

## 4: WIRING

### Definitions:

**A & B Sides** - If standing between the two units and Facing the unit with the Key, Left is "A" and Right is "B." (see diagram at right for detail)

**Door Prop** function - Monitors Door input for a held open door. Goes into Alarm if door is not closed within 10 seconds, unless another Valid User input is seen.

**ACS** - Access Control System

### Output Relays:

 (Output contact rating: 1 Amp)

**Mag Lock Relay** - Can be used to control an Electric Lock in response to a Valid User input. Form C (held 5 sec)

**Alarm Relay** - Connect to remote equipment to monitor Alarm conditions. (Alarms Include: Tailgater, Door Prop, Loiter, and Tamper conditions) Changes state to indicate Alarm. Form C (2.5 second minimum duration)

**Door Relay** - Connect to remote equipment to monitor Door Status. Form C (Follows Door Input)

**"A" & "B" Passage Complete** - These relays change state upon valid passage of a user from the A or B side. Used to monitor for Time and Attendance by remote equipment. Form C (held 1 sec)

### Inputs:

 (all Inputs share 2 common GNDs on connector)

**Valid "A" Card** - N/O contact from ACS that momentarily closes to indicate a Valid User approaching from the "A" side.\*

**Valid "B" Card** - N/O contact from ACS that momentarily closes to indicate a Valid User approaching from the "B" Side \*

\* Enable **Free Passage** by shorting input for Valid A or B Card.

**Bypass** - N/O contact that enables Bypass when closed. Resets alarm. Same function as Key Switch.

**Door** - Closed Loop from Door when Door is closed. Optional, used for Door Prop monitoring and enhanced TDS operation.

**Power** - 12-24 VDC @ 500 mA (1 Amp supply suggested)

### REMOTE DISPLAY CONNECTOR:

Optional. Refer to ES5200-R1 or R2 Instructions

## SETUP and TEST

### Switches:

 (as shown on drawing)

- 1) **Door Prop Enable** - Turns on the Door Prop function when placed in the ON position.
- 2) **Beep Disable** - Turns Off the Valid Card beep when placed in the ON position.
- 3) **Bi-Direction Card Enable** - Allows an A card input to pass in either direction when placed in the ON position.
- 4) **Card Stacking Disable** - Requires a Valid User to pass, or time out, prior to accepting another card input.

**Key Switch on Upper Cover** - Use to Bypass the unit (held) or to Reset an alarm (momentary).

### Pushbuttons:

 (as shown on drawing)

**To Calibrate** : Install lower covers. Verify clear beam path. Apply Power. Press Calibrate Button.

**Keep beam path clear until Calibrate LED is ON (up to 60 sec).** That's all it takes to set up!

**NOTE:** If Tamper is enabled alarm may sound if cover is removed.

**A & B Card buttons** - Press to simulate an A or B - Card input (respectively) for test and troubleshooting purposes.

### LEDs:

**Calibrate** : **On** - Calibrated. **Flashing** - Beam interruption or Calibration required. **Off** - During Calibration.

**Inputs** : Respective LED will illuminate when a closure is seen on any Input (A Card, B Card, Bypass, Door)

**Upper Cover** : See "ES5200 ENTRY SENTRY - USER INSTRUCTION"

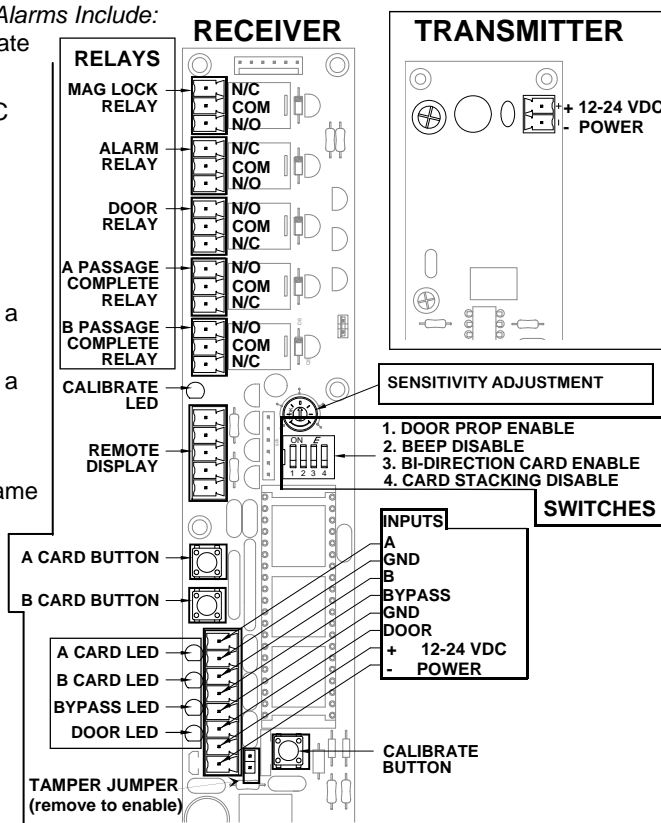
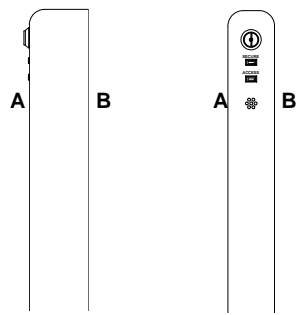
### Sensitivity:

 (as shown on drawing)

**Clockwise**: Increase Sensitivity - Reduce loiter time to 3 sec (min), improved step-over/crawl-under detection

**Counter-Clockwise**: Decrease Sensitivity - Increase loiter time up to 10 sec, reduce step-over/crawl-under detection.

DOOR MNT. WALL MNT.



(enlarged drawing on insert)

# DSI

DESIGNED SECURITY, INC.

A Detex Company

## ES5200—ENTRY SENTRY TAILGATE DETECTION SYSTEM

# ENTRY SENTRY

### 1: UNPACKING AND DISASSEMBLY

(see detail drawing in Assembly section)

- Remove the two assemblies from packaging. Receiver side has **Key Switch** and **Indicator**.

- Remove three(3) **5/64" Allen Screws** at upper, middle, and lower points on each assembly.

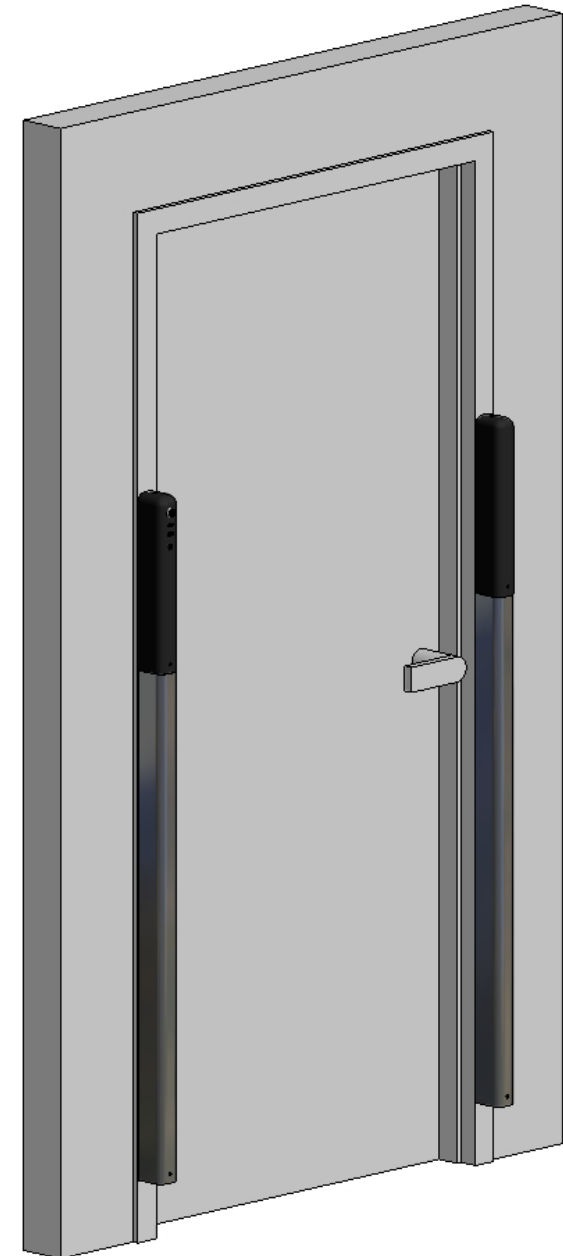
- Remove the **Upper Cover**. Set Upper Cover aside.

**(NOTE - Unplug wiring from circuit board when removing the Receiver-side Upper Cover)**

- Remove the **Lower Cover** and set aside.

- Remove the two **1/4" Hex Standoffs** at the top and bottom of each electronics package, then slide package up and lift off of **Mounting Plate**.

- Repeat for opposite assembly.



**CLEANING** - Soft damp cloth, mild soap solution. Dry with soft cloth. Avoid using paper as this may damage the optical surface. DSI recommends: Chemtronics® ES1668 [www.chemtronics.com](http://www.chemtronics.com)

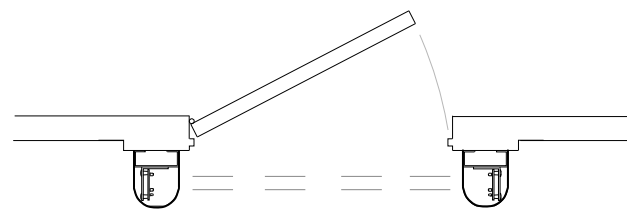
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## 2: PHYSICAL INSTALLATION

**Entry Sentry** may be mounted both on a door frame, or onto facing walls of a hallway.



**DOOR MOUNT**

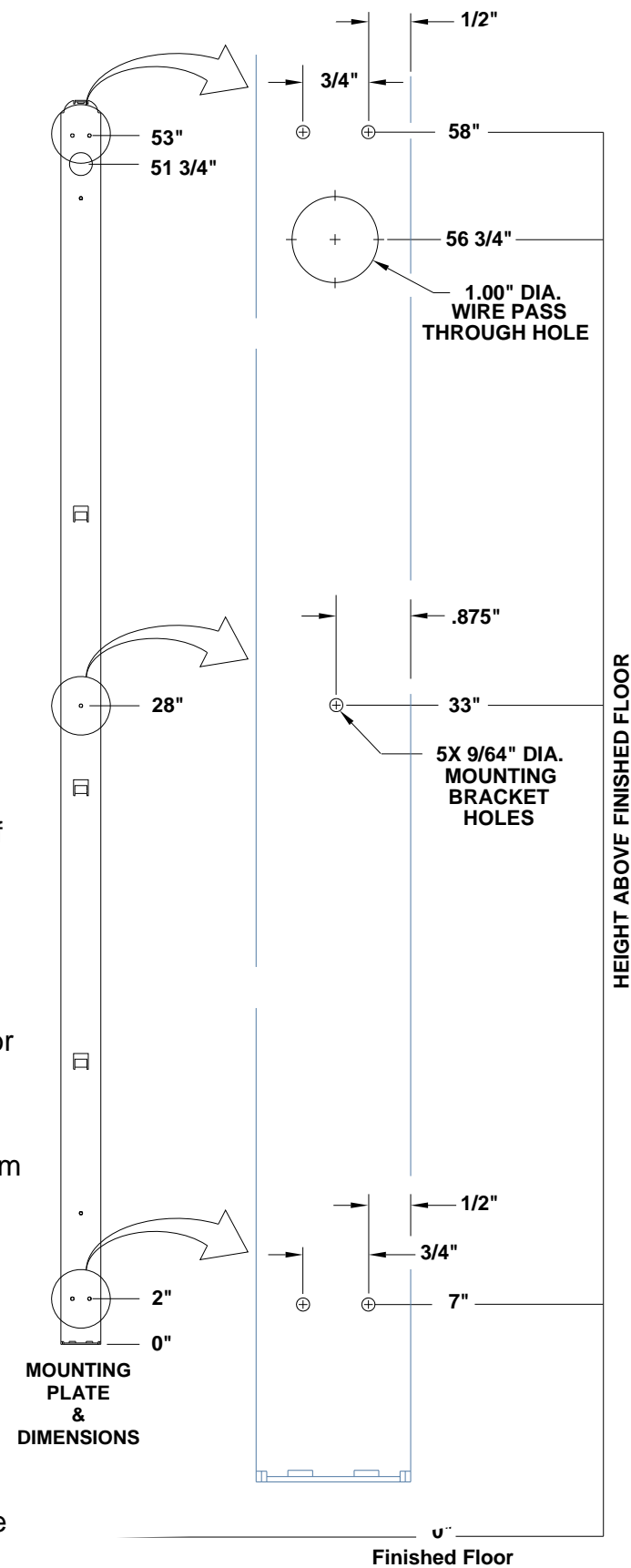
Door mount opposite from the door swing.



**WALL MOUNT**

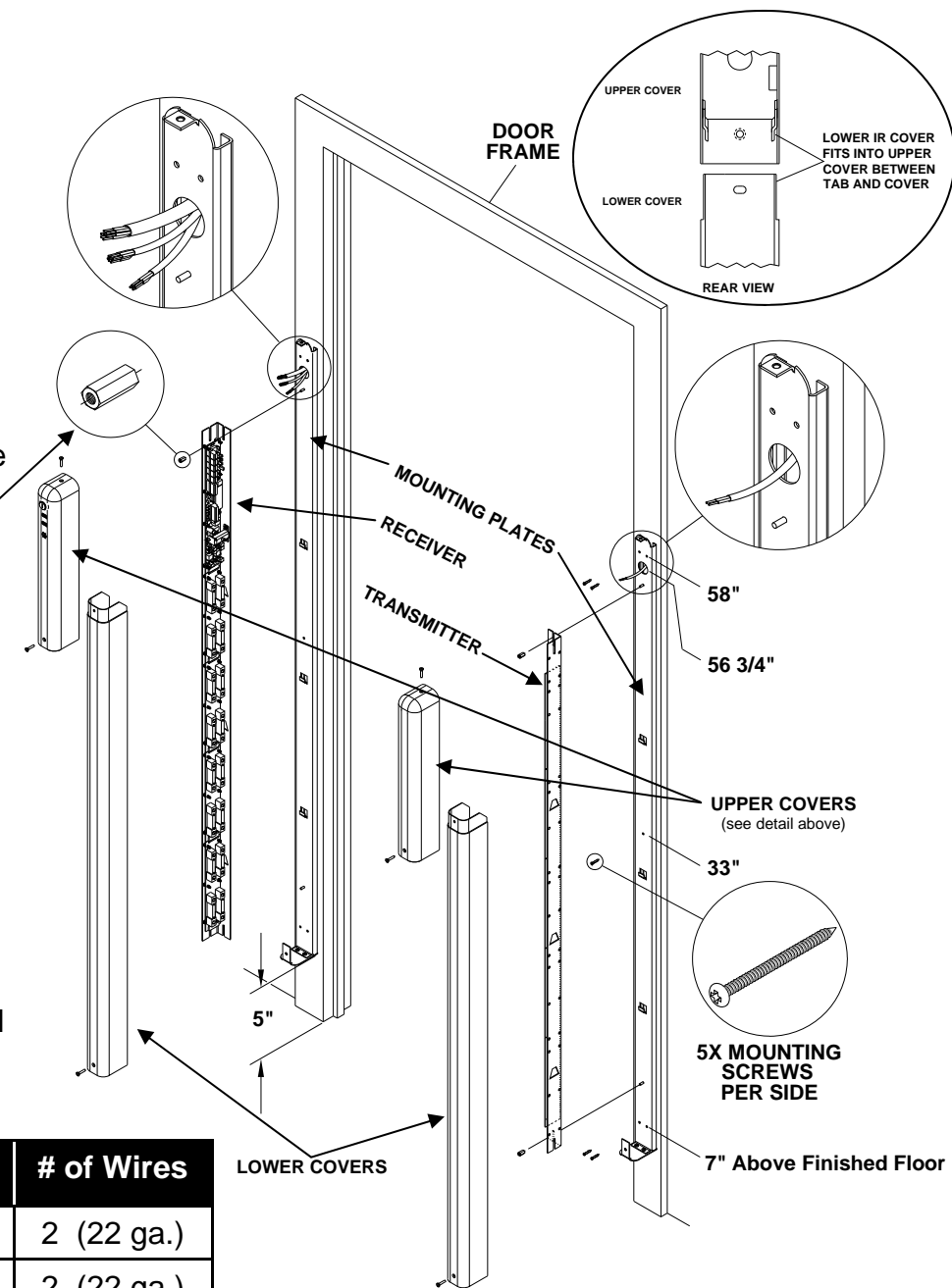
Wall mount on corridor walls.

- See diagram at right for mounting plate detail.
- Hang the Transmitter and Receiver sub-assemblies with LEDs facing across the path of travel. (*Optical Alignment Required:  $\pm 1^\circ$* )
- Door/ Hallway Width 30" min. - 80" max.
- Use mounting plate as Template for holes.
- Set base of mounting plate 5" off floor, check for level and plumb.
- Use a punch or scribe to mark the 5 mounting hole locations on surface at 7", 33", and 58" from floor.
- Mark Wiring Hole center at 56 3/4" from floor.
- Set mounting plate aside.
- Drill 5 mounting holes as needed for your mounting surface. (*max. dia. 9/64"*)
- Drill a 1" wiring hole.
- De-burr Wiring Hole with file to prevent damage to wiring insulation.
- Install mounting plate using appropriate hardware for your mounting surface.
- Repeat for second mounting plate.



## 3: ASSEMBLY

- Pull Wiring through each mounting plate's hole. (*see Connection Planning Table below*)
- **Power, Control and Monitoring wires on Receiver side.**
- **Power wires on Transmitter side.**
- Hang **Transmitter and Receiver** electronics on each mounting plate so that **LEDs face each other** across the portal that users will pass through.
- Fasten with a **1/4" Hex Standoff** at top and bottom of each electronics package.
- Install **Lower Covers** and fasten with screws removed during disassembly. (*Middle screw will be removed after setup to complete Upper Cover installation*)
- Reconnect **Key Switch/LED Connector** from Receiver Upper Cover (*Red wire to left*)
- Leave **Receiver Upper Cover** off until Wiring and Setup are complete.



CONNECTION PLANNING TABLE	INPUTS (N/O Shared Gnd)		# of Wires
	Valid "A" Card		2 (22 ga.)
	Valid "B" Card		2 (22 ga.)
	Bypass		2 (22 ga.)
	Door Switch		2 (22 ga.)
Power 12-24 Vdc @ 500mA	Sender	2	
	Receiver/Control	2	
OUTPUTS Form C 1 Amp			
Mag Lock Relay		2	
Alarm Relay		2	
Door Relay		2	
"A" Passage Complete		2	
"B" Passage Complete		2	

