GARMIN

GARMIN ONBOARD™
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.

Failure to install this device according to these instructions could result in personal injury, damage to the vessel or device, or poor product performance.

⚠ CAUTION

For the best possible performance and to avoid potential injury, damage to the device, or damage to your vessel, installation by a qualified marine installer is recommended.

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.

Tools Needed

- Drill and a 2 mm ($^{5}/_{64}$in.) drill bit
- Wire cutters and strippers
- Marine grade tap splice connector for 22 AWG wire or solder and heat-shrink tubing
- Cable ties
- #2 Phillips screwdriver for mounting the GOS™ 10 hub
- #1 Phillips screwdriver for mounting the optional antenna
- 18 AWG (0.75 mm²) and 22 AWG (0.34 mm²) wire for possible cable extensions

Important Installation and Usage Requirements

NOTICE

Users are responsible for ensuring that the installation and use of this device complies with the American Boat and Yacht Council (ABYC) A-33 standard and any other applicable laws, regulations, or standards.

The Garmin OnBoard engine cutoff system is designed to meet the ABYC A-33 standard regarding emergency engine/propulsion cut-off devices. When using this system, observe the following considerations:

- Power to the GOS 10 hub should be tied to engine ignition in a way that it is operational when the engines are running. If the Garmin OnBoard engine cutoff system is installed and not powered on when the engines are running, it is not compliant with the A-33 standard.
- When the engines and the Garmin OnBoard engine cutoff system are running, you must have an MOB tag with the Captain role assigned, paired, and connected.

Garmin OnBoard Engine Cutoff System Installation Planning

The Garmin OnBoard engine cutoff system consists of a central hub that connects to power and to the same NMEA 2000® network as a Garmin® chartplotter or other compatible display device. The hub monitors the presence of Man Overboard (MOB) tags wirelessly and can react in different ways when a tag moves outside the range of the hub. For example, if a passenger falls out of the vessel while underway. The system can provide an alert only, or it can also cut off the engine, depending on how you program it based on the roles of the tags.

When planning the installation, observe these considerations.

- You should install the GOS 10 hub near the helm so it can monitor the presence of the boat captain most effectively.
- The hub requires power, so you must install it in a location where you can route power and ground wires to a 12 VDC power source.
- You should make sure that you can reach the existing NMEA 2000 backbone to connect the hub. If you do not currently have a NMEA 2000 network on your boat, you must install one before you can use the Garmin OnBoard system.
- To enable the Garmin OnBoard system to turn off the boat engines, you must connect the hub to the appropriate engine wiring. Depending on your boat, you can connect the hub to either an existing kill switch or to the ignition signal wire to the engines. This connection should be made near the helm.

Mounting Considerations

When selecting a mounting location for the GOS 10 hub, observe these considerations.

⚠ CAUTION

Failure to observe these considerations when selecting a mounting location for the GOS 10 hub could result in product performance issues, damage to the vessel or device, or possible personal injury.

NOTICE

This device should be mounted in a well-ventilated location that is not exposed to extreme temperatures or conditions. The temperature range for this device is listed in the product specifications. Extended exposure to temperatures exceeding the specified temperature range, in storage or operating conditions, may cause device failure. Extreme-temperature-induced damage and related consequences are not covered by the warranty.

- You should mount the hub in a location that is not surrounded by metal or enclosed in an area that would block wireless communication with an MOB tag.

  NOTE: If it is not possible to install the hub in a location that allows for clear wireless communication, you can install and route the included antenna in a different location to improve the signal strength (*External Antenna Considerations*, page 11).
- You should mount the hub in a location that is easily accessible, so you can physically disable it to regain power to the engines in the rare case of a Garmin OnBoard engine cutoff system malfunction.
- You should mount the hub near the helm, so you can secure the alarm buzzer in the wiring harness in a location where you can easily hear it while piloting the vessel.
- You must mount the hub in a location that is not submerged or prone to heavy water exposure.
- To avoid potential water ingress, you should mount the device in a vertical orientation if possible, against a bulkhead, with all connected cables pointing downward.

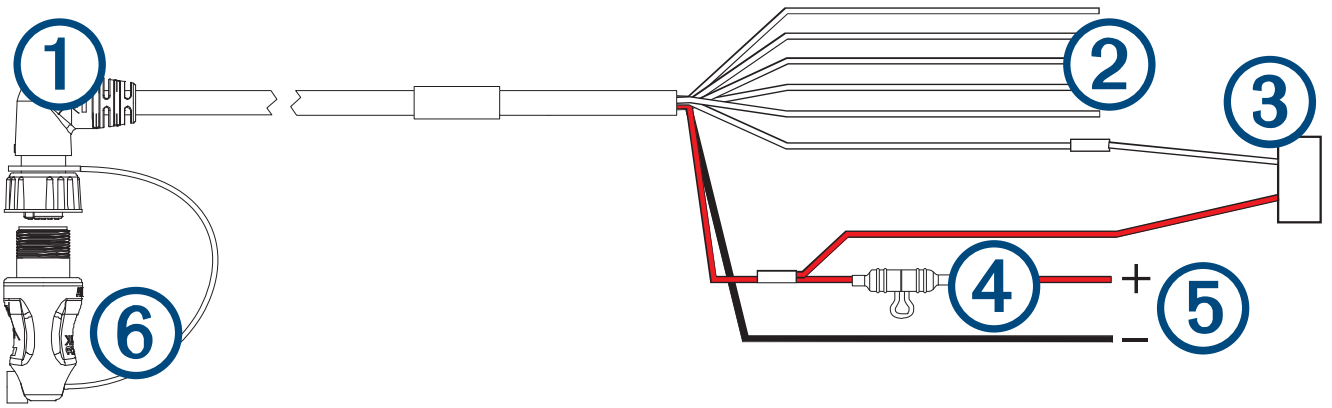
Connection Considerations

When connecting the GOS 10 hub to power, data, and the engine or engines, observe these considerations.

- You must connect the GOS 10 hub to the same NMEA 2000 network as the chartplotter you plan to use when programming and interacting with the Garmin OnBoard engine cutoff system (*GOS 10 Hub NMEA 2000 Connection*, page 6).
- You must connect the hub to a 10 to 35 Vdc power source using the included wiring harness (*GOS 10 Hub Power Connection*, page 5).
  - You must connect the hub to the same power and ground as the engine ignition signal.
  - When extending the power and ground wires, you should use 18 AWG (0.75 mm²) or larger wire.
- You must connect the hub to the kill switch or ignition signal wire or wires from your engine or engines using the included wiring harness.
  - The wire or wires used for this connection from the included wiring harness depends on the type of cutoff method used by your engine (*Garmin OnBoard Engine Shutoff Connections*, page 7).
  - When extending the engine cutoff wires, you should use 22 AWG (0.34 mm²) or larger wire.

GOS 10 Hub Wiring Harness

You must connect the appropriate wires from the included wiring harness to power and to the wiring of an existing kill switch or to the engine ignition wire.



Item	Description
①	GOS 10 hub wiring harness
②	Engine cutoff wires (*Garmin OnBoard Engine Shutoff Connections*, page 7)
③	Alarm buzzer (*Installing the Audible Alarm Buzzer*, page 11) The black wire from the alarm buzzer is connected to the gray wire from the harness at the factory. The red wire from the alarm buzzer is connected to the power (+) wire from the harness at the factory.
④	1A 125V inline fuse
⑤	Power wires (*GOS 10 Hub Power Connection*, page 5) Red: positive (+) Black: ground (–)
⑥	System bypass module (*Bypassing the System from the GOS 10 Hub*, page 13)

② Engine Cutoff Wires

Wire Function	Wire Color
Engine 1: Close-to-stop	White
Engine 2: Close-to-stop	Yellow
Engine 3: Close-to-stop	Green
Engine 4: Close-to-stop	Purple
Engine 1: Open-to-stop in	Orange
Engine 1: Open-to-stop out	Pink
Engine 2: Open-to-stop in	Blue
Engine 2: Open-to-stop out	Brown

Mounting the GOS 10 Hub

Before you can mount the device, you must select a location in accordance with the mounting considerations.

1. Hold the device on the mounting surface, and mark the locations for the pilot holes.
2. Remove the device from the mounting surface.

NOTICE

Do not drill through the GOS 10 hub when drilling the mounting holes because this may damage the device and void the warranty.

3. Using a 2 mm ($^{5}/_{64}$in.) drill bit, drill the pilot holes.
4. Ensure the mounting holes on the device line up with the pilot holes.
5. Fasten the included screws into the pilot holes, leaving room to attach the device.

NOTICE

Do not apply grease or lubricant to the screws when fastening the device to the mounting surface. Grease or other lubricants can cause damage to the device housing.

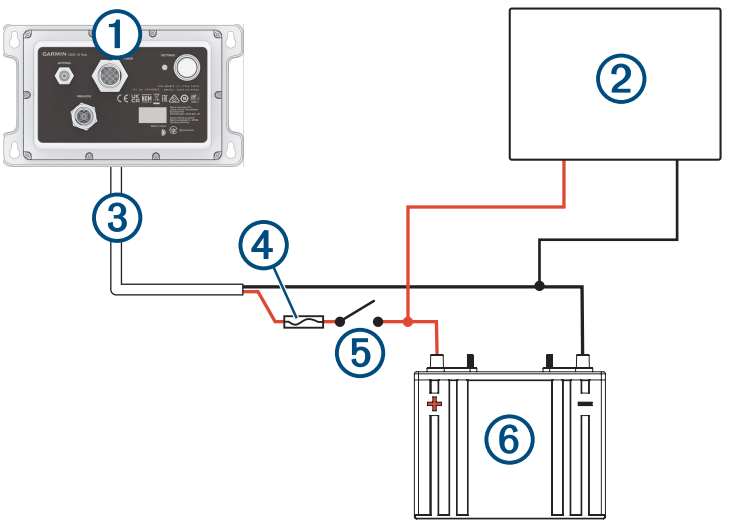
6. Place the device over the screw heads, and slide the device downward to lock it into place.
7. Secure the device to the mounting surface by tightening the four screws until they are snug.

NOTICE

Do not overtighten the screws. This may crack the housing.

GOS 10 Hub Power Connection

If needed, you can extend the power wires using 18 AWG (0.75 mm²) wire with solder and heat shrink or waterproof connectors.



Item	Description	Notes
①	GOS 10 hub	**NOTICE** You must connect the GOS 10 hub to the same power source as the engines for the engine cutoff functionality to work properly.
②	Engine or engines	
③	GOS 10 hub power and engine wiring harness	Red: positive (+) Black: ground (-)
④	1 A fuse or breaker	You must connect the positive wire to power through either the included inline 1 A fuse, or through a 1 A breaker. If you connect the power wire to a breaker, you should remove the inline fuse.
⑤	Ignition or external switch	The GOS 10 hub does not turn off with the NMEA 2000 network or with other Garmin devices. You must connect the power wire through either an accessory switch or a separate physical switch. **NOTICE** Connecting the power wires directly to the battery will drain the boat battery when the boat is not in use.
⑥	12 Vdc power source	

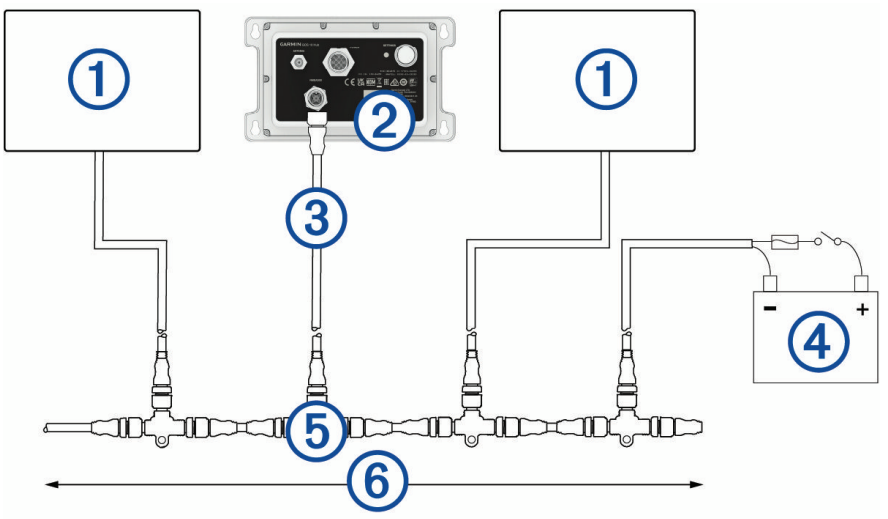
GOS 10 Hub NMEA 2000 Connection

You must connect the GOS 10 hub to the same NMEA 2000 network as at least one compatible Garmin chartplotter for the system to function properly.

You can use the included NMEA 2000 drop cable and T-connector to easily connect the device to your existing NMEA 2000 network. If you do not have an existing NMEA 2000 network on your vessel, you must purchase the necessary cables and connectors to construct it before you can use the Garmin OnBoard engine cutoff system.

If you are unfamiliar with NMEA 2000, you should read the *Technical Reference for NMEA 2000 Products* at (garmin.com/manuals/nmea_2000).

NOTE: The GOS 10 hub does not receive power from the NMEA 2000 network.



Item	Description
①	Compatible Garmin chartplotter or other NMEA 2000 devices
②	GOS 10 hub
③	NMEA 2000 drop cable
④	9-12 VDC power source
⑤	NMEA 2000 T-connector
⑥	NMEA 2000 backbone

Garmin OnBoard Engine Shutoff Connections

⚠ WARNING

After installing the Garmin OnBoard engine cutoff system , you must test the system to ensure the engine or engines turn off when expected (*Testing the Garmin OnBoard Engine Cutoff System*, page 12). Using the vessel without testing the engine cutoff system may result in property damage, serious injury, or death.

When an MOB tag stops communicating with the GOS 10 hub, indicating that the person wearing the tag has fallen overboard, the system can be programmed to turn off the engine or engines. For this function to work properly, you must connect the appropriate wire or wires from the GOS 10 hub to the existing kill switch wiring on your boat. If your vessel does not have an existing kill switch, you must instead connect the wiring harness to the ignition signal wire or wires for your engine or engines (*Connections for Vessels Without an Existing Kill Switch*, page 10).

While planning this installation, it is important to know that there are two types of kill switch setups that determine which wires you must connect from the GOS 10 hub wiring harness.

- Close-to-stop design
  - The circuit to the engine or engines from the kill switch is normally open, and any signal that closes the circuit causes the engine to stop.
  - This is the most commonly used type of kill switch and is typically found on vessels with outboard engines.
- Open-to-stop design
  - The circuit to the engine or engines from the kill switch is normally closed, and any signal that opens the circuit causes the engine to stop.
  - This is a less commonly used type of kill switch and is typically found on vessels with inboard engines.

NOTICE

You should consult the documentation for your boat or engine to accurately determine the wire or wires used for the existing kill switch on your vessel, or to determine the ignition wire or wires if your boat does not have an existing kill switch.

If you have an existing kill switch on your vessel, you may be able to identify the appropriate wire or wires by locating the wires that connect to the kill switch.

If your vessel has an outboard engine or engines, you can consult these wiring assignments for outboard engines on common vessel and engine types to help identify the appropriate kill-switch wire for your installation.

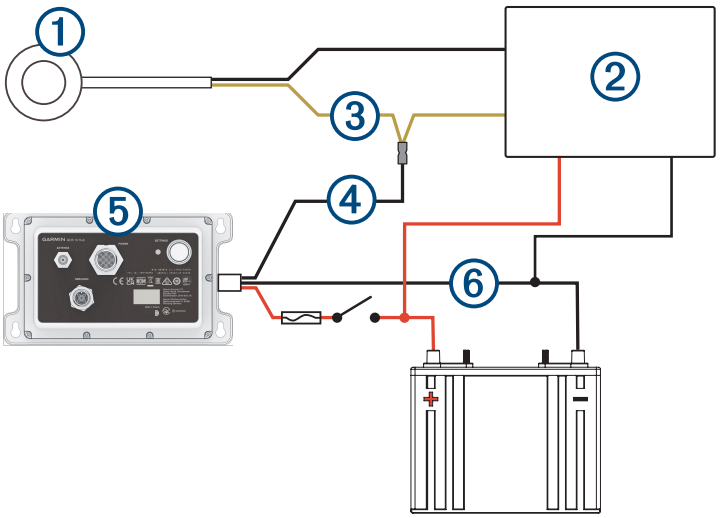
NOTICE

The wire color list in this table is not maintained by Garmin, the colors are not guaranteed to be correct, and this information should act only as a starting point. You should verify all wire colors using official documentation from the vessel or engine manufacturer, and you must test all connections prior to using the product. Connecting the GOS 10 hub to an incorrect wire can result in unexpected performance, including engine inoperability.

Engine Manufacturer	Typical Kill-Switch Wire Color
Evinrude® and Johnson®	Black with a yellow stripe
Mercury®	Black with a yellow stripe
Honda®	Black with a red stripe
Suzuki™	Green
Yamaha®	White

Close-to-Stop Wiring Connections

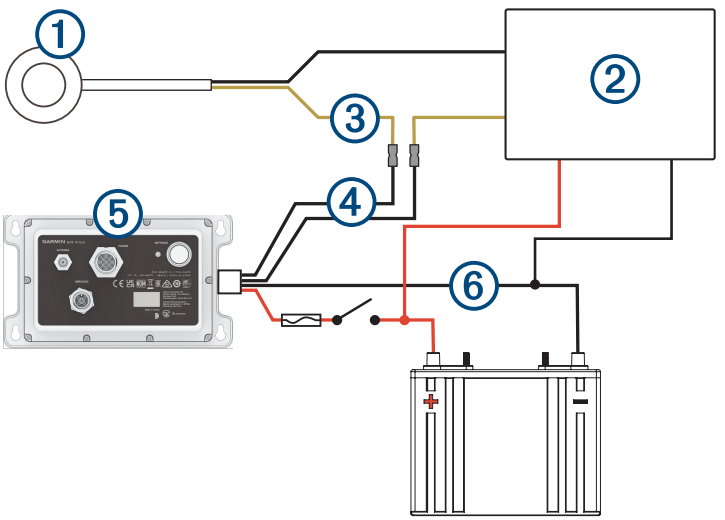
For a close-to-stop kill switch, the circuit to the engine or engines from the kill switch is normally open and any signal that closes the circuit causes the engine to stop. This is the most commonly-used type of kill switch and is typically found on vessels with outboard engines.



Item	Description	Notes
①	Existing kill switch	
②	Engine or engines	
③	Kill switch signal wire	
④	White close-to-stop wire from the GOS 10 hub wiring harness	In most installations, you only need to connect the white wire from the wiring harness to the positive wire from the existing kill switch by either using a marine-grade tap splice connector (not included), or by cutting the kill switch wire and connecting both cut ends of the kill switch wire and the white wire from the wiring harness using solder and heat shrink tubing. By splicing the kill switch signal wire from the GOS 10 hub in this manner, it allows the system to close the circuit and kill the engine. This preserves the functionality of the existing kill switch. If your vessel does not have an existing kill switch, you can connect these wires to the ignition signal wire instead (*Connections for Vessels Without an Existing Kill Switch*, page 10).
⑤	GOS 10 hub	
⑥	Ground wire from the GOS 10 hub wiring harness	You must connect the ground wire from the GOS 10 hub to the same ground location as the engine for the engine cutoff system to function properly.

Open-to-Stop Wiring Connections

For an open-to-stop kill switch, the circuit to the engine or engines from the kill switch is normally closed, and when the circuit opens, it causes the engine to stop. This type of kill switch is used more rarely and is typically found on vessels with inboard engines.



Item	Description	Notes
①	Existing kill switch	
②	Engine or engines	
③	Kill switch signal wire	
④	Orange and pink open-to-stop wires from the GOS 10 hub wiring harness	In an open-to-stop installation, you must connect the orange wire from the wiring harness to the positive wire from the existing kill switch, and the pink wire from the wiring harness to the other end of the signal wire going to the engine. By routing the kill switch signal wire through the GOS 10 hub in this manner, it allows the system to open the circuit and kill the engine. This preserves the functionality of the existing kill switch. If your vessel does not have an existing kill switch, you can connect these wires to the ignition signal wire instead (*Connections for Vessels Without an Existing Kill Switch*, page 10).
⑤	GOS 10 hub	
⑥	Ground wire from the GOS 10 hub wiring harness	You must connect the ground wire from the GOS 10 hub to the same ground location as the engine for the engine cutoff system to function properly.

Connections for Vessels Without an Existing Kill Switch

Most vessels have an existing kill switch that you can leverage to install the Garmin OnBoard engine cutoff system so it can perform the necessary action to kill the engine or engines when needed. If your vessel does not have an existing kill switch, you must instead connect the wiring harness to an engine ignition wire or wires to perform this action.

NOTICE

Incorrectly installing the Garmin OnBoard engine cutoff system when connecting to the engine ignition may not allow the system to properly cut off the engines when needed. You must test the installation prior to using the vessel.

When installing the Garmin OnBoard engine cutoff system in a vessel without an existing kill switch, follow the same instructions for connecting to an existing kill switch, while observing these considerations.

- You must consult the documentation for your engine to accurately identify the ignition wire or wires.
- Similar to kill-switch wiring, you must determine whether the engine uses a close-to-stop or open-to-stop method to stop the engines through the ignition wire.
- If you have multiple engines, they may all use one combined ignition wire, or they may each use a separate ignition wire.

If your vessel has multiple engines and multiple ignition wires, in addition to the previous considerations you should also observe these considerations.

- You can connect up to four engines that use a close-to-stop method. See the table below to identify each close-to-stop wire when connecting to multiple engines.
- You can connect up to two engines that use an open-to-stop method. See the table below to identify each open-to-stop wire pairing when connecting to multiple engines.
- If your vessel has more than four close-to-stop engines or more than two open-to-stop engines that each use a dedicated ignition wire, then you must consult the vessel or engine manufacturer for assistance. Many manufacturers have a module or a method for combining these signals that is required when installing the Garmin OnBoard engine cutoff system.

Close-to-Stop Ignition Wires From the GOS 10 Hub

Wire Function	Wire Color
Engine 1	White
Engine 2	Yellow
Engine 3	Green
Engine 4	Purple

Open-to-Stop Ignition Wires From the GOS 10 Hub

Wire Function	Wire Color
Engine 1: Open to stop in	Orange
Engine 1: Open to stop out	Pink
Engine 2: Open to stop in	Blue
Engine 2: Open to stop out	Brown

Installing the Audible Alarm Buzzer

An audible alarm buzzer is included in the wiring harness for the GOS 10 hub. This alarm provides alerts when various statuses or events are triggered by the system, and should be installed in a location near the helm so the captain and other users can hear it. Make sure that the buzzer is not covered or surrounded by anything that may dampen the sound, because the ABYC A-33 standard requires the audible alarm to measure a minimum of 85dB at the operator position. Installing the alarm near the helm and uncovered should meet this requirement.

The alarm is already connected to the necessary power and signal wires, so no additional wiring connections are needed other than connecting the wiring harness to the hub.

The alarm wire length is 4 m (13 ft.). If this is not long enough to reach the proper installation location, you can cut and extend this using 22 AWG (0.34 mm²) wire and waterproof splice connectors.

1. If necessary, connect the wiring harness to the GOS 10 hub.
2. Route the alarm to a location near the helm or a suitable location where users can hear alerts.
3. Secure the alarm to a stable structure using zip ties or another suitable fastener.

NOTICE

When securing the alarm, ensure that the hole faces either to the side or downwards. Installing the alarm with the hole facing upwards may allow water to pool in the hole and damage the alarm.

External Antenna Considerations

NOTICE

The GOS 10 hub contains an internal antenna, and it is recommended to install the hub in a location that does not block this signal. If your installation required you to select a location for the hub that interferes with the internal antenna, such as a location surrounded by metal or similar materials, you can install the included optional external antenna if needed.

When installing the external antenna, observe these considerations.

- You should test the system using the internal antenna in the GOS 10 hub before connecting the external antenna. The external antenna is optional and is meant to be used only when the internal antenna is blocked or diminished due to the installation location.
- You must install the external antenna in a location at least 20 cm (7.9 in.) away from personnel on the vessel due to FCC and ISED requirements.

Installing the External Antenna

1 Temporarily place the external antenna in the intended location, and route the cable to the location of the GOS 10 hub.

NOTICE

The length of the antenna cable is 1.8 m (6.0 ft.) and cannot be extended. Extending the cable could result in poor system performance.

2 Connect the antenna cable to the ANTENNA port on the GOS 10 hub, screwing the connector finger-tight.

3 Using the included wrench, tighten the antenna connector $^{1}/_{4}$ turn.

NOTICE

Over-tightening the connector by turning it more than $^{1}/_{4}$ turn using the wrench can damage the connector.

4 Test the performance of the connection with the antenna, and relocate it if needed.

5 After testing and determining the ideal location for the antenna, mark the locations of the two pilot holes.

6 Using a 2 mm ($^{5}/_{64}$ in.) drill bit, drill the pilot holes.

7 Remove the protective covering over the adhesive on the base of the antenna and place it in the confirmed location.

8 Using a #1 Phillips screwdriver and the included screws, secure the antenna to the surface.

Garmin OnBoard Engine Cutoff System Configuration

When you purchase a Garmin OnBoard engine cutoff system, the GOS 10 10 hub is paired with the included MOB tag at the factory, and no additional pairing is needed.

By default, the included MOB tag is programmed with the Captain role, because the Garmin OnBoard system requires a connected Captain tag to be paired.

You can purchase and pair additional tags and add them to the system for additional passengers on the vessel.

See the *Garmin OnBoard Owner's Manual* or the latest version of your chartplotter owner's manual for more information about adding, removing, and changing the roles of MOB tags.

Testing the Garmin OnBoard Engine Cutoff System

⚠ WARNING

After installing the Garmin OnBoard engine cutoff system, you must test the system to ensure that the engines or engines turn off when expected. Using the vessel without testing the engine cutoff system may result in property damage, serious injury, or death.

It is critical that you test the functionality of the Garmin OnBoard engine cutoff system after you have finished the installation. The easiest way to accomplish this is by using a test procedure included in the software. If the system does not shut off the engines as expected, you must investigate and correct any errors before using the vessel.

1 On a connected chartplotter, select ⚙ > **Communications** > **NMEA 2000 Setup** > **Device List**.

2 Select the **GOS 10 Hub**.

3 Select **Review** > **Test Engine Cutoff** > **OK**

4 Confirm that the engine or engines turn off as expected for the duration of the test.

5 Select **Review** > **Test Buzzer** > **OK**.

6 Confirm that the buzzer sounds and is audible on the vessel.

7 If necessary, perform any adjustments to the engine cutoff system connection or the buzzer connection, and repeat these tests.

System Bypass

The Garmin OnBoard engine cutoff system is designed with two methods you can use to bypass the system. These methods allow you disable engine control and restore typical functionality in the case of an emergency.

Bypassing the System From a Chartplotter

One method to bypass the Garmin OnBoard engine cutoff system is by using a connected chartplotter.

Bypassing the engine cutoff system using the chartplotter is possible only when the system has cut off the engines due to a man overboard event with a Captain tag, or when testing the system. This option is not available during normal operation.

Within 30 seconds after the system has cut off the engines, select one of these options on a connected chartplotter:

- Select **Yes** in the message that reads **Do you want to be able to restart the engine now?**[1]
- On an MOB screen, select **Disable Cutoff**.[1]
- Select > **Communications** > **NMEA 2000 Setup** > **Device List**, select the **GOS 10 Hub**, then select **Review** > **Engine Cutoff** > **Disable**.

The Garmin OnBoard engine cutoff system is now disabled, and the engines should be restored to previous functionality.

NOTICE

The system remains disabled until you enable it again or until you turn off the system and turn it back on again. You must enable the system as soon as possible to be compliant with the AYBC A-33 standard.

To restore the Garmin OnBoard engine cutoff system functionality, select > **Communications** > **NMEA 2000 Setup** > **Device List**, select the GOS 10 Hub, then **Review** > **Engine Cutoff** > **Enable**.

Bypassing the System from the GOS 10 Hub

If the bypassing the Garmin OnBoard engine cutoff system using a connected chartplotter does not work as expected, or if you prefer to use a different method, you can bypass the system directly from the GOS 10 hub.

NOTICE

Because the hardware-bypass feature requires access to the GOS 10 hub, you should install the hub in an easily-accessible location as noted in the Mounting Considerations chapter in the installation instructions. Mounting the GOS 10 hub in a tight or inaccessible location will affect your ability to bypass the system using this method.

1 Disconnect the wiring harness from the GOS 10 hub.

2 Connect the bypass module to the wiring harness connector, and tighten the locking ring.

The bypass module should be tethered to the connector end of the wiring harness.

The Garmin OnBoard engine cutoff system is now disabled, and the engines should be restored to previous functionality.

NOTICE

The system remains disabled until you enable it again. You must enable the system as soon as possible to be compliant with the AYBC A-33 standard.

[1] This option is available only during an man-overboard event initiated by an MOB tag with the captain role. This message does not appear when testing the system.

To restore the Garmin OnBoard engine cutoff system again, disconnect the bypass module and reconnect the wiring harness to the GOS 10 10 hub.

Software Updates

You can go to garmin.com/support/software/marine/ to find information on the latest software updates for your Garmin marine devices.

Specifications

GOS 10 Hub

Dimensions (H x W x D)	155 x 92 x 60 mm (6 x 3.6 x 2.4 in.)
Weight	171 g (6 oz.)
Water resistance	IEC 60529 IPX7[2]
Temperature range	From -15 to 55°C (from 5 to 131°F)
Fuse	1A 125V fast-blow inline
Input voltage	From 10 to 35 Vdc
Max. power usage	1 W
Typical current draw at 12 Vdc	50 mA
Typical current draw at 24 Vdc	25 mA
Wireless frequency and protocol	Bluetooth® technology 2.4 GHz @ +7 dBm nominal
Compass-safe distance	20 cm (7.87 in.)
Optional antenna[3]	Type: Monopole Gain: 0.96 dBi Impedance: 50 Ohm

Status LED

The GOS 10 hub has an LED next to the SETTINGS button that flashes a color you can use to troubleshoot problems, if necessary.

LED Color	Status
Green	The device is operating normally.
Blue	The device is in pairing mode or actively pairing.
Purple	The device software is being updated.
Yellow	The device is operating in a degraded state. You can use the chartplotter to better determine the cause (*Reviewing Potential Issues with the System*, page 15).
Red	There is an error with the device or system. Contact Garmin product support for assistance.

[2] 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.
[3] This radio transmitter, 1792A-A4870, has been approved by innovation, Science and Economic Development operates with the antenna types specified here, with the maximum permissible gain indicated. Antenna types not listed that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use.

Reviewing Potential Issues with the System

If the LED on the GOS 10 hub is flashing yellow, or if you are experiencing issues with the system, you can review potential causes of the issue.

1. On a connected chartplotter, select > **Communications** > **NMEA 2000 Setup** > **Device List**.
2. Select the **GOS 10 Hub**.
3. Select **Review**.

NMEA 2000 PGN Information

Transmit and Receive

059392	ISO acknowledgment
059904	ISO request
060160	Transport protocol, data transfer
060416	Transport protocol
060928	ISO address claimed
061184	Single frame proprietary
126208	Command, request, and acknowledge group function
126464	Transmit and receive PGN list group function
126720	Fast packet proprietary
126993	Heartbeat
126996	Product information

Transmit

126464	PGN list group function
126998	Configuration information
127233	Man overboard notification (MOB)

Receive

065240	Commanded address
129029	GNSS position data

MOB Tag

Dimensions (H x W x D)	44 x 39 x 12 mm (1.7 x 1.5 x 0.5 in.)
Weight	21.5 g (0.76 oz.)
Water resistance	IEC 60529 IPX8 (5 ATM)[4]
Temperature range	From -15 to 55°C (from 5 to 131°F)
Battery type and voltage	CR2032 coin-cell, 3 V
Wireless frequency and protocol	Bluetooth technology 2.4 GHz @ +8 dBm nominal

[4] The device withstands pressure equivalent to a depth of 50 m. For more information, go to www.garmin.com/waterrating.

联系信息

制造厂商 : 台湾国际航电股份有限公司
销售厂商 : 上海佳明航电企业管理有限公司
联络地址 : 上海市徐汇区桂平路 391 号 (新漕河泾国际商务中心 A 座 37 层)
电 话 : 021-60737675
客服专线 : 400-819-1899

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	邻苯二甲酸二(2-乙基己)酯	邻苯二甲酸丁苄酯	邻苯二甲酸二丁酯	邻苯二甲酸二异丁酯
印刷电路板组件	X	O	O	O	O	O	O	O	O	O
金属零件	X	O	O	O	O	O	O	O	O	O
电池	O	O	O	O	O	O	O	O	O	O
塑料和橡胶零件	O	O	O	O	O	O	O	O	O	O

本表格依据 SJ/T11364 的规定编制。

O: 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

X: 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。

产品

M/N: AA4870
M/N: A04626
人员落海警示系统
人員落海警示系統