OASL-88

Installation Instructions

V.7.18

Omega Automatics
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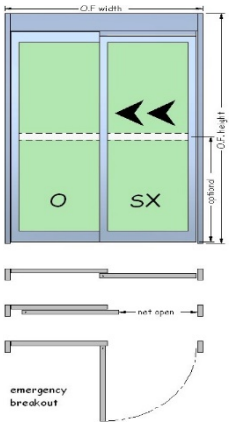
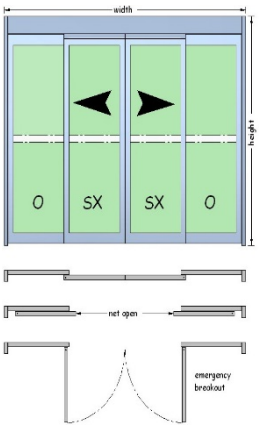
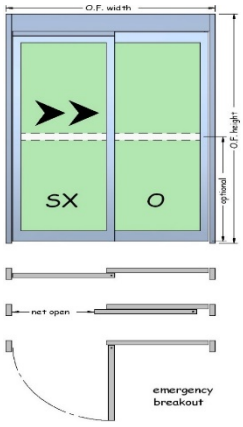


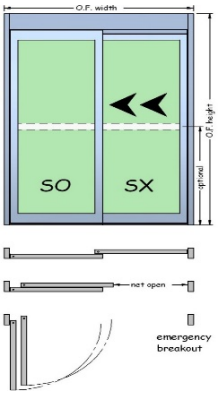
Left fixed side light



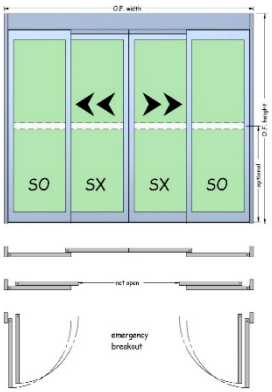
Bi-part fixed side light



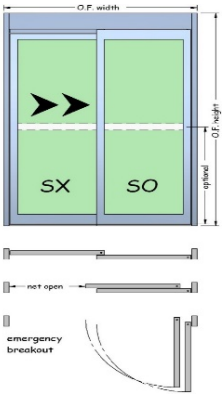
Right fixed side light



Left full breakout



Bi-part full breakout



Right full breakout

WARNING! To reduce the risk of severe injury:

- **READ** AND FOLLOW ALL INSTALLATION INSTRUCTIONS CAREFULLY! FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY OR PROPERTY DAMAGE!
- **DO NOT** CONNECT THE OPENER TO A POWER SUPPLY UNTIL INSTRUCTED TO DO SO. CONNECTION OF THE HIGH VOLTAGE SUPPLY SHOULD BE DONE BY A **QUALIFIED PROFESSIONAL** AND WITHIN THE GUIDELINES OF THE **ENFORCED LOCAL ELECTRICAL CODES**.

Note: HIGH VOLTAGE (INCOMING 115 VAC) WIRES AND LOW VOLTAGE WIRES CANNOT SHARE THE SAME ACCESS HOLE. HIGH VOLTAGE WIRES MUST BE ROUTED AND SECURED AWAY FROM ALL LOW VOLTAGE WIRES.

- **TEST** ALL SAFETY FEATURES BEFORE TURNING OVER THE EQUIPMENT TO THE CUSTOMER.

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OASL-88

The Omega Automatics sliding door OASL-88 is electromechanical sliding entrance system, factory assembled and tested.

The operating system is complete inside the header and doors are ready to hang. The installer should simply follow the sequence below:

- Bolt side jambs to the header
- Fit and fasten side jamb and header assembly in door opening
- Secure bottom guide track, hang doors and sidelites
- Connect power supply to operator and wire in any activating devices
- Glaze doors and align height
- Final adjustment of door speed and operation **to conform to ANSI Code**

Shipping Inspection

Verify that the order was shipped complete and correct, including model number, color, and job width and height.

NOTE: If any of the below items are not correct, **do not attempt to install the OASL-88 Sliding Door Package!**

Report any correct items to the general contractor **immediately**. Do not proceed until all conditions are correct.

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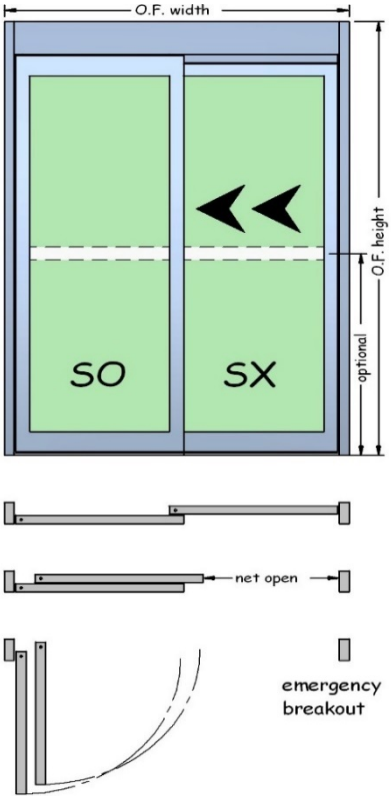
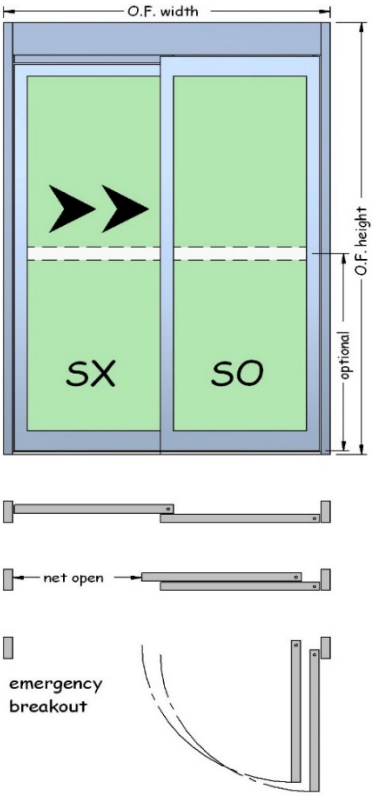
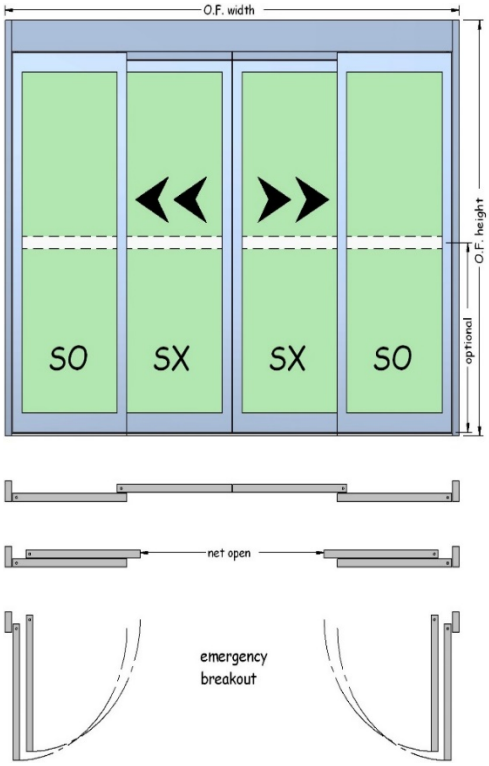
Specifications

Model		Omega OASL-88
Applicable door (Max.)	Dimensions	1219(W)x2134(H)
	Weight	90kgfx2
Power supply and power consumption		100V AC±10V, 50/60Hz, 150W(max)
Manual door opening/closing force during power failure		22.5N to 33.3N (2.3kgf to 3.4kgf)
Rated operation		Continuous opening and closing cycles
Door opening/closing speed		100mm/ sec. to 750mm/ sec. 9 speed steps adjustable
Door opening/closing force		High: 216N (22kgf) Low: 176N (18kgf) 10 steps adjustable
Motor		Brush less molded DC motor (90W)
Reduction gear		Enclosed hypoid gear system
Control system		Microprocessor control
Braking stroke adjustment		Automatic adjustment
Door opening time		0 sec. to 40 sec. (9 steps adjustable)
Elimination of door to frame gap		Electric pressure at low voltage Pressing force is 49.0N (5kgf) 5 steps adjustable
Safety functions		Blocked when opening: safety stop (alarm) Blocked when closing: high speed reverse opening then low speed closing (alarm) or safety stop (switchable)
Failure detection		Alarming on failure detection: automatic reset by sensor signal or after 15 sec.
Energy saving		Minimize the loss of the energy by controlling the motor with PWM (Pulse Width Modulation)
Emergency door opening/closing		When a fire or a power failure occurs, the back-up power operates immediately making possible to open the door automatically. (24V battery pack is required)
Electro-magnetic lock system		Optional Addition
Operating environment		Ambient temperature: -20°C to +55°C (no condensation or icing) Ambient humidity: 30% to 85% RH (no hazardous materials must be present in the atmosphere)
Insulation residence		10MΩ or more at 500V DC
Dielectric strength		1000V AC for 1 minute

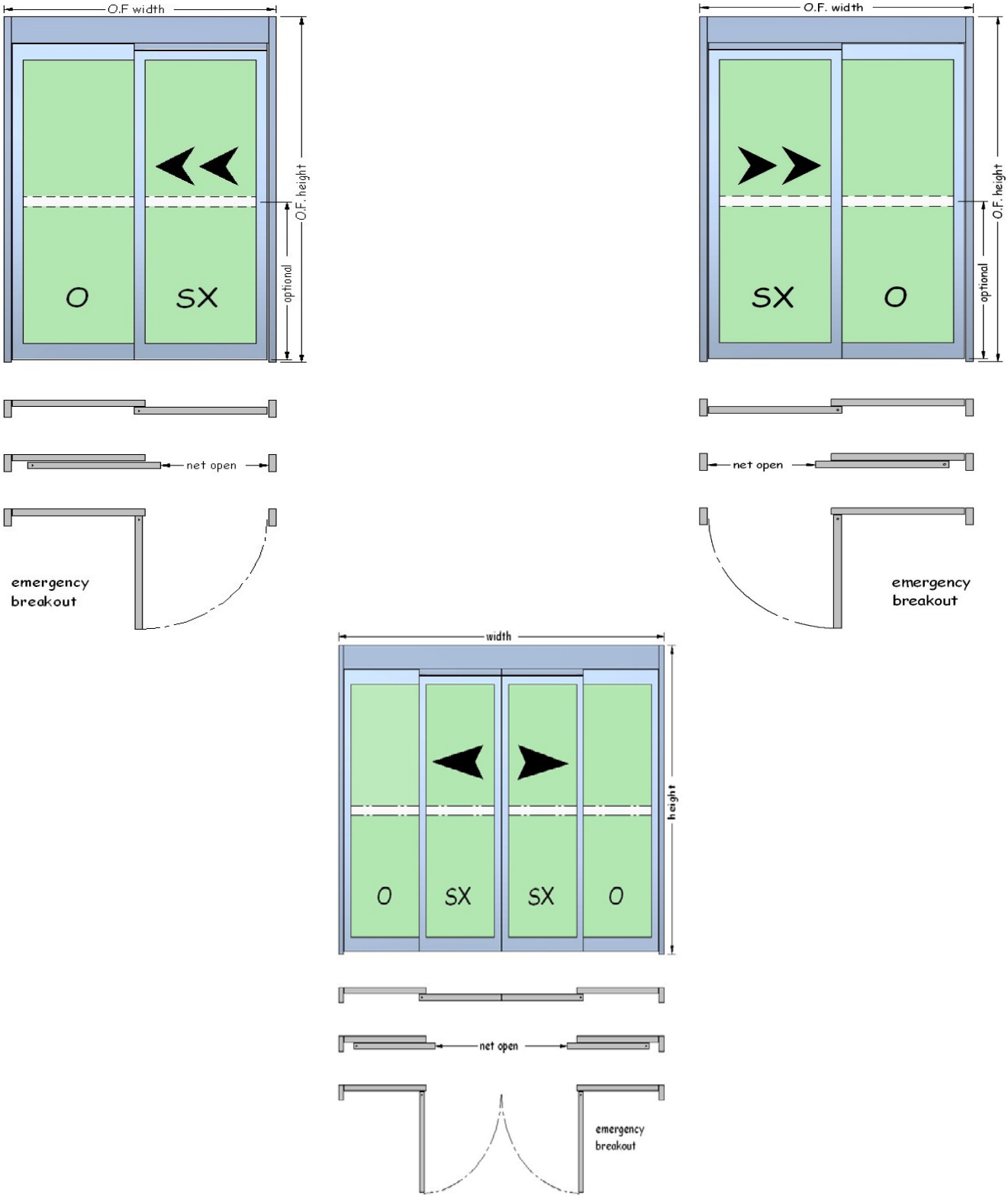
Full Breakout



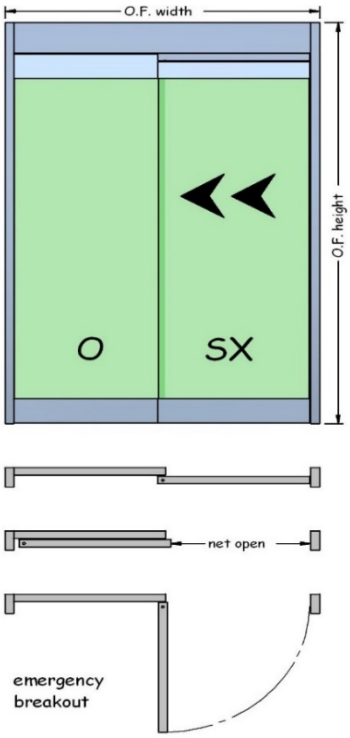


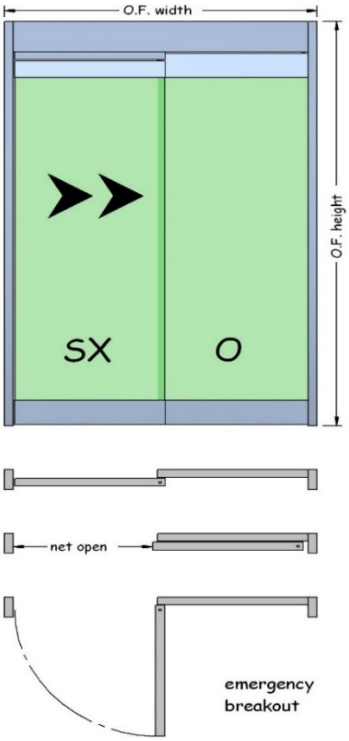


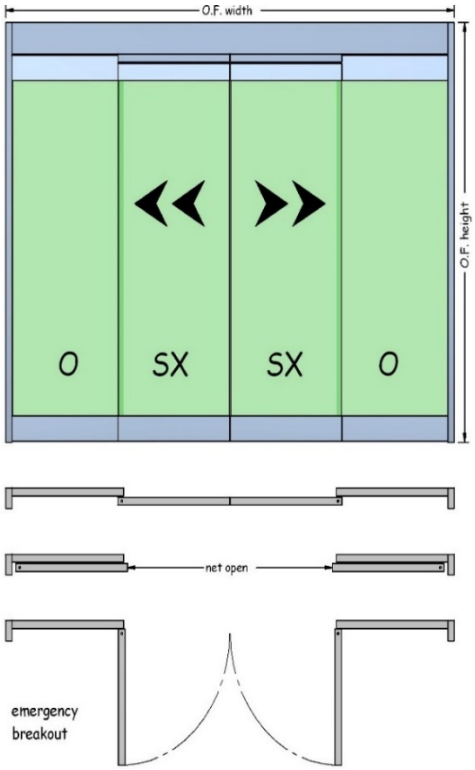
Fixed Sidelite



Fixed Sidelite Glass







Installing the Frame

Site Preparation

Verify at job site that all conditions are correct and in accordance with final approved shop drawings.

1. Check that the floor is level. Use a minimum of 6'-0 (1829 mm) level or use the actual aluminum header **turned upside down** to check floor.
2. Be sure the opening is plumb and square, and is sized in accordance with approved shop drawings or architectural details. Use a plumb bob, check that the rough opening where the jambs will be mounted is vertical and that the diagonal measurements are a true rectangle, not just a parallelogram.
3. The finished opening width (F.O.W.) should be **1/2"** wider than the overall frame width (O.F.W.) and the finished opening height (F.O.H.) should be **1/4"** higher than the overall frame height (O.F.H.) of the sliding door system.

Caution: The finished floor must be determined prior to setting the jambs and support beam. The jamb and threshold sit on the finished floor.

4. Check that the electrical feed (110V, 15A single phase), all conduits, electrical junction boxes (for push plates or other activation devices, if required) are correctly located in accordance with final approved shop drawings and **within the guidelines of the enforced local electrical codes.**

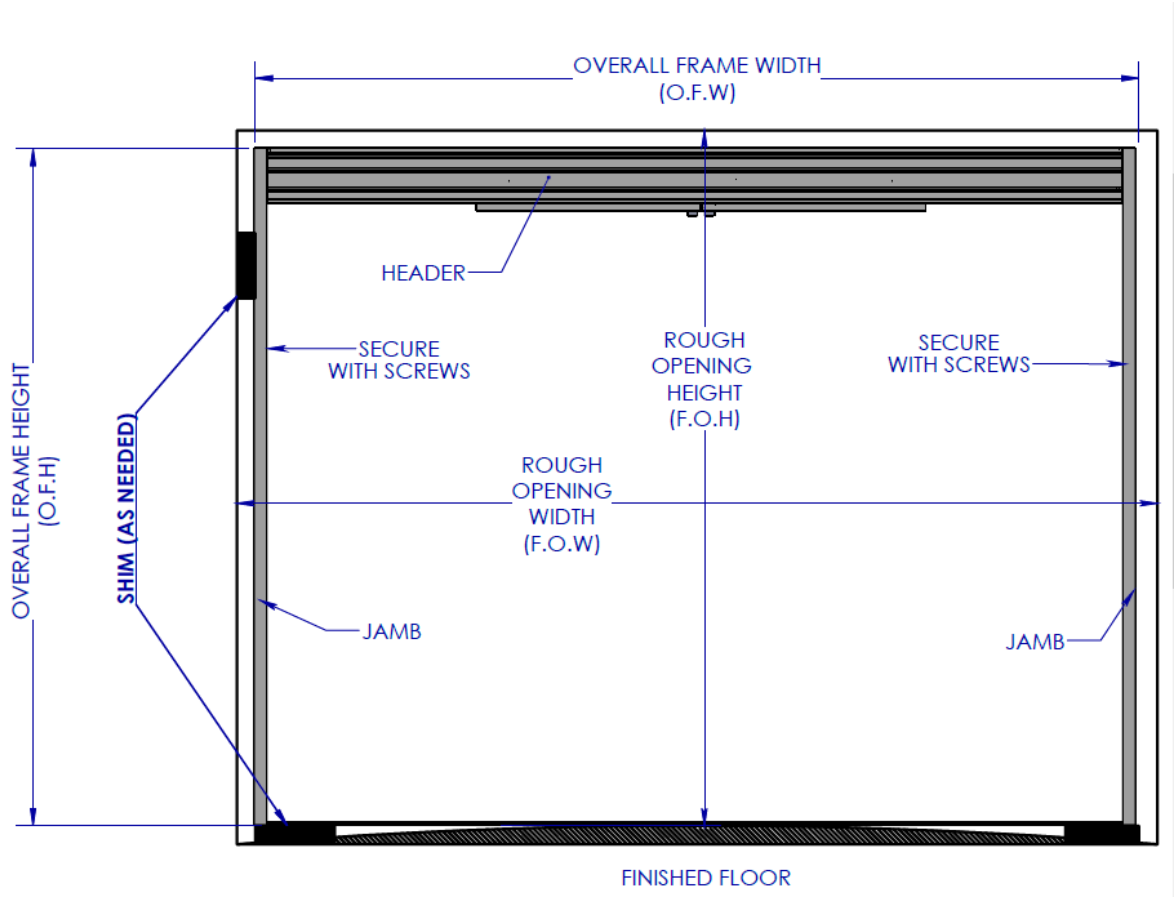


Figure 1

Header and Jamb Mounting

1. Remove the header from the box and set on a piece of cardboard with the swing cover facing up. Open the access cover.
2. Inside the header is the motor/gearbox with drive pulley, belt drive, idler pulley and tensioning assembly, control box, transformer, safety beam control box (optional), any switches and the terminal block bracket
3. Align the jamb tubes with the ends of the header, making sure that the bolt holes and electrical feed hole line up. Use the supplied 1/4-20 x 1" hex bolts on each side to secure the header end cap to each jamb tube (before installing in the door opening).
4. Power supply may be pulled into the header at the same time the jamb/header assembly is positioned (New hole may require drilling if the electrical wires are at the top of the header). This should be done by a **certified electrician** within the guidelines of the **enforced local electrical codes.**

NOTE: HIGH VOLTAGE (INCOMING 115±5VAC) WIRES AND LOWVOLTAGE WIRES CANNOT SHARE THE SAME ACCESS HOLE. HIGH VOLTAGE WIRES MUST BE ROUTED AND SECURED AWAY FROM ALL LOW VOLTAGE WIRES. USE STICK ON WIRE CLIPS SUPPLIED.

5. With two people, flip up the jamb/header assembly and position it in the rough opening. Check that the cover is on the correct side. Confirm that the unit is in the proper position within the rough opening (as shown by the shop drawings). The Omega OASL-88 Sliding Door Package is usually centered within the opening or is mounted flush with the curtain wall, but verify the position with the drawings, contractor, architect, etc.
6. Insert shims at each jamb to plumb each jamb. Insert appropriate shim spacers around the header or horizontal transom tube at anchor locations to keep the tubes from being pulled tight.
7. Use appropriate fasteners (four per jamb) to anchor through the glazing recess of the jamb tube to the wall or adjacent framing. Check the jamb tubes with a level to be sure that the anchors are not pulling them in. The standard package height is **91 1/2"** (**2318mm**).

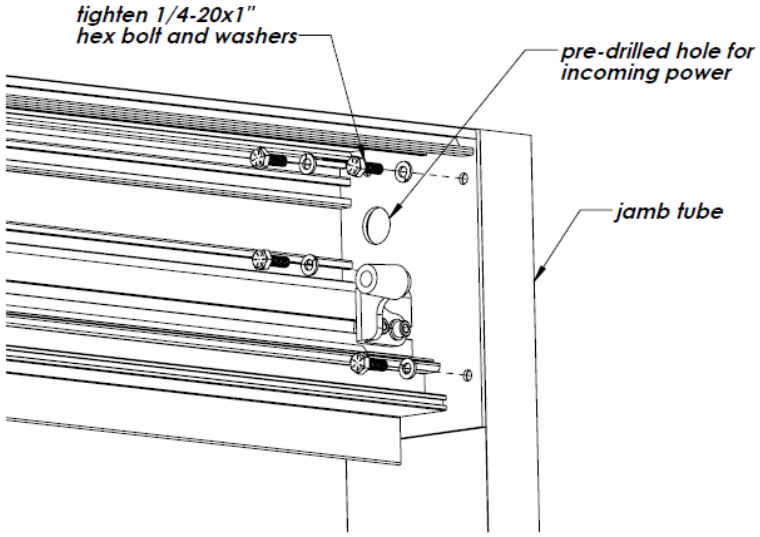


Figure 2

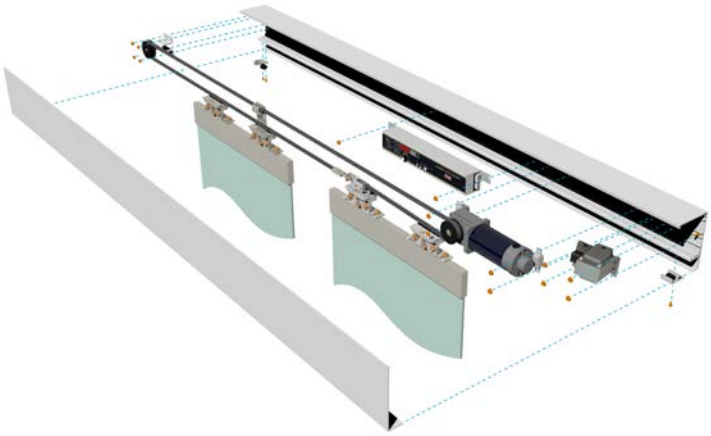


Figure 3. Overview of the header mounting

Full Threshold Installation

Note: The OASL-88 has a special threshold that allows the ramping lip to be snapped off on site, to allow flooring material to butt up to the threshold.

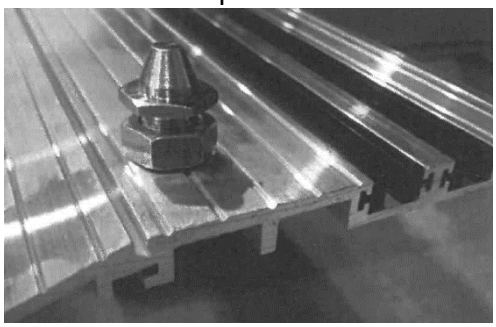


Figure 4

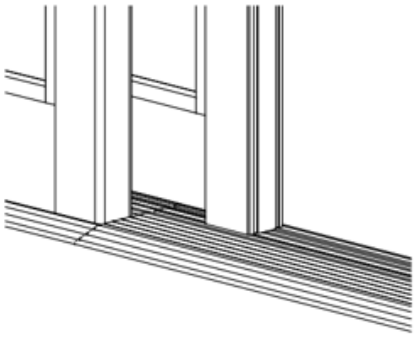


Figure 5

1. Prior to drilling, verify that the panel pivot groove in the threshold is on the proper side of the opening and that the threshold is level in both directions. Use the appropriate fasteners to secure the threshold to the floor. Do not mount screws in the door guide travel area.
2. The side panel bottom pivot is installed in the threshold and can be adjusted for height *(Full Breakout only). For fixed side light, the pivot is replacing by J-mould track which has the same length as fixed door bottom frame.* If the threshold filler is not installed, it can be tapped in with a wood block and rubber mallet.

Partial Threshold Installation

A. Begin installation of the bottom guide (floor portion) by snapping a chalk line between the side jambs on the interior **1 "** face of the jambs. This straight reference line will be used to locate the bottom guides.

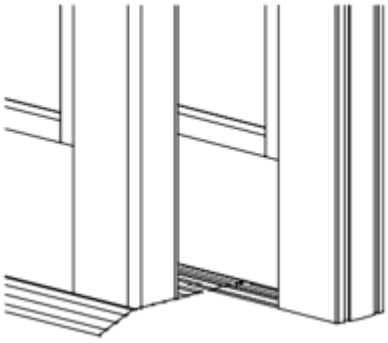


Figure 6

B. Prior to drilling, verify that the panel pivot groove in the threshold is on the proper side of the opening and that the threshold is level in both directions. Use the appropriate fasteners to secure the threshold to the floor. Do not mount screws in the door guide travel area.

NOTE: THE BOTTOM SIDELITE GUIDE MUST BE LEVEL AND ALINED PARALLEL TO THE JAMBS, TO INSURE PROPER OPERATION OF THE DOOR.

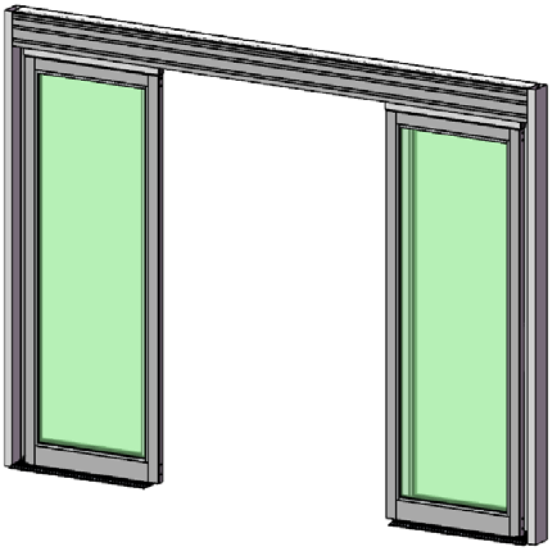


Figure 7

Door and Panel Installations

Breakaway Slidelite Panel Installation

1. Remove panels from carton. Lift panel and place bottom pivot bushing (factory installed in bottom panel stile) onto the track pivot. Raise the top pivot pin in the header and place the panel into position. Push the pivot pin in the header down to engage the panel pivot bushing in the top of the panel style.

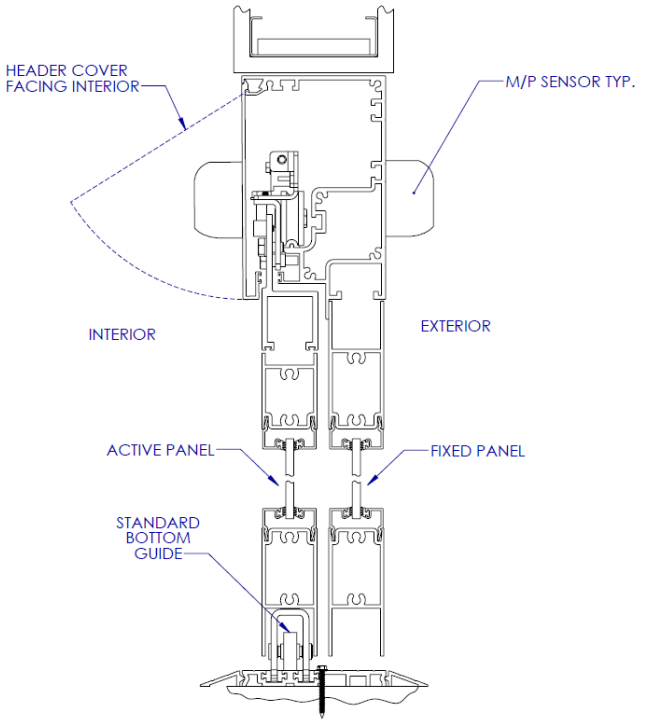


Figure 8

2. Adjust bottom pivot to give the required **1/8"** (**3 mm**) clearance at the top of the panel. The panel may have to be removed to reach track pivot.

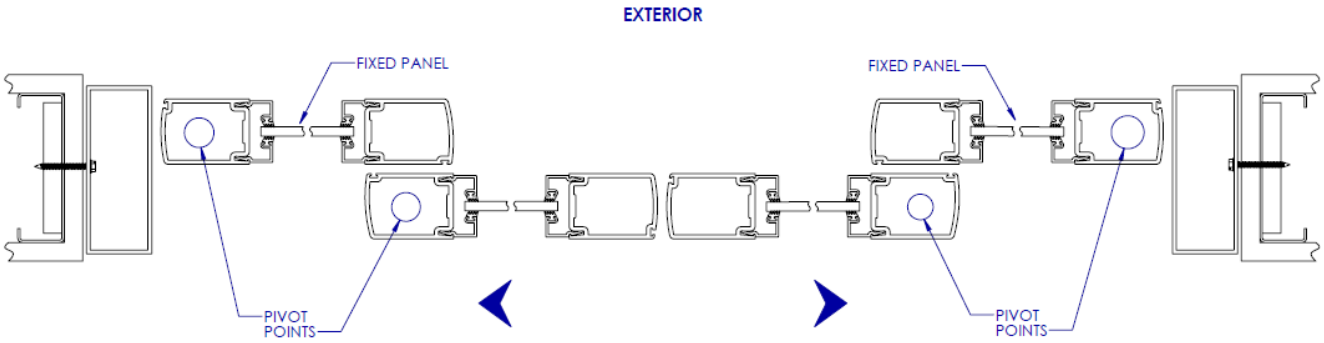


Figure 9

Fixed Sidelight Panel Installation

1. Secure the sidelight J-mould track to the floor or threshold, being sure it is tight to the jamb, plumb, square and level.
2. Place the sidelight over the J-mould track and position tight to the jamb and plumb.
3. Secure the top of the track to the header flange with screws inserted from the interior side of the header.

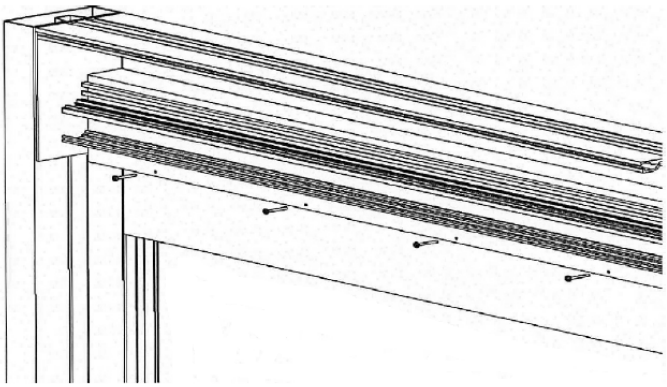


Figure 10

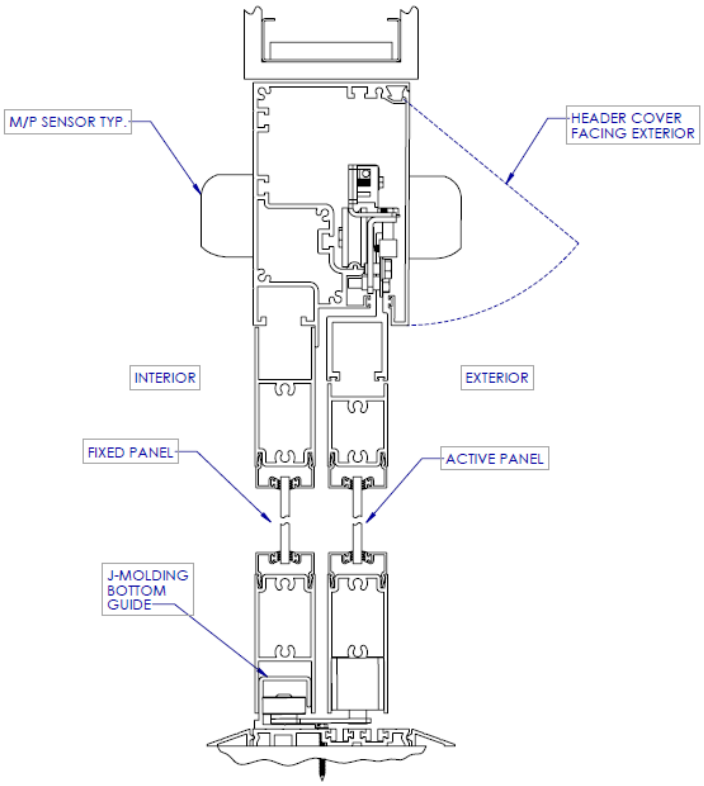
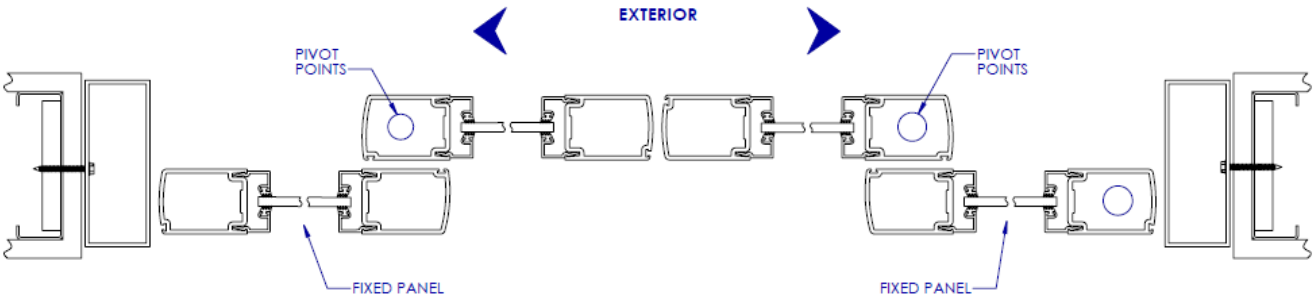


Figure 11



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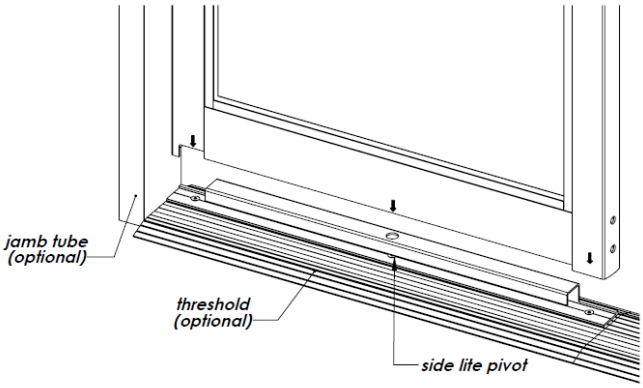


Figure 13

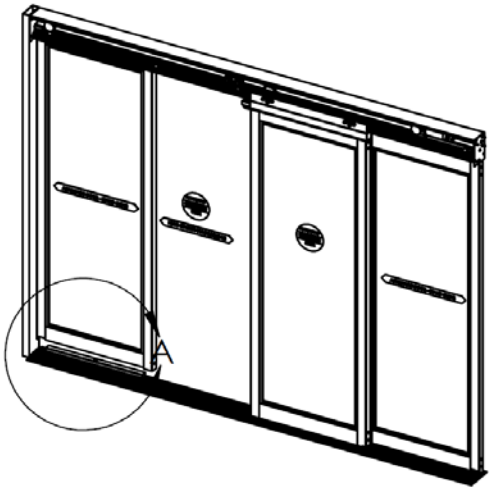


Figure 14

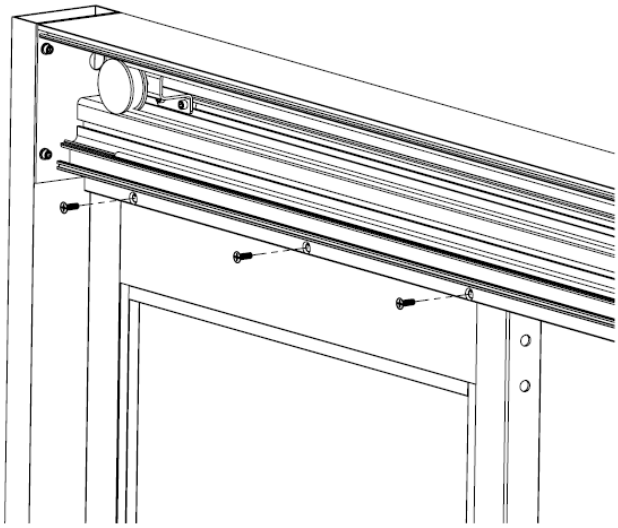


Figure 15

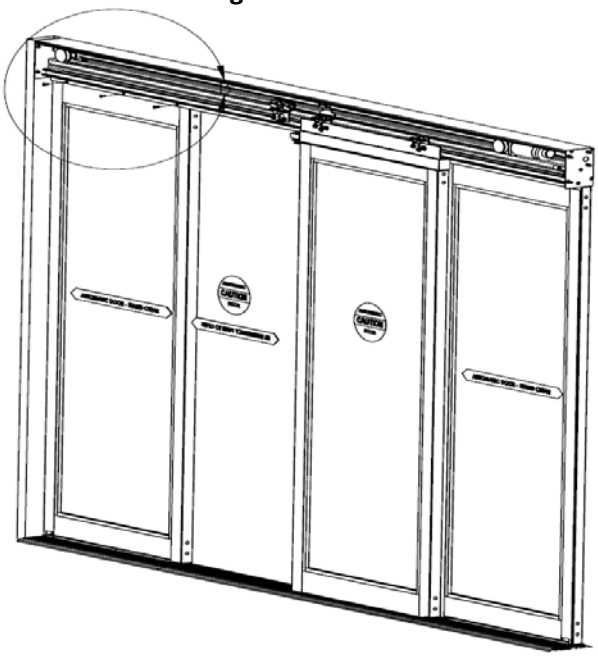


Figure 16

Installation of the Active Door(s)

Systems with Breakaway Sidelight

1. Check to see that the active door supplied with the sliding door system is complete and that all mounting screws are too tight.
2. Turn the carrier portion of the PSA hardware 90 degrees to the active door and slide it into the door carrier extrusion. Do not leave out the adjusting block. Position the carrier portion of the PSA to line up with the end of the panel style and secure the first Allen set screw beside the PSA pivot shaft; this licks the PSA in position. Use the Allen screw in the panel in the break out position with the weight of the glass on the hinge. **The final adjustment cannot be made until glass is installed.** The middle set screw is used to lock the PSA in place. Slide the door carrier portion of the ball catch assembly into the door carrier extrusion and position the ball catch, but do not tighten the setscrews. Slowly close the active leaf and position the carrier portion of the ball catch so that it passes through the cut out in the active leaf and engages the door portion of the ball catch. Mark the position of the ball catches on the carrier and secure the two setscrews.

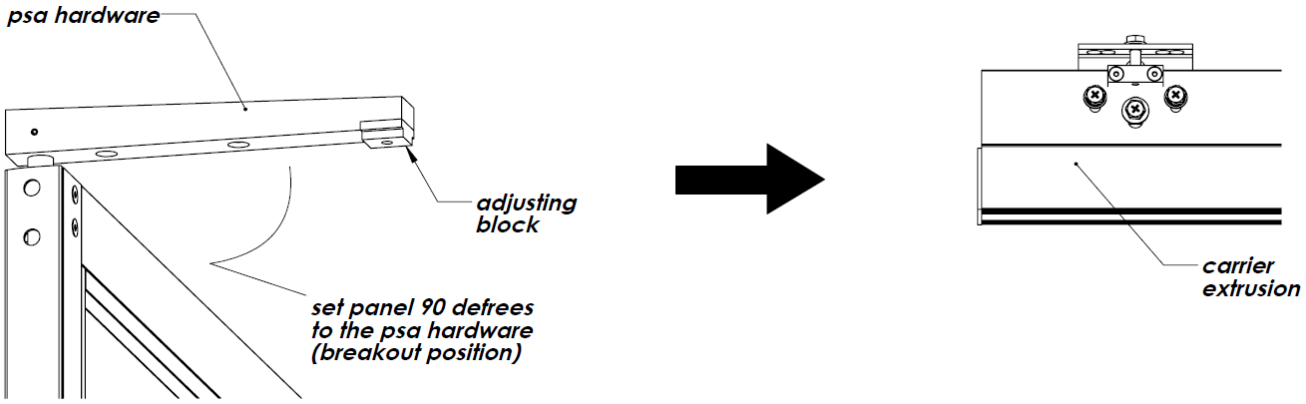


Figure 17

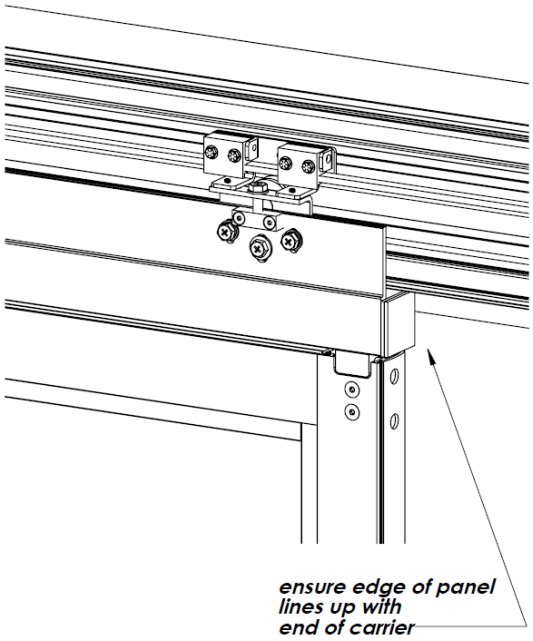


Figure 18

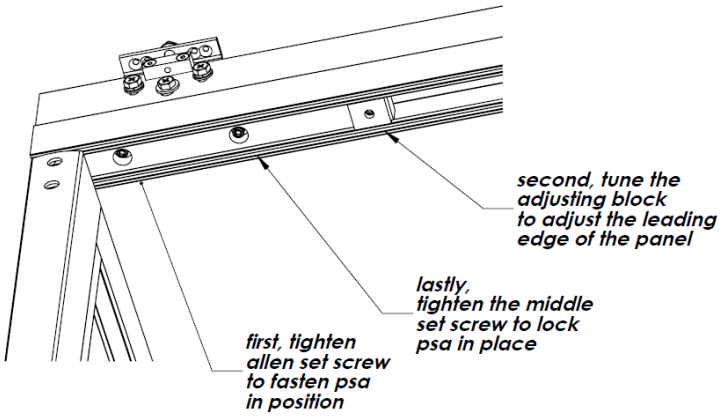
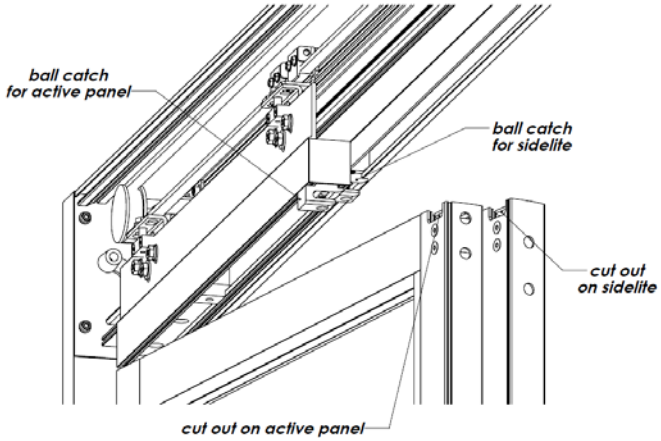


Figure 19

3. Check the amount of force required to breakout the active leaf **(no more than 50 LBF)**, and then adjust the tension, if necessary. The tension on the ball catch, can be adjusted by the Allen set screw until the desired tension is obtained.



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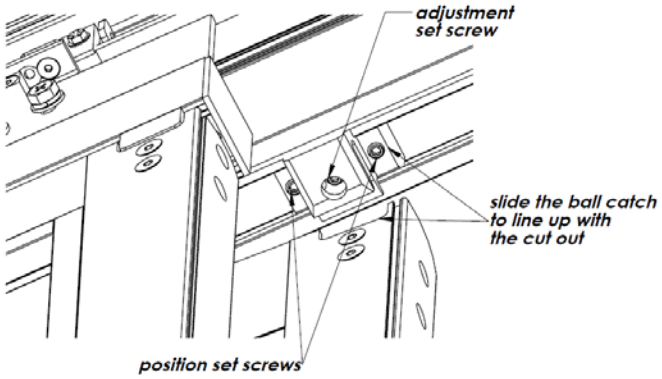


Figure 21

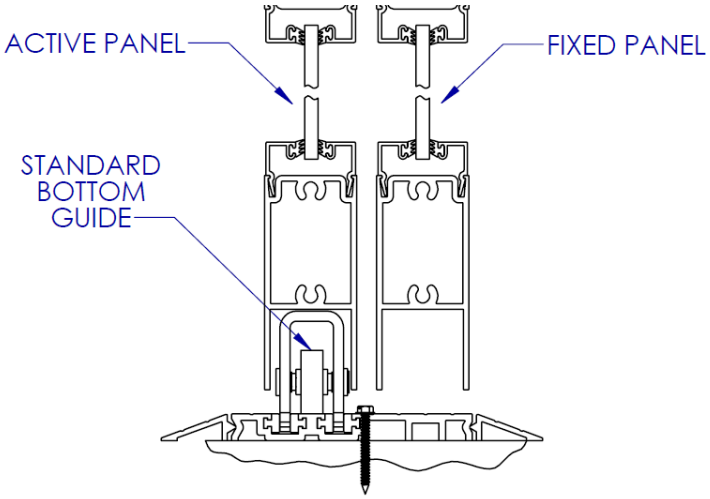


Figure 22

Systems with Fixed Sidelight

The active door in a fixed sidelight system mounts the same as a breakaway sidelight on the door carrier except the door guide track is mounted inside the sidelight instead of on the threshold.

1. Slide the lower pivot wheels into the 2''x2'' cut out on the bottom of the fixed sidelight panel.

2. Install the foam bumpers on both sides of the carrier assembly and swing the active leaf closed until the ball catch is engaged.

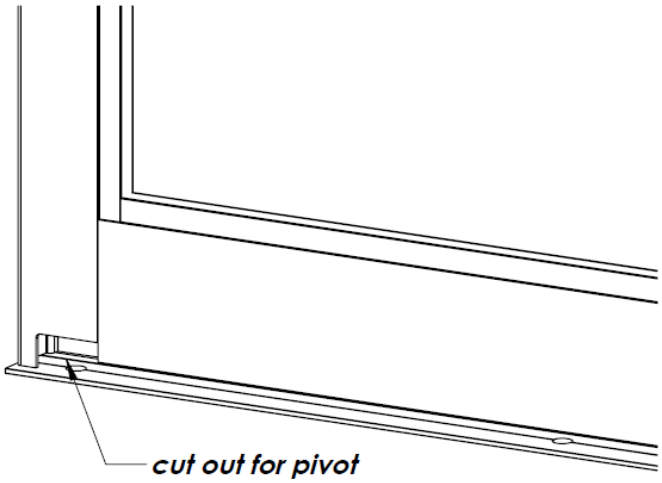


Figure 23

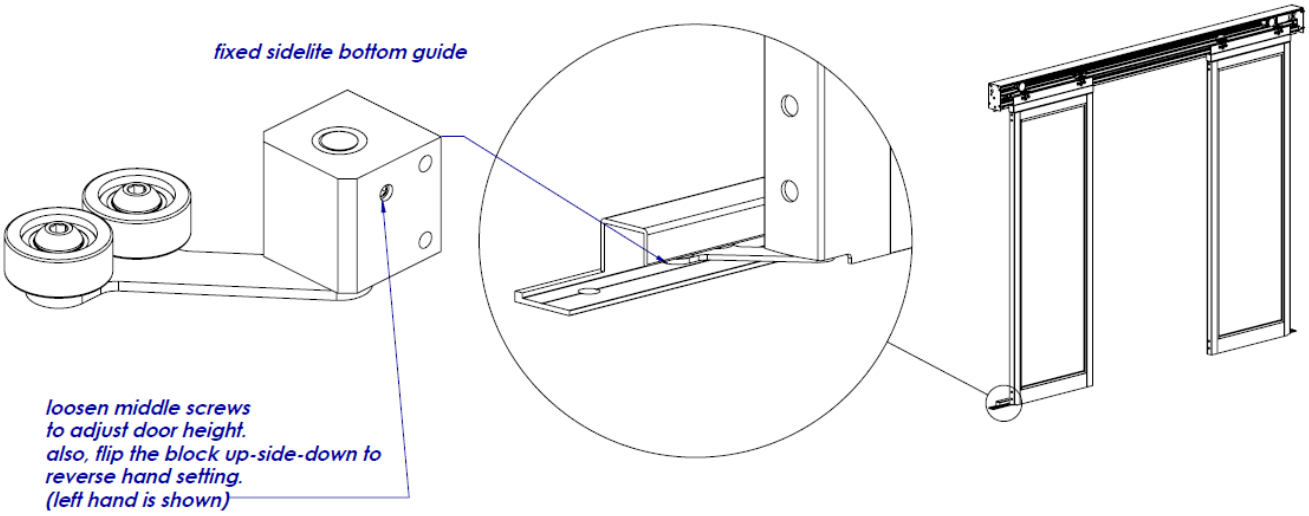


Figure 24

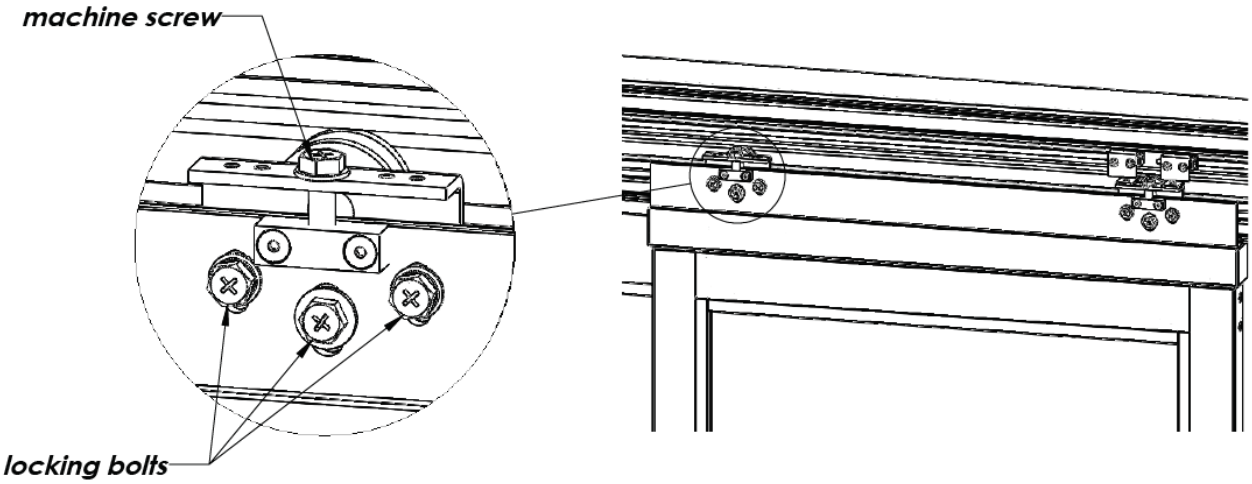


Figure 25

Electrical

Once the doors are installed, the main power supply to the unit may be connected. This should be done by a **certified electrician** and **within the guidelines of the enforced electrical codes**.

The Omega OASL-88 requires 115 +/- 5VAC power supply which by means of a step-down transformer providing the main controller with 100 VAC and 24 VAC for the auxiliary options.

Note: Installation of any extra wiring for controls or accessories into the header unit shall be secured out of the way of all moving parts and any edges.

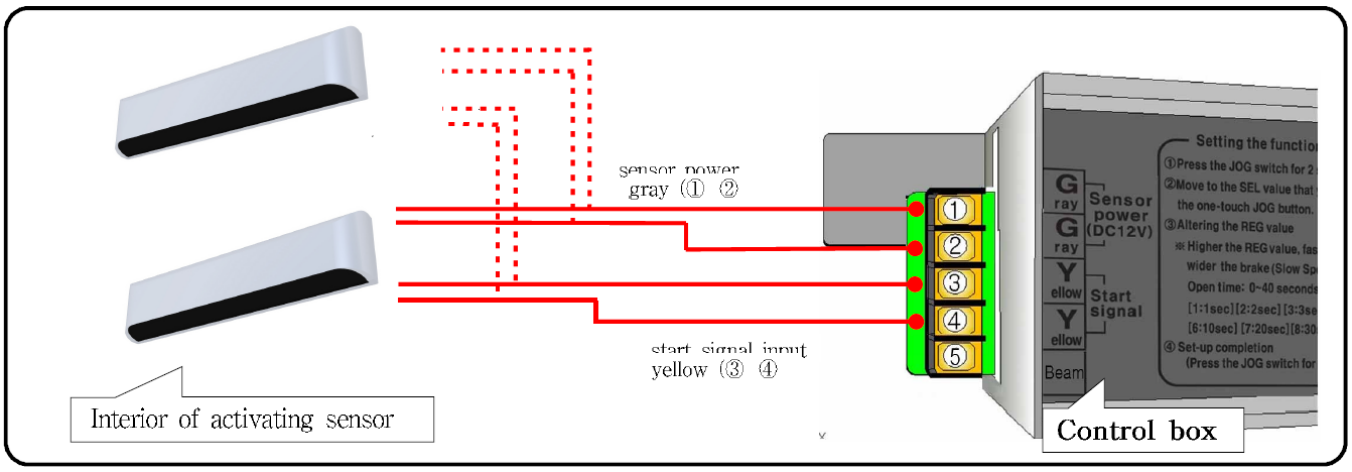
Figure 26

NOTE:
THE GROUND WIRE FOR THE INCOMING 115±5VAC POWER AND THE SYSTEM GROUND WIRE CANNOT SHARE THE SAME GROUNDING STUD. GROUND THE INCOMING 115±5VAC ACCORDINGLY.

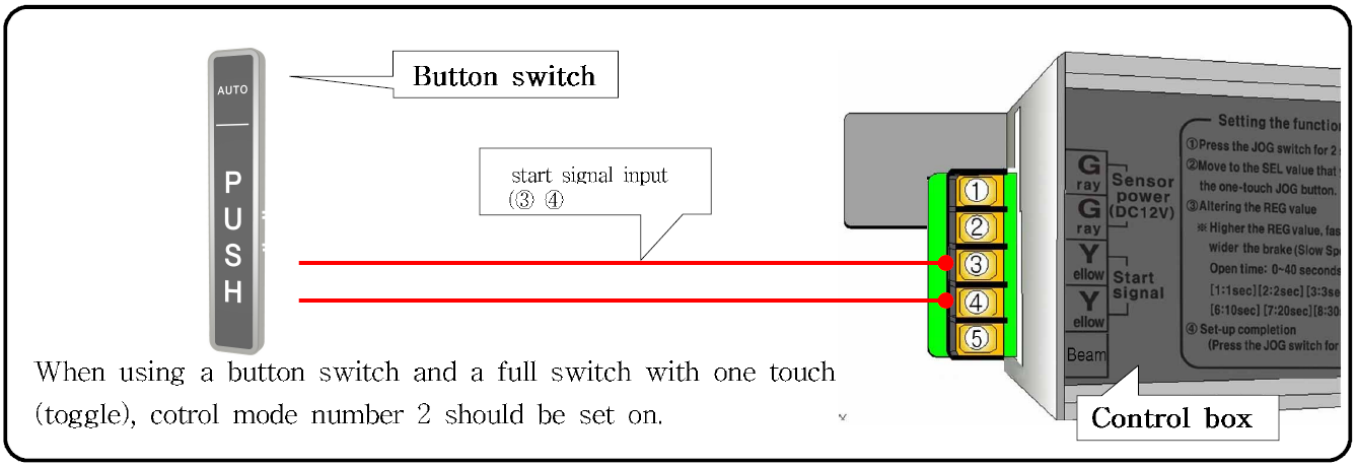
NOTE:
HIGH VOLTAGE (INCOMING 115±5VAC) WIRES AND LOW VOLTAGE WIRES CANNOT SHARE THE SAME ACCESS HOLE. HIGH VOLTAGE WIRES MUST BE ROUTED AND SECURED AWAY FROM ALL LOWVOLTAGE WIRES. USE STICK ON WIRE CLIPS SUPPLIED.

Wiring Diagram Schematic

1. Connection of activating sensor (standard type)

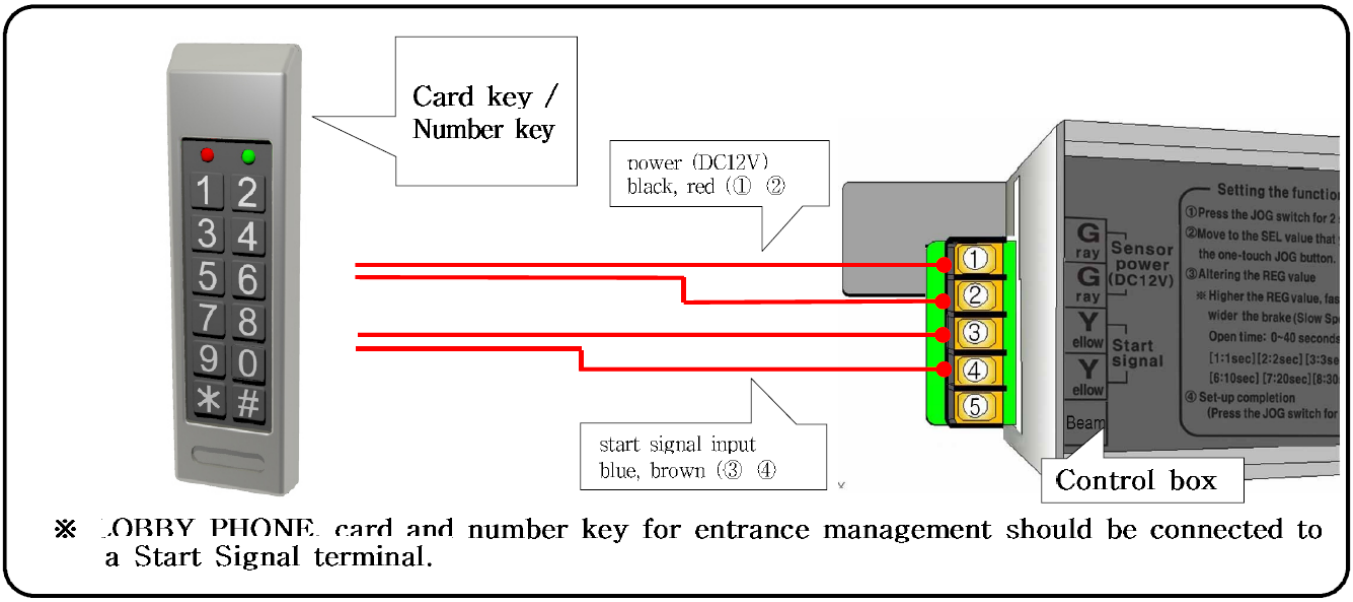


2. Connection of button switch



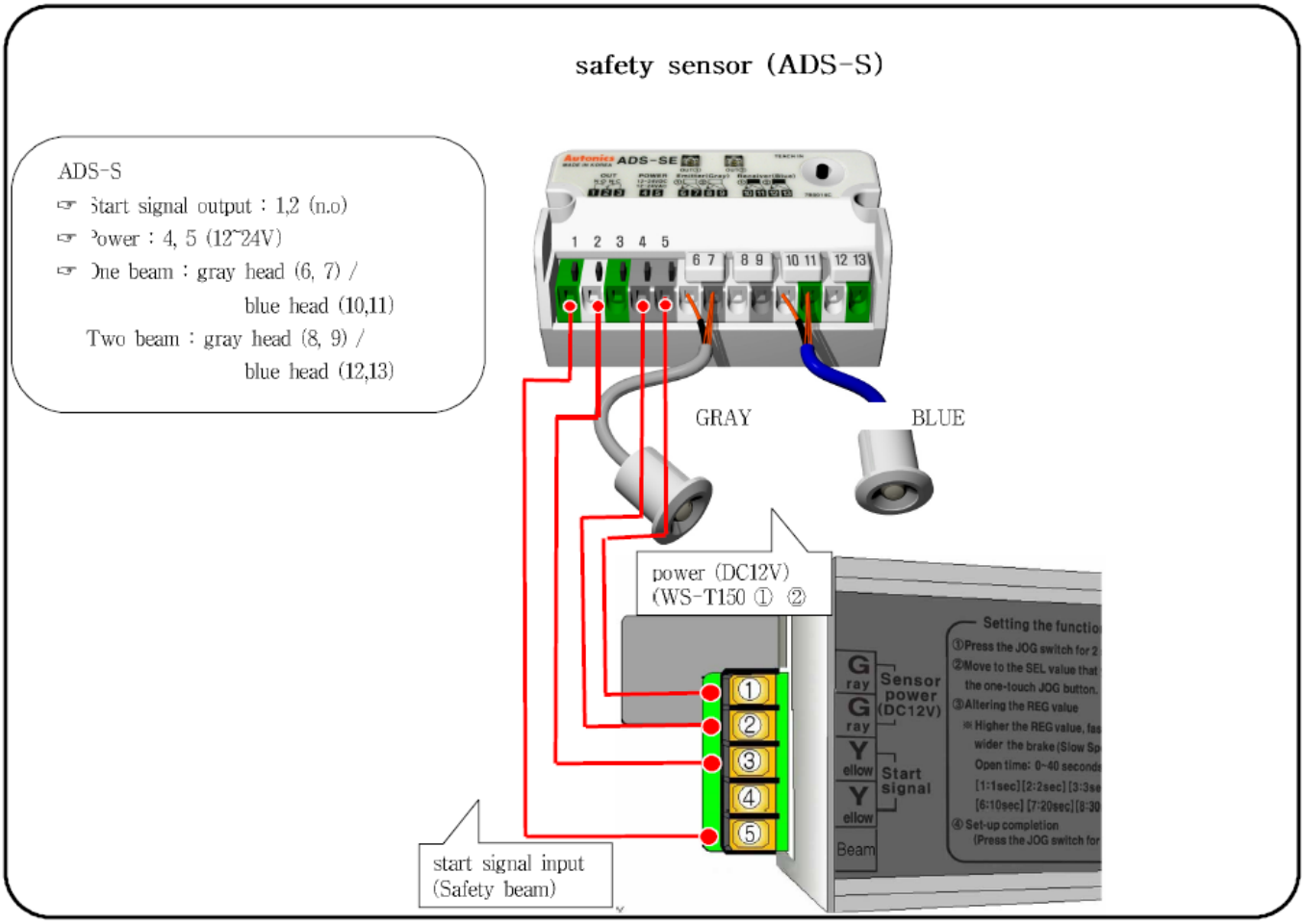
When using a button switch and a full switch with one touch (toggle), cotrol mode number 2 should be set on.

3. Connection of Card and Number key (standard type)



※ LOBBY PHONE, card and number key for entrance management should be connected to a Start Signal terminal.

4. Connection of safety sensor (standard type)



Set-up and Adjustment

Once the glass has been installed the fine-tuning of the unit may begin. The Omega OASL series with factory settings and activation can be triggered by gently pressing the test button on the main controller.

Door Height

Door heights must be equal and parallel to carrier assembly by adjusting the carrier mount.
Loosen the two 5/16'' bolts(13mm) that are locking the carrier. To reposition the carrier height, turn the machine screw in the appropriate direction. When finished, re-tighten the locking bolts.

Centering the Doors

To adjust the doors, loosen the two locking screws on the belt clamp (the white nylon block). Center the doors in the opening, then re-lock the screws.

Adjusting the Belt Tension

1. Tighten a volt after turning 3 volts for the setup of the left belt of hanger B and inserting between the nelt. (Check the state of being tightened by turning 3 volts at a time)
2. Hang the belt over a motor drive extraction of the brass fog bell.
3. Connect to the setup of the right belt of hanger B and the tension adjusting belt. (Pull the belt to the left and turn it to the right until the tension adjusting belt stops.)
4. Having a door closed, turn 3 volts in the setup of connection of hanger A to the left and unplug.
5. Insert the setup pf the belt to V belt in the setup of connection.
6. Tighten each of the 3 volts of the setup of connection at a time.
7. Connect and fix by adjusting to the center of left and right door.

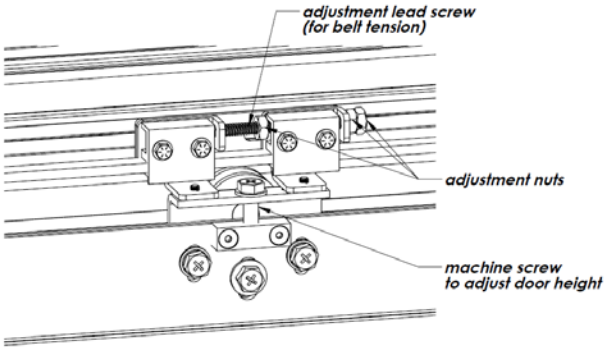


Figure 27

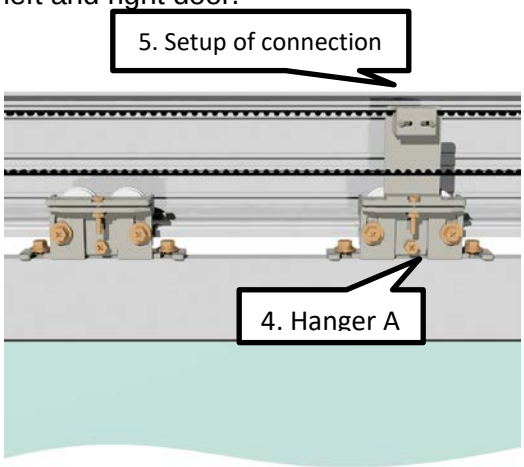


Figure 28

Control Box Set-up

First, send a signal while power is turned on and the setting will be started.
(Although power is turned on, unless you send a signal, the setting won't be started)

1. **Turn off power S/W.**
2. **After installing the engine unit, recheck looseness of volt.**
   Transcable must be plugged in properly.
3. **Check transit condition of the door.**

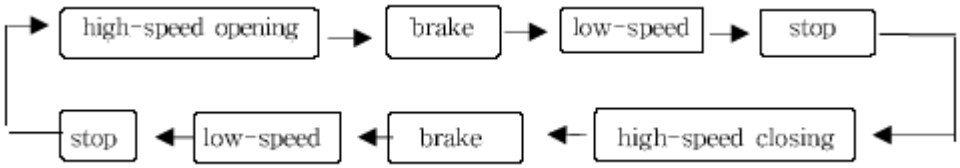
- Is transit resistance of door, barrier too high?
- Is tension of belt normal? If low-speed is too slow, reopening may occur.

4. **Adjust opening direction S/W.**

- Right direction (ADH-FW door) ON – door opens to the right hand.
- Left direction (ADH-FW door) OFF – door opens to the left hand.

5. **Completing the above sensor procedure, turn power S/W on.**
6. **Launch a sensor and check automatic door operation.**

- When the sensor is launched, it will perform basic operation as an automatic door as the following shows.



- Right after the beginning of operation, width of high-speed opening and closing are widened.
- Every time the previous operation is repeated, width of the high-speed opening and closing becomes narrower and stable in the optimum operation state.

7. **If the sensor isn't set to sense, it closes after the hold time.**

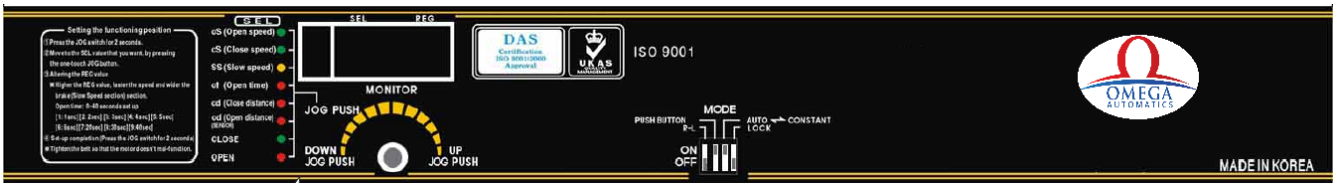
- When the sensor is not connected, a movement can be perceived just like when the sensor is sensed by shortening an input terminal.

8. **As the sensor senses, adjust with each volume for speed adjusting.**

1) Inspection item

Inspection item	S	Adjustment and confirmation
Brake adjustment	When the break is too powerful	Eliminate the low section(od,cd) value by 1 step
Closing speed adjustment	When the closing speed is too fast	Adjust by reducing low-speed value (ss) one step at a time
Low-speed adjustment	When the low-speed is too fast and makes noise	Adjust by reducing low-speed value (ss) one step at a time

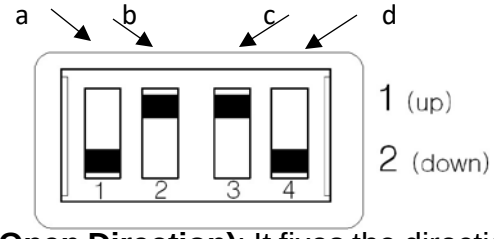
9. Explanation of the control switch



1) The names and functions of each part of the controller

Names	Functions
Open Speed (OS**)**	It controls the speed where the door is opened (0~9) Higher the number faster the speed
Close Speed(CS**)**	It controls the speed where the door is closed (0~9) Higher the number faster the speed
Slow Speed(SS**)**	It controls the slow speed where the door is perfectly opened or closed after the brakes.
Open Time (OT**)**	It controls the time when the door starts to close, right after it has received signals from the sensor and the door is perfectly open.
Close Distance (CD**)**	The break when the door closes from Fast Speed to Slow Speed (0~9)
Open Distance (OD**)**	The break when the door opens from Fast Speed to Slow Speed (0~9)
CLOSE	Lights on when the door is closed
OPEN	Lights off when the door is opened
MODE	

MODE (selecting function)

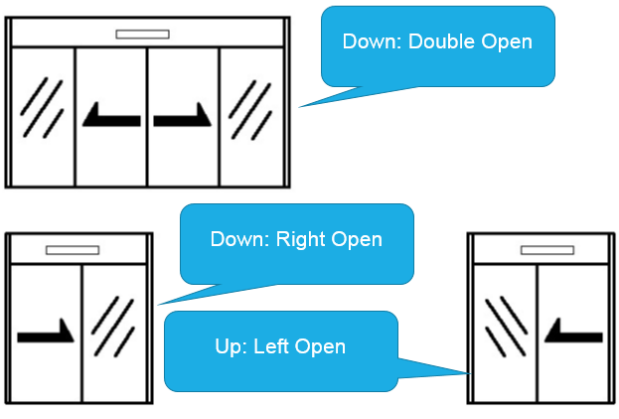


a. **R<-> (Open Direction)**: It fixes the direction where the door is opened.

Up: Controls the setting-up direction which opens the door to the left.

Down: Controls the setting-up direction which opens the door to the right.

a. R <-> (Open Direction)



b. **PUSH Button Switch (Toggle S/W)**: Press the button when using the PUSH Button Switch. Opens when pressed once, and closes when pressed once more. (Down: Switch Action; Up: Sensor Action)

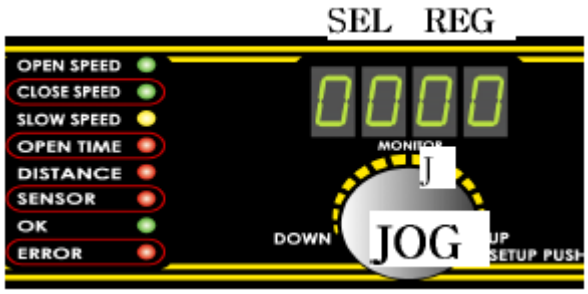
c. **GAP on/off Switch**: Generally, when you open the door perfectly, you must make a gap 2cm for the action safely.

If you don't want the gap, turn off the switch and then, you can open it perfectly without the gap (Up: GAP ON, Down: GAP OFF)

d. **Locking device** (Up: The Function of Gap Prevention: It is the function to prevent the gap after door close; Down: Motor lock)

2) Set the functioning position

a) Press the JOG switch for 2 seconds.



b) Move to the SEL value that you want, by pressing the one-touch JOG button. (SEL value)

- OS_ (Open Speed) ↵
- CS_ (Close Speed) ↵
- SS_ (Slow Speed) ↵
- OT_ (Open Time) ↵
- CD_ (Close Distance) ↵
- OD_ (Open Distance) ↵

c) Altering the REG value (can set up from 0 to 9)

Higher the REG value, faster the speed and wider the brake section (Slow Speed section).

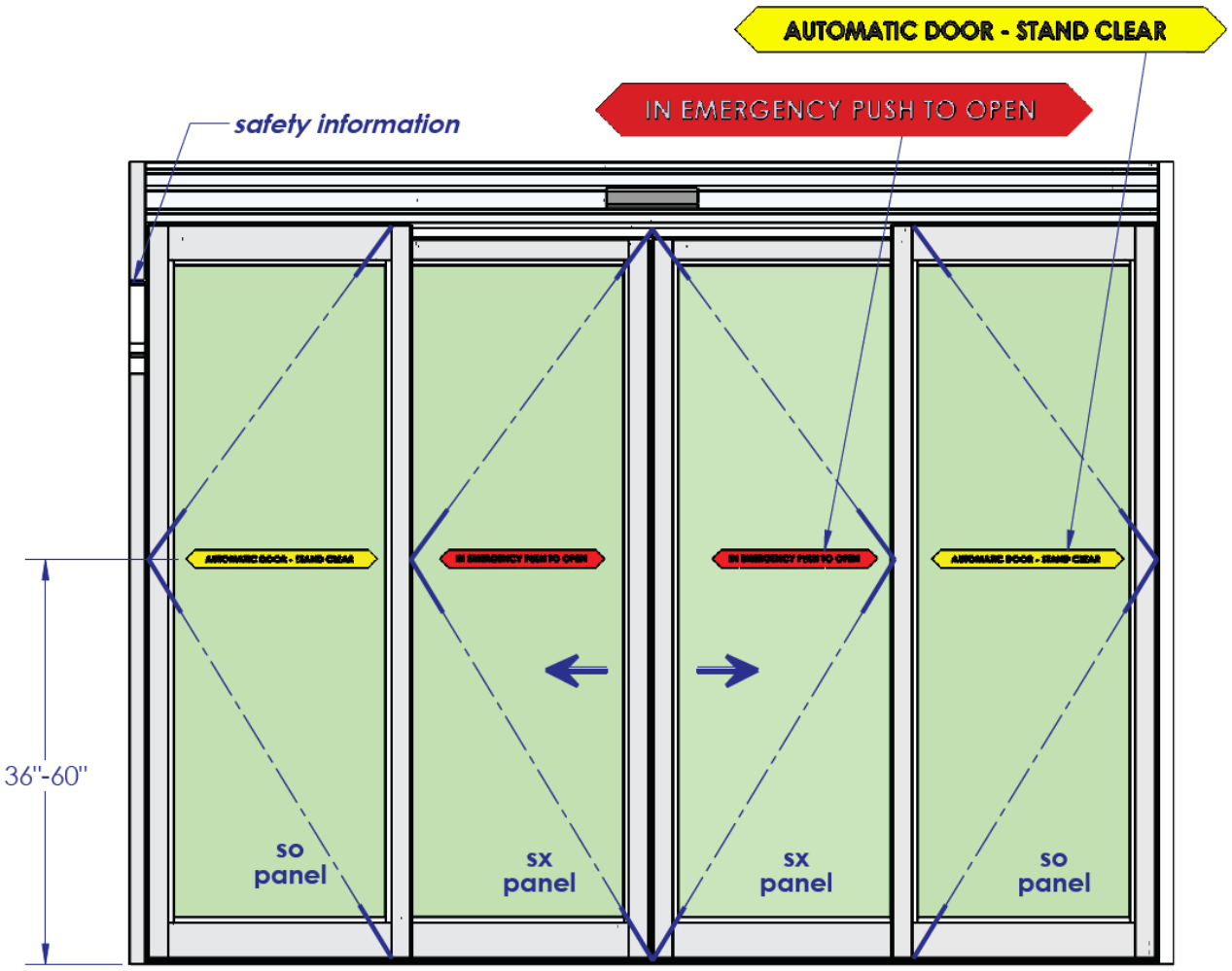
Open time: 0~40 seconds set up

REG Value		Open time (second)
Slowest	01	1
	02	2
	03	3
	04	4
	05	5
	06	10
	07	20
	08	30
Fastest	09	40

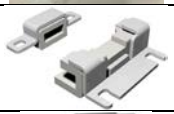
d) Set-up completion (Press the JOG switch for 2 seconds)

Warning Label Placement

The center of the sticker height should be between 36” to 60”, above the finished floor.
See ANSI standard 156.19 requirements for additional safety information.



List of Parts

Names of Parts	Pictures	Quantity		Note
		1 Door	2 Door	
Motor		1	1	
Control Box		1	1	
Brass Fog Bell		1	1	
Hanger		2	4	
Belt		1	1	
Belt Link		1	1	
Belt Stand			1	
Stop Bar		1	1	
Motor Stand		Group 1	Group 1	
Transformer		1	1	