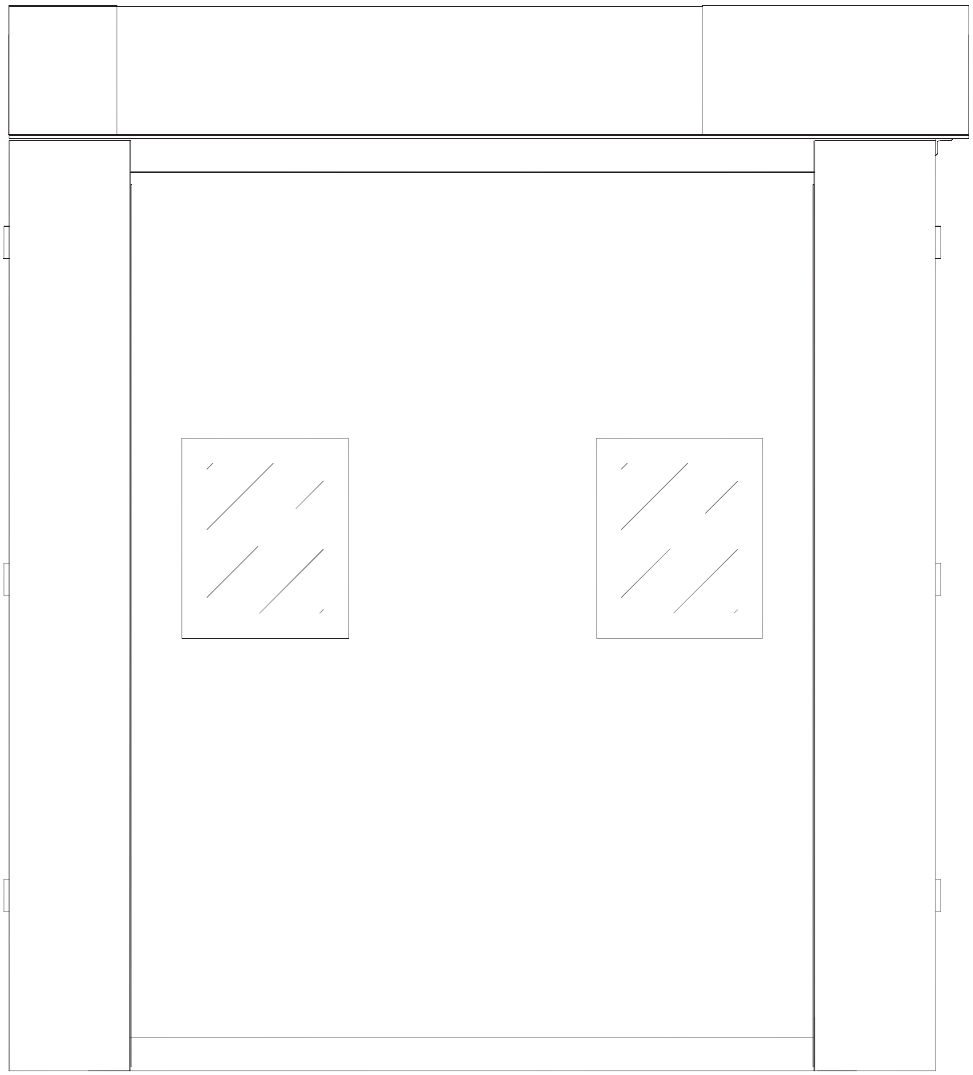
PROTECDOR® XL

MODEL 8000XL



ISO 9001 CERTIFIED

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

MADE IN THE U.S.A.

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

PRINTED IN U.S.A.
RITE-HITE PRINT SHOP

PUBLICATION NO. 8000XLG
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 XL from RITE-HITE DOORS, INC. The PROTECDOR XL is a new concept in power roll door systems. This system incorporates a powered high speed drive system that enables extremely short open and close cycles. The combination of the patented Soft-Tech™ Safety System, DETECDOR™ monitor system and the GaleForce™ wind retention system make this door system singular and unique. This soft fabric roll-up door is ideal for interior applications that have high air flow situations as well as exterior applications. Door bottom damage is reduced through the use of releasable connecting tab inserts and wind rollers, that are designed to release the door fabric from the drive system upon impact. Reassembly of the door is a simple and quick process requiring only minutes of downtime.

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.

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 18.***

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.

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 XL 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

FEATURES

- i-COMM™ Universal Controller
- Rugged / Durable EXCEL™ Curtain Fabric Design
- Detecdor™ Monitoring System
- Soft-Tech™ Safety System
- Heavy-duty industrial materials allow high cycles and minimal wear

RECOMMENDED SERVICE PARTS

Open L/S	15650061	Fuse 1AMP	51000002
Closed L/S	15650062	Fuse 2AMP	51000005
Lower Curtain Tab	53700035		

INSTALLATION TOOLS REQUIRED

3/4" Socket (deep well or extension)
3/4" Open End Wrench
9/16" Socket
7/16" Socket or Open End Wrench
Allen Wrench (5/16")
Phillips Screwdriver (small)
Straight Screwdriver (small 1/8" spade)
Drift Pin
1/2" Socket
Tape Measure 25' Minimum
Utility Knife
6' Carpenters Level
Hydro Level
"C" Clamp
Wire Strippers

Hardware for mounting door and ext. pe not provided.

WARRANTY

RITE-HITE DOORS, INC. warrants that its PROTECDOR XL door, including electrical components, will be free from defects in design, materials and workmanship for a period of one (1) year, or 150,000 cycles, from the date of shipment, whichever shall first occur, but only as long as the door is not cycled more than 1,000 times per day. RITE-HITE DOORS, INC. warrants that the PROTECDOR XL 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 is RITE-HITE DOORS, INC. exclusive warranty. RITE-HITE DOORS, INC. expressly disclaims all 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., RITE-HITE DOORS, INC. representatives or any other manufacturer whose products are the subject of this transaction, 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

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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 that might interfere with the lifting of the header during installation.
3. Verify there is nothing buried in the floor where the anchor bolts will be installed.
4. Detour material handling equipment (fork lift trucks, etc.) during the installation of the door and barricade both sides of the work area.
5. Make sure that the electrician is ready to bring the correct electrical power supply to the control box.
6. Make sure that the electrical power can be shut off without interfering with other plant operations.
7. Move the crate as close to the door opening as possible.
8. When unpacking the door components, first remove the parts box, electrical cables, and control box. Remove the sideframes and the header last.
9. Measure the overall width of the door opening near the floor and the top (Dimension AA), ***Figure 1.***
10. Measure the height of the door opening at the left and right-hand sides (Dimension BB), ***Figure 1.***
11. 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.
12. 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 sideframes will be required, ***Figure 1.***
13. D.O.W. / H. = Door Opening Width / Height
14. O.D.W. / H. = Ordered Door Width / Height
15. Be sure to install any optional equipment last after verifying door operation.

NOTE: Check for electrical prints included in the parts or control box, as they supersede any prints included in this owners manual on Pages 20 - 23.

SIDEFRAME INSTALLATION

NOTE: Follow sideframe leveling instructions carefully.

1. Measure between the door jamb and mark the centerline on the floor. From the centerline, measure over 1/2 O.D.W. plus 1/4". This will offset the location of the sideframe to allow for the door seals, ***Figure 2.***
2. Measure across the door opening from sideframe mark to sideframe mark to double check the overall dimension, ***Figure 2.*** Make sure that the distance between the marks does not vary more than 1/8".
3. At each sideframe location measure approximately 24" above the floor and place a mark. Using a hydro-level, determine if the locations marked are level. If not, determine the amount of shimming required, ***Figure 1.*** Install the sideframe on the higher side first.
4. Remove the counterweight tube from the sideframe.
5. Remove the external photoeye from inside the sideframe.
6. Install the sideframe first that required little or no shimming. Use a 6' level to make sure that the sideframe is plumb to the wall in both directions, ***Figure 2.***

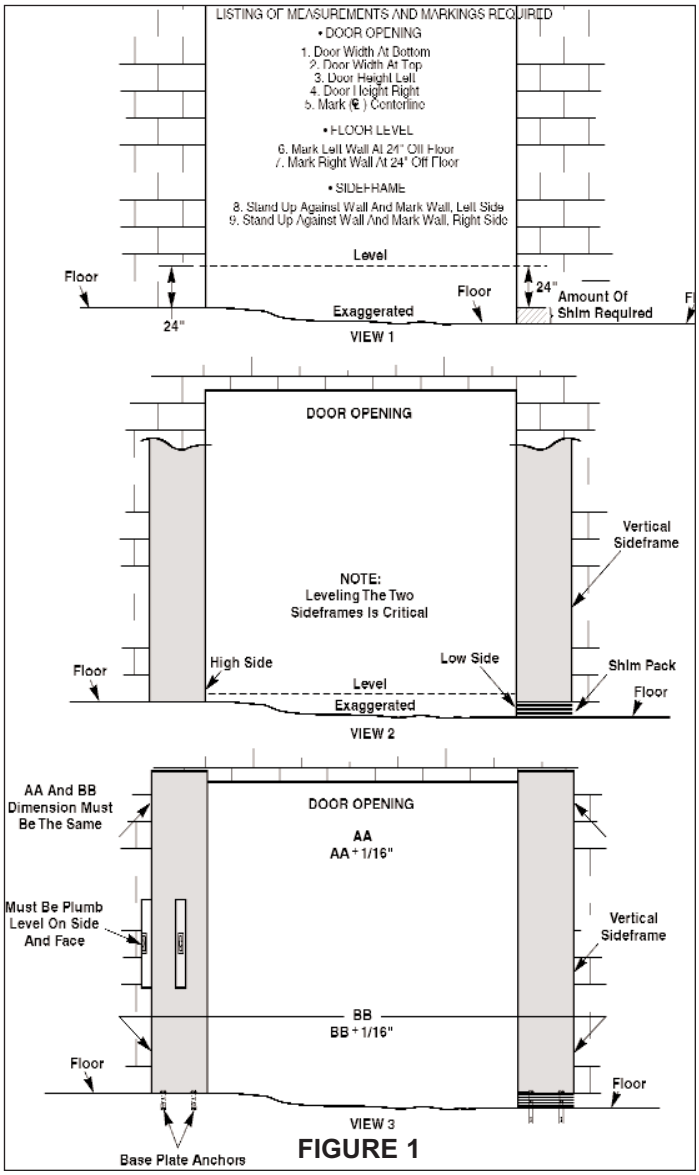

FIGURE 1

SIDEFRAME INSTALLATION

7. Using the pre-drilled holes in the base plate and the sideframe as a guide drill the holes. Thru-bolting is recommended using a backing plate. Be sure the anchor bolt heads do not interfere with the belts and other moving parts, ***Figure 3.***

NOTE: Anchors or wall fasteners are not supplied

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

The distance between the sideframes should be O.D.W. plus 1/2", +1/16"/-1/8".

8. Position shims for the sideframe on the lower side and temporarily place the sideframe and check sideframe to sideframe distance at the top and bottom of the door opening, ***Figure 1***.
9. Shims must fully support sideframe base plate. Drill or cut holes through shims to allow for anchors, ***Figure 1.***
10. Repeat the procedure for the second sideframe.
11. Double-check the overall width measurements at the top and bottom of the sideframes. There should not be more than +1/16"./-1/8". Double check that the top of the sideframes are level with each other. See Dimensions A and B on, ***Figure 1.***

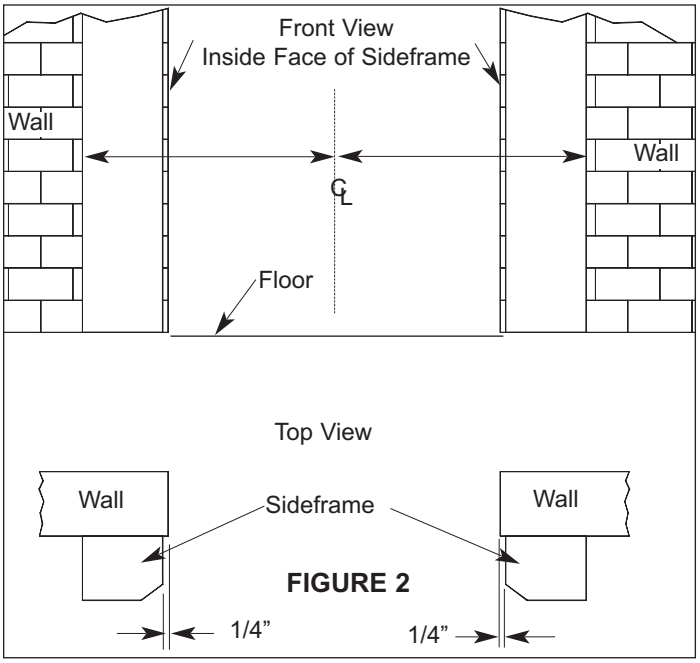

FIGURE 2

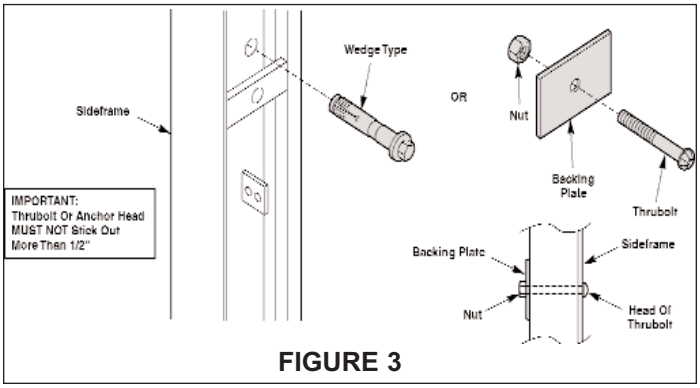

FIGURE 3

NOTE:

It is not advisable to weld frames in place until door has been tested to ensure proper operation and curtain to trolley hookup is achieved.

HEADER INSTALLATION

1. Open the sideframe doors to allow header to be installed.

NOTE:

Fork tips should not extend beyond back edge of the header assembly, Figure 4.

Bear in mind that header is heavy and requires careful attention.

2. Using a forklift, insert tines through the lifting guides, under the shipping dunnage and secure with a "C" clamp. Lift and position the header curtain roll assembly above the sideframes, ***Figure 4.***
3. Make sure all electrical cables and belting are out of the way before lowered to prevent them from being pinched. Carefully lower the header assembly into position on top of the sideframes mounting angle iron, ***Figure 5.***

NOTE: Do not move forklift until all header fasteners are in place. Make sure to install all (9) bolts before torquing to 80 ft. lbs.

4. Align the holes in the header mounting plates with the holes along the outside edge of the sideframes. Install (5) 1/2" x 1 1/2" bolts, washers, lock washers and nuts, (3) on drive side and (2) on non-drive side using a 3/4" socket and 3/4" wrench, ***Figure 5.***
5. Install (4) 1/2" x 1" attachment bolts and washers through the front of the header support tube into the sideframe assemblies, ***Figure 5.***
6. Recheck all measurements to make sure that the door is square and plumb.
7. Tighten all sideframe anchor bolts.
8. Guide the curtain fabric through the sideframe seals.

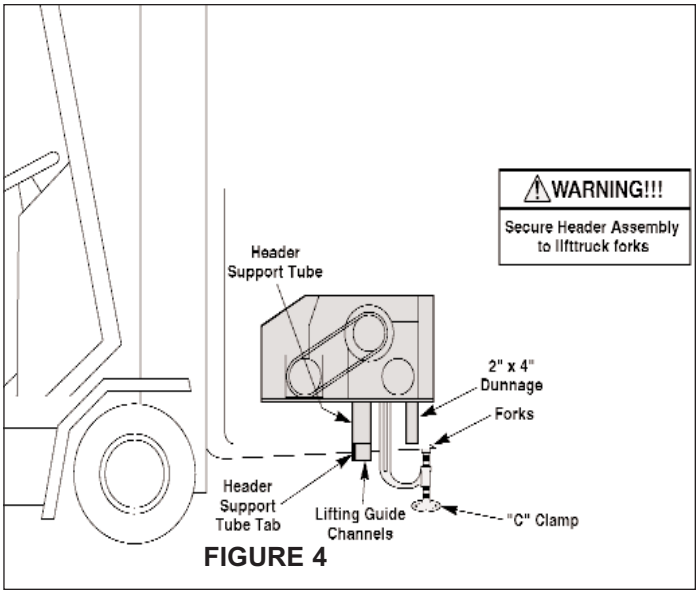

FIGURE 4

HEADER INSTALLATION

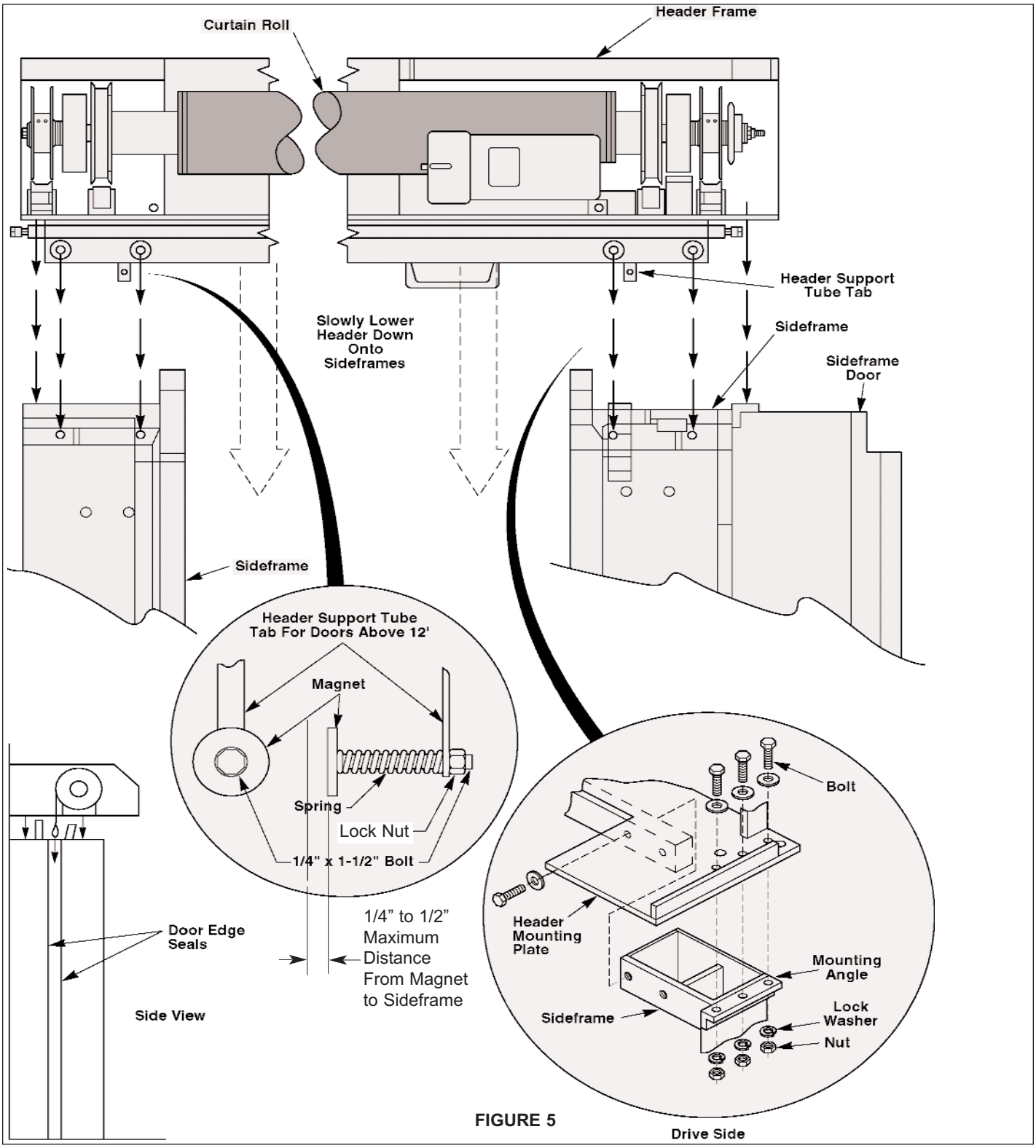

FIGURE 5

NOTE: ***On doors above 12' tall, install the magnet/spring assembly on the header support tube tabs. Adjust to hold the sideframe covers tightly to the sideframe. The circular magnet, spring and lock nut will be found in the hardware bag, Figure 5.***

BELTING / TROLLEY INSTALLATION

CURTAIN ROLLER GUIDE INSTALLATION

1. Locate curtain roller guide and attachment bolts located in the hardware box.
2. Install guide with the 3/8" x 5/8" bolt and lock washer onto welded boss on the back wall of the header assembly, ***Figure 6.*** Repeat for the opposite sideframe.

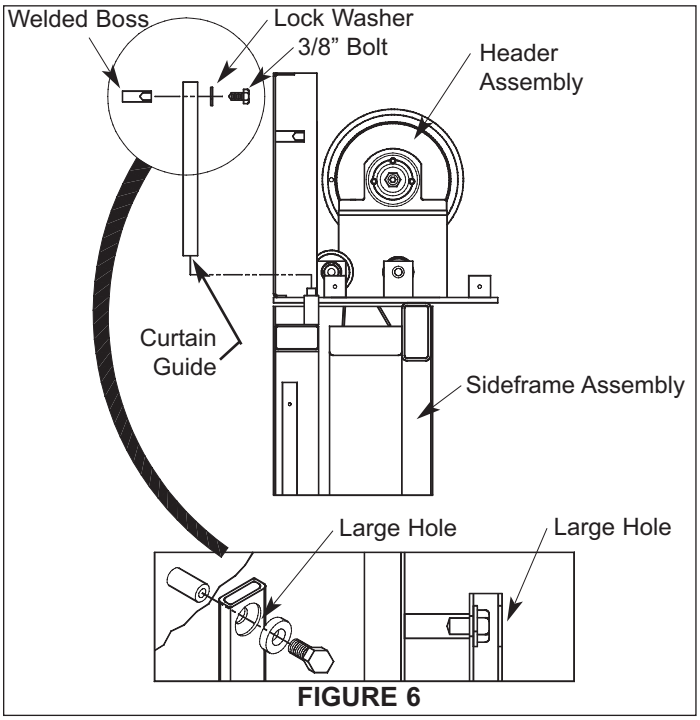

FIGURE 6

COUNTERWEIGHT BELT INSTALLATION

NOTE: Remove the tie-wraps and uncoil the counter weight belting that is pre-installed around pulley.

1. Untie and unwrap the white manual brake release cord from around the motor. Route the cord through the brake release pulley and down through the hole in the motor mounting plate. Tie a knot in the cord just below the mounting plate to prevent the cord from being pulled back through the hole and becoming entangled in the drive chain, ***Figure 7.***

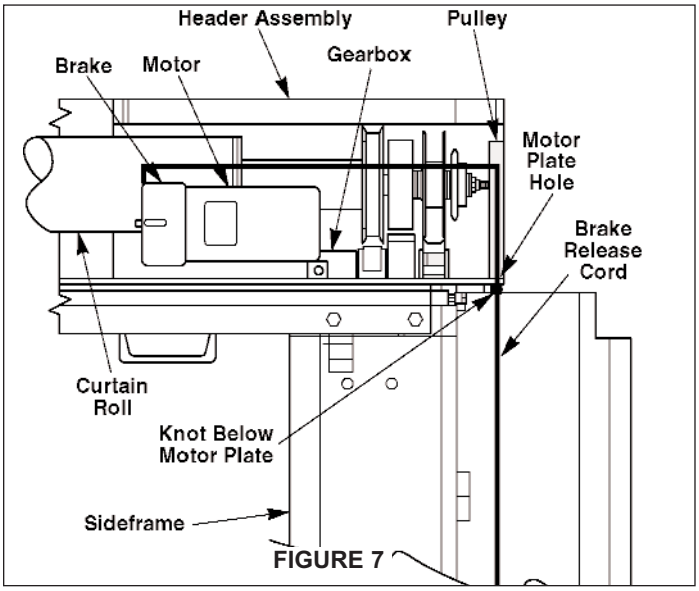

FIGURE 7

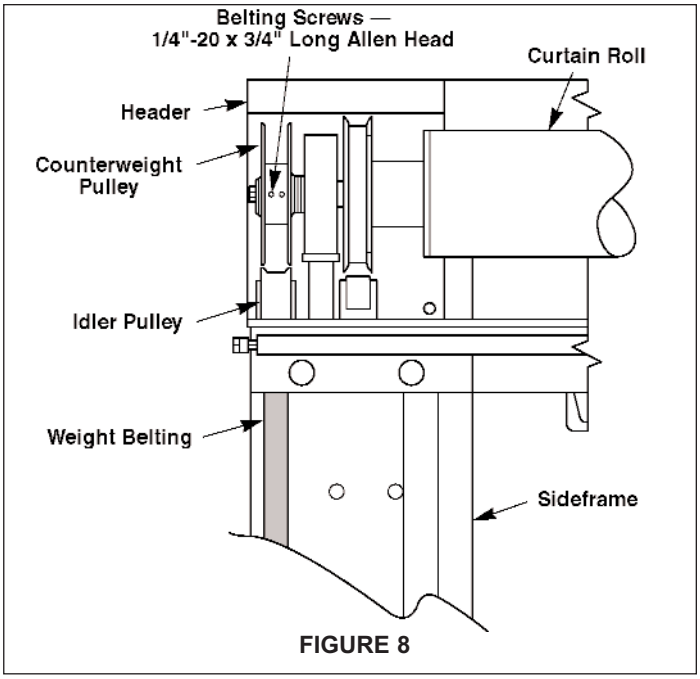

FIGURE 8

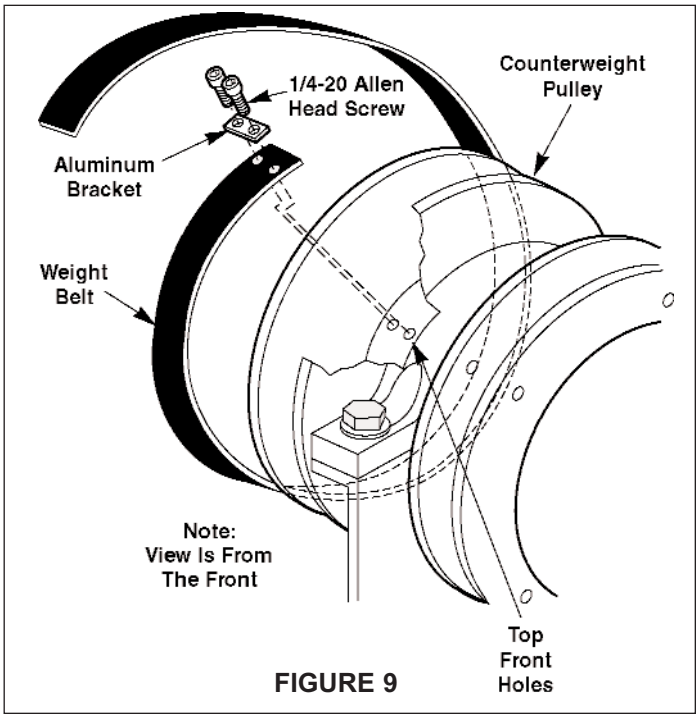

FIGURE 9

2. Pull and hold the manual brake release cord and lower the curtain to the top of the door opening.
3. Locate the pre-wrapped white counterweight belting and assure the 1 1/2 pre-wraps before routing belting.
4. Looking at the side of the door, route the belting to the front of the counterweight pulley and behind the idler pulley mounted on the header plate.
5. Drop the belting through the motor plate, ***Figures 9 & 14.***
6. Locate the longer section of the guide tube. Make sure that the flared connection flange is at the bottom. Slide the belting through the guide tube, ***Figure 10.*** Temporarily secure the guide tube in the raised position.

BELTING / TROLLEY INSTALLATION

7. Locate the belt buckle in the hardware bag and route, ***Figure 10.*** Slide the belt through both holes of the buckle, positioning the buckle approximately 3" above weight. Route belt around clevis pin and back up through both holes in buckle. Tension belting such that there is minimal slack in belt. Trim the belting to 3" above buckle and tape in place.
8. Cut the shipping strap holding the counterweight in the shipping position.
9. Carefully loosen the 1/2" x 2" bolt allowing the weight to drop, ***Figure 10.***
10. Repeat these procedures for the other sideframe.

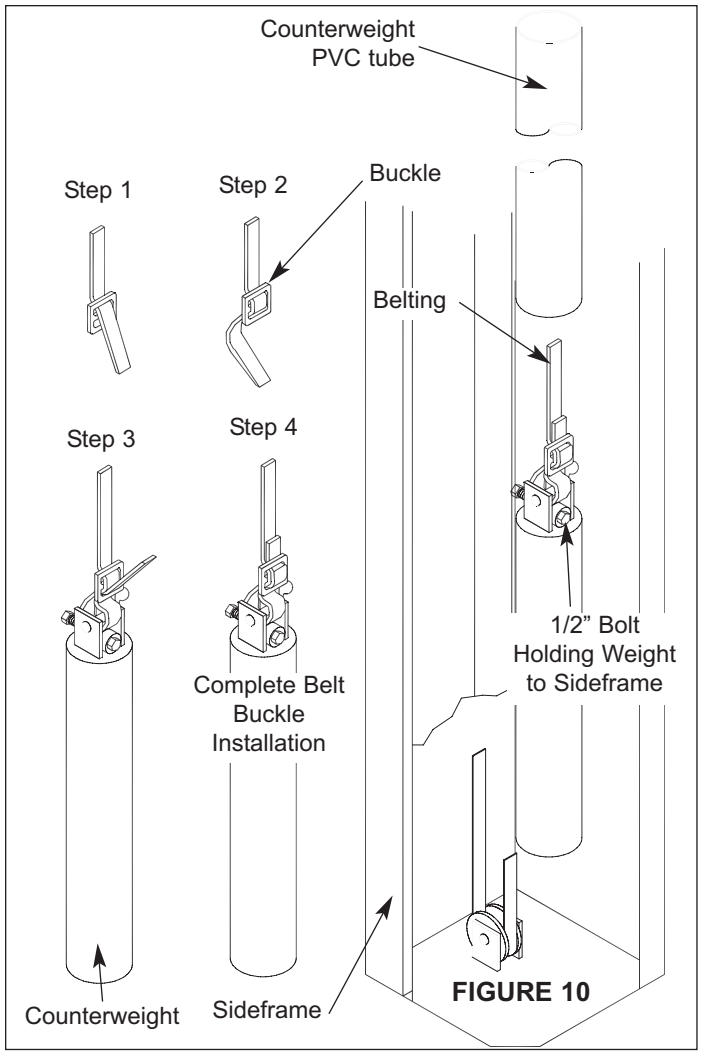

FIGURE 10

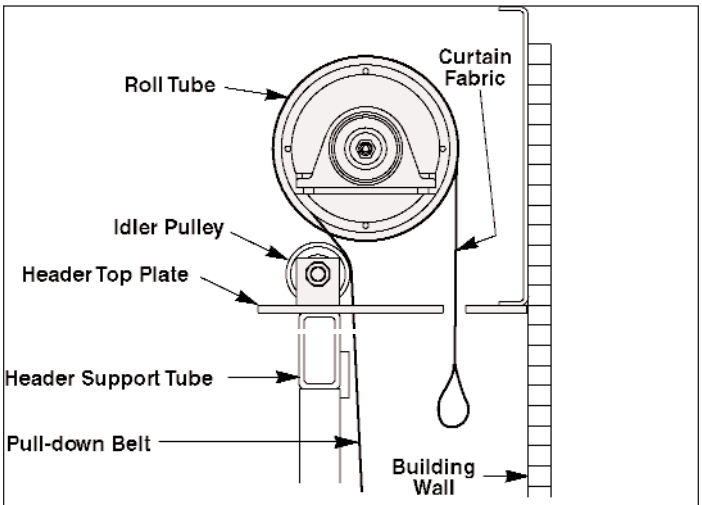

FIGURE 11

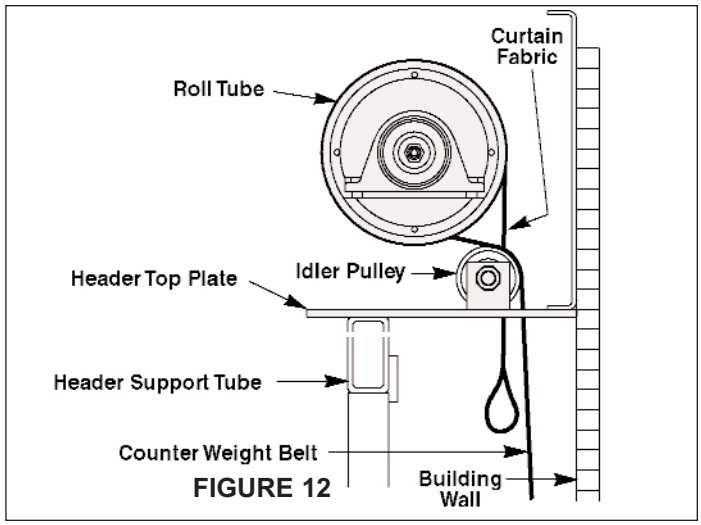

FIGURE 12

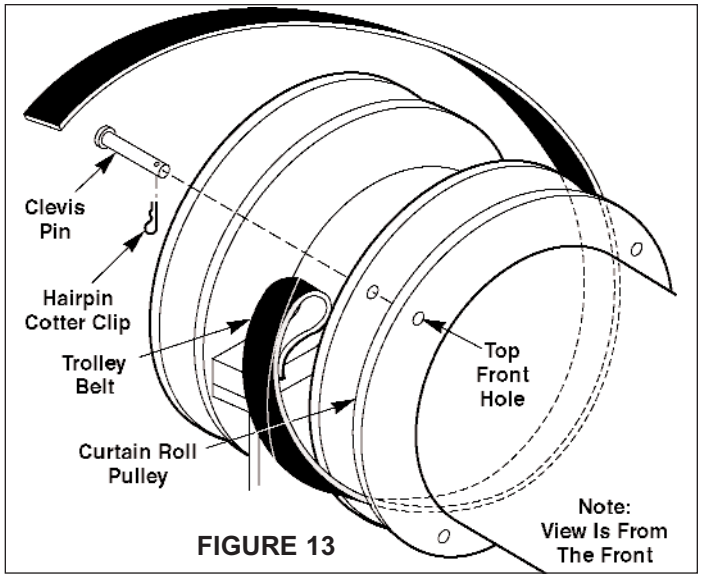

FIGURE 13

TROLLEY BELT INSTALLATION

NOTE: Remove the tie-wraps and uncoil the trolley belting that is pre-installed around pulley.

1. Check to verify 2 1/2 pre-wraps around the pulley before routing the belt.
2. Route the belting to the front of the roller tube pulley and behind the idler pulley, ***Figures 11 & 13.***
3. Insert the belting through the hole in the motor plate and let it drop to the floor.
4. Repeat steps 1 & 2 on the opposite sideframe.

BELTING / TROLLEY 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.

INITIAL POWER-UP PROCEDURES

1. Use the control box wiring diagrams located on ***Pages 20 - 23*** to verify that all wires are connected accordingly.
2. Use the manual brake release to allow the door to be raised or lowered. Position the bottom edge of the door fabric 3" below the full open position.
3. Turn the disconnect switch on, DO NOT push the open/reset button at this time.

OPEN LIMIT SWITCH ADJUSTMENT

NOTE: During installation the door fabric will be pulled part way into the door opening.

1. With the main power on and the door set 3" below the door opening height, observe the Input LED to confirm that the open limit switch is properly adjusted.
2. If the open limit X0 LED is not lit, locate the limit switch assembly, ***Figure 14.*** Disconnect power and lock-out and tag-out the control box. Lift up on the small gear belt and rotate the plastic pulley until the magnet aligns with the open limit switch.
3. Resume power and verify open limit switch LED is lit.

NOTE: Make sure that the loose trolley belting winds smoothly onto the pulleys without twisting.

CHECKING MOTOR ROTATION

1. With the power turned on, momentarily firmly press inward on the K2M contactor. Note the direction of the door's movement.
2. If the door moved toward the Open position, lock-out and tag-out the main power supply to the door and reverse the motor wires at terminals V and W. Reconnect the power and repeat the test to verify the correction.
3. If the door moved in the downward direction the motor phasing is correct. Continue to jog the door until it is closed by pressing the K2M contactor.
4. Turn the power disconnect switch to the off position and proceed to adjust close limit switch.

CLOSE LIMIT SWITCH ADJUSTMENT

1. With the main power on, the open/rest button flashing and the door fully closed, observe the Input LED to confirm that the close limit switch is properly adjusted.
2. If the LED is not lit, locate the limit switch assembly and the close limit switch adjustment bracket. Loosen the 1/4" thumb screw and rotate the limit switch adjustment bracket until the Close limit switch aligns with the magnet, ***Figure 14.*** Tighten the thumb screw by hand until tight, then use pliers to set the thumb screw with a 1/4 turn. If the limit switch plate moves, adjust with 1/4 turns until locked in place.

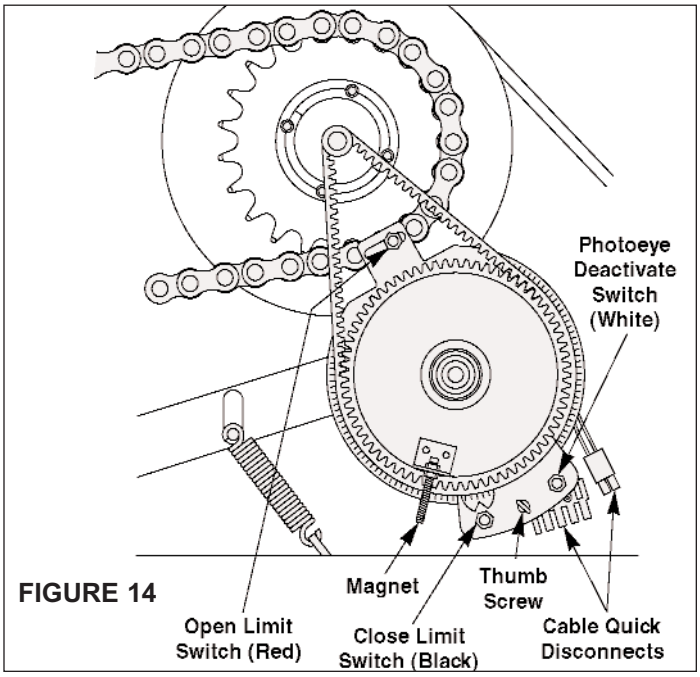

FIGURE 14

ATTACHING CONNECTING TABS

1. Study ***Figure 15*** and the instruction decal on the inside of sideframe door.
2. Pull the orange handled belt tension lever downward until it locks into the release position
3. Locate and remove the hairpin cotter clip and the nylon bushing from the trolley lock pin.
4. Slide the upper connecting tab through the sideframe, align the trolley assembly with the tab slot, ***Figure 15.***
5. Slide the connecting tab onto the trolley lock pin, ***Figure 15.***
6. Install the nylon bushing over the lock pin, thru the hole in the connecting tab, and replace the hairpin cotter clip.
7. Push the yellow capped plunger inward and hold, ***Figure 16.***

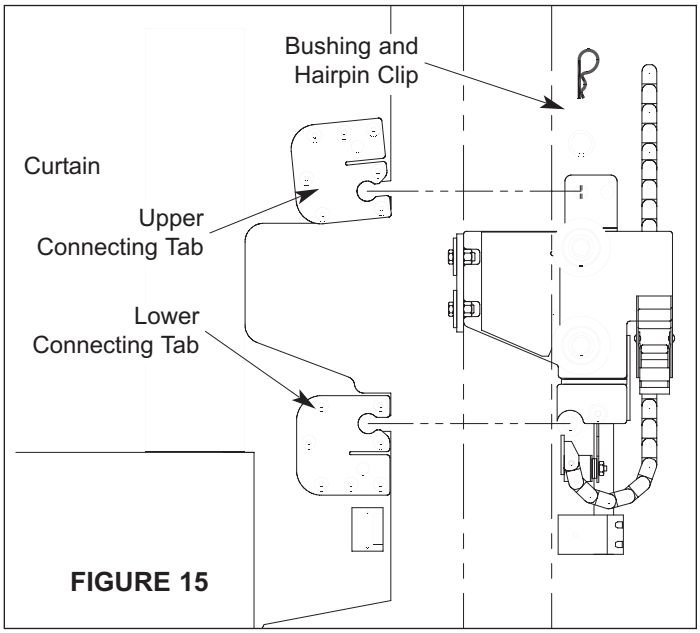

FIGURE 15

BELTING / TROLLEY INSTALLATION

8. Rotate the rubber bumper arm away from the sideframe and slide the tab slot along the plunger until it pops into the locked position.

9. Route pull down belting from the header assembly down to the front of the stationary mounted pulley, around the bottom, up the back over the top of the tension idler pulley, down the back to the front of the floor mounted pulley around the bottom and to the belt buckle, ***Figure 18.***

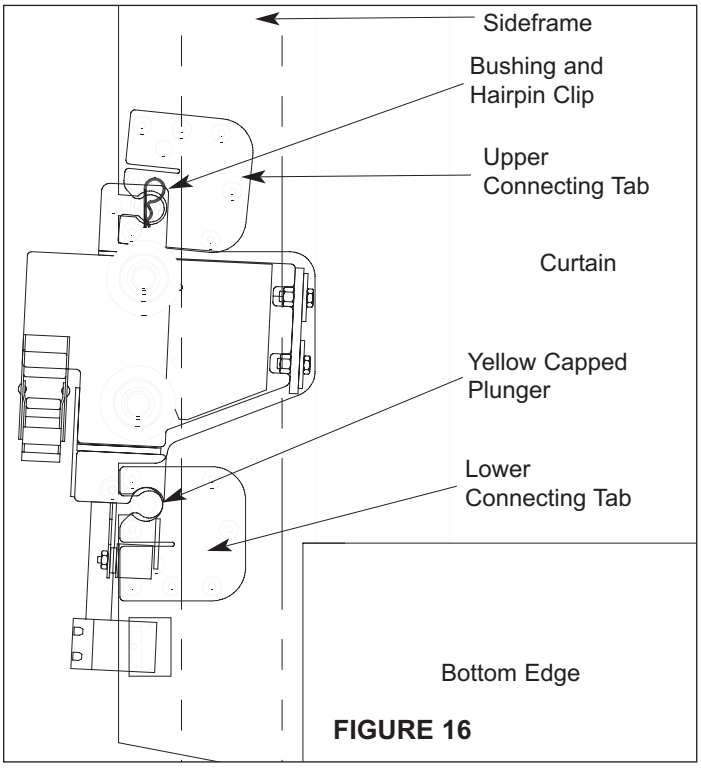

FIGURE 16

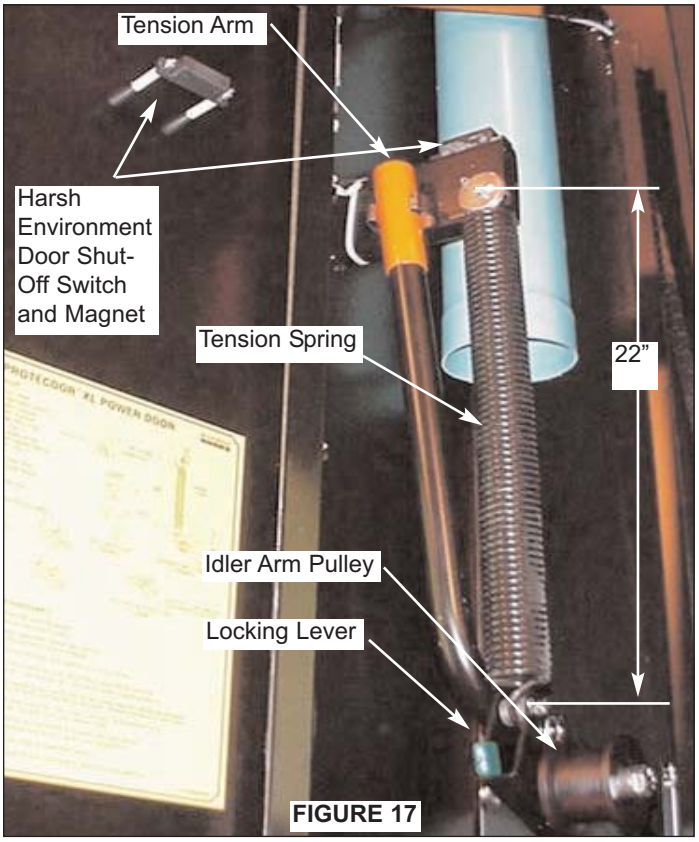

FIGURE 17

10. Weave the belting through the trolley tension belt buckle and secure the buckle, ***Figure 19.***

11. Release the tension lever by pulling downward and lifting the green latch upward, ***Figure 17.***

NOTE: Make sure all belting is tracking on pulleys.

12. Adjust the belting so that the spring is stretched to 22" between the hooks when the door is closed. Repeat until 22" is achieved. You may need to pull more tension on the lever or remove belt from tension arm pulley to get more slack to achieve the 22”, ***Figure 17.*** After the correct tension has been applied to the belting, cut off excess to leave 3" of belting extending from the tensioning buckle.

13. Repeat procedures on the opposite sideframe assembly.

14. Close and secure the sideframe door.

15. Turn power on and press the green open/reset button to reset the door.

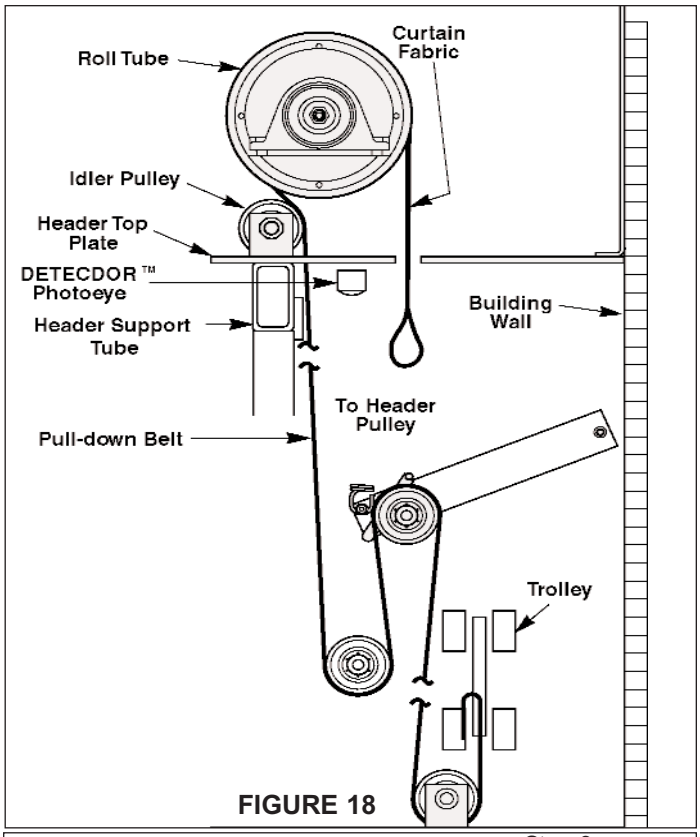

FIGURE 18

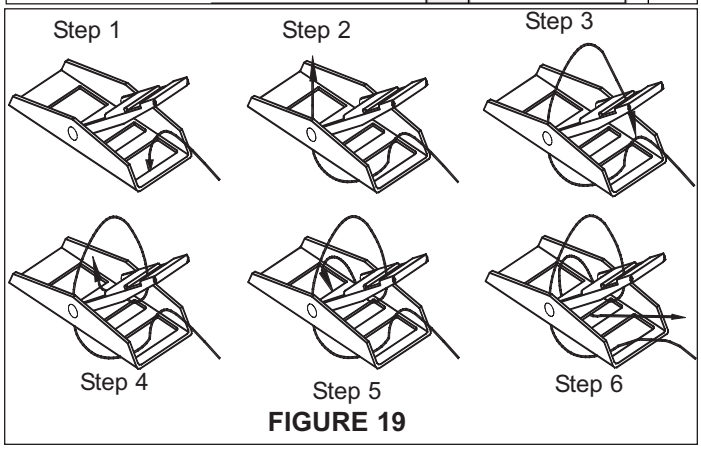

FIGURE 19

PHOTOEYE INSTALLATION

IMPORTANT!!!

The door will not operate until both the Internal and External Photoeyes have been installed and aligned.

EXTERNAL REVERSING PHOTOEYE

1. Locate the photoeye emitter and reflector, or emitter and receiver for thru-beam along with mounting brackets.
2. Attach the photoeye brackets 24" off the floor on the opposite side of the wall, ***Figure 20.***
3. Drill a hole through the wall and route the external photoeye cable through the bottom of the control box. Secure the cable to the control box using the strain relief connectors provided.
4. Connect the wires to the terminal strip, per Wiring Diagram located on ***Pages 20 - 23.***
5. Verify that the switch is set to the Light operate position located on the back end of the emitter/receiver unit.
6. To set the vertical alignment loosen the mounting bracket attachment bolts slightly and rotate the mounting bracket until the red and green LED's turn on, ***Figure 20.*** Continue to rotate the bracket until the LED's turn off. Rotate the bracket back half the distance and tighten the mounting bolts.
7. To set the horizontal alignment loosen the lock nut slightly and turn the photoeye assembly left or right until the red and green LED's turn on. Continue to rotate the photoeye assembly until the LED's turn off. Rotate the photoeye back half the distance and tighten the lock ring.

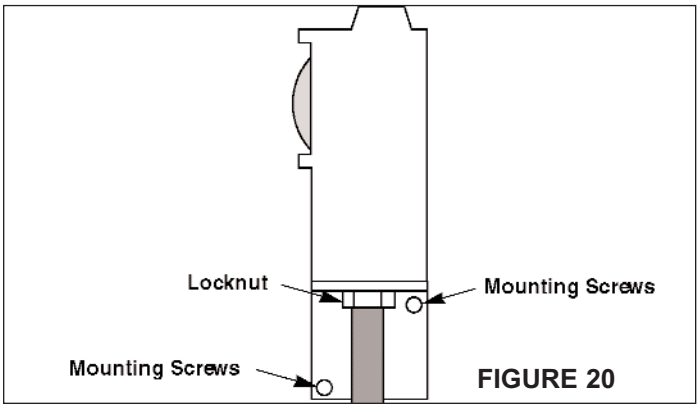

FIGURE 20

REVERSING PHOTOEYE ADJUSTMENT

1. Locate the internal reversing photoeye in the drive sideframe, ***Figure 21.***
2. Located on the top of the photoeye are three LED's and one switch. The Light/Dark switch has been preset in the light position.
3. The yellow LED should be on when the door is powered.
4. The red and green LED's will be on when the photoeye and the reflector assembly are lined up. If they are off, either the beam is blocked or the photoeye is out of alignment. If necessary use the adjustment screws on the sideframe assembly beneath the photoeye, ***Figure 21.*** The two top screws allow for horizontal adjustment and the single bottom screw adjusts vertical alignment. If off, turn one of the top adjustment screws until both LED's are on. If they do not turn on within 3 turns, reverse direction.
5. After the LED's turn on, continue to turn the adjustment screw in the same direction, counting the turns. Note when the LED's turn off and divide the number of turns in half and reverse the turning direction that number of turns to center the light beam.
6. Follow the same steps for the vertical adjustment.

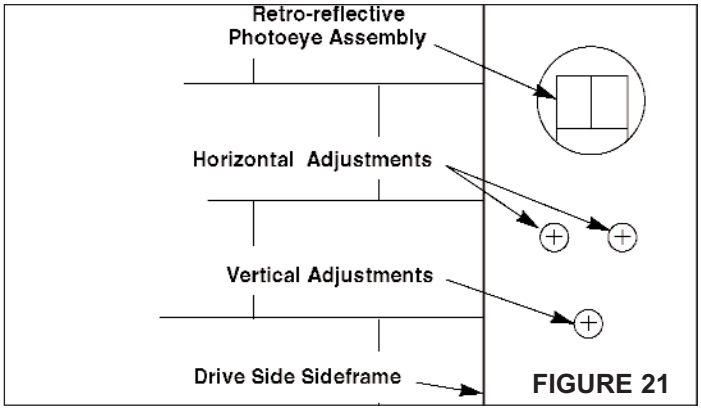

FIGURE 21

COUNTER WEIGHT TUBE INSTALLATION

1. With the door closed, raise the long PVC tube and place the lower shorter piece on the bottom and slide together.
2. Reposition the guide tube. Make sure that it is resting on the bottom of the sideframe assembly with the welded tab on the base plate on the outside of the tube.
3. Secure the upper portion of the tube into the corner of the sideframe by securing cable ties through the D-rings.
4. Repeat procedure for the other sideframe.

TEST ALL SAFETY FEATURES

1. While the door is closing, block the internal and external reversing photoeyes, the door should stop immediately and reverse to the fully open position.
2. To test the sideframe door shut-off, open the sideframe door while the door is closing, the door should stop immediately and the green open/reset button on the control box should begin flashing. This indicates that a fault condition has occurred. Make sure to test both sideframes.
3. Breakaway system testing requires that the bottom sensing switch be tripped. Do this while the door is opening or place obstruction through the opening under curtain. The door should stop and the green open/reset button on the control panel should begin flashing indicating a fault condition. Push button to reset or if separated, reattach the lower insert(s) to the trolley.

STAND CLEAR LABEL INSTALLATION

1. Clean surface where label is to be placed.
2. Peel off backing on label and apply in the proper position, ***Figure 22.***

PHOTOEYE INSTALLATION

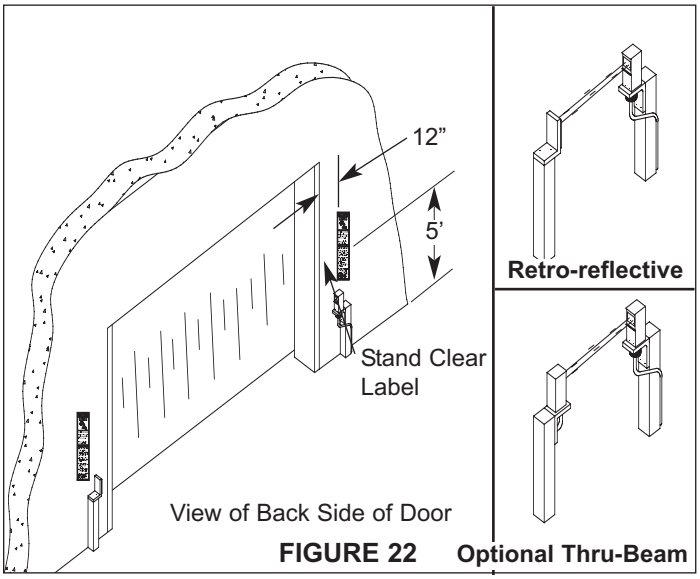

FIGURE 22

BREAKAWAY SYSTEM

1. The system runs on a trolley attached to the curtain which is pulled by a belt and pulley system. Attached to the trolley is a cable carrier chain in which a cable sends a signal to the controller when a breakaway exists, via a magnet and proximity switch system.
2. When the trolley is properly engaged to the curtain the magnet plate and switch are aligned to send a signal to the controller signifying the door is ready for operation.
3. For protection, the sideframe doors have a magnet and proximity switch that monitor when the doors are opened, placing the door into a fault condition which prevents the door from be activated, ***Figure 23.***
4. The bottom of the curtain houses a cable that stretches from end to end. There are switches on the trolley that line up with the magnet plate. When the bottom of the curtain, impacts an object the circuit is broken, the door will reverse 1’ and go into fault, ***Figure 24.*** When the door is closed and for 1 second when opening, the sensing cable is shut off to avoid false trips.

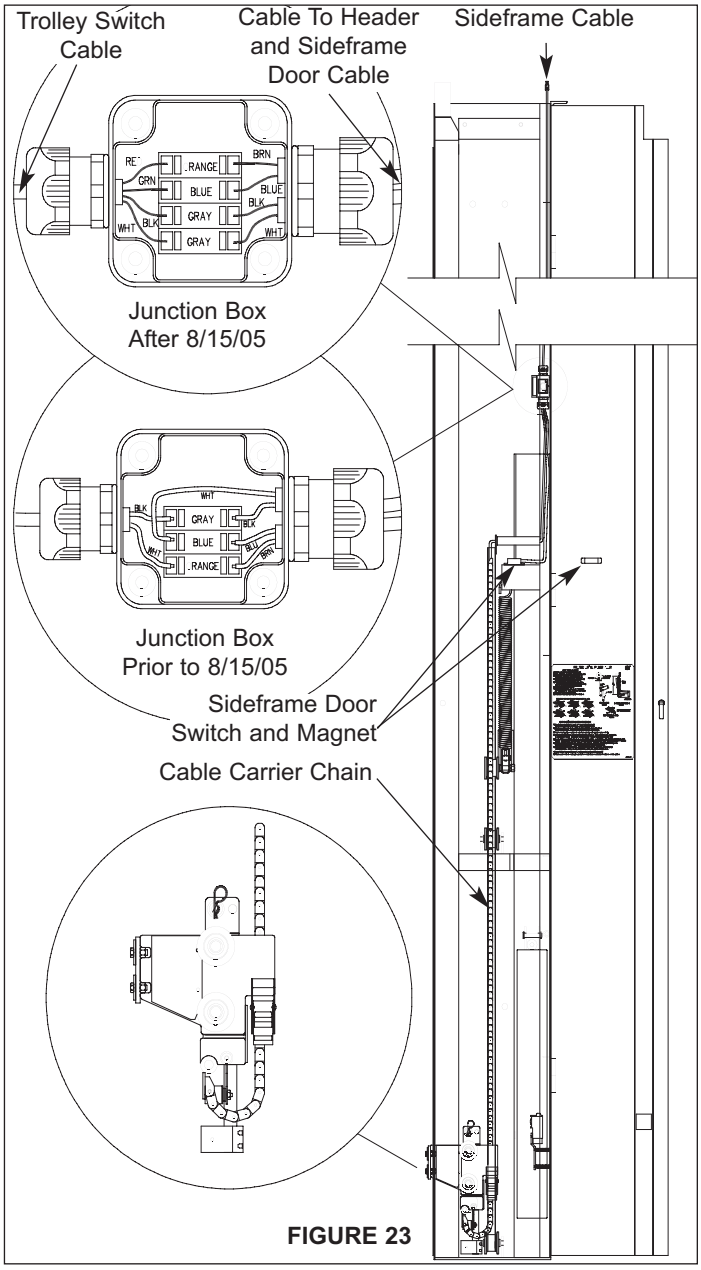

FIGURE 23

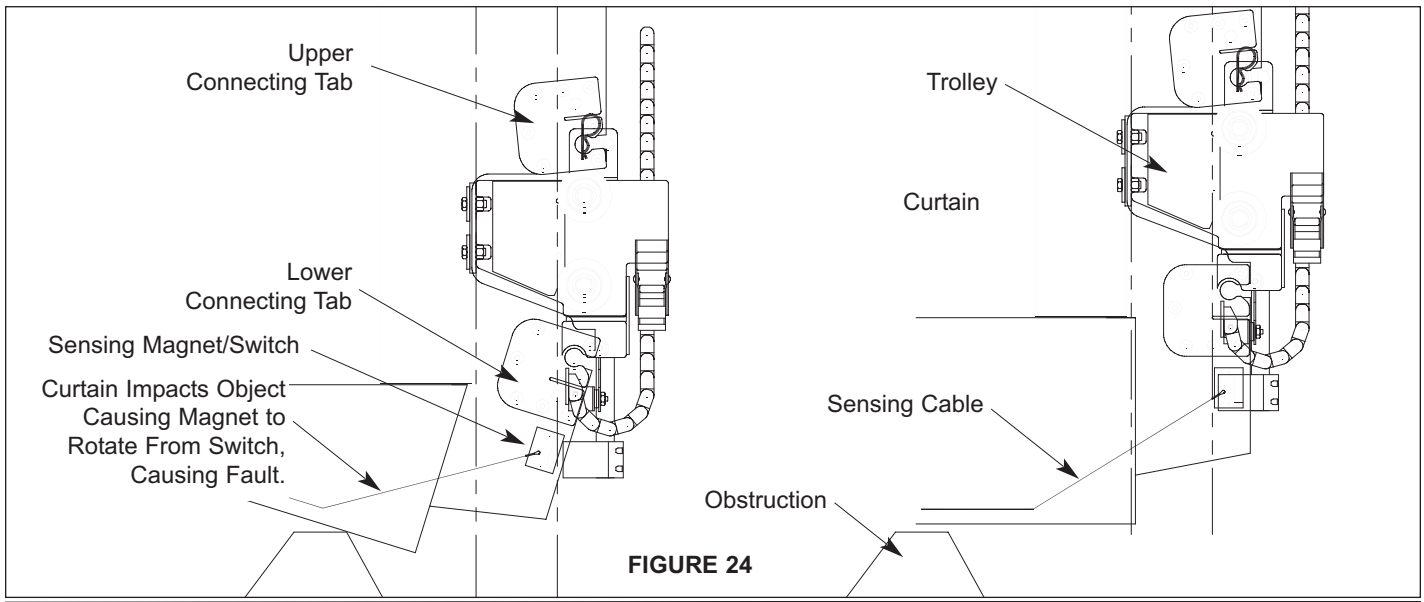

FIGURE 24

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. Read and understand the safety warnings on the inside front cover of the owner's manual.

⚠ 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.

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.

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.

NOTE:

Make sure to route the conduit 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. Flexible non-metallic conduit must be securely fastened at least every 3' to meet National Electrical Code requirements (N.E.C. 351-27).

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. The door frame is grounded via the green/yellow ground wire provided.

1. It is the responsibility of the installing electrician to be sure all local, state, and national electrical codes are met.
2. Mount the control box on the warm side of the wall adjacent to the door at approximately 54" above the floor level, ***Figure 26.*** Make sure that the sideframe doors can be fully opened without hitting the control box.
3. **All drilled holes, and conduit run into the control box must be through the bottom of the control box enclosure**, ***Figures 26 & 27.***
4. 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. Incoming 3-phase power must connect into terminals L1, L2, and L3. Ground must attach to the green/yellow terminal, ***Figure 27.***
5. The control box is provided with class CC protective fusing for the incoming power.
6. The incoming power terminals in the control box will not accommodate wires larger than 10AWG.
7. 20 Amp service may be required for cable runs longer than 300'.
8. The PROTECDOR XL has been factory tested. The electrical cables from the door are ready to be connected to the control box. Please refer to the electrical wiring diagrams located on ***Pages 20 - 23.***

NOTE:

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

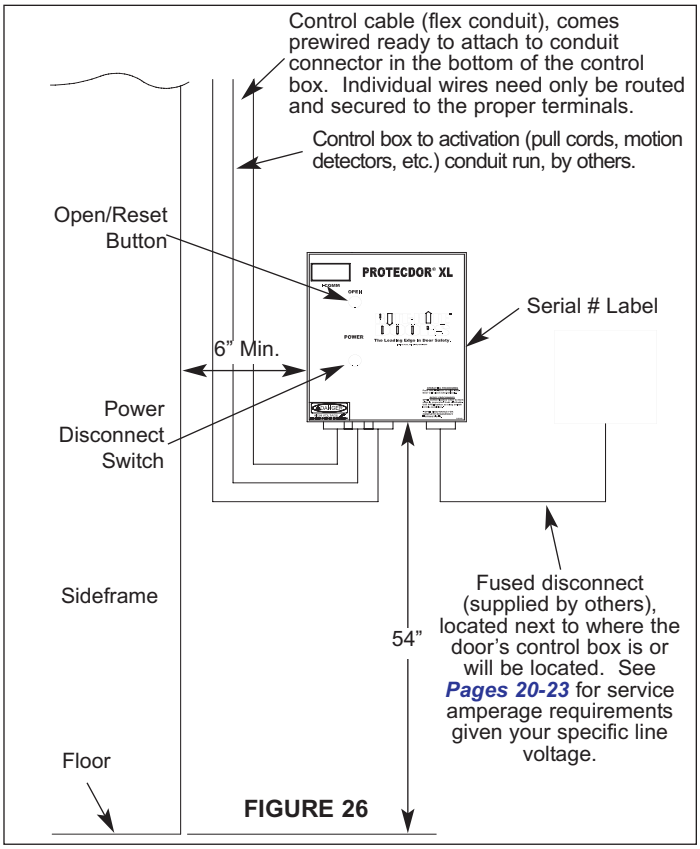

FIGURE 26

ELECTRICAL INSTALLATION

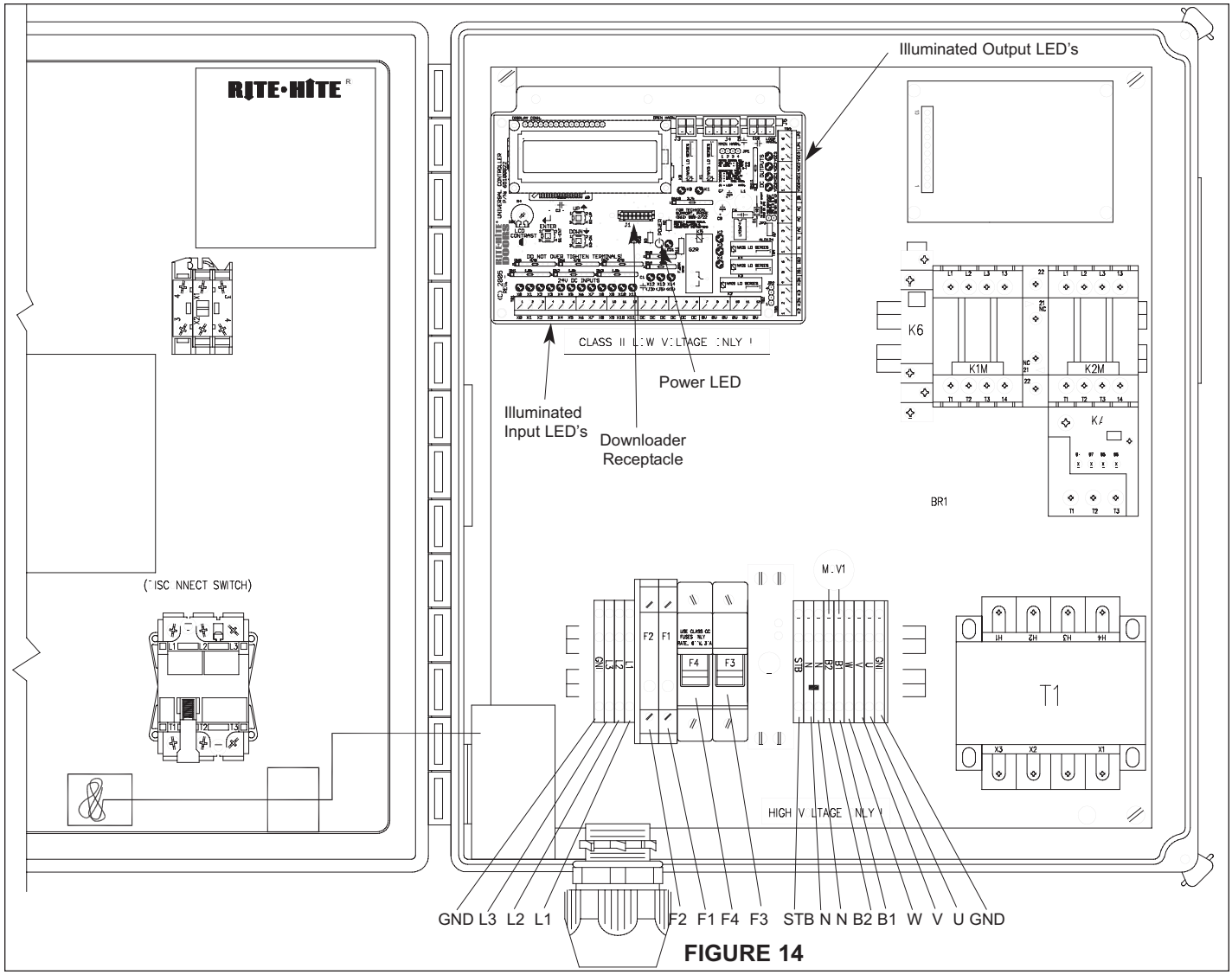

FIGURE 14

RITE-HITE DOORS

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		Detector™ 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. Sytem. 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.

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ELECTRICAL INSTALLATION

9. Attach the connector(s) for the non-drive sideframe breakaway system or the thru-beam photoeye to the mating header connector. This connector is located inside the 2 x 4 header support tube located at the front of the header assembly. Pull the connector out of the end of the tube, make the connection and push the connectors back into the tubing, ***Figure 28.***

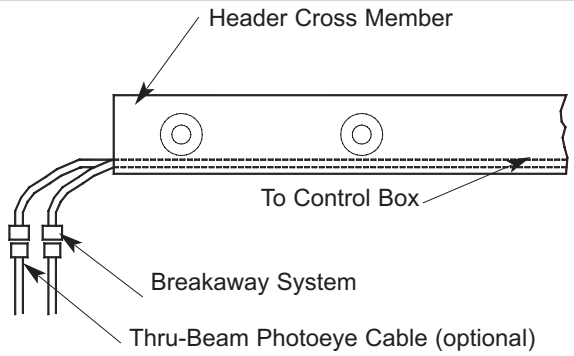


FIGURE 28

10. Route the internal reversing photoeye cable and thru-beam photoeye if applicable, up through the hole in the motor mounting plate. Pull the cables through the plastic wire-tie provided to the conduit connection point located at the rear corner of the header plate. Tighten wire-tie.

NOTE:

Route all field installed wires inside the control box so that separation is maintained between line voltage wires and low voltage class II wiring.

ACTIVATION DEVICE INSTALLATION

1. Install activation devices using the Activation Wiring Diagram on ***Page 21*** after door install is completed.
2. Operate the door system with the activation devices that are in use. Make sure that the door fully opens and then closes after the time set on the re-close timer has expired. If you have wired the devices in toggle mode, operate the device twice to verify that the door will open with an activation, and then close with an activation.

FINAL CHECKLIST

1. With the power on, press the OPEN button. The door should open and close automatically after a short delay. To adjust the amount of door open time, go through the screens on the controller, ***Figure 28.***
2. Operate the door several times and observe the opened and closed positions. If it is necessary to adjust either position, shut the power off and simply move the open or closed limit switch, ***Figure 14.***
3. Once the limit switches have been correctly set, shut off the power and tighten the limit switches in place.
4. While the door is operating, break away the trolley on one side of the door to make sure that the breakaway detection system is working. The door should stop and the OPEN button light should flash. Reattach the trolley and press the OPEN button to restart the door.
5. While the door is closing, block the internal and external photoeyes. The door should reverse direction and move to the open position, and then continue to operate.
6. Install motor shroud.
7. Are door opening dimensions correct, did you shim as required ?
8. Check for proper frame alignment when installing floor anchor bolts ?
9. Tighten all mounting bolts ?
10. Are loose wires secured away from moving parts?
11. Check for proper line voltage ?
12. Photoeyes properly operation?
13. External photoeye installed and aligned ?
14. All wires connected for the breakaway system and thru-beam photoeyes ?
15. Check for proper breakaway operation by having the curtain bottom impact an object.

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.
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.

OPTIONAL EQUIPMENT

INVERTER INSTRUCTIONS

If the Inverter option is present on your door, follow these instructions for start-up.

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 lockout and tag 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 29.*** Reconnect the electrical power and retest the door.
3. The Inverter parameters are set to open the door at 50 inches/second and close at 20 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.

THRU-WALL INSTALLATION INSTRUCTIONS

1. Remove the lower from bolt from the drive side shroud and re-install it with the conduit clamp.
2. Insert the two rope guide plugs into the shorter ned of the two 'L' shaped conduit pieces.
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 clear, move the conduit left or right.
4. Install one piece of conduit into 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. It may be necessary to cut the conduit to length to achieve desired end results.
6. Thread the rope through the conduit and tie it into the existing rope, ***Figure 30.***

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.

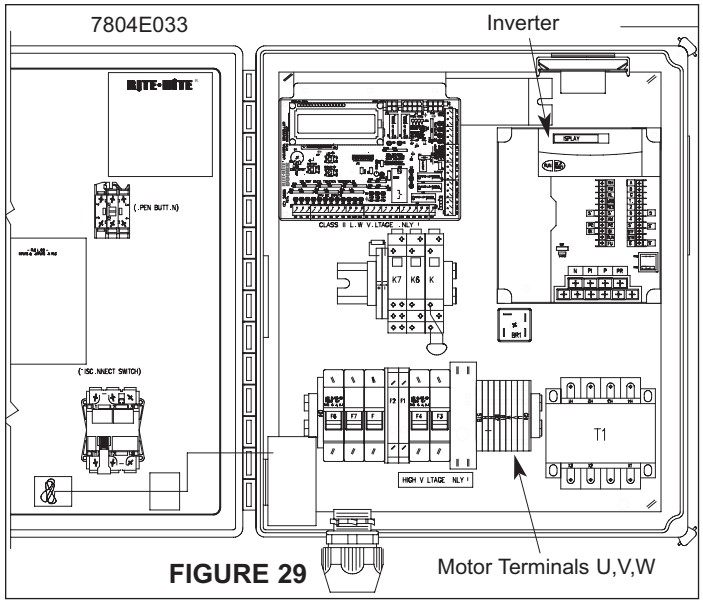


FIGURE 29

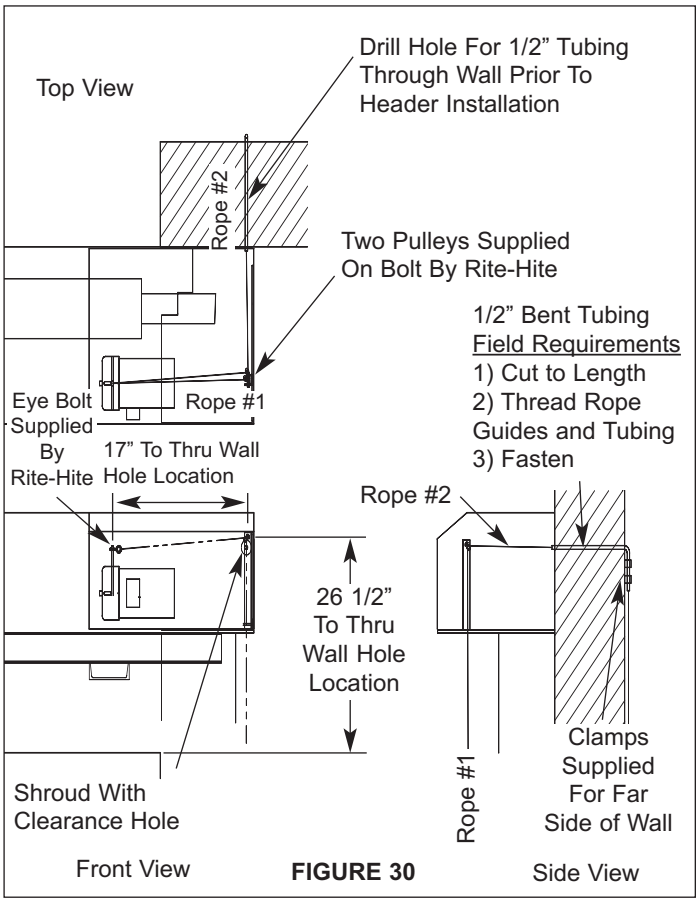


FIGURE 30

MAINTENANCE PROCEDURES

⚠ WARNING!!!

When working on or around the drive motor, make sure that the power source has been locked out and tagged according to OSHA regulations and approved electrical codes. Unexpected activation of the door system could cause serious injury.

⚠ CAUTION !!!

Remove all power by turning the disconnect switch to the Off position before inserting hands into sideframe.

⚠ CAUTION !!!

DO NOT insert fingers into holes in connecting tabs. If required, use a screwdriver or similar device to pry connecting tab into position.

IMPORTANT!!!

DO NOT fully open the door when a breakaway condition exists.

STANDARD OPERATING CONDITIONS

Operate the door under normal conditions and observe the door opening to make sure that it opens fully and does not slam into the header. Observe the closing action to make sure that the door operates smoothly and fully closes without excessive curtain ripple near the bottom. The bottom edge needs to rest completely on the floor for a good seal, adjust limits as required. It is recommended that the operation of all controls on the PROTECDOR XL be verified monthly. 30 days after door installation, a maintenance check should be performed.

NOTE:

When the gearbox mounting bolts are tightened, additional tension will be applied to the drive chain. Recheck chain tension after the mounting bolts are tight.

COUNTER WEIGHT BELT REPLACEMENT

1. Barricade the door opening to all traffic.
2. Run the door to the closed position, remove PVC tubes and run door slowly to full open position, as counter weights may hit sideframe braces.
3. Disconnect all power and make sure that the power source has been locked out and tagged out according to OSHA regulations and approved local electrical codes.
4. Block the weight 6” off the floor or place a bolt through

RITE-HITE DOORS, INC. PLANNED MAINTENANCE
Model 8000XL PROTECDOR® XL

CUSTOMER:	JOB#	SERIAL#	DATE:

Planned Maintenance Item	Recommended P.M. Intervals (Time Shown In Months)								Inspect and Perform the Following
	1	4	8	12	18	24	30	36	
Belts		•		•		•		•	Inspect for wear, tension and alignment, adjust as required. Tension on spring should be 22” from pin to pin. Make sure counterweight does not bottom out.
Brake		•		•		•		•	With door in the closed position, pull the manual brake release rope, DO NOT let it slam the top.
Controls				•		•		•	Clean, check all connections with disconnect off.
Curtain				•	•	•		•	Inspect for wear or damage, clean with isopropyl alcohol or similar product. Check curtain rollers.
Curtain Tabs		•		•		•		•	Inspect all tabs for wear or cracks, replace if cracked or premature separations occur.
Door Assembly				•		•		•	Inspect all mounting hardware. Blow dirt and debris from the header and the sideframe. Replace any labels. Operate door to verify all functions are working properly.
Drive Chain		•		•		•		•	Inspect for corrosion and lubricate with CRC 3050 chain lubricant as required. Tighten as required with 20lbs of force, *Figure 31.*
Gearbox				•		•		•	Check fluid level, fill to bottom of inspection plug. Fill with Pinnacle 150 using fill plug on top of the gearbox.
Sideframe Door		•		•	•	•	•	•	Open sideframe doors and perform visual inspection of chain and cable. Check operation by separating trolleys from curtain, 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.
Photoeyes (Reversing)			•	•	•	•		•	Check alignment, align as required, verify door reverses when blocked. Clean reflector, emitter and receiver with a water beading solution to reduce fogging.
Pillow Block Bearings					•		•		Grease as required.
Seals				•	•	•		•	Adjust with door in the closed position and replace as required if worn or torn.
Sideframes/Shroud/Header				•		•			Perform visual inspection for damage. Tighten all hardware.
Trolleys				•		•		•	Inspect wheels for wear, adjust tension bolt if required.

MAINTENANCE PROCEDURES

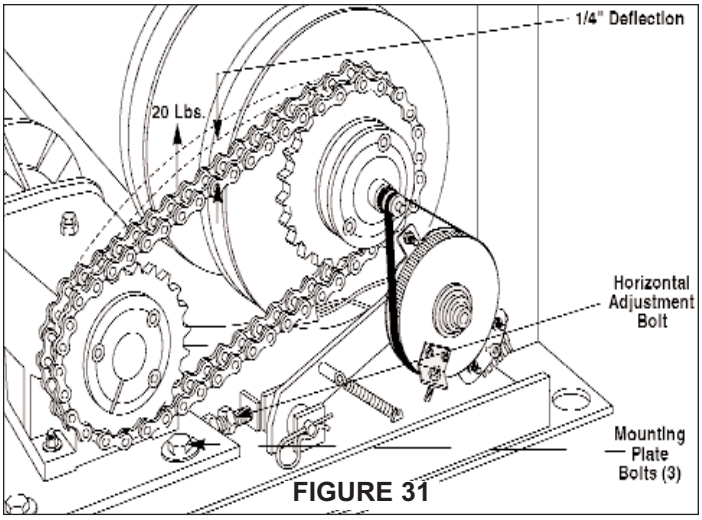


FIGURE 31

the spacer at top of weight with 1/2" x 2 1/2" bolt, with weld nut that is located in the corner of sideframe.

5. Loosen the belt buckle on top of the counterweight and unwrap the belting from the pulley in the header.
6. Secure belting to pulley with the two 1/4" allen screws and route belting, ***Figures 9 & 12.***

PULL DOWN BELT REPLACEMENT

1. Position door at a comfortable working height and remove power from door.
2. Locate the orange handled tension lever and pull downward until it locks into the released position. Repeat for the second sideframe.
3. Loosen the belt buckle and remove the old belting.
4. Mark hole that clevis pin was in on the belting pulley. Reattach new belting and route per instructions and ***Figures 11 & 13.***

LIMIT SWITCH ADJUSTMENTS

1. Position bottom of curtain even with the top of the jamb, by jogging door up, or releasing brake and rolling the curtain up on the roller tube.
2. Position the magnet on the large pulley even with the (red) open proximity switch. By lifting assembly.
3. Lower the door to the fully closed position by releasing the brake and pulling on the belts.
4. Adjust the closed limit switch plate by turning thumb screw and align magnet with (black) closed limit switch. Make sure to tighten thumb screw. Run door.

BREAKAWAY ASSEMBLY

The bottom of the door has been designed to separate from the trolley when it is impacted or reverse if sensing switch is tripped. When this occurs, the door enters a fault condition. To put the door back together if broken away, the trolleys must be reattached to the bottom section of the door, the curtain fabric may also be pulled out of the sideframe on one or both sides of the door opening.

NOTE: When the bottom edge breaks away the door will automatically go into the fault mode. This is caused by the connecting tab separating from the trolley assembly. The photoeye reflector or magnet & proximity switch mounted to the trolley drops out of the normal operating position, shutting the door off. At this point, the door goes into the fault mode, noted by the green OPEN/RESET button on the control panel flashing on and off. The door will operate only in the JOG mode.

INSTALLING CURTAIN ROLLERS

1. When the curtain roller completely separates from the door they will fall to the sideframe floor.
2. Slide the connecting tab back into the sideframe.
3. Remove the hairpin cotter clip and remove one roller from the curtain roller assembly, ***Figure 32.***

NOTE: The bushing on the shaft is loose. Do not misplace.

4. Reaching around to the back of the door fabric, insert the roller shaft and bushing through the hole in the connecting tab.
5. Slide the roller onto the shaft and insert the hairpin cotter clip to secure the roller.
6. Repeat until all of the curtain rollers have been replaced. Inspect the opposite sideframe, it may be necessary to insert some of the rollers or tab inserts.

REASSEMBLY FOR NO OR LIGHT WIND

1. Feed all of the separated curtain material back into the sideframe except for the lower trolley connecting tab.
2. Jog the door to comfortable working position.
3. Study and follow the instruction decal located on the inside of the sideframe door.

REASSEMBLY FOR MODERATE TO HEAVY WIND

1. While jogging the door to the full open position, feed the separated curtain material into the sideframe to prevent the curtain from becoming jammed into or around the header tube. Feed enough curtain into the sideframe to be able to connect trolley to lower connecting tabs.
2. Release belt tension by pulling down on the orange tension lever until it locks into position and pull trolley to the top of sideframe. The trolley will remain in position because of the magnetic stopper.

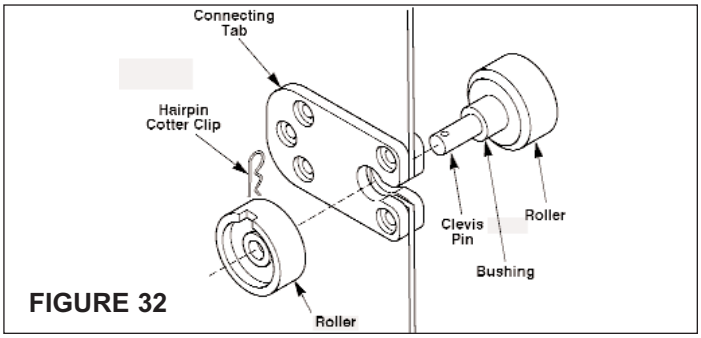


FIGURE 32

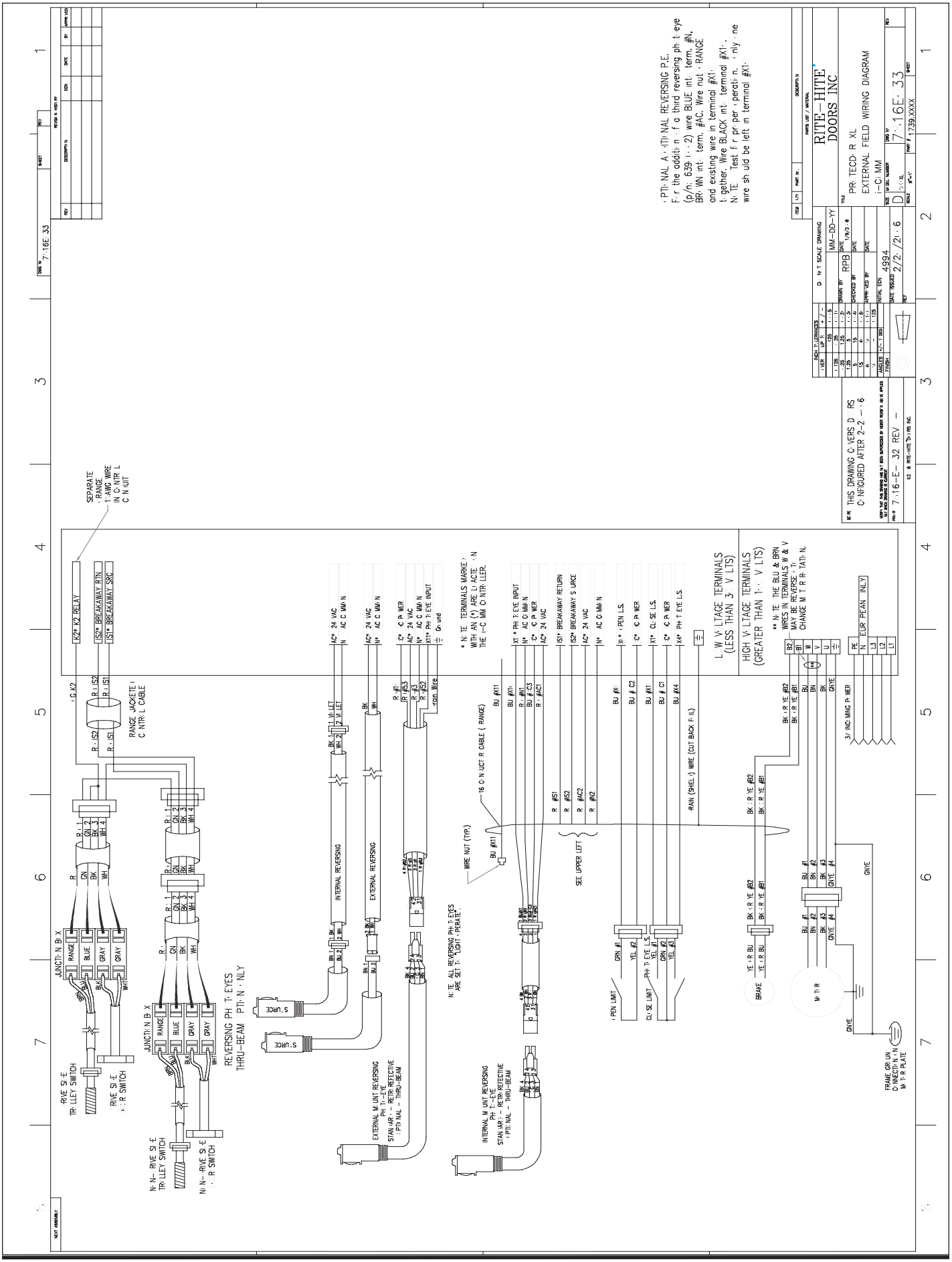
TROUBLESHOOTING

DEFINITION	FUNCTION
K0 Overload Relay	The K0 overload relay 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.
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.
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 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.
Interlock	The mechanical interlock prevents both the K1M & the K2M contactor from being pulled in or voltage applied to both contactors at the same time, thereby shorting out the coil to contactors and the motor.
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) The brake rectifier should put out 90-110VDC. f) Brake will have 350 ohms on normal readings. (must be checked after the rectifier).
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.
Door Operation and Controls	The door operations are controlled by an i-COMM Universal Controller. Unless you are trained in adjustments and are a RITE-HITE DOORS, INC authorized service technician, you should not attempt to change the factory set program. A fault condition will occur when one of these conditions exist: a) Either sideframe door has been opened. b) The curtain is separated from the trolleys, causing the proximity switch/magnet to come out of alignment, all connector tabs must be properly connected. Refer to the decal located inside sideframe door for instructions. c) Motor runs for more than 10 seconds* d) Faulty limit switch* *note These faults will not cause the green OPEN button to flash. e) Press the open/reset button to reset the fault condition.
Drive Chain	The drive chain tension is pre-determined at the factory, it should not deflect more than 1/4”.
Header Seal	Make sure the header seal is in tact and providing a seal from back of the header to the curtain.
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 13.*** Settings can be changed for re-close or pre-announce timers, interlocks, special activation commands, among many others, refer to instructional manual included.
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 lifting the weldment and turning the pulley. b) To adjust the closed limit switch, lower door so the curtain is sealing on the floor. Loosen thumb screw and align (black) closed limit switch with the 120 groove pulley magnet. Tighten thumb screw. Run door and test operation.
Inverter (optional)	The Inverter controls the speed of the door. The inverter is powered from the F6, F7, and F8 fuses. If the inverter is not powered or functioning properly, check the following: a) Check fuses F6-F8 b) Check plug in connections and wiring terminations. c) E-Stop button must be turned on, with voltage to terminals R, S, and T on the inverter.
Manual Door Opening	When required, the door can be manually opened as in cases of electrical power outage. Pull and hold the manual brake release cord that is hanging down from the drive motor. This cord releases the brake and allows the counterbalance weights to raise the door. Release the brake cord to stop the door movement before it reaches the top to prevent the trolleys from hitting the header assembly. In some instances when the door width is greater than the height, some assistance may be required to get started open, and may or may not reach full open height. When the power is restored press the Open/Reset button on the control box to reset and open the door.
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 Voltage Switch	To change the voltage, the following must be completed: a) Change transformer taps, fuses, and overload settings per electrical diagram or see troubleshooting section. b) Change motor wiring per junction box diagram. c) P.R.O. system doors require a new inverter.
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.

TROUBLESHOOTING

DEFINITION	FUNCTION
Open/Reset Push Button	The open/reset push button has 2 functions. When the button is pressed, a command to open the door is given. The second function is to reset the door when it is faulted. When the door is faulted 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 or to get the door at a workable height to hook the trolley back up to the curtain. The light will continue to flash until the trolleys are 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 beam is blocked, when the beam is not blocked, the door will auto-reclose.
Sideframe Door Interlock	If any of the sideframe doors are opened the door will enter into a fault condition. The door will only operate in the jog mode. A magnet and switch is used to shut the door off when the sideframe doors are open. To return to normal operating condition make sure that both sideframe doors are fully closed and secured. Input X2 MUST BE on for door to operate, press the Open/Reset button on the control box to reset and open door.
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
Wind Pressure	If the door is blowing out because of high wind or negative pressures, check the flowing: a) All wind rollers are in place. b) Lower connecting tabs are hooked to the trolley c) Sideframes are D.O.W. +0/-1/4” apart.

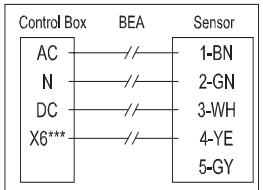
MANDATORY EXTERNAL FIELD WIRING DIAGRAM



DWG NO	SHEET	REV
7804E035		A

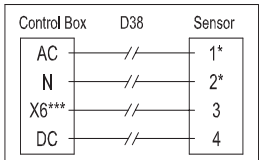
NEXT ASSEMBLY

BEA - Falcon, IS-87, EagleHM



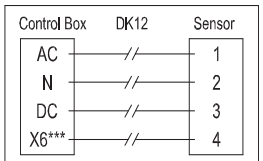
BEA Motion Sensors

MS Sedco - D38



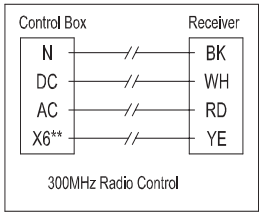
D38 Motion Sensor
*If switched, green lite will be on, and F2 fuse blown.

BEA - DK-12

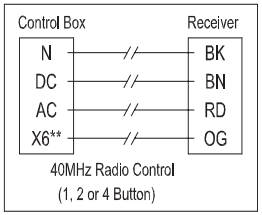


Presence Sensor

RADIO CONTROLS

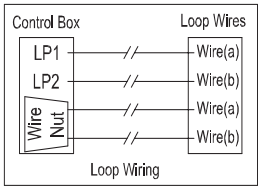


300MHz Radio Control



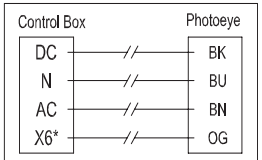
40MHz Radio Control
(1, 2 or 4 Button)

INDUCTION LOOP

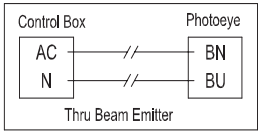


Loop Wiring

PHOTOEYES

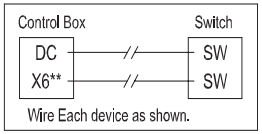


Retroreflective or Thru Beam Receiver



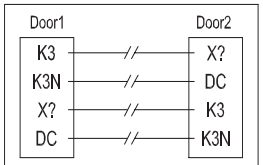
Thru Beam Emitter

PUSHBUTTONS & PULL-CORDS



Wire Each device as shown.

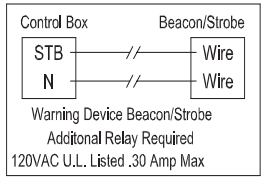
INTERLOCK



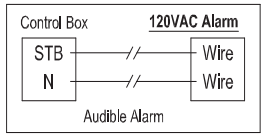
2 Door Standard Interlock

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

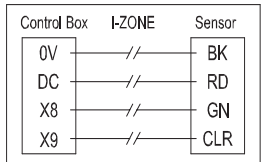


Warning Device Beacon/Strobe
Additonal Relay Required
120VAC U.L. Listed .30 Amp Max



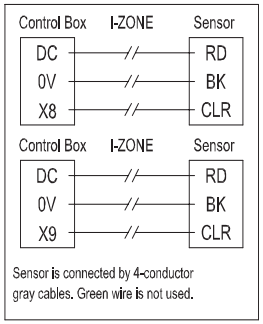
Audible Alarm

I-ZONE 8000/CL/XL



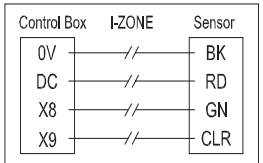
Each sensor is connected by 4-cond. gray cable.

I-ZONE 8900 w/ SIDEFRAME CONTROLS



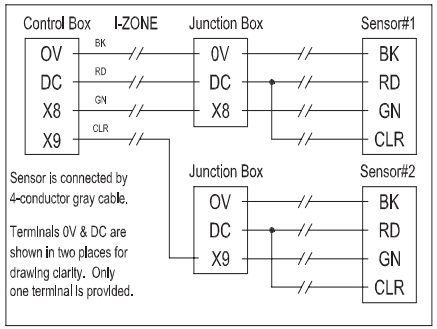
Sensor is connected by 4-conductor gray cables. Green wire is not used.

I-ZONE 8900 w/ CONTROL BOX



Sensor is connected by 4-conductor gray cable.

I-ZONE 8000CL



Sensor is connected by 4-conductor gray cable.

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

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

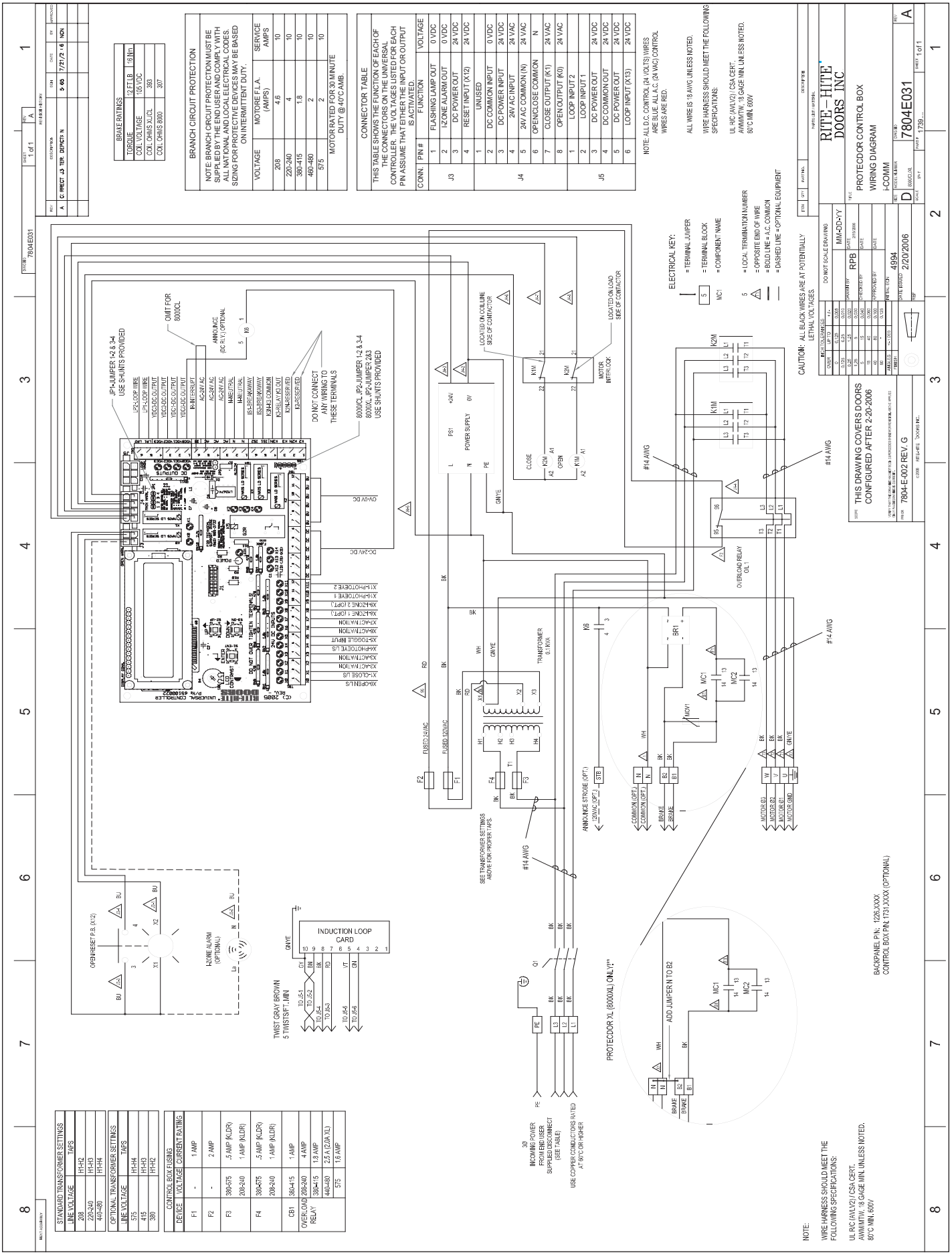
RITE-HITE® DOORS INC.

TITLE
PROTECDOR/TRAKLINE SERIES
ACTIVATION WIRING
i-COMM

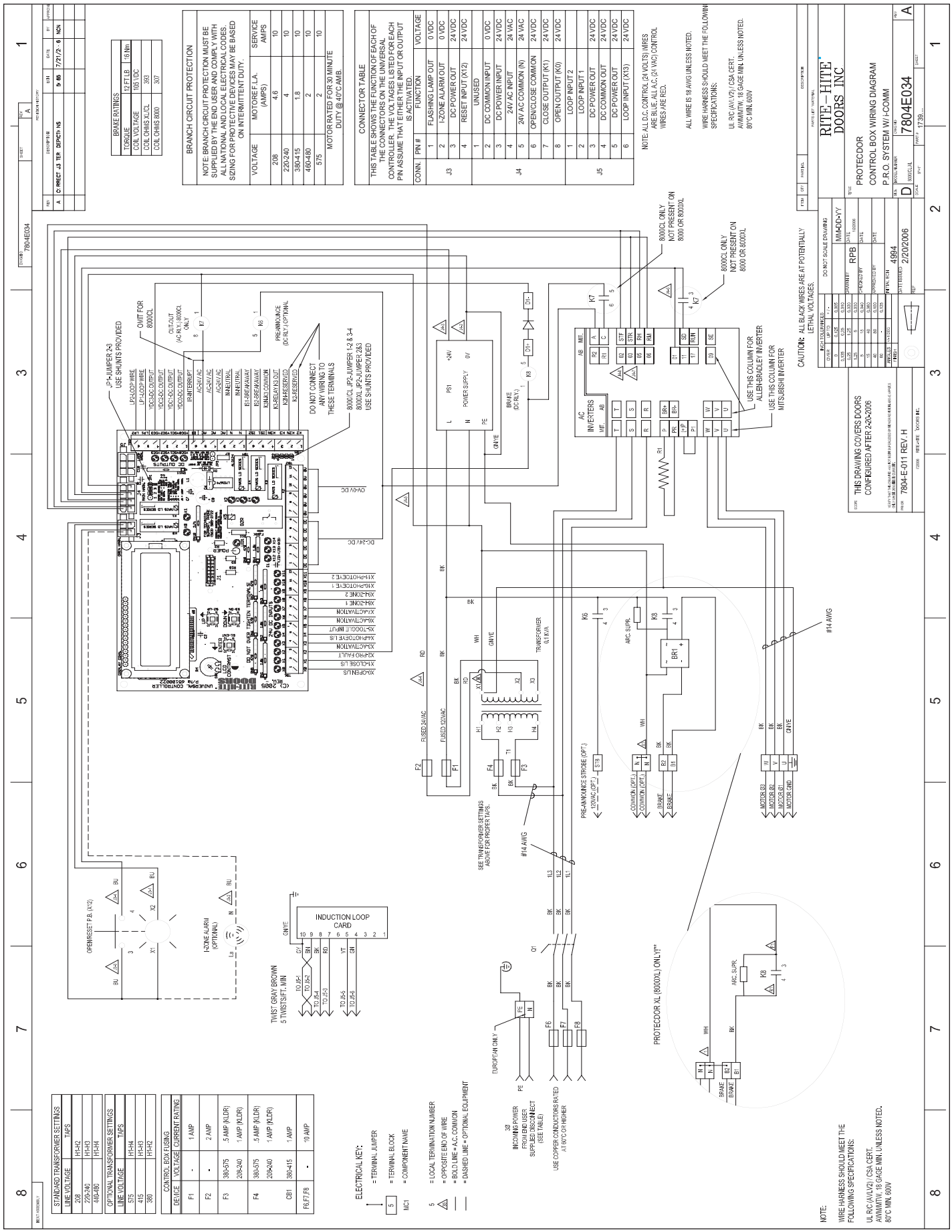
SIZE	MODEL NUMBER	DWG NO	REV
B	8000/CL/XL/8900	7804E035	A

SCALE 8"=1' | PART # | SHEET

STANDARD WIRING DIAGRAM



INVERTER WIRING DIAGRAM



ARCHITECTURAL DRAWING