



# NanoStation *M*

## NanoStation loco *M*

Models: NanoStation M2/M5  
NanoStation Loco M2/M5/M900

### QUICK START GUIDE



## Introduction

Thank you for purchasing a Nanostation M series product. This is a point-to-point CPE wireless device. This Quick Start Guide is for use with the following models:

| Model                 | Operating Frequency | Ethernet Ports |
|-----------------------|---------------------|----------------|
| NanoStation M2        | 2403-2475 MHz       | 2              |
| NanoStation M5        | 5170-5875 MHz*      | 2              |
| NanoStation Loco M2   | 2402-2482 MHz       | 1              |
| NanoStation Loco M5   | 5170-5875 MHz*      | 1              |
| NanoStation Loco M900 | 904-926 MHz         | 1              |

\* Only 5745-5850 MHz is supported in the USA and Canada

## Package Contents



NanoStation



24v PoE  
Adapter



Power Cord



Mounting Ties

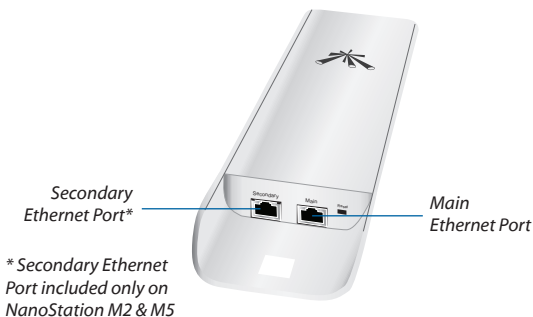
\* Products may be different from pictures and are subject to change without notice.

## Installation Requirements

- 10 mm wrench
- Shielded Category 5 (or above) cabling should be used for all wired Ethernet connections and should be grounded through the AC ground of the PoE.

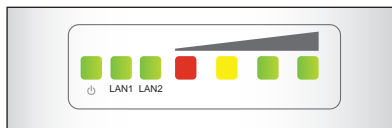
We recommend that you protect your networks from the most brutal environments and devastating ESD attacks with industrial-grade shielded Ethernet cable from Ubiquiti Networks. For more details, visit [www.ubnt.com/toughcable](http://www.ubnt.com/toughcable)

## Hardware Overview



**Note:** Secondary Ethernet Port is capable of 24V Power over Ethernet output which can provide power to a secondary device. It can be enabled using the AirOS interface.

## LEDs



**Power** The Power LED will light steady green when properly connected to a power source.

LAN1

**WAN/Main Ethernet** The LAN1 Ethernet LED will light steady green when an active Ethernet connection is made to the *Primary Ethernet Port* and flash when there is activity.

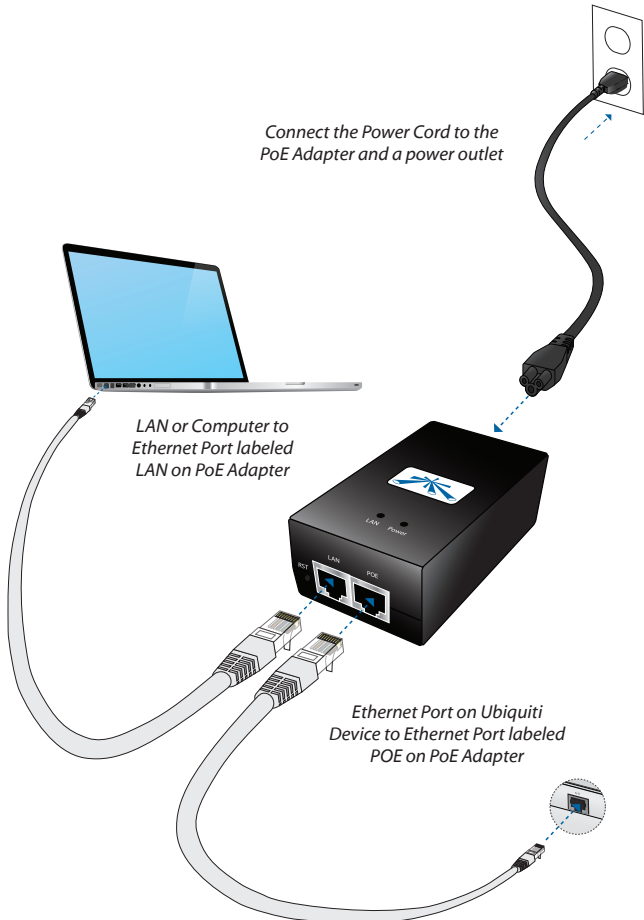
LAN2

**LAN/Secondary Ethernet** The LAN2 Ethernet LED (on NanoStation M2/M5 only) will light steady green when an active Ethernet connection is made to the *Secondary Ethernet Port*.



**Signal** These LEDs display the signal strength.

## Typical Deployment



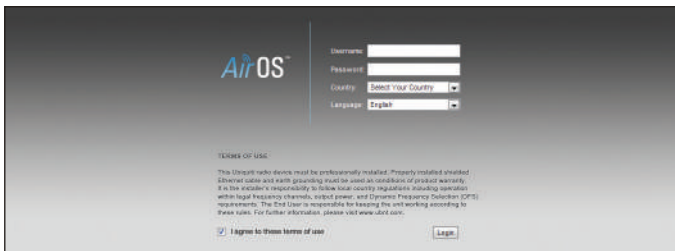
**Note:** Shielded Category 5 (or above) cabling should be used for all wired Ethernet connections and should be grounded through the AC ground of the PoE.

## Accessing AirOS

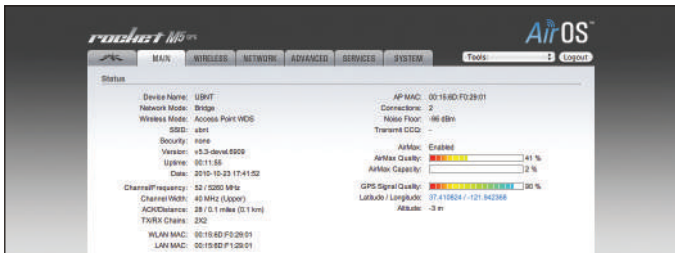
1. Make sure that your host machine is connected via Ethernet to the Ubiquiti Networks device (as shown on previous page).
2. Configure the Ethernet adapter on your host system with a static IP address on the 192.168.1.x subnet (e.g. 192.168.1.100).
3. Launch your Web browser and type **http://192.168.1.20** in the address field and press enter (PC) or return (Mac).



4. Enter **ubnt** in the *Username* and *Password* fields. Select your country from the *Select Your Country* drop-down. To use the product you must agree to the terms of use. To do so, click **I agree to these terms of use**. Click **Login**.

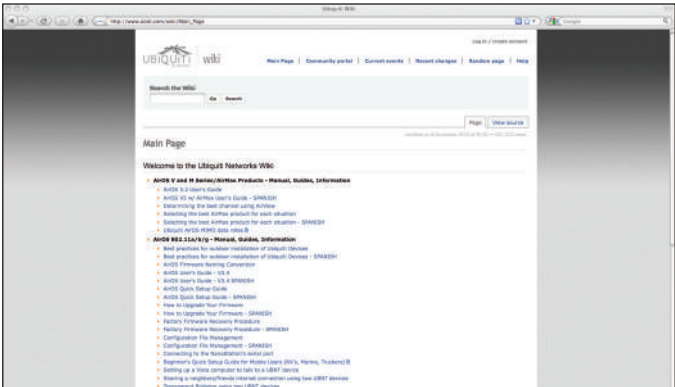


5. The AirOS Interface will appear allowing you to customize your settings as needed.



## Ubiquiti Networks Wiki and Forum

Ubiquiti Networks has an online Wiki with Manuals, Guides, and Information. It is located at [www.ubnt.com/wiki](http://www.ubnt.com/wiki).



Another great resource is the Ubiquiti Networks Forum. You can post and view comments, questions, and answers with other forum members and Ubiquiti staff at [www.ubnt.com/forum](http://www.ubnt.com/forum).



## Installer Compliance Responsibility

Devices must be professionally installed and it is the professional installer's responsibility to make sure the device is operated within local country regulatory requirements.

To use this product, you must agree to terms of use.

Username:

Password:

Country:

Language:

**TERMS OF USE**

This Ubiquiti radio device must be professionally installed. Properly installed shielded Ethernet cable and earth grounding must be used as conditions of product warranty. It is the installer's responsibility to follow local country regulations including operation within legal frequency channels, output power, and Dynamic Frequency Selection (DFS) requirements. The End User is responsible for keeping the unit working according to these rules. For further information, please visit [www.ubnt.com](http://www.ubnt.com).

I agree to these terms of use

**rocket M5** **AirOS™**

MAIN WIRELESS NETWORK ADVANCED SERVICES SYSTEM Total:  Logout

**Basic Wireless Settings**

Wireless Mode:   Auto

WDS Peers:

SBD:   Hide SBD

Country Code:

IEEE 802.11 Mode:

Channel Width:

Channel Shifting:

Frequency, MHz:

Extension Channel:

Frequency List, MHz:  Enabled

Auto Adjust to ERP Limit:

Antenna Gain:  dB  dBm

Cable Loss:  dBm

Output Power:  dBm

Max TX Rate, Mbps:   Automatic

**Wireless Security**

Security:

MAC ACL:  Enabled

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Since Ubiquiti Networks equipment can be paired with a variety of antennas and cables, the *Antenna Gain*, *Cable Loss*, and *Output Power* fields are provided to the professional installer to assist in meeting regulatory requirements.



**Note:** This product is locked to the US Country Code to ensure compliance with FCC regulations.



## Specifications

### NanoStation M

|                       |                                       |
|-----------------------|---------------------------------------|
| Enclosure Size        | 29.4 x 8 x 3 cm                       |
| Weight                | 0.5 kg                                |
| Max Power Consumption | 8 Watts                               |
| Power Supply          | 24V, 1A PoE Supply Included           |
| Power Method          | Passive PoE (Pairs 4, 5+; 7,8 return) |
| Operating Temperature | -30° to 75° C                         |
| Operating Frequency   |                                       |
| M2                    | 2403 MHz - 2475 MHz                   |
| M5                    | 5470 MHz - 5825 MHz                   |
| Networking Interface  | 2 10/100BASE-TX Ethernet Ports        |

### NanoStation Loco M

|                       |                                       |
|-----------------------|---------------------------------------|
| Enclosure Size        | 163 x 31 x80 mm                       |
| Weight                | 0.18kg                                |
| Max Power Consumption | 5.5 Watts                             |
| Power Supply          | 24V, 0.5A PoE Supply Included         |
| Power Method          | Passive PoE (Pairs 4, 5+; 7,8 return) |
| Operating Temperature | -30° to 80° C                         |
| Operating Frequency   |                                       |
| Loco M900             | 904 - 926 MHz                         |
| Loco M2               | 2412 MHz - 2462 MHz                   |
| Loco M5               | 5470 MHz - 5825 MHz                   |
| Networking Interface  | 1 10/100BASE-TX Ethernet Ports        |

## Safety Notices

1. Read, follow, and keep these instructions.
2. Heed all warnings.
3. Only use attachments/accessories specified by the manufacturer.



**WARNING:** Do not use this product in location that can be submerged by water.



**WARNING:** Avoid using this product during an electrical storm. There may be a remote risk of electric shock from lightning.

## Electrical Safety Information

1. Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
2. There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
3. This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.
  - a. Do not substitute the power cord with one that is not the provided approved type. Never use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.
  - b. The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.
  - c. Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment.

## General Warranty

UBIQUITI NETWORKS, Inc (“UBIQUITI NETWORKS”) represents and warrants that the Products furnished hereunder shall be free from defects in material and workmanship for a period of one (1) year from the date of shipment by UBIQUITI NETWORKS under normal use and operation. UBIQUITI NETWORKS sole and exclusive obligation under the foregoing warranty shall be to repair or replace, at its option, any defective Product that fails during the warranty period. The expense of removal and reinstallation of any item is not included in this warranty.

The foregoing warranty is exclusive and in lieu of all other warranties, express or implied, including the implied warranties of merchantability and fitness for a particular purpose and any warranties arising from a course of dealing, usage or trade practice with respect to the products. Repair or replacement in the manner provided herein shall be the sole and exclusive remedy of Buyer for breach of warranty and shall constitute fulfillment of all liabilities of UBIQUITI NETWORKS with respect to the quality and performance of the Products. UBIQUITI NETWORKS reserves the right to inspect all defective Products (which must be returned by Buyer to UBIQUITI NETWORKS factory freight prepaid).

No Products will be accepted for replacement or repair without obtaining a Return Materials Authorization (RMA) number from UBIQUITI NETWORKS. Products returned without an RMA number will not be processed and will be returned to Buyer freight collect. UBIQUITI NETWORKS shall have no obligation to make repairs or replacement necessitated by catastrophe, fault, negligence, misuse, abuse, or accident by Buyer, Buyer’s customers or any other parties. The warranty period of any repaired or replaced. Product shall not extend beyond its original term.

## Warranty Conditions

The foregoing warranty shall apply only if:

- (I) The Product has not been subjected to misuse, neglect or unusual physical, electrical or electromagnetic stress, or some other type of accident.
- (II) No modification, alteration or addition has been made to the Product by persons other than UBIQUITI NETWORKS or UBIQUITI NETWORK’S authorized representatives or otherwise approved by UBIQUITI NETWORKS.
- (III) The Product has been properly installed and used at all times in accordance, and in all material respects, with the applicable Product documentation.
- (IV) All Ethernet cabling runs use CAT5 (or above) shielded cabling.

Disclaimer: UBIQUITI NETWORKS does not warrant that the operation of the products is error-free or that operation will be uninterrupted. In no event shall UBIQUITI NETWORKS be responsible for damages or claims of any nature or description relating to system performance, including coverage, buyer’s selection of products for buyer’s application and/or failure of products to meet government or regulatory requirements.

## Returns

In the unlikely event a defect occurs, please work through the dealer or distributor from which this product was purchased.

## Compliance

### FCC

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

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

For MPE and antenna usage details, please visit our website at [www.ubnt.com/compliance](http://www.ubnt.com/compliance)

### Industry Canada

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that permitted for successful communication.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause interference, and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

En vertu des règlements d'Industrie Canada, cet émetteur radio ne peut fonctionner avec une antenne d'un type et un maximum (ou moins) approuvés pour gagner de l'émetteur par Industrie Canada.

Pour réduire le risque d'interférence aux autres utilisateurs, l'antenne type et son gain doivent être choisies de façon que l'équivalent puissance isotrope rayonnée équivalente (pire) n'est pas plus que cela autorisé pour une communication réussie.

Et Cet appareil est conforme à la norme RSS Industrie Canada exempts de licence norme (s). Son fonctionnement est soumis aux deux conditions suivantes:

1. Cet appareil ne peut pas provoquer d'interférences et
2. Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement du dispositif.

## RF Exposure Warning

The transceiver described here emits radio frequency energy. Although the power level is low, the concentrated energy from a directional antenna may pose a health hazard. Do not allow people to come closer than 55.53 cm to the antenna when the transmitter is operating.

Additional information on RF exposure is available on the Internet at **[www.fcc.gov/oet/info/documents/bulletins](http://www.fcc.gov/oet/info/documents/bulletins)**

L'émetteur-récepteur décrit ici émet de l'énergie de fréquence radio. Bien que le niveau de puissance est faible, l'énergie concentrée à partir d'une antenne directionnelle peut présenter un danger pour la santé. Ne pas permettre aux gens de se rapprocher de 55.53 cm à l'antenne lorsque l'émetteur est en marche.

Des renseignements supplémentaires sur l'exposition aux RF est disponible sur Internet à **[www.fcc.gov/oet/info/documents/bulletins](http://www.fcc.gov/oet/info/documents/bulletins)**

## CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it.

### Alert sign! Follows CE marking

Alert sign must be indicated if a restriction on use applied to the product and it must follow the CE marking.



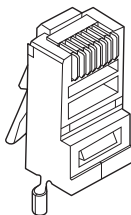
### NB-Identification number (if there is any)

Notified body number is indicated if it is involved in the conformity assessment procedure.



Please check the CE mark on the product label to find out which notified body was involved during assessment.

# TOUGH Cable™



## English

We recommend that you protect your networks from the most brutal environments and devastating ESD attacks with industrial-grade shielded Ethernet cable from Ubiquiti Networks. For more details, visit [www.ubnt.com/toughcable](http://www.ubnt.com/toughcable)

## Deutsch

Schützen Sie Ihre Netzwerke vor extremen Umwelteinflüssen und verheerender elektrostatischer Entladung (ESD), indem Sie abgeschirmte Ethernetkabel in Unternehmensqualität von Ubiquiti Networks verwenden. Weitere Informationen erhalten Sie unter [www.ubnt.com/toughcable](http://www.ubnt.com/toughcable)

## Español

Le recomendamos que proteja sus redes de los entornos más hostiles y los devastadores efectos de las descargas electrostáticas utilizando cable Ethernet blindado con calidad-industrial de Ubiquiti Networks. Para obtener más información, visite [www.ubnt.com/toughcable](http://www.ubnt.com/toughcable)

## Français

Nous vous recommandons de protéger vos réseaux contre les environnements les plus brutaux et les décharges électrostatiques les plus dévastatrices avec un câble Ethernet Ubiquiti Networks avec blindage renforcé. Pour en savoir plus, rendez-vous sur [www.ubnt.com/toughcable](http://www.ubnt.com/toughcable)

## Italiano

Si consiglia di proteggere le reti dagli ambienti e dagli attacchi ESD più invasivi con il cavo Ethernet schermato-di tipo industriale di Ubiquiti Networks. Per ulteriori informazioni, visitare il sito Web [www.ubnt.com/toughcable](http://www.ubnt.com/toughcable)



## Ubiquiti Networks Support

Email: **support@ubnt.com**

Phone (9 a.m. - 5 p.m. PST): **408-942-1153**

## Online Resources

Wiki Page: **www.ubnt.com/wiki**

Support Forum: **www.ubnt.com/forum**

Knowledge Base: **www.ubnt.com/kb**

Downloads: **www.ubnt.com/support/downloads**

