

R Y T E C

Turbo Seal[®] Self-Repair --- Installation Manual



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INTRODUCTION

The information contained in this manual will allow you to install your Rytec Turbo-Seal Self Repair® Door in a manner that 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 Customer Support. The serial number plate is located inside one of the side columns.

A wiring schematic is provided with each individual door, specifically covering the control and electrical components of that door.

DOOR SERIAL NUMBER(S)

To obtain your **DOOR SERIAL NUMBER**, there are three universal locations where this information can be found. These are on the inside of the left side column (approximately eye level), on the drive motor, and on the 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 on the control panel with the one in the side column.*

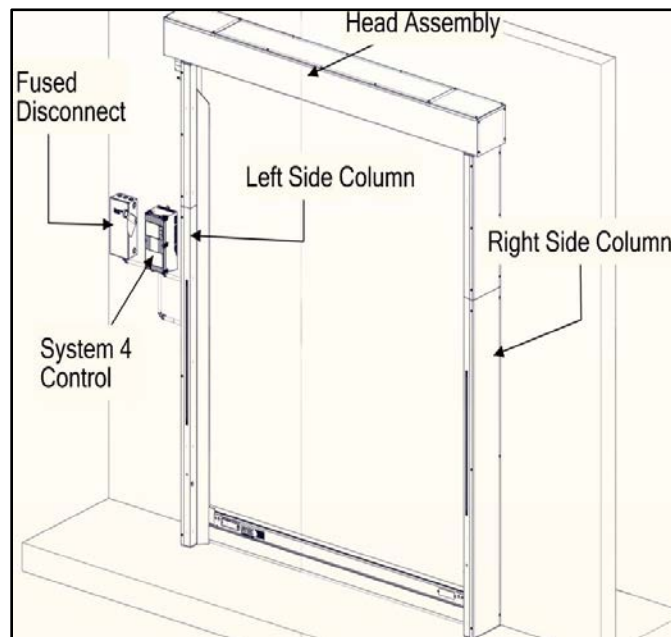


Figure 1

HOW TO USE MANUAL

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

⚠ WARNING

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

⚠ CAUTION

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.*

INSTALLATION

MATERIAL, TOOLS, AND EQUIPMENT

1. Threaded rod ($\frac{1}{2}$ -in. diameter) and other various wall anchor hardware and material. Concrete anchor bolts ($\frac{1}{2}$ -in. diameter). (See "ANCHORING METHODS" on page 3.)
2. Assorted shim stock.
3. Double-sided tape (to temporarily hold shims).
4. Carpenter's or spirit level (4-ft. minimum length).
5. Carpenter's square.
6. Fish tape.
7. Hammer drill.
8. Masonry drill bit (for $\frac{1}{2}$ -in. diameter anchors).
9. Three or four bar clamps (48-in. long).
10. Hammer or mallet, and block of wood.
11. Crowbar or pry bar.
12. Assorted hand tools (pliers, tape measure, etc.).
13. Socket and wrench sets.
14. Water level, line level, or transit.
15. Two ladders (taller than height of door opening).
16. Forklift (see "Forklift Requirements" below).

ADDITIONAL REQUIREMENTS

Labor and Site Requirements

1. Two installers.
2. An electrician is required for making all electrical connections. (See "Electrician's Responsibilities".)

NOTE: All electrical work must be performed in accordance with local and state building codes.

3. 100% accessibility to the door opening during the entire installation process. No traffic should be allowed to pass through the opening while the door is being installed.

Forklift Requirements

A forklift supplied by the customer, dealer, or installer is mandatory for the safe and proper installation of this door. The forklift should have:

- 2,000-pound lift capacity.
- minimum height ability — door height, plus 12 in.
- side-shift capability (desired).

Electrician's Responsibilities

For complete details on the responsibilities of the electrician, refer to the Rytec System 4 Drive & Control Installation & Owner's Manual.

1. Install fused disconnect and Rytec control panel. (See Figure 2 for typical installation.)
2. Install all necessary conduit tubing.

NOTE: Separate high and low voltage conduit.

3. Run electrical power lines to disconnect.
4. Run power lines from disconnect to control panel.
5. Run power lines from control panel to upper junction box.
6. Run power lines from control panel to door motor.
7. Run low-voltage cables from door to control panel.
8. Mount rear photo eyes.
9. Wire low-voltage safety devices and activators (if used).

Floor-Loop Activator Requirements

If a floor-loop activator was ordered, the following additional items will be required to install the activator.

NOTE: For complete floor-loop installation instructions, refer to the manual that was shipped with the activator.

1. Concrete saw (with water-cooling attachment).
2. Water supply and garden hose.
3. Wet/dry shop vacuum.
4. 200–500 feet of 16-gauge, 19-strand, type XLPE, copper, crosslink polyethylene jacket wire (or equivalent). The size of the floor loop will determine the length of wire required.
5. Bondo P606 Flexible Embedding Sealer (or equivalent) — required to fill saw cuts in floor after the activator is installed. For cold temperature applications, Bondo P610 Speed Set must be added to the P606 to ensure the sealer cures properly.

GENERAL ARRANGEMENT OF DOOR COMPONENTS

Figure 2 shows the location of the major components of the door and the general placement of the associated sub-assemblies for a typical installation.

This illustration is provided to you for informational purposes only. It should not be relied upon solely during the installation of your door and its sub-assemblies.

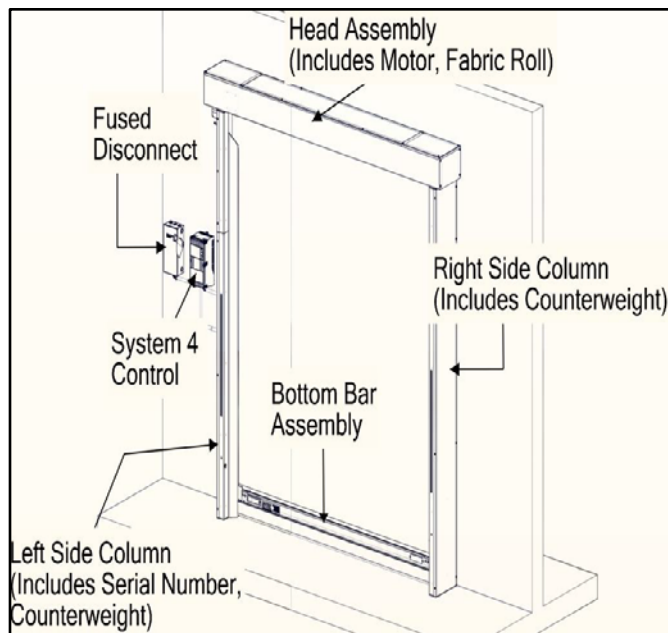


Figure 2

NOTE: The above illustration shows the front side of the door. Left and right are determined when viewing the front side of the door.

ANCHORING METHODS

Correct anchoring of the side columns to the wall and the floor is important for the smooth and safe operation of the door. The wall material should be strong enough to support the weight of the door and all wall anchors.

Figure 3 through Figure 6 show anchoring methods for various types of walls. Use the method that is best suited for your particular installation site.

All necessary anchoring hardware and material required for the installation of this door are the responsibility of the door owner. If you have any questions, call your Rytec representative or the Rytec Technical Support Department at 800-628-1909.

NOTE: Use 1/2-in. diameter threaded through bolts or 1/2-in. diameter threaded rods to anchor the door to all wall applications. Use 1/2-in. diameter concrete anchor bolts to anchor the door to a concrete floor.

If expansion anchors are used, a quarterly inspection should be implemented for safe and secure door operation.

Concrete, Block, or Brick Walls

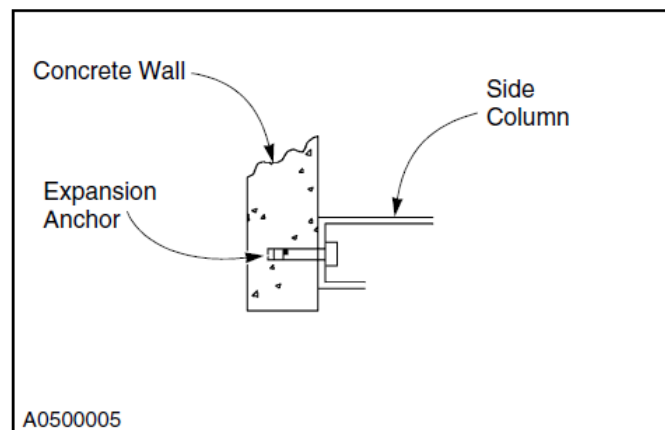


Figure 3

Wood, Block, Brick, or Insulated Walls

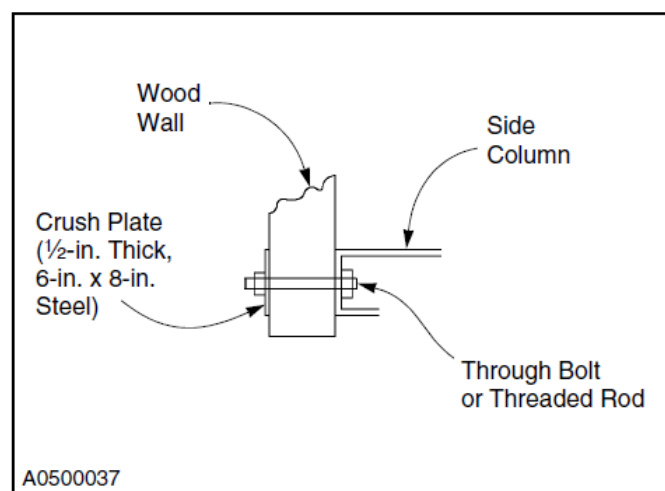


Figure 4

Insulated Wall

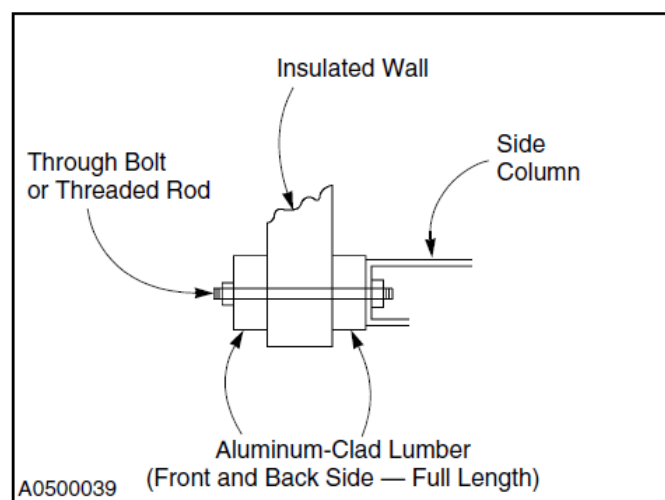


Figure 5

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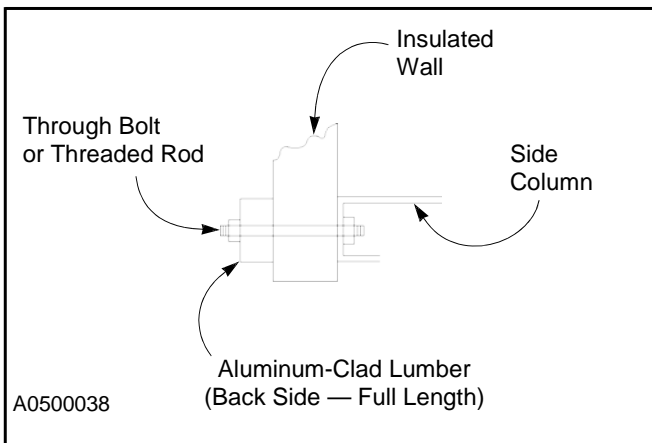


Figure 6

UNCRATING

Your Rytec door has been crated to allow for minimal handling of assemblies during the installation process.

NOTE: Remove parts and sub-assemblies from the shipping crate in the order directed throughout this manual.

1. Remove the top of the crate. (See Figure 7.)
2. Remove the front of the crate.

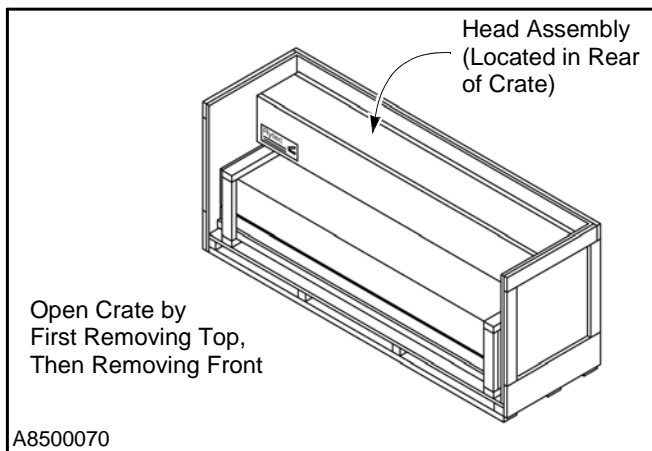


Figure 7

LOCATING CENTERLINE OF DOOR OPENING

NOTE: Accurate measurements are critical for the proper installation and operation of your Rytec door. Verify all measurements.

1. Measure the width of the door opening.
2. Divide the measurement in half to locate the centerline. Then mark the centerline along the floor. (See Figure 8.)

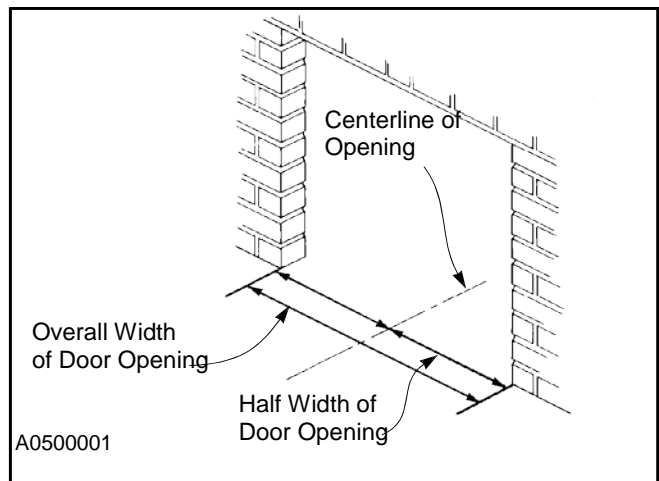


Figure 8

LOCATING SIDE COLUMNS

1. Locate the layout drawing of the door. It should be attached to the small parts carton packed inside the shipping crate. This drawing identifies the production width of your door. Verify the dimension provided by measuring the width (length) of the head assembly.
2. Using the centerline as a reference point, lay out and mark half of the door's production width along the floor. (See Figure 9.)



This door is equipped with a breakaway bottom bar assembly. To ensure that it works properly, the width of the door opening must not be smaller (narrower) than the production width of the door. If the width of the opening is narrower than the width of the door, do not proceed with the installation. Contact your Rytec representative or Rytec Technical Support Department at 800-628-1909.

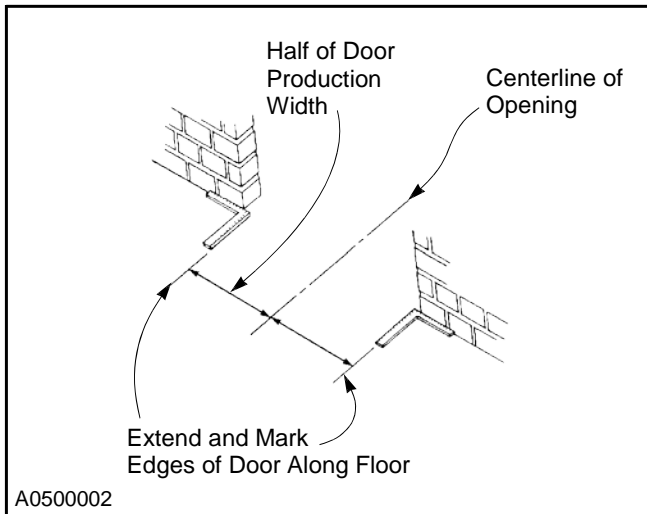


Figure 9

3. With a carpenter's square placed against the wall, mark both sides of the door along the floor. Extend the line along each edge.
4. Check the floor for level across the door opening. The floor must be level within 0.12 in. from side-to-side. If one side of the opening is higher than the other, a shim under the side column will be required.

Figure 10 and Figure 11 show two methods that can be used to ensure level side columns.

NOTE: Contact the Rytec Technical Support Department if the floor is more than 1 in. out of level.

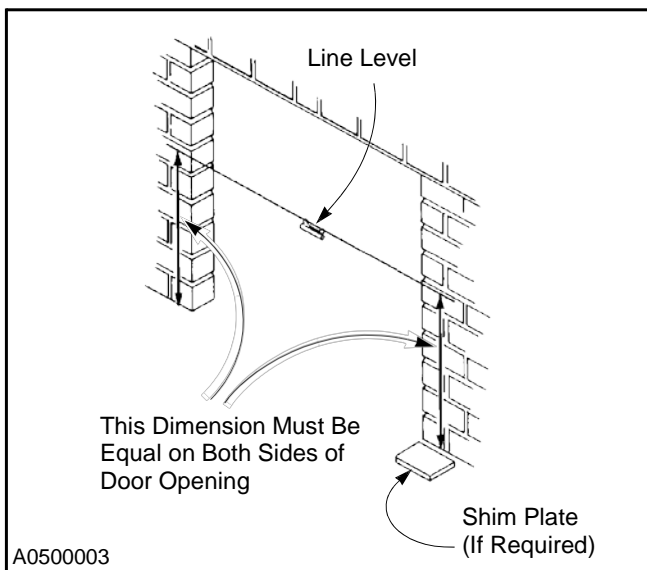


Figure 10

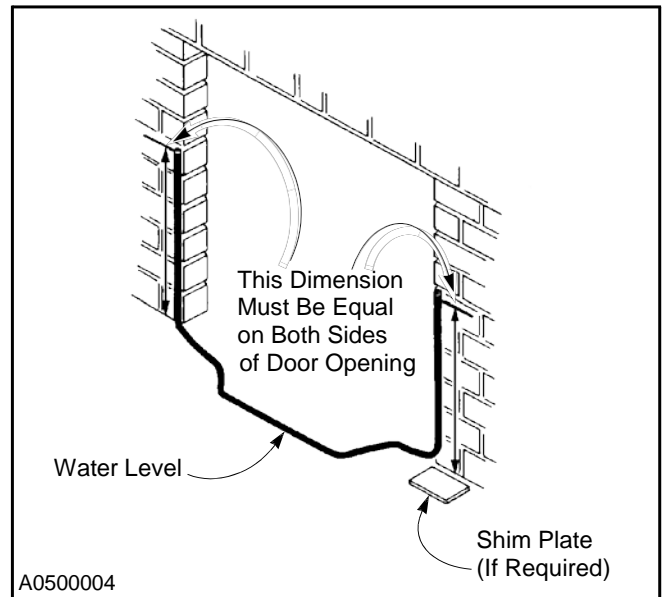


Figure 11

SIDE COLUMNS

The following procedure details the installation of the side columns in standard and freezer door applications. They are virtually the same except that the freezer door will come with insulated channels.



Side columns are extremely heavy, use proper lifting and support equipment when removing from crate. Personal injury may result from using improper handling procedures.

1. Remove the right side column from the shipping crate.
2. Remove the cover from the side column by removing the screws that hold the cover in place. Save all hardware for later use.
3. Stand the right side column on the floor. Place it against the wall, just outside the line indicating the production width of the door. (See Figure 12.)

INSTALLATION—HEAD ASSEMBLY

IMPORTANT: It is critical that the side columns are mounted square and plumb with the wall, and level across the door opening. Using a 4-foot level and carpenter's square will help ensure the columns are correctly set. Place shims where necessary.

In addition, the use of bar clamps will allow you to temporarily secure the columns to the wall, while allowing you to make slight adjustments during the installation process.

WARNING

Before drilling any holes, ensure there are no electrical wires, water pipes, or gas lines, etc., buried in the floor or hidden in the wall.

4. Once the side column is set plumb and square, anchor it to the wall and floor. (See Figure 12.) Pre-drilled anchor holes have been provided in the side column. DO NOT securely tighten the anchors at this time — they will be tightened later on, after the head assembly is installed.

NOTE: Use $\frac{1}{2}$ -in. expansion shell or stud-type anchors for concrete walls. Use through bolts or threaded rods for brick walls and other applications where expansion anchors are not appropriate.

If a stud-type anchor is used for the bottom anchor, the anchor must not extend more than $1\frac{1}{2}$ in. above the base plate of the side column.

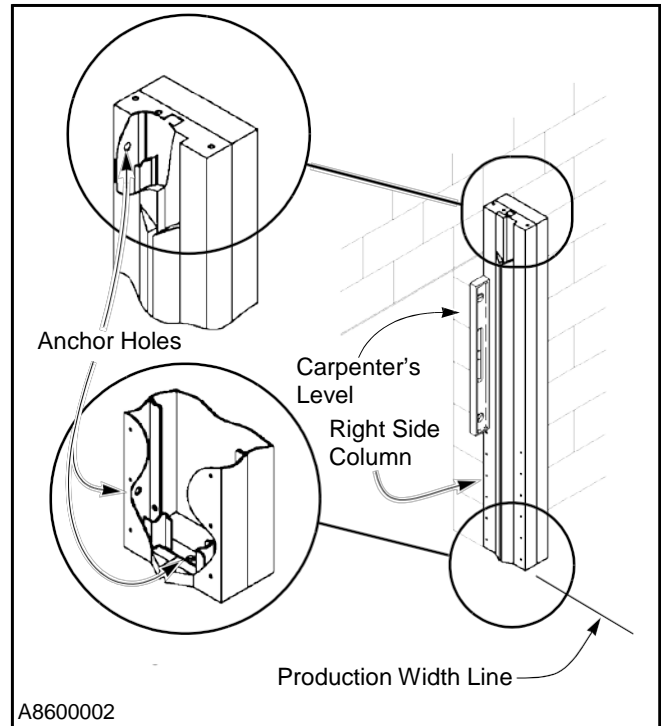


Figure 12

5. Mount the left side column to the wall and floor following the above procedure that was used for installing the right side column.
6. With both columns set and snugly bolted in place, check the overall squareness of each column.

Compare the diagonal measurements and the upper and lower horizontal measurements across the columns. The columns are square and parallel when the diagonal measurements are equal and the horizontal measurements are equal.

If either column requires a slight repositioning (when the difference of either comparison is greater than $\frac{1}{4}$ in.), use a block of wood and a mallet to nudge the column into position.

HEAD ASSEMBLY

1. Remove the head assembly from the crate.

NOTE: If the head assembly contains a hood, remove the side cover from both ends of the head. Save all hardware for later use.

⚠ CAUTION

Head assembly is extremely heavy, use proper lifting and support equipment when removing from crate. Personal injury may result from using improper handling procedures.

Secure the head assembly to the forklift prior to lifting it to the top of the side columns.

- Secure the head assembly to the forklift before lifting it into position.

NOTE: Personal injury or equipment damage may result from items not being secured.

- With the head assembly safely secured to the forklift, place it on top of the side columns. Line up the alignment pin on the head assembly with the alignment hole in the side column. (See Figure 13.)

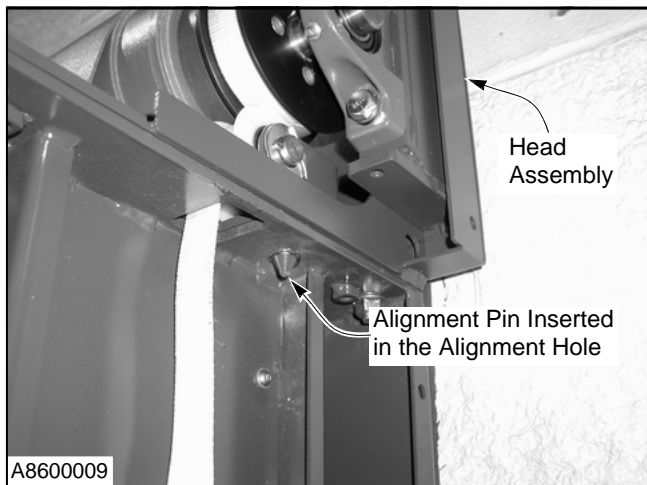


Figure 13

- Attach each side column to the head assembly with hardware provided in the small parts carton. (See Figure 14.)

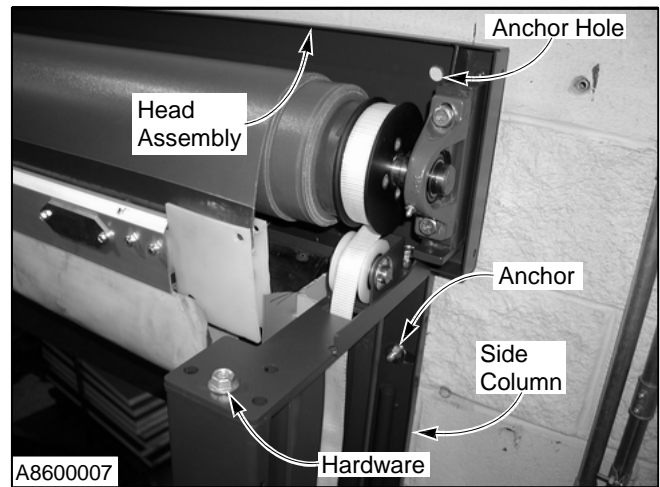


Figure 14

- Once the head assembly is set plumb and square, anchor it to the wall.

NOTE: Mounting holes in the head assembly are predrilled from the factory for the load bearing cross-sectional area. Do not add additional holes for mounting. Please consult your Rytec representative or call the Rytec Technical Support Department at 1-800-628-1909 with questions.

- After the head assembly is secured to both side columns, securely tighten all floor and wall anchors.
- Unclamp the head assembly from the forklift and then remove the forklift.
- Remove the bar clamps that were used to secure the side columns to the wall.

COUNTERWEIGHTS

⚠ WARNING

A counterweight can weigh in excess of 100 pounds. Make sure that safe handling procedures are followed and that each counterweight is securely supported during its installation. If not handled properly, a counterweight can damage door components and cause serious personal injury.

- Place a counterweight in the bottom of each side column.
- Securely block each counterweight 6 to 8 in. above the bottom of the side column. (See Figure 15.)

⚠ CAUTION

At this point the counterweight is free standing. Secure counterweight from falling over while installing the guide plate assembly. Personal injury can result.

NOTE: For photo purpose, the guide plate is shown and should NOT be installed at this time.

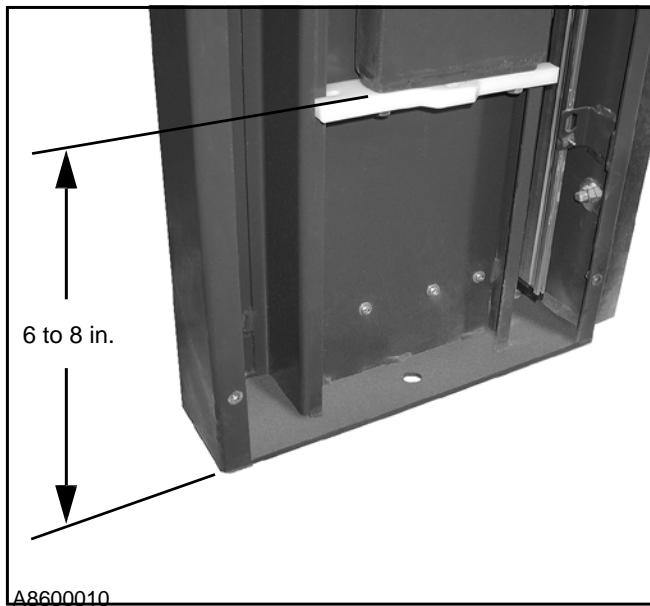


Figure 15

3. Install counterweight guide plate toward the rear of the column. (See Figure 16.)

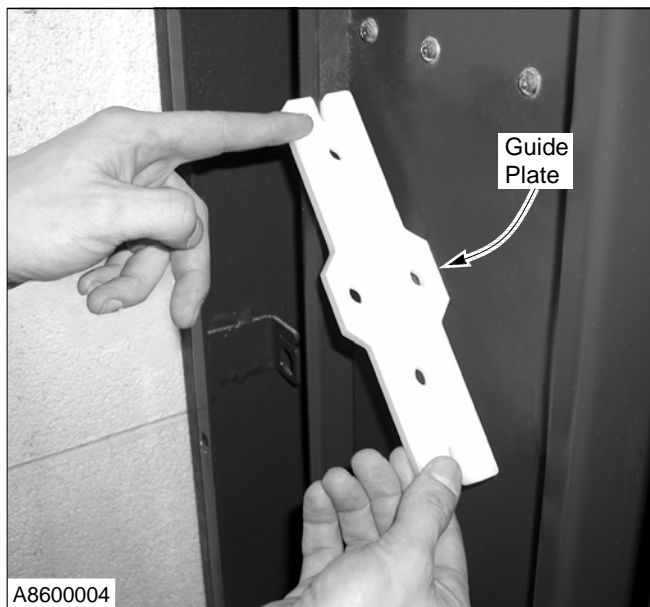


Figure 16

4. Swing guide plate up for installation. (See Figure 17.)

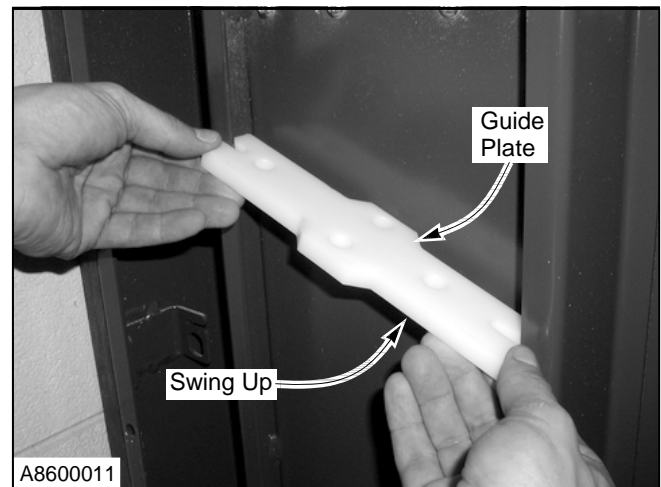


Figure 17

5. Set mounting plate on top of the guide plate.
6. Secure mounting plate and guide plate to the counterweight with two $\frac{3}{8}$ -16 UNC x $1\frac{3}{4}$ hex head cap screws and $\frac{3}{8}$ in. split lock washers. (See Figure 18.)

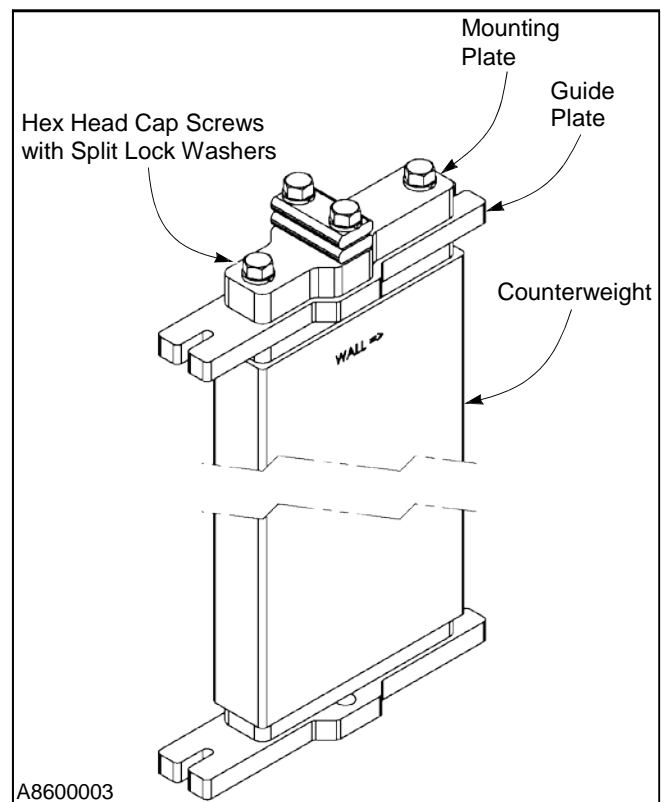


Figure 18

7. Remove the shipping tape from around each counterweight strap.

NOTE: Door must be in the fully open position.

8. Route each strap over its associated idler pulley as shown in Figure 19.

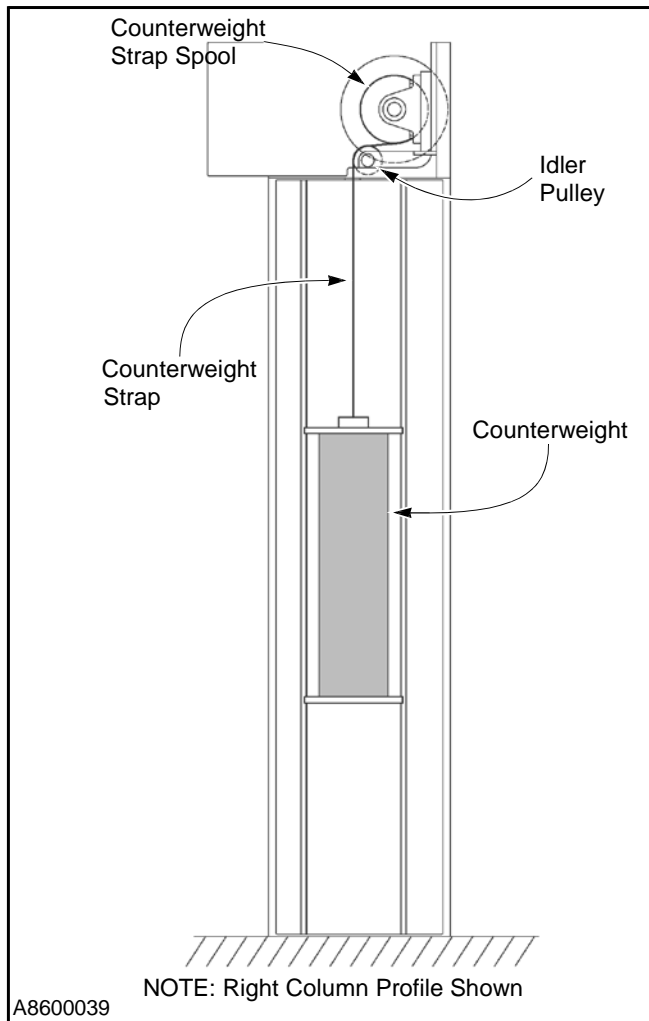


Figure 19

9. With the straps hanging straight, attach them to the counterweights using two $\frac{3}{8}$ -16 UNC x $1\frac{3}{4}$ hex head cap screws, $\frac{3}{8}$ in. split lock washers and clamp bars provided in the small parts carton. Route the straps through the clamp bars as shown in Figure 20.

IMPORTANT: The 6 to 8 in. mounting height for each counterweight, as indicated in Figure 15, is adequate for most Turbo-Seal Self Repair doors. However, for extra-wide or -short doors, the counterweights may have to be adjusted closer to the bottom of the side column.

To check the position of each counterweight, first release the motor brake by pulling on the brake release cable. Then manually move the door to its fully-closed position. The clearance between the top of each counterweight and the top of its associated side column, must be at least 2 in.

If an adjustment is necessary, move the door to the fully-open position. After placing a support block under the counterweight, readjust the strap, as required, until the 2-in. clearance is achieved.

- 10.

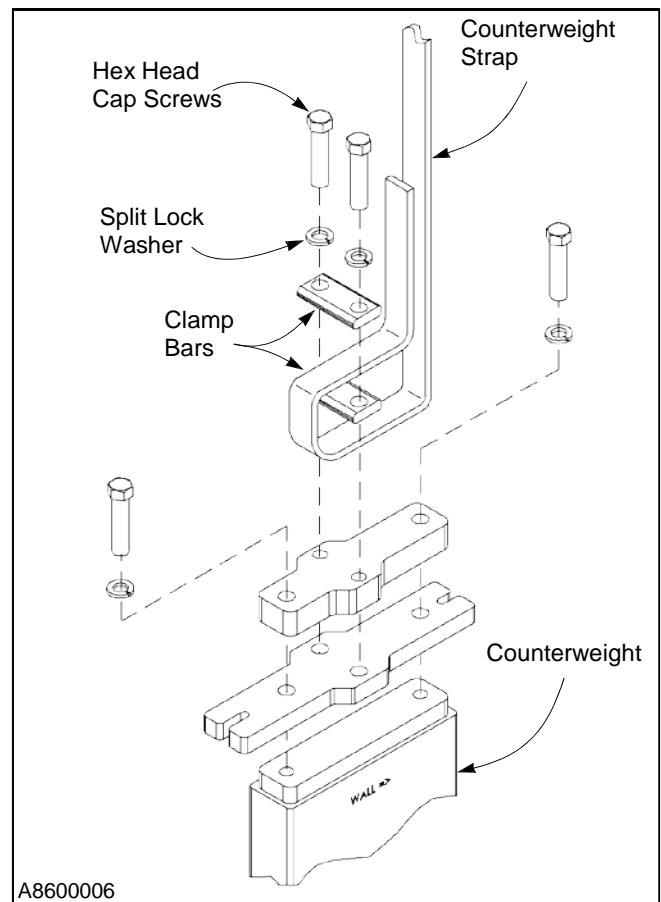


Figure 20

11. Tighten the clamp bars to secure each strap. Then carefully remove the support block out from under each counterweight to allow the weights to hang free. If necessary, readjust the straps.

INSTALLATION—DOOR SEALING

12. After all adjustments are complete, cut off any excess strap to within 6 in. of the upper clamp bar. Use tape or a tie strap to attach the loose end of each strap to the main length of strap.
13. Secure bottom guide plate to the counterweight with two $\frac{3}{8}$ -16 UNC x $1\frac{3}{4}$ hex head cap screws and $\frac{3}{8}$ in. split lock washers.
14. Attach the side column covers using the saved hardware.

DOOR SEALING

Caulk the side columns and head assembly where they meet the wall.

IMPORTANT: Use caulk as directed on instructions. Improper wall preparation may result in poor adhesion.

CONTROL PANEL AND ELECTRICAL CONNECTIONS

Once the door has been assembled, see the Rytec System 4 Drive & Control Installation & Owner's Manual for information on control panel installation, electrical connections, door limit settings, and initial door start-up procedure.

NOTE: If a floor loop is used, all wiring from the fused disconnect to the control box and from the control box to the motor mount side column, as well as conduit running from the control box to the floor, is provided by the door owner/installer or the electrician. All wiring and conduit must meet all local and state codes. Wires provided with the door are labeled with terminal or contact numbers.

OPEN AND CLOSE LIMIT DOOR POSITIONS

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

The close limit position should be adjusted so that the door travel allows the yellow vinyl loop on the bottom bar to gently seal against the floor. (See Figure 21.)

DO NOT allow the rubber reversing edge, enclosed in the yellow vinyl loop, to come in contact with the floor.

CAUTION

Damage to the rubber reversing edge or other bottom bar parts can occur if the door seal is allowed to seal too tightly against the floor.

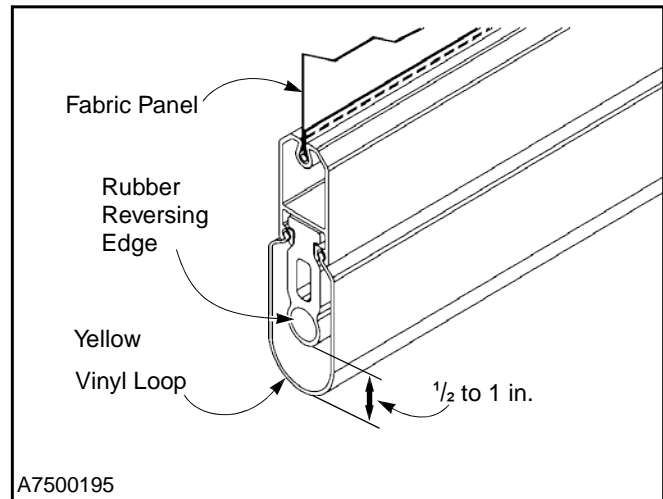


Figure 21

Open Limit Position

When the door is knocked out of position, the System 4 Drive and Control takes over and will raise the tabs high enough to be reinserted into the side columns. The open limit switch should be adjusted so that the door travel allows a minimum of half the plastic breakaway tab into the yellow channel guides of each side column. (See Figure 22.)

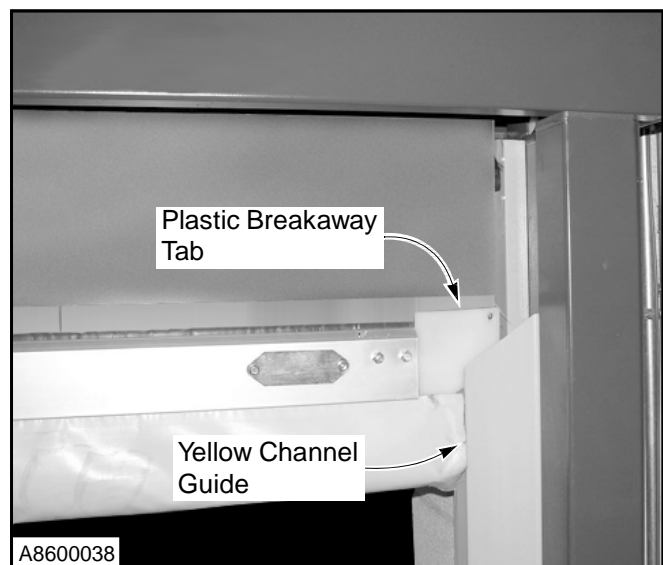


Figure 22

REVERSING EDGE SWITCH INSPECTION AND ADJUSTMENT

⚠ WARNING

Do not stand under the door panel when testing the reversing edge. If the reversing edge switch is not working properly, the panel could strike personnel and cause injury.

To check the reversing edge switch, run the door through the down cycle. As the door is lowered, tap the bottom of the reversing edge. If the switch is working properly, the door will immediately reverse direction and run to the open position. Push the control panel push-button to close the door after the check is completed.

If the door does not reverse direction, check the air bleed and sensitivity of the reversing edge switch.

Reversing Edge Switch Air Bleed Check

⚠ WARNING

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

1. The reversing edge switch is located inside the bottom bar assembly, on the end opposite the drive motor. To inspect and adjust the switch, remove the access cover from the face of the bottom bar assembly. (See Figure 23.)

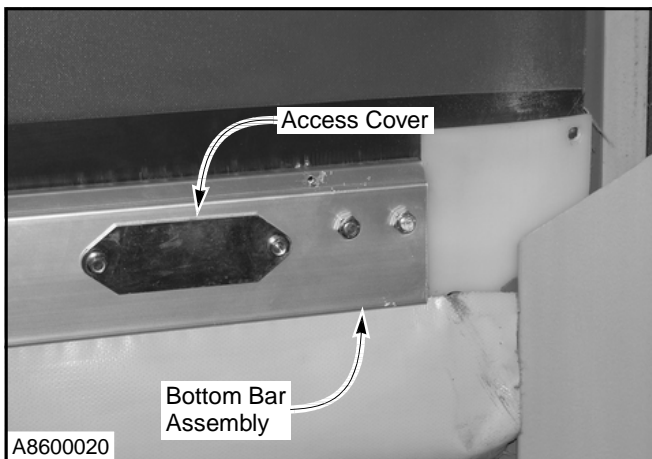


Figure 23

2. 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. Also make sure the hose is not kinked. (See Figure 24.)

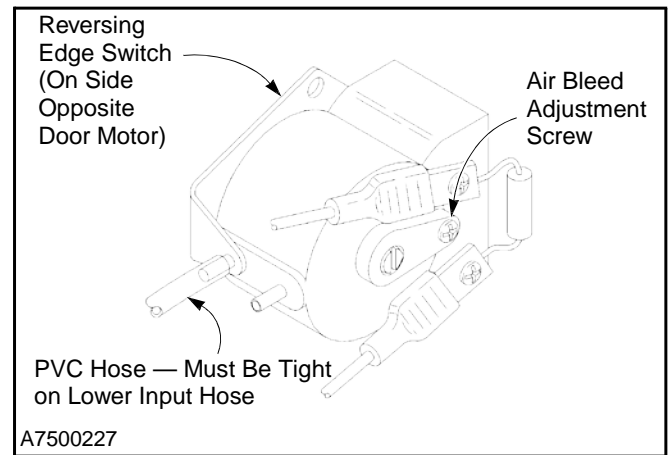


Figure 24

3. The air bleed has been set at the factory and should not require adjustment. If adjustment is necessary, turn the air bleed adjustment screws located on the front and back of the switch fully clockwise — but do not overtighten. Then turn each screw back (counterclockwise) one full turn.

Reversing Edge Switch Sensitivity Adjustment

⚠ WARNING

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

1. 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 25.)

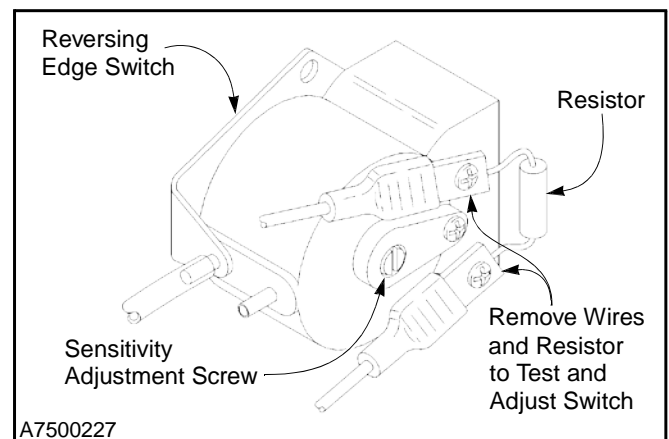


Figure 25

INSTALLATION—KILL SWITCH CHECK AND ADJUSTMENT

2. Turn the sensitivity adjustment screw, located on the face of the switch, clockwise or counterclockwise until continuity is achieved. Then adjust the screw a three-quarter turn counterclockwise. Adjusting the screw counterclockwise decreases sensitivity, clockwise increases sensitivity. (See Figure 25.)
3. Reattach the wires and resistor, then replace the access cover.

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

KILL SWITCH CHECK AND ADJUSTMENT

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

Kill Switch Check



Take precautions to prevent the door from being operated when performing the following procedure.

1. Move the door to approximately head or chest height and then stop the door.

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.

2. Push the breakaway bottom bar out of the side column. Door should not operate until **door** panel is reset. (See Figure 26 and Figure 27.)

If the kill switch did not operate properly: Adjust the kill switch and then recheck it. (See "Kill Switch Air Bleed Adjustment" on this page.)

If the kill switch operated properly: Reinstall the bottom bar into the side column. (See "RESETTING BOTTOM BAR" on page 13.)

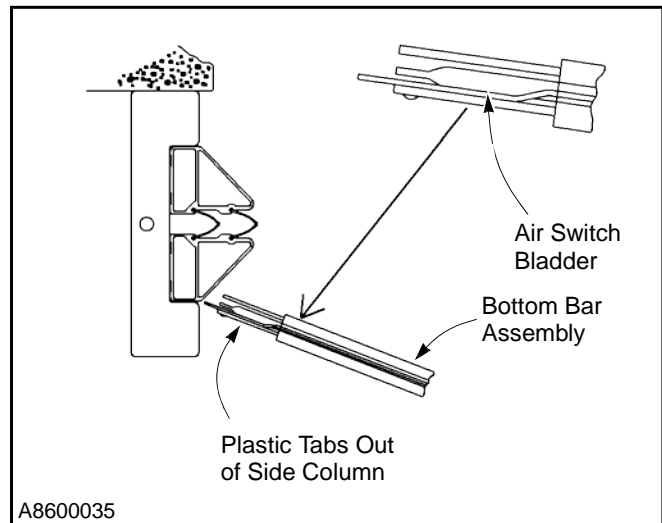


Figure 26

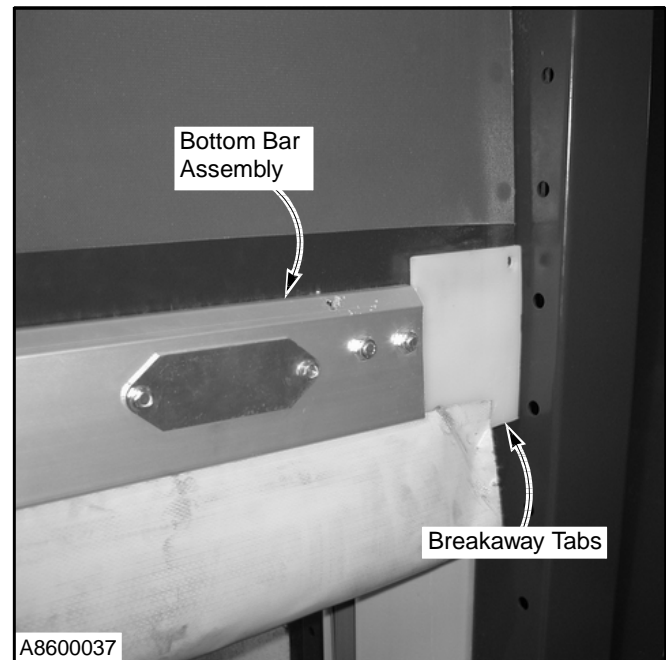


Figure 27

Kill Switch Air Bleed Adjustment

1. The kill switch is mounted in the bottom bar assembly, on the end below the door motor. To access the switch, first remove the RY-Wi cover. (See Figure 28.)

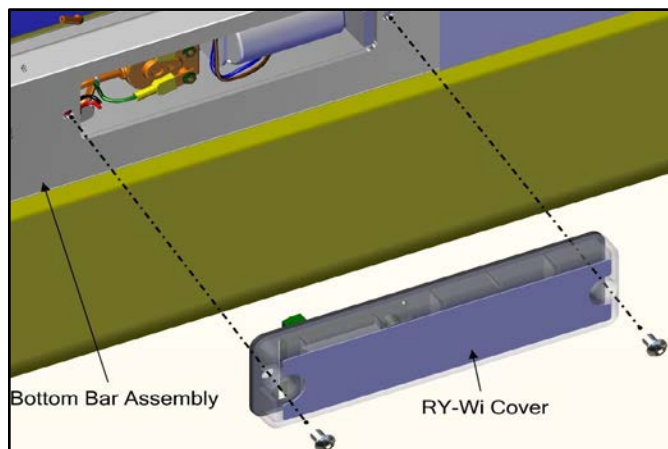


Figure 28

2. Make sure the clear PVC hose is tight on the air input post so that air leakage cannot occur and vibration will not cause the hose to fall off. Also make sure the hose is not kinked. (See Figure 29.)

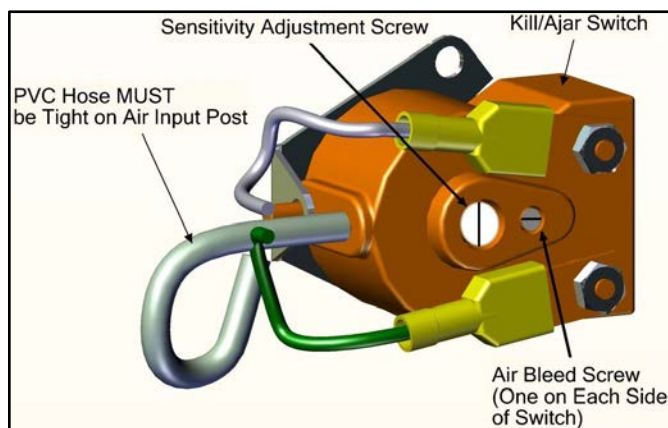


Figure 29

3. The air bleed has been set at the factory and should not require adjustment. If adjustment is necessary, turn the air bleed adjustment screws located on the front and back of the switch fully clockwise — but do not overtighten. Then turn each screw back (counterclockwise) one full turn. (See Figure 29.)

Kill Switch Sensitivity Adjustment

The kill switch assembly is a normally closed contact. The PVC hose is on the upper air input post.

1. Remove the wires from the contact terminals and attach an ohmmeter across the two terminals. (See Figure 30.)

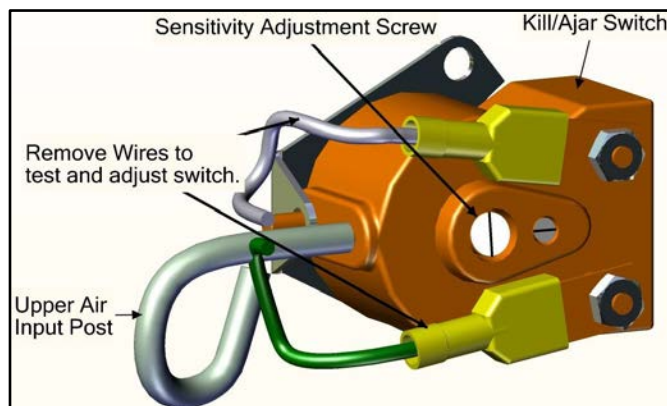


Figure 30

2. To adjust the switch, turn the small adjusting screw located on the face of the switch clockwise or counterclockwise until continuity is achieved. Then turn the screw two turns clockwise for final adjustment. Adjusting the screw clockwise decreases sensitivity, counterclockwise increases sensitivity. (See Figure 30.)

3. Reconnect the wires onto the switch. Replace the access cover on bottom bar.

NOTE: If the kill switch is set too sensitive, it may cause the door to stop during the opening or closing cycles. If this occurs, readjust the kill switch sensitivity setting.

RESETTING BOTTOM BAR

The Turbo-Seal Self Repair door is a fully automated self resetting door. After a strike and a clear sensor path, the door will automatically reset the bottom bar. The process goes as following:

1. The breakaway tabs have popped out of the side column's channel due to impact. (See Figure 31.)

NOTE: Should the door panel have been damaged during the impact, remove the door from service and repair. If you have any questions, contact your Rytec representative or call the Rytec Technical Support Department at 800-628-1909.

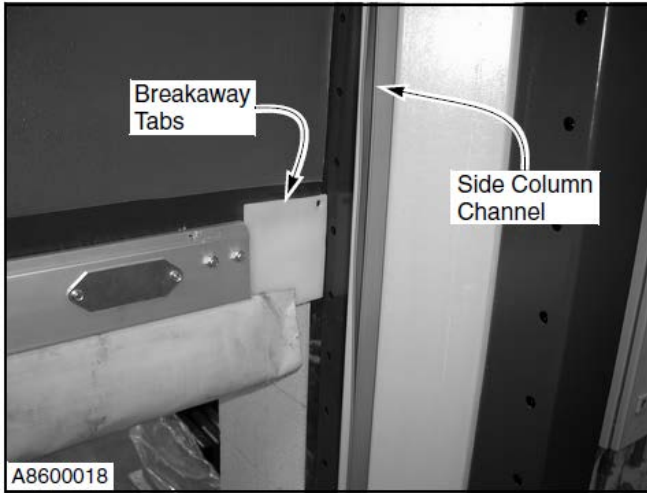


Figure 31

2. The door panel will momentarily pause then execute the reset procedure.
3. The door panel's breakaway tabs will roll upward above the side columns' channel. (See Figure 32.)

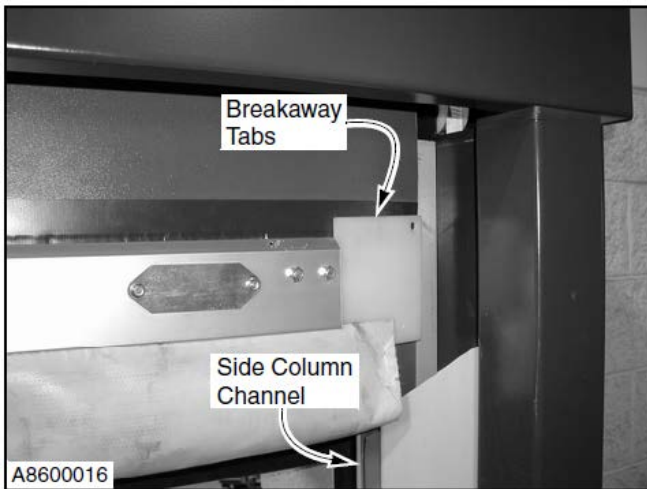


Figure 32

4. The photo eye senses if the path is clear from any obstructions.
5. Then the door panel will guide itself into the channel and resume normal operation. (See Figure 33.)



Figure 33

NOTE: There is no indicator, (light or horn) to signal that the door is in the repair mode, the display will read "I:060 Ajar Repair". If the customer requires a signal device it can be added to the system.

The door function is fully automatic, it will reset, rise to the open position, and reinsert the bottom bar according to factory installed parameters. Cycling the door and checking for proper door operation is not required unless prescribed, but an occasional test of the self repair system would ensure its proper operation. Should slight adjustments of the door be needed, please contact Rytec Technical Support at 1-800-628-1909.

PHOTO EYES

There are two sets of photo eyes in the side columns. One in front of the brush seal and one behind. Each set contains an emitter and receiver module. The mounting brackets and conduit for photo eyes are built into the side columns and head assembly. The photo eyes as the door is closing will reverse the direction of the door and hold it in the fully open position until the interruption is removed.

NOTE: The cables and photo eyes are pre-installed in the side columns at the factory. The receiver module can be identified by the two small lights, one yellow and one green. The emitter module has only a green light. The yellow alignment light will be lit when the photo eyes are aligned. (See Figure 34.)

When installing and routing the cables, allow plenty of slack in the lines so they hang loose without strain.

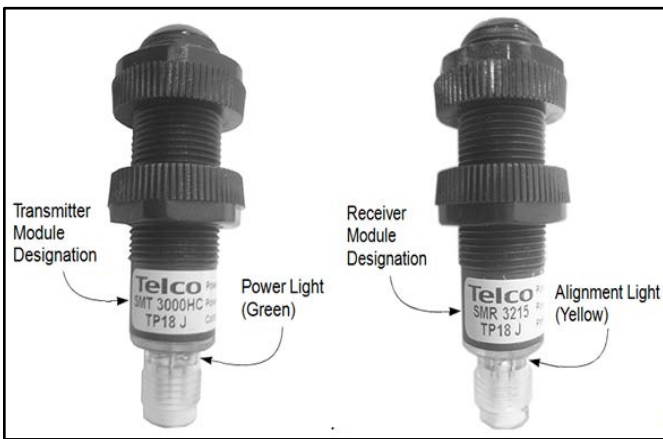


Figure 34

1. Locate cables in the right side column. One end of the cable should be routed through the conduit and connected to the photo eye. The opposite end should be routed to the junction box.
2. Route front cable through top of side column and into head assembly. (See Figure 35.)

NOTE: Left side column shown.

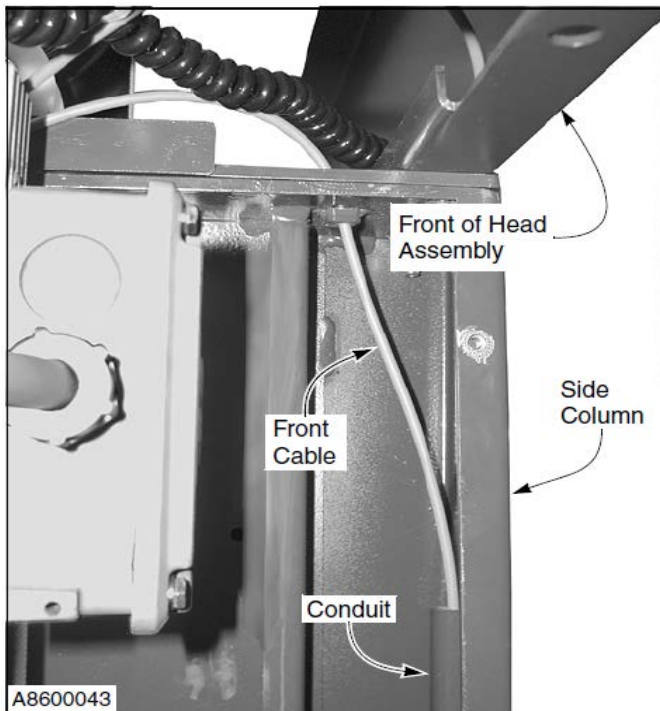


Figure 36

3. Route cable through the front conduit of the head assembly. (See Figure 36.)

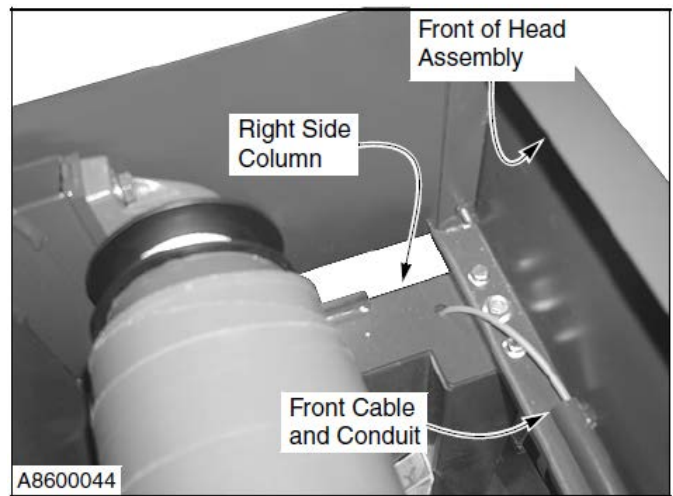


Figure 36

4. Route rear cable through top of side column and into head assembly.
5. Route cable through the rear conduit of the head assembly. (See Figure 37.)

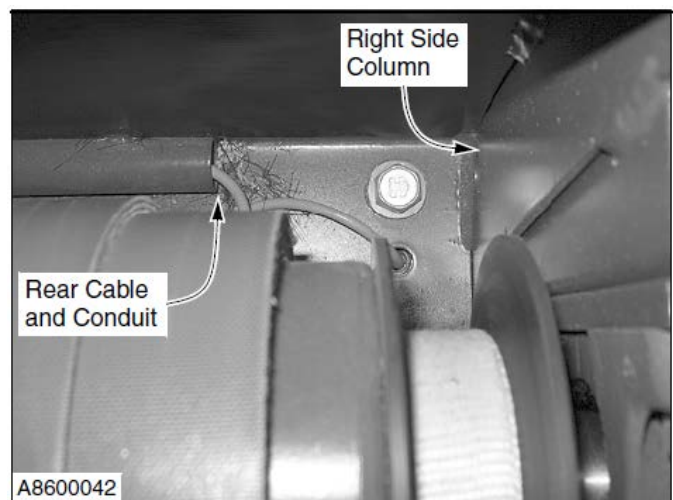
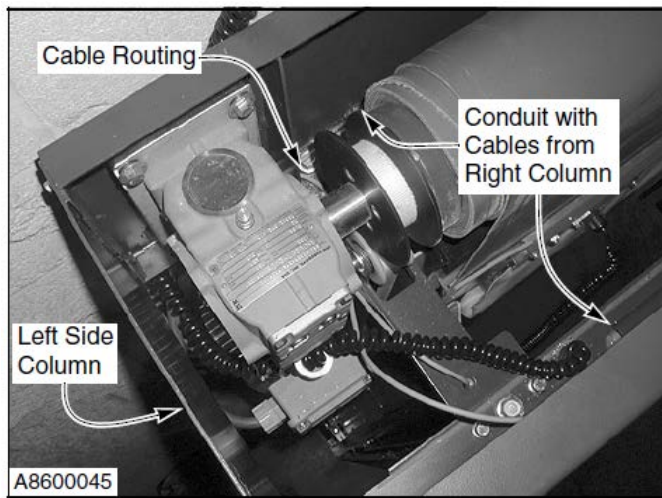


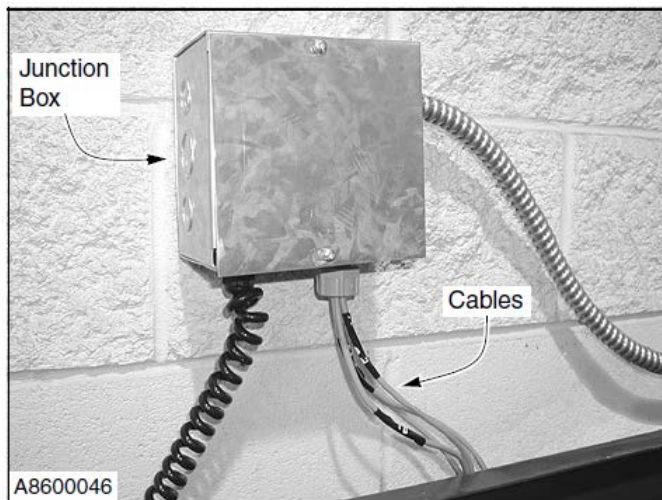
Figure 37

6. Route left cables through top of column and into head assembly. (See Figure 38.)



7. Route all four cables to junction box. (See Figure 39.)

*NOTE: Be sure to route cables away from all moving parts.
Use cable ties as required.*



8. Connect cables to junction box. Use schematics provided in the System 4 control box.

FINAL CHECKS

FINAL CHECKS

NOTE: Check all of the following door components and systems once the door panel has been cycled at least 20 times.

Side Columns: Check that side columns are plumb and square and that all anchor bolts are secure and tight.

Head Assembly: Check that all mounting hardware is in place and tight.

Bottom Bar: Smoothly travels up and down within the side columns.

Limit Positions: Adjusted properly. Up and down travel of the door should be as described in "OPEN AND CLOSE LIMIT DOOR POSITIONS" on page 10.

Motor: Check that the door travels in the proper direction when the button is pressed.

Reversing Edge: Works properly. As the door is closing, if the reversing edge makes contact with an object, the door should immediately return to the fully open position as described in "REVERSING EDGE SWITCH INSPECTION AND ADJUSTMENT" on page 11.

Timers: Automatic timers must be set to ensure that the door closes properly, as described in the Rytec System 4 Drive & Control Installation & Owner's Manual.

Activators: Operate as specified by manufacturer.

Caulk: Ensure that the side columns and head assembly are caulked where they meet the wall of the building.

Counterweight Straps: Check the routing of all counterweight straps as indicated in Figure 19. Ensure that the straps are in full contact with all rollers.

Counterweights: Counterweights should be adjusted as shown in Figure 15. Adjust if necessary.

Kill Switch: When the bottom bar assembly is separated from either end bracket, the kill switch must operate as described in "KILL SWITCH CHECK AND ADJUSTMENT" on page 12.

Photo Eyes: Make sure the photo eyes are working as described in "DAILY INSPECTION" on page 6 in the Turbo-Seal Self Repair Owner's manual.

