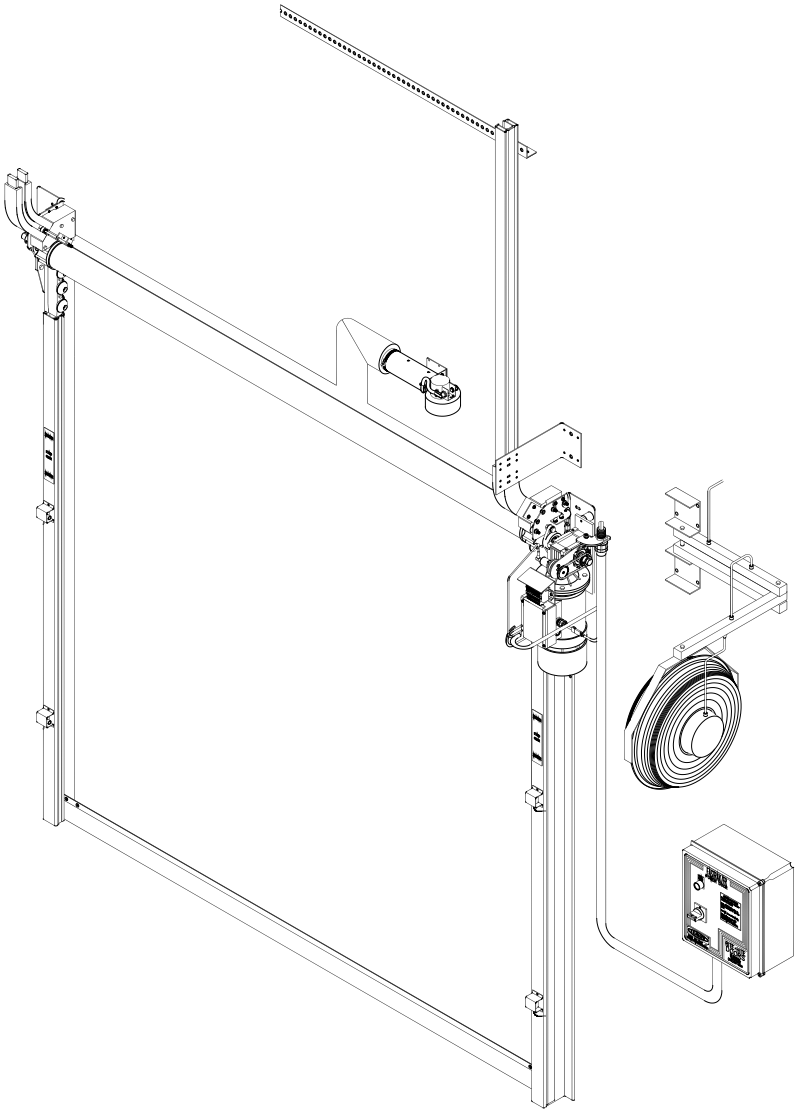
RITE-HITE®
ALWAYS LOOKING AHEAD

FASTRAX® FR

This owner's manual covers doors shipped: ***On or after 6/20/12***

Refer to FasTraxG for doors prior.
Includes revised i-Comm board & prewired harness

Installed on: _____



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

Model #: **FasTrax FR**
Publication No. **FSTXFR N May 2015**

RECOMMENDED SERVICE PARTS

Kit, FasTrax, Spare Parts Kit	53700804 (1)
Bumper, Rubber, Motor	15250081 (2)
Fuse, 1 Amp, 250V, Time Delay	51000002 (2)
Fuse, 2 Amp, 250V, Time Delay	51000005 (2)
Kit, Drive Sphere, Qty 10	53700561 (2)
Photoeye Source	53700702 (1)
Photoeye Receiver	53700703 (1)
Kit, Encoder	53700784 (1)
Kit, i-COMM ii	53700860 (1)

NOTICE TO USER

Thank you for purchasing the FasTrax® FR door from Rite-Hite. This unique fabric door can be transformed to fit most opening configurations while helping to keep different atmospheres separate.

The information contained in this manual will allow you to operate and maintain the door in a manner which will insure maximum life and trouble free operation.

- Read and understand manual before beginning the installation, operation or servicing of this door
- Complete *Final Checklist* prior to leaving site
- Store manual near door

Rite-Hite reserves the right to modify the electrical and architectural drawings in this manual as well as the actual parts used on this product are subject to manufacturing changes and may be different than shown in this manual. Due to unique circumstances with varying requirements, separate prints may be included with the unit.

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

FCC COMPLIANCE

***NOTE*:** 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.

***NOTE*:** 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:
(1) This device may not cause harmful interference
(2) This device must accept any interference received, including interference that may cause undesirable operation.

SPECIAL FEATURES

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

CHAPTER 1 - SAFETY

Safety Identifications

⚠ DANGER

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

⚠ WARNING

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

⚠ CAUTION

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

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.

General Safety Notices

⚠ DANGER

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

NOTICE

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

⚠ DANGER

A qualified electrician should install the wiring in accordance withlocal and national electrical codes.

Use lockout and tagout procedures to avoid injury.

NOTICE

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

⚠ 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, an N.E.C. approved ground bushing and green/yellow wire MUST BE properly attached to the conduit for connection to the ground terminal.

NOTICE

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

⚠ WARNING

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

NOTICE

Do not drill holes on top of control box to run conduit, as dust particles and moisture may cause damage to electrical components. The safest location is at the bottom. Failure to do so will void warranty.

CHAPTER 1 - SAFETY

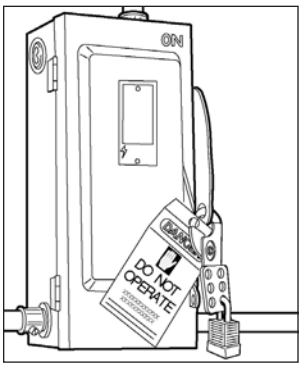
NOTE: Check for electrical prints included in the parts or control box. They supersede any prints in this manual.

NOTE: TO PREVENT DAMAGE TO CONTENTS, STORE DRY BETWEEN 40° and 80° F, [4° and 27° C].

1. Alternate dimensions in brackets are in [millimeters].
2. Match control box serial number with track serial number.
3. Make sure that you are working at the correct location and that you have any special work permits.
4. Inspect the installation site to make sure that there are no overhead obstructions (sprinkler pipes, HVAC systems, electrical supply lines, etc.) that might interfere with the lifting of the header assembly during installation.
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. In the case of multiple doors 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 sideframe, Figure 25.1.
10. To verify proper installation, use checklist on Page 38.
11. Be sure to install any optional equipment last after verifying door operation.

Lockout/Tagout Procedures

The Occupational Safety and Health Administration requires that, in addition to posting safety warnings and barricading the work area, the power supply has been locked in the OFF position or disconnected. It is mandatory that an approved lockout device is utilized. An example of a lockout device is illustrated. The proper lockout procedure requires that the person responsible for the repairs is the only person who has the ability to remove the lockout device.



In addition to the lockout device, it is also a requirement to tag the power control in a manner that will clearly note that repairs are under way and state who is responsible for the lockout condition. Tagout devices have to be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or become unreadable.

Rite-Hite Corporation does not recommend any particular lockout device, but recommends the utilization of an OSHA approved device (refer to OSHA regulation 1910.147). Rite-Hite Corporation also recommends the review and implementation of an entire safety program for the Control of Hazardous Energy (Lockout/Tagout). These regulations are available through OSHA publication 3120.

Door Jamb

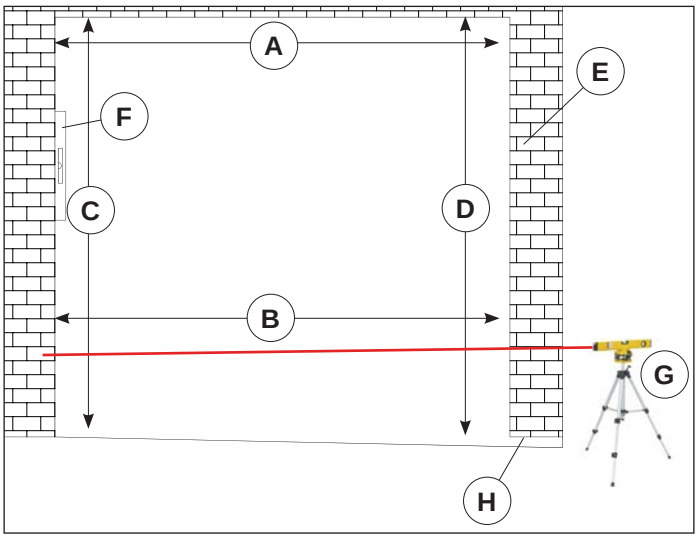


Figure 4.1

1. Measure Door Opening Width at the top (A).
2. Measure Door Opening Width at the floor (B).
3. Measure Door Opening Height at left side (C).
4. Measure Door Opening Height at right side (D).
5. Dimensions from Steps 1 - 4 should be within ± 1/2” [13] of the dimensions listed on the serial number label. If the measurements do not agree, STOP! Contact your Rite-Hite representative.
6. Surface MUST be flat, smooth and collinear with opposite side (E).
7. Using a 6’ [1829] carpenter’s level (F), verify that the door jambs and header are plumb and perpendicular.
8. 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 within 1/8” [3], shim under the sideframe that will be located on the “Low Side” (H) (greatest measurement) of the door opening.
9. For space clearance requirements, see Architectural drawings on Pages 80 - 84.

INSTALLATION TOOLS REQUIRED

Fork and scissors lift	Cordless or Electric and Hammer drill	7/16” [11], 1/2” [13], 9/16” [14], 3/4” [19] open end and/or socket wrench
Laser or hydro level	25’ [7620] Tape measure	11/16” x 12” [17 x 305] drill bit for thru bolting
10’ [3048] Step ladder	Wire strippers (Small-22 AWG)	Straight screwdriver (small 1/8” [3] spade)
Utility knife	6’ [1829] Carpenters level	Phillips Bit and Drill Bits for Drill
Electrical Tape	Square / Straight Edge	1/2” [13] Masonry and/or drill bit for thru bolting
Hammer	5/16” [10] Nut Driver	Allen Wrench Set (1/8”,5/32”,1/4”,2mm)
Plumb Bob	“C” Clamps	***Stainless steel mounting hardware provided by others.***

CHAPTER 1 - SUGGESTED MOUNTING METHODS

Acceptable Anchor Types

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

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

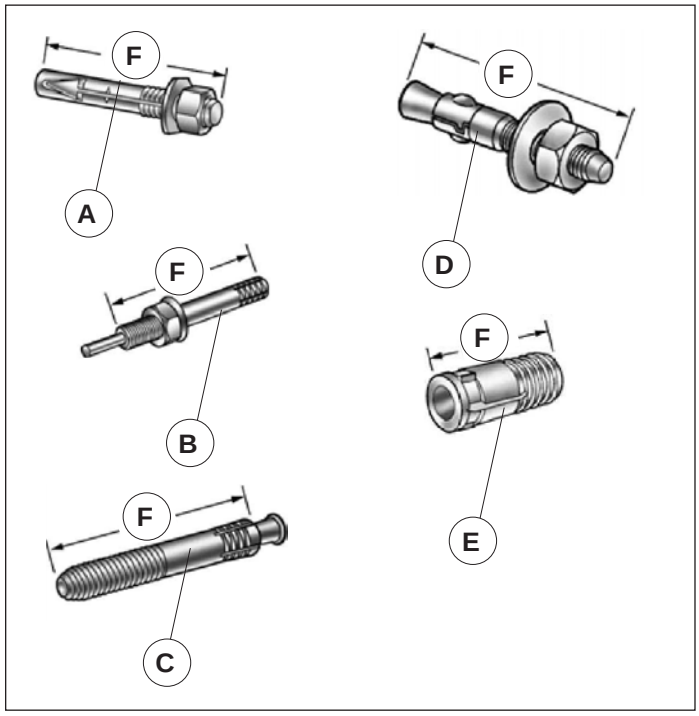


Figure 5.1

A - Sleeve Anchor	D - Wedge Anchor
B - Hammer Anchor	E - Expansion Anchor
C - Stud Anchor	F - Length

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.

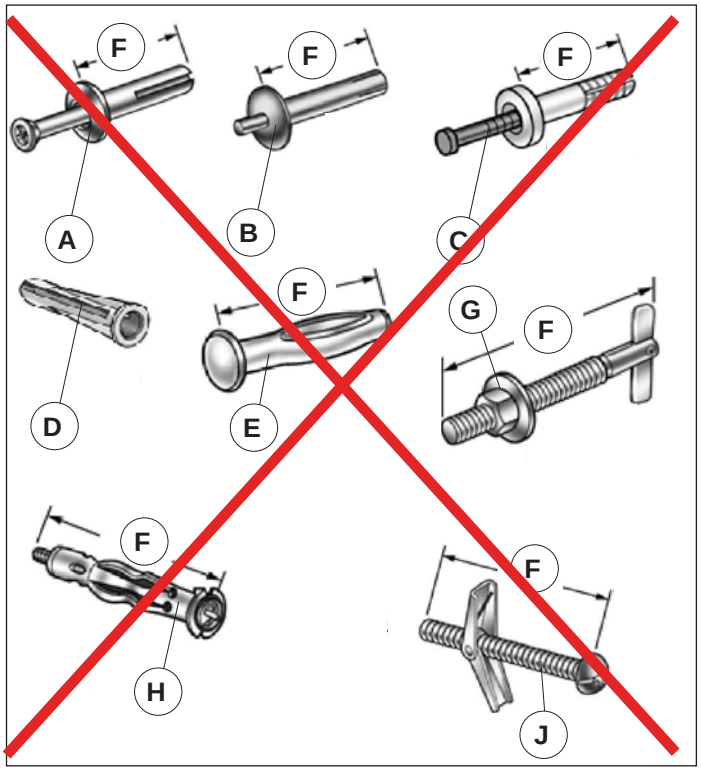


Figure 5.2

A - Removable Zinc Alloy	E - Split Drive Anchor
B - Zinc Alloy & Aluminum w/Wide Head	F - Length
C - Nylon w/Round Head	G - Hollow Wall Anchor (Molly Bolt)
D - Conical Polyethylene	H - Toggle Bolt

CHAPTER 1 - SUGGESTED MOUNTING METHODS

Acceptable Fasteners

Threaded rod 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.

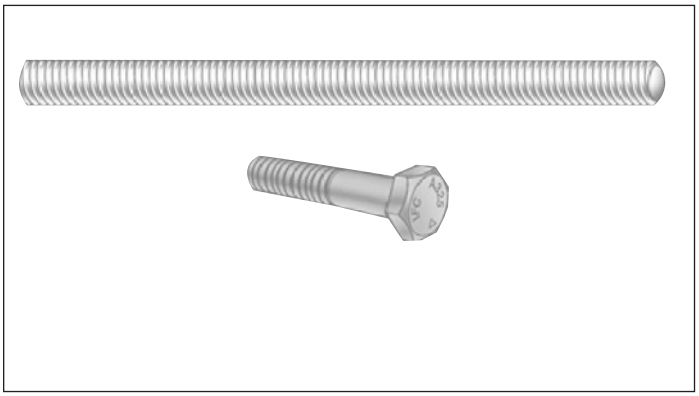


Figure 5.3

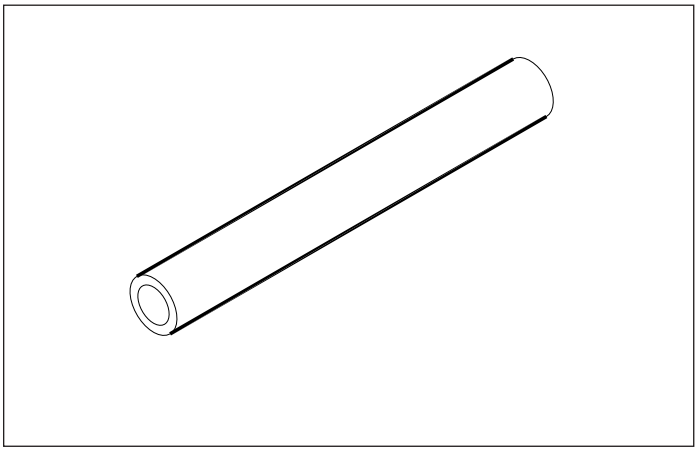


Figure 5.4 - Wall Sleeve - 3/8” [10] ID Ø

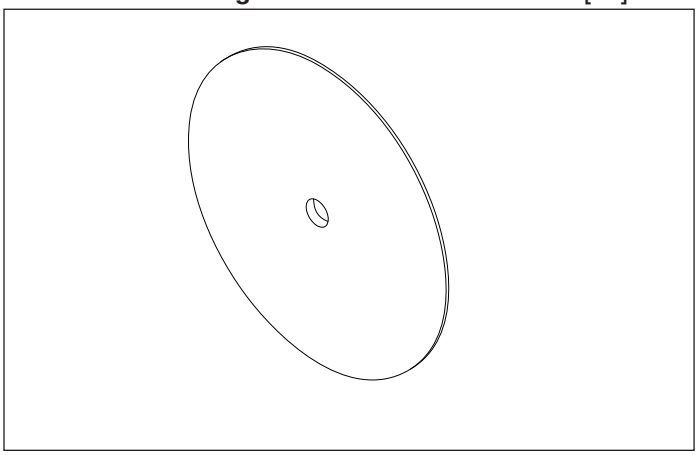


Figure 5.5 - 1/8” [3] x 6” [152] Ø Back Plate

Typical Fastener Spacing

If the wall is constructed of wood, stone block or insulation, follow this fastening method.

Typically tracks on doors are required to be thru-bolted a minimum of every 4’ [1219] with lag screws filling in the remaining holes. Should a door fail to open when a vehicle is approaching the non-mounted side and impact the door, the fastening method must hold to prevent the door from coming off the wall. This is the responsibility of the installer.

Lower track requires 1/4” [6 mm] minimum fasteners with thru-bolts a minimum of every 4’ [1219 mm].

Wall sleeves (Figure 5-4) and backing plates (Figure 5-5) may be required if wall crushes when fasteners are tightened.

If the wall is constructed of wood, stone block or insulation, follow (Figure 5-6).

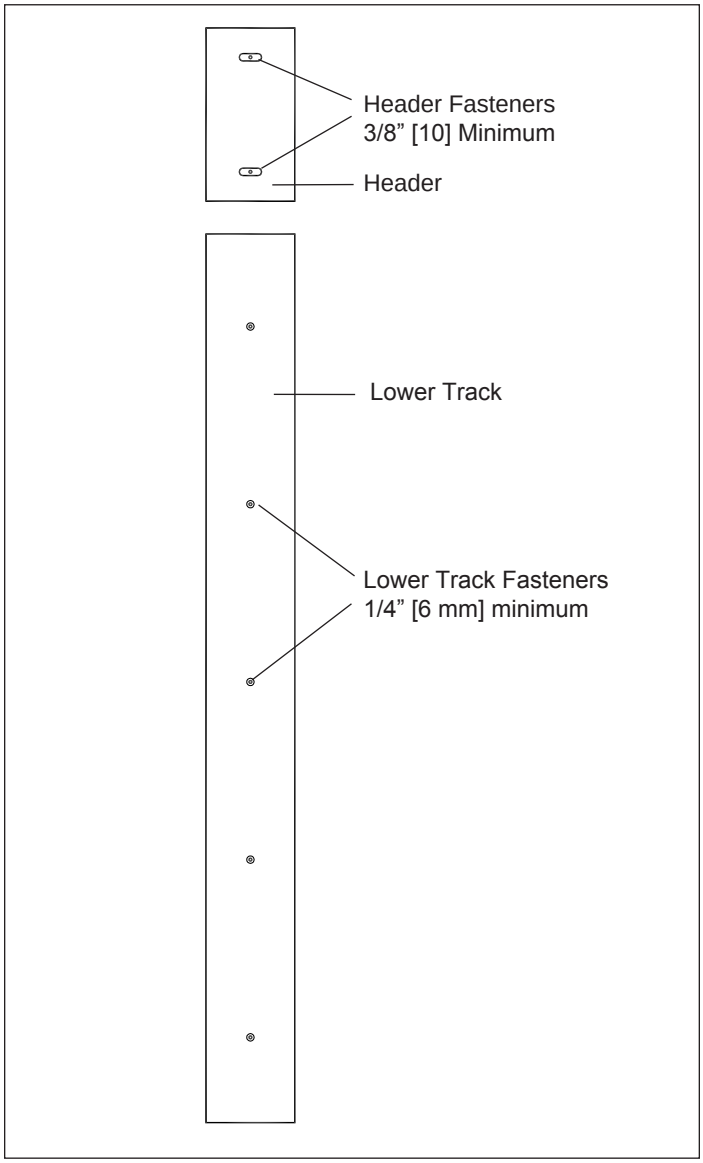


Figure 5.6

CHAPTER 1 - SUGGESTED MOUNTING METHODS

A - 8 3/4" [222] Flat Space required
B - 8" [203]
C - Minimum 1/8" x 6"ø [6x152] Backer Plate (supplied by others)
D - Minimum Fasteners Required (supplied by others)
3/8" [10] for Header Bracket
1/4" [6] for Sideframe
E - Lower Track
F - Filler Board ordered through Rite-Hite or (supplied by others)
G - Insulation
H - 5/16" [8] Minimum Steel Member
J - Drywall
K - Wall Sleeve
L - Corrugated Metal Siding
M - 2"x6" [51x152] or Structural Steel Channel Backer (Supplied by Others)
N - Building Structural Member Angle Bracket (Supplied by Others)
P - Any Jamb Wrap: Must be at least 8 3/4" [222 mm] flange/leg for flat mounting surface
Q - Stacked 2 x 4 or 2 x 6 or 2 x 8 [51 x 102 or 51 x 152 or 51 x 203 mm]

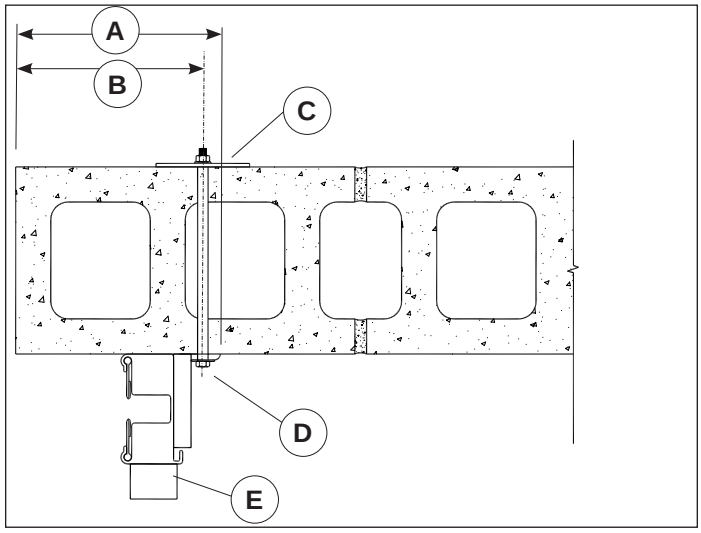


Figure 7.1 - Block Wall

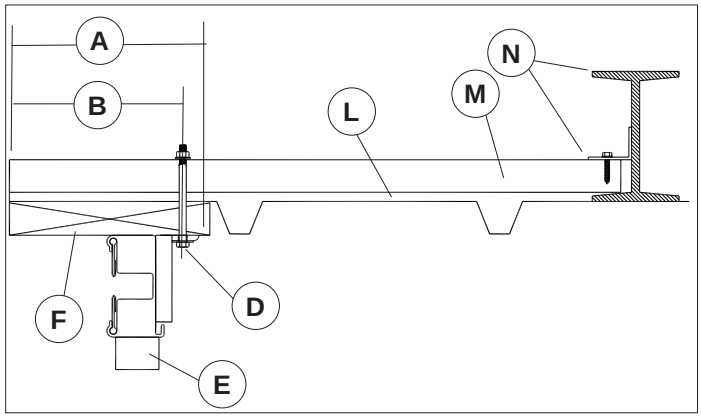


Figure 7.2 - Ribbed Metal Wall

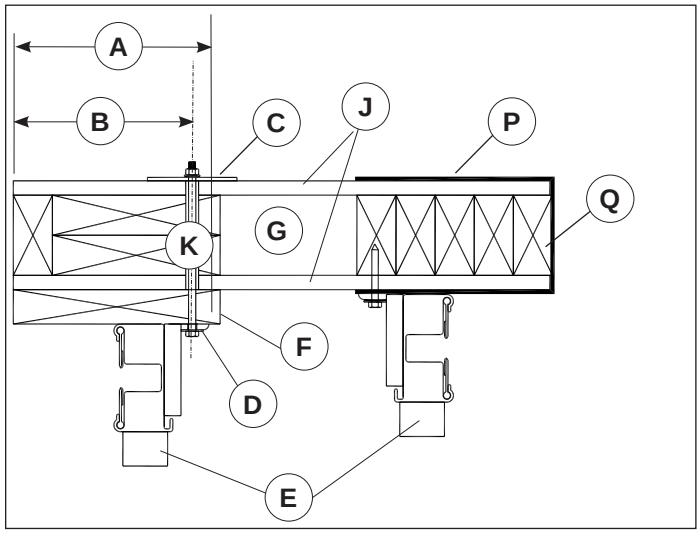


Figure 7.3 - Drywall

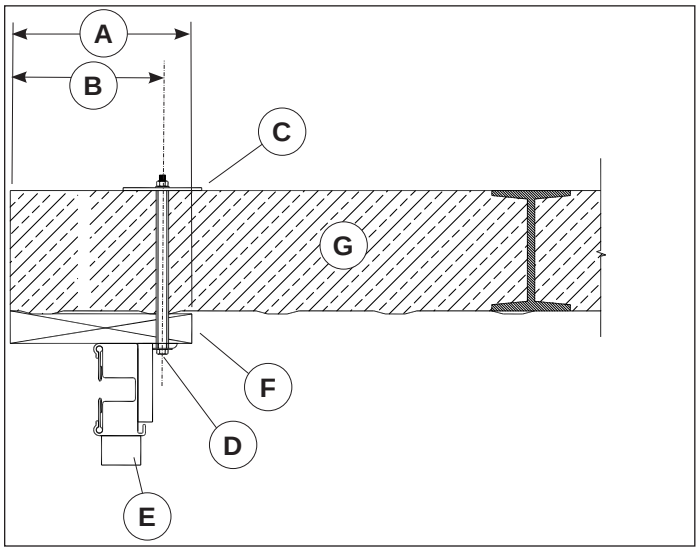


Figure 7.4 - Insulated Panel Wall

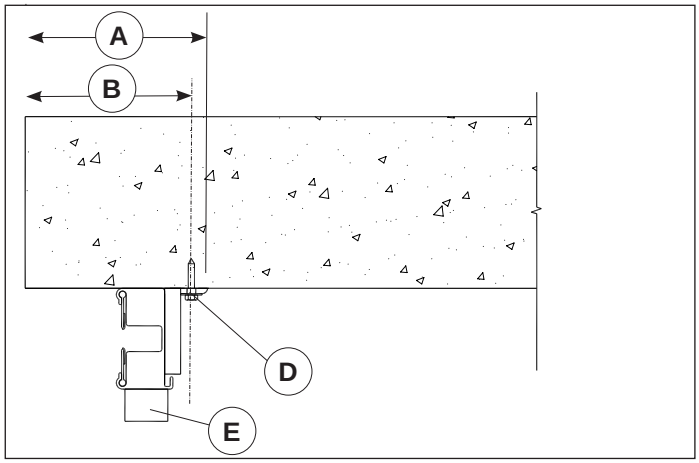


Figure 7.5 - Concrete Wall

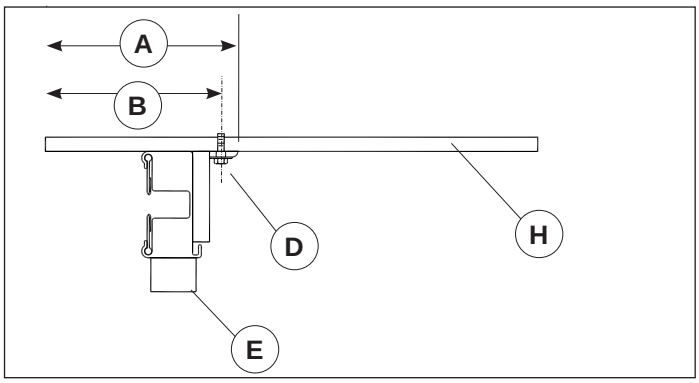


Figure 7.6 - Steel Member

CHAPTER 2 - POLY LUMBER (OPTIONAL)

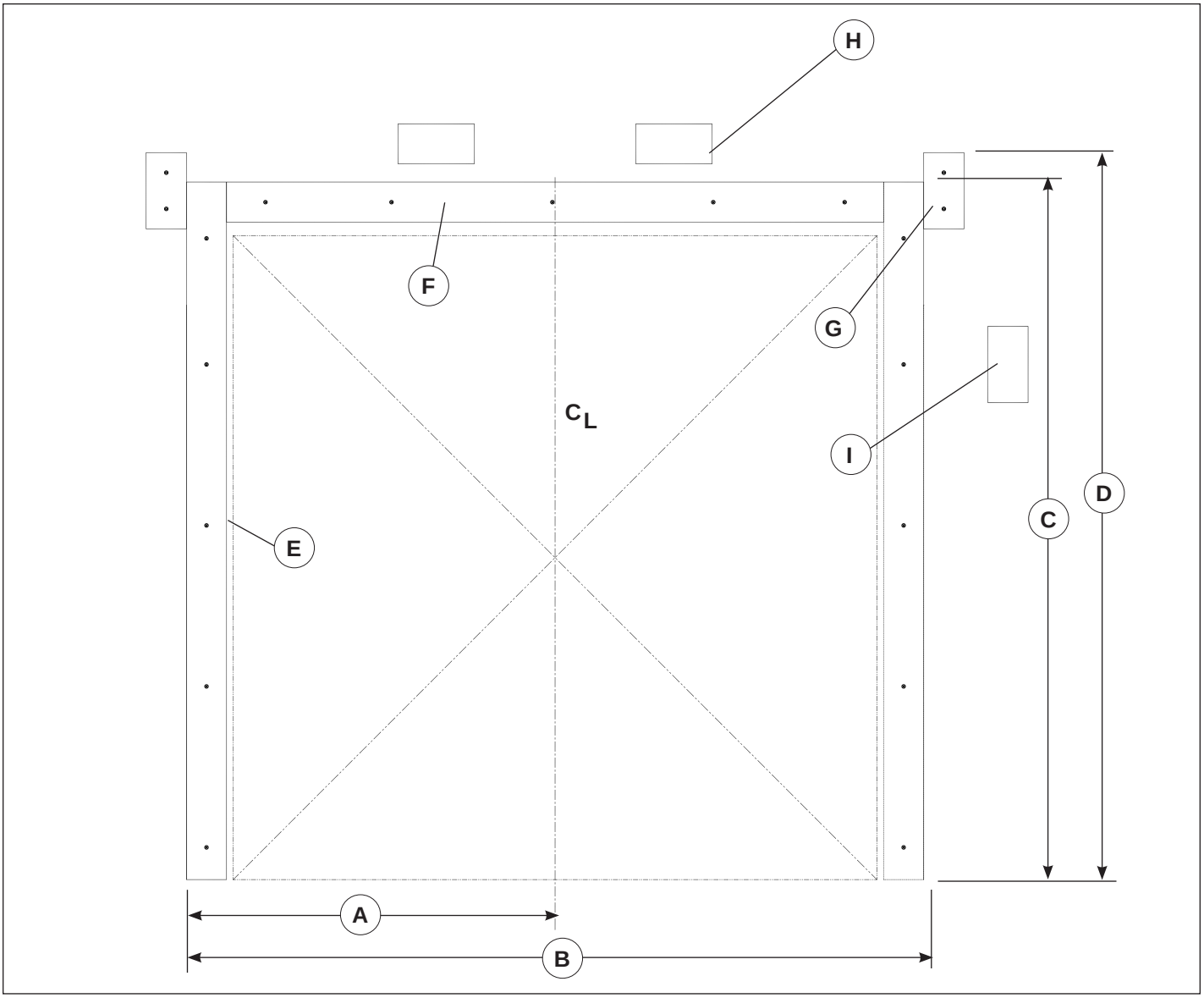


Figure 8.1

A. Measure 1/2 Ordered Door Width + 8 3/4” [222MM].
B. Measure Ordered Door Width + 17 1/2” [445MM].
C. Measure Ordered Door Height + 10” [254MM].
D. Measure Ordered Door Height + 15 1/2” [394MM].
E. Caulk behind vertical poly lumber pieces to prevent air transfer.
F. Caulk behind horizontal poly lumber piece to prevent air transfer and for lintel seal.
G. Install short poly lumber pieces for wall mount brackets.
H. Install short piece(s) of poly lumber for the air seal heater.
I. Install short poly lumber piece for chain hoist.

CHAPTER 2 - THERMAL AIR SEAL

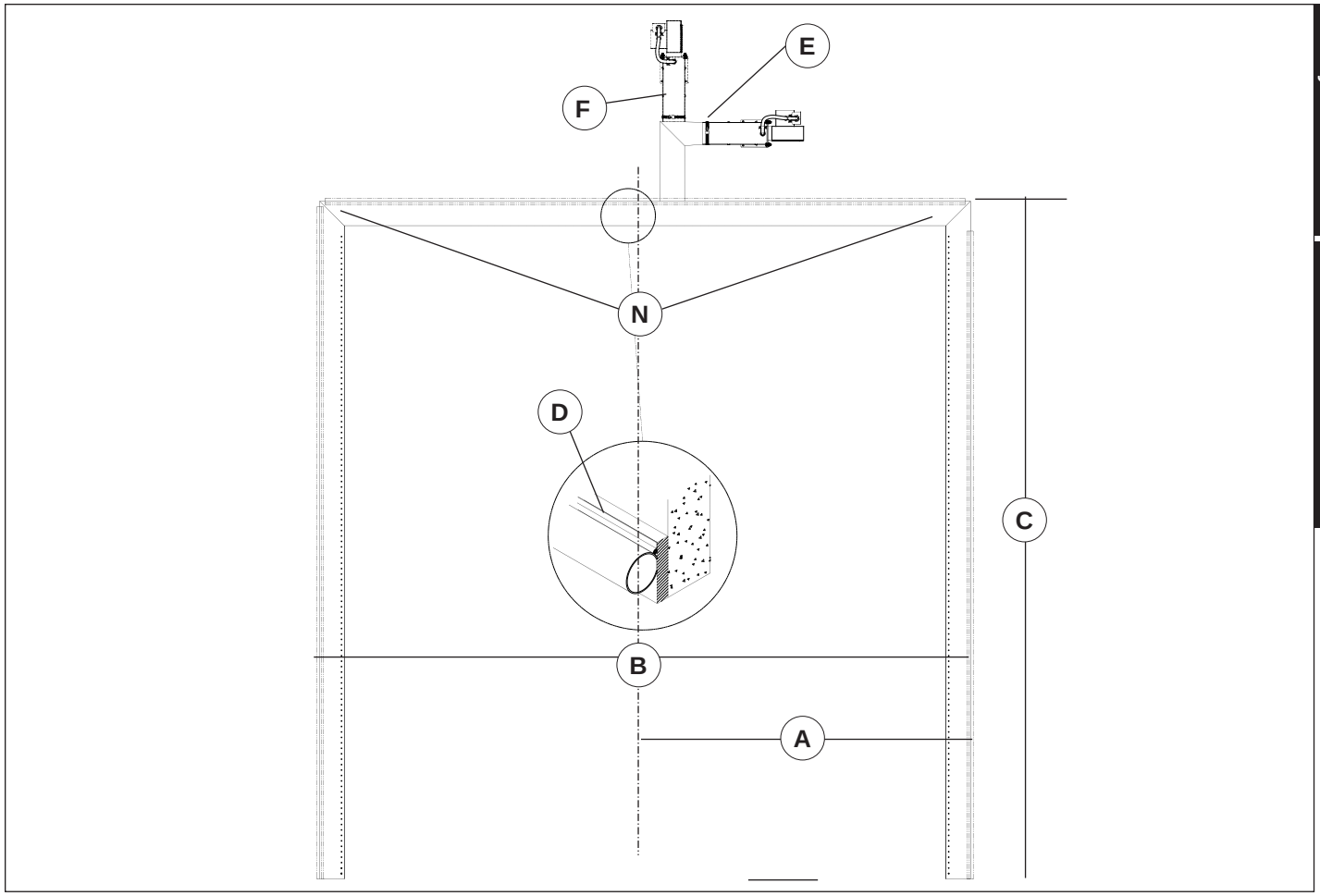


Figure 9.1

1. From centerline, measure 1/2 O.D.W + 4 1/2” [114] to outside edge of vertical aluminum retainer (A).
2. From this mark, measure O.D.W. + 9” [229MM] to opposite side (B).
3. Measure O.D.H + 10” [254MM] from floor to top edge of aluminum retainer (C).
4. Using hardware provided, fasten thermal air seal (L) aluminum retainer to the poly lumber or wall a minimum of every 18” [457] (P).
5. Clamp blower to air seal outlet with cable clamp.
6. Assure vertical section is tight and kink free to maintain proper air flow.
7. Thermal air seal outlet is high temp fabric, do not replace or add to it. If need be, the 90° elbow can be removed and the blower mounted vertically.
8. Fasten blower to the wall and wire blower.
9. Caulk behind rail to prevent air infiltration (G).
10. Verify fastener thru retainer (M) and seal rope (H).
11. Assure vertical air seal leg (J) is tight to the floor (K) and kink free (N) to maintain proper air flow through perforated air holes (L).

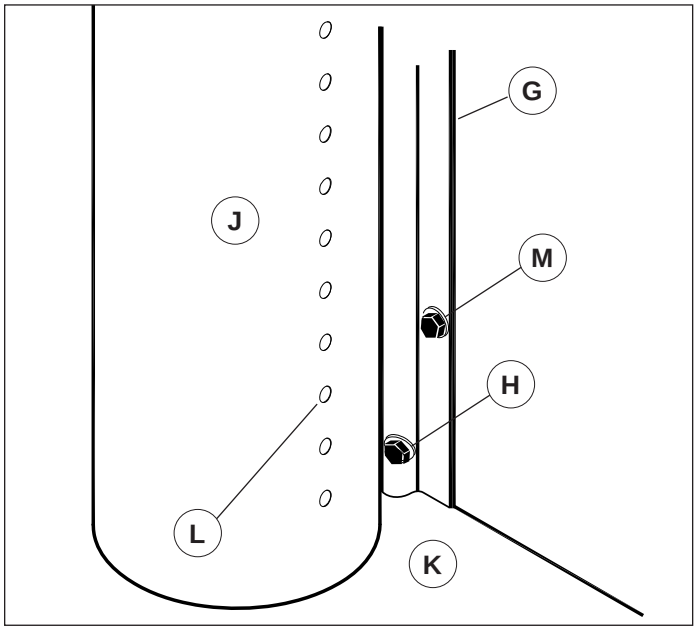


Figure 9.2

NOTE: Screws MUST be placed at corners to prevent air seal from migrating.

CHAPTER 2 - THERMAL AIR SEAL

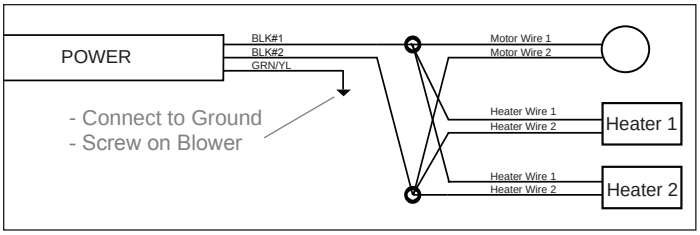


Figure 10.3

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

Specifications:

Self contained heater (Figure 10.4) provides fan forced heat to a door perimeter seal.

Indoor Use Only

Part Number: 110V - 53700760

Part Number: 220V - 53700761

Part Number: 110V Canada - 53700783

Model: PTC

Voltage: 110 or 220V AC

Phase: 1

Frequency: 60 Hz

Power Consumption: 1450W

UL Listed - File E336487

[Drawing 7822E025]

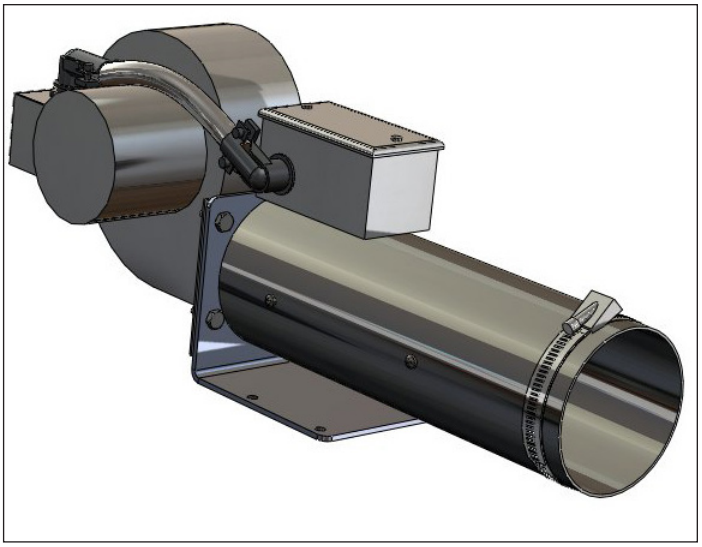


Figure 10.4

⚠ CAUTION

Surface of tube can be hot. Avoid contact.

NOTICE

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

CHAPTER 3 - LOWER TRACK

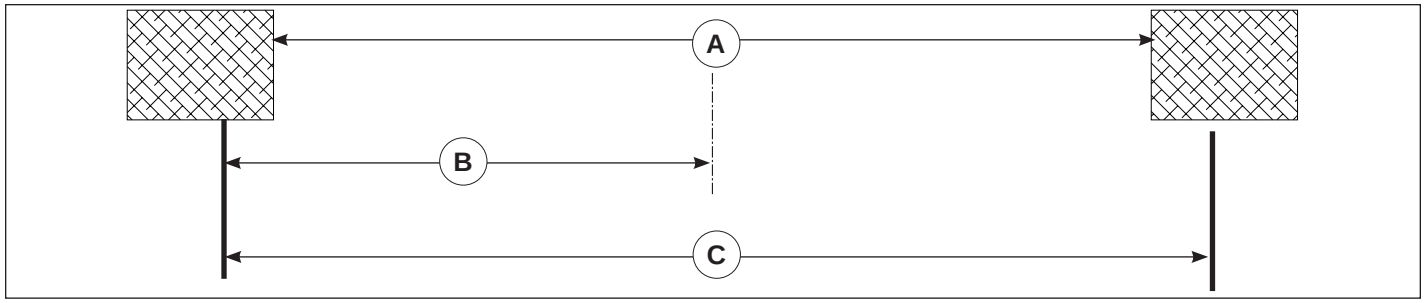


Figure 11.1

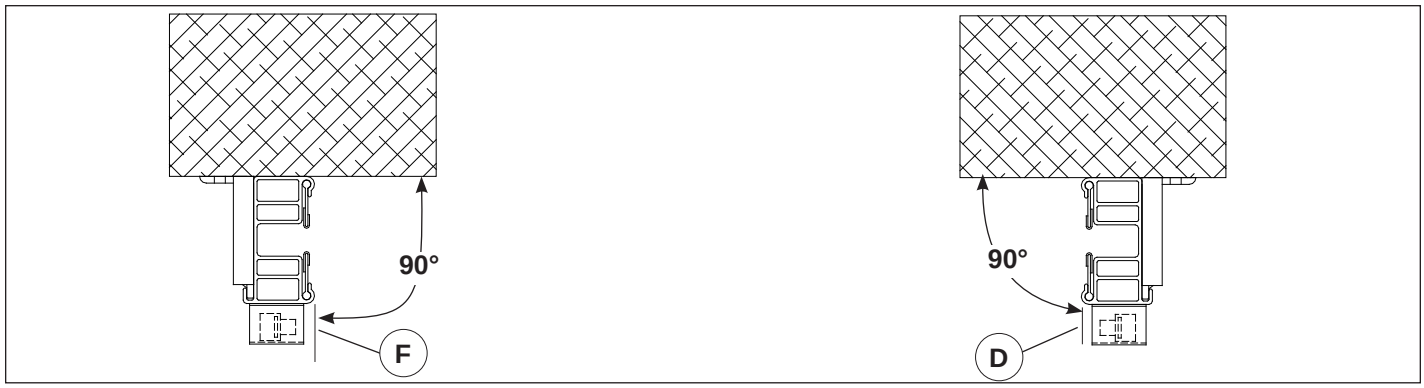


Figure 11.2

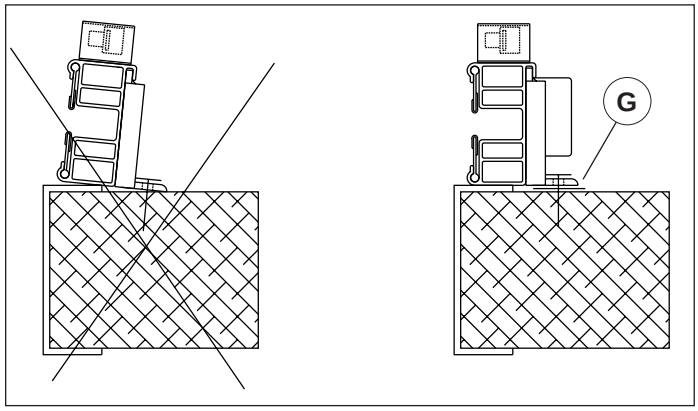


Figure 11.3

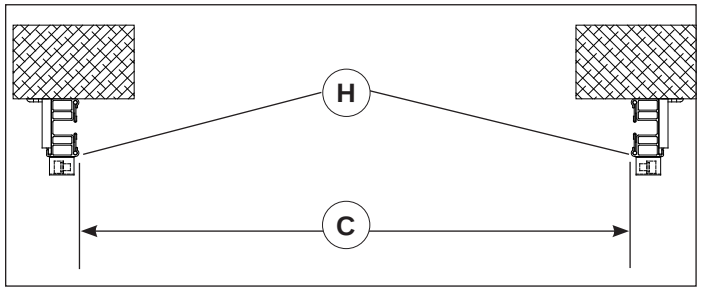


Figure 11.4

1. Measure Door Opening Width (A), find center and place mark on the floor.
2. From centerline, measure over 1/2 Ordered Door Width + 4 1/2” [114MM] (+ 1/16” [1.5] / -0”) and place a mark on the floor (B).
3. From this mark, measure over Ordered Door Width + 9” [229MM] (+ 1/8” [3] / -0”) and place a mark on the floor (C).
4. Place drive side lower track (D) at the previously made mark on the floor.
5. Lower track must be 90° to wall, use shims as required to square the track.
6. Using a 6’ [1829] level, make sure that the track is plumb in both directions (E).
7. Place non-drive side lower track (F) at the previously made mark on the floor.
8. **If the wall has a jamb cap, the lower track MUST be shimmed out (G).**
9. Measurement taken from front edge of lower track (H).
10. **Critical Dimension** (C)
    Ordered Door Width + 9” [229MM] (+ 1/8” [3] / -0”).

CHAPTER 3 - LOWER TRACK

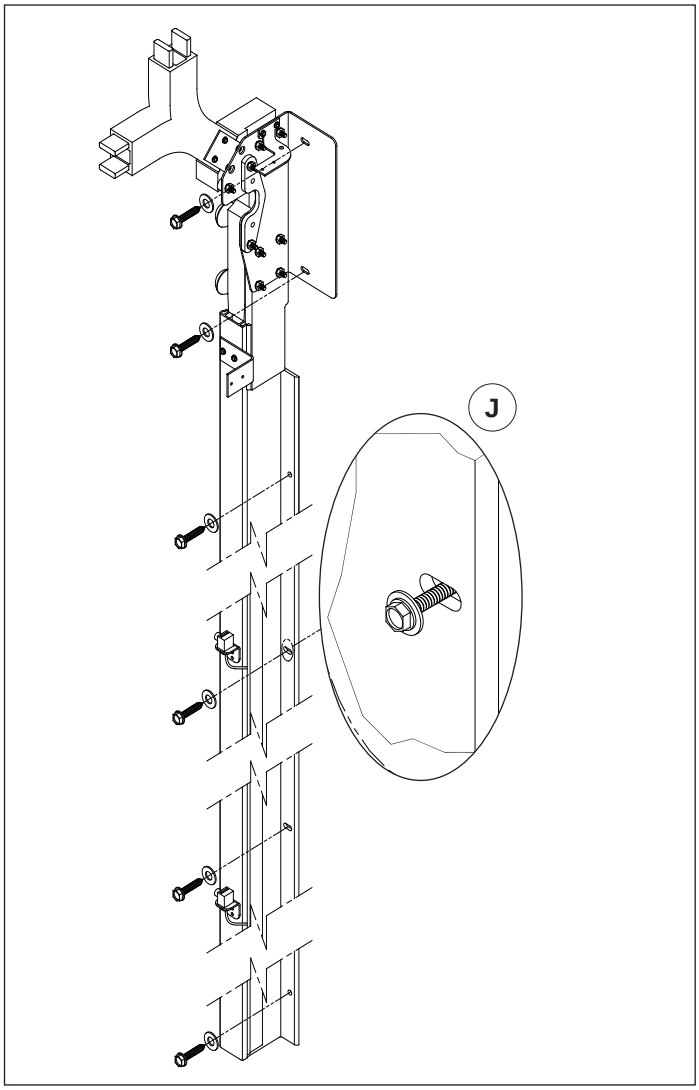


Figure 12.1

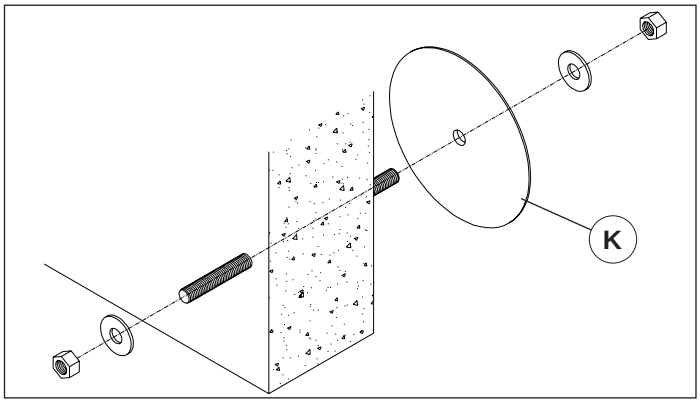


Figure 12.2

11. Using the predrilled slots (J) in the 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.
12. If the hole goes completely through the wall, use thru-bolts and backing plates (K) to secure the track to the wall. If backer plates are being used, they must be clean and either be painted, or a non-ferrous material. Sleeves may be required if wall collapses when tightening thru-bolt. It is the responsibility of the installer to ensure proper lower track spacing and adequate method of fastening to the wall.

NOTE: After the door is installed and operational make sure the curtain is not too tight or loose. Place fasteners in the remaining holes. It is imperative that all the holes are utilized to prevent lower track movement.

It is imperative that the tracks be mounted at proper width.

Too wide:
Excess wear is placed on the drive spheres

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

NOTICE

If door is equipped with Weld Plate option - proceed to *Page 40.*

CHAPTER 3 - UPPER TRACK STANDARD LIFT

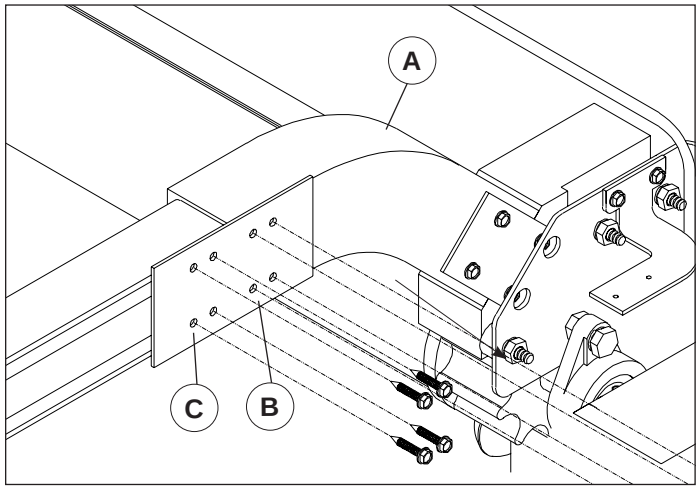


Figure 13.1

1. The proper radius (A) is already assembled to the lower track.
2. **DO NOT use self tap screws here (B).** Locate splice bracket and fasten between the upper and lower track. Pilot holes (.201Ø x 1 1/4" [5 x 32] deep) MUST be predrilled into lower track radius. Make sure drill is perpendicular and level, DO NOT drill into curtain groove, use lag screws (B).
3. Use self drill/tap screws in the horizontal track (C).
4. At the end of the track, place punched angle (F) and drive a self drill/tap screw (D) into the curtain groove to prevent curtain top roller from coming out of track.
5. From outside to outside (E) of tracks measure O.D.W. + 14" [357MM] (+ 1/8" [3] / -0).
6. For standard lift, slide end of upper track into the lower track radius (G), level and hold in place.
7. If > 6' [152] span, must provided another brace (H).
8. Fasten bracing to diagonal (J) provide support from track to ceiling or wall.

NOTE: Hold drill perpendicular and level to ensure screws go into the outer cavities of the upper track, NOT into the groove.

Use acceptable fasteners that will support the entire door weight (see Chapter 1).

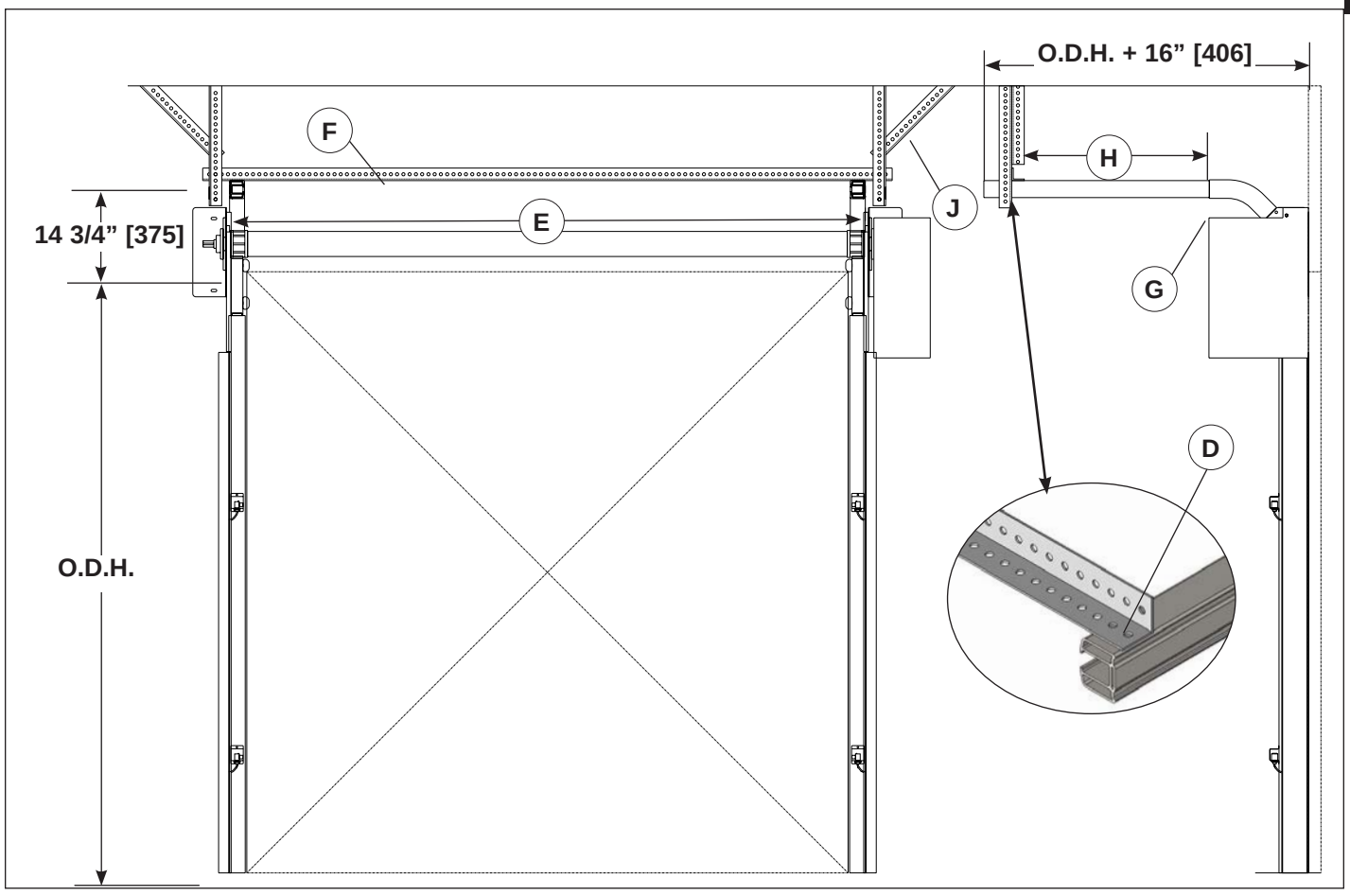


Figure 13.2

CHAPTER 3 - UPPER TRACK WRAPBACK

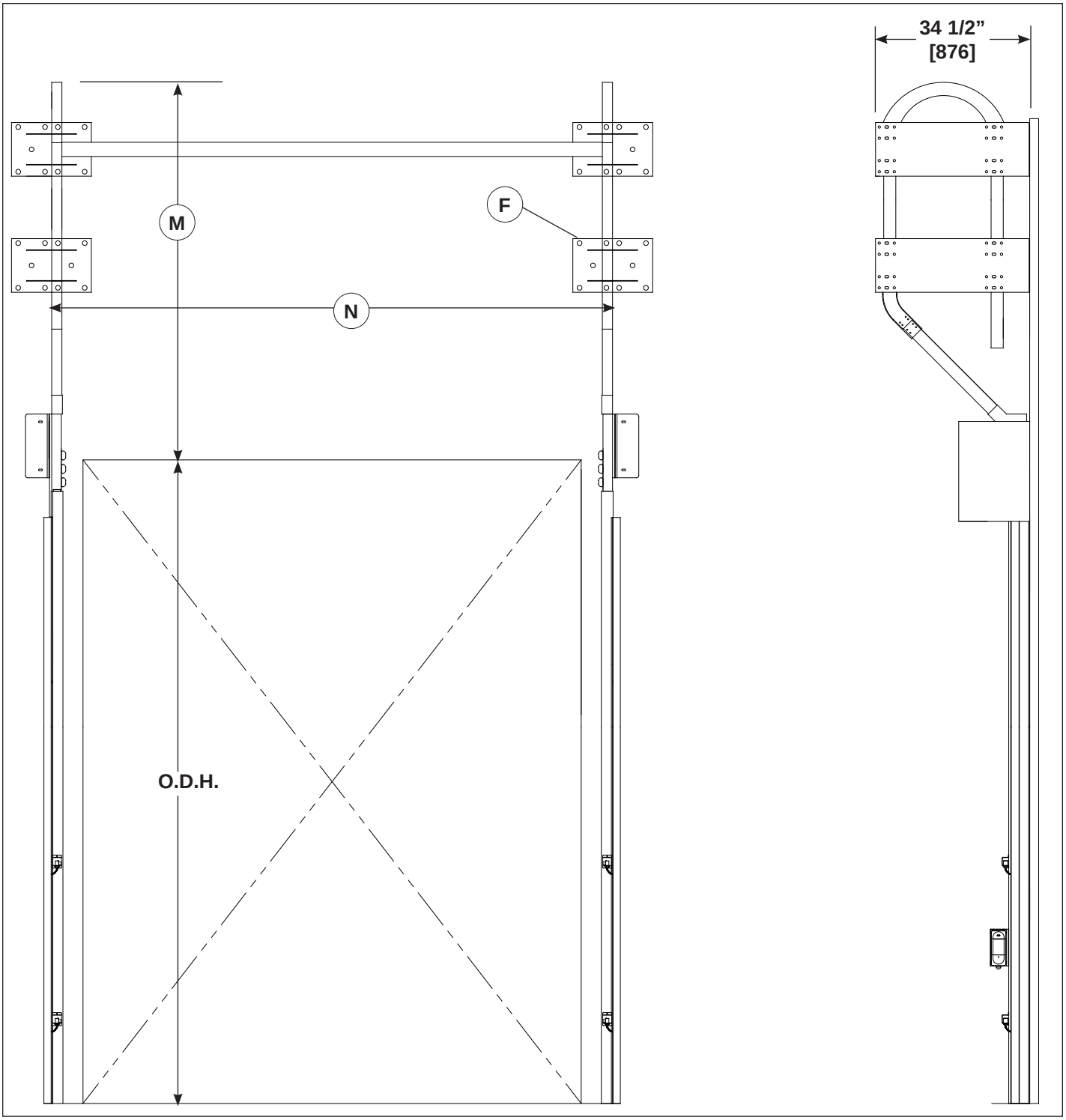


Figure 14.1

1. The proper radius (A) is already assembled to the lower track.
2. Locate the 2 shortest pieces (B) of upper track. Slide end of upper track into the lower track splice connector. Pilot holes (.201Ø x 1 1/4” [5x32] deep) MUST be predrilled into lower track radius. Make sure drill is perpendicular and level. Four (4) lag screws per location. **DO NOT drill into curtain groove.**
3. Locate the (2) 45° radius pieces (C) 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 in aluminum track, four (4) places each location.
4. Plumb track in both directions and fasten to wall mount bracket (D) using self/tap drill screws. Attach 180° piece to the upper track and fasten to the wall mount bracket. Top of 180° radius should be at O.D.H. / 2, + 12 1/2” [318] (J).

CHAPTER 3 - UPPER TRACK WRAPBACK

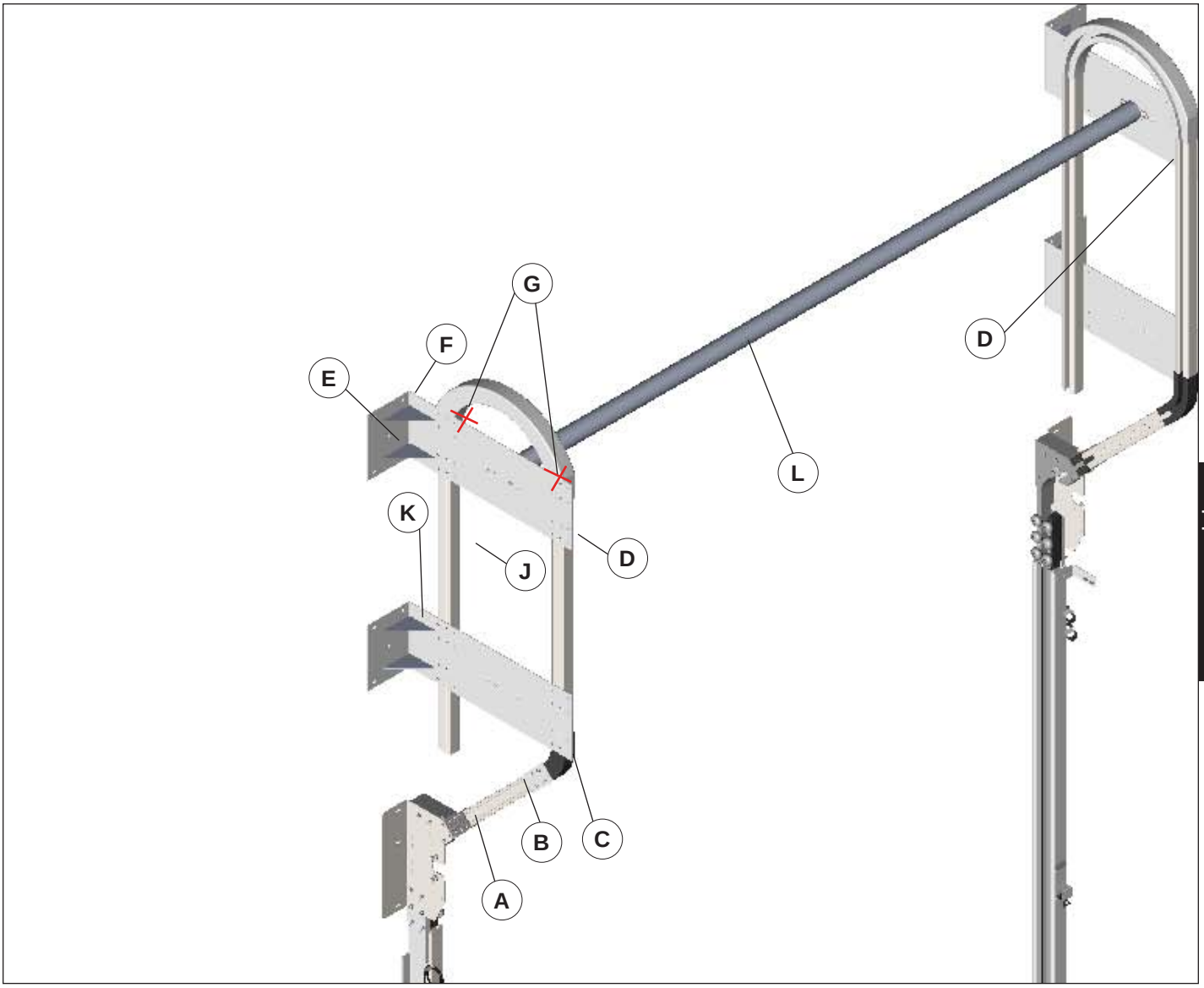


Figure 15.2

5. Fasten upper wall mount bracket (E) to track and wall. Minimum 6” x 6” [152 x 152] backer plate required on hollow or insulated walls. Can be mounted leg in or leg out (F)
6. Use self drill/tap screws in aluminum track, Four (4) places each location.
7. Pilot holes (.201Ø x 1 1/4” [5 x 32] deep) MUST be predrilled into upper track radius. Make sure drill is perpendicular and level. Three (3) lag screws per location, do not use inside upper hole (G). **DO NOT drill into curtain groove.**
8. Locate the 2 longest pieces (J) of upper track. Slide end of upper track into the 180° radius, level, plumb and fasten to wall mount bracket using self/tap drill screws.
9. Place mounting bracket (K) in position over the radius and upper track and fasten to wall mount bracket using self/tap drill screws.
10. **Required** - Fasten punched angle (L) bracing at the end of the track, maintaining proper spacing.
11. O.D.H. / 2 + 12 1/2” [318] (M).
12. From outside to outside (N) of tracks, measure O.D.W. + 14” [356] (+ 1/8” [3] / -0).

NOTE: Hold drill perpendicular and level to ensure screws go into the outer cavities of the upper track, NOT into the groove.

Use acceptable fasteners that will support the entire door weight (see Chapter 1).

CHAPTER 3 - UPPER TRACK 45° TILT

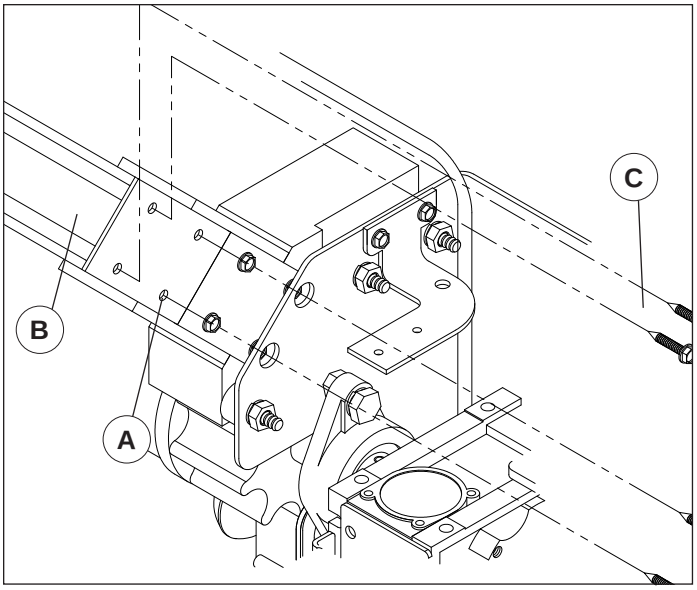


Figure 16.1

1. Use track splice bracket (A) to join lower and upper (B) track. Drill .201[5] Ø pilot hole 1 1/4" [32] deep for lag screws in radius. Use self drill/tap screws (C) in upper track (A).
2. From outside to outside (D) of tracks measure O.D.W. + 14" [357MM] (+ 1/8" [3] / -0).
3. Length of track (E) = O.D.H. (F) + 3" [76]
4. **CRITICAL MUST DO** - 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.

NOTE: Hold drill perpendicular and level to ensure screws go into the outer cavities of the upper track, NOT into the groove.

Use acceptable fasteners that will support the entire door weight (see Chapter 1).

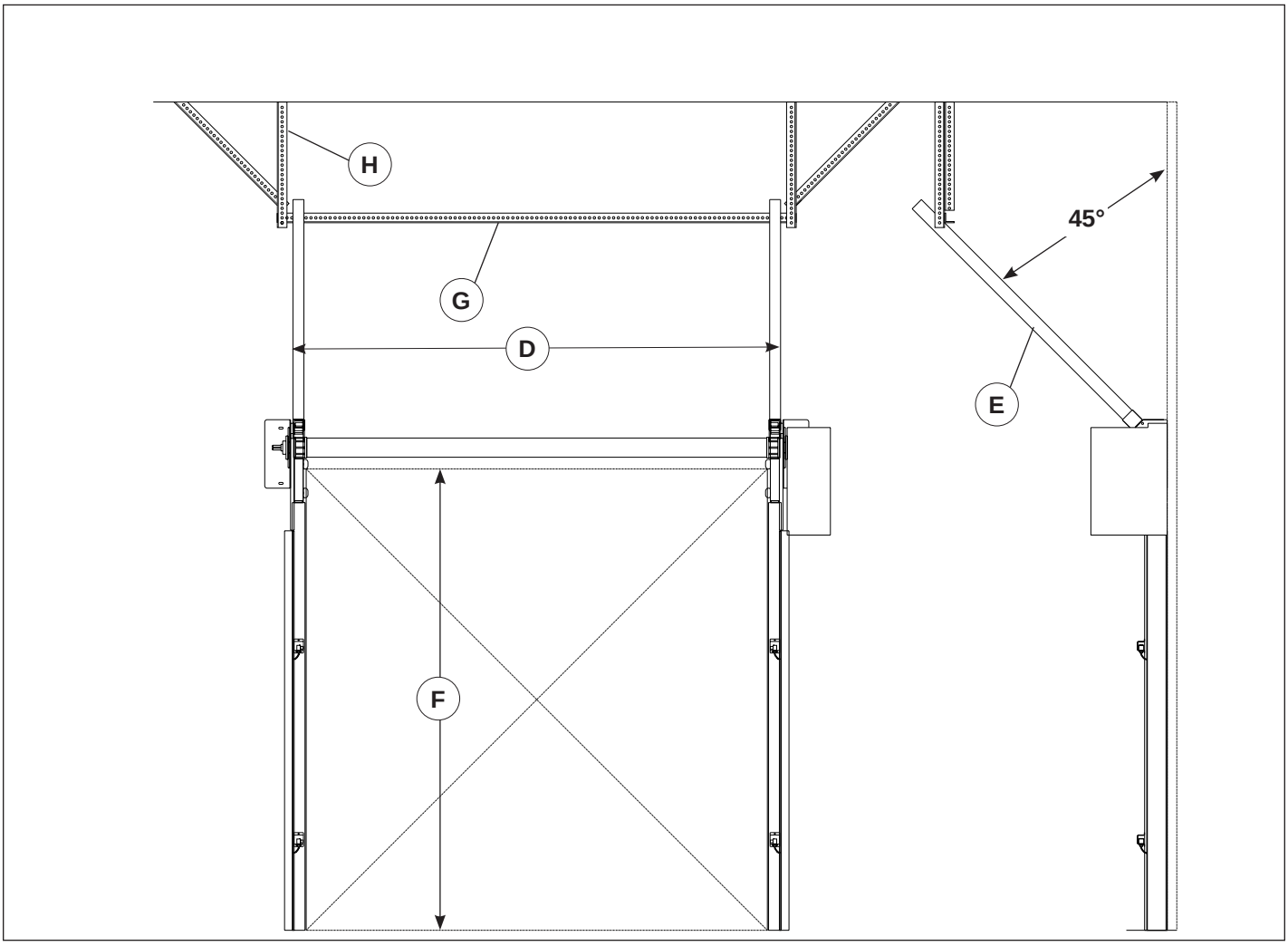


Figure 16.2

CHAPTER 3 - UPPER TRACK VERTICAL

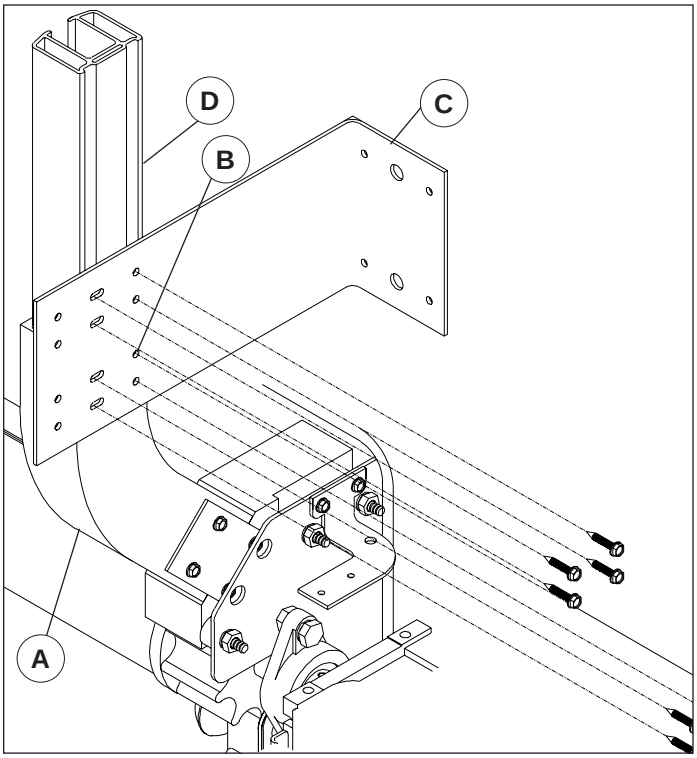


Figure 17.1

1. The proper radius (A) is already assembled to the lower track.
2. Pilot holes (.201Ø x 1 1/4" [5 x 32] deep) MUST be predrilled (B) into lower track radius. Make sure drill is perpendicular and level, DO NOT drill into curtain groove.
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. From outside to outside (E) of tracks measure O.D.W. + 14" [357MM] (+ 1/8" [3] / -0).
6. **CRITICAL MUST DO** - Fasten punched angle (F) bracing at the end of the track, maintaining proper spacing.
7. Fasten mounting brackets (G) to the wall and then the upper track.
8. Fasten bracing to diagonal (H) provide support from track to ceiling or wall.

NOTE: Hold drill perpendicular and level to ensure screws go into the outer cavities of the upper track, NOT into the groove.

Use acceptable fasteners that will support the entire door weight (see Chapter 1).

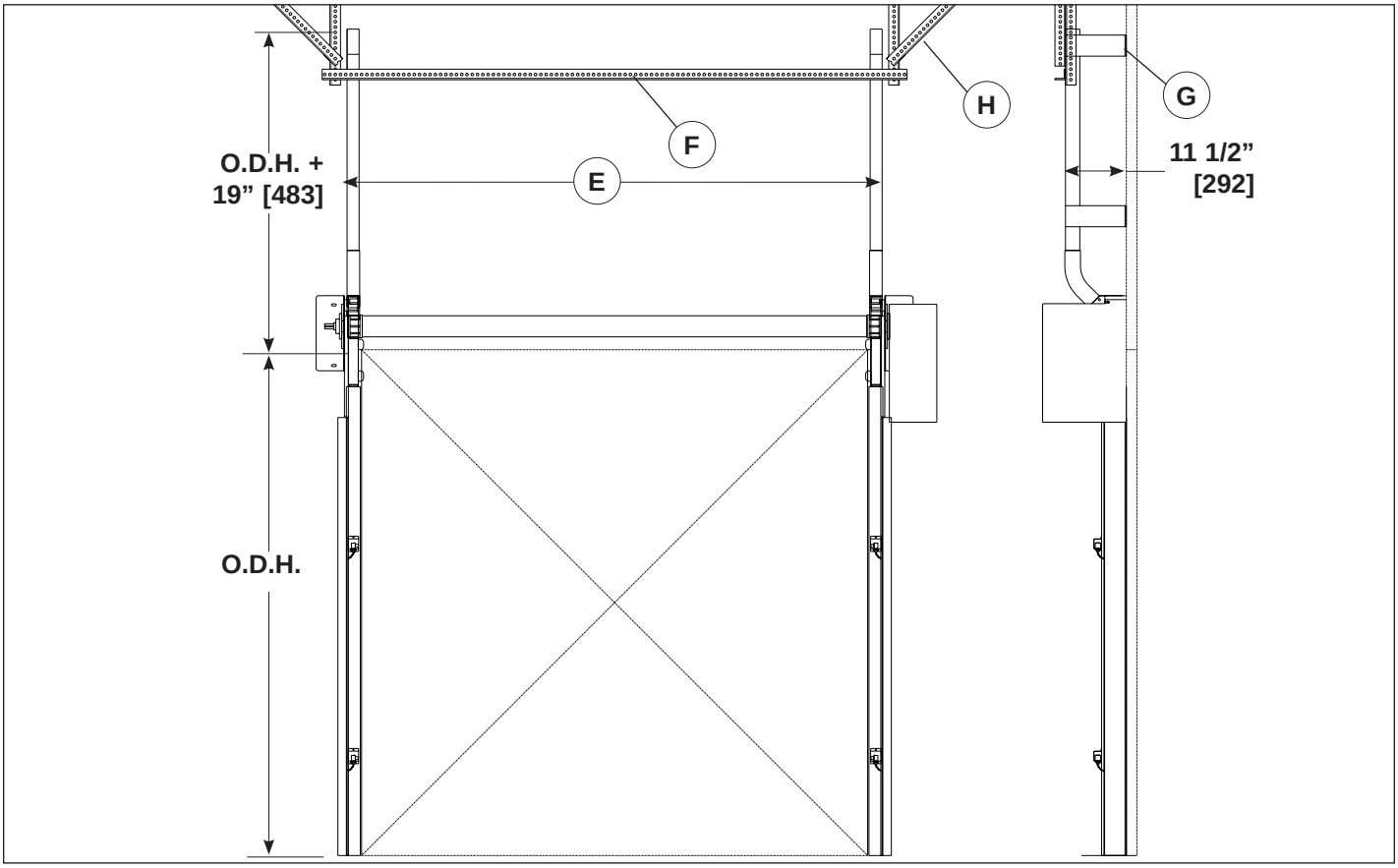


Figure 17.2

CHAPTER 3 - UPPER TRACK HIGH LIFT

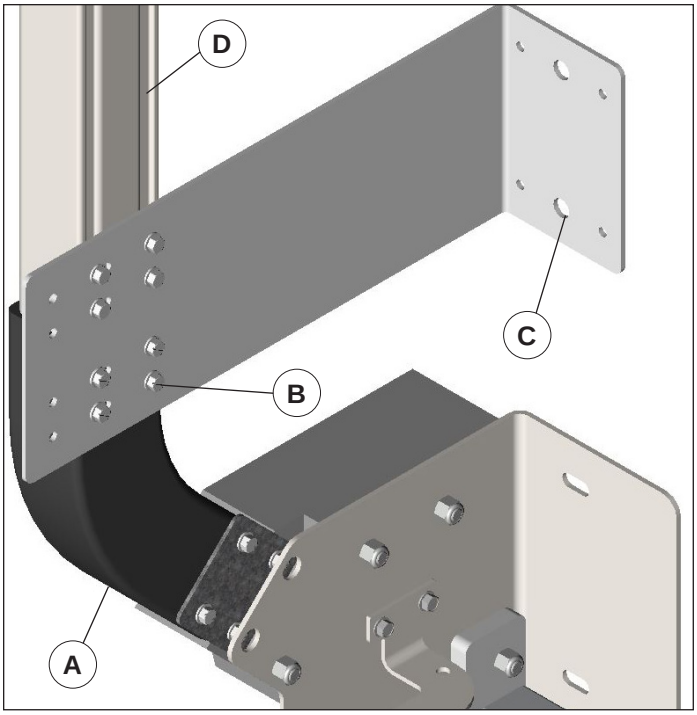


Figure 18.1

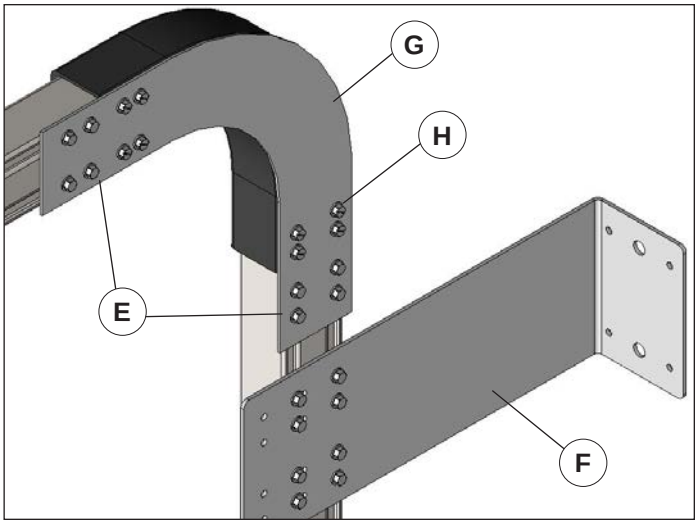


Figure 18.2

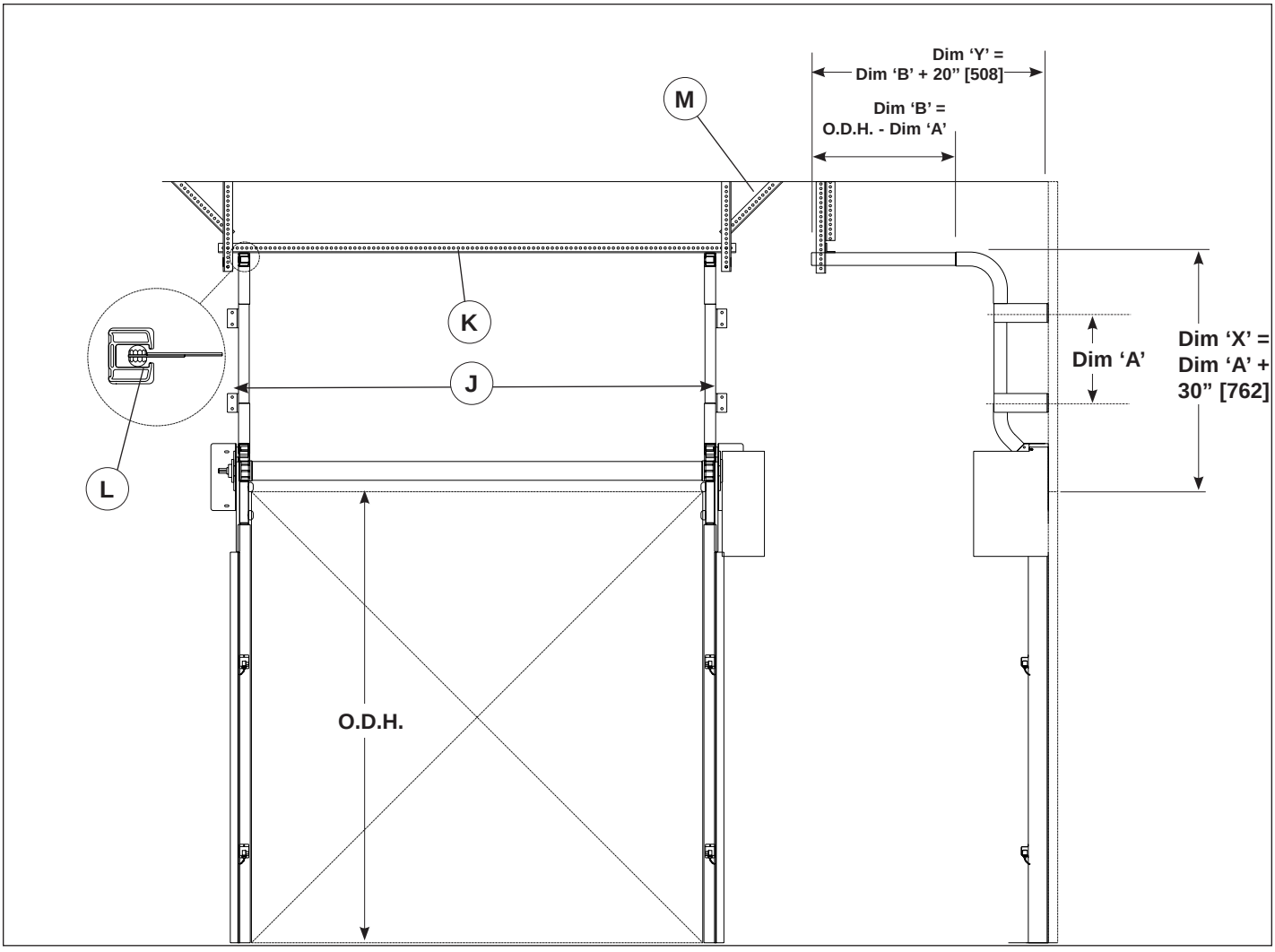


Figure 18.3

CHAPTER 3 - UPPER TRACK HIGH LIFT

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***.

NOTE: If Dim 'A' 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 1/4" [5 x 32] deep) MUST be predrilled into lower track radius. Make sure drill is perpendicular and level, DO NOT drill into curtain groove.
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 (E) in horizontal and vertical track.
6. Fasten upper wall mount bracket (F) to track and wall, below radius and splice bracket. Minimum 6" x 6" [152 x 152] backer plate required on hollow or insulated walls.
7. Use track splice bracket (G) to join lower and upper track. Drill .201[5] Ø pilot hole 1 1/4" [32] deep for lag screws.
8. Use lag screws in radius bracket.
9. From outside to outside (J) of tracks measure O.D.W. + 14" [357MM] (+ 1/8" [3] / -0).
10. **CRITICAL MUST DO** - 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.

NOTE: Hold drill perpendicular and level to ensure screws go into the outer cavities of the upper track, NOT into the groove.

Use acceptable fasteners that will support the entire door weight. (See Chapter 1).

CHAPTER 4 - DRIVE TUBE INSTALLATION

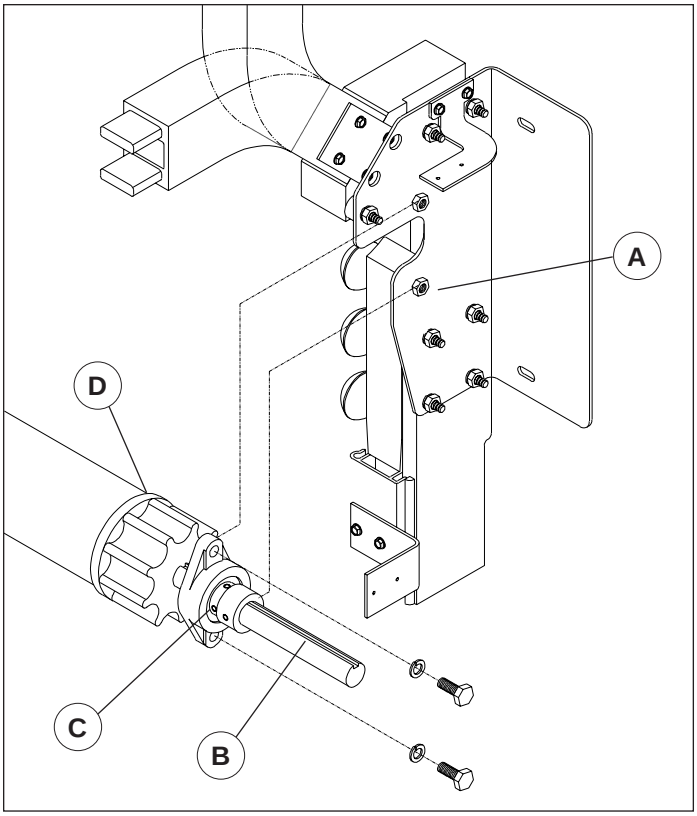


Figure 20.1

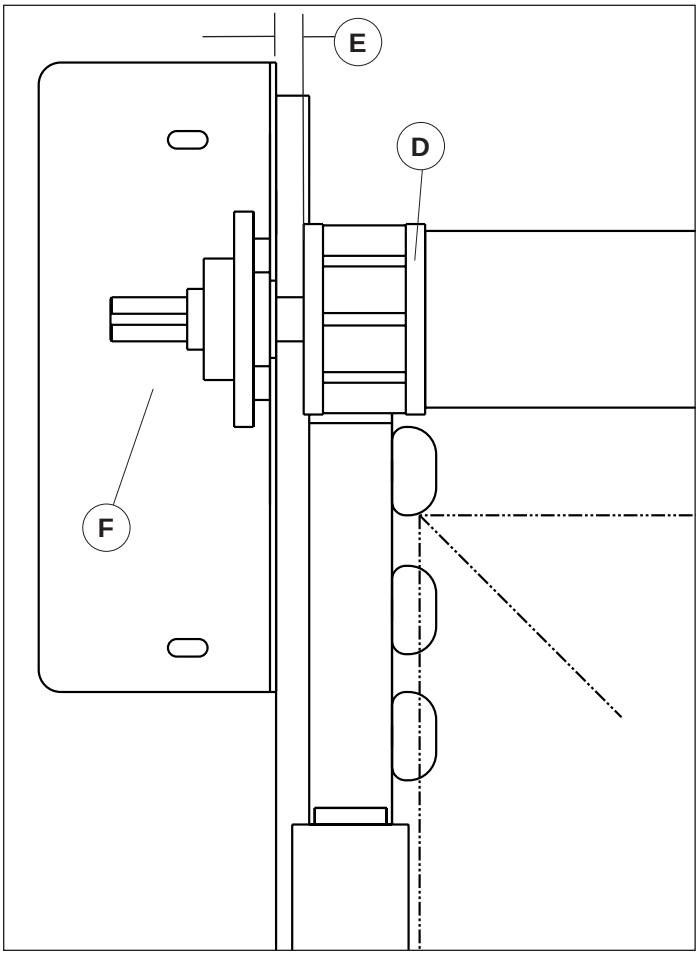


Figure 20.2

1. Remove the four (4) 1/2” [13] bolts and lock washers from the bearing mount weld nuts (A) 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).
4. Lift drive tube (D) in place and fasten the drive and non-drive bearings onto the mounting plate with the four (4) 1/2” [13] bolts and lock washers removed earlier.
5. **Critical Centering Dimension 3/4” [19MM] (E).** Measure from inside mounting plate to face of drive gear, approximately 3/4” [19]. Tighten bearing set screws when this dimension is equal on both sides.
6. Slide lock collar (F) next to non-drive side bearing and tighten set screws.
7. Place a level on the drive tube to verify tube is level to within 1/8” [3], if not, shim lower track as needed.
8. Remove lock collar from drive shaft. Slide gearbox housing onto shaft until it is against the spacer (S).
9. Rotate the drive tube until the key way slots are aligned and install key (J). Re-install lock collar (115 in/lbs) [13N-m].
10. Finger tighten top bolt (K) on encoder mounting plate to gearbox (L).
11. Slide encoder drive sprocket onto the drive shaft.
12. Install encoder chain (M) around sprockets.
13. Finger tighten remaining two mounting plate bolts (N).
14. Measure from each sprocket to plate to align. Tension chain and tighten mounting plate bolts.
15. Tighten set screw on drive sprocket using a 3/32” allen wrench (DO NOT overtighten - 5 in/lbs) [.56N-m].

    Sprocket does NOT require a key.
16. Fasten chain connector (P) from gearbox to hole in wall mount bracket.
17. Conduit bracket (Q).
18. Drive shaft is pre-lubricated (R) at the factory. If more is required, lubricate with an anti-seize lubricant. Verify spacer (S) is tight against bearing.
19. Tighten the rubber motor mounts 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
20. X7 terminal (T) can be used for activation devices.

CHAPTER 4 - MOTOR / ENCODER INSTALLATION

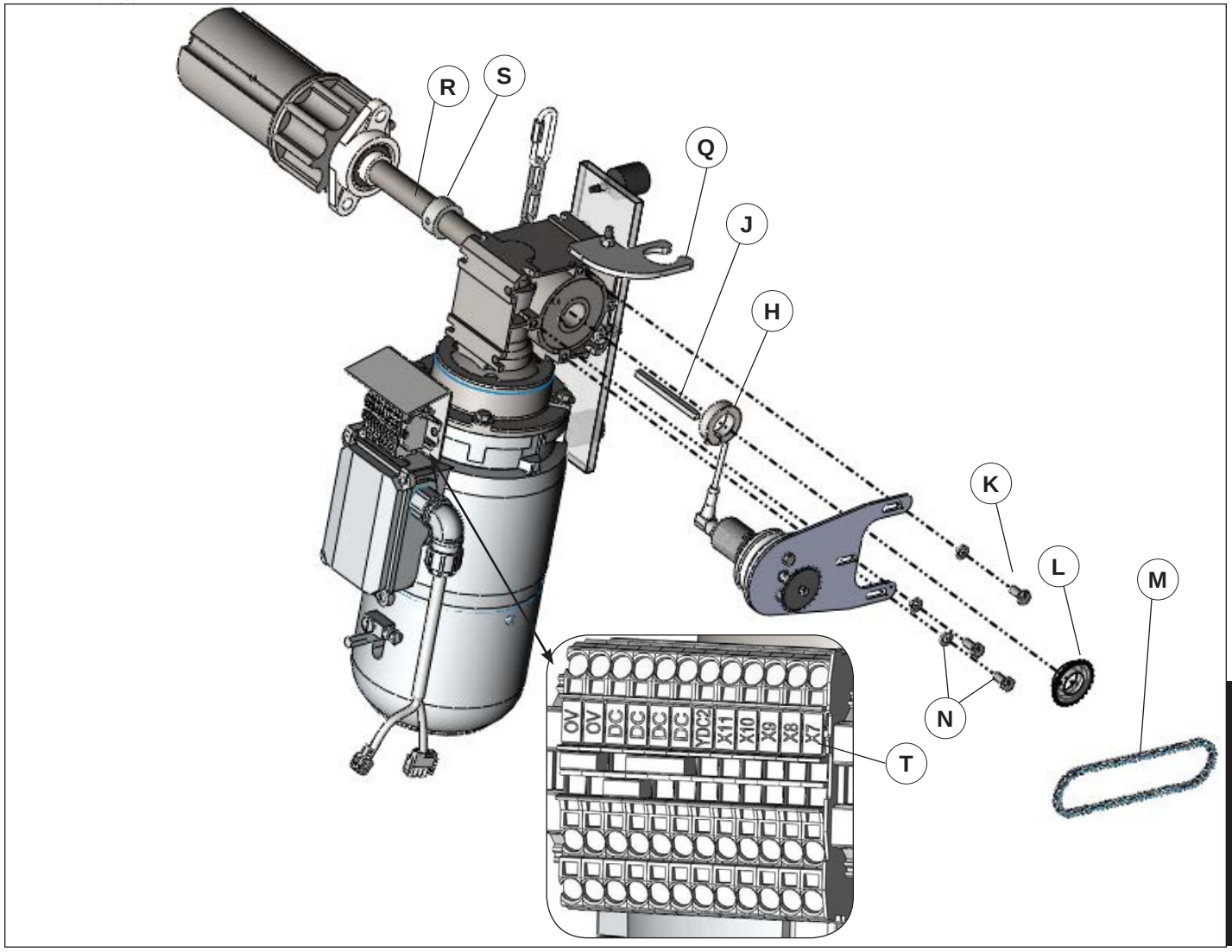


Figure 21.1

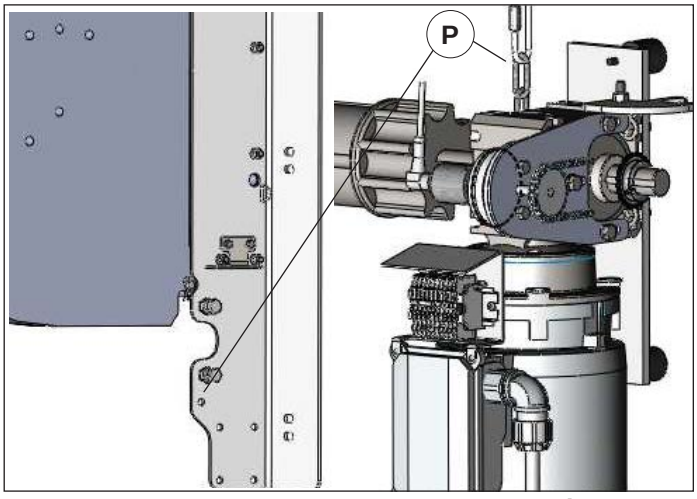


Figure 21.2

CHAPTER 4 - CURTAIN INSTALLATION

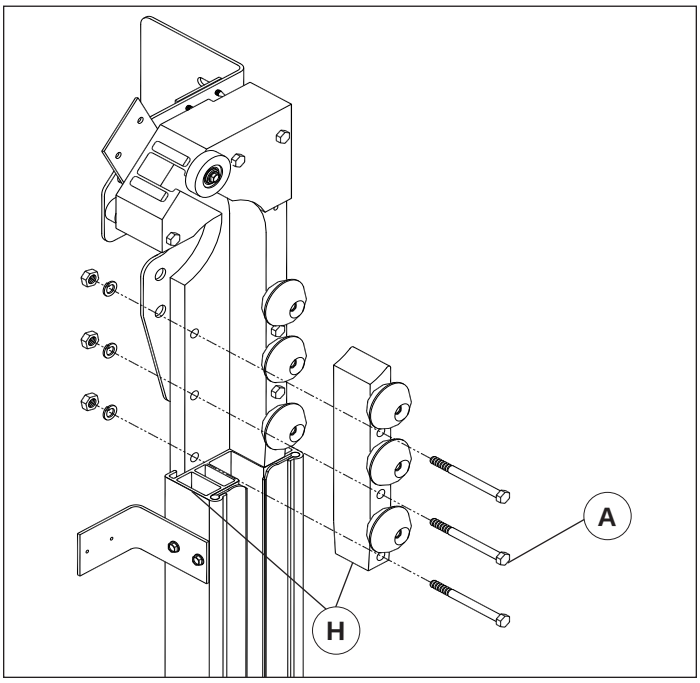


Figure 22.1

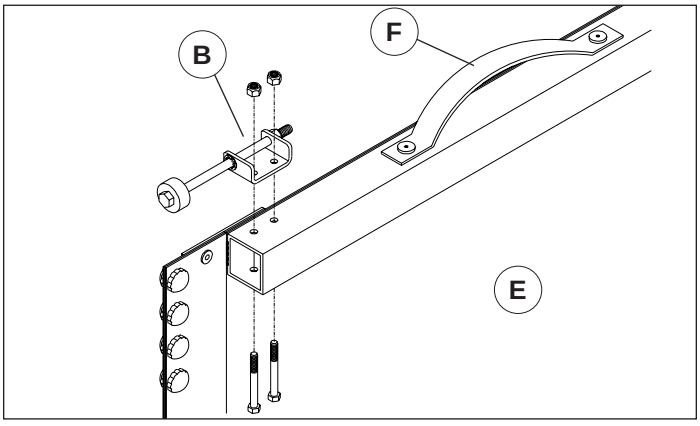


Figure 22.2

1. Remove the three (3) 3/8” [10] hex head bolts (A) holding the front refeed rollers in place (both sides).
2. Remove both top curtain rollers (B) to feed through drive gears two (2) 7/16” [11] bolts).
3. Disengage brake by pulling the handle on the brake and locking in place, ***Figure 4-3.***
4. Place curtain (D) with back side (E) facing the wall in front of the opening so that the top edge with the metal stiffener is facing the wall.
5. Raise curtain using curtain lifting handles (F) and feed top drive sphere around the back side of the drive gear and into the radius and/or upper track approximately 6” [152] by rotating drive tube to drive curtain through the drive gears.

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

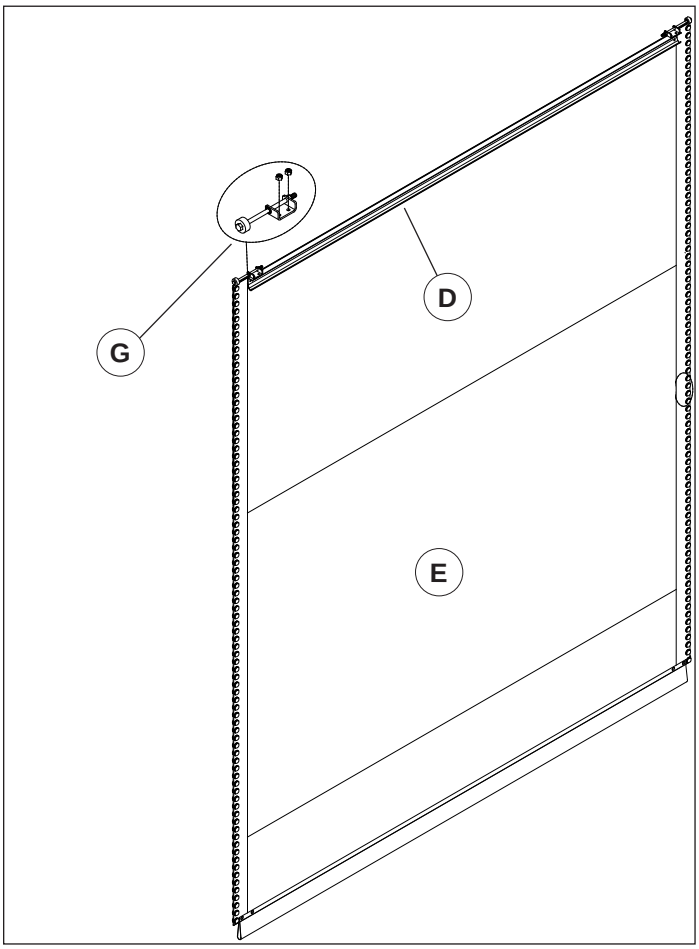


Figure 22.3

6. Engage brake to hold curtain.
7. Re-attach curtain top roller bracket (B) back onto the curtain brace.

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

8. Once top rollers are securely fastened, disengage brake and continue to route curtain through opening in lower track.
9. After curtain is fully into the track, re-install front refeed rollers back (G) onto the lower track. DO NOT overtighten bolts. **Make refeed roller brackets flush (H) with lower track when installing.**

CHAPTER 5 - ELECTRICAL INSTALLATION

Motor phasing

NOTE: If electrical is available, bypass Figures 22.1 - 22.3 and proceed to Electrical Installation on Page 24, and then return here. If electrical is not complete, proceed to install curtain per Figures 22.1 - 22.3

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.

⚠ CAUTION

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

General Notes

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 300’ [91,440].
3. Local electrical codes may require the use of rigid conduit rather than flexible conduit, if so, remove conduit connector, control cables from the flexible conduit and install the rigid conduit in its place and rewire.
4. If possible mount on the warm side regardless of door mount side.
5. **All holes drilled through the control box must be through the bottom of the box. Conduit entering the sides or top of the enclosure will void the warranty.**
6. Use the proper sealed connectors to maintain the NEMA rating on the enclosure.
7. Incoming 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.
8. Route all field installed wires so that separation is maintained between line voltage wires and low voltage class II wiring.
9. The control box is provided with class CC protective fusing for the incoming power.
10. Clamp conduit to wall after complete.
11. The control box cable is pre-wired to the control box. Attach control box cable to the conduit mounting bracket on the gearbox. Connect, motor, brake cables and fasten Terminal Strip 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 or let conduit hang on the floor.
12. In freezer and cooler applications where a conduit passes from a warm to cold temperature zone, the conduit must be plugged with epoxy. This will help prevent condensation from forming in the conduit. For more information, see Section 300-7a of the National Electric Code.
13. Refer to electrical diagrams for this door for further information.

NOTE: DO NOT SPLICE CONTROL WIRING

CHAPTER 5 - ELECTRICAL INSTALLATION

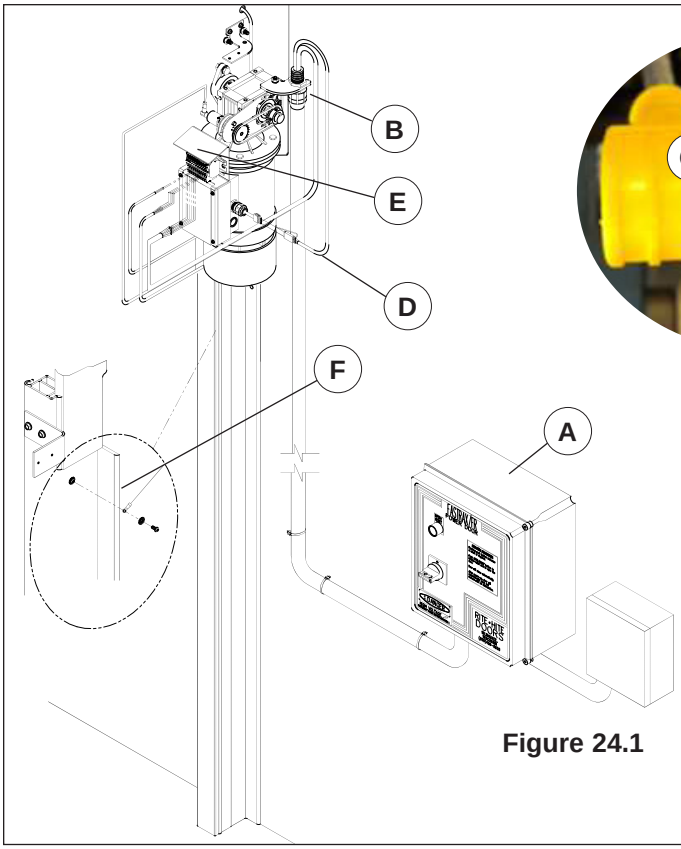


Figure 24.1

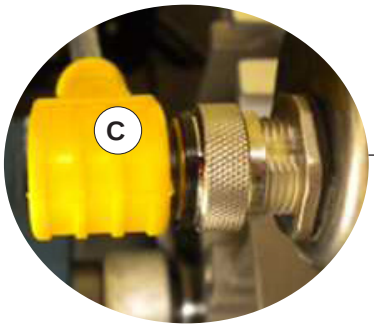


Figure 24.2

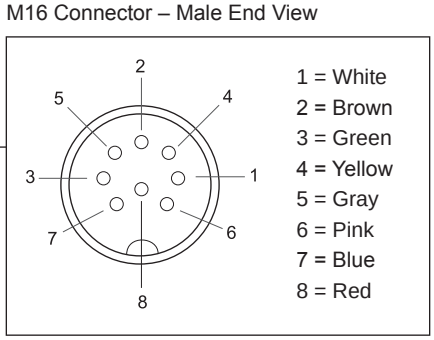


Figure 24.3

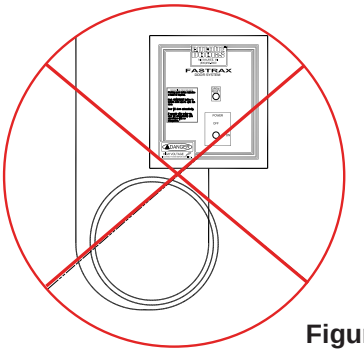


Figure 24.4

1. Mount control box (A) adjacent to the door at approximately 54” [1372] above the floor and 14” [356] from lower track.
2. Connect control box cable to conduit bracket (B), cut cable to proper length, do not coil, ***Figure 24.1.***
3. 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.
4. Connect four (4) pin motor and two (2) pin brake connectors (D).
5. Control box cable is pre-wired to the Terminal Strip (E). Use electrical drawings in Owner’s Manual.
6. Attach ground wire to lower track (F).

⚠ DANGER

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

⚠ DANGER

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

Use lockout and tagout procedures to avoid injury.

⚠ 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, an n.e.c. approved ground bushing and green/yellow wire must be properly attached to the conduit for connection to the ground terminal.

CHAPTER 5 - ELECTRICAL INSTALLATION

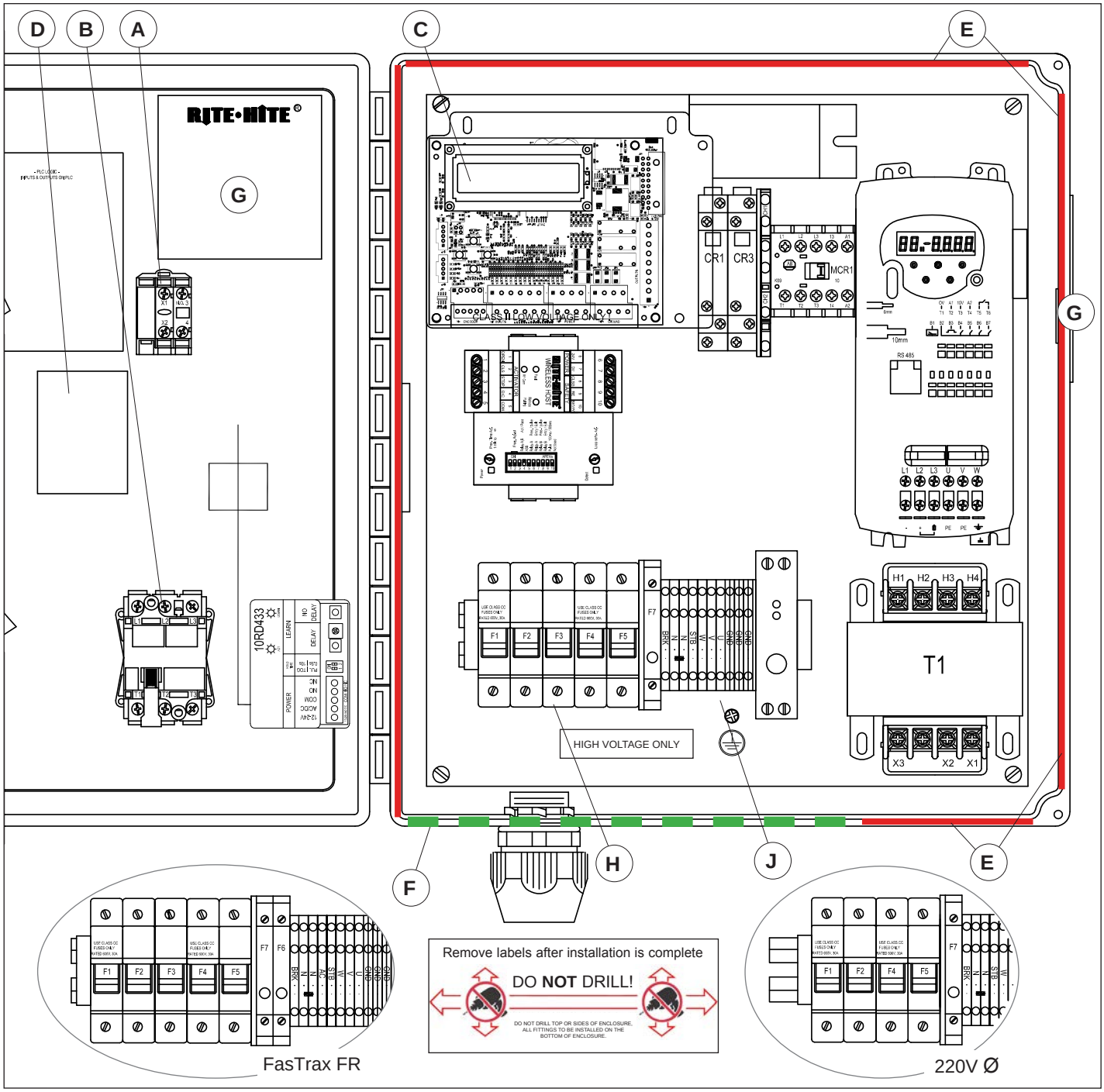


Figure 25.1

1. The green button (A) opens and resets the door after a fault. To “OPEN”, press and release the button. The i-COMM will automatically close the door after the preset time has expired.
2. The red Disconnect Switch (B) stops door operation. The control is rotated to the “ON” position for normal door operation. To stop door operation rotate the control to the “OFF” position. Whenever the door operation is stopped by using the disconnect switch, you must do the following to resume operation.

   a) Rotate the red disconnect switch to the “ON” position.

   b) Press the “OPEN/RESET” button to reset and open the door.
3. The i-COMM (C) is used to control all functions of the door.
4. Label (D) inside control box that is a ready reference to the i-COMM inputs and outputs, ***Page 26.***
5. Red solid line (E) indicates un-safe area for drilling holes
6. Green dashed line (F) indicates safe area for drilling holes
7. Serial # label (G).
8. F1, F2, F3 incoming power terminals for 230/460/400/575V 3Ø Configuration (H).
9. DO NOT wire incoming power into these terminals (J).

CHAPTER 5 - i-COMM ii 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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CHAPTER 5 - i-COMM ii / ENCODER SETUP MUST complete before operating door.

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

ENCODER SETUP INSTRUCTIONS

1. Verify wiring to encoder is properly terminated.
2. Place curtain in the closed (or open) position. If open, curtain should be 12” [305] below the lintel.
3. Power up the door and press enter button on the i-COMM, 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. - 12” [305]. 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 4” [102] more, and the current value is 72.0” [1829]. Change the value for “Open Pos. Adjust” to be 76.0” [1930]). 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 4” [102] more, the value for “Close Pos. Adjust” will be -4.0” [102]) 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 4.0” [102], leave the parameter and return, the parameter will display 0.0”. Even though the display shows 0.0” the -4.0” [102] 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.

CHAPTER 5

i-COMM ii DISPLAY SETUP DESCRIPTIONS

OPTION	DESCRIPTION
Open Distance	Use this option to set the overall opening distance of the door (in feet). For example, for an 8' [2438] tall FasTrax FR. This option should be set to "7" [178]. 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 adjustment to the closed position. The number displayed is the relative displacement of the closed position. For example, if this option was set to -1.0"[-25] the door would close approximately 1.0" [25] more. If this option was set to 2.0" [51] the door would close 2.0" [51] less.
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 -1.0" [-25 mm], the door would close approximately 1.0" [25 mm] more. If this option was set to 2.0" [51 mm], the door would close 2.0" [51 mm] less.
Apr Open Pos	Use this option to adjust the approach open position. This option is a measurement in inches from the open position. For example, if this option was set to 24.0" [610] the door would slow down 24.0" [610] 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, 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 within 8 seconds.
Photoeye Failure	Non-Drive PE's must have green light on, drive PE's must have red & yellow lights on. Check for alignment & power to each.

CHAPTER 5

i-COMM ii LCD DISPLAY MESSAGES

TOP DISPLAY	BOTTOM DISPLAY	REASON / FAULT MESSAGES	ACTION REQUIRED
Door Faulted	Breakaway	Door is in breakaway mode	Reset / Jog Door*
	Breakaway	FasTrax - Chainfall; 8000CL/XL - Sideframe door; 8000/CL/XL Overload Relay	Reset / Jog Door*
	Emergency Stop	E-Stop pushed, Overload Relay (8900), Inverter (8600)	Push Open/Reset*
	Encoder Read	i-Comm has detected a bad encoder read	Service Required
	Encoder Velocity	i-Comm has detected a velocity error	Service Required
	Jog to Close Pos	Displays when jogging close	None*
	Jog to Open Pos	Displays when jogging open	None*
	Limit Failure	Limit switch has failed	Service Required*
	Limit Pulse Fail	Trakline limit problem (8910/20/PL only)	Service Required*
	Low Voltage	Drop in voltage caused controller to restart	Push Open/Reset*
	Menu Interrupt	Menu Interrupted	Push Open/Reset*
	Normal Power Up	Indicates Loss of Power	Push Open/Reset*
	Obstruction	Door has detected obstruction and reversed 3 times	Inspect & Reset*
	Open Time Limit	Run open time limit exceeded	Service Required*
	Photoeye Failure	Indicates problem with photoeye system (FasTrax only)	Jog To Close*
	Pro System	Pro Inverter Fault	Check Inverter*
	Program Inverter	Inverter is not programmed for proper door operation	Service Required
	Reset From Sleep	Indicates the controller was awaken from sleep mode	Service Required*
	System Clock read	System clock failed	Service Required*
	Unknown	Unknown fault	Service Required*
	Unknown State	State unknown	Service Required*
	VFD Fault Relay	Indicates problem with inverter relay (CE specifications only)	Service Required*
	VFD Trip # xxx	Inverter is in fault. xxx Indicates the active inverter fault	Push Open / Reset
	VFD Comm. Loss	i-Comm has lost communication with inverter	Service Required
	Watchdog Timer	Indicates the boards watchdog timer has reset	Service Required*
Door is Opening		Door is opening	None
Door is Open		When not in preannounce to close	None
Stand Clear		When in preannounce to close	None
	Activation On	Indicates activation on (overrides timer display)	Device Holding Open
	Closing in xx.xs	Displays closing time in seconds	None
	I-Zone Detection	I-Zone active (overrides timer display)	Remove Detection
	Photoeye Blocked	Photoeye is blocked (overrides timer display)	Remove Obstruction
	Waiting for cmd.	Indicates door is waiting for manual close command	Close Door
	Door Closing	Door is closing	None
Door Closed	Cycles: xxxxxx	Displays cycle count	None
	Interlock Active	Door is interlocked and cannot be opened	Perform Interlocking
Door Stopped	Push Open/Close	Door is stopped	Open/Close Door

*Displays on Screen during jog only

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CHAPTER 5 - i-COMM ii 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

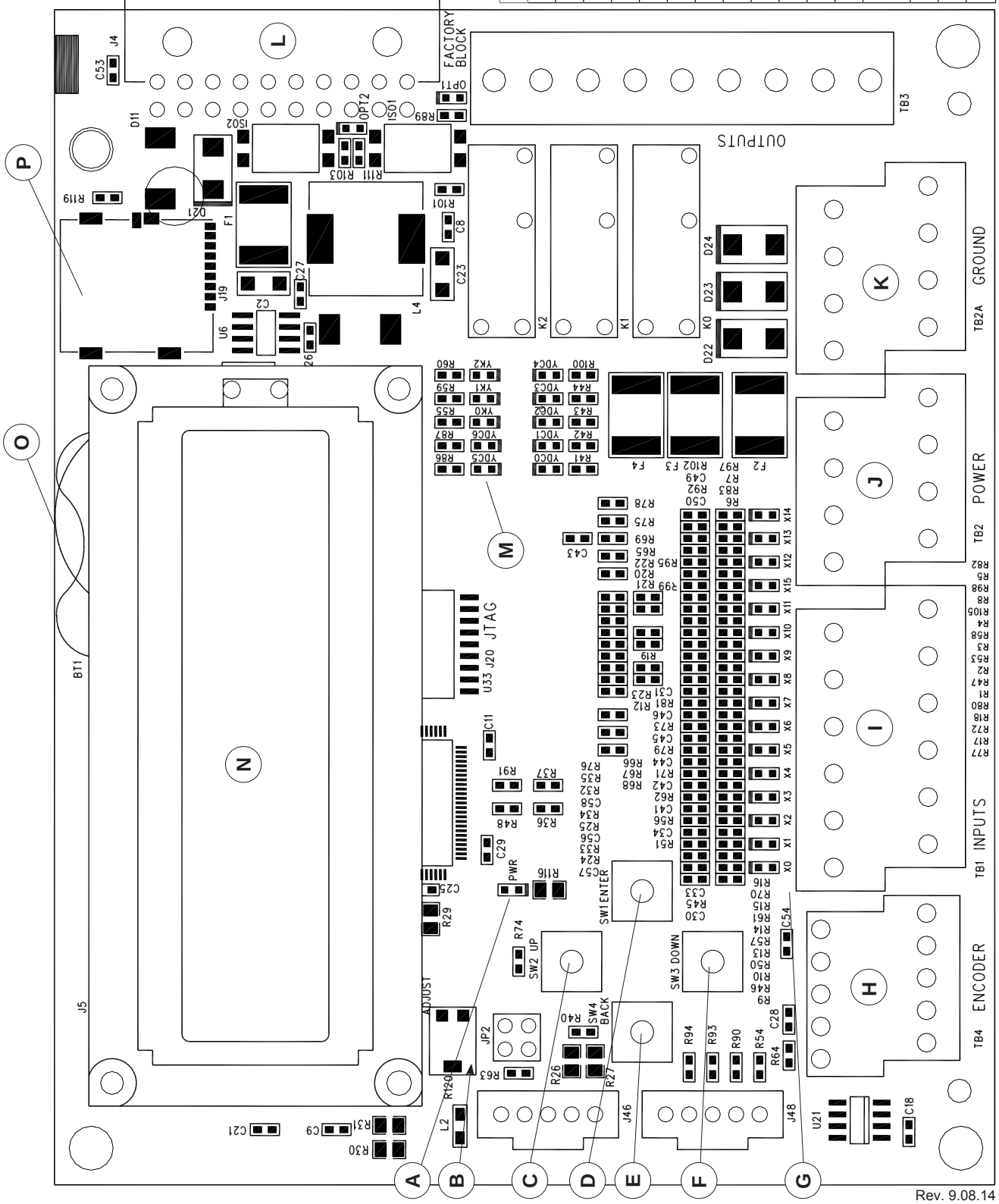

Figure 30.1

CHAPTER 5 - PROGRAMMING FOLDERS

Use the Enter, Up, Down, Back buttons on the i-Comm 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.

i-COMM ii Procedures

Procedure for 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.

Procedure for 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.

Procedure for 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.

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

NOTE: To reset Maintenance light, press ENTER button, scroll to General Folder, press ENTER button, scroll to Reset Maintenance, press ENTER, then UP to start, then green Open Button. This will reset flashing Open / Reset button.

Procedure for 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.

Description	Code
FAULT_NONE	0
FAULT_POWER_UP	1
FAULT_BREAKAWAY	2
FAULT_RUN_OPEN_TIMER	3
FAULT_MENU_INT	4
FAULT_LIMIT_SWITCH	5
FAULT_ESTOP	6
FAULT_RUN_CLOSE_TIMER	7
FAULT_LIMIT_PULSE_FAIL	8
FAULT_OBSTRUCTION	9
FAULT_TIMER_READ	10
FAULT_STATE_OB	11
FAULT_PRO_SYSTEM	12
FAULT_PHOTOEYE	13
FAULT_ENCODER_READ	14
FAULT_ENCODER_VELOCITY	15
FAULT_ENCODER_NC	16
FAULT_VFD_TRIP	17
FAULT_VFD_COMM_LOSS	18
FAULT_VFD_NO_PROGRAM	19
FAULT_EDGE_FAILURE	20
FAULT_BAG_UP	21
FAULT_ENCODER_NPWR	22
FAULT_LZR	23
FAULT_BLANK	255

CHAPTER 5 - i-COMM ii FOLDERS

FOLDER	#*	NAME	VALID VALUES	DESCRIPTION	DEFAULT
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 poisiton	-
	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, Rev./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	24
	35	X11 PE Cut-Out	0 - 66	X11 Photoeye cut-out height	60
	36	I-Zone Cut-Out	0 - 48	I-Zone cut-out height	42
Timer Folder	37	Set Close Timer	0 - 255/Toggle Mode	Close Timer in seconds. Set to Toggle Mode to disbale 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 Menu

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CHAPTER 5 - i-COMM ii FOLDERS *Continued*

FOLDER	#*	NAME	VALID VALUES	DESCRIPTION	DEFAULT
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	Rev. 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 Rev.	-	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.	-
	72	Open Speed	0 - 90 Hz	Open Speed	70.0
	73	Close Speed	0 - 90 Hz	Close Speed	See Note 1
	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 Rev. 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 Menu

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CHAPTER 5 - i-COMM ii 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
	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)

CHAPTER 5 - i-COMM ii INPUT / OUTPUT VALUES *Continued*

TYPE	#	FUNCTION	DESCRIPTION
Output	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

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CHAPTER 5 - 230/460V INVERTER (VFD) PROGRAMMING AND CODES

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

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

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

Pressing and releasing the **"M" MODE** key again will change the display from parameter view mode to parameter edit mode.

In parameter edit mode, the right hand display flashes the value in the parameter being shown in the left hand display.

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

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

Parameter Number	Name	Default Value	New Value	Units
00.03	Acceleration Rate 1	5.0	0.5	s/100 Hz
00.04	Deceleration Rate 1	10.0	0.5	s/100 Hz
00.06	Motor Rated Current	2.93	2.93	A
00.10	Security Status	L1	L2	
00.19	Close Speed	17.00	25.00	Hz
00.20	Open Speed	70.00	60.00	Hz
00.21	Approach Open Speed	40.00	25.00	Hz
00.61	Torque Detection Level	0	60	%
00.66	Injection Braking Level	50	70	%
00.67	Injection Braking Time	.4	.7	seconds

FasTrax—Inverter (VFD) 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

FasTrax—Inverter (VFD) 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	I^2C on braking resistor	Check door closing speed. If fault is while door is closing, add breaking resistor. See tr OV for more troubleshooting.
20	tr It. AC	I^2C 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	I^2-t on braking resistor	Excessive braking resistor energy
20	It.AC	I^2-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

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CHAPTER 5 - 575V INVERTER (VFD) PROGRAMMING

FasTrax™ Allen Bradley - 575V - Inverter Program Instructions

WARNING: Consult factory before changing any parameters not listed in this table.			
Parameter Number	**Name**	**Default Value**	**New Value**
039	Accel Time	0.5	a/r
040	Decel Time	0.3	a/r
056	Torque Detection Level	70.0	a/r
072	Open Speed	70.0	a/r
073	Approach Open Speed	40.0	a/r
075	Close Speed	17.0	a/r
080	DC Brake Injection Time	0.5	a/r
081	DC Brake Injection Level	1.50	a/r
101	Program Lock	1	0

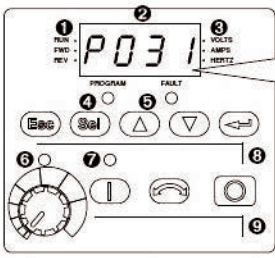
Press **“ESC”** once to display the Display Group parameter.

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

CHAPTER 6 - DOOR OPERATION

1. Verify operation of all FasTrax FR controls monthly.
2. The door operations are controlled by a Universal Controller (i-Comm). The controller is set-up and programmed during testing at the factory. Only Rite-Hite authorized service technicians, should change the programming.
3. A quick way of determining that the door is ready to operate, is to open the control box and look at the row of (X) green Input LED's on the i-COMM and the label to verify proper state, Page 26.
4. Are the pillow block bearing set screws tightened to 66 to 80 in.-lb.?
5. All wires connected for the photoeyes?
6. Are loose wires secured away from moving parts?
7. With the power on, press the "OPEN" button, the door should open and close automatically after a short delay. To adjust the amount of door open time, the setting must be changed in the i-Comm controller.
8. 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.

   If it is necessary to adjust either position, refer to Encoder adjustment section.
9. While the door is closing, block the reversing photoeyes. The door should reverse direction, move to the open position, and continue to operate.
10. 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.
11. 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.
12. Advise Pedestrians to use man doors if present and not to lean into the door way.
13. A fault will occur if the optional non-powered chain hoist chain is pulled. Press the green flashing "OPEN/RESET" button to return to normal operation.

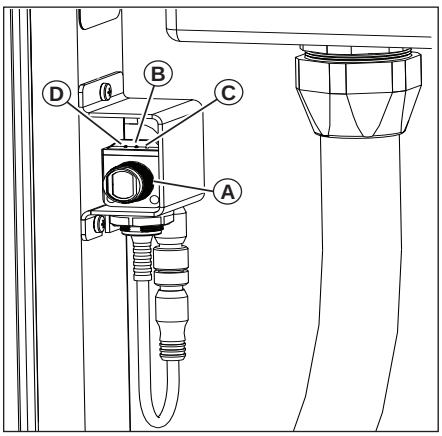


Figure 38.1

Photoeye:

DO NOT change the location of photoeyes as they are disabled before the curtain passes by. They MUST be at 18" [457 mm] and 54" [1.3 m].

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

- 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.

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.

With Chain Hoist:

1. On the door mounted side, pull the manual brake release chain and lock in the hold down bracket.
2. Pull the chain hoist chain to raise or lower the door.
3. Pulling the chain hoist chain cuts power to the door via a mechanical limit switch. Upon power restoration, repositioning of the chain may be required to reset the door.
4. Release the brake chain to hold the door in place and to put door back in operation mode.

Without Chain Hoist:

1. This 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 the door. The force required will vary based on lift configuration.
4. Caution should be used with lift configurations where 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.

CHAPTER 6 - FINAL CHECKLIST

COMPLETE	N/A	DESCRIPTION
		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 (Radial or Non-Radial)
		Upper track properly spaced
		Upper track properly braced to wall
		Drive tube level and evenly spaced
		Lintel roller(s) installed properly (Non-FR)
		Proper mounting fasteners used
		Motor terminal strip securely fastened to motor bracket
		Motor bumpers properly adjusted
		Security chain in place
		Drive shroud installed
		Radial center shroud properly installed (Radial only)
		Chain hoist properly installed (Optional)
		If less than 8’ tall, make sure drive gear guards are in place (Optional)
		Poly lumber properly installed (Optional)
		FR only – Air bag not kinked, exhausting air, ice free and touching the floor
		FR only – Blower(s) properly mounted
		FR only – Curtain fan(s) properly installed
		FR only – Step-down transformer and junction box properly installed and thru bolted if necessary
		Area clean of debris from installation
Notes:		

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CHAPTER 7 - BRAKE RELEASE / CHAIN HOIST (OPTIONAL)

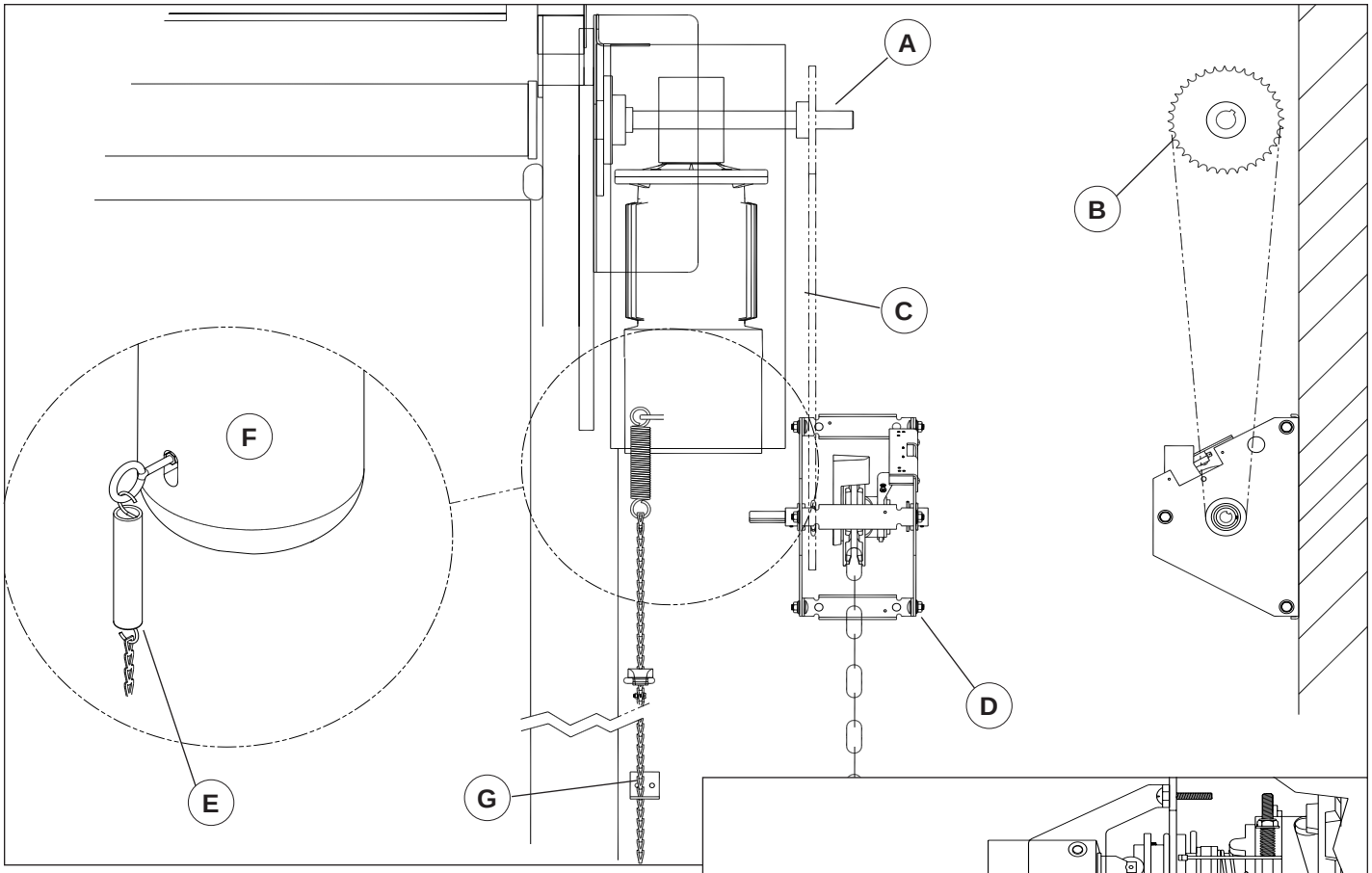


Figure 40.1

1. Lubricate drive shaft (A) with an anti-seize lubricant and place sprocket (B) and key onto shaft and tighten set screws.
2. Route chain (C) around sprockets. Plumb and level chain hoist, make sure chain is taunt.
3. Use a straight edge to align chain sprockets. Failure to do so may result in noise and premature wear.
4. Mark and drill hole locations and fasten hoist (D) to the wall. Unit can be rotated 180° to fit. If door frame is blocked out, chain hoist must also be blocked out.
5. Attach spring (E) to the brake (F) handle and chain to the spring.
6. Fasten chain lock bracket (G) to wall, so that it will hold chain in place to release the brake. Trim excess chain.
7. Plug in cable (H) for interior switch and (K) for exterior switch and wire chain hoist into control box per electrical drawing in owner's manual.
8. Install interior chain hoist guard (J).
9. For opposite drive, remove top bracket, rotate 180° and re-fasten.
10. Test operation of chain hoist. Pull brake chain and lock in place. Pull chain hoist chain, which will stop door operation. Release brake chain and operate door.

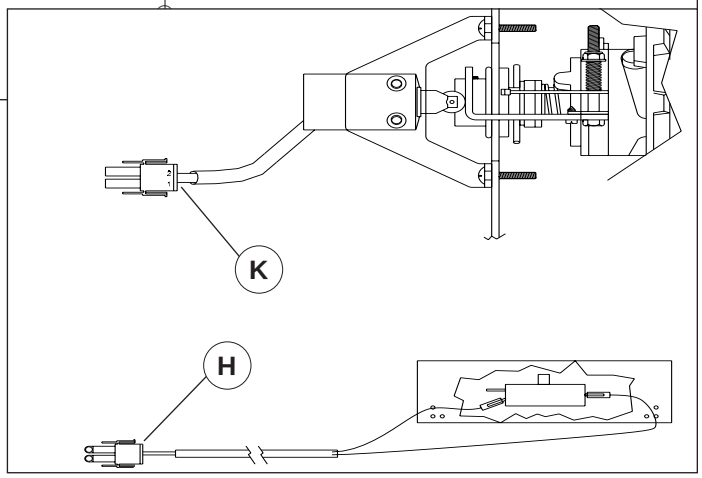


Figure 40.2

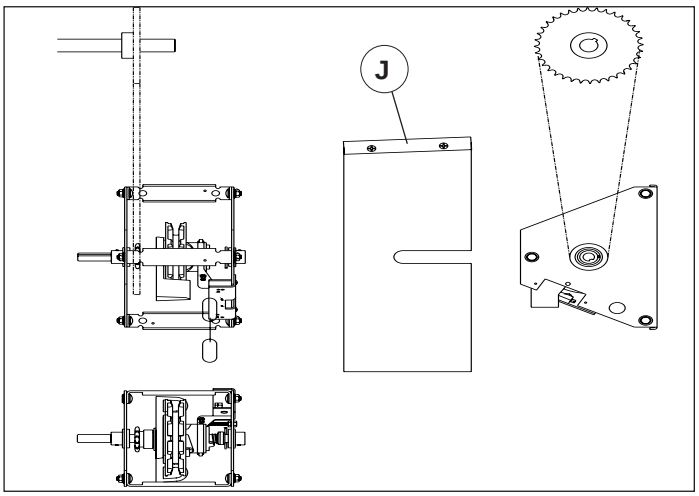


Figure 40.3

CHAPTER 7 - METAL JAMB MOUNTING KIT (OPTIONAL)

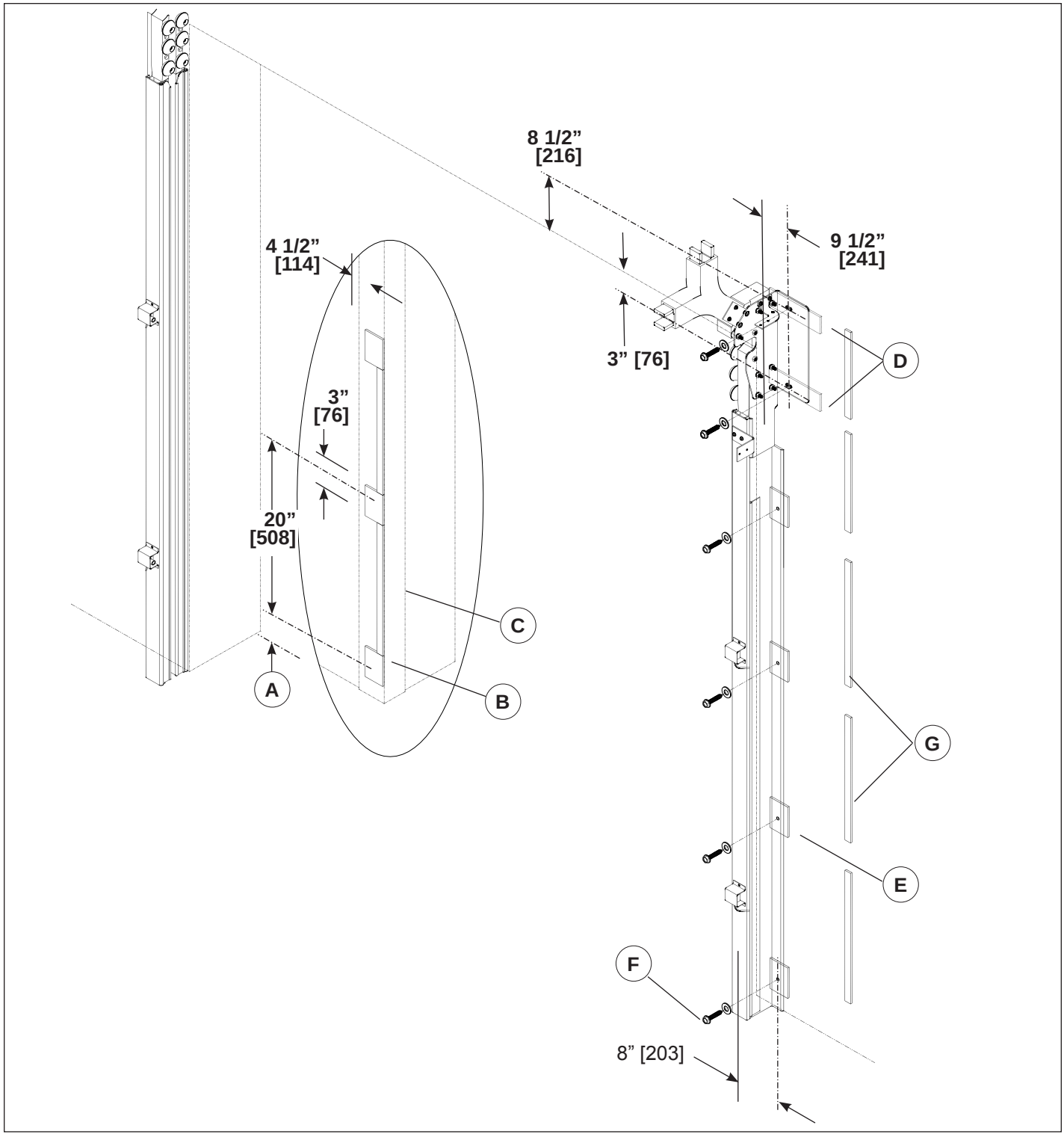


Figure 41.1

1. Measure from bottom of track (A) (varies based on O.D.H.) to each hole location and position weld plates (B) on the steel member (C) at these locations and weld in place. If steel is not present at the track hole locations, weld where possible.

NOTE: At the minimum, there MUST be a fastener every other hole, approximately 40’ [1016].

2. Position upper weld plates (D) so they catch the wall mount bracket holes. If no steel above the opening, it must be provided.
3. Fasten lower track to weld plates (E) with self-drill/tap screws and washers provided (F).
4. Fill gaps between weld plates with tape backed foam (G).

CHAPTER 7 - <8’- 0” [2438] D.O.H. (OPTIONAL)

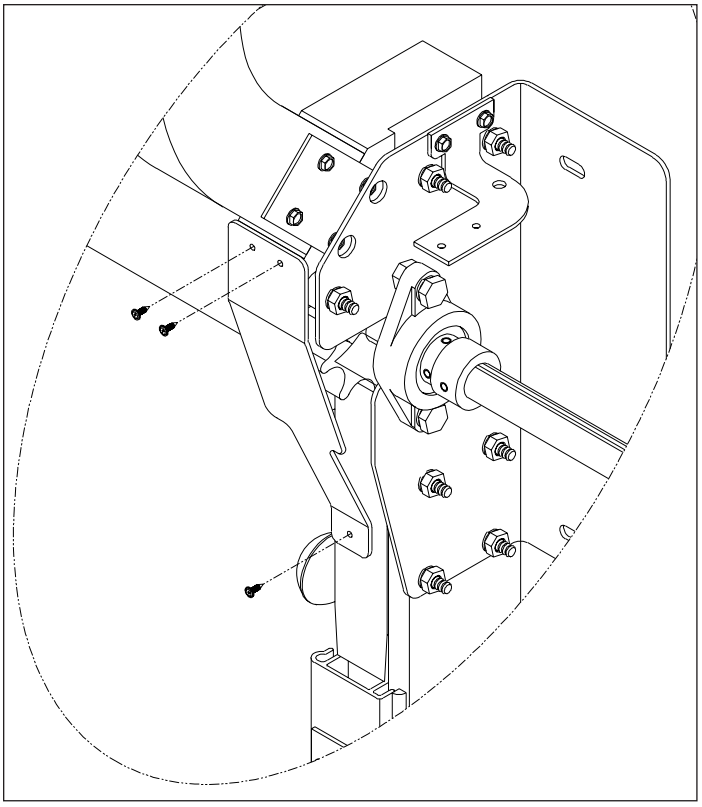


Figure 42.1

1. If door height is less than 8’-0” [2438] tall, install drive guard onto vertical, tilt, high lift style doors.
2. If door height is less than 8’-0” [2438] tall, install sign and brackets onto lower tracks on each side at approximately 5’-0” [1524] from the floor.

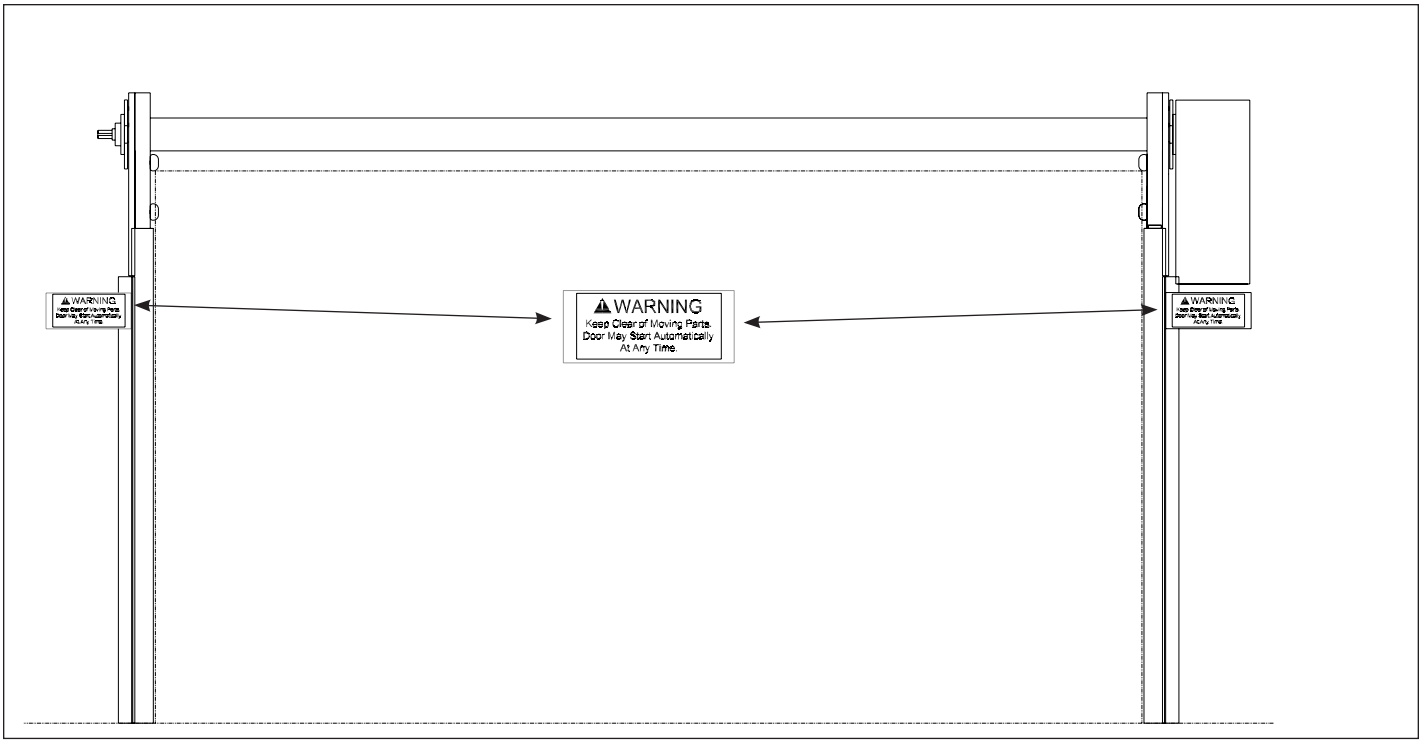


Figure 42.2

CHAPTER 7 - LABEL/I-ZONE/SHROUD INSTALLATION

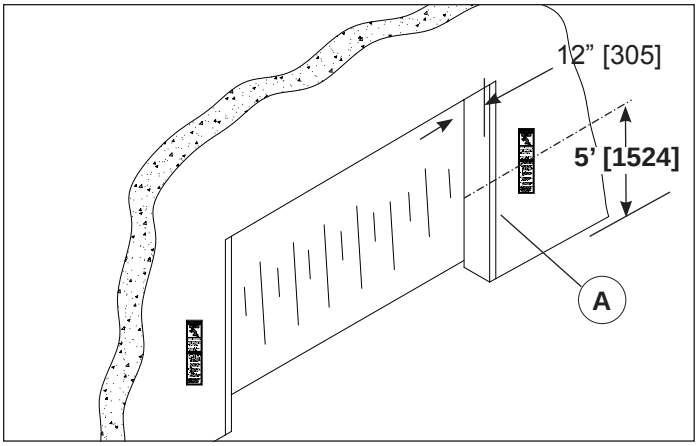


Figure 43.1

Label

On back side of door, clean surface where label (A) is to be placed. Peel off backing on label and apply in position.

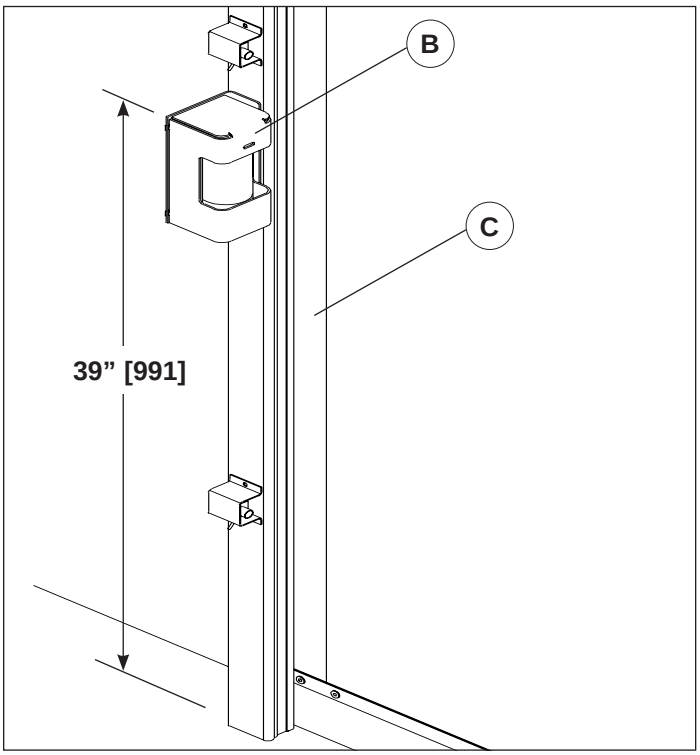


Figure 43.2

I-Zone

1. Mount I-Zone sensors (B) to the lower tracks C) and route cables to the terminal strip on the motor junction box.

NOTE: If door is mounted exterior, sensors must be mounted interior.

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.)

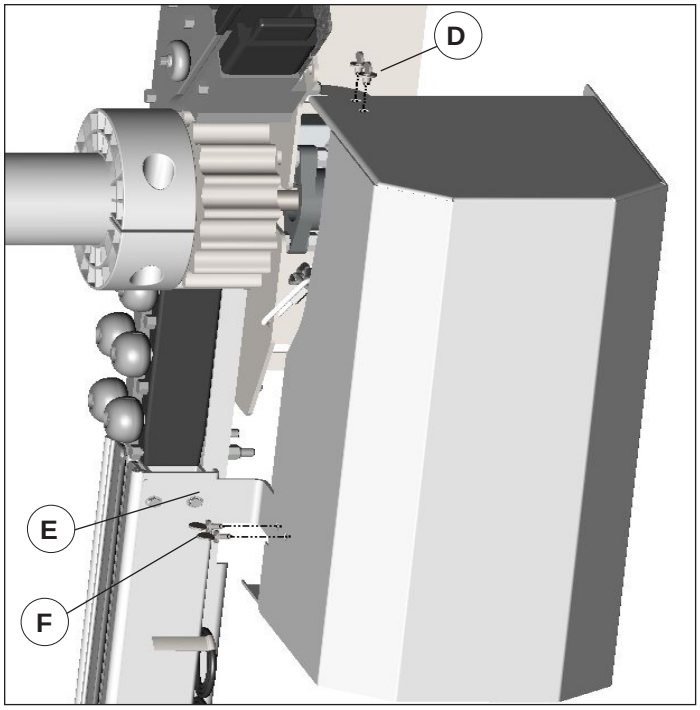


Figure 43.3

Shroud

1. Align extension bracket slots with holes in drive shroud and attach to upper mounting bracket (D) with (2) thumb screws (E).
2. Place drive shroud into position and attach to lower mounting bracket (F) with (2) thumb screws.

CHAPTER 8 - MAINTENANCE PROCEDURES

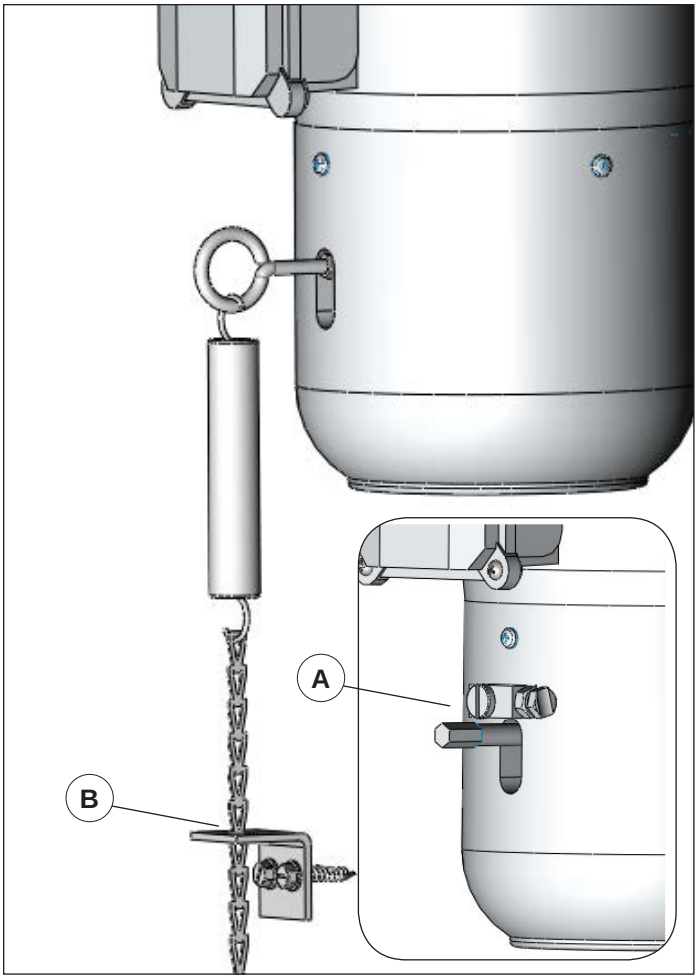


Figure 44.1

Brake Release Without Chain

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

Brake Release With Chain

1. To disengage brake, remove the chain from the lock bracket (B), pull down and lock the chain in place.
2. To engage brake, remove the chain from the lock bracket until chain is no longer taught and lock the chain in place.

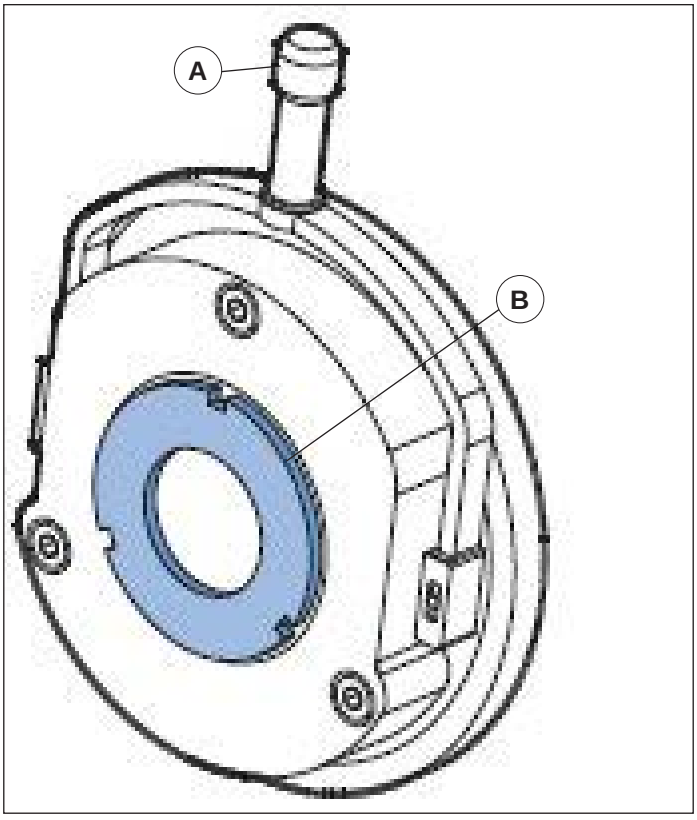


Figure 44.2

Brake Adjustments

1. Remove the brake cover by removingthe three screws and brake handle (A) holding it on.
2. Torque Adjustment should only be required after prolonged brake use.
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)

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

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

CHAPTER 8 - REPLACEMENT INSTRUCTIONS

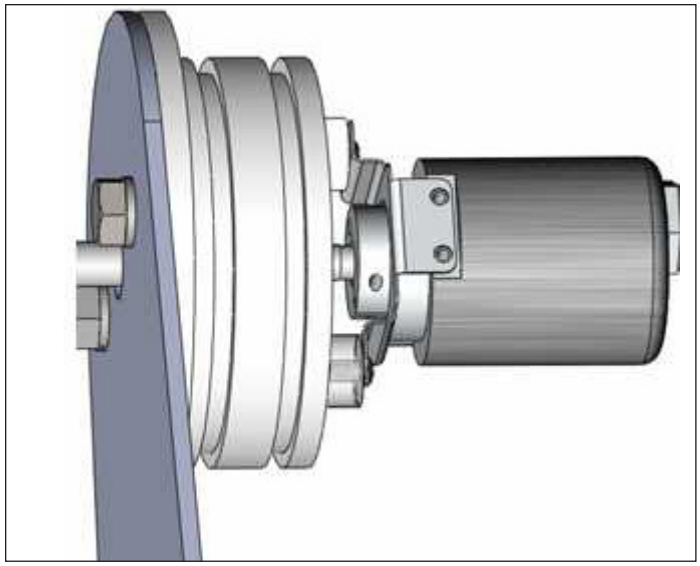


Figure 45.1

Encoder Replacement

1. To replace encoder, unscrew connector.
2. Using 2mm allen wrench, loosen lock collar and slide encoder off of shaft.
3. Install new encoder, tighten lock collar (14 in/lbs), and screw connector on.
4. Proceed to encoder setup instructions

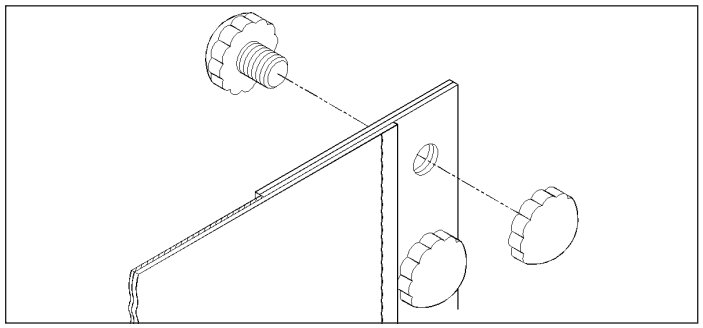


Figure 45.2

Drive Sphere Replacement

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

   Torque spec: 16inch/lbs. ±4inch/lbs.
3. Do to shipping regulations, Rite-Hite suggests the following to be purchased by end user:

   Loctite® 438 or 3M - DP8005 for thread locking and securing to the edging.

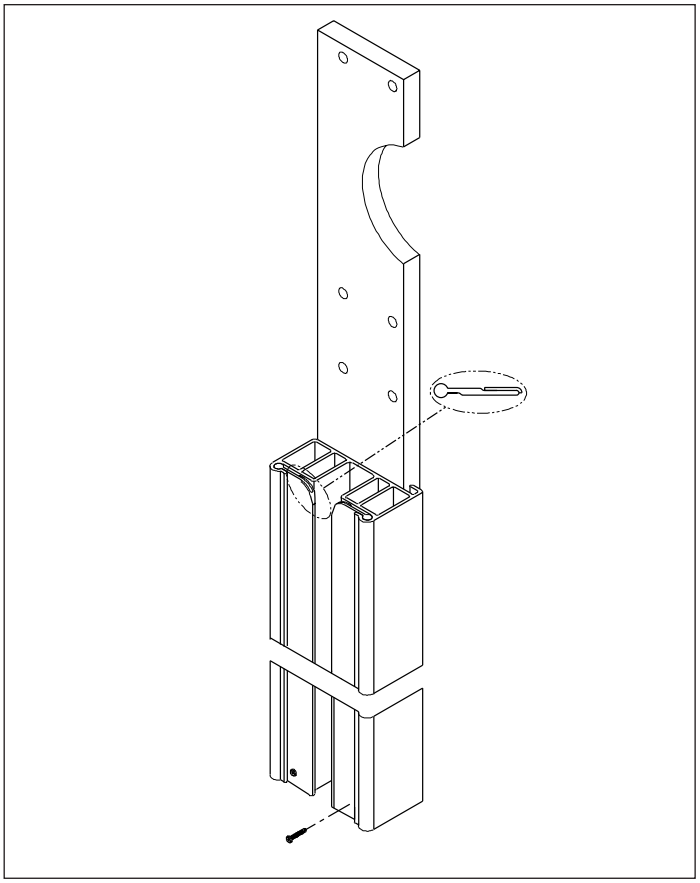


Figure 45.3

Retention Strip Replacement

1. Turn power off and follow lock-out tagout procedures.
2. It may be necessary to remove the lower re-feed roller.
3. Remove screws holding 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, make sure not to catch on photoeyes. Align holes with photoeyes.
5. Fasten edging with screws at the bottom of track. ***Do Not*** screw strips to lower track, other than at the bottom.

RITE-HITE PLANNED MAINTENANCE FASTRAX® FR

CUSTOMER:	JOB #			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		x	x		x		x	Verify that curtain fans are powered and working. Make sure that the fans are positioned properly and are removing condensation from the curtain.
Auto Re-Feed		x	x		x		x	Verify auto re-feed is operational.
Brake	x		x		x		x	Verify that brake stops the door at open and closed positions as well as when stopped in the middle of travel. To move the curtain manually, turn the brake release handle to the disengaged position. The curtain should be able to be moved manually. If brake is making noise, adjust.
Controls / Wiring			x		x		x	Clean 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.
Curtain Bottom Seal			x		x		x	Verify lintel seal is sealing wall properly.
Motor			x		x		x	Check junction box and plug connections.
Non-Powered Opening (optional)			x		x		x	With power off, verify chain hoist opens door. Lubricate chain, sprockets and check alignment.
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		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.
Radial and Track Lubrication	Lubrication of radials and tracks may be required more than every 6 months, based on usage and environmental conditions.							Lubrication of the radials and tracks is the sole responsibility of the end user. If door is mounted in a dirty environment, it may be required to remove the existing grease prior to adding new.

Maintenance Info

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

CHAPTER 8 - TROUBLESHOOTING

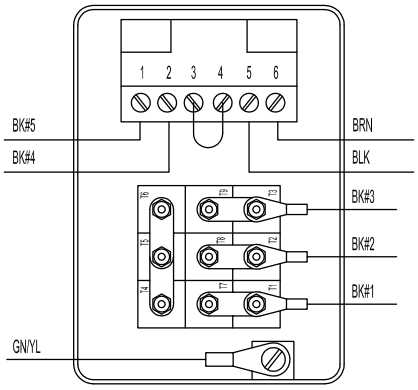
DEFINITION	FUNCTION
Activation	It is preferred not to wire activation devices until after the door is functioning properly.
Brake	The brake is powered by 105VDC which is converted from 110VAC. If brake does not stop door when open or closing, see brake adjustments on ***Page 44.*** Brake will have approx. 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 IDEA 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**, O.D.W. + 9" [229]. c) Check to make sure tracks are lubricated with food grade synthetic grease (Super Lube). d) If curtain is making contact with the wall when closing, verify lower tracks are not too close together.
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 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). e) Verify chain hoist chain is not pulled and switch is not tripped, X14 MUST be on (See Non-Powered Opening). c) If run timer occurs, check for binding or obstructions. Tracks may need to be lubricated to reduce friction. d) Verify inputs X3, X5, X6 or X7 are not on. If on, remove wire from terminal to determine what is keeping light on. e) Verify outputs K1, K2, K4, K5 and YDC2 are on or coming on to signal inverter to close door. f) Verify X10 and X11 are on and that the photoeyes are lined up and not blocked. g) Verify as the curtain gets near the photoeyes that they are being shut off h) If curtain reverses at photoeyes, verify that the photoeye wiring is not reversed, X11 is upper (54"), X10 is lower (18"). i) Verify inverter display is changing frequency. j) Verify Encoder has been setup. k) 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 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 motor mount bumper bracket. c) Remove encoder bracket and move to outside holes. d) Remove and switch driven sprocket. e) Remove and switch drive and non-drive photoeye cables. f) Flip Drive Tube 180°. g) New drive shroud and bracket are required. h) Setup i-Comm 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.
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 29*** for i-COMM 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 24V (FR only - heated pull cord) and F7 is 120V (power supply & brake).

CHAPTER 8 - TROUBLESHOOTING *Continued*

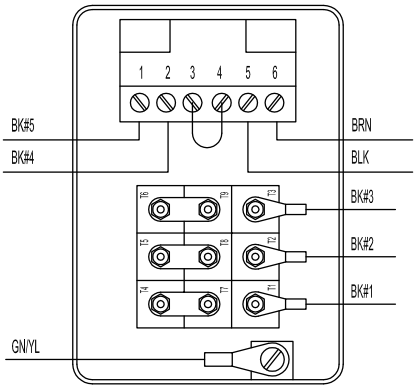
DEFINITION	FUNCTION
i-COMM™ Controller	The i-COMM controller is a circuit board that controls the actions of the door. There is a digital display that shows the cycles, status and position of the door at any time during its travel. For input and output function signals, refer to chart on **page 32-33.** 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 is receiving 24VDC from power supply. b) If i-Comm 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 adjustment instructions.
Inverter	See **page 35—page 37** for proper parameter settings.
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 (NPO)	If issues arise with the non-powered opening chain hoist, check the following: a) If power outage, release brake and pull chain on hoist to open door. b) If chain hoist chain is pulled while door is powered, the door will go into fault mode (green light flashing), no X14. c) If chain hoist chain is pulled, reset door by pressing the green flashing button.
O.D.H. or O.D.W.	O.D.H. = Ordered Door Height or O.D.W. = Ordered Door Width
Open/Reset Push Button	The open/reset push button function is when the button is pressed, a command to open the door is given. To jog door when i-COMM 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 O.D.W. + 9” [229 mm]. 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 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 (54”) [1372 mm] photoeye is tripped. g) Input X10 will go off when the lower (18”) [457 mm] 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 < 43” [1092 mm] O.D.H., the 54” [1372 mm] photoeye is omitted. j) On doors > 68” [1727 mm] O.D.H, but < 43” [1092 mm] O.D.H., the 54” [1372 mm] photoeye is lowered to 35” [889 mm].
Power Supply	Power Supply is powered by 120VAC from the F7 fuse and delivers 24VDC to the i-COMM.
Tracks	a) Verify tracks are properly spaced. MUST be O.D.W. plus 1/2” [12 mm]. b) Lubricate as required per Maintenance Schedule, **page 46**.
Virtual Vision	Virtual Vision is standard on the FasTraxFR 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 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
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	18” [457 mm] Photoeye Input - MUST be on; If off, verify aligned and powered.
X11	54” [1372 mm] 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 has not been pulled.

CHAPTER 8 - TROUBLESHOOTING *Continued*

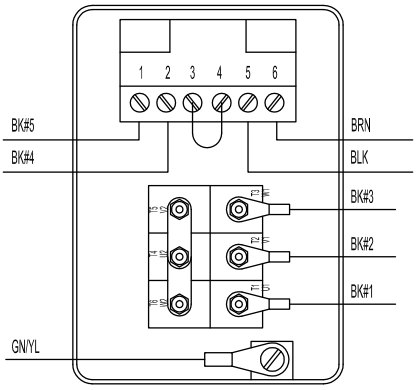
DEFINITION	FUNCTION
X15	Power Input - Indicates unit is powered
YK0	Interlock output
YK1	Programmable output
YK2	Programmable output
YDC0	Output programmed to be on when door open.
YDC1	Output programmed to flash when virtual vision is functioning
YDC2	Photoeye test, must flash off when door is opening
YDC5	Output programmed for Pre-announce to close.



208/230V MOTOR WIRING



460V MOTOR WIRING



400 & 575V MOTOR WIRING

CHAPTER 9 - FR ELECTRICAL LAYOUT - DOOR MOUNTED SIDE

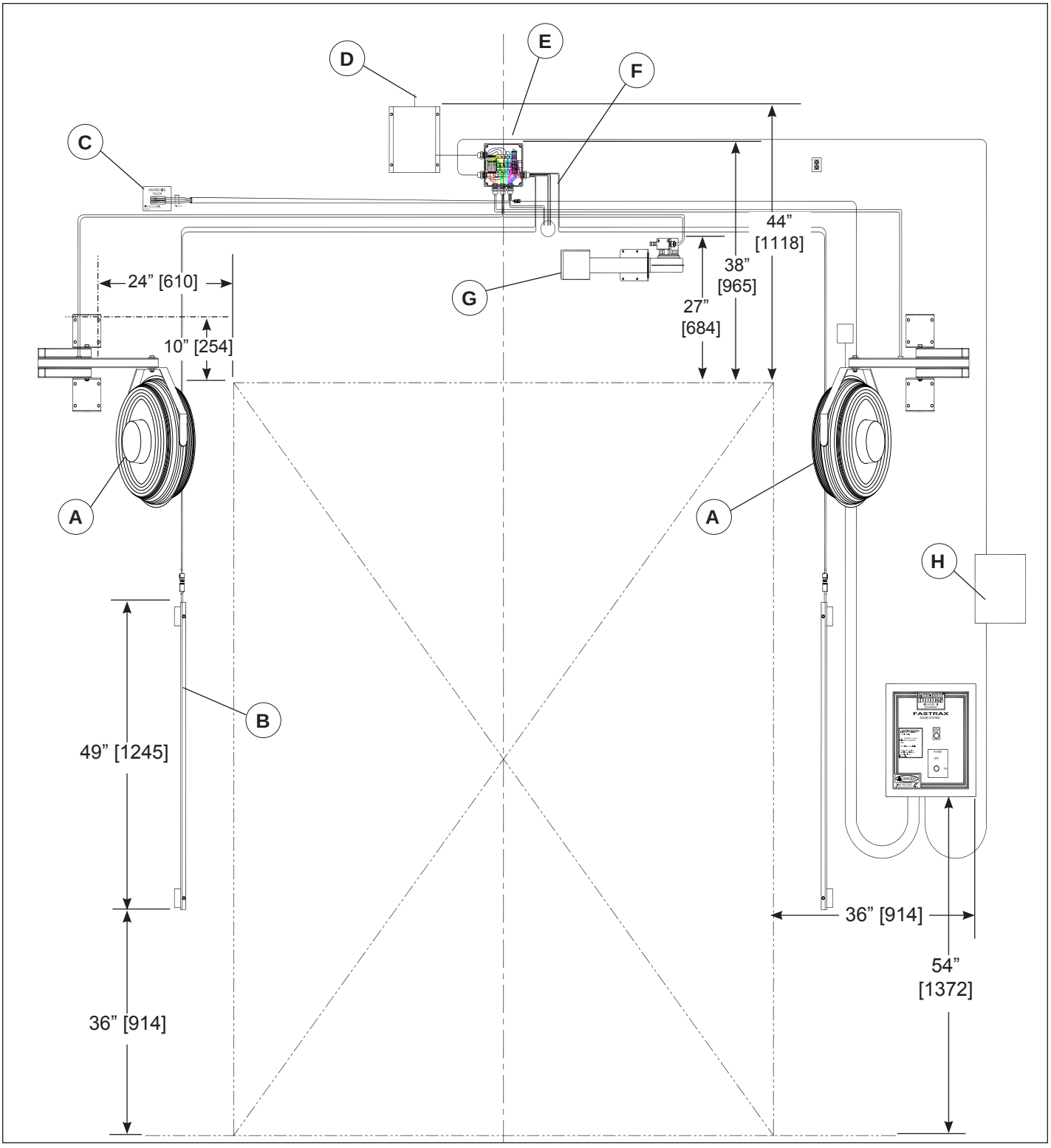


Figure 50.1

CHAPTER 9 - FR ELECTRICAL LAYOUT - BACK SIDE OF DOOR

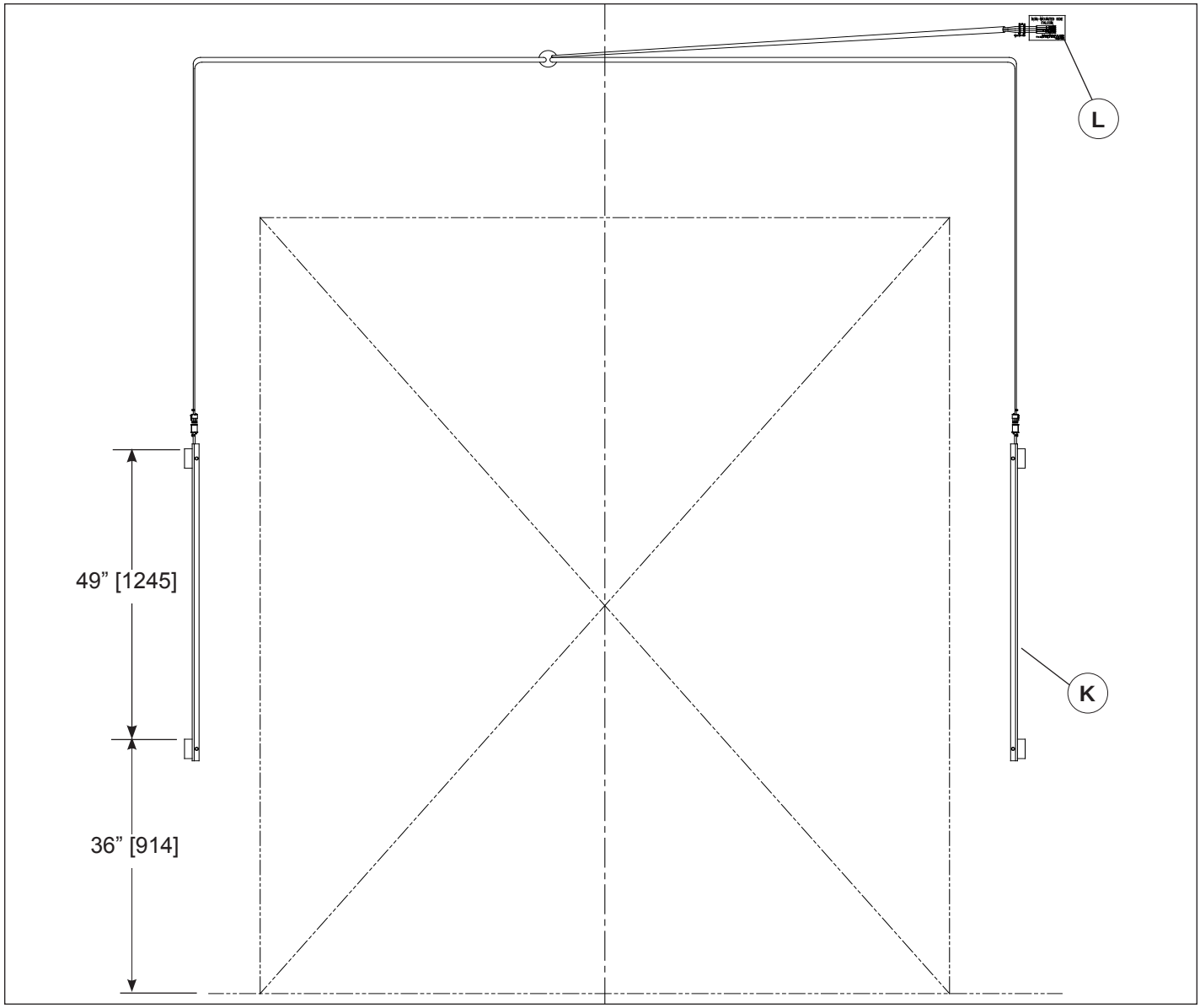


Figure 51.2

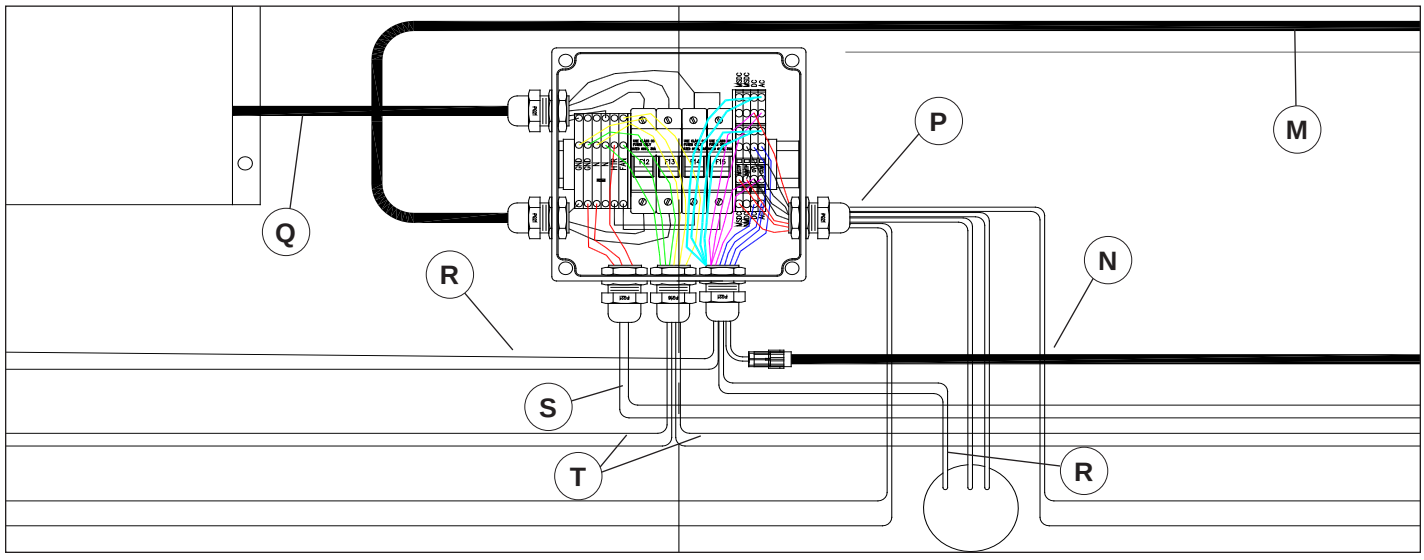


Figure 51.3

CHAPTER 9 - FR ELECTRICAL LAYOUT

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 across the curtain. 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.

   Virtual Vision is optional. 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 36" [914] off the floor, adjacent to the doorway (e.g. goal posts or wall) and in a location that is protected from potential impact damage.
3. Virtual Vision motion sensors should be installed off to the side of the opening.

   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 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 Provided Disconnect (H).
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:

   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), 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. Make sure to record these values for future reference.

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

   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 (K).
10. Mount opposite side Virtual Vision motion sensor (L).
11. Power Supply Cable (M).
12. Cable to Control Box (N).
13. Virtual Vision Cables (P).
14. Transformer Cable (Q).
15. Motion Sensor Cable (R).
16. Curtain Fan Cables (S).

CHAPTER 9 - WIRELESS ACTIVATION

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

To pair the host with a wireless device:

1. Open the lid and remove the plastic strip (A) under the batteries in the remote unit to energize the device.
2. On the Host (Receiver) in the control box, press “Remote Pairing” (B). The “RF Com” LED (C) will begin to flash.
3. Within 5 seconds press the “Pair Button” (D) on the remote unit. The units will then pair.
4. Activate the door to test. Repeat procedure if necessary.
5. Mount remote unit.
6. Wiring for Host unit to Control Box i-COMM:

   4 - X6

   5 - DC

   6 - DC

   7 - OV

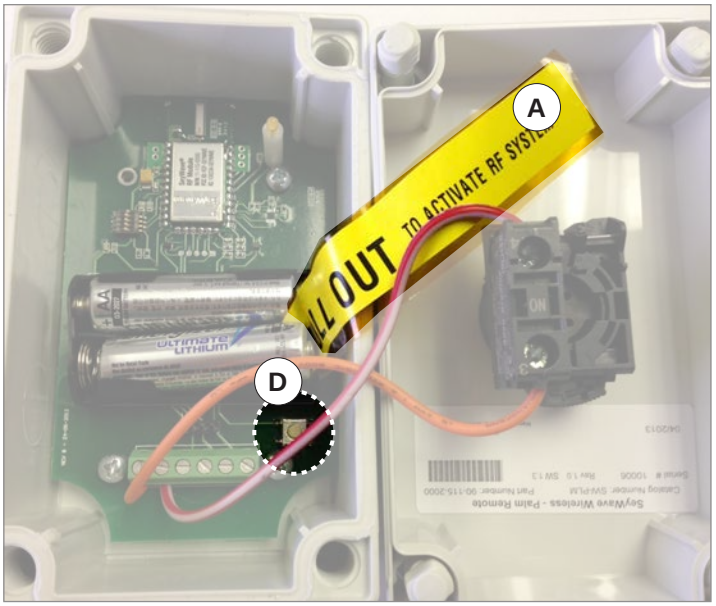


Figure 53.1

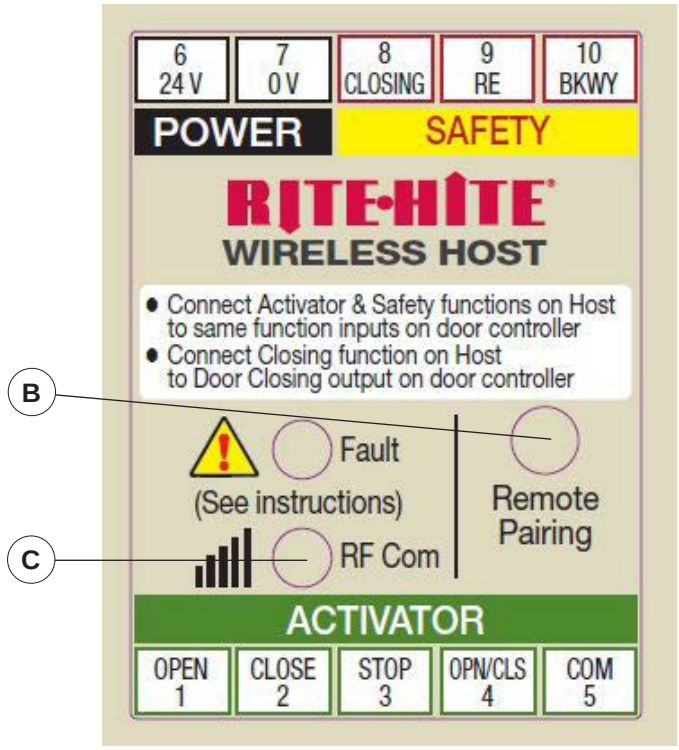


Figure 53.2

CHAPTER 9 - REMOTE MOUNTED CONTROLS – LCD INTERFACE (OPTIONAL)

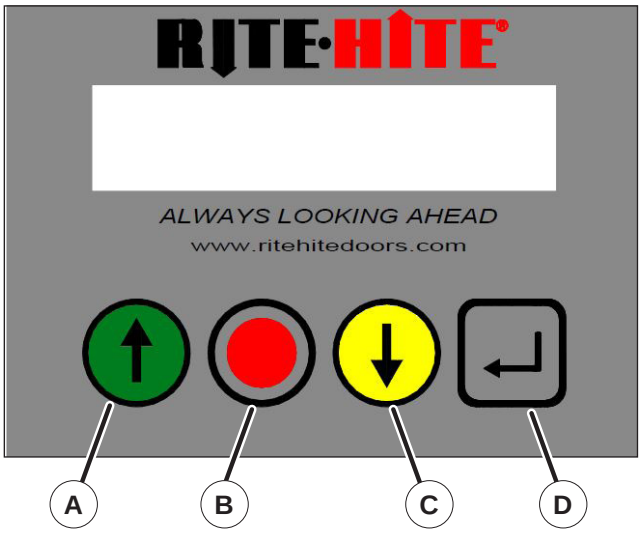


Figure 54.1

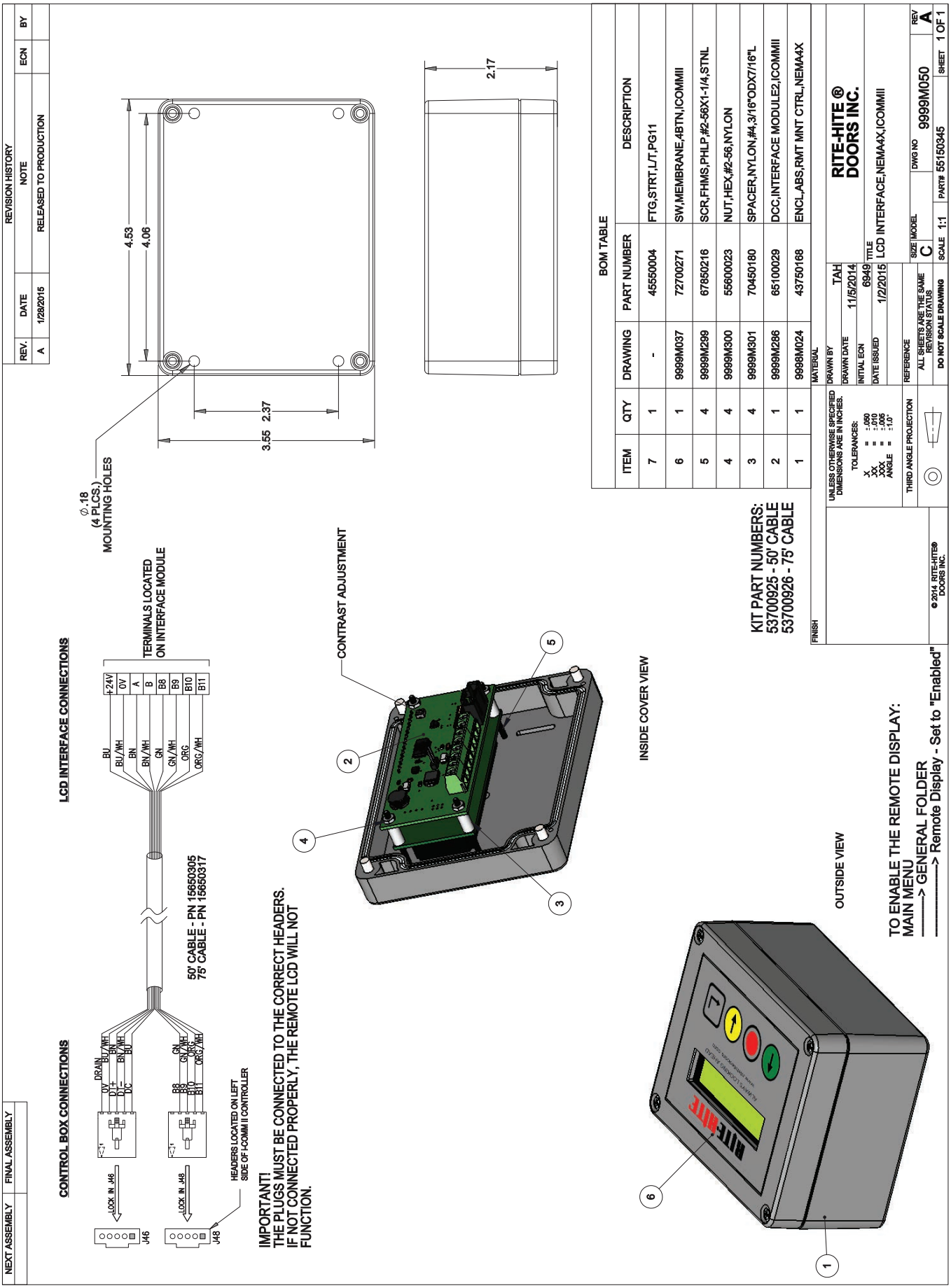
A remote mounted LCD is mounted on a stainless steel 2-gang wall faceplate and compatible with standard 2-gang electrical box (provided by end user). The controls are also available on the provided junction box.

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

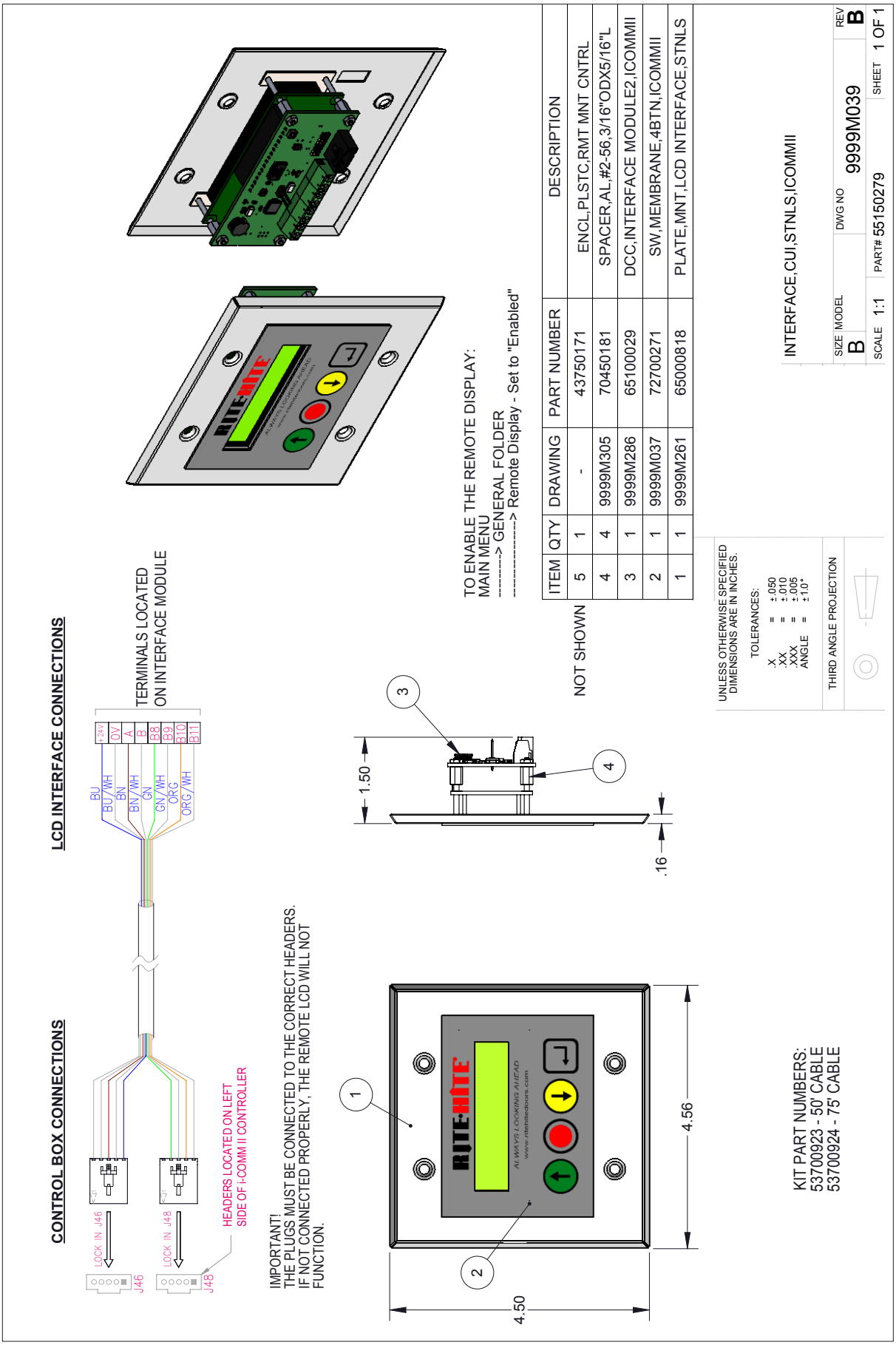
- Green (A)—Open/Reset “UP”
- Red (B)—Stop “EXIT”
- Yellow (C)—Close “DOWN”
- Gray (D)—Left Arrow “ENTER”

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

Fiberglass Enclosure Box



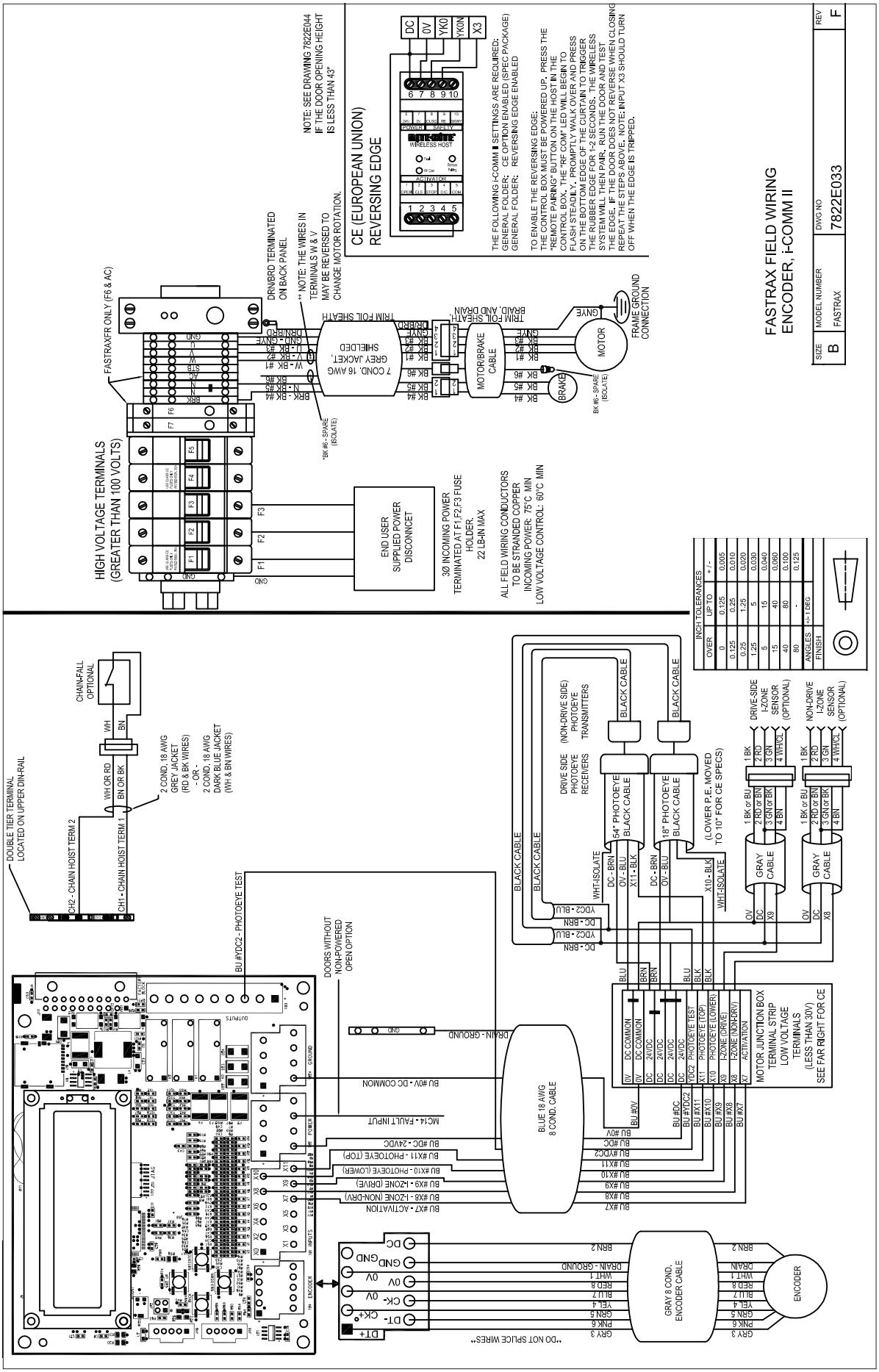
Stainless Steel Enclosure Box



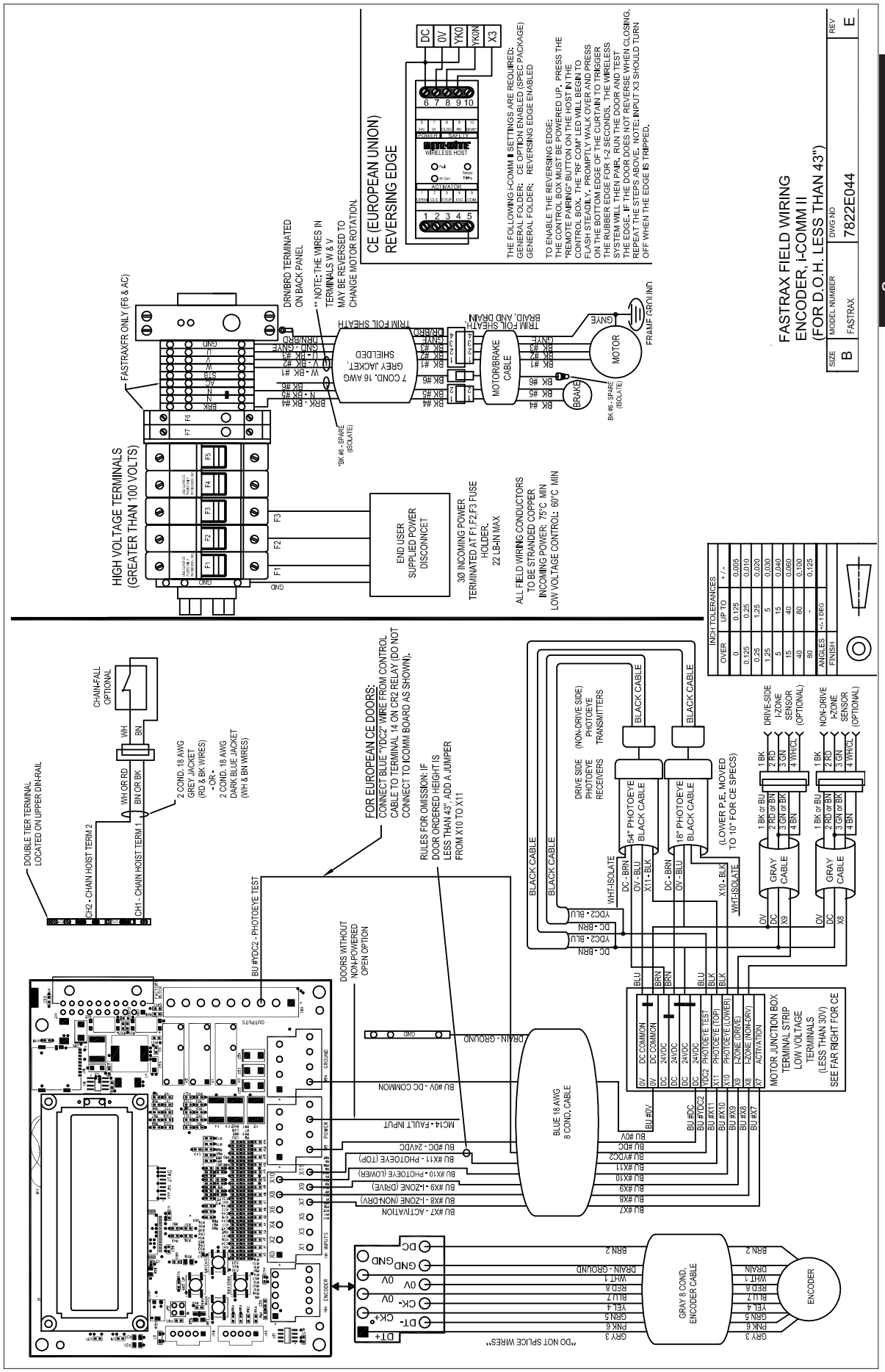
ITEM	QTY	DRAWING	PART NUMBER	DESCRIPTION
5	1	-	43750171	ENCL,PLSTC,RMT MNT CNTRL
4	4	9999M305	70450181	SPACER,AL,#2-56,3/16"ODX5/16"L
3	1	9999M286	65100029	DCC,INTERFACE MODULE2,ICOMMII
2	1	9999M037	72700271	SW,MEMBRANE,4BTN,ICOMMII
1	1	9999M261	65000818	PLATE,MNT,LCD INTERFACE,STNLS

NOTES

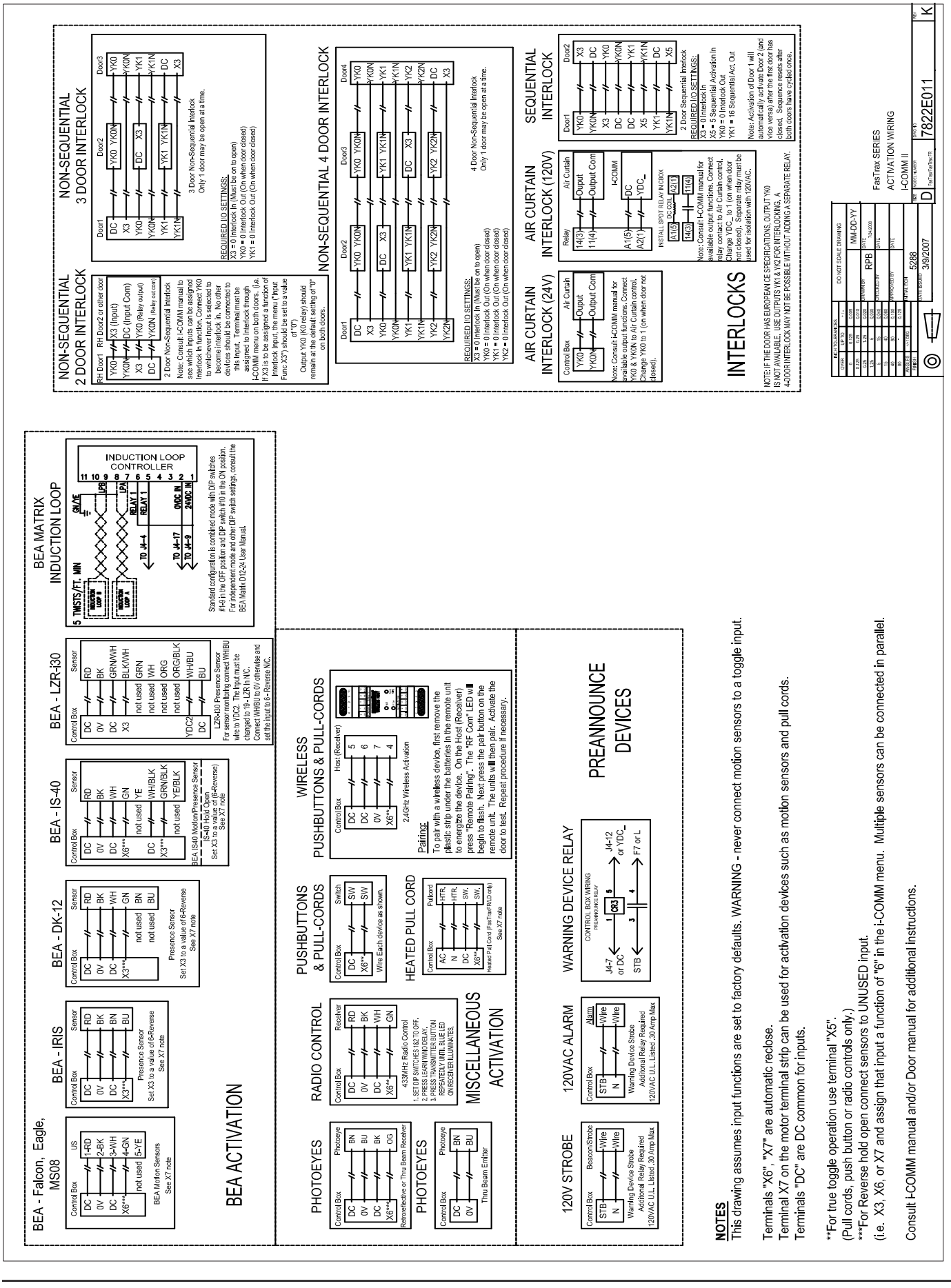
CHAPTER 10 - MANDATORY FIELD WIRING DIAGRAM >43" O.D.H.



CHAPTER 10 - MANDATORY FIELD WIRING DIAGRAM <43" O.D.H.



CHAPTER 10 - ACTIVATION WIRING



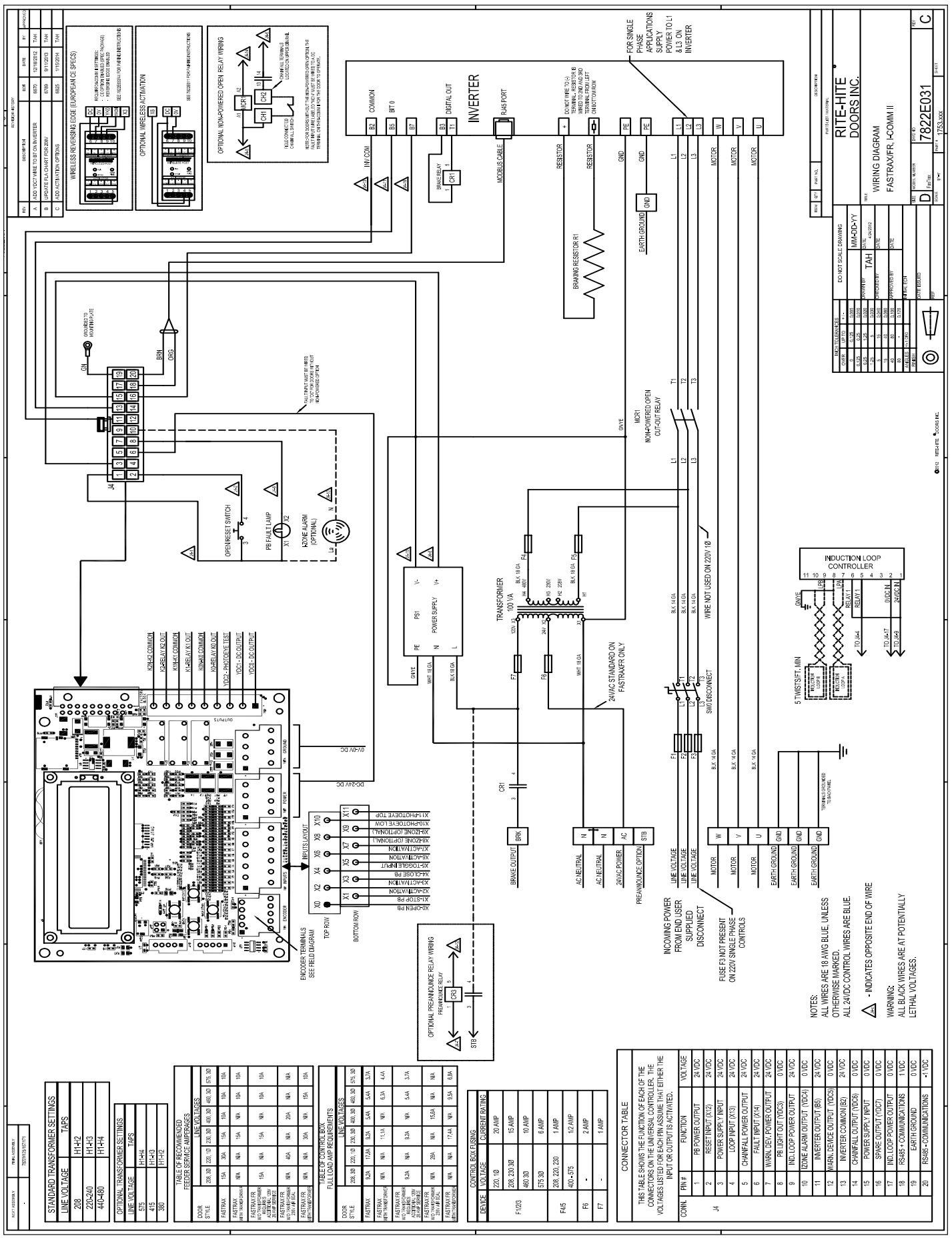
NOTES
This drawing assumes input functions are set to factory defaults. WARNING - never connect motion sensors to a toggle input.

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.

CHAPTER 10 - 208/460V ELECTRICAL WIRING DIAGRAM



STANDARD TRANSFORMER SETTINGS

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

OPTIONAL TRANSFORMER SETTINGS

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

TABLE OF RECOMMENDED FEEDER SERVICE AMPERAGES

DOOR STYLE	LINE VOLTAGES					
	208, 380	220, 10	230, 360	400, 30	460, 30	575, 30
FASTRAX	15A	30A	15A	10A	10A	10A
FASTRAX WITH TRANSFORMER	N/A	N/A	15A	N/A	10A	10A
FASTRAX FR WITH TRANSFORMER REQUIRES 208V SINGLE PHASE	15A	N/A	15A	N/A	10A	10A
FASTRAX FR WITH TRANSFORMER 208V 3-PHASE	N/A	N/A	40A	N/A	20A	N/A
FASTRAX FR WITH TRANSFORMER	N/A	N/A	30A	N/A	N/A	15A

TABLE OF CONTROL BOX FULL LOAD AMP REQUIREMENTS

DOOR STYLE	LINE VOLTAGES					
	208, 380	220, 10	230, 380	400, 30	460, 30	575, 30
FASTRAX	9.2A	17.2A	8.2A	5.4A	5.4A	3.7A
FASTRAX WITH TRANSFORMER	N/A	N/A	11.1A	N/A	6.3A	4.4A
FASTRAX FR WITH TRANSFORMER REQUIRES 208V SINGLE PHASE	9.2A	N/A	8.2A	N/A	5.4A	3.7A
FASTRAX FR WITH TRANSFORMER 208V 3-PHASE	N/A	N/A	28A	N/A	15.6A	N/A
FASTRAX FR WITH TRANSFORMER	N/A	N/A	N/A	17.4A	N/A	9.5A

CONTROL BOX FUSING

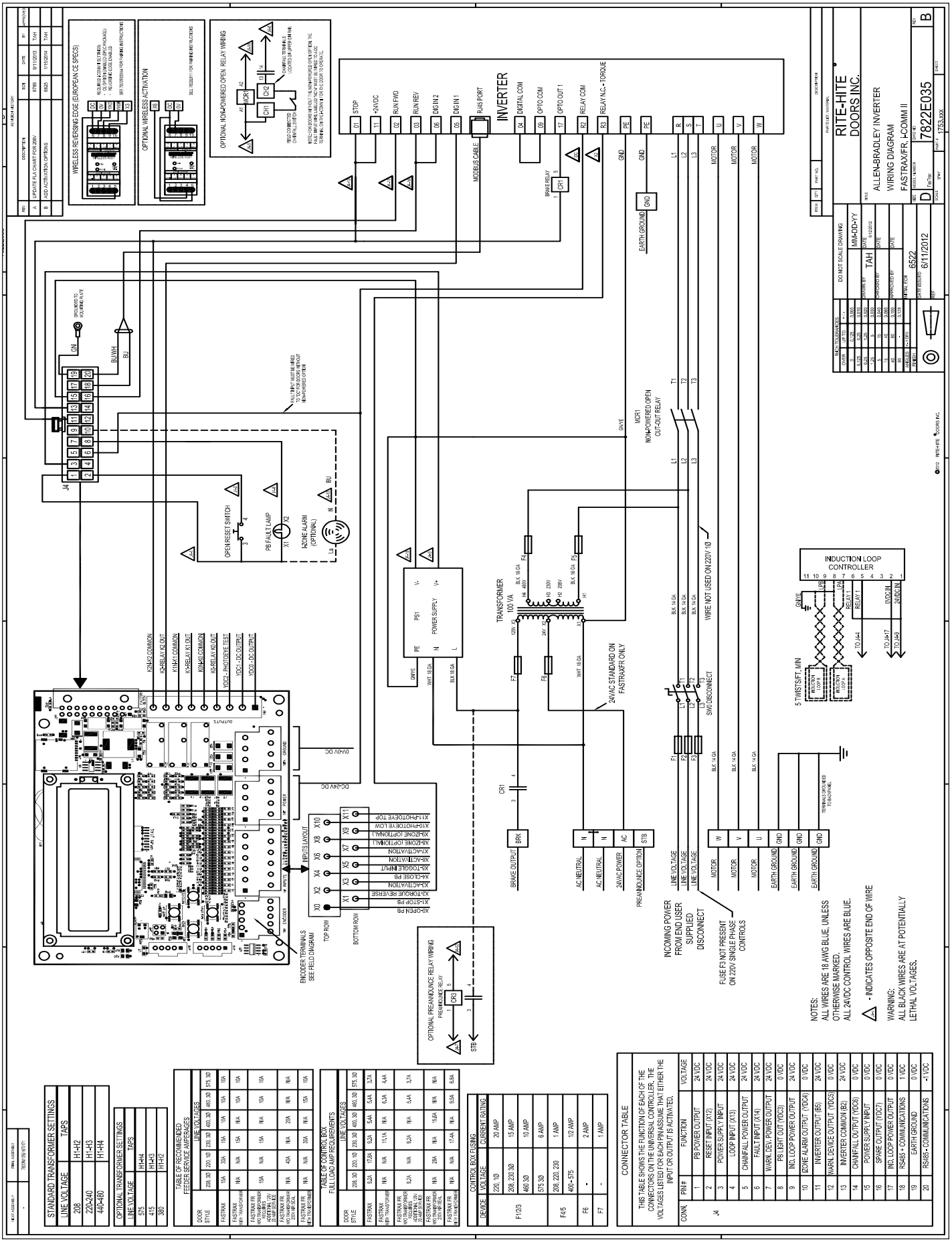
DEVICE	VOLTAGE	CURRENT RATING
F1/2/3	220, 10	20 AMP
	208, 230 380	15 AMP
	460 380	10 AMP
	575 380	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F6	-	2 AMP
F7	-	1 AMP

CONNECTOR TABLE

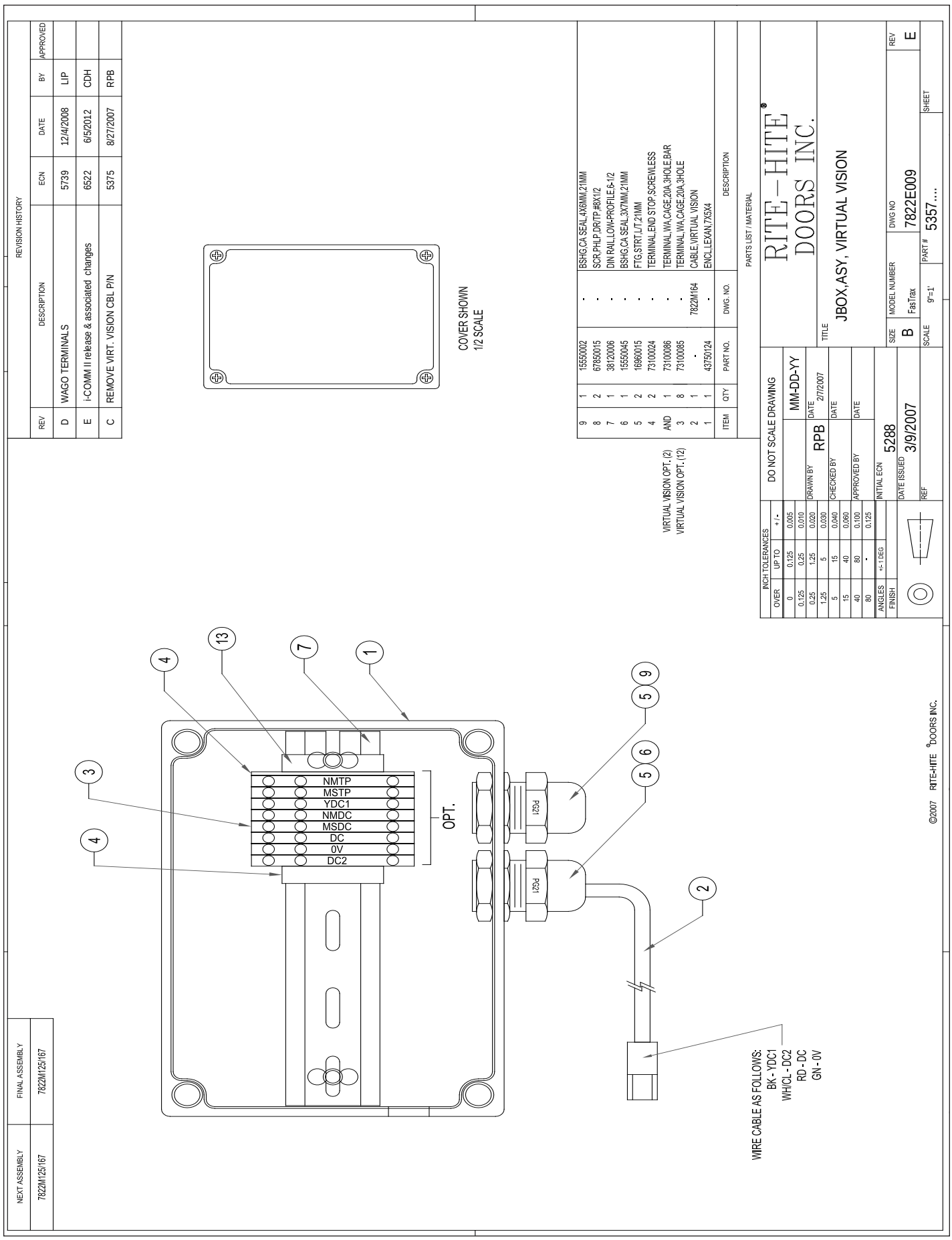
THIS TABLE SHOWS THE FUNCTION OF EACH OF THE CONNECTORS ON THE UNIVERSAL CONTROLLER. THE VOLTAGES LISTED FOR EACH PIN ASSUME THAT EITHER THE INPUT OR OUTPUT IS ACTIVATED.

CONN.	PIN #	FUNCTION	VOLTAGE
J4	1	PB POWER OUTPUT	24 VDC
	2	RESET INPUT (X12)	24 VDC
	3	POWER SUPP.Y 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 SUPP.Y 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

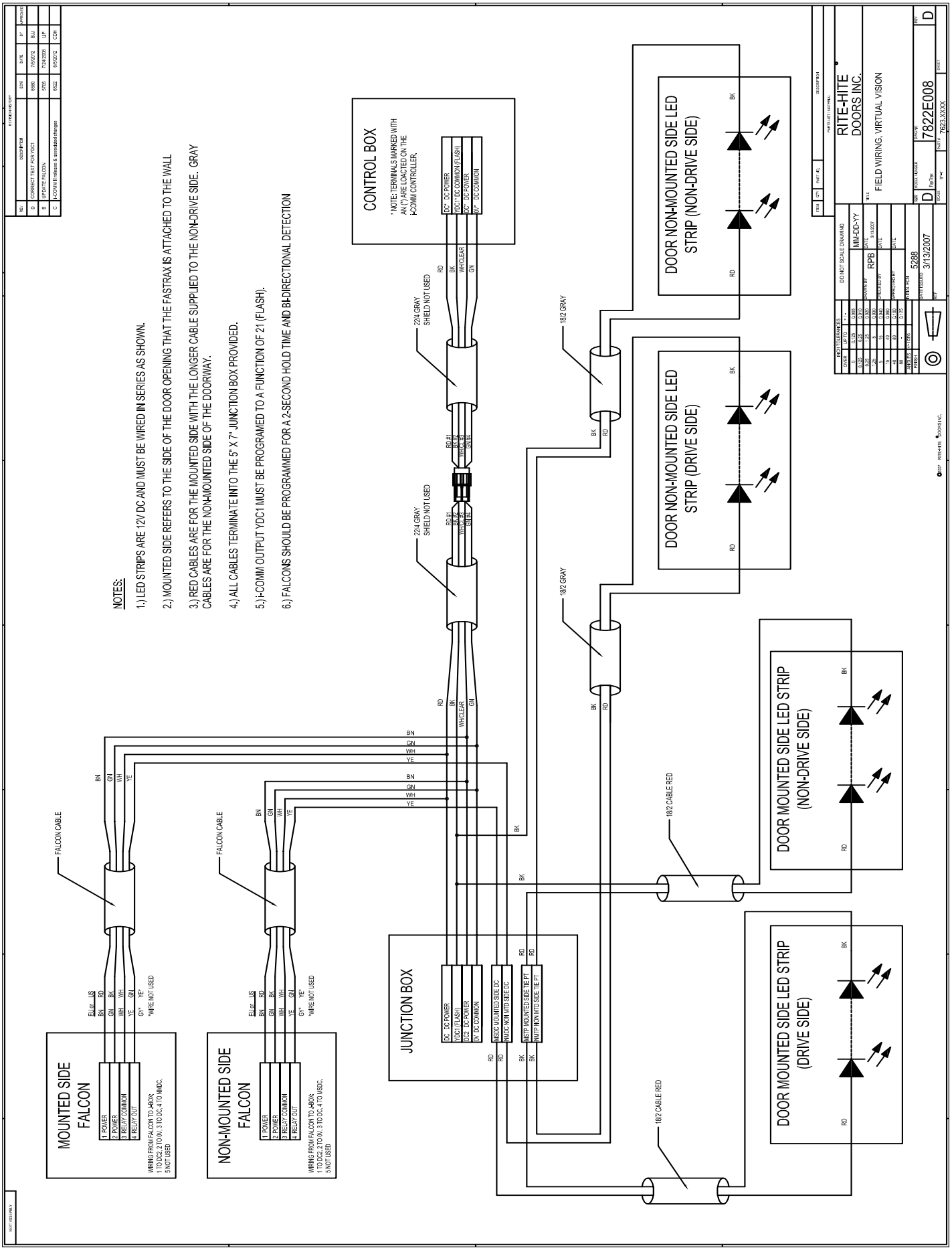
CHAPTER 10 - 575V ELECTRICAL WIRING DIAGRAM



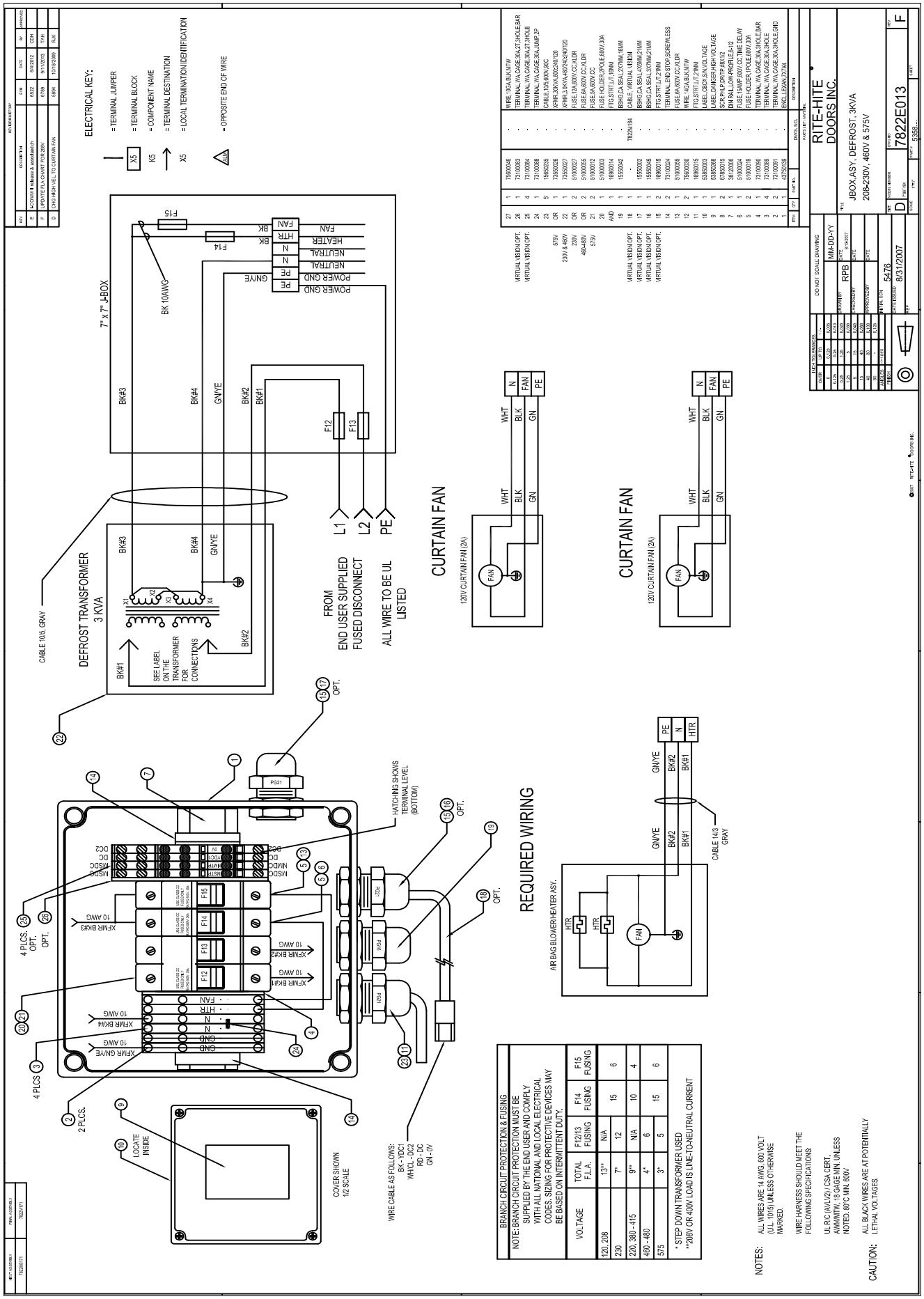
CHAPTER 10 - VIRTUAL VISION JUNCTION BOX



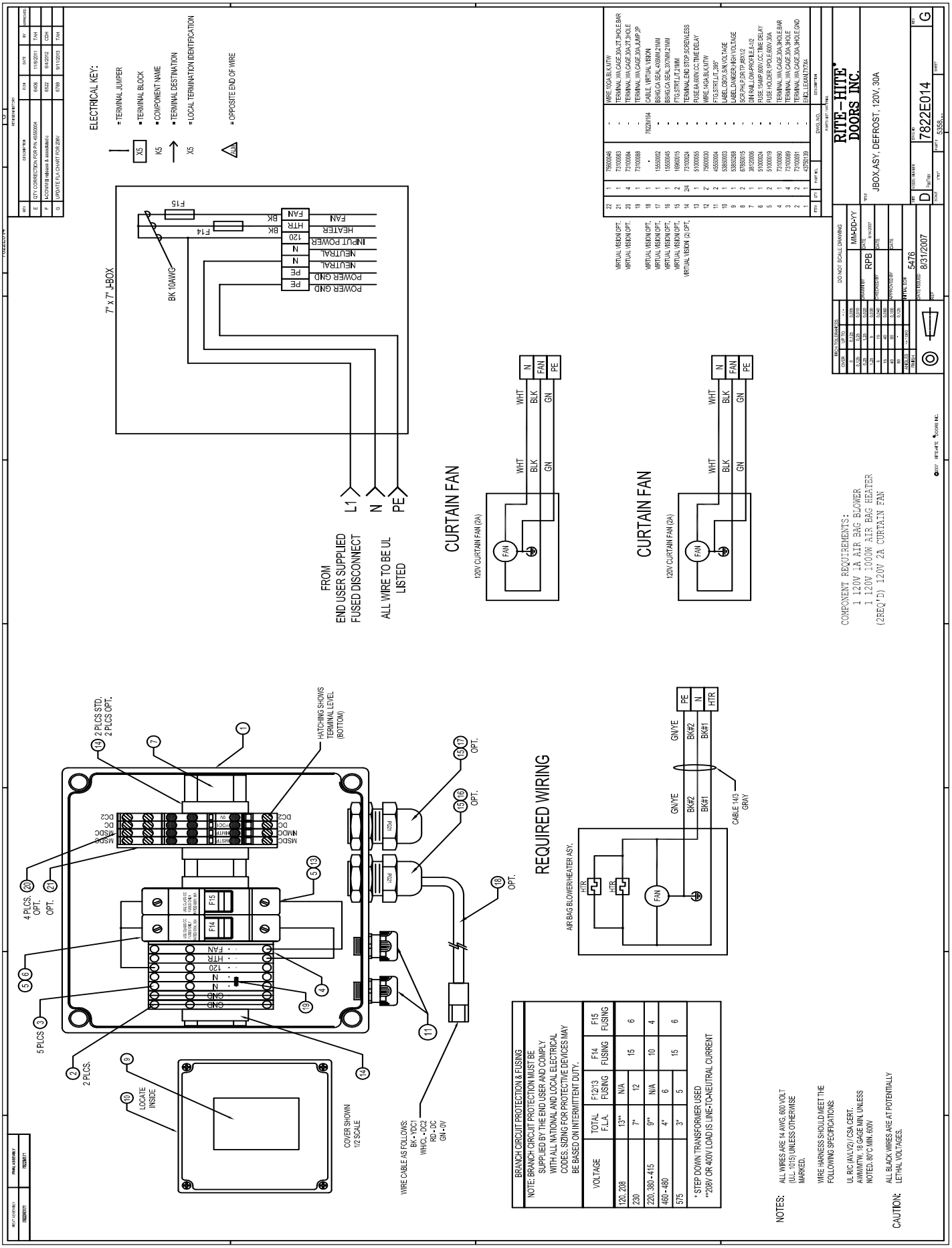
CHAPTER 10 - VIRTUAL VISION ELECTRICAL WIRING



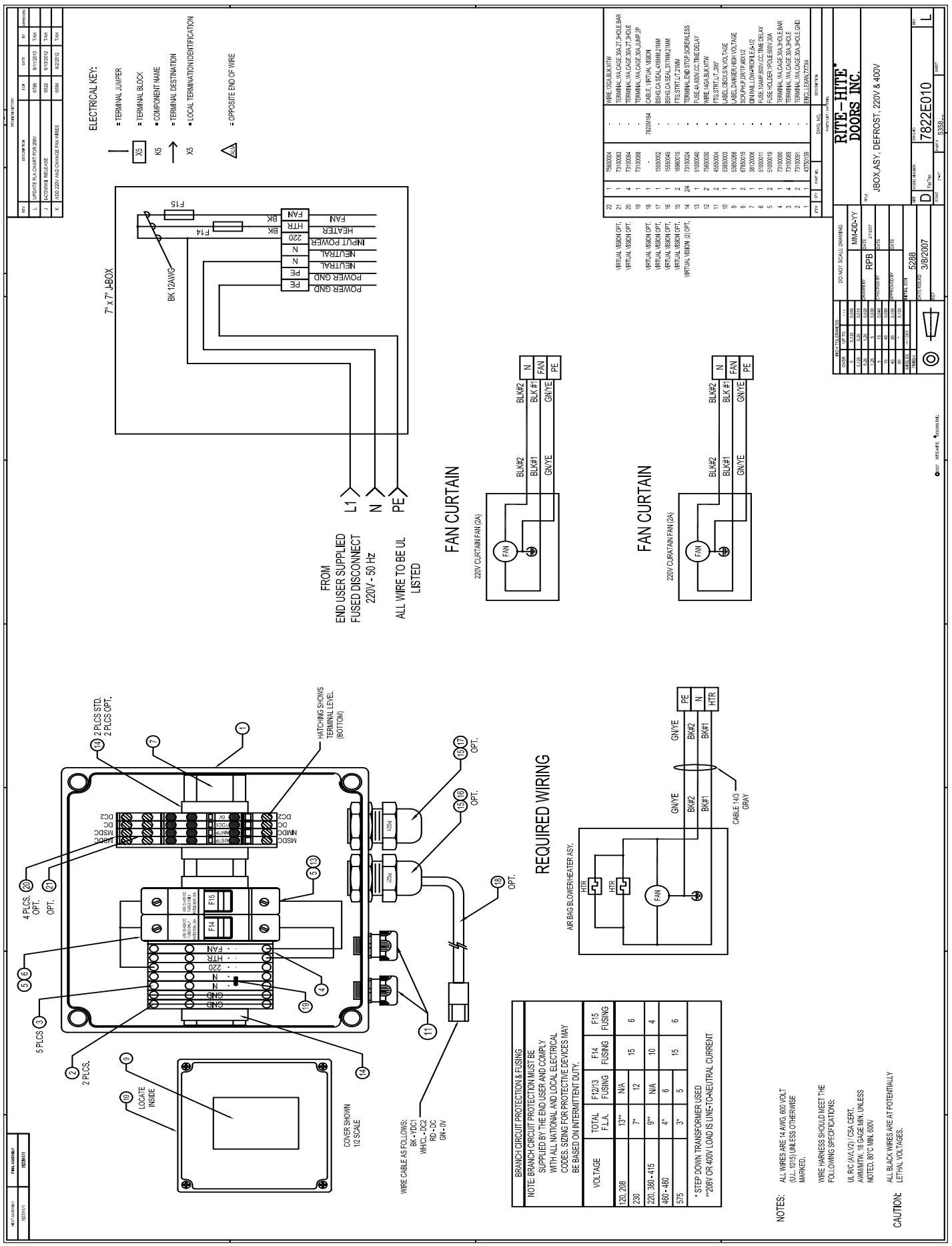
CHAPTER 10 - DEFROST JUNCTION BOX WIRING 208/230/460/575V



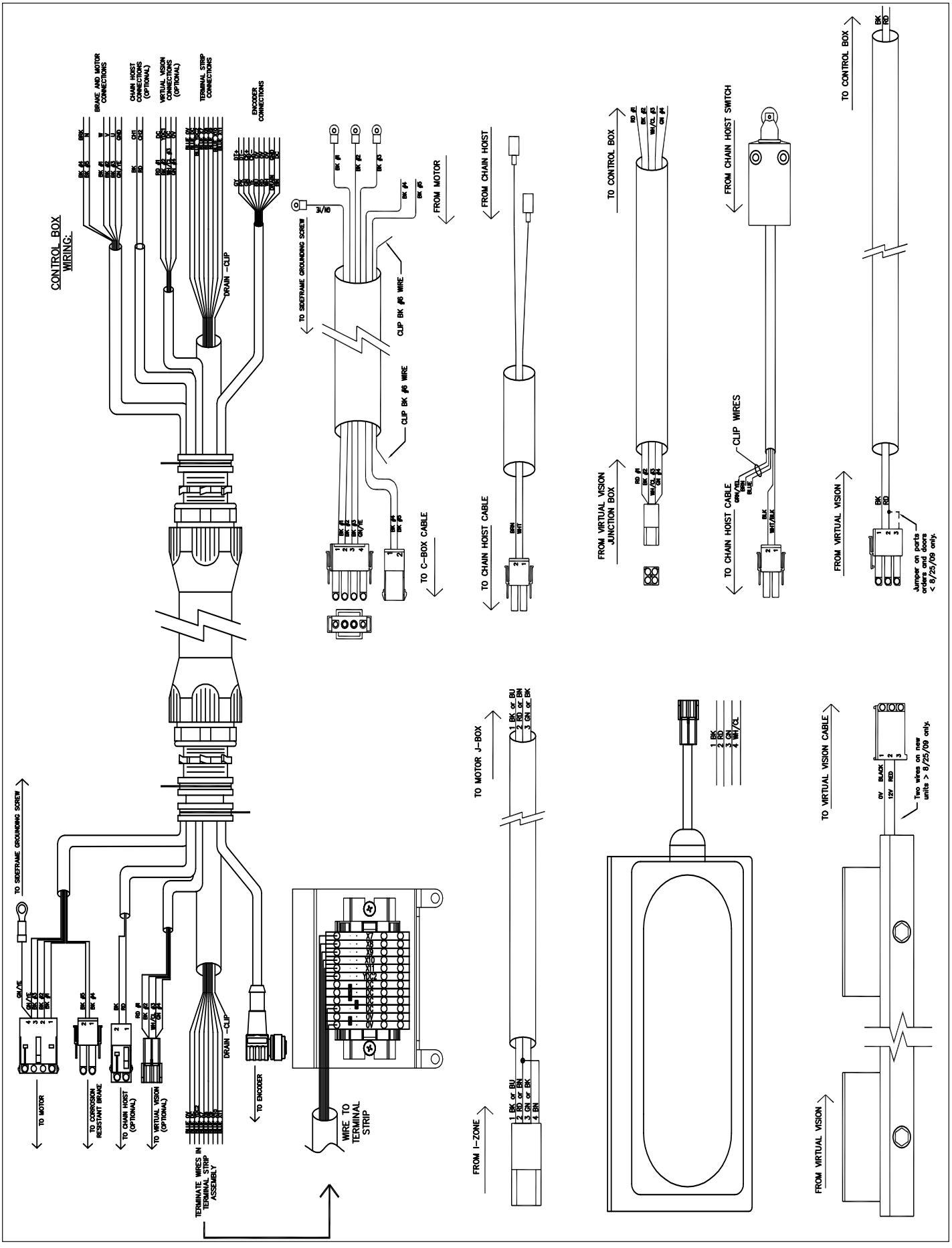
CHAPTER 10 - DEFROST JUNCTION BOX WIRING 120V



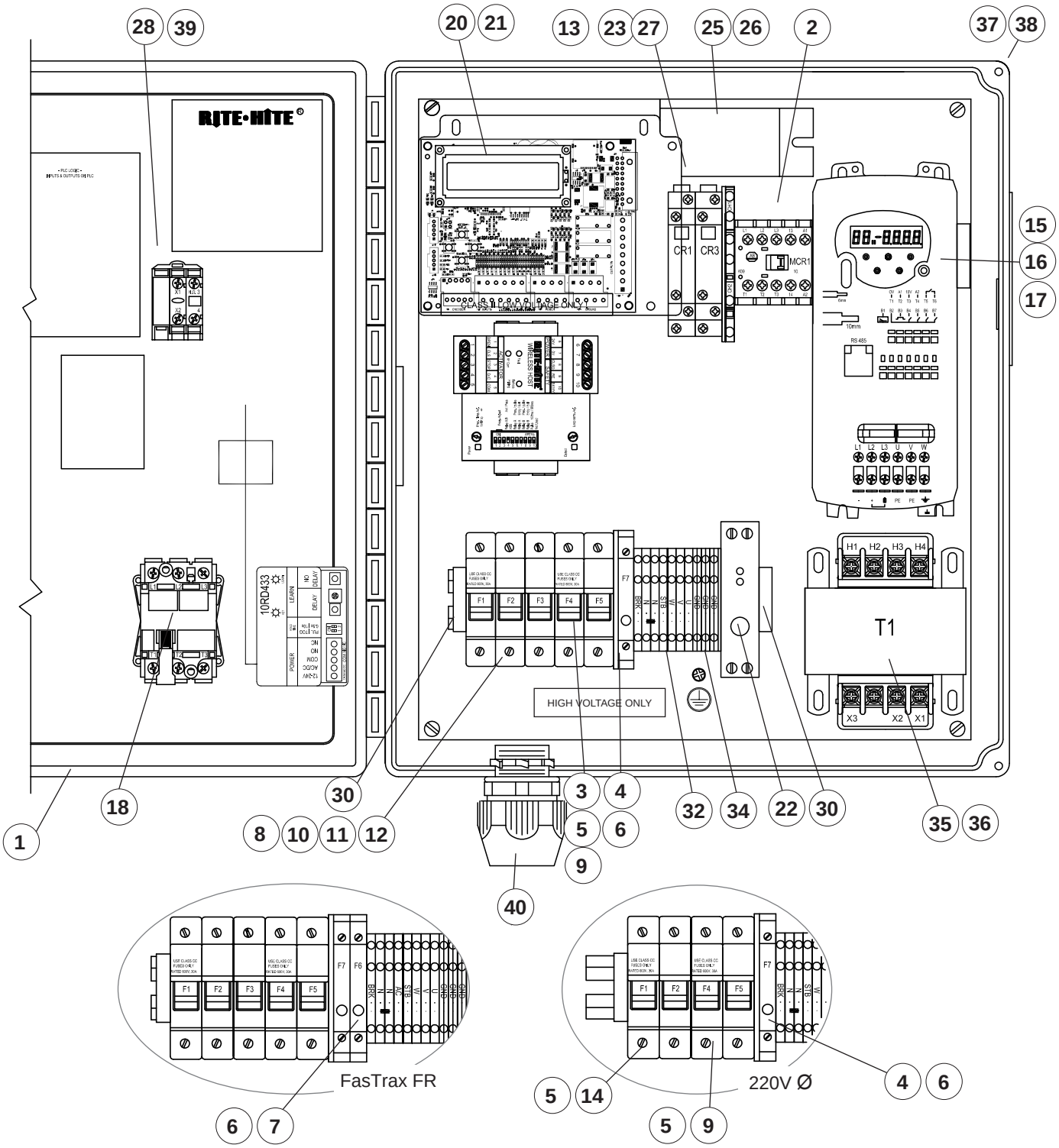
CHAPTER 10 - DEFROST JUNCTION BOX WIRING 400V



CHAPTER 10 - ELECTRICAL CABLE IDENTIFICATION



CHAPTER 11 - CONTROL BOX PARTS

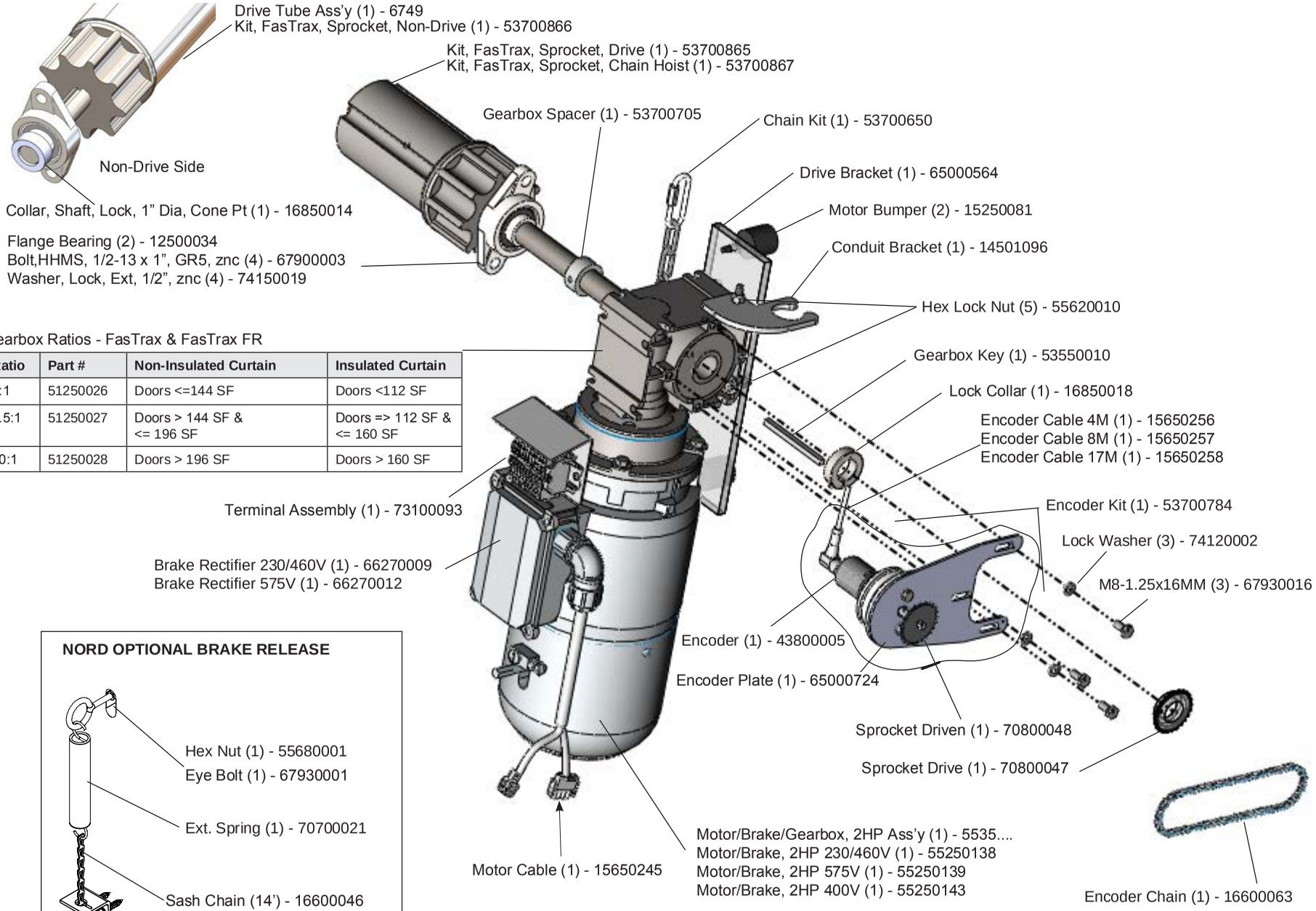


CHAPTER 11 - CONTROL BOX PARTS *Continued*

ITEM	QTY	DESCRIPTION (NOT SHOWN)	PART #
1	1	Ass'y (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 only)	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	53700862
14	2	Fuse, 20 amp, 600V, KLDR (220V 1Ø)	51950077
15	1	Inverter, 2HP, 575V, 3PH, AB-FLEX40 (575V)	53300044
16	1	Inverter, 2HP, 460V, 3PH, CT (460V)	53300047
17	1	Inverter, 2HP, 230V, 1-3PH, CT (208-230V)	53300046
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	Kit, i-COMM ii, Upgrade (< 6/20/2012)	7302....
22	1	Power Supply, DIN, 24VDC, 18W (<=22W)	65700006
22	1	Power Supply, DIN, 24VDC, 30W, CG (>22W)	65700007
23	1/1	Relay, SPDT,24VDC,10AMP (warn device & brake)	66450014
24*	1	Relay, SPDT, 24VAC/DC, 6 Amp, Term (upgrade)	66450033
25	1	Kit,Resistor,Inverter,230V,2HP	53700689
26	1	Kit,Resistor,Inverter,460V,2HP	53700688
27	1/1	Socket, Relay,1Pole,250VAC,10AMP (W.D. & Brake)	70350002
28	1	Switch, Push Button, Ext, Green, Illum, 22MM (=> 6/20/2012)	72700258
29	1	Terminal, End Barrier, Fuse Holder	73100019
30	4/6	Terminal, End Stop, Screwless	73100024
31	1	Terminal, WA, Cage, 20A, Jump, 2P	73100081
32	7/8	Terminal, WA, Cage, 20A, 3 Hole	73100085
33	2	Terminal, WA, Cage, 20A, 3 Hole, Barrier	73100086
34	3	Terminal, WA, Cage, 20A, 3 Hole, GND	73100087
35	1	Transformer, 100VA, 208/230/460V:24/115	73550029
36	1	Transformer, 100VA, 380/415/575V:24/115	73550030
37	2	Control Box Quick Release Latch	51950021
38	4	Control Box Mounting Tab	51950018
39	1	Switch, Push Button, Ext, Green, Illum, 22MM (< 6/20/2012)	72700005
40	1	Connecter, Conduit, Straight, L/T, 1"	16960001
41*	1	Cable, Inverter, 24/4 UTP (Modbus)	15650290
See Activation Page for activation devices			

*Not Shown

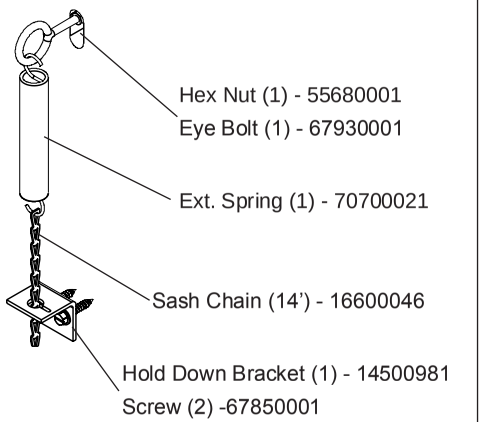
Dwg# 7822E030 Rev. L



Gearbox Ratios - FasTrax & FasTrax FR

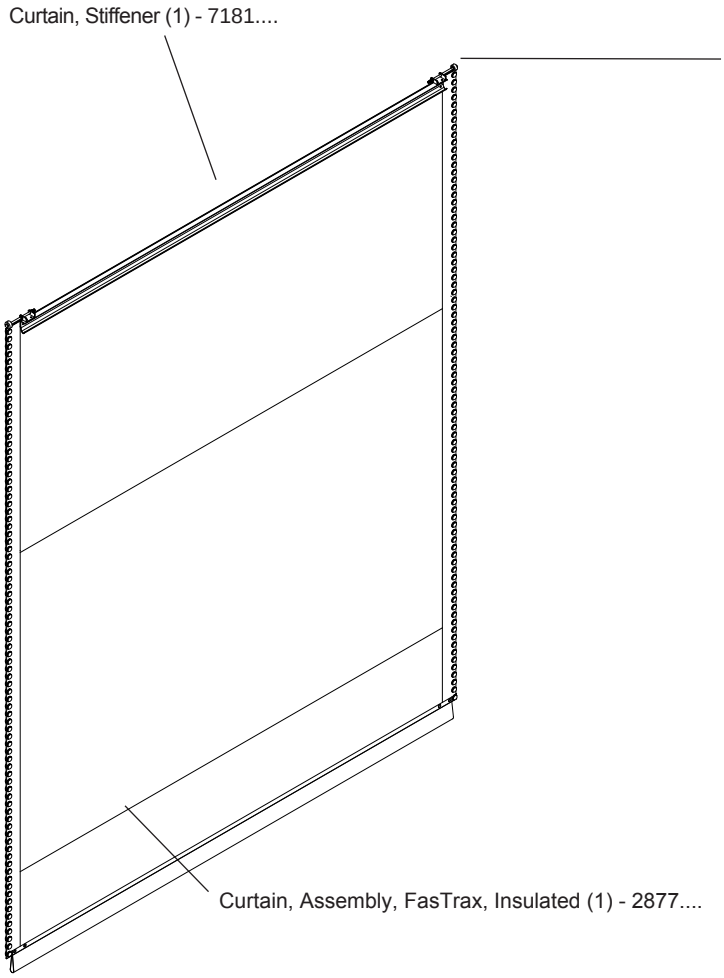
Ratio	Part #	Non-Insulated Curtain	Insulated Curtain
5:1	51250026	Doors <=144 SF	Doors <112 SF
7.5:1	51250027	Doors > 144 SF & <= 196 SF	Doors => 112 SF & <= 160 SF
10:1	51250028	Doors > 196 SF	Doors > 160 SF

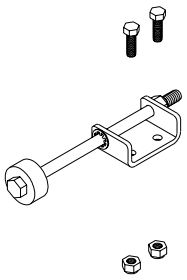
NORD OPTIONAL BRAKE RELEASE



Not Shown: AERO Lubriplate - 54650001

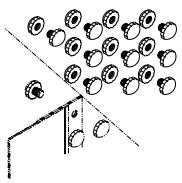
CHAPTER 11 - CURTAIN SERVICE PARTS





Kit, Curtain Top Roller (includes 2) - 53700562

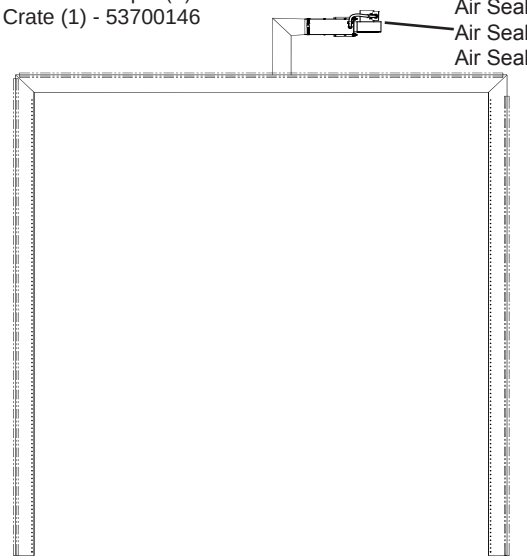
Curtain, Patch Kit, Urethane, 27 oz, Blue (FR) (a/r) - 53700774
(Only for Doors shipped => 10/12/09)



Curtain, Kit, Drive Sphere, Qty 10 (a/r) - 53700561

CHAPTER 11 - MISC SERVICE PARTS

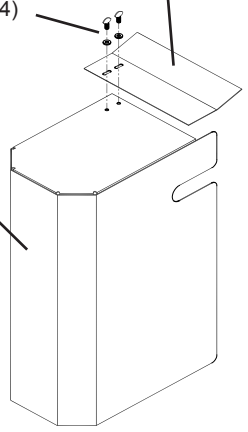
FasTrax FR Entire Door (1) - FasTrax FR
Kit, FasTrax Service Parts, US, Limit Switch (1) - 53700557
Kit, FasTrax Service Parts, US, Encoder (1) - 53700804
Kit, FasTrax Service Parts, Int, Limit Switch (1) - 53700805
Kit, FasTrax Service Parts, Int, Encoder (1) - 53700806
FasTrax Sample (1) - 67750026
Crate (1) - 53700146



Air Seal Blower/Heater Kit, PTC, 110V (1) - 53700760
Air Seal Blower/Heater Kit, PTC, 230V (1) - 53700761
Air Seal Blower/Heater Kit, Canada (1) - 53700783

LH Shroud Extension Plate (1) - 65000627
RH Shroud Extension Plate (1) - 65000628

H18 (4) & H30 (4)

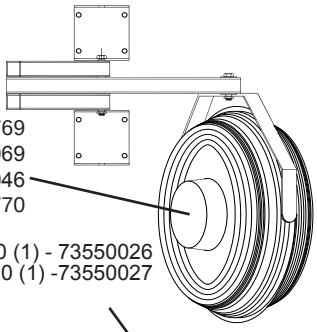


RH Drive Shroud (1) - 53700600
LH Drive Shroud (1) - 53700601
(Includes Hardware & Extension bracket)

Thermal Air System Seal (1) - 6889....
Trailer Rail, 45° Alum (a/r) - 73400002

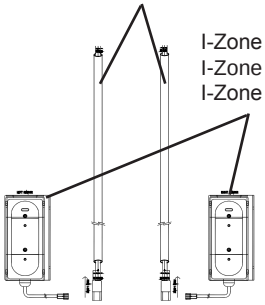
Conn, Pipe, ABS, 1 1/2", Male (1) - 16960090
Nut, Lock, Elec, 1-1/2" Cnd (1) - 51950093
Plug, Plastic, 2 3/16" (1) - 65300023

Keep Clear Warning Label (1) - 53850534
Sign Plate (Doors <8'-0" H w/o Shroud) (1) - 65000609



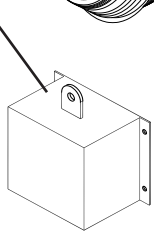
120V Curtain Fan Kit (2) - 53700769
120V Fan only (2) - 13250069
120V Arm only (2) - 11500046
220V Curtain Fan Kit (2) - 53700770

I-Zone Cable, Non-Drive (1) - 1549....
I-Zone Cable, Drive (1) - 1550....



I-Zone Detector Assembly (2) - 7622....
I-Zone Upgrade (a/r) - 7637....
I-Zone Cover (2) - 17900111

Transformer, 3KVA, 600:240/120 (1) - 73550026
Transformer, 3KVA, 480/240:240/120 (1) -73550027



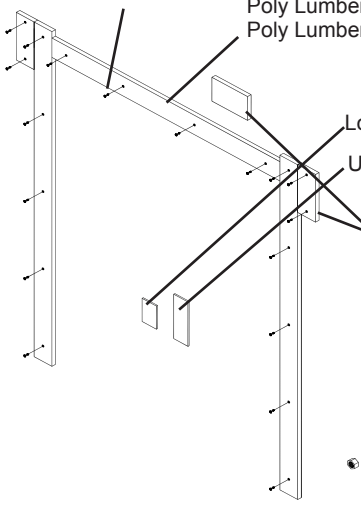
Chain Hoist,4:1 Ratio (1) - 56150038
Chain Hoist, Shroud, Interior (1) (<8/5/09) - 53700796
Chain Hoist, Shroud, Exterior (1) (<8/5/09) - 53700869
Kit, Fastrax, Chain Hoist, Hallmark (1) (<8/5/09) - 53700565
Kit,Fastrax, Chain Hoist, Nord, Interior, i-COMM i (1) (8/5/09 - <6/20/12) - 53700782
Kit, Fastrax, Chain Hoist, Nord, Exterior, i-COMM i (1) (8/5/09 - <6/20/12) - 53700801
Kit, Fastrax, Chain Hoist, Nord, Interior, i-COMM ii (1) (=>6/20/12) - 53700895
Kit, Fastrax, Chain Hoist, Nord, Exterior, i-COMM ii (1) (=>6/20/12) - 53700896

Virtual Vision Mounting Bracket (8) - 14500971

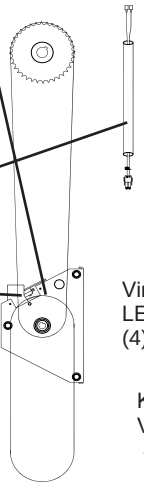
H1 (2) & H14 (2)

H7 (a/r)

Poly Lumber Install Kit (1) - 5339....
Poly Lumber 1 1/2"x7 1/2"x10'-6" (a/r) - 65450100



Lower Track Weld Plate (16) - 65000587
Upper Track Weld Plate (6) - 65000588
Chain Hoist Cable (1) - 15650234
Poly Lumber Header Shim (3) - 69000015
Exterior Chain Hoist Switch Kit (1) - 53700687
Interior Chain Hoist Switch (1) - 72700218



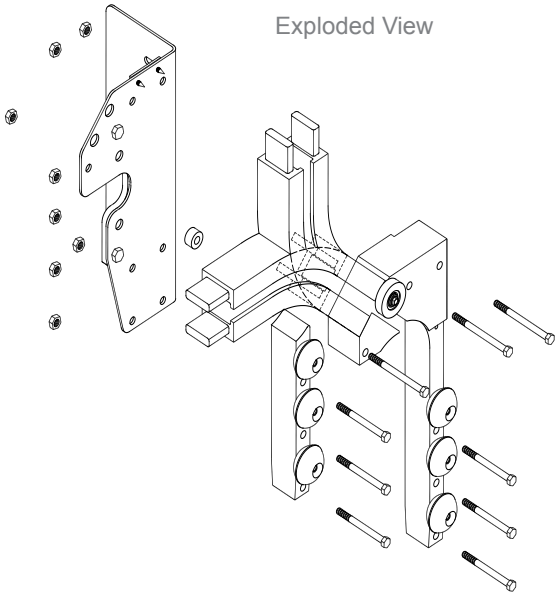
Virtual Vision LED Assembly (4) - 7623....

Kit, Warn Label, Virtual Vision (4) - 53700917

H6 (24)
H28 (24)
H35 (24)
H26 (12)
Plate, 6" Ø, znc (12) - 65000723

CHAPTER 11 - SERVICE PARTS

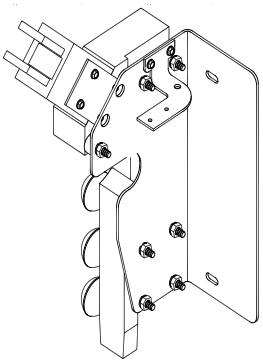
Exploded View



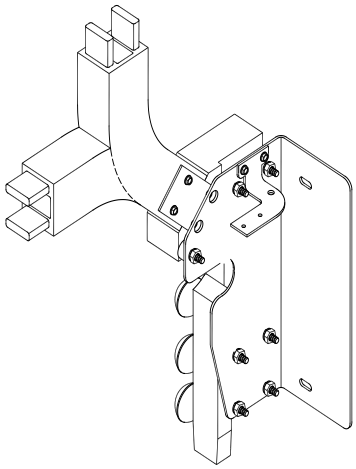
Upper Track, Wrapback, VL, High, Stand, Tilt (1/2) - 7368....

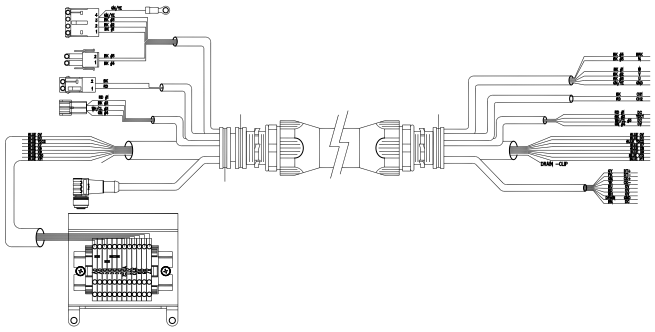
Complete Assembly

Wrapback and 45°Tilt Away Position

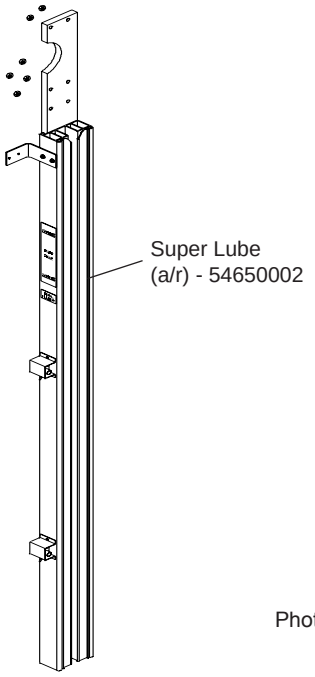


Veritcal or High Lift Position

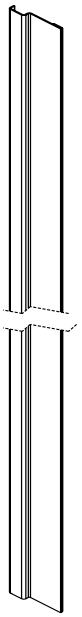




Cable, Control Box Conduit, (1) - 1555.... (specify length: 10’ - 30’)

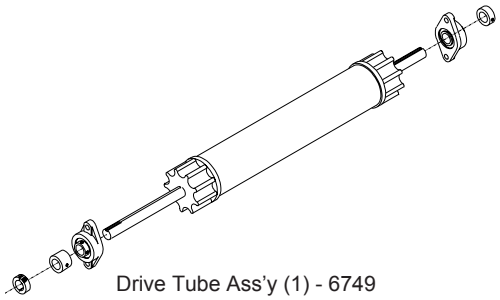


Super Lube
(a/r) - 54650002

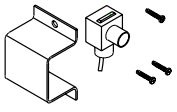


Photoeye, Wiring Cover (2) - 1917....

Lower Track Assembly (a/r) - 7362....



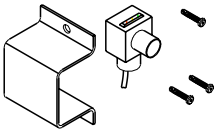
Drive Tube Ass’y (1) - 6749



Non-Drive Side

Kit, Photoeye, Thrubeam Source, 13M
(2) - 53700702

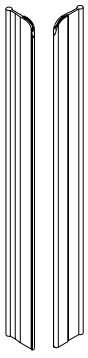
Photoeye, Bracket Cover
(4) - 1450120



Drive Side

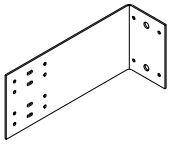
Kit, Photoeye, Thrubeam Receiver
(2) - 53700703

Photoeye, Bracket Cover
(4) - 14501207

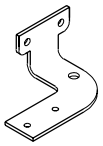


Breakaway Retention Strips (a/r) - 1481....

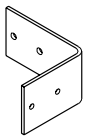
CHAPTER 11 - SERVICE PARTS



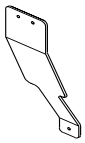
Track, Upper, Wall Mount Bracket (a/r)
(Includes hardware and 2 brackets) - 53700881



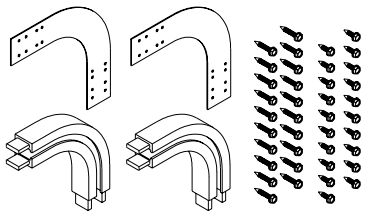
Shroud, Bracket, Upper, LH (1) - 14501097
Shroud, Bracket, Upper, RH (1) - 14501099



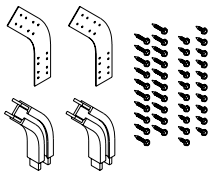
Shroud, Bracket, Lower (1) - 14501098



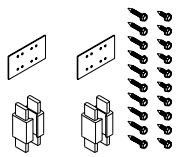
Guard, Drive Non-Radial (2 - <8' d.o.h) - 51300057



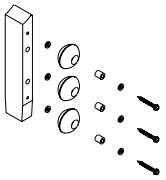
Kit, Track Connector, Radius, 90° (1) - 53600185



Track, Kit, Connector, Radius, 45° (1) - 53600189

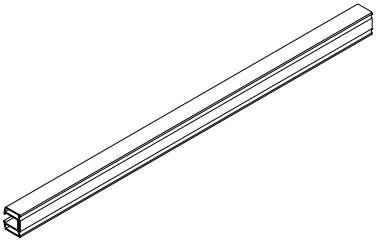


Kit, Universal Track Connector (a/r) - 53600186



Kit, FasTrax, Refeed, LH
(bracket & 3 rollers) (1) - 53700606

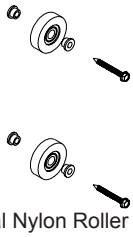
Kit, FasTrax, Refeed, RH
(bracket & 3 rollers) (1) - 53700607



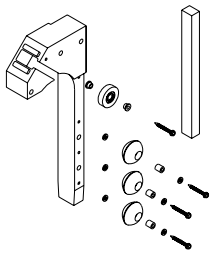
Track, Upper, =< 10'-0" O.D.H. (2) - 53700627
Track, Upper, =< 12'-0" O.D.H. (2) - 53700628
Track, Upper, =< 14'-0" O.D.H. (2) - 53700629
Track, Upper, =< 16'-0" O.D.H. (2) - 53700630

Track, Perforated, Angle,
2"x2"x13', 12GA (13') - 71500030

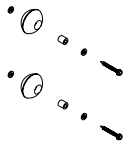
Label, Warning, Stand Clear, 2" x 9" (2) - 53850516



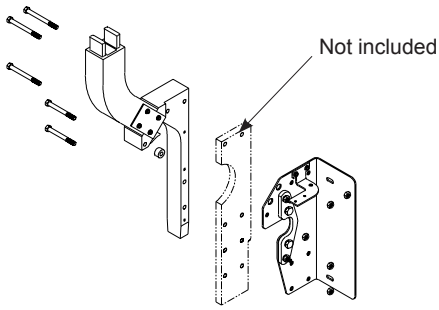
Kit, Radial Nylon Roller (2) - 53700632



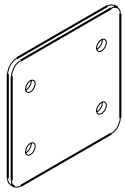
Kit, Bracket, Drive Cage, Non Radial, L (1) - 53700645
Kit, Bracket, Drive Cage, Non Radial, R (1) - 53700646



Kit, FasTrax/FR, Refeed Roller (2) (a/r) - 53700611

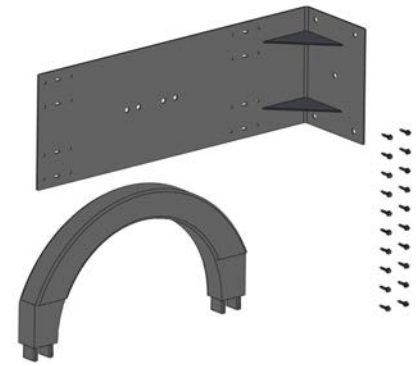


Kit, VL/High Lift Drive Cage, L (1) - 53700616
Kit, VL/High Lift Drive Cage, R (1) - 53700617



Track, Joiner, Drive Cage (2) - 65000576

CHAPTER 11 - WRAPBACK, HDW & PREV GEN SERVICE PARTS

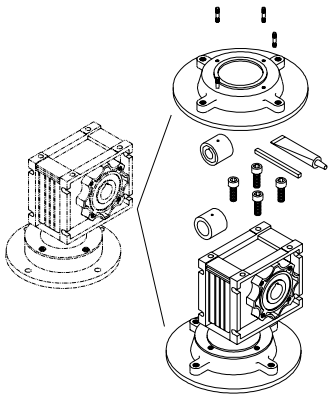


Kit, Wrapback, 180° (2) - 53600205

Bracket, BEA Falcon - (a/r) 14501212

#	HARDWARE LIST:	PART #
H1	Nut, Hex, Nylon, Lock, #10-24, zinc	55600004
H2	Nut, Hex, Nylon, Lock, 1/4-20, znc	55610001
H3	Nut, Hex, Nylon, Lock, 5/16-18, znc	55620010
H4	Nut, Hex, 3/8-16, znc	55630003
H5	Nut, Hex, Nylon, Lock, 3/8-16, znc	55630005
H6	Nut, Hex, 3/8-16, S.S.	55630006
H7	Rivet, Blind, Fablok, 5/16" x 1.807	66840016
H8	Ring, Retaining, External, 5/16" Shaft	67020051
H9	Screw, HWHSMS, #14 x 1 1/4", znc	67850001
H10	Screw, RHMS, Phillips, #10-24 x 1/2", zinc	67850008
H11	Screw, Phlp, Dr/Tap, #8 x 1/2"	67850015
H12	Screw,PHSMS,Phillips,Tap,#8-18x3/4"	67850026
H13	Screw, PHSMS, Phillips, #10 x 1", znc	67850029
H14	Screw, RHMS, Phillips, #10-24 x 3/4", zinc	67850030
H15	Screw,FHWH,#8x9/16",BLK,K-LATH	67850065
H16	Screw,PH,Phillips,Plstite,#8-16x3/8"	67850088
H17	Screw, Phillips, Drill/Tap, #8 x 1/2"	67850115
H18	Screw, Thumb, 1/4-20 x 1/2", GR2 znc	67860019
H19	Screw, HWH, Drill/Tap, #14x3/4", znc	67860094
H20	Screw, HHMS, 5/16-18x6", GR5, znc	67870111
H21	Screw, HHMS, 3/8-16 x 1", GR5, znc	67880002
H22	Screw, HHMS, 3/8-16x1 1/4",GR5,znc	67880004
H23	Screw, HHMS, 3/8-16 x 3 1/2", znc	67880017
H24	Screw, HHMS, 3/8-16 x 4", GR5, znc	67880029
H25	Screw, HHMS, 1/2-1 x 1", GR5, znc	67900003
H26	Rod, Threaded, 3/8-16 x 12" S.S.	67900047
H27	Tape, Foam, Double Sided	72800044
H28	Washer, Flat, 3/8" x 1" x .063, S.S.	74130012
H29	Washer, Flat, 1/4 x 3/4 x 1/16, znc	74110001
H30	Washer,Flat,1/4x9/16"x3/32",Neoprene	74110007
H31	Washer, Lock, Split, 3/8", znc	74130002
H32	Washer, Lock, Split, 1/2", znc	74150005
H33	Screw, Self Tap/Drill #12	67850004
H34	Washer, Flat, .39 x .75 x .062, Nylon	74130003
H35	Washer, lock, 3/8", S.S.	74130009
H36	Clamp, Cable, Nylon, 3/16"	16700009

Refer to Partslist Manual for exploded views and part numbers on doors prior to 8/13/10.



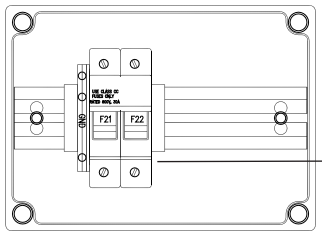
Tube, Plate, Bearing (2) - 65000563

Not required after 8/12/2011

ITEM	QTY	DESCRIPTION (NOT SHOWN)	PART #
1P	1	Kit, FasTrax, / FR, L/S, Ass'y, RH	53700555
2P	1	Kit, FasTrax, / FR, L/S, Ass'y, LH	53700556
3P	1	Kit, FasTrax, / FR, L/S, Chain	53700644
4P	1	Kit, FasTrax, / FR, L/S, Ass'y, Spanish, RH	53700677
5P	1	Kit, FasTrax, / FR, L/S, Ass'y, Spanish, LH	53700678
6P	1	Kit, FasTrax, / FR, L/S, Ass'y, German, RH	53700679
7P	1	Kit, FasTrax, / FR, L/S, Ass'y, German, LH	53700680
8P	1	Kit, FasTrax, / FR, L/S, Ass'y, Dutch, RH	53700681
9P	1	Kit, FasTrax, / FR, L/S, Ass'y, Dutch, LH	53700682

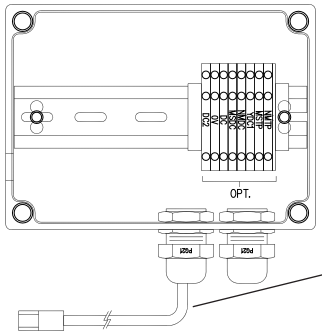
Kit,FasTrax,Gearbox,Retrofit, Hallmark,5:1 (<8/5/09) - (1) 53700779
Kit,FasTrax,Gearbox,Retrofit, Hallmark,7.5:1 (<8/5/09) - (1) 53700780
Kit,FasTrax,Gearbox,Retrofit, Hallmark,10:1 (<8/5/09) - (1) 53700781

CHAPTER 11 - JUNCTION BOX SERVICE PARTS



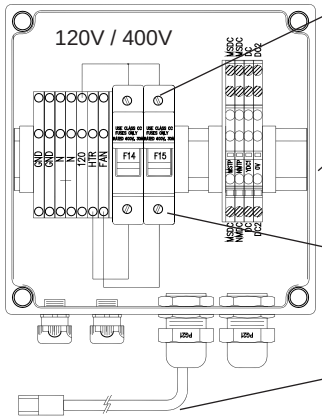
Curtain Fan Only Junction Box, FasTrax (1) - 53530012

2 Pole Fuse Holder, 600V, 30A (1) - 51000003
Fuse, 3AMP, 600V, Time Delay (1) - 51000008



Virtual Vision Only Junction Box Ass'y FasTrax (1) - 5357....
CE Option only

Cable, Virtual Vision (1) - 15650233

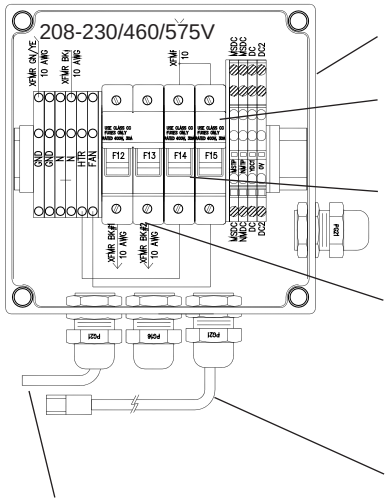


120V:
Fuse Holder, 2 Pole, 600V, 30A (208, 230, 460, 480, 575V) (1) - 51000003
Fuse, 10A, 600V, CC, Time Delay (400V) (1) - 51000011
Fuse, 6A, 600V, CC, KLDR (2-460-480V or 1-120V) - 51000055

Junction Box Ass'y FasTrax CE Option only (1) - 5357....
Junction Box Ass'y FasTrax FR (1) - 5358....

400V:
Fuse, 10A, 600V, CC, Time Delay (400V) (1) - 51000011
Fuse Holder, 1 Pole, 600V, 30A (208, 230, 460, 480, 575V) (2) - 51000019
Fuse, 4A, 600V, CC, Time Delay (400V) (1) - 51000040

Cable, Virtual Vision (1) - 15650233



Junction Box Ass'y FasTrax FR (1) - 5358....

208-460V:
Fuse Holder, 1 Pole, 600V, 30A (2) - 51000019
Fuse, 6A, 600V, CC, KLDR (2-460-480V or 1-120V) - 51000055

208-460V:
Fuse Holder, 1 Pole, 600V, 30A (2) - 51000019
Fuse, 15AMP, 600V, CC, Time Delay (2) - 51000024

Fuse Holder, 2 Pole, 600V, 30A (1) - 51000003
Fuse, 5A, 600V, CC (575V) (2) - 51000012
Fuse Holder, 1 Pole, 600V, 30A (2) - 51000019
Fuse, 15AMP, 600V, CC, Time Delay (2) - 51000024
Fuse, 12AMP, 600V, CC, Time Delay (208-230V) (1/3) - 51000027

Cable, Virtual Vision (1) - 15650233

Cable, 10/5, 600V, 90C (5') - 15650235

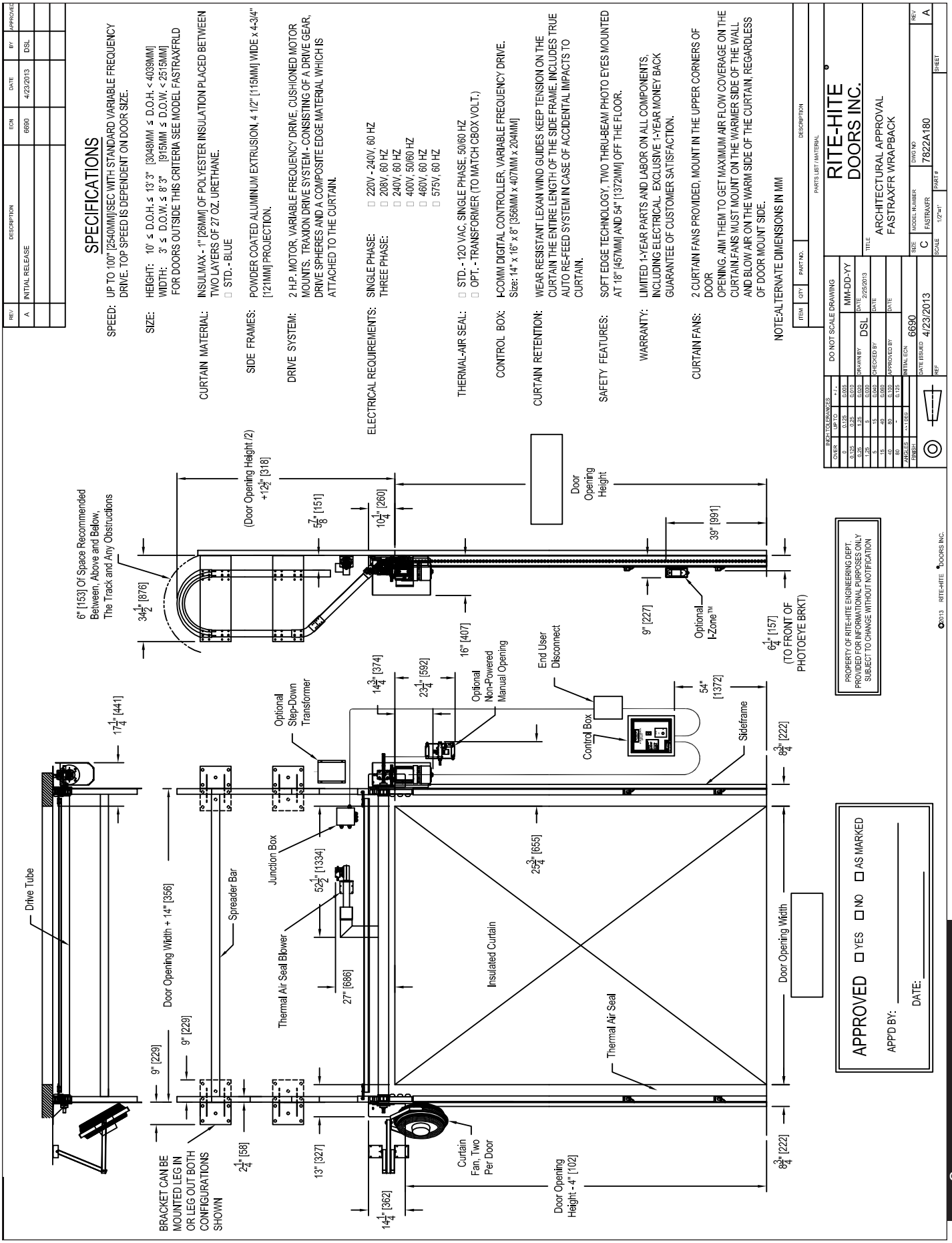
CHAPTER 11 - ACTIVATION SERVICE PARTS

#	PART #	DESCRIPTION	5700	7100	80/XL	8600	8900	FSTX	FSTX CL	FSTX FR	FSTX FR LD	FSTX XL	LTSPD	SPLIT 2ND
1	11050007	Alarm, Audible, 24AC/DC, 22.5 (I-Zone)	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N
2	11050010	Alarm, Audible, 120VAC,10-TONE, AB	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
3	17500025	Controller, Wireless, Act, BTR, 12-24V	N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y
4	17500001	Induction Loop Board, 24VDC (<5/28/14)	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
5	17500010	Induction Loop Board, 12/24VDC (=>6/20/12)	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	52000037	Induction Loop Board Harness (<5/28/14)	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
7	52000056	Induction Loop Board Harness (=>6/20/12)	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	53700552	Induction Loop, Kit, Single (<5/28/14)	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N
9	53700864	Induction Loop, Kit, Dual	N	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
10	55150279	i-COMM ii LCD Interface	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
11	7622	I-Zone Kit	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
12	7636	I-Zone Upgrade Kit, Non FasTrax	N	N	Y	N	Y	N	N	N	Y	Y	Y	N
13	7637	I-Zone Upgrade Kit, FasTrax	N	N	N	N	N	Y	N	Y	Y	Y	N	N
14	14500774	I-Zone Sensor Bracket Black	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
15	14500775	I-Zone Sensor Bracket Gray	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
16	14500783	I-Zone Sensor Bracket Stainless	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
17	17900110	I-Zone Cover Gray	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
18	17900111	I-Zone Cover Black	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
19	17900112	I-Zone Cover Stainless	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
20	14501212	Motion Sensor, Mounting Bracket	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
21	55200012	Motion Sensor, Remote Programmer	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
22	55200018	Motion Sensor, FalconXL < 11.5'H	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
23	55200019	Motion Sensor, Falcon >= 11.5'H	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
24	55200021	Motion Sensor, IS40, 12-24V	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
25	55200022	Motion Sensor, LZRI30, 12-35VDC	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
26	55200023	Motion Sensor, MS08,Touchless, 12-24V	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
27	55200024	Motion Sensor, IS40XL, 12-24V	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
28	14500024	Photoeye Mounting Bracket	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
29	53700053	Photoeye, 24V, Kit, Thru-beam	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
30	53700122	Photoeye, 24V, Kit, Retro-reflective	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
31	66400001	Photoeye, Reflector, 2 3/4" x 2"	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
32	63900002	Photoeye, Retro-Reflective 20-40VAC/10-55VDC	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
33	69300004	Photoeye, Thru-beam Source 20-40VAC/10-55VDC	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
34	63900005	Photoeye, Thru-beam Receiver 20-40VAC/10-55VDC	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
35	63900048	Photoeye, Light Curtain, Receiver, (CE)	N	N	N	N	N	Y	N	Y	Y	N	Y	N
36	63900049	Photoeye, Light Curtain, Transmitter, (CE)	N	N	N	N	N	Y	N	Y	Y	N	Y	N
37	72700213	Pull Cord, Assembly, w/Bracket, Standard	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
38	72700214	Pull Cord, Assembly, w/Bracket, Heated	N	Y	Y	Y	N	N	Y	Y	Y	N	Y	N
39	72700270	Pull Cord, Wireless	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y
40	72700030	Push Button Station Single Green	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
41	72700102	Push Button Station, Open/E-Stop/Close, Nema 4X	N	N	N	N	N	N	N	Y	Y	Y	Y	Y
42	72700269	Push Button, Single, Wireless	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
43	66250020	Radio Control, RCVR, BEA, 433, 12-24V, 1 FN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
44	73750078	Radio Control, Trans, BEA, 433, 1 BTN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
45	73750079	Radio Control, Trans, BEA, 433, 2 BTN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

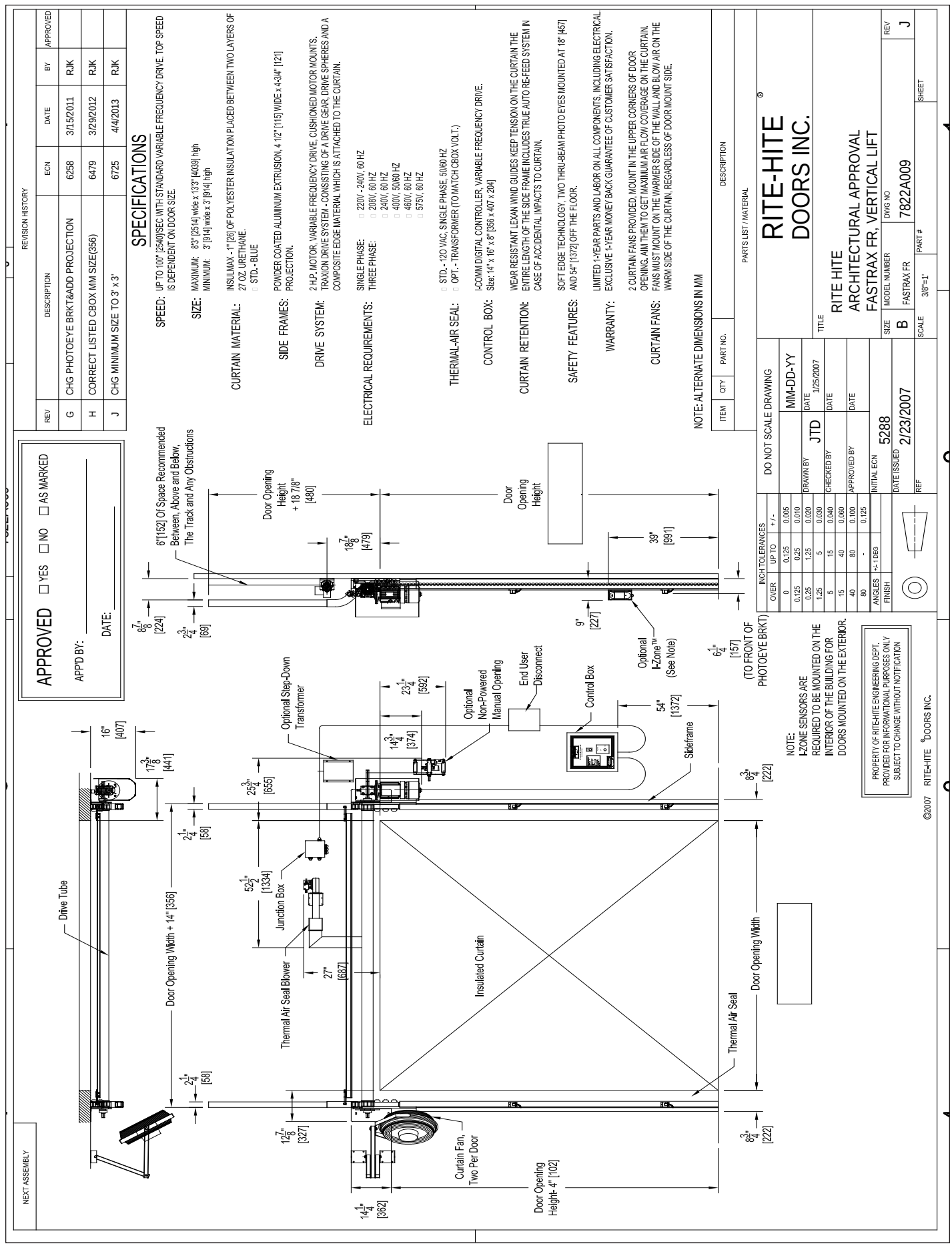
CHAPTER 11 - ACTIVATION SERVICE PARTS *Continued*

#	PART #	DESCRIPTION	5700	7100	80/XL	8600	8900	FSTX	FSTX CL	FSTX FR	FSTX FR LD	FSTX XL	LTSPD	SPLIT 2ND
46	73750080	Radio Control, Trans, BEA, 433, 3 BTN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
47	11280002	Radio Control Ant w/15' Cable, 318 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
48	53700068	Radio Control, 24V, Kit, 318 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
49	66250016	Radio RCVR, 24V 318 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
50	66250017	Radio RCVR, 24V 300 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
51	73750002	Radio TRANS, 300 MHZ, BTN, 4 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
52	73750015	Radio TRANS, 318 MHZ, BTN, 1 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
53	73750018	Radio TRANS, 318 MHZ, BTN, 3 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
54	73750019	Radio TRANS, 318 MHZ, BTN, 2 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
55	54270030	Strobe 120VAC Amber	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
56	54270031	Strobe 120VAC Red	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
57	53700567	Switch, Disconnect w/Handle	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
58	72700011	Switch, Selector, 2 Pos, Key	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
59	72700072	Switch, Selector, 2 Pos (Socket p/n: 17200012)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
60	72700144	Switch, Selector, 3 Pos, 3 Pole, 12A	Y	N	N	N	N	N	N	N	N	N	N	N
61	VRTLV	Virtual Vision, Kit, Stand Alone	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
62	7623	Virtual Vision, Kit, FSTX/FR/LTSPD	N	N	N	N	Y	Y	N	Y	Y	N	Y	Y
63	7624	Virtual Vision, Kit, FSTXCL	N	N	N	N	N	N	Y	N	N	N	N	N
64	7638	Virtual Vision, Kit, FSTXXL	N	N	N	N	N	N	N	N	N	Y	N	N
65	53700862	Warning Device Kit, Relay, i-COMM	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
66	53700863	Warning Device Kit, Relay, PLC	N	N	Y	Y	N	N	N	N	N	N	N	N
67	53700306	Kit, Activation Service Parts (loop, pe, pull, push)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

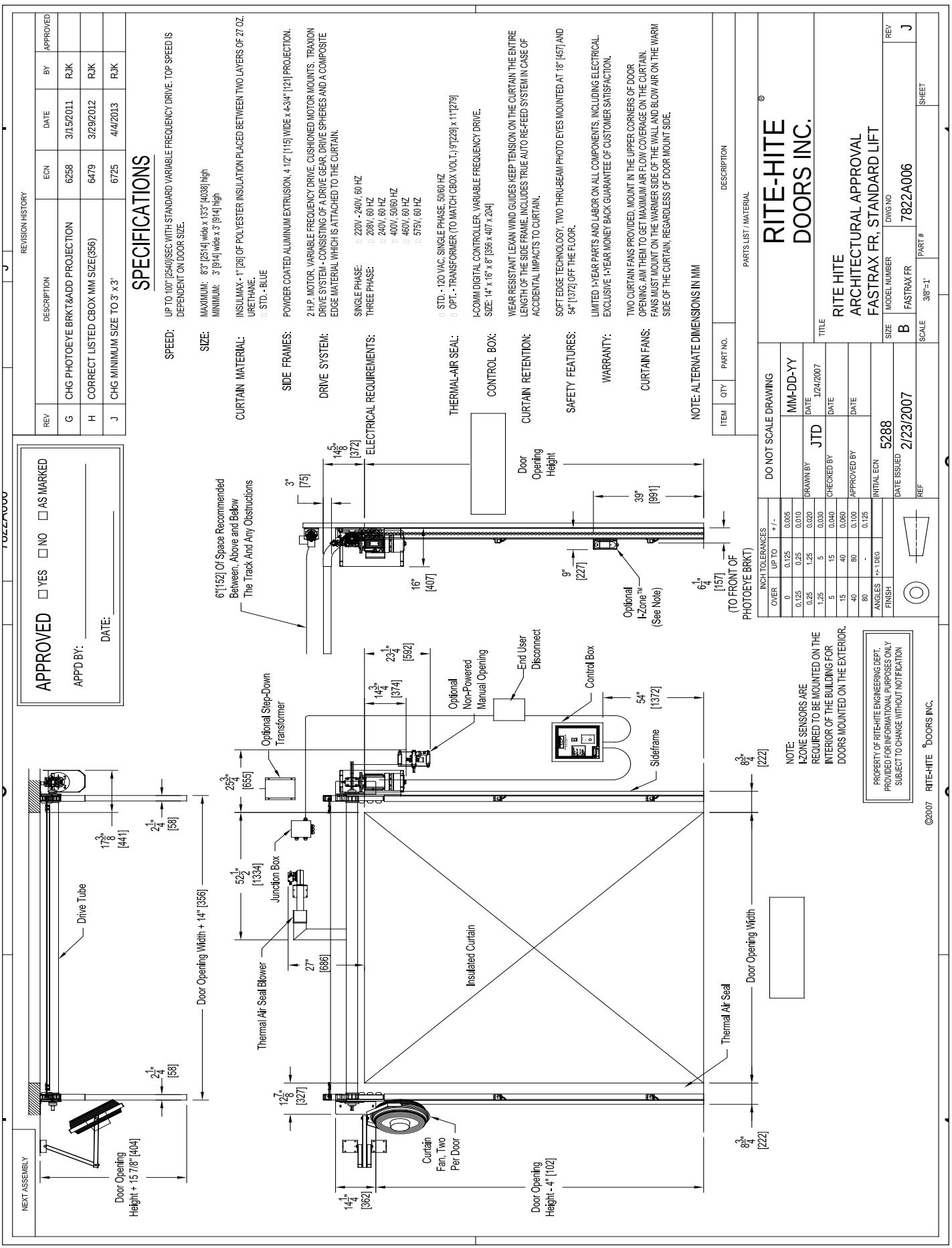
CHAPTER 12 - ARCHITECTURAL DRAWING WRAPBACK



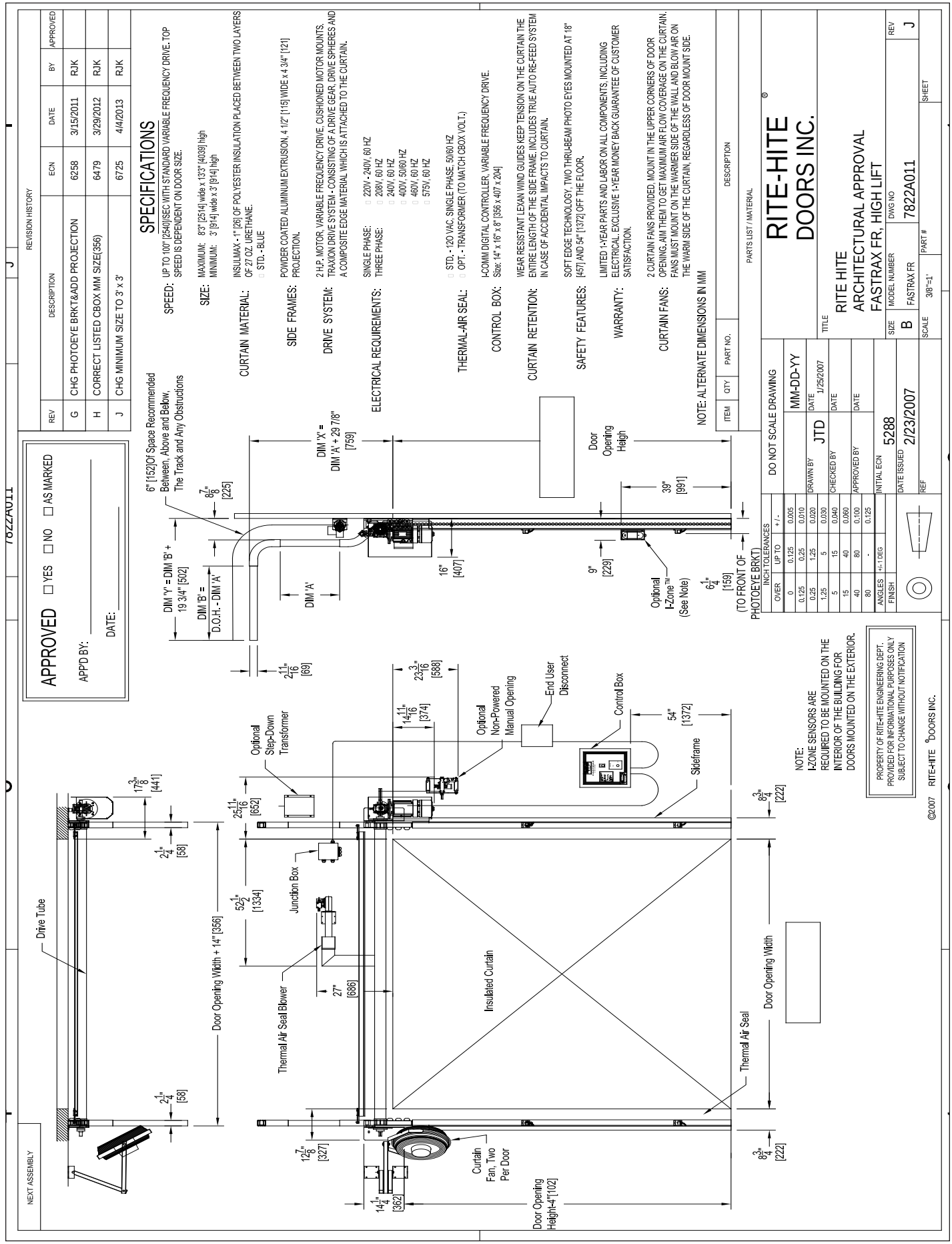
CHAPTER 12 - ARCHITECTURAL DRAWING VERTICAL



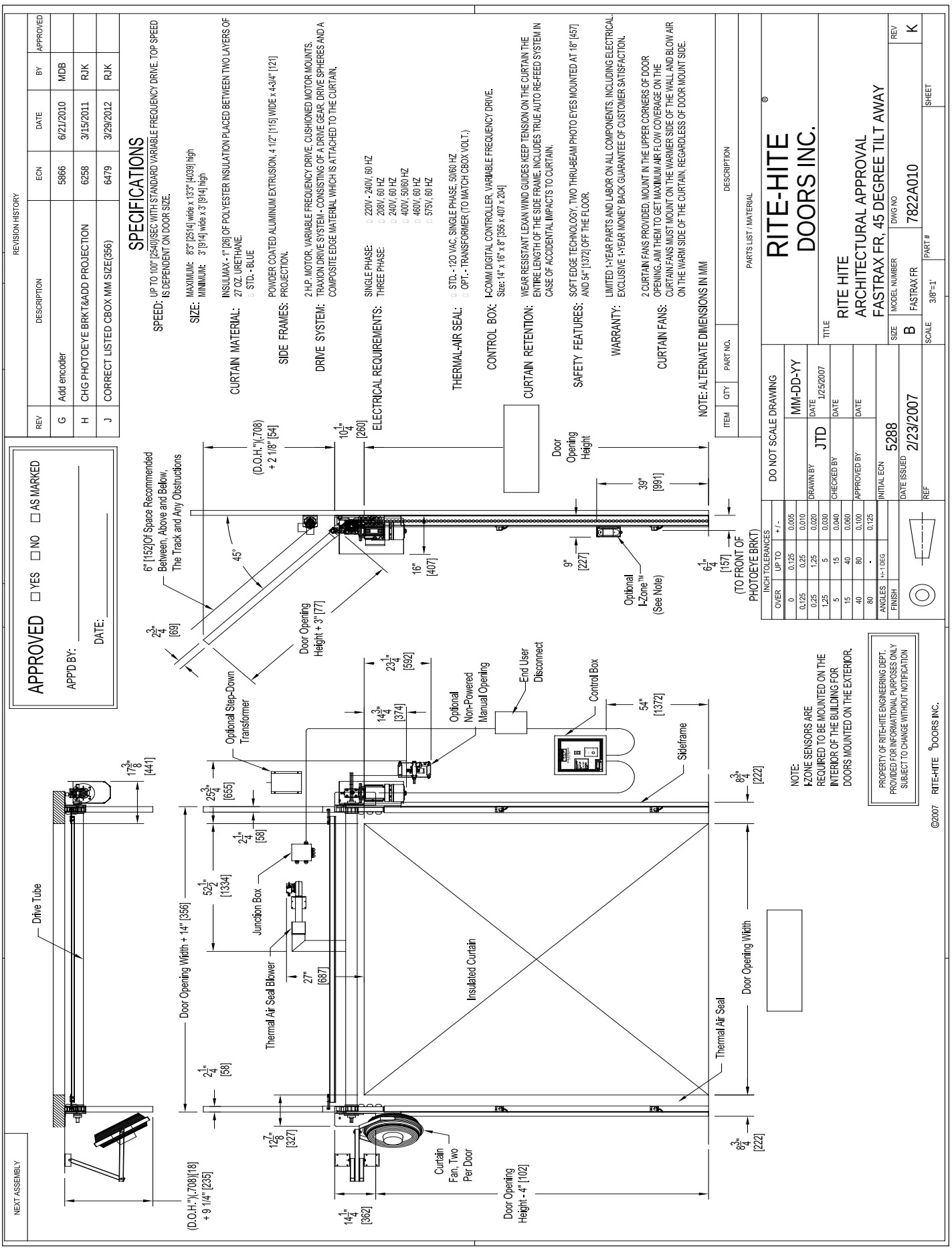
CHAPTER 12 - ARCHITECTURAL DRAWING STANDARD



CHAPTER 12 - ARCHITECTURAL DRAWING HIGH LIFT



CHAPTER 12 - ARCHITECTURAL DRAWING 45° TILT



RITE-HITE DOORS ABBREVIATION LIST

Abbreviation	Description
AB	Allen Bradley
AC	AlternateCurrent
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	Clean Door
CLR	Cooler Door
CR	Control Relay
CT	Control Techniques
C.W.	Counter Weight
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
H.P.	Horse Power
Hz	Hertz

Abbreviation	Description
illum	Illumination
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
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
Oz	Ounce
Pharma	Pharmaceutical
PB	Push Button
PE	Photoeye

RITE-HITE DOORS ABBREVIATION LIST *Continued*

Abbreviation	Description
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
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)

Rev. 092314

NOTES

RITE-HITE Company, LLC and its affiliates (collectively “RITE-HITE”) warrants 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”).

One (1) Year on all mechanical and electrical parts.
One (1) Year labor, based on approved travel and labor repair times.

REMEDIES

PARTS- RITE-HITE’s obligations under this Limited Warranty is 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 in the first year of the 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. 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.

DISCLAIMERS THIS LIMITED WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, AND RITE-HITE EXPRESSLY DISCLAIMS AND EXCLUDES ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR PURPOSE. RITE-HITE SHALL NOT BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORIES OF LAW, WITH RESPECT TO THE PRODUCTS SOLD OR SERVICES RENDERED BY RITE-HITE, OR ANY UNDERTAKINGS, ACTS, OR OMISSIONS RELATING THERETO.

LIMITATION OF LIABILITY IN NO EVENT SHALL RITE-HITE BE RESPONSIBLE FOR, OR LIABLE TO ANYONE FOR, SPECIAL, INDIRECT, COLLATERAL, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RITE-HITE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Such excluded damages include, but are not limited to, personal injury, damage to property, loss of goodwill, loss of profits, loss of use, cost of cover with any substitute product, interruption of business, or other similar indirect financial loss.

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