

SlideDriver™ II

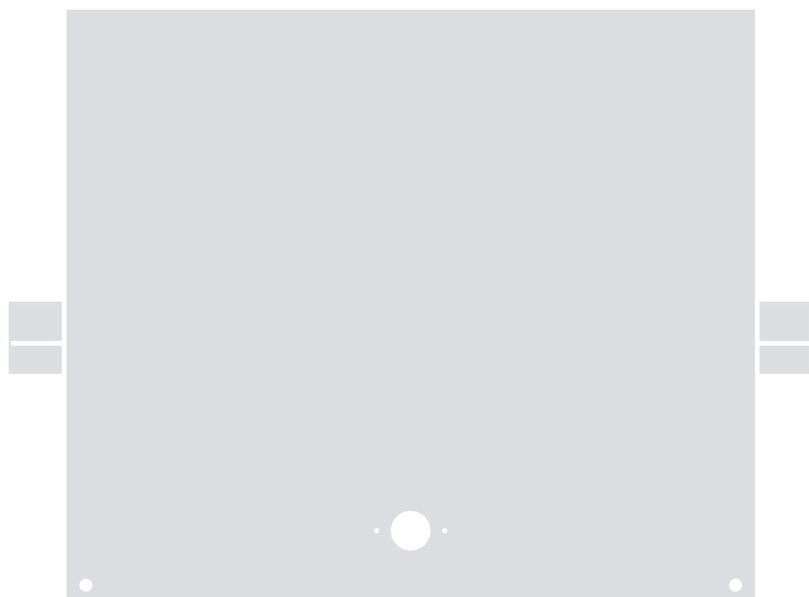
SlideDriver II 15

SlideDriver II 40

SlideDriver II 50F

SlideDriver II 80V

SlideDriver II 200V



Slide gate operator

EN - Quick start guide

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SlideDriver II All Models

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Ship with kit contents:

- Quick Start Guide
- User Guide
- DASMA brochure
- Roll pins
- Wire ties
- Warning signs
- Limit flags (varies by model)
- Photo eye
- Edge sensor (except 200V models)
- (200V only) Double sided tape
- (XtremeDrive only) Rack kit

For Installation manuals, replacement part instructions, part diagrams and more visit support.hysecurity.com.

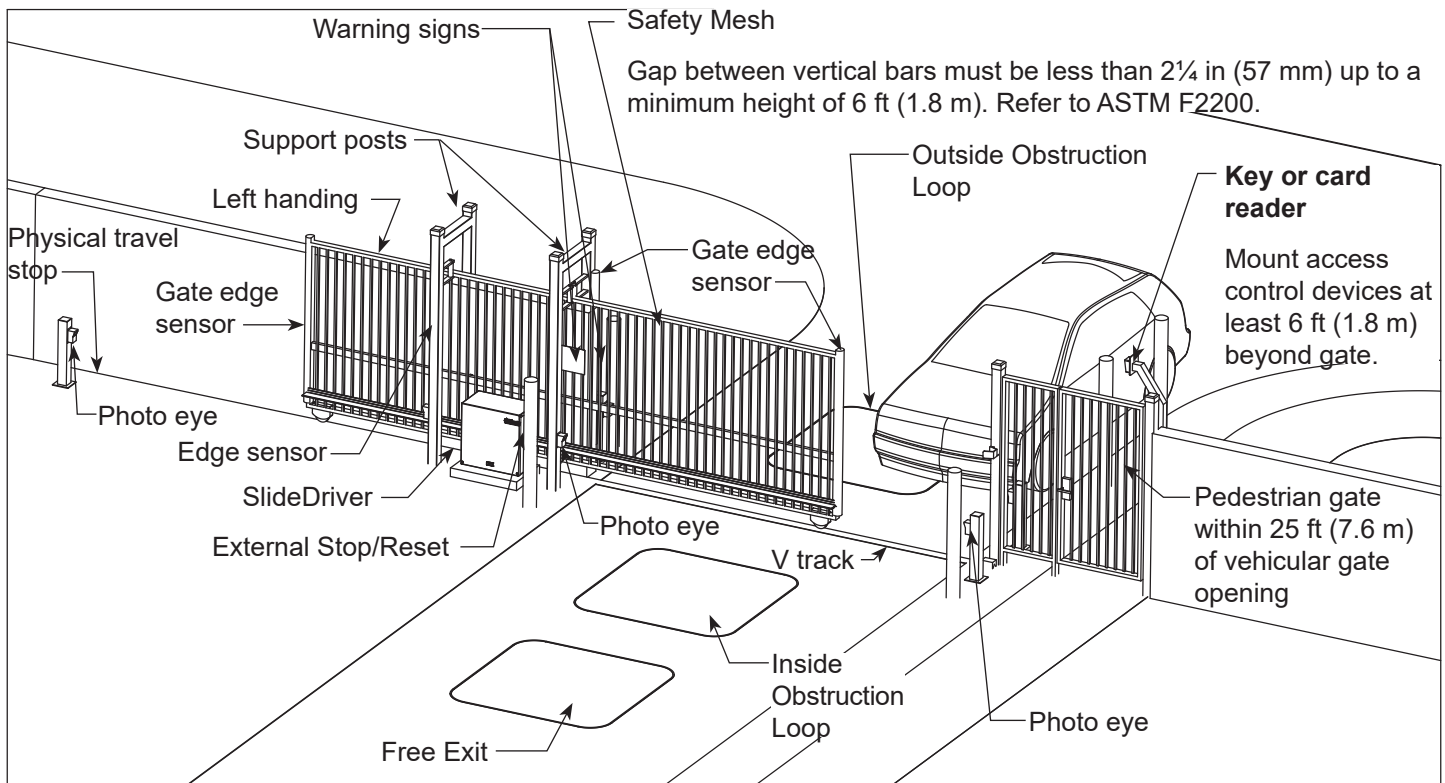
The Digital Installation Manual is available in digital form at the link above and physical copies from distributors. It includes additional information about SlideDriver II. For example, menu options, installation configurations, I/O expansion board, external entrapment sensors, loop detectors, and more.

PLAN SITE DESIGN

WARNING

Be sure the WARNING signs are visible from either side of the gate in clear view of approaching vehicles. For your records, take a photograph of the completed installation site.

Example site for reference only. Follow UL325, ASTM F2200, and all local codes during planning and installation of gates and gate operators.



PREPARE AN INSTALLATION SITE

Minimum conduit required	No.	Min. Size
AC Main power (incoming)	1	1 in (25 mm)
Low voltage accessory wires	1	$\frac{3}{4}$ in (20 mm)
Ground	1	$\frac{3}{4}$ in (20 mm)
Loop wires	1	$\frac{3}{4}$ in (20 mm)

Add'l conduit may be needed for:	No.	Min. Size
DC cables	1	2 in (50 mm)
Hydraulic hoses	1	2 in (50 mm)
Dual gate connection for low voltage wiring	1	1 in (25 mm)
Emergency release options	1	$\frac{3}{4}$ in (20 mm)



DANGER

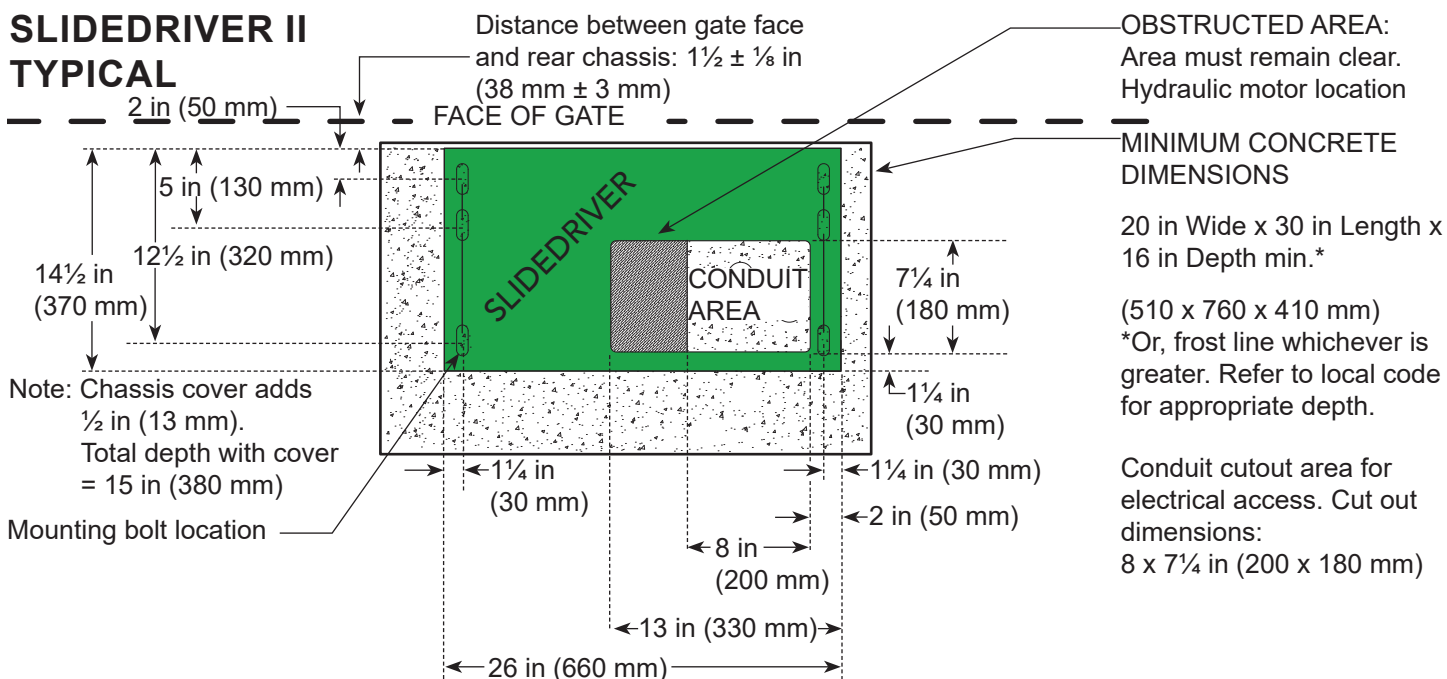
Know what's below! Many states subscribe to 811. Call the local utility number so underground utility lines can be marked before excavating.



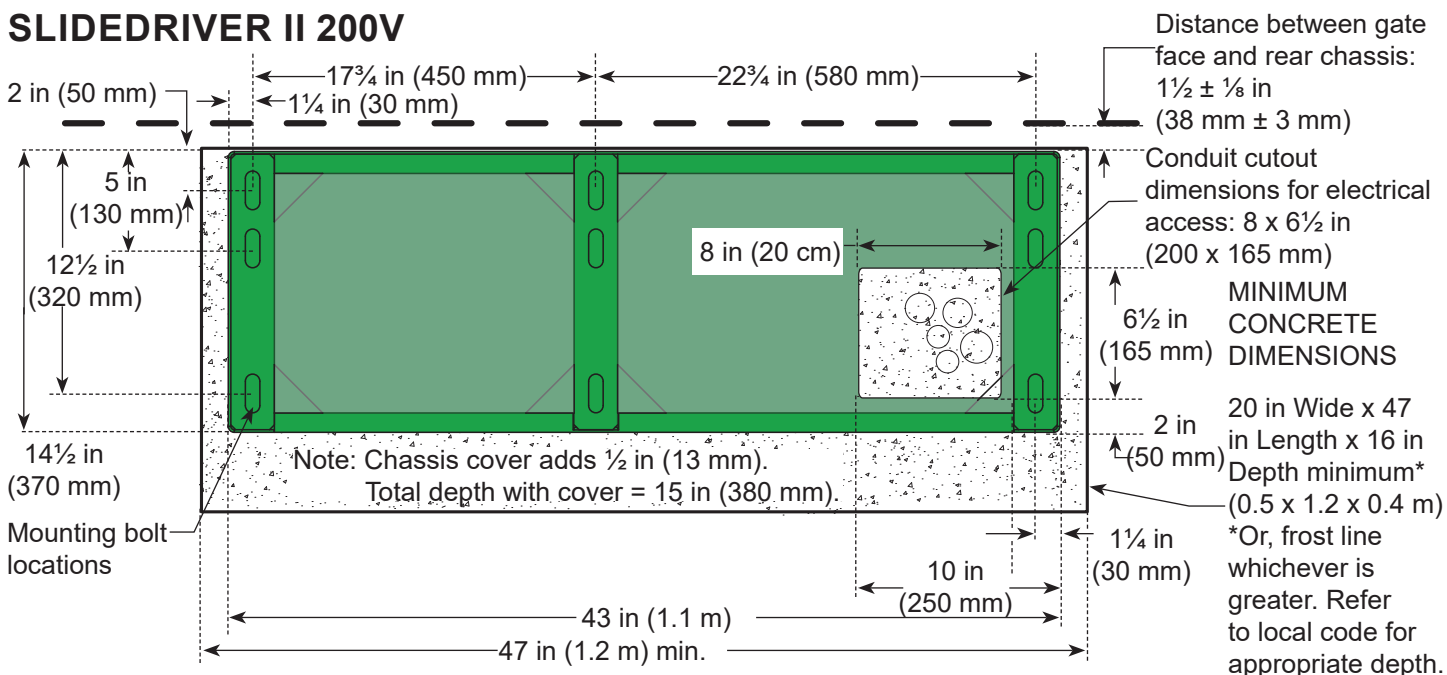
CAUTION

If you cut, drill or alter the chassis, you may void the Warranty.

SLIDEDRIVER II TYPICAL



SLIDEDRIVER II 200V



NOTE: Design shown for illustrative purposes only. Drawings are NOT TO SCALE.

PREPARE AN INSTALLATION SITE

CLEARANCES

SlideDriver:

Side Access: Min. 24 in (0.6 m)

Front Access: Allow 30 in (0.8 m)

Cabinet (Modular):

Front Access: Min. 36 in (0.9 m)

Rear Access: Allow 24 in (0.6 m)

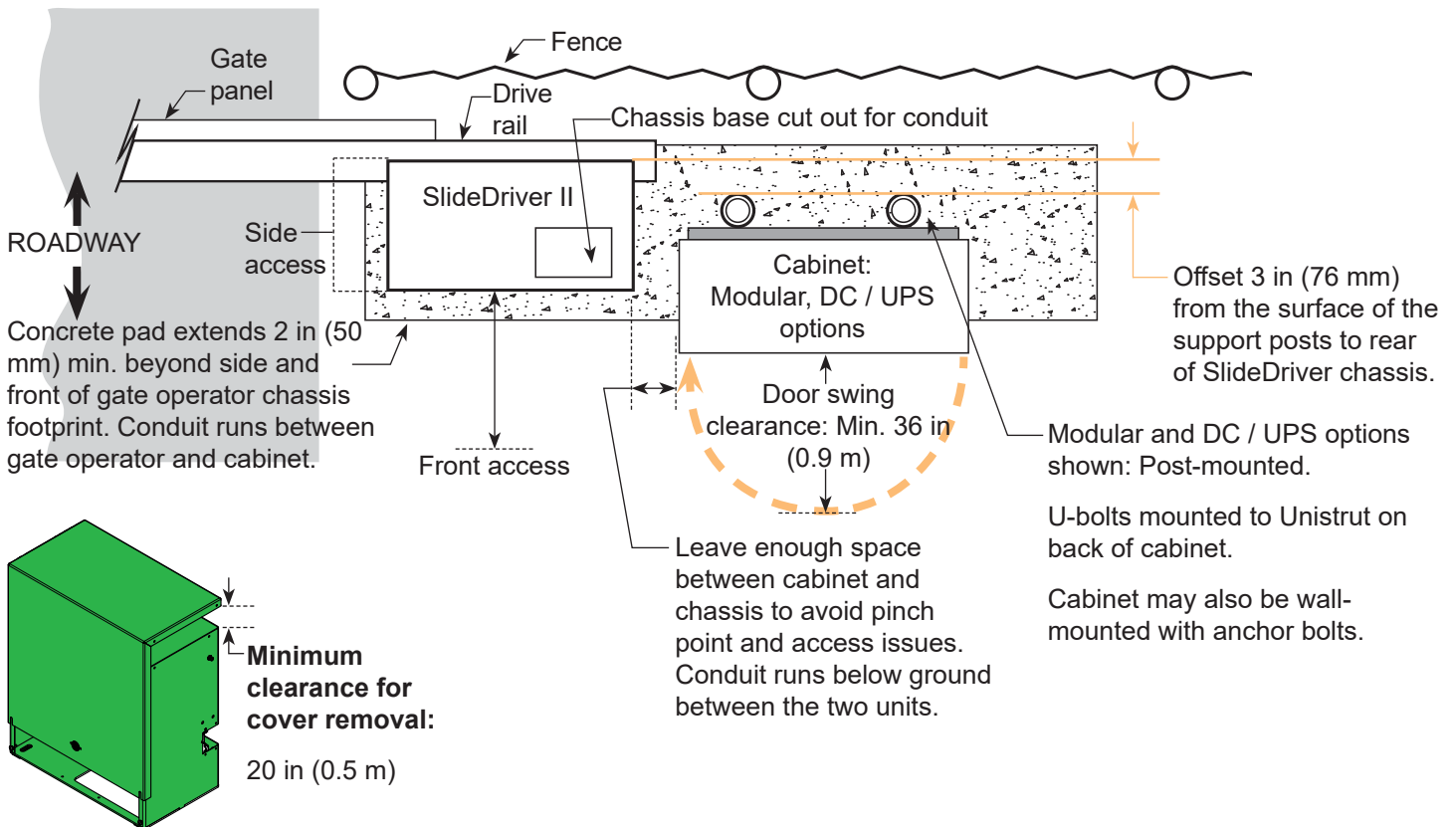
Cabinet (DC / UPS):

Door Swing: Min. 30 in (0.8 m)

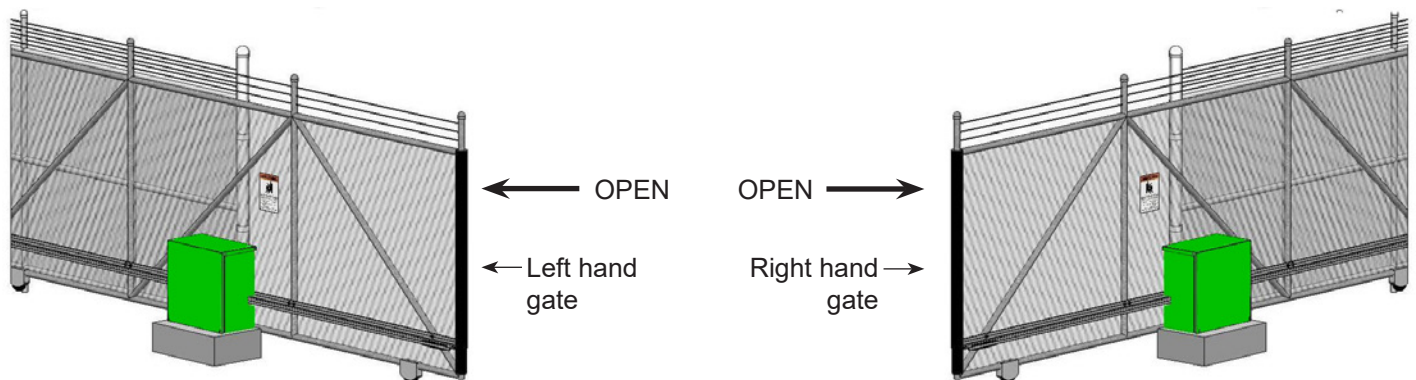
Rear Access: Allow 24 in (0.6 m)

NOTICE

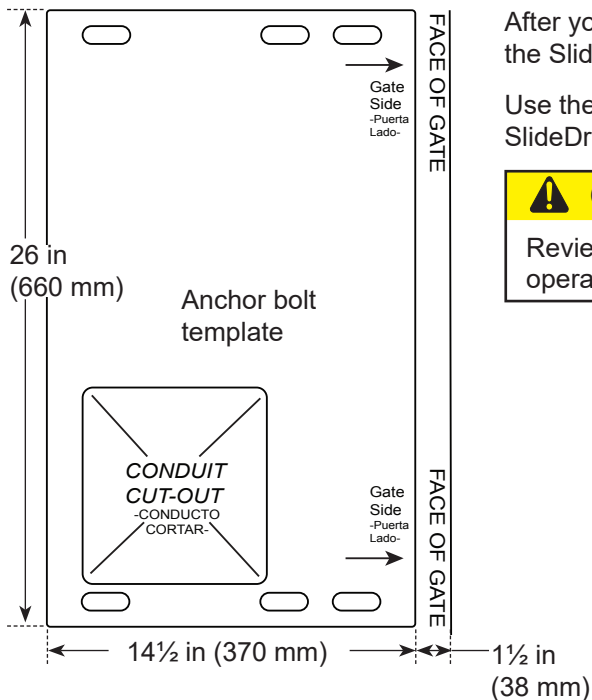
Instructions and illustrations are for a right hand gate. For a left hand gate, mirror the orientation right to left.



OPERATOR AND GATE HANDING



MARK THE ANCHOR BOLT LOCATIONS



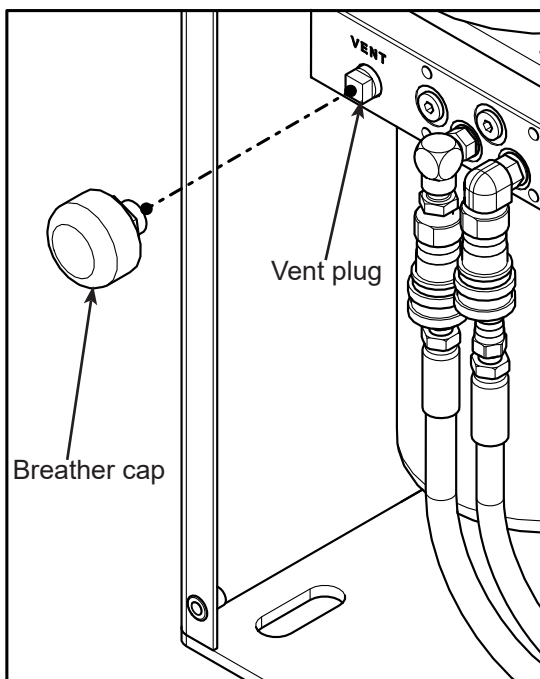
After you remove the operator, cut out the anchor bolt template on the side of the SlideDriver II box.

Use the template to mark the location of the anchor bolts that will secure the SlideDriver II to the concrete pad.

CAUTION

Review the dimensions on page 3. Proper alignment of the SlideDriver II operator and the drive rail is critical.

REPLACE THE VENT PLUG



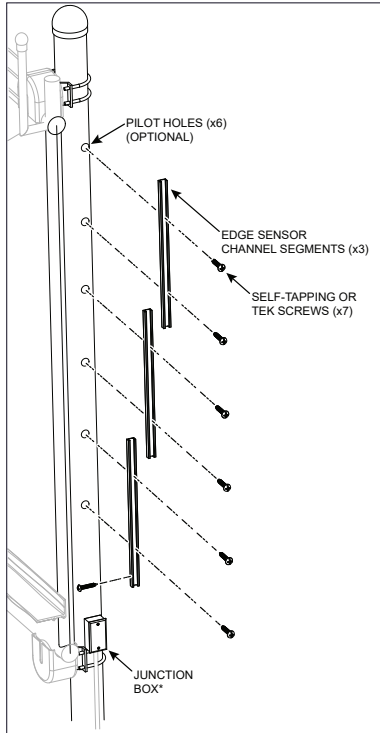
CAUTION

Replace the vent plug with the breather cap before operating the SlideDriver II. Air pressure vents through the cap instead of through the pump seal and prevents rust by allowing condensation to evaporate. If you do not replace the vent plug with the breather cap, you will void the Warranty.

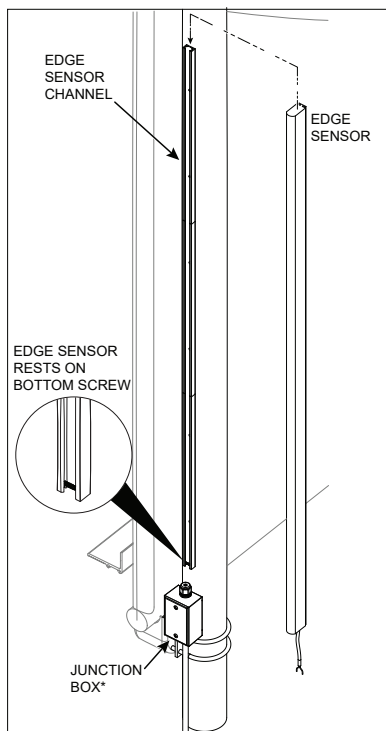
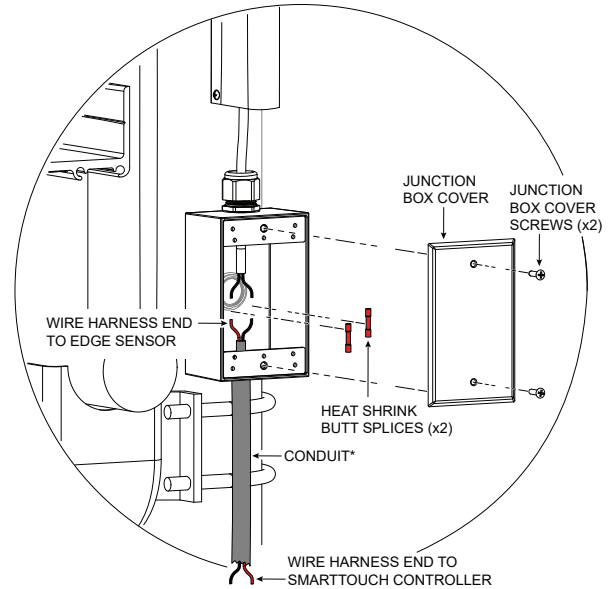
PREPARE AN INSTALLATION SITE

EDGE SENSOR INSTALLATION

1. Attach channel segments to gate draw-in post.
2. Install one screw in the bottom channel segment.
3. Slide edge sensor into channel segments.



4. Connect edge sensor wires to conduit wires. Use a junction box to protect the splice.
5. Connect edge sensor to SmartTouch 720/725 Controller. See Digital Installation Manual for additional info.



INSTALL THE CHASSIS

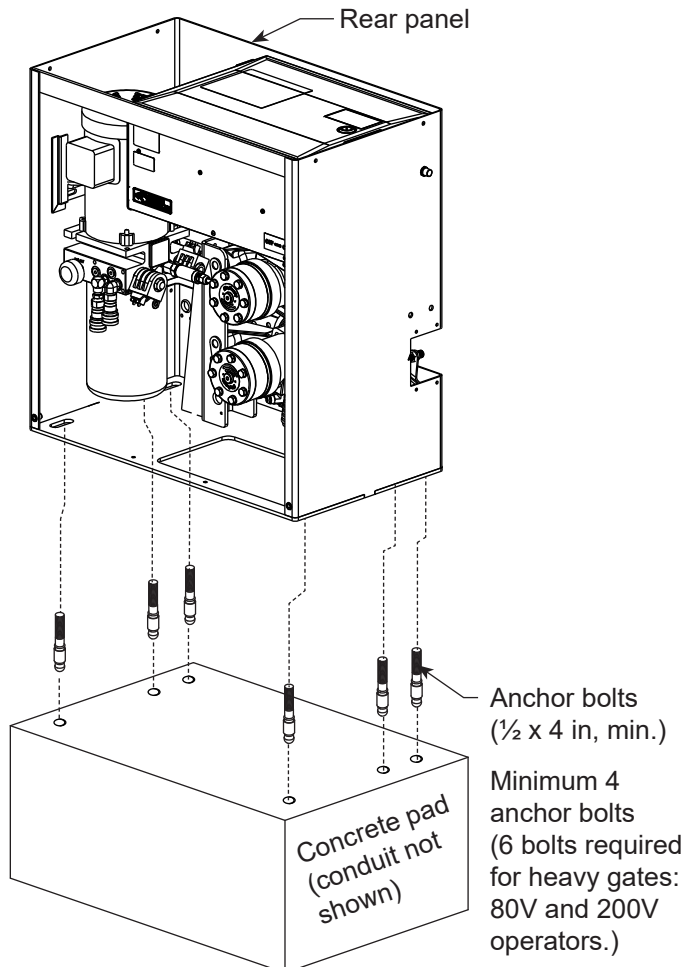
WARNING

Obtain help before lifting or moving the operator. SlideDriver II models can weigh over 260 lbs (118 kg). Failure to comply may result in serious injury to personnel, damage to the equipment, or both.

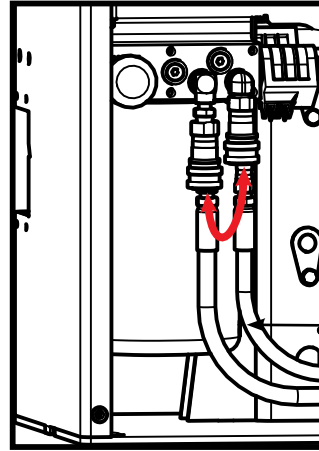
1. Align the operator. Locate rear panel 1½ in from the face of vertical uprights.
2. Install concrete anchors (½ x 4 in min.). 2 anchor bolts required per cross support. 3 anchor bolts required per cross support for heavy gates (80V and 200V).
3. Tighten the nuts, but leave room for adjustments.
4. Level the operator. Shim with a corrosion resistant material such as aluminum or plastic.

CAUTION

Do NOT fully tighten the anchor bolts until after the drive rail is installed.



HYDRAULIC HOSE SWAP

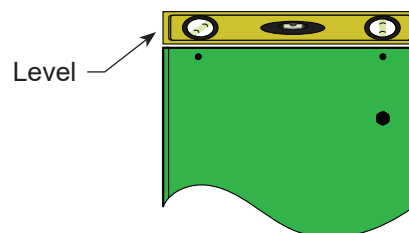


SlideDriver II is set to Right Hand configuration by default.

Swap hydraulic hoses for Left Hand configuration.

NOTICE

Do not operate SlideDriver II gate operators while the hoses are disconnected. Make sure that all hydraulic hoses are securely installed before operating the motor.



Side view

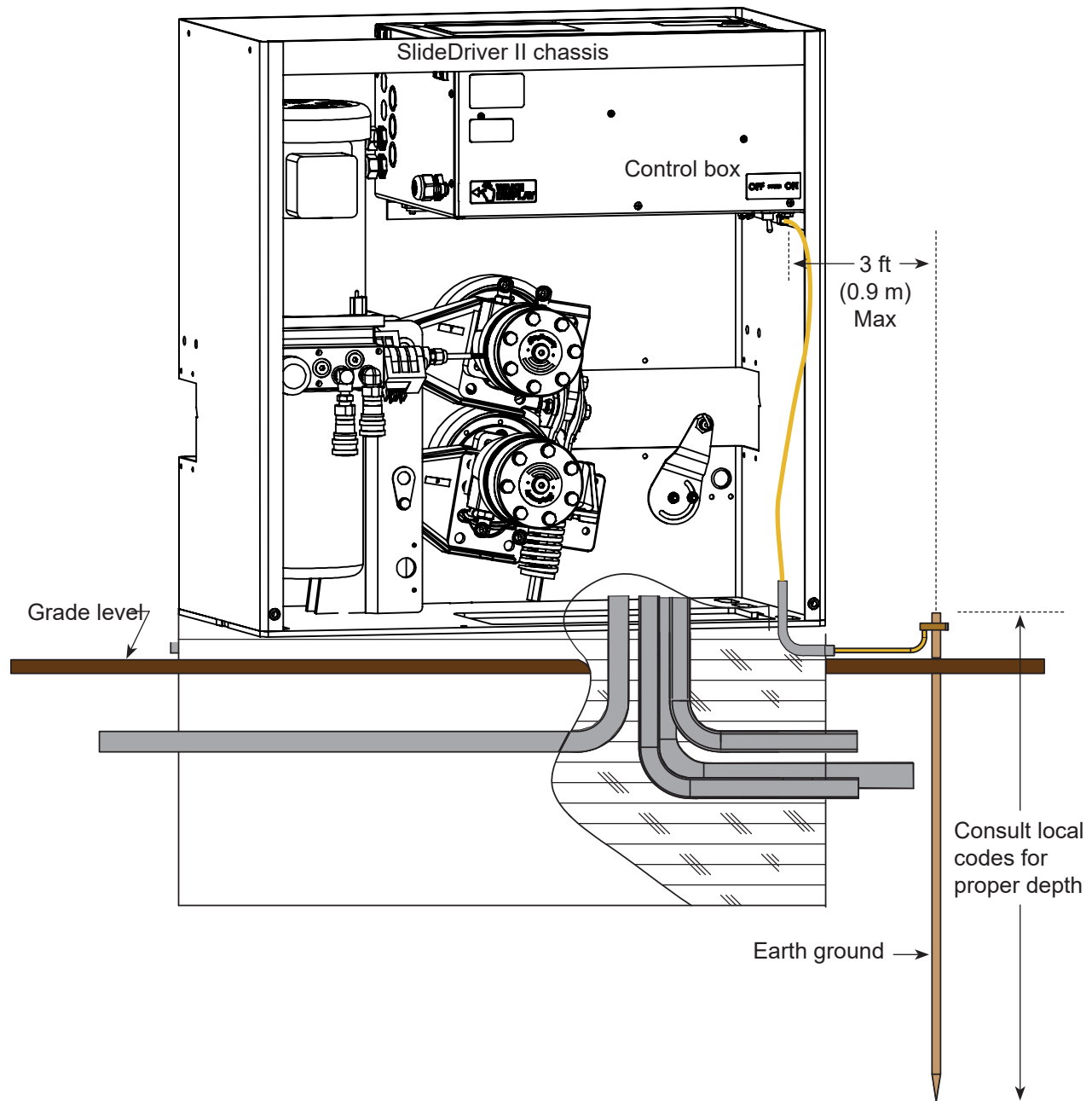
INSTALL THE OPERATOR

INSTALL THE EARTH GROUND

DANGER

The potential for lightning discharge exists with all gates, fences, and gate operators. National Electric Code (NEC) - Article 250 requires a separate earth ground in addition to the required equipment ground. Ga. 6 minimum.

The gate operator must be grounded per NEC, NFPA 780 and local building standards and codes.



⚠ DANGER

Turn off AC power at the source (circuit breaker panel) before accessing the wires in the gate operator. Follow facility Lock Out/Tag Out procedures. Make sure all power switches are in the OFF position. Follow all electrical code standards and regulations.

⚠ WARNING

Each gate operator is built to run on a specific line power voltage and phase. Failure to ensure that the source voltage, phase, and frequency match as specified on the equipment may result in severe damage to the equipment.

⚠ CAUTION

Wiring of gate operators must conform to NFPA and NEC standards and comply with all local codes. When the installation is compliant and complete, turn on AC power at the source and at the control box. For Variable Frequency operators, make sure the connection wires match the voltage found on the operator's nameplate.

POWER CONNECTIONS

Size the primary wires, appropriately. Consider the voltage, horsepower, and length of the wire run from the main power panel. The electrical wiring must be properly routed through conduit that enters the gate operator through its base cutout and feeds through one of the knockouts in the control box.

Verify the site input voltage and phase match what is marked on the operator.

- 1. Connect to Power:** Pigtails are provided for connection of input power.

Note: Make sure a 20A circuit (minimum) protected with a 20A Inverse Time Breaker is provided for all AC power connections.

Note: 50F and 80V 1Ø operators require 30A breaker as well as 200V 3Ø operators. All other AC operators require 20A breakers.

TURNING THE POWER SWITCH ON

The AC power disconnect switch (power switch) is located on the bottom right of the electrical enclosure.

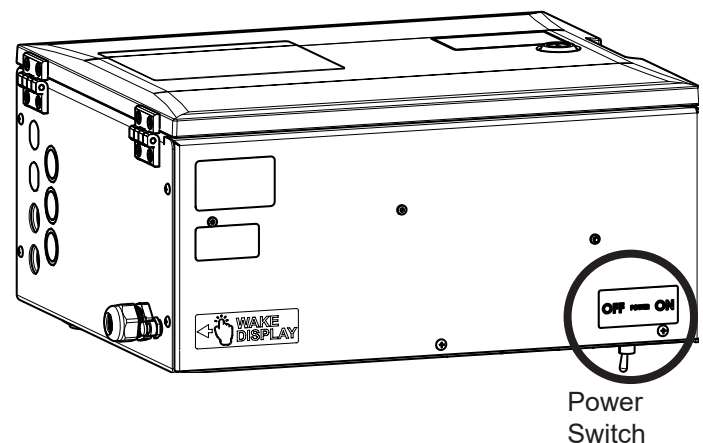


Figure 1. Power Switch

ASSEMBLE, ALIGN, AND INSTALL DRIVE RAIL

NOTICE

SlideDriver II is designed for use with HySecurity drive rail. Failure to use HySecurity drive rail could decrease performance, reduce durability, and may void the warranty.

Connect Sections of the Drive Rail

1. Use roll pins to join the sections of the drive rail. To prevent the pins from moving during assembly, crimp the pin channels with pliers (Figure 2).

Secure the Toggle Handle

2. Disengage the drive wheels by firmly grasping and pulling on the toggle handle (Figure 3).

⚠ WARNING

Be careful where you place your hands and fingers when you disengage the drive wheels. The compression spring at the base of the clamp causes the handle to drop suddenly which can cause serious injury.

3. Secure the toggle handle clamp in the open position so the upper wheel does not fall closed when you insert the drive rail through the chassis.

⚠ CAUTION

When drive rail is installed, the drive rail must be aligned and the operator chassis secure before clamping the drive wheels and adjusting the compression spring.

⚠ CAUTION

When sliding the drive rail through the cut out in the chassis, DO NOT damage the limit sensor. Damage to the limit sensor during installation is not covered by the Warranty.

Clamp Drive Rail to Gate

4. Identify the gate structure nearest the operator and temporarily clamp the drive rail onto the gate.

Set Drive Rail Depth with a Laser

5. For reference, run a string line or laser along the entire length of the drive rail. Compare the edge of the drive rail with the string line or laser. Place shims between the upright support structure and drive rail to keep the drive rail straight (Figure 4).

Set Drive Rail Height with the Notches in the Chassis

6. Align the top of the drive rail with the notch on each side of the operator's chassis. If necessary, loosen the clamps and move the drive rail up or down along the length of the gate (Figure 6). Manually move the gate and repeat this step at each gate upright.

NOTICE

The drive rail must not sag in the center or it will rub against dual limit sensors.

Secure Drive Rail

7. Drill holes through the vertical drive rail flange and install U bolts along the upright support structure, as needed. HySecurity recommends that you attach a minimum of 3 supports per length of drive rail. Keep drive rail spans straight and level. Distance between attachment points should be less than 10 ft (3 m).

8. Remove the temporary clamps.

9. When the drive rail is fully secure, manually open and close the gate.

10. Check and adjust the height of the drive rail, as necessary.

Note: Over its entire length, the drive rail must be level and aligned with the label on the chassis to within + ¼ in (6 mm).

11. Install additional U bolts, as necessary.

Note: Move the operator as necessary to make sure the drive wheels will be centered on the drive track when placed under load.

12. With the drive rail secure, tighten the chassis anchor bolts.



ASSEMBLE, ALIGN, AND INSTALL DRIVE RAIL

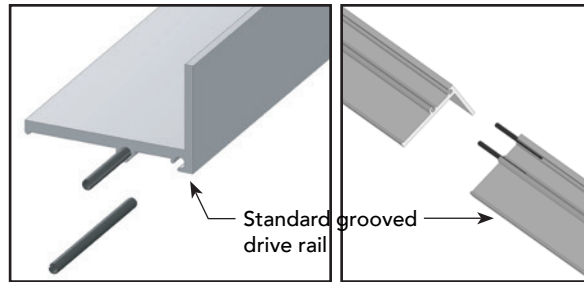
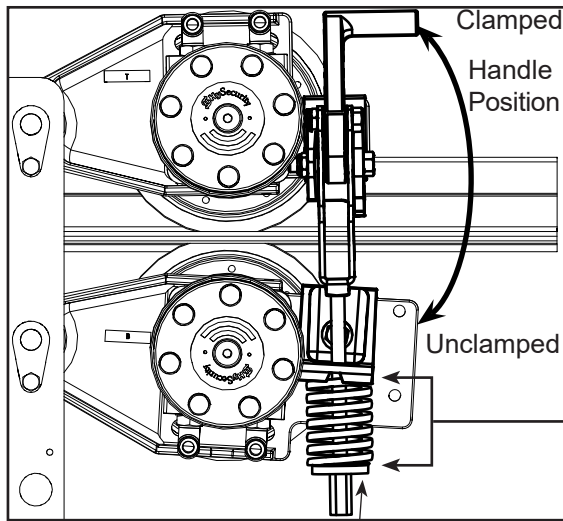


Figure 2. Assemble Drive Rail



Compression spring controls drive wheel gripping force

When clamped on the drive rail, the red spring should be compressed to a height of 2 in (50 mm). Adjust the nut at the base of the spring to set the proper tension.

Use wire to secure the toggle handle so the clamp remains open and the drive wheel does not fall closed.

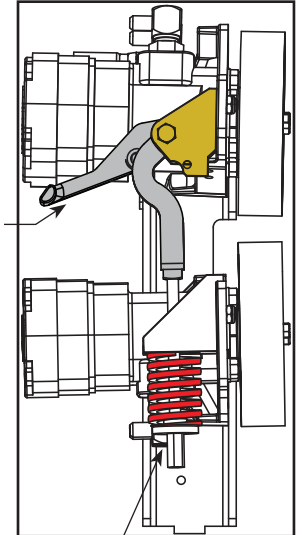


Figure 3. Secure Toggle Handle in Unclamped Position

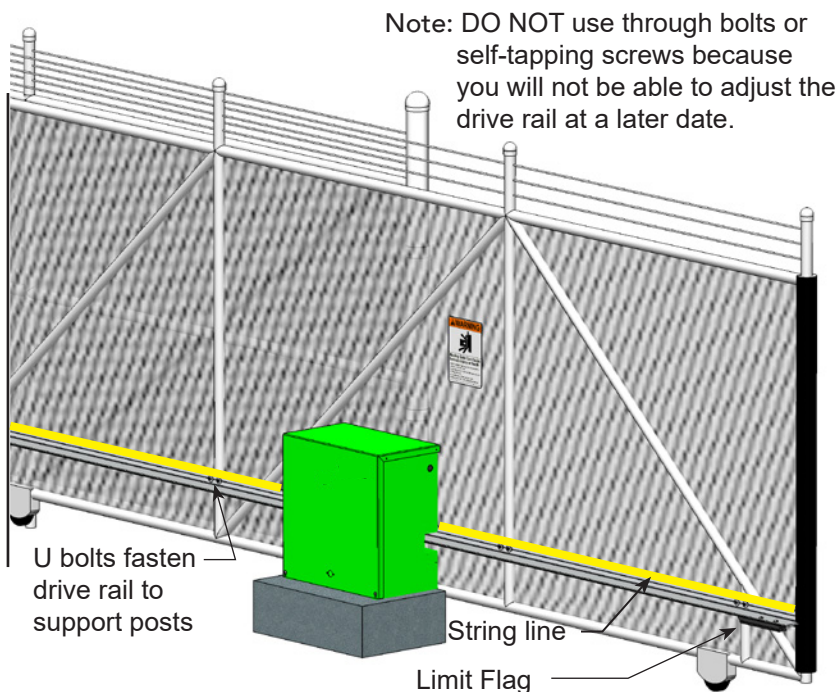


Figure 4. Set Drive Rail Depth

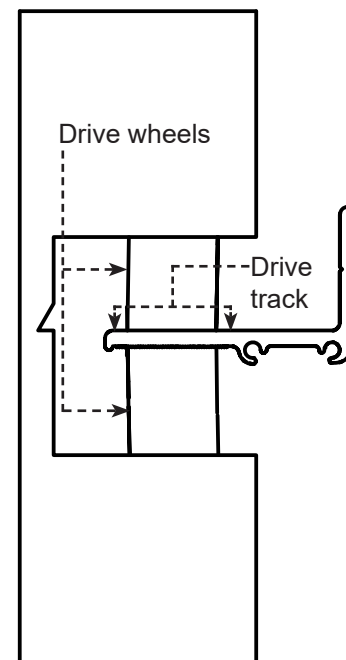


Figure 5. Center Drive Wheels

Drawings NOT to Scale

ASSEMBLE, ALIGN, AND INSTALL DRIVE RAIL

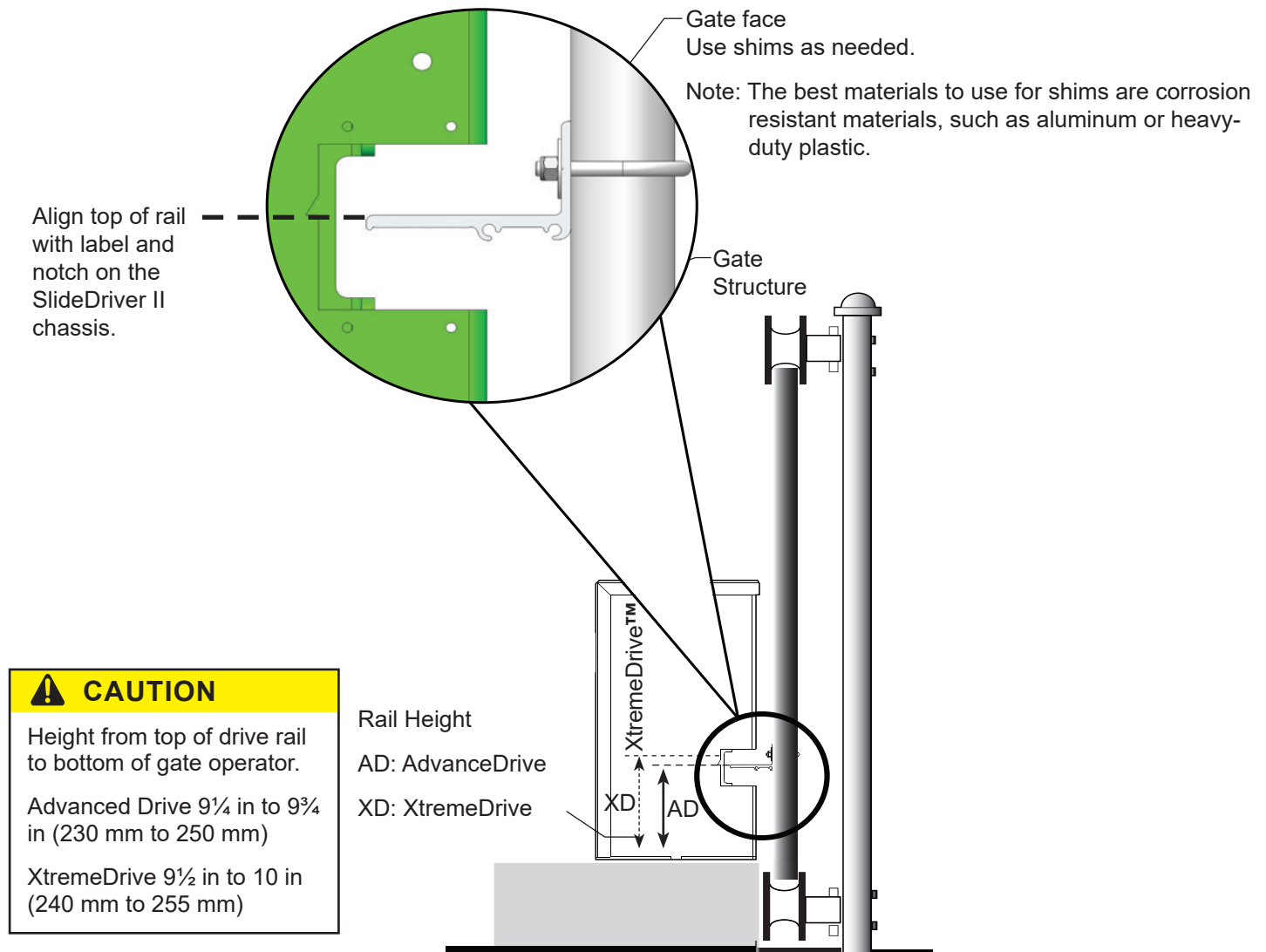


Figure 6. Set Drive Rail Depth and Height

CAUTION

Make sure power is disconnected and power switch is set to OFF while installing the limit flags and limit sensor.

Table 1. Limit Tools

$1\frac{1}{32}$ in drill bit
Two $1\frac{1}{16}$ in wrenches
Large Philips head screwdriver
$1\frac{1}{32}$ in socket
$\frac{1}{4}$ in socket

Table 2. SD15, 40, 80V, 200V Limit Kit

Part	Qty
12 in (305 mm) stop limit flag	2
Square nut $\frac{5}{16}$ -24	4
Pan head screw $\frac{5}{16}$ -24	4

Table 3. SD50F Limit Kit

Part	Qty
24 in (610 mm) slow down limit flag	2
Square nut $\frac{5}{16}$ -24	8
Pan head screw $\frac{5}{16}$ -24	8

NOTICE

Limit Flag Handling (All SlideDriver II Models)

When facing the operator from the secure side of the gate, the black limit flag goes on the left side of the rail and the gray limit flag goes on the right side.

Install Limit Flags

1. Move gate at least 2 in (50 mm) away from one end of travel (open or closed).
2. Set the height of the dual limit sensor $\frac{7}{8}$ in (22 mm) above the bottom of the rail opening (Figure 7).
3. Mark location of the center of the dual limit sensor on the drive rail (Figure 8).
4. Move gate further away from the end of travel by hand so the chassis does not interfere with limit flag installation.
5. Drill one hole 3 in (76 mm) from mark away from the operator and approximately 3 in (76 mm) from the edge of the drive rail (Figure 9 and Figure 11).
6. (SDII 50F) Drill another hole 9 in (230 mm) from mark toward operator and the same distance from the edge of the drive rail as the first hole.
7. Install a screw into each hole, thread a square nut onto each screw, and slide the limit flag onto the square nut (Figure 10).
8. Make sure the dual limit sensor is vertically centered on the limit flag face.
9. Set dual limit sensor spacing: loosen the two nuts ($1\frac{1}{16}$ in) on the dual limit sensor, adjust the spacing between the dual limit sensor and stop limit flag face to $\frac{1}{4}$ to $\frac{3}{4}$ in (6 to 19 mm), and tighten the nuts to hold this spacing (Figure 11).
10. When power is connected, cycle gate to test limit.
11. Adjust limit flag position until the gate stops at the right place.
12. Tighten the limit flag screw.
13. Install more screws spaced approximately 6 in (152 mm) along the limit flag. 2 screws for a 12 in limit flag or 4 screws for a 24 in limit flag (Figure 12).
14. Repeat steps 1 through 13 for the opposite end of travel.

INSTALL AND SECURE LIMITS

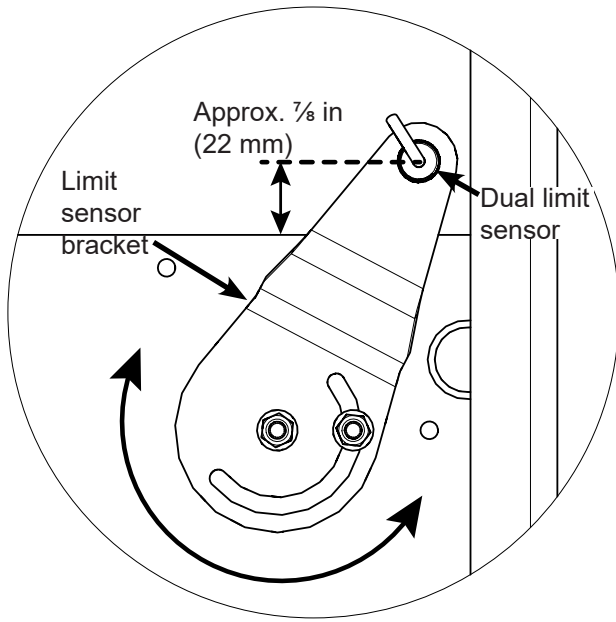


Figure 7. Set Dual Limit Sensor Height

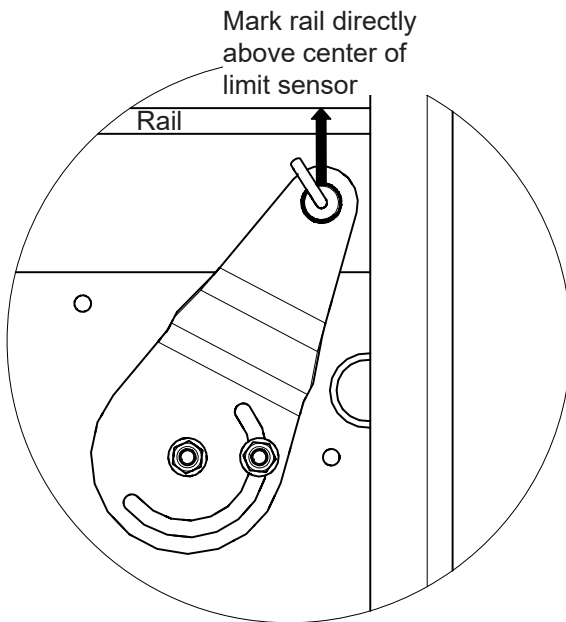


Figure 8. Mark Dual Limit Sensor Location on Drive Rail

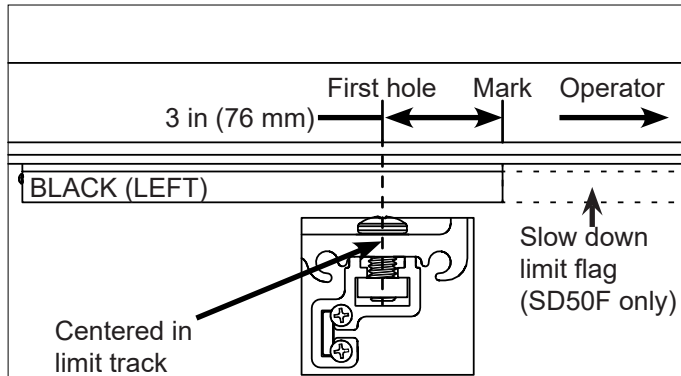


Figure 9. Drill First Limit Flag Hole (Left Limit)

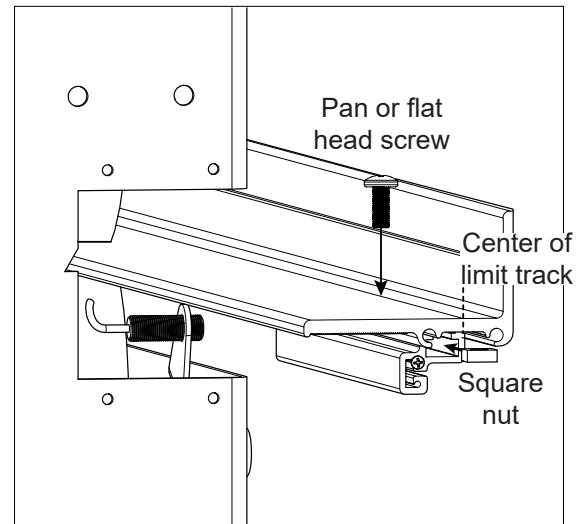


Figure 10. Install Limit Flag

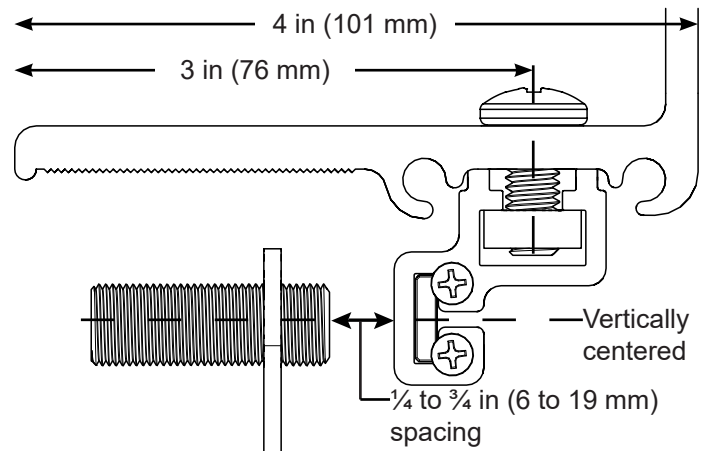


Figure 11. Set Dual Limit Sensor Spacing

Note: For SlideDriver II operators, the limit flags are installed in the limit track and should not cross the path of the drive wheels in the drive track.

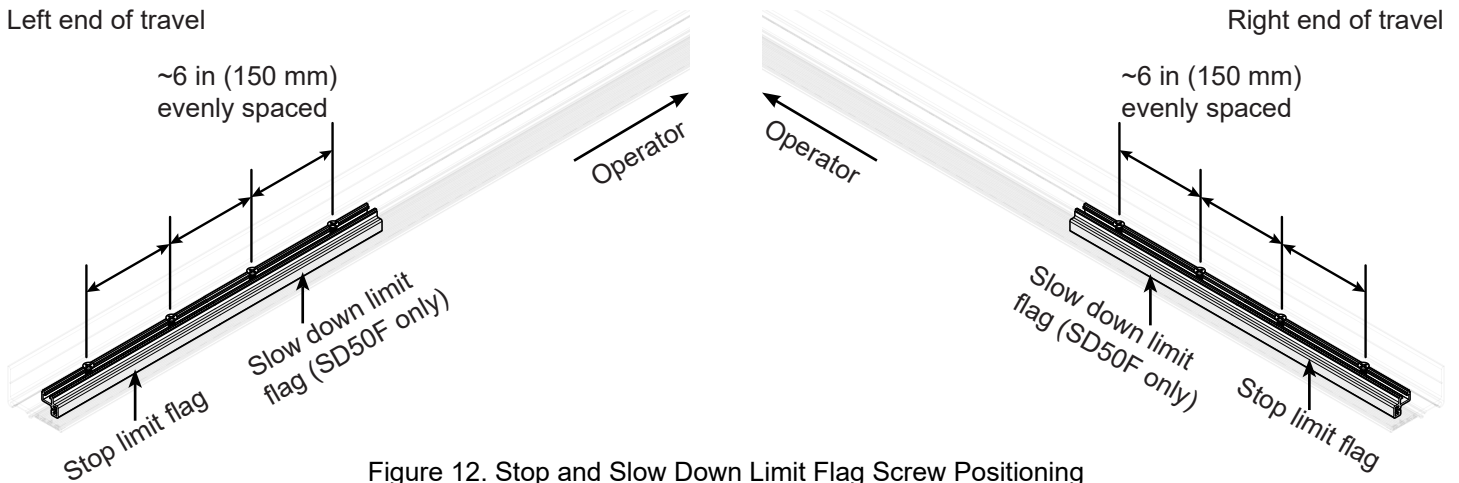


Figure 12. Stop and Slow Down Limit Flag Screw Positioning

CLAMP DRIVE WHEELS

All SlideDriver II models

Refer to page 10 for WARNING. Place toggle handle in clamped (load) position.

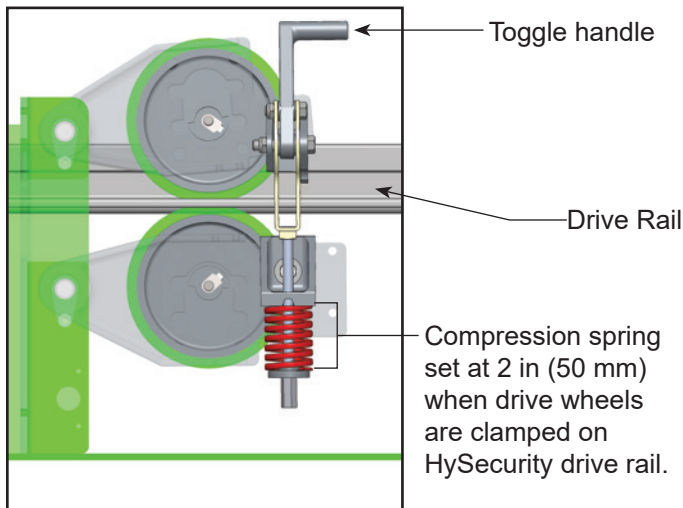


Figure 13. Toggle Handle Assembly

CHECK LIMIT FLAG HANDING

Once power is connected (see page 9) and initial programming completed, check the limit flag handing matches the Open and Close Limit on the SmartTouch 720/725 Controller.

1. Make sure operator power is set to OFF.
2. Unclamp toggle handle and secure it in the open position.
3. Set operator power to ON.
4. Move gate to the open or close limit.
5. Check that the appropriate limit activates according to the SmartTouch 720/725 Controller.
6. Move gate to the other limit and confirm that the opposite limit activates on the SmartTouch 720/725 Controller.
7. Set operator power to OFF, move gate to open position, and clamp the toggle handle.
8. Set operator power to ON.

Note: For SlideDriver II models with brake valves, make sure that the brake valves are adjusted properly to ensure that the gate stops smoothly at the limits. See SlideDriver II Digital Installation Manual for additional information.

CONNECT TO THE SMART INSTALLER APP

Note: The SmartTouch 720/725 Controller initial setup must be completed before you can connect to the Smart Installer App.

Set Bluetooth jumper/switch:

1. Set the power switch to OFF.
2. Remove the rubber plug or OXI receiver from OXI receiver slot (Figure 14).
3. Move the jumper or switch to the ON position. (Left two pins on three pin version or to the left on slide switch, Figure 15)
4. Place the rubber plug in the OXI receiver slot.

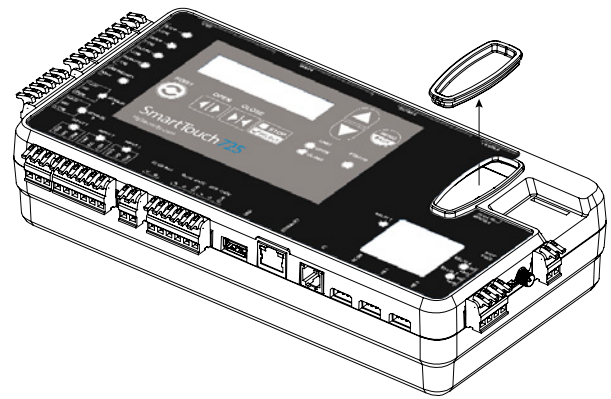


Figure 14. Remove OXI Receiver Cover

Enable Bluetooth in the menus:

5. Set the power switch to ON.
6. Press MENU on the SmartTouch 720/725 Controller.
7. Press the UP or DOWN arrow to navigate to EXTERNAL COMMUNICATIONS and press SELECT.
8. Press the UP or DOWN arrow to navigate to BLE OPTIONS MENU and press SELECT.
9. Press the UP or DOWN arrow to select 1 (ON) and press SELECT.
10. Press the UP or DOWN arrow to show HYSECURITY GATE PIN and GATE NAME. Record the PIN and GATE NAME.

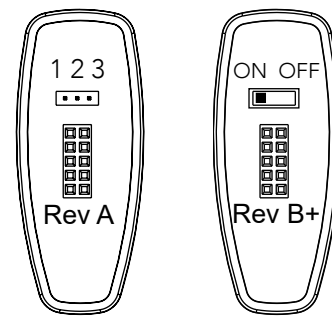


Figure 15. Bluetooth Switch



Figure 16. Bluetooth Enabled Display

Connect the app and controller:

11. Open the Smart Installer App. Always keep the app up-to-date.
12. Tap Connect.
13. Tap the name of the appropriate operator.
14. Enter the PIN from step 10.
15. Connect button changes color to green to indicate good connection.



Figure 17. Smart Installer App Connect and Disconnect

OPERATOR CONFIGURATIONS

SlideDriver II 15, 40 (OT 1)

OPERATOR CONFIGURATIONS	
USAGE CLASS	0 (GATE DISABLED) [†] 1 (RESIDENTIAL) 2 (PUBLIC) 3 (INDUSTRIAL) 4 (HIGH-SECURITY)
CLOSE TIMER	0 (OFF) [†] 1 - 99 (SECONDS)
GATE HANDING	0 (NOT ASSIGNED) [†] 1 (RIGHT) 2 (LEFT)
AC/DC GATE	0 (DISABLED) [†] 1 (AC POWERED) 2 (DC HYCHARGER) 3 (AC HYINVERTER)
AC LOSS	0 (UPS FAIL OPEN) [†] 1 (UPS FAIL CLOSE) 2 (AUTO OPEN) 3 (NO CLOSE TIMER)
OPEN TIME ALERT	0 (0 SECS) 1 (15 SECS) 2 (45 SECS) [†] 3 (75 SECS) 4 (105 SECS) 5 (135 SECS)
LOITERING ALERT	0 (0 SECS) 1 (15 SECS) 2 (45 SECS) 3 (75 SECS) [†] 4 (105 SECS) 5 (135 SECS)
FACTORY DEFAULTS	0 (CUSTOM) [†] 1 (RESET TO)
OPERATOR TYPE 1 [†]	1-17 (OPERATOR TYPE)
MENU PIN	0 0 0 0

SlideDriver II 50F, 80V, 200V (OT 7)

OPERATOR CONFIGURATIONS	
USAGE CLASS	0 (GATE DISABLED) [†] 3 (INDUSTRIAL) 4 (HIGH-SECURITY)
CLOSE TIMER	0 (OFF) [†] 1 - 99 (SECONDS)
GATE HANDING	0 (NOT ASSIGNED) [†] 1 (RIGHT) 2 (LEFT)
MODEL NUMBER	0 (DISABLED) [†] 1 (50F) 2 (80V) 3 (200V)
AC/DC GATE	0 (DISABLED) [†] 1 (AC POWERED) 2 (DC HYCHARGER) 3 (AC HYINVERTER)
AC LOSS	0 (UPS FAIL OPEN) [†] 1 (UPS FAIL CLOSE) 2 (AUTO OPEN) 3 (NO CLOSE TIMER)
OPEN TIME ALERT	0 (0 SECS) 1 (15 SECS) 2 (45 SECS) [†] 3 (75 SECS) 4 (105 SECS) 5 (135 SECS)
LOITERING ALERT	0 (0 SECS) 1 (15 SECS) 2 (45 SECS) 3 (75 SECS) [†] 4 (105 SECS) 5 (135 SECS)
FACTORY DEFAULTS	0 (CUSTOM) [†] 1 (RESET TO)
OPERATOR TYPE 7 [†]	1-17 (OPERATOR TYPE)
MENU PIN	0 0 0 0

[†] = Indicates default

OPERATOR CONFIGURATIONS

Table 4. SmartTouch 720/725 Operator Configurations Settings

MENU DISPLAY	SETTINGS	DESCRIPTION
USAGE CLASS	0 = Gate disabled [†] 1 = Residential 1 to 4 units 2 = Comm./public access 3 = Light industrial 4 = Industrial secure	Assign the operator's Usage Class designation per UL 325 standards. The installer must designate a usage class before the operator will function. VFD controlled models are only rated for Usage Class 3 and 4 installations.
CLOSE TIMER	0 = Off [†] 1-99 (seconds)	Number of seconds before open gate initiates closure after all inputs are clear.
GATE HANDING	0 = NOT ASSIGNED [†] 1 = RIGHT 2 = LEFT	Designates which way a gate opens viewed from operator. If it opens to the left, it is a left-hand gate.
MODEL NUMBER (OT7 ONLY)	0 = DISABLED [†] 1 = 50F 2 = 80V 3 = 200V	Assign the operator's Model Number. Preset at factory based on what operator was ordered.
AC/DC GATE	0 = DISABLED [†] 1 = AC POWERED 2 = DC HYCHARGER 3 = AC HYINVERTER	Assign the operator's power type. Preset at factory based on what operator was ordered.
AC LOSS	0 = UPS FAIL OPEN [†] 1 = UPS FAIL CLOSE 2 = AUTO OPEN 3 = NO CLOSE TIMER	Action operator performs during an AC power loss (only appears when AC/DC GATE is set to 2 or 3).
OPEN TIME ALERT	0 = 0 (seconds) 1 = 15 2 = 45 [†] 3 = 75 4 = 105 5 = 135	Activates relay (function 8) when gate is open longer than selected time period.
LOITERING ALERT	0 = 0 (seconds) 1 = 15 2 = 45 3 = 75 [†] 4 = 105 5 = 135	Activates relay (function 13) when vehicle is over Outside Obstruction Loop with gate closed longer than selected time period.
LEARN LIMIT	0 = OFF [†] 1 = ON	(SLIDESMART ONLY) Set to 1 to place operator in learn limits mode. Installer must then set open and close limits.
FACTORY DEFAULTS	0 = CUSTOM [†] 1 = RESET TO	Set to 1 to erase all installer entered settings and return to factory defaults.
OPERATOR TYPE	OT1 = Non-VFD SLIDEDRIVER II OT7 = VFD SLIDEDRIVER II OT12 = SWINGSMART CNX OT15 = SLIDESMART CNX	Factory set. Used only if replacing the SmartTouch 720/725 Controller.
MENU PIN	0 0 0 0 ^	Allows installer to set a 4-digit security pin to restrict access to SmartTouch 720/725 Controller menus.



SmartTouch 720/725 Controller Input Examples Only

