PowerBridge™

Carrier-Class
airMAX® BaseStation

Models:
PBM3, PBM365, PBM5
Introduction

Thank you for purchasing the Ubiquiti Networks™ PowerBridge™ M. This Quick Start Guide is designed to guide you through the installation, and show you how to access the airOS® Configuration Interface. This Quick Start Guide also includes the warranty terms and is for use with the following models:

<table>
<thead>
<tr>
<th>Model</th>
<th>Operating Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>PowerBridgeM3</td>
<td>3300 - 3700 MHz</td>
</tr>
<tr>
<td>PowerBridgeM365</td>
<td>3650 - 3675 MHz</td>
</tr>
</tbody>
</table>
| PowerBridgeM5 | Worldwide: 5170 - 5875 MHz  
USA: 5745 - 5850 MHz |

Package Contents

- PowerBridgeM
- Pole Brackets (Qty. 2)
- Pole Clamps (Qty. 2)
- Carriage Bolts (M8X135, Qty. 4)
- Flange Bolts (M8X20, Qty. 4)
- Flange Nuts (M8, Qty. 4)
- PoE Adapter (24V, 1A)
- Power Cord
- Quick Start Guide

TERMS OF USE: Ubiquiti radio devices must be professionally installed. Shielded Ethernet cable and earth grounding must be used as conditions of product warranty. TOUGHCable™ is designed for outdoor installations. It is the customer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, and Dynamic Frequency Selection (DFS) requirements.
Hardware Overview

Ports

**Ethernet Port** The Ethernet port is a 10/100 Mbps port used for data and supplies power to the PowerBridgeM. Power can be provided by any of the following:

- PoE adapter (included)
- Ubiquiti Networks TOUGHSwitch™ PoE
- Ubiquiti Networks EdgeRouter™ PoE

**Reset Button** To reset to factory defaults, press and hold the Reset button for more than 10 seconds while the PowerBridgeM is already powered on.
LEDs

**Power**  The Power LED will light green when the device is connected to a power source.

**Ethernet**  The Ethernet LED will light steady green when an active Ethernet connection is made and flash when there is activity.

**Signal**  In airOS, you can modify the wireless signal strength threshold values for each LED on the Advanced tab under *Signal LED Thresholds*. The default values are shown below:

- LED will light red when the wireless signal strength is above -94 dBm.
- LED will light amber when the wireless signal strength is above -80 dBm.
- LED will light green when the wireless signal strength is above -73 dBm.
- LED will light green when the wireless signal strength is above -65 dBm.
Installation Requirements

- 13 mm or ½" wrench
- Flathead screwdriver
- 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

Hardware Installation

To install the PowerBridgeM, perform the following steps:

1. The Port Cover is hinged to the PowerBridgeM and locked with a screw. Use a flathead screwdriver to turn the locking screw counter-clockwise until it is loose. Open the cover by sliding it down and raising it up.
2. Connect an Ethernet cable to the *Ethernet Port*.

3. Close the *Port Cover* and lock it in place by turning the locking screw clockwise.

4. Insert two *Carriage Bolts* into each *Pole Bracket*.
5. Connect the *Pole Brackets* to the *U-Brackets* using the four *Flange Bolts*. 
6. Mount the PowerBridgeM to the pole:
   a. Position the *Carriage Bolts* around the pole at the mounting location.
   b. Slide a *Pole Clamp* onto each pair of *Carriage Bolts*.
   c. Hand-tighten a *Flange Nut* on each *Carriage Bolt*.

   ![Diagram of mounting process]

   **Note:** The mounting assembly can accommodate a Ø 1.25” - 2.2” pole.

7. Rotate the PowerBridgeM to the correct azimuth towards the other end of the wireless link.
8. Adjust the elevation angle as needed:
   a. Loosen the four Flange Bolts on the U-Brackets.
   b. Adjust the PowerBridgeM to the desired elevation tilt.
   c. Tighten all bolts and nuts to approximately 25 N-m (18 lb-ft).
Powering the PowerBridgeM

The PowerBridgeM can be powered by the included PoE Adapter or any of the following compatible PoE switches:

• TOUGHSwitch PoE, model TS-5-POE
• TOUGHSwitch PoE PRO, model TS-8-PRO
• EdgeRouter PoE, model ERPoe-5

Connecting to the PoE Adapter

1. Connect the other end of the Ethernet cable from the PowerBridgeM to the Ethernet port labeled POE on the PoE Adapter.

2. Connect an Ethernet cable from your LAN or computer to the Ethernet port labeled LAN on the PoE Adapter.
3. Connect the *Power Cord* to the power port on the *PoE Adapter*. Connect the other end of the *Power Cord* to a power outlet.

**Connecting to a PoE Switch**

Connect the other end of the Ethernet cable coming from the PowerBridgeM directly to a PoE port on a compatible PoE switch.
Accessing airOS

Verify connectivity in the airOS Configuration Interface.

1. Make sure that your host machine is connected via Ethernet to the PowerBridgeM.
2. Configure the Ethernet adapter on your host system with a static IP address on the 192.168.1.x subnet.
3. Launch your web browser and type `https://192.168.1.20` in the address field. Press `enter` (PC) or `return` (Mac).

4. The login screen will appear. Enter `ubnt` in the Username and Password fields. Select your Country and Language. You must agree to the Terms of Use to use the product. Click Login.

   Note: U.S. product versions are locked to the U.S. Country Code to ensure compliance with FCC regulations.

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

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.
### Specifications

<table>
<thead>
<tr>
<th>PBM3 / PBM365 / PBM5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions</strong></td>
</tr>
<tr>
<td><strong>Weight</strong></td>
</tr>
<tr>
<td><strong>Operating Frequency</strong></td>
</tr>
<tr>
<td>M3</td>
</tr>
<tr>
<td>M365</td>
</tr>
<tr>
<td>M5</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Networking Interface</strong></td>
</tr>
<tr>
<td><strong>Enclosure</strong></td>
</tr>
<tr>
<td><strong>Max. Power Consumption</strong></td>
</tr>
<tr>
<td><strong>Power Supply</strong></td>
</tr>
<tr>
<td><strong>Power Method</strong></td>
</tr>
<tr>
<td><strong>Certifications</strong></td>
</tr>
<tr>
<td><strong>Mounting</strong></td>
</tr>
<tr>
<td><strong>Operating Temperature</strong></td>
</tr>
<tr>
<td><strong>Operating Humidity</strong></td>
</tr>
</tbody>
</table>
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.
   d. Protective earthing is provided by Listed AC adapter. Building installation shall provide appropriate short-circuit backup protection.
   e. Protective bonding must be installed in accordance with local national wiring rules and regulations.
Limited Warranty

UBIQUITI NETWORKS, Inc (“UBIQUITI NETWORKS”) warrants that the product(s) furnished hereunder (the “Product(s)”) 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 and liability under the foregoing warranty shall be for UBIQUITI NETWORKS, at its discretion, to repair or replace any Product that fails to conform to the above warranty during the above warranty period. The expense of removal and reinstallation of any Product is not included in this warranty. The warranty period of any repaired or replaced Product shall not extend beyond its original term.

Warranty Conditions

The above warranty does not apply if the Product:

(I) has been modified and/or altered, or an addition made thereto, except by Ubiquiti Networks, or Ubiquiti Networks’ authorized representatives, or as approved by Ubiquiti Networks in writing;

(II) has been painted, rebranded or physically modified in any way;

(III) has been damaged due to errors or defects in cabling;

(IV) has been subjected to misuse, abuse, negligence, abnormal physical, electromagnetic or electrical stress, including lightning strikes, or accident;

(V) has been damaged or impaired as a result of using third party firmware;

(VI) has no original Ubiquiti MAC label, or is missing any other original Ubiquiti label(s); or

(VII) has not been received by Ubiquiti within 30 days of issuance of the RMA.

In addition, the above warranty shall apply only if: the product has been properly installed and used at all times in accordance, and in all material respects, with the applicable Product documentation; all Ethernet cabling runs use CAT5 (or above), and for outdoor installations, shielded Ethernet cabling is used, and for indoor installations, indoor cabling requirements are followed.
Returns

No Products will be accepted for replacement or repair without obtaining a Return Materials Authorization (RMA) number from UBIQUITI NETWORKS during the warranty period, and the Products being received at UBIQUITI NETWORKS’ facility freight prepaid in accordance with the RMA process of UBIQUITI NETWORKS. Products returned without an RMA number will not be processed and will be returned freight collect or subject to disposal. Information on the RMA process and obtaining an RMA number can be found at: www.ubnt.com/support/warranty.

Disclaimer

EXCEPT FOR ANY EXPRESS WARRANTIES PROVIDED HEREIN, UBIQUITI NETWORKS, ITS AFFILIATES, AND ITS AND THEIR THIRD PARTY DATA, SERVICE, SOFTWARE AND HARDWARE PROVIDERS HEREBY DISCLAIM AND MAKE NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, REPRESENTATIONS, GUARANTEES, OR WARRANTIES OF MERCHANTABILITY, ACCURACY, QUALITY OF SERVICE OR RESULTS, AVAILABILITY, SATISFACTORY QUALITY, LACK OF VIRUSES, QUIET ENJOYMENT, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT AND ANY WARRANTIES ARISING FROM ANY COURSE OF DEALING, USAGE OR TRADE PRACTICE IN CONNECTION WITH SUCH PRODUCTS AND SERVICES. BUYER ACKNOWLEDGES THAT NEITHER UBIQUITI NETWORKS NOR ITS THIRD PARTY PROVIDERS CONTROL BUYER’S EQUIPMENT OR THE TRANSFER OF DATA OVER COMMUNICATIONS FACILITIES, INCLUDING THE INTERNET, AND THAT THE PRODUCTS AND SERVICES MAY BE SUBJECT TO LIMITATIONS, INTERRUPTIONS, DELAYS, CANCELLATIONS AND OTHER PROBLEMS INHERENT IN THE USE OF COMMUNICATIONS FACILITIES. UBIQUITI NETWORKS, ITS AFFILIATES AND ITS AND THEIR THIRD PARTY PROVIDERS ARE NOT RESPONSIBLE FOR ANY INTERRUPTIONS, DELAYS, CANCELLATIONS, DELIVERY FAILURES, DATA LOSS, CONTENT CORRUPTION, PACKET LOSS, OR OTHER DAMAGE RESULTING FROM ANY OF THE FOREGOING. In addition, UBIQUITI NETWORKS does not warrant that the operation of the Products will be 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 (including the Products) for buyer's application and/or failure of products (including the Products) to meet government or regulatory requirements.
Limitation of Liability

EXCEPT TO THE EXTENT PROHIBITED BY LOCAL LAW, IN NO EVENT WILL UBIQUITI OR ITS SUBSIDIARIES, AFFILIATES OR SUPPLIERS BE LIABLE FOR DIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES (INCLUDING LOST PROFIT, LOST DATA, OR DOWNTIME COSTS), ARISING OUT OF THE USE, INABILITY TO USE, OR THE RESULTS OF USE OF THE PRODUCT, WHETHER BASED IN WARRANTY, CONTRACT, TORT OR OTHER LEGAL THEORY, AND WHETHER OR NOT ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Note

Some countries, states and provinces do not allow exclusions of implied warranties or conditions, so the above exclusion may not apply to you. You may have other rights that vary from country to country, state to state, or province to province. Some countries, states and provinces do not allow the exclusion or limitation of liability for incidental or consequential damages, so the above limitation may not apply to you. EXCEPT TO THE EXTENT ALLOWED BY LOCAL LAW, THESE WARRANTY TERMS DO NOT EXCLUDE, RESTRICT OR MODIFY, AND ARE IN ADDITION TO, THE MANDATORY STATUTORY RIGHTS APPLICABLE TO THE LICENSE OF ANY SOFTWARE (EMBEDDED IN THE PRODUCT) TO YOU. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to any transactions regarding the sale of the Products.
Compliance

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

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.

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.

Industry Canada

This Class A digital apparatus complies with Canadian ICES-003.

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.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 Canada.

Pour réduire le risque d’interférence aux autres utilisateurs, le type d’antenne et son gain doivent être choisis de façon que la puissance isotrope rayonnée équivalente (PIRE) ne dépasse pas ce qui est nécessaire pour une communication réussie.

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 qui peuvent causer un mauvais fonctionnement du dispositif.

**RF Exposure Warning**

The antennas used for this transmitter must be installed to provide a separation distance of at least 113 cm from all persons and must not be located or operating in conjunction with any other antenna or transmitter.

Les antennes utilisées pour ce transmetteur doivent être installé en considérant une distance de séparation de toute personnes d’au moins 113 cm et ne doivent pas être localisé ou utilisé en conflit avec tout autre antenne ou transmetteur.

**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.
RoHS/WEEE Compliance Statement

English

European Directive 2002/96/EC requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potential negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

Deutsch

Español
La Directiva 2002/96/CE de la UE exige que los equipos que lleven este símbolo en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquier otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtener información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquirió el producto.

Français
La directive européenne 2002/96/CE exige que l’équipement sur lequel est apposé ce symbole sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être éliminé dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matériel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L’élimination et le recyclage en bonne et due forme ont pour but de lutter contre l’impact néfaste potentiel de ce type de produits sur l’environnement et la santé publique. Pour plus d’informations sur le mode d’élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l’endroit où vous avez acheté le produit.

Italiano
La direttiva europea 2002/96/EC richiede che le apparecchiature contrassegnate con questo simbolo sul prodotto e/o sull’imballaggio non siano smaltite insieme ai rifiuti urbani non differenziati. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifiuti domestici. È responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l’ambiente e per la salute dell’essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, Vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.
UBIQUITI NETWORKS declares that this UBIQUITI NETWORKS device, is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Con la presente UBIQUITI NETWORKS dichiara che questo UBIQUITI NETWORKS device, è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.

Ar o UBIQUITI NETWORKS deklar, ka UBIQUITI NETWORKS device, atbilst Direkt vas 1999/5/EK b tiskaj m pras b m un citem ar to saist tajem noteikumiem.

UBIQUITI NETWORKS deklaruoj, kad šis UBIQUITI NETWORKS įrenginys atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.

Hawnhekk, UBIQUITI NETWORKS, jiddikjara li dan UBIQUITI NETWORKS device, jikkonforma mal- ti jiijet essenzjali u ma provvedimenti o rajn relevanti li hemm fid-Dirrettiva 1999/5/EC.

UBIQUITI NETWORKS erklærer herved at utstyret UBIQUITI NETWORKS device, er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF.

UBIQUITI NETWORKS t mto vyhlasuje, e UBIQUITI NETWORKS device, sp a základné po iadavky a v etky príslu né ustanovenia Smernice 1999/5/ES.

Härmed intygar UBIQUITI NETWORKS att denna UBIQUITI NETWORKS device, står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.

Por medio de la presente UBIQUITI NETWORKS declara que el UBIQUITI NETWORKS device, cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.

Niniejszym, firma UBIQUITI NETWORKS o wiadcza, e produkt serii UBIQUITI NETWORKS device, spełnia zasadnicze wymagania i inne istotne postanowienia Dyrektywy 1999/5/EC.

UBIQUITI NETWORKS declara que este UBIQUITI NETWORKS device, está conforme com os requisitos essenciais e outras disposições da Diretiva 1999/5/CE.

Prin prezenta, UBIQUITI NETWORKS declară că acest dispozitiv UBIQUITI NETWORKS este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivei 1999/5/CE.

Online Resources

Support support.ubnt.com
Community community.ubnt.com
Downloads downloads.ubnt.com