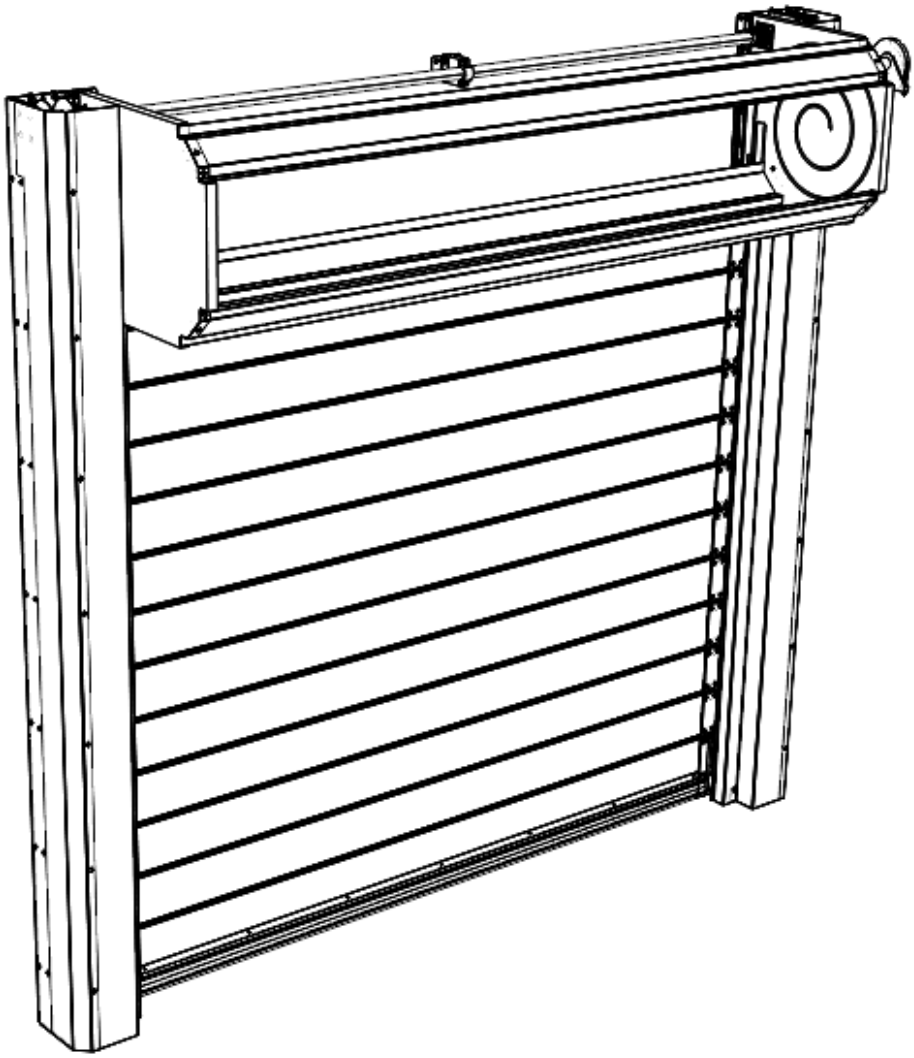
ThermicRoll® Installation



JAMISON DOOR COMPANY
P.O. BOX 70
HAGERSTOWN, MARYLAND 21741
1-800-532-3667 301-733-3100
INTERNET: http://www.jamisondoor.com
E-MAIL: contact@jamisondoor.com

AFTER INSTALLING PLEASE FORWARD INSTRUCTIONS TO THE MAINTENANCE DEPARTMENT OR OWNER

INSTALLATION INSTRUCTIONS INDEX

1. INSTALLATION OVERVIEW

- NOTES:
  - Please use this booklet as a step by step installation guide.
  - This book contains instructions for many different door configurations. Some sections may not be needed.

- CONTENTS OF CRATES AND CARTONS
  - Unit could be shipped in one or two crates
  - Control panel key and attaching hardware are in the control panel
  - There is one box of miscellaneous hardware which will included hardware and electrical options

- INSPECT FOR DAMAGES AND/OR SHORTAGES IMMEDIATELY
  - Open all shipping containers and inspect for concealed damage and/or shortages. Carefully repack to prevent further damage or pilferage.
  - Note on all copies of the delivery receipt any damages and/or shortages.
  - If shipping damage occurred, report it in writing to the transportation company. Refer to Jamison's Terms & Conditions Form 166.

- HANDLE ALL PARTS CAREFULLY
  - Certain parts such as gaskets, wiring, etc. are vulnerable to damage.

- READ ALL INSTRUCTIONS BEFORE PROCEEDING WITH THE INSTALLATION
  - Instructions include basic drawings and schematics. These instructions and any other documents are included with this shipment.
  - Refer to job drawings for special features.

- PLAN AHEAD
  - Choose installers who are Millwrights or have equal qualifications.
  - Have all tools and materials necessary for installation readily available.

- **Before any service, personnel must be properly trained and be qualified to work on the equipment.**
- **Working on the electrical equipment requires special training and no one should work on the electrical equipment without proper certification.**
- **Before doing any electrical work be sure the power to the door is turned off, locked and tagged out.**
- **Be sure installing personnel fully read and understand the manual prior to installation.**
- **Block off the area from traffic and place signs indicating the door is out of operation and personnel are in the area working**
- **Unauthorized people must not repair or maintain the door and should not be in the area during maintenance.**
- **Do not use any heat sources that could start fires near the door and do not solder during maintenance.**
- **Do not use compressed air or any solvents on the door.**

2. EQUIPMENT NEEDED

1	Tape Measure	10	Level
2	Suitable equipment to lift and access the parts of the door (ladder, forklift, man lift, etc.)	11	Wrenches, SAE and metric
3	Screwdrivers – small precision screwdrivers and Phillips #2	12	Voltmeter
4	Cordless Drill	13	Hammer
5	Tools to install the wall fasteners. Each install is unique so be sure you have what you need for your wall.	14	Grinder
6	Drill bits	15	Caulk Gun
7	Scissors	16	Pliers
8	Wire Stripper	17	Allen Keys (3mm, 5mm)
9	Clamps	18	3/8 Concrete Drill Bit + Hammer Drill

Man Lift

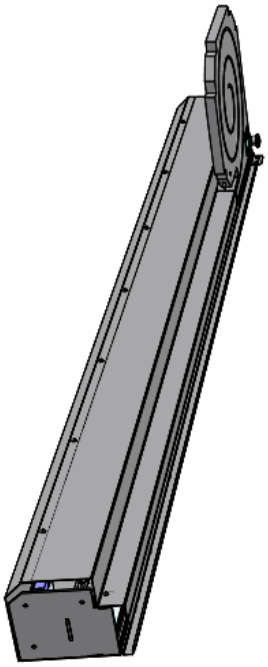
Fork Lift*

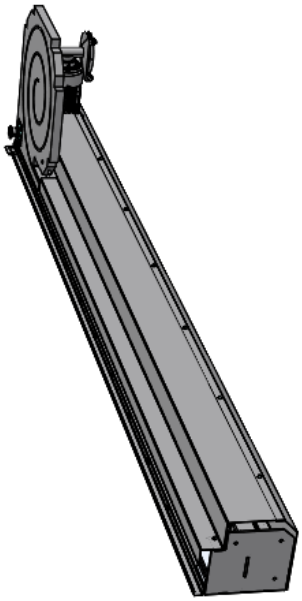
DOORS WITH WIC'S 14' AND GREATER, TWO (2) FORK LIFTS ARE RECOMMENDED

The manufacturer may change this manual at any time without notice. The pictures in this manual may not fully represent the actual product and are meant for illustrative purposes to assist installation.

3. COLUMNS PREPARATION

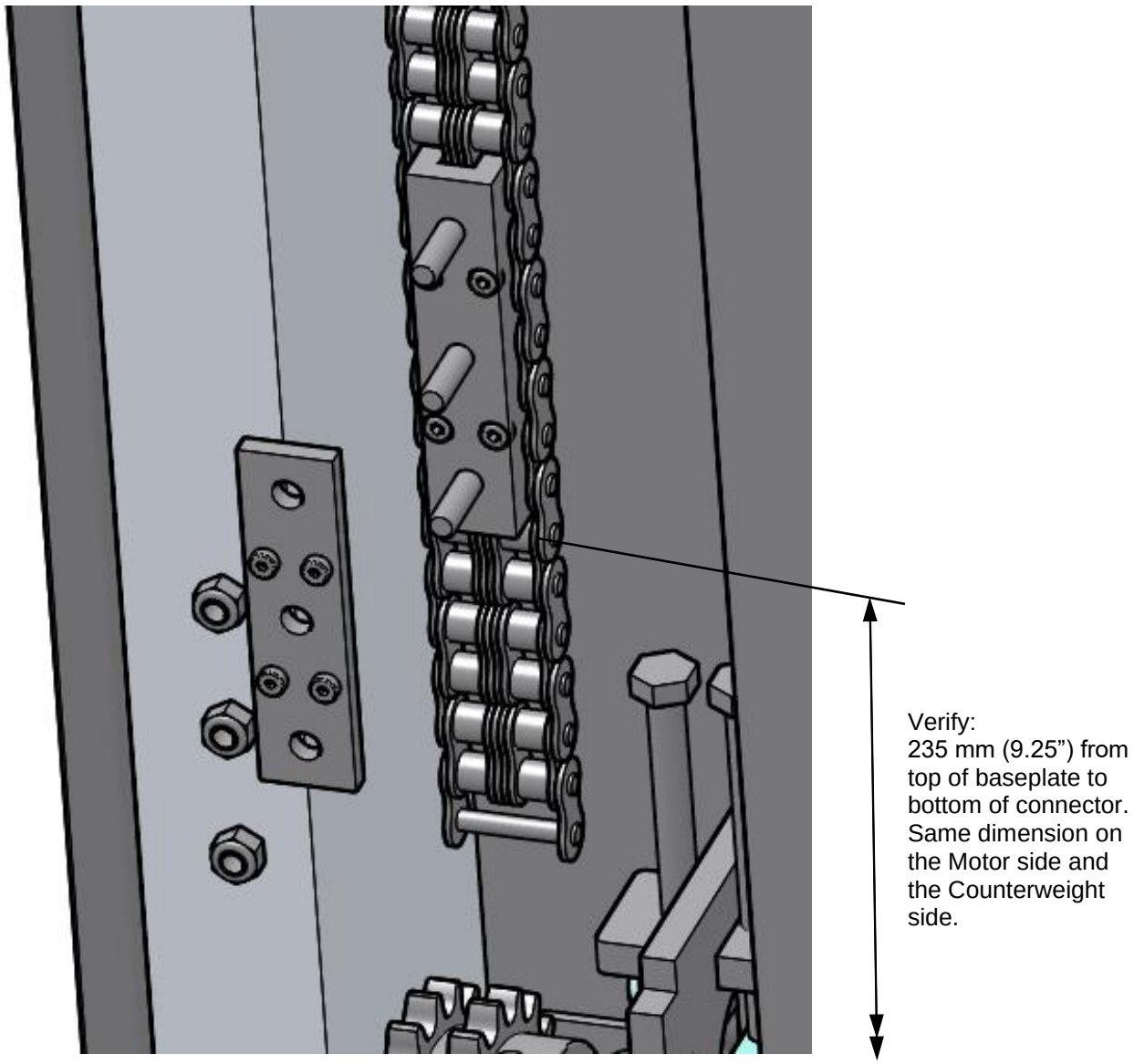
- Uncrate the two Column Assemblies.
- Place the two side Column Assemblies parallel to each other. The black track of each column should be facing each other and place the spiral plates near the doorway opening.
- Spacing between the columns (track to track) is approximately WIC + 100 mm.
- Remove the Front Cover from each column.





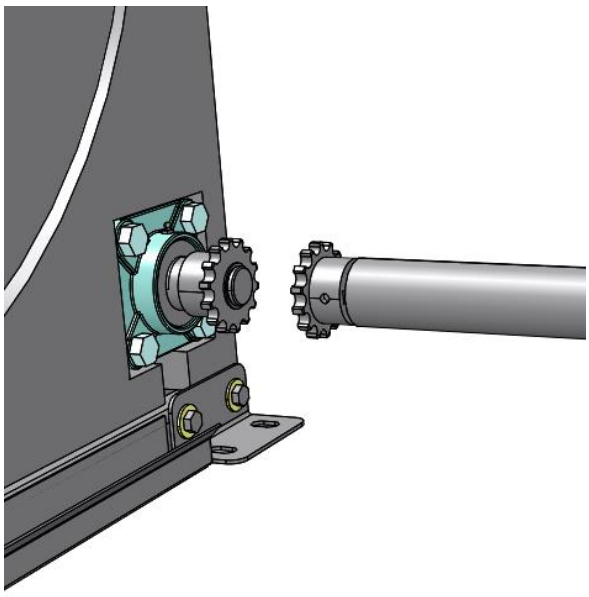
****Check the floor for flatness and level****

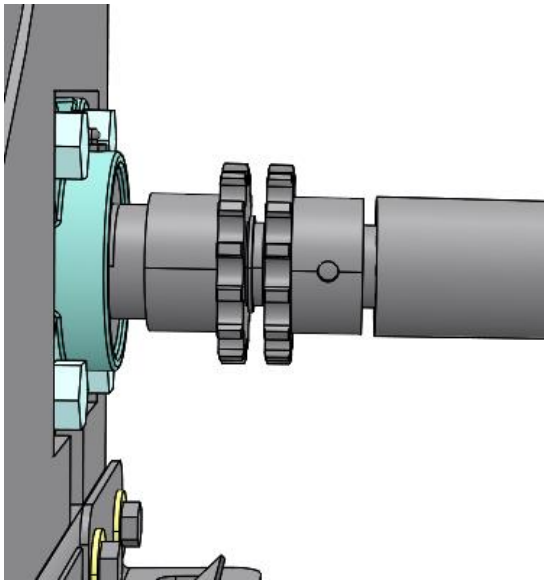
- Locate the Drive Link Connectors in both side columns.
- Remove the three (3) nuts and the Front Connector Plate from each connector (save all items for Panel Assembly).
- Verify the Drive Link Connectors are 235 mm or 9.25” from the top of the baseplate to bottom of the connectors. Adjust if needed by moving the chain.



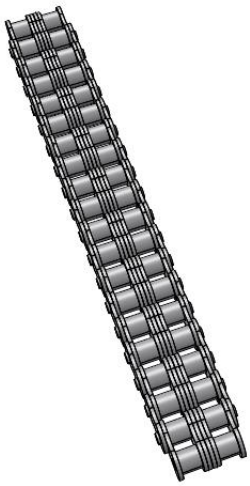
4. TRANSMISSION SHAFT ASSEMBLY

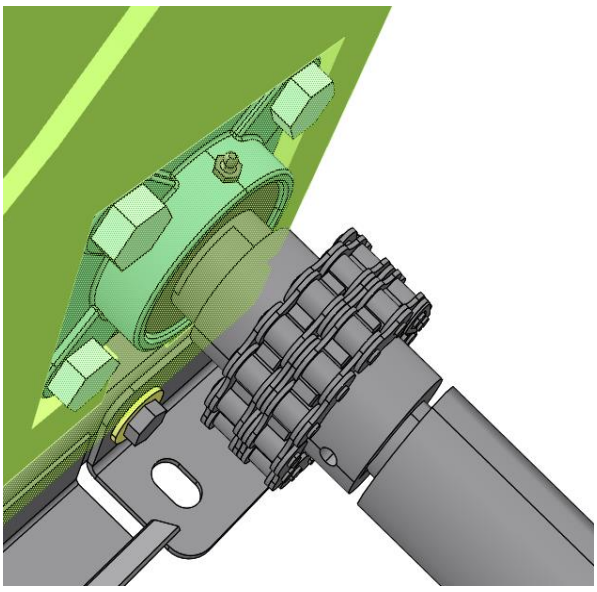
- Locate the transmission shaft (long round tube with sprocket welded at each end).
- Locate the two short double link chains and the two master chain links.
- Elevate the transmission shaft to the same level as the sprockets near the top of the columns and spiral plates.

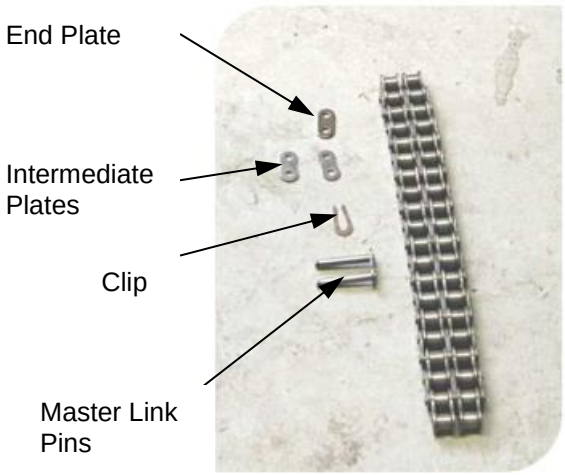


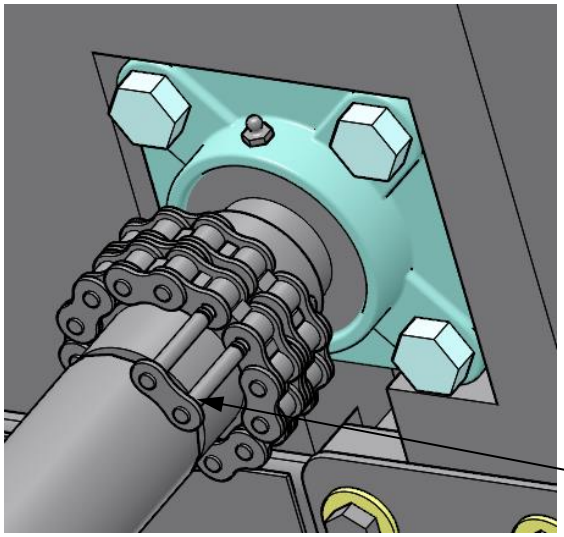


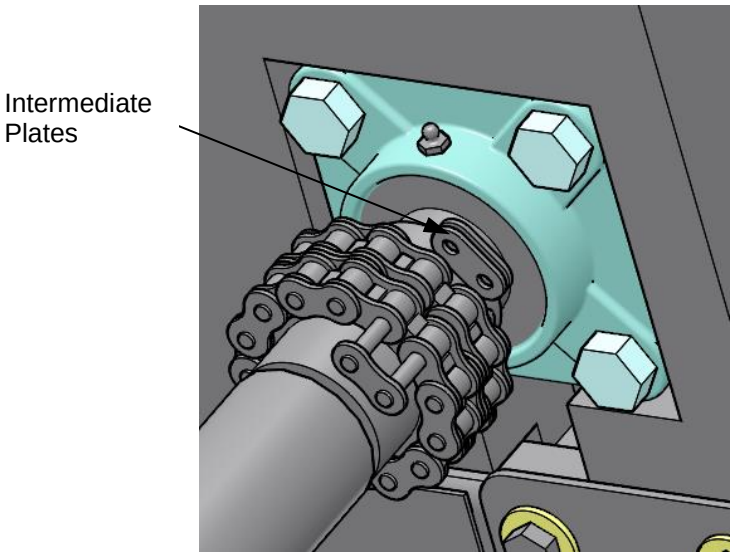
- Assemble the double link chains onto the sprockets on each end of the transmission shaft and the corresponding sprockets at each end of the column assemblies.
- Assemble the master chain links into the double link chains.

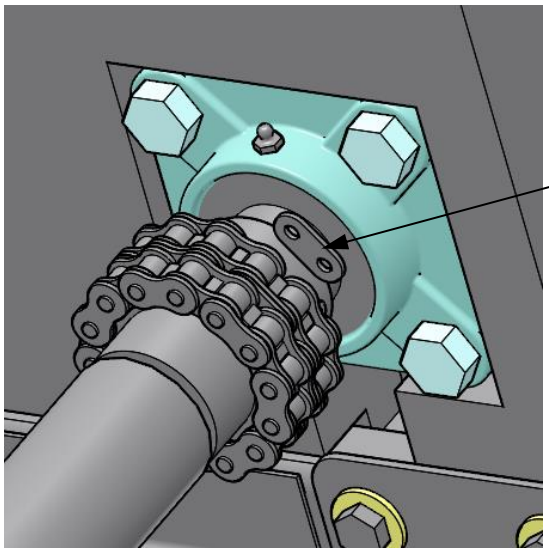


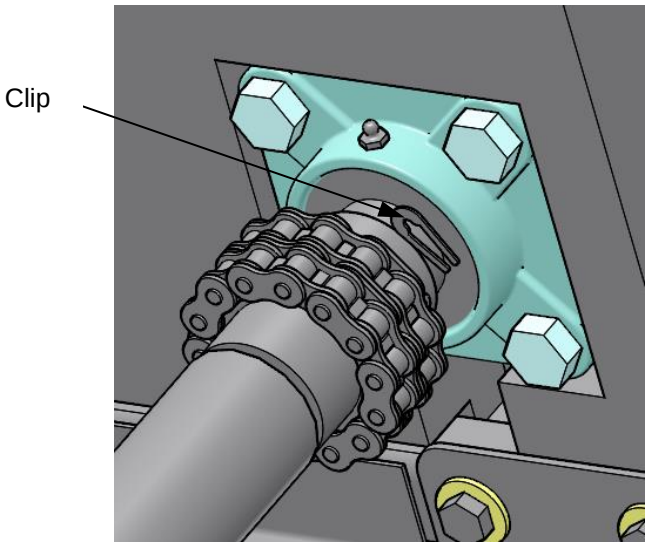


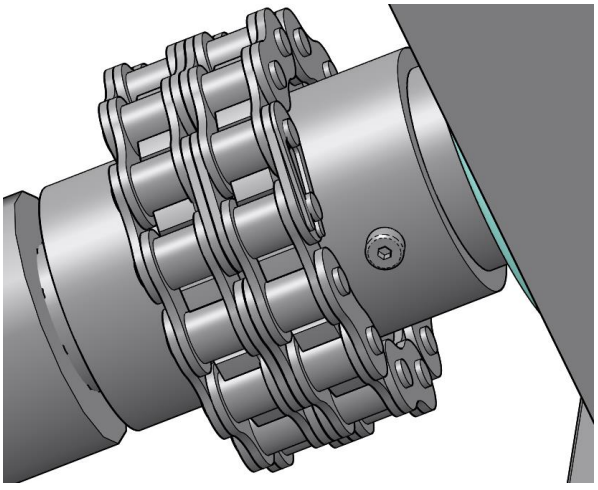

End Plate
Intermediate Plates
Clip
Master Link Pins


Master Link Pins


Intermediate Plates

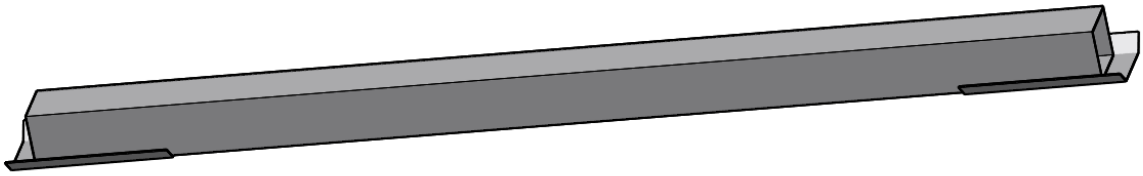

End Plate

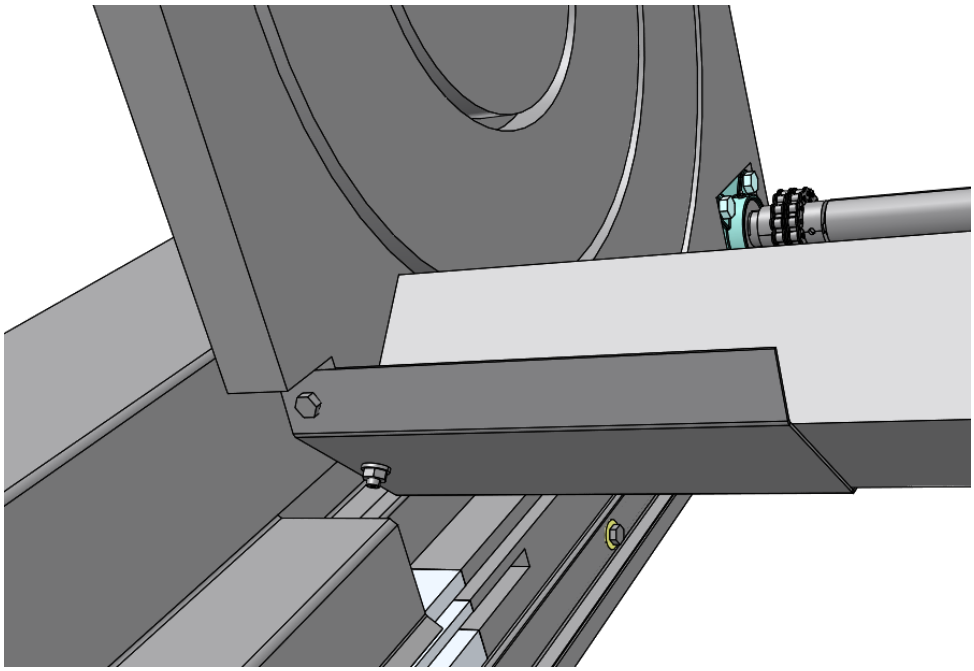

Clip



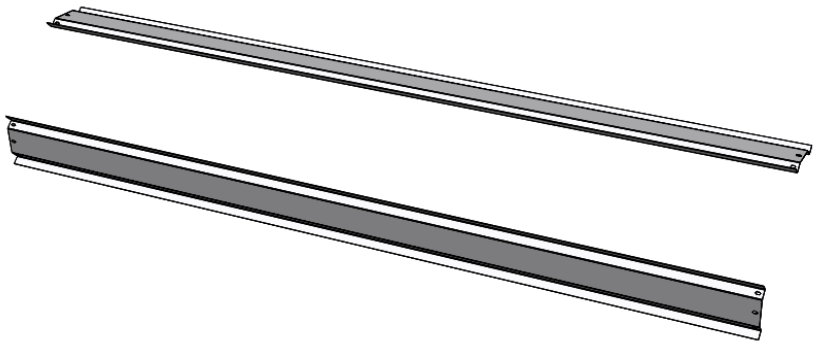
5. LIFTING BAR AND SPACER BAR ASSEMBLY

- Locate the lifting spacer bar (long square tube with welded flange at each ends).
- Remove the preassembled hex nuts from the studs at the bottom on the spiral plates.
- Match and place the color dot on the lifting spacer bar end to the color dot on the spiral plate.
- Assemble lifting spacer bar to the studs at the bottom end of the spiral plates.

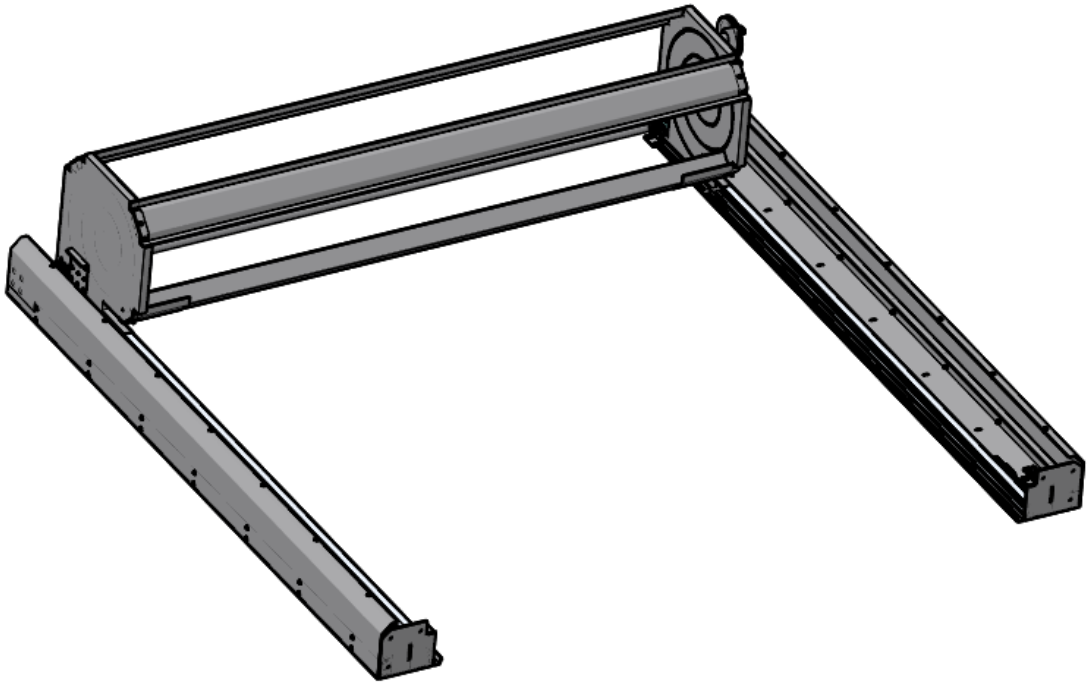




- Tighten the hex nuts of the lifting spacer bar and install one lag screw at each flange plate (into the pre-drilled hole within the spiral plate).
- Locate the two long front spacer bars and assemble them to the spiral plates with lag screws. Again, match and place the color dot on the spacer bars to the matching dot on the spiral plate. (The bottom back spacer bar has one less flange compared to the other spacer bars. This spacer bar will replace the lifting bar after the unit is anchored to the wall and floor.)



6. MECHANICAL ASSEMBLY

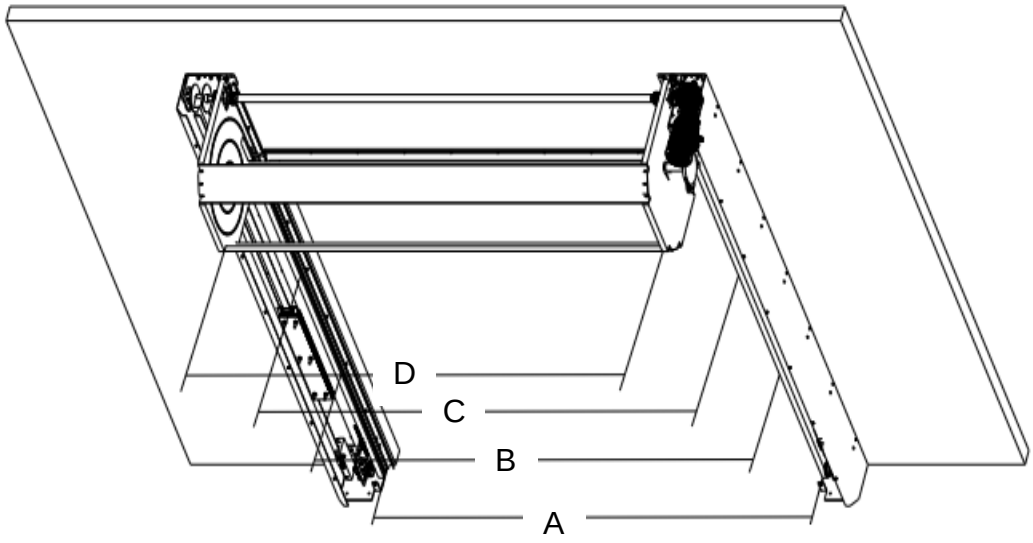


- Remove the front covers from both Column Assemblies. Remove the two flat head bolts, one in each of the spiral plate, holding the front cover in place.
- Position the lifting apparatus (ex: fork truck) between the Column Assemblies and forks under the lifting spacer bar.

Use two (2) fork trucks for doors with 14' WIC's and greater. Position fork trucks close to each side column. (Not in the center of the two columns)

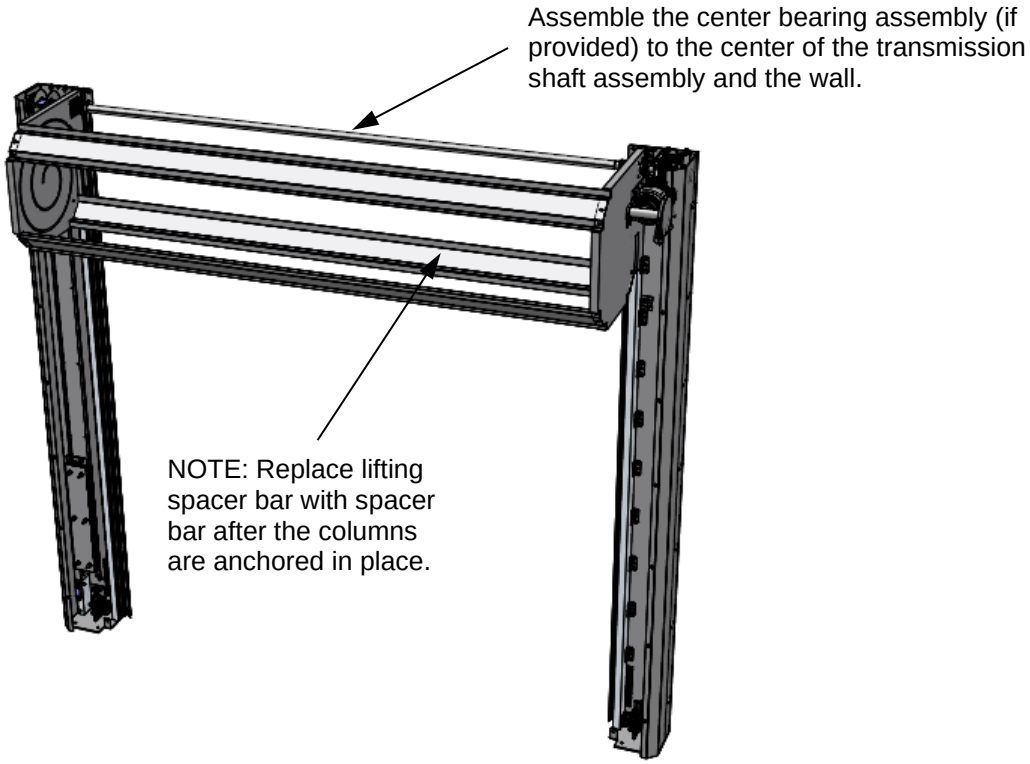
- Assistance will be required in guiding the legs while it is being lifted to prevent damage to the unit.
- Remove any fasteners on the back side of the column holding the counterweight shipping block.
- Position the unit in the center of the opening.
- Check unit to be level between Column Assemblies. Shim Column Assembly if needed.

- Measure between the black tracks at four (4) different elevations. The distance must be the same at all four elevations.



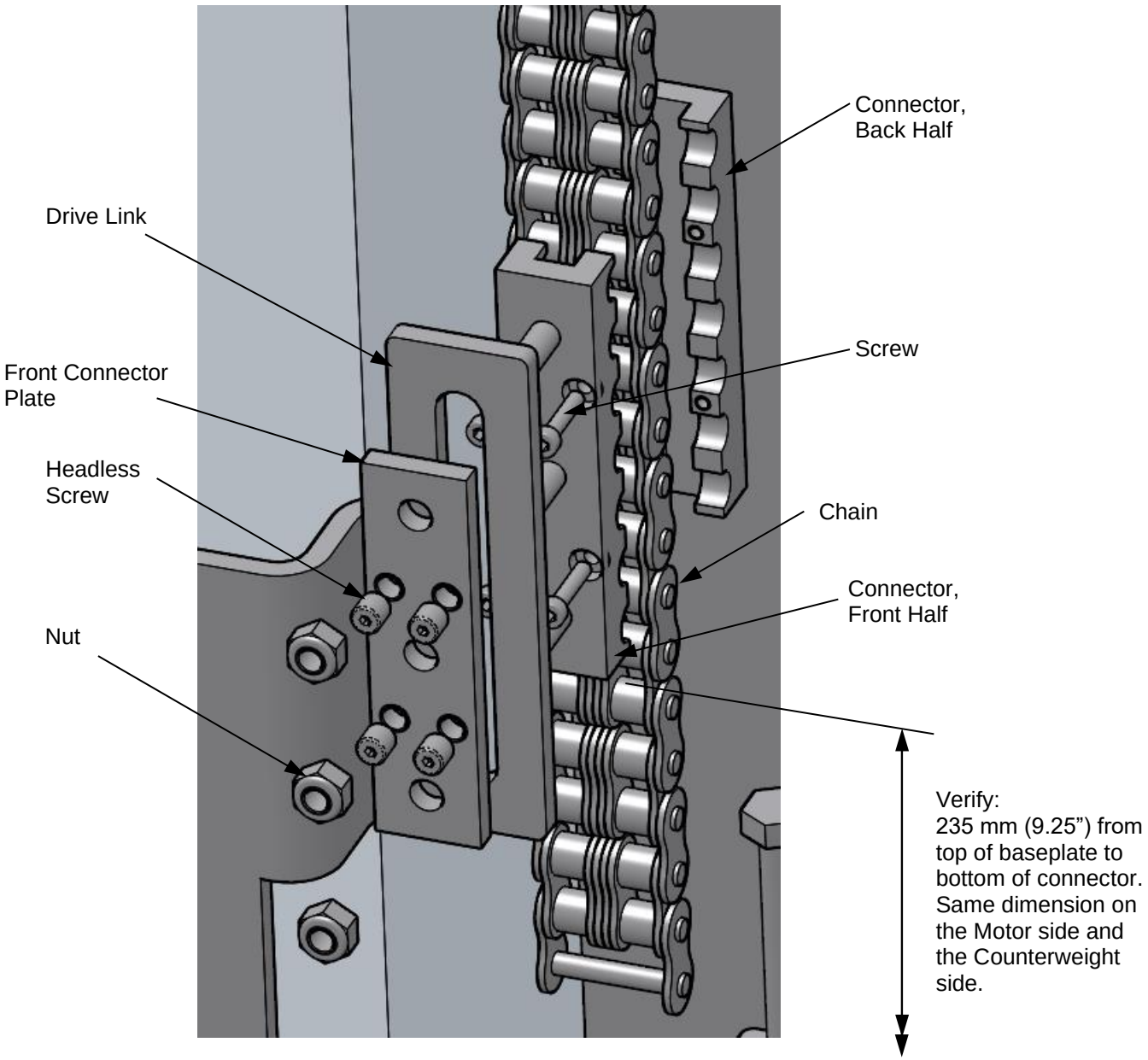
A=B=C=D

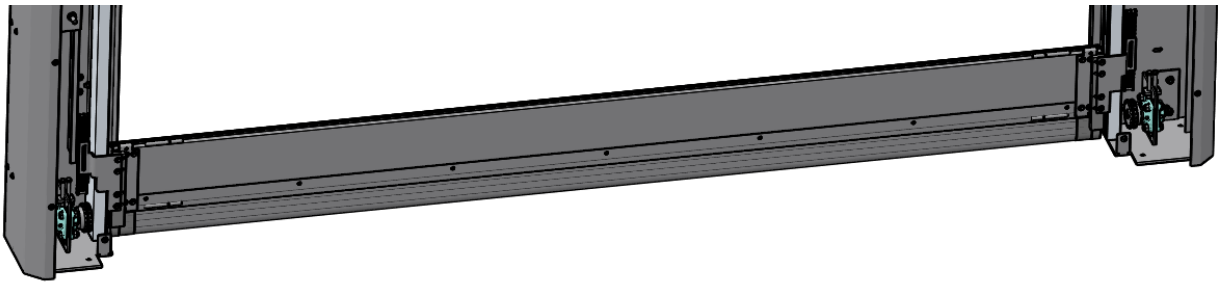
- Install fasteners into the mounting slots within the Column Assemblies, slots near the motor bracket, slots near the counterweight pulley, and the angle brackets by the transmission tube unions.
- Verify distance between tracks did not change. Install floor anchors.
- Remove the lifting spacer bar from the back of the bearing plates and install the last spacer bar (match color dots).
- If center bearing was provided, assemble to center of transmission shaft assembly and the wall.

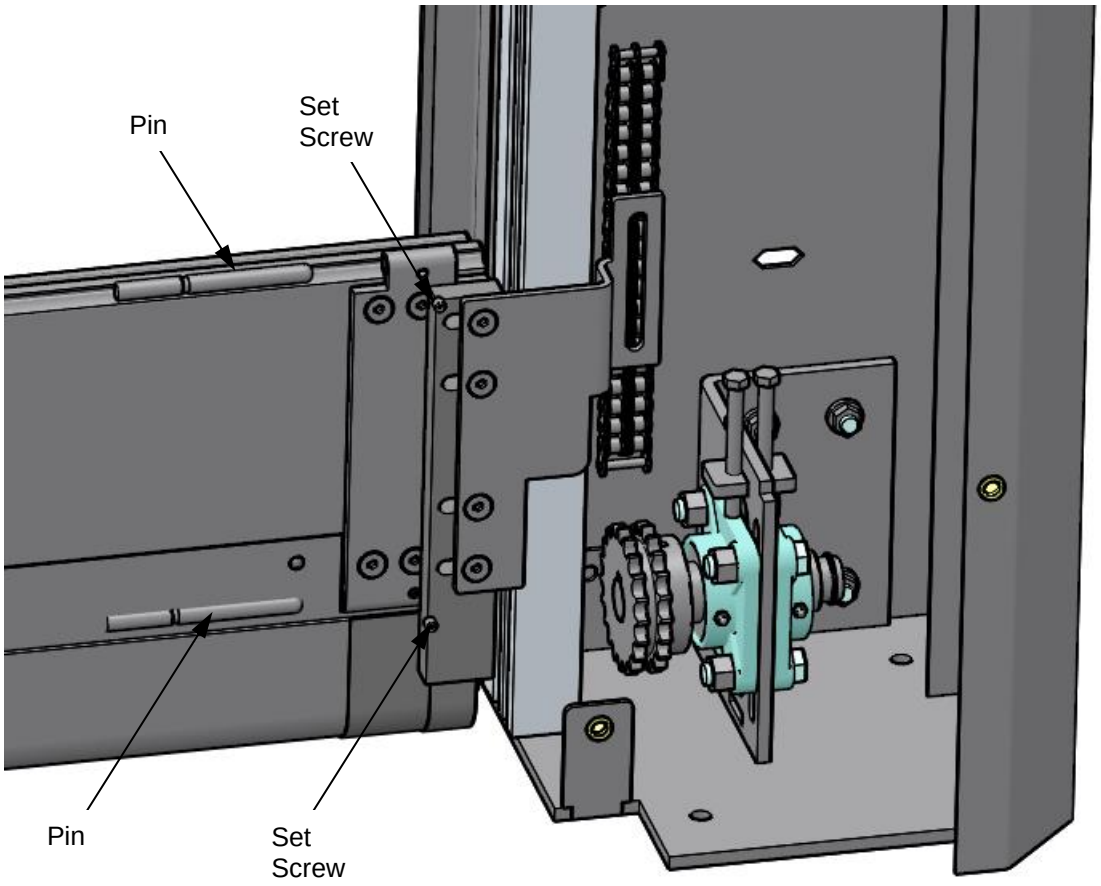


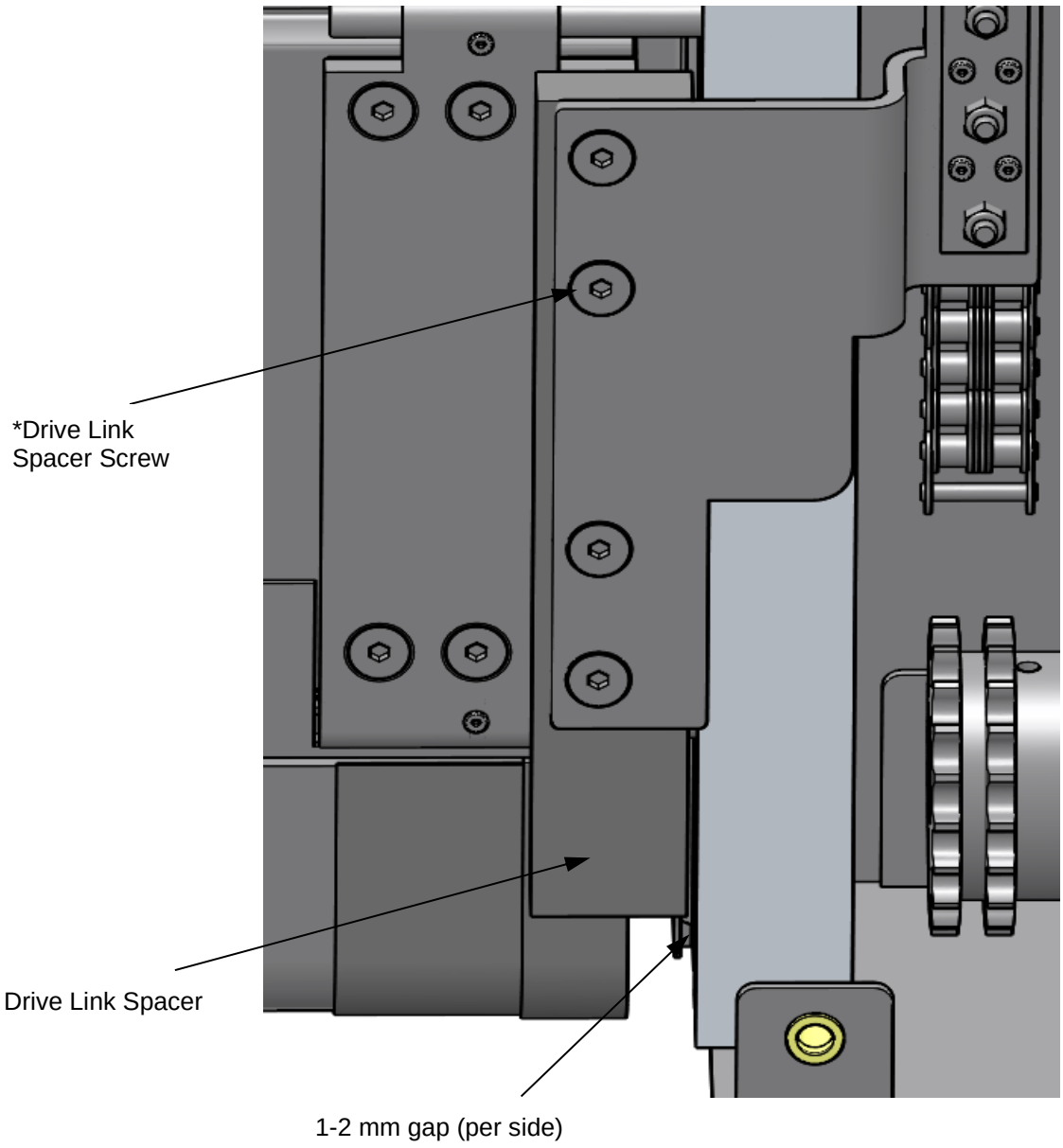
7. PANEL ASSEMBLY

- Locate the drive link connectors in both side columns.
- Locate the three (3) nuts and the front connector plate from each connector.
- Install panel #1 (panel with gasket at the bottom) into the opening. The three studs of the drive link connectors must go through the slots of the drive links.
- Loosely assemble the front connector plates and the hex nuts onto the connectors.
- Insert two pins per side with the rounded end into the track (and install set screws).
- Measure to ensure the panel is level. Tighten the hex nuts and the four (4) headless screws within the front connector plates against the drive link.





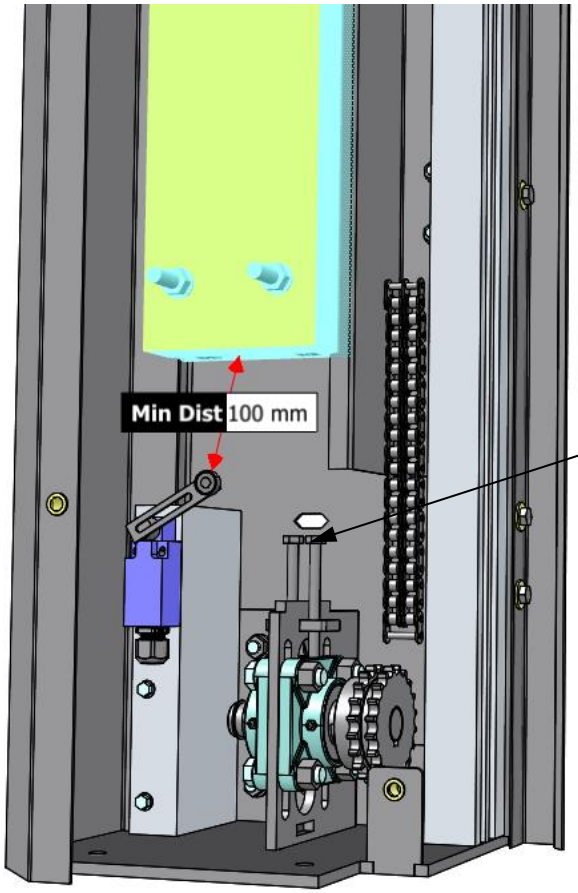

Pin
Set
Screw
Pin
Set
Screw



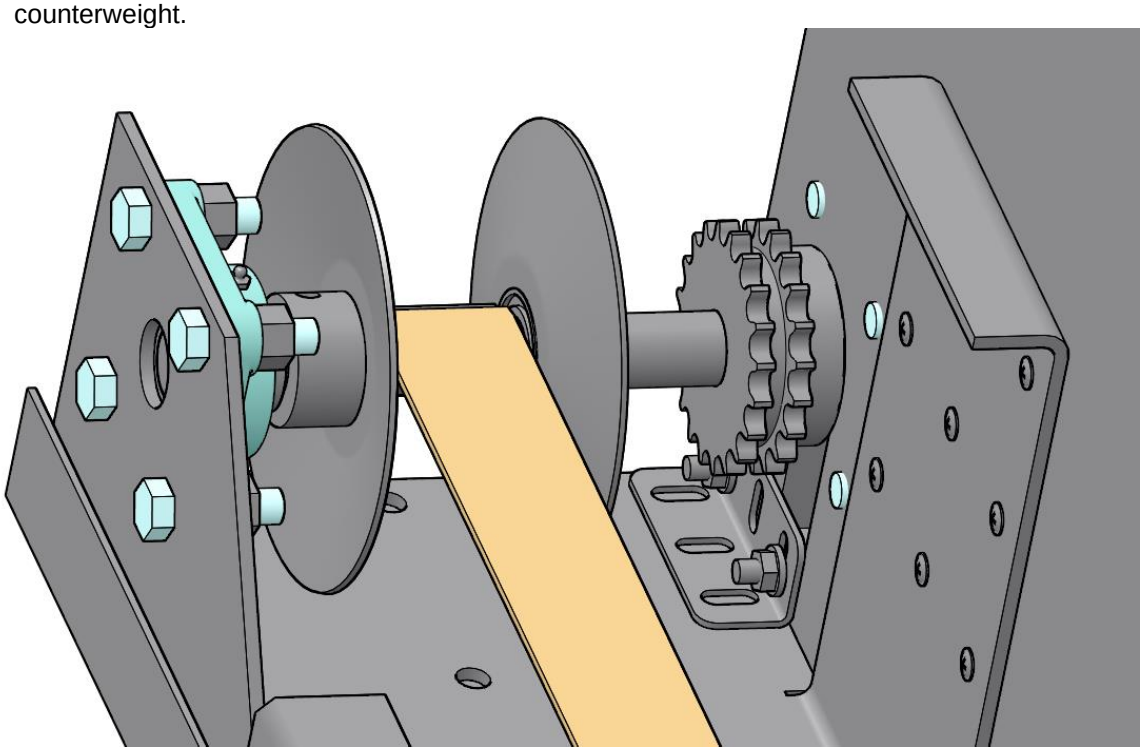
- Adjust the drive link spacers to 1-2 mm (on either side) away from the tracks.
- *If any of the drive link spacer screw was removed, add thread locking liquid to the threads of the screw before reassembling.
- Verify the bottom panel is still level.
- Prepare the panels for installations by removing the protective films. The panels are numbered for assembly order (the marking is on one end of the panel).
- Prepare for panel assemblies, gathers panels, pins, set screws, and panel end bushings.
- Remove the two top pins from the bottom panel. Stack panel #2 onto panel #1, insert pins between panel #1 & #2, the flat end of the pin should be even with the hinge.
- Assemble set screws.
- Continue panel stacking, pin insertions, and set screws to close off opening.
- If center hinges are present, insert center pins into center hinges and set screws. (Center pins have flat ends.)
- Assemble panel end bushings to the top hinge pin on every sixth panel.

8. COUNTERWEIGHT BELT ASSEMBLY

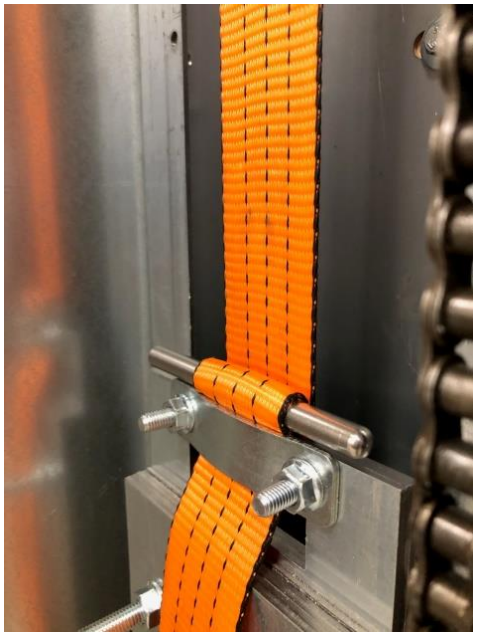
- With panel assembly complete, install the chain to the chain-fall.
- Activate the manual brake release, rotate brake level from horizontal position to vertical position.
- Manually open (or elevate) the door panel assembly to the operational open position.
- Set the counterweight assembly to approximately 100 mm above the wheel of the safety switch.



- Unroll the counterweight lifting belt. Leave minimum of two (2) wraps of the belt around the shaft.
- The belt must unroll from the front of the pulley (not the back of the pulley) down to the counterweight.



- Install the belt to the counterweight per the attached example of the belt routing and fastening to the counterweight assembly.
- The lift belt should pass between the back clamping plate and the back counterweight lift plate.
- The lift belt continues through the counterweight lift plates.
- Turn the lift belt up between the front counterweight lift plate and the front clamping plate.
- Loop lift belt back down between the lifting belt and the front clamping plate.
- Insert the pin through the loop of the lifting belt. Pull lifting belt tight and tighten clamping plates.

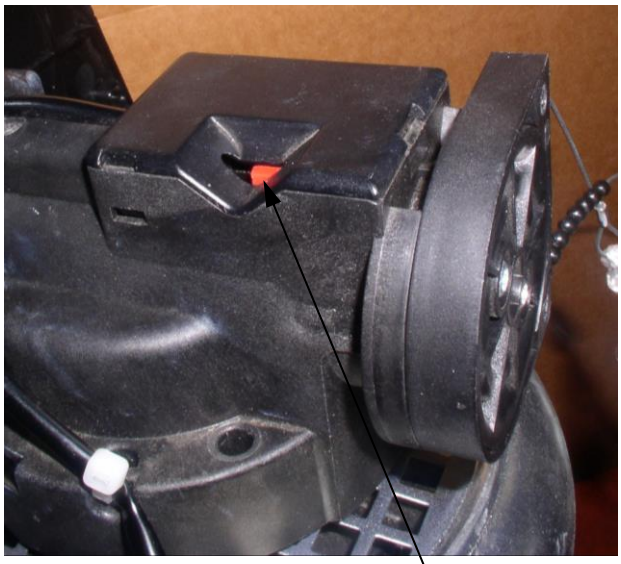


- Manually lower the door panel completely and verify the counterweight assembly is at about 200 mm (or more) from the pulley.

9. CABLE CONNECTIONS

- Locate the light curtain communication cable near the counterweight pulley area.
- Connect the light curtain cable to the corresponding connector on the motor column assembly.
- Locate safety switch wire (2-conductors) near the pulley area. Route the safety switch wire to the control panel make connections per wiring diagram.
- Mount control panel to a wall approximately 1400 mm (55”) off the ground and 915 mm (36”) from the side column. All connections on the control panel must be pointing down.
- Verify the manual brake handle is in the horizontal position before programming the limits of the door panel.
- Install chain-fall activation and deactivation ropes and handles.
- Verify the chain-fall is in the free-wheeling mode before programming the limits of the door panel.

Freewheeling mode
(no indicator showing)



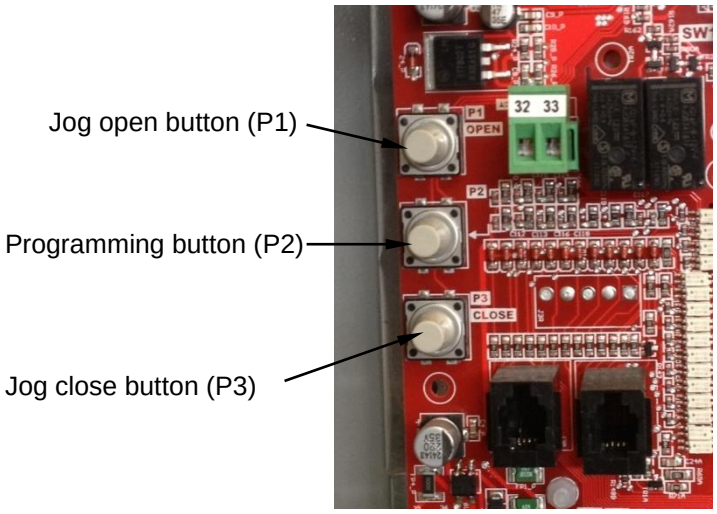
Active mode
(Indicator showing)

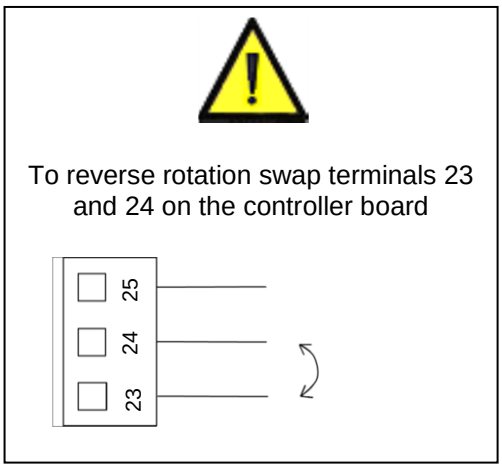
- Have a qualified electrician apply power to the control panel per wiring diagram.

10. MOTOR ROTATION

Any electrical work must be done by qualifed and knowledgeable personnel, serious injury or death could result if work is done by unqualifed personnel.

- See wiring diagram for location for landing power and ground.
- Before connecting power to the control panel check the control transformer setting to be sure it is set for the line voltage you will be using, if it is wrong correct it by moving the wire to the appropraite voltage. If this is incorrect also check the motor wiring to be sure it is correct, see Section 19.
- Jog the door closed using P3, if the door rotates in the wrong direction correct the motor rotation by reversing the wires on terminals 23 and 24 at the center-right of the control board.
- Once the motor rotation is corrected, use P3 to jog the door to the fully closed position. The jog buttons may only move the door a few feet even if they are held so you will likely have to push and hold them more than once to get the door fully closed.

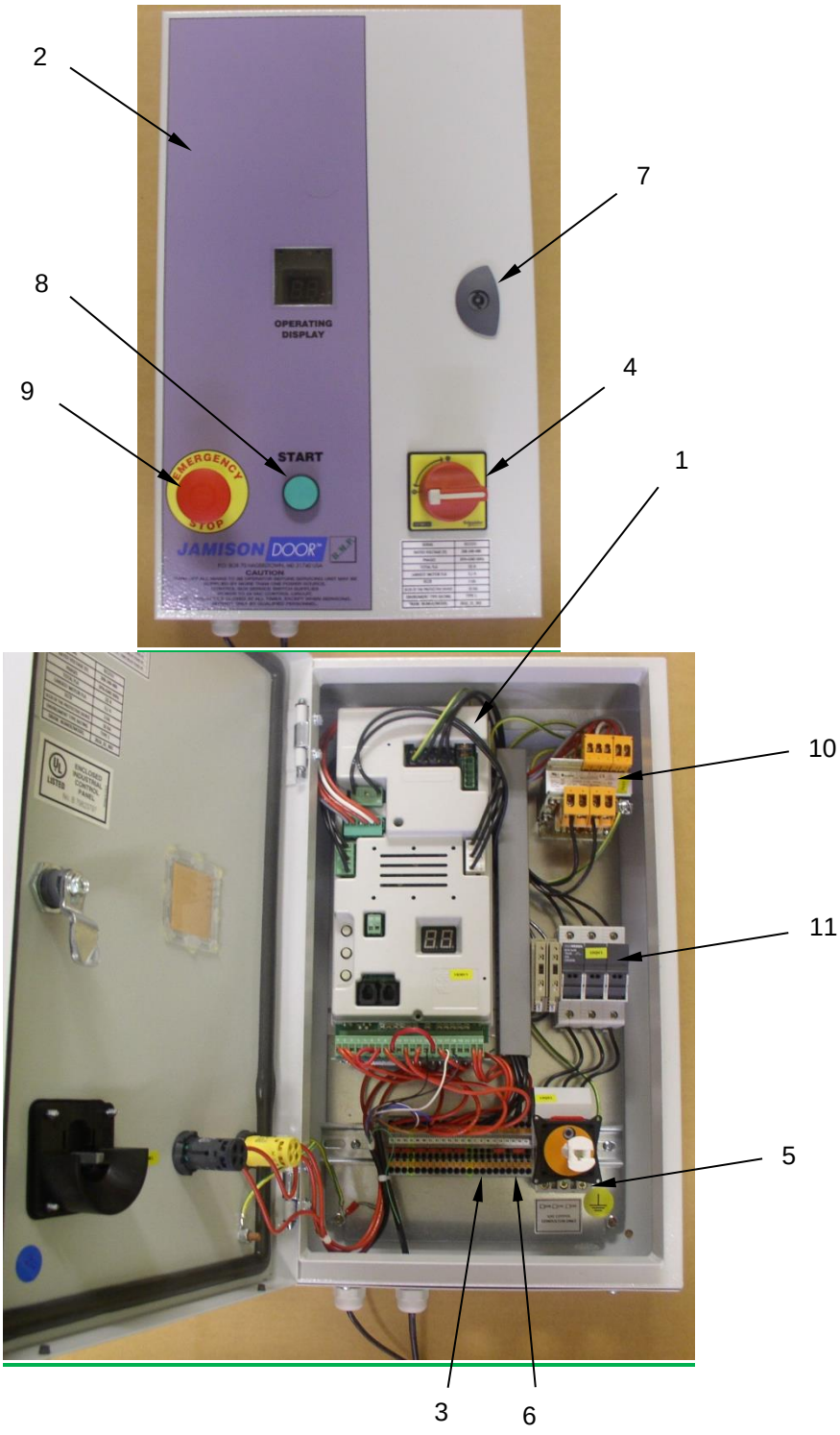




11. SET DOOR LIMITS, BRUSHES, AND COVERS

- Set the open and close limit of the door panel, see Section 15.
- Install the horizontal brush holder to the doorway opening (with the brush facing the panel).
- Install the L-shaped brush holder to the backside of the panel just above the brush of the horizontal brush holder.
- Test function of the door.
- Re-install the front column covers.

12. CONTROL PANEL OVERVIEW

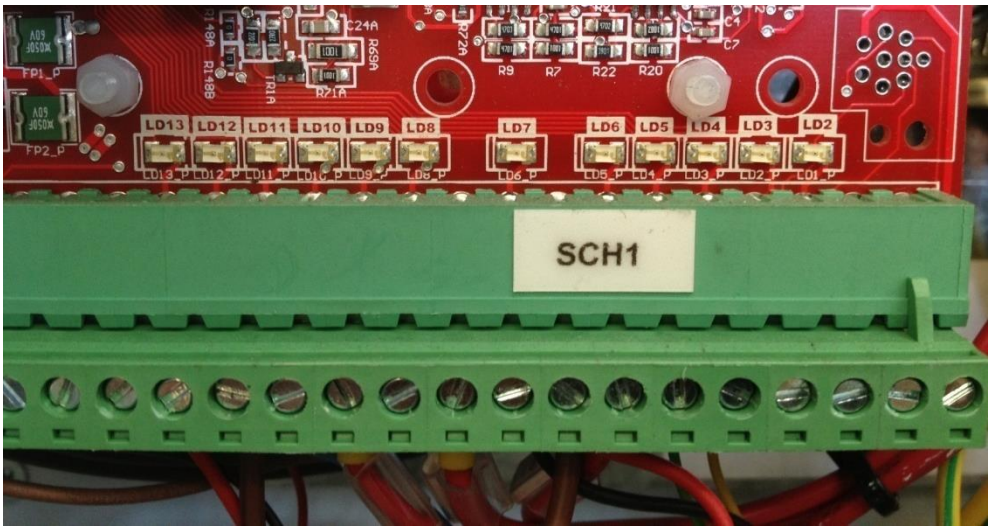


1	Control card	6	Brake 30-31, Flashing light 29-30
2	Cover	7	Enclosure cover lock
3	Motor terminals (U, V, W)	8	Start button
4	Power switch	9	Emergency stop button
5	Grounding terminal	10	Transformer
		11	Fuses 15A

13. CONTROL CARD TERMINAL FUNCTIONS

Terminal	Function
1	12VDC+ 500mA max
2	DC neutral
3	LED Countdown timer
4	Door closed signal output, closed when door is closed, open when door is not closed
5	
6	Same as 1
7	Safety sensor NC contact with delay (unroll sensor)
8	Open only input, NO
9	Safety sensor instantaneous NC contact (reversing edge)
10	Not used
11	Open/Close input, NO (push button, pull cord, etc.)
12	Pedestrian open input NO
13	Same as 1
14	Photocell input, NC
15	Same as 1
16	Stop button input, NC
17	Encoder signal
18	
19	Open over travel switch NO
20	Close only input NO (Future option)
21	24VAC 700mA source for accessories
22	24VAC neutral
23	Three phase power to motor, change rotation by changing wires on this connector.
24	
25	
R	Three phase power to control card
S	
T	
PE	Three phase PE ground
29	Flashing light output, 230VDC/460VDC
30	DC neutral for 29 and 31
31	Motor brake power, 105VDC
32	Door open signal output, closed when door is open, open when door is not open
33	

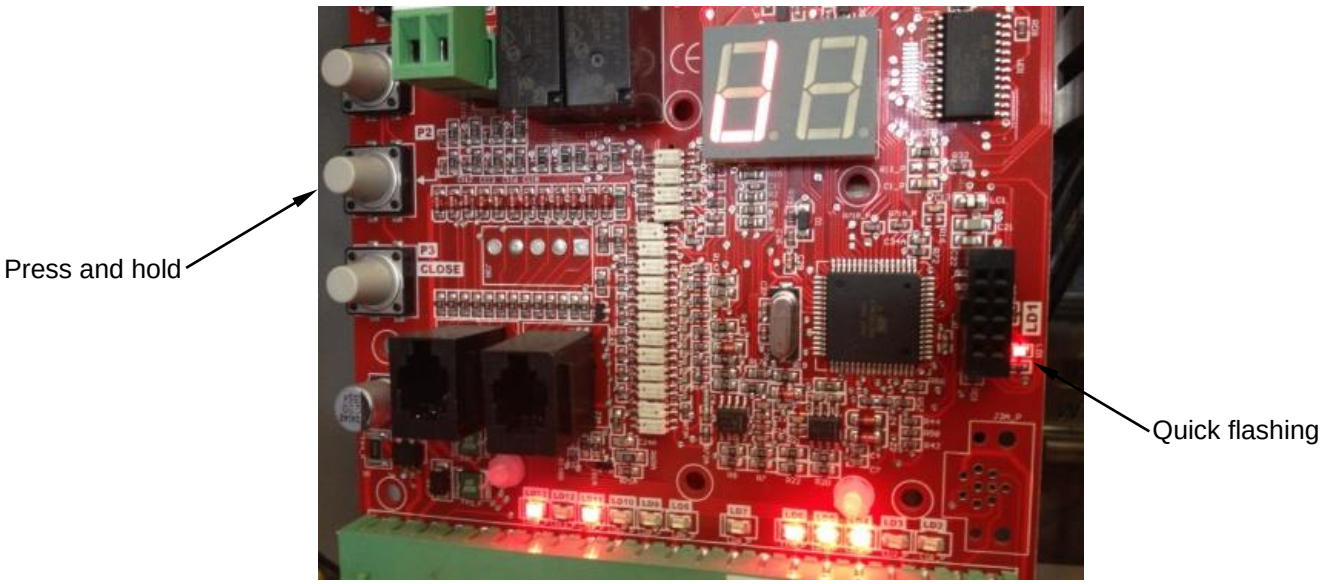
14. LED FUNCTION



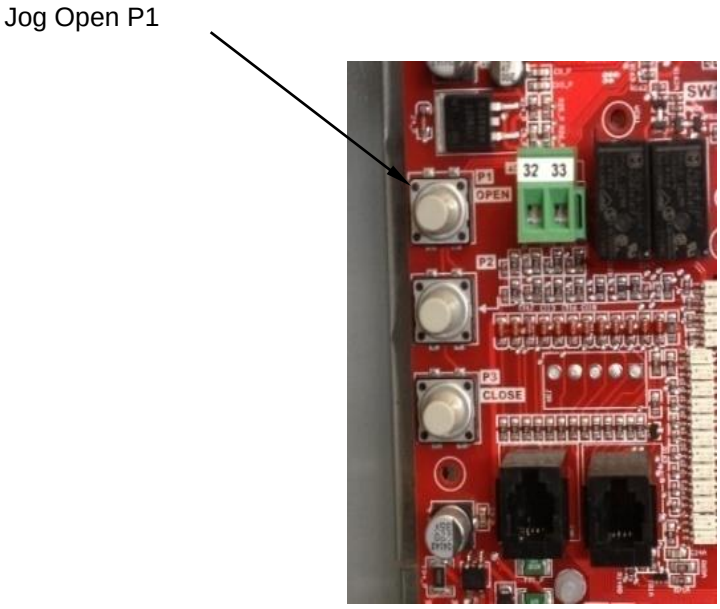
LD1	Card status LED, in operation blinks about every 4 sec, programming mode flashes about 500ms
LD2	Close only contact, lit when activated, T20 (Future option)
LD3	Open over travel sensor, lit when blocked, T19
LD4	Encoder status, flickers while door is in motion but may appear to be on, off at other times, T18
LD5	Encoder status, flickers while door is in motion but may appear to be on, off at other times, T17
LD6	Stop button, must be on for door to operate, T16
LD7	Photo eye, off when the photo eye is blocked, on when it is not blocked, T14
LD8	Pedestrian push button, on when the button is pushed, T12
LD9	Open/Close input, on when open/close device is activated, T11
LD10	NA always off
LD11	Safety sensor wired into T9, must be on for the door to operate. If no accessory is wired in, must have a jumper
LD12	Open only input, on when open only device is activated, T8
LD13	Safety sensor wired into T7, must be on for the door to operate. If no accessory is wired in, must have a jumper

15. SETTING THE OPEN AND CLOSE POSITION

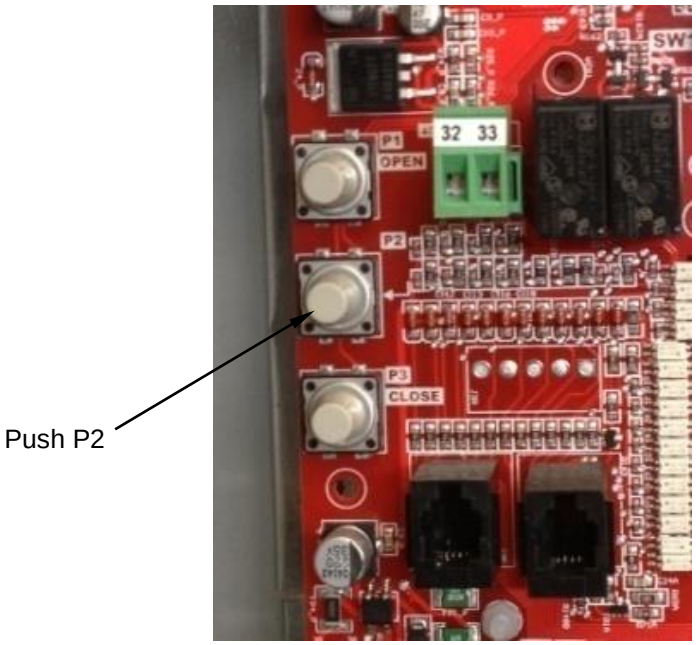
- The door should already be closed. Press and hold the Programming button P2 until the Card Status LED (LD1) begins to flash quickly.



- Within 5 seconds, press the Jog Open button P1 to open the door to the open position (bottom of gasket to be even with opening of doorway).



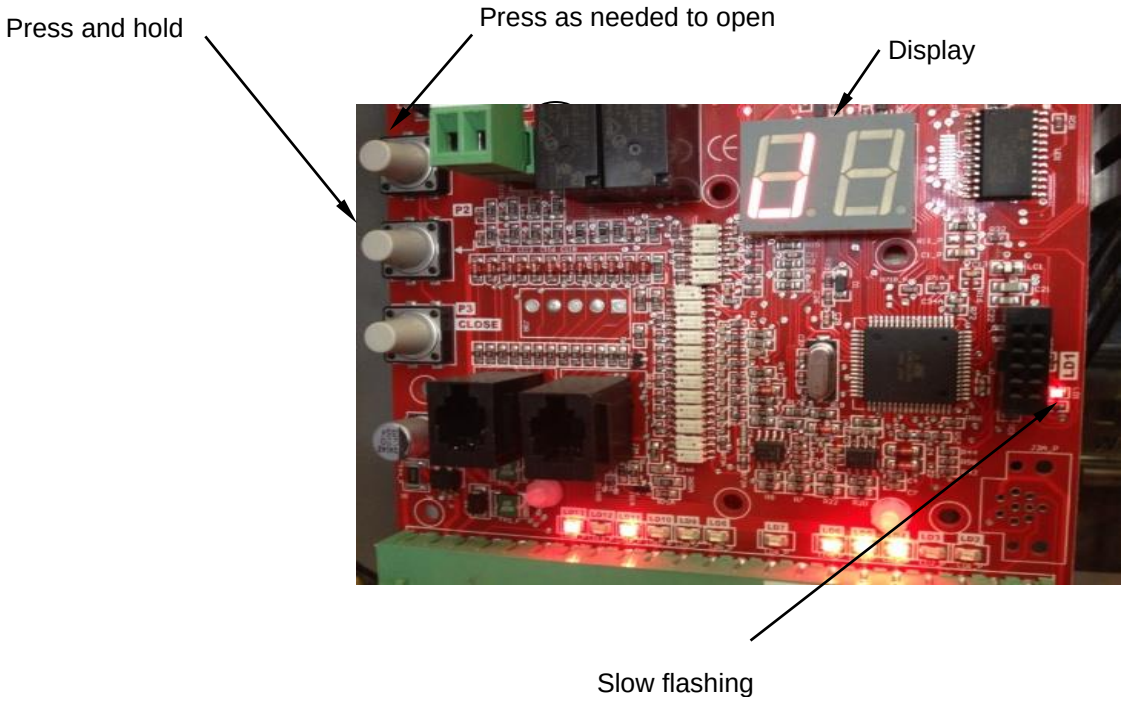
- With the door in the open position push P2 to set the postion and then push P2 again to set the amount of time delay for closing. The time between the first push of P2 and the second push of P2 will be the amount of time delay.
- The door will move to the close position.



- Push the start button on the front of the panel and the door should move to the open position
- Push the start button again (or allow the time delay to close the door) and the door will fully close and is ready to use.

16. PEDESTRIAN OPEN POSITION SETUP

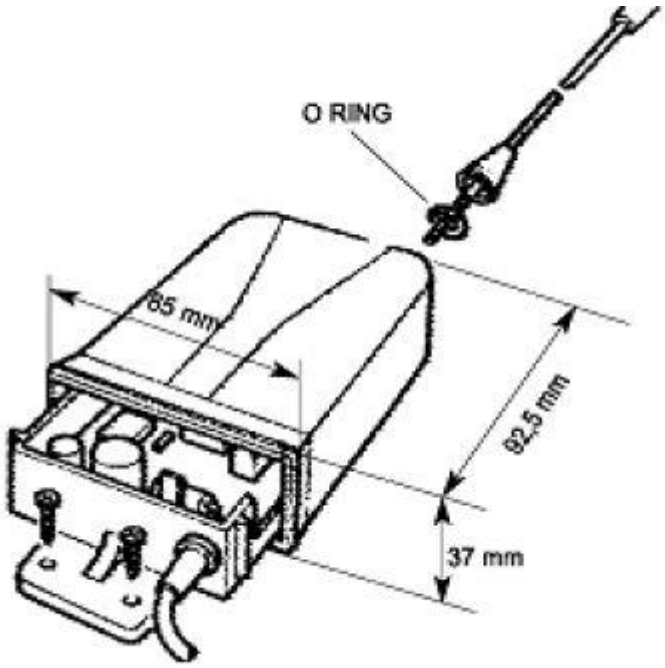
- The door should already be closed. Press the Jog Open button P1 to move the door to the desired position for pedestrian open.
- Press and hold the Programming button P2, the Card Status LED (LD1) will flash quickly, and “tE” or “tA” will show on display.

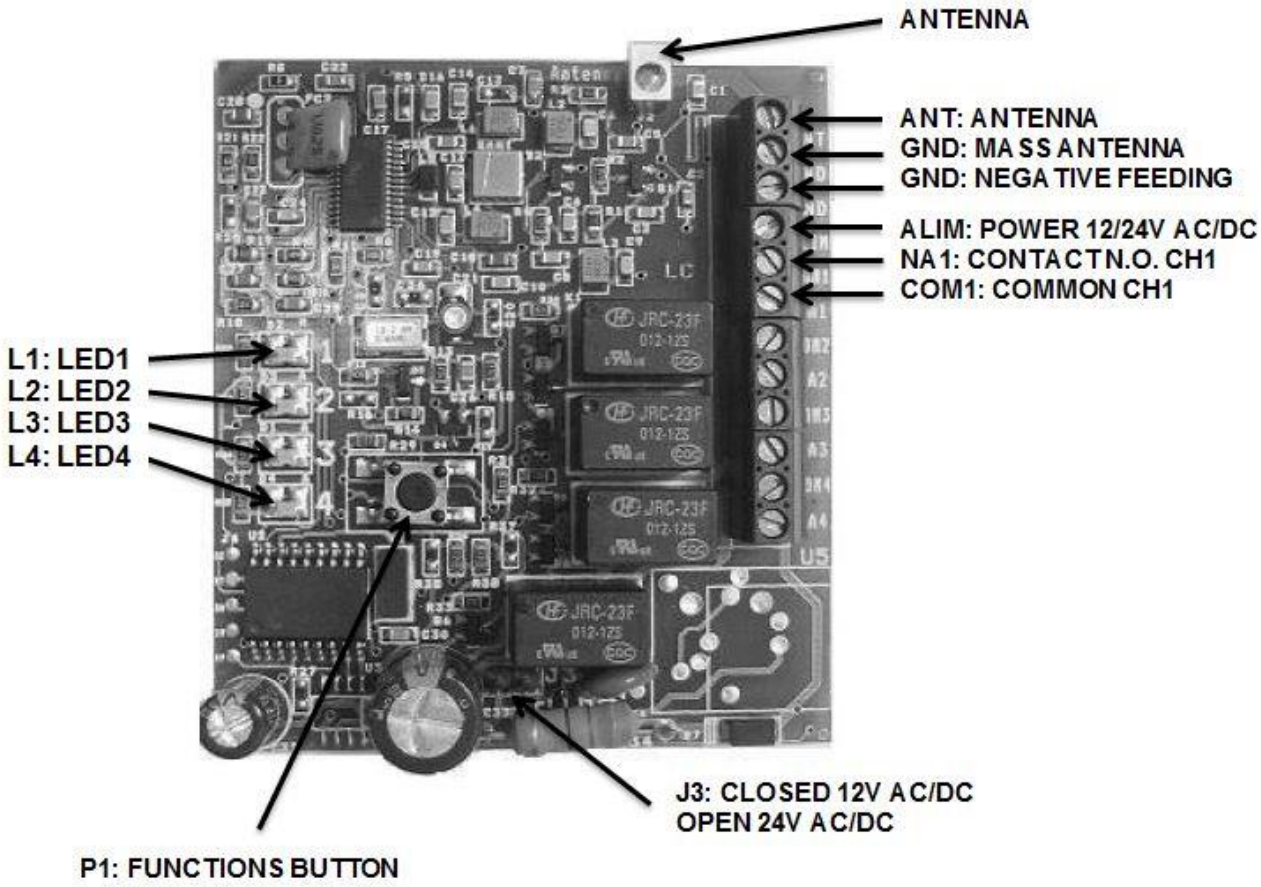


- Within 5 seconds push the pedestrian open button to set the pedestrian open position “tP” will display, then push it again to set the time delay, “PE” will display.
- The time between the first push of the start button and the second push will be the amount of time delay.
- Push button a third time to complete the procedure or wait a few seconds for unit to self complete.
- Cycle the door several times, pedestrian open cycles and full open cycles.

NOTE: Full open time delay and pedestrian open time delay share the same time delay setting.

17. RADIO CONTROL RECEIVER





18. PROGRAMMING RADIO CONTROL RECEIVER

Unscrew antenna and remove cover from receiver as shown on previous page.

Reinstall antenna onto receiver without the cover.

Push button in receiver until LED #1 comes on.

Push and hold button on remote control until LED #2 and #3 blinks on the receiver.

Release button. (For the next 13 seconds you can program additional remote controls, by pushing the desired button and watching LED #2 and #3 blink.)

After your last remote, push the button on the receiver and LED#1 will go out.

Deprogramming a remote

Push the button on the receiver for approximately 3 seconds until the LED's #1,2 and 3 begins to blink.

Press and hold the button on the remote until the LED's stay on solid.

Push the button on the receiver, LED's go out.

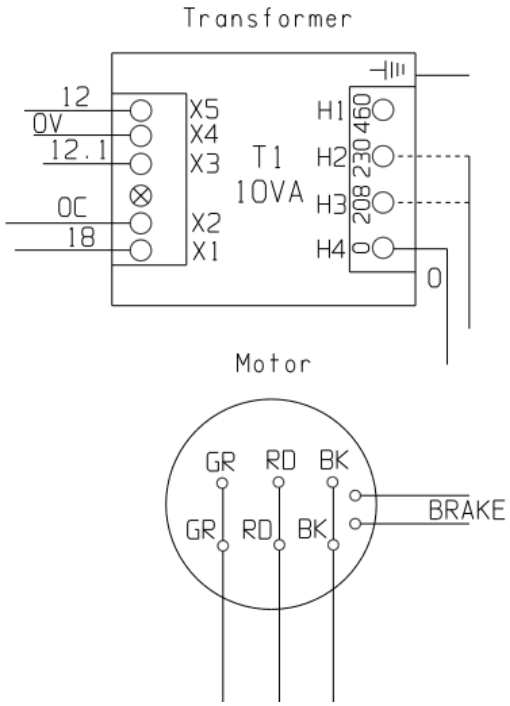
For completely clearing the receiver, push the button in the receiver for about 6 seconds until LED's #1,2 and 3 come on solid.

Release the button.

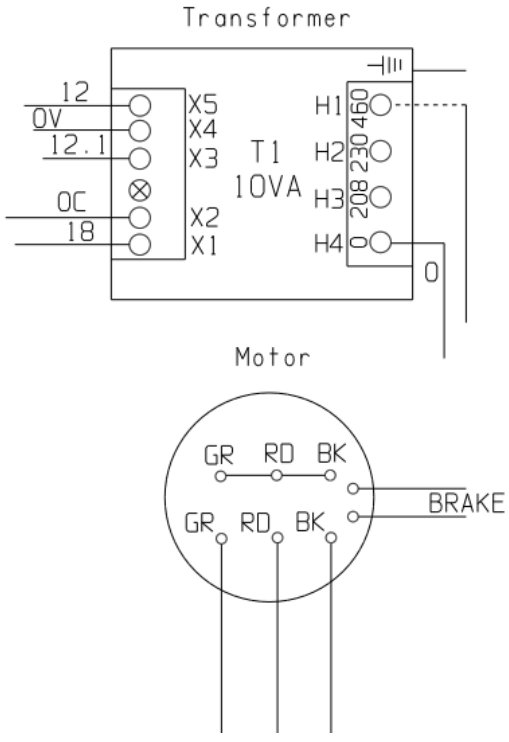
If the memory is full during the storage phase the four LEDs will switch off and on in sequence and then switch off. Completely clear the receiver and start over.

19. PRE-WIRING CONNECTIONS

Pre-wiring connections for 208/240VAC



Pre-wiring connections for 460VAC



20. DIP SWITCH SETTINGS

Time delay closing: to activate this function turn dip switch 1 to ON, to disable set dip switch 1 to OFF. If dip switch 1 is off then the door will not close automaticlly.

Motor dynamic braking: This is used only with doors that have a counterweight to open them in case of a power failure. To turn on dynamic braking set dip switch 2 to ON, to disable turn dip switch 2 OFF.

Door adjustment after programming

After the initial programming of the door, run the door full speed open. If the limits aren't perfect, use the following set of instructions to adjust parameters.

Motor Type Adjustment (Software 1160501 and newer)

Close the door and push in the stop button and then hold the P2 programming button. Instead of going into regular teach mode (display TE) it will go into limit programming and display alternating "No" and a number. This chooses the motor type. (THIS SHOULD NOT BE DONE UNLESS INSTRUCTED TO DO SO BY JAMISON TECHNICAL SERVICE)

Open Speed Adjustment

Press P2 again and it will read an alternating "So" and a number. This will adjust the opening speed of the door. The number on the screen represents the frequency of the motor.

Closing Speed Adjustment

Press P2 again and it will read an alternating "Sc" and a number. This will adjust the closing speed of the door. The number on the screen represents the frequency of the motor.

Close Position

Press P2 again and it will read an alternating "CL" and a number. The number is the distance (more or less) in encoder steps from the closed position to the home position (photo eye). To make the door close less make the number smaller by pushing P3 (each push will change the value by 1) to make it close more make the number larger by pushing P1. Be careful adjusting this number. Start with one or two steps and do more if necessary.

Open Position

Once the close limit is set press P2 and the display will change to alternating "OP" and a number. The number is the distance from the open postion to the home position with the first digit removed (289 just shows 89). This is changed the same way the closed limit is changed. Be careful adjusting this number. Start with one or two steps and do more if necessary.

When complete release the stop button and the door is back in service. Operate the door to check the limits.

Time delay adjustment

Open the door and push in the stop button and then hold the P2 programming button. The display will alternate TO (time open) and an number which is the amount of time delay. Change the number by using P1 to make it larger or P3 to make it smaller. When complete release the stop button and cycle the door twice, it takes two cycles of the door to recognize the new time delay.

21. MANUAL OPERATION

- Turn the Power OFF to the door. (A safety switch is included within the chain-fall to cut power to the motor. The switch is normally closed during normal door operation.)
- A chain-fall is used to operate the door manually.
- Verify the chain-fall is in the freewheeling mode by pulling on one of the chain-fall chain. The door panel should not move.
- For a Right Hand Motor door, pull the rope closest to the wall to activate the chain-fall.
- For a Left Hand Motor door, pull the rope furthest away from the wall to activate the chain-fall.
- Rotate the manual brake release level from horizontal position to vertical position.
- Pull one of the two chains to open or close the door.

22. MISCELLANEOUS OPERATING INSTRUCTIONS

A. Battery Backup

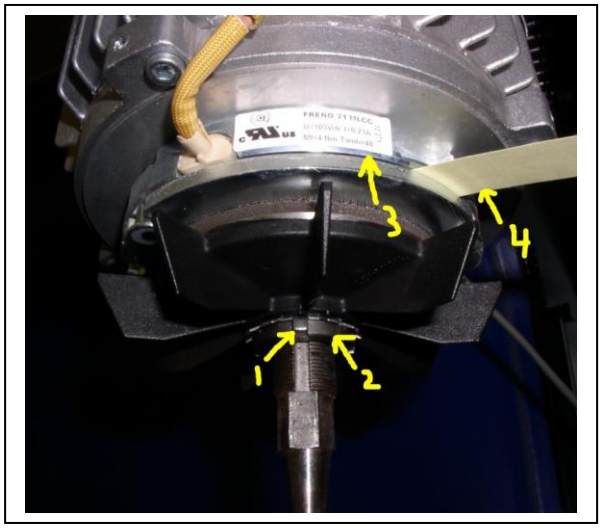
- Expectations of operation
    - When the main incoming power is lost to the door, the door will lose power and reboot using the batteries.
    - In under a minute the door with open the full height and stay open until power is restored. THIS WILL NOT HAPPEN IF THE POWER IS TURNED OFF AT THE SWITCH ON THE CONTROL PANEL
    - Once the incoming power has been restored, the door will stay open for another minute or 2 and then come completely closed.
    - After the door is completely closed, the operation will be back to normal and the door can be activated using any of the normal activation devices.
- IMPORTANT NOTE: When the install is complete and the door is in normal operation, it is important to let the batteries fully charge before turning local power off to the control panel. This process takes 24-48 hours.

B. Power Failure with no Battery Backup

- If power is lost to the door and there is no battery backup option on the door, there are 3 other potential options of egress.
    - Manual Operation
        - With the door, there is a crank that has a 13mm socket attached to the end. This should be kept near the door, if there is no other means of egress.
        - In case of a power loss and no other exit doors, this should be inserted onto the bottom of the motor as show on PAGE 29.

C. Motor Brake Air Gap Adjustment

1. Depress Emergency Stop push button on front of Control panel.
2. Mark location of the brake cable stop location on the brake cable.
3. Disconnect the manual brake cable from the brake lever.
4. Unscrew the brake lever from the brake assembly.
5. Remove Phillips screws from cover on bottom of motor.
6. Check air gap arrow #3 with gauge #4. Gap should be .008-.020” or .2-.6mm
7. Unbend locking tab on lock washer.#1
8. Turn locknut #2 counter clockwise to increase the gap, clockwise to decrease the gap.
9. Find a tab on lock washer that aligns with notch in locknut and bend that tab to engage.
10. Reinstall motor cover.
11. Reinstall the brake lever.
12. Reconnect the brake cable to the brake lever.
13. Release Emergency Stop button, cycle door to open position and make sure the door doesn’t drift shut.



23. PERIODIC CHECKS AND MAINTENANCE

A. Ordinary cleaning and inspection

Ordinary maintenance operations keep the door safe, running well and give it a long life. These items can be done by your maintenance staff and will reduce your overall maintenance costs.

COMPONENT	DESCRIPTION	Frequency
Side Frames	Check that they are securely fastened to the wall and that they are in good condition. They can be cleaned with a soft cloth using soap and water, do not use any solvent. If there is ice on the side frames it should be removed immediately.	6 Months
Photocell and motion detector	They can be cleaned with a soft cloth, do not use any solvent. If the operating area is dusty it may be necessary to clean the photocells more frequently as dust could cause them to not function properly.	6 Months
Windows	They can be cleaned with a soft cloth using soap and water; do not use any solvent or ammonia based cleaners as that could damage the window.	6 Months
Panels	Check the condition of the panels and its attachment and repair or replace as necessary. Clean with soap and water only, do not use solvents.	6 Months

B. Planned inspections and maintenance

Only people trained to inspect and maintain the Jamison/BMP roll up doors should do the following tasks. The maintenance is required to maintain the factory warranty.

Item	Task	Frequency
Structure	Check that they are securely fastened to the wall and that they are in good condition. Repair or replace any damaged components as necessary.	6 Months
Electrical components	Check the electrical connections in the control panel, especially the plugged connections, to be sure they are tight and verify that there is no water in the panel. Check the electrical connections in the junction boxes and control that there is no water in them. Check the condition and operation of all the safety components (photocells, and emergency button) to be sure they are operating properly. Serious injury or door damage could occur if they do not work. Replace malfunctioning components. Check the condition and operation of the opening devices (push buttons, pull cords, etc). Check that all the wiring is in good condition, replace damaged wires.	6 Months
Mechanical components	Check the overall condition of the motor and for any signs of overheating. Check the condition of the motor brake (see OPERATING INSTRUCTIONS). Check the drive chain for wear and tension (about ¼" of slack and add moly chain lube). Check the reducer for leaks; be sure it is securely attached to the motor and that the rest of the drive support structure is attached securely. Check all of the bolts to be sure they are tight and not coming loose. Check the alignment of the panels. Check the condition of the bearings and grease as required (NLGI 2 grease). Check the conditions of the curtain guides and the anti-wear washers. Repair or replace any damaged components that are found.	6 Months
Panels	Check for wear especially in areas where it contacts other components. Check for crack and repair. Check that the panels are moving smoothly and straight. Check and adjust the chain tension and check the condition. Repair or replace any damaged components that are found.	6 Months

24. TROUBLE SHOOTING

It's best to check the LED indicator first before addressing error codes on the display. First correct problems to get the LED indicators correct and then start working on the error codes.

The control board LED indicators do not light	Check the incoming power to be sure it is on and is the correct voltage for the door.
	Check the fuses and/or circuit breakers.
The door will not jog using P1 or P3	Be sure the Stop button on the front of the panel is not pushed in (LED 6 on).
	Check the motor wiring to be sure it is correct for the supply voltage. 230VAC is a Y connection, 460VAC is a Delta connection.
	Check the motor setting (KW) on the control board (can only be done if you have a programming device)
The door will not go through its initial programming of the limits.	Be sure the Stop button on the front of the panel is not pushed in (LED 6 on).
	Jog the door using P1 and P3 about 18 inches. This will help the door recognize the encoder.
	Check that LED 11 and LED 13 are on. If not, check to ensure the jumpers are in place. For LED 11, jumper from 9 to 15. For LED 13, jumper from 6 to 7.
	Switch the encoder signal wires on terminals 17 and 18 (black & white).
The door will not close, LD7 is off	Check that the photo cells are installed properly and are aligned.
	Check the wiring to the photo cells to be sure the brown wire is +12VDC and the blue wire is DC neutral. If they are wired backwards the sensor could be damaged.
LD1 remains on after power up	LD1 will stay on while downloading software
	Check the fuse/circuit breaker
	The control card has failed, replace the control card.
The door does not close automatically.	Check that DIP switch 1 is set to ON
	Check the safety inputs to be sure they are not active. LD7, LD13 and LD6 should be on
The door generally works fine but will randomly stop.	Make sure the wires for the brake and light are not in the same conduit/cable as the photocell.
	Check if the supply voltage is within limits; if not then correct the supply voltage.
	If you have a programming device • Check the bus voltage to be sure it is not lower than 300V, call the factory. • Check that the motor current draw is not more than 9A. If it is lower than decrease the opening speed.
The photo eye does not reverse the door but the door operates.	Be sure there are no other photo eyes in the area that may interfere with this door's operation
	Check that the photo eye wiring is not in the same conduit/bundle with any of the high voltage wiring (motor, brake, light)
	Reprogram the open and close limit of the door.
The door drifts closed after stopping in the open position	The manual brake release maybe active. Check the manual brake release handle to be in the horizontal position and not in the vertical position.

25. ERROR CODES

Error Code	Description	Solution
00	Undetermined error	Check LEDs and correct to normal configuration. See LED function section.
1	Internal failure	Replace controller
2	Internal failure	Replace controller
4	Internal failure	Replace controller
5	Internal failure	Replace controller
11	Short circuit on the accessories (lamp or brake).	Disconnect both the lamp and brake and then reconnect one at a time to identify the problem. Once identified correct the short circuit.
12	Motor short circuit	This is a short circuit in the motor circuit on the controller, replace controller. Primary of transformer could be set incorrectly
30	Internal failure	Replace controller
31	System overload	Speed set is too high, lower opening speed
32	Same as 31	
50	Open brake circuit	Brake circuit is open, check wiring and the status of the manual disconnect switch
51	Brake short circuit	Check wiring to brake or possibly damaged brake
74	Photocell not responding, reversing edge activated, or unroll sensor activated. (Device wired into T7)	Check that the wiring is correct for the photocells and that they are not blocked. Be sure that one is installed on the front of the panel and one is on the back. If the reversing edge has been activated then the alarm will clear after the next successful closing. If the alarm does not disappear, rotate sensitivity adjustment on unroll sensor counterclockwise.
76	Low voltage	Voltage to the controller is too low to operate, check the incoming voltage
79	Same as 74	Safety activation alarm for device wired into T9
7A	Low voltage in UPS system	UPS system low voltage. Check battery voltage in the UPS and line voltage supply to the system.
87	Overvoltage on close	Too much power is being absorbed by the controller, the system will automatically adjust frequency to solve. Check incoming line for high voltage.
88	Overcurrent on close (motor)	Too much current is being absorbed by the controller from the motor. Make sure the wiring is correct.
89	Overcurrent on close (brake)	Too much current is being absorbed by the controller from the brake side of the motor. Make sure the wiring is correct. Similar to 51 but 89 is more specific to the brake.
8A	Overcurrent on close (UPS)	Too much current is being absorbed by the controller when using battery backup. Make sure the motor wiring is correct.
8D	Overheated controller	Allow to cool and check for mechanical problems
8E	Error in VBUS measurement	Controller is reading the wrong VBUS. Replace controller.
8F	Same as 8E	
90	Bad CPU in controller	Replace controller
91	Same as 90	
100	Improper encoder response	Check the reducer ratio and if correct the encoder is not operating properly, replace the encoder.
102	Encoder wiring or noise	The encoder may be wired incorrectly or there may be noise on the encoder or photocell circuit. Check wiring and shielding. Also starting door setup at 0qc.

103	Teach mode started with photocell unblocked	Programming was begun with the door too high, photocell may see signal from adjacent door, photocell may be installed incorrectly on the same side of the door.
104	Teach mode started with top override sensor unblockedd	Programming was begun with the door too high. Top override sensor may not be seeing the curtain or the set position is above the sensor.
105	Closed position too close to photocell	The closed position must be at least 4” below the photocell.
108	Photocell never disengaged during programming	During teach mode the photocell was not uncovered. Likely caused by the upper limit being set too low or the photocells being misaligned
109	Open position too close to photocell	The open position must be at least 8” above the photo cell
10D	Ped open set too low	The ped open was set below the photocell
10E	Encoder count missing	Encoder is not giving consistent output or the brake is locked on. Check the wiring connections to the encoder to be sure they are tight, check the brake, check the wiring connections to the motor, or replace the encoder.
10F	Photocell not working	Occurs during alignment after a restart if the photocell is not responding, check the photocell to be sure it is not blocked or misaligned. Watch for ld7 to flicker. Be sure photo eyes aren’t being partially blocked or re-engaged by the bottom of the door.
110	Same as 10F	
115	Encoder count wrong	Encoder is only seeing one signal. Check wiring of the encoder.
116	Motor selection is incorrect	Use programmer to change motor parameters.
117	Same as 116	
118	Same as 116	

A. LED Display Code Key

Display Code	Description
te	Door is in teach mode.
St	Emergency Stop is engaged.
J	Door is in Jog mode.
C	Door is closed.
Cl	Door is closing.
Op	Door is opening.
EA	Learning mode. The door is looking for its limits.
Pe	Ped open cycle or ped open push button broken/stuck.

Notes: