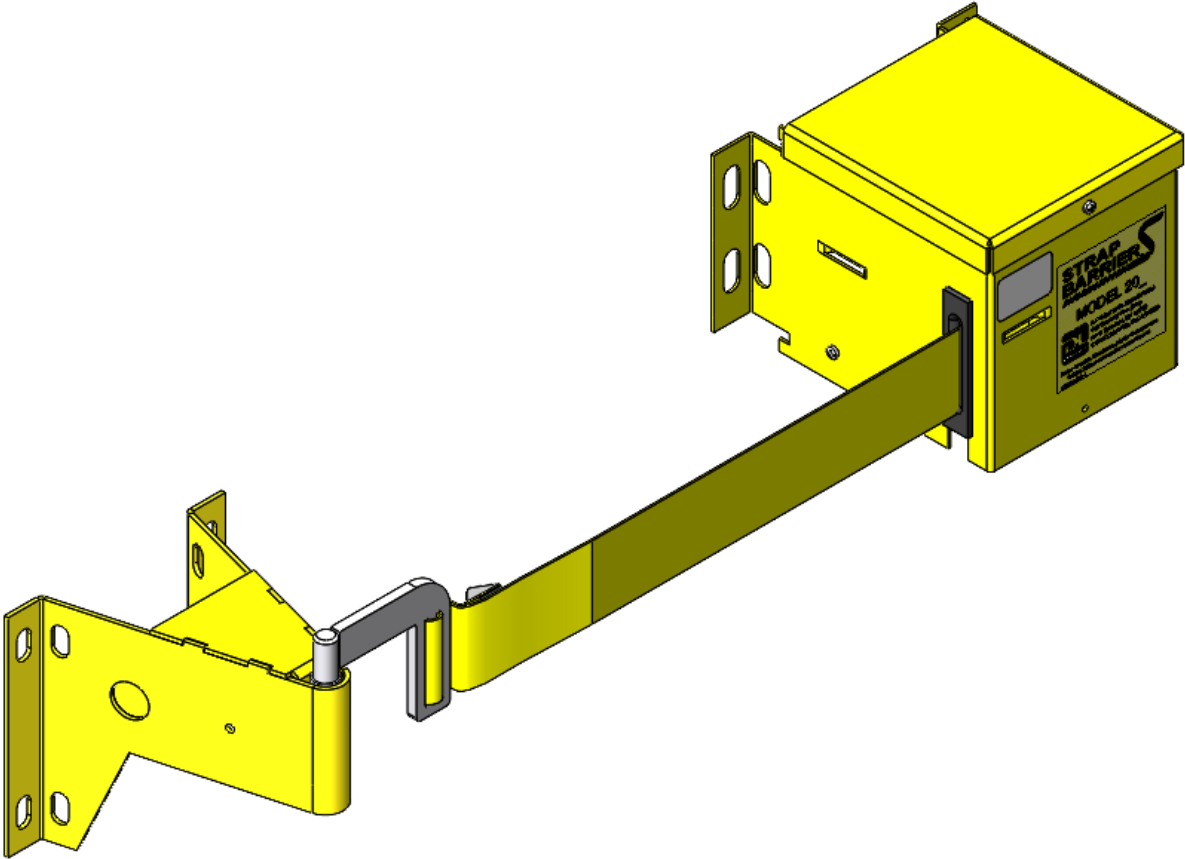


# Strap Barrier™ Installation Guide

## Strap Barrier™ Models ST203 & ST204



*A Product of*



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North Syracuse, NY 13212  
Phone: 315-463-7348  
Toll Free: 866-235-7468  
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Email: [sales@dlmanufacturing.com](mailto:sales@dlmanufacturing.com)  
[www.dlmanufacturing.com](http://www.dlmanufacturing.com)

## WARNING!!!!

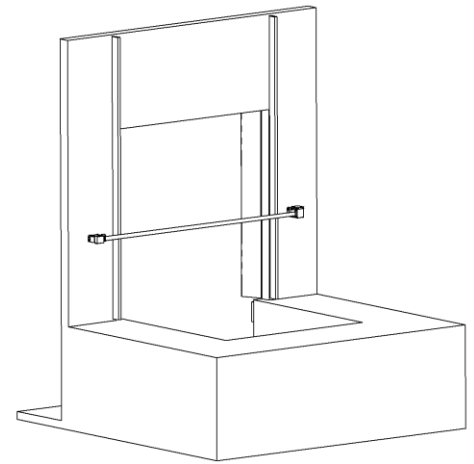
**Do not use in hazardous or corrosive environments!**

## REQUIRED TOOLS

- Pliers
- Drivers and wrenches appropriate to installer-supplied fasteners
- 3/16" hex driver
- Phillips head screwdriver

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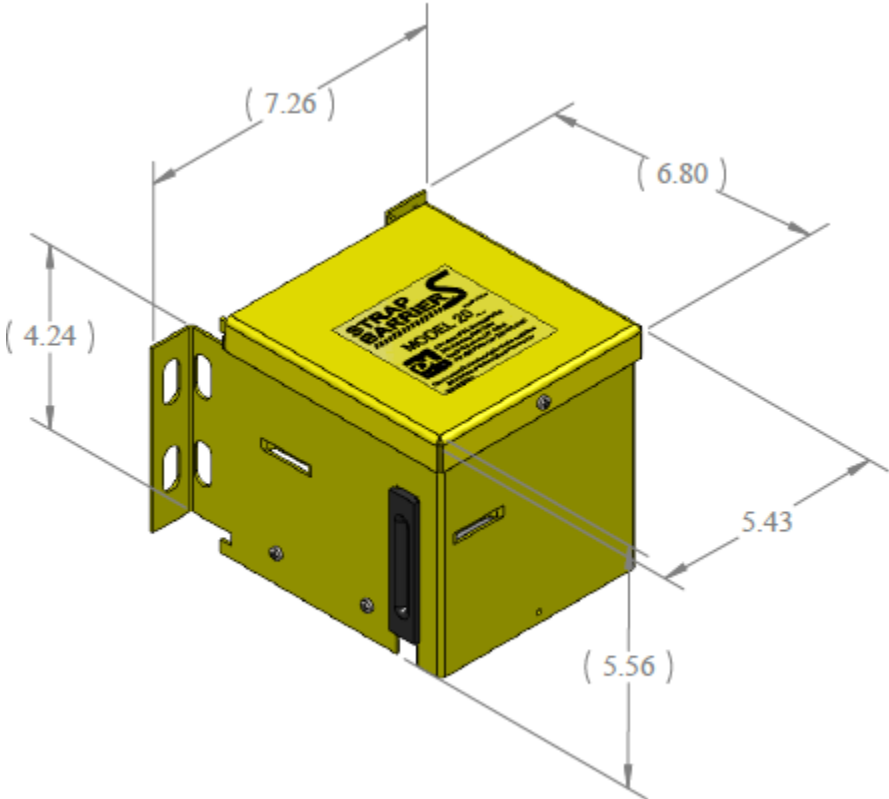
## YEARLY MAINTENANCE

- 1 – Inspect connections for any damage
- 2 – Inspect mounting bolts for tightness
- 3 – Inspect strap material for any cuts or fraying
- 4 – Clean unit with compressed air

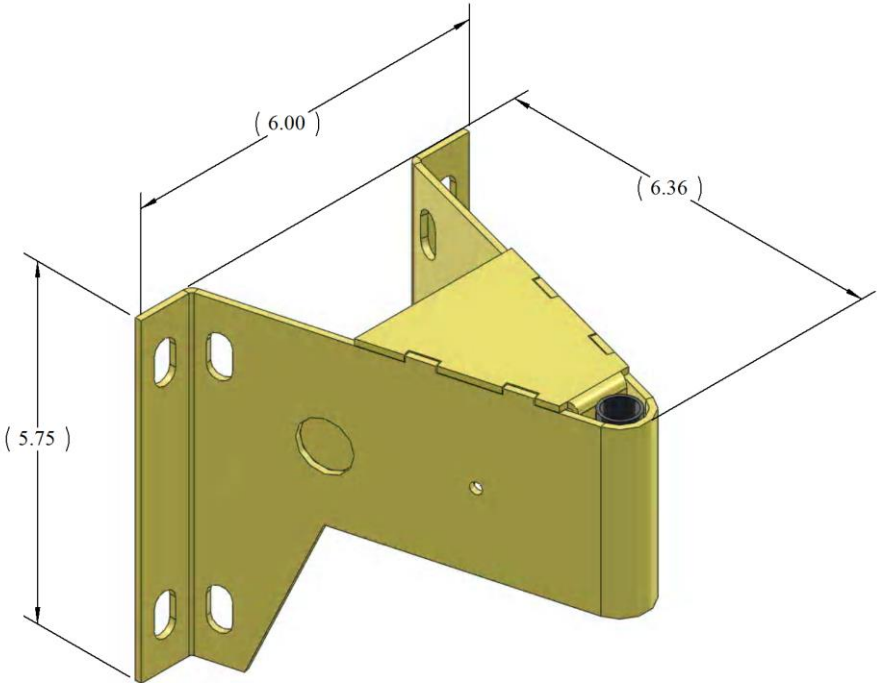
## STRAP REPLACEMENT POLICY

*STRAP BARRIER is designed with a unique recoil system. **This recoil is set at the factory and can't be reset in the field.** Therefore, if the strap is damaged in the field (cut, frayed, etc.) the complete Recoil Housing w/strap (Part # SB5046) must be returned to DL Manufacturing for strap replacement. DL Manufacturing will replace all damaged straps shipped to us with the Recoil Housing within 4 business days from receipt (this does not include outbound transit time). We recommend that customers keep several spares in stock.*

**DIMENSIONAL DRAWINGS**



**Recoil Assembly**



**Receiver Assembly**

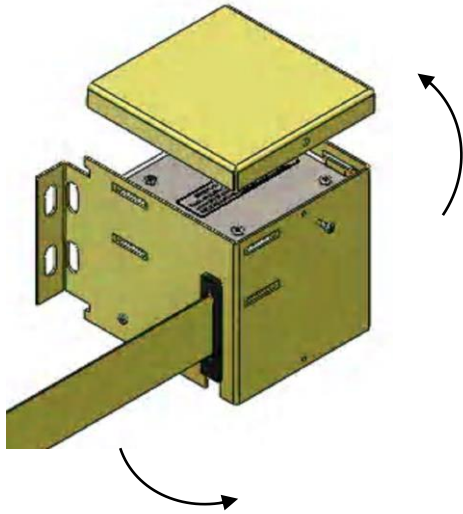
## CHANGING FROM RIGHT MOUNT TO LEFT MOUNT

### CAUTION!!

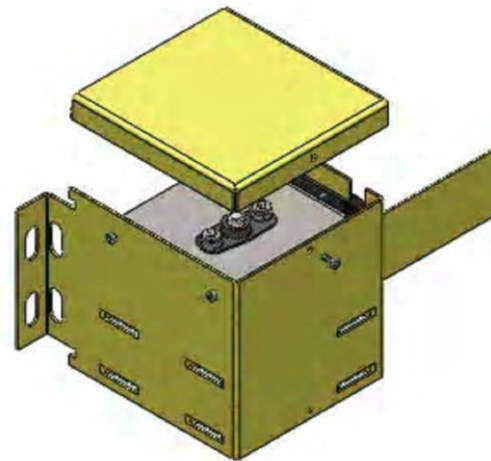
Care must be taken to prevent the strap from retracting into the housing while the handle is being adjusted. Failure to do so will result in loosening the pretension on the spring and **require immediate factory repair**. Pull the strap out of the recoil assembly and clamp the strap using vise grips or similar tool next to the recoil assembly to prevent the strap from retracting back into the assembly.

The STRAP BARRIER™ is supplied as right-hand mount. Instructions to change from right to left-hand mount are as follows:

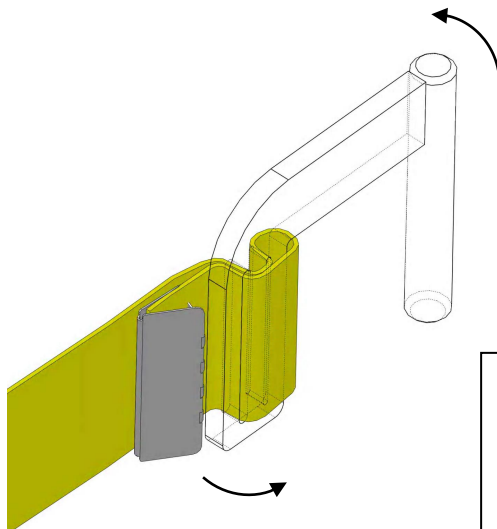
1. Remove the top cover of the SB5046 Recoil Housing (See Figure 1), rotate the SB5046 Recoil Housing 180° and re-attach the cover on the other side of the assembly (See Figure 2.)
2. Remove the SB5017 Strap Handle, rotate it 180° and re-attach (See Figure 3.)



**Figure 1.** Remove Recoil Housing cover and rotate 180°.



**Figure 2.** Re-attach cover on what was the bottom of the Recoil Housing.



**Figure 3.** Remove strap handle, rotate it 180° and re-attach. Refer to figure on page 6 for more detail.

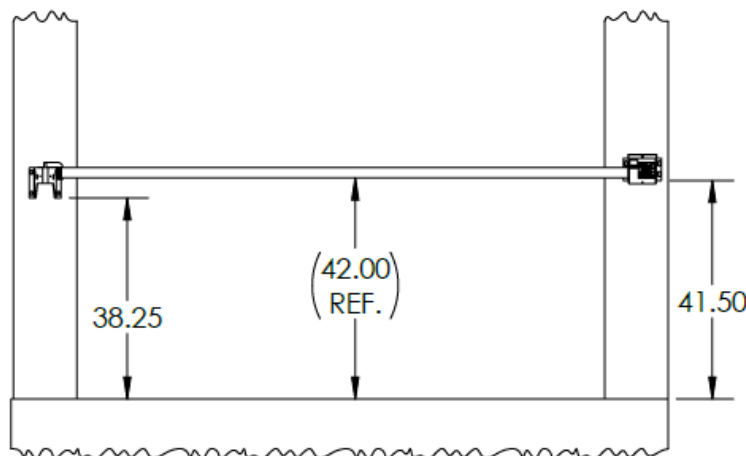
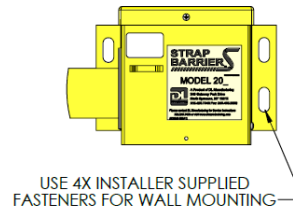
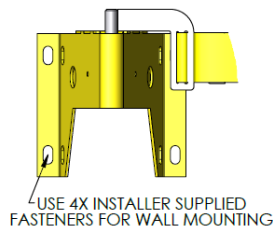
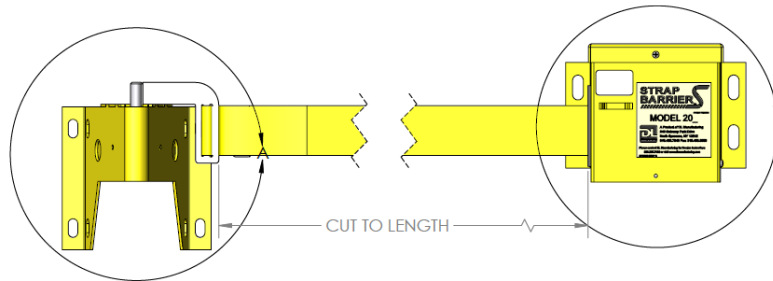
**(CARE MUST BE TAKEN TO PREVENT STRAP FROM RETRACTING INTO HOUSING.)**

## WALL MOUNT INSTALLATION

1. Determine the type of fastener required for the application. For concrete walls, use  $\frac{1}{4}$ " x  $1\frac{3}{4}$ " Wedge Anchors (Fastenal #50102 or equivalent). For metal beams, use  $\frac{1}{4}$ " x  $1\frac{1}{4}$ " self-tapping screws (Fastenal #32109 or equivalent). A total of eight installer-supplied fasteners will be needed, four on each side.
2. Mount the SB5046 Recoil Mounting Bracket  $41\frac{1}{2}$ " off the floor using 4 installer-supplied fasteners.
3. Mount the SB5044 Receiver Mounting Bracket  $38\frac{1}{4}$ " off the floor.

### WARNING!!!!

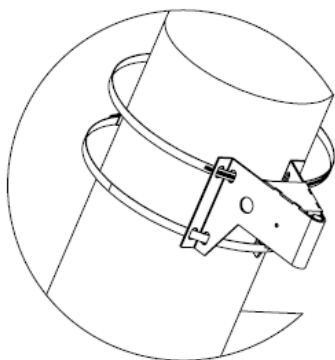
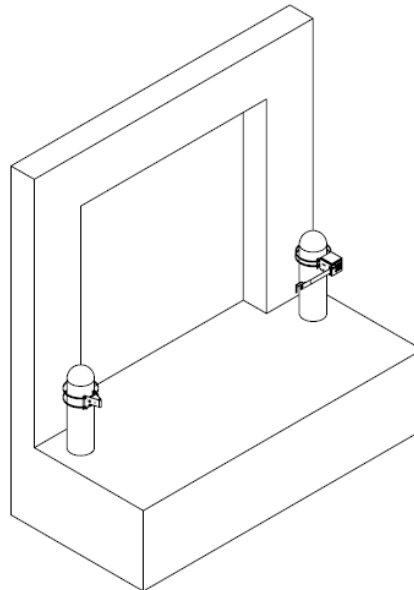
**Be sure to mount the unit securely to the wall. Improper installation could result in serious injury.**



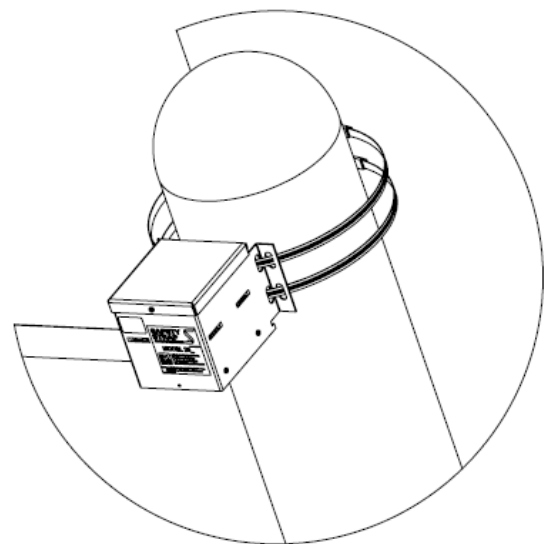
DIMENSIONS FOR WALL MOUNTING

## ***BOLLARD MOUNT INSTALLATION (Optional Mounting Kit ST5018)***

1. Slightly bend the flanges of the mounting brackets to fit the rounded surface of the bollard.
2. Mount the SB5046 Recoil Assembly 41-1/2" off the floor using two MK2001 hose clamps. Slide the hose clamps through the holes on the brackets and tighten the clamps. Cut off excess material on the hose clamps and make sure no sharp edges are exposed. Ensure the strap components are facing the exterior of the building to reduce exposure. See diagrams below.
3. Mount the SB5044 (ST203) or SB5049 (ST204) Receiver Assembly 38-1/4" off the floor using two MK2001 hose clamps. Cut off excess material on the hose clamps and make sure no sharp edges are exposed. Ensure the strap components are facing the exterior of the building to reduce exposure. See diagrams below.



**RECEIVER SIDE**



**RECOIL SIDE**

## STRAP LENGTH ADJUSTMENT

### CAUTION!!

- Care must be taken to prevent the strap from retracting into the housing while the handle cap screws are loose. Failure to do so will result in loosening the pretension on the spring and **require immediate factory repair**.
- The strap must be adjusted to the correct length or serious injury could result.

### STEP 1

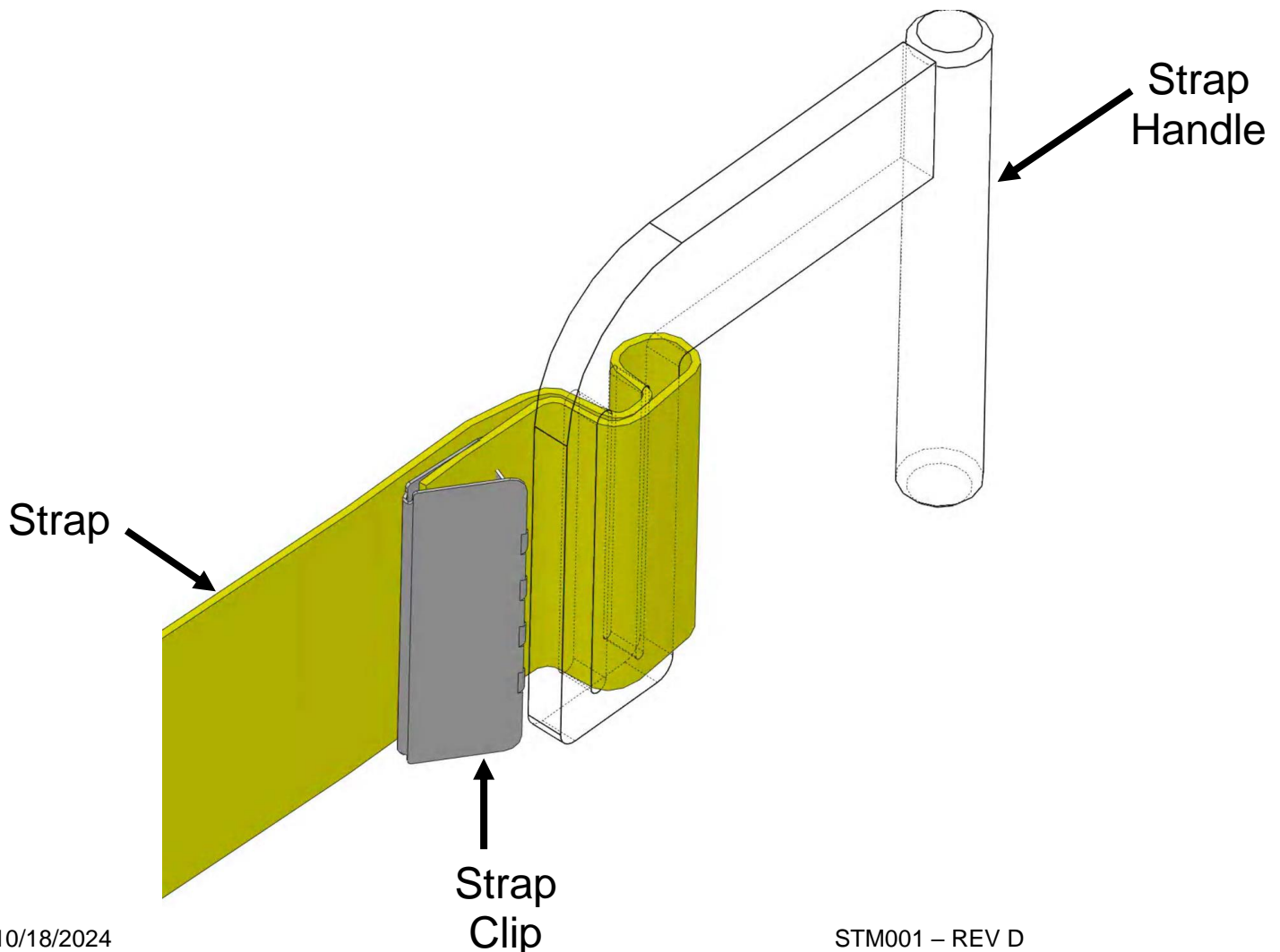
Pull the strap out of the recoil assembly until the end is reached. Clamp the strap using vise grips or similar tool next to the recoil assembly to prevent the strap from retracting back into the assembly.

### STEP 2

Place the strap handle into the receiver box. Pull the excess strap through the handle so that the strap is tight.

### STEP 3

Cut off the excess strap leaving approximately 1" remaining. Place the strap clip over the remaining 1" of strap. Use a pair of pliers to clamp the strap clip over the end of the strap. This will prevent the strap from unraveling.



## WIRING DIAGRAM / INSTRUCTIONS (Model ST0204 only)

If wiring the STRAP BARRIER™ proximity sensor to a SMART CHOCK™ or SAFETY SIGNAL™ **NOT** using a door sensor, see **Section 1**.

If wiring the STRAP BARRIER™ proximity sensor to a SMART CHOCK™ or SAFETY SIGNAL™ **using** a door sensor, see **Section 2**.

For wiring to **all other** SMART CHOCK™ or SAFETY SIGNAL™ control boards **with** a door sensor, refer to **Addendum A on pg. 9 & 10 and contact factory for assistance**.

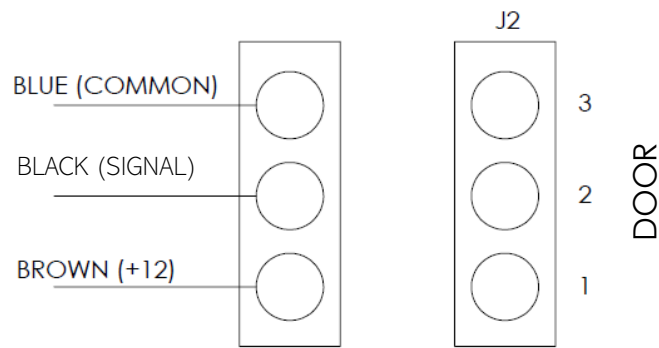
### SECTION 1

**STEP 1**

Insert sensor wire into pluggable terminal block as shown below in **Figure 1**. Plug into DOOR header (J2) on control board.

**STEP 2**

Fold over the remaining white wire and tape it to the cord with electrical tape to prevent any short from occurring.



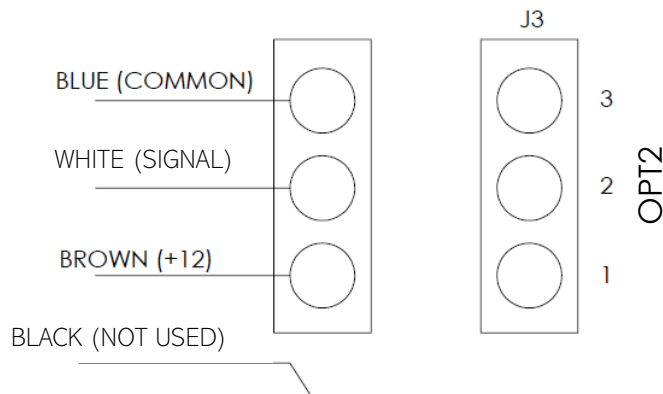
### SECTION 2

**STEP 1**

Insert sensor wire into pluggable terminal block as shown below in Figure 2. Plug into OPT 2 header (J3) on control board.

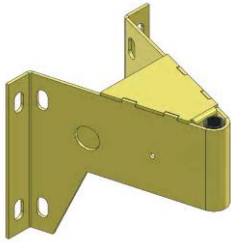
**STEP 2**

Fold over the remaining white wire and tape it to the cord with electrical tape to prevent any short from occurring.

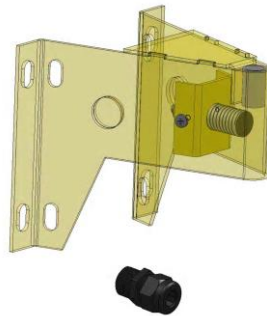




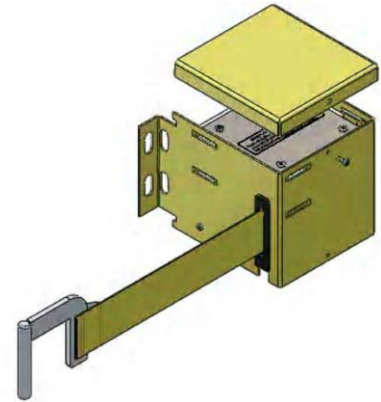
## STRAP BARRIER™ Replacement Parts



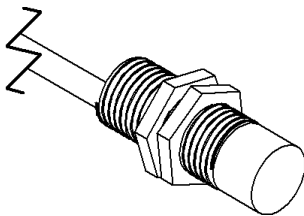
SB5044  
Receiver Bracket  
(Model ST203)



SB5049  
Receiver Bracket with Prox  
(Model ST204)



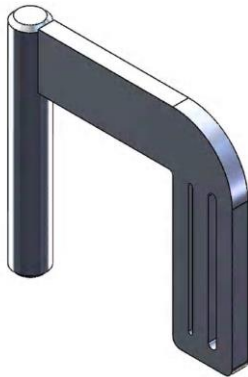
SB5046 Recoil Housing  
(No serviceable parts)



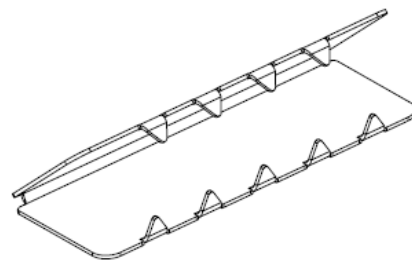
ST3001  
Proximity Sensor  
Model ST0204 only



MK2001  
10" Hose Clamp  
(Optional Bollard Mount)



SB5017  
Strap Handle



ST2009  
Strap Clip

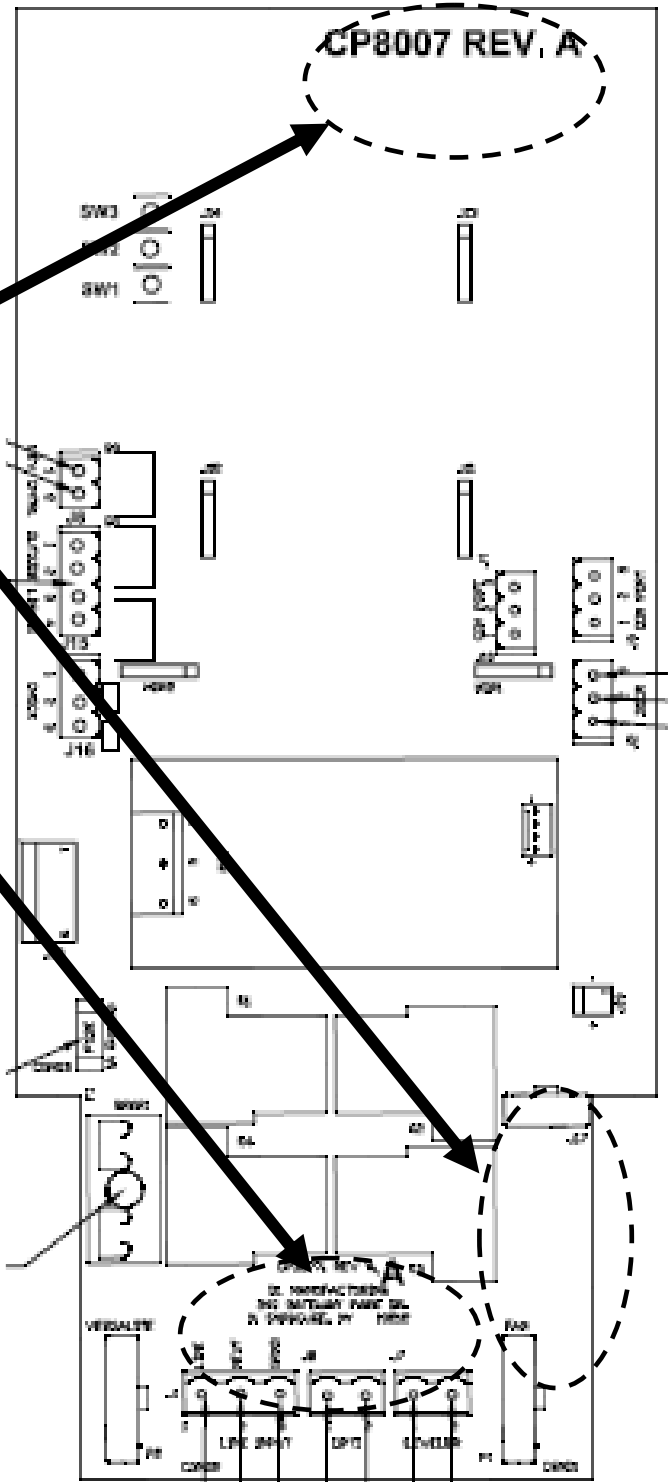
**NOTE:** RECOIL SYSTEM IS SET AT THE FACTORY AND CAN NOT BE RESET IN THE FIELD. IF THE STRAP IS DAMAGED IN THE FIELD, THE COMPLETE RECOIL HOUSING WITH STRAP (PART# SB5046) MUST BE RETURNED TO DL MANUFACTURING FOR STRAP REPLACEMENT. PLEASE CONTACT DL MANUFACTURING FOR PRICING.

## ADDENDUM A

Before wiring the STRAP BARRIER™, you must determine

- The part # and revision of the control board. Part # \_\_\_\_\_ Revision \_\_\_\_\_
- If control board is REV D, call factory for assistance.

**NOTE:**  
Check one of the circled areas for the control board part # and revision level.



STM001 – REV D

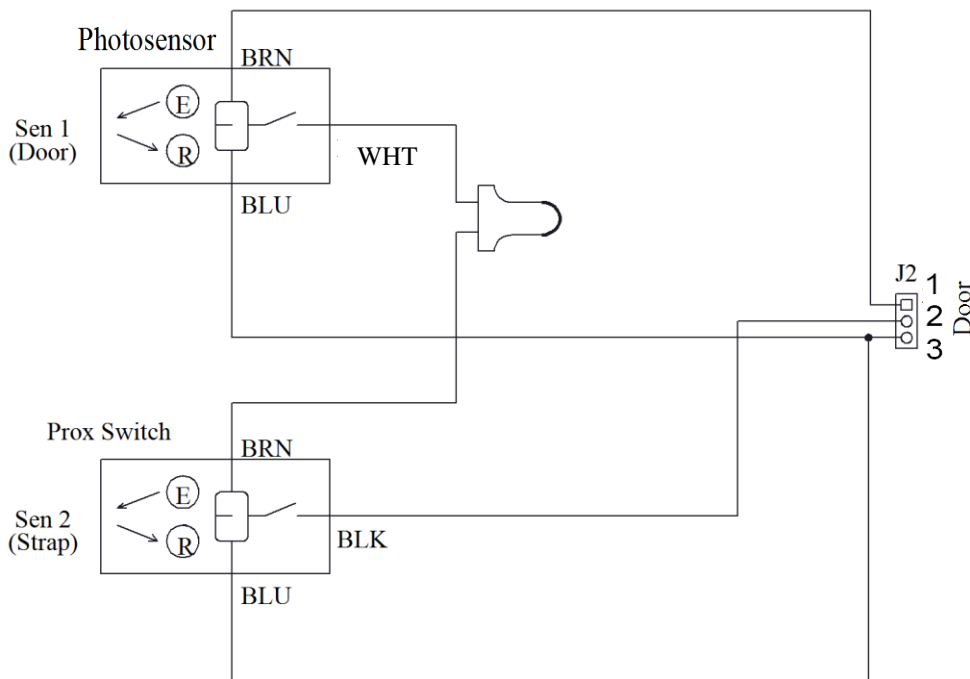
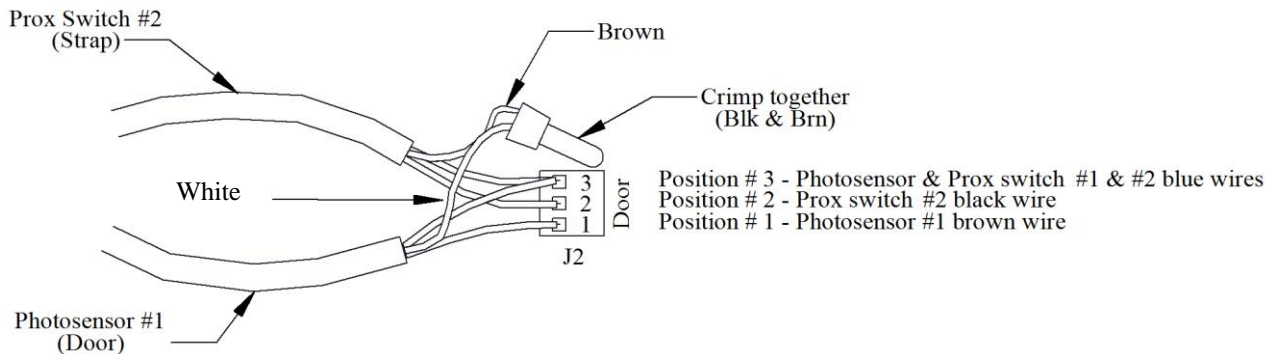
## WIRING DIAGRAM / INSTRUCTIONS FOR EXISTING SMART CHOCK™ / SAFETY SIGNAL™

**NOTE:** Older SMART CHOCK™ or SAFETY SIGNAL™ control boards do not have an input for a second sensor. The door sensor and the STRAP BARRIER™ need to be wired in series in order to operate correctly.

**NOTE:** The signal wire can be white or black. Use the black for the signal first. The red light should be illuminated on the inside when the strap handle is in the receiver. If the light is green then switch the wire to white.

**STEP 1** Insert sensor wire into pluggable terminal block as shown below in Figure 3. Plug into DOOR header (J2) on control board.

**STEP 2** Fold over the remaining wire and tape it to the cord with electrical tape to prevent any short from occurring.



## DL Manufacturing Terms / Conditions/ Warranty

### Shipping Times

~ Orders for stock items received by 3:00pm EST will be processed for shipment the next day. Orders requesting 2<sup>nd</sup> Day Air or Overnight Air received by 1:00pm will be processed for same day shipment.

### Shipments / Freight

~ All DL Manufacturing orders will ship directly from our facility in North Syracuse, NY.

~ All parts will be shipped via UPS Ground unless you authorize a different service. UPS shipments are prepaid and the charges are added to your invoices.

~ For orders shipping by common carrier, the freight will be FOB, North Syracuse, NY. When "best way" is the preferred shipping method on your order, DL Manufacturing will choose the carrier, unless otherwise stated, for the orders shipping from this facility. No adjustments will be made after the order has shipped.

### Returns

~ DL Manufacturing will issue a Returned Material Authorization (RMA) number for any product, parts and accessories. Products should not be returned without an RMA number.

~ Replacement parts will be invoiced at the time of shipping. Invoices will be credited upon receipt and inspection of Returned Material Authorization (RMA).

~ Freight for returns is paid for by the shipper unless otherwise specified by DL Manufacturing.

~ A restocking fee of 25% of net price or a minimum \$20.00 is charged for returns.

~ All replacement parts are warranted for a period of 90 days from shipment.

### Cancellation Fees

~ Cancellation charges may be incurred on orders cancelled with DL Manufacturing. Please contact DL Manufacturing to discuss each situation.

### Warranty Policy

~ All Products (excluding doors, seals, bumpers and bulbs) manufactured by DL Manufacturing are warranted to be free from defects for a period of 12 months from the date of shipment. This warranty does not cover unreasonable/improper use or use beyond rated conditions, improper storage, negligence or accident; damage because of incorporated use of equipment with Goods, after Customer has or reasonably should have, knowledge of any defect; or improperly installed by any other Person that is unauthorized by DL Manufacturing.

This warranty is subject to customer covenants to inform all subsequent buyers of the Goods of the limitation on and exclusive of warranties provided for herein. Customer hereby indemnifies and agrees to hold DL Manufacturing harmless from and against all losses, costs and expenses, including reasonable attorney's fees incurred by DL Manufacturing as a result of any third-party claim relating to the purchase, sale or use of, or otherwise relating to, the Goods covered by this Agreement.

In no event shall DL Manufacturing be required to repair, replace or reimburse Customer for more than the part or material that is found to be defective and DL Manufacturing's liability shall in such event be no greater than the invoiced price of the item and shall not include labor, shipping or other costs incurred in connection with the reshipment of defective Goods to DL Manufacturing or the reinstallation of such Goods after any repair or replacement. The remedy set forth in this paragraph is expressly agreed to be the sole and exclusive remedy for any breach of warranty. This warranty is exclusive and in lieu of all other warranties expressed or implied, including but not limited to any warranty of merchantability or of fitness for a particular purpose.

Limitation of Liability - In no event as a result of breach of contract, warranty or negligence shall DL Manufacturing be liable for special, or consequential damages including but not limited to loss of profits or revenues, loss of any equipment, cost of capital, cost of substitute equipment, facilities or services, downtime costs or claims of purchasers of the Customer for such damages. Additionally, DL Manufacturing will not be liable for any delay in the performance of contracts and orders, or in the shipment and delivery of goods, or for any damage suffered by the Customer by reason of delay, when such delay is, directly or indirectly, caused by force majeure, including war, Government interference, strikes, embargoes, shortage of labor, fuel, fires, floods, or any other cause or cause whether or not similar in nature to any of those herein before specified beyond DL Manufacturing's control.

**Service & Support Helpline: 866.461.1246**  
**Service & Support Email: [dlservice@dlmanufacturing.com](mailto:dlservice@dlmanufacturing.com)**