energous
WIRELESS POWER SOLUTIONS

QUICK START GUIDE

Energous PowerBridge PRO Transmitter

1. Installing Accessories

The Energous PowerBridge PRO transmitter can operate using either USB-C, 12V DC, or PoE PD (Power over Ethernet) power supply inputs. Depending on the desired configuration, follow the instructions below for each power option.

Assembly Accessories:

- M25 Gland/M20 Gland
- M25 O-Ring/M20 O-Ring (rubber washer)
- USB Cable Expander (only used for USB-C)
- USB-C Cable with Power Adapter (only used for USB-C)
- M20 Plugs/M25 Plugs

Figure 1: Assembly Accessories

- **USB-C Option:** Install the M20 plug to the PoE PD port and the M20 plug to the 12V DC port; Place the M25 O-ring over the threaded end of the M25 gland; Insert the USB-C cable through the M25 gland with O-ring and USB cable expander (only used for USB-C option); connect the USB-C cable to the USB-C port; install the M25 gland with O-ring and USB cable expander to the USB-C port; push the USB cable expander inside the gland.
- **12V DC Option:** Install the M20 plug to the PoE PD port and the M25 plug to the USB-C port; Place the M20 O-ring over the threaded end of the M20 gland; Insert the 12V DC cable through the M20 gland with O-ring and connect the 12V DC cable to the 12V DC port; install the M20 gland with O-ring to the 12V DC port.
- **PoE PD Option:** Install the M25 plug to the USB-C port and the M20 plug to the 12V DC port; Place the M20 O-ring over the threaded end of the M20 gland; Insert the Ethernet cable through the M20 gland with O-ring and connect the Ethernet cable to the PoE PD port; install the M20 gland with O-ring to the PoE PD port.
  Note: PoE PD is used for power only and does not transmit data.

Figure 2: Energous PowerBridge PRO Transmitter

The following example explains how to connect the power input via the USB-C port. The steps are similar for the other power input options (12V DC and PoE PD) except for adding the USB-C cable extender.

1. Securely fasten each M20 plug into the unused ports.

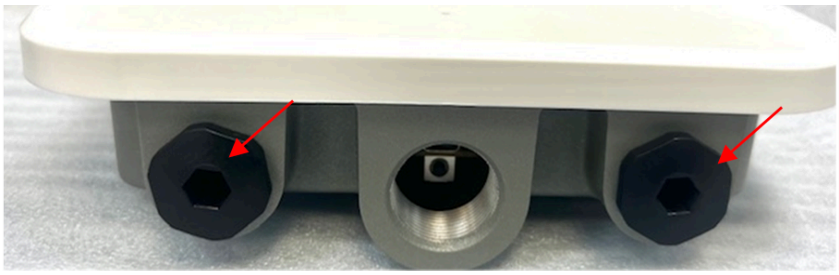

Figure 3: Input Ports

2. Insert the rubber washer onto the M25 threaded gland.

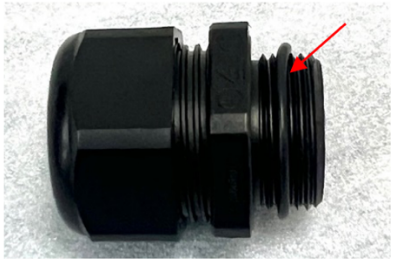

Figure 4: M25 Gland and M25 O-ring

3. Feed the USB-C cable through the USB cable expander (only for USB-C option).

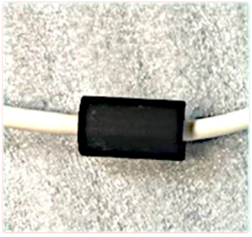

Figure 5: USB-C cable expander (only for USB-C option)

4. Insert either the USB-C cable, Ethernet cable, or 12V DC cable through the gland. Unscrew the gland, then move the rubber expander below the M25 gland as shown below (only for USB-C option).

Figure 6: USB-C cable expander (only for USB-C option) and M25 Gland

5. Connect the USB-C cable, Ethernet cable, or 12V DC cable to USB-C port, PoE port or 12V DC port on the transmitter, as shown below.

Figure 7: Connected USB-C cable

6. Fasten the gland clockwise into the transmitter unit as shown below.

Figure 8: Fastened M25 Gland

7. Push the USB cable expander (only for USB-C option) inside the gland as shown below.

Figure 9: Inserted USB-C Cable Expander

After completing the power connection assembly as demonstrated in the preceding steps, the transmitter is ready to be mounted and powered up.

2. Mounting the Bracket

The mounting bracket is compatible with the VESA FDMI MIS-E standard (200 mm x 100 mm) and requires M4 x 8 mm screws.

- Attach the mounting bracket to the back of the transmitter using the M4 screws. Ensure the bracket is securely fastened to the transmitter. For third-party mounting brackets, please refer to the manufacturer's specifications.
- Mount the transmitter on a stand, a wall, or a ceiling. Position it so that it points toward the intended area of operation.
- Regardless of mounting options, all installations must be 20 cm from all people.

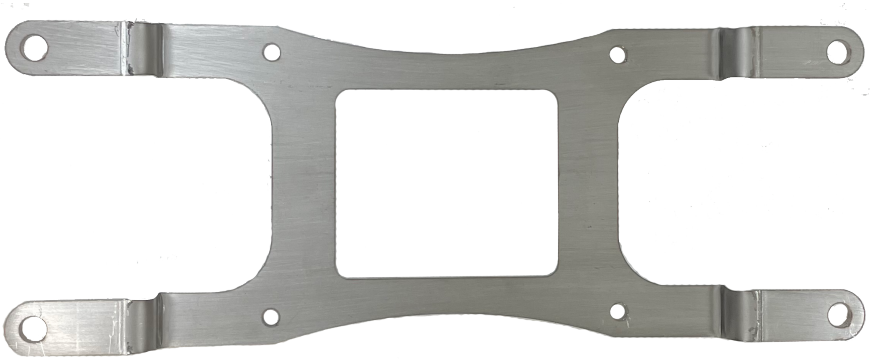

Figure 10: Energous PowerBridge PRO Transmitter Mounting Bracket

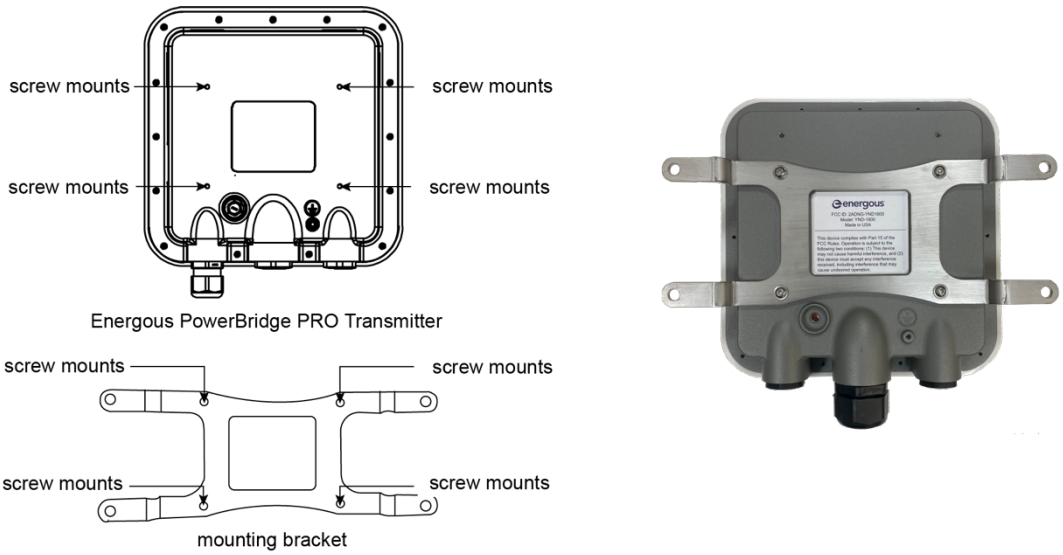

Figure 11: Mounting Diagram

3. Operation

- Connect the transmitter power supply to a power source.
- After power-on, the blue LED flashes for 30 seconds indicating the transmitter is running.
- The transmitter starts RF power transmission automatically in 900 MHz band, and the white LED turns on solid.
- To verify power transmission functionality, place a receiver up to 10 meters from the transmitter in the line of sight. Consult the sensor supplier for installation and software setup. For Wiliot products, go to platform.wiliot.com for more information.
- Installation must be 20 cm from all people.

Parameter	Description
Echo LED (blue LED blinks)	Sensor tag packets are echo'd
Energizing LED (white LED on)	Transmitter is energizing
Blink action (blue and white LEDs blink rapidly)	Transmitter receives blink action
Keep alive (Echo LED blinks 3x per 30 seconds)	Transmission of management packets if no sensor tag packets are being sent
Advertisement mode/BLE services (constant Echo LED)	Transmitter is in Advertisement mode 30 seconds after wake-up and can be connected for BLE services

Figure 12: Operation Example

4. FCC Regulatory Information

FCC ID: 2ADNG-YND1800, Model: YND-1820

This device complies with Part 18 of the FCC Rules.

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 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 equipment being interfered with.
- Increase the separation between the charger and the equipment subject to interference.
- Connect the equipment into an outlet on a circuit different from that to which the charger is connected.
- Consult the dealer or an experienced radio/TV/electronics technician for help.

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

YND-1800 RF wireless charger complies with FCC RF radiation exposure limits for an uncontrolled environment in accordance with FCC Rule Part 2.1093. The wireless charger transmitter is designed to be installed on the ceiling or on a side wall and must be installed accordingly to ensure a minimum 20 cm separation distance from persons.

5. Supplier's Declaration of Conformity

Model: VN-1820, Brand Name: Energous

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.

Responsible Party in the USA:
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