

Morel MXR300.4

Morel MXR300.4 3-Way Passive Crossover Network User Manual

For Hybrid Series 3-Way Component Speakers

1. INTRODUCTION

This manual provides detailed instructions for the proper installation, connection, and adjustment of your Morel MXR300.4 3-Way Passive Crossover Network. This crossover is designed specifically for use with Morel Hybrid Series 3-way component speaker systems, ensuring optimal sound distribution to the woofer, midrange, and tweeter components.

Please read this manual thoroughly before attempting installation or making any adjustments to ensure safe and correct operation, and to achieve the best possible audio performance from your system.

2. SAFETY INFORMATION

- **Professional Installation Recommended:** Due to the complexity of car audio wiring and potential risks, professional installation by a qualified technician is highly recommended.
- **Disconnect Power:** Always disconnect the vehicle's battery before performing any electrical work to prevent short circuits and electrical shock.
- **Proper Wiring:** Ensure all wiring connections are secure and correctly polarized. Incorrect wiring can damage the crossover, amplifier, or speakers.
- **Mounting:** Mount the crossover securely in a dry, well-ventilated area, away from heat sources and moisture. Avoid mounting in locations where it could be exposed to direct sunlight or excessive vibration.
- **Avoid Obstruction:** Do not obstruct any ventilation openings on the crossover (if present) to prevent overheating.

3. PRODUCT OVERVIEW

The Morel MXR300.4 is a high-quality passive crossover network engineered to precisely divide the audio signal from your amplifier into appropriate frequency ranges for a 3-way component speaker system. It features robust components and adjustable tweeter level control for fine-tuning your sound.

Key Features:

- Designed for Morel Hybrid Series 3-Way Component Speakers.
- Dedicated outputs for Woofer, Midrange, and Tweeter.
- Adjustable tweeter level control (+/- 2dB).
- High-quality passive components for accurate frequency division.

Specifications:

- **Speaker Type:** Component
- **Recommended Use:** Car Audio
- **Audio Output Mode:** Stereo
- **Connectivity Technology:** Speaker Wire
- **Crossover Points:**
 - Woofer: 500Hz / 12dB slope
 - Midrange: 18dB / 2,200Hz / 12dB slope
 - Tweeter: 2,200Hz / 6dB slope
- **Tweeter Control:** +/- 2dB adjustment
- **Dimensions (approximate, per unit):** 45.72 x 17.78 x 11.43 cm (18 x 7 x 4.5 inches)
- **Weight (approximate, per unit):** 1.36 kg (3 lbs)

4. SETUP AND INSTALLATION

Careful installation is crucial for optimal performance and longevity of your crossover network. Follow these general guidelines:

4.1 Mounting Location

- Choose a location that is dry, free from excessive heat, and protected from physical damage. Common locations include under seats, behind kick panels, or in the trunk.
- Ensure adequate space for wiring connections and potential adjustments.
- Secure the crossover firmly using screws or other appropriate fasteners to prevent movement due to vehicle vibration.

4.2 Wiring Connections

Refer to the image below for a visual representation of the Morel MXR300.4 crossover terminals. Ensure all connections are made with appropriate gauge speaker wire and are securely fastened.



Figure 1: Morel MXR300.4 Passive Crossover Units. This image displays two Morel MXR300.4 passive crossover units. Each unit features clearly labeled input terminals for the amplifier signal and output terminals for the woofer, midrange, and tweeter. Visible on the circuit board are capacitors, inductors (coils), and a switch for tweeter level adjustment, offering -2dB, 0dB, and +2dB settings.

1. **Amplifier Input:** Connect the full-range audio signal from your amplifier's speaker output to the designated **INPUT** terminals on the crossover. Observe correct polarity (+ to + and - to -).
2. **Woofer Output:** Connect the **WOOFER** output terminals of the crossover to your woofer speaker.
3. **Midrange Output:** Connect the **MIDRANGE** output terminals of the crossover to your midrange speaker.
4. **Tweeter Output:** Connect the **TWEETER** output terminals of the crossover to your tweeter speaker.

Important: Always double-check all connections before restoring power to the vehicle's audio system. Incorrect wiring can lead to damage.

5. OPERATING AND ADJUSTMENTS

The Morel MXR300.4 crossover is a passive unit, meaning it does not require external power for its primary function. Its main operational adjustment is the tweeter level control.

5.1 Tweeter Level Adjustment

The crossover features a switch labeled **TW LEVEL**, which allows you to adjust the output level of the tweeter. This adjustment helps in balancing the sound between the tweeter and the other speakers in your system, compensating for speaker placement or personal preference.

- **-2dB:** Reduces the tweeter output by 2 decibels. Useful if the tweeters sound too bright or harsh.
- **0dB:** Standard tweeter output level.
- **+2dB:** Increases the tweeter output by 2 decibels. Useful if the tweeters sound too subdued or if you desire more high-frequency presence.

To adjust, carefully move the switch to the desired setting. It is recommended to make small adjustments and listen to the system to find the optimal balance.

6. MAINTENANCE

The Morel MXR300.4 passive crossover network requires minimal maintenance. Follow these guidelines to ensure its longevity:

- **Keep Clean:** Periodically wipe the exterior of the crossover with a soft, dry cloth to remove dust and debris. Do not use harsh chemicals or abrasive cleaners.
- **Avoid Moisture:** Ensure the crossover remains dry. Exposure to water or excessive humidity can damage internal components.
- **Check Connections:** Occasionally inspect wiring connections to ensure they remain tight and free from corrosion. Loose connections can lead to signal loss or intermittent sound.

7. TROUBLESHOOTING

If you experience issues with your audio system after installing the Morel MXR300.4 crossover, consider the following troubleshooting steps:

- **No Sound from a Speaker:**
 - Check the wiring connections for that specific speaker at both the crossover and the speaker terminal.
 - Ensure correct polarity.
 - Test the speaker directly with a known good audio source (if possible) to rule out a faulty speaker.
- **Distorted Sound:**
 - Verify that the amplifier is not overdriving the speakers. Reduce amplifier gain if necessary.
 - Check all wiring for shorts or loose connections.
 - Ensure the crossover is correctly matched to your speakers and amplifier.

- **Imbalanced Sound (e.g., tweeters too loud/quiet):**

- Adjust the **TW LEVEL** switch on the crossover to achieve the desired balance.
- Check the balance and fader settings on your head unit.

- **Intermittent Sound:**

- Inspect all wiring connections for looseness or corrosion.
- Ensure the crossover is securely mounted and not subject to excessive vibration.

If problems persist after performing these checks, consult a professional car audio technician or contact Morel customer support.




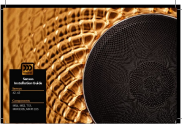
8. WARRANTY AND SUPPORT

Morel products are manufactured to high standards and are backed by a limited warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Morel website.

For technical support, service, or inquiries regarding your Morel MXR300.4 crossover, please contact your authorized Morel dealer or the Morel customer support department through their official website or contact information provided with your purchase.

Website: www.morelhifi.com

Related Documents - MXR300.4

	<p>Morel Maximo Ultra MkII Component Speaker System Specifications & Installation Guide</p> <p>Comprehensive guide to Morel Maximo Ultra MkII component speaker systems (models 502, 602, 603, 603A), featuring detailed specifications, crossover configuration, wiring diagrams, and mounting instructions for optimal car audio performance.</p>
	<p>Morel Maximo 6 MKII 6.5" 2-Way Component System Installation Guide</p> <p>Installation guide for the Morel Maximo 6 MKII 6.5-inch 2-Way component speaker system. Includes component lists, woofer mounting, crossover connection diagrams, tweeter flush and surface mounting instructions, and detailed technical specifications. Visit www.morelhifi.com for more information.</p>
	<p>Morel Maximo Ultra 603 MKII Component Speaker System Installation and Specifications</p> <p>Detailed guide for the Morel Maximo Ultra 603 MKII 6.5" 3-way component speaker system, covering installation and technical specifications.</p>
	<p>Morel Sensus Speaker System Installation Guide and Specifications</p> <p>Comprehensive installation guide and technical specifications for the Morel Sensus 62 and 63 car audio speaker systems, including components like WS6 woofers, MS3 midranges, TS1 tweeters, and MXR crossovers.</p>



[Руководство пользователя Morel Sopran: Высококачественные акустические системы](#)

Подробное руководство пользователя для акустических систем Morel серии Sopran, охватывающее безопасность, сборку, подключение, размещение, уход и технические характеристики моделей Sopran 934, 634, 622 и C6.



[Morel Ultimo Titanium & Ultimo SC Subwoofer User Manual | Car Audio Performance](#)

Detailed user manual for Morel's Ultimo Titanium and Ultimo SC subwoofers. Discover advanced technology, enclosure selection guides, connection diagrams, tuning tips, and full specifications for superior car audio sound.