



Panoptix™ PS22-TR



Installation Instructions

Important Safety Information

⚠ WARNING

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

You are responsible for the safe and prudent operation of your vessel. Sonar is a tool that enhances your awareness of the water beneath your boat. It does not relieve you of the responsibility of observing the water around your boat as you navigate.

⚠ CAUTION

Failure to install and maintain this equipment in accordance with these instructions could result in damage or injury.

To obtain the best performance and to avoid damage to your boat, you must install the Garmin® device according to these instructions.

Read all installation instructions before proceeding with the installation. If you experience difficulty during the installation, go to support.garmin.com for more information.

Software Update

You may need to update the device software when you install the device or add an accessory to the device.

This device supports up to a 32 GB memory card, formatted to FAT32.

Loading the New Software on a Memory Card

You must copy the software update to a memory card using a computer that is running Windows® software.

NOTE: You can contact Garmin support to order a preloaded software update card if you do not have a computer with Windows software.

- 1 Insert a memory card into the card slot on the computer.
- 2 Go to www.garmin.com/support/software/marine.html.
- 3 Select the software update bundle that corresponds to the chartplotter to be updated.

NOTE: The software update bundle includes updates for all devices connected to the chartplotter. You can select See All Devices in this Bundle to confirm the devices included in the download.

- 4 Select **Download**.
- 5 Read and agree to the terms.
- 6 Select **Download**.
- 7 Choose a location, and select **Save**.
- 8 Double-click the downloaded file.
- 9 Select **Next**.

- 10 Select the drive associated with the memory card, and select **Next > Finish**.

A Garmin folder containing the software update is created on the memory card. The software update can take several minutes to load onto the memory card.

Updating the Device Software

Before you can update the software, you must obtain a software-update memory card or load the latest software onto a memory card.

- 1 Turn on the chartplotter.
- 2 After the home screen appears, insert the memory card into the card slot.
NOTE: In order for the software update instructions to appear, the device must be fully booted before the card is inserted.
- 3 Follow the on-screen instructions.
- 4 Wait several minutes while the software update process completes.
- 5 When prompted, leave the memory card in place and restart the chartplotter manually.
- 6 Remove the memory card.

NOTE: If the memory card is removed before the device restarts fully, the software update is not complete.

Registering Your Device

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

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

Tools Needed

- #2 Phillips screwdriver
- 3 mm flat screwdriver

Mounting Considerations

- Placement of the transducer on a trolling motor depends on the type of trolling motor you have installed on your boat.
- You should consider the operation modes before selecting a mounting location. Mounting the transducer on the trolling motor shaft is recommended for LiveVü Forward mode. Mounting the transducer on the trolling motor is recommended for LiveVü Down mode, or if you plan to switch between the forward and down modes.
- You must angle the transducer correctly for each mode to work properly (*Adjusting the Transducer Angle, page 3*).
- You can mount the transducer on the motor of some electrically steered trolling motors, but you must make sure you can safely deploy and retract the trolling motor with the transducer attached.
- You must mount the transducer so it does not obstruct the motor from being placed in its storage cradle or prevent the motor from being stowed and deployed correctly.
- Do not mount the transducer near strong magnetic fields, which interfere with the ability of the internal compass to measure the earth's magnetic field and prevent calibration. Failure to properly calibrate causes some map features to be unavailable, and waypoints created in LiveVü Forward mode use the boat heading instead of the transducer orientation to calculate your position.
- You must mount the transducer as far from the motor as possible while keeping the transducer submerged. Placing the transducer on the barrel of the trolling motor or too close

to the motor on the shaft, can prevent proper compass calibration.

- To use the compass, you must mount the transducer on the shaft. The compass does not work when you mount the transducer on the motor.

Effective Forward and Down Range

⚠ CAUTION

Water conditions and bottom conditions affect the depth and range performance of the transducer. You should use caution and observe the water depth and range, especially when your unit is operating in manual range or depth mode.

When operating in LiveVü Forward mode, the transducer has an effective forward range of between five and eight times the depth of the water. For example, in 3 m (10 ft.) of water, the effective forward range is between 15 and 24 m (between 50 and 80 ft.). Water conditions and bottom conditions affect the actual range. You should use caution and observe the water depth and forward range, especially when your device is in manual forward range mode.

When operating in LiveVü Down mode, the fore/aft range is equal to the depth of the water. For example, in 10 m (33 ft.) water depth, the screen will display 5 m (16 ft.) fore and 5 m (16 ft.) aft of the transducer. Deeper water provides a greater fore and aft range.

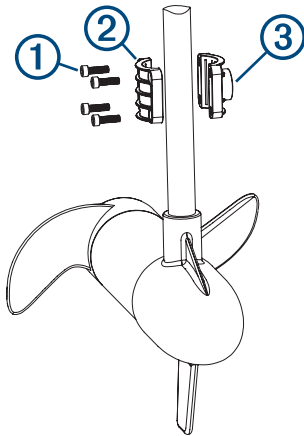
Trolling Motor Shaft Installation

This is the preferred mounting method for the LiveVü Forward mode. This method provides maximum separation between the motor and transducer, enabling optimum performance of the magnetic compass function.

This is not the recommended method for the LiveVü Down mode. The trolling motor barrel could block the sonar beam.

Assembling the Trolling Motor Shaft Mount Hardware

Use the M6 screws ① to attach the back of the trolling mount bracket ② to the front of the trolling mount bracket ③ around the trolling motor shaft.



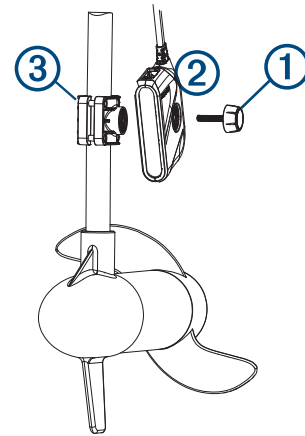
Installing the Transducer on the Trolling Motor Shaft Mount

NOTICE

You must secure the transducer cable to the shaft or other secure location during installation. Damage to the transducer cable wire or the cable jacket can cause transducer failure.

You should mount the transducer as far from the motor as possible. Placing the transducer too close to the motor can prevent proper compass calibration. Without successful compass calibration, the chartplotter does not display direction and coverage area indicators, but all other features function normally.

- 1 Use the enclosed knob ① or mounting bolt to attach the transducer ② to the trolling motor mount bracket ③.



- 2 Use cable ties to secure the transducer cable to the shaft or other secure location.
- 3 Route the Ethernet cable to the network switch or to the back of the chartplotter.
- 4 Route the power cable to a switched or unswitched 10-35 Vdc power source.

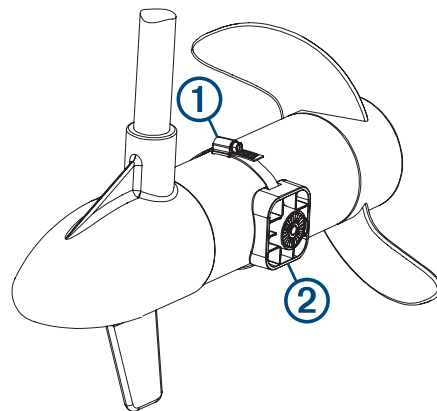
Trolling Motor Installation

This is the preferred mounting method for the LiveVü Down mode, or if you plan to switch between the forward and down modes. This method provides the maximum unobstructed view of the sonar beam.

Because of the close proximity of transducer to the strong magnetic fields from the trolling motor, the transducer's magnetic compass feature might not calibrate properly, and you might not be able to use that feature.

Assembling the Trolling Motor Mount Hardware

- 1 Insert the hose clamp ① through the slot on the trolling motor mount ②.



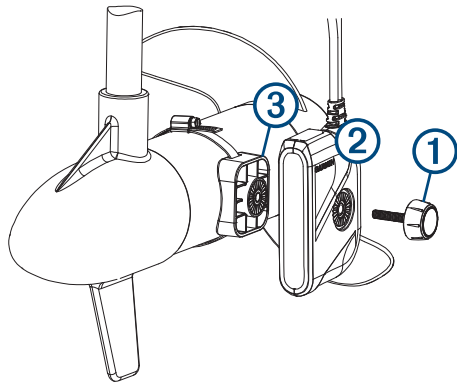
- 2 Slide the hose clamp around the trolling motor.
- 3 Tighten the hose clamp.

Installing the Transducer on a Trolling Motor

NOTICE

You must secure the transducer cable to the shaft or other secure location during installation. Transducer cable wire damage or damage to the cable jacket can cause transducer failure.

- 1 Use the enclosed knob ① or mounting bolt to attach the transducer ② to the trolling motor mount bracket ③.

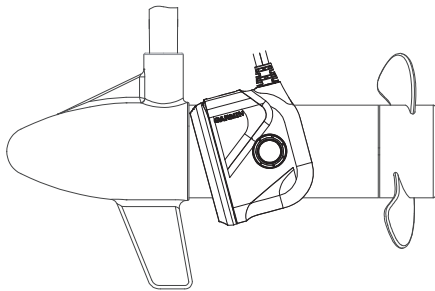


- 2 Use cable ties to secure the transducer cable to the shaft or other secure location.
- 3 Route the Ethernet cable to the network switch or to the back of the chartplotter.
- 4 Route the power cable through a switched or unswitched 10 to 35 Vdc power source.

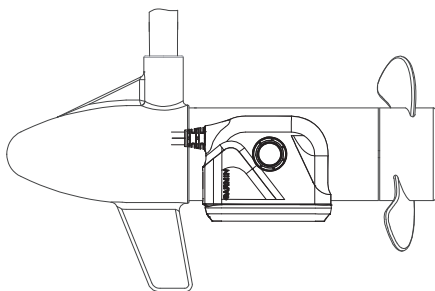
Adjusting the Transducer Angle

The transducer should be angled properly for optimal imagery in each mode.

- 1 With the transducer mounted, angle the transducer according to the mode you will use:
 - For LiveVü Forward mode, angle the transducer forward and slightly downward.



- For LiveVü Down mode, angle the transducer down.



TIP: You may want to experiment to find the best angle for your sonar needs.

- 2 Tighten the knob or mounting bolt so the device does not move during use.
- 3 On the chartplotter, select **Sonar**, and select **LiveVü Down** or **LiveVü Forward**.

Connecting the Transducer to Power and the Garmin Marine Network

⚠ WARNING

When connecting the power cable, do not remove the in-line fuse holder. To prevent the possibility of injury or product

damage caused by fire or overheating, the appropriate fuse must be in place as indicated in the product specifications. In addition, connecting the power cable without the appropriate fuse in place voids the product warranty.

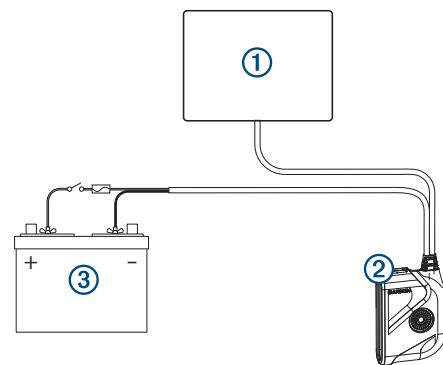
- 1 Route the cables using the appropriate tie wraps, fasteners, and sealant to secure the cables along the route, and through any bulkheads or the deck.
- 2 Connect the bare-wire end of the power cable to a 10 to 35 Vdc power source and to the ground *Installation Diagram*, page 3.

NOTE: A power switch is optional. The chartplotter automatically turns the transducer on and off.
- 3 Select an option:
 - Connect the network cable to the network or the Panoptix port on your chartplotter.
 - Connect the network cable to a port on the GMS™ 10, if available.

Cable Routing Grommets

When routing cables through your boat, it may be necessary to drill holes to route the cables. Cable routing grommets can be used to cover cable installation holes. The grommets do not create a waterproof seal. If necessary, apply a marine sealant after installation to weatherproof around the grommet and the cable. You can purchase grommets from your Garmin dealer or directly from Garmin at www.garmin.com.

Installation Diagram



Item	Description
①	Chartplotter
②	Panoptix PS22-TR
③	Power source (switch is optional)

Calibrating the Compass

Before you can calibrate the compass, the transducer must be installed on the shaft far enough away from the trolling motor to avoid magnetic interference, and deployed in the water. Calibration must be of sufficient quality to enable the internal compass.

NOTE: To use the compass, you must mount the transducer on the shaft. The compass does not work when you mount the transducer on the motor.

You can begin turning your boat before calibrating, but you must fully rotate your boat 1.5 times during calibration.

- 1 From an applicable sonar view, select **Menu > Sonar Setup > Installation**.
- 2 If necessary, select **Use AHRS** to turn on the AHRS sensor.
- 3 Select **Calibrate Compass**.
- 4 Follow the on-screen instructions.

Maintenance

Cleaning the Transducer

Aquatic fouling accumulates quickly and can reduce your device's performance.

- 1 Remove the fouling with a soft cloth and mild detergent.
- 2 If the fouling is severe, use a scouring pad or putty knife to remove growth.
- 3 Wipe the device dry.

Specifications

Specification	Measurement
Dimensions (W x H x L)	32 x 118 x 96 mm (1.3 x 4.6 x 3.8 in.)
Transducer weight	380 g (0.84 lb.)
Total weight (transducer, mount, and cable)	840 g (1.85 lb.)
Max. continuous power usage	8 W
Peak transmit power	48 W
Operating voltage	From 10 to 35 Vdc
Operating temperature range*	From 0 to 40°C (from 32 to 104°F)
Storage temperature range	From -40 to 70°C (from -40 to 158°F)
Material	ASA plastic
Maximum range**	91.4 m (300 ft.)
Frequency	417 kHz
Fuse rating	4.0 A mini 32 Vdc

* When the transducer is used out of the water, the transducer monitors the internal temperature and suspends operation until the temperature returns to the operating range.

**Dependent upon transducer placement, water salinity, bottom type, and other water conditions.

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