

GARMIN[®]

GCV™ 20 INSTALLATION INSTRUCTIONS

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.

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.

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. Keep the original sales receipt, or a photocopy, in a safe place.

- 1 Go to my.garmin.com/registration.
- 2 Sign in to your Garmin[®] account.

Tools Needed

- Drill and drill bits
- #2 Phillips screwdriver
- Cable ties (optional)
- Marine sealant (optional)

Mounting Location Considerations

- The sounder must be mounted in a location where it cannot be submerged.
- The sounder must be mounted in a location with adequate ventilation where it will not be exposed to extreme temperatures.
- The sounder should be mounted so that the LEDs are visible.
- The sounder should be mounted so that the power and network cables can be easily connected.
- The sounder should be mounted so that the transducer cable can be connected. If required, transducer extension cables are available through your Garmin dealer.

Installation Preparation

NOTICE

This device must be installed according to these instructions to get the best possible performance. If you experience difficulty with the installation, contact Garmin Product Support.

Because every boat is different, you must carefully plan the GCV 20 sounder installation.

- 1 Select a mounting location.

- 2 Mount the sounder.
- 3 Connect the sounder to the Garmin Marine Network and to power.
- 4 Connect the sounder to the transducer.

Mounting the Device

NOTICE

If you are mounting the bracket on fiberglass with screws, 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.

Stainless-steel screws may bind when screwed into fiberglass and overtightened. It is recommended to apply an anti-seize lubricant on the screws before installing them.

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

NOTE: Mounting hardware is included with the device, but it may not be suitable for the mounting surface.

- 1 Place the device in the mounting location and mark the location of the pilot holes.
- 2 Drill the appropriate 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 appropriate pilot holes for the other three marks.
- 6 Secure the device to the mounting location.

Connecting the Sounder

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.

NOTICE

Do not force a cable into its port. Forcing the cable can damage the pins. If the cable is properly aligned, the cable should connect easily.

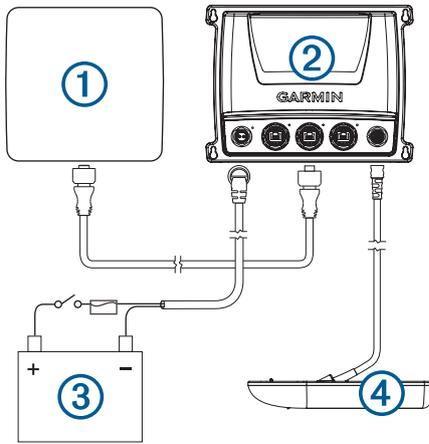
Before you connect the sounder to the network, power, and the transducer, you must mount the sounder (*Mounting the Device*, page 1).

- 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 Install the locking rings on the marine network and power cablesxxx.
- 3 Connect the bare-wire end of the power cable to a 12 Vdc power source and to ground.
- 4 Align the notch on the end of the power cable with the power port on the device, and press the cable into place.
- 5 Tighten the locking ring.
- 6 Select an option:
 - If your boat is equipped with a GMS™ 10 network port expander, connect the network cable to an available port on the GMS 10.

- If your boat is not equipped with a GMS 10 network port expander, connect the network cable directly to the network port on your chartplotter.

Installation Diagram

You can use this diagram to identify the connection points from your sounder to the network, power, and transducer.



Item	Description
①	Chartplotter
②	GCV 20
③	Power Source
④	Transducer

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.

Blink Codes

After the sounder is installed, it turns on when the chartplotter is turned on. The two-color (green and red) status LED on the sounder indicates its operational status.

LED Color	State	Status
Green	Slow blink	The sounder is connected to a chartplotter and is operating properly. You should see sonar data on the chartplotter.
Red	Slow blink	The sounder is turned on, but is not connected to a chartplotter, or is waiting to connect to a chartplotter. If the sounder is connected to the chartplotter and this code persists, check the wiring connections.
Red/ Green	Slow blink	The sounder is in test mode.
Red	Rapid blink sequence	System error. The chartplotter displays a message indicating the type of failure. When the error condition is fixed, the sounder must be completely disconnected from and reconnected to its power source to clear the error.

Specifications

Specification	Measurement	
Size (W × H × D)	192 x 251 x 66 mm (7.6 x 9.9 x 2.6 in.)	
Weight	845 g (1.86 lb.)	
Case material	Fully gasketed, polycarbonate plastic	
Water rating*	IEC 60529 IPX7	
Temperature range	From -15° to 70°C (from 5° to 158°F)	
Power input	From 10 to 35 Vdc	
Power usage	10.5 W maximum	
Fuse	4.0 A, mini 42 Vdc, fast-acting, blade-type	
Compass safe distance	260 mm (10.2 in.)	
Transmit power (RMS)**	500 W	
Frequency	CHIRP 260/455/820/1120 kHz	
Maximum depth/ distance***	Garmin ClearVü™	260 kHz: 152 m (500 ft.)
		455 kHz: 91 m (300 ft.)
		820 kHz: 61 m (200 ft.)
	SideVü	260 kHz: 152 m (500 ft.)
		455 kHz: 91 m (300 ft.)
		820 kHz: 61 m (200 ft.)
		1120 kHz: 38 m (125 ft.)
Data output	Garmin Marine Network	

*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.

**Dependent upon transducer rating and depth.

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

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