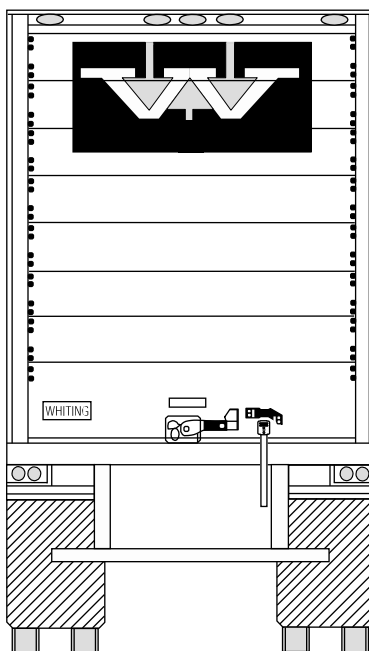




## Roll-Up Door Maintenance Guide



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GENERAL OFFICE:  
113 CEDAR ST.  
NEW YORK  
716 - 542 - 5427  
FAX: 716 - 542 - 5947

BRANCH:  
311 W. VALLEY BLVD. AKRON,  
RIALTO, CALIFORNIA PHONE:  
PHONE: 909 - 877 - 0120  
FAX: 909 - 877 - 9180

**Caution - work on doors and related parts can, in some cases, be dangerous. Any person not experienced and trained in roll up truck door repairs and installation, should consider leaving the work to those who are. Serious injury could result.**

## **Cable Replacement on Two Spring Type Balancer**

One of the most important procedures to remember about a two spring Whiting balancer is that it is worked on with the door open. In order to change cables on this style balancer assembly proceed as follows:

1. Open door.
2. Push door back into horizontal track so that bottom panel is approx. 16" from header. Two men will be needed for this.
3. Securely place a clamp in each track, just below the bottom roller. As a point of safety, make certain that clamps are tight on tracks.
4. Determine what type of installation you have, either a standard or a shallow header. In a standard header the balancer is clearly visible. The header will measure at least 6", whereas in a shallow header the balancer is somewhat concealed, rather difficult to work on and header measures approx. 5".
5. Using a 7/16 " box wrench, loosen two set screws in winding cone.
6. Make sure spring assembly is free and can spin easily on shaft.
7. Wind new cable onto cable drum. Make certain that the cable follows the grooves as it is possible to install them backwards! In a regular installation, cable comes off the bottom of drum. In shallow header, cable comes off the top of drum.
8. Begin winding balancer by inserting bar into winding cone and pulling down for standard installation, or by pushing up in a shallow header.
9. Start counting turns as soon as the cone rotates. 3 1/2 to 4 turns would be correct.
10. After the correct turns have been applied, tighten both set screws securely.
11. Carefully remove both clamps in the tracks.
12. Lower door and test. A properly balanced door should not fly open, nor fall closed.

## **Panel Replacement - Removable Roller Cover Type Bottom Panel**

1. Close door until bottom panel is approx. one inch from sill.
2. Using "C" clamps, securely clamp cables to the posts.
3. Remove cables from bottom panel.
4. Place two clamps in track above panel to be changed. These clamps will prevent the upper panels from dropping when bottom panel is taken out. To do this, clamps are positioned below the roller.
5. Remove roller covers of bottom panel, four places.
6. Remove rollers.
7. Drill out all rivets on panel.
8. Remove panel.
9. Insert new panel.
10. Install bottom rollers, two places.
11. Connect cables to new panel.
12. Remove upper clamps installed in step 4.
13. Remove clamps on cables.
14. Drill new panel for fasteners.
15. Raise door slightly and insert new fasteners.
16. Tighten fasteners.
17. Install rollers and spacer washers at first joint.

## **Panel Replacement - Removable Roller Cover Type Intermediate Panel Removal**

1. Close door and lock.
2. Place two clamps in track above panel to be changed. These clamps will prevent the upper panels from dropping when panel is taken out. To do this, clamps are positioned below the roller.
3. Remove roller covers of panel to be changed.
4. Remove rollers.
5. Drill out all rivets on panel.
6. Lift up on door slightly and remove panel.
7. Insert new panel.
8. Drill new panel for fasteners.
9. Lift up on door slightly, again, and tilt back new panel.
10. Insert new fasteners.
11. Reinstall new panel.
12. Tighten fasteners, open door.

## **Balancer Replacement (Two Spring Type)**

One of the most important procedures to remember about a two spring Whiting balancer is that it is worked on with the door open. In order to remove this style balancer assembly proceed as follows:

1. Open door.
2. Push door back into horizontal track so that bottom panel is approx. 16" from header. Two men will be needed for this.
3. Securely place a clamp in each track, just below the bottom roller. As a point of safety, make certain that clamps are tight on tracks.
4. Determine what type of installation you have, either a standard or a shallow header. In a standard header the balancer is clearly visible. The header will measure at least 6", whereas in a shallow header the balancer is somewhat concealed, rather difficult to work on and header measures approx. 5".
5. Place a 3/8" x 12" bar into one of the winding cones located near center of balancer shaft.
6. Using a 1/2" wrench, remove both nuts which hold the clamp onto the center balancer bracket.
7. While holding spring tension on bar with one hand, remove clamp. Note, with a standard header, spring tension will be in the direction to cause bar to go up. With a shallow header, tension will cause bar to go down.
8. With another bar, walk tension off of springs by either using alternate winding cones, or the same cone. Another method would be to use just one bar and an open end wrench on squared portion of balancer shaft.
9. Once all tension has been removed, unhook both cables from cable drums and remove cotter pin nearest to end of balancer shaft.
10. Shift balancer to the side and withdraw from bracket. If sufficient travel is not possible, loosen set screws from spring assembly, slide spring towards center and then withdraw.

**In order to replace this style balancer, proceed as follows:**

1. Remove both cables from door and install onto cable drums. Make certain that the cable follows the grooves as it is possible to install them backwards! Wind cable onto drum leaving approx. 12" of cable out. Secure cable by winding 4 or 5 layers of masking tape on cable as it leaves drum.
2. Install a cotter pin in balancer shaft hole farthest from end. Remember to set the cotter pin properly. If not, it could interfere with drum rotation.
3. Install shaft into brackets. In standard header, red end goes on roadside. In shallow header, red end goes to the curbside.
4. Install and set cotter pin closest to end of shaft.
5. Connect cables to door.
6. Begin winding balancer by inserting bar into winding cone and pulling down for standard installation, or by pushing up in a shallow header.
7. Start counting turns as soon as the cone rotates. 3 1/2 to 4 turns would be correct.
8. After the correct turns have been applied, insert center clamp over the bracket and tighten both nuts securely.
9. Carefully remove both clamps in the tracks.
10. Lower door and test it. A properly balanced door should not fly open, nor fall closed.

### **Door Removal and Replacement (Removable Hinge Cover Type) Standard Method - Dry Freight and Insulated**

Before door work can begin the unit must be empty and clear of all obstructions  
Check for these potential problems:

- end of horizontal track covered by sidewall liner, racks, shelves, etc.
- refrigeration unit at end of track
- ceiling not flat ( low spots )
- lights in ceiling
- sidewalls narrower than wall to wall where tracks are located
- unit loaded with freight

If any of the above conditions exist, see alternate.

**Hint: it may be easier to replace a door when working at the same level as the truck or trailer, such as from a loading dock.**

### **Standard Removal Procedure: (3 men necessary)**

1. Open door
2. Pull door back until bottom panel is approx. 16" from header.
3. Securely place a clamp in each track, just below the bottom roller. As a point of safety, make certain that clamps are tight on tracks.
4. While pulling slightly on one cable, place a 5/16" x 3" bolt into one of the holes in cable drum. This will hold the small amount of spring tension present when the door is in the open position. Repeat procedure with other side.

5. Disconnect cables from door.
6. Place a clamp on each cable. This small weight will keep them from jumping off the drum and becoming tangled.
7. Remove both rubber track stops. NOTE: if your truck is not on level ground, the door could begin to roll towards the end of the track. For precaution, place a clamp in the track, just before the stop area.
8. Separate the door into 2 halves. (In the case of a 2 1/8" ColdSaver, tall doors are split into three parts in order to make it more manageable) This is done by drilling out the top 2 hinge rivets, or removing the nuts. It may be easier to perform this step before step 1, but it is safer to do it here. Be careful however, as the panel will swing down as soon as the last fastener is released.
9. In trailers, you will need two ladders. Position them near ends of horizontal tracks.
10. Remove clamp in horizontal track, installed in step 7.
11. Using three men, roll top half of door out of tracks. First man is positioned between tracks and supports panels when in reach. Each of the other two men grab last panel as it comes out of their track and walk down their ladder.
12. Beginning by holding door horizontal, tip it up on one end. Rollers on that end will then fall out.
13. Place both ladders on the same side of truck or trailer.
14. Carry door section out of unit, tilting it slightly to get by ladders and rear frame.
15. Repeat with lower section(s).

### **Standard Replacement Procedure:**

1. Take bottom section into unit, face up, break joint first and stand on end.
2. Reposition ladders.
3. Tip one end of door down slightly and install rollers, taking care to put 3 spacer washers at the first joint.
4. Lower door to horizontal, face up, placing rollers against side wall . Slide that side down wall to floor.
5. Repeat with opposite side.
6. Using the same techniques as in removal, install bottom rollers into tracks. Hint,each man on the ladders is to be facing his wall, concentrating on his own roller. Man in the center is to support door and push slightly. If this is not done,each person might work against the other.
7. Repeat with top section.
8. Install rubber track stops and fasteners.
9. Install top roller and adjust to approx. same position as removed door.
10. Bring both upper and lower sections together. If joined by step bolts, bolt now. if riveted, temporary clench them so that top section follows bottom when closed for the first time.
11. Move door down horizontal tracks and connect both cables.
12. Pulling slightly on cable, remove temporary bolt in cable drum installed in step 4 of removal. Repeat with opposite cable.
13. Remove clamp in track and close door.
14. Check door operation.

**Approximate time required for removal and replacement, 3/4 hr.**

### **Door Removal and Replacement (Removable Hinge Cover Type) Alternate Method**

**This method can be used to change a door when only a small amount of space is available. A minimum of 3 feet is necessary behind the door. It is also used when the horizontal track is obstructed or covered.**

Hint: it may be easier to replace a door when working at the same level as the truck or trailer, such as from a loading dock.

### **Alternate Removal Procedure: (3 Men Necessary)**

1. With door in the open position, remove top closure brackets (adjustable part that holds roller(s)).
2. Separate door into two halves. This is done by drilling out the top 2 hinge rivets, or by removing the nuts at the break joint. Two men are now inside truck. Note: if the break joint is not accessible with the door fully open (due to freight, pocket ceiling, etc.), close door slightly.
3. Place clamps securely in tracks to prevent top section of door from coming down. As a point of safety, make certain that clamps are tight on track.
4. Close door and lock.
5. While man on outside pulls on a cable, a 5/16 x 3" bolt is temporarily inserted into hole in cable drum. When cable is released, this bolt maintains tension on spring. Repeat on opposite side.
6. Remove all rollers down one side of door on lower section. This can be done in several ways:
  1. Remove nuts & roller covers
  2. Cut roller shafts with a torch
  3. Cut section in half
7. Unlock door.
8. Using remaining rollers as a pivot, swing lower section towards inside.
9. When edge of door is approx 6" away from wall pull door away from remaining rollers. At this point, either the roller shafts will come out of the hinges or the rollers will fall out of the track. As a point of safety, when this occurs there is nothing to stop the door from folding up. PINCH POINT. Lean door back slightly to prevent this, if you wish.
10. To lower top section, release clamp in track and push down. As a point of safety, position ladder away from rear frame as first panel (no hinge) may kick back. Also, remember that top panel has no top roller and is hanging down.
11. Once top section has been lowered, repeat roller removal as with bottom section.
12. Carry top and bottom sections from unit.

### **Alternate Installation Procedure: (3 Men Necessary)**

1. Remove end hinge covers on one edge.
2. Carry top section into unit in its normal horizontal position, except at a 45 degree with the track.
3. Insert rollers into end hinges taking note to place 3 spacer washers at the top break joint.
4. Slide door close to track so that the rollers are inserted.
5. Rotate door into closed position.
6. Raise section into horizontal and secure with a clamp in track.
7. Repeat procedure with bottom section.
8. Connect cables to bottom panel.
9. Lock door.
10. Remove temporary bolt in cable drums by pulling on cable from outside.
11. Raise bottom section and connect to top section.
12. Install top closure brackets.
13. Test door.