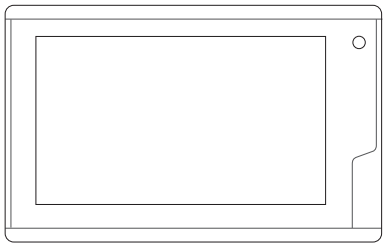
GARMIN



RV FIXED DISPLAY 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.

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.

⚠ 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.

⚠ CAUTION

To obtain the best performance and to avoid damage to your RV, install the device according to these instructions.

Read all installation instructions before proceeding with the installation. If you experience difficulty during the installation, contact Garmin® Product Support.

Loading the New Software on a Memory Card

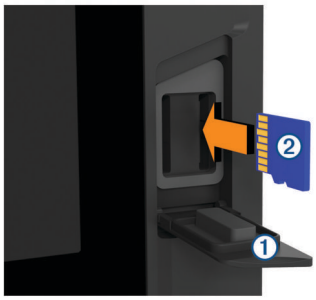
1. Insert a memory card into the card slot on the computer.
2. Go to www.garmin.com, and locate the product page.
3. Select **Software** from the product page.
4. Select **Download**.
5. Read and agree to the terms.
6. Select **Download**.
7. Select **Run**.
8. Select the drive associated with the memory card, and select **Next** > **Finish**.

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 device, and wait for the home screen to appear.

   NOTE: In order for the software update instructions to appear, the device must be fully booted before the card is inserted.
2. Open the memory card door ①.



3. Insert the memory card ②, and press it in until it clicks.
4. Close the door.
5. Follow the on-screen instructions.
6. Wait several minutes while the software update process completes.

   The device returns to normal operation after the software update process is complete.
7. Remove the memory card.

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

Contacting Garmin Support

- Go to support.garmin.com for help and information, such as product manuals, frequently asked questions, videos, and customer support.
- In the USA, call 913-397-8200 or 1-800-800-1020.
- In the UK, call 0808 238 0000.
- In Europe, call +44 (0) 870 850 1241.

Tools Needed

- Drill
- 6 mm ($^1/_4$ in.) drill bit
- 4 mm ($^3/_{16}$ in.) drill bit
- #2 Phillips screwdriver
- Jigsaw or rotary tool
- File and sandpaper

Mounting Considerations

NOTICE

This device should be mounted in a 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.

When selecting a mounting location, you should observe these considerations.

- The location should allow for easy access to all device interfaces, such as the keypad, touchscreen, and card reader, if applicable.
- The location must be strong enough to support the weight of the device and protect it from excessive vibration or shock.

CE

- The location must allow room for the routing and connection of all cables.
- The location must not be a flat, horizontal surface. The location should be in a vertical angle.

  The location and viewing angle should be tested before you install the device. High viewing angles from above and below the display may result in a poor image.

Flush Mounting the Device

NOTICE

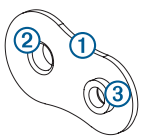
Be careful when cutting the hole to flush mount the device. There is only a small amount of clearance between the case and the mounting holes, and cutting the hole too large could compromise the stability of the device after it is mounted.

You can drill holes and use the included template, nut plates, and machine screws to flush mount the device. The nut plates can add stability to a thinner surface, and are strongly recommended for most RV installations.

1. Trim the template, and make sure it fits in the location where you want to mount the device.
2. Secure the template to the mounting location.
3. Using a 13 mm ($^1/_2$ in.) drill bit, drill one or more of the holes inside the corners of the solid line on the template to prepare the mounting surface for cutting.
4. Using a jigsaw or a rotary tool, cut the mounting surface along the inside line on the template.
5. Place the device in the cutout to test the fit.
6. If necessary, use a file and sandpaper to refine the size of the cutout.
7. If necessary, remove the trim caps.

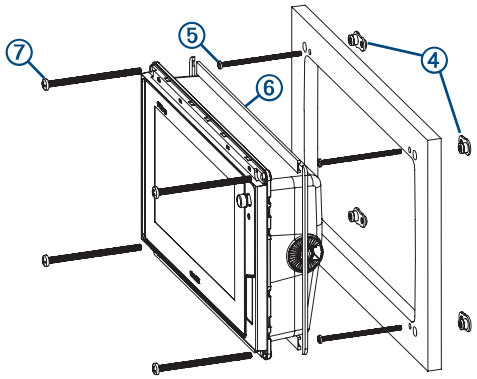
   NOTICE

   Use a plastic pry tool when possible. Using a metal pry tool, such as a screwdriver, can damage the trim caps and the device.
8. After the device fits correctly in the cutout, ensure the mounting holes on the device line up with the larger holes on the template.
9. If the mounting holes on the device do not line up, mark the new hole locations.
10. Drill 6 mm ($^1/_4$ in.) holes in the larger hole locations.
11. Starting in one corner of the template, place a nut plate ① over the larger hole ② drilled in the previous step.



    The smaller hole ③ on the nut plate should line up with the smaller hole on the template.
12. If the smaller hole on the nut plate does not line up with the smaller hole on the template, mark the new hole location.
13. Drill a 4 mm ($^3/_{16}$ in.) hole in the smaller hole location.
14. Repeat to verify placement of the remaining nut plates and holes on the template.
15. Remove the template from the mounting surface.
16. Starting in one corner of the mounting location, place a nut plate ④ on the back of the mounting surface, lining up the large and small holes.

    The raised portion of the nut plate should fit into the larger hole.



17. Secure the nut plates to the mounting surface by fastening the smaller machine screws ⑤ through the smaller holes.
18. Install the foam gasket ⑥ on the back of the device.

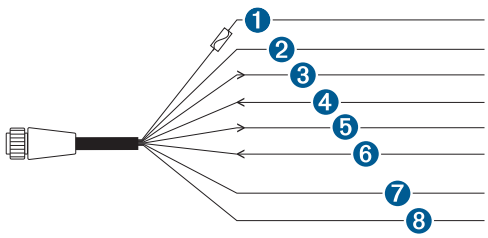
    The pieces of the foam gasket have adhesive on the back. Make sure you remove the protective liner before installing them on the device.
19. If you will not have access to the back of the device after you mount it, connect all necessary cables to the device before placing it into the cutout.
20. Place the device into the cutout.
21. Secure the device to the mounting surface using the larger machine screws ⑦.
22. Install the trim caps by snapping them in place around the edges of the device.

Connection Considerations

After connecting the cables to the device, tighten the locking rings to secure each cable.

Power/Wiring Harness Cable

- The wiring harness connects the device to power.
- If it is necessary to extend the wiring harness, you must use 22 AWG (.33 mm²) wire.



Item	Wire Color	Wire Function
❶	Red	Power
❷	Black	Ground (power)
❸	Blue	Not used
❺	Gray	Not used
❹	Brown	Not used
❻	Violet	Not used
❼	Orange	Accessory on
❽	Yellow	Not used

Connecting the Wiring Harness to Power

⚠ 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

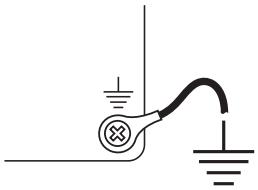
addition, connecting the power cable without the appropriate fuse in place voids the product warranty.

1. Route the wiring harness to the power source and to the device.
2. Connect the red wire to the positive (+) battery terminal, and connect the black wire to the negative (-) battery terminal.
3. If necessary, install the locking ring and O-ring on the end of the wiring harness.
4. Insert the cable into the POWER connector on the back of the device, pushing firmly.
5. Turn the locking ring clockwise to attach the cable to the device.

Additional Grounding Consideration

This consideration is applicable only to devices that have a grounding screw. Not all models have a grounding screw.

This device should not need additional chassis grounding in most installation situations.



NMEA 2000® Considerations

NOTICE

If you are connecting to an **existing** NMEA 2000 network, identify the NMEA 2000 power cable. Only one NMEA 2000 power cable is required for the NMEA 2000 network to operate properly.

A NMEA 2000 Power Isolator (010-11580-00) should be used in installations where the existing NMEA 2000 network manufacturer is unknown.

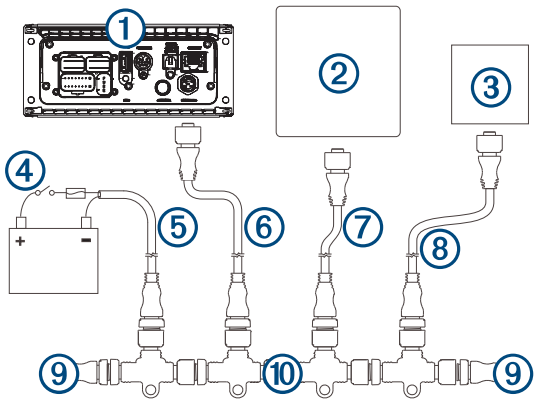
If you are installing a NMEA 2000 power cable, you must connect it to the RV ignition switch or through another in-line switch. NMEA 2000 devices will drain your battery if the NMEA 2000 power cable is connected to the battery directly.

This device can connect to a NMEA 2000 network on your RV to share data from NMEA 2000 compatible devices such as a VHF radio. The included NMEA 2000 cables and connectors allow you to connect the device to your existing NMEA 2000 network. If you do not have an existing NMEA 2000 network you can create a basic one using cables from Garmin.

To use a FUSION® stereo and digital switching server, you must connect the devices to the same NMEA 2000 network.

If you are unfamiliar with NMEA 2000, you should read the "NMEA 2000 Network Fundamentals" chapter of the *Technical Reference for NMEA 2000 Products*. You can find this document using the "Manuals" link on the product page for your device at www.garmin.com.

The port labeled NMEA 2000 is used to connect the device to a standard NMEA 2000 network.



①	FUSION stereo
②	RV Fixed Display
③	Digital switching server
④	In-line switch
⑤	NMEA 2000 power cable
⑥	NMEA 2000 cable from the stereo This can be extended to a maximum length of 6 m (20 ft.) using a NMEA 2000 cable.
⑦	NMEA 2000 drop cable
⑧	NMEA 2000 drop cable
⑨	NMEA 2000 terminator or backbone cable
⑩	NMEA 2000 T-connector

Composite Video Considerations

This device allows video input from composite video sources using the port labeled CVBS IN. When connecting composite video, you should observe these considerations.

- The CVBS IN port uses a BNC connector. You can use a BNC to RCA adapter to connect a composite-video source with RCA connectors to the CVBS IN port.
- Video is not shared across the NMEA 2000 network.

Accessing the RV Builder Settings

1. Select **Settings** > **My RV**.
2. Hold the upper-left corner of the screen

   The RV Builder Settings option appears in the menu.
3. Select **RV Builder Settings**.

The RV Builder Settings are accessible until you turn the device off and on, or hold the upper-left corner of the screen again.

Customizing the Startup Screen

You can set your company logo or another image to be displayed while the device is turning on. For the best fit, the image should be 50 MB or less, should not have transparency, and should conform to the recommended dimensions (*Recommended Startup Image Dimensions*, page 4).

1. Insert a memory card that contains the image you want to use.
2. From the **RV Builder Settings**, select **Startup Image** > **Select Image**.
3. Select the memory card slot.
4. Select the image.
5. Select **Set as Startup Image**.

To view the startup screen with the new image, turn the device off and on.

Recommended Startup Image Dimensions

For the best fit for the startup images, use an image that has the following dimensions, in pixels.

Display resolution	Image width	Image height
WVGA	680	200
WSVGA	880	270
WXGA	1080	350
HD	1240	450
WUXGA	1700	650

Home Page Customization

Customizing the Home Page

1. From the **RV Builder Settings**, select **Customize Home Page** > **Edit Home Page** > **Add Item**.
2. Select an item:
   - To add a button to open a page, select **Page Button**.
   - To add a switch, select **Switch**.
   - To add a gauge, select **Gauge**.
   - To add an overlay bar, select **Overlay Bar**.
3. Select an option to edit an item:
   - To move an item, drag it to the new location.
   - To layer the item in front of another item, select **Move to Front**.
   - To layer the item behind another item, select **Move to Back**.
   - To change the page the button opens, select **Replace Layout**, and select the page to open.
   - To change the item a switch controls, select **Replace Switch**, and select the item.
   - To change the data shown in a gauge, select **Replace Data**, and select the data.
   - To change the data shown in an overlay bar, select **Replace Overlay Bar**, and select the bar.
   - To remove the item, select **Remove**.
4. Select **Home** to view your custom home page.

Customizing the Home Page Background

You can customize the background image. For the best fit, the image should be 50 MB or less, should not have transparency, and should conform to the recommended dimensions (*Recommended Background Image Dimensions*, page 4).

1. Insert a memory card that contains the image you want to use.
2. From the **RV Builder Settings**, select **Customize Home Page** > **Edit Home Page** > **Background** > **Select Image**.
3. Select the memory card slot.
4. Select the image.

Recommended Background Image Dimensions

For the best fit for the background image, use an image that has the following dimensions, in pixels.

Display resolution	Image width	Image height
WVGA	800	430
WSVGA	1024	535
WXGA	1380	723
HD	1920	991
WUXGA	1920	1111

Adding and Editing a Digital Switching Page

You can add and customize digital switching pages for some compatible digital switching systems.

1. Select **Switching** > **Menu**.
2. Set up the page as needed:
   - To enter a name for the page, select **Name**.
   - To set up the switches, select **Edit Switches**.

Troubleshooting

My device will not turn on or keeps turning off

Devices erratically turning off or not turning on could indicate an issue with the power supplied to the device. Check these items to attempt to troubleshoot the cause of the power issue.

- Make sure the power source is generating power.

  You can check this several ways. For example, you can check whether other devices powered by the source are functioning.
- Check the fuse in the power cable.

  The fuse should be located in a holder that is part of the red wire of the power cable. Check that the proper size fuse is installed. Refer to the label on the cable or the installation instructions for the exact fuse size needed. Check the fuse to make sure there is still a connection inside of the fuse. You can test the fuse using a multimeter. If the fuse is good, the multimeter reads 0 ohm.
- Check to make sure the device is receiving at least 12 V.

  To check the voltage, measure the female power and ground sockets of the power cable for DC voltage. If the voltage is less than 12 V, the device will not turn on.
- If the device is receiving enough power but does not turn on, contact Garmin product support.

Specifications

All Models

Specification	Measurement
Temperature range	From -15° to 55°C (from 5° to 131°F)
Input voltage	From 10 to 32 Vdc
Fuse	6 A, 125 V fast-acting
NMEA 2000 LEN @ 9 Vdc	2
NMEA 2000 draw	75 mA max.
Memory card	2 SD® card slots; 32 GB max. card size
Wireless frequency	2.4 GHz @ 17.6 dBm

Seven-inch Models

Specification	Measurement
Dimensions (W × H × D)	224 × 142.5 × 53.9 mm (8 $^{13}/_{16}$ × 5 $^{5}/_{8}$ × 2 $^{1}/_{8}$ in.)
Display size (W × H)	154 × 86 mm (6.1 × 3.4 in.)
Weight	0.86 kg (1.9 lb.)
Max. power usage at 10 Vdc	24 W
Typical current draw at 12 Vdc	1.5 A
Max. current draw at 12 Vdc	2.0 A

Nine-inch Models

Specification	Measurement
Dimensions (W × H × D)	256.4 × 162.3 × 52.5 mm (10 $^{1}/_{8}$ × 6 $^{3}/_{8}$ × 2 $^{1}/_{16}$ in.)
Display size (W × H)	197 × 114 mm (7.74 × 4.49 in.)
Weight	1.14 kg (2.5 lb.)
Max. power usage at 10 Vdc	27 W
Typical current draw at 12 Vdc	1.3 A
Max. current draw at 12 Vdc	2.3 A

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