

# DSI<sup>®</sup>

DESIGNED SECURITY, INC.

*A Detex Company*

## ES8900 Slimline



Optical Turnstile

Model ES8900





The Designed Security, Inc. **ES8900 Slimline Optical Turnstile** is designed for use in building lobby applications where higher security, high speed throughput and interior aesthetics are priorities. The Slimline provides a visual as well as physical barrier which communicates to pedestrians that authorization is required before entering the secured area. The acrylic barriers can be ordered anywhere between 38" and 48" above finished floor.

The ES8900 Slimline Optical Turnstiles can grant access for 60 people per minute per lane and are finished to match the interior of any lobby with standard or custom designs and finishes. Compatible with most reader and access control technology, they detect and deter attempts to enter without a valid card and tailgating behind authorized personnel.

This system is field configurable as a Card-in/Free-exit or Card-in/Card-out system.

**Designed Security, Inc. ES8900 Slimline Optical Turnstiles meet the standard of the Americans with Disabilities Act of 1990.**

## Product Description/Technical Information

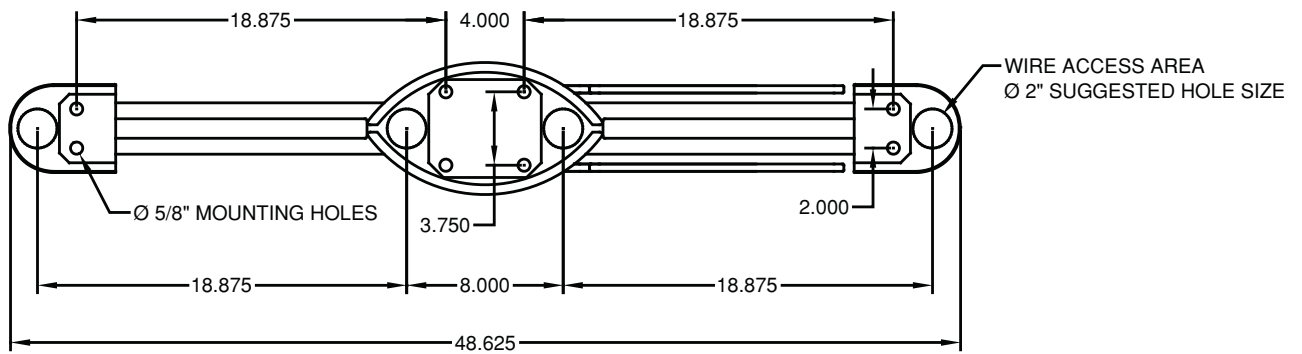
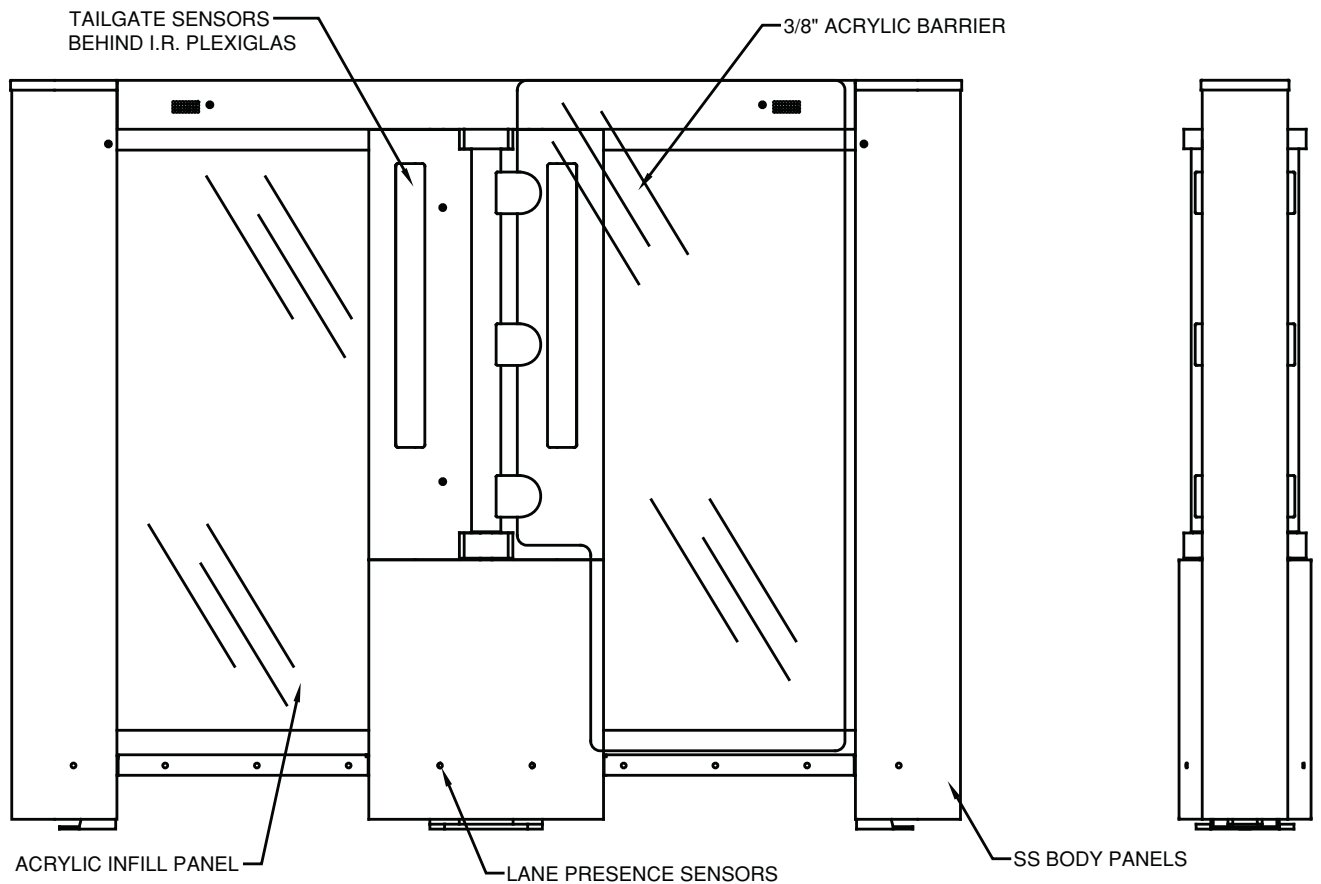
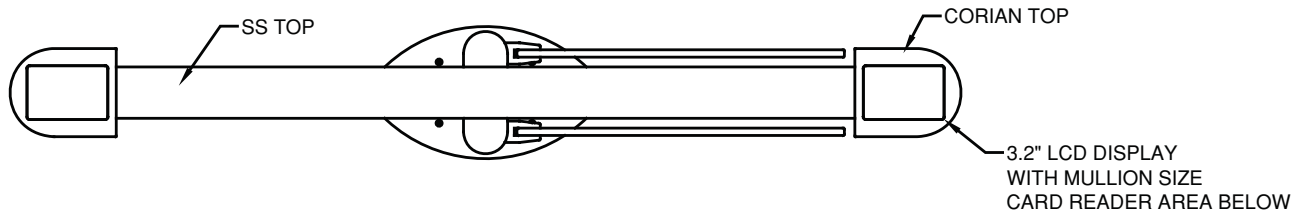
- Configuration:** Field selectable Card-in/Card-out, or Card-in/Free-exit pedestrian control.
- Card Readers:** Card readers to be supplied by others and may be mounted by DSI. Mullion size card readers only.
- Local Annunciation:** Visual and audible annunciation is provided at each passageway to provide status of passageway, indication of valid card read, invalid card or alarm condition.
- Audible:** A distinctive tone for an alarm condition. Voice prompts available for an additional fee.
- Remote Annunciation Control:** Interfaced to access control and/or security monitoring systems. (Optional)
- Control Inputs:** N/O - Momentary "Entry Granted" (max. 1 sec. Pulse Closure)  
N/O - Momentary "Exit Granted" (max. 1 sec. Pulse Closure)  
N/O - Momentary "Invalid Card"  
N/O - Maintained "Bypass Lane"  
N/O - Momentary "Emergency Situation"  
N/O - Maintained "Barrier Disable"  
N/O - Maintained "Free-Entry"  
N/O - Maintained "Free-Exit"  
N/O - Maintained "Entry Closed"  
N/O - Maintained "Exit Closed"
- Status Outputs:** N/O - "Alarm Condition"  
N/O - "Alarm Condition"  
N/O - "Entry Passage Completed"  
N/O - "Entry Time Out"  
N/O - "Exit Passage Completed"  
N/O - "Exit Time Out"  
N/O - "Barrier Forced"  
N/O - "Bypass"  
N/O - "Invalid Card"
- Relays rated 1.0 amp @ 30 VDC/contacts provided for interface to building access control, fire/life safety, security, CCTV, and monitoring systems.
- Components:** All components and electronic sub-assemblies including the microprocessor are mounted within the bollards, thus reducing the total cost of installation, labor hours, conduit, wires, and cables.
- Pedestrian** Typical throughput is 60 people per minute per lane.

**Product Description/Technical Information (contd.)**

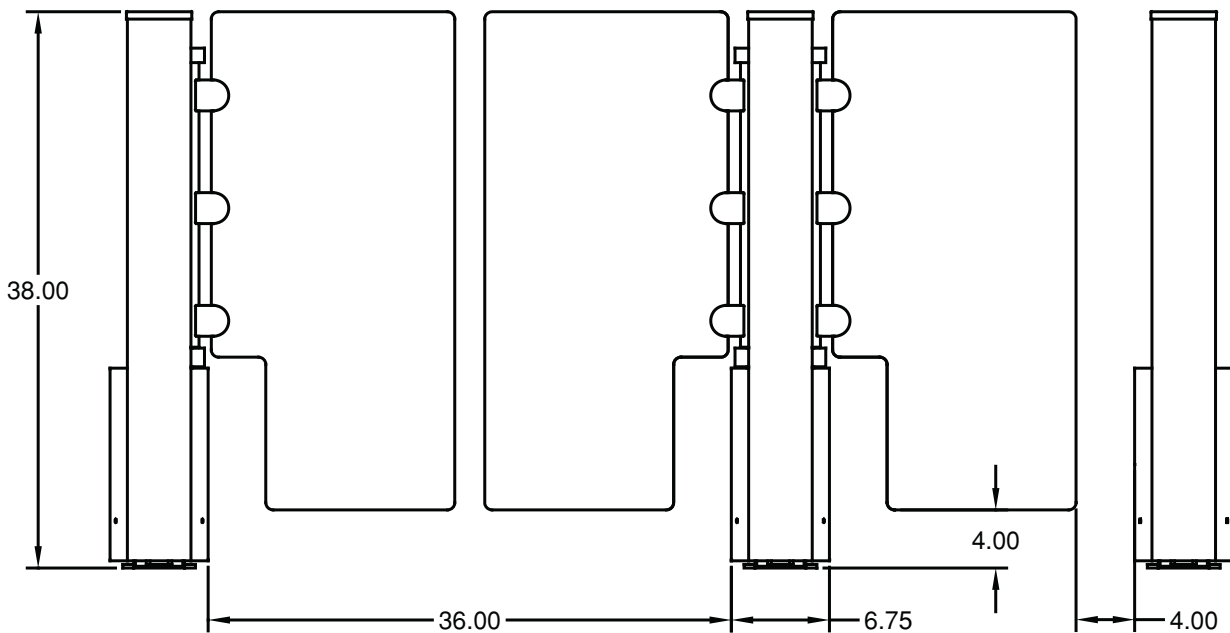
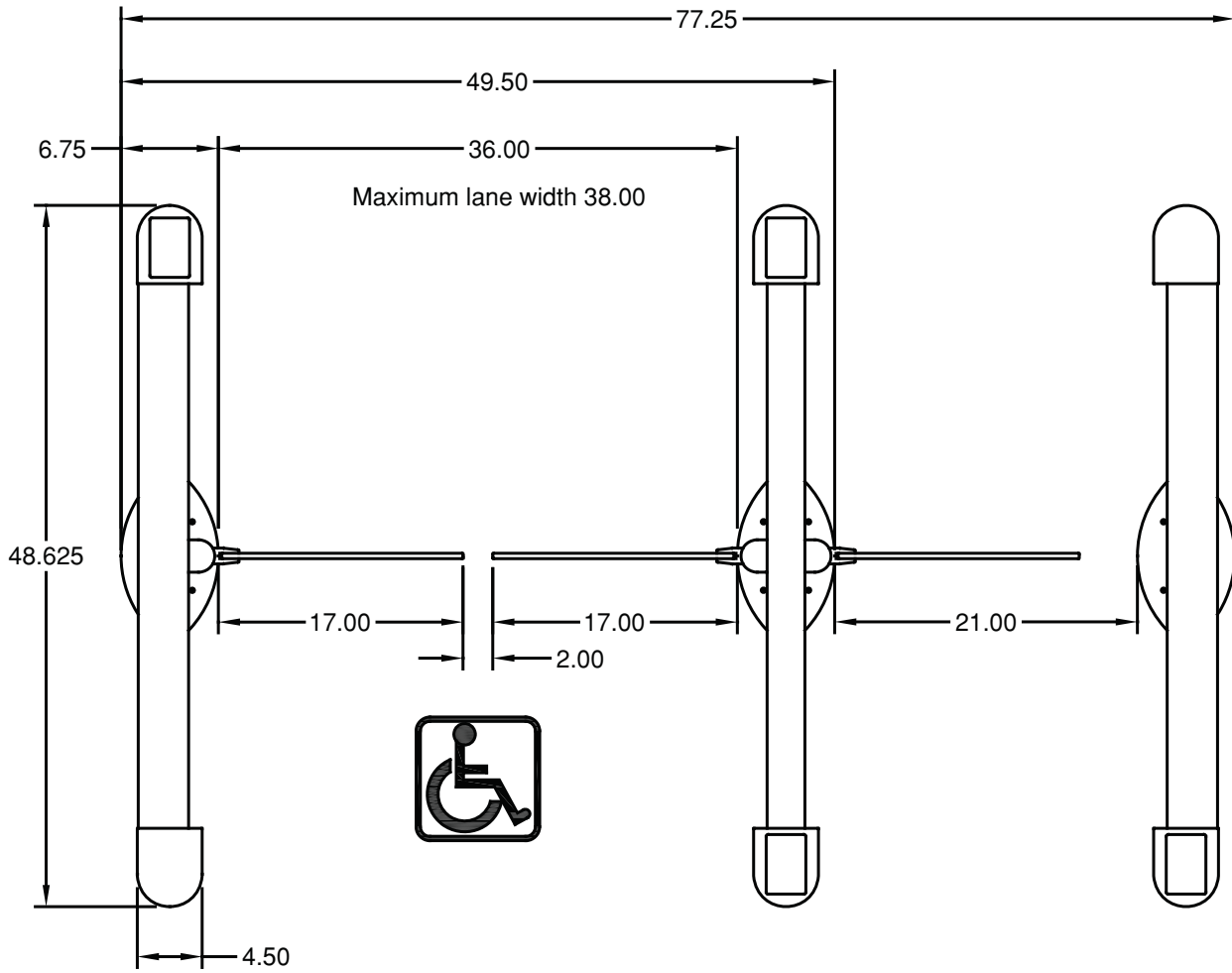
- Interface:** The DSI Optical Turnstiles will utilize the building access control system to grant or deny access and are network configurable.
- Code Compliance:** The Americans With Disabilities Act of 1990/ADA; nonrestrictive barrier-free design provides equal access.
- Manufactured:** The microprocessor and LCD displays are solid state in design and all acrylic barrier components are designed for virtually maintenance-free operation.
- Operation:** High-speed/nonrestrictive pedestrian passageways. Passageways can be truly bi-directional at all times. Barrier shall act as a “deterrent” to control passage while allowing users to “push-to-clear” for emergency egress.
- Acrylic Barrier:** Acrylic barriers travel 180° horizontally and shall be electro-mechanically driven. (No pneumatic components or compressed air supply will be used) The acrylic barriers will be extended at all times and will swing open when valid access credentials are presented. The panel shall move 90° from the extended position to the retracted position in the direction the user is traveling.
- Acrylic Barrier Dimensions:** The panel shall be constructed of clear acrylic material.  
Standard barrier measurements:  
38” high x 17” wide x 3/8” thick  
48” high x 17” wide x 1/2” thick  
Call factory for custom size
- Sensors:** Forty (40) IR optical beams within the passageway shall sense direction, detect tailgaters and obstructions.
- Emergency Egress:** “Emergency Push-to-Exit” design is built into the acrylic barrier so the pedestrian passageway does not obstruct emergency evacuation of the facility. Alarm outputs activate if barriers are pushed away. Force required to push the acrylic barrier away is consistent with ADA specifications.
- LCD Display:** Images included are present card, free access, proceed, alarm, lane closed.
- Finish:** **Top Surface:** DuPont Corian® and Stainless Steel.  
**Side Surface:** Stainless Steel.
- Bollard Dimensions:** 48.62” long x 38.00” high x 6.75” wide.
- Bollard Spacing:** To meet ADA requirements, bollards must be placed 36” apart.

**Product Description/Technical Information (contd.)**

<b>Bollard Mounting:</b>	The bollards shall be secured to the floor through the use of eight (8) anchor bolts. Concealed access panels shall be provided on the bollard's side to provide access for anchoring.																																																
<b>Conduit Size:</b>	Minimum size is 1.5" if all I/O functions are utilized. All required wiring is low-voltage and can be run in one conduit.																																																
<b>Power Requirements:</b>	24VDC @ 3 amps per passageway. Power supply provided by others and can be mounted in an equipment room. A backup power source should be considered for some applications.																																																
<b>Wiring Requirements:</b>	<p><b>From access control systems to control bollard:</b> (Some connections may be optional.)</p> <table> <tr> <td><b>Card reader cable</b></td> <td>as specified by manufacturer</td> </tr> <tr> <td><b>"Entry Granted" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Exit Granted" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Invalid Card" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Bypass lane" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Emergency Situation" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Barrier Disable" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Free-Entry Enable" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Free-Exit Enable" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Entry Closed" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Exit Closed" (Input)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Barrier Forced" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Alarm Condition" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Alarm Condition" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Entry Completed" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Entry Time Out" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Exit Completed" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Exit Time Out" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Lane Bypassed" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>"Invalid Card" (Output)</b></td> <td>2 conductor/22 ga. (min.)</td> </tr> <tr> <td><b>24VDC Power</b></td> <td>2 conductor/14 ga. (min.)</td> </tr> </table> <p><b>Wiring from control bollard to adjacent passageway bollard:</b></p> <table> <tr> <td><b>Card reader cable</b></td> <td>as specified by manufacturer</td> </tr> <tr> <td><b>Lane cable</b></td> <td>CAT 5 cable</td> </tr> <tr> <td><b>Network cable</b></td> <td>CAT 5 cable</td> </tr> </table>	<b>Card reader cable</b>	as specified by manufacturer	<b>"Entry Granted" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Exit Granted" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Invalid Card" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Bypass lane" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Emergency Situation" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Barrier Disable" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Free-Entry Enable" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Free-Exit Enable" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Entry Closed" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Exit Closed" (Input)</b>	2 conductor/22 ga. (min.)	<b>"Barrier Forced" (Output)</b>	2 conductor/22 ga. (min.)	<b>"Alarm Condition" (Output)</b>	2 conductor/22 ga. (min.)	<b>"Alarm Condition" (Output)</b>	2 conductor/22 ga. (min.)	<b>"Entry Completed" (Output)</b>	2 conductor/22 ga. (min.)	<b>"Entry Time Out" (Output)</b>	2 conductor/22 ga. (min.)	<b>"Exit Completed" (Output)</b>	2 conductor/22 ga. (min.)	<b>"Exit Time Out" (Output)</b>	2 conductor/22 ga. (min.)	<b>"Lane Bypassed" (Output)</b>	2 conductor/22 ga. (min.)	<b>"Invalid Card" (Output)</b>	2 conductor/22 ga. (min.)	<b>24VDC Power</b>	2 conductor/14 ga. (min.)	<b>Card reader cable</b>	as specified by manufacturer	<b>Lane cable</b>	CAT 5 cable	<b>Network cable</b>	CAT 5 cable
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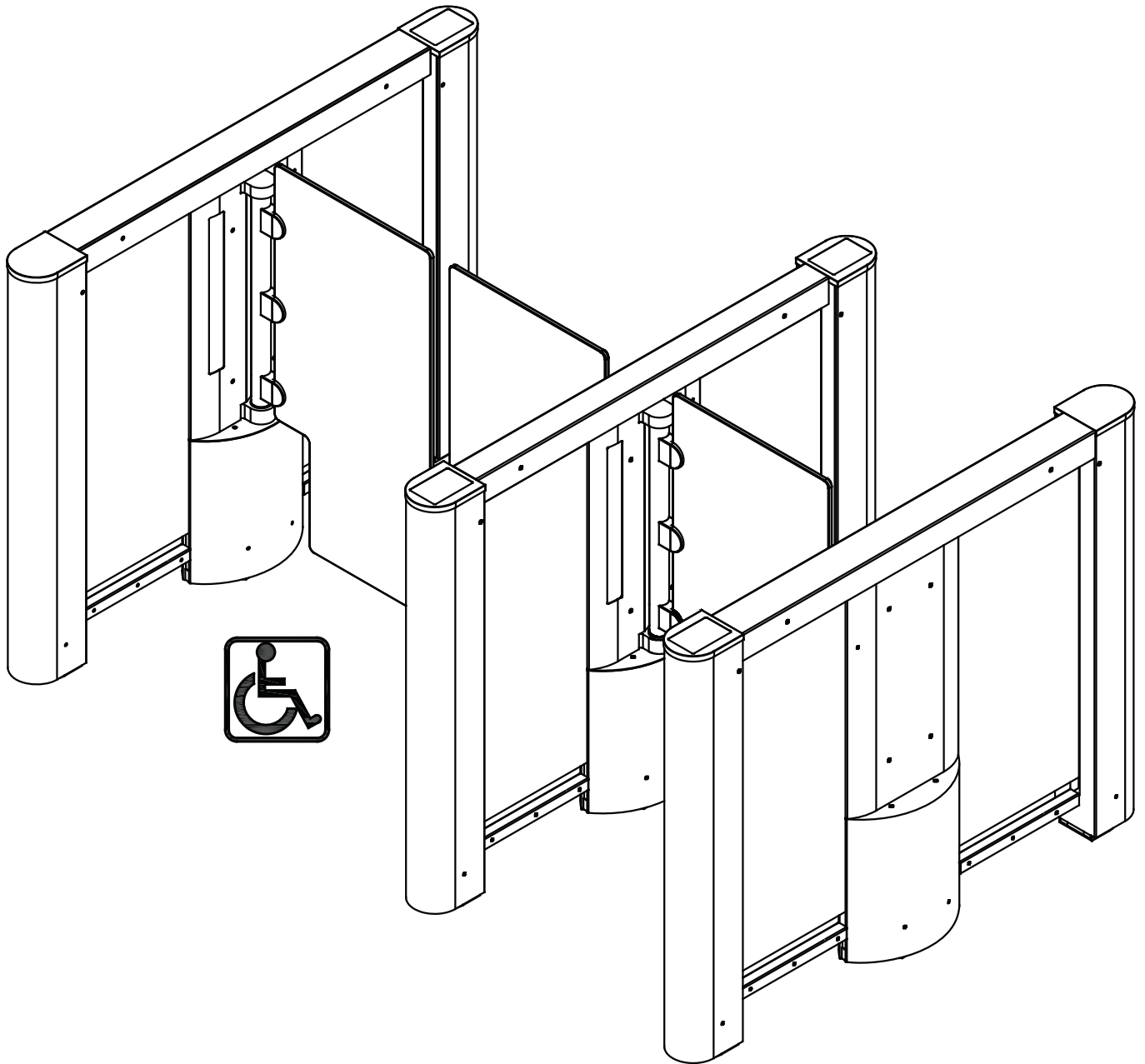


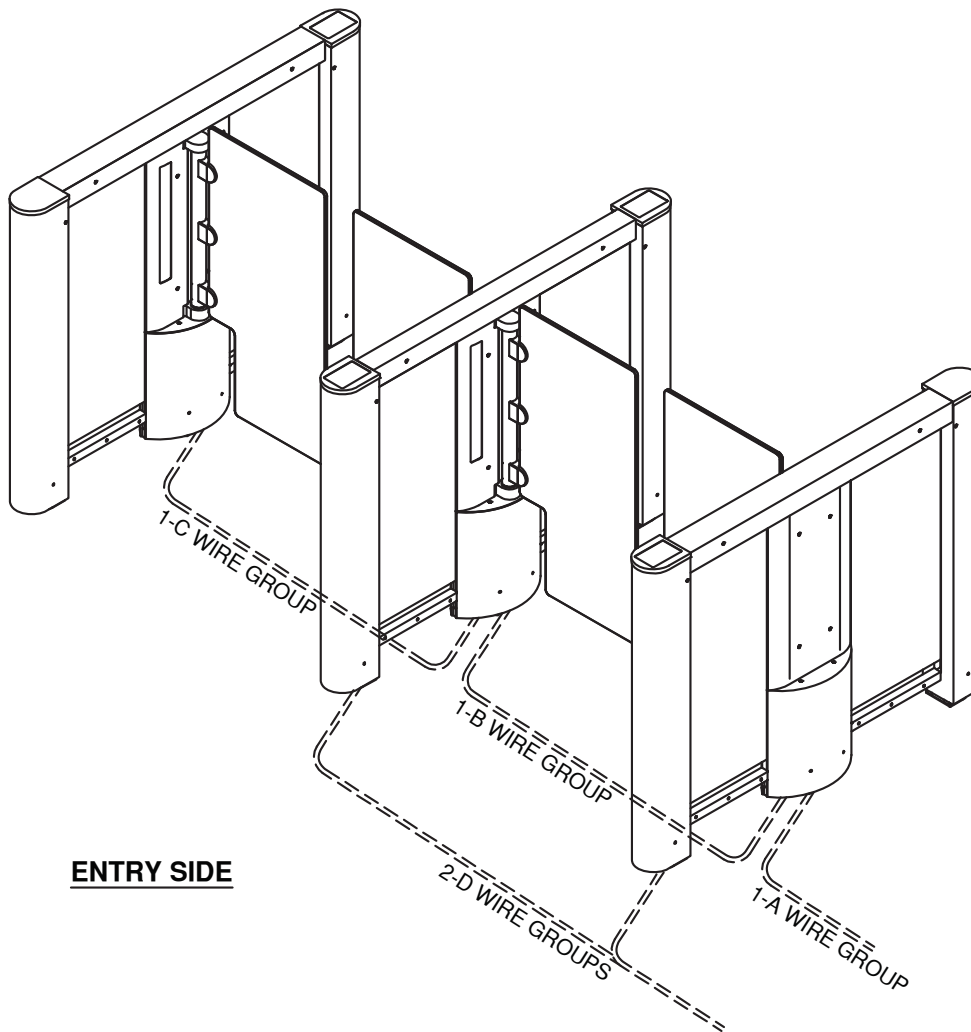
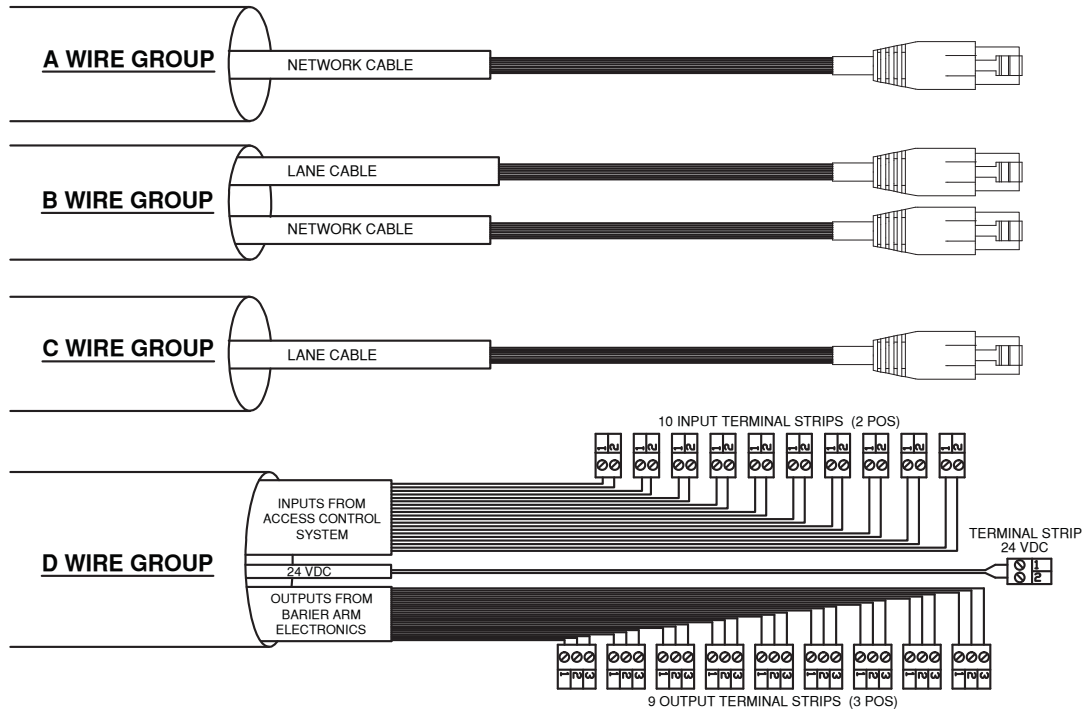
### ES8900-N1





**ES8900-N1**



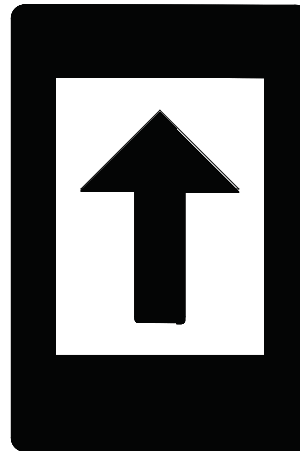


## STANDARD LCD DISPLAY IMAGES

*Call factory for custom images*



PRESENT CARD



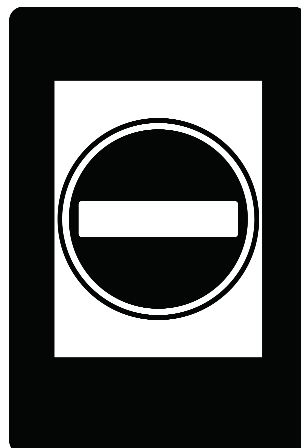
FREE ACCESS



PROCEED



ALARM



LANE CLOSED

## ES8900 Accessories

### Floor Plates

**DSI part number FP8900**

- \* Black powder coat finish
- \* Hardware included

### Power Supply

**DSI part number PS/DC24**

- \* 24 VDC
- \* 6 Amp

### Battery Backup

**DSI part number PS/24-10 Battery**

- \* Two (2) 12 VDC batteries
- \* 7.5 Ah (amp hour)

**DSI part number PS/24-10 Battery Harness**

- \* Harness to connect batteries to power supply

### Desktop Controller

**DSI part number CRDC**

- \* Black painted control box
- \* White silk screen
- \* Customization available

## ES8900 Options

### Card Reader Mounting

DSI provides card reader mounting during the fabrication of the turnstiles (one reader for each entry and exit.) For an additional fee multiple readers and/or access control boards can be mounted.

### Voice

Call factory for custom voice message.

### Barrier Height

The standard acrylic barrier measures 17" wide by 38" high or 17" wide by 48" high. For custom barriers call factory.

### LCD Images

Call factory for custom images.