R Y T E C

Clean Roll®

Owner's Manual



CLEAN-ROLL® CR5500 LIMITED WARRANTY

Rytec Corporation ("Seller"), an Illinois corporation with its principal place of business at One Cedar Parkway, PO Box 403, Jackson, WI 53037, warrants to the original registered end-user commercial purchaser ("Buyer") that the **Clean-Roll® CR5500** ("Product") sold to the Buyer will be free of defects in materials and workmanship (ordinary wear and tear excepted) for the time periods set forth below:

- Mechanical components for a period of One (1) Year from the date of shipment of the Product from the Seller's plant ("Shipment").
- Electrical components for a period of One (1) Year from Shipment.
- Standard door panels, including standard 2-ply USDA, for a period of Three (3) Years from Shipment.
- Coil Cords, side column wear strips, vinyl loop seal, vision panel sections, wind rib guides, wireless mobile unit battery are considered wear items and are not covered under this Limited Warranty.
- Aftermarket parts, accessories, and assemblies for a period of Ninety (90) Days from the date of Shipment.

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

Labor. Except in the case of aftermarket parts, accessories, and assemblies, labor is warranted for one year. This means that Seller will provide warranty service without charge for labor in the first year of the warranty period. Thereafter, a charge will apply in to any repair or replacement under this Limited Warranty. In the case of aftermarket parts, accessories, and assemblies, Seller will provide replacement parts only.

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 delivered to the Seller at the address provided in the first paragraph of this warranty. Buyer must allow Seller and Dealer, or their agents, a reasonable opportunity to inspect any Product claimed to be defective and shall, at Seller's option, either (x) grant Seller and Dealer or their agents access to Buyer's premises for the purpose of repairing or replacing the Product or (y) return of the Product to the Seller, f.o.b. Seller's factory.

Original Buyer. This Limited Warranty is made to the original Buyer of the Product and is not assignable or transferable. This Limited Warranty shall not be altered or amended except in a written instrument signed by Buyer and Seller.

Not Warranted. Seller does not warrant against and is not responsible for, and 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 Seller's instructions for installation, operation, or maintenance of the Product, (iv) use of the Product in a manner that is inconsistent with Seller'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 Seller, (vii) improper handling, storage, abuse, or neglect of the Product by Buyer or by any third party.

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

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

Product Descriptions. Any description of the Products, whether in writing or made orally by the Seller or the Seller's agents, including specifications, samples, models, bulletins, drawings, diagrams, engineering or similar materials used in connection with the Buyer's order, are for the sole purpose of identifying the Product and shall not be construed as an express warranty. Any suggestions by the Seller or the Seller's agents regarding the use, application, or suitability of the Product shall not be construed as an express warranty unless confirmed to be such in writing by the Seller.

Limited Warranty Void. This Limited Warranty shall be void in its entirety if:

- a. The Product is modified in a manner not approved in writing by Seller; or
- b. Buyer fails to maintain the Product in accordance with instructions contained in the Owner's Manual for the Product.

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INTRODUCTION

The information contained in this manual will allow you to operate and maintain your Rytec Clean-Roll[®] door in a manner which will ensure maximum life and trouble-free operation.

Any unauthorized changes in procedure, or failure to follow the steps as outlined in this manual, will automatically void the warranty. Any changes in the working parts, assemblies, or specifications as written that are not authorized by Rytec Corporation, will also cancel the warranty. The responsibility for the successful operation and performance of this door lies with the owner of the door.

DO NOT OPERATE OR PERFORM MAINTENANCE ON THIS DOOR UNTIL YOU READ AND UNDERSTAND THE INSTRUCTIONS CONTAINED IN THIS MANUAL.

If you have any questions, contact your Rytec representative or call the Rytec Technical Support Department at 800-628-1909. Always refer to the serial number of the door when calling the representative or Technical Support. The serial number plate is located inside one of the side panels.

The wiring connections and schematics in this manual are for general information purposes only. A wiring schematic is provided with each individual door specifically covering the control panel and electrical components of that door.

UL Non-Compliance for Sanitary Applications

The manually assisted egress version of the Clean-Roll door is not UL approved for sanitary applications.

DOOR SERIAL NUMBER(S)

Your DOOR SERIAL NUMBER information can be found in three universal locations. These are at the inside of either side column (approximately eye level), on the drive motor, and on the inside door of the System 4 control panel. (See Figure 1.)

IMPORTANT: When installing multiple doors of the same model but in different sizes, verify the serial number in the control panel with the one in the side column.

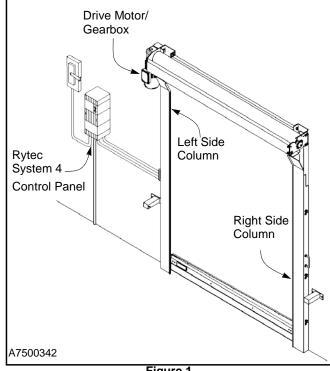


Figure 1

HOW TO USE MANUAL

Throughout this manual, the following key words are used to alert the reader of potentially hazardous situations, or situations where additional information to successfully perform the procedure is presented:



WARNING is used to indicate the potential for personal injury, if the procedure is not performed as described.



CAUTION is used to indicate the potential for damage to the product or property damage, if the procedure is not followed as described.

IMPORTANT: IMPORTANT is used to relay information CRITICAL to the successful completion of the procedure.

NOTE: NOTE is used to provide additional information to aid in the performance of the procedure or operation of the door, but not necessarily safety related.

GENERAL ARRANGEMENT OF DOOR COMPONENTS

Figure 1 shows the location of the major components of a standard Clean-Roll door and the general placement of the associated control sub-assemblies for a typical installation. On the manually assisted egress version of the Clean-Roll door, both side columns include a counterweight system.

This illustration is provided to you for informational purposes only. It should not be relied upon solely for operating or performing maintenance on your door and its sub-assemblies.

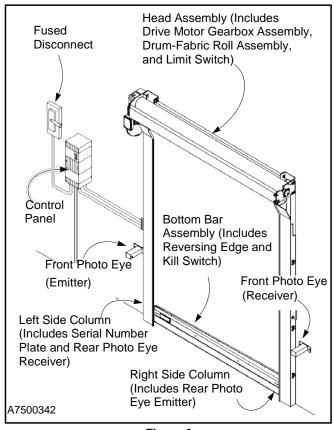


Figure 2

NOTE: Figure 2 shows the front side of the door. Left and right are determined when viewing the front side of the door.

OPERATION

CONTROL PANEL

The Clean-Roll door is equipped with the System 4 Drive & Control, a solid-state, microprocessor-based control system designed exclusively to operate Rytec high performance doors. It provides connections for multiple activators, close delay timers, and status indicators. All command functions to operate the drive and control system are software controlled. For information on control panel operation, see the Rytec System 4 Drive & Control Installation & Owner's Manual.

PHOTO EYES

A Clean-Roll door is equipped with two sets of photo eyes. One set monitors the front side of the door. The second set of eyes monitors the back side of the door.

For both the standard and the manually assisted egress versions of the Clean-Roll door, the front set of eyes are mounted on the wall, directly adjacent to the side columns. The photo eyes for monitoring the back side of a standard door are located in the side columns. For the manually assisted egress door, the back set of photo eyes are mounted on the back side of the wall, directly adjacent to the sides of the door opening.

The purpose of the photo eyes is to hold the door open or, if the door is closing, reverse the direction of the door if a person or object crosses the beam of light between either set of photo eyes. After the obstruction breaking the photo eye beam is removed:

- If the door was originally opened by an automatic activator, the door will close automatically.
- If the door was originally opened by a non-automatic activator, the door will remain open until it is

closed by the non-automatic activator.

NOTE: The safety photo eyes are not intended to be used as door activators and will not open the door when it is closed.

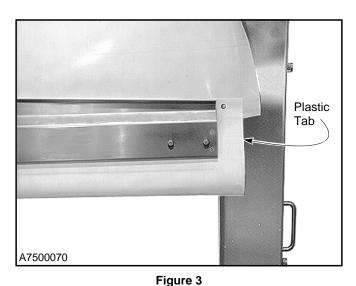
BOTTOM BAR ASSEMBLY

Breakaway Capability

IMPACT

Plastic tabs at each end of the bottom bar assembly connect the bar to the side columns. The tabs provide adequate strength to hold the bar in place during normal operation of the door. They are also flexible enough to allow the bar to separate from either side column should the bottom bar be struck by a vehicle or load passing through the door.

Kill switches mounted in the bottom bar are designed to immediately turn off electrical power to the door, should the bottom bar become separated from either column. (See Figure 3.)



REPAIR (RETURN TO OPERATING POSITION)

AWARNING

The disconnect must be in the OFF position and properly locked and tagged before performing the following procedure.

1. Turn off power to the door.

NOTE: If the door panel is open at a height that makes it difficult to work the panel material and the bottom bar back into the side column, remove the side column cover.

2. Work the door panel back into the side column channel by pushing or pulling the edge of the panel material. (See Figure 4.)



Figure 4

 Work the end of the bottom bar back into the side column channel. The bottom bar is in place when the plastic breakaway tab snaps back in the channel. (See Figure 5.)



Figure 5

- 4. Work the end of the vinyl seal back into the side column channel.
- 5. If the opposite side of the door panel (or the other end of the bottom bar) is out of its adjoining side column, repeat the above steps.
- 6. Turn on power to the door once the panel is back in place.

NOTE: When a kill switch is activated, it should not be possible to restart the door until the door is reassembled and the control panel is reset.

7. Cycle the door to verify that it is fully operational.

Reversing Edge

A pneumatic reversing edge is mounted inside the bottom bar assembly. If this pressure sensitive edge makes contact with an object as the door is closing, the door will immediately reverse direction and move to the fully open position, after 3 consecutive reversing edge impacts the control will require a reset. (See Figure 6.)

NOTE: Anytime the reversing edge is activated, the object in the door opening must be removed, after 3 consecutive impacts the control panel will require a manual reset before the door will operate again.

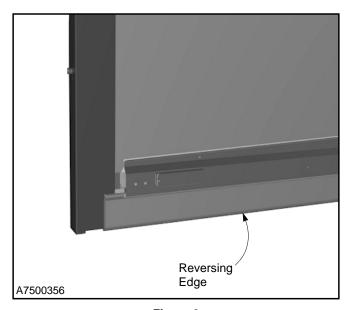


Figure 6

POWER DRIVE SYSTEM

The power drive system for the Clean-Roll door consists of a motor, gearbox, encoder, and an electric brake. The power drive system can be mounted on either end of the fabric roll assembly. The location of the power drive system was determined at the time the door was ordered from the manufacturer. Do not relocate the motor to the other end of the fabric roll assembly without first contacting Rytec Technical Support. (See Figure 7.)

The brake is used to halt the door if power to the door is shut off for any reason. A manual brake release is provided to override the brake to allow the door to be manually opened or closed during a power failure or when routine maintenance requires power to be disconnected. (See "MANUAL OPERATION" on page 4.)

An encoder, mounted on the end of the fabric drum shaft, generates electrical signals as the door panel moves. These signals are used by the control system to monitor the position of the door even when power to the door is interrupted or when the door is moved manually.

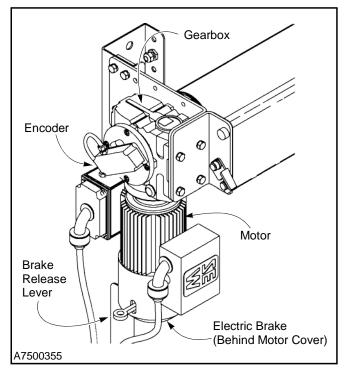


Figure 7

MANUAL OPERATION



The disconnect must be in the OFF position and properly locked and tagged before performing the following procedure.

Do not stand under the door panel when manually moving the door.

Turn off power to the door before manually moving the door.

To Lower the Door



The door panel will close very quickly if the brake is fully released. Partially releasing the brake will allow the door to close smoothly. Failure to restrict the motor using the brake can result in the panel free-falling to the floor, which can result in damage to the bottom bar and the fabric panel, and cause personal injury.

 Partially pull down and hold the brake release lever to disengage the electric brake. Allow the door to close smoothly and slowly to the desired height. (See Figure 8.)

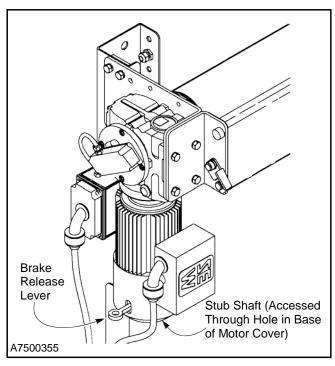


Figure 8

2. Release the brake release lever to re-engage the brake and lock the door in place.

To Raise the Door

1. Place the crank handle on the stub shaft. The stub shaft is accessed through the base of the motor cover. (See Figure 8.)

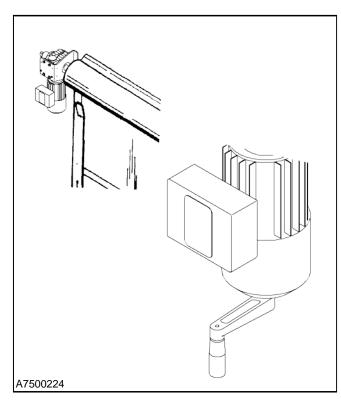


Figure 9

AWARNING

Firmly hold the crank handle in place when disengaging the brake to prevent the door from free-falling to the floor.

- 2. While firmly holding the crank handle in place, pull down and hold the brake release lever to disengage the brake.
- 3. Turn the crank handle with your other hand to raise the door to the desired height.
- 4. Release the brake release lever to fully engage the brake and lock the door in place.



Remove the crank handle before manually operating the door or applying power. Failure to remove the crank could result in personal injury and damage to the door.

5. Remove the crank handle from the motor. Then apply power to door and operate it several times to ensure the open and close limits are properly set.

EGRESS OPERATION (Manually Assisted Egress Door Only)

NOTE: When the door is opened by hand, door travel must be kept under control to avoid damage by ensuring the bottom bar does not run into the drum assembly.

To operate a manually assisted egress door, first pull the brake release rope on either side of the door. (See Figure 8.)

If the door does not open automatically, assist the counterweight system by lifting the door by hand. Always keep the door under control to avoid damaging the bottom bar by hitting the drum assembly.

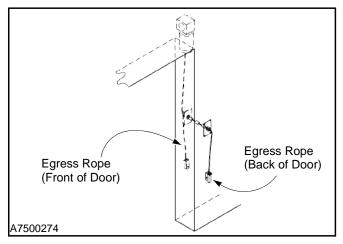


Figure 10

PLANNED MAINTENANCE

RECOMMENDED SCHEDULE

NOTE: The following maintenance schedule is recommended. (See Table 1.)

Table 1

	Daily	Quarterly
Visual Damage Inspection		
Door Operation Inspection		
Reversing Edge Inspection		
Photo Eye Inspection		
Counterweights and Straps (Manually Assisted Egress Door Only)		
Mounting Hardware Inspection		
Fabric Panel Inspection		
Door Limit Inspection		
Electric Brake Inspection		
Bottom Bar Inspection		
Top Seal Inspection		
Photo Eye Mounting Bracket Inspection		
Control Panel and Activator Inspection		
Kill Switch Inspection		
Electrical Connection Inspection		
Lubrication		
Door Cleaning		
Wall Anchors		

DAILY INSPECTION

Visual Damage Inspection

Visually inspect the door to see that components have not been damaged. Examples: bent bottom bar assembly, torn fabric panel, damage to side columns, etc. (See Figure 11.)

Also inspect the door for signs of dirt or other contamination. Clean as required. (See Rytec System 4 Drive & Control Installation & Owner's Manual for opening door to the cleaning position.)

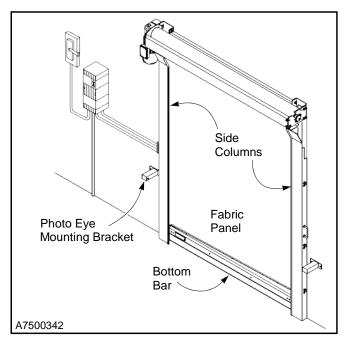


Figure 11

Head Assembly: Inspect for dents or damage that may prevent the door from opening or closing properly.

Fabric Panel: Inspect the door fabric panel for holes, tears, and worn areas.

Side Columns and Covers: Inspect for damage that may prevent the door from operating properly.

Photo Eyes: Inspect the lens of each photo eye for dirt or damage that may prevent the photo eyes from working properly — clean or replace as required.

Bottom Bar: Inspect the bottom bar for damaged, missing, or loose hardware. Inspect the vinyl seal along the lower edge of the bottom bar for tears and holes. Inspect the edge itself.

Door Operation Inspection

Run the door through four or five complete cycles to verify that the door is operating smoothly and efficiently, and that binding or unusual noises do not exist. Do not continue to operate the door if it is not running properly, as this could compound the damage.

Reversing Edge Inspection



DO NOT stand under the door when performing the following test. If the reversing edge sensor is not working properly, the door could strike the person performing the procedure. DO NOT use the door if the sensor is not working properly.

- To test the reversing edge switch, first close the door. As the door is closing, hit the bottom of the reversing edge. If the reversing edge switch is operating correctly, the door will reverse direction and move to the fully open position, after 3 consecutive impacts the door will remain parked until the control panel is reset.
- 2. If the door does not reverse direction, proceed to "REVERSING EDGE SWITCH ADJUSTMENT" on page 15.

Otherwise, reset control panel and close door.

NOTE: Anytime the reversing edge is activated, the object in the door opening must be removed, after 3 consecutive impacts the control panel will require a manual reset before the door will operate again.

Photo Eye Inspection

NOTE: The photo eyes act as a safety device to prevent the door from closing if an object or person is within either photo eye beam. The safety photo eyes are not meant to be used as door activators.



Personnel or objects used for the following procedure must not be in the path of the door during the inspection. If the photo eyes are not working properly, the door could strike an individual or object in its path. DO NOT use the door if the photo eyes are not working properly.

- 1. Raise the door to the fully open position.
- Break the beam of light on the front side of door by placing an object between the front set of photo eyes.
- 3. Press the push button on the control panel to close the door. The door should not operate.
- 4. If the photo eyes do not operate properly, the lens on either eye may be dirty. Clean as required using window cleaner and a clean, soft cloth. If this does not solve the problem, see "PHOTO EYE ADJUST-MENT" on page 14 for the adjustment procedures.
- 5. Repeat the procedure on the back side of the door to test the second set of photo eyes.

Egress System (Manually Assisted Egress Door)

Pull the brake release rope to verify the counterweight system moves the door to fully open position. (It may be necessary for you to assist the counterweights by lifting the door by hand.) Test rope from both sides of door. Inspect the condition of the counterweights, nylon straps, and pulleys inside each side column. Replace any worn or damaged hardware and straps. Make sure the straps are securely fastened to the counterweights.

QUARTERLY INSPECTION



The disconnect must be in the OFF position and properly locked and tagged before performing the following procedure.

Mounting Hardware Inspection

IMPORTANT: If any hardware is to be replaced, the new hardware must meet the specifications given in the parts list located in the back of this manual.

Make sure all nuts, bolts, set screws, and anchors are tight throughout the door. Examples: motor mounting bolts, wall mounting hardware, floor anchors, sprocket set screws, etc. (See Figure 12 through Figure 28.)

HEAD ASSEMBLY MOUNTING BRACKETS

- Inspect the hardware securing the left and right mounting brackets to their respective side column. (See Figure 12 and Figure 28.)
- Inspect the mounting hardware securing the motor gearbox to the motor mounting bracket. (See Figure 13.)

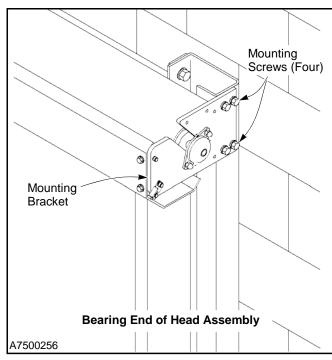


Figure 12

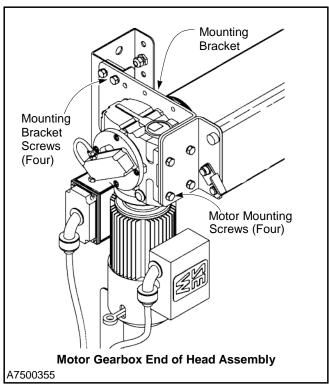


Figure 13

SIDE COLUMN ANCHORS

To gain access to the side column anchors, move the door to the open position and remove the side column covers. (See Figure 14 and Figure 15.)

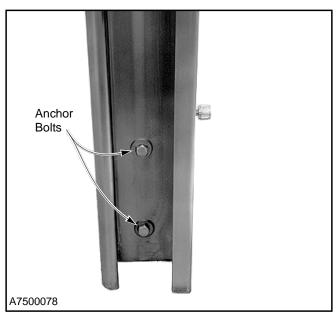


Figure 14

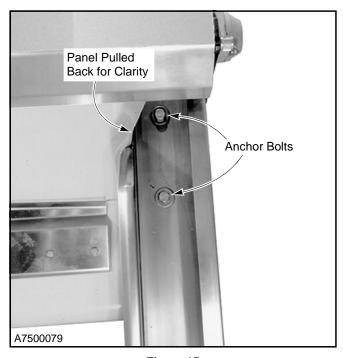


Figure 15

FRONT PHOTO EYE MOUNTING BRACKET ANCHORS

Inspect the front photo eye mounting brackets. The brackets must be tightly secured to the wall and not bent or damaged. (See Figure 16.)

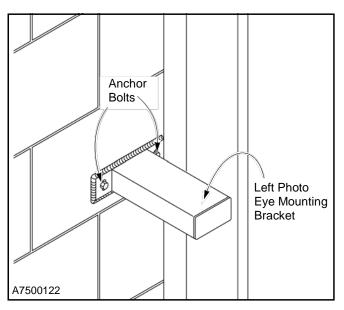


Figure 16

BOTTOM BAR ASSEMBLY

Inspect all hardware securing the bottom bar assembly to the fabric panel. The bar must be tightly secured to the panel and not bent or damaged. (See Figure 17.)

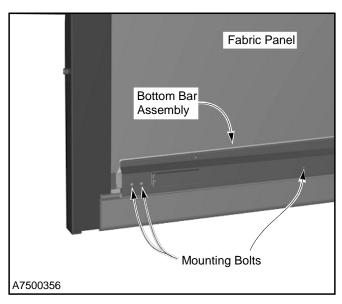


Figure 17

Fabric Panel Inspection

 Move door to the fully closed position. Then jog the door down to the clean position, using the down key. The clean position will expose the entire door panel hinge. (See Figure 18.) (See Rytec System 4 Drive & Control Installation & Owner's Manual for more information.)

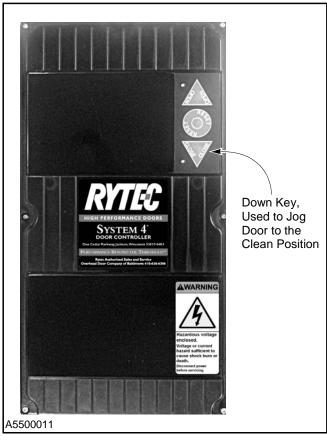


Figure 18

 Inspect the fabric panel for holes, tears, and worn areas. Replace the panel if required. (See Figure 19.)

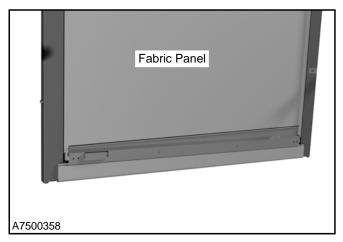


Figure 19

 Open the drip guard and inspect between the fabric panel and the hinge plate for loose or missing caulk.
 Caulk as needed using a high-quality, food-grade sealant (Rytec part number 0-716-003).

Door Limit Inspection

See the Rytec System 4 Drive & Control Installation & Owner's Manual for the proper procedure for setting the open and close door limits. The close- and open-limit door positions are detailed below.

CLOSE-LIMIT POSITION

NOTE: In a USDA application, the door will be fully closed when the vinyl seal along the bottom bar is approximately 2 in. from the floor. In all other applications, the seal will rest on the floor — with the reversing edge inside the seal slightly above the floor.

Depending on the application of the door (USDA or normal), the close-limit position should be adjusted so that the door is in one of the positions shown in Figure 20 and Figure 21.

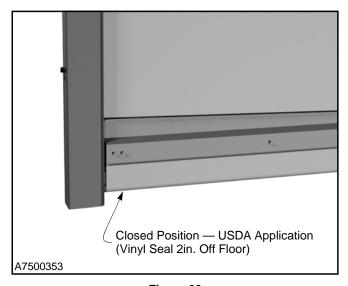


Figure 20

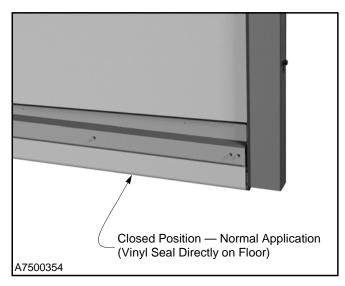


Figure 21

OPEN-LIMIT POSITION



If the door open limit is not properly adjusted, do not allow the door to run past the fully open position — damage to the door or bottom bar assembly could result.

The open limit position should be adjusted so that the bottom edge of the vinyl seal is even with the notch on the outside edge of the side column cover. (See Figure 22.)

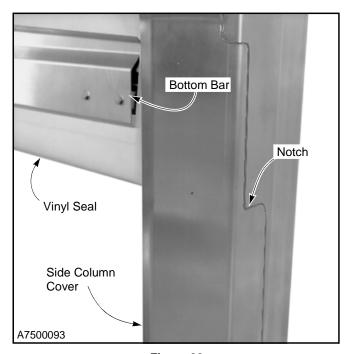


Figure 22

Electric Brake Inspection

The electric brake is designed to stop the door at the positions indicated in the "Door Limit Inspection" that begins on page 9.

If the door limit settings are properly set and the door drifts past the set limits, then the electric brake should be adjusted. (See "MOTOR BRAKE ADJUSTMENT" on page 16.)

Bottom Bar Inspection

 Inspect the hardware securing the front and rear covers to the bottom bar. Tighten the hardware as required. (See Figure 23.)

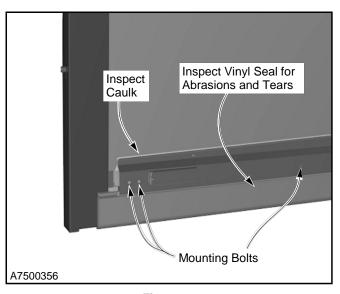


Figure 23

- 2. Inspect the vinyl seal along the bottom bar assembly for abrasions or tears. Replace as required.
- Inspect the joint between the fabric panel and the face plate which runs along both sides of the bottom bar assembly, for gouged or missing caulk. Caulk as needed using a high-quality, food-grade sealant (Rytec part number R0716003).

Top Seal Inspection

Inspect the fabric roll top seal for wear and damage. Replace as necessary. (See Figure 24.)



Figure 24

Photo Eye Mounting Bracket Inspection

- 1. Inspect the hardware securing the front photo eye mounting brackets to the wall. (A manually assisted egress door has photo eye brackets on both sides of the door.) (See Figure 25.)
- Inspect between the photo eye mounting brackets and the wall for gouged or missing caulk. Caulk as needed using a high-quality, food-grade sealant (Rytec part number R0716003).

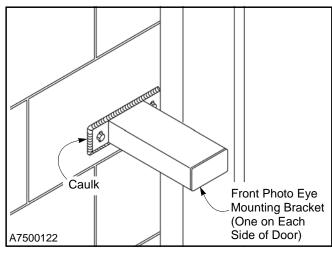


Figure 25

Control Panel and Activator Inspection

 If the control panel was mounted tight against the wall. (See Figure 26.)

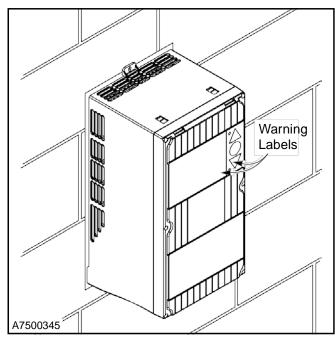


Figure 26

- Inspect all warning and safety labels. All labels should be intact and clearly readable. Replace labels as needed.
- Operate the door five or six complete cycles using each activator installed on the door. Check the control panel for proper operation. If an adjustment or repair is necessary, refer to the instructions that were shipped with the activator.

Typical activators may be floor loops, pull cords, push buttons, motion detectors, radio controls, or photo eyes. The door open cycle is controlled by the activator. The door close cycle may be controlled by the activator or by a timer in the control panel.

Kill Switch Inspection

A kill switch has been mounted in each end of the bottom bar assembly. The purpose of these switches is to prevent the door from being operated if the bottom bar becomes separated from either side column.

To inspect a kill switch assembly, proceed as follows:



Take precautions to prevent the door from being opened or closed while performing the following procedure.

- 1. Lower the door to approximately head or chest height, and stop the door.
- Push the breakaway bottom bar out of one of the side columns. It should not be possible to restart the door

If the kill switch operated properly: Reattach the bottom bar to the side column. (See "BOTTOM BAR ASSEMBLY" on page 2.) Then reset the control panel.

If the kill switch did not operate properly: Repair or replace the switch. Then repeat the test.

- Repeat the above procedure on the opposite end of the bottom bar assembly to ensure both kill switches operate normally.
- 4. After both kill switches test normal, reattach the bottom bar and reset the control panel.

Electrical Connection Inspection



The disconnect must be in the OFF position and properly locked and tagged before performing the following procedure.

Wait 5 minutes after turning power off before proceeding with electrical connection inspection.

- 1. Turn off power to the door.
- For the proper control panel electrical connection inspection procedure, see the Rytec System 4 Drive & Control Installation & Owner's Manual.
- 3. Remove the cover to the junction box located adjacent to the motor gearbox assembly. Check all electrical connections inside the junction box. All connections must be tight. (See Figure 27.)

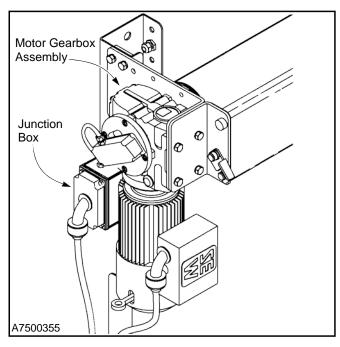


Figure 27

- 4. Reattach the junction box cover.
- 5. Turn on power to the door.

Lubrication

NOTE: All lubricants used must be acceptable for use in food processing equipment where incidental introduction may occur.

FLANGED BEARING

The drum-fabric roll assembly is supported by a flanged bearing located on the end of the head assembly, opposite the motor gearbox. The flanged bearing includes a lubrication fitting.

Lubricate the bearing using a high-quality, USDA/FDA certified food-grade grease. (See Figure 28.)

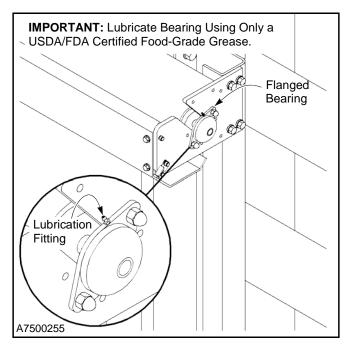


Figure 28

GEARBOX ASSEMBLY

The oil level in the gearbox assembly is checked and filled at the oil breather plug located on the gearbox. (See Figure 29.)

The recommended lubricant for refilling the gearbox is Chevron Lubricating Oil FM ISO 460.

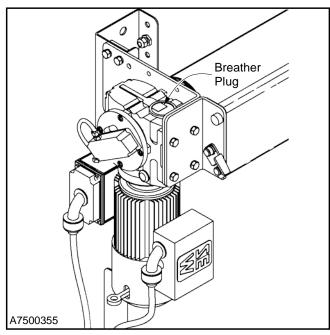


Figure 29

Brake Release Sensor Inspection (Manually Assisted Egress Door Only)

The brake release sensor is located on the side of the

motor assembly, just above the brake release lever. It is correctly adjusted when the bottom of the sensor and the top of the lever are ½ to ¼ in. apart. If an adjustment is necessary, moved the sensor up or down in its mounting bracket by repositioning the two large nuts on the sensor. (See Figure 30.)

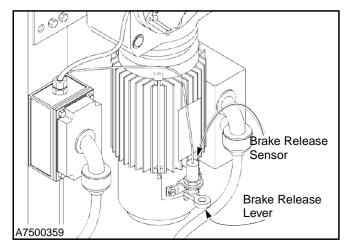


Figure 30

Counterweight System (Manually Assisted Egress Door Only)

Remove both side column covers and inspect the counterweight system located in each side column. Inspect both counterweight straps for wear, tears, and abrasions. Replace the straps if necessary.

Also make sure all hardware associated to the counterweight system is in good working order and that all hardware is tightly secured. Pay particular attention to the counterweight pulley system near the top of each side column. Make sure the pulley system is in good working order and that each counterweight pulley shaft is secured tightly to its respective side column. Refer to Figure 54 on page 26 for a complete breakdown of all associated counterweight hardware and components.

Door Cleaning

After all quarterly inspection items have been completed, clean the door as described in, "DOOR CLEAN-ING" on page 18.

Wall Anchor Inspection

1. Turn off power to door.



The disconnect must be in the OFF position and properly locked and tagged before performing the following procedure.

2. Gain access to wall anchors.

- Inspect for loose or worn wall anchor(s).
- Tighten, repair, or replace wall anchor(s) as needed.

NOTE: Remove door from service if any repairs are needed. All repairs must be done in accordance with building code.

5. Restore power to the door and return to service.

ADJUSTMENTS

PHOTO EYE ADJUSTMENT

Both sets of photo eyes consist of an emitter module and a receiver module. The transmitter and receiver can be identified two ways. The transmitter is designated SMT 3000 on the white label or by a single green light that comes on at the clear end of the transmitter. (See Figure 31.) The receiver is designated SMR 3215 on the white label or by a yellow light that illuminates only when it is in proper alignment with the transmitter. (See Figure 32.)

When the cable is connected to the photo eye, there is only a 1/4-inch window to see the green or yellow LED light.

IMPORTANT: To prevent the eyes on the front of the door from interfering with the eyes on the back of the door, the emitter and receiver modules must be installed as specified above.

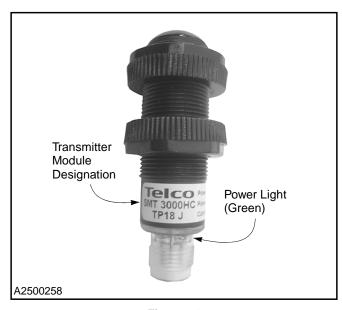


Figure 31



Figure 32

Testing Photo Eyes

With power on, the green light indicates the photo eye module is powered up. When the yellow light on the receiver module is also lit, the emitter and receiver modules are properly aligned.

Placing your hand in front of the receiver breaks the light path and causes the yellow light to go out. Removing your hand causes the yellow light to go back on.

NOTE: The Clean-Roll door has two sets of safety photo eyes. They are used as a safety device to prevent the door from closing if an object is in the path of the door panel. The photo eyes are not meant to be used as door activators. Both sets of eyes must be working correctly for the door to operate.

Troubleshooting

If any of the green lights are not lit, check to make sure power is turned on, and that all wiring has continuity and is installed and connected correctly. If the green lights are on but the yellow light is off, check the alignment of the emitter and receiver modules and clean each eye using window cleaner and a soft, clean cloth.

- Turn on the power to the door.
- 2. Move the door to the half-open position.



Take precautions to prevent the door from being operated as you perform the following procedure. Also, be cautious around moving parts exposed in side columns. Locate both sets of photo eyes. The photo eyes that monitor the back side of the door are located in the side columns. The photo eyes that monitor the front side of the door are located in the heavy-duty mounting brackets on the wall, adjacent to side columns. (See Figure 33 and Figure 34.)



Figure 33

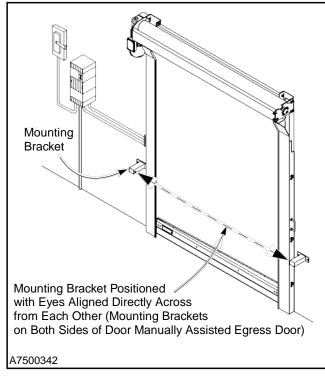


Figure 34

4. Inspect all four photo eyes. If a photo eye appears bent or out of position, particularly a front photo eye, readjust the eye or mounting bracket as required.

- The rear photo eyes are mounted directly to the side columns. Therefore, it is unlikely that the rear photo eyes will ever require an alignment, unless serious damage to a side column has occurred. (The exception to this is with a manually assisted egress door the rear photo eyes are mounted in brackets on the back side of the door.)
- Observe the indicator lights to verify that both sets of photo eyes are aligned. The green light indicates the photo eye modules are powered up. When the yellow light on the receiver module is also lit, the emitter and receiver modules are properly aligned.

REVERSING EDGE SWITCH ADJUSTMENT



Do not stand under the door panel when making check. If reversing edge switch is not working properly, panel could strike person performing check.

To check the reversing edge switch operation, run the door through the down cycle. As the door is lowering, tap the bottom of the reversing edge. If the reversing edge switch is operating properly, the door should immediately reverse and run to the full open position. Push the control box push-button to close the door after the check is completed.

Reversing Edge Switch Air Bleed Check

The reversing edge switch is located inside the bottom bar assembly. To inspect and/or adjust the switch, remove the access cover from the face of the bottom bar assembly. (See Figure 35.)

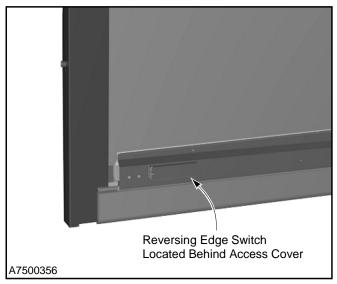


Figure 35

ADJUSTMENTS—MOTOR BRAKE ADJUSTMENT

- Make sure the clear PVC hose is in tight contact with the air input post so that air leakage cannot occur and that vibration will not cause the hose to fall off. Make sure the hose is not kinked. (See Figure 36.)
- The air bleed has been set at the factory and should not require adjustment. To check the air bleed, turn the air bleed adjustment screws located on the front and back of the switch fully clockwise, but do not overtighten. Then turn the screws counterclockwise one full turn. (See Figure 36.)

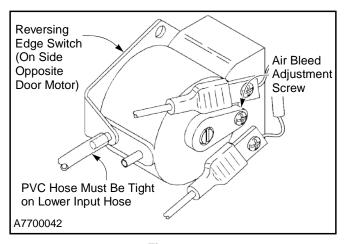


Figure 36

Reversing Edge Switch Sensitivity Adjustment

- The reversing edge switch is a normally open contact. The PVC hose is on the lower air input post. To adjust the switch, first remove the wires and resistor from the contact terminals and attach an ohmmeter across the two terminals. (See Figure 37.)
- Turn the adjustment screw, located on the face of the switch, clockwise or counterclockwise until continuity is achieved. Then turn the screw two full turns counterclockwise. The ohmmeter should no longer show continuity. Turning the screw counterclockwise decreases sensitivity. Turning the screw clockwise increases sensitivity. (See Figure 37.)

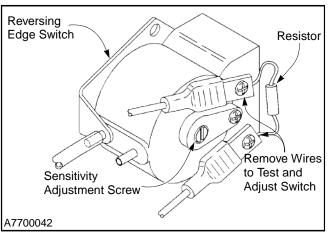


Figure 37

3. Reattach resistor and wires and then replace the access cover on the bottom bar.

NOTE: If the reversing edge is set too sensitive, the door may reverse direction during the closing cycle, without the reversing edge coming in contact with an object. If this occurs, readjust the reversing edge switch.

MOTOR BRAKE ADJUSTMENT

- 1. Remove the manual brake release lever.
- Loosen hex-head bolts retaining the dust cover to the motor assembly. Remove the cover. (See Figure 38.)

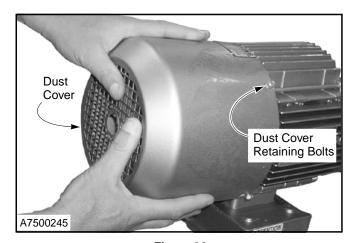


Figure 38

3. Remove sealing band. (See Figure 39.)

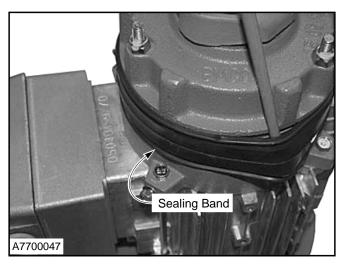


Figure 39

4. Using a feeler gauge and a nut driver, adjust the retaining nuts until you achieve the proper air-gap (0.010–0.024-in.). (See Figure 40and Figure 41.)

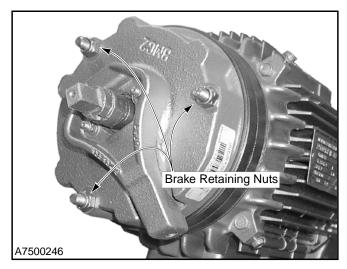


Figure 40



All retaining nuts and air-gap must be equally set through out the entire circumference of the brake or the parts will wear unevenly.

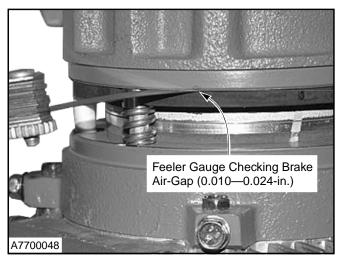


Figure 41

- 5. Reinstall the dust cover and the manual brake release lever.
- 6. Restore power to the door and perform operations check.

BRAKE RELEASE SENSOR ADJUSTMENT (Manually Assisted Egress Door Only)

The brake release sensor is located on the side of the motor assembly, just above the brake release lever. It is correctly adjusted when the bottom of the sensor and the top of the lever are ½ to ¼in. apart. The sensor is moved up or down in its mounting bracket by repositioning the two large nuts on the sensor. (See Figure 42.)

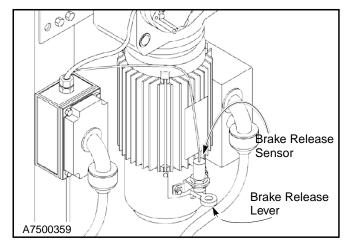


Figure 42

DOOR CLEANING



Do not use water heated above 150°F when cleaning your door. Do not exceed the spray pressure rating for your door. If you have any questions regarding the following cleaning procedure, spray pressure, or water temperature rating for your door, contact the Rytec Technical Support Department at 800-628-1909.

Nozzle pressure for water at ambient temperature must not exceed 1500 psi, at a distance no closer than 15 in. When using hot water up to 150°F, the spray pressure must not exceed 1000 psi, at a distance no closer than 15 in.

IMPORTANT: Prior to cleaning the door, it must be thoroughly inspected, with all repairs and adjustments complete. (See "QUARTERLY INSPECTION" on page 7.)



The disconnect must be in the OFF position and properly locked and tagged before performing the following procedure.

Anytime power needs to be restored to the door during the cleaning procedure (such as moving the door panel up or down), the disconnect must be placed back in the OFF position and properly locked and tagged before continuing with the cleaning procedure.



Take all necessary safety precautions anytime you are working around live power and water.



Do not pressure wash the photo eyes. High-pressure water spray may damage the photo eyes. Hand wash the photo eyes only.

RECOMMENDED SAFETY EQUIPMENT



The necessary safety equipment required for cleaning and disinfecting your Rytec door may vary depending on the cleaning solution or disinfecting agent used. Refer to the instructions and warnings provided with the cleaning solution or disinfectant for their specific handling requirements.

- Eye Protection
- Waterproof Gloves
- Respirator (rated for the chemicals handled)

RECOMMENDED CLEANING EQUIPMENT

- Pressure Washer (with broad-path spray nozzle)
- Scrub Brushes (assorted sizes)

RECOMMENDED CLEANING SOLUTION

USDA/FDA Certified Cleaning Solution (or a comparable disinfecting agent)

CLEANING PROCEDURE



Make sure the control panel cover is closed and securely latched before you begin to clean the door. Failure to seal the control panel could result in personal injury due to electric shock.



Remove all food products and packaging material from the area before beginning the cleaning procedure.

IMPORTANT: Throughout this procedure, all hardware (screws, nuts, bolts) should be hand cleaned using a scrub brush and the recommended cleaning solution.

A scrub brush is necessary for removing dirt and other contaminants from the hardware.

IMPORTANT: Use the recommended cleaning solution when pressure washing all the other door components.

- 1. Move the door to the fully open position.
- 2. Loosen all thumbscrews on the side column cover. Then remove the cover by lifting it up and away from the side column. (See Figure 43.)

NOTE: Loosen all thumbscrews — do not completely remove them.

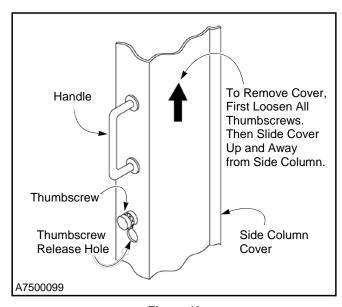


Figure 43



Use a stable platform to stand on, or other suitable lifting device, when cleaning the out-of-reach areas of the door.

3. Pressure wash the outside surface of the drip guard and upper end of the side columns. (See Figure 44.)

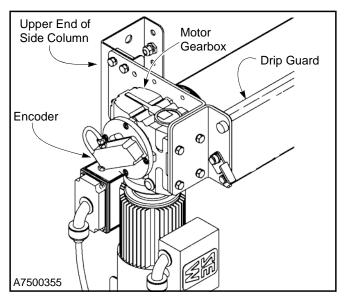


Figure 44

- 4. Hand scrub the top of the motor gearbox and the encoder.
- 5. Pressure wash the bottom side of the spreader bar and the top seal. (See Figure 45.)

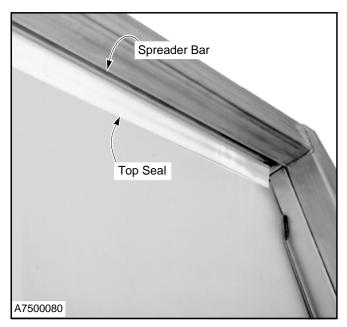


Figure 45

6. Loosen the drip guard thumbscrews on both ends of the head assembly. Then rotate the safety clips to release the drip guard. (See Figure 46.)

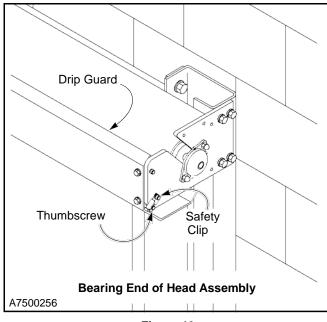


Figure 46

- 7. Swing the drip guard over the head assembly.
- 8. Pressure wash the bottom side of the drip guard.

IMPORTANT: Thoroughly clean the fins on the motor gearbox and both sides of the motor mounting bracket.

9. Pressure wash the front and back sides of the motor gearbox assembly. (See Figure 47.)

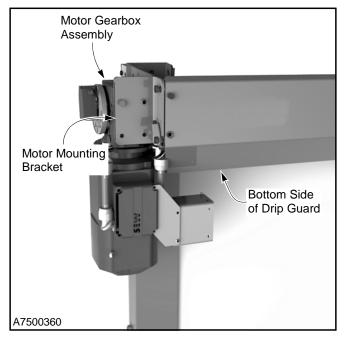


Figure 47

10. Pressure wash each side of the junction box and the inside edge of both side columns. (See Figure 48.)

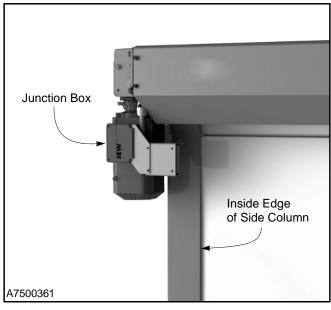


Figure 48

11. Move door to the closed position. Then jog the door down to the clean position, using the down key. The clean position will expose the entire door panel hinge for cleaning. (See Figure 49.) (See Rytec System 4 Drive & Control Installation & Owner's Manual for more information.)



Figure 49

IMPORTANT: Be sure to thoroughly clean the door panel hinge.

12. Pressure wash the front side of the drum assembly, including the hinge. Then spray the back side of the drum. (See Figure 50.)

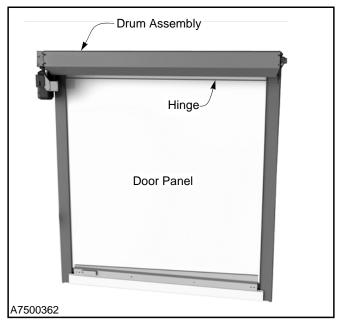


Figure 50

- 13. Pressure wash the door panel. Start at the top of the panel and work your way down. Clean the other side of the panel in the same manner.
- 14. Move the door to the open position.

IMPORTANT: Do not completely remove any mounting hardware from the bottom bar assembly when removing the vinyl seal. Otherwise, it will be difficult to reassemble the bottom bar.

15. Remove the vinyl seal from the bottom bar. To release the seal from the bar, loosen only the hardware necessary to release the lip of the seal from the front and back shells that run the length of the door panel. Also loosen the hardware securing the bottom bar cover. (See Figure 51.)

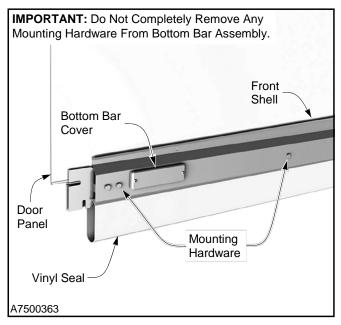


Figure 51

- 16. Pressure wash both sides of the vinyl seal, inside and out.
- 17. Pressure wash the entire reversing edge and the plastic breakaway tabs at each end of the bottom bar. (See Figure 52.)

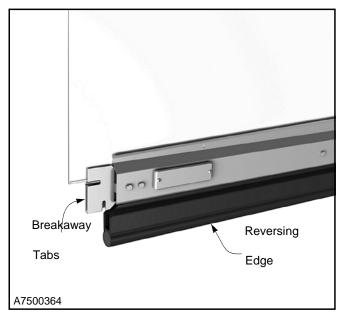


Figure 52

- 18. Reinstall the vinyl seal by sliding it back through the front and back shells. Then tightly secure all mounting hardware on both sides of the bottom bar, including the bottom bar cover.
- Lower the drip guard. Then reposition the safety clips and tighten the thumbscrews to lock the guard in place. Thoroughly hand scrub the thumbscrews.



Do not pressure wash the photo eyes. High-pressure water spray may damage the photo eyes. Hand wash the eyes only.

20. Hand scrub the photo eye mounting brackets located on the front of the door. (Also hand scrub the photo eye mounting brackets on the back side of a manually assisted egress version of the Clean-Roll door.) (See Figure 53.)

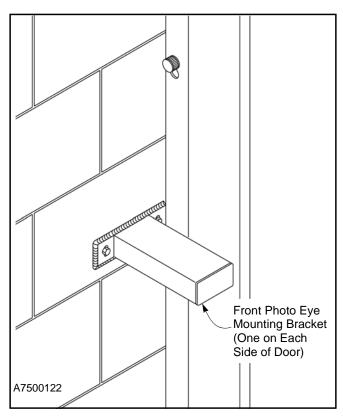


Figure 53

21. Thoroughly rinse the photo eye mounting brackets using clean, fresh water.



Place side column covers on a stable work surface or platform to avoid damage while cleaning.

22. Pressure wash all sides of both side column covers, inside and out. (See Figure 54.)

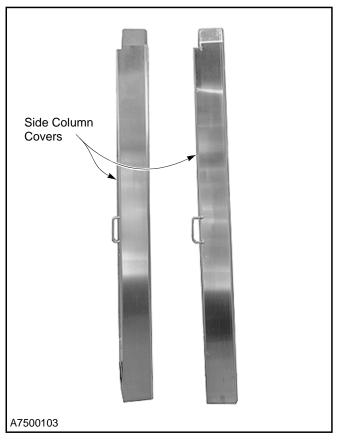


Figure 54

- 23. Thoroughly rinse the side column covers using clean, fresh water.
- 24. Reinstall the side column covers in the reverse order of removal.



Do not pressure wash the fused disconnect as this could result in personal injury or even death due to electric shock.

25. Pressure wash the control panel and the entire exterior of the door. DO NOT pressure wash the fused disconnect. (See Figure 55.)

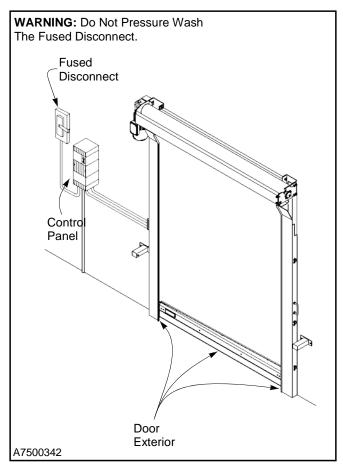


Figure 55

- 26. Thoroughly rinse the entire door using clean, fresh water.
- 27. Allow the door to thoroughly air-dry before placing it back into service or moving food products through the doorway.

PARTS LIST

PARTS ORDERING INFORMATION

How to Order Parts

- 1. Identify the parts required by referring to the following pages for part numbers and part descriptions.
- To place an order, contact your local Rytec representative or the Rytec Technical Support Department at 800-628-1909 or 262-677-2058 (fax). Rytec Corporation also has an on-line store at <u>WWW.Rytecparts.com</u> access to this on-line store requires an invitation from Rytec. The online store is open 24/7, 365 days. Some items are available to ship next day. Not all Rytec parts are carried in the on-line store.
- To ensure the correct parts are shipped, please include the serial number of your door with the order. The serial number is located on the control panel or left side column. (See Figure 56.)

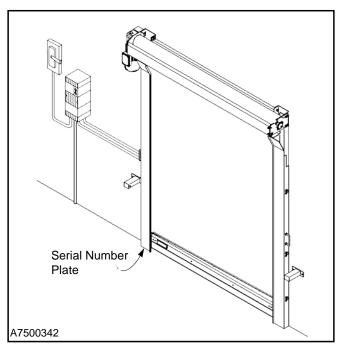


Figure 56

Substitute Parts

Due to special engineering and product enhancement, the actual parts used on your door may be different from those shown in this manual.

Also, if a part has been improved in design and bears a revised part number, the improved part will be substituted for the part ordered.

Return of Parts

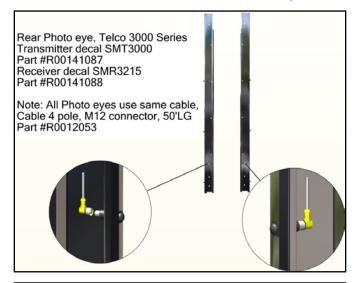
Rytec will not accept the return of any parts unless they are accompanied by a Return Merchandise Authorization (RMA) form.

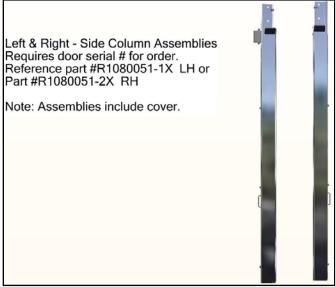
Before returning any parts, you must first contact the Rytec Technical Support Department to obtain authorization and an RMA form.

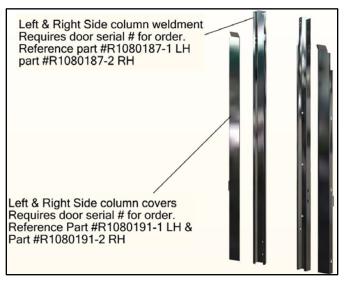
IMPORTANT: Obtain an incident number from the Rytec Technical Support Technician.

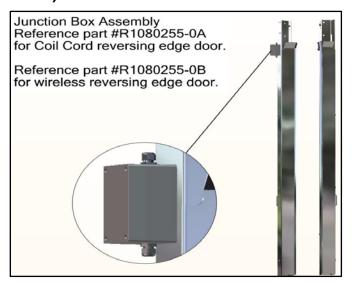
PARTS LIST—SIDE COLUMNS AND PHOTO EYES (STANDARD DOOR)

SIDE COLUMNS AND PHOTO EYES (STANDARD DOOR)

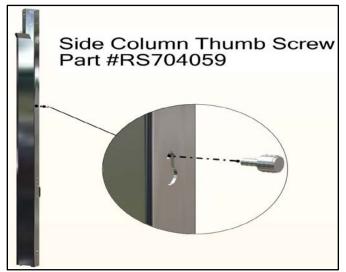








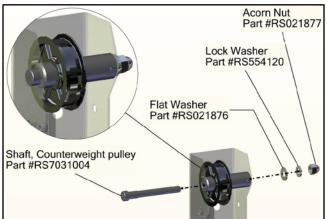


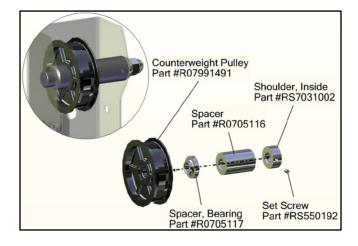


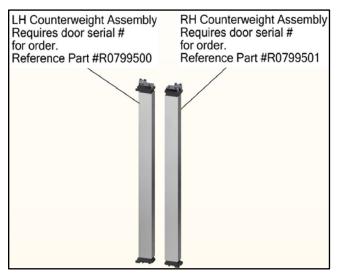
PARTS LIST—SIDE COLUMNS (MANUALLY ASSISTED EGRESS DOOR)

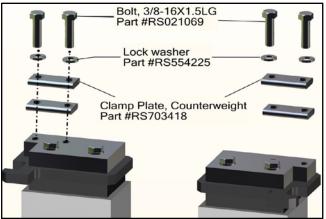
SIDE COLUMNS (MANUALLY ASSISTED EGRESS DOOR)









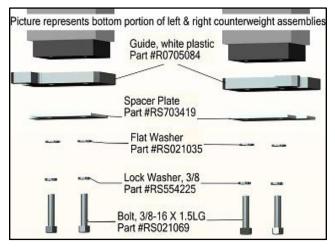


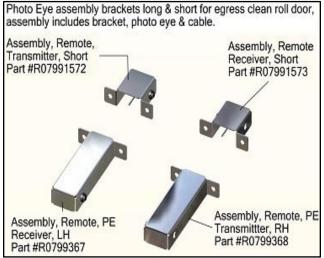


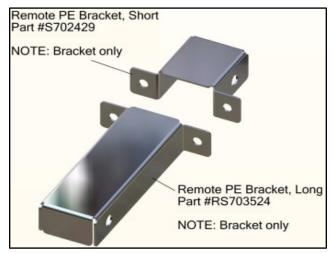
ALWAYS INCLUDE SERIAL NUMBER OF DOOR WHEN PLACING ORDER

PARTS LIST—PHOTO EYES (MANUALLY ASSISTED EGRESS DOOR)

PHOTO EYES (MANUALLY ASSISTED EGRESS DOOR)

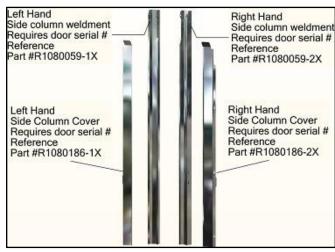








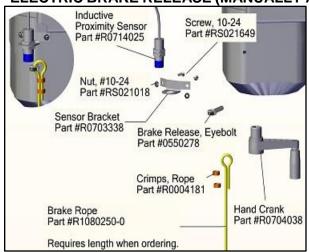


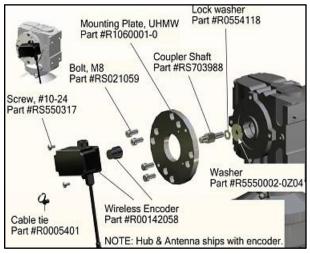


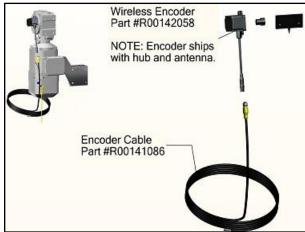
ALWAYS INCLUDE SERIAL NUMBER OF DOOR WHEN PLACING ORDER

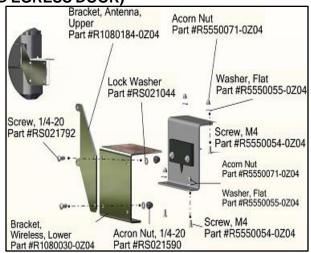
PARTS LIST—ELECTRIC BRAKE RELEASE (MANUALLY ASSISTED EGRESS DOOR)

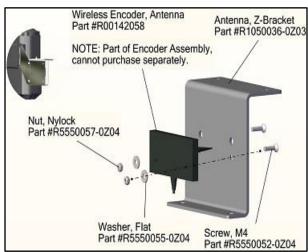
ELECTRIC BRAKE RELEASE (MANUALLY ASSISTED EGRESS DOOR)

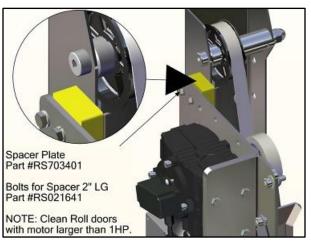








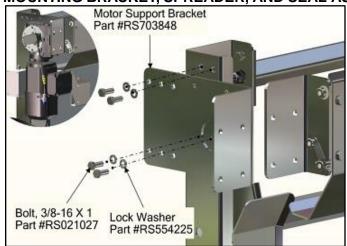


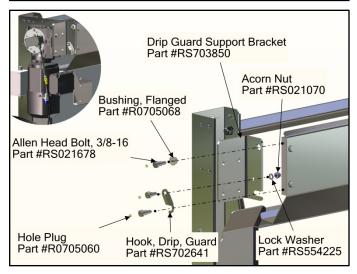


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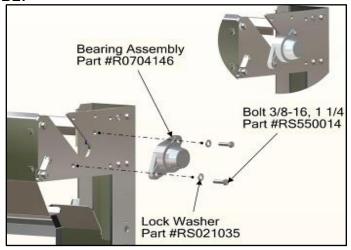
PARTS LIST—MOUNTING BRACKET, SPREADER, AND SEAL ASSEMBLY

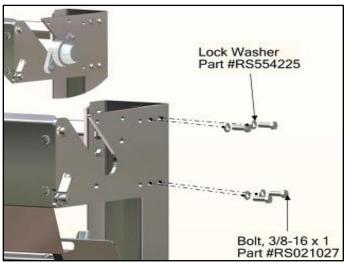
MOUNTING BRACKET, SPREADER, AND SEAL ASSEMBLY

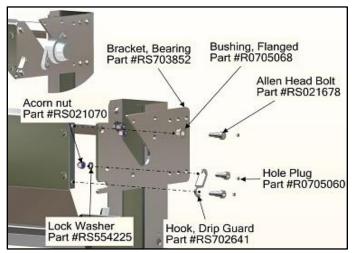








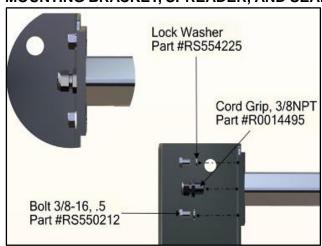




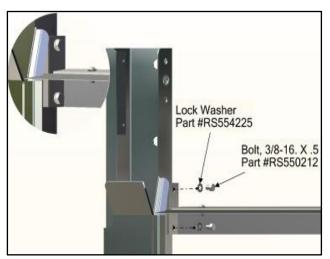
ALWAYS INCLUDE SERIAL NUMBER OF DOOR WHEN PLACING ORDER

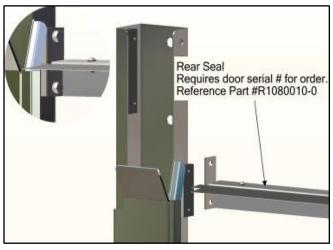
PARTS LIST—MOUNTING BRACKET, SPREADER, AND SEAL ASSEMBLY

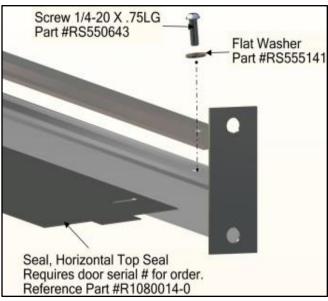
MOUNTING BRACKET, SPREADER, AND SEAL ASSEMBLY

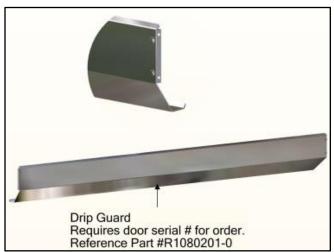








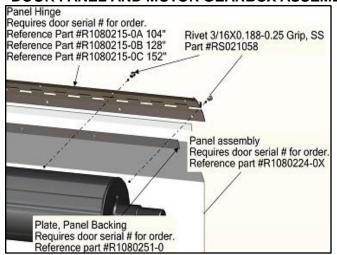


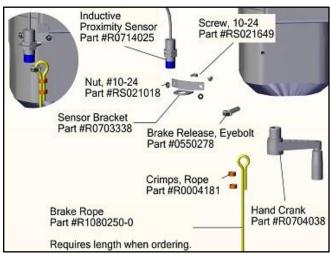


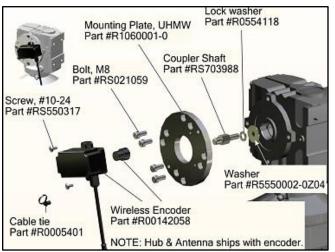
ALWAYS INCLUDE SERIAL NUMBER OF DOOR WHEN PLACING ORDER

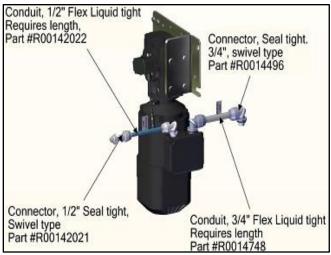
PARTS LIST—DOOR PANEL AND MOTOR GEARBOX ASSEMBLY

DOOR PANEL AND MOTOR GEARBOX ASSEMBLY

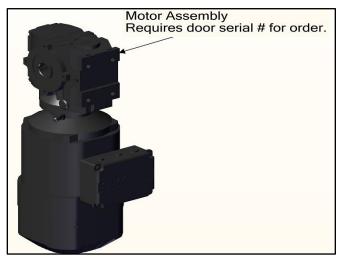








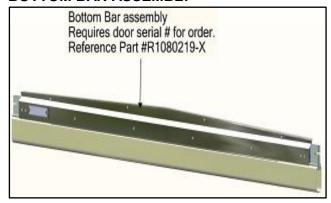


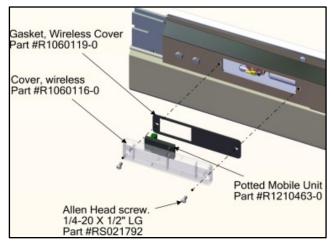


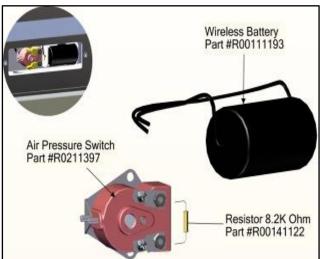
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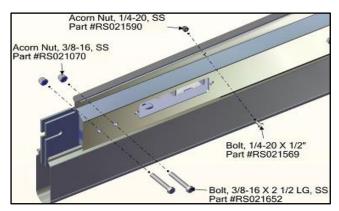
PARTS LIST—BOTTOM BAR ASSEMBLY

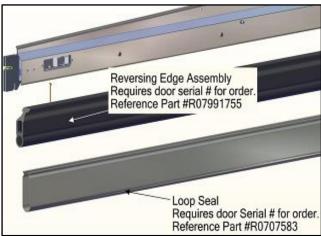
BOTTOM BAR ASSEMBLY

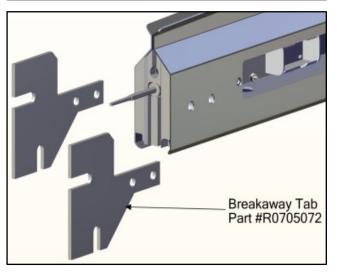








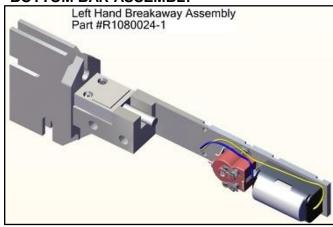


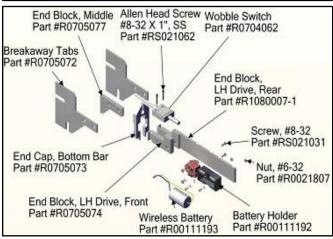


ALWAYS INCLUDE SERIAL NUMBER OF DOOR WHEN PLACING ORDER

PARTS LIST—BOTTOM BAR ASSEMBLY

BOTTOM BAR ASSEMBLY





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PARTS LIST—Common Spare Part & Older Clean Roll Door Parts

Common Misc Parts

R0211397 Air Pressure Switch

R00111193 Battery Wireless

R0012242 Falcon Motion Detector

R0012867 IS40 Motion/Presence sensor

R0012145 BEA Universal Remote

R0012210 Pull Cord/Wall Switch

R00121002 Pushbutton, Black Mushroom

R00141087 Photo Eye, Telco3000, Transmitter

R00141088 Photo Eye Telco3215, Receiver

R0012053 Photo Eye, Cable 50 Feet Long
R00142058 Encoder, Wireless 36" Antenna, Extended Range, has 250 K Bit on Decal of encoder. Works with potted mobile unit #R12110463-0.

R121110463 Potted Mobile Unit Extended Range Wireless, Wireless Encoder will have 250K Bit on Decal. Works with wireless Encoder part #R00142058.

R0704062 Wobble Switch, switch for door ajar.

R1060119-0 Gasket, Wireless Cover

R00141122 Resistor 8.2K

R0714025 Inductive Proximity Switch, Brake Release

R0704038 Hand Crank, to manually operate the motor.

R0704086 Counterweight Strap, requires length or door serial # for order.

Older Model Clean Roll Door Parts:

R0014754 Coil Cord 4 wire 36" White

R0014744 Coil Cord 7 Wire 36" White

R0211397 Air Pressure Switch

R00141005 Resistor 1.2K Ohm

R0012086 Digital Gateway 1200 - No Longer Available

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