

## MS-ERX400 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.

### What's In the Box

- Mounting gasket
- Mounting template
- Four 8-gauge, self-tapping screws
- Two screw covers
- Dust cover
- Network/power cable

### Tools Needed

- Phillips screwdriver
- Electric drill
- Drill bit (size varies based on surface material and screws used)
- Rotary cutting tool or jigsaw
- Silicone-based marine sealant (optional)

### Mounting Considerations

- You must mount the remote control on a flat surface.
- If there is not much clearance behind the mounting surface or you prefer to drill a smaller hole in the mounting surface, you can use an MS-ERX400 spacer accessory (010-12922-02)
- If you are connecting the remote control to a stereo that may be exposed to water, add a drip loop to the cable near the stereo to allow water to drip off of the cable and avoid damage to the stereo. The drip loop should include the Ethernet cable and the power wires.
- If you need to mount the remote control on the exterior of a boat, you must mount it in a location far above the waterline, where it is not submerged, and where it cannot be damaged by docks, pilings, or other pieces of equipment.
- To avoid interference with a magnetic compass, you must install the remote control at least 15 cm (5.9 in.) away from a compass.

### Mounting the Remote Control

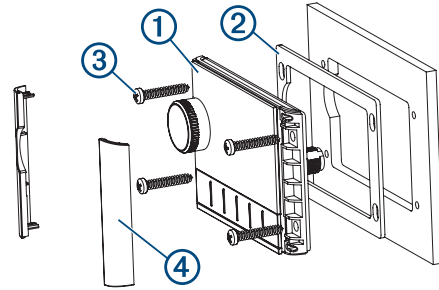
**NOTICE**

Do not use the remote control as a template when drilling the mounting holes because this may damage the remote control and void the warranty.

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

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

- 1 Trim the template and adhere it to the mounting surface.
- 2 Drill a hole inside the corner of the dashed line on the template, and use a jigsaw or rotary cutting tool to cut along the inside of the solid line on the template.  
**NOTE:** If you are using the accessory spacer and you would like a smaller hole in the surface, use a 44 mm (1<sup>3</sup>/<sub>4</sub>) hole saw to cut the hole shown on the template.
- 3 Ensure the mounting holes on the remote control ① line up with the pilot holes on the template.



- 4 Using an appropriately sized drill bit for the mounting surface and screw type, drill the pilot holes.
- 5 Remove the template from the mounting surface.
- 6 Complete an action:
  - If you are installing the remote control in a dry location, place the included mounting gasket ② on the back of the remote control.
  - If you are installing the remote control in a location that is exposed to water, apply silicone-based marine sealant on the mounting surface around the cutout.

**NOTICE**

Do not install the included mounting gasket if you applied sealant to the mounting surface. Using sealant and the mounting gasket may reduce water resistance.

- 7 If you are using the spacer accessory, install the gasket or sealant on the back of the spacer.
- 8 If you will not have access to the back of the remote control after installation, connect the network/power cable to the back of the remote control, and tighten the locking ring.
- 9 If you are using the spacer accessory, install the spacer and gasket or sealant between the mounting surface and the remote control.  
Refer to the diagram that came with the spacer.
- 10 Secure the remote control to the mounting surface using the included screws ③.
- 11 Snap the screw covers in place ④.

### Power and Network Considerations

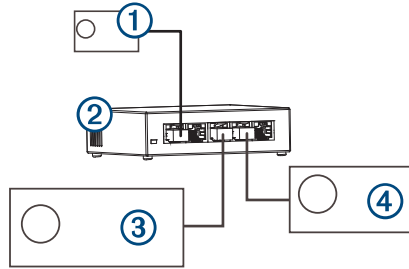
If you must extend the power and ground wires, you must use the appropriate gauge of wires. 18 AWG (0.82 mm<sup>2</sup>) wires are suitable for most installations.

If you must extend the network cable, extension cables and couplers are available. See your Garmin<sup>®</sup> dealer for details.



This remote control can either connect to a single stereo, such as an MS-RA770, or it can connect to the Fusion PartyBus™ network to view and control all of the stereos on the network.

You can use this example to help plan a basic Fusion PartyBus network. If you need information about creating a more advanced network with additional stereos and devices, see the installation instructions for your compatible stereo.



①	MS-ERX400 remote control
②	Wired network switch or wired network router
③	Compatible stereo, such as an MS-RA770
④	Compatible stereo, such as an MS-RA670

### Connecting to Power and the Network

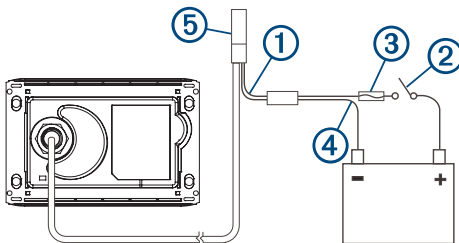
- 1 Route the network/power cable to the stereo or to the network switch or router.

#### NOTICE

Do not connect the cable to the stereo until after you have connected the power wires to avoid possible damage to the stereo.

**TIP:** To avoid running additional wires to the battery, you can connect the power and ground wires from this remote control to the power and ground wires used by the stereo. The stereo should be connected to power through the ignition or another manual switch.

- 2 Connect the red power wire ① to the positive (+) battery terminal through the ignition or another manual switch ②.



#### ⚠ WARNING

Do not remove the in-line fuse holder ③, to prevent the possibility of injury or product damage caused by fire or overheating. Connecting the wire without the appropriate fuse in place voids the product warranty. If you must extend the wire run, you should relocate the fuse so it is near the power source.

- 3 Connect the black ground wire ④ to the negative (-) battery terminal.
- 4 Select an option:
  - If you are using this device to control one stereo and do not have additional devices on a Fusion PartyBus network, connect the network connector ⑤ to the ETHERNET port on the stereo.
  - If you have a network on the boat connecting multiple compatible devices, connect the network connector ⑤ to an open port on the network switch or router.

## More Information

### Software Updates

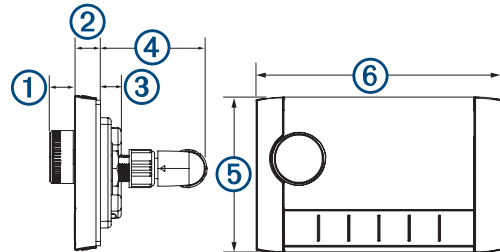
You must update the software for this device using a connected compatible stereo or using the Fusion-Link™ app. To make sure the device functions correctly with all compatible stereos on the Fusion PartyBus network, you should update the software in all FUSION devices after you install this device.

For software update instructions, see the online owner's manual for this device or for a connected compatible stereo.

### Specifications

Dimensions (W × H)	11 × 7 cm (4.32 × 2.76 in.)
Dust cover dimensions (W × H)	11.8 × 8 cm (4.66 × 3.15 in.)
Weight (excluding cable)	100 g (3.5 oz.)
Input voltage	From 10.8 to 32 Vdc negative ground
Current (normal operation)	Normal operation: 150 mA at 12 Vdc Normal operation: 125 mA at 14.4 Vdc
Current (device off)	STANDBY MODE enabled: 19 mA at 14.4 Vdc STANDBY MODE disabled: 7 mA at 14.4 Vdc
Fuse	1 A ATO blade-type
Compass-safe distance	15 cm (6.1 in.)
Operating temperature	From 0 to 50°C (from 32 to 122°F)
Storage temperature	From -20 to 70°C (from -4 to 158°F)
Water rating	IEC 60529 IPX6 and IPX7 <sup>1</sup>

### Dimensions



Item	Measurement
①	12.3 mm (0.48 in.)
②	10 mm (0.39 in.)
③	10.9 mm (0.43 in.)
④	49.1 mm (1.93 in.)
⑤	70 mm (2.76 in.)
⑥	110 mm (4.32 in.)

<sup>1</sup> The device withstands incidental exposure to water of up to 1 m for up to 30 min, and is protected against powerful jets of water.