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Morel Tempo Ultra 602 MKII

Morel Tempo Ultra 602 MKII 6-1/2" 2-Way Component Speakers User Manual

Your guide to installation, operation, and maintenance

INTRODUCTION

Thank you for choosing the Morel Tempo Ultra 602 MKII 6-1/2" 2-Way Component Speakers. This manual provides essential information for the proper installation, operation, and maintenance of your new car audio system. To ensure optimal performance and longevity, please read these instructions carefully before proceeding with installation and use. For additional support, please visit the official [Morel Store](#).

SAFETY INFORMATION

Always observe the following safety precautions:

- **Professional Installation Recommended:** Car audio installation can be complex and may require specialized tools and knowledge. It is highly recommended to have these speakers installed by a qualified professional to prevent damage to the speakers or your vehicle.
- **Disconnect Battery:** Before beginning any electrical work, disconnect the vehicle's negative battery terminal to prevent electrical shorts and potential injury.
- **Wiring:** Ensure all wiring is correctly connected according to the provided diagrams. Incorrect wiring can lead to speaker damage or vehicle electrical issues.
- **Mounting:** Securely mount all components to prevent them from becoming loose during vehicle operation, which could cause injury or damage.
- **Volume Levels:** Prolonged exposure to high volume levels can cause hearing damage. Adjust volume to a comfortable level.
- **Heat:** Avoid installing speakers in locations exposed to excessive heat or direct sunlight, which can degrade performance and lifespan.

PACKAGE CONTENTS

Verify that all components are present in your package:

- 6-1/2" Woofers (2 units)
- 1.1" Soft Dome Tweeters (2 units)
- MXR Direct Crossovers (2 units)
- Mounting Hardware (screws, clips, etc. - specific items may vary)
- User Manual (this document)

SETUP AND INSTALLATION

The Morel Tempo Ultra 602 MKII is a 2-way component speaker system designed for car audio applications. Proper installation is crucial for optimal sound quality and system longevity.

1. Woofer Installation

The 6-1/2" woofers are designed for robust mid-bass and mid-range reproduction. Ensure the mounting location in your vehicle can accommodate the woofer's dimensions, particularly the mounting depth of 2.56" (65mm).



Image: A single Morel Tempo Ultra 602 MKII 6-1/2 inch woofer, showing the speaker cone and mounting frame.

Mount the woofers securely using appropriate hardware. Avoid overtightening screws, which can damage the speaker frame.

2. Tweeter Installation

The 1.1" soft dome tweeters are responsible for clear high-frequency reproduction. They can be flush-mounted or surface-mounted depending on your vehicle's interior and desired sound staging. Consider the tweeter's position to optimize sound dispersion towards the listening area.



Image: Two Morel Tempo Ultra 602 MKII 1.1 inch soft dome tweeters with attached wiring, ready for installation.

Ensure the tweeters are firmly secured in their chosen location.

3. Crossover Network Connection

The MXR Direct Crossover network is essential for directing the correct frequency ranges to the woofers and tweeters, ensuring optimal sound quality and protecting the speakers from damage. Connect the amplifier output to the 'AMP' terminals on the crossover. Connect the woofer to the 'WF' terminals and the tweeter to the 'TWEETER' terminals. Observe correct polarity (+ and -) for all connections.

Image: A Morel Tempo Ultra 602 MKII MXR Direct Crossover unit, showing the input and output terminals for amplifier, woofer, and tweeter connections.

Some crossovers may offer tweeter level adjustments (e.g., +2dB, 0dB, -2dB). Refer to the crossover unit itself for specific settings and adjust according to your preference and vehicle acoustics.

4. Wiring

Use high-quality speaker wire of appropriate gauge for all connections. Ensure all connections are secure and insulated to prevent short circuits. Route wires away from moving parts, sharp edges, and heat sources.

OPERATING INSTRUCTIONS

Once installed, your Morel Tempo Ultra 602 MKII speakers are ready for use. Follow these guidelines for optimal performance:

- **Initial Power-Up:** After installation, turn on your car audio system at a low volume level. Gradually increase the volume to ensure all speakers are functioning correctly and without distortion.
- **Break-in Period:** Speakers typically require a 'break-in' period of several hours of normal use to achieve their full sonic potential. During this time, the speaker's suspension components will loosen, leading to improved bass response and overall sound quality.
- **Power Handling:** These speakers have an RMS power handling of 130 watts per speaker (260 watts per pair) and a peak power handling of 250 watts per speaker (500 watts per pair). Ensure your amplifier's output matches these specifications to prevent damage. Overpowering or underpowering can both lead to speaker failure.
- **Impedance:** The speakers have a 4 Ohm impedance. Ensure your amplifier is stable at this impedance.
- **Frequency Response:** The system operates within a frequency range of 55Hz to 22,000Hz.
- **Crossover Settings:** If your amplifier or head unit has adjustable crossover settings, ensure they are configured appropriately for component speakers. Typically, a high-pass filter for the tweeters and a low-pass filter for the woofers (managed by the passive crossover) are used.
- **Sound Adjustments:** Use your head unit's equalizer and sound settings to fine-tune the audio to your personal preference. Avoid excessive bass or treble boost, which can introduce distortion.

MAINTENANCE

Your Morel Tempo Ultra 602 MKII speakers are designed for durability and require minimal maintenance:

- **Cleaning:** Gently wipe speaker grilles and surrounds with a soft, dry cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Inspection:** Periodically inspect speaker cones and surrounds for any signs of damage or wear. Ensure all mounting hardware remains secure.
- **Environmental Factors:** While designed for automotive use, avoid exposing speakers to extreme moisture or direct water spray. The speakers are not water-resistant.

TROUBLESHOOTING

If you experience issues with your speakers, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No sound from one or all speakers	<ul style="list-style-type: none"> Loose or disconnected wiring Incorrect crossover connection Amplifier not powered on or faulty Head unit issue 	<ul style="list-style-type: none"> Check all speaker, crossover, and amplifier connections. Verify correct polarity. Ensure amplifier is receiving power and is not in protection mode. Test with a different audio source or head unit if possible.
Distorted or unclear sound	<ul style="list-style-type: none"> Over-driven amplifier or speakers Incorrect gain settings on amplifier Damaged speaker cone or surround Poor quality audio source 	<ul style="list-style-type: none"> Reduce volume. Adjust amplifier gain settings appropriately. Inspect speakers for physical damage. Try a different audio source (e.g., high-quality digital file).
Lack of bass or treble	<ul style="list-style-type: none"> Incorrect crossover settings Reversed polarity on woofer or tweeter Equalizer settings 	<ul style="list-style-type: none"> Verify crossover connections and settings. Check speaker wire polarity. Adjust head unit's equalizer settings.

If these steps do not resolve the issue, it is recommended to consult a professional car audio technician.

SPECIFICATIONS

Detailed technical specifications for the Morel Tempo Ultra 602 MKII component speakers:

Feature	Specification
Speaker Type	2-Way Component System
Woofer Diameter	6.5 Inches (16.5 cm)
Tweeter Diameter	1.1 Inches (28 mm)
RMS Power Handling (per speaker)	130 Watts
Peak Power Handling (per speaker)	250 Watts
Impedance	4 Ohms
Sensitivity	90dB

Feature	Specification
Frequency Response	55Hz - 22,000Hz
Woofer Mounting Depth	2.56" (65mm)
Woofer Cone Material	Treated Paper Composite
Tweeter Material	Soft Dome Textile-based Material
Magnet Type	High-Grade Ferrite Neodymium
Voice Coil Wire	Copper
Crossover	MXR Direct Crossover
Product Dimensions (Crossover)	6.5"D x 6.5"W x 3"H (approximate for overall system components)
Connectivity Technology	Speaker Wire
Water Resistance Level	Not Water Resistant

WARRANTY INFORMATION

Morel Tempo Ultra 602 MKII speakers come with a Limited Warranty. Specific terms and conditions of the warranty may vary by region and retailer. Please retain your proof of purchase for warranty claims. For detailed warranty information, contact your authorized Morel dealer or visit the official Morel website.

SUPPORT

For technical assistance, installation questions, or warranty inquiries, please contact:

- Your authorized Morel dealer or the professional installer who performed the installation.
- Morel Customer Service (contact information typically available on the official Morel website).

When contacting support, please have your product model number (Tempo Ultra 602 MKII) and proof of purchase readily available.