

SIGNATURE SERIES WAKE TOWER SPEAKERS 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.

This device must be installed according to these instructions.

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

CAUTION

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.

To avoid possible personal injury, 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 to avoid damaging the vessel.

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 support.garmin.com for product support.

After installing an audio system, you should run the connected speakers and subwoofers at low to medium volumes for the first few hours of use. This helps to improve the overall sound by gradually loosening up the moving components of new speakers and subwoofers, such as the cone, spider, and surround.



Materials and Tools Needed

- Electric drill
- 12 mm ($1/2$ in.) drill bit
- Wire strippers
- 16 AWG (1.3 through 1.5 mm²) or larger marine-grade, fully-tinned copper speaker wire ([Speaker Wire Gauge Guide, page 3](#))
- 20 AWG (0.5 through 0.75 mm²) marine-grade, fully-tinned copper wire for the LED connections
- 3 A in-line fuse for the LED connections
- Speaker mounting bracket (sold separately)¹
- Solder and water-tight, heat-shrink tubing or water-tight, heat-shrink, butt-splice connectors (optional)
- Marine sealant (optional)

NOTE: For customized installations, additional tools and materials may be needed.

Mounting the Speakers

You must purchase mounting brackets for the Signature Series Wake Tower speakers separately. Each type of mounting bracket contains specific installation instructions.

- 1 If necessary, mark the locations on the wake tower or the deck where you plan to mount the speakers.
- 2 If necessary, drill a 12 mm ($1/2$ in.) cable pass-through hole in the wake tower or deck.
- 3 Route the speaker and LED power wires (not included) to the mounting locations.
- 4 Using the installation instructions provided with the mounting bracket, connect the bracket to the speakers and to the wake tower or the deck.
- 5 Connect the speaker wires ([Speaker Wiring, page 3](#)).
- 6 If necessary, connect the LED power wires ([LED Wiring, page 4](#)).

Adjusting the Angle of the Fusion Logos

NOTE: This feature is not applicable for 6.5" speaker models.

Before adjusting the angle of the Fusion logos, you should secure the speaker to the wake tower or the deck.

If you installed the speaker at an angle, you can rotate the front and the endcap of each speaker so the Fusion logos appear level.

- 1 Remove the six #2 Phillips screws holding the front of the speaker to the can.
- 2 Rotate the front of the speaker until the Fusion logo appears level.
You can rotate the front of the speaker in 30-degree increments.
- 3 Secure the front of the speaker to the can using the screws you removed in step 1.
- 4 Rotate the endcap on the back of the can by hand until the Fusion logo appears level.
- 5 Repeat this procedure for each speaker on the boat, as needed.

¹ Various brackets are available for mounting these speakers on a wake tower bar or on a deck. See your Fusion® dealer for more information.

Speaker Wiring

When connecting the speakers to your stereo or amplifier, observe these considerations.

- Speaker wire is not included. You should use 16 AWG (1.3 through 1.5 mm²) or larger speaker wire to connect the speakers to the stereo or amplifier.
- You should use a water-tight connection method when connecting the speaker wires. You can use crimp connectors instead of solder and heat-shrink if the crimp connectors can be routed through the bracket and the wake tower or your mounting location, so you should plan and select the best connection type for your installation needs.

You can use this table to identify the polarity of the leads on the speaker.

Lead color	Polarity
White	Positive (+)
White with a black stripe	Negative (-)

Speaker Wire Gauge Guide

You should use 16 AWG (1.3 through 1.5 mm²) fully-tinned copper speaker wire for most installations. You can use these tables to determine if you need to use a larger gauge of wire. These tables account for terminal connection resistance.

NOTE: If you are using aluminum 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.

4 Ohm Load (1 Speaker)

Distance between the amplifier and speaker	Wire gauge
From 0 to 28 ft. (from 0 to 8.5 m)	16 AWG (1.3 through 1.5 mm ²)
From 28 to 69 ft. (from 8.5 to 21 m)	12 AWG (3 through 4 mm ²)

2 Ohm Load (2 Speakers in Parallel)

Distance between the amplifier and speaker	Wire gauge
From 0 to 14 ft. (from 0 to 4 m)	16 AWG (1.3 through 1.5 mm ²)
From 14 to 35 ft. (from 4 to 10.5 m)	12 AWG (3 through 4 mm ²)

You can purchase the recommended speaker wire from your Fusion or Garmin® dealer.

- 16 AWG (1.3 through 1.5 mm²) wire:
 - 010-12899-00: 7.62 m (25 ft.)
 - 010-12899-10: 15.24 m (50 ft.)
 - 010-12899-20: 100m (328 ft.)
- 12 AWG (3 through 4 mm²) wire:
 - 010-12898-00: 7.62 m (25 ft.)
 - 010-12898-10: 15.24 m (50 ft.)
 - 010-12898-20: 100m (328 ft.)

LED Wiring

NOTICE

Using certain LED colors on the speakers, such as red and green, may violate the laws, regulations, and standards related to the use and/or operation of marine navigation lights. It is the user's responsibility to comply with any such applicable laws, regulations, and standards. Garmin is not responsible for any fines, penalties, citations, or damages that may be incurred due to any such lack of compliance.

It is recommended to install a Fusion CRGBW Wireless Remote Control module with these speakers to turn the LEDs on and off, change the colors, and create lighting effects. See your Fusion dealer or garmin.com for more information.

You should follow the instructions provided with the CRGBW Wireless Remote Control to connect the LED wires from the speakers to the remote control receiver module and to connect the receiver to power.

If you choose not to install the remote control, you can set the static color of the LEDs by connecting combinations of the LED wires directly to the power source (*Connecting the LED Wires Directly*, page 5).

Connecting the LED Wires Directly

If you do not install the recommended remote control, you can set the static color of the LEDs by connecting the color LED wires to the negative (-) terminal of a 12 Vdc power source. You can splice the negative (-) wire to multiple LED wires to customize the LED color and tone. You must connect the black LED wire to the positive (+) terminal of the same power source to complete the circuit.

You should use a water-tight connection method when connecting the LED wires. You can use crimp connectors instead of solder and heat-shrink if the crimp connectors can be routed through the bracket and the wake tower or your mounting location, so you should plan and select the best connection type for your installation needs.

You should use 20 AWG (0.5 through 0.75 mm²) or thicker wire to connect the LED wires to the battery.

You should use a water-tight connection method when connecting wire to the LED wiring harness.

You must connect the positive (+) wire (black) for all of the speaker LEDs to a 3 A fuse near the power-source. You should also connect the positive (+) power wire to the power source through an isolator switch or circuit breaker to turn the LEDs on and off. You can use the same isolator or circuit breaker controlling the power supply to your stereo, which allows you to turn the LEDs and the stereo on and off at the same time.

- 1 Connect the black wire on the LED cable to the positive (+) terminal of the power source .

NOTICE

To avoid damage to the speakers or the vessel, you must connect this wire through a 3 A fuse near the power source.

- 2 Connect the negative (-) wire from the same power source to one or more color wires on the LED cable according to the preferred LED color.

NOTICE

You must insulate any unused LED wires to avoid causing a short circuit.

LED Color	LED Wire Color
Red	Red
Green	Green
Blue	Blue
Yellow	Red and green
Magenta	Red and blue
Cyan	Blue and green
Cool white	Turquoise
Warm white	Yellow

NOTE: You can connect the cool white or warm white wire to change the tone of any LED color combination.

- 3 Repeat for other speakers, as needed.

Speaker Information

True-Marine™ Products

True-Marine products are subjected to rigorous environmental testing under harsh marine conditions to surpass industry guidelines for marine products.

Any product that bears the True-Marine stamp of assurance has been designed for simplicity of use and combines advanced marine technologies to deliver an industry leading entertainment experience. All True-Marine products are supported by the Fusion 3-year worldwide limited consumer warranty.

Cleaning the Speakers

NOTE: When mounted correctly, these speakers are rated IP65 for dust and water ingress protection under normal conditions. They are not designed to withstand high pressure water spray, which may occur when you wash down your vessel. Failure to carefully spray-clean the vessel may damage the product and void the warranty.

NOTICE

Do not use harsh or solvent-based cleaners on the speakers. Using such cleaners may damage the product and void the warranty.

- 1 Clean all salt water and salt residue from the speaker with a damp cloth soaked in fresh water.
- 2 Use a mild detergent to remove a heavy buildup of salt or stains.

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 speaker has been installed by a professional installation company, you should contact the company so the technicians can assess the problem and advise you about possible solutions.

There is no sound coming from the speakers

- Verify that all connections from the source device and/or the amplifier are connected correctly to the speaker terminals.

The system lacks bass or high frequencies

- Verify that the correct wire polarity is observed between the source and speakers.
The wires should be connected positive to positive and negative to negative.
- Verify that the speakers are attached firmly to the mounting surface.

The audio is distorted

- Verify that the source volume is not too loud for the speaker, and reduce the volume if necessary.
- Verify that the panels surrounding the speaker on the vessel are not rattling.
- Verify that the source device and/or the amplifier are connected to the speaker terminals correctly.
- If the speaker is connected to an amplifier, verify that the input level of the amplifier is matched to the output level of the stereo. For more information, see the manual for the amplifier.

The LED lights will not turn on

- Verify that all wiring connections are correct and tight.

Specifications

6.5" Models

Max. power (Watts)	230 W
RMS power (Watts)	75 W
Sensitivity (1 W/1 m)	90 dB
Frequency response	From 70 Hz to 22 kHz
Recommended amplifier power (RMS, playing music)	From 30 to 90 W
Nominal voice coil diameter	30 mm
Compass-safe distance	310 cm (122 in.)

8.8" Speakers

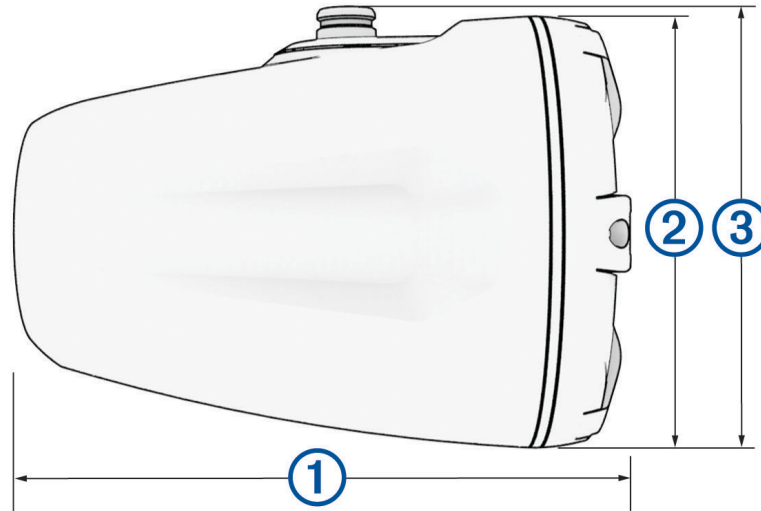
Max. power (Watts)	330 W
RMS power (Watts)	130 W
Sensitivity (1 W/1 m)	91 dB
Frequency response	From 50 Hz to 20 kHz
Recommended amplifier power (RMS, playing music)	From 25 to 140 W
Nominal voice coil diameter	38 mm
Compass-safe distance	412 cm (162 in.)

All models

Impedance	4 ohms
LED supply voltage	From 10.8 to 16 Vdc
LED load current at 14.4 Vdc (max.)	300 mA
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)
Cone material	CURV® cone with rubber surround
Tweeter type	Silk dome
Ingress protection rating	IEC 60529 IP65 ²

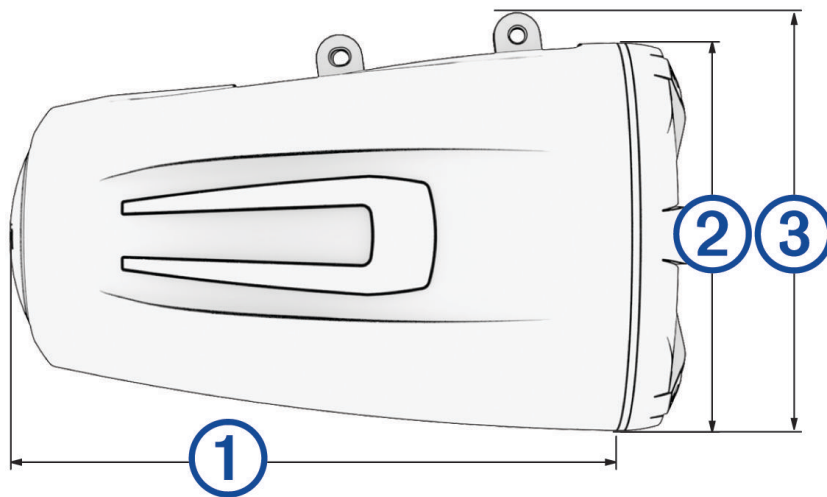
² Protected against dust and water ingress.

Dimensions



6.5" Models

①	234 mm (9 ⁷ / ₃₂ in.)
② Diameter	176 mm (6 ¹⁵ / ₁₆ in.)
③ to the center of the wake tower pole when using a 2 in. pipe mount.	216 through 235 mm (8 ¹ / ₂ through 9 ¹ / ₄ in.)
③ to the center of the wake tower pole when using a 2.5 in. pipe mount.	212 through 232 mm (8 ¹¹ / ₃₂ through 9 ¹ / ₈ in.)
③ to the mounting surface when using a flat mount.	242 mm (9 ¹⁷ / ₃₂ in.)



8.8" Models

①	385 mm (15 ³ / ₁₆ in.)
② Diameter	224 mm (8 ¹³ / ₁₆ in.)
③ to the center of the wake tower pole when using a fixed mount	257 mm (10 ¹ / ₈ in.)
③ to the center of the wake tower pole when using a swivel mount	284 mm (11 ³ / ₁₆ in.)
③ to the mounting surface when using a deck mount	292 mm (11 ¹ / ₂ in.)

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
塑料件	○	○	○	○	○	○
磁钢	○	○	○	○	○	○
金属连接件	○	○	○	○	○	○
金属结构件 (T 铁甲板)	○	○	○	○	○	○
电线	○	○	○	○	○	○
PC 混纺软件	○	○	○	○	○	○

本表格依据 SJ/T11364 的规定编制。

○: 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

✗: 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

* 该产品说明书应提供在环保使用期限和特殊标记的部分详细讲解产品的担保使用条件。



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