RITE-HITE®
ALWAYS LOOKING AHEAD

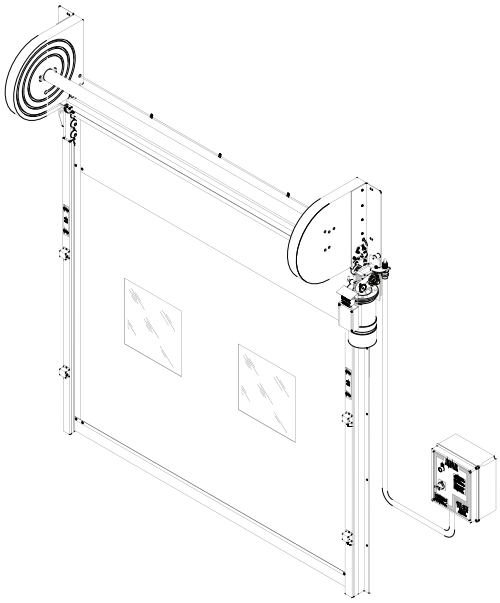
FasTrax® FasTrax® FR
FasTrax® LD FasTrax® FR LD

High Speed Doors

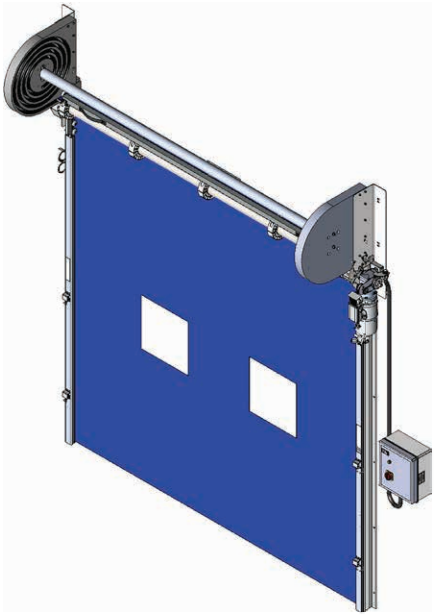
Installation/Owner's Manual

This manual covers units shipped:

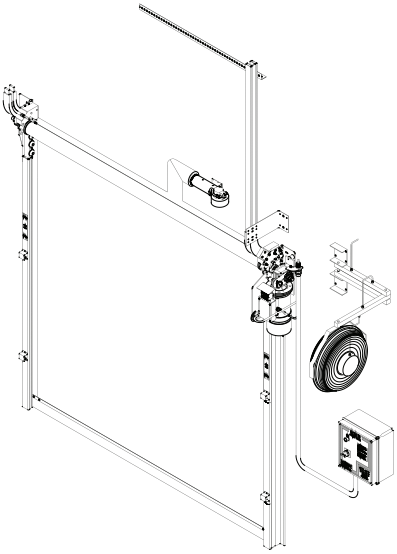
Model: **FSTX**
> 2/3/2017 Revised Non-Powered Opening and Drive Shroud. Refer to FSTXN for doors prior.



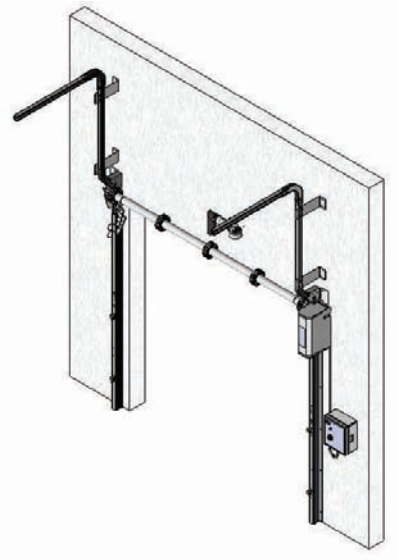
Model: **FSTXLD (Large Driver)**
> 2/3/2017 Revised Non-Powered Opening and Drive Shroud. Refer to FSTXLD_A for doors prior.



Model: **FSTXFR (Freezer)**
> 2/3/2017 Revised Non-Powered Opening and Drive Shroud. Refer to FSTXFRN for doors prior



Model: **FSTXFRLD (Freezer/Large Driver)**
> 2/3/2017 Revised Non-Powered Opening and Drive Shroud. Refer to FSTXFRLD_D for doors prior



ISO 9001 CERTIFIED

Language: English (Hazards are in English and French)

The English version of this manual shall prevail over any error in, or conflicting interpretation of, any translations.

Publication: **AMEN00065 2017-02-17**

NOTICE TO USER

Thank you for purchasing a FasTrax® High Speed Door from Rite-Hite. These unique fabric doors help to maintain and separate different atmospheres.

- The information in this manual applies to FSTX, FSTX LD, FSTX FR and FSTX FR LD, unless otherwise noted.
- Read and understand manual before beginning the installation, operation or servicing of this door.
- Before work begins, verify space clearance requirements from Architectural Drawings.
- Complete **"Final Checklist" on page 71** prior to leaving site.
- Store manual near door.

Rite-Hite reserves the right to substitute and/or modify parts and drawings (electrical & architectural) from those contained in this manual. Separate prints may be included with the unit.

Your local Rite-Hite Representative provides the Planned Maintenance Program (P.M.P.) which can be fitted to your specific operation. Contact your local Rite-Hite representative or Technical Support at:
(U.S.) 1-563-589-2722
(E.U.) +49-5693 98700
(S.A.) +55 21 99616 4421

NOTICE

Store dry between 40° and 80° F, [4° and 27° C].

The Rite-Hite products in this manual are covered by one or more of the following U.S. patents: 5887385, 6145571, 6148897, 6192960, 6212826, 6321822, 6325195, 6330763, 6360487, 6481487, 6560927, 6598648, 6615898, 6688374, 6698490, 6837296, 6901703, 6942000, 6964289, 7034682, 7045764, 7111661, 7114753, 7151450, 7578097, 7699089, 7748431, 7757437, 8037921, 8167020, 8113265, 8863815, 8857498, 9222304 and may be covered by additional pending U.S. and foreign patent applications.

Rite-Hite®, FasTrax®, FasTrax® FR, FasTrax® FR LD, FasTrax® CL, FasTrax® XL, FasTrax® LD, LiteSpeed™, SplitSecond™, TrakLine™, Bug-Shield™, Iso Tek®, Barrier® Glider, Dok-Dor™ are trademarks of Rite-Hite®.

FCC Compliance

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesirable operation.

Recommended Parts

QTY	DESCRIPTION	PART #
2	Bumper, Rubber, Motor (FSTX / FSTXFR)	15250081
2	Fuse, 1 Amp, 250V, Time Delay	51000002
2	Fuse, 2 Amp, 250V, Time Delay	51000005
2	Kit, Drive Sphere, Qty 20	53700561
1	Photoeye Source	53700702
1	Photoeye Receiver	53700703
1	Kit, i-COMM ii	53700860
1	Kit, Encoder, Gearbox, #50 (FSTX / FSTXFR / LD / FRLD)	53700784
1	Kit, Encoder, Gearbox, #63 (FSTX LD / FSTXFRLD)	53700878
2	Superlube	54650002

Special Features

i-COMM™ ii Universal Controller
Heavy-Duty Industrial Materials
No Springs, Pulleys or Weights
InsulMax™ Curtain w/Auto Re-feed
DuraMax™ Curtain w/Auto Re-feed
I-Zone™ Area Detection System
Flexible “You Build It” Track Design
Adjustable Speeds
Encoder Positioning
Virtual Vision
Powder Coated Materials
Soft-Edge™ Technology
High Pressure Capability
Pre-wired Control Cable

SAFETY

Safety Identifications

DANGER

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Indique une situation dangereuse qui, si elle n'est pas évitée, peut entraîner la mort ou de graves blessures.

WARNING / AVERTISSEMENT

Indicates a hazardous situation which, if not avoided, *could result in death or serious injury*.

Indique une situation dangereuse qui, si elle n'est pas évitée, *peut entraîner la mort ou des blessures graves*.

CAUTION / ATTENTION

Indicates a hazardous situation which, if not avoided, *could result in minor or moderate injury*.

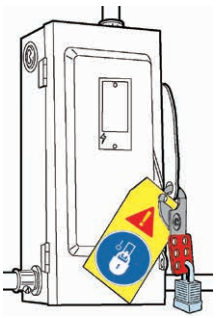
Indique une situation dangereuse qui, si elle n'est pas évitée, *peut entraîner des blessures légères à modérées.*

NOTICE

Indicates a situation which can cause damage to the equipment, personal property and/or the environment, or cause the equipment to operate improperly.

NOTE: A note is used to inform you of important installation, operation, or maintenance information.

Lockout Procedure



In addition to barricading the work area and posting safety warnings, the power supply/control must:

- Be disconnected or locked in the OFF position using a lockout device approved by your local codes.
- Clearly state that repairs are being made.
- List who is responsible for the lockout condition.

  NOTE: This should be the only person who has the ability to remove the warnings and lockout device.
- Have signage that withstand environmental conditions (weather, wet and damp etc) and will not deteriorate or become unreadable.

SAFETY

General

DANGER

A qualified electrician should install the wiring in accordance with local electrical codes.

Use lockout procedures to prevent death or severe personal injury.

L'installation du câblage doit être effectuée par un électricien qualifié, conformément aux normes électriques nationales et locales.

Afin de réduire le risque de blessures graves ou mortelles, utilisez des procédures de verrouillage.

DANGER

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, a ground bushing and green/yellow wire must be properly attached to the conduit for connection to the ground terminal, per local electrical codes.

Pour réduire le risque de blessures ou de décès,un raccordement de terre doit être fait à la boite de contrôle verte/jaune de la borne de terre.

Si le connecteur de terre utilisé est un conduit métallique, un manchon de mise à la terre et un câble vert/jaune doivent être correctement fixés au conduit un raccordement à la borne de terre, par codes électriques locales.

WARNING / AVERTISSEMENT

Failure to restrict the curtain speed can result in damage to product or injury to personnel. The curtain may close very quickly if the brake is fully released.

Releasing the brake partially will allow the door to close smoothly.

Le non-respect de restreindre le rideau vitesse peut entraîner des dommages au produit ou blesser le personnel. Le rideau peut fermer très rapidement si le frein est complètement desserré.

Relâchant le frein partiellement permettra à la porte pour la fermer sans heurts.

CAUTION / ATTENTION

To prevent unauthorized use, barricade the door opening on both sides until the door has been completely installed.

Pour empêcher toute utilisation non autorisée, barricade l'ouverture des portes des deux côtés jusqu'à ce que la porte a été complètement installé.

NOTICE

Failure to install conduit at the bottom of the control box may void the warranty. The safest location for conduit is at the bottom of the control box.

Be extremely careful when drilling conduit holes into the control box. Drilling too deeply or allowing debris to fall into electrical components may cause severe equipment damage or component failure.

DO NOT turn control box upside down when drilling holes. Holes on top of control box may allow dust and moisture to enter the control box.

NOTICE

In freezer and cooler applications where a conduit passes from a warm to cold temperature zone, the conduit must be sealed with an approved material per local electrical codes.

INSTALLATION

General

NOTE: Check for electrical prints included in the parts or control box. They supersede any prints in this manual.

1. Alternate measurements in brackets are in [metric].
2. Match control box serial number with track serial number.
3. Make sure you are working at the correct location and have any required work permits.
4. Inspect installation site to make sure area is free of overhead obstructions (sprinkler pipes, HVAC systems, electrical supply lines, etc.) that might interfere with the lifting of the header assembly during installation.
5. Detour material handling equipment (fork lift trucks, etc.) during the installation of the door.
6. Make sure that the electrician is ready to bring the correct electrical power supply to the door control box.
7. Make sure that the electrical power can be shut off without interfering with other plant operations.
8. Move the entire crate of the door components as close to the door opening as possible.
9. If multiple doors are being installed, it is imperative to install the proper control box with the matching door unit. The serial # for your door is on a label located on the side of the control box and lower track, see **page 38**
10. To verify proper installation, use **"Final Checklist" on page 71**.
11. Install *Activation & Optional* equipment after verifying door operation.

Required Tools

Fork and scissors lift	Hammer drill (cordless or electric)
Level (laser or hydro)	25ft [8m] Tape measure
Ladder 6ft - 8ft [2m - 2.5m]	Wire strippers (Small-22 AWG [.64mm])
Utility knife	6ft [2m] Carpenter's level
Electrical Tape	Square / Straight Edge
Hammer	5/16in [10mm] Nut Driver
Plumb Bob	"C" Clamps
7/16in, 1/2in, 9/16in, 3/4in, 15/16in open end and/or socket wrench	
11/16in x 12in [17mm x 305mm] drill bit for thru bolting	
Straight/Philips Screwdrivers (small 1/8in [3mm] spade)	
Phillips Bit and Drill Bits for Drill	
1/2in [13mm] Masonry and/or drill bit for thru bolting	
Allen Wrench Set (1/8in, 3/16in, 5/32in, 1/4in, 2mm)	
Stainless steel mounting hardware (not provided).	

Door Jamb

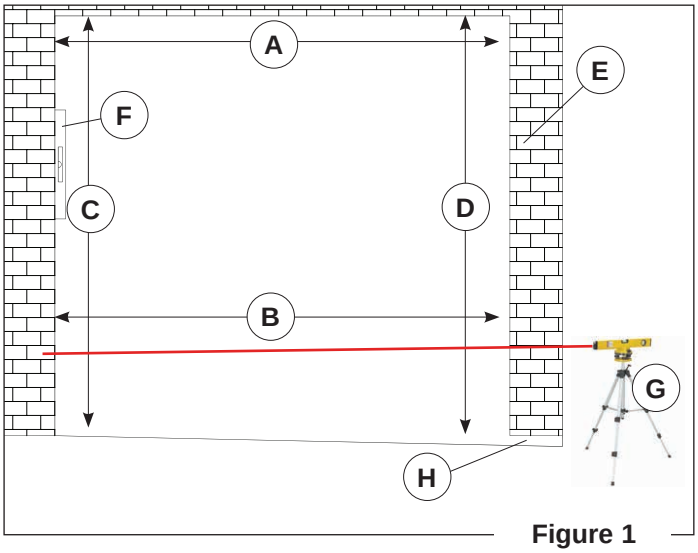


Figure 1

1. Measure Door Opening Width at the top (A) and floor (B).
2. Measure Door Opening Height at left side (C) and right side (D).
3. Dimensions from Steps 1-2 should be ± 1/2in [13mm] of the dimensions listed on the serial number label. If the measurements do not agree, STOP! Contact your Rite-Hite representative.
4. Surface MUST be flat, smooth and collinear with opposite side (E).
5. Using a 6ft [2m] carpenter's level (F), verify that the door jambs and header are plumb and perpendicular.
6. Using a laser level (G), place a mark where the laser is sighted on each side of the jamb to determine if the floor is level. Measure both sides from floor to the mark and if the floor is not level to ± 1/8in [3mm], shim under the lower track that will be located on the "Low Side" (H) (greatest measurement) of the door opening.
7. For space clearance requirements, refer to Architectural Drawings or call your Rite-Hite Representative.

INSTALLATION

Mounting Methods

Acceptable Anchor Types

These anchor types provide the necessary strength for secure attachment of the unit to the building wall.

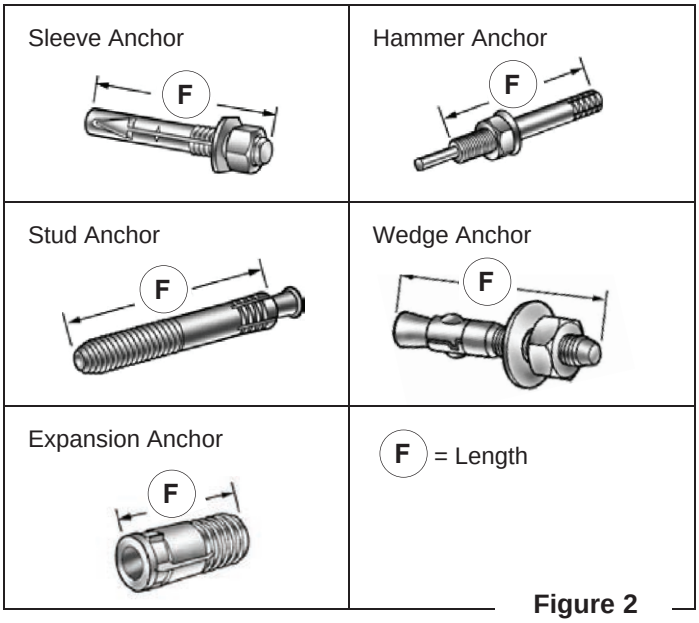


Figure 2

Length of anchor should be long enough to engage concrete structure by a minimum of 2in [51mm]. Length should be increased to allow anchor to extend through any brick or aggregate fascia on exterior into concrete structure a min. of 2in [51mm].

Unacceptable Anchor Types

These anchor types are not strong enough for this application and do not provide the ability to tightly secure the unit to the building wall.

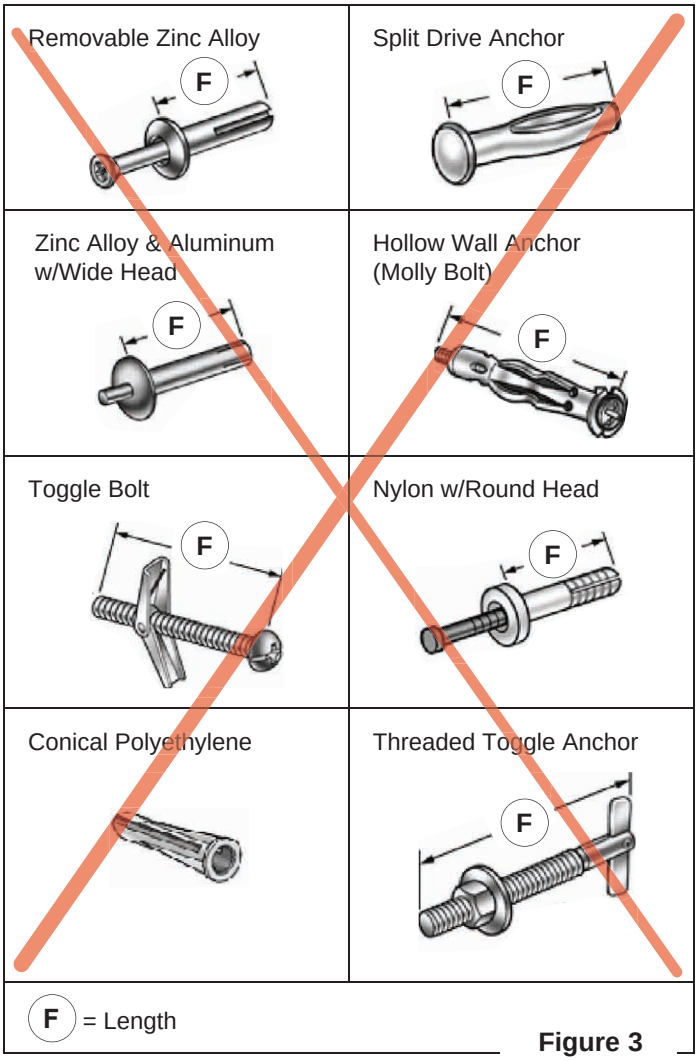


Figure 3

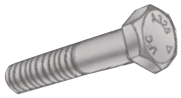
INSTALLATION

Mounting Methods *Continued*

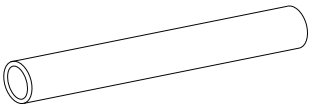
Acceptable Fasteners

Threaded rods can be used and cut to length in the field to suit the application.

Hex head bolts can be used, but length must be determined ahead of time to ensure fasteners will work with application.



Wall Sleeve
3/8in [M10] ID Ø



Backer Plate
1/8in x 6in [3mm x 152mm] Ø

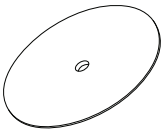


Figure 4

Typical Fastener Spacing

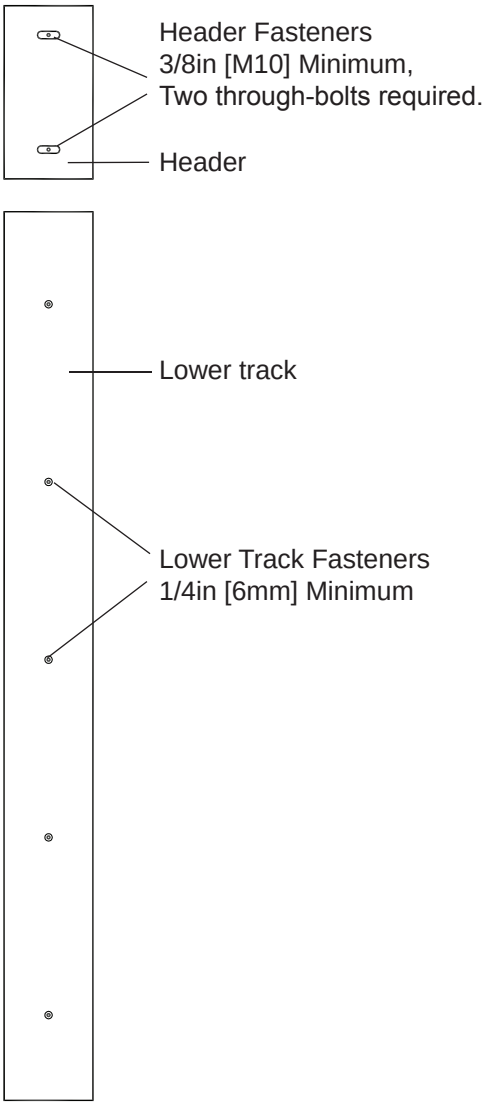


Figure 5

Walls constructed of wood, dry wall, stone block, or insulation require further jamb preparation.

The fastening method, is the responsibility of the installer. It requires the door to remain attached to the wall if, for example, a door fails to open when a vehicle approaches and impacts the non-mounted side. Lower tracks on doors are required to be thru-bolted a minimum of every 4ft [1.2m] with 1/4in [M6] minimum fasteners filling in the remaining holes **(Figure 5)**.

Wall sleeves and backer plates **(Figure 4)** may be required if wall crushes when fasteners are tightened.

INSTALLATION

Mounting Methods *Continued*

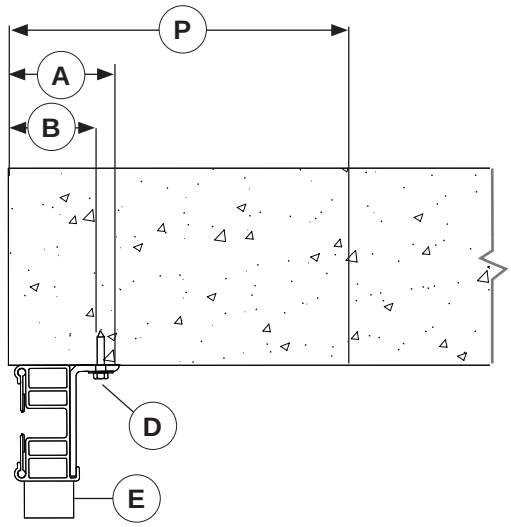
NOTICE

Wall material and mounting surface must be strong enough to support the weight of the door assembly in addition to lateral loads that the door assembly may be subjected to.

Through-bolts must be used with concrete block and brick walls. Do Not use Anchors.

Concrete Wall*

FasTrax, FasTrax LD



FasTrax FR, FasTrax FR LD

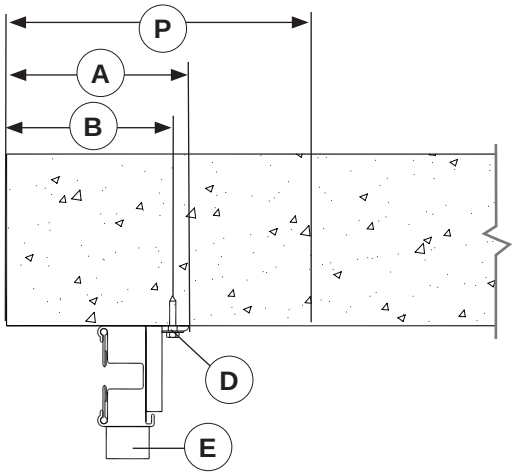
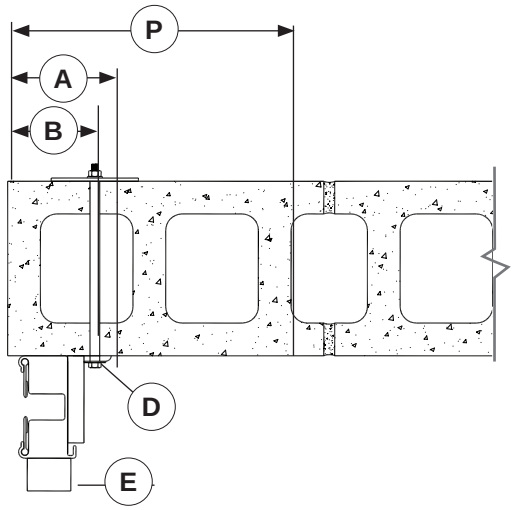


Figure 6

Concrete Block or Brick Wall*

FasTrax, FasTrax LD



FasTrax FR, FasTrax FR LD

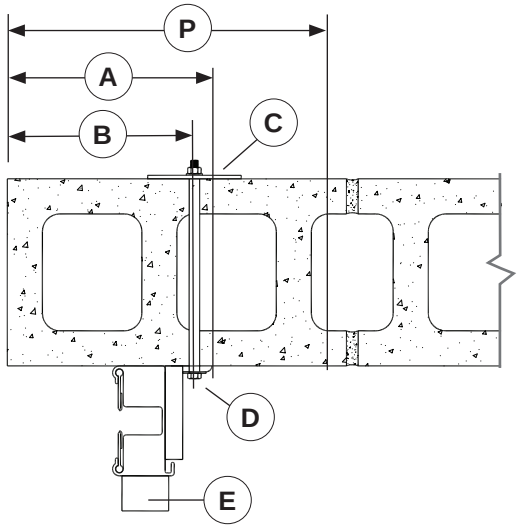


Figure 7

Through-bolt fastening is required if the mortar joint will not support the members. Bore a hole through the wall. Use a 3/8in [M10] diameter threaded rod with a washer, nut, and jam nut on each end. It may be necessary to install a back-up plate (steel or wood) when the wall will not support the bolt.

Install through-bolts with 1/4in [M6] fasteners a minimum of every 4ft [1.2m] with appropriate fasteners filling in the remaining holes.

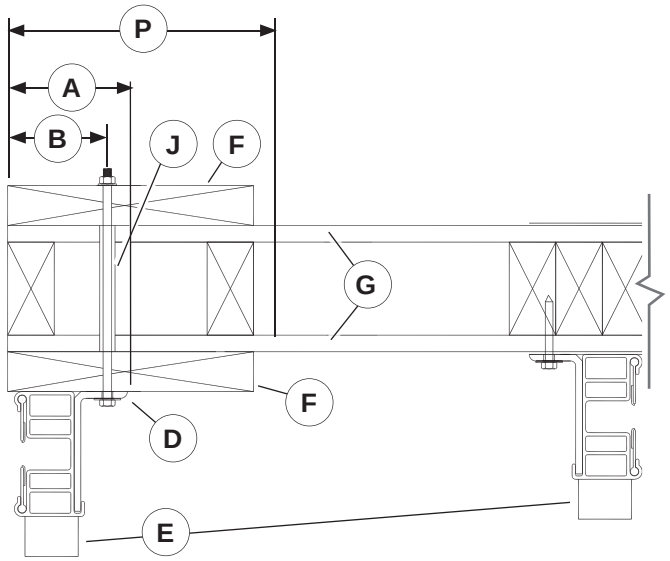
*See **page 12** for legend

INSTALLATION

Mounting Methods *Continued*

Drywall*

FasTrax, FasTrax LD



FasTrax FR, FasTrax FR LD

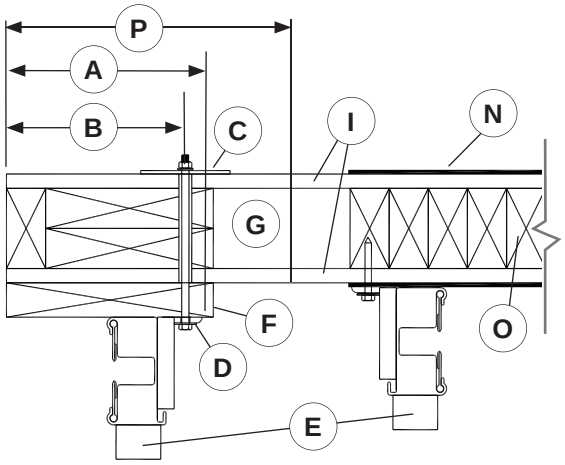
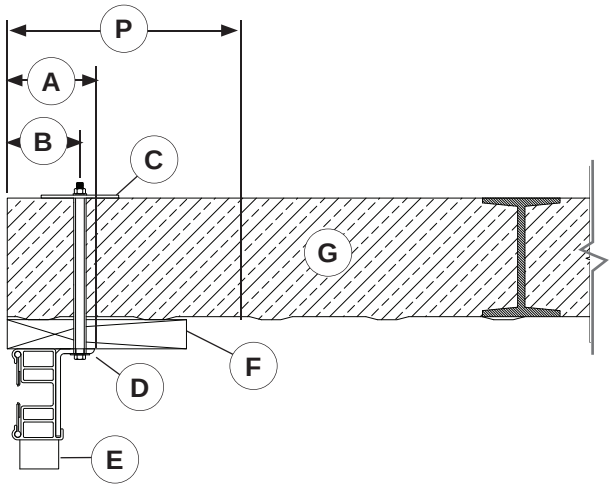


Figure 8

Walls constructed with steel studs, should be a minimum of 20 [1mm] gauge for proper support. If less than 20 [1mm] gauge, further support is required.

Insulated Panel Wall*

FasTrax, FasTrax LD



FasTrax FR, FasTrax FR LD

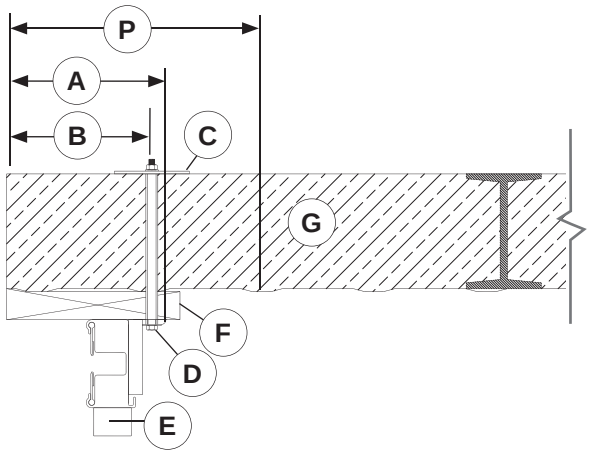


Figure 9

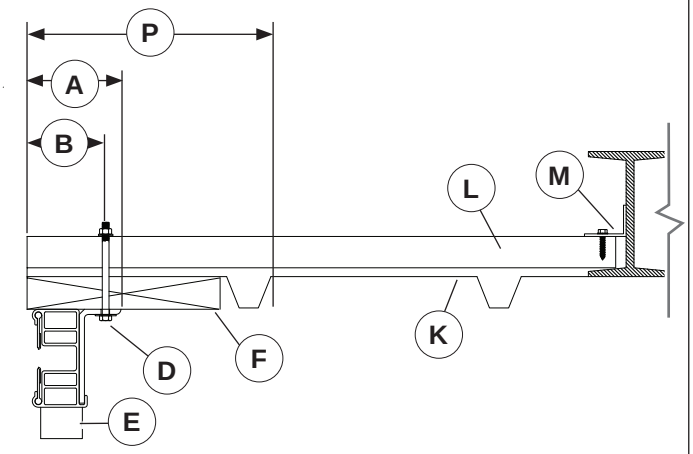
*See **page 12** for legend

INSTALLATION

Mounting Methods *Continued*

Ribbed Metal Wall*

FasTrax, FasTrax LD



FasTrax FR, FasTrax FR LD

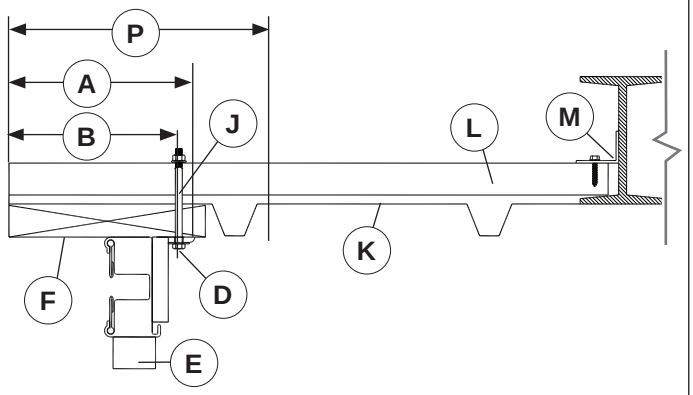
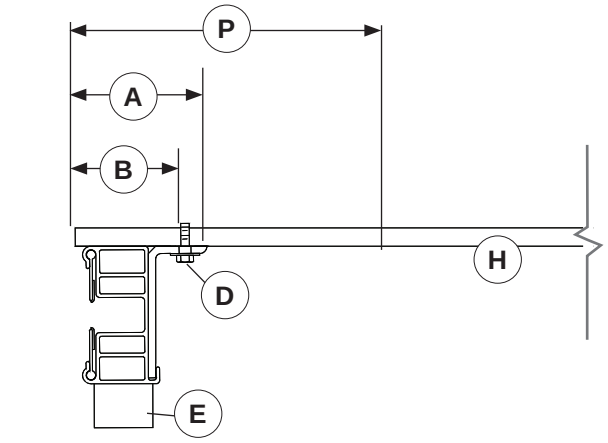


Figure 10

Walls with ribbed metal wall construction must have structural steel added to the face of the jamb and must be structurally sound for lower track installation.

Steel Member*

FasTrax, FasTrax LD



FasTrax FR, FasTrax FR LD

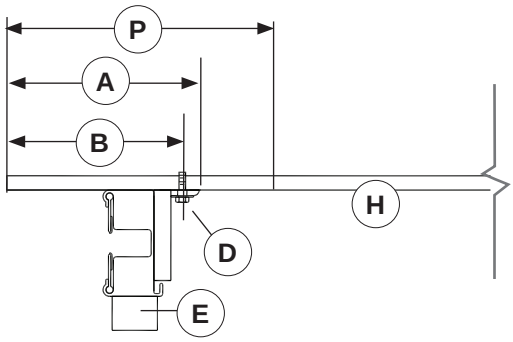


Figure 11

*See **page 12** for legend

INSTALLATION

Mounting Methods *Continued*

A. Lower Track Flat Space required:

FasTrax, FasTrax LD
4 1/2in [114mm]

FasTrax FR, FasTrax FR LD
8 3/4in [222mm]

B. Hole center line location

FasTrax, FasTrax LD
3 3/4in [95mm]

FasTrax FR, FasTrax FR LD
8in [203mm]

C. Minimum Backer Plate*:
1/8in x 6in ø [6mm x 152mm]

D. Minimum Fasteners Required*:
3/8in [10mm] for Header Bracket
1/4in [6mm] for Sideframe

E. Lower Track

F. Filler Board ordered through Rite-Hite or supplied by others

G. Insulation

H. Minimum Steel Member:
5/16in [8mm]

I. Drywall

J. Wall Sleeve

K. Corrugated Metal Siding

L. 2in x 6in [51mm x 152mm] or Structural Steel Channel Backer*

M. Building Structural Member Angle Bracket*

N. Any Jamb Wrap flange/leg for flat mounting surface must be at least

FasTrax, FasTrax LD
4 1/2in [114mm]

FasTrax FR, FasTrax FR LD
8 3/4in [222mm]

O. Stacked 2in x 4in or 2in x 6 or 2in x 8in [51mm x 102mm or 51mm x 152mm or 51mm x 203mm]

P. *Approximate flat space required to install motor assembly:*
14in [356mm]

*Supplied by others

INSTALLATION

Lower Track

NOTICE

If door is equipped with these options:

Weld Plate – proceed to **page 48**
Poly Lumber – proceed to **page 63**

The lower tracks require mounting at the proper width.

Too wide:
Excess wear is placed on the drive spheres

Too narrow:
The curtain may appear wavy or crease in the center

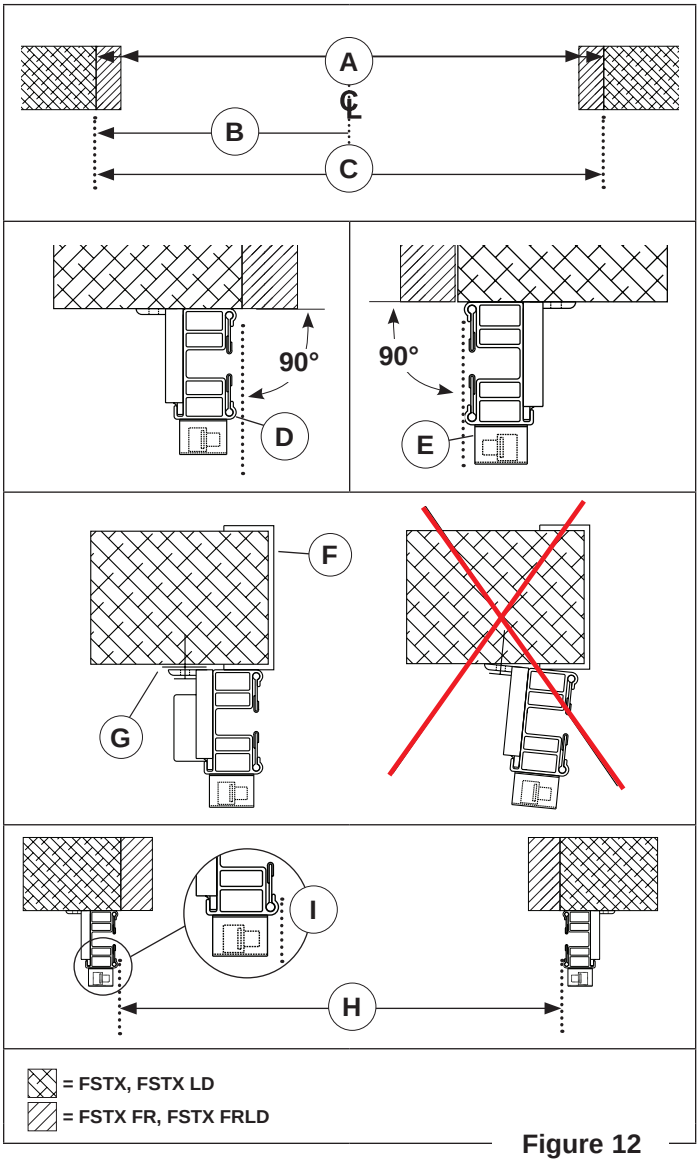


Figure 12

1. Measure Door Opening Width (A), find center and place mark on the floor.
2. Measure from the centerline and place a mark on the floor at:

   FasTrax, FasTrax LD
   (B) 1/2 O.D.W. + 1/4in [6mm]

   FasTrax FR, FasTrax FR LD
   (B) 1/2 O.D.W. + 4 1/2in [114mm] (+ 1/16in [1.5mm], -0)
3. From the previously made mark, measure over:

   FasTrax, FasTrax LD
   (C) O.D.W. + 1/2in [13mm] (+ 1/8in [3mm], -0)

   FasTrax FR, FasTrax FR LD
   (C) O.D.W. + 9in [229mm] (+ 1/8in [3mm], -0) and place a mark on the floor.
4. Place non-drive side lower track at the previously made mark on the floor.
5. Lower track must be 90° to wall. Measure the angle from the front edge of the lower track (D). Use shims as required to square the track. If possible, clamp the track in place.
6. Using a 6ft [2m] level, make sure that the track is plumb in both directions.
7. Place drive side lower track at the previously made mark on the floor.
8. Lower track must be 90° to wall. Measure the angle from the front edge of the lower track (E). Use shims as required to square the track. If possible, clamp the track in place.
9. Using a 6ft [2m] level, make sure that the track is plumb in both directions.
10. **If the wall has a jamb cap (F), the lower track MUST be shimmed out (G).**
11. **Verify Critical Dimension (H)**:
    Take this measurement from the front edge of the lower tracks (I).

    FasTrax, FasTrax LD
    (H) O.D.W. + 1/2in [13mm]

    FasTrax FR, FasTrax FR LD
    (H) O.D.W. + 9in [229mm] (+ 1/8in [3mm], -0)

INSTALLATION

Lower Track *Continued*

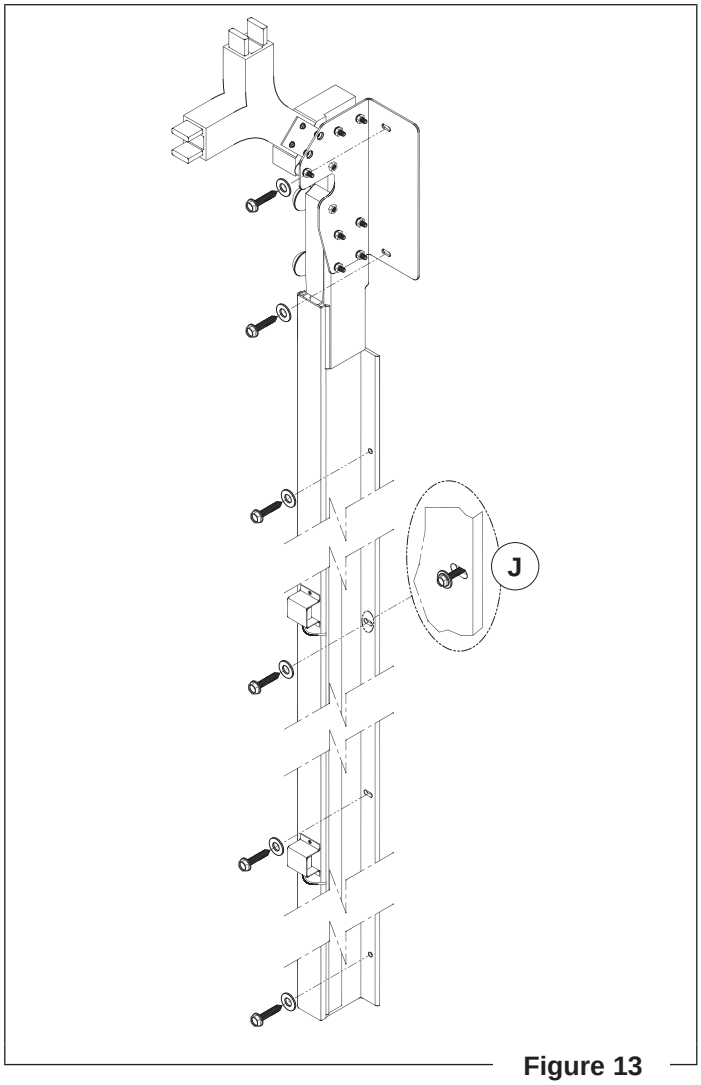


Figure 13

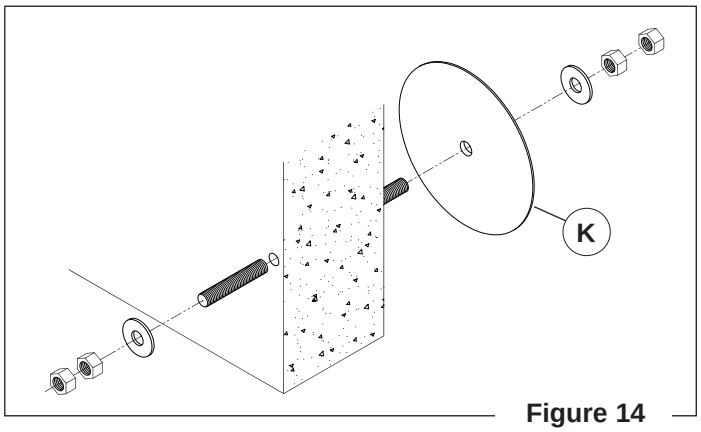


Figure 14

12. Using the predrilled slots (J) in the lower track as a guide, mark and drill a hole and place a fastener in the center of the slot at the top, (middle), bottom and tighten. Slot location will vary based on ordered height.
13. If the hole goes completely through the wall, use thrubolts and backer plates (K) to secure the lower track to the wall. Backer plates (if used) must be clean and either painted or a non-ferrous material. Sleeves may be required if wall collapses when tightening thrubolt. It is the responsibility of the installer to ensure proper lower track spacing and adequate method of fastening to the wall.
14. After the door is installed and operational make sure the curtain is not too tight or loose. Place fasteners in the remaining holes.

    NOTE: All holes must be utilized to prevent lower track movement.

INSTALLATION

Thermal Air Seal (FasTrax FR, FasTrax FR LD)

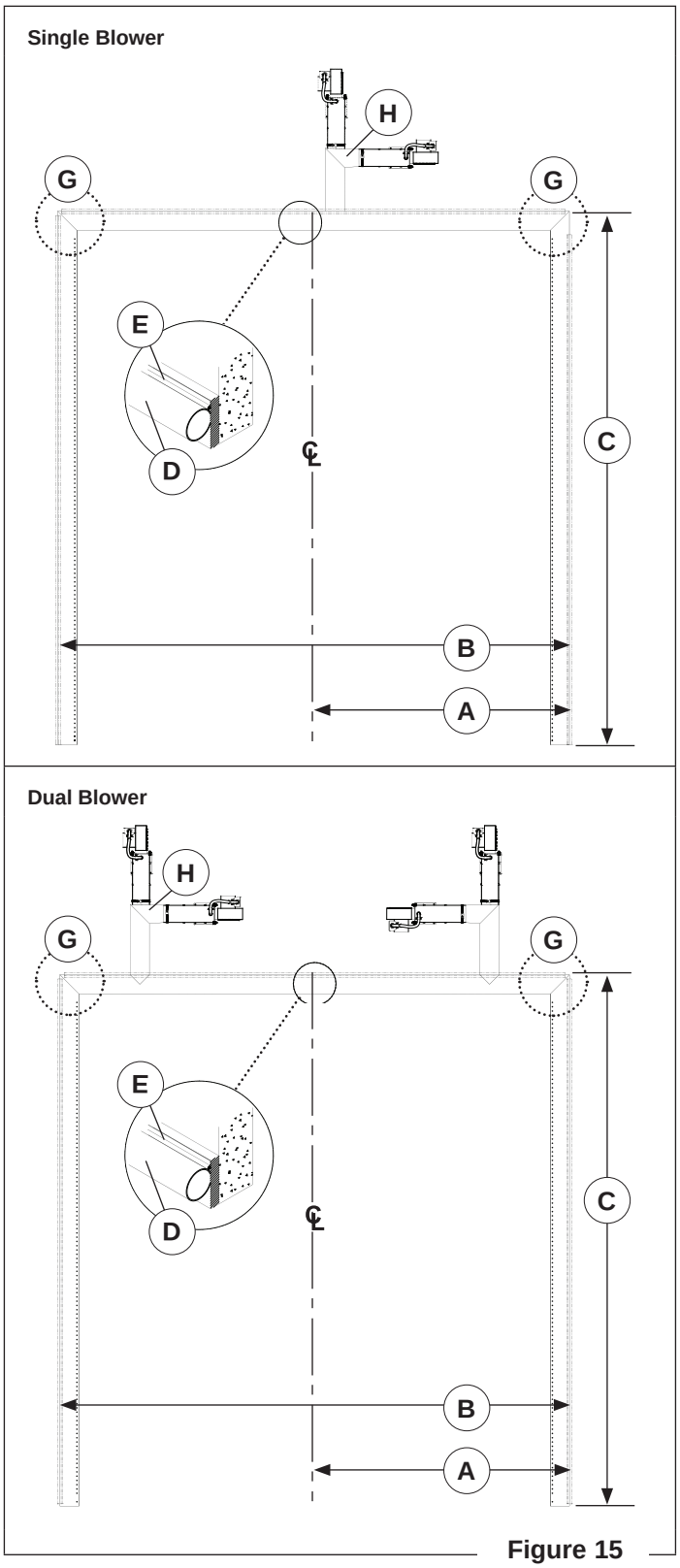


Figure 15

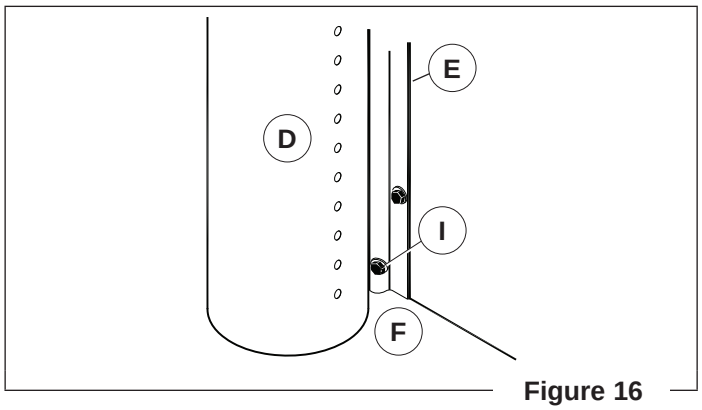


Figure 16

NOTE: See page 40 for space requirements and mounting details.

1. Measure:
   (A) 1/2 O.D.W + 4 1/2in [114mm] from centerline to outside edge of vertical aluminum retainer.
   (B) O.D.W. + 9in [229mm] from this mark to opposite side.
   (C) O.D.H + 10in [254mm] from floor to top edge of aluminum retainer.
2. Fasten thermal air seal (D) aluminum retainer (E) (with provided hardware) to the poly lumber or wall, a minimum of every 18in [457mm].
3. Clamp blower to air seal outlet with cable clamp. **DO NOT** allow blower air seal inlet seal to kink. See page 40 for more blower installation information.
4. Maintain proper air flow through perforated air holes:
   a. Assure vertical air seal leg (D) is tight to the floor (F) and kink free.
   b. Verify screws at corners (G) to prevent air seal from migrating.
5. (H) Thermal air seal outlet is high temp fabric. **Do not replace or add to it.** If required, the 90° elbow can be removed and the blower mounted vertically.
6. Fasten blower to the wall and wire blower.
7. Caulk behind rail to prevent air infiltration.
8. Verify fastener thru retainer (E) and seal rope (I).

INSTALLATION

Thermal Air Seal (FasTrax FR, FasTrax FR LD)

Continued

⚠ CAUTION / ATTENTION

Surface of tube can be hot. Avoid contact.

La surface du tube peut être chaude. Éviter tout contact.

NOTICE

The Thermal Air Seal Blower should only be used when attached to a Rite-Hite air seal.

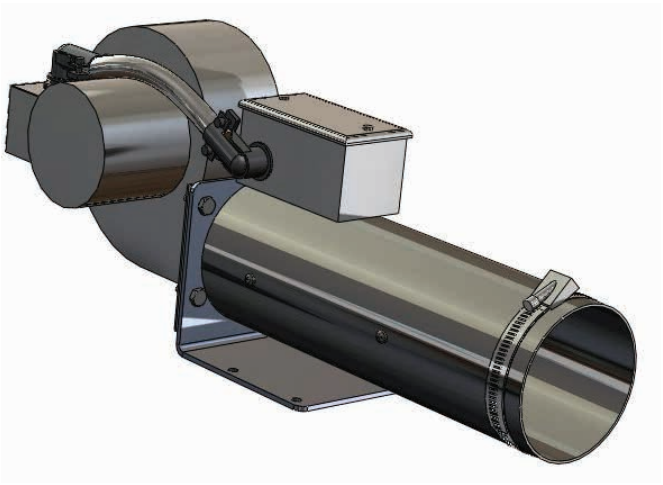


Figure 17

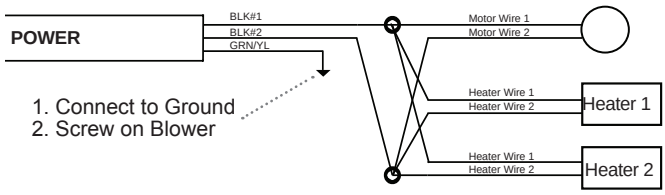


Figure 18

NOTE: Heater/Blower must be permanently connected to power supply. Installer must supply wiring materials.

Specifications:

Self contained heater **"Figure 17"** provides fan forced heat to a door perimeter seal.

Indoor Use Only

Part Number: 110V - 13250080

Part Number: 220V - 13250081

Part Number: 110V Canada - 13250084

Model: PTC

Voltage: 110 or 220V AC

Phase: 1

Frequency: 60 Hz

Power Consumption: 1450W

UL Listed - File E336487

[Drawing 7822E025]

INSTALLATION

Upper Track

Radial (FasTrax, FasTrax LD)

NOTE: FasTrax LD shown, FasTrax similar

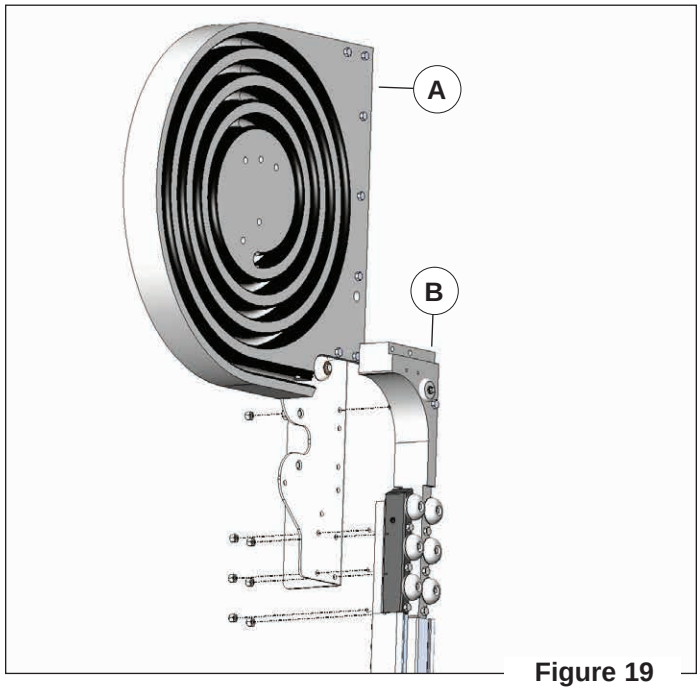


Figure 19

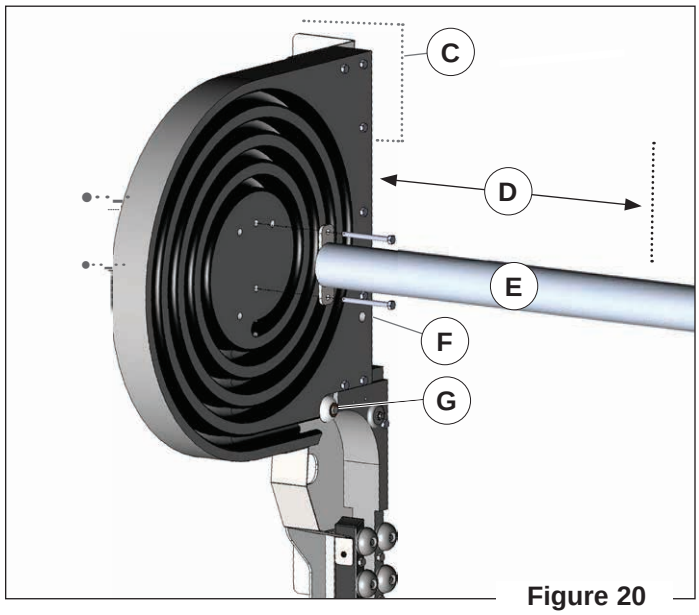


Figure 20

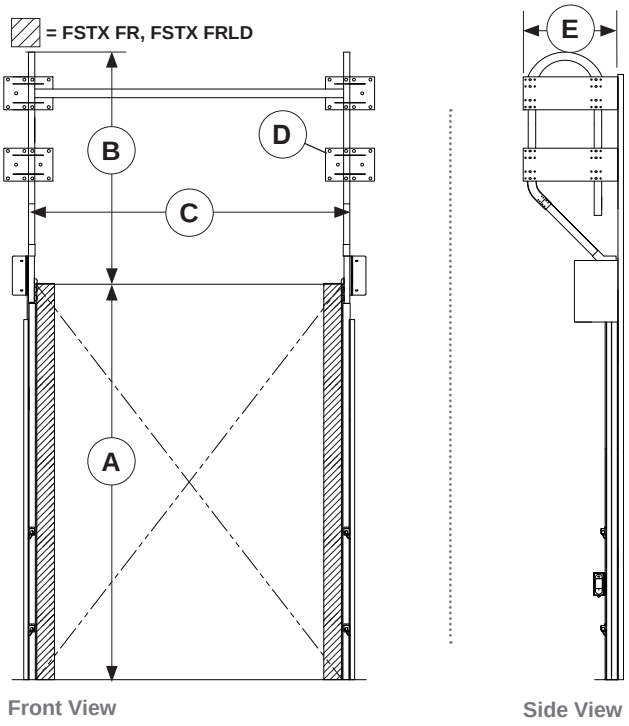
The radial (A) needs to be assembled to the lower track (B). Attach the radial to the lower tracks using the (8) bolts and nuts provided.

1. Verify area (C) behind wall mounting plates is solid.
2. Measurement (D) must be O.D.W. + 1/4in [6mm] ± 1/8in [3mm]. Make sure radials are parallel to each other and square to the wall.
3. Radial doors without a center shroud require a spreader bar (E). Attach bracket to radial with (4) 3/8-16 x 4in [M10 x 102mm] bolts, flat washers and lock nuts.
4. Cut wire tie holding non-drive photoeye cables and route cables thru hole (F) in non-drive radial and across the top of the opening. Fasten to wall using the cable clamps provided. Then route through hole in drive radial.
5. Rear roller (G) on radial is factory installed and must be in place to ensure a smooth curtain transition.

INSTALLATION

Upper Track *Continued*

Wrapback



A. Ordered Door Height (O.D.H.)

B. **FasTrax, FasTrax FR**
O.D.H. / 2 + 12 1/2in [318mm]

FasTrax LD, FasTrax FR LD
O.D.H. / 2 + 15in [381mm]

C. (Measure from outside edges of tracks)

FasTrax, FasTrax LD
O.D.W. + 5 1/2in [140mm] (+ 1/8in [3mm], -0)

FasTrax FR, FasTrax FR LD
O.D.W. + 14in [356mm] (+ 1/8in [3mm], -0)

D. Wall Mount Brackets
(Can be mounted leg in or leg out)

E. 34 1/2in [876mm]

Figure 21

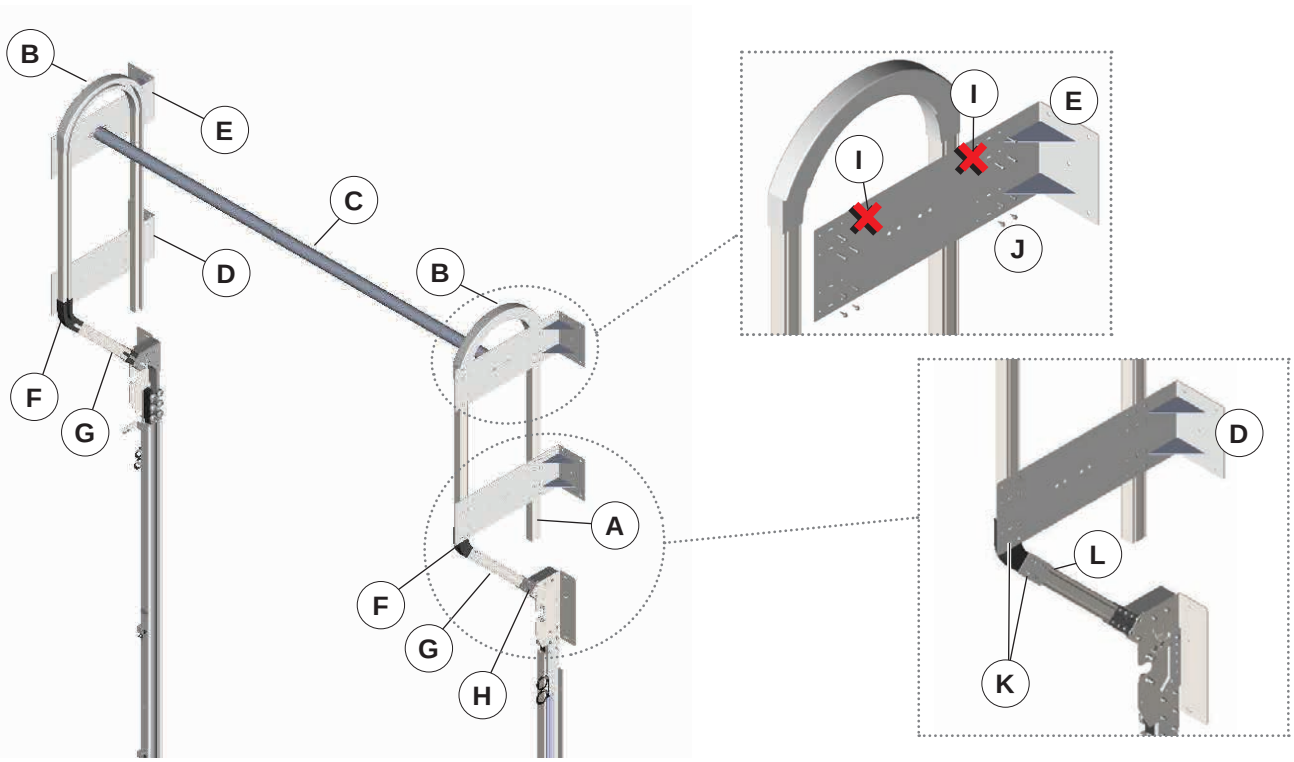


Figure 22

INSTALLATION

Upper Track *Continued*

Wrapback *Continued*

NOTICE

Hold drill perpendicular and level to ensure screws go into the outer cavities of the upper track.
DO NOT drill into curtain groove.

Use fasteners that will support the entire door weight.

1. The proper radius (H) is already assembled to the lower track.
2. Locate the 2 shortest pieces of upper track (G). Slide end of upper track into the lower track splice connector. Pilot holes (.201Ø x 1 1/4in [5mm x 32mm] deep) (K) MUST be pre-drilled into lower track radius. Install 4 lag screws per location.
3. Locate the 2 45° radius pieces (F) and slide onto the first piece of upper track. Locate the 2 middle length pieces of upper track and slide into the 45° radius. Use self drill/tap screws (L) in aluminum track. Fasten 4 places in each location.
4. Plumb track in both directions and fasten to wall mount bracket (E) using self drill/tap screws (J). Attach 180° radius (B) to the upper track and fasten to the wall mount bracket. See dimension (B) of **"Figure 22" on page 18** for top of 180° radius.
5. Locate the 2 longest pieces of upper track. Slide end of upper track (A) into the 180° radius, level, plumb and fasten to wall mount bracket using self drill/tap screws.
6. Place mounting bracket (D) in position against the radius and upper track and fasten using self drill/tap screws.
7. Attach spreader bar (C) between wrap back brackets.

INSTALLATION

Upper Track *Continued*

Vertical

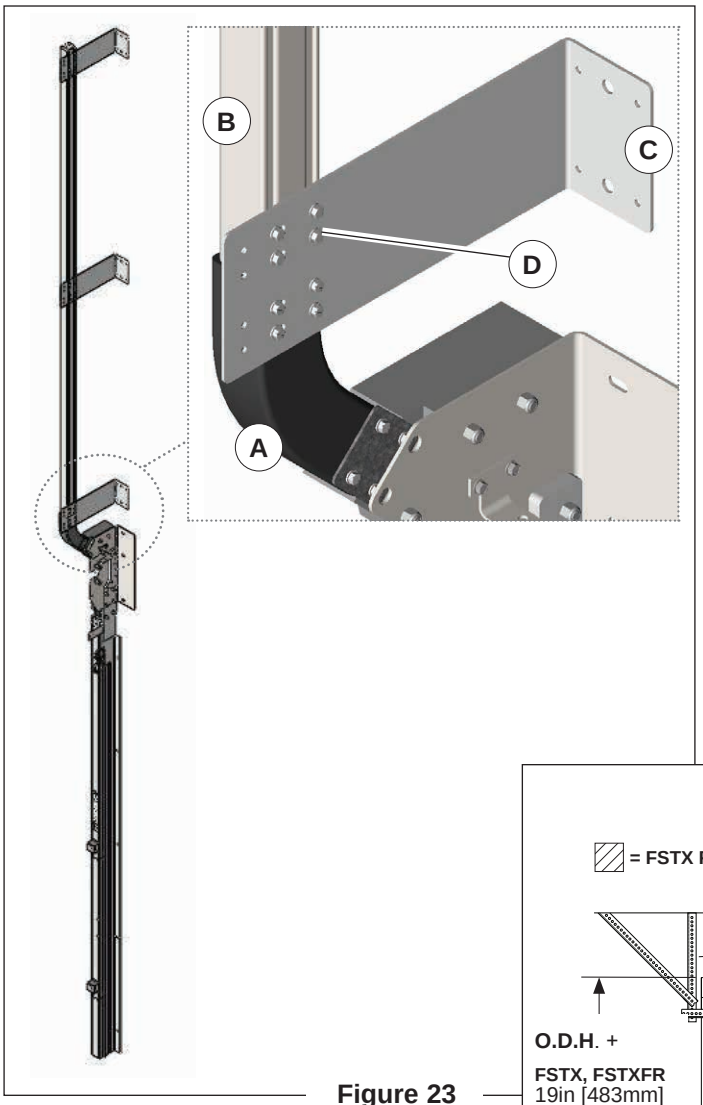


Figure 23

1. The proper radius (A) is already assembled to the lower track.
2. Locate the 2 pieces of upper track (B) 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 drill/tap screws.
3. Place mounting bracket (C) in position and mark holes to be drilled in wall.
4. Pilot holes (.201Ø x 1 1/4in [5 x 32mm] deep) MUST be pre-drilled into lower track radius (D).
5. Measure from outside edges of tracks (E):

   FasTrax, FasTrax LD
   O.D.W. + 5 1/2in [140mm] (+ 1/8in [3mm], -0)

   FasTrax FR, FasTrax FR LD
   O.D.W. + 14in [356mm] (+ 1/8in [3mm], -0)
6. **CRITICAL:** Fasten bracing (F) at the end of the track, maintaining proper spacing.
7. Fasten bracing (G) to diagonal provide support from track to ceiling or wall.
8. Fasten mounting brackets (H) to the wall and then the upper track.

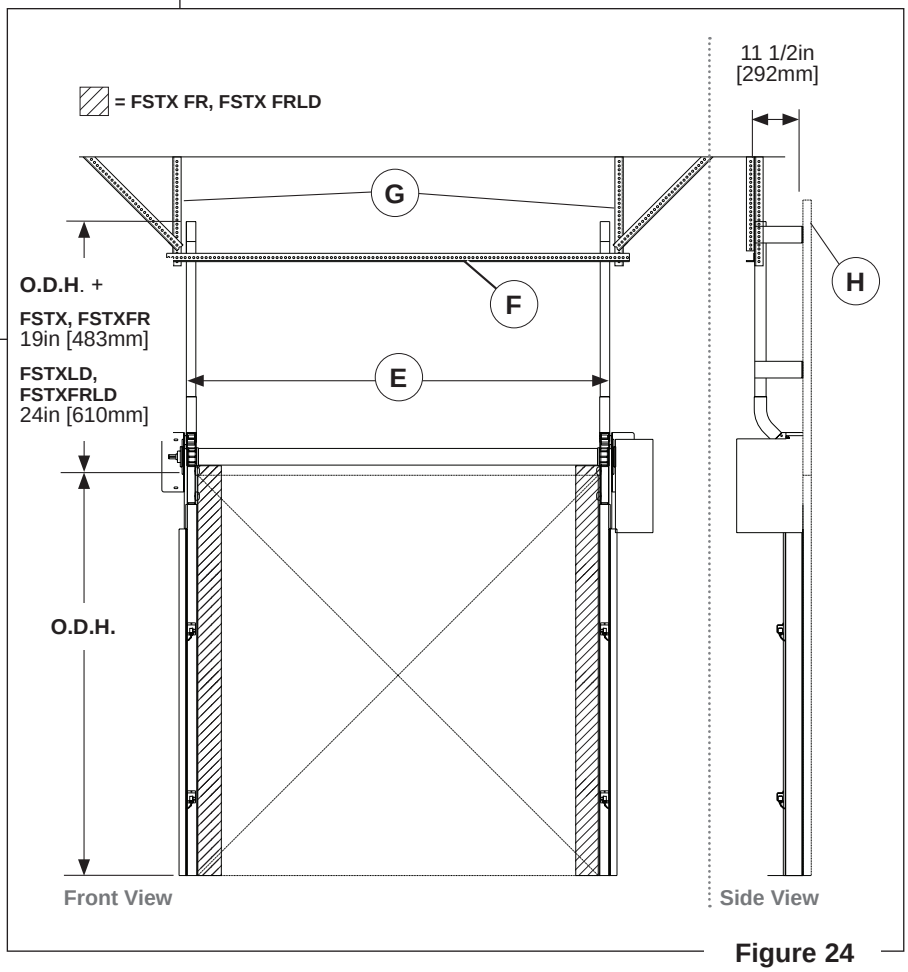


Figure 24

INSTALLATION

Upper Track *Continued*

High Lift

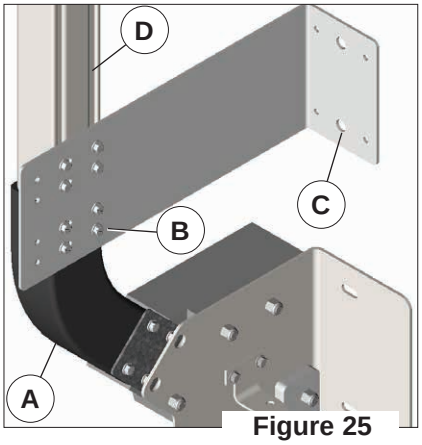


Figure 25

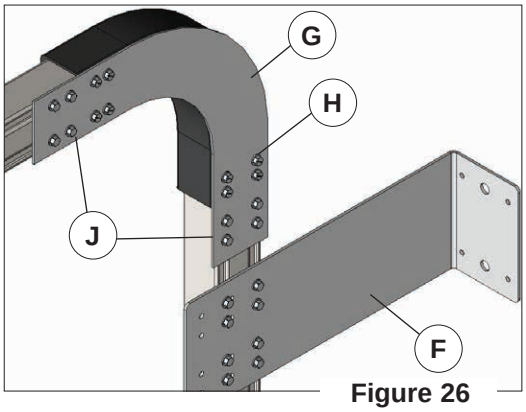


Figure 26

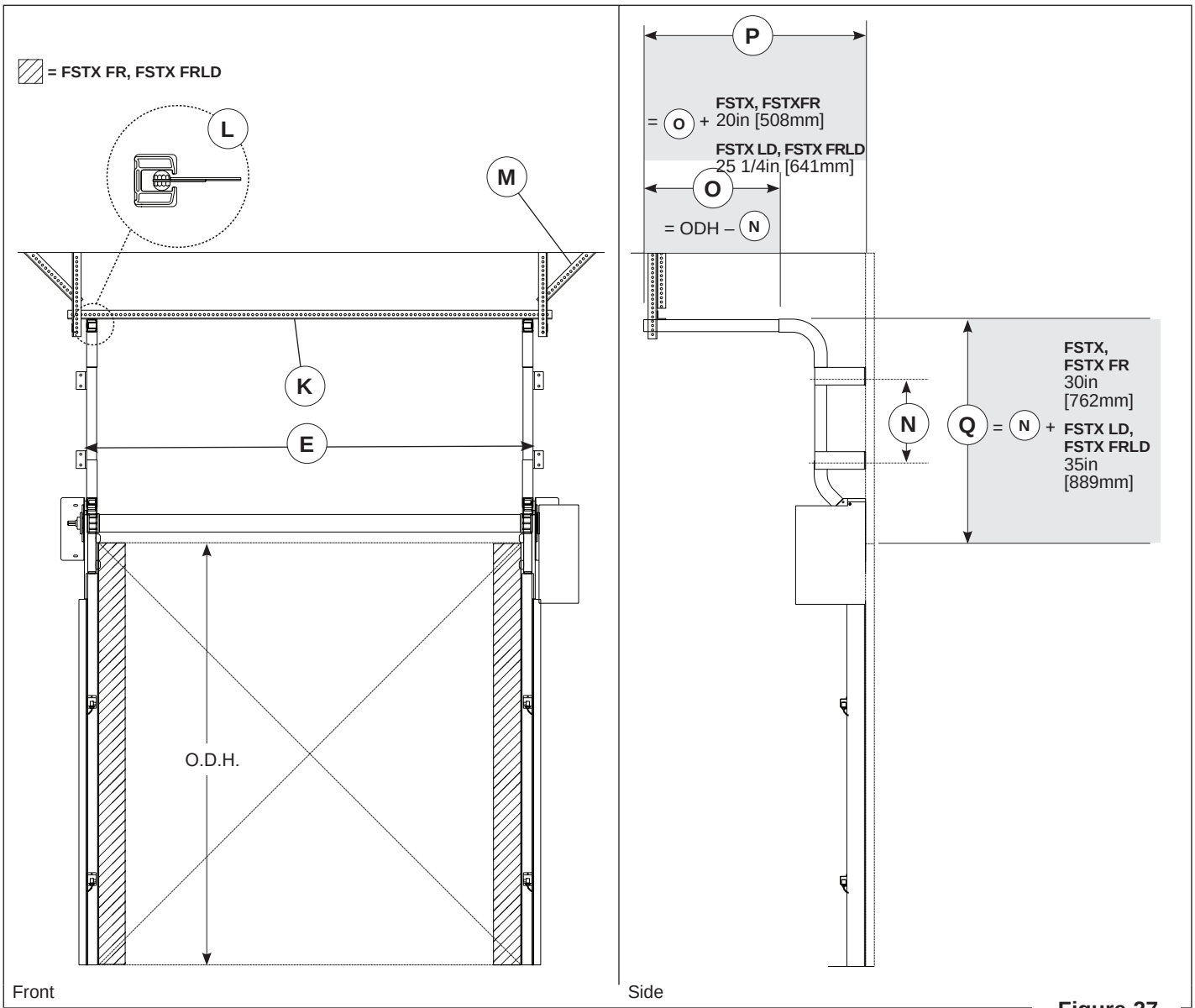


Figure 27

INSTALLATION

Upper Track *Continued*

High Lift *Continued*

NOTE: For high lift, determine the high lift required per sales order and cut vertical tracks to length. ***ONLY ONE CUT PER TRACK-DO NOT CUT SAME TRACK TWICE***.

NOTICE

Hold drill perpendicular and level to ensure screws go into the outer cavities of the upper track.
DO NOT drill into curtain groove.

Use fasteners that will support the entire door weight.

NOTE: If (N) is unknown, then Rite-Hite advises dimension to be a maximum of 1/2 O.D.H.

1. The proper radius (A) is already assembled to the lower track.
2. Pilot holes (B) (.201Ø x 1 1/4in [5 x 32mm] deep) MUST be predrilled into lower track radius.
3. Place mounting bracket (C) in position and mark holes to be drilled in wall.
4. Locate the two (2) pieces of upper track (D) 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 drill/tap screws.
5. Use self drill/tap screws (J) in horizontal and vertical track.
6. Fasten upper wall mount bracket (F) to track and wall, below radius and splice bracket.
   Minimum 6in x 6in [152 x 152mm] backer plate required on hollow or insulated walls.
7. Use track splice bracket (G) to join lower and upper track. Drill .201 [5mm] Ø pilot hole 1 1/4in [32mm] deep for lag screws.
8. Use lag screws in radius bracket.
9. Measure from outside edges of tracks (E):

   FasTrax, FasTrax LD
   O.D.W. + 5 1/2in [140mm] (+ 1/8in [3mm], -0)

   FasTrax FR, FasTrax FR LD
   O.D.W. + 14in [356mm] (+ 1/8in [3mm], -0)

10. **CRITICAL:** Fasten punched angle (K) bracing at the end of the track, maintaining proper spacing.
11. When curtain is raised later in installation, make sure spheres are centered in track groove (L), if too tight, move tracks in, if too loose spread tracks apart.
12. Fasten bracing to diagonal (M) provide support from track to ceiling or wall.

INSTALLATION

Upper Track *Continued*

Standard Lift

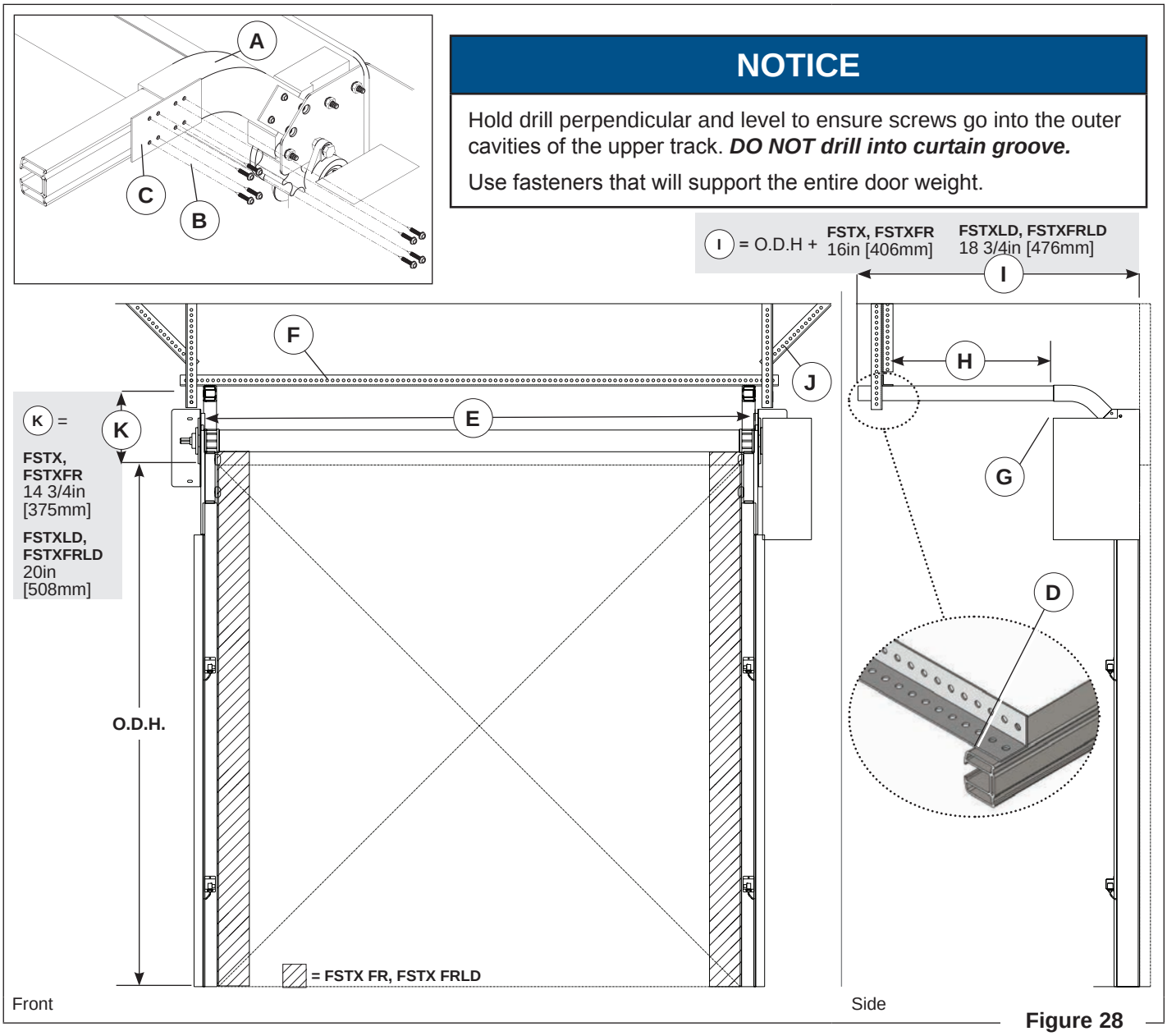


Figure 28

1. The proper radius (A) is already assembled to the lower track. **DO NOT use self drill/tap screws here (B).** Locate splice bracket and fasten between the upper and lower track. Pilot holes (.201Ø x 1 1/4in [5mm x 32mm] deep) MUST be pre-drilled into lower track radius. Install (4) lag screws per location.
2. Use self drill/tap screws in the horizontal track (C).
3. At the end of the track, place punched angle (F) and drive self drill/tap screw (D) into the curtain groove to prevent curtain top roller from coming out of track.
4. Measure from outside edges of tracks (E):

   FasTrax, FasTrax LD
   O.D.W. + 5 1/2in [140mm] (+ 1/8in [3mm], -0)

   FasTrax FR, FasTrax FR LD
   O.D.W. + 14in [356mm] (+ 1/8in [3mm], -0)
5. For standard lift, slide end of upper track into the lower track radius (G), level and hold in place.
6. If > 6ft [1800mm] span, must provide another brace (H).
7. Fasten bracing to diagonal (J) provide support from track to ceiling or wall.

INSTALLATION

Upper Track *Continued*

45º Tilt Lift

NOTICE

Hold drill perpendicular and level to ensure screws go into the outer cavities of the upper track. ***DO NOT drill into curtain groove.***

Use fasteners that will support the entire door weight.

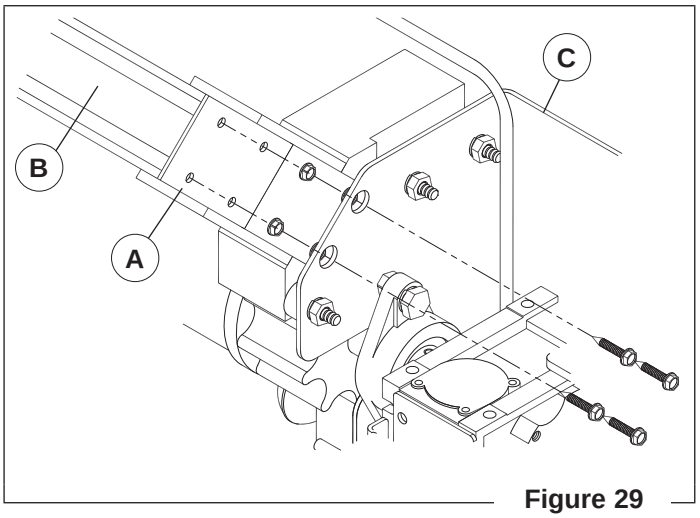


Figure 29

1. Use track splice bracket (A) to join lower and upper (B) track. Drill .201in [5mm] Ø pilot hole 1 1/4in [32mm] deep for lag screws in radius. Use self drill/tap screws (C) in upper track (A).
2. Measure from outside edges of tracks (D):
   FasTrax, FasTrax LD
   O.D.W. + 5 1/2in [140mm] (+ 1/8in [3mm], -0)
   FasTrax FR, FasTrax FR LD
   O.D.W. + 14in [356mm] (+ 1/8in [3mm], -0)
3. Determine length of track needed (E).
4. **CRITICAL:** Fasten punched angle (G) bracing at the end of the track, maintaining proper spacing.
5. Fasten bracing to diagonal (H) provide support from track to ceiling or wall.

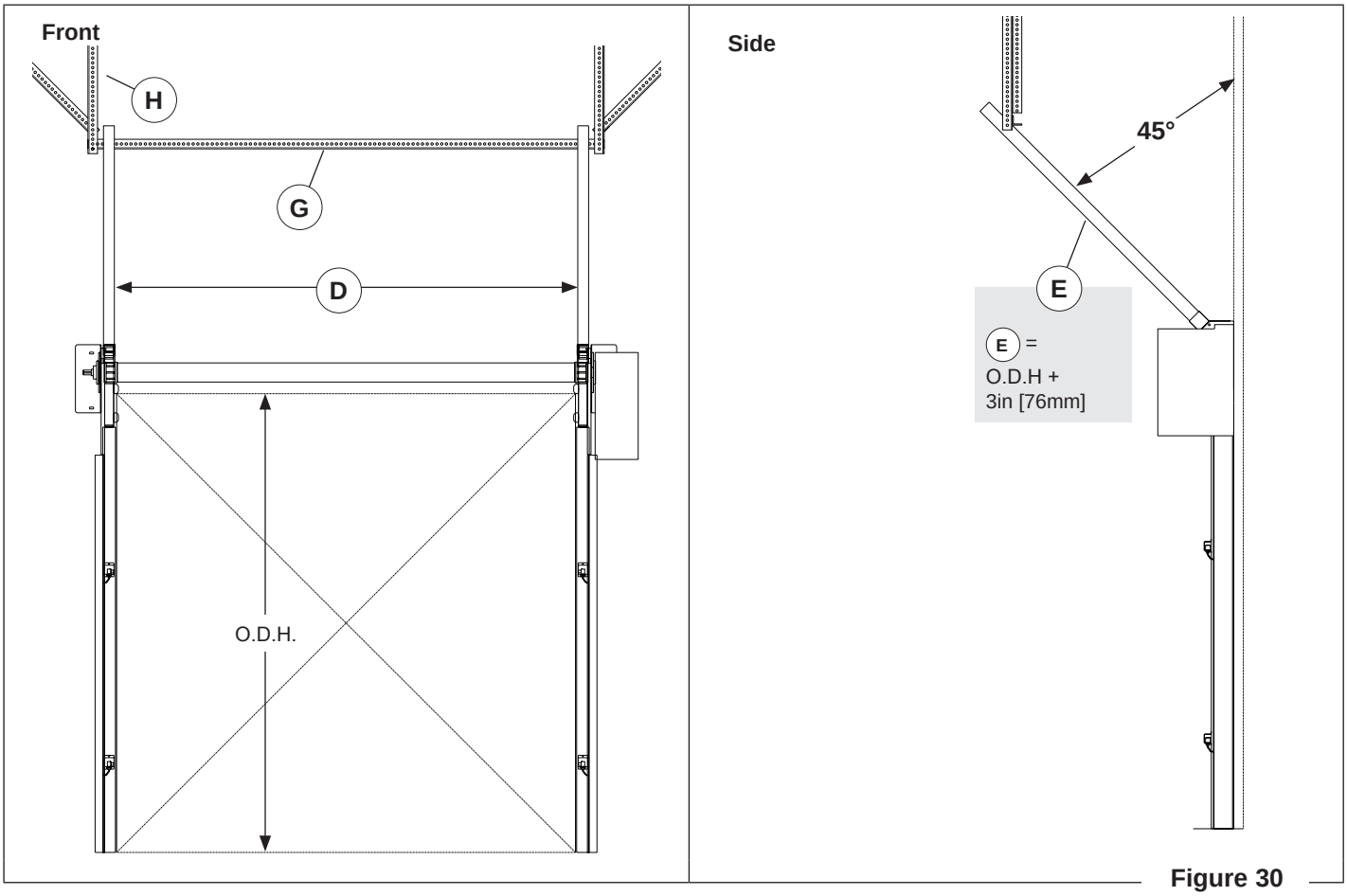
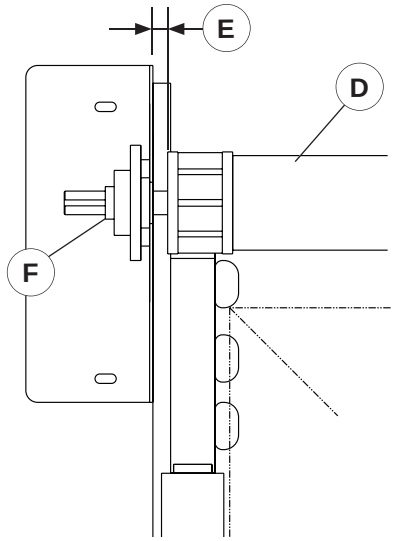


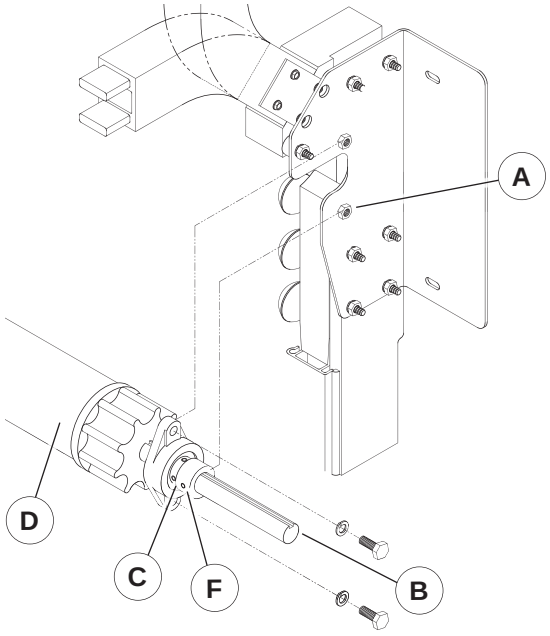
Figure 30

INSTALLATION

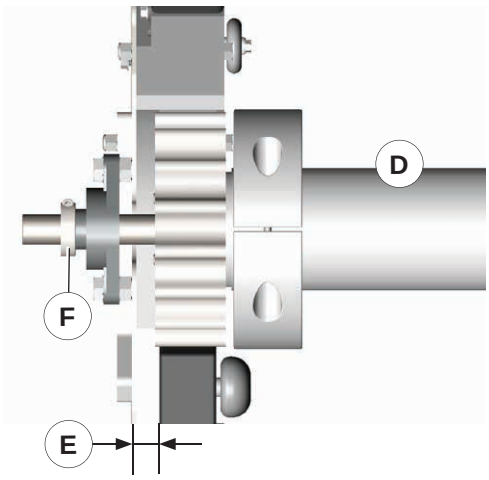
Drive Tube

FasTrax, FasTrax FR





FasTrax LD, FasTrax FR LD



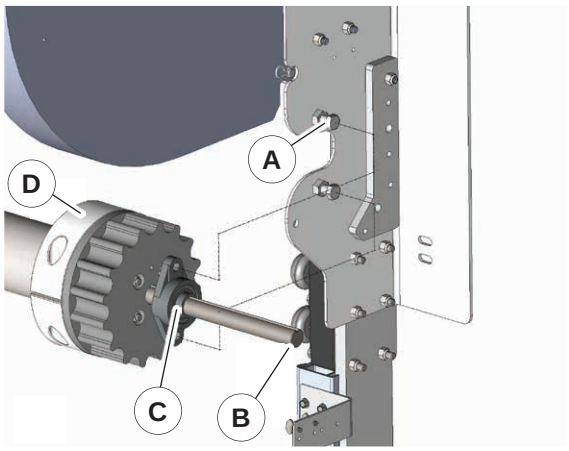


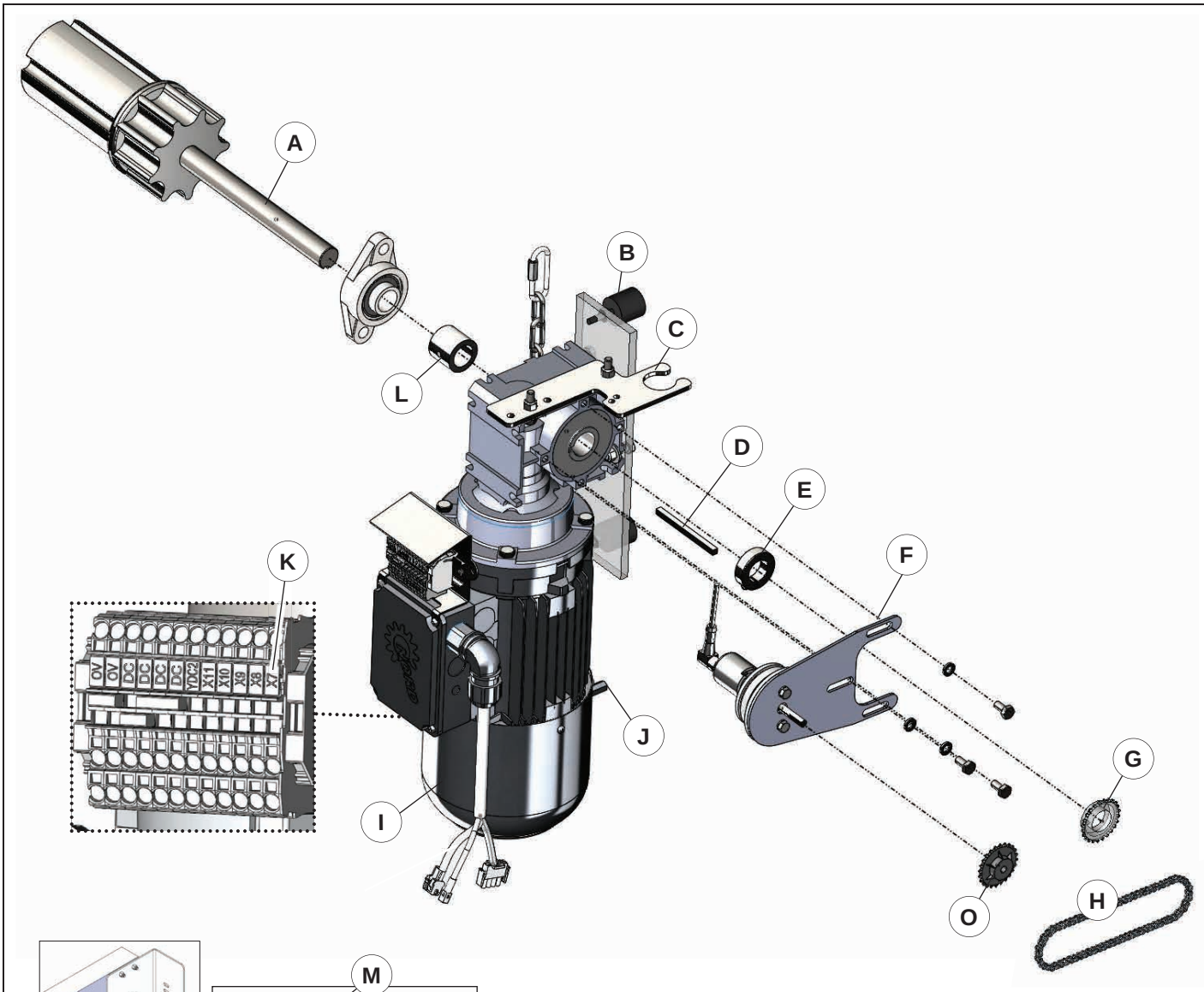
Figure 31

1. Remove the 4 1/2in [M13] bolts and lock washers (A) from the bearing mount weld nuts on drive and non-drive sides.
2. Drive end of shaft (B) is longer than the non-drive side. If chain hoist option is included, the longer shaft is still on the drive side.
3. Loosen set screws on bearings (C) prior to lifting drive tube.
4. Lift drive tube (D) in place and fasten the drive and non-drive bearings onto the mounting plate with the 4 1/2in [M13] bolts and lock washers removed earlier.
5. **Critical Centering Dimension** (E). Loosen lock collar set screws* on bearings. Measure from inside mounting plate to face of drive gear, approximately 5/8in [16mm]. Tighten bearing set screws when this dimension is equal on both sides.
6. Slide lock collar (F) next to bearing and tighten lock collar set screws*.

* DO NOT TIGHTEN SET SCREWS INTO THE KEY WAY SLOT.
Set screws are not long enough to provide a tight connection. Slippage and/or shaft failure may result.

INSTALLATION

Motor/Encoder (FasTrax, FasTrax FR)



A. Drive Shaft
B. Rubber Motor Mount
C. Conduit Bracket
D. Key
E. Lock Collar
F. Encoder Mounting Plate
G. Encoder Drive Sprocket
H. Encoder Chain
I. Motor/Brake/Gearbox Assembly
J. Brake Release Handle
K. X7 Terminal
L. Spacer
M. Chain Connector
N. Wall mount bracket
O. Non-drive sprocket

Figure 32

INSTALLATION

Motor/Encoder (FasTrax, FasTrax FR) *Continued*

1. Remove lock collar (E) from drive shaft (A). Slide gearbox housing onto shaft until it is against the spacer (L).
2. Rotate the drive tube until the key-way slots are aligned and install key (D). Re-install lock collar (115in/lbs) [13N-m].
3. Finger tighten all 3 bolts on encoder mounting plate (F) to gearbox.

   NOTE: If door is equipped with N.P.O., proceed to **"N.P.O." on page 30** prior to installing encoder sprockets.
4. Slide encoder non-drive sprocket (O) onto the encoder shaft with hub out and even with the end of the shaft.
5. Slide encoder drive sprocket (G) onto the drive shaft with hub facing out.
6. Install encoder chain (H) around sprockets.
7. Measure from each sprocket to plate aligning chain, apply tension and tighten mounting plate bolts.
8. Tighten set screw on drive sprocket using a 3/32in allen wrench. (Do NOT overtighten - 5in/lbs [0.56N-m]) Sprocket does NOT require a key.

   NOTE: DO NOT TIGHTEN SET SCREWS INTO THE KEY WAY SLOT. Set screws are not long enough to provide a tight connection. Slippage may result.
9. **IMPORTANT:** Tighten the rubber motor mounts (B) on the back of the motor mounting plate to the wall mount bracket to reduce any motor rocking. Tighten the rubber mount nuts to lock in place. After motor is wired, run to verify motor does not rock.

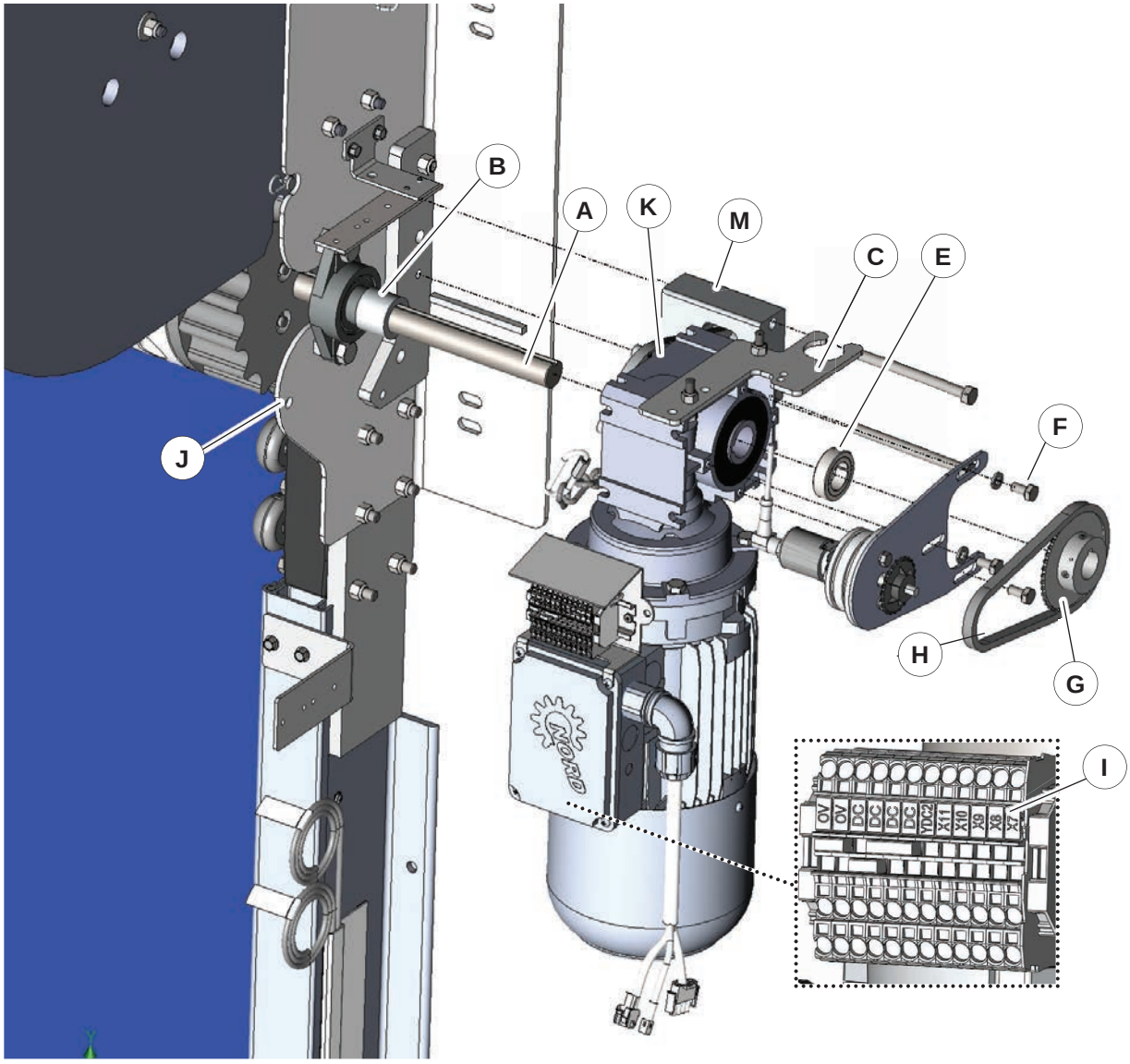
   NOTE: If motor rocks excessively, tighten bumpers.
10. To release brake, rotate handle (J) hold down.

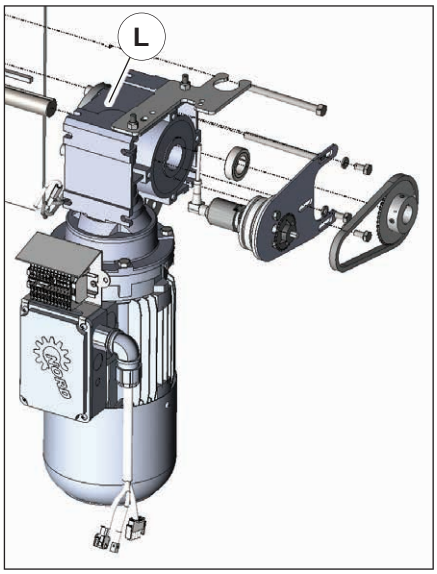
    NOTE:

    - If removed, tighten #10-24 set screw on driven sprocket using a 3/32in allen wrench (do NOT overtighten - 5in/lbs [0.56N-m]).
    - Drive shaft is prelubricated at the factory. If more is required, lubricate with an anti-seize lubricant.
    - If side clearance is not available (minimum 18in [457mm]) to install gearbox after drive tube is installed, place gearbox onto shaft prior to installing drive tube. A lifting device will be necessary for this procedure.
    - X7 terminal (K) can be used for activation devices.
11. Fasten chain connector (M) from gearbox to hole (N) in wall mount bracket.

INSTALLATION

Motor/Encoder (FasTrax LD, FasTrax FR LD)





A. Drive Shaft
B. Spacer
C. Conduit Bracket
D. Key
E. Lock Collar
F. Top Bolt
G. Encoder Drive Sprocket
H. Encoder Chain
I. X7 Terminal
J. Chain Connector
K. Gearbox # 50
L. Gearbox # 63
M. Torque Arm Block

Figure 33

INSTALLATION

Motor/Encoder (FasTrax LD, FasTrax FR LD) *Continued*

1. Remove lock collar (E) from drive shaft (A). Slide gearbox housing onto shaft until it is against the spacer (B).
2. Rotate the drive tube until the key-way slots are aligned and install key (D). Re-install lock collar (115in/lbs) [13N-m].
3. Finger tighten top bolt (F) on encoder mounting plate to gearbox.
4. Slide encoder drive sprocket (G) onto the drive shaft.
5. Install encoder chain (H) around sprockets.
6. Finger tighten remaining two mounting plate bolts.
7. Measure from each sprocket to plate aligning chain, apply tension and tighten mounting plate bolts.
8. Tighten set screw on drive sprocket using a 3/32in allen wrench. (Do NOT overtighten - 5in/lbs [0.56N-m]) Sprocket does NOT require a key.

   NOTE: DO NOT TIGHTEN SET SCREWS INTO THE KEY WAY SLOT. Set screws are not long enough to provide a tight connection. Slippage may result.
9. If side clearance is not available (minimum 18in [457mm]) to install gearbox after drive tube is installed, place gearbox onto shaft prior to installing drive tube. A lifting device will be necessary for this procedure.

NOTE: X7 terminal (I) can be used for activation devices.

10. Attach torque arm block to header plate with bolts provided (M)

Motor Phasing

NOTE: If electrical is available, proceed to **"Electrical" on page 36**, and then return here. If electrical is not complete, install curtain per the following:

1. With electrical complete, 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.

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

⚠ WARNING / AVERTISSEMENT

Failure to restrict the curtain speed can result in damage to product or injury to personnel. The curtain may close very quickly if the brake is fully released.

Releasing the brake partially will allow the door to close smoothly.

Le non-respect de restreindre le rideau vitesse peut entraîner des dommages au produit ou blesser le personnel. Le rideau peut fermer très rapidement si le frein est complètement desserré.

Relâchant le frein partiellement permettra à la porte pour la fermer sans heurts.

INSTALLATION

N.P.O.

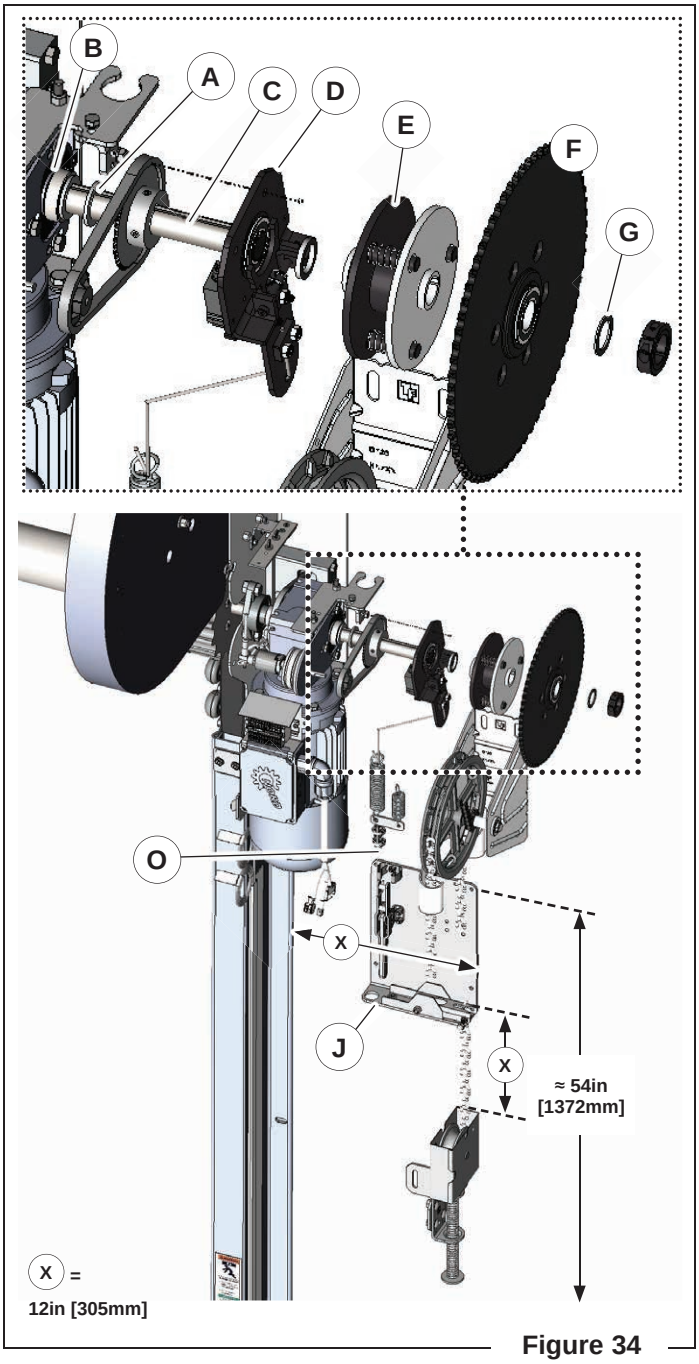


Figure 34

N.P.O. kit comes in 3 boxes:

1 box = chain hoist and chain
1 box = disconnect parts assembled to the shaft
1 box = chain tensioner

NOTE: N.P.O. is assembled for a right hand drive door. To switch for a left hand drive door:

a. Loosen the two side bolts and rotate the hand chain guide 180°.

b. The fault switch must be moved to the opposite side of the engagement arm bracket.

c. Remove the hand lever and chain blocker and rotate to opposite side of bracket.

1. Install 1/8in [3mm] spacer (A) on the outside of the lock collar (B).
2. Install encoder sprocket with hub pointing away from the gearbox.
3. Install proper spacers (C) (according to door model) onto shaft next to the encoder sprocket. Spacers are shipped cable tied to the motor assembly.

   FasTrax/FR: 3/8in [10mm] thick spacer

   FasTrax LD/FRLD: 1/8in [3mm] spacer
4. Install engagement arm bracket (D) with limit switch toward inside.
5. Install the two 1/4in x 1/2in [M6 x 13mm] bolts and 1/4in [M6] lock washers thru the engagement arm on the top and side to hold the bracket in place **(Figure 35)**.

   50 gearbox:
   Use the rear top hole (R) and top side hole (S).

   63 gearbox:
   Use the front top hole (T) and the bottom side hole (U).
6. Slide the engagement assembly (E) (so engagement pins are pointing to the outside) onto the shaft tight to the spacer and the mounting bracket and place the 3/16in x 1/4in x 2 3/4in [5mm x 6mm x 70mm] key in the keyway.
7. Slide the drive sprocket (F) onto the shaft with the hub pointing away from the gearbox.
8. Place the 1/16in [2mm] thick spacer (G) and the lock collar on the shaft. Be sure to push all of the components tight to the gearbox before tightening the lock collar.

INSTALLATION

N.P.O. *Continued*

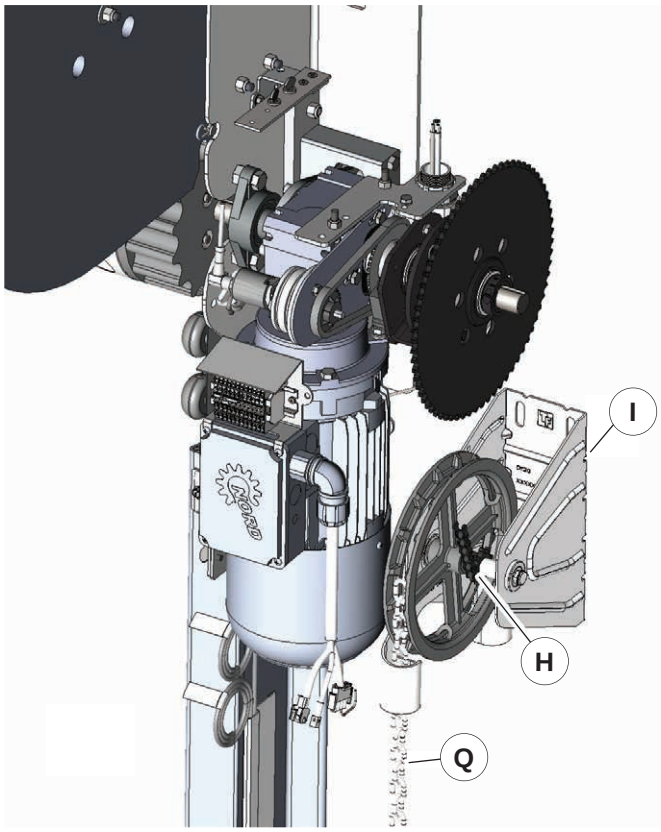


Figure 35

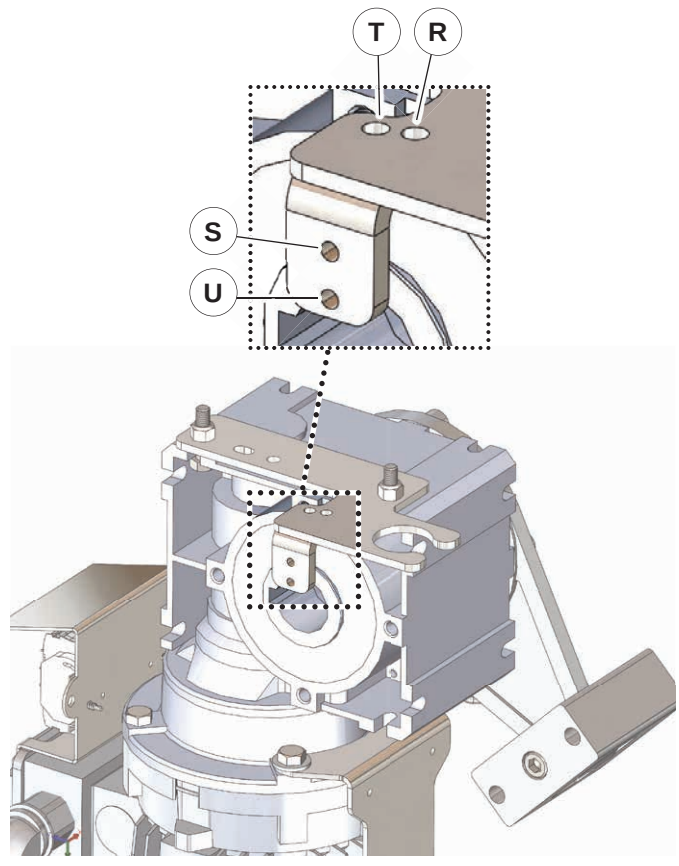


Figure 36

9. Attach the smaller of the two springs (K) to the brake release eye bolt (L). Smaller spring should be toward the outside.
10. Route the short cable (M) through the pulley, then the hole in the bottom of the engagement arm bracket and clamp it behind the pressure plate. The spring plate (N) should sit level when hanging without the hand lever engaged.
11. Place the drive chain (H) around the chain hoist sprocket and then place the drive chain over the drive tube driven sprocket.
12. Use a straight edge to align chain sprockets. Failure to do so may result in noise and premature wear.
13. With the hand chain sprocket in toward the motor and the sprocket in line with the drive sprocket, plumb, level, mark and drill hole locations (toward bottom of the slot, to prevent chain hoist from sliding up) for fastening chain hoist assembly (I) to the wall. Use fasteners suitable to hold unit to the wall.
14. Make sure chain is tight and not causing either shaft to bend.

INSTALLATION

N.P.O. *Continued*

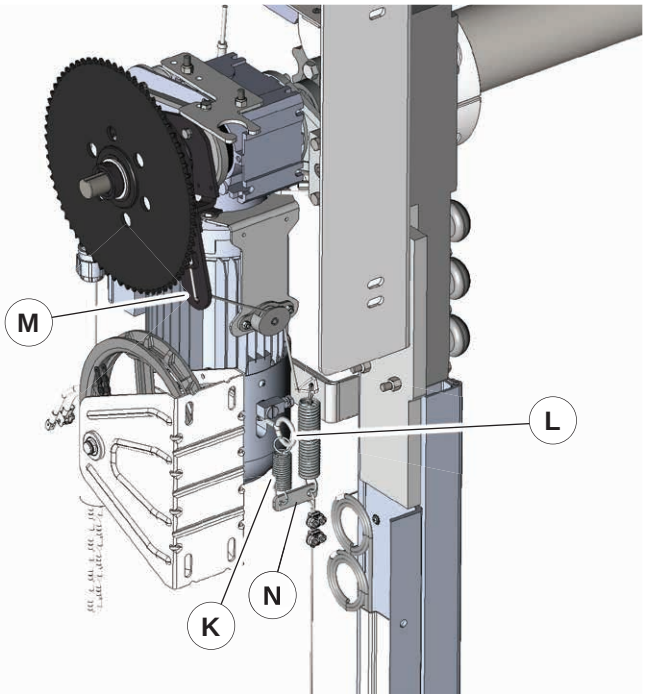


Figure 37

15. Mount the hand lever/chain blocker assembly (J) at a convenient height off the floor, ≈ 54in [1372mm] to top of plate so the lever is easily accessed. Align with brake handle and chain hoist, ≈ 11-12in [305mm] from lower track to outside mounting holes. Use fasteners suitable to hold unit to the wall.
16. Install chain tensioner in line with hole in hand lever/ chain blocker assembly and approximately 12in [305mm] below the assembly so it does not interfere with operation.
17. Install the hand chain (Q) onto the chain hoist, down through hole in hand lever chain blocker assembly and around chain tensioner pulley. The chain links can be taken apart to achieve the length needed.
18. Route the longer cable (O) attached to the hand lever up through the larger hole on the spring plate.
19. Adjust the so that when the hand lever is down the assembly is fully engaged into the sprocket and when the lever is up, the engagement assembly is not touching the sprocket. Tighten both cable clamps.
20. With the hand lever completely down, pull the hand chain to move the door. Disengage the chain hoist and confirm that the chain hoist and sprocket spin but the door does not move.

    NOTE: Proceed to **page 27** before applying power to the door and operating. The door will not operate until the chain hoist is installed and plugged in.
21. Connect the switch cable to the cable coming out of the control box conduit. Secure wires away from moving parts.
22. Reset and run the door. Confirm that the sprocket and chain hoist do not turn when the door moves. With the door stopped, rotate the hand lever down and confirm that the door operation is disabled by the switch.
23. Proceed to shroud installation for attaching additional mounting bracket. Confirm that there is clearance for the cable conduit and hand chain when using the chain hoist.

INSTALLATION

N.P.O. *Continued*

⚠ WARNING / AVERTISSEMENT

Disconnect power before operating N.P.O.

Débrancher l'alimentation avant d'actionner N.P.O. (OHT/L'ouverture non motorisée)

To operate the N.P.O.:

1. To release brake and engage N.P.O., rotate the hand lever completely down.
2. To raise the door - pull the front hand chain down.
3. To lower the door - lift the chain blocker and pull the rear hand chain down.

   NOTE: The chain blocker prevents the door from closing. Once the hand lever is pulled, the door goes into fault and cannot be automatically operated and the screen will display "Door Faulted, Emergency Stop".

To Return Door to Operation:

1. Engage brake and release N.P.O. by rotating the hand lever up and lock in place.
2. Hand chain should rotate freely, ensuring assembly is disengaged.
3. Reconnect power. Press Green Open / Reset button.

   NOTE: Note: In the event that the curtain is lowered or raised beyond the drive tube, the encoder positions will need to be re-setup.

Without N.P.O.

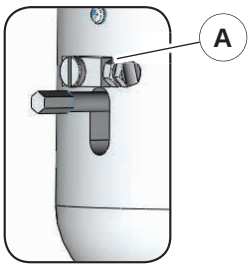


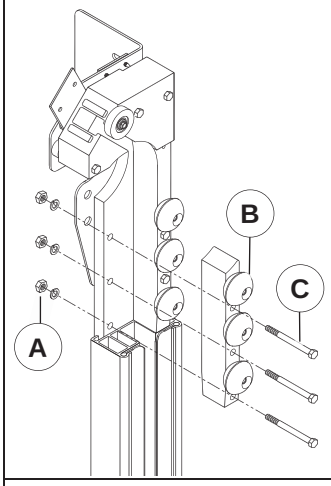
Figure 38

1. To hold brake release on, rotate brake release hold down bracket (A) to vertical position.
2. To engage brake, rotate bracket horizontal.

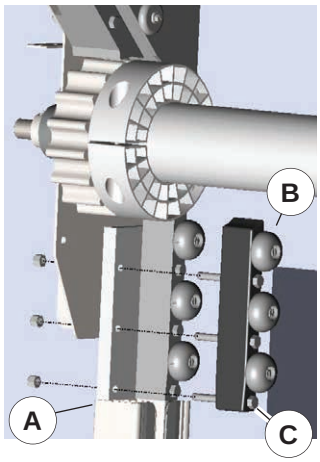
INSTALLATION

Curtain

FasTrax, FasTrax FR

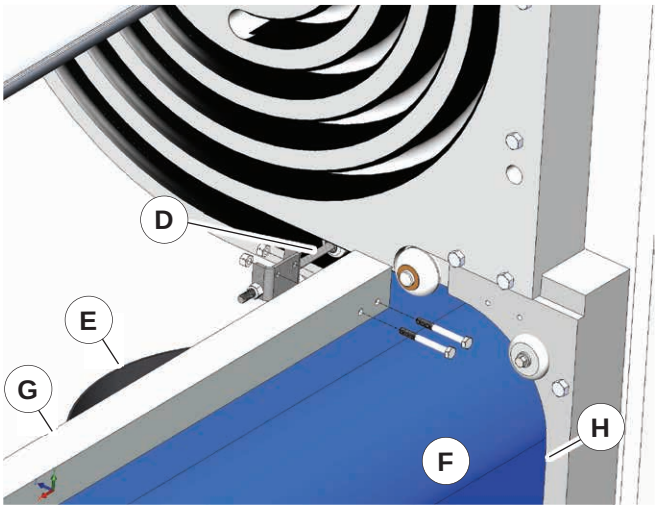


FasTrax LD, FasTrax FR LD



A. Lower Track
B. Refeed Rollers
C. Hex Head Bolts

Figure 39



D. Top Curtain Roller
E. Curtain lifting handle
F. Back (Wall Side)
G. Top Edge Of Curtain
H. Drive Spheres

Figure 40

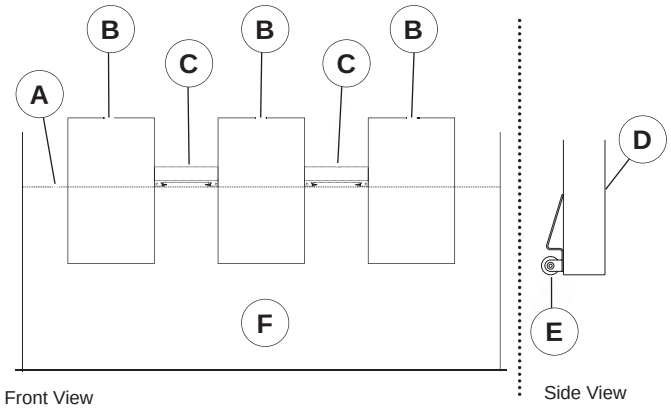
1. Remove the three 3/8in [10mm] hex head bolts (C) holding the front curtain retainers in place (both sides).
2. Top curtain roller bracket should be positioned such that the roller shaft is toward the curtain and away from the wall.

   Remove tape and both top curtain rollers (D) to feed through drive gears ((2) 7/16in [M11] bolts).
3. Verify there is a wall surface at the header for the rear top seal to seal against. If not, one must be provided in order for curtain to seal to wall.
4. Disengage brake by pulling the handle on the brake and locking in place (**page 33**).
5. Place curtain in front of the opening so that the top edge (G) with the metal stiffener is facing the wall. Curtain may be either a standard or insulated curtain.
6. Raise curtain and feed top drive sphere around the back side of the drive gear and into the radius and/or upper track approximately 6in [152mm] by rotating drive tube to drive curtain through the drive gears.
7. Release brake handle to hold curtain.
8. Fasten curtain top roller bracket back onto the curtain brace (**Figure 40**).
9. Once top rollers are securely fastened, disengage brake and continue to route curtain through opening in lower track.

INSTALLATION

Curtain *Continued*

FasTrax, FasTrax LD



A. Top of Lintel
B. Vision
C. Lintel Roller
D. Jamb
E. Lintel Roller Bracket
F. Curtain

Figure 41

1. Place curtain so the vision is at the lintel. Place a mark on the wall at the center of visions and install lintel roller. If no vision, space evenly.
   DO NOT place over vision area.
2. Mount the lintel roller bracket on the front face of the jamb with bottom of roller flush with jamb.
   DO NOT install on underside of jamb.

INSTALLATION

Electrical

General

⚠ DANGER

Per local electrical codes, when working with electrical or electronic controls:

- **power source must be locked out and marked**
- **a qualified electrician should install the wiring**

Selon les codes électriques locaux, lorsque vous utilisez des commandes électriques ou électroniques:

- **la source d'alimentation doit être verrouillée et marquée**
- **un électricien qualifié doit installer le câblage**

⚠ DANGER

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, a ground bushing and green/yellow wire must be properly attached to the conduit for connection to the ground terminal, per local electrical codes.

Pour réduire le risque de blessures ou de décès,un raccordement de terre doit être fait à la boite de contrôle verte/jaune de la borne de terre.

Si le connecteur de terre utilisé est un conduit métallique, un manchon de mise à la terre et un câble vert/jaune doivent être correctement fixés au conduit un raccordement à la borne de terre, par codes électriques locales.

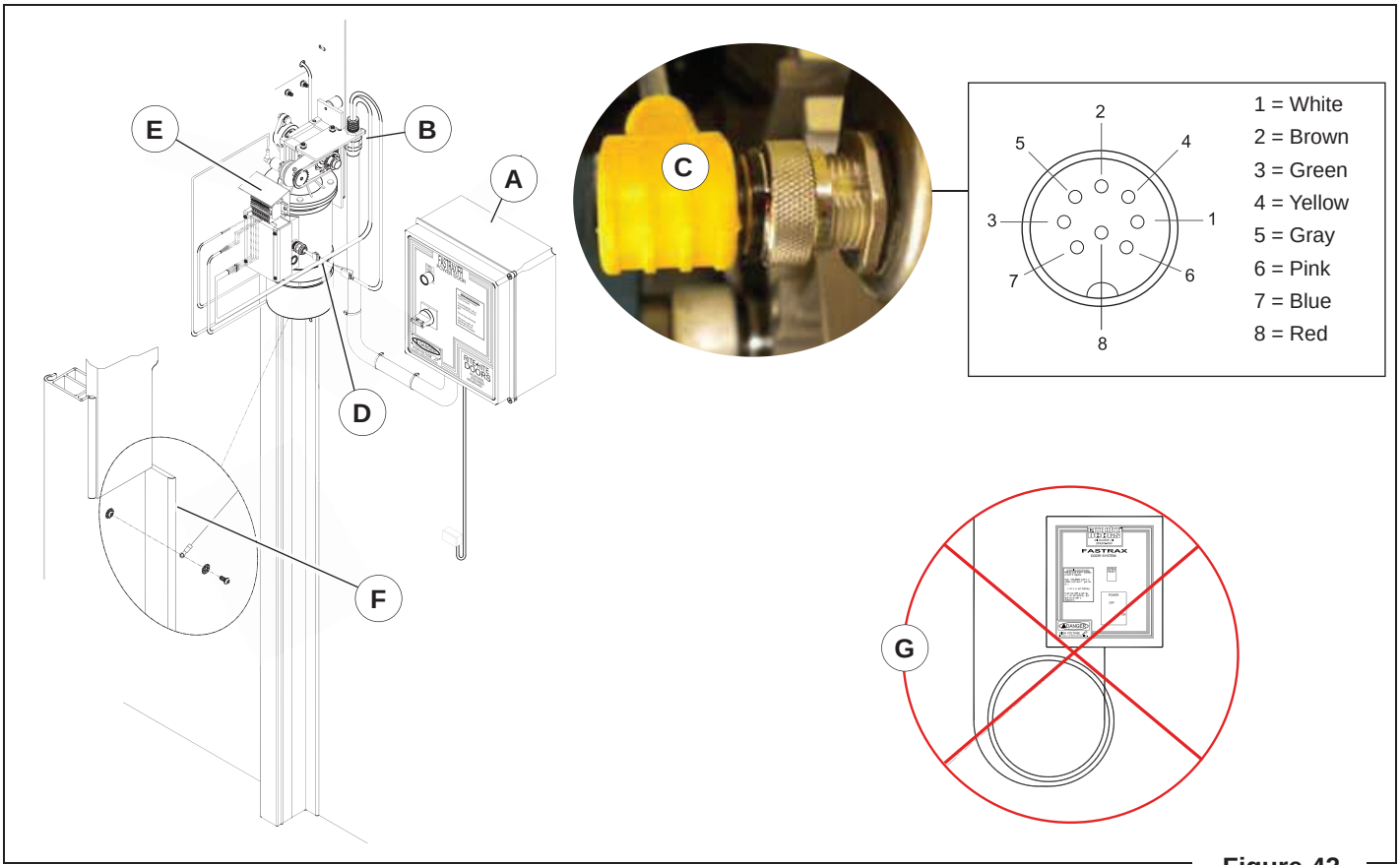


Figure 42

INSTALLATION

Electrical *Continued*

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.

   The disconnect on the front of the control box is not a true disconnect.

2. 20 or 30 Amp service may be required for cable runs longer than 300ft [91m].
3. If low control box mounting is desired, mount control box (A) adjacent to the door at approximately 54in [1372mm] above the floor and 14in [356mm] from lower track.

   If utilizing Compact User Interface option, mount control box near motor, however, allow room for installing or removing motor assembly and or non-powered chain hoist option.

4. The control box cable is pre-wired to the control box. Attach control box cable to the conduit mounting bracket (B) on the gearbox.

   Connect motor, brake cables and fasten terminal strip (E) to the motor junction box. If the flexible conduit is too long, unwire control box cable wires and cut the protective outer casing the required amount.

   DO NOT coil (G) or let conduit hang on the floor.

5. If local electrical codes require the use of rigid conduit:
   - remove conduit connector and control cables from the flexible conduit
   - install the rigid conduit in its place and rewire.
6. If possible, mount on the warm side regardless of door mount side.
7. 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.

8. All holes drilled, must be through the bottom of the box. Conduit entering the sides or top of the enclosure will void the warranty.
9. Use the proper sealed connectors to maintain the rating on the enclosure.
10. Line up pins and connect encoder cable (C) to encoder. Verify connector is tight. DO NOT over tighten as pins will twist. When tight, the connector should not be able to move back and forth.
11. Connect 4 pin motor, 2 pin brake connector and single connector if heated brake is present (D).
12. Attach ground wire to lower track (F).
13. Incoming single or 3-phase power must connect into fuse holder terminals F1, F2, F3 and ground terminal. Terminals in the control box will not accommodate wires larger than 12AWG [2.05mm].
14. Route all field installed wires so that separation is maintained between line voltage wires and low voltage class II wiring.
15. The control box is provided with class CC protective fusing for the incoming power.
16. Clamp conduit to wall after complete.
17. Refer to electrical diagrams on **page 43** or **44** for further information.

NOTE: DO NOT SPLICE CONTROL WIRING

INSTALLATION

Electrical *Continued*

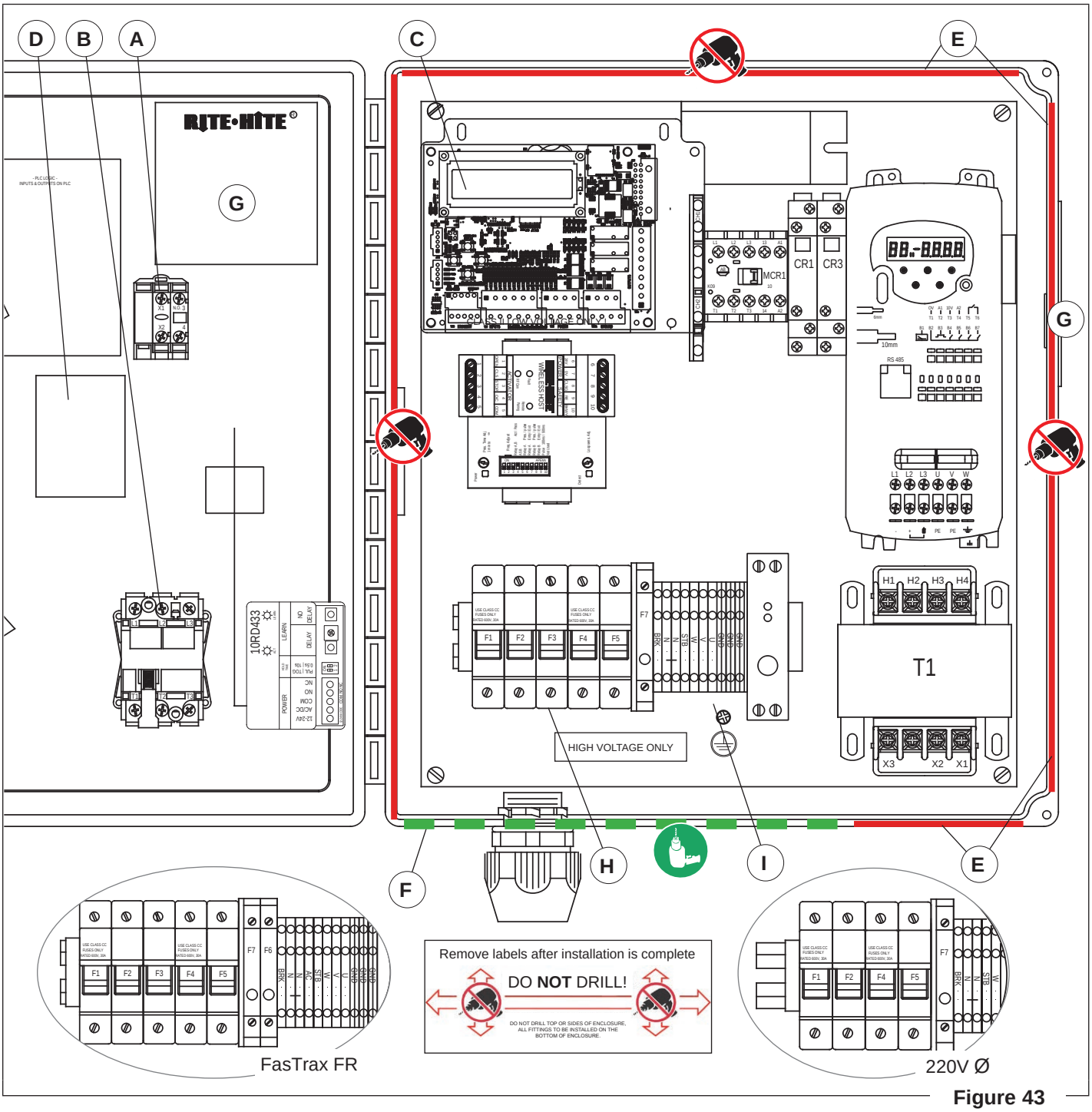


Figure 43

INSTALLATION

Electrical *Continued*

A. Green button, opens and resets the door after a fault. To “OPEN”, press and release the button. The i-COMM ii will automatically close the door after the preset time has expired.

B. 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. To resume operation (whenever the door operation is stopped with the disconnect switch) you must:

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

C. i-COMM ii, controls all functions of the door.

D. Label to reference the i-COMM ii inputs and outputs, (**"i-COMM ii / Encoder Setup" on page 48**).

E. Red solid line = un-safe area for drilling holes

F. Green dashed line = safe area for drilling holes

G. Serial # label.

H. F1, F2, F3 incoming power terminals for 230/460/400/575V 3Ø Configuration.

I. DO NOT wire incoming power into these terminals.

INSTALLATION

Electrical *Continued*

Door Mounted Side

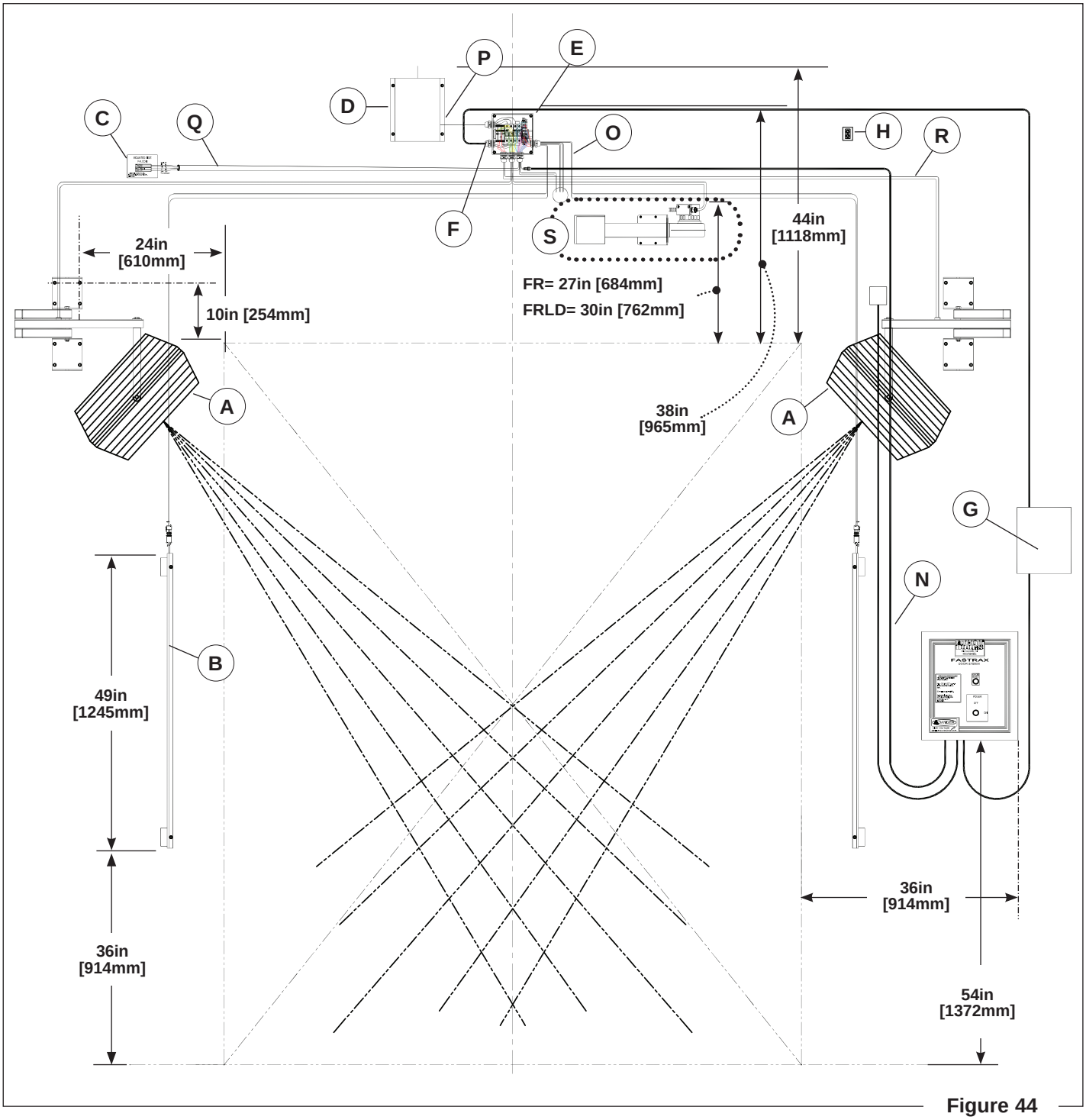


Figure 44

INSTALLATION

Electrical *Continued*

Back Side of Door

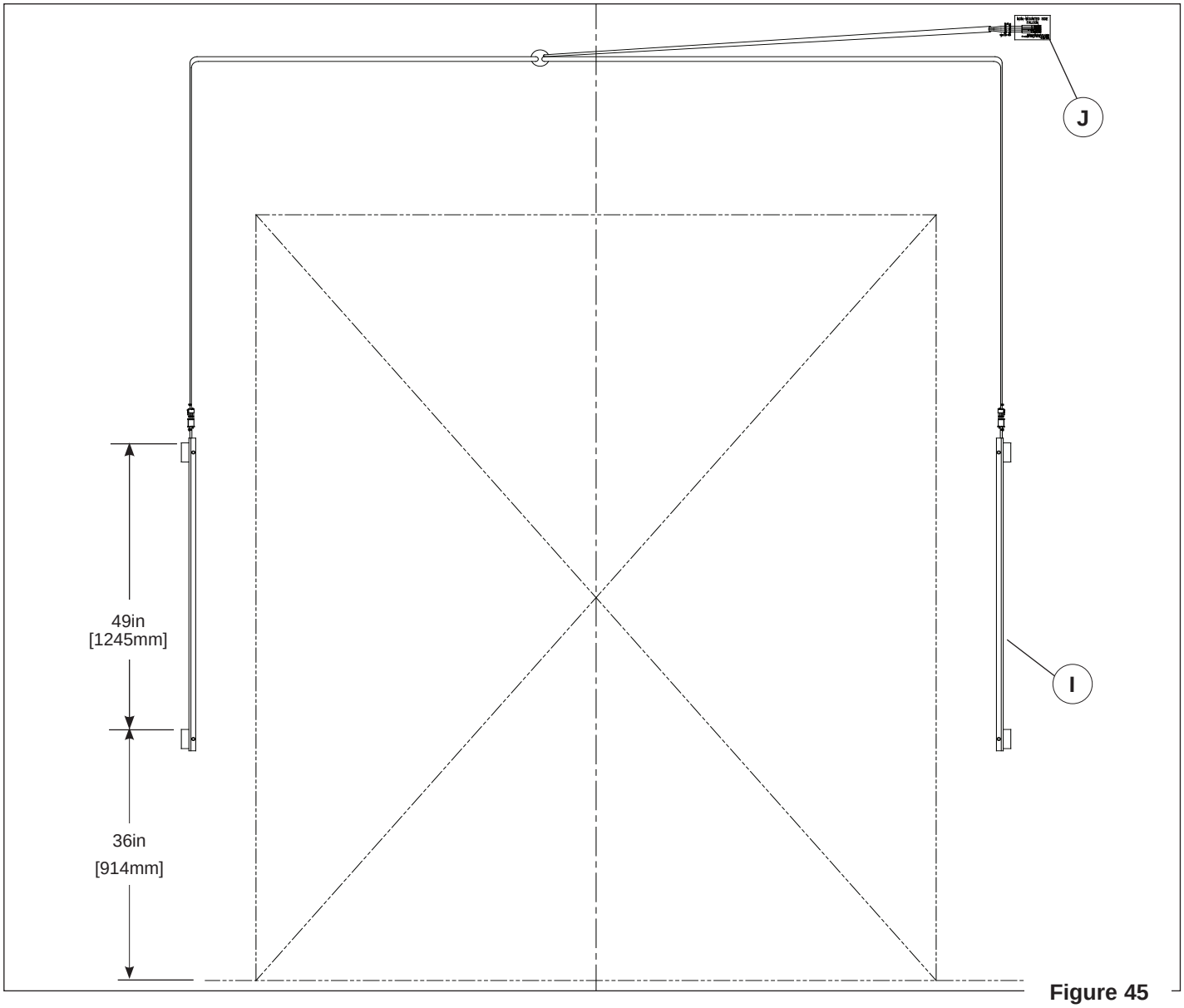


Figure 45

Wiring diagram is located under the motor cover plate.

Curtain Fan Wiring for 220V Single Phase or 575V Doors.

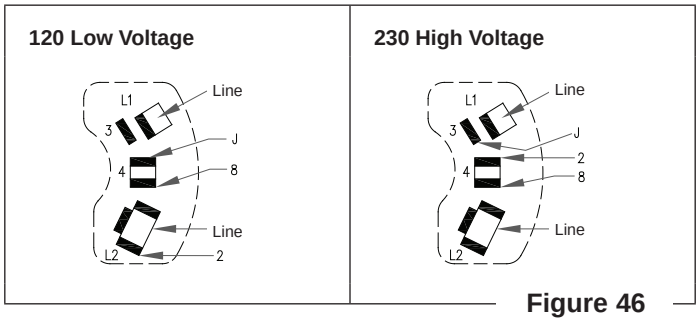


Figure 46

INSTALLATION

Electrical *Continued*

NOTE: Virtual Vision is:
- Standard (FSTX FR & FSTX FR LD)
- Optional (FSTX & FSTX LD)

1. Install curtain fan(s) (A) off to the side of the door jamb, near the top of the opening. Adjust fan to move air parallel to the curtain from the top to the opposite lower corner. DO NOT aim the fans to blow air into the cooler / freezer. Curtain fan(s) may be turned off if there is no moisture present.

   If door is mounted on cold side, install fans on warm side.

   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.
2. Locate Virtual Vision light bar assemblies (B) on each side of the doorway and in clear view of oncoming traffic. They should be installed approximately 36in [914mm] 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. Virtual Vision motion sensors should be installed off to the side of the opening (C).

   Direct sensors so they DO NOT extend beyond the width of the door.

   Sensors should be programmed for a 2 second hold time and bi-directional detection.
4. Mount step down transformer (D), if 120V OR 220V is not available.
5. If door is equipped with step down transformer junction box (E), plug in Virtual Vision cable. If not, there will be a separate junction box strictly for the Virtual Vision.
6. Plug cables (F) together and wire into control box.
7. End user provides the disconnect (G). An optional 120V outlet (H) for fans may be installed if desired.
8. 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. Then you would be able to 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 ii), 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 (use unlock/lock sequence). There should be no cross-talk with the remote’s instructions when using this approach. Record these values for future reference.

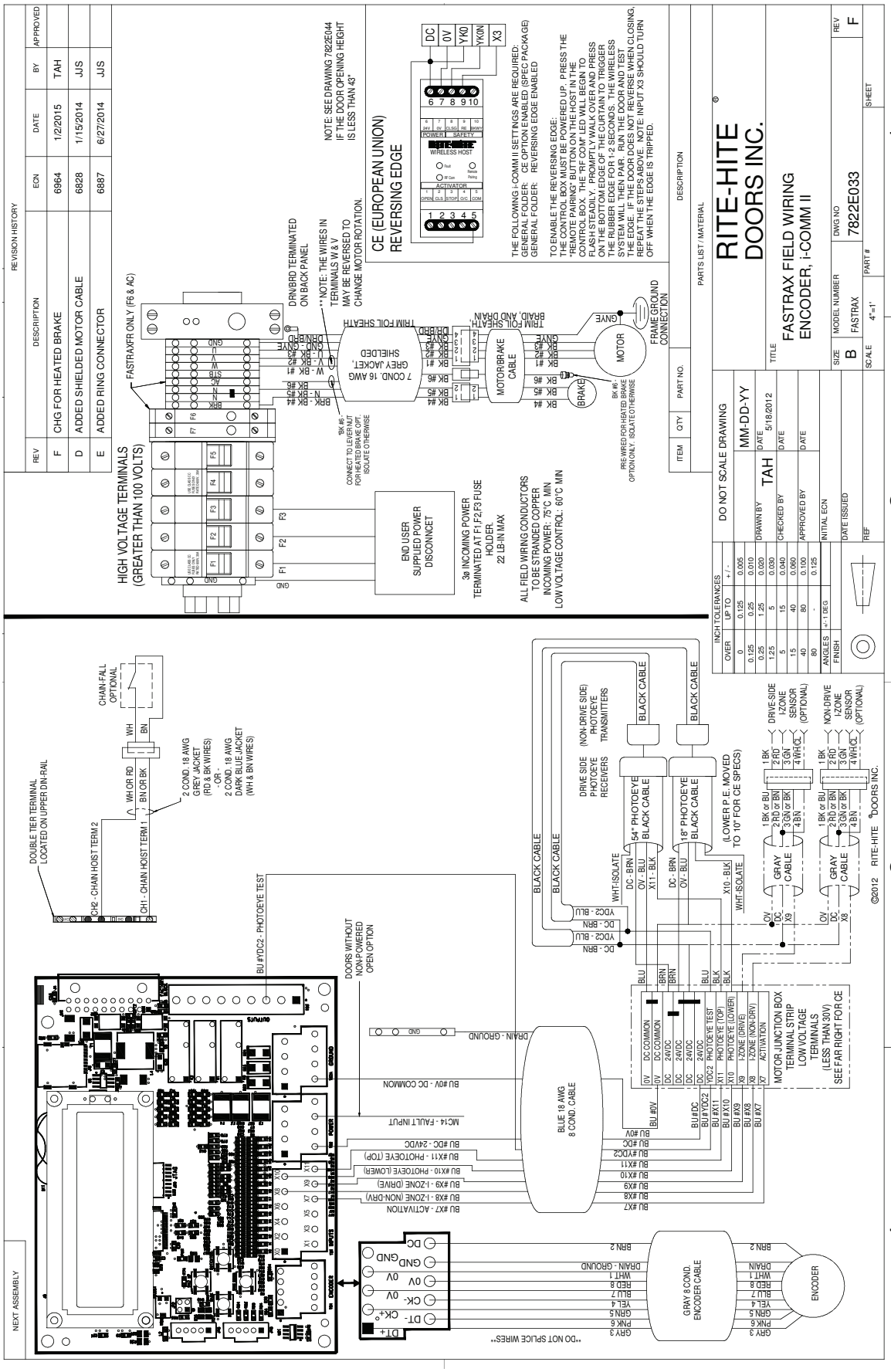
   b. If you do not wish to use security code settings, you can simply power down one unit (at the i-COMM ii) while setting the other unit, and then do the same thing with the other unit. This is similar to option “a”, although if you want to make subsequent changes to the settings, you would need to go 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, this may be difficult for units mounted high above the opening.
9. Mount opposite side Virtual Vision assembly (I).
10. Mount opposite side Virtual Vision motion sensor (J).
11. Cable to Control Box (N).
12. Virtual Vision Cables (O).
13. Transformer Cable (P).
14. Motion Sensor Cable (Q).
15. Curtain Fan Cables (R).
16. Heater/Blower (FSTX FR, FSTX FRLD) (S).

INSTALLATION

Electrical *Continued*

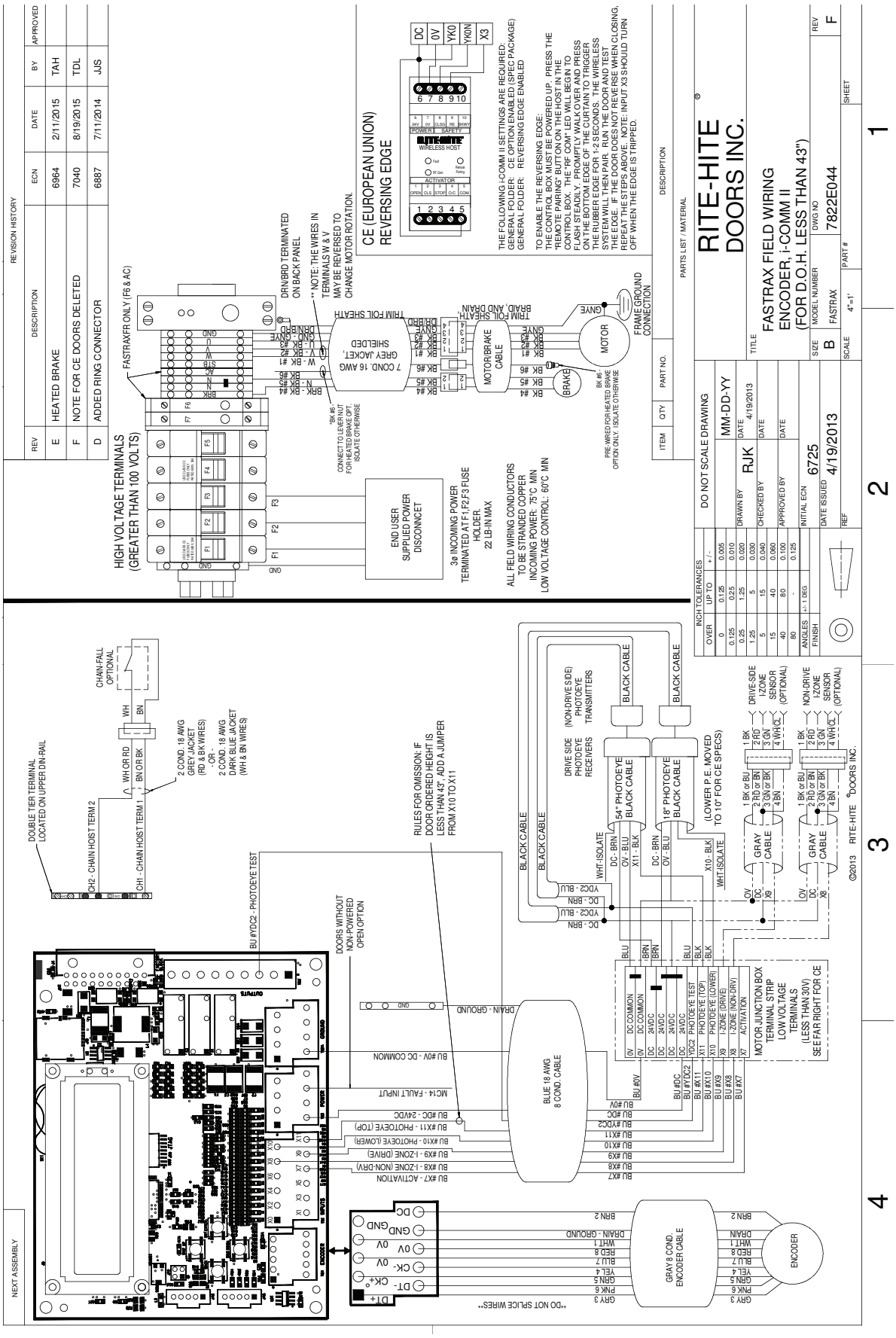
Mandatory Field Wiring Diagram – >43in [1092mm] O.D.H



INSTALLATION

Electrical *Continued*

Mandatory Field Wiring Diagram – <43in [1092mm] O.D.H



INSTALLATION

Compact User Interface (OPTIONAL)

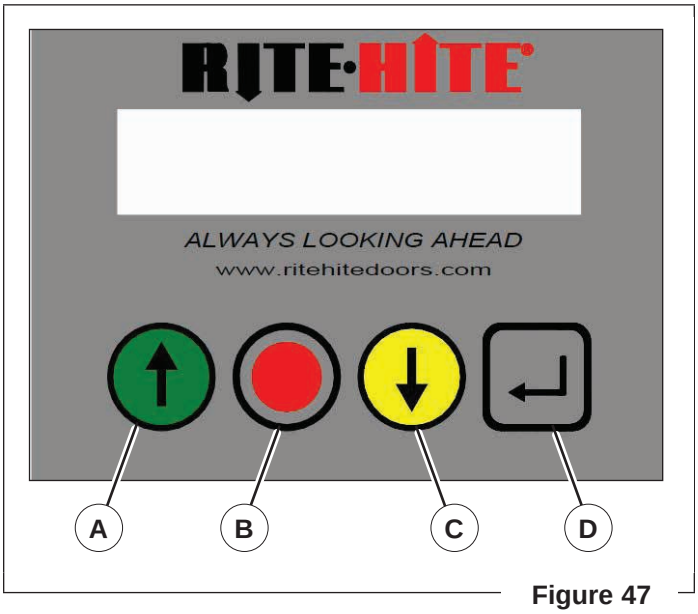


Figure 47

A Compact User Interface is mounted on a stainless steel or fiberglass 2-gang wall faceplate and compatible with standard 2-gang electrical box. The controls are also available on the provided junction box.

On the face of the assembly, there is a 4-button membrane switch:

#	COLOR	FUNCTION	
		DOOR	MENU
A	Green	Open/Reset	Up
B	Red	Stop (Hold to lock)	Back
C	Yellow	Close	Down
D	Gray	Hold to enter Menu	Enter

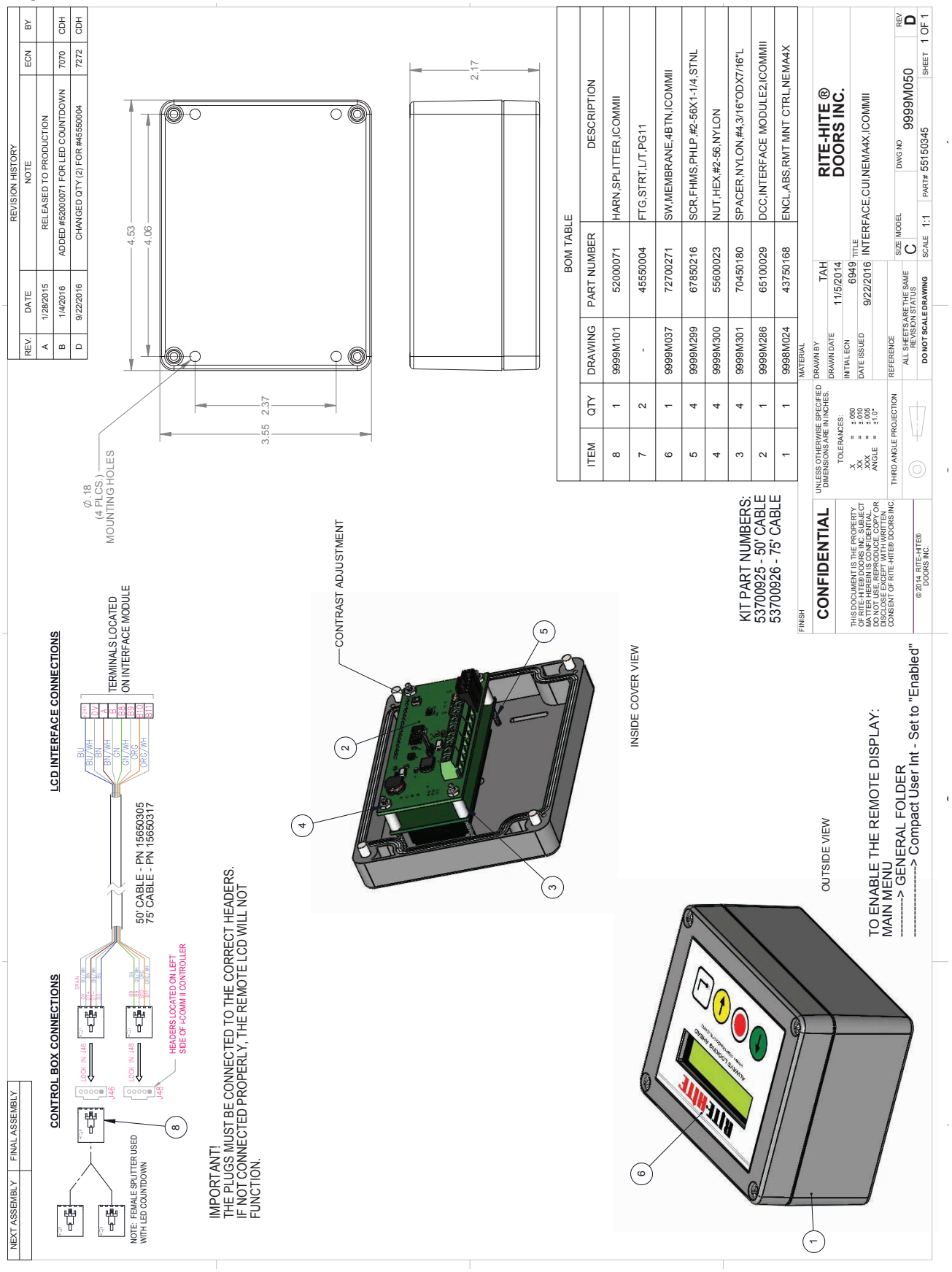
Press and hold “ENTER” button for 5 seconds to enter the menu. The” OPEN” button on the interface will reset the door after a fault. The screen flashes when in a fault.

NOTE: Verify Compact User Interface is enabled in the i-COMM menu.

INSTALLATION

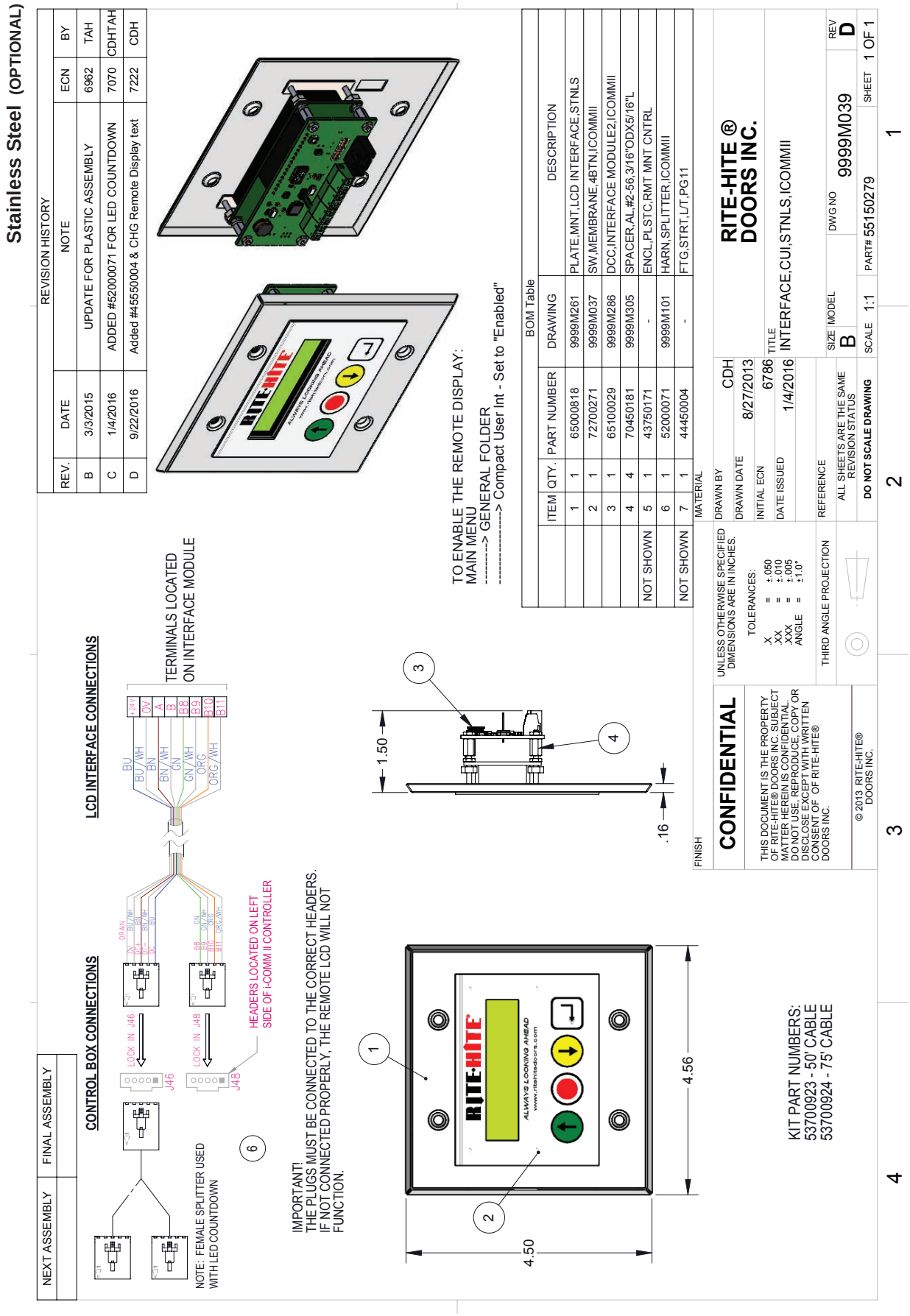
Compact User Interface (OPTIONAL) *Continued*

Fiberglass (OPTIONAL)



INSTALLATION

Compact User Interface (OPTIONAL) *Continued*



INSTALLATION

i-COMM ii / Encoder Setup

Logic Chart

RITE-HITE® DOORS

FasTrax® Encoder
i-COMM II Quick Reference

INPUT TABLE	
Input	Function
X0	Open PB
X1	Stop PB
X2,X3,X6,X7	Activation Command
X4	Close PB
X5	Toggle Command
X8*,X9*	IZone Sensors (R & L)
X10*	18" Photoeye Input
X11*	54" Photoeye Input
X12	Open/Reset PB
X13	Induction Loop Input
X14*	Fault Input
X15*	Input Power

* Not shown in I/O menu and not programmable

OUTPUT TABLE	
Relay Output	Function
YK0	Interlock Out
YK1	Programmable
YK2	Programmable
DC Output	Function
YDC0	On when door Open
YDC1	Photoeye Test
*YDC2	Photoeye Test
*YDC3	Open/Reset PB Light
*YDC4	I-Zone Alarm
YDC5	Preannounce to Close
*YDC6	NPO Contactor
*YDC7	Disabled

Encoder Adjustment Descriptions (Refer to i-COMM and Owners Manuals for additional detail)	
Open Distance	Use this option to set the overall opening distance of the door (in feet). 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 Close Position	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.
Set Open Position	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.
Close Position Adjust	Use this option to make small adjustment to the closed position. The number displayed is the relative displacement of the closed position.
Open Position Adjust	Use this option to make small adjustment to the open position. The number displayed is the measurement between the open and closed position.
Motor Drive Side	Use this option to change the encoder rotation direction. For a motor mounted on the right side of the drive tube, select "Right Drive". For a motor mounted on the left side of the drive tube, select "Left Drive".

Timer Adjustment

1. Press [ENTER]. Controller will stop and fault door.
2. Press [UP] or [DOWN] until the timer folder is displayed.
3. Press [ENTER], to enter the timer folder.
4. Using [UP] & [DOWN] keys select desired timer.
5. Press [ENTER] to view the current timer value.
6. Use [UP] or [DOWN] keys set the desired value.
7. Press [ENTER] to save the value and return to the timer folder.
8. Press [BACK] until "Door Faulted" is displayed.
9. 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
Autocycle Time is the amount of time between each automatic cycle of the door (disabled by default).

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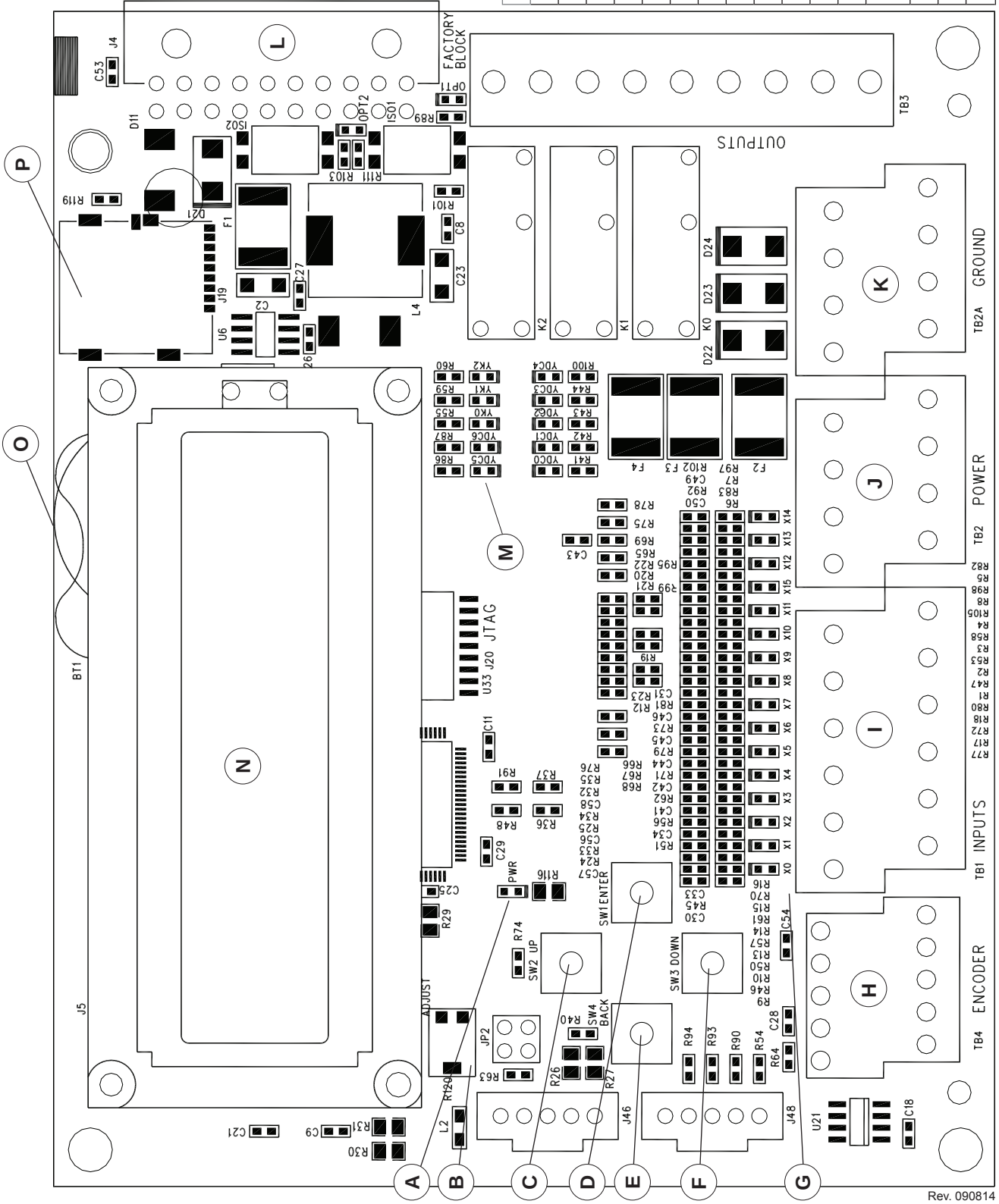
INSTALLATION

i-COMM ii / Encoder Set-Up *Continued*

Layout

COMPONENT KEY:	
A	Power LED
B	Contrast Button
C	Up Button
D	Enter Button
E	Back Button
F	Down Button
G	LED Input's X0 - X15
H	Encoder Terminals
I	Input Terminals
J	DC Terminals
K	OV Terminals
L	J4 Connector
M	Output LED's K0-K2 & Y0-Y5
N	Display
O	Battery (CR2032 3V)
P	SD Card



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INSTALLATION

i-COMM ii / Encoder Set-Up *Continued*

Display Set-Up Descriptions

OPTION	DESCRIPTION
Open Distance	Use this option to set the overall opening distance of the door (in feet). For example, for an 8ft [2438mm] tall door. This option should be set to 7ft [2134mm]. 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 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”.
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”.
Open Pos Adjust	Use this option to make small adjustments to the open position. The number displayed is the measurement between the open and closed position. For example, if this option was set to 100in [2540mm], the door would open 100in [2540mm] from the closed position.
Close Pos Adjust	Use this option to make small adjustments to the closed position. The number displayed is the relative displacement of the closed position. For example, if this option was set to -1.0in [-25mm], the door would close approximately 1.0in [25mm] more. If this option was set to 2.0in [51mm], the door would close 2.0in [51mm] less. The value for the Closed Position Adjust will always be at “0”.
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 24.0in [610mm] the door would slow down 24.0” [610mm] 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 and M12 cable connections. 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 (check set screws on encoder collar and sprockets), bad electrical connection to the i-COMM ii, or improper grounding. The error requires the power to be cycled to reset.
Open Time Limit	Door tried to run, but did not reach the open or close position before 8 seconds.
Photoeye (PE) Failure	Non-Drive PE’s must have green light on, drive PE’s must have orange & yellow lights on. Check for alignment & power to each.

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INSTALLATION

i-COMM ii / Encoder Set-Up *Continued*

MUST complete before operating door.

Operation of the door is not possible when using the menu system.

1. Verify wiring to encoder is properly terminated.
2. Place curtain in the closed (or open) position. If open, curtain should be 12in [305mm] below the lintel.
3. Power up the door and press enter button on the i-COMM ii, should state “MAIN MENU - ENCODER FOLDER”.
4. Press enter should state “Open Distance”.
5. Press enter to view parameter value (measured in feet), should be O.D.H. - 12in [305mm]. Change the value using the up or down buttons, round down if required, press enter.
6. Press up button, should state “Motor Drive Side”, press enter and select “Right Drive” or “Left Drive”, press enter.
7. Press up button, should state “Set Close Pos.” (use if curtain is closed) or go to “Set Open Pos.” (use if curtain is open) and press enter button, should state “Set Close (or Open) Pos.) and toggle between RESET ALL LIMITS and Push Up to Start”, press Up button.
8. Press the green flashing Open/Reset button on the front of the control box. Door should run open, time out and close. Proceed to “Open and Close Position Adjustment”.

Open and Close Position Adjustment

To adjust the OPEN position:

1. Using up button, scroll to “Open Pos. Adjust”.
2. Press enter button to view parameter value. 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.

   Change the value using the up and down buttons.

   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 4in [102mm] more, and the current value is 72.0in [1829mm]. Change the value for “Open Pos. Adjust” to be 76.0in [1930mm]). Changing this value will not affect the close position.

To adjust CLOSE position:

3. Using up button, scroll to “Close Pos. Adjust”.
4. Press enter button to view parameter value. 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”.

   Change values using the up or down buttons.

   To bring the curtain closer to the floor, adjust this value so that it is less than zero. (i.e. To close the door 4in [102mm] more, the value for “Close Pos. Adjust” will be -4.0in [102mm]). Moving this parameter in the positive direction raises the curtain relative to the floor. Changing this value will not affect the open position.

   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 4.0in [102mm], leave the parameter and return, the parameter will display 0.0. Even though the display shows 0.0 the -4.0in [102mm] change has been recorded.

   TIP: At any point in the menu mode, press the back button until screen states “Door Faulted - Service Required”. This will cause the controller to automatically accept all the changes made and exit the system.
5. Changes are not saved until the menu mode is exited. Turning power off while in the menu mode will cancel all changes.
6. Test operation of door and continue adjustment.
7. Press green Open/Reset button.
   a. The door should begin to open, be ready to shutdown the door if it begins to move in the wrong direction. If motor phase is changed, start over at step #2.
   b. If rotation is correct proceed to the instructions for adjusting the “Open and Close positions”.
8. Press the back (left button) to exit system.

INSTALLATION

i-COMM ii / Encoder Set-Up *Continued*

Programming Folders

Use the Enter, Up, Down, Back buttons on the i-COMM ii to navigate through the folders. To exit system, use back button until “Door Faulted” appears.

Encoder Folder

See Folder Layout Chart to change / view settings.
MUST perform encoder setup for door operation.

I/O Setup Folder

See I/O Setup Layout Chart to change / view settings.
Use to setup Input and Output functions

Timer Folder

See Timer Layout Chart to change / view settings.
Use to change reclose or preannounce timer.

General Folder

See General Layout Chart to change / view settings.
Use to setup Clock, Maintenance cycles

View Folder

See View Layout Chart to change / view settings.
Use to view cycle count, fault history, door information.

Load / Save Folder

See Load / Save Layout Chart to change / view settings.
See Legal information.
Use for programming.

Inverter Folder

See Inverter Layout Chart to change / view settings.
Use to change door speeds, torque settings.

Procedures

Adjusting Reclose Timer:

1. Press ENTER button.
2. Use UP button to scroll to "TIMER FOLDER", press ENTER, should display “Set Close Timer”.
3. Press ENTER button.
4. To increase reclose time, press UP button.
5. To decrease reclose time, press DOWN button.
6. Press BACK button when complete.

Setting Clock:

1. Press ENTER button.
2. Use UP button to scroll to "GENERAL FOLDER", press ENTER, should display “Clock”.
3. Press ENTER button, should display M/D/Y and time.
4. Press UP, set year - press ENTER, set month - press ENTER, set day - press ENTER, set hour - press ENTER, set minute - press ENTER.
5. Press BACK when complete.

Setting Maintenance:

1. Press ENTER button.
2. Use UP button to scroll to "GENERAL FOLDER", press enter, press UP to scroll to "Maint. Months" or "Cycles".
3. Press ENTER button, should display number of months or number of cycles.
4. Press BACK when complete.

When setting Maintenance timer:
Open / Reset button will flash slow when set time / cycles have expired and display Maintenance Required.

To reset Maintenance light (flashing Open / Reset button):
Press ENTER button, scroll to "GENERAL FOLDER", press ENTER button, scroll to "Reset Maintenance", press ENTER, then UP to start, then green Open Button.

Checking Fault History:

1. Press ENTER button.
2. Use UP button to scroll to "VIEW FOLDER", press ENTER, should display “Fault History”.
3. Press ENTER button, should display the last fault / flash the date / time it occurred.
4. This displays the last 20 faults with date and time.
5. Press BACK when complete.

LCD Display Messages

FAULT CODE	TOP DISPLAY	I-COMM BOTTOM DISPLAY FAULT ERROR DESCRIPTION	REASON / FAULT MESSAGES	ACTION REQUIRED	ACTION REQUIRED: REASON / TASK
0	Door Faulted	Watchdog Timer	Indicates the board watchdog timer has reset	Service Required	i-COMM board requires replacement
1		Normal Power Up	Indicates loss of power	Push Open/Reset	Power to the door was lost, press Open/Reset button to operate door
2		Breakaway	Door is in breakaway mode: FasTrax - chain hoist; 8000CL/XL - lower track or sideframe door; 8000/CL/XL overload relay	Reset/Jog Door	If need be - press Open/Reset to "Jog" door. Reset breakaway mechanism. Press Open/Reset button to operate door.
3		Open Time Limit	Run open time limit exceeded	Service Required	Door did not reach open limit before 8 seconds
4		Menu Interrupt	i-COMM menu interrupted	Push Open/Reset	The i-COMM menu was accessed. Press Open/Reset button to operate door.
5		Limit Failure	Limit switch has failed	Service Required	Door did not read limit switch or two switches activated simultaneously
6		Emergency Stop	E-Stop button pushed or overload relay tripped (8900) or Inverter relay failure (8600) or chain hoist switch open (FasTrax)	Push Open/Reset	E-Stop button was activated or is defective. Check 8900 overload relay, check chain hoist switch on FasTrax series model doors. Press Open/Reset button to operate door.
7		Close Time Limit	Run close time limit exceeded	Service Required	Door didn't reach close limit before 8 seconds
8		Limit Pulse Time	Trakline limit problem. Second close limit pulse not detected.	Service Required	Check limit switch
9		Obstruction	Door has detected obstruction and reversed 3 times	Inspect & Reset	Door tried to close 3 times but sensed friction or an obstruction, reversed, stayed open and faulted.
10		System Clk Read	System clock failed	Service Required	Clock has elapsed, check and/or replace battery
11		Unknown State	State unknown	Service Required	Cycle power and reset
12		PRO System	Pro inverter fault (8000, 8000XL)	Check Inverter	Check inverter for fault codes
13		Photoeye Failure	Indicates problem with reversing photoeye's (FSTX Series, LTSPD or SPLT)	Jog to Close	Reversing photoeye's did not pass test
14		Encoder Read	i-COMM ii has detected a bad encoder read	Service Required	i-COMM board did not read encoder status. Check wiring connections.
15		Encoder Velocity	i-COMM ii has detected a velocity error	Service Required	i-COMM board detected improper speed or wrong direction. Check wiring connections
16		Encoder Connection	i-COMM ii has detected a connection error	Service Required	i-COMM board did not read connection to encoder. Check wiring connections
17		VFD Trip # xxx	Inverter is in fault. xxx Indicates the active inverter fault	Push Open/Reset	i-COMM board displaying inverter (VFD) fault. Check manual for inverter faults
18		VFD Comm. Loss	i-COMM ii has lost communication with inverter	Check Connection	i-COMM board has lost communication with inverter (VFD). Check wiring connections
19		Program Inverter	Inverter is not programmed for proper door operation	Service Required	Indicates inverter (VFD) is not properly programmed. Re-program inverter.
20		Check Reversing Edge	i-COMM ii has detected a reversing edge continuity error	Jog to Close	Check reversing edge wires for continuity or if shorted.
21		Refeed Curtain	i-COMM ii has detected a curtain refeed error	Jog to Close	LiteSpeed header Slack Sensor photoeye has tripped - curtain has reversed 5 times
22		Encoder-No Power	i-COMM ii has detected no power to encoder error	Service Required	i-COMM board has detected no power to the encoder. Check wiring connections

i-COMM ii / Encoder Set-Up *Continued*

LCD Display Messages

FAULT CODE	TOP DISPLAY	I-COMM BOTTOM DISPLAY FAULT ERROR DESCRIPTION	REASON / FAULT MESSAGES	ACTION REQUIRED	ACTION REQUIRED: REASON / TASK
23	Door Faulted	LZR Test Failed	i-COMM ii has detected an LZR test error	Jog to Close	Check wiring of LZR or perform "Teach In" per BEA User's Guide
24		VFD Torque Relay	VFD Relay failed to change state	Service Required	Check torque setting and check VFD relay
25		Reversing Edge Count	i-COMM has detected reversing edge was activated (CE only)	Jog to Close	Cycle power and reset
26		Door Locked	i-COMM has detected that the door CUI is locked	Door Locked	Press and hold the Red button on CUI for 15 seconds to unlock
27		Curtain Jam	Curtain is moving slower than expected while closing	Service Required	Check for drive system obstruction or high wind load
28		Counterweight	i-COMM ii has detected a counterweight closing error	Service Required	Check counterweight photoeyes and verify counterweight travels freely in the tube
29		Counterweight	i-COMM ii has detected a counterweight opening error	Service Required	Check counterweight photoeyes and verify counterweight travels freely in the tube
30		Low Velocity	i-COMM ii has detected a low velocity close error	Service Required	Wind or pressure on curtain has caused FSTX XL door to close slower than normal
31		Low Velocity	i-COMM ii has detected a low velocity open error	Service Required	Wind or pressure on curtain has caused FSTX XL door to open slower than normal
32		Curtain Jam	Curtain is moving slower than expected while opening	Service Required	Check for drive system obstruction or high wind load
33		Door Overtravel	i-COMM ii has detected a door overtravel error	Service Required	FSTX XL curtain has traveled past the curtain sensing photoeyes
255		Blank	No Fault	None	None
	Door is Opening	None	Door is opening	None	An activation command to open door was given
	Door is Open	None	When not in preannouce to close	None	Door is open, waiting to close
	Stand Clear	None	When in preannounce to close	None	Door is open and getting ready to close
		Activation On	Indicates activation on (overrides timer display)	Action Required	A activation device is holding the door open
		Closing in xx secs	Displays closing time in seconds	None	Reclose timer is counting down and will close the door
		I-Zone Detection	I-Zone active (overrides timer display)	Service Required	Inspect I-Zone sensors
		Photoeye Blocked	Photoeye is blocked (overrides timer display)	Service Required	Inspect reversing photoeyes on the door
		Waiting for CMD	Indicates door is waiting for normal close command	Action Required	Give command to close door
		Door Closing	Door is closing	None	Door is in process of closing
	Door Closed	Cycles: xxxxxx	Displays cycle count	None	None
		Interlock Active	Door is interlocked and cannot be opened	Service Required	Verify interlocked door is closed
	Door Stopped	Push Open / Close	Door is stopped	Open/Close door	Give command to close or open door

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INSTALLATION

i-COMM ii / Encoder Set-Up *Continued*

		#*	NAME	VALID VALUES	DESCRIPTION	VALUE
Folders	ENCODER FOLDER	0	Open Distance	3-24	Used to Set Opening distance for door	8
		1	Motor Drive Side	Right Drive/Left Drive	Used to select motor drive side.	Right
		2	Set Close Pos.	Press UP to Start	Use for initial setup of close position	-
		3	Set Open Pos.	Press UP to Start	Use for initial setup of open position	-
		4	Close Pos. Adjust	±100.0	Use to adjust close position. Relative to current close position	0.0
		5	Open Pos. Adjust	0 - 999.00	Use to adjust door open position	-
		6	Partial Open Pos.	0 - Open Pos. Height	Use to adjust door partial open position	-
		7	Encoder Position	0-01FFFF	Current encoder position	-
		8	Encoder Baud	125,220,433-A,433-B kbps	Used to select encoder data rate	433-A kbps
		9	Appr. Open Pos	0.0 - 100.0	Approach Open Position	28.0
		10	Appr.Close Pos.	0.0 - 100.0	Approach Close Position	-
	I/O SETUP FOLDER	11	Set Open PB Func.	Auto Close Mode, Tog & Auto Close, Reset/Jog Only, Toggle Mode	Use to select the function of the Open/Reset Button.	Auto Close Mode
		12	Set Loop Func.	Auto Close Mode, Reversing/Hold Open	Use to select the function of the induction loop input	Auto Close Mode
		13	I-Zone System	Enabled/Disabled	Use to Enable/Disable the I-Zone detection system	Disabled
		14	Output Def. YK0	0-35 (See Table)	User configurable relay	0
		15	Output Def. YK1	0-35 (See Table)	User configurable relay	20
		16	Output Def. YK2	0-35 (See Table)	User configurable relay	20
		17	Output Def. YDC0	0-35 (See Table)	User configurable DC Output	3
		18	Output Def. YDC1	0-35 (See Table)	User configurable DC Output	29
		19	Output Def. YDC2	0-35 (See Table)	User configurable DC Output	29
		20	Output Def. YDC3	0-35 (See Table)	User configurable DC Output	20
		21	Output Def. YDC4	0-35 (See Table)	User configurable DC Output	20
		22	Output Def. YDC5	0-35 (See Table)	User configurable DC Output	2
		23	Output Def. YDC6	0-35 (See Table)	User configurable DC Output	20
		24	Output Def. YDC7	0-35 (See Table)	User configurable DC Output	20
		25	Input Define X0	0-21 (See Table)	User configurable Input	8
		26	Input Define X1	0-21 (See Table)	User configurable Input	7
		27	Input Define X2	0-21 (See Table)	User configurable Input	2
		28	Input Define X3	0-21 (See Table)	User configurable Input	2
		29	Input Define X4	0-21 (See Table)	User configurable Input	4
		30	Input Define X5	0-21 (See Table)	User configurable Input	3
		31	Input Define X6	0-21 (See Table)	User configurable Input	2
		32	Input Define X7	0-21 (See Table)	User configurable Input	2
		33	Open Alrm Time	0-255	Open Alarm Time in minutes. Requires at least one output to be configured to function 25. Menu will be hidden if no outputs are configured to function 25.	0
		34	X10 PE Cut-Out	0 - 30	X10 Photoeye cut-out height (Passcode required)	24
		35	X11 PE Cut-Out	0 - 66	X11 Photoeye cut-out height (Passcode required)	60
		36	I-Zone Cut-Out	0 - 48	I-Zone cut-out height	42
	TIMER FOLDER	37	Set Close Timer** Preann. to Close**	0 - 255/Toggle Mode	Close Timer in seconds. Set to Toggle Mode to disable automatic closing.	6
		38	Preann. to Close	0 - 255	Preannounce to close timer in seconds	2
		39	Preann. to Open	0 - 255	Preannounce to open timer in seconds	Disabled
		40	Autocycle Time	0 - 254/Disabled	Autocycle Time in minutes	Disabled

*# (number) is not shown in i-COMM ii Menu
** The shortest reclose time available is 2 seconds. Set Preann. to Close at 1 and Set Close Timer to 1. If less than 2 seconds is needed, consult Aftermarket for special program.

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INSTALLATION

i-COMM ii / Encoder Set-Up *Continued*

		#*	NAME	VALID VALUES	DESCRIPTION	VALUE
Folders *Continued*	GENERAL FOLDER	41	Clock		Displays Current Time and Date. To Set: Press UP; Scroll to correct year; Press Enter; Scroll to correct Month; Press Enter; Scroll to correct Day; Press Enter; Scroll to correct Hour; Press Enter; Scroll to correct Minute; Press Enter	-
		42	Language	English,Español, Portuguese	Set LCD Display Language	English
		43	PassCode		Use to change access mode.	-
		44	Reversing Edge Option	Enabled/Disabled	Used to enable reversing edge	Disabled
		45	Spec. Package	Disabled, CE Option, Canada Option	Used to enable specification packages	Disabled
		46	Compact User Int	Enabled/Disabled	Used to enable remote LCD	Disabled
		47	Partial Open	Disabled, Standard, Custom 1	Used to enable partial open operation.	-
		48	Reverse Delay	xx	Reversing Delay	0
		49	AB Inverter Delay	-	Consult Engineering, Special Applications Only	-
		50	Voltage	208/220/230/400/460/575	Voltage of door	460
		51	Square Feet	0-999	Square footage of door. Width x Height	0
		52	Non-Powered Open	Enabled/Disabled	Enables non-powered open for LiteSpeed	
		53	Maint. Months	xx	Number of Months before Maintenance Indicator goes off. ***If maintenance criteria has been met and light is flashing initiate "Reset Maintenance" Procedure.***	6
		54	Maint. Cycles	0-100000	Number of Cycles before Maintenance Indicator goes off. ***If maintenance criteria has been met and light is flashing initiate "Reset Maintenance" Procedure.***	100000
		55	Reset Maint.	-	Resets Maintenance Counters and Timers. Press Up to initiate the reset.	-
		56	Speed Threshold	0-100%	Used to adjust the speed threshold for the counterweight sensor.	-
		57	Reset to Default	-	Resets all settings back to factory defaults	-
	VIEW FOLDER	58	Disp. Cycle Count	0 - 99999999	Displays current Cycle Count	-
		59	Fault History	-	Displays fault log. Use UP and Down to Scroll	-
		60	Display Model #	-	Displays door model	-
		61	Display RHC#	-	Displays RHC number	-
		62	Display Serial#	-	Display door serial number	-
		63	Firmware Reversing	-	Displays current program revisions	-
	LOAD / SAVE FOLDER	64	Copy from SD	Press UP to Start Copy	Use to upgrade i-COMM ii program. Correct .BIN file must be saved to SD Card. ***Note:*** SD Card must be 2GB micro SD.	-
		65	Copy to SD card	Press UP to Start Copy	Use to copy i-COMM ii program to SD Card in .BIN format.	-
		66	Legal info to SD	Press UP to Start Copy	Use to display legal information about program. Legal.txt will be saved to SD card.	-
		67	Bootloader Upd.	Press UP to Start Copy	Used to upgrade bootloader. ***CAUTION:*** **DO NOT INTERRUPT THIS PROCESS.**	-
		68	Export Settings	Press UP to Start Copy	Use to save i-COMM ii settings to SD Card in .BIN format.	-
		69	Import Settings	Press UP to Start Copy	Use to copy i-COMM ii settings to SD Card in .BIN format.	-
	INVERTER FOLDER	70	Inverter Type	CT SK MODBUS, AB PF40 MODBUS, CT SK NO MODBUS, AP PF NO MODBUS, No inverter	Used to set inverter type	CT SK MODBUS
		71	Program Inverter	Press UP to Start Copy	Use to program inverter. (Passcode required)	-
		72	Open Speed	0 - 90 Hz	Open Speed	70.0
		73	Close Speed	0 - 90 Hz	Close Speed	Varies
		74	Approach Speed	0 - 90 Hz	Approach Open Speed	40.0
		75	Accel Time	0 - 10.0 s	Acceleration Rate	1.0
		76	Accel Time 2	0 - 10.0 s	Acceleration Rate 2	-
		77	Decel Time	0 - 10.0 s	Deceleration Rate	0.7
		78	Torque Reversing Level	0-100%	Torqure Reversing Level	60.0%
		79	DC Brake Time	0 - 10.0 s	Injection Braking Time	0.7
		80	DC Brake Level	0-100%	DC Injection Braking Level	70.0%

*# (number) is not shown in i-COMM ii Menu

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INSTALLATION

i-COMM ii / Encoder Set-Up *Continued*

Input / Output Values

TYPE	#	FUNCTION	DESCRIPTION
Input	0	Interlock In	Interlock Input - When Input is set to this function door will not open until input is ON. Valid only for inputs X3, X4, and X5.
	1	Stop N.C.	Stops the door when input is OFF.
	2	Activation	Opens the door when input is ON, w/ Auto close.
	3	Toggle	Open and Closes the door when ON. Door will not automatically close when opened by a toggle input.
	4	Close	Closes the door when input is ON.
	5	Sequential Activation	Activates door and blocks sequential activation output from triggering opposite door. Use only for sequential interlocks.
	6	Reverse	Reverses the door when input is ON.
	7	Stop N.O.	Stops the door when input is ON.
	8	Manual Open	Opens the door when input is ON. This input will open from a stop condition, unlike activation. Do not connect motion sensors or other automatic devices to a manual open input.
	9	Auto / Manual	When input is ON reclose timer is disabled.
	10	Partial Open Activation	Opens the door to the partial open position when ON
	11	Partial Open Toggle	Toggle open/close door to and from partial open position. See function #3 above.
	12	Toggle w/ Auto Close	Open and Closes the door when ON. Door will automatically close when opened by this type of toggle input.
	13	Hand / Auto Mode	When input is ON reclose timer is disabled and hold-to-run close is enabled.
	14	Disabled	Input disabled.
	15	Reverse N.C.	Reverses the door when input is OFF.
	16	Clean	Opens door to "Cleaning" position when on.
	17	E-Stop	Places door in fault when OFF.
	18	Seq. Activation 2	Consult Engineering
	19	LZR in N.C.	Reverses the door when off and monitors the input for fault
	20	Pre-announce to Open	Opens the door after the set amount of time in the Preann. to Open timer. Immediate reversal/activation if the door is not closed.
	21	Interlock Override	Opens the door and overrides any standard interlock configuration
Output	0	Interlock	ON when door is closed.
	1	Interlock N.C.	OFF when door is closed.
	2	Pre-announce	ON during pre-announce to close, and stays on until the door is closed.
	3	Open	ON when door is open.
	4	Open N.C.	OFF when door is open.
	5	Fault	ON during fault.
	6	Ready	ON when not in fault.
	7	Activation	ON during activation.
	8	Run Open	ON during run open.
	9	Run Close	ON during run close.
	10	Run	ON during run open or close.
	11	At Limits	ON when door is open or closed.
	12	I-Zone Alarm	ON during I-Zone alarm.
	13	Door Open 30 sec.	ON when door is open for more than 30 seconds.
	14	Door Open 60 sec.	ON when door is open for more than 60 seconds.
	15	Door Open 120 sec.	ON when door is open for more than 120 seconds.
	16	Sequential Activation	ON to activate opposite door. Use for sequential interlock.
	17	Run Open N.C.	OFF during run open.
	18	Run Close N.C.	OFF during run close.
	19	Run Close N.C.	OFF during run open or close.
	20	Disabled	Always OFF.
	21	Flash 3.1 Hz	Flashes at 3.125 Hz.
	22	Flash 1.6 Hz	Flashes at 1.5625 Hz.
	23	Partial Timer	Consult Engineering

INSTALLATION

i-COMM ii / Encoder Set-Up *Continued*

Input / Output Values *Continued*

TYPE	#	FUNCTION	DESCRIPTION
Output	24	Reverse / Activation	ON when any reverse command or activation signal is on.
	25	Door Open Alarm	ON when door has been opened for time set in "Open Alrm Time"
	26	Interlock Pass-Thru	ON when door is able to be opened (Interlock Input is not preventing door from opening)
	27	Interlock Pass-Thru N.C.	OFF when door is able to be opened (Interlock Input is not preventing door from opening)
	28	Preannounce & Close	ON during preannounce to close, and while closing. ***Note:*** this output will turn on while door is closed from Toggle or Close command or re-close timer.
	29	Photoeye Test	ON when emitters are on, OFF to test photoeyes
	30	Encoder Bit 9	Consult Engineering
	31	Encoder Bit 10	Consult Engineering
	32	Encoder Bit 11	Consult Engineering
	33	Encoder Bit 12	Consult Engineering
	34	Preannounce to Open	ON during the set preannounce to open time.
	35	Preannounce to Close	ON only during preannounce to close. OFF during run close
	36	Preannounce & Flash	Flashes at 3.1 Hz during preannounce to close. OFF during run close.

Rev112414

Inverter (VFD) Programming

230/460V – Emerson

These instructions are only to change parameters when not using the i-COMM ii.

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 / AVERTISSEMENT

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

Contactez l'usine avant de modifier les paramètres non répertoriés dans ce tableau.

Parameter Number	Name	Value	Units
00.03	Acceleration Rate 1	0.5	s/100 Hz
00.04	Deceleration Rate 1	0.5	s/100 Hz
00.06	Motor Rated Current	2.93	A
00.10	Security Status	L2	
00.19	Close Speed	25.00	Hz
00.20	Open Speed	60.00	Hz
00.21	Approach Open Speed	25.00	Hz
00.61	Torque Detection Level	60	%
00.66	Injection Braking Level	70	%
00.67	Injection Braking Time	.7	seconds

INSTALLATION

Inverter (VFD) Programming *Continued*

230/460V – Error Codes

#	TRIP CODE	CONDITION	POSSIBLE CAUSE
1	tr UU	DC bus under voltage	Low AC supply voltage, check power source. Low DC voltage when supplied by an external DC power supply
2	tr OU	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 braking 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
19	tr It.br	I2C on braking resistor	Check door closing speed. If fault is while door is closing, add breaking resistor. See Emerson Advanced User Guide for "tr OV" troubleshooting.
20	tr It. AC	I2C on drive output	Check that radial spacing and that they are square, or lower track spacing. Motor wiring: check for loose connections or shorts. Make sure door cannot move if brake is engaged.
3	tr OI.AC	Drive output instantaneous over current	Door is mechanical binding or jammed. Check radial spacing and that they are square, or lower track 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 auto-tuning to the motor. Motor or motor connections changed, re-auto tune drive to motor MUST wait 10 seconds to reset after trip occurs
4	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
7	O.SPd	Over speed	Excessive motor speed (typically caused by mechanical load driving the motor)
18	tunE	Auto tune stopped before complete	Run command removed before auto-tune complete
19	It.br	I2-t on braking resistor	Excessive braking resistor energy
20	It.AC	I2-t on drive output current	Excessive mechanical load. Drive requires re-auto tuning to motor. High impedance phase to phase or phase to ground short circuit at drive output.
21	O.ht1	IGBT over heat based on	Overheat software thermal model drives thermal model
22	O.ht2	Over heat based on drives heat-sink	Heat-sink temperature exceeds allowable maximum
24	th	Motor thermistor trip	Excessive motor temperature
26	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	Heat-sink/IGBT temp is high	Reduce ambient temperature or reduce motor current
	br.rS	Braking resistor overload	See Advanced user guide
31	EEF	Internal drive EEPROM failure	Possible loss of parameter values
32	PH	Input phase imbalance or input phase loss	One of the input phases has become disconnected from the drive.
33	rS	Failure to measure motors	Motor too small for drive stator resistance. Motor cable disconnected during measurement.
189	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 motor failed, or braking IGBT short circuit at power up
	HF 27 trip		Power stage thermistor fault
	HF28 trip		DSp software overrun
	HF xx trip		HF 1-4, 9-10,12-19,23,24,29,30 Are not used

160401

INSTALLATION

Inverter (VFD) Programming *Continued*

230/460V – 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

575V – Allen Bradley

⚠ WARNING / AVERTISSEMENT

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

Contactez l'usine avant de modifier les paramètres non répertoriés dans ce tableau.

Parameter Number	Name	Value
039	Accel Time	0.5
040	Decel Time	0.8
056	Torque Detection Level	70.0
072	Open Speed	70.0
073	Approach Open Speed	40.0
075	Close Speed	17.0
080	DC Brake Injection Time	0.5
081	DC Brake Injection Level	1.50
101	Program Lock	1

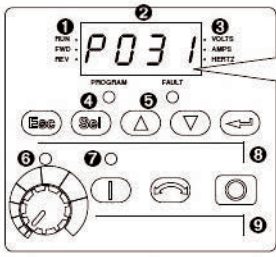
Press **"ESC"** once to display the Display Group parameter.

Press **"ESC"** again to enter the group menu, the group letter will flash. Press **"UP"** or **"DOWN"** arrow to scroll through the group menu.

Press **"Enter"** or **"Sel"** to enter a group. Press **"UP"** or **"DOWN"** arrow to scroll through the group menu.

Press **"Enter"** or **"Sel"** to view the value of the parameter. Press **"ESC"** to exit without making any changes. Press **"Enter"** or **"Sel"** to edit parameter, when # is flashing (Program LED will illuminate if parameter can be edited), press **"UP"** or **"DOWN"** arrow to change value.

Press **"Enter"** when completed to save changes. Press **"ESC"** to exit and return to program list.



Menu	Description
d	**Display Group (View Only)** Consists of commonly viewed drive operating conditions.
P	**Basic Program Group** Consists of most commonly used programmable functions.
A	**Advanced Program Group** Consists of remaining programmable functions.
F	**Fault Designator** Consists of list of codes for specific fault conditions. Displayed only when fault is present.

No.	LED	LED State	Description
❶	Run/Direction Status	Steady Red	Indicates drive is running and commanded motor direction.
		Flashing Red	Drive has been commanded to change direction. Indicates actual motor direction while decelerating to zero.
❷	Alphanumeric Display	Steady Red	Indicates parameter number, parameter value, or fault code.
		Flashing Red	Single digit flashing indicates that digit can be edited. All digits flashing indicates a fault condition.
❸	Displayed Units	Steady Red	Indicates the units of the parameter value being displayed.
❹	Program Status	Steady Red	Indicates parameter value can be changed.
❺	Fault Status	Flashing Red	Indicates drive is faulted.
❻	Pot Status	Steady Green	Indicates potentiometer on Integral Keypad is active.(1)
❼	Start Key Status	Steady Green	Indicates Start key on Integral Keypad is active. The Reverse key is also active unless disabled by A095 [Reverse Disable].

No.	Key	Name	Description
❽	Esc	Escape	Back one step in programming menu. Cancel a change to a parameter value and exit Program Mode.
	Sel	Select	Advance one step in programming menu. Select a digit when viewing parameter value.
	▲ ▼	Up Arrow Down Arrow	Scroll through groups and parameters. Increase/decrease the value of a flashing digit. Used to adjust internal frequency of IP66, NEMA/UL Type 4X rated drives *only* when a Display Group parameter is shown and P038 [Speed Reference] is set to internal frequency, A069 [Internal Freq].
	↵	Enter	Advance one step in programming menu. Save a change to a parameter value.
❾		Potentiometer(1)	Used to control speed of drive. Default is active. Controlled by parameter P038 [Speed Reference].
		Start	Used to start the drive. Default is active. Controlled by parameter P036 [Start Source].
		Reverse	Used to reverse direction of the drive. Default is active. Controlled by parameters P036 [Start Source] and A095 [Reverse Disable].
		Stop	Used to stop the drive or clear a fault. This key is always active. Controlled by parameter P037 [Stop Mode].

(1) IP66, NEMA/UL Type 4X rated drives are not equipped with a potentiometer.

PowerFlex 40 Adjustable Frequency AC Drive FRN 1.xx - 6.xx User Manual
Publication 22B-UM001H-EN-E

Figure 48

INSTALLATION

Labels/Shrouds

Label(s) – Back Side of Door

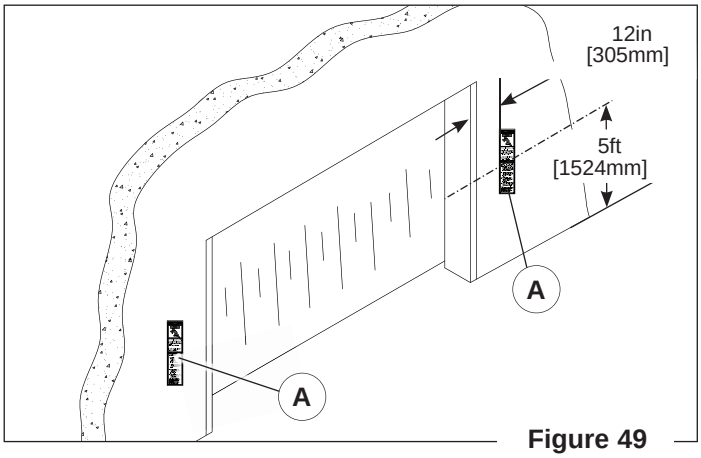


Figure 49

1. Clean surface where label(s) (A) will be placed.
2. Peel off backing on label and apply in position.

Drive Shroud

NOTE: Do not install until installation is complete.

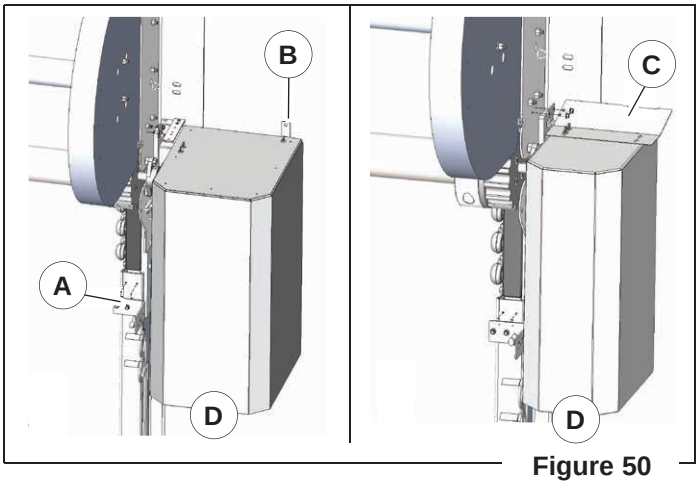


Figure 50

1. Attach lower (A) and upper (B) motor shroud brackets to lower track and header plates.
2. Align extension bracket (C) slots with holes in drive shroud and attach to upper mounting bracket with 2 thumb screws. (Exterior doors only).
3. Place drive shroud (D) into position and attach to lower mounting bracket (B) with 2 thumb screws.

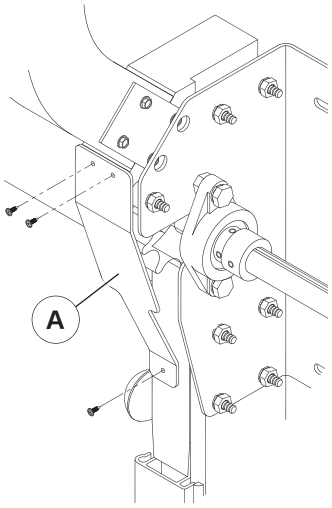
NOTE: Shrouds and upper mounting brackets are shipped assembled for the proper drive side doors. If needed, the shrouds are universal and can be switched in the field by removing the fasteners and reversing the assembly.

INSTALLATION

Doors Less than 8ft 0in [2438mm] D.O.H.

Guards – Non-Radial Door

FasTrax, FasTrax FR



FasTrax LD, FasTrax FR LD

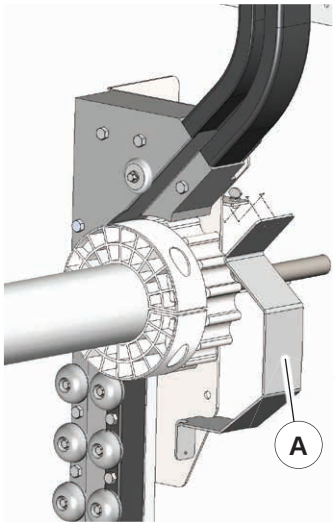
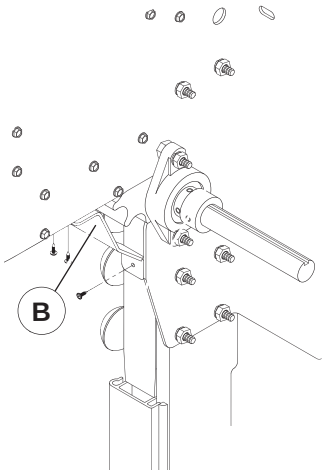


Figure 51

Install drive guard (A) onto vertical, tilt, or high lift style doors.

Guards – Radial Door

FasTrax



FasTrax LD

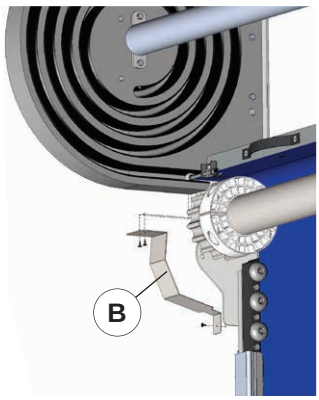


Figure 52

Install drive guard (B) onto radial style doors.

Keep Clear Sign

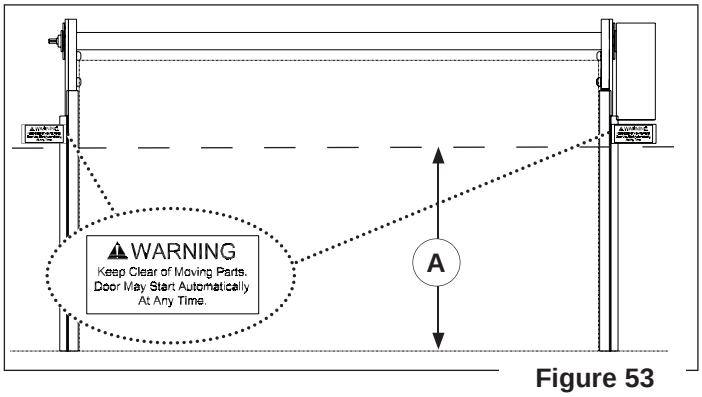


Figure 53

Install sign(s) onto lower tracks on each side, ≈ 5ft [1524mm] (A) from the floor.

INSTALLATION (OPTIONAL)

Poly Lumber (FasTrax FR, FasTrax FR LD)

NOTE: Maximum length piece is 10ft -6in [3200mm]. Several pieces may be required to meet proper length needed.

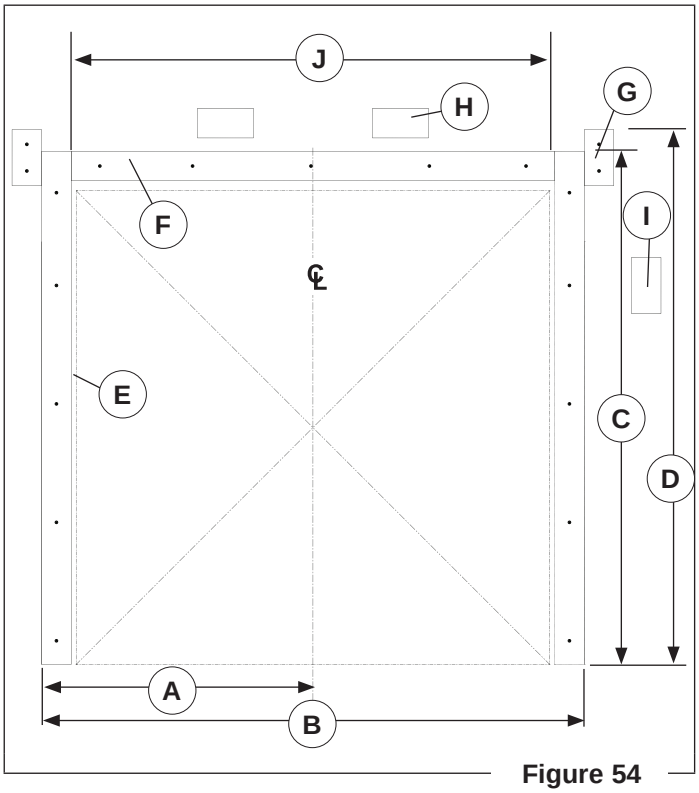


Figure 54

1. Reference dimension (J):

   FasTrax FR/FRLD
   Ordered Door Width + 2 1/2in [64mm].

2. Measure:

   (A) 1/2 Ordered Door Width + 8 3/4in [222mm].

   (B) Ordered Door Width + 17 1/2in [445mm].

   (C) **FasTrax FR**
   Ordered Door Height + 10in [254mm]

   FasTrax FR LD
   Ordered Door Height + 15 1/2in [394mm]

   (D) **FasTrax FR**
   Ordered Door Height + 28 1/2in [724mm]

   FasTrax FR LD
   Ordered Door Height + 15 1/2in [394mm]

3. Caulk behind poly lumber piece(s) to install:

   (E) (vertical) and prevent air transfer.

   (F) (horizontal) lintel seal and lintel rollers

4. Install short poly lumber piece(s) for:

   (G) wall mount brackets

   (H) air seal heater/blower

   (I) N.P.O.

INSTALLATION (OPTIONAL)

Poly Lumber (FasTrax, FasTrax LD)

NOTE: Maximum length piece is 10ft -6in [3200mm]. Several pieces may be required to meet proper length needed.

Radial

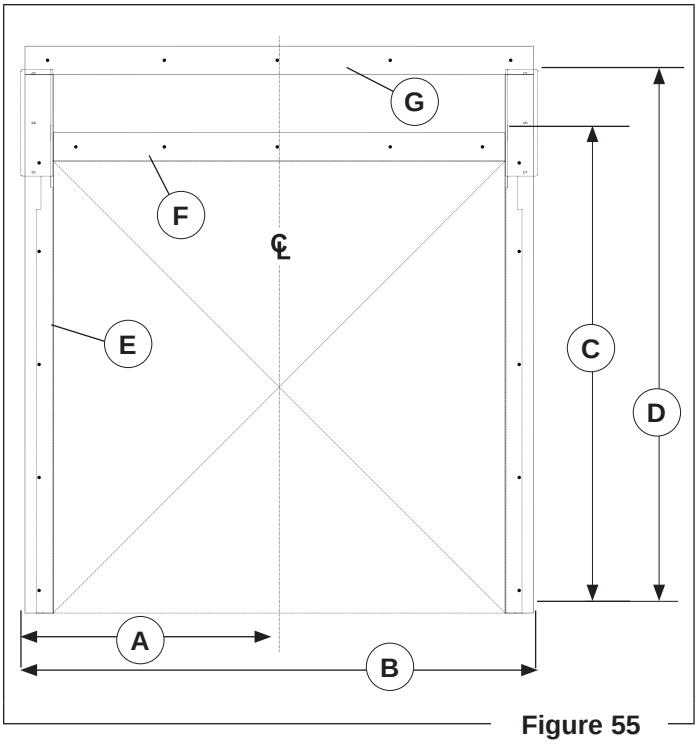


Figure 55

1. Measure:
   - (A) Ordered Door Width + 7 1/2in [191mm]
   - (B) Ordered Door Width + 15in [381mm].
   - (C) Ordered Door Height + 7 1/2in [191mm].
   - (D) **FasTrax < = 10ft [3048mm]**
     Ordered Door Height + 28 1/2in [724mm]

     FasTrax > 10ft [3048mm]
     Ordered Door Height + 32 3/4in [835mm]

     FasTrax LD
     Ordered Door Height + 35 1/4in [895mm]
2. Caulk behind poly lumber piece(s) to install:
   - (E) (vertical) and prevent air transfer
   - (F) (horizontal) lintel seal, lintel rollers
   - (G) center shroud

Non-Radial

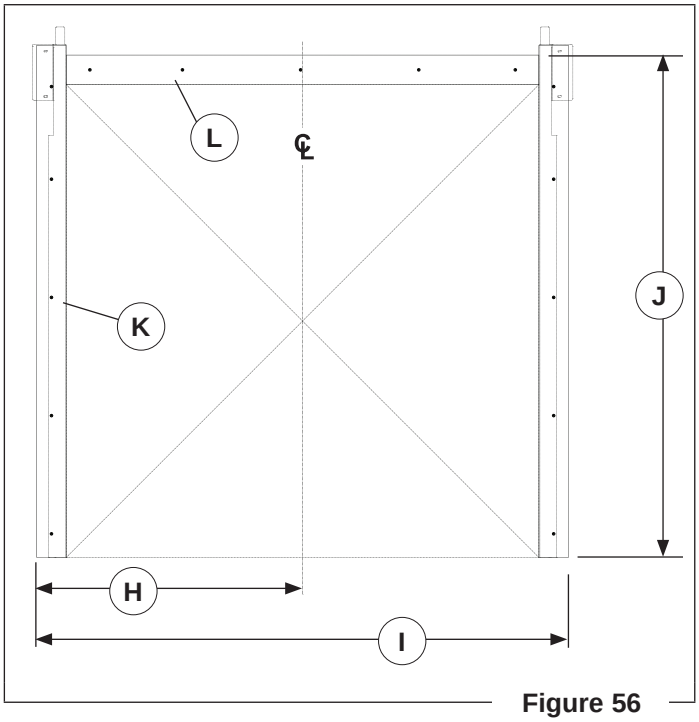


Figure 56

1. Measure:
   - (H) Ordered Door Width + 7 1/2in [191mm].
   - (I) Ordered Door Width + 15in [381mm].
   - (J) **FasTrax**
     Ordered Door Height + 10in [254mm]

     FasTrax LD Non-Radial
     Ordered Door Height +15 1/2in [394 mm]
2. Caulk behind poly lumber piece(s) to install:
   - (K) (vertical) and prevent air transfer
   - (L) (horizontal) lintel seal, lintel rollers

INSTALLATION (OPTIONAL)

Radial Center Shroud (FasTrax, FasTrax LD)

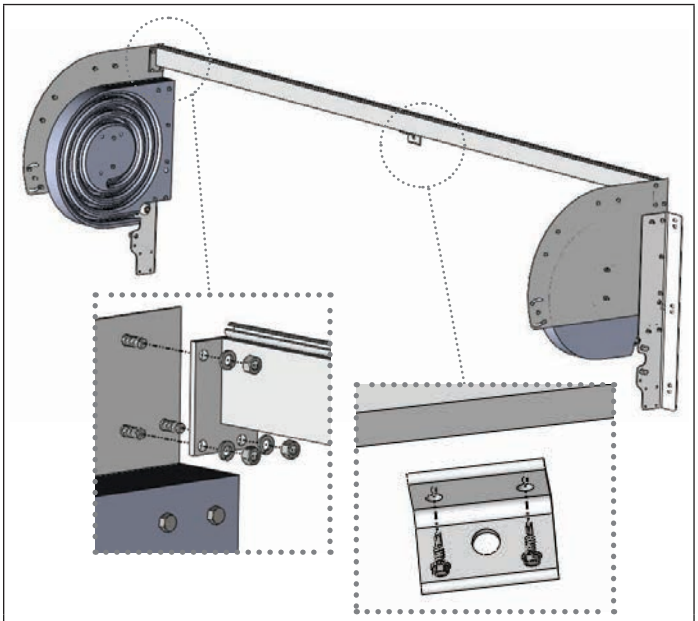


Figure 57

1. Locate components: 3 aluminum support tubes, (1) aluminum trailer rail, fabric cover, 12 self drill/tap screws, 18 3/8in [M10] hex nuts, flat washers and 18 3/8in [10mm] lock washers.
2. Using (6) bolts, nuts, flat washers, and lock washers, fasten the tube ends to the radial end plates. Install wall mount bracket from the parts box in the best location available (recommended in the center of the opening). Install the fabric cover to the trailer rail.

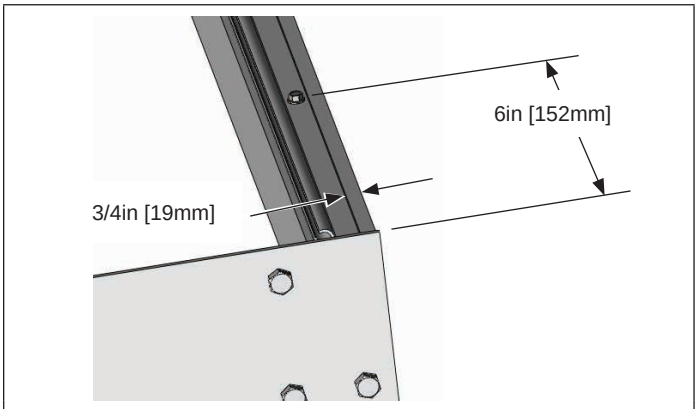


Figure 58

3. Attach the trailer rail to the wall support tube, flush to the back in the center and 3/4in [19mm] from the back on the ends. Screws will be attached in center, 6in [152mm] from each end. Leave no greater than 2ft [610mm] span between fasteners. The white part of the sewn in rope will face down.

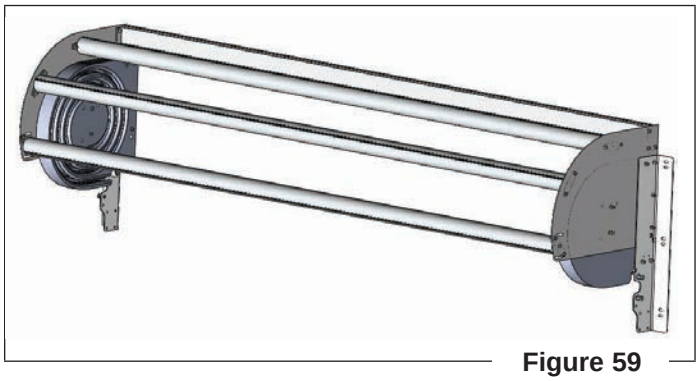


Figure 59

4. Using 2 support tubes, 6 bolts, nuts and lock washers, fasten the support tubes to the radial end plates.

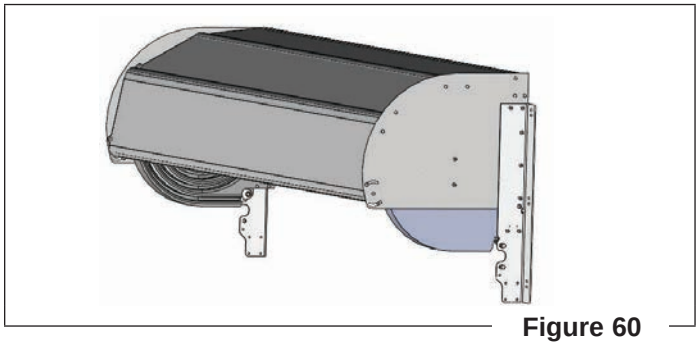


Figure 60

5. Install support tube end of shroud to the radial end plates. Drape the fabric cover over the 2 installed support tubes and hang free. Line up and install 3/8in [M10] bolts through the remaining hole in the end plate and into the threaded hole in the center of the support tube mounting plate, (only thread these in about 1/2in [M13]). Rotate the tube towards the wall as necessary and loosely install the remaining bolts, nuts, flat washers, and lock washers through the slots in the end plate and holes in the support tube.

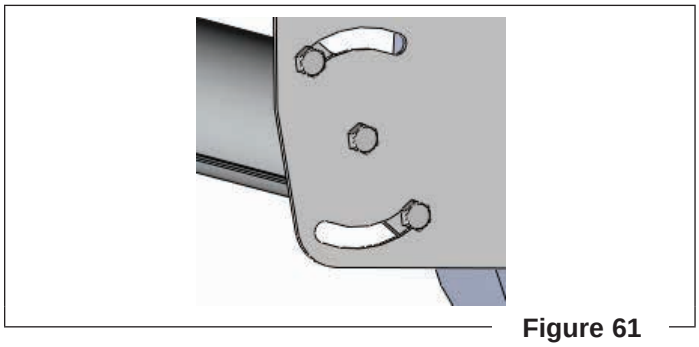


Figure 61

6. Using a pry bar over the center hole bolt and under the top slot bolt, torque the tube until the cover is tight and tighten the lower fastener. Repeat for remaining bolts. Verify cover looks taut and tighten the 2 centering bolts.

INSTALLATION (OPTIONAL)

Weld Plate

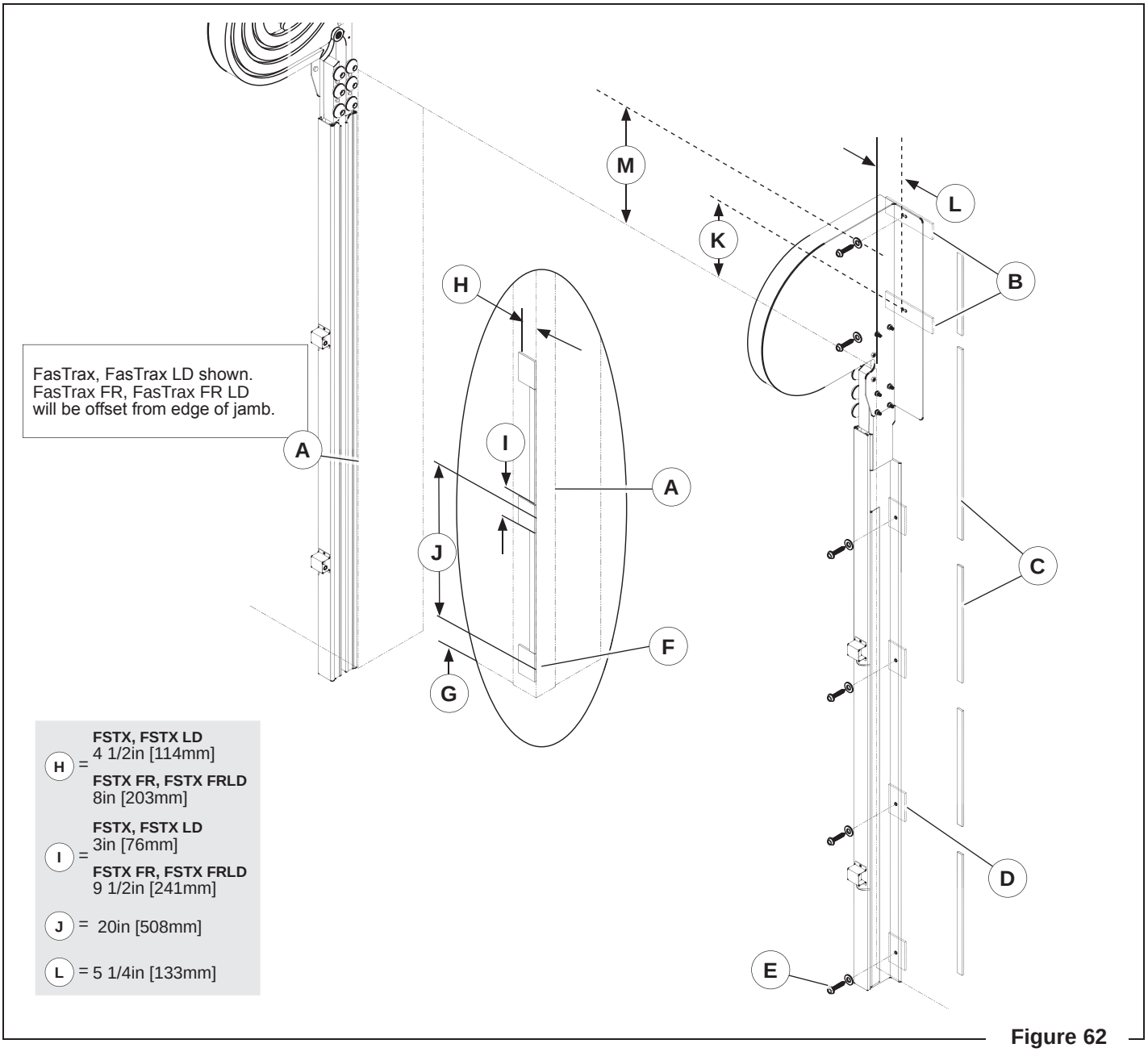


Figure 62

NOTE: Fastener required (at minimum) every other hole, approximately 4ft [1219mm].

1. Measure from bottom of track to each hole location and position weld plates (B, D, F) on the steel jamb (A) at these locations and weld in place. If steel is not present at the track hole locations, weld where possible. Distance (G, M, K) varies based on O.D.H. and door configuration.
2. Position upper weld plates (B) so they catch the wall mount bracket holes. If no steel exists above the opening, it must be provided.
3. Fasten lower track to weld plates with self drill/tap screws and washers provided (E).
4. Fill gaps between weld plates with foam tape (C).

INSTALLATION (OPTIONAL)

I-Zone Sensors

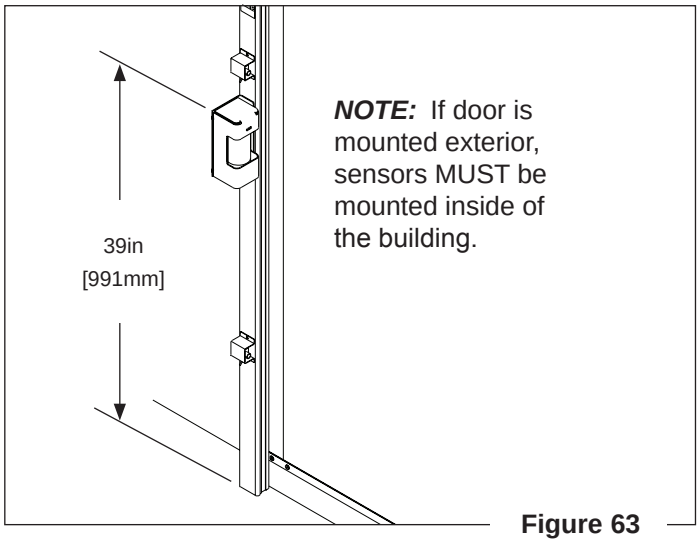


Figure 63

1. Mount I-Zone sensors to the lower tracks and route cables 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.*

INSTALLATION (OPTIONAL)

Wireless Activation

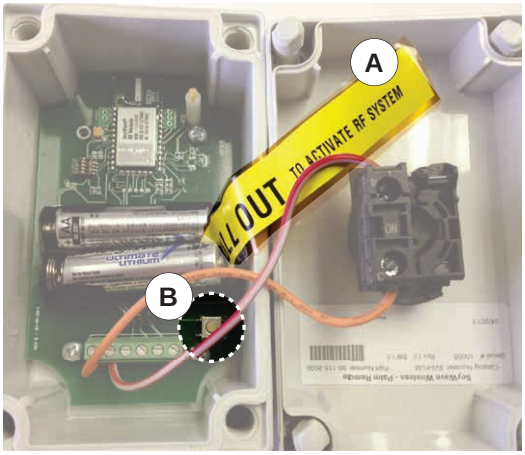


Figure 64

Pair the unit(s) at the control box prior to mounting.

To pair the host with a wireless device:

1. Apply power to the control box and wireless host unit.
2. Open the cover and remove the plastic strip (A) under the batteries in the remote unit to energize the device.
3. Press the "Pair button" (B) on the desired remote unit. An **AMBER** LED will begin to flash to indicate it is in the pairing mode.
4. On the wireless host, use a 1/8in [3mm] diameter rod made from a non-ferous* material and insert into the "Remote Pairing" (C) hole approximately 1 1/2in [38mm] in depth until you feel a button depress and then release it. The "RF Com" LED (D) will begin to flash green once per second to indicate it is in pairing mode.
5. Once paired, the **RED** and **GREEN** LED'S will briefly turn on and then off. If the units are unable to *pair up*, the **GREEN** light will continue to flash for 20 seconds and then time out.
6. To test, activate the remote unit. The **GREEN** LED on the host and the **AMBER** LED on the remote should turn on and operate the door. If not, reattempt pairing process.
7. Mount the remote unit at it's operating position.
8. Wiring for host unit to Control Box i-COMM ii:

   4 - X6 5 - DC 6 - DC 7 - OV

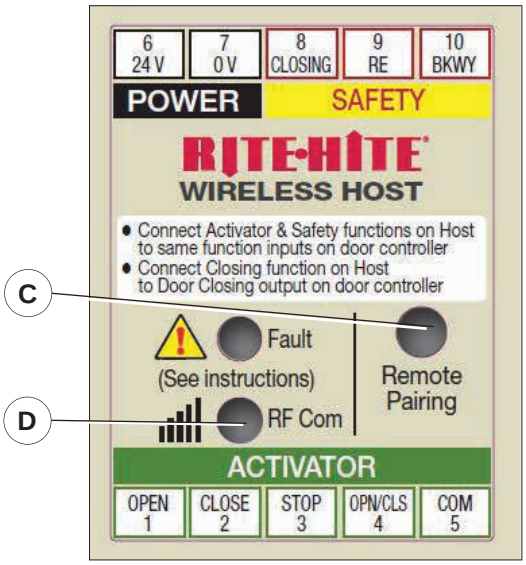


Figure 65

Resetting Communication Parameters

If the batteries are not lasting as long as they should, reset the communication parameters.

⚠ WARNING / AVERTISSEMENT

Performing this operation will cause the Host to clear all paired remotes. Remotes must be re-paired in order to re-establish communication.

Une fois cette opération effectuée, l'hôte efface toutes les télécommandes appariées. Apparier à nouveau les télécommandes pour rétablir la communication.

1. With power applied to the Host, insert a thin screwdriver into the “Remote Pairing” slot. With the tip of the screwdriver pointing straight into the slot locate the “Remote Pairing” button.
2. Using the screwdriver, apply pressure to the “Remote Pairing” button. The **GREEN** LED will illuminate once the button has been pressed.
3. Keep pressure applied to the button for at least 5 seconds. The **GREEN** LED will turn OFF to signify the correct amount of time has elapsed.
4. Once the **GREEN** LED has turned OFF remove pressure from the button.
5. The **GREEN** LED will turn ON for 1 second to signify that the operation was performed successfully.
6. The Host will now RESET, causing both the **RED** and the **GREEN** LED to briefly turn ON and then turn OFF.
7. The communication parameters have now been successfully RESET.

* If a metal object is used, caution should be taken to not contact the circuit board inside.

OPERATION

Verify Operation of Controls (Monthly)

The door operations are controlled by a Universal Controller (i-COMM ii). The controller is set-up and programmed during testing at the factory. Only Rite-Hite authorized service technicians should change the programming.

1. To quickly determine if the door is ready to operate:
   a. Open the control box
   b. Look at the row of (X) green Input LED's on the i-COMM ii and the label to verify proper state (**"i-COMM ii / Encoder Setup" on page 48**.)
2. Are the pillow block bearing set screws tightened to 66 to 80in.-lb. [7.5 N-m]?
3. All wires connected for the photoeyes?
4. Are loose wires secured away from moving parts?
5. 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 ii controller.
6. 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. Black edging of curtain should not impact the floor.
7. If it is necessary to adjust either position, refer to Encoder adjustment section.
8. While the door is closing, block the reversing photoeyes. The door should reverse direction, move to the open position, and continue to operate.
9. 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.
10. Use caution (honk horn) and look in all directions when approaching a door that is closing and ensure that the door will reverse before proceeding.
11. Advise pedestrians to use man doors if present and not to lean into the door way.
12. A fault will occur if the optional non-powered chain hoist is operated. Press the green flashing "OPEN/RESET" button to return to normal operation.

Photoeye Adjustment

DO NOT change the location of photoeyes as they are disabled before the curtain passes by. They MUST be at 18in [457mm] and 54in [1372mm].

Locate the receiver photoeye (A) on the drive side lower track. Located on the top of the photoeye are three LEDs.

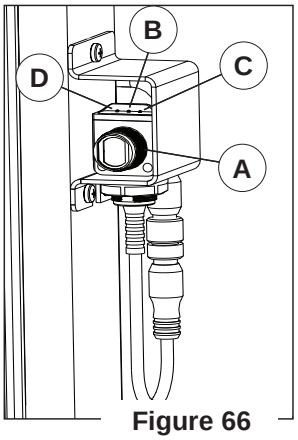


Figure 66

- The yellow LED (B) will be on when the output is energized.
- The orange LED (C) 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.
- The green LED (D) should be on when the photoeye is powered and blocked causing the yellow and orange light to go off.

The source photoeye on the non-drive lower track will only have the green LED for power.

OPERATION

Power Outage Procedure

Follow lock out tag out procedures to prevent the door from operating should power be restored while working on.

Counterweight or thru-wall brake release is not available.

Use a Non-Powered Manual Open option for opening or closing the door in the event of a power outage.

⚠ WARNING / AVERTISSEMENT

N.P.O. (Non-Powered Opening) is intended to operate door in the event of a power loss.

Disconnect power during any other operation.

N.P.O. (OHT/L'ouverture non motorisée) est destinée à actionner la porte en cas de panne de courant.

Débrancher l'alimentation pendant toute autre opération.

N.P.O. equipped:

1. To release brake and engage N.P.O., rotate the handle completely down.
2. To raise the door - pull the front hand chain down.
3. To lower the door - lift the chain blocker and pull the rear hand chain down.

   NOTE: The chain blocker prevents the door from closing. Once the hand lever is pulled, the door goes into fault and cannot be automatically operated and the screen will display "Door Faulted, Emergency Stop".

To Return Door to Operation:

1. Engage brake and release N.P.O. by rotating the hand lever up and lock in place.
2. Hand chain should rotate freely, ensuring assembly is disengaged.
3. Press Green Open / Reset button.

   NOTE: In the event that the curtain is lowered or raised beyond the drive tube, the encoder positions will need to be re-setup.

Without N.P.O.

1. Procedure should only be performed by trained technicians.
2. On the door mounted side, a ladder or a scissors lift will be required to release the brake.
3. While the brake is released, turn the roller tube to lower or raise the door. The force required will vary based on size and lift configuration.
4. Use caution with lift configurations (the weight of the curtain may cause the curtain to rapidly close).
5. The roller tube can be turned by hand or a wrench placed on the non-drive shaft and turned.

OPERATION

Final Checklist

Description	✓	N/A
Control box conduit mounting location (must be on the bottom)		
Ground wires properly terminated to ground terminal		
Shield wires properly terminated to ground terminal		
Motor ground wire terminated to lower track ground screw		
Encoder chain / sprockets / set screws properly aligned & tightened		
Encoder cable tightened properly		
Lower track properly spaced		
Lower tracks caulked		
Lower tracks square to wall		
Lower tracks shimmed properly if jamb cap present		
Wall mounting brackets securely fastened to wall		
Photoeye wires properly secured to track or wall		
Tracks / Radials lubricated		
Track / Spreader bar in place		
Upper track properly spaced		
Upper track properly braced to wall		
Drive tube level and evenly spaced (Set screws not in keyway slot)		
Lintel roller(s) installed properly (FSTX, FSTXLD)		
Proper mounting fasteners used		
Motor terminal strip securely fastened to motor bracket		
Security chain in place		
Verify torque arm block mounting bolts are tightened (FSTXLD, FSTXFRLD)		
Motor bumpers properly adjusted (FSTX, FSTXFR)		
Drive shroud installed		
Radial center shroud properly installed (FSTX, FSTXLD Radial)		
N.P.O. properly installed (Optional)		
If less than 8 ft tall, make sure drive gear guards are in place		
Poly lumber properly installed (Optional)		
Air bag not kinked, exhausting air, ice free and touching the floor (FSTXFR, FSTXFRLD)		
Blower(s) properly mounted (FSTXFR, FSTXFRLD)		
Curtain fan(s) properly installed		
Step-down transformer and junction box properly installed and thru bolted if necessary		
Area clean of debris from installation		
Notes:		

160515

MAINTENANCE

Rite-Hite Planned Maintenance

CUSTOMER:	SALES ORDER #:	SERIAL #:	DATE:

PLANNED MAINTENANCE TASK	RECOMMENDED P.M. IN MONTHS 1	6	12	18	24	30	36	INSPECT AND PERFORM THE FOLLOWING:
Activation	–	x	x	x	x	x	x	Operate all devices to verify proper operation.
Curtain Fans (Optional)	–	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, pull the brake 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 and 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, replace. 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 Mobil - SHC 624 or Phillips 66 - Syncon 32 if low. Check lock collar set screws.
Encoder / Chain / Sprockets	–	–	x	–	x	–	x	Verify encoder chain and sprocket set screws are tight. Verify lock collar on encoder is tight. Check open and close positions; adjust as required. FSTXLD/FSTXFRLD: Verify torque arm bolts are tight.
Lintel Seal (not on FR)	–	–	x	–	x	–	x	Verify lintel seal is sealing wall properly.
Motor	–	–	x	–	x	–	x	Check motor/gearbox bolts, torque to 71 in/lbs [7.5 N-m]. Check junction box to verify connections are tight.
Non-Powered Opening (Optional)	–	–	x	–	x	–	x	With power on, operate hand lever to verify chain hoist puts door into fault and opens door. Lubricate chain, sprockets, check set screws and alignment. Check spring and cable clamps.
Photoeyes	–	–	x	x	x	x	x	Verify both photoeyes reverse the curtain. LEDs on receiver should go on/off. Clean emitter and receiver lens.
Thermal Air Seal (FR)	–	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 build-up. 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.
Track Retention Strips	–	–	x	–	x	–	x	Inspect track retention strips; replace if cracked.
Virtual Vision (Optional)	–	–	x	x	x	x	x	Verify Virtual Vision is functioning properly. Red LEDs should be lit if movement on opposite side.
Vision (not on FR)	–	x	x	–	x	x	–	Inspect vision for tears or separation. 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.

*Use 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.
- 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

MAINTENANCE

Brake Torque Adjustment

Only required after prolonged brake use.

Before adjusting Torque Setting, consult Rite-Hite Doors Technical Support:
(U.S.) 1-563-589-2722
(E.U.) +49-5693 98700
(S.A.) +55 21 99616 4421

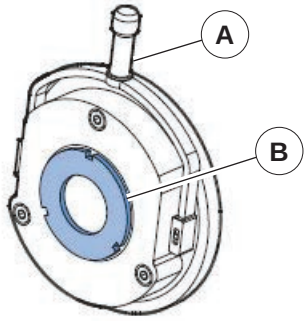


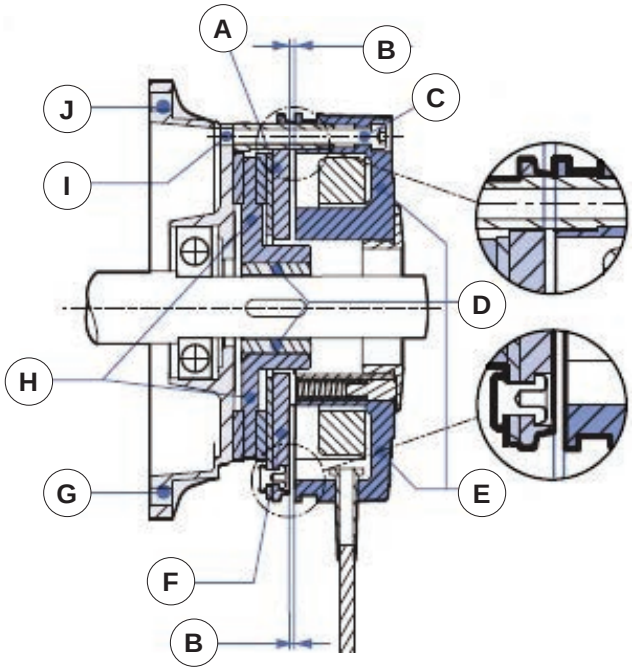
Figure 67

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

1. Disconnect power to the door.
2. Remove the brake cover by removing the three screws and brake handle (A) holding it on.
3. The spanner nut (B) is tight against the brake casing. To make adjustments, unscrew the spanner nut a few clicks at a time (2.5 turns starting out).

MAINTENANCE

Brake Air Gap



A. Armature Plate
B. Air Gap
C. Fixing Screw
D. Brake Hub
E. Coil Housing
F. Metal Anchor Plate
G. Motor End Shield
H. Brake Rotor
I. Setting Bolt (Hollow Screw)
J. Motor End Shield

Figure 68

The brake air gap is checked by placing a feeler gauge between metal anchor plate and the brake coil housing as shown. Minimum gap is .008in [0.2mm], maximum is .024in [0.61mm].

1. Loosen the fixing screws that attach the brake to the motor's end-shield by approximately half a turn.
2. If required, the brake assembly may be loosened slightly from the motor's end shield by turning the threaded setting bolts (hollow screws) that surround the fixing screws, counter clockwise, into the brake coil housing.
3. Depending upon whether or not the air gap needs to be decreased or increased, turn the fixing screws accordingly until the desired nominal air gap is reached, as measured using the appropriate feeler gauge.
   - Turning the fixing screws clockwise allows the brake coil housing to be moved towards the anchor plate and reduces the air gap.
   - Turning the fixing screws counterclockwise allows the brake coil housing to be moved away from the anchor plate and increases the air gap.
4. If the setting bolts (hollow screws) were adjusted (Step 2), re-secure the brake coil housing firmly against the motor's end shield by turning the setting bolts (hollow screws) clockwise, out of the brake coil housing.
5. Tighten the fixing screws to the appropriate torque.
6. Re-check and measure the air gap in multiple locations to check for appropriate spacing. Repeat the steps as needed until the desired air gap spacing is uniform and consistent all the way around the brake.

MAINTENANCE

Replacement: Encoder

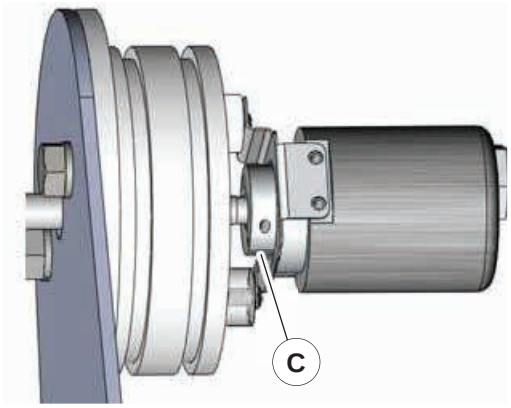


Figure 69

1. To replace Encoder, unscrew connector.
2. Using 2mm Allen wrench, loosen lock collar (C) and slide Encoder off of shaft.
3. Install new Encoder, tighten lock collar (14 in-lb. [1.5 N-m]), line up notch and screw connector.
4. Proceed to Encoder Setup instructions.

Replacement: Drive Sphere

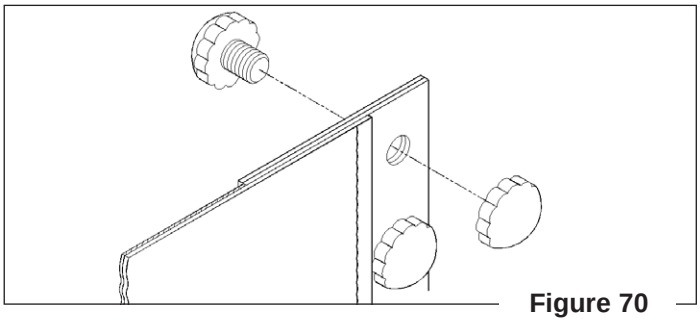


Figure 70

1. Apply adhesive to stud before pushing through and add more adhesive to stud before tightening. Adhesive must ooze out both sides after stud is tightened.
2. Stud must be tightened prior to adhesive starting to dry. Adhesive dry time is approximately 1 minute.

Torque spec: 16in/lbs. ± 4in/lbs [1.4 N-m ± .45 N-m].

The following adhesive is recommended for thread locking and securing to the edging (purchased by end user): *Loctite® 438* or *3M-DP8005*

Replacement: Retention Strip

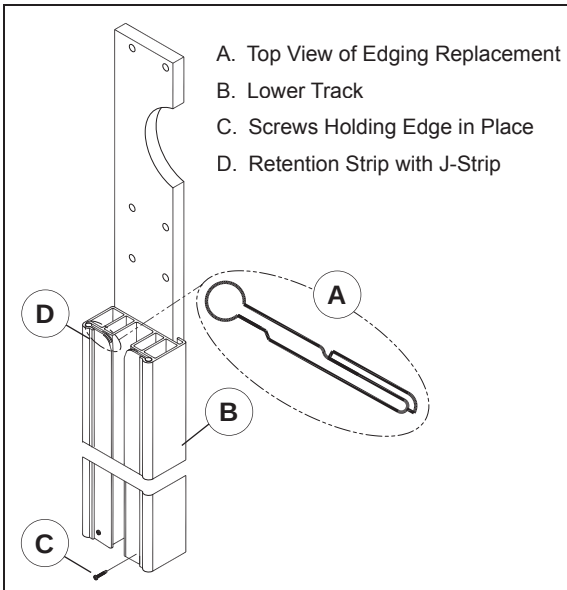


Figure 71

1. Turn power off and follow **"Lockout Procedure" on page 4**.
2. Remove lower re-feed roller.
3. Remove screws holding edging in place and 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, making sure not to catch on photoeyes. Align holes with photoeyes.

   NOTE: Per the top view (A), orient the longer leg of the “J” toward the lower track and the groove away from the track.
5. Fasten edging with screws at the bottom of track. **Do Not** screw strip to lower track, other than at the bottom.

MAINTENANCE

Gearbox Oil

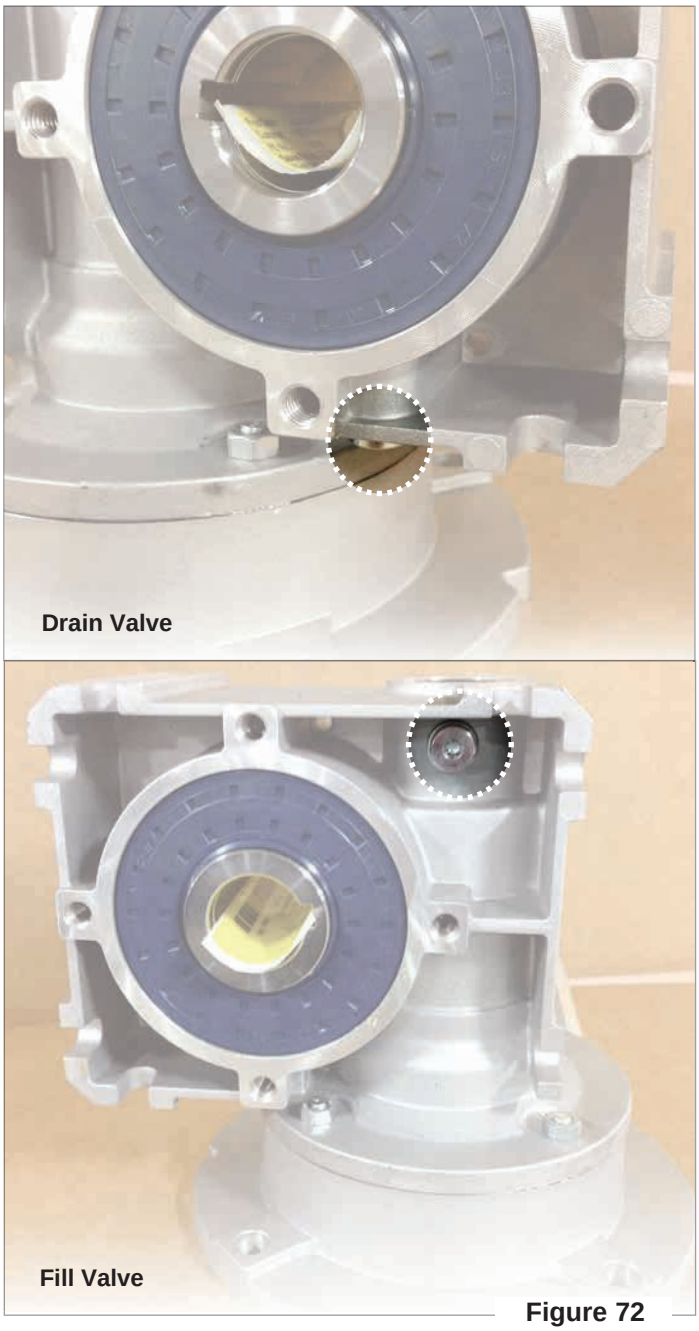


Figure 72

This unit is designed to be maintenance free, completely sealed, and shipped factory filled with synthetic lube. The gearbox should not require additional lube.

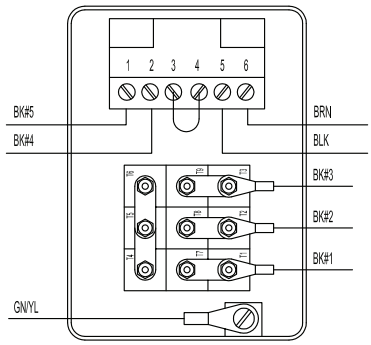
If low, fill (3.2 oz. capacity) with:
Mobil - SHC 624 or *Phillips 66 - Syncon 32*.

MAINTENANCE

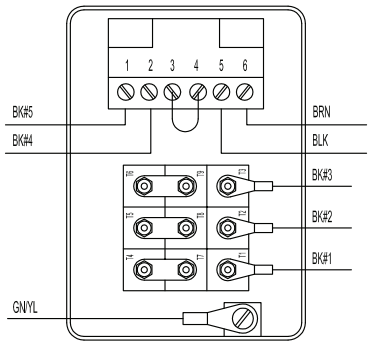
Wiring Diagrams

Motor / Non-Heated Brake Wiring

208/230V Motor Wiring



460V Motor Wiring



400 & 575V Motor Wiring

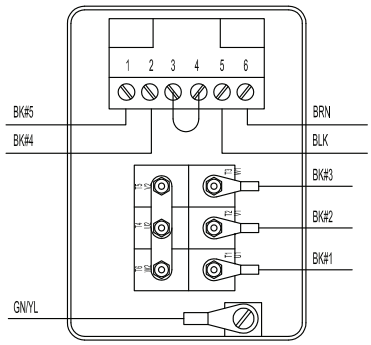
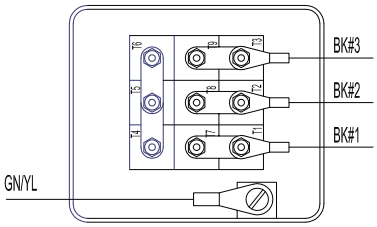


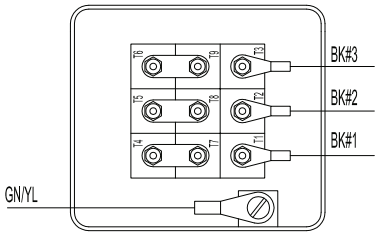
Figure 73

Motor / Heated Brake Wiring (OPTIONAL)

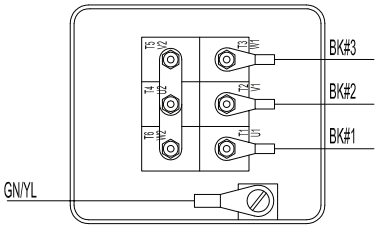
208/230V Motor Wiring



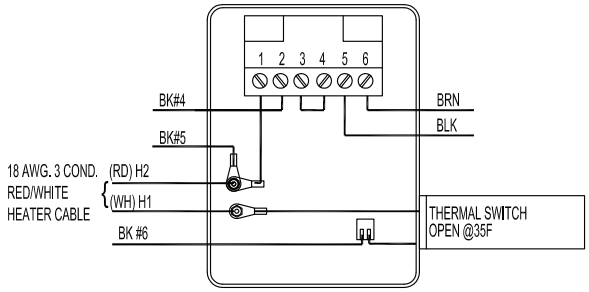
460V Motor Wiring



400 & 575V Motor Wiring



Heated Brake Wiring



Field Wiring Instructions

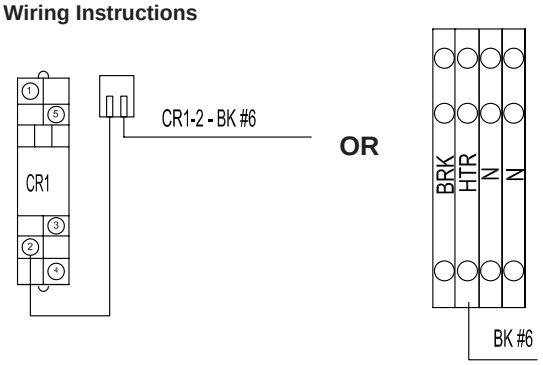


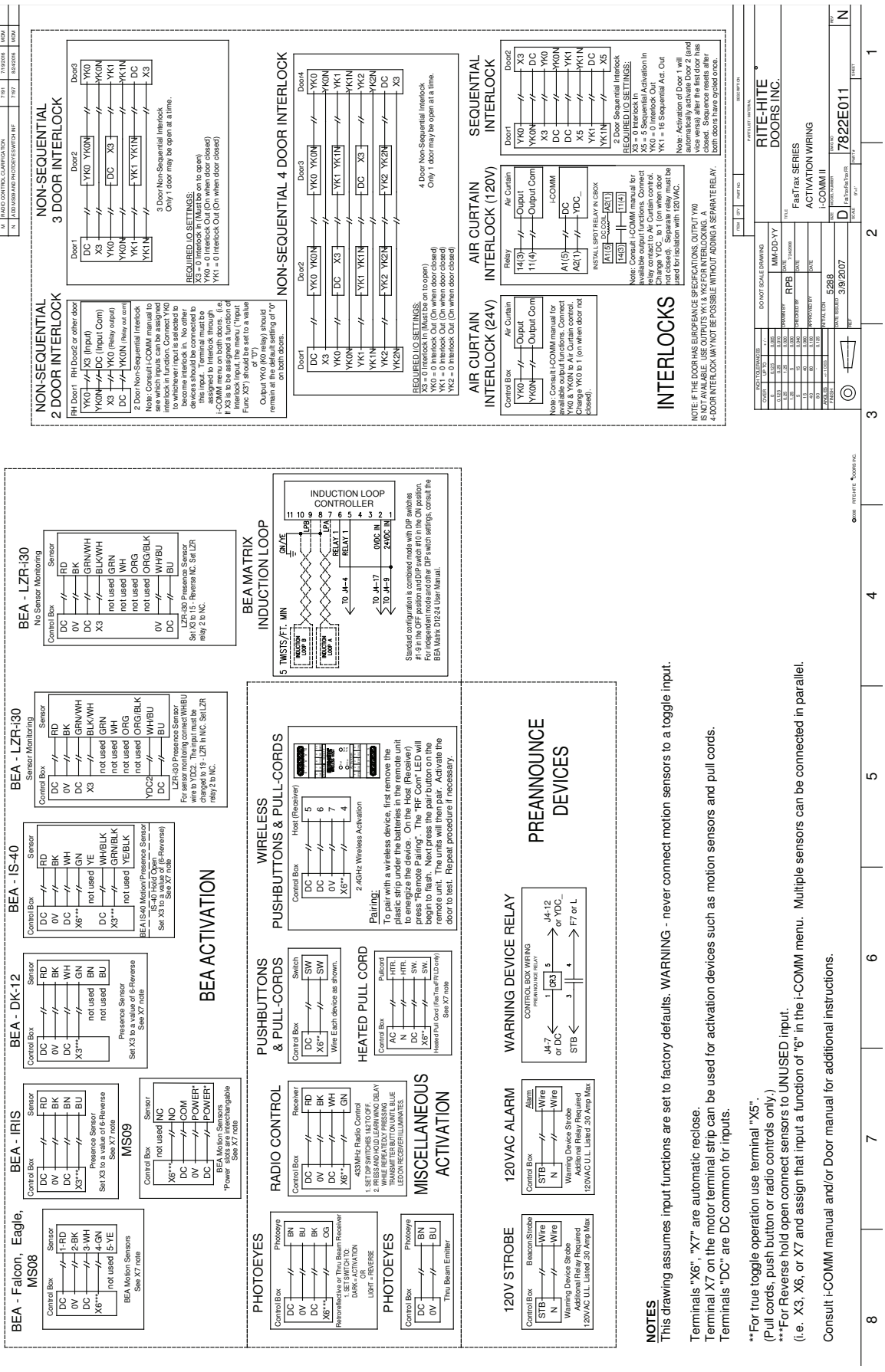
Figure 74

NOTE: Brake will heat when the temperature is below 35° F [1.67° C] and motor is not running.

A frozen brake may take up to 60 minutes to thaw when power is applied. This time depends on ambient temperature and the amount of ice accumulation.

MAINTENANCE

Wiring Diagrams *Continued*



Activation

NOTES
This drawing assumes input functions are set to factory defaults. WARNING - never connect motion sensors to a toggle input.

Terminals "X6", "X7" are automatic reclose.
Terminal X7 on the motor terminal strip can be used for activation devices such as motion sensors and pull cords.
Terminals "DC" are DC common for inputs.

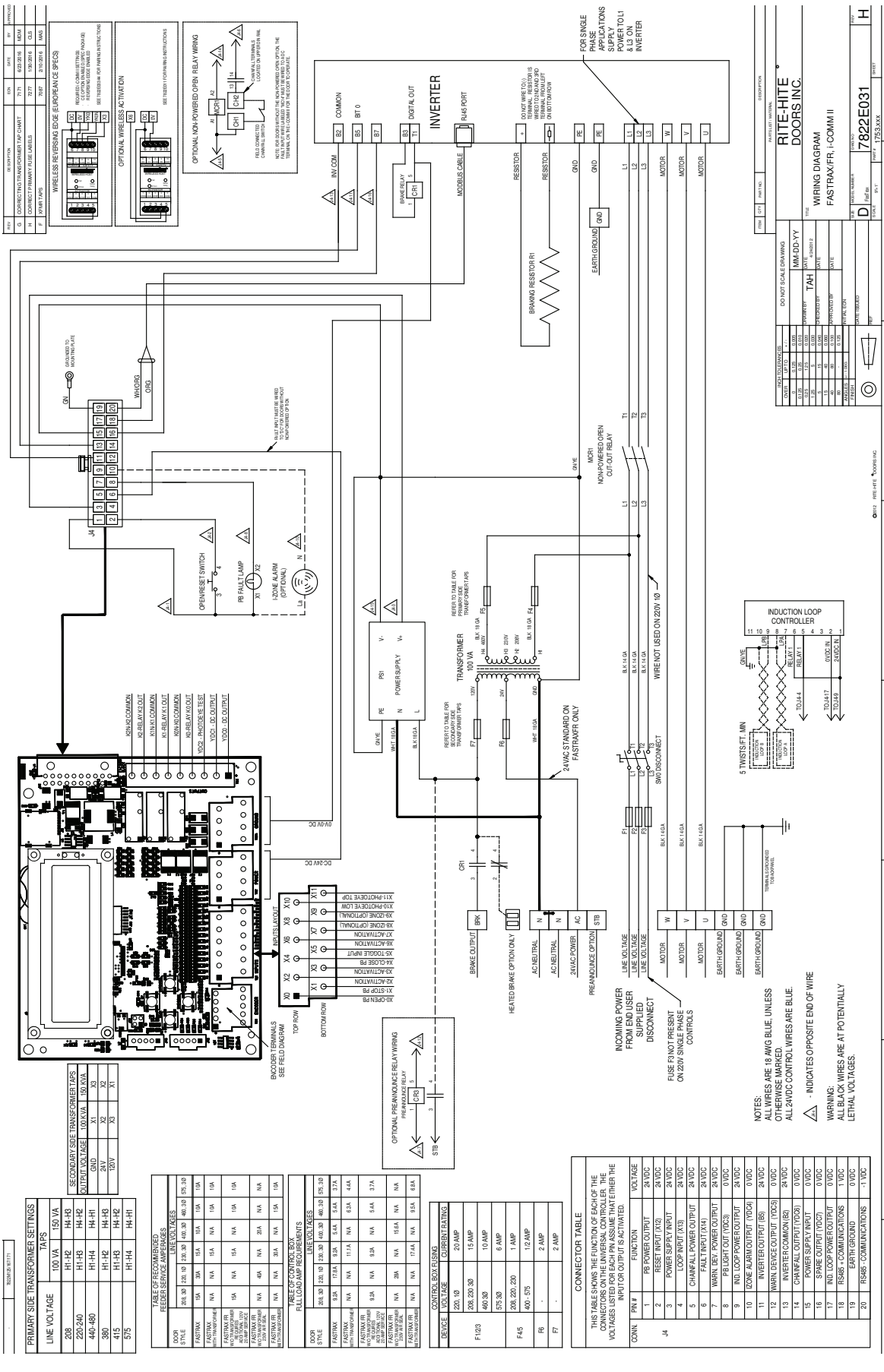
**For true toggle operation use terminal "X5".
(Pull cords, push button or radio controls only.)
***For Reverse hold open connect sensors to UNUSED input.
(i.e. X3, X6, or X7 and assign that input a function of "6" in the i-COMM menu. Multiple sensors can be connected in parallel.

Consult i-COMM manual and/or Door manual for additional instructions.

MAINTENANCE

Wiring Diagrams *Continued*

Non 575V



PRIMARY SIDE TRANSFORMER SETTINGS	
LINE VOLTAGE	TAPS
	100 VA / 150 VA
208	H1-H2 / H4-H5
220-240	H1-H3 / H4-H2
440-480	H1-H4 / H4-H1
380	H1-H2 / H4-H3
415	H1-H3 / H4-H2
575	H1-H4 / H4-H1

SECONDARY SIDE TRANSFORMER TAPS		
OUTPUT VOLTAGE	100 VA	150 VA
GND	X1	X3
24V	X2	X2
120V	X3	X1

TABLE OF RECOMMENDED FEEDER SERVICE AMP RATINGS

DOOR STYLE	208, 380	220, 100	230, 380	440, 380	460, 380	575, 380
FASTRAX	15A	30A	15A	10A	10A	10A
FASTRAX W/TRANSFORMER	N/A	N/A	N/A	N/A	10A	10A
FASTRAX FR W/O TRANSFORMER 20 AMP TOTAL I/O/ W/O BRAKE	N/A	N/A	15A	N/A	10A	10A
FASTRAX FR W/TRANSFORMER 20 AMP TOTAL I/O/ W/ BRAKE	N/A	N/A	15A	N/A	10A	10A
FASTRAX FR W/O TRANSFORMER 150 VA W/ BRAKE	N/A	N/A	40A	N/A	20A	N/A
FASTRAX FR W/TRANSFORMER	N/A	N/A	30A	N/A	30A	15A

FIELD DC CONTROL BOX FULL LOAD AMP REQUIREMENTS

DOOR STYLE	LINE VOLTAGES 208, 380	220, 100	230, 380	440, 380	460, 380	575, 380
FASTRAX	9.3A	17.6A	9.3A	5.4A	5.4A	3.7A
FASTRAX W/TRANSFORMER	N/A	N/A	11.1A	N/A	6.3A	4.4A
FASTRAX FR W/O TRANSFORMER 20 AMP TOTAL I/O/ W/O BRAKE	9.3A	N/A	9.3A	N/A	5.4A	3.7A
FASTRAX FR W/TRANSFORMER 20 AMP TOTAL I/O/ W/ BRAKE	N/A	28A	N/A	15.6A	N/A	N/A
FASTRAX FR W/O TRANSFORMER 150 VA W/ BRAKE	N/A	N/A	17.4A	N/A	9.5A	6.8A
FASTRAX FR W/TRANSFORMER	N/A	N/A	N/A	N/A	N/A	N/A

CONTROL BOX FUSING		
DEVICE	VOLTAGE	CURRENT RATING
F1/2/3	220, 100	20 AMP
	208, 230, 380	15 AMP
	460,380	10 AMP
	575 380	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F6	-	2 AMP
F7	-	2 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
J4	1	PB POWER OUTPUT	24 VDC
	2	RESET INPUT (X12)	24 VDC
	3	POWER SUPPLY INPUT	24 VDC
	4	LOOP INPUT (X13)	24 VDC
	5	CHANNFALL POWER OUTPUT	24 VDC
	6	FAULT INPUT (X14)	24 VDC
	7	WARN. DEV. POWER OUTPUT	24 VDC
	8	PB LIGHT OUT (YDO3)	0 VDC
	9	IND. LOOP POWER OUTPUT	24 VDC
	10	IZONE ALARM OUTPUT (YDO4)	0 VDC
	11	INVERTER OUTPUT (B5)	24 VDC
	12	WARN. DEVICE OUTPUT (YDO5)	0 VDC
	13	INVERTER COMMON (B2)	24 VDC
	14	CHANNFALL OUTPUT (YDO6)	0 VDC
	15	POWER SUPPLY INPUT	0 VDC
	16	SPARE OUTPUT (YDO7)	0 VDC
	17	IND. LOOP POWER OUTPUT	0 VDC
	18	RS485 - COMMUNICATIONS	1 VDC
	19	EARTH GROUND	0 VDC
	20	RS485 - COMMUNICATIONS	- 1 VDC

MAINTENANCE

Wiring Diagrams *Continued*

575V

PRIMARY SIDE TRANSFORMER SETTINGS		
LINE VOLTAGE	TAPS	
	100 VA	150 VA
208	H1-H2	H4-H3
220-240	H1-H3	H4-H2
440-480	H1-H4	H4-H1
380	H1-H2	H4-H3
415	H1-H3	H4-H2
575	H1-H4	H4-H1

SECONDARY SIDE TRANSFORMER TAPS		
OUTPUT VOLTAGE	100 KVA	150 KVA
GND	X1	X3
24V	X2	X2
120V	X3	X1

TABLE OF RECOMMENDED FEEDER SERVICE AMPERAGES						
DOOR STYLE	LINE VOLTAGES					
	208, 3Ø	220, 1Ø	230, 3Ø	400, 3Ø	460, 3Ø	575, 3Ø
FASTRAX	15A	30A	15A	10A	10A	10A
FASTRAX WITH TRANSFORMER	N/A	N/A	15A	N/A	10A	10A
FASTRAX FR W/O TRANSFORMER REQUIRES ADDITIONAL 120V 20 AMP SERVICE	15A	N/A	15A	N/A	10A	10A
FASTRAX FR W/O TRANSFORMER 230V AIR SEAL	N/A	40A	N/A	20A	N/A	N/A
FASTRAX FR WITH TRANSFORMER	N/A	N/A	30A	N/A	15A	10A

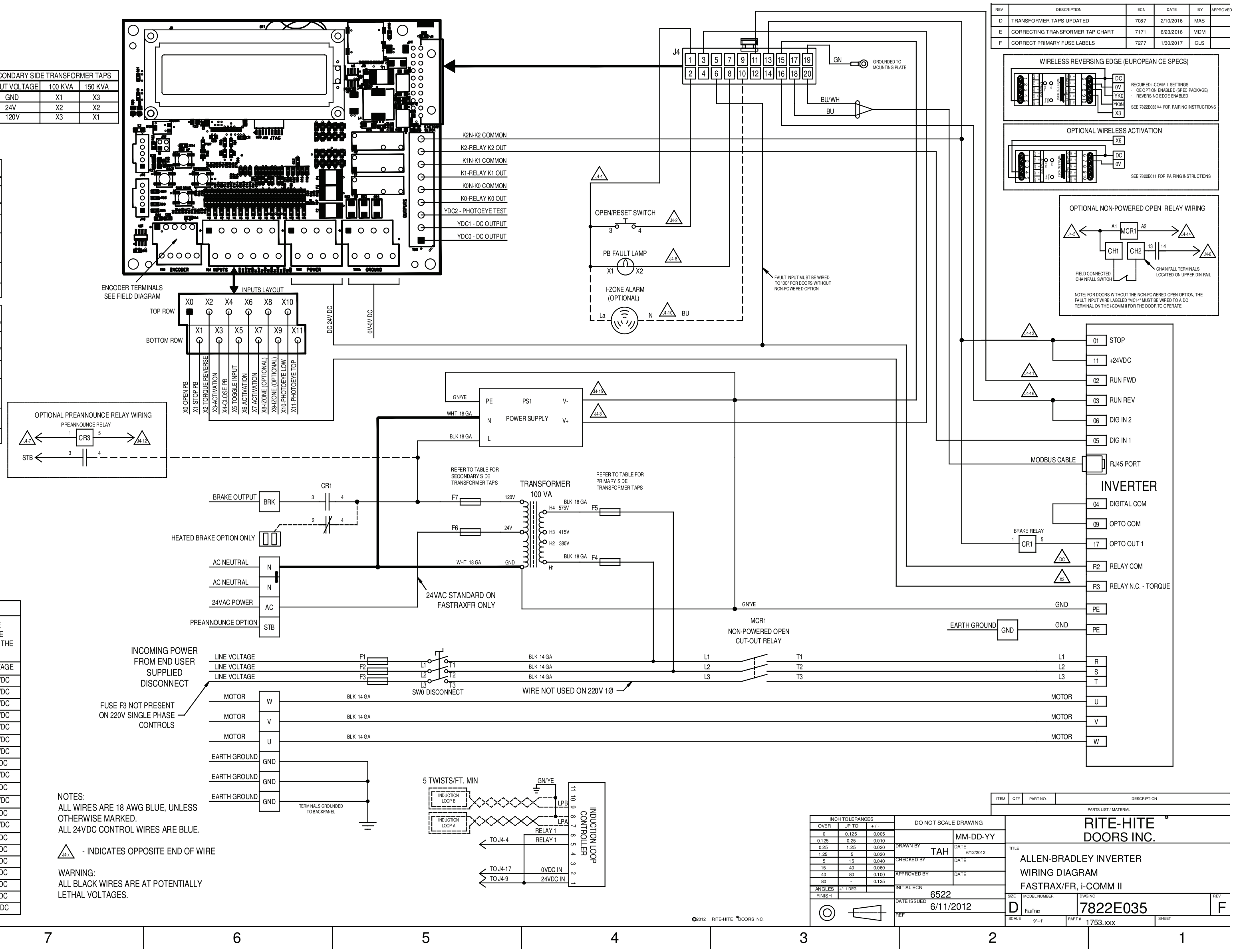
TABLE OF CONTROL BOX FULL LOAD AMP REQUIREMENTS						
DOOR STYLE	LINE VOLTAGES					
	208, 3Ø	220, 1Ø	230, 3Ø	400, 3Ø	460, 3Ø	575, 3Ø
FASTRAX	9.2A	17.8A	9.2A	5.4A	5.4A	3.7A
FASTRAX WITH TRANSFORMER	N/A	N/A	11.1A	N/A	6.3A	4.4A
FASTRAX FR W/O TRANSFORMER REQUIRES ADDITIONAL 120V 20 AMP SERVICE	9.2A	N/A	9.2A	N/A	5.4A	3.7A
FASTRAX FR W/O TRANSFORMER 230V AIR SEAL	N/A	28A	N/A	15.6A	N/A	N/A
FASTRAX FR WITH TRANSFORMER	N/A	N/A	17.4A	N/A	9.5A	6.8A

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	-	2 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.

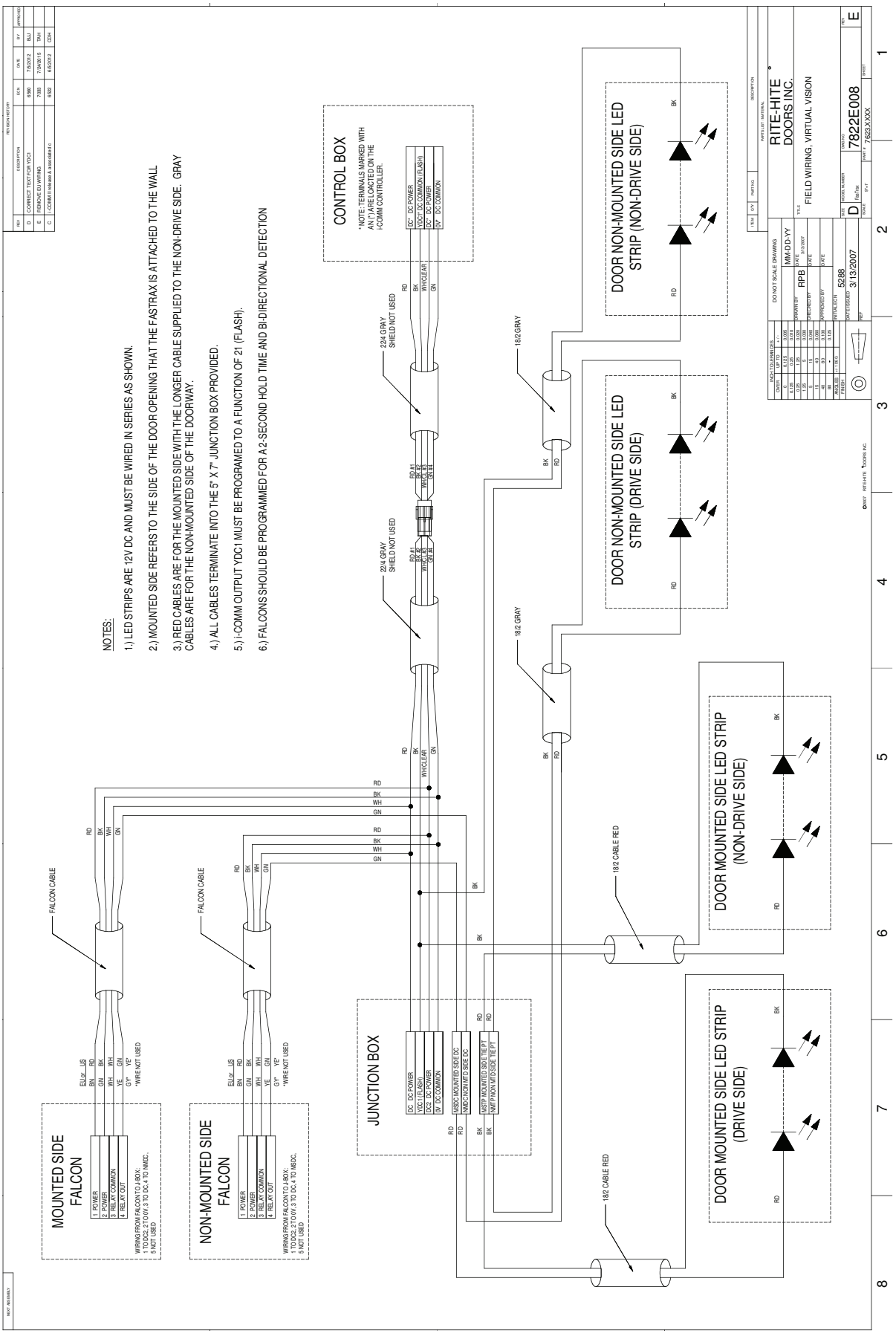
CONN.	PIN #	FUNCTION	VOLTAGE
J4	1	PB POWER OUTPUT	24 VDC
	2	RESET INPUT (X12)	24 VDC
	3	POWER SUPPLY INPUT	24 VDC
	4	LOOP INPUT (X13)	24 VDC
	5	CHAINFALL POWER OUTPUT	24 VDC
	6	FAULT INPUT (X14)	24 VDC
	7	WARN. DEV. POWER OUTPUT	24 VDC
	8	PB LIGHT OUT (YDC3)	0 VDC
	9	IND. LOOP POWER OUTPUT	24 VDC
	10	IZONE ALARM OUTPUT (YDC4)	0 VDC
	11	INVERTER OUTPUT (B5)	24 VDC
	12	WARN. DEVICE OUTPUT (YDC5)	0 VDC
	13	INVERTER COMMON (B2)	24 VDC
	14	CHAINFALL OUTPUT (YDC6)	0 VDC
	15	POWER SUPPLY INPUT	0 VDC
	16	SPARE OUTPUT (YDC7)	0 VDC
	17	IND. LOOP POWER OUTPUT	0 VDC
	18	RS485 + COMMUNICATIONS	1 VDC
	19	EARTH GROUND	0 VDC
	20	RS485 - COMMUNICATIONS	-1 VDC



MAINTENANCE

Wiring Diagrams *Continued*

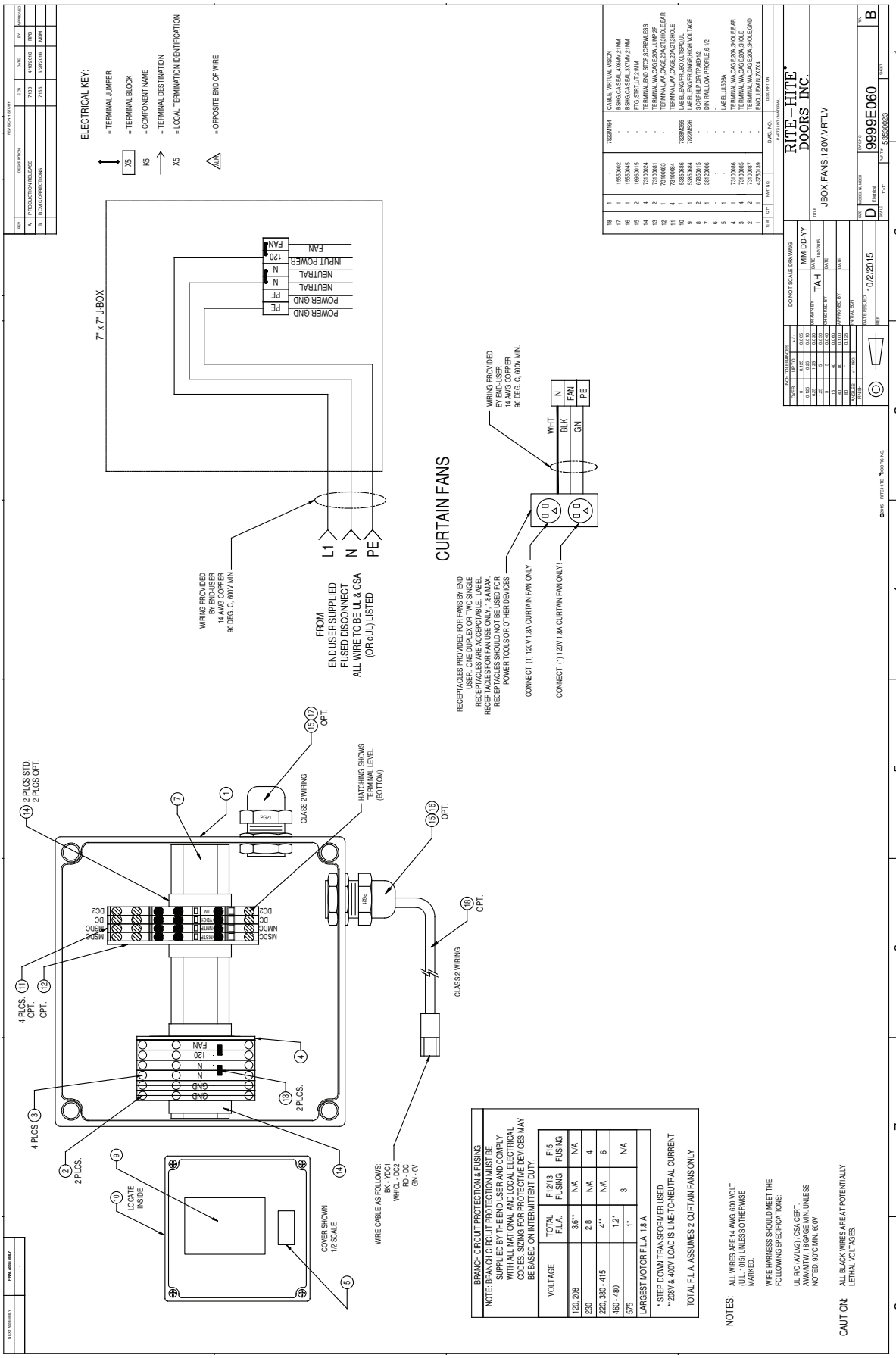
Field Wiring Virtual Vision



MAINTENANCE

Wiring Diagrams *Continued*

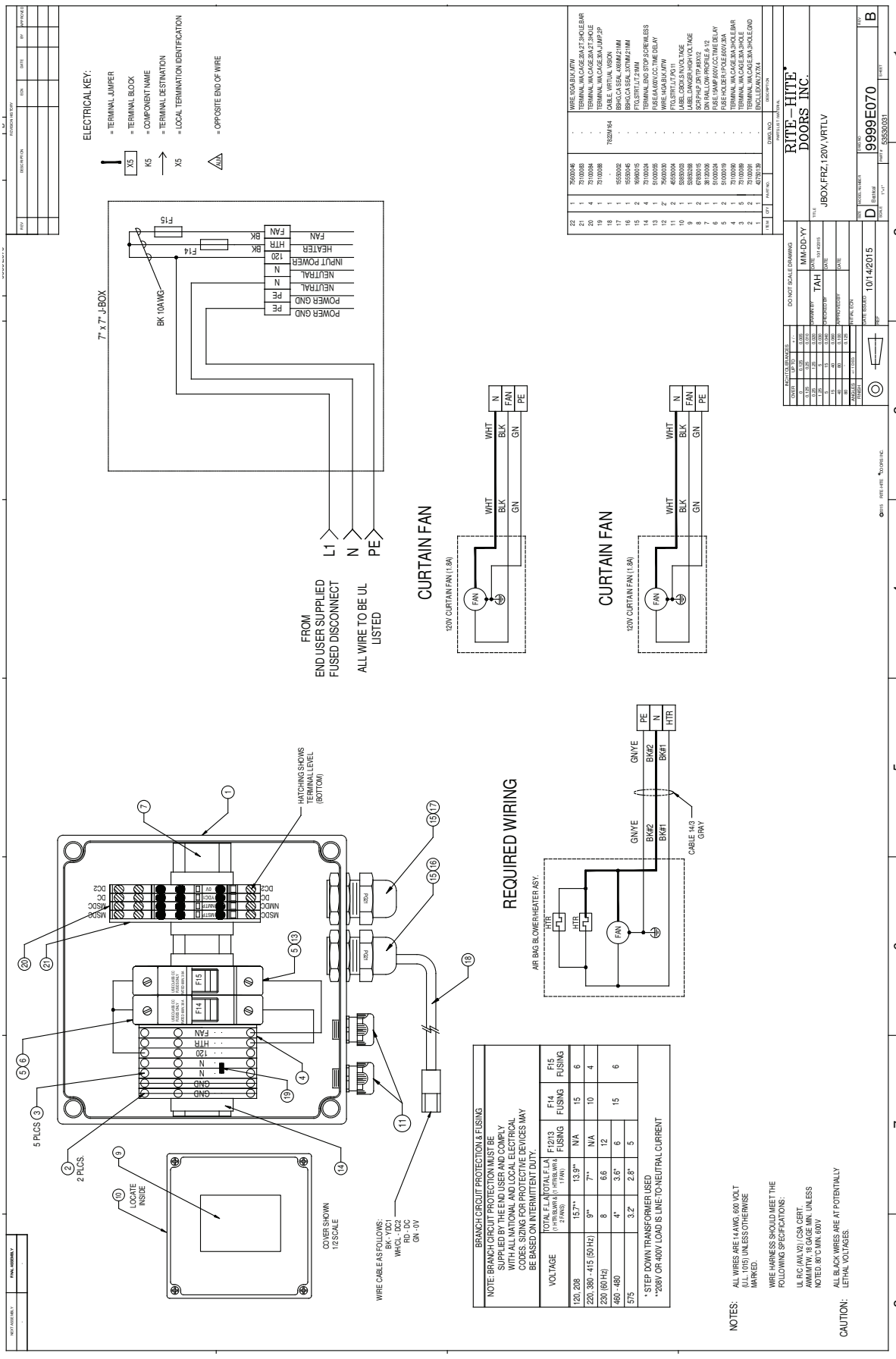
Junction Box – Fans, 120V, Virtual Vision



MAINTENANCE

Wiring Diagrams *Continued*

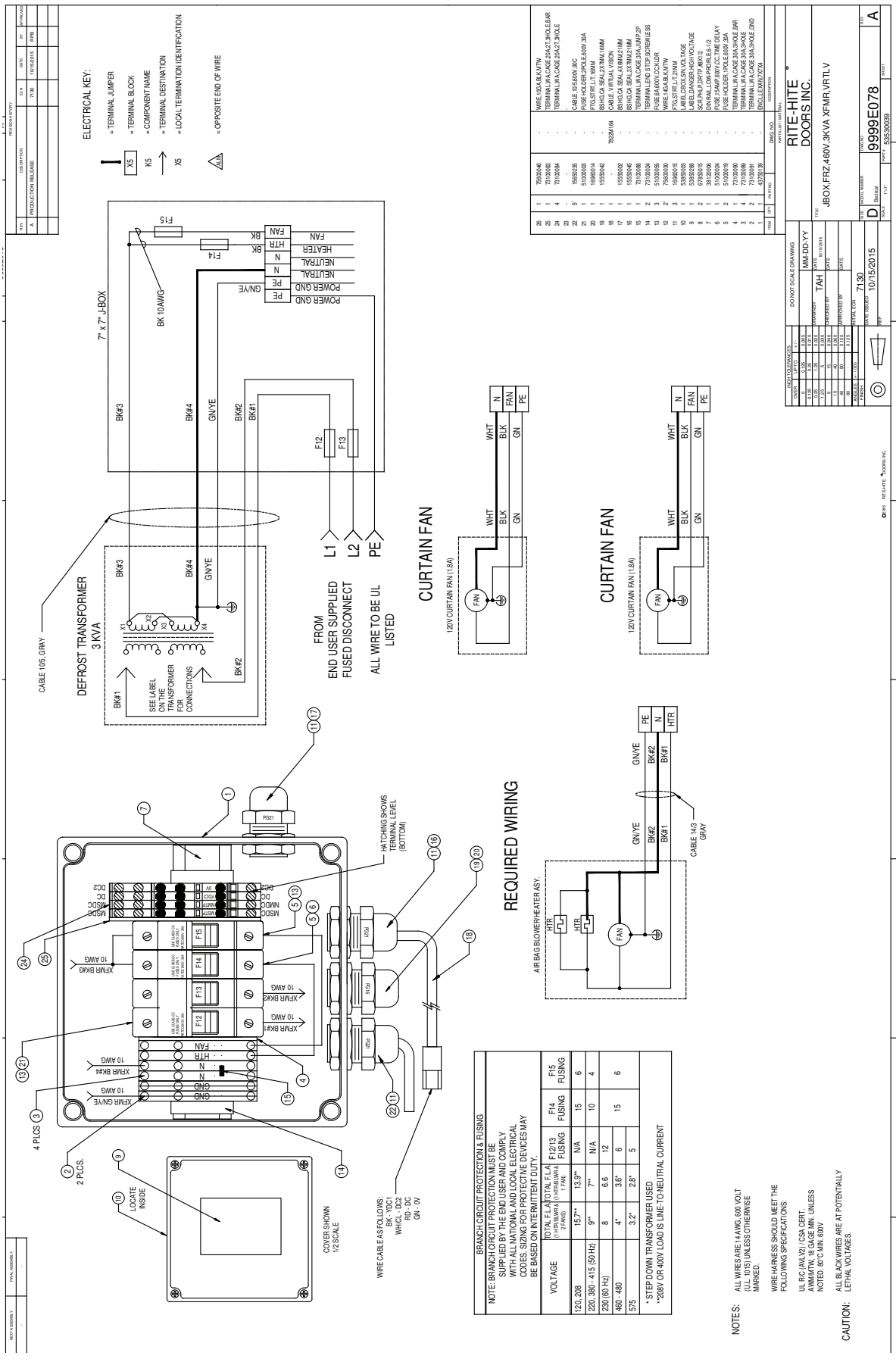
Junction Box – FR/FRLD, 120V, Virtual Vision



MAINTENANCE

Wiring Diagrams *Continued*

Junction Box – FR/FRLD,460V, 3KVA XFMR, Virtual Vision



BRANCH CIRCUIT PROTECTION & FUSING				
NOTE: BRANCH CIRCUIT PROTECTION MUST BE SUPPLIED BY THE END USER AND COMPLY WITH ALL NATIONAL AND LOCAL ELECTRICAL CODES. SIZING FOR PROTECTIVE DEVICES MAY BE BASED ON INTERMITTENT DUTY.				
VOLTAGE	TOTAL F.L.A. (1) HTR,BLWR & 2 FANS	TOTAL F.L.A. (1) HTR,BLWR & 1 FAN	F12/13 FUSING	F14 FUSING	F15 FUSING
120, 208	15.7**	13.9**	N/A	15	6
220, 380 - 415 (50 Hz)	9**	7**	N/A	10	4
220 (60 Hz)	8	6.6	12	15	6
460 - 480	4*	3.6*	6		
575	3.2*	2.8*	5		

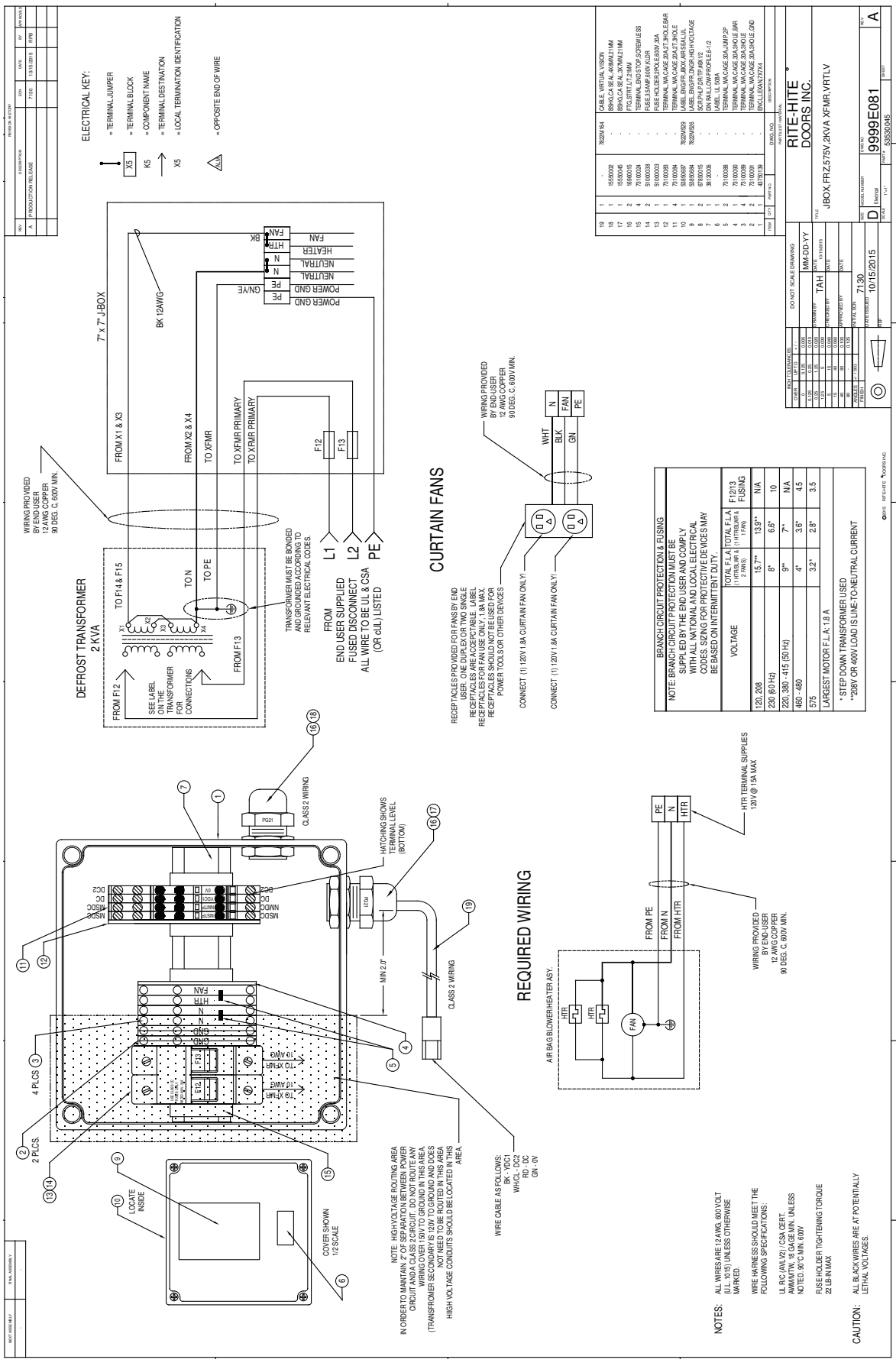
* STEP DOWN TRANSFORMER USED
** 208V OR 400V LOAD IS LINE-TO-NEUTRAL CURRENT

NOTES:
ALL WIRES ARE 14 AWG, 600 VOLT (U.L. 1015) UNLESS OTHERWISE MARKED.
WIRE HARNESS SHOULD MEET THE FOLLOWING SPECIFICATIONS:
UL R/C (AVVL/V2) / CSA CERT. AWM/MTW, 18 GAGE MIN. UNLESS NOTED. 80°C MIN. 600V

CAUTION: ALL BLACK WIRES ARE AT POTENTIALLY LETHAL VOLTAGES.

MAINTENANCE

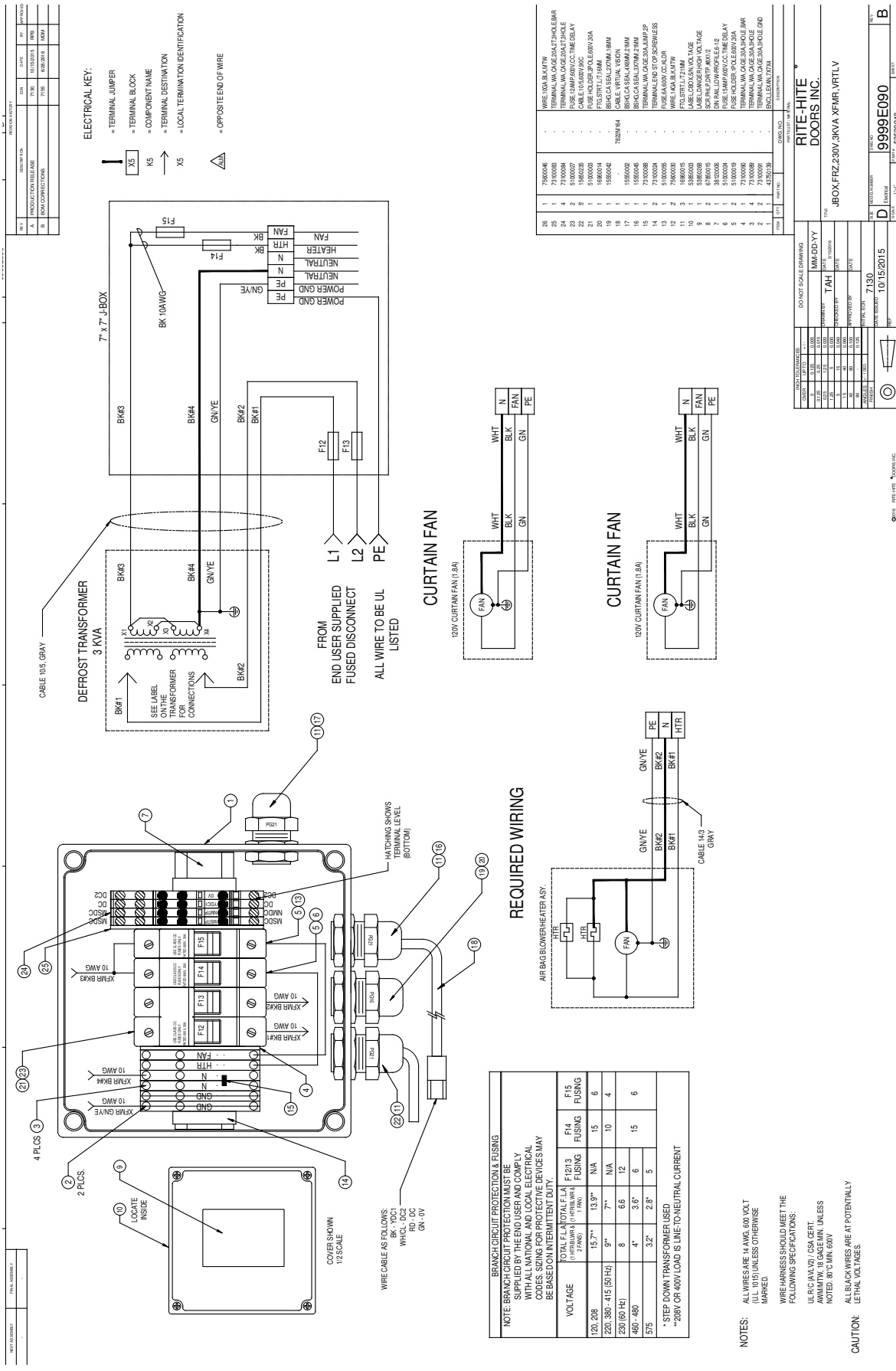
Wiring Diagrams *Continued*



MAINTENANCE

Wiring Diagrams *Continued*

Junction Box – FR/FRLD, 230V, 3KVA XFMR, Virtual Vision

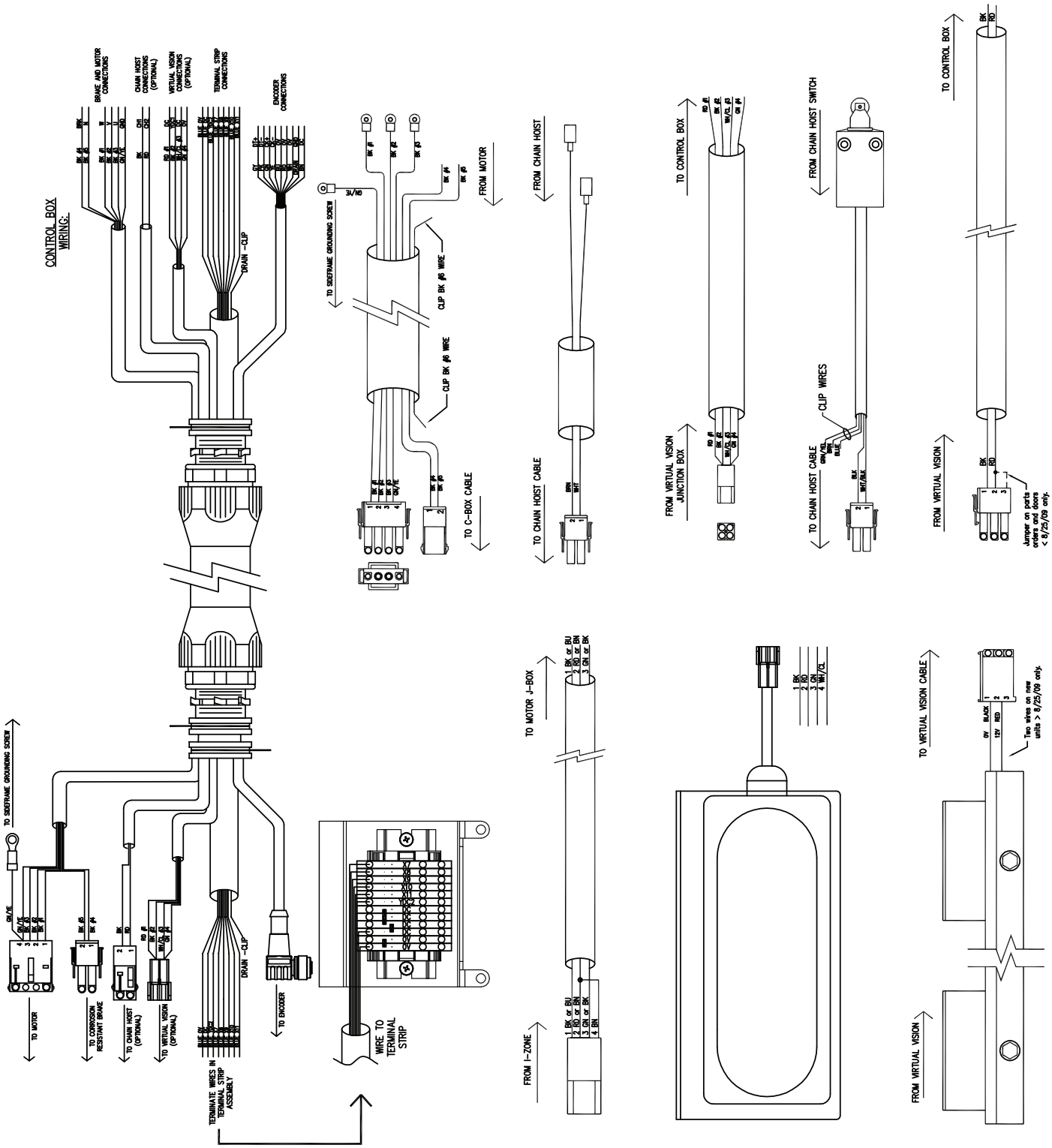


ITEM	QTY	PART NO.	DESCRIPTION
26	1	7560046	WIRE 16GA BLK/WTW
25	1	7310083	TERMINAL WA,.04GE.20A,2T,3HOLE,BAR
24	4	7310084	TERMINAL WA,.04GE.20A,2T,3HOLE
23	2	5100027	FUSE 12AMP,600V,CC,TIME DELAY
22	5*	1680235	CABLE 10/5,600V,90C
21	1	5100033	FUSE,3AMP,CC,TIME DELAY,600V,30A
20	1	5560014	FTG,STRT,LT,721MM
19	1	1555042	BS1/2,CA SEAL,2X7MM,19MM
18	1	7828M164	CABLE, VIRTUAL VISION
17	1	1555002	BS1/2,CA SEAL,X/6MM,2.5MM
16	1	1555045	BS1/2,CA SEAL,3X7MM,2.5MM
15	1	7130088	TERMINAL WA,.04GE.30A,JUMP,2P
14	2	7310084	TERMINAL WA,.04GE.20A,2T,3HOLE
13	2	5100035	FUSE,6AMP,CC,TIME DELAY
12	1	7560033	WIRE 14GA BLK/WTW
11	3	1690015	FTG,STRT,LT,721MM
10	1	5380003	LABEL,CBO,X,SN,VOLTAGE
9	1	5380288	LABEL,DANGER,HIGH VOLTAGE
8	2	5380005	LABEL,CAUTION,PROPELLER
7	1	9780015	DN,FAN,LOW,PROPELLE 6-10
6	1	5100039	FUSE HOLDER, 1POLE,600V,30A
5	2	5100019	FUSE,15AMP,600V,CC,TIME DELAY
4	1	7130090	TERMINAL WA,.04GE.30A,3HOLE,BAR
3	4	7130089	TERMINAL WA,.04GE.30A,3HOLE
2	1	7130085	TERMINAL WA,.04GE.30A,3HOLE,GND
1	1	4375013B	ENCLLER,WA,7X7X4

MAINTENANCE

Wiring Diagrams *Continued*

Electrical Cable Identification



MAINTENANCE

Troubleshooting

DEFINITION	FUNCTION
Activation	It is preferred not to wire activation devices until after the door is functioning properly.
Brake	The brake is powered by 105VDC which is converted from 110VAC. If brake does not stop door when open or closing, see brake adjustments on **page 73**. Brake will have approx. 267 ohms on normal readings, must disconnect from rectifier.
Breakaway	If the curtain is separated from the lower tracks, press the green open/reset button and the door will auto-refeed back into the tracks without tools or intervention. If a major separation occurs the drive tube may need to be turned manually to prevent damage to the curtain.
Control Box Cable	**DO NOT DRILL HOLES ON TOP OF THE 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, voids warranty. Supplied conduit cable is pre-wired. If it is too short, DO NOT splice wires, as the cable is shielded to prevent electrical noise. Make sure the motor is grounded and the braided (drain) wire is properly grounded to prevent electrical noise. Contact local Representative for replacement.
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, check for proper track spacing, FasTrax/LD: O.D.W. + 1/2in [12mm]. FasTrax FR/FR LD: O.D.W. + 9in [229mm]. 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.
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 incoming wires to bottom of disconnect.
Door does not close	a. Check status on i-COMM ii display to see why door is staying open (*"Photoeye Blocked" or Photoeye Failure", etc.)*, should read *"Door Closing in "x" seconds".* b. Verify proper incoming power is reaching inverter at L1, L2 and L3 (220, 230, 400, 460, 575). c. Verify chain hoist chain is not pulled and switch is not tripped, X14 MUST be on (See Non-Powered Opening). d. If run timer occurs, check for binding or obstructions. Tracks may need to be lubricated to reduce friction. e. Verify inputs X3, X5, X6 or X7 are not on. If on, remove wire from terminal to determine what is keeping light on. f. Verify outputs K1, K2, K4, K5 and YDC2 are on or coming on to signal inverter to close door. g. Verify X10 and X11 are on and that the photoeyes are lined up and not blocked. h. Verify as the curtain gets near the photoeyes that they are being shut off i. If curtain reverses at photoeyes, verify that the photoeye wiring is not reversed, X11 is upper (54 in [1372 mm]), X10 is lower (18 in [457 mm]). j. Verify inverter display is changing frequency. k. Verify Encoder has been setup. l. Verify rectifier has 120VAC going to it and ~ 105VDC coming out to the brake.
Door does not open	a. Verify input X3, X5, or X6 are coming on when activation device is being used. b. Verify outputs K3, K4, K5 and YDC2 are on or coming on to signal inverter to open door. c. Check status on i-COMM ii display to see why door is staying closed, should read "Door Opening". d. Verify inverter display is changing frequency. e. Verify proper incoming power is reaching inverter at L1, L2 and L3. f. Verify chain hoist chain is not pulled and switch is not tripped, X14 MUST be on (See Non-Powered Opening).
Door slams open/close	a. Verify the open and close positions are properly set. b. Verify encoder lock collar and sprocket set screws are tight and the chain moves when the drive tube is turning. c. Verify the encoder shaft turns when the drive tube is turned. d. Verify the inverter is changing speeds on the display. e. Verify the phasing is correct. The door should open when the green open button is pressed. f. Verify the brake is engaged and not released. g. Verify the key been installed on the gearbox shaft. h. Verify the proper ratio gearbox is being used. i. Verify Encoder has been setup. j. Verify rectifier has 120VAC going to it and ~ 105VDC coming out to the brake.
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 torque arm bracket. c. Remove and switch drive and non-drive photoeyes and cables. d. Flip drive tube 180°. e. Remove curtain from roller tube and route opposite direction. f. New drive shroud and bracket are required. g. New drive shroud extension bracket (if exterior) h. Set up i-COMM ii to state the proper right or left hand drive.
Drive Tube	If drive spheres make excessive clicking noise, make sure tube drive gears are centered over track grooves.

MAINTENANCE

Troubleshooting *Continued*

DEFINITION	FUNCTION
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. b. Verify encoder chain is operating properly and sprocket set screws are tight to shafts. c. See **page 59** for i-COMM ii Encoder errors.
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 24VAC (FR/FRLD - heated pull cord) and F7 is 120V (power supply & brake).
i-COMM™ ii Controller	The i-COMM ii 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 57-58**. Settings can be changed for re-close or pre-announce timers, interlocks, special activation commands, among others. Refer to instructional manual included. a. Verify i-COMM ii is receiving 24VDC from power supply. b. If i-COMM ii display is blank or hard to see, adjust contrast. c. Input X10 - Lower photoeye will be on unless photoeye is blocked, not aligned or mis-wired. d. Input X11 - Upper photoeye will be on unless photoeye is blocked, not aligned or mis-wired. e. Input X14 - Fault needs to be on for the door to operate (chain hoist). f. The door can be set to close from 2 to 255 seconds. Follow i-COMM ii adjustment instructions.
Inverter	See **page 58-60** for proper parameter settings.
I-Zone	See **page 33** &/or **43**, **44** for mounting and wiring.
MCR1 (contactor)	If the MCR1 (contactor) does not stay energized, verify the chain hoist switch is closed. If the chain hoist has been activated, it will break the circuit. Check continuity from CH1 to CH2.
Motor	If door will not run when given an activation, check the following: a. Check voltage to inverter. b. Check voltage and for loose wires at terminals, U, V, and W. c. 208V-240V motor will have 2.8 ohms on normal readings. d. 400V-480V motor will have 9 -10 ohms on normal readings. e. 575V motor will have 13 ohms on normal readings.
Motor Phasing	If “Open/Reset” 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 (N.P.O.)	If issues arise with the non-powered opening chain hoist, check the following: a. In the event of a power outage, operate hand lever and hand chain to open or close door. b. If hand lever is pulled while door is powered, the door will go into fault mode (green light flashing), no X14. Reset door by pressing the green flashing button. c. If door will not move when hand lever is pulled, verify engagement pins are engaged. Verify brake is being released and that cable and spring are working properly.
Open/Reset Push Button	The open/reset push button function is when the button is pressed, a command to open the door is given. To jog door when i-COMM ii states “Photoeye Failure”, press and hold the “Open/Reset” button.
Pressure	If the curtain is blowing out because of high wind or negative pressure, check the following: a. Tracks MUST be mounted at FasTrax/LD: O.D.W. + 1/2in [12mm]. FasTrax FR/FR LD: O.D.W. + 9in [229mm]. 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. Verify Lexan Strips are present and functioning properly.
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 lower tracks are square to the wall. a. Power to Brown (DC) and Blue (OV) wires. b. Internal photoeye relay(wires Black / Blue) should be closed when photoeye is aligned and open when not aligned. c. When open, i-COMM ii verifies photoeye inputs are off. If on, door will fault. If off, test is ok and emitters turn on. d. Orange and yellow light on the Receiver should be on when aligned. e. Green light on the Emitter indicates the unit is powered up. f. Input X11 will go off when the upper 54in [1372mm] photoeye is tripped. g. Input X10 will go off when the lower 18in [457mm] photoeye is tripped. h. If two or more doors are back to back, verify they are not reading each other. A plate may be required to separate. i. On doors < 43in [1092mm] O.D.H., the 54in [1372mm] photoeye is omitted. j. On doors > 68in [1727mm] O.D.H, but < 43in [1092mm] O.D.H., the 54in [1372mm] photoeye is lowered to 35in [889mm].
Power Supply	Power Supply is powered by 120VAC from the F7 fuse and delivers 24VDC to the i-COMM ii

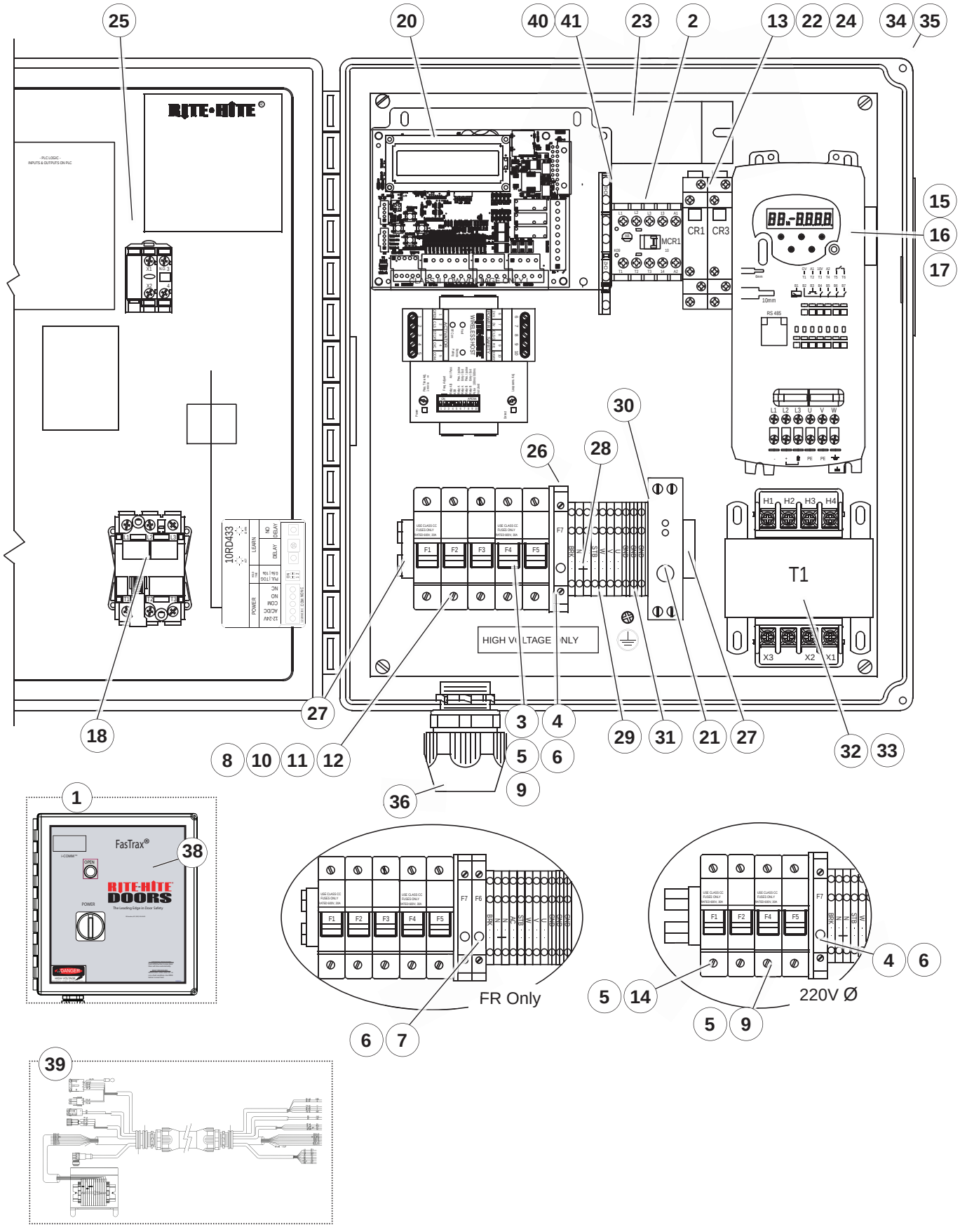
MAINTENANCE

Troubleshooting *Continued*

DEFINITION	FUNCTION
Tracks	a. Verify tracks are properly spaced. MUST be FasTrax/LD: O.D.W. + 1/2in [12mm]. FasTrax FR/FR LD: O.D.W. + 9in [229mm]. b. Lubricate as required per Maintenance Schedule, **page 72**.
Virtual Vision	Virtual Vision is optional on the FasTraxLD door. When motion is sensed via Falcon motion sensors, the Virtual Vision red LEDs will illuminate to notify driver of movement on the opposite side of the curtain. a. It is normal for the YDC1 output to flash on i-COMM ii during door operation..
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 with proper voltage. d. Brake resistor e. Change voltage selection on i-COMM ii
X0	Input programmed for a device to open the door.
X1	Input programmed for a device to stop the door.
X2, X3, X6, X7	Activation Inputs - If on and door is not closing, verify activation device is not faulty.
X4	Input programmed for a device to close the door.
X5	Input programmed for a device to toggle open / close the door.
X8, X9	I-Zone Inputs
X10	18in [457mm] Photoeye Input - MUST be on; If off, verify aligned and powered.
X11	54in [1372mm] Photoeye Input - MUST be on; if off, verify aligned and powered
X12	Open / Reset Button - X12 will illuminate when button is pressed
X13	Induction loop Input - if on door will stay open - verify object is not present on the floor loop
X14	Fault Input - Verify chain hoist chain hand lever has not been pulled.
X15	Power Input - Indicates unit is powered
YK0	Interlock output
YK1	Programmable output
YK2	Programmable output
YDC0	Output programmed to be on when door open.
YDC1	Output programmed to flash when virtual vision is functioning
YDC2	Photoeye test, must flash off when door is opening
YDC5	Output programmed for Pre-announce to close.

PARTS

Control Box



PARTS

Control Box *Continued*

#	QTY	DESCRIPTION	PART #
1	1	Assembly (C-Box, BackPanel, Enclosure w/labels)	1753
2	1	Contactor 24VDC,9A, 4NO (Chain hoist)	17000028
3	2	Fuse, .5 amp, 600V Time Delay (400-575V)	51000001
4	1	Fuse, 1 amp, 250V Time Delay	51000002
5	1/2	Fuse Holder, 2 Pole, 600V, 30A (3Ø-1; 1Ø-2)	51000003
6	2	Fuse Holder, 1 Pole, 300V, 12A	51000004
7	1	Fuse, 2 amp, 250V, Time Delay (FR)	51000005
8	1	Fuse Holder, 3 Pole, 600V, 30A (not 220V 1Ø)	51000013
9	2	Fuse, 1 amp, 600V, CC, Time Delay (208-230V)	51000023
10	3	Fuse, 10 amp, 600V, CC, KLDR (400-460V)	51000033
11	3	Fuse, 15 amp, 600V, KLDR (208-230V)	51000051
12	3	Fuse, 6A, 600V, CC, KLDR (575V)	51000055
13	1	Kit, Warning Device Relay, i-COMM ii	53700862
14	2	Fuse, 20 amp, 600V, KLDR (220V 1Ø)	51950077
15	1	Kit, Inverter,2HP,575V,3PH,AB-FLEX40	53700988
16	1	Kit, Inverter,2HP,460V,3PH,CNT TCH	53700990
17	1	Kit, Inverter,2HP,230V,1-3PH,CNT TCH	53700989
18	1	Kit, Disconnect Switch, w/ Handle	53700567
19*	1	Kit, FasTrax Inverter Relay (includes #23 & #27)	53700643
20	1	Kit, i-COMM ii, Replacement	53700860
21	1	Power Supply, DIN, 24VDC, 30W, CG (VV-no, LZR <2)	65700007
	1	Power Supply, DIN, 24VDC, 60W, CG (VV-yes, LZR >1)	65700012
22	1/1	Relay, SPDT,24VDC,10AMP (warn device & brake)	66450014
23	1	Kit,Resistor,Inverter,230V,2HP	53700689
	1	Kit,Resistor,Inverter,460V,2HP	53700688
24	1/1	Socket, Relay,1Pole,250VAC,10AMP (W.D. & Brake)	70350002
25	1	Switch, Push Button, Ext, Green, Illum, 22mm	72700258
26	1	Terminal, End Barrier, Fuse Holder	73100019
27	4/6	Terminal, End Stop, Screwless	73100024
28	1	Terminal, WA, Cage, 20A, Jump, 2P	73100081
29	7/8	Terminal, WA, Cage, 20A, 3 Hole	73100085
30	1	Terminal, WA, Cage, 20A, 3 Hole, Barrier	73100086
31	3	Terminal, WA, Cage, 20A, 3 Hole, GND	73100087
32	1	Transformer, 100VA, 208/230/460V:24/115	73550029
33	1	Transformer, 100VA, 380/415/575V:24/115	73550030
34	2	Control Box Quick Release Latch	51950021
35	4	Control Box Mounting Tab	51950018
36	1	Connector, Conduit, Straight, L/T, 1”	16960001
37*	1	Cable, Inverter, 24/4 UTP (Modbus)	15650290
38	1	Label, Control Box, Cover, FasTrax®	53850519
39	1	Control Box Cable Assembly	1555
40	1	Terminal, WA, Cage, 20A, 2T, 3H, Bar	73100083
41	1	Terminal, WA, Cage, 20A, 2T, 3Hole	73100084

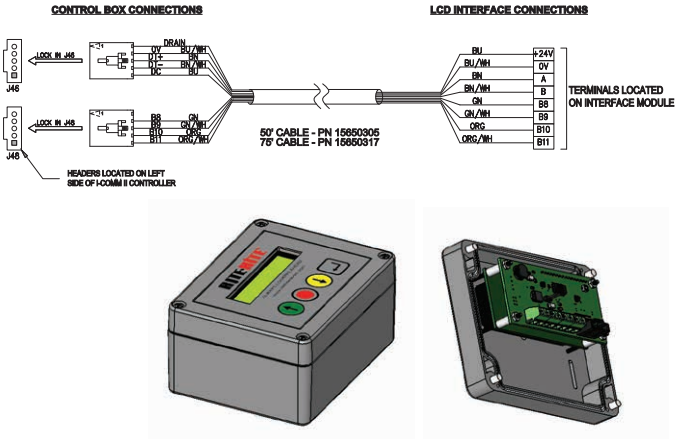
See **"Activation" on page 94** for activation devices

*Not Shown Dwg# 7822E030 Rev. S

PARTS

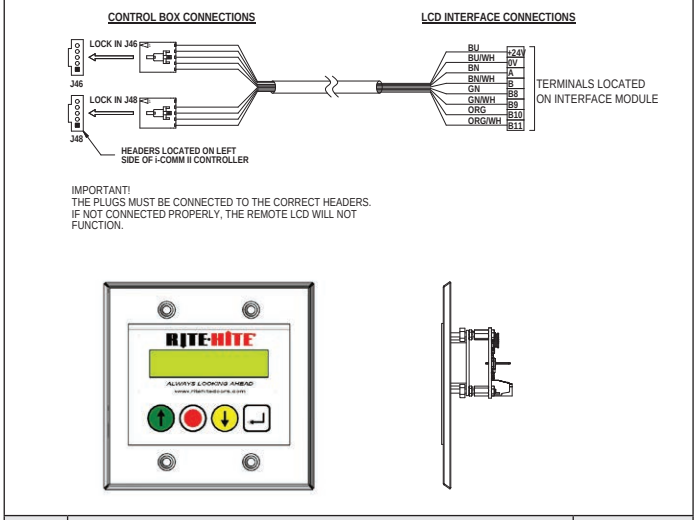
Compact User Interface

Fiberglass



QTY	DESCRIPTION	PART #
1	Kit, LCD Interface, NEMA 4X, 50ft [15240mm]	53700925
1	Kit, LCD Interface, NEMA 4X, 75ft [22860mm]	53700926
1	Cable, 75ft [22860mm]	15650317

Stainless Steel



QTY	DESCRIPTION	PART #
1	LCD Interface (Stainless) 50ft [15240mm]	53700923
1	LCD Interface (Stainless) 75ft [22860mm]	53700924
1	Cable, 75ft [22860mm]	15650317

PARTS

Activation

#	PART #	DESCRIPTION	5700	7100	80/XL	8600	8900	FSTX /LD	FSTX CL	FSTX FR	FSTX FR LD	FSTX XL	LTSPD	SPLIT 2ND
1	11050007	Alarm, Audible, 24AC/DC, 22.5 (I-Zone)	–	–	X	–	X	X	X	X	X	X	X	–
2	11050010	Alarm, Audible, 120VAC,10-TONE, AB	–	X	X	X	X	X	X	X	X	X	X	–
3	53700976	Kit, Activation, Wireless,Host	–	X	–	–	X	X	X	X	X	X	X	X
4	17500001	Induction Loop Board, Single, 24VDC (<5/28/14)	–	X	X	X	X	X	X	X	–	–	–	–
5	17500010	Induction Loop Board, dual, 12/24VDC (=>6/20/12)	–	X	–	X	X	X	X	X	X	X	X	X
6	52000037	Induction Loop Board Harness (<5/28/14)	–	X	X	X	X	X	X	X	–	–	–	–
7	52000056	Induction Loop Board Harness (=>6/20/12)	–	X	–	X	X	X	X	X	X	X	X	X
8	53700552	Induction Loop, Kit, Single (<5/28/14)	–	X	X	X	X	X	X	X	–	–	–	–
9	53700864	Induction Loop, Kit, Dual	–	X	X	–	X	X	X	X	X	X	X	X
10	55150279	i-COMM ii LCD Interface	–	X	–	–	–	X	X	X	X	X	X	X
11	7622	I-Zone Kit	–	–	X	–	X	X	–	X	X	X	X	–
12	7637	I-Zone Upgrade Kit	–	–	–	–	–	X	–	X	X	X	–	–
13	14500774	I-Zone Sensor Bracket Black	–	–	X	–	X	X	–	X	X	X	X	–
14	14500775	I-Zone Sensor Bracket Gray	–	–	X	–	X	X	–	X	X	X	X	–
15	14500783	I-Zone Sensor Bracket Stainless	–	–	X	–	X	X	–	X	X	X	X	–
16	17900110	I-Zone Cover Gray	–	–	X	–	X	X	–	X	X	X	X	–
17	17900111	I-Zone Cover Black	–	–	X	–	X	X	–	X	X	X	X	–
18	17900112	I-Zone Cover Stainless	–	–	X	–	X	X	–	X	X	X	X	–
19	14501212	Motion Sensor, Mounting Bracket	–	X	X	X	X	X	X	X	X	X	X	X
20	55200012	Motion Sensor, Remote Programmer	–	X	X	X	X	X	X	X	X	X	X	X
21	55200018	Motion Sensor, FalconXL < 11.5' [3505mm] Height	–	X	X	X	X	X	X	X	X	X	X	X
22	55200019	Motion Sensor, Falcon < 11.5' [3505mm] Height	–	X	X	X	X	X	X	X	X	X	X	X
23	55200021	Motion Sensor, IS40, 12-24V	–	X	X	X	X	X	X	X	X	X	X	X
24	55200022	Motion Sensor, LZRI30, 12-35VDC	–	X	X	X	X	X	X	X	X	X	X	X
25	55200026	Motion Sensor,12-24V, MS09, Touchless	–	X	–	X	X	X	X	X	X	X	X	X
26	55200024	Motion Sensor, IS40XL, 12-24V	–	X	X	X	X	X	X	X	X	X	X	X
27	55200025	MOTION SENSOR, FALCONW >=16W	–	–	–	–	–	–	–	–	–	X	–	–
28	14500024	Photoeye Mounting Bracket	–	X	X	X	X	X	X	X	X	X	X	X
29	53700053	Photoeye, 24V, Kit, Thru-beam	–	X	X	X	X	X	X	X	X	X	X	X
30	53700122	Photoeye, 24V, Kit, Retro-reflective	–	X	X	X	X	X	X	X	X	X	X	X
31	66400001	Photoeye, Reflector, 2 3/4in x 2in [70mm x 51mm]	–	X	X	X	X	X	X	X	X	X	X	X
32	63900002	Photoeye, Retro-Reflective 20-40VAC/10-55VDC	–	X	X	X	–	X	X	X	X	X	X	X
33	69300004	Photoeye, Thru-beam Source 20-40VAC/10-55VDC	–	X	X	X	X	X	X	X	X	X	X	X
34	63900005	Photoeye, Thru-beam Receiver 20-40VAC/10-55VDC	–	X	X	X	X	X	X	X	X	X	X	X
35	63900048	Photoeye, Light Curtain, Receiver, (CE)	–	–	–	–	–	X	–	X	X	–	X	–
36	63900049	Photoeye, Light Curtain, Transmitter, (CE)	–	–	–	–	–	X	–	X	X	–	X	–
37	72700213	Pull Cord, Assembly, w/Bracket, Standard	–	X	X	X	X	X	X	X	X	X	X	X
38	72700214	Pull Cord, Assembly, w/Bracket, Heated	–	X	X	X	–	–	X	X	X	–	X	–
39	72700270	Pull Cord, Wireless	–	X	X	–	–	X	X	X	X	X	X	X

PARTS

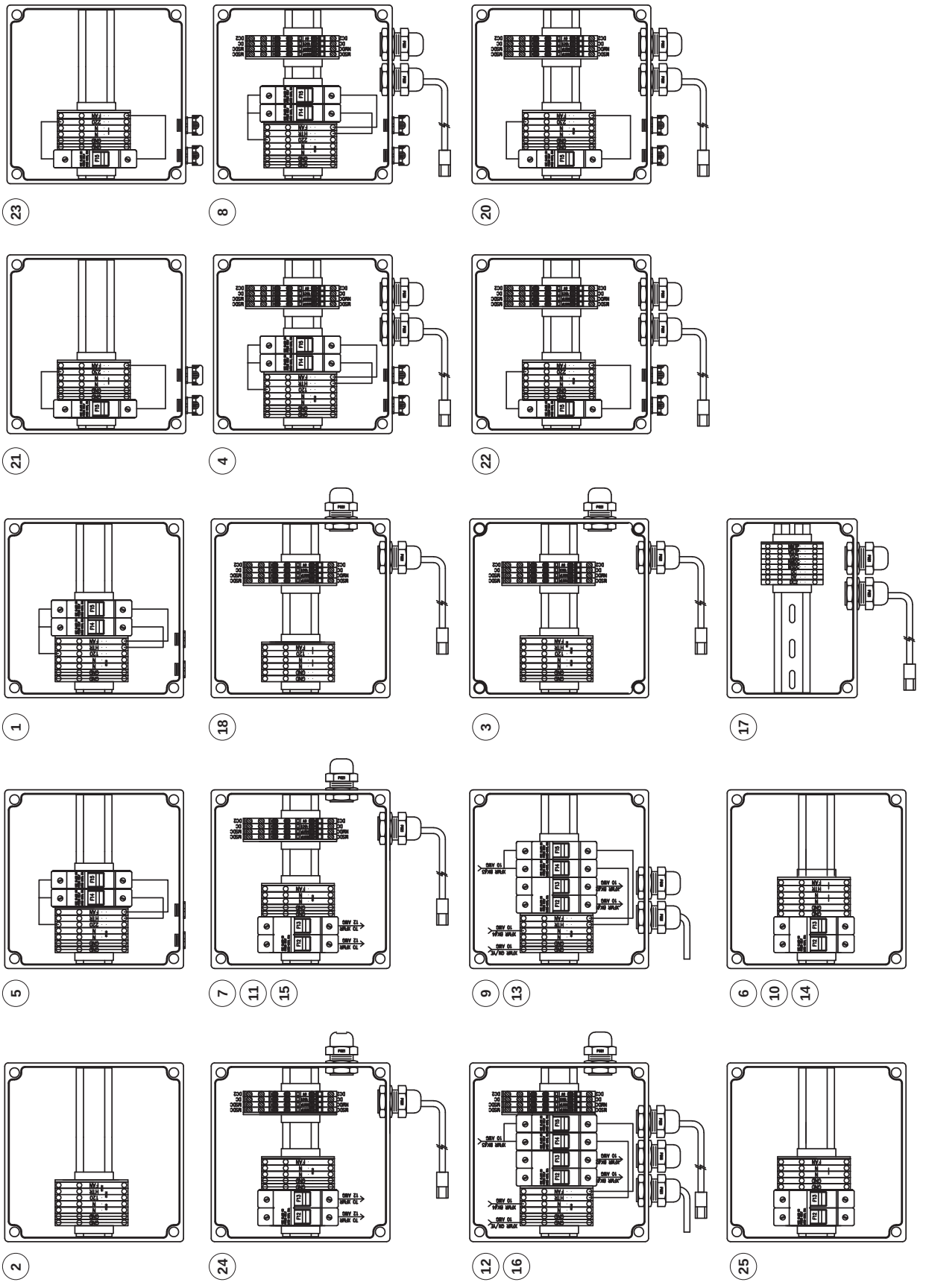
Activation *Continued*

#	PART #	DESCRIPTION	5700	7100	80/XL	8600	8900	FSTX /LD	FSTX CL	FSTX FR	FSTX FR LD	FSTX XL	LTSPD	SPLIT 2ND
40	72700030	Push Button Station Single Green	–	X	X	X	X	X	X	X	X	X	X	X
41	72700102	Push Button Station, Open/E-Stop/Close, Nema 4X	–	–	–	–	–	–	–	X	X	X	X	X
42	72700269	Push Button, Single, Wireless	–	X	–	–	–	X	X	X	X	X	X	X
43	66250020	Radio Control, RCVR, BEA, 433, 12-24V, 1 FN (=>8/26/14)	–	X	X	X	X	X	X	X	X	X	X	X
44	73750078	Radio Control, Trans, BEA, 433, 1 BTN (=>8/26/14)	–	X	X	X	X	X	X	X	X	X	X	X
45	73750079	Radio Control, Trans, BEA, 433, 2 BTN (=>8/26/14)	–	X	X	X	X	X	X	X	X	X	X	X
46	73750080	Radio Control, Trans, BEA, 433, 3 BTN (=>8/26/14)	–	X	X	X	X	X	X	X	X	X	X	X
48	11280002	Radio Control Ant w/15' Cable, 318 MHZ (<8/26/14)	–	X	X	X	X	X	X	X	X	–	X	X
48	53700068	Radio Control, 24V, Kit, 318 MHZ (<8/26/14)	–	X	X	X	X	X	X	X	X	–	X	X
49	66250016	Radio RCVR, 24V 318 MHZ (<8/26/14)	–	X	X	X	X	X	X	X	X	–	X	X
50	66250017	Radio RCVR, 24V 300 MHZ (<8/26/14)	–	X	X	X	X	X	X	X	X	–	X	X
51	73750002	Radio TRANS, 300 MHZ, BTN, 4 (<8/26/14)	–	X	X	X	X	X	X	X	X	–	X	X
52	73750015	Radio TRANS, 318 MHZ, BTN, 1 (<8/26/14)	–	X	X	X	X	X	X	X	X	–	X	X
53	73750018	Radio TRANS, 318 MHZ, BTN, 3 (<8/26/14)	–	X	X	X	X	X	X	X	X	–	X	X
54	73750019	Radio TRANS, 318 MHZ, BTN, 2 (<8/26/14)	–	X	X	X	X	X	X	X	X	–	X	X
55	54270030	Strobe 120VAC Amber	–	X	X	X	X	X	X	X	X	X	X	X
56	54270031	Strobe 120VAC Red	–	X	X	X	X	X	X	X	X	X	X	X
57	53700567	Switch, Disconnect W/Handle	–	X	X	X	X	X	X	X	X	X	X	X
58	72700011	Switch, Selector, 2 POS, Key	–	X	X	X	X	X	X	X	X	X	X	X
59	72700072	Switch, Selector, 2 POS (Socket P/N: 17200012)	–	X	X	X	X	X	X	X	X	X	X	X
60	72700144	Switch, Selector, 3 POS, 3 Pole, 12A	X	–	–	–	–	–	–	–	–	–	–	–
61	VRTLV	Virtual Vision, Kit, Stand Alone	–	X	X	X	X	X	X	X	X	X	X	X
62	7623	Virtual Vision, Kit, FSTX/FR/LTSPD	–	–	–	–	X	X	–	X	X	–	X	X
63	7624	Virtual Vision, Kit, FSTXCL	–	–	–	–	–	–	X	–	–	–	–	–
64	7638	Virtual Vision, Kit, FSTXXL	–	–	–	–	–	–	–	–	–	X	–	–
65	53700862	Warning Device Kit, Relay, I-Comm Ii	–	X	X	X	X	X	X	X	X	X	X	X
66	53700863	Warning Device Kit, Relay, PLC	–	–	X	X	–	–	–	–	–	–	–	–
67	53700306	Kit, Activation Service Parts (Loop, PE, Pull, Push)	–	X	X	X	X	X	X	X	X	X	X	X

2016-10-07

PARTS

Virtual Vision / Curtain Fan Junction Box



See charts next page

PARTS

Virtual Vision / Curtain Fan Junction Box *Continued*

FasTrax FR, FasTrax FRLD

#	VIRTUAL VISION	CANADIAN SPECS	120V	230V	STEPDOWN 230V	STEPDOWN 460V	STEPDOWN 575V	DESCRIPTION	PART #	TRANSFORMER DESCRIPTION	TRANSFORMER PART #
1	–	–	X	–	–	–	–	JBOX,FRZ,120V	53530030	–	–
2	–	X	X	–	–	–	–	JBOX,FRZ,120V,CAN	53530032	–	–
3	X	X	X	–	–	–	–	JBOX,FRZ,120V,CAN,VRTLV	53530033	–	–
4	X	–	X	–	–	–	–	JBOX,FRZ,120V,VRTLV	53530031	–	–
5	–	–	–	X	–	–	–	JBOX,FRZ,220V	53530034	–	–
6	–	X	–	–	X	–	–	JBOX,FRZ,230V,2KVA XFMR	53530036	XFMR,2.0KVA,480/240:240/120	73550024
7	X	X	–	–	X	–	–	JBOX,FRZ,230V,2KVA XFMR,VRTLV	53530037	XFMR,2.0KVA,480/240:240/120	73550024
8	X	–	–	X	–	–	–	JBOX,FRZ,220V,VRTLV	53530035	-	–
9	–	–	–	–	–	X	–	JBOX,FRZ,460V,3KVA XFMR	53530038	XFMR,3KVA,480/240:240/120	73550027
10	–	X	–	–	–	X	–	JBOX,FRZ,460V,2KVA XFMR	53530040	XFMR,2.0KVA,480/240:240/120	73550024
11	X	X	–	–	–	X	–	JBOX,FRZ,460V,2KVA XFMR,VRTLV	53530041	XFMR,2.0KVA,480/240:240/120	73550024
12	X	–	–	–	–	X	–	JBOX,FRZ,460V,3KVA XFMR,VRTLV	53530039	XFMR,3KVA,480/240:240/120	73550027
13	–	–	–	–	–	–	X	JBOX,FRZ,575V,3KVA XFMR	53530042	XFMR,3KVA,600:240/120	73550026
14	–	X	–	–	–	–	X	JBOX,FRZ,575V,2KVA XFMR	53530044	XFMR,2.0KVA,600:240/120	73550017
15	X	X	–	–	–	–	X	JBOX,FRZ,575V,2KVA XFMR,VRTLV	53530045	XFMR,2.0KVA,600:240/120	73550017
16	X	–	–	–	–	–	X	JBOX,FRZ,575V,3KVA XFMR,VRTLV	53530043	XFMR,3KVA,600:240/120	73550026

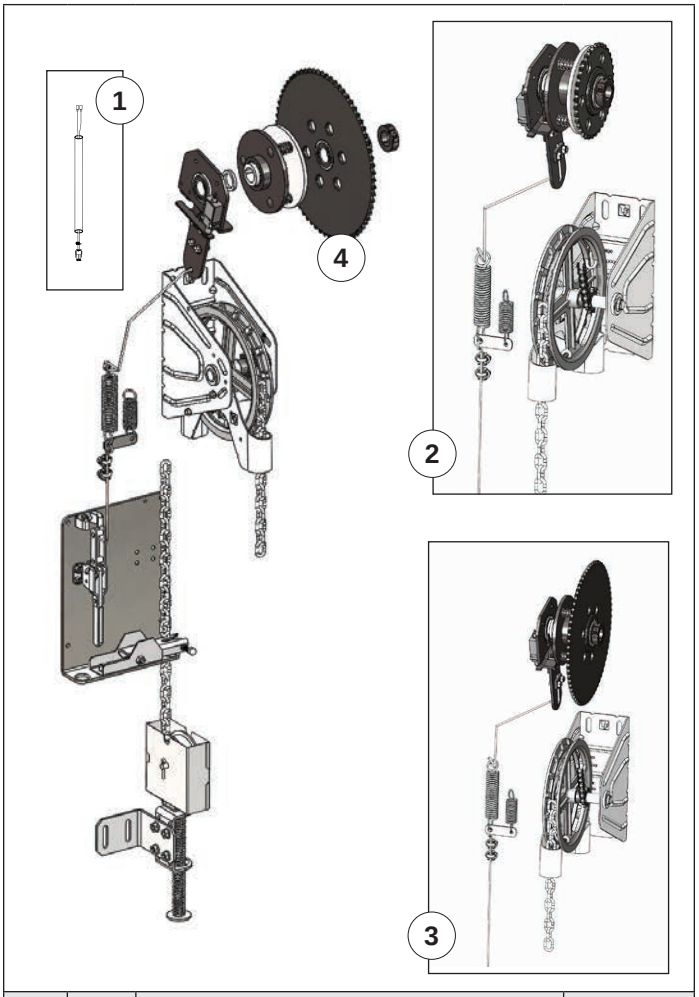
FasTrax, FasTrax LD

#	VIRTUAL VISION	CURTAIN FANS	120V	230V	220V, 400V	STEPDOWN 460V, 575V	DESCRIPTION	PART #	TRANSFORMER PART #
17	X	–	–	–	–	–	JBOX,VIRTUAL VISION	53530013	–
18	X	X	X	–	–	–	JBOX,FANS,120V,VRTLV	53530023	–
19	–	X	X	–	–	–	NO JBOX REQ'D!!!	–	–
20	X	X	–	X	–	–	JBOX,FANS,230V,VRTLV	53530025	–
21	–	X	–	X	–	–	JBOX,FANS,230V	53530024	–
22	X	X	–	–	X	–	JBOX,FANS,220V,VRTLV	53530027	–
23	–	X	–	–	X	–	JBOX,FANS,220V	53530026	–
24	X	X	–	–	–	X	JBOX,FANS,460/575V,XFMR,VRTLV	53530029	if 575V:73550017 else : 73550024
25	–	X	–	–	–	X	JBOX,FANS,460/575V,XFMR	53530028	if 575V:73550017 else : 73550024

NOTE: The Junction box kits do not include the related step down transformers. If a transformer is required, please reference the table to ensure the correct part number is selected.

PARTS

N.P.O.



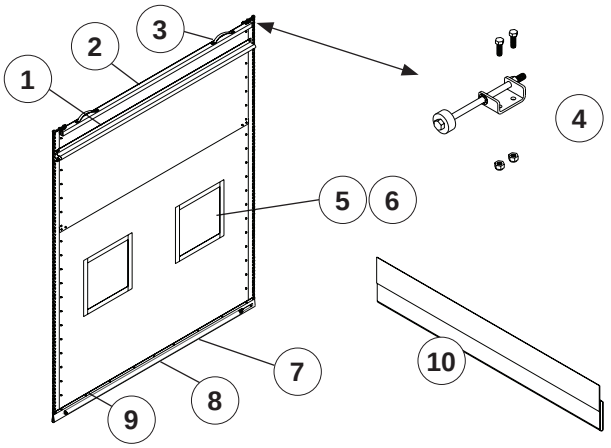
#	QTY	DESCRIPTION	PART #
1	1	N.P.O. Cable	15650234
2	1	FSTX/FR, N.P.O., 36 Tooth	56150055
3	1	FSTXLD/FRLD, N.P.O., 70 Tooth	56150056
4	1	Sprocket, #41, 70T, 1" Bore, Steel, LD/FRLD (Doors <2/3/17 only)	70800066
5	1	Kit, FSTX, Upgrade, N.P.O*.	2102

*Not Shown

PARTS

Curtain

Curtain Assembly

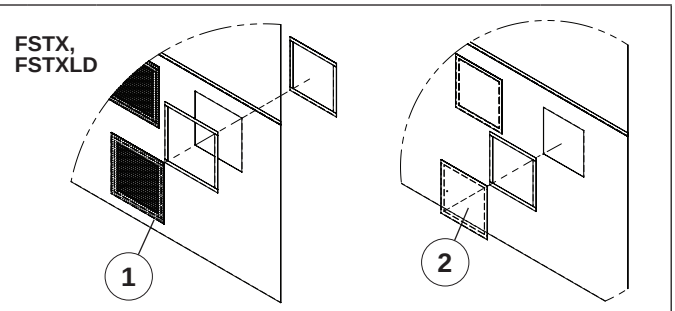


#	QTY	DESCRIPTION	PART #
1	1	Kit, Lintel Seal	6890
2	1	Curtain, Stiffener	7181
3	2	Curtain, Handle	75000023
4	1	Kit, Curtain Top Roller (includes 2)	53700562
5	a/r	Vision only Replacement, Urethane, 20” x 20” [508mm x 508mm] used on doors that currently do not have replaceable visions	53700711
	a/r	Cover, Window, UV, 20” x 20” [508mm x 508mm],Replaceable (=> 10/6/09)	17900163
	1	Kit, Vision Replacement, Urethane, Max View	7411
6	a/r	Kit, Vision/Screen Replacement, 20” x 20” [508mm x 508mm] (< 6/20/12) used on doors that currently do not have replaceable vision/screen	53700857
	a/r	Cover, Window/Screen, 20” x 20” [508mm x 508mm] (=> 10/6/09)	17900190
	1	Curtain order includes one tube of Super Lube	54650002
7	1	Curtain, Weight Assembly, Soft Edge	7541
8	1	Curtain, Bottom Loop	6893
	1	Curtain, Insulated, Bottom Loop	6895
9	1	Curtain, Assembly, FasTrax	2876
	1	Curtain, Assembly, FasTrax, Insulated	2877
10	1	Kit, Bottom Loop Seal Replacement	6893

Patch Kits

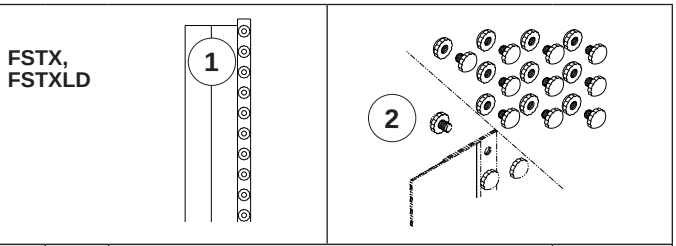
QTY	DESCRIPTION	PART #
a/r	Kit, Curtain, Patch, PVC, 27 oz, Blue	53700558
a/r	Kit, Curtain, Patch, 60 mil, Blue	53700559
a/r	Kit, Curtain, Patch, Urethane, 27 oz, Blue	53700774
a/r	Kit, Curtain, Patch, PVC, 27 oz, Green	53700667
a/r	Kit, Curtain, Patch, PVC, 27 oz, Gray	53700668
a/r	Kit, Curtain, Patch, PVC, 27 oz, Orange	53700669
a/r	Kit, Curtain, Patch, 100 mil, Blue	53700670
a/r	Kit, Curtain, Patch, 100 mil, Green	53700671
a/r	Kit, Curtain, Patch, 100 mil, Gray	53700672
a/r	Kit, Curtain, Patch, 100 mil, Orange	53700673
a/r	Kit, Vision, Patch, 30oz, Clear	53700778
a/r	Kit, Curtain, Patch, 100mil, Red	53700757
a/r	Kit, Curtain, Patch, 100mil, White	53700758

Curtain Vision



#	QTY	DESCRIPTION	PART #
1	a/r	Cover, Screen Window Gray, FasTrax 96" [2438mm] ≤ D.O.W. < 132" [3353mm] (Qty = 2) 132" [3353mm] ≤ D.O.W. < 170" [4318mm] (Qty = 3) 170" [4318mm] ≤ D.O.W. < 228" [5791mm] (Qty = 4) 228" [5791mm] ≤ D.O.W. ≤ 288" [7315] (Qty = 5)	17900190
2	a/r	Cover, Window, UV Inhibited, FasTrax 96" [2438mm] ≤ D.O.W. < 120" [3048mm] (Qty = 2) 120" [3048mm] ≤ D.O.W. < 156" [3962mm] (Qty = 3) 156" [3962mm] ≤ D.O.W. < 204" [5182mm] (Qty = 4) 204" [5182mm] ≤ D.O.W. < 252" [6401mm] (Qty = 5) 252" [6401mm] ≤ D.O.W. ≤ 288" [7315mm] (Qty = 6)	17900163

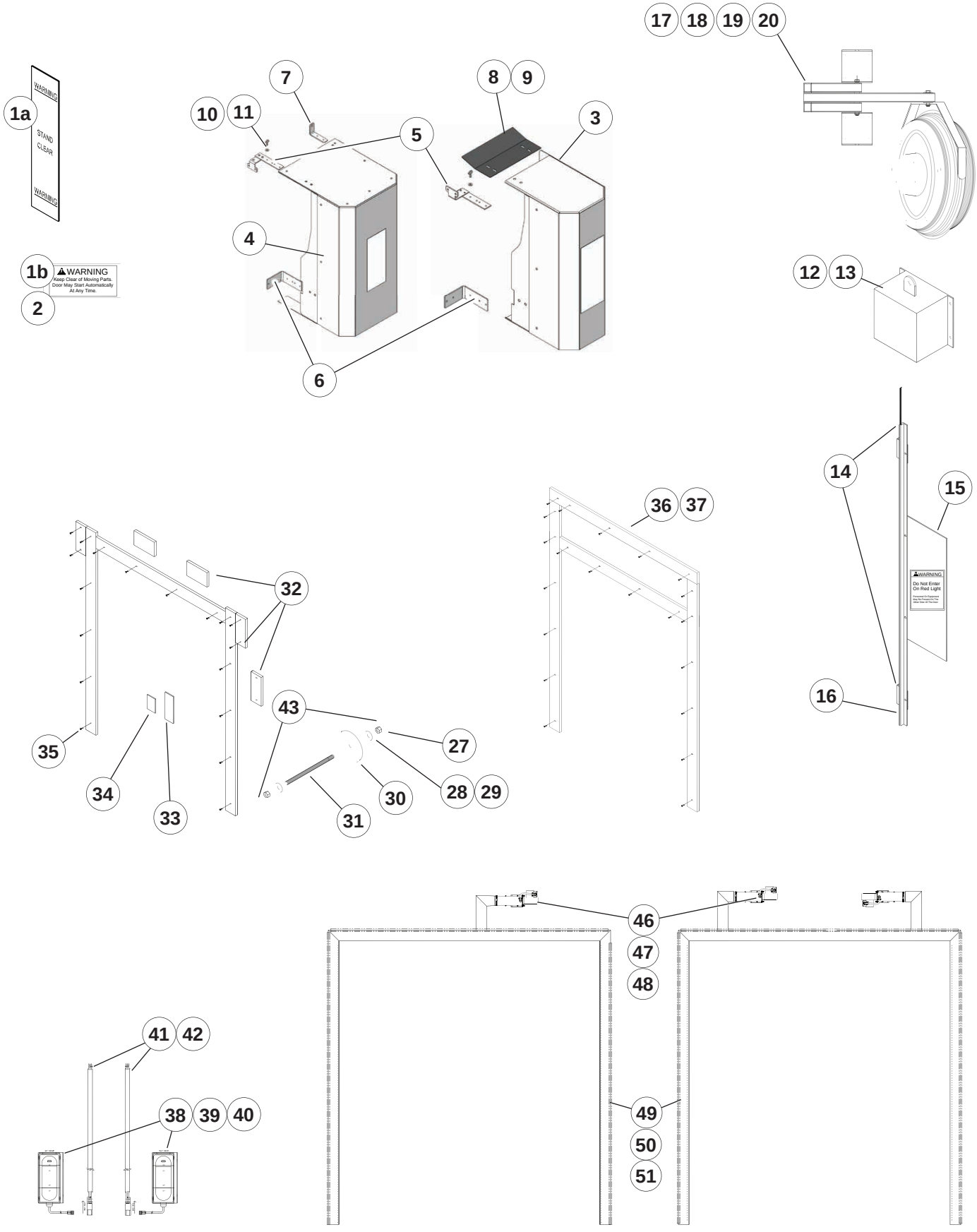
Edging/Drive Spheres



#	QTY	DESCRIPTION	PART #
1	a/r	Kit, Edge Repair, 3 Sphere	53700712
1	a/r	Kit, Edge Repair, 6 Sphere	53700717
1	a/r	Kit, Edge Repair, 10 Sphere	53700723
1	a/r	Kit, Edge Repair, 12 Sphere	53700787
2	a/r	Kit, Curtain, Drive Sphere, Qty 10	53700561

PARTS

Miscellaneous



PARTS

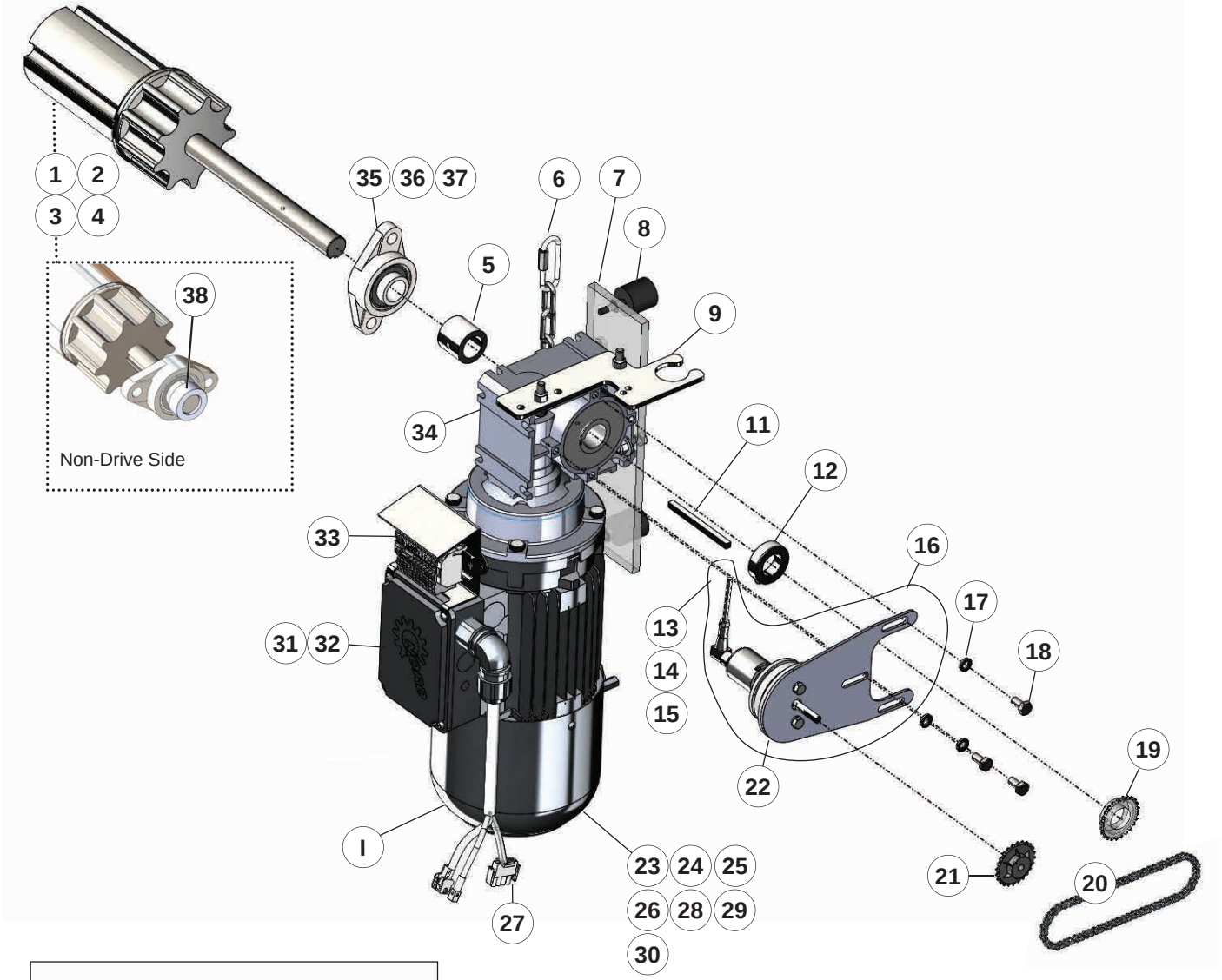
Miscellaneous *Continued*

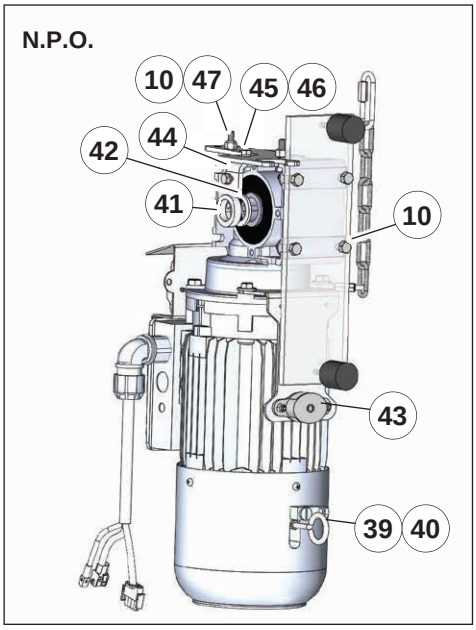
#	QTY	DESCRIPTION	PART #
*	1	FasTrax Door (Complete)	FSTX, FSTXFR, FSTXLD, FSTXFRLD
*	1	Kit, FasTrax Service Parts, US, Encoder	53700804
*	1	FasTrax Sample	67750026
*	1	Crate	53700146
*	1	FasTrax Warning Bracket, Set (Doors <8'-0" [2438mm] H)	14500999
1a	2	Label, Warning, Stand Clear, 2" x 9"	53850516
1b	1	Keep Clear Warning Label	53850534
2	1	Sign Plate (Doors <8'-0" [2438mm] H w/o Shroud)	65000609
3	1	Kit, FSTX, Shroud, Motor, Universal (All non N.P.O.) (Shroud, fasteners, label)	53701007
4	1	Kit, FSTX, Shroud, Motor, Universal, N.P.O. (> 2/3/17) (Shroud, fasteners, label)	53701008
5	1	Kit, FSTX, Shroud, Motor, Bracket, Upper	53701009
6	1	Shroud, Motor, Bracket, Lower	14501425
7	1	Shroud, Motor, Bracket, Upper, N.P.O., Wall (> 2/3/17)	14501426
8	1	Shroud, Motor, Plate, External, Univ, FSTX/FR	65000928
9	1	Shroud, Motor, Plate, External, Univ, FSTXLD/FRLD	65000864
10	4	Screw, Thumb, 1/4-20 x 1/2", GR2 znc	64860019
11	4	Washer, Flat,1/4x9/16"x3/32", Neoprene	74110007
12	1	Transformer, 2KVA, 600:240/120 (Canada Specs)	73550017
	1	Transformer, 2KVA, 480/240:240/120 (Canada Specs)	73550024
13	1	Transformer, 3KVA, 600:240/120	73550026
	1	Transformer, 3KVA, 480/240:240/120	73550027
14	8	Virtual Vision Mounting Bracket	14500971
	2	Nut, Hex, Nylon, Lock, #10-24, zinc	55600004
	2	Screw, RHMS, Phillips, #10-24 x 3/4", zinc	67850030
15	4	Kit, Virtual Vision Warning Plate Label	53700917
	2	Nut, Hex, Nylon, Lock, #10-24, zinc	55600004
	2	Screw, RHMS, Phillips, #10-24 x 1/2", zinc	67850008
16	4	Virtual Vision LED Assembly	7623
17	2	120V Curtain Fan Kit	53700769
18	2	120V Fan only	13250069
19	2	120V Arm only	11500046
20	2	220V Curtain Fan Kit	13250085
27	24	Nut, Hex, 3/8-16, S.S.	55630006
28	24	Washer, Flat, 3/8" x 1" x .063, S.S.	74130012
29	24	Washer, lock, 3/8", S.S.	74130009
30	12	Plate, 6" Ø, znc	65000723
31	12	Rod, Threaded, 3/8-16 x 12" S.S.	67900047
32	2	Poly Lumber Header Shim	69000015
33	6	Upper Track Weld Plate	65000588
34	16	Lower Track Weld Plate	65000587
35	a/r	Rivet, Blind, Fablok, 5/16" x 1.807	66840016
36	1	Poly Lumber Install Kit	5339
37	a/r	Poly Lumber 1 1/2"x7 1/2"x10'-6"	65450100
38	2	I-Zone Detector Assembly	7622
39	a/r	I-Zone Upgrade	7637
40	2	I-Zone Cover	17900111
41	1	I-Zone Cable, Non-Drive	1549
42	1	I-Zone Cable, Drive	1550
43	a/r	Kit, Install, Thru-Wall, Steel	53700887
46	1/2	Air Seal Blower/Heater Kit, PTC, 120V	13250080
47	1/2	Air Seal Blower/Heater Kit, PTC, 230V	13250081
48	1/2	Air Seal Blower/Heater Kit, (Canada)	13250084
49	1	Thermal Air System Seal	6889
50	a/r	Trailer Rail, 45° Alum	73400002
51	a/r	Screw, Phlp, Dr/Tap, #8 x 1/2"	67850015
52*	1	Kit, FSTX, Shroud, Motor, N.P.O., SLTD, RH (< 2/3/17)	53701010
53*	1	Kit, FSTX, Shroud, Motor, N.P.O., SLTD, LH (< 2/3/17)	53701011

*Not Shown

PARTS

Drive System (FasTrax, FasTrax FR)





PARTS

Drive System (FasTrax, FasTrax FR) *Continued*

#	QTY	DESCRIPTION	PART #
1	1	Drive Tube Ass'y	6749
2	1	Kit, FasTrax, Sprocket, Drive	53700865
3	1	Kit, FasTrax, Sprocket, Non-Drive	53700866
4	1	Kit, FasTrax, Sprocket, Chain Hoist	53700867
5	1	Gearbox Spacer	53700705
6	1	Chain Kit	53700650
7	1	Drive Bracket	65000564
8	2	Motor Bumper	15250081
9	1	Conduit Bracket	14501418
10	6	Hex Lock Nut	55620010
11	1	Gearbox Key	53550010
12	1	Lock Collar	16850018
13	1	Encoder Cable 12ft [3658mm]	15650256
14	1	Encoder Cable 25ft [7620mm]	15650257
15	1	Encoder Cable 50ft [15240mm]	15650258
16	1	Encoder Kit #50	53700784
17	3	Lock Washer	74120002
18	3	M8-1.25 x 16mm	67930016
19	1	Sprocket Drive, 24 Tooth, 1" ID	70800047
20	1	Encoder Chain	16600063
21	1	Sprocket Driven, 24 Tooth, 5/16" ID	70800048
22	1	Encoder Plate	65000724
23	1	Motor/Brake/Gearbox Ass'y	5535
24	1	Motor/Brake 2HP, 230/460V	55250138
25	1	Motor/Brake 2HP, 575V	55250139
26	1	Motor/Brake 2HP, 400V	55250143
27	1	CBL,ASY,MTR/BRK,TRAX/FR,NORD	15650319
28	1	MOT/BRK,2HP,230/460V,WE,BLT,HB	55250255
29	1	MOT/BRK,2HP,400V,WE,BOLT,HB	55250256
30	1	MOT/BRK,2HP,575V,WE,BOLT,HB	55250257
31	1	Brake Rectifier 230/460V	66270009
32	1	Brake Rectifier 575V	66270012
33	1	Terminal Assembly	73100093
34	–	Gearbox Ratios	(See table)
35	2	Flange Bearing	12500034
36	4	Bolt, HHMS, 1/2-13 x 1", GR5, znc	67900003
37	4	Washer, Lock, Ext, 1/2", znc	74150019
38	1	Collar, Shaft, Lock, 1" Dia, Cone Pt (Non-drive side)	16850014
39	1	Hex Nut	55680001
40	1	Eye Bolt	67930001
41	1	Spacer, N.P.O., FSTX	70450192
42	1	Washer, Flat, 1 x 1-1/2 x 1/8, HDN	74170007
43	1	Pulley, Assembly, FSTX, N.P.O.	65750070
44	1	Bracket, Mount, N.P.O.	14501419
45	2	Screw, HHMS, 1/4-20 x 1/2, GR5, ZNC	67860002
46	2	Washer, Lock, Split, 1/4, ZNC	74110004
47	6	Screw, HHMS, 5/16-18 x 1-1/4, GR5, ZNC	67870003
*	1	Aero Lubriplate	54650001

*Not Shown

Gearbox Ratios

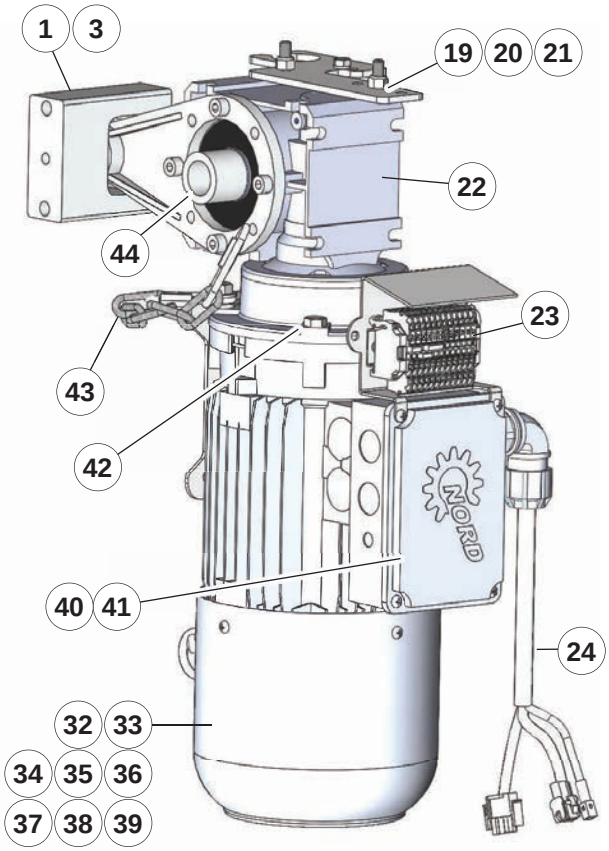
RATIO	NON-INSULATED CURTAIN	INSULATED CURTAIN	PART #
5:1	Doors <= 144 ft² [13.4 M²]	Doors < 112 ft² [10.4 M²]	51250026
7.5:1	Doors > 144 ft² [13.4 M²] & <= 196 ft² [18.2 M²]	Doors => 112 ft² [10.4 M²] & <= 160 ft² [14.9 M²]	51250027
10:1	Doors > 196 ft² [18.2 M²]	Doors > 160 ft² [14.9 M²]	51250028

PARTS

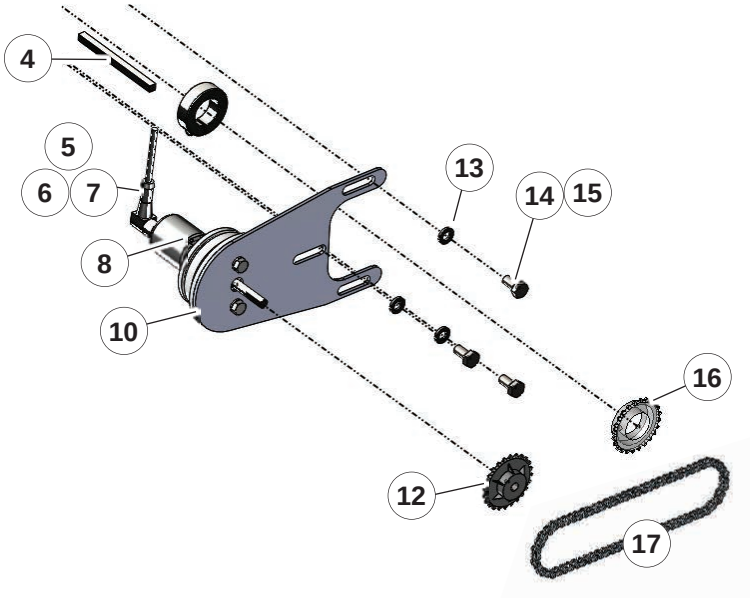
Drive System (FasTrax LD, FasTrax FR LD)

#50 Gearbox

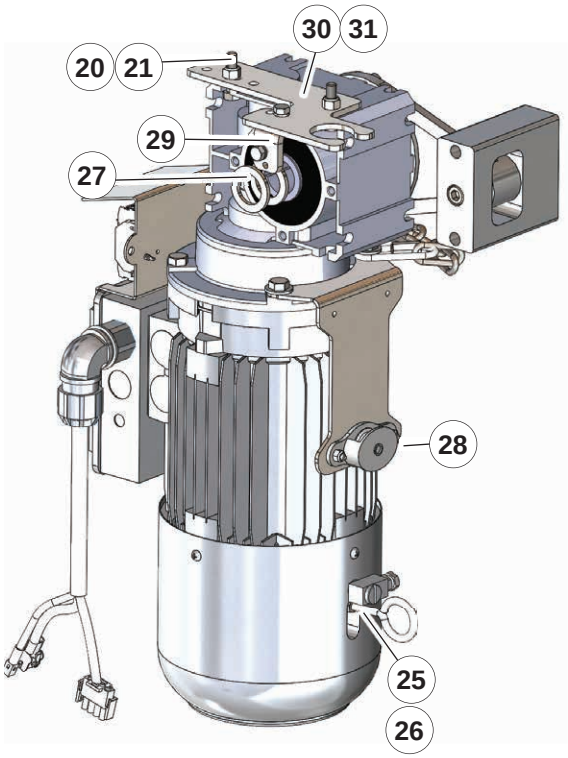
Front View



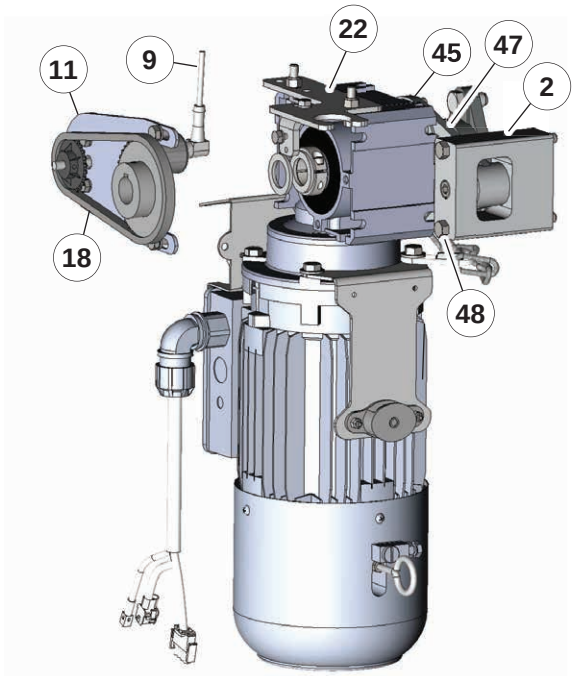
Exploded view



Rear View



#63 Gearbox



PARTS

Drive System (FasTrax LD, FasTrax FR LD) *Continued*

#	QTY	DESCRIPTION	PART #
1	1	Block, Mount, Nord, #50	13000060
2	1	Block, Mount, Nord, #63	13000065
3	1	Screw, SHCS, M10-1.5 x 80MM	67930032
4	1	Gearbox Key	53550010
5	1	Encoder Cable 12ft [4M]	15650256
6	1	Encoder Cable 25ft [8M]	15650257
7	1	Encoder Cable 50ft [17M]	15650258
8	1	Kit, Encoder, Gearbox, #50	53700784
9	1	Kit, Encoder, Gearbox, #63 (FSTXLD / FRLD)	53700878
10	1	Encoder Plate, #50	65000724
11	1	Encoder Plate, #63	65000805
12	1	Sprocket Driven 24T 1” ID	70800048
13	3	Lock Washer	74120002
14	3	M8-1.25x16MM (10:1, 15:1 GBX)	67930016
15	3	M10-1.50x20MM (20:1 GBX)	67930036
16	1	Sprocket Drive 45T 5/16” ID	70800064
17	1	Encoder Chain, #25 19”[483mm]	16600074
18	1	Encoder Chain, #25 21”[533mm]	16600067
19	1	Conduit Bracket	14501418
20	2	Nut, Hex, Lock, 5/16-18, znc	55620010
21	2	Screw, HHMS, 5/16-18x1 1/4”, GR5, znc	67870003
22	—	Gearbox (See Gearbox Ratios table)	—
23	1	Terminal Assembly	73100093
24	1	Cable, Assembly, Motor/Brake	15650319
25	1	Nut, Hex, 6M-1	55680001
26	1	Bolt, Eye, 6Mx30MM, znc	67930001
27	2	Washer, Flat, 1 x 1-1/2 x 1/8, HDN	74170007
28	1	Pulley, Assembly, FSTX, N.P.O.	65750070
29	1	Bracket, Mount, N.P.O.	14501419
30	2	Screw, HHMS, 1/4-20 x 1/2, GR5, ZNC	67860002
31	2	Washer, Lock, Split, 1/4, ZNC	74110004
32	1	Motor/Brake,2HP, 230/460V	55250138
33	1	Motor/Heated Brake,2HP, 230/460V, Manual Input	55250255
34	1	Motor/Brake,2HP, 575V	55250139
35	1	Motor/Heated Brake,2HP, 575V, Manual Input	55250257
36	1	Motor/Brake,2HP, 400V	55250143
37	1	Motor/Heated Brake,2HP, 400V, Manual Input	55250256
38	1	Motor/Brake,1.5HP, 230/460V	55250213
39	1	Motor/Brake,1.5HP, 400V	55250214
40	1	Brake Rectifier 230/460V	66270009
41	1	Brake Rectifier 575V	66270012
42	4	Washer, Flat, 5/16, znc	74120003
43	1	Chain Kit	53700650
44	1	Spacer, Gearbox Nord, #50	70450167
45	1	Spacer, Gearbox Nord, #63	70450168
46	1	Torque Arm, Gearbox, #50	11500049
47	1	Torque Arm, Gearbox, #63	11500083
48	2	SCR,HHMS,3/8-16X4,NYL PATCH,Z5	67880140
*	1	Aero Lubriplate	54650001

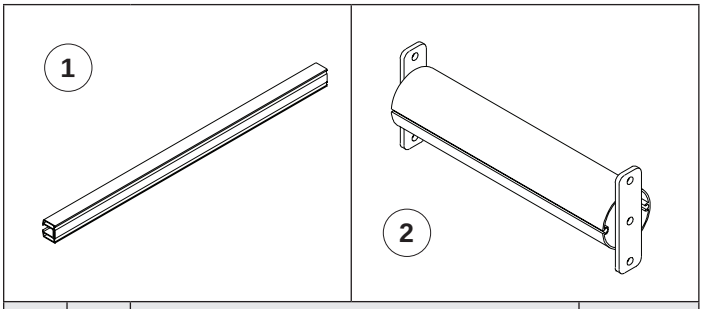
*Not Shown

Gearbox Ratios

RATIO	CURTAIN	PART #	
		GEARBOX	MOTOR
Non-Insulated LD Curtain – All Specifications and Voltages			
10:1 (Sz 50)	Doors < 144 ft² [13.4 M²]	51250028	55250138, 139, 143
15:1 (Sz 63)	Doors ≥ 144 ft² [13.4 M²], ≤ 196 ft² [18.2 M²]	51250033	55250138, 139, 143
20:1 (Sz 63)	Doors > 196 ft² [18.2 M²]	51250047	55250138, 139, 143
Insulated LD Curtain – Standard Specifications (Non 575V)			
10:1 (Sz 50)	Doors < 112 ft² [10.4 M²]	51250028	55250138, 143
15:1 (Sz 50)	Doors ≥ 112 ft² [10.4 M²], ≤ 160 ft² [14.9 M²]	51250014	55250213, 214
15:1 (Sz 63)	Doors > 160 ft² [14.9 M²]	51250033	55250138, 143
Insulated LD Curtain – Canadian Specifications (All 575V)			
10:1 (Sz 50)	Doors < 112 ft² [10.4 M²]	51250028	55250138, 143, 139
15:1 (Sz 63)	Doors ≥ 112 ft² [10.4 M²]	51250033	55250138, 143, 139

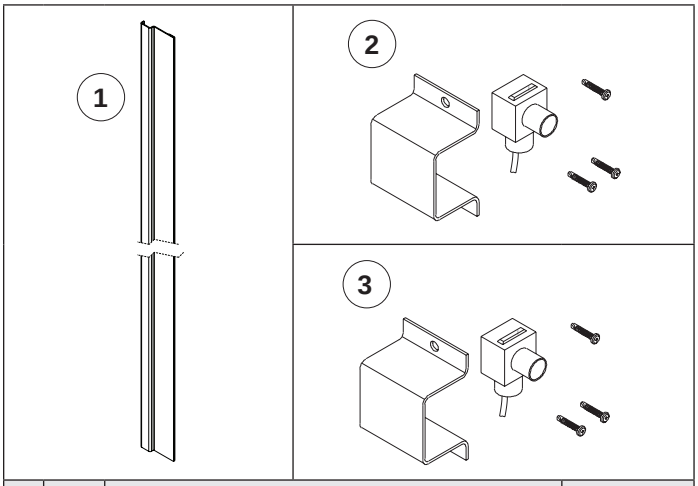
PARTS

Tracks, Spreader Bar



#	QTY	DESCRIPTION	PART #
1	2	Track, Upper, =< 10'-0" [3048mm] O.D.H.	53700627
	2	Track, Upper, =< 12'-0" [3658mm] O.D.H.	53700628
	2	Track, Upper, =< 14'-0" [4267mm] O.D.H.	53700629
	2	Track, Upper, =< 16'-0" [4877mm] O.D.H.	53700630
2	1	Radial Spreader Bar, Machined (=>8/13/10)	7256
	1	Radial Spreader Bar, Assembled (<8/13/10)	7257

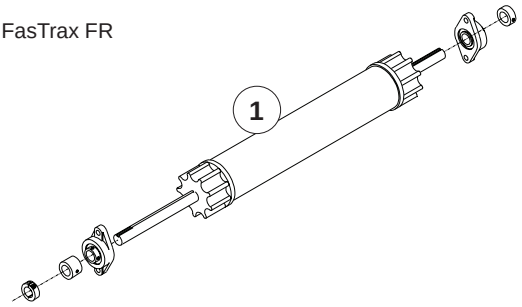
Photoeye



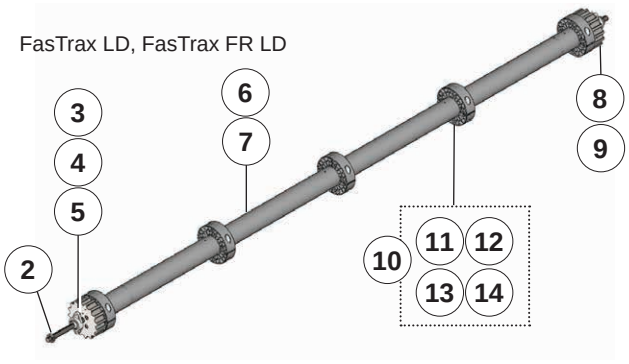
#	QTY	DESCRIPTION	PART #
1	2	Photoeye, Wiring Cover	1917
Non-Drive Side			
2	2	Kit, Photoeye, Thru beam Source, 13M	53700702
	4	Photoeye, Bracket Cover	14501207
Drive Side			
3	2	Kit, Photoeye, Thru-beam Receiver	53700703
	4	Photoeye, Bracket Cover	14501207

Drive Tube Assembly

FasTrax, FasTrax FR



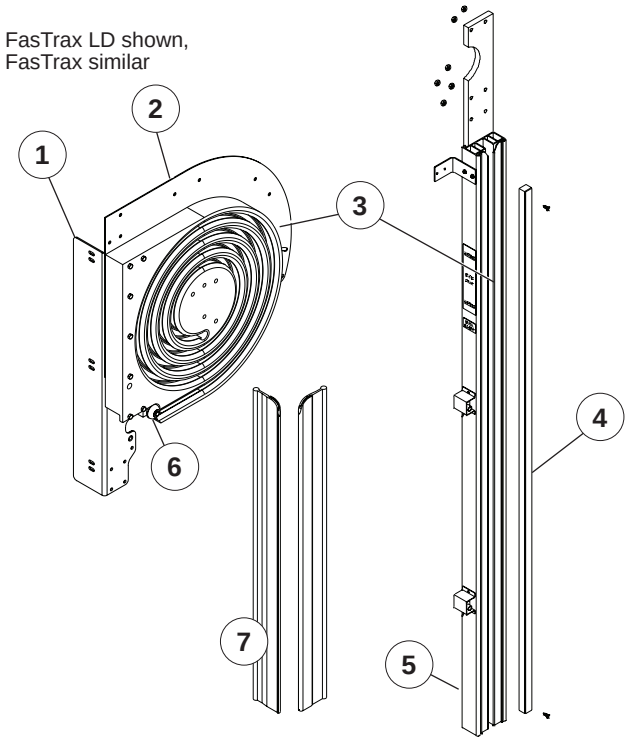
FasTrax LD, FasTrax FR LD



#	QTY	DESCRIPTION	PART #
1	1	FasTrax/FR Drive Tube, Assy	6749
2	2	Collar, Shaft, Lock,1" Ø	16850018
3	2	Bearing, Flange, 1" Bore	12500034
4	4	Screw, HHMS, 1/2-13 x 1", GR5, znc	67900003
5	4	Washer, Lock, Ext, 1/2", znc	74150019
6	1	FasTraxLD/FRLD Drive Tube, Assy	6756
7	1	FasTraxLD/FRLD Drive Tube, Weld (Does not include Collars)	6757
8	2	FasTrax LD/FRLD Sprocket	70800061
9	8	Nut, Hex, Nyl, Lock, 3/8-16, znc	55630005
10	1	Kit, TraxLD/FRLD, Collar, Drive Tube	53700919
11	10	FasTraxFRLD Drive Tube Collar	16850025
12	10	Nut, Hex, Nyl, Lock, 1/4-20, znc	55610001
13	10	Screw, HHMS, 1/4-20x1 1/2", GR5, znc	67860018
14	20	Washer, Flat, .281 x .62 x .125	74120012

PARTS

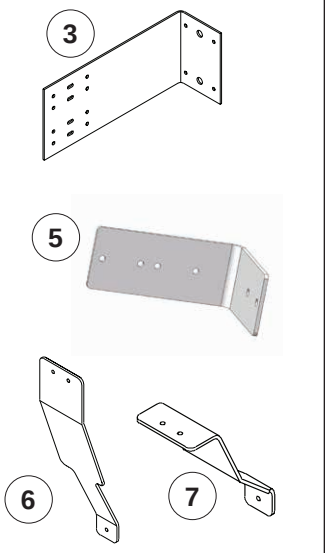
Lower Track Assembly, Radial



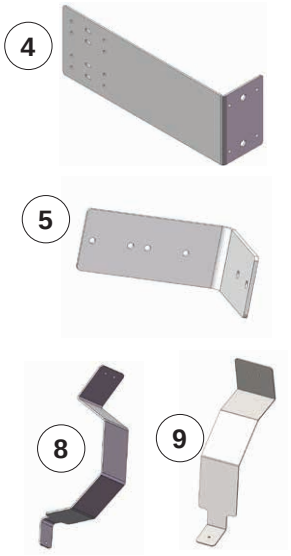
#	QTY	DESCRIPTION	PART #
1	1	Bracket, Radial, Large (>10ft [3048mm] DOH), FSTX RH	14501197
	1	Bracket, Radial, Large (>10ft [3048mm] DOH), FSTX LH	14501198
	1	Bracket, Radial, Small (<=10ft [3048mm] DOH), RH	14502048
	1	Bracket, Radial, Small (<=10ft [3048mm] DOH), LH	14502049
	1	Bracket, Header, Radial, Large, TRAXLD, RH	14501292
	1	Bracket, Header, Radial, Large, TRAXLD, LH	14501293
2	1/2	Upper Track, Radial (For doors > 8/6/10, For doors < 8/6/10 use 5227) FSTX	7368
	1/2	Upper Track, Radial (For doors > 8/6/10) For doors < 8/6/10 use 5227 FSTX LD	7382
3	a/r	Super Lube	54650002
4	2	Seal, Lower Track (Ext only)	6894
5	a/r	Lower Track Assembly FSTX	7362
	a/r	Lower Track Assembly FSTX LD	7381
6	2	Kit, Trax, Roller, Radial	53700975
7	a/r	Breakaway Retention Strips	1481

Brackets, Guards

FasTrax, FasTrax FR



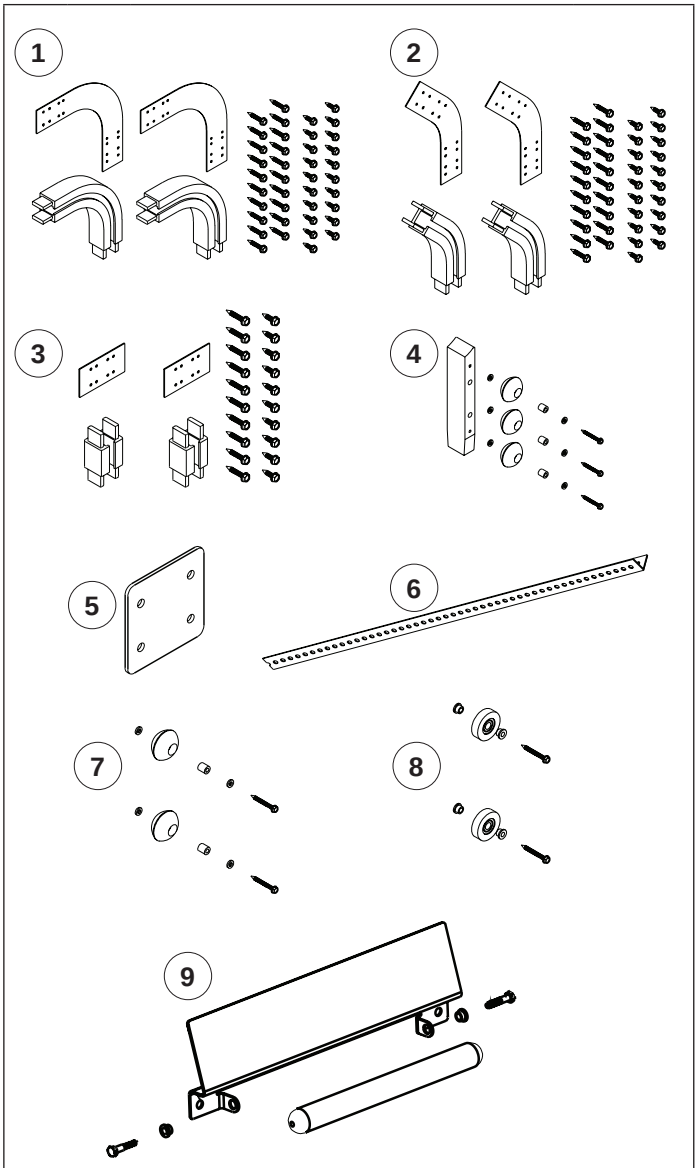
FasTrax LD, FasTrax FR LD



#	QTY	DESCRIPTION	PART #
1	1	Kit, FSTX, Bracket, Shroud, Motor, Top	53701009
2	a/r	Bracket, BEA Falcon	14501212
3	a/r	Track, Upper, Wall Mount Bracket (Includes hardware and 2 brackets)	53700881
4	4	Bracket, Wall, Mount, FasTrax TRAXLD	14501276
5	1	Shroud, Bracket, Lower	14501425
6	2	Guard, Drive Non-Radial (<8' [2438mm] DOH)	51300057
7	2	Guard, Drive Radial (<8' [2438mm] DOH)	51300058
8	2	Guard, Drive Non-Radial TRXLD (<8' [2438mm] DOH)	51300068
9	2	Guard, Drive Radial TRXLD	51300072

PARTS

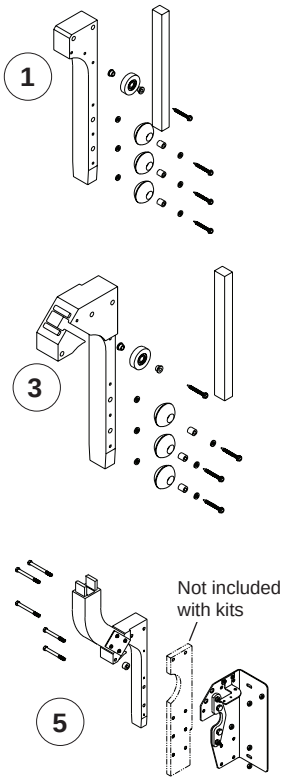
Track, Refeeds, Kits



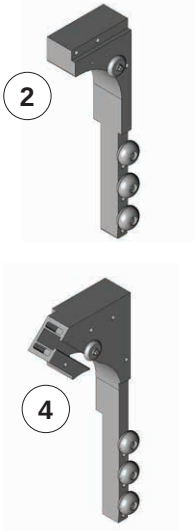
#	QTY	DESCRIPTION	PART #
1	1	Kit, Track Connector, Radius, 90°	53600185
2	1	Kit, Track Connector, Radius, 45°	53600189
3	a/r	Kit, Universal Track Connector	53600186
4	1	Kit, FasTrax, Refeed, LH (bracket & 3 rollers)	53700606
	1	Kit, FasTrax, Refeed, RH (bracket & 3 rollers)	53700607
5	2	Track, Joiner, Drive Cage	65000576
6	a/r	Track, Perforated, Angle, 2”x2”x13’, 12GA (13’)	71500030
7	(a/r)	Kit, FasTrax/FR, Refeed Roller (2)	53700611
8	2	Kit, Radial Nylon Roller	53700632
9	a/r	Kit, Lintel Roller	53700654

Drive Cage

FasTrax, FasTrax FR



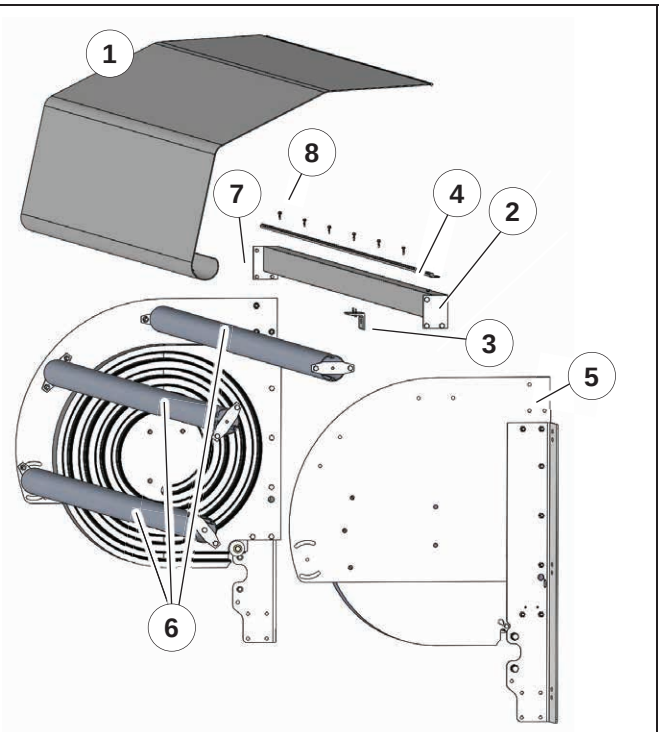
FasTrax LD, FasTrax FR LD



#	QTY	DESCRIPTION	PART #
1	1	Kit, Bracket, Drive Cage, Radial, Left	53700608
	1	Kit, Bracket, Drive Cage, Radial, Right	53700609
2	1	Kit, Bracket, Drive Cage, Radial, Left	53700943
	1	Kit, Bracket, Drive Cage, Radial, Right	53700944
3	1	Kit, Bracket, Drive Cage, Non Radial, L	53700645
	1	Kit, Bracket, Drive Cage, Non Radial, R	53700646
4	1	Kit, TRAXLD, Bracket, Drive Cage, N-Radial, Right	53700876
	1	Kit, TRAXLD, Bracket, Drive Cage, N-Radial, Left	53700877
5	1	Kit, VL/High Lift Drive Cage, L	53700616
	1	Kit, VL/High Lift Drive Cage, R	53700617

PARTS

Shrouds (FasTrax, FasTrax LD)



#	QTY	DESCRIPTION	PART #
–	1	Center Shroud Assembly	6947
1	1	Fabric Cover	1937
2	1	Shroud Wall Support	7238
3	1	Bracket, Wall Mount	14501167
	2	Screw, Self Tap/Drill #12	67850004
4	1	Trailer Rail	73400002
5*	2	Shroud End Plate, <= 10’-0” [3048 mm] D.O.H.	65000730
	2	Shroud End Plate, > 10’-0” [3048 mm] D.O.H.	65000731
	*Not included in 6947		
6	3	Shroud Support	7237
	12	Nut, Hex, 3/8-16, znc	55630003
	12	Screw, HHMS, 3/8-16 x 1”, GR5, znc	67880002
	12	Washer, Lock, Split, 3/8”, znc	74130002
	12	Washer, Flat, .39 x .75 x .062, Nylon	74130003
7	6	Nut, Hex, 3/8-16, znc	55630003
	6	Screw, HHMS, 3/8-16 x 1”, GR5, znc	67880002
	6	Washer, Lock, Split, 3/8”, znc	74130002
	6	Washer, Flat, .39 x .75 x .062, Nylon	74130003
8	12	Screw, Self Tap/Drill #12	67850004

PARTS

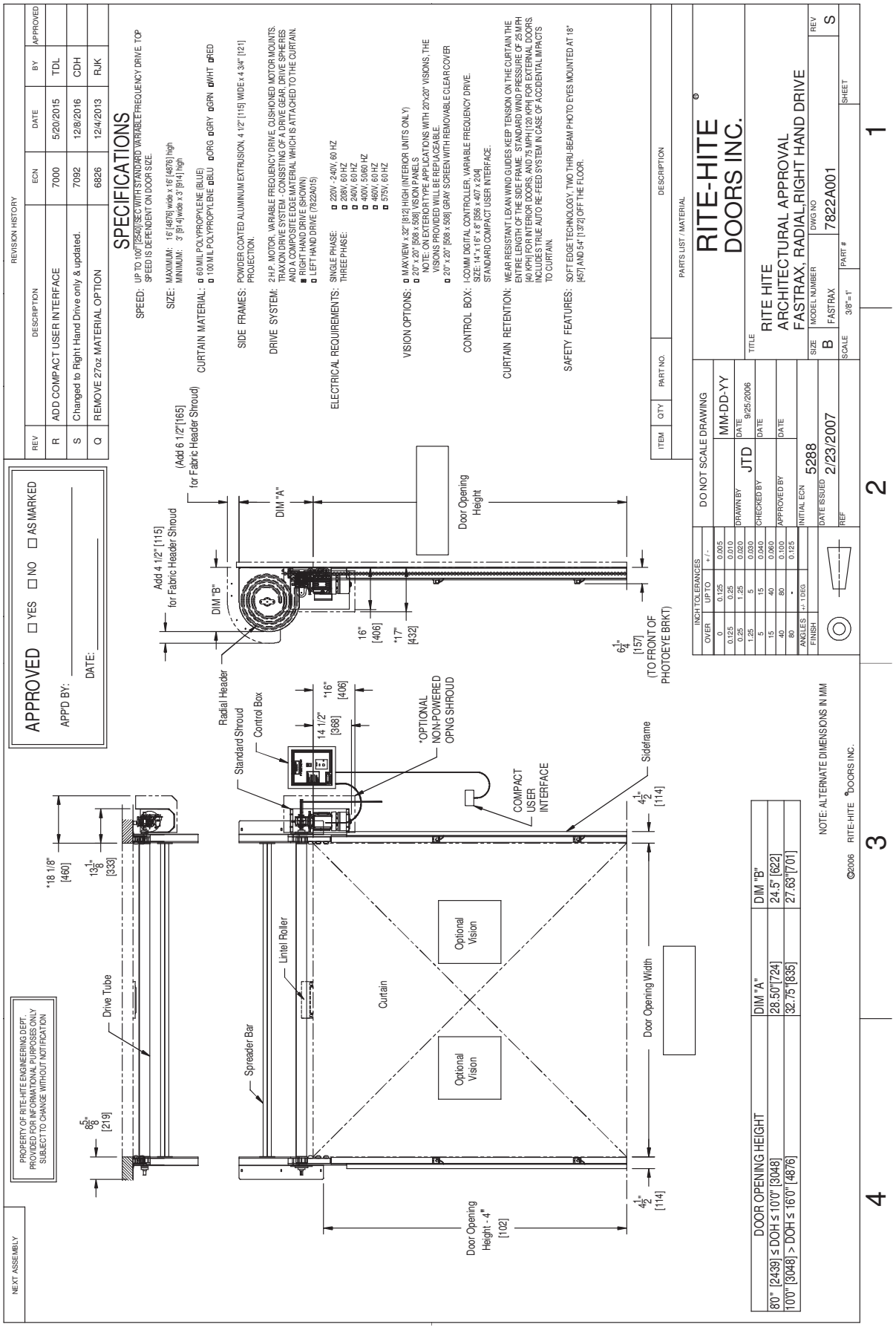
Upper Track

#	QTY	DESCRIPTION	PART #	
1	1	Spreader Bar, Wrapback, FSTX/FR/LD	7258	
2	2	Connector, 180°, Wrapback, FSTX	16950032	
3	2	Track, Upper, =< 10'-0" [3048 mm] O.D.H.	53700627	
4	2	Track, Upper, =< 10'-0" [3048 mm] O.D.H.	53700628	
5	2	Track, Upper, =< 10'-0" [3048 mm] O.D.H.	53700629	
6	2	Track, Upper, =< 16'-0" [4877 mm] O.D.H.	53700630	
7	4	Bracket, Upper Track, Wrapback, FSTX	14501277	
8	1	Kit, Track, Connector, Radius, 45°	53650189	
9	a/r	Kit, Universal Track Connector	53600186	
10	2	Connector, Radius, Universal, 45°	16960074	
			FSTX/FR	LD/FRLD
11	a/r	Upper Track, Vertical Lift	7368	7382
12	a/r	Upper Track, Wrapback	7368	7382
13	a/r	Upper Track, High Lift	7368	7382
14	a/r	Upper Track, Standard Lift	7368	7382
15	a/r	Upper Track, Tilt Lift	7368	7382

ARCHITECTURAL DRAWINGS

FasTrax

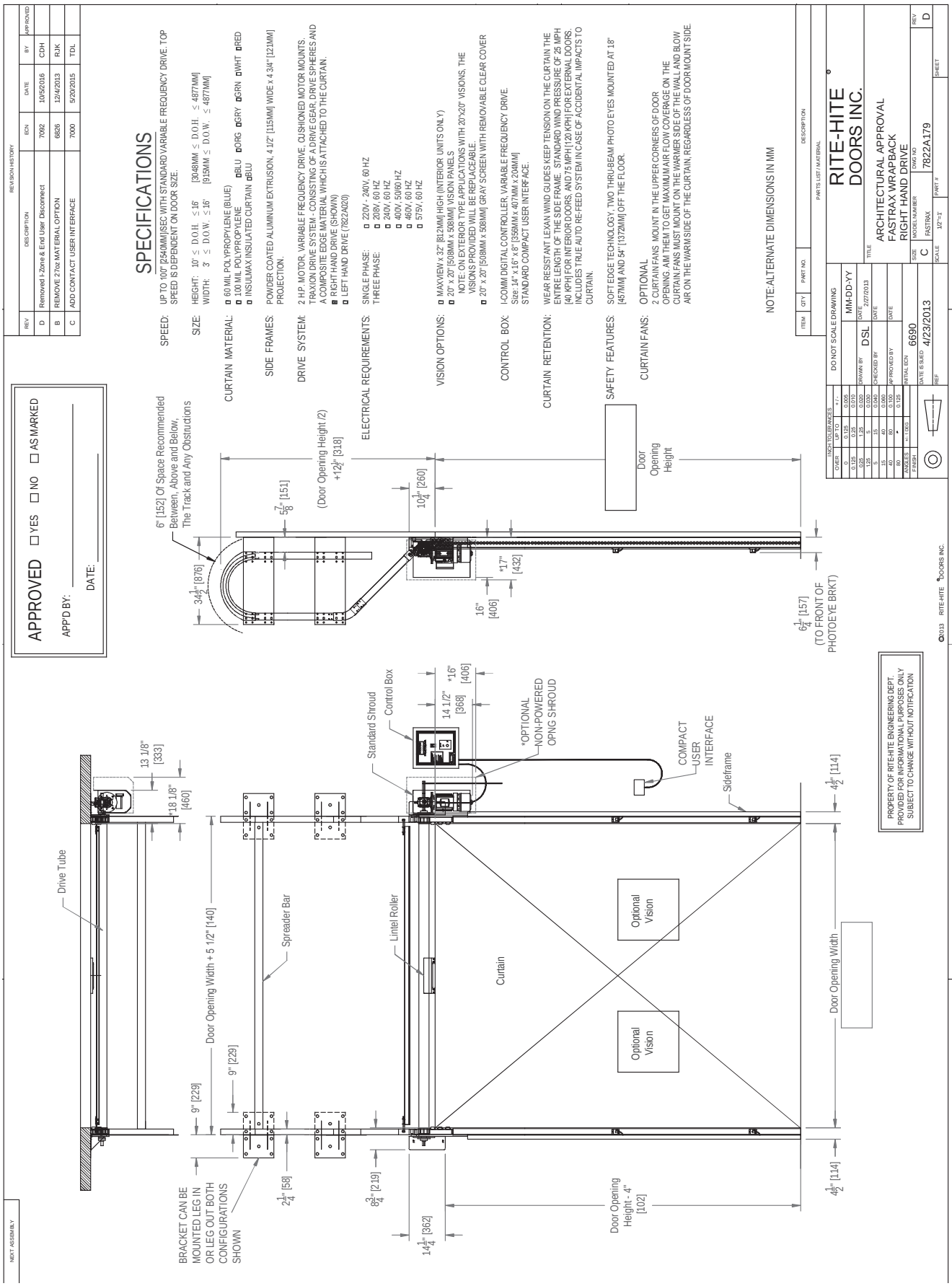
Radial



ARCHITECTURAL DRAWINGS

FasTrax

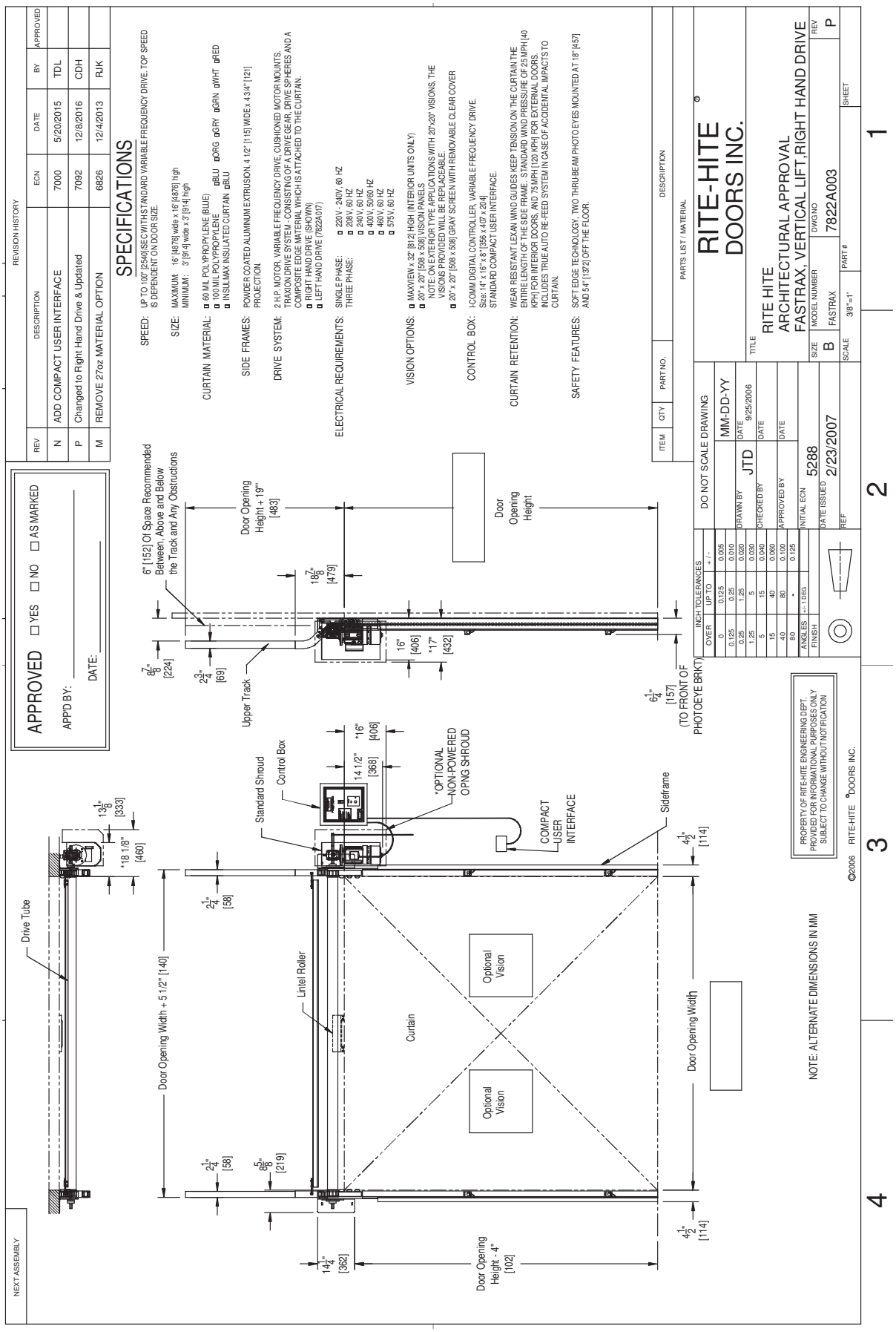
Wrapback



ARCHITECTURAL DRAWINGS

FasTrax

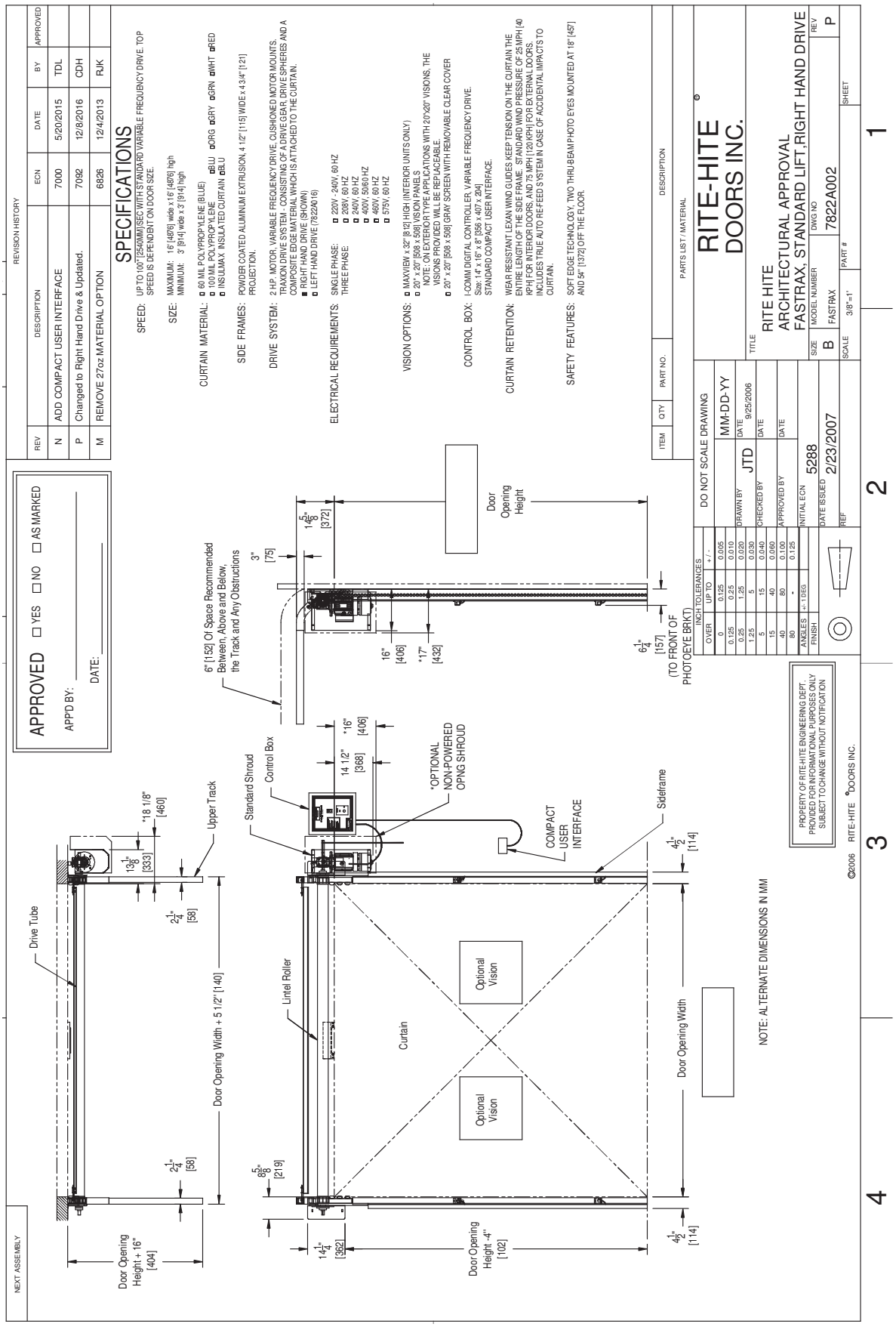
Vertical



ARCHITECTURAL DRAWINGS

FasTrax

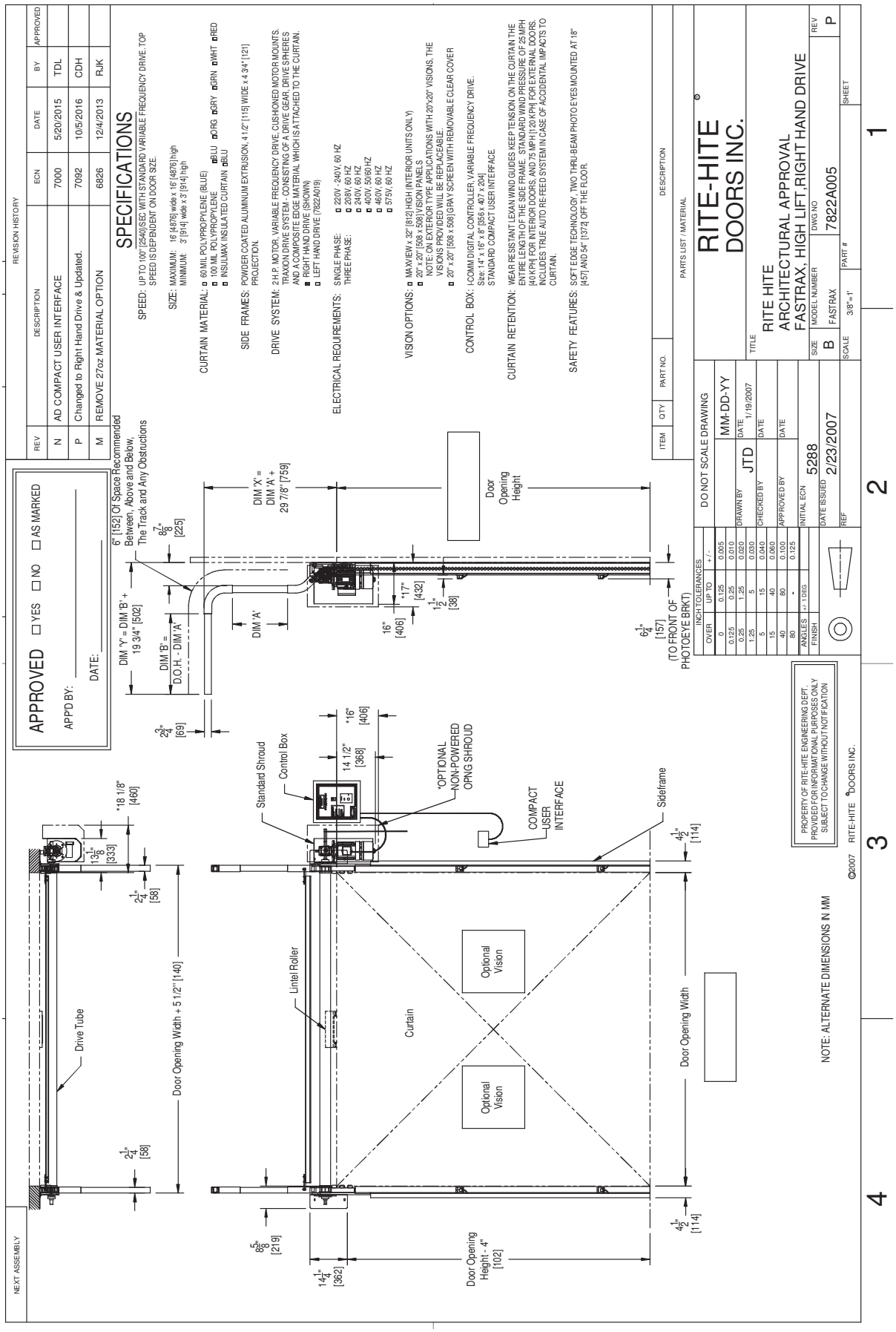
Standard Lift



ARCHITECTURAL DRAWINGS

FasTrax

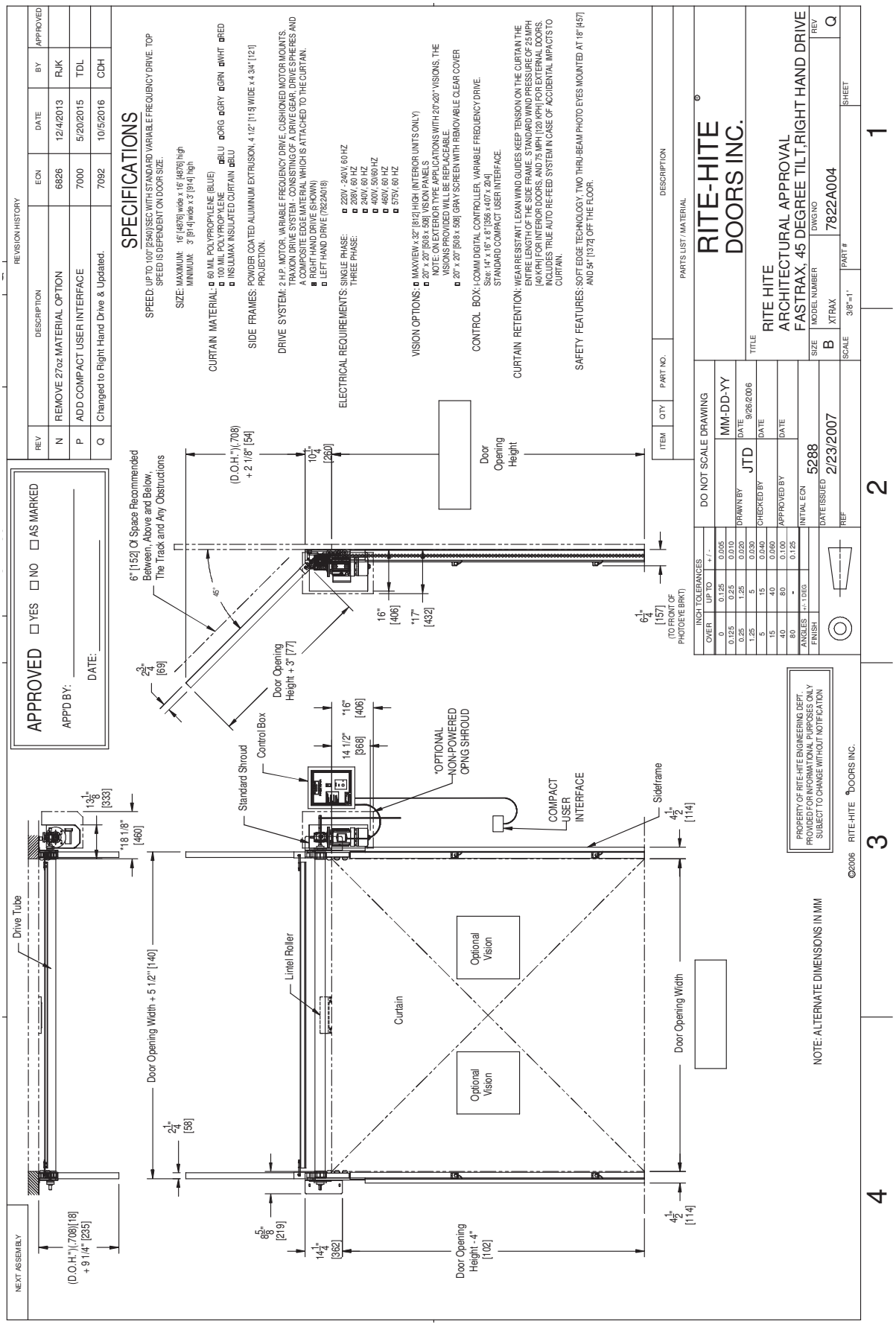
High Lift



ARCHITECTURAL DRAWINGS

FasTrax

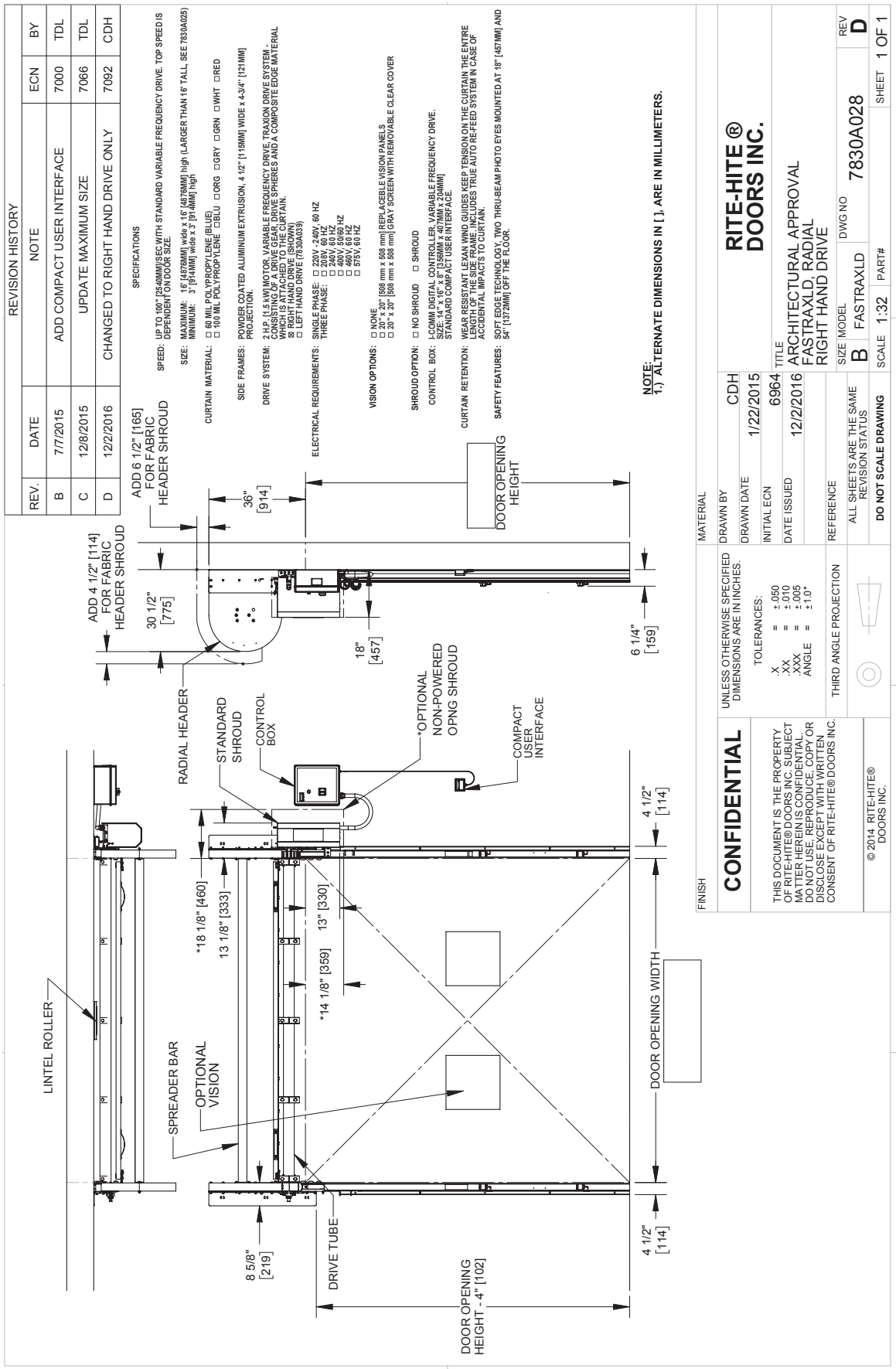
45° Tilt



ARCHITECTURAL DRAWINGS

FasTrax LD

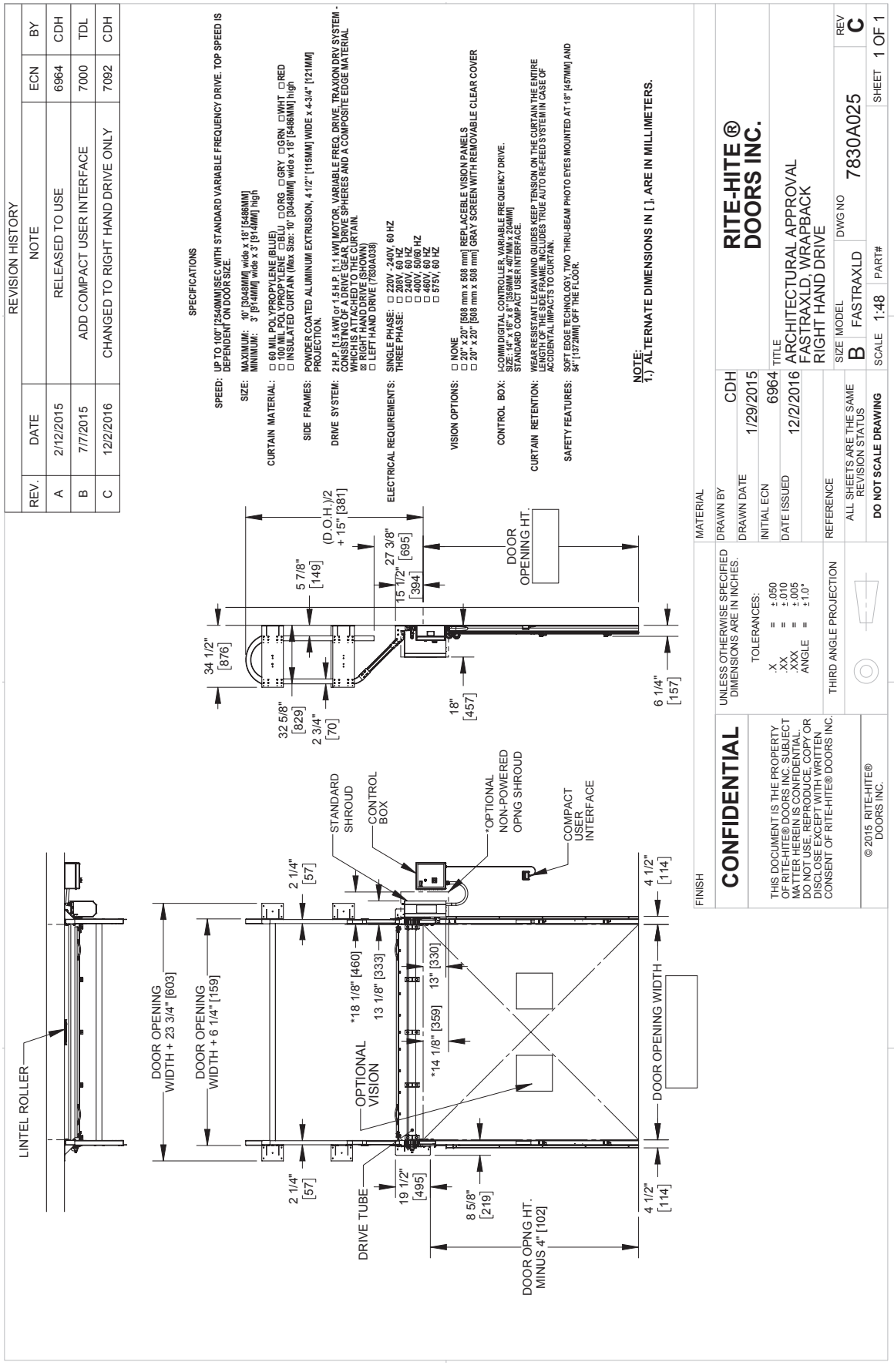
Radial



ARCHITECTURAL DRAWINGS

FasTrax LD

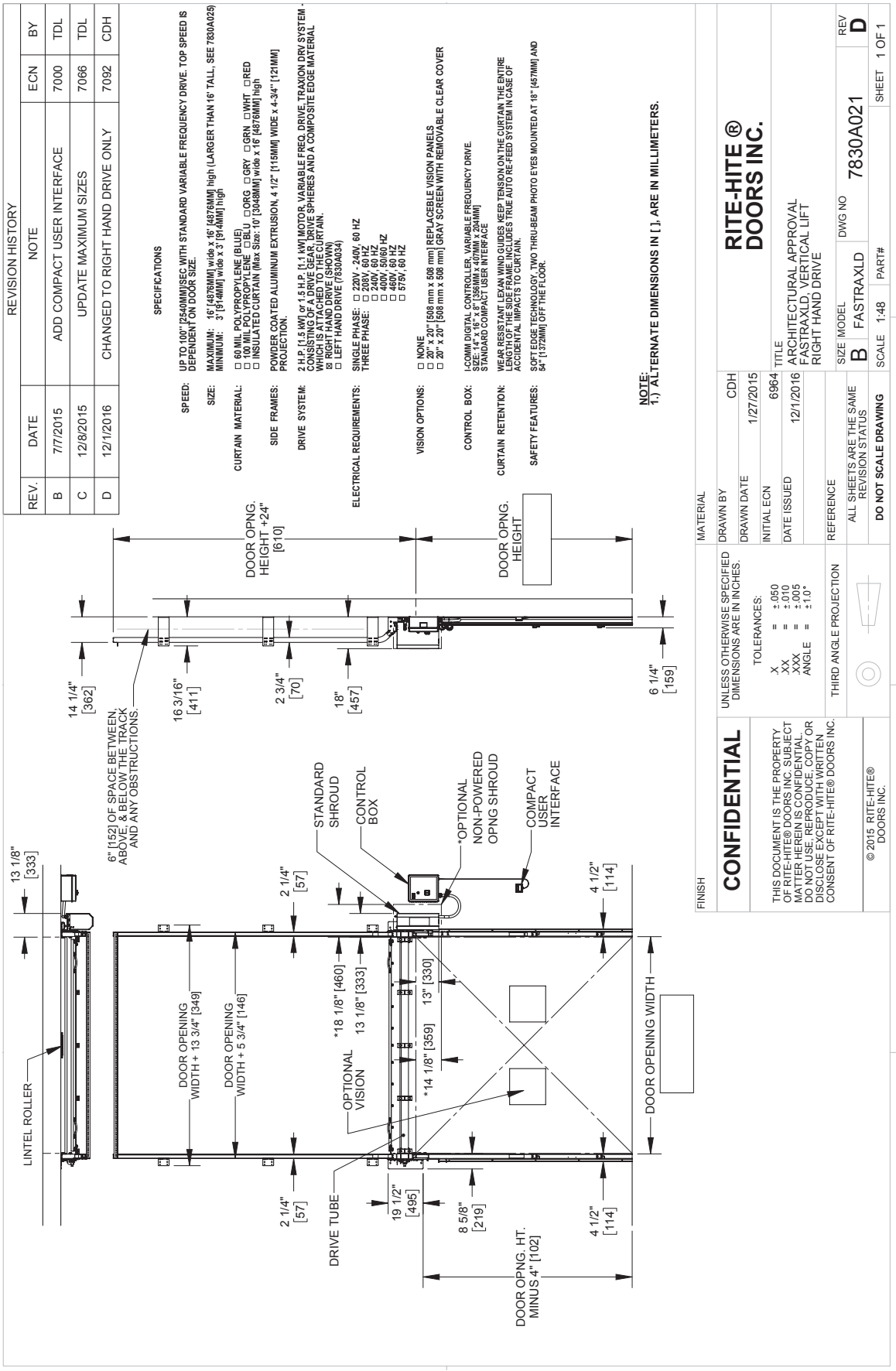
Wrapback



ARCHITECTURAL DRAWINGS

FasTrax LD

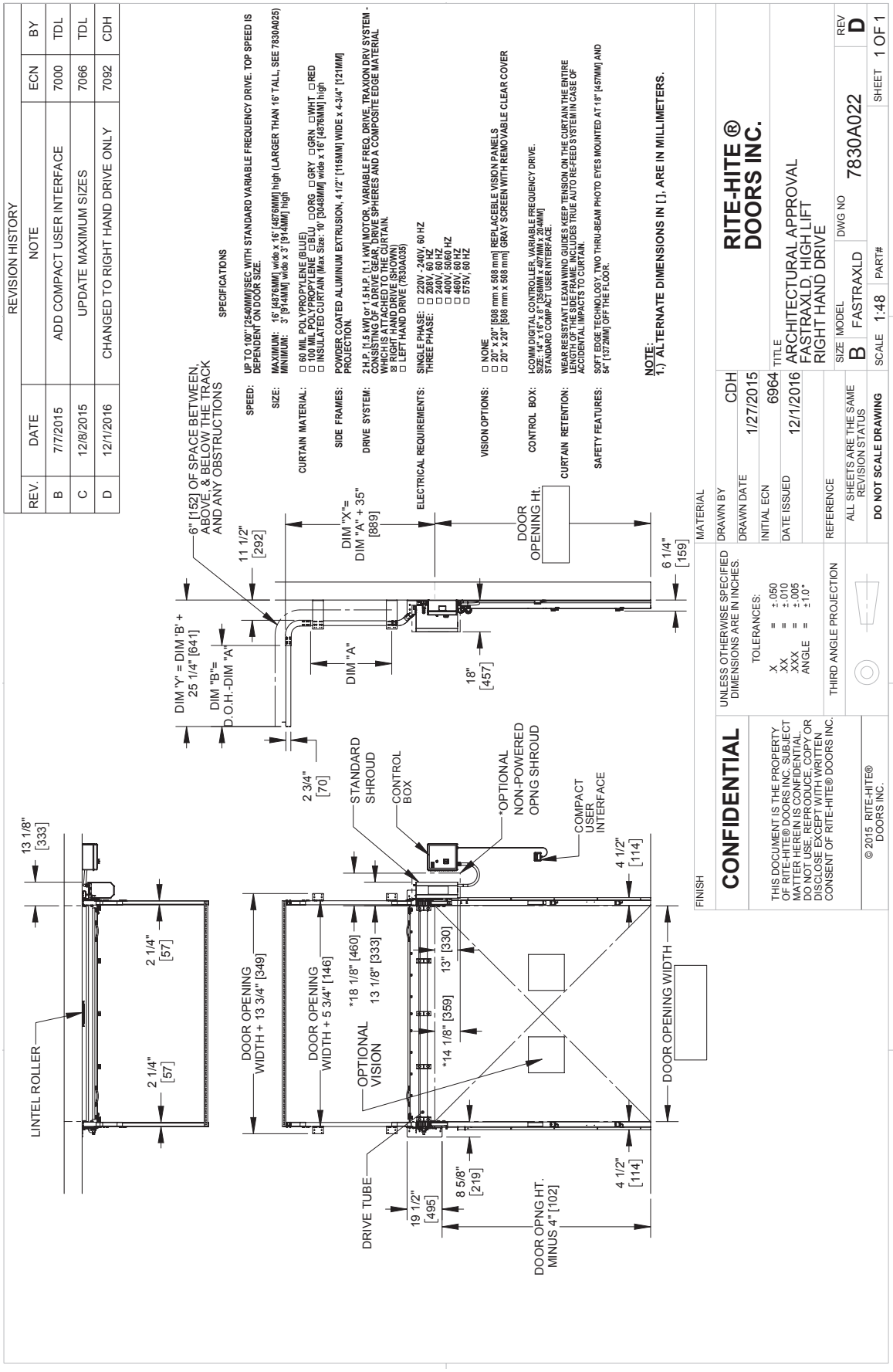
Vertical



ARCHITECTURAL DRAWINGS

FasTrax LD

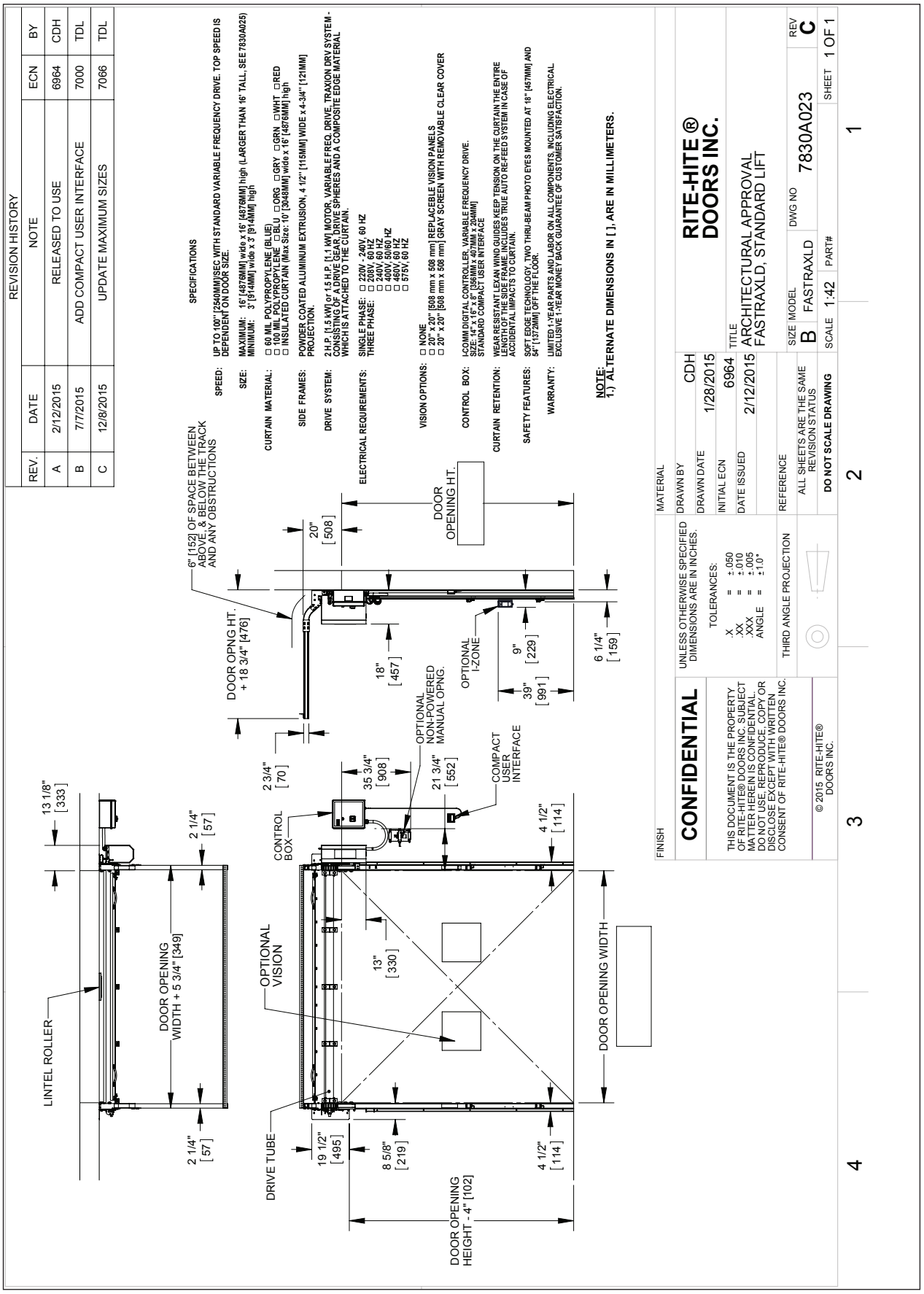
High Lift



ARCHITECTURAL DRAWINGS

FasTrax LD

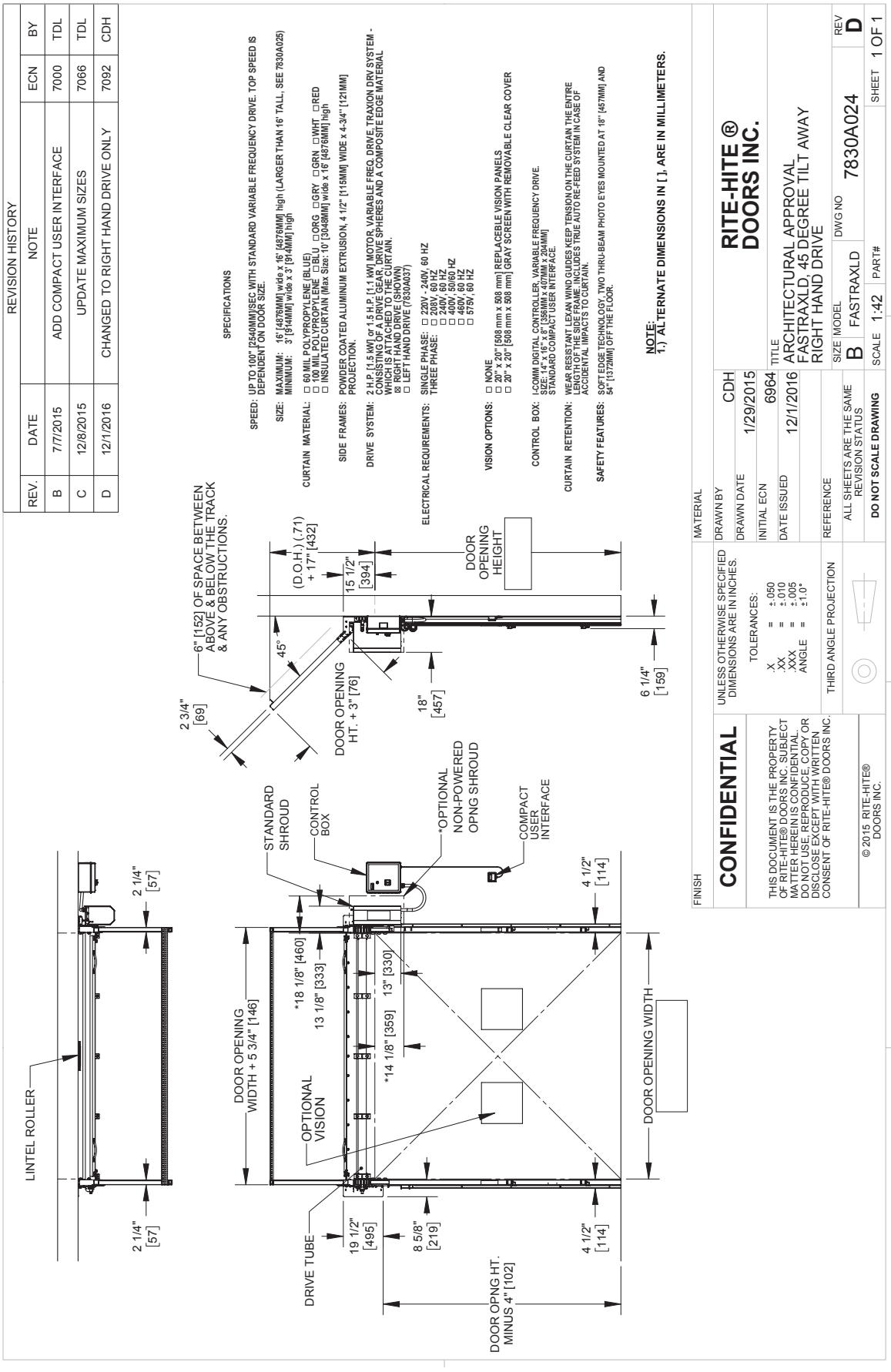
Standard Lift



ARCHITECTURAL DRAWINGS

FasTrax LD

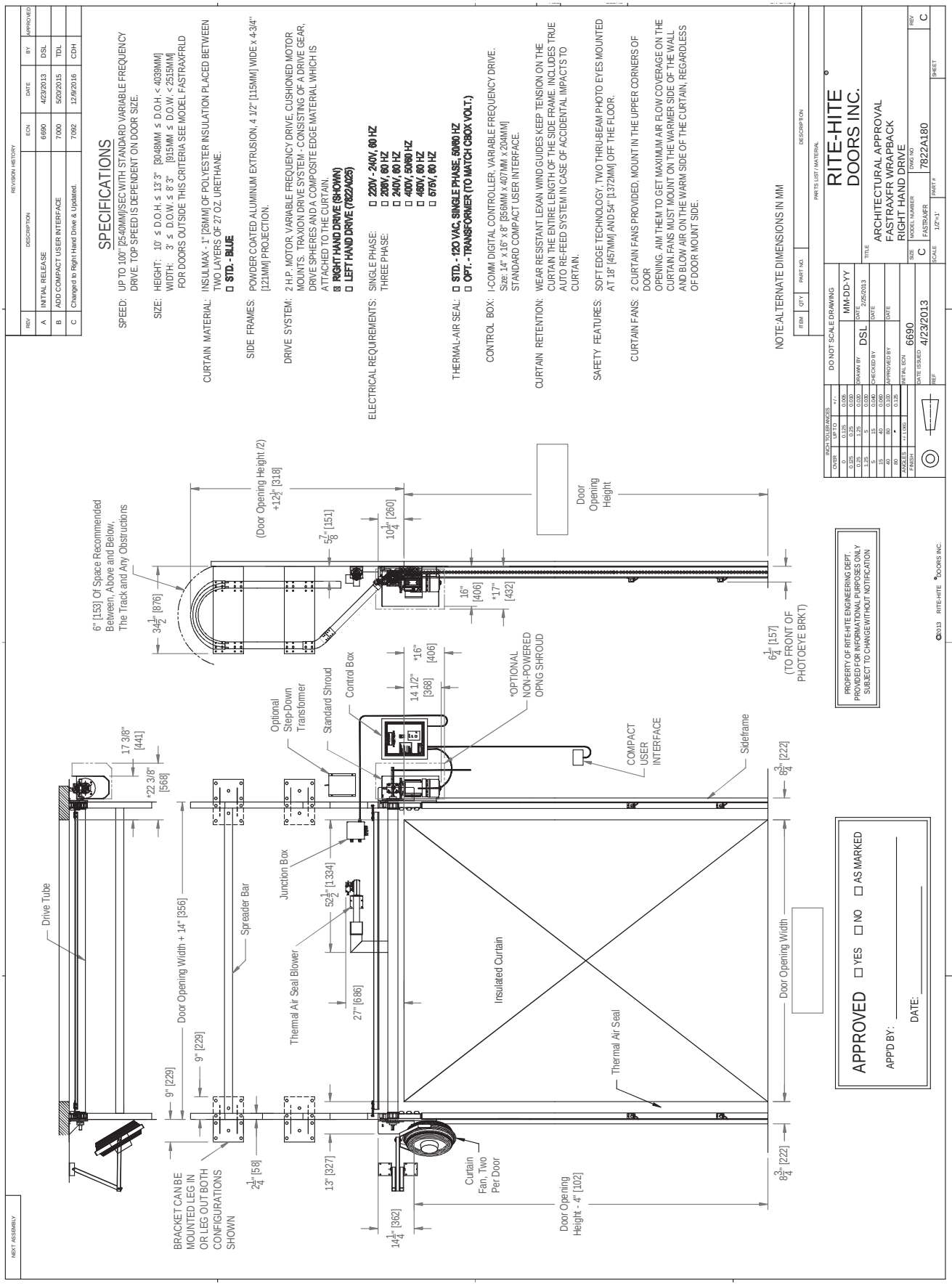
45° Tilt



ARCHITECTURAL DRAWINGS

FasTrax FR

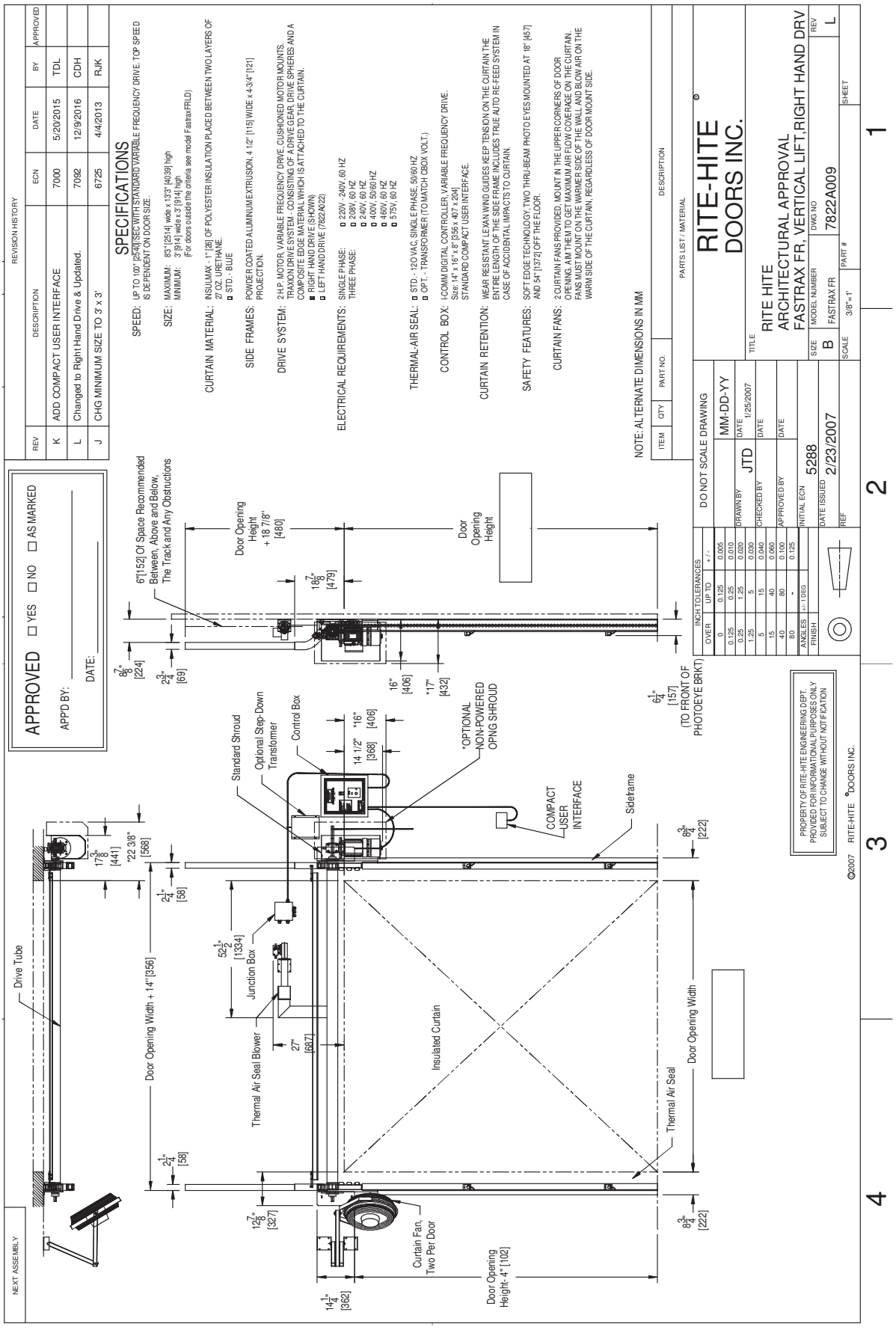
Wrapback



ARCHITECTURAL DRAWINGS

FasTrax FR

Vertical



ARCHITECTURAL DRAWINGS

FasTrax FR

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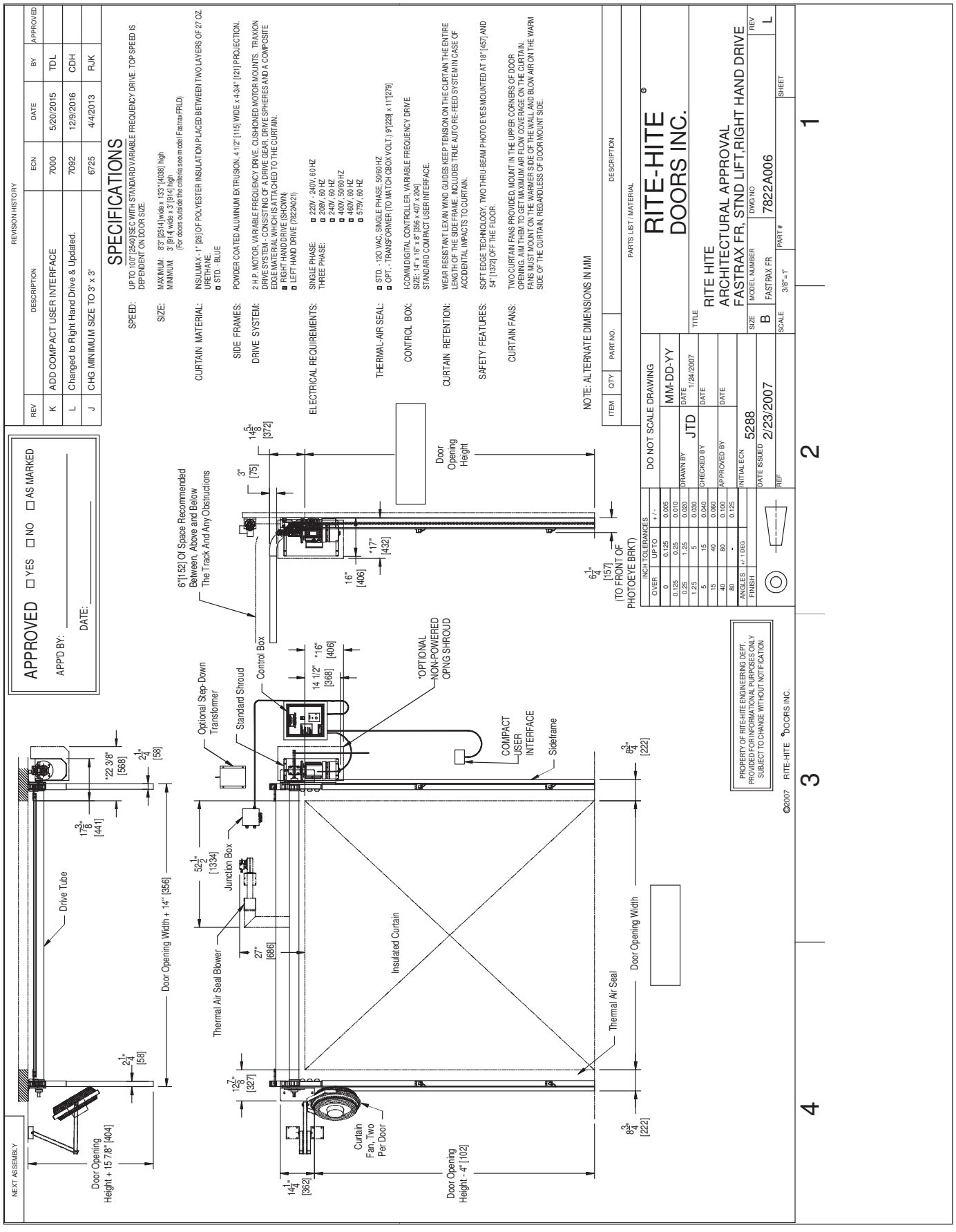
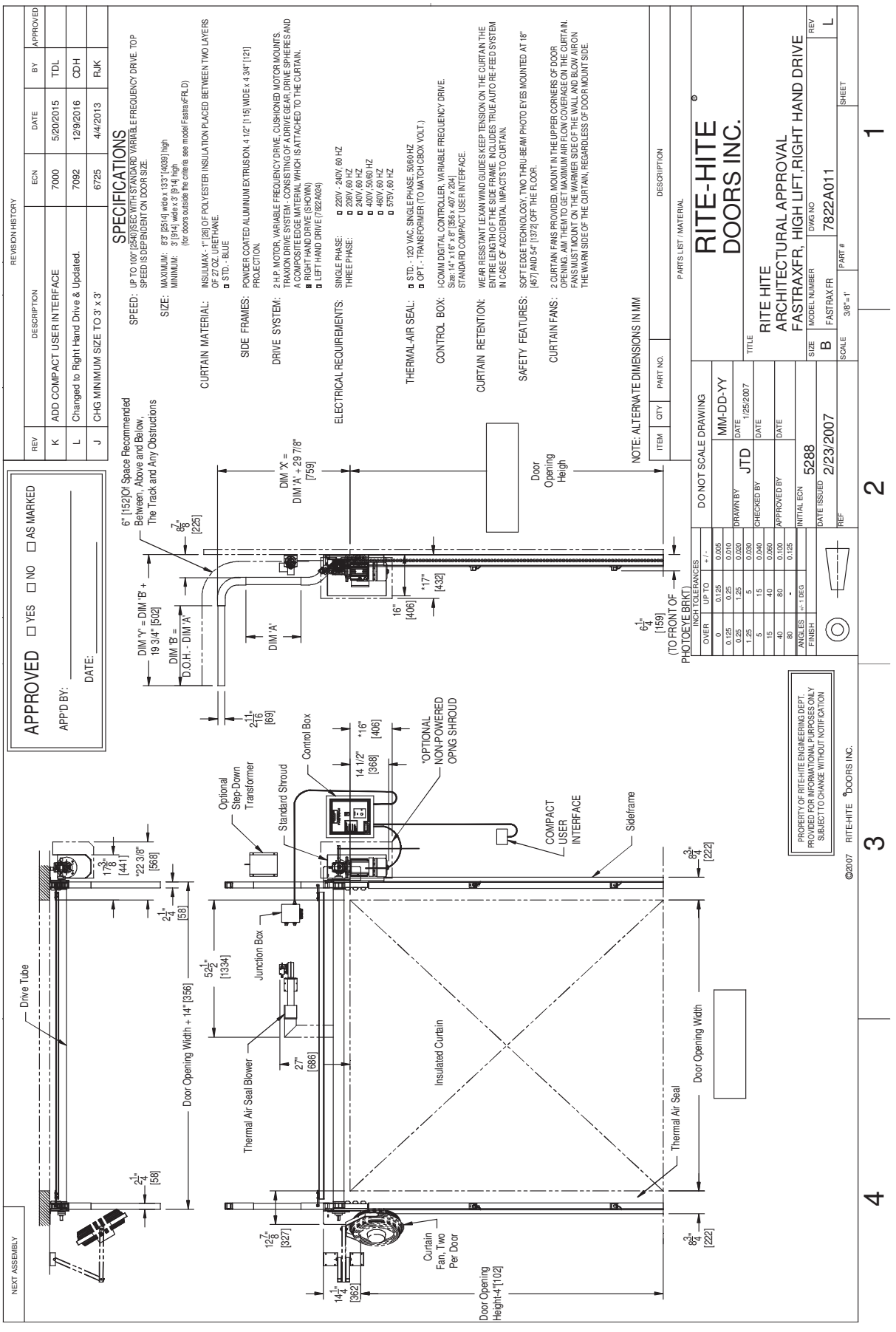


ARCHITECTURAL DRAWINGS

FasTrax FR

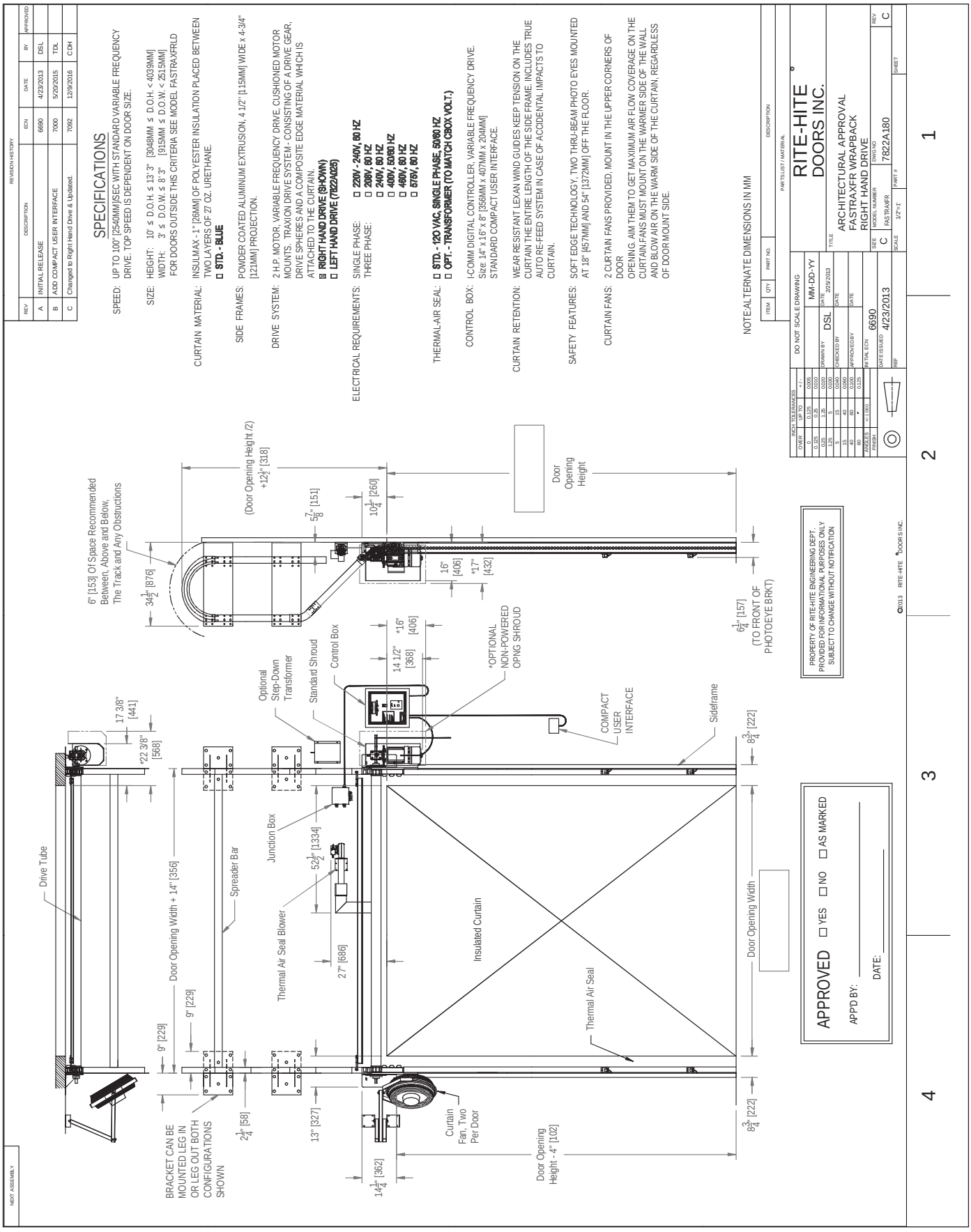
High Lift



ARCHITECTURAL DRAWINGS

FasTrax FR

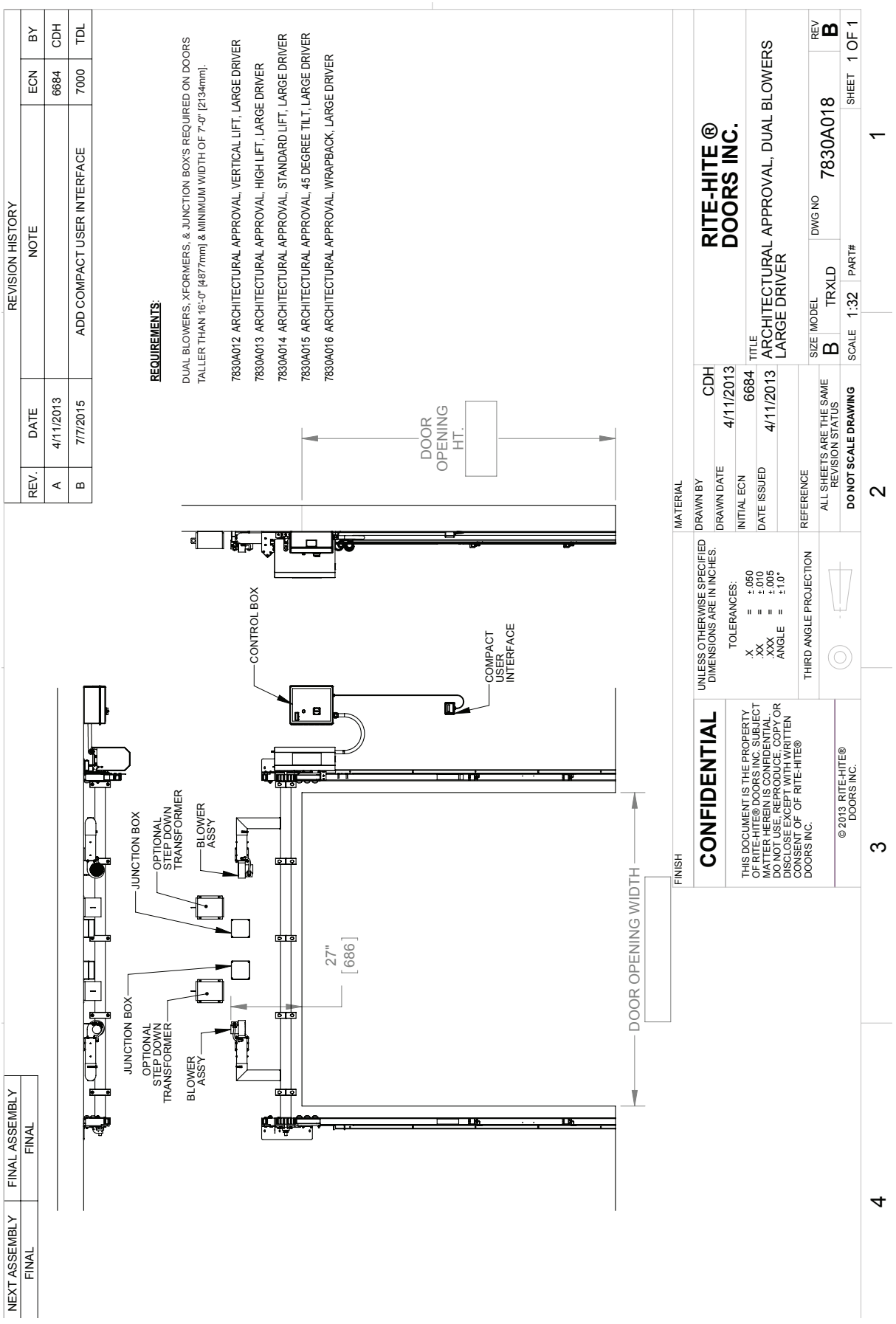
45° Tilt



ARCHITECTURAL DRAWINGS

FasTrax FR LD

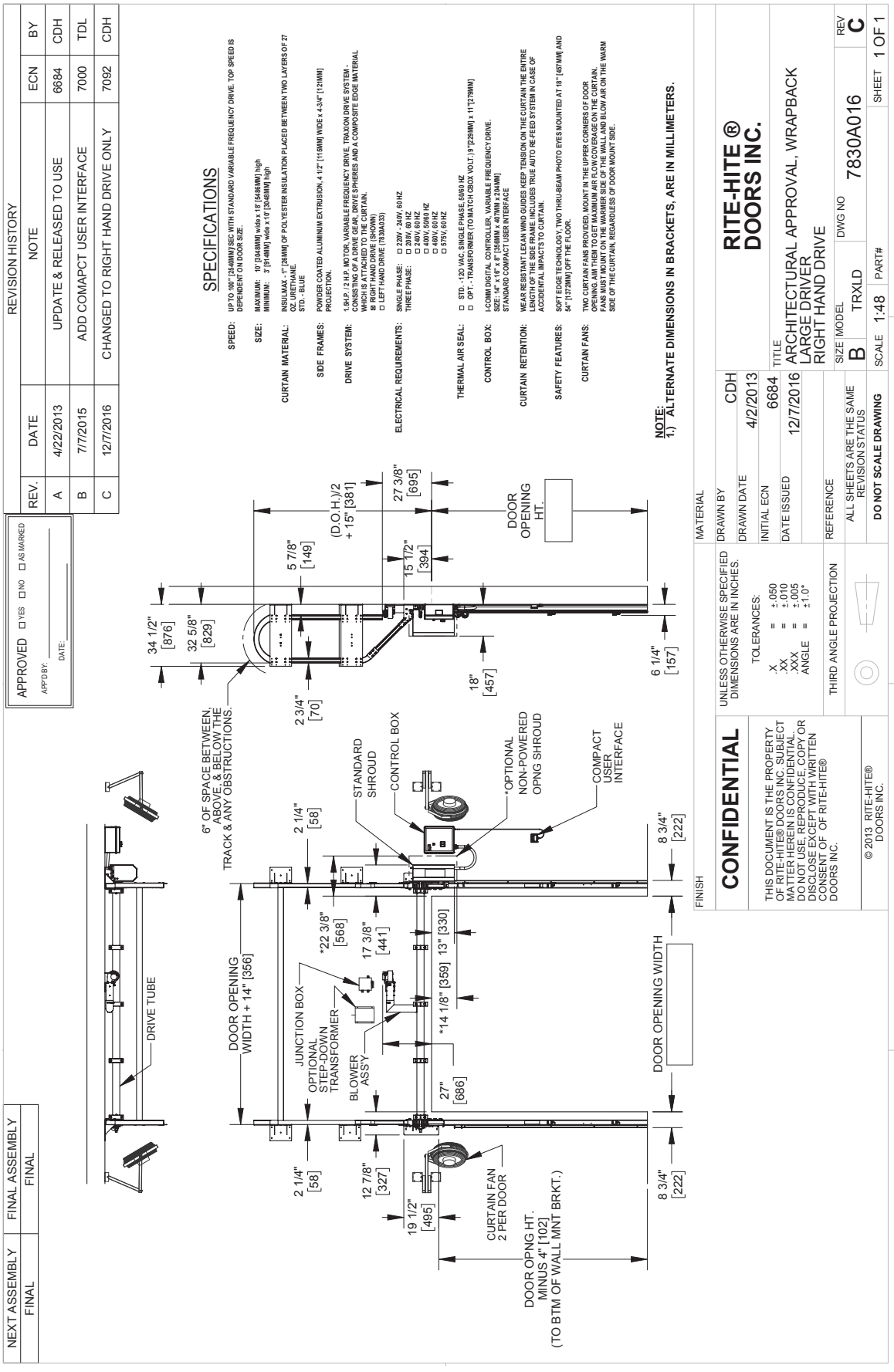
Dual Blower



ARCHITECTURAL DRAWINGS

FasTrax FR LD

Wrapback



ARCHITECTURAL DRAWINGS

FasTrax FR LD

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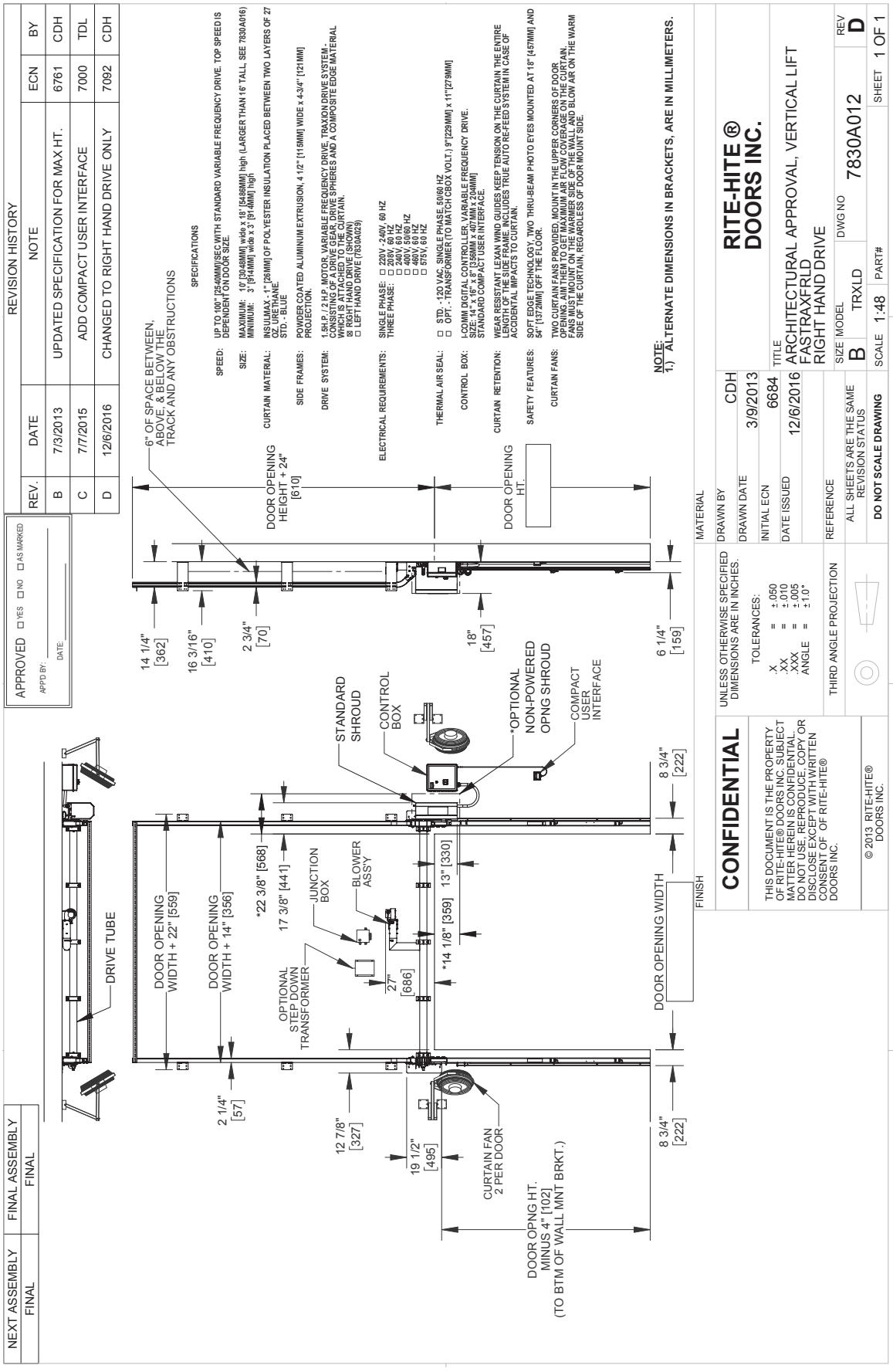

ARCHITECTURAL DRAWINGS

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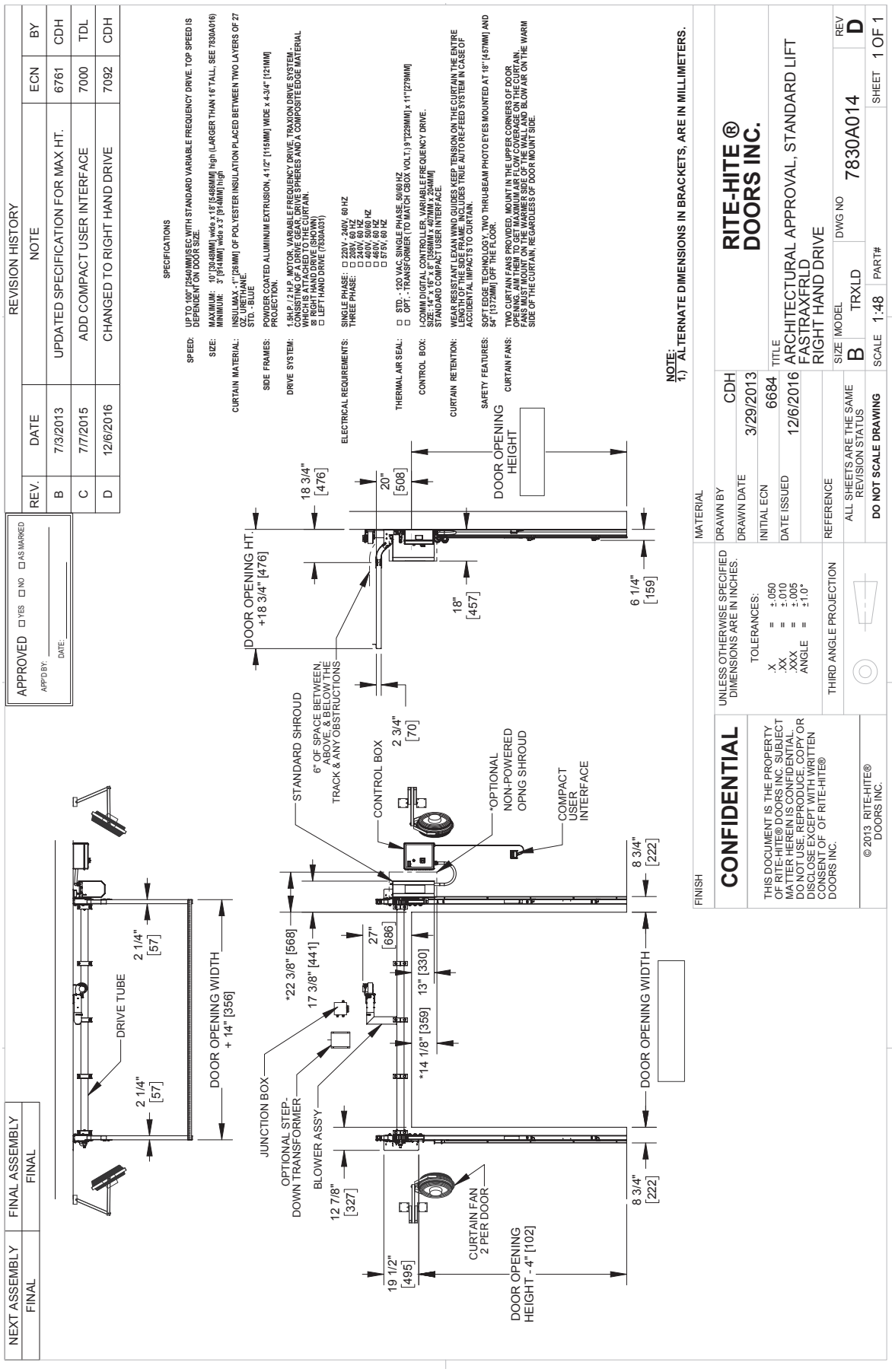
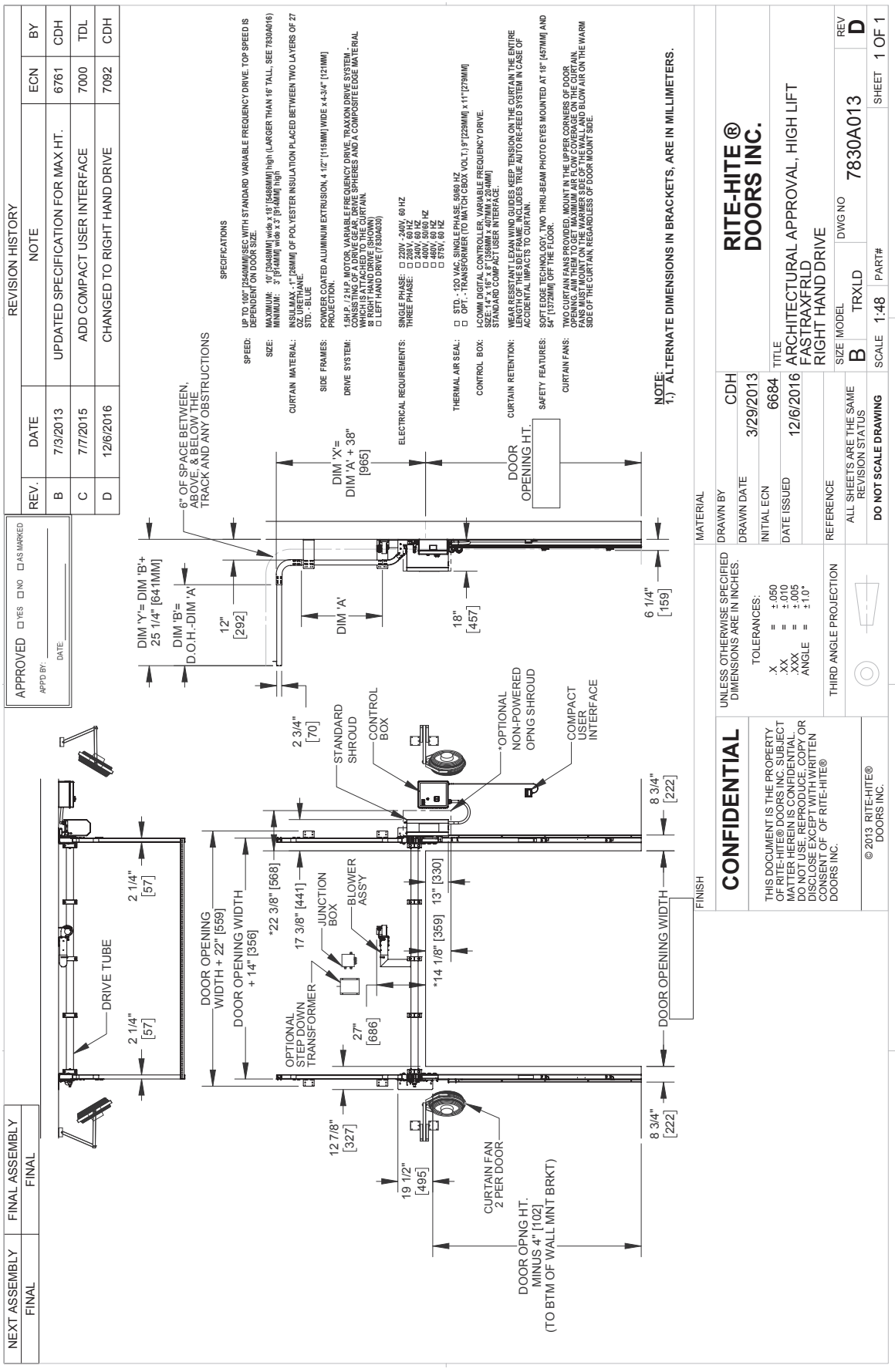
Standard Lift



ARCHITECTURAL DRAWINGS

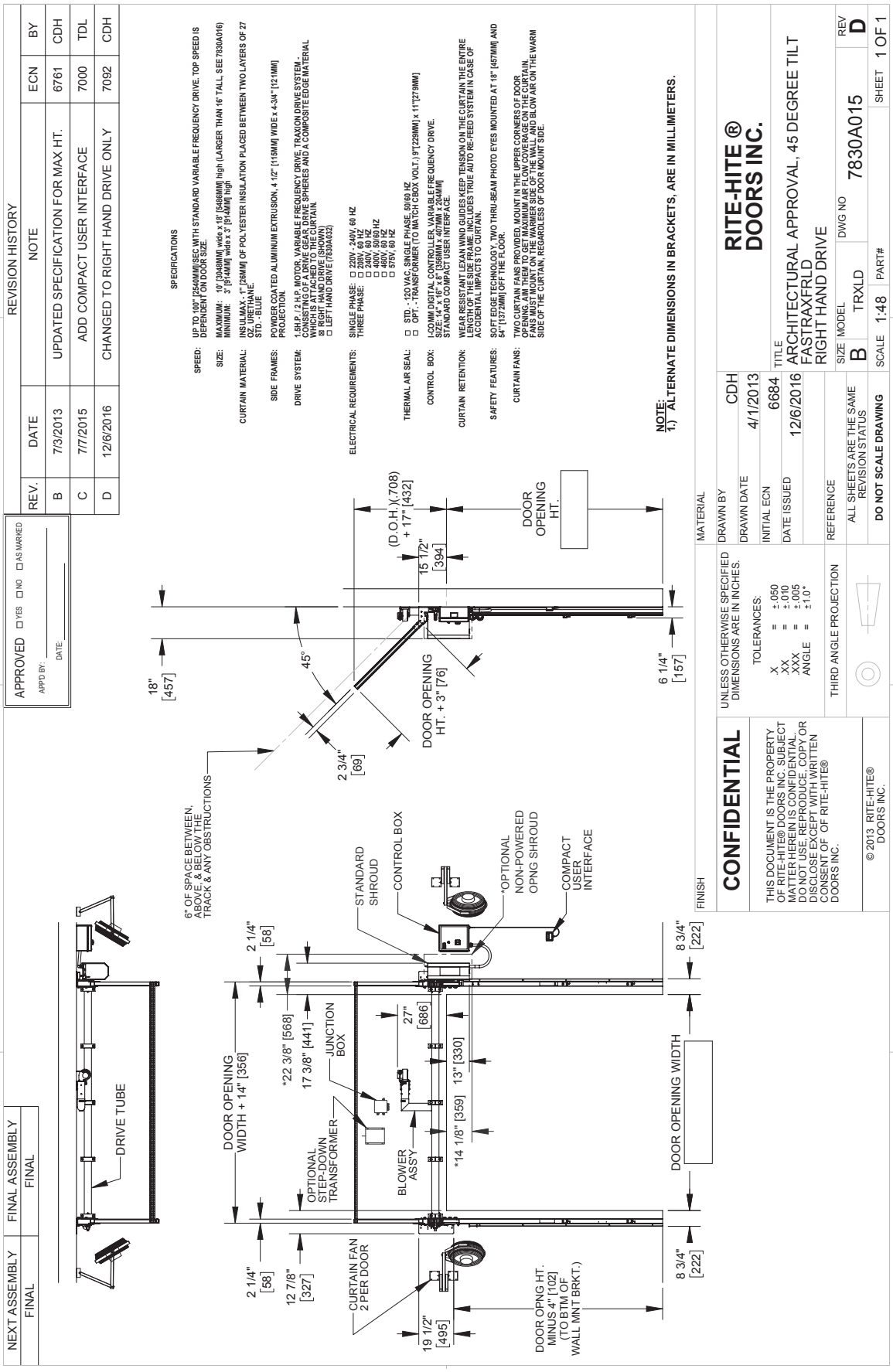
FasTrax FR LD

High Lift



ARCHITECTURAL DRAWINGS

FasTrax FR LD



ABBREVIATION LIST

ABBREVIATION	DESCRIPTION
AB	Allen Bradley
AC	Alternate Current
ACT	Activation
Amp	Amperage
A/R	As Required
Ass'y	Assembly
BL or BLK	Black
BRD/DRN	Braid or Drain wire
BR or BRN	Brown
BRKT	Bracket
BRK	Brake
BTM	Bottom
BU	Blue
CC	Current Limiting
CE	European Commission
CL	Center Line
CL	Clean Door
CLR	Cooler Door
CR	Control Relay
CT	Control Techniques
C.W.	Counter Weight
CUI	Compact User Interface
DC	Direct Current
D.O.H.	Door Opening Height
D.O.W.	Door Opening Width
DR	Drill
E-Stop	Emergency Stop
e.g.	For Example
etc	Etcetera
Ext	Exterior
Ext/Ext	Exterior / Exterior
FHMS	Flat Head Machine Screw
F1,2,3	Fuse 1,2,3
FCC	Federal Communications Commission
FHWH	Flat Head Washer Head
FR / FZR	Freezer Door
FSTX	FasTrax
GBX	Gearbox
GN or GRN	Green
GND	Ground
GR	Grade
GY	Gray
HDW	Hardware
HHCS	Hex Head Cap Screw
HHMS	Hex Head Machine Screw
HWHSMS	Hex Washer head Sheet Metal Screw

ABBREVIATION	DESCRIPTION
H.P.	Horse Power
Hz	Hertz
illum	Illumination
ID	Inside Dimension
in	Inches
ind	Induction
Int	Interior
Int/Int	Interior / Interior
Int/Ext	Interior / Exterior
I/O	Input / Output
J-Box	Junction Box
KBPS	Kilobytes per second
KLDR	Time Delay Fuse
KVA	Kilo-Volt Ampere
L	Left
lb	Pounds
LCD	Liquid Crystal Display
LED	Light-Emitting Diode
LH	Left Hand
LHD	Left Hand Drive
L1,2,3	Line Voltage 1, 2, 3
LLC	Limited Liability Company
LTSPD	LiteSpeed
L/S	Limit Switch
M/D/Y	Month/Day/Year
Max	Maximum
MCR	Motor Contactor
Mhz	Mega Hertz
Mil /mm	Millimeters
Min	Minimum
Misc	Miscellaneous
MPH	Miles per hour
MSDC	Mounted Side DC
MSTP	Mounted Side Tie Point
N	Neutral
NMDC	Non-Mounted Side DC
NMTP	Non-Mounted Side Tie Point
N/A	Not Available
N.C.	Normally Closed
N.O.	Normally Open
N.P.O.	Non-Powered Opening
OB	Obstruction
O.D.H.	Ordered Door Height
O.D.W.	Ordered Door Width
Opt	Optional
OR or ORG	Orange

ABBREVIATION LIST *Continued*

ABBREVIATION	DESCRIPTION
Oz	Ounce
Pharma	Pharmaceutical
PB	Push Button
PE	Photoeye
PHLP	Phillips Head
PHSMS	Pan Head Sheet Metal Screw
PK	Pink
P.M.P.	Planned Maintenance Program
Pos	Position
PSA	Pressure Sensitive Adhesive
Pub	Publication
PVC	Polyvinyl Chloride
Qty	Quantity
R	Right
RD	Red
RH	Right Hand
RHD	Right Hand Drive
RHMS	Round Head Machine Screw
R/T	Roller Tube
SD	Secure Digital
SEC	Seconds
SF	Square Foot
S/F	Side Frame
SK	Control Techniques VFD
SPDT	Single Pole Double Throw
SPLT	SplitSecond
S.S. / STNLS	Stainless Steel
STND / STD	Standard
SW	Switch (Disconnect)
Term	Terminal
TIG	Tungsten Insert Gas
UHMW	Ultra High Molecular Weight Polyethylene
UV	Ultra Violet
V	Voltage
VFD	Variable Frequency Drive
VL	Vertical Lift
V.V.	Virtual Vision
W.D.	Warning Device
w/	With
w/o	Without
WH	White
X	Controller Input
XL	Extra Large Door
Y	Controller Output
YE	Yellow
ZNC	Zinc
0V	Direct Current Common (Zero V)

2017-02-17

RITE-HITE Company, LLC and its affiliates (collectively "RITE-HITE") warrant that the Product sold to the Owner will be free of defects in design, materials and workmanship (ordinary wear and tear excepted) for the periods set forth below ("Limited Warranty").

Two (2) Year on all mechanical and electrical parts.
One (1) Year labor, based on approved travel and labor repair times.
Five (5) Year for motor, brake and gearbox material failure only.

REMEDIES
PARTS- RITE-HITE's obligations under this Limited Warranty are limited to repairing or replacing, at RITE-HITE's option, any part which is determined by RITE-HITE to be defective during the applicable warranty period. Such repair or replacement shall be RITE-HITE's sole obligation and the Owner's exclusive remedy under this Limited Warranty.
LABOR- RITE-HITE will provide warranty service without charge for labor per the specified warranty period. Thereafter, a charge will apply to any repair or replacement under this Limited Warranty.

CLAIMS Claims under this Limited Warranty must be made (i) within 30 (thirty) days after discovery and (ii) prior to expiration of the applicable warranty period. Warranty period commences on the date of shipment. Claims shall be made in writing or by contacting the representative from whom the Product was purchased directly. Owner must allow RITE-HITE or its agent, a reasonable opportunity to inspect any Product claimed to be defective and shall, at RITE-HITE's option, either (x) grant RITE-HITE or its agent access to Owner's premises for the purpose of repairing or replacing the Product or (y) return of the Product to the RITE-HITE, f.o.b. RITE-HITE's factory.

NOT WARRANTED RITE-HITE does not warrant against and is not responsible for wear items such as fuses, batteries, bulbs, vision and seals. No implied warranty shall be deemed to cover damages that result directly or indirectly from: (i) the unauthorized modification or repair of the Product, (ii) damage due to misuse, neglect, accident, failure to provide necessary maintenance, or normal wear and tear of the Product, (iii) failure to follow RITE-HITE's instructions for installation, failure to operate the Product within the Product's rated capacities and/or specified design parameters, or failure to properly maintain the Product, (iv) use of the Product in a manner that is inconsistent with RITE-HITE's guidelines or local building codes, (v) movement, settling, distortion, or collapse of the ground, or of improvements to which the Products are affixed, (vi) fire, flood, earthquake, elements of nature or acts of God, riots, civil disorder, war, or any other cause beyond the reasonable control of RITE-HITE, (vii) improper handling, storage, abuse, or neglect of the Product by Owner or by any third party.

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RITE-HITE WORLD HEADQUARTERS
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RITE-HITE CHINA
First Floor, Building #3,
558 Tongxie Road,
Changning District
Shanghai 200335, China
+86-21-6237-6333

RITE-HITE LATIN AMERICA
Alameda Lorena, 800 - Conj. 401/402
- Jardim Paulista
São Paulo/SP, CEP 01424- Brazil
011-55-11-3527-9590

RITE-HITE GMBH
Carl-Zeiss-Strasse 3
34471 Volkmarsen, Germany
+49-5693 98700