

MX On Corporation

**Explosion Proof
Barcode Charging Cradle
MSR-B2-CRD**

Hardware Manual



Thank you for purchasing the Explosion Proof Barcode Charging Cradle of MX On Corporation.
Please read this manual carefully to know installing, operating this equipment for safe use of this product.

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Chapter 1 Safety precautions

■ Before using the product

To ensure the safe and efficient use of the product, please read this manual thoroughly and completely before use. The safety precautions must be followed to prevent accidents and hazards. These precautions are divided into "Warning" and "Caution" sections. The meanings of each category are as follows.

 Warning	Failure to follow the instructions may result in serious injury or death due to hazardous conditions.
 Caution	Failure to follow the instructions may lead to serious or minor injury, or damage to the product, due to hazardous conditions.
	Please exercise extra caution, as dangerous situations may arise.
	Be cautious, as electrical shocks may occur.

■ General precautions **Caution**

-  Do not press the screen with hard or sharp objects (such as an awl, screwdriver, pen, etc.) or apply excessive force. This may cause damage to the front sheet and result in touch malfunctions.
-  Do not use or store the product in environments with heavy vibrations.
-  Be cautious to prevent water, liquids, metal dust, or other foreign substances from entering the product. This could cause damage or electrical shock.
-  Do not charge or use the battery in explosive environments with flammable liquids, gases, or dust.
-  When storing the product for a long time without using the product, store it in a dry environment without direct sunlight.

■ Conditions for Safe Use **Warning**

-  Charge only devices compatible with this product. Using it for other purposes may result in fire or electric shock.
-  Be careful not to allow conductive foreign substances (such as liquids, dust, metal powder, pencil lead, etc.) to enter or adhere to the metal charging contacts.
-  Do not modify, disassemble, or repair the product arbitrarily. This may result in fire or electric shock.
-  If the product has been subjected to severe impact, dropped, or damaged in any way, do not charge it and contact an authorized service center.
-  This product is designed to operate on DC voltage only. Do not use AC voltage.
-  To prevent malfunctions caused by electrical noise, please use the included adapter and cable.

■ Installation precautions **Caution**

-  Do not install the product in locations where the temperature exceeds the allowable range, as this may cause damage to the unit or reduce its lifespan.
-  Do not install the product in the following environments:
 - Locations where the ambient temperature is outside the range of -10 ~ 50°C
 - Surfaces of control panels where high-voltage equipment is installed
-  Do not install the unit in areas subject to continuous strong shock or vibration.
-  Use the product only at altitudes below 2,000 m.

■ Disposal precautions **Caution**

When you dispose of product and battery, please treat it as industrial waste. It can create poisonous substances or explosion.

Chapter 2 Overview

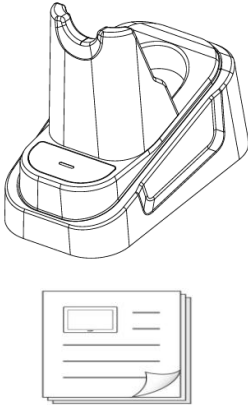
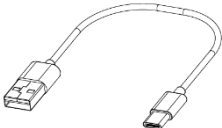
2.1 Product introduction

The MSR-B2-CRD is a device used to charge the wireless barcode scanner (MSR-B2MWA-Ex), which is an industrial device intended for use in industrial environments. This product does not include the wireless barcode scanner (MSR-B2MWA-Ex).

2.2 Components

The components of the product are as follows.

Before using the product, please check that all of the following components are included.

Components	Figure	Quantity
Main unit and manual		1 each
USB Type-C Cable		1

* USB Type-C cable length: 1.5 m

Chapter 3 General specifications

3.1 Power specifications

Power	Connector type	USB Type-C
	Input voltage	DC 5 V
	Output voltage	DC 5 V
	Consumption	3 W (with Main Body + Extra battery Pack)
	Instantaneous voltage	5 Vdc, Within 10 ms

3.2 Functional specifications and display

LED indicator (yellow / green)	Barcode charging status display
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3.3 Connector specifications

POGO	Material	Plunger: Lead-free Brass Barrel: Lead-free Brass Spring: SUS
USB	USB Type-C, for power supply, cable length 1.5 m	

* Additional extension cables other than the provided cable do not guarantee reliability.

3.4 Environment specifications

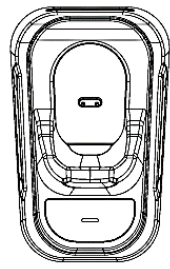
Operation temperature (°C)	-10 ~ +50
Storage temperature (°C)	-20 ~ +60
Operation humidity (%RH)	0 ~ 90 (No dew)
Atmosphere	No corrosive gas
Vibration endurance	Amplitude: $10 \leq F < 25$ Hz (2G) X, Y, Z each direction (for 30 minutes)
Noise immunity	1000 Vp-p (Pulse width 1 μ s)
Electrostatic discharge	Connective discharge from EN61000-4-2: ± 4 kV
Shock endurance	10G X, Y, Z each direction (for 3 times)
Protection classification	IP65

3.5 Structure specifications

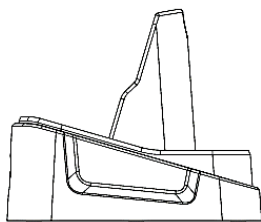
Cooling system	Natural air circulation
Case material	PC (Flame Retardant)

Chapter 4 Parts identification and functions

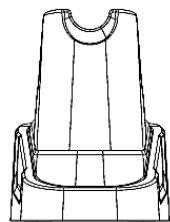
4.1 Appearance and Dimensions



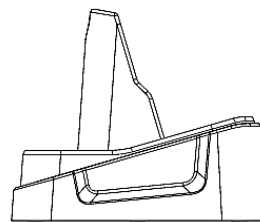
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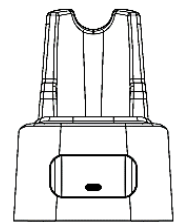
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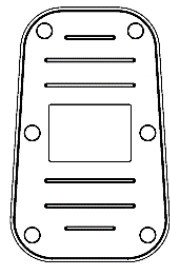
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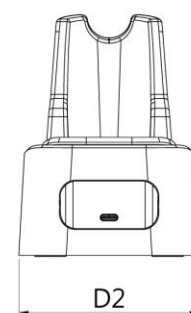
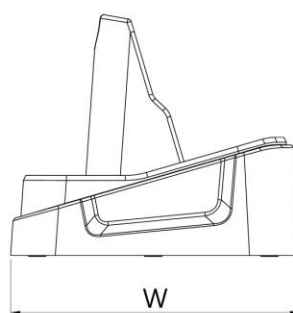
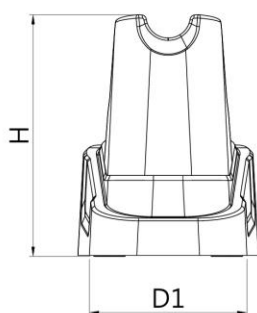
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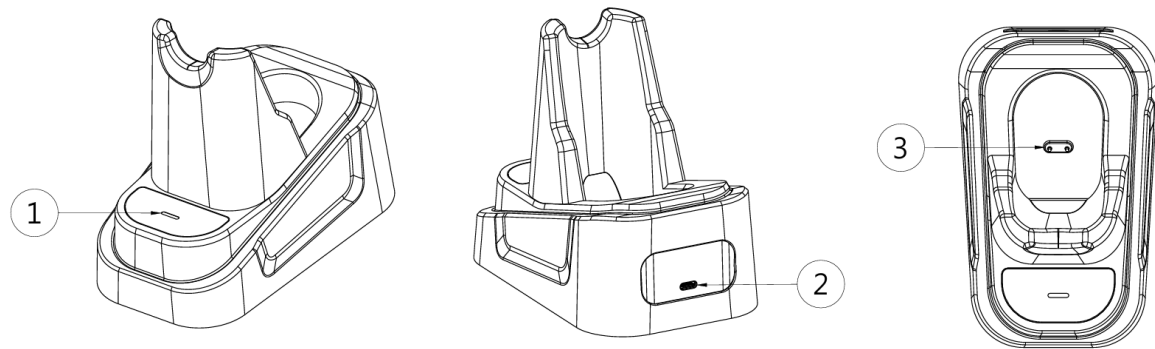
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(mm)

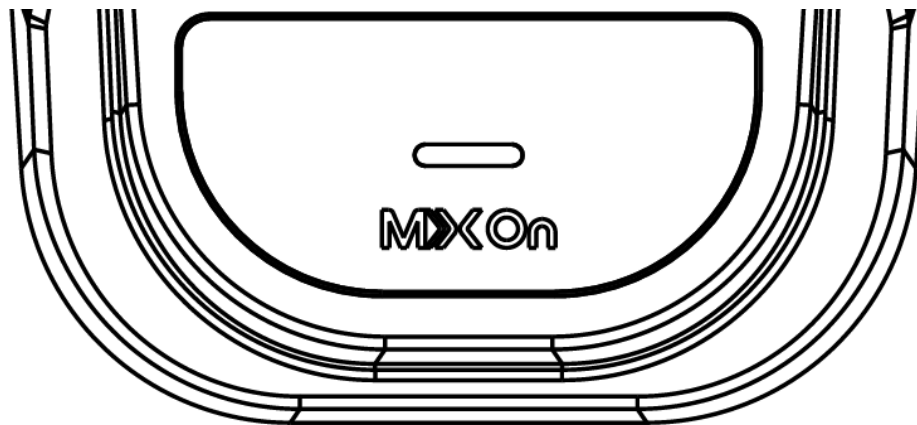
Model	W	D1	D2	H
MSR-B2-CRD	152	82.8	94.9	126.9

4.2 Part Names and Specifications



No	Name	Description
①	LED	Indicates the charging status (yellow: standby and charging complete / red: charging in progress).
②	USB Type-C	Power supply cable terminal for the cradle.
③	POGO	Metal charging contacts.

4.3 LED indicator light.



LED status	Description
Yellow	Standby status, yellow LED on.
	Charging complete status, yellow LED on.
Red	Charging status, red LED on.

Chapter 5 Installation Warning

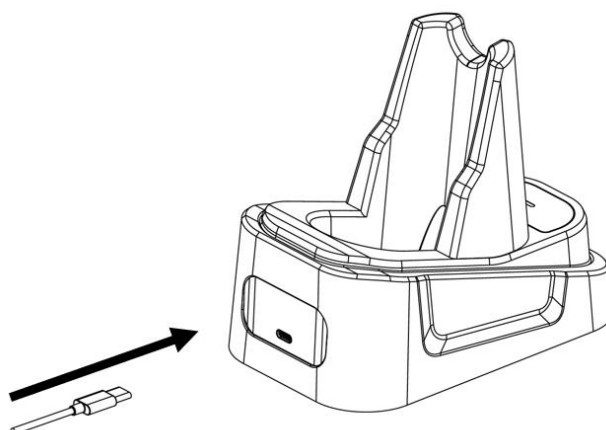
5.1 Specifying install location

- (1) To ensure safe use, please eliminate any mechanical hazards in the surrounding environment.
- (2) Install within a temperature range of -10 to 50 °C (0 to 90 %RH).
- (3) Do not install the unit in locations where strong impact or continuous vibration is applied directly to the main body.

5.2 Installation procedure.

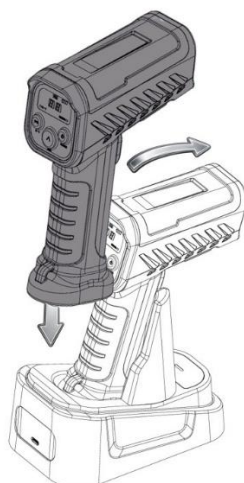
To install this product, please be sure to follow the instructions below.

5.2.1 Cradle installation.



Connect the USB Type-C cable to the rear USB Type-C port. If the connection is successful, a yellow LED indicator will turn on.

5.2.2 Barcode reader installation.



* Caution: Do not pour, spray, or spill liquids on the cradle.

Place the barcode scanner in alignment with the insertion slot and direction, and set it so that it leans against the support stand. If charging is proceeding normally, the LED indicator will turn red.

Chapter 6 Maintenance Warning

6.1 Cleaning the display

When the surface or frame of the display become dirty, spray the cleaning solution onto a soft cloth and wipe the device. Do not spray the cleaning solution directly onto the device.

6.2 Periodic check points

Check the followings periodically for best condition of the device.

(1) Environment

- 1) Is the operating temperature within the allowable range?
- 2) Is the operating humidity within the allowable range?
- 3) Is the Surrounding pollution no corrosive gas?

(2) Power

- 1) Is the input voltage within the change range?

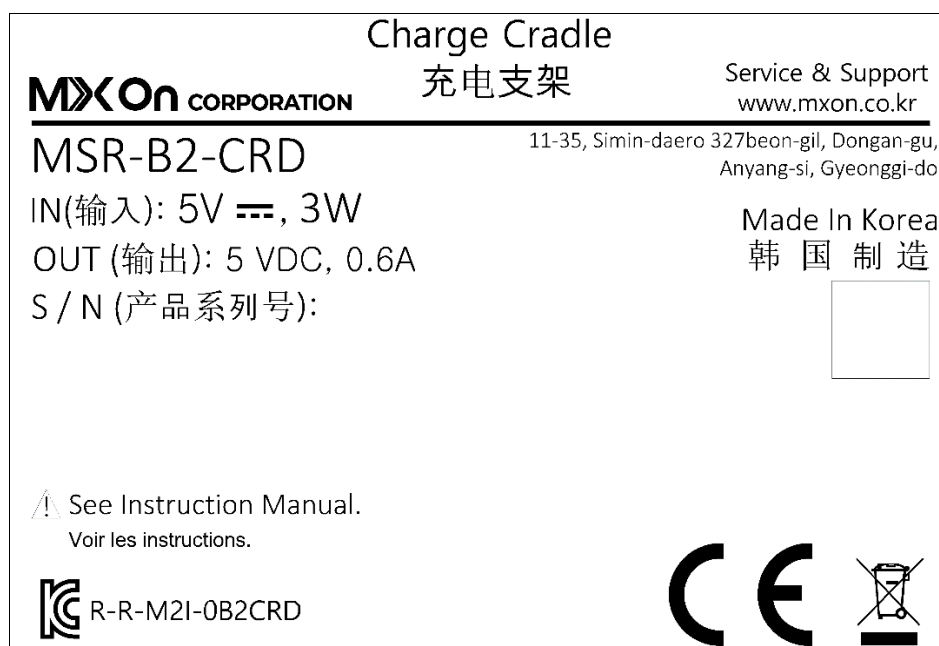
(3) Related items

- 1) Check that there are no scratches or contamination around the USB port and POGO pins.

6.3 When a problem occurs with your device Warning

- (1) If a problem occurs during operation, immediately stop using the device and contact MX On Co., Ltd.
- (2) Inspection and repair related to device malfunctions may only be performed by personnel authorized by MX On Co., Ltd.
- (3) If the issue cannot be resolved on site, the device may be collected and transported to MX On Co., Ltd for repair.
- (4) MX On Co., Ltd shall not be held responsible for any damage or malfunction caused by conditions that deviate from the installation and usage guidelines specified in this manual.
- (5) If noise-related issues occur, please check whether the included adapter and cable are being used.
- (6) If the device does not operate properly due to noise, attaching a ferrite core to the main power cable can improve noise immunity.
- (7) Check that the cable is securely connected and ensure the scanner is properly seated in the cradle.

Chapter 7 Products label



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- When using MX On equipment, thoroughly read this datasheet and associated manuals introduced in this datasheet, also pay careful attention to safety and handle the module properly.
- Store this datasheet in a safe place so that you can take it out read it whenever necessary.