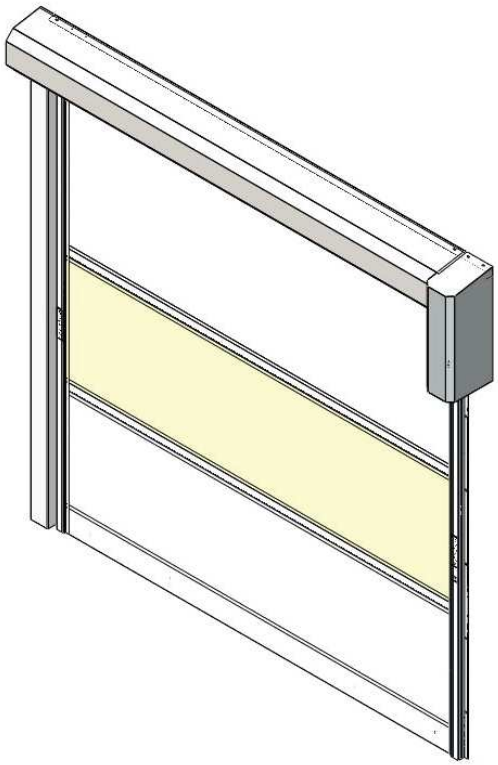
RITE-HITE®
ALWAYS LOOKING AHEAD

LiteSpeed® Standard
LiteSpeed® Cleanroom
LiteSpeed® Washdown

High Speed Doors

Installation/Service/Owner's Manual

This manual covers all doors ordered after 11/1/2017.
Refer to LTSPDD for doors ordered prior to 11/21/2017.



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Manual Part #: **39500158**
Model: **LTSST, LTSCR, LTSWD**
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NOTICE TO USER

Thank you for purchasing a Rite-Hite product.

The LiteSpeed® High Speed Fabric Doors help to maintain and separate different atmospheres.

The information in this manual applies to all LiteSpeed models unless otherwise noted.

Read and understand manual before beginning the installation, operation or servicing of this door.

Before work begins, verify space clearance requirements from architectural drawings.

Use i-COMM™ 3 manual with this manual for complete installation and operation instructions.

Complete **"Final Checklist" on page 40** before leaving site.

Store manual near the unit.

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

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

When ordering parts, include your door serial or RHC number located on the label on the side support tube (see **Figure 36 on page 25**).

For best results, have this product serviced by an authorized Rite-Hite representative.

A Planned Maintenance Program (P.M.P.), customized to your specific operation is available and recommended. For a P.M.P., contact your local Rite-Hite representative or Rite-Hite technical support at (U.S.) 1-563-589-2722, 1-888-456-3625, (S.A.) +55 21 99616 4421, (E.U.) +49-5693 98700.

NOTICE

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

Manufactured by Rite-Hite Doors, Inc.

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.

SAFETY

Safety Identifications

DANGER

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

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

WARNING/AVERTISSEMENT

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

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

CAUTION/ATTENTION

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

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

NOTICE

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

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

Lockout Procedure

Barricade work area and post safety warnings.

Power supply and control must:

- Be disconnected or locked in OFF position using a lockout device approved by local codes.
- Have signage that;
  - Clearly states repairs are being made.
  - Identifies person responsible for lockout condition.

    NOTE: Only this person should be able to remove warnings and lockout device.
  - Withstands environmental conditions (weather, wet, and damp, etc.) and remains readable.

SAFETY

General

⚠ DANGER

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

Use lockout procedures to prevent death or severe personal injury.

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

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

⚠ DANGER

To reduce risk of injury or death, an earth ground connection must be made to the green/yellow control box ground terminal.

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

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

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

⚠ WARNING/AVERTISSEMENT

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

Partially release the brake to close the door smoothly.

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

Relâchez partiellement le frein pour fermer la porte en douceur.

⚠ WARNING/AVERTISSEMENT

STAND CLEAR!

TENEZ-VOUS À L'ÉCART

Rapid moving door could cause serious injury or death.

La porte mobile rapide peut causer des blessures graves ou la mort.

Door could close automatically.

La porte peut se fermer automatiquement.

DO NOT stand in the doorway, and DO NOT walk under moving door. Keep door in full view and free of obstructions while operating.

NE PAS rester debout dans la porte et Ne PAS marcher sous la porte mobile. Garder la porte en pleine vue et sans obstruction pendant l'opération.

Repairs or adjustments should be made only by a trained door systems technician.

Les réparations ou les ajustements ne doivent être effectués que par un technicien agréé.

SAFETY

General *Continued*

⚠ WARNING/AVERTISSEMENT

The Variable Frequency Drive (in control box) has a stored charge, it is unsafe to work on for 10 minutes after disconnecting power.

Le variateur de fréquence (dans la boîte de contrôle) a une mémoire de charge, il est dangereux de travailler pendant 10 minutes après la coupure de l'alimentation.

⚠ WARNING/AVERTISSEMENT

Cancer and Reproductive Harm
www.P65Warnings.ca.gov

Canver al problèmes du système de reprodution
www.P65Warnings.ca.gov

⚠ CAUTION/ATTENTION

During installation and repair, barricade both sides of the door to prevent unauthorized use.

Pendant l'installation et la réparation, délimitez et protégez les deux côtés de la porte pour éviter toute utilisation non autorisée.

NOTICE

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

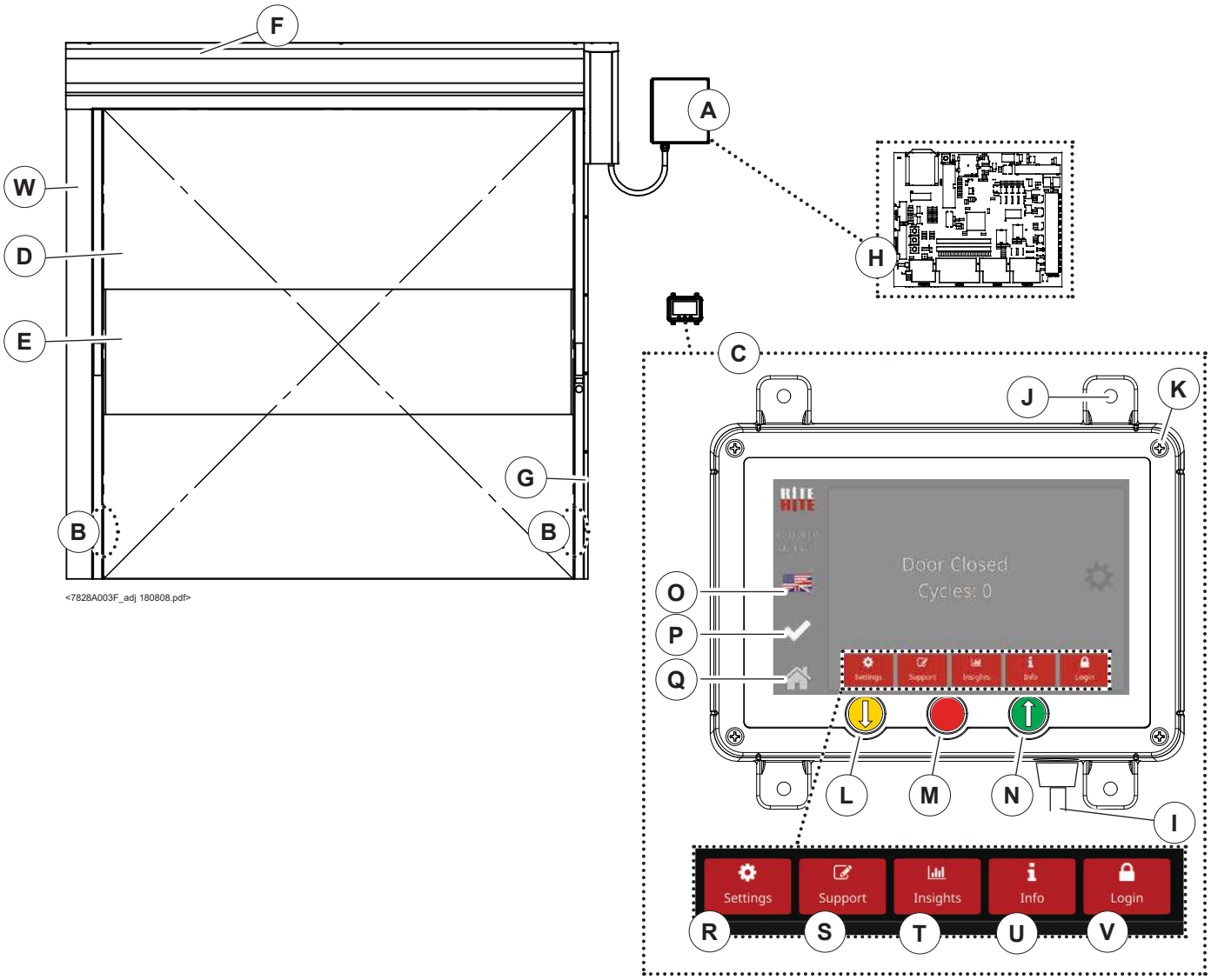
Be extremely careful when drilling conduit holes into the control box. Drilling too deeply or allowing debris to fall into electrical components may cause severe equipment damage or component failure.

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

NOTICE

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

FEATURES



A. Control Box
Serial Number Label
B. Photoeye
C. Touch Screen Controls/GUI (Graphical User Interface)
D. Curtain
E. Vision
F. Header
G. Lower Track
H. i-COMM 3
I. Communication Cable
J. Wall Attachment (x4)
K. Enclosure screw (x4)

Buttons:

L. Close (Yellow)*
M. Stop (Red)*
N. Open/Reset (Green)*
O. Language indicator
P. Door Status:

Red	Fault
Yellow	Warning
White	Operating Normally

Q. Home
R. Settings**
S. Support**
T. Insights**
U. Info**
V. Login**

Optional:

W. Non-Powered Opening (N.P.O.)

*Buttons are mirrored on the i-COMM 3 for use during installation.
**Conditional buttons. Shown: Home Screen.

Figure 1

INSTALLATION

Preparation

NOTE: Refer to i-COMM 3 Installation/Service manual for GUI/Touchscreen installation.

1. Check for electrical prints included in the parts or control box. They supersede any prints in this manual.
2. Alternate measurements in brackets are in [metric].
3. Make sure you are working at the correct location and have any required work permits.
4. Inspect installation site to make sure area is free of overhead obstructions (sprinkler pipes, HVAC systems, electrical supply lines, etc.) that might interfere with the lifting of the header assembly during installation.
5. Detour material handling equipment (fork lift trucks, etc.) during the installation of the door.
6. Make sure that the electrician is ready to bring the correct electrical power supply to the door control box.
7. Make sure that the electrical power can be shut off without interfering with other plant operations.
8. Move the entire crate of the door components as close to the door opening as possible.
9. If multiple doors are being installed, the control box must be installed with the matching door unit. The serial number for your door is on a label located on the side of the control box and side support post (**Figure 36 on page 25**).
10. To verify proper installation, use **"Final Checklist" on page 40.**
11. Install *Activation* and *Optional* equipment after verifying door operation.

Required Tools

Fork and scissors lift	Drill (cordless or electric)
Level (laser or hydro)	Hammer drill
Ladder 6ft - 8ft [2m - 2.5m]	Wire strippers
25ft [7.6m] Tape measure	6ft [1.8m] Carpenter's level
"C" Clamps	Square/Straight edge
5/16in [8mm] Nut driver	1/8in [3mm] Allen driver
7/16in, 1/2in, 9/16in, 3/4in, 15/16in open end and/or socket wrench	
11/16in x 12in [17mm x 305mm] drill bit for through bolting	
Straight/Phillips screwdrivers	
Phillips bit and drill bits for drill	
Allen wrench set (1/8in [3mm], 5/32in [4mm], 7/16in [11mm], 9/16in [14mm])	

INSTALLATION

Door Jamb

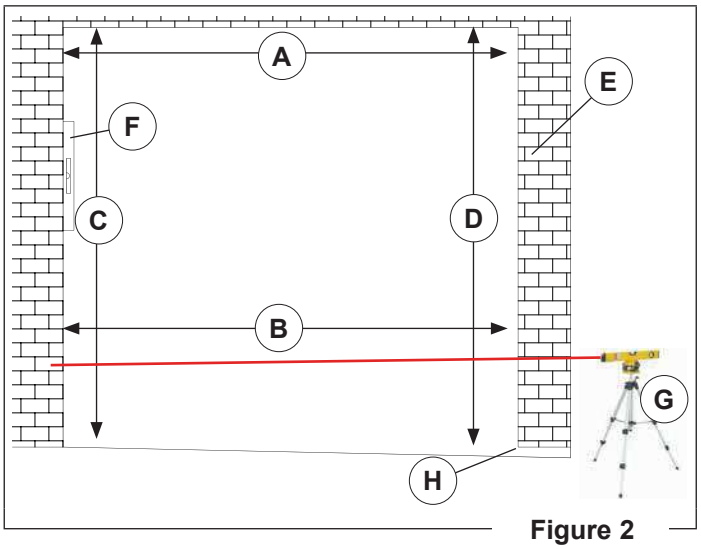


Figure 2

NOTE: For space clearance requirements, refer to architectural drawings (sent with unit) or call your Rite-Hite Representative.

1. Measure Door Opening Width (D.O.W.) at the top (A) and floor (B). Place a mark on the floor.
2. From centerline, measure over 1/2 ordered door width + 1/4in [6mm] (+ 1/16in [1.5mm], -0) (B) and place a 6in [152mm] mark on the floor.
3. From this mark, measure over ordered door width + 1/2in [13mm] (+ 1/8in [3mm], -0) (C) and place a 6in [152mm] mark on the floor.
4. Measure Door Opening Height (D.O.H.) at left side (C) and right side (D).
5. Dimensions from steps 1-2 should be ± 1/2in [13mm] of the dimensions listed on the serial number label. If the measurements do not agree, STOP! Contact your Rite-Hite representative.
6. Surface MUST be flat, smooth and collinear with opposite side (E).
7. Using a 6ft [1.8m] 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 ± 1/8in [3mm], shim under the lower track that will be located on the low side (H) (greatest measurement) of the door opening.

Basic Installation Overview

NOTE: If lifting with forks under the roller tube and shroud is not present, remove the lower spreader bar from header.

1. Prepare lower track and header for installation. Place lower tracks and header on the floor in front of the opening.
2. Attach lower tracks to header.
3. Lift unit in place and fasten to the wall.
4. Feed curtain into the lower tracks.
5. Attach encoder cable and motor/brake cables, and connect photoeye wires to the terminal block.
6. Set up i-COMM 3/Encoder.
7. Operate and adjust open/close positions.
8. Install spreader bar and optional shrouds.
9. Install optional activation devices.

INSTALLATION

Mounting Methods

Acceptable Anchor Types

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

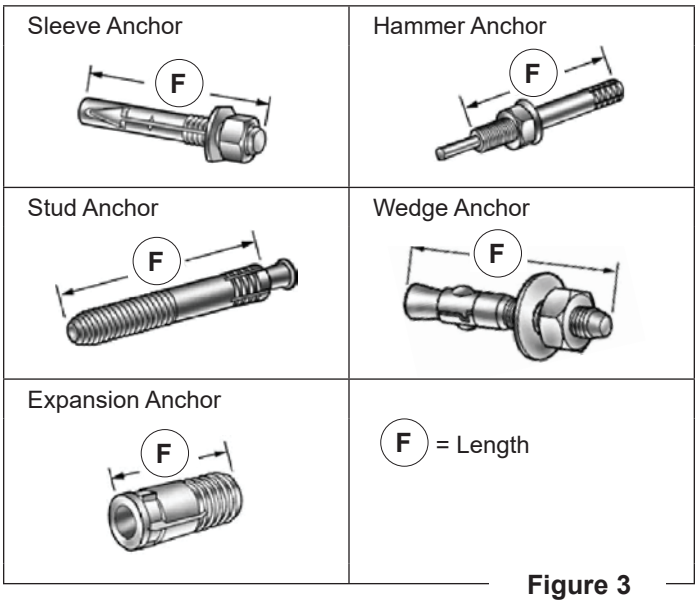


Figure 3

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

Unacceptable Anchor Types

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

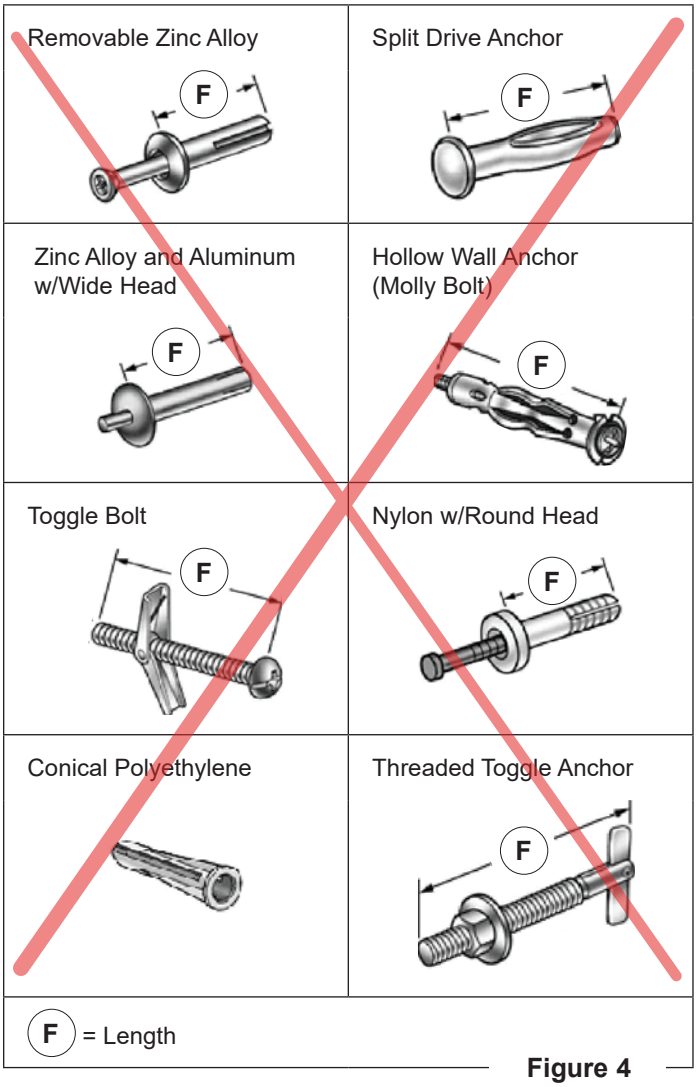


Figure 4

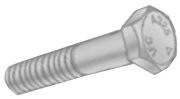
INSTALLATION

Mounting Methods *Continued*

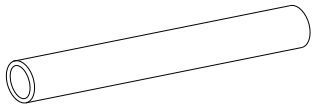
Acceptable Fasteners

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

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



Wall Sleeve
3/8in [10mm] ID Ø



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

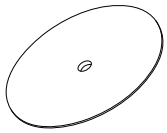


Figure 5

Typical Fastener Spacing

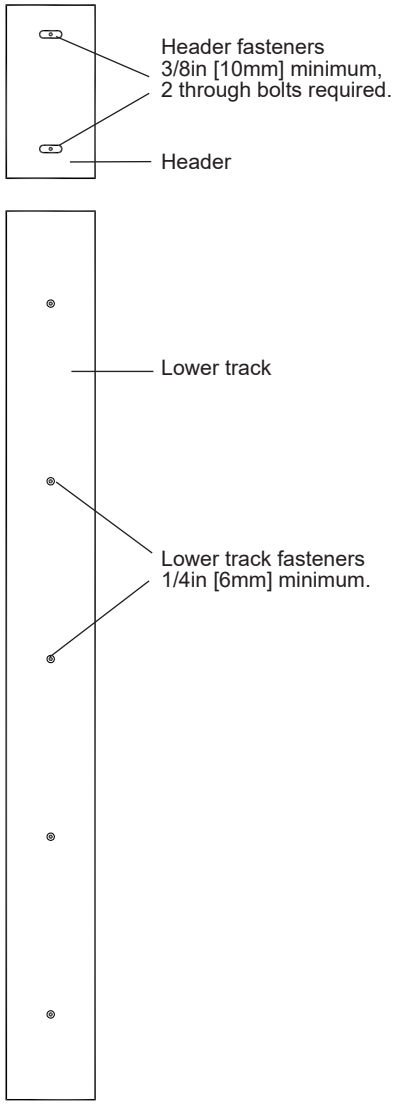


Figure 6

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

The fastening method, is the responsibility of the installer. It requires the door to remain attached to the wall if, for example, a door fails to open when a vehicle approaches and impacts the non-mounted side. Lower tracks on doors are required to be through bolted a minimum of every 4ft [1.2m] with 1/4in [6mm] minimum fasteners filling in the remaining holes **(Figure 6)**.

Wall sleeves and backer plates **(Figure 5)** may be required if wall crushes when fasteners are tightened.

Backer plates (if used) must be clean and either painted or a non-ferrous material.

INSTALLATION

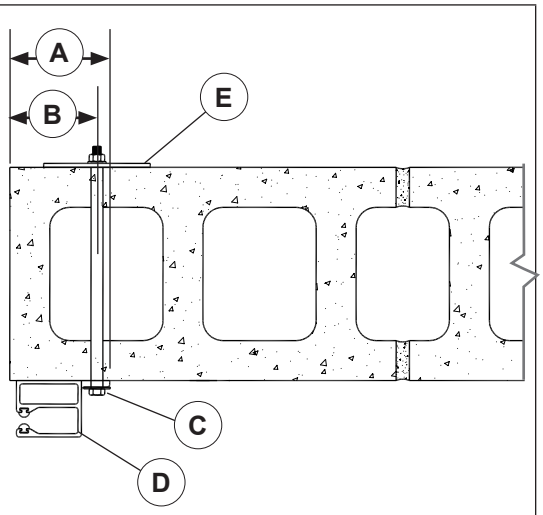
Mounting Methods *Continued*

NOTICE

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

Through bolts must be used with concrete block and brick walls. **DO NOT** use Anchors.

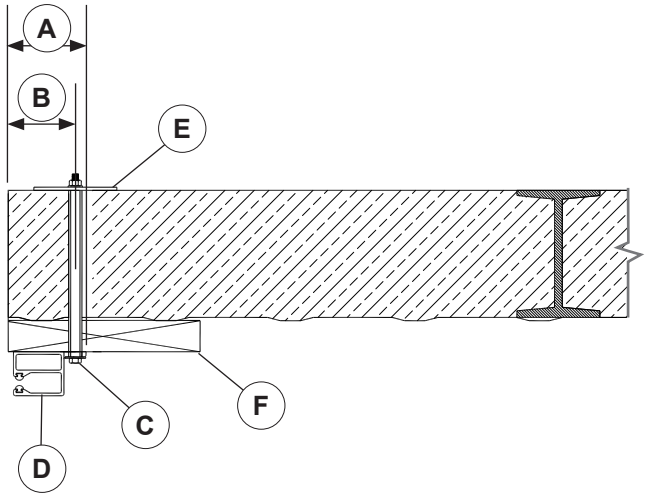
Concrete Block or Brick Wall



A. Flat Space Required: 3 3/4in [95mm] Standard, 4in [102mm] Stainless
B. 3 1/4in [83mm] Standard, 3 3/8in [86mm] Stainless
C. Minimum Fasteners Required (supplied by others): 3/8in [M10] for Header Bracket 1/4in [M6] for Lower Track
D. Lower Track
E. Minimum Backer Plate Required (supplied by others) 1/8in x 6in Ø [3mm x 152mm]

Figure 7

Insulated Panel Wall



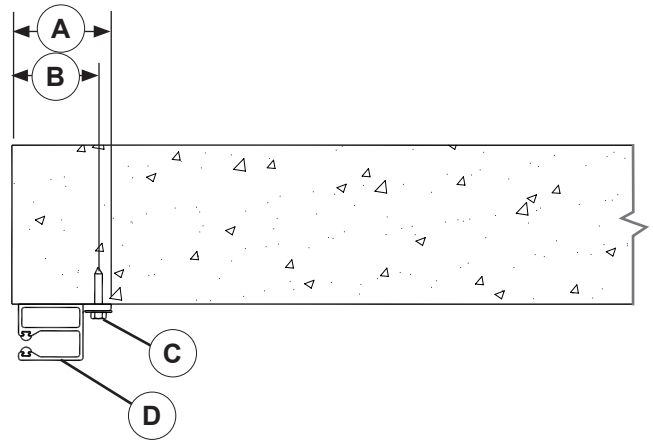
A. Flat Space Required: 3 3/4in [95mm] Standard, 4in [102mm] Stainless
B. 3 1/4in [83mm] Standard, 3 3/8in [86mm] Stainless
C. Minimum Fasteners Required (supplied by others): 3/8in [M10] for Header Bracket 1/4in [M6] for Lower Track
D. Lower Track
E. Minimum Backer Plate Required (supplied by others) 1/8in x 6in Ø [3mm x 152mm]
F. Filler Board ordered through Rite-Hite or supplied by others

Figure 8

INSTALLATION

Mounting Methods *Continued*

Concrete Wall



A. Flat Space Required: 3 3/4in [95mm] Standard, 4in [102mm] Stainless

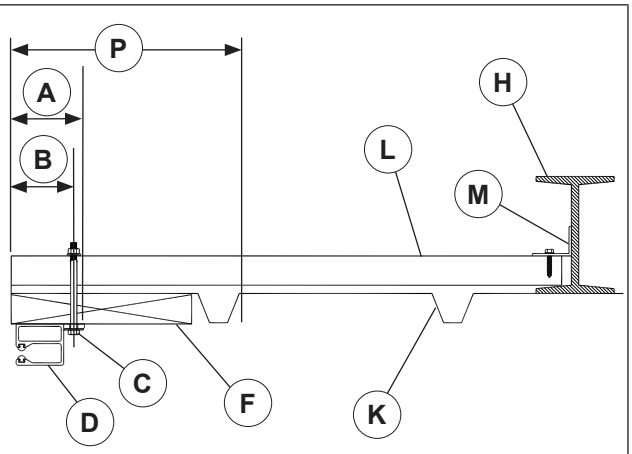
B. 3 1/4in [83mm] Standard, 3 3/8in [86mm] Stainless

C. Minimum Fasteners Required (supplied by others):
3/8in [M10] for Header Bracket
1/4in [M6] for Lower Track

D. Lower Track

Figure 9

Ribbed Metal Wall



A. Flat Space Required: 3 3/4in [95mm] Standard, 4in [102mm] Stainless

B. 3 1/4in [83mm] Standard, 3 3/8in [86mm] Stainless

C. Minimum Fasteners Required (supplied by others):
3/8in [M10] for Header Bracket
1/4in [M6] for Lower Track

D. Lower Track

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

H. Building Structural Member

K. Corrugated Metal Siding

L. 2in x 6in [51mm x 152mm] or Structural Steel Channel Backer (supplied by others)

M. Angle Bracket (supplied by others)

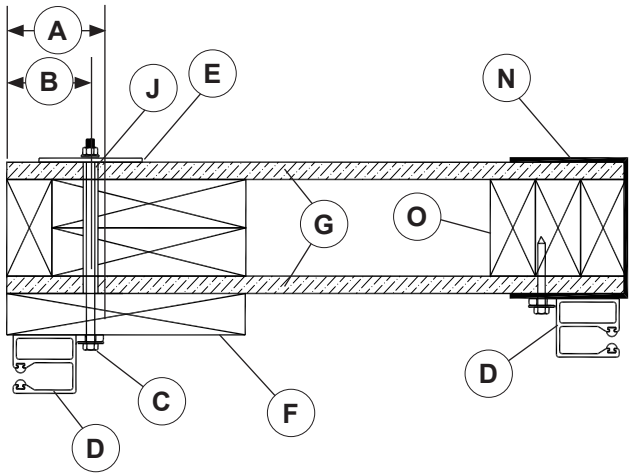
P. Flat space required to install motor assembly:
≈ 11in [279mm]

Figure 10

INSTALLATION

Mounting Methods *Continued*

Drywall



A. Flat Space Required: 3 3/4in [95mm] Standard, 4in [102mm] Stainless

B. 3 1/4in [83mm] Standard, 3 3/8in [86mm] Stainless

C. Minimum Fasteners Required (supplied by others):
3/8in [M10] for Header Bracket
1/4in [M6] for Lower Track

D. Lower Track

E. Minimum Backer Plate Required 1/8in x 6in Ø [3mm x 152mm]

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

G. Drywall

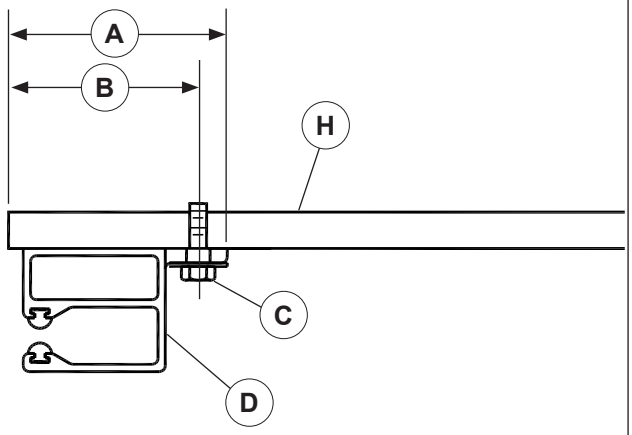
J. Wall Sleeve

N. Any Jamb Wrap flange/leg for flat mounting surface must be at least 4 1/2in [114mm]

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

Figure 11

Steel Member



A. Flat Space Required: 3 3/4in [95mm] Standard, 4in [102mm] Stainless

B. 3 1/4in [83mm] Standard, 3 3/8in [86mm] Stainless

C. Minimum Fasteners Required (supplied by others):
3/8in [M10] for Header Bracket
1/4in [M6] for Lower Track

D. Lower Track

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

Figure 12

INSTALLATION

Lower Track

NOTICE

If door is equipped with these options:

Weld Plate – proceed to **page 35**
Poly Lumber – proceed to **page 29**

Lower tracks must be mounted at the proper width.

Too wide:
Excess wear is placed on the drive buttons

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

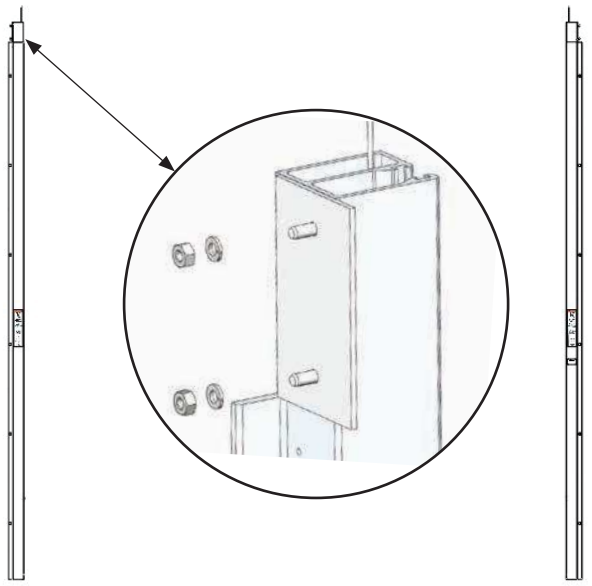


Figure 13

1. Place lower tracks on the floor in front of the opening at approximately Ordered Door Width.

Figure 14

2. Place header in front of the opening at the top of the lower tracks.

INSTALLATION

Lower Track *Continued*

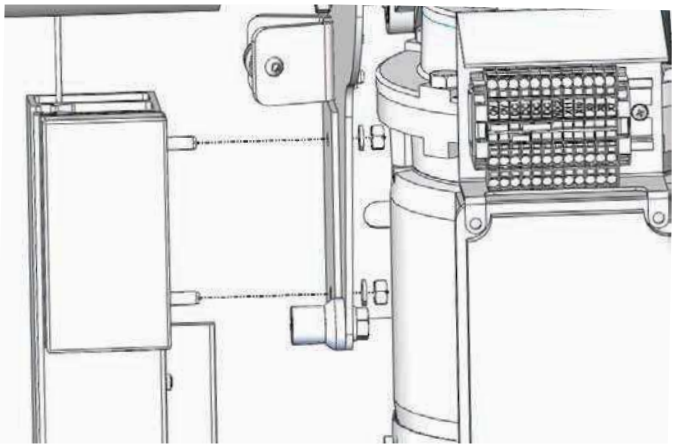


Figure 15

3. Remove the 2 sets of 1/4in [M6] nuts and washers from the studs at the top of the drive lower track and fasten to the header. 7/16in [11mm] wrench required.

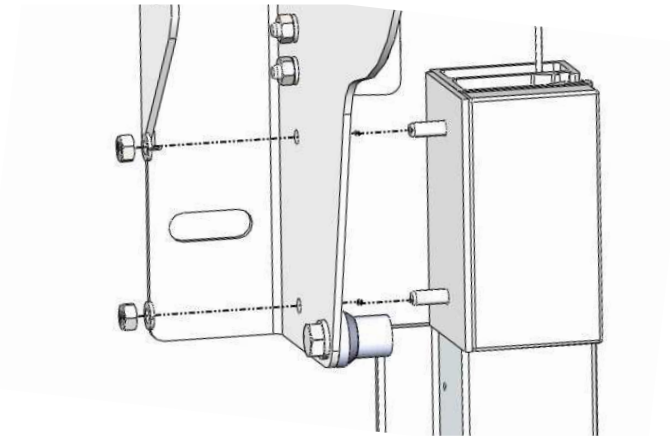


Figure 16

4. Remove the 2 sets of 1/4in [M6] nuts and washers from the studs at the top of the non-drive lower track and fasten to the header. 7/16in [11mm] wrench required.

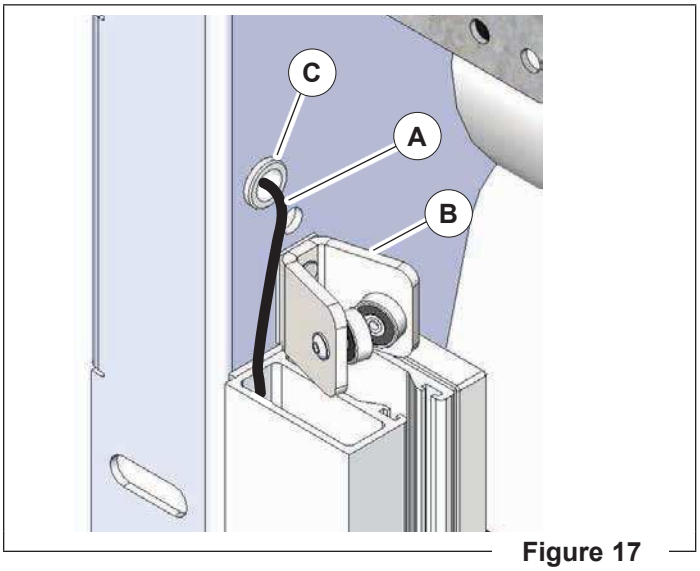


Figure 17

5. Remove the coiled photoeye cable (A) tied to the top of each lower track. Route the photoeye cable behind the drive and non-drive guide roller assembly (B) and through the rubber grommets (C) located on the header end plate. **DO NOT** leave cable slack as curtain may rub against it.

INSTALLATION

Lower Track *Continued*

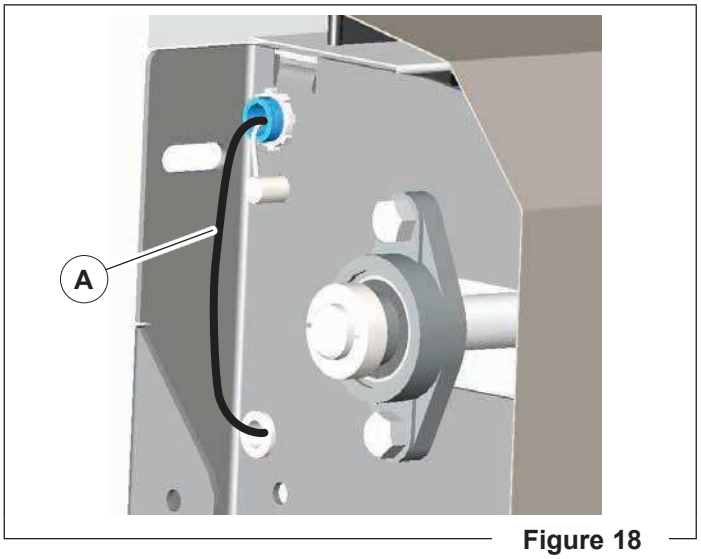


Figure 18

6. Locate the taped down string coming out of the non-drive header wire raceway. Tie the photoeye cable (A) to the string. On the drive side, pull the string to bring the non-drive photoeye cable to the drive side.
7. Route drive side header photoeye cable through the grommet.
8. Wrap up and safely store all photoeye cables. (They will be terminated to the motor terminal block when the pre-wired control cable is attached to the motor or they will be terminated in the junction box with the motor cable for LiteSpeed Washdown.)

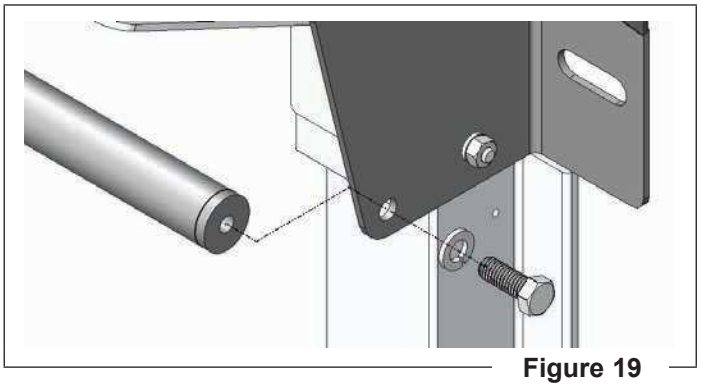


Figure 19

9. ***Only required if lifting with forklift under curtain:*** Remove the 3/8in [M10] bolt and washer from the header support bar on drive side and non-drive side.

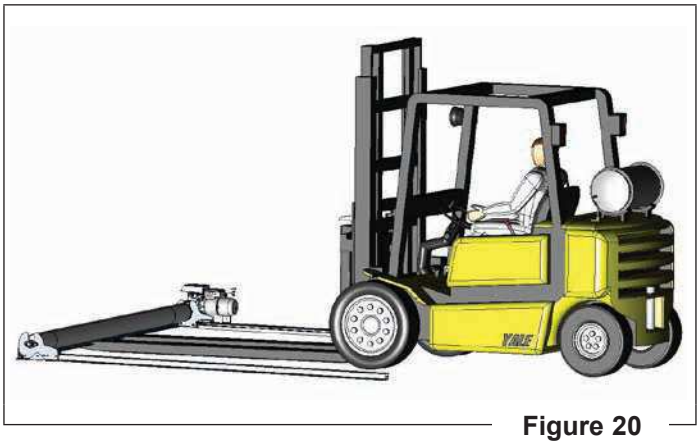


Figure 20

10. Lift unit into position by the header/roll tube with a sling around the roll tube.

NOTE: If lifting with forks from under the roll tube, you must provide a smooth and clean surface where the forks will contact the curtain fabric.

INSTALLATION

Lower Track *Continued*

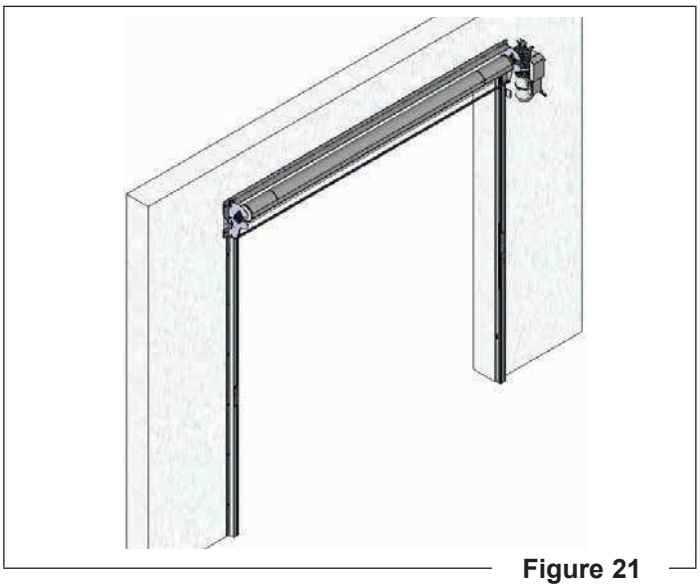


Figure 21

11. Lift the unit against the wall mounting surface. Level, plumb, square and verify proper spacing between lower tracks. Attach the unit to the wall with adequate fasteners into all lower track and header mounting holes.
12. Reattach the front header support bar with the 3/8in [M10] (9/16in [14mm] wrench) hardware removed earlier.

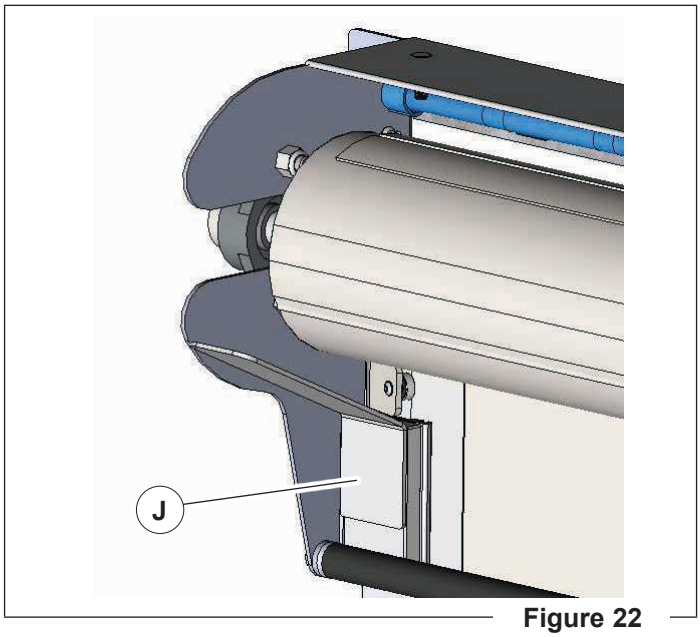


Figure 22

13. For doors without a shroud, a curtain guide (J) is provided to prevent the curtain from unwrapping too far.

INSTALLATION

Lower Track *Continued*

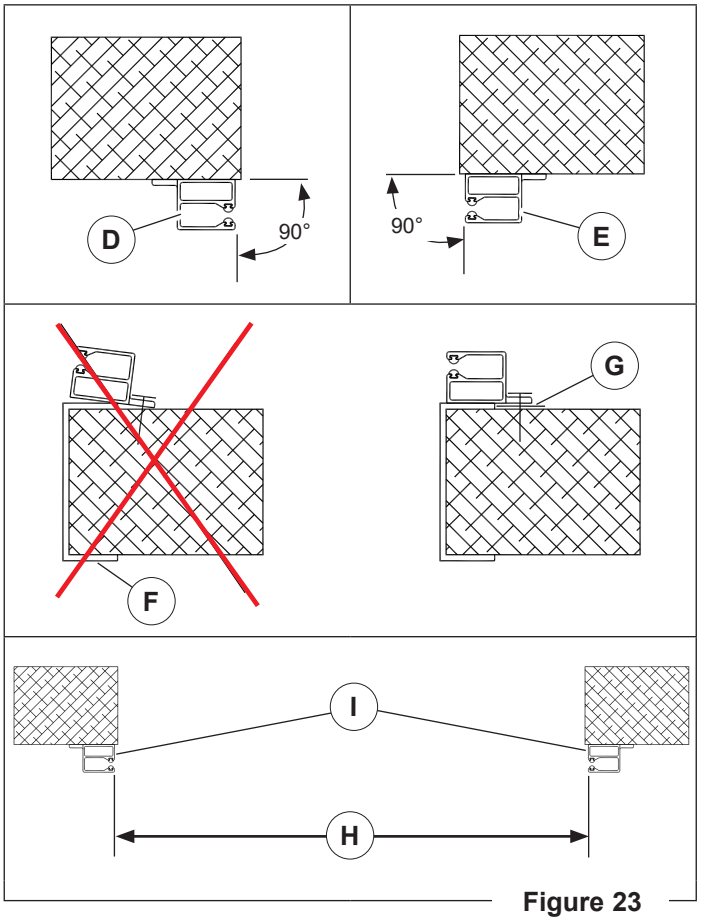


Figure 23

14. Place non-drive lower track at the previously made mark on the floor. (See Preparation, **"Door Jamb" on page 9**.) Lower track must be 90° to wall. Measure the angle from the flat surface of the lower track (D). Use shims as required to square.
15. Using a 6ft [1.8M] level, make sure that the lower track is plumb in both directions. Clamp lower track in place.
16. Place drive lower track at the previously made mark on the floor. Lower track must be 90° to wall. Measure the angle from the flat surface of the lower track (E). Use shims as required to square.
17. Using a 6ft [1.8M] level, make sure that the lower track is plumb in both directions. Clamp lower track in place.
18. If wall has a jamb cap (F), the lower track MUST be shimmed out (G).
19. Verify Critical Dimension (H): Ordered Door Width plus 1/2in [13mm] (+ 1/8in [3mm],-0). Take this measurement from the flat surfaces of the lower tracks (I).

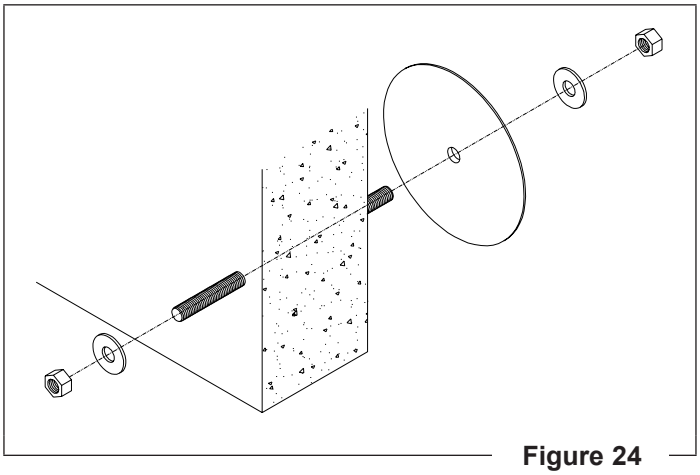


Figure 24

20. If backer plates are being used, they must be clean and either be painted or a non-ferrous material.

INSTALLATION

Curtain

Figure 25

1. Remove the 2 hook and loop straps around the curtain.
2. Release the brake and guide each outside curtain bulb between and behind the roller guides.

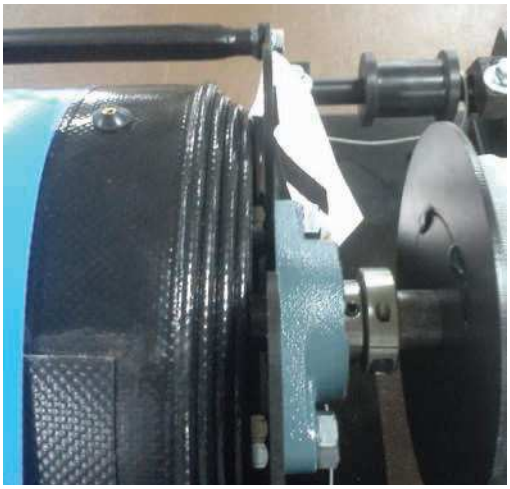


Figure 26

NOTE: If power is available proceed to **"Figure 31" on page 21** and **"Electrical" on page 22**, then Step 3 through Step 10.

3. Slowly lower the curtain to the closed position, verifying that curtain buttons and bulb are not tight.
4. Raise the curtain to the full open position to see if the curtain telescopes in toward the center of the door when rolling up. If contact between the curtain bulb and refeed roller occurs, the curtain will need to be shimmed.

Figure 27

5. To shim the curtain, place the door in the closed position, unwind the curtain to where it is attached to the hook and loop on the roll tube and place a piece of fabric at the edge of the roll tube on the side where the curtain is telescoping inward **(Figure 28)**. Place shim(s) on one side only.

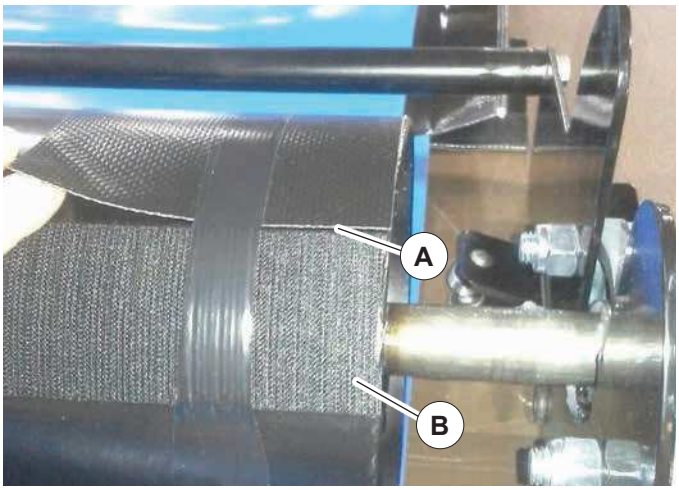


Figure 28

6. Apply shim (A) around the roller tube (B) and secure with electrical tape. This may require several attempts to place the correct thickness of shim. Two are supplied.

INSTALLATION

Curtain *Continued*

Figure 29

7. Once shimming is complete, the curtain should track as shown in **"Figure 30"**. Distance from inside edge of plate to bulb can be 1/4in - 3/4in [6mm - 19mm]. See dimension (C) **(Figure 29)**.

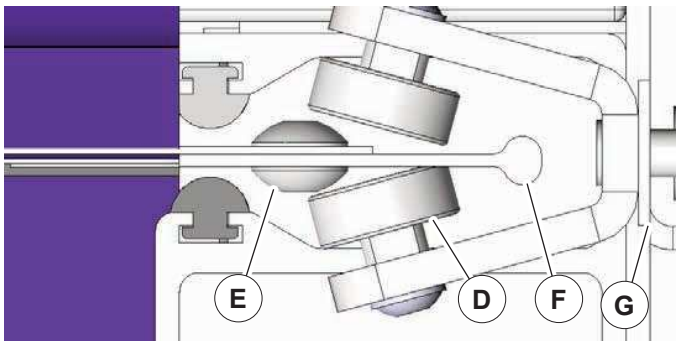


Figure 30

8. See note attached to the rollers. **"Figure 30"** shows the ideal button and edge clearance.
9. Verify rollers (D) spin free, buttons (E) and curtain bulb (F) are not tight against roller. (G) refers to shim in place. If tight, refer back to **"Figure 28" on page 20** and **"Figure 29"**.
10. Under normal operation, buttons and curtain bulb should not be tight against rollers.

Figure 31

11. Position the bottom edge approximately 12in [305mm] below the opening and engage the brake.
12. Proceed to **"Electrical" on page 22**.

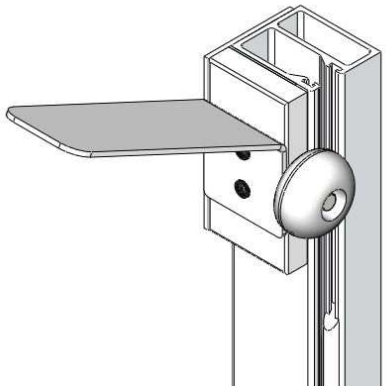


Figure 32

13. Refeed assist roller assists with refeeding curtain if curtain is broken out of lower track(s).

NOTE: If replacing existing curtain, remove any roll tube shims that may be present for a starting point.

INSTALLATION

Electrical

⚠ DANGER

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

- **Power source must be locked out and marked**
- **A qualified electrician should install the wiring**

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

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

⚠ DANGER

To reduce risk of injury or death, an earth ground connection must be made to the green/yellow control box ground terminal.

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

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

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

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.

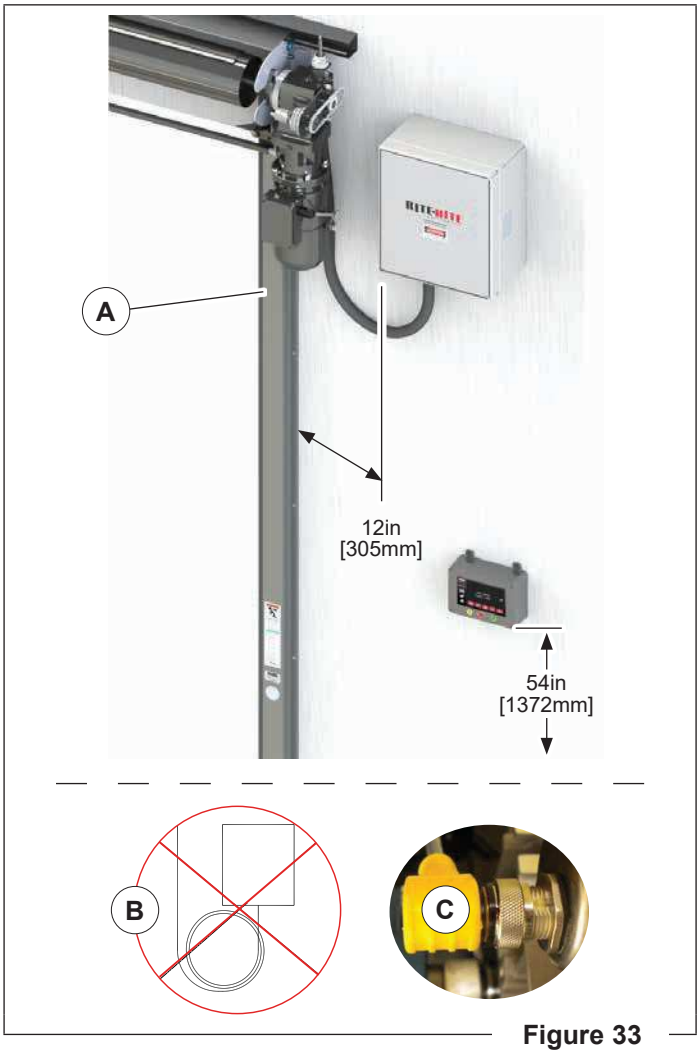


Figure 33

INSTALLATION

Electrical *Continued*

1. It is the responsibility of the end user to provide electrical service up to the control box with proper branch service protection and an approved means of disconnect. The disconnect on the front of the control box is not a true disconnect.
2. 20 or 30 amperage service may be required for cable runs longer than 300ft [91m].
3. Local electrical codes may require the use of rigid conduit rather than flexible conduit. If so, remove conduit connector and control cables from the flexible conduit, install the rigid conduit in its place, and rewire. The door can also be ordered without the standard flexible conduit.
4. Mount control box adjacent to the door at approximately 12in [305mm] from lower track.
5. If possible, mount control box on the warm side regardless of door mount side.
6. 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.
7. Use the proper sealed connectors to maintain the NEMA rating on the enclosure.
8. 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 [2.05mm] wire.
9. Route all field installed wires so that separation is maintained between line voltage wires and low voltage class II wiring.
10. The control box is provided with time delay (class CC) protective fusing for the incoming power.
11. Clamp conduit to wall after complete.
12. The control box cable is pre-wired to the control box unless the door is ordered without the flex conduit. LiteSpeed Washdown will be prewired to a junction box and motor cable will need to be wired to the terminal strip in the junction 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 by the required amount.

    DO NOT coil (B) or let conduit hang on the floor (**Figure 33 on page 22**).
13. In freezer and cooler applications where a conduit passes from a warm to cold temperature zone, the conduit must be sealed with an approved material per 300.7(a) of the National Electric Code (NFPA 70).
14. Refer to electrical diagrams for this door for further information.
15. Connect ground wire (A) from motor cable to lower track (**Figure 33 on page 22**).

NOTE: **DO NOT** splice control wiring.

INSTALLATION

Electrical *Continued*

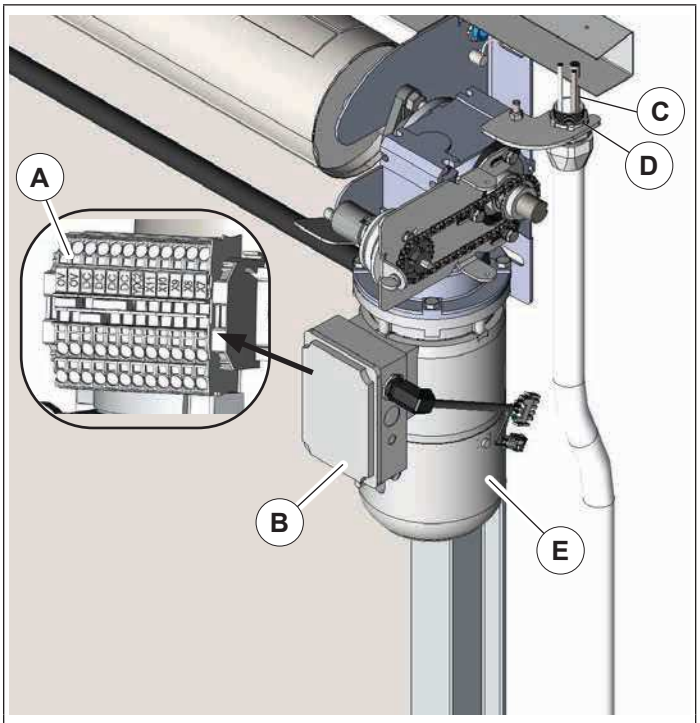


Figure 34

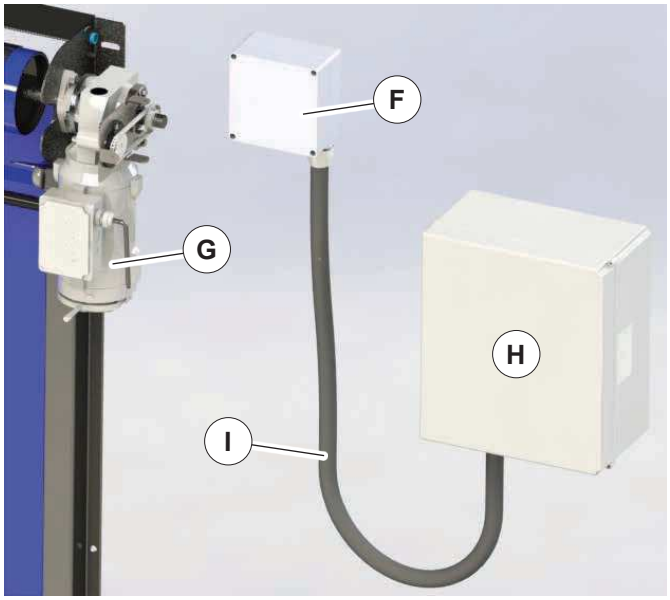


Figure 35

LiteSpeed Standard/LiteSpeed Cleanroom

NOTE: The Drive System is pre-assembled on the roller tube shaft.

1. Mount the terminal block (A) to the motor junction box (B). Control box cable is pre-wired to the terminal strip. See **"Mandatory Field Wiring Diagram – LiteSpeed Standard/LiteSpeed Cleanroom" on page 48** for details. Terminal X7 can be used to connect activation devices.
2. Route the control cable (C) to the motor/brake/gearbox assembly (E) and attach the control cable to the provided bracket (D).
3. Tighten the lock collar to 115in/lbs [13N-m].
4. The set screw on the drive sprocket uses a 3/32in [2mm] allen wrench. Tighten to 5in/lbs [0.6N-m].

NOTE: Sprocket does NOT require a key.

5. Connect the encoder cable (C) to the encoder (**Figure 33 on page 22**). Make sure to line up pins properly. Make sure connector is tight, but **DO NOT** over-tighten as pins will twist. Once tight, the connector should not be able to move back and forth.

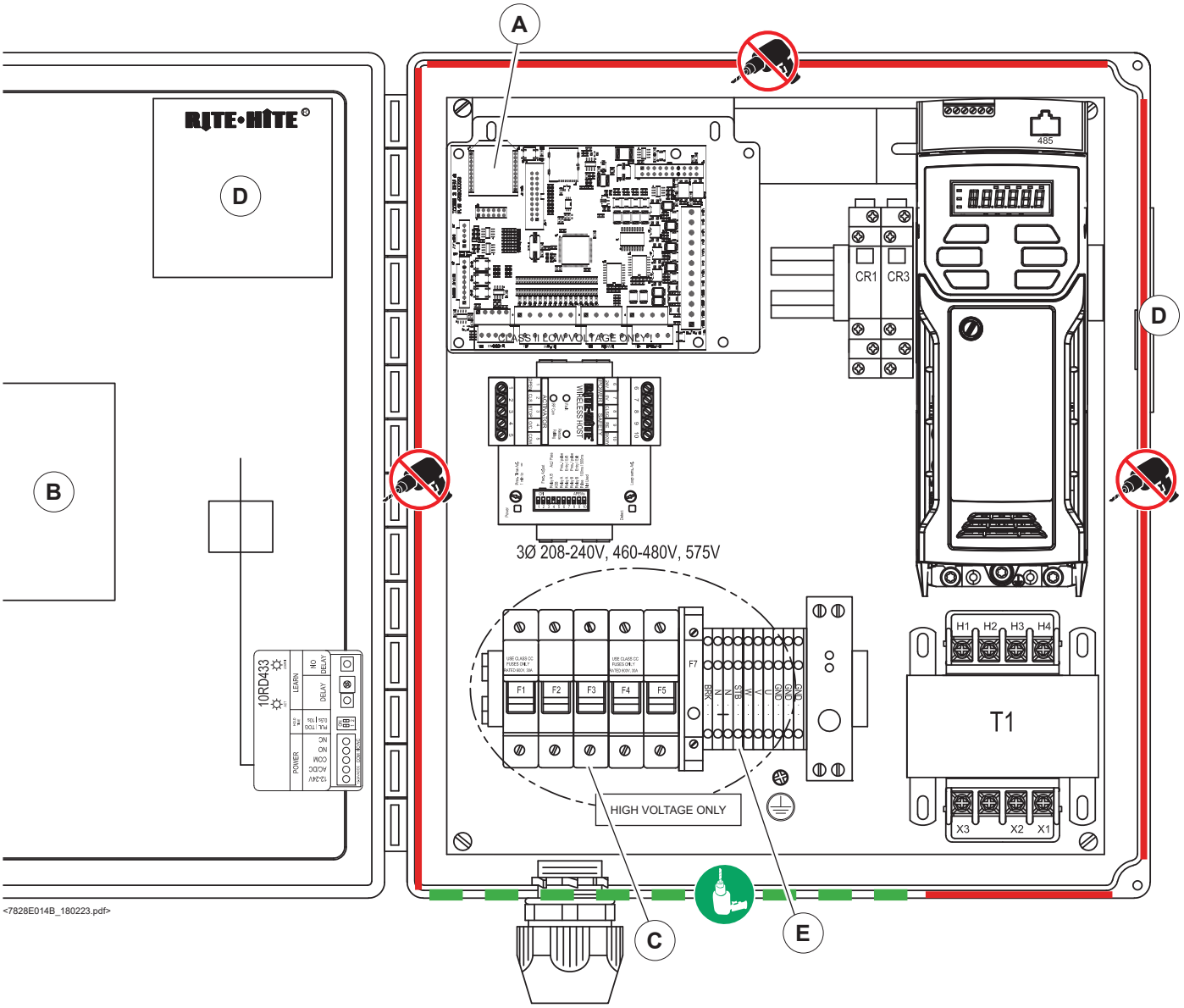
LiteSpeed Washdown

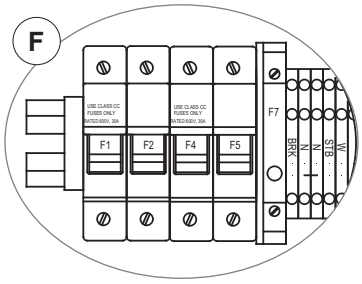
1. Mount the motor junction box (F) **(Figure 35)** on the wall no more than 3ft [2750mm] from the motor (G), using junction box mounting tabs. Control box (H) and motor cable (I) are pre-wired to the terminal strip. See **"Mandatory Field Wiring Diagram – LiteSpeed Washdown" on page 49** for details. Terminal X7 can be used to connect activation devices.
2. Connect the encoder cable (C) to the encoder (**Figure 33 on page 22**). Make sure to line up pins properly. Make sure connector is tight, but **DO NOT** over-tighten as pins will twist. Once tight, the connector should not be able to move back and forth.
3. Route motor and brake cable into the motor junction box through a cable gland, and terminate wires into terminals 1-6.
4. Route photoeyes to the motor junction box through the 4 hole bushing and terminate into the appropriate terminals.
5. Secure cover onto the motor junction box.

INSTALLATION

Electrical *Continued*

Control Box





A. i-COMM 3.
B. Label inside control box for i-COMM 3 Input/Output Table.
C. Incoming power terminals F1, F2, F3 for 230/460/400/575V 3Ø configuration.
D. Serial number label.
E. **DO NOT** wire incoming power into these terminals.
F. Incoming power terminals F1, F2 for 220V 1Ø.

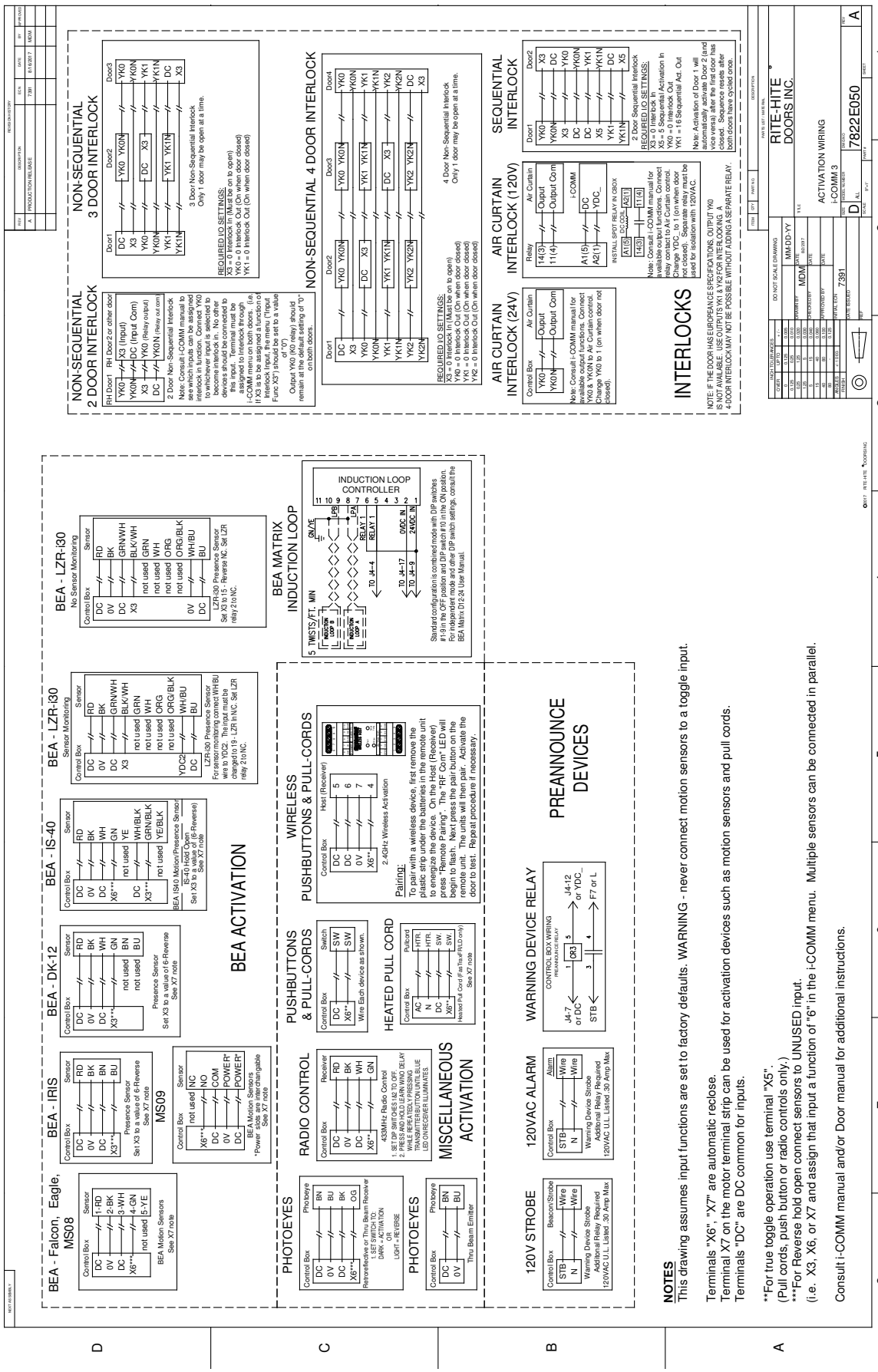
= Safe area for drilling holes.

= Un-safe area for drilling holes.

Figure 36

INSTALLATION

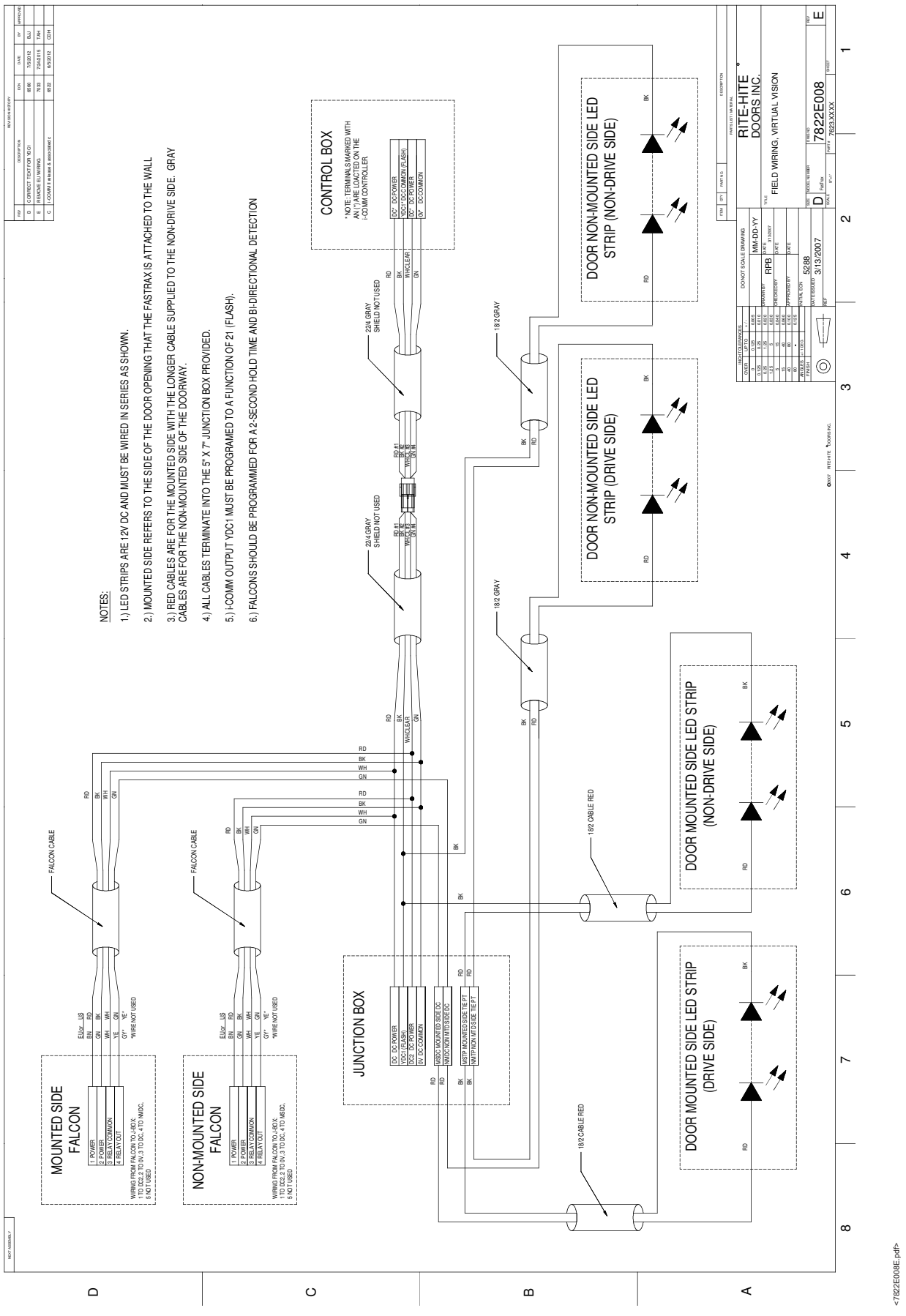
Electrical *Continued*



INSTALLATION

Electrical *Continued*

Field Wiring Virtual Vision



INSTALLATION

Turn-Tite® Seal

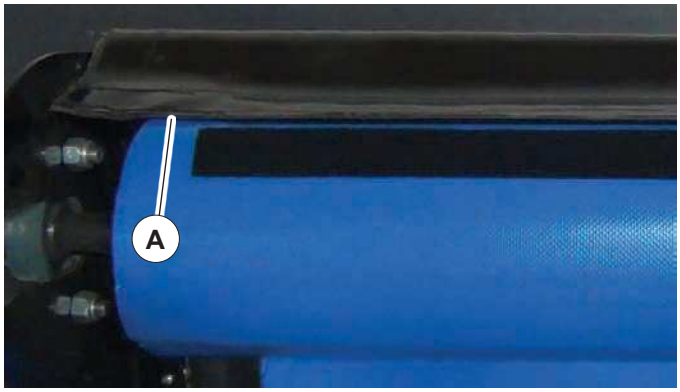


Figure 37

Run door to fully closed position and adjust Turn-Tite Seal (A) on hook and loop.

Labels

Label(s) – Back Side of Door

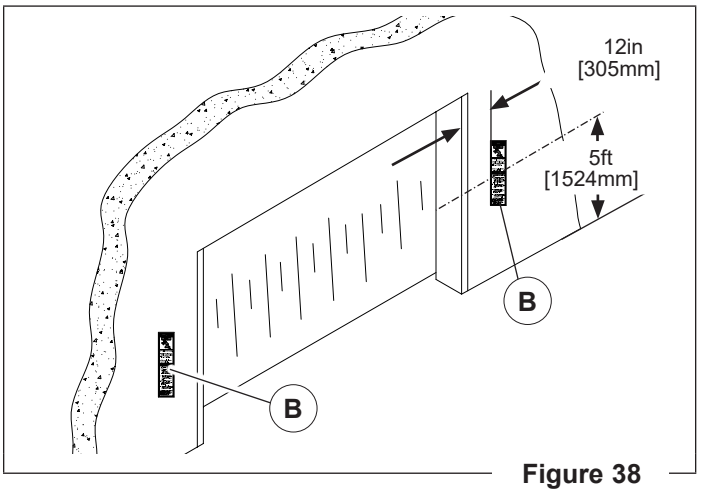


Figure 38

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

INSTALLATION (OPTIONAL)

Stainless Fastener Caps

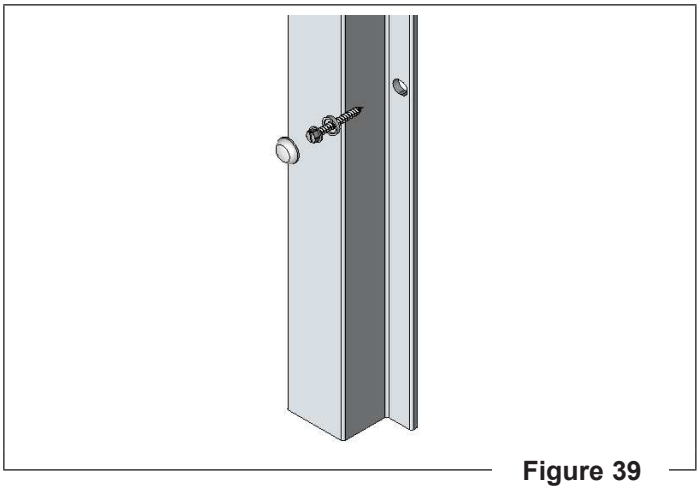


Figure 39

1. Place fastener (supplied) through the washer.
2. If required, place a bead of silicone caulk behind fastener to seal.
3. Tighten fastener.
4. Hand tighten cap.
5. Clean any unused caulk.

Poly Lumber

NOTE: Maximum length piece is 10ft-6in [3.2m]. Several pieces may be required to meet proper length needed.

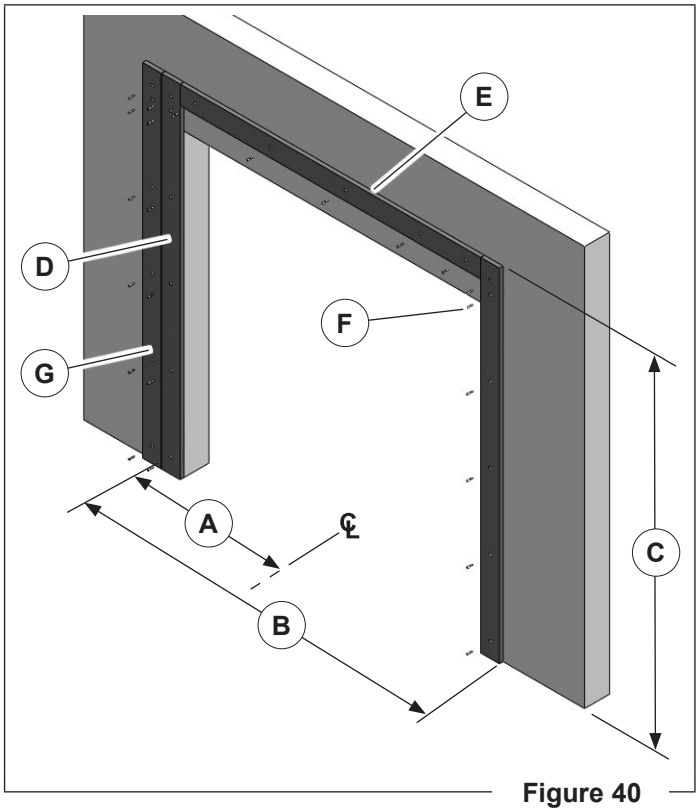


Figure 40

A. Measure 1/2 Ordered Door Width + 7 1/2in [191mm].

B. Measure Ordered Door Width + 15in [381mm].

C. Measure Ordered Door Height + 14 1/2in [368mm] without shroud (cut 2 1/2in [64mm] if needed) + 17in [432mm] with shroud.

D. Caulk behind vertical poly lumber.

E. Caulk behind horizontal poly lumber.

F. For insulated walls, use fabloks provided.

G. For optional counterweight, install additional vertical poly lumber.

INSTALLATION (OPTIONAL)

Shrouds

NOTE: Center and Drive shroud required on doors < 8ft-0 [2.4M] O.D.H.

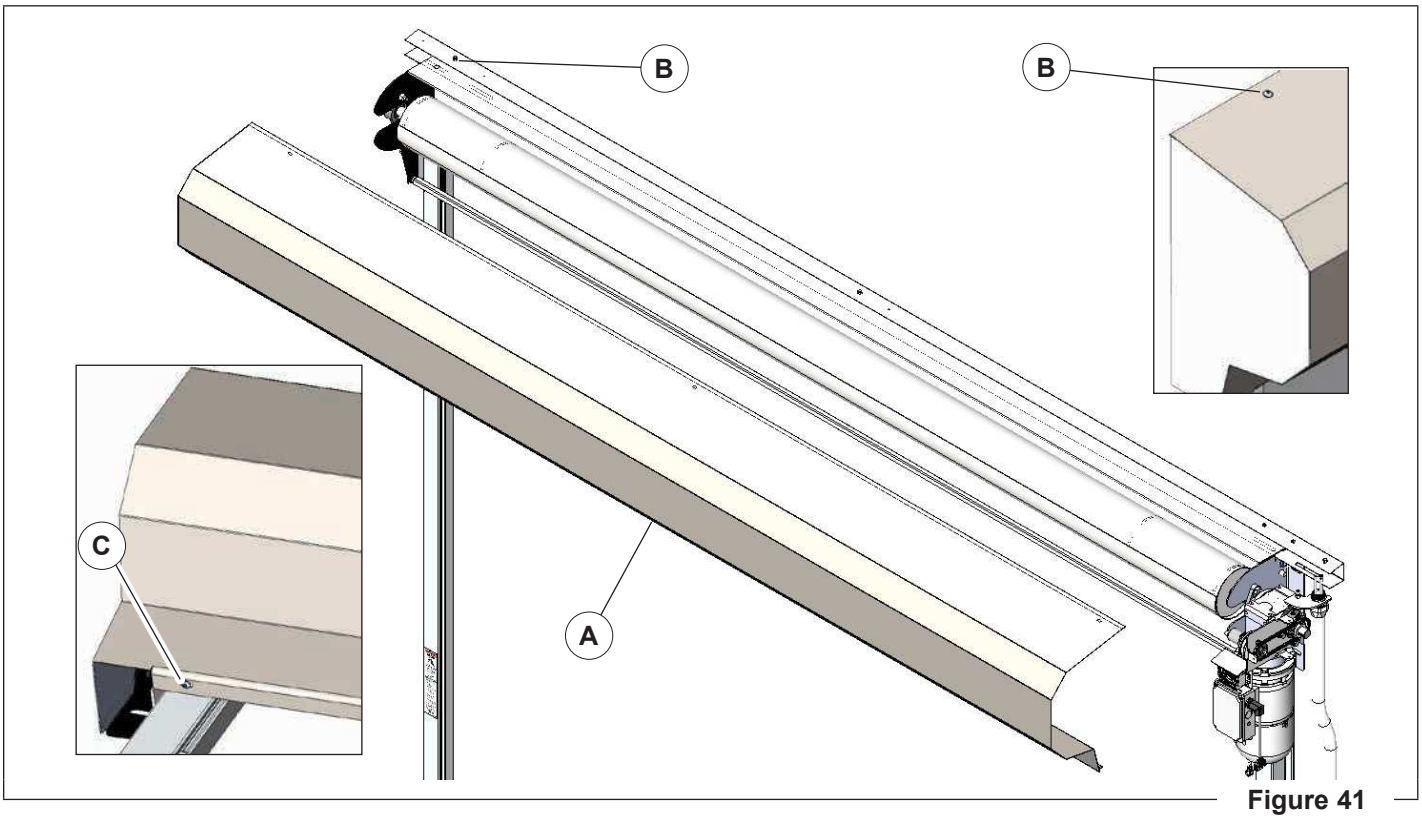


Figure 41

1. Fasten center shroud (A) to top of header with hardware supplied (B).
2. Fasten center shroud to bottom of header with hardware supplied (C).

INSTALLATION (OPTIONAL)

Drive Shroud

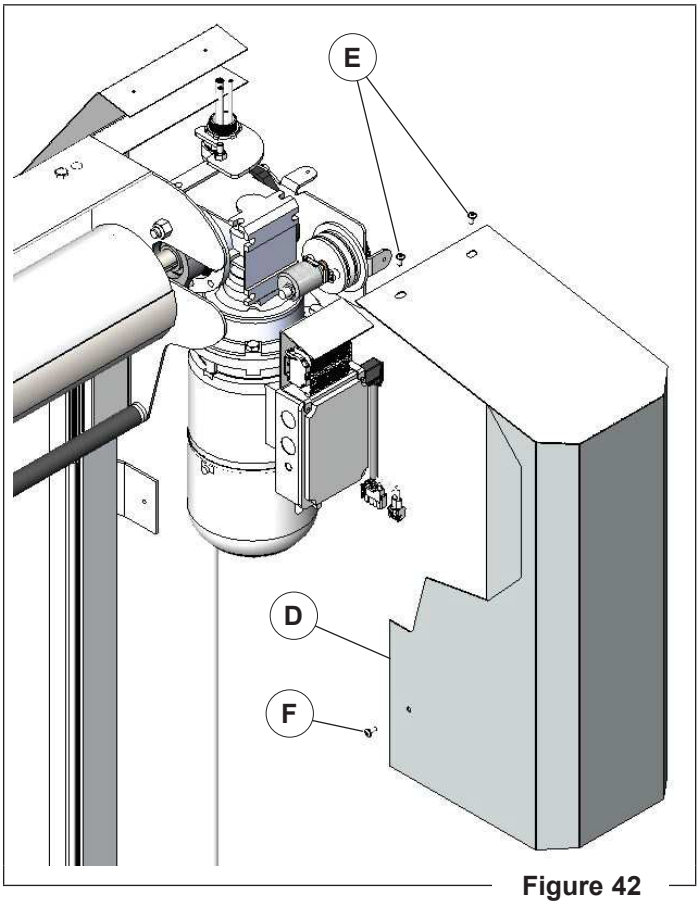


Figure 42

1. Fasten drive shroud (D) with 2 upper fasteners (E).
2. Fasten drive shroud with 1 lower fastener (F).

Wire Cover

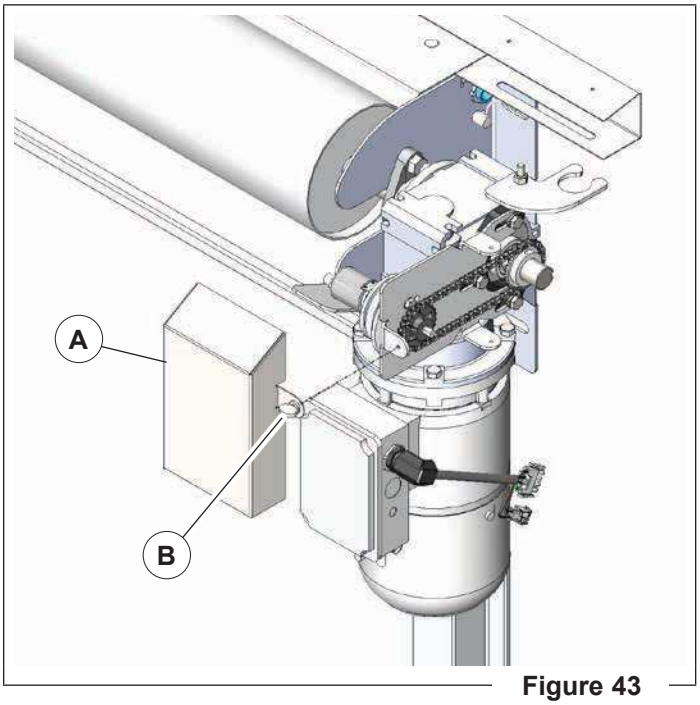


Figure 43

1. Wire cover installation is standard on doors without a drive shroud.
2. Fasten the wire cover (A) with 1 thumb screw (B).

INSTALLATION (OPTIONAL)

N.P.O. Counterweight

NOTE:

Counterweight is not offered on;

- LiteSpeed Washdown doors.
- Doors < 7ft-0 [2.1m] O.D.H. Counterweight should be installed after the door is operating properly.

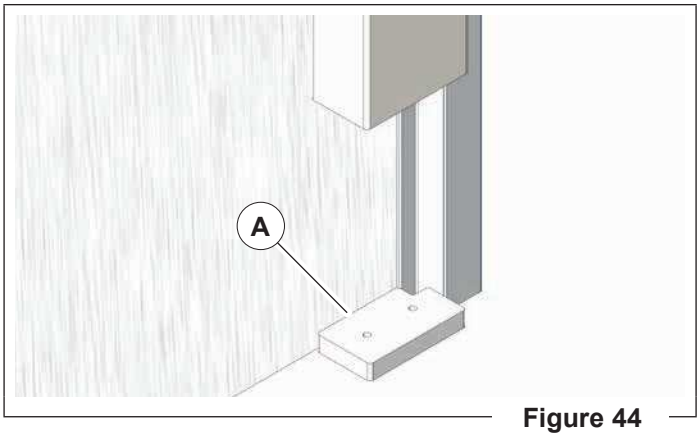


Figure 44

1. Anchor bottom plate (A) to the floor leaving 1/8in [3mm] gap from plate to wall and lower track to allow for guard to drop in place.

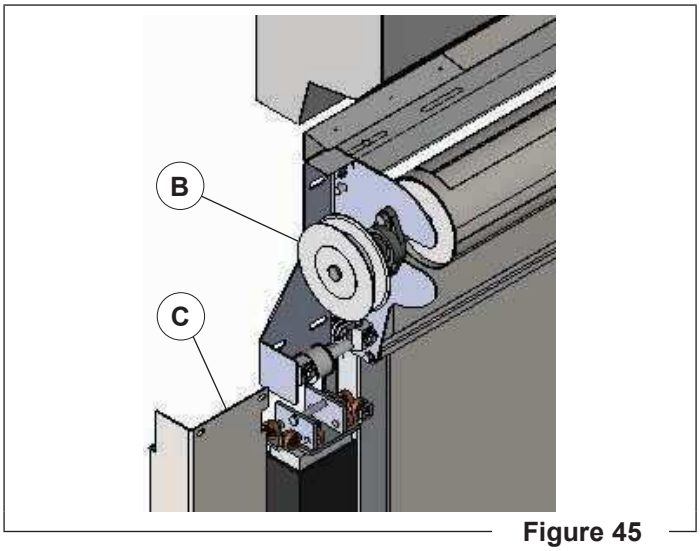


Figure 45

2. With curtain fully open, route counterweight belt with 1 1/2 pre-wraps coming off the front of the pulley (B). Place a 3in [76mm] spacer on top of the bottom block. Lift and attach the counterweight to the belting.
3. Lift counterweight guard (C) over the bottom plate **(Figure 44)** and attach with the 2 bolts, lock washers, and flat washers.

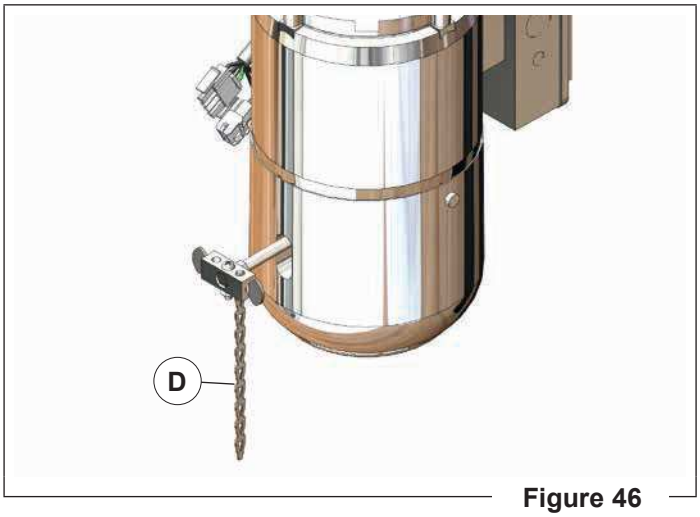


Figure 46

4. For doors with aluminum frames, release the brake by pulling the chain (D). As curtain nears the top, allow to slow down, so it does not overtravel.

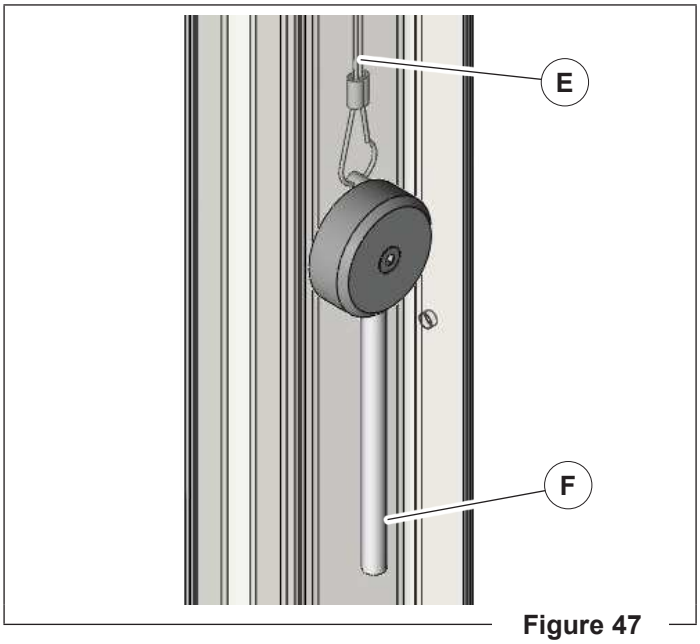


Figure 47

NOTE: The cable (E) and counterweight release handle (F) shown in the illustration are only available on the LiteSpeed Cleanroom version.

5. With door fully closed, rotate the counterweight release handle up to verify that the curtain rises. As curtain nears the top, allow it to slow down so it does not overtravel.

INSTALLATION (OPTIONAL)

N.P.O. Hand Crank

NOTE:

Hand Crank is not offered on LiteSpeed Washdown doors.

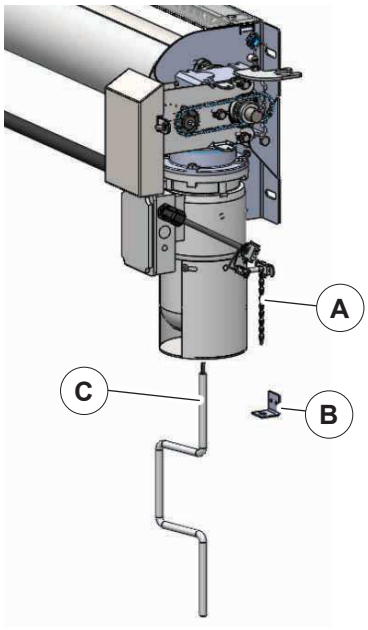


Figure 48

1. Fasten the supplied plate (B) to the wall just below the motor.
2. Route the brake release sash chain (A) through the hole in the plate.
3. Pull the chain and lock in place using the notch in the plate.
4. Insert supplied hand crank (C) into the bottom of the motor and rotate to open/close door.
5. Store hand crank when not in use.

INSTALLATION (OPTIONAL)

Thru Wall Brake Release

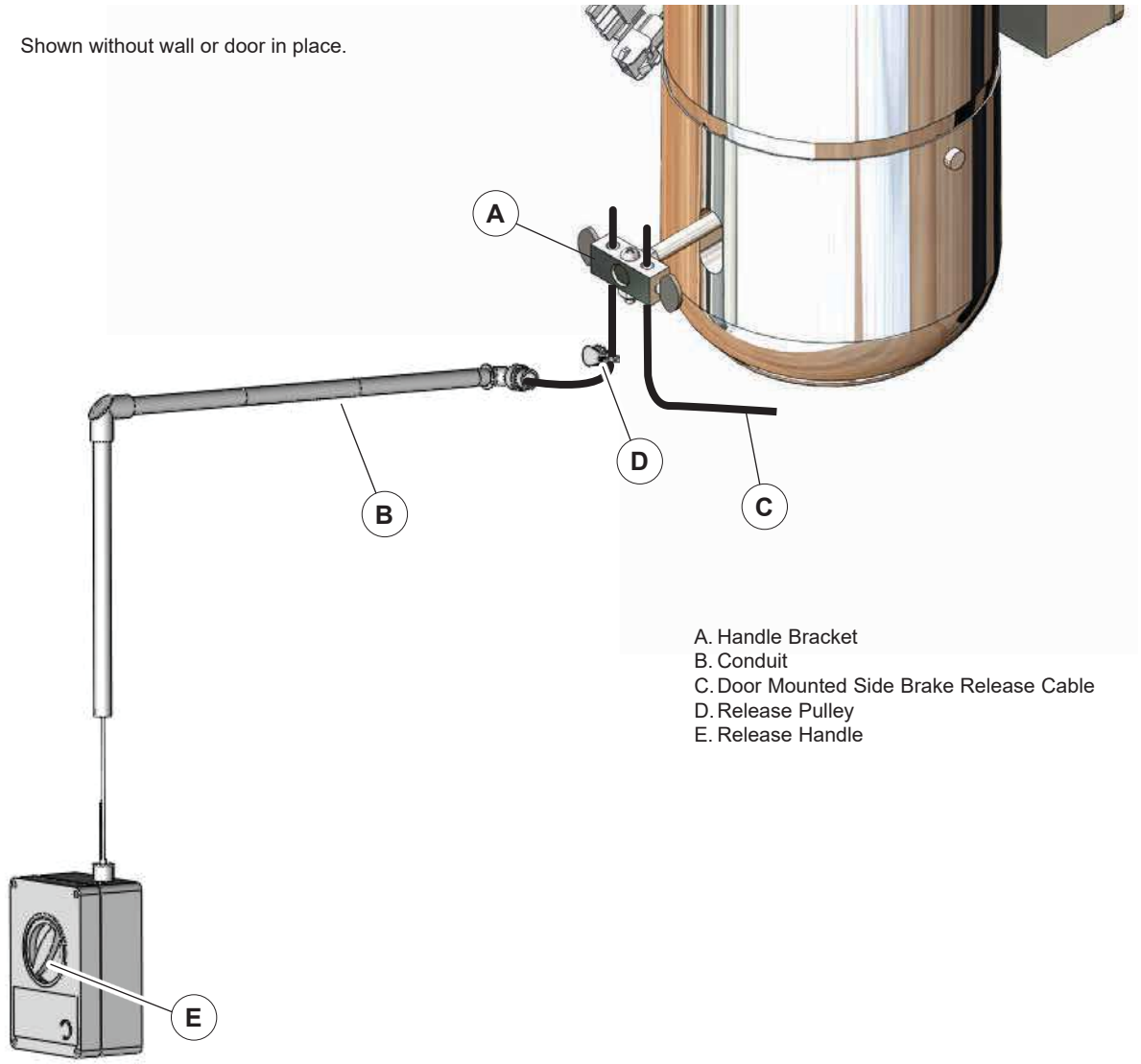


Figure 49

1. To release the brake, rotate the handle (E).
2. As curtain nears the top, allow to slow down so it does not overtravel.

INSTALLATION (OPTIONAL)

Weld Plate

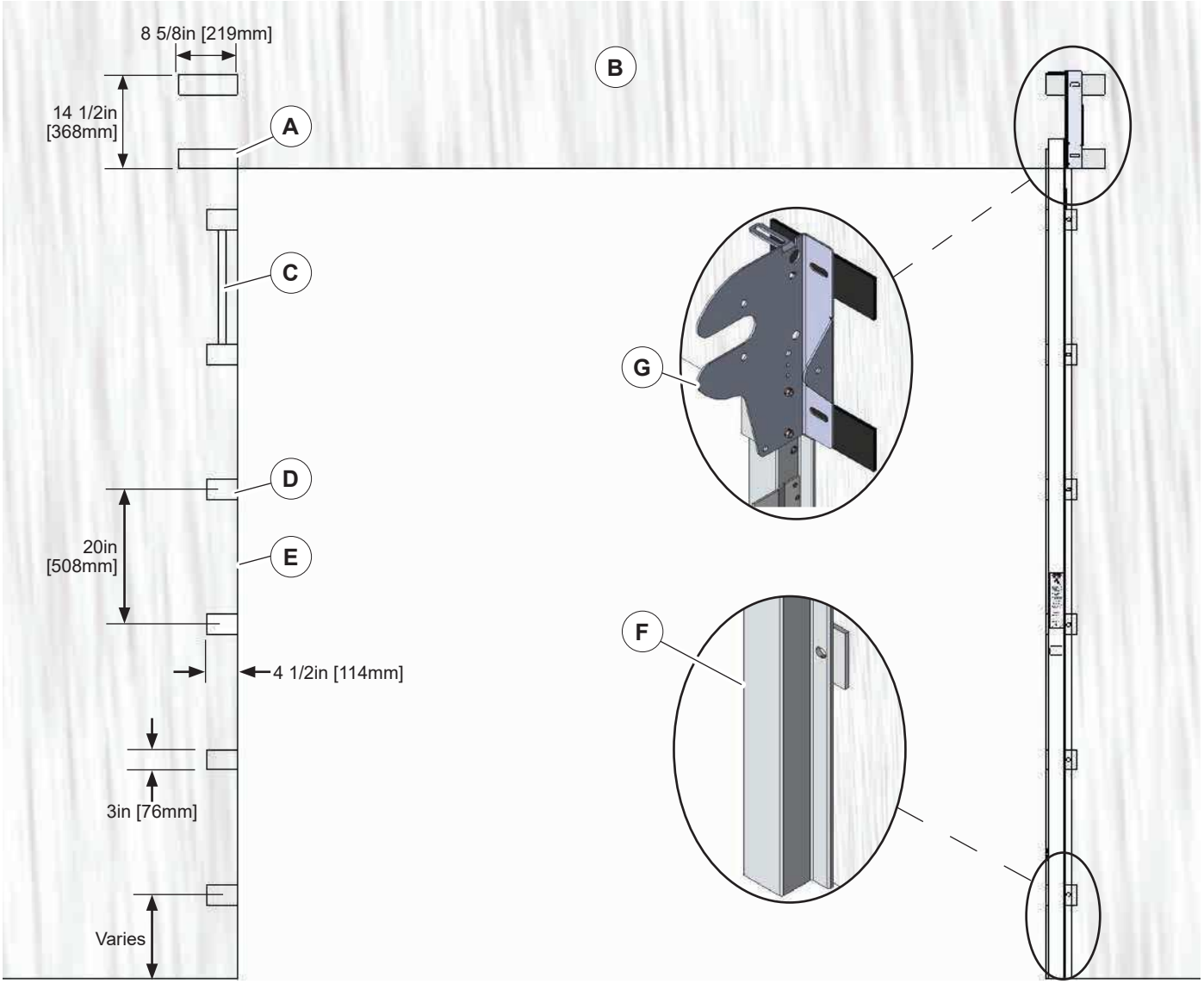


Figure 50

1. Measure from bottom of lower track to each hole location and position weld plates (A and D) on the steel jamb (E) at these locations and weld in place. If steel is not present at the lower track hole locations, weld where possible.

NOTE: There MUST be a fastener every other hole minimum, approximately 40in [1016mm].

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

INSTALLATION (OPTIONAL)

Virtual Vision/Curtain Fan Layout (Front Side)

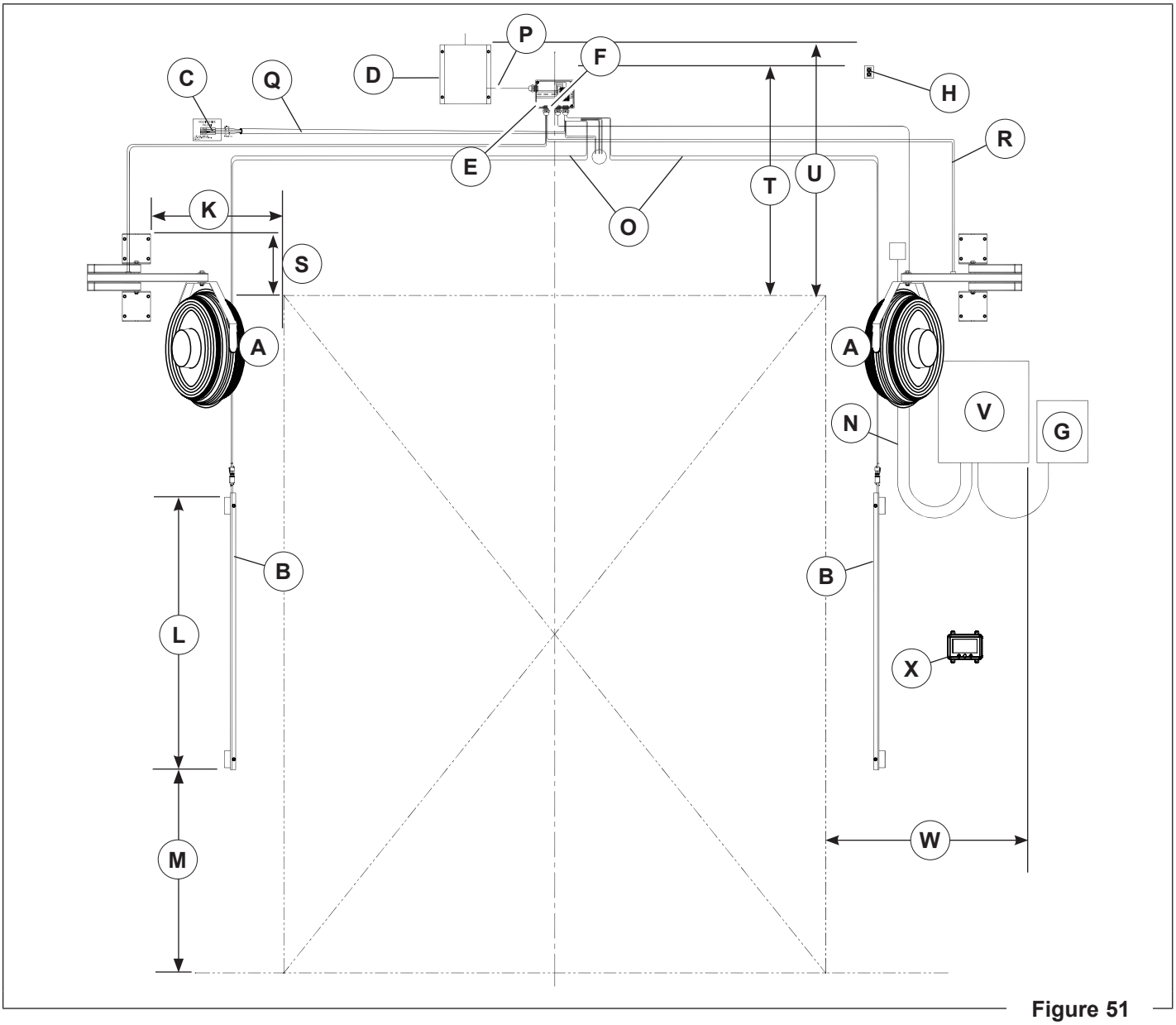


Figure 51

A. Curtain fans
B. Virtual Vision light bar assemblies
C. Virtual Vision motion sensor
D. Step down transformer
E. Step down transformer junction box
F. Cables
G. Disconnect
H. Optional 120V outlet
K. 24in [610mm]
L. 49in [1245mm]
M. 36in [914mm]
N. Cable to control box
O. Virtual Vision cables
P. Transformer cable
Q. Motion sensor cable
R. Curtain fan cables
S. 10in [254mm]
T. 38in [965mm]
U. 44in [1118mm]
V. Control Box
W. 36in [914mm]
X. Touch Screen Controls/GUI

INSTALLATION (OPTIONAL)

Virtual Vision/Curtain Fan Layout (Front Side) *Continued*

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

   There will be a motion sensor mounted on each side of the door, as well as 2 red LED light bars on each side of the opening on both sides. The motion sensors will detect motion on the opposite side of the curtain to warn oncoming traffic of a possible pedestrian or forklift on the opposite side.
2. Locate Virtual Vision light bar assemblies (B) on each side of the doorway and in clear view of oncoming traffic. They should be installed approximately 36in [914mm] off the floor (M), 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 (C) 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 or 220V is not available.
5. If door is equipped with step down transformer junction box (E), plug in Virtual Vision cable. If not, there will be a separate junction box strictly for the Virtual Vision.
6. Plug cables (F) together and wire into control box.
7. End user provides the disconnect (G).
8. An optional 120V outlet (H) for fans may be installed if desired.
9. Mount opposite side Virtual Vision assembly (I). See **"Figure 52" on page 38**.
10. Mount opposite side Virtual Vision motion sensor (J). See **"Figure 52" on page 38**.
11. Connect the following cables:
    - Control Box cable (N)
    - Virtual Vision cables (O)
    - Transformer cable (P)
    - Motion Sensor cable (Q)
    - Curtain Fan cables (R)

To avoid cross talk when changing the settings on the Virtual Vision or activation sensors while using the remote controls, Rite-Hite offers the following three options:

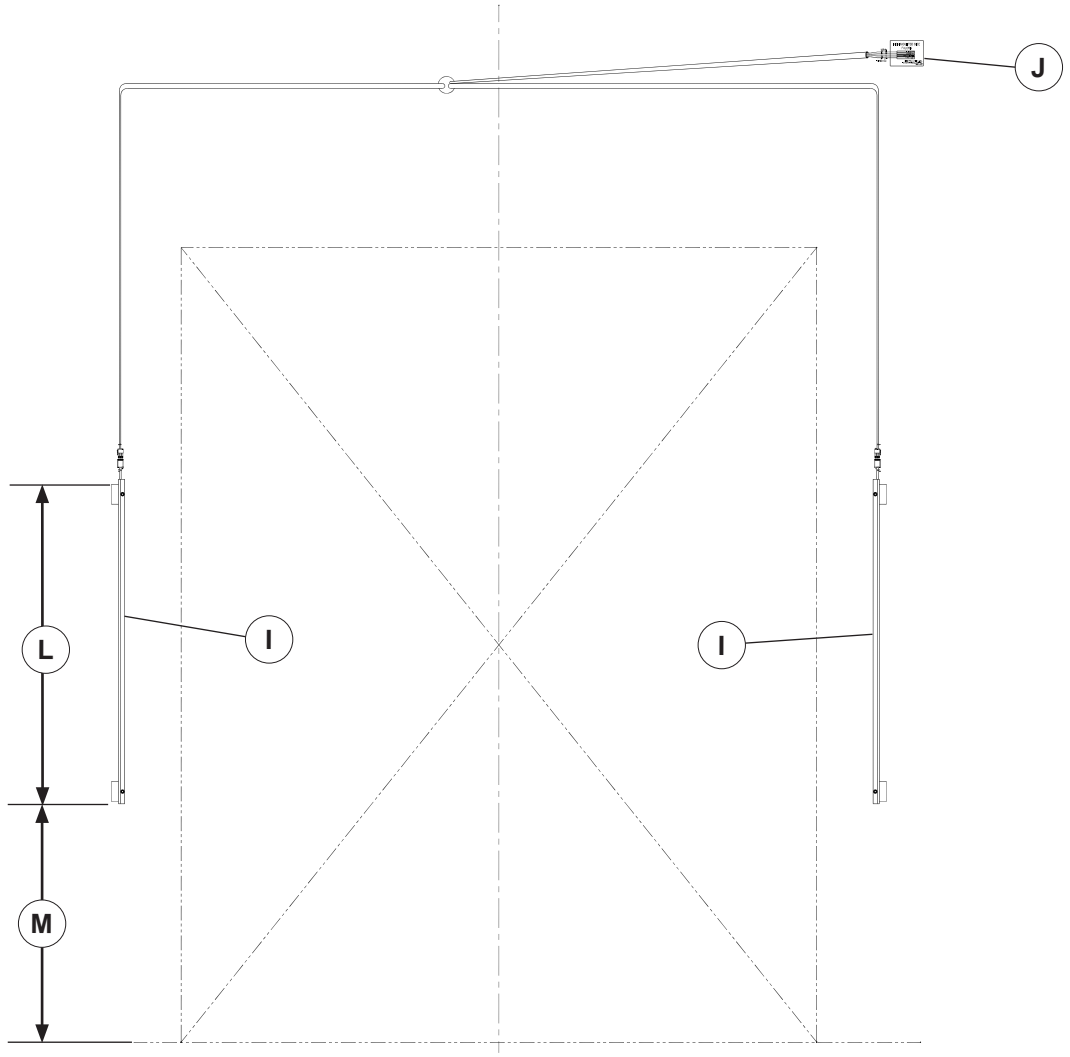
a. The BEA remote control allows you to set a unique security code for each sensor. Then you would be able to enter the code for the sensor you are interested in changing, and it will only change the settings for that sensor. To accomplish this, temporarily disconnect the activation sensor(s) from its power supply (at the **i-COMM 3**), use the remote to set a security code (e.g. "1111") for the Virtual Vision sensor(s), then power up all sensors. The activation sensor will have the default security code "0000" for its settings, and the Virtual Vision sensor will have its new security code (use unlock/lock sequence). There should be no cross talk with the remote's instructions when using this approach. Record these values for future reference.

b. If you do not wish to use security code settings, you can simply power down one unit (at the **i-COMM 3**) while setting the other unit, and then do the same thing with the other unit. This is similar to option "a", although if you want to make subsequent changes to the settings, you would need to go through the power down procedure again.

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

INSTALLATION (OPTIONAL)

Virtual Vision/Curtain Fan Layout (Back Side)



I. Virtual Vision assembly
J. Virtual Vision motion sensor
L. 49in [1245mm]
M. 36in [914mm]

Figure 52

Wiring diagram is located under the motor cover plate.

INSTALLATION (OPTIONAL)

Wireless Activation

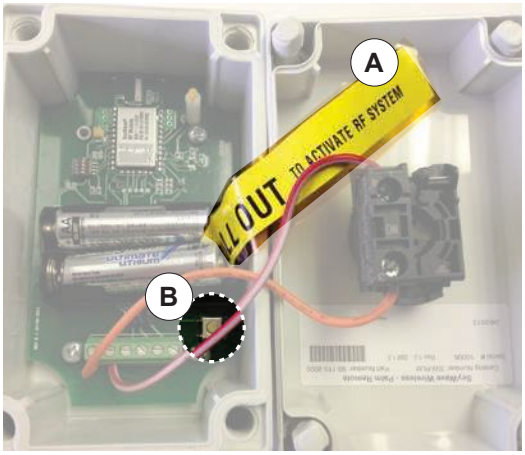


Figure 53

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

To pair the host with a wireless device:

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

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

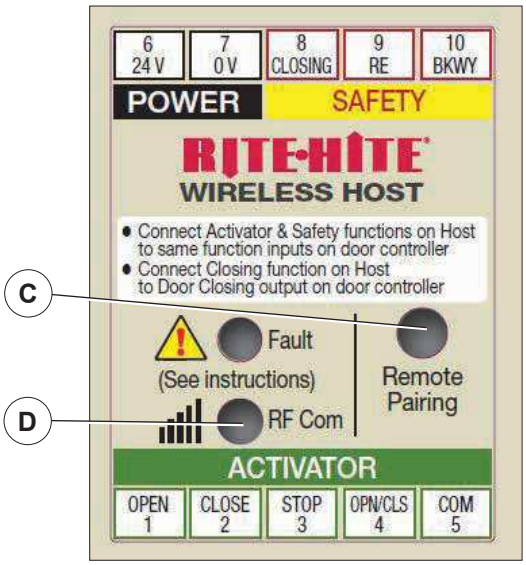


Figure 54

Resetting Communication Parameters

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

⚠ WARNING/AVERTISSEMENT

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

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

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

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

INSTALLATION

Final Checklist

#	DESCRIPTION	✓	N/A
1.	All control box conduit must be on the bottom		
2.	Ground wires properly terminated to ground terminal		
3.	Shield wires properly terminated to ground terminal		
4.	Motor ground wire terminated to lower track ground screw		
5.	Encoder chain/sprockets/set screws properly aligned and tightened		
6.	Encoder cable tightened properly		
7.	Lower tracks properly spaced		
8.	Lower tracks caulked		
9.	Lower tracks square to wall		
10.	Lower tracks properly shimmed		
11.	Proper mounting fasteners used		
12.	Refeed rollers properly working		
13.	Curtain refeeds when broken away		
14.	Electrical wires properly secured away from moving parts		
15.	Reversing photoeye reverses the door to full open position (X10)		
16.	Curtain slack sensor test (X11)		
17.	Drive shroud installed (Optional)		
18.	Center shroud installed (Optional)		
19.	Wire cover installed (if no shroud)		
20.	Counterweight opens door (Optional)		
21.	Curtain fans directed properly (Optional)		
22.	Virtual Vision functioning (Optional)		
23.	Test operation of all activation devices		
24.	**"Verify Operation" on page 43**		
25.	Area clean of debris from installation		

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OPERATION

⚠ CAUTION/ATTENTION

Only travel through a doorway that is completely open.

Ne passer QUE lorsque la porte est complètement ouverte.

Forklift drivers should sound horn when approaching the door to alert others.

Les conducteurs de chariot élévateur doivent faire sonner le klaxon lorsqu'ils s'approchent de la porte pour alerter les autres.

Close, Stop, and Open

See **"Figure 1" on page 7**.

#	OPERATE DOOR:	PRESS BUTTON:
L	Close	Yellow
M	Stop	Red
N	Open/Reset	Green

Optional activation devices (e.g., motion/presence sensors, photoeyes, radio controls, pull cords, push buttons, and floor loops) can be used to open and close the door. Contact your local Rite-Hite representative for specific instructions based on your application.

Security

All parameters are protected by a PIN (Personal Identification Number). Login is required before changing any settings.

NOTE: Default PIN for the user is 3667.
PIN can be changed (**Home ►Login ►Settings ► General ►Security ►User PIN**).

To Login, see "Figure 1" on page 7:

1. Press **Home** (Q)
2. Press **Login** (V)
3. Enter PIN
4. Press **Login**

   The display will return to the main screen after successful login.

NOTE: The system will log you out automatically based on Logout Time specified (**Settings ►Timers ►Advanced ►Logout Timer**).

OPERATION

Common Locations (i-COMM 3)

LOCATION:	NAVIGATE TO:
Activation Wiring Help	**Home ►Support ►Activation Help (choose screen)**
Fault and Change History	**Home ►Support ►Logs (choose screen)**
Local Representative	**Home ►Support ►Local Rep.**
Troubleshooting Guides – Faults	**Home ►Support ►Fault Help (choose screen)**

Common Tasks (i-COMM 3)

TASK		NAVIGATE TO:	
Change PIN		**Home ►Login ►Settings ►General ►Security ►User PIN**	
Limit (Encoder) Set-up	Reset All Limits	**Home ►Login ►Settings ►Limits ►Limit Set-up**	Follow all on-screen prompts.
	Adjust Open Limit	**Home ►Login ►Settings ►Limits ►Open Position Adj.**	To adjust the limit so the door opens: • Farther, enter a positive value. • Less, enter a negative value.
	Adjust Close Limit	**Home ►Login ►Settings ►Limits ►Close Position Adj.**	To adjust the limit so the door closes: • Farther, enter a negative value. • Less, enter a positive value.
	Door Closing Timers	**Home ►Login ►Settings ►Timers**	Total open time is the sum of Close Timer and Pre-announce to Close Timers. or Total open time = Close Timer + Pre-announce to Close Timers.
Reset Maintenance		**Home ►Login ►Settings ►General ►Reset Maintenance**	
Network Set-up	Wired	**Home ►Settings ►Set-up Wizards ►Network**	
	Wireless	**Home ►Settings ►Set-up Wizards ►Network** **Home ►Settings ►Set-up Wizards ►Wi-Fi**	Install USB wireless module.

OPERATION

Verify Operation

Verify operation after initial installation and according to **"Planned Maintenance" on page 45**.

The door operations are controlled by a Universal Controller (i-COMM 3). The controller is set up and programmed during testing at the factory. Only Rite-Hite authorized service technicians should change the programming.

NOTE: Advise pedestrians to use man doors if present and not to lean into the door way.

1. To quickly determine if the door is ready to operate:
   a. Open the control box.
   b. Look at the row of (X) green Input LEDs on the i-COMM 3 and the label to verify proper state.
2. Check and remedy:
   - Pillow block bearing set screws tightened to 66 to 80in/lb [7.5Nm].
   - Wires are connected for the photoeyes.
   - All loose wires are secured away from moving parts.
3. 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 3 controller.
4. 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 Open or Close positions, refer to i-COMM 3 manual.
5. While the door is closing, block the reversing photoeyes. The door should reverse direction, move to the open position, and continue to operate.
6. 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 that is in a fault.
   - 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.

NOTE: A fault will occur if the optional non-powered chain hoist is operated. Press the green "OPEN/RESET" button to return to normal operation.

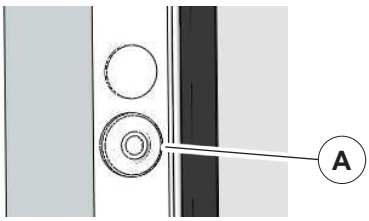


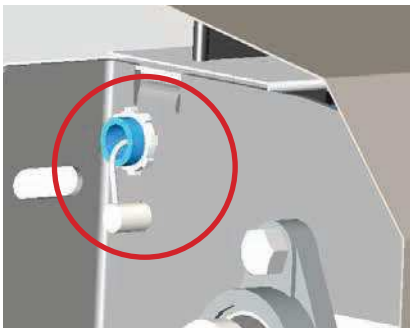
Figure 55

7. Locate the receiver photoeye (A) on the drive side lower track and the source photoeye on the non-drive lower track **(Figure 55)**. On non-stainless steel doors, the receiver photoeye has a clear cover to view a red light that indicates communication between receiver and source. A flashing red light indicates a dirty lens or weak signal.

   NOTE: For photoeye location, see **"Figure 1" on page 7**.

Photoeye Adjustment

Non-Drive Side Header Photoeye located in header monitor (shown with curtain bag up)



Drive Side Header Photoeye (shown with curtain bag up)

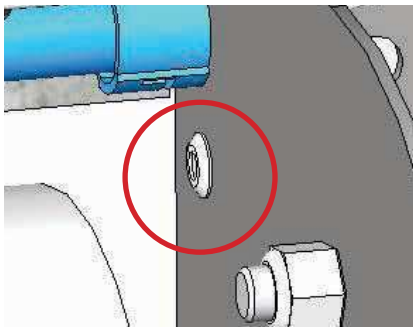


Figure 56

Power Outage Procedure

See **"N.P.O. Counterweight" on page 32** and **"N.P.O. Hand Crank" on page 33**.

MAINTENANCE

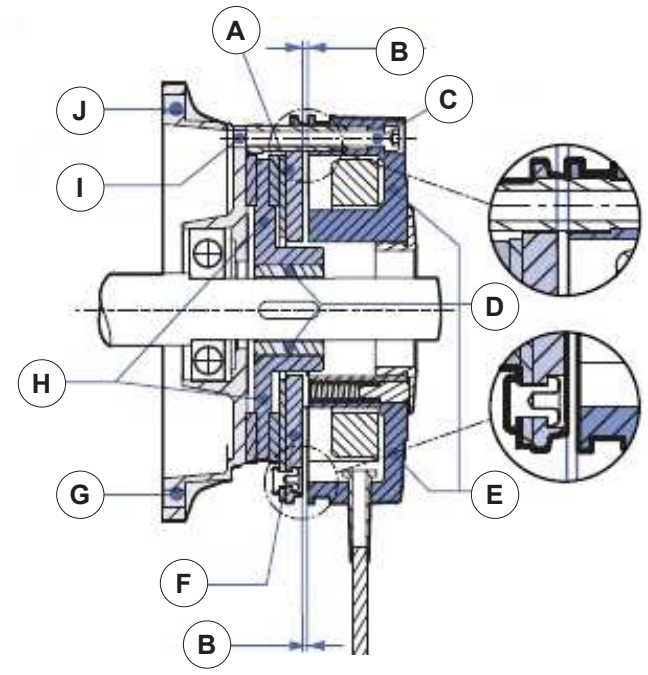
Planned Maintenance

CUSTOMER:	SALES ORDER #:	SERIAL #:	DATE:

TASK	RECOMMENDED P.M. IN MONTHS 1	6	12	18	24	30	36	INSPECT AND PERFORM THE FOLLOWING:
Verify Operation	✓	✓	✓	✓	✓	✓	✓	See "Verify Operation" on page 43.
Curtain Fans (Optional)	–	✓	✓	–	✓	–	✓	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	–	✓	✓	–	✓	–	✓	Verify auto re-feed is operational.
Brake	✓	–	✓	–	✓	–	✓	Verify that brake stops the door at open and closed positions as well as when stopped in the middle of travel. To move the curtain manually, pull the brake handle to the disengaged position. The curtain should be able to be moved manually. If brake is making noise, adjust.
Controls/Wiring	–	–	✓	–	✓	–	✓	Clean and check all connections with disconnect off. Make sure all wires are free from moving parts.
Curtain	–	✓	–	✓	✓	–	✓	Inspect for wear or damage, patch immediately to prevent further damage. Clean with warm soapy water. Check edging for wear. Check drive buttons; if missing or damaged, replace.
Door Assembly	–	–	✓	–	✓	–	✓	Perform visual inspection for damage. Tighten all hardware. Replace any worn labels. Use air hose to remove dust and debris.
Door Operation	–	–	✓	✓	✓	✓	✓	Operate door and make sure all operations are functioning properly.
Roller Tube	–	–	✓	–	✓	–	✓	Verify roller tube is centered. Make sure bearing set screws and mounting bolts are tight.
Gearbox	–	–	✓	–	✓	–	✓	Check gearbox fluid level; fill with Mobil - SHC 624 or Phillips 66 - Syncon 32 if low. Check lock collar set screws.
Encoder/Chain/Sprockets	–	–	✓	–	✓	–	✓	Verify encoder chain and sprocket set screws are tight. Verify lock collar on encoder is tight. Check open and close positions; adjust as required. Verify torque arm bolts are tight.
Turn-Tite Seal	–	–	✓	–	✓	–	✓	Verify lintel seal is sealing wall properly.
Motor	–	–	✓	–	✓	–	✓	Check motor/gearbox bolts, torque to 71in/lbs [8N-m]. Check junction box to verify connections are tight.
Non-Powered Opening (Optional)	–	–	✓	–	✓	–	✓	With power off, verify counterweight opens door. In the event the door travels too far open when using the counterweight, the door will go into a fault and will need to be reset.
Photoeyes	–	–	✓	✓	✓	✓	✓	Verify photoeyes reverse the curtain. Clean source and receiver lens.
Lower Tracks	✓	✓	✓	✓	✓	✓	✓	Perform visual inspection. Verify proper width and tighten all hardware.
Lower Track Wear Strips	–	–	✓	–	✓	–	✓	Inspect lower track wear strips. Replace if needed.
Virtual Vision (Optional)	–	–	✓	✓	✓	✓	✓	Verify Virtual Vision is functioning properly. Red LEDs should be lit if movement on opposite side.
Vision	–	✓	✓	–	✓	✓	–	Inspect vision for tears or separation. Clean with warm soapy water.

MAINTENANCE

Brake Air Gap



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

Figure 57

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

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

MAINTENANCE

Curtain Button Replacement

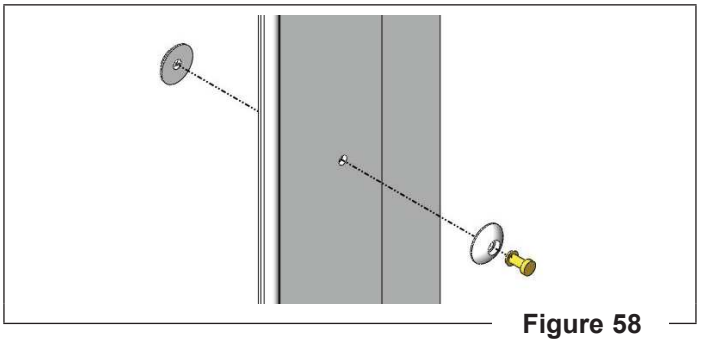


Figure 58

To repair or replace curtain button, remove the existing and attach new button(s) with rivet (supplied).

Wear Strip Replacement

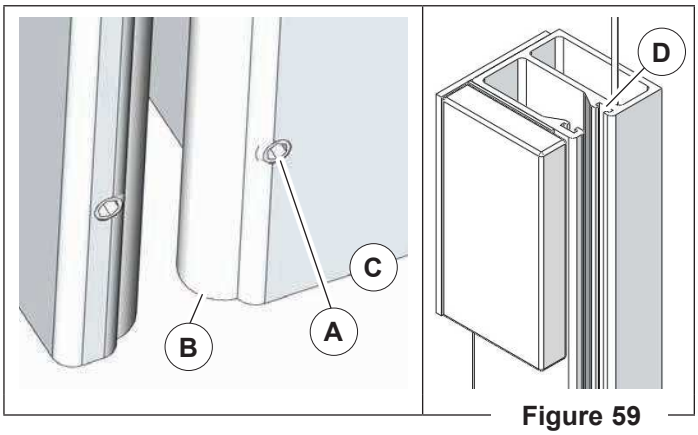


Figure 59

1. Turn power off and follow lockout procedures.
2. Remove screws (A) holding in wear strip edging (B) in place and slide edging out through the top of the lower track (C).
3. Slide new strip into the lower track groove (D).
4. Fasten strip at the bottom of lower track.

Brake Torque Adjustment

Only required after prolonged brake use.

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

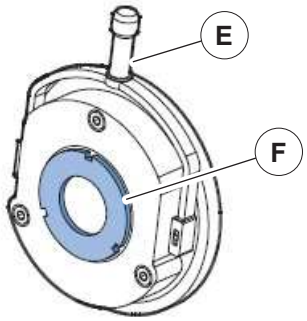


Figure 60

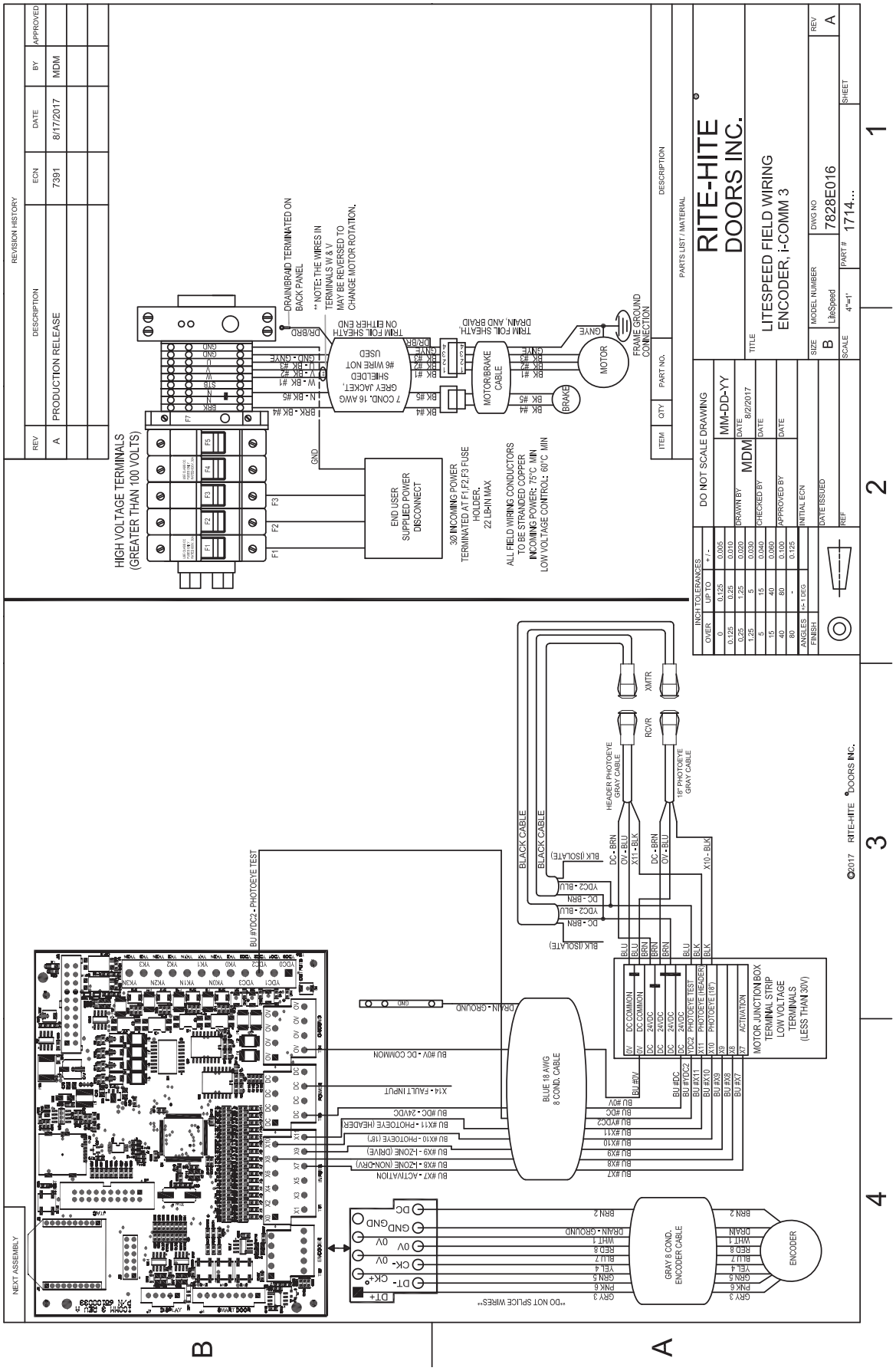
NOTE: The lower the brake torque, the longer the brake stop time and the faster the brake release time.

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

MAINTENANCE

Wiring Diagrams

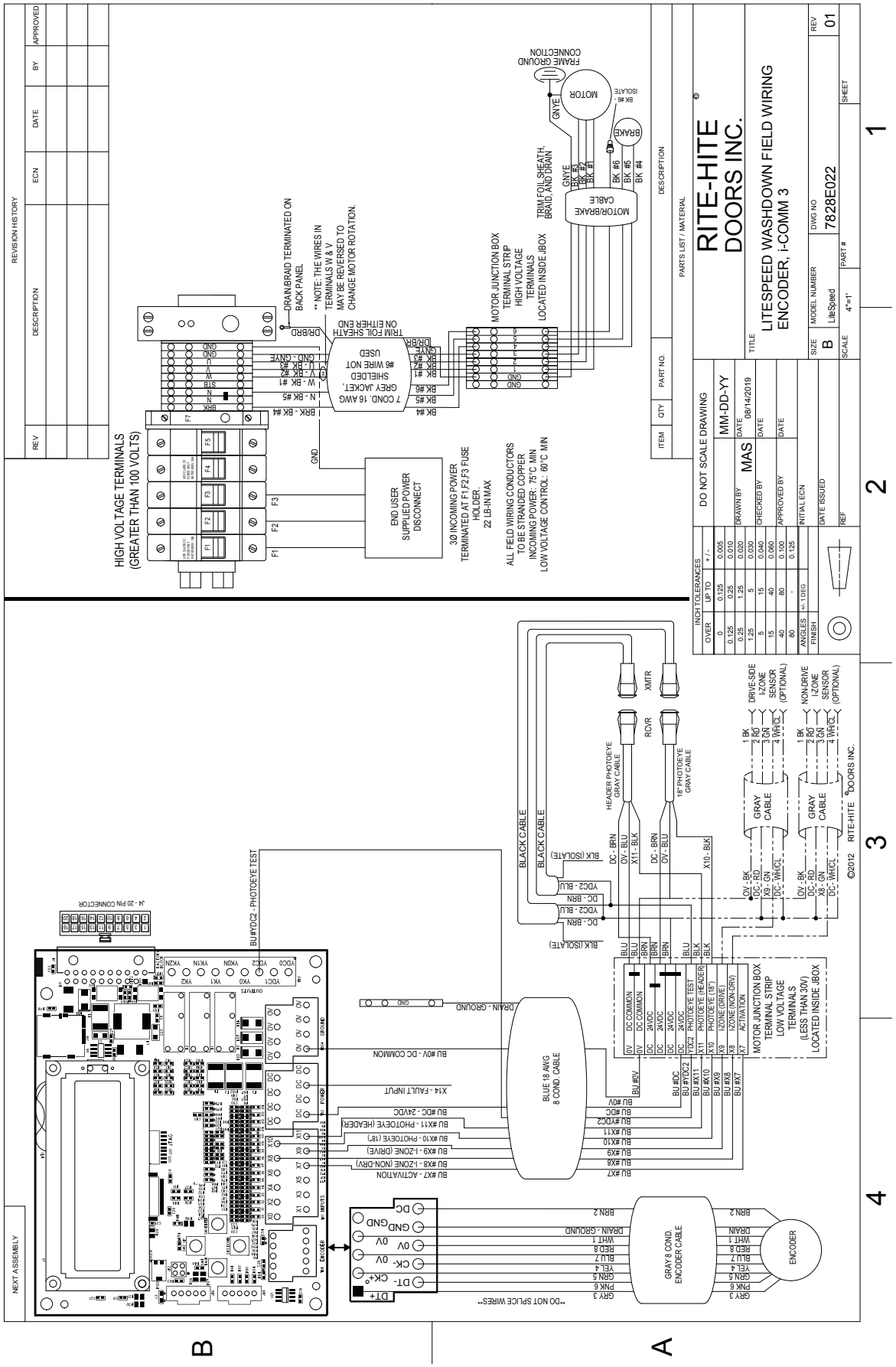
Mandatory Field Wiring Diagram – LiteSpeed Standard/LiteSpeed Cleanroom



MAINTENANCE

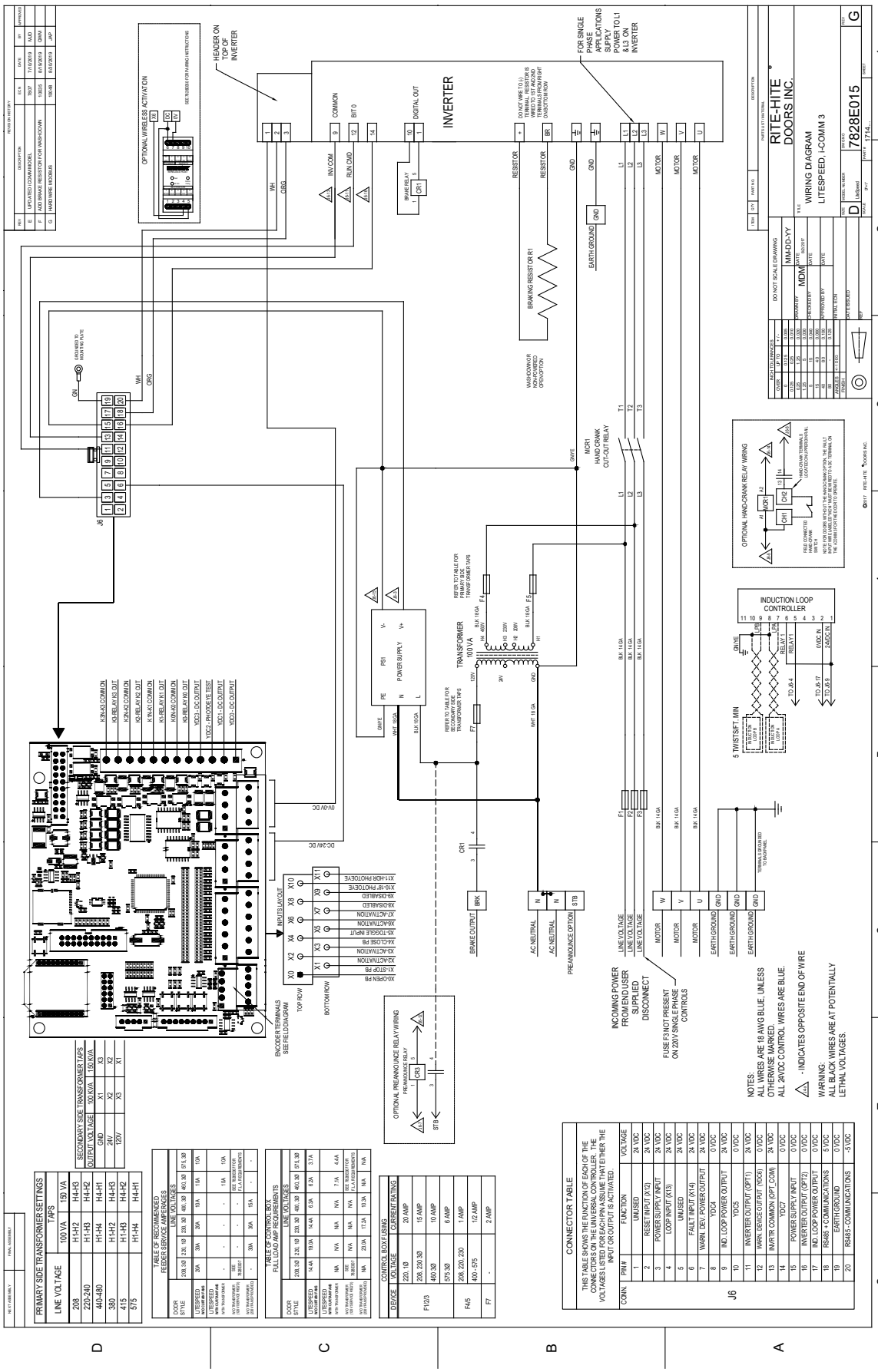
Wiring Diagrams *Continued*

Mandatory Field Wiring Diagram – LiteSpeed Washdown



MAINTENANCE

Wiring Diagrams *Continued*



MAINTENANCE

Wiring Diagrams *Continued*

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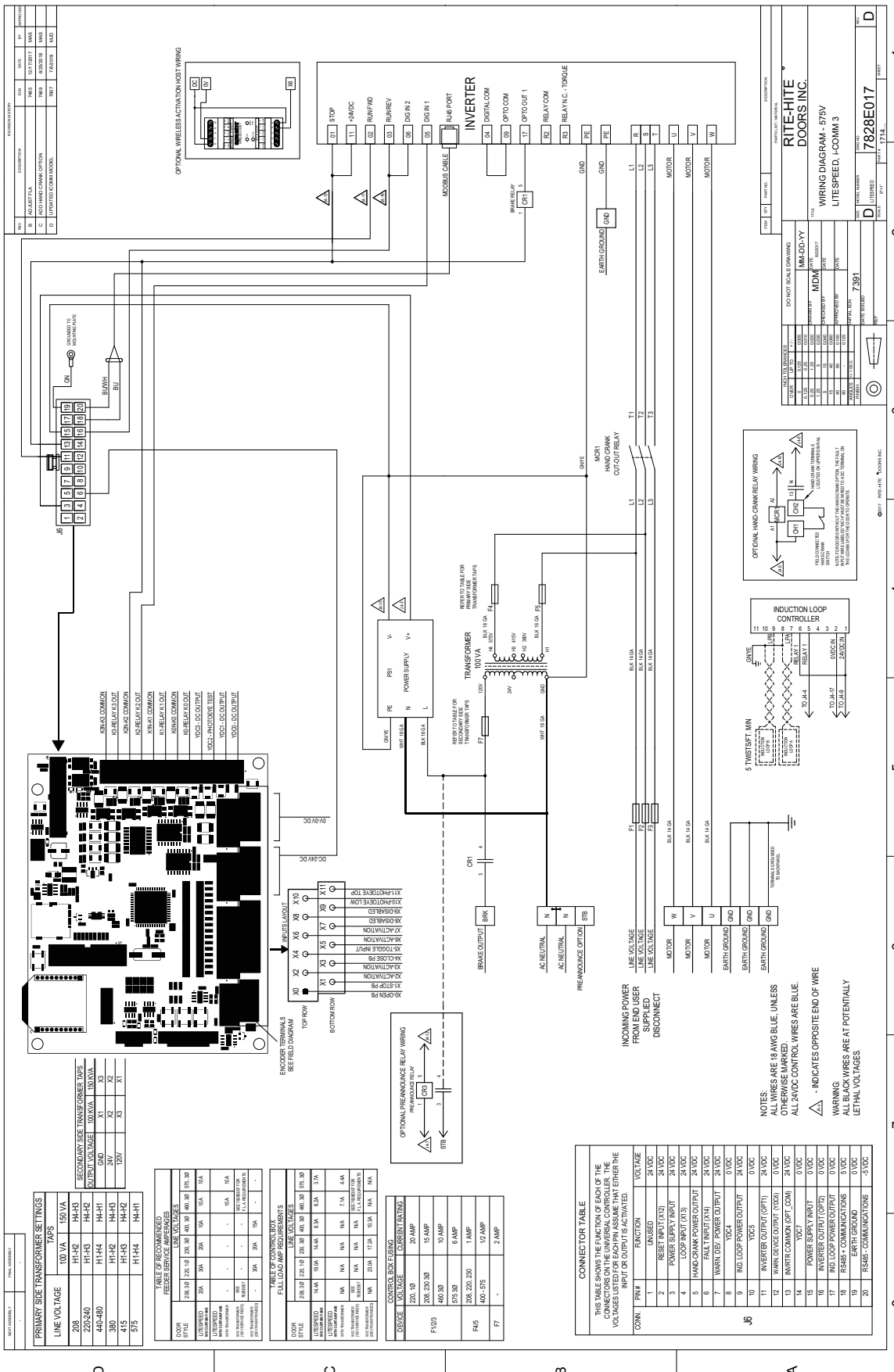

PRIMARY SIDE TRANSFORMER SETTINGS

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

SECONDARY SIDE TRANSFORMER TAPS

OUTPUT VOLTAGE	100 VA/VA	150 VA/VA
GND	X1	X3
24V	X2	X2
12V	X3	X1

TABLE OF RECOMMENDED FEEDER SERVICE AMPERAGES

DOOR STYLE	LINE VOLTAGES 208, 240	220, 230	380, 415	440, 460	575, 600
LITESPEED W/O CLEARANCE	20A	20A	10A	10A	10A
LITESPEED WITH CLEARANCE	-	-	-	10A	10A
W/O TRANSFORMER (W/ EXTERNAL PRIMARY)	SEE TABLE	-	-	SEE TABLE	SEE TABLE
W/O TRANSFORMER (W/ EXTERNAL SECONDARY)	-	20A	15A	-	-

TABLE OF CONTROL BOX FULL LOAD AMP REQUIREMENTS

DOOR STYLE	LINE VOLTAGES 208, 240	220, 230	380, 415	440, 460	575, 600
LITESPEED W/O CLEARANCE	14.4A	18.0A	14.4A	6.9A	3.7A
LITESPEED WITH CLEARANCE	NA	N/A	N/A	N/A	7.1A	4.4A
W/O TRANSFORMER (W/ EXTERNAL PRIMARY)	SEE TABLE	N/A	N/A	N/A	SEE TABLE FOR F.L.A. REQUIREMENTS	N/A
W/O TRANSFORMER (W/ EXTERNAL SECONDARY)	SEE TABLE	N/A	20.0A	17.2A	10.3A	N/A	N/A

CONTROL BOX FUSING

DEVICE	VOLTAGE	CURRENT RATING
F1/2/3	220, 10	20 AMP
	208, 230/ 380	15 AMP
	460/ 30	10 AMP
	575/ 30	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F7	-	2 AMP

CONNECTOR TABLE

THIS TABLE SHOWS THE FUNCTION OF EACH OF THE CONNECTOR PINS ASSUMING THAT ONLY THE VOLTAGES LISTED FOR EACH PIN ASSUME THAT EITHER THE INPUT OR OUTPUT IS ACTIVATED.

CONN.	PIN #	FUNCTION	VOLTAGE
J6	1	UNUSED	24 VDC
	2	RESET INPUT (XY2)	24 VDC
	3	POWER SUPPLY INPUT	24 VDC
	4	LOOP INPUT (XY3)	24 VDC
	5	HAND-CRANK POWER OUTPUT	24 VDC
	6	FAULT INPUT (XH)	24 VDC
	7	WARN DEV. POWER OUTPUT	24 VDC
	8	YDC4	0 VDC
	9	IND. LOOP POWER OUTPUT	24 VDC
	10	YDC5	0 VDC
	11	INVERTER OUTPUT (OPT1)	24 VDC
	12	WARN DEVICE OUTPUT (YDO5)	0 VDC
	13	INVRTR COMMON (OPT_COM)	24 VDC
	14	YDC7	0 VDC
	15	POWER SUPPLY INPUT	0 VDC
	16	INVERTER OUTPUT (OPT2)	0 VDC
	17	IND. LOOP POWER OUTPUT	0 VDC
	18	RS485 + COMMUNICATIONS	5 VDC
	19	EARTH GROUND	0 VDC
	20	RS485 - COMMUNICATIONS	-5 VDC

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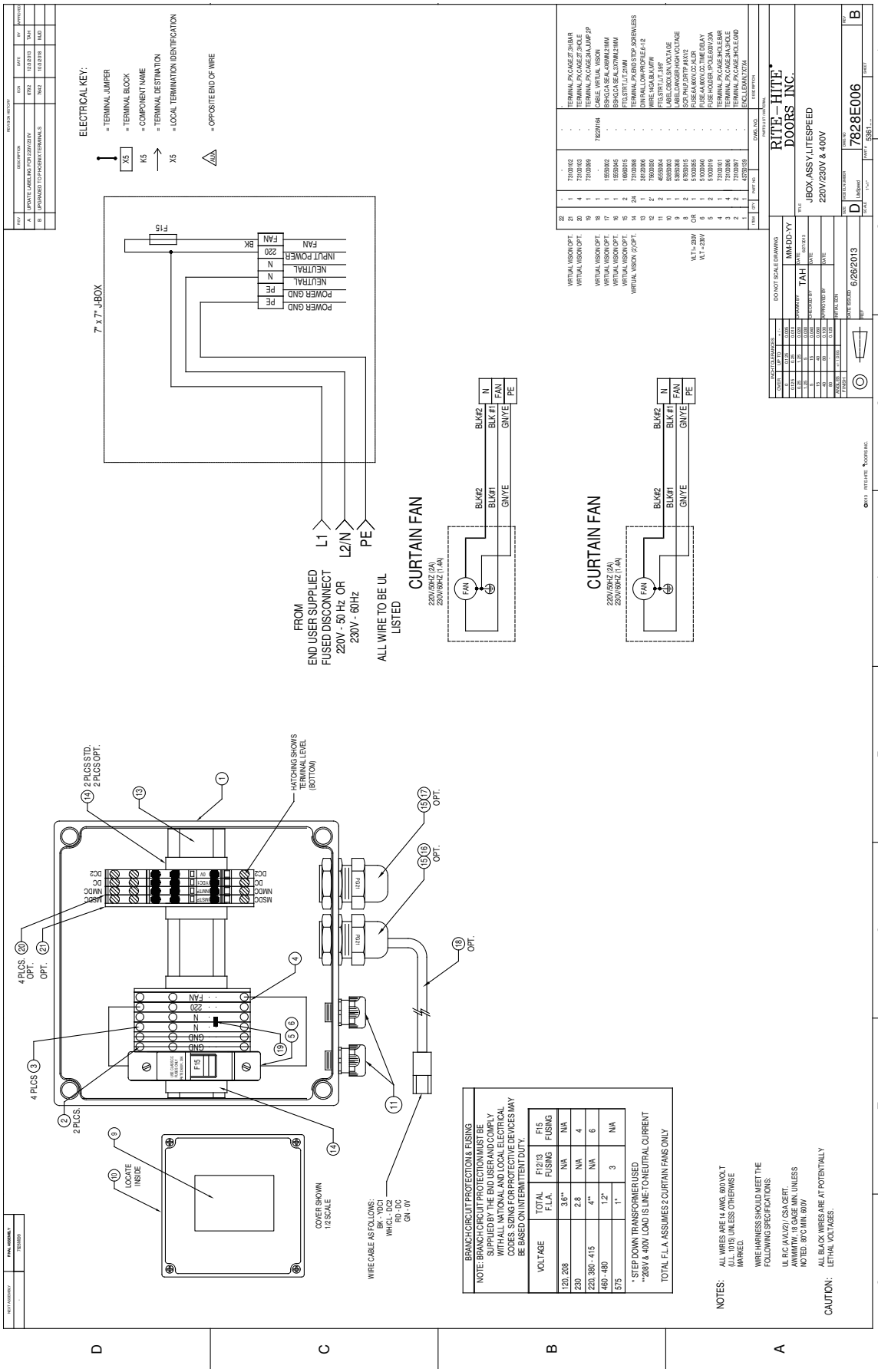
MAINTENANCE

Wiring Diagrams *Continued*

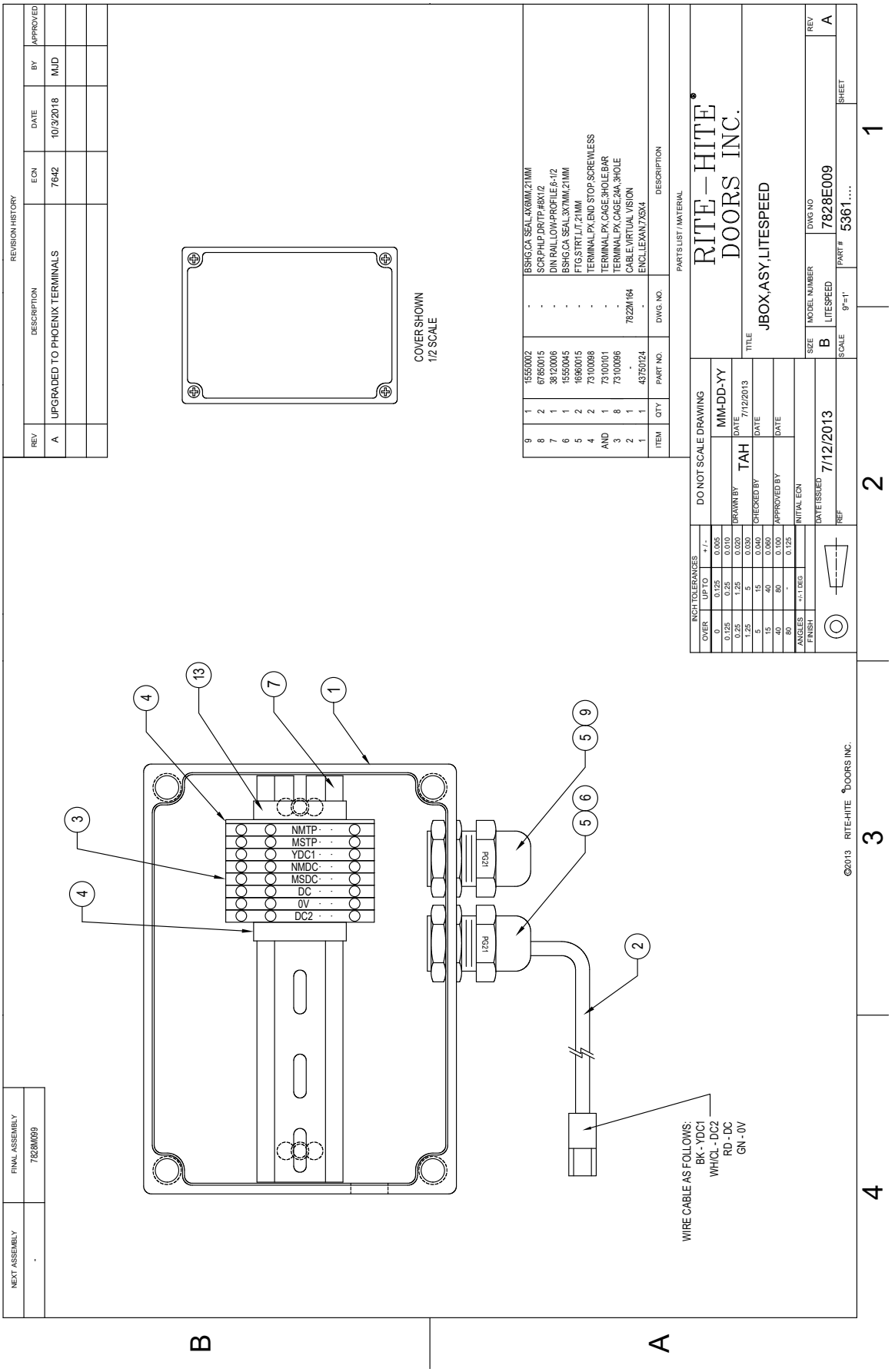
Field Wiring Curtain Fans and Virtual Vision, 220/230 and 400V



MAINTENANCE

Wiring Diagrams *Continued*

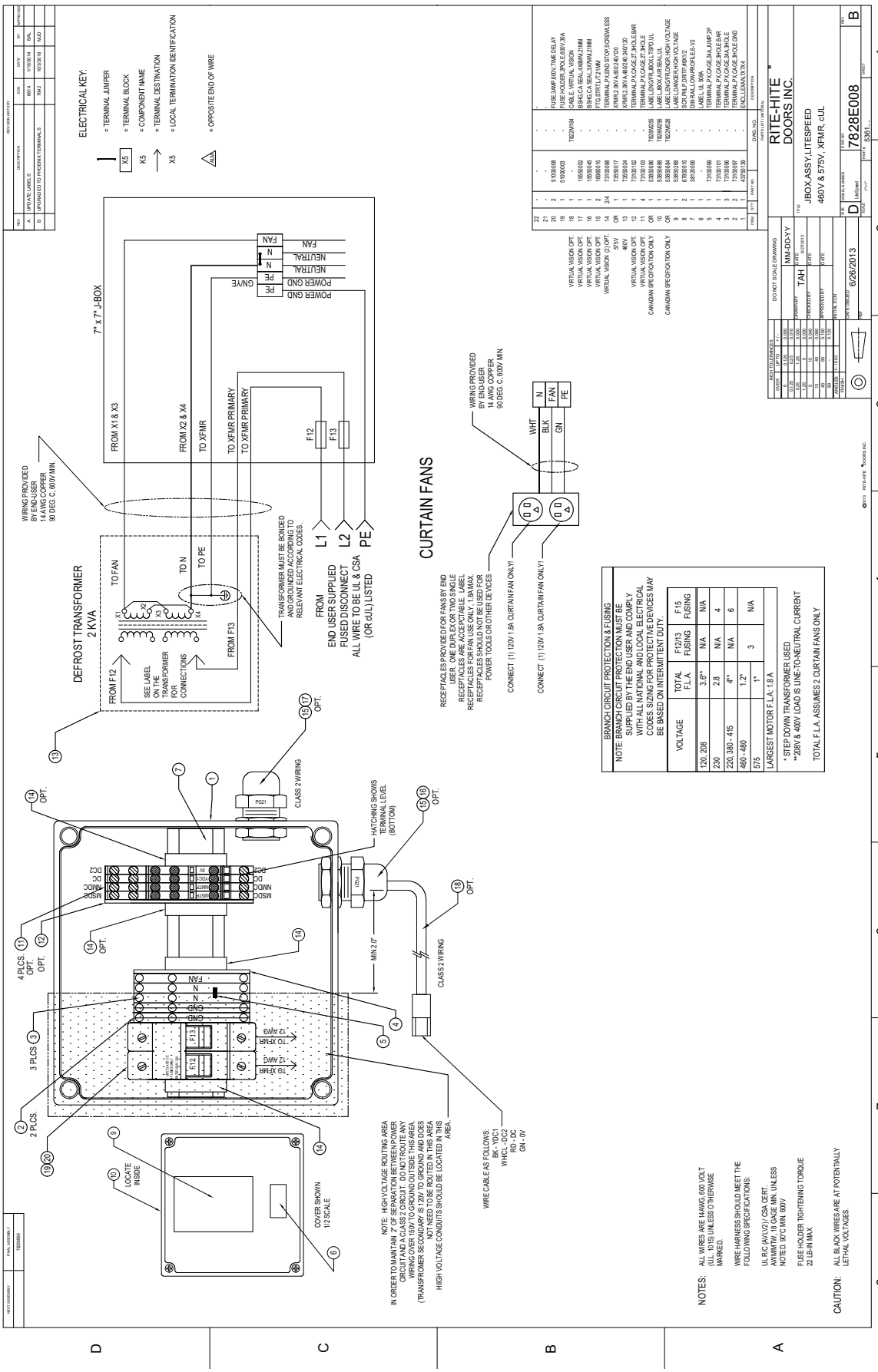
Junction Box Virtual Vision, 120V



MAINTENANCE

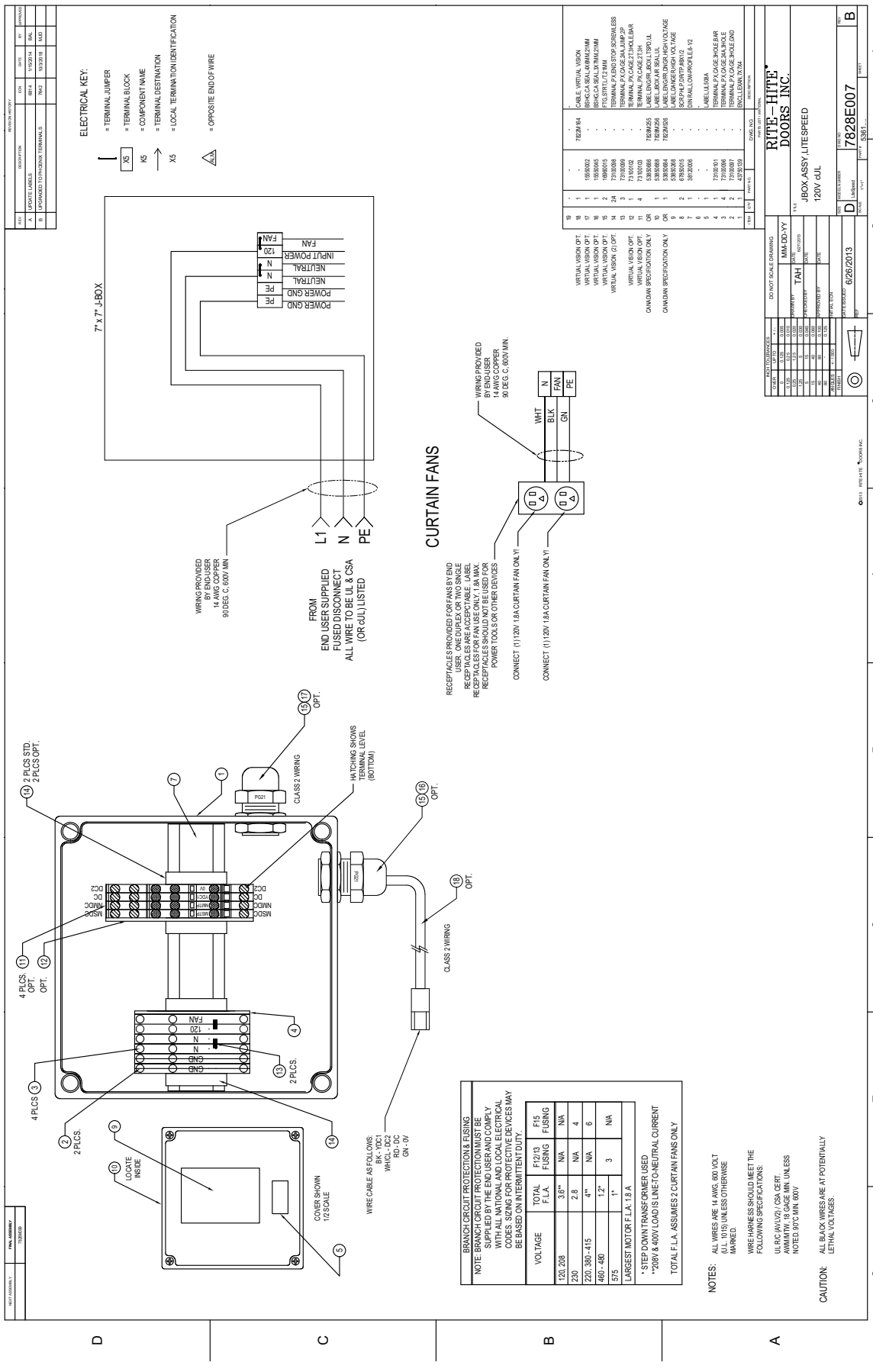
Wiring Diagrams *Continued*

Junction Box – LTSPD, 460 and 575V, Curtain Fans and Virtual Vision



MAINTENANCE

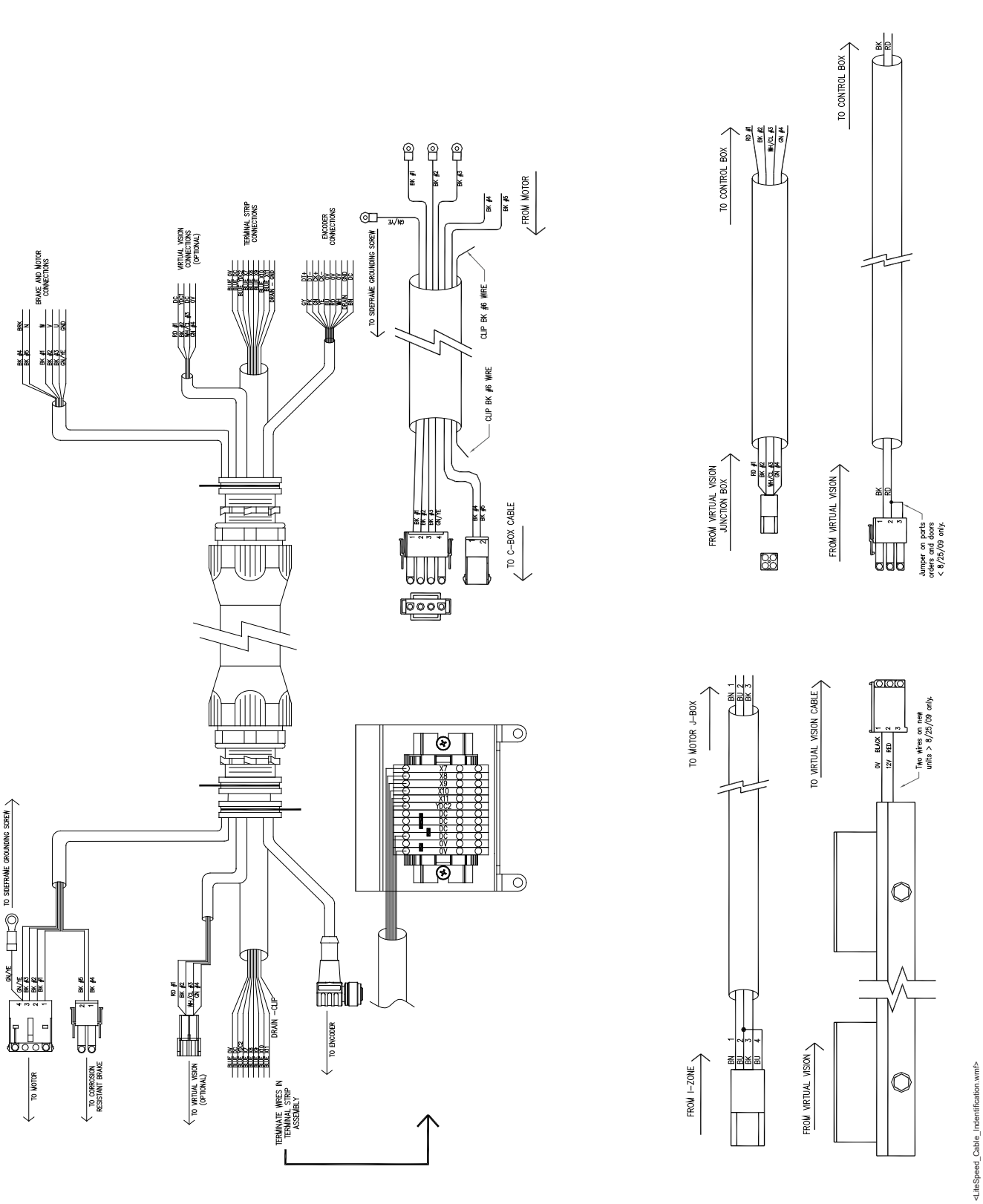
Wiring Diagrams *Continued*



MAINTENANCE

Wiring Diagrams *Continued*

Electrical Cable Identification

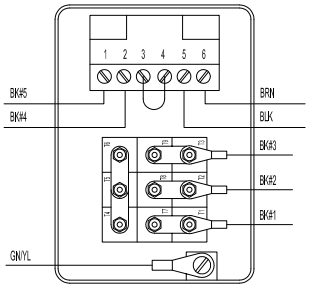


MAINTENANCE

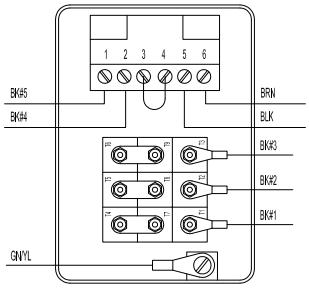
Wiring Diagrams *Continued*

Motor/Junction Box Wiring

208/230V Motor Wiring



460V Motor Wiring



400 and 575V Motor Wiring

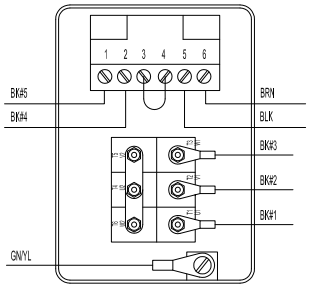


Figure 61

TROUBLESHOOTING

DEFINITION	FUNCTION
Activation	It is recommended not to wire activation devices until after the door is functioning properly.
Brake	The brake is powered by 105VDC which is converted from 110VAC. Brake will have ≈ 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 re-feed 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. Dust particles and moisture may cause damage to electrical components. The safest location for conduit is at the bottom of the control box. Failure to install conduit at the bottom of the control box may void the 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 Rite-Hite Representative for replacement.
Curtain	The curtain is driven by the roller tube. a. If buttons are missing from curtain, repair or replace. b. If curtain struggles to raise or lower or is baggy, check for proper lower track spacing, O.D.W. + 1/2in [13mm]. c. 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 3 display to see why door is staying open (*"Photoeye Blocked" or "Photoeye Failure", etc.*). Display should read "Door Closing in "x" seconds." b. Verify proper incoming power is reaching inverter at L1, L2 and L3 (220, 230, 400, 460, 575). c. 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. X10 is the only set of lower track photoeyes (location is based on ordered door height). X11 is a second set of photoeyes, in the header, and used as a slack sensor. i. Verify inverter display is changing frequency. j. Verify encoder has been set up. k. Verify rectifier has 120VAC going to it, ~ 100VDC coming out to the brake. l. Verify curtain feeds into rollers and edge is not binding.
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 3 display to see why door is staying closed. Display should read "Door Opening". d. Verify inverter display is changing frequency. e. Verify proper incoming power is reaching inverter at L1, L2 and L3.
Door slams open/close	a. Verify the open and close positions are properly set. b. Verify 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 has been installed on the gearbox shaft. h. Verify encoder has been set up. i. Verify rectifier has 120VAC going to it, ~ 100VDC 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 torque arm bracket. c. Remove encoder bracket and move to outside holes. d. Remove and switch driven sprocket. e. Remove and switch drive and non-drive photoeyes. f. Remove curtain, flip roller tube 180°, and route on opposite side of roller tube. g. New drive shroud and bracket are required. h. Change i-COMM 3 to state the proper right or left hand drive.

TROUBLESHOOTING

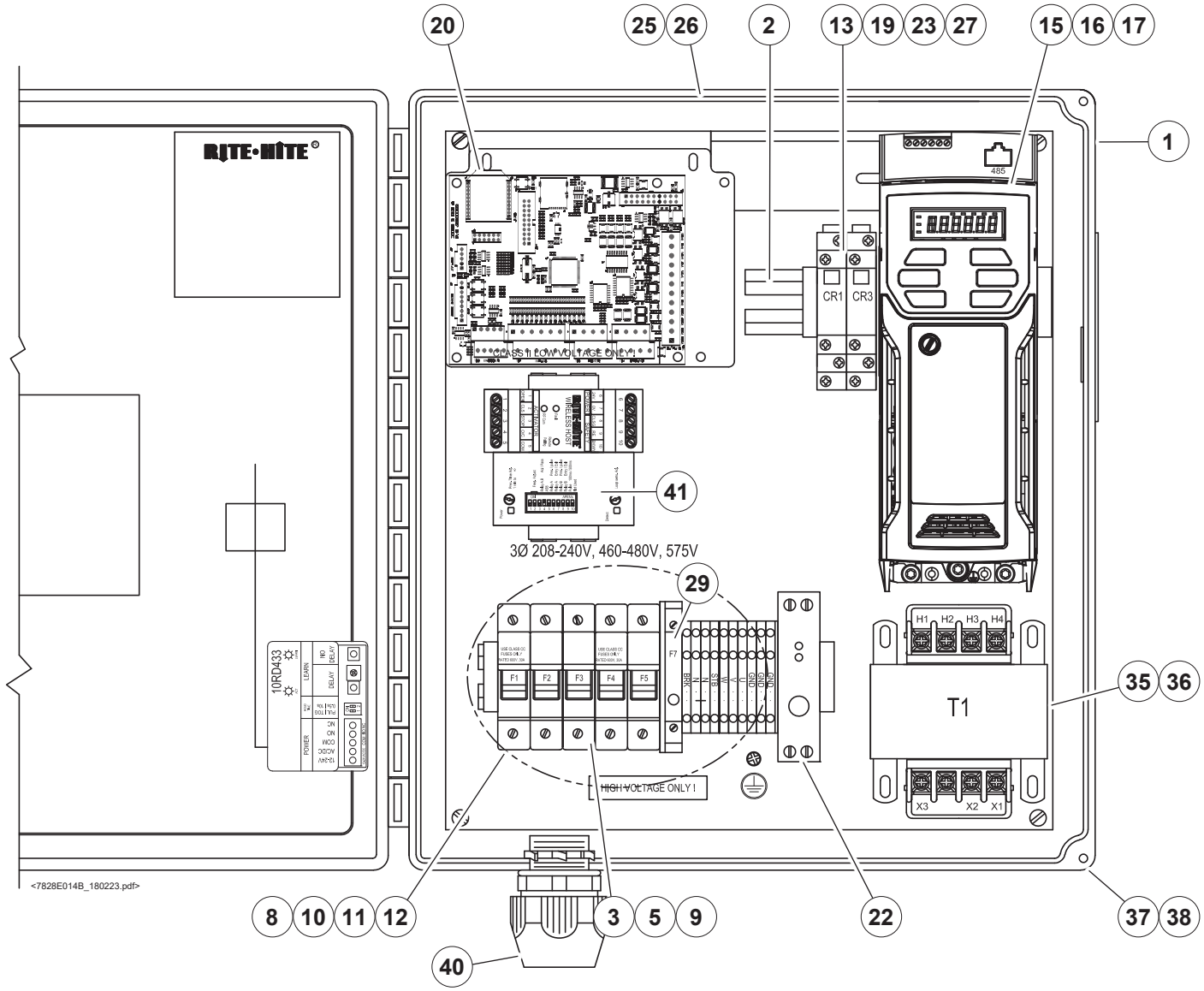
DEFINITION	FUNCTION
Encoder	**DO NOT** splice or extend the encoder cable. a. If curtain is not stopping at the same position, make sure encoder cable is grounded. b. Verify encoder chain is operating properly and sprocket set screws are tight to shafts. c. See on-screen help on touchscreen. d. If Encoder Velocity error, check sprocket set screws and chain, motor drive side in encoder folder or change Encoder Baud from 433 to 125.
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. F7: Secondary side transformer fuse. F7 is 120V (power supply and brake).
i-COMM™ 3 Controller	The i-COMM 3 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 i-COMM 3 IO label inside of control box. Settings can be changed for re-close or pre-announce timers, interlocks, special activation commands, among others. Refer to i-COMM 3 manual. a. Verify i-COMM 3 is receiving 24VDC from power supply. b. If i-COMM 3 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 3 adjustment instructions.
Inverter	See on-screen help on touchscreen for proper parameter settings.
LEDs	Refer to i-COMM 3 manual for functions or input/output values.
LiteSpeed Standard, LiteSpeed Cleanroom, LiteSpeed Washdown	LiteSpeed Standard: a. Black annodized aluminum lower track. b. Black painted steel header. c. Optional black powdercoated shrouds. d. IP66 motor. e. FDA and GMP guidline complaint curtain material. LiteSpeed Cleanroom: a. Stainless steel lower track. b. Black painted steel header. c. Optional stainless shrouds. d. IP66 motor. e. FDA and GMP guidline complaint curtain material. LiteSpeed Washdown: a. Fully stainless design. b. Optional stainless shrouds. c. TUPH coated IP66 motor. d. FDA and GMP guidline complaint curtain material.
Lower Tracks	Verify lower tracks are properly spaced; MUST be O.D.W. plus 1/2in [13mm].
Motor	a. Check voltage to inverter on L1, L2, L3 (same as F1, F2, F3). b. Check wire connections at terminals, U, V, and W and on inverter. c. Check motor/control box cable plug connections and junction box wire connections. d. 208V-240V motor will have approximately 5-7 ohms on normal readings. e. 400V-480V motor will have approximately 21-23 ohms on normal readings. f. 575V motor will have 14-15 ohms on normal readings.
Motor Phasing	If Open/Reset button is pressed and the door closes, phasing is reversed, switch wires in terminals, V and W. Make sure the motor is properly grounded to prevent electrical noise.
Non-Powered Opening (N.P.O.)	For issues with N.P.O. counterweight, check: a. If power outage, rotate brake release handle to open door. b. With power off, verify counter weight opens door. c. In the event the door travels too far open when using the counterweight, the door will go into a fault and the curtain will need to be refed, then jogged close to reset.
Non-Powered Opening (N.P.O.) Retrofit	Consult your Rite-Hite Representative on these parts for retrofitting N.P.O. system: a. Counterweight parts. b. IP66 Motor. c. Full Header Assembly.

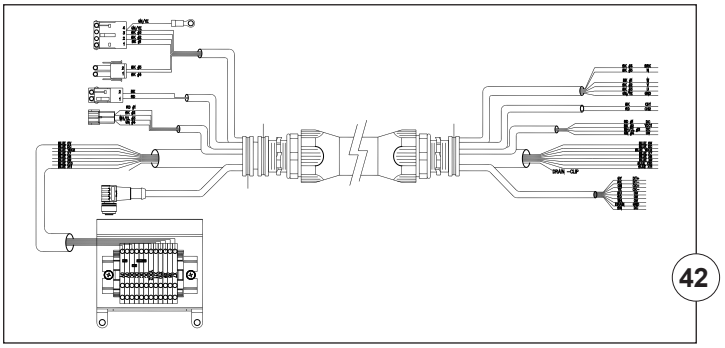
TROUBLESHOOTING

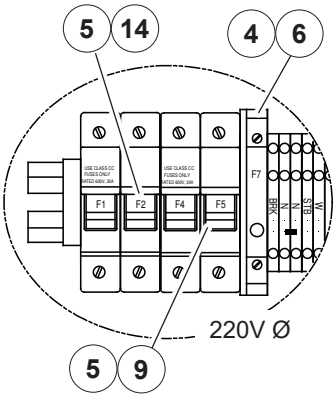
DEFINITION	FUNCTION
Open/Reset Push Button	The Open/Reset push button function is when the button is pressed, a command to open the door is given. To jog door when i-COMM 3 states "Photoeye Failure", press and hold the Open/Reset button.
Photoeyes	The photoeyes are wired to the 24VDC circuit and are wired as normally closed when there is power to the unit and the source photoeye is aligned with the receiver photoeye. 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 the lower tracks are square to the wall. a. Verify Brown wires to terminal DC and Blue wires to terminal OV on motor terminal strip. b. Verify Black X10 wired to terminal X10 and Black X11 wired to terminal X11 on motor terminal strip. c. When open, i-COMM 3 verifies photoeye inputs are off. If on, door will fault. If off, test is ok and sources turn on. d. Red LED on the Receiver should be on when aligned. Either remove photoeye from lower track to verify or with aluminum lower tracks, view through clear cover. e. Input X10 will go off when the lower 18in [457mm] photoeye is tripped. f. Input X11 will go off when the header "slack sensor" is not aligned.
Pillow Block Bearings	Verify the pillow block bearing set screws are tightened to 66 to 80in lb. [79Nm].
Power Supply	Power Supply is powered by 120VAC from the F7 fuse and delivers 24VDC to the i-COMM 3.
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. + 1/2in [13mm]. b. If mounted wider, excessive curtain wear may occur; if too narrow, curtain buckling or billowing will be greater. c. Verify the curtain has all the buttons in place. d. Verify wear strips are present and functioning properly.
Virtual Vision (Optional)	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. It is normal for the YDC3 output to flash on i-COMM 3 during door operation.
Voltage Change	To change the voltage: 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 3.

PARTS

Control Box







PARTS

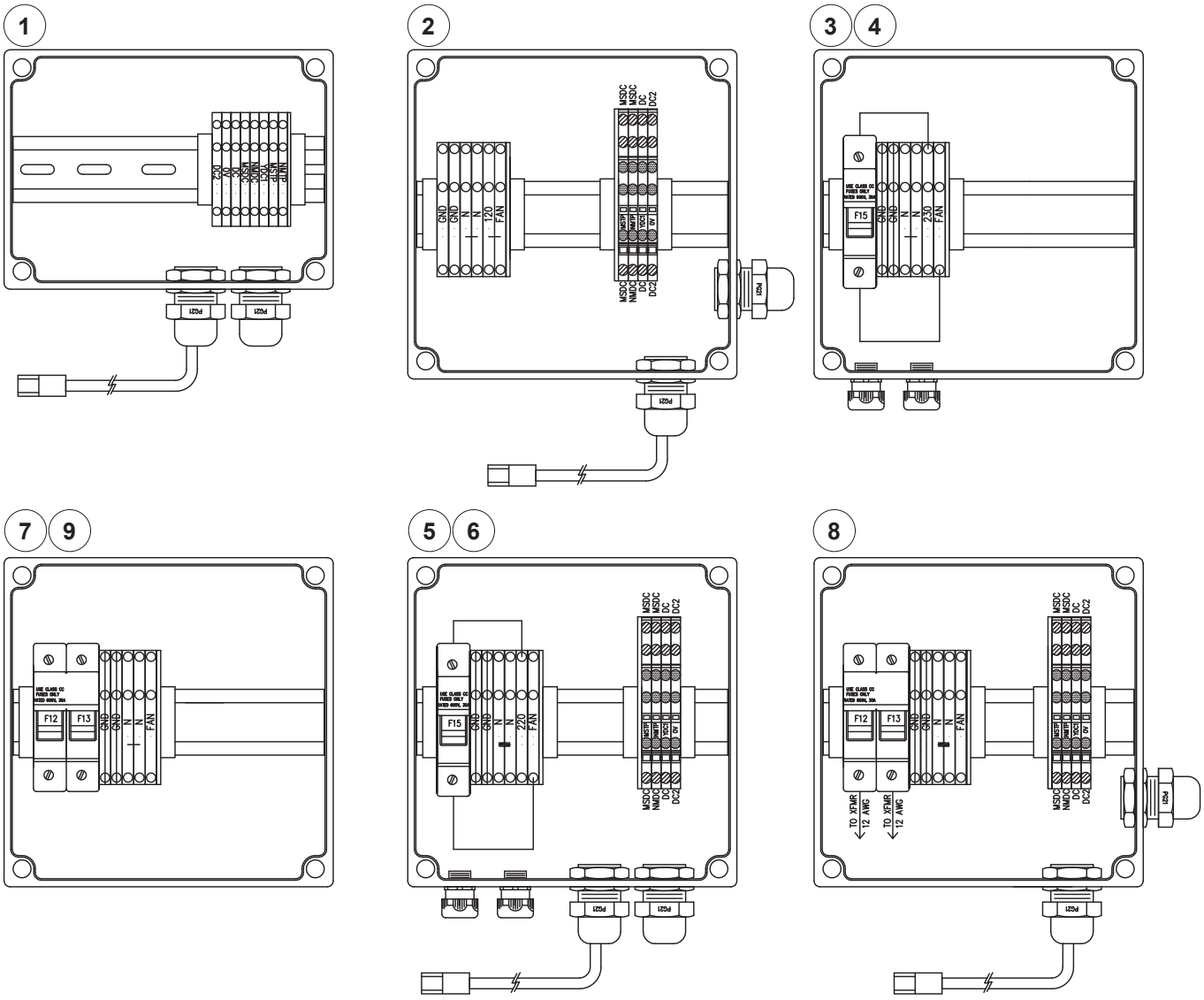
Control Box

#	QTY	DESCRIPTION	PART #
1	1	Control Box Assembly, LiteSpeed, i-COMM 3	1714
2	1	Controller, Wireless, Activation, BTR, 12-24V	17500025
3	2	Fuse, 0.5 amp, 600V Time Delay (400-575V)	51000001
4	1	Fuse, 2 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
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 (#23, #27, wire)	53700862
14	2	Fuse, 20 amp, 600V, KLDR (220V 1Ø)	51950077
15	1	Kit, Inverter, 2HP, 575V, 3PH, AB-FLEX40	53700988
16	1	KIT,INV,2HP,460V,3PH,M200	53701042
17	1	KIT,INV,2HP,230V,1-3PH,M200	53701041
19	1	Kit, Relay (includes #23 and #27 and wire)	53700643
20	1	Kit, i-COMM 3, Replacement	53701043
22	1	Power Supply, DIN, 24VDC, 60W, CG	65700012
	1	Power Supply, DIN, 24VDC, 30W, CG	65700007
23	1/1	Relay, SPDT, 24VDC, 10AMP (warn device and brake)	66450014
25	1	KIT,RESISTOR,INV,75OHM,230V	53701088
26	1/1	KIT,RESISTOR,INV,350OHM,460V	53701089
27	1	Socket, Relay,1 Pole, 250VAC, 10AMP (W.D. and Brake)	70350002
29	1	Terminal, End Barrier, Fuse Holder	73100019
35	1	Transformer, 150VA, 208/230/460V:24/115	73550029
36	1	Transformer, 150VA, 380/415/575V:24/115	73550030
37	2	Control Box Quick Release Latch	51950021
38	4	Control Box Mounting Tab	51950018
40	1	Connector, Conduit, Straight, L/T, 1in [25mm]	16960001
41	1	Controller, Ind Loop, Dual, 12/24V	17500010
42	1	Control Box Cable Assembly	1602

PARTS

Virtual Vision/Curtain Fan Junction Box

See chart on next page.



LiteSpeed

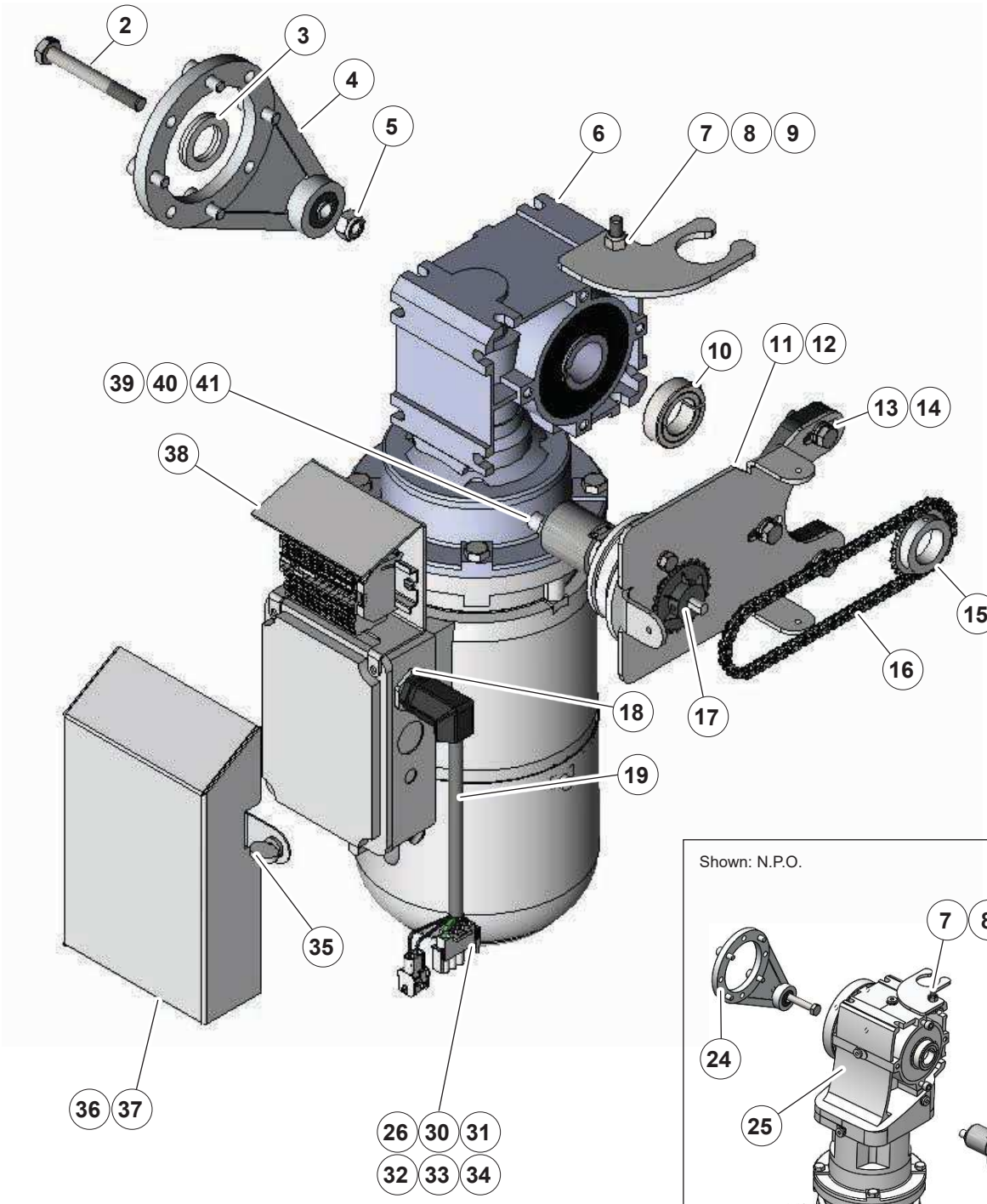
#	VIRTUAL VISION	CURTAIN FANS	120V	230V	220V, 400V	STEP DOWN 460V, 575V	DESCRIPTION	PART #	TRANSFORMER PART #	TRANSFORMER DESCRIPTION
1	X	–	–	–	–	–	JBOX, VIRTUAL VISION	53530013	–	–
2	X	X	X	–	–	–	JBOX, FANS, 120V, VRTLV	53530023	73550026	XFMR, 3KVA, 600: 240/120
3	–	X	X	–	–	–	NO JBOX REQ'D!!!	–	–	–
4	X	X	–	X	–	–	JBOX, FANS, 230V, VRTLV	53530025	73550027	XFMR, 3KVA, 480/240: 240/120
5	–	X	–	X	–	–	JBOX, FANS, 230V	53530024	73550017	XFMR, 2.0KVA, 600: 240/120
6	X	X	–	–	X	–	JBOX, FANS, 220V, VRTLV	53530027	73550024	XFMR, 2.0KVA, 480/240: 240/120
7	–	X	–	–	X	–	JBOX, FANS, 220V	53530026	73550024	XFMR, 2.0KVA, 480/240: 240/120
8	X	X	–	–	–	X	JBOX, FANS, 460/575V, XFMR, VRTLV	53530029	if 575V:73550017 else : 73550024	–
9	–	X	–	–	–	X	JBOX, FANS, 460/575V, XFMR	53530028	if 575V:73550017 else : 73550024	–

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

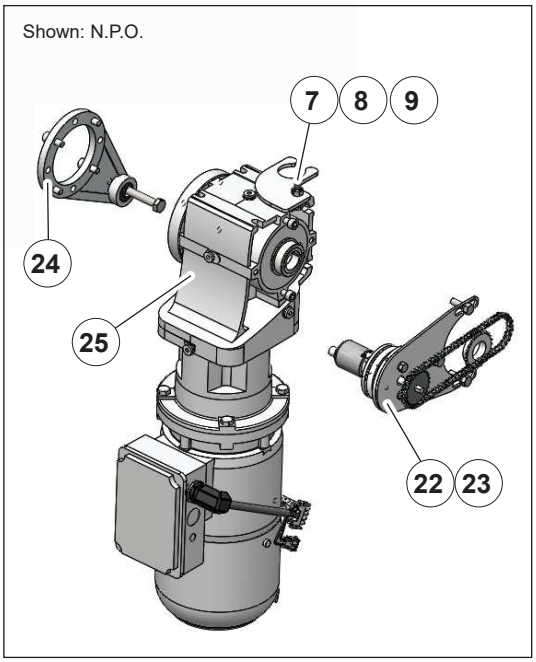
PARTS

Drive System

Shown: LiteSpeed Standard, LiteSpeed Cleanroom



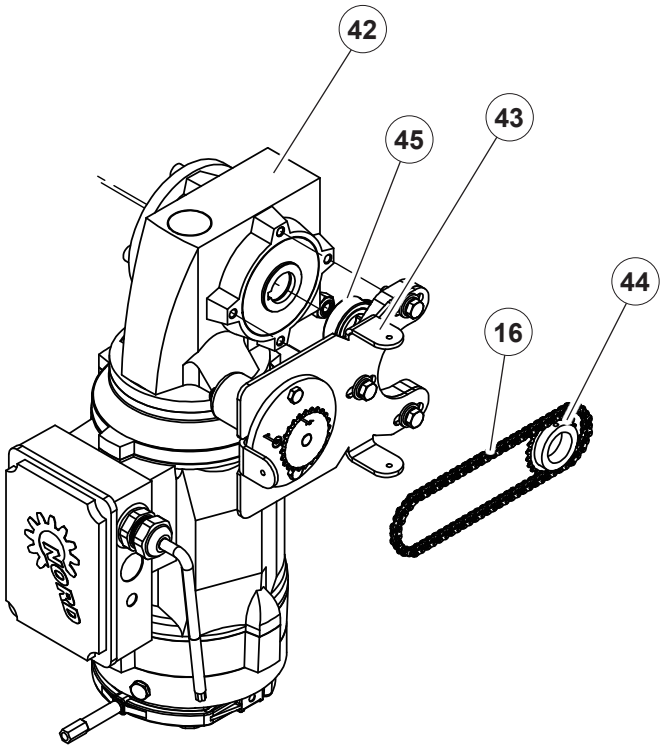
Shown: N.P.O.



PARTS

Drive System *Continued*

Shown: LiteSpeed Washdown



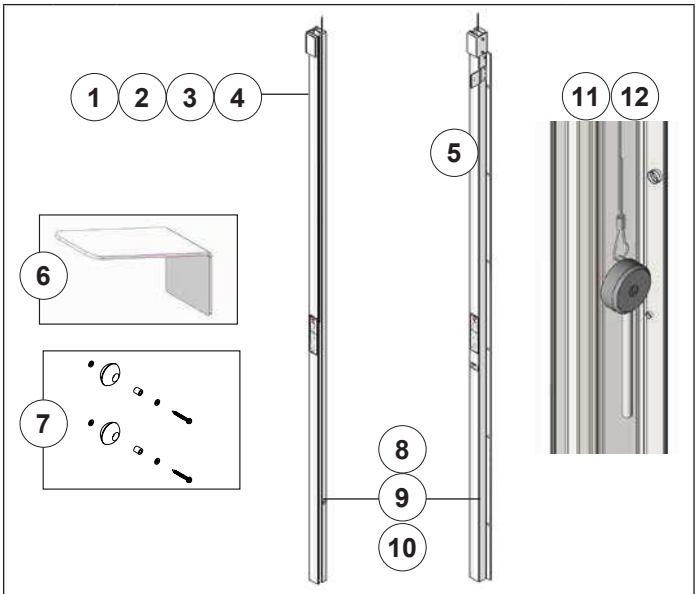
#	QTY	DESCRIPTION	PART #
1*	1	Gearbox Key	53550010
2	1	Bolt, HHMS, M10-1.5MM x 80MM, CL 10.9	67930041
3	1	Gearbox Spacer	74170007
4	1	Arm, Torque, Gearbox, Nord, Size 50	11500049
5	1	Nut, Hex, Nylon Lock, M10, znc	55680003
6	1	Gearbox, Worm, 10:1, 56C, Size 50, Nord	51250028
7**	1	Conduit Bracket	14501096
8	1	Nut, Hex, Nylon, Lock, 5/16-18, znc	55620010
9	1	Screw, HHMS, 5/16-18 x 1 1/4, GR5, znc	67870003
10	1	Collar, Shaft, Lock, Split, 1in Ø, znc	16850018
11	1	Kit, Encoder, Gearbox, Worm	53700842
12	1	Encoder Bracket, Worm gbx	14502070
13	3	M8-1.25x16MM	67930016
14	3	Lock Washer	74120002
15	1	Sprocket Drive	70800047
16	1	Encoder Chain	16600063
17	1	Sprocket, #25, 24T, 5/16in Bore, Plastic	70800048
18	1	Adapter, M20 x 1.5 / M25 x 1.5	10300014
19	1	Motor Cable	15650306
22**	1	Kit, Encoder, Gearbox, Bevel 172.1, N.P.O.	53701005
23**	1	Encoder Bracket, Bevel, 172.1	14501413
24**	1	Arm, Torque, Gearbox, Nord, Size 63, N.P.O.	11500085
25**	1	Gearbox, Bevel 10:37:1, 92172.1, Nord	51250050
26**	1	Motor/Brake/Gearbox Ass'y	5541
30	1	Motor/Brake, 1HP, 56C, 230/460V, IP66	55250217
31	1	Motor/Brake, 1HP, 56C, 400V, IP66	55250218
32	1	Motor/Brake, 1HP, 56C, 575V, IP66	55050219
33	1	Brake Rectifier 230/460V	66270009
34	1	Brake Rectifier 575V	66270012
35	1	Screw, Thumb, 1/4-20 x 1/2in, GR2 znc	67860019
36	1	Cover, Terminal Assembly, RH	17900217
37	1	Cover, Terminal Assembly, LH	17900218
38	1	Terminal Assembly	73100093
39	1	Encoder Cable 4M	15650256
40	1	Encoder Cable 8M	15650257
41	1	Encoder Cable 17M	15650258
*	1	Aero Lubriplate	54650001
42	1	MOTOR/BRAKE/GEARBOX ASSY LTSWD	5545
43	1	KIT,ENCODER,ASSY,IP69K,LTSWD	53701062
44	1	SPRKT,#25,24T,1"BORE,PLSTC/SS	70800047
45	1	COLLAR,SHAFT,LOCK,SPLIT,1IN,STNLS	16850017

*Not Shown

**All gearbox components listed are only for doors shipped on or after 8/24/17. These parts will not work on previous doors. If a gearbox is being replaced on a door prior to 8/24/17, then part number 5541 must be used.

PARTS

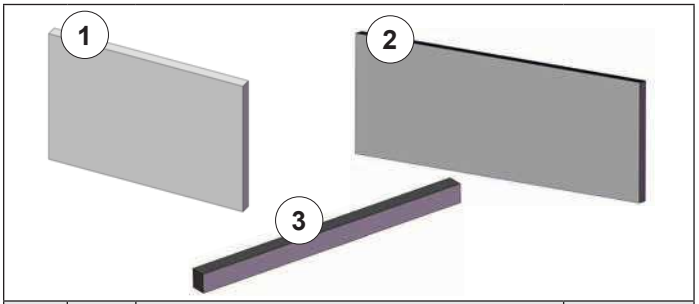
Lower Track



#	QTY	DESCRIPTION	PART #
1	2	Block, Sideframe, Top	13000067
2	4	Spacer, LiteSpeed, Header End	70450170
3	a/r	Tape, Foam, DBL, .062 x 2in	72800044
4	4	Stud, Self-Clinch, 1/4-20 x 3/4, ss	72400016
5	1	Bracket, Shroud, Motor Cover	14501301
6	2	Bracket, Curtain Catch	14501305
7	1	Kit, Curtain, Refeed, Roller	53700611
8	1	Photoeye, Thru beam (1) - Includes Receiver and Emitter	63900064
9	2	Plug, Window, 0.734 Ø	65300036
10	2	Gromm, Rubber, .51IDx.88ODx.19	51280029
11	1	Kit, LTSPD, Handle, Ass'y, N.P.O., RHD	53700909
12	1	Kit, LTSPD, Handle, Ass'y, N.P.O., LHD	53700910
*	1	Sideframe, Assembly, Aluminum (Specify: Right, Left, Set)	6826
*	1	Sideframe, Assembly, Stainless (Specify: Right, Left, Set)	6903
*	2	Kit, LTSPD, Guide, Half Round, UHMW	53700906

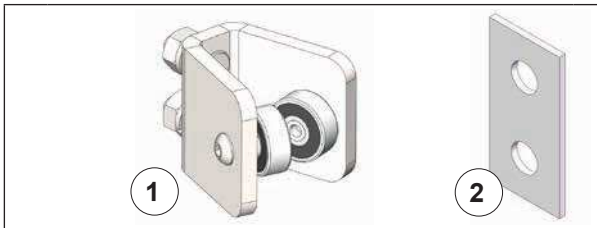
*Not Shown

Plates and Foam



#	QTY	DESCRIPTION	PART #
1	16	Plate, Weld, Track, Lower	65000587
2	6	Plate, Weld, Track, Upper	65000588
3	a/r	Foam, Adhesive, 7/8in x 1 1/8in	45800099

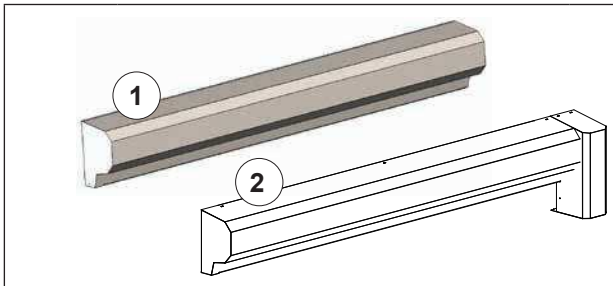
Refeed Roller Assembly



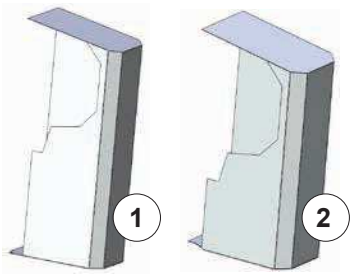
#	QTY	DESCRIPTION	PART #
1	2	Kit, LTSPD, Guide, Shim, Refeed, 2-Roller (<=10ft [3048mm] O.D.H.)	53700894
*	2	Kit, LTSPD, Guide, Shim, Refeed, 6-Roller (>10ft [3048mm] O.D.H.)	53700949
*	2	KIT,LTSPD,GUIDE,REFEED,2RLR,SS (<=10ft [3048mm] O.D.H.)	53701063
*	2	KIT,LTSPD,GUIDE,REFEED,6-RLR,STNLS (<=10ft [3048mm] O.D.H.)	53701064
2	a/r	Shim, Retainer Roller, LTSPD	69000019

*Not Shown

Shrouds



#	QTY	DESCRIPTION	PART #
1	1	Center Shroud, STEEL	6959
2	1	FULL STAINLESS SHROUD, UPGRADE OR REPLACEMENT	6960

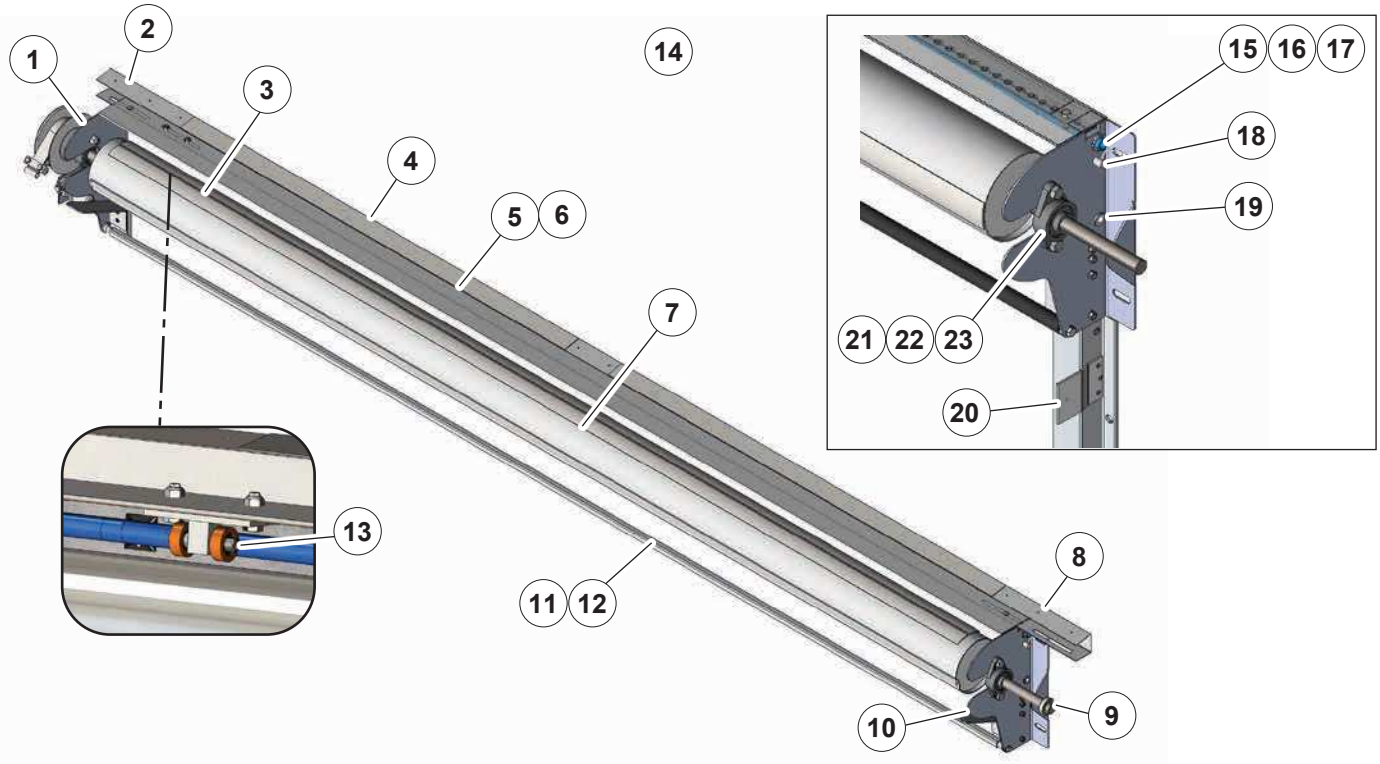


Kits contain brackets and hardware

#	QTY	DESCRIPTION	PART #
1	1	Kit, Shroud, Drive, Steel, RH	53700898
	1	Kit, Shroud, Drive, Steel, LH	53700899
Non-Powered Opening (N.P.O.)			
2	1	Kit, Shroud, Drive, Steel, N.P.O., RH	53700902
	1	Kit, Shroud, Drive, Steel, N.P.O., LH	53700903

PARTS

Header

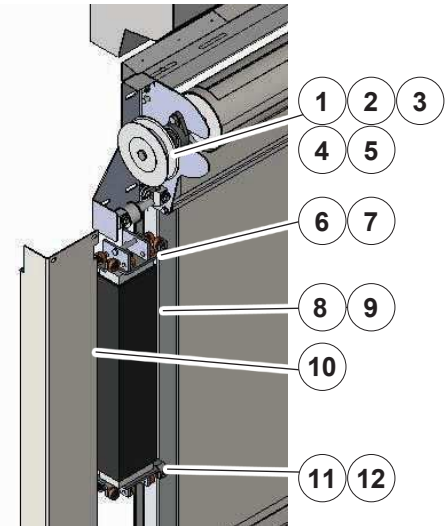


#	QTY	DESCRIPTION	PART #
1	1	Bracket, Shroud, Header End, LiteSpeed, LH	14502085
2	1	Bracket, Shroud, Motor, Top, Left, LiteSpeed	14501300
3	1	Seal, Loop, Header, LiteSpeed	6899
4	1	Bracket, Shroud, Header	1469
5	a/r	Steel, Angle, Perforated, 2 x 2 x 12ga	71500030
6	a/r	Loop, PSA, 2in [51mm]	74000019
7	1	Roller Tube Weldment	6758
8	1	Bracket, Shroud, Motor, Top, Right, LiteSpeed	14501299
9	1	Collar, Shaft, Lock, Split, 1in [25mm] Ø, znc	16850018
10	1	Bracket, Shroud, Header End, LiteSpeed, RH	14502084
11	1	Tube, Front, Header, Spreader, LiteSpeed	7395
12	1	Tube, Front, Header, Shroud, LiteSpeed	7396

#	QTY	DESCRIPTION	PART #
13	1	Kit, LTSPD, Ass'y, Curtain Stop	53700907
14	1	Header Assembly, LiteSpeed	5229
15	a/r	Conduit, 1/2in [13mm], ENT, Flex	16900019
16	2	Connector, Conduit, Straight, 1/2in [13mm], ENT, Thread	16950033
17	2	Connector, Nut, 1/2 KO, 3/8in [10mm], Flex	16960084
18	1	Photoeye, Thru-beam, Kit (Receiver and Emitter)	63900064
19	2	Grommet, Rubber, .5 ID x.88OD x.19	51280029
20	1	Bracket, Shroud, Motor Cover	14501301
21	2	Bearing, Flange, 1in [25mm] Bore	12500034
22	4	Bolt, HHMS, 1/2-13 x 1in, GR5, znc	67900003
23	4	Washer, Lock, Ext, 1/2in [13mm], znc	74150019

PARTS

N.P.O. (Optional)



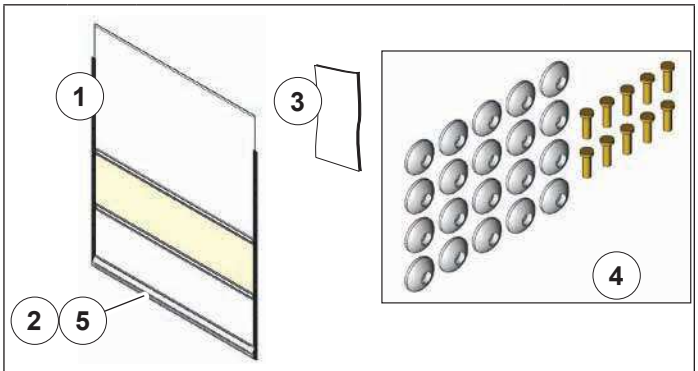
#	QTY	DESCRIPTION	PART #
1	1	Pulley, Weldment, N.P.O., LTSPD	65750057
2	2	Clamp, Flat Belt	16700047
3	1	Clamp, Pressure Belt, 3/4in x 1 3/8in	16700010
4	1	Key, 1/4 SQ x 1 1/2in [38mm]	53550019
5	a/r	Belt, N.P.O., LT (O.D.H. + 12in [305mm])	12550001
6	1	Kit, LTSPD, Roller Ass'y, N.P.O., RHD, Top	53700889
7	1	Kit, LTSPD, Roller Ass'y, N.P.O., LHD, Top	53700891
8	1	Counterweight, N.P.O., Assembly	1766
9	1	Counterweight, Weldment, LTSPD, N.P.O., 19in [483mm] (For door sizes: 7ft [2134mm] < D.O.H. <8ft [2439mm])	17650001
	1	Counterweight, Weldment, LTSPD, N.P.O., 21in [534mm] (For door sizes: 8ft [2439mm]) < D.O.H. <9ft [2744mm])	17650002
	1	Counterweight, Weldment, LTSPD, N.P.O., 23in [585mm] (For door sizes: 9ft [2744mm] < D.O.H. <10ft [3048mm])	17650003
	1	Counterweight, Weldment, LTSPD, N.P.O., 25in [635mm] (For door sizes: 10ft [3048mm] < D.O.H.)	17650004
10	1	Tube, Counterweight	6951
11	1	Kit, LTSPD, Roller Ass'y, N.P.O., RHD, Btm	53700890
12	1	Kit, LTSPD, Roller Ass'y, N.P.O., LHD, Btm	53700892
13*	1	Block, Btm Mnt, N.P.O., LTSPD	13000069

*Not Shown

Patch Kits

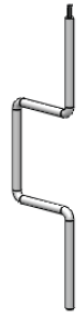
QTY	DESCRIPTION	PART #
a/r	Kit, Curtain, Patch, PVC, 27 oz, Blue	53700558
a/r	Kit, Curtain, Patch, PVC, 27 oz, Green	53700667
a/r	Kit, Curtain, Patch, PVC, 27 oz, Gray	53700668
a/r	Kit, Curtain, Patch, PVC, 27 oz, Orange	53700669
a/r	Kit, Curtain, Patch, Urethane, 30 oz, Blue	53700774
a/r	Kit, Vision, Patch, Urethane	53700778
a/r	Kit, Vision, Patch, PVC	53700918

Curtain



#	QTY	DESCRIPTION	PART #
1	1	Curtain, LiteSpeed	2893
2	1	Seal, Loop, Curtain, LiteSpeed	6898
3	a/r	Curtain Shim	53700920
4	a/r	Kit, Curtain Buttons, Qty 20	53700893
5	a/r	Bottom Loop Weight	7541

Hand Crank (Optional)



QTY	DESCRIPTION	PART #
1	Hand Crank	55150357

PARTS

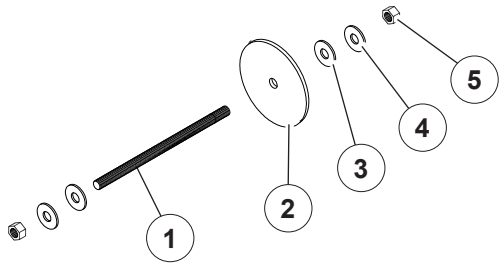
Bracket

QTY	DESCRIPTION	PART #
a/r	Bracket, BEA Falcon	14501212

Virtual Vision

QTY	DESCRIPTION	PART #
4	Virtual Vision LED Assembly	7623
8	Virtual Vision Mounting Bracket	14500971
2	Nut, Hex, Nylon, Lock, #10-24, znc	55600004
2	Screw, RHMS, Phillips, #10-24 x 3/4in, znc	67850030
4	Virtual Vision Warning Plate	65000586
2	Screw, RHMS, Phillips, #10-24 x 1/2in, znc	67850008

Install Kit – Thru-Wall

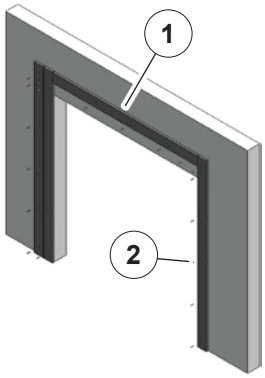


#	QTY	DESCRIPTION	PART #
—	1	Kit, Install, Thru-Wall, S.S Contains 12 plates, 3/8in [10mm] rods and 24 washers, nuts.	53700746
1	a/r	Rod, Threaded, 3/8-16 x 12in [305mm] S.S.	67900047
2	a/r	Plate, 6in [152mm] Ø, S.S.	65000714
3	a/r	Washer, Lock, 3/8in [10mm], S.S.	74130009
4	a/r	Washer, Flat, 3/8in [10mm] x 1in [25mm] x .063, S.S.	74130012
5	a/r	Nut, Hex, 3/8-16, S.S.	55630006

Install Kit – Stainless Fastener Caps

QTY	DESCRIPTION	PART #
1	Kit, LTSPD, Stainless Steel Fastener Cap (Contains 14 pcs each)	53700908

Install Kit – Poly Lumber



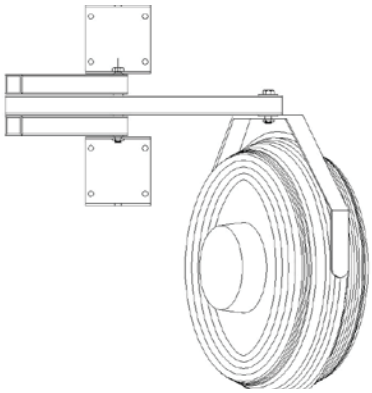
#	QTY	DESCRIPTION	PART #
1	1	Installation Kit	5340
2	a/r	Rivet, Blind, Fablok, 5/16in x 1.807	66840016
—	a/r	LiteSpeed Door	LTSPD
—	a/r	Kit, LiteSpeed Service Parts	53700914
—	a/r	LiteSpeed Sample	n/a
—	a/r	Crate	53700146

PARTS

Brake Release

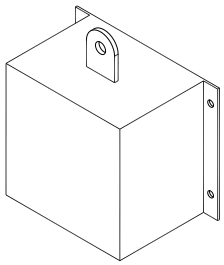
QTY	DESCRIPTION	PART #
1	Kit, Brake Release, Thru-wall	53700743

Curtain Fan



QTY	DESCRIPTION	PART #
2	120V Curtain Fan Kit	53700769
2	120V Fan only	13250069
2	120V Arm only	11500046
2	220V Curtain Fan Kit	53700770

Transformer



QTY	DESCRIPTION	PART #
1	Transformer, 2KVA, 600:240/120	73550017
1	Transformer, 2KVA, 480/240:240/120	73550024

Label

QTY	DESCRIPTION	PART #
2	Label, Warning, Stand Clear, 2in [51mm] x 9in [229mm]	53850516

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
AB	Allen Bradley
AC	Alternate Current
ACT	Activation
Amp	Amperage
A/R	As Required
Ass'y	Assembly
BL or BLK	Black
BRD/DRN	Braid or Drain Wire
BRGLD	Barrier Glider
BR or BRN	Brown
BRKT	Bracket
BRK	Brake
BTM	Bottom
BU	Blue
CC	Current Limiting
CE	European Commission
CL	Center Line
CL	Clean Door
CLR	Cooler Door
CR	Control Relay
CT	Control Techniques
C.W.	Counter Weight
CUI	Compact User Interface
DC	Direct Current
D.O.H.	Door Opening Height
D.O.W.	Door Opening Width
DR	Drill
E-Stop	Emergency Stop
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

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

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
OR or ORG	Orange
Oz	Ounce
PCB	Printed Circuit Board
PB	Push Button
PE	Photoeye
Pharma	Pharmaceutical
PHLP	Phillips Head
PHSMS	Pan Head Sheet Metal Screw
PK	Pink
P.M.P.	Planned Maintenance Program
Pos	Position
PSA	Pressure Sensitive Adhesive
PTR	Perimeter Seal
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
SK	Control Techniques VFD
SPDT	Single Pole Double Throw
SPLT	SplitSecond
S.S./STNLS	Stainless Steel
STND/STD	Standard
SW	Switch (Disconnect)
Term	Terminal
TIG	Tungsten Insert Gas
UHMW	Ultra High Molecular Weight Polyethylene
UV	Ultra Violet
V	Voltage
VFD	Variable Frequency Drive
VL	Vertical Lift
V.V.	Virtual Vision
W.D.	Warning Device
w/	With
w/o	Without
WH	White
X	Controller Input
XFMR	Transformer
XL	Extra Large Door
Y	Controller Output

ABBREVIATION	DESCRIPTION
YE	Yellow
ZNC	Zinc
0V	Direct Current Common (Zero V)

2020-02-12

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

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

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