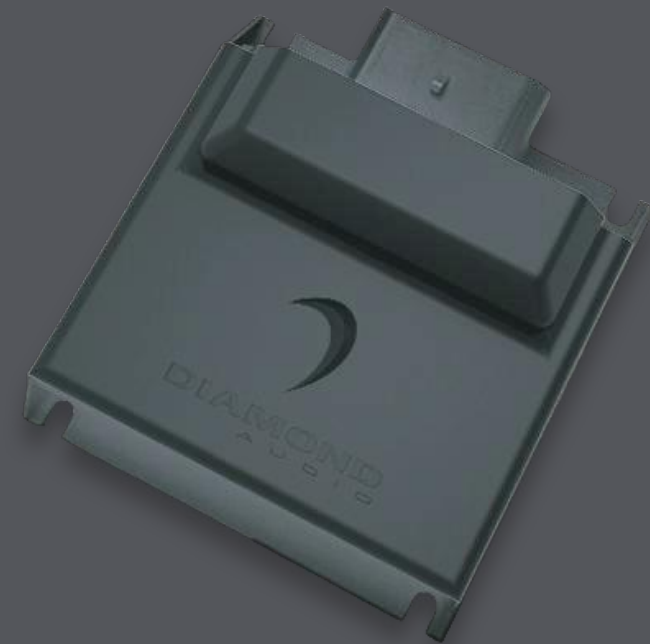




DIAMOND
AUDIO



MSHDA2B24

HARLEY A2B INTERFACE 24 UP 8CH

This product is compatible with
2023+ CVO and 2024+ Touring models.

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USER MANUAL



Introduction

Congratulations, you have just purchased one of the finest mobile audio products on the market. Diamond Audio products represent the latest advances in acoustic technology in sound reproduction for your vehicle. Diamond Audio products are designed, developed, and engineered in the USA using the latest innovative materials and components to provide the finest sound reproduction possible. Every Diamond Audio product has been verified and tested to ensure the best sounding and most reliable product on the market, if installed properly. Diamond Audio products will provide many years of the ultimate listening experience.

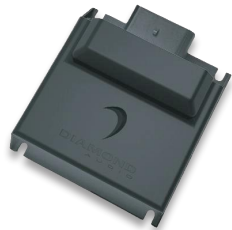
Please note that prolonged exposure to sound pressure levels in excess of 100dB can cause permanent hearing loss. Using Diamond Audio products can exceed that level, so please exercise restraint in its operation in order to preserve your ability to enjoy its high fidelity sound for many years to come.

Diamond Audio recommends professional installation by an authorized dealer to ensure optimal system setup and performance. This guarantees the true Diamond Audio listening experience and the sound quality you expect from our products.

We stand behind our authorized retailers—if your new Diamond Audio product is installed by an authorized dealer and registered with us, your warranty is extended from 1 year to 2 years.

Register your product at <https://diamondaudio.com/apps/product-registration>

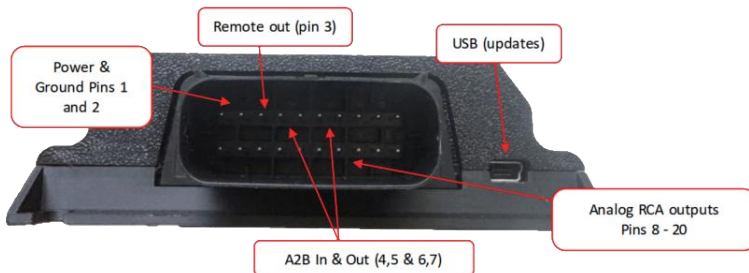
What's in the box



MSHDA2B24



HARNESS



Channel	1	2	3	4	5	6	7	8
Pin	11+&13-	12+&13-	14+&16-	15+&16-	17+&8-	18+&8-	19+&9-	20+&10-

Warranty

Diamond Audio (a division of CV & DA Holdings, Inc.) warrants this product to be free from defects in material and workmanship for a period of one (1) year from the original date of purchase provided it was purchased from an authorized DAT retailer within the United States. However, if this product was installed by the authorized DA retailer, the warranty period will be extended to two (2) years.

THIS WARRANTY IS NOT TRANSFERABLE AND APPLIES ONLY TO THE ORIGINAL PURCHASER OF THIS PRODUCT IN ITS ORIGINAL INSTALLATION. Original purchaser must reside in the United States and be able to provide proof of purchase and installation with the sales receipt from the authorized DAT retailer and completion of online registration that sold and installed the product.

Should a manufacturing defect occur during above said warranty period, DA will replace or repair the defective product with a product of the same or equivalent value and performance.

Damage or failure caused by any of the following is not covered under this warranty policy: negligence, improper use, abuse, product modification, unauthorized repair attempts, accident, acts of God, misrepresentations by DA retailers, and improper/inadequate packaging during return shipping.

Warranty is void if serial numbers have been removed, altered or defaced.

In the event a DA product should require service, you should visit the authorized DA retailer you purchased the product from and they can expedite your claim. All claims must fall into the guidelines listed above and be accompanied by a copy of the original sales and installation receipt from that authorized DA retailer.

Product returned for warranty service must be freight-prepaid, properly packaged and clearly marked with the Return Authorization (RA) number issued by DA. Any product returned to DAT that is improperly packaged, does not have a RA number clearly marked on the package, or never received a RA number may be refused upon delivery. DA does not assume responsibility for lost or misdirected product.

Repair or replacement under this warranty is the exclusive remedy of the consumer. DA shall not be liable for any incidental or consequential damages for breach of any expressed or implied warranty on this product. Some states do not allow the exclusion or limitation of incidental or consequential damages, or allow limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may also have other rights that may vary from state to state.

Customers outside the United States should contact their local sales office to obtain information on pricing, exchange unit availability, instructions, service and warranty/non-warranty replacement or repair.

Diamond Audio Technologies

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Tech Support Email
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FEATURES

- A2B audio interface for select 2024-2025 vehicles from Harley Davidson
- Adds aftermarket amplifiers to Skyline stereos
- Converts factory systems to 8-channel analog RCA outputs
- Retains volume control, fade, balance, sub control, EQ preset, voice call
- Plug and play installation, no cutting or splicing required

FAQ

Q: Any ground connection requirement when using the MSHDA2B24 processor?

A: Yes. Ensure the ground resistance (reference to vehicle battery ground) of any added amplifier does not exceed 1 ohm.

Q: Installed a third-party DSP but experiencing audio issues, how to troubleshoot?

A: If facing audio bleeding, echoing calls, or other signal problems:

1. Bypass the third-party DSP first.
2. Run the signal directly from the MSHDA2B24 to the amplifier.
3. Verify if the issue persists. Contact technical support only if the problem remains.

Q: Do I need to set a specific speaker configuration?

A: Yes. Go to Sound settings → Speaker setup → Speaker Config. Select Stage 2 or above, then assign front left, front right, rear left, rear right in order.

Q: Why is there no sound after configuration?

A: Allow the system to fully go to sleep and wake up again. This will save and apply the new speaker settings.

Q: Can I use RCA connections with the amplifier?

A: Yes. All compatible amplifiers support RCA input. Make sure the input mode is set to RCA, not high-level.

Q: How to prevent noise or interference?

A: Keep RCA cables away from power wires. Use a clean, short ground point, and make sure all connections are tight.

Installation

WARNING: Do not connect RCA cables to this interface until all amplifiers/external processors are properly grounded. Failure to do this may cause damage to the interface and VOID the warranty!

1. Remove fairing and remove factory amplifier.
2. Connect the plug-N-play harness to the factory loom and then connect it to the MSHDA2B24.
3. Connect the RCAs from the MSHDA2B24 to the external amplifier.
4. Connect the remote turn on wire from the MSHDA2B24 to the external amplifier.
5. The bare wire ends pinout the factory speaker wires as shown below.

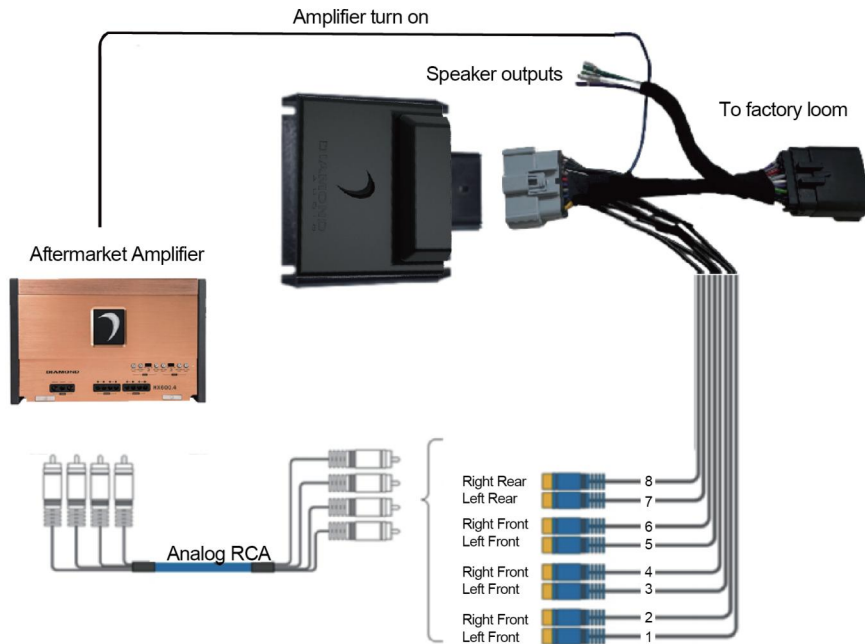
Left Rear -	Left Rear +	Right Rear -	Right Rear +	Left Front -	Left Front +	Right Front -	Right Front +
Green & silver	Green	Purple & silver	Purple	White & Silver	White	Grey & Silver	Grey

Note: This remote wire must be used for aftermarket amplifier remote for proper functionality. If installing more than one amplifier/DSP, a relay must be used for reliable turn-on (500mA max).

6. There is no configuration required for the MSHDA2B24 to output audio. However, after installing a sleep cycle of the bike is recommended.
7. The default mapping of the RCAs can be seen in the table below. These are fully remappable using the MSHDA2B24 DSP if needed. Only remove the RCA caps of the channels needed.

1	2	3	4	5	6	7	8
Left Front	Right Front	Left Front	Right Front	Left Rear	Right Rear	Left Rear	Right Rear

8. The gain of the system can be adjusted using MSHDA2B24 DSP, it can be increased by up to 9dB in cases of a low signal coming in from the head unit.



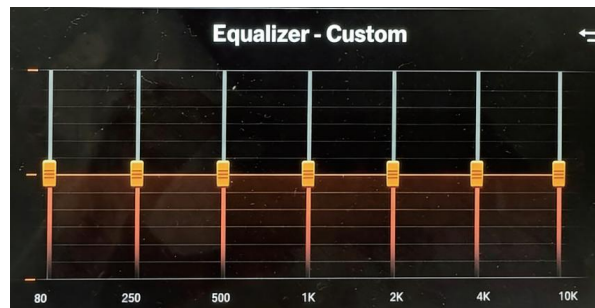
After installing the MSHDA2B24 you will gain extra audio controls not available previously. See below for what gets added.

Fader and the 7 band EQ are available but need to be enabled. They must be enabled by mapping rear speakers first.

To do this, navigate to Sound settings, then Speaker setup, then Speaker Config. Select stage 2 or above in speaker selection. You will not hear any noise, but press front left, front right, rear left, and rear right in that order. Let the bike go fully to sleep, and you should see the following.



Fader



7 band EQ

Specifications	
Compatible SW (update) OS:	Windows, macOS
INPUT	
Digital Input	A2B
OUTPUT	
Digital Outputs:	None
Digital Outputs supported:	24bit/48kHz
Frequency Response (digital):	18Hz – 24kHz
Analog Outputs:	8 channels (RCA)
Output Voltage <i>Peak</i> :	13.8v
Output Voltage <i>RMS</i> :	5v
Analog Output Type:	Single-Ended
S/N Ratio (analog):	113dB
Frequency Response (analog):	18Hz – 24kHz
THD+N @ -1dBFS	-94dB
DAC	192kHz 24bit
DSP	32bit Fixed Point
Power Supply	
Current Consumption Stand-by	<1 mA
Current Consumption	250 mA MAX
Operational Voltage	7V – 20V DC
Amp Turn-On Output	Automatic
Amp Turn-On Voltage	V-batt
Amp Turn-On Current Limitation	500mA
Other	
Dimensions:	4"x4"x1 1/2" 101.6 mm × 101.6 mm × 38.1 mm
Weight:	0.31lbs / 0.14 kg