Airwall Gateway 175 Installation Guide

Johnson Controls

Introduction

The Airwall Gateway 175 is a five-port gateway that protects and connects your edge devices. Use this guide to set up basic network connectivity for an Airwall Gateway 175 and provision the gateway on the Airwall Conductor. The Conductor is the central configuration and management point for your Airwall secure network, and manages trust between devices and Airwall Gateways on your network.

Figure 1: Airwall Gateway 175
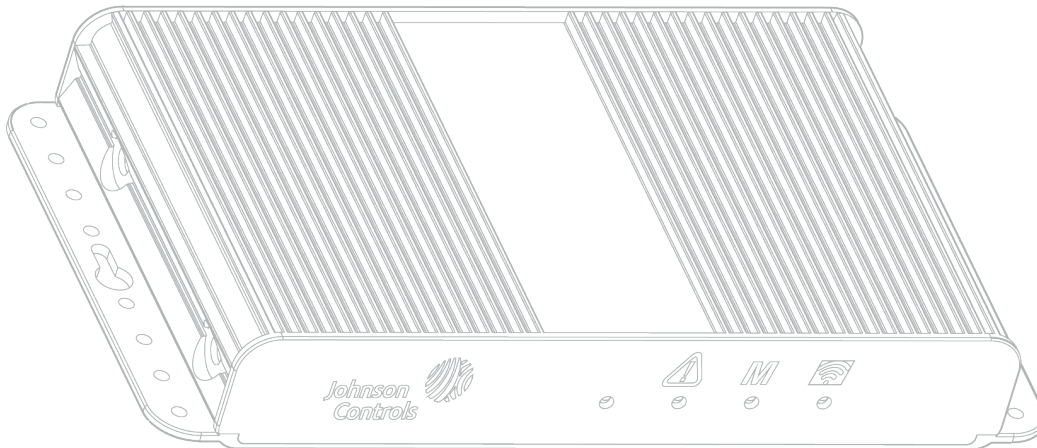
Parts

Included:

- Airwall Gateway 175
- Power supply
- DIN rail mounting clips
- Screws

Not included:

- Micro-USB to USB cable
- Network cables

Mounting

To mount the Airwall Gateway, complete the following steps:

1. Remove the Airwall Gateway from the packaging.
2. Fit the DIN rail mounting clips on to the side rails of the Airwall Gateway and mount the Airwall Gateway on a DIN rail. Alternatively, screw the Airwall Gateway directly to the wall using the side flange screw holes.

   ⓘ **Note:** Allow 250 mm space on DIN rail for the Airwall Gateway.

Panels

Figure 2: Front, side, and back panels
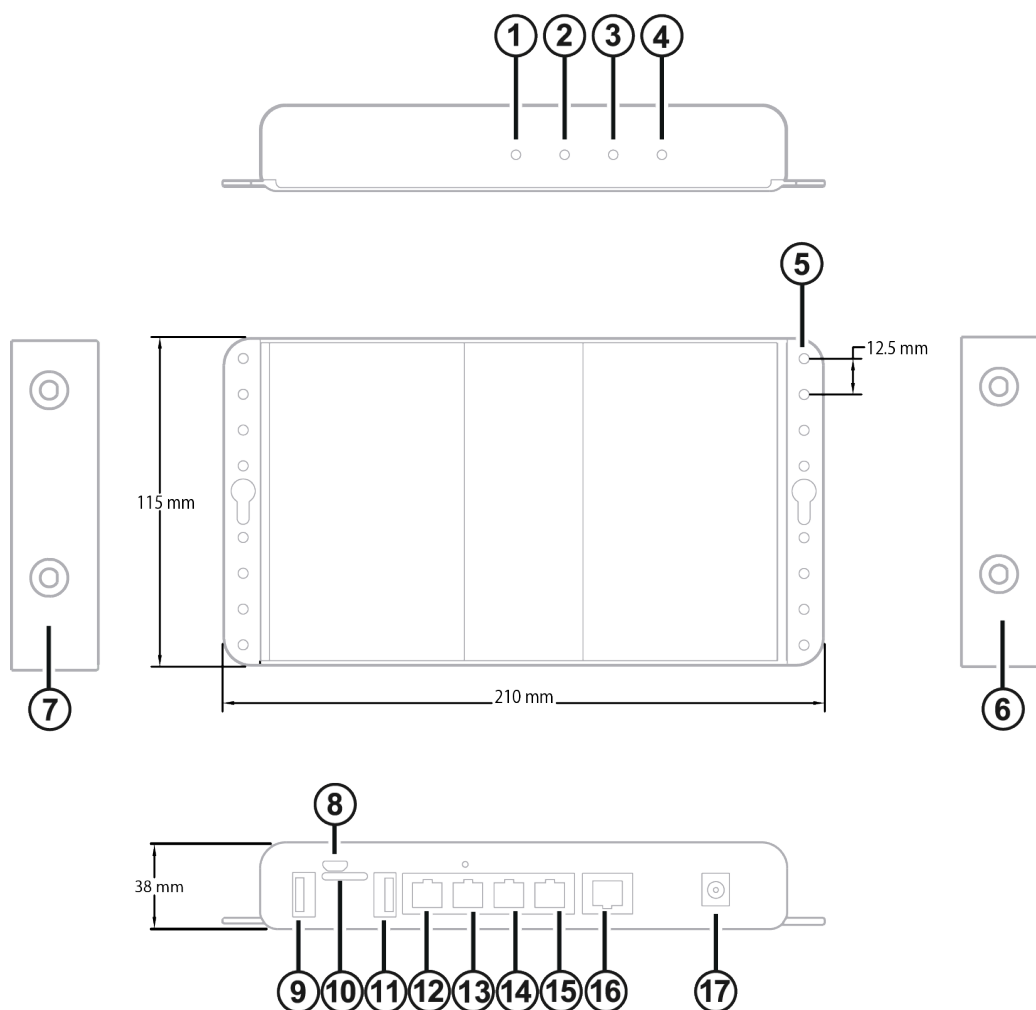
Callout	Description
1	Yellow LED: no function
2	Red LED: fault
3	Green LED, status
4	Blue LED, no function
5	Mounting flange with screw holes
6	Aerial connector - not in use
7	Aerial connector - not in use
8	Micro-USB port
9	USB port, not supported
10	SIM drawer

Callout	Description
11	USB port, not supported
12	Port 1: WAN
13	Port 2: LAN
14	Port 3: LAN
15	Port 4: LAN
16	Port 5: LAN, PoE (Power over Ethernet)
17	12 V DC jack

Connecting the Airwall Gateway to the network and the Conductor

Before you begin:
You need the following:

- The IP address or URL of the Conductor that manages the Airwall.
- At least two network cables to connect the Airwall Gateway to the underlay network and the devices you want to protect.
- A micro-USB to USB cable.

To connect the Airwall Gateway to the network and the Conductor, complete the following steps:

1. Use the power source to connect the Airwall to a power supply. Alternatively, connect port 5 with a PoE supplying switch or injector.

   ⓘ **Note:** If you want to use only one cable for both the underlay network and POE, you can reconfigure port 5 through:
   - the Conductor
   - Airsh in the serial console
   - diagnostic mode
   For more on these options, see Airwall Help in Related documentation.

2. Use a network cable in port 1 to connect the Airwall Gateway to an underlay network with access to the Conductor, either your company network or the Internet. By default, port 1 obtains an IP address through a DHCP client.

3. Use a micro-USB to USB cable to connect your computer to the Airwall Gateway's micro-USB console port. See Panels for location.

Figure 3: Airwall 175 wiring
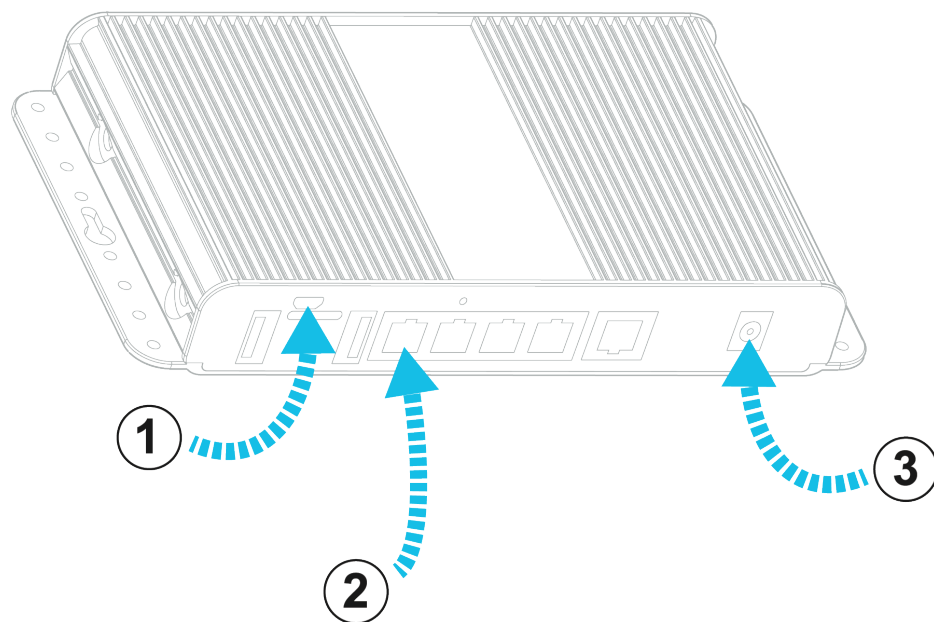
1.

Callout	Description
1	Connect micro-USB to USB cable from micro-USB port to laptop
2	Connect network cable from port 1 to network with access to Conductor or the Internet
3	Connect power cable to power supply

2. To connect to the Airwall Gateway from your computer in:
   - macOS and Linux, complete the following steps:
     i. On your computer, open a terminal window and enter the command: `ls /dev/tty*`
     ii. Find the micro-USB to USB serial interface name. For example, `/dev/tty.usbserial` or `dev/ttyUSB0`
     iii. Use a TTY terminal app such as screen to connect to the Airwall Gateway over serial:

        ```
        screen /dev/tty<serial_interface_name> 115200
        ```

- Windows, complete the following steps:
  i. On your computer, open Device Manager to find the COM port used by the micro-USB to USB cable.

Figure 4: Device Manager
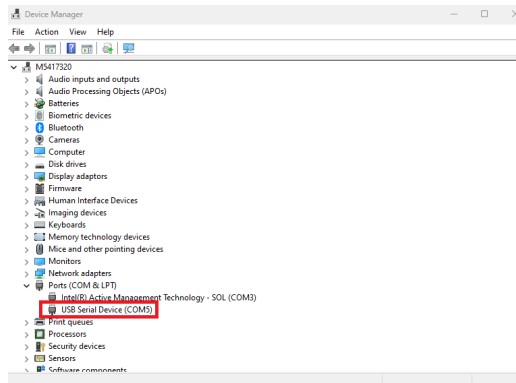
  ii. Open a terminal emulator such as PuTTY and select the serial connection type. Then enter the COM port number and use baud rate 115200.

Figure 5: Terminal emulator
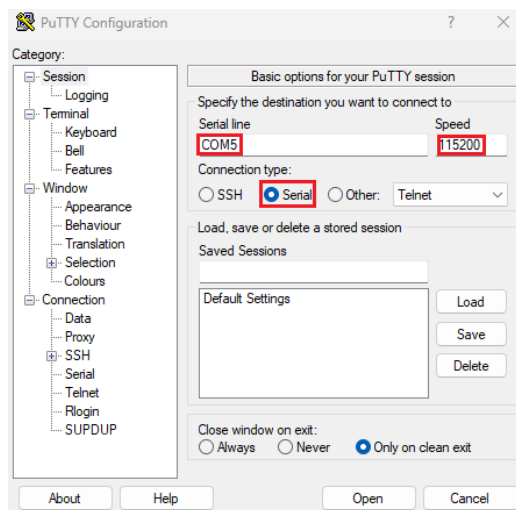
3. At the login prompt, log in with the name `airsh` and no password.
4. Run the ping command to check that the Airwall Gateway can reach the Conductor IP or hostname: `ping <Conductor_IP_or_hostname>`. For example:

   ```
   ping my_conductor.jci.com
   ```

5. Set the Conductor in the Airwall Gateway: `conductor set <Conductor_IP_or_hostname>`. Use `status` to verify the Airwall obtained a DHCP address on the network and connected to the Conductor.
6. Work with your Conductor administrator to manage and configure the connected Airwall Gateway from the Conductor.
7. You can now connect the devices you want to protect to the Airwall Gateway on ports 2 to 5.

Status LED codes

ⓘ **Note:**
  • O denotes a flash

- - denotes a pause

Table 1: Status LED codes

Status	LED
Normal operation	On steady
Conductor blink	O O - -
Missing identity	O O O - - O - -
Factory reset	O O - - O - -
No Conductor connection	O O O O - - O O - -
System error	O O O O - - O O O - -
Secure network error	O O O O - - -
No shared network	O O O O - - O - -
Downloading firmware	O O O - - O O - -
Updating firmware	O O O - - -

Related documentation

For further information on the Airwall solution, refer to Airwall Help.

Safety and warnings

➤ **Important: Elevated operating ambient temperature:** If installed in a closed environment, make sure the operating ambient temperature is compatible with the specified maximum ambient temperature.

ⓘ **Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Technical specifications

Table 2: Technical specifications

Specification	Description
Physical and power specifications	
Ethernet ports	5 x 10/100/1000Base-T
Console port	1 x micro USB
USB ports	2 USB - not currently supported
Indicators	• 1 x fault LED • 1 x status LED
Power	• 12 V AC/DC power adapter, barrel plug, center positive • PoE: port 5, 15.4 W (802.3af class 3)
Temperature	• Operating: 0°C to 40°C (32°F to 104°F) • Storage: -45°C to 85°C (-49°F to 185°F)
Weight	Approximately 600 g (1.3 lbs)
Dimensions	Excluding antennas and DIN rail mount: • Width: 210 mm (8.25 in.) • Depth: 115 mm (4.5 in.) • Height: 38 mm (1.5 in.)
Performance specifications	
Throughput	• Encrypted: 84 Mbps, 12k PPS • Bypass: 165 Mbps, 16k PPS
Latency	Measured at 20% maximum throughput, one direction. • Encrypted: 8 ms • Bypass: 6 ms
Maximum protected devices	40 local protected devices
Maximum peer Airwall endpoints	50 concurrent HIP tunnels

Regulatory and compliance

Table 3: Regulatory and compliance

Export compliance	
HS code	8517620020
Hardware origin	Taiwan
ECCN	5A002.a.1
CCATS	Pending
Software origin	United States
Regulatory approvals	
US	FCC
Canada	IC / ISED
EU	CE, LVD, EMCD, RED(w), RoHS, REACH, WEEE
UK	UKCA

Table 3: Regulatory and compliance

Regulatory standards	
Electromagnetic compatibility	• FCC Part 15B class B • CAN ICES-3 (B) / NMB-3 (B) • EN 55032 : 2015 • EN 55024: 2010 • EN 55035: 2017 • Draft ETSI EN 301 489-1 V2.2.1 (w) • Final Draft ETSI EN 301 489-3 V2.1.1 (w) • Draft ETSI EN 301 489-17 V3.2.0 (w)
Electrical safety	• IEC 60950-1:2005+A1:2009+A2:2013 • EN 60950-1:2006+A2:2013
Radio	• ETSI EN 300 328 V2.1.1 (w) • ETSI EN 301 893 V2.1.1 (w) • ETSI EN 300 440 V2.2.1 (w) • FCC Part 15C, Part 15E (w)
EMR / Health	EN 62311:2008 (w)

Single point of contact

APAC	EU	UK	NA/SA
JOHNSON CONTROLS C/O CONTROLS PRODUCT MANAGEMENT NO. 32 CHANGJIANG RD NEW DISTRICT WUXI JIANGSU PROVINCE 214028 CHINA	JOHNSON CONTROLS VOLTAWEG 20 6101 XK ECHT THE NETHERLANDS	JOHNSON CONTROLS TYCO PARK GRIMSHAW LANE MANCHESTER M40 2WL UNITED KINGDOM	JOHNSON CONTROLS 5757 N GREEN BAY AVE. GLENDALE, WI 53209 USA

Contact info

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