

MACHINE Q™



MQio 9W
Model: MIO-JU-B
User Manual

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1 Product Summary

The MachineQ MQio is a highly robust, enterprise grade, remote machine telemetry and control device with LoRaWAN and BLE wireless interfaces. It boasts more than 9 different serial and GPIO interfaces that support a wide range of equipment types. An adapter can be created for the DE-15 connector to handle most any unforeseen use case or equipment type in the future that customers would like to interface.

This manual describes how to set up and use the Gateway.

What's in the Box

The following items are included:

- MIO-JU-B

Prerequisites

- Before setting up your MQio, you must have your device provisioned on MQcentral

LED Indicators

The following indicator light patterns will be shown on the MQio's single LED:

Status	Description	
Off	No Power	
Slow blinking	Initial power up and boot	
Solid on	Device is connected	
Fast blinking	Failed (bootloader)	
Slow blinking	Firmware update	

Key:

	= Fast Blink (5x/second) Unrecoverable Activity
	= Slow Blink (1x/second) Activity In Progress
	= Solid Steady State

2 Safety Recommendations

Do not disassemble, dismantle, open, crush or shred the product.

If the product envelope is weakened or broken, stop using it immediately.

Do not attempt to short-circuit the product or make contact with a conductive object.

Do not expose the product to heat, fire or flame.

The device should not be installed and operated closer than 8 inches to a person.

Keep out of reach of children.

After use, you must dispose of the product in compliance with applicable laws.

Failure to follow these instructions can result in personal injury or property damage, and Manufacturer will have no liability whatsoever for any such injury or damage arising from or in connection with any failure to follow these or other instructions provided to the end user.

Le non-respect de ces instructions peut entraîner des blessures corporelles ou des dommages matériels, et Fabricant décline toute responsabilité en cas de blessure ou de dommage résultant de ou en relation avec le non-respect de ces instructions ou d'autres instructions fournies à l'utilisateur final.

3 Installing the MQio

1. Turn off power to the equipment.
2. Remove the device from the box.
3. Attach the equipment specific cable to the device. Ensure that the cable is completely inserted into the receptacle and that the screws are fully engaged.
4. Attach the cable to the equipment. Ensure that the cable is seated properly and that any retention features are engaged.
5. Power on the equipment.
6. Verify the status LED turns blue.

Note: Device may not to be mounted over two meters above the floor

Magnetic Mounting

1. Place the device on a ferromagnetic surface.

Magnetic Mounting Bracket

1. Attach the stainless steel bracket to the desired object or surface using screws or zip ties.
2. Attach the device to the bracket with the incorporated magnets.

4 Optional Accessories

<i>Items</i>	<i>SKU</i>	<i>Description</i>
Magnetic Mounting Bracket 0	AIO-BA-B	
Equipment Cable 1	AIO-CA-B	

5 Specifications

General Specifications

<i>Items</i>	<i>Description</i>
Model #	MIO-JU-B
Product Name	MQio 9w
Product Category	Equipment data collection and control device.
Antenna Types	Internal Antenna
LoRa Frequency Band	LoRaWAN US915 (902~928 MHz)
Bluetooth LE Frequency Band	2.4 GHz ISM
<i>Other Specification</i>	
Temperature	• Operating: -30° C to +60° C • Storage: -30° C to +60° C
Humidity	0 ~ 55% (Non-Condensing)
Power Supply	Input: 3.3 - 24 Vdc, 0.53 A
Indicators	RGB LED indicator
Dimensions	L 119.0 mm x W 63.0 mm x H 30.7 mm
Weight	Approx. 200 g

6 FCC Notice of Compliance

Federal Communication Commission Interference Statement

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 Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this 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.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

7 ISED Notice of Compliance

Industry Canada statement:

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.

Radiation Exposure Statement:

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Déclaration d'exposition aux radiations:

Cet équipement est conforme Canada limites d'exposition aux radiations dans un environnement non contrôlé. Cet équipement doit être installé et utilisé à distance minimum de 20cm entre le radiateur et votre corps.