

Monster Power Ethernet Gateway User Manual



FCC Notice

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.

FCC Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement

To comply with FCC RF exposure compliance requirements, the antenna used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC Modular Approval Statement

This equipment is sold only to OEM integrators and must be installed by the OEM or OEM integrators under the following conditions:

- 1) The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and
- 2) The transmitter must not be co-located with any other antenna or transmitter.

FCC Label

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Model: AIC-EGW (Arrayent Inc.)

FCC ID: Y4B-AIC-EGW

Introduction

The Monster Ethernet Gateway provides Internet connectivity to Monster Power Wireless Ecosystem products. The Monster Ethernet Gateway utilizes Internet Protocol to connect to a central Monster server that provides the monitoring and control capability from any web browser.

Features

The Monster Ethernet Gateway provides the following capabilities:

- Simple and fast set up – no configuration required
- Compatibility with most home and enterprise Internet routers
- Internet connectivity to any web browser anywhere in the world
- Wireless radio coverage of up to 5000 square feet of home or light commercial structures.

This document describes how to install and use the Monster Ethernet Gateway.

Requirements

Broadband connection

In order to connect the Monster Ethernet Gateway to the Internet, a broadband Internet connection will be required. Contact your local broadband connectivity provider to arrange for a connection to be installed if you do not have an Internet connection.

IP infrastructure

The Monster Ethernet Gateway requires the following facility IP (Internet Protocol) infrastructure:

- Broadband router or modem/router with available Ethernet connection (10 Megabits/second or better) on RJ-45 jack. Any home broadband router available in most electronic stores or provided by your broadband provider will work. Some enterprise class routers may require further configuration, refer to Appendix A for information in such situations.
- DHCP (Dynamic Host Configuration Protocol) enabled in the router with IP Gateway and DNS (Domain Name System) server information must be configured. Any home broadband router will already have this service available. Some enterprise level routers will require configuration to enable this service.

Tools

No tools are required for installation. If you wish to mount the Ethernet Gateway on a surface or wall, double sided mounting tape may be used.

Packing List

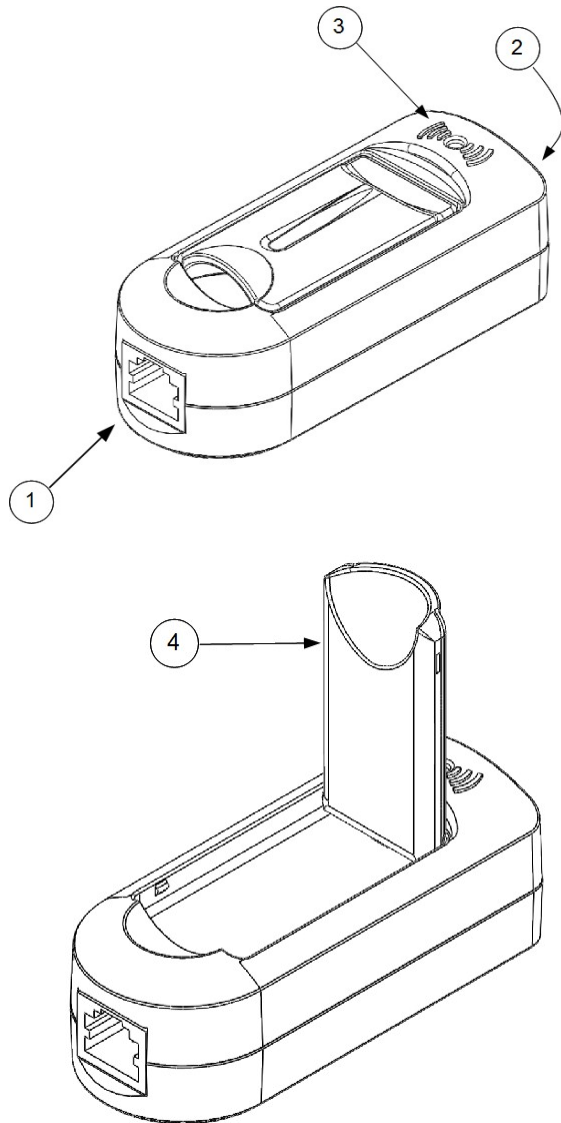
Locate the following materials in the package:

- Monster Power Ethernet Gateway
- DC power adapter (Monster Power Ethernet Gateway requires 4.5 to 6V, 200mA power supply, with 2.5mm barrel connector, center positive).

Equipment Description

The Monster Ethernet Gateway has the following physical features. Locate them in the accompanying diagram.

- 1) RJ-45 Ethernet jack
- 2) Power jack
- 3) Connection LED
- 4) Antenna



Installation

Location

Prior to installation, find a suitable location for placing the Monster Power Ethernet Gateway. Use the following recommendations to find such a location.

- The Ethernet Gateway can cover a 5000 square foot wood construction (typical home) facility. This implies a circular coverage area of about 40 feet in radius. Place the Ethernet Gateway in a central location so that this 40 foot circle covers the entire facility.
- If your facility is larger than this, consider using two or more Ethernet Gateways to provide adequate coverage.
- Best wireless coverage is achieved by placing the Ethernet Gateway at least 3 feet above ground level.
- Note that large concentrations of metal, such as home appliances, water heaters, fireplace hoods, or automobiles create a "radio shadow" which can disrupt wireless connectivity. Avoid placing the Ethernet Gateway near such obstacles.
- If a wireless connection cannot be established between an Ethernet Gateway and a Monster Power Wireless Ecosystem product, try moving the Ethernet Gateway horizontally or vertically by a few feet. Moving the Ethernet Gateway will often shift "radio shadows" around, which may be preventing the wireless connection from working.

Physical Installation

Follow these steps to install the Monster Power Ethernet Gateway.

- Plug an Ethernet cable (CAT-5 or higher rated) into the RJ-45 Ethernet jack on the Monster Power Ethernet Gateway.
- Plug the other end of the Ethernet cable into an Internet router, or an Ethernet LAN that is connected to the Internet.
- Plug the DC power adapter into an AC power socket, and plug the barrel connector into the power jack of the Ethernet Gateway.
- Raise the antenna section of the Ethernet Gateway. Ensure that the antenna is positioned at 90 degrees to the body of the Ethernet Gateway.
- You may optionally use double side tape to secure the Ethernet Gateway in its operational location. Do this after verifying connectivity to all Monster Power Wireless Ecosystem products.

Verifying Internet Connectivity

After connecting the Ethernet Gateway to power and Ethernet, the Connection LED should turn on in a few seconds. This indicates that the Ethernet Gateway is connected to the Internet and is ready to provide wireless connectivity to other Monster Power Wireless Ecosystem products.

If the Connection LED does not turn on, please follow the steps in Appendix B, troubleshooting, to check for problems.

Verifying Wireless Connectivity

To check for a radio connection, follow the instructions for installing the Monster Power Wireless Ecosystem product you wish to connect to the Internet. Verify that the connection LED on that product turns on. If it does, then the wireless connection is also working.

If the wireless connection is not working, please follow the steps in Appendix B for troubleshooting the problem.

Configuration

The Monster Power Ethernet Gateway is designed to be configuration free.

To configure the Monster Power Wireless Ecosystem product which is connected through the Ethernet Gateway, follow the directions in the user guide for that product.

Appendix A: IP infrastructure requirements

The Monster Power Ethernet Gateway connects to the Internet using the following protocols:

- Outgoing UDP connection to destination port 80
- Outgoing TCP connection to destination port 80

No configuration is required for any home broadband router. It may be necessary to open these outgoing ports on an enterprise class router or firewall. Note that any deep packet inspection looking for HTTP content will fail, as the Ethernet Gateway uses an encoded Monster protocol for connectivity.

Appendix B: Troubleshooting

Use the following steps to resolve problems.

General problems

- Verify that the broadband and IP requirements are met.
- Check that the AC power socket that the Ethernet Gateway DC power adapter is plugged into is providing AC power.
- Check that the DC power adapter is securely plugged into the Ethernet Gateway.
- Check to see that a PC or laptop is able to connect to the Internet.
- Verify that the PC or laptop is using DHCP to acquire an IP address (Windows IPV4 Properties: "Obtain an IP address automatically").

Ethernet connectivity problems

- Check the router or switch that the Ethernet Gateway is connected to. Verify that the connection or link light is turned on for the Ethernet jack connected to the Ethernet Gateway. If the light is not on, there may be a problem with the Ethernet cable.

Wireless connectivity problems

- Check that there is no large metal object between the Ethernet Gateway and the Monster Power Wireless Ecosystem product you are trying to connect.
- Try moving the Ethernet Gateway by a few feet either horizontally or vertically. Sometimes a horizontal or vertical movement of 3 or 4 feet is sufficient to escape a wireless "radio shadow".
- Try operating the Monster Power Wireless Ecosystem product close to the Ethernet Gateway. This will require moving the product temporarily. If wireless connectivity works when the product is moved, consider re-locating the Ethernet Gateway to a site closer to the product.