

## Focal A1-XO

# Focal A1-XO 2-Way Passive Crossover Manual

Model: A1-XO

## 1. INTRODUCTION

Thank you for choosing the Focal A1-XO 2-Way Passive Crossovers. These high-quality components are designed to optimize the audio signal distribution in your car audio system, ensuring clear and precise sound reproduction from your speakers. This manual provides essential information for proper installation, operation, and maintenance of your A1-XO crossovers.

## 2. PRODUCT OVERVIEW

The Focal A1-XO is a pair of passive crossovers specifically designed for 2-way speaker systems, typically comprising a woofer and a tweeter. It features a 12dB/octave slope at a crossover frequency of 4.8kHz, ensuring a smooth transition between the frequency ranges handled by each speaker. The unit also includes an adjustable tweeter level for fine-tuning the high-frequency output to match your acoustic preferences and vehicle environment.

### Key Features:

- Crossover Slope:** 12dB/octave at 4.8kHz
- Adjustable Tweeter Level:** (0, -3, -6dB) for precise sound tuning
- Nominal Power:** 60W
- Maximum Power:** 120W
- Compact Dimensions:** 2.595" x 1.308" x 4.730" (WxHxD)



An image showing two Focal A1-XO passive crossovers. One unit is shown with its clear cover, revealing the internal components such as red coiled inductors, white rectangular resistors, and capacitors. The other unit is shown without its cover, displaying the same components and terminal blocks for input, woofer, and tweeter connections. The components are clearly labeled with values like 8.2µF63V, 5W 6R8J, 5W 3R9J, and 3.6J 100V.

### 3. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance. It is recommended that installation be performed by a qualified car audio technician. Ensure the vehicle's battery is disconnected before beginning any wiring.

#### Wiring Connections:

1. **Input:** Connect the audio signal from your amplifier's output to the 'INPUT' terminals on the crossover. Observe correct polarity (+ to + and - to -).
2. **Woofer:** Connect your woofer speaker to the 'WOOF' terminals. Ensure correct polarity.
3. **Tweeter:** Connect your tweeter speaker to the 'TWEETER' terminals. Ensure correct polarity.

The crossover unit features screw terminals for secure wire connections. Use appropriate gauge speaker wire

for your system's power requirements.

## Tweeter Level Adjustment:

The A1-XO crossover includes a jumper or switch mechanism to adjust the tweeter output level. This allows you to fine-tune the high-frequency response to your listening preference and the acoustic environment of your vehicle. The available settings are typically 0dB (flat), -3dB, and -6dB. Experiment with these settings to achieve the desired balance between the woofer and tweeter.

Mount the crossovers securely in a dry location, away from excessive heat or moisture. Ensure adequate ventilation around the units.

## 4. OPERATING PRINCIPLES

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Once properly installed, the Focal A1-XO passive crossovers operate automatically to divide the full-range audio signal from your amplifier into specific frequency bands for your woofer and tweeter. The crossover ensures that low frequencies are directed to the woofer and high frequencies to the tweeter, preventing damage to the speakers and optimizing sound clarity and imaging.

There are no user-adjustable controls during normal operation beyond the initial tweeter level setting. The crossover functions as a passive filter network, requiring no external power supply.

## 5. MAINTENANCE

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The Focal A1-XO passive crossovers are designed for long-term reliability and require minimal maintenance. Follow these guidelines to ensure continued performance:

- **Keep Clean:** Periodically inspect the units for dust or debris accumulation. Gently wipe with a dry, soft cloth.
- **Check Connections:** Ensure all wiring connections remain secure and free from corrosion. Loose connections can lead to signal loss or distortion.
- **Avoid Moisture:** Protect the crossovers from direct exposure to water or excessive humidity.
- **Temperature:** Avoid installing the units in locations subject to extreme temperatures.

## 6. TROUBLESHOOTING

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If you experience issues with your audio system after installing the A1-XO crossovers, consider the following:

### No Sound or Distorted Sound:

- **Check All Connections:** Verify that all input and output wires are securely connected to the crossover and to the amplifier/speakers, observing correct polarity.
- **Verify Speaker Functionality:** Test your speakers directly with an amplifier (bypassing the crossover temporarily, if safe to do so) to ensure they are not faulty.
- **Amplifier Output:** Ensure your amplifier is functioning correctly and providing a signal.
- **Tweeter Level Setting:** If only the tweeter sounds off, check the tweeter level adjustment on the crossover.

### Imbalanced Sound:

- **Polarity:** Incorrect wiring polarity for a speaker can cause phase issues, leading to imbalanced or weak sound. Double-check all positive and negative connections.
- **Tweeter Level:** Adjust the tweeter level setting on the crossover to achieve the desired balance between high and low frequencies.

If problems persist, consult a professional car audio technician or contact Focal customer support.

## 7. SPECIFICATIONS

Feature	Specification
Model Name	A1-XO
Crossover Type	2-Way Passive
Crossover Slope	12dB/octave
Crossover Frequency	4.8kHz
Adjustable Tweeter Level	0, -3, -6dB
Nominal Power	60W
Maximum Power	120W
Product Dimensions (WxHxD)	2.595" x 1.308" x 4.730" (6.6cm x 3.3cm x 12.0cm)
Item Weight	1 Pound (0.45 kg)
Included Components	Speaker mounts and wiring
Manufacturer	Focal

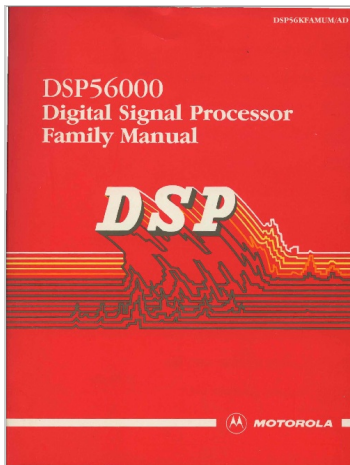
## 8. WARRANTY AND SUPPORT

For specific warranty information regarding your Focal A1-XO passive crossovers, please refer to the warranty card included with your product or visit the official Focal website. Warranty terms and conditions may vary by region and retailer.

For technical support, troubleshooting assistance beyond this manual, or inquiries about replacement parts, please contact Focal customer service or your authorized Focal dealer. Keep your proof of purchase for warranty claims.

**Manufacturer:** Focal

**Website:** [www.focal.com](http://www.focal.com) (Please check for regional websites)

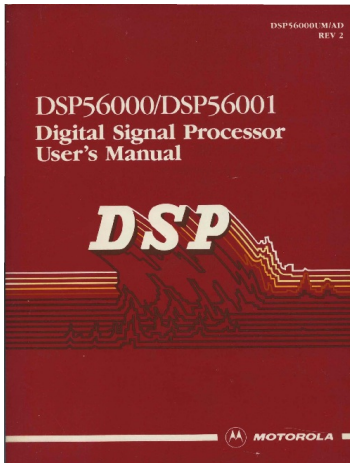


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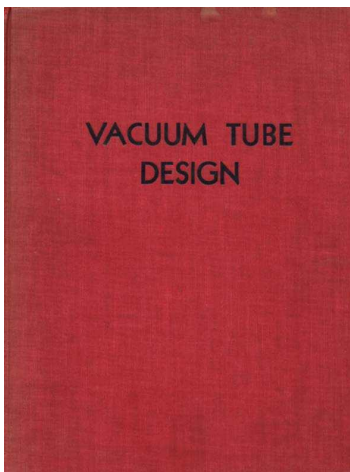


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