



## echo™ 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.

#### ⚠ CAUTION

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.

### Registering Your Device

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

- Go to <http://my.garmin.com>.
- Keep the original sales receipt, or a photocopy, in a safe place.

### Contacting Garmin Product Support

- Go to [www.garmin.com/support](http://www.garmin.com/support) and click **Contact Support** for in-country support information.
- In the USA, call (913) 397.8200 or (800) 800.1020.
- In the UK, call 0808 2380000.
- In Europe, call +44 (0) 870.8501241.

### Tools Needed

- Drill and drill bits
- #2 Phillips screwdriver
- Marine sealant
- 3/8 in. wrench or socket
- Masking tape
- Hardware for the swivel mount (not included)
  - Self-tapping, pan-head wood screws or pan-head bolts, either size #8 or a diameter of 5/32 in. (4 mm)
  - Appropriate washers and nuts (if selecting bolts)
  - Appropriate drill bit for drilling the pilot hole

### Mounting Considerations

The fishfinder device can be mounted using the included swivel-mount bracket, or it can be mounted flush with the dashboard using the appropriate flush-mount kit (sold separately).

Before permanently installing any part of your device, you should plan the installation by determining the location of the various components.

- The mounting location must provide a clear view of the screen and access to the keys on the device.
- The mounting location must be sturdy enough to support the device and the mount.
- The cables must be long enough to connect the components to each other and to power.
- The cables can be routed under the swivel mount or behind the device.

- To avoid interference with a magnetic compass, the device should not be installed closer to a compass than the compass-safe distance value listed in the product specifications.

### Installing the Swivel Base

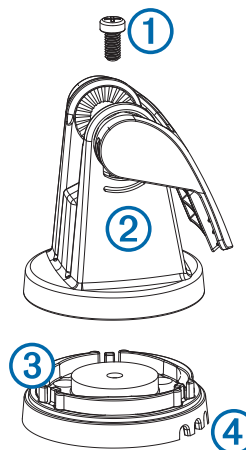
#### Preparing to Run Cables under the Mounting Surface

#### NOTICE

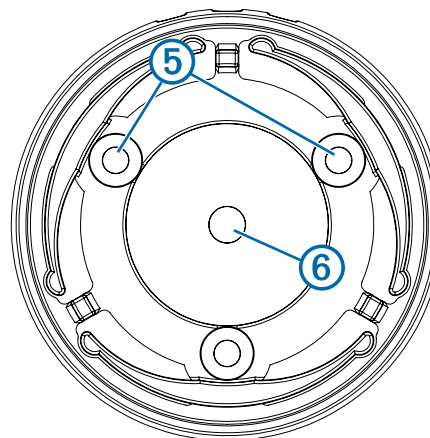
Use pan-head screws or bolts when securing the swivel-mount base. Screws or bolts with countersunk heads damage the base.

Before you can prepare the swivel-mount base, you must choose the location to install the mount and decide whether to attach the mount using screws or bolts.

- 1 Remove the 10 mm M6x1 Phillips screw ① and separate the swivel mount ② from the base ③.



- 2 Orient the swivel base so the pass-through holes ④ face the desired direction.
- 3 Using the swivel base as a template, mark the pilot hole locations ⑤.
- 4 Mark the cable routing hole ⑥.

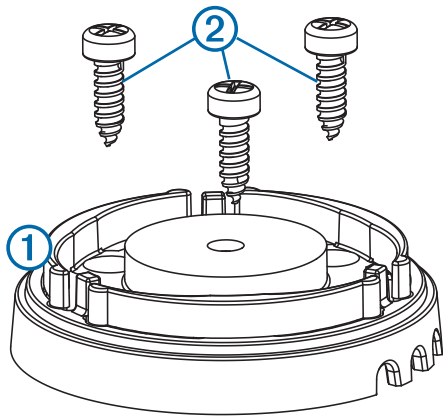


- 5 Using the appropriate drill bit for the hardware, drill the three pilot holes.
- 6 Using a 5/8 in. (16 mm) drill, drill a hole through the mounting surface at the location you marked in step 4.

#### Fastening the Swivel Mount without the Cables Running through the Mount

You should complete this procedure only if you are not running the power and transducer cables under the mounting surface and through the swivel-mount base.

- 1 Place the base ① on the mounting surface, and fasten it using the appropriate screws or bolts ②.



- 2 Place the swivel mount on the base, and replace the 10 mm M6×1 Phillips screw.
- 3 Seal the cable pass-through holes with marine sealant.

### Fastening the Swivel Mount with the Cables Running through the Mount

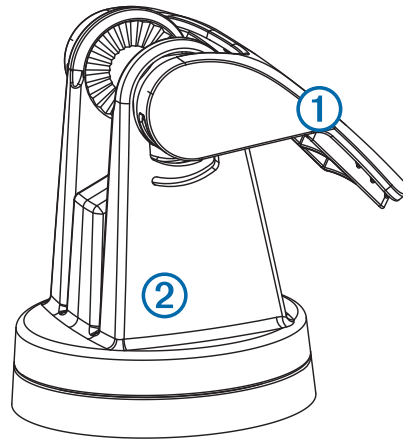
You should complete this procedure only if you are running the power and transducer cables under the mounting surface and through the swivel-mount base.

- 1 Feed the cables through the  $\frac{5}{8}$  in. (16 mm) center hole you drilled when preparing to run cables beneath the mounting surface.
- 2 Place the base on the mounting surface, and fasten it using the appropriate screws or bolts.
- 3 Route the cables through the cable pass-through holes.
- 4 Loosely fasten the base using the appropriate screws or bolts.
- 5 Place the swivel mount on the base, but do not fasten it.
- 6 Place the cradle or device into the swivel mount ([Installing the Device in the Cradle](#)).
- 7 Pull out enough slack from the power and transducer cables so the mount can fully swivel to the desired positions when the cables are connected.
- 8 Remove the cradle and the swivel mount from the base.
- 9 Apply marine sealant to the  $\frac{5}{8}$  in. (16 mm) center hole and to the cable pass-through holes.
- 10 Securely fasten the base with the appropriate screws or bolts.
- 11 Place the swivel mount on the base, and fasten it using the included 10 mm M6×1 Phillips screw.

### Installing the Device in the Swivel Mount

If your device uses a cradle, you must install the cradle into the swivel mount. If your device does not use a cradle, you must install the device into the swivel mount.

- 1 Pull up the locking arm ①.



- 2 Place the cradle or device into the swivel mount ②.
- 3 Tilt the mount to the desired viewing angle.
- 4 Press down the locking arm.

## Installing the Cables and Connectors

### Wiring to Power

- 1 Route the power cable from the swivel mount to the boat battery or fuse block.
- 2 If necessary, extend the wires using 20 AWG or larger wire.
- 3 Connect the red wire to the positive terminal on the battery or fuse block, and connect the black wire to the negative terminal.

### Connecting the Device to a Transducer

**NOTE:** The device goes into simulator mode if the connection is not secure between the device and transducer.

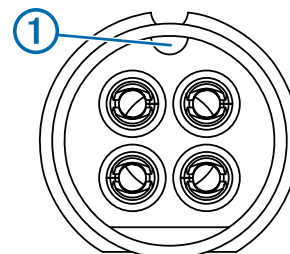
Go to [www.garmin.com](http://www.garmin.com) or contact your local Garmin® dealer to determine the appropriate type of transducer for your needs.

- 1 Follow the instructions provided with your transducer to correctly install it on your boat.
- 2 Route the transducer cable to the back of your device, away from sources of electrical interference.
- 3 Connect the transducer cable to the appropriate port on your device.

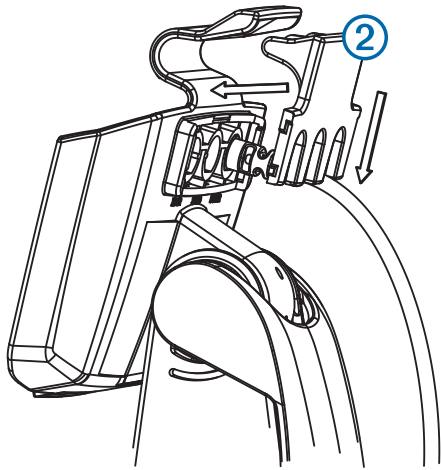
### Connecting the Cables to the Device

The connectors on the cables are keyed to fit only in the correct ports on the device or cradle. For devices that use the mounting cradle, the connected cables are held in place by a locking bracket. For devices that do not use a mounting cradle, the cables connect directly to the device.

- 1 Compare the divots ① on each cable connector to the keying on each port to determine which cable corresponds to each port.



- 2 Securely connect each cable to a port.
- 3 For devices that require the cradle, place the locking bracket ② over the cables and slide the bracket down to lock the cables in place.



There is an audible click when the locking bracket is correctly installed.

## Installing the Device in the Cradle

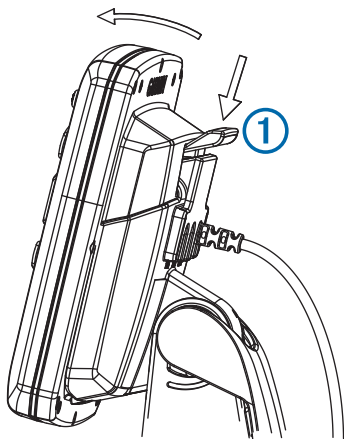
If your device uses a cradle and you have connected the cables to the cradle, you can quickly place the device in the cradle without plugging in any cables.

- 1 Place the base of the device in the bottom of the cradle.
- 2 Tilt the device toward the cradle until it fastens in place. There is an audible click when the device is secured in the cradle.

## Removing the Device from the Cradle

If your device uses a cradle and you have connected the cables to the cradle, you can quickly remove the device from the cradle without unplugging any cables.

- 1 Press the release lever ① on the cradle until the device is released.



- 2 Tilt the device forward, and lift it out of the cradle.

## Specifications

Specification	Models	Measurement
Case	All models	Fully gasketed, high-impact plastic, water resistant to IEC 60529 IPX7
Temperature Range	echo 101 and 201 series	From 5° to 158°F (from -15° to 70°C)
	echo 301 and 501 series	From 5° to 131°F (from -15° to 55°C)

Specification	Models	Measurement
Compass-Safe Distance	echo 101, 151, and 201	10 in. (250 mm)
	echo 301c	13.8 in. (350 mm)
	echo 501c and 551c	15.75 in. (400 mm)
Frequency	echo dv models	50/77/200 kHz, DownVü
	echo 101	200 kHz
	echo 151, 201, 301, and 501 series	50/77/200 kHz
Power Source Voltage Range	echo 101 series	from 10 to 20 V
	echo 201, 301, and 501 series	from 10 to 28 V
Fuse	All models	AGC/3AG - 3.0 A
Rated Current	All models	1 A
Transmit Power	echo 101 series	200 W (RMS), 1,600 W (peak-to-peak)
	echo 201 and 301 series	300 W (RMS), 2,400 W (peak-to-peak)
	echo 501 series	500 W (RMS), 4,000 W (peak-to-peak)

## Selecting the Transducer Type

Before you can select the transducer type, you must know what kind of transducer you have.

You may need to set the transducer type to make the sonar function properly.

- 1 From a sonar view, select **MENU > Setup > Sonar Setup > Transducer Type**.
- 2 Select an option:
  - If you have a 200/77 kHz, dual-beam transducer, select **Dual Beam**.
  - If you have a 200/50 kHz dual-frequency transducer, select **Dual Frequency**.
  - If you have a DownVü transducer, select **DownVü**.
  - If you have another type of transducer, select it from the list.

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