

Installation Manual

(Version 14)

Sentry Door Controller

(For Low Traffic Doors without Antenna System & RF Tags)



Wander Control Systems, Inc.

210 Richlandtown Pike
Quakertown, PA 18951

Telephone 215-538-1983
After Hours 407-446-0055

www.wandercontrol.com

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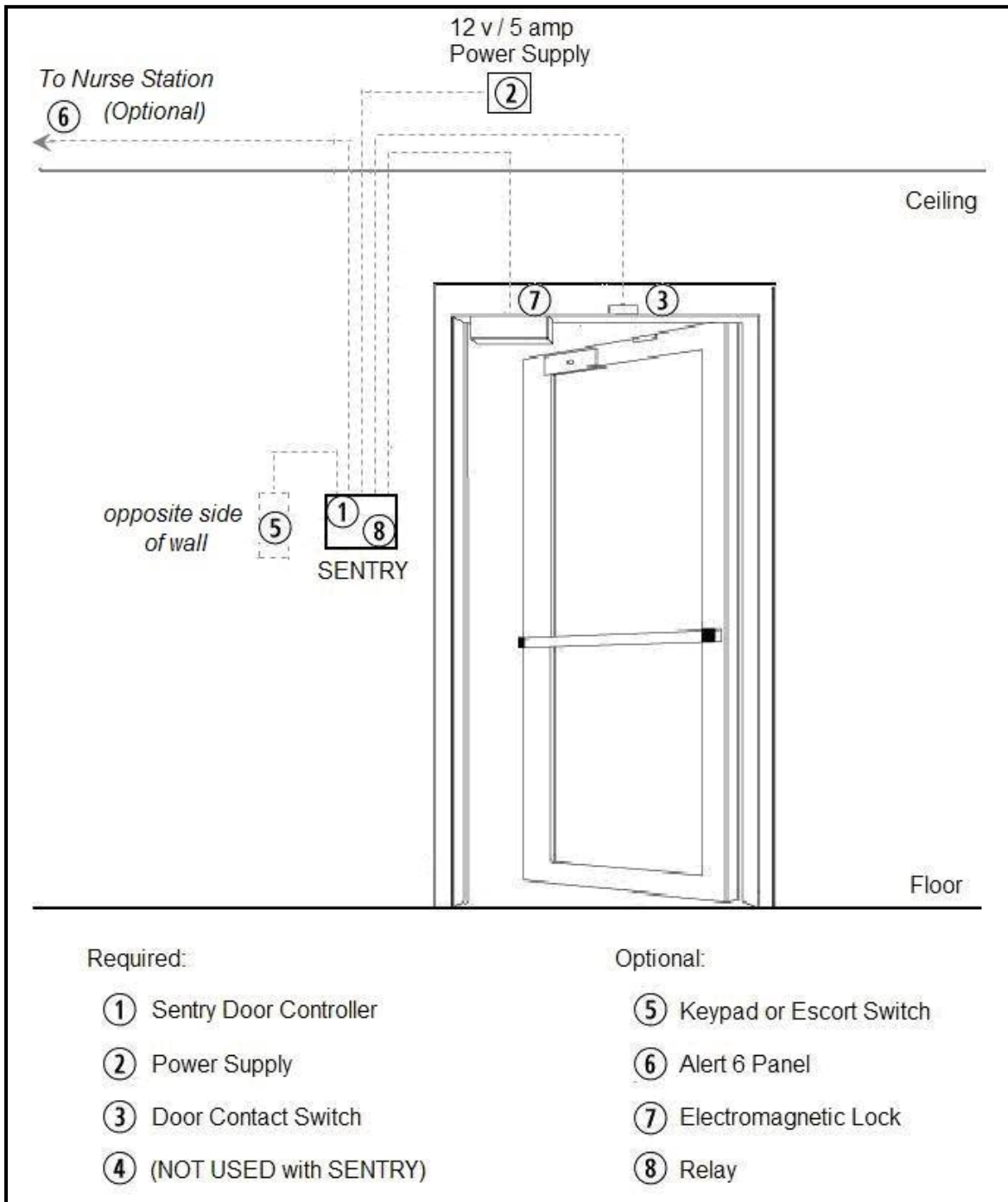
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Sentry Low-Traffic Door Controller Installation Manual (Version 14)

Installation

Figure 1. Sentry Installation Diagram



Recommendations



PLEASE consult local codes for wire requirements and other regulations.

Wire Sizes

Sentry Control Unit to:

Power Supply	18 - 2 AWG
Door Contact Switch	22 - 2 AWG
KP-1 or KP-2	18 - 4 AWG
Escort R	18 - 2 AWG
Alert 6	22 - 2 AWG
Magnetic Lock(s)	18 - 2 AWG

Table 1. Wire Sizes for Installation

Tools

Screw Drivers (Flat & Phillips)
 Drill, Drill Bits
 Wire Cutters

Wire Strippers
 Volt Meter

Once you have evaluated your Wander Control Systems, Inc. equipment components and recommendations for wire and tools, it is time to make a decision.

For installations in new construction locations or where wire will be run in the ceilings or walls and will not be exposed, it may be best to measure and run the wire before mounting the equipment on the wall.

For installations in existing locations with drop ceilings and where products such as Wiremold or Raceway are planned to be used to conceal wire, it may be more beneficial to mount the equipment on the walls and then run the wires.

Mounting

(Refer to Figure 1. Sentry Installation Diagram for assistance.)

Control Unit

- 1) The control unit is shipped with a surface mount plastic enclosure. Choose a place to mount the Sentry control unit within 3 - 4 feet of the protected door or area at 4 - 4.5 feet above the floor (make sure to allow access to the control unit when a caregiver is pushing a resident in a wheelchair).
- 2) Punch-out the desired access hole at the back of the surface mount box to use for wiring.
- 3) Mark a precise location for mounting and drill through drywall or other surface. (If necessary, wires may be run through a Wiremold channel mounted vertically, but an access hole must be drilled through the top of the surface mount box.)
- 4) Screw surface mount box (backbox) to the wall. (The backbox must be securely attached to the wall because residents may try to tamper with or remove the control unit).
- 5) After the backbox has been securely fastened to the wall you may pull the wires from the box out to your external connections.
- 6) Once the backbox is securely mounted and all wires are pulled you may proceed to wire the control unit to the wires that you have brought into the backbox.

Power Supply



PLEASE consult local codes on whether or not a dedicated circuit is needed.

The 12 volt low voltage power supply should be placed in a location that has a fairly ambient temperature. The power supply will operate safely as long as the temperature is between 45 - 85 degrees Fahrenheit. If you are using 18 AWG or larger wire you may place the supply up to 50' away from the control unit. Make sure that the power supply is not wired into a switched 110 volt outlet.

- 1) A standard 110V grounded outlet should be provided above the ceiling (if possible) within 10 feet of the door to bring facility's electrical power to the power supply of the control unit.
- 2) Securely attach power supply above in an accessible area within 10 feet of the control unit.

- 3) Drop 18-2 stranded wire through the wall (or Wiremold channel) to the control unit.
- 4) Connect to the back of the control unit at J5 Pins 1 & 2 (pin 1 is positive +).
- 5) Connect to the power supply ~ + (red) & – (black).



CAREFUL – Do not reverse polarity by reversing wiring connection voltage on J5 Pins 1 & 2.

Door Contacts

The standard door contact switch shipped with our door controllers, part # DS-1, is a surface mount style switch. The complete part consists of a switch (which attaches to the door frame) and a magnet (which attaches to the door). Plastic spacers are supplied with each DS-1 to mount between the magnet and the metal door and between the switch and the metal frame for optimum performance. If these spacers are not used, there is a chance that the door controller may show DC ~ *Door Closed* ~ even when the door is open. These spacers are not needed when installed on wooden door frames. Hidden door contact switches are available by special order.

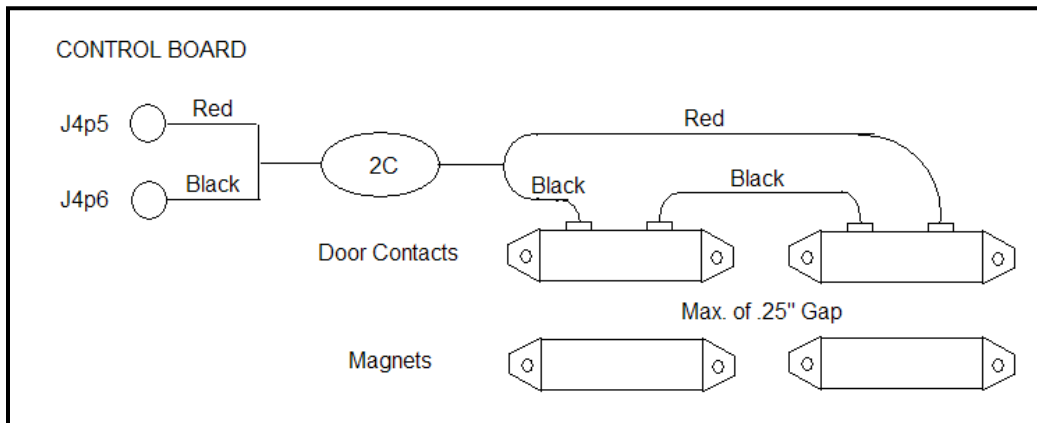
When mounting the magnet to the door, make sure that the gap of the switch is less than 1/4". Use one set of door contacts for a single door and two sets of contacts for a double door (one per door).



Doors MUST close and seal properly before wander equipment is installed.

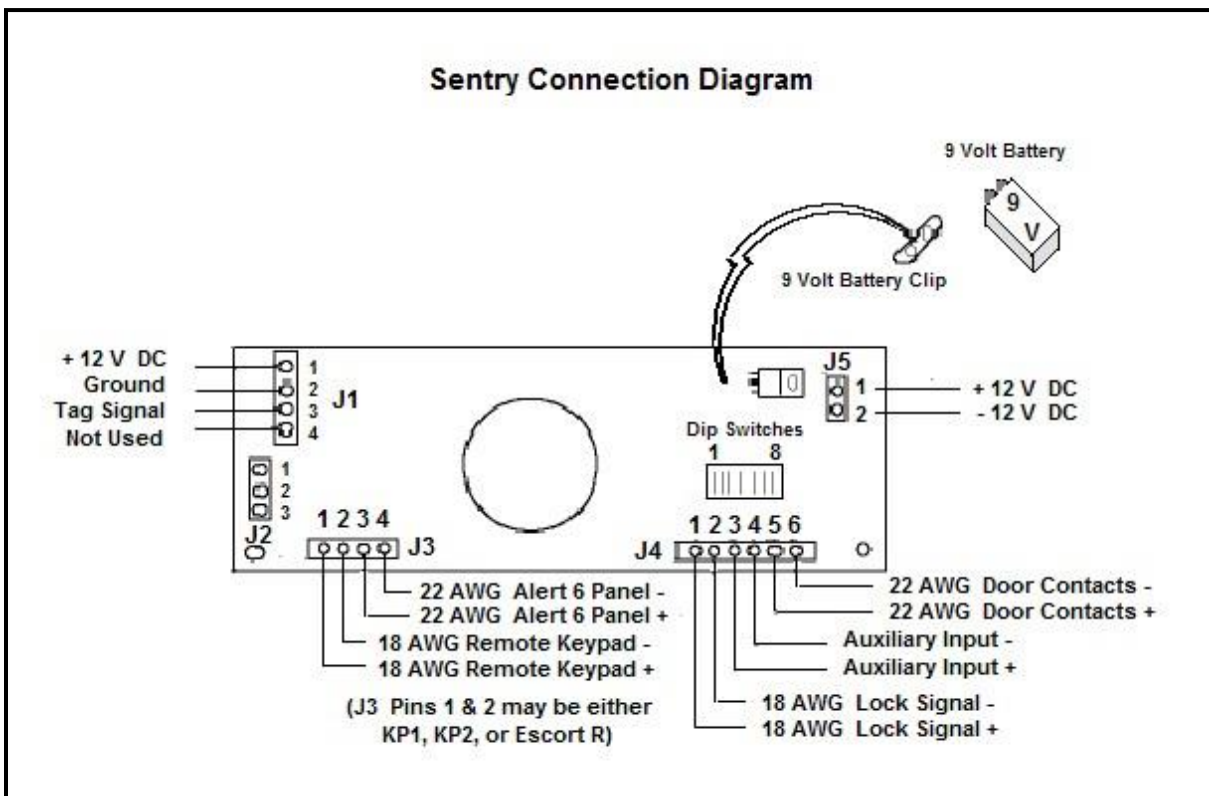
- 1) Mark and drill holes in the door frame away from the hinged side of the door using the actual switch (with two screw terminals) as a template.
- 2) Drill one extra hole above the switch screw terminals as an access for the wire.
- 3) Mount the door switch to the frame above the door using the screws provided.
- 4) Mark and drill holes in the top of the door for the contact magnet. Close door to make sure there is no more than a 1/4" gap between the switch and the contact magnet.
- 5) Run 22-2 AWG stranded wire through the access hole and connect to the switch from the Platinum 3 Controller J4 Pin 5 and J4 Pin 6 as shown below. If there is more than one switch, connect the switches in series.

Figure 2. Wiring Diagram for Door Contacts



Hardware

Figure 3. Sentry Connection Diagram



Dip Switch Settings

The dip switches are located on the back of the control unit and are labeled 1 – 8. Only five of the switches are currently used.

- Switch 1 – On – Factory setting always ON
- Switch 2 – Off – the STAR (*) key is used to reset alarm and disable lock – this setting provides less security
On – the STAR (*) key is disabled – this setting provides more security
- Switch 3 – Off – 9000 codes function normally and reprogramming allowed
On -- 9000 codes function normally, NO reprogramming allowed
- Switch 4 – Off – Is **negative** polarity – for use with
A) Keypads other than Wander Control Systems' brand custom designed KP-1 or KP-2 keypads.
B) EscortR push button from Wander Control Systems
C) Other brand push buttons
D) No keypad or push button connections
On – Is **positive** polarity – for use with
Wander Control Systems' designed KP-1 or KP-2 keypads ONLY
- Switch 5 – On – Factory setting always ON

Set-Up Connections

- J1 – Not used
- J2 – 485 Communication – **Special Accessories Only**
(Contact Wander Control Systems Tech Support)
Pin 1 – 485 receive
Pin 2 – 485 transmit
Pin 3 – signal ground
- J3 – Remote Escort R, KP-1, KP-2 & Remote Alarm Signal - Alert 6
Pin 1 - Remote Escort +
Pin 2 - Remote Escort -
Pin 3 - Remote Alarm +
Pin 4 - Remote Alarm -
- J4 – Mag Lock Signal, 9000 Key Lockout, Door Contact Switch
Pin 1 - Lock Signal +
Pin 2 - Lock Signal -
Pin 3 – 9000 code lockout (auxiliary input +)
Pin 4 – 9000 code lockout (auxiliary input -)
Pin 5 - Door Contacts +
Pin 6 - Door Contacts -
- J5 – Power Supply Connection (12VDC)
Pin 1 - (+) 12VDC
Pin 2 - (-) 12VDC (ground)

Wander Control Systems, Inc. Warranty Statement

At Wander Control Systems, Inc.'s discretion, we agree to adjust, repair, or replace any products which are found to be defective due to manufacturing deficiencies or faulty components for the time frames indicated in the chart below – beginning with the date of invoice. Products damaged due to installation errors, user errors, or Acts of God are not covered under the warranty.

PRODUCT	TIME
WCSI Platinum 3 & Sentry	3 (three) years
WCSI Alert 6	3 (three) years
WCSI KP-1, KP-2, EscortR	1 (one) year
WCSI eZ Track'N	1 (one) year
WCSI Accessories	1 (one) year
WCSI RF Tags	Tag Program
Wristbands	Disposable item (please advise of any problems upon receipt of product)
Non-WCSI Manufactured Products for System Integration	Pass other manufacturer's warranty on to customer / end user

RF Tag Program

RF tags operate on battery power. This battery will discharge and ultimately fail over time. This is normal, so daily RF tag testing is recommended.

After your brand new Wander Control Systems RF tag has served its useful life, simply return the tag with an expired battery or other functional problem to our Service Center and we will completely recondition your tag: replacing the battery, the waterproof casing, and any other parts if necessary. We then reprogram your proper ID bit code and include a free standard wristband. Reconditioned RF tags cost ½ the price of a new tag plus standard Ground shipping charges. Our exclusive Forever Tags™ are replaced for free, so the only cost is the standard Ground shipping charges. RF tags that may possibly fail under normal use within 90 days of invoice are replaced at no charge.

Limitation of Liability

Our products are designed for use in reducing the risk of resident wandering, elopement and general egress and ingress notification. Products and accessories not manufactured by WCSI may be integrated into a wander system and sold by WCSI or third parties to provide other benefits and services to help prevent elopement and

efficiently monitor general egress and ingress security through remote detection. Extreme security applications and situations may require hardware components not available through WCSI.

Many factors may affect the function, performance, and active field of our electrical products. Some of these factors may include electrical interference, metal objects within the active field, placement of the receive antenna and/or RF tag, installation errors, and improper maintenance.

Wander Control Systems, Inc. (WCSI) does not guarantee that our products will detect 100% of wandering resident elopements or provide 100% security for unauthorized egress and ingress through a monitored door. The daily testing of RF tags and regular servicing of installed products is recommended to minimize problems detecting wanderers or general door security. WCSI products are designed and manufactured to assist in providing wanderer monitoring, elopement notification, and exit door security. At no time do WCSI products totally replace the need for human supervision and monitoring of residents, employees, and exit/entrance security.

Wander Control Systems, Inc.'s liability to our customer or end user is limited to:

- A. the repair or replacement of defective product, products, or materials supplied by WCSI during the warranty period as described in the WCSI warranty policy statement, or
- B. a refund of the purchase price of the product or products supplied by WCSI.

WCSI provides unlimited free technical support to all customers and/or all end users of our products through access to documentation on our website, electronic correspondence, and telephone support with our sales and tech support personnel. This technical support is provided by WCSI whether our products were purchased directly from WCSI or through an authorized dealer.

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