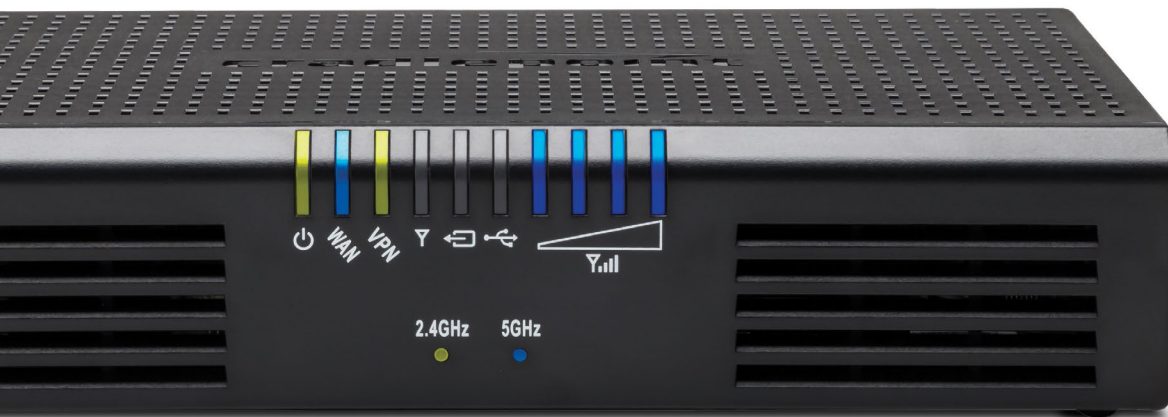**cradlepoint**

AER1600 Series

Application Specific & Micro Branch Networking

THANK YOU FOR CHOOSING CRADLEPOINT

Cradlepoint is the leading provider of secure, cloud-managed 3G/4G/LTE networking solutions for the distributed enterprise with hundreds or thousands of locations. Our broad family of high-performance routers are designed for deployment in mission-critical applications that require 24x7 connectivity.

Always Connected. Always Protected.

AER1600 Key Features:

+ Cloud-managed
+ Dual-band, dual-concurrent WiFi (802.11 a/b/g/n/ac)
+ Dual-modem, multi-carrier support
+ Ports: 1 GigE WAN/4 GigE LAN (switchable)
+ WWAN analytics

+ Industry-leading 4G failover
+ Unified Threat Management
+ Software-defined radio (supports multiple carriers)
+ Purpose-built for PCI Compliance 3.1

Go to cradlepoint.com/aer1600 to learn more.

2.4GHz   5GHz
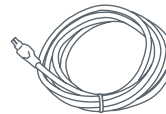
WHAT'S INCLUDED:

MC400 3G/4G Modem with Antennas*
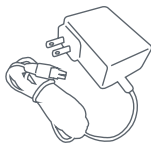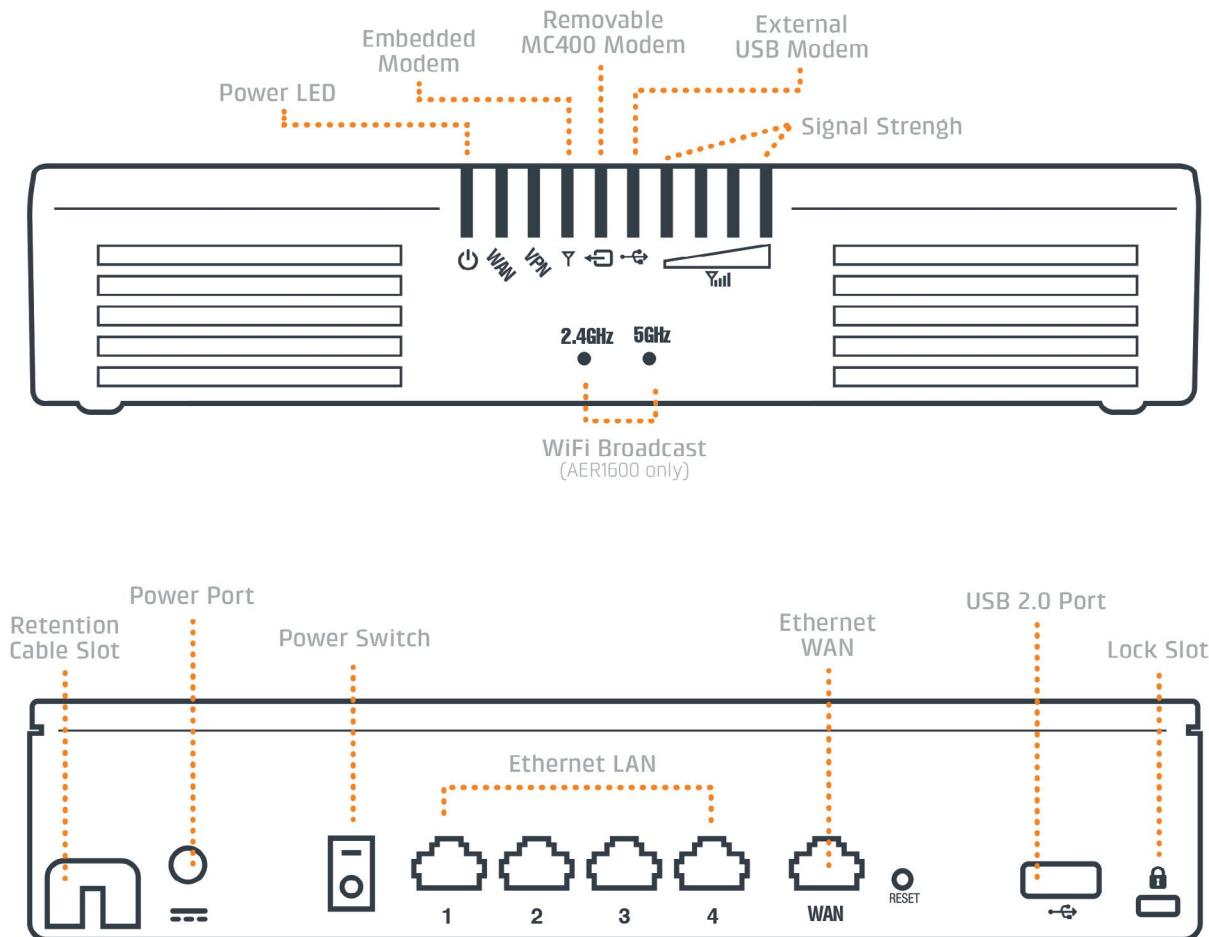
12V 3A AC/DC Power Adapter

Modem Antennas**

Ethernet Cable

*Included with AER1600LP3/AER1650LP3, optional for AER1600/AER1650 and AER1600LPE/AER1650LPE. **AER1600LPE/AER1650LPE only

HARDWARE

Power LED

Embedded Modem

Removable MC400 Modem

External USB Modem

Signal Strengh

WAN VPN

2.4GHz 5GHz

WiFi Broadcast
(AER1600 only)

Retention Cable Slot

Power Port

Power Switch

Ethernet LAN

Ethernet WAN

USB 2.0 Port

Lock Slot

1   2   3   4   WAN   RESET

LED Indicators

Power LED: The Cradlepoint AER1600/AER1650 must be powered using an approved 12V DC power source.

+ Green = Powered ON

+ No Light = Not receiving power. Check the power switch and the power source connection.

+ Amber = Attention. Open the administration pages (see page 4) and check the router status. The LED will show amber until the user changes the default Administrator and WiFi passwords. Default passwords must be changed to secure the router.

Ethernet WAN: Indicates information about a data source connected to the Ethernet WAN port.

+ Blue = Connected to an active Ethernet WAN interface

VPN: Indicates information about a VPN data source.

+ Green = Active VPN tunnel

Embedded Modem: Indicates the status of embedded modem (only on AER1600LPE/AER1650LPE).

+ Green = Modem has established an active connection.

+ Blinking Green = Modem is connecting.

+ Blinking Amber = Data connection error. No modem connection possible.

+ Blinking Red = Modem is in the process of resetting.

Removable MC400 Modem: Indicates the status of removable MC400 modem.

External USB Modem: Indicates the status of removable modem(s). *Reference Embedded Modem for LEDs.*

Signal Strength: Blue LED bars indicate the active modem's signal strength for integrated & removable modems.

+ 4 Solid Bars = Strongest signal

+ 1 Blinking Bar = Weakest signal. (A blinking bar indicates half of a bar.)
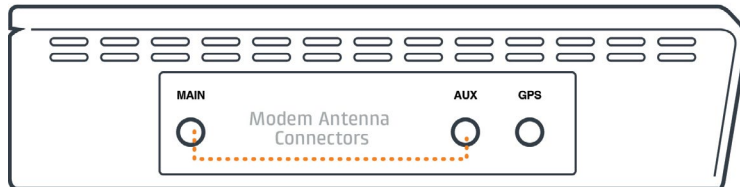
WiFi Broadcast: (AER1600 only) These two LEDs indicate activity on the WiFi broadcast for both the 2.4 GHz and 5 GHz bands.

+ 2.4 GHz (green) = 2.4 GHz WiFi is on and operating normally.

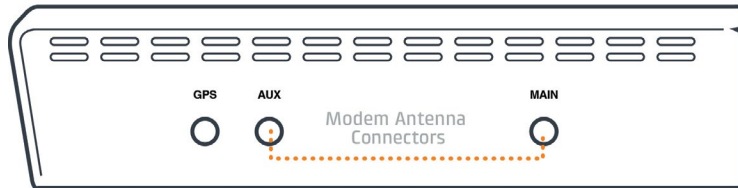+ 5 GHz (blue) = 5 GHz WiFi is on and operating normally.

Additional LED Indications

+ Several different LEDs blink when the factory reset button is detected.

+ Two of the modem LEDs blink red in unison for 10 seconds when there is an error during a NetCloud OS (firmware) upgrade.

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REMOVABLE MODEM SLOT

MAIN AUX GPS
Modem Antenna Connectors

EMBEDDED MODEM

GPS AUX MAIN
Modem Antenna Connectors

DEVICE DETAILS

Model numbers:

AER1600	S4A542A	AER1600LP4	S4A637A
AER1650	S4A547A	AER1650LP4	S4A642A
AER1600LPE	S4A543A	AER1600LP6	
AER1650LPE	S4A548A	AER1650LP6	

Accessories:

+ Replacement power adapters

+ External modem antennas & cabling

Enterprise Support

For enhanced services including enterprise-level support, extended warranties, and expert installation, check out Cradlepoint's CradleCare suite of services.
Learn More: cradlepoint.com/cradlecare

Modem Options

The Cradlepoint AER1600 / AER1650 is available with three different modem options:

+ AER1600LPE / AER1650LPE include an embedded modem and a slot to add an MC400 modem

+ AER16x0LP3 and AER16x0LP6 include a bundled MC400 modem and do not include an embedded modem

+ AER1600 / AER1650 only include a slot for an MC400 modem and do not include an embedded modem

GETTING STARTED

Setting Up the Router

+ Purchase a data plan. Insert the SIM as shown on the following page.

+ Connect modem antennas (finger tight only).

+ Plug the power supply into an electrical outlet.

+ Ensure power is switched on. O = OFF I = ON

Antennas

When connecting the provided antennas, review the connection points. Modem antennas have protruding pins (SMA).

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SIM Card Setup

Begin by activating your SIM card.

For AER1600LPE / AER1650LPE:

+ Open embedded modem SIM cover on bottom of router and insert activated SIM into the slot marked SIM 1 (use the other slot, SIM 2, for a secondary/backup SIM).

+ Close embedded modem SIM cover.

NOTE: Router will not operate if embedded modem SIM cover is not fully closed.

For all models with removable MC400 modem:

+ Remove MC400 cover from side of router and insert activated SIM(s) into removable MC400 modem (optional for AER1600LPE / AER1650LPE and AER1600 / AER1650).

+ Insert the SIM card into the slot marked SIM 1 (use the other slot, SIM 2, for a secondary/backup SIM).

+ Insert the card with the notch-end first and the gold contacts facing down.

+ Reinsert the removable MC400 modem, replace cover, and insert the included security screw if desired.

NOTE: To remove modem, remove MC400 cover, attach included modem antennas (finger-tighten only), and pull modem straight out.

Access the Administration Pages

To make configuration changes to your router, open the AER1600's GUI-based administration pages.

1. Connect to the router via Ethernet or WiFi. For WiFi, the default SSID is found on the product label on the bottom of the router.
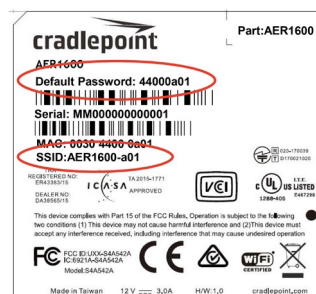
2. Open a browser window, type **"cp/"** or **"192.168.0.1"** in the address bar, and press return/enter.

3. When prompted for the Administrator password, type the default eight character password found on the product.

4. Upon login for the first time, you are automatically directed to the First Time Setup Wizard to configure Admin Password, Time Zone, WiFi Security, and WAN Failure Check.

Note: The power/attention LED will show amber until the user changes the default Administrator and WiFi passwords. Default passwords must be changed to secure the router.

cradlepoint NetCloud™

Deploy and Manage the Intelligent Network with Cradlepoint NetCloud

Cradlepoint NetCloud is a network management and application platform that integrates cloud-based, software-defined networking with your Cradlepoint devices to improve productivity, increase reliability, and reduce costs.

NetCloud includes SD-WAN capabilities and SD-Perimeter to enhance the security and scalability of your network and business operations.

To learn more and begin a free 30-day trial:

cradlepoint.com/netcloud
Sales & Support: +1 855-813-3385

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FIRST TIME SETUP WIZARD

When you log in to the local administration pages for the first time, you will be automatically directed to the **First Time Setup Wizard**, which will walk you through basic steps to customize your Cradlepoint AER1600. You have the ability to configure any of the following:

+ Administrator Password
+ Time Zone
+ WiFi Network Name
+ Security Mode

+ Access Point Name (APN)
+ Modem Authentication
+ Failure Check

If you are currently using the router's WiFi network, you will need to reconnect your devices to the network using the newly established wireless network name and password.

To return to the First Time Setup Wizard after your initial login, select 'System > System Control' on the left navigation bar and First Time Setup in the dropdown menu.

To restore the router to its factory default settings, press and hold the RESET button on the side of the device for ten seconds. Reset returns the login password to the default password and resets all configuration changes.

UPDATING NETCLOUD OS

Via NetCloud Manager

1. Log in at cradlepointcm.com using your NetCloud Manager credentials.

2. Navigate to the 'Groups' page.

3. Select a group and click on the NetCloud OS option in the top toolbar. In the dropdown menu that opens, select the desired version. Wait for NetCloud OS to load.

Via the Local Administration Pages

1. Log into the local administration pages (see page 4). You may have changed the 'Administration Password'.

2. Select 'System > System Control > System NetCloud OS'.

3. If a new version is available, select 'Automatic (Internet)'. Wait for NetCloud OS to load.

If you do not have an active Internet connection, you may need to use the 'Manual NetCloud OS Upload' option by downloading a new version from the Cradlepoint Connect Portal to a local device. Upload to the router on the System > System Control > System NetCloud OS' page.

ROUTER COMMUNICATION / DATA USAGE

The factory default configuration of the router is set to communicate with Cradlepoint and other resources at regular intervals to access the latest NetCloud OS and modem updates, clock synchronization (NTP), and NetCloud Manager membership. Such communication may result in data usage and applicable charges regardless of whether the router uses a wired or wireless Internet connection. To avoid such data usage and potential charges, consult the following Knowledge Base article:

http://knowledgebase.cradlepoint.com/articles/support/router-communication-data-usage