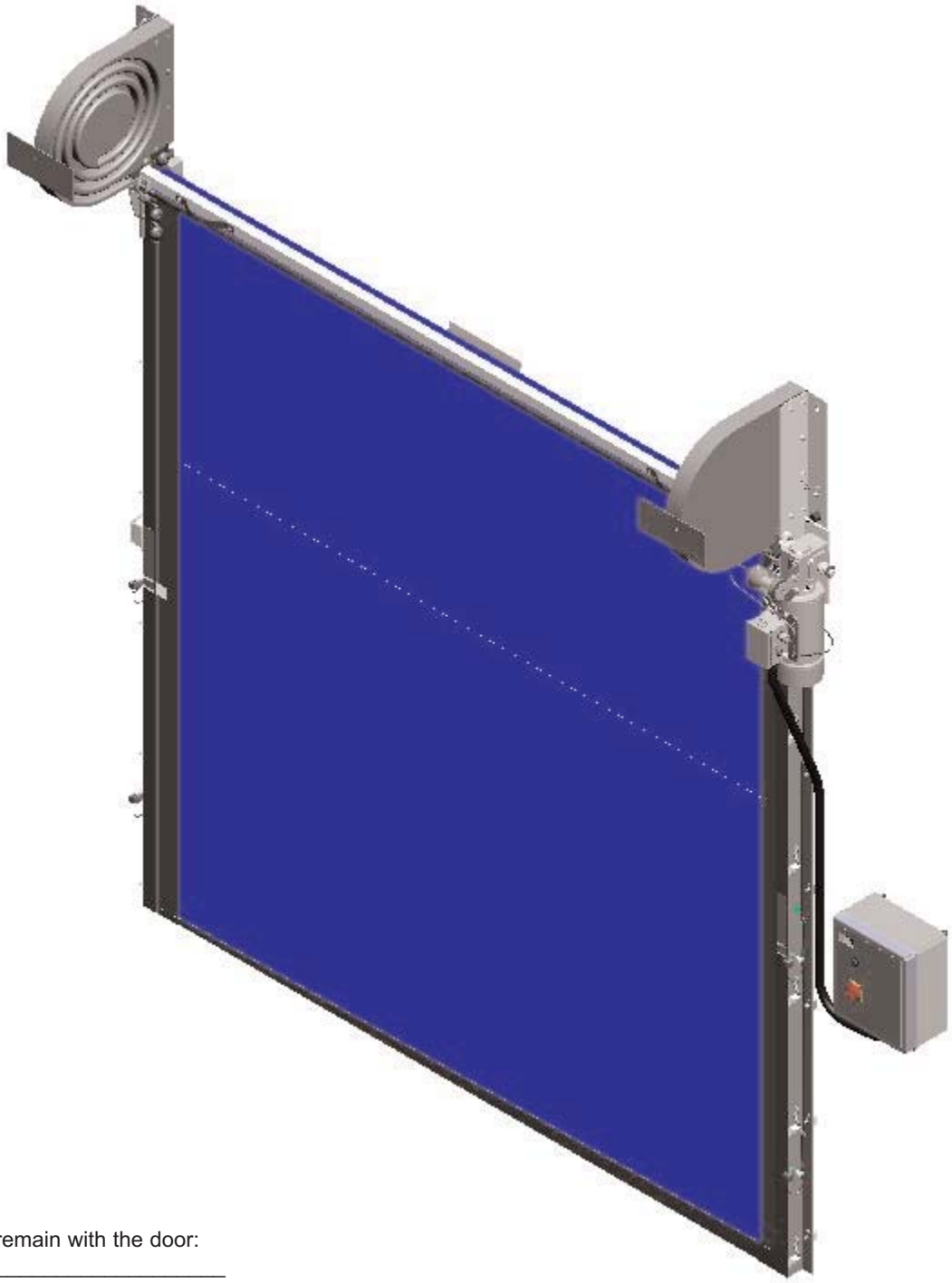
FASTRAX CLEAN™

HIGH PERFORMANCE MODULAR DOOR



This manual to remain with the door:
Date Installed:_____

ISO 9001 CERTIFIED

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

MADE IN THE U.S.A.

This Manual Covers All Doors Shipped to Date.

PRINTED IN U.S.A.
email: printshop@RITEHITE.com

Publication No. FasTraxCLB
NOVEMBER 2010

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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 FasTrax CL® door from RITE-HITE DOORS, INC. The FasTrax CL® door is a unique fabric door that can be transformed to fit most opening configurations while helping to keep different atmospheres separate.

This manual should be thoroughly read and understood before beginning the installation, operation or servicing of this door. This owners manual MUST be stored near the door. Complete final checklist prior to leaving site.

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 located on a label on the side of the control box and lower track.

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 FasTrax CL have been left out of this manual or are not complete, or have suggestions, 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

SPECIAL FEATURES

- i-COMM™ Universal Controller
- Heavy-Duty Industrial Materials
- Soft-Edge™ Technology
- Flexible "You Build It" Track Design
- Adjustable Speeds
- No Springs, Pulleys or Weights
- I-Zone™ Area Detection System

RECOMMENDED SERVICE PARTS

Rubber Motor Bumper	15250083 (2)
Fuse, 1 Amp, 250V, Time Delay	51000002 (2)
Fuse, 2 Amp, 250V, Time Delay	51000005 (2)
Kit, Drive Sphere, Qty 10	53700561 (2)
Encoder 10' Cable	43800001 (1)
Photoeye Source	63900055 (1)
Photoeye Receiver	63900056 (1)
Encoder Sprocket, 1" ID	70800047 (1)
Encoder Sprocket, 5/16" ID	70800048 (1)
Encoder Chain	16600059 (2')

INSTALLATION TOOLS REQUIRED

- 25' Tape measure
- 6' Carpenters level
- Scissors Lift
- Plumb Bob
- Hammer Drill
- Drill Bits
- Square
- Hydro level
- Ladder (8')
- 1/2", 9/16", 3/4" Socket/wrench
- "C" Clamps
- Drill (cordless or electric)
- Phillips Bit for Drill
- Wire Strippers
- Allen Wrench Set (1/8",5/32",3/16",2mm)
- Small/Medium Straight/Phillips Screwdrivers

Stainless steel mounting hardware provided by others.

WARRANTY

RITE-HITE DOORS, INC. warrants that its FasTrax CL door including electrical components, will be free from defects in design, materials and workmanship for a period of one (1) year and 30 days from the date of shipment. RITE-HITE DOORS, INC. warrants that the curtain fabric only, shall be free from defects in material for a period of five (5) years. The curtain fabric warranty covers material failure under normal wear conditions; it does not cover labor, vision wear, edging or damage incurred from abuse, misuse or impact. Vision, fuses, bulbs and seals are wear items, and not considered to be covered by warranty. Rust that is caused due to using metallic / corrosive mounting hardware or chipping of the motor epoxy coating is not the responsibility of RITE-HITE DOORS, INC.

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 based on the warranty policy. 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. has the right to repair prior to replacing the item in question, if the repair is deemed unrepairable, then the item will be replaced.

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Service Fax: 563-589-2737
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CHAPTER 1 - GETTING STARTED

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.

CAUTION !!!

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

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 [4° and 27° C].

1. Alternate dimensions in brackets are in [millimeters].
2. Make sure that you are working at the correct location and that you have any required work permits.
3. Inspect the site to make sure that there are no overhead obstructions (sprinkler pipes, HVAC systems, electrical supply lines, etc.) that might interfere with the installation.

RECOMMENDED MOUNTING FASTENERS	
Wall	**Stainless Steel Fastener**
Wood	Lower Track - 3/8" [10] thru-bolt at top, middle, and bottom. 3/8" x 2" [10 x 51] lag screws at all other fastener positions. Upper Track - 3/8" x 2" [10 x 51] lag screws at all positions.
Steel	Lower Track - 3/8" [10] thru-bolt at top, middle, and bottom. 3/8" [10] drill and tap (material must be 5/16" [8] min.) 3/8" [10] drive self tap/drill screws. Weld, TIG - Lower track is stainless steel. Upper Track - 3/8" x 2" [10 x 51] lag screws at all positions.
Mason	Lower Track - 3/8" [10] thru-bolt or 3/8" [10] masonry anchor at top, middle, and bottom. 3/8" x 2" [10 x 51] lag screws at all other fastener positions.

4. Detour material handling equipment during the installation.
5. Make sure that the electrician is ready to bring the correct electrical power supply to the door control box.
6. Make sure that the electrical power can be shut off without interfering with other plant operations.
7. Move the door crate as close to the opening as possible.
8. Install optional equipment after verifying door operation.

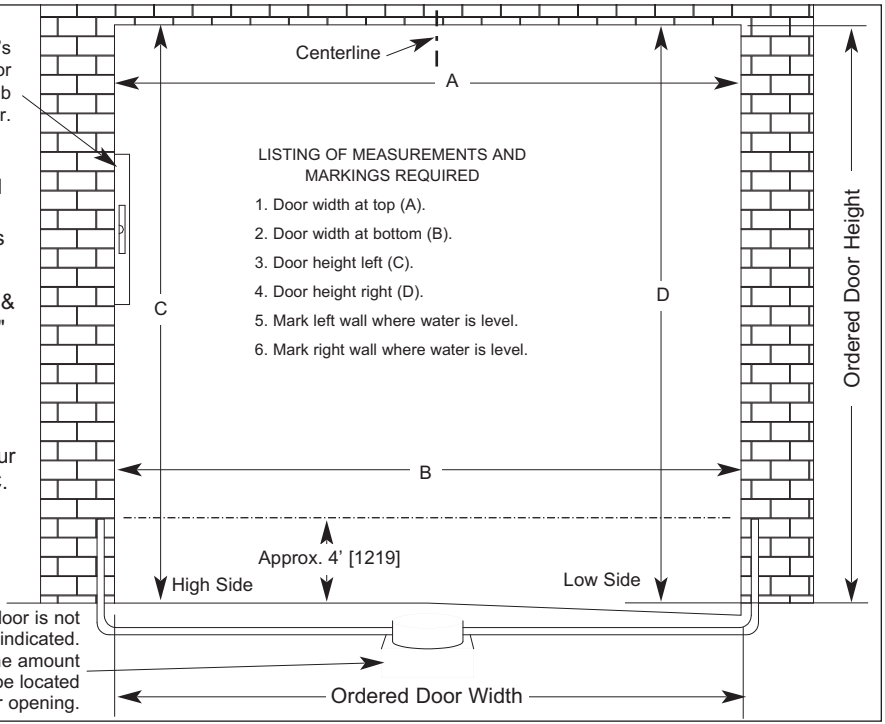
NOTE: ***Electrical prints included in the parts or control box, supersede any prints included in this owners manual on Pages 24-28. Always check for electrical prints.***

3.1

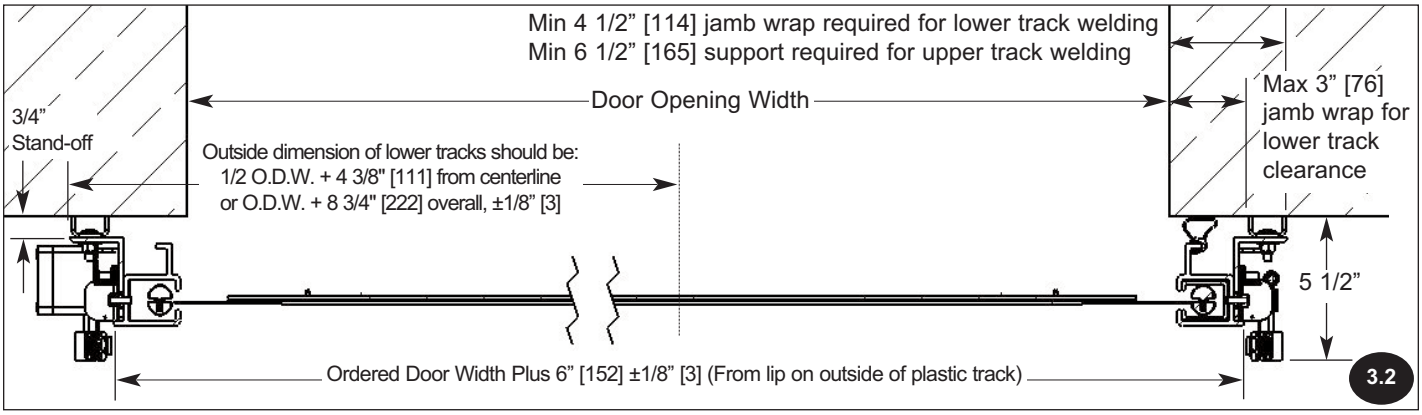
Using a 6' [1829] carpenter's level, verify that the door jambs and header are plumb and perpendicular.

For jamb layout, space clearances and requirements, see Architectural Drawings on ***Pages 30 - 32.***

Dimensions A & B and C & D should be within ± 1/2" [13] of the dimensions listed on the Serial Number label. If the measurements do not agree, STOP! Contact your RITE-HITE DOORS, INC. representative.

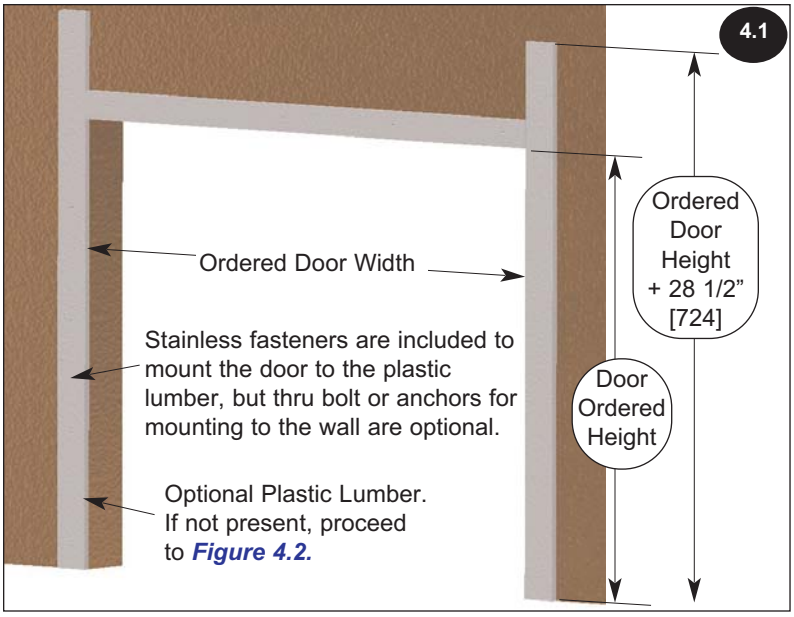


Using a hydro level, determine if the floor is level. If the floor is not level to within 1/8" [3], mark the wall where the level point is indicated. The measurement between the level mark and the floor is the amount of shimming that needs to be done under the track that will be located on the "Low Side" (greatest measurement) of the door opening.



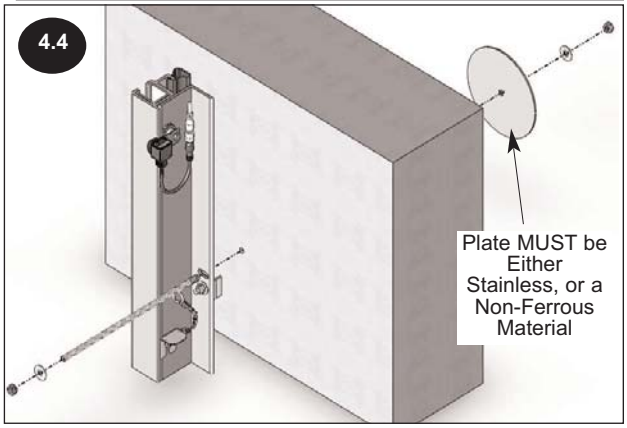
3.2

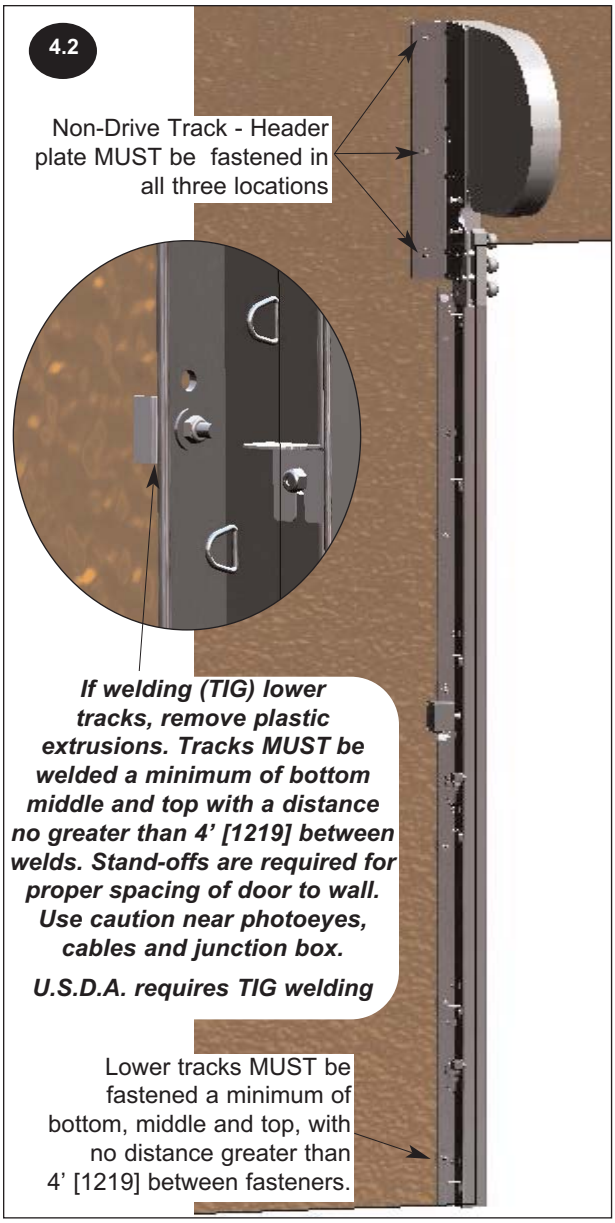
CHAPTER 2 - LOWER TRACK WITH RADIAL



IMPORTANT!!!

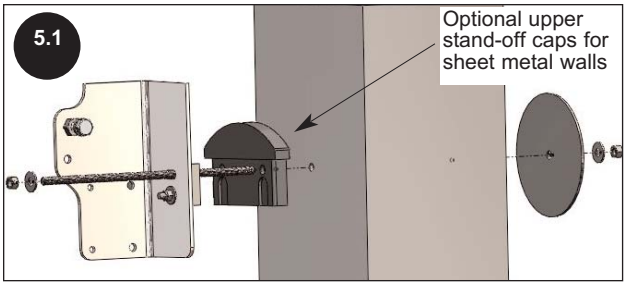
It is imperative that the tracks be mounted at the proper width. If mounted too wide, excess wear is placed on the drive spheres. If too narrow, the curtain may appear wavy or crease in the center.





CHAPTER 2 - DRIVE TUBE

5.1



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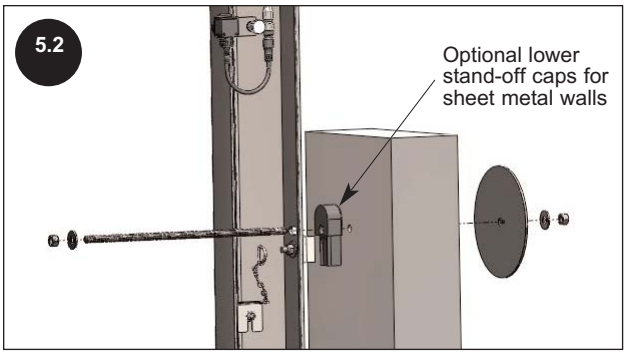

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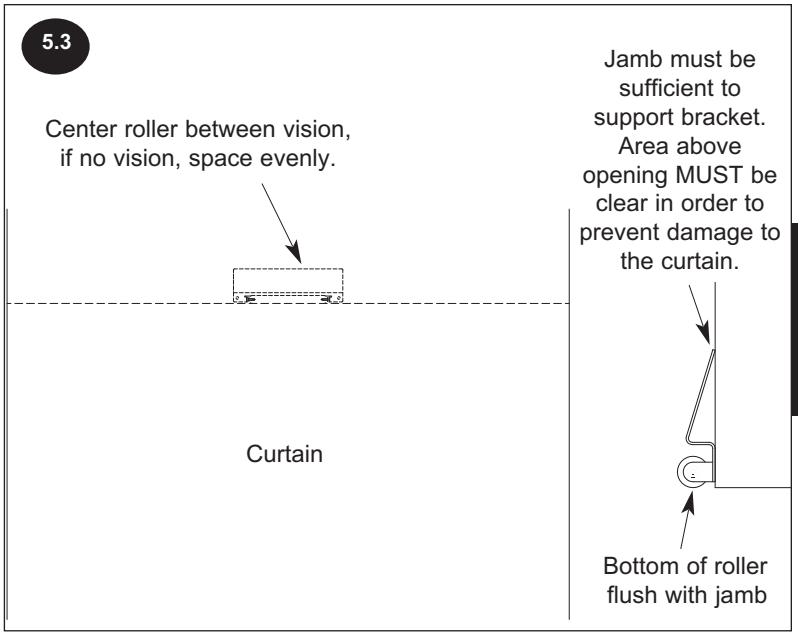

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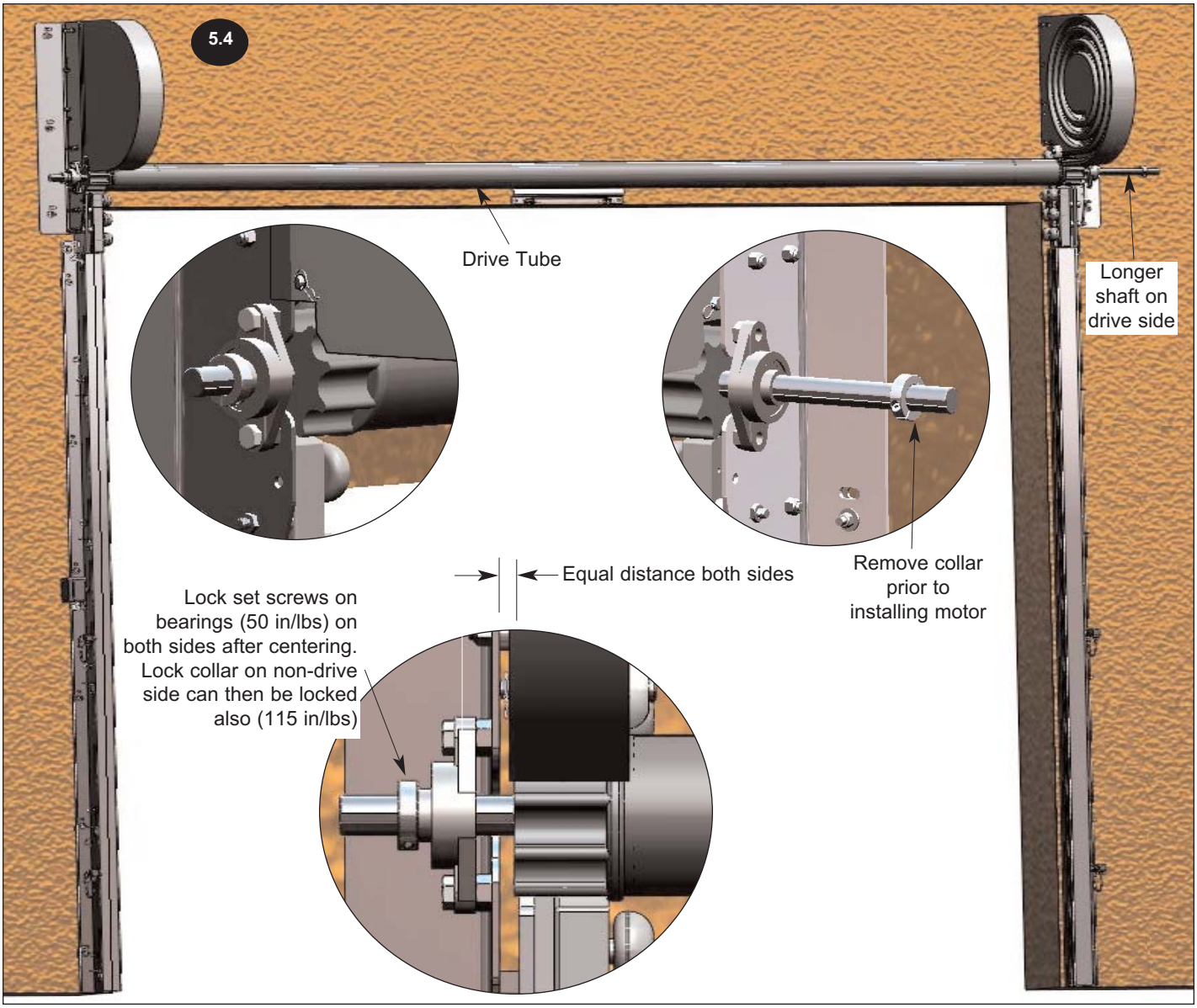
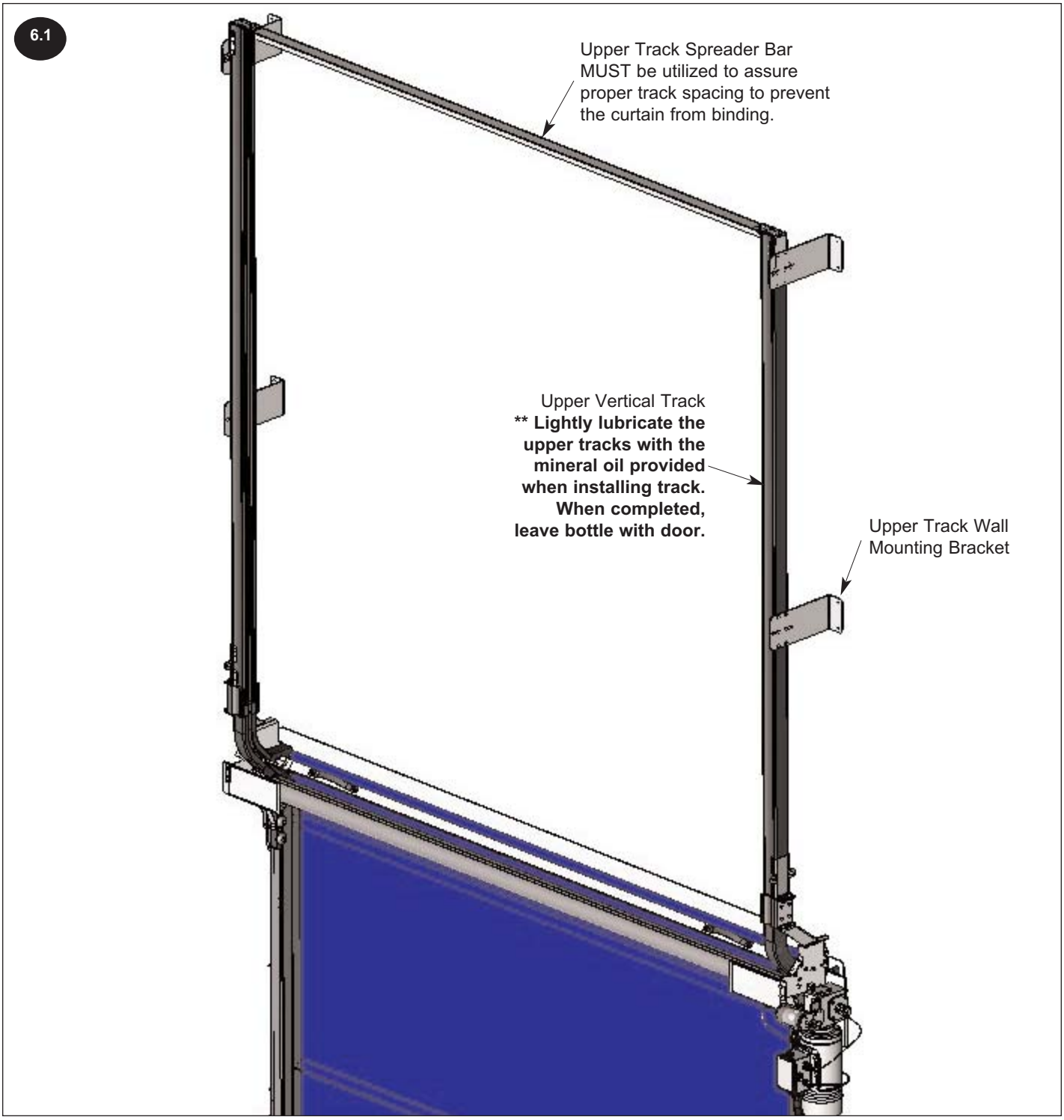
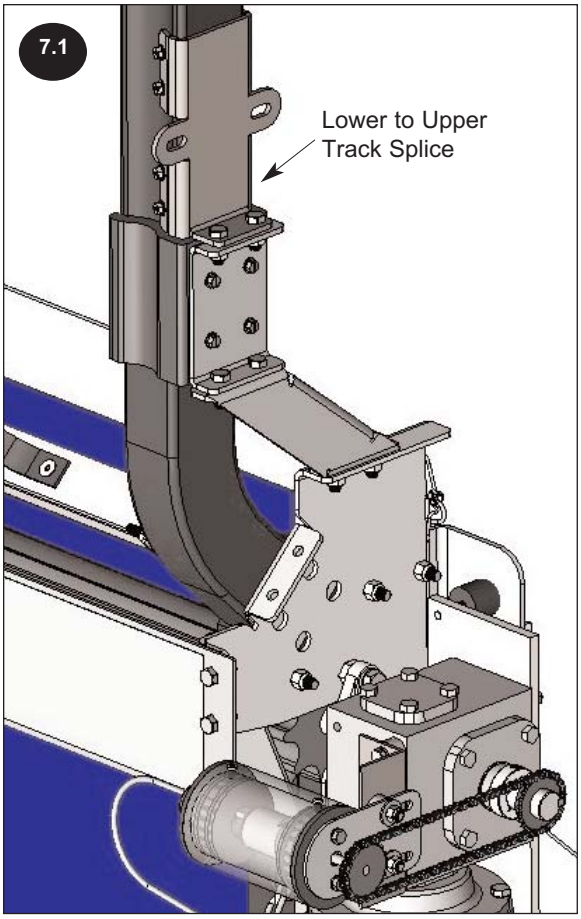


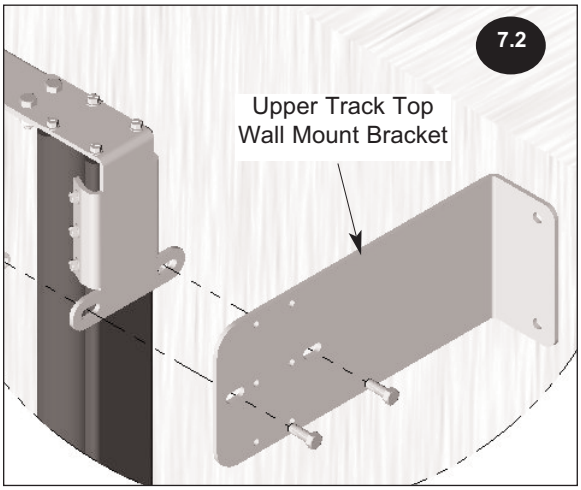
CHAPTER 2 - UPPER TRACK WITH NON - RADIAL

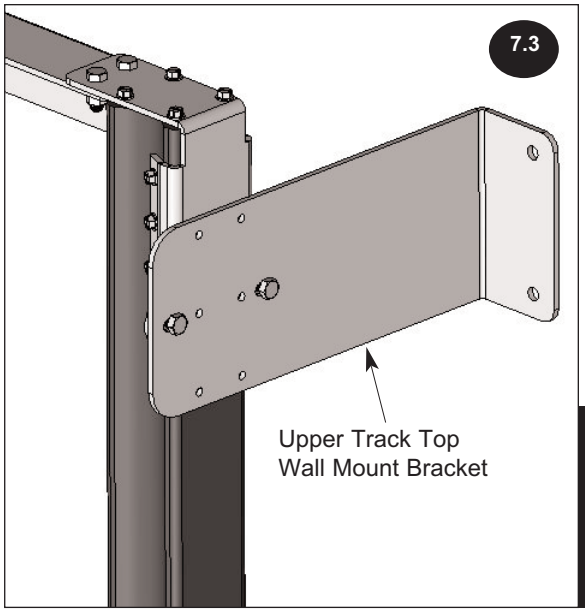
6.1

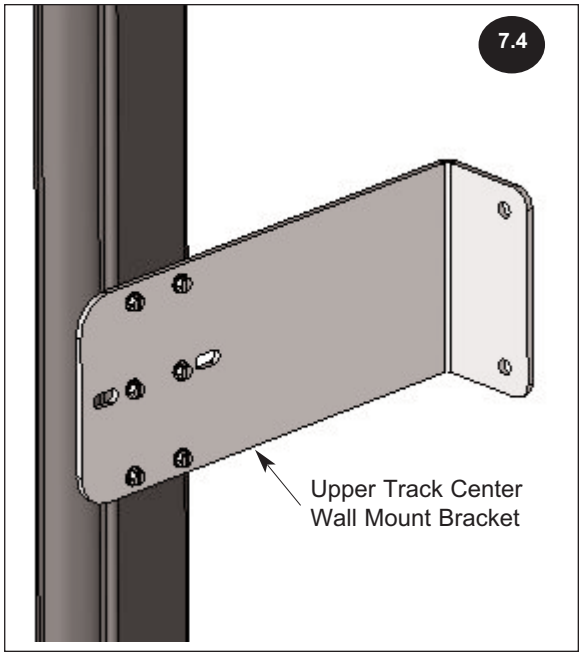


CHAPTER 2 - UPPER TRACK WITH NON - RADIAL

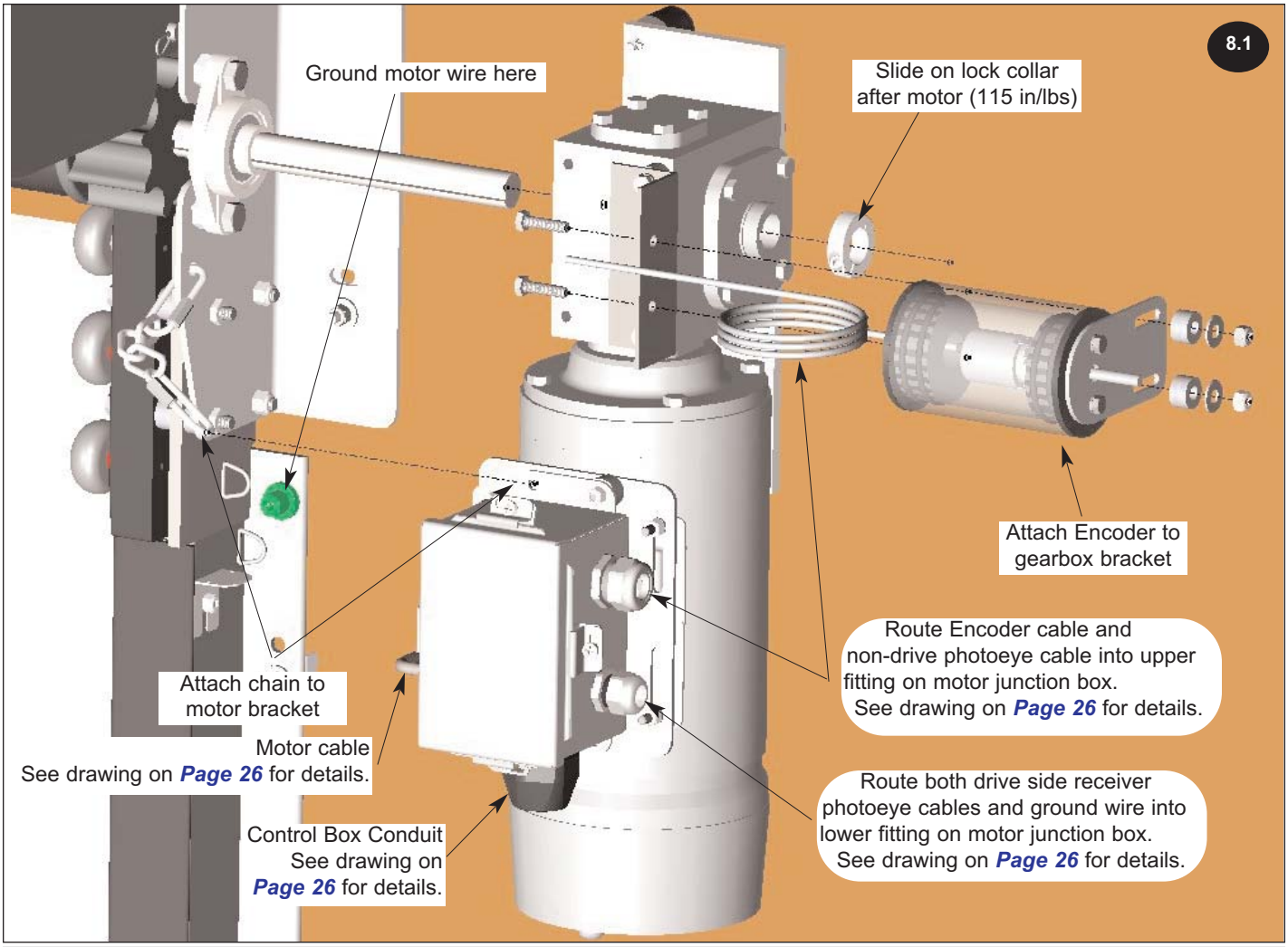


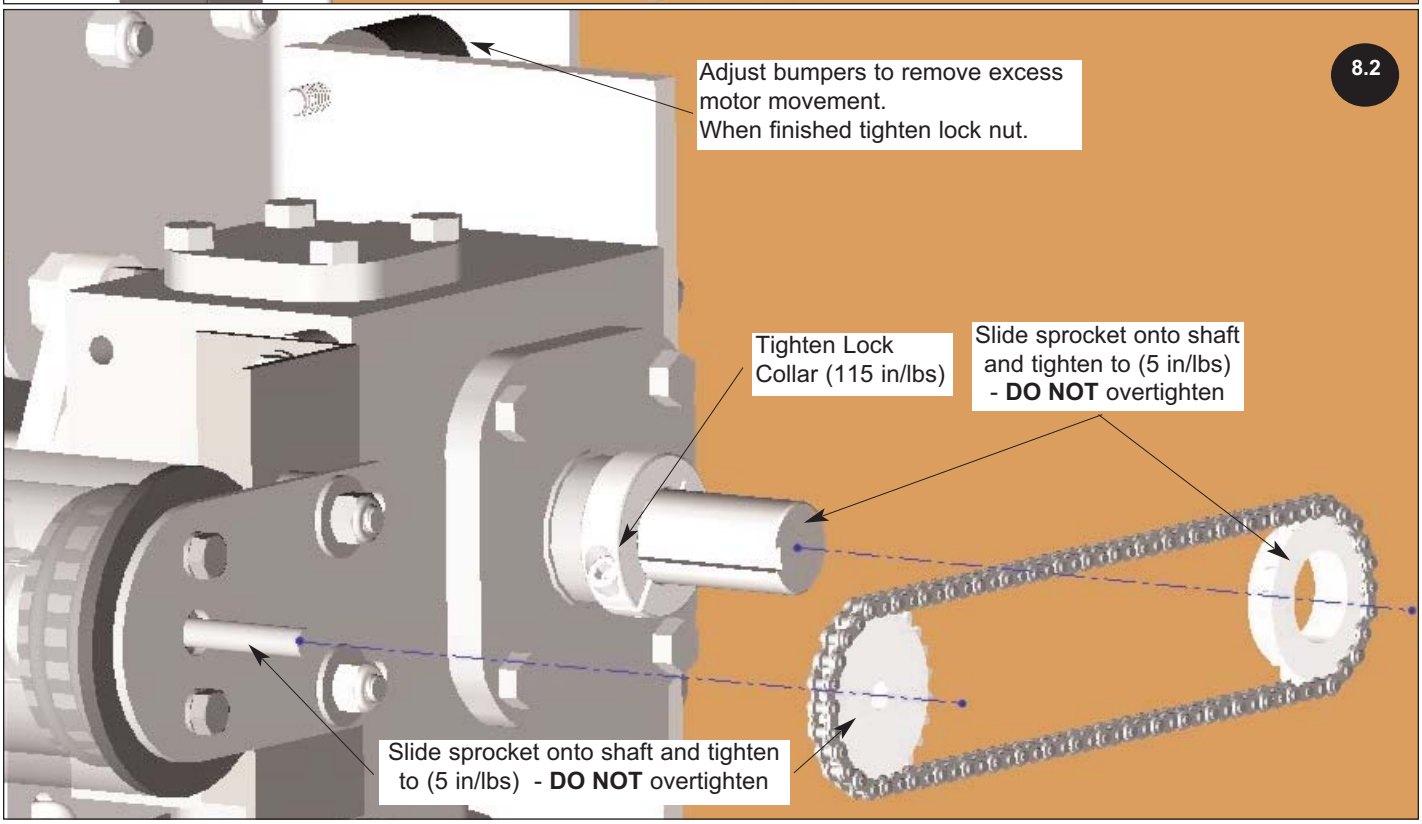






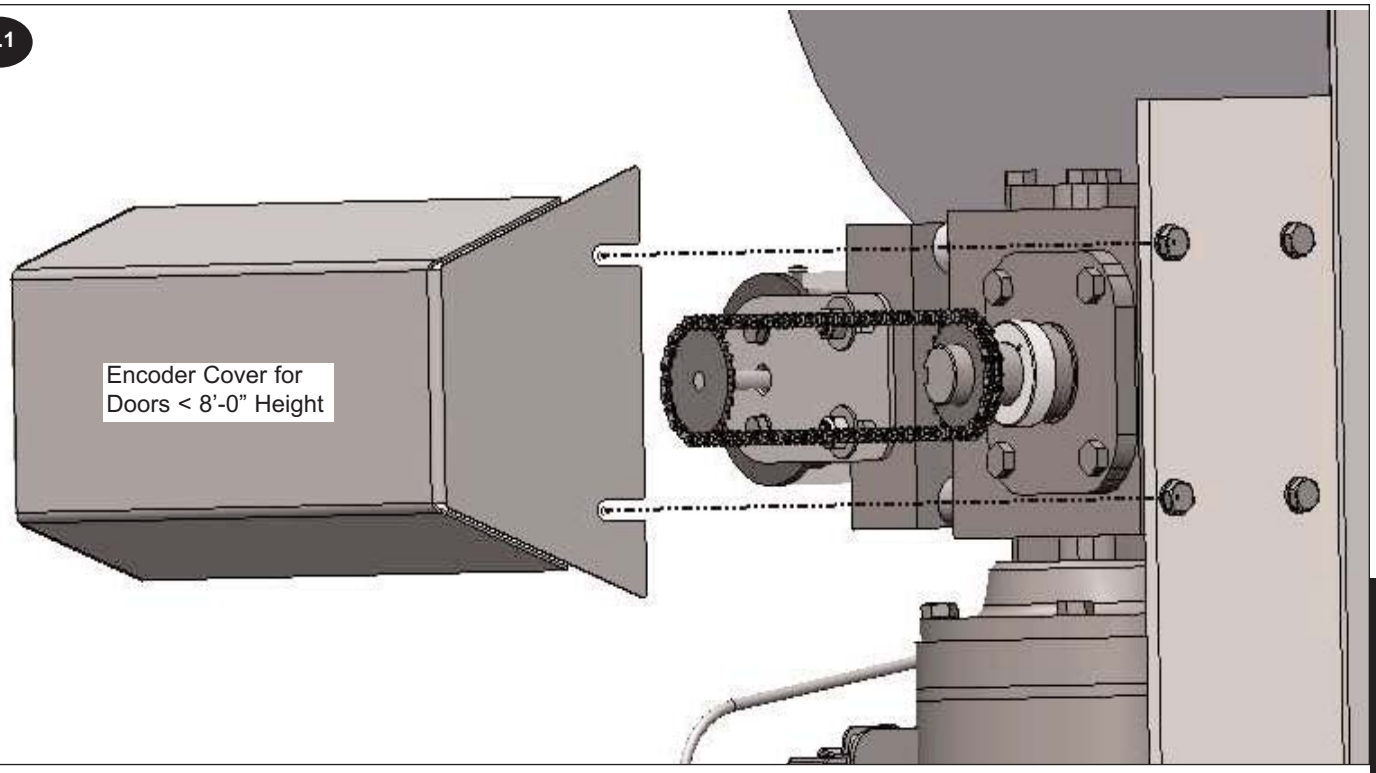
CHAPTER 2 - MOTOR / ENCODER

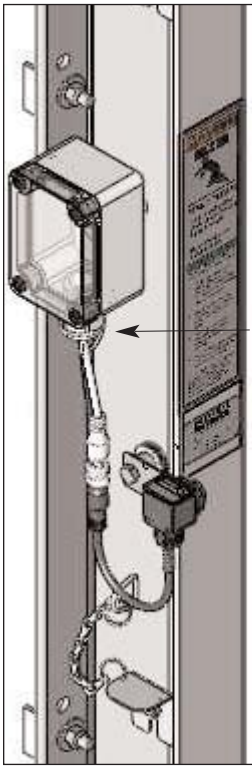




CHAPTER 2 - PHOTOEYES

9.1

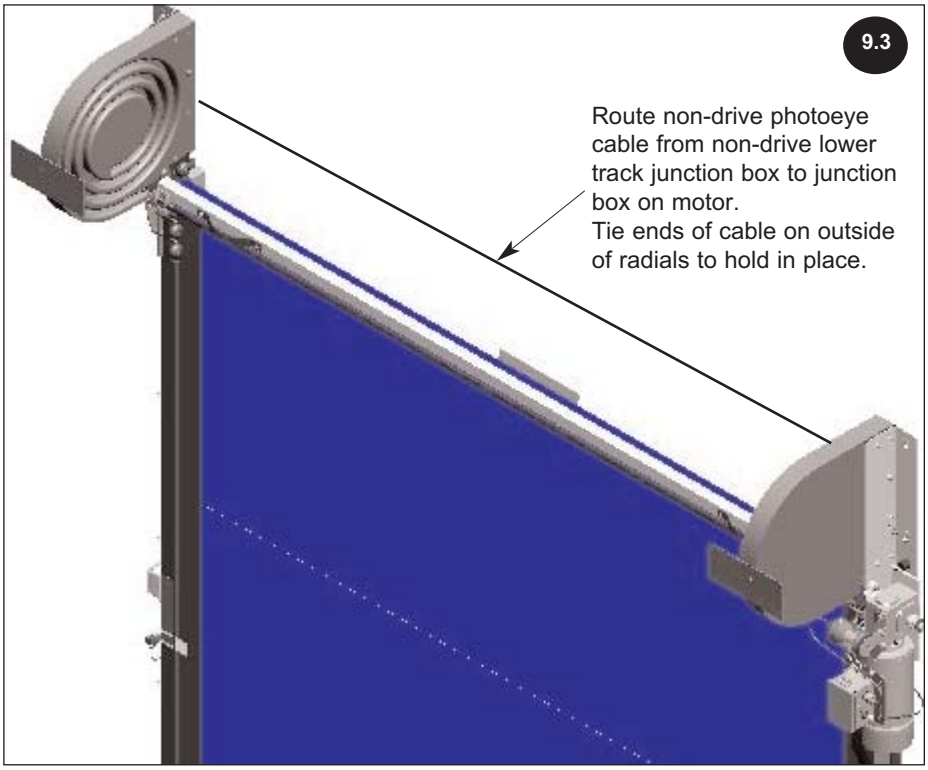




Route photoeye wires from non-drive lower track junction box to junction box on motor.
See drawing on ***Page 26*** for details.

9.2

9.3



Route non-drive photoeye cable from non-drive lower track junction box to junction box on motor.
Tie ends of cable on outside of radials to hold in place.

CHAPTER 3 - ELECTRICAL INSTALLATION

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.

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!!!

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.

⚠ 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.

1. It is the responsibility of the end user to provide electrical service up to the control box with proper branch service protection and an approved means of disconnect.
2. 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'.
3. The control box is provided with class CC protective fusing for the incoming power.

NOTE: 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.

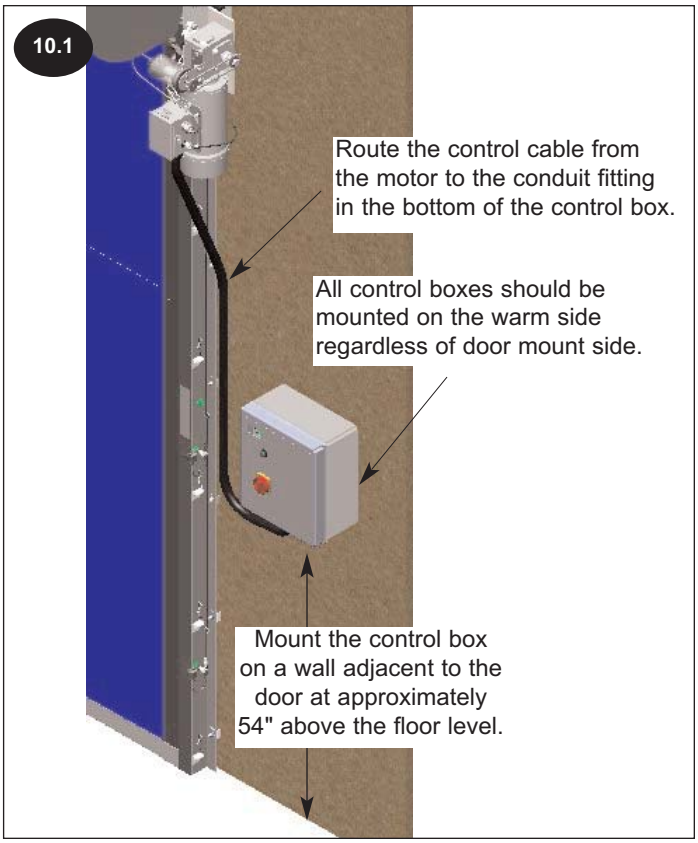
4. **Drill a hole for the power supply cable (by others) in the bottom of the control box (hole is provided with the Stainless Steel control box option) using the proper connection to maintain the NEMA rating on the enclosure.** Incoming 3-phase power must connect into fuse holder terminals F1, F2, and F3. Ground must attach to the green/yellow terminal. All holes drilled through the control box must be through the bottom of the box.
5. 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 control box supersede any prints included in this owners manual on ***Pages 24-28.*** Always check parts or control box for prints.
6. Confirm that lower photoeye activates X10 and the upper activates X11, if not, reverse orange and white wires.
7. Run the door and preset the Encoder prior to attaching the curtain.

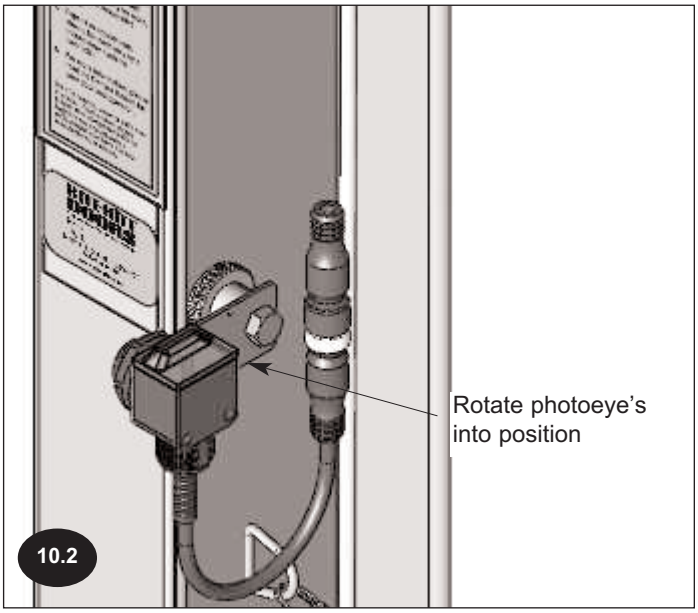
⚠ CAUTION !!!

The first time that the door system is operated, it may move in the wrong direction if the incoming power phase is reversed. Be prepared to turn the disconnect switch off if the door begins closing instead of opening.

IMPORTANT!!!

Brown Encoder wire is NOT used for a left hand drive door.





CHAPTER 3 - ELECTRICAL INSTALLATION

⚠ WARNING!!!

DO NOT DRILL HOLES ON TOP OF CONTROL BOX TO RUN CONDUIT, AS DUST PARTICLES AND MOISTURE MAY CAUSE DAMAGE TO ELECTRICAL COMPONENTS. THE SAFEST LOCATION IS AT THE BOTTOM. FAILURE TO DO SO, WILL VOID WARRANTY

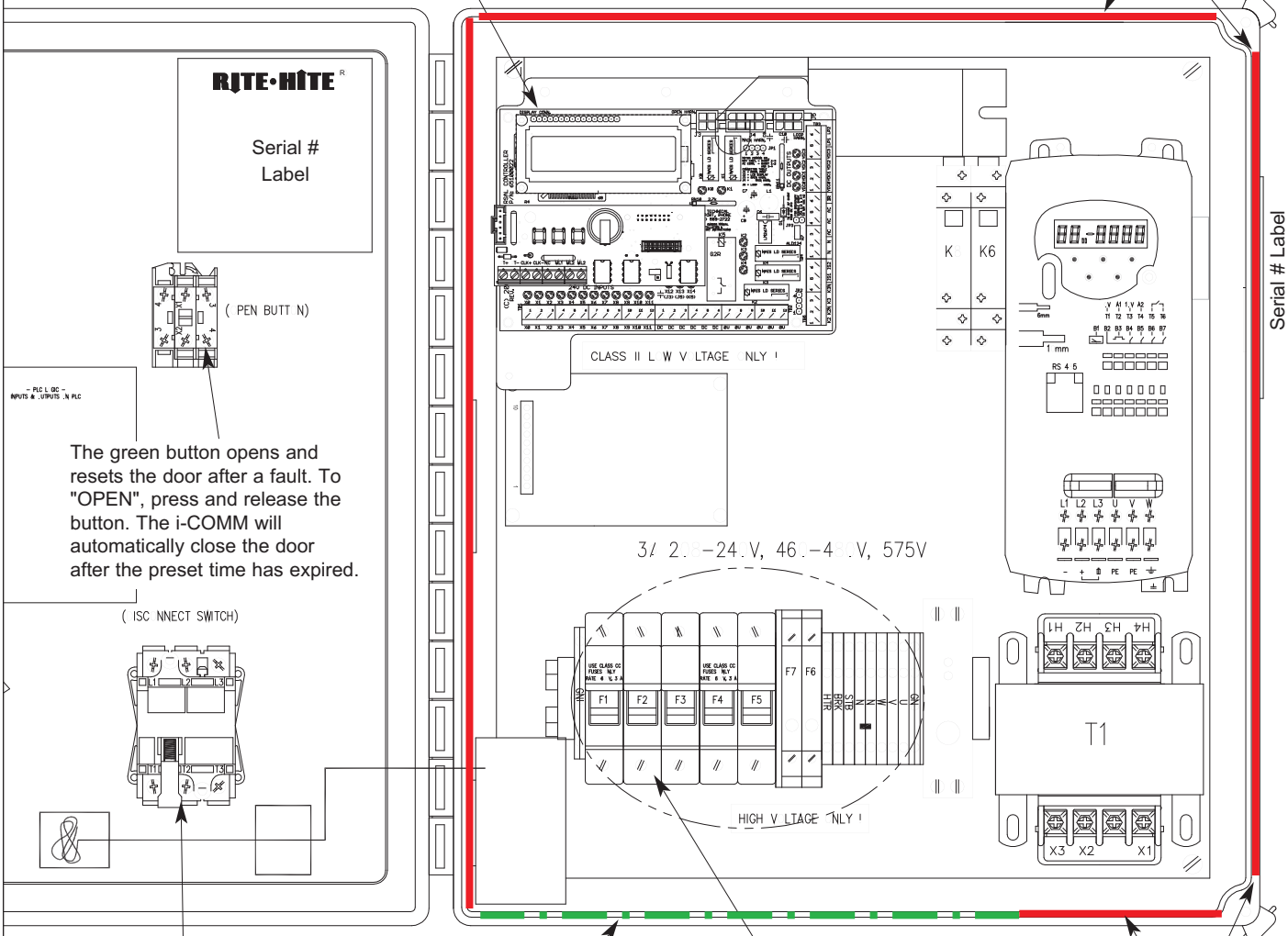
11.1

The i-COMM is used to control all functions of the door.

Note label inside control box that is a ready reference to the i-COMM inputs and outputs, ***Page 13.***

Remove labels after installation is complete

Red Bold Solid Line Indicates Un-Safe Area for Drilling Holes



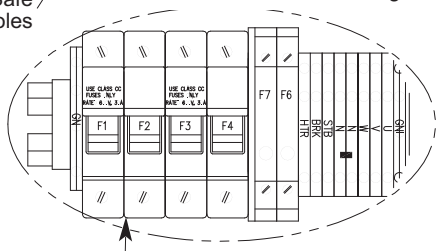
The green button opens and resets the door after a fault. To "OPEN", press and release the button. The i-COMM will automatically close the door after the preset time has expired.

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.
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 Bold Dashed Line Indicates Safe Area for Drilling Holes

Incoming Power Terminals F1, F2, F3 for 230/460/400/575V 3Ø Configuration



Incoming Power Terminals F1, F2 for 220V 1Ø Configuration

Red Bold Solid Line Indicates Un-Safe Area for Drilling Holes

CHAPTER 3 - ENCODER SETUP

ENCODER SETUP INSTRUCTIONS

Before beginning the encoder adjustments, manually move the door to either the open or close position. Verify all wiring to the encoder is terminated as shown on the electrical drawings included in the Control Box. Note that right-hand drive doors require a brown wire to be terminated in the 'DC' terminal, while left-hand drive doors do not. If motor rotation (phase sequence) is changed during this setup, please restart this procedure from the beginning.

1. Power up the door, and press the enter button [ ] to enter the **"MAIN MENU".**
2. Using the down [ ] arrow key, scroll to the item named **"Open Distance".**
3. Press the enter button [ ] to view the value of this parameter. The unit of measure on this parameter is feet. The optimum value for this parameter is door opening height minus 1 foot. Change the value using the arrow keys [ ] and [ ], round down if required. When parameter is changed press enter [ ] to return to the **"MAIN MENU".**
4. IMPORTANT! For doors started in the OPEN position continue to step 5, for doors started in the CLOSE position jump to step 9.
5. Scroll using the down [] arrow key to the item named **"Set Open Pos.".**
6. Press the enter button [ ] to view this parameter. The controller will display the following message **"RESET ALL LIMITS"** … **"Press Up to Start".** Pressing the up [] arrow key will reset all of the limits, and reboot the controller. NOTE: Do not use this menu item to make adjustment to the limits; this is only for initial setup.
7. Press the Open/Reset button on the control box. The door should begin to time out and then close. Since motor rotation may need to be changed, be ready to shutdown the door if it begins to move in the wrong direction. If motor rotation is changed, begin again at step #1.
8. If rotation is correct proceed to the instructions for adjusting the open and close positions. Do not continue with step 9!
9. IMPORTANT! The following steps are for doors started in the CLOSE position. If you already completed the steps above for OPEN, DO NOT CONTINUE.
10. Scroll using the down [ ] arrow key to the item named "Set Close Pos.".
11. Press the enter button [ ] to view this parameter. The controller will display the following message "RESET ALL LIMITS" … **"Press Up to Start".** Pressing the up [ ] arrow key will reset all of the limits, and reboot the controller. NOTE: Do not use this menu item to make adjustment to the limits; this is only for initial setup.
12. Press the Open/Reset button on the control box. The door should begin to open. Since motor rotation may need to be changed, be ready to shutdown the door if it begins to move in the wrong direction. If motor rotation is changed, begin again at step #1.
13. If rotation is correct proceed to the instructions for adjusting the open and close positions.

Open and Close Position Adjustment

To adjust the CLOSE position:

1. Power up the door, and press the enter button [] to enter the **"MAIN MENU".**
2. Using the down [ ] arrow key, scroll to the item named **"Close Pos. Adjust".**
3. Press the enter button [ ] to view the value of this parameter. This parameter will show a coded value on the left and relative change in inches on the right. When entering this parameter the value will always start at 0.0".

   To bring the curtain closer to the floor, adjust this value so that it is less than zero. (i.e. To close the door 4" more, the value for **"Close Pos. Adjust"** will be -4.0") Moving this parameter in the positive direction raises the curtain relative to the floor. Changing this value will not affect the open position.
   Change the value using the arrow keys [ ] and [ ].

Note: If you leave this parameter and return to it, its value will again be zero. Any changes made before leaving the parameter will still be effective. For example: If you lowered the door 4.0", leave the parameter and return, the parameter will display 0.0". Even though the display shows 0.0" the -4.0" change has been recorded.

4. When parameter is changed press enter [ ] to return to the **"MAIN MENU".**
5. Scroll using the down [ ] arrow key to the item named **"Exit [Enter]".**
6. Test operation of the door, and continue adjustment as required.

TIP: At any point in the menu mode, Pressing and holding the enter button [ ] for at least 2 seconds will cause the controller to automatically accept all the changes made and exit the menu system.

To adjust the OPEN position:

1. Power up the door, and press the enter button [ ] to enter the **"MAIN MENU".**
2. Using the down [ ] arrow key, scroll to the item named **"Open Pos. Adjust".**
3. Press the enter button [ ] to view the value of this parameter. This parameter will show a coded value on the left and the opening height in inches on the right. This value will always be less than the door opening height.

   To bring the open position down (closer to the floor) adjust this value to be less than the current value. To open the door more relative to the floor, adjust this parameter in a positive direction. (i.e. To open the door 4" more, and the current value is 72.0". Change the value for **"Open Pos. Adjust"** to be 76.0") Changing this value will not affect the close position. Change the value using the arrow keys [ ] and [ ].
4. When parameter is changed press enter [ ] to return to the **"MAIN MENU".**
5. Scroll using the down [ ] arrow key to the item named **"Exit [Enter]".**
6. Test operation of the door, and continue adjustment as required.

IMPORTANT!!!

Failure to properly ground encoder drain wires may result in varying open and close stopping positions.

CHAPTER 3 - ENCODER SETUP

RITE-HITE DOORS

FasTrax™ CL

I-COMM Quick Reference

Input Table

Input	Input Function	Comments	Note(s)
X0	Clean Open Height	24"	
X1	Activation Command	On to open door	1
X2	Torque Reverse	Off to reverse door	
X3,X6,X7	Activation Command	On to open door	1
X4	Activation Command	On to open door	1
X5	Toggle Command	On to toggle open or close	1
X8,X9	Not Used	Not Used	
X10	18" Photoeye Input	Must be on for door to close. Off when blocked.	
X11	54" Photoeye Input	Must be on for door to close. Off when blocked.	
X12	Open/Reset Switch	On to reset from fault.	2
X13	Induction Loop Activation	On to open door	2
X14	Fault Input	Must be on for door to run.	

Encoder Adjustment Descriptions

(Refer to i-COMM and FasTrax CL Manuals for additional detail)

Open Distance	Use this option to set the overall opening distance of the door (in feet). For example, for an 9 ft tall FasTrax CL. This option should be set to "8". This measurement is used for initial position setup only. For small adjustments of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Open Pos.	Use this option for initial position setup. Manually place door in the open position and select this option. Alternatively "Set Close Pos." can be used if it is more convenient to place the door in the closed position. NOTE: This option approximately sets the open and close positions. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Close Pos.	Use this option for initial position setup. Manually place door in the close position and select this option. Alternatively "Set Open Pos." can be used if it is more convenient to place the door in the open position. NOTE: This option approximately sets the open and close positions. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Open Pos. Adjust	Use this option to make small adjustment to the open position. The number displayed is the measurement between the open and closed position. For example if this option was set to 100" the door would open 100 inches from the closed position. It is recommended to adjust the closed position of the door first, before adjusting the open position.
Close Pos. Adjust	Use this option to make small adjustment to the closed position. The number displayed is the relative displacement of the closed position. For example, if this option was set to -1.0" the door would closed approximately 1.0 inch more. If this option was set to 2.0" the door would close 2.0 inches less.

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

NOTES:

(1) Default setting shown in table & comments. Record any changes on space provided. Consult i-COMM manual for additional details.

(2) Device operation can be changed through menu. Consult i-COMM manual for additional details.

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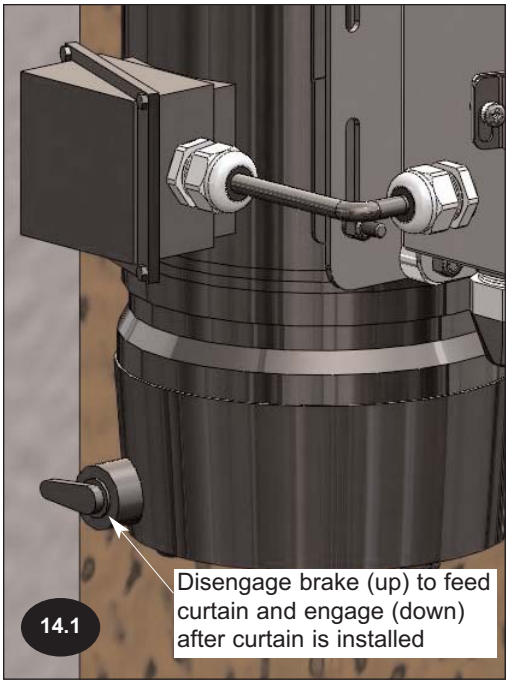
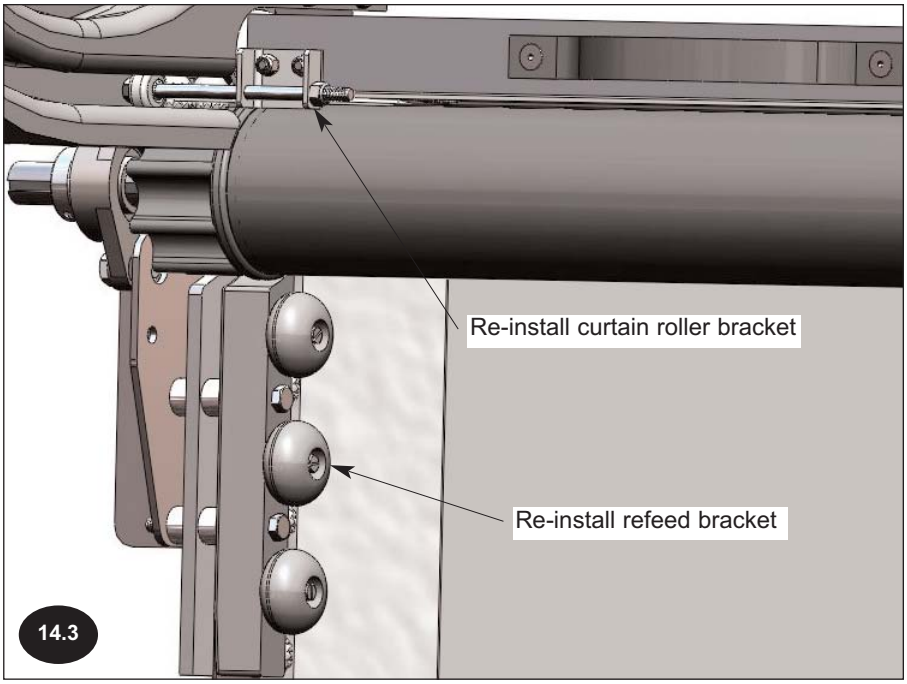
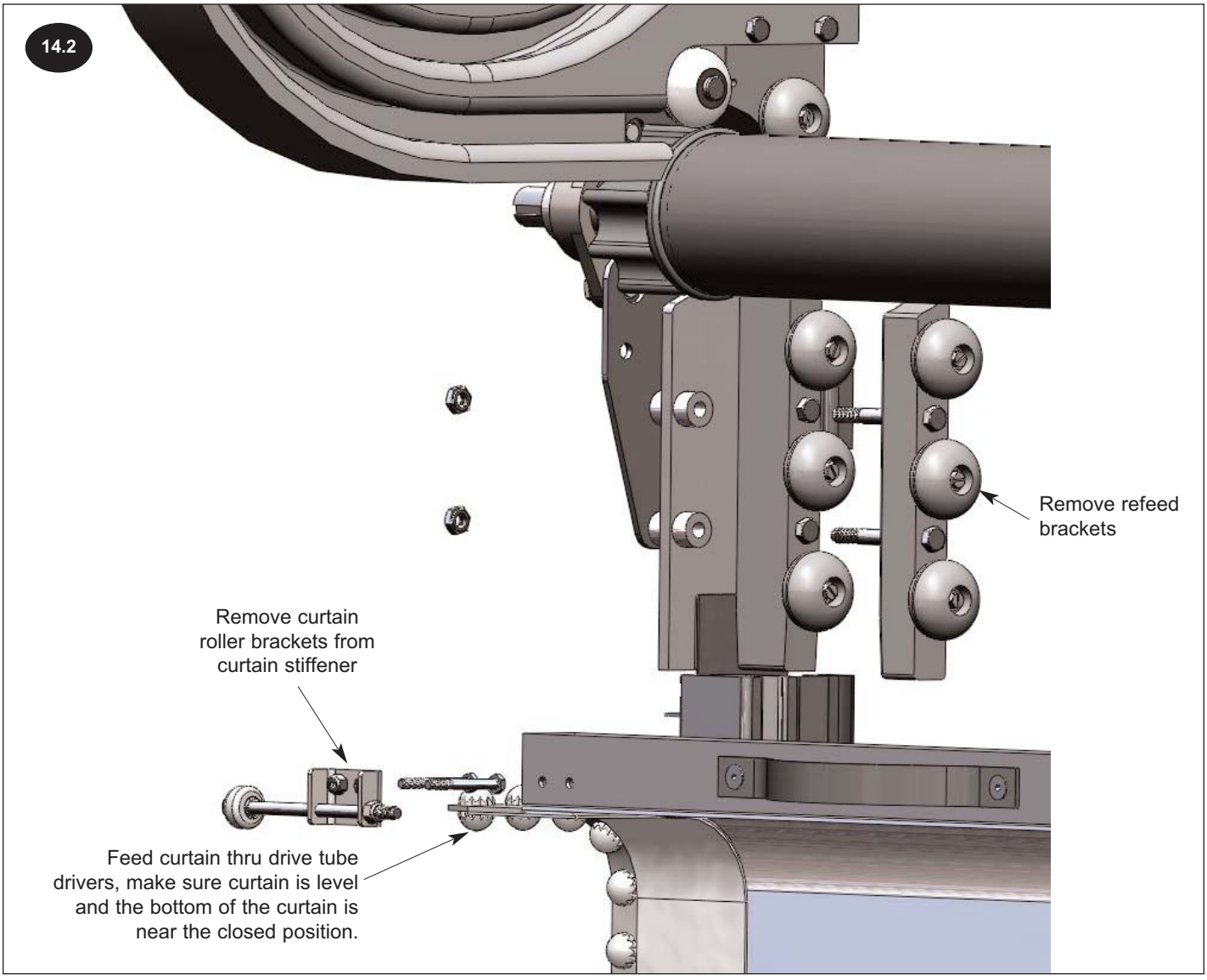
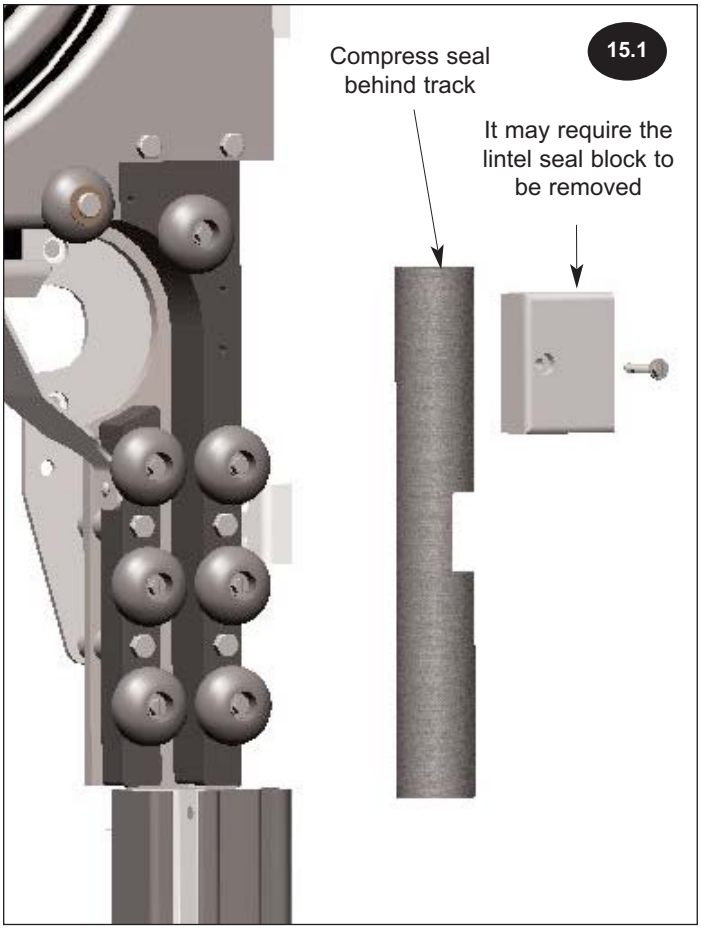
CHAPTER 4 - CURTAIN INSTALLATION

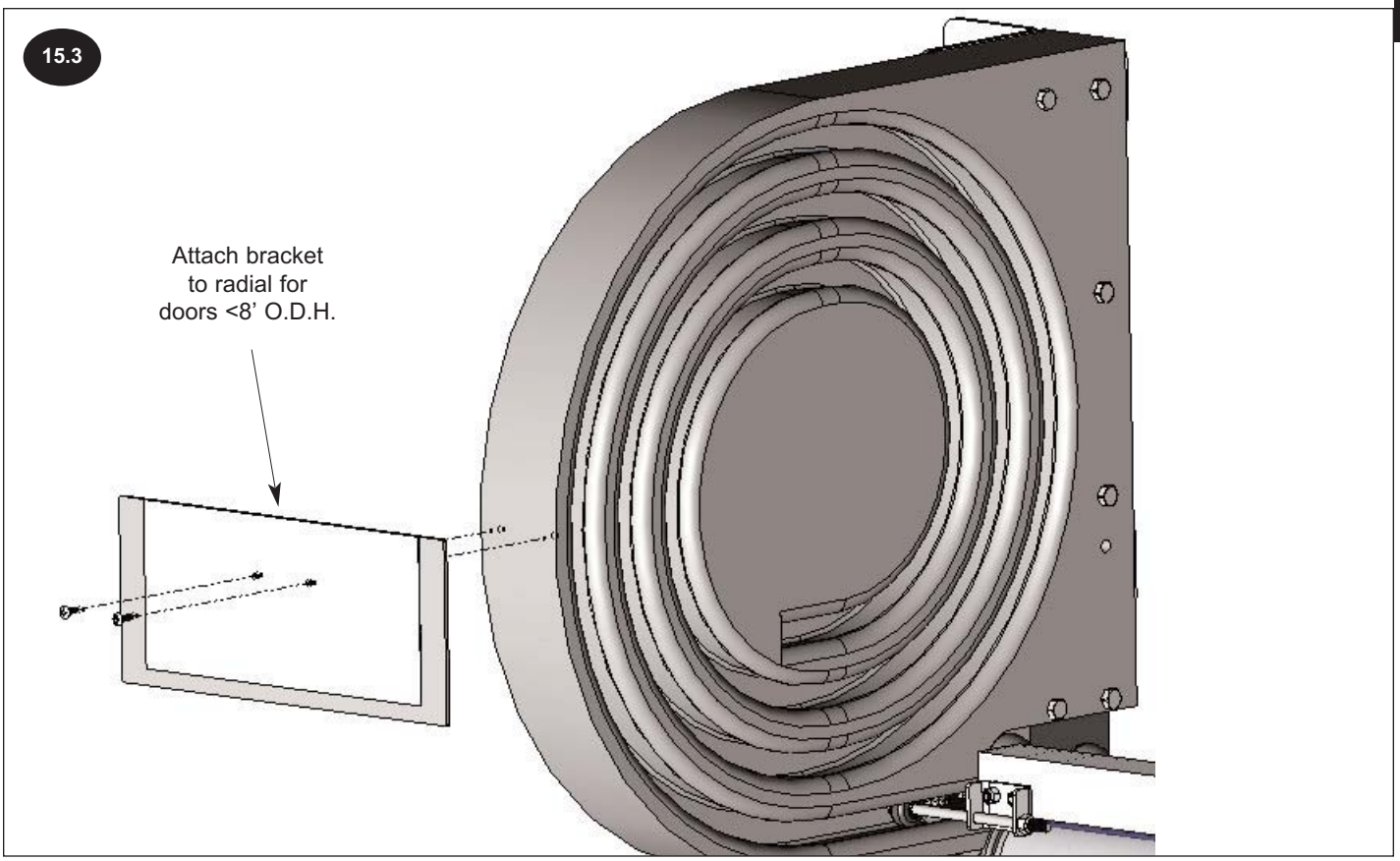




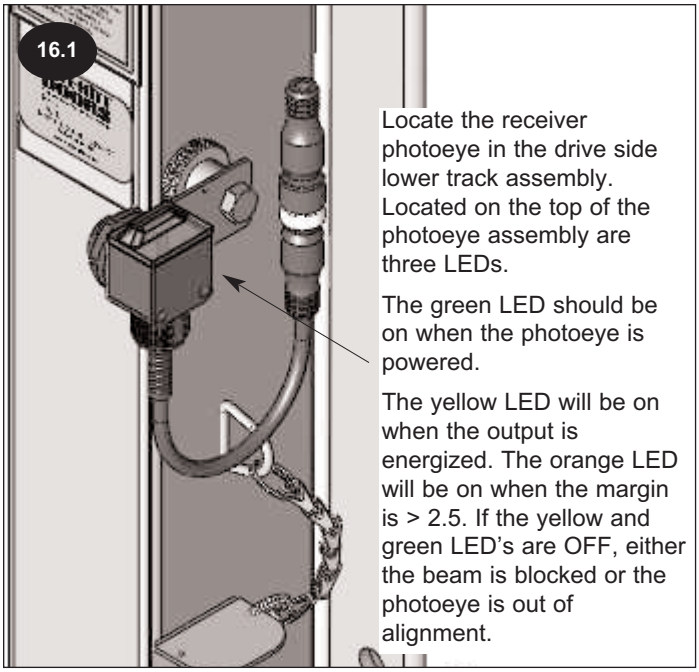


CHAPTER 4 - MISC INSTALLATION





CHAPTER 4 - FINAL CHECKLIST



16.1

Locate the receiver photoeye in the drive side lower track assembly. Located on the top of the photoeye assembly are three LEDs.

The green LED should be on when the photoeye is powered.

The yellow LED will be on when the output is energized. The orange LED will be on when the margin is > 2.5. If the yellow and green LED's are OFF, either the beam is blocked or the photoeye is out of alignment.

VERIFY DOOR OPERATION / CHECKLIST

1. It is recommended that the operation of all controls on the FasTrax CL be verified monthly.
2. 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.
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 on the i-COMM and the label to verify proper state.
4. Are door opening dimensions correct ?
5. Tracks shimmed as required?
6. Check for proper line voltage ?
7. Are all mounting bolts tight ?
8. All wires connected for the photoeyes ?
9. Are loose wires secured away from moving parts?
10. 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, the setting must be changed in the i-COMM controller, ***Figure 16.2.***
11. Operate and observe the door opening to make sure that it fully opens. Observe the closing action to make sure that the door operates smoothly, and fully closes without excessive curtain ripple.

    If it is necessary to adjust either position, refer to Encoder adjustment section.
12. 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.
13. Using end user material handling equipment, approach door slowly and verify that all the activation devices that are being used are operating properly. DO NOT attempt to drive through a door in which the green button is flashing.
14. Use caution (honk horn) and look in a directions when approaching a door that is closing and ensure that the door will reverse before proceeding.
15. Pedestrians should be advised to use man doors when present and to not lean into the door way.

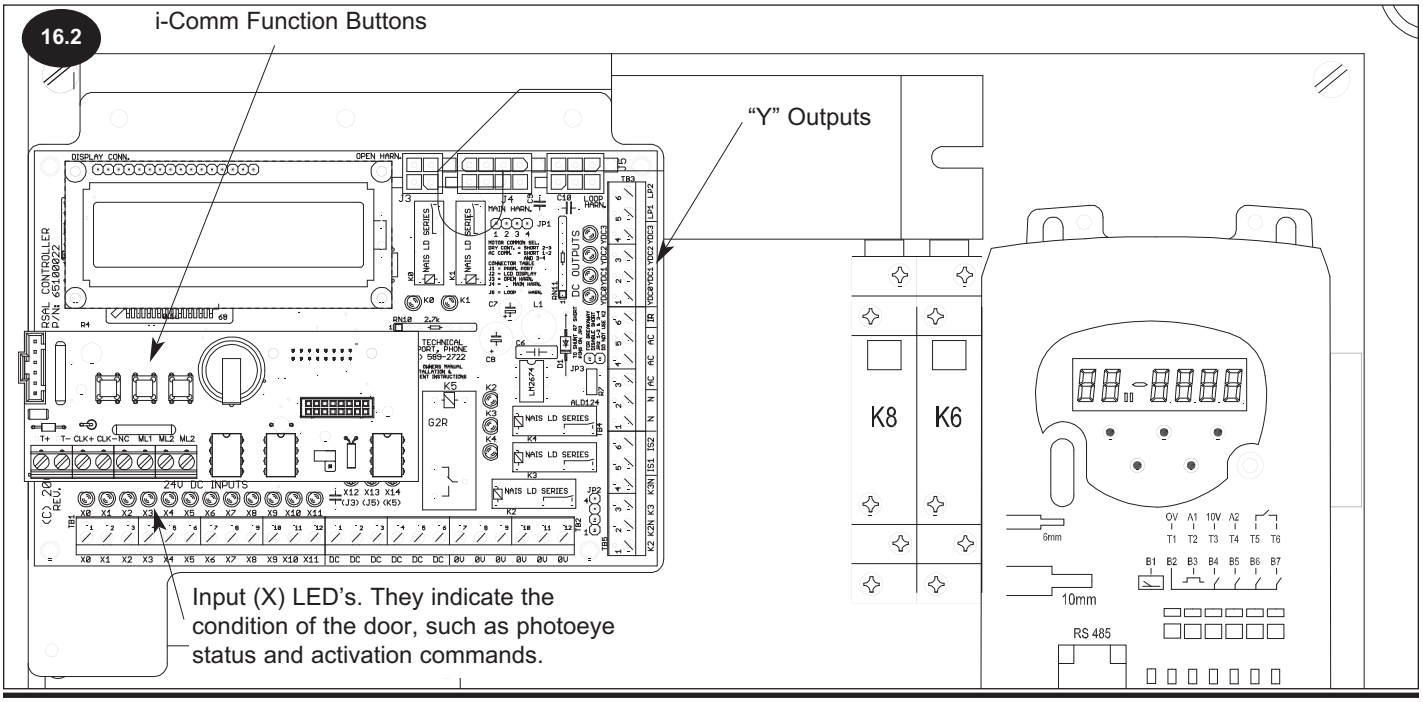
MAINTENANCE

If any bolts are removed, they must be re-installed with Teflon® Tape.

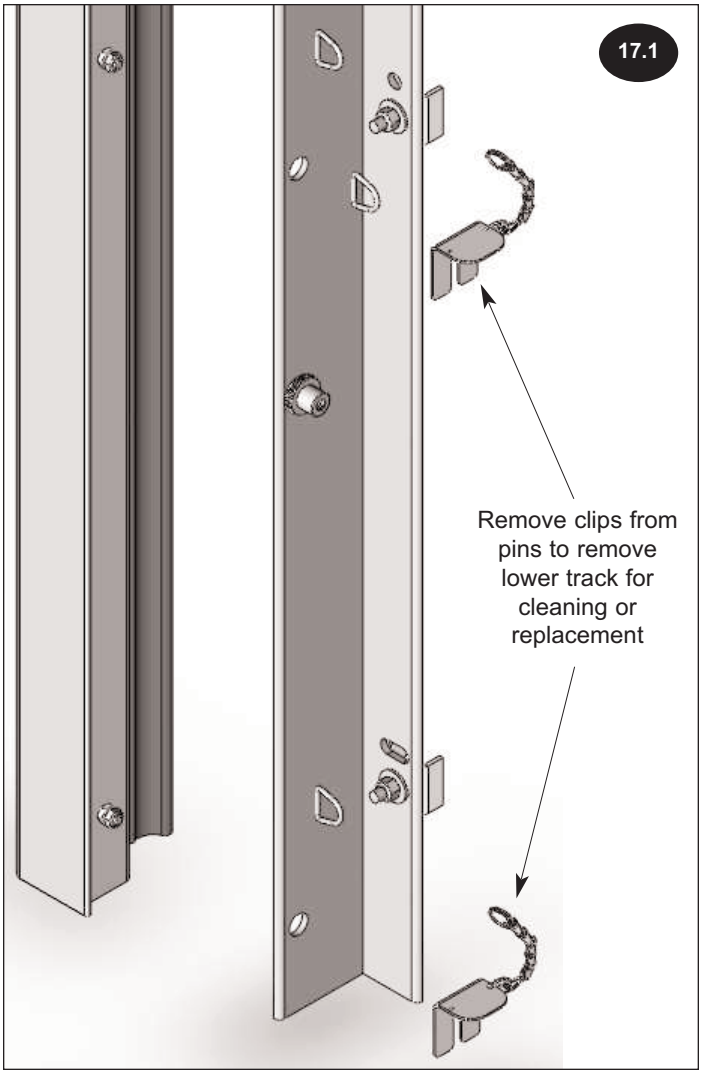
Mineral Oil Info:

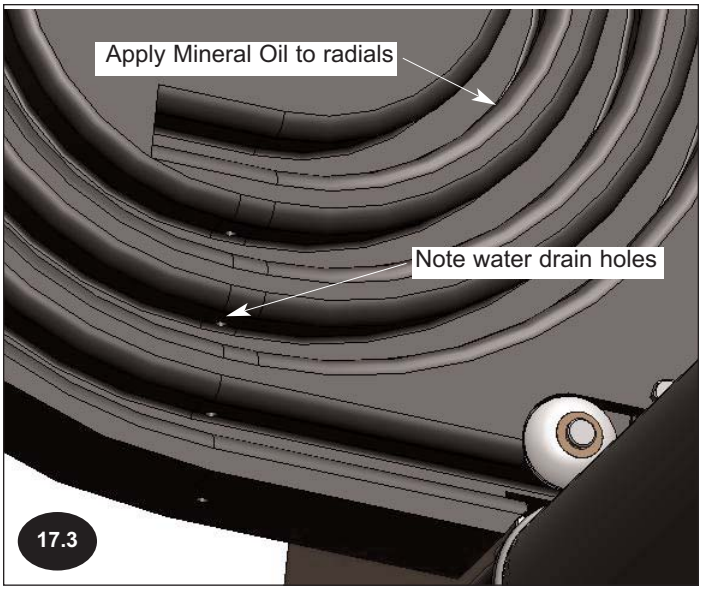
Lubriplate - FMO 85 AW 14oz Spray Bottle Pump

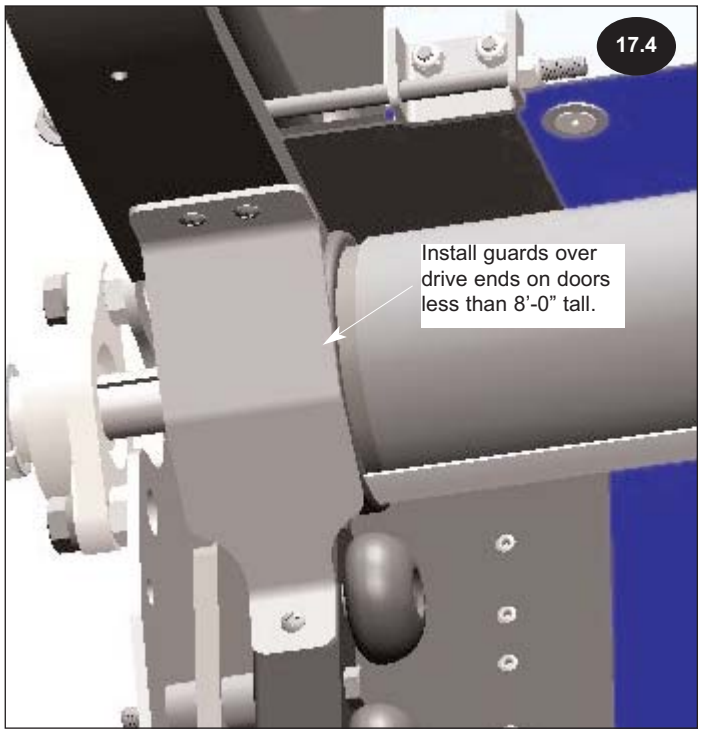
Lubrication of the radials and tracks is the sole responsibility of the end user. If door is mounted in a dirty environment, it may be required to remove the existing grease prior to adding new.

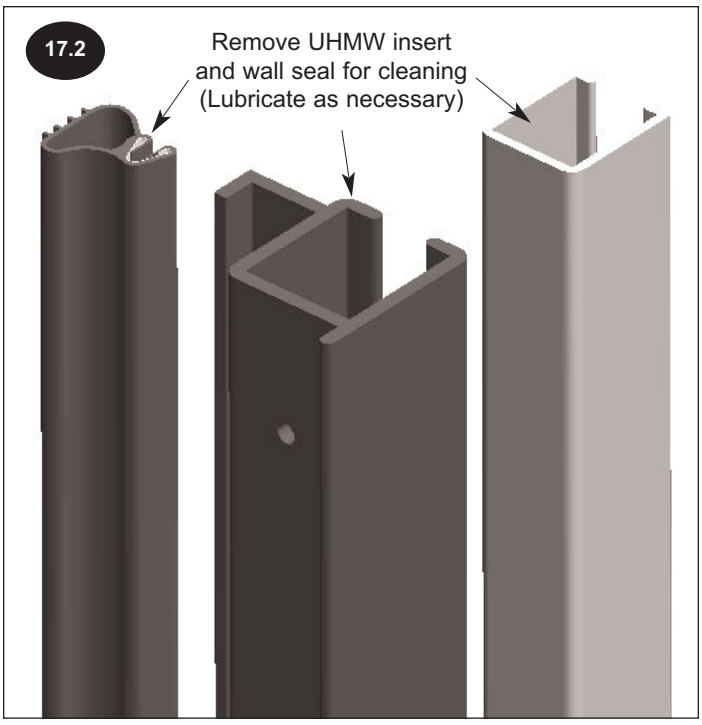


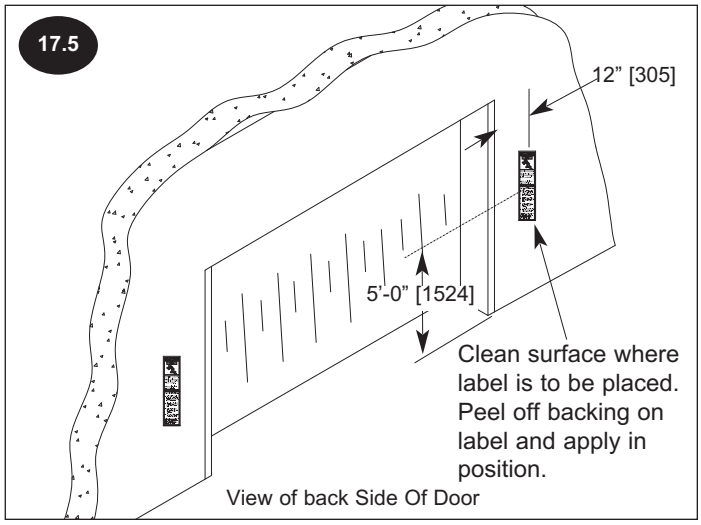
CHAPTER 4 - MAINTENANCE / CLEANING











CHAPTER 5 - INVERTER PROGRAMMING

FasTrax CL™ Inverter Program Instructions - "WARNING: Consult factory before changing any parameters not listed in this table."

When in Status mode, pressing and holding the **"M" MODE** key for 2 seconds will change the display from displaying a speed indication to displaying load indication and visa versa.

Pressing and releasing the **"M" MODE** key will change the display from status mode to parameter view mode. In parameter view mode, the left hand display flashes the parameter number and the right hand display shows the value of that parameter.

Pressing and releasing the **"M" MODE** key again will change the display from parameter view mode to parameter edit mode. In parameter edit mode, the right hand display flashes the value in the parameter being shown in the left hand display.

Pressing the **"M" MODE** key in parameter edit mode will return the drive to the parameter view mode. If the **"M" MODE** key is pressed again then the drive will return to status mode, but if either of the **"UP"** or **"DOWN"** keys are pressed to change the parameter being viewed before the **"M" MODE** key is pressed, pressing the **"M" MODE** key will change the display to the parameter edit mode again. This allows the user to very easily change between parameter view and edit modes whilst commissioning the drive.

Parameter Number	Name	Default Value	New Value	Units
00.03	Acceleration Rate 1	5.0	0.5	s/100 Hz
00.04	Deceleration Rate 1	10.0	1.0	S/100 Hz
00.10	Security Status	L1	L2	
00.18	Preset Speed 1	0.00	0.00	Hz
00.61	Torque Detection Level	0	50	%

SplitSecond - Status Modes

Left Display	Status	Explanation
rd	Drive ready	The drive is enabled and ready for a start command. The output bridge is inactive.
ih	Drive inhibited	The drive is inhibited because there is no enable command, or a coast to stop is in progress or the drive is inhibited during a trip reset.
Er	Drive has tripped	The drive has tripped. The trip code will display in the right hand display.
dC	Injection braking	DC injection braking current is being applied to the motor.
Fr		Drive output frequency in Hz
SP		Motor speed in RPM
Ld		Load current as a % of motor rated load current
A		Drive output current per phase in A

CHAPTER 5 - ENCODER PROGRAMMING

OPTION	DESCRIPTION
Open Distance	Use this option to set the overall opening distance of the door (in feet). For example, for an 8' tall FasTrax CL. This option should be set to "7". This measurement is used for initial position setup only. For small adjustments of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Open Pos	Use this option for initial position setup. Manually place door in the open position and select this option. Alternatively "Set Close Pos." can be used if it is more convenient to place the door in the closed position. NOTE: This option approximately sets the open and close positions. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Close Pos	Use this option for initial position setup. Manually place door in the close position and select this option. Alternatively "Set Open Pos." can be used if it is more convenient to place the door in the open position. NOTE: This option approximately sets the open and close positions. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Open Pos Adjust	Use this option to make small adjustment to the open position. The number displayed is the measurement between the open and closed position. For example if this option was set to 100" the door would open 100 inches from the closed position. It is recommended to adjust the closed position of the door first, before adjusting the open position.
Close Pos Adjust	Use this option to make small adjustment to the closed position. The number displayed is the relative displacement of the closed position. For example, if this option was set to -1.0" the door would closed approximately 1.0 inch more. If this option was set to 2.0" the door would close 2.0 inches less.
Apr Open Pos	Use this option to adjust the approach open position. This option is a measurement in inches from the open position. For example, if this option was set to 24.0" the door would slow down 24 inches from the open position.
Encoder Startup	The controller is waiting for valid data from the encoder. It the controller does not receive a response at startup, this will remain on the screen indefinitely. If this does not clear with 5 seconds, please check all encoder wiring.
Encoder Read	The controller is unable to read valid data from the encoder. Check all wiring. Ensure that the shield on the encoder cable is connected to ground, and that the control box is grounded. The error requires the power to be cycled to reset.
Encoder Velocity	The controller has received a signal from the encoder that the door is moving faster than allowed. This can occur if the encoder is not properly attached to the shaft, bad electrical connection to the i-COMM, or improper grounding. The error requires the power to be cycled to reset.

CHAPTER 5 - INVERTER CODES

FasTrax CL - Inverter Error Codes		
Trip Code	**Condition**	**Possible Cause**
tr UU	DC bus under voltage	Low AC supply voltage, check power source. Low DC voltage when supplied by an external DC power supply.
tr OV	DC bus over voltage	The DC bus (Pr. 84) has exceeded 800V-460V or 400V-230VAC, check the following: If DC bus climbs while door is not running, disconnect CE filter with power off. If fault is intermittent when door is not running try to set Automatic reset of faults. (PR. 73 = 10.34, PR. 74=10.36, PR. 63 = 3, PR 64 = on) If fault is while door is closing add breaking resistor, see Control Box Explosion for a list of parts. Deceleration rate set too fast for the inertia of the machine. Mechanical load driving the motor.
tr It.br	I^2C on braking resistor	Check door closing speed. If fault is while door is closing, add breaking resistor, see Control Box Explosion for parts breakdown. See tr OV for more troubleshooting.
tr It. AC	I^2C on drive output	Check that radial spacing and that they are square, or sideframe spacing. Motor wiring, check for loose connections or shorts. Make sure door cannot move if brake is engaged.
tr OI.AC	Drive output instantaneous over current	Door is mechanical binding or jammed. Check that radial spacing and that they are square, or sideframe spacing. Motor wiring, check for loose connections or shorts. Make sure door cannot move if brake is engaged. Disconnect CE filter with power off. Insufficient ramp times. Phase to phase or phase to ground short circuit on the drives output. Drive requires autotuning to the motor. Motor or motor connections changed, re-auto tune drive to motor MUST wait 10 seconds to reset after trip occurs
OI.br	Braking resistor instantaneous over current	Excessive braking current in braking resistor Braking resistor value too small. MUST wait 10 seconds to reset after trip occurs
O.SPd	Over speed	Excessive motor speed (typically caused by mechanical load driving the motor)
tunE	Auto tune stopped before complete	Run command removed before autotune complete
It.br	I^2-t on braking resistor	Excessive braking resistor energy
It.AC	I^2-t on drive output current	Excessive mechanical load. Drive requires re-autotuning to motor. High impedance phase to phase or phase to ground short circuit at drive output.
O.ht1	IGBT over heat based on drives thermal model	Overheat software thermal model
O.ht2	Over heat based on drives heatsink	Heatsink temperature exceeds allowable maximum
th	Motor thermistor trip	Excessive motor temperature
O.Ld1	User +24V or digital output overload	Excessive load or short circuit on +24V output The Enable/Reset terminal will not reset an O.Ld1 trip. Use the Stop/Reset key.
OUL.d	I x t overload	Reduce motor current
hot	Heatsink/IGBT temp is high	Reduce ambient temperature or reduce motor current
br.rS	Braking resistor overload	See Advanced user guide
EEF	Internal drive EEPROM failure	Possible loss of parameter values
PH input phase loss	Input phase imbalance or	One of the input phases has become disconnected from the drive
rS	Failure to measure motors stator resistance	Motor too small for drive Motor cable disconnected during measurement
O.cL	Overload on current loop input	Input current exceeds 25mA
tr HF ##	Hardware Fault	The drive has detected a hardware problem, verify wiring is correct. This cannot be fixed in the field, replace the drive.
HF 05 trip		No signal from DSP at start up
HF 06 trip		Unexpected Interrupt
HF 07 trip		Watchdog failure
HF 08 trip		Interrupt crash (code overrun)
HF 11 trip		Access to the EEPROM failed
HF 20 trip		Power stage - code error
HF 21 trip		Power stage - unrecognized frame size
HF 22 trip		OI failure at power up
HF 25 trip		DSP Communications failure
HF 26 trip		Soft start relay failed to close, or soft start monitor failed or braking IGBT short circuit at power up
HF 27 trip		Power stage thermistor fault
HF 28 trip		DSp software overrun
HF __ trip		HF 1-4, 9-10,12-19,23,24,29,30 Are not used

CHAPTER 5 - TROUBLESHOOTING

DEFINITION	FUNCTION
Activation	It is preferred not to wire activation devices until after the door is functioning properly. For activation questions, refer to the Activation Manual and terminals X5 & X6 & X7.
Brake	If the brake is not functioning properly, check the following: a) Check F7 fuse-replace. b) Brake wiring at terminals BRK & N and junction box connections. c) Brake will have 22.3 - 24.7 ohms on normal readings (wires # 4 & # 6). d) To increase air-gap, turn adjusting screws counterclockwise using 3/16 hex wrench. e) To decrease air-gap, turn adjusting screws clockwise using 3/16 hex wrench.
Conduit Cable	**DO NOT DRILL HOLES ON TOP OF CONTROL BOX TO RUN CONDUIT, AS DUST PARTICLES AND MOISTURE MAY CAUSE DAMAGE TO ELECTRICAL COMPONENTS. THE IDEA SAFEST LOCATION IS AT THE BOTTOM. Failure to do so, voids warranty.** If supplied conduit cable is too short, DO NOT splice wires, as the cable is shielded to prevent electrical noise from entering the control box i-COMM universal controller. Contact Aftermarket for replacement.
Curtain	If the curtain will not roll up, or it rolls up crooked, check the following: a) Curtain dragging and catching on the sideframe. b) Spheres missing. c) Roll tube driver issue.
Disconnect Switch	The disconnect switch is in line with fuse holder terminals F1, F2, F3, and removes power from the entire control box, except for terminals F1, F2, F3.
D.O.H. or D.O.W.	D.O.H. = Door Opening Height or D.O.W. = Door Opening Width
Door does not close	a) Verify inputs X2 and X4 are on. b) Verify inputs X5, X6 or X7 are not on, if on, remove wire from terminal to determine what is keeping light on. c) Verify outputs K1, K2, K4, K5 and YDC2 are on or coming on to signal inverter to close door. d) Check status on i-comm display to see why door is staying open (*"Photoeye Blocked" or Photoeye Failure", etc.)*, should read *"Door Closing in "x" seconds".* e) Verify inverter display is changing frequency. f) Verify chain hoist chain is not pulled and switch is not tripped. g) Verify brake handle is not released. h) Verify X10 and X11 are on and that the photoeyes are lined up and not blocked. i) Verify proper incoming power is reaching inverter at L1, L2 and L3. j) Verify as the curtain gets close to the photoeyes that they are being shut off. k) If run timer occurs, check for binding or obstructions. Tracks may need to be lubricated to reduce friction.
Door does not open	a) Verify inputs X2 and X4 are on. b) Verify input X3, X5, X6 or X6 are coming on when activation device is being used. c) Verify outputs K3, K4, K5 and YDC2 are on or coming on to signal inverter to open door. d) Check status on i-comm display to see why door is staying closed, should read *"Door Opening".* e) Verify inverter display is changing frequency. f) Verify brake handle is not released. g) Verify proper incoming power is reaching inverter at L1, L2 and L3.
Door slams open/close	a) Verify the open and close positions are properly set. b) Verify X0 input coming on when door reaches open position. c) Verify X1 input coming on when door reaches closed position d) Verify sprocket set screws are tight and the chain moves when the drive tube is turned. e) Verify the encoder shaft turns when the drive tube is turned. f) Verify the outputs are turning off when the X0 & X1 inputs light up. g) Verify the inverter is changing speeds on the display. h) Verify the phasing is correct. The door should open when the green open button is pressed. i) Verify the brake is engaged and not released. j) Verify the key been installed on the gearbox shaft. k) Verify the proper ratio gearbox is being used.
Encoder	See Encoder Section. **THE ENCODER CABLE SHOULD NEVER BE SPLICED OR EXTENDED.** a) If curtain is not stopping at the same position, make sure encoder cable is grounded per drawing 7826E007 on ***Page 12.*** b) Verify Encoder chain is operating properly, sprockets are tight to shafts.
Fuses	F1, F2, F3: Incoming power fuses, must have line voltage across all 3 legs. (Transformer, Inverter, motor) F4, F5: Primary side transformer fuses, must have line voltage across both legs. F6, F7: Secondary side transformer fuses, F6 is 24V and F7 is 120V (power supply & brake).
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. a) If i-Comm display is blank or hard to see, adjust contrast.
Inverter	See ***Pages 18 - 19*** for proper parameter settings.
K8 Relay	K8 Relay is for energizing the brake, check the following: a) Terminals 1 & 5 on the relay are wired to B3 & T1 on Inverter. b) Terminal 7 is wired to F7 fuse and terminal 4 is wired to BRK (120VAC).
Manual Door Opening	The door can be opened manually in cases of electrical power outage. Disengage the brake release handle. If the door is not stopping when it reaches the open or close position, verify the brake handle is locked in place
Motor 208V-240V	208V-240V motor will have 1.7 - 2.5 ohms on normal readings.
Motor 400V-480	400V-480V motor will have 7.2 - 10.0 ohms on normal readings.
Motor Epoxy - 575V	575V Epoxy motor will have 12.1 - 14.7 ohms on normal readings.
Motor S.S. - 575V	575V S.S. motor will have 11.4 - 13.9 ohms on normal readings.
Motor Heater	Motor Heater will have 437 - 483 ohms on normal readings. (wires # 5 & # 6)
Motor Phasing	If open button is pressed and the door closes, the phasing is reversed, reverse wires in terminals, V and W.
Motor will not run	If door will not run will given an activation, check the following: a) Check voltage to and from inverter. b) Check voltage and for loose wires at terminals, U, V, and W.
O.D.H. or O.D.W.	O.D.H. = Ordered Door Height or O.D.W. = Ordered Door Width

CHAPTER 5 - TROUBLESHOOTING / MAINTENANCE

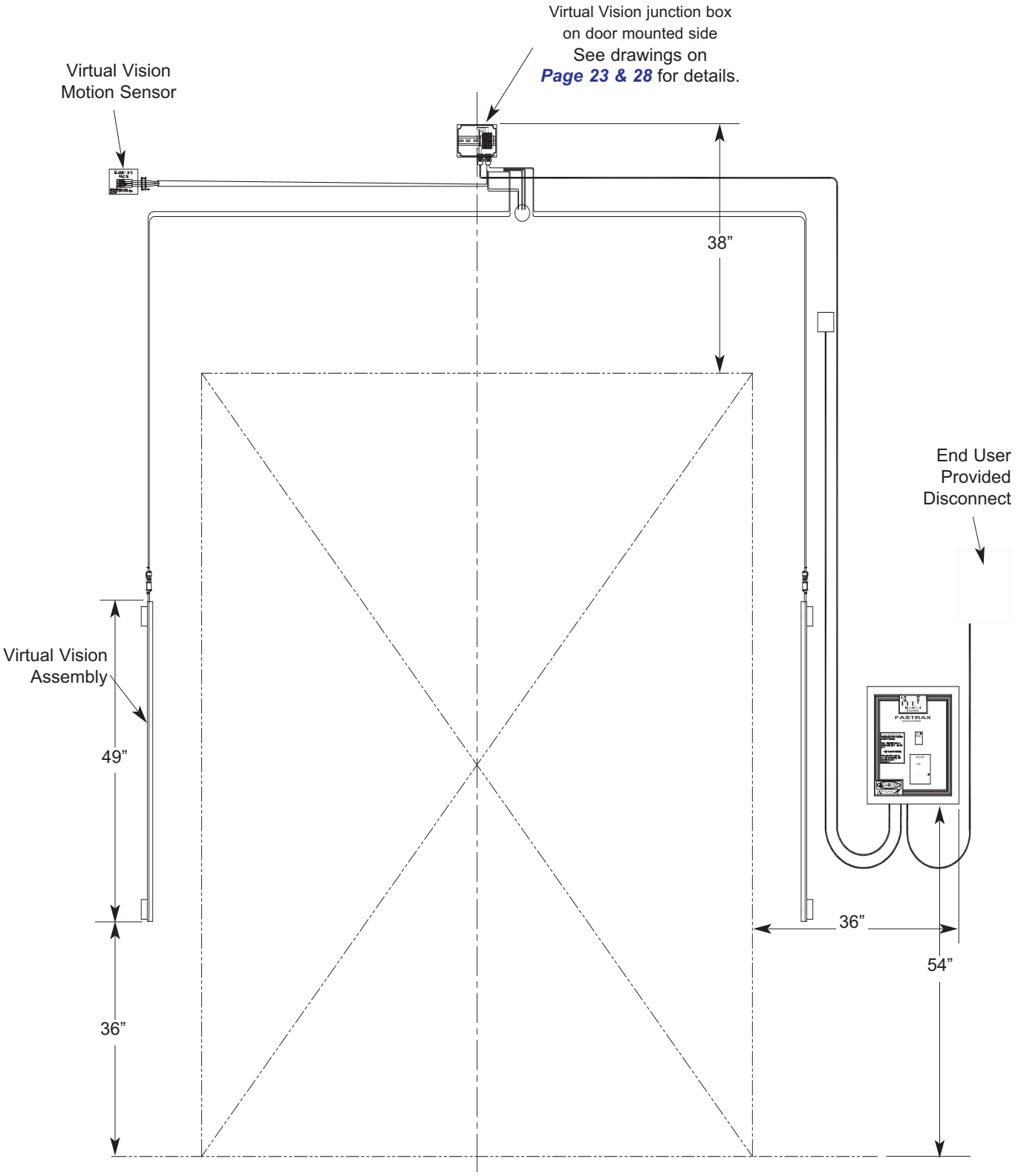
DEFINITION	FUNCTION
Open/Reset Push Button	The following are functions of the open/reset push button. The first function is when pressed, is to open the door. The second function is to reset the door when in a fault mode. When pressed the door will open (after 5 seconds door will automatically run) and automatically close and after the preset time has expired, unless the door is in a true toggle operation. When the door reversing edge has been impacted three times the light will flash and the door will not operate from an activation command. The light will continue to flash until the open/reset button is pushed. The following are reasons for the green light to be flashing: a) Power outage or startup b) Reversing edge impacted three times.
Photoeyes	The photoeyes are wired to the 24VDC circuit and are wired as normally closed when there is power to the unit and the emitter photoeye is aligned with the receiver photoeye. There are 3 lights on the receiver and one on the emitter. Yellow is for power, red and green are for proper alignment. The photoeyes will reverse or hold the door open when the photoeye beam is blocked. When the beam is not broken, the door will auto-reclose. If photoeyes require adjustment, check that sideframes are square to the wall. a) Power to Brown (DC) and Blue (OV) wires. b) Relay wires Black to Blue should be closed when photoeye is aligned and open when not aligned.
Power Supply	Power Supply will have green light on if powered. a) Powered by 120VAC from F7 fuse. b) Supplies i-Comm 24VDC. c) If i-Comm is not powered and amber light is on, unplug 8 pin (J4 connector) and power up, if green light is on, check each DC wire for short.
Tracks	a) Verify tracks are properly spaced b) Lubricate as required per Maintenance Schedule, ***Page 23.***
Wind/Negative Pressure	Check other door openings to make sure they are closed.
Re-Close Timer	The door can be set to close from 2 to 255 seconds, follow i-COMM adjustment instructions.
Voltage Change	To change the voltage, see steps below: a) Change transformer taps and fuses per electrical diagram. b) Change motor wiring per junction box diagram. c) Replace inverter.

RITE-HITE DOORS, INC. PLANNED MAINTENANCE
Model FASTRAX CL®

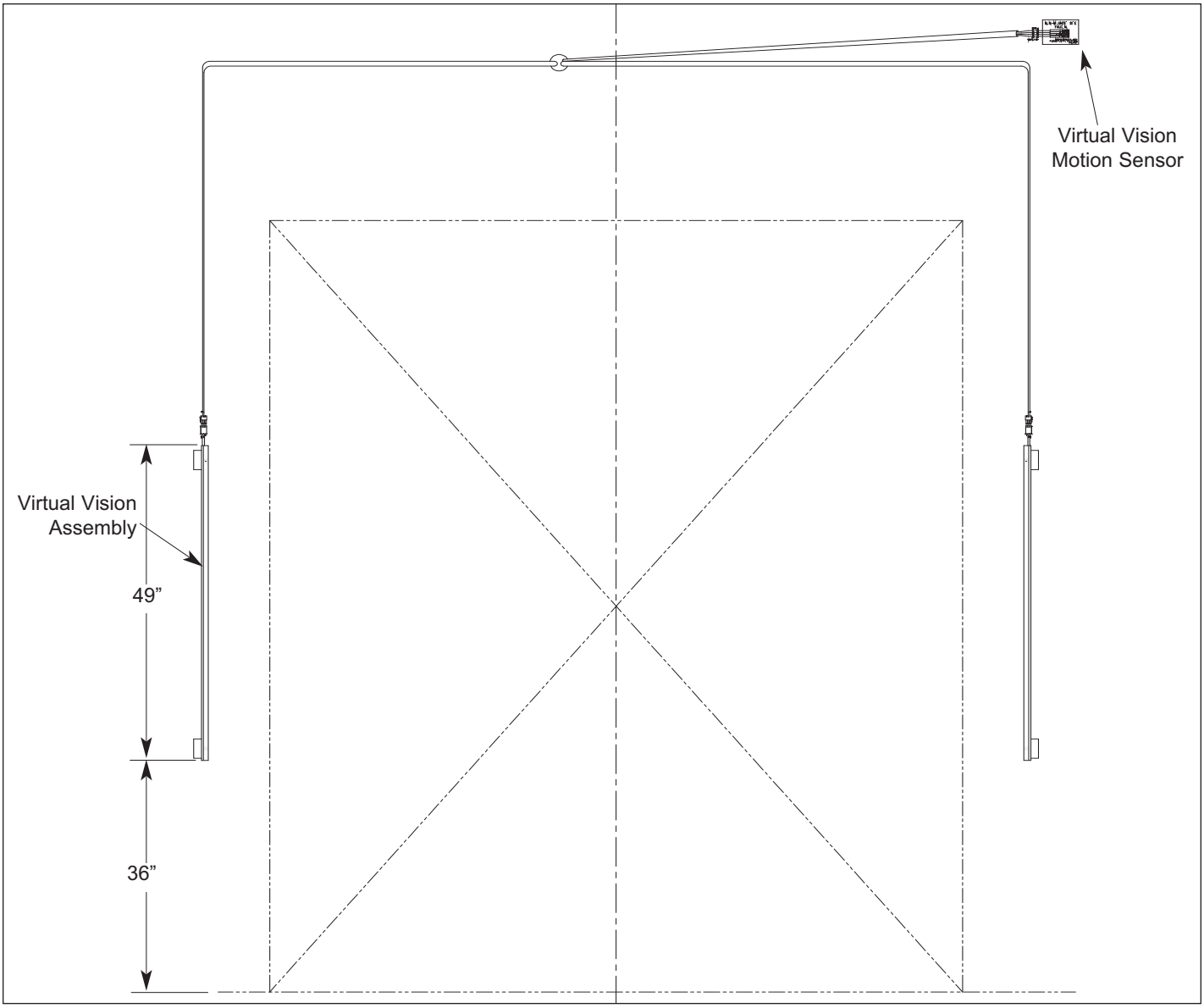
CUSTOMER:	JOB#	SERIAL#	DATE:

Planned Maintenance Task	Recommended P.M. Intervals (Time Shown In Months)							Inspect and Perform the Following
	1	6	12	18	24	30	36	
Activation		x	x		x		x	Operate all devices to verify proper operation.
Auto Re-Feed			x		x		x	Verify auto re-feed is operational.
Brake	x		x		x		x	Verify that brake stops the door at open and closed positions as well as when stopped in the middle of travel. To move the curtain manually, release the brake handle at the bottom of the brake. Either move the curtain manually, turn drive tube by hand or use non-drive shaft. If brake is making noise, adjust.
Controls / Wiring	x		x		x		x	Clean, check all connections with disconnect off. Make sure all wires are free from moving parts.
Curtain			x		x		x	Inspect for wear or damage, patch immediately to prevent condensation buildup. Clean with isopropyl alcohol or similar product. Check drive spheres, if missing or damaged, replaced. Check top roller.
Door Assembly		x		x	x		x	Perform visual inspection for damage. Tighten all hardware. Replace any worn labels. Use air hose to remove dust and debris.
Door Operation			x		x		x	Operate door and make sure all operations are functioning properly.
Drive Tube			x		x		x	Verify drive tube gear is centered over track groove. Make sure bearing set screws and mounting bolts are tight. Grease bearings.
Encoder / Chain / Sprockets			x		x		x	Verify Encoder chain and sprocket set screws are tight and that Encoder is moisture free.
Gearbox			x		x		x	Verify gearbox is not leaking.
Motor			x			x		Check connections. On epoxy motor, should any metal exposure occur, address imeadiatly.
Radials		x	x	x	x	x	x	Lubricate radials with Mineral Oil approximately every 25,000 - 50,000 cycles
Photoeyes		x	x	x	x	x	x	Verify both photoeyes reverse the curtain. LED's on I-COMM should go on/off. Clean emitter and receiver lens.
Tracks (upper and lower)		x	x	x	x	x	x	Perform visual inspection. Lubricate radials with Mineral Oil approximately every 25,000 - 50,000 cycles. Verify proper width and tighten all hardware.
Track Retention Edging		x		x		x		Inspect track retention edging, replace if cracked.
Radial and Track Lubrication	Lubrication of radials and tracks may be required more than every 6 months, based on usage and environmental conditions.							Lubrication of the radials and tracks is the sole responsibility of the end user. If door is mounted in a dirty environment, it may be required to remove the existing grease prior to adding new.

CHAPTER 5 - VIRTUAL VISION LAYOUT - FRONT SIDE

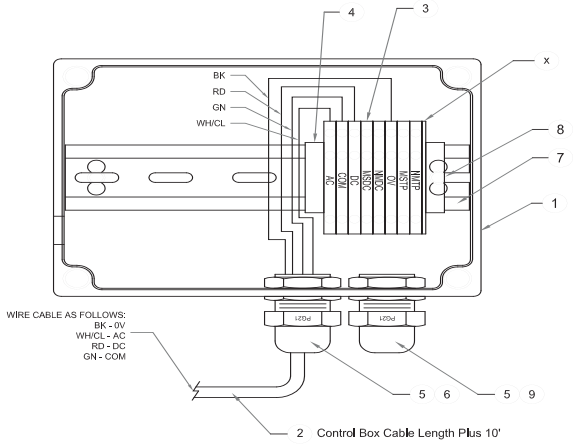


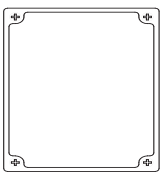
CHAPTER 5 - VIRTUAL VISION LAYOUT - BACK SIDE



NEXT ASSEMBLY	FINAL ASSEMBLY
7826E006	FINAL

REVISION HISTORY					
REV	DESCRIPTION	ECN	DATE	BY	APPROVED





COVER SHOWN
1/2 SCALE

ITEM	QTY	PART NO.	DWG. NO.	DESCRIPTION
9	1	15550002	-	BSHG,CA SEAL,4X6MM,21MM
8	2	67850015	-	SCR,PHLP,DR/TP,#8X1/2
7	1	38120006	-	DIN RAIL,LOW-PROFILE,6-1/2
6	1	15550045	-	BSHG,CA SEAL,3X7MM,21MM
5	2	16960015	-	FTG,STRT,1/T,21MM
4	2	73100024	-	TERMINAL,END STOP,SCREWLESS
3	8	73100085	-	TERMINAL,WA,CAGE,20A,3HOLE
2	AR	15650046	-	CABLE,VIRTUAL VISION
1	1	43750124	-	ENCL,LEXAN,7X5X4

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: MDB — DATE: 7/6/2009

CHECKED BY — DATE

APPROVED BY — DATE

MATRIL ECN

DATE ISSUED: 7/6/2009

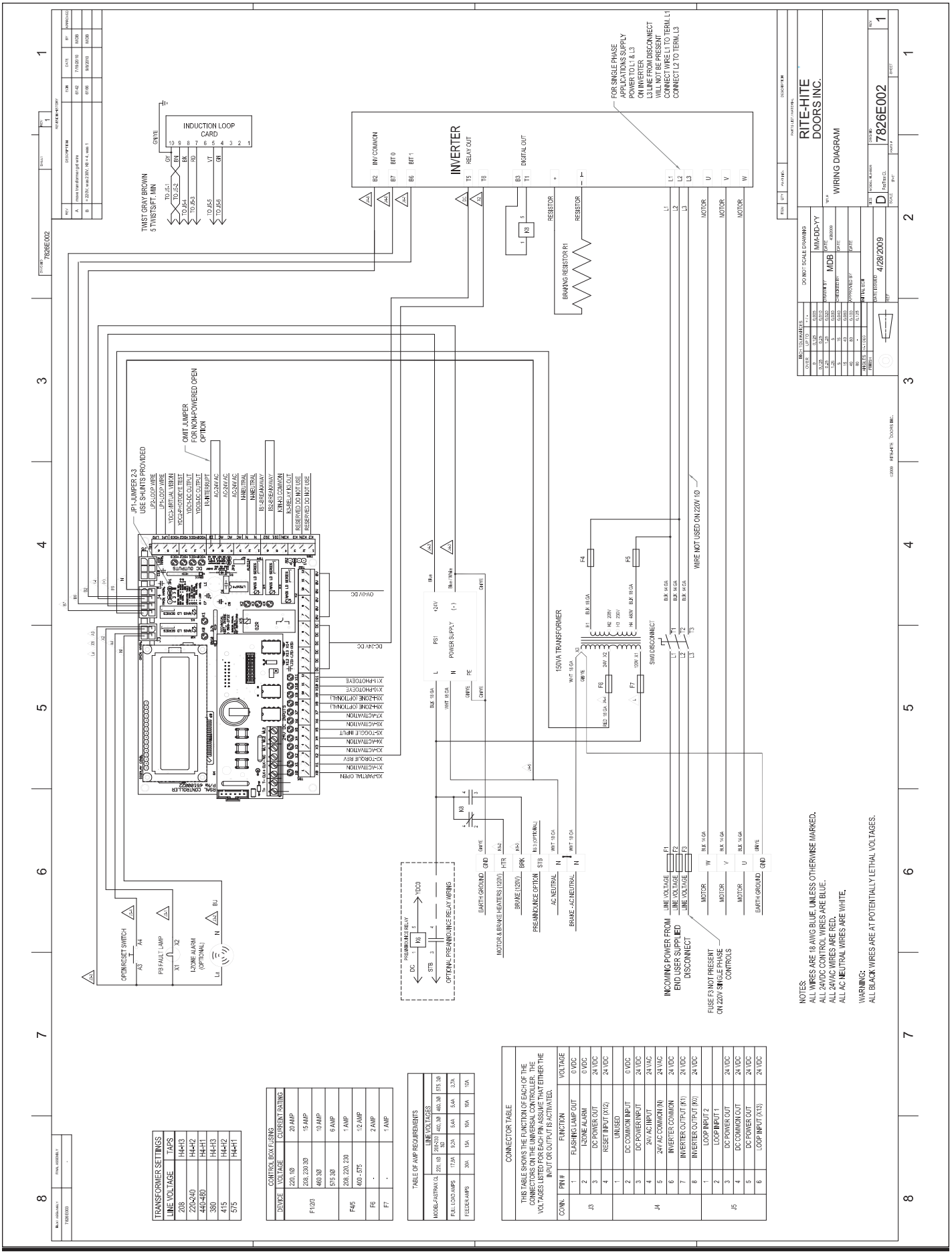
REF

RITE-HITE DOORS INC.

TITLE: JBOX,ASY, VIRTUAL VISION

SIZE	MODEL NUMBER	DWG NO	REV
B	FasTraxCL	7826E005	
SCALE	9"=1'	PART # 5352....	SHEET

CHAPTER 6 - WIRING DIAGRAM (208V-460V)



TRANSFORMER SETTINGS

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

CONTROL BOX FUSING

DEVICE	VOLTAGE	CURRENT RATING
F1/2/3	220, 1Ø	20 AMP
	208, 230, 3Ø	15 AMP
	460, 3Ø	10 AMP
	575, 3Ø	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F6	-	2 AMP
F7	-	1 AMP

TABLE OF AMP REQUIREMENTS

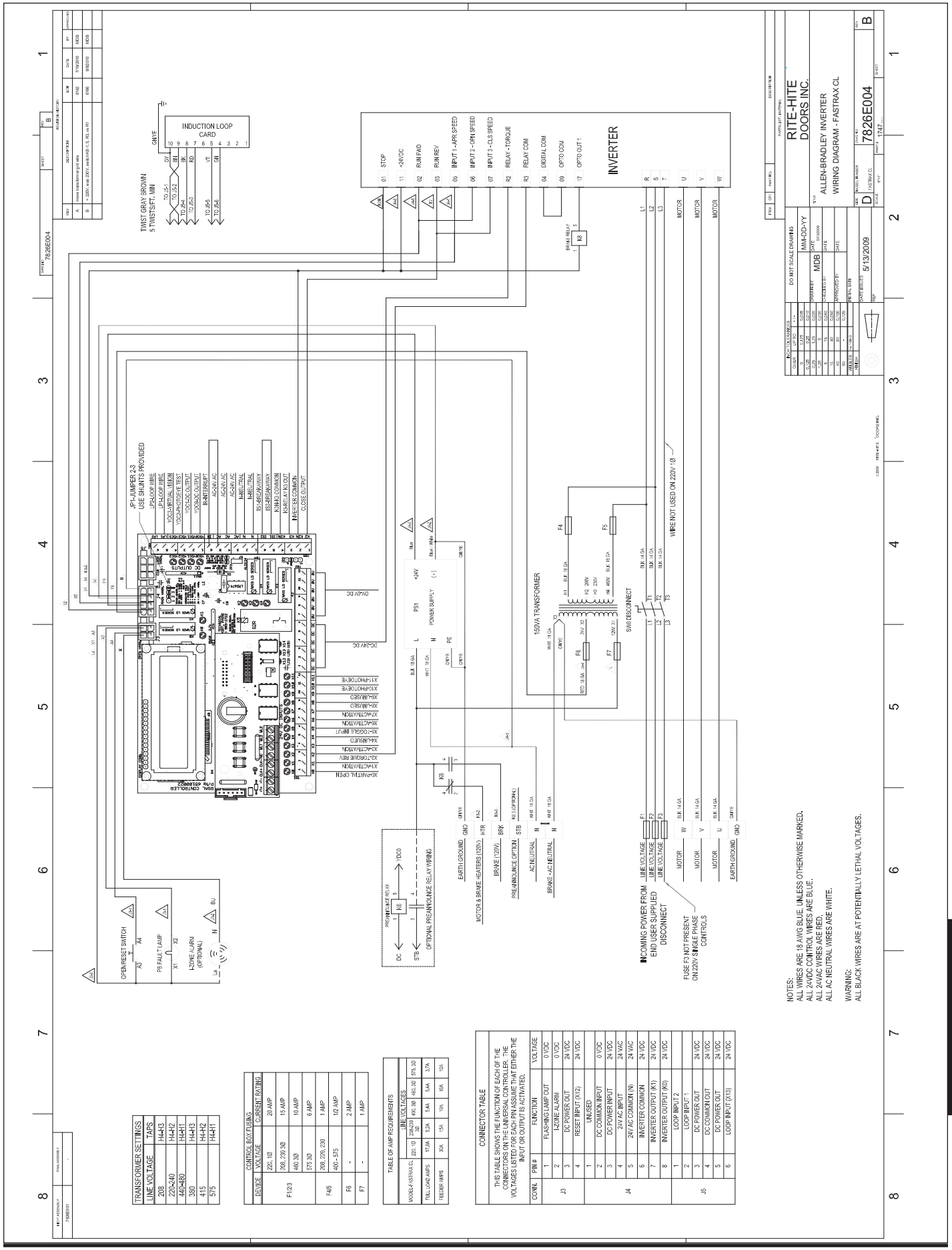
	LINE VOLTAGES				
MODEL-FASTRAX CL	220, 1Ø	208/230, 3Ø	460, 3Ø	575, 3Ø	
FULL LOAD AMPS	17.5A	9.2A	5.4A	4.7A	
FEEDER AMPS	30A	15A	10A	10A	

CONNECTOR TABLE

THIS TABLE SHOWS THE FUNCTION OF EACH OF THE CONNECTORS ON THE UNIVERSAL CONTROLLER. THE VOLTAGES LISTED FOR EACH PIN ASSUME THAT EITHER THE INPUT OR OUTPUT IS ACTIVATED.

CONN.	PIN #	FUNCTION	VOLTAGE
J3	1	FLASHING LAMP OUT	0 VDC
	2	I-ZONE ALARM	0 VDC
	3	DC POWER OUT	24 VDC
	4	RESET INPUT (X12)	24 VDC
J4	1	UNUSED	
	2	DC COMMON INPUT	0 VDC
	3	DC POWER INPUT	24 VDC
	4	24V AC INPUT	24 VAC
	5	24V AC COMMON (N)	24 VAC
	6	INVERTER COMMON	24 VDC
	7	INVERTER OUTPUT (K1)	24 VDC
	8	INVERTER OUTPUT (K2)	24 VDC
J5	1	LOOP INPUT 2	
	2	LOOP INPUT 1	
	3	DC POWER OUT	24 VDC
	4	DC COMMON OUT	24 VDC
	5	DC POWER OUT	24 VDC
	6	LOOP INPUT (X13)	24 VDC

CHAPTER 6 - WIRING DIAGRAM (575V)



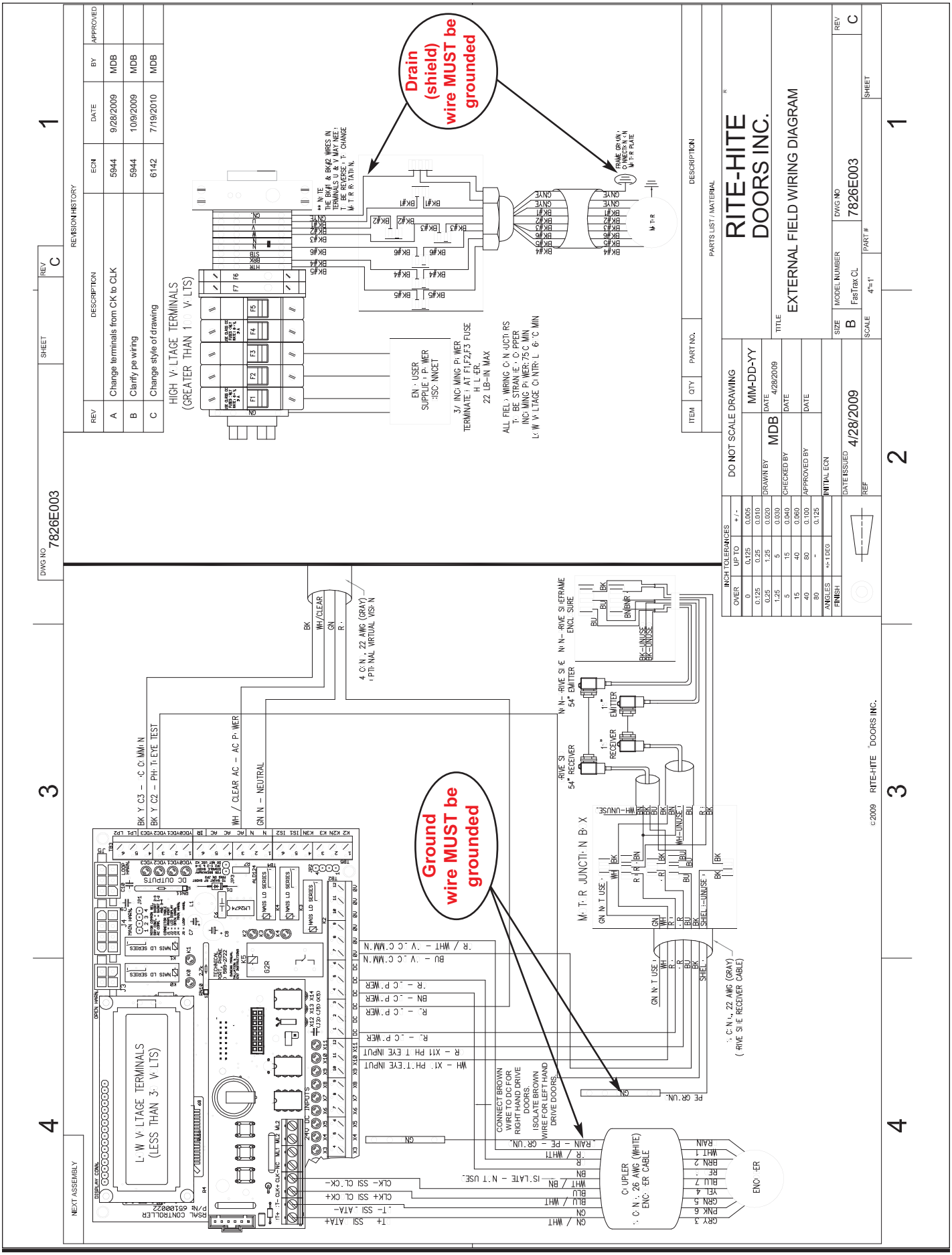
TRANSFORMER SETTINGS	
LINE VOLTAGE	TAPS
208	H4-H3
220-240	H4-H2
440-480	H4-H1
380	H4-H3
415	H4-H2
575	H4-H1

CONTROL BOX FUSING		
DEVICE	VOLTAGE	CURRENT RATING
F1/2/3	220, 1Ø	20 AMP
	208, 230/3Ø	15 AMP
	460/3Ø	10 AMP
	575/3Ø	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F6	-	2 AMP
F7	-	1 AMP

TABLE OF AMP REQUIREMENTS					
	LINE VOLTAGES				
MODEL# FASTRAX CL	220, 1Ø	208-230, 3Ø	460, 3Ø	575, 3Ø	
FULL LOAD AMPS	17.0A	9.2A	5.4A	3.7A	
FEEDER AMPS	30A	15A	10A	10A	

CONNECTOR TABLE			
THIS TABLE SHOWS THE FUNCTION OF EACH OF THE CONNECTORS ON THE UNIVERSAL CONTROLLER. THE VOLTAGES LISTED FOR EACH PIN ASSUME THAT EITHER THE INPUT OR OUTPUT IS ACTIVATED.			
CONN.	PIN #	FUNCTION	VOLTAGE
J3	1	FLASHING LAMP OUT	0 VDC
	2	HZONE ALARM	0 VDC
	3	DC POWER OUT	24 VDC
	4	RESET INPUT (X12)	24 VDC
J4	1	UNUSED	
	2	DC COMMON INPUT	0 VDC
	3	DC POWER INPUT	24 VDC
	4	24V AC INPUT	24 VAC
	5	24V AC COMMON IN	24 VAC
	6	INVERTER COMMON	24 VDC
	7	INVERTER OUTPUT (K1)	24 VDC
	8	INVERTER OUTPUT (K0)	24 VDC
J5	1	LOOP INPUT 2	
	2	LOOP INPUT 1	
	3	DC POWER OUT	24 VDC
	4	DC COMMON OUT	24 VDC
	5	DC POWER OUT	24 VDC
	6	LOOP INPUT (X13)	24 VDC

CHAPTER 6 - MANDATORY FIELD WIRING DIAGRAM



DWG NO	SHEET	REV
7822E011		A

NEXT ASSEMBLY

BEA - Falcon, IS-87, EagleHM

Control Box	BEA	EU or US
AC	1	BN
N	2	GN
DC	3	WH
X6***	4	YE
	5	GY
		RD
		BK
		WH
		GN
		YE

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 assinged 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.

HEATED PULL CORDS

Control Box	Photoeye
DC	SW.
X6**	SW.
AC	HTR.
N	HTR.

Heated Pull-Cord Station

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

REVISION HISTORY					
REV	DESCRIPTION	ECN	DATE	BY	APPROVED
A	UPDATE FALCON	5705	7/25/2008	LIP	

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. 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.

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: RPB — DATE: 7/24/2008
CHECKED BY — DATE
APPROVED BY — DATE
INITIAL ECN: 5288
DATE ISSUED: 3/9/2007
REF

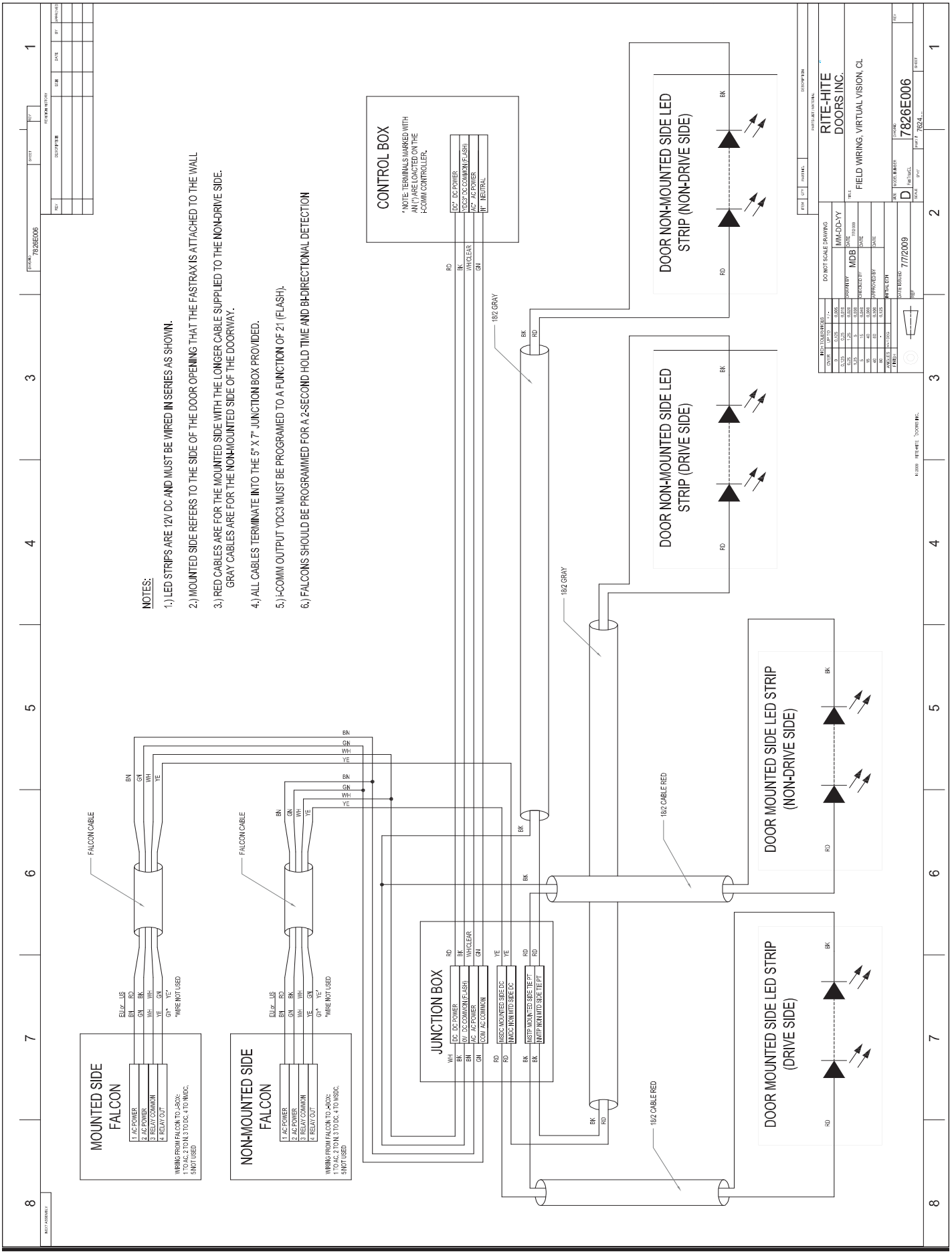
RITE-HITE® DOORS INC.

TITLE
FasTrax SERIES
ACTIVATION WIRING
i-COMM

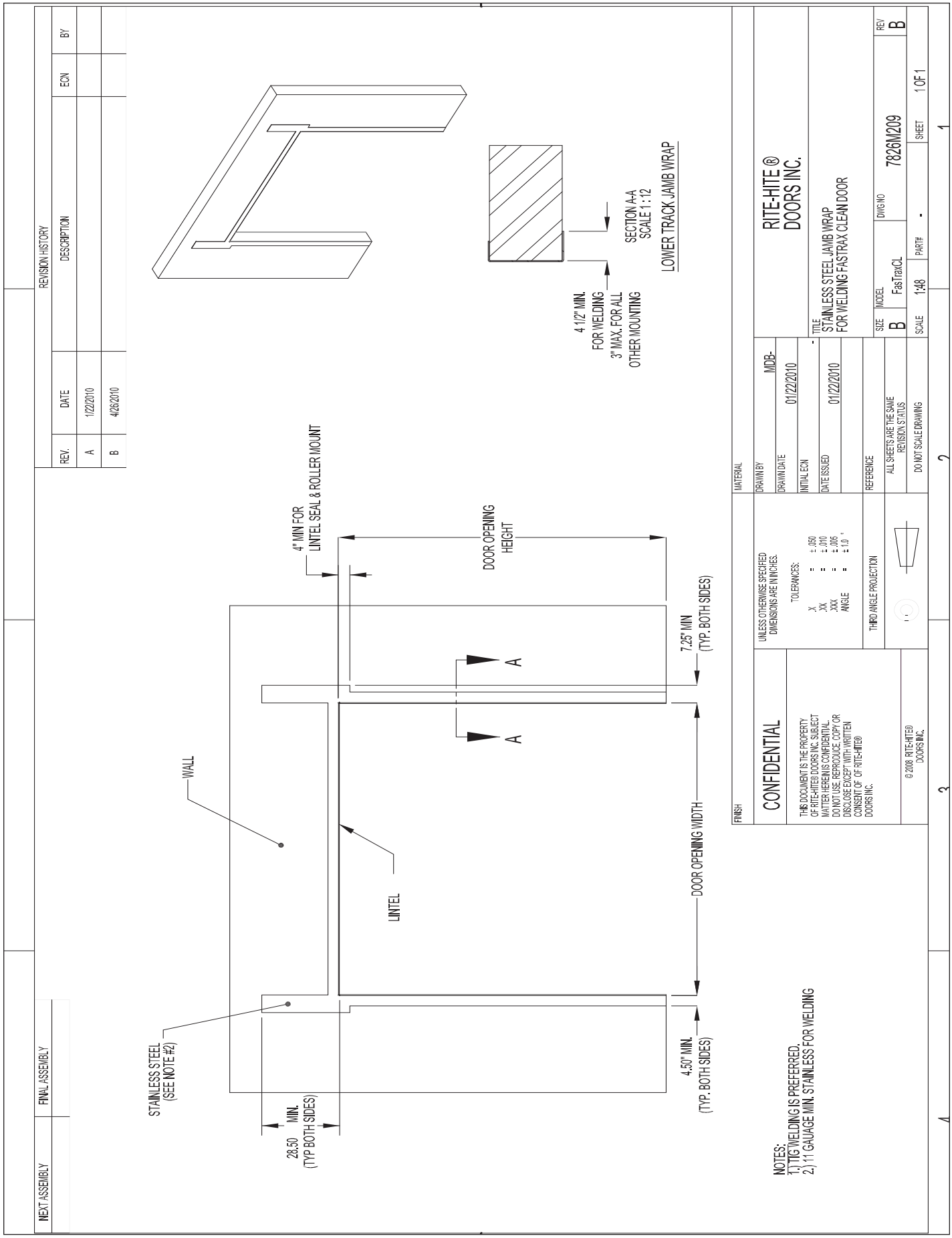
SIZE	MODEL NUMBER	DWG NO	REV
B	FasTrax/FasTrax FR	7822E011	A

SCALE 8"=1' | PART # | SHEET

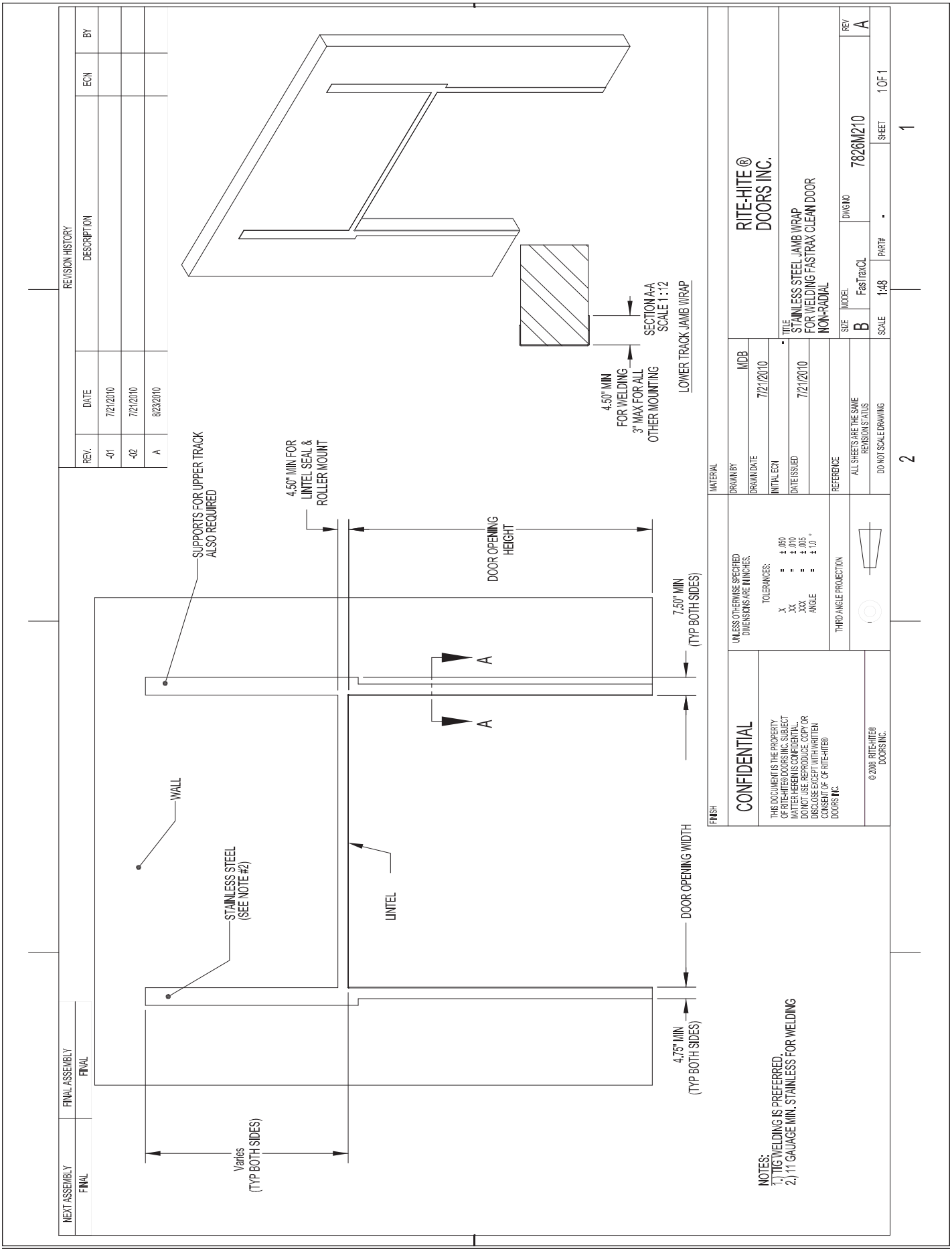
CHAPTER 6 - VIRTUAL VISION WIRING DIAGRAM



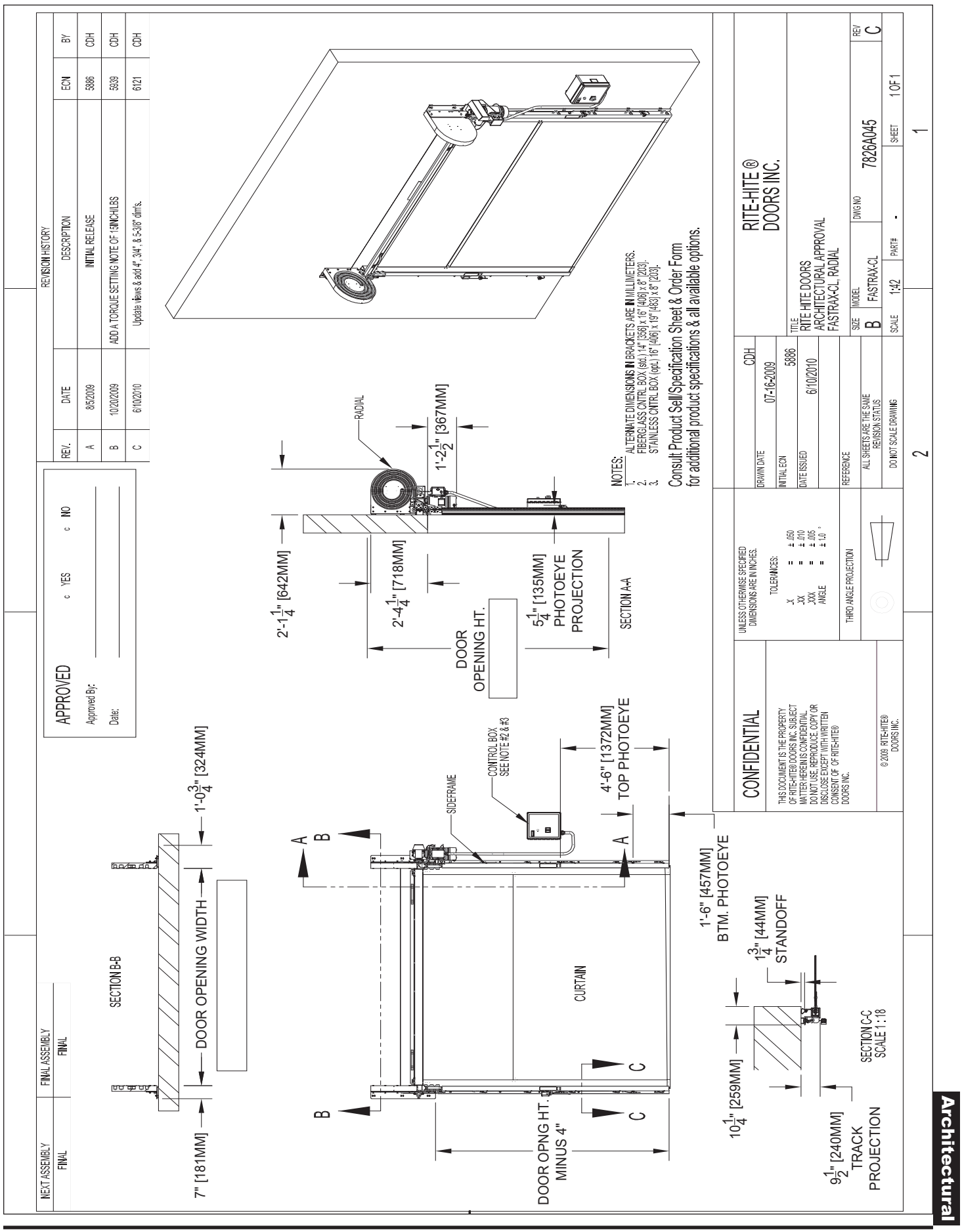
CHAPTER 7 - RADIAL JAMB LAYOUT FOR WELDING



CHAPTER 7 - VERTICAL JAMB LAYOUT FOR WELDING



CHAPTER 7 - ARCHITECTURAL DRAWING RADIAL



CHAPTER 7 - ARCHITECTURAL DRAWING VERTICAL