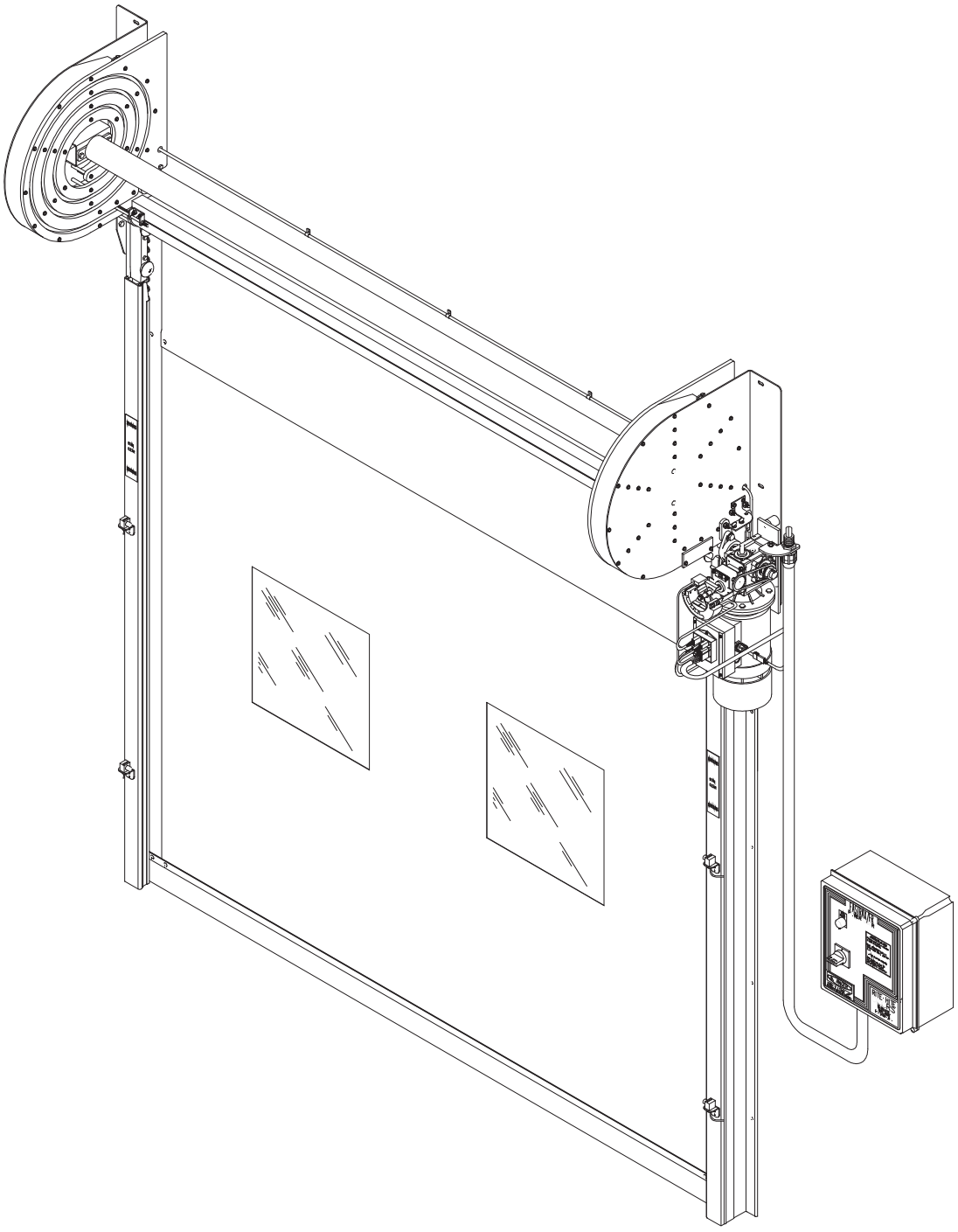
FASTRAX™

HIGH PERFORMANCE MODULAR DOOR



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 with exception of drive system changed on (8/10/09).

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

Publication No. FasTraxE
November 2009

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 FasTrax® door from RITE-HITE DOORS, INC. The TRAX 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. Refer to partslist manual for exploded views and part numbers.

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 side track, ***Figure 28, Page 12.***

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 have been left out of this manual, 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
- No Springs, Pulleys or Weights
- Thermal Air™ System
- Soft-Edge™ Technology
- Virtual Vision
- Adjustable Speeds
- DuraMax Curtain w/Auto Re-feed™
- InsulMax Curtain w/Auto Re-feed™
- High Pressure Capability
- I-Zone™ Area Detection System
- Powder Coated Materials
- Same Platform, with Flexible "You Build It" Track Design

RECOMMENDED SERVICE PARTS

Bumper, Rubber, Motor	15250081 (2)
Fuse, 1 Amp, 250V, Time Delay	51000002 (2)
Fuse, 2 Amp, 250V, Time Delay	51000005 (2)
Kit, Drive Sphere, Qty 10	53700561 (2)
Closed Limit Switch	51950075 (1)
Open Limit Switch	51950076 (1)
Module - Electrical	51950073 (1)
Heater, 1000W, 120V (FR only)	52050018 (1)
Photoeye Receiver	53700703 (1)
Photoeye Source	53700702 (1)
Limit Switch Magnet	55050023 (2)
Sensor, Thermal (FR only)	68900005 (1)

INSTALLATION TOOLS REQUIRED

- 25' [7620] Tape measure
- 6' [1829] Carpenters level
- Scissors Lift
- "C" Clamps
- Drill (cordless or electric)
- Phillips Bit for Drill
- Wire Strippers
- Straight Edge
- Hydro level
- Ladder (6'-8') [1829 - 2438]
- Plumb Bob
- Hammer Drill
- Drill Bits
- Snap Ring Tool
- 5/16" [10] Nut Driver
- Small Straight/Phillips Screwdrivers
- Allen Wrench Set (1/8" [3] & 5/32" [4])
- 7/16" [11],1/2" [13],9/16" [14], 3/4" [19] Socket/wrench

WARRANTY

RITE-HITE DOORS, INC. warrants that its FasTrax door will operate or perform in conformance with the published specifications when subjected to normal, proper and intended usage and be free from defects in material and workmanship for a period of one (1) year from the date of shipment.

RITE-HITE DOORS, INC. warrants that the FasTrax 60 and 100 mil curtain fabric only, shall be free from material defects for a period of five (5) years. The curtain fabric warranty covers material failure under normal wear conditions; it does not cover 27oz material, labor, vision wear, edging or damage incurred from abuse, misuse, impact, accidents or disaster. Vision, fuses, bulbs, seals, power failures or electrical power surges are items, that are not considered to be warranty. All claims for breach of this warranty must be made within thirty (30) days after the defect is or can, with reasonable care, be discovered to be entitled to the benefits of this warranty, the products must have been properly installed, maintained, operated within their rated capacities, and not otherwise abused. Periodic lubrication and adjustment is the sole responsibility of the owner.

This warranty is RITE-HITE DOORS, INC. exclusive warranty. RITE-HITE DOORS, INC. expressly disclaims all implied warranties including the implied warranties of merchantability and fitness. Non-standard RITE-HITE DOORS, INC. warranties, if any, must be specified by RITE-HITE DOORS, INC. in writing.

In the event of any defects covered by this warranty, RITE-HITE DOORS, INC. will remedy such defects by repairing or replacing any defective equipment or parts, bearing all of the costs for parts, labor, and transportation 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. sole obligation with respect to its product shall be to repair or (at our own discretion) replace the product.

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Service: 563-589-2722
Service Fax: 563-589-2737
Representatives in All Major Cities
www.ritehite.com

POLY LUMBER INSTALLATION

⚠ CAUTION !!!

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

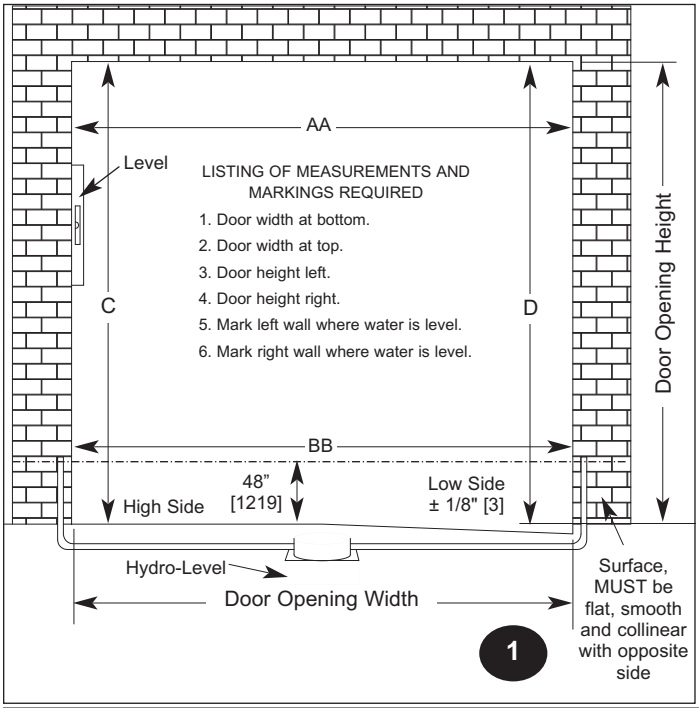
⚠ DANGER !!!

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 [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.
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. Measure the overall width of the door opening near the floor and the header (Dimensions A and B), and the height of the door opening at the left and right-hand sides (Dimensions C and D), ***Figure 1.***



9. Measure the door opening width and place a mark at the center on the floor.
10. Using a 6' [1829] carpenter's level, verify that the door jambs and header are plumb and perpendicular.
11. These dimensions 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.
12. Using a hydro level, determine if the floor is level, ***Figure 1.*** 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.
13. 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 28-35. Always check for electrical prints.***

IMPORTANT!!!

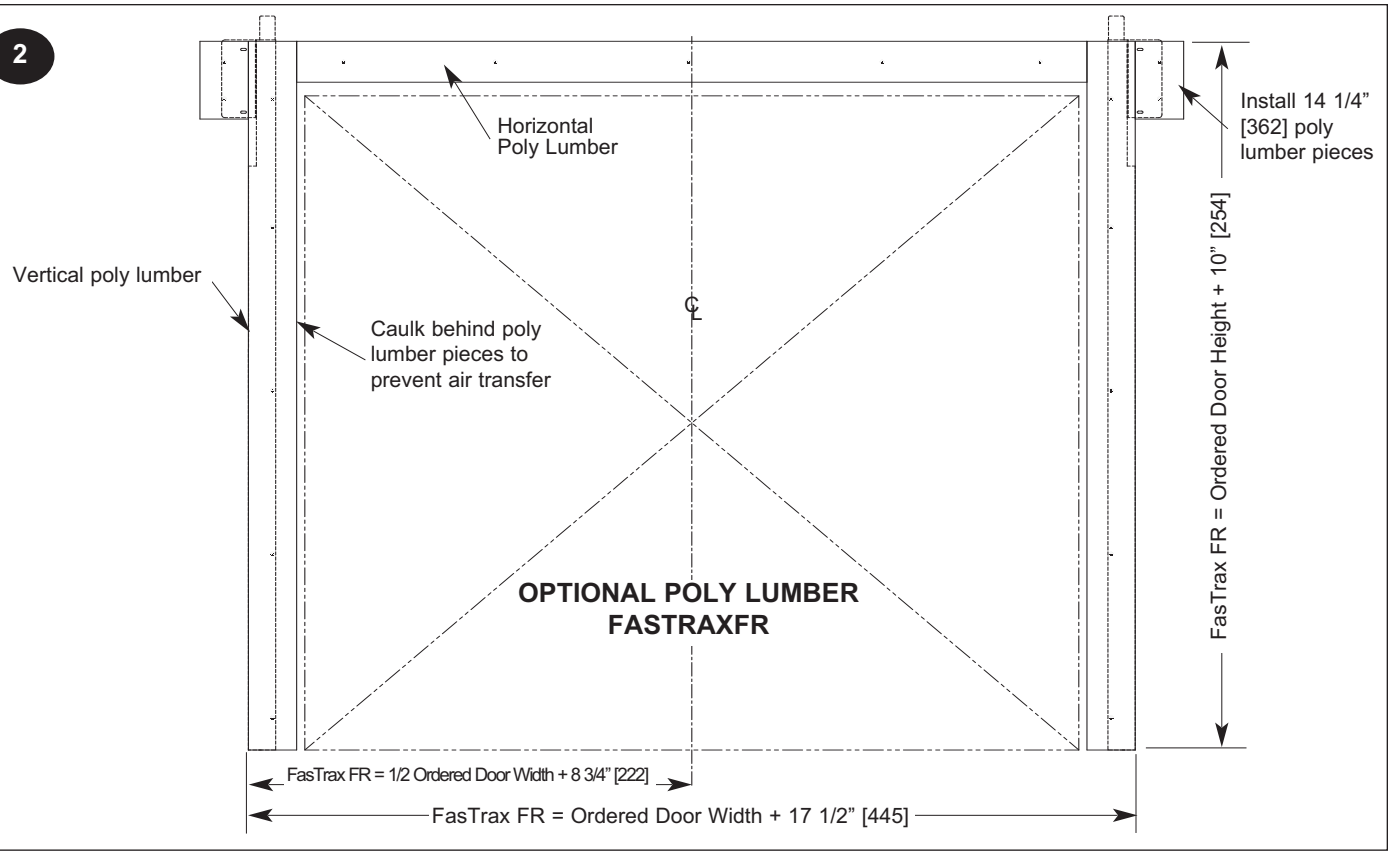
It is imperative that the tracks be mounted at the proper width. If mounted too wide, excess wear is placed on the drive spheres. If too narrow, the curtain may appear wavy or crease in the center.

RECOMMENDED MOUNTING FASTENERS

Wall	Fastener
Wood	Lower Track - 3/8" [10] thru-bolt at top, middle, and bottom. 5/16" x 1-1/2" [8x38] lag screws at all other fastener positions. Upper Track - 5/16" x 1-1/2" [8x38] lag screws at all positions.
Wood /Steel	Lower Track - 3/8" [10] thru-bolt at top, middle, and bottom. 5/16" x 1-1/2" [8x38] lag screws at all other fastener positions. Upper Track - 5/16" x 1-1/2" [8x38] lag screws at all positions.
Wood /Masonry	Lower Track - 3/8" [10] thru-bolt or 3/8" [10] masonry anchor positions.at top, middle, and bottom. 5/16" x 1-1/2" [8x38] lag screws at all other fastener positions.
Steel	1. 3/8" [10] thru-bolt. 2. 3/8" [10] drill and tap (material must be 5/16" [8] min.). 3. 3/8" [10] drive self tap/drill screws (1/4" – 14) [6]. 4. Weld, lower track is aluminum, only weld if steel jamb option is included or provided by others.

POLY LUMBER INSTALLATION

2



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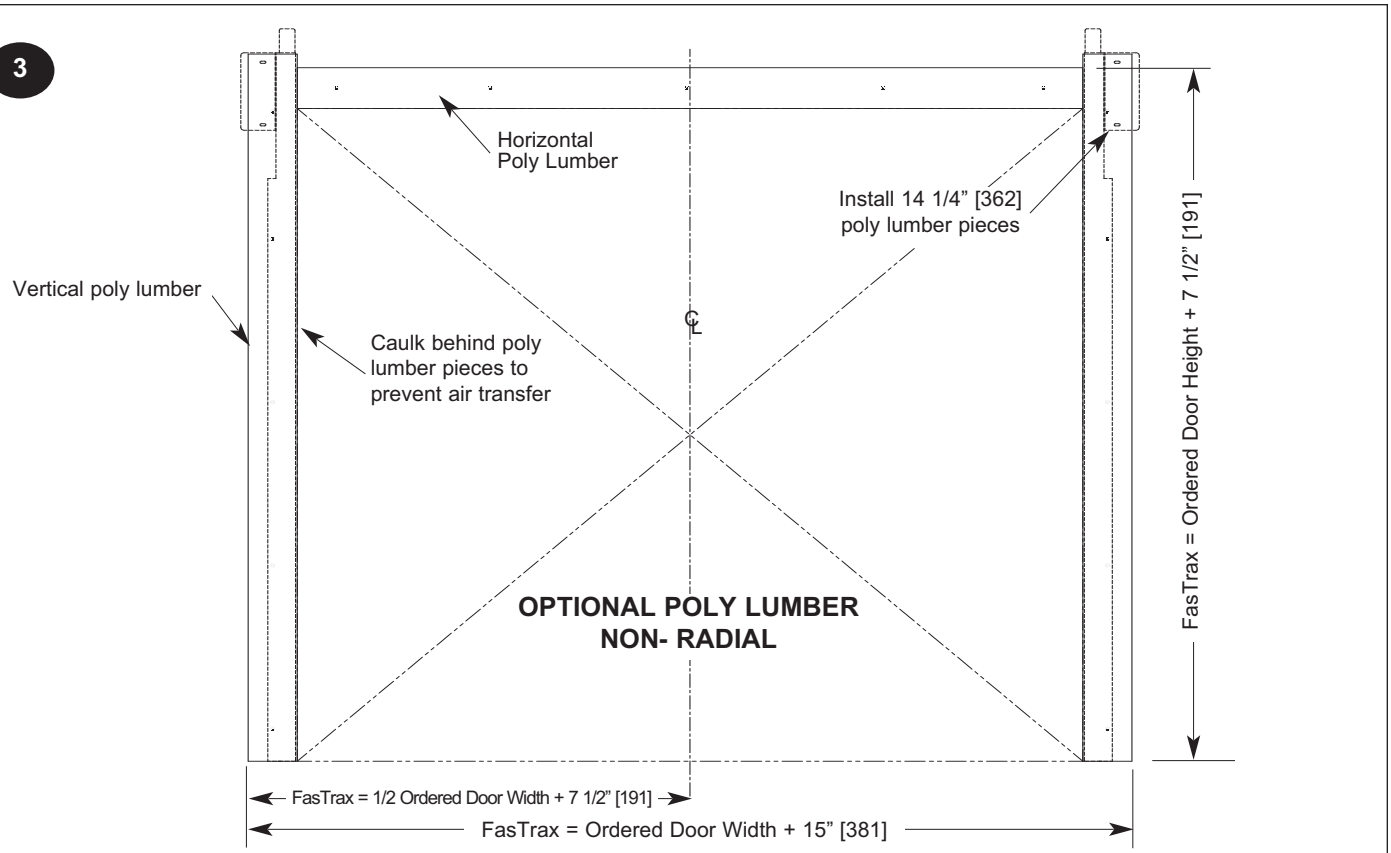
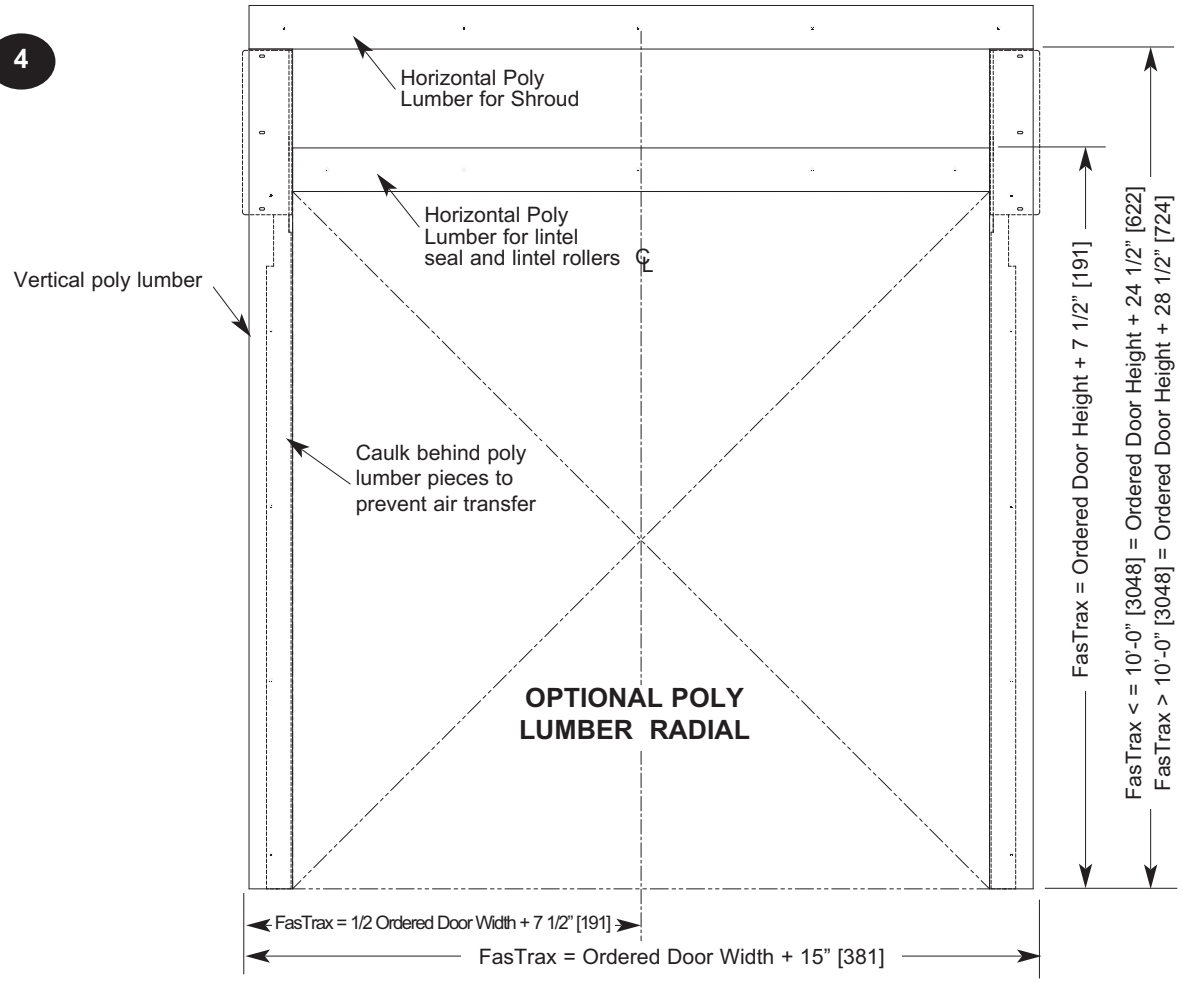


POLY LUMBER INSTALLATION

4



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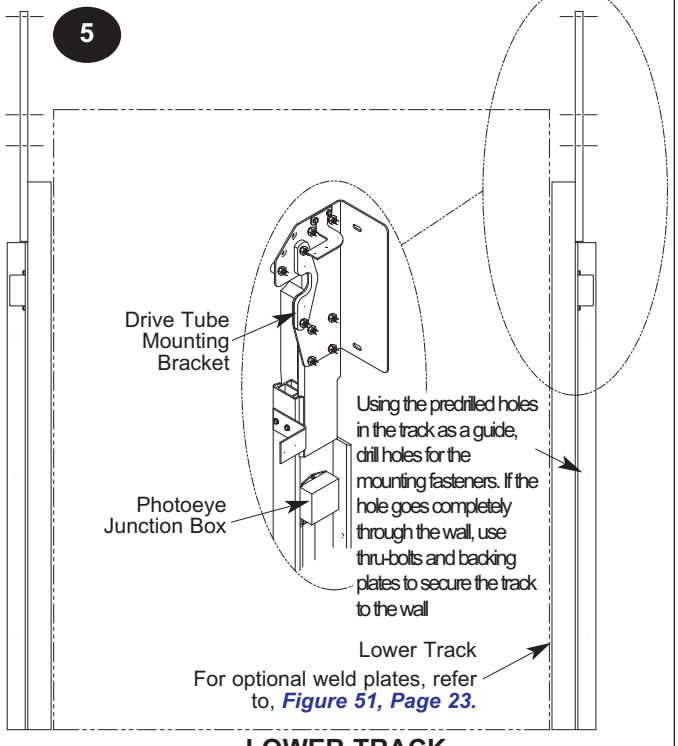
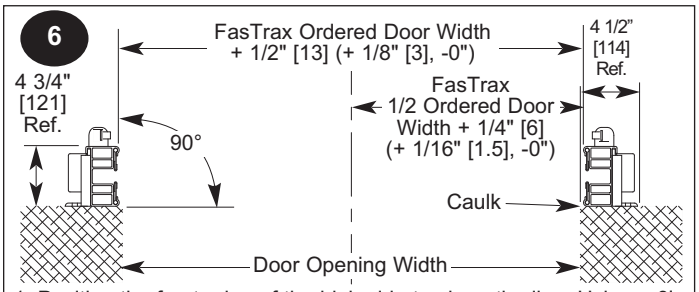


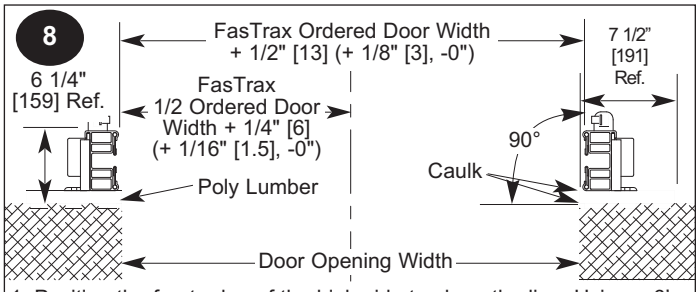
LOWER TRACK

LOWER TRACK INSTALLATION



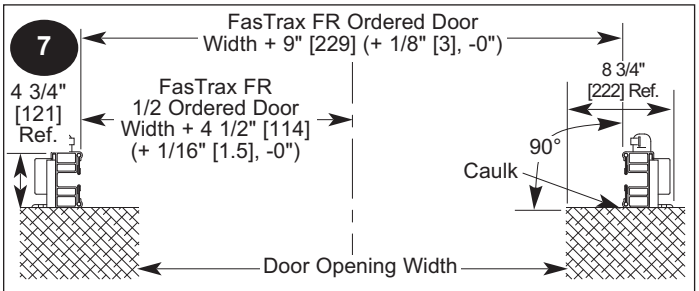
1. Position the front edge of the high side track on the line. Using a 6' [1829] level, make sure that the track is plumb in both directions. Use shims as required to square the track.
2. Repeat process for opposite track.
3. Measure tracks at top and bottom to verify proper width.

LOWER TRACK W/O POLY LUMBER



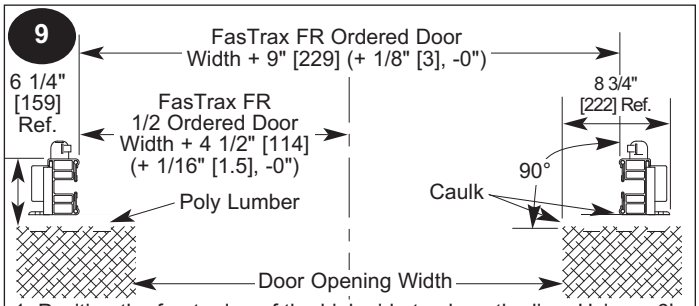
1. Position the front edge of the high side track on the line. Using a 6' [1829] level, make sure that the track is plumb in both directions. Use shims as required to square the track.
2. Repeat process for opposite track.
3. Measure tracks at top and bottom to verify proper width.

LOWER TRACK W/ POLY LUMBER



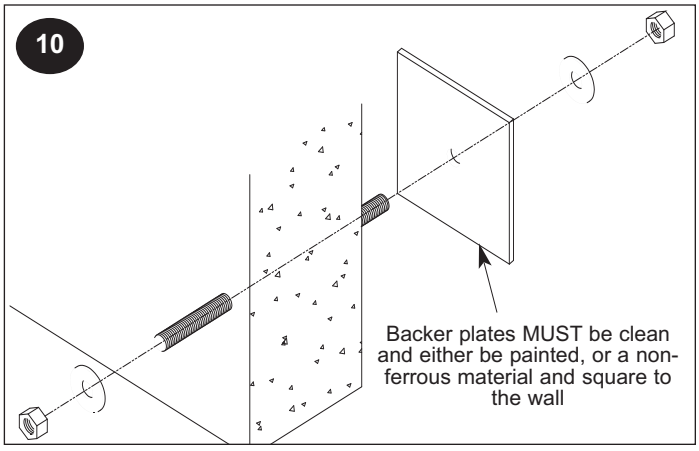
1. Position the front edge of the high side track on the line. Using a 6' [1829] level, make sure that the track is plumb in both directions. Use shims as required to square the track.
2. Repeat process for opposite track.
3. Measure tracks at top and bottom to verify proper width.

FR LOWER TRACK W/O POLY LUMBER

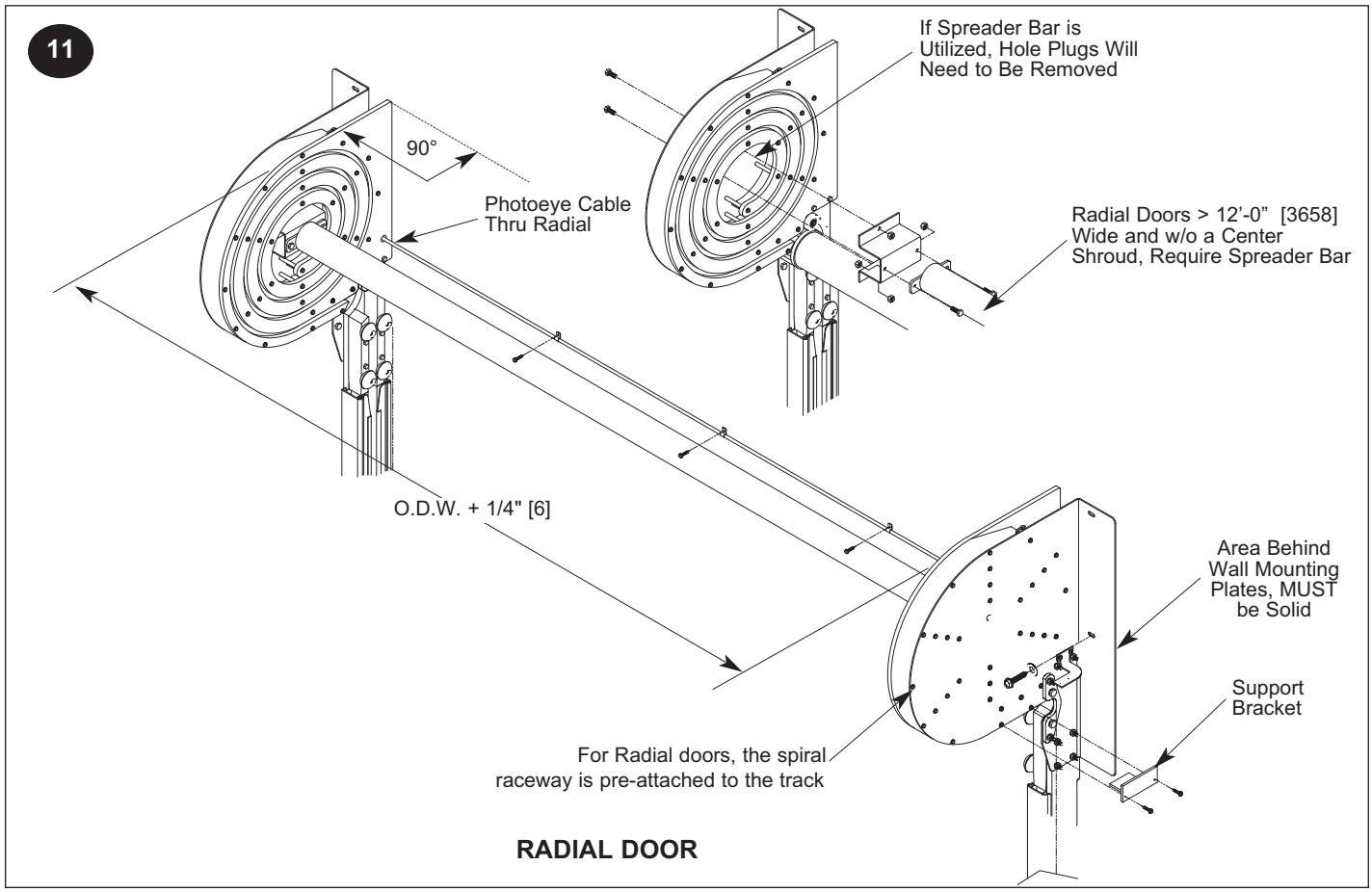


1. Position the front edge of the high side track on the line. Using a 6' [1829] level, make sure that the track is plumb in both directions. Use shims as required to square the track.
2. Repeat process for opposite track.
3. Measure tracks at top and bottom to verify proper width.

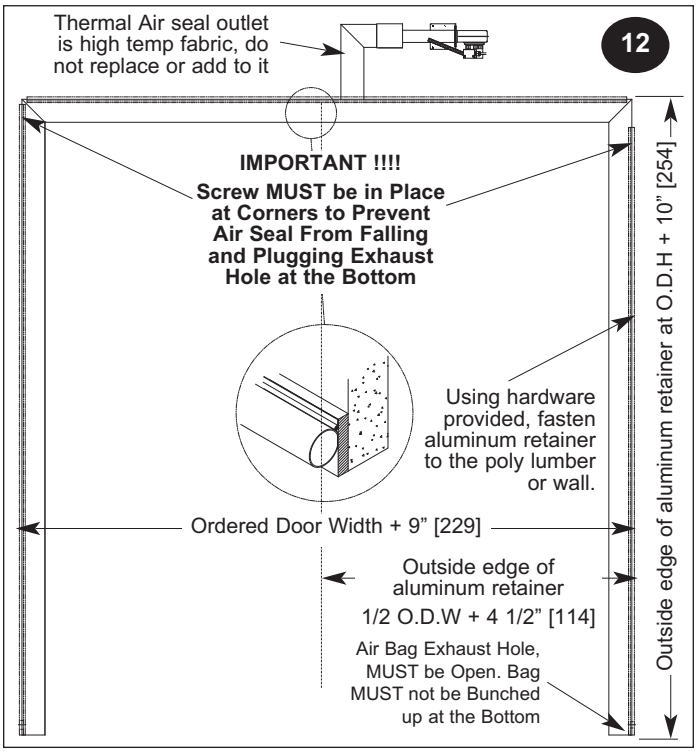
FR LOWER TRACK W/ POLY LUMBER

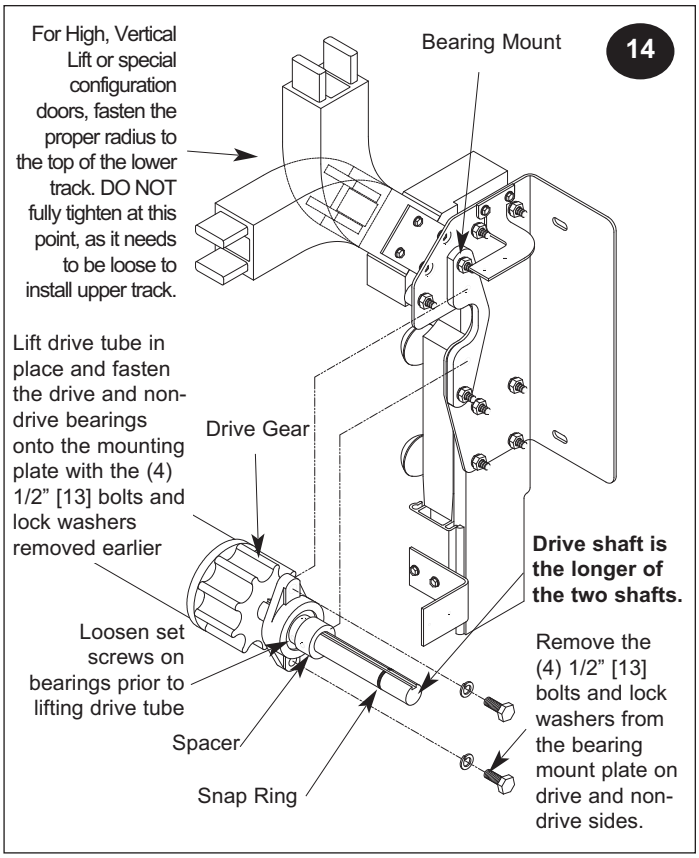


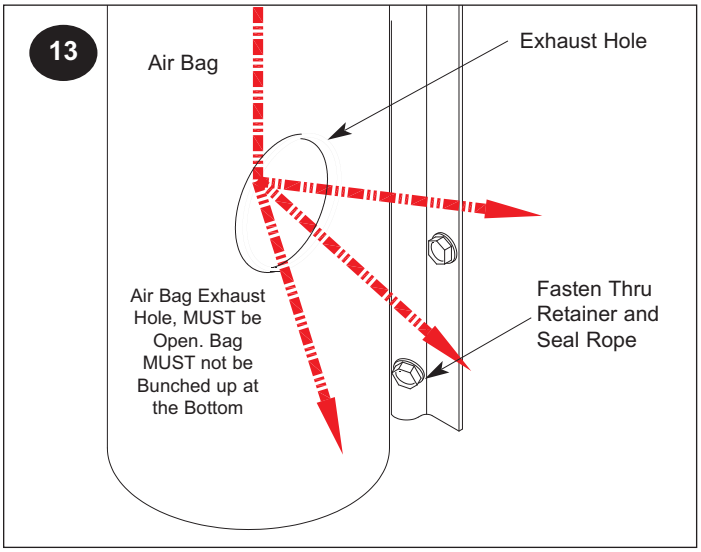
SPREADER BAR INSTALLATION



THERMAL AIR SEAL / DRIVE TUBE INSTALLATION

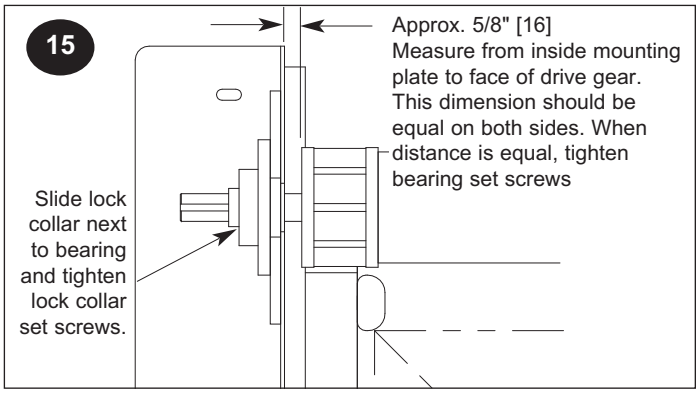




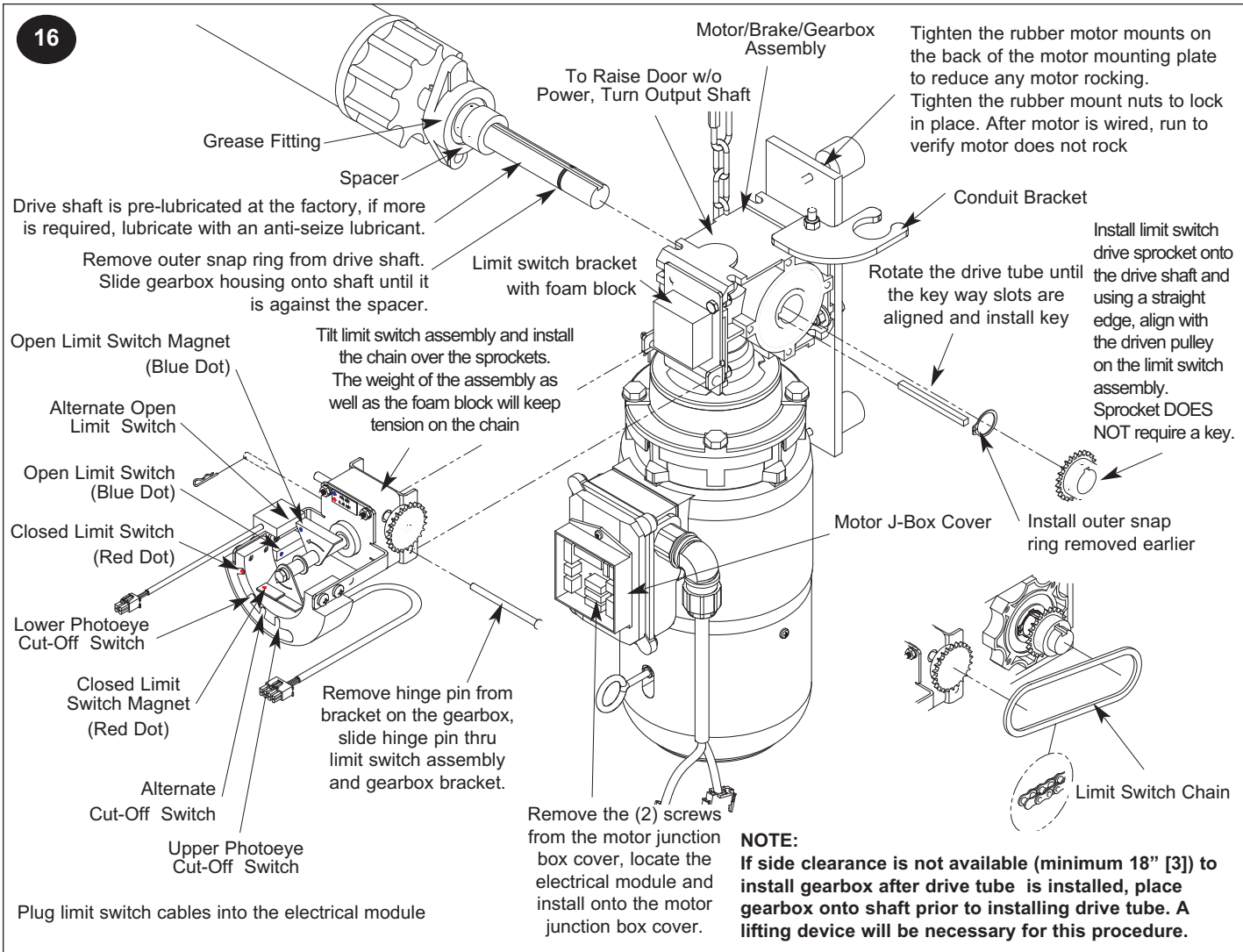


IMPORTANT!!!

By centering the drive tube, the drive gear should be centered directly over lower track drive sphere groove. Failure to do this may result in drive sphere wear or excess noise.

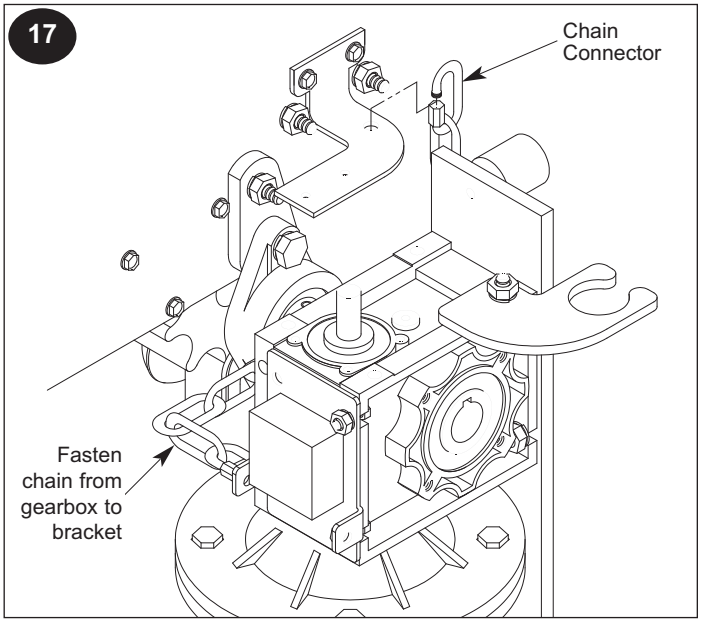


MOTOR / LIMIT SWITCH INSTALLATION



⚠ CAUTION !!!

Make sure snap ring is fully seated in groove.



VERTICAL / 45° TILT - UPPER TRACK INSTALLATION

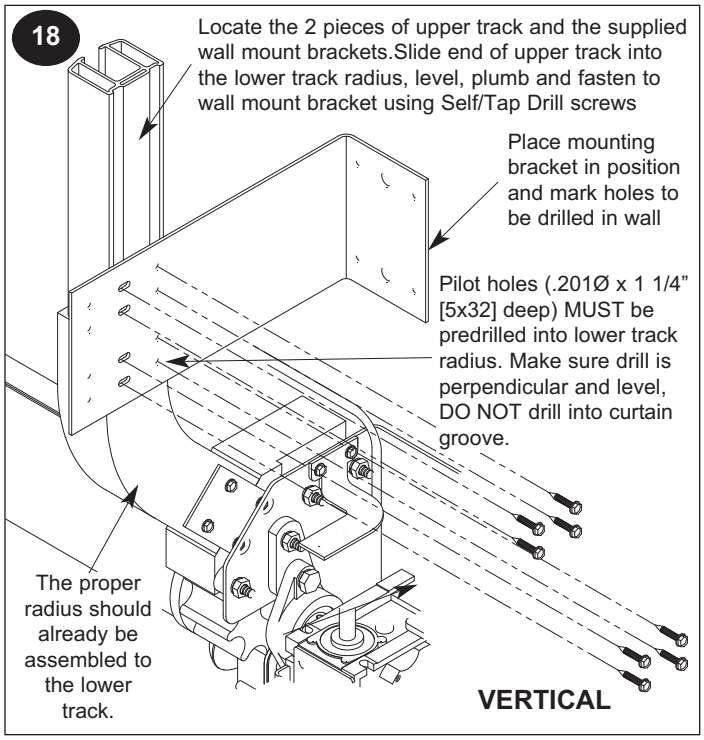
18

Locate the 2 pieces of upper track and the supplied wall mount brackets.Slide end of upper track into the lower track radius, level, plumb and fasten to wall mount bracket using Self/Tap Drill screws

Place mounting bracket in position and mark holes to be drilled in wall

Pilot holes (.201Ø x 1 1/4" [5x32] deep) MUST be predrilled into lower track radius. Make sure drill is perpendicular and level, DO NOT drill into curtain groove.

The proper radius should already be assembled to the lower track.



VERTICAL

19

Fasten mounting brackets to the wall and then the upper track.

11 1/2" [292]

Provide support from track to ceiling. Note, punched angle is supplied, however, one piece is used to provide a brace across the end of the tracks

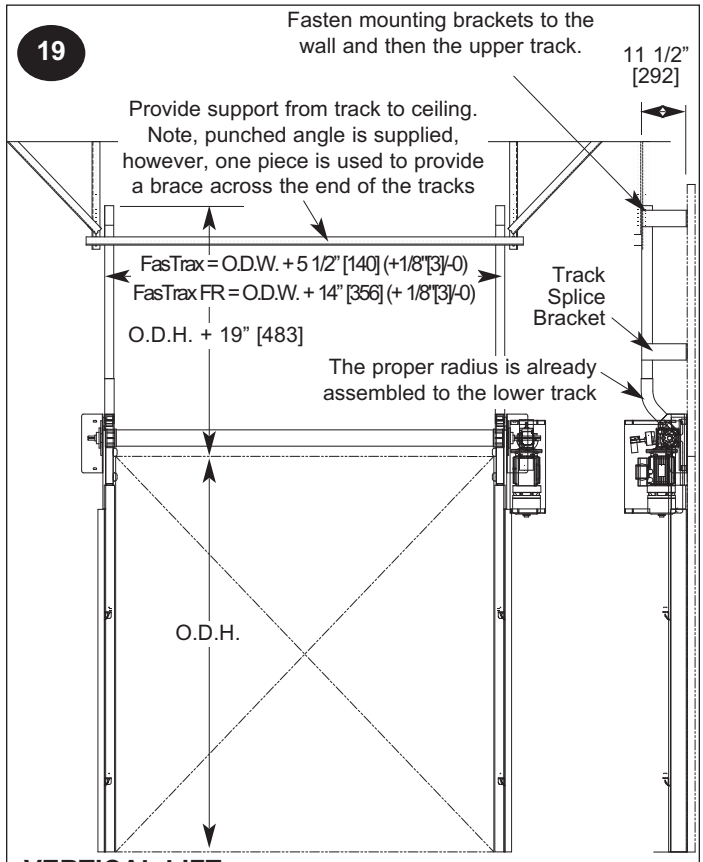
FasTrax = O.D.W. + 5 1/2" [140] (+1/8"[3]/-0)
FasTrax FR = O.D.W. + 14" [356] (+ 1/8"[3]/-0)

O.D.H. + 19" [483]

Track Splice Bracket

The proper radius is already assembled to the lower track

O.D.H.



VERTICAL LIFT

20

Provide support from track to ceiling. Note, punched angle is supplied, however, one piece is used to provide a brace across the end of the tracks

Diagonal bracing will be completed after the curtain is installed and the door is ran to the open position. This is done to allow the curtain fabric to seat and move the track in the most friction free position.

FasTrax = O.D.W. + 5 1/2" [140] (+1/8"[3]/-0)
FasTrax FR = O.D.W. + 14" [356] (+ 1/8"[3]/-0)

O.D.H. + 19" [483]

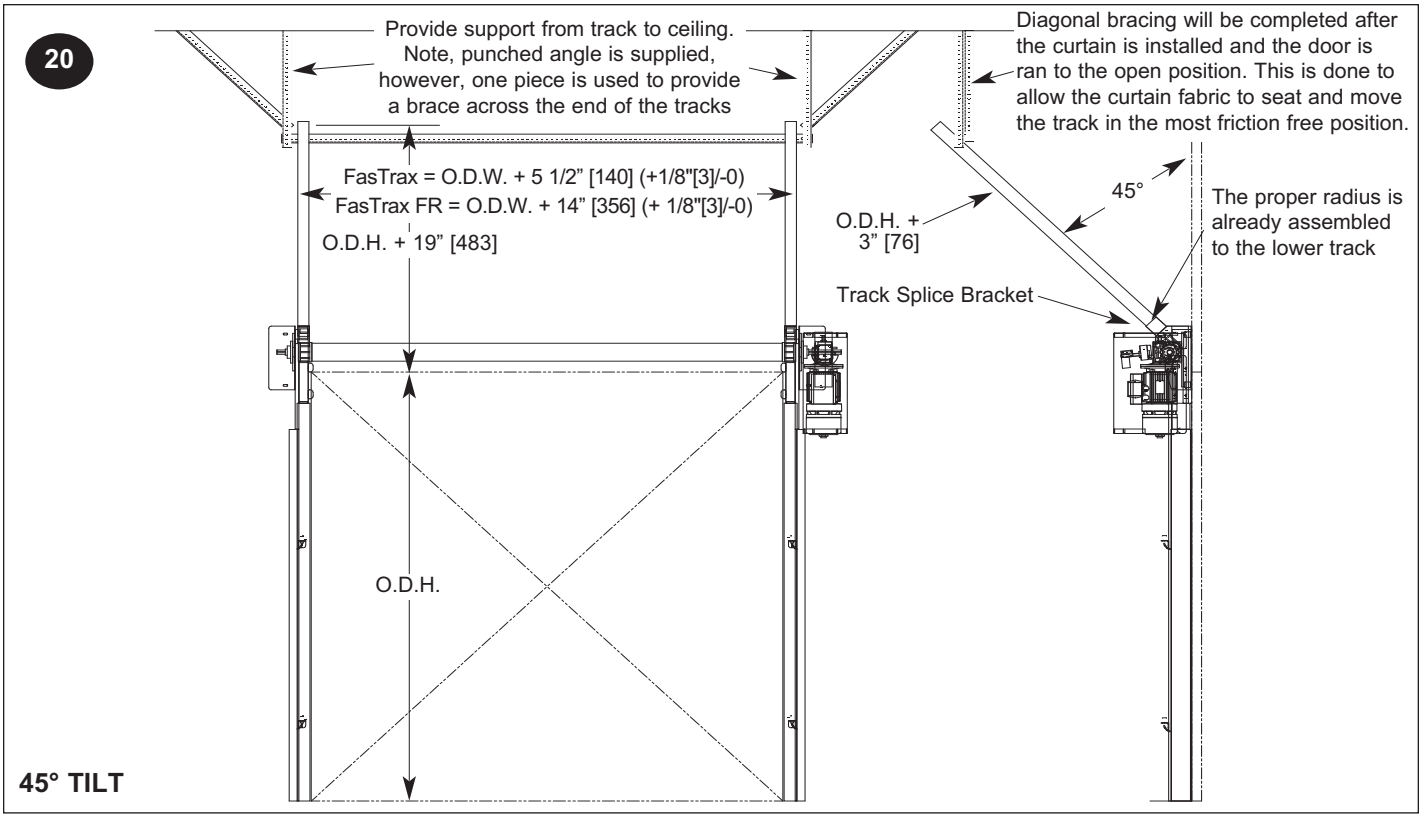
45°

O.D.H. + 3" [76]

The proper radius is already assembled to the lower track

Track Splice Bracket

O.D.H.



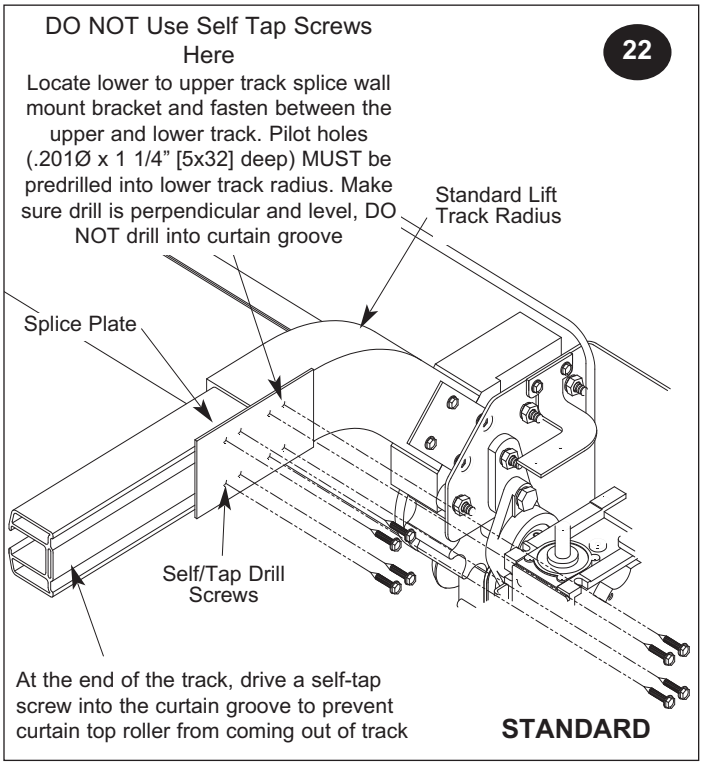
45° TILT

STANDARD / HIGH - UPPER TRACK INSTALLATION

⚠ CAUTION !!!

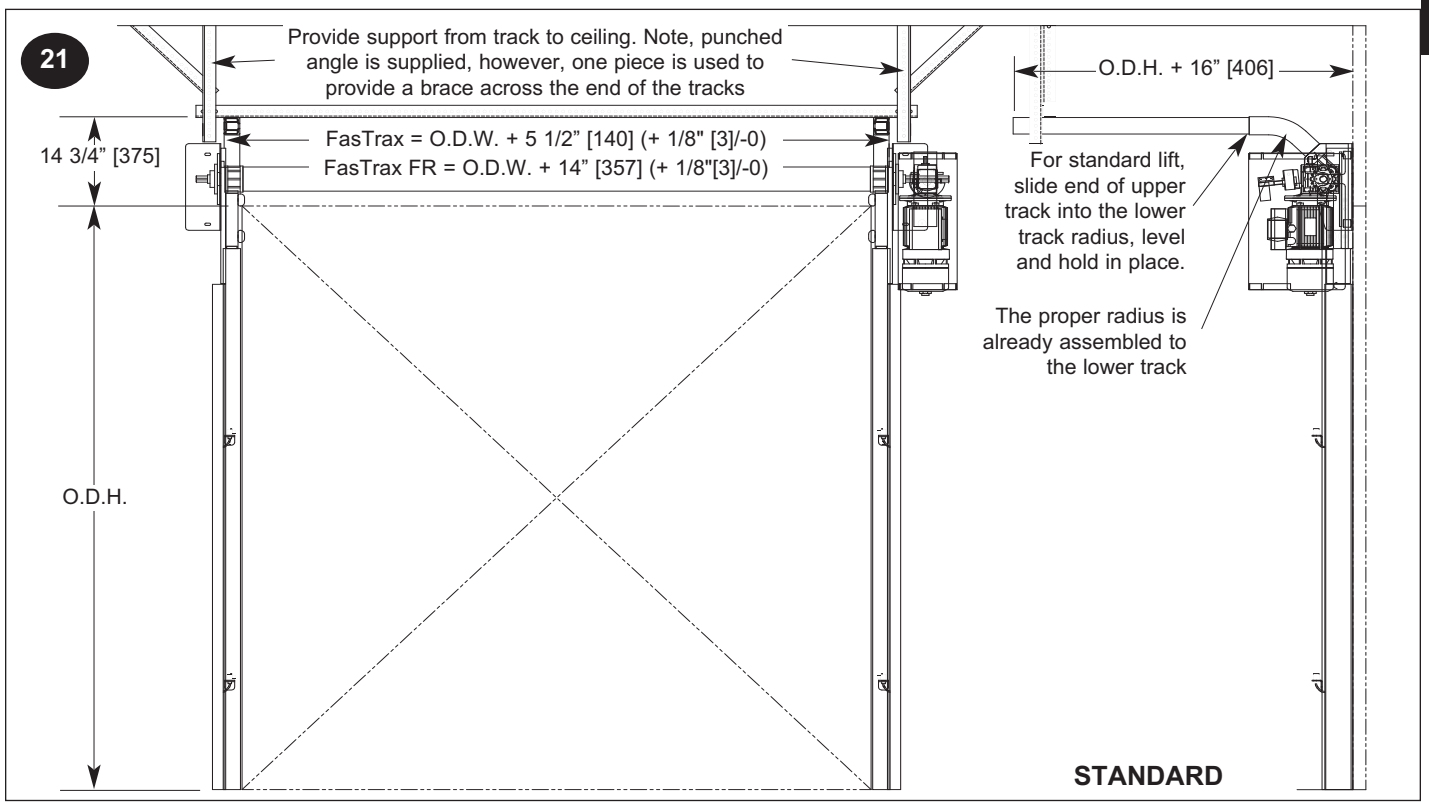
Make sure to place screws so they go into the outer cavities of the upper track and not into the curtain groove. The drill MUST be held perpendicular and level to ensure screw does not go into groove.

22



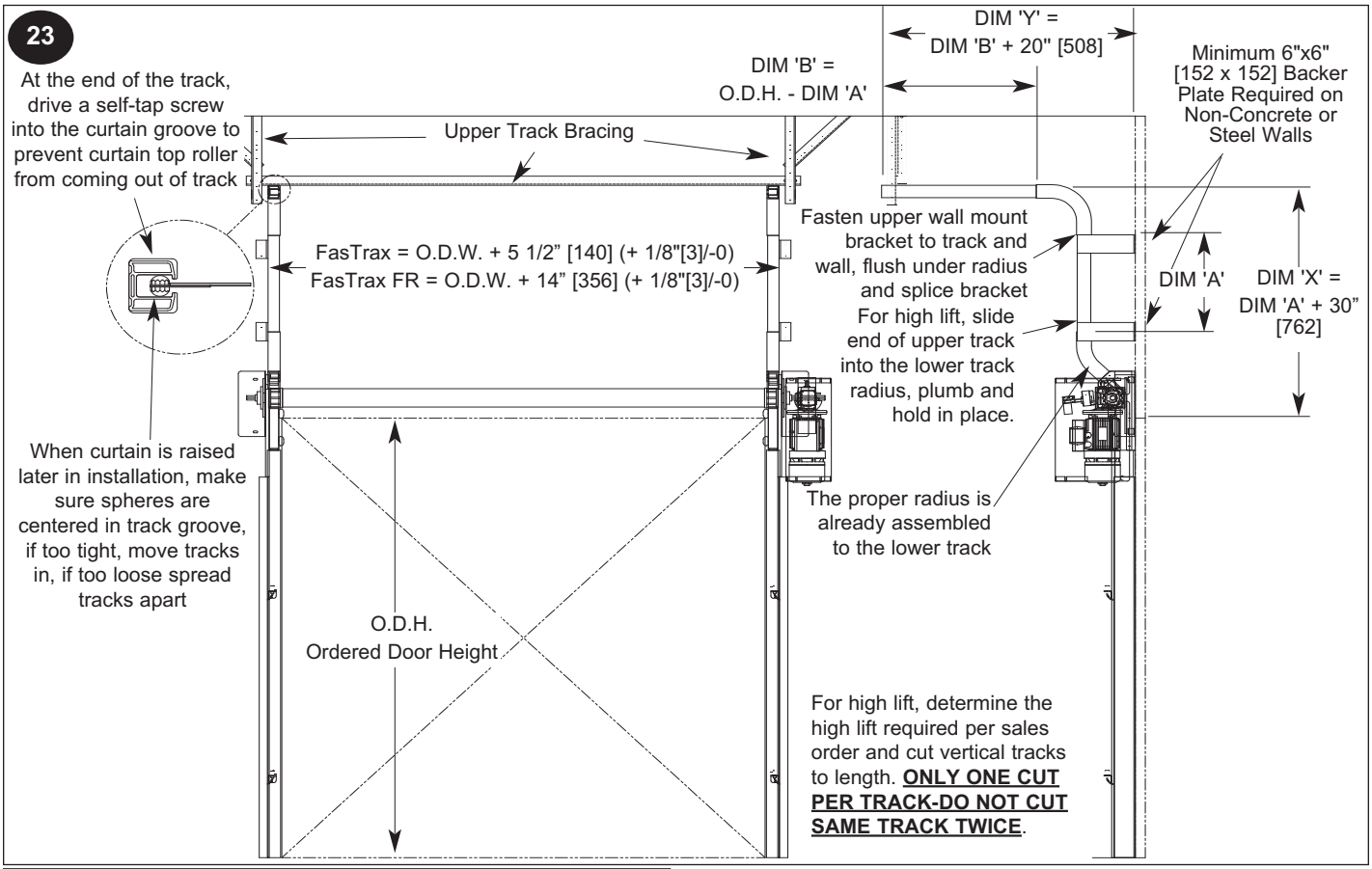
Upper Track

21

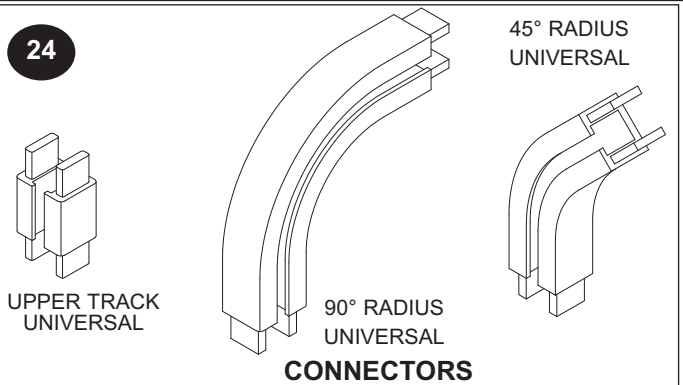


STANDARD / HIGH - UPPER TRACK INSTALLATION

23

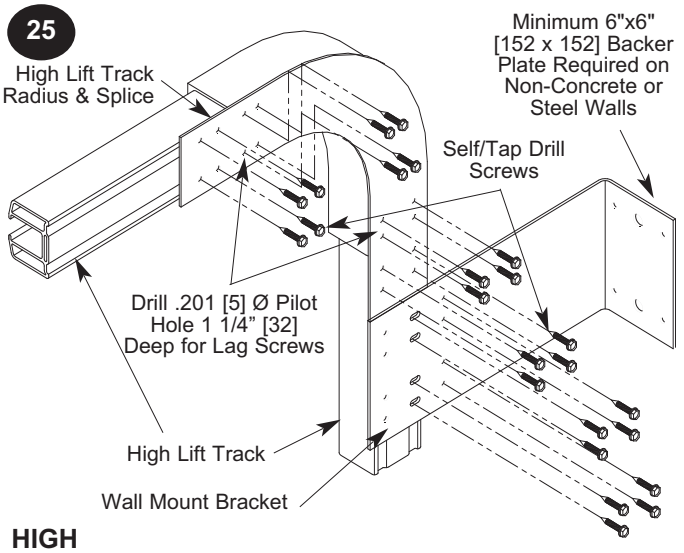


24



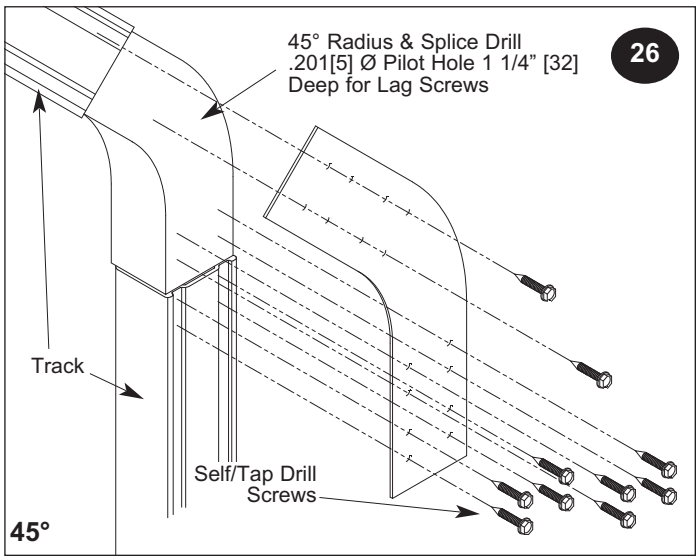
CONNECTORS

25



HIGH

26



45°

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.

⚠ 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!!!

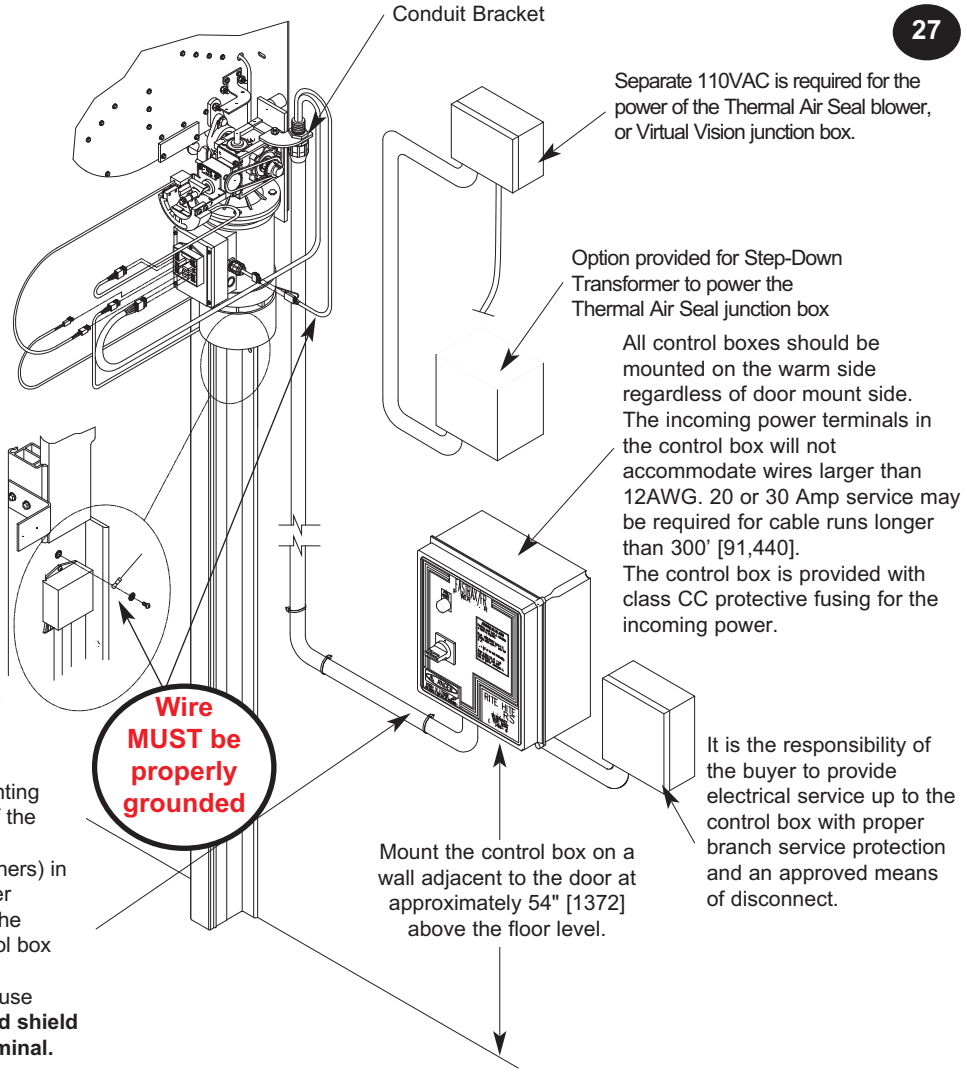
To reduce risk of injury or death, an earth ground connection MUST BE made to the green/yellow control box ground terminal. If metal conduit is used as the ground connector, an N.E.C. approved ground bushing and green/yellow wire MUST BE properly attached to the conduit for connection to the ground terminal.

NOTE:

Make sure to route the cable so that it does not interfere with the installation of the motor shroud. If the flexible conduit is too long for the installation, cut the protective outer casing and leave 16" to 20" [406 - 508] of wires. Do not connect the conduit to the fitting on the control box until correct conduit and wire length is achieved.
Local electrical codes may require the use of rigid conduit, rather than flexible conduit. If required, remove the control cables from the furnished flexible conduit, install the rigid conduit in its place and rewire. Make sure to remove and replace the conduit connector in the bottom of the control box.

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 28-35.*** Always check parts or control box for prints.

Run the control cable from the conduit mounting bracket to the conduit fitting in the bottom of the control box.
Drill a hole for the power supply cable (by others) in the bottom of the control box using the proper connection to maintain the NEMA rating on the enclosure. All holes drilled through the control box must be through the bottom of the box.
Incoming 3-phase power must connect into fuse holder terminals F1, F2, and F3. **Ground and shield wires must attach to the green/yellow terminal.**



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

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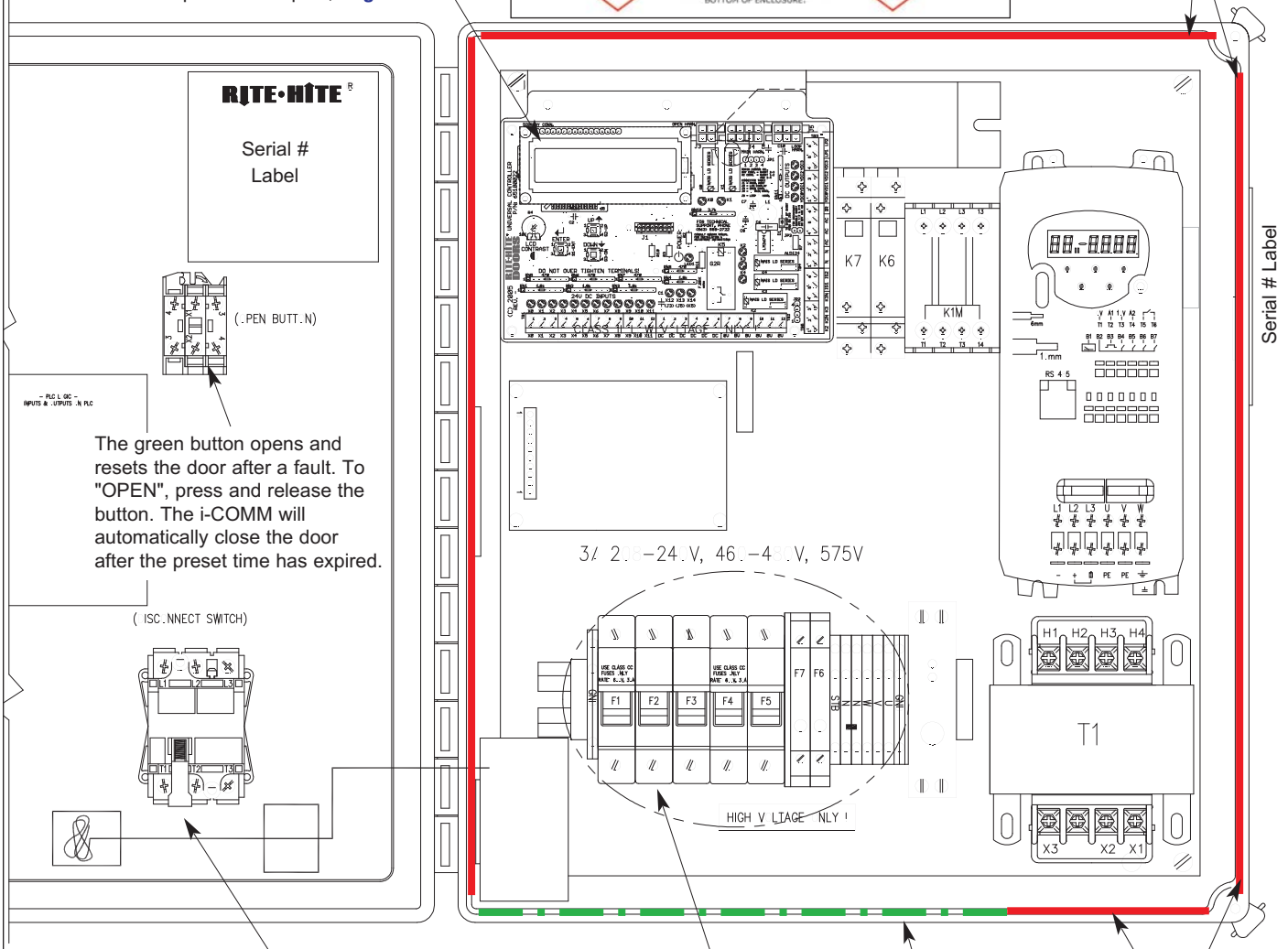
The i-COMM is used to control all functions of the door.

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

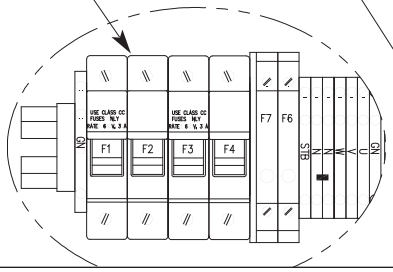
Remove labels after installation is complete

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.

Incoming Power Terminals F1, F2



Incoming Power Terminals F1, F2, F3

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

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

i-COMM LOGIC CHART

RITE-HITE® DOORS

FasTrax™ Series
i-COMM™ LOGIC TABLE

29

NAME	Func.	INPUT FUNCTION	STATE TABLE * O	C	Ro	Rc	COMMENTS
X0		Open Limit Switch	1	Ø	Ø	Ø	On when door opened.
X1		Close Limit Switch	Ø	1	Ø	Ø	On when door closed.
X2		Torque Reverse	1	1	1	1	Off to reverse door.
X3	2 ___	Activation Command - Open (4)	X	X	X	X	On to open door (4)
X4		Approach Open	X	X	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	X	X	X	X	Off to reverse & hold open (3)
X9		I-Zone™ Sensor #2	X	X	X	X	Off to reverse & hold open (3)
X10		Photoeye - Reverse Door	X	X	X	X	Off when photoeye blocked
X11		Photoeye - Reverse Door	X	X	X	X	Off when photoeye 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		Fault Input	1	1	1	1	Must be on for door to run

NAME	Func.	OUTPUT FUNCTION	STATE TABLE * O	C	Ro	Rc	COMMENTS
K0		VFD signal: On to run open	Ø	Ø	1	Ø	On when door is opening
K1		VFD signal: On to close & fast open	Ø	Ø	1	1	On when door is closing & fast open
K2	20___	Door Closing Ouput	Ø	Ø	Ø	1	On when door is closing
K3	Ø ___	User Out (Interlock) (4)	Ø	1	Ø	Ø	User selectable output (4)
K4		Fault Relay Output	1	1	1	1	On when not in fault
K5		Fault Relay Return	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		Photoeye Emitter Common	X	Ø	Ø	1	On to turn on photoeye emitters
YDC3	20___	User Out (4)	X	X	X	X	User selectable output (4)
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.
(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.

53850521-1

INVERTER PROGRAMMING

FasTrax™ Inverter Program Instructions

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.

"WARNING: Consult factory before changing any parameters not listed in this table."

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**	**%**

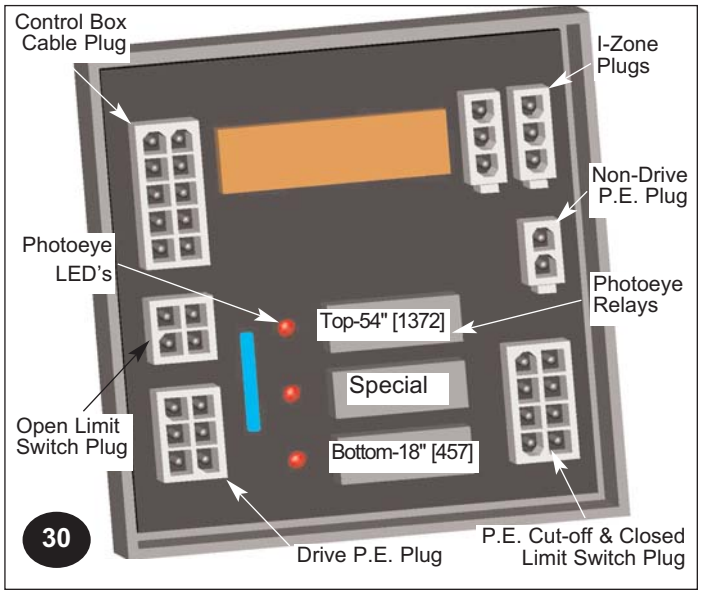
FasTrax - Status Modes

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

INVERTER ERROR CODES

FasTrax - 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 imbalance or input phase loss	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 HF 06 trip HF 07 trip HF 08 trip HF 11 trip HF 20 trip HF 21 trip HF 22 trip HF 25 trip HF 26 trip HF 27 trip HF 28 trip		No signal from DSP at start up Unexpected Interrupt Watchdog failure Interrupt crash (code overrun) Access to the EEPROM failed Power stage - code error Power stage - unrecognized frame size OI failure at power up DSP Communications failure Soft start relay failed to close, or soft start monitor failed or braking IGBT short circuit at power up Power stage thermistor fault DSp software overrun
HF xx trip		HF 1-4, 9-10,12-19,23,24,29,30 Are not used

CURTAIN INSTALLATION



IMPORTANT!!!

If motor rocks excessively, tighten bumpers.

DRIVE TUBE PHASING

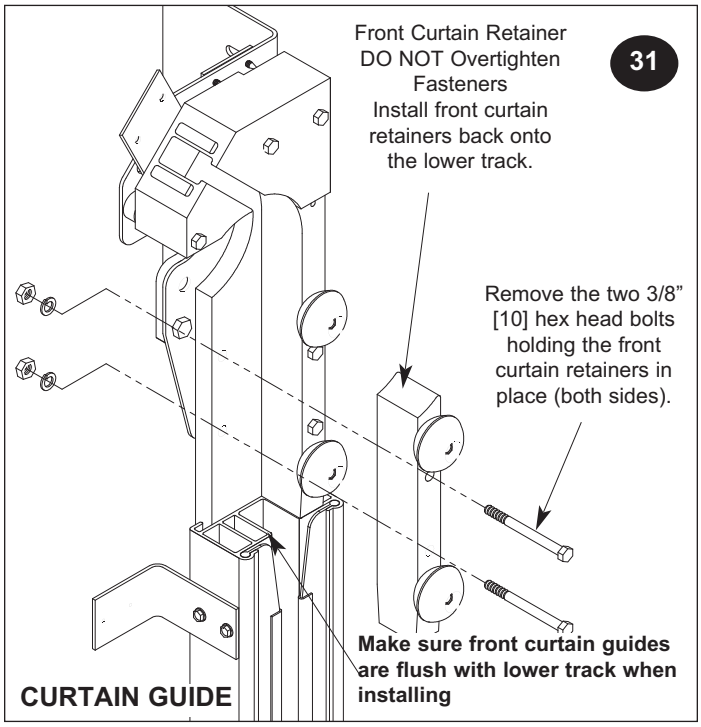
1. With control box installed, turn disconnect to "ON".
2. When pressing the "OPEN" button, the drive tube should rotate counter-clockwise on right hand drive door and clockwise on left hand drive door. (The back of the tube should be turning toward the ceiling.)
3. If the drive tube rotates in the opposite direction, switch wires in motor terminals U & V.

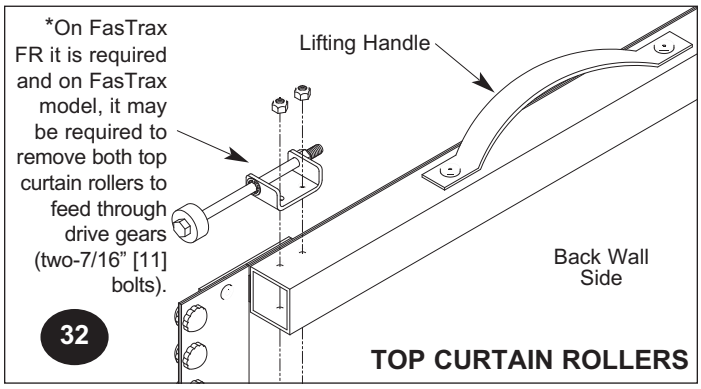
CURTAIN INSTALLATION (Determine phase first)

1. Place curtain in front of the opening.
2. Disengage brake by tightening the handle on the brake.
4. Using a lift, raise curtain and feed top drive sphere around the back side of the drive gear and into the radius and/or track, ***Figure 33.***
5. Rotate drive tube to drive curtain through the drive gears.
6. Loosen brake release handle and secure to clip.

⚠ WARNING!!!

The curtain may close very quickly if the brake is fully released. Releasing the brake partially will allow the door to close smoothly. Failure to restrict the curtain speed, can result in damage to product or injury to personnel.

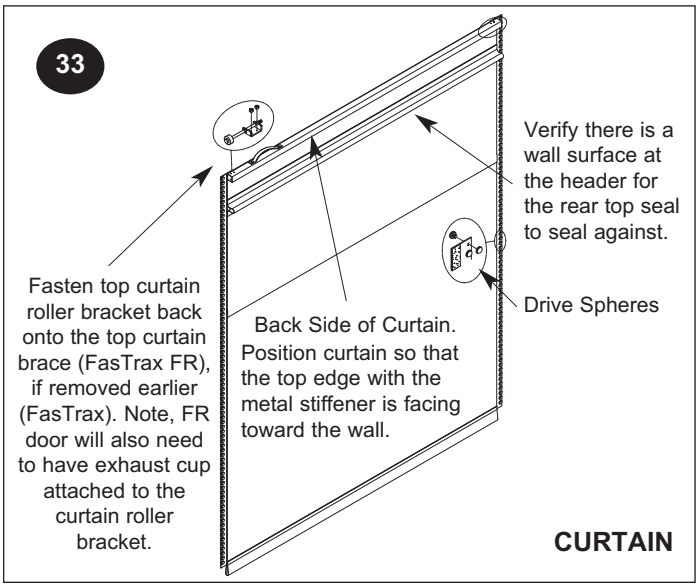


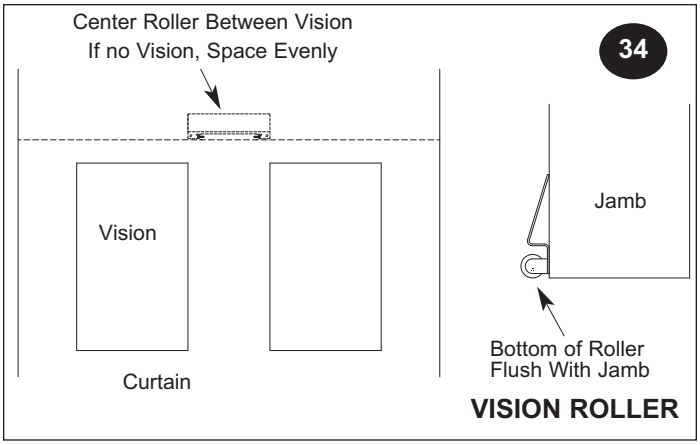


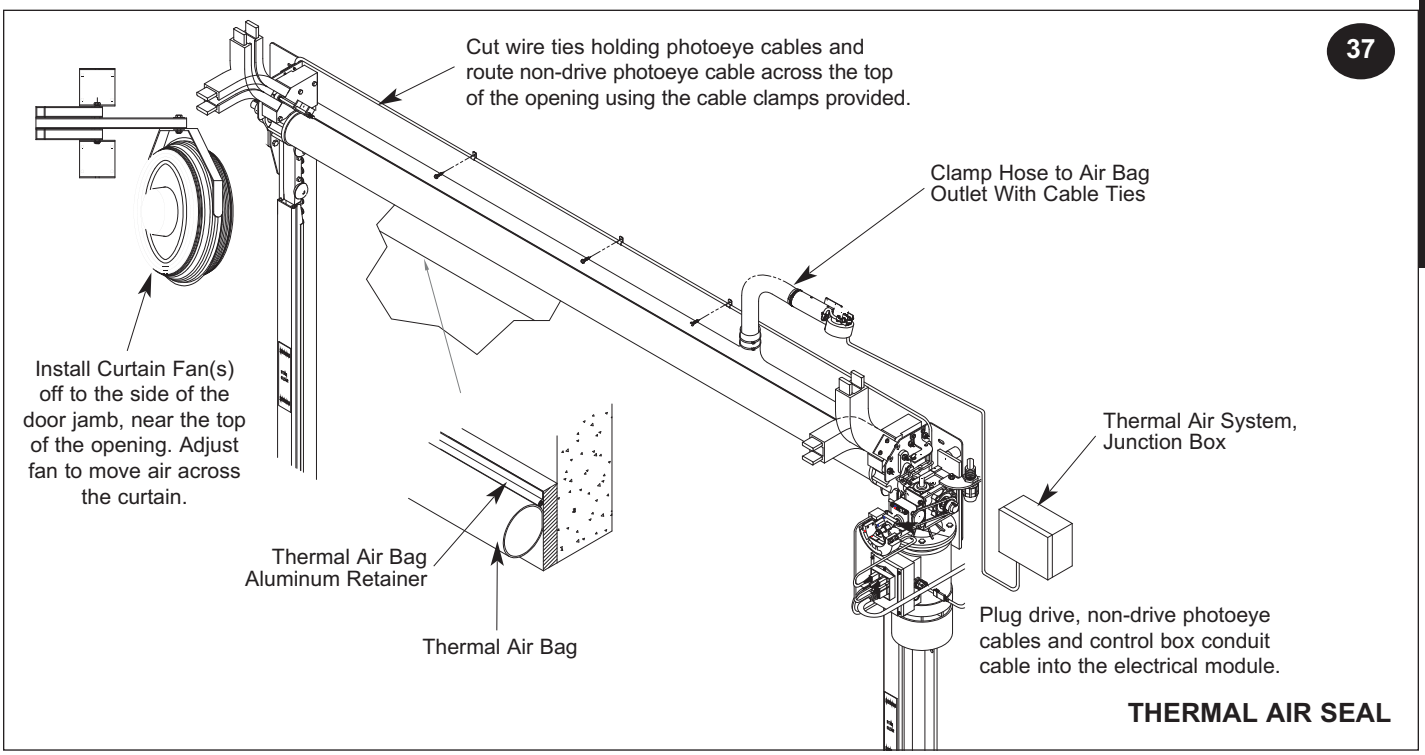
IMPORTANT!!!

***Top curtain roller bracket should be positioned such that the roller shaft is toward the curtain and away from the wall.**

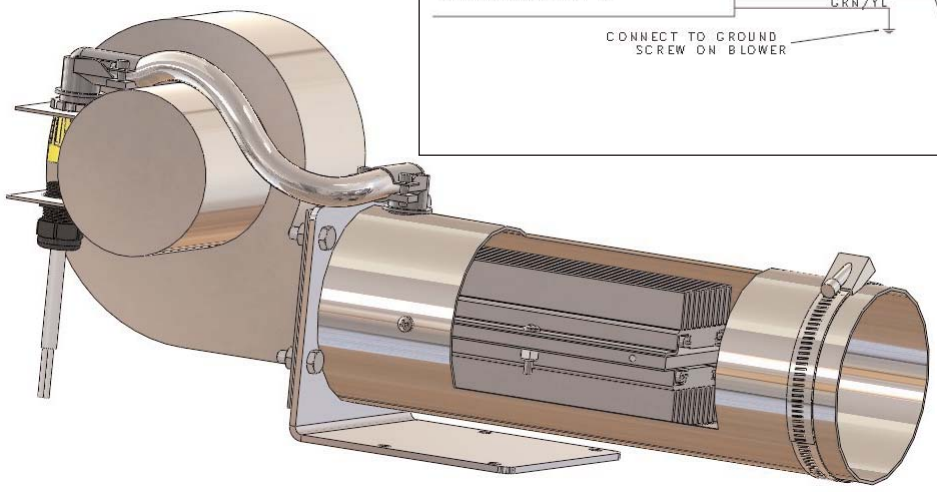
CURTAIN INSTALLATION







THERMAL AIR SYSTEM



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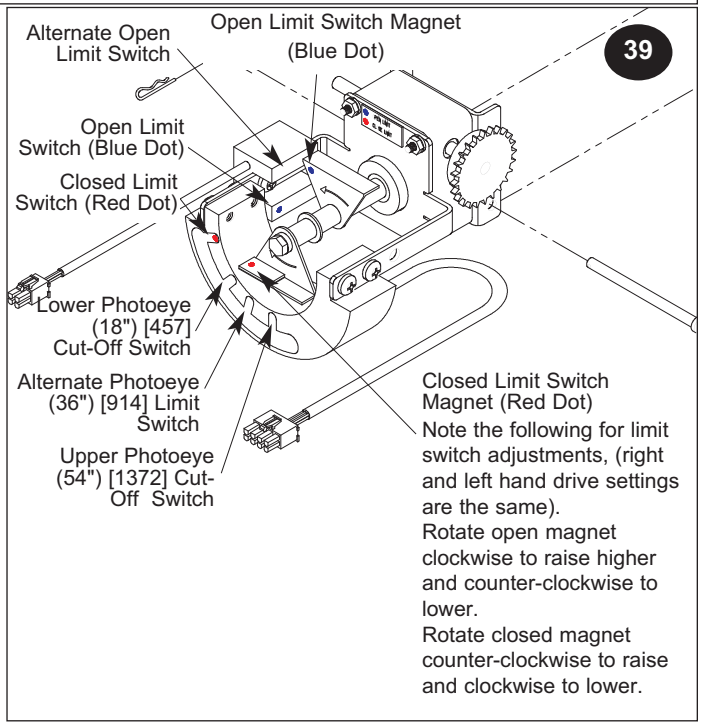
1. Fasten blower to the air bag and to the wall.
2. Fasten Thermal Air System junction box to the wall and wire blower.
3. The Thermal Air seal outlet is high temp fabric, do not replace or add to it

THERMAL AIR SEAL BLOWER INSTALL

OPERATE DOOR

1. With curtain partially fed into the tracks, press the "OPEN" button, when the door is at or near the open position, stop and turn power off to the door and set the open limit switch by rotating the open magnet arm until it lines up with the open proximity switch. (XO i-COMM input should illuminate)
2. If the curtain travels past the jamb and/or out of the drive gears, the brake handle will need to be tightened to release the brake. Lower the curtain to the desired open position, making sure curtain drive spheres are fed equally level through the gears.
3. Loosen brake handle to engage brake.
4. With power on, turn open magnet arm until it lines up with the open proximity switch (X0 i-COMM input should illuminate).
5. Press the green "OPEN" button, the door should travel close. ** Use caution not to close door to far, the black edging should not impact the floor.
6. Stop and turn power off to the door when the curtain is at or near the closed position. Rotate the closed magnet arm until it lines up with the proximity switch. (X1 i-COMM input should illuminate) Turn power on.
7. Press the "OPEN" button and verify open limit is set properly.
8. Allow door to auto-reclose and verify closed limit is properly set.

NOTE: Each 1/2" [13] of travel on the limit switch magnets is equal to approximately 12" [305] of curtain travel.



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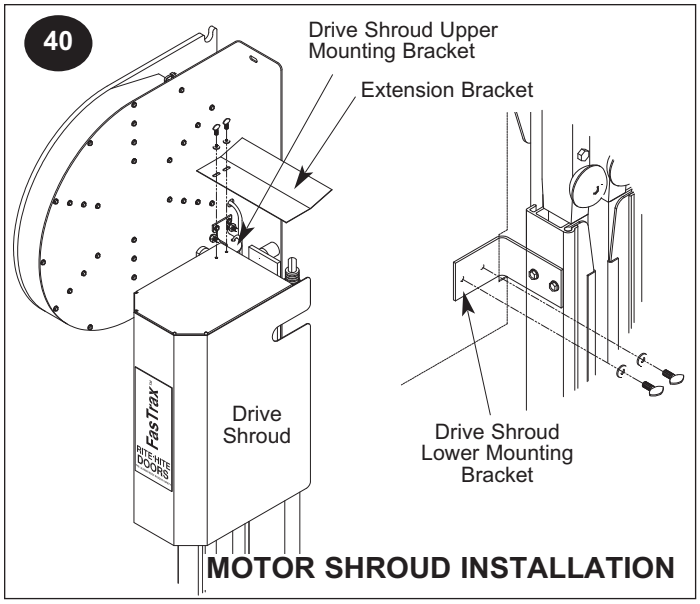
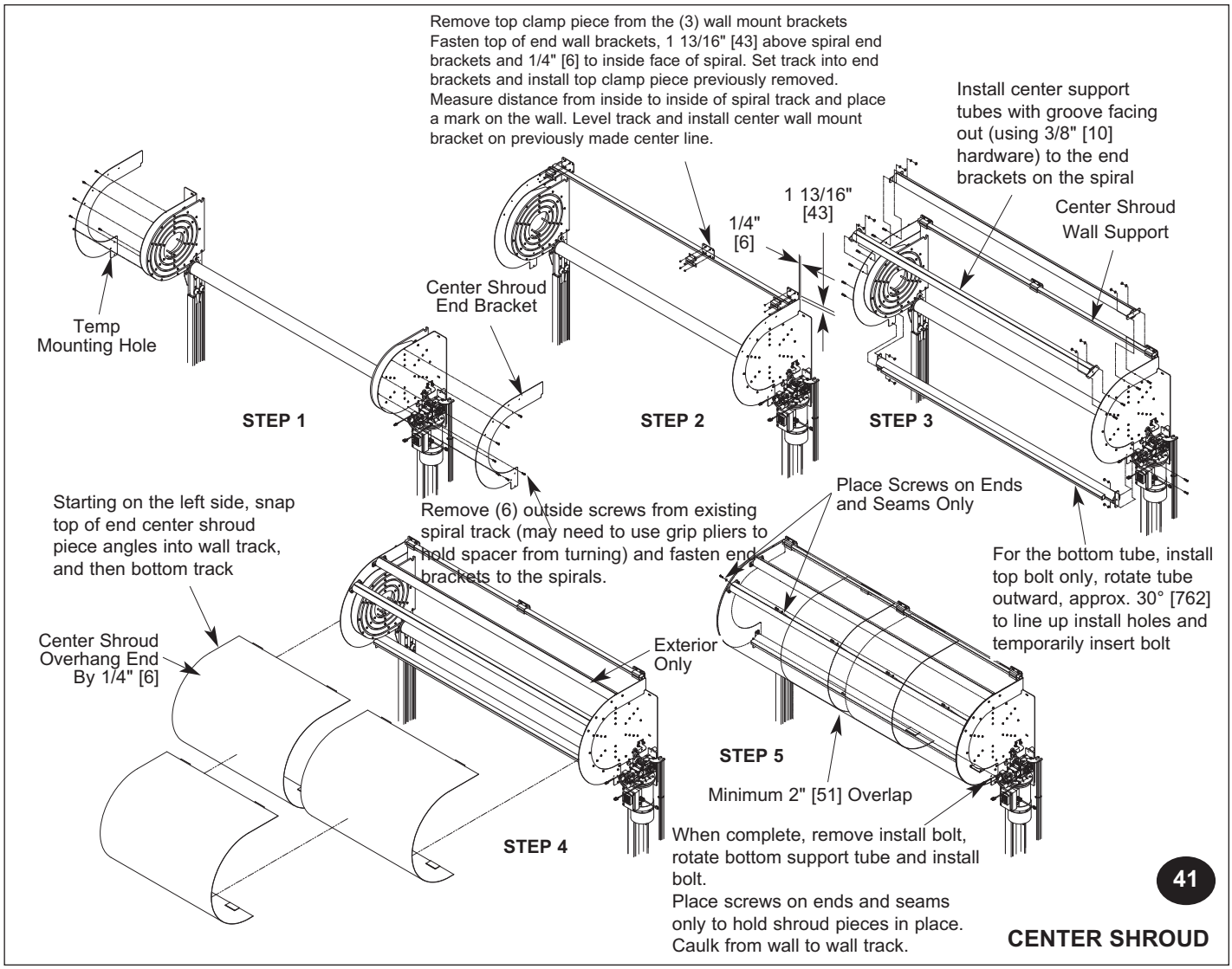
Note the following for limit switch adjustments, (right and left hand drive settings are the same).
Rotate open magnet clockwise to raise higher and counter-clockwise to lower.
Rotate closed magnet counter-clockwise to raise and clockwise to lower.

SHROUD INSTALLATION

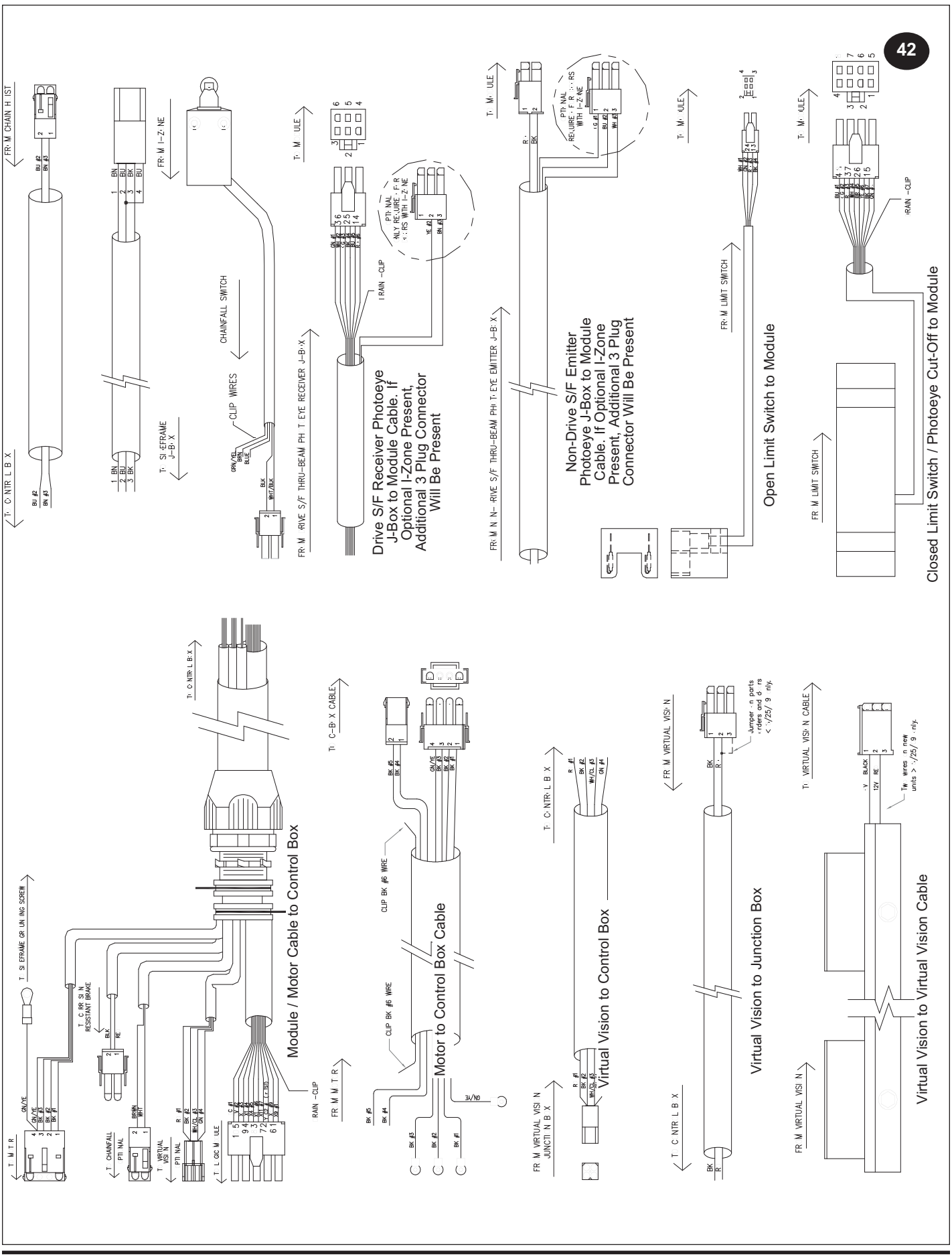
IMPORTANT!!!

Curtain needs to be stopped at or before it reaches the top of the jamb.





ELECTRICAL CABLE INSTALLATION



BRAKE ADJUSTMENT

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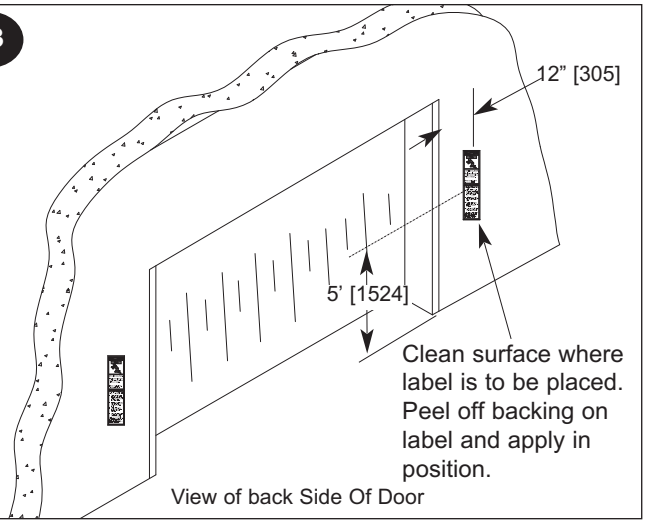
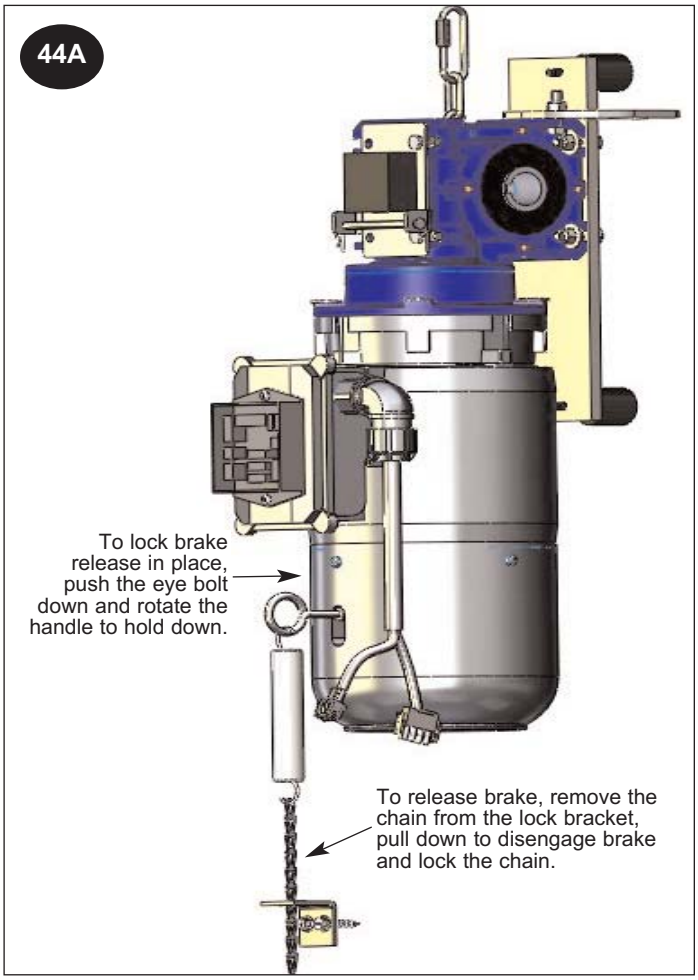


44A



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Remove the brake cover by removing the three screws and brake handle holding it on.

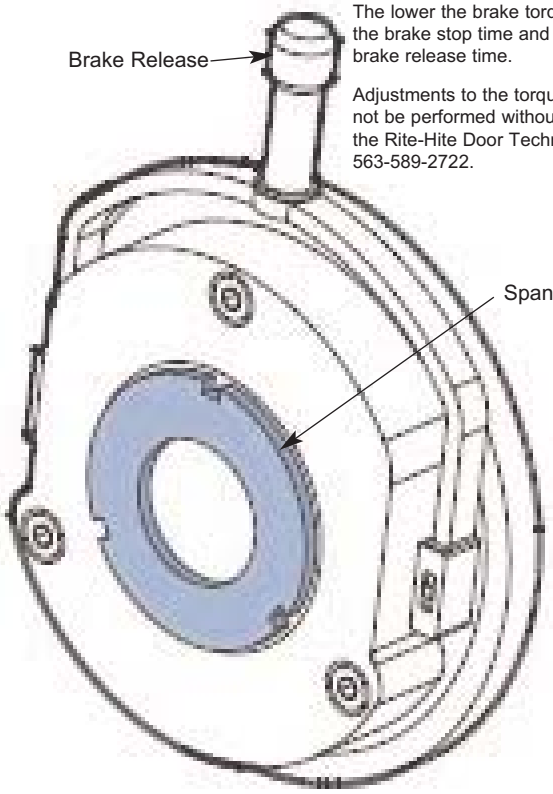
Torque Adjustment

This should only be required after prolonged brake use.

The spanner nut is tight against the brake casing, to make adjustments unscrew the spanner nut a few clicks at a time.

The lower the brake torque, the longer the brake stop time and the faster the brake release time.

Adjustments to the torque setting should not be performed without first consulting the Rite-Hite Door Technical Support at 563-589-2722.



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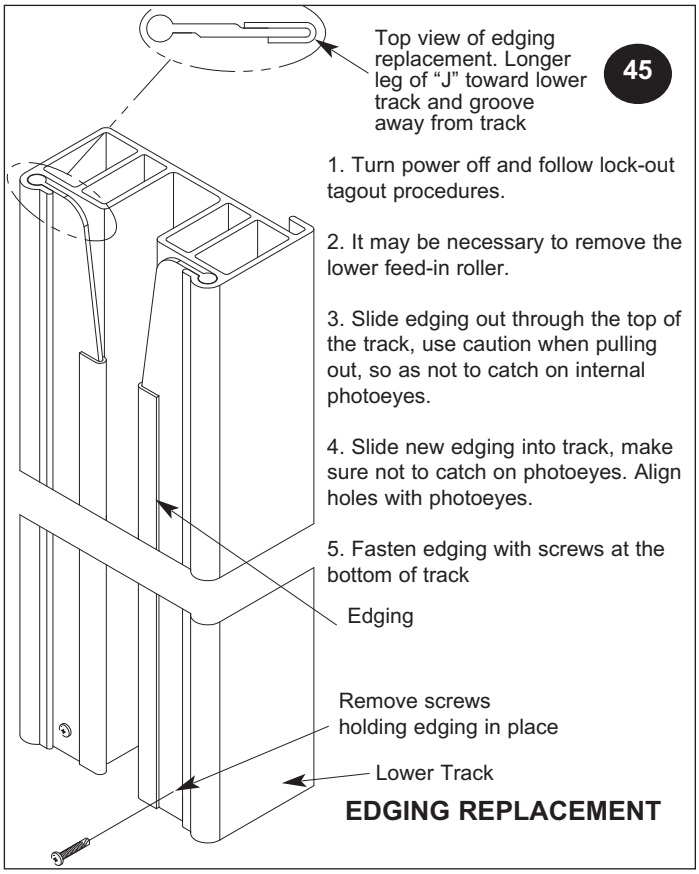

1. Turn power off and follow lock-out tagout procedures.

2. It may be necessary to remove the lower feed-in roller.

3. Slide edging out through the top of the track, use caution when pulling out, so as not to catch on internal photoeyes.

4. Slide new edging into track, make sure not to catch on photoeyes. Align holes with photoeyes.

5. Fasten edging with screws at the bottom of track

EDGING REPLACEMENT

OPTIONAL VIRTUAL VISION / I-ZONE INSTALLATION

NOTE: Virtual Vision is standard on Freezer / Cooler doors provided with the Insulmax curtain. There will be a motion sensor mounted on each side of the door, as well as 2 red LED light bars on each side of the opening on both sides. The motion sensors will detect motion on the opposite side of the curtain to warn oncoming traffic of a possible pedestrian or forklift on the opposite side.

1. If door is equipped with Thermal Air Seal Step Down Transformer junction box, plug in Virtual Vision cable. If not, there will be a separate junction box strictly for the Virtual Vision.
2. Virtual Vision light bar assemblies should be located on each side of the doorway and in clear view of oncoming traffic. They should be installed approximately 3' [914] off the floor, adjacent to the doorway (e.g. goal posts or wall) and in a location that is protected from potential impact damage.
3. Motion sensors can be installed above the opening on Radial doors or off to the side if Vertical, 45° Tilt, High or Standard lift.
4. Sensors should be programmed for a 2 second hold time and bi-directional detection.
5. Direct sensors so they DO NOT extend beyond the width of the door.
6. Plug cables together and wire into control box.
7. To avoid cross talk when changing the settings on the Virtual Vision or activation sensors when using the remote controls, Rite-Hite offers the following three options:

a) The BEA remote control allows you to set a unique security code for each sensor. That way, you would enter the code for the sensor you are interested in changing, and it will only change the settings for that sensor. To accomplish this, temporarily disconnect the activation sensor(s) from its power supply (at the i-COMM), use the remote to set a security code (e.g. "1111") for the Virtual Vision sensor(s), then power up all sensors. The activation sensor will have the default security code "0000" for its settings, and the Virtual Vision sensor will have its new security code when changing its settings (use unlock/lock sequence). There should be no cross-talk with the remote's instructions when using this approach. Make sure to record these values for future reference.

b) If you do not wish to use security code settings, you can simply power down one unit (at the i-COMM) while setting the other unit, and then do the same thing with the other unit. This is similar to option "a", although if you want to make subsequent changes to the settings, you would need to go through the power down procedure again.

c) If you do not wish to power down the units or use security settings, you can physically cover one of the units while programming the other unit. Any opaque material (e.g. cardboard) should work. However, with units typically mounted high above the opening, this may be difficult.

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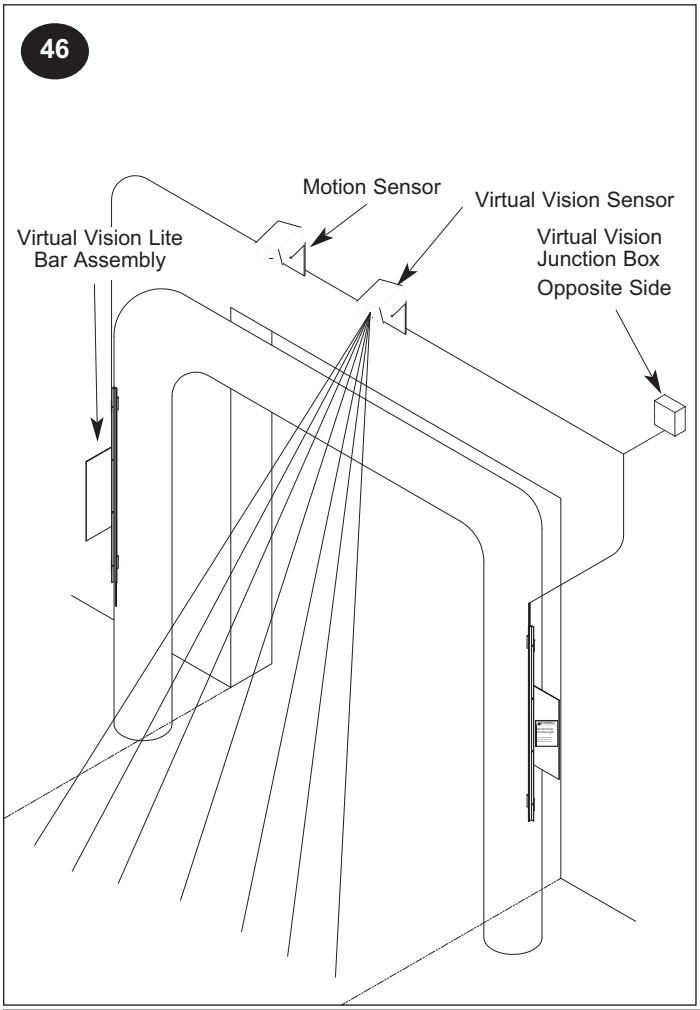

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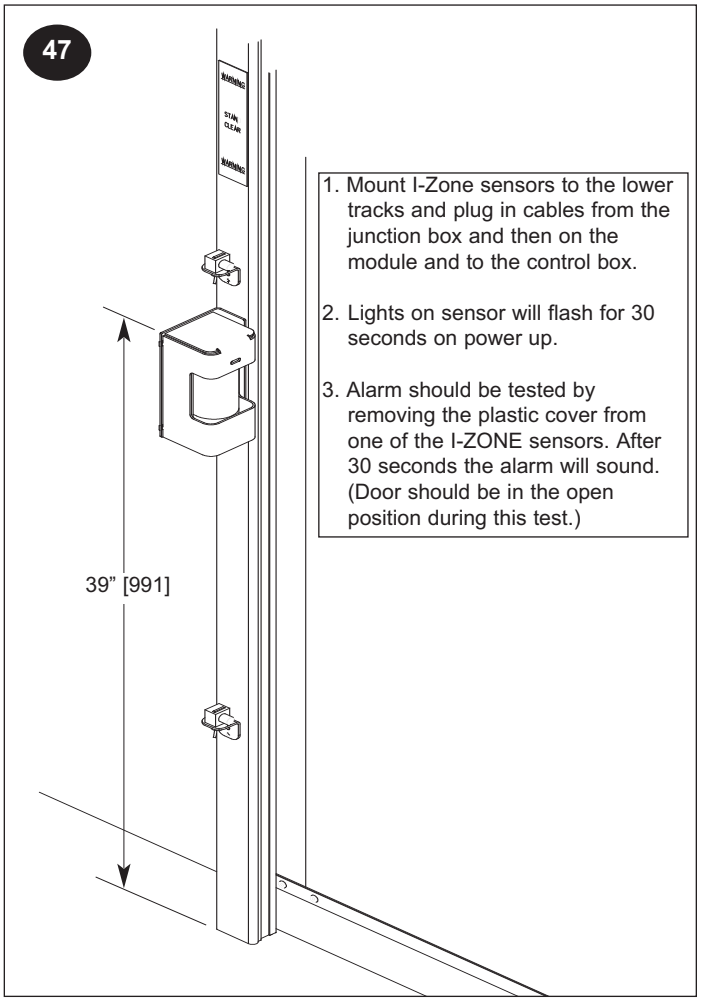

1. Mount I-Zone sensors to the lower tracks and plug in cables from the junction box and then on the module and to the control box.
2. Lights on sensor will flash for 30 seconds on power up.
3. Alarm should be tested by removing the plastic cover from one of the I-ZONE sensors. After 30 seconds the alarm will sound. (Door should be in the open position during this test.)

HOIST - BRAKE RELEASE - WELD PLATE INSTALLATION

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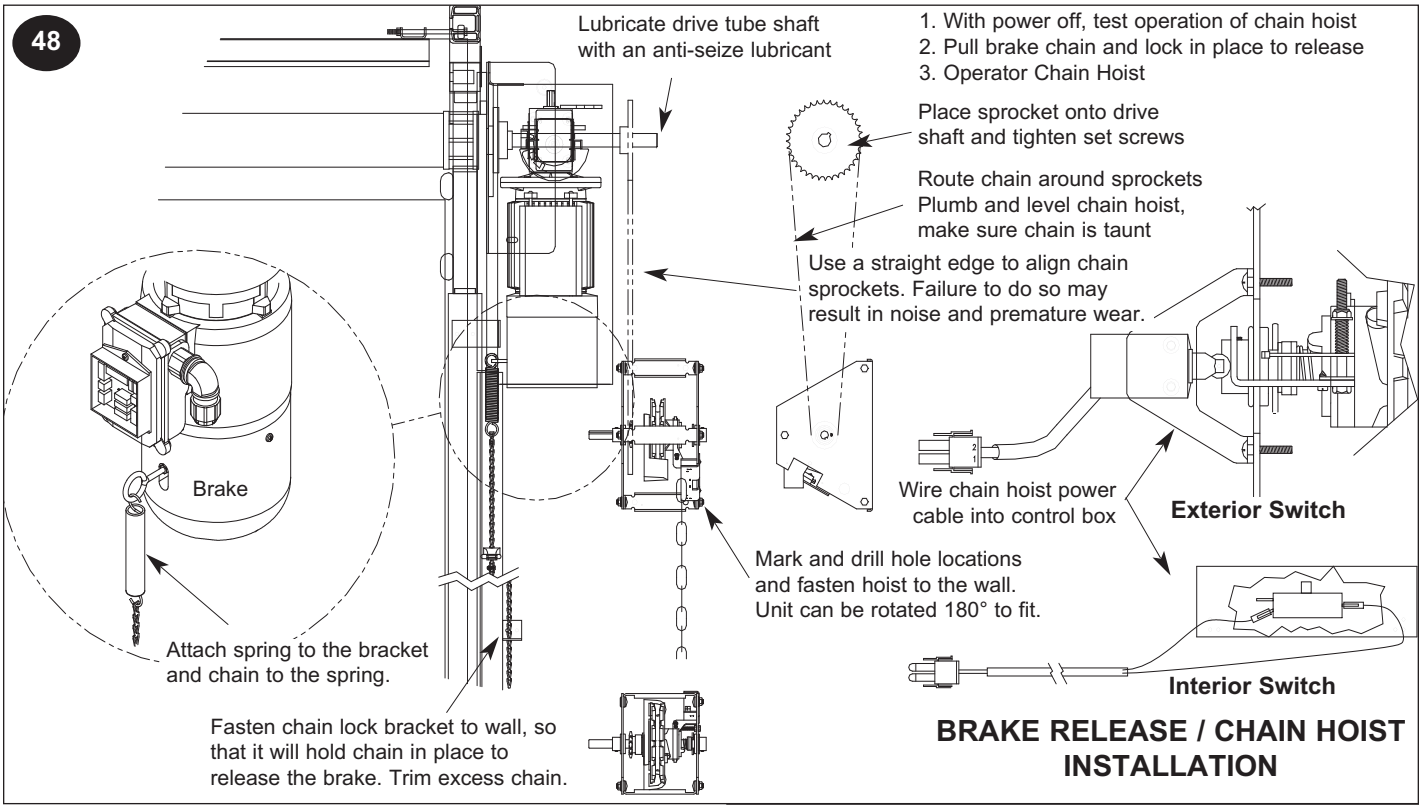

BRAKE RELEASE / CHAIN HOIST INSTALLATION

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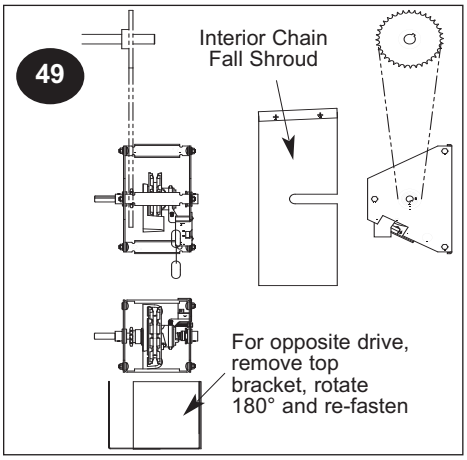

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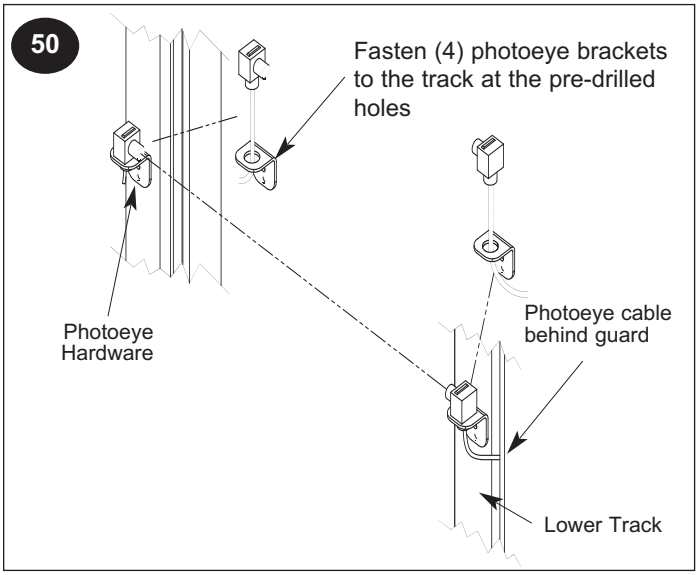
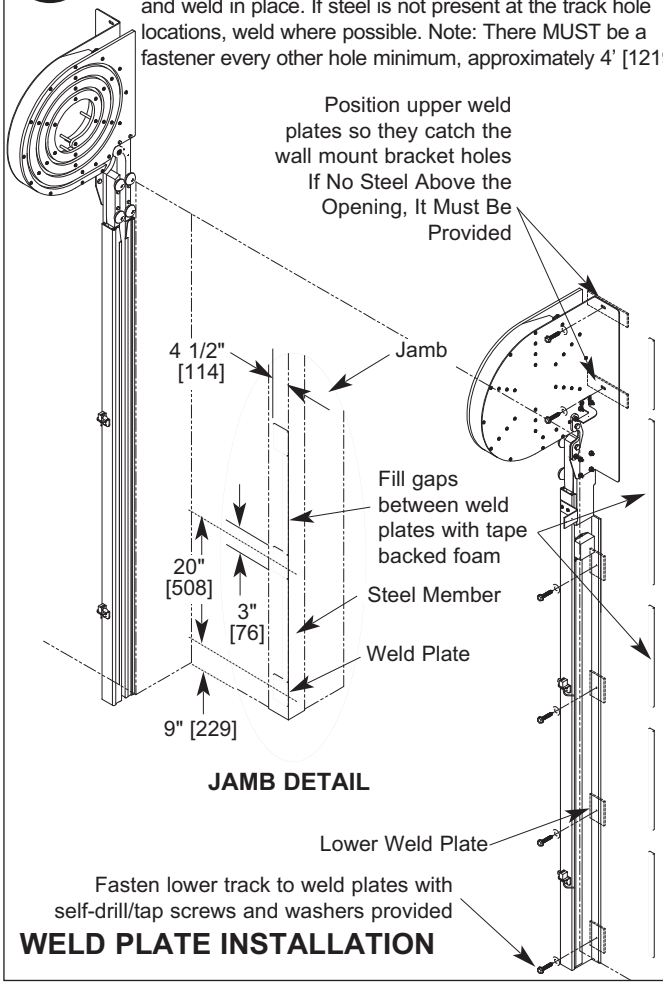


51

Measure from bottom of track to each hole location and position weld plates on the steel jamb at these locations and weld in place. If steel is not present at the track hole locations, weld where possible. Note: There MUST be a fastener every other hole minimum, approximately 4' [1219].

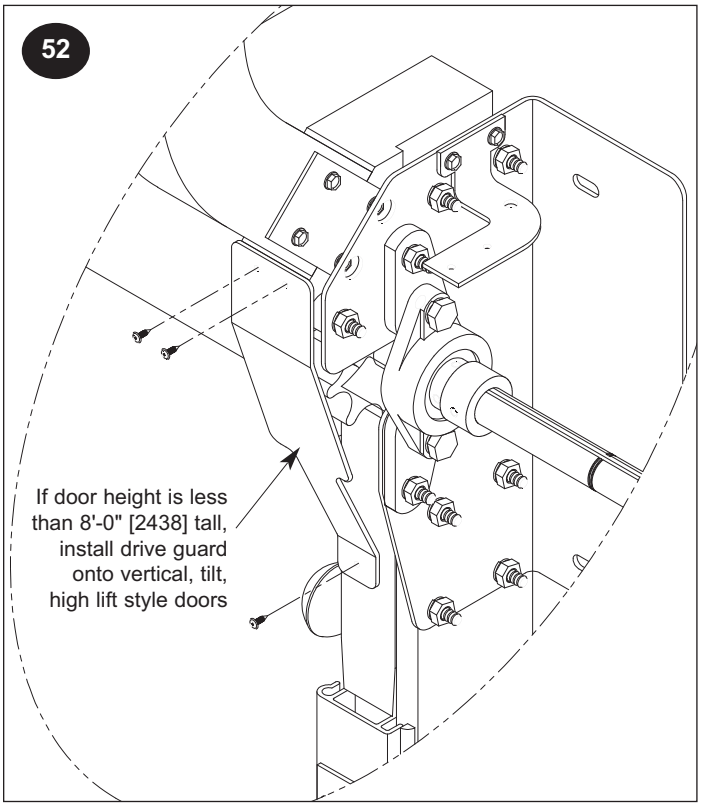


JAMB DETAIL

WELD PLATE INSTALLATION

LESS THAN 8’- 0” [2438] DOOR OPENING HEIGHT

52



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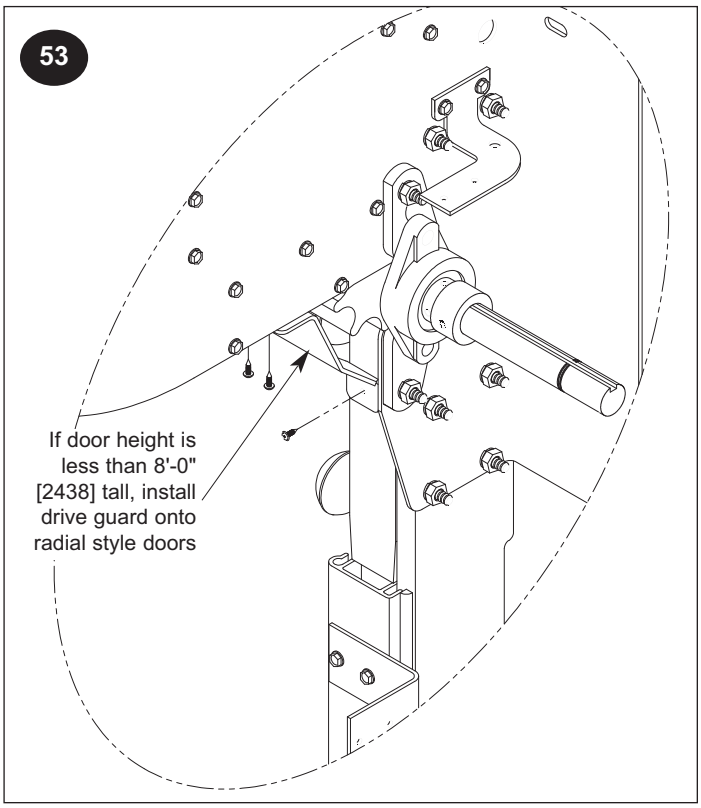
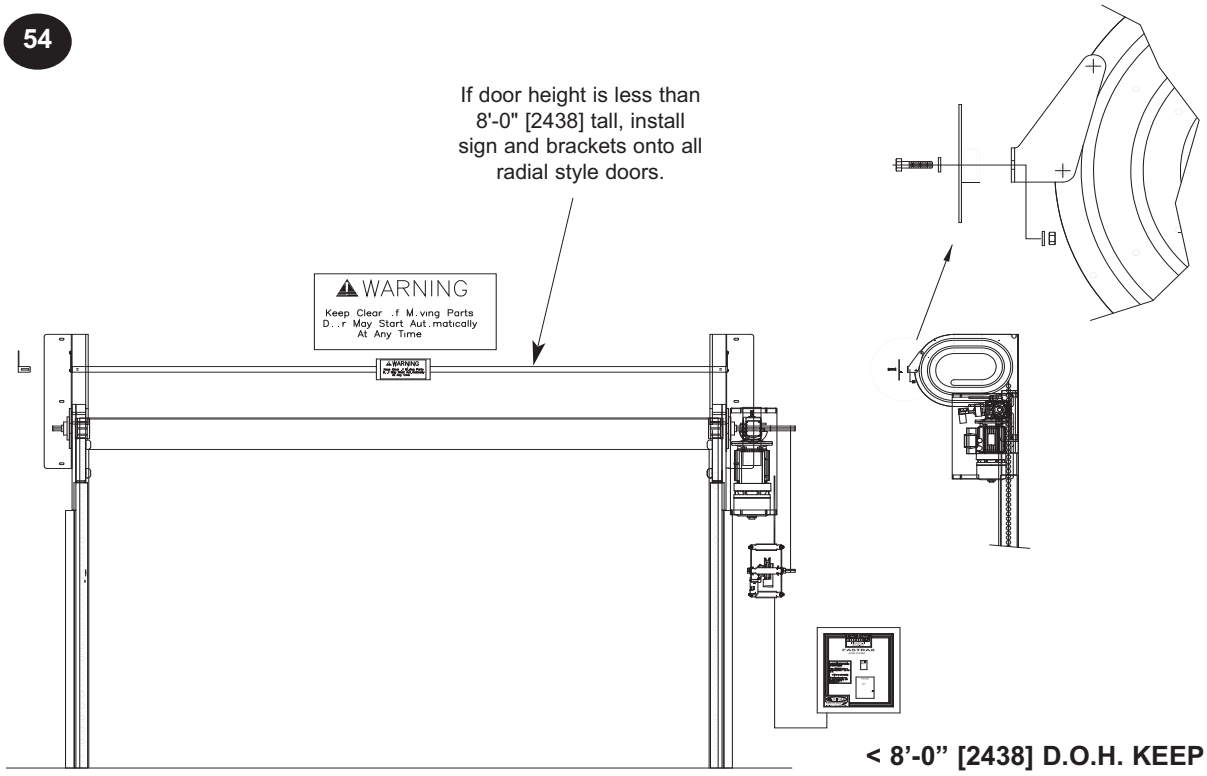


54



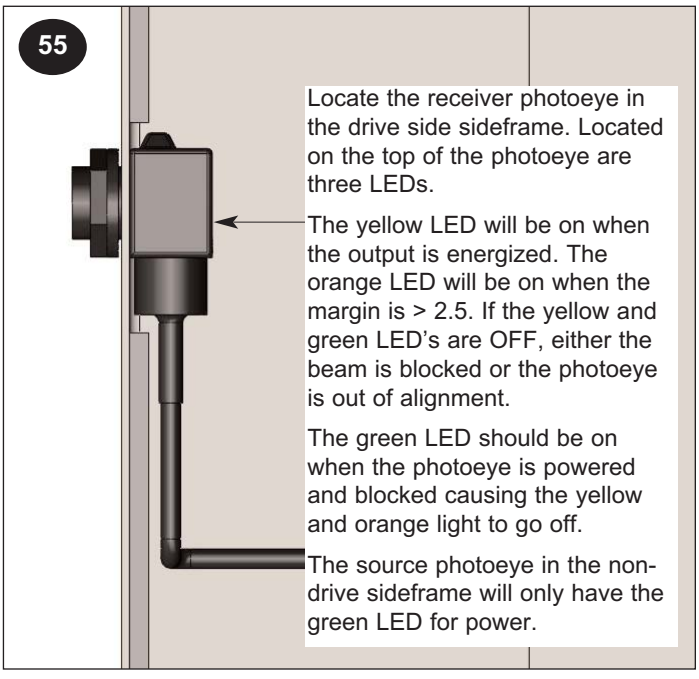
< 8’-0” [2438] D.O.H. KEEP CLEAR SIGN

OPERATING PROCEDURE / FINAL CHECKLIST

VERIFY DOOR OPERATION / CHECKLIST

1. It is recommended that the operation of all controls on the FasTrax/FR 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. Tracks aligned when installing wall fasteners ?
7. Are the pillow block bearing set screws tightened to 66 to 80 in.-lb. ?
8. Check for proper line voltage ?
9. Are all mounting bolts tight ?
10. All wires connected for the photoeyes ?
11. Are loose wires secured away from moving parts?
12. 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 28, Page 12.***
13. 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, ***Figure 39.***

    If it is necessary to adjust either position, shut the power off and adjust the proper open or closed limit switch.
14. 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.
15. 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.
16. Use caution (hock horn) and look in a directions when approaching a door that is closing and ensure that the door will reverse before proceeding.
17. Pedestrians should be advised to use man doors when present and to not lean into the door way.
18. A fault will occur if the optional non-powered chain hoist chain is pulled, simply press the green flashing "OPEN/RESET" button to return to normal operation.
19. Motor shroud installed.
20. **Ground and Shield wires have been properly terminated.**



MAINTENANCE PROCEDURES

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

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	x	x	Operate all devices to verify proper operation.
Curtain Fans		x	x		x		x	Verify that Curtain Fans are powered and working. Make sure that the fans are positioned properly and are removing condensation from the curtain.
Auto Re-Feed		x	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, turn the brake release handle to the disengaged position. The curtain should be able to be moved manually. If brake is making noise, adjust.
Controls / Wiring			x		x		x	Clean, check all connections with disconnect off. Make sure all wires are free from moving parts.
Curtain		x		x	x		x	Inspect for wear or damage, patch immediately to prevent condensation or frost buildup. Clean with warm soapy water. Check drive spheres, if missing or damaged, replaced. Check top roller.
Door Assembly			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	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.
Gearbox			x		x		x	Check gearbox fluid level, fill with 90 weight if low. Check snap rings and/or lock collar set screws.
Limit Switch Assembly			x		x		x	Check open and close positions, adjust as required. Check photoeye cutoff switches. Lubricate chain, sprockets and check alignment.
Lintel Seal			x		x		x	Verify lintel seal is sealing wall properly.
Motor			x		x		x	Check junction box and plug connections.
Non-Powered Opening Option			x		x		x	With power off, verify chain hoist opens door. Lubricate chain, sprockets and check alignment.
Photoeyes		x	x	x	x	x	x	Verify both photoeyes reverse the curtain. LED's on module or I-COMM should go on/off. Clean emitter and receiver lens.
Thermal Air Seal		x	x		x		x	Verify air bag is inflated, free of tears and providing an adequate seal against curtain and the wall. If torn, patch immediately to prevent condensation buildup. Verify warm air existing exhaust holes.
Tracks / Radial (upper and lower)	x	x	x	x	x	x	x	Perform visual inspection. Lubricate radials and tracks with food grade synthetic grease (Super Lube). It may be required to remove the existing grease prior to adding new. Verify proper width and tighten all hardware. Check foam seal if present.
								Inspect track retention edging, replace if cracked.
Track Retention Edging			x		x		x	Verify virtual vision is functioning properly. Red LED's should be lit if movement on opposite side.
Virtual Vision			x	x	x	x	x	Inspect vision for tears or separation.
Vision (not on FR doors)		x	x		x	x		Clean with warm soapy water.
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.

MAINTENANCE INFO

High-Temperature Synthetic Grease with PTFE (Polytetrafluoroethylene)

The synthetic oil base in this food-grade silica-thickened grease, increases the time before the next application. It also contains a PTFE additive that reduces friction and waterproofs metal surfaces, preventing rust and corrosion. NSF rated H1 for applications with incidental food contact. Temperature range is -45° to +450° F [-45° to +232° C]. Color is white.

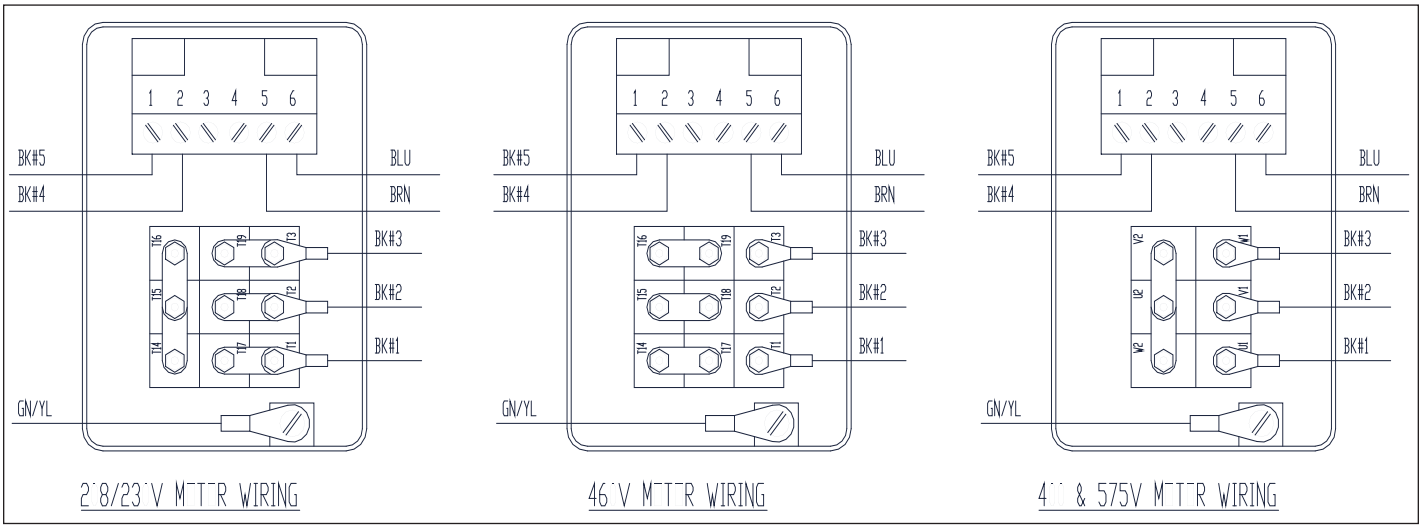
McMaster Carr # 1378K33 - 14.1oz Cartridge

TROUBLESHOOTING

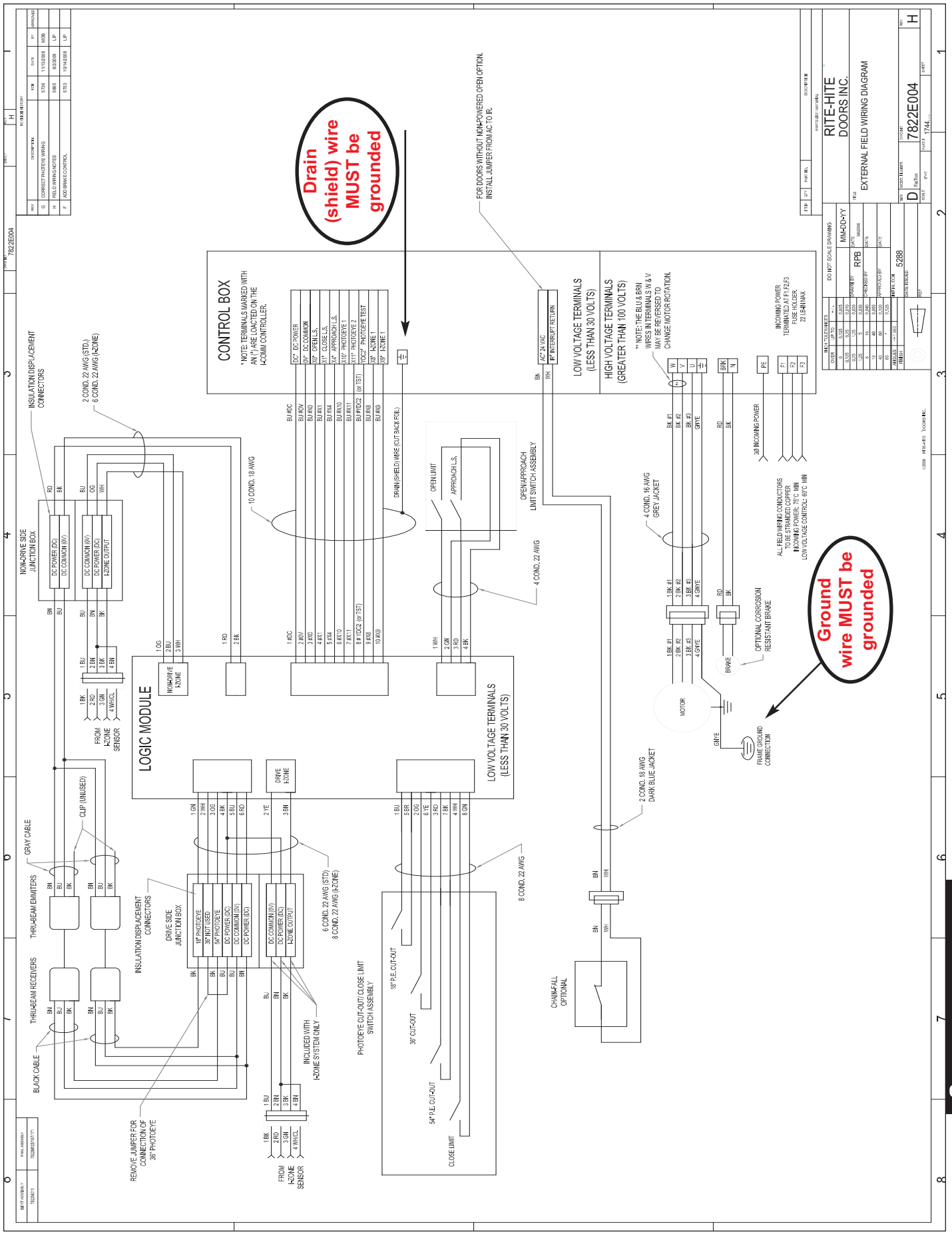
DEFINITION	FUNCTION
Activation	For activation questions, refer to the Activation Manual and inputs X5 & X6.
Brake	The brake is powered by 110VAC, if brake does not stop door when open or closing or if there is excessive noise, see brake adjustments on ***Page 21, Step 44.***
Breakaway	If the curtain is separated from the lower tracks, simply press the open button and the door will auto-refeed back into the tracks without tools or intervention. If a major separation occurs the door may need to be turned manually to prevent damage to the curtain.
Conduit Cable	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. Issues regarding noise of this nature will not be covered under warranty. Contact Aftermarket for replacement. Make sure the motor is grounded and the braided (drain) wire is properly grounded to prevent electrical noise.
Curtain	The curtain is driven by the drive spheres and the drive tube. a) If drive spheres are missing from curtain, repair or replace. b) If curtain struggles to raise or lower or is baggy across the opening, verify tracks are proper distance: FasTrax = O.D.W. + 1/2" [13] or FasTrax FR = O.D.W. + 9" [229]. c) Check to make sure tracks are lubricated with food grade synthetic grease (Super Lube). d) If curtain is making contact with the wall when closing, verify lower tracks are not too close together and that lintel roller is present and properly installed.
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.
Drain Wire	**Verify that drain wire is terminated properly, failure to properly terminate the drain wire, may result in sporadic reversals, photoeye and other issues due to either static electricity or electrical noise and void warranty.**
Drive Side Switch	The drive can be switched from right hand to left hand by performing the following: a) Remove and switch conduit mounting bracket to opposite side. b) Remove and switch motor mount bumper bracket. c) Remove gearbox limit switch bracket and move to outside holes. d) Remove and switch limit switch driven sprocket. e) Remove and switch drive and non-drive photoeye cables. f) New drive shroud is required.
Drive Tube	If drive spheres make excessive clicking noise, make sure tube drive gears are centered over track grooves.
FasTrax or FasTrax FR	FasTrax is the standard door and FasTrax FR is the freezer / cooler door with Thermal Air System.
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) Verify i-Comm is receiving 24VDC from power supply. b) Verify 8 pin connector is fully engaged onto i-comm board and pins/wires are not loose. c) Input X0 - Open Limit will be on when the switch and magnet are lined up (Blue dots). d) Input X1 - Closed Limit will be on when the switch and magnet are lined up (Red dots). e) Input X2 - Torque Reverse needs to be on for the door to operate. f) Input X10 - Lower Photoeye will be on unless photoeye is blocked or not aligned. g) Input X11 - Upper Photoeye will be on unless photoeye is blocked or not aligned. h) Input X14 - Fault needs to be on for the door to operate.
Inverter	See ***Pages 14-15*** for proper parameter settings.
Limit Switches	The Open, Closed, and Photoeye limit switches are a normally open device and should only be closed when the magnet is in-line with the switch. If the switch is closed when it is not in-line with the magnet, check all plug and pin connections to make sure they are not bent and/or replace the switch. a) If the curtain travels past the open limit switch, dis-engage brake and turn drive tube to place bottom of curtain at the top of the jamb and set open limit by placing magnet at the open switch and verify X0 i-COMM input is on. Engage brake. b) If the curtain travels past the close limit switch, dis-engage brake and turn drive tube to place bottom of curtain such that it seals the floor and set closed limit by placing magnet at the closed switch and verify X1 i-COMM input is on. Engage brake. c) To adjust open limit switch, place door in the open position, and align magnet with the open limit switch, by rotating the open magnet plate. d) To adjust the closed limit switch, lower door so the curtain bottom loop is sealing on the floor and align magnet with the close limit switch, by rotating the open magnet plate. e) Photoeyes are shut off as the door closes and the close magnet passes the photoeye cut-off switches. f) Operate door and test operation. g) If limit switch chain jumps teeth, make sure it is lubricated. h) If open and closed limit input LED's are both on at the same time, the door will go into a fault. j) If door closes too far and does not see the closed limit switch, it will torque reverse, open and go into fault.
Module	The module is located on the cover of the motor junction box where the limit switches, photoeyes, optional I-Zone and cable from control box harness is wired. a) X11 and upper red LED will go off when the upper (54") [1372] photoeye is tripped or as the limit magnet passed by. b) X10 and lower red LED will go off when the lower (18") [457] photoeye is tripped or as the limit magnet passed by. c) The center red LED is not used. d) When installing door and it is not operating normally, verify all pins are in the proper position in the plug. e) Verify pins are seated properly in the plugs.
Motor	If "OPEN" button is pressed and the door closes, phasing is reversed, switch wires in terminals, V and W. Make sure the motor is properly grounded to prevent electrical noise.
Non-Powered Opening	If issues arise with the non-powered opening chain hoist, check the following: a) If power outage, release brake and pull chain on hoist to open door. b) If chain hoist chain is pulled while door is powered, the door will go into fault mode (green light flashing). c) If chain hoist chain is pulled, reset door by pressing the green flashing button.
O.D.H. or O.D.W.	O.D.H. = Ordered Door Height or O.D.W. = Ordered Door Width
Open/Reset Push Button	The open/reset push button function is when the button is pressed, a command to open the door is given.
Pressure	If the curtain is blowing out because of high wind or negative pressures, check the following: a) The tracks MUST be mounted at O.D.W. + 1/2" [13] for FasTrax and O.D.W. + 9 1/2" [241] for FR door. If mounted wider, excessive curtain wear may occur, if too narrow, curtain buckling or billowing will be greater. b) Check to make sure the curtain has all the drive spheres in place. c) Exterior doors are equipped with a garnet bag in the bottom loop to protect from the elements. d) Stiffer track edging is standard on exterior doors.
Re-Close Timer	The door can be set to close from 2 to 255 seconds, follow i-COMM adjustment instructions.

TROUBLESHOOTING

DEFINITION	FUNCTION
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. Green is for power, yellow and orange 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. c) When open, i-COMM verifies photoeye inputs are off. If on, door will fault. If off, test is ok, emitter's turn on. d) Verify module LED's correspond with photoeye activation, LED on module should light up when close limit switch magnet is lined up with the photoeye cut-off switch at all 3 locations. e) Orange and yellow light on the Receiver should be on when aligned. f) Green light on the Emitter indicates the unit is powered up. g) Input X11 and Module upper red LED will go off when the upper (54") [1372] photoeye is tripped or as the limit magnet passed by. h) Input X10 and Module lower red LED will go off when the lower (18") [457] photoeye is tripped or as the limit magnet passed by.
Power Supply	Power Supply is powered by 120VAC from the F1 fuse and delivers 24VDC to the i-comm.
Virtual Vision	FasTrax FR door comes standard with Virtual Vision, when motion is sensed via Falcon motion sensors on the opposite side of the curtain, the Virtual Vision red LED's will illuminate to notify driver of movement on the opposite side of the curtain. a) It is normal for the YDC3 output to flash on i-COMM during door operation.
Voltage Change	To change the voltage, see step below: a) Change transformer taps, fuses per electrical diagram. b) Change motor wiring per junction box diagram. c) Replace Inverter with proper voltage.
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. j) Verify proper incoming power is reaching inverter at L1, L2 and L3. k) Verify as the curtain gets close to the photoeyes that they are being shut off. Make sure the magnet is 1/8" [3] to 3/16" [5] from the switch and that the switch is working. m) 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 limits 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 open and close magnet paddles move when the drive tube is turned. f) Verify the magnet is within 1/8" [3] - 3/16" [5] from the switches when it passes by. g) Verify the outputs are turning off when the X0 & X1 inputs light up. h) Verify the inverter is changing speeds on the display. j) Verify the phasing is correct. The door should open when the green open button is pressed. k) Verify the brake is engaged and not released ? m) Verify the key been installed on the gearbox / shaft. n) Verify the proper ratio gearbox is being used.



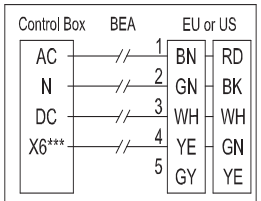
MANDATORY FIELD WIRING DIAGRAM



ACTIVATION WIRING

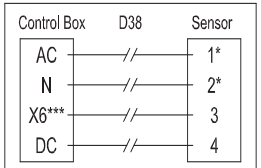
NEXT ASSEMBLY

BEA - Falcon, IS-87, EagleHM



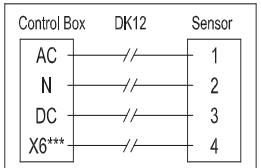
BEA Motion Sensors

MS Sedco - D38



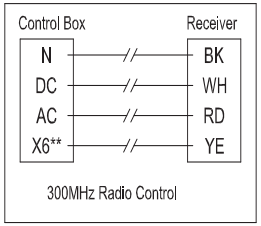
D38 Motion Sensor
*If switched, green lite will be on, and F2 fuse blown.

BEA - DK-12

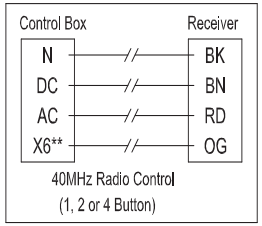


Presence Sensor

RADIO CONTROLS

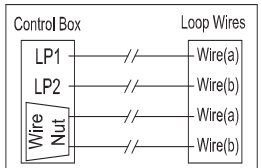


300MHz Radio Control



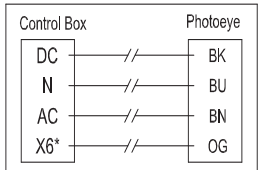
40MHz Radio Control
(1, 2 or 4 Button)

INDUCTION LOOP

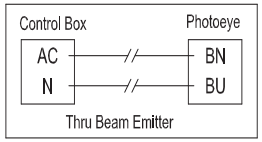


Loop Wiring

PHOTOEYES

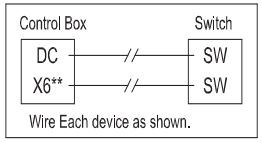


Retroreflective or Thru Beam Receiver



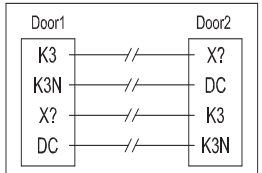
Thru Beam Emitter

PUSHBUTTONS & PULL-CORDS



Wire Each device as shown.

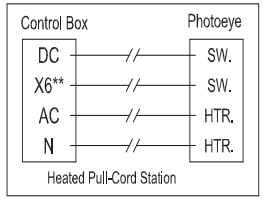
INTERLOCK



2 Door Standard Interlock

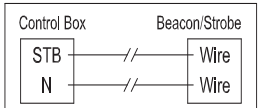
Note: Consult i-COMM manual to see which inputs can be assigned interlock in function. Connect K3 to whichever input is selected to become interlock in. No other devices should be connected to this input. Terminal Must be assigned to Interlock through i-COMM menu on both doors. (i.e. If X3 is to be assigned 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.

HEATED PULL CORDS

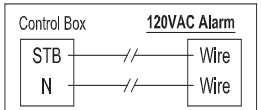


Heated Pull-Cord Station

STROBES & ALARMS



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



Audible Alarm

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.

REVISION HISTORY

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

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

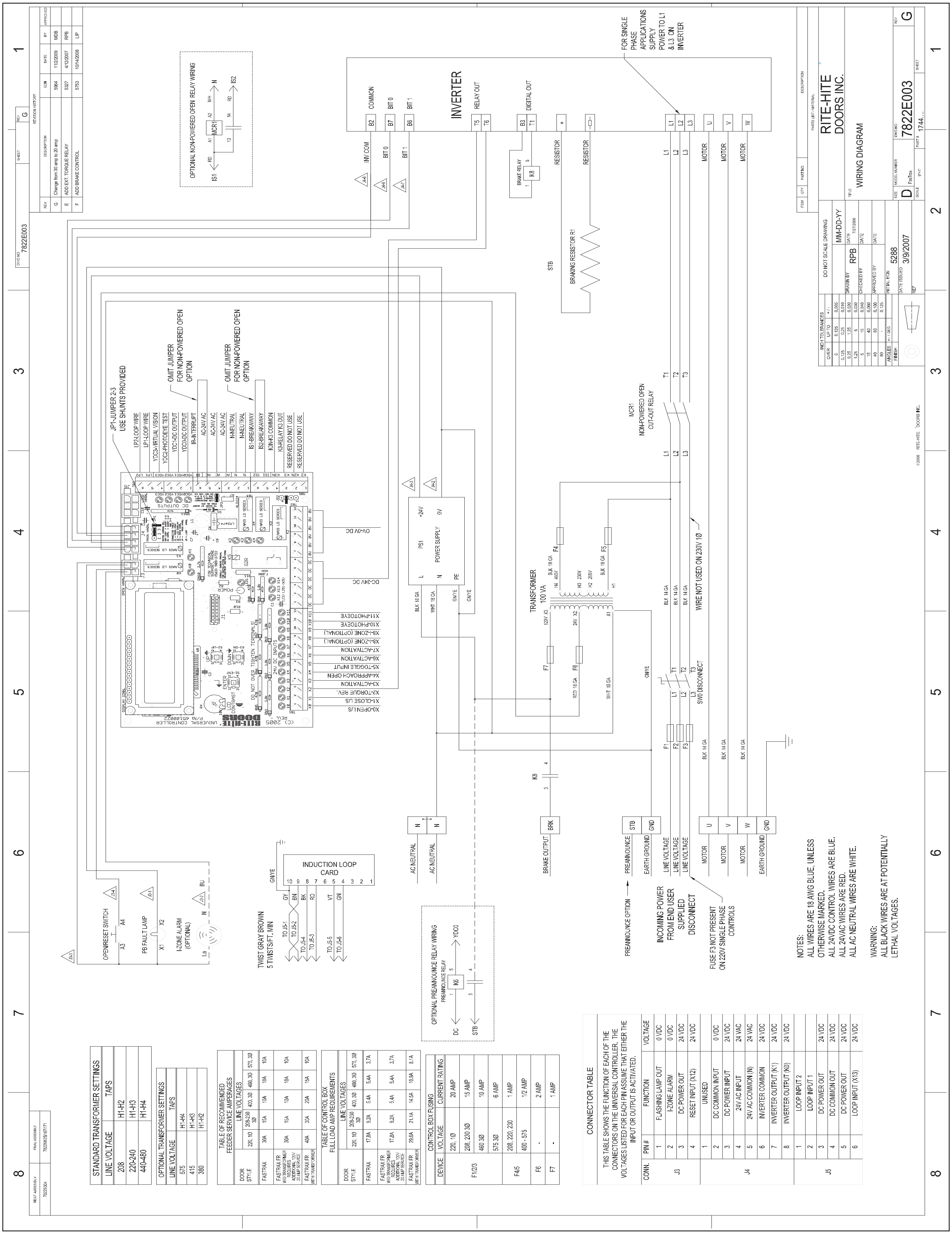
RITE-HITE® DOORS INC.

TITLE
FasTrax SERIES
ACTIVATION WIRING
i-COMM

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

SCALE 8"=1' | PART # 1744.XXXX | SHEET

230/460V - ELECTRICAL WIRING DIAGRAM



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

OPTIONAL TRANSFORMER SETTINGS	
LINE VOLTAGE	TAPS
575	H1-H4
415	H1-H3
380	H1-H2

TABLE OF RECOMMENDED FEEDER SERVICE AMPERAGES

DOOR STYLE	LINE VOLTAGES				
	220, 1Ø	208-230 3Ø	400, 3Ø	460, 3Ø	575, 3Ø
FASTRAX	30A	15A	10A	10A	10A
FASTRAX FR W/O TRANSFORMER REQUIRES ADDITIONAL 120V 20 AMP SERVICE	30A	15A	10A	10A	10A
FASTRAX FR WITH TRANSFORMER	40A	30A	20A	15A	10A

TABLE OF CONTROL BOX FULL LOAD AMP REQUIREMENTS

DOOR STYLE	LINE VOLTAGES				
	220, 1Ø	208-230 3Ø	400, 3Ø	460, 3Ø	575, 3Ø
FASTRAX	17.8A	9.2A	5.4A	5.4A	3.7A
FASTRAX FR W/O TRANSFORMER REQUIRES ADDITIONAL 120V 20 AMP SERVICE	17.8A	9.2A	5.4A	5.4A	3.7A
FASTRAX FR WITH TRANSFORMER	29.6A	21.1A	14.5A	10.9A	8.1A

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

CONNECTOR TABLE

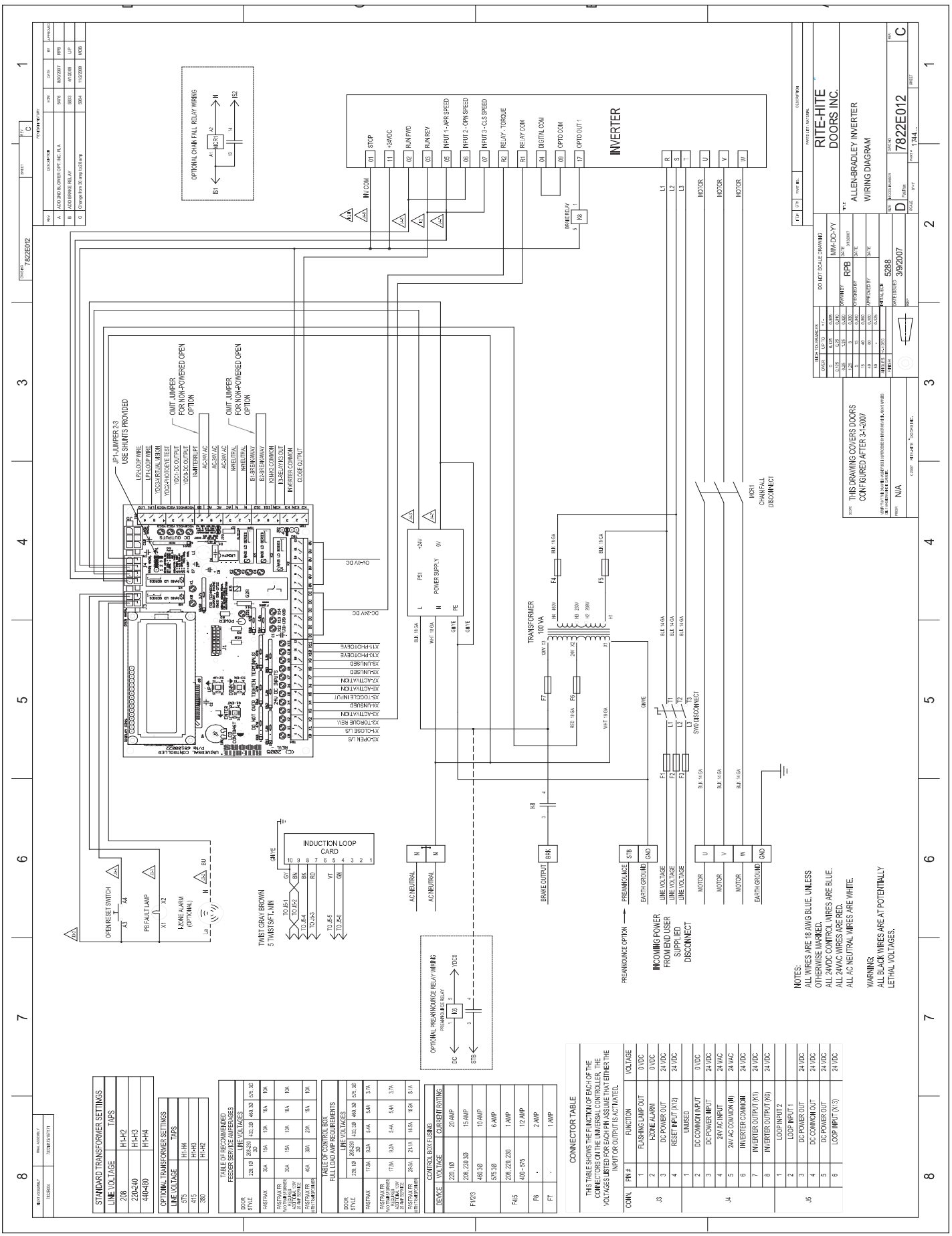
THIS TABLE SHOWS THE FUNCTION OF EACH OF THE CONNECTORS ON THE UNIVERSAL CONTROLLER. THE VOLTAGES LISTED FOR EACH PIN ASSUME THAT EITHER THE INPUT OR OUTPUT IS ACTIVATED.

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 (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

NOTES:
ALL WIRES ARE 18 AWG BLUE, UNLESS OTHERWISE MARKED.
ALL 24VDC CONTROL WIRES ARE BLUE.
ALL 24VAC WIRES ARE RED.
ALL AC NEUTRAL WIRES ARE WHITE.

WARNING:
ALL BLACK WIRES ARE AT POTENTIALLY LETHAL VOLTAGES.

575V - ELECTRICAL WIRING DIAGRAM



VIRTUAL VISION JUNCTION BOX

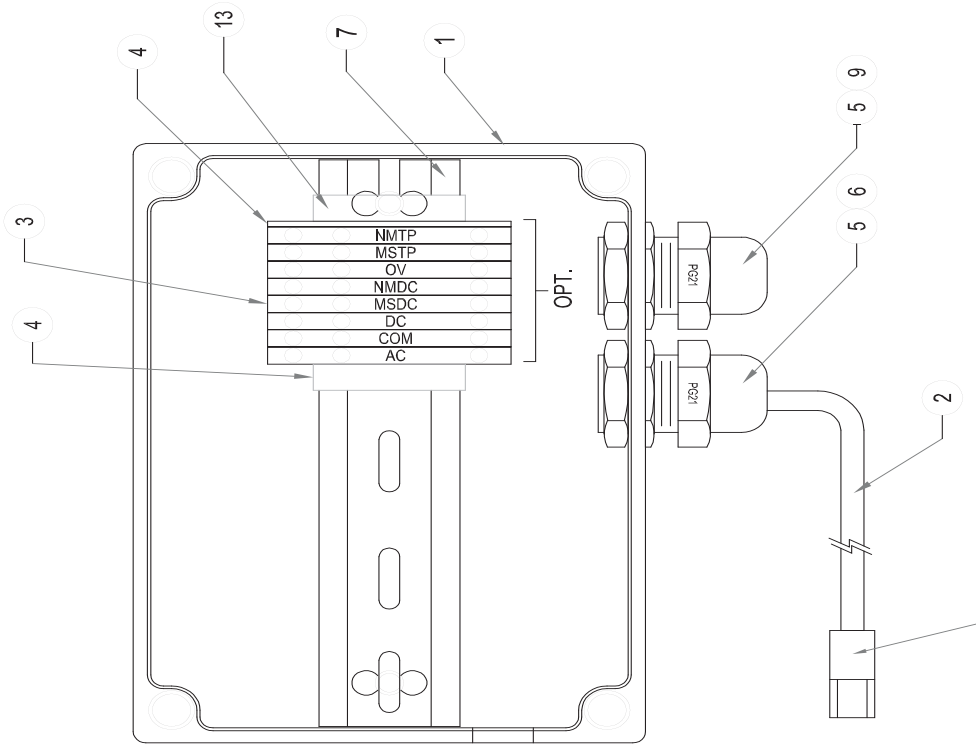
REVISION HISTORY				
REV	DESCRIPTION	ECN	DATE	BY	APPROVED
D	WAGO TERMINALS	5739	12/4/2008	LIP	
B	CORRECT VIRT. VISION CABLE	5326	5/7/2007	RPB	
C	REMOVE VIRT. VISION CBL P/N	5375	8/27/2007	RPB	

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,DRTP,#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,LT,21MM
4	2	73100024	-	TERMINAL,END STOP SCREWLESS
AND	1	73100086	-	TERMINAL,WA,CAGE,20A,3HOLE,BAR
3	8	73100085	-	TERMINAL,WA,CAGE,20A,3HOLE
2	1	-	7822M164	CABLE,VIRTUAL VISION
1	1	43750124	-	ENCL,LEXAN,7X5X4

PARTS LIST / MATERIAL

VIRTUAL VISION OPT. (2)
VIRTUAL VISION OPT. (12)



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 2/7/2007
CHECKED BY DATE
APPROVED BY DATE
INITIAL ECN 5288
DATE ISSUED 3/9/2007
REF

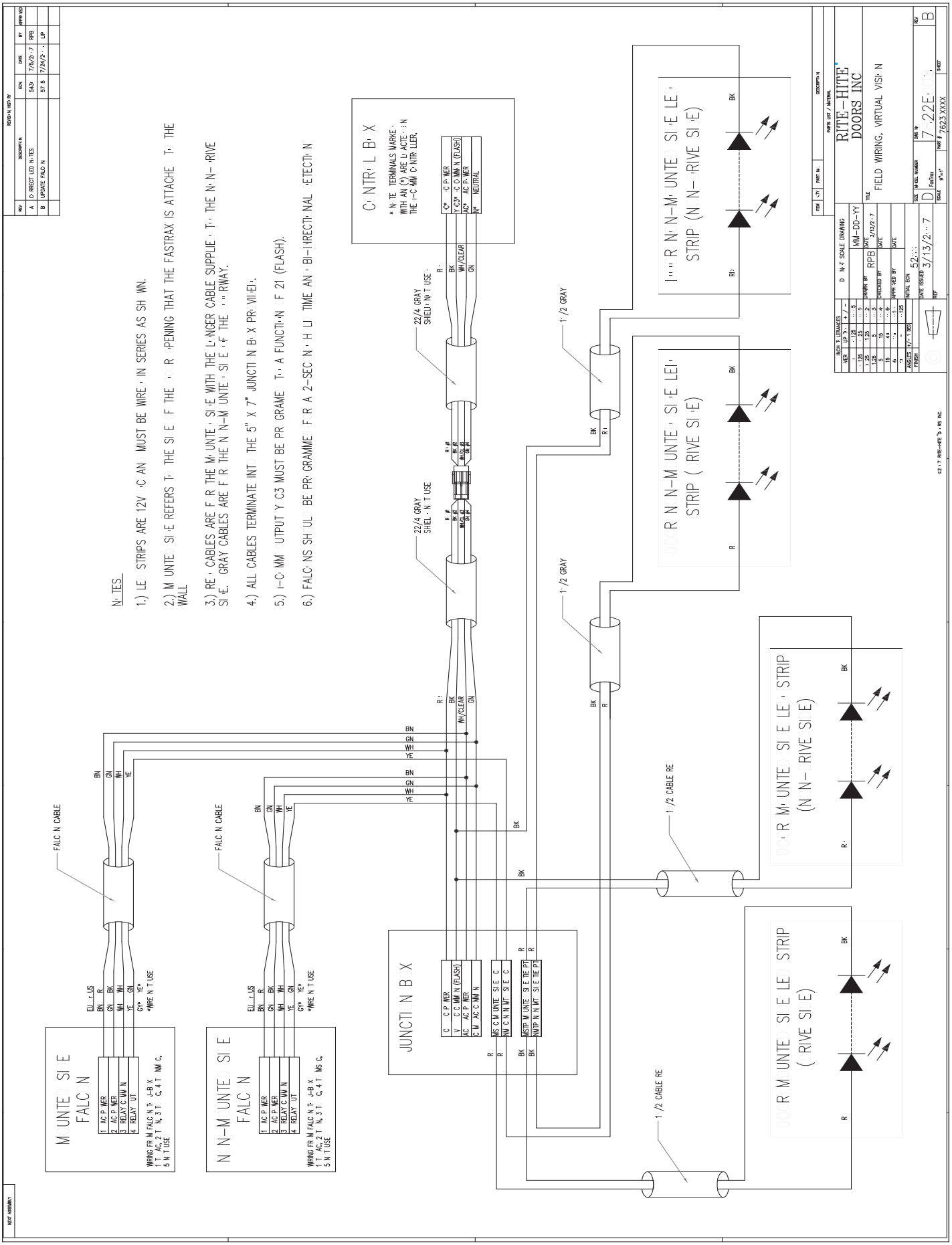
RITE-HITE® DOORS INC

TITLE
JBOX,ASY, VIRTUAL VISION

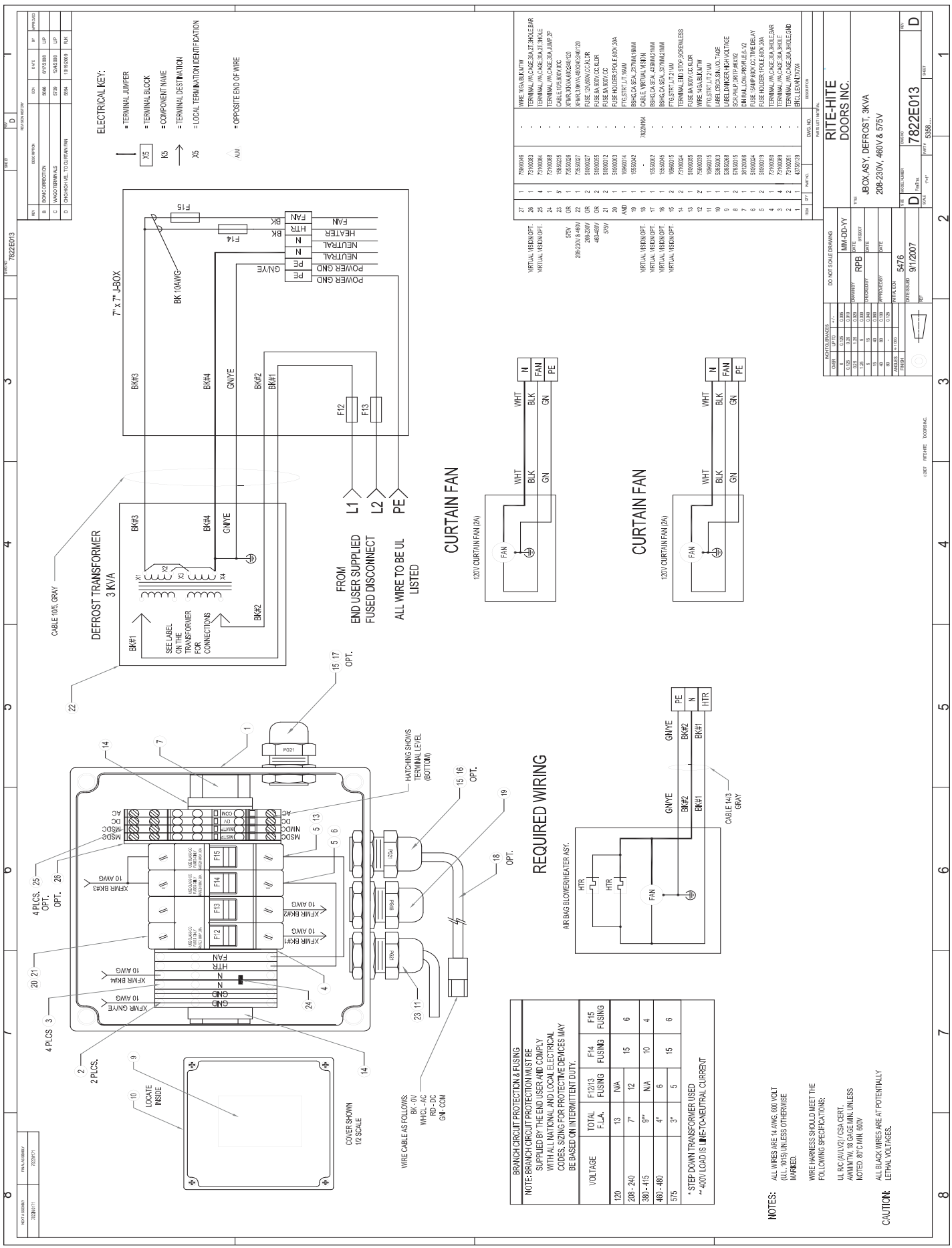
SIZE B | MODEL NUMBER FasTrax | DWG NO 7822E009 | REV D
SCALE 9"=1' | PART # 5357.... | SHEET

NEXT ASSEMBLY	FINAL ASSEMBLY
7822M125/167	7822M125/167

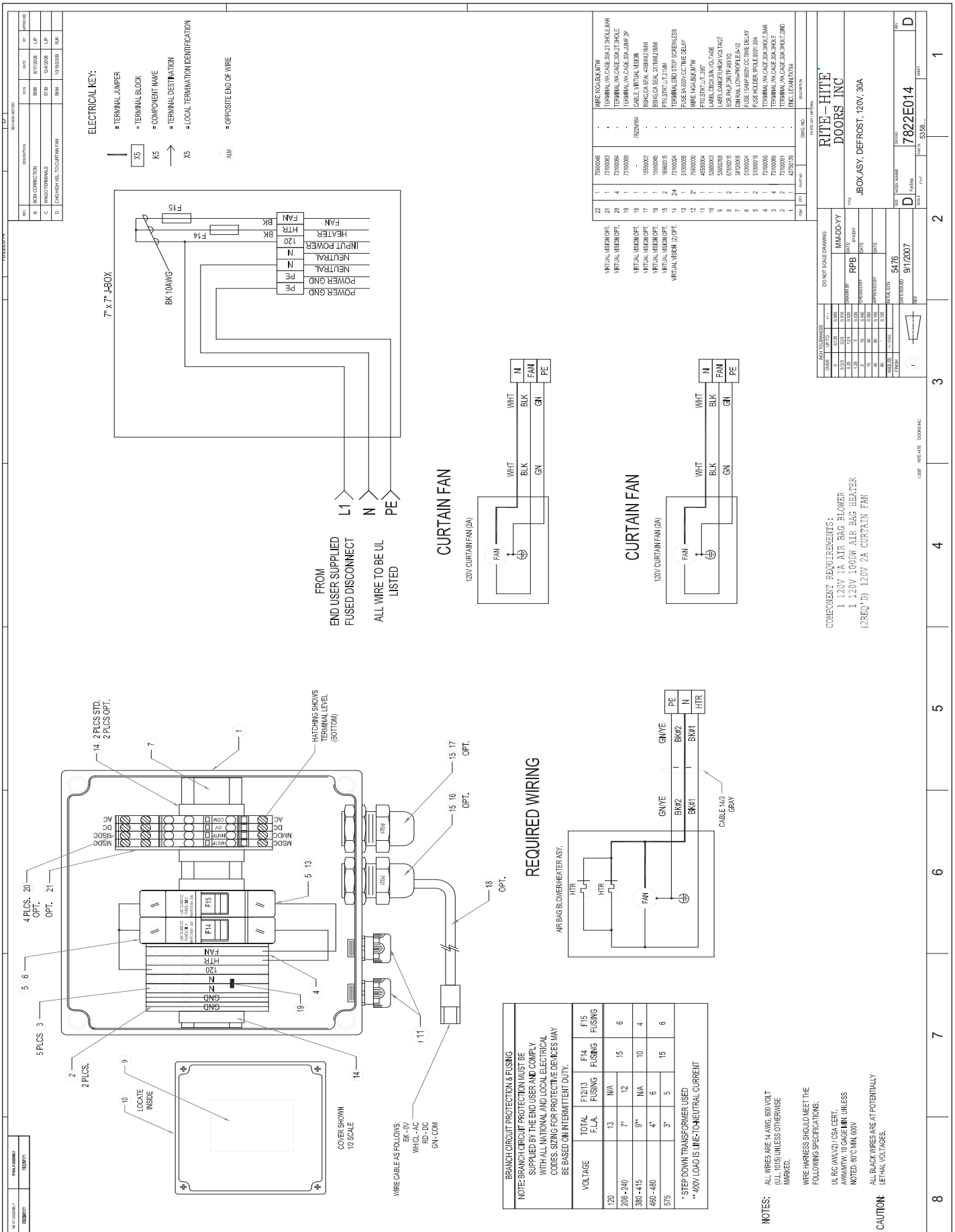
VIRTUAL VISION ELECTRICAL WIRING



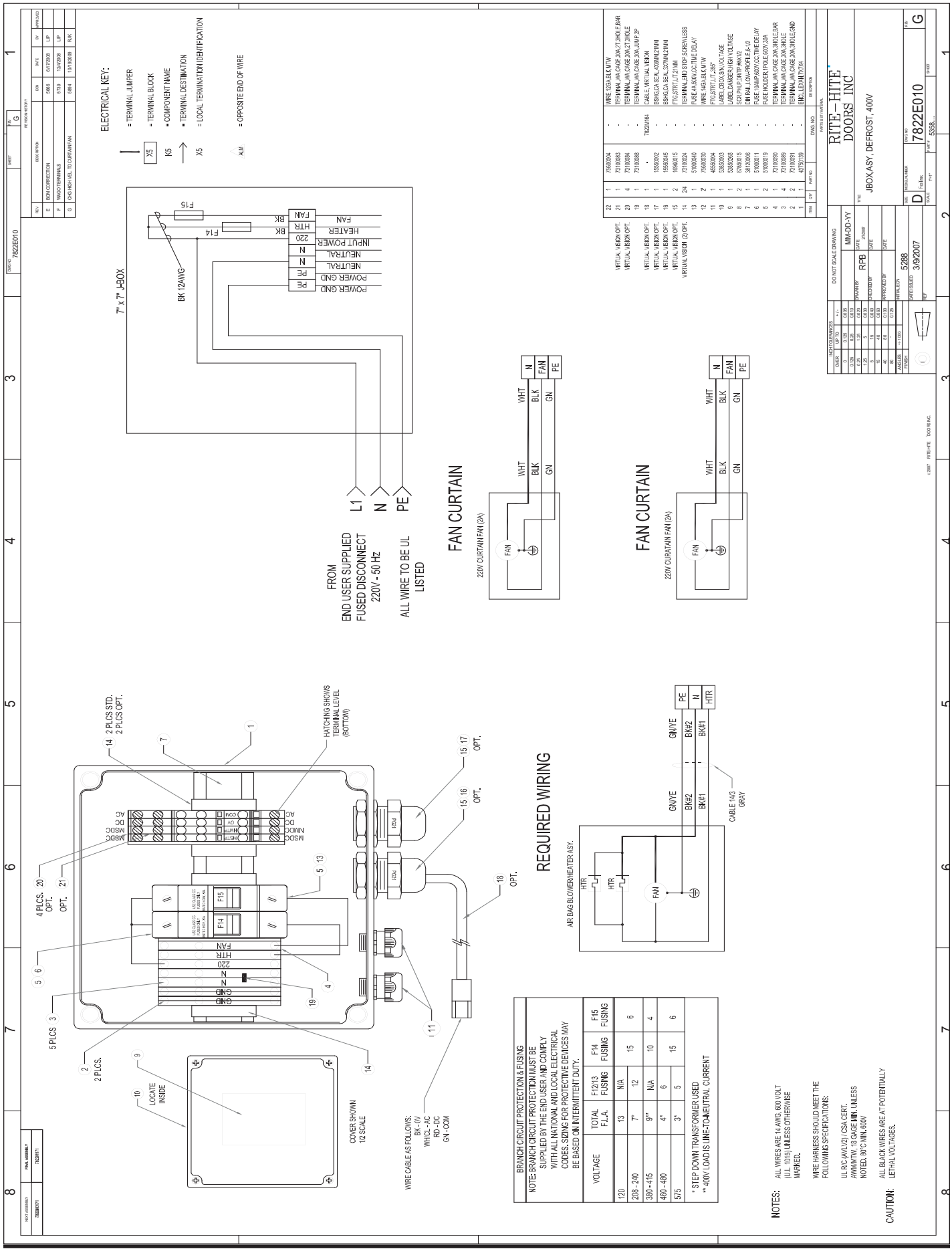
DEFROST JUNCTION BOX WIRING 208/230/460/575V



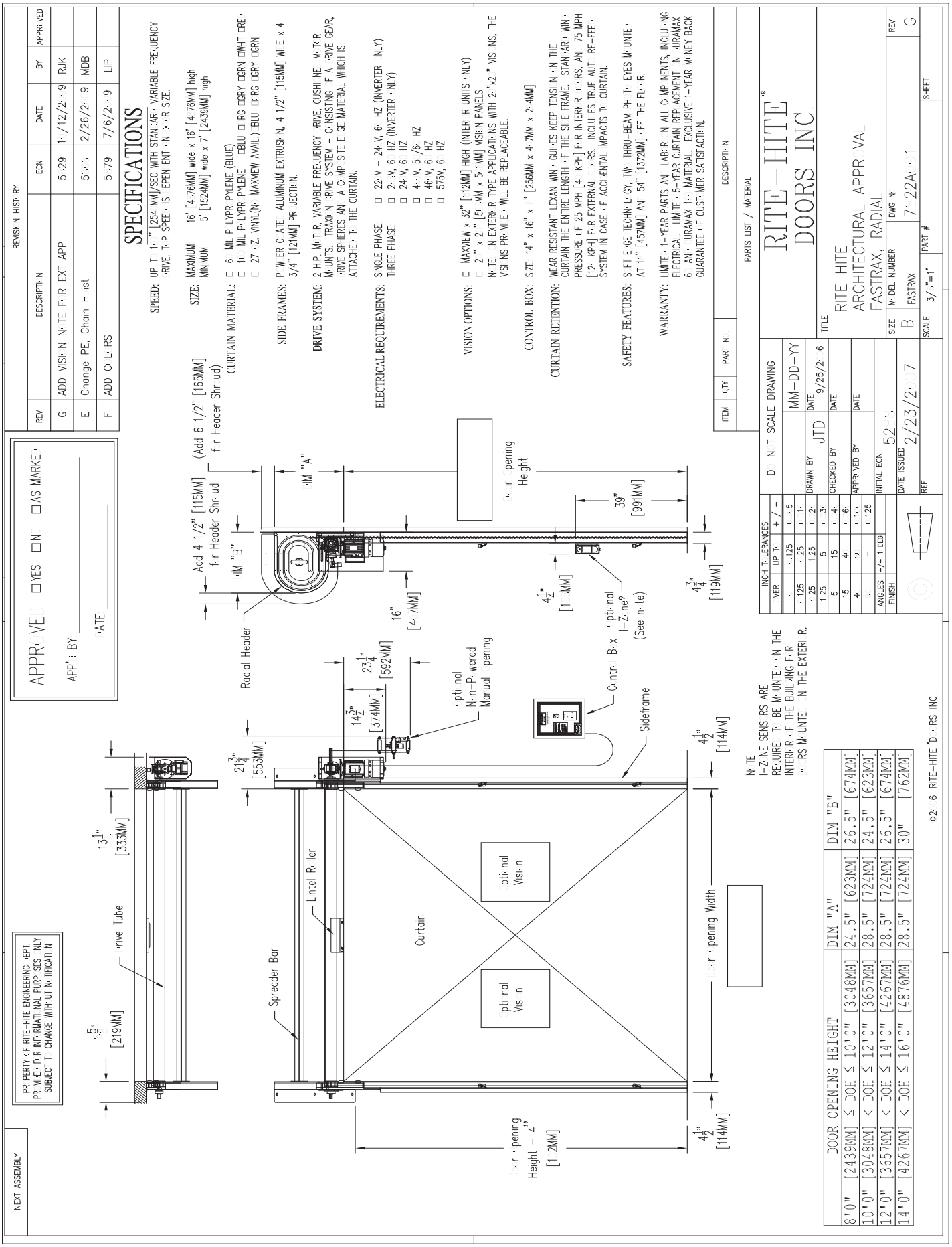
DEFROST JUNCTION BOX WIRING 120V



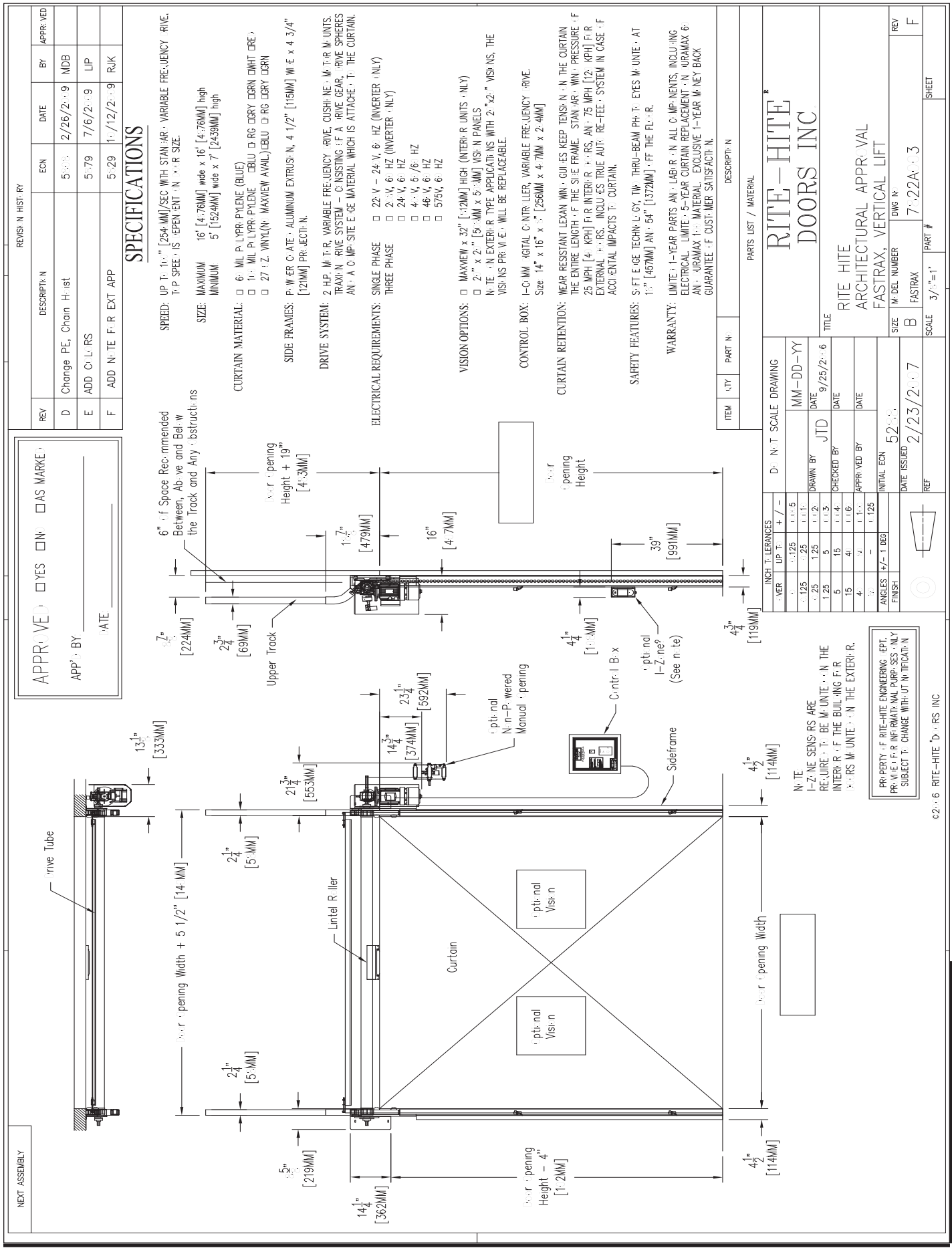
DEFROST JUNCTION BOX WIRING 400V



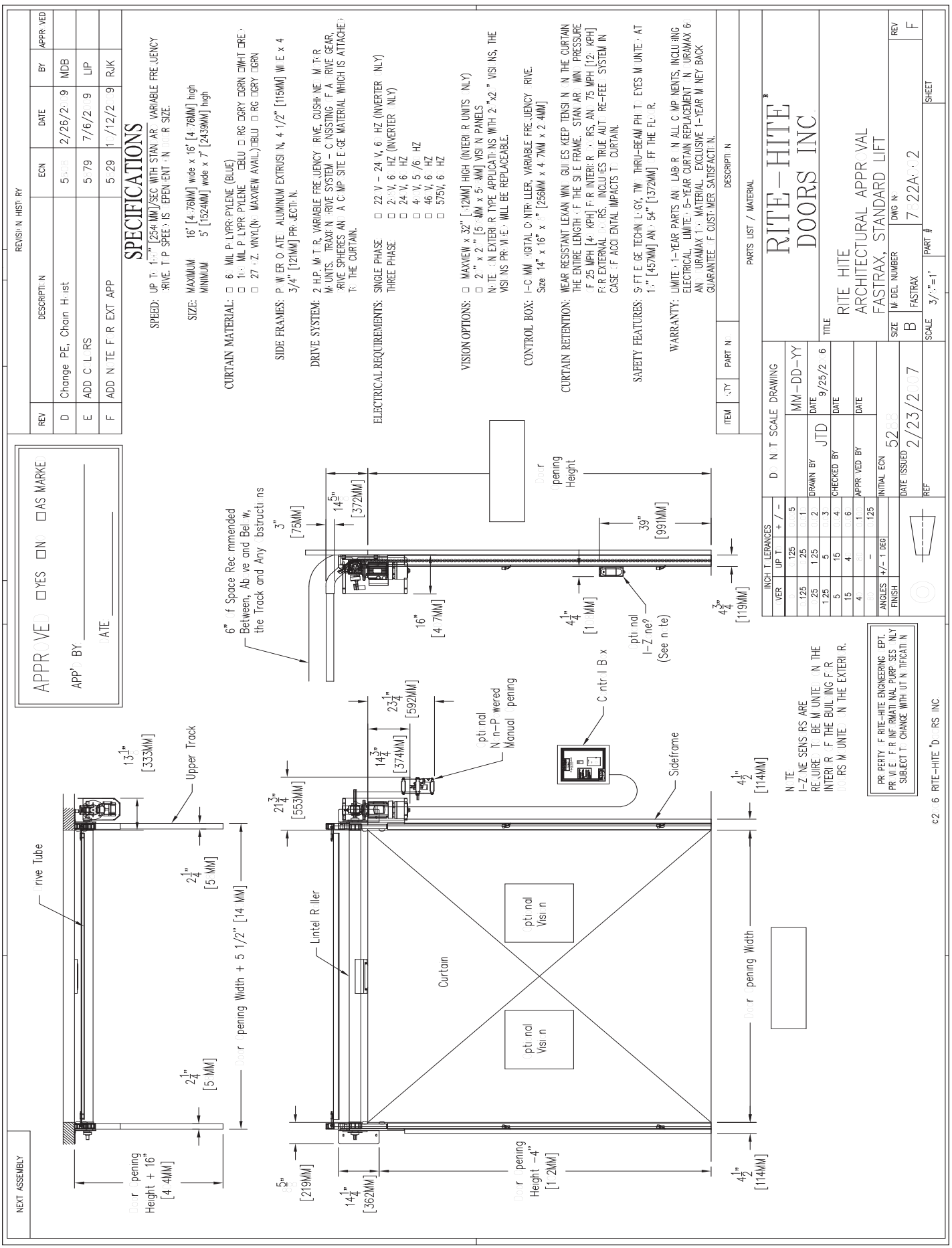
RADIAL ARCHITECTURAL DRAWING



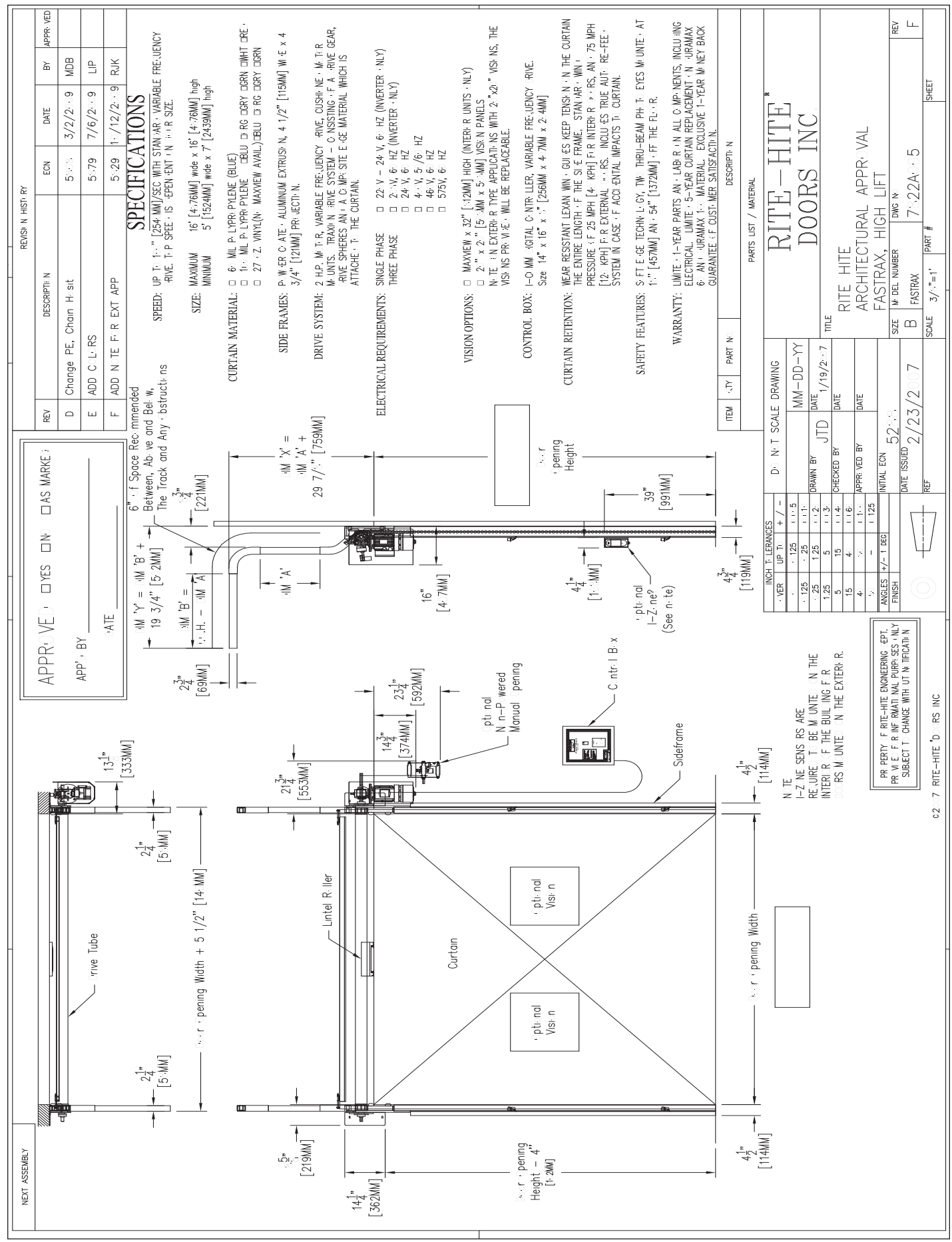
VERTICAL ARCHITECTURAL DRAWING



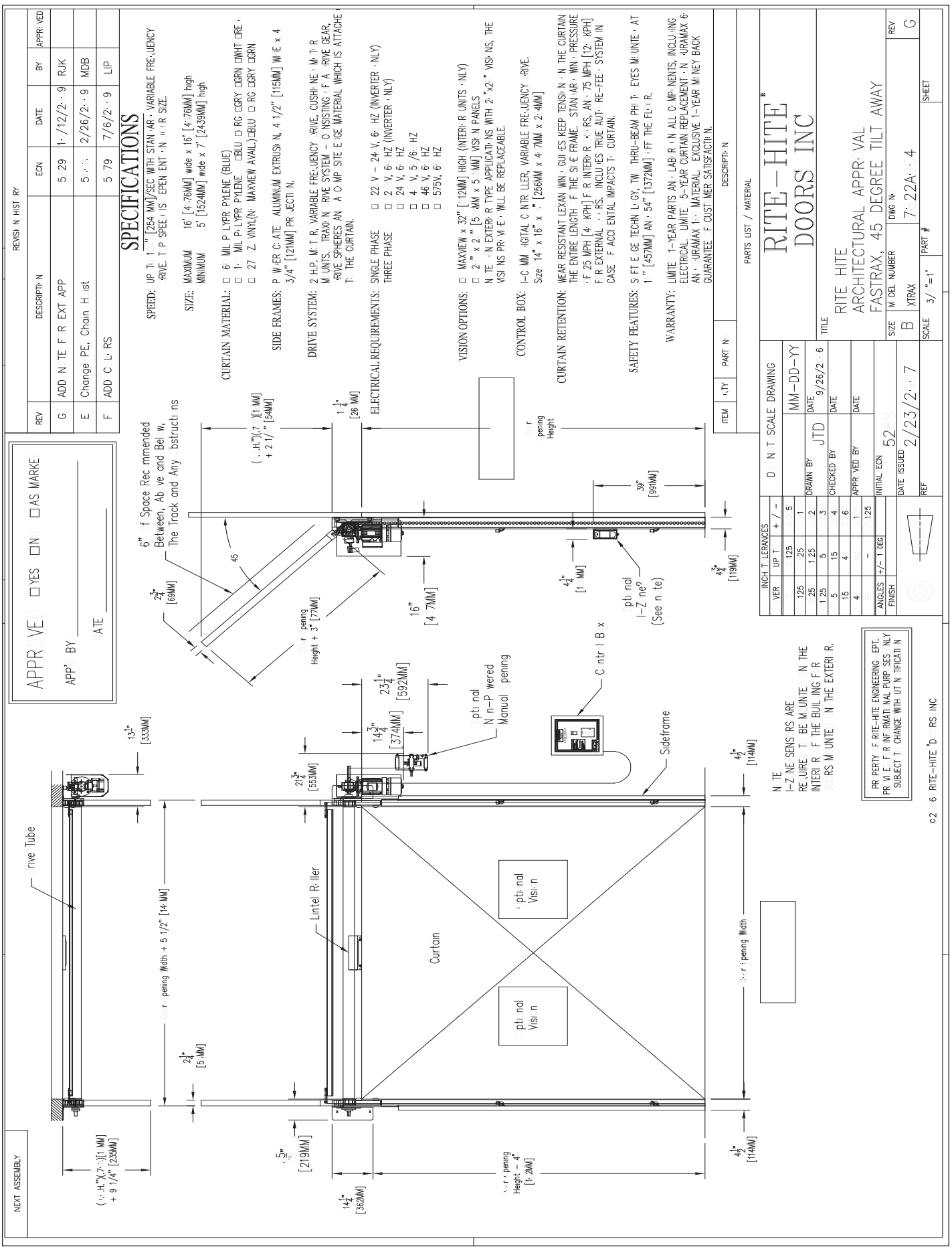
STANDARD LIFT ARCHITECTURAL DRAWING



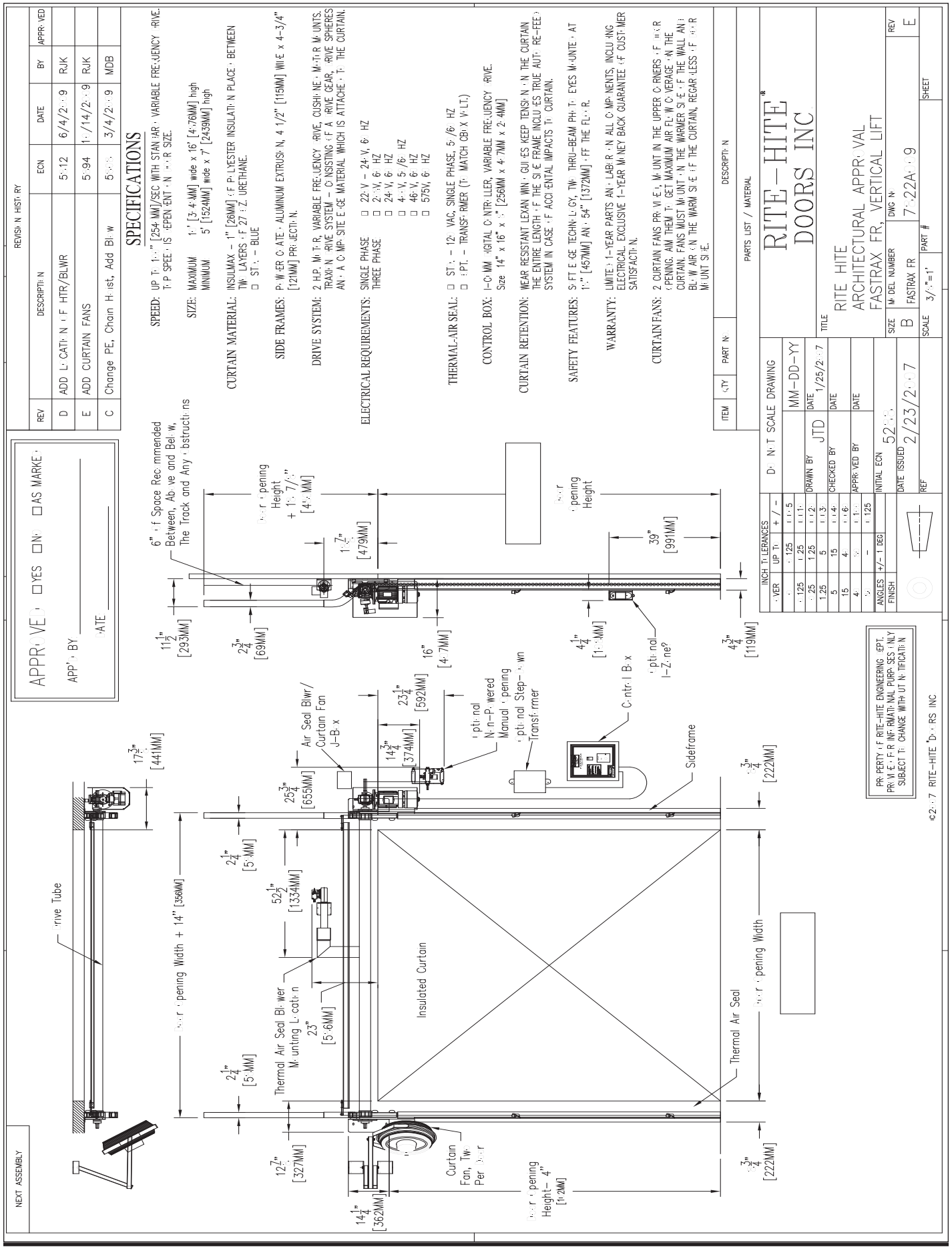
HIGH LIFT ARCHITECTURAL DRAWING



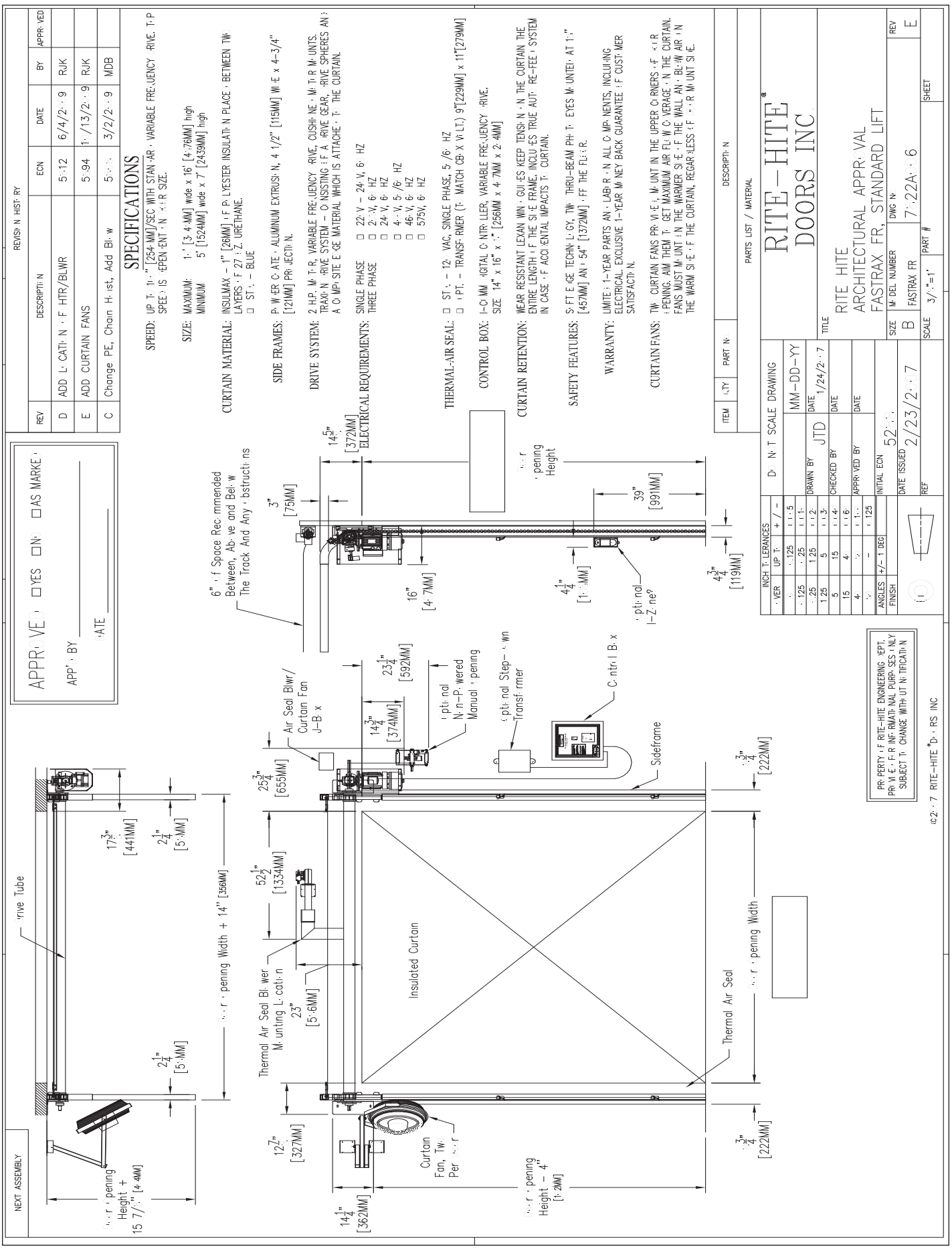
45° TILT ARCHITECTURAL DRAWING



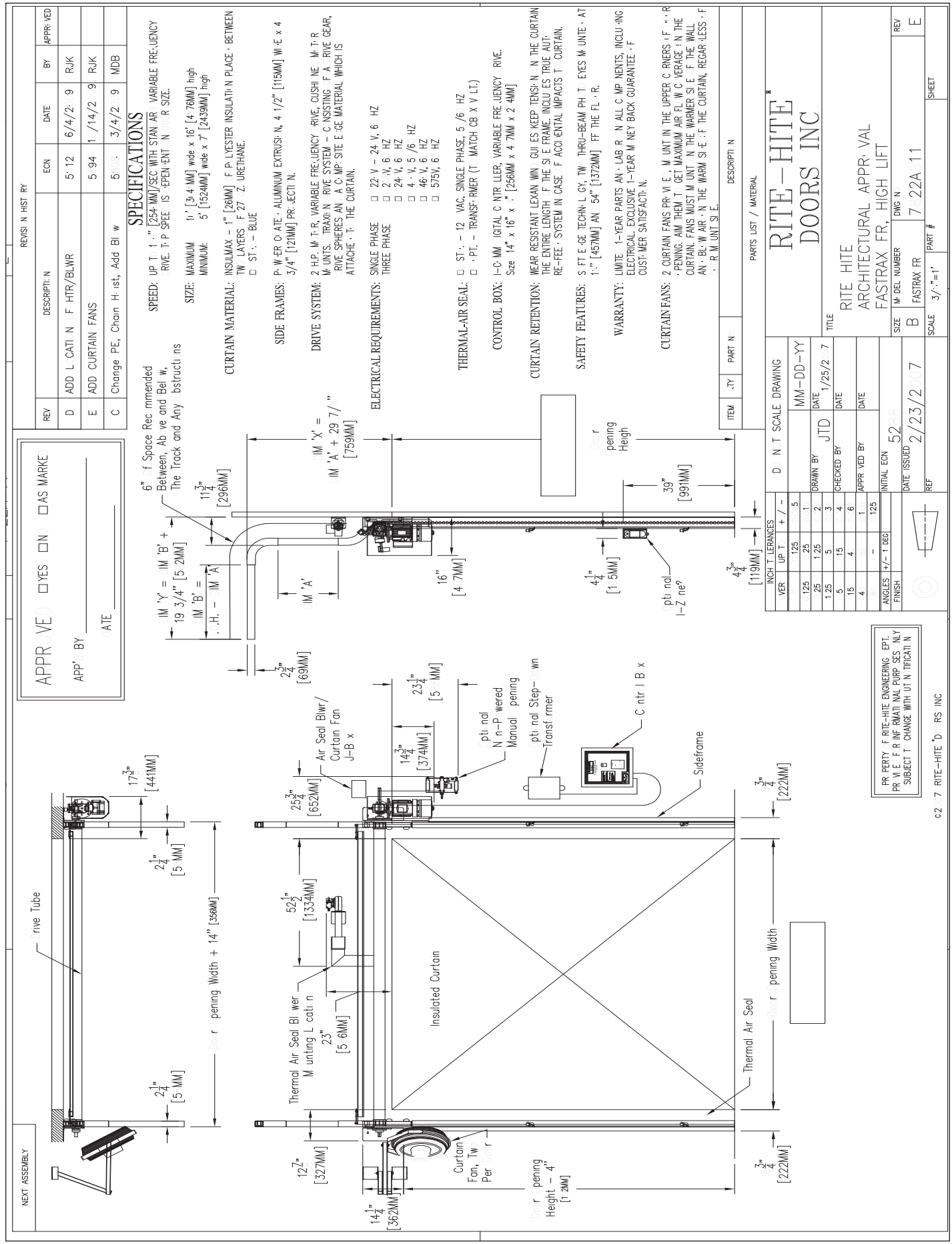
FR VERTICAL ARCHITECTURAL DRAWING



FR STANDARD ARCHITECTURAL DRAWING



FR HIGH LIFT ARCHITECTURAL DRAWING



FR 45° TILT ARCHITECTURAL DRAWING