# Platform Guide

Tempered

The Airwall 150 platforms are small form factor industrial (I-150e) and commercial (150e) grade security appliances that facilitate private overlay networks between customer-provided equipment and devices. This document contains important operating information, specifications, and installation instructions.

MODELS

Part Number	Model	Usage	Ports	Serial
PLF-0128-01	Airwall 150e	Commercial	4	Yes
PLF-0116-01	Airwall I-150e	Industrial	4	Yes

TOP AND FRONT PANEL LAYOUTS
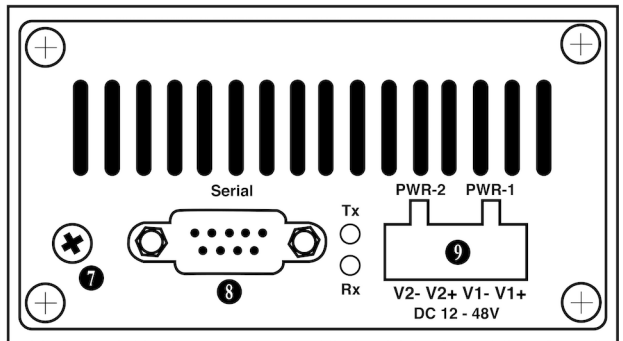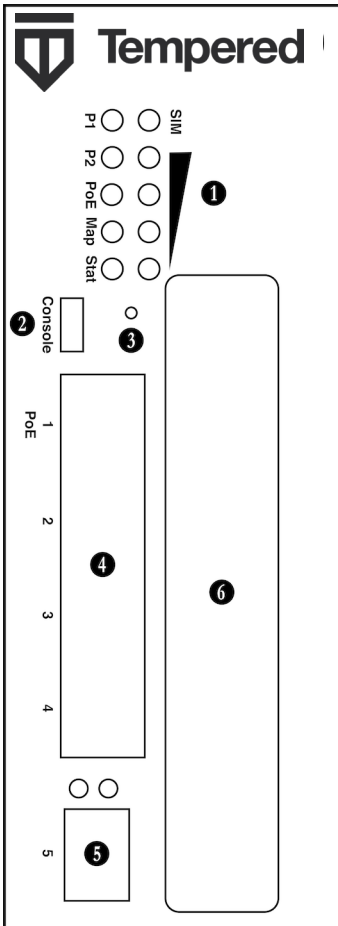
1. **LED: Signal indicators**

2. **Micro-USB console port**

3. **Multi-purpose button**

4. **Ethernet ports**

5. **SFP port**

6. **Expansion bay**

7. **Protective ground**

8. **RS-232 serial interface**

9. **Power input connector**

Multi-Purpose Button

NOTE: Some Tempered documents may refer to this as a "Reset" button.

The multi-purpose button provides two different functions, depending on how long it is pressed and held.

Short Press	Press for 3 seconds and release. The Status LED will now blink steadily.	Places the Airwall in diagnostic mode.
Long Press	Press for at least 8 seconds and release. The Status LED will now blink in a 2 flash, 1 flash pattern,	Resets the Airwall to factory defaults.

NOTE: To exit diagnostic mode, select Reboot in the diagnostic interface or turn it off and back on again.

Specifications

| **Airwall 150 Series**		
Ethernet Ports	4 x 10/100/1000 Mbps on RJ-45 ports, auto MDI/MDIX 1 x SFP 1000BASE-X, SGMII	
Console Port	1 x micro USB	
Controls	1 x multi-purpose button (actuated with pin)	
Indicators	4 x Signal strength 1 x SIM 3 x Power (P1/P2/PoE) 1 x Map	1 x Status 2 x Serial port activity (RX/TX) 10 x Ethernet
Power Input Failover	Automatic failover between all inputs	
DC Power Input	DC 12-48 V $=$ 1.5A - 0.375A, 18W	
Storage Temp range	-40° to 85° C (-40° to 185° F)	
Operating Temp range	HIPswitch I-150e	-30° to 70° C (-22° to 158° F)
	HIPswitch 150e:	0° to 70° C (32° to 158° F)
Operating humidity	5% to 95%	
Dimensions	155mm H x 55mm W x 100mm D (6.1in H x 2.16in W x 3.94in D)	
Mounting	DIN-rail, wall-mount, or rubber feet	
Weight	0.7 kg (1.54 lbs.)	
Power-over-Ethernet (PoE)		
PoE Power Input	Port 1: IEEE 802.3at, class 4 Pin 1/2,7/8(-), Pin 3/6,4/5(+)	
Protection Features	Overload, surge, and short-circuit protection	
Serial Interface		
Protocols	RS-232	
Connector	DE-9M	
Regulatory Approvals		
CE	EN 62368-1	
cETLus	UL 62368-1:2014 (2nd edition) / CSA C22.2 No. 62368-1-14	
IEC	62368-1:2014 (2nd edition)	
FCC/ISED	FCC Part 15B 2016 Class A, CAN ICES-003 class A	

Wiring

Power Inputs

This device supports dual redundant power supplies, power supply 1 (PWR 1) and power supply 2 (PWR 2). The connectors for PWR 1 and PWR 2 are located on the terminal block.
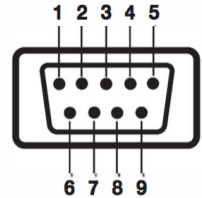
Step 1: Insert the negative DC into the V- terminal and the positive DC into the V+ terminal.
Step 2: To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-damp screws in the front of the terminal block connector.

PWR-2		PWR-1	
V2-	V2+	V1-	V1+
1	2	3	4
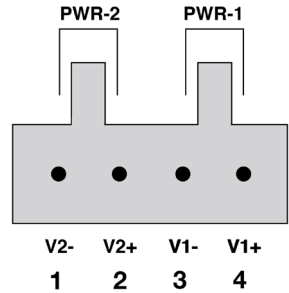
Serial Connector

Pin #	RS-232
1	DCD
2	RxD
3	TxD
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

1 2 3 4 5
6 7 8 9

Status LED Codes

Normal Operation	On Steady	No Conductor Connection	O O O O = = O O = =
Conductor Blink	O O = =	System Error	O O O O = = O O O = =
Missing Identity	O O O = = O = =	Secure Network Error	O O O O = = =
Factory Reset	O O = = O = =	No Shared Network	O O O O = = O = =
Diagnostic Mode	O = O = (fast blink)	Downloading Firmware	O O O = = O O = =
		Updating Firmware	O O O = = =

Provision the Airwall 150

The Conductor is the central configuration and management point for all Airwall Edge Services. For provisioning, an Airwall must be able to locate the Conductor on your shared network. The fastest method is to connect the Airwall via the console port.

1. Connect the Airwall to a network shared with the Conductor.
2. Connect a computer to the Airwall 150 using the micro USB console port located on the back.
3. Using a terminal (macOS, Linux) or terminal emulator (Windows), connect to the Airwall using baud rate 115200
4. At the login prompt, log in with name: airsh, password: airsh.
5. Use conductor set to set the Conductor IP address or URL and port (optional). For example:
    conductor set my-conductor.tempered.
6. Turn the power off and back on again.
The Airwall should now be recognized in the Conductor UI.

For alternate methods provisioning the Airwall or installing the console port driver, go to Airwall help at webhelp.tempered.io/webhelp/.

For the latest info, see Airwall help:

Troubleshooting

If an Airwall is online, you can use the Conductor user interface to download a packet capture file, a diagnostic report, or a support bundle.

Troubleshoot an Airwall using packet capture:
Packet capture is one of several diagnostic tools that you can use to facilitate troubleshooting.

1. Select **Airwalls** and choose one from the list and click **Diagnostics**.
2. Begin packet capture by clicking **Start Packet Capture** and then stop packet capture by clicking **Stop Packet Capture**.

Once the packet capture *.pcap* file has been created, you get a download link to the file. The *.pcap* file is a standard format file that can be viewed using any packet-capture and protocol-analysis tool, such as Wireshark.

Troubleshoot an Airwall by creating a diagnostic report:
Creating a diagnostic report is one of several diagnostic tools that you can use to get a general overview of the health of an Airwall.

1. Select **Airwalls** and choose one from the list and click **Diagnostics**. If the Airwall is offline, you can put it into diagnostic mode and download a support bundle.
2. Create your report by clicking **Request a diagnostic report**.

Once the report *.txt* file has been created, you get a download link to it. The diagnostic report provides a high-level look at the overall health of the Airwall.

To create a support bundle:
To facilitate customer troubleshooting, Tempered may request a Conductor support bundle.

1. Log in to the Conductor with a system administrator or network administrator account.
2. Select **Airwalls** and choose one from the list and click **Diagnostics**. If the Airwall is offline, you can put it into diagnostic mode and download a support bundle.
3. Create an Airwall support bundle by clicking **Request a support bundle**.

Once the support bundle *.pkg* file has been created, you get a download link to the file. A support bundle *.pkg* file is an encrypted archive that facilitates technical support by Tempered only. Send the support bundle as an email attachment to support@tempered.io.

⚠ Safety and Warnings

Elevated Operating Ambient: If installed in a closed environment, make sure the operating ambient temperature is compatible with the maximum ambient temperature specified by the manufacturer.

Reduced Air Flow: Make sure the amount of air flow required for safe operation of the equipment is not compromised during installation.

Mechanical Loading: Make sure the mounting of the equipment is not in a hazardous condition due to uneven mechanical loading.

Circuit Overloading: Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over-current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.