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> NESAs TD-55 900W 5-Channel Micro Amplifier User Manual

## Nesa TD-55

# NESA TD-55 900W 5-Channel Micro Amplifier User Manual

Model: TD-55

## INTRODUCTION

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This manual provides detailed instructions for the installation, operation, and maintenance of your NESAs TD-55 900W 5-Channel Micro Amplifier. Please read this manual thoroughly before use to ensure proper functionality and safety. Retain this manual for future reference.

## SAFETY INFORMATION

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- Always disconnect the vehicle's battery before making any electrical connections to prevent electrical shock or damage.
- Ensure proper ventilation around the amplifier to prevent overheating. Do not mount the amplifier in an enclosed space without adequate airflow.
- Do not expose the amplifier to moisture, water, or extreme temperatures.
- Use appropriate gauge wiring for power and speaker connections as specified to prevent fire hazards and ensure optimal performance.
- Consult a professional car audio installer if you are unsure about any installation steps.
- Securely mount the amplifier to prevent movement during vehicle operation.

## PRODUCT FEATURES

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The NESAs TD-55 amplifier incorporates advanced technology for high-quality audio performance in a compact design:

- Class D Digital Mono block Amplifier design.
- Full MOSFET PWM Power Supply for efficient power delivery.
- SMD Technology on Double Sided PCB for reliability and compact size.
- Equipped with 8-gauge power and 8-gauge speaker output terminals.
- Supports both High and Low Level Signal Inputs for versatile connectivity.
- Includes a Remote Mount Gain Control for convenient audio adjustment.
- Features a Variable 35-250Hz 12dB Low Pass Filter.

- Incorporates a Variable 10-50Hz 12dB Subsonic Filter.
- Offers a Variable 0-12 dB 45Hz Bass Boost.
- Trimode Capable for flexible speaker configurations:
  - 4 ohms: 66W x 4 channels + 210W subwoofer
  - 2 ohms: 85W x 4 channels + 330W subwoofer
- Frequency Response: 20-150 kHz.
- Signal-to-Noise Ratio: 70dB.
- Damping Factor: > 250.
- Input Sensitivity: 200mV-6V.
- Minimum Speaker Impedance: 2 OHM ONLY.
- Compact Dimensions: 4.75" (width) x 1.5" (height) x 10.23" (length).

## SPECIFICATIONS

Specification	Value
Model	TD-55
Brand	Nesa
Number of Channels	5
Output Power	900 Watts
Voltage	6 Volts (Operating Range)
Maximum Supply Voltage	6 Volts
Minimum Supply Voltage	6 Volts
Mounting Type	Surface Mount
Material Type	Metal
Specification Met	FCC
Unit Count	1.0 Count

## SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and safety. Follow these general guidelines:

- Mounting:** Choose a secure, well-ventilated location for the amplifier, away from direct heat, moisture, and moving parts. Ensure adequate space for wiring and airflow.
- Power Connections:**
  - Connect the **+12V** terminal to the positive terminal of the vehicle's battery using an 8-gauge power cable. Install an appropriate fuse (not included) within 18 inches of the battery.
  - Connect the **GND** terminal to a clean, unpainted metal surface of the vehicle chassis, ensuring a solid ground connection. Use an 8-gauge ground cable.

- Connect the **REM** (remote turn-on) terminal to the remote output of your head unit.

### 3. Signal Input:

- For *Low-Level Input* (RCA), connect RCA cables from your head unit's pre-out to the amplifier's RCA inputs.
- For *High-Level Input*, connect speaker wires from your head unit's speaker outputs to the amplifier's high-level input terminals (if applicable, refer to specific wiring diagram for details).

- 4. Speaker Connections:** Connect your speakers to the amplifier's 8-gauge speaker output terminals. Ensure correct polarity (+ to + and - to -). The minimum speaker impedance is 2 ohms. Do not connect speakers with an impedance lower than 2 ohms.
- 5. Remote Gain Control:** Connect the included remote gain control to the designated port on the amplifier for convenient level adjustment.

## OPERATING INSTRUCTIONS

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Once installed, adjust the amplifier settings for optimal audio performance:

- **Gain Control:** This adjusts the input sensitivity of the amplifier. Start with the gain set to minimum. Play a familiar track at about 75% of your head unit's maximum volume. Slowly increase the amplifier's gain until you hear distortion, then back it off slightly. The remote gain control allows for on-the-fly adjustment of the subwoofer level.
- **Low Pass Filter (LPF):** This filter is typically used for the subwoofer channel. Adjust the frequency knob to allow only frequencies below the set point to pass through to the subwoofer. A common range is 80-120Hz, but this can vary based on your subwoofer and personal preference.
- **Subsonic Filter:** This filter protects your subwoofer from playing extremely low frequencies that are inaudible and can cause damage. Set it slightly below your subwoofer's ported enclosure tuning frequency or around 20-30Hz for sealed enclosures.
- **Bass Boost:** This feature provides an increase in bass output at a specific frequency (45Hz). Use sparingly and adjust carefully to avoid distortion and speaker damage.

## MAINTENANCE

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The NESA TD-55 amplifier requires minimal maintenance:

- **Cleaning:** Periodically wipe the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners.
- **Ventilation:** Ensure that the amplifier's cooling fins are free from dust and debris to maintain proper heat dissipation.
- **Connections:** Occasionally check all power, ground, and speaker connections to ensure they are secure and free from corrosion.

## TROUBLESHOOTING

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

Problem	Possible Cause	Solution
No Power / Amplifier Not Turning On	Blown fuse, loose power/ground/remote wire, faulty head unit remote output.	Check and replace fuse. Verify all power, ground, and remote connections are secure. Test remote output from head unit.
No Sound Output	No input signal, loose speaker wires, gain set too low, amplifier in protection mode.	Check RCA or high-level input connections. Verify speaker wire connections and polarity. Increase gain. Check for protection light; if active, troubleshoot cause (e.g., overheating, short circuit).

Problem	Possible Cause	Solution
Distorted Sound	Gain set too high, improper filter settings, speaker impedance mismatch, poor ground connection.	Reduce gain. Adjust LPF/Subsonic filters. Ensure speaker impedance is 2 ohms or higher. Verify ground connection.
Amplifier Overheating	Insufficient ventilation, speaker impedance too low, prolonged high-volume use.	Ensure amplifier has adequate airflow. Check speaker impedance. Reduce volume or allow amplifier to cool down.

## WARRANTY AND SUPPORT

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The NESA TD-55 amplifier is offered as parallel merchandise and carries a warranty provided by Sound Security Online. This warranty is separate from any manufacturer's warranty for other brands. For specific warranty terms, conditions, and support inquiries, please contact your retailer or Sound Security Online directly.

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