

Smart-Reach Cellular Quick Start Guide



About Smart-Reach Cellular

The Smart-Reach Cellular router works with Safe Fleet recorders to provide remote access to live streaming video, vehicle location, and telemetry data.

Kit contents

- Sierra Wireless® AirLink® RV50-X-LTE (032-1057 or 032-1052)
*Includes Safe Fleet data plan
- Includes mounting screws, 10 ft./3 m power harness (4-wire)
- Cellular/LTE MIMO and GNSS window-mount antenna, 10 ft./3 m leads (085-1129)
- Installation package (020-1070)
 - 1A & 5A fuses, 2 fuse holders, and 2 butt-splice connectors
- GPS adaptor (060-1101) and extension cable, 5 ft./1.5m length (060-0122)
- Ethernet (CAT5e) patch cable - 5 ft./1.5 m length (085-0065)

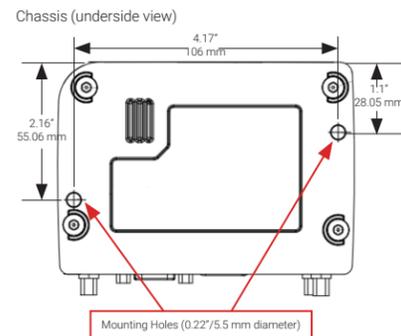
Step 1: Install the Router

Step 1a: Mount the chassis

- Select a secure, dry location that is not subject to constant vibration, with enough clearance for easy access to cable connections.

Note: 5 ft./1.5 m cables run between the router and the recorder. Contact Technical Support if you require cable extensions.

- The router has 2 mounting holes, as shown in the diagram below. Use the holes on each side of the device enclosure to mark drilling positions, and drill the 2 screw holes.



- Fasten the Smart-Reach Cellular to the mounting surface with the 2 provided screws.

Step 1: Install the Router (continued)

Step 1b: Mount the Antenna



- Choose a mounting location on the inside of the windshield or a side window. Ensure antenna leads (10 ft./3 m) can reach the router.

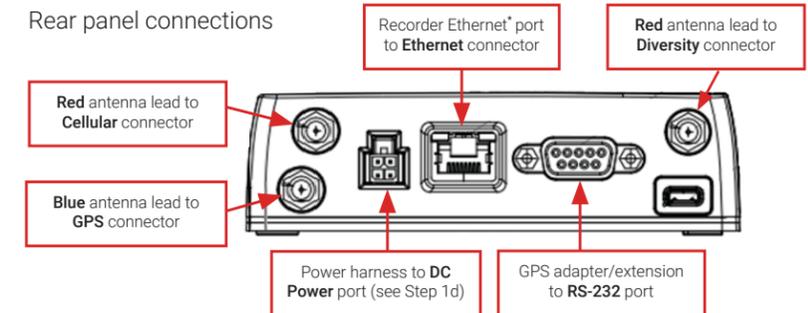
Note: GPS signal quality

For optimal GPS and cellular signal quality, DO NOT attach the antenna to the dashboard or near metal.

- Clean the mounting area with alcohol, and allow to dry.
- Peel the backing from the adhesive, and attach the antenna.

Step 1c: Wire the system

- Connect the three antenna leads to the router as shown in the diagram below.
- Connect the supplied Ethernet patch cable (085-0065) from the router's Ethernet port to an Ethernet port* on the recorder.
- Wire GPS from the router to the recorder:
 - Plug the male DB9 connector end of the supplied GPS adaptor (060-1101) into the router's **RS-232** serial port.
 - Use the supplied GPS extension cable (060-0122) to connect the 2x2 Microfit on the GPS adaptor to the **GPS** port on the recorder.



* For a list of recorder types and their Ethernet port names, see "Recorders - Rear Ethernet Ports" on page 7

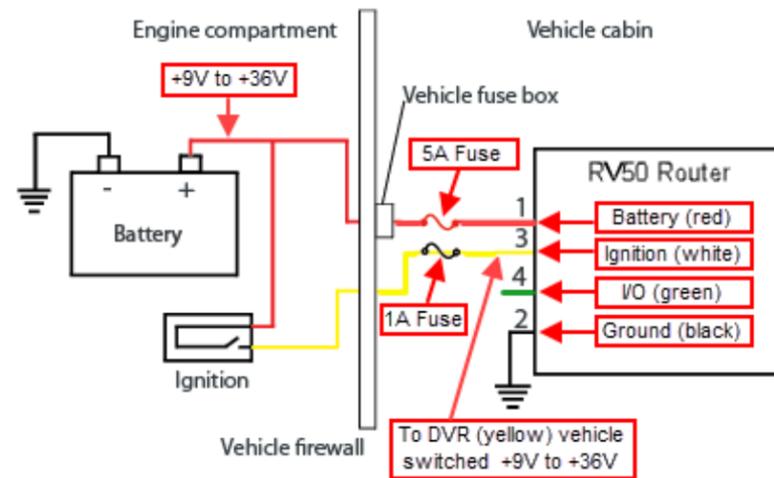
Step 1: Install the Router (continued)

Step 1d: Connect the power harness

Tip: Power-off timing

The router is configured with an internal timer for power management. It does not require a separate control signal from the recorder.

- Connect the red wire (pin 1) from the power harness to the 5A fuse holder.
 - Insert the fuse, and connect the fuse holder to battery positive.
- Connect the white wire (pin 3) to the 1A fuse holder.
 - Insert the fuse, and connect the fuse holder to vehicle ignition.
- Connect the black wire (pin 2) to battery negative.
- Connect the power harness to the router's **DC Power** port.

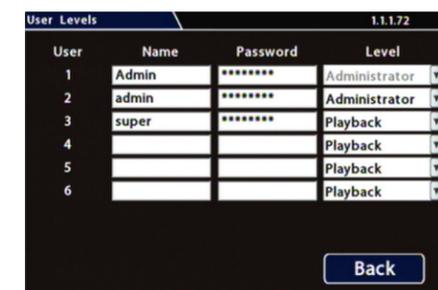
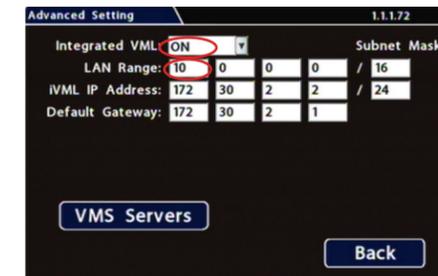


Step 2: Configure the Recorder

Note: Recorder firmware

If the router will communicate with a legacy DVR (DX-HD or TL 4/2), confirm the DVR is running current firmware. If required, contact Technical Support for a DVR Firmware Upgrade Kit.

- In the recorder menu, select **Configuration** → **Network** → **Advanced**.
 - Set **Integrated VML** to **ON**.
 - Enter a value in the **LAN Range**:
 - If *Wi-Fi is not installed*: enter **10** into the first octet.
 - If *Wi-Fi is installed*: contact Technical Support.
 - Click **Back** to save settings.
- Select **User Levels***
 - For the default **Admin** user: change the **Password** to the first 8 characters of the Fleet ID (for more information, see the Smart-Reach Cellular online setup documentation on the Safe Fleet Community). If you need details on setting passwords, please refer to the recorder documentation.
 - Create a User named **admin** (lowercase) and set the same password used in the previous step. For the **Level**, select **Administrator**.
 - Create a User named **super**, and set the password to "super". Leave the Level at **Playback**.
 - Click **Back** to save settings.



* On some older recorders, the User Levels tab exists under **Network** → **Advanced**.

Step 3: Verify System Operation

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Important: Online setup and verification required

Installation is not complete until online setup and system verification steps have been performed with the Safe Fleet Cloud software.

Follow the instructions for "Provisioning Smart-Reach Cellular" on the Safe Fleet Community in the Installer Resources section:

<https://community.safefleet.net/tutorial/provisioning-sr-cellular/>



Scannable QR code linking to the provisioning tutorial on the Safe Fleet Community.

Status Indicators

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Power on the Smart-Reach Cellular.

LEDs display operational conditions, as indicated:



LED	Color/Pattern	Description	LED Power Saving Mode
Power	Off	No power or input voltage ≥ 36 Vdc or ≤ 7 Vdc	
	Solid Green	Power is present.	
	Green with Amber Flash	Power is present and the router has a GPS fix.	
	Solid Red	Standby mode	
	Flashing Green	When you press the reset button, flashing green indicates when to release the reset button to reboot the router.	
Signal	Flashing Red	When you press the reset button, flashing red indicates when to release the reset button to reset the router to the factory default settings.	
	Solid Green	Good signal (equivalent to 4-5 bars)	Off
	Solid Amber	Fair signal (equivalent to 2-3 bars)	Off
	Flashing Amber	Poor signal (equivalent to 1 bar). If possible, we recommend moving the router to location with a better signal.	
Network	Flashing Red	Inadequate (equivalent to 0 bars). We recommend moving the router to a location with a better signal.	
	Solid Green	Connected to an LTE network	Off
	Solid Amber	Connected to a 3G or 2G network	Off
	Flashing Green	Connecting to the network	
	Flashing Red	No network available	
Activity	Flashing Red/Amber	Network Operator Switching is enabled, but the router is unable to locate the required firmware. For more information, refer to the ALEOS Software Configuration User Guide (Admin chapter) from the Sierra Wireless website.	
	Flashing Green	Traffic is being transmitted or received over the WAN interface.	
	Flashing Red	Traffic is being transmitted or received over the serial port. This behavior only appears if the router is configured to display it. For more information, refer to the ALEOS Software Configuration Guide (Serial chapter) from the Sierra Wireless website.	
ALL	Flashing Amber	Traffic is being transmitted or received over both the WAN interface and the serial port. This behavior only appears if the router is configured to display it. Refer to the ALEOS Software Configuration Guide (Serial chapter) from the Sierra Wireless website.	
	Green LED chase	Radio module reconfiguration/firmware update or Network Operator switching is in progress.	
	Amber LED chase	ALEOS software update is in progress.	

NOTE: The quality of the signal strength is measured using the appropriate parameters for the radio technology in use.

Recorders - Rear Ethernet Ports

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Connect to one of the following recorder Ethernet ports from the router's Ethernet port, based on the recorder type:

Recorder	Rear Ethernet Ports
NH16, NH16K, TH8 or TH6	MODEM
TH4	WIFI
TH4C	POE-LAN
DX-HD	LAN2 or LAN3
TL2 or TL4	ETHERNET

Troubleshooting

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The following table provides information and procedures for troubleshooting the Smart-Reach Cellular interface and the vMax software:

Symptom	Possible Cause	Potential Solution
The front panel Network LED (see "Status Indicators") flashes continuously	The router is activating/provisioning and attempting to connect to the mobile network.	Wait 5-10 minutes. The Network LED turns solid green when connection is successful.
Smart-Reach Cellular is not detected by the vMax software	The GPS sensor cannot detect the satellites.	Move the vehicle to a location where it can receive GPS satellite data.
	The cellular connection is not complete.	Check with Technical Support.
Smart-Reach Cellular will not start	The power cabling may not be completely connected.	Check cable connections.

Service & Support

If your cellular router is to be returned for service, please contact the Safe Fleet Technical Support team, provide the model and/or serial# of your unit, and ask for a **Return Merchandise Authorization (RMA)** number. An **RMA#** allows the support team to better track your product when it comes in for service. Please show the RMA# on the **outside** of the package.

ANY PRODUCT SENT WITHOUT AN RMA# MAY BE REFUSED!

Need Help?

For complete product details and access to our Document Library, please visit the Safe Fleet Community (<https://community.safefleet.net>).

To contact Safe Fleet Technical Support:

- Phone: 1.844.899.7366
- Email: PTsupport@safefleet.net

Warranty

For full warranty information, visit:

- www.seon.com/documents/Seon-Warranty.pdf



2002/96/EC (WEEE directive): This product cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return the product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points, for more information, see www.recyclethis.info.
2006/66/EC (battery directive): This product does not contain batteries.