

DS18 DIA-T15.4D

DS18 Black Diamond DIA-T15.4D 15-inch Car Audio Subwoofer

INSTRUCTION MANUAL

INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of your DS18 Black Diamond DIA-T15.4D 15-inch Car Audio Subwoofer. Please read this manual thoroughly before attempting installation or use to ensure optimal performance and safety.

SAFETY INFORMATION

- Always disconnect the vehicle's battery before performing any electrical work.
- Ensure all wiring is properly insulated and secured to prevent short circuits and damage.
- Mount the subwoofer securely in an appropriate enclosure to prevent movement during vehicle operation.
- Avoid exposing the subwoofer to excessive moisture or extreme temperatures.
- Consult a professional car audio installer if you are unsure about any installation steps.

PACKAGE CONTENTS

Verify that all items are present upon unpacking:

- 1 x DS18 Black Diamond DIA-T15.4D 15-inch Subwoofer

KEY FEATURES

- **Massive Power Handling:** Supports up to 2000W Max and 1000W RMS for robust bass output.
- **Premium Dual Voice Coil (DVC) Configuration:** Offers versatile wiring options (Parallel, Series, or Independent) for maximum efficiency and customization.
- **High-Quality Ferrite Magnet:** Engineered for strong bass response, wide frequency range, and improved heat dissipation.
- **Durable Aluminum Basket:** Constructed to withstand high-powered audio systems and ensure sound precision.

SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your subwoofer. Ensure the subwoofer is installed in a suitable enclosure designed for its specifications.

Subwoofer Overview



Image Description: An angled front view of the DS18 Black Diamond DIA-T15.4D 15-inch subwoofer, showcasing its black cone, surround, and the 'BLACK DIAMOND' logo on the dust cap.

Mounting and Enclosure

The subwoofer requires a sealed or ported enclosure for optimal performance. Refer to recommended enclosure volumes for 15-inch subwoofers. Ensure the mounting surface is rigid and free from obstructions.



Image Description: A side view of the DS18 Black Diamond DIA-T15.4D subwoofer, highlighting its robust aluminum basket and the large ferrite magnet structure.

Wiring Options (Dual Voice Coil 4+4 Ohm)

The DIA-T15.4D features a Dual Voice Coil (DVC) design, offering flexibility in wiring configurations to match your amplifier's impedance requirements.



Image Description: A rear view of the DS18 Black Diamond DIA-T15.4D subwoofer, clearly showing the dual voice coil terminals for wiring connections.

- **Parallel Wiring (2 Ohm Load):** Connect the positive terminals of both voice coils together, and the negative terminals of both voice coils together. Then connect the combined positive to the amplifier's positive output and the combined negative to the amplifier's negative output. This results in a 2 Ohm load.
- **Series Wiring (8 Ohm Load):** Connect the positive terminal of one voice coil to the negative terminal of the other voice coil. Then connect the remaining positive terminal to the amplifier's positive output and the remaining negative terminal to the amplifier's negative output. This results in an 8 Ohm load.
- **Independent Wiring (4 Ohm per channel):** If using a multi-channel amplifier, each voice coil can be wired independently to a separate amplifier channel, presenting a 4 Ohm load to each channel.

Always ensure your amplifier is stable at the chosen impedance load. Incorrect wiring can damage both the subwoofer and the amplifier.

OPERATING INSTRUCTIONS

Once installed, follow these guidelines for optimal operation:

- **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.
- **Gain Setting:** Set your amplifier's gain correctly to match the output voltage of your head unit. Avoid setting the gain too high, as this can lead to distortion and potential damage.
- **Crossover Settings:** Use a low-pass filter (LPF) on your amplifier or head unit to send only low frequencies to the subwoofer. A typical LPF setting for a 15-inch subwoofer is between 60Hz and 80Hz.
- **Subsonic Filter:** Utilize a subsonic filter (high-pass filter for the subwoofer) to protect the subwoofer from playing frequencies below its resonant frequency, which can cause excessive excursion and damage.



Image Description: A direct top-down view of the DS18 Black Diamond DIA-T15.4D subwoofer, showing the large cone area and the durable rubber surround.

MAINTENANCE

To ensure the longevity and performance of your subwoofer, follow these simple maintenance tips:

- **Regular Cleaning:** Gently wipe the cone and surround with a soft, dry cloth to remove dust and debris. Avoid using harsh chemicals or excessive moisture.

- **Inspect Wiring:** Periodically check all wiring connections for tightness and signs of wear or corrosion.
- **Enclosure Integrity:** Ensure the subwoofer enclosure remains sealed and free from damage that could affect sound quality or expose the subwoofer to elements.
- **Avoid Overpowering:** Do not continuously operate the subwoofer at distortion levels, as this can lead to voice coil overheating and failure.

TROUBLESHOOTING

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

Problem	Possible Cause	Solution
No Sound	Loose or incorrect wiring; Amplifier not powered; Head unit settings.	Check all connections; Verify amplifier power and remote turn-on; Ensure subwoofer output is enabled on head unit.
Distorted Sound	Amplifier gain too high; Incorrect crossover settings; Overpowering.	Adjust amplifier gain; Verify LPF and subsonic filter settings; Reduce volume.
Weak Bass	Phase issue; Incorrect enclosure; Low amplifier power.	Check phase setting on amplifier/head unit; Ensure enclosure is appropriate; Verify amplifier power output.
Subwoofer Overheating	Sustained high volume; Incorrect impedance match; Insufficient ventilation.	Reduce volume; Verify wiring impedance matches amplifier; Ensure adequate airflow around amplifier.

SPECIFICATIONS

Detailed technical specifications for the DS18 Black Diamond DIA-T15.4D Subwoofer:

Feature	Specification
Model Name	DIA T15.4D
Speaker Type	Subwoofer
Subwoofer Diameter	15 Inches
Impedance	4 Ohm (Dual Voice Coil)
Speaker Maximum Output Power	2000 Watts (Max)
RMS Power Handling	1000 Watts
Product Dimensions	12"D x 17"W x 17"H
Item Weight	28.3 pounds
Special Features	Aluminum Basket, Massive Power Handling, Premium Dual Voice Coil
Recommended Uses	Car audio
Connectivity Technology	Wired (RCA or 1/4 inch TS connectors)

Feature	Specification
Manufacturer	DS18
UPC	810005189194

WARRANTY INFORMATION

This product comes with a Limited Warranty. For specific terms and conditions, please refer to the warranty card included with your purchase or visit the official DS18 website. Keep your proof of purchase for warranty claims.

SUPPORT

For technical assistance, troubleshooting beyond this manual, or warranty inquiries, please contact DS18 customer support. You can find contact information on the official [DS18 Store](#) or their official website.