

# GARMIN<sup>®</sup>

## FORCE™ TROLLING MOTOR FOOT PEDAL INSTALLATION INSTRUCTIONS

### Getting Started

#### WARNING

Do not run the motor when the propeller is out of the water. Contact with the rotating propeller may result in severe injury.

Do not use the motor in areas where you or other people in the water may come into contact with the rotating propeller.

Always disconnect the motor from the battery before cleaning or servicing the propeller to avoid injury.

#### CAUTION

When stowing or deploying the motor, be aware of the risk of entrapment or pinching from moving parts, which can result in injury.

When stowing or deploying the motor, be aware of slick surfaces around the motor. Slipping when stowing or deploying the motor may result in 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 damage to your boat, this device should be installed by a qualified marine installer. Specific knowledge of marine electrical systems is required for proper installation.

### Tools Needed

- Two AA alkaline, NiMH, or lithium batteries (if powering with batteries)
- Four 5 mm (#10) stainless steel self-tapping screws (to secure the pedal to the boat deck)
- A drill and a 3 mm ( $\frac{1}{8}$  in.) drill bit (to secure the pedal to the boat deck)
- Marine sealant (to seal the screws when securing the pedal to the boat deck)

### Mounting and Power Considerations

When selecting a location for the foot pedal, observe these considerations.

- The foot pedal communicates wirelessly with the trolling motor, so you do not need to connect it to the motor using a cable.
- You can power the foot pedal by connecting it to a power source using the provided cable, or by using two AA batteries.
- If you prefer, you can mount the foot pedal to the boat deck. Mounting hardware is not provided.
- If your boat has a built-in or aftermarket foot pedal well, you can install the pedal in the well. Installation hardware is not provided.

### Installation Procedures

#### Connecting to Power

You can power the foot pedal by connecting it to the boat battery. If you prefer a completely wireless installation, you can power the foot pedal using AA batteries.

#### NOTICE

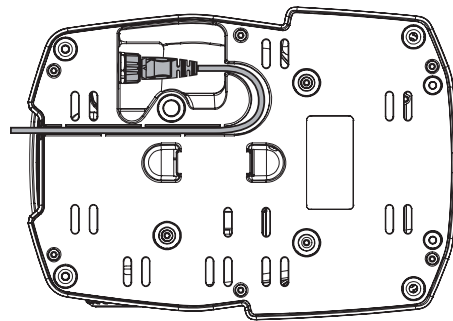
If you connect the foot pedal to the boat battery, you should not install AA batteries. Batteries left in the foot pedal for long periods may corrode and cause damage.

- 1 Route the included power cable to the boat battery or circuit breaker, and to the location where you plan to mount or use the foot pedal.

If needed, you can extend the power cable using 18 AWG (0.82 mm<sup>2</sup>) wire.


**NOTE:** If you extend the power cable, you must first remove the fuse and a re-install it between the boat battery or circuit breaker and the cable extension.

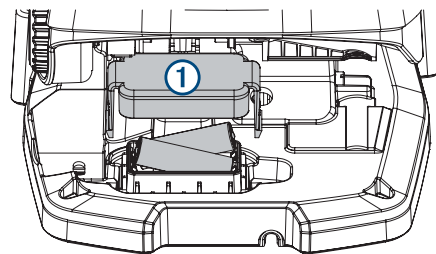
- 2 Connect the red wire to the positive terminal of the battery or breaker, and connect the black wire to the negative terminal.
- 3 Push the connector on the power cable onto the port on the bottom of the foot pedal, and turn the locking ring clockwise to secure it.
- 4 Route the power cable through the channel on the bottom of the foot pedal.



#### Installing Batteries

The foot pedal can operate using two AA alkaline, NiMH, or lithium batteries (not included). Use lithium batteries for best results.

- 1 Lift up the front of the foot pedal as far as possible.
- 2 Pinch the sides of the battery cover , and pull up to remove it.



- 3 Insert two AA batteries, observing polarity.
- 4 Place the battery cover over the batteries, and push down until both sides snap into place.

## Mounting the Foot Pedal on the Boat Deck

### NOTICE

You are not required to mount the foot pedal to the deck, but it is highly recommended, especially if you are powering it using batteries. An unsecured foot pedal may slide on the deck and fall off of the boat.

- 1 Determine the appropriate mounting hardware for your boat deck.  
You should use 5 mm (#10) stainless steel self-tapping screws whose length is determined by the material of your boat deck.
- 2 Place the included mounting template in the selected location.
- 3 Using a 3 mm ( $1/8$  in.) bit, drill the pilot holes indicated on the template, and remove the template.
- 4 Select an action:
  - If you are powering the foot pedal using batteries, check the weather cap on the power connector on the bottom of the foot pedal to make sure it is secured.
  - If you are powering the foot pedal using the included cable, connect the cable to the bottom of the foot pedal if you have not done so already.
- 5 Apply marine sealant to the pilot holes to prevent water from entering the boat deck (optional).
- 6 Secure the foot pedal to your boat deck using the mounting hardware.

### Mounting the Foot Pedal in a Foot Pedal Tray

Before you can mount the foot pedal in a tray, you must install the tray in the deck of your boat following the instructions provided with the tray.

If you plan to secure the foot pedal inside the tray, you must purchase the appropriate mounting hardware for the tray material.

**NOTE:** You should use 5 mm (#10) stainless steel self-tapping screws that are long enough to pass through any shim used and through the tray material.

- 1 Place the foot pedal into the tray and test the height of the pedal.
- 2 If necessary, place temporary shims under the pedal until it is at the height you want.  
After you determine the height, you should fabricate a permanent shim to install in the tray with the foot pedal *Fabricating a Permanent Shim*, page 2.
- 3 Select an action:
  - If you are powering the foot pedal using the included cable, connect the cable to the bottom of the foot pedal if you have not done so already.
  - If you are powering the foot pedal using batteries, check the weather cap on the power connector on the bottom of the foot pedal to make sure it is secured.
- 4 If you are using a shim to raise the height of the pedal, secure the shim to the bottom of the foot pedal (optional).
- 5 If you do not plan to secure the foot pedal to the bottom of the tray, place the pedal into the tray to complete the installation.
- 6 If you plan to secure the foot pedal to the bottom of the tray, trim and place the included mounting template in the tray.
- 7 Using an appropriate drill bit for the tray material and the mounting hardware, drill the pilot holes indicated on the template, and remove the template.

- 8 Apply marine sealant to the pilot holes to prevent water from entering the boat deck.
- 9 Secure the foot pedal (and shim, if necessary) to the tray using the mounting hardware.

### Fabricating a Permanent Shim

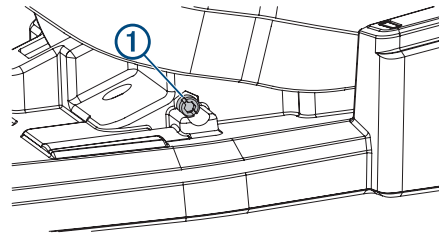
If you are installing the foot pedal in a tray and you would like to raise the height, you should fabricate a permanent shim to install under the pedal.

- 1 Purchase a suitable shim material, such as marine grade PVC, of the appropriate thickness for your installation.
- 2 Trace the shape of the tray on the shim material or a piece of paper.
- 3 Cut the shim from the material.
- 4 Place the shim into the tray to check the fit, and trim the edges as needed.
- 5 Locate the drain hole in the tray, mark the location of the hole on the shim, and drill a hole through the shim to allow water to drain properly.

### Adjusting the Tension

You can adjust the tension on the foot pedal if it moves too easily or not easily enough.

- 1 Locate the tension adjustment screw ① on the left side of the foot pedal.



- 2 Select an action:
  - Turn the screw clockwise to increase the tension.
  - Turn the screw counterclockwise to decrease the tension.
- 3 Test the foot pedal, and repeat the previous step until the foot pedal moves like you want it to.

## Specifications

Dimensions (L×W×H)	303 × 221 × 110 mm ( $11^{15}/_{16}$ × $8^{11}/_{16}$ × $4^{9}/_{16}$ in.)
Weight	1.8 kg (4 lb)
Operating temperature	From -15 to 70°C (From 5 to 158°F)
Water rating	IEC 60529 IPX7 <sup>1</sup>
Material	Plastic
Input voltage	From 10 to 45 Vdc
Typical input current	< 1 mA @ 12 Vdc
Max input current	10 mA @ 12 Vdc
Fuse (on the power cable)	2 A mini-blade type
Power cable length	2 m (6.6 ft.)
Battery type	Two AA batteries (Alkaline, NiMH, or lithium. Not included.)
Battery life	At least 1 year
Radio frequency	2.4 GHz @ 2.5 dBm nominal
Compass-safe distance	60 cm (2 ft.)

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<sup>1</sup> \*The device withstands incidental exposure to water of up to 1 m for up to 30 min. For more information, go to [www.garmin.com/waterrating](http://www.garmin.com/waterrating).

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