



Quick Start Guide

SlideSmart DC™

HD25, HD30

Pad or post-mount electromechanical slide gate operator with Smart DC Controller



 **HySecurity**®

a company of **TheNiceGroup**

800-321-9947 • 253-867-3700 • www.hysecurity.com

Industrial | Commercial | Crash | Parking | Residential

UNPACKING THE OPERATOR

1

UNPACKING THE OPERATOR

Prepare the gate operator for installation. See Figure 1.

1. Open the top of the box and remove packing materials.
2. Cut open the box to access the operator.
3. Unlock the keyed latch and lift the cover up and off the base of the operator. DO NOT lift the cover by its lock.

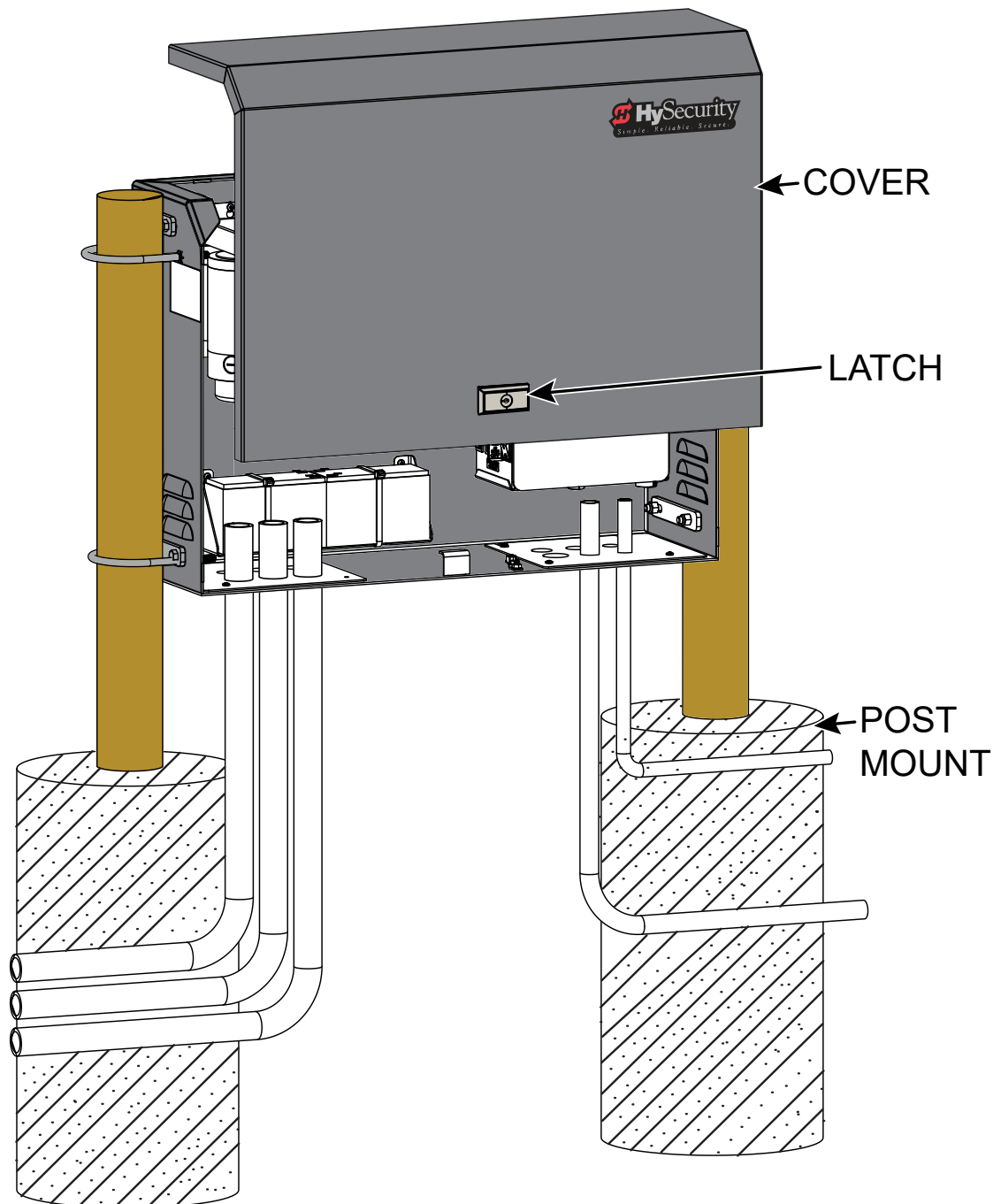


Figure 1. Unpacking the Operator

SITE PLANNING AND OPERATOR INSTALLATION

2

The illustrations and instruction presented provide a quick overview of the SlideSmart installation process. For detailed steps, refer to the SlideSmart HD Installation and Reference Manual.

IMPORTANT: When installing the operator, be sure to comply with all local government regulations and codes, and read the Important Safety Instructions found in the manual.

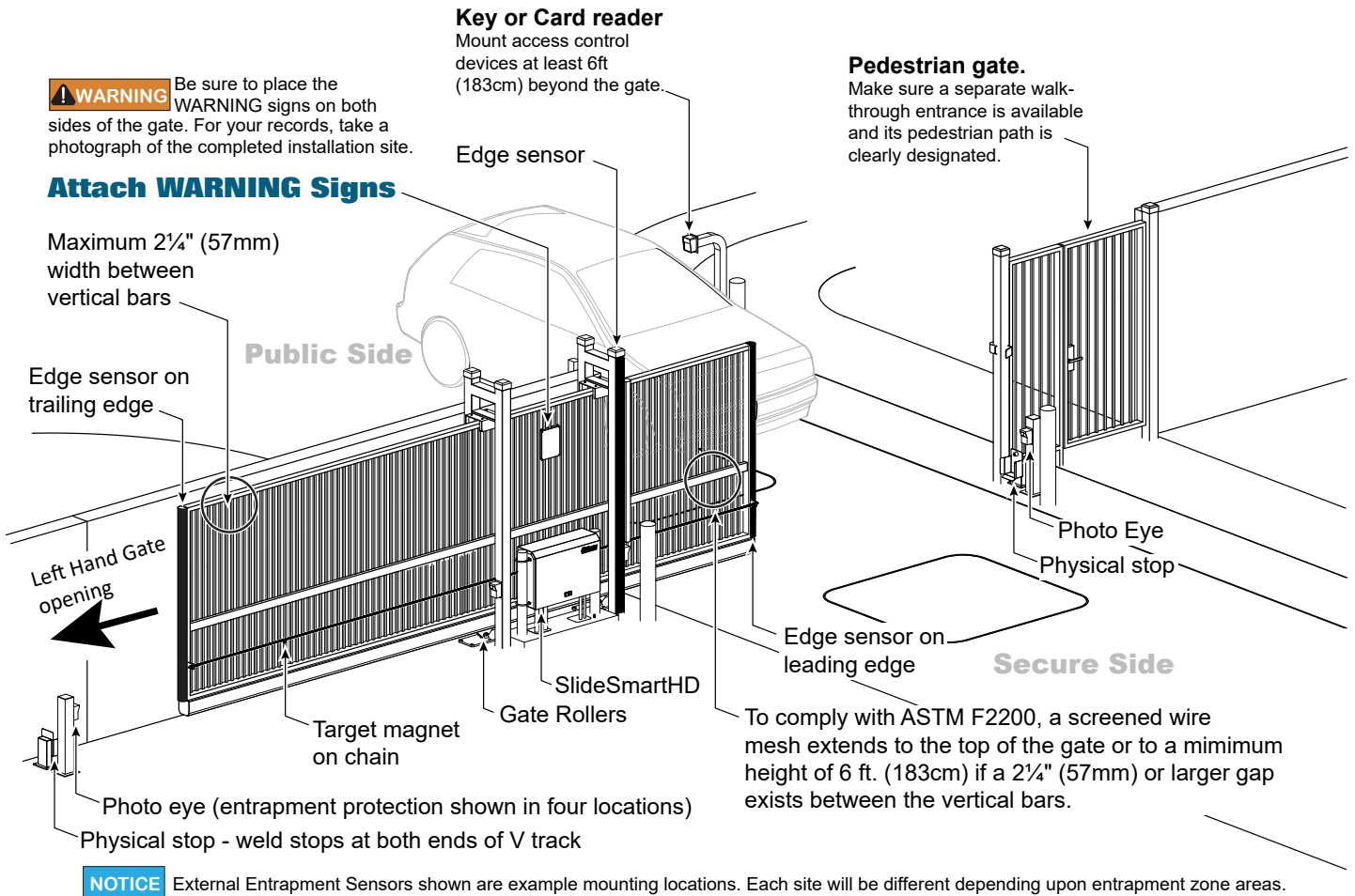


Figure 2. Site Overview and Planning

Table 1. SlideSmart Specifications

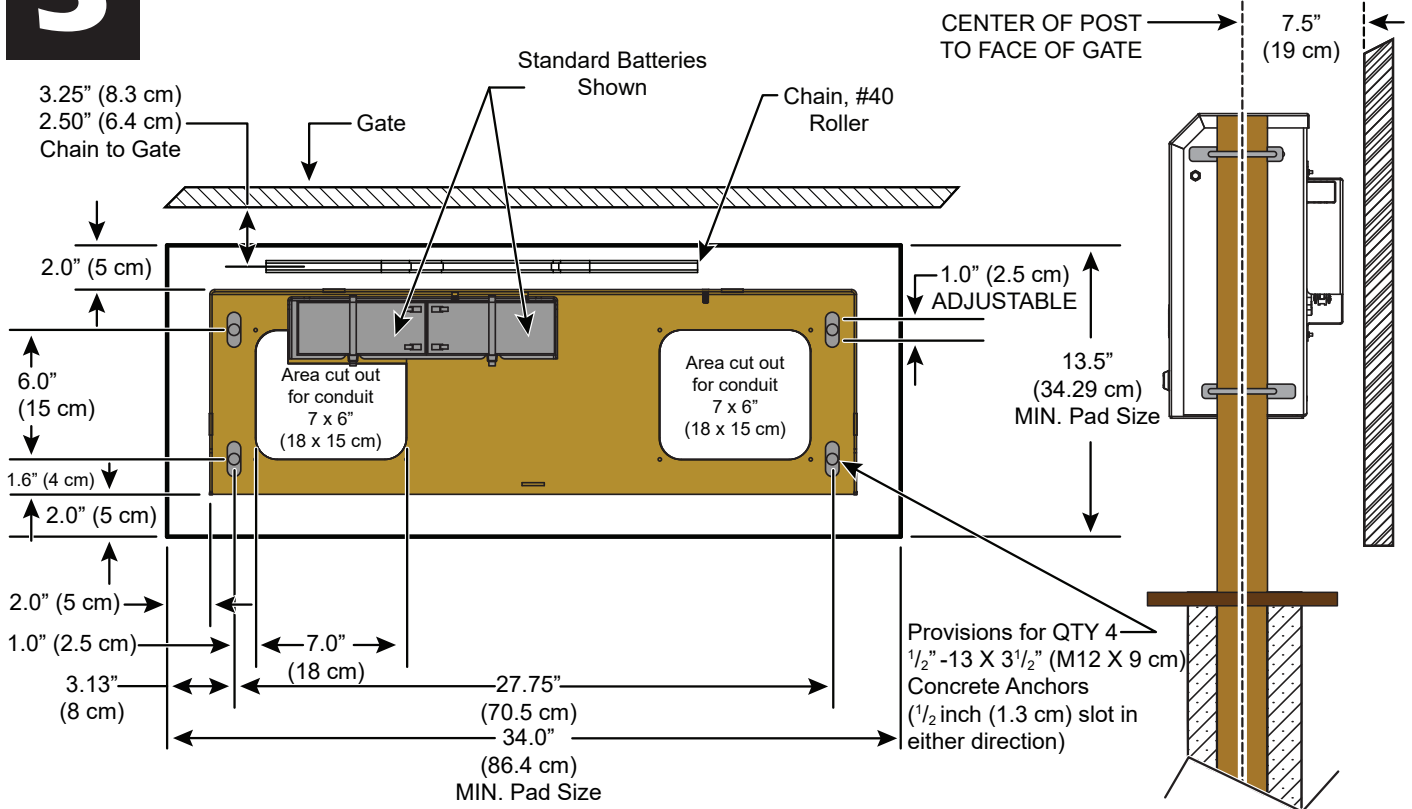
Operator	SlideSmartHD 25	SlideSmartHD 30
Duty Cycle	continuous	continuous
Power, 1Ø	Switch Selectable 115 volts, 3 amps, 50/60 Hertz 230 volts, 1.5 amps, 50/60 Hertz	Switch Selectable 115 volts, 3 amps, 50/60 Hertz 230 volts, 1.5 amps, 50/60 Hertz
Motor	½ hp	1 hp
Gate Speed	0.75, 1, or 1.25 ft/s (23, 30 or 38 cm/s)	0.75, 1, or 1.25 ft/s (23, 30 or 38 cm/s)
Gate Weight	Maximum 2,500 lbs (1,134 kg)	Maximum 3000 lbs (1,361 kg)

OPERATOR & EARTH GROUND INSTALLATION - POST MOUNT

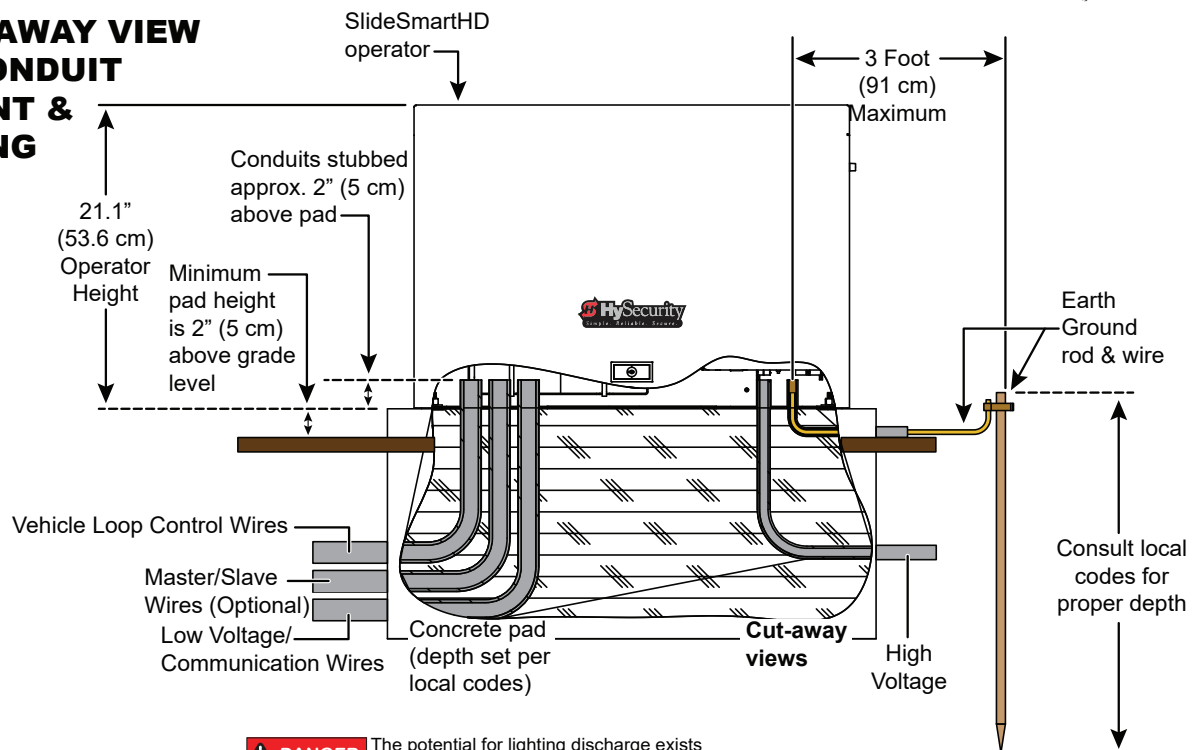
3

CONCRETE PAD DIMENSION

SIDE VIEW



SIDE CUT-AWAY VIEW SHOWS CONDUIT PLACEMENT & GROUNDING

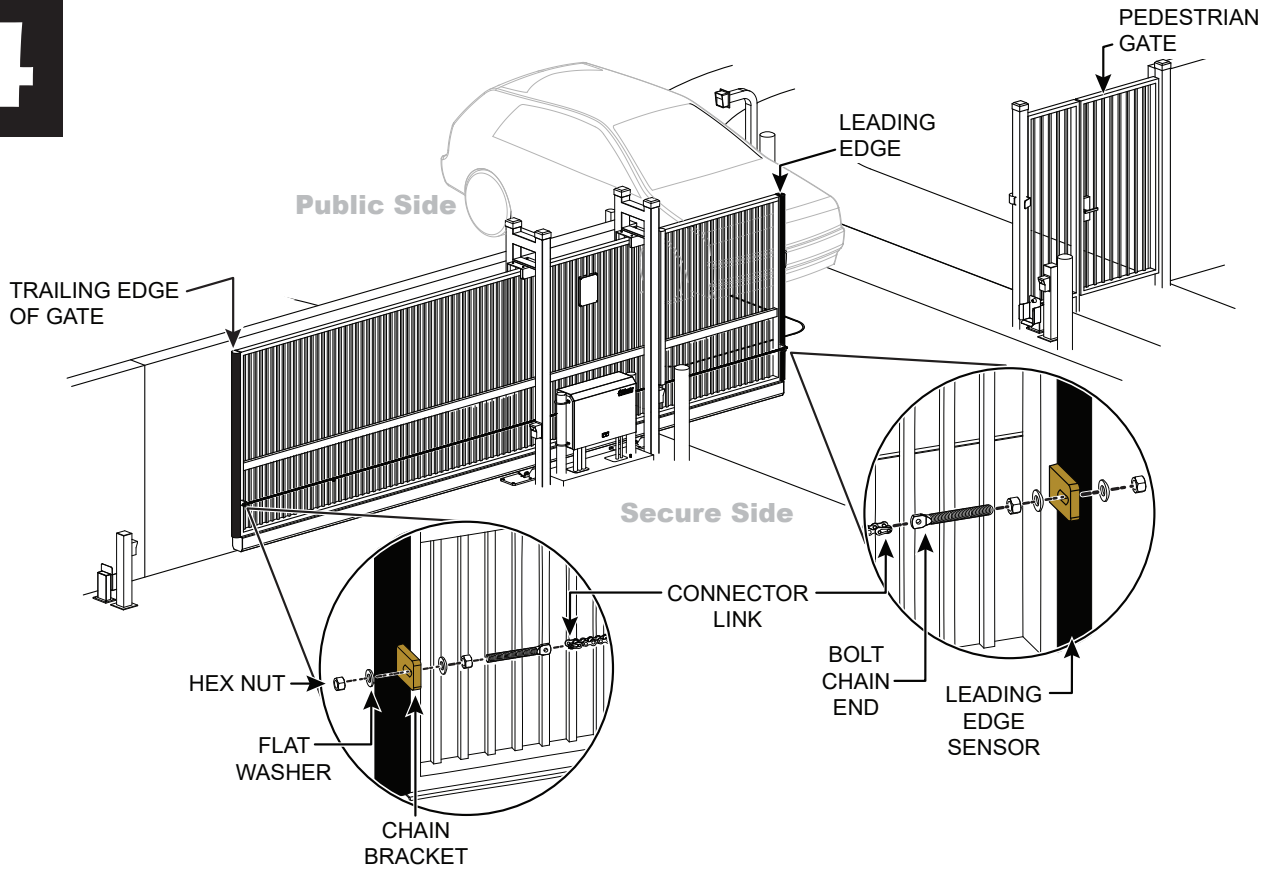


⚠ DANGER The potential for lightning discharge exists with all gates, fences, and gate operators. National Electric Code (NEC) requires a separate earth ground in addition to the required equipment ground. A local earth also serves to protect the electronic controls.

NOTE: To reduce electrical interference, keep as much distance as possible between the high voltage and low voltage conduits.

INSTALL THE CHAIN

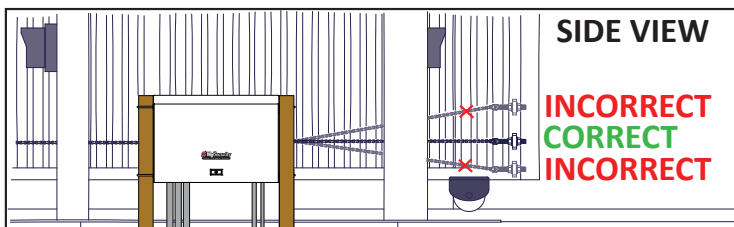
4



INSTALL THE CHAIN BRACKETS

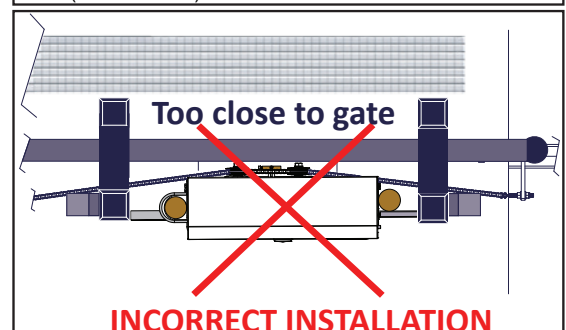
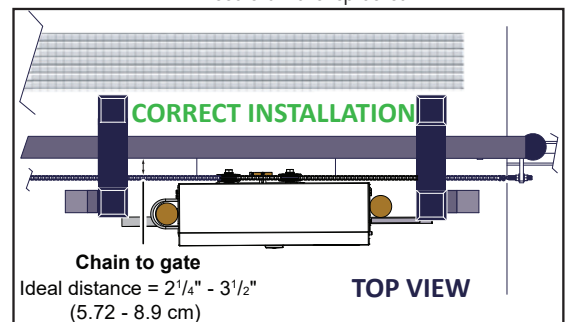
1. Measure for proper chain alignment BEFORE welding the brackets to the gate. Make sure the chain will run horizontal to the ground and parallel with the gate.
2. Weld the chain brackets to gate.
Two locations:
1) leading edge,
2) trailing edge.
3. Attach the eye bolts to the brackets as shown.
4. Attach the connector link to the chain and eye bolt.
5. Feed the chain around the idler wheels and over the sprocket.
6. Adjust the nuts on the eye bolt to tighten the chain and minimize sag.

NOTE: For rear or post mounted installations, see SlideSmart DC Installation and Reference Manual.



INSTALL AND ALIGN THE CHAIN

Feed chain over sprocket.



5

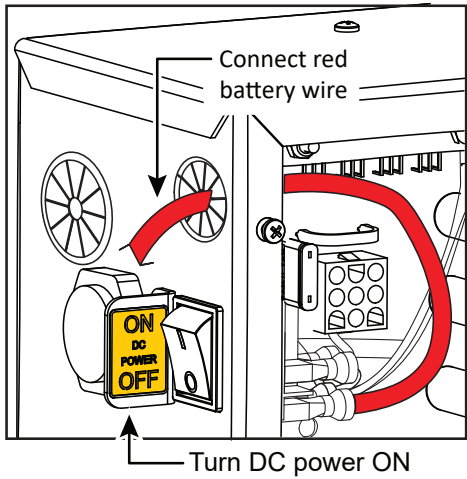
INITIAL MENU SETUP

Connect the red battery wire to its spade terminal. Turn ON DC power. The USAGE CLASS menu display appears the first time power is applied. Six sequential displays present information which must be configured before SlideSmart will function.

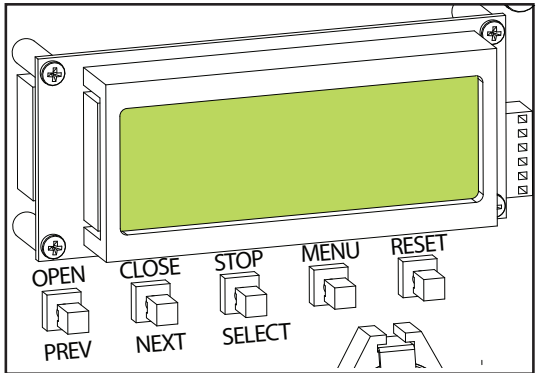
To edit the MENU	To navigate through SELECTIONS	To choose what is on the display	To navigate between menus
Press SELECT <i>Two top characters blink.</i>	Press NEXT. <i>Continue pressing NEXT to view all selections.</i>	Press SELECT. <i>Blinking characters become static.</i>	Press NEXT or PREV. <i>Advance – press NEXT Previous – press PREV</i>



- Selections
- 0 – No Usage Class set.
 - 1 – Single Family residential up to four units.
 - 2 – Multi-family, hotel, etc.
 - 3 – Industrial use, not for general public.
 - 4 – Guarded and monitored facility not for general public.



- Selections
- 0 – No handing set. Gate will not move until handing is set.
- Looking at the gate from the secure, operator side, choose:
- R – If the operator opens to the right.
 - L – If the operator opens to the left.



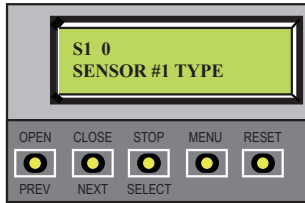
- Selections
- 0 – Not set.
- SlideSmart HD 25 & HD 30**
- 1 – Gate weight: 0 to 700lbs (0 to 318 kg)
 - 2 – Gate weight: 701 to 1400lbs (318 to 635 kg)
 - 3 – Gate weight: 1401 to 2100lbs (635 to 953 kg)
 - 4 – Gate weight: Over 2100lbs (Over 953kg)

SENSOR 1,2,3 SETUP AND LEARN LIMITS

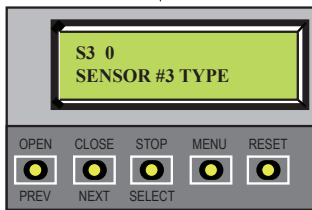
6

SENSOR 1,2,3 SETUP

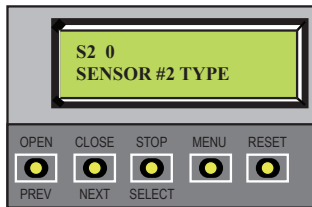
UL 325 - 2018 sensor input setting for external entrapment protection sensor monitoring. All three sensor types must be configured to a non-zero number before the gate operator will move the gate. Edge Both is only available in Swing Gate operator types. Eye Both is only available in Slide Gate operator types.



- | | |
|------------------|-----------------|
| Selections | Selections |
| 0 – disabled | 4 – (EYE OPEN) |
| 1 – (NOT USED) | 5 – (EDGE OPEN) |
| 2 – (EYE CLOSE) | 6 – (EDGE BOTH) |
| 3 – (EDGE CLOSE) | 7 – (EYE BOTH) |



Selections
Same as Sensor 1



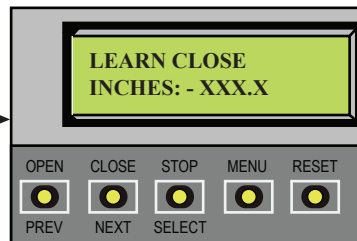
Selections
Same as Sensor 1

7

LEARN LIMITS



Hold the OPEN button until the gate slides to full open. Release the OPEN button. Note that if you go too far, you can press CLOSE to reverse direction. Press STOP twice to preserve the open stop location in memory.



Hold the CLOSE button until the gate slides to full close. Release the CLOSE button and press STOP twice. The full close stop is retained in memory.



NOTE: GATE CLOSED appears on the display and ALERT 15 flashes until the target magnet is installed and its location stored in memory. See page 6, Install the Target Magnet.

VERIFY POWER IS OFF, AND THEN CONNECT AC WIRES

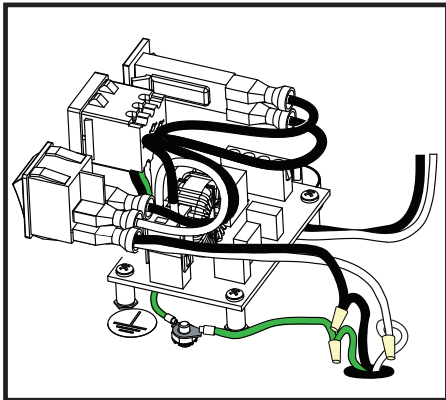
8

⚠ DANGER Turn OFF AC power at the source (circuit breaker panel) before accessing the wires in the SlideSmart junction box. Follow facility Lock Out/Tag Out procedures. Make sure both the DC and AC power switches are in the OFF position.

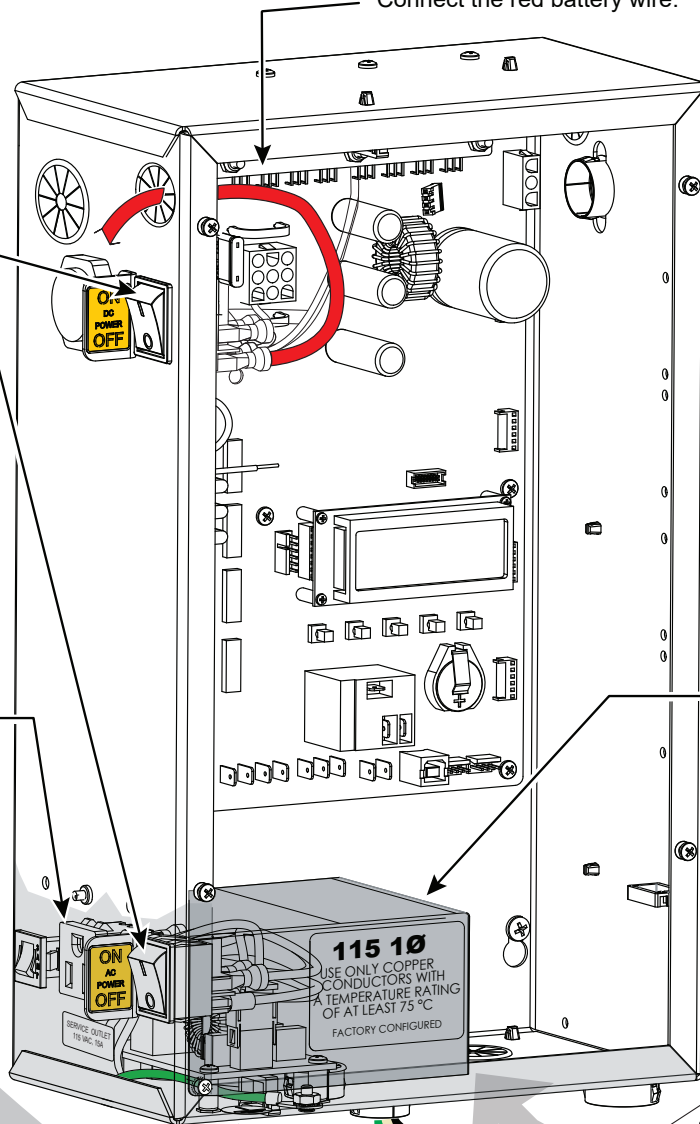
Place power switches in OFF position.

⚠ WARNING DO NOT connect the 115VAC service outlet to 208 or 230VAC power supply wires! To use the 115VAC service outlet on a 208 or 230VAC installation, the electrician needs to run an extra neutral wire to the operator from the power source and wire the service outlet per code.

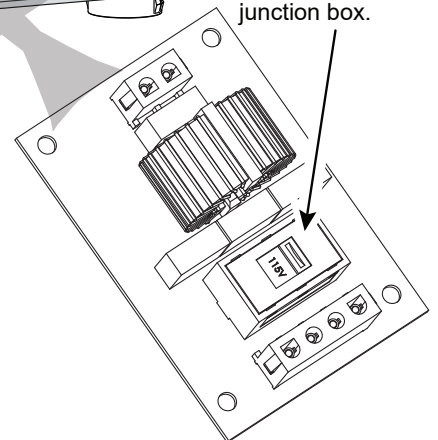
Service outlet



Connect the Battery
Connect the red battery wire.



⚠ CAUTION When connecting to 208/230VAC power, the voltage selector switch on the AC power board must be moved to the 230V position or damage to the operator will occur and void the Warranty. The label on the high voltage cover must be changed to state 230V.



INSTALL THE TARGET MAGNET

9

INSTALLING THE TARGET MAGNET

To install target magnet, take the following steps:

1. **With gate CLOSED**, mark the chain link directly across from target sensor that is closest to the trailing edge of the gate as shown in Figure 3.

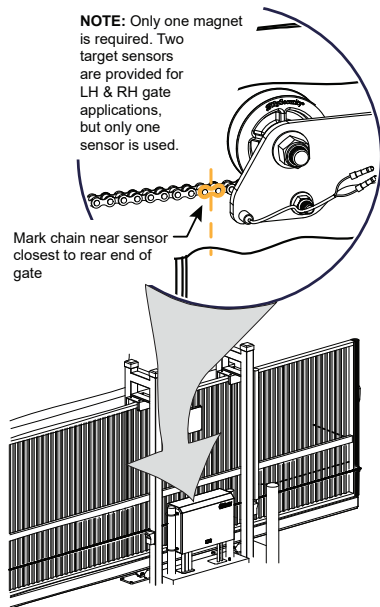


Figure 3. Mark Chain

2. Press OPEN button to move gate a few feet and then press STOP.
3. Turn OFF DC power switch (leave AC power switch ON) to prevent gate from moving accidentally when installing target magnet.
4. Find mark on chain link and count about four fixed links toward operator (approximately 3 inches, 76mm). Figure 4.
5. Remove screw from target magnet. Figure 4.
6. Align target magnet with chain link, insert screw, and tighten it securely. To avoid damage to idler wheel, head of screw must be flush with chain rollers. Figure 4.
7. To allow gate movement, turn ON DC power switch.

8. Test target magnet by pressing CLOSE button. An audible beep is heard as target magnet passes target sensor and limit sensor light on Smart DC Controller flashes red.

CAUTION

When gate is CLOSED, target magnet should stop between target sensor and roller chain sprocket. Target magnet **MUST NOT** enter sprocket teeth.

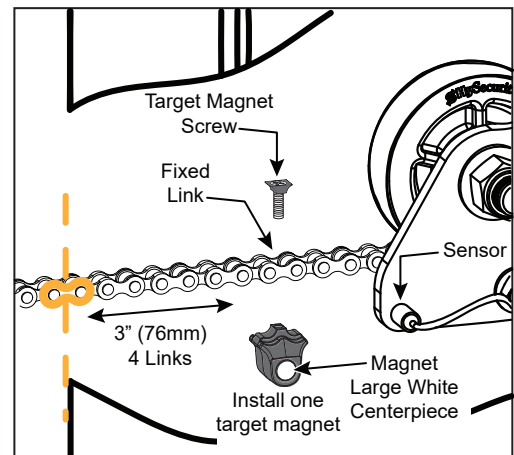


Figure 4. Install Target Magnet

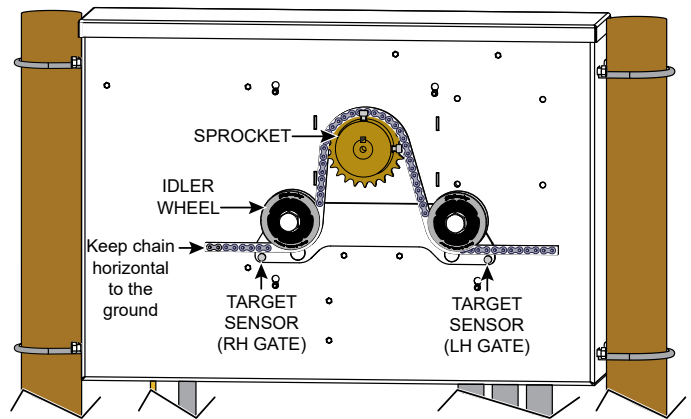


Figure 5. Target Magnet Installation Front

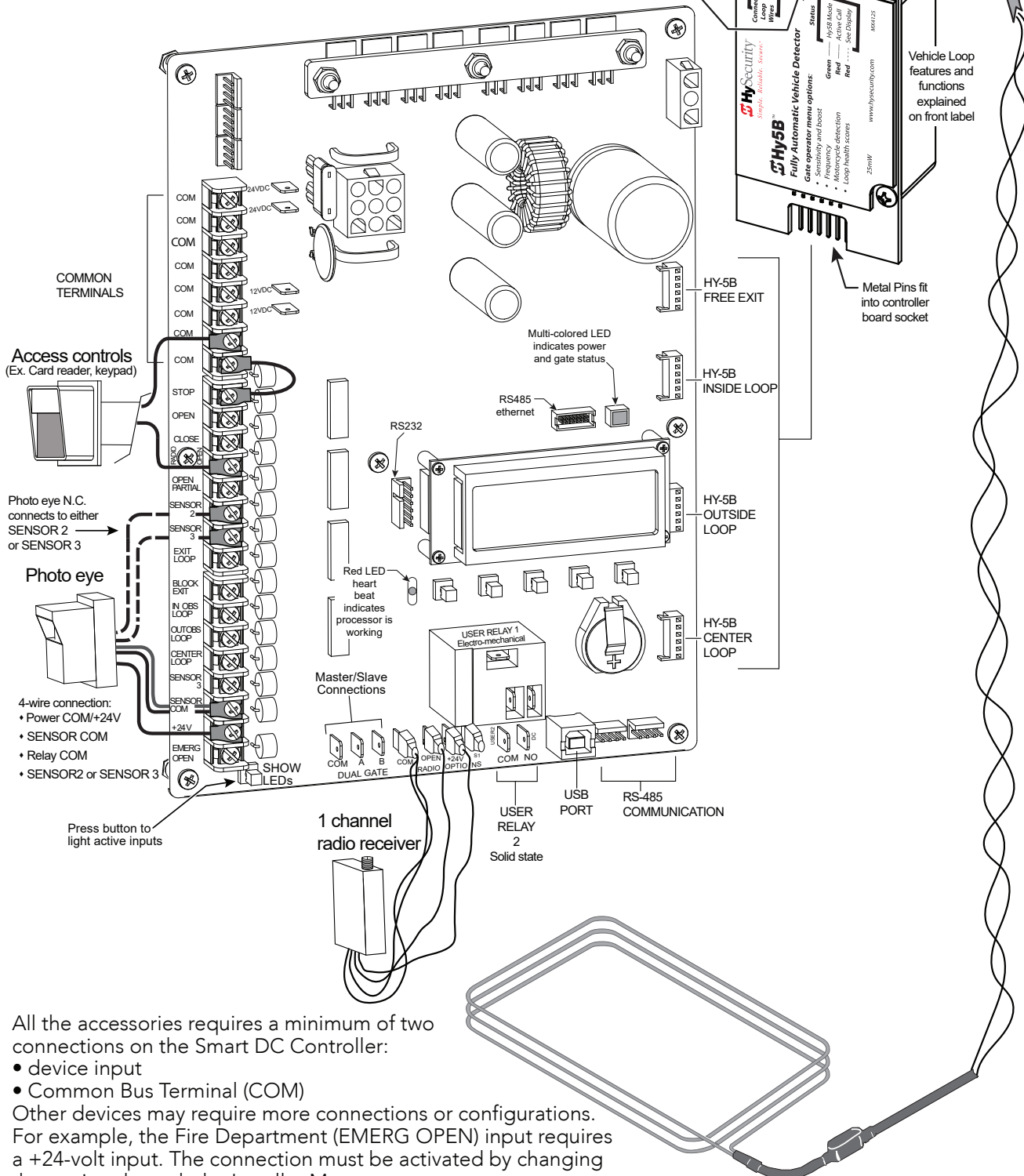
NOTICE

Use one target magnet and make sure target magnet activates. Toggle both power switches OFF and ON. Gate will move. When target magnet passes target sensor, limits are automatically restored. If LEARN OPEN appears on display, return to step 7 on page 7.

10

Push terminals for loop wire.
Accepts 20 - 14 AWG
 Strip Length: 1/2 to 3/8 inch (10 mm)

Terminal Ground: Lightning protection
 Optional connection:
 Use where lightning strikes occur.



All the accessories requires a minimum of two connections on the Smart DC Controller:

- device input
- Common Bus Terminal (COM)

Other devices may require more connections or configurations. For example, the Fire Department (EMERG OPEN) input requires a +24-volt input. The connection must be activated by changing the setting through the Installer Menu.

IMPORTANT SAFETY INSTRUCTIONS

Hazards, associated with automatic gates, can be reduced with proper site design, installation, and use. Installers, maintenance crews, and owners/users must read and follow the safety requirements found in the HySecurity® product manuals.

It is important that only qualified installers handle the installation of the HySecurity equipment.

A “qualified” installer has one of the following:

- A minimum of three years experience installing similar equipment
- Proof of attending a HySecurity Technical Training seminar within the past three years
- Significant manufacturer endorsements of technical aptitude in gate operator installation

Underwriter Laboratories (UL) and the American Society for Testing and Materials (ASTM) are responsible for current safety standards and regulations regarding automatic vehicular gate operators. To pass certification, all aspects of barrier arm or gate installation must comply with the appropriate safety standards.

For the most up-to-date ASTM F2200 Gate and Fence Standards, refer to www.astm.org. For UL 325 Safety Standard, refer to www.ul.com.

WARNING:

A moving gate or barrier arm can cause serious injury or death. To reduce the risk of injury or death:

1. **READ AND FOLLOW ALL INSTRUCTIONS.** Read the gate operator’s product manual and review all the product labels and literature prior to installing, operating, or maintaining the automatic gate operator.
2. Never let children operate or play with gate controls. Keep all remote controls, especially radio transmitters, away from children. Do not allow children to play on or around the gate or gate operators.
3. Always keep people and objects away from the gate. **NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE.** Start the gate operator only when a gate’s travel path is clear.
4. Test the gate operator monthly. The gate **MUST** reverse on contact with a rigid object or stop when an object activates the non-contact sensors. After adjusting the force or the limit of travel, retest the gate operator. Perform routine tests of the entrapment protection sensors, such as photo eyes and gate edges. Failure to adjust and retest the gate operator properly can increase the risk of injury or death.
5. **KEEP GATES PROPERLY MAINTAINED.** Read the product manuals. Have a qualified service person make repairs to gate hardware. Replace batteries in accessory or entrapment sensory devices.
6. Use the emergency release only when the gate is not moving.
7. The automated gate entry is for vehicle use only. Pedestrians must use a separate entrance. Make sure a separate walk-through entrance is nearby. Make certain a clear pedestrian path is designated and signs direct pedestrians to the walk-through gate.
8. Install the supplied WARNING signs on the inside and outside of the gate or barrier arm/operator so they are clearly visible from both the secure and public sides. Installing the signs is a requirement for UL 325 compliance.

OTHER SAFETY REQUIREMENTS INCLUDE:

A moving gate or barrier arm can cause serious injury or death. To reduce the risk of injury or death:

- Verify the gate operator usage class for the site. Refer to Identifying Gate Operator Category and Usage Class in the product manual. Install the operator only when the gate operator class is correct for the site, size, and type of gate.
- The gate operator must be properly grounded and the incoming power voltage must match the voltage label on the junction box.
- Install an automatic operator only on gates that comply with ASTM F2200 Gate and Fence Standards. Screen or enclose openings in the gate per UL 325 Safety Standards which include:
 - All horizontal slide gates must guard or screen openings from the gate’s base support to a minimum height of 6 feet (183 cm) above the ground. This must prevent a sphere of 2¼-inches (57mm) in diameter from passing through an opening in the gate or the adjacent fence that is covered in the gate’s open position.
 - Physical stops must exist in the gate construction to prevent over-travel in both directions and, for slide gates, guard posts must be installed to prevent the gate from falling in the event of a roller failure.

IMPORTANT SAFETY INSTRUCTIONS

- Before attaching the operator to the gate, move the gate or barrier arm in both directions. Make sure it is level and travels freely. A gate or barrier arm that moves easily reduces strain on operator components. Gravity should play no part in the opening or closing of the gate.
 - Never over-tighten a clutch or pressure relief valve to compensate for a stiff or damaged gate.
 - Make sure all exposed pinch points, rollers and wheels are guarded.
 - Install the gate operator on the secure (non-public) side of the gate. Note that swing gates cannot open into public areas.
 - Reduce the risk of entrapment throughout the entire travel path by making sure the gate is installed in a location which ensures the required clearance between the gate and adjacent structures when opening or closing. On slide gates, minimize the parallel gap between the gate and the fence.
 - Install enough external entrapment protection sensors so pedestrians are protected from entrapment in both directions of gate travel and all hazard areas are fully protected. On hydraulic gates, set the pressure relief valve at the lowest allowable setting that will reliably operate the gate. The pressure relief valve controls the applied force of the operator and the sensitivity of the inherent entrapment sensor.
 - Never disable the Warn Before Operate buzzer. This buzzer provides an alert that the gate is about to move.
 - Mount access control devices beyond reach of the gate. The control devices that operate the gate must be:
 - Located in a clear line of sight to the gate. Locate controls (Open, Close, Stop/Reset) where a user will have a clear view of the gate.
 - Mounted beyond 6 feet (183cm) of the gate, to prevent users from touching or accessing the gate while operating the controls. People attempting to access the controls by reaching through or around the gate can be seriously injured or killed by the moving gate.
 - Incorporate a security feature to prevent unauthorized use.
 - Connect radio and other remote access (non-resetting controls) to the RADIO OPTIONS terminal.
 - Open and close the gate to confirm that it was properly installed and to ensure reduced risk of entrapment. Verify the clearance between the gate and adjacent structures per UL 325 Safety Standards. Have a qualified technician test the gate monthly.
 - When you complete the installation, show the end-user how to:
 - Remove the operator cover, and then turn the power on and off.
 - Manually release the gate. (Use the manual emergency release only when the gate is NOT moving.)
 - Use the Emergency Stop Button.
- NOTE:** Gate operator instructions must be given to the owner per UL 325 Safety Standards.
- Take photographs of the completed installation site and save it in your business files.

CRASH-RATED GATE OPERATORS

By their very design, fortified crash barriers, drop arm barriers, and wedge-type operators are built to deter terrorism threats and to impede the flow of traffic, stop aggressors, and protect critical infrastructure assets. Though design consideration is given to protect against accidental entrapment or injury to personnel and pedestrians, there is nothing "safe" about the objective of the StrongArm Fortified Crash Barrier Arms. The equipment is constructed to protect against a Design Basis Threat (DBT) and as such, the StrongArm Fortified Crash Barrier Arms can seriously injure or kill if used or installed incorrectly.

RISK ASSESSMENT AND SITE PREPARATION

Identifying vulnerable areas and securing them is critical to staving off vehicular attacks. Purposeful site planning plays a major role in addressing vehicular approach patterns necessary to limit speed. Employ the services of a traffic engineer to develop a site that will reduce the speed of any approaching vehicle to a maximum of 20 mph (32 km/h) or less. This serves to ensure the stopping effectiveness of the barrier while serving to prevent serious injury to innocent persons who may accidentally contact the barrier.

The best access control and security measures employ bollards, barrier arms, slide gates or Fortified Crash Barrier Arms operating in sequence in site situations involving unique traffic flow, building placement, special security issues, or blast mitigation. An entrance that employs a pair of HySecurity operators properly sequenced, such as a StrongArm M30 Fortified Crash Barrier Arm and SlideDriver™ guarantees that only one vehicle can enter it at a time. Having interlocked or sequenced gates greatly reduces the risk of an unintentional crash and serious injury or death. All HySecurity operators can be easily sequenced because of their inherent interlocking software protocols which integrate seamlessly with RS-485 communication protocols.