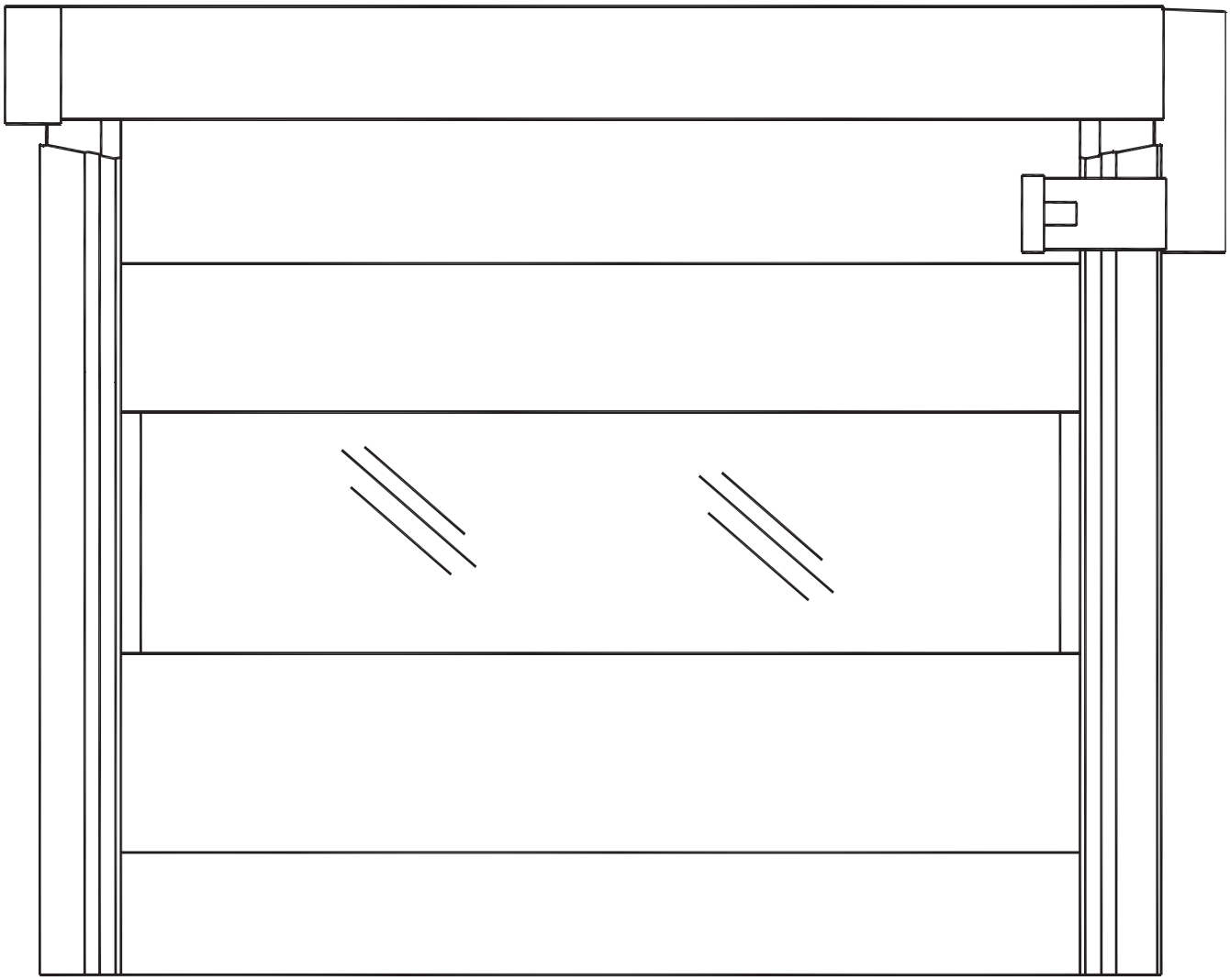
PROTECDOR®

MODEL 8000



ISO 9001 CERTIFIED

RITE-HITE® DOORS
The Leading Edge In Door Safety.

MADE IN THE U.S.A.

This Manual Covers Doors After 2-20-06, For Doors Prior, Refer To 8000H.

PRINTED IN U.S.A.
EMAIL: PRINTSHOP@RITEHITE.COM

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JANUARY 2007

PRODUCT INTRODUCTION

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NOTICE TO USER

Our mission is to "Improve Industrial Safety, Security and Productivity Worldwide Through Quality and Innovation."

Thank you for purchasing the PROTECDOR® from RITE-HITE DOORS, INC. The Protecdor is a roll-up fabric door designed to help keep different atmospheres separate, while allowing traffic flow. The full width vision allows sight to on coming traffic, as well as allowing daylight to enter rooms.

This owners manual MUST be stored near the door. RITE-HITE DOORS, INC. reserves the right to modify the electrical and architectural drawings in this manual as well as the actual parts used on this product are subject to manufacturing changes and may be different than shown in this manual. Due to unique circumstances with varying requirements, separate prints may be included with the unit.

This manual should be thoroughly read and understood before beginning the installation, operation or servicing of this door. Complete final checklist prior to leaving site.
Refer to partslist manual for exploded views and part numbers.

The information contained in this manual will allow you to operate and maintain the door in a manner which will insure maximum life and trouble free operation. The serial # for your door is on a label located on the side of the control box and sideframe, ***Figure 13.***

Your local RITE-HITE DOORS, INC. Representative provides the Planned Maintenance Program (P.M.P.) which can be fitted to your specific operation. If any procedures for the installation, operation or maintenance of the PROTECDOR have been left out of this manual or are not complete, contact RITE-HITE DOORS, INC. Technical Support at 1-563-589-2722.

RITE-HITE DOORS, INC. are covered by one or more of the following U.S. patents, including patents applied for, pending, or issued: 5,025,846, 5,143,137, 5,203,175, 5,329,781, 5,353,859, 5,392,836, 5,450,890, 5,542,463, 5,579,820, 5,601,134, 5,638,883, 5,655,591, 5,730,197, 5,743,317, 5,794,678, 5,887,385, 5,915,448, 5,944,086, 5,957,187, 6,042,158, 6,089,305, 6,098,695, 6,145,571, 6,148,897, 6,192,960, 6,321,822, 6,325,195, 6,330,763, 6,352,097, 6,360,487, 6,574,832, 6,598,648, 6,612,357, 6,615,898, 6,659,158

INSTALLATION TOOLS REQUIRED

- 25' Tape measure
- 6' Carpenters level
- 9/16" Open end wrench
- Hammer Drill
- Fork and/or Scissors Lift
- Hydro level
- 9/16" Socket wrench
- Straight Edge
- Ladder

SPECIAL FEATURES

- i-COMM™ Universal Controller
- High resistant Elvaloy® fabric
- Full width vision.
- Soft Stop™ Safety System
- Turn-Tite® Seal
- Wind Retention Clips
- Variety of colors available
- Heavy-duty industrial materials

RECOMMENDED SERVICE PARTS

Open Limit Switch	15650061
Closed Limit Switch	15650062
Proximity Magnet	72700009
Photoeye Internal	63900003
Photoeye External	63900001
Photoeye Reflector	66400001
Drive Belt	12550013
Wind Retention Clips	53700124
Stop Edge Sensing Cable	7275....
Internal Sensing Cable	1576....
Internal Sensing Chain	1657....

WARRANTY

RITE-HITE DOORS, INC. warrants that its PROTECDOR, including electrical components, will be free from defects in design, materials and workmanship for a period of one (1) year, or 250,000 cycles, from the date of shipment, whichever shall first occur, but as long as the door is not cycled more than 1,000 times per day. RITE-HITE DOORS, INC. warrants that the PROTECDOR curtain fabric shall be free from defects in design, materials and workmanship for a period of five (5) years, or 500,000 cycles from the date of shipment, whichever shall first occur. The curtain fabric replacement warranty covers material failure under normal wear conditions; it does not cover labor, vision panel, or damage incurred from abuse, misuse or impact. Vision panel, belting, fuses, bulbs, batteries, seals are wear items, and not considered to be covered by warranty. All claims for breach of this warranty must be made within thirty (30) days after the defect is or can, with reasonable care, be discovered to be entitled to the benefits of this warranty, the products must have been properly installed, maintained, operated within their rated capacities, and not otherwise abused. Periodic lubrication and adjustment is the sole responsibility of the owner. This warranty is RITE-HITE DOORS, INC. exclusive warranty. RITE-HITE DOORS, INC. EXPRESSLY DISCLAIMS ALL IMPLIED WARRANTIES INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. Non-standard RITE-HITE DOORS, INC. warranties, if any, must be specified by RITE-HITE DOORS, INC. in writing.

In the event of any defects covered by this warranty, RITE-HITE DOORS, INC. will remedy such defects by repairing or replacing any defective equipment or parts, bearing all of the costs for parts, labor, and transportation. This shall be the exclusive remedy for all claims whether based on contract negligence or strict liability. Neither RITE-HITE DOORS, INC. ANY OTHER MANUFACTURER WHOSE PRODUCTS ARE THE SUBJECT OF THIS TRANSACTION, NOR ANY RITE-HITE DOORS, INC. REPRESENTATIVE, SHALL IN ANY EVENT BE LIABLE FOR ANY LOSS OR USE OF ANY EQUIPMENT OR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND WHETHER FOR BREACH OF WARRANTY, NEGLIGENCE, OR STRICT LIABILITY. The application of a manufacturer's specifications to a particular job is the responsibility of the purchaser. RITE-HITE DOORS, INC. SHALL NOT IN ANY EVENT BE LIABLE FOR ANY LOSS OF THE USE OF ANY EQUIPMENT OR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND.

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INSTALLATION INSTRUCTIONS

⚠ CAUTION !!!

Make sure to barricade the door opening on both sides to prevent unauthorized use until the door has been completely installed.

⚠ DANGER !!!

When working with electrical or electronic controls, make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

It is important to verify the following basic information before starting with the installation.

TO PREVENT DAMAGE TO CONTENTS, STORE DRY BETWEEN 40° AND 80° F.

1. Make sure that you are working at the correct location and that you have any special work permits.
2. Inspect the installation site to make sure that there are no overhead obstructions (sprinkler pipes, HVAC systems, electrical supply lines, etc.) that might interfere with the lifting of the header assembly during installation.
3. Detour material handling equipment (fork lift trucks, etc.) during the installation of the door.
4. Make sure that the electrician is ready to bring the correct electrical power supply to the door control box.
5. Make sure that the electrical power can be shut off without interfering with other plant operations.
6. Move the entire crate of the door components as close to the door opening as possible.
7. When unpacking the door components remove the lighter items first (electrical components), then the sIdeframes, and the roller tube assembly last.
8. Measure the overall width of the door opening near the floor and the top (Dimensions A and B), ***Figure 1.***
9. Measure the height of the door opening at the left and right-hand sides (Dimensions C and D), ***Figure 1.***
10. These dimensions should be within ±1" of the dimensions listed on the Serial Number label. If the measurements do not agree, STOP! Contact your RITE-HITE DOORS, INC. representative.
11. Using a 6' carpenter's level, verify that the door jambs are plumb and perpendicular, the header and floor are level, within ±1". If the floor is not level to within 1", shimming of the support post will be required, ***Figure 1.***
12. Be sure to install any optional equipment last after verifying door operation.

NOTE:

Electrical prints included in the parts or control box, supersede any prints included in this owners manual on Pages 18-21. Always check for electrical prints.

SIDEFRAME INSTALLATION

1. Using a hydro level, determine if the door opening is level, ***Figure 1.*** If the opening is not level, mark the wall where the level point is indicated. The measurement between the level mark the floor is the amount of shimming that needs to be done under the sideframe that will be located on the "Low Side" (greatest measurement) of the door opening.
2. Measure the door opening width and place a mark at the center on the floor, ***Figure 1.*** Measure 1/2 the O.D.W. from the centerline and place a mark on each side.
3. Remove sideframe covers and motor shroud.

NOTE:

If no shimming is required, mount the motor drive side sideframe assembly first.

If the door is wider than the opening the breakaway magnets may not function properly.

4. Position the high side sideframe on the wall using the mark made from ***Step 2*** and using a 6' level, make sure that the sideframe is square and plumb in both directions. Use shims as required to square up the sideframe.

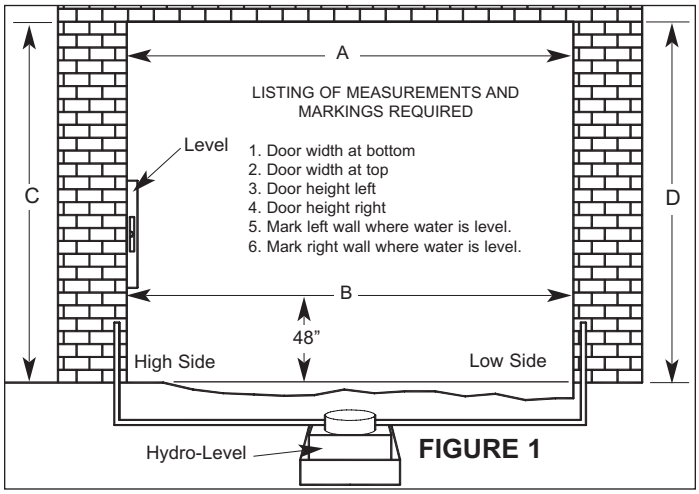


FIGURE 1

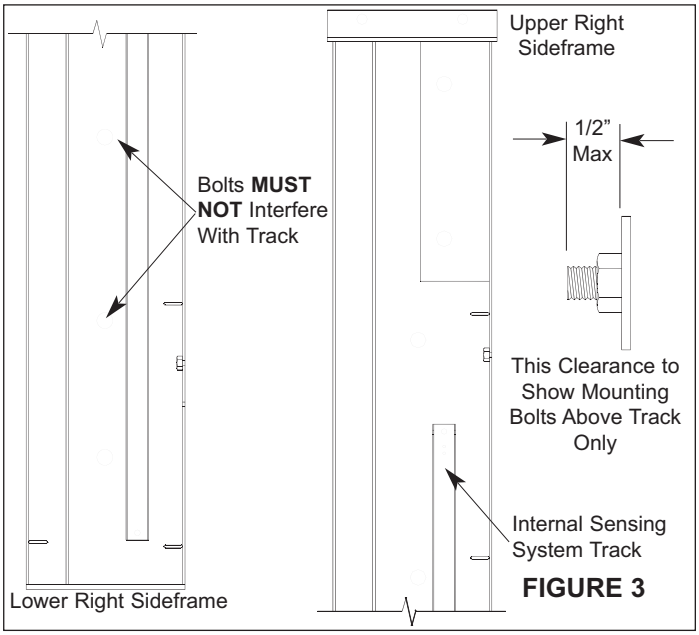


FIGURE 3

SIDEFRAME INSTALLATION INSTRUCTIONS

5. Using the predrilled holes in the sideframe as a guide, drill remaining anchor holes, ***Figures 3 & 4.*** If thru-bolting, use backing plates to secure the sideframe to the wall. It is especially important to fully secure the top hole of each sideframe with a thru-bolt. Install the fasteners finger tight.

6. Position the low side sideframe on the wall using the mark made from ***Step 2*** and using a 6' level, make sure that the sideframe is square and plumb in both directions. Use shims as required to square up the sideframe.

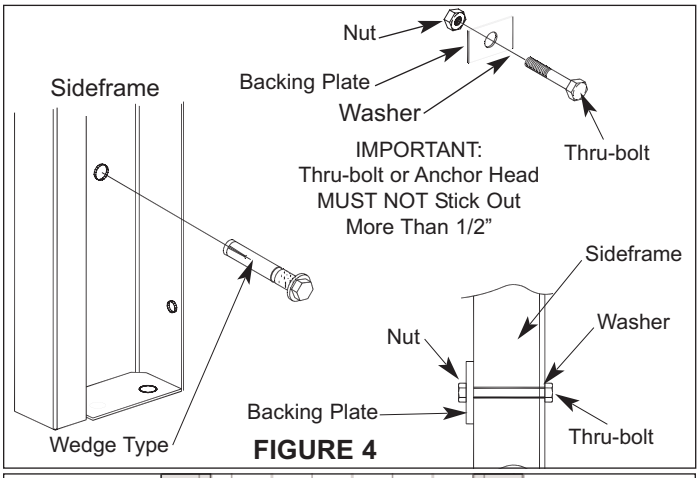


FIGURE 4

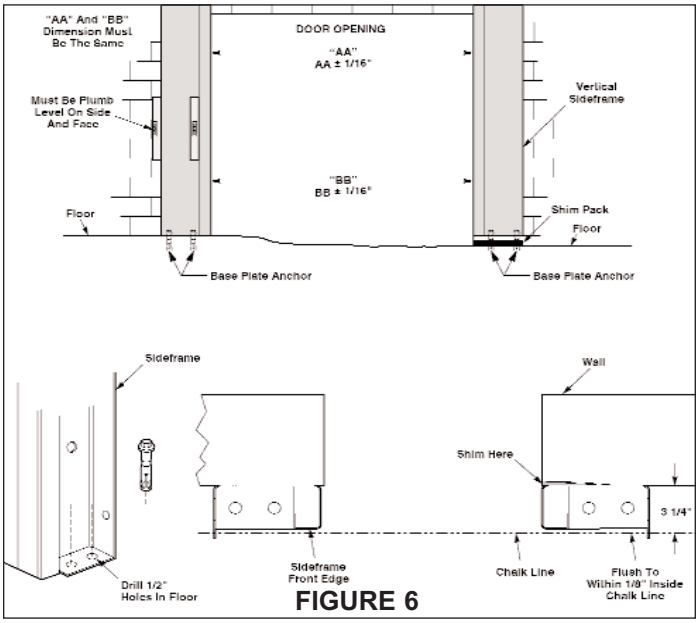


FIGURE 6

7. Be sure that the wires and connectors coming out of each end of the crossbeam and top of the sideframes are free and clear before fastening the crossbeam, ***Figure 5.***

NOTE: Solid plastic or metal shims must fully support the sideframe base plate. Drill through the shims to allow for the proper installation of the anchor bolts

8. Install the top seal crossbeam to the sideframe assemblies and secure with two 3/8" x 1" bolts and flat washers at each end, ***Figure 5.***

9. Check the front edge of the sideframe assemblies for squareness to the wall, ***Figure 6.***

10. Using the predrilled holes in the sideframe assembly base as a guide, drill the anchor holes for the floor bolts into the concrete, ***Figure 6.*** If the installation requires the use of shims, predrill the shims to allow for the anchor bolt. Install the anchor bolts and fully tighten.

11. Fully tighten all remaining anchor bolts or thru-bolts on both sideframes. Check to see that the back of the sideframe is flush with the wall, ***Figure 7.*** Make sure to check that both the top of the sideframe and the crossbeam above the motor are flush with the wall. If a gap on either side of the drive side sideframe of more than 1/16" is noticed, insert metal shims to fill the gap before tightening the thru-bolts. Make sure to position the shims as close to the thru-bolts as possible. This is important at the top of the drive side sideframe to make sure that the motor and pulleys are aligned.

NOTE: If this procedure is not followed, the sideframe assembly could be twisted slightly, causing the drive belt and limit switch belt to not track properly.

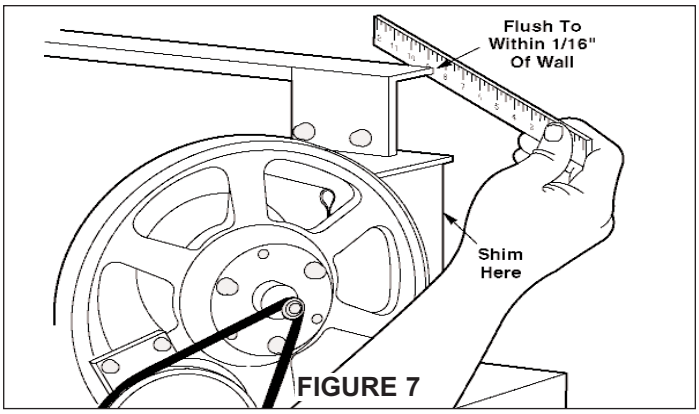


FIGURE 7

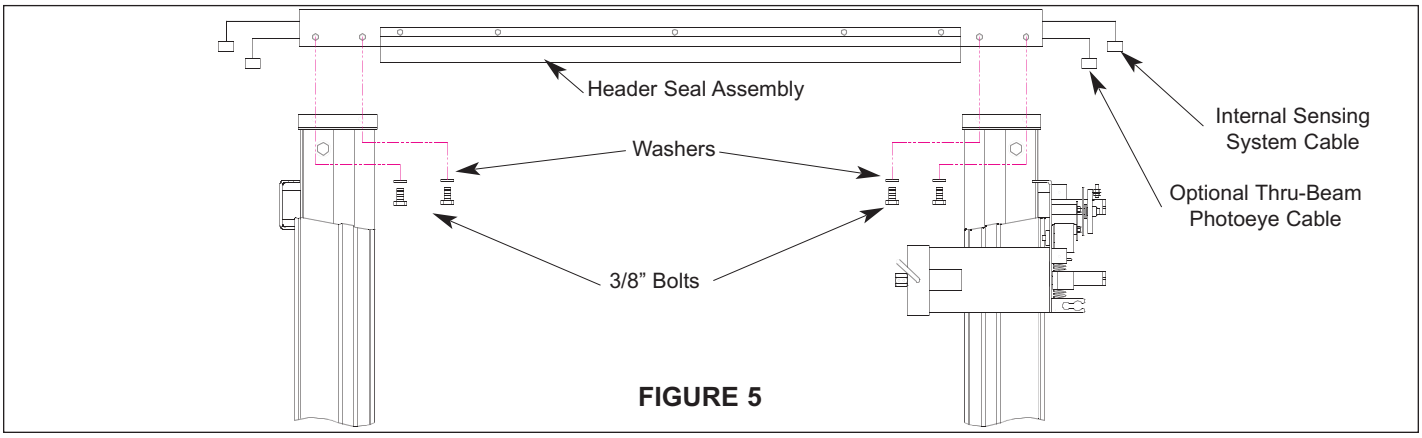


FIGURE 5

ROLLER TUBE INSTALLATION

⚠ CAUTION !!!

Secure the roller tube assembly to the lift truck forks before attempting to position the roller tube assembly, *Figure 8*.

IMPORTANT!!!

DO NOT remove the shipping bands from the roller tube assembly before completing installation.

1. Using a lift truck, fasten roller tube to forks and lift above the sideframes, ***Figure 8.***
2. Carefully lower the roller tube into position on top of the sideframes and align the bolt holes in the pillow blocks and the mounting brackets, ***Figure 9.***
3. Align and fully tighten the drive side roller tube mounting bolts.

NOTE: The non-drive side uses 7/16" x 1 1/4" bolts, flat washers, and tapered washers; the drive side uses 7/16" x 1" bolts and lock washers.

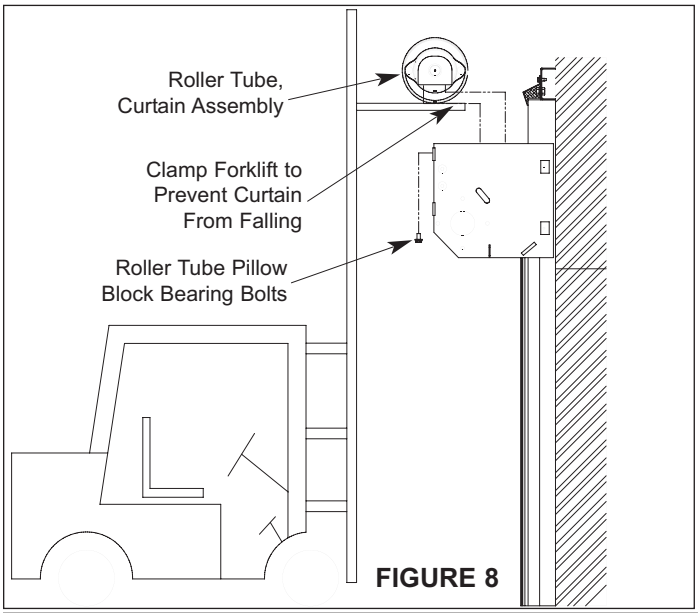


FIGURE 8

4. Align the roller tube mounting bolts and tapered washers on the non-drive side and fully tighten. If necessary, loosen the two set screws on the pillow block bearing to align mounting holes. Tighten to 66 to 80 in/lbs. of torque.
5. Using a 12" long straight edge, make sure the large pulley is square with the motor plate. Place the straight edge perpendicularly along the outside face of the motor mounting plate and measure at the front and back of the pulley, ***Figure 11.*** If these measurements are not within 1/16", shim behind the drive side sideframe.
6. Install the drive belt onto the drive pulley of the motor and position the belt on the large pulley on the roller tube, ***Figures 11 & 12.*** Make sure that the belt ribs are fully seated in the grooves of both pulleys.
7. Engage belt tensioner by pulling the end of the tension spring downward and hook the spring end over the anchor peg, ***Figure 12.*** Make sure the spring ends are in the grooves of the nylon bushings.
8. Using a straight edge, measure the distance between the drive belt and the motor plate at the roller tube and motor pulley. The measurement taken at the motor pulley must be within 1/32" of the measurement taken at the roller tube pulley. If an adjustment is required, loosen the motor pulley set screws and align the motor pulley as required. Tighten the set screws and recheck the measurement, ***Figure 11.***

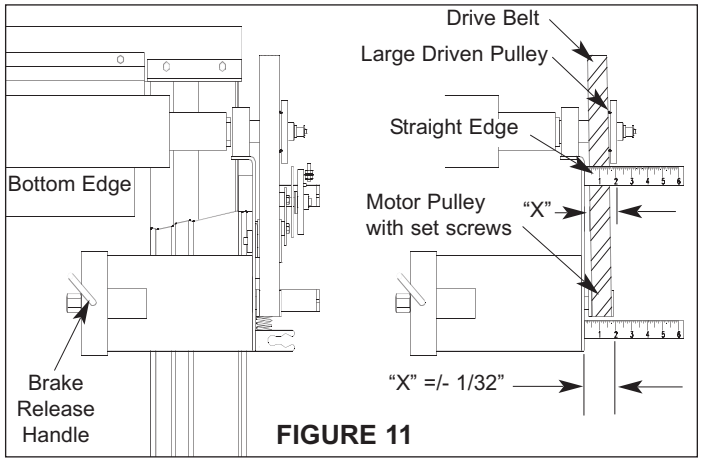


FIGURE 11

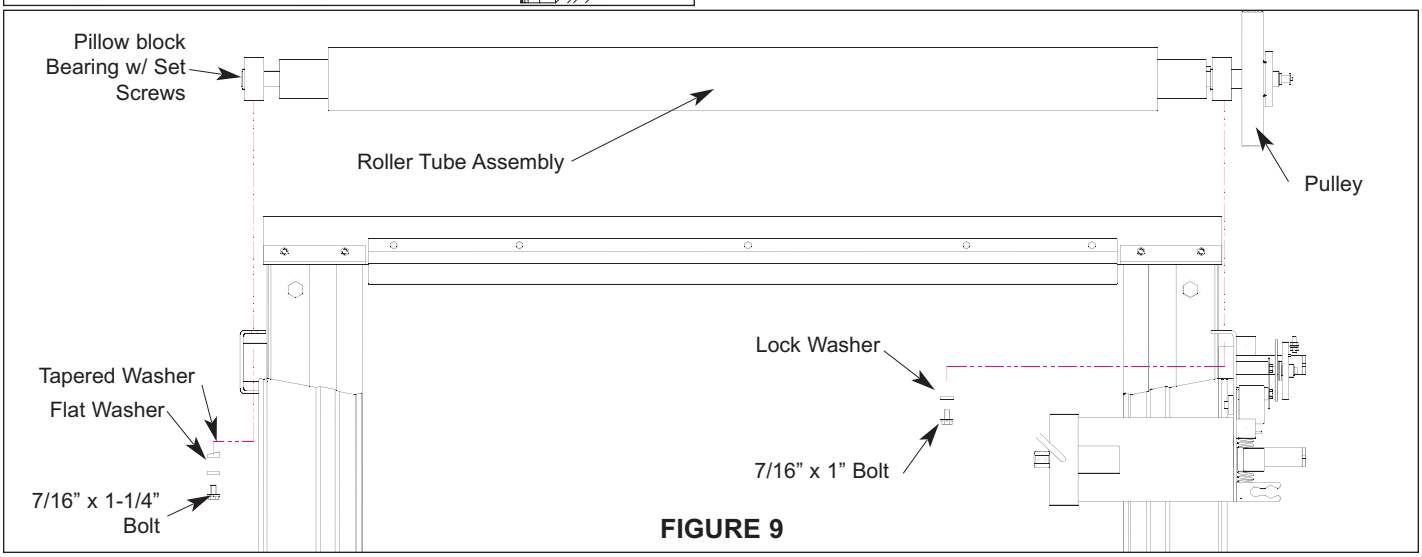


FIGURE 9

ROLLER TUBE INSTALLATION

⚠ CAUTION !!!

Keep hands and loose clothing away from the pulleys and belts while manually releasing the brake.

9. Remove the curtain shipping band. The curtain will not unroll because the brake is holding the curtain in position.
10. Using the manual brake release handle, disengage the brake and slowly lower the curtain until the bottom is even with the top of the door opening, ***Figure 11.*** Release the manual brake lever to hold the door in this position.
11. Rotate the large limit switch pulley to align the magnet assembly with the red OPEN limit switch, ***Figure 12.***
12. Install the limit switch belt over the small pulley on the roller tube and the large pulley on the limit switch assembly. Loosen the two 3/8" limit switch mounting bolts. Make sure that the timing belt is seated in the grooves on both of the pulleys.
13. Pull down slightly on the limit switch mounting plate to apply tension to the timing belt and tighten the two 3/8" bolts. In most cases, just the weight of the limit switch assembly will provide enough tensioning.

IMPORTANT!!!

Do not over tension the limit switch timing belt.

14. Slide the control box conduit fitting into the same bracket that the motor conduit is secured to and tighten the lock nut, ***Figure 12.***
15. Connect and secure all mating wire connectors from the motor, photoeyes, limit switches, and sensing system.

NOTE:

The two photoeye connectors are red in color. These must not be plugged into any other color connector.

16. The door ground wire is pre-attached at the factory to the door frame assembly by using the hex head screw and star washer attached to the conduit mounting bracket.
17. Secure all wires clear of moving parts with a wire tie.
18. Pull the manual brake release handle to slowly lower the door until the curtain is 4" from the floor.
19. Locate the close limit switch adjustment plate. Loosen the 1/4” thumb screw and rotate the limit switch plate until the black limit switch aligns with the magnet, ***Figure 12.*** Lightly tighten the lock bolt.

NOTE:

The white tipped limit switch deactivates the photoeye prior to the door fully closing.

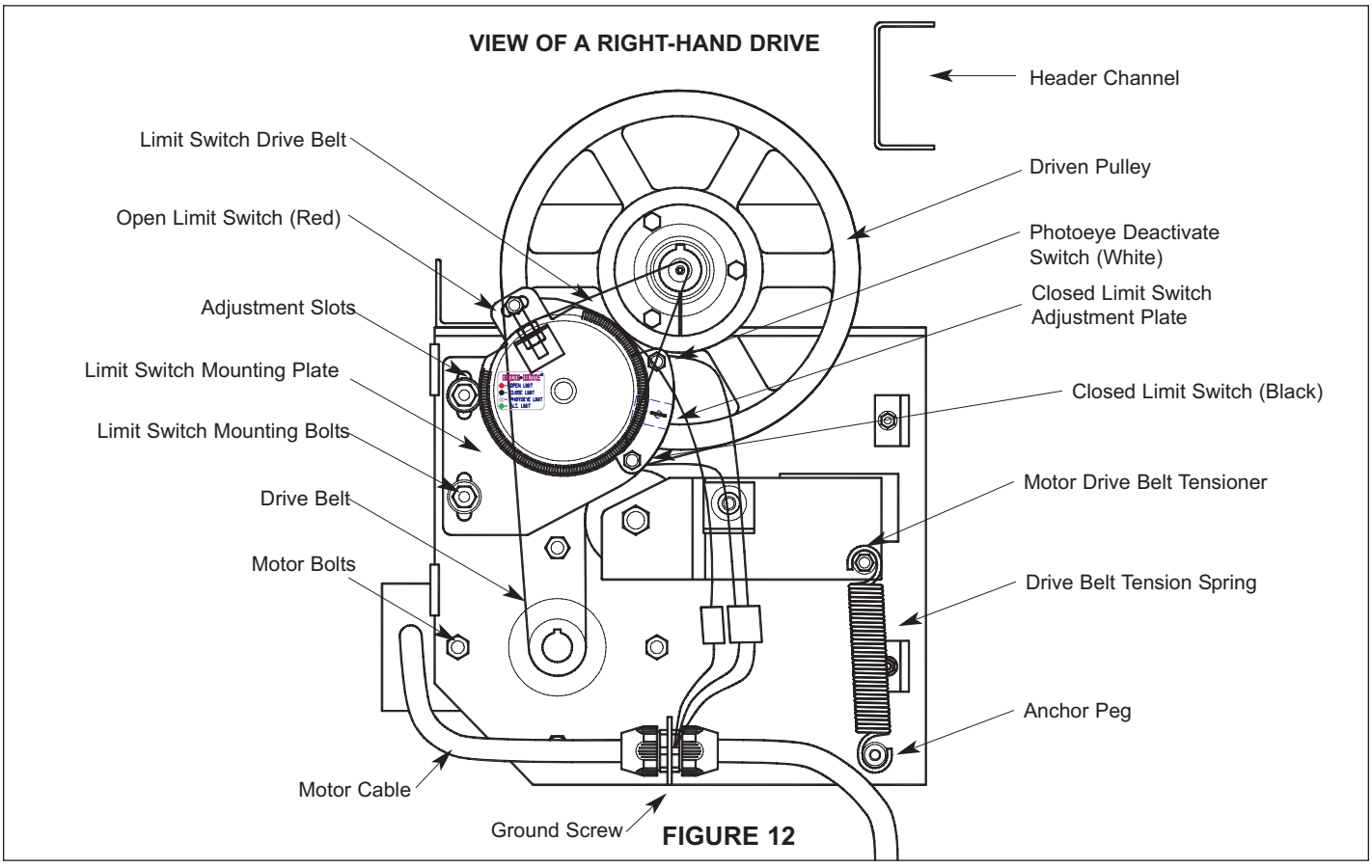


FIGURE 12

ELECTRICAL INSTALLATION

⚠ WARNING!!!

When working with electrical or electronic controls, make sure that the power source has been locked out and tagged according to OSHA regulations and approved local electrical codes.

IMPORTANT!!!

A qualified electrician should install the wiring in accordance with local and national electrical codes. Use lockout and tagout procedures to avoid injury.

IMPORTANT!!!

To reduce risk of injury or death, an earth ground connection MUST BE made to the green/yellow control box ground terminal. If metal conduit is used as the ground connector, an N.E.C. approved ground bushing and green/yellow wire MUST BE properly attached to the conduit for connection to the ground terminal.

⚠ CAUTION !!!

When drilling holes in the box, DO NOT turn control box upside down or go too deeply into the box. Damage or debris may fall into electrical components causing failure or severe equipment damage.

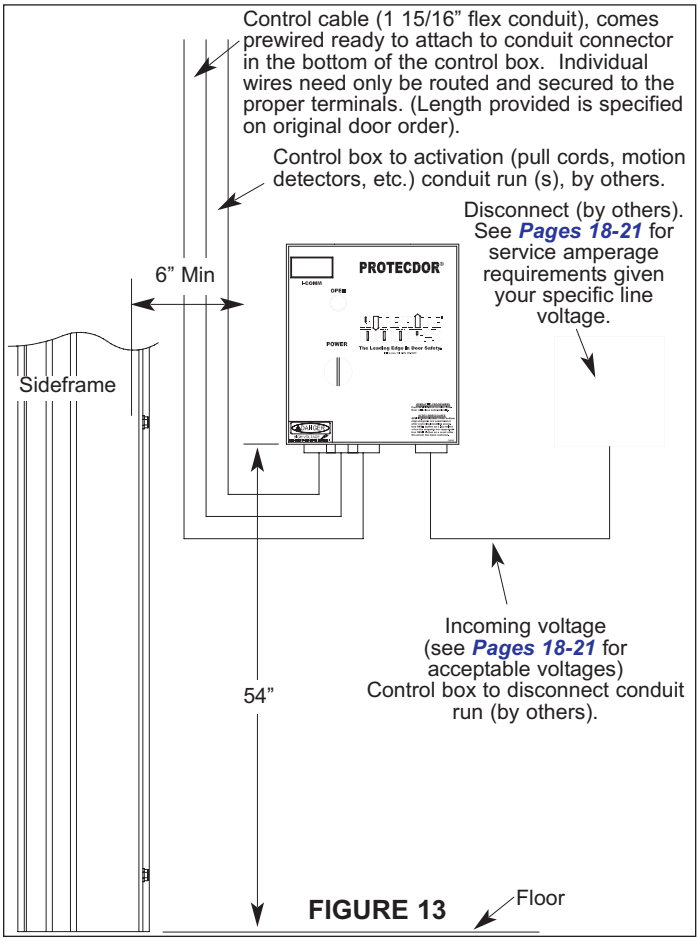


FIGURE 13

1. It is the responsibility of the buyer to provide electrical service up to the control box with proper branch service protection and an approved means of disconnect.
2. All control boxes should be mounted on the warm side regardless of door mount side.
3. The incoming power terminals in the control box will not accommodate wires larger than 12AWG. 20 or 30 Amp service may be required for cable runs longer than 300'.
4. The control box is provided with class CC protective fusing for the incoming power.
5. Mount the control box on a wall adjacent to the door at approximately 54" above the floor level, ***Figure 13.***
6. Run the control cable from the drive sideframe assembly through the conduit fitting in the bottom of the control box, ***Figure 13.***

NOTE: ***Make sure to route the cable so that it does not interfere with the installation of the motor shroud.***

If the flexible conduit is too long for the installation, cut the protective outer casing and leave 16" to 20" of wires. Do not connect the conduit to the fitting on the control box until correct conduit and wire length is achieved.

Local electrical codes may require the use of rigid conduit, rather than flexible conduit. If required, remove the control cables from the furnished flexible conduit, install the rigid conduit in its place and rewire. Make sure to remove and replace the conduit connector in the bottom of the control box.

7. Drill a hole for the power supply cable (by others) in the bottom of the control box using the proper connection to maintain the NEMA rating on the enclosure. **All holes drilled through the control box must be through the bottom of the box.**
8. Connect wiring as indicated by the device field wiring located on ***Pages 18-21.*** Incoming 3-phase power must connect into terminals L1, L2, and L3. Ground must attach to the green/yellow terminal.

NOTE: ***Route all field installed wires so that separation is maintained between line voltage wires and low voltage class II wiring. Electrical prints included in the parts or control box, supersede any prints included in this owners manual.***
Always check parts or control box for prints.

IMPORTANT!!!

In freezer and cooler applications where a conduit passes from a warm to cold temperature zone, the conduit must be plugged with epoxy. This will help prevent condensation from forming in the conduit. For more information, see Section 300-7a of the National Electric Code.

ELECTRICAL INSTALLATION

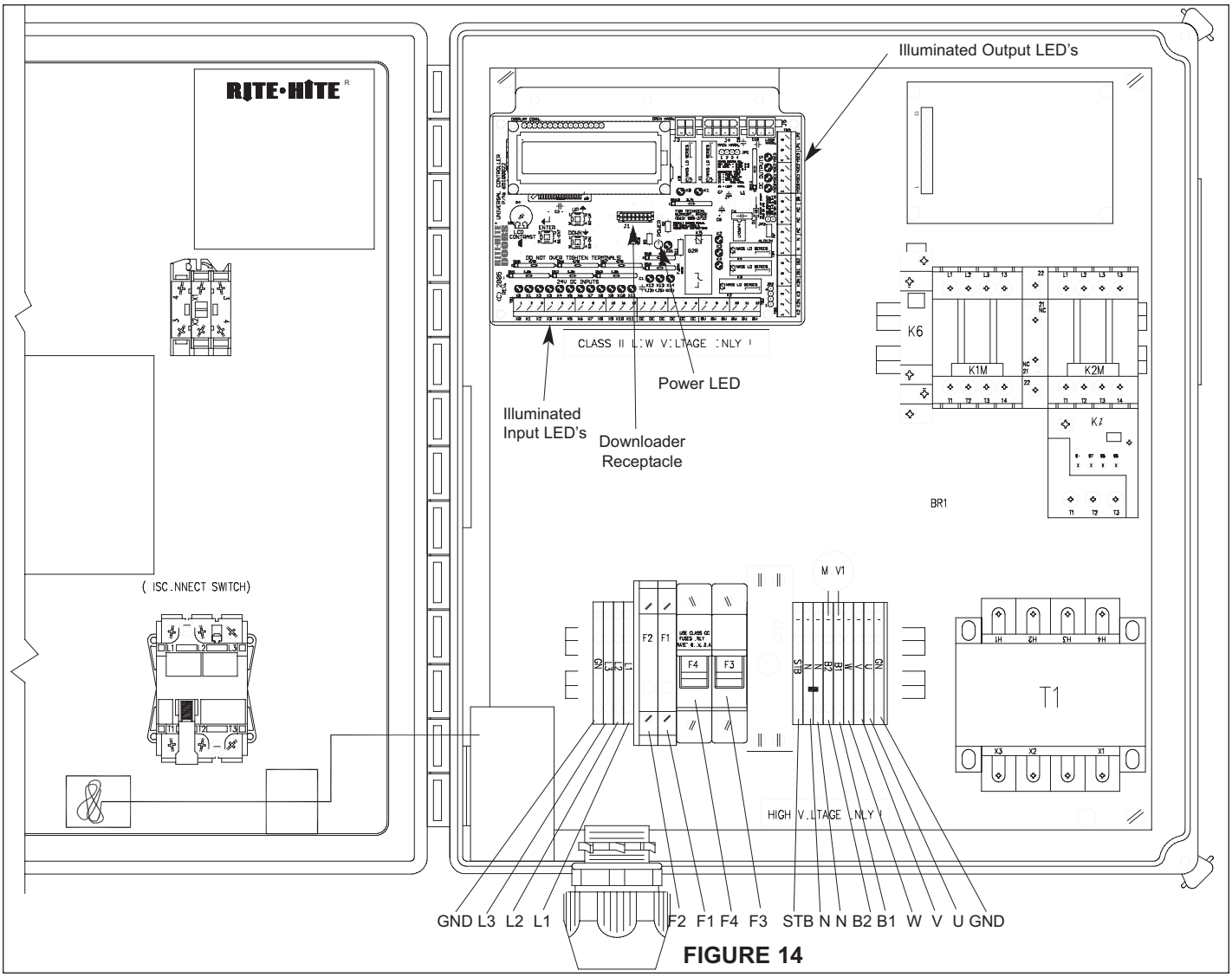


FIGURE 14

PROTECDOR® SERIES
i-COMM™ LOGIC TABLE

NAME	Func.	INPUT FUNCTION	STATE TABLE* O	C	Ro	Rc	COMMENTS
X0		Open Limit Switch	X	Ø	X	X	On when door passes switch
X1		Close Limit Switch	Ø	X	X	X	On when door passes switch
X2	2___	P.R.O. System Fault (2)	1	1	1	1	Off for P.R.O. System fault (2)
X3	2___	User Input (Activation) (4)	X	X	X	X	On to open door (4)
X4		Photoeye Limit Switch	Ø	Ø	X	X	On when door passes switch
X5	3___	Toggle Command (4)	X	X	X	X	On to toggle open or close (4)
X6	2___	Activation Command - Open (4)	X	X	X	X	On to open door (4)
X7	2___	Activation Command - Open (4)	X	X	X	X	On to open door (4)
X8		I-Zone™ Sensor #1 (3)	X	X	X	1	Off to reverse & hold open (3)
X9		I-Zone™ Sensor #2 (3)	X	X	X	1	Off to reverse & hold open (3)
X10		Photoeye - Reverse Door	X	X	X	1	Off when photoeyes blocked
X11		Photoeye - Reverse Door	X	X	X	1	Off when photoeyes blocked
X12		Open/Reset Switch (1)	X	X	X	X	On to reset from fault (1)
X13		Induction Loop Activation (1)	X	X	X	X	On to open door (1)
X14		Detecdor™ System	1	1	1	1	Must be on to run - Off when curtain separated or door faulted

NAME	Func.	OUTPUT FUNCTION	STATE TABLE* O	C	Ro	Rc	COMMENTS
K0		Run Open	Ø	Ø	1	Ø	On to open door
K1		Run Close	Ø	Ø	Ø	1	On to close door
K2		Sensor Switch Disable	1	1	Ø	Ø	On when door opened and door closed
K3	Ø___	User Out (Interlock) (4)	Ø	1	Ø	Ø	User selectable output (4)
K4		Fault	1	1	1	1	On when not in fault
K5		Dectecdor Sytem In	1	1	1	1	On when not in fault
YDC0	2___	User Out (Preannounce) (4)	X	Ø	Ø	1	User selectable output (4)
YDC1	20___	User Out (4)	X	X	X	X	User selectable output (4)
YDC2	20___	User Out (4)	X	X	X	X	User selectable output (4)
YDC3	20___	Brake (2)	Ø	Ø	1	1	On to disengage brake (2)
J3-1		Fault (Flashing Push-button)	Ø	Ø	Ø	Ø	On when in fault
J3-2		I-Zone Alarm	X	X	X	X	On during I-Zone alarm (3)

Timer Adjustment

1. PRESS [ENTER], Controller will stop and fault door.
2. Press [UP] until desired timer is displayed, display will read "Set Close Timer" or "Set Preannounce".
3. Press [ENTER], Display will show current timer value.
4. Using [UP] & [DOWN] keys select desired time.
5. Press [ENTER] to return to Main Menu.
6. Press [DOWN] until exit is displayed.
7. Press [ENTER] to save values.
8. Reset Door.

Preannounce Timer is the amount of time the Preannounce to close output will be on before door closes.
Close Timer is the amount of time the door will remain open before the preannounce to close timer activates

*** KEY:**
O = Open State Ø = OFF
C = Closed State 1 = ON
Ro = Running Open X = May be ON or OFF
Rc = Running Close

NOTES:
(1) Device operation can be changed through menu. Consult i-COMM manual for additional details.
(2) Optional used only for P.R.O. System. For doors without P.R.O. System, input/ouput is user defineable.
(3) Optional used only for I-Zone sensor system
(4) Default setting shown in table & comments. Record any changes on space provided. Consult i-COMM manual for additional details.

53850493-1

LIMIT SWITCH ADJUSTMENT

ADJUSTMENT OF LIMIT SWITCHES

1. Turn on the main power supply. Confirm that the correct line voltage is at terminals L1, L2 and L3, ***Figure 14.***
2. Make sure that fuses F1, F2, F3, and F4 are installed, ***Figure 14.***
3. Turn the power to the door on using the disconnect switch located on the front of the control box.
4. Check Input 1, door close limit switch. This should be turned on. If this is not on, check the close limit switch to make sure that it is in alignment with the magnet on the limit switch pulley.
5. Momentarily press the green OPEN button and observe the door. If the door jogs downward, lockout and tag the main electrical power and reverse the motor leads at terminals V and W, ***Figure 14.*** Reconnect the power and verify the correct door movement.
6. If the door jogs upwards, continue jogging until the door reaches the OPEN limit switch.
7. Continue to jog the door by momentarily pressing the OPEN button, the door will now move downward toward the closed position. Continue until the door reaches the CLOSE limit switch, approximately 4" off the floor.

NOTE:

In the "jog" mode, when the door reaches the CLOSED limit switch, it will reverse direction.

If the door reaches the 4" measurement and does not reach the Closed limit switch, turn off power to the door and adjust the Closed limit switch, Figure 13.

8. Continue to jog the door until it is fully open.

TROLLEYS AND SIDEFRAME COVERS

1. Locate the left and right hand trolley assemblies. Make sure the trolley assembly has the wheels on the inside of the sideframe and towards the back wall, ***Figure 18.***
2. Verify chain and cable are connected to the trolley, ***Figure 18.***
3. Install and secure the sideframe covers. Note the "flared" portion at the top of the sideframe covers, ***Figure 17.***

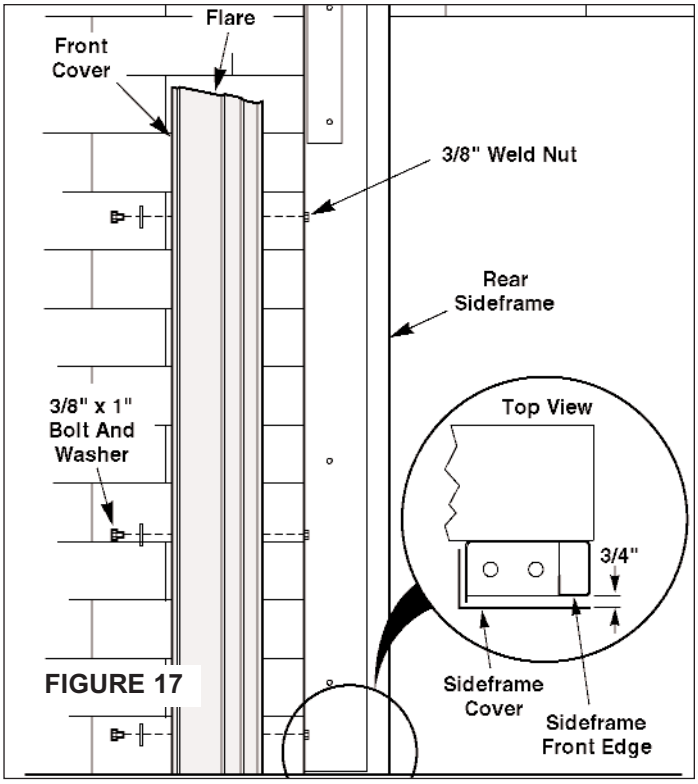


FIGURE 17

NOTE:

Covers must be installed with a 3/4" gap at the curtain edge for proper trolley operation, Figure 17.

BREAKAWAY DETECTION SYSTEM

1. Jog the door down until it is approximately 4' off the floor.
2. Attach the plastic magnet cup assemblies at each end of the tension assembly to the magnets, ***Figure 18.***
3. Remove excess cable slack by tightening turn buckle. When finished, tighten nuts against both ends of turnbuckle, ***Figure 18.***
4. Sensing cable should not be tight. This could cause false tripping of the switch. Adjustment is made by removing the drive side cable from the cup, loosening the nut, and twisting the switch in or out as required. Tighten nut against end when done, ***Figure 18.***

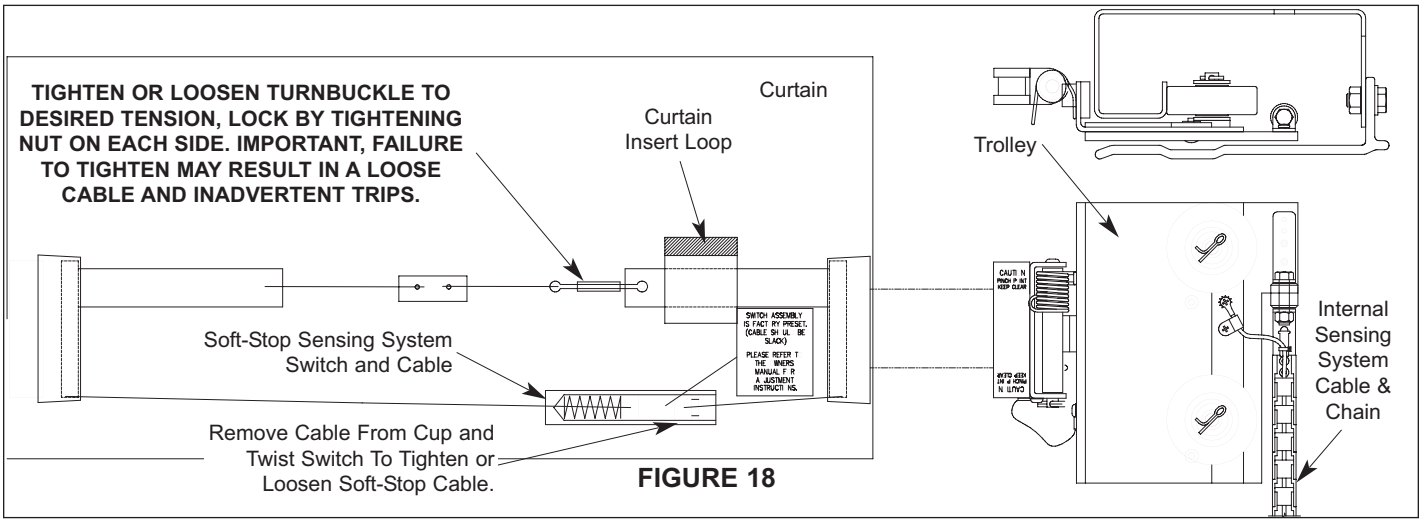


FIGURE 18

PHOTOEYE INSTALLATION

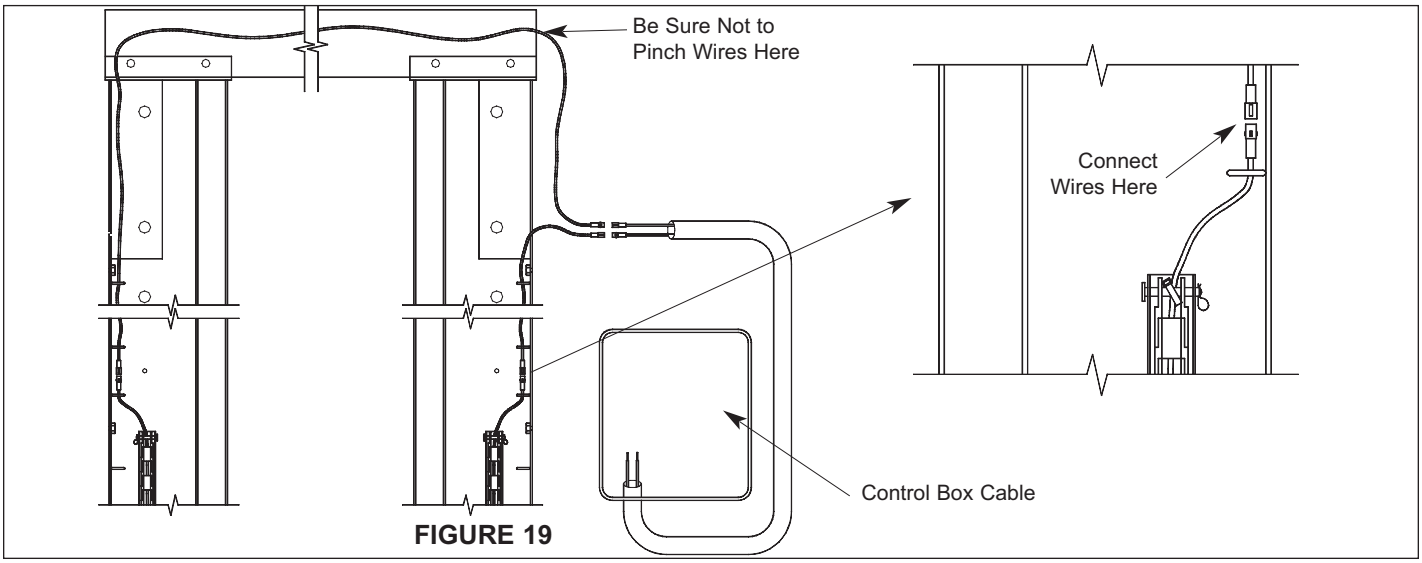


FIGURE 19

INTERNAL SENSING SYSTEM CABLES

1. Make sure to route the wire from the non-drive sideframe thru the conduit of the header channel before putting on the front cover, ***Figure 19.***
2. Connect the wires from the drive sideframe and header to the control box cable.
3. Be sure not to pinch the wires as the header channel is installed, also be sure to have wires down in the sideframe so the trolley does not catch on them.

PHOTOEYE ADJUSTMENT

1. Locate the Retro-reflective photoeye in the drive side sideframe assembly, ***Figure 20.*** Located on the back end of the photoeye assembly are three LEDs and one switch.
2. The yellow “Power ON” LED should be on when the door power is turned on.
3. The “Light/ Dark” operate switch has been preset in the “Light” operate position.
4. The red and green LED’s will be on when the photoeye and the reflector assembly are lined up correctly. If the red and green LED’s are OFF, either the beam is blocked or the photoeye is out of alignment. Adjust using the screws on the sideframe beneath the photoeye, ***Figure 20.*** The two top screws allow for horizontal adjustment and the single bottom screw adjusts vertical alignment. Rotate the screw until the LED’s turn ON. If after three turns the red and green LED’s do not turn on, reverse direction.

   After the red and green LED’s turn ON, continue to turn the adjustment screw in the same direction, counting the turns. Note when the LED’s turn OFF.
   Divide the number of turns in half and reverse the turning direction that number of turns to center the light beam. Follow the same steps for the vertical adjustment until the light beam is centered on the reflector.

IMPORTANT!!!

The PROTECDOR will not operate until both the internal and external photoeyes have been installed and aligned.

IMPORTANT!!!

In the “jog” mode (OPEN button light flashing), the door will raise as long as the OPEN button is pressed. In the downward direction, the door will only advance in short steps while the button is pressed. Do not press the contactor to jog the door.

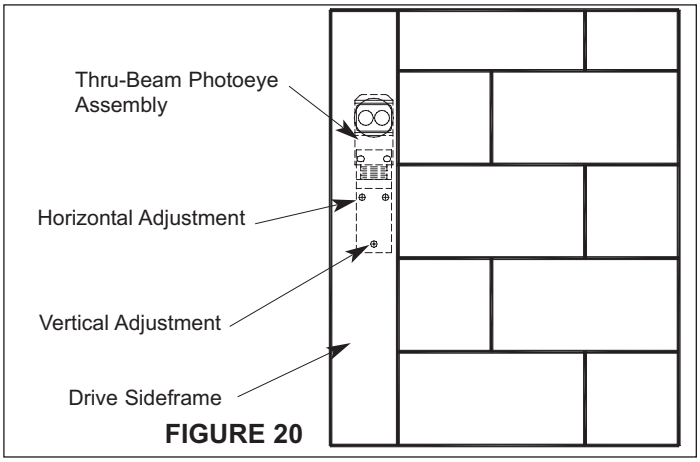


FIGURE 20

EXTERNAL PHOTOEYE INSTALLATION

NOTE: This photoeye is for reversing only. Photoeye should be mounted at an elevation of 24" from the floor (pre-drilled holes on both sideframes).

Photoeye Installation (Retro-reflective)

1. Locate the retro-reflective photoeye components (photoeye, reflector, and mounting brackets).
2. Install the external mounted photoeye by using the pre-drilled tapped holes on the drive side sideframe front cover. Install the photoeye reflector across from the photoeye on the non-drive sideframe front cover, ***Figure 21.***
3. Insert the photoeye cable through the side of the sideframe at the bottom, ***Figure 23.***
4. Connect the cables together at the connectors in the sideframe.
5. Fasten sideframe covers using bolts provided, ***Figure 17.***

PHOTOEYE & TURN-TITE SEAL ADJUSTMENT

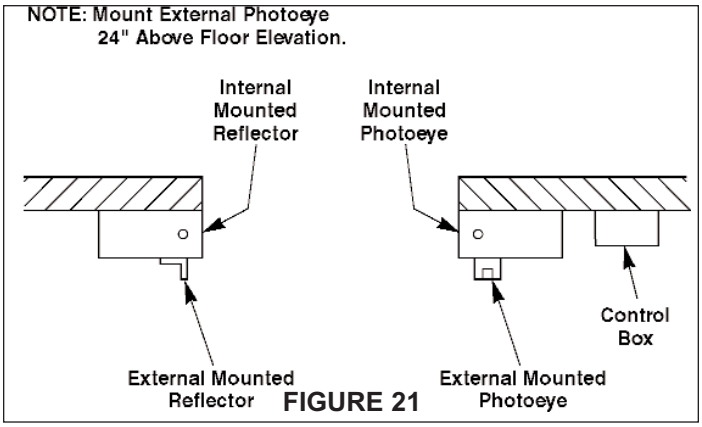


FIGURE 21

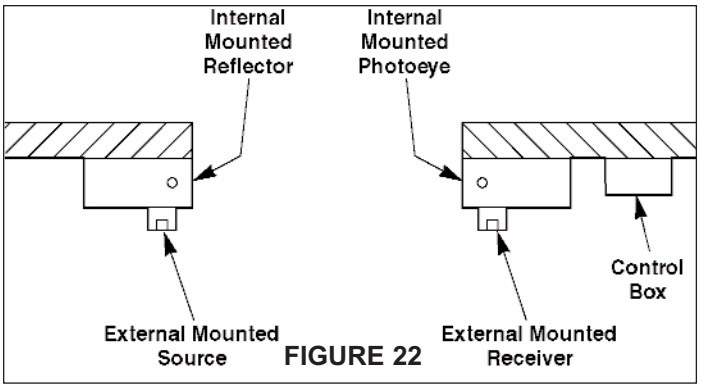


FIGURE 22

6. With the power on, adjust photoeye alignment.
7. Cable must be out of inserts path and secured.

External Photoeye Installation (Thru-beam)

1. Locate the thru-beam photoeye components.
2. Install the remote mounted source on the non-drive side sideframe. Install the photoeye receiver across the door opening from the source, ***Figures 22 & 23.***
3. Insert the photoeye cable through the side of the sideframe at the bottom and connect the cables together, cable must be out of the inserts path.
4. With the power on, adjust the thru-beam photoeye by loosening the two mounting bracket screws and rotating the bracket until the red LED turns on.

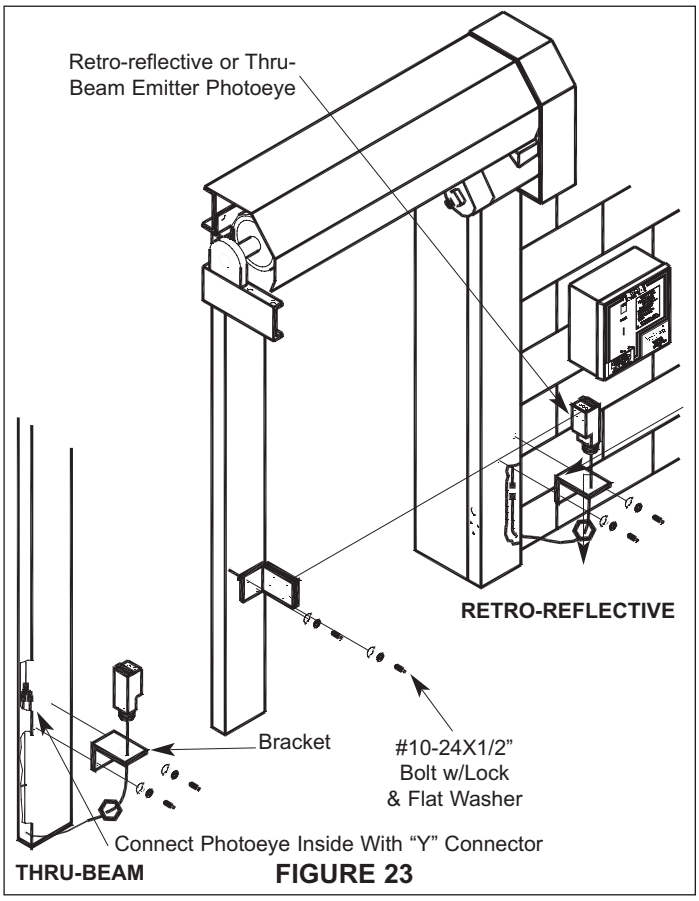
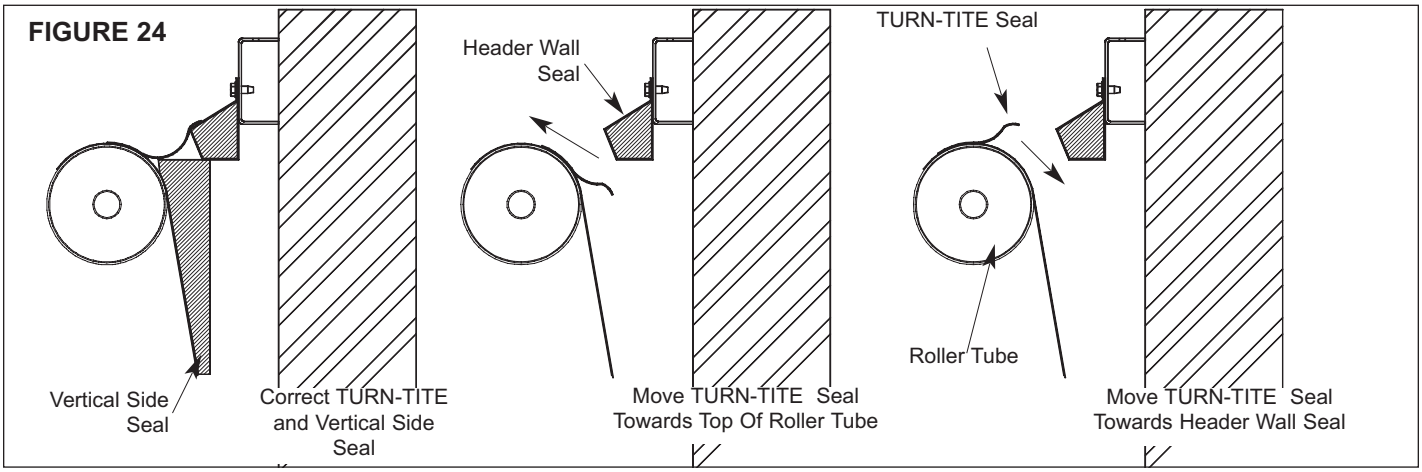


FIGURE 23

TURN-TITE SEAL ADJUSTMENT

The PROTECDOR is equipped with an adjustable TURN-TITE seal that runs across the entire door opening. Cycle the door several times to seat the fabric. Continue to cycle the door while standing on the back side of the door opening. Look upwards and observe the gap between the door opening and the roller tube. No light should be visible in the gap when the door is fully closed. If light is visible, inspect the seal from above. Adjust the seal so that the sealing edge is aligned about halfway down the angled face of the wall seal and the TURN-TITE seal flexes into the gap, ***Figure 24.*** Make sure to secure the hook and loop fastener along the entire length of the roller tube. Vertical Side Seals are seals located in the top corners of the door when it is closed, ***Figure 24.*** These seals fill the gap between the curtain fabric and the sideframe below the roller tube. If a gap is visible along either side edge, remove and re-install the seal.

FIGURE 24



OPERATING INSTRUCTIONS

i-COMM LOGIC CONTROLLER

The i-COMM is used to control all functions of the door. Toward the bottom is a row of green numbered Input (X) LED's. They indicate the condition of the door, such as X0 open limit switch, X1 close limit switch. The column of LEDs toward the right are called Outputs (Y). ***Figure 14*** shows an example of the i-COMM. Note label inside control box that is a ready reference to the i-COMM inputs and outputs, ***Page 8.***

DOOR OPERATION AND CONTROLS

1. The door operations are controlled by a Universal Controller. The controller is set-up and programmed during testing at the factory. Unless you are a RITE-HITE DOORS, INC. authorized service technician, you should not attempt to change the program.
2. A fault will occur when this condition exists:

   The Soft-Stop Sensing Switch has been tripped or one or both of the magnets have separated from the trolleys.

   To return the PROTECDOR to normal operation:

   Both magnet cups must be properly connected.
   Press the OPEN button to reset.
3. A quick way of determining that the door is ready to operate, is to open the control box and look at the row of (X) green Input LED's.

DISCONNECT SWITCH

The red Disconnect Switch stops door operation. The control is rotated to the On position for normal door operation. To stop door operation rotate the control to the OFF position, ***Figure 26.*** Whenever the door operation is stopped by using the disconnect switch, you must do the following to resume operation.

1. Rotate the red disconnect switch to the ON position.
2. Press the open/reset button to reset and open the door.

GREEN OPEN BUTTON

The green button opens and resets the door after a fault. To open, press and release the button. The i-COMM will automatically close the door after the preset time has expired.

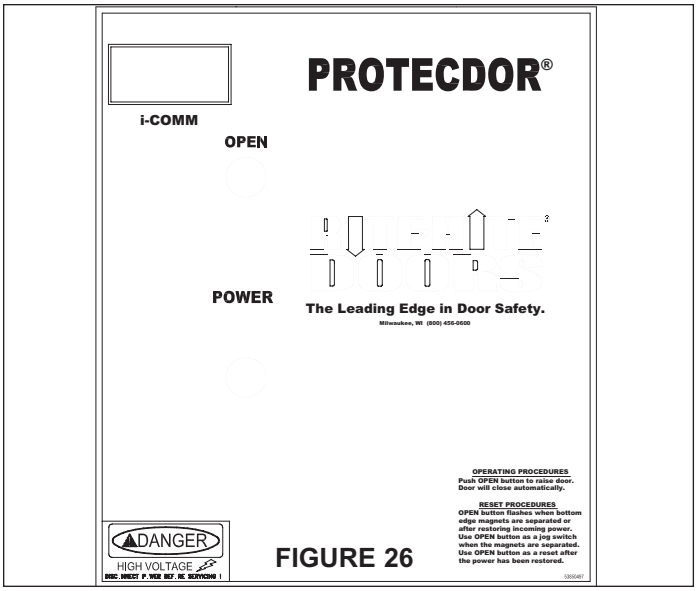


FIGURE 26

VERIFY DOOR OPERATION

It is recommended that the operation of all controls on the PROTECDOR be verified monthly.

Operate the door under normal conditions. Observe the door opening to make sure that it opens fully and does not interfere with the header. Observe the closing action to make sure that the door operates smoothly, and fully closes without excessive curtain ripple at the bottom. The bottom edge needs to rest completely on the floor for a good seal, adjust limits as required.

TEST ALL SAFETY FEATURES

1. While the door is closing, block one of the reversing photoeyes. The door should stop immediately and reverse to the fully open position. Repeat for second photoeye.
2. Internal breakaway sensing system testing requires that the insert be separated from the trolley. Do this while the door is opening. Test the soft-stop sensing system by positioning an obstruction in the path of the curtain. The door should stop before the magnets separate, the open/reset button on the control panel will flash indicating a fault. Attach the insert to the trolley magnet and press the reset button.

CURTAIN RETENTION CLIPS

1. Retention clips have been installed on the Protecdor curtain assembly for pressure resistance, and are located above and below the vision panel at the edge of the curtain, ***Figure 25.***
2. There are four per door on doors under 11' and six on any doors over 11' tall.

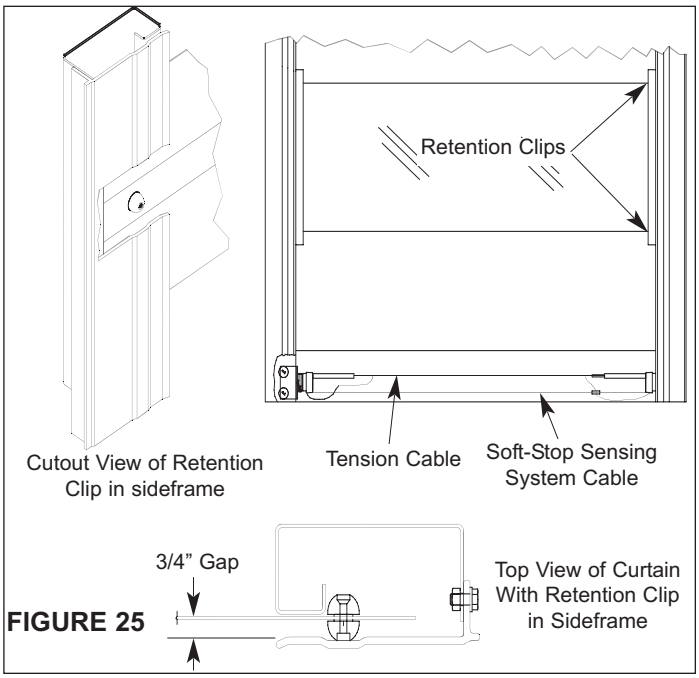


FIGURE 25

SHROUD INSTALLATION & FINAL CHECKLIST

SHROUD INSTALLATION

1. Position door in the full open position, disconnect power, lock/out tag/out and barricade traffic from all directions.
2. Position center shroud as shown and fasten with 1/4" bolts and washers, ***Figure 30.***
3. Install drive shroud and fasten with 1/4" bolts & washers.
4. Position non-drive shroud as shown and fasten with 1/4" bolts and washers, then fasten with self tap screw.
5. Return power to door and verify operation, remove barricades and return door back to service.

CHECKLIST

1. Are door opening dimensions correct ?
2. Shimmed as required?
3. Check for proper line voltage ?
4. Sideframes aligned when installing floor anchor bolts ?
5. Is there a wall mounting bolt in the top hole of both sideframes ?
6. Are all mounting bolts tighten ?
7. Are the pillow block bearing set screws on the non-drive side tightened to 66 to 80 in.-lb. ?
8. Is the drive belt alignment to within 1/32" ?
9. Is the open limit switch set with the bottom loop at the top of the opening ?
10. All wires connected for the internal sensing system and/or thru-beam photoeyes ?
11. Sideframe covers adjusted to 3/4" gap clearance ?
12. Are loose wires secured away from moving parts?
13. With the power on and the breakaway system installed, press the OPEN button. The door should open and close automatically after a short delay. To adjust the amount of door open time, the setting must be changed in the i-COMM controller, ***Figure 14.***
14. Operate the door and observe the open and closed positions. If it is necessary to adjust either position, shut the power off and move the proper limit switch, ***Figure 13.***
15. Once the door limit switches have been correctly set, shut off the power and tighten the limit switches in place.
16. While the door is operating, break away the magnet on one side of the door to make sure that the breakaway system is working. The door should stop and the OPEN button light should flash. Reattach the magnet and press the OPEN button to restart the door.
17. While the door is closing, block the reversing photoeyes. The door should reverse direction and move to the open position, and then continue to operate.
18. Motor shroud installed.

The Protecdor is equipped with a breakaway system called "Internal Sensing System". The system is a quick and easy re-assembly of the curtain after a breakaway occurs. When a breakaway condition is acknowledged the door will stop, the OPEN button will flash, and operation will convert to JOG mode.

The "Internal Sensing System" is a thru-wire closed loop circuit which monitors continuity through the breakaway system. When continuity is disrupted by the Soft-Stop Switch or separation of one or both of the breakaway magnets, a breakaway condition is acknowledged. To return to normal operation, if the magnets are separated, re-attach and press the open button.

If the door is in jog mode (OPEN button flashing)

Problem: The door bottom edge was impacted.
Solution: Press OPEN button to reset door.

Problem: The door is broken away.
Solution: Push the pressure stay and all of the curtain to the front of aluminum covers. Jog the door to the top and back down to a convenient height for re-assembly of the magnets. The curtain will self-feed back into the sideframe as it starts downward.

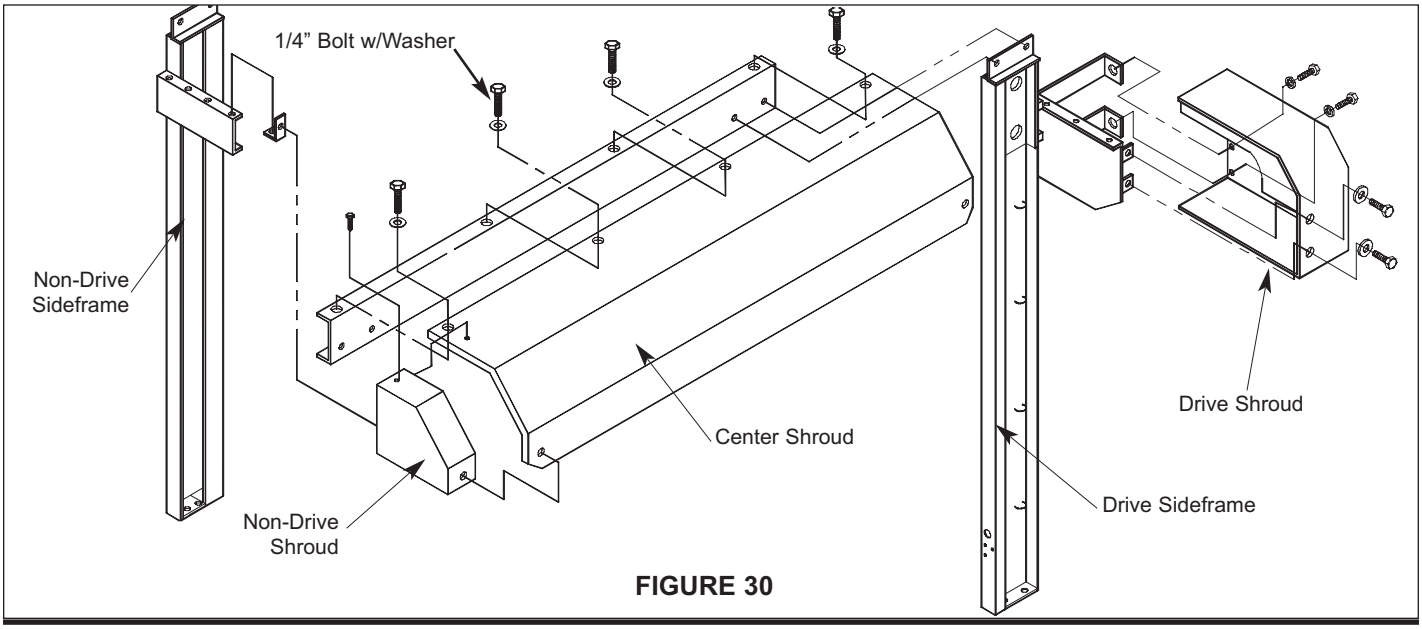


FIGURE 30

BRAKE ADJUSTMENT

STAND CLEAR INSTRUCTION LABEL

1. Clean surface where label is to be placed.
2. Peel off backing on label and apply in position, ***Figure 31.***

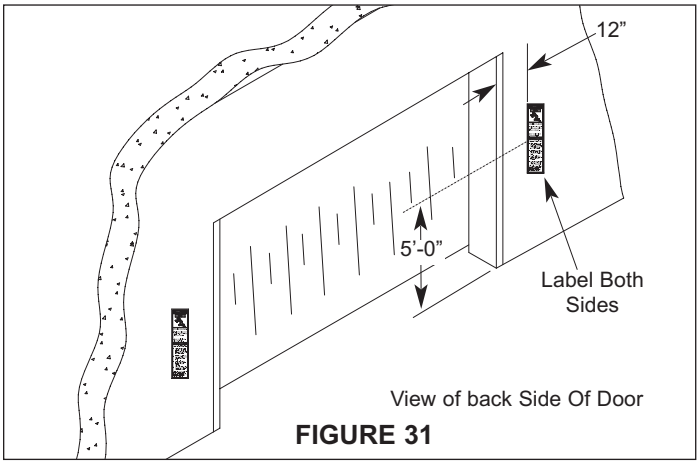


FIGURE 31

AIRGAP:

1. In most applications, the brake needs practically no maintenance. However after a long period of operation, or if the brake has high cycles, adjustment of the air gap may be necessary.
2. Check the air gap with a feeler gauge in three positions. Note: the air gap is shown in ***Figure 33.*** The normal setting is .008” - .012”. When the maximum dimension of .024” is exceeded, adjust the value back to the normal dimension of .008” - .012” using the instruction in ***Step 3.***
3. If air gap adjustment is necessary, loosen the bolts (A), rotate the adjustment tubes (B) approximately 1/4 turn, retighten bolts (A), and measure the air gap. If air gap is not within tolerance, repeat procedure.

BRAKE REPLACEMENT

1. Run the door to the full open position and disconnect power to the door. Make sure that the power source has been locked and tagged out according to OSHA regulations and approved local electrical codes. Barricade the work area on both sides of the door to prevent unauthorized access while servicing.
2. Loosen the brake release handle by unscrewing it, then loosen, the the three holding the cover to the brake, ***Figure 33.***
3. Disconnect the blue and brown brake wires from the blue or yellow motor wires.
4. Using a 9/16” wrench, loosen and remove the two bolts holding the brake to the motor, note orientation before removing. Pull the brake straight off the motor, use extreme care when pulling the blue and brown motor wires thru the holes in the brake to avoid stripping the insulation.
5. If the spline hub needs replacing, loosen the set screw. When installing the new spline, be sure to use a thread locking compound on the set screw and torque to 55 lb/in.
6. Install the new brake by first inserting wires thru the hole in the brake and carefully pulling them thru as the brake is slid on, use extreme care to avoid pinching the wires between the motor and brake.
7. Thread the (2) 3/8” bolts thru the brake and into the motor, torque to 22 lb/ft and reconnect the blue and brown brake wires to the blue or yellow motor wires. Polarity is not important. Brake handle and motor junction box should be lined up.
8. Replace the brake cover and tighten the three screws.
9. Screw the brake release handle on the brake and tighten.
10. Make sure there is play in the handle and it does not catch or drag on the brake cover.
11. Reconnect power and check for proper operation.

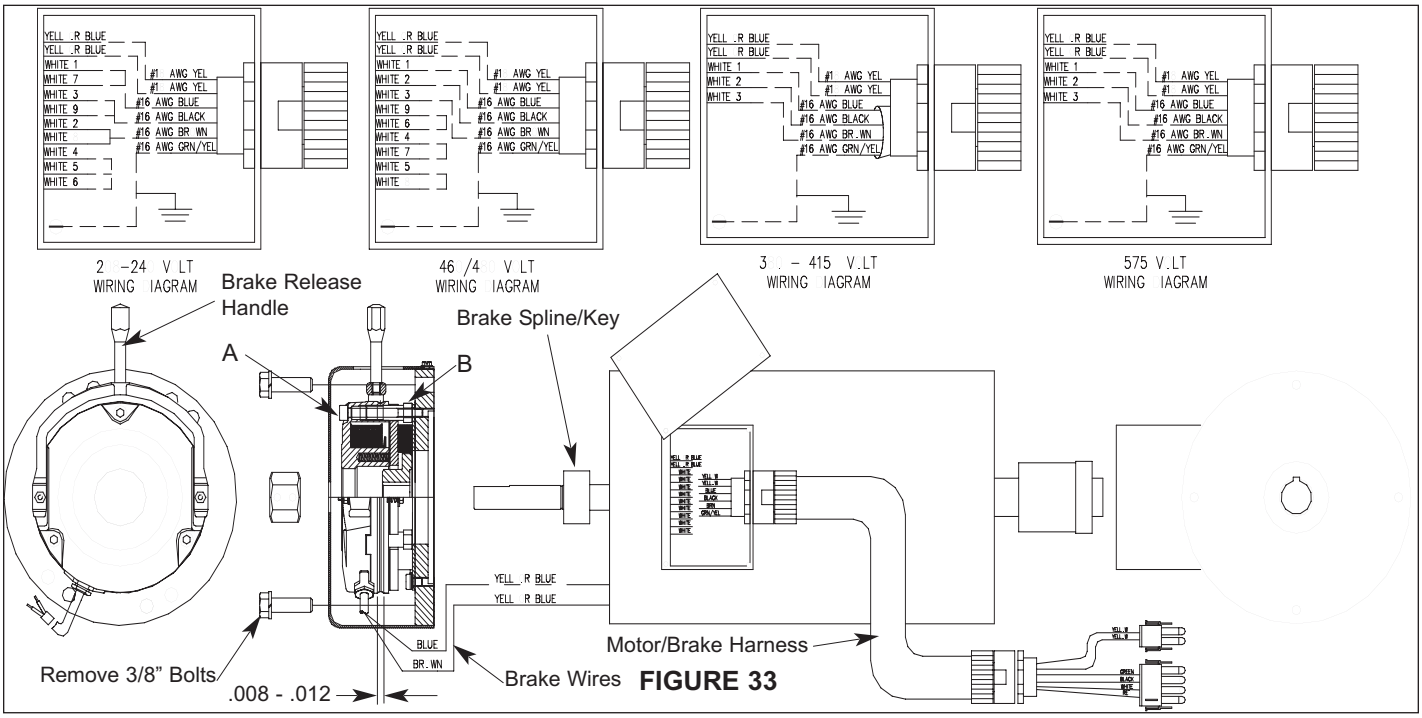


FIGURE 33

TROUBLESHOOTING, REPAIR AND ADJUSTMENTS

DEFINITION	FUNCTION
Activation	For activation questions, refer to the Activation Manual and inputs X5 & X6.
Alternate Open	The option for an Alternate open.
Brake	If the brake is not functioning properly, check the following: a) Output Y7 **MUST GO OFF** when the door is fully open or closed. b) Contactor **MUST BE PULLED IN** when the door is running or the open button is pressed. c) Faulty contactor or F1 fuse-replace. d) Brake wiring at terminals B1 & B2 and plug in connections. e) Air gap, see ***Page 14*** for brake air gap adjustment procedures. f) The brake rectifier should put out 90-110VDC. g) Brake will have 350 ohms on normal readings. (must be checked after the rectifier).
Contactor K1M Open	K1M contactor is the open contactor, and when an open command is given the contactor pulls in and opens the door. The contactor must have the same voltage on all 3 legs going in and out in order for the motor to run.
Contactor K2M Closed	K2M contactor is the closed contactor, and when an close command is given the contactor pulls in and closes the door. The contactor must have the same voltage on all 3 legs going in and out in order for the motor to run.
Disconnect Switch	The disconnect switch is in line with terminals L1, L2, L3, and removes power from the entire control box, except for terminals L1, L2, L3.
D.O.H./D.O.W.	Door Opening Height/Width
O.D.H./O.D.W.	Ordered Door Height/Width
Drive Belt	The drive belt tension is pre-determined by the spring. Check the following: a) If the drive belt is walking off the pulleys, move the drive pulley on the motor to align properly. b) If the belt squeaks, remove belt dust from the idler pulley or properly align.
i-COMM Controller™	The i-COMM controller is a circuit board that controls the actions of the door. There is a digital display that shows the cycles, status and position of the door at any time during its travel. For input and output function signals, refer to chart on ***Page 8.*** Settings can be changed for re-close or pre-announce timers, interlocks, special activation commands, among many others, refer to instructional manual included.
F1 Fuse	F1 Fuse is for 120VAC devices and receives power from the X1 & X3 transformer taps. The F1 fuse protects the brake and 120VAC pre-announce devices at terminals B1, S2, and S4. The fuse is a 1amp KLDR slow blow fuse.
F2 Fuse	F2 Fuse is for 24VAC devices and receives power from the X1& X2 transformer taps. The F2 fuse protects the photoeyes, relays and all 24VAC activation devices. The fuse is a 2amp KLDR slow blow fuse.
F3 and F4 Fuses	F3 and F4 Fuses are fuses for the incoming power and they protect the Transformer, the contactor's, overload, motor and the entire control box. The fuse is a 1/2amp for 380V-575V and 1 amp for 208V-240V KLDR slow blow fuse.
Interlock	The mechanical interlock prevents both the K1M & K2M contactor from being pulled in and voltage applied to both at the same time, shorting out the coil to contactors and the motor.
Internal Sensing System	The breakaway mechanism is continuously monitored with a thru-wire system. Low voltage runs through the wires coming from terminals IS1 and IS2. Each wire then runs down the sideframe and plugs into another wire that is run through a chain system that runs up and down with the trolleys. The trolleys then make contact with each other, through the sensing cable that runs through the bottom of the curtain. Check the following if door will not reset. a) Trolley magnets hooked to breakaway cups. b) All plug in connections are tight. c) Internal sensing system chain and cable are in tact and functioning properly. d) Press the open reset button to clear the fault and Illuminate Input X2. e) Verify continuity through the Soft-Stop Sensing Switch.
K0 Overload Relay	The K0 overload relay is supply's 24VAC to the K4 relay and the open/reset button. If the overload trips, 24VAC to the K4 and the open/reset button will be lost. The overload is set to “Automatic Mode” to reset, if it is tripped, reset the relay to restore power. The incoming power also goes through the K0 overload relay before it reaches the K1M, K2M contactor's, if the contactor's are not receiving the correct voltage, check the K0 overload for proper voltage. The overload should be set to the following settings: a) 208V-240V-4 Amps b) 380V-415V-1.8 Amps c) 460V-480V-2.5 Amps d) 575V-1.6 Amps
K6 Relay	K6-24VAC single pole relay is an optional relay, that is required when the pre-announce to close option is chosen.
Limit Switches	The Open, Closed, Photoeye, and Alternate open limit switches are a normally open device and should only be closed when the switch is in-line with the magnet. If the switch is closed when it is not in-line with the magnet, replace the switch. a) To adjust open limit switch, run door in the open position, and align 120 groove pulley magnet with the (red) open limit switch, by loosening the bolts and belt. b) To adjust the closed limit switch, pull the brake release lever and lower door so the curtain bottom loop is sealing on the floor. Loosen thumb screw and align (black) closed limit switch with the 120 groove pulley magnet. Tighten thumb screw. c) Run door and test operation.

TROUBLESHOOTING

DEFINITION	FUNCTION
Motor phasing	If open button is pressed and the door closes, the following needs to be checked: a) Check overload and contactors for proper voltage. b) Phasing is reversed, reverse wires in terminals, V and W.
Motor will not run	If door will run will given an activation, check the following: a) Faulty or tripped K0 overload relay. b) Faulty K1M or K2M contactors. c) Check voltage and for loose wires at terminals, U, V, and W and wires on the contactors and overload relay.
Motor 208V-240V	208V-240V motor will have 5-7 ohms on normal readings.
Motor 460V-480V	460V-480V motor will have 20-23 ohms on normal readings.
Motor 400V	400V motor will have 23 ohms on normal readings.
Motor 575V	575V motor will have 34 ohms on normal readings.
Open/Reset Push Button	The open/reset push button has 2 functions. The first function is when the button is (not used with LCD display) pressed, an command to open the door is given. The second function is to reset the door when it has been broken away. When the door is broken away the light will flash and the door will not operate from an activation command. At this point the button can be used as a “Jog Button” to refeed the curtain back into the sideframes and to get the door at a workable height to hook the trolley magnets back up to the magnet cups. The light will continue to flash until the door breakaway mechanism is hooked up and the open/reset button is pushed.
Reversing Photoeye’s	The photoeyes are wired to the 24VAC circuit and are wired as normally closed when there is power to the unit and the photoeye is aligned with the reflector or the source photoeye on a thru-beam device. There are 3 lights on the photoeyes. Yellow is for power, red and green are for proper alignment, if the eyes are not aligned properly, turn the adjustment screws or loosen the mounting brackets. The photoeye’s are set to the “Light Operate” mode. The photoeye’s will reverse or hold the door open when the photoeye beam is blocked. When the beam is not broken, the door will auto-reclose.
Re-Close Timer	The door can be set to close from 2 to 28 seconds.
Transformer	The standard transformer is a tri-volt transformer that takes an incoming voltage of 208V, 230V, and 460V and converts it to 110VAC and 24VAC. An optional transformer is available for 380V, 415V and 575V doors. a) 208V(Taps H1-H2) 6.8 Ohms b) 230V(Taps H1-H3) 7.5 Ohms c) 380V(Taps H1-H2) 18.4 Ohms d) 460V(Taps H1-H4) 27 Ohms e) 415V(Taps H1-H3) 20.5 Ohms f) 575V(Taps H1-H4) 29 Ohms g) 120V(Taps X1-X3) 4.4-4.8 Ohms h) 24V(Taps X1-X2) .4 to .6 Ohms
Turn-Tite Seal	The Turn-Tite seal is used to seal the top of the door. It is adjusted by removing the seal from the hook and loop fastener on the curtain and positioning it so it makes solid contact with the wall seal.
Voltage Change	To change the voltage, see step below: a) Change transformer taps, fuses, and overload settings per electrical diagram or see individual troubleshooting section. b) Change motor wiring per junction box diagram. c) P.R.O. system doors require a new inverter.
Wind Pressure	If the door is blowing out because of high wind or negative pressures, check the flowing: a)The sideframe cover to sideframe gap **MUST BE** at 3/4”, if it is larger than that, the wind clips will slip through the sideframes. b) Check to make sure the curtain has all the wind clips in place. c) The sideframes are mounted at the proper width distance.

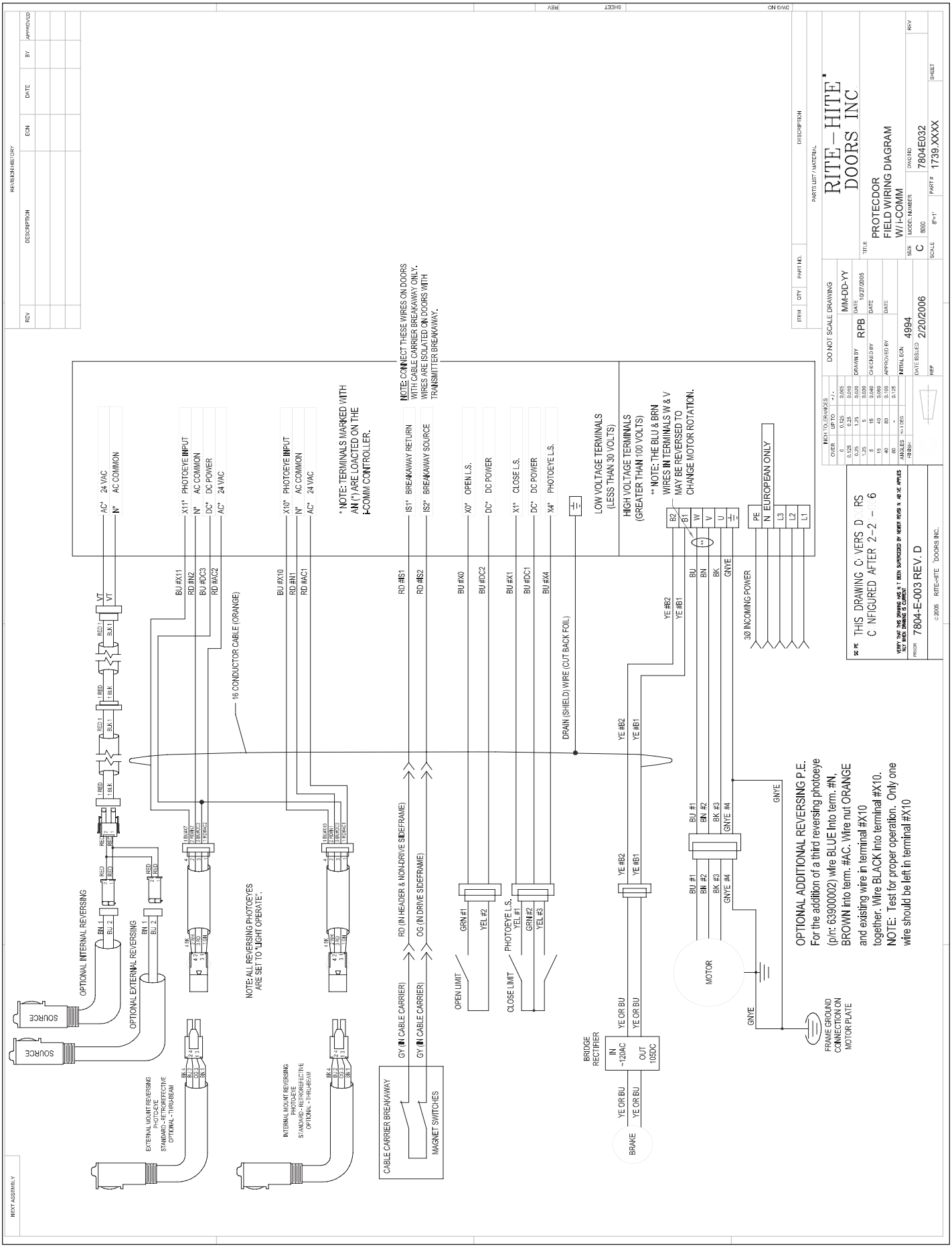
MAINTENANCE

RITE-HITE DOORS, INC. PLANNED MAINTENANCE Model 8000 PROTECDOR®									
CUSTOMER:	**JOB#**						**SERIAL#**		**DATE:**
Periodic Cycle Check: Planned Maintenance	**Recommended P.M. Intervals (Time Shown In Months)**								**Inspect and Perform the Following (See Manual)**
	1	**4**	**8**	**12**	**18**	**24**	**30**	**36**	
Brake		•		•		•		•	**With door in the open position, manually release the brake by pulling the handle, but DO NOT let it free fall to the bottom. Check that door stops on limits, if not check air gap of brake, must be .008".**
Controls		•		•		•		•	**Clean, check all connections with disconnect off.**
Curtain		•		•		•		•	**Inspect for wear or damage, clean with isopropyl alcohol or similar product.. Check retention clips.**
Drive Belt		•		•	•	•		•	**Inspect for wear or squeaking, realign as required. Replace if worn or frayed, must remove l/s belt.**
Internal Sensing System		•		•		•		•	**Remove sideframe covers and inspect chain and cable. Check operation by separating magnets from cups, door MUST stop and green lite flash.**
Limit Switches		•		•	•	•		•	**Check open and close positions.**
Limit Switch Belt				•		•		•	**Inspect for wear, realign as required, DO NOT overtighten. When replacing, limits must be reset.**
Magnets			•		•	•		•	**Inspect magnets and cups. Remove dirt and metal shavings from face of magnet and plate. Apply small amount of electrical grease if rust is present.**
Photoeye									**Check alignment, align as required. Clean reflector, emitter and receiver.**
Pillow Block Bearings					•			•	**Grease as required.**
Seals				•		•		•	**Adjust Turn-Tite as required in closed position. Inspect wear on wall and curtain wedge seals.**
Sideframes/Shroud/Header				•		•		•	**Perform visual inspection for damage. Tighten all hardware. Check sideframe to cover gap at 3/4"**

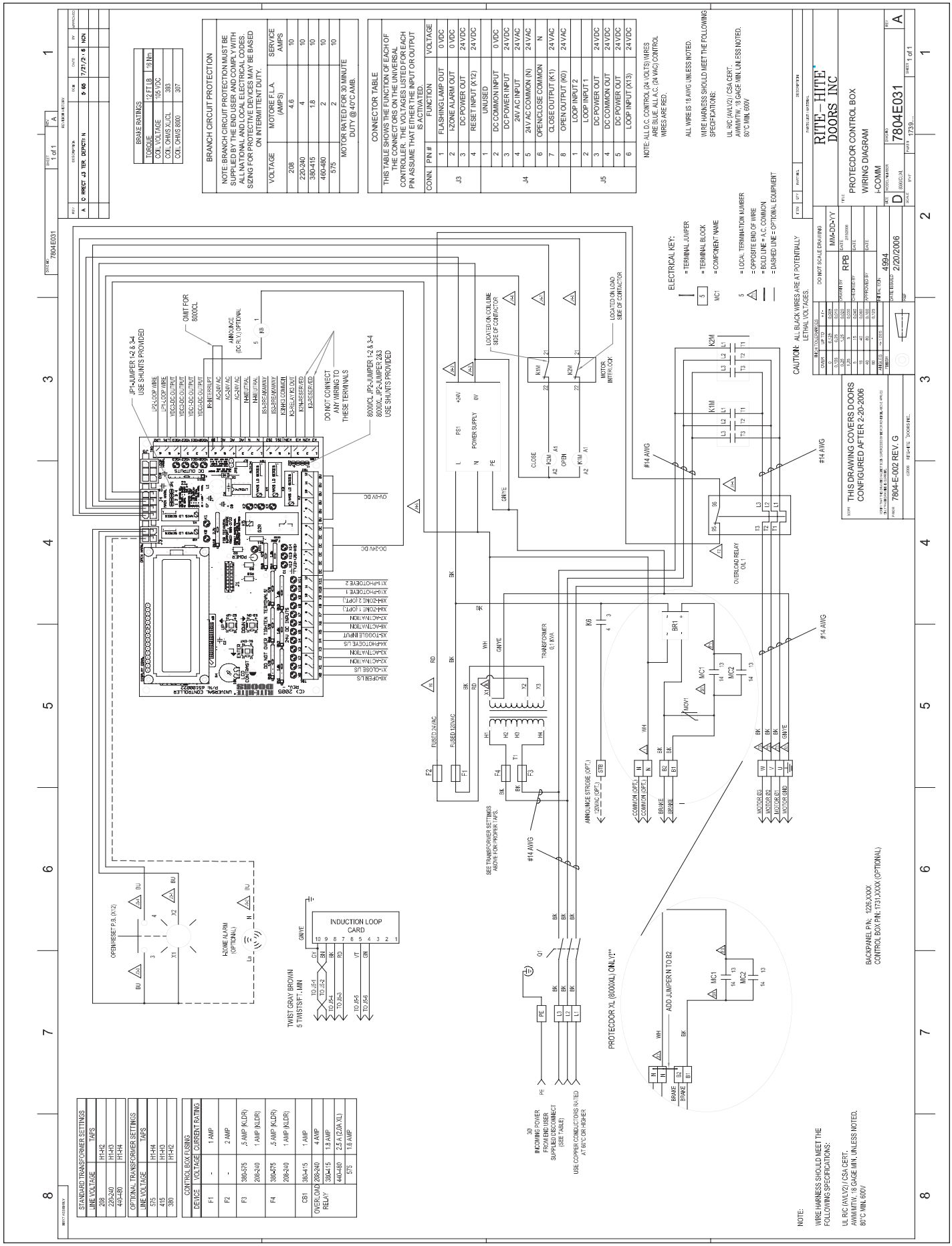
OPERATING PROCEDURE

1. To operate the door, simply press the green open button on the front of the control box, the door should go to the full open position.
2. Normal settings are set to auto-reclose, and once the open button is pressed the door will open, time out per the setting of the re-close timer on the i-COMM and close.
3. The door can be equipped with several types of activation devices that can open or close the door and can be setup to either auto-reclose or toggle mode. Operate the door system with any remote activation devices that are in use.
4. For toggle mode, the door can be setup such that if a device is used to open the door, it or another device needs to be reactivated to close the door.
5. If the green light on the front of the control box is flashing, the door is in a fault mode. To place the curtain and/or trolleys at a comfortable working height, jog the door by pressing and holding the flashing green light button.

FIELD WIRING DIAGRAM



STANDARD WIRING DIAGRAM



STANDARD TRANSFORMER SETTINGS

LINE VOLTAGE	TAPS
208	H1-H2
220-240	H1-H3
440-480	H1-H4

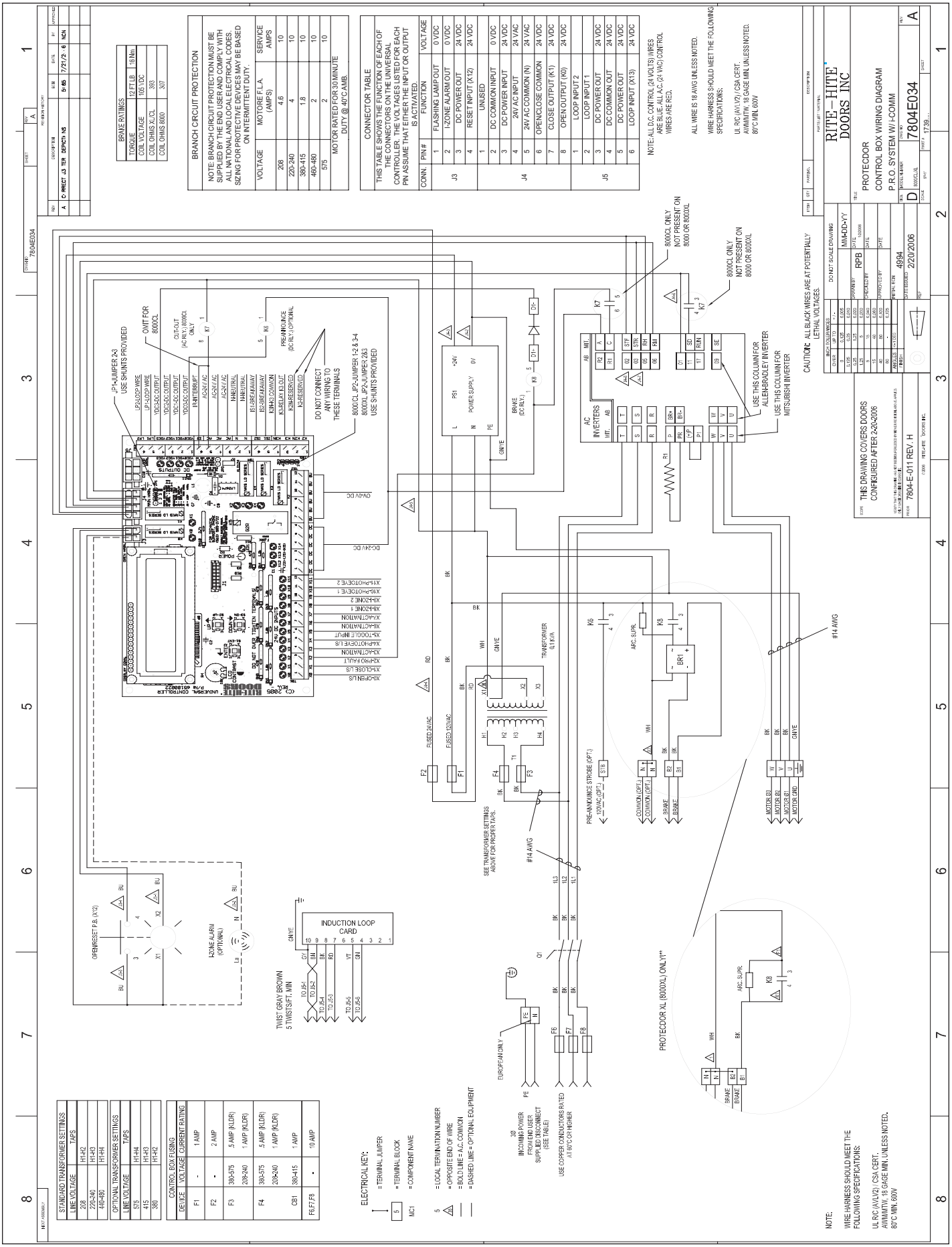
OPTIONAL TRANSFORMER SETTINGS

LINE VOLTAGE	TAPS
575	H1-H4
415	H1-H3
380	H1-H2

CONTROL BOX FUSING

DEVICE	VOLTAGE	CURRENT RATING
F1	-	1 AMP
F2	-	2 AMP
F3	380-575	.5 AMP (KLDR)
	208-240	1 AMP (KLDR)
F4	380-575	.5 AMP (KLDR)
	208-240	1 AMP (KLDR)
CB1	380-415	1 AMP
OVERLOAD RELAY	208-240	4 AMP
	380-415	1.8 AMP
	440-480	2.5 A (2.0A XL)
	575	1.6 AMP

INVERTER ELECTRICAL WIRING DIAGRAM



DWG NO	SHEET	REV
7804E035		A

NEXT ASSEMBLY

BEA - Falcon, IS-87, EagleHM

Control Box	BEA	Sensor
AC	//	1-BN
N	//	2-GN
DC	//	3-WH
X6***	//	4-YE
		5-GY

BEA Motion Sensors

MS Sedco - D38

Control Box	D38	Sensor
AC	//	1*
N	//	2*
X6***	//	3
DC	//	4

D38 Motion Sensor
*If switched, green lite will be on, and F2 fuse blown.

BEA - DK-12

Control Box	DK12	Sensor
AC	//	1
N	//	2
DC	//	3
X6***	//	4

Presence Sensor

RADIO CONTROLS

Control Box	Receiver
N	BK
DC	WH
AC	RD
X6**	YE

300MHz Radio Control

Control Box	Receiver
N	BK
DC	BN
AC	RD
X6**	OG

40MHz Radio Control
(1, 2 or 4 Button)

INDUCTION LOOP

Control Box	Loop Wires
LP1	Wire(a)
LP2	Wire(b)
Wire Nut	Wire(a)
	Wire(b)

Loop Wiring

PHOTOEYES

Control Box	Photoeye
DC	BK
N	BU
AC	BN
X6*	OG

Retroreflective or Thru Beam Receiver

Control Box	Photoeye
AC	BN
N	BU

Thru Beam Emitter

PUSHBUTTONS & PULL-CORDS

Control Box	Switch
DC	SW
X6**	SW

Wire Each device as shown.

INTERLOCK

Door1		Door2
K3	//	X?
K3N	//	DC
X?	//	K3
DC	//	K3N

2 Door Standard Interlock

Note: Consult i-COMM manual to see which inputs can be assigned interlock in function. Connect K3 to whichever input is selected to become interlock in. No other devices should be connected to this input. Terminal Must be assigned to Interlock through i-COMM menu on both doors. (i.e. If X3 is to be assigned a function of Interlock Input, the menu ("Input Func X3") should be set to a value of "0") Output YK3 (K3 relay) should remain at the default setting of "0" on both doors.

STROBES & ALARMS

Control Box	Beacon/Strobe
STB	Wire
N	Wire

Warning Device Beacon/Strobe
Additonal Relay Required
120VAC U.L. Listed .30 Amp Max

Control Box	120VAC Alarm
STB	Wire
N	Wire

Audible Alarm

I-ZONE 8000/CL/XL

Control Box	I-ZONE	Sensor
0V	//	BK
DC	//	RD
X8	//	GN
X9	//	CLR

Each sensor is connected by 4-cond. gray cable.

I-ZONE 8900 w/ SIDEFRAME CONTROLS

Control Box	I-ZONE	Sensor
DC	//	RD
0V	//	BK
X8	//	CLR

Control Box	I-ZONE	Sensor
DC	//	RD
0V	//	BK
X9	//	CLR

Sensor Is connected by 4-conductor gray cables. Green wire is not used.

I-ZONE 8900 w/ CONTROL BOX

Control Box	I-ZONE	Sensor
0V	//	BK
DC	//	RD
X8	//	GN
X9	//	CLR

Sensor is connected by 4-conductor gray cable.

I-ZONE 8000CL

Control Box	I-ZONE	Junction Box	Sensor#1
OV	BK //	0V //	BK
DC	RD //	DC //	RD
X8	GN //	X8 //	GN
X9	CLR //		CLR

Sensor is connected by 4-conductor gray cable.

Terminals 0V & DC are shown in two places for drawing clarity. Only one terminal is provided.

Junction Box	Sensor#2
OV //	BK
DC //	RD
X9 //	GN
	CLR

NOTES:

THIS DRAWING ASSUMES INPUT FUNCTIONS ARE SET TO FACTORY DEFUALTS.
CONSULT i-COMM MANUAL FOR DETAILS
WARNING: NEVER CONNECT MOTION SENSORS TO A TOGGLE INPUT

Terminals "X6", "X7" are automatic reclose.
Terminals "DC" are DC common for inputs.
Terminals "AC" and "N" are 24VAC terminals.

*Terminal X7 is a default
**For true toggle operation use terminal "X5".
(Pull cords, push button or radio controls only.)
***For Reverse hold open connect sensors to UNUSED input.
(i.e. X2 (not available for PRO System), X3, X6, or X7 and assign that input a function of "6" in the i-COMM menu. Multiple sensors can be connected in parallel.

Consult i-COMM manual for additional instructions.

REVISION HISTORY

REV	DESCRIPTION	ECN	DATE	BY	APPROVED
A	I-ZONE & INTERLOCK CORRECTIONS	5009	4/18/2006	RPB	

ITEM	QTY	PART NO.	DESCRIPTION

PARTS LIST / MATERIAL

INCH TOLERANCES		
OVER	UP TO	+/-
0	0.125	0.005
0.125	0.25	0.010
0.25	1.25	0.020
1.25	5	0.030
5	15	0.040
15	40	0.060
40	80	0.100
80	-	0.125
ANGLES	+/- 1 DEG	
FINISH		

DO NOT SCALE DRAWING

MM-DD-YY

DRAWN BY — DATE 2/3/2006
CHECKED BY — DATE
APPROVED BY — DATE
INITIAL ECN 4994
DATE ISSUED 2/20/2006
REF

RITE-HITE® DOORS INC

TITLE
PROTECDOR/TRAKLINE SERIES
ACTIVATION WIRING
i-COMM

SIZE	MODEL NUMBER	DWG NO	REV
B	8000/CL/XL/8900	7804E035	A

SCALE 8"=1' — PART # — SHEET

OPTIONAL COUNTERBALANCE SYSTEM

The counterbalance system is an option for opening the door in the case of a power outage.

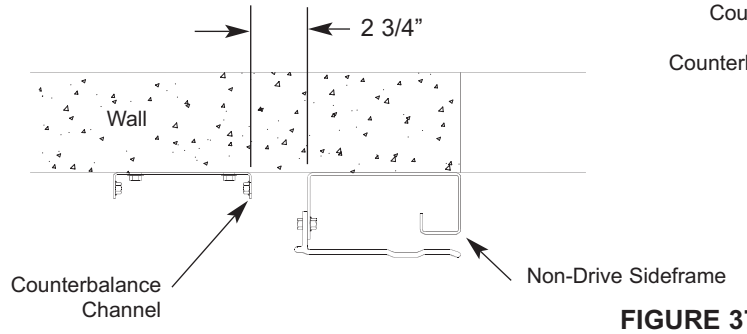
1. Operate door to the full open position and turn off power. Make sure the power source has been locked and tagged out according to OSHA regulations and approved local codes. Barricade door to prevent vehicle traffic entry.
2. Mount the counterbalance channel at 2 3/4" from the non-drive sideframe, ***Figure 37.*** The centerline of the channel should be in line with the centerline of the pulley on the end of the roller tube shaft.
3. Check that the number of pre-wraps of the counter weight belt is 1 1/2 turns. The belt should be routed off the front of the counterbalance pulley. Route the belt behind the idle pulley and drop to the floor.
4. Position the counterweight on a block in front of the counterbalance channel and remove the clevis pin from the top of the counterweight. Route the belt through the buckle as shown to create a loop and locate as close to the weight as possible. Connect the strap to the counterweight using the clevis pin and clip, ***Figure 38.***
5. Reconnect the power to the door and run to the closed position. Watch so the counterweight buckle does not contact the idle pulley, if it appears that it will, stop the door immediately and adjust the buckle downward. With the door in the full closed position, mark the idle pulley position on the belt and adjust the buckle to rest as close as possible to the idle pulley, weight may hit floor before fully opening on certain size doors.
6. Adjust limit switches as required and cycle door 10 times to verify operation.
7. If curtain opens to far, call Door Technical Support.
8. If curtain does not open far enough when the cord is pulled, add shims. If door operates correctly, go to step 11.
9. If curtain still does not open far enough when cord is pulled, add another wrap of the belt about the pulley.
10. If door operates correctly, go to step 11. If door still does not open enough, call Technical Support
11. With door in closed position and power off, slide the pvc pipe over the counterweight and push it back into the channel. Cable tie pipe into position through the rings in the channel, ***Figure 39.***
12. Install the guard onto the channel using the 5/16"x3/4" fasteners provided. DO NOT install top bolt at this time.
13. Install the non-drive shroud.
14. Pull brake release handle to check for proper operation, it may be necessary to assist curtain.

⚠ CAUTION !!!

Be careful when running the door prior to counterweight installation as the belting may become entangled.

Be prepared to stop the door before counterweight contacts the idle pulley or floor.

RH DRIVE SHOWN, LH OPPOSITE



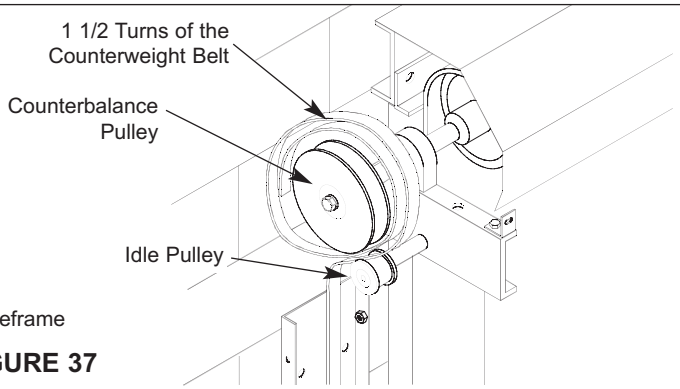
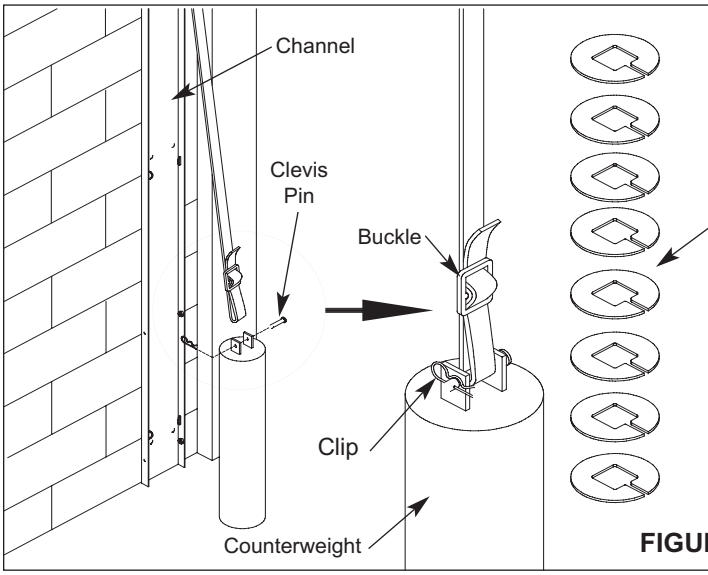


FIGURE 37



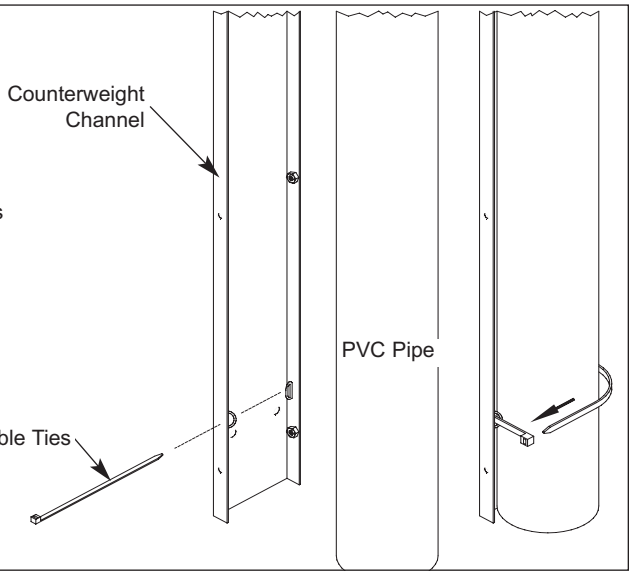


FIGURE 38

OPTIONAL INVERTER & THRU-WALL BRAKE RELEASE

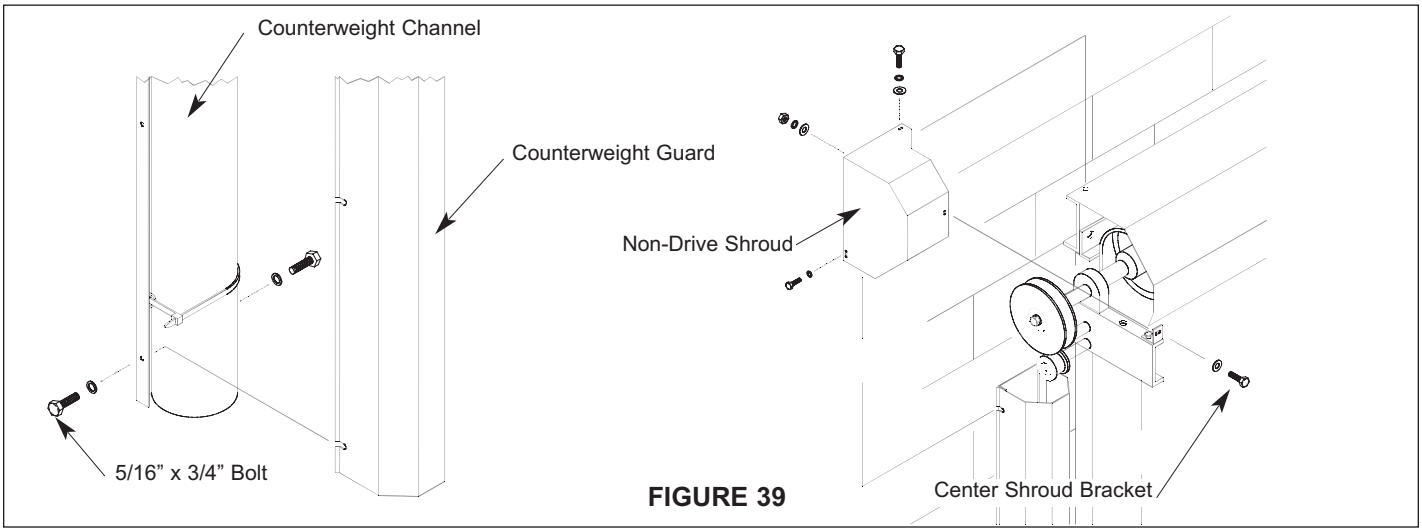


FIGURE 39

Motor Phase Rotation Verification

1. Press the OPEN/RESET button to reset the door. The door should fully open and then automatically close after the reclose timer has expired, unless the door is setup with the full toggle mode option. The open/reset button will then need to be pressed again to close the door.
2. If the door starts closing, turn the disconnect switch off and lock and tag out the power supply. Have a qualified electrician reverse any two of the three motor leads, terminals U, V or W in the control box, ***Figure 40.*** Reconnect the electrical power and retest the door.
3. The Inverter parameters are set to open the door at 52 inches/second and close at 24 inches/second.
4. Adjustments should only be made by a RITE-HITE DOORS, INC. training service technician. If the parameters are altered without consent, RITE-HITE DOORS, INC. will not be liable for problems or damage that may occur.

NOTE: ***Reversing the incoming power phases will have no effect on direction of travel.***

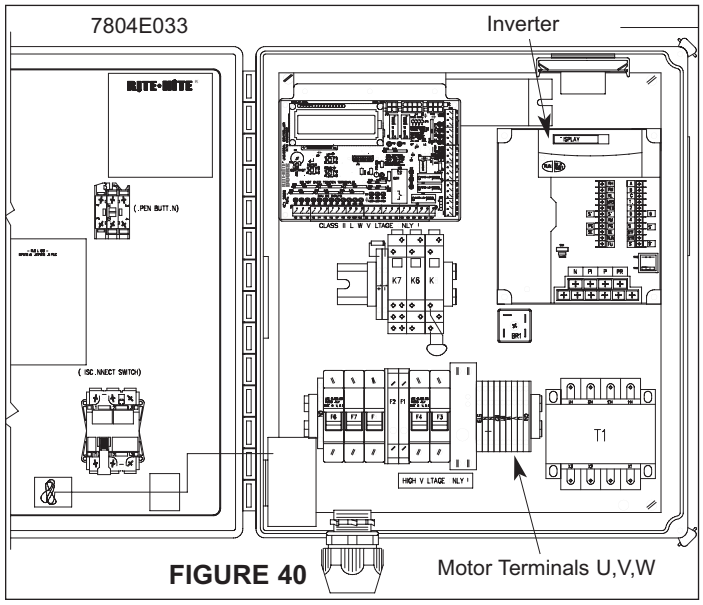


FIGURE 40

⚠ CAUTION !!!

The first time that the door system is operated, it may move in the wrong direction if the motor power phase rotation is incorrect. Be prepared to turn the Disconnect Switch if the door begins closing instead of opening.

THRU-WALL BRAKE RELEASE INSTALL

1. Remove the lower bolt from the drive side shroud and re-install it with the conduit clamp.
2. Insert the two rope guide plugs into the shorter end of the two 'L' shaped conduit pieces, ***Figure 41.***
3. Using the conduit as a guide, mark the location on the wall. Check the other side of the wall for clearance, if clear, drill a 1" Ø hole through the wall, if not move the conduit left or right.
4. Install one piece of conduit onto the clamp using the provided hardware, and attach the splice connector to the longer end of it.
5. Insert the other piece of conduit through the wall into the other end of the splice connector. Cut conduit to desired length.
6. Thread the rope through the conduit and tie it into the existing rope.

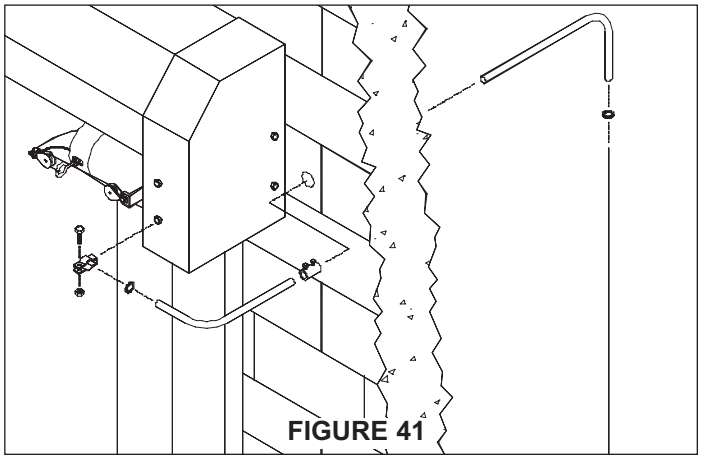


FIGURE 41

ARCHITECTURAL DRAWING