

SG-DA61500 Signature Series Amplifier Installation Instructions 2

Instructions d'installation pour l'ampli SG-DA61500 Signature Series 6

SG-DA61500 Signature Series Istruzioni di installazione dell'amplificatore 12

SG-DA61500 Signature Series – Installationsanweisungen für den Verstärker 17

Instrucciones de instalación del amplificador SG-DA61500 Signature Series 22

Instruções de instalação do amplificador SG-DA61500 Signature Series 27

SG-DA61500 Signature Series Installatie-instructies voor de versterker 32

Vejledning til installation af forstærker i SG-DA61500 Signature Series 37

Installasjonsinstrukser for SG-DA61500 Signature Series-forsterker 42

Installationsinstruktioner för förstärkaren SG-DA61500 Signature Series 47

SG-DA61500 Signature Series 放大器安裝指示 52

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SG-DA61500 Signature Series Amplifier Installation Instructions

Important Safety Information

⚠ WARNING

See the Important Safety and Product Information guide in the product box for product warnings and other important information.

⚠ WARNING

This device must be installed according to these instructions.

Disconnect the vehicle's or vessel's power supply before beginning to install this device.

⚠ CAUTION

To maintain ignition protection compliance in accordance with SAE J1171, you must replace the fuse only with a J1171 compliant fuse.

Continuous exposure to sound pressure levels over 100 dBA may cause permanent hearing loss. The volume is typically too loud if you cannot hear people speaking around you. Limit the amount of time you listen at high volume. If you experience ringing in your ears or muffled speech, stop listening and have your hearing checked.

Always wear safety goggles, ear protection, and a dust mask when drilling, cutting, or sanding.

NOTICE

When drilling or cutting, always check what is on the opposite side of the surface.

This device is designed for a 12 Vdc power source. Connecting to a 24 Vdc or larger power source may damage the device.

It is strongly recommended that you have your audio system installed by a professional installer to ensure optimum performance.

You must read all installation instructions before beginning the installation. If you experience difficulty during the installation, go to www.fusionentertainment.com for product support.

What's in the Box

- Four 8-gauge, self-tapping screws
- 3 mm hex key (for the top cover and power terminals)
- 2.5 mm hex key (for the speaker terminals)
- Polishing cloth
- Spare J1171 compliant 40 A blade-type fuses

Tools Needed

- Drill and drill bits
- Flat screwdriver
- Wire cutter
- Wire stripper
- 120 A inline fuse for the power cable
- 4 AWG (21.1 mm²) power cable
- **NOTE:** You may need thicker cable for higher amperages or longer runs (Power Cable Gauge Guide, page 3).
- 16 AWG (1.31 mm²) speaker wire
- **NOTE:** You may need thicker wire for longer runs (Speaker Wire Gauge Guide, page 4).
- 20 AWG (0.52 mm²) wire (amplifier turn-on signal)
- Dual RCA cable (1 per zone, for stereo speakers) (Signal and Speaker Connection Considerations, page 3)
- Single RCA cable and RCA splitter (1 per zone, for mono subwoofer or bridged output for speakers) (Signal and Speaker Connection Considerations, page 3)
- Cable ties (optional)

Mounting Considerations

⚠ CAUTION

In high ambient temperatures and after extended use, the device enclosure may reach temperatures deemed dangerous to touch. Therefore the device must be installed in a location where it will not be touched during operation.

NOTICE

This device should be mounted in a location that is not exposed to extreme temperatures or conditions. The temperature range for this device is listed in the product specifications. Extended exposure to temperatures exceeding the specified temperature range, in storage or operating conditions, may cause device failure. Extreme-temperature-induced damage and related consequences are not covered by the warranty.

This device is designed for installation only in a dry location. Installing this device in a location where it may come in contact with water or become submerged may result in damage. Water damage is not covered by the warranty.

- The device must be mounted in a location that does not interfere with the fuel tank or electrical wiring.
- The device must be mounted in a location where it is not exposed to water.
- The device must be mounted in a location with adequate ventilation where it is not exposed to extreme temperatures.
- If the device is mounted in an enclosed space, you should install a cooling fan with appropriate ducts to aid in airflow.
- The device should be mounted so that the cables can be connected easily.
- To avoid interference with a magnetic compass, the device should be installed at least 55 cm (22 in.) away from a compass.
- The device should not be mounted in close proximity to other navigation-critical equipment, antennas, or radio-communication equipment on the vessel.

Mounting the SG-DA61500 Signature Series Device

NOTICE

If you are mounting the device in fiberglass, when drilling the pilot holes, it is recommended to use a countersink bit to drill a clearance counterbore through only the top gel-coat layer. This will help to avoid cracking in the gel-coat layer when the screws are tightened.

NOTE: Screws are included with the device, but they may not be suitable for the mounting surface.

Before you mount the device, you must select a mounting location and determine what screws and other mounting hardware are needed for the surface.

- 1 Place the device in the mounting location and mark the location of the pilot holes.
- 2 Drill a pilot hole for one corner of the device.
- 3 Loosely fasten the device to the mounting surface with one corner and examine the other three pilot-hole marks.
- 4 Mark new pilot-hole locations if necessary, and remove the device from the mounting surface.
- 5 Drill the remaining pilot holes.
- 6 Secure the device to the mounting location.

Removing the Cover

You must remove the cover to reach the connectors and configuration controls on the amplifier.

- 1 Using the included 3 mm hex key, remove the screws that secure the cover to the amplifier.
- 2 Lift the cover off of the amplifier and set it aside until after you have finished making all of the connections and configured the amplifier.

Connection Considerations

NOTICE

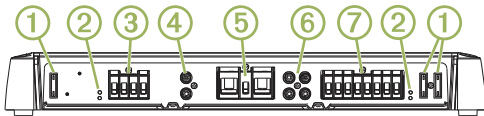
The 12 Vdc wiring (not included) from the battery to the amplifier must run through an inline fuse or circuit breaker (not included) as close to the battery as possible. You must connect the +12V (positive) wire to the fuse or circuit breaker. Connecting the amplifier to power without an inline fuse or circuit breaker may result in a fire if there is a short in the cable.

You must turn off the audio system before making any connections to the amplifier. Failure to turn off the audio system may result in damage to the audio system.

All terminals and connections must be protected from contact with the vessel chassis and with each other. Improper terminal or wire contact may result in damage to the audio system.

- You must first connect the amplifier to ground before making any other wiring connections (Connecting to Power, page 3).
- You must connect the +12V (positive) wire to the battery only after you have completed all other wiring to the amplifier.
- If your stereo does not have a remote turn-on signal wire, you must connect the amplifier to a switched 12 Vdc source.

Port Identification



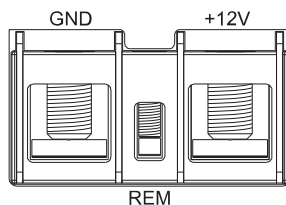
| | |
|---|--|
| ① | Fuses. See the product specifications for replacement details. |
| ② | POWER and PROT (protection) LED indicators (Troubleshooting, page 6) |
| ③ | Zone 1 speaker terminals |
| ④ | Zone 1 RCA input |
| ⑤ | Power, ground, and amplifier turn-on terminals |
| ⑥ | Zones 2 and 3 RCA inputs |
| ⑦ | Zones 2 and 3 speaker terminals |

Connecting to Power

You must connect the power wire to the battery through an in-line fuse or a circuit breaker.

You must use the appropriate gauge of wire (not included) to connect the amplifier to power and ground, based on the total amperage and the length of the cable run (Power Cable Gauge Guide, page 3).

- Route the appropriate gauge of wire to the amplifier and to a ground location on the boat.
- Using the included 3 mm hex key, connect the ground wire to the GND terminal on the amplifier.



- Connect the other end of the ground wire to the ground location on the boat.
- Route the appropriate gauge of wire to the amplifier and to the boat battery, and select an option:
 - Install an in-line fuse on the power wire as close to the battery as possible.
 - Identify or install a circuit breaker, as close to the battery as possible, for use with the amplifier power wire.

NOTICE

You must not connect the power wire to the amplifier and battery or circuit breaker before you complete all of the other connections. Connecting the amplifier to power before you complete all of the other connections may cause damage to your audio system.

5 Select an option:

- If your stereo has an amplifier turn-on wire, route a 20 AWG (0.52 mm²) wire from the amplifier turn-on wire on the stereo to the amplifier.

NOTE: The amplifier and the stereo must connect to the same physical ground location for the amplifier turn-on signal to function properly.

- If your stereo does not have an amplifier turn-on wire, route a 20 AWG (0.52 mm²) wire from the positive terminal of the battery, through a switch, to the amplifier.

6 Using a the included 2.5 mm hex key, connect the 20 AWG (0.52 mm²) wire to the REM terminal on the amplifier.

Make all of the other connections to the stereo and speakers before completing the connection to power (Completing the Connections, page 4).

Power Cable Gauge Guide

You should use 4 AWG (21.1 mm²) wire for most installations. If your total amperage is higher than 50–65 A, and your cable run is longer than 10–13 ft (3–4 m), you can use these tables to determine if you need to use a larger gauge of wire. This table accounts for terminal connection resistance.

NOTE: If you are using aluminum or tinned wire, you should use a wire two gauges larger than the gauge listed below to compensate for a potential voltage drop due to the wire material.

| Total Amperage | 0–4 ft. (0–1.2 m) | 4–7 ft. (1.2–2.1 m) | 7–10 ft. (2.1–3 m) | 10–13 ft. (3–4 m) |
|----------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 85–105 A | 4 AWG (21.1 mm ²) | 4 AWG (21.1 mm ²) | 4 AWG (21.1 mm ²) | 2 AWG (33.6 mm ²) |
| 105–125 A | 4 AWG (21.1 mm ²) | 4 AWG (21.1 mm ²) | 4 AWG (21.1 mm ²) | 2 AWG (33.6 mm ²) |
| 125–150 A | 2 AWG (33.6 mm ²) | 2 AWG (33.6 mm ²) | 2 AWG (33.6 mm ²) | 0 AWG (53.5 mm ²) |

| Total Amperage | 13–16 ft. (4–4.9 m) | 16–19 ft. (4.9–5.8 m) | 19–22 ft. (5.8–6.7 m) | 22–28 ft. (6.7–8.5 m) |
|----------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 50–65 A | 4 AWG (21.1 mm ²) | 4 AWG (21.1 mm ²) | 4 AWG (21.1 mm ²) | 2 AWG (33.6 mm ²) |
| 65–85 A | 2 AWG (33.6 mm ²) | 2 AWG (33.6 mm ²) | 2 AWG (33.6 mm ²) | 0 AWG (53.5 mm ²) |
| 85–105 A | 2 AWG (33.6 mm ²) | 2 AWG (33.6 mm ²) | 2 AWG (33.6 mm ²) | 0 AWG (53.5 mm ²) |
| 105–125 A | 0 AWG (53.5 mm ²) | 0 AWG (53.5 mm ²) | 0 AWG (53.5 mm ²) | 0 AWG (53.5 mm ²) |
| 125–150 A | 0 AWG (53.5 mm ²) | 0 AWG (53.5 mm ²) | 0 AWG (53.5 mm ²) | 0 AWG (53.5 mm ²) |

Signal and Speaker Connection Considerations

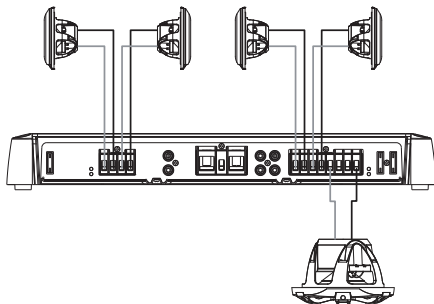
When connecting your stereo and speakers to the amplifier, observe the following considerations:

- Each set of zone speaker terminals on the amplifier is paired to the RCA inputs for that zone.
- Each channel supports a nominal 4 Ohm speaker load impedance, and a 2 Ohm minimum speaker load impedance.
- You can connect two speakers in parallel on a single channel, and the combined impedance must be greater than the 2 Ohm minimum load impedance (Connecting Multiple Speakers or Subwoofers In Parallel, page 4).
- You can connect either a zone low-level output or a subwoofer low-level output from the stereo to any of the zone RCA inputs on the amplifier.
- You should use 16 AWG (1.31 mm²) speaker wire to connect speakers and subwoofers to the amplifier.

- You should observe the zone and polarity markings for each channel when connecting speakers to the amplifier. For example, Z1L indicates the ZONE 1 left channel, and Z1R indicates the ZONE 1 right channel.
- If you are connecting a combination of speakers and a subwoofer to the amplifier, you should connect the subwoofer to ZONE 3 as illustrated below. This zone has a dedicated BASS BOOST control.
- You can connect a subwoofer to a single channel, but you should connect it using bridge mode to get the best performance (Connecting a Speaker or Subwoofer in Bridge Mode, page 4).

In the following example, a single 4 Ohm subwoofer is connected to the bridged terminals for ZONE 3, and pairs of 4 Ohm speakers are connected to the right and left channels for the other two zones.

In this example, you must connect the subwoofer low-level output from the stereo to the Z3L and Z3R RCA connectors on the amplifier (using an RCA splitter), you must connect the two zone low-level outputs from the stereo to the other two zone RCA connectors on the amplifier.



Speaker Wire Gauge Guide

You should use 16 AWG (1.31 mm²) speaker wire for most installations. If your wire run is longer than 10–13 ft (3–4 m), you can use this table to determine if you need to use a larger gauge of wire. This table accounts for terminal connection resistance.

NOTE: If you are using aluminum or tinned wire, you should use a wire two gauges larger than the gauge listed below to compensate for a potential voltage drop due to the wire material.

| Distance between the amplifier and speaker | 4 Ohm load | 2 Ohm load |
|--|--------------------------------|--------------------------------|
| 0–7 ft. (0–2 m) | 18 AWG (0.82 mm ²) | 18 AWG (0.82 mm ²) |
| 7–13 ft. (2–4 m) | 18 AWG (0.82 mm ²) | 16 AWG (1.31 mm ²) |
| 13–19 ft. (4–6 m) | 16 AWG (1.31 mm ²) | 14 AWG (2.08 mm ²) |
| 19–22 ft. (6–7 m) | 16 AWG (1.31 mm ²) | 12 AWG (3.31 mm ²) |
| 22–28 ft. (7–9 m) | 14 AWG (2.08 mm ²) | 12 AWG (3.31 mm ²) |

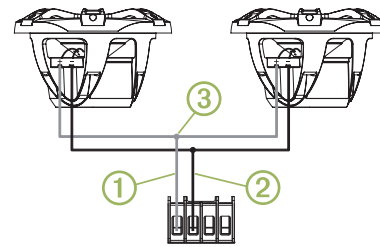
Connecting Multiple Speakers or Subwoofers In Parallel

You can connect multiple speakers or subwoofers with the same impedance rating together in parallel. When connecting speakers of the same impedance rating in parallel, you must calculate the total impedance by dividing the common impedance rating by the total number of speakers connected in parallel. For example, if you connect two 4 Ohm speakers in parallel, the resulting impedance is 2 Ohm ($4 \div 2 = 2$).

NOTICE

You must not connect a series of speakers with an impedance less than 2 Ohm to a single channel on the amplifier. Connecting a speaker or series of speakers with an impedance less than 2 Ohm to a single channel may damage the amplifier and voids your warranty.

- 1 Connect speaker wire to the positive terminal for a channel or zone on the amplifier ①.



- 2 Connect speaker wire to the positive terminal on each speaker.
- 3 Connect the wires from the positive terminals connected to all speakers in the channel or zone to the wire connected to the negative terminal on the amplifier ②.
- 4 Repeat this procedure for the negative terminal on the amplifier ③ and all speakers in the channel or zone.

Connecting a Speaker or Subwoofer in Bridge Mode

Connecting a speaker or subwoofer in bridge mode increases the amount of power that can be delivered by combining two output channels together. This is beneficial for large subwoofers that move large volumes of air and for playing speakers louder without experiencing clipping in the audio.

NOTICE

A speaker connected in bridge mode must be capable of handling the increased output power. Bridge mode can produce more than double the output power of a single channel.

You should connect only a 4 Ohm load to the bridged terminals on a zone. Connecting a 2 Ohm load to the bridged terminals may cause damage to the amplifier, speaker, or subwoofer.

NOTE: When bridging the channels in a zone, you must use an RCA splitter to send the same signal to both the left and right channels of the zone.

- 1 Connect speaker wire to the positive terminal of the left channel for a zone.
- 2 Connect speaker wire to the negative terminal of the right channel for a zone.

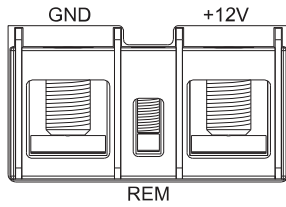
NOTE: The bridged terminals for a zone are connected with a line and labeled BRIDGED for easy identification.

- 3 Connect the other ends of the speaker wire to the positive and negative terminals on the speaker or subwoofer.
- 4 Connect an RCA splitter to the left and right RCA ports for the zone.
- 5 Connect the single RCA cable from the stereo output to the RCA splitter on the amplifier.
- 6 Adjust the volume level and other settings for the zone (Adjusting the Level for a Zone, page 5).

Completing the Connections

Before you connect the amplifier to the power source, you must complete all other connections to the amplifier .

- 1 Make sure all speaker wires are connected to the speakers and the amplifier.
- 2 Make sure all RCA cables are connected to the amplifier and the stereo.
- 3 Make sure the ground cable is connected to the amplifier and the battery (Connecting to Power, page 3).
- 4 Make sure the amplifier turn-on wire is connected to the amplifier and to the amplifier turn-on wire from the stereo or a dedicated switch (Connecting to Power, page 3).
- 5 Using the included 3 mm hex key, connect the power wire to the +12V terminal on the amplifier.



- 6 Select an option:
 - Connect the other end of the power wire, through the in-line fuse, to the battery.
 - Connect the other end of the power wire to the appropriate circuit breaker.

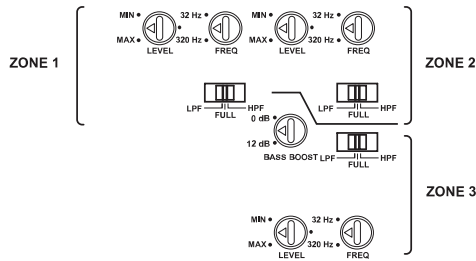
Configuring the Amplifier

Before you use amplifier, you should configure it for any connected speakers and subwoofers.

You must make all power, speaker, and stereo connections before you can configure the amplifier.

NOTE: If your stereo features digital signal processing (DSP), such as a FUSION® Apollo™ RA770, you should use the FUSION-Link™ app when configuring the amplifier (Configuring the Amplifier for a DSP Compatible Stereo, page 5).

Amplifier Configuration Controls



Each zone has a set of controls you must use to configure the sound for the speakers connected to that zone.

| Dial or Switch | Function |
|----------------|--|
| LEVEL | Adjusts the input signal level for the zone (Adjusting the Level for a Zone, page 5). |
| FULL | Sets a full-range filter on the zone. Allows all frequencies. This is usually used when full-range speakers are connected to the zone, and no subwoofer is present. |
| LPF | Sets a low-pass filter on the zone. Filters out mid to high frequencies that only full-range speakers should produce. This is usually used when a subwoofer is connected to the zone. |
| HPF | Sets a high-pass filter on the zone. Filters out low frequencies that only subwoofers should produce. This is usually used when smaller speakers are connected to the zone. |
| FREQ | Adjusts the crossover frequency for the zone. You should adjust this based on the LPF/HPF setting: <ul style="list-style-type: none"> • When LPF is selected, all frequencies below the FREQ setting are passed to the subwoofer connected to the zone. • When HPF is selected, all frequencies above the FREQ setting are passed to the speakers connected to the zone. |
| BASS BOOST | Adjusts the gain on the 45 Hz level. This control is available on ZONE 3 only. This setting should be adjusted only when you connect a subwoofer or full range speakers capable of low frequencies to the zone. |

Adjusting the Level for a Zone

NOTE: The level setting is music dependent, and not all levels are appropriate for all types of music. For example, if you adjust the level setting for rock music, then listen to classical music, it could result in distortion due to clipping.

- 1 Using a flat screwdriver, adjust the LEVEL dial for the zone to MIN by turning the dial counter-clockwise.
- 2 Begin playing audio on the stereo, and set the zone line out to approximately $\frac{3}{4}$ volume.
- 3 Slowly adjust the LEVEL dial for the zone clockwise toward the MAX setting while listening to the speakers connected to that zone.
- 4 When the sound from the speakers becomes distorted, stop adjusting the dial, and slowly adjust the dial counter-clockwise again until the distortion is gone.
- 5 Repeat this procedure for the other zones.

Configuring the Amplifier for a DSP Compatible Stereo

If your stereo features digital signal processing (DSP), such as a FUSION Apollo RA770, you should use the FUSION-Link app when configuring the amplifier for the best results.

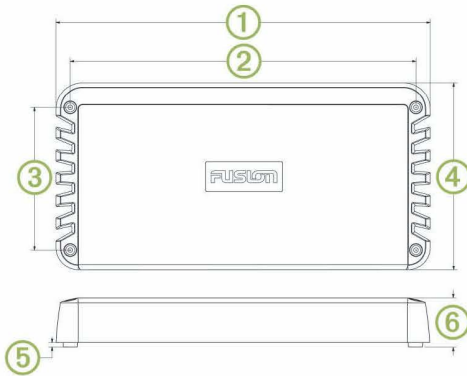
- 1 Follow the instructions in your stereo owner's manual to download the FUSION-Link app and connect it to the stereo.
- 2 Select the appropriate stereo, amplifier, and speakers in the FUSION-Link app.
- 3 Follow the instructions in the FUSION-Link app to adjust the configuration controls on the amplifier.

Specifications

| | |
|--------------------------------|--|
| Amplifier class | Class D |
| Frequency response | 10 Hz to 40 kHz (-3 dB @ 4 Ohm rated power) |
| Peak power output | 1500 W |
| Rated power output | 4 Ohm: 100 W RMS x 6 @ 14.4 Vdc input < 1% THD+N (EIA/CEA-490A) |
| | 2 Ohm: 140 W RMS x 6 @ 14.4 Vdc input < 1% THD+N (EIA/CEA-490A) |
| | 4 Ohm bridged: 280 W RMS x 3 @ 14.4 Vdc input < 1% THD+N (EIA/CEA-490A) |
| Input sensitivity | 0.3 Vdc to 8 Vdc RMS, adjustable |
| Input impedance | 7 kOhm nominal |
| Signal to noise ratio | 85 dB @ rated power output, 4 Ohm 53.1 dB @ 1 W, 4 Ohm |
| Separation/crosstalk | 60 dB |
| High-pass/low-pass filter | User selectable |
| Filter crossover frequency | 32 Hz to 320 Hz, user adjustable |
| Filter crossover slope | 12 dB/octave |
| Bass boost | 0 to 9 dB, user adjustable (ZONE 3 only) |
| Operating voltage | 10.8 to 16 Vdc |
| Remote turn-on | 6 Vdc threshold |
| Current draw (@14.4 Vdc input) | Standby: less than 1 mA Idle: less than 2.5 A Max: 100 A |
| Fuse rating | 3 @ 40 A ATC blade-type (SAE J1171 compliant) |
| | NOTICE |
| | To maintain ignition protection compliance in accordance with SAE J1171, replace only with J1171 fuses, such as a Bussmann ATC-40. Using non-compliant fuses may damage the amplifier and voids your warranty. |
| Protection circuits | Reverse voltage Input under/over voltage Over temperature Output short circuit |
| Compass-safe distance | 55 cm (22 in.) |
| Operating temperature range | From 0 to 50°C (from 32 to 122°F) |

| | |
|---------------------------|--|
| Storage temperature range | From -20 to 70°C (from -4 to 158°F) |
| Water rating | Must be installed in a dry location |
| Weight | 4.5 kg (9.9 lb) with the cover installed |

Dimensions



| | |
|---|--|
| ① | 420 mm (16 ⁹ / ₁₆ in.) |
| ② | 388 mm (15 ¹ / ₄ in.) |
| ③ | 160 mm (6 ⁵ / ₁₆ in.) |
| ④ | 210 mm (8 ⁹ / ₃₂ in.) |
| ⑤ | 5 mm (³ / ₁₆ in.) |
| ⑥ | 56.6 mm (2 ¹ / ₄ in.) |

More Information

Registering Your SG-DA61500 Signature Series

Help us better support you by completing our online registration today.

- Go to www.fusionentertainment.com.
- Keep the original sales receipt, or a photocopy, in a safe place.

Troubleshooting

Before you contact your FUSION dealer or service center, you should perform a few simple troubleshooting steps to help diagnose the problem.

If the FUSION amplifier has been installed by a professional installation company, you should contact the company so a technician can assess the problem and advise you about possible solutions.

There is no sound, and the POWER LEDs are off

- Check the amplifier turn-on wire connection to the stereo or switch, and tighten or re-connect all wires, if needed (Connecting to Power, page 3).
NOTE: The amplifier and the stereo must connect to a common ground for the amplifier turn-on signal to function properly.
- Check the fuse or circuit breaker on the power cable (near the battery), and replace the fuse or reset the breaker, if needed.
- Check the fuses on the amplifier, and replace all blown fuses, if needed.
- Check the power and ground cable connections, and tighten or re-connect all cables, if needed.
- Make sure you are using the appropriate gauge for the length of the power cable run, and replace the cable with a thicker gauge, if needed (Power Cable Gauge Guide, page 3).

There is no sound, and the POWER LEDs are on

- Check the settings on the stereo, and make sure the appropriate zone out or subwoofer out signals are enabled.
NOTE: See your stereo owner's manual for more information on enabling or configuring output signals.
- Make sure the stereo is powered on and the volume is not set too low.
- Check the RCA cable connections to the stereo, and re-connect all disconnected cables, if needed.
- Check the LEVEL setting for the zone on the amplifier and the max volume setting for the zone on the stereo, and increase the LEVEL on the amplifier

or the max volume on the stereo, if needed (Adjusting the Level for a Zone, page 5).

- Check the speaker wire connections, and re-connect all disconnected wires, if needed.
- Check the power cables to make sure they are the appropriate gauge, are fused, and are connected properly (Connecting to Power, page 3).

One POWER LED is on, but the other POWER LED is off

- Check the fuses on the side of the amplifier where the POWER LED is off, and replace all blown fuses.

The PROT LEDs are on

The PROT LEDs indicate a fault in the system. When a fault is detected, the amplifier shuts down to prevent damage.

- Check the power and ground cables for cuts in the sleeving or bare wire contact, and correct, repair, or replace the cables if necessary.
- Check the speaker wires for cuts in the sleeving or bare wire contact, and correct, repair, or replace the cables if necessary.
- Check the temperature of the amplifier, and if the amplifier is very hot, move it to an area with better ventilation or install a ventilation fan (Mounting Considerations, page 2).

There is a hum or other unexpected noise from a speaker

- Install ground-loop isolators inline with the RCA cables from the stereo.

NOTE: You should install ground-loop isolators on all RCA cables connected to the stereo.

You should install ground-loop isolators on the RCA cables where they connect to the stereo, not where they connect to the amplifier.

The sound is distorted or clipping

- Check the output from the stereo, and adjust the zone line out to approximately ³/₄ volume if needed.
- Adjust the LEVEL setting on the amplifier for the zone or zones experiencing distortion or clipping until the issue is corrected.

NOTE: The level setting depends upon the type of music and not all levels are appropriate for all types of music. For example, if you adjust the level setting for rock music, then listen to classical music, you could experience distortion due to clipping.

物質宣言

| 部件名称 | 有毒有害物质或元素 | | | | | |
|------|-----------|---|---|-----|------|-------|
| | 铅 | 汞 | 镉 | 六价铬 | 多溴联苯 | 多溴二苯醚 |
| 电路板 | 0 | 0 | 0 | 0 | 0 | 0 |
| 箱体 | 0 | 0 | 0 | 0 | 0 | 0 |
| 附件 | 0 | 0 | 0 | 0 | 0 | 0 |

本表格依据 SJ/T11364 的规定编制。

0: 代表此种部件的所有均质材料中所含的该种有害物质均低于 (GB/T26572) 规定的限量

X: 代表此种部件所用的均质材料中, 至少有一类材料其所含的有害物质高于

(GB/T26572) 规定的限量

*該產品說明書應提供在環保使用期限和特殊標記的部分詳細講解產品的擔保使用條件。



產品



| | | | |
|--|---|---|---|
| Important Safety and Product Information | 2 | Belangrijke veiligheids- en productinformatie | 6 |
| Informations importantes sur le produit et la sécurité | | Vigtige produkt- og sikkerhedsinformationer | 7 |
| guida Informazioni importanti sulla sicurezza e sul prodotto | 3 | Tärkeitä turvallisuus- ja tuotetietoja | 7 |
| Wichtige Sicherheits- und Produktinformationen | | Viktig sikkerhets- og produktinformasjon | 8 |
| Información importante sobre el producto y tu seguridad | 3 | Guiden Viktig säkerhets- och produktinformation | 8 |
| Informações importantes sobre segurança e sobre o produto | 4 | 重要安全事項與產品資訊 | 9 |
| | 5 | 重要安全和产品信息 | 9 |
| | 5 | | |



Important Safety and Product Information

⚠ WARNING

Failure to heed the following warnings could result in an accident resulting in death or serious injury.

Marine Operation Warnings

- **You are responsible for the safe and prudent operation of your vessel.** This device does not relieve you from the responsibility of safely operating your vessel. Avoid navigational hazards and never leave the helm unattended.
- Always be prepared to promptly regain control of the vessel. Use caution near hazards in the water, such as docks, pilings and other vessels.

Hearing Damage Warning

Listening to the stereo at high volume can cause damage to your hearing.

Product Environmental Programs

Information about the Garmin® product recycling program and WEEE, RoHS, REACH, and other compliance programs can be found at www.garmin.com/aboutGarmin/environment.

Innovation, Science and Economic Development Canada Compliance

This device complies with Innovation, Science and Economic Development Canada license-exempt RSS standard(s).

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

FCC Compliance

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and may cause harmful interference to radio communications if not installed and used in accordance with the instructions. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet that is on a different circuit from the GPS device.
- Consult the dealer or an experienced radio/TV technician for help.

This product does not contain any user-serviceable parts. Repairs should only be made by an authorized Garmin service center. Unauthorized repairs or modifications could result in permanent damage to the equipment, and void your warranty and your authority to operate this device under Part 15 regulations.

Limited 3-Year Marine Consumer Warranty

Garmin New Zealand Limited, trading as FUSION® Entertainment ('FUSION'), warrants that this FUSION Marine product is free from defects in material and workmanship, according to the following terms and conditions:

- The limited warranty for the FUSION product purchased extends to 36 months beginning on the date of purchase of the product.
- The limited warranty extends only to consumers who purchase the product in one of the countries (or areas) set forth on www.fusionentertainment.com. The limited warranty is only valid in FUSION's intended country (or area) of sale of the product.
- During the limited warranty period, FUSION or its authorised service network will repair or replace (at FUSION's discretion), any defective product or parts thereof with new and return the product to the consumer in working condition. No charge will be made to the consumer for either parts or labour in repairing or replacing the product. All replaced parts and cosmetic parts should be free of defects at the time of shipment and, therefore shall not be covered under these limited warranty terms.
- Repaired product will be warranted for the balance of the original warranty period or for ninety (90) days from the date of repair, whichever is longer.
- All warranty claims must be accompanied with a copy of this warranty card, and a copy of proof of purchase.

The consumer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:

- The product has been subject to: abnormal use, abnormal conditions, improper storage, unauthorised modifications, unauthorised connections, unauthorised repair including but not limited to use of unauthorised spare parts in repairs, misuse, neglect, abuse, accident, alteration, improper installation, acts of God, spill of foods or liquids, maladjustment of customer controls or other acts which are beyond the reasonable control of FUSION, including deficiencies in consumable parts such as fuses, and breakage or damage to antennae unless caused directly by defects in materials or workmanship, and normal wear and tear of the product.
- FUSION was not notified by the consumer of the alleged defect or malfunction of the product during the applicable limited warranty period.
- The product serial number or the accessory date code has been removed, defaced or altered.
- The product was used with or connected to an accessory not supplied by FUSION or fit for use with FUSION product, or used in a manner other than its intended use.

If a problem develops during the limited warranty period, the consumer should take the following step-by-step procedure:

- 1 The consumer shall return the product to any authorised FUSION dealer in authorised sales countries for repair or replacement processing. FUSION assumes no freight or shipping responsibility for returning goods to an authorised FUSION dealer, or return freight from an authorised dealer to the consumer submitting the warranty claim.
- 2 The consumer shall be charged for any parts or labour charges not covered by this limited warranty. The consumer shall be responsible for expenses related to removal and reinstallation of the product.
- 3 If the product is returned to FUSION after the expiration of the warranty period, FUSION's normal service policies shall apply and the consumer will be charged accordingly.

The benefits conferred by this warranty apply to the extent that they are not superseded by any other rights and remedies available under any applicable legislation that cannot be excluded. In jurisdictions where implied or legal warranties may be excluded, any implied or legal warranty is hereby excluded and the foregoing warranty is the purchaser's sole and exclusive remedy and is in lieu of all other warranties, express or implied.

- Some states in America do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights which may vary from state to state.
- FUSION neither assumes nor authorises any authorised service centre or any person or entity to assume for it any other obligation or liability beyond that which is expressly provided for in this warranty.
- All warranty information, product features and specifications are subject to change without notice.

Limited 3-Year Marine Consumer Warranty for Australian Consumers

Garmin Australasia, 30 Clay Place, Eastern Creek, NSW 2766, Australia.

EMAIL: australia@fusionentertainment.com PHONE: 1800 235 822

THE FUSION PROMISE OF QUALITY LIMITED 3-YEAR CONSUMER WARRANTY

This warranty is given in addition to other rights and remedies available to the consumer under Australian Consumer Law. In addition to the FUSION Warranty, our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any others reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Garmin New Zealand Limited, trading as FUSION Entertainment ('FUSION'), warrants this FUSION Product including, Speaker, Subwoofer, Amplifier, Head Unit, or genuine FUSION Accessory 'product' is free from defects in materials and workmanship, in accordance with the following terms and conditions:

- The limited warranty for the FUSION product purchased is only available for (36) months after the date of purchase.
- The limited warranty extends only to the original consumer of the product and may not be assigned or transferred to any other person or consumer without FUSION's prior written consent being provided.
- During the limited warranty period, FUSION or its authorised service network will repair or replace any defective or faulty product or parts at its own cost.
- Repaired or replaced product will be warranted for the balance of the original warranty period or for ninety (90) days after the date of repair, whichever is longer.
- All warranty claims must be notified to FUSION or its authorised Dealer in writing during the warranty period accompanied with a copy of this warranty card, proof of purchase date and the product with an intact and unaltered serial number or accessory date code.

This warranty will not apply if:

The consumer causes the Product to be of unacceptable quality or fails to take steps to prevent the product from becoming of unacceptable quality and/or it is damaged by abnormal use. Examples of goods becoming of unacceptable quality or of abnormal use by the consumer include:

- Storage of product under improper conditions.
- Exposure to excessive moisture or dampness.
- Exposure to excessive temperature extremes or other adverse environmental conditions.
- Unauthorised modifications of product, connections or otherwise unauthorised repairs including, but not limited, to the use of unauthorised parts in the repair of products.
- Improper use of or installation of, or interference with, product adjustments or controls and or including antenna breakage or damage due to misuse.
- Damage caused by consumables or by electricity supply.
- Acts of god (force majeure), exposure of product to food spills, or any other type of fluid ingress.
- Using the product in a way for which was not intended to be used or connecting it to an accessory not supplied by, specified by, or authorised by FUSION.
- Any other abnormal use of or conduct causing product to become of unacceptable quality.

Other exclusions:

- This warranty extends to the repair or replacement of FUSION product only and the consumer is responsible for any expenses relating to the removal or installation of the product or related services including the cost of delivering the product to FUSION or its authorised dealer.
- Repair work conducted by FUSION after this warranty has expired or if this warranty for any other reason this Fusion warranty does not apply is subject to FUSION's normal service policies and FUSION charges for labour and material may apply.
- This is a manufacturers warranty provided to consumers of FUSION products. Variations to this warranty may only be made by FUSION and will be notified to the customer in writing or issued on the FUSION website. Fusion Dealers, agents and authorised dealers are not authorised to make changes or vary this FUSION warranty.
- All warranty information, product features and specifications are subject to change without notice.
- FUSION is not responsible for replacing or the cost of replacing any consumer data lost occurring either due to equipment failure or during the repair and replacement process.

Informations importantes sur le produit et la sécurité

⚠ AVERTISSEMENT

Si vous ne respectez pas les avertissements suivants, vous risquez un accident pouvant entraîner des blessures graves, voire mortelles.

Avertissements d'utilisation en milieu marin

- **Vous êtes responsable de l'utilisation sûre et prudente de votre bateau.** Cet appareil ne vous dégage pas de vos responsabilités en cas de non-respect de la sécurité à bord. Evitez tout danger de navigation et ne relâchez pas votre surveillance de la barre.
- Soyez toujours prêt à reprendre les commandes du navire. Soyez vigilant à proximité des points dangereux, tels que les quais et les autres navires.

Avertissement concernant la perte d'audition

En écoutant la stéréo à un volume trop élevé, vous risquez d'endommager votre audition.

Programmes environnementaux

Des informations relatives au programme Garmin de recyclage des produits ainsi qu'aux directives DEEE et RoHS, à la réglementation REACH et aux autres programmes de conformité sont disponibles à l'adresse www.garmin.com/aboutGarmin/environment.

Innovation, Sciences et Développement économique Canada – Conformité

Cet appareil est conforme aux normes RSS sans licence du ministère Innovation, Sciences et Développement économique Canada. Son fonctionnement est soumis aux deux conditions suivantes : (1) ce périphérique ne doit pas causer d'interférences et (2) doit accepter toute interférence, y compris les interférences pouvant entraîner un fonctionnement indésirable de l'appareil.

Garantie limitée de 3 ans s'appliquant aux utilisateurs en milieu marin

Garmin New Zealand Limited, exerçant sous le nom FUSION Entertainment (« FUSION »), garantit que ce produit FUSION Marine est exempt de tout défaut de matériel et de fabrication conformément aux conditions générales suivantes :

- La garantie limitée du produit FUSION acheté s'étend à 36 mois à compter de sa date d'achat.

- La garantie limitée s'étend uniquement aux consommateurs qui achètent le produit dans l'un des pays (ou régions) indiqués sur www.fusionentertainment.com. La garantie limitée est valide uniquement dans le pays (ou la région) de vente du produit FUSION.
- Pendant la période de garantie limitée, FUSION ou son réseau de services agréés pourra réparer ou remplacer (à la discrétion de FUSION) tout produit ou composant défectueux et renvoyer le produit au consommateur en état de marche. Aucun frais ne sera facturé au consommateur pour les composants ou la main-d'œuvre liés à la réparation ou au remplacement du produit. Tous les composants remplacés et les composants esthétiques doivent être exempts de tout défaut au moment de l'expédition et, par conséquent, ne sont pas couverts par les conditions de la présente garantie limitée.
- Le produit réparé sera garanti jusqu'à la fin de la période de garantie limitée ou pendant quatre-vingt-dix (90) jours à compter de la date de réparation, selon la période la plus longue.
- Toute demande de garantie doit être accompagnée d'un exemplaire de cette fiche de garantie et d'un exemplaire de la preuve d'achat.

Le consommateur n'est pas couvert ou ne bénéficie pas de la présente garantie limitée si l'une des conditions suivantes s'applique :

- Le produit a été soumis à : une utilisation anormale, des conditions anormales, un stockage inadéquat, des modifications non autorisées, des connexions non autorisées, une réparation non autorisée, y compris, mais sans s'y limiter, l'utilisation de composants de rechange, une mauvaise utilisation, une négligence, une utilisation abusive, un accident, une modification, une installation inadéquate, une catastrophe, des dommages liés aux aliments ou liquides renversés, un mauvais réglage des commandes du consommateur ou toute autre action échappant au contrôle de FUSION, y compris les défauts dans les consommables, comme les fusibles, et les bris et les dommages aux antennes, sauf s'ils sont causés directement par des défauts de matériel ou de fabrication, et l'usure normale du produit.
- FUSION n'a pas été informé par le consommateur du prétendu défaut ou dysfonctionnement du produit pendant la période de garantie limitée applicable.
- Le numéro de série du produit ou le code de date de l'accessoire a été effacé, abîmé ou modifié.
- Le produit a été utilisé ou connecté à un accessoire non fourni par FUSION ou non adapté à l'utilisation avec un produit FUSION, ou utilisé à des fins autres que celles pour lesquelles il a été conçu.

Si un problème apparaît pendant la période de garantie limitée, le consommateur doit suivre la procédure pas à pas suivante :

- 1 Le consommateur doit renvoyer le produit à tout revendeur FUSION agréé dans les pays de vente autorisés pour bénéficier d'une réparation ou d'un remplacement. FUSION ne prend pas en charge les frais de transport ou d'expédition pour le retour des produits à un revendeur FUSION agréé, ou les frais de transport d'un revendeur agréé au consommateur présentant la demande de garantie.
- 2 Le consommateur devra s'acquitter des frais liés aux composants ou à la main-d'œuvre non couverts par la présente garantie limitée. Le consommateur prendra en charge les dépenses liées au retrait et à la réinstallation du produit.
- 3 Si le produit est renvoyé à FUSION après l'expiration de la période de garantie, les politiques de service standard de FUSION s'appliquent et le consommateur sera facturé en conséquence.

Les avantages conférés par la présente garantie s'appliquent dans la mesure où ils ne sont pas modifiés par tout autre droit et tout autre recours existants en vertu de toute loi applicable qui ne peut être exclue. Dans les juridictions où les garanties légales ou implicites peuvent être exclues, toute garantie légale ou implicite est exclue par la présente, et la garantie qui précède est le seul et unique recours de l'acheteur et remplace toute autre garantie, explicite ou implicite.

- Certains états en Amérique interdisant l'exclusion ou la restriction des dommages consécutifs, la restriction et l'exclusion susmentionnées pourront ne pas vous concerner. La présente garantie vous octroie des droits particuliers, qui peuvent varier d'un état à l'autre.
- FUSION décline toute responsabilité et n'autorise aucun atelier de réparation agréé, personne ou entité à assumer en son nom une tout autre obligation ou responsabilité au-delà de celles expressément stipulées dans la présente garantie.
- Toutes les informations sur la garantie, les caractéristiques techniques et les fonctionnalités du produit peuvent être modifiées sans préavis.

Informazioni importanti sulla sicurezza e sul prodotto

⚠ AVVERTENZA

Il mancato rispetto delle indicazioni fornite di seguito potrebbe causare incidenti gravi o mortali.

Avvertenze sull'uso in ambiente nautico

- **Ogni utente è responsabile della navigazione sicura della propria imbarcazione.** che non esime l'utente dal navigare responsabilmente e con prudenza. Durante la navigazione, evitare le zone pericolose e non lasciare mai il timone.