

The World Leader In Security Integration and PSIM Solutions



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This Installation Guide is intended for experienced installing technicians. It is a basic reference to ensure all connections are properly made. See the appropriate Product Manual for detailed information on installing 125K Prox Readers. These documents may be downloaded from the OSSI- Website at: www.ossi-usa.com.

NOTE: All OS- Series Readers include standard 125-kHz HID proximity compatibility allowing them to read Farpoint, AWID and HID proximity cards and tags.

All OSSI Readers are compliant with the following organizations:



FCC compliance Statement: 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.

Cable Requirements

All readers operate at up to 500 feet (152 m) of cable, using seven-conductor, shielded, stranded cable. Per the Security Industry Association's Wiegand specification, AWG 24 (such as Belden 9537) is the minimum gauge required for data transfer in a 500-foot run length. However, the proper wire gauge to use must be determined by the current draw requirements of the reader, the length of the cable run, and the voltage applied to the reader.

If the reader is to be operated at 5 VDC, 5 VDC must be available at the reader (long cable runs have a voltage drop due to the resistance in the cable). A larger gauge of wire (having less resistance) or a separate power supply near the reader may be required to ensure 5 VDC is available at the reader.

Output Formats

- Wiegand (industry standard 26-bit Wiegand and custom Wiegand formats)
- Magnetic Stripe (ABA Track II, clock and data, with card present)

Grounding

Shield (drain) continuity must run from the reader to the access panel. Shield (drain) and reader ground must be tied together at the access panel and connect to an earth ground at one point.

Power

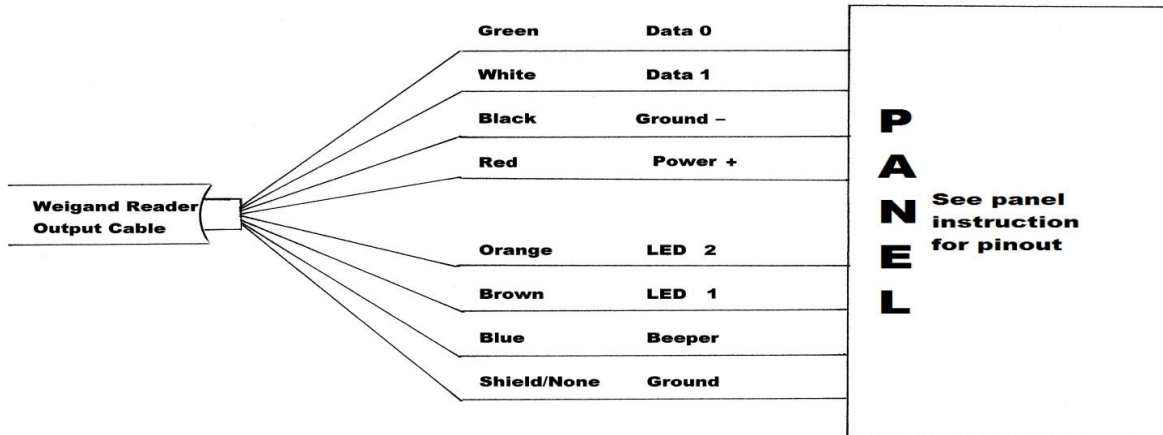
A reader may be powered by the access panel, so the reader is powered on when the access panel is powered on. However the best case is to power the reader by a separate, linear power supply.

Voltage

Typically 5 to 14 VDC (12VDC IS RECOMMENDED)

READER INSTALL GUIDE

Wiring Diagram



Troubleshooting the Reader Installation

Problem	Problem Cause	Corrective Action
The Reader does not recognize a Card/Tag. (No beep or LED Flash)	<ol style="list-style-type: none"> 1. One or more of the readers wire connections are incorrect 2. The reader is not receiving the proper power from the panel 3. The reader is mounted too close to another device which is radiating electromagnetic interference. 4. You are using an incorrect type of card. 	<p>Power down the reader and disconnect the wiring from the panel to correct the wiring.</p> <p>Verify the voltage at the reader is 5vdc to 14v dc</p> <p>Devices such as computer monitors radiate electromagnetic interference that affects the range. When possible move one of these devices to provide greater separation between the two.</p> <p>Make sure you are using an access card that is compatible with the reader.</p>
The reader has a short read range.	<ol style="list-style-type: none"> 1. The reader access control panel is not properly grounded. 2. The shield wire for the readers cable is open somewhere. 3. The reader is mounted too close to another device which is radiating electromagnetic interference. 4. The power supply is creating electromagnetic interference. 5. Metal structure 	<p>Ensure there is a quality earth ground connection for the access control panel. Ensure Compass panel is bonded to the enclosure.</p> <p>Verify that the shield wires from the access control panel to the reader are connected and not shorted or open.</p> <p>Devices such as Computer Monitors radiate electromagnetic interference that affects read range. When possible move one of these devices to provide greater separation between the two.</p> <p>The power supply on the access control panel must be a regulated linear supply. Do not use switching power supplies as they often reduce range and are the source of electromagnetic interference.</p> <p>Direct mount on metal surface attenuates the signal.</p>

A supply voltage of regulated 12 VDC at the reader is recommended for best operation.

Note: Making any changes or modifications not approved by OSSI, LLC. may void the user's warranty.