MMB Thread Mesh Extender Quick Start Guide

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FCC

Note: 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 not 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:

(1) Reorient or relocate the receiving antenna.
(2) Increase the separation between the equipment and receiver.
(3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
(4) Consult the dealer or an experienced radio/TV technician for help.

Federal Communications Commission (FCC-US):
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.

To comply with FCC RF Exposure requirements, users of this device must ensure that the device be installed and/or configured to operate with a separation distance of 20cm or more from all persons. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ISED

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

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

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

1) L'appareil ne doit pas produire de brouillage;
2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The radiated output power of this device meets the limits of FCC/ISED Canada radio frequency exposure limits. This device should be operated with a minimum separation distance of 20 cm (8 inches) between the equipment and a person's body.

La puissance de sortie rayonné de cet appareil est conforme aux limites de la FCC/ISDE Canada limites d'exposition aux fréquences radio. Cet appareil doit être utilisé avec une distance minimale de séparation de 20 cm entre l'appareil et le corps d'une personne.

European Health and Safety Compliance (CE)

The MMB TME device has been tested against the relevant harmonized/designated standards and are in conformity with the essential requirements and other relevant requirements of the EMC-Directive (2014/30/EU) and the Radio Equipment Directive (RED) (2014/53/EU).

The products are entitled to carry the CE Mark and a formal Declaration of Conformity (DoC) is available at the product web page which is reachable starting from https://www.mmbnetworks.com/mmb-tbr

UK Conformity Assessment (UKCA)

The MMB TME device has been tested against the relevant harmonized/designated standards and are in conformity with the essential requirements and other relevant requirements of SI 2016 No. 1091 ("The Electromagnetic Compatibility Regulations 2016") and SI 2017 No.1206 ("The Radio Equipment Regulations 2017").

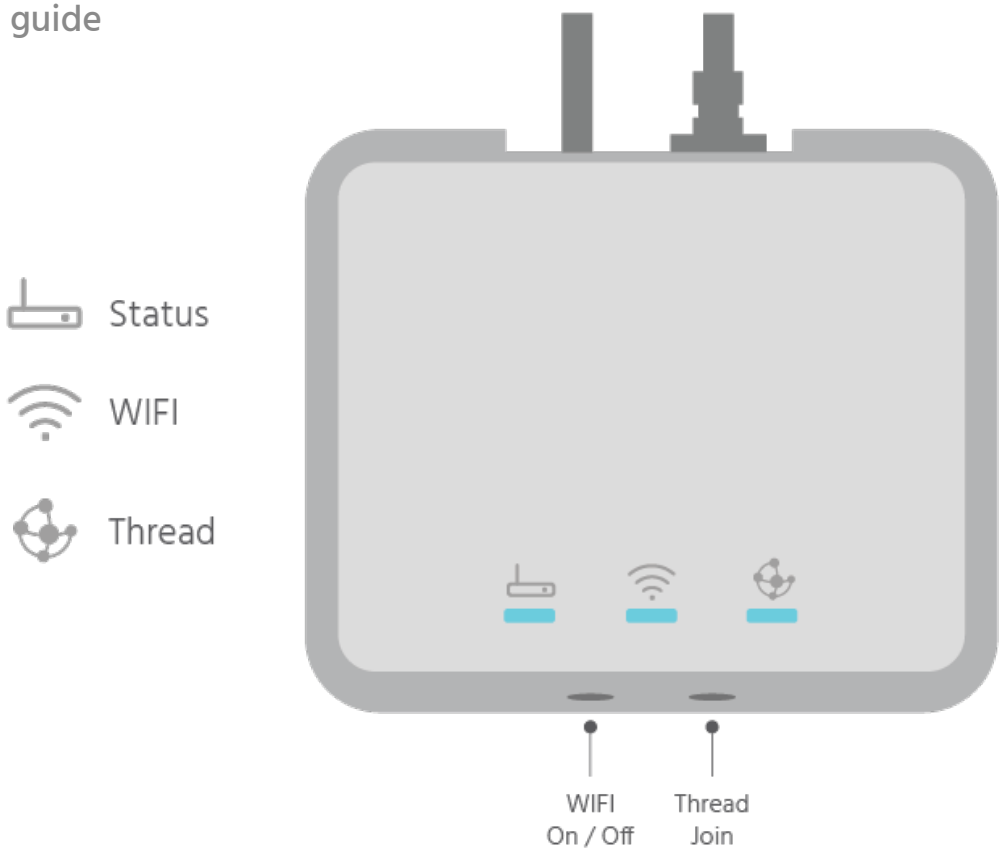
The products are entitled to carry the UKCA Mark and a formal Declaration of Conformity (DoC) is available at the product web page which is reachable starting from https://www.mmbnetworks.com/mmb-tbr

Getting Started

MMB TME Device Overview

Box Contents

1. MMB TME Device
2. USB-C Power Adapter
3. Screws and wall plugs
4. Mounting guide



LED Patterns

LED Pattern	Illustration	Comment
On		LED on constantly
Off		LED off constantly
Flashing		LED flashing every 2 seconds
Fast Flashing		LED flashing every 200 miliseconds

LED Patterns

Status	WIFI	Thread
Startup	Switched On	Not Commissioned
Normal Operation	Switched Off	Joining
	Traffic	Commissioning Mode
		Network Lost
		Joined to a Thread Network

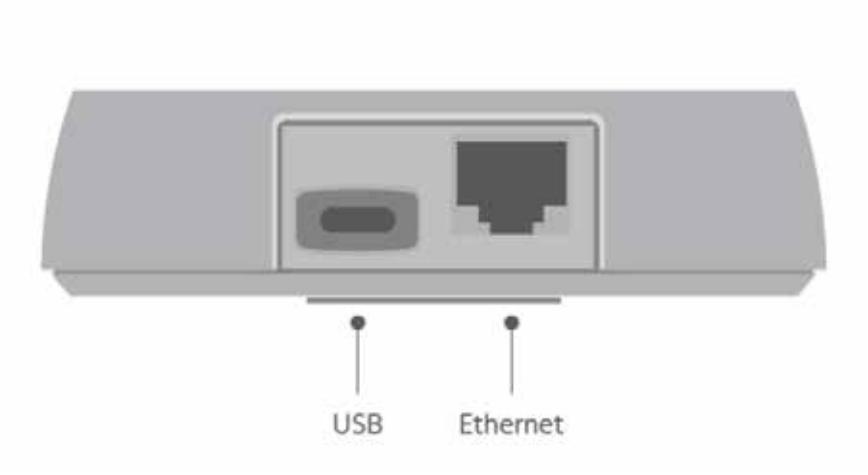
Device Control Using Front Panel Buttons

WIFI On / Off	Thread Join
Factory Reset (Press > 20 seconds)	(on MMB TME only) Start Thread on Mesh Joiner with PSKD (Toggle: Press < 2 seconds)

Setup MMB Thread Mesh Extender

1. Download and set up a DM-Code Reader on your mobile device (most free QR code readers can also scan datamatrix codes).
2. Using the reader, scan the DM-Code on the front of the MMB TME. Details of the format of the DM-Code are available at MMBNetworks.com/mmb-tbr.

3. Upload the TME's device's Thread joiner credentials to the MMB Thread Border Router's WebUI or through the addThreadDeviceTask REST-API. If not using a Thread Border Router enter the MMB TME TME's Thread joiner credentials into the target Thread network's on or off mesh commissioner.
4. On the rear of the MMB TME, connect the USB-C- Power Adapter. Wait for the Status LED to turn Solid Green.



5. When first booted, the MMB TME will boot into Thread On-Mesh Joiner mode, during which the 'Thread Network' LED will flash. (Note that this mode will timeout after power-up - if so, you can press the 'Thread ON/OFF' button to re-enter the joiner mode.
6. The TME's 'Thread Network' LED will light solid when joining is complete.

Mounting Instructions

Note: The MMB TME should be commissioned onto the Thread network before mounting if access to the MMB TME buttons will be restricted once installed.

What you'll need

1. Drill or Screwdriver
2. #4 Flat Head Screws
3. Wall Plugs (optional, depending on material mount is affixed to)
4. Safety and Protective Equipment

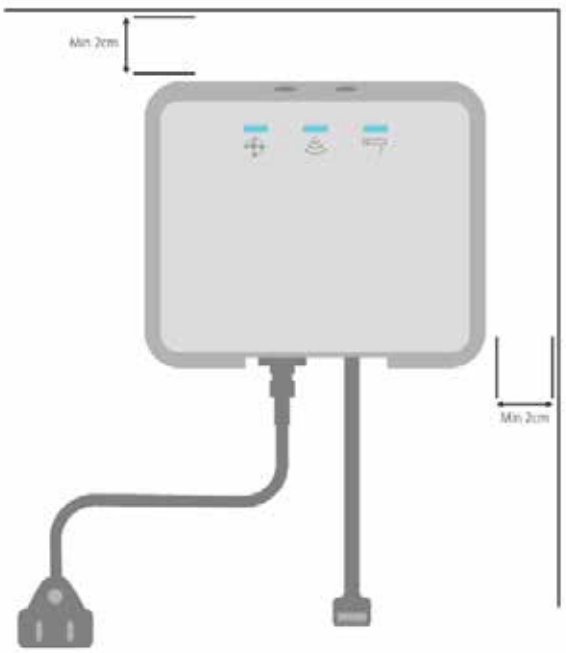
Installation

The MMB TME can be mounted easily and securely.

As a wireless networking device, a more central and unobstructed location will provide the best possible range and performance to your Thread network.

Placement and Orientation

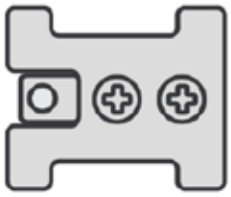
The MMB TME can be mounted on walls or ceilings. The ideal orientation is vertically on a flat wall, with Power and Ethernet cables facing down. A clearance of 2cm on all sides should be maintained.



The MMB TME should:

1. Not be installed in a cabinet or metal container.
2. Not be installed behind walls or other obstructions which would interfere with line of sight to other Thread devices on your network.
3. Not be installed low to the ground.
4. Be installed in a central location which offers best coverage for devices in the premise.
    a. MMB TME Repeater devices can be added to your Thread network to improve network coverage.
5. Not be installed on rough or uneven surfaces.

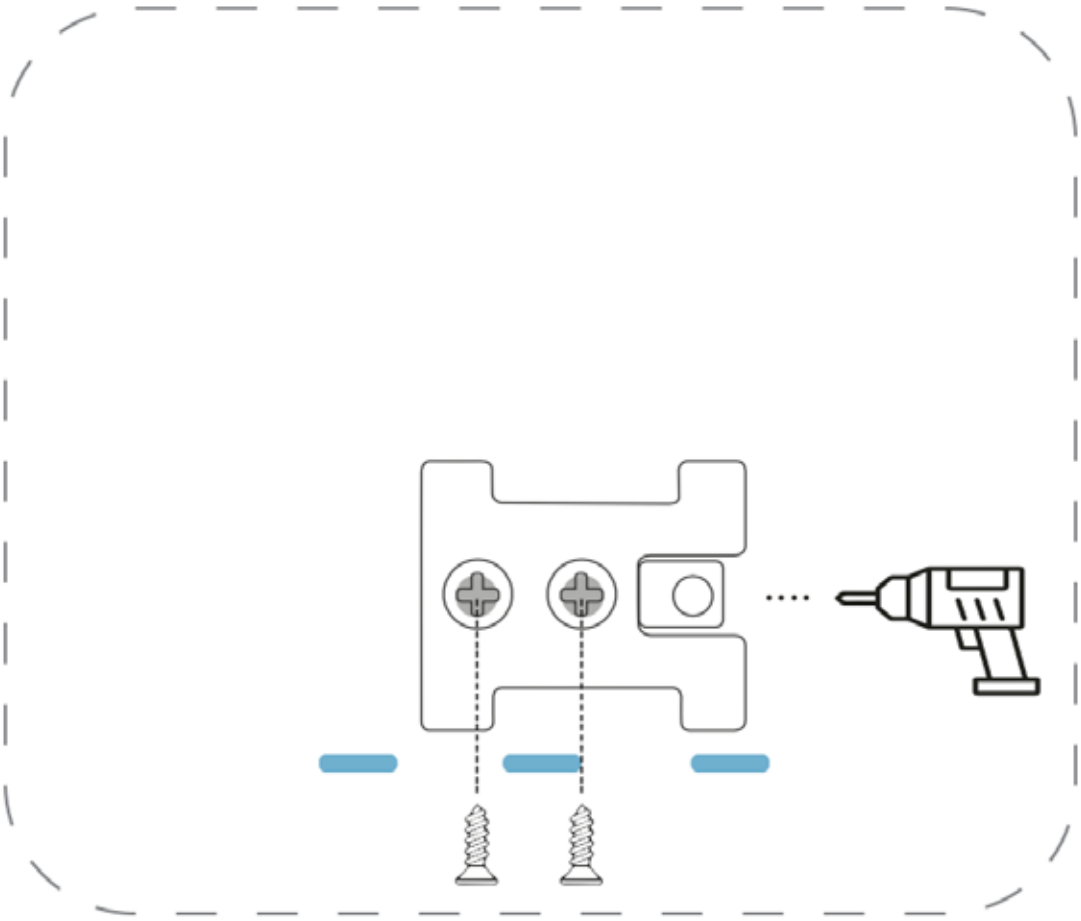
Installing the Mounting Bracket



The Mounting Bracket is installed using two #4 Flat Head Screws, provided with the unit. All personal safety precautions should be taken by you before installing the mounting bracket.

When choosing a location for the mounting bracket, ensure final placement of the device is not obstructed.

Please ensure the mounting bracket is installed with enough clearance for the MMB TME to slide onto the mounting bracket. Final placement of the MMB TME in respect to the Mounting bracket can be seen below.



Caution: Do not overtighten screws. Screws must be flush with the mounting bracket. Use # 4 Flat Head screws only. The mounting bracket should be level and installed flush to the wall or ceiling surface material.

Attaching MMB TME

Once the mounting bracket is correctly installed, and with Ethernet and Power cables connected to the MMB TME, slide the MMB TME onto the bracket from left to right to mount.