

Hifonics ZXE12S4

Hifonics ZXE12S4 Subwoofer 12-inch Instruction Manual

Model: ZXE12S4

1. INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your Hifonics ZXE12S4 12-inch subwoofer. Please read this manual thoroughly before attempting to install or use the product to ensure optimal performance and safety.

2. SAFETY INFORMATION

Always observe the following safety precautions:

- Ensure all wiring is correctly connected and insulated to prevent short circuits.
- Disconnect the vehicle's battery before starting any electrical work.
- Mount the subwoofer securely to prevent movement during vehicle operation, which could cause injury or damage.
- Avoid exposing the subwoofer to excessive moisture or extreme temperatures.
- Do not operate the subwoofer beyond its specified power handling limits to prevent damage.
- Consult a professional installer if you are unsure about any aspect of the installation process.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- Hifonics ZXE12S4 12-inch Subwoofer
- Instruction Manual (this document)

Note: Additional wiring, amplifier, and enclosure are sold separately and are required for operation.

4. FEATURES

The Hifonics ZXE12S4 subwoofer incorporates advanced design elements for robust performance:

- **Y35 Magnet:** Equipped with a 40-ounce (1.14 kg) Y35 magnet for strong motor force.
- **64 mm Voice Coil:** Features a 64 mm voice coil for efficient power handling.
- **Extended Excursion (X-Max):** Designed for +/- 17 mm of linear excursion, allowing for deep bass reproduction.
- **Double Stitched Surround:** The surround is double-stitched for enhanced durability and longevity.
- **Vented Pole Core:** Incorporates a vented pole core to improve thermal management and reduce compression.
- **T-Plates:** Utilizes T-Plates (poly plates) to further extend the linear excursion capability.
- **High-Quality Paper Membrane:** Features expensive paper membranes with double stitching, known for their excellent sound characteristics.
- **High Efficiency:** Achieves an efficiency of 90-92 dB at 2.83 volts/1 meter, enabling significant sound output with moderate power input.

5. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your subwoofer. It is recommended to have this product installed by a qualified professional.

5.1 Enclosure Selection

The ZXE12S4 is designed for use in a sealed or ported enclosure. Consult Hifonics' official website or a car audio specialist for recommended enclosure volumes and port tuning frequencies specific to this model to achieve desired bass characteristics.

5.2 Wiring Connections

The ZXE12S4 features a single 4-ohm voice coil. Connect the subwoofer to a compatible amplifier capable of delivering the specified RMS power at a 4-ohm load.

- Ensure correct polarity (+ to + and - to -) when connecting the subwoofer to the amplifier.
- Use appropriate gauge speaker wire for the power level and distance to the amplifier to minimize power loss.
- Secure all connections to prevent accidental disconnections or short circuits.



Image: Rear view of the Hifonics ZXE12S4 subwoofer, displaying the speaker terminals for wiring connections. The model number ZXE12S4 is visible on the blue ring.

5.3 Mounting

The subwoofer is designed for flush mounting. Ensure the mounting surface is rigid and capable of supporting the subwoofer's weight and vibrational forces. Use appropriate fasteners to secure the subwoofer firmly into its enclosure.



Image: Side view of the Hifonics ZXE12S4 subwoofer, illustrating its overall design and mounting flange.

6. OPERATING INSTRUCTIONS

Once installed, follow these guidelines for optimal operation:

- **Amplifier Settings:** Adjust your amplifier's gain, crossover, and phase settings according to the subwoofer's specifications and your vehicle's acoustics. Start with low gain and gradually increase.
- **Break-in Period:** Allow a break-in period of approximately 10-20 hours of moderate listening before operating the subwoofer at high volumes. This allows the suspension components to loosen and perform optimally.
- **Volume Control:** Avoid prolonged listening at extremely high volumes that cause audible distortion, as this can damage the subwoofer and amplifier.



Image: Top view of the Hifonics ZXE12S4 subwoofer cone, showing the Hifonics Zeus branding and 600 Watts maximum power rating.

7. MAINTENANCE

The Hifonics ZXE12S4 subwoofer requires minimal maintenance:

- **Cleaning:** Use a soft, dry cloth to wipe the cone and surround. Avoid using harsh chemicals or excessive moisture.
- **Inspection:** Periodically check all wiring connections for tightness and signs of wear. Inspect the subwoofer's cone and surround for any damage.

8. TROUBLESHOOTING

If you encounter issues with your subwoofer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
No sound from subwoofer	<ul style="list-style-type: none">Loose or incorrect wiringAmplifier not powered on or in protect modeHead unit settings incorrectDamaged subwoofer or amplifier	<ul style="list-style-type: none">Check all speaker and power connections.Verify amplifier power and status indicators.Ensure subwoofer output is enabled and volume is up on the head unit.Test with another known-good component if possible.
Distorted or weak bass	<ul style="list-style-type: none">Amplifier gain set too high or too lowIncorrect crossover settingsPhase mismatchSubwoofer over-driven or under-poweredPoor enclosure design	<ul style="list-style-type: none">Adjust amplifier gain to match head unit output.Set low-pass filter (LPF) on amplifier or head unit appropriately (e.g., 80-120 Hz).Experiment with phase switch (0° or 180°).Ensure amplifier power matches subwoofer RMS rating.Verify enclosure meets recommended specifications.

9. SPECIFICATIONS

Feature	Specification
Model	ZXE12S4
Speaker Type	Subwoofer
Speaker Size	12 inches (30 cm)
RMS Power Handling	300 Watts
Maximum Power Handling	600 Watts
Nominal Impedance	4 Ohm (Single Voice Coil)
Voice Coil Diameter	64 mm
Magnet Weight	40 ounces (1.14 kg) Y35
X-Max	+/- 17 mm
Dimensions (L x W x H)	35 x 35 x 20 cm
Connectivity Technology	Wired
Mounting Type	Flush Mount
Manufacturer	Hifonics

10. WARRANTY AND SUPPORT

This Hifonics ZXE12S4 subwoofer comes with a Limited Warranty. Please refer to the warranty card included with

your product or visit the official Hifonics website for detailed terms and conditions.
For technical support, service, or warranty claims, please contact your authorized Hifonics dealer or the manufacturer directly through their official support channels.

