

Installation Guide



Allegro Network Multimeter

Installation Guide

This document describes the hardware installation and software configuration of the Allegro Network Multimeter.

Default Settings

	Allegro 1000 / 3 000	Allegro 200
LAN:	DHCP client	DHCP client
WiFi SSID:	allegro-mm-xxxx	allegro-mm-xxxx
WiFi WPA2 key:	Allegro-MM	Allegro-MM
WiFi web access:	https://allegro/ or https://192.168.4.1	https://allegro/ or https://192.168.4.1
Web interface user name:	admin	admin
Web interface password:	allegro	allegro
IP KVM user name and password:	ADMIN / ADMIN	—

Overview

The guide contains the following sections:

1. Package Content
2. Hardware Deployment
3. Device Start
4. Management Interface Configuration
5. IP KVM Interface
6. Configuration Reset and Automatic Firmware Update
7. Firmware Update Notification
8. Factory Reset
9. Additional Notes

Notice

The Allegro 200 is a passively cooled device, so the surface gets warm. This does not affect the performance or stability of the system. The Allegro 200 is designed for up to 60°C operating temperature.

1. Package Content

The Allegro Network Multimeter package contains the following items:

Allegro 1000 / 3 000	Allegro 200
1 x Allegro Network Multimeter	1 x Allegro Network Multimeter
1 x Power supply	1 x Power supply
1 x Power cable	1 x Power cable
1 x Rack mount kit	1 x USB-Gigabit-Ethernet adapter
1 x WiFi USB adapter (already pre-installed)	1 x WiFi USB adapter (already pre-installed)
1 x Installation Guide	1 x Installation Guide

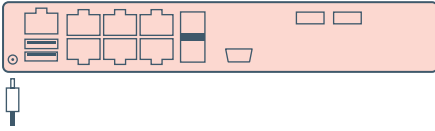


2. Hardware Deployment

2.1. Management Access (Control Plane)

Step 1: Connect power supply:

Allegro 1000/3000 (portable version):



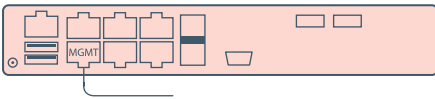
Allegro 200 (portable version):



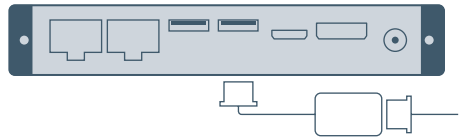
Allegro 1200/3200 (rack version):



Step 2: Connect management LAN connection to the port labelled as „MGMT“ (the bottom left port):

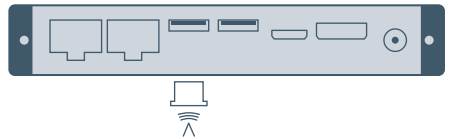
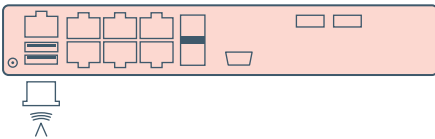


Connect management LAN connection to the USB-Ethernet adapter and insert into any USB port:



By default, the device will query an IP address via DHCP dynamically from your network.

Alternative: Insert WiFi adapter to any of the two USB ports:



By default, the device will open an access point so other smartphones, tablets, or laptops can connect to the access point and access the web interface.

During initial install, your network connected to the MGMT port assigns an IP address to the Network Multimetric via DHCP. Later in the web configuration section, it is possible to configure a fixed IP or enable a DHCP server running on that network interface. Also, the wireless device can be enabled to access the web interface as a WiFi client or access point.

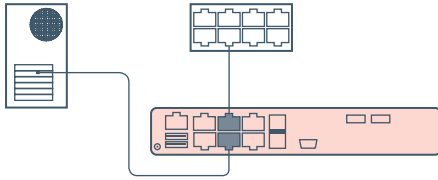
If access is not possible with the default configuration, a temporary IP address can be assigned: After booting, connect a USB keyboard to any of the USB ports and press "Shift+S". Now the IP address 192.168.0.1 is assigned to the LAN interface and it is valid until power off. If this is already taken another address in the range from 192.168.0.1 to 192.168.0.10 will be used. You can check the current IP address on a connected monitor.

2.2. Network Measurement Installation (Data Plane)

The Allegro Network Multimeter analyzes all traffic going through any of the network interfaces. It can be deployed in the following setups:

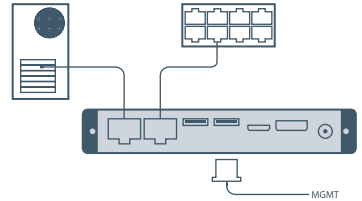
1. Bridge mode:

Every pair of interfaces build a layer-2 bridge, sending all incoming traffic to the corresponding interface. Each vertical pair of interfaces forms a bridge.



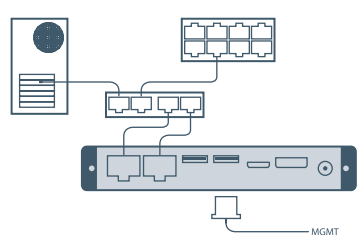
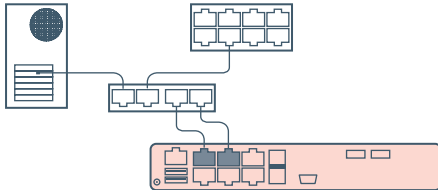
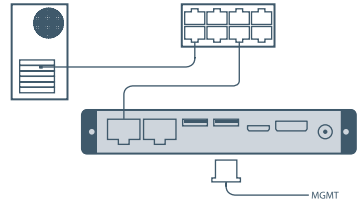
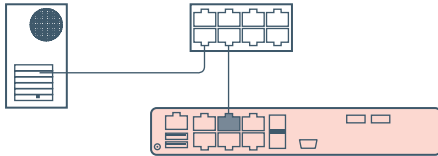
The interface number 1 only processes incoming traffic from a mirror port.

Both interfaces build a layer-2 bridge, sending all incoming traffic to the corresponding interface:

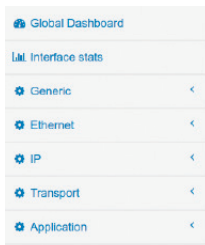


2. Sink mode:

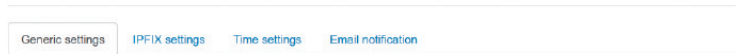
Received packets will be processed, but not forwarded. Connect the network multimeter to a hardware tap by connecting both tap ports to the device. Alternatively, a switch or router mirror port can be connected to any of the device network interfaces:



Default behavior is the bridge mode, thus running as an in-line device. The link mode can be configured via web interface (menu „Settings → Global settings“):



Global settings



Generic settings

Packet processing mode: **Bridge mode**

Available modes:

- Bridge mode: pairwise receive and transmit packets for operation in-line
- Sink mode: only receive packets on all interfaces, for operation behind a network tap, or on a mirror port of a switch

3. Device Start

1. Press the power button at the front of the device. The device will boot within two minutes.
2. LAN access: The device got its IP from the DHCP server in your network. Check the console output on an attached monitor or ask the server administrator for the IP of the device, then enter the IP into the URL bar of your web browser.
3. WiFi access:
 - SSID: allegro-mm-xxxx (the last characters depend on hardware parameters of the individual device)
 - WPA2 password: Allegro-MM
 - Enter <https://allegro/> or <https://192.168.4.1> into the URL bar of your web browser.
4. Web interface authentication:
 - User name: admin
 - Password: allegro

4. Management Interface Configuration

You can configure the management interfaces by accessing the web interface at „Settings → Management interface settings“. The available options are described in the online manual which can be accessed in the web interface.

5. IP KVM Interface (Allegro 1000 / 3000 only)

The device supports a dedicated IPMI-based device management which can be accessed by connecting the „IP KVM“ port to your network. The vendor of the interface is SuperMicro, so please refer to the IPMI manual available here: http://www.supermicro.com/manuals/other/SMT_IPMI_Manual.pdf

6. Configuration Reset and Automatic Firmware Update

The **Configuration Reset** can be used to remove all user-made settings and restore the configuration to the factory settings.

1. Using the web interface: Go to menu Settings → Administration and click on "Reset system configuration". All settings including the network configuration will be reset to factory default.
2. Using the boot menu: This method can be used if access is no longer possible (maybe due to misconfiguration). Follow the instruction in the next section and select "Configuration reset" from the menu
3. Using a keyboard: The Configuration reset is also possible with an attached keyboard. This method will also search for a new firmware version and install it automatically. This option may be selected if the device should use the latest firmware and default settings (for example, when the device is sent to a different user). To do so, attach a keyboard to a USB port and press "Shift+R". After the successful reset and update the Multimeter will turn off. Otherwise, it will still stay powered on. Attach a monitor to check error messages.

7. Firmware Update Notification

Update information via email

With each release, Allegro Packets will send you an email with release notes and a link to download the update. If you want to be added to this mailing list, please contact us: allegro-packets.com/support.

On the website

All information about updates are summarized for you on our website: allegro-packets.com/support.

Using the Allegro web interface

Start your Allegro and click Settings on the left side of the menu and then „Firmware updates“. Click on "Check for new firmware" and the Allegro will tell you if a new version is available for download. If so you can choose to download it directly to the device. In addition, this page provides an overview of all versions available to you. To start the new version, click on „Activate“.

8. Factory Reset

To reset the device configuration back to factory settings, follow these instructions one by one. The factory reset will clear the whole system installation and restores the firmware version to the version which was originally shipped with the Multimeter. You may want to update to the current firmware afterwards (see the Firmware update section).

Allegro 1000 / 3000	Allegro 200
If the device is still running, power off the device by pressing the power button. The power LED should turn off after a few seconds. If the power LED still glows, hold the power button for three seconds to switch off the device.	If the device is still running, power off the device by pressing the power button. The power LED should turn off after a few seconds. If the power LED still glows, hold the power button for three seconds to switch off the device.
Remove all network cables from the device.	Remove all network cables from the device.
Connect a display to the VGA port (or use web access to the IP KVM).	Connect a display to the HDMI port.
Connect a USB keyboard to any of the two USB ports (or use web access to the IP KVM).	Connect a USB keyboard to any of the two USB ports.
Power on the device by pressing the power button.	Power on the device by pressing the power button.
After initialization, a boot menu appears. Select "Factory reset" and press Enter. Or select "Configuration reset" to reset the configuration settings only while keeping the current firmware installation.	After initialization, a boot menu appears. Select "Factory reset" and press Enter. Or select "Configuration reset" to reset the configuration settings only while keeping the current firmware installation.
The device will boot, reset everything to factory settings, and reboot again.	The device will boot, reset everything to factory settings, and reboot again.
The device is now reset to factory settings.	The device is now reset to factory settings.
Disconnect the display and keyboard.	Disconnect the display and keyboard.

9. Additional Notes

Manual: The device manual can be accessed from the web interface. Each web section contains a button to access context-specific documentation, the complete manual can be opened by clicking on the manual link in the menu.

Getting help:

If you have any questions regarding the Allegro Network Multimeter, please feel free to contact us:

allegro-packet.com/support.