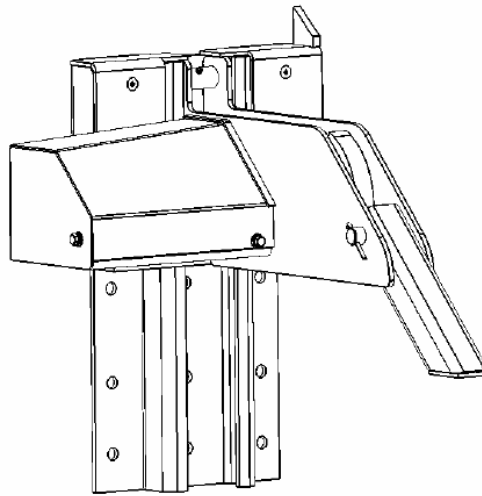




## Python STR609 Truck Restraint

# Installation Manual



### IMPORTANT

Read and fully understand entire contents of this manual before installing, operating, or servicing this equipment. Failure to do so may result in property damage, bodily injury, or death.



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# Owner Responsibility

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1. By owning the Python STR609 Truck Restraint, you should recognize the inherent dangers of the interface between the dock and transport vehicle. You should train and instruct operators to use the dock equipment according to the information provided below. Super-Seal will provide you with the following information:

- Installation instructions
- Operating instructions
- Maintenance procedures
- Descriptions and specifications of parts

Verify that personnel installing, operating, and maintaining this equipment receives the materials listed above for instruction.

2. Make sure the vehicle parked at the loading dock is relatively perpendicular to the dock face and in close contact with at least one of the dock bumpers.
3. Identify if the nameplates and caution/ instruction labels will be required.
4. Personnel operating and maintaining the equipment should see nameplates, cautions, instructions, and posted warnings clearly, free of obscured view.
5. Follow Super-Seal's recommended periodic maintenance and inspection procedures at the effective date of shipment. In addition, you should keep written records of these procedures.
6. Remove any structurally damaged equipment from operations. Inspect and repair damaged equipment as required.
7. Modify dock equipment only with the written permission of Super-Seal. These changes should also satisfy Super-Seal's safety recommendations.
8. Install, maintain, and operate the equipment within its capacity and design parameters to benefit from the standard product warranty.



# Warranty

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**SUPER-SEAL STANDARD WARRANTY**

Super-Seal warrants that its products will be free from defects in design, materials, and workmanship for **one year (365 days)** from the date of shipment. Install, maintain, and operate products within their rated capacities and/or specified design parameters.

**LIMITATION OF LIABILITY**

Super-Seal, in any event, shall not be liable for any loss of any equipment or incidental or consequential damages of any kind, whether for breach of warranty, negligence, or strict liability.

# Introduction

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## About

As one of Super-Seal's premium dock products, the Python STR609 Truck Restraint is designed for safety and reducing the risk of dock accidents. With a high-visibility hook-style restraint arm, it is the ideal solution for keeping workers, equipment, and cargo safer during loading and unloading. As a cost-effective alternative to hydraulic truck restraints, its rugged design makes it virtually maintenance-free with the ability to function in the toughest environments. The unique rotating hook wraps over the ICC Bar using a restraining force of 35,000 lbs (15,876 kg). You can rely on the dependability of this truck restraint and worry less about the direct and indirect costs of an industrial accident.

## Features




- High-visibility rotating steel hook
- Restraining force of 35,000 lbs (15,876 kg)
- Restraining range 9-25 inches above grade
- Electric operation (DC gear motor)
- Electronic position sensor (No limit switches)
- High visibility LED control panel (NEMA 4x)
- Zinc plated finish



# Safety Information and Warnings

This manual contains safety warnings specifying areas where potential hazards exist. You must follow these safety warnings to prevent the possibility of property damage, serious injury, or death.

## Safety Warnings

| Level  | Warning Sign  |
|--|---|
| <p><b>4</b></p> <p>Indicates a hazardous situation, which, if not avoided will result in serious injury or death.</p>    | <div>  <p><b>DANGER</b></p> <hr/> <p>Follow these instructions to prevent serious injury or death.</p> </div>                                 |
| <p><b>3</b></p> <p>Indicates a hazardous situation, which, if not avoided, could result in serious injury or death.</p>  | <div>  <p><b>WARNING</b></p> <hr/> <p>Follow these instructions to prevent the risk of serious injury or death.</p> </div>                    |
| <p><b>2</b></p> <p>Indicates a hazardous situation, which, if not avoided, could result in minor or moderate injury.</p> | <div>  <p><b>CAUTION</b></p> <hr/> <p>Follow these instructions concerning safe operating procedures to prevent personal injury.</p> </div> |
| <p><b>1</b></p> <p>Addresses best practices related to machinery.</p>  | <div> <p><b>IMPORTANT</b></p> <hr/> <p>Follow these procedures marked as <b>IMPORTANT</b> to prevent damage to machinery.</p> </div>  |

## Operational Safety Warnings

### DANGER

Read these safety instructions before installing, operating, or servicing the truck restraint. Failure to follow these safety instructions may result in property damage, serious injury, or death.

## Level 4

### DANGER

- **Do not** use the restraint if it is not working properly. If the restraint does not operate properly using the procedures in this manual, be certain to chock the vehicle wheels before loading or unloading.
- **Do not** operate restraint with anyone standing in the driveway.
- **Before beginning any service procedures:**
  - Disconnect the power and follow all lockout/tagout procedures on **pg. 9** of this manual.
  - Position the leveler in the vertical/stored position.

## Level 3

### WARNING

- **Do not** install the restraint anchor bolts into aged or unsound concrete.
- **Do not** remove the wheel chocks until:
  - Unloading/loading is finished and the truck driver has been given permission to depart, OR
  - The vehicle restraint has been released and the lights have changed to RED inside and GREEN outside.
- Keep hands and feet clear of guide tracks and moving parts at all times.

## Level 2

### CAUTION

- **Do not** use the Vehicle Restraint as a step.
- **Do not** operate leveler until transport vehicle is:
  - Parked against the dock bumpers
  - Secured by a by a vehicle restraint and/or chocks
- **Always** conduct routine inspections and maintenance to prevent personal injury or damage to equipment.
- **If a malfunction occurs**, call your authorized Super-Seal Service Representative (1-800-337-3239) immediately.

## Level 1

### IMPORTANT

- **Do not** ground welding equipment to any hydraulic cylinder or electrical components.
- **Do not** drill too deeply when drilling holes in the control box — **damage to the control systems may occur.**
- **Do not** use air to remove debris from the control box — **always** use a vacuum.
- **Do not** connect green ground lead into the control box or junction box until welding is completed.
- **If a procedure is not clearly defined in this manual, always call your authorized Super-Seal Service Representative (1-800-337-3239) before proceeding.**



# Lockout/Tagout Procedures

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## **WARNING**

Always lockout and tagout the power source before working with electrical devices or controls according to OSHA regulations and approved local electrical codes.

The Occupational Safety and Health Administration (OSHA) require that:

1. You turn off and disconnect the power supply.
  - i. Utilize **only** OSHA approved lockout devices.
  - ii. **Only** the person who is responsible for repairs has the authority to remove the lockout device.
  - iii. **Notify** all affected employees when machines or equipment will be shut down and locked out for repair or maintenance.
  - iv. Make sure all employees **clear** the repair or maintenance area.
2. The power control **must be** tagged to indicate:
  - i. The equipment is under repair
  - ii. The name of the authorized employee responsible for the lockout
3. Make sure tagout notices will endure extreme weather conditions or exposure to chemicals and moisture.

# Installation

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## MOUNTING CONSIDERATIONS

**Before installation read and follow the Safety Practices. Failure to follow these safety practices could result in death or serious injury.**

**READ AND FOLLOW THE OPERATION INSTRUCTIONS IN THIS MANUAL BEFORE OPERATING SUPER-SEAL STR-609E PYTHON VEHICLE RESTRAINT.**

**If you do not understand the instructions, ask your supervisor to teach you how to use the Vehicle Restraint.**

**Improper installation of the PYTHON Vehicle Restraint could result in death or serious injury to dock workers or other users of the Vehicle Restraint.**

**Place barricades around pit on dock floor and driveway while installing, maintaining or repairing vehicle restraining device.**

**Be certain bystanders in the driveway stand clear when the Vehicle Restraint is operated.**

**Be certain to follow the installation instructions in this manual.**

**Do not install the Vehicle Restraint anchor bolts into aged or unsound concrete.**

1. The dock face on which the PYTHON Vehicle Restraint will be mounted must be flat to prevent binding of carriage assembly. If the dock face is not flat it may be necessary to use shims or physically modify the dock face to provide a flat mounting surface. If shimming is required, it is necessary to shim behind the roller track as well as at the anchor bolts. Consult Super-Seal representative.

PYTHON Vehicle Restraints require a minimum 4" bumper projection from the front of the bumper to the rear of the roller track plate of the restraint (the mounting surface). Less than 4" of projection can allow vehicle RIG to damage the restraint. Some lip saddle type dock levelers may require modifications.

2. A standard installation of the PYTHON Vehicle Restraint requires a minimum dock face height of 26". Consult the factory for dock face heights under 26".
3. The standard anchors provided with this product may only be used on docks constructed of solid concrete. Docks constructed with other materials require special mounting consideration which may include special brackets and a solid concrete approach.



4. Do not install the Vehicle Restraint anchor bolts into aged or unsound concrete.
5. If the driveway beneath the Vehicle Restraint is affected by frost, additional clearance may be required between the Vehicle Restraint and the driveway to prevent damage.
6. **For installation of Vehicle Restraints with EOD type dock levelers or any other special mounting considerations not covered in this manual. Contact your Super-Seal Representative.**

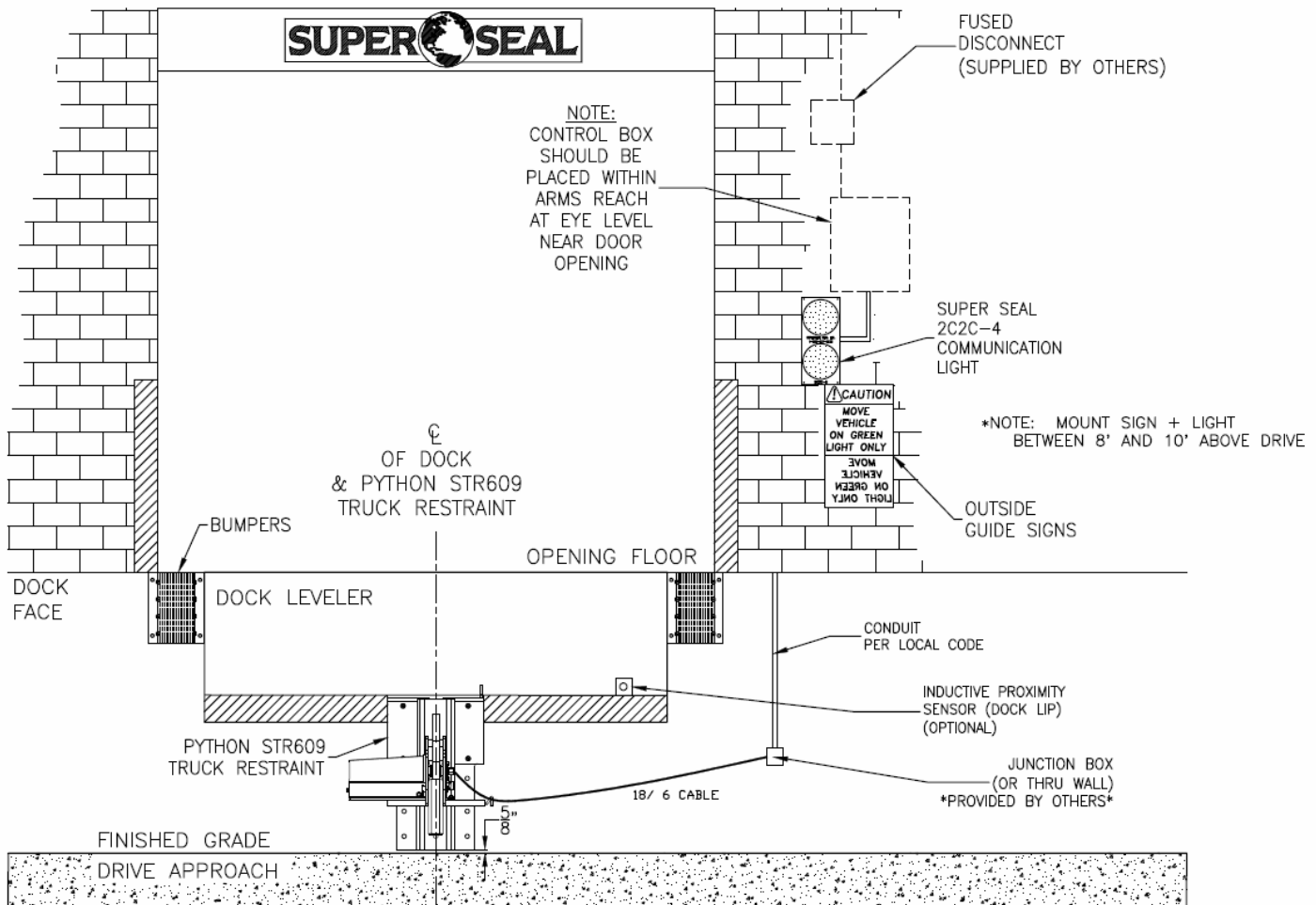
## TOOLS REQUIRED

- Welder
- Impact or rotary drill with 5/8" diameter
- concrete drill bit
- 3/4" wrench
- General hand tools
- Touch up paint (Silver)
- Torque wrench (60 ft-lb min.)

# Conduit Installation

1. When installing conduit through building walls and floors, refer to Figure 1.

FIGURE 1



# Installation with Pit Type Dock Levelers

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**Do not install, operate, or service this product unless you have read and followed the Safety Practices, Warnings, and Installation and Operating Instructions contained in this manual. Failure to do so could result in death or serious injury. ALWAYS USE DOCKLEVELER SUPPORT WHEN WORKING UNDER A DOCK LEVELER RAMP OR LIP.**

**Place barricades around the pit on the dock floor and driveway while installing, maintaining or repairing dock leveler or vehicle restraint.**

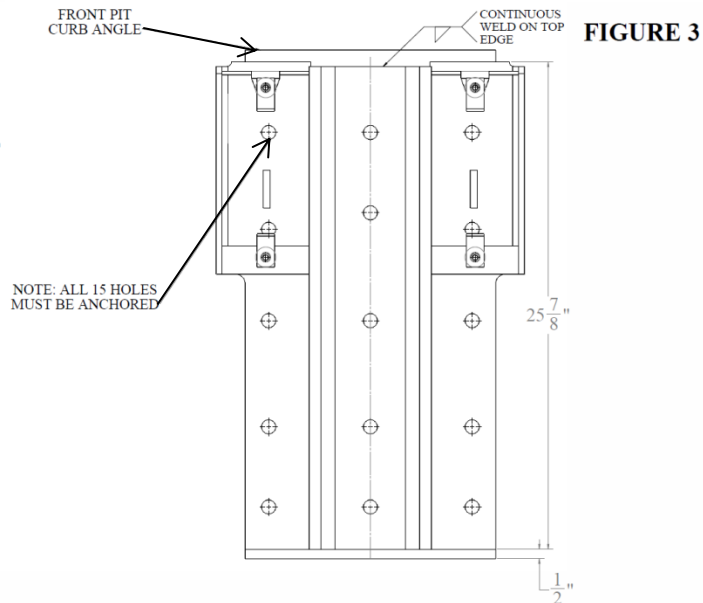
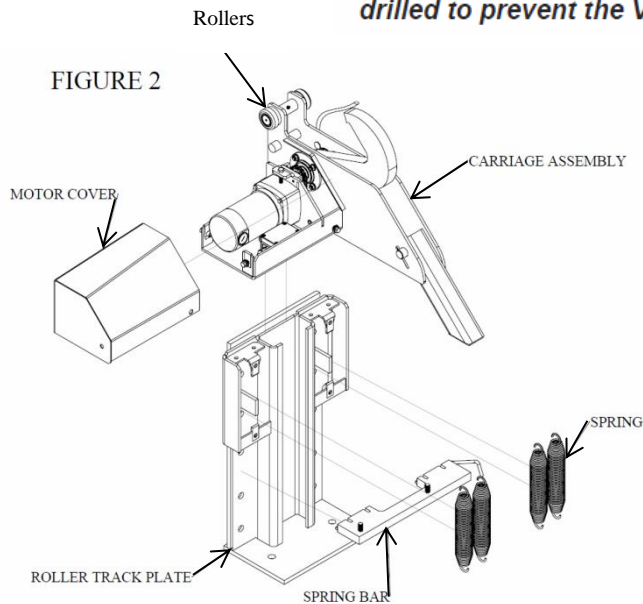
**Improper installation of anchoring devices or installation into aged or unsound concrete could result in death or serious injury.**

**Inadequate lifting equipment or practices can cause a load to fall unexpectedly. Make sure the lifting chain or other lifting devices are in good condition and have a rated capacity of at least 500 lbs for the lifting angle used. Never allow anyone to stand on or near the restraint when it is lifted or positioned. Stand clear of the vehicle restraint when it is positioned. Failure to follow this warning can allow the restraint to fall, tip, or swing into people, causing death or serious injury.**

1. The carriage assembly must be removed from the roller track plate before installation. First, remove the motor cover and spring covers. Then remove springs and nuts from spring bar. Slide carriage assembly upwards out of the roller track, making sure to keep the rollers on the axles. See Figure 2.
2. Place bottom edge of the roller track plate 5/8" above the driveway and center with the pit. See Figure 3. If the driveway is susceptible to heaving from frost, modify the driveway to provide additional clearance under the PYTHON to prevent damage from the driveway movement.
3. Drill 5/8" dia holes into pit wall a minimum of 4-5/8" deep using holes in roller track as a guide.
4. Check to see if the roller track plate is plumb and flush with dock face. If not, use (6) shims 2" wide x 25 5/8" long. If shims are over 1/2" thick use longer anchors. If shims need to be 1" thick or more, a bracket is required. See Figure 4A.
5. Anchor the roller track plate to the dock face using the (15) 5/8" dia. x 4" long anchors provided. The anchor bolts must be torqued to 60 ft-lbs to achieve maximum holding strength. See Figure 3. If the top portion of the roller track plate is in contact with the front pit curb angle (such as installing in a deep pit) weld across the top of roller track plate to the curb angle.

**⚠ WARNING**

*The anchor bolts should be installed as the holes are drilled to prevent the Vehicle Restraint from shifting.*

**NOTICE**

*The anchor bolt heads must be tightly secured against the roller track plate to prevent interference with the carriage assembly.*

6. If the PYTHON vehicle restraint is being installed at a loading dock with a pit-style dock leveler that does not have lip storage supports (otherwise known as lip keepers), lip deflector must be installed to prevent a pendant dock leveler lip from moving or storing behind the original lip deflector welded to the right-hand spring cover.
7. Install additional lip deflector plates, as required by the application. Materials supplied by the installer. See Figure 4A.

**NOTICE**

*Never weld on the PYTHON restraint after the motor is wired to the control box and the power is on. Damage to the controls or wiring may result.*

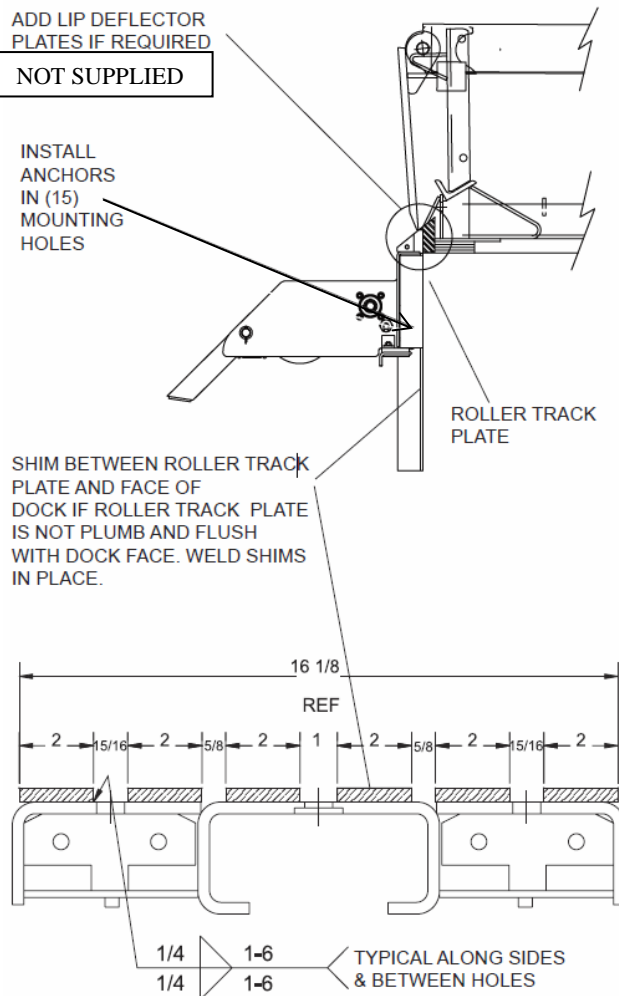
8. Reinstall the carriage assembly to the roller track plate. Attach the four springs to the spring bar and the top of the roller track plate. Slide the carriage assembly into the roller track plate. Bolt the spring bar to the bottom of the carriage assembly and install the spring and motor covers.

**FIGURE 4A**

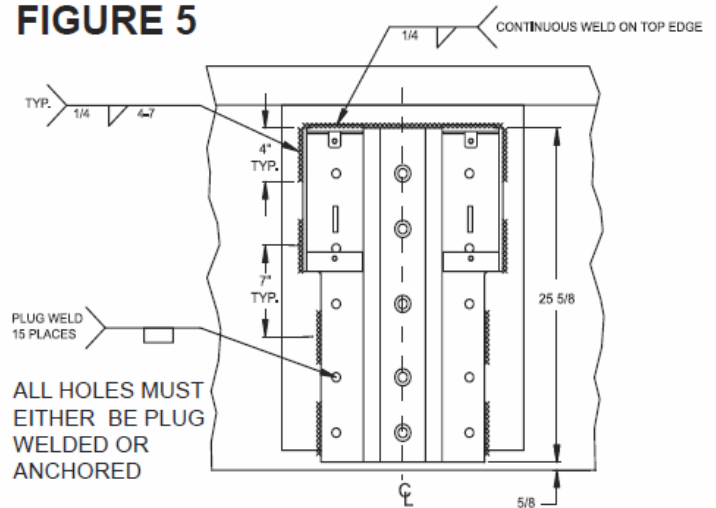
ADD LIP DEFLECTOR  
PLATES IF REQUIRED  
NOT SUPPLIED

INSTALL  
ANCHORS  
IN (15)  
MOUNTING  
HOLES

SHIM BETWEEN ROLLER TRACK  
PLATE AND FACE OF  
DOCK IF ROLLER TRACK PLATE  
IS NOT PLUMB AND FLUSH  
WITH DOCK FACE. WELD SHIMS  
IN PLACE.

**⚠ WARNING**

*Improper installation that allows a pendant dock leveler lip to be supported by the restraint could result in death or serious injury. It is sometimes necessary to install lip deflector plates as indicated in Figure 4A to avoid any chance of the pendant lip storing on top of or behind the roller track plate. Materials supplied by installer.*

**FIGURE 5**

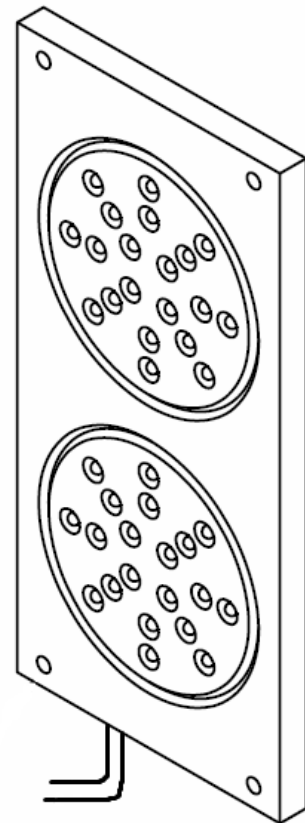
9. Mount control box inside the building approximately 4 feet above the floor, to the left of the doorway. As per local code.
10. Mount and wire outside communication light to the control box. See the Wiring Diagram for electrical connections. Make sure outside light is mounted with the red light on top and the green light on the bottom.
11. Mount electrical junction box (not supplied) near the Vehicle Restraint. See Figure 1.
12. The Vehicle Restraint includes a wiring harness. Run the harness from the carriage to the outside junction box. Leave about 4" of slack in the wiring harness. Wire (not supplied) from the control box to the junction box. See Wiring Diagram.

**⚠ WARNING**

*When lifting the carriage during service or assembly, use a lifting device. Lifting by hand may result in back injury.*

*Before doing any electrical work, make certain the power is disconnected and properly locked or tagged off. Failure to do so may result in death or serious injury. All electrical work must be done by a qualified technician and must meet all applicable codes.*

13. Wire power to the control box using terminals provided control box. See Wiring Diagram.
14. Permanently mount the vehicle drivers instruction signs the outside wall under the signal light, or where clearly visible by driver, when installing the Red/Green Light Assembly. See Figure 1.
15. Operate the Vehicle Restraint following the Operation instructions. Check for smooth operation and proper light operation according to the Operation instructions.
16. Instruct the dock workers how to use the Vehicle Restraint using the Operation instructions.

**FIGURE 6**

in the  
on

**⚠ DANGER**

*Be certain power is off when wiring to the control box or signal lights. Failure to do so could result in electrical shock, death or serious injury.*

*Do not route control wiring for any other device through this control box*

\*MOUNTING HARDWARE SUPPLIED BY OTHERS

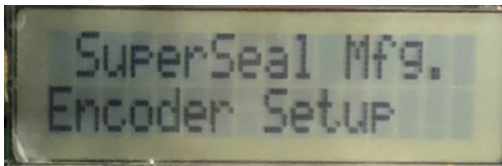
\*DIMENSIONS ARE REFERENCE ONLY. USE OF A STANDOFF OR OTHER MOUNTING BRACKET COULD AFFECT THE DIMENSIONS SHOWN OR THE REQUIRED CABLE LENGTH.



# Start UP Instructions

## WARNING

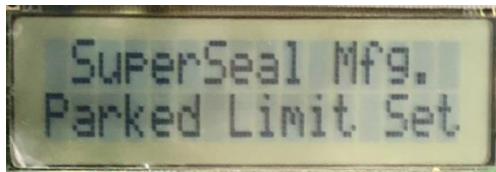
- **Do not TEST** the restraint unless the area is clear and safe.



### To perform the Start Up sequence

\*Turn power to control panel "OFF".

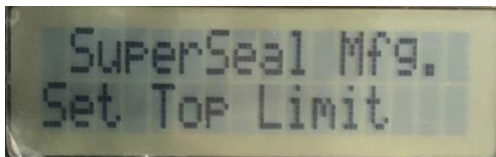
\* Turn or press and hold "BYPASS" while turning power back ON".



\* Hold until screen display reads: "HOOK PARKED"

\*Release the button.

\*Turn or press "BYPASS" and release to set top limit.



\* Hook will go all the way up, stop and go back down

\*Hook is ready to use!

