Installation Sheet (Wiegand Interface)
Sentinel-Prox MM-6800 Reader

Reader Description

The Sentinel-Prox MM-6800 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 are potted with epoxy resin to protect against the environment. The MM-6800 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 MM-6800 Reader	Qty=1
(c)	#6-32 x 1" thread-cutting screw	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's 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 as shown in Figure 2. Connect the ***yellow*** wire only if used for Beeper control by the panel. Connect the ***blue*** wire only if used for Hold control by the panel. **Do not connect** the *orange* and *violet* wires to anything. **Tape or cap** all unused wires singly.
4. Use a linear regulated DC power source, between 5 volts (current rating at least50 milliamperes) and 12 volts DC (at least 80 milliamperes). 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 using 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, keytag, or wafer) briefly to the reader. The beeper sounds a *Long-Short-Short* sequence. 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. Other credentials 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 successfully, 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 to 7 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 LED, Beeper and Hold features. See Figure 2.
- Length for Wiegand interface.....Up to 500 feet

Read Range with AWID Card (Metal-Compensated Reader)

- At 5 volts DC.....Typically 6 inches (15 cm)
- At 12 volts DC.....Typically 8 inches (20 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

Notes

1. Remove power before any wiring changes. 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, Beeper and Hold lines are at 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. MM-6800 readers have both Wiegand-protocol and RS-232 serial interfaces. For information on RS-232, contact AWID's Technical Support.
5. For additional information, please visit AWID's Web site www.awid.com. For technical support questions visit www.awid.com/support or call **1-800-369-5533** (in the U.S.) or +**1-408-825-1100** from 8:00am to 5:00pm Pacific Time.

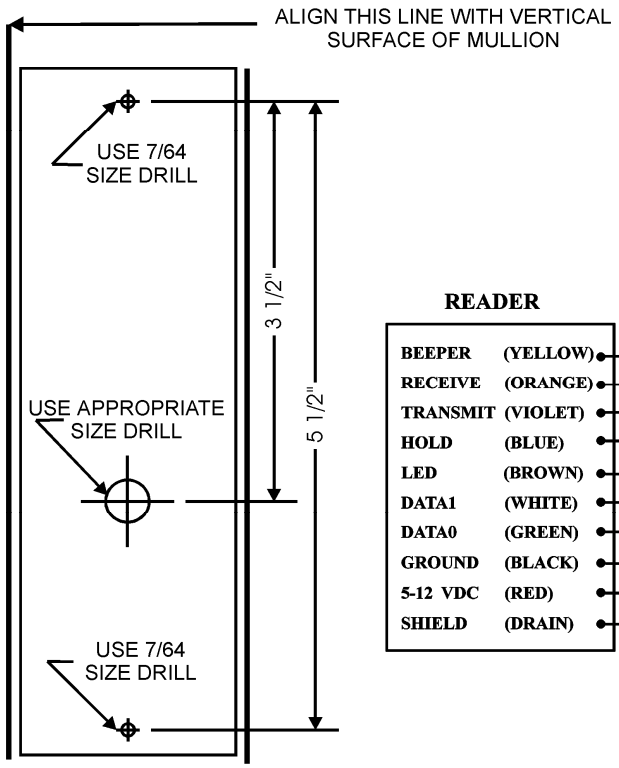

FIGURE 1: Holes Location

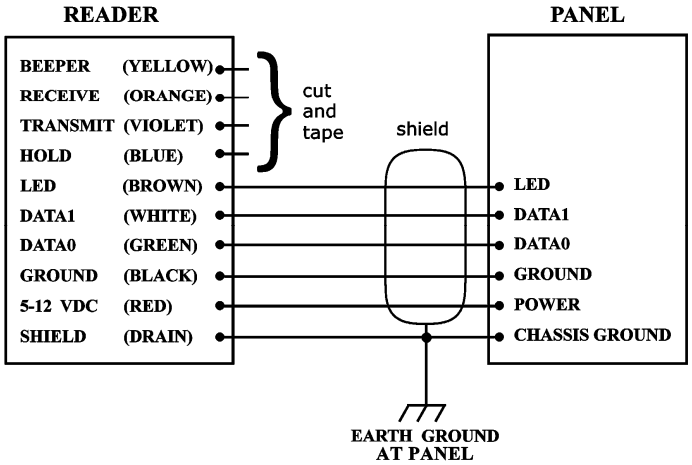

FIGURE 2: Wiring Diagram (Wiegand)

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.