

Fusion 010-01968-00

Fusion Signature Series Marine Amplifier

Model: SG-DA51600 (010-01968-00)

1. INTRODUCTION

The Fusion Signature Series Marine Amplifier SG-DA51600 is engineered for the demanding marine environment, offering exceptional performance and durability. This 5-channel Class-D Hi-Fi marine amplifier delivers an impressive 1600 Watts (peak) of power, capable of driving four speakers and one subwoofer with ease. Its design prioritizes low battery drain and high output, making it ideal for marine applications. Key features include conformal coated PCBs for extended product life, an amplifier chassis that doubles as a heat sink for efficient cooling, and a stunning stainless steel mirror install panel for practical cable management and aesthetic integration.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the amplifier and associated equipment:

- Ensure the vessel's power is disconnected before installation or maintenance.
- Use appropriate wiring gauges as specified in the installation guide to prevent overheating and ensure optimal performance.
- Protect all wiring from sharp edges and moving parts.
- Install the amplifier in a well-ventilated area, away from direct sunlight or excessive heat sources.
- This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

3. WHAT'S IN THE BOX

Upon unpacking your Fusion Signature Series Marine Amplifier, verify that all components are present:

- Fusion Signature Series Marine Amplifier (SG-DA51600)
- Owner's Manual
- Warranty Card

4. SETUP AND INSTALLATION

Proper installation is crucial for the performance and longevity of your amplifier. The SG-DA51600 is designed for surface mounting.

4.1. Mounting

Select a mounting location that is dry, well-ventilated, and provides sufficient space for the amplifier's dimensions (1.97 x 8.27 x 11.81 inches). Ensure the location allows for proper heat dissipation, as the chassis acts as a heat sink. Secure the amplifier using appropriate marine-grade fasteners.

4.2. Wiring Connections

The amplifier operates on a 12 Volts (DC) power supply. All connections are conveniently located on the stainless steel mirror install panel.



Image: Rear panel of the Fusion SG-DA51600 amplifier, showing the various input and output terminals, including RCA line-level inputs, speaker outputs, subwoofer output, and power connections. This view highlights the organized layout for easy wiring.

- **Power Connections:** Connect the +12V, GND (Ground), and REM (Remote Turn-On) terminals to the vessel's power system. Ensure proper fusing.
- **RCA Line-Level Inputs:** Utilize the RCA inputs for easy connection to new or existing audio systems. The amplifier supports inputs for Zone 1, Zone 2, and Subwoofer.
- **Speaker Outputs:** The amplifier features outputs for four speaker channels (Zone 1 and Zone 2) and a dedicated subwoofer output. It can amplify up to 4 pairs of Fusion speakers (speakers run in parallel on channels) and the MS-SW10 Fusion subwoofer.
- **Fuses:** The unit includes integrated fuses for protection.



Image: Top view of the Fusion SG-DA51600 Marine Amplifier, showcasing its sleek design with a silver top panel and black heat sink fins on the sides. The Fusion logo is prominently displayed in the center.

5. OPERATING INSTRUCTIONS

Once installed and wired correctly, the amplifier is ready for operation. The SG-DA51600 is a 5-channel, 1600 Watt Class-D amplifier with a frequency response of 10Hz - 50kHz.

5.1. Audio Configuration

The amplifier provides independent controls for Zone 1, Zone 2, and the Subwoofer channel. These controls allow for fine-tuning of the audio output to match your specific speaker setup and listening preferences.

- **Level Controls:** Adjust the input sensitivity for each zone (Zone 1, Zone 2, Subwoofer) to match the output level of your source unit.
- **Crossover Frequencies:** Utilize the Low Pass Filter (LPF) and High Pass Filter (HPF) controls to direct appropriate frequencies to your speakers and subwoofer. This ensures optimal sound quality and protects your speakers.
- **Bass Boost:** The subwoofer channel includes a Bass Boost feature to enhance low-frequency output.
- **Subsonic Filter:** The subwoofer channel also features a Subsonic filter to remove extremely low, inaudible frequencies that can waste amplifier power and potentially damage the subwoofer.

6. MAINTENANCE

The Fusion Signature Series Marine Amplifier is built for durability in the marine environment, featuring conformal coated PCBs for maximum product life and performance. The amplifier chassis also functions as a heat sink, reducing component core temperature and increasing efficiency.

- **Cleaning:** Periodically wipe down the amplifier's exterior with a soft, damp cloth. Avoid using harsh chemicals or abrasive cleaners.
- **Connections:** Regularly inspect all wiring connections for corrosion or looseness. Ensure all terminals are secure.
- **Ventilation:** Ensure that the area around the amplifier remains clear to allow for proper airflow and heat dissipation.

7. TROUBLESHOOTING

The SG-DA51600 incorporates 5-way circuitry protection to safeguard against common issues:

- **Thermal Protection:** Shuts down the amplifier if it overheats. Allow the unit to cool down before resuming operation. Ensure adequate ventilation.
- **Reversed Power Polarity Protection:** Prevents damage if power connections are reversed. Double-check wiring.
- **DC Offset Protection:** Protects speakers from harmful DC voltage.
- **High + Low Voltage Protection:** Safeguards the amplifier from unstable power supply conditions.

Common Issues:

- **No Power:** Check power connections, fuses, and the remote turn-on lead.
- **No Sound:** Verify input signal, speaker connections, and amplifier settings (level, crossover).
- **Distorted Sound:** Check for proper gain settings, speaker impedance, and ensure no wiring shorts.

If issues persist after checking these points, consult a qualified marine electronics technician.

8. SPECIFICATIONS

Specification	Value
Model Number	010-01968-00
Item Dimensions (L x W x H)	1.97 x 8.27 x 11.81 inches
Item Weight	7.94 pounds
Voltage	12 Volts (DC)
Number of Channels	5
Output Power	1600 Watts (Peak)
Frequency Response	10Hz - 50kHz
Mounting Type	Surface Mount



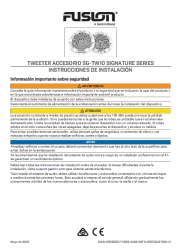
Specification	Value
Material	Plastic (Chassis), Stainless Steel (Panel)
Color	Black
Manufacturer	Garmin
UPC	753759152987, 753759133634
Certification	FCC




9. WARRANTY AND SUPPORT

Your Fusion Signature Series Marine Amplifier comes with a warranty card included in the box. Please refer to this card for specific warranty terms and conditions.

For technical support, service, or warranty claims, please contact Fusion customer service or visit the official Fusion website. Ensure you have your product model number (SG-DA51600 or 010-01968-00) and proof of purchase available when seeking support.

Related Documents - 010-01968-00

	<p>Οδηγίες Εγκατάστασης Ηχείων Fusion® Signature Series</p> <p>Λεπτομερείς οδηγίες εγκατάστασης για τα θαλάσσια ηχεία Fusion Signature Series, που καλύπτουν την ασφάλεια, τα εργαλεία, την τοποθέτηση, την καλωδίωση, τις προδιαγραφές και τη συντήρηση.</p>
	<p>Fusion Signature Series Subwoofer Installation Guide</p> <p>Comprehensive installation guide for the Fusion Signature Series Subwoofer, including safety warnings, mounting instructions, wiring diagrams, specifications, and warranty information.</p>
	<p>Fusion SG-TW10 Signature Series Component Tweeter Installation Guide</p> <p>Comprehensive installation guide for the Fusion SG-TW10 Signature Series component tweeters. Covers necessary tools, mounting instructions, wiring diagrams, DSP configuration, troubleshooting, and product specifications for marine audio systems.</p>

 <p>Garmin logo and product image. Title: FUSION APOLLO® MS-RA800 ISTRUZIONI DI INSTALLAZIONE. The document contains safety warnings, required tools, and installation steps in Italian.</p>	<p>Fusion Apollo MS-RA800 Installation Instructions</p> <p>This document provides installation instructions for the Fusion Apollo MS-RA800 marine stereo, covering safety information, required tools, installation steps, connection details, and network setup.</p>
 <p>Garmin logo and product image. Title: FUSION APOLLO® MS-RA800 INSTALLATION INSTRUCTIONS. The document contains safety warnings, required tools, and installation steps in English.</p>	<p>Fusion Apollo MS-RA800 Installation Instructions</p> <p>This document provides installation instructions for the Fusion Apollo MS-RA800 marine stereo system. It covers safety information, mounting considerations, wiring diagrams, and network setup.</p>
 <p>Garmin logo and product image. Title: Specification Control Document. The document contains safety warnings, regulatory compliance information (FCC, EU, Canada), software license agreement, and a 3-year limited warranty for the ISPI Marine Fusion FCC-SAR 3-year Taiwan model.</p>	<p>ISPI Marine Fusion FCC-SAR 3-Year Taiwan: Safety, Compliance, and Warranty Information</p> <p>This document provides essential safety warnings, regulatory compliance information (FCC, EU, Canada), software license agreement, and a 3-year limited warranty for the ISPI Marine Fusion FCC-SAR 3-year Taiwan model.</p>