

# GARMIN<sup>®</sup>

## VIEO™ RV 51/52

### 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.

##### NOTICE

Failure to follow these cautions could result in damage to the vehicle or poor product performance.

This device must be installed according to these instructions.

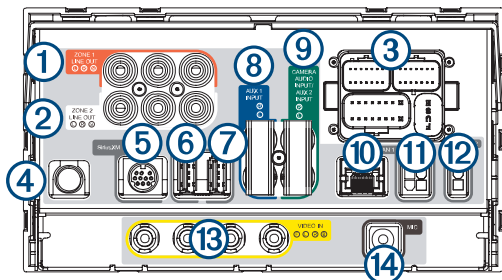
Disconnect the vehicle's power supply before beginning to install this product.

Before applying power to this product, make sure it has been correctly grounded according to the installation instructions.

You must read all installation instructions before beginning the installation. If you experience difficulty during the installation, contact Garmin® Product Support.

#### Connector Identification

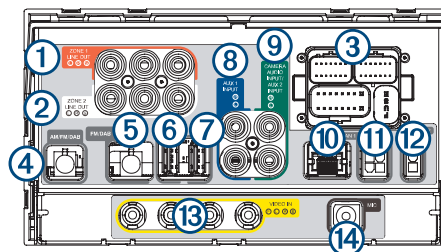
##### Connector Identification (Vieo RV 51)



Item	Label	Description	Connector Details
①	ZONE 1 LINE OUT	Line out connectors for zone 1	Left (white), right (red), and subwoofer (orange) RCA connectors
②	ZONE 2 LINE OUT	Line out connectors for zone 2	Left (white), right (red), and subwoofer (orange) RCA connectors
③	None	Wiring harness connectors	Connects to the included and optional wiring harnesses
④	None	AM/FM antenna connector	Connects to either the vehicle's AM/FM antenna cable or an inline adapter attached to the vehicle's AM/FM antenna cable
⑤	SiriusXM	SiriusXM® port	Connects to a compatible SiriusXM Connect vehicle tuner and antenna (sold separately)
⑥		USB (500 mA)	Reserved for manufacturer use. Compatible only with low-current (<500 mA) USB devices.
⑦	iPhone/iPod	USB (1 A)	Interfaces with and charges supported smartphones and USB devices.

Item	Label	Description	Connector Details
⑧	AUX 1 INPUT	Auxiliary input 1	Left (white) and right (red) RCA connectors
⑨	CAMERA AUDIO INPUT/AUX 2 INPUT	Input for camera audio or for auxiliary 2	Left (white) and right (red) RCA connectors
⑩	None	RJ-45	Supports Ethernet connectivity
⑪	CAN 1	CAN BUS 1	Connects to RV control systems using an adapter (sold separately)
⑫	CAN 2	CAN BUS 2	Reserved for vehicle integration. Connects to supported chassis CAN systems using an adapter cable to support steering wheel controls.
⑬	VIDEO IN	Analog camera video input	4 RCA video connectors. Connects to up to four vehicle cameras, including forward, left view, right view, and backup cameras.
⑭	MIC	Microphone input	3.5 mm mono microphone port. Connects to the included microphone for hands-free calling.

##### Connector Identification (Vieo RV 52)



Item	Label	Description	Connector Details
①	ZONE 1 LINE OUT	Line out connectors for zone 1	Left (white), right (red), and subwoofer (orange) RCA connectors
②	ZONE 2 LINE OUT	Line out connectors for zone 2	Left (white), right (red), and subwoofer (orange) RCA connectors
③	None	Wiring harness connectors	Connects to the included, optional wiring harnesses
④	AM/FM/DAB	AM/FM/DAB connector (default source)	Connects to a compatible antenna. Must be used for AM band (default)
⑤	FM/DAB	Connector for alternate FM, FM and DAB, or DAB antenna	Connects to a dedicated FM, FM and DAB, or DAB antenna if reception is not covered by the AM/FM/DAB antenna (requires menu reconfiguration)
⑥		USB (500 mA)	Reserved for manufacturer use. Compatible only with low-current (<500 mA) USB devices.
⑦	iPhone/iPod	USB (1 A)	Interfaces with and charges supported smartphones and USB devices.
⑧	AUX 1 INPUT	Auxiliary input 1	Left (white) and right (red) RCA connectors

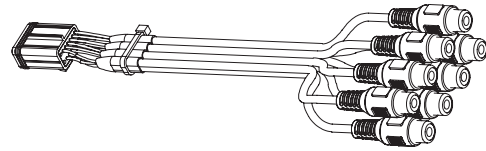


Item	Label	Description	Connector Details
⑨	CAMERA AUDIO INPUT/AUX 2 INPUT	Input for camera audio or for auxiliary 2	Left (white) and right (red) RCA connectors
⑩	None	RJ-45	Supports Ethernet connectivity
⑪	CAN 1	CAN BUS 1	Connects to RV control systems using an adapter (sold separately)
⑫	CAN 2	CAN BUS 2	Reserved for vehicle integration Connects to supported chassis CAN systems using an adapter cable to support steering wheel controls
⑬	VIDEO IN	Analog camera video input	4 RCA video connectors Connects to up to four vehicle cameras, including forward, left view, right view, and backup cameras
⑭	MIC	Microphone input	3.5 mm mono microphone port Connects to the included microphone for hands-free calling

Wire Color	Function	Notes
Gray	Speaker zone 1 right (+)	
Gray/black	Speaker zone 1 right (-)	
Green	Speaker zone 2 left (+)	
Green/black	Speaker zone 2 left (-)	
Purple	Speaker zone 2 right (+)	
Purple/black	Speaker zone 2 right (-)	

### Line Out Wiring Harness

The line out wiring harness (sold separately) outputs audio to an external amplifier for zones 3 and 4.



## Wiring Harnesses

### Power and Speaker Wiring Harness

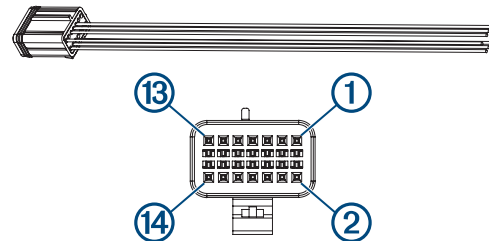
The power and speaker wiring harness contains the main power and speaker connections for the system. The harness connects directly to the stereo ① and to the vehicle wiring harness ② without modification. You can use this diagram to troubleshoot or to address non-default installation requirements. Wiring harnesses may vary based on installation requirements.



Label	Function	RCA connectors
ZONE 3	Outputs analog audio to an external amplifier for zone 3.	Left (white), right (red), and sub (orange)
ZONE 4	Outputs analog audio to an external amplifier for zone 4.	Left (white), right (red), and sub (orange)
AUX IN 2	Not used. These connectors are not active for the Vieo RV 51/52 product model. You must use the CAMERA AUDIO INPUT/AUX 2 INPUT connector on the back of the stereo instead.	Not used

Wire Color	Function	Notes
Yellow	Power (+)	Connects to the positive terminal of a 12 Vdc power source capable of supplying 15 A.
Red	Ignition	Connects to a separately-switched, 12 Vdc connection, such as an ignition bus, to turn the stereo on.
Orange	None	Reserved for future use.
Black	Ground (-)	Connects to the negative terminal of a 12 Vdc power source capable of supplying 15 A. You should connect this wire before connecting the yellow wire. All accessories connected to the stereo must share a common ground location.
Blue	Amplifier on	Connects to optional external amplifiers, enabling them to turn on when the stereo turns on.
Brown	None	Reserved for future use.
Pink	Reverse	Connects to an analog high signal, such as the reverse light, to activate the backup camera when the vehicle is placed in reverse.
Red/black	House	Connects to a 12 Vdc connection for the RV house power to turn the stereo on when the house power is turned on.
White	Speaker zone 1 left (+)	
White/black	Speaker zone 1 left (-)	

### Analog Signal Wiring Harness



Wire color	Pin	Function	Notes
Green	1	Analog input 1	Connects to the steering wheel controls. Not available for all vehicles. Contact the RV manufacturer for more information.
Purple	2	Analog input 2	Connects to the steering wheel controls. Not available for all vehicles. Contact the RV manufacturer for more information.
Black	4	Analog input ground	Ground wire for analog steering wheel control inputs.
Orange	5	Right camera trigger	Connects to an analog high signal, such as the right turn signal, to trigger the device to display the right side camera.
Blue	6	Left camera trigger	Connects to an analog high signal, such as the left turn signal, to trigger the device to display the left side camera.

Wire color	Pin	Function	Notes
Brown	7	Front camera trigger	Connects to an analog high signal to trigger the device to display the front camera.
Black	9	Camera trigger ground	Ground wire for the camera trigger inputs.

## Connecting Vehicle and Backup Cameras

You can connect up to four analog vehicle cameras to the infotainment system for backup, left, right, and front cameras.

- For each camera, route the camera's RCA analog video cable to the back of the stereo.  
You should clearly label each cable for reference when you are connecting them to the stereo.
- For each camera, determine the analog high signal that should trigger the stereo to display the camera, and route a wire for that signal to the back of the stereo.

For example, you can use a reverse signal to trigger the backup camera when the vehicle is put in reverse, or you can use turn signal to trigger a side mirror camera.

- Connect each RCA analog video cable to the VIDEO IN connectors on the back of the stereo, as shown.



①	Front camera
②	Left camera
③	Right camera
④	Backup camera

- Connect the analog high signal wire for the backup camera to the pink REVERSE wire of the power and speaker wiring harness (*Power and Speaker Wiring Harness, page 2*).
- Connect the analog high signal wire for each of the other cameras to the appropriate camera detect wire of the analog signal detect harness (*Analog Signal Wiring Harness, page 2*).

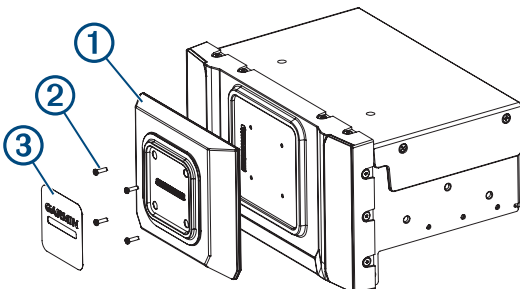
**NOTE:** If you do not want to trigger a camera automatically, you should leave that camera detect wire disconnected.

Harness wire color	Camera
Blue	Left camera
Orange	Right camera
Brown	Front camera

## Attaching the Display Adapter to the Dock (7-inch Models Only)

You should attach the adapter to the dock before you install the dock in a dashboard.

- Place the adapter ① on the front of the dock, aligning the four screw holes on the adapter with the dock.



- Using the included screws ②, secure the adapter to the dock.  
The recommended torque applied to the adapter screws is 3.0 to 3.5 lbf-in. (0.34 to 0.40 N-m).
- Adhere the adapter label ③ to the front of the adapter.

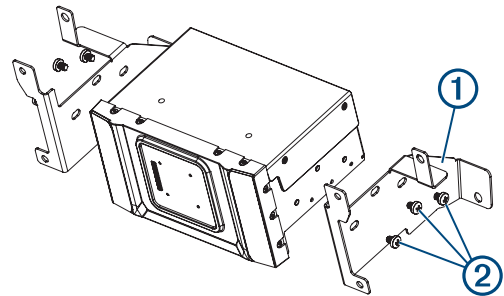
## Dock Installation

You must use the included bracket to install the device dock into a specific vehicle type.

The product package includes the hardware required to attach the bracket to the dock. The product package does not include the hardware to attach the bracket to the dashboard or the dashboard panel.

### Installing the Bracket on the Dock for Mercedes-Benz® Sprinter™ Vehicles

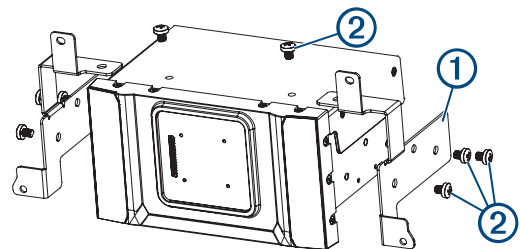
- Place each bracket ① on the dock, aligning the holes on the bracket with the holes on the dock.



- Using the included screws ②, secure each bracket to the dock.  
The recommended torque you should apply to the screws is 5.0 to 6.0 lbf-in. (0.56 to 0.68 N-m).
- Install the dock into the dashboard using the appropriate hardware (not included).
- Attach the included bezel to the front of the dock.
- If necessary, install all remaining dashboard components.

### Installing the Bracket on the Dock for Freightliner® Vehicles

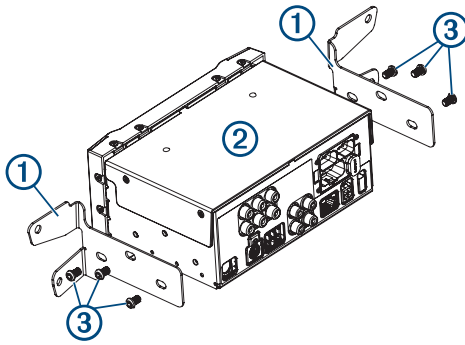
- Place each bracket ① on the dock, aligning the holes on the bracket with the holes on the dock.



- Using the included screws ②, secure each bracket to the dock.  
The recommended torque you should apply to the screws is 5.0 to 6.0 lbf-in. (0.56 to 0.68 N-m).
- Install the dock into the dashboard using the appropriate hardware (not included).
- Attach the included bezel to the front of the dock.
- If necessary, install all remaining dashboard components.

### Installing the Bracket on the Dock for IVECO™ Vehicles

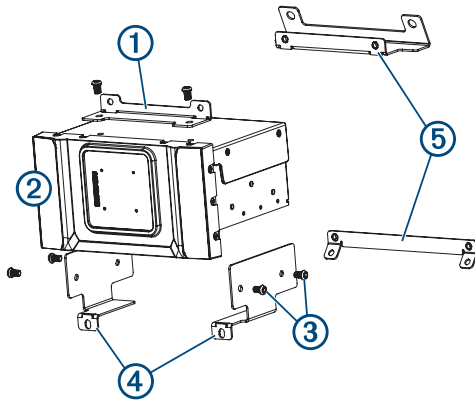
- Place each bracket ① on the dock ②, aligning the holes on the bracket with the holes on the sides of the dock.



- 2 Using the included screws ③, secure each bracket to the sides of the dock.  
The recommended torque you should apply to the screws is 5.0 to 6.0 lbf-in. (0.56 to 0.68 N-m).
- 3 Attach the bracket and dock to the dashboard using the appropriate hardware (not included).
- 4 Attach the included bezel to the front of the dock.
- 5 If necessary, install all remaining dashboard components.

### Installing the Bracket for FIAT™ Ducato Vehicles

- 1 Place the upper bracket ① on the dock ②, aligning the holes in the bracket with the holes on the top of the dock.



- 2 Using the included screws ③, secure the bracket to the top of the dock.  
The recommended torque you should apply to the screws is 5.0 to 6.0 lbf-in. (0.56 to 0.68 N-m).
- 3 Repeat this procedure for the side brackets ④.
- 4 Install the upper and lower chassis brackets ⑤ onto the dashboard.
- 5 Install the dock onto the dashboard using the appropriate hardware.
- 6 Attach the included bezel to the front of the dock.
- 7 If necessary, install all remaining dashboard components.

### Installing the Device on a Wall

The included template and hardware can be used to flush mount the device on the wall in your recreational vehicle.

#### ⚠ WARNING

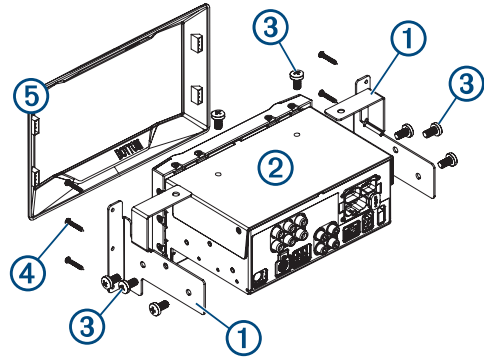
Always be sure of your mounting location before cutting into a wall. Recreational vehicle walls may contain utility lines. Failure to understand what is behind your mounting surface could result in damage to the vehicle, injury, or death.

#### NOTICE

Wall-mount kits are intended for wall-mount installations only. Do not attempt to install this device in a vehicle dashboard using a wall-mount kit.

The wall-mount bracket includes the hardware required to attach the dock to a wooden surface. If you are mounting the device on a different material, you should use suitable hardware for your mounting surface.

- 1 Place each bracket ① on the dock ②, aligning the holes in the bracket with the holes on the dock.



- 2 Using the included M5 screws ③, secure each bracket to the dock.  
The recommended torque you should apply to the screws is 5.0 to 6.0 lbf-in. (0.56 to 0.68 N-m).
- 3 Trim the template, and confirm the device will fit in the location where you want to mount it.
- 4 Secure the template to the mounting location.
- 5 Using a jigsaw or rotary tool, cut the mounting surface along the dashed line on the template.
- 6 Place the device in the cutout to test the fit.
- 7 If necessary, refine the size of the cutout.
- 8 After the device fits correctly in the cutout, verify the mounting holes on the device line up with the pilot holes on the template.
- 9 If the mounting holes on the device do not line up, mark the new pilot-hole locations.
- 10 Using a 1.5 mm (#53) drill bit, drill the pilot holes.
- 11 Remove the template from the mounting surface.
- 12 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.
- 13 Place the device into the cutout.
- 14 Secure the device to the mounting surface using the included M3 screws ④.
- 15 Install the decorative bezel ⑤ by snapping it in place around the edges of the device.

## Stereo Information

### Specifications

Display Specifications	
Operating temperature range	From -20 to 55°C (from -4 to 131°F)
Charging temperature range	From 0 to 45°C (from 32 to 113°F)
Wireless frequency/protocol	2.4 GHz @ 15 dBm nominal
Power input	Vehicle power using the included vehicle power cable. AC power using an optional accessory (for home and office use only).
Battery type	Rechargeable lithium-ion

Dock Specifications	
Operating temperature range	From -10 to 55°C (from 14 to 131°F)
Storage temperature range	From -20 to 70°C (from -4 to 158°F)
Input voltage	From 10.8 to 16 Vdc
Current (max.)	15 A
Current (standby mode)	Less than 5 mA
Fuse	15 A mini blade type
Wireless frequency/protocol	2.4 GHz @ 7.9 dBm nominal

On-board, Class D Amplifier	
Output music power per channel	4 x 70 W max. 2 ohm
Total output peak power	280 W max.
Output power per channel	4 x 43 W RMS at 14.4 Vdc input, 2 ohm, 10% THD <sup>1</sup> 4 x 26 W RMS at 14.4 Vdc input, 4 ohm, 10% THD <sup>1</sup>
Line output level (max.)	5.5 V (peak to peak)
Aux. input level (typical)	1 V RMS

Tuner	Europe and Australasia	USA	Japan
FM radio frequency range	87.5 to 108 MHz	87.5 to 107.9 MHz	76 to 95 MHz
FM frequency step	50 kHz	200 kHz	50 kHz
AM radio frequency range	522 to 1620 kHz	530 to 1710 kHz	522 to 1620 kHz
AM frequency step	9 kHz	10 kHz	9 kHz

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<sup>1</sup> The stereo may limit the output power to prevent the amplifier from overheating, and to maintain the audio dynamics.

