

proxy

User Manual and Installation Guide

# Proxy Mobile Reader Pro™

[www.proxy.com](http://www.proxy.com) | [support@proxy.com](mailto:support@proxy.com)

# Contacts

Proxy, Inc.  
San Francisco (Global Headquarters)  
500 3rd Street #245  
San Francisco, CA 94107  
USA

Proxy offices around the world: [Proxy Offices](#)

Proxy Technical Support: [Welcome to Proxy Support](#)

# Table of Contents

---

<b>Introduction</b>	<b>4</b>
<b>Reader</b>	<b>4</b>
Functionality	4
Mobile Reader Pro Wallbox Main Housing	5
Mobile Reader Pro Wallbox Wall Plate	5
Mobile Reader Pro Mullion Main Housing	6
Mobile Reader Pro Mullion Wall Plate	6
<b>Product Specifications</b>	<b>7</b>
RF Exposure Information	8
<b>Installation Details</b>	<b>8</b>
Parts List	8
Recommended Tools	8
Recommended Infrastructure	8
<b>Wiring Information</b>	<b>9</b>
Cable Color codes for Pig Tail Reader	9
<b>Mounting the Mobile Reader Pro</b>	<b>10</b>
Location of mounting holes on the wall (Wallbox)	10
Location of mounting holes on the wall (Mullion)	11
Reader Installation Steps	11
<b>Wiring Diagrams</b>	<b>12</b>
<b>Wiring Recommendations</b>	<b>13</b>
<b>Power Up and Testing</b>	<b>13</b>
<b>Install Troubleshooting</b>	<b>14</b>
<b>Warranty</b>	<b>15</b>
<b>Certifications</b>	<b>15</b>

# Introduction

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

Model(s):

- Proxy Mobile Reader Pro Wallbox (Black) [PRWK]
- Proxy Mobile Reader Pro Mullion (Black) [PRMK]

Version(s):

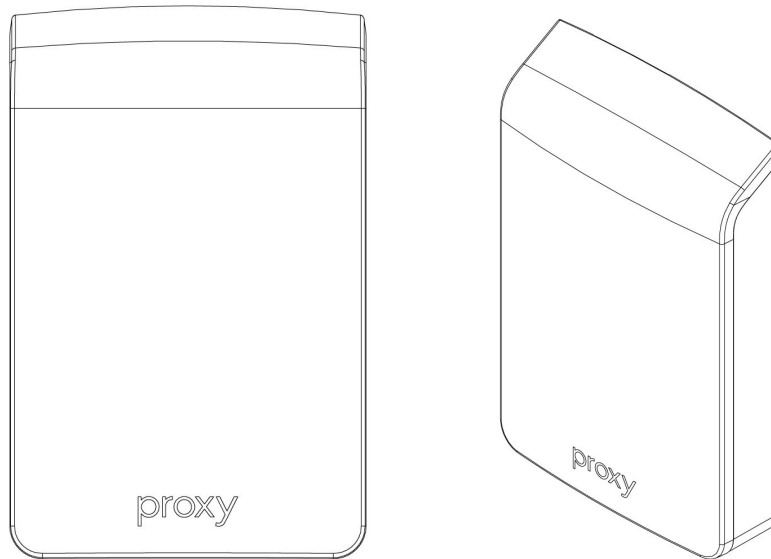
- 1.0, 1.2

## Reader

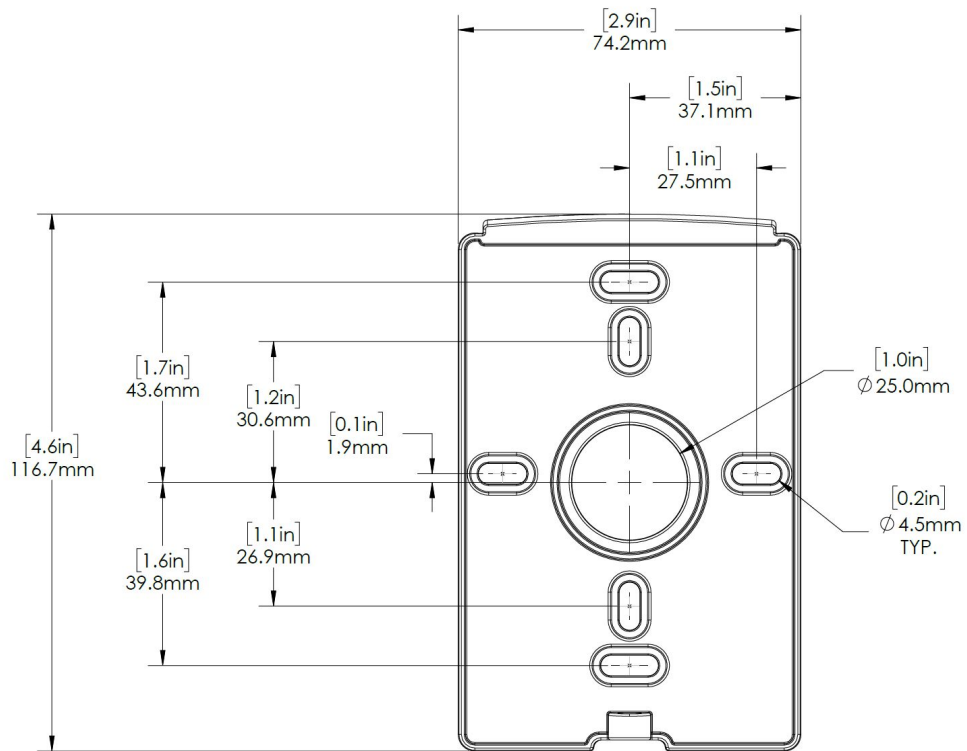
### Functionality

Mobile Reader Pro is a physical access control wireless mobile credential and smart card reader that can read HF / LF contactless credentials conforming to the following standards: ISO 14443 A & B as well as wireless credentials over Bluetooth Low Energy (BLE). The reader can interface with an access control system equipped with a Wiegand or RS485 serial interface. The reader consists of the following main parts.

## Mobile Reader Pro Wallbox Main Housing

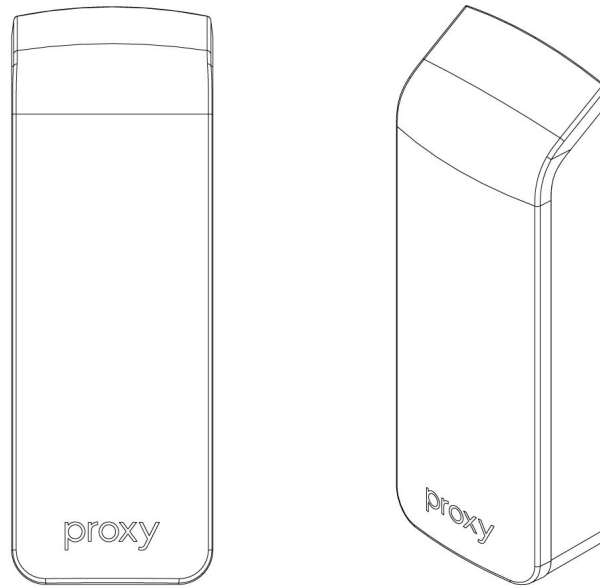


## Mobile Reader Pro Wallbox Wall Plate

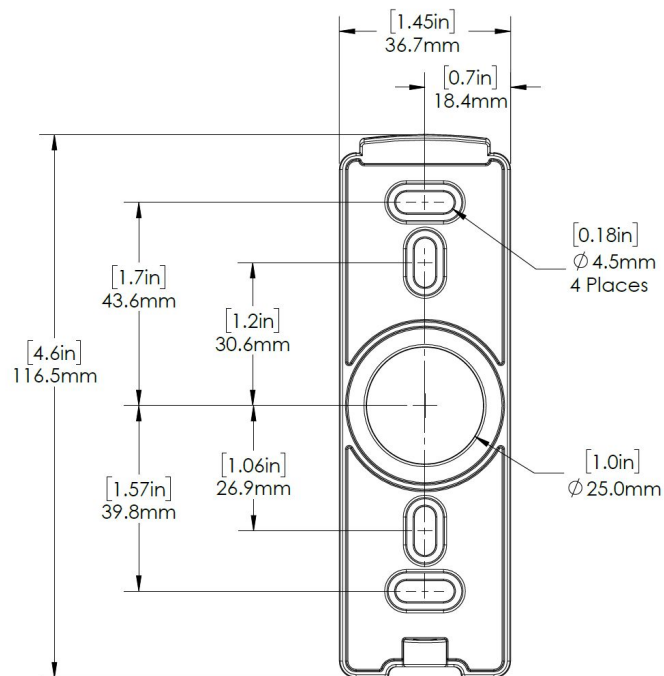


Dimension in millimeters (mm) & inches (in)

## Mobile Reader Pro Mullion Main Housing



## Mobile Reader Pro Mullion Wall Plate



Dimension in millimeters (mm) & inches (in)

# Product Specifications

Model Name:	Mobile Reader Pro
Device Type:	RFID keycard reader, 13.56MHz (HF) / 125 KHz (LF) / Identity Signal: Bluetooth Low Energy (BLE) Physical Access control Reader (accessory equipment)
Type of Equipment:	Sealed Reader. Suitable for Indoor and Outdoor use.
Interface Type:	Pigtail Cable (11 Core + Drain)
Input Voltage:	6V - 16V DC (12V recommended)
Current Draw (WiFi Off):	250 mA @ 12V
Max Current Draw (WiFi On):	500 mA @ 12V
Power Consumption:	6W (Max)
Communication Protocol:	Wiegand, RS485 (2wire - Half Duplex), Bluetooth 4.0 or higher (BLE), WiFi IEEE 802.11b/g/n**
Credential Type:	125kHz proximity cards: - HID® Proximity, Indala®, CasiRusco®, AWID, Farpointe®, Others 13.56MHz smart cards: - uTrust, PIV, PIV-I, CAC, TWIC, - MIFARE Classic, DESFire EV1, PLAID [AS 5185-2010], - ISO15693 UID, ISO14443A/B UID, - HID® iClass Card Serial Number (CSN) Bluetooth Low Energy: Any bit format (standard or custom) up to 120 bits Proxy ID iPhone Ver 2.23.8, build 3535 Proxy ID Android Ver 2.16.5, build 2577
Transmission Technology:	Wiegand
Operating Temperature:	-35° to 66°C (-31° to 149°F)
Operating Humidity:	5 to 95% relative humidity (non-condensing)

\*\* Communication via Wiegand was evaluated by UL and serves as the interface between the reader and panel. RS485 communication shall not be used for UL application. WiFi IEEE802.11b/g/n communications are used for non-critical operations (OTA, backhaul, etc.).

## 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.

## Installation Details

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

### Parts List

- Mobile Reader Pro – x1
- Security Screw – #6 - 32 x 3/8" (Tamper Resistant) – x1
- Mounting Screws – #6-32 x 1" (Phillips) – x2
- Nylon anchor plugs – #6 Size x 1" – x2

### 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.
- All readers shall be powered by UL listed power-limited power supply, or power-limited output from UL listed control panel.
- There shall be no connections made to the RS-485 interface (RS485+ and RS485-) for UL installations.
- Refer to [Wiring Recommendations](#) for guidance on wire type and length
- Power Supply (Altronix Maximal or equivalent 12V DC Output)
- Standby Power is not provided by the Card Readers. The Standby Power Level is dependent on the external power source connected to the Card Reader.
- For RS485 use 24 AWG twisted pair cable with a shunt capacitance of 16 pF per foot and 100-ohm characteristic impedance (option: Category 5 shielded twisted pair (STP)).



# Wiring Information

## Cable Color codes for Pig Tail Reader

Name	Colors	Colors
+VDC	Red	
Ground	Black with White Stripe	
Wiegand Data 0	Green	
Wiegand Data 1	White	
Green LED	Orange	
Buzzer	Yellow	
Hold	Blue	
Red LED	Brown	
RS485 -	Grey	
RS485 +	Pink	
Tamper Output	Violet	
Shield Ground	Black / Drain	

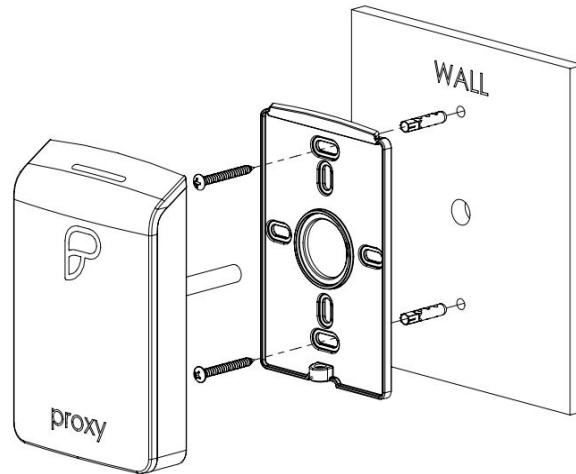
\*\* For Wiring diagrams and termination points please see your control panel user manual. Installations will differ between access control panel manufacturers.

**Caution:**

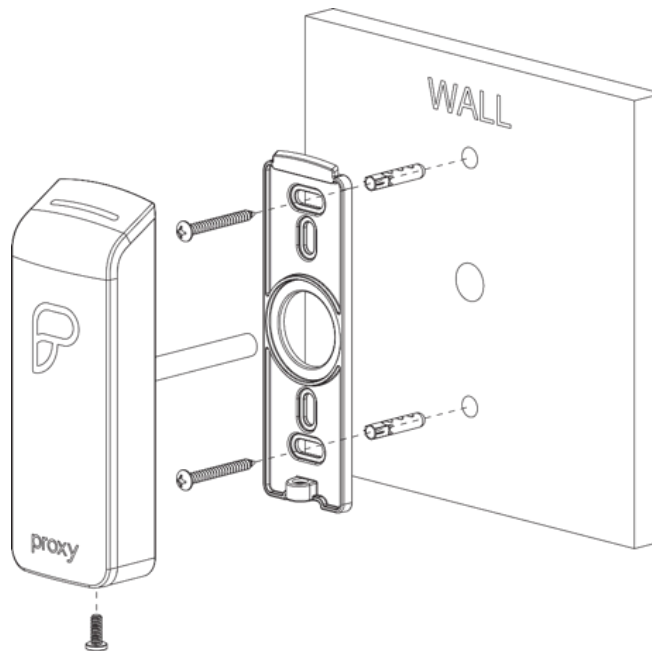
During wiring, make sure that the +VDC lines do not make contact with any other cables, as it might affect reader functionality/ cause damage to the reader.

# Mounting the Mobile Reader Pro

## Location of mounting holes on the wall (Wallbox)



## Location of mounting holes on the wall (Mullion)

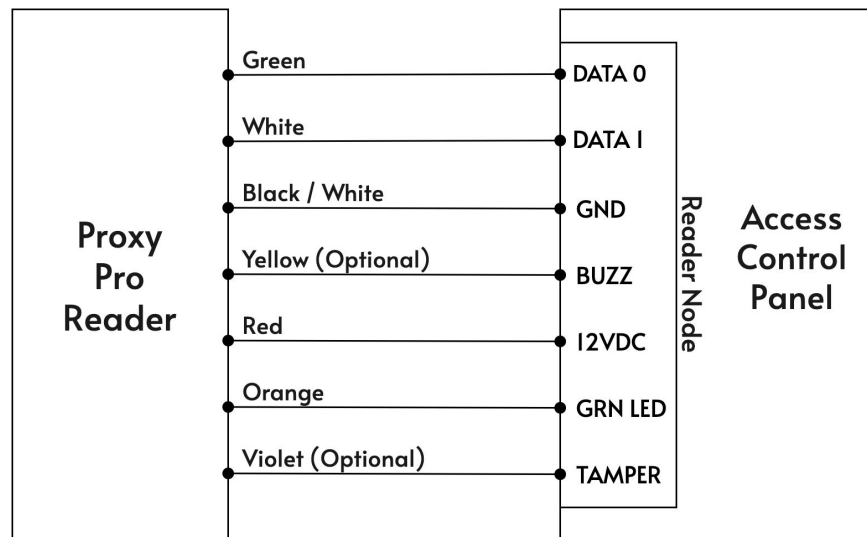


## Reader Installation Steps

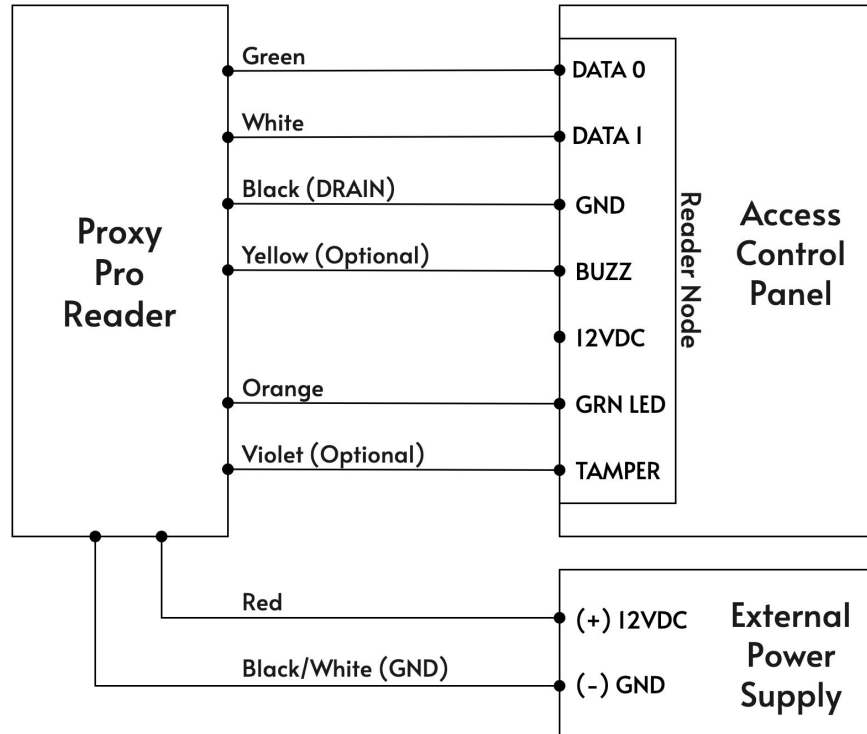
- Make two holes on the wall as per the image above
- Insert the nylon screw plugs into the wall
- Connect the wires as per the Table in Section 5.3.1
- Mobile Reader Pro Wallbox Wall Plate is to be secured onto the wall using the Screws
- Mobile Reader Pro Wallbox Main Housing can be installed onto Wall Plate
- Secure the Main Housing to the wall plate using Security Screw

## Wiring Diagrams

Powered by Access Control Panel



Powered by External Power Supply



## 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 supersede the table below.

Type	Alpha Wire P/N or Equivalent	AWG	Shielded?	Max Length
RS-485 (Twisted Pair)	5471C	24	Yes	4000 ft (1215 m)
Power (22 AWG)	1292C	22	Yes	600 ft (180 m)
Power (18 AWG)	2422C	18	Yes	1500 ft (455 m)
Reader (22 AWG)	1299/10C	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)

# Power Up and Testing

1. Turn power on.
  - Indicator Light (top of housing) powers on and turns RED
  - Branding LEDs turn on (Proxy Logo Displayed)
2. Present a valid physical card to the reader to confirm the reader is functioning correctly with the access control system (ACS).
  - Access Granted: The Indicator LED blinks green, and a short beep is emitted
  - Access Denied: This is dependent on Access controller configuration
3. 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.

# Install Troubleshooting

Possible Symptoms	Likely issue	How to resolve
<b>Reader</b>		
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. Lack of power to the ACS 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 <a href="mailto:support@proxy.com">support@proxy.com</a> 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 <a href="mailto:support@proxy.com">support@proxy.com</a> to escalate.
Indicator flashing red continuously	Hardware issue	Power-cycling the Reader will likely resolve this issue. Contact <a href="mailto:support@proxy.com">support@proxy.com</a> if it does not, or if this happens with any frequency.
<b>Issues Unlocking</b>		
Reader does not acknowledge phone	Permissions issue	Be sure the user has been granted access through Proxy Dashboard. 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 on the mobile phone. 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 Dashboard. 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.
Reader flashes green then immediately red	Permissions issue on the access control panel	Ensure that the user in question has the correct permissions within the ACS panel, in addition to within Proxy.
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

Warranty information is available [here](#).

# Certifications



IC



**SRRC**