

DS18 EXL-MM84NB

DS18 EXL-MM84NB Extremely Loud Series Neodymium 4-Ohm 500 Watts Max 8-Inch Midrange User Manual

Model: EXL-MM84NB | Brand: DS18

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your DS18 EXL-MM84NB Midrange Speaker. Please read this manual thoroughly before attempting installation or operation to ensure optimal performance and safety. This speaker is designed for high-fidelity audio reproduction in car audio systems.

2. SAFETY INFORMATION

Adhering to these safety guidelines is crucial for preventing damage to the speaker, your vehicle, and personal injury.

- Power Disconnection:** Always disconnect the vehicle's battery before performing any electrical connections or installation work.
- Proper Wiring:** Ensure all wiring connections are secure and correctly polarized (positive to positive, negative to negative) to prevent short circuits and damage to the speaker or amplifier.
- Ventilation:** Install the speaker in a location that allows for adequate ventilation to prevent overheating, especially if used with high-power amplifiers.
- Moisture Exposure:** Avoid exposing the speaker to moisture, water, or extreme humidity. This product is not waterproof.
- Volume Levels:** Prolonged exposure to high sound pressure levels can cause permanent hearing damage. Operate the audio system responsibly.
- Professional Installation:** If you are unsure about any aspect of the installation, consult a qualified car audio professional.

3. PRODUCT OVERVIEW

The DS18 EXL-MM84NB is an 8-inch midrange speaker designed for high-performance car audio systems. It features a powerful neodymium magnet structure for enhanced efficiency and sound clarity.



Figure 3.1: Front and rear view of the DS18 EXL-MM84NB Midrange Speaker.

Key Features:

- 8-inch diameter midrange speaker.
- 250 Watts RMS power handling, 500 Watts Max power.
- Lightweight design for versatile installation.
- 96dB Sensitivity for efficient power conversion.
- Frequency Response: 60-16KHz.
- 3.5-inch mounting depth.
- 1.5-inch KSV Voice Coil.
- Neodymium Magnet provides a much higher magnetic flux density in the air gap, generating a greater action force in the voice coil for improved performance.

4. SETUP AND INSTALLATION

Proper installation is critical for the performance and longevity of your speaker. This section outlines general steps for installing the DS18 EXL-MM84NB.

4.1. Tools and Materials Required:

- Wire strippers/crimpers
- Screwdriver set
- Drill (if cutting new mounting holes)
- Speaker wire (appropriate gauge for power handling)
- Mounting hardware (screws, clips)
- Multimeter (for checking polarity and continuity)

4.2. Mounting Considerations:

- The DS18 EXL-MM84NB has a **3.5-inch mounting depth**. Ensure sufficient clearance behind the mounting surface.
- This speaker is designed for **flush mount** installation.
- Choose a sturdy, vibration-free location in your vehicle, typically door panels or kick panels.

- Ensure the mounting surface is flat and provides a good seal for optimal sound.

4.3. Wiring Connections:

- The speaker has an **impedance of 4 Ohms**. Ensure your amplifier is stable at this impedance.
- Connect the positive (+) terminal of the speaker to the positive (+) output of your amplifier.
- Connect the negative (-) terminal of the speaker to the negative (-) output of your amplifier.
- Use high-quality speaker wire with sufficient gauge to minimize power loss and ensure clear signal transmission.
- All connections should be tight and insulated to prevent short circuits.

5. OPERATING THE SPEAKER

The DS18 EXL-MM84NB is a passive component and requires an external amplifier for operation. Proper amplifier setup is crucial.

- **Amplifier Matching:** Ensure your amplifier's RMS power output is compatible with the speaker's 250 Watts RMS rating. Overpowering or underpowering can damage the speaker.
- **Crossover Settings:** For optimal performance and protection, use an external crossover or your amplifier's built-in crossover to filter frequencies. As a midrange speaker, it should receive frequencies typically between 200 Hz and 5 kHz. Refer to your amplifier's manual for specific crossover adjustments.
- **Gain Adjustment:** Set the amplifier's gain correctly to match the output voltage of your head unit. Incorrect gain settings can lead to distortion and speaker damage.
- **Initial Playback:** Begin playback at a low volume and gradually increase it, listening for any signs of distortion or stress from the speaker.

6. MAINTENANCE

The DS18 EXL-MM84NB is designed for durability, but proper care will extend its lifespan and maintain performance.

- **Cleaning:** Use a soft, dry cloth to gently wipe the speaker cone and surround. Avoid using harsh chemicals or abrasive cleaners.
- **Environmental Protection:** Protect the speaker from direct sunlight, extreme temperatures, and excessive dust.
- **Inspection:** Periodically inspect the speaker for any signs of damage to the cone, surround, or terminals.

7. TROUBLESHOOTING

If you encounter issues with your DS18 EXL-MM84NB speaker, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No Sound from Speaker	<ul style="list-style-type: none"> • Loose or incorrect wiring connection. • Amplifier not powered on or in protect mode. • Head unit not sending signal. • Speaker damaged. 	<ul style="list-style-type: none"> • Check all speaker wire connections at both the speaker and amplifier. Ensure correct polarity. • Verify amplifier power and check fuses. • Confirm head unit is on and playing audio. • Test speaker with a known good audio source or another amplifier.

Problem	Possible Cause	Solution
Distorted Sound	<ul style="list-style-type: none"> Amplifier gain set too high (clipping). Incorrect crossover settings. Speaker receiving full-range signal. Damaged speaker cone or voice coil. 	<ul style="list-style-type: none"> Reduce amplifier gain. Adjust crossover settings to filter out low frequencies not suitable for a midrange speaker. Ensure a proper band-pass filter is applied. Inspect speaker for physical damage.
Intermittent Sound	<ul style="list-style-type: none"> Loose wiring. Vibration causing connection issues. 	<ul style="list-style-type: none"> Re-secure all connections. Ensure speaker is firmly mounted.

8. SPECIFICATIONS

Detailed technical specifications for the DS18 EXL-MM84NB Midrange Speaker:

Model Number	EXL-MM84NB
Brand	DS18
Speaker Type	Midrange
Subwoofer Diameter	8 Inches
Speaker Maximum Output Power	500 Watts (Max)
RMS Power Handling	250 Watts
Impedance	4 Ohm
Sensitivity	96dB
Frequency Response	60-16KHz
Voice Coil	1.5" KSV
Magnet Type	Neodymium
Mounting Depth	3.5 Inches
Mounting Type	Flush Mount
Connectivity Technology	Auxiliary
Color	Black
Item Weight	1.59 kg (3.5 Pounds)
Product Dimensions	20.32 x 20.32 x 11.43 cm
Manufacturer	DS18
Date First Available	May 4 2015

9. WARRANTY AND SUPPORT

For detailed warranty information regarding your DS18 EXL-MM84NB speaker, please refer to the official DS18 website or the warranty card included with your purchase. Warranty terms and conditions may vary by region and retailer.

For technical support, product inquiries, or service, please contact DS18 customer support directly. Contact information can typically be found on the manufacturer's website:

Manufacturer: DS18

[Visit DS18 Official Website](#)

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