Tempered

e-mail: **support@tempered.io**
Phone: **+1 206.452.5500 ext. 2**
www.tempered.io

19410 HWY 99 STE A #119
Lynnwood, WA 98036

The Conductor-500 and Airwall-500 are 1U rack-mount security appliances that facilitate private overlay networks between customer-provided equipment and devices.

Both the Conductor and Airwall Gateway have a unique public/private 2048-bit key pair and a Tempered® signed certificate that establishes a chain of trust to a Tempered® certificate authority. The Conductor and Airwall use these certificates to authenticate to each other and establish secure communications over trusted and untrusted networks.

This guide contains instructions for configuring both the Conductor-500 and the Airwall-500.

Front Panel Layout
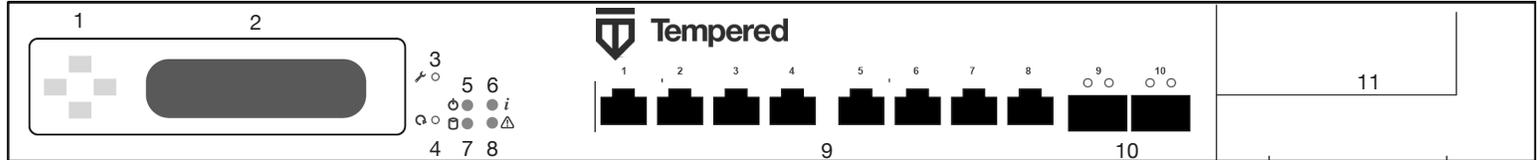
1 Buttons for LCD display navigation	**5** Power LED	**9** 8x RJ45 Ethernet ports
2 LCD display panel	**6** Activity indicator LED	**10** 2x SFP ports
3 Diagnostic/Reset button	**7** Status LED	**11** 1x Expansion bay
4 (non-functional)	**8** Alert LED	(functional for the Airwall-500 only)

Back Panel Layout
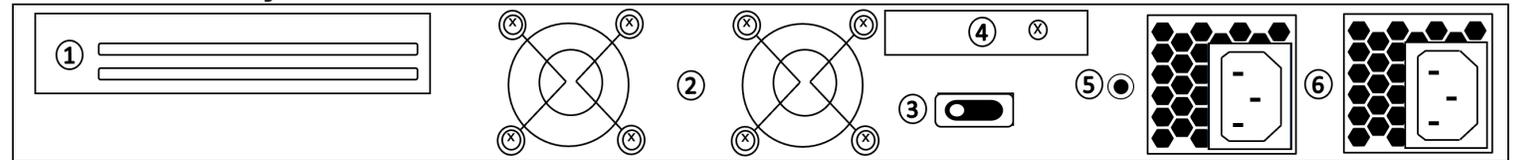
1 Future expansion slots	**3** Power switch	**5** Silence Alarm button
2 Case exhaust fans	**4** Case cover removal tab	**6** Dual power supply (both required)

Specifications

500 Series Hardware	
Ethernet Ports	8 x GbE on RJ-45 ports 1000/100/10M 2 x SFP GbE 1000/100M
Ethernet Expansion Bays	1
Power Supply (dual)	100-240V, 47-63Hz
Power Consumption	270W, max
Controls	1 Reboot button (actuated with pin) 1 Reset button (actuated with pin) 4 Push-buttons for LCD display unit 1 Power supply alert mute (back of unit)
Displays	1 Power LED 1 Activity LED 1 Status LED 1 Alert LED 1 2-line x 20-character LCD configuration and management front panel
Storage Temp range	-20° to 70° C (-4° to 158° F)
Operating Temp range	Primary power: 0°C to +45°C (+32°F to +113°F) Secondary power: 0°C to +40°C (+32°F to 104°F)
Operating humidity	5% to 90%, non-condensing
Dimensions	450mm W x 430mm D x 44mm H (17.7" W x 16.93" D x 1.74" H)
Mounting	1U rack mount
Weight	8.5 kg (18.74 lb)

Ethernet Expansion Module: 2-port SFP+ (Airwall-500 only)	
Ethernet Ports	2 x 10GbE SFP+
Type	Fiber

Ethernet Expansion Module: 8-port RJ45 (Airwall-500 only)	
Ethernet Ports	2 8 x 1GbE RJ45
Type	Copper

Ethernet Expansion Module: 8-port RJ45/SFP (Airwall-500 only)	
Ethernet Ports	4 x 1GbE RJ45 4 x 1GbE SFP
Type	Mixed

Regulatory Approvals	
CE	EN 55032: 2015 / AC: 2016 CISPR 32: 2015 (Ed 2.0) / C1: 2016 EN 61000-3-2: 2014, EN 61000-3-3: 2013
IEC	IEC 60950-1:2005 (2nd edition), Am 1:2009, Am 2:2013
FCC	Part 15B Class A
AS/NZS	CISPR 32: 2015 CISPR 32: 2015 (Ed 2.0) / C1: 2016
VCCI	VCCI-CISPR 32: 2016

Provision the Conductor-500

The Conductor has a static IP address configured on its underlay port. To continue initial setup, connect a workstation to port 1 on the Conductor. Only use Port 1 or Port 2. Do not use any other ports.

Step 1: Log in and secure the system administrator account:

1. The Conductor is configured with IP address: *192.168.56.2*
2. Configure your computer with an IP address in the *192.168.56.0/24* subnet, e.g. *192.168.56.100*
3. In a web browser, connect to https://192.168.56.2
4. Enter the default system administrator username *admin*
5. Enter the default system administrator password *admin123*
6. Change the default system administrator credentials when prompted.

Step 2: Connect the Conductor to your underlay

Once you have secured the system administrator account, you can connect the Conductor to the underlay using the NIC configured previously. After you connect the Conductor to the underlay, you can connect to the web-based administrator UI using the hostname or IP address you configured during initial setup.

Step 3: Enter Conductor system configuration information

Once you successfully log in from the Conductor software and change the default login information, you enter basic configuration information for your Conductor in the System Configuration dialog.

On either the **Network Adapter 1** or **Network Adapter 2**, select one of the following:
- DHCP to dynamically obtain an IP address from the shared network.
- A DNS hostname for the Conductor. This hostname will be included in the DHCP request to facilitate DNS registration.
- A static IP address that will be valid on the underlay.

Note: When you click **Update Settings**, you may lose your current connection to the Conductor while the settings are applied. You can log back into the Conductor once the configuration is complete.

Provision the Airwall-500

You use Diagnostic mode to initially provision an Airwall and configure the settings that are most appropriately controlled locally or that cannot depend on connectivity to Conductor.

To place the Airwall in diagnostic mode:

Press and hold the **Diagnostic/Reset** button on the front panel for 3 seconds. The Status LED will flash in fast, steady pattern, indicating the unit is in diagnostic mode.

CAUTION: Do not continue pressing the reboot button for more than 5 seconds as this will factory-reset the Airwall.

Once in diagnostic mode, all device network ports are temporarily bridged together and assigned a temporary IP address of 192.168.56.3, and a DHCP server is temporarily active on the ports. In this configuration, you can connect a workstation directly and use it to access the diagnostic mode UI via a basic web user interface active on the device network ports. This UI is used for basic settings and information displays.

The Conductor is the central configuration and management point for Airwall Gateways and they must be able to locate the Conductor on the underlay.

To configure the Airwall:

1. Apply power to the Airwall.
2. Place the Airwall into diagnostic as described above.
3. Configure a workstation to use DHCP to obtain an IP address and netmask, then connect the workstation to any of the device network ports of the Airwall.
4. Open a web browser on the workstation and navigate to http://192.168.56.3 and the diagnostic mode user interface will load.
5. Click on the **Configuration** drop down, click on **Conductor URL** and enter the Airwall Conductor URL in **Host** field and *8096* in the **Port** field.
   - If the hostname of the Airwall Conductor is conductor-01.example.com, the URL should be entered as *https://conductor-01.example.com*
   - If the IP address of the Airwall Conductor is 192.168.56.2, the URL should be entered as *https://192.168.56.2*
     NOTE: You must use HTTPS, and connection on port 8096.
6. Click **Submit**.
7. Reboot the Airwall to return it to normal operating mode. You can reboot it by selecting **Diagnostic/Reboot** in the diagnostic mode user interface, or by turning the Airwall off and back on again.

Once the Airwall is correctly provisioned, it appears in the Conductor user interface, where you can further configure and manage it.

Additional Documentation

If you require additional information about configuring or managing your 500-series hardware, see Airwall help at https://webhelp.tempered.io/webhelp.

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.

Explosion Hazard: Do not disconnect equipment unless power has been removed or the area is known to be non-hazardous.

For the latest info, see Airwall help: