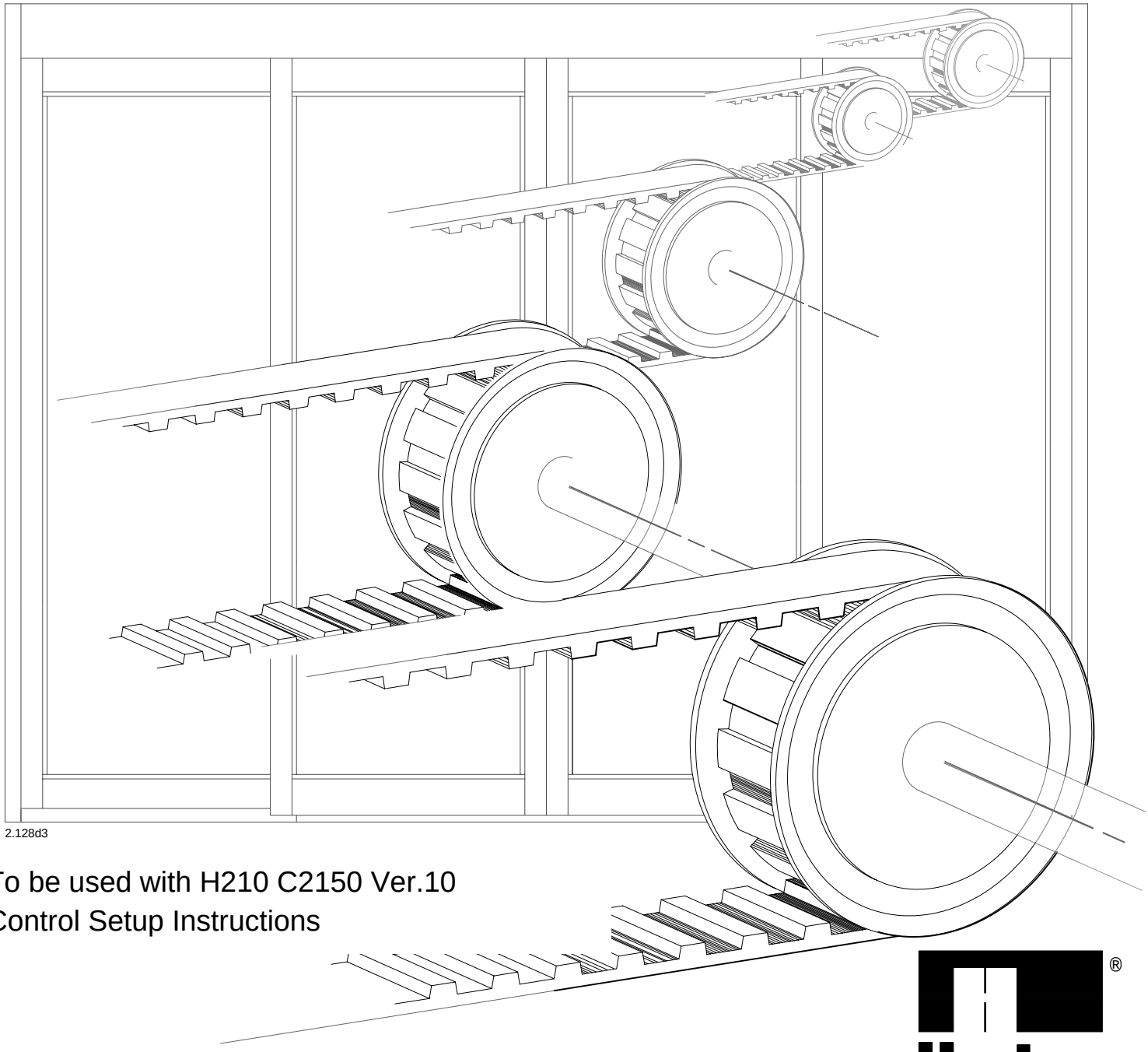
Series 2003 Belt Drive

Electric Slide Door Operator

Installation Instructions



2.128d3

To be used with H210 C2150 Ver.10
Control Setup Instructions

Horton®
AUTOMATICS

CONTENTS

SERIES 2003 ELECTRIC SLIDING DOOR INSTALLATION INSTRUCTIONS

1. INSTRUCTIONS TO INSTALLER

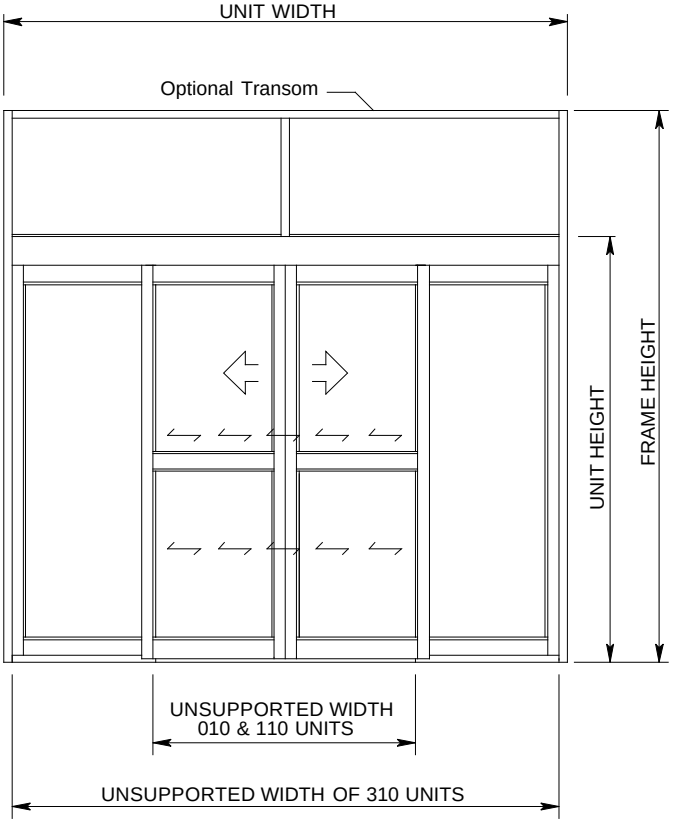
- This door is to be installed by a trained and experienced installer with knowledge of local codes and ANSI A156.10 standards for power operated doors.
- To ensure safe and proper operation, the door must be installed and adjusted to conform to Horton Automatics recommendations, all code requirements and ANSI A156.10.
- If there are any questions about these instructions, call Horton Automatics Technical Assistance.

INFORMATION TO BE PROVIDED BY THE DISTRIBUTOR TO THE OWNER

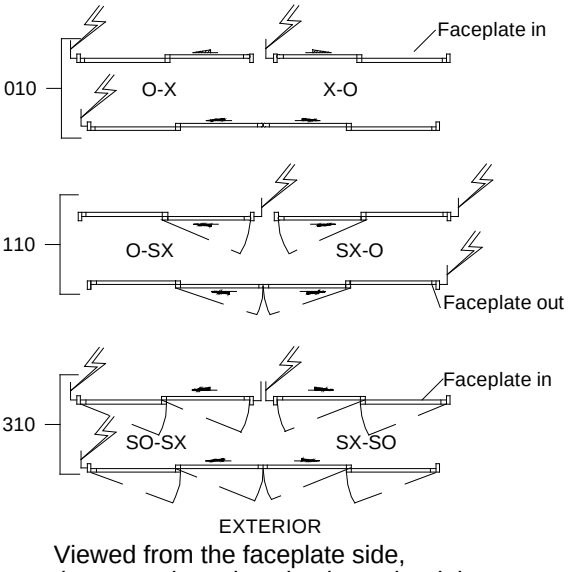
- After installation instruct the owner on the safe operation of the door.
- Present the Owners Manual M300 and explain how to perform the daily safety check.
- Location of power on / off switch.
- Necessary warnings not covered in these general instructions.
- Date equipment shipped from Horton Automatics.
- Date equipment placed in service.
- Horton Automatics' invoice number for warranty reference.
- Equipment type.
- Accessories included.
- Phone number to call regarding problems or request for service.
- **Give caution** to owner: if a potentially hazardous situation is suspected, the door should be taken out of automatic service untill a professional inspection is made and the problem is corrected.

2. GENERAL REQUIREMENTS

- Power: 120 VAC, 60Hz, 15 Amp service (in conduit) to the "J" box inside the header of each unit.
- Non North American voltages can be 240 VAC, if so be sure the operator has a 240VAC power supply.
- Power may be brought in through the top of the jamb on perimeter mount units or in through the back of surface mount units.
- For remote switch locations, routing of low voltage class II wiring (in conduit) to the operator controls will be required.
- Remote switch locations should be predetermined and wired before installation begins.
- Opening size should be 1/4" taller and 1/2" wider than the unit / frame.
- The opening must be plumb and level, including the threshold area.
- Door panels may be glazed before or after installation.



POWER INPUT LOCATIONS



Viewed from the faceplate side,
the power input location is on the right.

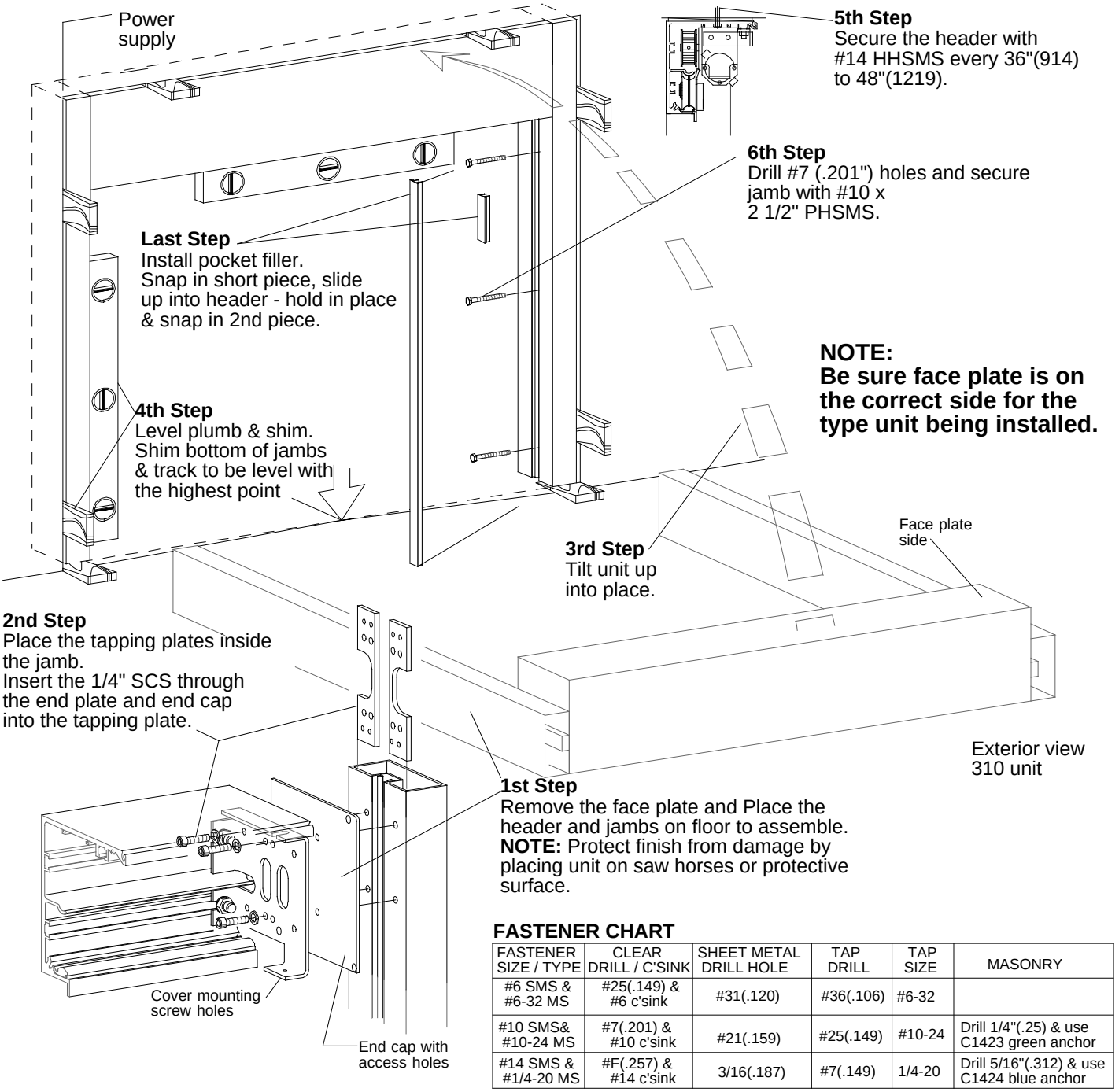
LOAD LIMITS & SIZES OF UNSUPPORTED TRANSOMS

Unsupported Width	Allowable Transom Weight
up to 8'	650 Lb.
up to10'	250 Lb.
up to12'	100 Lb.

Supporting dead weight on headers longer than 12' is not recommended.

3. INSTALLING FRAME

Take care that the frame is not racked. Wood shingles will be needed to shim the unit. All the fasteners shown below are provided with each unit. If these are inappropriate, alternate fasteners are shown in the fastener chart. Route power supply wiring and low voltage wiring.

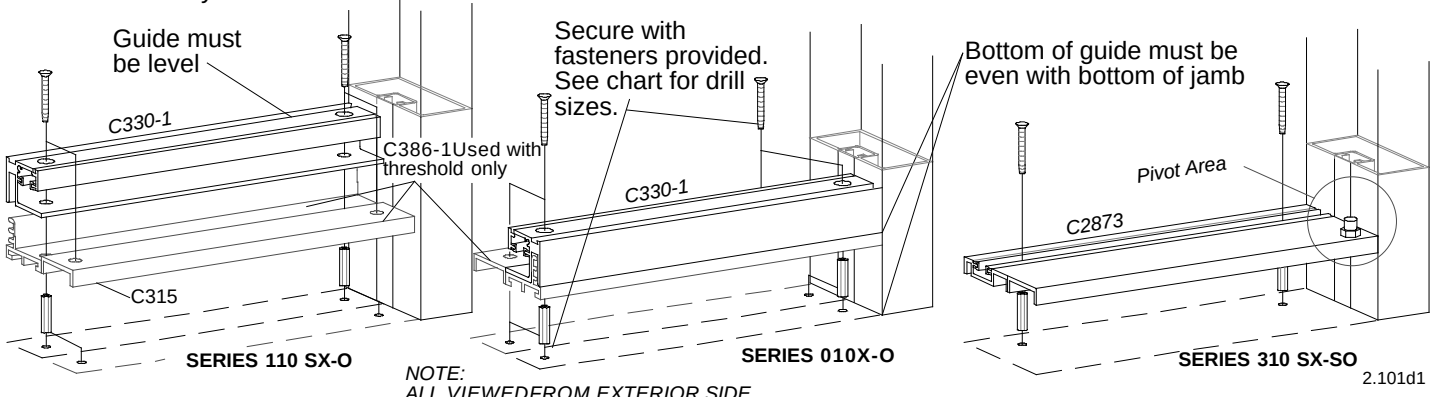


FASTENER CHART

FASTENER SIZE / TYPE	CLEAR DRILL / C'SINK	SHEET METAL DRILL HOLE	TAP DRILL	TAP SIZE	MASONRY
#6 SMS & #6-32 MS	#25(.149) & #6 c'sink	#31(.120)	#36(.106)	#6-32	
#10 SMS& #10-24 MS	#7(.201) & #10 c'sink	#21(.159)	#25(.149)	#10-24	Drill 1/4"(.25) & use C1423 green anchor
#14 SMS & #1/4-20 MS	#F(.257) & #14 c'sink	3/16(.187)	#7(.149)	1/4-20	Drill 5/16"(.312) & use C1424 blue anchor

4. INSTALLING FLOOR GUIDES

Bottom guides will vary with the unit type. The 3 basic types are shown below. The C315 / C386-1 filler is used with threshold only.



NOTE: ALL VIEWEDFROM EXTERIOR SIDE

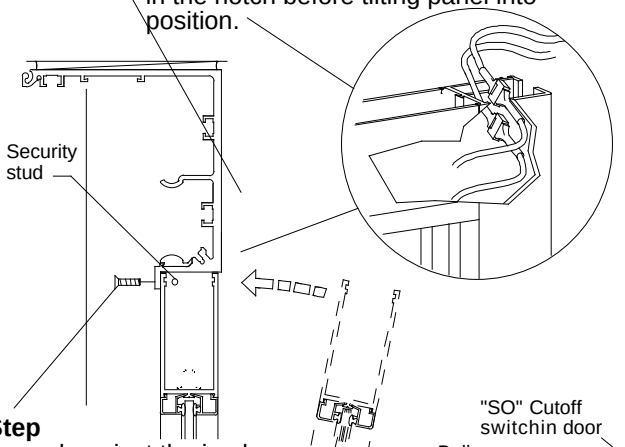
5. INSTALLING SIDE PANELS

2 types of side panels are shown "O" fixed and "SO" swing panel. If panels are to be glazed before installation see section 7.
Panels come assembled and prewired from the factory, unless side panels are extra large.

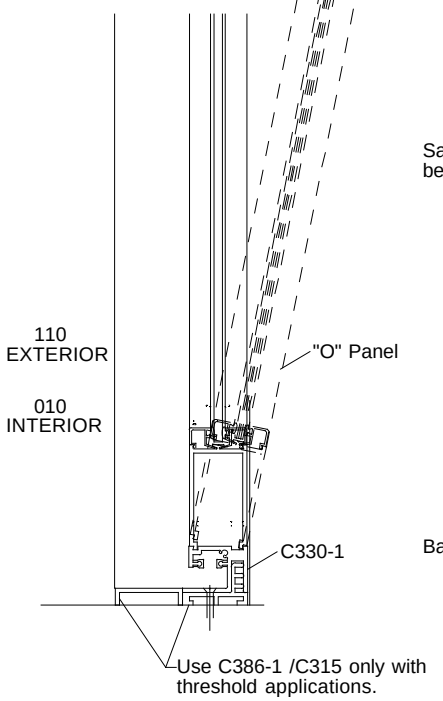
TYPE 010 OR 110 "O" PANEL

1st Step
Position the "O" panel, as shown, in the C330-1 bottom guide about 1" from the jamb to clear security stud.

2nd Step
Connect safety wiring harness from door panel to harness in header. Make connection inside door panel. Place wire in the notch before tilting panel into position.

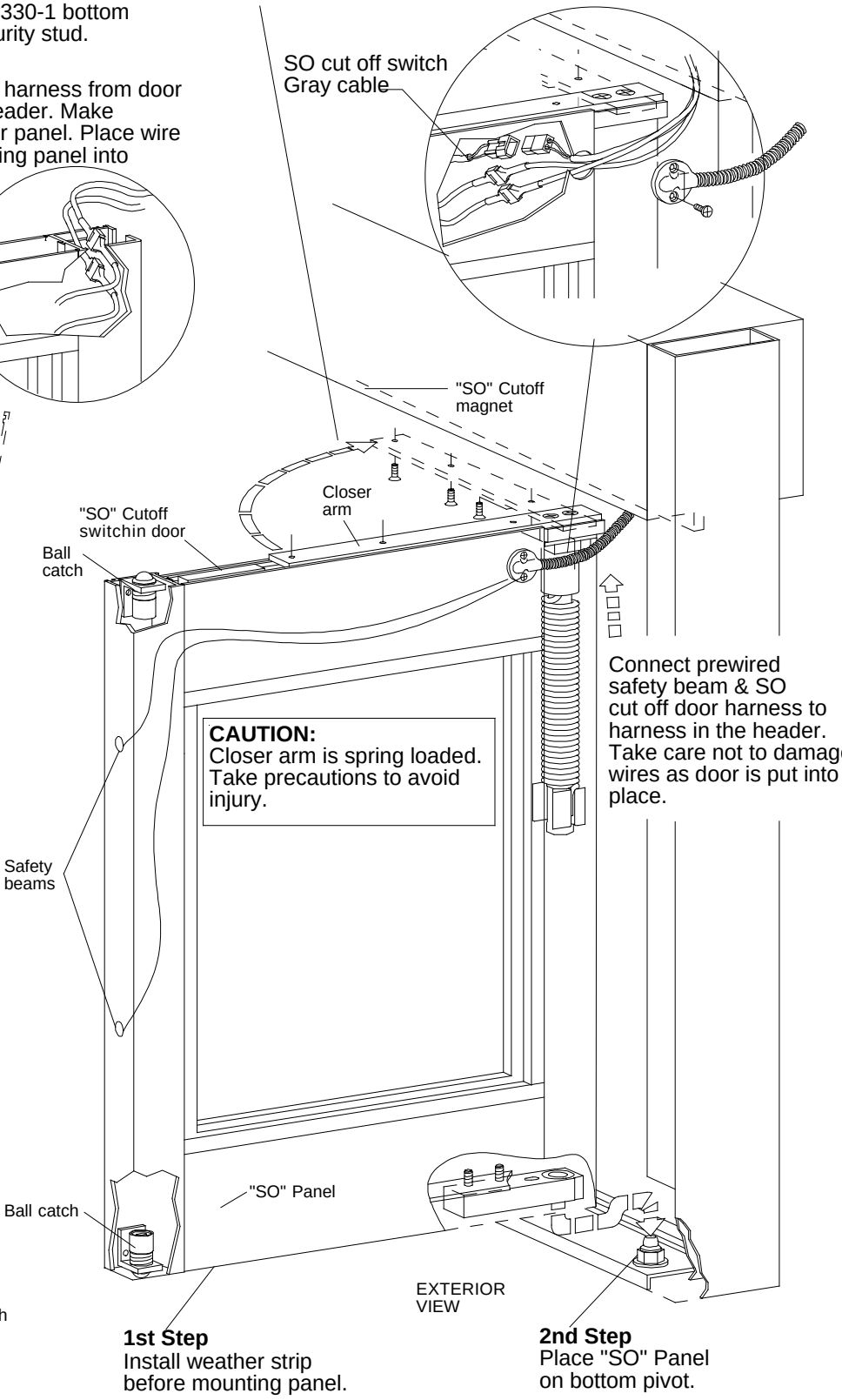


3rd Step
Slide panel against the jamb & match drill with #21 (.159) bit thru existing holes into top rail. Secure with #10 screws.
NOTE: there will be a small space between top of panel and bottom of header.



TYPE 310 OR 410 "SO" PANEL

2nd Step
Place "SO" panel in open position & rotate closer arm under header. Secure "SO" closer with #10 screws.



Connect prewired safety beam & SO cut off door harness to harness in the header. Take care not to damage wires as door is put into place.

CAUTION:
Closer arm is spring loaded. Take precautions to avoid injury.

1st Step
Install weather strip before mounting panel.

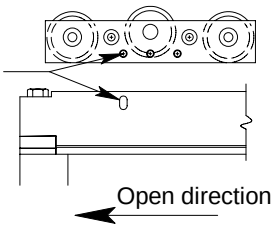
2nd Step
Place "SO" Panel on bottom pivot.

6. INSTALLING SLIDE PANELS

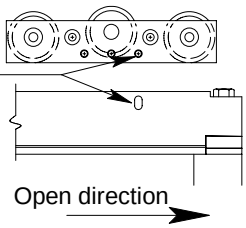
3 types of slide panels are shown 010, 110 & 310. If panels are to be glazed before installation see section 7.

***IMPORTANT !* ON SINGLE SLIDE UNITS:**

FOR RIGHT HAND SLIDE PANEL MOUNT THE WHEEL CARRIAGE IN THE LEFT HOLE

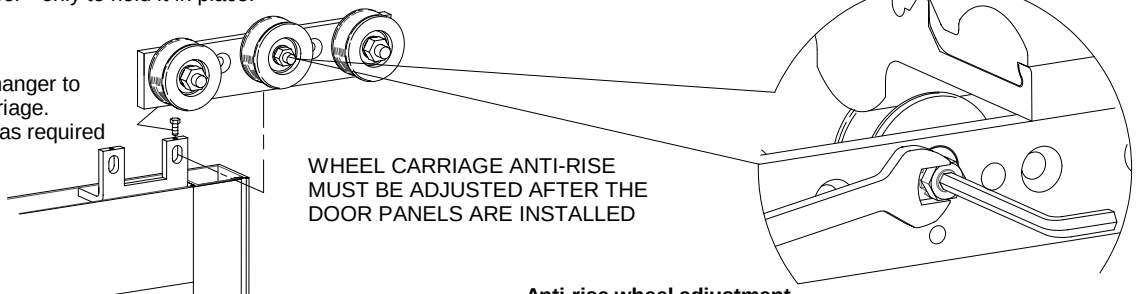


FOR LEFT HAND SLIDE PANEL MOUNT THE WHEEL CARRIAGE IN THE RIGHT HOLE



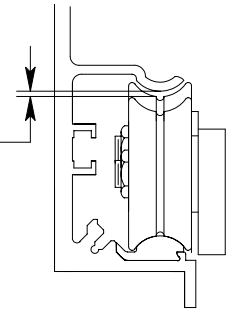
NOTE:
Always loosen height adjustment screw before installing or removing carriage bolts. Height adjustment screws should not be used to raise or lower the door - only to hold it in place.

2nd Step
Connect the hanger to the wheel carriage.
Adjust height as required



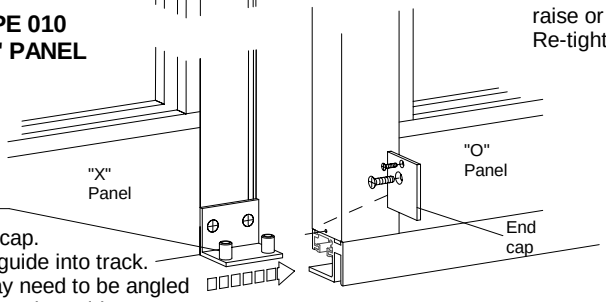
WHEEL CARRIAGE ANTI-RISE MUST BE ADJUSTED AFTER THE DOOR PANELS ARE INSTALLED

Anti-rise wheel adjustment
Loosen 5/16" nut. Rotate allen wrench to raise or lower anti-rise wheel to proper position. Re-tighten nut.



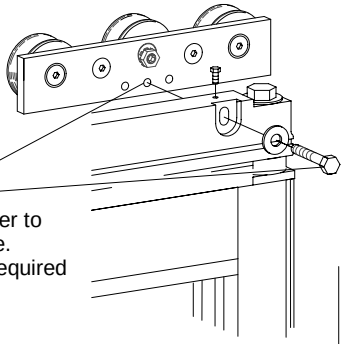
NOTE:
Antirise wheel should **NOT** contact the upper track at any point of travel

TYPE 010
"X" PANEL

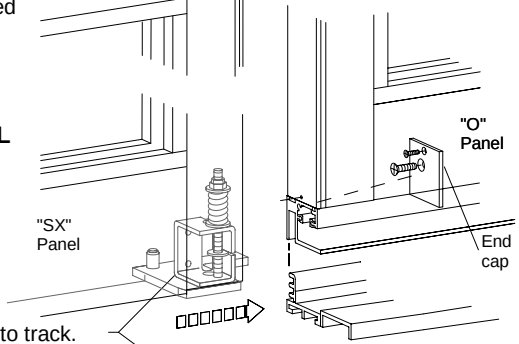


1st Step
Remove end cap.
Slide bottom guide into track.
The panel may need to be angled to start pins into the guide.

2nd Step
Connect the hanger to the wheel carriage.
Adjust height as required

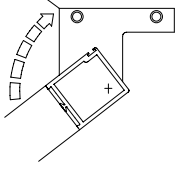


TYPE 110
"SX" PANEL

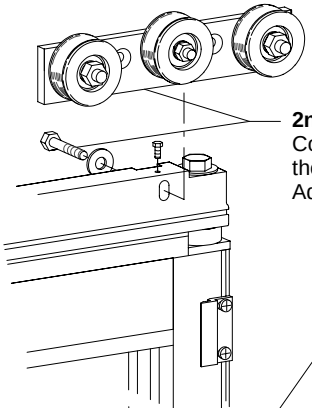


1st Step
Remove end cap.
Slide bottom guide into track.
The panel may need to be angled to start pins into the guide.

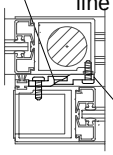
Install threshold after all panels are in place.



2nd Step
Connect the hanger to the wheel carriage.
Adjust height as required

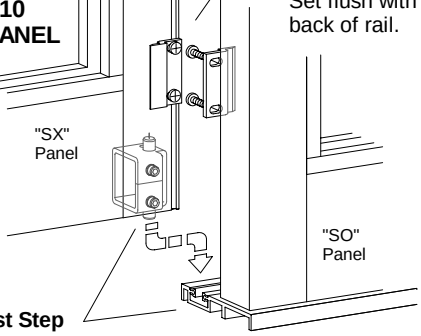


Adjust interlocks to line up vertical rails.



Set flush with back of rail.

TYPE 310
"SX" PANEL

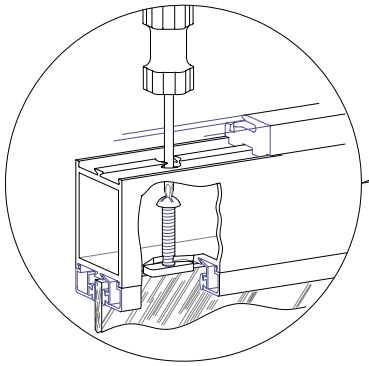


1st Step
Place guide pin in the track.
The door panel may need to be angled to start.

7. TYPICAL GLAZING AND SQUARING (SX-SO single slide shown)

NOTE:The glazing materials shall comply with the requirements in the Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings, ANSI Z97.1-1984.

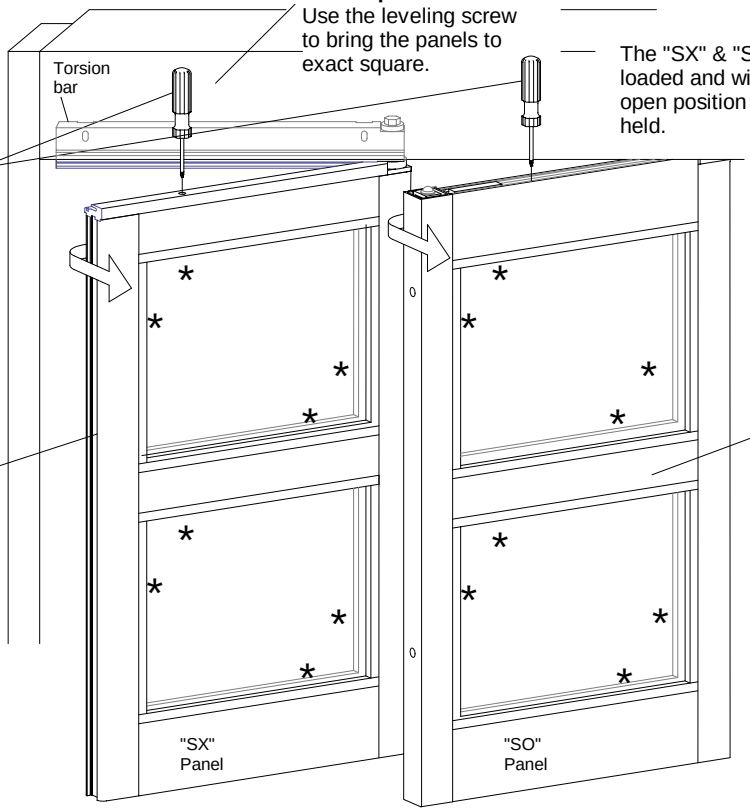
Door panels may be glazed laying down flat or installed in the frame. The latter method is referred to below.



2nd Step
Use the leveling screw to bring the panels to exact square.

Torsion bar

The "SX" & "SO" are spring loaded and will not stay in open position with out being held.

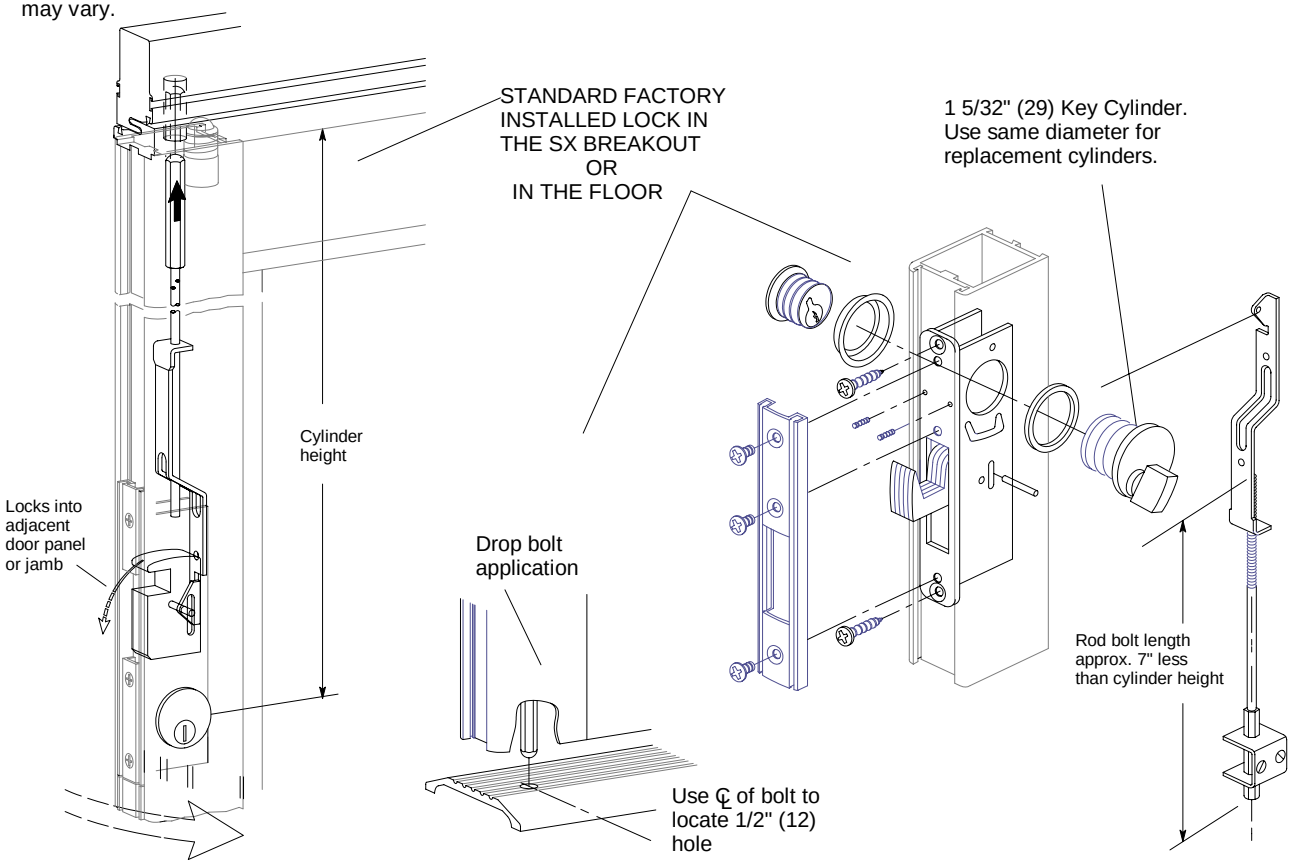


1st Step
Always glaze the "SX" panel with the torsion bar in the broken-out position.

NOTE:
Do not remove glazing blocks from door panels or **glass breakage will occur** when the leveling screw is adjusted.

8. STANDARD LOCKING

A lock cylinder is included with door. UL requires that the inside of the lock be equipped with a thumbturn. Local codes may vary.

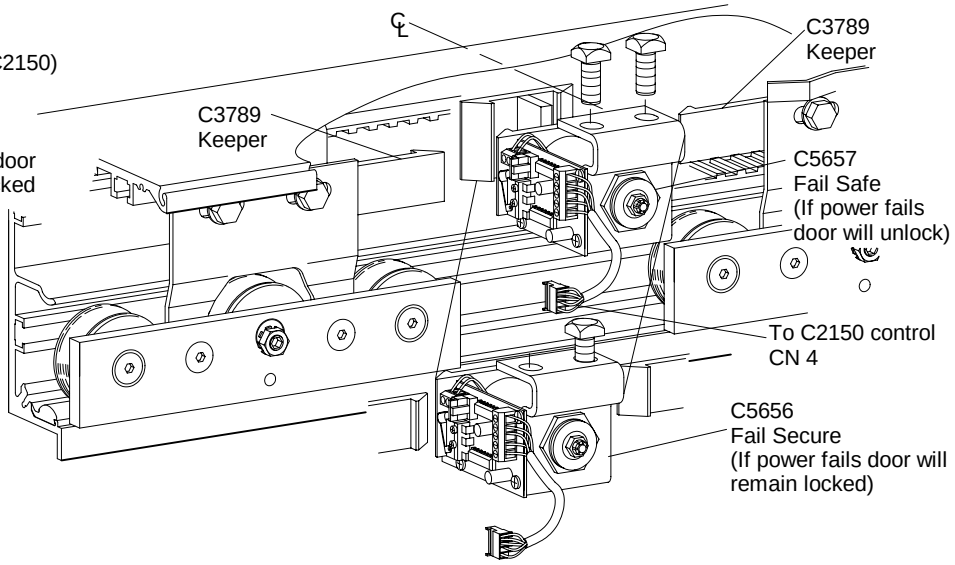


9. AUTOMATIC LOCKING (OPTIONAL)

The Fail Safe and Fail Secure Autolocks will only inhibit the slide action of the door not the "swing" or breakout action. See section 8 for standard locking. Autolocks are installed at the factory. Retrofit units will be supplied with instructions.

GENERAL AUTOLOCK OPERATION

¥Open signal is received by control (C2150)
¥Unlock signal is sent to Autolock
¥Solenoid retracts lockbolt
¥Door opens and closes
¥Solenoid extends the lockbolt when door is fully closed and the keeper is in locked position
¥Door (slide motion only) is locked



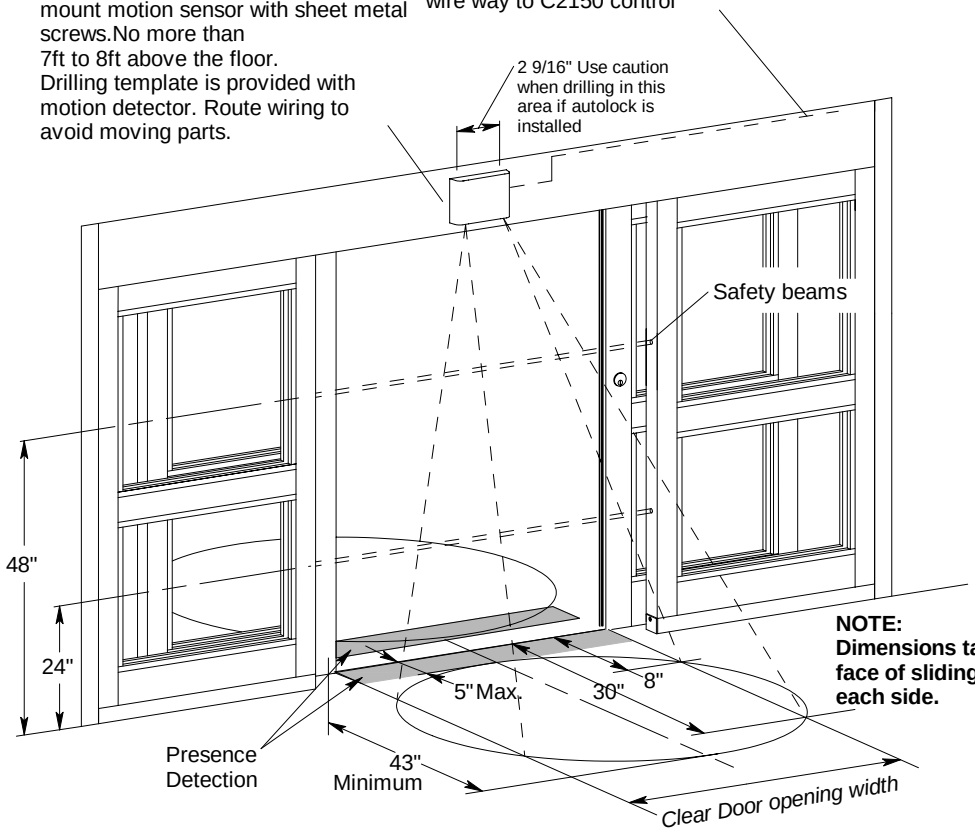
10. ACTIVATING DEVICES

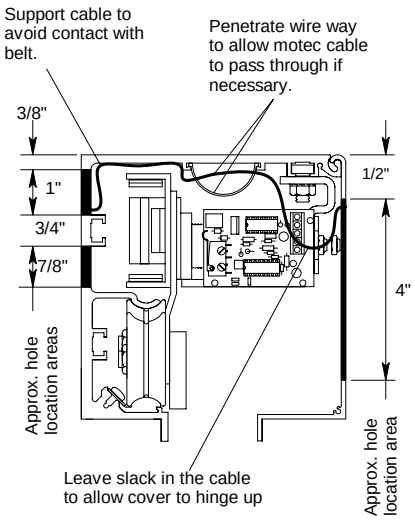
¥Activating switches must be located where door operation may be observed by the person actuating it.
¥ANSI standard requires a motion detector be placed on each side of the door and be active while the door is open (except the last 6" 150mm of closing). The detector pattern may be reduced to 24"(610) on the control side for one-way traffic.
¥Mount sensors on the door header or above at a height of 7ft (2134) to 8ft (2438) from the floor.Sensitivity and detection area may not meet ANSI standards if detector is placed higher.
¥Walk test the pattern from various angles and speeds.
¥Adjust the sensitivity and pattern of the motion sensor as per ANSI A156.10 See drawing below for pattern and location. See instructions supplied with the sensor.
NOTE:Never decrease the sensitivity or pattern so it will not detect slow moving or cross traffic.
¥The motion detector time delay should be set to a minimum of two seconds cumulative with C2150 control before the door begins to close. Three seconds or more is recommended by Horton Automatics.

11. MOTION SENSOR PREP

1st Step
Drill hole in faceplate for wiring and mount motion sensor with sheet metal screws.No more than 7ft to 8ft above the floor.
Drilling template is provided with motion detector. Route wiring to avoid moving parts.

2nd Step
Route wiring through faceplate and wire way to C2150 control





NOTE:
Dimensions taken from face of sliding door each side.

12. SAFETY CONSIDERATIONS

To comply with Underwriters' Laboratories Safety Requirements (UL 325),ANSI A156.10 and pedestrian safety, horizontal sliding doors must be adjusted within the following requirements and guidelines.

CLOSING SPEED
- At no time should the door close faster than 1ft per second or close completely in less than 3 seconds for door panels weighing up to and including 160 lbs 73kg.

CLOSING FORCE
-The force required to stop the door should not exceed 30 foot pounds (133N).

REVERSING
- The reversing circuit of the C2150 must be adjusted to reverse when a maximum force of 28 foot pounds (38N) is exerted to prevent the door from closing.

TIME DELAY
- The time before closing should never be less than 2 seconds. 3 seconds or more (after activating zone is clear) is recommended by Horton Automatics.

For set-up and trouble-shooting
SEE HORTON PUBLICATION H201 FIELD QUICK START INSTRUCTIONS.

NOTE: After adjustments are completed be sure the faceplate is secured with screws into the support brackets.

THRESHOLD PROTECTION
- All sliding doors should be installed with presence detection on each side of sliding doors in addition to dual safety beams.
- Motion detectors must be set up as per section 10 on previous page.

13. DECAL APPLICATION

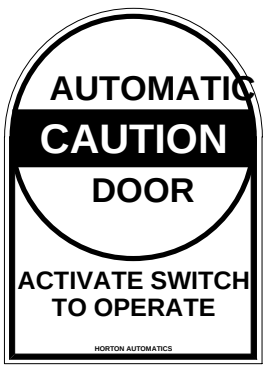
C7280
Place on entry side of slide panels on doors using pushbutton entry To meet knowing act ANSI standard.

C1630-2
For 2-way traffic place one on each sliding panel.
For 1-way traffic use C1631-3 (sent with unit)

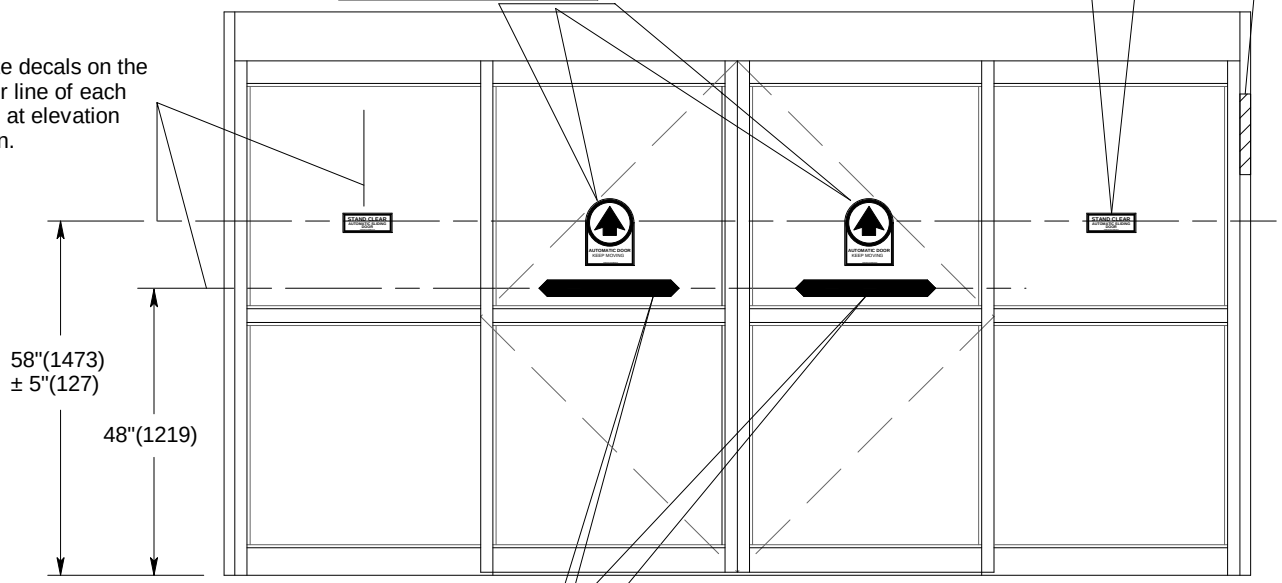
C1631-3
For 1-way traffic place the side shown toward control side of door.

C1690-1
Daily safety check. Place near on / off switch at eye level.

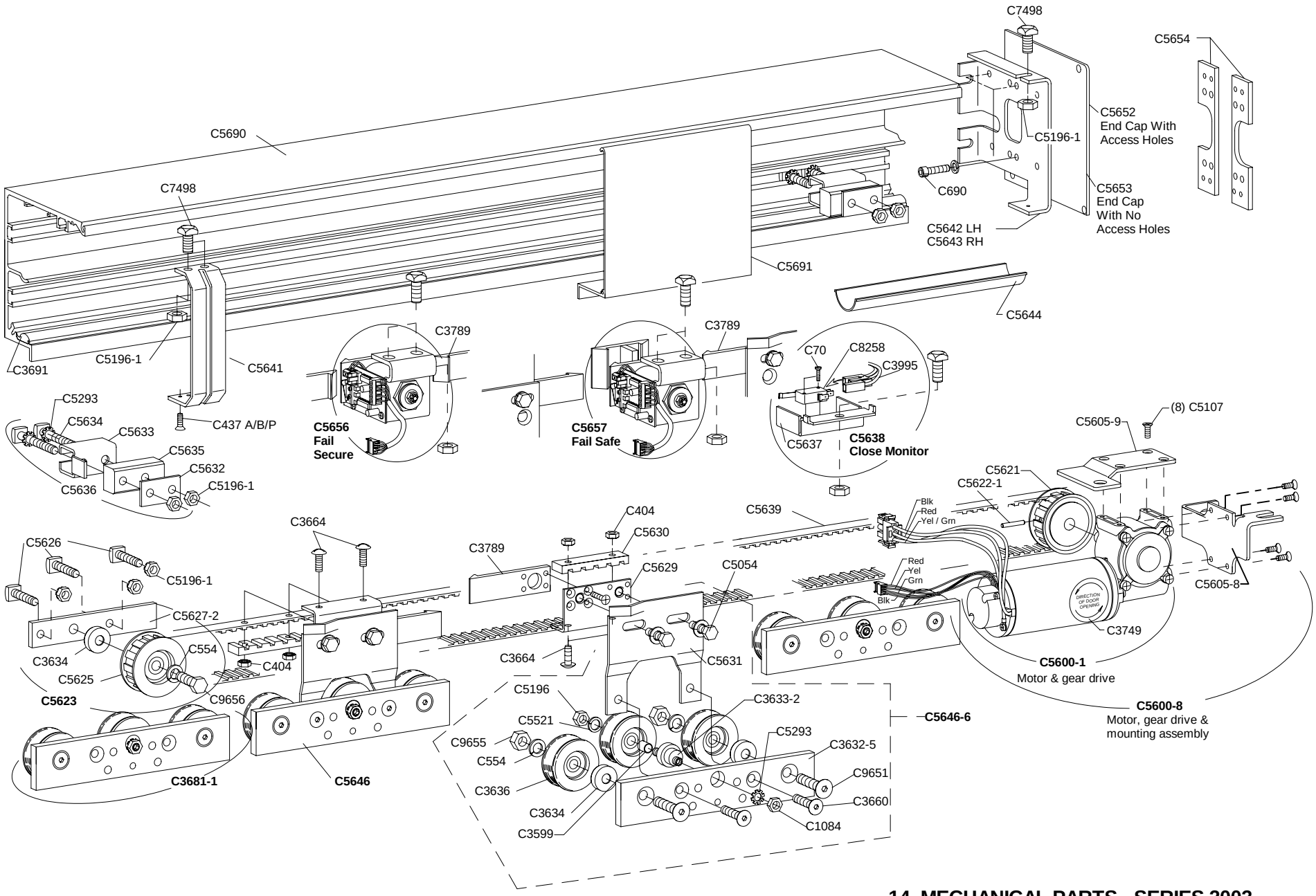
C1634
Place on sidelites. (sent with unit)



Locate decals on the center line of each panel at elevation shown.



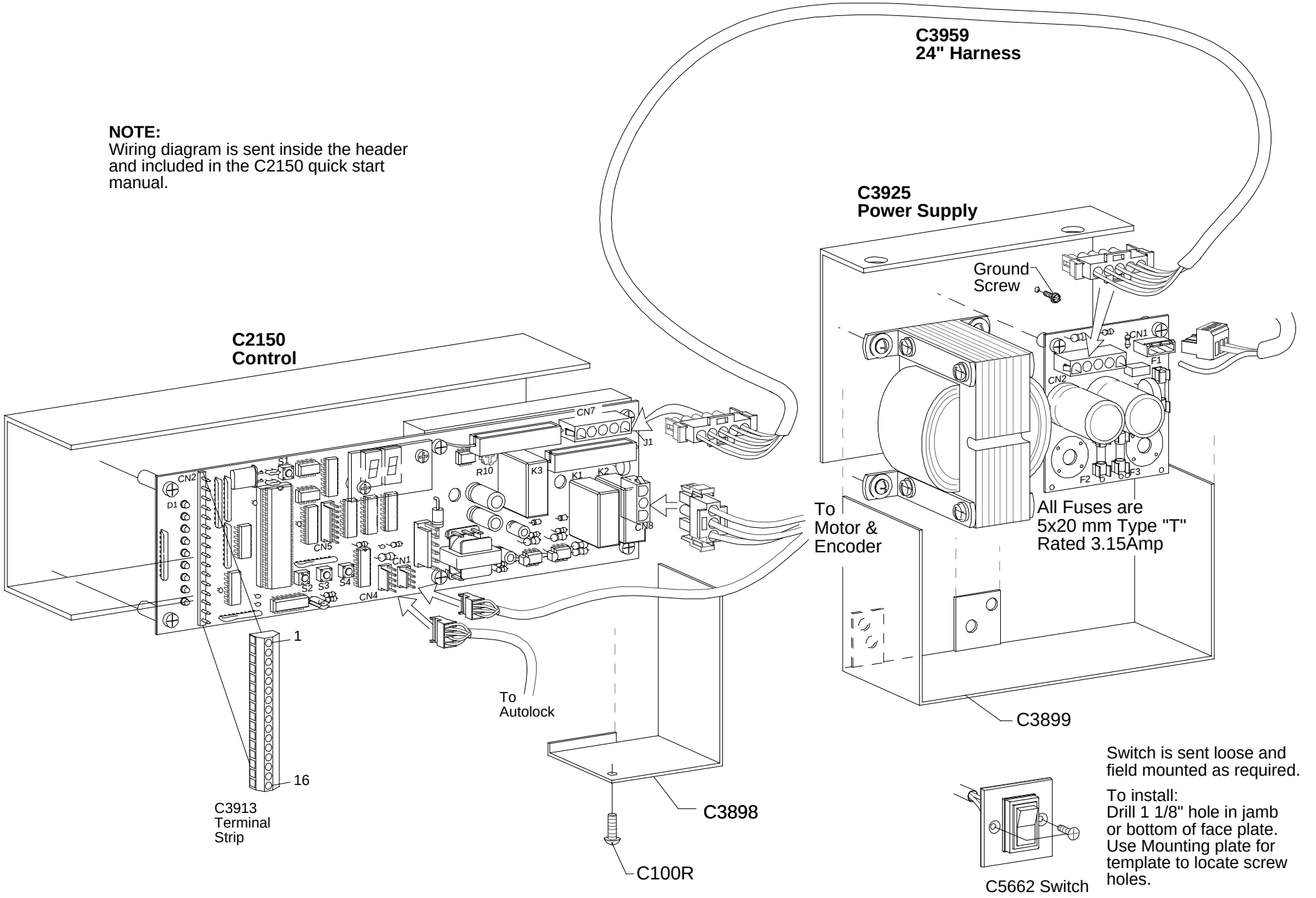
C1682
Place on exit side of breakout panels. (sent with unit)



G230.8

14. MECHANICAL PARTS - SERIES 2003

NOTE:
Wiring diagram is sent inside the header and included in the C2150 quick start manual.



G230.9

15. C2150 MICROPROCESSOR CONTROL

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