

Garmin SG-DA41400

Garmin Fusion Signature Series Marine Amplifier SG-DA41400 User Manual

Model: SG-DA41400 (Part Number: 010-01969-00)

1. INTRODUCTION

The Garmin Fusion Signature Series Marine Amplifier SG-DA41400 is a high-performance 4-channel Class-D amplifier designed for the marine environment. It delivers 1400 watts of peak power, ensuring robust audio output with low battery drain. This amplifier features a durable, heat-tempered, and conformal-coated PCB for extended product life, and a heat sink chassis to maintain optimal operating temperatures. The stainless steel cover provides a clean, attractive appearance while protecting controls and connections.

This manual provides essential information for the safe and effective installation, operation, and maintenance of your marine amplifier.

2. SAFETY INFORMATION

Always observe the following safety precautions to prevent injury or damage to the amplifier or vessel.

- **Electrical Hazards:** Disconnect power before installation or maintenance. Improper wiring can cause electrical shock, fire, or damage to the amplifier and vessel's electrical system.
- **Water Exposure:** While designed for marine environments, the amplifier is not fully submersible. Install in a dry location, protected from direct water spray or submersion.
- **Ventilation:** Ensure adequate ventilation around the amplifier to prevent overheating. Do not block cooling fins or vents.
- **Correct Fusing:** Use only fuses of the specified type and rating. Incorrect fuses can lead to fire or damage.
- **Professional Installation:** If you are unsure about any aspect of installation, consult a qualified marine electronics installer.

3. WHAT'S IN THE BOX

Verify that all components are present before beginning installation:

- Garmin Fusion Signature Series Marine Amplifier SG-DA41400

- Fuses
- Cleaning cloth
- Mounting screws
- User/Installation manual (this document)
- Warranty information

4. SETUP AND INSTALLATION

Proper installation is crucial for optimal performance and longevity of your amplifier.

4.1 Mounting Location

Select a mounting location that is:

- Dry and protected from direct water exposure.
- Well-ventilated to allow for heat dissipation.
- Secure and free from excessive vibration.
- Accessible for wiring and adjustments.



Figure 1: Front view of the Garmin Fusion Signature Series Marine Amplifier. This image shows the compact design and the protective stainless steel cover.

4.2 Wiring Connections

Follow these guidelines for wiring your amplifier:

1. **Power Connection:** Connect the amplifier directly to the vessel's battery using appropriate gauge power and ground cables. Ensure an inline fuse is installed on the positive power cable, close to the battery.
2. **Ground Connection:** Connect the ground cable to a clean, unpainted metal surface on the vessel's chassis or directly to the battery's negative terminal.
3. **Remote Turn-On:** Connect the remote turn-on wire from your marine stereo or head unit to the amplifier's remote input.
4. **RCA Inputs:** Connect the RCA line-level outputs from your marine stereo to the amplifier's RCA inputs. The SG-DA41400 supports 4-channel input.
5. **Speaker Outputs:** Connect your marine speakers to the amplifier's speaker output terminals. Observe correct polarity (+ to + and - to -). The amplifier can power four speakers or be bridged to power two speakers and a subwoofer. Refer to the wiring diagram in the full manual for specific bridging configurations.



Figure 2: Rear view of the Garmin Fusion Signature Series Marine Amplifier, showing the various input and output terminals for power, ground, remote, RCA, and speakers.

5. OPERATING INSTRUCTIONS

Once installed, the amplifier will power on automatically with your marine stereo. Adjustments can be made to optimize audio performance.

5.1 Gain Control

The gain control matches the amplifier's input sensitivity to the output level of your marine stereo. Set the gain control to the lowest setting initially, then slowly increase it until the desired volume is achieved without distortion. Avoid setting the gain too high, as this can lead to clipping and speaker damage.

5.2 Crossover Settings

The SG-DA41400 features adjustable crossover settings to direct specific frequency ranges to your speakers or subwoofers. Use the High-Pass Filter (HPF) for full-range speakers to prevent low frequencies from causing distortion. Use the Low-Pass Filter (LPF) for subwoofers to ensure they only reproduce bass frequencies. Refer to your speaker specifications for recommended crossover points.

6. MAINTENANCE

Regular maintenance ensures the longevity and performance of your marine amplifier.

- **Cleaning:** Use the provided cleaning cloth or a soft, dry cloth to wipe down the amplifier's exterior. Avoid abrasive cleaners or solvents.
- **Connection Check:** Periodically inspect all wiring connections for corrosion, looseness, or damage. Tighten any loose connections.
- **Ventilation:** Ensure that the amplifier's cooling fins are free from dust, debris, or obstructions.
- **Fuse Replacement:** If a fuse blows, replace it only with a fuse of the exact same type and rating.

7. TROUBLESHOOTING

If you experience issues with your amplifier, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No power/Amplifier not turning on	Blown fuse, loose power/ground/remote wire, no remote signal	Check and replace fuse, verify all power connections, ensure head unit is on and sending remote signal.
No sound from speakers	Loose RCA cables, incorrect speaker wiring, amplifier in protection mode	Check RCA connections, verify speaker polarity and connections, power cycle amplifier, check for overheating.
Distorted sound	Gain set too high, incorrect crossover settings, damaged speakers	Reduce gain, adjust crossover settings, test speakers individually.
Amplifier overheating	Insufficient ventilation, impedance mismatch, prolonged high output	Ensure proper ventilation, verify speaker impedance, reduce volume or allow cooling time.

If problems persist after attempting these solutions, contact Garmin customer support.

8. SPECIFICATIONS

Technical specifications for the Garmin Fusion Signature Series Marine Amplifier SG-DA41400:

Feature	Specification
Model Number	010-01969-00
Output Power	1400 Watts (Peak)
Number of Channels	4
Amplifier Class	Class D
Voltage	14.4 Volts
Material	Aluminum
Mounting Type	Surface Mount

Feature	Specification
Product Dimensions (L x W x H)	11.81 x 8.27 x 1.97 inches (29.99 x 21.00 x 5.00 cm)
Item Weight	2.64 pounds (1.2 kg)
GTIN / UPC	00753759152994 / 753759152994

9. WARRANTY AND SUPPORT

For warranty information, please refer to the warranty card included in the product packaging or visit the official Garmin website. Garmin provides comprehensive customer support for all its products.

If you require technical assistance, have questions about installation, or need to report a product issue, please contact Garmin customer support through their official website or the contact information provided in your warranty documentation.