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## AirLink RV55

# Sierra Wireless AirLink RV55 LTE-A Pro Router User Manual

Model: 1104302

## INTRODUCTION

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The Sierra Wireless AirLink RV55 is a rugged, compact LTE-A Pro router designed for connecting critical remote assets, infrastructure, and vehicles. It provides reliable cellular connectivity and Wi-Fi capabilities, making it suitable for SCADA systems, distribution management, and mobile workforce fleets. The RV55 is built to withstand harsh industrial and mobile environments, ensuring continuous operation where reliability is paramount.

This manual provides essential information for the proper installation, operation, and maintenance of your AirLink RV55 router.

## SAFETY INFORMATION

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- Use only the power supply and accessories specified by the manufacturer.
- Ensure proper ventilation to prevent overheating.
- Do not expose the device to extreme temperatures, humidity, or direct sunlight.
- Avoid placing the device near sources of strong electromagnetic fields.
- Installation and servicing should be performed by qualified personnel.

## PACKAGE CONTENTS

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Verify that all items are present in your package:

- AirLink RV55 Router
- DC Power Cable
- Antennas (Cellular and GPS, may vary by specific model variant)

## PRODUCT OVERVIEW

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The AirLink RV55 router features a compact and robust design with various ports and indicators for connectivity and status monitoring.



Image: Sierra Wireless AirLink RV55 Rugged LTE-A Pro Router. This image displays the top and rear view of the router, highlighting its various ports including cellular antenna connectors, GPS antenna connector, DC power input, Ethernet port, RS-232 serial port, and USB port. LED indicators are visible on the top left.

## Front Panel Indicators

The front panel features LED indicators to provide real-time status of the router's operation:

- **Power LED:** Indicates the power status of the device.
- **Cellular Signal LED:** Shows the strength and status of the cellular connection.
- **Network Activity LED:** Indicates data transmission activity.
- **Wi-Fi LED:** Shows the status of the Wi-Fi interface.

## Rear Panel Ports

The rear panel provides various connectivity options:

- **Cellular Antenna Connectors:** SMA connectors for main and diversity cellular antennas.
- **GPS Antenna Connector:** SMA connector for an external GPS antenna, enabling precision location tracking.
- **DC Power Input:** Connector for the DC power cable.
- **Ethernet Port:** RJ45 port for wired network connections (LAN/WAN).
- **RS-232 Serial Port:** DB9 connector for serial communication with legacy equipment.
- **USB Port:** For potential future use or specific configurations.

## SETUP

### 1. Antenna Installation

1. Carefully screw the cellular antennas onto the designated Cellular (Main) and Diversity connectors on the rear panel.
2. If using GPS, screw the GPS antenna onto the designated GPS connector.

3. Ensure all antennas are securely tightened but do not overtighten.

## 2. Power Connection

1. Connect the DC power cable to the DC Power input port on the rear panel of the RV55.
2. Connect the other end of the DC power cable to a compatible power source.

## 3. Network Connection

- **Ethernet:** Connect an Ethernet cable from your device (e.g., computer, switch) to the Ethernet port on the RV55.
- **Wi-Fi:** The RV55 supports Wi-Fi. You can connect to its Wi-Fi network using the default SSID and password (typically found on a label on the device or in accompanying documentation).

## 4. Initial Configuration Access

To configure the router, access its web-based management interface:

1. Ensure your computer is connected to the RV55 via Ethernet or Wi-Fi.
2. Open a web browser and enter the router's default IP address (e.g., 192.168.1.1 or as specified in the quick start guide).
3. Enter the default username and password when prompted. It is highly recommended to change these credentials immediately after initial login for security.

# OPERATING INSTRUCTIONS

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## Powering On/Off

Once the DC power cable is connected, the RV55 will power on automatically. To power off, disconnect the DC power cable. Always ensure proper shutdown procedures if available through the management interface before disconnecting power.

## Understanding LED Indicators

Monitor the front panel LEDs to understand the router's operational status. Refer to the full product documentation for a detailed explanation of each LED's behavior (e.g., solid, blinking, color) for specific states like cellular signal strength or network errors.

## Cellular Connectivity

The RV55 automatically attempts to establish a cellular connection upon power-up. Configuration of APN settings and other cellular parameters can be done via the web management interface.

## Wi-Fi Operation

The router broadcasts a Wi-Fi network. Devices can connect to this network using the configured SSID and password. Wi-Fi settings, including security protocols (WPA2-PSK, WPA2-Enterprise), can be managed through the web interface.

## GNSS Tracking

With a connected GPS antenna, the RV55 provides Global Navigation Satellite System (GNSS) capabilities for precision location tracking, which can be integrated with fleet management or asset tracking systems.

# MAINTENANCE

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## Firmware Updates

Regularly check for and install firmware updates to ensure optimal performance, security, and access to new features. Firmware updates are typically managed through the web interface or AirLink Management Service (ALMS).

## Cleaning

Clean the exterior of the device with a soft, dry cloth. Do not use liquid cleaners or aerosols directly on the device. Ensure all ports are free from dust and debris.

## Environmental Considerations

The RV55 is designed for rugged environments. However, avoid prolonged exposure to conditions beyond its specified operating temperature and humidity ranges. Ensure adequate airflow around the device.

## TROUBLESHOOTING

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- **No Internet Connection:** Check cellular signal strength, APN settings, SIM card installation, and ensure the cellular plan is active. Verify Ethernet cable connections if using wired backhaul.
- **Wi-Fi Not Available:** Ensure Wi-Fi is enabled in the router's configuration. Check Wi-Fi LED status.
- **Device Not Powering On:** Verify the DC power cable connection and the power source. Check the Power LED.
- **Slow Performance:** Check cellular signal strength, network congestion, and ensure firmware is up to date.

## Factory Reset

If the device is unresponsive or configuration issues persist, a factory reset may be necessary. This will revert all settings to their default values. Refer to the official AirLink documentation for the precise procedure, as it often involves a specific button sequence or software command.

## SPECIFICATIONS

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Feature	Detail
Brand	AirLink
Model Name	RV55
Model Number	1104302
Connectivity Technology	Ethernet, Wi-Fi, Cellular
Wireless Communication Standard	802.11ac
Frequency Band Class	Dual-Band (5 GHz)
Data Transfer Rate	600 Mbps (DL), 150 Mbps (UL)
LAN Port Bandwidth	10/100 Mbps
Number of Ports	3 (Ethernet, RS-232, USB)
Security Protocol	WPA2-PSK, WPA2-Enterprise
Special Feature	Access Point Mode, GNSS for tracking
Item Weight	1.52 Pounds

## WARRANTY AND SUPPORT

The AirLink RV55 includes the first year of network management and support with AirLink Complete, providing comprehensive assistance for your device. For detailed warranty information, technical support, or service requests, please refer to the official Sierra Wireless website or contact your authorized reseller.

Always ensure you have your product model number (RV55) and serial number ready when contacting support.