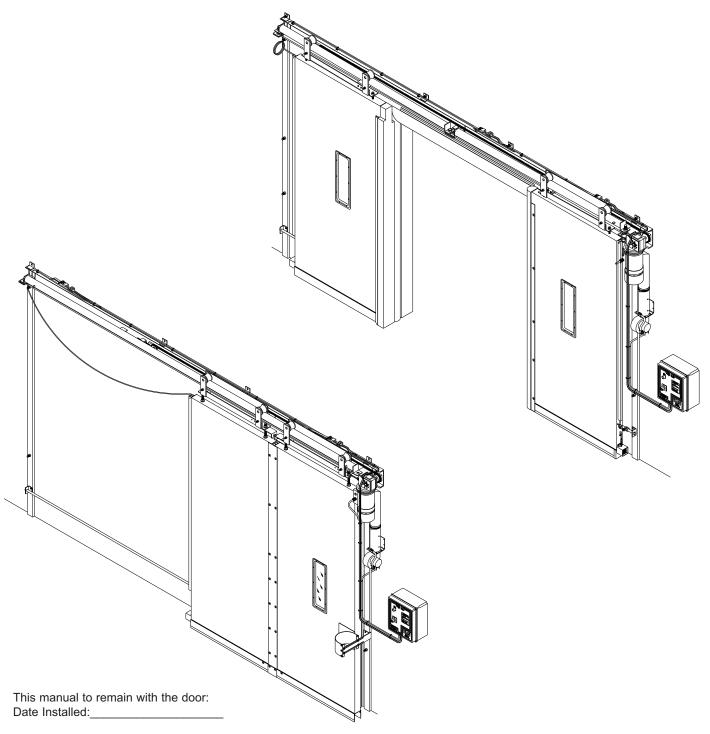
# **BARRIER® GLIDER**

# BI-PARTING / SINGLE SLIDE COLD STORAGE DOOR MODEL 7100









This manual covers doors shipped = > 6/25/13. Refer to 7100J for doors prior.

## TABLE OF CONTENTS

#### SPECIAL FEATURES

i-COMM™ Universal Controller

Energy Efficient Design Featuring High R-Value Panels

Flexible Panels

Unique Thermal Air Sealing System

Impactable Panel Retention System

RECOMMENDED SERVICE PARTS				
Retention Cord/Spring	53700460 (3)			
Limit Switch	53700512 (1)			
Panel Blower/Heater	53700647 (1)			
Kit, Controller i-COMM	53700860 (1)			
Fuse, 1 Amp	51000002 (2)			
Fuse, 3.5 Amp	51000008 (2)			
Fuse, 10 Amp	51000033 (3)			
Fuse, 6 Amp	51000055 (2)			
Fuse, 9 Amp	51000064 (2)			

#### NOTICE TO USER

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

Thank you for purchasing the BARRIER® GLIDER from RITE-HITE DOORS, INC. The BARRIER GLIDER is designed to be a fast, smooth opening, low maintenance door that provides superior environmental separation while reducing passage time and temperature loss.

This manual should be thoroughly read and understood before beginning the installation, operation or servicing of this door.

Complete Final Checklist prior to leaving site

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

The information contained in this manual will allow you to operate and maintain the door in a manner which will insure maximum life and trouble free operation. The serial # for your door is on a label located on the side of the control box and support post, *Pages 16 & 17.* 

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 BARRIER GLIDER have been left out of this manual or are not complete, contact RITE-HITE DOORS, INC. Technical Support at 1-563-589-2722.

INSTALLATION	I TOOLS REQUIRED
Fork and scissors lift (2) 15/16" [24] open end wrenches	
Hydro level	Hammer
10' [3048] Step ladder 1/2" [13] Masonry and/or drill bit for thru bolting	
Cordless drill 7/16" [11], 1/2" [13], 9/16" [14] open end and/or socket wre	
25' [7620] Tape measure 11/16" x 12" [17 x 305] drill bit for thru bolting	
Wire strippers Straight screwdriver (small 1/8" [3] spade)	
6' [1829] Carpenters level	Hardware for mounting the header, support posts, retention
Utility knife rod, blower and perimeter seals to wall are provided. for perimeter seals is not provided.	

## **CHAPTER 1 - SAFETY WARNINGS**

#### SAFETY IDENTIFICATION



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.

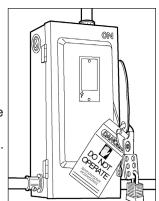
#### LOCKOUT/TAGOUT PROCEDURES

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 34 - 43.

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

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

- 1. Alternate dimensions in brackets are in [millimeters].
- 2. Make sure that you are working at the correct location and that you have any special work permits.
- 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.
- 4. Detour material handling equipment (fork lift trucks, etc.) during the installation of the door.
- Make sure that the electrician is ready to bring the correct electrical power supply to the door control box.
- 6. Make sure that the electrical power can be shut off without interfering with other plant operations.
- 7. Move the entire crate of the door components as close to the door opening as possible.
- 8. When removing the panels from the crates. Be sure not to lean panels such that they crease.

- 9. Remove header from the crate by removing the front and motor side of the crate, sliding the motor off the edge of the crate and standing up. There will be a block under the C-Channel to keep the motor off the floor. This will allow a fork lift to pick up the header using the header lifting tubes.
- 10. Remove plastic rivets and keep in a warm place.
- 11. In the case of multiple doors being installed, it is imperative to install the proper control box with the matching door unit. The serial # for your door is on a label located on the side of the control box and lower post.
- 12. Be sure to install any optional equipment last after verifying door operation.

## NOTICE

It is HIGHLY recommended to thru-bolt the header with the all threaded rods provided as this is the main support for the door.

#### **POLY LUMBER**

- 1. Place vertical and horizonal poly Lumber pieces per drawing specifications on *Page 5*.
- 2. Caulk behind poly lumber that surrounds the opening.
- 3. Install support post thru-bolt poly lumber tab behind pre-drilled mounting hole after header is in place.
- 4. Place header thru-bolt poly lumber tab behind predrilled mounting hole.

#### **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).
- 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.
- 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.

For space clearance requirements, see Architectural drawings on *Pages 54 - 56.* 

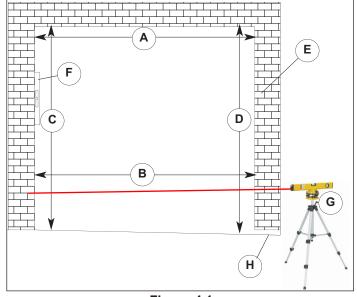
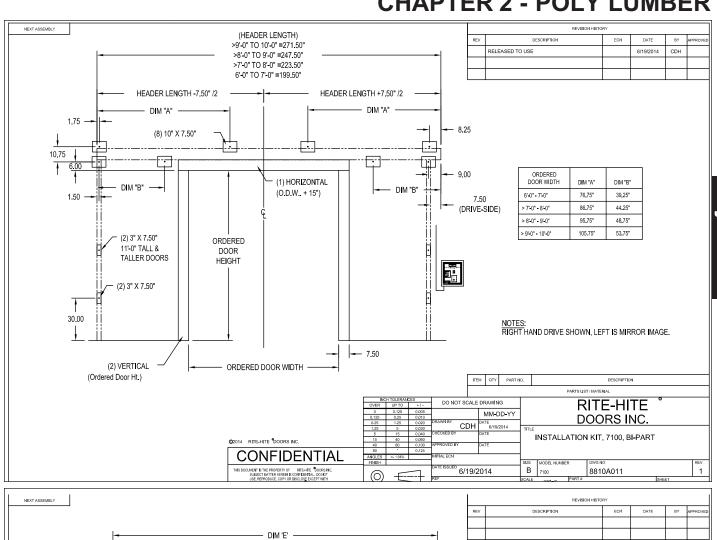
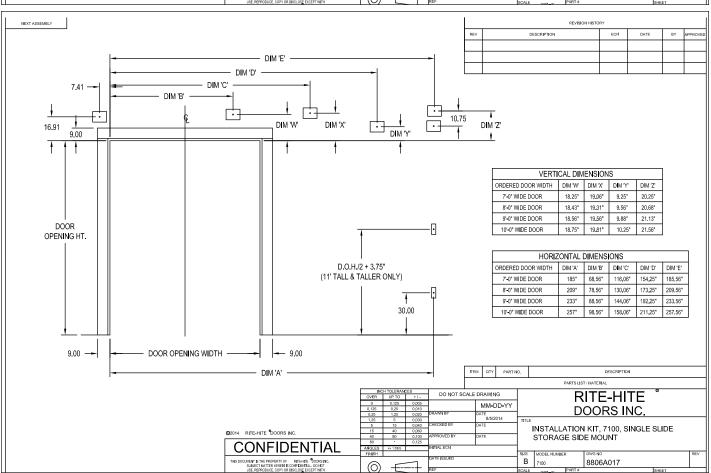


Figure 4.1

## **CHAPTER 2 - POLY LUMBER**





## **CHAPTER 2 - HEADER INSTALLATION BI-PARTING**

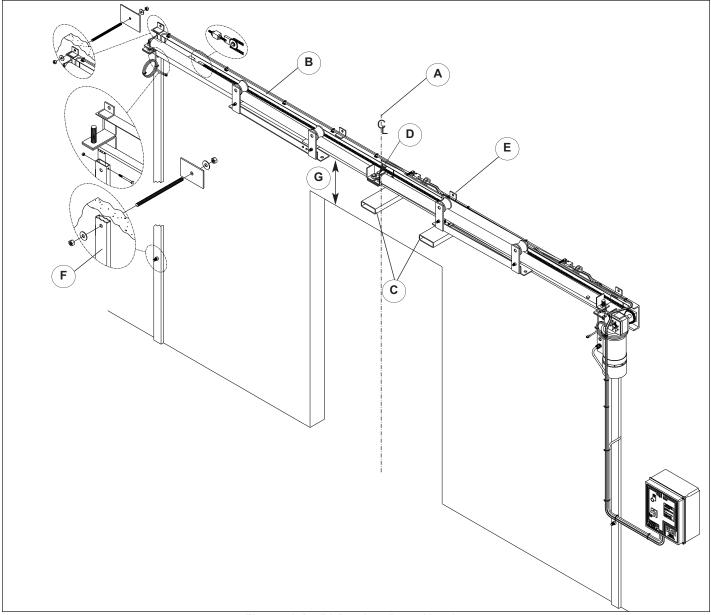


Figure 6.1 - Bi-Parting Door Header

- 1. Find the center of the top of the jamb and mark an 8" [203] vertical line (A).
- 2. Place header (B) in front of the opening, by locating the factory assembled header lifting tubes (C) bolted to the bottom of the header.
- 3. Make sure to clamp lifting tubes to fork lift and remove after complete.
- 4. Line up the center splicing bracket (D) on the header with the line on the center of the jamb.
- 5. Lift the header using a fork lift and bolt the support posts to the header and place against the wall with the bottom of the C-channel 7 1/2" [191] above the jamb.
- 6. If support posts do not rest on the floor with the header at 7 1/2" [191] (G) above the opening, check the floor for obstructions and make corrections. Header should be level to ± 1" [25].
- 7. Thru-bolt the header to the wall at the (4) top (E) and (2) bottom mounting angles using the 6" x 6" [152 x 152] backer plates, all thread and nuts are provided. If wall is not solid, sleeves (not provided) must be used to prevent wall from crushing and sagging of the header.
- 8. Plumb and fasten the support posts (F) to the wall in the (4 or 6 based on O.D.H) locations provided with the 6" x 6" [152 x 152] backer plates, all thread and nuts are provided.
- 9. Find the center bracket (D) of the header C-Channel. Chain should be tensioned so there is 1/8" [3] between the bottom of the chain and the nylon wear pad.

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## **CHAPTER 2 - HEADER INSTALLATION SINGLE SLIDE**

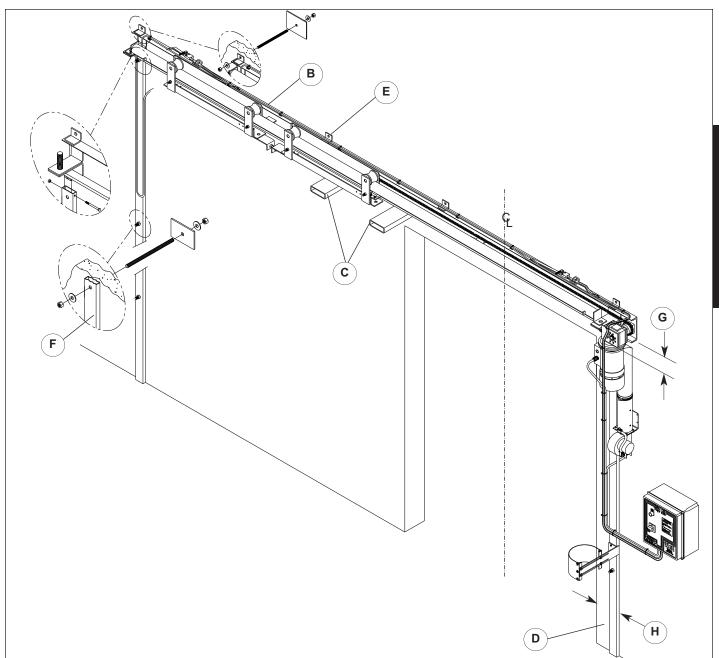


Figure 7.1 - Single Slide Door Header - Jamb Side Drive

- 1. Place header (B) in front of the opening, by locating the factory assembled header lifting tubes (C) bolted to the bottom of the header.
- 2. Make sure to clamp lifting tubes to fork lift and remove after complete.
- 3. Place shorter jamb side support post (D) 9" [229] (H) past the edge of the jamb.
- 4. Lift the header using a fork lift and bolt the support posts to the header and place against the wall with the bottom of the C-channel 7 1/2" [191] above the jamb.
- 5. If support posts do not rest on the floor with the header at 7 1/2" [191] (G) above the opening, check the floor for obstructions and make corrections. Header should be level to ± 1" [25].
- 6. Thru-bolt the header to the wall at the (4) top (E) and (2) bottom mounting angles using the 6" x 6" [152 x 152] backer plates, all thread and nuts are provided. If wall is not solid, sleeves (not provided) must be used to prevent wall from crushing and sagging of the header.
- 7. Plumb and fasten the support posts (F) to the wall in the (4 or 6 based on O.D.H) locations provided with the 6" x 6" [152 x 152] backer plates, all thread and nuts are provided.
- 8. Chain should be tensioned so there is 1/8" [3] between the bottom of the chain and the nylon wear pad.

## **CHAPTER 2 - HEADER INSTALLATION - SINGLE SLIDE**

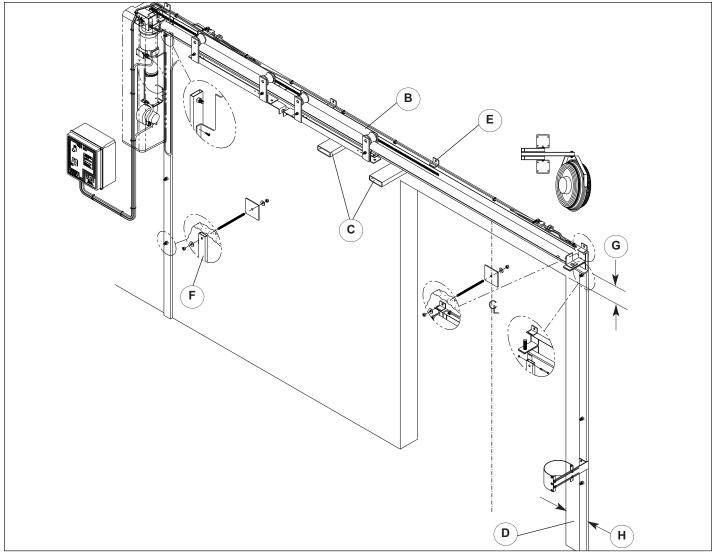


Figure 8.1 - Single Slide Door Header - Storage Side Drive

- 1. Place header (B) in front of the opening, by locating the factory assembled header lifting tubes (C) bolted to the bottom of the header.
- 2. Make sure to clamp lifting tubes to fork lift and remove after complete.
- 3. Place shorter jamb side support post (D) 9" [229] past the edge of the jamb.
- 4. Lift the header using a fork lift and bolt the support posts to the header and place against the wall with the bottom of the C-channel 7 1/2" [191] above the jamb.
- 5. If support posts do not rest on the floor with the header at 7 1/2" [191] above the opening, check the floor for obstructions and make corrections. Header should be level to ± 1" [25].
- 6. Thru-bolt the header to the wall at the (4) top (E) and (2) bottom mounting angles using the 6" x 6" [152 x 152] backer plates, all thread and nuts are provided. If wall is not solid, sleeves (not provided) must be used to prevent wall from crushing and sagging of the header.
- 7. Plumb and fasten the support posts (F) to the wall in the (4 or 6 based on O.D.H) locations provided with the 6" x 6" [152 x 152] backer plates, all thread and nuts are provided.
- 8. Chain should be tensioned so there is 1/8" [3] between the bottom of the chain and the nylon wear pad.

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## **CHAPTER 2 - PERIMETER SEAL BP SINGLE BLOWER**

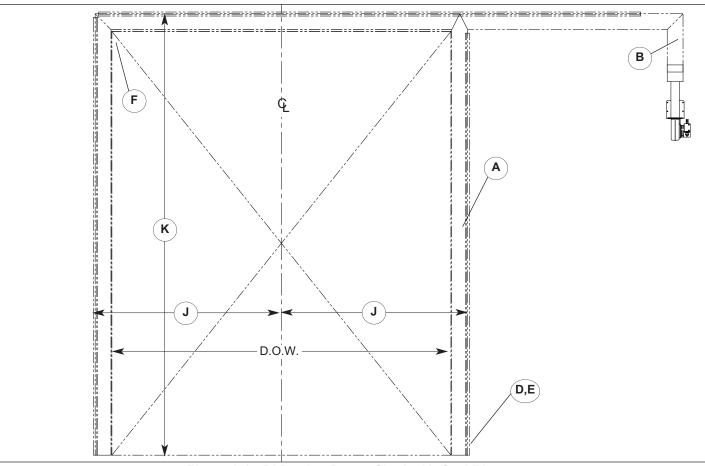


Figure 9.1 - Bi-Parting Door - Single Air Seal Blower

- Find the center of the opening and place a mark on the floor. From the center of the opening measure and snap a chalk line on the wall the full height of the opening 1/2 O.D.W. plus 5 1/2" [140] (J).
- 2. From the floor, measure O.D.H. plus 5 1/2" [140] (K) to the top of the opening and snap a chalk line the full width of the opening.
- Position Thermal Air® sealing system (A) in front of the opening with the extended section on the drive side. Vertical extension (B) is fastened to the blower on the drive side.
- 4. Fasten the aluminum seal retainer (C) Figure 9.4 to the wall at the bottom Figure 9.5, and then every 18" [457] using the #14 x 1 1/4" [32] hex head screws provided if possible. Pull seal tight and place a fastener thru the retainer and the white rope at the top. Repeat for opposite side.
- 5. Pull top retainer to the previously marked line and fasten to the wall.
- 6. Air seal must be twist and wrinkle free (F).
- Air exhaust hole must not be obstructed (E) on both sides.

- 8. After seal installation caulk the entire inside perimeter of the aluminum retainer. Failure to do this may result in frost or ice buildup.
- Mount the blower (G) to the wall such that no part of the blower sticks past the header and the vertical section of the air seal will attach to it. The fabric should be taught but not stretched when clamping (H) to the blower. Use (4) #14 x 1 1/4" [32] hex head screws provided.

#### NOTE:

Make sure aluminum retainers are to the outside of the air seal.

Periodic cleaning of the perimeter air seal sealing system may be required.

#### As of 2/1/2015:

Doors that are greater than 16'-0" O.D.H. require dual perimeter air seals. However dual air seals can be ordered optional for any size door.

# CHAPTER 2 - PERIMETER SEAL BP DUAL BLOWER

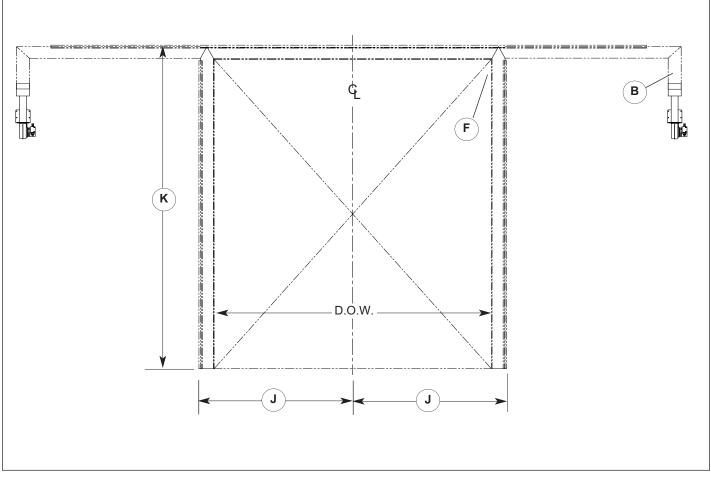


Figure 9.2 - Bi-Parting Door - Dual Air Seal Blower

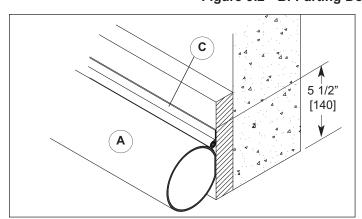


Figure 9.4 - Seal Aluminum Retainer

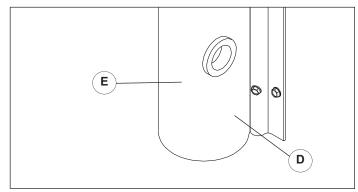


Figure 9.5 - Seal Exhaust Hole

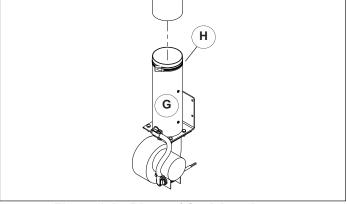


Figure 9.6 - Blower / Seal Attachment

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## **CHAPTER 2 - PERIMETER SEAL SS DUAL BLOWER**

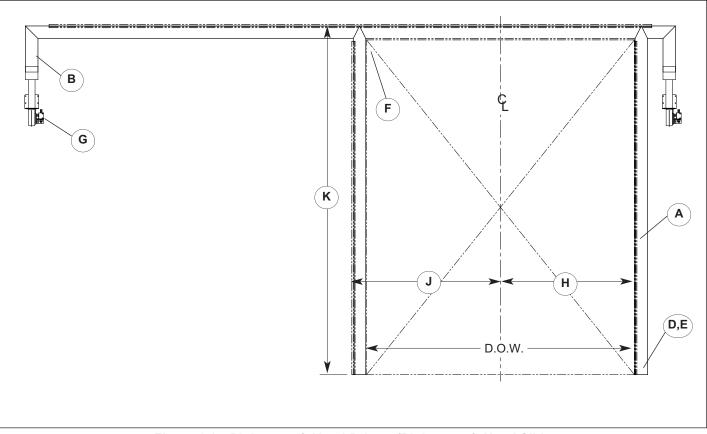


Figure 9.3 - Right or Left Hand Drive w/Right or Left Hand Slide

- Find the center of the opening and place a mark on the floor. From the center of the opening measure and snap a chalk line on the wall the full height of the opening:
  - (H) Drive Side: 1/2 O.D.W. plus 1/4" [6] and
  - (J) Storage Side: 1/2 O.D.W. plus 5 1/2" [140].
- 2. From the floor, measure O.D.H. plus 5 1/2" [140] (K) to the top of the opening and snap a chalk line the full width of the opening.
- Position Thermal Air® sealing system (A) in front of the opening with the extended section on the drive side. Vertical extension (B) is fastened to the blower on the drive side.
- 4. Fasten the aluminum seal retainer (C) Figure 9.4 to the wall at the bottom Figure 9.5, and then every 18" [457] using the #14 x 1 1/4" [32] hex head screws provided if possible. Pull seal tight and place a fastener thru the retainer and the white rope at the top. Repeat for opposite side.
- 5. Pull top retainer to the previously marked line and fasten to the wall.
- 6. Air seal must be twist and wrinkle free (F).
- 7. Air exhaust hole must not be obstructed (E) on both sides.

- 8. After seal installation caulk the entire inside perimeter of the aluminum retainer. Failure to do this may result in frost or ice buildup.
- Mount the blower (G) to the wall such that no part of the blower sticks past the header and the vertical section of the air seal will attach to it. The fabric should be taught but not stretched when clamping (H) to the blower. Use (4) #14 x 1 1/4" [32] hex head screws provided.

#### NOTE:

Aluminum retainers are to the outside of the air seal on the storage side and toward the inside on the drive side.

Periodic cleaning of the perimeter air seal sealing system may be required.

#### As of 2/1/2015:

Doors that are greater than 16'-0" O.D.H. require dual perimeter air seals. However dual air seals can be ordered optional for any size door.

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# CHAPTER 2 - PERIMETER SEAL SS SINGLE BLOWER

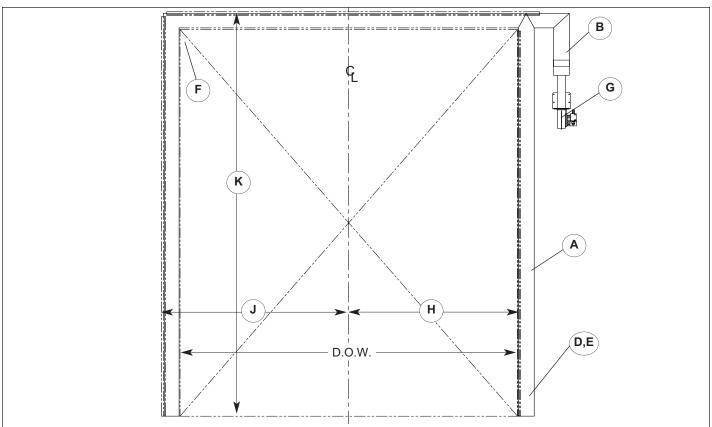


Figure 9.7 - Right Hand Drive Shown: Right Hand Drive w/Left Hand Slide or Left Hand Drive w/Right Hand Slide

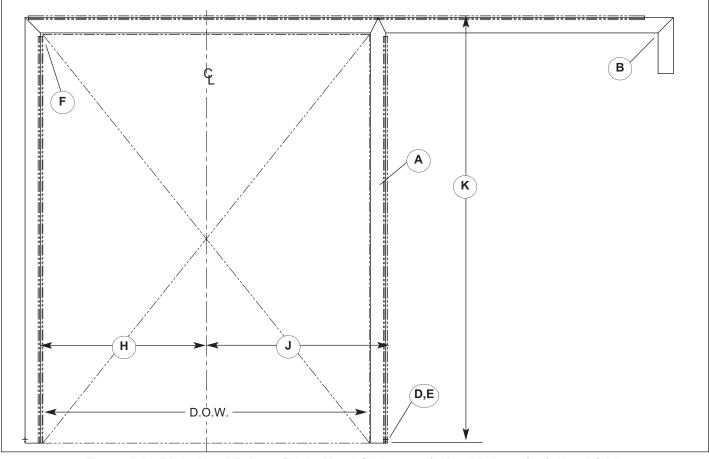


Figure 9.8 - Right Hand Drive w/Right Hand Slide or Left Hand Drive w/Left Hand Slide

# Retention Installatio

## **CHAPTER 2 - RETENTION SYSTEM INSTALLATION**

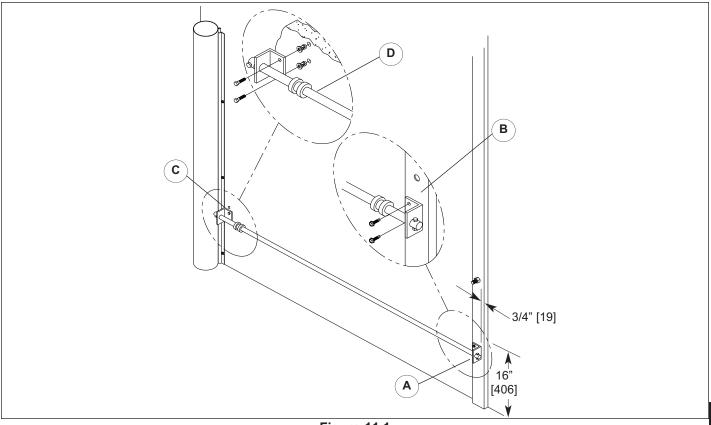


Figure 11.1

- Mount outside wall bracket (A) on the support post (B), 16" [406] from the floor to the top of the bracket and 3/4" [19] from the outside of the post with the self tap/drill screws provided.
- Mount inside bracket (C) on the wall with angle tight against the retention rod bolt. Make sure mounting method will hold if panel is impacted.
- 3. The center of the slide rod (D) should be approximately 3 1/2" [89] below the panel eyebolt.
- 4. Slide eyebolt insert (E) onto cord with insert facing up.
- 5. To pre-tension the spring (F), pull 6" [152] of cord out, tie a knot (G) below the eyebolt insert.
- 6. Wrap cord around the slide collar (H) and fasten with cable clamp (J), cut excess cord.

#### NOTE:

Cord should be tensioned to maintain a 3 1/2" [89] gap from the panel to the wall.

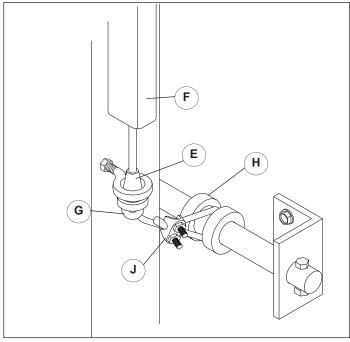
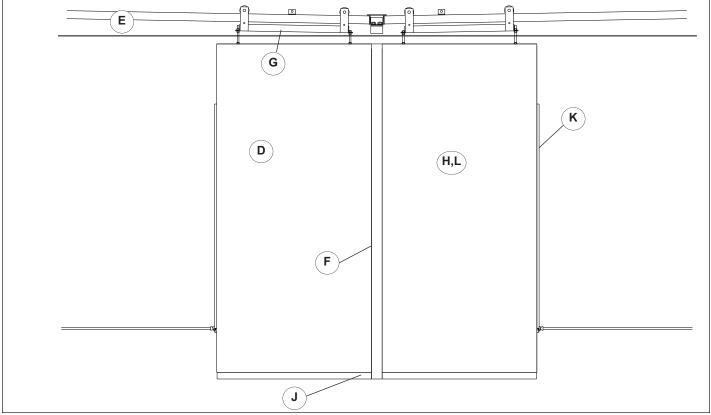


Figure 12.1

## **CHAPTER 3 - Bi-PART PANEL INSTALLATION**



- Remove the top 5/8" [19] nut (A) & washer (B) 15/16" [24] wrench) from the threaded rods (C). 1.
- 2. Place the left panel (D) in front of the header (E) with the thread rods at the top and the nose seal (F) toward the center of the door.
- Tilt panel such that the all thread rods will slide 3. into the holes on the trolley (G), fasten with nuts and washers removed earlier.
- Repeat for right panel (H).
- The panel should be adjusted so that the bottom seal (J) is compressed no more than 1/4" - 3/8" [6`- 10] and no light is showing across the full length of the floor when closed. Panel bottom seal holes must remain open for air to exit. Repeat procedure for opposite panel.
- 6. With the cord at the bottom, fasten retention spring assembly (K) to the outside of the trail panel (L) by lining up the pre-drilled holes in the extrusion with the pre-marked holes on the panel. Use the #14 x 1 1/4" [32] self/tap drill screws provided.
- 7. Fasten eyebolt and nut (M) to the panel in the pre-tapped hole.
- Fasten the blower assembly (N) to the panel using the self tap/drill screws provided and connect plugs.
- Bottom seal fan not present with cooler door option

#### NOTE:

14

After panel is adjusted, torque nuts as tight as possible to prevent loosening from vibration and seal loss.

Figure 12.1

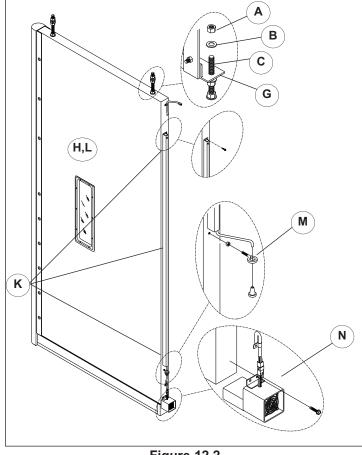


Figure 12.2

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## **CHAPTER 3 - SINGLE SLIDE PANEL INSTALLATION**

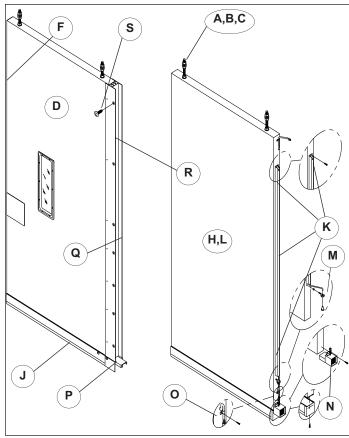


Figure 13.1

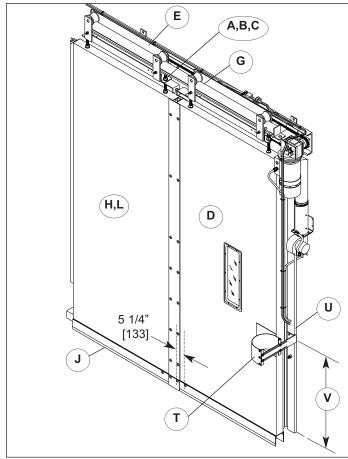


Figure 13.2

- 1. Remove the top 5/8" [19] nut (A) & washer (B) 15/16" [24] wrench) from the threaded rods (C).
- 2. Place the lead panel (D) in front of the header (E) with the thread rods at the top and the nose seal (F) toward the center of the door.
- Tilt panel such that the all thread rods will slide into the holes on the trolley (G), fasten with nuts and washers removed earlier.
- 4. Repeat for right panel (H).
- 5. The panel should be adjusted so that the bottom seal (J) is compressed no more than 1/4" 3/8" [6 10] and no light is showing across the full length of the floor when closed. Panel bottom seal holes must remain open for air to exit. Repeat procedure for opposite panel.
- 6. With the cord at the bottom, fasten retention spring assembly (K) to the outside of the trail panel (L) by lining up the pre-drilled holes in the extrusion with the pre-marked holes on the panel. Use the #14 x 1 1/4" [32] self/tap drill screws provided.
- 7. Fasten eyebolt and nut (M) to the panel in the pretapped hole.
- Fasten the blower assembly (N) to the panel using the self tap/drill screws provided and connect plugs.
- 9. Bottom seal fan not present with cooler door option.
- 10. Fan cable attachment (O).
- 11. Set trail panel on top of lead panel lower bracket (P), slide trail panel into "H" bracket until the 1 5/8" [41] marks disappear.
- 12. Separate the trolleys by removing the bolt & nuts connecting them together.
- 13. Place marks along inside vertical edge of trail panel, 1 5/8" [41] in from edge of panel.
- Apply a generous bead of caulk down the middle of the rear edge (Q) of the lead panel.
- Attach the trail panel by drilling 17/64" [7] holes in the pre-drilled holes on the "H" bracket (R) and inserting the plastic rivets (S). DO NOT DRILL THRU PANEL.
- 16. Attach the panels and bottom seal flap together by drilling 17/64" [7] holes through the pre-drilled holes in the overlap flap, plastic and aluminum, then inserting two plastic rivets.
- 17. Fasten panel guide (T) to the support post (U) so it is centered (V) on the panel wear pad. To adjust, loosen bolts and slide in slots so panel is tight against the wall seal.
- 18. The top of the panels can be pulled together with the trolley to trolley attachment bolt at the top that was removed earlier. If panels are not tight together, remove spacer nut.

#### NOTE:

After panel is adjusted, torque nuts as tight as possible to prevent loosening from vibration and seal loss.

DO NOT use excessive force when hammering rivets into place, as distortion may occur.

## **CHAPTER 4 - 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

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

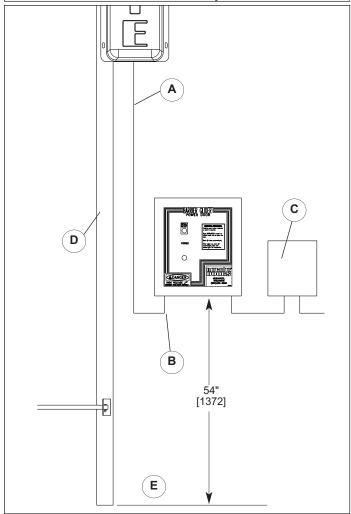


Figure 14.1

16

## **MARNING**

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.

The BARRIER-GLIDER has been factory tested. The cables from the door are ready to be connected to the control box.

See *Pages 34 - 43* for required voltage and service amperage requirements given your specific line voltage.

- Local electrical codes may require the use of rigid conduit or a junction box when running the electrical cables from the header down to the control box.
   Drill a hole for the power supply cable (by others) in the bottom of the control box.
- Cut the cable tie holding the panel blower/heater cable and loop the panel blower/heater cable around the panel adjustment bolt and secure with a cable tie for strain relief. Connect cables together.
- This door is powered by 220/575VAC 1Ø or 208/230/460VAC 3Ø.
- Door cables, activation devices etc. Conduit run by others.
- 5. The motor and limit switch cables (A) are prewired to each component and will need to be run to a watertight fitting (not provided) in the bottom of the control box (B), and hard wired.
- 6. The control box is provided with class CC protective fusing for the incoming power.
- 7. The incoming power terminals F1, F2, F3 in the control box will not accommodate wires larger than 10AWG. Connect wiring as indicated by the device field wiring schematic.
- 8. It is the responsibility of the buyer to provide service to the box with proper branch service protection and an approved means of disconnect (C), located next to where the control box will be located. See chart on *Pages 36 or 37.*
- All boxes should be mounted on the warm side or on the wall adjacent to the door and a minimum of 6" [152] past the support post (D) at approximately 54" [1372] above the floor (E) level.

# Electrical Insta

## **CHAPTER 4 - ELECTRICAL INSTALLATION**

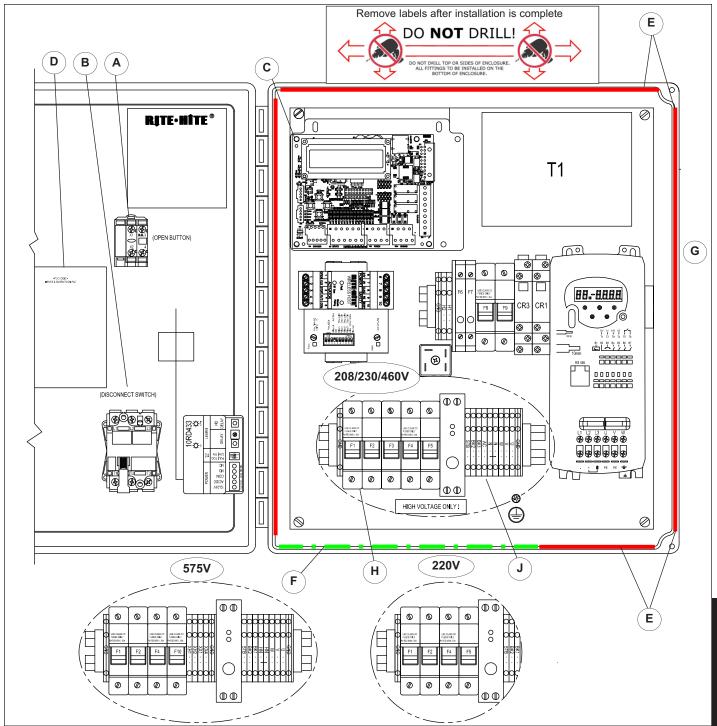


Figure 15.1

- 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.
- 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.

- The i-COMM (C) is used to control all functions of the door.
- Note label (D) inside control box that is a ready reference to the i-COMM inputs and outputs, Page 18.
- Red Bold solid line (E) indicates un-safe area for drilling holes
- Green Bold dashed line (F) indicates safe area for drilling holes
- 7. Serial # label (G).
- 8. F1, F2, F3 incoming power terminals (H).
- DO NOT wire incoming power into these terminals (J).

## **CHAPTER 4 - I-COMM LOGIC CHART & TROUBLESHOOTING**

## BARRIER GLIDER **i-COMM II™ LOGIC TABLE**

NAME	INPUT FUNCTION	STATE TABLE *	<b>COMMENTS</b>
X0 X1 X2 X3 2 X4 X5 X6 2 X7 2 X8 X9 X10 X11 X12 X13 X14 X15	Open Limit Switch Close Limit Switch User Input (Activation) (4) User Input (Close) (4) User Input (Toggle) (4) User Input (Activation) (4) User Input (Activation) (4) User Input (Activation) (4) Unused Unused Torque Reverse Unused Open/Reset Switch (1) Induction Loop Activation(1) Fault Input Power Indicator	O C Ro Rc Ø 1 1 1 1 Ø 1 1 X	Off when door opened. Off when door closed. On to open door (4) On to open door (4) On to close door (4) On to toggle open or close (4) On to open door (4) On to open door (4) Unused Unused Off to reverse door. Unused On to reset from fault (1) On to open door (1) On to run door On to run door
NAME_	<b>OUTPUT FUNCTION</b>	STATE TABLE *	COMMENTS
YK0 0 YK1 20 YK2 20 YDC0 3 YDC1 20 YDC2 YDC3 YDC4	User Out (Interlock) (4) User Out (Disabled) (4) User Out (Disabled) (4) User Out (Door open) (4) User Out (Disabled) (4) Unused Dedicated (Fault Ind.) Unused	O C Ro Rc Ø 1 Ø Ø X X X X X X X X 1 Ø Ø Ø X X X X X X X X X X X X X X X X X	On when door closed (4) User selectable output (4) User selectable output (4) On when door open (4) User selectable output (4) Unused PB light output Unused

Χ Ø

> Χ Χ

## **Timer Adjustment**

Unused

Dedicated (Spare)

User Out (Preannounce) (1)

- Press [ENTER], Controller will stop and fault door.
   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

YDC5

YDC6

YDC7

2

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).

#### \* KEY:

ØΧ

Χ

O = Open State C = Closed State Ø = OFF1 = ON

Unused

Spare output

Ro = Running Open Rc = Running Close X = May be ON or OFF

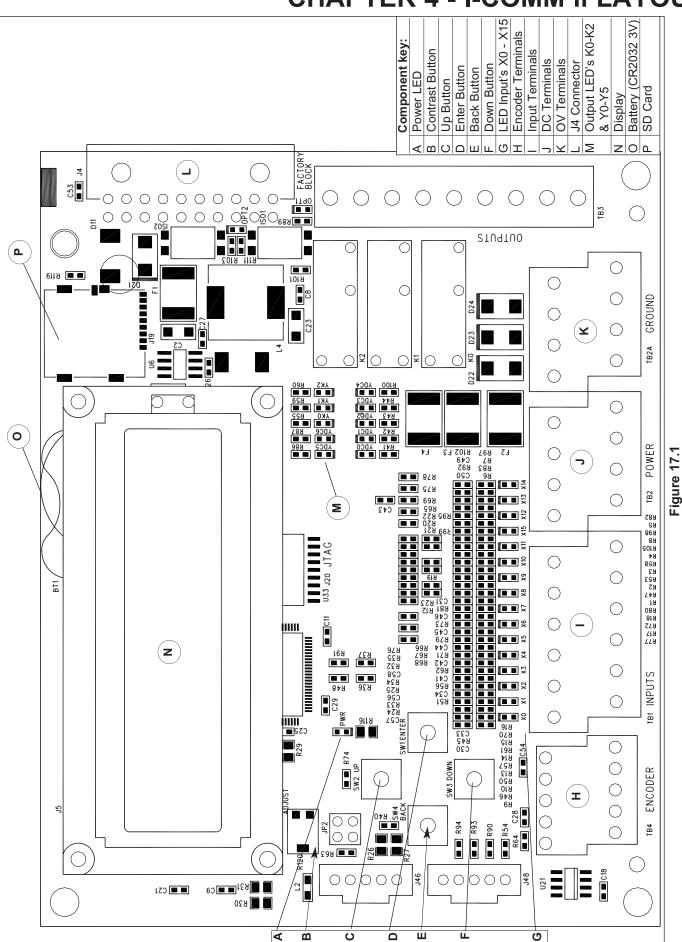
Preannounce to close (1)

#### NOTES:

- (1) Device operation can be changed through ménu. Consult i-COMM manual for additional details.
- (4) Default setting shown in table & comments. Consult i-COMM manual for additional details.

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## CHAPTER 4 - I-COMM ii LAYOUT



## CHAPTER 4 - 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:

- Press ENTER button.
- 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.
- Press UP, set year press enter, set month press enter, set day - press enter, set hour - press enter, set minute press enter.
- 5. Press BACK when complete.

#### PROCEDURE FOR SETTING MAINTENANCE:

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

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

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

#### PROCEDURE FOR CHECKING FAULT HISTORY:

- 1. Press ENTER button.
- 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.
- 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 4 - I-COMM DISPLAY MESSAGES**

	LCD DISPLAY MESSAGES:				
TOP DISPLAY					
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*		
	Waterlady Timer	DOOR IS OPENING	Service Required		
Door is Opening		<del></del>			
		DOOR IS OPEN			
Door is Open		When not in preannounce to close	None		
Stand Clear	Activation On	When in preannounce to close	None		
	Activation On Closing in xx.xs	Indicates activation on (overrides timer display) Displays closing time in seconds	Device Holding Open 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	DOOD IS SLOSED	None		
Door Classed	Cycles verses	DOOR IS CLOSED	None		
Door Closed Door Closed	Cycles: xxxxxx Interlock Active	Displays cycle count Door is interlocked and cannot be opened	None Perform Interlocking		
Door Closed	IIIGHOON ACHVE	DOOR IS STOPPED	i enorm interiocking		
Door Stopped	Push Open/Close		Open/Close Door		
	•		<u> </u>		

Rev. 9.08.14

# CHAPTER 4 - i-COMM ii FOLDERS

	_	VN IN i-COMM MENU*	 	DECORIDATION	DEEALUT
FULDER	NUMBER		VALID VALUES	DESCRIPTION	DEFAULT
	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.	-
	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	-
Encoder	4	Close Position Adjust	+/- 100.0	Use to adjust close position.	-
Folder	5		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	0
	9	Approach Close Pos.	999.0	Used to select Approach Close Position	0
	10	Set Open PB Function	Auto Close Mode; Toggle &	Use to select the function of the Open/Reset	Auto Close
			Auto Close, Reset/Jog	button.	Mode
			only; Toggle Mode		
	11	Set Loop Function	Auto Close Mode, Reverse	Use to select induction loop input function	Auto Close
	<u> </u>		/ Hold Open		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	20
	18	Output Def. YDC2	0 - 33 (See Table)	Internal - not available DC output	20
	19	Output Def. YDC3	0 - 33 (See Table)	Internal - not available DC output	20
I/O	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
Setup	22	Output Def. YDC6	0 - 33 (See Table)	Internal - not available DC output	20
Folder	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	20
	25	Input Define X1	0 - 17 (See Table)	User configurable input	20
	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	0
		'		to be configured to function 25, menu is hidden if not.	
	33	Input Define X10	0 - 30	Torque	15
	34	Input Define X11	0 - 66	Unused	20
	35	I - Zone Cut - Out	0 - 48	I-Zone cut out height	42
	36	Clock	_	Displays current time and date. To set: press UP, scroll to year	
	"	o o o o		- 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.	ngnan
	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.	Lilabled / Disabled	Consult Engineering. Special Applications only	Disabled
	43	Reverse Delay	xx	Reverse Delay	0
	44	AB Inverter Delay	_	Consult Engineering. Special Applications only	
General	45	Voltage	208/220/230/400/460/575	Voltage of door	460
Folder	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	Disabled
	-0	INIGING INIGINITS	^^	indicator goes off. Note: Once changed user	Disabled
				must initiate "Reset Maintenance" Procedure.	
	49	Maintenance Cycles	0 - 100000	Number of cycles before maintenance	Disabled
	49	I wantenance Cycles	0 - 100000	indicator goes off. Note: Once changed user	Disabled
				must initiate "Reset Maintenance" Procedure.	
	50	Reset Maintenance		Resets Maintenance Counters and Timers.	Disabled
	30	I veset ivialifieriarice		Press Up to initiate the reset	Disabled
	51	Reset to Default		Resets all settings back to factory defaults	Disabled
		Treset to Delault	I <sup>-</sup>	Incodes all settings back to lactory delaults	Disabled

## **CHAPTER 4 - i-COMM ii FOLDERS**

*NUMBER IS	S NOT SHOW	VN IN i-COMM MENU*			
FOLDER	NUMBER	NAME	VALID VALUES	DESCRIPTION	DEFAULT
	52	Display Cycle Count	0 - 99999999	Displays current Cycle Count	-
	53	Fault History	-	Displays fault log. Use Up and Down to scroll	-
View	54	Display Model #	-	Displays door model number	-
Folder	55	Display RHC #	-	Displays RHC number	-
	56	Display Serial #	-	Displays door serial number	-
	57	Firmware Revision	-	Displays current program revisions	-
	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.	-
Load / Save	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.	-
Folder	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.	-
	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.	-
Inverter	66	Open Speed	0 - 70 Hz	Open Speed	See Note 1
	67	Close Speed	0 - 70 Hz	Close Speed	30.0
Folder	68	Approach Speed	0 - 70 Hz	Approach Open Speed	0.0
	69	Accel Time	0 - 10.0 s	Acceleration Rate	1.0
	70		0 - 10.0 s	Deceleration Rate	1.0
	71	Torque Reverse Level	0 - 100 %	Torque Reversing Level	See Note 1
	72	DC Brake Time	0 - 10.0 s	Injection Braking Time	0.0
	73	DC Brake Level	0 - 100 %	DC Injection Braking Level	0.0 %
Timer	74	Set Close Timer	0 - 255 / Toggle Mode	Close Timer in seconds. Set to Toggle Mode to disable automatic closing.	6
Folder	75	Preannounce Close	0 - 255	Preannounce to close timer in seconds	2
	76	Autocycle Time	0 - 255 Disabled	Autocycle Time in minutes	Disabled
Note 1:					Last Rev: 1.19.15

Note 1:

Open speed and torque reverse level dependent on door size.

Door size > = 140 sqft:

Open Speed = 53 Hz

Torque Reverse Level = 23%

Door size < 140 sqft:

Open Speed = 60 Hz

Torque Reverse Level = 23%

Note 2:

Encoder Folder is for 7100 CE version only.

CE Option Torque Reverse

BP = 23.0%

SS = 19.0%

**PUB. NO. 7100M FEBRUARY 2015** 

# CHAPTER 4 - i-COMM ii INPUT / OUTPUT VALUES

TYPE	NUMBER	FUNCTION	DESCRIPTION
	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
	3	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
	4	Close	when opened by a toggle input. 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. Manual Open	Stops the door when input is ON. Opens the door when input is ON. This input will open from a stop
	O	Ivianuai Open	condition, unlike activation. Do not connect motion sensors or other
			automatic devices to a manual open input
INPUT	9	Auto / Manual	When input is ON reclose timer is disabled.
1141 01	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
	12	l loggie w/ Auto Close	lopened by this type of togale input.
	13	Hand / Auto Mode	opened by this type of toggle input. 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 18	E-Stop N.C. Seq. Activation 2	Places door in fault when OFF. 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
	0	Interlock	ON when door is closed.
	<u>ĭ</u>	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.
		Activation	ON during activation.
	<u>8</u> 9	Run Open	ON during run open.
	10	Run Close Run	ON during run close. 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.
01177	18	Run Close N.C.	OFF during run close.
OUTPUT	19	Run Close N.C.	OFF during run open or close.
	20 21	Disabled Flash 3.1 Hz	Always OFF
	22	Flash 3.1 Hz	Flashes at 3.125 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
		Dhata are T	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 32	Encoder Bit 10 Encoder Bit 11	Consult Engineering Consult Engineering
	33	Encoder Bit 12	Consult Engineering  Consult Engineering
	34	Preannounce to Open	ON during the set preannounce to open time.
	35	Preannouce N.O. Close	ON only during preampounce to close. OFF during run close
		1.0000000000000000000000000000000000000	Last updated: 8.25.14

## **CHAPTER 4 - INVERTER ERROR CODES / PROGRAMMING**

		Barr	rier Glider - Inverter (VFD) Error Codes		
No.	Trip Code	Condition	Possible Cause		
1	tr ÚU	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	Low AC supply voltage, check power source. Low AC supply voltage when supplied by an external DC power supply.  The DC bus (Pr. 84) has exceeded 800V-460V or 400V-230VAC, check thefollowing: 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 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 <sup>2</sup> C 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 <sup>2</sup> C 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.		
	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	Ol.br	Braking resistor instantaneous over current	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	lt.br	I <sup>2</sup> -t on braking resistor	Excessive braking resistor energy		
20	It.AC	I <sup>2</sup> -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.		
	O.ht1	IGBT over heat based on drives thermal model	Overheat software thermal model		
	O.ht2	Over heat based on drives heatsink	Heatsink temperature exceeds allowable maximum		
24		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	x t overload	Reduce motor current		
	hot	Heatsink/IGBT temp is high	Reduce ambient temperature or reduce motor current		
24	br.rS EEF	Braking resistor overload Internal drive EEPROM failure	See Advanced user guide		
	PH	Input phase imbalance or	Possible loss of parameter values  One of the input phases has become disconnected from the drive		
		inbut bhase loss			
_33		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.		
	HE 05 trip HE 06 trip HE 07 trip HE 11 trip HE 21 trip HE 22 trip HE 22 trip HE 22 trip HE 27 trip HE 28 trip HF X8 trip HF X8 trip		No signal from DSP at start up Unexpected Interrupt Watchdog failure Interrupt Crash (code overrun) Access to the EEPROM failed Power stage - code error Power stage - unrecognized frame size OI failure at power up DSP Communications failure Soft start relay failed to close, or soft start monitor failed or braking IGBT short circuit at power up Power stage thermistor fault DSp software overrun HF 1-4, 9-10, 12-19, 23, 24, 29, 30 Are not used		

#### Barrier Glider™ 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
00.10	Security Status	L1	L3	
00.19	Closing Speed	0	30	s/100 Hz
00.20	Open Speed	0	53/60	S/100 Hz
00.61	Torque Detection Level	0	31/23	%

Barrier Glider - Status Modes			
Left Display		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.	
	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	

## **CHAPTER 5 - MAINTENANCE**

RITE-HITE® DOORS PLANNED MAINTENANCE  Model 7100 BARRIER® GLIDER										
CUSTOMER:	SO#					SERIAL#				
Periodic Cycle Check:	Recommended P.M.					/I. Intervals			'	
Planned Maintenance				n Months)			Inspect and Perform the Following (See Manual)			
2: 0 10 1	1	4	8	12	18	24	30	36		
Air Seal System		•		•		•		•	Make sure air flow thru the system is adequate. Air seal may require periodic cleaning.	
Blower		•		•		•		•	Perform visual inspection.	
Blower Heater		•		•		•		•	Check air temperature.	
Door Fasteners		•		•		•		•	Perform visual inspection, check for proper width dimension and tighten all bolts.	
Drive Chain		•		•		•		•	Lubricate, check tension and wear. Find the center bracket of the header C-Channel. Chain should be tensioned so there is 1/8" [3] between the bottom of the chain and the nylon wear pad.	
Gearbox		•		•		•		•	Check lube, add if required.	
Limit Switches		•		•		•		•	Check open and close positions.	
Panel		•		•		•		•	Check for damage, repair any tears to prevent moisture or frost build-up. Make sure panel hanger bolts are tight.	
Panel Nose and Bottom Seals				•		•		•	Check for proper sealing, and tears and repair.	
Panel Retention System		•		•				•	Make sure spring, cord and rod are functional and panel is tight to the air seal, with no air leaks.	
Torque Reversing Edge		•	•	•	•	•	•	•	Check that door reverses at the nose.	
Trolley Rollers		•		•		•		•	Inspect for wear or binding.	

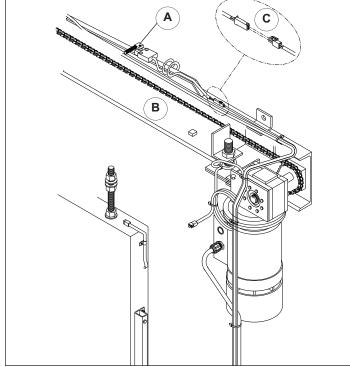
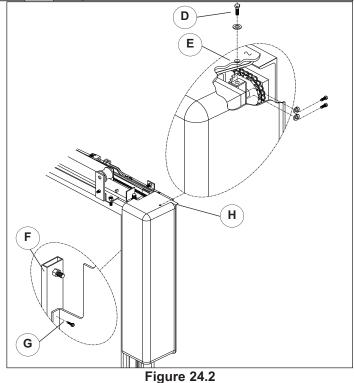


Figure 24.1

#### **LIMIT SWITCHES**

- Limit switches (A) are mounted on top of the header (B) preset at a 10° angle toward each other.
- Connect (C) limit switches. 2.



**DRIVE SHROUD** 

Install optional drive shroud after installation and adjustments are complete.

- Install carriage bolt (D) to hole in gearbox (E). 1.
- Fasten to the support post (F), using #14 x 1" [25] 2. hex head self/tap drill screw (G).
- Shroud will have 1 1/2" [38] gap (H) on backside for air flow

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## **CHAPTER 5 - FINAL CHECKLIST**

#### NOTE:

Complete

N/A

After the door installation is complete, the following MUST BE confirmed before the door is ready for operation.

#### **OPERATING PROCEDURE**

- 1. To operate the door, simply press the green open button on the front of the control box, the door should go to the full open position.
- Normal settings are set to auto-reclose, and once the open button is pressed the door will open, time out per the setting of the re-close timer on the i-COMM and close.

Description

- The door can be equipped with several types of activation devices that can open or close the door and can be setup to either auto-reclose or toggle mode.
- For toggle mode, the door can be setup such that if a device is used to open the door, it or another device needs to be reactivated to close the door.

,
Ground or shield wires properly terminated
Support posts properly fastened to the floor
Header shimmed properly
Proper mounting fasteners used
Poly lumber properly installed (Optional)
Bottom seal compression $\frac{1}{4}$ " – $\frac{3}{8}$ " to floor. Air exhausting thru hole
Aluminum seal retainer caulked
Air seal tight to the floor, twist free, exhaust hole free and open
Air seal blower properly mounted
Panel fans properly installed
Panel hanger bolts / nuts tightened
Tension applied to spring to maintain 3 ½" from panel to wall
Panel blower/heater cables wrapped around panel bolts and secured
Step-down transformer and junction box properly installed

Retention system operating freely Area clean of debris from installation

Notes: \_\_\_\_

Conduit mounting location (must be on the bottom)

# **CHAPTER 5 - TROUBLESHOOTING**

DEFINITION	FUNCTION
D.O.W. / H.	Door Opening Width / Height
O.D.W. / H.	Ordered Door Width / Height
SS	Single Slide and BP = Bi-Parting
Drive Chain	Make sure the drive chain is kept taught, but not so tight as to place stress on the shaft,
F4 F0 F0	sprocket or tensioner.
F1, F2, F3	Incoming power fuses.
F4, F5	Fuses for primary side of transformer.
F6	Fuse for the i-Comm 24VAC.
F7	120V Fuse from secondary side of transformer that supplies bridge rectifier and power supply.
F8, F9	Fuses for the Panel Heater, 7 amp slow blow glass fuses.
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 the chart on this page. 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 door repeatedly turns around and says obstruction, change torque value
Inverter	If door closes and reverses easily, adjusted the Torque Reverse parameter on the inverter.
Limit Switches	The following are items to check for the limit switches:  a) Check limit switch position to make sure the door stops in the desired position.  b) Red cable is for open and grey is for closed switch.  c) If two limits are on at the same time, the door will go into a fault. Lubricate as necessary.  d) If door overtravels, check for sticking limits or relays on i-Comm, consult Technical Support.
Motor	The motor is AC. a) 230V ~ 11 Ohms, 460V ~ 21.5 Ohms.
Panel	The panel is a 3" [76] flexible Iso-Tek type panel.  Repair any tears to prevent foreign matter buildup and temperature loss.
Panel Blower/Heater	Panel Blower/Heater provides warm air to keep the bottom seals warm and dry.  Entire unit must be replaced if blower or heater goes bad.
Panel Retention System	The panels are held against the Perimeter Air Seal by a cord that is spring loaded on the panel and slides on a rod along the wall. When impacted, the panel swings out and back toward the perimeter seal when the impact object is removed.
Panel Reversing System	When the panels impact an object in the opening, the door will reverse and go open. This should be set so as not to damage any product or personnel that may be in the opening.
Reclose Timer	Adjust through i-COMM controller.
Thermal Air Sealing System	The Thermal Air Sealing System provides a seal between the panel and the wall by utilizing a 110VAC blower/heater system to provide heated air to fill the seal, thereby
ocaiiig Oysiciii	maintaining the seal and minimizing any moisture buildup. Power to blower must be separate and not tied into control box. Power to the blower must be constant. Make sure air exhaust hole is free of obstructions, blockage my cause frost buildup. Repair any tears or replace as necessary.
Trolley	To remove trolleys or replace rollers, remove the bottom plates and pull off.

## **CHAPTER 6 - ELECTRICAL LAYOUT**

#### VIRTUAL VISION DESCRIPTION

Virtual Vision is optional on model 7100 Barrier Glider doors. There will be a motion sensor mounted on each side of the door, as well as 2 red LED light bars on each side of the opening on both sides. The motion sensors will detect motion on the opposite side of the curtain to warn oncoming traffic of a possible pedestrian or forklift on the opposite side.

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

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

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

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

#### INSTALLATION INSTRUCTIONS

- 1. Install Panel fan(s) (A) beyond the support posts near the top of the opening. Adjust fan to move air across the panel.
- If door is mounted on cold side, install fans on warm side.
- 3. DO NOT mount fan other than method shown. Rotating mounting brackets 90° will cause failure.
- 4. Locate Virtual Vision light bar assemblies (C) on each side of the doorway and in clear view of oncoming traffic. They should be installed approximately 2' [610] off the floor, adjacent to the doorway (e.g. goal posts or wall) and in a location that is protected from potential impact damage.
- Virtual Vision Motion Sensor (D).

- 6. Motion sensors should be installed off to the side.
- 7. Sensors should be programmed for a 2 second hold time and bi-directional detection.
- Direct sensors so they DO NOT extend beyond the width of the door.
- Mount step down transformer (E) if 120V not available.
- If door is equipped with Thermal Air Seal step down transformer junction box (F), plug in Virtual Vision cable. If not, there will be a separate junction box (L) strictly for the Virtual Vision.
- 11. Mount opposite side Virtual Vision assembly (G).
- Mount opposite side Virtual Vision motion sensor (H).
- 13. Thermal Air-Seal Heater/Blower (J).
- 14. End User Provided Disconnect (K).
- 15. Swivel arm mounting bracket, it is recommended to thru-bolt to the wall.

**NOTE:** Fan(s) may be turned off if there is no moisture present.

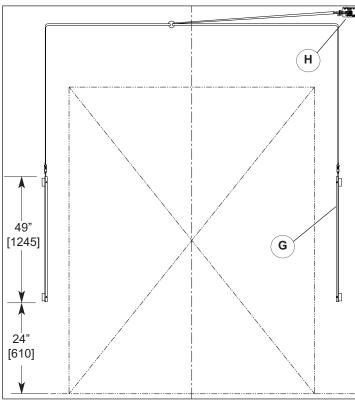


Figure 29.1 - Back side

# CHAPTER 6 - ELECTRICAL LAYOUT BLOWER - BP

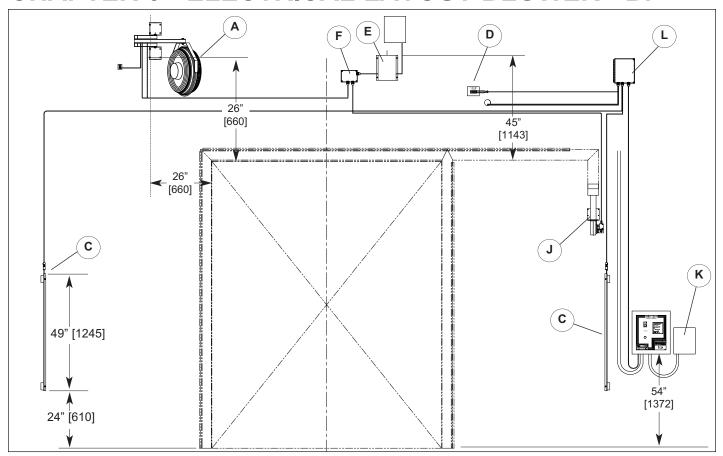


Figure 30.1 - Single Blower BP Door

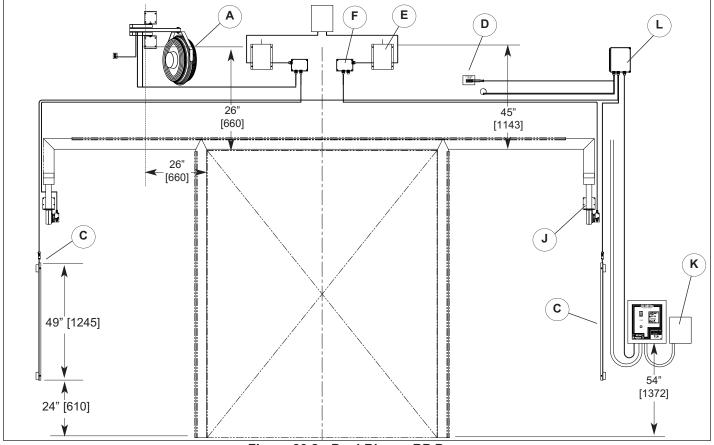


Figure 30.2 - Dual Blower BP Door

# **CHAPTER 6 - ELECTRICAL LAYOUT BLOWER - SS**

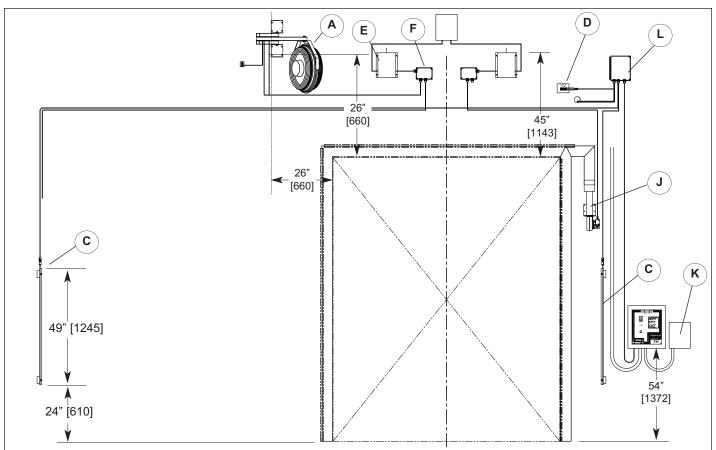


Figure 31.1 - Single Blower SS Door

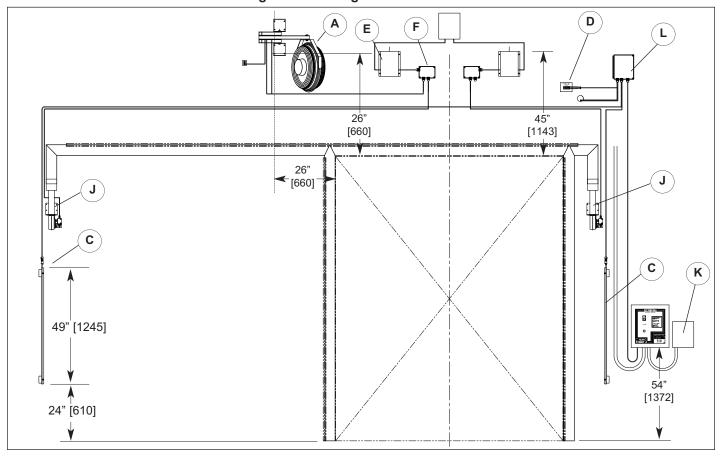


Figure 31.2 - Dual Blower SS Door

## **CHAPTER 6 - OPTIONAL 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:

- Open the lid and remove the plastic strip (C) under the batteries in the remote unit to energize the device.
- On the Host (Receiver) in the control box, press "Remote Pairing" (A). The "RF Com" LED (B) 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

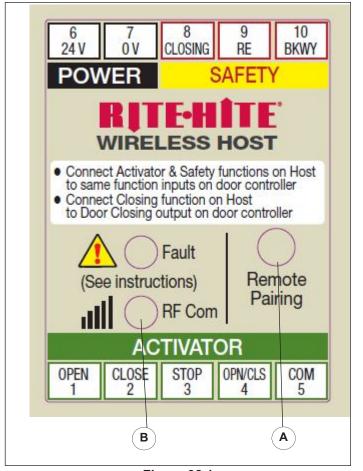


Figure 32.1

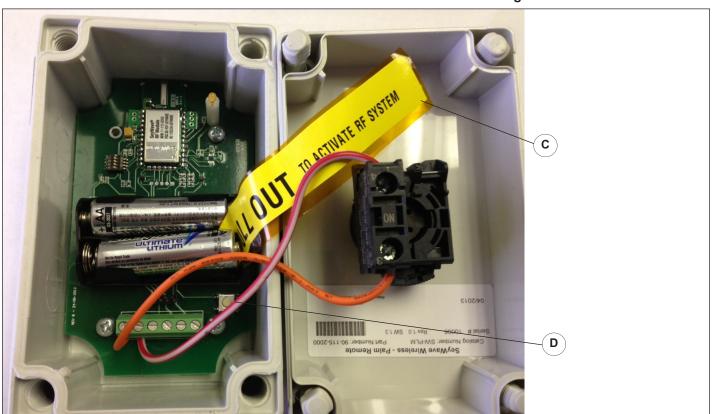


Figure 32.2

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## **CHAPTER 6 - OPTIONAL REMOTE MOUNTED CONTROLS**

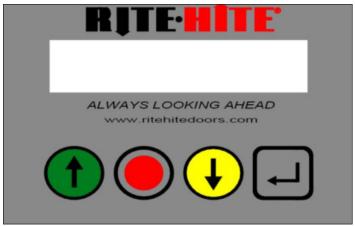


Figure 33.1

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.

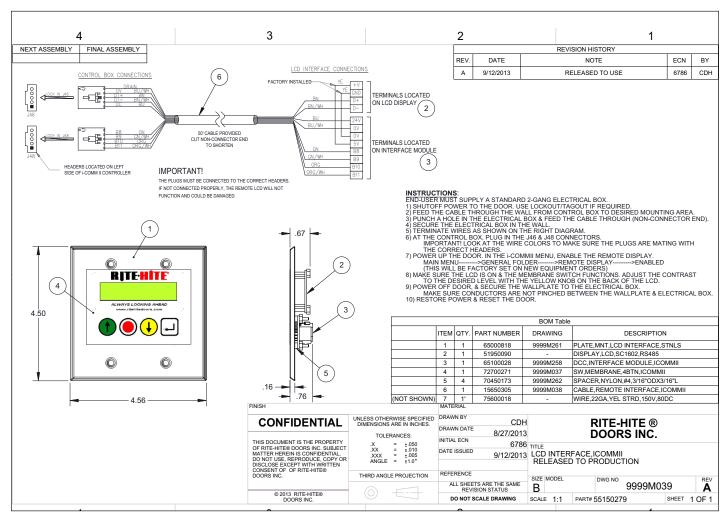
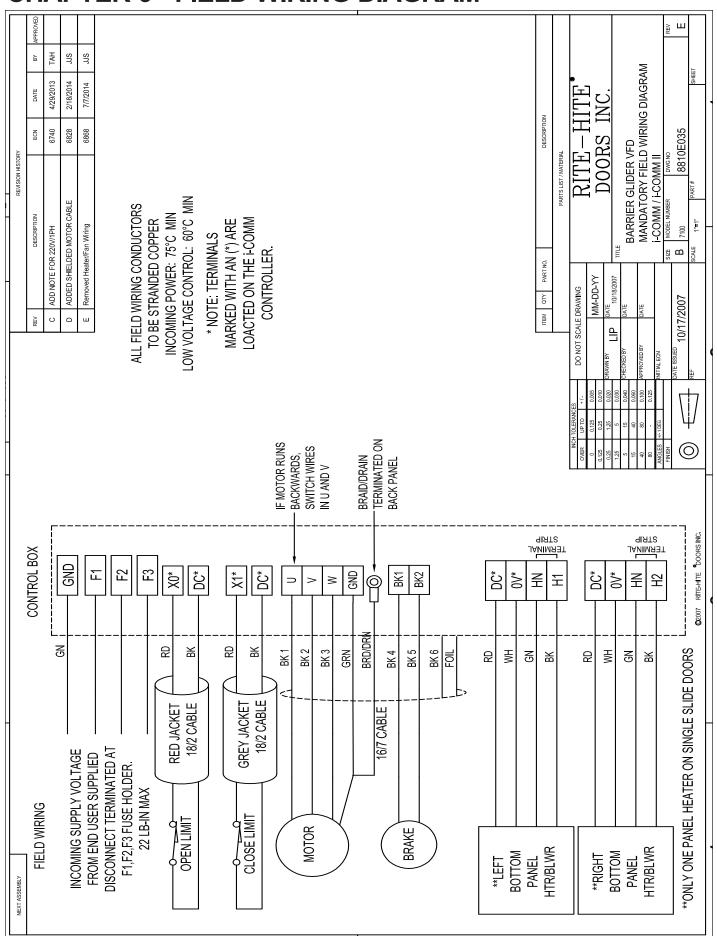


Figure 33.2

## **CHAPTER 6 - FIELD WIRING DIAGRAM**



RITE-HITE DOORS INC.

TEM CITY

ACTIVATION WIRING DIAGRAM

I-COMM

BARRIER GLIDER VFD

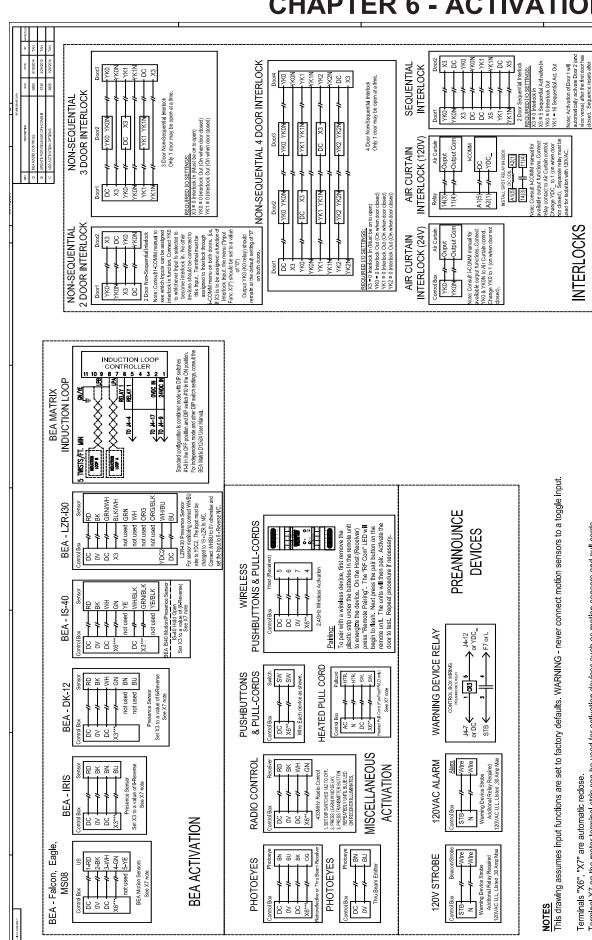
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#### **CHAPTER 6 - ACTIVATION WIRING**



**Electrical Drawing** 

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

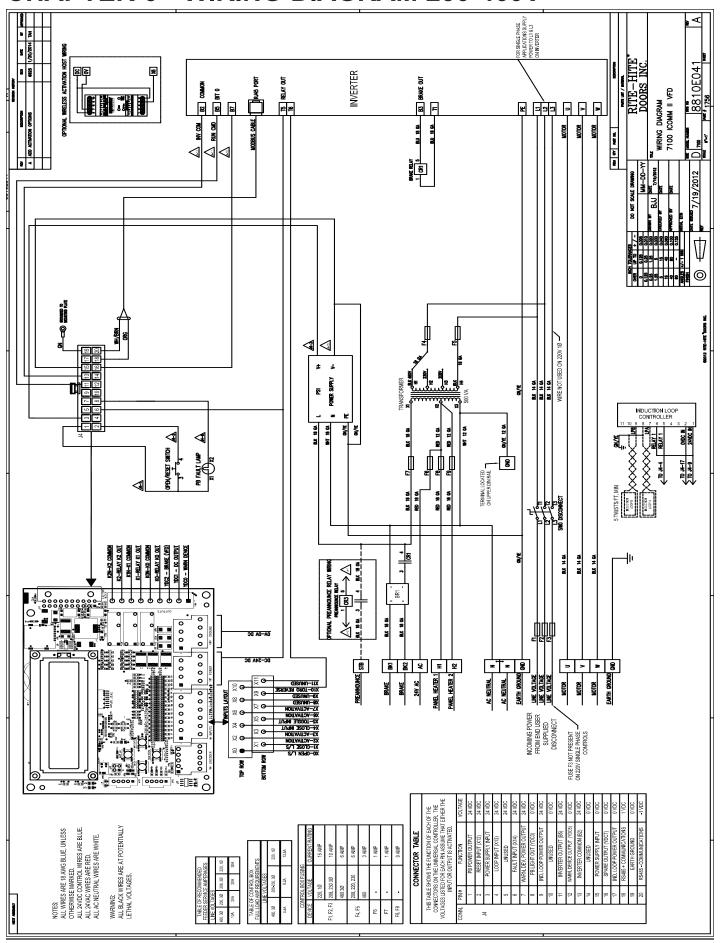
(Pull cords, push button or radio controls only.)
\*\*\*For Reverse hold open connect sensors to UNUSED input.
(i.e. X3, X6, or X7 and assign that input a function of "6" in the i-COMM menu. Multiple sensors can be connected in parallel.

\*\*For true toggle operation use terminal "X5"

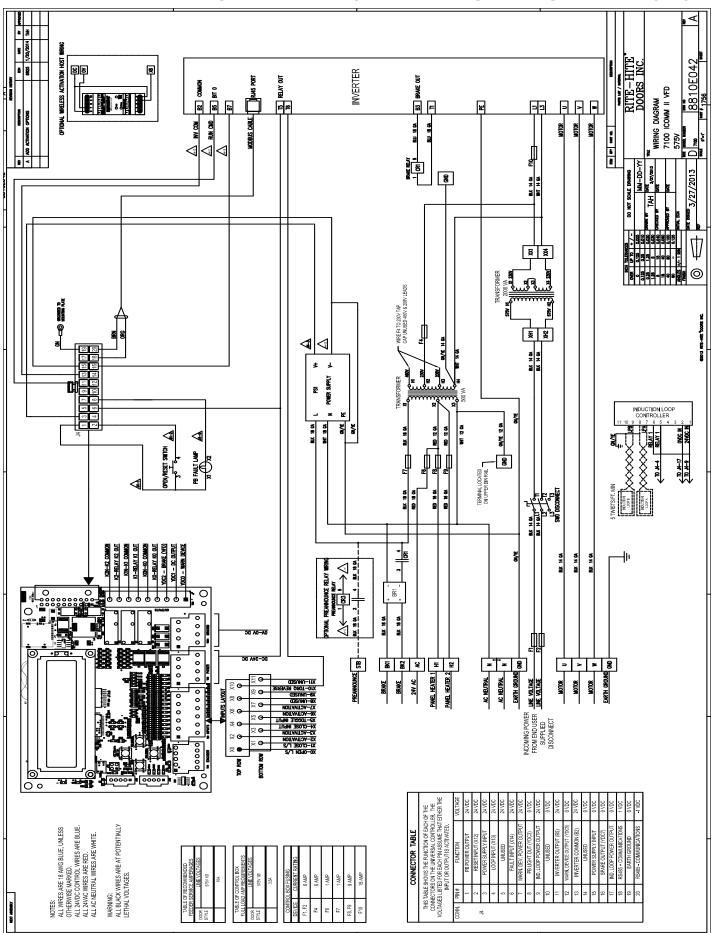
Terminals "DC" are DC common for inputs.

Terminal X7 on the motor terminal strip can be used for activation devices such as motion sensors and pull cords

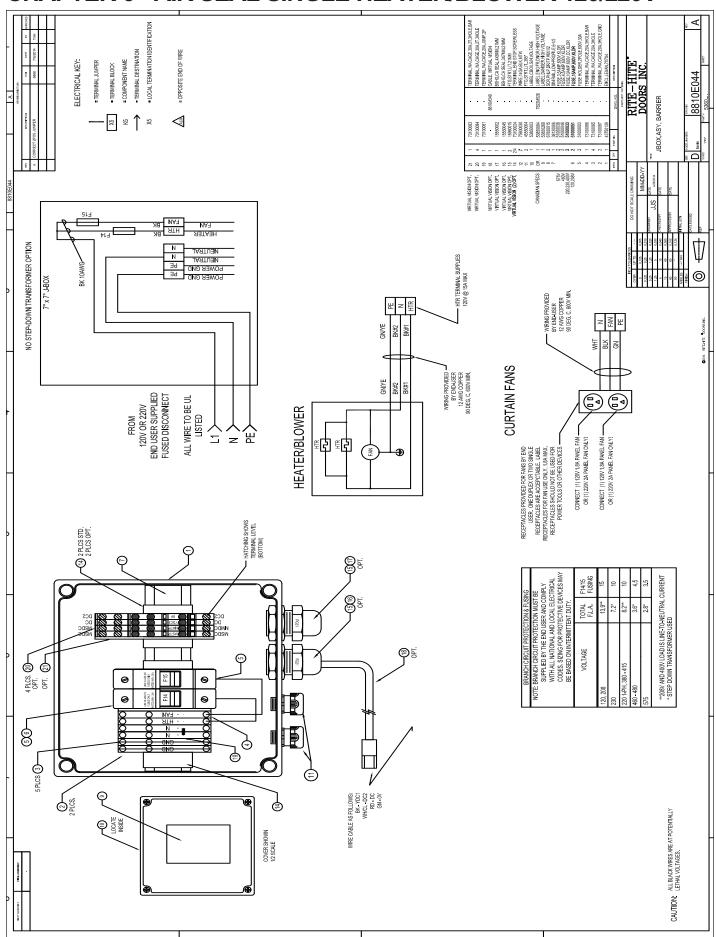
## **CHAPTER 6 - WIRING DIAGRAM 230-460V**



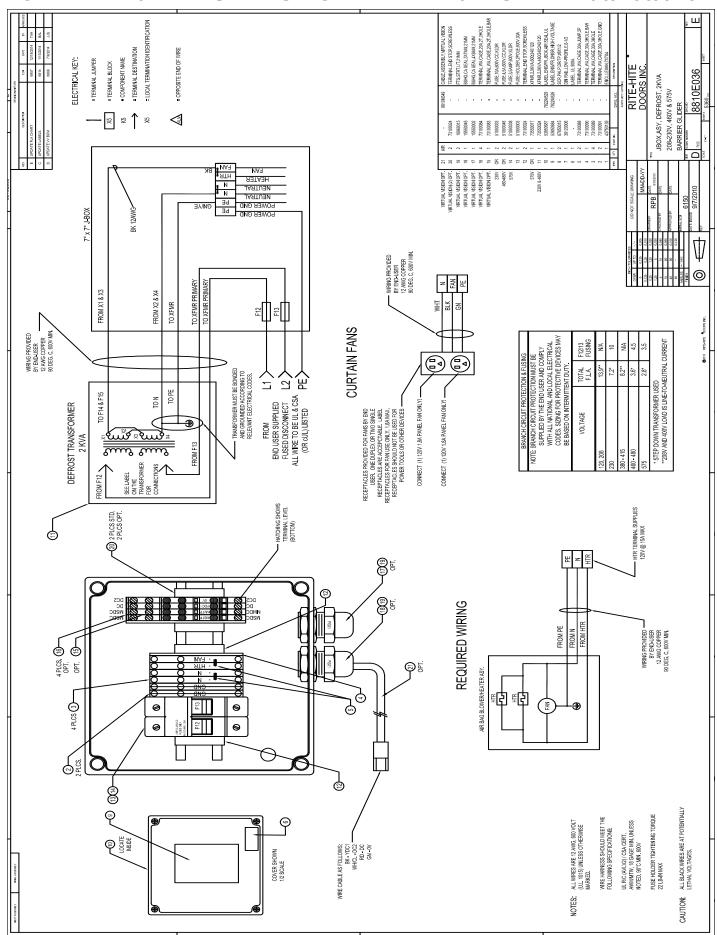
## **CHAPTER 6 - WIRING DIAGRAM - 575V**



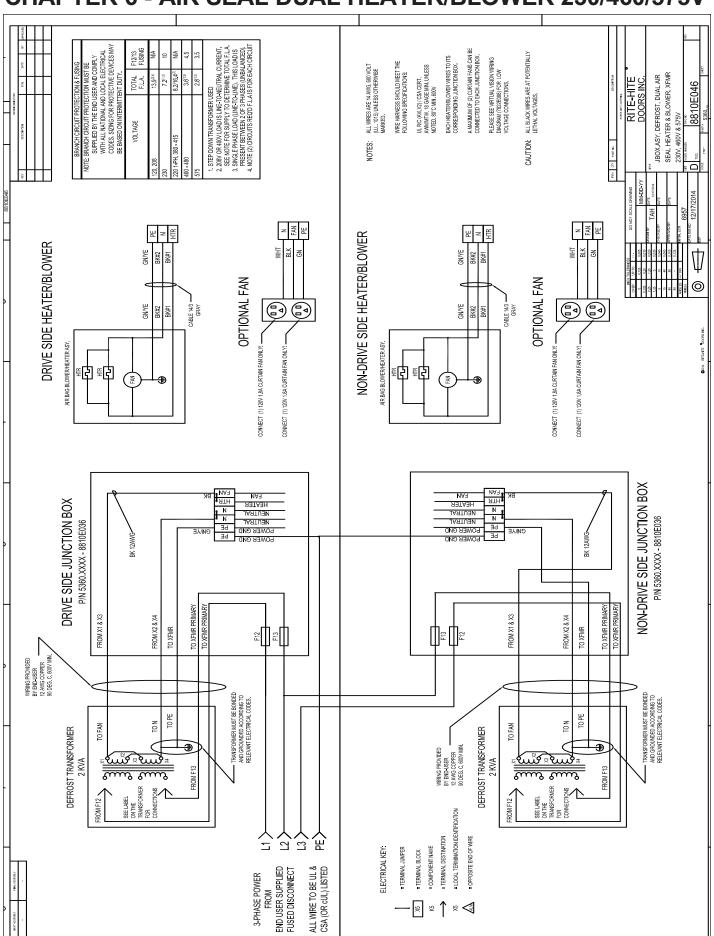
## **CHAPTER 6 - AIR SEAL SINGLE HEATER/BLOWER 120/220V**



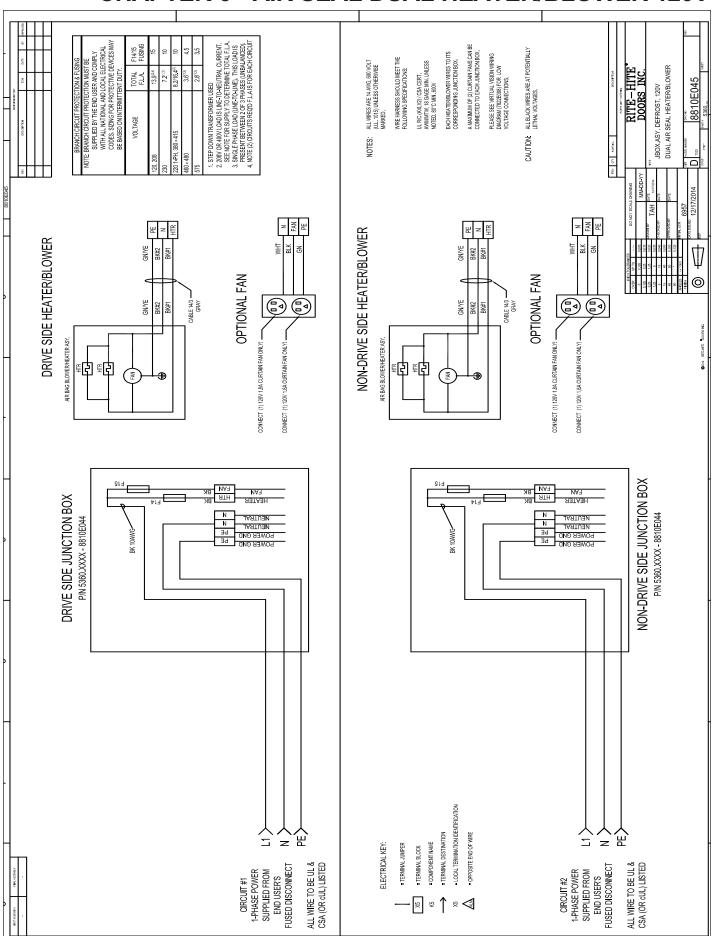
## **CHAPTER 6 - AIR SEAL SINGLE HEATER/BLOWER 230/460/575V**



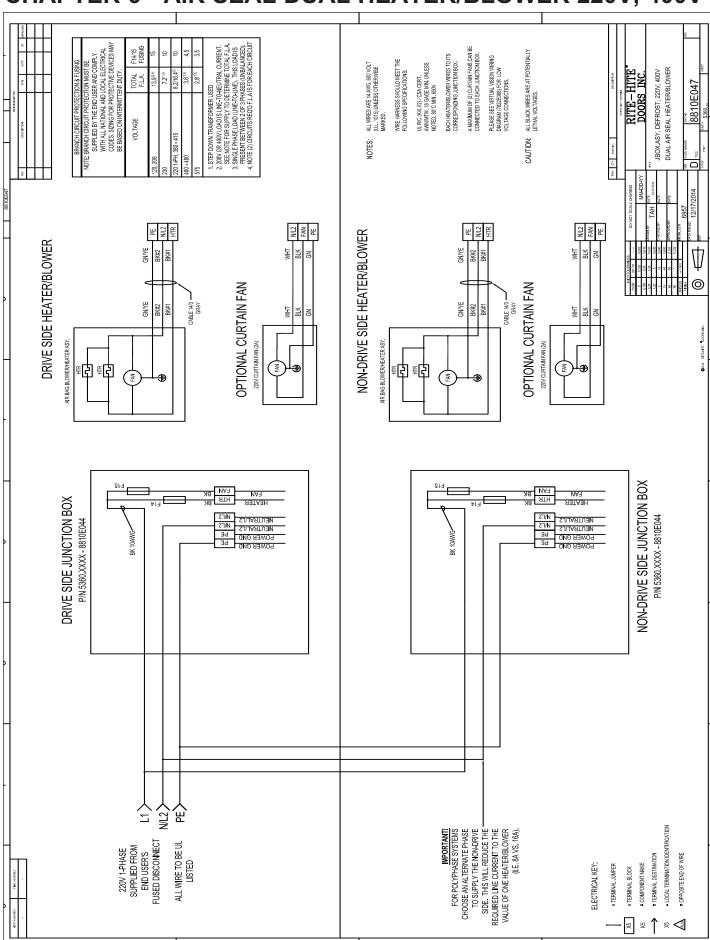
#### **CHAPTER 6 - AIR SEAL DUAL HEATER/BLOWER 230/460/575V**



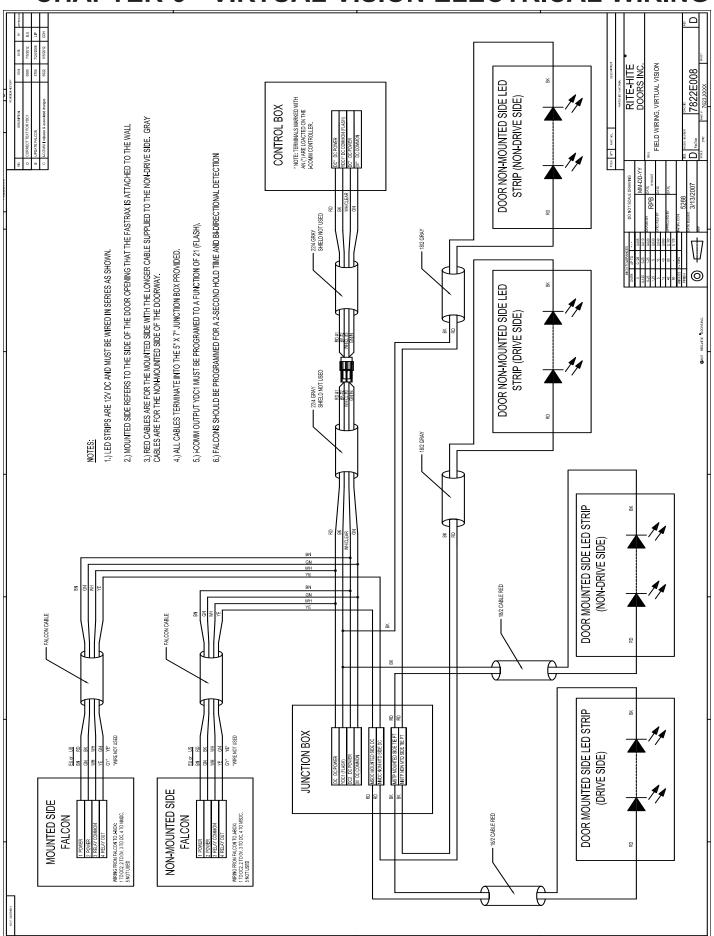
## **CHAPTER 6 - AIR SEAL DUAL HEATER/BLOWER 120V**



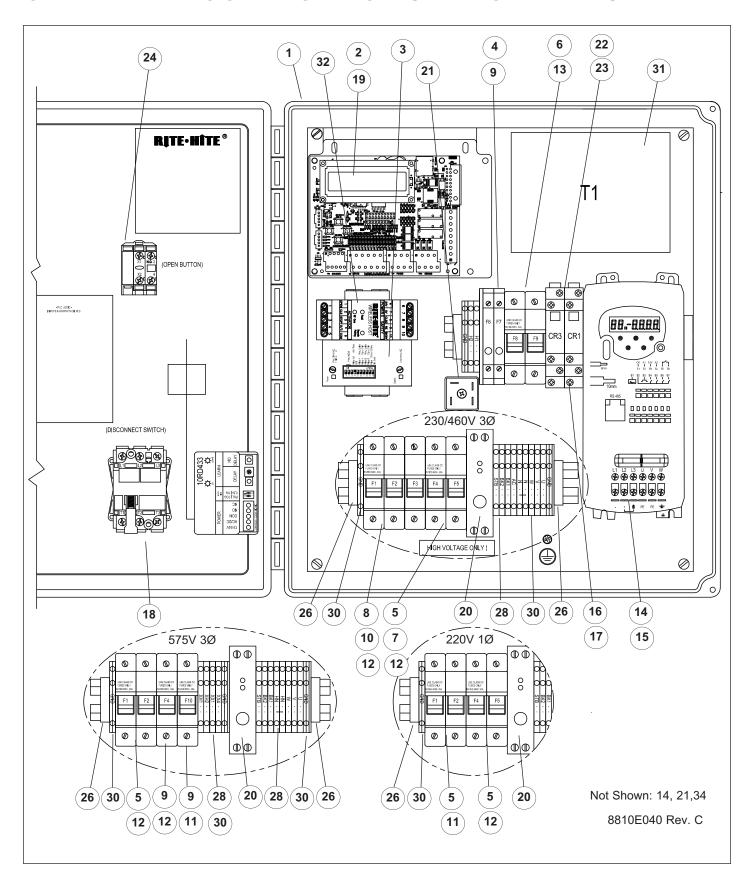
## CHAPTER 6 - AIR SEAL DUAL HEATER/BLOWER 220V, 400V



## **CHAPTER 6 - VIRTUAL VISION ELECTRICAL WIRING**



## **CHAPTER 7 - CONTROL BOX SERVICE PARTS**

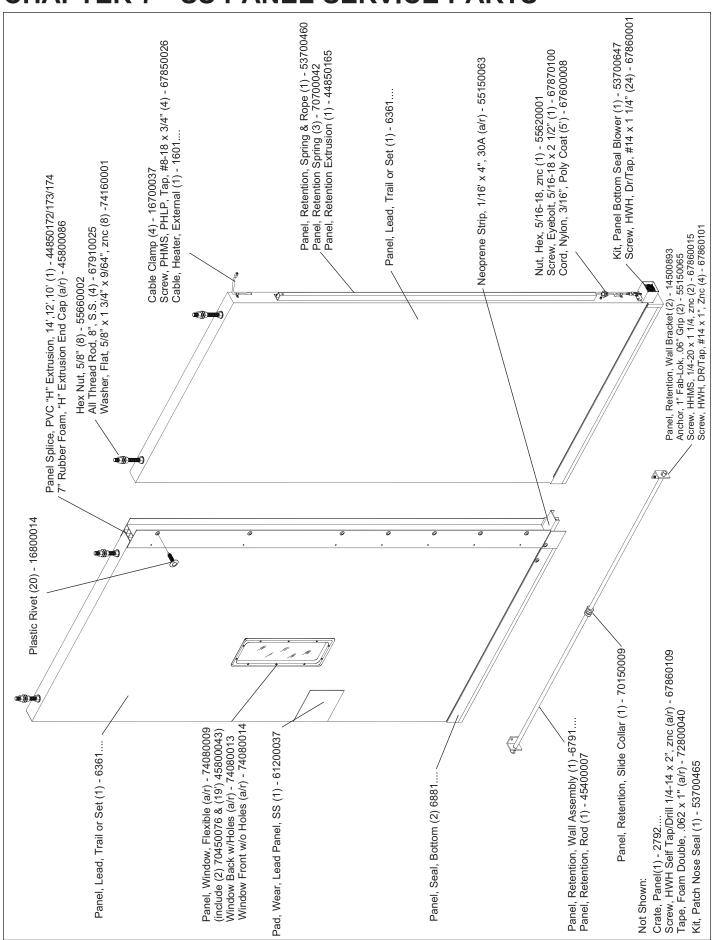


# **CHAPTER 7 - CONTROL BOX SERVICE PARTS**

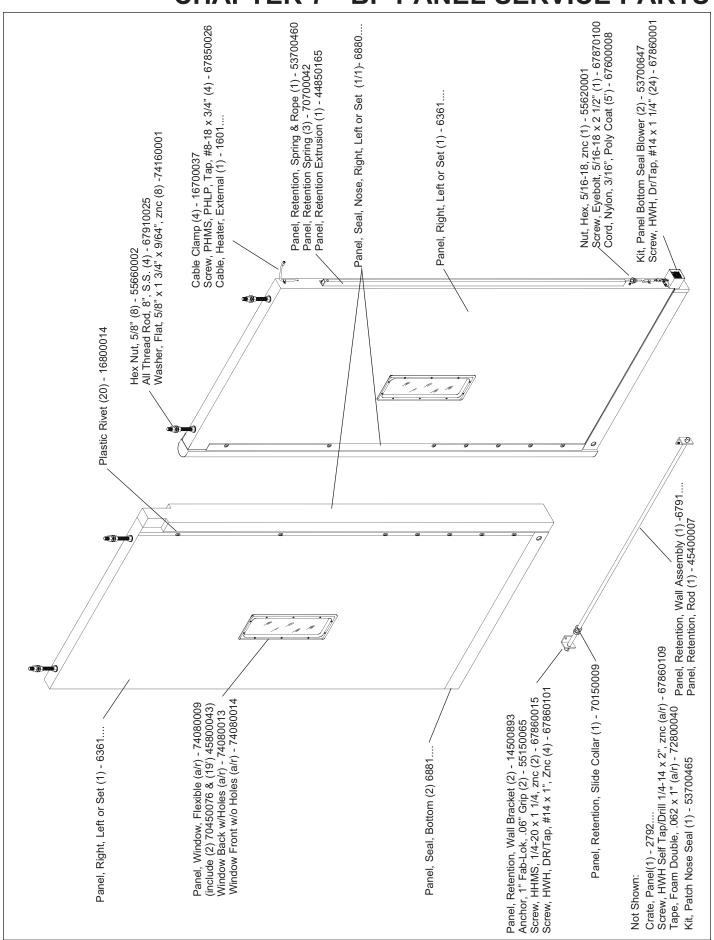
ITEM	QTY	DESCRIPTION	P/N	ITEM	QTY	DESCRIPTION	P/N
1	1	Control Box/Backpanel/Enclosure Ass'y	1756	19	1	Kit, Controller, i-COMM	53700860
2	1	Kit, i-COMM ii Upgrade (<5/13/13)	7302	20	1	Power Supply, 24VDC, 18W	65700006
3	1	Induction Loop Controller, Dual (optional)	17500010	21	1	Rectifier, Bridge, 35A, 600V	66270006
4	2	Fuse, 1 Amp, 250V, Time Delay (All)	51000002	22	1/2	Relay, SPDT, 24VDC, 10 Amp	66450014
5	2	Fuse Holder, 2 Pole, 600V, 30A	51000003	23	1/2	Socket, Relay, 1 Pole, 250VAC, 10 Amp	70350002
6	2	Fuse Holder, 1 Pole, 300V, 12A (All)	51000004	24	1	Switch, Push Button, Green, Led	72700258
7	2	Fuse, 3.5 Amp, 600V, Time Delay (460V)	51000008	25	1	Terminal, End Bar, Fuse Holder	73100019
8	1	Fuse Holder, 3 Pole, 600V, 30A (208-230V/460V)	51000013	26	4/6	Terminal, End, Stop, Screwless	73100024
9	2	Fuse Holder, 1 Pole, 600V, 30A (575V)	51000019	27	1	Terminal, WA, Cage, 20A, Jump, 2P	73100081
10	3	Fuse, 10 Amp, 600V, CC, KLDR(208-230V)	51000033		11/15	Terminal, WA, Cage, 20A, 3 Hole	73100085
11	1/2	Fuse, 15 Amp, 600V, KLDR (1-575V/2-220V)	51000051	29	2/3	Terminal, WA, Cage, 20A, 3 Hole, Bar	73100086
12	2	Fuse, 6 Amp, 600V, CC, KLDR	51000055	30	3/4	Terminal, WA, Cage, 20A, 3 Hole, GND	73100087
13	2	Fuse, 9 Amp, 600V, CC, KLDR	51000064	31	1	Transformer, 575VA,208/230/460:120/24V	73550031
14	4	Enclosure, Mounting Foot	51950018	32	1	Controller, Wireless, Act, BTR, 12-24V	17500025
15	2	Kit, Quick Release, Latch, Fiberglass	51950021				
16	1	Inverter, 1HP, 460V, 3PH, Control Tech	53300048				
17	1	Inverter, 1.5 HP, 230V, 1-3PH, Control Tech	53300049				
18	1	Kit, Disconnect Switch	53700567				

## **SEE PARTSLIST MANUAL FOR UNITS <6/25/13**

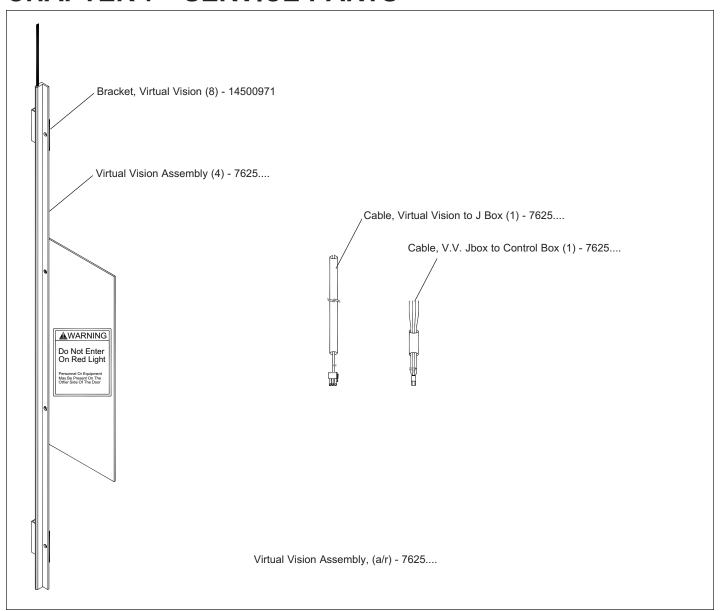
## **CHAPTER 7 - SS PANEL SERVICE PARTS**



## **CHAPTER 7 - BP PANEL SERVICE PARTS**

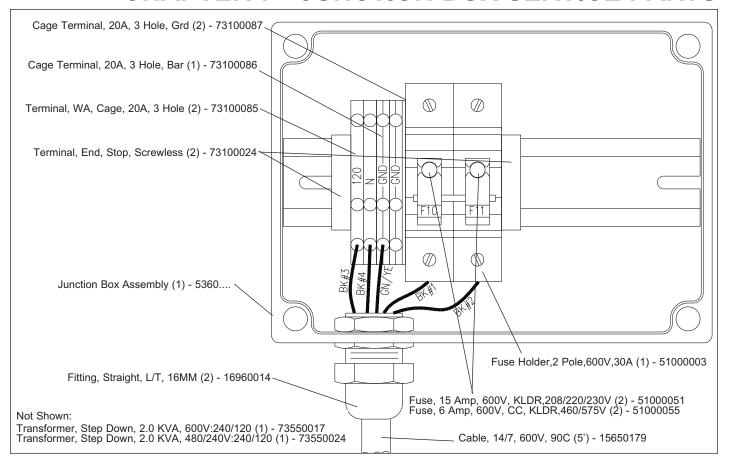


# **CHAPTER 7 - SERVICE PARTS**

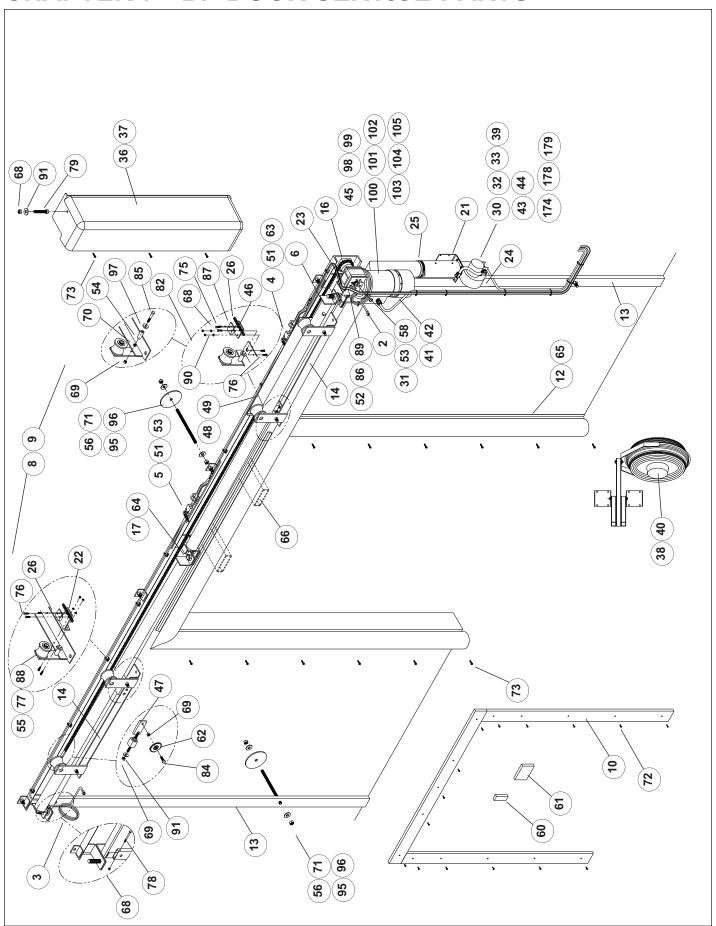




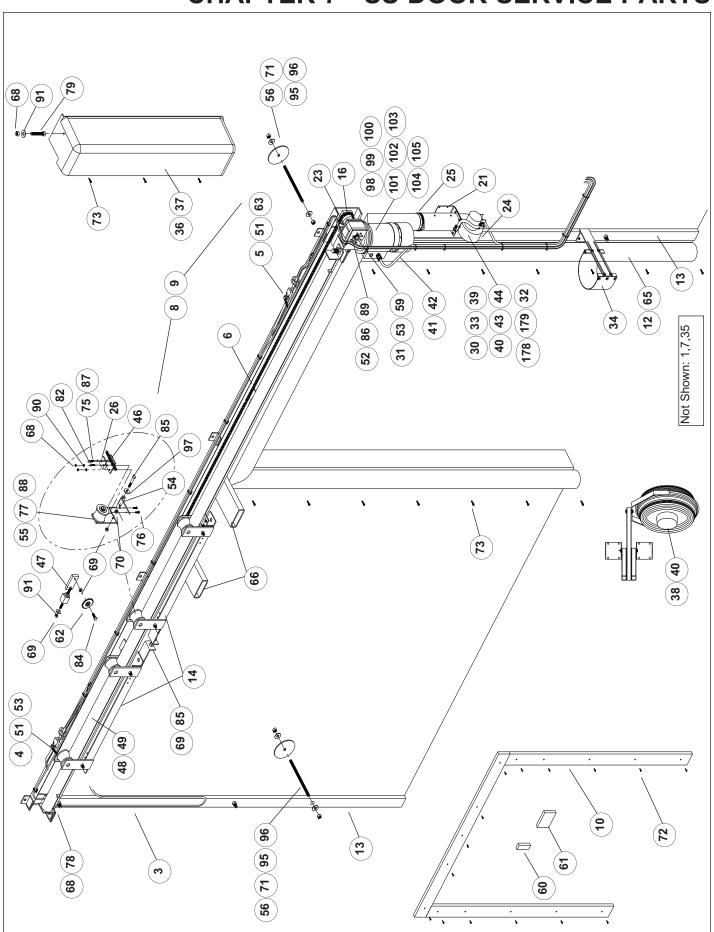
# **CHAPTER 7 - JUNCTION BOX SERVICE PARTS**



# **CHAPTER 7 - BP DOOR SERVICE PARTS**



# **CHAPTER 7 - SS DOOR SERVICE PARTS**



# **CHAPTER 7 - DOOR SERVICE PARTS**

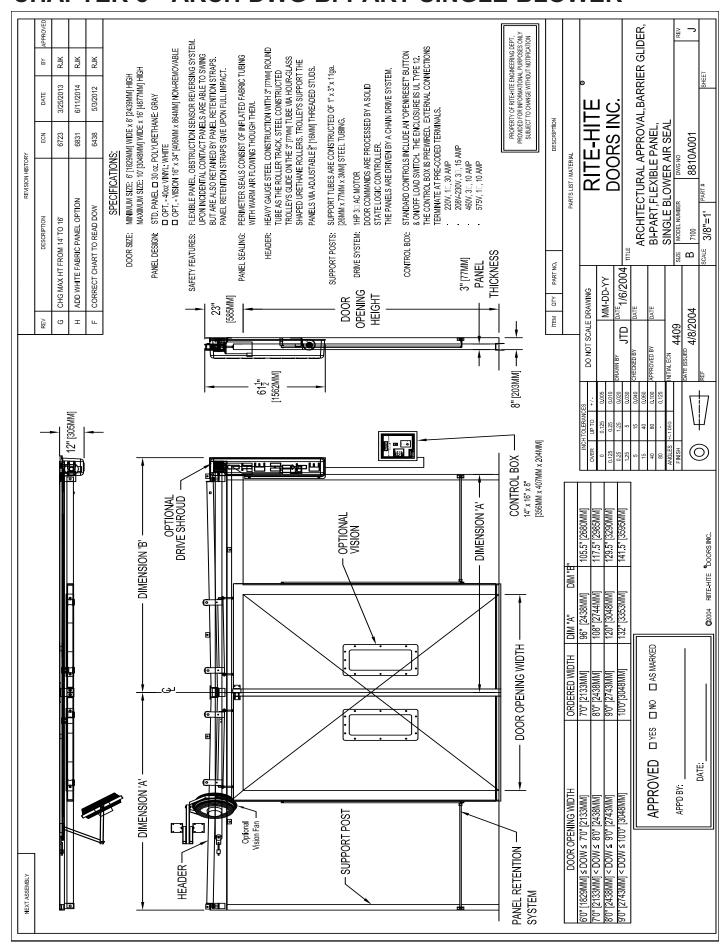
							D/N
		DESCRIPTION	P/N	ITEM			P/N
1	1 1	Door Assembly	7100	62	1	Sprocket, Idler	70800028
2	1	Cable, Panel Heater, Drive	1591	63	2	Limit Switch	53700512
3	1	Cable, Panel Heater, Non-Drive	1591	64	9"	Drive Chain Wear Pad Tape	72800040
4	1	Cable, Limit Switch, Open	1592	65	1	Seal, Perimeter Track (18')	73400002
5	1	Cable, Limit Switch, Closed	1592	66	2	Header Lifting Bracket	73870033
6	a/r	Drive Chain, #40	1655	67	-		
7	1	Door Crate	2791	68	2	Nut, Hex, 5/16-18, Znc	55620001
8	1	Header Weldment (specify RHD/LHD)	4653	69	6	Nut, Hex, 1/2-13, Znc	55650001
9	1	Header Assembly (specify RHD/LHD)	5220	70	4	Nut, Hex, Lock, 1/2-13, Znc	55650004
10	1	Kit, Poly Lumber	5337	1	20/24	Nut, Hex, 5/8-11, Znc	55660001
11	;	Ocal Barbarda Anala (Ocarifa Biran & Otaran)	0070	72	a/r	Fab Lok, 5/16" x 1.8"	66840016
12	1 1	Seal, Perimeter Ass'y (Specify Drive & Storage)	6879	73	40	Screw, HWHSMS, #14 x 1 1/4", Znc	67850001
13	2	Support Post	7266	74	4	Screw, RHMS, #10-24 x 1"	67850024
14	1/2	Header Trolley (specify SS-R/L, Bi-Part)	7385	75	1	Screw, RHMS PHLP, #10-24 x 3/4", Znc	67850030
15	-			76	8	Screw, HWH, DR/Tap, #14 x 1", Znc	67860101
16	1	Gearbox Bushing	12500036	77	2	Screw, BHMS, Socket, 1/4-20 x 1/2"	67860110
17	1	Drive Chain Wear Pad	13000041	78	2	Screw, HHMS, 5/16-18 x 3 1/2", Gr5, Znc	67870015
18	-	144 - 100 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1		79	1	Screw, Carriage, 5/16-18 x 2 1/2", Znc	67870034
19	1	Kit, 7100 Gearbox, Clutch (<12/17/07)	53700516	80	7	Screw, HHMS, 5/16-18 x 1", Gr5, znc	67870065
20	1	Kit, 7100BP, Gearbox (<12/17/07)	53700532	81	2	Screw, HHMS, 5/16-18 x 1", Gr8, Znc	67870101
21	1 1	Kit, 7100SS, Gearbox (<12/17/07)	53700533	82	2	Screw, HHMS, 5/16-18 x 1 1/2", Gr8, Znc	67870102
22	1	Drive Chain Attachment, LH Trolley	14500831	83	-	0	07000005
23	1	Bracket, Drive Shroud, 7100	14501113	84	1	Screw, HHMS, 1/2-13 x 1 1/2", Gr5, znc	67900005
	20'/50'	Cable, Blower	15650204	85	2	Screw, HHMS, 1/2-13 x 4", Gr5, znc	67900023
25	1	Clamp, Nose, Snap lock, 2-5" STNLS	16700020	_86_	8	Screw, HHMS, M6-1.0x16MM, GR8	67930006
26	1	Drive Chain Trolley Clamp	16700035	87	2	Washer, Lock, Split, #10, Znc	74100001
27	-			88	4	Washer, Flat, 1/4 x 5/8 x .050, SS	74110003
28	-			89	8	Washer, Lock, Split, 1/4", znc	74110004
29	-			90	2	Washer, Lock, Split, 5/16, Znc	74120002
30	1	Kit, Blower, Heater, Air Seal (Canada)	53700783	91	2	Washer, Flat, 5/16, Znc	74120003
31	1	Key, Gearbox, 1/4" SQ x 3 1/2"	53550010	92	-		
32	1	Kit, Blower, Heater, Air seal, PTC, 110V	53700760	93	-		
33	1	Kit, Blower, Heater, Air seal, PTC, 230V	53700761	94	2	Washer, Flat, 1/2 x 1 3/8" x 7/64", Znc	74150001
34	1	Panel Guide (S.S. only)	53700458	95	10/12	Backer plate, 1/8" x 6" Ø, Znc	65000723
35	1	Kit, Spare Parts Box (not shown)	53700468	96	20/24	Washer, Flat, 5/8 x 1-3/4 x 9/64, Znc	74160001
36	1	Shroud, Motor, RHD, Kit	53700480	97	4	Washer, Trolley	74170021
37	1 1	Shroud, Motor, LHD, Kit	53700481	98	1	Kit, 7100BP, M/B/G/S, RHD, 460V (=>12/17/07	53700640
38 39	1 1	Kit, Curtain Fan, 115V, 1Ø	53700769	99	1	Kit, 7100SS, M/B/G/S, RHD, 460V (=>12/17/07	53700642
40	1 1	Kit, Blower, Air seal, 4", 120V (cooler) Kit, Curtain Fan, 220V, 1Ø	53700765 53700770	100 101	1	Kit, 7100BP, M/B/G/S, LHD, 460V (=>12/17/07) Kit, 7100BP, M/B/G/S, RHD, Not 460V (=>12/17/07)	53700661 53700662
41		Kit, 7100, Cable, Motor, 20'	53700770	101		Kit, 7100BP, M/B/G/S, KHD, Not 460V (⇒12/17/07) Kit, 7100BP, M/B/G/S, LHD, Not 460V (⇒12/17/07)	53700663
42		Kit, 7100, Cable, Motor, 50'	53700638	102		Kit, 7100SF, M/B/G/S, L11D, Not 460V (⇒72/17/07)	53700664
43		Kit, Blower, Air seal, 4", 230V (cooler)	53700766	103		Kit, 7100SS, M/B/G/S, RHD, Not 460V (=>12/17/07)	53700665
44		Blower 140 CFM 115V (Thermal Air Seal)	13250025	105		Kit, 71003S, M/B/G/S, KI ID, Not 400V (=>12/17/07) Kit, 7100SS, M/B/G/S, LHD, 460V (=>12/17/07)	53700666
45	i	Motor, Brake, Bevel Gearbox, 1HP, 230/460V, 7100			+ '-	Tak, 170000, WI/DI 0/0, El ID, 400 V (-212/1/01)	
46	1	Drive Chain Attachment, RH Trolley	65000424				1
46 47		Drive Chain Attachment, RH Trolley Drive Chain Tensioner	65000424				
47	1 2	Limit Switch Strike Plate 36" (dow <= 84")	65000430				
48 49	2						1
49 51	2	Limit Switch Strike Plate 42" (dow > 84")	65000432				1
52	1 1	Limit Switch, Plate Mount Gearbox, Plate Weldment	65000433 65000613				1
53		Retaining Ring	67020052				
54	4	Header Trolley Roller, Bottom	67200046				1
55	4 4	Header Trolley Roller Assembly	67200046				1
56	10/12	Thru-Bolt All Thread Rods. 5/8"-11 x 12"	67900042				1
57	10,12	11114-2011 All 11116au 110u3, 3/0 -11 X 12	01300042				1
57 58	1 1	Gearbox Shaft, 7100, BP	68950147				1
56 59		Gearbox Shaft, 7100, BP	68950147				1
60	6	Shim, Support Tube, 3", 7100	69000008				1
61	6	Shim, Header, 10", 7100	69000008				1
O I	'	Olimi, Floadel, 10 , 1 100	0000000				

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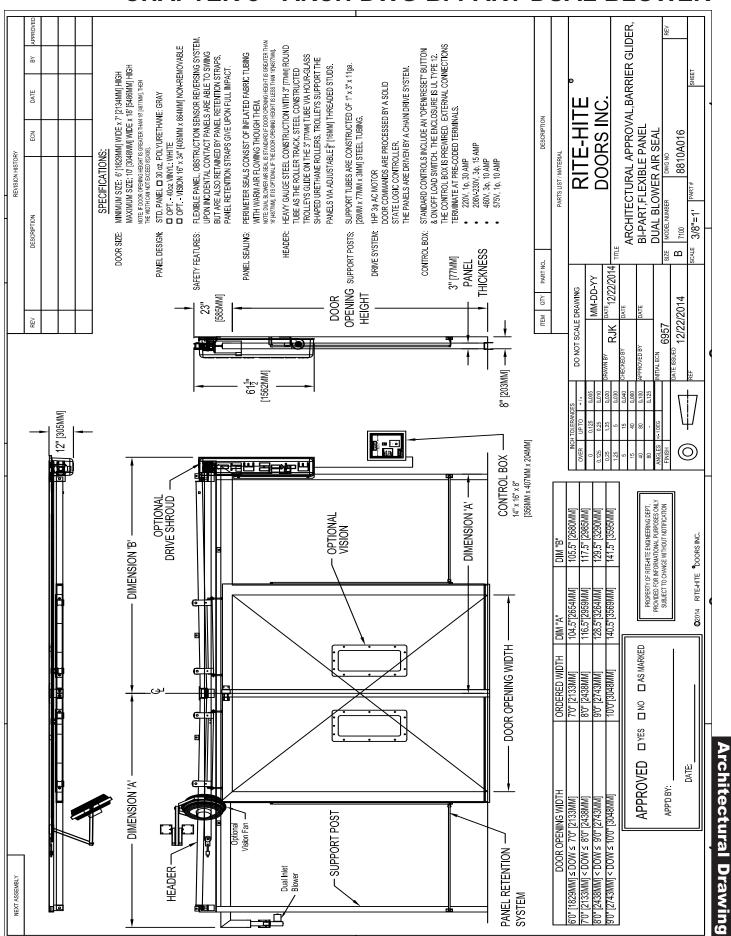
# **CHAPTER 7 - ACTIVATION SERVICE PARTS**

ш	D-4#	D		7400	0000	Incon	Innaal	FOTY	FOTVOL	LECTVED	LECTVEDI D.	C C T V V I	LITODO	0-1:401
#	Part #	Description	<u>5700</u>	7100	8000 Y	8600	8900 Y	FSTX Y	FSTXCL Y	FSTXFR Y	FSTXFRLD Y	FSTXXL Y	LTSPD Y	Split2nd
1 2		Alarm, Audible, 24AC/DC, 22.5 (I-Zone)	N	N	Y	N Y		Y	Y	l	Y	Ϋ́Υ		N N
3		Alarm, Audible, 120VAC,10-TONE, AB	N N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y
4		Controller, Wireless, Act, BTR, 12-24V Induction Loop Board, 24VDC (<5/28/14)	N	Y	Y	Y	Y	Y	Y	Y	N N	Y	N	N
5		Induction Loop Board, 12/24VDC (=>6/20/12)	N	Y	N	Ϋ́	Y	Y	Y	Ϋ́	Y	Y	Y	Y
6		Induction Loop Board, 12/24 VBC (=> 0/20/12)	N	Y	Y	Ϋ́	Y	Y	Y	Ϋ́	N N	Y	N	N
7		Induction Loop Board Harness (<5/20/14)	N	Ϋ́	N	Ϋ́	Y	Ϋ́	Y	Ϋ́	Y	Ý	Y	Y
8		Induction Loop, Kit, Single (<5/28/14)	N	Y	Y	Y	Y	Y	Y	Y	N N	Y	N N	N N
9		Induction Loop, Kit, Dual	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10		i-COMM ii LCD Interface	N	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y
11	7622	I-Zone Kit	N	N	Υ	N	Υ	Y	N	Y	Υ	Υ	Υ	N
12	7636	I-Zone Upgrade Kit, Non FasTrax	N	N	Υ	N	Y	N	N	N	N	N	Y	N
13	7637	I-Zone Upgrade Kit, FasTrax	N	N	N	N	N	Υ	N	Y	Y	Υ	N	N
14	14500774	I-Zone Sensor Bracket Black	N	N	Υ	N	Υ	Υ	N	Y	Y	Υ	Y	N
15	14500775	I-Zone Sensor Bracket Gray	N	N	Υ	N	Υ	Y	N	Y	Y	Υ	Y	N
16	14500783	I-Zone Sensor Bracket Stainless	Ν	Ν	Υ	N	Υ	Y	N	Y	Y	Υ	Y	N
17	17900110	I-Zone Cover Gray	Ν	Ν	Υ	N	Υ	Y	N	Y	Y	Υ	Y	N
18	17900111	I-Zone Cover Black	Ν	Ν	Υ	N	Υ	Y	N	Y	Y	Υ	Y	N
19	17900112	I-Zone Cover Stainless	Ν	N	Υ	N	Υ	Υ	N	Y	Y	Υ	Υ	N
20	14501212	Motion Sensor, Mounting Bracket	N	Υ	Υ	Y	Υ	Υ	Y	Y	Y	Υ	Y	Υ
21	55200012	Motion Sensor, Remote Programmer	Ν	Υ	Υ	Y	Y	Y	Y	Y	Y	Y	Y	Y
22	55200018	Motion Sensor, FalconXL < 11.5'H	N	Υ	Υ	Y	Y	Υ	Y	Y	Y	Υ	Y	Y
23	55200019	Motion Sensor, Falcon >= 11.5'H	N	Υ	Υ	Y	Y	Y	Y	Y	Y	Υ	Y	Y
24	55200021	Motion Sensor, IS40, 12-24V	Ν	Υ	Υ	Y	Y	Y	Y	Y	Y	Y	Y	Y
25	55200022	Motion Sensor, LZRI30, 12-35VDC	N	Υ	Υ	Y	Y	Υ	Y	Y	Y	Υ	Y	Y
26	55200023	Motion Sensor, MS08, Touchless, 12-24V	N	Υ	N	Y	Y	Y	Y	Y	Y	Υ	Y	Y
27		Motion Sensor, IS40XL, 12-24V	N	Υ	Υ	Y	Υ	Υ	Y	Y	Y	Υ	Υ	Υ
28	14500024	Photoeye Mounting Bracket	N	Υ	Υ	Y	Y	Y	Y	Y	Y	Υ	Y	Y
29		Photoeye, 24V, Kit, Thru-beam	N	Υ	Υ	Y	Y	Y	Y	Y	Y	Υ	Y	Y
30	53700122	Photoeye, 24V, Kit, Retroreflective	N	Υ	Υ	Y	Y	Y	Y	Y	Y	Υ	Y	Y
31	66400001	Photoeye, Reflector, 2 3/4" x 2"	N	Υ	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
32	63900002	Photoeye, Retro-Reflective 20-40VAC/10-55VDC	N	Υ	Y	Y	N	Y	Y	Y	Y	Y	Y	Y
33		Photoeye, Thru-beam Source 20-40VAC/10-55VDC	N	Υ	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
34		Photoeye, Thru-beam Receiver 20-40VAC/10-55VDC	N	Υ	Υ	Y	Υ	Y	Y	Y	Y	Y	Y	Υ
35		Photoeye, Light Curtain, Receiver, (CE)	N	N	N	N	N	Y	N	Y	Y	N	N	N
36		Photoeye, Light Curtain, Transmitter, (CE)	N	N	N	N	N	Y	N	Y	Y	N	N	N
37		Pull Cord, Assembly, w/Bracket, Standard	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
38		Pull Cord, Assembly, w/Bracket, Heated	N	Y	Y	Y	Y	N	Y	Y	Y	N	N	N
39		Pull Cord, Wireless	N	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y
40		Push Button Station Single Green	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
41		Push Button Station, Open/E-Stop/Close, Nema 4X	N	N	N	N	N	N	N	Y	Y	N	Y	Y
42		Push Button, Single, Wireless	N N	Y	N Y	N Y	N Y	Y	Y	Y	Y	Y	Y	Y
		Radio Control, RCVR, BEA, 433, 12-24V, 1 FN (⇒8/26/14)	N	Y	l r	Y	Y	Y	Y	Y	Y	Ϋ́	Y	Y
44		Radio Control, Trans, BEA, 433, 1 BTN (⇒8/26/14) Radio Control, Trans, BEA, 433, 2 BTN (⇒8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Ϋ́	Y	Y
46		Radio Control, Trans, BEA, 433, 2 BTN (=>8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Ϋ́Υ	Ϋ́	Y
47		Radio Control Ant w/15' Cable, 318 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
48		Radio Control, 24V, Kit, 318 MHZ (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Ϋ́	Ϋ́	Y
49		Radio RCVR, 24V, XII, 316 MHZ (<8/20/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Ϋ́	Y	Y
50		Radio RCVR, 24V 300 MHZ (<8/26/14)	N	Ϋ́	Y	Ϋ́	Y	Y	Y	Ϋ́	Y	Ϋ́	Y	Y
51		Radio TRANS, 300 MHZ, BTN, 4 (<8/26/14)	N	Y	Y	Y	Y	Y	Y	Y	Y	Ϋ́	Y	Y
52		Radio TRANS, 300 MHZ, BTN, 4 (<8/26/14)	N	Ϋ́	Ϋ́	Ϋ́	Y	Y	Ϋ́	Ϋ́	Y	Ϋ́	Y	Y
53		Radio TRANS, 318 MHZ, BTN, 3 (<8/26/14)	N	Ϋ́	Y	Ϋ́	Y	Y	Y	Ϋ́	Y	Ϋ́	Y	Y
54		Radio TRANS, 318 MHZ, BTN, 3 (<8/26/14)	N	Ϋ́	Y	Ϋ́	Y	Y	Y	Ϋ́	Y	Ϋ́	Y	Y
55		Strobe 120VAC Amber	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
56		Strobe 120VAC Red	N	Y	Y	Ϋ́	Y	Y	Y	Ϋ́	Y	Y	Y	Y
57		Switch, Disconnect w/Handle	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
58		Switch, Selector, 2 Pos, Key	N	Ϋ́	Ϊ́Υ	Ϋ́	Y	Y	Y	Ϋ́	Y	Ý	Y	Y
59		Switch, Selector, 2 Pos (Socket p/n: 17200012)	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
60		Switch, Selector, 3 Pos, 3 Pole, 12A	Y	N	N N	N N	N N	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 N	N N	Y	N	Ϋ́	Y	N N	Y	Y
63	7624	Virtual Vision, Kit, FSTXCL	N	N	N	N	N	N.	Y	N N	N	N	N N	N N
64	7628	Virtual Vision, Kit, FSTXXL	N	N	N	N	N	N	N	N	N	Y	N	N
65		Warning Device Kit, Relay, i-COMM	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
66		Warning Device Kit, Relay, PLC	N	N	Y	Y	Y	N	N	N	N N	N	N	N
67		Kit, Activation Service Parts (loop, pe, pull, push)	N	Υ	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
#	Part #	Description (Last updated: 10.15.14)	5700	7100	8000			FSTX	FSTXCL		FSTXFRLD	FSTX	LTSPD	Split2nd
		·												

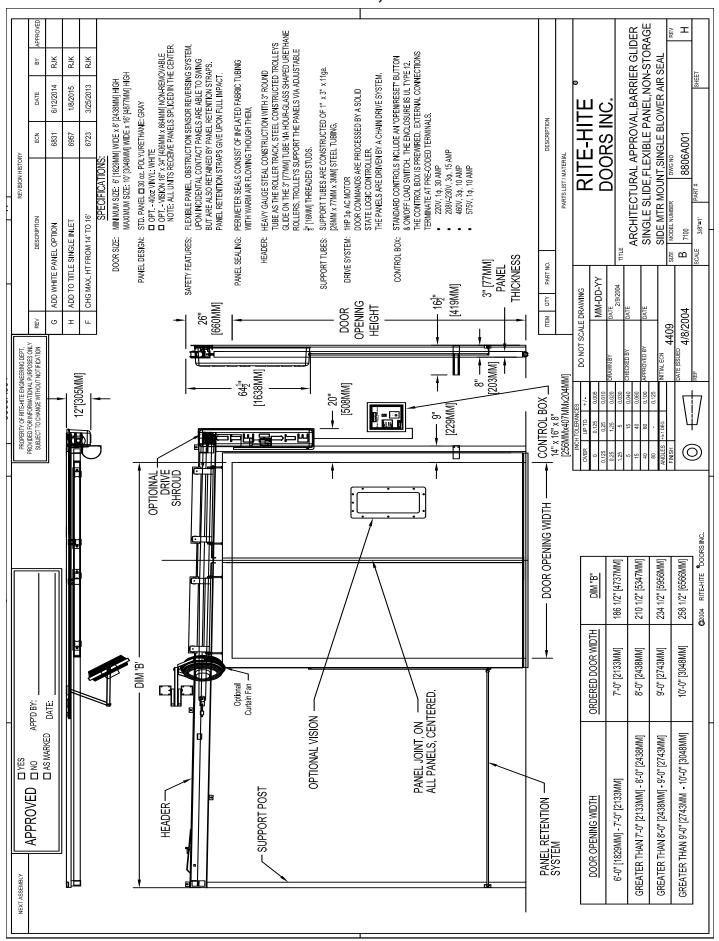
## **CHAPTER 8 - ARCH DWG BI-PART SINGLE BLOWER**



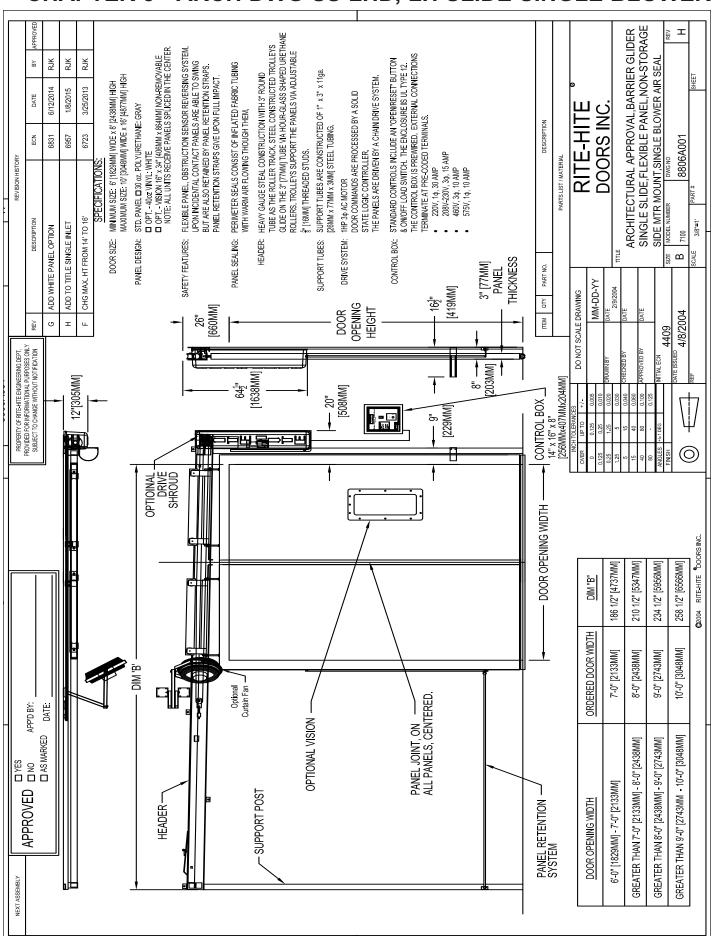
#### **CHAPTER 8 - ARCH DWG BI-PART DUAL BLOWER**



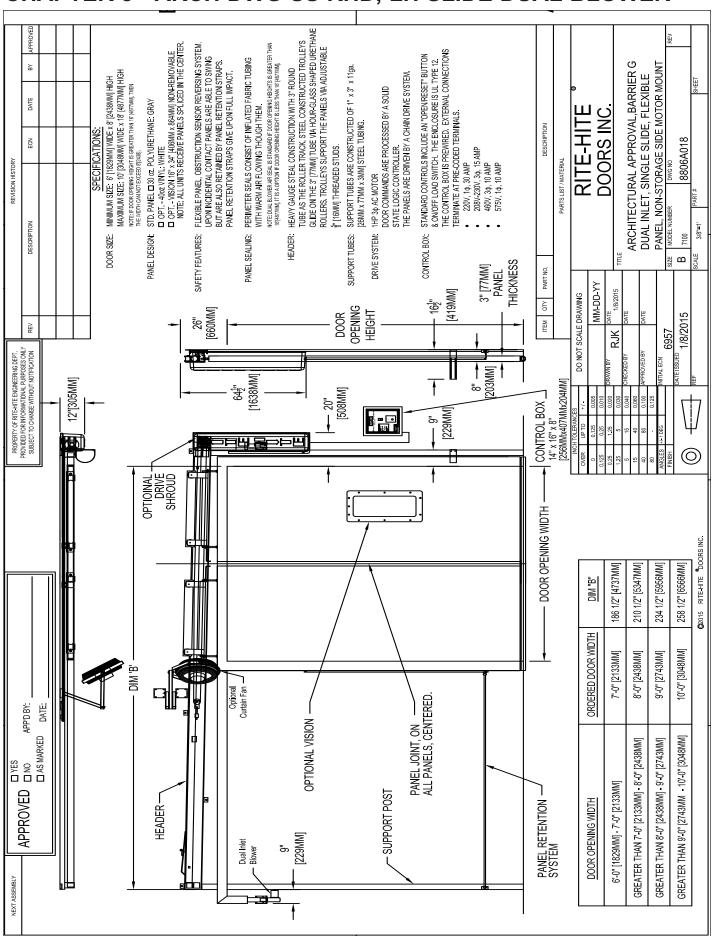
## **CHAPTER 8 - ARCH DWG SS RHD, LH SLIDE SINGLE BLOWER**



#### **CHAPTER 8 - ARCH DWG SS LHD, LH SLIDE SINGLE BLOWER**



#### **CHAPTER 8 - ARCH DWG SS RHD, LH SLIDE DUAL BLOWER**



# 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
	Blue	N.C.	Normally Closed
BU 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
CT 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 GN or GRN	Gearbox Green	RH RHD	Right Hand 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 LCD	Pounds	w/	With
LCD	Liquid Crystal Display	W/O	Without
LED	Light-Emitting Diode	WH	White
LH LHD	Left Hand	X XL	Controller Input
	Left Hand Drive	Y	Extra Large Door
L1,2,3 LLC	Line Voltage 1, 2, 3	Y YE	Controller Output Yellow
LTSPD	Limited Liability Company LiteSpeed	ZNC	Zinc
L/S	Limit Switch	OV	Direct Current Common (Zero V)
M/D/Y	Month/Day/Year	J V	Rev. 9.23/14
,			11.6v. 9.23/14

#### RITE-HITE DOOR PRODUCT WARRANTY



LIMITED WARRANTY

RITE-HITE Company, LLC and its affiliates (collectively "RITE-HITE") warrants that the BARRIER® GLIDER 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.

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#### **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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