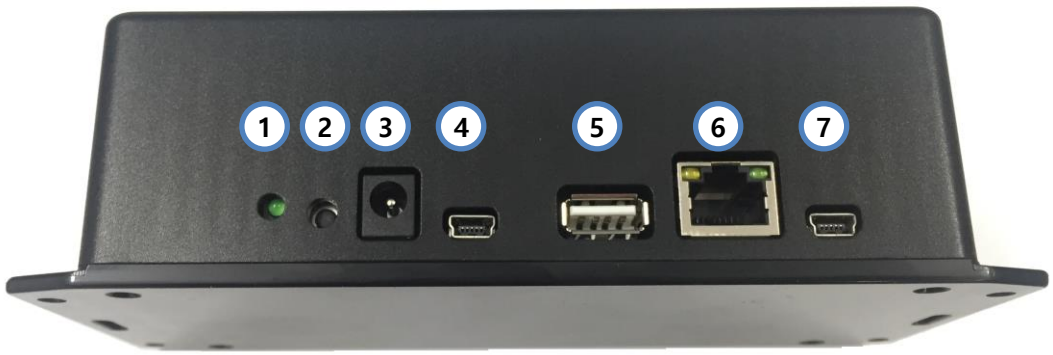
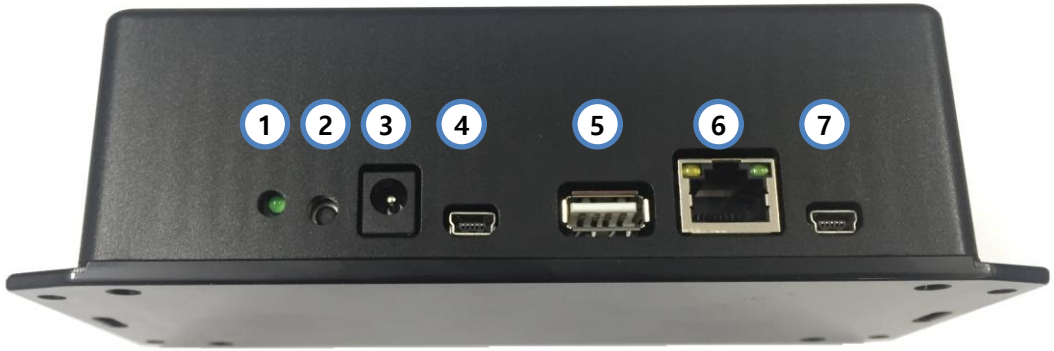
MPS 3.0
Gateway
User manual

1. Identification of each part



① Power indicate LED
② Factory reset
③ DC power supply input
④ USB OTG (for debug)
⑤ USB host (for debug)
⑥ Ethernet
⑦ USB device (for debug)

2. Check the connection port and wiring



③ DC power supply connection port: +12 [V_{DC}]
④ USB device connection port: 5pin, firmware download, debug
⑤ USB host connection port: 4pin, application download, debug
⑥ Ethernet connection Port: 8pin, 10/100
⑦ USB device connection port: 5pin, debug message

3. Front display

4. Product Introduction

- MPI 3.0 gateway was developed based on proprietary protoçol networking for IoT technology and is a facility that wirelessly transmits work instruction information received from Ex-DPS/DAS Manager to Indicator.
- Dimension: **150 X 80 X 50 mm** (Length x Width x Depth)
- The case is matte black, the logo and product number are white
- The button has a Factory Reset function.
- Connect power and connect to the server using an Ethernet cable.

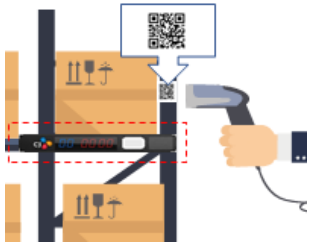
Specification	
• Wireless	Sub-GHz
• Frequency	900MHz ISM Band
• Data Rate	~250Kbps
• Distance	~10m
• Interface	Power, Ethernet

5. Installation and operation

- Check the space where you want to install the gateway in the workshop and install the gateway.
- Connect a pre-prepared LAN line to the Ethernet port.
- Apply power to the Indicator group that should work together.
- Verify that each ID is displayed in the Indicator.
- Connect power DC 12V to the gateway. Verify that the green LED is incoming.
- Check that the IDs of the indicators disappear and that only the LEDs on both sides of the indicator are illuminated.
- The server with the barcode scanner recognizes the gateway.
- Verify that each indicator is connected through the gateway on the server.

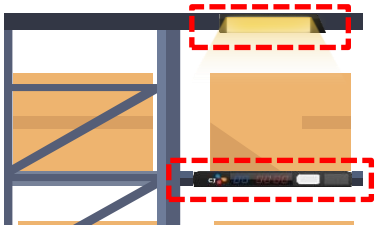
6. Register Indicators

- **Indicator registration using QR code**



Each cell is assigned a unique QR code, and when it is scanned by the scanner, the unique QR code of the indicator to be newly registered is rescanned and automatically registered to the server.

- **Equipped with separate LED lights**



Attach it to each cell to use LED lights that work with the indicator to increase visibility of the operator to prevent job errors.
- Connect the optional LED bar for 5V to the 4pin connector.

7. How to use

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1) Product code recognition by item

Scan the bar code of the product you want to input.

2) Distribution of required quantity for each destination

It will identify the final quantity required to be shipped by dealers and display the goods code and quantity required in each indicator through the Gateway.

At this point, the LED on the confirmation button indicates that it must be received.

3) Check after loading goods

Insert the quantity marked on the indicator for each delivery box and press the confirm button.

When the confirm button is pressed, the status of the indicator changes to LED ON -> LED OFF.

When all confirm buttons are pressed, the next item is scanned.

Green LED's mean that items must be loaded in green box, red LED's in red box, yellow LED's in yellow box, and blue LED's in blue box.

4) When all goods have been loaded, the invoice is printed.

8. Connector

Definition 1. DC jack

Pin	Name	Description
1	V+	+5V(center pin)
2	GND	Ground

2. Mini USB

Pin	Name	Description
1	VBUS	+5V
2	D-	Data -
3	D+	Data +
4	ID	OTG Selection
5	GND	Ground

3. USB Host

Pin	Name	Description
1	VBUS	+5V
2	D-	Data -
3	D+	Data +
4	GND	Ground

3. Ethernet Port

Pin	Name	Description
1	TX+	Transmit Data+
2	TX-	Transmit Data-
3	RX+	Receive Data+
4	NC	Not Connected
5	NC	Not Connected
6	RX-	Receive Data-
7	NC	Not Connected
8	NC	Not Connected
9	LED1	LED1 Cathode
10	GND	LED1 Anode
11	LED2	LED2 Cathode
12	GND	LED2 Anode

10. Power and External Connections

- The MPI 3.0 Gateway has the following ranges of supply power and voltage ranges.
  - ✓ Input voltage range: +8 ~ 12 [V_{DC}]
  - ✓ Maximum power consumption: < 15W

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.
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 it is not installed and used in accordance with the instruction manual, it may cause harmful interference to radio communications. Operation 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.

Modifications: Any modifications made to this device that are not approved by CJ Logistics Corporation may void the authority granted to the user by the FCC to operate this equipment.

Indicator & Gateway has been used to facilitate the delivery of various instructions for the work performed in the logistics distribution to the field workers.
This device is Class A than Class B since it is using for Industrial not for household.