

This page is intended for installer use in the installation of the UniKey Smart Reader 2.

Introduction

This guide will walk a professional installer through the steps needed to attach a UniKey Smart Reader 2 (or SR2) to an access control panel. The SR2 supports 125 KHz proximity cards as well as UniKey mobile credentials. Please review the information below to ensure the reader is installed quickly and properly.

Grounding

- Shield must run continuously from the reader to the panel. At the panel, the reader ground, shield line, and earth ground must be connected together at a single point.
- Do not ground the shield line at the reader end as this will create a potential ground loop.

Power

- A non-switching power supply at the panel is recommended to power the reader for the highest noise immunity and best performance.
- For UL 294 Compliance, the readers shall be connected to a class two power limited power supply or control panel output.
- The recommended wire gauge is 24 AWG.

Voltage

- The minimum reader voltage required is +6 VDC to a maximum of +16.0 VDC, and 12.0 VDC is recommended.
- The reader will require 100 mA (typical @ 12 VDC) in standard mode, 220 mA (typical @ 12 VDC) in advanced mode.
- The reader is in standard mode by default, advanced mode can be configured via in-app settings using the administrator app.

Connection

- Connections must be in accordance with NFPA 70. DO NOT connect to a receptacle controlled by a switch.
- It is not permitted to connect cables greater than 98.5 ft. (30 m) long.

Mounting the Reader

- If the unit is used to control a door or pedestrian gate, locate the unit as near as practical to the entry point. If the unit is mounted on or in a wall adjacent to the entry point, be sure the wall is sturdy. The repeated shock and vibration from a slamming access door or spring-loaded pedestrian gate must be isolated from the unit.
- Never mount the reader directly on a moving door or gate.

- Choose a well-lit location near the controlled opening. Wiring access for power, network, and earth ground must be available to the mounting location.

Mounting

- Both the Mullion and Single-gang readers can be mounted on a wall or any suitable flat surface.

Mobile Device and Software

- The SR2 utilizes BLE version 4.0
- The UniKey SR2 is to be used in conjunction with the UniKey Admin Mobile App (Version 1.0 or higher).
- In order for the SR2 to function properly, the mobile device's software must be up to date.
 - iOS Devices: iOS 10.0 or higher
 - Android Devices: v5.0 (Lollipop) or higher and peripheral mode supported.

Reader Wiring

WIEGAND	
CONDUCTOR	Purpose
RED	DC +6-16 VDC
BLACK	Ground
GREEN	Data 0
WHITE	Data 1
PURPLE	Red LED
ORANGE	Green LED
YELLOW	Card Present
BLUE	Beeper
DRAIN	Shield Ground

Current Draw: 100mA (typical @ 12VDC)

UL 294 Performance Levels

MODEL #	ACCESS CONTROL LINE SECURITY LEVEL	DESTRUCTIVE ATTACK LEVEL	ENDURANCE LEVEL	STANDBY POWER LEVEL	CONDITIONS
UNIKEY SR2	Level I	Level I	Level III	Level I	N/A

Certifications

- FCC Compliance Statement: This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:
 - This device may not cause harmful interference.
 - This device must accept any interference received, including interference that may cause undesired operation.
- Product can be used without license conditions or restrictions in all European Union countries, including Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Luxembourg, The Netherlands, Portugal, Spain, Sweden, and the United Kingdom, as well as other non-EU countries, including Iceland, Norway, and Switzerland.



Revision History

Revised By	Date	Version	Change Summary
RLJ/EKC	9/27/2017	1.0	Initial Release
EKC	1/17/18	1.1	Updated Reader Wiring table "purple" entry for accuracy.