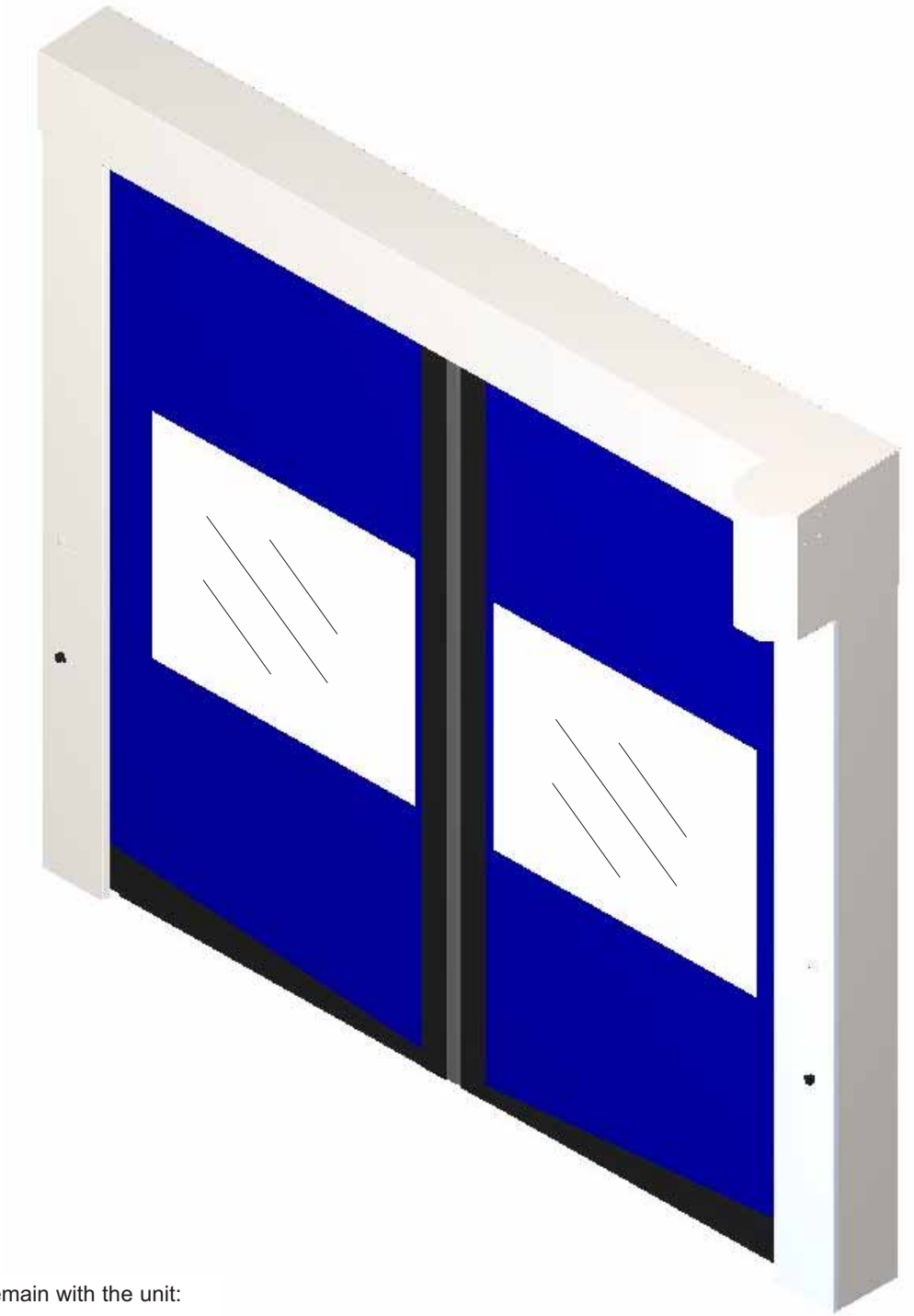
SplitSecond™

Side Rolling Door



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

ISO 9001 CERTIFIED

RITE-HITE®
ALWAYS LOOKING AHEAD

Made In the U.S.A.

This Manual Covers Doors Shipped = > 6/20/2012. Refer to SplitSecondB for doors prior.

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

Publication No. SPLTF
January 2015

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SPECIAL FEATURES

- i-COMM™ Universal Controller	- Adjustable Speeds (VFD)
- Heavy Duty Industrial Materials	- Replaceable Seals
- Obstruction Sensing System	- Large Vision Area
- Immediate Full Height Viewing	- Touch-Pad Controls
- Pharmaceutical Applications	- FDA and cGMP compliant
- Optional Stainless Steel Components	

NOTICE TO USER

Our mission is to "Improve Industrial Safety, Security and Productivity Worldwide Through Quality and Innovation."

Thank you for purchasing the SplitSecond™ door from RITE-HITE DOORS, INC. The SplitSecond™ door is a simple, reliable, Split-center design that has a small footprint, all the while helping to keep different atmospheres separate.

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

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

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

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

RECOMMENDED SERVICE PARTS

Kit,SplitSecond Spare Parts Kit	53700722 (1)
Encoder (=/> 11/1/2010)	53700792 (1)
Encoder (< 11/1/2010)	53700793 (1)
Fuse, .5 Amp, 600V, Time Delay (400-575V)	51000001 (4)
Fuse, 1 Amp, 250V, Time Delay	51000002 (2)
Fuse, 2 Amp, 250V, Time Delay	51000005 (2)
Fuse,1 Amp,600V,CC,Time Delay (208-230V)	51000023 (4)
Fuse, 10 Amp, 600V, CC, KLDR (400-575V)	51000033 (6)
Fuse, 15 Amp, 600V, KLDR (208-230V)	51000051 (6)
Fuse, 6 Amp, 600V, CC, KLDR (400-575V)	51000055 (6)
Fuse, 20 Amp, 600V, KLDR (220V)	51000077 (6)
Sideframe Latch	54150023 (1)
Photoeye Emitter (Non-Drive Interior)	63900051 (1)
Photoeye Receiver (Drive Interior)	63900052 (1)
Photoeye Emitter (Non-Drive Exterior)	63900053 (1)
Photoeye Receiver (Drive Exterior)	63900054 (1)
Sheer Pin	67850161 (10)

INSTALLATION TOOLS REQUIRED

Fork and scissors lift	7/16" [11], 1/2" [13], 9/16" [14], 3/4" [19] open end and/or socket wrench
Laser or hydro level	11/16" x 12" [17 x 305] drill bit for thru bolting
10' [3048] Step ladder	Straight screwdriver (small 1/8" [3] spade)
Cordless or Electric and Hammer drill	Plumb Bob
25' [7620] Tape measure	"C" Clamps
Wire strippers (Small-22 AWG)	Drill Bits
6' [1829] Carpenters level	Phillips Bit for Drill
Utility knife	Square / Straight Edge
Electrical Tape	Allen Wrench Set (3/32",5/32",1/4",1.5mm)
Hammer	***Stainless steel mounting hardware provided by others.***
1/2" [13] Masonry and/or drill bit for thru bolting	

CHAPTER 1 - SAFETY WARNINGS

SAFTEY IDENTIFICATION

DANGER

Danger indicates the presence of a hazard that *will cause severe personal injury, death.*

WARNING

Warning indicates the presence of a hazard that *can cause severe personal injury, death.*

CAUTION

Caution indicates the presence of a hazard that *will or can cause minor personal injury, death.*

NOTICE

Notice communicates installation, operation, or maintenance information that is safety related but not hazard related and may cause equipment or property damage.

NOTE:

A Note is used to inform you of important installation, operation or maintenance information.

GENERAL SAFETY NOTICES

DANGER

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

DANGER

A qualified electrician should install the wiring in accordance with local and national electrical codes.
Use lockout and tagout procedures to avoid injury.

DANGER

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

WARNING

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

NOTICE

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

NOTICE

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

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.

LOCKOUT/TAGOUT PROCEDURES

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

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

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

CHAPTER 1 - DOOR JAMB

NOTE:

Check for electrical prints included in the parts or control box, as they supersede any prints included in this owners manual on Pages 35 - 39.

It is important to verify the following basic information before starting with the installation.

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

1. Alternate dimensions in brackets are in [millimeters].
2. Match control box serial number with track serial number.
3. Make sure that you are working at the correct location and that you have any special work permits.
4. Inspect the installation site to make sure that there are no overhead obstructions (sprinkler pipes, HVAC systems, electrical supply lines, etc.) that might interfere with the lifting of the header assembly during installation.
5. Detour material handling equipment (fork lift trucks, etc.) during the installation of the door.
6. Make sure that the electrician is ready to bring the correct electrical power supply to the door control box.
7. Make sure that the electrical power can be shut off without interfering with other plant operations.
8. Move the entire crate of the door components as close to the door opening as possible.
9. Be sure to install any optional equipment last after verifying door operation.

DOOR JAMB

1. Measure Door Opening Width at the top (A).
2. Measure Door Opening Width at the floor (B).
3. Measure Door Opening Height at left side (C).
4. Measure Door Opening Height at right side (D).
5. Dimensions from Steps 1 - 4 should be within ± 1/2" [13] of the dimensions listed on the serial number label. If the measurements do not agree, STOP! Contact your RITE-HITE DOORS, INC. representative.
6. Surface MUST be flat, smooth and collinear with opposite side (E).
7. Using a 6' [1829] carpenter's level (F), verify that the door jambs and header are plumb and perpendicular.
8. Using a laser level (G), place a mark where the laser is sighted on each side of the jamb to determine if the floor is level. Measure both sides from floor to the mark and if the floor is not level to within 1/8" [3], shim under the sideframe that will be located on the "Low Side" (H) (greatest measurement) of the door opening.
9. 1/2 Ordered door width plus 6" [152] ±1/8" [3] or O.D.W. plus 12" [304] ±1/4" [6] overall (J).

   For space clearance requirements, see Architectural drawings on ***Pages 48 - 51.***

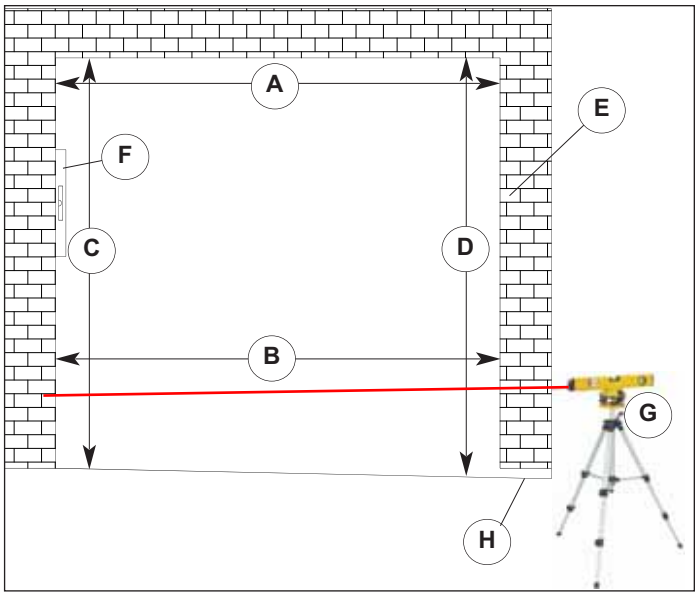


Figure 4.1

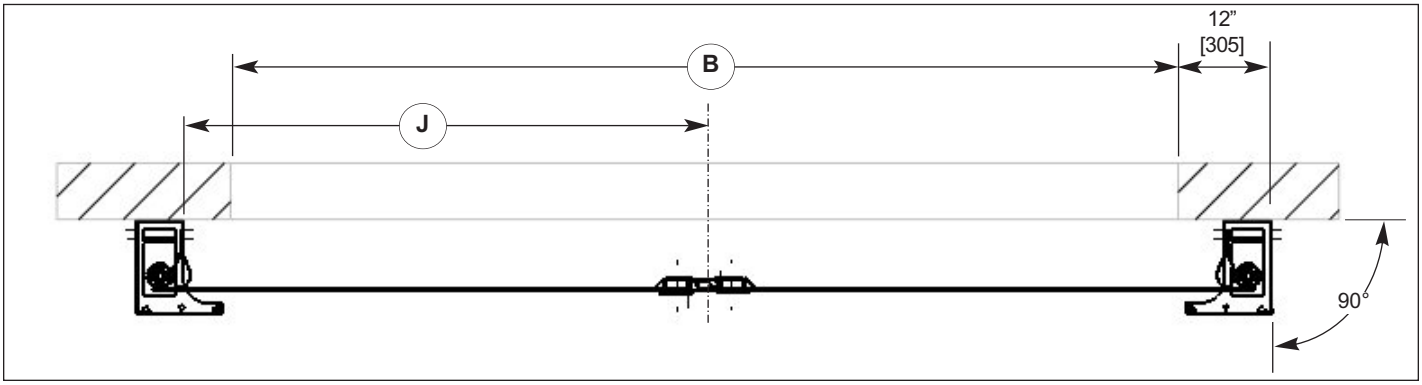


Figure 4.2

CHAPTER 1 - SUGGESTED MOUNTING METHODS

Acceptable Fasteners

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

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

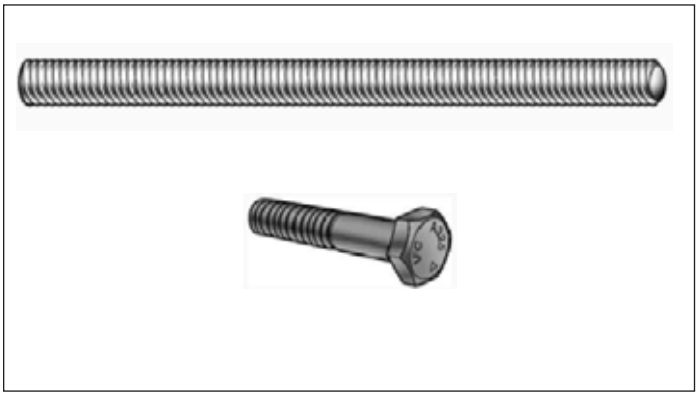


Figure 5.1

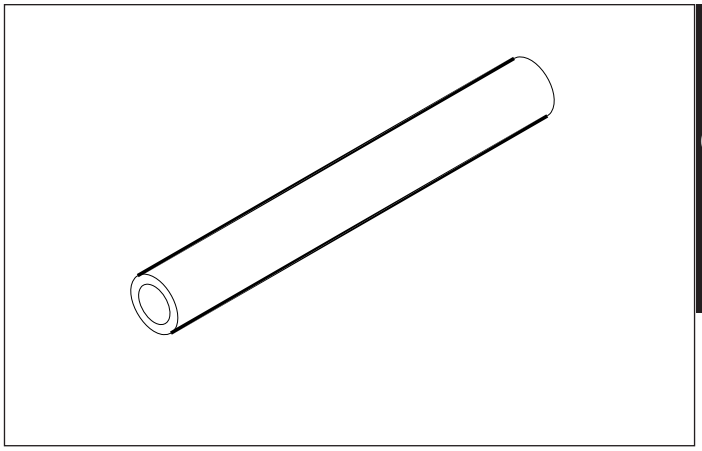


Figure 5.2 - Wall Sleeve - 3/8” [10] ID Ø

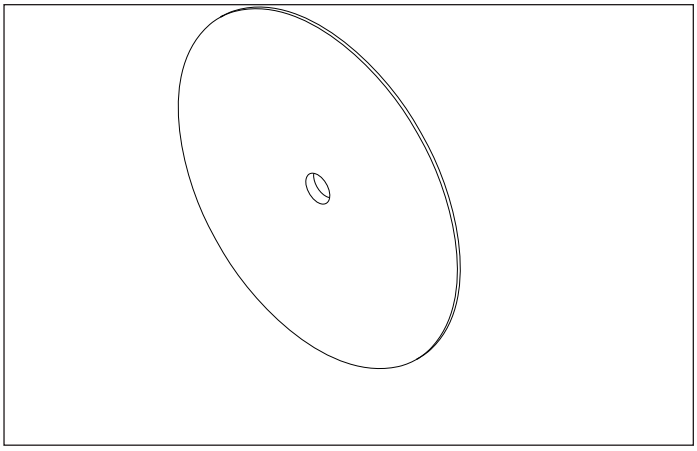
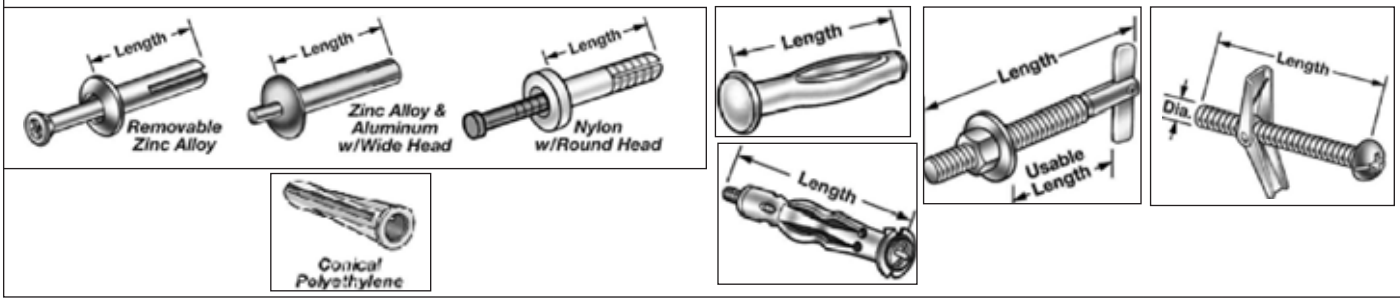


Figure 5.3 - 1/8” [3] x 6” [152] Ø Back Plate

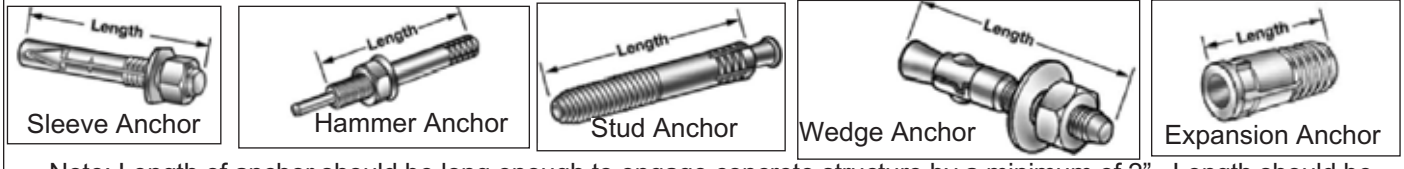
Unacceptable Anchor Types

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.



Acceptable Anchor Types

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



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

CHAPTER 1 - SUGGESTED MOUNTING METHODS

C - Minimum 1/8" x 6"ø [6x152] Backer Plate (Supplied by Others)
D - Minimum Fasteners Required (Supplied by Others)
3/8" [10] for Header Bracket
1/4" [6] for Sideframe
F - Filler Board Ordered Through Rite-Hite or Supplied by Others
G - Insulation
H - 5/16" [8] Minimum Steel Member
J - Drywall
K - Wall Sleeve
L - Corrugated Metal Siding
M - 2"x6" [51x152] or Structural Steel Channel Backer (Supplied by Others)
N - Building Structural Member Angle Bracket (Supplied by Others)

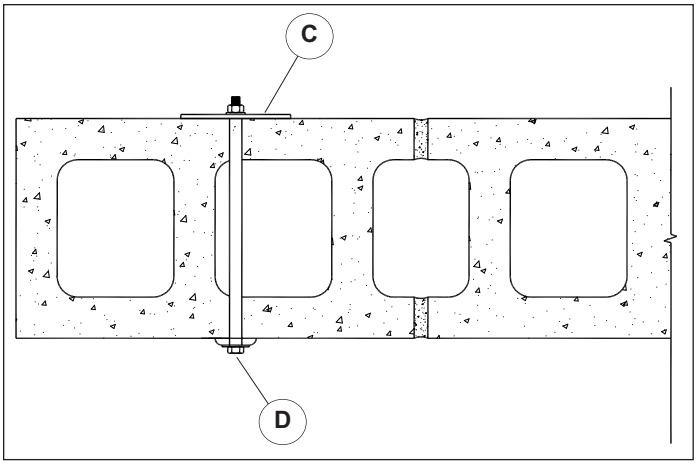


Figure 6.1 - Block Wall

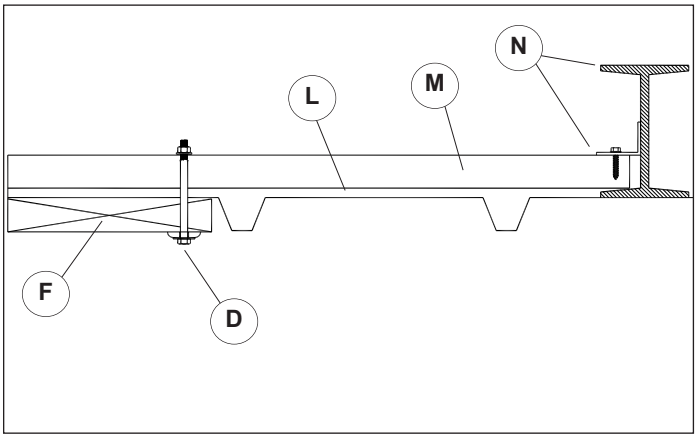


Figure 6.2 - Ribbed Metal Wall

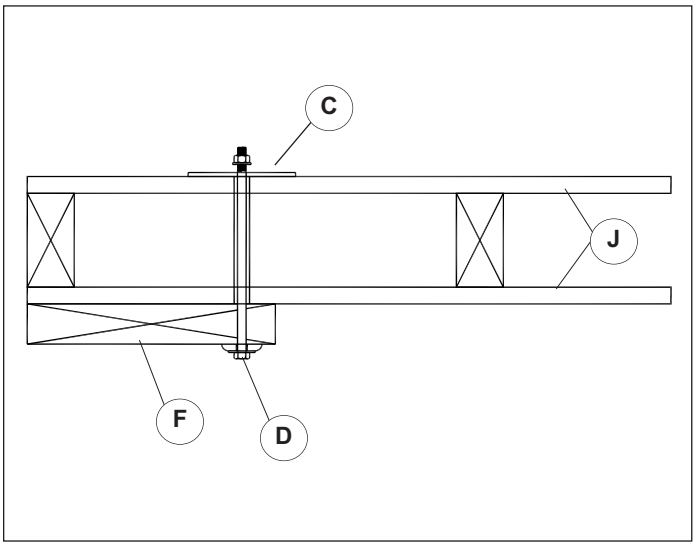


Figure 6.3 - Drywall

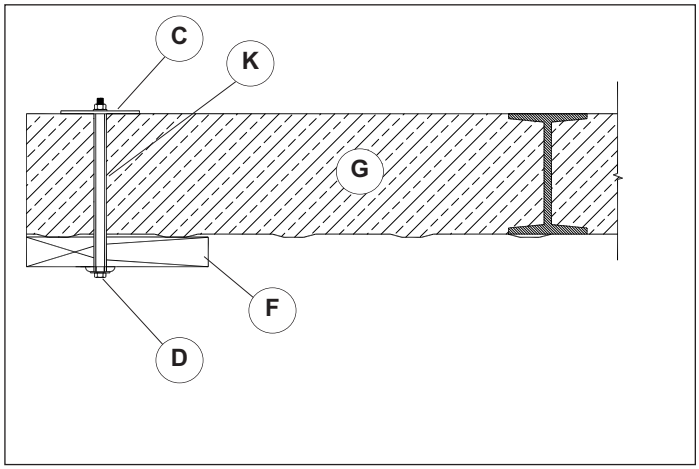


Figure 6.4 - Insulated Panel Wall

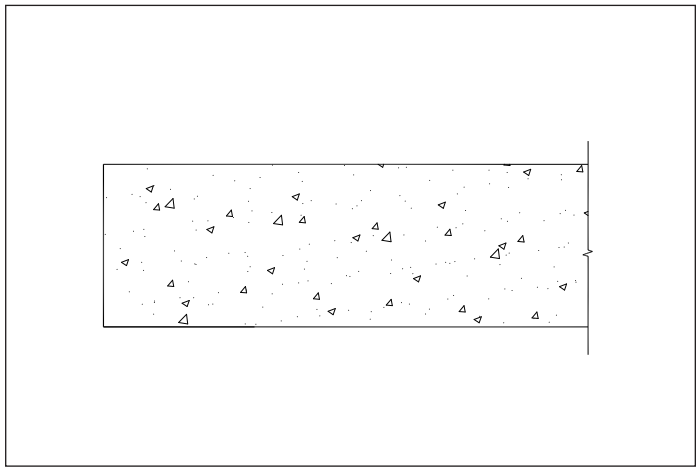


Figure 6.5 - Concrete Wall

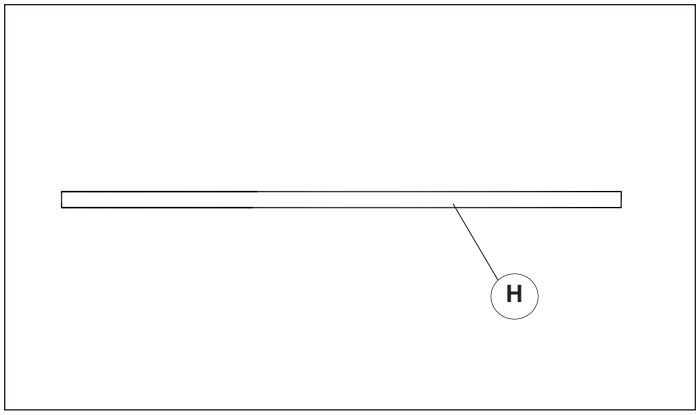


Figure 6.6 - Steel Member

CHAPTER 2 - FLOOR ASSEMBLED INSTALLATION

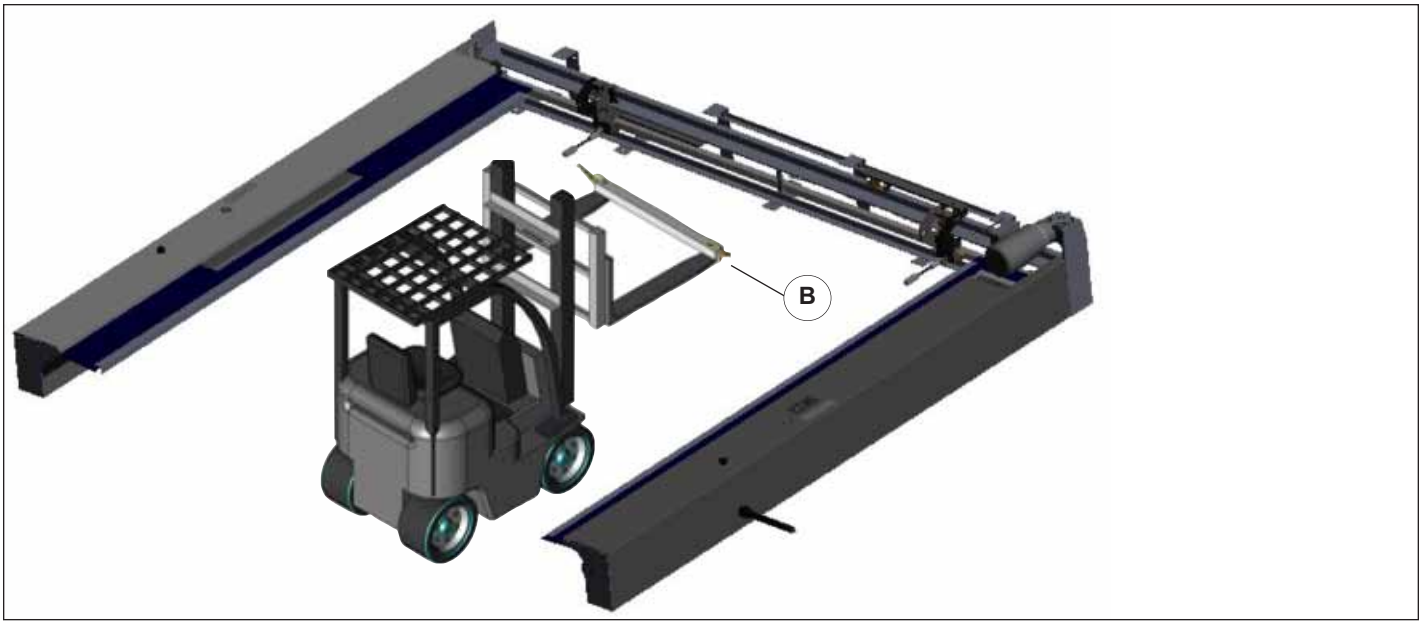


Figure 7.1

⚠ CAUTION

When lifting the sideframe, header or door assembly, DO NOT stand beneath, in front, or behind the unit. Stand only to the side.

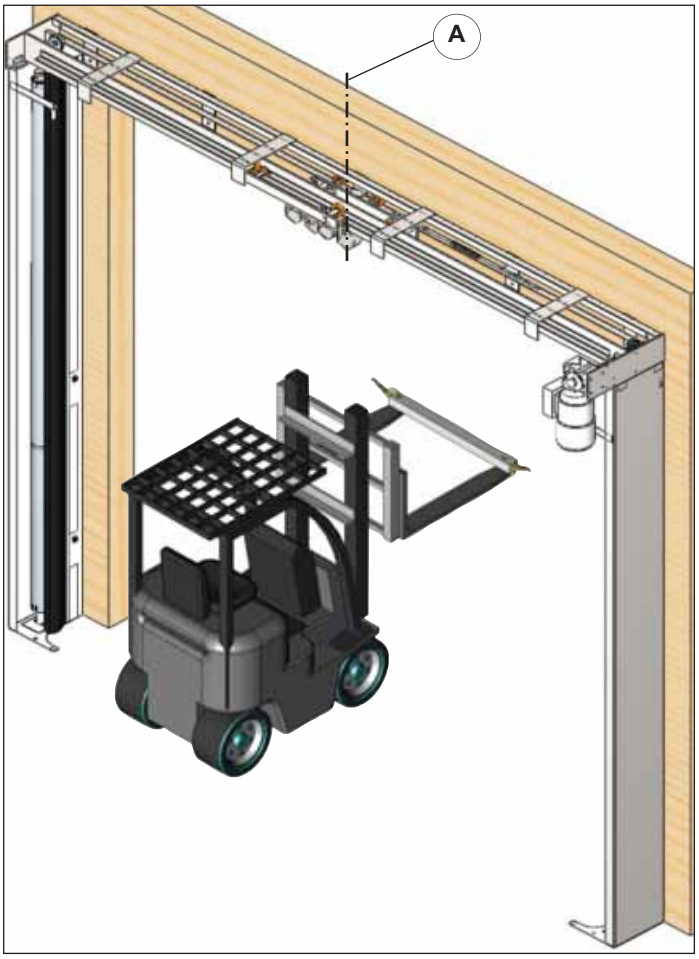


Figure 7.2

1. Place a 10” [254] mark (A) at the top, center of the opening and align center header tab with center of opening.
2. Assemble unit on the floor.
3. Stack (2) 2”x4” [51x102] boards (B) across the ends of the fork lift, clamp header to forklift and place header in front of the opening. Appropriate weight limit straps may also be used to lift. Header will be heavier on motor side, so slightly offset forklift toward the motor side.
4. Lift sideframe into position and plumb to within 1/4" [6], anchor to the floor and make sure the sideframe is 90° to the wall.
5. Anchor to floor after installing header (C).

CHAPTER 2 - SIDEFRAME INSTALLATION

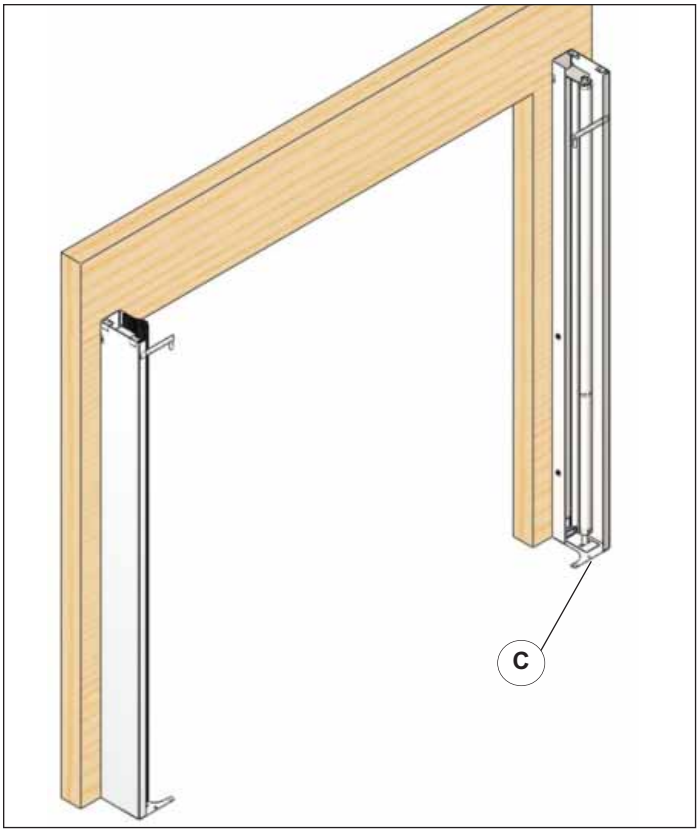


Figure 7.3

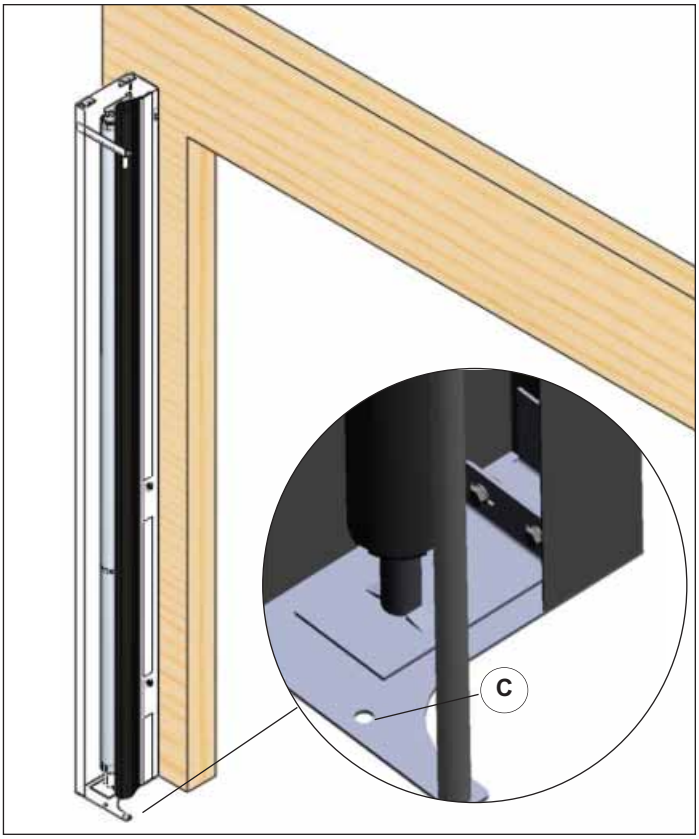


Figure 7.4

CHAPTER 2 - HEADER INSTALLATION

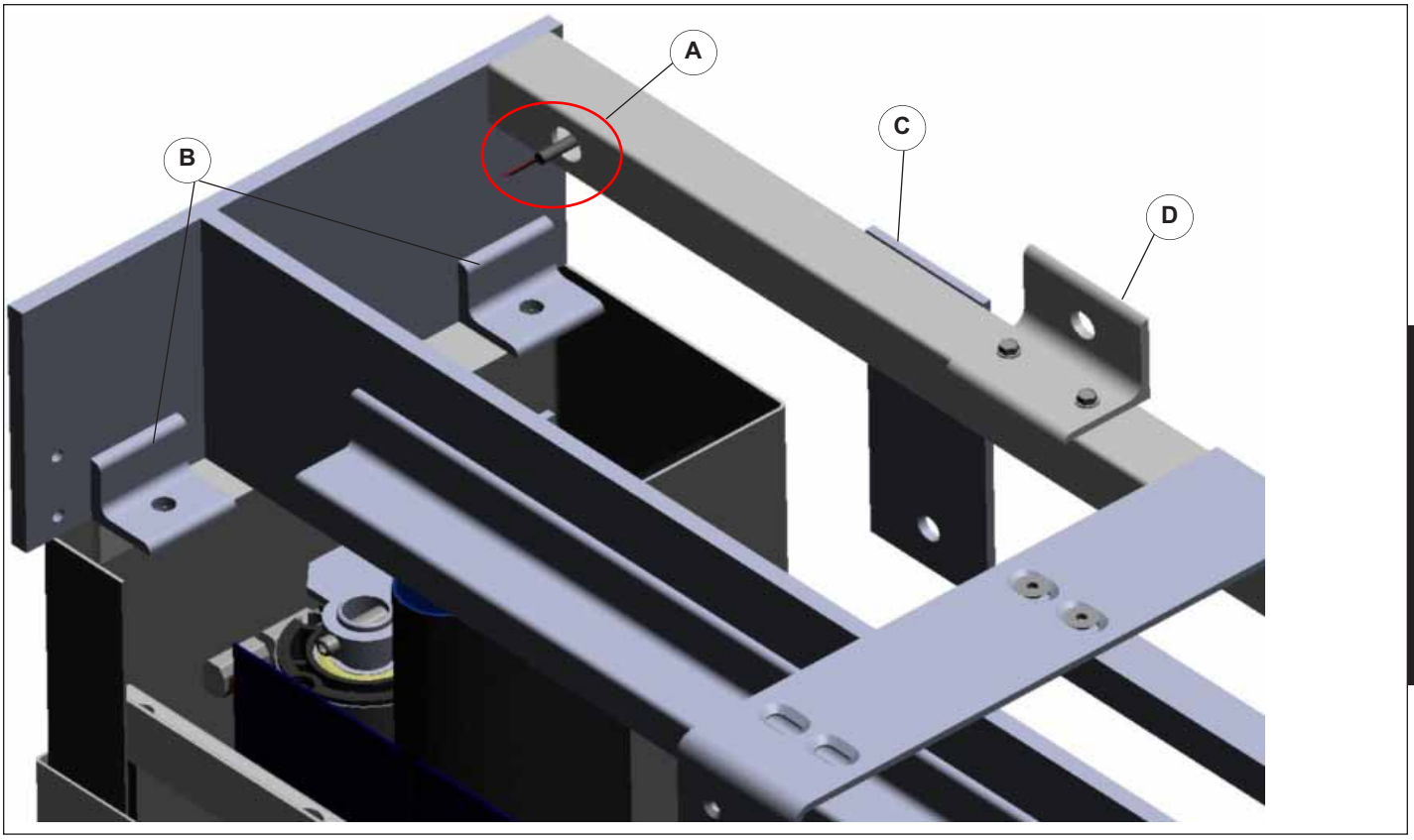


Figure 9.1

NOTE:

Header should be level to within 1/4" [6] and once header is set in place, fasten to the wall.

See Recommended Mounting Fastener for proper mounting, ***Pages 5 & 6.***

1. Make sure not to pinch cable (A) when installing. May be required to fish cable out of tubing.
2. Locate the proper mounting hardware - (4) 3/8" [10] bolts, nuts and lock washers (B).
3. Fasten header to the wall using the tabs (C) provided, a minimum of each end and at the center need to be used.
4. Header mounting brackets (D) are pre-installed, but can be moved where best suited for installing to a solid structure. The location chosen matches up with the center shroud, if moved, the shroud may need to be modified.
5. Prior to winding the curtain, connect non-drive photoeye wires (E) prior to winding curtain.
6. Prior to winding the curtain, connect drive photoeye wires and control box motor/brake cables. Make sure to ground to sideframe

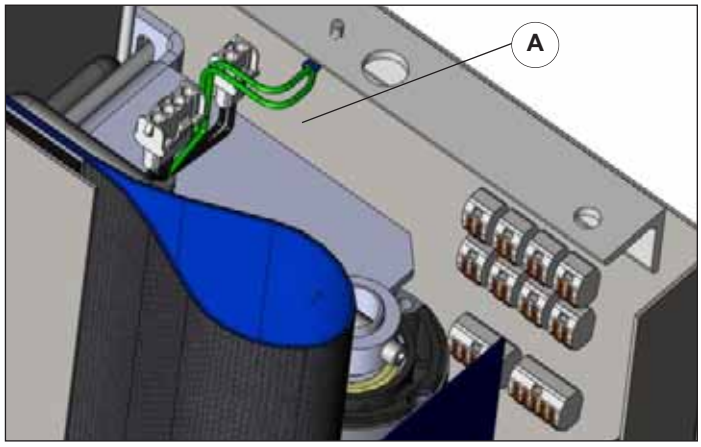


Figure 9.2

NOTICE

Header MUST be installed so it does not bow. Shim header as required to make sure it does not bend.

CHAPTER 2 - LEADING EDGE ARM INSTALLATION

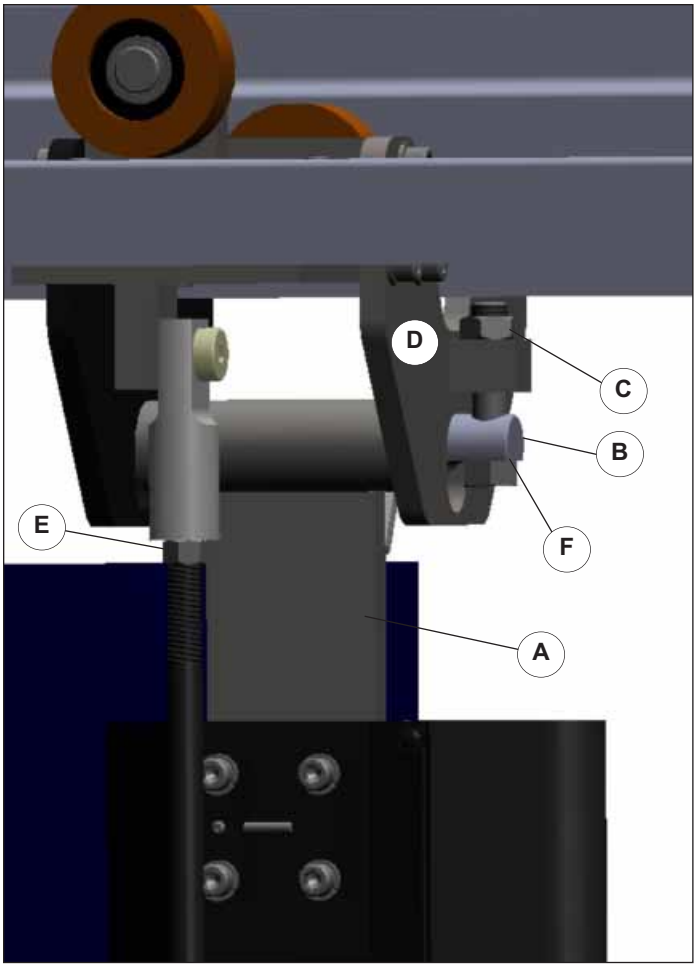


Figure 10.1

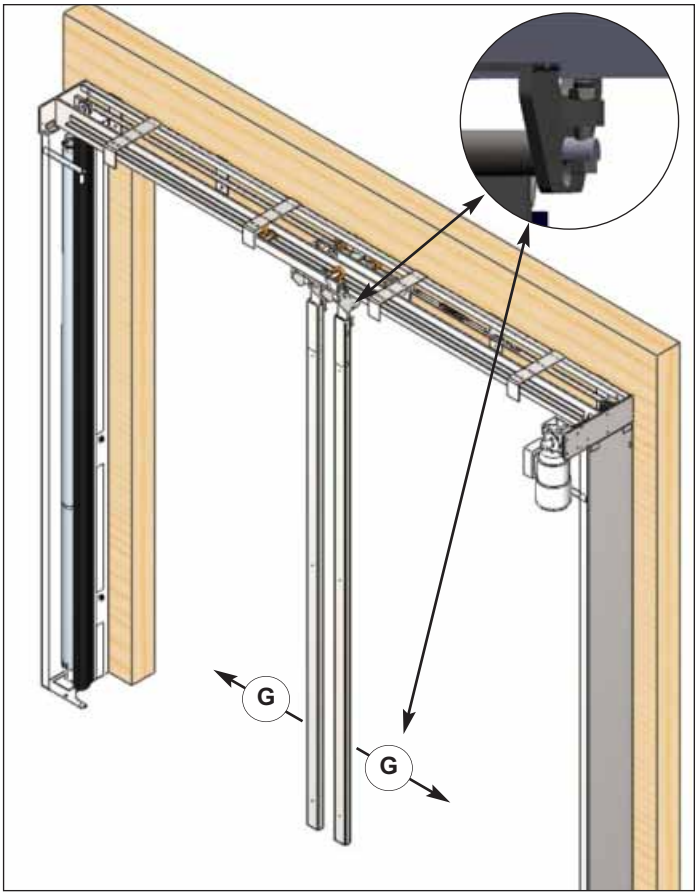


Figure 10.2

1. Locate the leading edge arms (A), pivot pins (B) and 1/2”x2 1/4” [13x57] hex head bolts and jam nuts (C). Install leading edge tubes into header trolleys (D) with tension arm bracket (E) to the back of the door.
2. **Flat side of pin will face down (F). Use to adjust leading edges side to side. (Installed at factory).**
3. Adjust bolt, such that when leading edge is pulled it is plumb (G).
4. Manually release the brake and position leading edge arms so they are about 4’ [1219] apart.

CHAPTER 2 - CURTAIN INSTALLATION

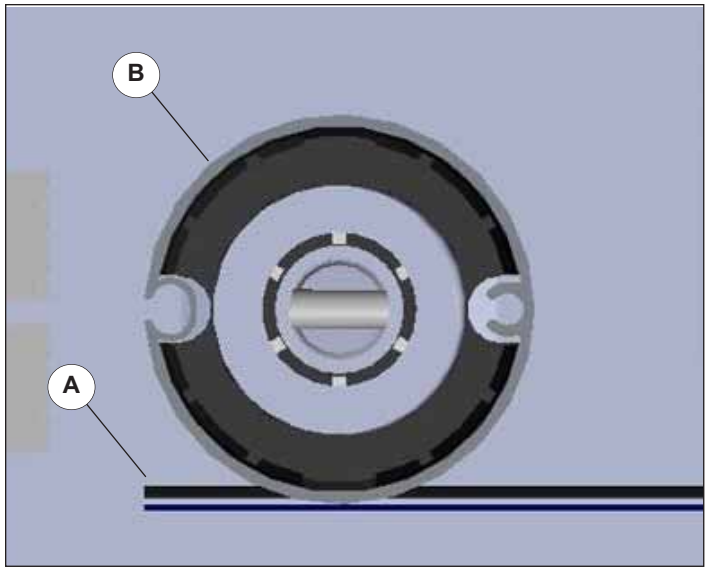


Figure 11.1

1. Wind curtain (A) roll tube (B) (6x) as Follows:

   Right Side - Clockwise (Shown)

   Left Side - Counter-Clockwise

2. Once six winds have been added, remove the strap securing the curtain to the roll tube.
3. Pull the curtain out of the sideframe and past the leading edge arm to remove wrinkles from the curtain.

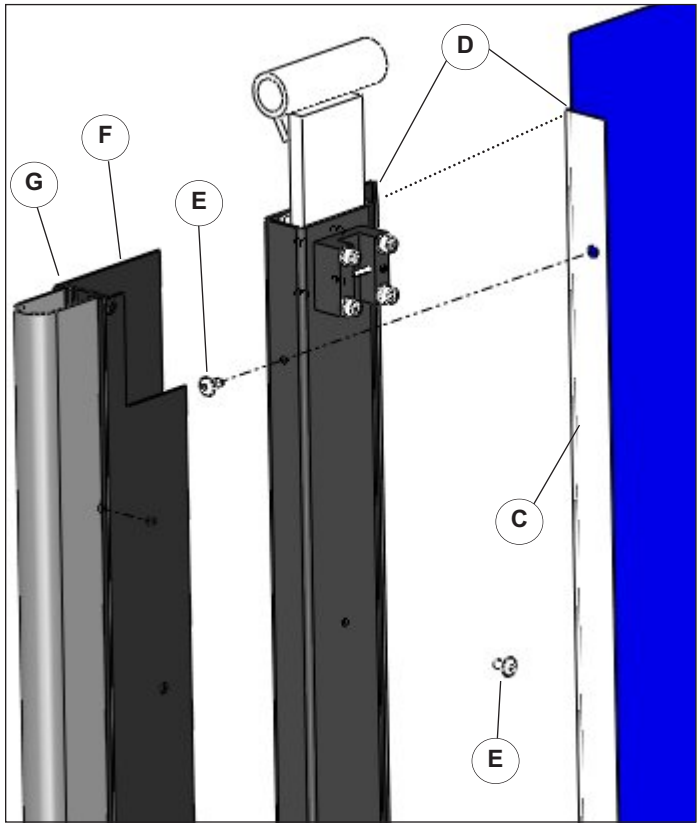


Figure 11.2

Clamp the aluminum angle (C) at the end of the curtain to the leading edge tube and fasten with the 1/4-20 BHCS (E) using the tapped holes. Top of aluminum angle should be flush (D) with top of leading edge tube.

4. Attach nose seal cap with longer leg (F) toward front. Line up the pre-punched slots in the leading edge with the tapped holes in the tube. Adjustment can be achieved by loosening the fasteners and moving in the slots.
5. At the top and bottom of the nose seal are two screws (G) holding the rubber seal in place. To make adjustments, remove screws and either raise or stretch to lower and replace screws
6. To prevent top of curtain from being loose, an extra strip of curtain is installed at the top. Adjustment may be required after operation.
7. Fasten the tension arm to the leading edge. Door's < 8' tall, require tension arm covers (H).
8. DO NOT rotate adjustment arm past where there will be less than 1/2" [13] of thread engagement (J).
9. Tighten jam nuts to prevent loosening (K).
10. Tension arm cable (L) prevents parts from falling should an impact occur.
11. Sheer pin (M) may break should an impact occur.
12. Set screw (N) holds shear pin from falling out.

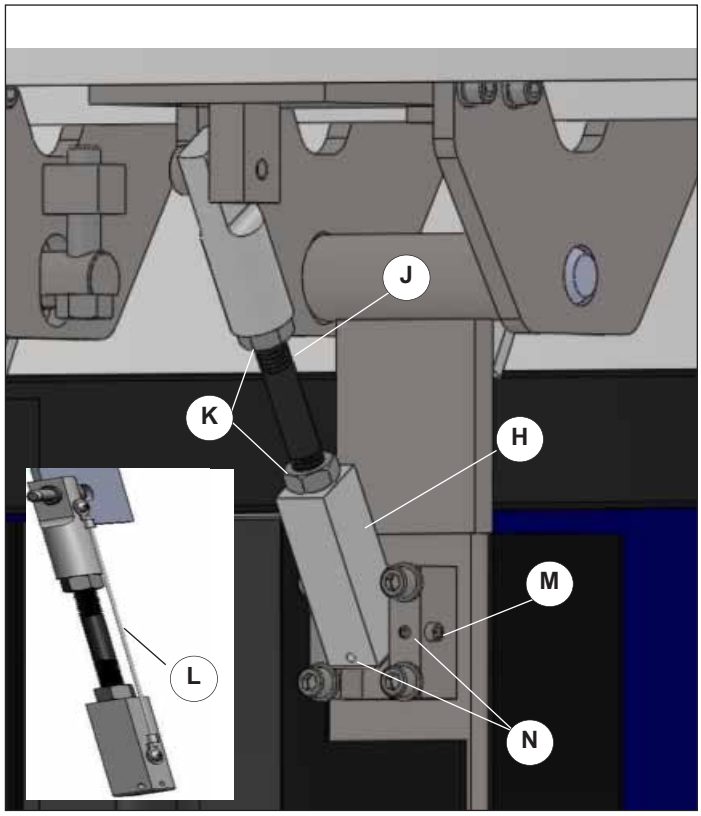


Figure 11.3

CHAPTER 2 - SEAL INSTALLATION

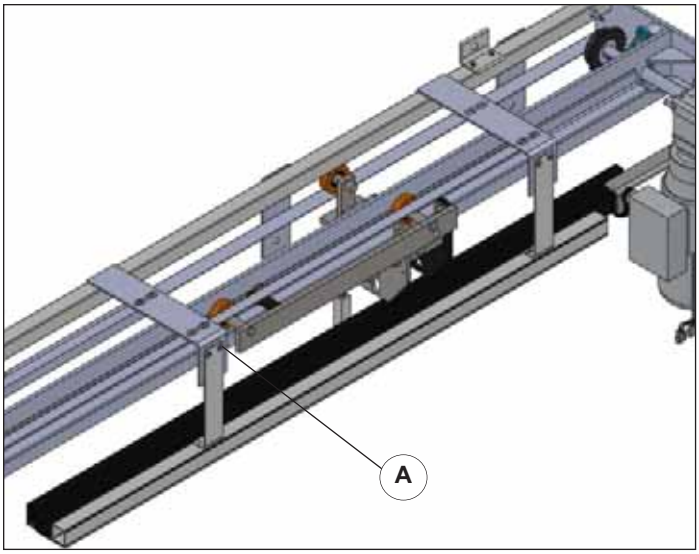


Figure 12.1

1. Attach right and left lintel seals (A) to header brackets. Feed curtain into brush seal groove.

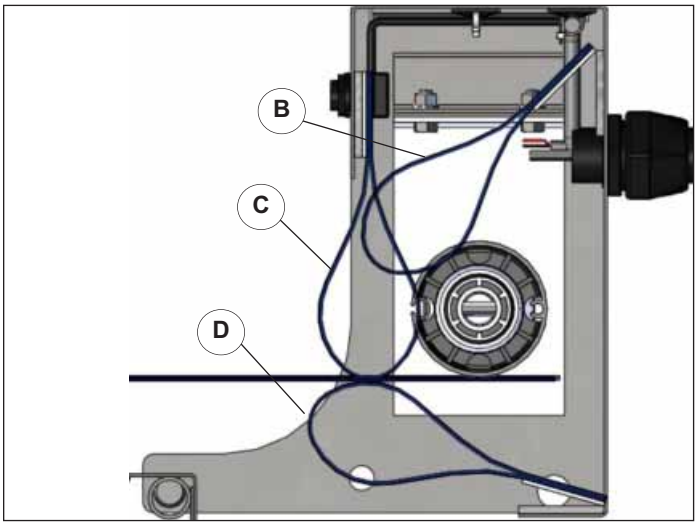


Figure 12.2

2. Ultra Seal (B) standard on Pharma and optional on non Pharma.
3. Pre-installed curtain back seal (C).
4. Pre-installed curtain front seal (D).
5. Only if optional removable seal was ordered. Unwind curtain from the tube far enough to expose the aluminum tube at the bottom with the hole in it, ***Figure 12.3.***
6. Once exposed, place a bar (E) in the hole and rest up against the corner of the sideframe.
7. Zipper (F) start point is the back of the sweep.
8. Using the zipper, attach (G) bottom seal.
9. If seal is too long, trim below sew line (H).

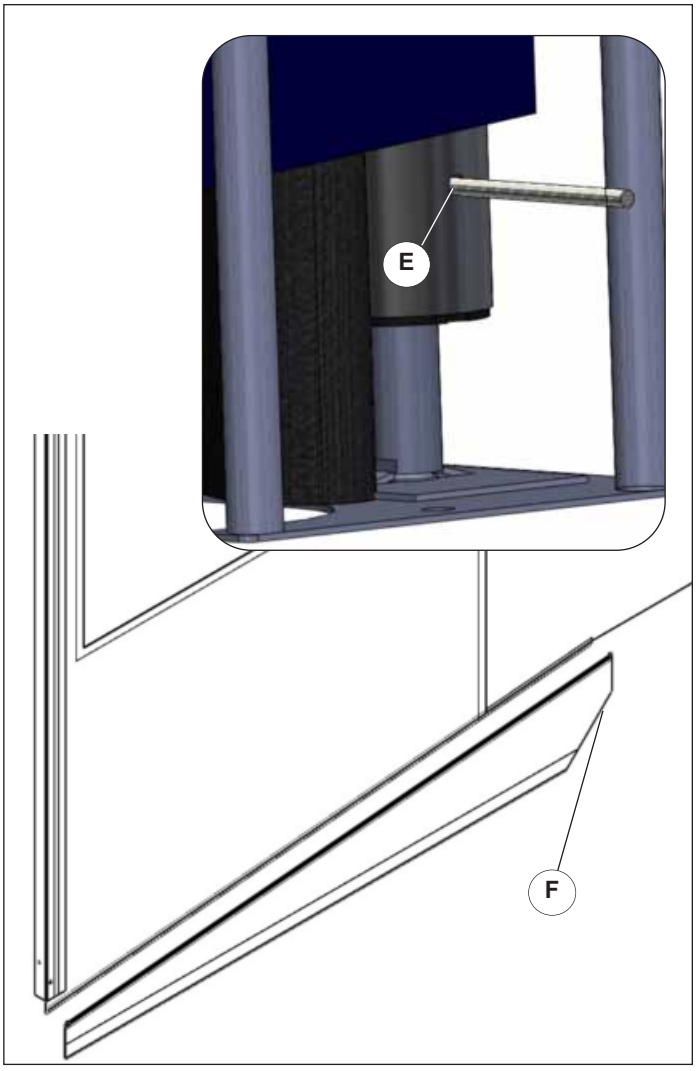


Figure 12.3

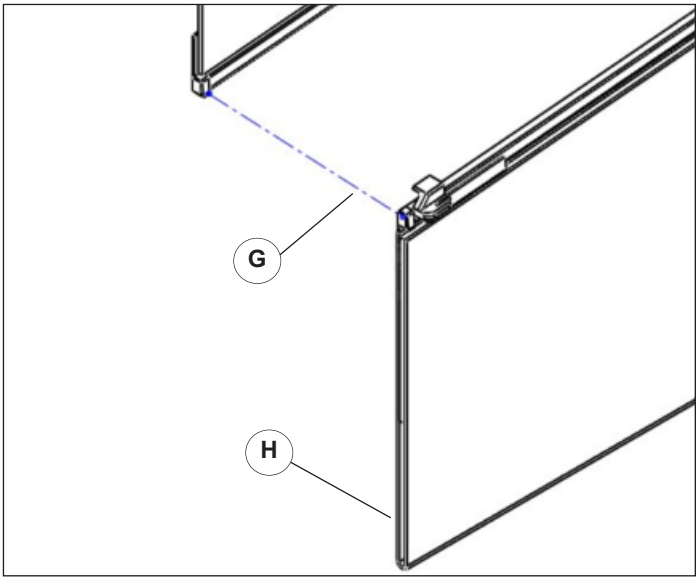


Figure 12.4

CHAPTER 2 - SIDEFRAME COVERS INSTALLATION

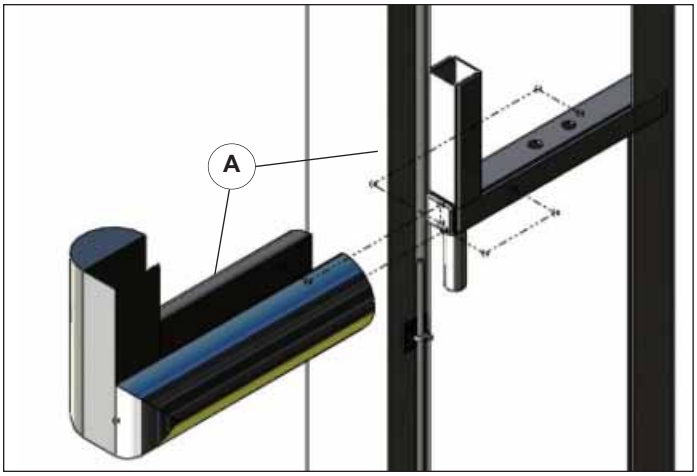


Figure 12.5

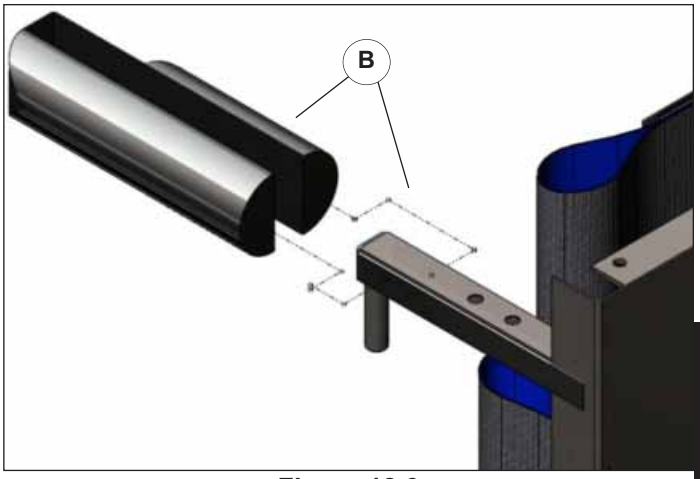


Figure 12.6

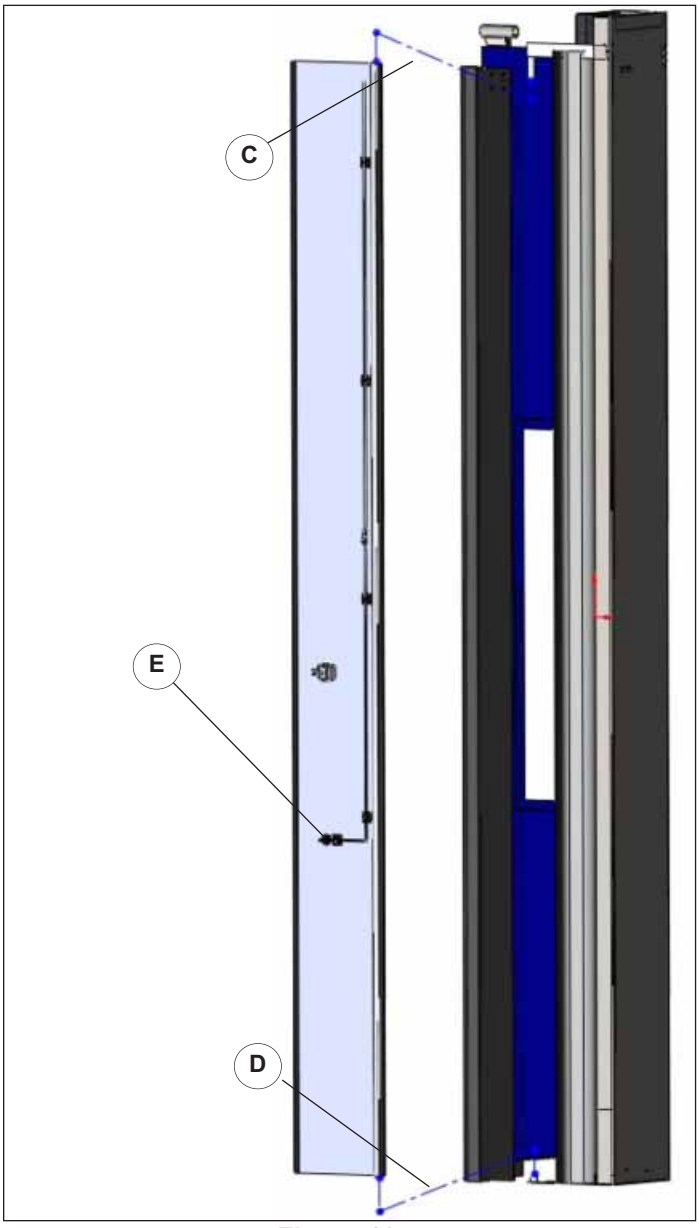


Figure 12.7

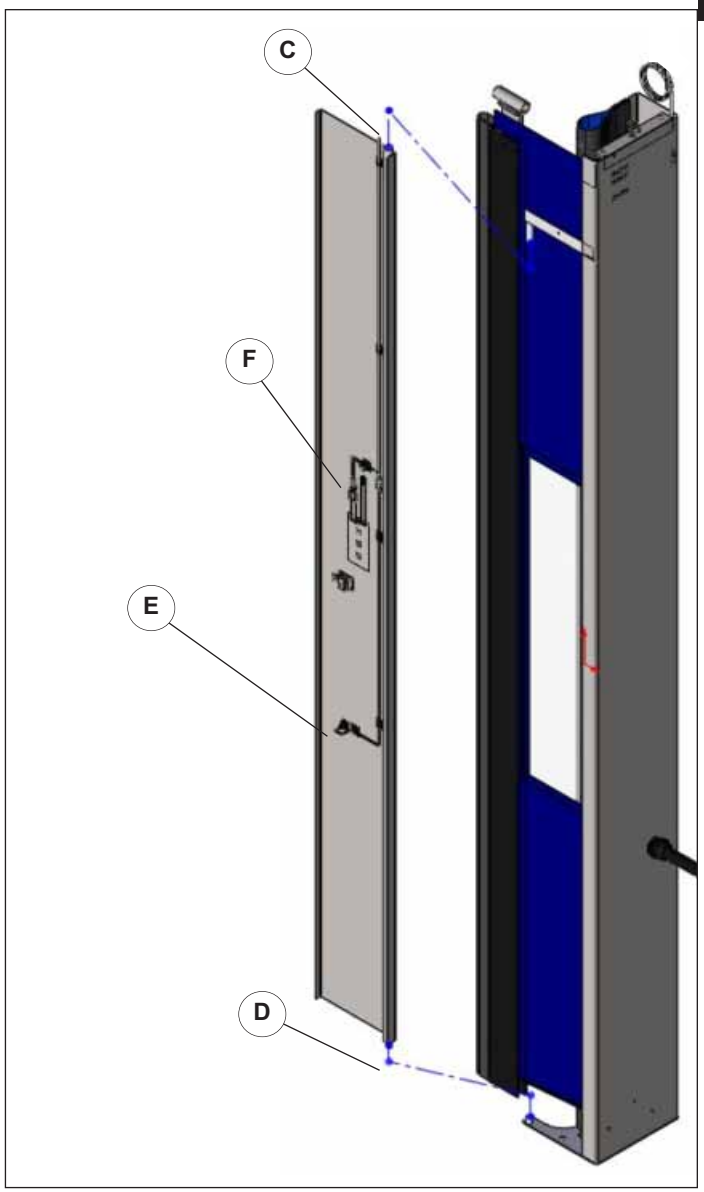


Figure 12.8

CHAPTER 2 - SIDEFRAME COVERS INSTALLATION

1. **Pharma door or with Ultra seal option.** Drive sideframe seal (A).
2. **Pharma door or with Ultra seal option.** Non-drive sideframe seal (B).
3. Slide top of the front cover pipe (C) over the pin on the header.
4. Slide bottom of the front cover pipe (D) over the pin on the sideframe bottom plate.
5. Install photoeye (E) in the pre-drilled hole on the front cover, route wire and fasten with ties and clamps provided.
6. Membrane Switch (F).

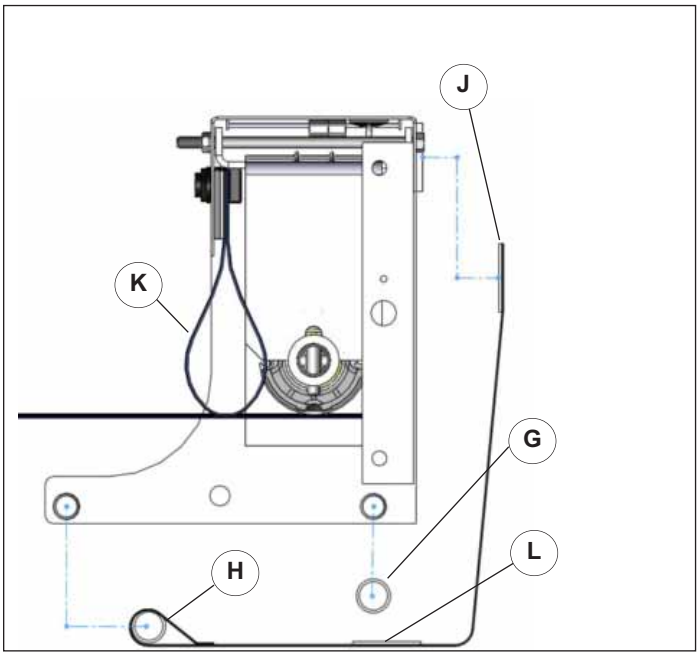


Figure 12.9 - Fabric Sideframes Only

7. Locate the center pipe, place top end around pin, lift and place over pin at the bottom (G).
8. Slide pre-installed pipe on fabric cover (H) over pins at the front edge.
9. Stretch fabric cover around center pipe, around to the back and attach fabric cover to sideframe using hook and loop fastener (J).
10. Rear sideframe seal (K) is factory installed.
11. Front seal (L) is attached to the fabric sideframe.

CHAPTER 2 - ENCODER INSTALLATION

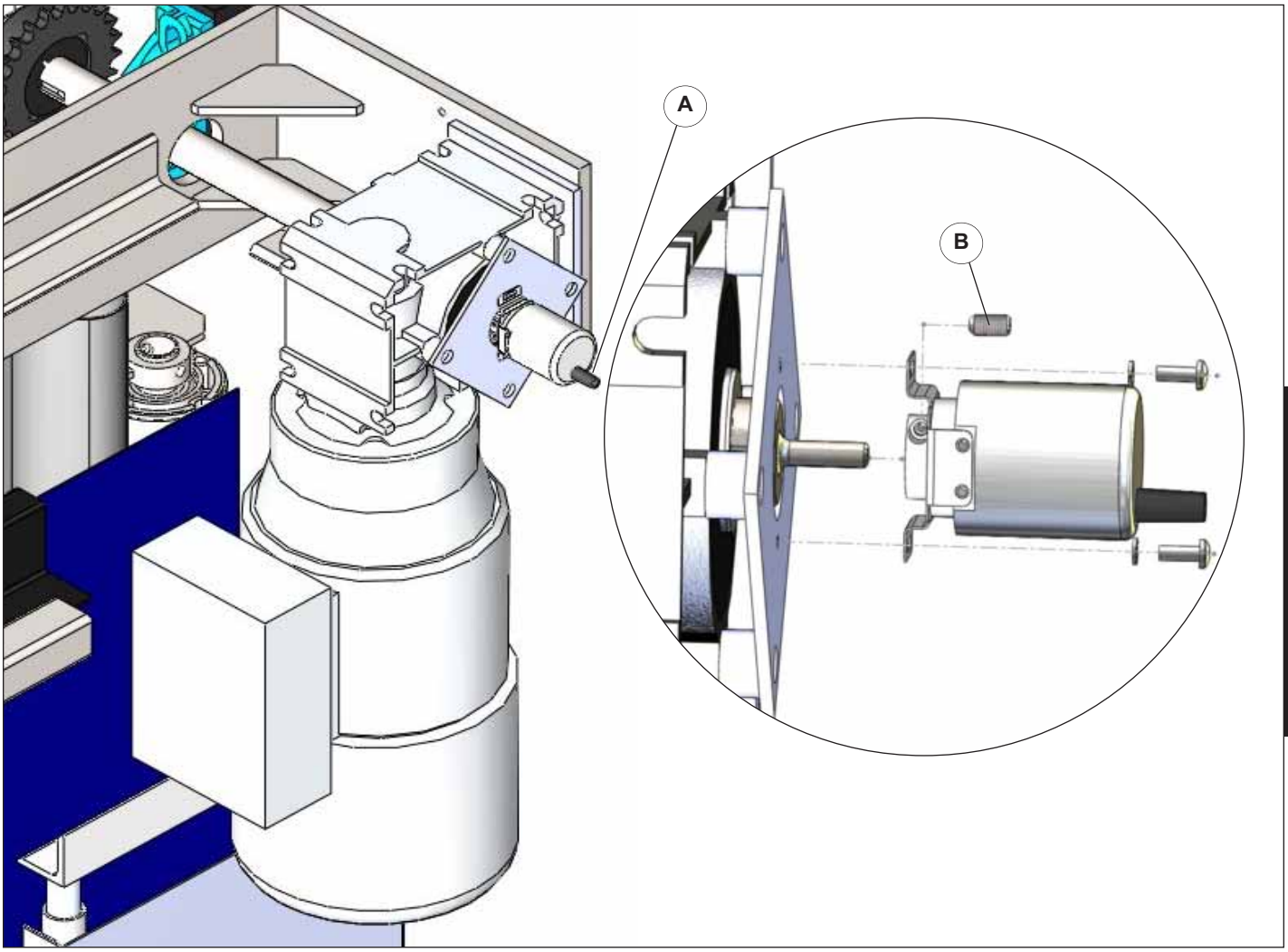


Figure 15.1

1. Locate encoder cable (A) at the top of the drive sideframe and route to encoder.
2. Place encoder onto drive shaft with connector toward bottom and center of door. Tighten lock collar set screw (B) (2MM) to 14 in/lbs.
3. (C) **Steel Sideframes:** Uncoil steel cable that is pre-attached to the brake handle.

   Route cable down inside sideframe and attach to the brake release handle.

   (C) **Fabric Sideframe:** Uncoil cord and let hang.
4. Attach cable end to brake release arm (D).

   To release brake, lift up on brake release handle.

   If handle does not release brake, adjust cable at the top, by loosening bolts and adjusting cable.

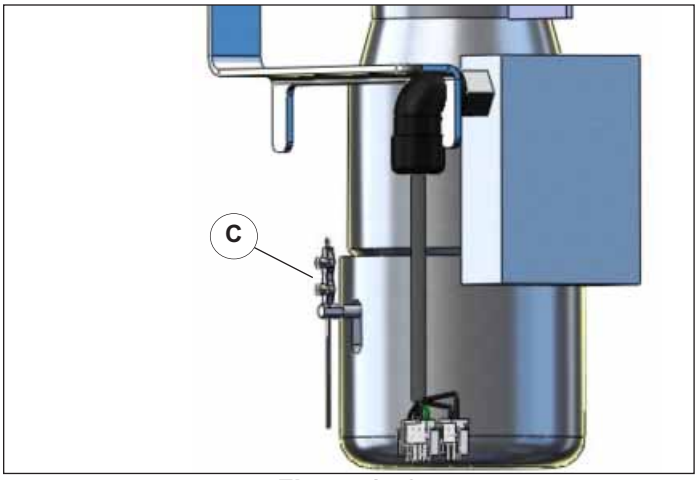


Figure 15.2

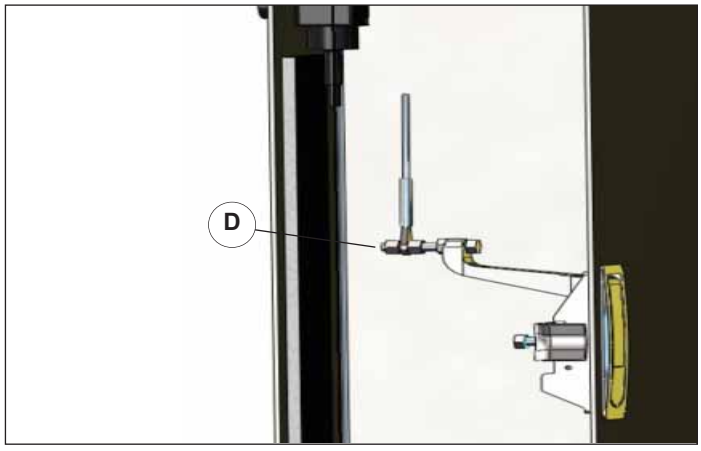


Figure 15.3

CHAPTER 3 - ELECTRICAL INSTALLATION

DANGER

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

DANGER

A qualified electrician should install the wiring in accordance with local and national electrical codes.
Use lockout and tagout procedures to avoid injury.

DANGER

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

NOTICE

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

NOTICE

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

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.

NOTICE

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

1. It is the responsibility of the end user to provide electrical service up to the control box with proper branch service protection and an approved means of disconnect.
2. All control boxes should be mounted on the warm side regardless of door mount side.
3. Mount the control box on a wall adjacent to the door at approximately 54" [1372] above the floor level.
4. The incoming power terminals in the control box will not accommodate wires larger than 12AWG. 20 or 30 Amp service may be required for cable runs longer than 300'.
5. The control box is provided with class CC protective fusing for the incoming power.

NOTE: Local electrical codes may require the use of rigid conduit, rather than flexible conduit. If required, remove the control cables from the furnished flexible conduit, install the rigid conduit in its place and rewire. Make sure to remove and replace the conduit connector in the bottom of the control box.

6. **DO NOT splice wires.**
7. **Drill a hole for the power supply cable (by others) in the BOTTOM of the control box using the proper connection to maintain the NEMA rating on the enclosure.** Incoming 3-phase power must connect into fuse holder terminals F1, F2, and F3. Ground must attach to the green/yellow terminal. All holes drilled through the control box must be through the BOTTOM of the box, ***Figure 16.1.***
8. Route all field installed wires so that separation is maintained between line voltage wires and low voltage class II wiring. Electrical prints included in the control box supersede any prints included in this owners manual on ***Pages 35-39.*** Always check parts or control box for prints.
9. Membrane (A) & photoeye (B) connections. Conductive tape (C).

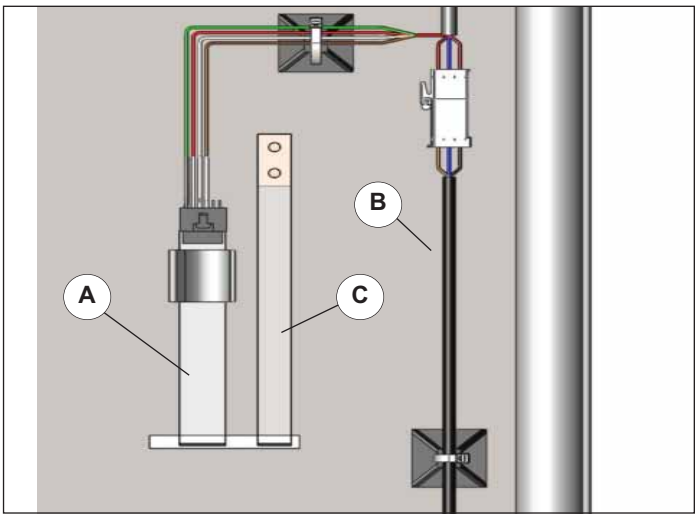


Figure 16.1

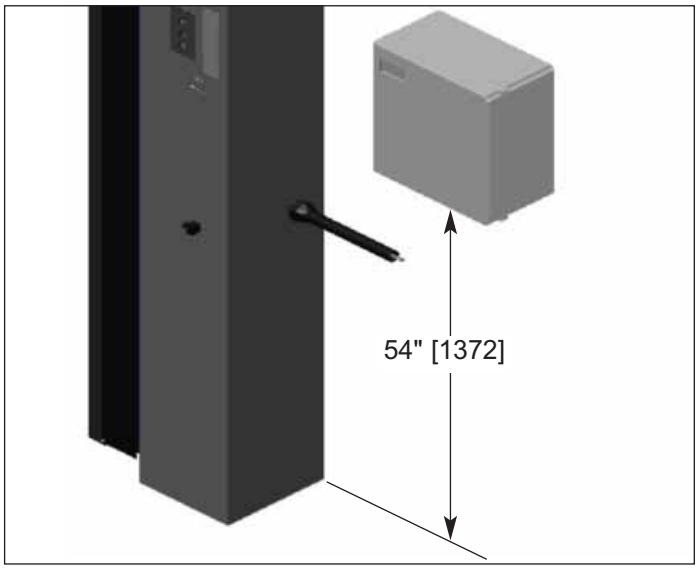


Figure 16.2

CHAPTER 3 - ELECTRICAL INSTALLATION

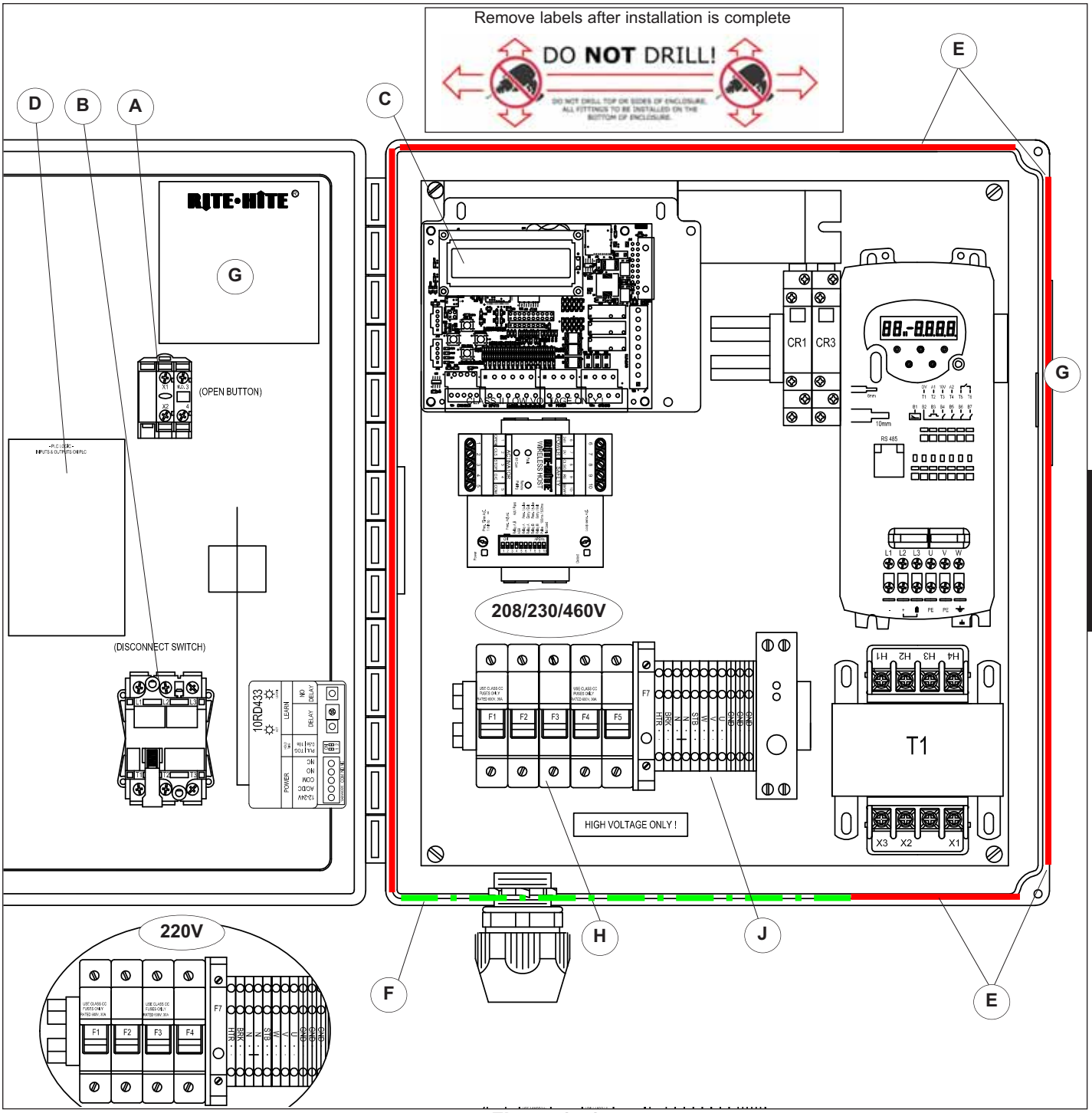


Figure 17.1

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

   a) Rotate the red disconnect switch to the "ON" position.

   b) Press the "OPEN/RESET" button to reset and open the door.
3. The i-COMM (C) is used to control all functions of the door.
4. Note label (D) inside control box that is a ready reference to the i-COMM inputs and outputs, ***Page 18.***
5. Red Bold solid line (E) indicates un-safe area for drilling holes
6. Green Bold dashed line (F) indicates safe area for drilling holes
7. Serial # label (G).
8. F1, F2, F3 incoming power terminals for 230/460/400/575V 3Ø Configuration (H).
9. DO NOT wire incoming power into these terminals (J).

CHAPTER 3 - i-COMM LOGIC CHART

RITE-HITE DOORS

SplitSecond ™ Series
i-COMMII Quick Reference

INPUT TABLE	
Input	Function
X0	Open PB
X1	Stop PB
X2	Torque Reverse
X3,X6,X7	Activation Command
X4	Close PB
X5	Toggle Command
X8*	Unused
X9*	36" Photoeye
X10*	18" Photoeye Input
X11*	54" Photoeye Input
X12	Open/Reset PB
X13	Induction Loop Input
X14*	Fault Input
X15*	Input Power

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

* Not shown in I/O menu and not programmable

Encoder Adjustment Descriptions (Refer to i-COMM II and Owners Manuals for additional detail)	
Open Distance	Use this option to set the overall opening distance of the door (in feet). This measurement is used for initial position setup only. For small adjustments of the open and close position, use “Close Position Adjust” or “Open Position Adjust”
Set Close Position	Use this option for initial position setup. Manually place door in the close position and select this option. Alternatively “Set Open Pos.” can be used if it is more convenient to place the door in the open position.
Set Open Position	Use this option for initial position setup. Manually place door in the open position and select this option. Alternatively “Set Close Pos.” can be used if it is more convenient to place the door in the closed position.
Close Position Adjust	Use this option to make small adjustment to the closed position. The number displayed is the relative displacement of the closed position.
Open Position Adjust	Use this option to make small adjustment to the open position. The number displayed is the measurement between the open and closed position.
Motor Drive Side	Not used on SPLIT SECOND DOOR.

Timer Adjustment

1. Press [ENTER], Controller will stop and fault door.
2. Press [UP] or [DOWN] until the timer folder is displayed.
3. Press [ENTER], to enter the timer folder.
4. Using [UP] & [DOWN] keys select desired timer.
5. Press [ENTER] to view the current timer value.
6. Use [UP] or [DOWN] keys set the desired value.
7. Press [ENTER] to save the value and return to the timer folder.
8. Press [BACK] until "Door Faulted" is displayed.
9. Reset Door.

Preannounce Timer is the amount of time the Preannounce to close output will be on before door closes.
Close Timer is the amount of time the door will remain open before the preannounce to close timer activates
Autocycle Time is the amount of time between each automatic cycle of the door (disabled by default).

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CHAPTER 3 - ENCODER SETUP

MUST complete before operating door.

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

1. To enter the menu press the ENTER button (right button), the Controller will stop and fault the door.
2. Use the Up or Down buttons to navigate the folders.
3. When the desired item is selected press enter to view the value or setting.
4. Use the buttons to change the value if needed. Once editing is completed press ENTER to return to the main menu.
5. ***When settings are completed, press the back button to exit menu.***
6. Changes are not saved until the menu mode is exited. Turning power off while in the menu mode will cancel all changes.

ENCODER SETUP INSTRUCTIONS

1. Verify wiring to encoder is properly terminated.
2. Place curtain in the closed position.
3. Power up the door and press enter button, should state **"MAIN MENU - ENCODER FOLDER".**
4. Press enter should state **"Open Distance".**
5. Press enter to view parameter value (measured in feet), should be O.D.H. - (two) 2'. Change the value using the up or down buttons, round down if required, press enter.
6. Press up button, should state **"Set Open Pos."** (use if curtain is open) or **"Set Close Pos."** (use if curtain is closed) and press enter button, should state **"Set Open or Close Pos.) - RESET ALL LIMITS - Push Up to Start"**, press Up button.

Open and Close Position Adjustment

To adjust the OPEN position:

1. Using up button, scroll to **"Open Pos. Adjust".**
2. Press enter button to view parameter value. This parameter will show a coded value on the left and the opening height in inches on the right. This value will always be less than the door opening height.

   Change the value using the up and down buttons.

   To bring the curtain closer door jamb, adjust this value to be less than the current value. To open the door more relative to the floor, adjust this parameter in a positive direction. (i.e. To open the door 4" more, and the current value is 72.0". Change the value for **"Open Pos. Adjust"** to be 76.0"). Changing this value will not affect the close position.

To adjust CLOSE position:

3. Using up button, scroll to **"Close Pos. Adjust".**
4. Press enter button to view parameter value. This parameter will show a coded value on the left and relative change in inches on the right. When entering this parameter the value will always start at 0.0".

   Change values using the up or down buttons.

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

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

TIP: At any point in the menu mode, press the back button until screen states "Door Faulted - Service Required". This will cause the controller to automatically accept all the changes made and exit the system.

5. Test operation of door and continue adjustment.
6. Press green Open/Reset button.

   a. The door should begin to open, be ready to shutdown the door if it begins to move in the wrong direction. If motor phase is changed, start over at step #2.

   b. If rotation is correct proceed to the instructions for adjusting the "Open and Close positions".

7. Press the back (left button) to exit system.

i-COMM ii DISPLAY SETUP DESCRIPTIONS

OPTION	DESCRIPTION
Open Distance	Use this option to set the overall opening distance of the door (in feet). For example, for an 8' wide SplitSecond. This option should be set to "7" [178]. This measurement is used for initial position setup only. For small adjustments of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Close Pos	Use this option for initial position setup. Manually place door in the close position and select this option. Alternatively "Set Open Pos." can be used if it is more convenient to place the door in the open position. NOTE: This option approximately sets the open and close positions. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Set Open Pos	Use this option for initial position setup. Manually place door in the open position and select this option. Alternatively "Set Close Pos." can be used if it is more convenient to place the door in the closed position. NOTE: This option approximately sets the open and close positions. For additional adjustment of the open and close position, use "Close Position Adjust" or "Open Position Adjust"
Open Pos Adjust	Use this option to make small adjustment to the open position. The number displayed is the measurement between the open and closed position. For example if this option was set to 100" [2540] the door would open 100" [2540] from the closed position. It is recommended to adjust the closed position of the door first, before adjusting the open position.
Close Pos Adjust	Use this option to make small adjustment to the closed position. The number displayed is the relative displacement of the closed position. For example, if this option was set to -1.0"[-25] the door would close approximately 1.0" [25] more. If this option was set to 2.0" [51] the door would close 2.0" [51] less.
Apr Open Pos	Use this option to adjust the approach open position. This option is a measurement in inches from the open position. For example, if this option was set to 24.0" [610] the door would slow down 24.0" [610] from the open position.
Encoder Startup	The controller is waiting for valid data from the encoder. It the controller does not receive a response at startup, this will remain on the screen indefinitely. If this does not clear with 5 seconds, please check all encoder wiring.
Encoder Read	The controller is unable to read valid data from the encoder. Check all wiring and M12 cable connections. Ensure that the shield on the encoder cable is connected to ground, and that the control box is grounded. The error requires the power to be cycled to reset.
Encoder Velocity	The controller has received a signal from the encoder that the door is moving faster than allowed. This can occur if the encoder is not properly attached to the shaft (check set screw on encoder collar), bad electrical connection to the i-COMM, or improper grounding. The error requires the power to be cycled to reset.
Open time limit	Door tried to run, but did not reach the open or close position within 8 seconds.
Photoeye failure	Non-Drive PE's must have green light on, drive PE's must have red & yellow lights on. Check for alignment & power to each.

CHAPTER 3 - PROGRAMMING FOLDERS

Use the Enter, Up, Down, Back buttons on the i-Comm to navigate through the folders. To exit system, use back button until **"Door Faulted"** appears.

ENCODER FOLDER

See Folder Layout Chart to change / view settings.

* MUST perform encoder setup for door operation.

I/O SETUP FOLDER

See I/O Setup Layout Chart to change / view settings.

Use to setup Input and Output functions

TIMER FOLDER

See Timer Layout Chart to change / view settings.

Use to change reclose or preannounce timer.

GENERAL FOLDER

See General Layout Chart to change / view settings.

Use to setup Clock, Maintenance cycles

VIEW FOLDER

See View Layout Chart to change / view settings.

Use to view cycle count, fault history, door information.

LOAD / SAVE FOLDER

See Load / Save Layout Chart to change / view settings.

See Legal information.

Use for programming.

INVERTER FOLDER

See Inverter Layout Chart to change / view settings.

Use to change door speeds, torque settings.

i-COMM ii PROCEDURES

PROCEDURE FOR ADJUSTING RECLOSE TIMER:

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

PROCEDURE FOR SETTING CLOCK:

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

PROCEDURE FOR CHECKING FAULT HISTORY:

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

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

CHAPTER 3 - i-COMM ii DISPLAY MESSAGES

LCD DISPLAY MESSAGES:

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

Rev. 9.08.14

NOTICE

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

CHAPTER 3 - i-COMM ii LAYOUT

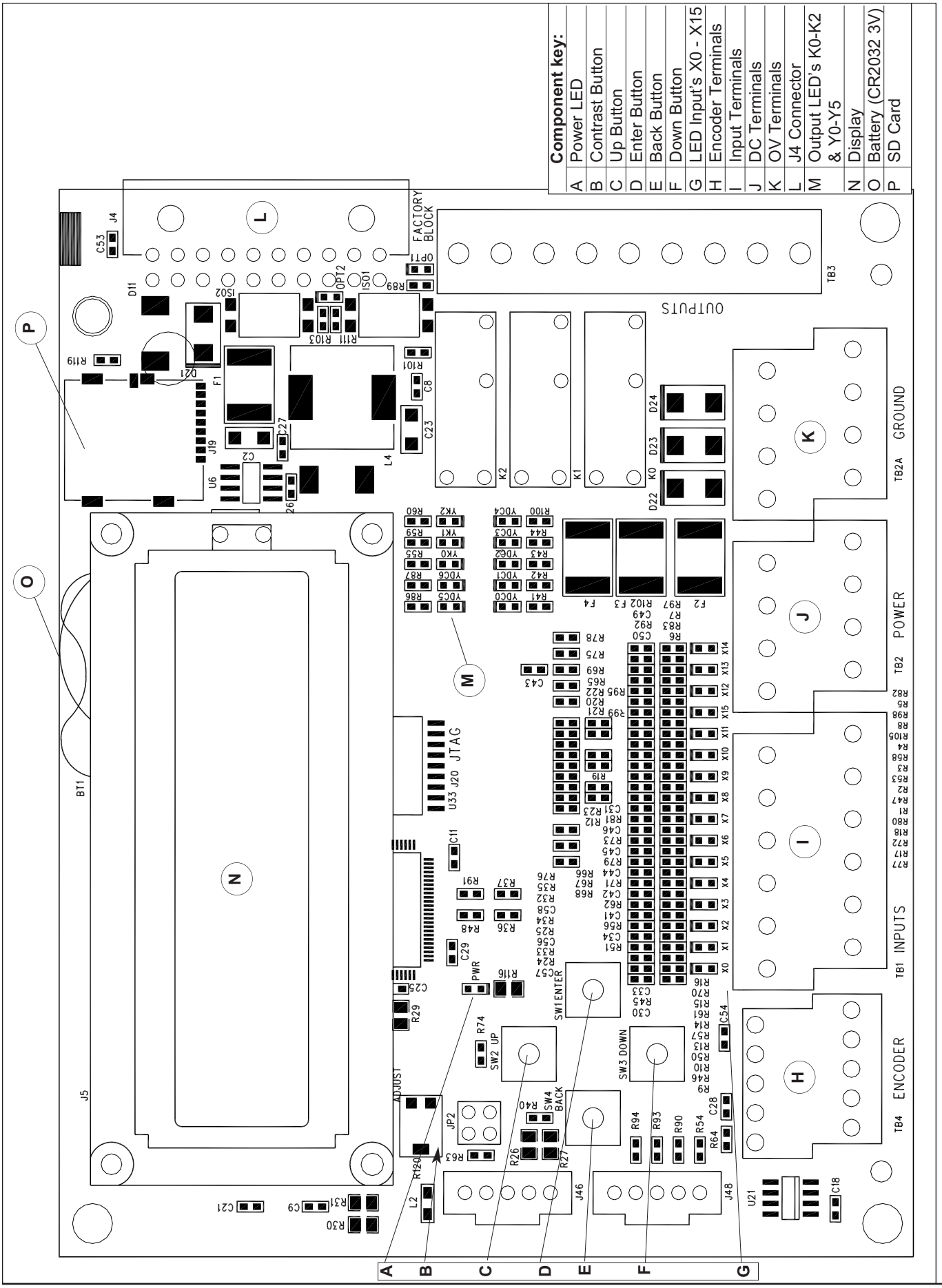


Figure 19.1

CHAPTER 3 - i-COMM ii INPUT / OUTPUT VALUES

TYPE	NUMBER	FUNCTION	DESCRIPTION
INPUT	0	Interlock In	Interlock Input - When Input is set to this function door will not open until input is ON. Valid only for inputs X3, X4, and X5.
	1	Stop N.C.	Stops the door when input is OFF
	2	Activation	Opens the door when input is ON, w/ Auto close.
	3	Toggle	Open and Closes the door when ON. Door will not automatically close when opened by a toggle input.
	4	Close	Closes the door when input is ON
	5	Sequential Activation	Activates door and blocks sequential activation output from triggering opposite door. Use only for sequential interlocks.
	6	Reverse	Reverses the door when input is ON.
	7	Stop N.O.	Stops the door when input is ON.
	8	Manual Open	Opens the door when input is ON. This input will open from a stop condition, unlike activation. Do not connect motion sensors or other automatic devices to a manual open input
	9	Auto / Manual	When input is ON reclose timer is disabled.
	10	Partial Open Activation	Opens the door to the partial open position when ON
	11	Partial Open Toggle	Toggle open/close door to and from partial open position. See function #3 above
	12	Toggle w/ Auto Close	Open and Closes the door when ON. Door will automatically close when opened by this type of toggle input.
	13	Hand / Auto Mode	When input is ON reclose timer is disabled and hold-to-run close is enabled.
	14	Disabled	Input disabled
	15	Reverse N.C.	Reverses the door when input is OFF.
	16	Clean	Opens door to "Cleaning" position when on.
	17	E-Stop N.C.	Places door in fault when OFF.
	18	Seq. Activation 2	Consult Engineering
	19	LZR in N.C.	Reverses the door when off and monitors the input for fault
	20	Preannounce to Open	Opens the door after the set amount of time in the Preann. to Open timer. Immediate reversal / activation if the door is not closed.
	21	Interlock Override	Opens the door and overrides any standard interlock configuration
OUTPUT	0	Interlock	ON when door is closed.
	1	Interlock N.C.	OFF when door is closed.
	2	Preannounce	ON during preannounce to close, and stays on until the door is closed
	3	Open	ON when door is open.
	4	Open N.C.	OFF when door is open.
	5	Fault	ON during fault.
	6	Ready	ON when not in fault.
	7	Activation	ON during activation.
	8	Run Open	ON during run open.
	9	Run Close	ON during run close.
	10	Run	ON during run open or close.
	11	At Limits	ON when door is open or closed.
	12	I-Zone Alarm	ON during I-Zone alarm
	13	Door Open 30 sec.	ON when door is open for more than 30 seconds.
	14	Door Open 60 sec.	ON when door is open for more than 60 seconds.
	15	Door Open 120 sec.	ON when door is open for more than 120 seconds.
	16	Sequential Activation	ON to activate opposite door. Use for sequential interlock.
	17	Run Open N.C.	OFF during run open.
	18	Run Close N.C.	OFF during run close.
	19	Run Close N.C.	OFF during run open or close.
	20	Disabled	Always OFF
	21	Flash 3.1 Hz	Flashes at 3.125 Hz.
	22	Flash 1.6 Hz	Flashes at 1.5625 Hz.
	23	Partial Timer	Consult Engineering
	24	Reverse / Activation	ON when any reverse command or activation signal is on.
	25	Door Open Alarm	ON when door has been opened for time set in "Open Alrm Time"
	26	Interlock Pass-Thru	ON when door is able to be opened (Interlock Input is not preventing door from opening)
	27	Interlock Pass-Thru N.C.	OFF when door is able to be opened (Interlock Input is not preventing door from opening)
	28	Preannounce & Close	ON during preannounce to close, and while closing. Note this output will turn on while door is closed from Toggle or Close command or re-close timer.
	29	Photoeye Test	ON when emitters are on, OFF to test photoeyes
	30	Encoder Bit 9	Consult Engineering
	31	Encoder Bit 10	Consult Engineering
	32	Encoder Bit 11	Consult Engineering
	33	Encoder Bit 12	Consult Engineering
	34	Preannounce to Open	ON during the set preannounce to open time.
	35	Preannouce N.O. Close	ON only during preannounce to close. OFF during run close.

Last updated: 9.08.14

CHAPTER 3 - i-COMM ii FOLDERS

NUMBER IS NOT SHOWN IN i-COMM MENU

FOLDER	NUMBER	NAME	VALID VALUES	DESCRIPTION	DEFAULT
Encoder Folder	0	Open Distance	3 - 24	Used to Set Opening distance for door	8
	1	Motor Drive Side	Right Drive / Left Drive	Used to select motor drive side.	Right
	2	Set Close Position	Press UP to Start	Use for initial setup of close position	-
	3	Set Open Position	Press UP to Start	Use for initial setup of open position	-
	4	Close Position Adjust	+/- 100.0	Use to adjust close position.	-
	5	Open Position Adjust	0 - 990.00	Use to adjust door open position	-
	6	Encoder Position	0-01FFFF	Current encoder position	-
	7	Encoder Baud	433 kbps	Used to select encoder data rate	433 KBPS
	8	Approach Open Pos.	999.0	Used to select Approach Open Position	28
	9	Approach Close Pos.	999.0	Used to select Approach Close Position	Disabled
I/O Setup Folder	10	Set Open PB Function	Auto Close Mode; Toggle & Auto Close, Reset/Jog only; Toggle Mode	Use to select the function of the Open/Reset button.	Auto Close Mode
	11	Set Loop Function	Auto Close Mode, Reverse / Hold Open	Use to select induction loop input function	Auto Close Mode
	12	I - Zone System	Enabled / Disabled	Use to Enable / Disable the I-Zone system.	Disabled
	13	Output Def. YK0	0 - 33 (See Table)	User configurable relay	0
	14	Output Def. YK1	0 - 33 (See Table)	User configurable relay	20
	15	Output Def. YK2	0 - 33 (See Table)	User configurable relay	20
	16	Output Def. YDC0	0 - 33 (See Table)	User configurable DC output	3
	17	Output Def. YDC1	0 - 33 (See Table)	User configurable DC output	29
	18	Output Def. YDC2	0 - 33 (See Table)	Internal - not available DC output	29
	19	Output Def. YDC3	0 - 33 (See Table)	Internal - not available DC output	20
	20	Output Def. YDC4	0 - 33 (See Table)	Internal - not available DC output	20
	21	Output Def. YDC5	0 - 33 (See Table)	User configurable DC output	2
	22	Output Def. YDC6	0 - 33 (See Table)	Internal - not available DC output	20
	23	Output Def. YDC7	0 - 33 (See Table)	Internal - not available DC output	20
	24	Input Define X0	0 - 17 (See Table)	User configurable input	8
	25	Input Define X1	0 - 17 (See Table)	User configurable input	7
	26	Input Define X2	0 - 17 (See Table)	User configurable input	2
	27	Input Define X3	0 - 17 (See Table)	User configurable input	2
	28	Input Define X4	0 - 17 (See Table)	User configurable input	4
	29	Input Define X5	0 - 17 (See Table)	User configurable input	3
	30	Input Define X6	0 - 17 (See Table)	User configurable input	2
	31	Input Define X7	0 - 17 (See Table)	User configurable input	2
	32	Open Alarm Time	0 - 255	Open Alarm Time in minutes. Requires at least one output to be configured to function 25, menu is hidden if not.	0
	33	X10 PE Cut - Out	0 - 30	X10 Photoeye cut-out height	24
	34	X11 Slack Sensor	0 - 66	Header Photoeye Slack Sensor	60
	35	I - Zone Cut - Out	0 - 48	I-Zone cut out height	42
General Folder	36	Clock	-	Displays current time and date. To set: press UP, scroll to year - press Enter; scroll to month - press Enter; scroll to day - press Enter; scroll to hour - press Enter; scroll to minute - press Enter	-
	37	Language	English, Espanol, Portuguese	Set LCD display language	English
	38	PassCode	-	Use to change access mode.	-
	39	Rev. Edge Option	Enabled / Disabled	Use to enable reversing edge.	Disabled
	40	Spec. Package	Disabled, CE, Canada Opt	Used to enable specification packages.	Disabled
	41	Remote Display	Enabled / Disabled	Used to enable remote LCD	Disabled
	42	Partial Config.	-	Consult Engineering. Special Applications only	-
	43	Reverse Delay	xx	Reverse Delay	0
	44	AB Inverter Delay	-	Consult Engineering. Special Applications only	-
	45	Voltage	208/220/230/400/460/575	Voltage of door	460
	46	Square Feet	0 - 999	Square footage of door. Width x Height	0
	47	Non-Powered Open	Enabled/Disabled	Enables non-powered open for LiteSpeed	Disabled
	48	Maintenance Months	xx	Number of months before maintenance indicator goes off. Note: Once changed user must initiate “Reset Maintenance” Procedure.	Disabled
	49	Maintenance Cycles	0 - 100000	Number of cycles before maintenance indicator goes off. Note: Once changed user must initiate “Reset Maintenance” Procedure.	Disabled
	50	Reset Maintenance	-	Resets Maintenance Counters and Timers. Press Up to initiate the reset	Disabled
	51	Reset to Default	-	Resets all settings back to factory defaults	Disabled

CHAPTER 3 - i-COMM ii FOLDERS

NUMBER IS NOT SHOWN IN i-COMM MENU

FOLDER	NUMBER	NAME	VALID VALUES	DESCRIPTION	DEFAULT
View Folder	52	Display Cycle Count	0 - 99999999	Displays current Cycle Count	-
	53	Fault History	-	Displays fault log. Use Up and Down to scroll	-
	54	Display Model #	-	Displays door model number	-
	55	Display RHC #	-	Displays RHC number	-
	56	Display Serial #	-	Displays door serial number	-
	57	Firmware Revision	-	Displays current program revisions	-
Load / Save Folder	58	Copy from SD	Press UP to Start Copy	Use to upgrade i-COMM II program. Correct .BIN file must be saved so SD Card. Note Card must be SD - 2GB or SDHC - 4,8,16 or 32 GB.	-
	59	Copy to SD Card	Press UP to Start Copy	Use to copy i-COMM II program to SD Card in .BIN format.	-
	60	Legal info to SD	Press UP to Start Copy	Use to display legal information about program. Legal.txt will be saved to SD card.	-
	61	Bootloader Upgrade	Press UP to Start Copy	Used to upgrade bootloader. CAUTION: DO NOT INTERRUPT THIS PROCESS	-
	62	Export Settings	Press UP to Start Copy	Use to save i-COMM II settings to SD Card in .BIN format.	-
	63	Import Settings	Press UP to Start Copy	Use to copy i-COMM II settings to SD Card in .BIN format.	-
Inverter Folder	64	Inverter Type	CT SK MODBUS, AB PF40 MODBUS, CT SK NO MODBUS, AP PF NO MODBUS, No Inverter	Used to set inverter type	CT SK MODBUS
	65	Program Inverter	Press UP to Start Copy	Use to program inverter.	-
	66	Open Speed	0 - 70 Hz	Open Speed	80
	67	Close Speed	0 - 70 Hz	Close Speed	24.0
	68	Approach Speed	0 - 70 Hz	Approach Open Speed	40.0
	69	Accel Time	0 - 10.0 s	Acceleration Rate	0.7
	70	Decel Time	0 - 10.0 s	Deceleration Rate	1.0
	71	Torque Reverse Level	0 - 100 %	Torque Reversing Level	50
	72	DC Brake Time	0 - 10.0 s	Injection Braking Time	0.7
	73	DC Brake Level	0 - 100 %	DC Injection Braking Level	120.0 %
Timer Folder	74	Set Close Timer	0 - 255 / Toggle Mode	Close Timer in seconds. Set to Toggle Mode to disable automatic closing.	6
	75	Set Preannounce	0 - 255	Preannounce to close timer in seconds	2
	76	Autocycle Time	0 - 255 Disabled	Autocycle Time in minutes	Disabled

Last Rev: 8.25.14

CHAPTER 3 - 230/460V INVERTER (VFD) PROGRAMMING

FasTrax™ Inverter Program Instructions

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

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

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

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

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

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

Parameter Number	Name	Default Value	New Value	Units
00.03	Acceleration Rate 1	5.0	0.7	s/100 Hz
00.04	Deceleration Rate 1	10.0	1.0	s/100 Hz
00.06	Motor Rated Current	1.83	1.83	A
00.10	Security Status	L1	L2	
00.19	Close Speed	24.00	24.00	Hz
00.20	Open Speed	80.00	80.00	Hz
00.21	Approach Open Speed	40.00	40.00	Hz
00.61	Torque Detection Level	0	50	%

CHAPTER 3 - 230/460V INVERTER (VFD) CODES

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

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

CHAPTER 4 - SHROUD INSTALLATION / ADJUSTMENTS

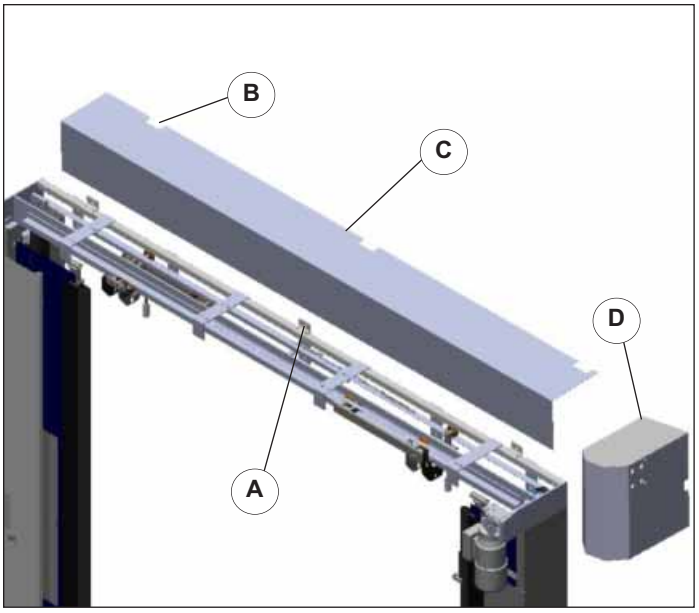


Figure 29.1 - Painted Flat Shroud

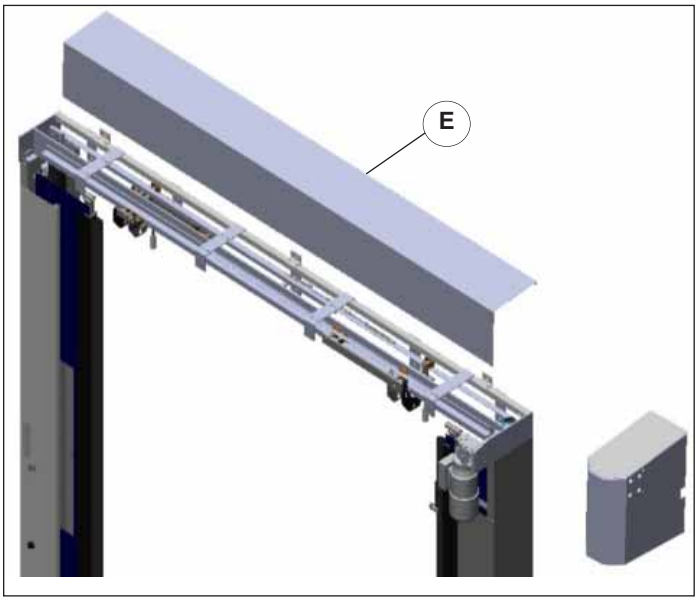


Figure 29.2 - Stainless Steel Sloped Shroud

SHROUD INSTALLATION

1. Header mounting brackets (A) are pre-installed, but can be moved where best suited for installing to a solid structure.
2. Notches (B) only on painted shrouds.
3. Install center shroud (C) using self/tap and drill screws in pre-drilled holes provided.
4. Install drive shroud (D).
5. Install drive and center shroud using 1/4”-20 fasteners in holes provided (E).

BELT OR CHAIN ADJUSTMENTS

1. Chain (F) should be adjusted with turnbuckle chain tensioner (G) so there is no more than 1/4” [6] sag.

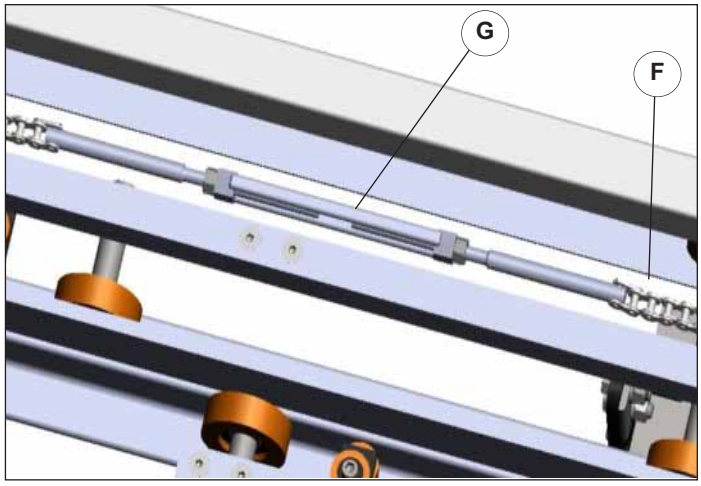


Figure 29.3 - (PAINTED door only)

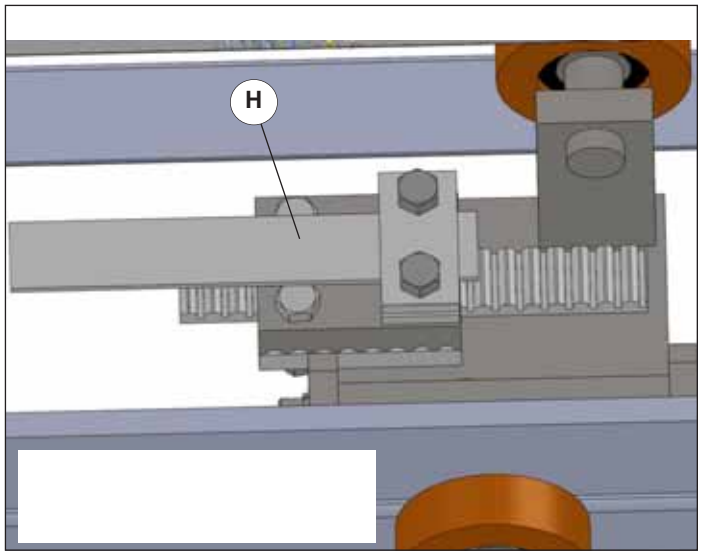


Figure 29.4 - (STAINLESS STEEL door only)

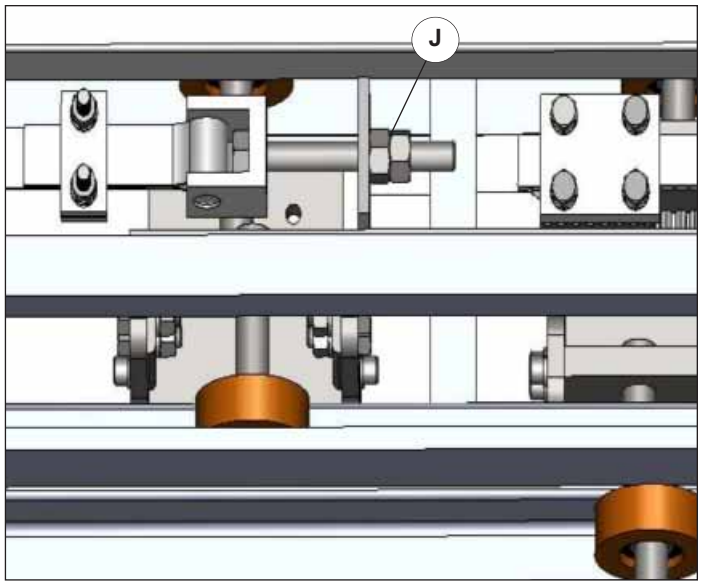


Figure 29.5 - (STAINLESS STEEL door only)

2. Belt (H) should be adjusted with belt tensioner (J) so there is no more than 1/4” [6] sag.

CHAPTER 4 - OPERATING PROCEDURE / CHECKLIST

VERIFY DOOR OPERATION / CHECKLIST

1. It is recommended that the operation of all controls on the SplitSecond be verified monthly.
2. The door operations are controlled by a Universal Controller. The controller is set-up and programmed during testing at the factory. Unless you are a RITE-HITE DOORS, INC. authorized service technician, you should not attempt to change the program.
3. A quick way of determining that the door is ready to operate, is to open the control box and look at the row of (X) green Input LED's on the i-COMM and the label to verify proper state.
4. Are door opening dimensions correct ?
5. Sideframes shimmed as required?
6. Check for proper line voltage ?
7. Are all mounting bolts tight ?
8. All wires connected for the photoeyes ?
9. Are loose wires secured away from moving parts?
10. With the power on, press the "OPEN" button, the door should open and close automatically after a short delay. To adjust the amount of door open time, the setting must be changed in the i-COMM controller.
11. Operate and observe the door opening to make sure that it fully opens. Observe the closing action to make sure that the door operates smoothly, and fully closes without excessive curtain ripple.

    If it is necessary to adjust either position, shut the power off and adjust the proper open or closed position.
12. While the door is closing, block the reversing photoeyes. The door should reverse direction and move to the open position, and then continue to operate.
13. While the door is closing, impact the leading edge (3) times to make sure that the door reverses and goes open and faults out.
14. Cover(s) installed.
15. Remove stainless steel sheet metal protective covering.
16. Using end user material handling equipment, approach door slowly and verify that all the activation devices that are being used are operating properly. DO NOT attempt to drive through a door in which the green button is flashing.
17. Use caution (hock horn) and look in a directions when approaching a door that is closing and ensure that the door will reverse before proceeding.
18. Pedestrians should be advised to use man doors when present and to not lean into the door way.
19. After installation, it may be required to caulk the perimeter of the door sideframes and header, consult end user.

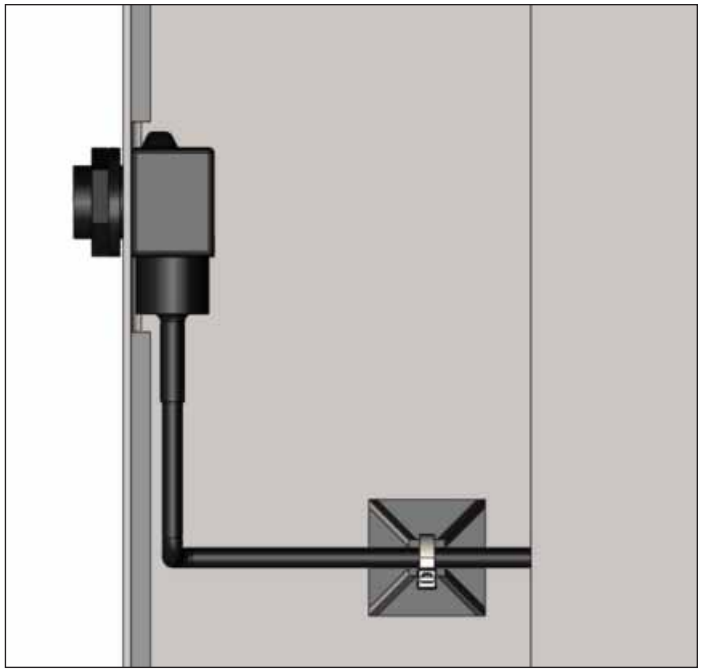


Figure 28.1

PHOTOEYE ADJUSTMENT

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

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

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

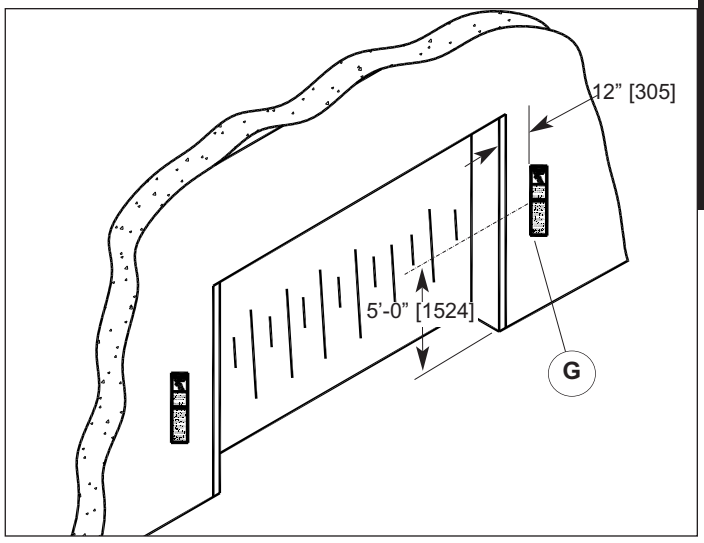


Figure 28.2

LABEL INSTALLATION

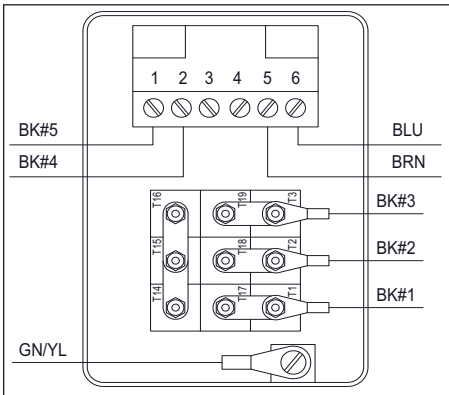
1. View of back side of door.
2. Clean surface where label (G) is to be placed. Peel off backing on label and apply in position.

CHAPTER 5 - MAINTENANCE

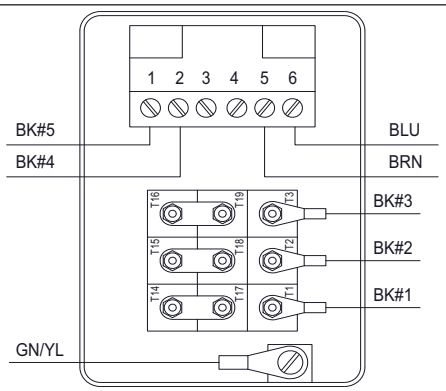
RITE-HITE DOORS, INC. PLANNED MAINTENANCE
Model SplitSecond™

CUSTOMER:	JOB#	SERIAL#	DATE:

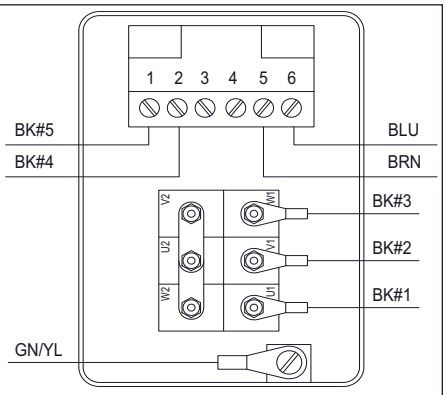
Planned Maintenance Task	Recommended P.M. Intervals (Time Shown In Months)							Inspect and Perform the Following
	1	6	12	18	24	30	36	
Activation		x	x		x		x	Operate all devices to verify proper operation.
Belting/Sprockets	x		x		x		x	Verify belt is tensioned properly. Check belt and sprockets for wear. See *Page 28* for details.
Bottom Seal		x	x		x		x	Verify bottom seal is sealing and properly attached.
Brake / Non-Powered Opening	x		x		x		x	Verify that brake stops the door at open and closed positions as well as when stopped in the middle of travel. To move the curtain manually, release the brake by pulling the rope. The curtain should roll open automatically. If brake is making noise, adjust.
Chain/Sprockets			x		x		x	Verify chain is tensioned properly. Check chain and sprockets for wear and lubricate as required.
Controls / Wiring			x		x		x	Clean, check all connections with disconnect off. Make sure all wires are free from moving parts.
Curtain			x		x		x	Verify curtain tube springs are allowing curtain to wind up properly. Inspect curtain for wear or damage and patch immediately to prevent further damage. Clean with warm soapy water.
Door Assembly			x		x		x	Perform visual inspection for damage. Tighten all hardware. Replace any worn labels. Use air hose to remove dust and debris.
Door Operation			x		x		x	Operate door and make sure all operations are functioning properly.
Encoder		x	x		x		x	Check open and close positions, adjust as required.
Gearbox			x		x		x	Fill with Mobil - SHC 624 or Phillips 66 - Syncon 32 if low.
Header Seal			x		x		x	Verify header seal is sealing curtain to header.
Leading Edge			x		x		x	Verify leading edges are sealing properly, adjust tension arm as required.
Motor			x		x		x	Check junction box and plug connections.
Photoeyes		x	x	x	x	x	x	Verify all three photoeyes are properly aligned and reverse the curtain. LED's on i-COMM should go on/off. Clean emitter and receiver lens.
Pillow Block Bearings			x		x		x	Lubricate as required.
Shrouds and Covers			x		x		x	Make sure all shrouds and protective covers are in place and securely fastened.
Sideframes / Covers / Seals		x	x	x	x	x	x	Perform visual inspection. Verify proper sideframe width and tighten all hardware. If sideframe latch is present, verify it works properly. Make sure sideframe covers open and close properly. Verify all seals are sealing properly.
Tension Arm			x		x		x	Verify tension arms are adjusted properly and sheer pin is in place.
Torque Setting		x	x	x	x	x	x	Test leading edge torque and adjust.
Trolleys			x		x		x	Verify trolley rollers are functioning properly.
Vision			x		x		x	Inspect vision for tears or separation. Clean with warm soapy water.



208/230V MOTOR WIRING
*ALSO USED FOR 575V



460V MOTOR WIRING



400V MOTOR WIRING

CHAPTER 5 - TROUBLESHOOTING

DEFINITION	FUNCTION
Activation	It is preferred not to wire activation devices until after the door is functioning properly. For activation questions, refer to the Activation Manual and terminals X5 & X6 & X7.
Brake / Bridge Rectifier	If the brake is not functioning properly, check the following: a) Check F7 fuse-replace. b) Check rectifier, must have 120VAC incoming and 105VDC outgoing. c) Brake wiring at terminals BRK & N and junction box connections. d) Brake will have 335 ohms on normal readings. (must be checked after the rectifier)
Conduit Cable	**DO NOT DRILL HOLES ON TOP OF CONTROL BOX TO RUN CONDUIT, AS DUST PARTICLES AND MOISTURE MAY CAUSE DAMAGE TO ELECTRICAL COMPONENTS. THE IDEA SAFEST LOCATION IS AT THE BOTTOM. Failure to do so, voids warranty.** If supplied conduit cable is too short, DO NOT splice wires, as the cable is shielded to prevent electrical noise from entering the control box i-COMM universal controller. Contact Aftermarket for replacement.
Curtain	If the curtain will not roll up or only one side will roll up, or it rolls up crooked, check the following: a) Curtain dragging and catching on the floor, sideframe or seals. b) Spring is broken, replace as required. If the curtain does not fully open or close, adjust the open or closed positions as needed. c) Adjust the noses to maintain a tight seal by adjusting the leading edge arm bolt. d) Adjust the lower base plate to align noses. e) Make sure top of curtain is not loose, if it is, verify that additional piece of curtain is installed at the top.
Disconnect Switch	The disconnect switch is in line with fuse holder terminals F1, F2, F3, and removes power from the entire control box, except for terminals F1, F2, F3.
D.O.H. or D.O.W.	D.O.H. = Door Opening Height or D.O.W. = Door Opening Width
Drive Belt (Pharma door only)	The drive belt tension is pre-determined at the factory. Check the following: a) If the drive belt is walking across the pulleys, loosen the belting from the pressure plates and re-position belting on the pressure plate. b) If door is slamming open or closed, this causes premature wear on the belting. Adjust the open and close positions so the door will not slam open or close. c) If the door open and close position keeps changing, check belt tension, as it may be loose.
Drive Chain (Non Pharma door)	The drive chain tension is pre-determined at the factory. Check the following: a) If the drive chain has excessive sag, tighten so there is a maximum of 1/4" sag in the middle. b) If door is slamming open or closed, this causes premature wear on the chain. Adjust the open and close positions so the door will not slam open or close.
Drive Side Switch	In order to switch from a right to left hand drive or vise versa, a new door would need to be ordered.
Encoder	See Encoder Section. **THE ENCODER CABLE SHOULD NEVER BE SPLICED OR EXTENDED.** a) If curtain is not stopping at the same position, verify encoder cable is grounded per drawing.
Fuses	F1, F2, F3: Incoming power fuses, must have line voltage across all 3 legs. (Transformer, Inverter, motor) F4, F5: Primary side transformer fuses, must have line voltage across both legs. F6, F7: Secondary side transformer fuses, F6 is 24V and F7 is 120V (power supply & brake).
i-COMM Controller™	The i-COMM controller is a circuit board that controls the actions of the door. There is a digital display that shows the cycles, status and position of the door at any time during its travel. For input and output function signals, refer to chart on ***Page 18.*** Settings can be changed for re-close or pre-announce timers, interlocks, special activation commands, among many others, refer to instructional manual included. a) If i-Comm display is blank or hard to see, adjust contrast.
Inverter	See ***Pages 26 - 27*** for proper parameter settings.
K8 Relay	K8 Relay is for energizing the brake, check the following: a) Terminals 1 & 5 on the relay are wired to B3 & T1 on Inverter. b) Terminal 7 is wired to F7 fuse and terminal 4 is wired to BRK (120VAC).
Leading Edge	The leading edge when impacted will reverse the door to the open position, time out then close. If the edge is impacted 3 consecutive times without reaching the close position, the door will reverse, stay open and the green open/reset button will flash until the button is reset. Adjust Torque if required, consult factory.
Manual Door Opening	The door can be opened manually in cases of electrical power outage. Pull and hold the manual brake release cord hanging from the drive motor, no more than 1'-2' at a time or serious damage may occur. This cord releases the brake and allows the torsion springs to open the door. Release the brake cord to stop the door movement before it fully opens to prevent the trolleys from hitting the header assembly.
Membrane Switch	For steel sideframe covers only, utilizes a Open, Stop and Close buttons. a) With Open button pushed, check between Brown and White wires. b) With Stop button pushed, check between Brown and Red wires. c) With Close button pushed, check between Brown and Green wires.
Motor 208V-240V	208V-240V motor will have 6 ohms on normal readings.
Motor 460V-480	460V-480V motor will have 20 - 21 ohms on normal readings.
Motor 400V	400V motor will have 23 ohms on normal readings.
Motor 575V	575V motor will have 34 ohms on normal readings.
Motor Phasing	If open button is pressed and the door closes, the phasing is reversed, reverse wires in terminals, V and W.
Motor will not run	If door will not run will given an activation, check the following: a) Check voltage to and from inverter. b) Check voltage and for loose wires at terminals, U, V, and W.
O.D.H. or O.D.W.	O.D.H. = Ordered Door Height or O.D.W. = Ordered Door Width
Open/Reset Push Button	The following are functions of the open/reset push button. The first function is when pressed, is to open the door. The second function is to reset the door when in a fault mode. When pressed the door will open (after 5 seconds door will automatically run) and automatically close and after the preset time has expired, unless the door is in a true toggle operation. When the door reversing edge has been impacted three times the light will flash and the door will not operate from an activation command. The light will continue to flash until the open/reset button is pushed. The following are reasons for the green light to be flashing: a) Power outage or startup b) Reversing edge impacted three times.
Photoeyes	The photoeyes are wired to the 24VDC circuit and are wired as normally closed when there is power to the unit and the emitter photoeye is aligned with the receiver photoeye. There are 3 lights on the receiver and one on the emitter. Yellow is for power, red and green are for proper alignment. The photoeyes will reverse or hold the door open when the photoeye beam is blocked. When the beam is not broken, the door will auto-reclose. If photoeyes require adjustment, check that sideframes are square to the wall. a) Power to Brown (DC) and Blue (OV) wires. b) Relay wires Black to Blue should be closed when photoeye is aligned and open when not aligned.
Power Supply	Power Supply will have green light on if powered. a) Powered by 120VAC from F7 fuse. b) Supplies i-Comm 24VDC. c) If i-Comm is not powered and amber light is on, unplug 8 pin (J4 connector) and power up, if green light is on, check each DC wire for short.

CHAPTER 5 - TROUBLESHOOTING

DEFINITION	FUNCTION
Wind or Negative Pressure	Tension arm holds the curtain in position to maintain a tight seal at the nose. In the case where there is excessive pressure or an impact occurs and the sheer pin breaks, you will need to replace the sheer pin.
Re-Close Timer	The door can be set to close from 2 to 255 seconds, follow i-COMM adjustment instructions.
Transformer	The standard transformer is a tri-volt transformer that takes an incoming voltage of 208V, 230V, 460V and converts it to 110VAC and 24VAC. An optional transformer is available for 380V, 415V and 575V doors. a) 208V (Taps H1-H2) 13 Ohms b) 230V (Taps H1-H3) 15 Ohms c) 380V (Taps H1-H2) 40 Ohms d) 460V (Taps H1-H4) 28 Ohms e) 415V (Taps H1-H3) 43 Ohms f) 575V (Taps H1-H4) 58 Ohms g) 120V (Taps X1-X3) 4.4-4.8 Ohms (230-460V) h) 24V (Taps X1-X2) .4 to .6 Ohms (230-460V) i) 120V (Taps X1-X3) 5.2 Ohms (380/415V) j) 24V (Taps X1-X2) 5.7 Ohms (380/415V) k) 120V (Taps X2-X3) 4.5 Ohms (230-460V) l) 24V (Taps X2-X3) 5.0 Ohms (380/415V)
Voltage Change	To change the voltage, see steps below: a) Change transformer taps and fuses per electrical diagram. b) Change motor wiring per junction box diagram. c) Replace inverter.
X0	Input programmed for a device to open the door.
X1	Input programmed for a device to stop the door.
X2, X3, X6, X7	Activation Inputs - If on and door is not closing, verify activation device is not faulty.
X4	Input programmed for a device to close the door.
X5	Input programmed for a device to toggle open / close the door.
X9	36” Photoeye Input - MUST be on, if off, verify aligned and powered
X10	18” Photoeye Input - MUST be on, if off, verify aligned and powered
X11	54” Photoeye Input - MUST be on, if off, verify aligned and powered
X12	Open / Reset Button - X12 will illuminate when button is pressed
X13	Induction loop Input - if on door will stay open - verify object is not present on the floor loop
X14	Fault Input - Verify chain hoist chain has not been pulled
X15	Power Input - Indicates unit is powered
YK0	Interlock output
YK1	Programmable output
YK2	Programmable output
YDC0	Output programmed to be on when door open
YDC5	Output programmed for Preannounce to close

CHAPTER 5 - THRU-WALL BRAKE RELEASE

Thru-Wall brake release system shown without wall or door in place.

1. Thru-Wall brake release handle bracket (A).
2. Thru-Wall brake release conduit (B).
3. Sideframe brake release cable (C).
4. Thru-Wall brake release pulley (D).
5. Thru-Wall brake release handle (E).

   To release the brake, rotate the handle.

   As curtain nears the top, allow to slow down so it does not overtravel.

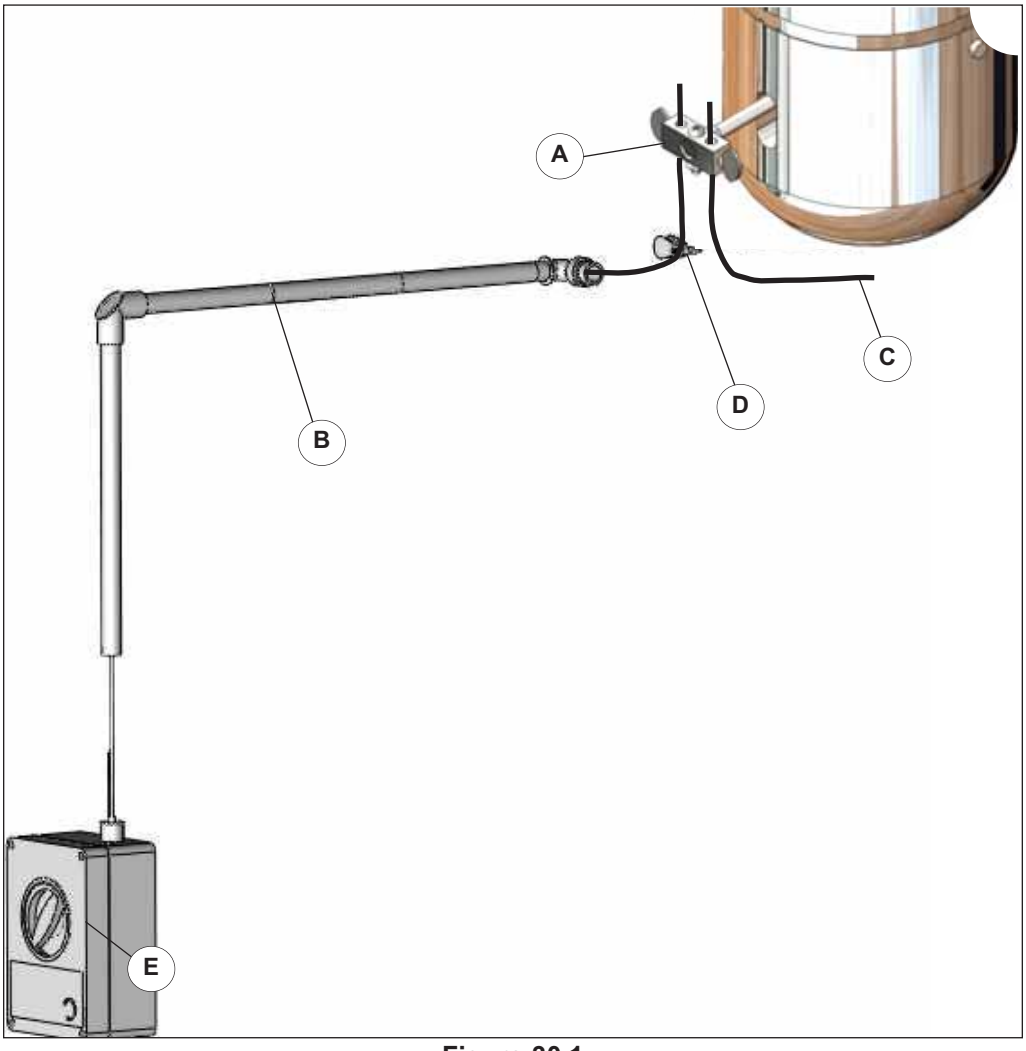


Figure 30.1

CHAPTER 6 - WIRELESS ACTIVATION

It is recommended to pair the unit(s) at the control box prior to mounting the unit.

To pair the host with a wireless device:

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

   4 - X6

   5 - DC

   6 - DC

   7 - OV

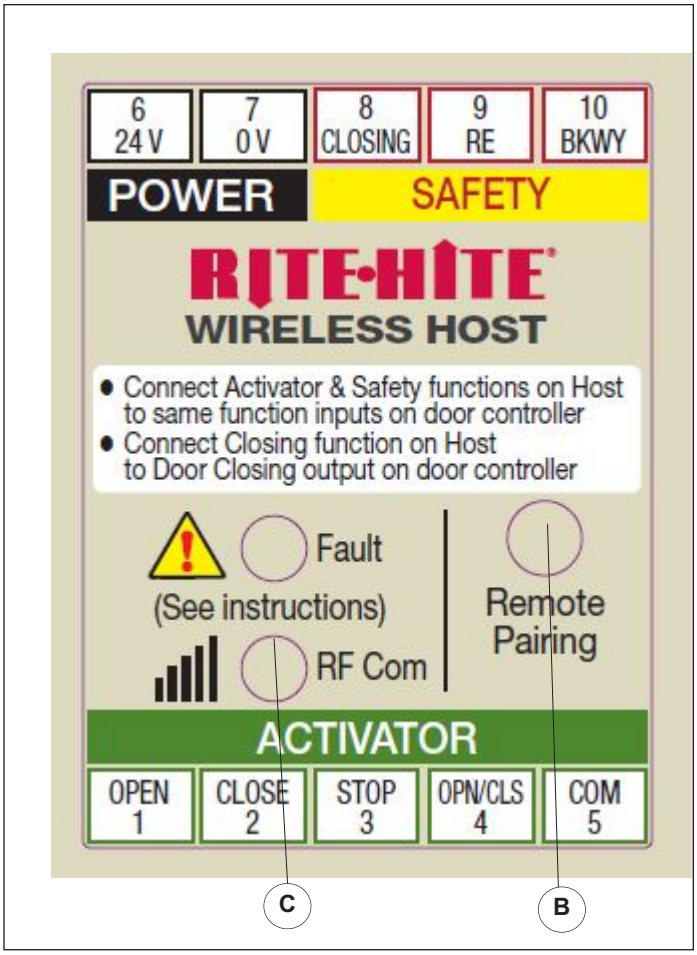


Figure 40.1

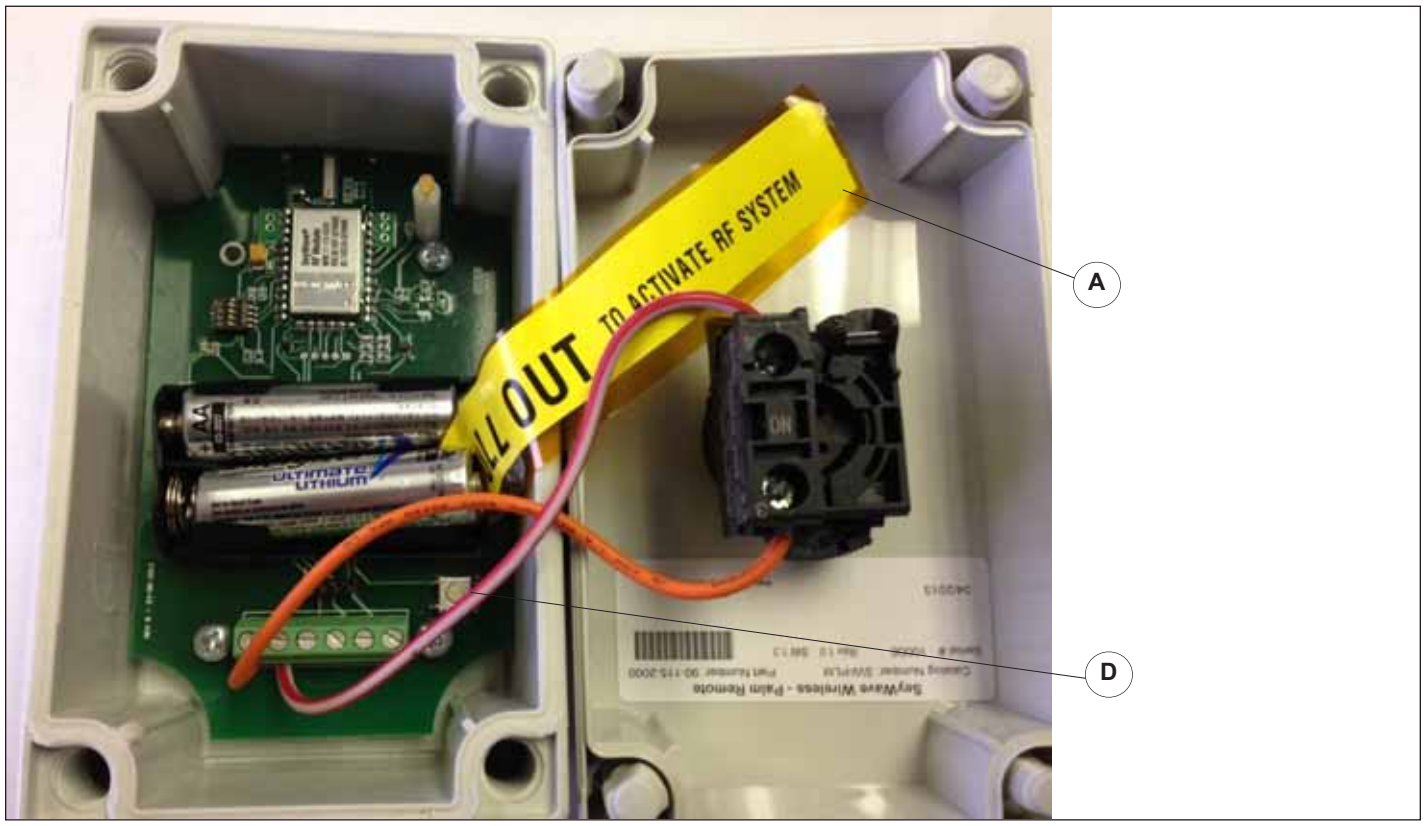


Figure 40.2

CHAPTER 6 - OPTIONAL REMOTE MOUNTED CONTROLS

Figure 41.1

Optional remote mounted LCD, is mounted on a stainless steel 2-gang wall faceplate and compatible with standard 2-gang electrical box (provided by end user).

On the face of the assembly there is a 4 button membrane switch: Green - Open/Reset (Up), Red - Stop (Exit), Yellow - Close (Down), and Grey - Enter (Left arrow).

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

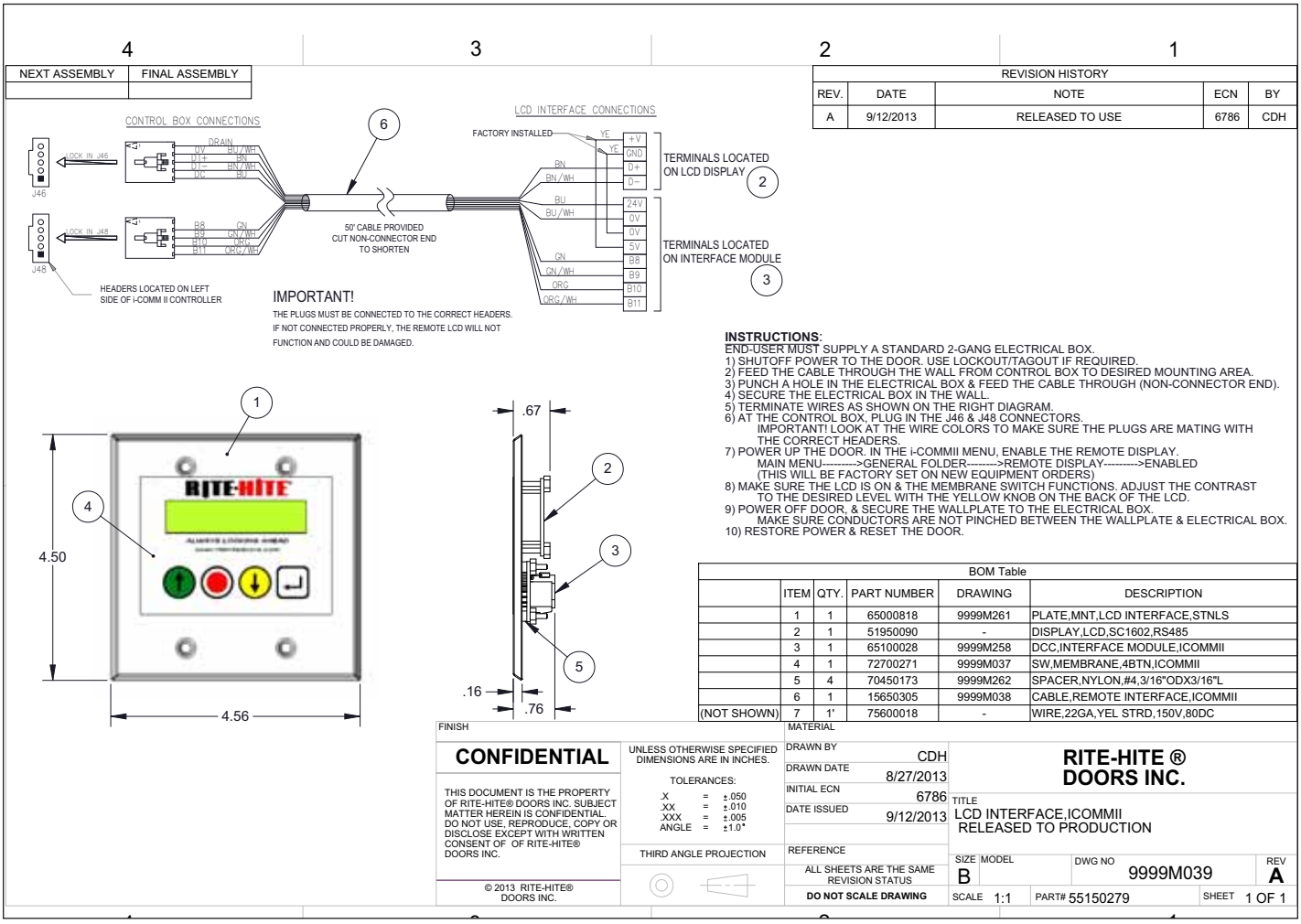
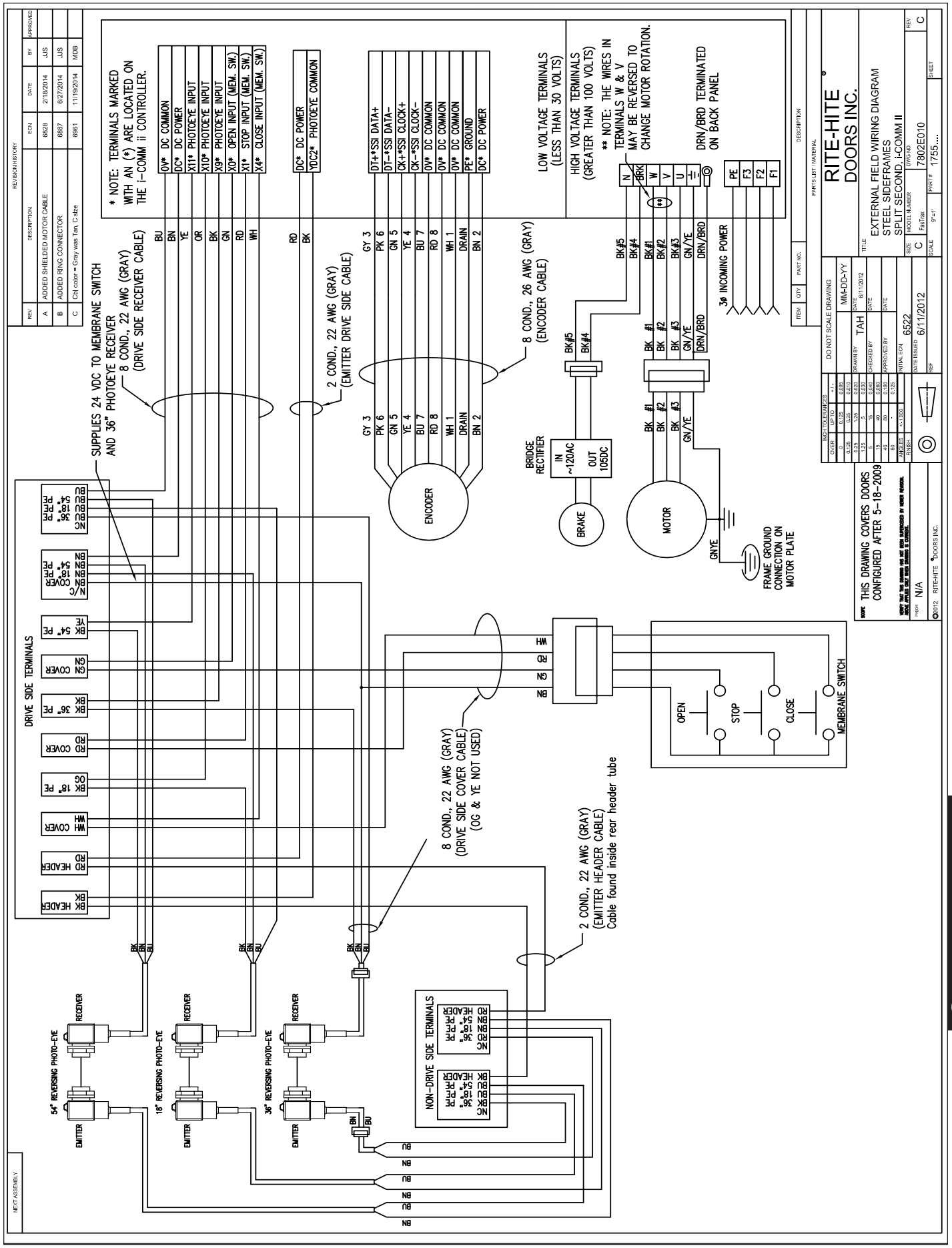


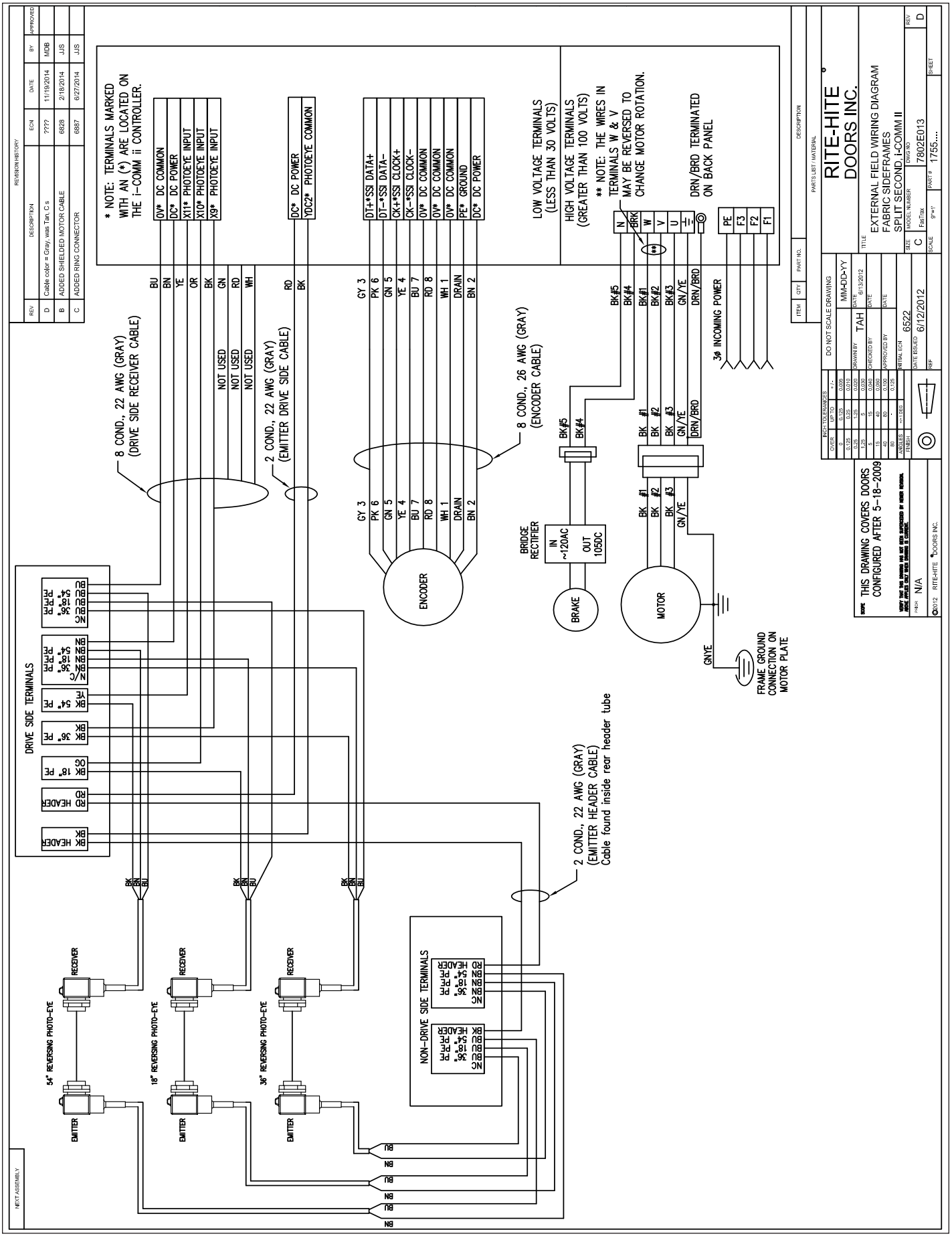
Figure 41.2

CHAPTER 6 - FIELD WIRING DIAGRAM - STEEL S/F COVERS

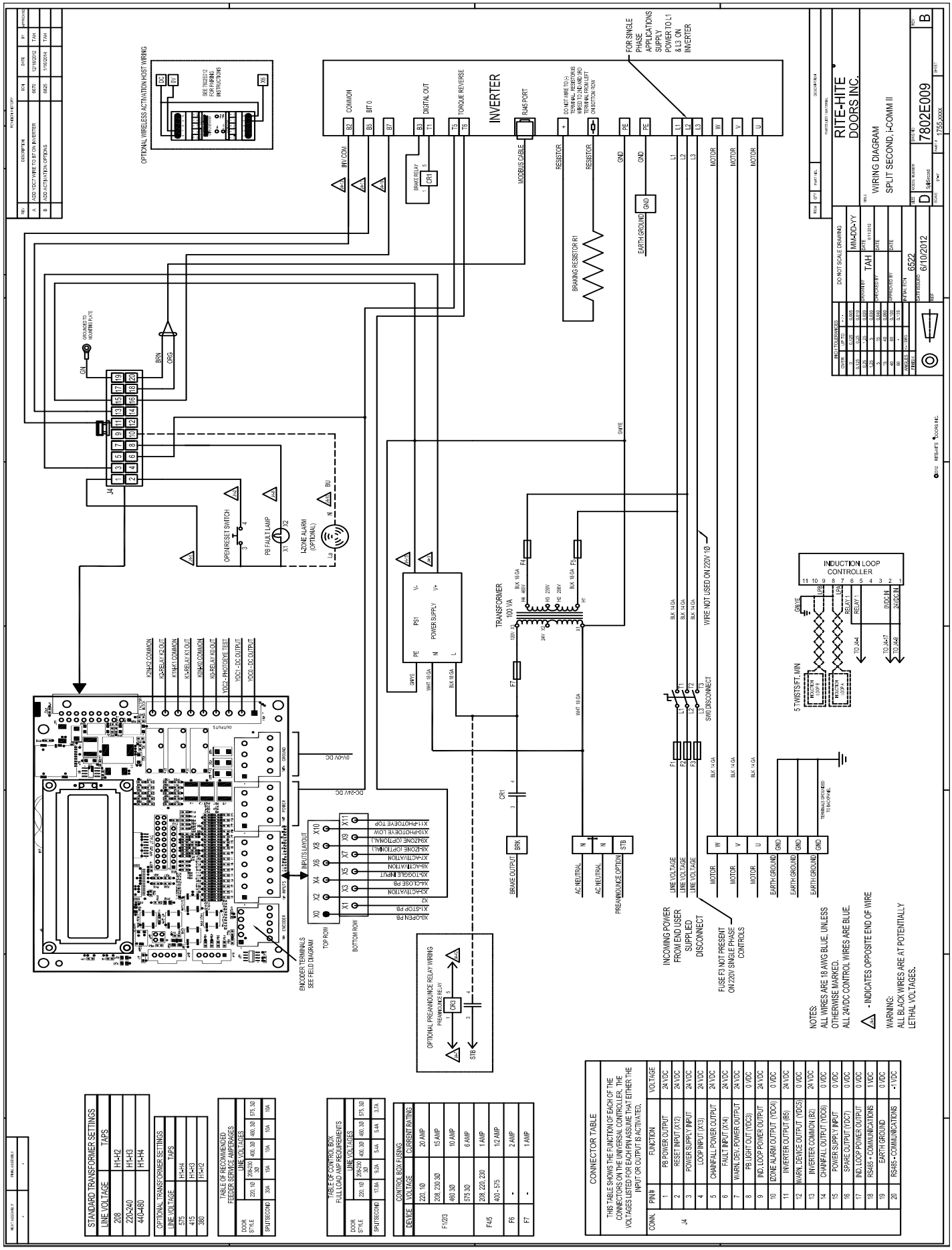


Electrical Drawings

CHAPTER 6 - FIELD WIRING DIAGRAM - FABRIC S/F COVERS



CHAPTER 6 - WIRING DIAGRAM 230-460V



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

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

TABLE OF RECOMMENDED FEEDER SERVICE AMPERAGES					
	LINE VOLTAGES				
DOOR STYLE	220, 10	208/230 30	400, 30	460, 30	575, 30
SPLITSECOND	30A	15A	10A	10A	10A

TABLE OF CONTROL BOX FULL LOAD AMP REQUIREMENTS				
	LINE VOLTAGES			
DOOR STYLE	220, 10	208/230 30	400, 30	460, 30	575, 30
SPLITSECOND	17.8A	9.2A	5.4A	5.4A	3.7A

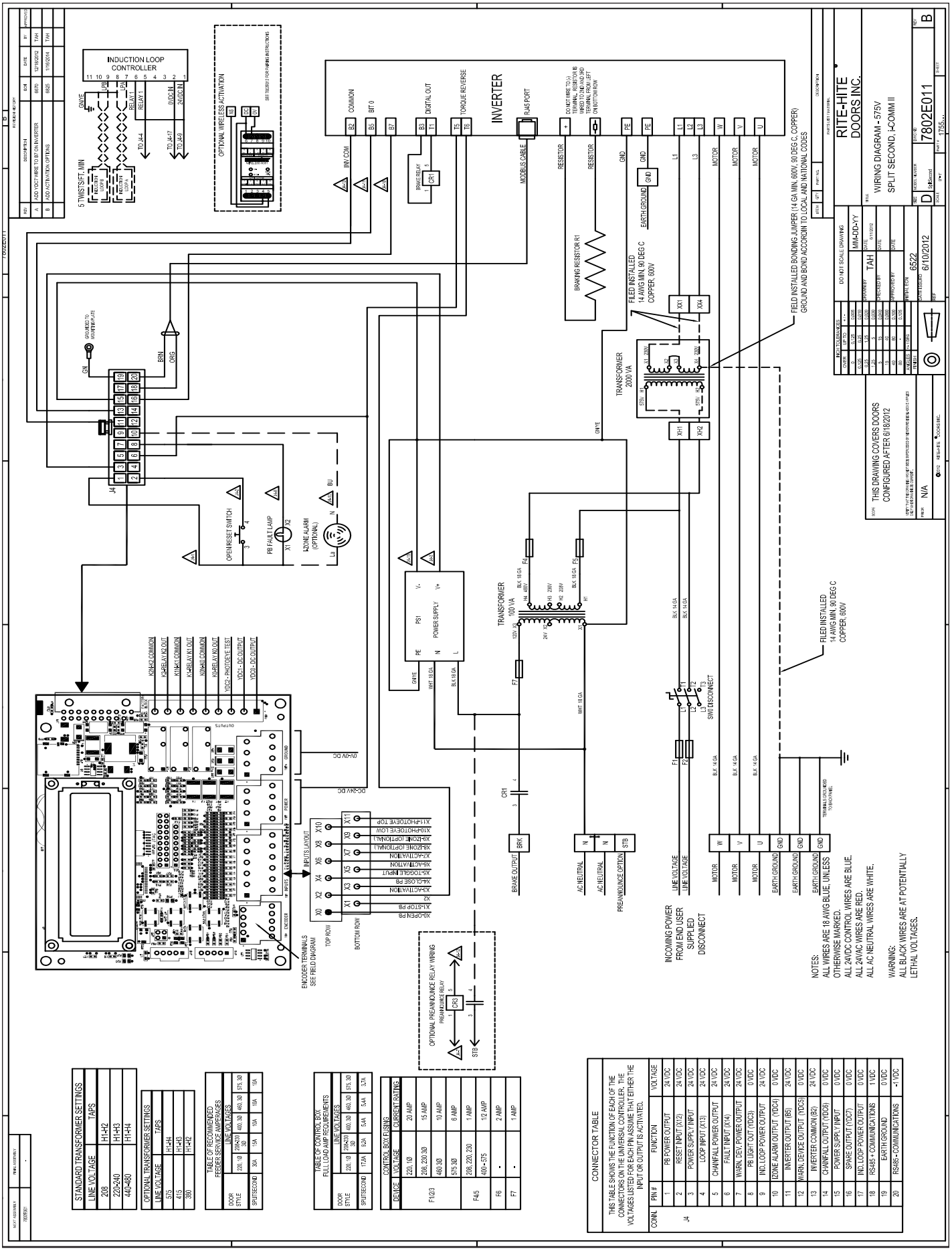
CONTROL BOX FUSING		
DEVICE	VOLTAGE	CURRENT RATING
F1/2/3	220, 10	20 AMP
	208, 230 30	15 AMP
	460 30	10 AMP
	575 30	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F6	-	2 AMP
F7	-	1 AMP

CONNECTOR TABLE

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

CONN.	PIN #	FUNCTION	VOLTAGE
J4	1	PB POWER OUTPUT	24 VDC
	2	RESET INPUT (X12)	24 VDC
	3	POWER SUPPLY INPUT	24 VDC
	4	LOOP INPUT (X13)	24 VDC
	5	CHAINFALL POWER OUTPUT	24 VDC
	6	FAULT INPUT (X14)	24 VDC
	7	WARN. DEV. POWER OUTPUT	24 VDC
	8	PB LIGHT OUT (YDO3)	0 VDC
	9	IND. LOOP POWER OUTPUT	24 VDC
	10	I-ZONE ALARM OUTPUT (YDO4)	0 VDC
	11	INVERTER OUTPUT (B5)	24 VDC
	12	WARN. DEVICE OUTPUT (YDO5)	0 VDC
	13	INVERTER COMMON (B2)	24 VDC
	14	CHAINFALL OUTPUT (YDO6)	0 VDC
	15	POWER SUPPLY INPUT	0 VDC
	16	SPARE OUTPUT (YDO7)	0 VDC
	17	IND. LOOP POWER OUTPUT	0 VDC
	18	RS485 + COMMUNICATIONS	1 VDC
	19	EARTH GROUND	0 VDC
	20	RS485 - COMMUNICATIONS	-1 VDC

CHAPTER 6 - WIRING DIAGRAM 575V



STANDARD TRANSFORMER SETTINGS

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

OPTIONAL TRANSFORMER SETTINGS

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

TABLE OF RECOMMENDED FEEDER DEVICE AMPERES

DOOR STYLE	LINE VOLTAGES			
	220, 10	208/220 30	400, 30	460, 30	575, 30
SPLITSECOND	30A	10A	10A	10A	10A

TABLE OF CONTROL BOX FULL LOAD AMP REQUIREMENTS

DOOR STYLE	LINE VOLTAGES			
	220, 10	208/220 30	400, 30	460, 30	575, 30
SPLITSECOND	17.6A	9.2A	5.4A	5.4A	3.7A

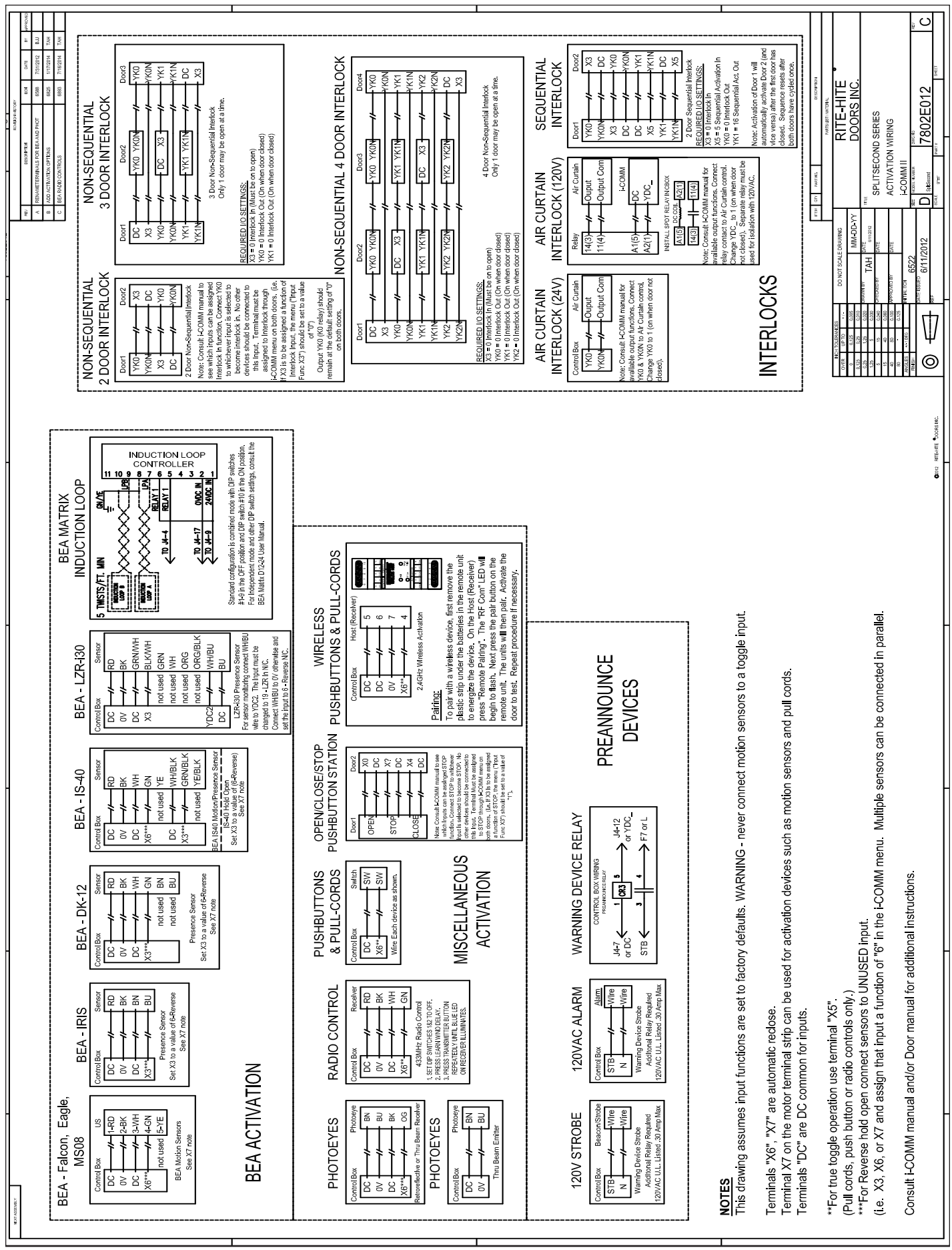
DEVICE	CONTROL BOX FUSING VOLTAGE	CURRENT RATING
F1/2/3	220, 10	20 AMP
	208, 230 ,30	15 AMP
	460 ,30	10 AMP
	575 ,30	6 AMP
F4/5	208, 220, 230	1 AMP
	400 - 575	1/2 AMP
F6	-	2 AMP
F7	-	1 AMP

CONNECTOR TABLE

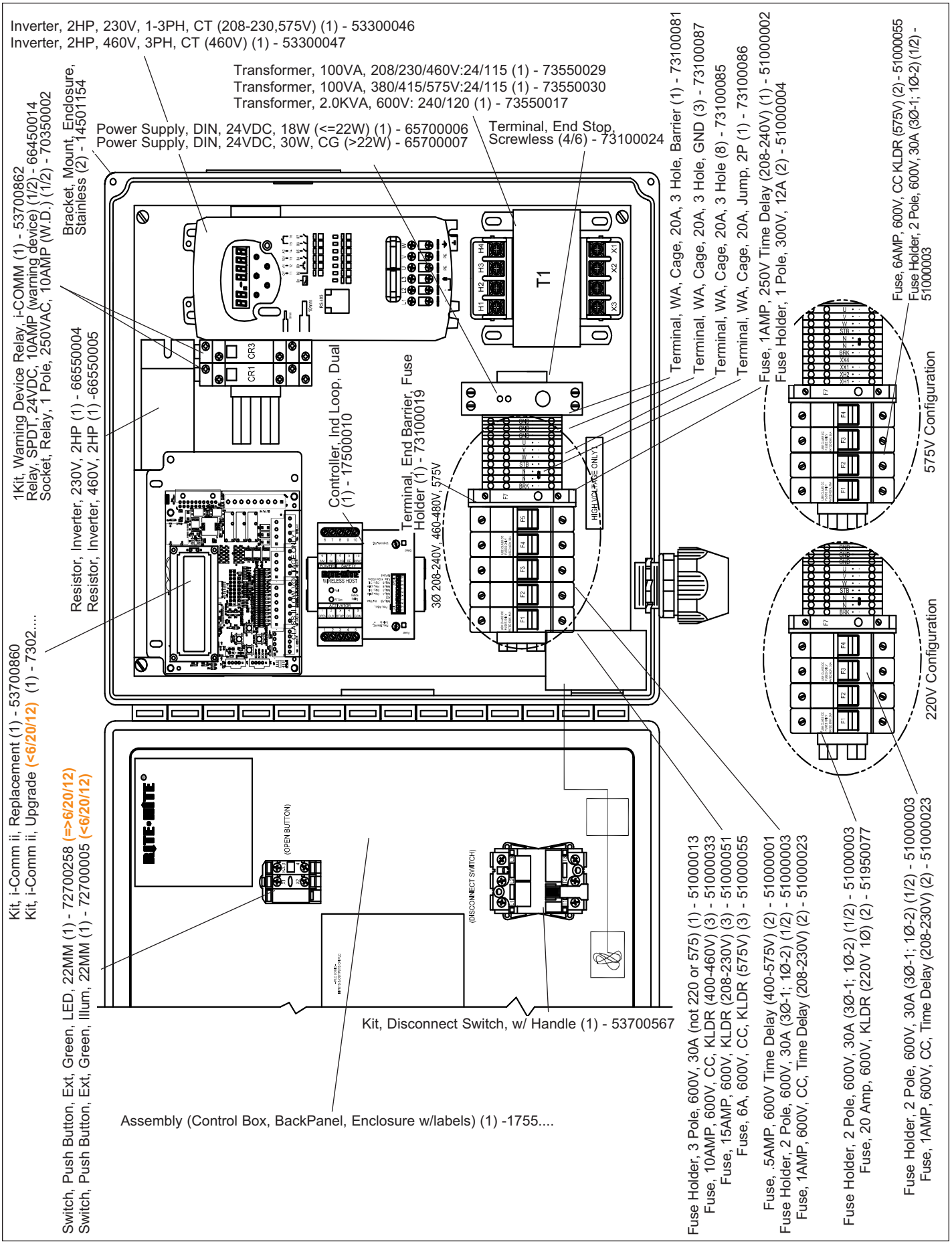
THIS TABLE SHOWS THE FUNCTION OF EACH OF THE CONNECTORS ON THE UNIVERSAL CONTROLLER. THE VOLTAGES LISTED FOR EACH PIN ASSUME THAT EITHER THE INPUT OR OUTPUT IS ACTIVATED.

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

CHAPTER 6 - ACTIVATION DIAGRAM



CHAPTER 7 - SPLITSECOND SERVICE PARTS

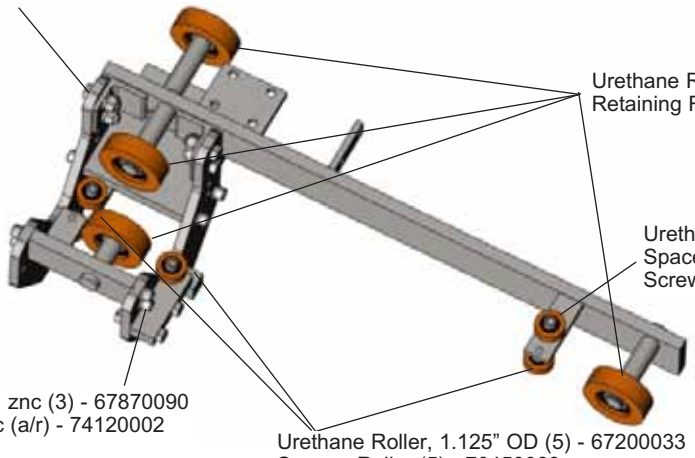


CHAPTER 7 - SPLITSECOND SERVICE PARTS

LH Trolley

Nut, Hex, 3/8 -16, znc (5) - 55630003
Screw, HHMS, 3/8-16 x 1 1/4", GR5, znc (4) -67880004
Washer, Lock, Split, 3/8, znc (4) - 74130002
or
Nut, Hex, 3/8-16, ss (6) - 55630006
Screw, HHMS, 3/8-16 x 1 1/4", GR5, stnls (4) - 67880032
Washer, Lock, Split, 3/8, ss (4) - 74130009

KIT,SPLT,TRLY,ASSY,LFT (1) - 53700706
KIT,SPLTPH,TRLY,ASSY,LFT,R-DRV (1) - 53700709
KIT,SPLTPH,TRLY,ASSY,LFT,L-DRV (1) - 53700710



Urethane Roller, 2.50" OD (4) - 75550006
Retaining Ring, Ext, .669 Shaft x .035 (4) - 67020006

Urethane Roller, 1.125" OD (5) - 67200033
Spacer, Roller (5) - 70450068
Screw, SHCS, 5/16-18 x 1", znc (1) - 67870028

Screw, SHCS, 5/16-18 x 3/4", znc (3) - 67870090
Washer, Lock, Split, 5/16, znc (a/r) - 74120002
or
Washer, Lock, Split, 5/16, ss (a/r) - 74120006
Screw, SHCS, 5/16-18 x 1", ss (a/r) - 67870062

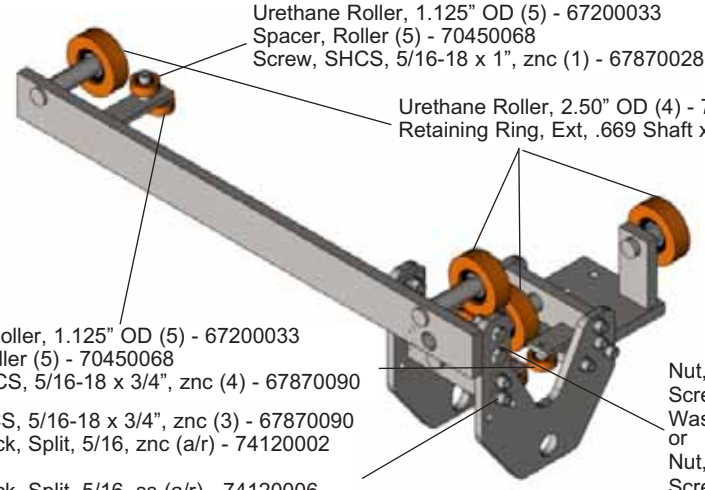
Urethane Roller, 1.125" OD (5) - 67200033
Spacer, Roller (5) - 70450068
Screw, SHCS, 5/16-18 x 3/4", znc (4) - 67870090

RH Trolley

KIT,SPLT,TRLY,ASSY,RGT (1) - 53700707
KIT,SPLTPH,TRLY,ASSY,RGT (1) - 53700708

Urethane Roller, 1.125" OD (5) - 67200033
Spacer, Roller (5) - 70450068
Screw, SHCS, 5/16-18 x 1", znc (1) - 67870028

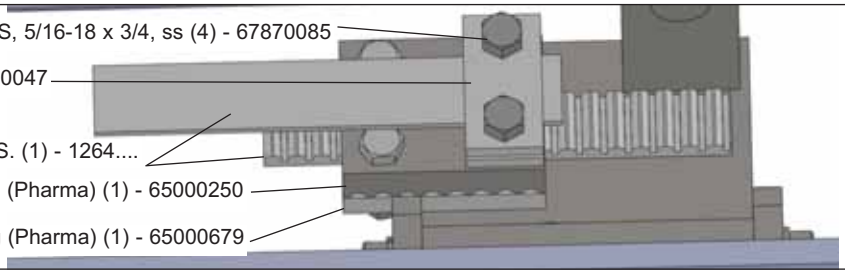
Urethane Roller, 2.50" OD (4) - 75550006
Retaining Ring, Ext, .669 Shaft x .035 (4) - 67020006



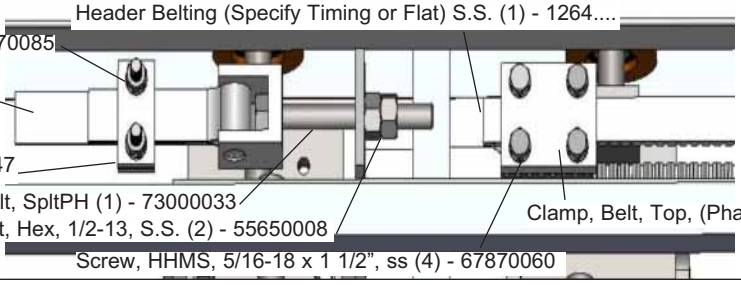
Urethane Roller, 1.125" OD (5) - 67200033
Spacer, Roller (5) - 70450068
Screw, SHCS, 5/16-18 x 3/4", znc (4) - 67870090

Screw, SHCS, 5/16-18 x 3/4", znc (3) - 67870090
Washer, Lock, Split, 5/16, znc (a/r) - 74120002
or
Washer, Lock, Split, 5/16, ss (a/r) - 74120006
Screw, SHCS, 5/16-18 x 1", ss (a/r) - 67870062

Nut, Hex, 3/8 -16, znc (5) - 55630003
Screw, HHMS, 3/8-16 x 1 1/4", GR5, znc (4) -67880004
Washer, Lock, Split, 3/8, znc (4) - 74130002
or
Nut, Hex, 3/8-16, ss (6) - 55630006
Screw, HHMS, 3/8-16 x 1 1/4", GR5, stnls (4) - 67880032
Washer, Lock, Split, 3/8, ss (4) - 74130009

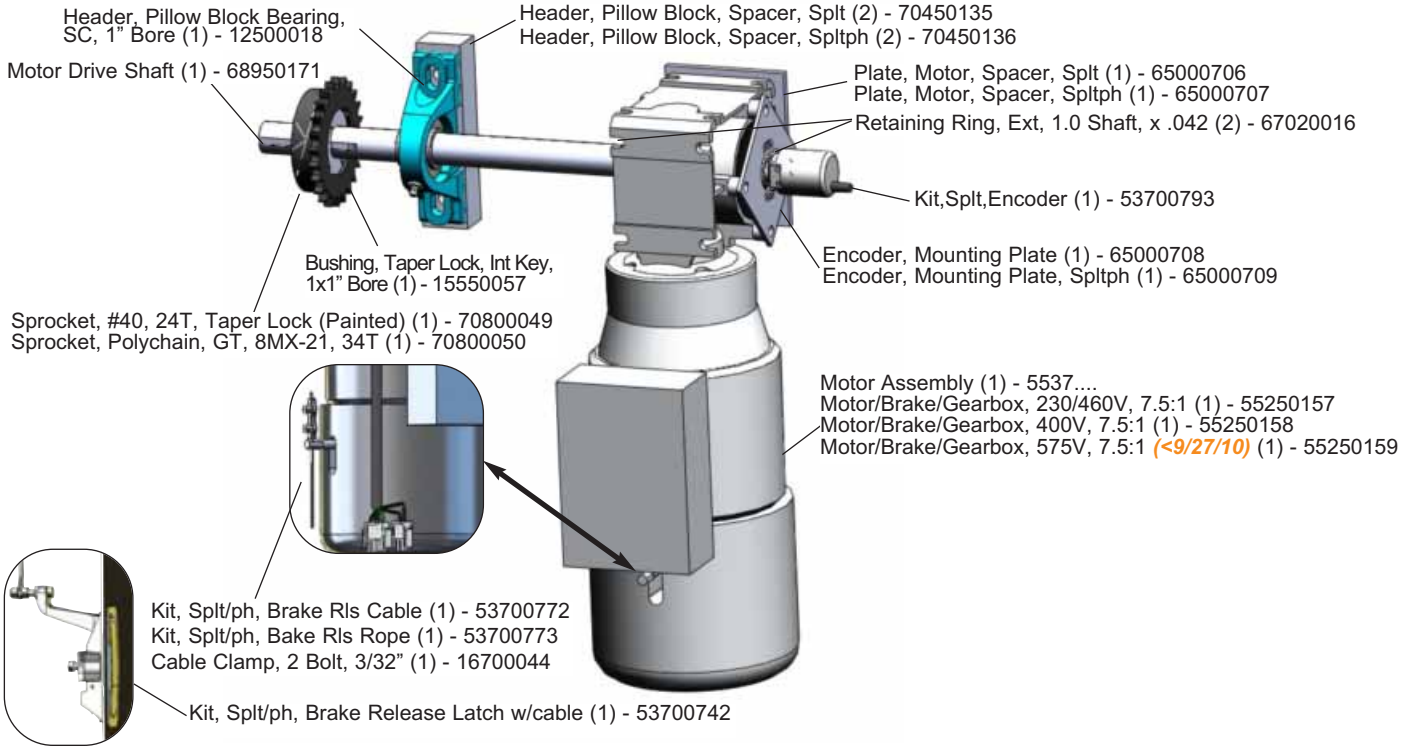


Screw, HHMS, 5/16-18 x 3/4, ss (4) - 67870085
Clamp, Belt, Flat, (Pharma) (4) - 16700047
Header Belting (Specify Timing or Flat) S.S. (1) - 1264....
Plate, Clamp, Belting (Pharma) (1) - 65000250
Plate, Clamp, Belting (Pharma) (1) - 65000679



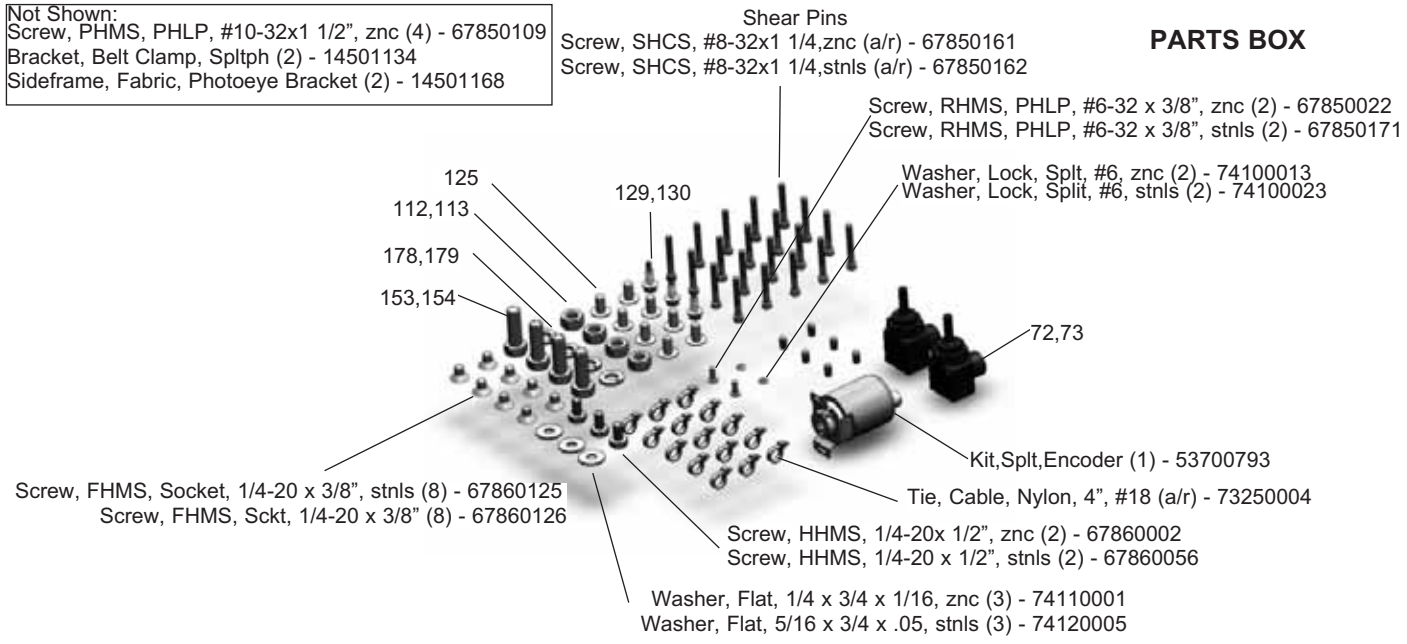
Header Belting (Specify Timing or Flat) S.S. (1) - 1264....
Screw, HHMS, 5/16-18 x 3/4, ss (4) - 67870085
Header Belting (Specify Timing or Flat) S.S. (1) - 1264....
Clamp, Belt, Flat, (Pharma) (4) - 16700047
Tensioner, Belt, SpltPH (1) - 73000033
Nut, Hex, 1/2-13, S.S. (2) - 55650008
Clamp, Belt, Top, (Pharma) (4) -16700048
Screw, HHMS, 5/16-18 x 1 1/2", ss (4) - 67870060

CHAPTER 7 - SPLITSECOND SERVICE PARTS

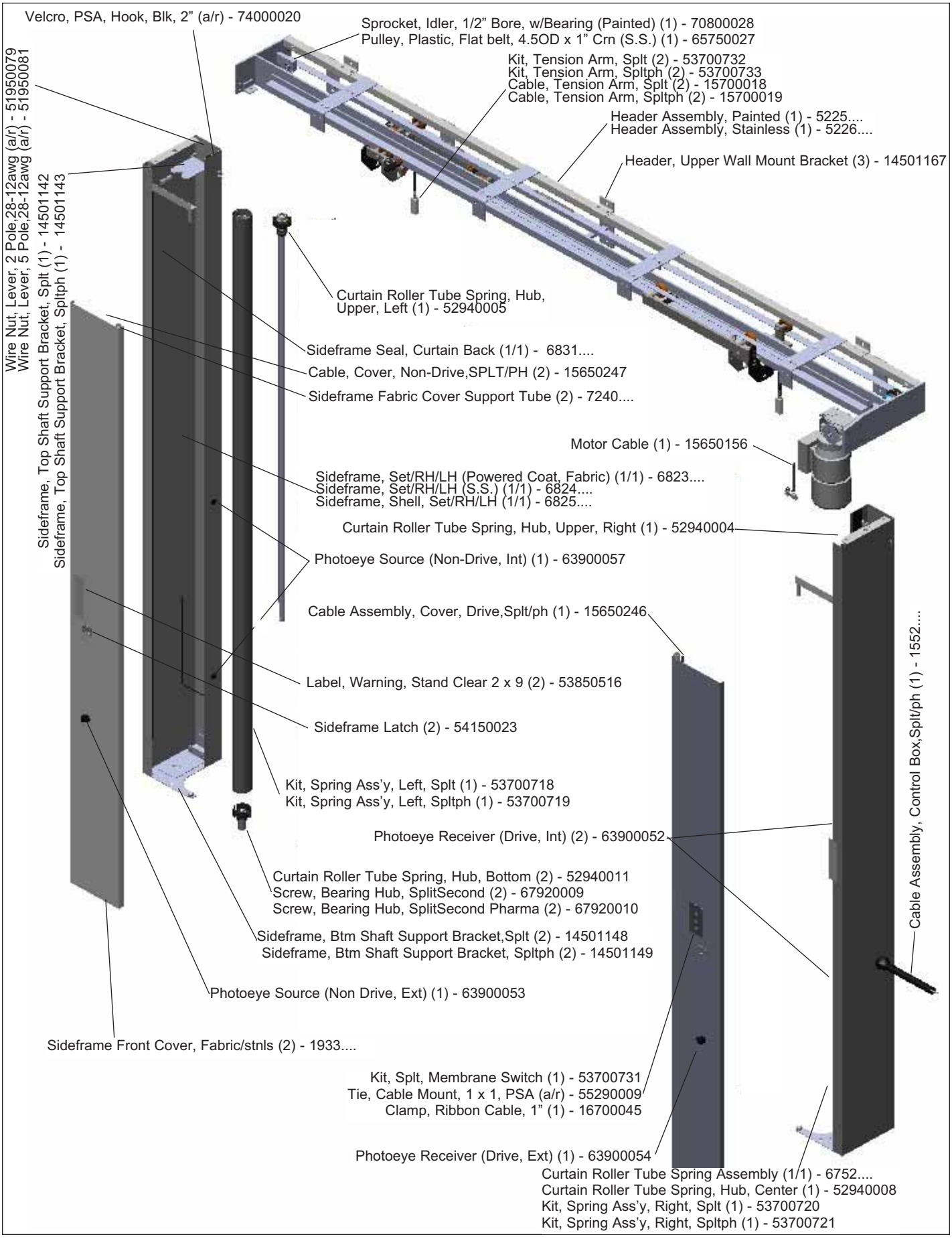


Not Shown:
Screw, PHMS, PHLP, #10-32x1 1/2", znc (4) - 67850109
Bracket, Belt Clamp, Spltph (2) - 14501134
Sideframe, Fabric, Photoeye Bracket (2) - 14501168

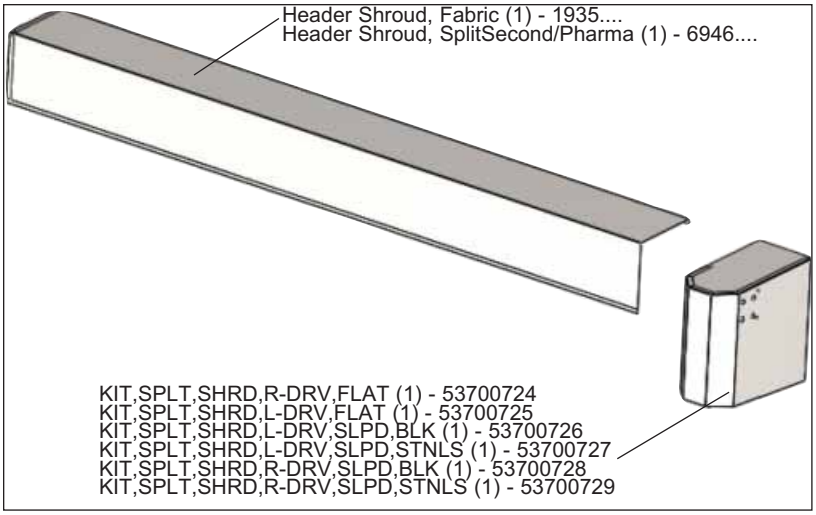
PARTS BOX



CHAPTER 7 - SPLITSECOND FRAME SERVICE PARTS

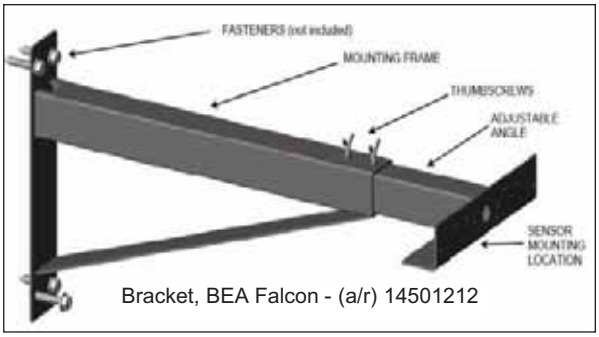


CHAPTER 7 - SPLITSECOND SERVICE PARTS

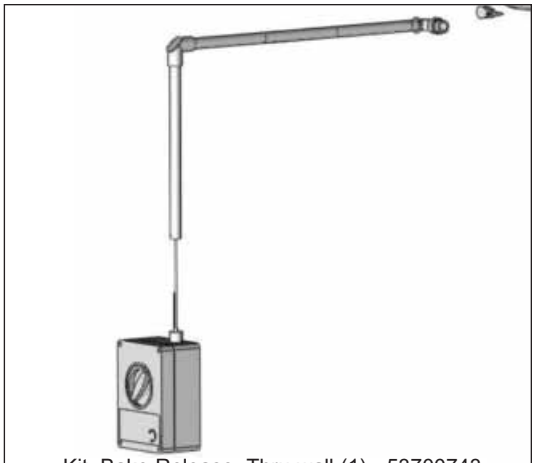


Header Shroud, Fabric (1) - 1935....
Header Shroud, SplitSecond/Pharma (1) - 6946....

KIT,SPLT,SHRD,R-DRV,FLAT (1) - 53700724
KIT,SPLT,SHRD,L-DRV,FLAT (1) - 53700725
KIT,SPLT,SHRD,L-DRV,SLPD,BLK (1) - 53700726
KIT,SPLT,SHRD,L-DRV,SLPD,STNLS (1) - 53700727
KIT,SPLT,SHRD,R-DRV,SLPD,BLK (1) - 53700728
KIT,SPLT,SHRD,R-DRV,SLPD,STNLS (1) - 53700729



Bracket, BEA Falcon - (a/r) 14501212



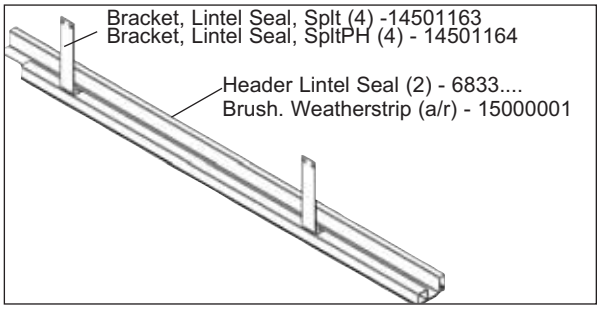
Kit, Bake Release, Thru-wall (1) - 53700743

Seal, Ultra, Rear Sideframe corner (2) - 6829....
Ultra Seal Upgrade (1) - 6828....

Splt or Painted = SplitSecond Non-Stainless door
Spltph or S.S. = SplitSecond Pharma Stainless door
Not Shown:
Entire Door, SplitSecond (1) - Splt....
Entire Door, SplitSecond Pharma (1) - Spltph....
Kit, SplitSecond, Service Parts (1) - 53700722

Seal, Sideframe, Non-Drive, SPLT (1) - 68350160
Ultra Seal Upgrade (1) - 6828....

Seal, Sideframe, Drive, Left, SPLT (1) - 68350161
Seal, Sideframe, Drive, Left, SPLT (!) - 68350162
Ultra Seal Upgrade (1) - 6828....

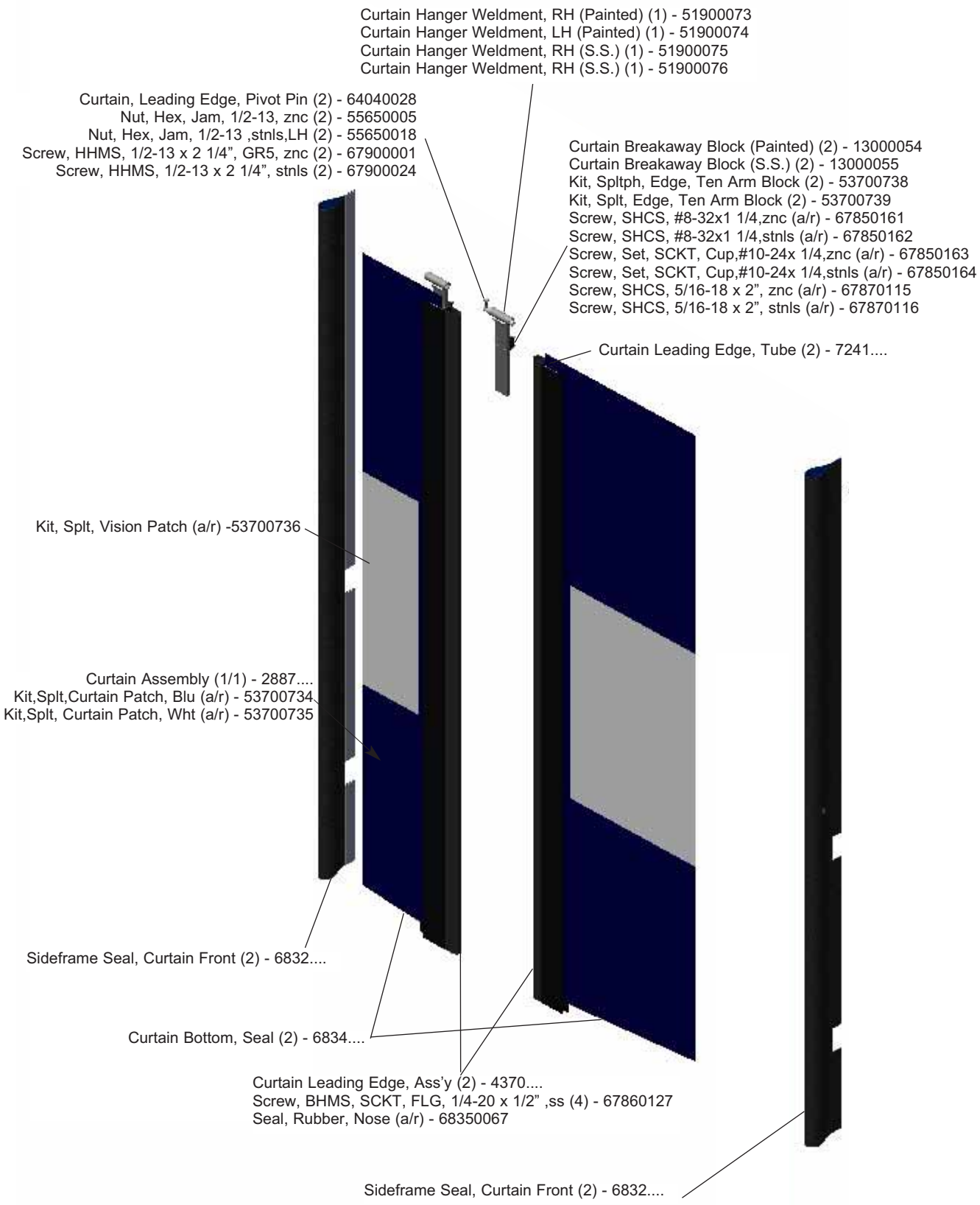


Bracket, Lintel Seal, Splt (4) -14501163
Bracket, Lintel Seal, SpltPH (4) - 14501164
Header Lintel Seal (2) - 6833....
Brush. Weatherstrip (a/r) - 15000001

Hardware Chart

75	2	Cable, 22/2, 150V Shielded	15650225	150	a/r	Screw, HHMS, 5/16-18 x 7", znc	67870118
110	a/r	Nut, Hex, 5/16-18, znc	55620001	151	a/r	Screw, FHMS, Socket, 5/16-18 x 3/4", znc	67870120
111	22	Nut, Hex, 5/16-18, ss	55620004	152	a/r	Screw, FHMS, SCKT, 5/16-18 x 3/4", stnls	67870121
114	1	Nut, Hex, 3/8-16, LH, znc	55630017	155	a/r	Screw, Shoulder, Socket, 3/8 x 1/2", znc	67880113
115	1	Nut, Hex, 3/8-16, LH, stnls	55630018	156	a/r	Screw, Shoulder, Socket, 3/8 x 1/2", stnls	67880114
123	a/r	Screw, RHMS,PHLP,#10-24x1/2,znc	67850008	157	2	Screw, HHMS, 3/8-16 x 2 1/4", stnls	67880115
131	a/r	Screw, THSMS,#8x1/2,stnls	67850165	159	1	Screw, HHMS, 1/2-13 x 1 1/2", znc	67900005
132	2	Screw, SHCS, #10-24 x 1", znc	67850169	163	4	Screw, HHMS, M6-1.0 x 30mm, stnls, 18-8	67930015
133	2	Screw, SHCS, #10-24 x 1", stnls	67850170	168	a/r	Washer, Lock, Int/Ext, #10,znc	74100004
139	4	Screw, HHMS, 5/16-18 x 1 1/4", GR5, znc	67870003	169	2	Washer, Lock, Splt, #6, znc	74100013
140	a/r	Screw, HHMS, 5/16-18 x 3/4", GR5, znc	67870006	170	2	Washer, Lock, Split, #6, stnls	74100023
141	2	Screw, HHMS, 5/16-18 x 1 3/4", GR5, znc	67870008	171	11	Washer, Flat, #8 x 3/8 x .031, ss	74100024
142	2	Screw, HHMS, 5/16-18 x 2 1/4", ss	67870018	177	2	Washer, Flat, 3/8 x 1 x .063, znc	74130001
145	a/r	Screw, HHMS, 5/16-18 x 3/4", GR5, znc	67870006	180	2	Washer, Flat, 3/8 x 1 x 5/64, ss	74130012
146	a/r	Screw, SHCS, 5/16-18 x 3/4", stnls	67870114	181	1	Washer, Flat, .531" x1.06" x .135", znc	74150021
149	4	Screw, HHMS, 5/16-18 x 7", stnls	67870117				

CHAPTER 7 - SPLITSECOND CURTAIN SERVICE PARTS



CHAPTER 7 - ACTIVATION

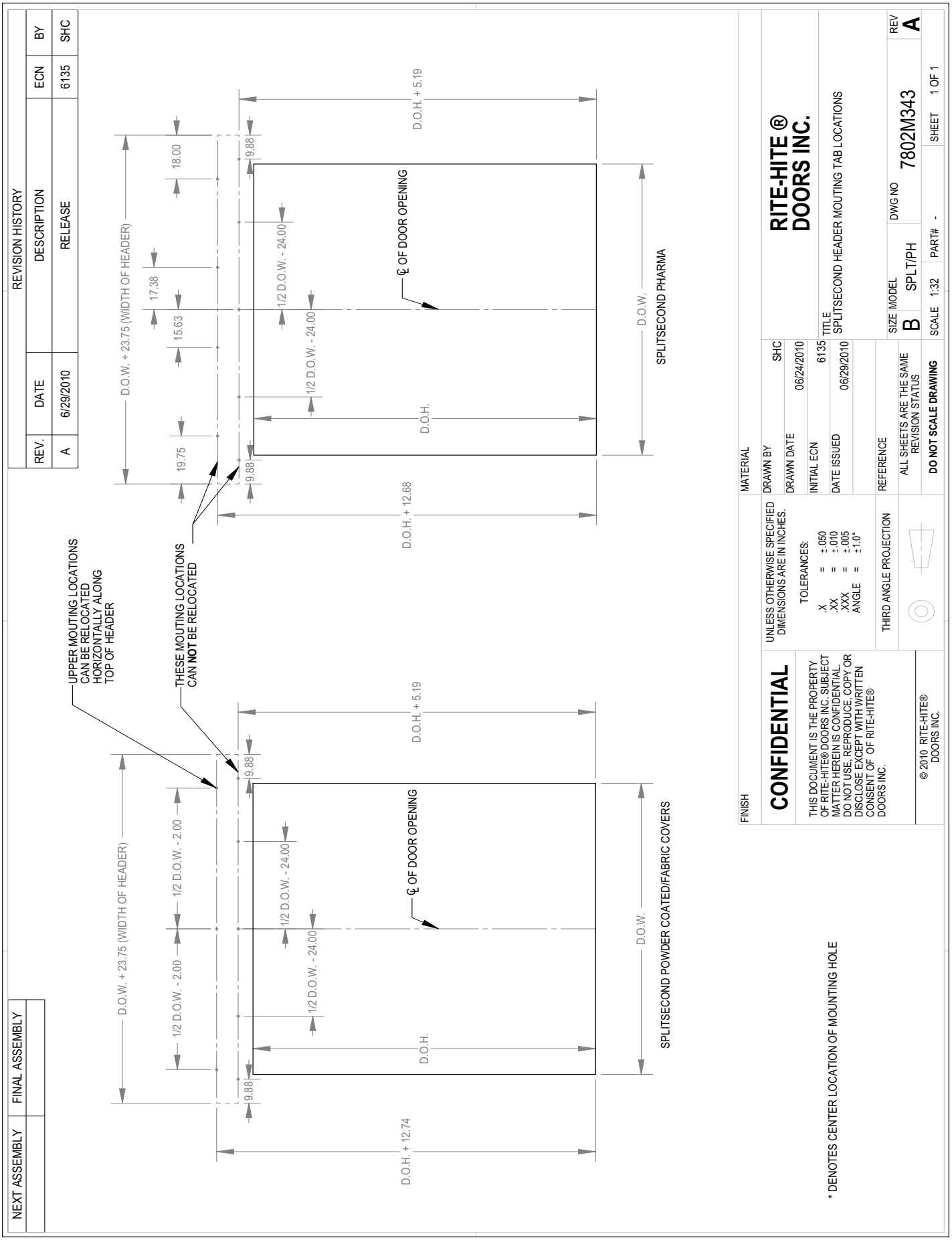
#	Part #	Description	5700	7100	8000	8600	8900	FSTX	FSTXCL	FSTXFR	FSTXFRLD	FSTXXL	LTSPD	Split2nd
1	11050007	Alarm, Audible, 24AC/DC, 22.5 (I-Zone)	N	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N
2	11050010	Alarm, Audible, 120VAC,10-TONE, AB	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
3	17500025	Controller, Wireless, Act, BTR, 12-24V	N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y
4	17500001	Induction Loop Board, 24VDC (<5/28/14)	N	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N
5	17500010	Induction Loop Board, 12/24VDC (=>6/20/12)	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
6	52000037	Induction Loop Board Harness (<5/28/14)	N	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N
7	52000056	Induction Loop Board Harness (=>6/20/12)	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	53700552	Induction Loop, Kit, Single (<5/28/14)	N	Y	Y	Y	Y	Y	Y	Y	N	Y	N	N
9	53700864	Induction Loop, Kit, Dual	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10	55150279	i-COMM ii LCD Interface	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
11	7622	I-Zone Kit	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
12	7636	I-Zone Upgrade Kit, Non FasTrax	N	N	Y	N	Y	N	N	N	N	N	Y	N
13	7637	I-Zone Upgrade Kit, FasTrax	N	N	N	N	N	Y	N	Y	Y	Y	N	N
14	14500774	I-Zone Sensor Bracket Black	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
15	14500775	I-Zone Sensor Bracket Gray	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
16	14500783	I-Zone Sensor Bracket Stainless	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
17	17900110	I-Zone Cover Gray	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
18	17900111	I-Zone Cover Black	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
19	17900112	I-Zone Cover Stainless	N	N	Y	N	Y	Y	N	Y	Y	Y	Y	N
20	14501212	Motion Sensor, Mounting Bracket	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
21	55200012	Motion Sensor, Remote Programmer	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
22	55200018	Motion Sensor, FalconXL < 11.5'H	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
23	55200019	Motion Sensor, Falcon >= 11.5'H	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
24	55200021	Motion Sensor, IS40, 12-24V	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
25	55200022	Motion Sensor, LZRI30, 12-35VDC	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
26	55200023	Motion Sensor, MS08,Touchless, 12-24V	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
27	55200024	Motion Sensor, IS40XL, 12-24V	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
28	14500024	Photoeye Mounting Bracket	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
29	53700053	Photoeye, 24V, Kit, Thru-beam	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
30	53700122	Photoeye, 24V, Kit, Retroreflective	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
31	66400001	Photoeye, Reflector, 2 3/4" x 2"	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
32	63900002	Photoeye, Retro-Reflective 20-40VAC/10-55VDC	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
33	69300004	Photoeye, Thru-beam Source 20-40VAC/10-55VDC	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
34	63900005	Photoeye, Thru-beam Receiver 20-40VAC/10-55VDC	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
35	63900048	Photoeye, Light Curtain, Receiver, (CE)	N	N	N	N	N	Y	N	Y	Y	N	N	N
36	63900049	Photoeye, Light Curtain, Transmitter, (CE)	N	N	N	N	N	Y	N	Y	Y	N	N	N
37	72700213	Pull Cord, Assembly, w/Bracket, Standard	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
38	72700214	Pull Cord, Assembly, w/Bracket, Heated	N	Y	Y	Y	Y	N	Y	Y	Y	N	N	N
39	72700270	Pull Cord, Wireless	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y
40	72700030	Push Button Station Single Green	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
41	72700102	Push Button Station, Open/E-Stop/Close, Nema 4X	N	N	N	N	N	N	N	Y	Y	N	Y	Y
42	72700269	Push Button, Single, Wireless	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
43	66250020	Radio Control, RCVR, BEA, 433, 12-24V, 1 FN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
44	73750078	Radio Control, Trans, BEA, 433, 1 BTN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
45	73750079	Radio Control, Trans, BEA, 433, 2 BTN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
46	73750080	Radio Control, Trans, BEA, 433, 3 BTN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
47	11280002	Radio Control Ant w/15' Cable, 318 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
48	53700068	Radio Control, 24V, Kit, 318 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
49	66250016	Radio RCVR, 24V 318 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
50	66250017	Radio RCVR, 24V 300 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
51	73750002	Radio TRANS, 300 MHZ, BTN, 4 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
52	73750015	Radio TRANS, 318 MHZ, BTN, 1 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
53	73750018	Radio TRANS, 318 MHZ, BTN, 3 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
54	73750019	Radio TRANS, 318 MHZ, BTN, 2 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
55	54270030	Strobe 120VAC Amber	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
56	54270031	Strobe 120VAC Red	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
57	53700567	Switch, Disconnect w/Handle	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
58	72700011	Switch, Selector, 2 Pos, Key	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
59	72700072	Switch, Selector, 2 Pos (Socket p/n: 17200012)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
60	72700144	Switch, Selector, 3 Pos, 3 Pole, 12A	Y	N	N	N	N	N	N	N	N	N	N	N
61	VRTLV	Virtual Vision, Kit, Stand Alone	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
62	7623	Virtual Vision, Kit, FSTX/FR/LTSPD	N	N	N	N	N	Y	N	Y	Y	N	Y	Y
63	7624	Virtual Vision, Kit, FSTXCL	N	N	N	N	N	N	Y	N	N	N	N	N
64	7628	Virtual Vision, Kit, FSTXXL	N	N	N	N	N	N	N	N	N	Y	N	N
65	53700862	Warning Device Kit, Relay, i-COMM	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
66	53700863	Warning Device Kit, Relay, PLC	N	N	Y	Y	Y	N	N	N	N	N	N	N
67	53700306	Kit, Activation Service Parts (loop, pe, pull, push)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
#	Part #	Description (Last updated: 10.15.14)	5700	7100	8000	8600	8900	FSTX	FSTXCL	FSTXFR	FSTXFRLD	FSTX	LTSPD	Split2nd

RITE-HITE DOORS ABBREVIATION LIST

Abbreviation	Description	Abbreviation	Description
AB	Allen Bradley	Max	Maximum
AC	Alternate Current	Mhx	Mega Hertz
ACT	Activation	Mil / mm	Millimeters
Amp	Amperage	Min	Minimum
A/R	As Required	Misc	Miscellaneous
Ass'y	Assembly	MPH	Miles per hour
BL or BLK	Black	MSDC	Mounted Side DC
BRD/DRN	Braid or Drain wire	MSTP	Mounted Side Tie Point
BR or BRN	Brown	N	Neutral
BRKT	Bracket	NMDC	Non-Mounted Side DC
BRK	Brake	NMTP	Non-Mounted Side Tie Point
BTM	Bottom	N/A	Not Available
BU	Blue	N.C.	Normally Closed
CC	Current Limiting	N.O.	Normally Open
CE	European Commission	N.P.O.	Non-Powered Opening
CL	Clean Door	OB	Obstruction
CLR	Cooler Door	O.D.H.	Ordered Door Height
CR	Control Relay	O.D.W.	Ordered Door Width
CT	Control Techniques	Opt	Optional
C.W.	Counter Weight	OR or ORG	Orange
DC	Direct Current	Oz	Ounce
D.O.H.	Door Ordered Height	Pharma	Pharmaceutical
D.O.W.	Door Ordered Width	PB	Push Button
DR	Drill	PE	Photoeye
E-Stop	Emergency Stop	PHLP	Phillips Head
e.g.	For Example	PHSMS	Pan Head Sheet Metal Screw
etc	Etcetera	PK	Pink
Ext	Exterior	P.M.P.	Planned Maintenance Program
Ext/Ext	Exterior / Exterior	Pos	Position
FHMS	Flat Head Machine Screw	PSA	Pressure Sensitive Adhesive
F1,2,3	Fuse 1,2,3	Pub	Publication
FCC	Federal Communications Commission	PVC	Polyvinyl Chloride
FHWH	Flat Head Washer Head	Qty	Quantity
FR / FZR	Freezer Door	R	Right
FSTX	FasTrax	RD	Red
GBX	Gearbox	RH	Right Hand
GN or GRN	Green	RHD	Right Hand Drive
GND	Ground	RHMS	Round Head Machine Screw
GR	Grade	R/T	Roller Tube
GY	Gray	SD	Secure Digital
HDW	Hardware	SEC	Seconds
HHCS	Hex Head Cap Screw	SF	Square Foot
HHMS	Hex Head Machine Screw	S/F	Side Frame
HWHSMS	Hex Washer head Sheet Metal Screw	SK	Control Techniques VFD
H.P.	Horse Power	SPDT	Single Pole Double Throw
Hz	Hertz	SPLT	SplitSecond
illum	Illumination	S.S. / STNLS	Stainless Steel
in	Inches	STND / STD	Standard
ind	Induction	SW	Switch (Disconnect)
Int	Interior	Term	Terminal
Int/Int	Interior / Interior	TIG	Tungsten Insert Gas
Int/Ext	Interior / Exterior	UHMW	Ultra High Molecular Weight
I/O	Input / Output	UV	Ultra Violet
J-Box	Junction Box	V	Voltage
KBPS	Kilobytes per second	VFD	Variable Frequency Drive
KLDR	Time Delay Fuse	VL	Vertical Lift
KVA	Kilo-Volt Ampere	V.V.	Virtual Vision
L	Left	W.D.	Warning Device
lb	Pounds	w/	With
LCD	Liquid Crystal Display	w/o	Without
LED	Light-Emitting Diode	WH	White
LH	Left Hand	X	Controller Input
LHD	Left Hand Drive	XL	Extra Large Door
L1,2,3	Line Voltage 1, 2, 3	Y	Controller Output
LLC	Limited Liability Company	YE	Yellow
LTSPD	LiteSpeed	ZNC	Zinc
L/S	Limit Switch	0V	Direct Current Common (Zero V)
M/D/Y	Month/Day/Year		

Rev. 9.23/14

CHAPTER 8 - MOUNTING TAB LOCATION DRAWING



CHAPTER 8 - ARCHITECTURAL DRAWING - STEEL COVERS

REVISION HISTORY				
REV.	DATE	DESCRIPTION	ECN	BY
A	11/9/2009	ADD CONTROL CABLE DIMENSIONS	5962	RPB
B	8/20/2010	ADD 575V XFMR NOTE	6132	RPB
C	3/7/2014	MAKE BOTTOM SEAL OPTIONAL	6857	RPB

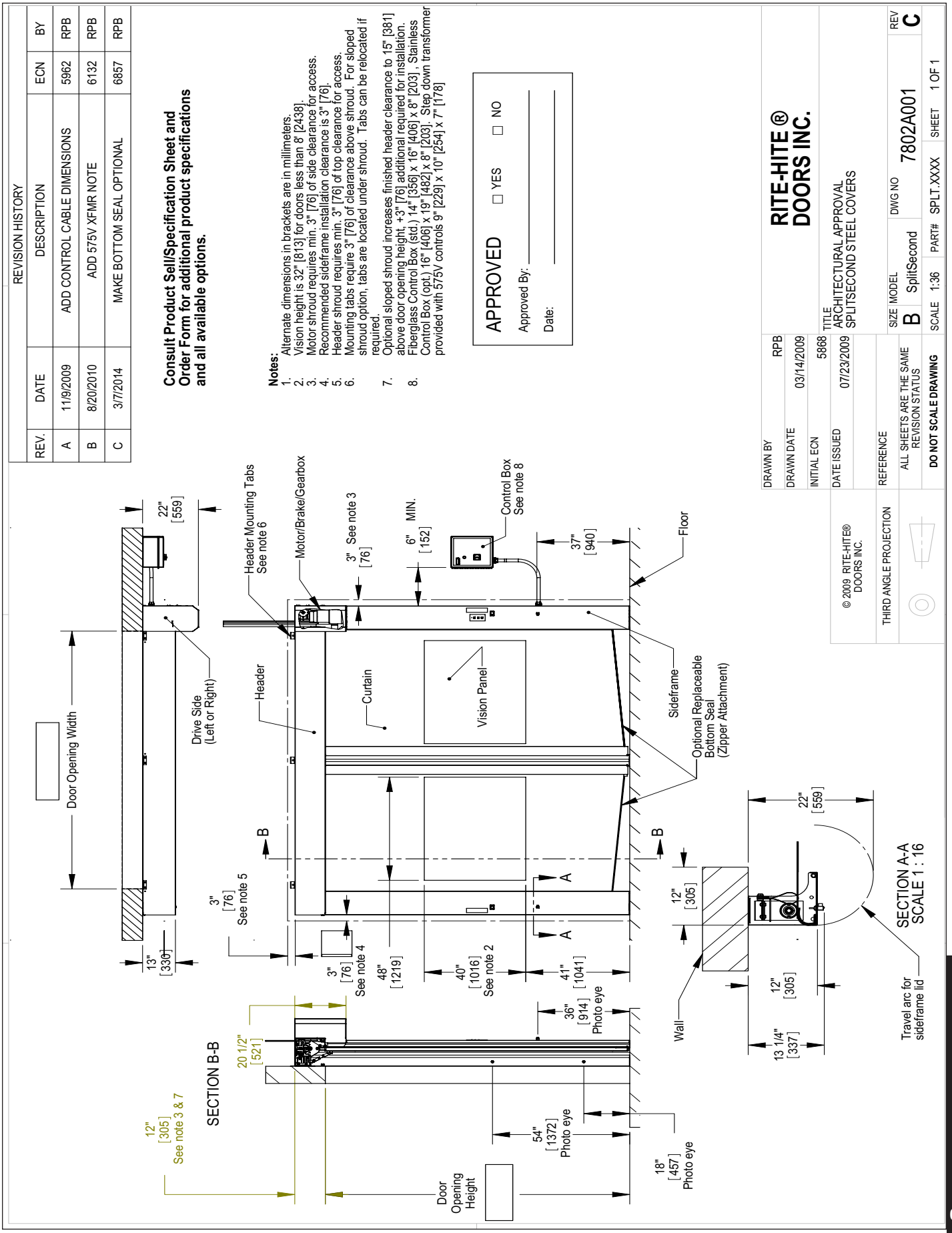
Consult Product Sell/Specification Sheet and Order Form for additional product specifications and all available options.

Notes:
1. Alternate dimensions in brackets are in millimeters.
2. Vision height is 32" [813] for doors less than 8' [2438].
3. Motor shroud requires min. 3" [76] of side clearance for access.
4. Recommended sideframe installation clearance is 3" [76].
5. Header shroud requires min. 3" [76] of top clearance for access.
6. Mounting tabs require 3" [76] of clearance above shroud. For sloped shroud option, tabs are located under shroud. Tabs can be relocated if required.
7. Optional sloped shroud increases finished header clearance to 15" [381] above door opening height, +3" [76] additional required for installation.
8. Fiberglass Control Box (std.) 14" [356] x 16" [406] x 8" [203] . Stainless Control Box (opt.) 16" [406] x 19" [482] x 8" [203] . Step down transformer provided with 575V controls 9" [229] x 10" [254] x 7" [178]

APPROVED ☐ YES ☐ NO

Approved By: _____

Date: _____



DRAWN BY RPB
DRAWN DATE 03/14/2009
INITIAL ECN 5868
DATE ISSUED 07/23/2009

REFERENCE

THIRD ANGLE PROJECTION

ALL SHEETS ARE THE SAME REVISION STATUS

DO NOT SCALE DRAWING

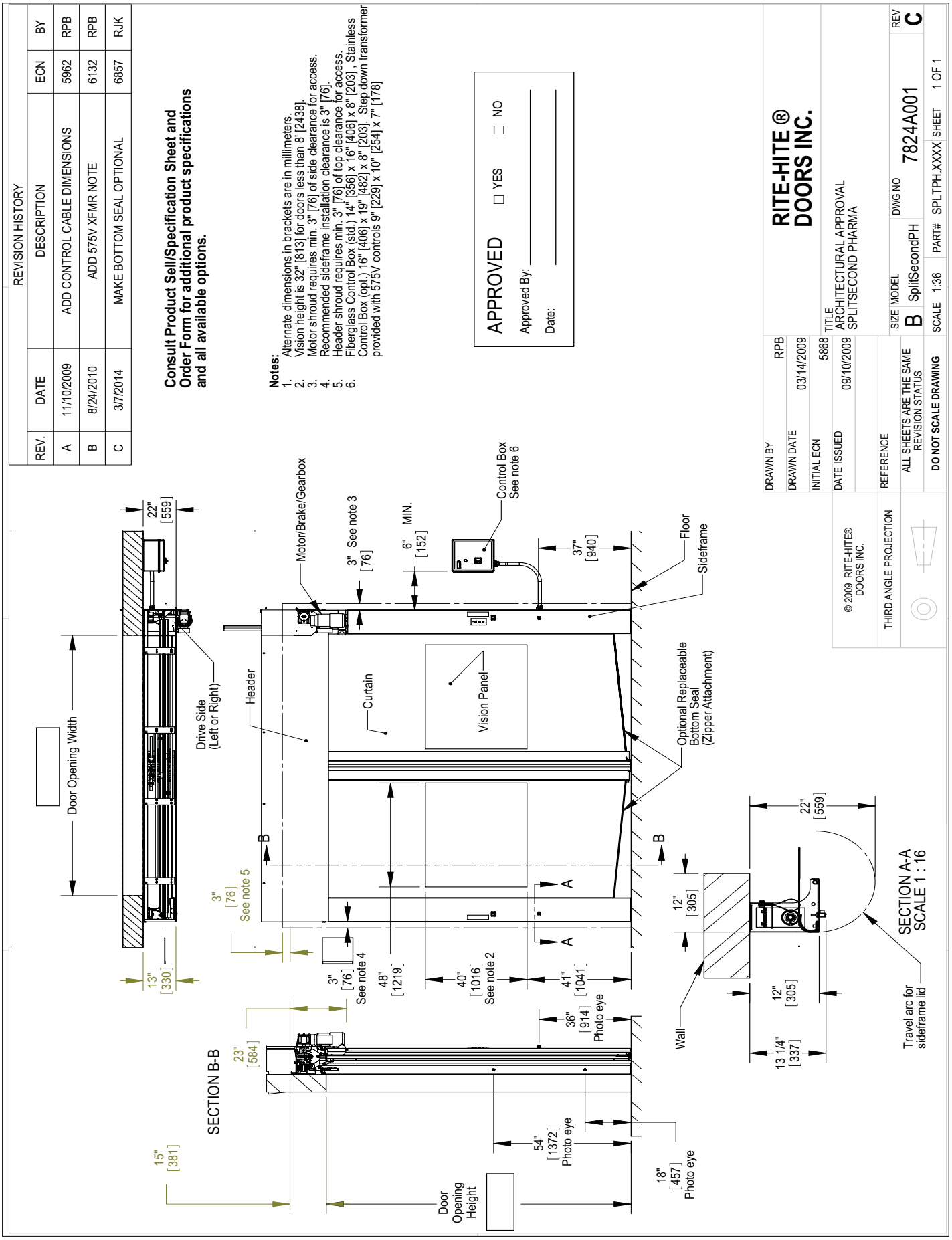
RITE-HITE ® DOORS INC.

TITLE
ARCHITECTURAL APPROVAL
SPLITSECOND STEEL COVERS

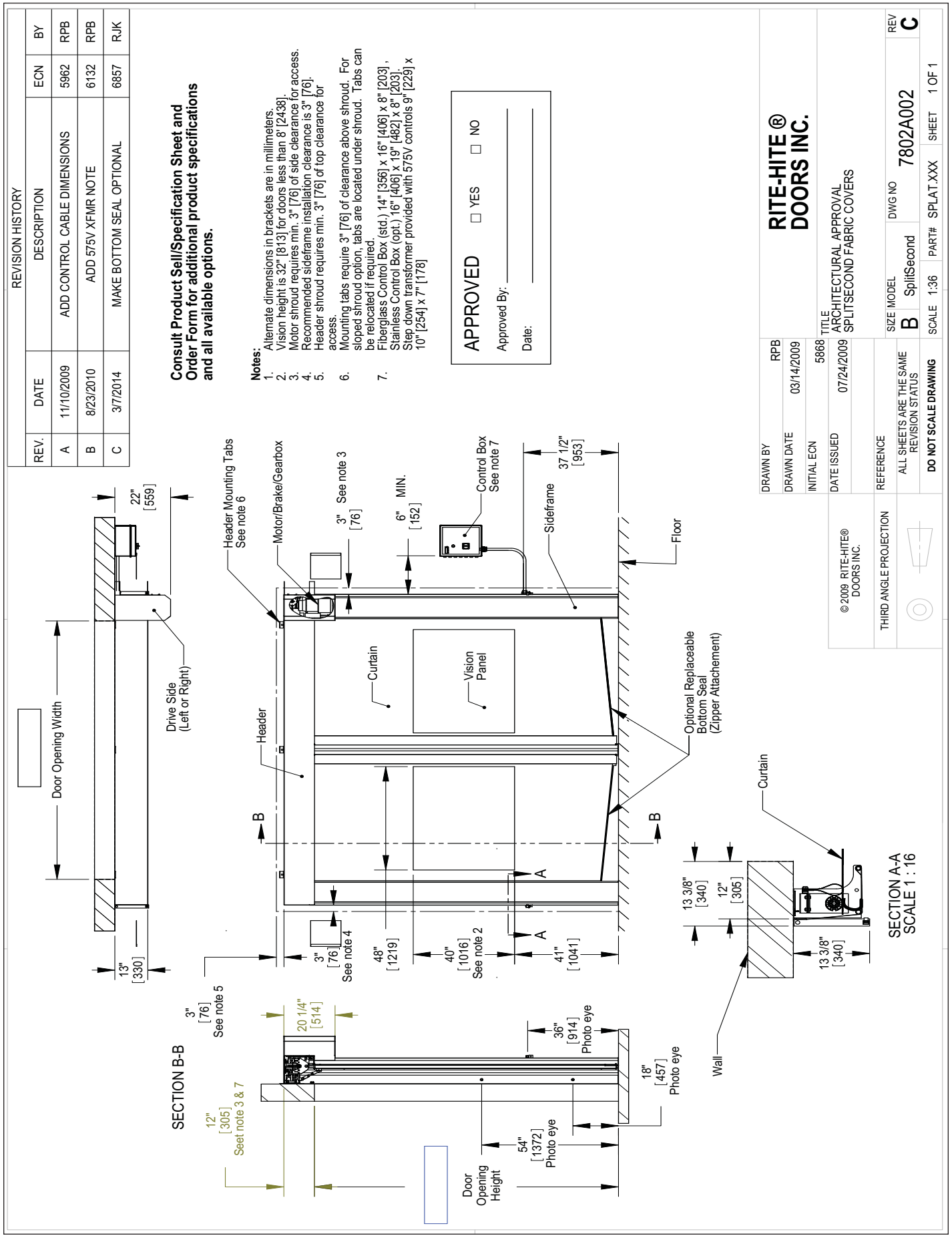
SIZE B | MODEL SplitSecond | DWG NO 7802A001 | REV C

SCALE 1:36 | PART# SPLT.XXXX | SHEET 1 OF 1

CHAPTER 8 - ARCHITECTURAL DRAWING - PHARMA



CHAPTER 8 - ARCHITECTURAL DRAWING - FABRIC COVERS



RITE-HITE DOOR PRODUCT WARRANTY

RITE-HITE®
ALWAYS LOOKING AHEAD

LIMITED WARRANTY

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

One (1) Year on all mechanical and electrical parts.

One (1) Year labor, based on approved travel and labor repair times.

REMEDIES

Parts. RITE-HITE's obligations under this Limited Warranty is limited to repairing or replacing, at RITE-HITE's option, any part which is determined by RITE-HITE to be defective during the applicable warranty period. Such repair or replacement shall be RITE-HITE's sole obligation and the Owner's exclusive remedy under this Limited Warranty.

Labor. RITE-HITE will provide warranty service without charge for labor in the first year of the warranty period. Thereafter, a charge will apply to any repair or replacement under this Limited Warranty.

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

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

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

LIMITATION OF LIABILITY. IN NO EVENT SHALL RITE-HITE BE RESPONSIBLE FOR, OR LIABLE TO ANYONE FOR, SPECIAL, INDIRECT, COLLATERAL, PUNITIVE, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RITE-HITE HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. Such excluded damages include, but are not limited to, personal injury, damage to property, loss of goodwill, loss of profits, loss of use, cost of cover with any substitute product, interruption of business, or other similar indirect financial loss. Rite-Hite 2.1.14

RITE-HITE DOORS, INC. is covered by one or more of the following U.S. patents, including patents applied for, pending, or issued:

5,579,820, 5,638,883, 5,794,678, 5,887,385, 5,915,448, 5,944,086, 6,089,305, 6,145,571, 6,148,897, 6,192,960, 6,212,826, 6,321,822, 6,325,195, 6,330,763, 6,360,487, 6,481,487, 6,560,927, 6,598,648, 6,612,357, 6,615,898, 6,688,374, 6,698,490, 6,837,296, 6,901,703, 6,942,000, 6,964,289, 7,034,682, 7,045,764, 7,111,661, 7,114,753, 7,151,450, 7,578,097, 7,699,089, 7,748,431, 7,757,437, 8,037,921, 8,167,020, 8113265.

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.

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