

proxy

User Manual and Installation Guide

Mobile Reader Edge

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Last updated: February 10, 2020

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Introduction

This document details the Proxy Mobile Reader Edge and its basic operational and installation procedures. It covers the details of the Proxy Mobile Reader Edge form-factor.

Model(s):

- Proxy Mobile Reader Edge White [Reader PEMW, Relay PERW]
- Proxy Mobile Reader Edge Black [Reader PEMK, Relay PERK]

Version(s):

- 1.0, 1.1, 1.2, 1.3

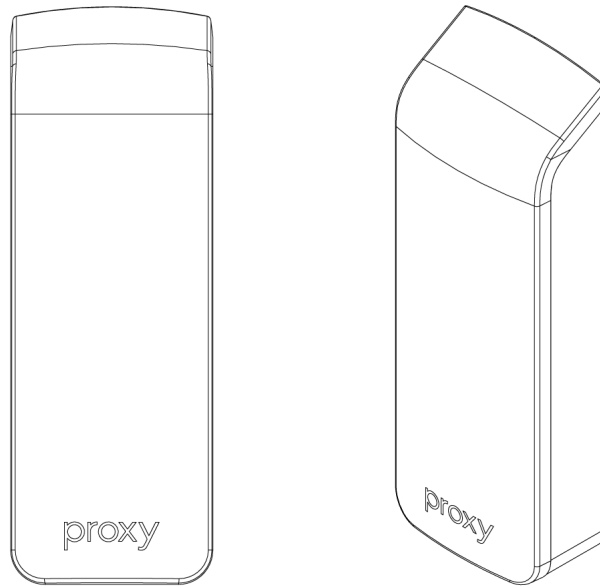
Edge Reader

Functionality

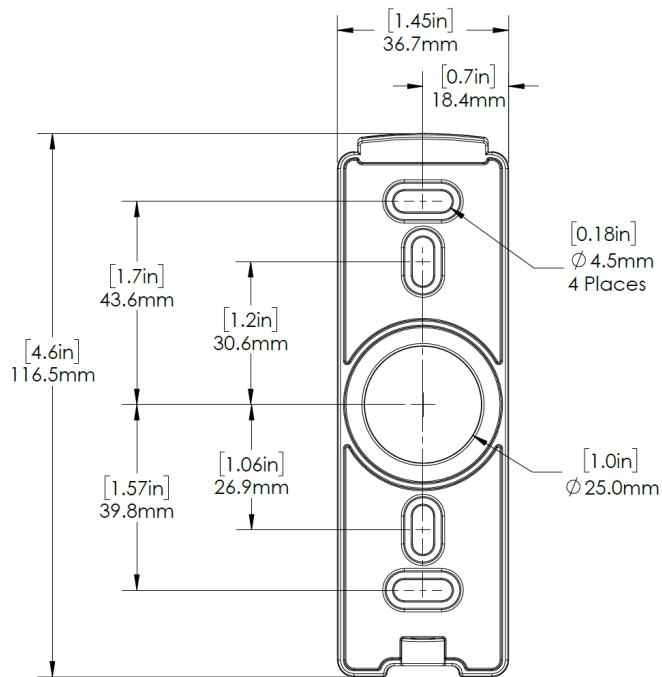
Proxy Mobile Reader Edge is a standalone physical access control wireless mobile credential reader that provides contactless credentials over Bluetooth Low Energy (BLE). The Edge Reader interfaces directly with electrified door hardware to allow direct access to a single point of entry. The Proxy Mobile Reader Edge consists of the following main parts.



Edge Reader Enclosure

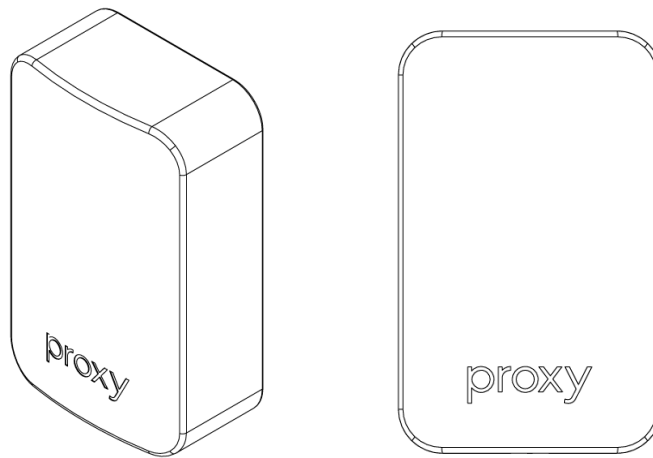


Edge Reader Enclosure Wall Plate

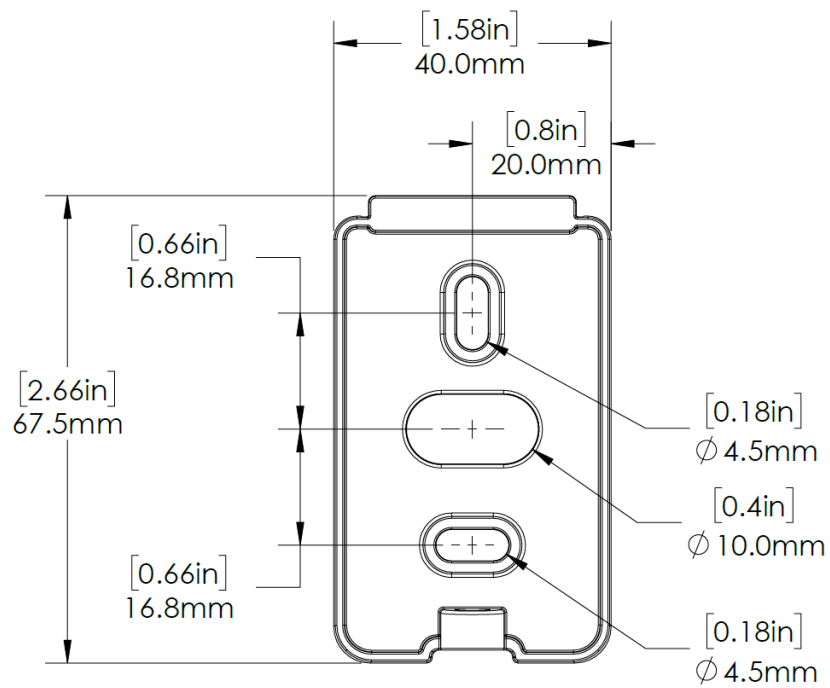


Dimension in millimeters (mm) & inches (in)

Edge Relay Enclosure



Edge Relay Enclosure Wall Plate



Dimensions in millimeters (mm) & inches (in)

Product Specifications

Model Name:	Mobile Reader Edge
Device Type:	Mobile Credential: Bluetooth Low Energy (BLE) Physical Access Control Reader (accessory equipment)
Type of Equipment:	Sealed Edge Reader (Suitable for Indoor and Outdoor use) Unsealed Edge Relay (Suitable for Indoor use only)
Interface Type:	Pigtail Cable Edge Reader Enclosure [5 Core Grey] Pigtail Edge Relay Enclosure [5 Core Grey, 8 Core Black]
Input Voltage (v1.0, v1.1):	6V - 12V DC (12V recommended)
Input Voltage (v1.2 and above):	6V - 30V DC (12V recommended)
Current Draw:	500 mA @ 12V DC
Power Consumption:	6W (Max)
Communication Protocol:	BLE, IEEE 802.11b/g/n
Credential Type:	Proxy Mobile Credential
Credential Transmission Technology:	BLE (2.4GHz)
Dimensions (Edge Reader):	128.3 mm x 44.7 mm x 24.6 mm (H x L x W)
Dimensions (Edge Relay):	72 mm x 44.5 mm x 23.9 mm (H x L x W)
Product Weight:	308 g
Operating Temperature:	-35° to 66°C (-31° to 149°F)
Operating Humidity:	5 to 95% relative humidity (non-condensing)

RF Exposure Information

This device has been tested and meets applicable limits for Radio Frequency (RF) exposure. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.



Installation Details

Wiring methods shall be in accordance with the National Electrical Code (ANSI/NFPA70), local codes, and the authorities having jurisdiction.

Parts List

- Edge Reader – x1
- Edge Relay – x1
- Mounting Screws (A) – #6-32 x 1" (Phillips) – x4
- Security Screw (B) – #6-32 x 3/8" (Tamper Resistant) – x2
- Nylon anchor plugs – #6 x 1" – x4

Recommended Tools

- Wire Stripper(s) (18-24 AWG)
- Screwdrivers
- Tamper resistant torx bit (TR10)
- Wire connectors (dry/wet)
- Electrical Tape





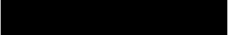
Recommended Infrastructure

- All cabling and wiring shall be UL Listed and/or UL Recognized
- Refer to [Wiring Recommendations](#) for guidance on wire type and length
- Power Supply- Sufficient to provide 500mA @ 12V DC plus power for door hardware. See door hardware manufacturer's specifications.

Important: Edge Reader and Edge Relay can NOT be installed at a distance greater than 30 ft (10 m) from each other

Wiring Harness Information

Cable colors for Edge Reader Enclosure [5 Core Grey]

Name	Colors	Colors	Sheath Color
UART TX	Green		
UART RX	White		
5V (v1.0, v1.1) / +VDC (v1.2 and above)	Red		
3V3 (v1.0, v1.1) / GPIO (v1.2 and above)	Yellow		
GND	Black		

Cable colors for Edge Relay Enclosure [5 Core Grey]

Name	Colors	Colors	Sheath Color
UART RX	Green		
UART TX	White		
5V (v1.0, v1.1) / +VDC (v1.2 and above)	Red		
3V3 (v1.0, v1.1) / GPIO (v1.2 and above)	Yellow		
GND	Black		



Cable colors for Edge Relay Enclosure [8 Core Black]

Name	Colors	Colors	Sheath Color	Notes
+VDC	Red			
GND	Black			
Strike COM	Green			
Strike N/O	White			
Rex +	Brown			
Rex -	Blue			
DPS +	Grey			v1.1 and above
DPS -	Grey			v1.1 and above

** For Wiring diagrams and termination points please see the full installation manual available on our website. Installations will differ between electronic strike manufacturers and applications.

** All wires not being used should be terminated.

** Refer to the online documentation for operation of DPS + and DPS -.

Caution:

During wiring make sure that the +VDC, 5V, and 3V3 lines (red or yellow) do not make contact with any other wires, as it might affect product functionality and cause damage to the product.



Wiring Recommendations

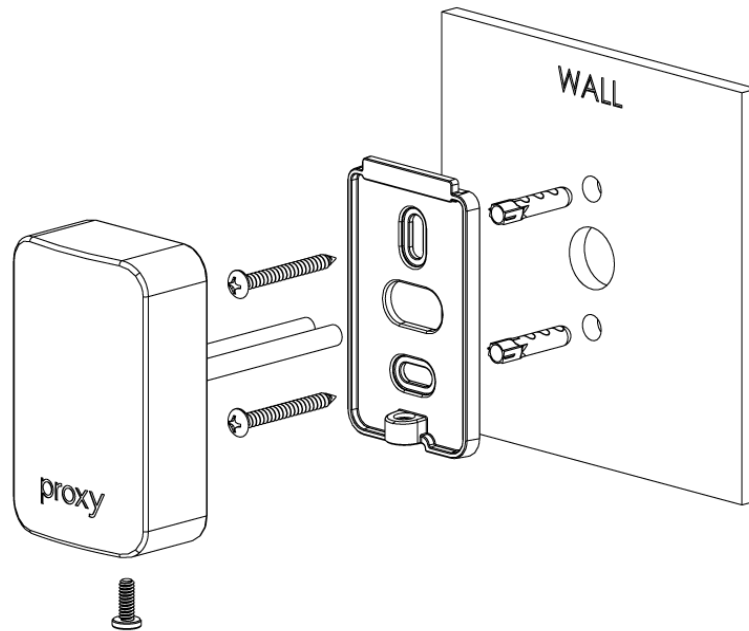
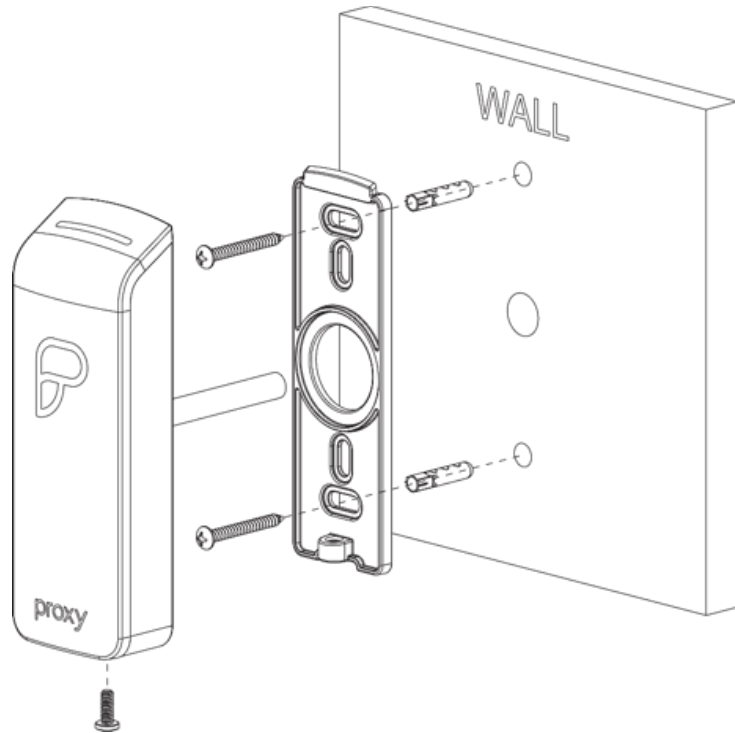
Note: Always refer to vendor wiring instructions, requirements and recommendations for power supplies and access control system panels. Where vendors recommended installation requirements exist, they shall supercede the table below.

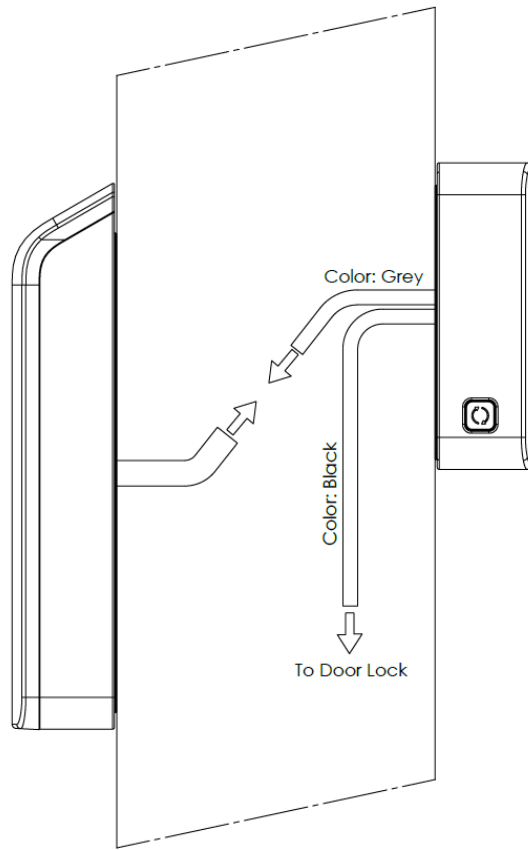
Type	Alpha Wire P/N or Equivalent	AWG	Shielded?	Max Length
Power (22 AWG)	I292C	22	Yes	600 ft (180 m)
Power (18 AWG)	2422C	18	Yes	1500 ft (455 m)
Reader (22 AWG)	I299/I0C	22	Yes	250 ft (75 m)
Reader (20 AWG)	M4666	20	Yes	300 ft (90 m)
Reader (18 AWG)	M4698	18	Yes	500 ft (150 m)



Mounting the Edge Reader

Location of mounting holes on wall





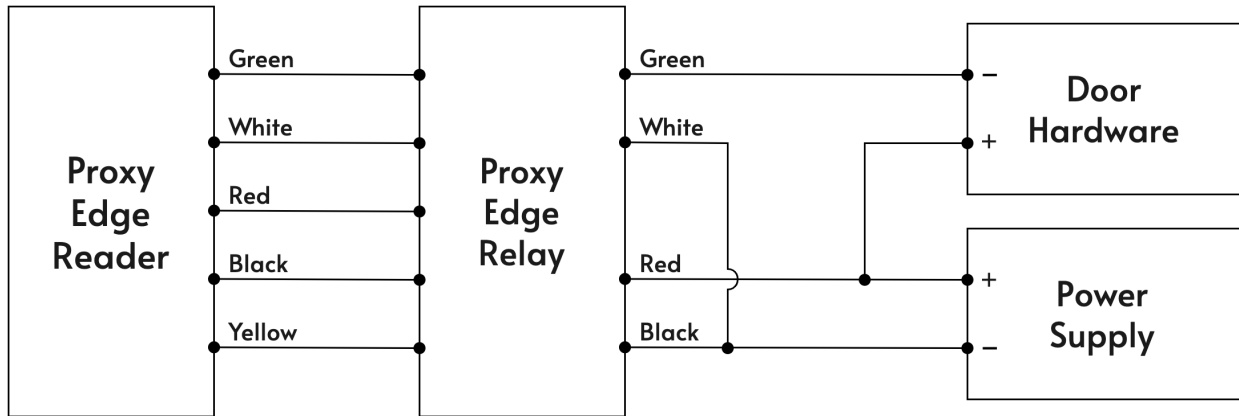
Edge Reader Installation Steps

Important: Edge Reader and Edge Relay can NOT be installed at a distance greater than 30 ft (10 m) from each other

- Make two holes on the wall as per the image above corresponding to the type of reader
 - Edge Reader enclosure on the unsecured side (outside of the door frame)
 - Edge Relay enclosure on the secured side (inside of the door frame)
- Insert the nylon screw plugs into the wall
- Connect the wires as per [Wiring Harness Information](#)
 - Cables with the grey sheath [5 Core Grey] are to be connected color to color
- Edge Reader and Edge Relay enclosure wall plates are to be secured onto the wall using the mounting screws (A)
- Install the Edge Reader and Edge Relay enclosure onto respective wall plates
- Secure the Edge Reader and Edge Relay enclosure to the wall plates using security screws (B)

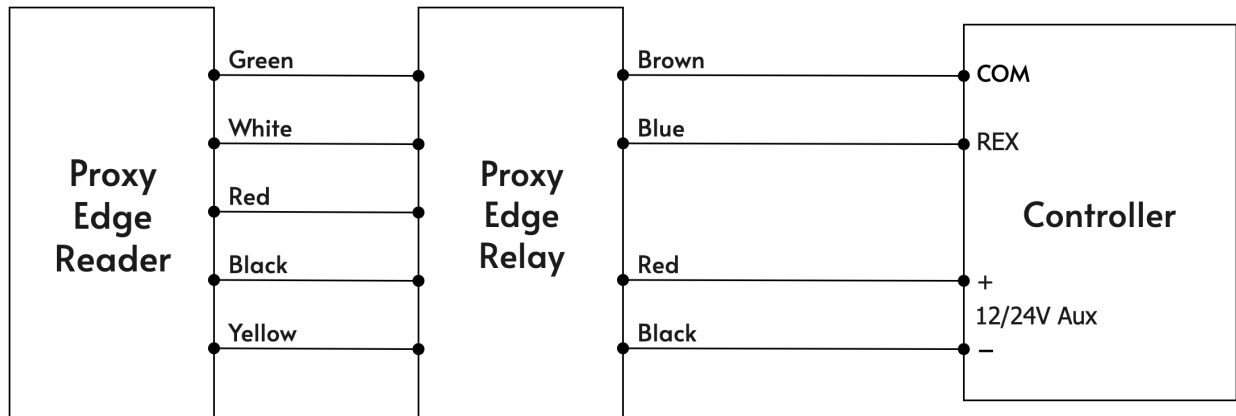
Wiring Diagrams and Steps

Connect to Door Hardware



Step 1:	Connect the 5 wires from the Edge Reader Enclosure (outside) unit to the 5 wires from the Edge Relay Enclosure (inside) unit based on corresponding colors
Step 2:	Crimp the positive (red) wire from the power source to the red wire of the Edge Relay Enclosure (inside) unit and to one of the wires from the strike
Step 3:	Crimp the ground (black) wire from the power source to the black wire of the Edge Relay Enclosure (inside) unit and to the white wire of the Edge Relay Enclosure (inside)
Step 4:	Crimp the green wire from the Edge Relay Enclosure (inside) unit to the remaining strike wire

Connect to Controller



Step 1:	Connect the 5 wires from the Edge Reader Enclosure (outside) unit to the 5 wires from the Edge Relay Enclosure (inside) unit based on corresponding colors
Step 2:	Connect the brown and blue wires of the Edge Relay Enclosure (inside) unit to the two wires from the REX input of the access controller
Step 3:	Connect the black (GND) and red (+VDC) wires to a power source (this could be provided by the controller) equivalent to what is needed to power the electrified lock

Door Contacts

The DPS+ and DPS- lines are intended for use with door contacts. For install instructions and current status, please visit: <https://proxy.com/s/edge-install>.

Power up and Testing

1. Turn power on
 - Indicator light (top of enclosure) turns on and blinks red
 - Branding light (front of enclosure) turns on (Proxy Logo Displayed)
2. Have an organization administrator refer to the Proxy Quick Start Guide, located at <https://support.proxy.com> for setting up their organization's mobile access including how to download the mobile app and add new readers.

Certifications

FCC

Tune up power table BLE / WLAN

- Each product is programmed with the pre-defined RF parameters
- Each product RF power level is measured to ensure the power level not exceeding the target power level, in a fully calibrated setup.
- The user has no possibility to change these settings later on

Please find below the Maximum Transmit Power for production units:

<For TypeLD>

Band / Mode	Average Power (dBm)	
	LE	
	GFSK	
Bluetooth	8	

Band / Channel / Frequency (MHz)	IEEE 802.11 Average Power (dBm)		
	11b	11g	HT20
2.4GHz WLAN	17	17	17

<For XRBH-I>

Band / Mode	Average Power (dBm)
	LE
	GFSK
Bluetooth	5

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.

RF Exposure Information

This device has been tested and meets applicable limits for Radio Frequency (RF) exposure. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator & your body.

Information to user

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.

Changes or modifications not expressly approved by Proxy, Inc. could void the user's authority to operate the equipment.



IC

This Class B digital apparatus complies with Canadian ICES-003.

This device complies with Industry Canada licence-exempt RSS standard(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.

Le présent appareil est conforme aux CNR d'Industrie 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, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."

RF Exposure Information

This device has been tested and meets applicable limits for Radio Frequency (RF) exposure.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator & your body.

Informations d'exposition RF

Cet appareil a été testé et répond aux limites applicables en matière d'exposition aux radiofréquences (RF).

Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

CE

Tune up power table BLE / WLAN

- Each product is programmed with the pre-defined RF parameters
- Each product RF power level is measured to ensure the power level does not exceed the target power level, in a fully calibrated setup.
- The user has no possibility to change these settings later on

Declaration: The importer information and postal detail will be provided with the shipping document.



Please find below the **Maximum** Transmit Power for production units:

<For TypeILD>

Band / Mode	Average Power (dBm)	
	LE	
	GFSK	
Bluetooth	1.5	

Band / Channel / Frequency (MHz)	IEEE 802.11 Average Power (dBm)		
	11b	11g	HT20
2.4GHz WLAN	17.3	16.9	16.9

<For XRBH-1>

Band / Mode	Average Power (dBm)	
	LE	
	GFSK	
Bluetooth	1.3	

Hereby, Proxy, Inc., declares that the radio equipment type Proxy Mobile Reader Edge is in compliance with Directive 2014/53/EU.

Please scan the barcode on the label to view the user guide.



Waste Electrical and Electronic Equipment (WEEE)

This symbol means that according to local laws and regulations your product and/or its battery shall be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Proper recycling of your product will protect human health and the environment.

UL294

All terminals are Power Limited / Class 2 circuits.

UL294 access control performance levels

- Destructive attack: Level I
- Line Security: Level I
- Endurance: Level I
- Standby Power: Level I

Install Troubleshooting

Possible Symptoms	Likely issue	How to resolve
Reader		
Logo is not illuminated	Power supply is disconnected or not supplying enough voltage	Either wiring at the reader or at the power supply has been disconnected. Double check both connections to bring the reader back online. Insufficient power supply system may also cause this- double-check the wiring connecting the reader to the panel.
Reader is constantly rebooting (turns on, beeps, turns off)	Power supply is disconnected or not supplying enough voltage	Either wiring at the reader or at the power supply has been disconnected. Double check both connections to bring the reader back online. Lack of power to the ACS system may also cause this- double-check the wiring connecting the reader to the panel.
	Reader is power cycling	Try resetting the reader in the Proxy App. If this does not resolve the issue please email support@proxy.com to escalate.
Logo is purple, cycling clockwise	Reader is in the process of updating or connecting to Wi-Fi	Wait up to five minutes, the reader will return to normal once the task is complete. Note: The door can still be accessed when the reader is busy. The indicator won't flash, but the reader will still beep to indicate access.



Logo is still purple after giving plenty of time for update	Update issue	Try resetting the reader in the Proxy App. If this does not work, try manually resetting the reader by disconnecting and reconnecting the black and red wires. If this does not resolve the issue please email support@proxy.com to escalate.
Indicator flashing red continuously	Hardware issue	Power-cycling the Reader will likely resolve this issue. Contact support@proxy.com if it does not, or if this happens with any frequency.
Issues Unlocking		
Reader does not acknowledge phone	Permissions issue	Be sure the user has been granted access through Proxy Mobile Access Manager. Users need to be added to the org, as well as relevant groups. All groups need to be associated with access points in order to allow ingress.
	Bluetooth issue	Be sure that Bluetooth is enabled. If it is, toggle airplane mode to disconnect all existing Bluetooth connections & reconnect it for a strong connection.
Reader flashes red	Do not have permission to access that reader	Ensure that the user in question has the correct permissions within the Proxy Mobile Access Manager. Users need to be added to the org, as well as relevant groups, and all groups need to be associated with access points in order to allow ingress.
Have to open app to get reader to unlock	Geo-fence/ locations issue	Be sure location services are always enabled if a user is terminating the app between uses. If a user prefers to keep location services turned off, they will need to open the app in order to unlock Proxy reader every time, unless they do not ever terminate the app.

Warranty

For warranty information, visit this link: <https://www.proxy.com/legal>

