

# Installation Sheet (Wiegand Interface)

## Sentinel-Prox SR-2400 Reader



### Reader Description

The Sentinel-Prox SR-2400 Reader is a radio-frequency proximity reader for Access Control Systems. The Reader consists of a transmit/receive antenna and reader electronics, in a polycarbonate housing. The reader electronics and antenna are potted with epoxy resin to protect against the environment. The Reader may be mounted on a metal doorframe, a window mullion, or any surface (wall, cabinet, etc.).

### Parts List

(a)	Installation sheet	Qty=1
(b)	Sentinel-Prox SR-2400 Reader	Qty=1
(c)	#6-32 x 1" thread-cutting screw, Type 23	Qty=2
(d)	Screw-hole plug	Qty=3 (1 spare)

### Installation Procedure

1. Position the reader (item b in the Parts List) at the desired location. Observe ADA height requirements. Drill two 7/64 (0.109)-inch holes for the reader screws, and one clearance hole for the cable (see Figure 1).
2. Clip off the white 10-pin in-line connector from the end of the reader's cable. Keep the wires as long as possible.
3. Connect the reader's ground, Data-0, Data-1, LED and power (see Figure 2). Connect *yellow* wire only if used for Beeper control. **Do not connect orange, blue & violet** wires to anything. **Tape or cap** all unused wire separately.
4. Use a linear regulated DC power source, between 5 VDC (current rating at least 40 mA) and 12 VDC (at least 70 mA). The power source may be the Ground and Power terminals on the panel's reader port.
5. Align the reader with the screw holes in the doorframe or other surface. Fasten the reader to the doorframe using supplied screws (item c in the Parts List) or other fasteners.
6. Apply power to the reader. The LED is steady-amber. (The beeper does not sound.)
7. Present any AWID proximity credential (card, tag or wafer) briefly to the reader. The beeper sounds, and the LED changes to steady-red indicating Standby mode. The reader is now initialized and can read cards. **Note:** All credentials must be AWID's products. Credentials from other companies will not read.
8. The LED color in Standby may be changed from red to green, or from green to red, using a *Color Changer* card, available from AWID. Remove power from the reader; disconnect the brown wire from the panel; then restore power. While the LED is amber, present the Color Changer card to toggle the LED's Standby color. Reconnect the reader's brown wire to the LED (or Green LED) terminal.
9. When installation is complete and the reader has been tested, insert screw-hole plugs (item d in the Parts List) into the screw clearance holes to conceal the screw heads. Note: Screw-hole plugs are for one-time use. After they are seated, they cannot be removed without damaging the plugs.

### Product Specifications

#### Cable to Controller

- 4, 5 or 6 conductors (not twisted pairs), stranded, 22 gauge, color-coded insulation, overall 100% shielded  
Note: The number of conductors depends upon use of the reader's features – LED and Beeper. See Figure 2.
- Length for Wiegand interface..... Up to 500 feet

#### Read Range with AWID Card (Metal-Compensated Reader)

- At 5 VDC .....Typically 4 inches (10 cm)
- At 12 VDC .....Typically 5.5 inches (14 cm)

#### Characteristics

- Indoor and Outdoor .....Rated for outdoor installations
- Operating Temperature Range.....-35° C to 65° C (-31° F to 150° F)
- Operating Humidity.....0 to 95% non-condensing

Operating Parameters

- Excitation Frequency ..... 125 kHz
- Wiegand Output ..... 26 bits to 50 bits (as programmed in the cards or tags)

Certifications ..... FCC Part 15; Industry Canada; UL listed ; CE

**Notes**

1. Remove power before any wiring change. Connect the reader’s black wire (ground) first, and the red wire (power) last.
2. When the brown and yellow wires are not used, LED and beeper remain active and under the reader's internal control.
3. The LED and Beeper lines are logic levels. *Never* apply power to them. They may be pulled to a low level (0 to 1.2 VDC) to enable their function, and left floating at a high level (3.6 to 5.0 VDC) when not used.
4. SR-2400 readers have Wiegand-protocol electrical interface only. (There is no RS-232 interface.)
5. For additional information, please visit AWID’s Web site [www.awid.com](http://www.awid.com). For technical support questions visit [www.awid.com/support](http://www.awid.com/support) or call **1-800-369-5533** (in the U.S.) or +**1-408-825-1100** from 8:00 a.m. to 5:00 p.m. PST.

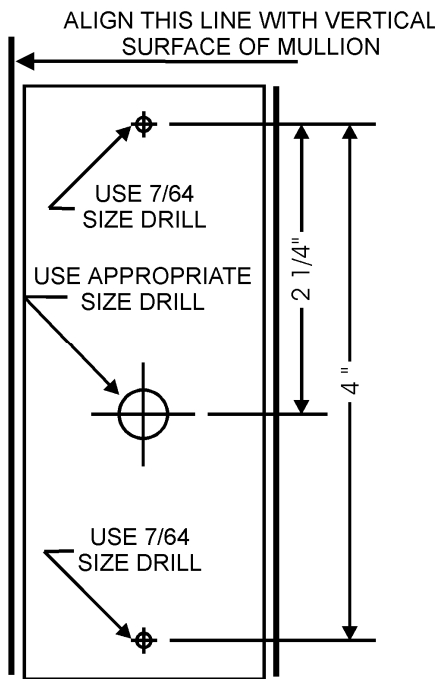


FIGURE 1: Holes Location

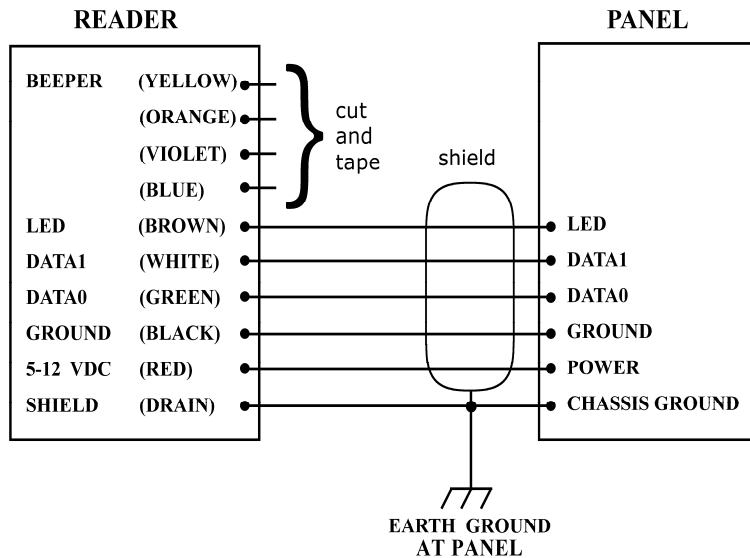


FIGURE 2: Wiring Diagram (Wiegand)

**Compliance**

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.

FCC: This equipment has been tested and found to be in compliance with the limits for FCC part 15, Class A digital device. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with instruction manual, may cause harmful interference with radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

The users are prohibited from making any change or modification to this product. Any modification to this product shall void the user’s authority to operate under FCC Part 15 Subpart A Section 15.21 regulations.

Industry Canada: Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.