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DS18 S-1600.2/SL

DS18 S-1600.2/SL 2-Channel Car Audio Amplifier User Manual

Model: S-1600.2/SL

1. INTRODUCTION

Thank you for choosing the DS18 S-1600.2/SL 2-Channel Car Audio Amplifier. This manual provides essential information for the proper installation, operation, and maintenance of your amplifier. Please read this manual thoroughly before attempting installation or operation to ensure optimal performance and safety.

2. SAFETY INFORMATION

- Always disconnect the vehicle's battery negative terminal before starting any electrical work.
- Ensure all wiring is properly routed and secured to prevent damage or short circuits.
- Use appropriate gauge wiring for power, ground, and speaker connections as specified.
- Avoid mounting the amplifier in areas exposed to direct sunlight, excessive heat, moisture, or dust.
- Professional installation is recommended for optimal performance and safety.
- This amplifier is equipped with protection circuitry against overload, short circuit, thermal issues, low voltage, high voltage, and reverse polarity. Do not attempt to bypass these safety features.

3. PRODUCT OVERVIEW

The DS18 S-1600.2/SL is a 2-channel, full-range Class AB car audio amplifier designed to deliver clear and powerful sound. It features robust protection circuitry and platinum-finish connections for reliable performance.



Figure 3.1: Front view of the DS18 S-1600.2/SL amplifier, showcasing its silver brushed finish and DS18 logo.

Key Features:

- **Class AB Amplifier:** Efficient and high-fidelity audio reproduction.
- **2-Channel Output:** Suitable for powering a pair of speakers or a single subwoofer.
- **1600 Watts Max Power:** Provides significant power output for your audio system.
- **235 Watts RMS Power:** Continuous power handling for sustained performance.
- **Full Range Capability:** Capable of reproducing the entire audio frequency spectrum.
- **Protection Circuitry:** Safeguards against overload, short circuit, thermal issues, low/high voltage, and reverse polarity.
- **Fully Variable Crossover:** Allows precise tuning of audio frequencies.
- **Platinum Finish Connections:** Ensures solid electrical contact and corrosion resistance.

**DS18®** CLASS
AB Class AB Amplifier Protection
Circuitry **CH** 2 Channels 1600W MAX Power
235W RMS Power Frequency Response:
20 - 20KHz Fully Variable
Crossover**SELECT****S-1600.2/SL**

Figure 3.2: Graphic illustrating the key features of the DS18 S-1600.2/SL amplifier, including Class AB, 2 channels, power ratings, frequency response, and protection circuitry.

4. SETUP AND INSTALLATION

4.1 Mounting the Amplifier

Choose a secure, dry location for mounting the amplifier, away from direct heat sources and moisture. Ensure adequate airflow around the amplifier for proper cooling. Use the provided mounting hardware to secure the amplifier firmly to a solid surface in your vehicle.

4.2 Wiring Connections

Proper wiring is crucial for performance and safety. Refer to the diagrams below for correct connections. Always use high-quality, appropriate gauge wiring.

Power and Speaker Terminals:



Figure 4.1: View of the power and speaker terminal panel on the DS18 S-1600.2/SL amplifier, showing connections for +12V, REM, GND, FUSE, and speaker outputs.

- **+12V (Power):** Connect to the positive terminal of the vehicle's battery via an inline fuse (not supplied, recommended 60A).
- **REM (Remote):** Connect to the remote turn-on output of your head unit.
- **GND (Ground):** Connect to a clean, solid metal point on the vehicle chassis. Ensure a good electrical connection.
- **FUSE:** The amplifier includes an internal fuse for protection. Do not attempt to replace with a higher amperage fuse.
- **Speaker Outputs:** Connect your speakers to the designated positive (+) and negative (-) terminals. Ensure correct polarity.

Input and Control Panel:



Figure 4.2: View of the input and control panel on the DS18 S-1600.2/SL amplifier, featuring RCA inputs, frequency controls, crossover switch, and gain adjustment.

- **INPUT (RCA):** Connect your head unit's RCA pre-outs to these inputs.

5. OPERATING INSTRUCTIONS

5.1 Initial Setup and Adjustments

After all connections are made, proceed with the following adjustments:

- **GAIN (Input Level):** Start with the GAIN control set to minimum (MIN). Gradually increase the GAIN until you achieve a clear, undistorted sound at your desired volume level. Avoid setting the gain too high, as this can lead to distortion and potential damage to speakers or the amplifier.
- **X-OVER (Crossover Switch):** This switch selects the type of filter.

- **HPF (High Pass Filter):** Allows frequencies above the set FREQ to pass. Useful for full-range speakers to prevent low bass distortion.
- **FULL:** Bypasses the crossover, allowing all frequencies to pass.
- **LPF (Low Pass Filter):** Allows frequencies below the set FREQ to pass. Useful for subwoofers.
- **FREQ (Frequency Control):** Adjusts the cutoff frequency for the HPF or LPF, depending on the X-OVER switch setting. This allows you to fine-tune the audio output to your speakers or subwoofer.

5.2 Power and Protection Indicators

The amplifier features LED indicators on the power/speaker terminal panel:

- **PWR (Power):** Illuminates when the amplifier is receiving power and operating normally.
- **PRT (Protection):** Illuminates when the amplifier's protection circuitry is activated due to a fault (e.g., short circuit, overheating, voltage issues). If this light comes on, turn off your audio system and investigate the cause.

6. MAINTENANCE

To ensure the longevity and optimal performance of your amplifier, follow these maintenance guidelines:

- **Cleaning:** Periodically clean the amplifier's exterior with a soft, dry cloth. Do not use harsh chemicals or abrasive cleaners. Ensure ventilation fins are free from dust and debris.
- **Connections:** Regularly check all power, ground, remote, and speaker connections to ensure they are secure and free from corrosion. Loose connections can lead to poor performance or damage.
- **Environment:** Ensure the amplifier remains in a well-ventilated area, free from excessive heat or moisture.

7. TROUBLESHOOTING

If you experience issues with your amplifier, consult the following table before contacting technical support:

Problem	Possible Cause	Solution
No Power (PWR LED off)	Blown fuse, loose power/ground/remote connection, no power from battery.	Check inline fuse and amplifier's internal fuse. Verify all power, ground, and remote wire connections. Ensure battery has sufficient charge.
Protection LED (PRT) is on	Short circuit in speaker wiring, amplifier overheating, voltage too high/low.	Check speaker wiring for shorts. Ensure adequate ventilation. Verify vehicle's electrical system voltage. Allow amplifier to cool down.
No Sound Output	Loose RCA connections, incorrect gain setting, speaker wires disconnected.	Verify RCA cables are securely connected. Adjust GAIN control. Check speaker wire connections at both amplifier and speakers.
Distorted Sound	GAIN set too high, incorrect crossover settings, damaged speakers.	Reduce GAIN setting. Adjust HPF/LPF and FREQ controls. Test with different speakers if possible.

8. SPECIFICATIONS

Feature	Specification
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Feature	Specification
Model	S-1600.2/SL
Amplifier Class	Class AB
Number of Channels	2
Max Power	1600 Watts
RMS Power	235 Watts
Frequency Response	20Hz - 20KHz
Crossover Type	Fully Variable (HPF/LPF/FULL)
Protection Circuitry	Overload, Short Circuit, Thermal, Low Voltage, High Voltage, Reverse Polarity
Approximate Dimensions (L x W x H)	33 cm x 24 cm x 8.3 cm (13 in x 9.4 in x 3.3 in)
Manufacturer	DS18
UPC / Item Model Number	810005183239

9. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or visit the official DS18 website. Keep your proof of purchase for any warranty claims.