCTIONS

The **Saddle Tramp DSP** uses the **AX-DSP-XL** app, exclusively on Android to program and control the setup of your DSP.

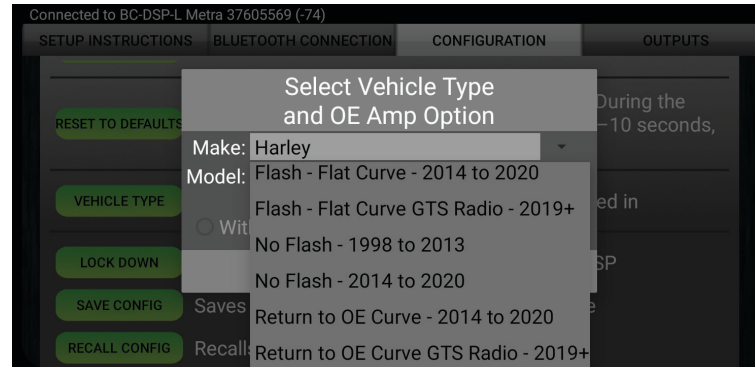


1. Download and install the **AXDSP-XL App** from the **Google Play Store**.
2. Open the app and follow the instructions on the **Bluetooth Connection** tab to pair the mobile device to the **BC-DSPL-HD1**. (Figure A)
3. Scroll to the **Configuration** tab then select the vehicle type. Press the **Lock Down** button to save the configuration. (Figure B)
4. Connect the amp turn-on wire from the **BC-DSPL-HD1 harness**.
5. Click the **Identify** button to confirm that the **BC-DSPL-HD1** is connected properly. If so, a chime will be heard from the front left speaker. Test all functions of the installation for proper operation.

NOTE: We recommend that you update the interface before installation, using the **Axxess updater, Micro-B USB, and a Windows PC**.



(Figure A)



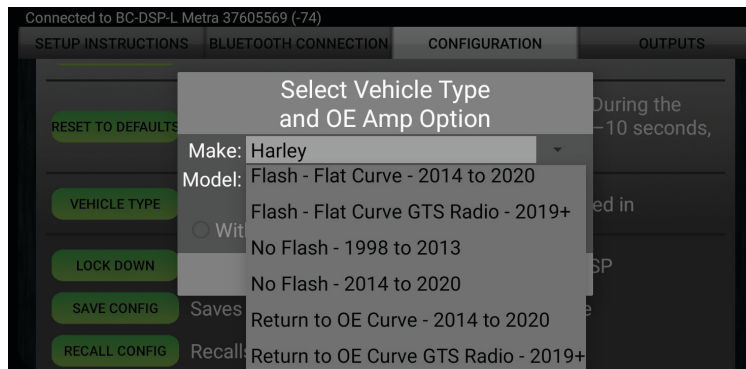
(Figure B)

MOBILE APP

SELECT VEHICLE TYPE

Under the configuration screen is where the user tells the DSP the type of Harley Davidson it is connected to.

Select Vehicle Type: No Flash - 1998 to 2013



Flash – FLAT CURVE – 2014 to 2020

Reflash your non-touchscreen factory radio for a flat response.

Flash – Flat Curve GTS Radio – 2019+

Reflash your factory touchscreen radio for a flat response.

No Flash – 1998 to 2013

Select "No Flash - 1998 to 2013"

No Flash – 2014 to 2020

Use if your Harley Davidson had OE amplifier(s).

Return to OE Curve – 2014 to 2020

Flash your non-touchscreen radio back to factory settings.

Return to OE Curve GTS Radio – 2019+

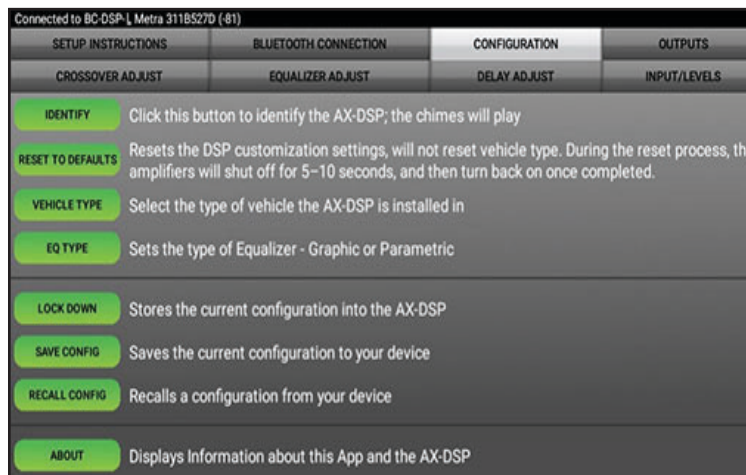
Flash your non-touchscreen radio back to factory settings.

MOBILE APP

CONFIGURATION

IDENTIFY: Click this button to confirm that the interface is connected properly. If it is, a chime will be heard from the front left speaker.*

* Only installations where the interface is connected to a front left speaker.



RESET TO DEFAULTS: Resets the interface to factory settings. During the reset process the amplifiers will shut off for 5-10 seconds.

VEHICLE TYPE: Select the vehicle type from the drop down box, select **No Flash - 1998 to 2013**

EQUALIZER (EQ) TYPE: User has the option of optimizing the motorcycles sound quality with a Graphic or Parametric equalizer.

LOCK DOWN: Click this button to save the selected settings.

Attention! This button must be selected before closing the app or cycling the key; otherwise, all settings 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".

MOBILE APP

CROSSOVER ADJUST

Connected to AXDSP-L Metra 38115948 (-79) [WARNING: Settings have changed - Make sure to Lock Down before Exiting App]

SETUP INSTRUCTIONS	BLUETOOTH CONNECTION	CONFIGURATION	OUTPUTS
CROSSOVER ADJUST	EQUALIZER ADJUST	DELAY ADJUST	INPUT/LEVELS

Left Front Lower Freq: 100 Hz

Low Pass 12dB
 Band Pass 24dB
 High Pass 36dB
 48dB

Right Front Lower Freq: 100 Hz

Low Pass 12dB
 Band Pass 24dB
 High Pass 36dB
 48dB

Left Rear Lower Freq: 46 Hz

Low Pass 12dB
 Band Pass 24dB
 High Pass 36dB
 48dB

Right Rear Lower Freq: 100 Hz

Low Pass 12dB
 Band Pass 24dB
 High Pass 36dB
 48dB

Sub Woofer Upper Freq: 100 Hz

Low Pass 12dB
 Band Pass 24dB
 High Pass 36dB
 48dB

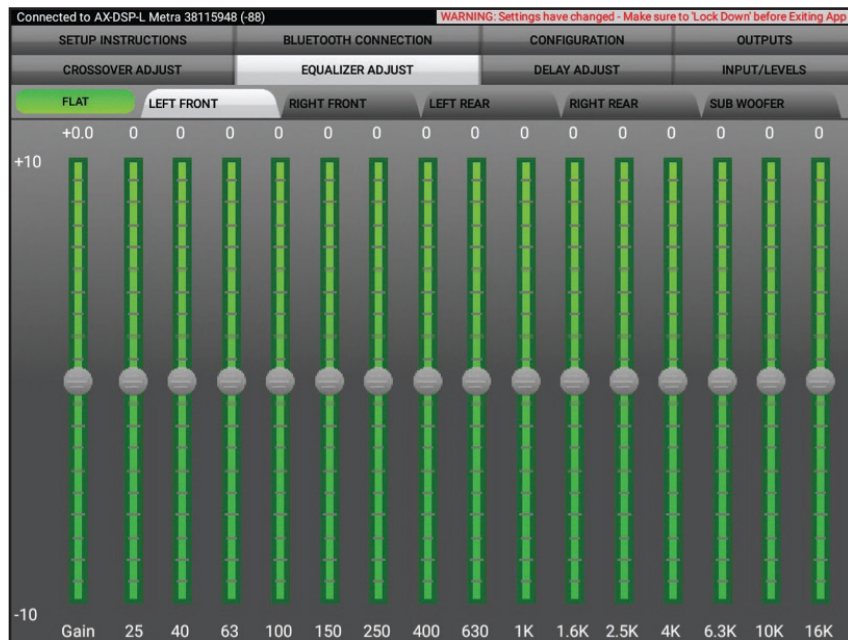
If installing a subwoofer, the front and rear outputs will default to a 100Hz high pass filter to keep the low frequency signals out. If a subwoofer is not being installed, change the front and rear crossover points down to 20Hz for a full range signal, or to the lowest frequency the speakers will play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

Selecting **High Pass** and **Low Pass** will provide one crossover frequency adjustment. **Band Pass** should only be chosen if installing just front speakers, with one dedicated amp for the woofers/mids, a second dedicated amp for the tweeters, along with a subwoofer.

Select the desired crossover slope, 24db, 36db, or 48 db. Higher is steeper.

MOBILE APP

EQUALIZER ADJUST



The front, rear, and sub channels can be adjusted independently within this tab with 15 bands of equalization available. 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.

MOBILE APP

PARAMETRIC EQ



Each output has a **5 Band parametric EQ** per channel. Each band will give the user the ability to adjust:

- Q Factor
- Frequency
- Gain

The **FLAT** button above **Filter #1** will reset all curves back to flat.

MOBILE APP

DELAY ADJUST

Connected to AX-DSP-L Metra 38115948 (-84) WARNING: Settings have changed - Make sure to Lock Down! before Exiting App.

SETUP INSTRUCTIONS	BLUETOOTH CONNECTION	CONFIGURATION	OUTPUTS
CROSSOVER ADJUST	EQUALIZER ADJUST	DELAY ADJUST	INPUT/LEVELS

Distance from each speaker to 'Head' position (in inches)

Left Front	0
Right Front	0
Left Rear	0
Right Rear	0
Sub Woofer	0

Measure the distance from each speaker to the desired 'Head' position and enter those values in the corresponding boxes. Maximum distance is 99".

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.


INPUTS/LEVELS

Connected to BC-DSP-L Metra 311B527D (-77) WARNING: Settings have changed - Make sure to 'Lock Down' before Exiting App

SETUP INSTRUCTIONS	BLUETOOTH CONNECTION	CONFIGURATION	OUTPUTS
CROSSOVER ADJUST	EQUALIZER ADJUST	DELAY ADJUST	INPUT/LEVELS


Chime Volume

Low Medium High

Volume: 10 

The Chime Volume control is provided to prevent warning tones from being overly loud.

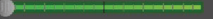
Clipping Level

Off On Level: 5 

Soft Hard

The AX-DSP can detect clipping of the audio signals and reduce the level for a period of time to prevent damage to the speakers.

Amp Turn On

Turn On Delay: 0 

0 Seconds 10

Signal Sense Always On

The AMP ON line can be turned on whenever accessory power is on, or only when a signal is detected from the radio.

Subwoofer Input

Front + Rear Subwoofer

The Subwoofer output can be driven from the sum of the Front and Rear inputs, or it can be from the Subwoofer input only.

Clipping Level - Use this feature to protect sensitive speakers, like tweeters, from being driven past their capabilities. If the input signal of the DSP clips, the audio will be reduced by 20dB. Turning down the stereo will allow the audio to come back on at a normal level. The sensitivity of this feature can be adjusted to the listening preference of the user.

Chime Volume - Not applicable at this time.

Amp Turn On

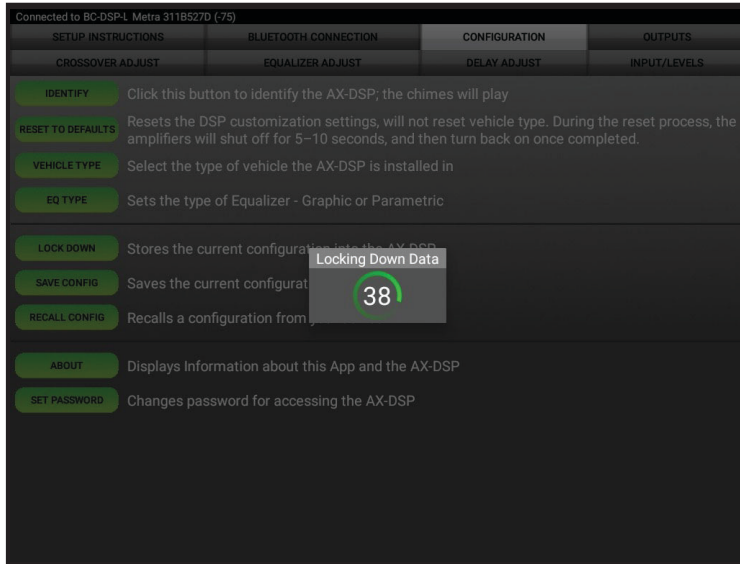
SignalSense - Will turn the amplifier on when an audio signal is detected, and keep on for (10) seconds past the last signal. This ensures the amplifier doesn't shut off between tracks.

Always On - Will keep the amplifiers on as long as the bike is cycled on.

Turn-on Delay - Can be used to delay amp turn-on to avoid turn-on pops.

Subwoofer Input - Select the Front + Rear or the dedicated Subwoofer input.

LOCKING DOWN DATA



**Last and the most important...
You MUST lock down your configuration!!!**

SPECIFICATIONS

General

- 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)

Performance

- Equalizer Type 15 Band Graphic EQ, +/- 10dB
- THD <0.03%
- Frequency Response 20Hz - 20kHz
- Crossover Frequency 3-Way Low pass, Bandpass, High pass
- Crossover Type Linkwitz-Riley
- Crossover Slopes 12, 24, 36, 48
- Sampling 48kHz
- S/N Ratio 105dB @ 5-volts RMS

Inputs

- Input Impedance 1M Ohm
- Input Channels 4
- Input Options High-level or Low-level selectable through Bluetooth app
- Input Type Differential-Balanced
- Input Voltage High Level Range 0 - 28-volts (peak-to-peak)
Low Level Range 0 - 4.9-volts (peak-to-peak)

Outputs

- Output Channels 6
- Output Voltage Up to 5-volts RMS
- Output Impedance 50 Ohms

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 - 7:00 PM

Sunday: 10:00 AM - 4:00 PM



KNOWLEDGE IS POWER

Enhance your installation and fabrication skills by enrolling in the most recognized and respected mobile electronics school in our industry. Log onto www.installerinstitute.edu or call 386-672-5771 for more information and take steps toward a better tomorrow.



**Metra recommends MECP
certified technicians**