

# Operational & Maintenance Nanua

**Products:** 

Installation Site

Contractor

Architect

Distributor



Dear Customer:

Thank you for choosing [ $` | AS[ \{ ] a \} ` As your custom door installation specialist.$ 

The Operation and Maintenance Manual, which is enclosed, has been supplied by Overhead Door Corporation to meet your needs as our customer. Appropriate information for the products installed has been compiled in this manual for your use. We recommend compliance with all of the safety information provided within the manual.

We strongly recommend implementing a preventative maintenance program. Benefits of properly maintaining your door system include:

- Increased operational efficiency and reliability.
- Extended useful life of your equipment.
- Increased probability of dependable equipment performance.
- Elimination of non-budgeted maintenance cost for door service.

As an Overhead Door distributor, we offer you complete product support for your service and maintenance needs. Do not hesitate to call us for assistance.

We hope that you will also continue to consider  $[ \ AS[ \{ ]a \}^{a} ]$  for your future product and installation needs. We are firmly committed to providing the finest in Overhead Door products, accessories, and a level of customer support unmatched in the industry.

Sincerely,



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# GENERAL INFORMATION



#### **OVERHEAD DOOR CORPORATION**

Overhead Door Corporation, based in Dallas, Texas, is a leading single-source manufacturer of integrated door and operator systems for commercial and residential applications.

Overhead Door is the door solutions provider that delivers expert service and the highest level of performance and reliability. Our comprehensive product line encompasses a wide variety of commercial door solutions including: commercial operators, commercial sectional and rolling service doors, advanced performance rolling doors, and security grilles.

With our nationwide network of more than 400 authorized distributors, we are a leading provider of overhead and garage door systems, and we continue to lead the way with reliable solutions and unmatched professional installation, service and support that keeps customers coming back. The brand trusted for over 90 years, Overhead Door gives home and business owners confidence and peace of mind.



#### To locate a distributor:

From the United States, call 1-800-929-3667 (DOOR) International: 1-717-248-0131 http://www.overheaddoor.com/Pages/distributor-locator.aspx

#### **Contact Information:**

Overhead Door Corporation 2501 S. State Hwy. 121, Suite 200 Lewisville, TX 75067 Telephone: 1-800-275-3290 www.overheaddoor.com



# PREVENTATIVE MAINTENANCE



## **BENEFITS OF PREVENTATIVE MAINTENANCE PROGRAM**

- Increase operational efficiency, safety and reliability
- Extend useful life of your equipment
- Reduce probability of equipment malfunctioning
- Decrease costly downtime
- Decrease long-term repair expense
- Priority scheduling for service
- Establish relationship with experienced, service-oriented professionals



## **RECOMMENDED PREVENTATIVE MAINTENANCE**

To keep door in good working condition:

#### Every three months<sup>1</sup>

- Oil all moving parts except the clutch mechanism on fire doors and the wool pile in the guides on rolling grilles or counter doors. The guides should be lubricated with a paste wax or silicone spray.
- If electrically operated, check the operator gear reducer for oil leakage. If it is necessary to add oil, use Mobile Synthetic Oil (AGMA 7 #SHC 75W90).
- Check the tension of the roller chain between the operator and the door sprocket (see Figure A). If too loose, loosen the operator mounting bolts and slide the operator to tighten the chain (see Figure B). Retighten the operator mounting bolts.
- Oil the interior roller chain on operators without gear reducer.

#### Every six months<sup>1</sup>

- Oil all exposed roller chains, and on electric operators, dry lube the limit switch shaft threads.
- All bearings provided with grease fittings should be lubricated. If so equipped, find bearings located in the drive bracket and tension end of the counterbalance.
- Fire doors should be drop tested unless more frequent testing is required by other codes. Always use the Drop Test Instructions located inside the tension headplate cover.
- On crank operated doors and grilles, the crank assemblies are sealed with grease and should not require lubrication.

<sup>1</sup> The above frequency of maintenance is for normal operation. Severe duty or unusual operating conditions may require modification of the times between maintenance.



A+B must equal more than 1/4"

Figure A



Figure B



## TROUBLESHOOTING GUIDE FOR ROLLING SERVICE DOORS

- 1. DOOR IS HARD TO RAISE BUT EASY TO LOWER.
  - SOLUTION: Springs require more turns. Raise door to fully opened position and add spring tension (1/8 turn at a time) until the same resistance is felt lowering the door as is felt raising the door. Adjust tension wheel with steel winding bards 3' long and diameter  $\frac{1}{2}$ " or  $\frac{3}{4}$ ".
- 2. DOOR IS HARD TO LOWER BUT EASY TO RAISE.
- SOLUTION: Springs require fewer turns. Raise door to fully opened position and remove spring tension (1/8 turn at a time) until results listed in example 1 are achieved.
- 3. DOOR HANGS UP AT ENTRANCE INTO GUIDES.
  - a. Bellmouths might be out of position away from the headplate allowing endlocks to wedge. Loosen attachment nut and locate edge of bellmouth snug against headplate and tighten.
    - b. Endlocks might have become loose and tilted out of position. Drill out loose fasteners and reattach with suitable fastener.
    - c. Curtain might have been bent and damaged enough to wedge in guides. In some cases the bellmouths can be removed from the guide entrance and the curtain lowered outside of the guides and straightened. Be careful not to allow curtain to rapidly unwind off the counterbalance.
- 4. ELECTRIC OPERATOR STOPS TOO SOON; DOES NOT REACHT THE OPEN OR CLOSED POSITION.
  - SOLUTION: Operator limit switch setting has become out of phase with the door. Reset the limit switches. See operator installation instructions for method of resetting limits.

#### OPERATOR DOES NOT RUN. SOLUTION: a. Verify that e

- a. Verify that electric power is available to the operator.
- b. Verify 24 VAC control voltage form operator transformer.
- c. Verify condition of hoist interlock switch.
- d. Verify condition of slidebolt interlock switch.

SOLUTION:

# Overhead Door Corporation ROLLING FIRE DOOR DROP TEST FORM AND ANNUAL INSPECTION

NOTE TO OWNER: NFPA-80 requires the annual testing of rolling fire doors to demonstrate proper and full closure. Resetting of the release mechanism must be done in accordance with the manufacturer's instructions. A written record must be maintained and made available to the authority having jurisdiction. NFPA-80 also requires that when damage impairs the door's proper emergency function, that it be repaired with parts obtained from the original door's manufacturer and upon completion of repairs that the door be tested to assure emergency operation and closing.

#### **WARNING:** SEVERE INJURY OR DEATH MAY RESULT THROUGH IMPROPER ATTEMPTS AT DROP TESTING, REPAIR AND/OR MAINTENANCE.

Drop testing, repair and/or maintenance should be performed by qualified personnel with a complete knowledge and understanding of this type of door. Before drop testing, conduct a visual inspection for damaged or missing parts that may create a hazard during testing or affect proper operation or resetting. Verify proper installation. Open and close the door to check for correct spring tension. ADDITIONAL INFORMATION ON DROP TESTING IS PROVIDED ON THE REVERSE SIDE OF THIS FORM, IN THE MANUFACTURER'S INSTALLATION/RESET INSTRUCTIONS, AND IN NFPA-80.

| PROJECT | CONTACT PERSON |
|---------|----------------|
| ADDRESS | PHONE          |
|         | DATE           |

| Door # Location | Door Size | Door       | U.L.<br>Tag No. | Visual C | heck | Operation | n Check | Reset C | heck |
|-----------------|-----------|------------|-----------------|----------|------|-----------|---------|---------|------|
|                 |           | Serial No. |                 | Pass     | Fail | Pass      | Fail    | Pass    | Fail |
| 1.              |           |            |                 |          |      |           |         |         |      |
| 2.              |           |            |                 |          |      |           |         |         |      |
| 3.              |           |            |                 |          |      |           |         |         |      |
| 4.              |           |            |                 |          |      |           |         |         |      |

New Installation \_\_\_\_\_ Annual Check \_\_\_\_

COMMENTS AND RECOMMENDED WORK (new form needed when work is completed)

| Door #1 |  |  |  |
|---------|--|--|--|
| Door #2 |  |  |  |
| Door #3 |  |  |  |
| Door #4 |  |  |  |

The doors listed above (noted as "passed" for the drop test) have been installed in accordance with the manufacturer's installation instructions. The automatic release device has been tested to demonstrate proper operation and full closure. They have been reset in accordance with the manufacturer's reset instructions and left in proper working condition, unless otherwise noted above.

| TESTED BY | WITNESSED BY                             |
|-----------|--|
| COMPANY   | REPRESENTING                             |
| ADDRESS   | SIGNATURE                                |
|           | RECOMMENDED WORK IS: Authorized Declined |
| SIGNATURE | DATE                                     |
| BY        |  |

#### SUGGESTED INSPECTION AND DROP TEST GUIDELINE ON REVERSE SIDE

# **INSPECTION AND DROP TEST GUIDELINES**

Refer to the manufacturer's installation/reset instructions and NFPA-80

VISUAL INSPECTION

# CAUTION: EVERY COMPONENT OF A DOOR AND ITS INSTALLATION MUST BE CHECKED FOR DETERMINATION OF FACTORS THAT MAY AFFECT A DOOR'S INTENDED OPERATION AND PERFORMANCE. THE LIST BELOW MAY BE INCOMPLETE AND IS PROVIDED AS A GUIDELINE ONLY.

A. Proper installation requirements

- 1. Curtain, barrel and guides must be aligned level, plumb, and true
- 2. Attachment to jambs must be with proper bolts, expansion anchors, or as otherwise required by the listing
- 3. Maintain expansion clearance (top of guides for FireKing<sup>TM</sup> Fire Door)
- 4. Fusible links must be located at top of door and within 1 foot of ceiling on both sides of wall

B. Check and repair damaged, incorrect or missing parts, such as:

- 1. Slats -bent slats, cracked beads, torn ends
- 2. Endlocks missing, broken, bent, loose
- 3. Bottom bar bent angles, loose bolts, missing washers on bolts (when required)
- 4. Guide assembly bent angles, loose bolts, missing galvanized washers or bolts (when required), curtain entry or debris in guide
- 5. Hood and flame baffle (when baffle required) bent, rubbing curtain in open position, holes, tears. Attachment to brackets and wall (when required), intermediate supports (when required)
- 6. Brackets and operating mechanisms worn, misaligned or badly meshed gears, sprockets or chains, broken parts, and bent shafts
- 7. Automatic closing and governor mechanisms missing or broken parts, drop or release arms tied, blocked, or wedged
- 8. Fusible links, sash chain, S-hooks, eyes, pulleys, etc. links painted or coated with dust or grease, kinked or pinched cable, twisted or not flexible, obstructed eyes or raceways
- 9. Mounting and assembly bolts missing or loose
- 10. Guide mounting bolts must all be in top of slot for upward expanding FireKing Fire Doors
- 11. Past replacement of parts not from the original door manufacturer "homemade" or mismatched parts are not approved and must be replaced
- 12. Check balance and spring tension of door
- 13. If chain operated, check hand chain for damaged links. Replace or repair if necessary
- 14. If motor operated, check door operating jamb sprocket and chain, adjust and lubricate as necessary; readjust limits as necessary

C. Ancillary equipment

- 1. Smoke detectors/release devices check continuity (all release devices must be tested)
- 2. Control panels check function
- 3. Miscellaneous other equipment should be checked for proper function and operation

# WARNING: SERVICING OF MOTOR OPERATOR SHOULD BE DONE BY A QUALIFIED ELECTRICIAN WITH THE NECESSARY SCHEMATICS AND PROPER KNOWLEDGE OF THE OPERATOR.

#### OPERATIONAL INSPECTION

Roll door up and down in normal operation to check for spring tension and free movement of curtain in guides.

DROP TEST

If the door does not roll up and down properly in normal operation, or if there are damaged or missing parts that will create a hazard or prevent proper operation or reset, THESE CONDITIONS MUST BE CORRECTED BEFORE CONDUCTING A DROP TEST.

Drop test per manufacturer's instructions. Drop test should provide for automatic closing of the curtain at an average speed not less than 6 inches per second, nor more than 24 inches per second, and full closure of the curtain with the bottom bar closing evenly across the floor.

Reset per manufacturer's instruction. Drop test the door a second time to verify that the reset was properly done, this is a requirement of NFPA 80. Complete drop test forms and forward copies to Overhead Door dealer and customers.

ULTIMATE ACCEPTABILITY OF A FIRE DOOR IS THE DECISION OF THE AUTHORITY HAVING JURISDICTION, AS DEFINED BY NFPA-80.



# SCOPE OF WORK FOR ROLLING DOORS AND ELECTRIC OPERATORS

For the period \_\_\_\_\_\_, 20\_\_\_, through \_\_\_\_\_\_, 20\_\_\_, the following services and inspections will be provided as part of the Preventative Maintenance Program for the rolling door(s) and operator(s):

#### **ROLLING DOORS:**

- 1) Inspect door alignment and level.
- 2) Inspect slats and endlocks for damage.
- 3) Inspect guides, bottom bar and hood for damage.
- 4) Inspect all weather-stripping for wear or damage.
- 5) Adjust spring and lubricate bearings.
- 6) Inspect and tighten fasteners.
- 7) Inspect and lubricate chain hoist.
- 8) Inspect locks for proper operation.
- 9) Inspect and tighten all sprockets and shaft collars.
- 10) Inspect safety labels, placement and condition.

#### **ROLLING FIRE DOORS:**

- 1) Inspect fuse links and replace painted fuse links.
- 2) Drop test door for proper operation.
- 3) Check that door is properly reset.
- 4) Test electric fusible links for continuity (where applicable).
- 5) Test smoke detector (where applicable).
- 6) Test hold-open devices and time delays (where applicable).
- 7) Inspect safety labels, placement and condition.

#### **ELECTRIC OPERATORS:**

- 1) Inspect and adjust limit switches.
- 2) Inspect and adjust belts.
- 3) Inspect and adjust brake.
- 4) Inspect gear reducer.
- 5) Inspect operator mounting.
- 6) Inspect and test disconnect.
- 7) Inspect and lubricate roller chain.
- 8) Inspect and tighten all sprockets.
- 9) Inspect safety labels, placement and condition.



# INSTALLATION INSTRUCTIONS



the original since 1921

# Installation Instructions for FACE MOUNTED ROLLING FIRE DOOR with FIRE MINUTEMAN HOIST GOVERNOR CONTROLLED Series 630/631/634

Rolling Fire Doors may be mounted on openings in fire walls of masonry construction and non-masonry construction.

**READ COMPLETE INSTRUCTIONS BEFORE INSTALLING DOORS** 

### SAFETY INFORMATION

#### **OVERVIEW OF POTENTIAL HAZARDS**

Overhead doors are large, heavy objects that move with the help of springs under high tension and electric motors. Since moving objects, springs under tension, and electric motors can cause injuries, your safety and the safety of others depend on you reading the information in this manual. If you have questions or do not understand the information presented, call your nearest service representative .

In this section, and those that follow, the words **Danger**, **Warning**, and **Caution** are used to emphasize important safety information. The word:

ADANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

A WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in injury or property damage.

The word **NOTE** is used to indicate important steps to be followed or important considerations.

| POTENTIAL HAZARD       | EFFECT   | PREVENTION  |
|------------------------|--|---|
| MOVING DOOR            | A warning<br>Could result in death<br>or serious injury. | Keep people clear of opening while Door is moving.<br><b>Do Not</b> allow children to play with the Door Operator.<br><b>Do Not</b> operate a Door that jams or one that<br>has a broken spring.  |
| ELECTRICAL SHOCK       | A warning<br>Could result in death<br>or serious injury. | Turn off power before removing operator cover.<br>When replacing cover, make sure wires are not pinching<br>or near moving parts.<br>Operator must be properly grounded.  |
| HIGH SPRING<br>TENSION | A warning<br>Could result in death<br>or serious injury. | <b>Do Not</b> try to remove, repair or adjust springs or anything to<br>which Door spring parts are fastened, such as wood blocks,<br>steel brackets, cables or other like items.<br>Repairs and adjustments must be made by a trained door<br>system technician using proper tools and instructions. |

A sample of the "INSTALLATION DATA" sheet is shown below. Locate the work order "INSTALLATION DATA" sheet inside the door hardware box. You will need to refer to the data on the "INSTALLATION DATA" sheet.

Factory order number on door components must match with factory order number on the "INSTALLATION DATA" sheet. Each door has individual "INSTALLATION DATA" sheet.

|  |  |  | * *                            | WORK O         | RDER                   | **           | Page  | Date                              |
|--|--|--|--------------------------------|----------------|------------------------|--------------|---|-----------------------------------|
| 0./Parent.<br>em Number.                                     |  | WO<br>Relat<br>HARDW                       | ed SO .<br>ARE                 | *****          | Qty<br>Job             | ****         | Diant<br>Lot #<br>Start Dt .<br>Drawing # ( | L7<br>Req D.<br>CONFIGURED        |
| atus   | FAX:   |  |                                | Pty.           | Туре                   |              | P.O. #                                      |                                   |
| WALL OPENING<br>GUIDE TYPE                                   | :  | WIDE<br>GUII                               | X<br>E ENTRY TYPE :            | HIGH PRDC.     | C: SLAT TYP            | PE :<br>:    | GAUGE :<br>DRIVE SIDE :                     | WINDLOAD : 20<br>DRIVE NO. :      |
| BOTTOM BAR T<br>DOOR MOUNT<br>*** DOOR SER                   | YPE:<br>IES:   | ***  | BBAR MATL.:<br>WALL MOUNT :    | :              | BBAR FINIS<br>OPERATIO | SH :<br>ON : |   | BBAR WEATHERSTRIP<br>ABBV/COLOR : |
|  |  |  |                                |                |                        |              |   |                                   |
| DOOR SERIE<br>WALL OPENI                                     | S :<br>NG WIDTH<br>TOTAL                             | WALL OPENIN<br>RELFASE                     | DOOF<br>DG HEIGHT              | R INSTALLATION | DATA:<br>S REFERENCE   | HAND I       | OPERAT                                      | ION TYPE<br>EIGHT                 |
| DOOR SERIE<br>WALL OPENI<br>INITIAL<br>TURNS                 | S:<br>NG WIDTH<br>TOTAL<br>TURNS                     | WALL OPENIN<br>RELEASE<br>TURN             | DOOH<br>DG HEIGHT<br>DRIVE NO. | R INSTALLATION | DATA:<br>S REFERENCE   | HAND E       | OPERAT                                      | ION TYPE<br>EIGHT                 |
| DOOR SERIE<br>WALL OPENI<br>INITIAL<br>TURNS<br>GUIDE<br>GAP | S :<br>NG WIDTH<br>TOTAL<br>TURNS<br>GUIDE<br>CONFIG | WALL OPENIN<br>RELEASE<br>TURN<br>MOUNTING | DOOF<br>DG HEIGHT<br>DRIVE NO. | R INSTALLATION | DATA:<br>S REFERENCE   | HAND I       | OPERAT                                      | ION TYPE<br>EIGHT                 |
| DOOR SERIE<br>WALL OPENI<br>INITIAL<br>TURNS<br>GUIDE<br>GAP | S :<br>NG WIDTH<br>TOTAL<br>TURNS<br>GUIDE<br>CONFIG | WALL OPENIN<br>RELEASE<br>TURN<br>MOUNTING | DOOF                           | R INSTALLATION | DATA:<br>S REFERENCE   | HAND I       | OPERAT                                      | ION TYPE<br>EIGHT                 |

**NOTE:** Locate the work order "INSTALLATION DATA" sheet inside the door hardware box. You need to refer to the data on that sheet. A sample of the "INSTALLATION DATA" sheet can be found on page 3 of this document.

VERIFY THAT THE DOOR INSTALLATION can be accomplished before proceeding:

- · Are the jambs suitable to hold the guides?
- Does the wall opening match the Opening Width and Height shown on the "Installation Data" sheet and Figure 1?
- Are the guides you received suitable for the jambs? Compare the guides type shown on the "Installation Data" sheet with Figure 2.
- Can the guides be installed plumb?
- Check the sill for level. If sill is not level, mark the high sill location on the low side jamb.





#### **STEP 1** INSTALL GUIDE ASSEMBLIES

- Locate the guide assemblies such that "S" dimension exists between the guides as shown in Figure 2.
- The "S" dimension is shown on the "Installation Data" sheet.
- Both guides MUST be on a level line and both guides MUST be plumb.
- The "S" dimension must be held within 1/8" over the entir e height of guides.
- · Guide assemblies are designed to rest on floor.

**NOTE:** If outside angle is flared, then unbolt the Outside Angle and the Middle Angle from the Wall Angle. They will be bolted to the Wall Angle after the curtain installation is complete in Step 11.



#### MASONRY JAMBS

Hold "Z" guide, or wall angle, or jamb angle against wall and drill mounting holes through the top of slots using drill size shown below. Install jamb fasteners on one guide. Recheck "S" distance, and continue with installation.

#### STEEL JAMBS–Screw Attachment Option

Hold "E" guide wall angle against steel jamb and mark the spot to be drilled, at top of slots or hold wall angle or jamb angle against steel jamb and drill holes through the top of slots using drill size shown below. Install all jamb fasteners on one guide. Recheck "S" distance, and continue with installation.

STEEL JAMBS-Weld Attachment Option for Face Mount Only\*

\* Not approved by Factory Mutual.

Hold "E" guide wall angle against steel jamb and tack weld wall angle in place. Recheck "S" distance before proceeding. Weld as shown in Figure 3 using E7014 welding electrode. All welds must be good quality 3/16" fillet welds. Weld the angle to the steel jamb along the top of the angle. Figure 3 is shown without the middle angle and outside angle attached to wall angle.

NOTE: When steel jamb does not extend above the opening, use three thru-bolts to fasten each wall angle above the opening. See Figur e 4.

STEP 2 The Guide Gap MUST be set to the "Guide Gap" dimension shown on the "Installation Data" sheet. See Figure 5.

| JAMB           | FASTENER  | DRILL SIZE                                | JAMB FASTENER<br>SPECIFICATIONS  |
|----------------|---|---|--|
| Steel          | 3/8" Self-Tap Screw<br>1/2" Bolt<br>5/8" Bolt               | 11/32" Dia.<br>27/64" Dia.<br>17/32" Dia. | Steel jambs must be 3/16" thick  |
| Concrete       | 3/8" Wedge Anchor<br>1/2" Wedge Anchor<br>5/8" Wedge Anchor | 3/8" Dia.<br>1/2" Dia.<br>5/8" Dia.       | Drill holes at least 4 inches<br>from jamb corner per<br>Overhead Door |
| Filled Block   | 3/8" Wedge Anchor<br>1/2" Wedge Anchor                      | 3/8" Dia.<br>1/2" Dia.                    | instruction 308577 available<br>at odcexchange.com                     |
| Wood           | 3/8" Lag Screw  | 1/4" Dia.                                 | Drill hole 3" deep   |
| Unfilled Block | 3/8" Thru Bolt<br>1/2" Thru Bolt<br>5/8" Thru Bolt          | 7/16" Dia.<br>9/16" Dia.<br>11/16" Dia.   | Install 3" O.D. steel washer<br>on opposite side of wall               |





Bolt

**STEP 3** IDENTIFY HEADPLATE BRACKETS—See Figure 6. Right Hand Drive shown; Left Hand Drive is opposite.



**STEP 4** Prepare to weld hoist mounting angle to drive headplate bracket. Select a location where welding will not cause a fire. Post a fire guard. See Figure 7 for Front of Headplate mount. See Figure 8 for Top of Headplate mount.



Clamp the angle 1/4" below top of drive headplate bracket with slot positioned as shown in Figure 7. Weld angle to headplate with 1/8" fillet welds one inch long, 4" on centers on both sides of angle. Clamp angle to headplate as shown in Figure 8. Weld angle to headplate with 1/8" fillet welds one inch long, 1-1/2 inch on centers both sides of angle.

#### STEP 5 IDENTIFY BARREL ASSEMBLY DRIVE END

Right hand drive shown in Figure 9; left hand drive is opposite. Look for an "R" for right hand drive or an "L" for left hand drive stamped on the end of the drive shaft.

SPRING CONFIGURATION—See Figure 9a.

- Left hand drive configuration has end of spring pinned to barrel near tension end.
- Right hand drive counterbalance has end of spring pinned to barrel several feet from tension end.
- At tension end of barrel the bearing assembly is pinned to the barrel as shown in Figure 9a.





#### WARNING

Use a right hand drive bracket with a right hand drive barrel to prevent torsion spring failure in barrel, which can allow curtain to free fall causing DEATH OR SERIOUS INJURY. Left hand drive bracket and left hand drive barrels MUST match also.

#### **STEP 6** BARREL AND HEADPLATE BRACKETS

- Slide drive end of barrel assembly through drive bracket bearing and tension end through tension bracket.
- Install set collar on drive shaft on outside of drive headplate bracket.
- No set collar is used on tension shaft because the tension wheel must rest against tension headplate bracket.
- Secure tension wheel to tension shaft using a pin as shown in Figure 10. The pin must fully engage the tension wheel which is against the tension headplate bracket.
- The distance between the headplate brackets should be the "S" dimension on the "Installation Data" sheet.

**CAUTION:** Use proper lifting equipment and correct lifting procedure to avoid injury.

# **STEP 7** LIFT HEADPLATE BRACKETS AND BARREL AND BOLT THEM TO GUIDE WALL ANGLES

- Use hex bolts to fasten headplate brackets to the inside of the guide wall angle.
- Bolt heads must be on the inside of the headplate brackets. See Figure 10.
- Put flat steel washer under bolt heads and under nuts.
- · Headplate brackets must be square to the wall and parallel.
- · Center barrel between brackets.
- Two set collars are required for drive headplate with cast flange bearing.
- Headplate brackets may have two or three mounting slots.
- Use a level to make sure the barrel is level.

#### **STEP 8** ASSEMBLE THE HOIST

- Put 12 tooth sprocket and key on hoist shaft, with sprocket teeth toward hoist. Put pocket wheel, key, chain guide and retaining ring on hoist shaft with pocket wheel set screws toward hoist. Slide pocket wheel and chain guide against retaining ring and tighten set screws on pocket wheel hub.
- Bolt hoist to hoist mounting angle finger tight.
- Put set collar on counterbalance drive shaft and tighten in place against headplate assembly. Put drive sprocket and key on counterbalance drive shaft and align it with 12 tooth sprocket on hoist. Tighten set screws on both sprockets. Install #50 roller chain and slide hoist to adjust roller chain slack for 1/16" to 1/8" deflection.
- Tighten hoist mounting bolts.
- · Install hand chain on pocket wheel. Chain must not be twisted.



**STEP 9** Install pulley and mounting angle on hoist mounting angle as shown in Figures 11 and 12. Push hoist lever arm toward hoist and rotate pocket wheel 1/2 turn until hoist lever arm is vertical and pocket wheel is engaged to turn the 12 tooth sprocket. Temporarily secure hoist lever arm in engaged position with twine. (Use nylon tie to attach Hoist Reset Tag (308186) to eyebolt on Pulley Mounting Angle.



#### STEP 10 INSTALLATION OF CURTAIN: See Figure 13

- The Sling Method is recommended because rolling the curtain onto the barrel assembly on the floor can cause curtain damage.
- Suspend the curtain below the barrel on two or more slings or ropes rated for the weight of the curtain shown on the "Installation Data" sheet.
- Fasten the top slat to sling/rope and rotate the sling/rope to bring the Top Slat into place on the barrel.
- If the barrel has rings, hold the top slat on the rings and make holes in the top slat aligned with holes in rings. Use drill/driver to attach top slat to rings with 3/8" round head Torx screws and washers provided. Set the drill/driver clutch to minimum

5/16" x 1/2" Long \_ Round Head Screw

Weld Stud

torque required to drive screws. DO NOT USE IMPACT WRENCH because it will strip the scr ew threads in rings. See Figure 14.

- If the barrel has studs, the top slat will have slots to attach to barrel. Hook curtain over studs and fasten with 5/16" r ound head screws and washers and TWO clamp washers provided. See Figure 15.
- · Coil curtain completely onto barrel.

#### STEP 11 COMPLETE CURTAIN INSTALLATION

- · Coil curtain completely onto barrel.
- If guides are flared, then bolt the middle angles and the outside angles to the wall angles like Figure 2a.
- The Guide Gap MUST be set to the value shown on the "Installation Data" sheet. Refer to Step 2 and Figure 5.

![](_page_20_Figure_14.jpeg)

5/16" Flat

Two clamp

washers

required

**FIGURE 15** 

Washer

- Place locking pliers on LH & RH guides as shown at 2 to 3 inches below the top of the guides. See Figure 16.
- Create enough slack in the sling/rope so the curtain can be lowered into the guides and rest on the locking pliers.

### WARNING

Rapidly closing curtain could result in death or serious injury. Use slings/ropes and locking pliers on both guides to keep curtain in the open position until spring tension is applied to the barrel assembly.

![](_page_20_Figure_19.jpeg)

#### **STEP 12** LOCK THE DRIVE by one of the options below.

- Clamp locking pliers on the drive sprocket with the end of the pliers against the wall or lintel.
- Fasten chainkeeper on guide assembly and then secure the hand chain on the mounted chain keeper.

#### STEP 13 INSTALL CURTAIN STOPS

 If the guides are not flared, install curtain bellmouth stops on guides.
 A stud is attached to the guides to hold the bellmouth. Be certain the back of the bellmouth is fluch against backlast

Guide Stop Bar Outside Stop Bar Locking Pliers FIGURE 17

Inside

the bellmouth is flush against headplate. See Figure 16.

• If guides are flared, slide stop bar into channel holder welded to guide, and install 3/8" cap screw. See Figure 17.

### WARNING

Tension wheel can spin rapidly if released. Wheel is under EXTREME TENSION. Use of improper tools can cause SERIOUS INJURY. Door MUST be FULLY OPEN and Curtain wrapped on the barrel. Winding bars MUST be 1/2" to 5/8" diameter steel rods, 2 to 3 feet long. DO NOT use pipe, conduit, screwdrivers, etc., as winding bars. USE TWO WINDING BARS!

#### STEP 14 APPLY INITIAL TENSION-

Right hand drive shown, left hand opposite.

- Wind tension wheel in the direction shown in Figure 18. Apply the initial turns shown on the tension headplate decal and on the "Installation Data" sheet.
- After proper tension is applied, install tension pin into tension wheel hole and allow wheel to rotate until the pin is against the tension stop.

#### STEP 15

- Clear the area in path of closing door.
- Use hand chain to raise the curtain bottom bar up against the guide stops.
- Secure the hand chain on the chain keeper mounted on the guide or on the wall.
- Remove the drive shaft lock procedure installed in Step 12.
- Remove slings or ropes around curtain.

![](_page_21_Picture_20.jpeg)

- Remove the locking pliers from the guides.
- Use hand chain to open and close the door five (5) times in order to evaluate door operation.
- A rolling fire door should be "out of balance" in the open position and it should rest on the floor. The "out of balance" will be greatest through the middle of the opening. A chain pull of 35lbs. is permissible.

**NOTE:** Do not allow uncontrolled free fall closing of door. Instruct customers to use both hands to control both hand chains during the closing operation.

STEP 16 Open the door and attach hand chain on chain keeper.

**STEP 17** Install locking pliers on both guide angles at 1 to 2 inches below bottom bar.

**STEP 18** Release the hoist lever arm. This disengages the pocket wheel shaft. The bottom bar must close onto the locking pliers.

**STEP 19** If necessary, use tension wheel and winding bars to release spring tension until bottom bar is out of balance and comes to rest on the locking pliers on the guides.

**STEP 20** Temporarily secure hoist lever arm in the engaged position as in Step 9. You may need to slightly rotate the pocket wheel to engage lever arm.

#### STEP 21 FRICTION HEX NUT ADJUSTMENT

- Loosen the set screws on the friction hex nut shown in Figure 19.
- Use hand chain to raise the bottom bar up against the guide stops.
- Release the hand chain.
- If the bottom bar does not descend, the friction hex nut is properly adjusted.
- If the bottom bar does close onto the locking pliers, the friction hex nut should be r otated clockwise at 1/4 turn intervals until the bottom bar stays up against the guide stops with hoist lever arm engaged.
- Tighten both set screws on the friction hex nut.
- Release the hoist lever arm to verify that the bottom bar will close onto the locking pliers.

![](_page_21_Picture_38.jpeg)

- Temporarily secure the hoist lever arm in the engaged position.
- Raise door to open position.
- Remove locking pliers from guides.
- Hook hand chain on chain keeper.

**STEP 23** FINAL CHECK to be completed before installing the hood.

- Verify through entire travel of the door that the endlocks on the end of the curtain are not rubbing the headplate brackets. Operate door several times to check for problems.
- Check that the bottom bar is level in full down and full up positions and that curtain is not binding against back of guide.
- If curtain is level at bottom and not level at top, put shims between curtain and barrel on the low side.
- The guides may be lubricated with a paste wax or silicone spray. DO NOT USE GREASE.
- Verify good mechanical connection and tightness of fasteners, e.g., guides, headplates, set screws and roller chain link.

#### STEP 24A HOOD INSTALLATION FOR ONE PIECE HOOD

- · Hood flange must be securely fastened to the wall.
- On masonry walls use masonry fasteners through each hole in the hood flange.
- On non-masonry walls the hood flange must be fastened to each available wall stud by drilling holes thr ough the hood flange and into wall stud.
- Attach the hood to the hoodband on headplate bracket by drilling a 7/32" hole through the hood and band. Then secure hood with 1/4" tapping screw, maximum length 7/16". Longer scr ews can prevent door closing. Use four screws per bracket. See Figure 20.

![](_page_22_Figure_16.jpeg)

 Install hood support at each hood splice if required. One piece hooks with splice require an internal hood support for each splice.

#### STEP 24B INSTALLATION FOR HOOD SEGMENTS AND HOOD SUPPORTS

- Snap a chalk line across the header at the top of headplate brackets.
- Measure the length of the top flange on the left hand hood segment.
- Position top of internal hood support just under chalk line with right hand edge of hood support at a distance from the headplate that is equal to length of top flange on LH hood segment; and fasten hood support to wall.

- Place the LH hood segment of the headplate hoodbands and on hood support. The distance between the flame baffle and the hood support should be one inch or less. Flame baffle must be free to drop without interference with hood support. Series 631 fire door has no flame baffle.
- Fasten hood flange to wall with fasteners appropriate for wall construction.
- Place second hood segment onto headplate hoodbands and hood support and fasten hood flange to wall with fasteners appropriate for wall construction.
- Attach the hood to bracket hoodbands and hood support with 1/4" dia. by 3/8" long tapping screws; longer screws may prevent door closure. Use four screws on each hoodband and support.
- See Figure 20.

#### **STEP 25** PRODUCT SAFETY INSTRUCTIONS

The door installer has the following responsibilities:

- Attach the product safety labels shown below to the door guide at eye level on the drive side.
- Demonstrate to the product user the correct way to control the closing speed of rolling door with crank, hand chain or push-up operation; show that two hands should be used to control the hand chain.
- Inform the door user about the following requirement from ANSI Z535.4: "Product safety labels should be inspected and cleaned periodically by the product user as necessary to maintain good legibility." The product user should order replacement safety labels from the door manufactur er as required to maintain legibility.
- Doors with sensing edge on the bottom bar must have the Warning Decal shown below mounted on the bottom bar and on a curtain slat 5 feet above the bottom bar. Mount on the interior side of the door.

![](_page_22_Picture_33.jpeg)

![](_page_22_Picture_34.jpeg)

• See STEP 26 for Release Assembly Installation.

#### **STEP 26** RELEASE ASSEMBLY INSTALLATION

Install fire door release assembly as shown in Figures 21

#### INSTALLATION PROCEDURE:

- A.>Mount angle on wall above thru-wall hole so that pulley center line is aligned with thru-wall hole.
- B. Install sash chain assembly above drive plate as shown. Bent end of sash chain must flow freely into thru-wall conduit from side opposite door. Conduit must not have internal burr at cut ends to inhibit flow of sash chain thru conduit. On interior walls fusible links must be located near the ceiling on both sides of the wall. Distance between fusible links and ceiling must be 4" minimum and 12" maximum.
- C. Use turnbuckle to remove slack in sash chain.
- D. Install spring last. Hook spring end into sash chain at 4" from pulley. Stretch spring 6" to 7" towar d wall and hook end into sash chain.
- E. Close all "S" hooks with pliers after installation of fire door release assembly.
- F. Release lever arm secured by Step 22.

![](_page_23_Figure_9.jpeg)

#### P/N 307878-0001 RELEASE CHAIN ASSEMBLY, FOR HOIST W/GOVERNOR, THRU WALL

**Required for Interior Wall Installation** 

|             | BILL OF MATERIAL |  |     |  |  |  |
|-------------|------------------|--|-----|--|--|--|
| ITEM<br>NO. | PART NUMBER      | PART DESCRIPTION                       | QTY |  |  |  |
| 1           | 080928-0001      | CHAIN, SASH, #8 (FT)                   | 24  |  |  |  |
| 2           | 106254-0004      | CONDUIT, THINWALL, .622" ID X .706" OD | 1   |  |  |  |
| 3           | 604297-1075      | SET COLLAR, 3/4" ID, 1 SSCR            | 2   |  |  |  |
| 4           | 086114-1165      | LINK, FUSIBLE, 165°F                   | 3   |  |  |  |
| 5           | 608402-0001      | SPRING, EXTENSION, CHAIN HOIST W/GOV   | 1   |  |  |  |
| 6           | 061160-0001      | PULLEY ASSEMBLY                        | 3   |  |  |  |
| 7           | 307872-0001      | ANGLE, PULLEY, MOUNTING                | 4   |  |  |  |

(11)

| BILL OF MATERIAL |             |                                 |     |  |  |
|------------------|-------------|---------------------------------|-----|--|--|
| ITEM<br>NO.      | PART NUMBER | PART DESCRIPTION                | QTY |  |  |
| 8                | 605311-0009 | EYEBOLT, OPEN TYPE, 1/4-20 X 3" | 4   |  |  |
| 9                | 080352-0518 | NUT, HEX 5/16-18 UNC-2B         | 9   |  |  |
| 10               | 080321-0319 | WASHER, LOCK, 5/16" I.D.        | 5   |  |  |
| 11               | 080607-0010 | "S" HOOK, 1.26 LG               | 7   |  |  |
| 12               | 086698-0000 | TURNBUCKLE ASSEMBLY, #8-32      | 1   |  |  |
| 13               | 080302-5264 | WASHER, FLAT, 3/4" X 2" O.D.    | 2   |  |  |
| 14               | 080105-0508 | BOLT, HEX HD, 5/16-18 X 1"      | 1   |  |  |
| 16               | 307871-0001 | ANGLE, PULLEY, MTG, TOP OF HDPL | 1   |  |  |

#### **STEP 27** RELEASE ASSEMBLY INSTRUCTIONS

Install fire door release assembly as shown in Figures 22

#### INSTALLATION PROCEDURE:

- A.>Mount angle on wall above thru-wall hole so that
- pulley center line is aligned with thru-wall hole.
- B. Mount reset lever assembly and label on wall 5 feet above floor.
- C. Install sash chain assembly above drive plate as shown. Bent end of sash chain must flow freely into thru-wall conduit from side opposite door. Conduit must not have internal burr at cut ends to inhibit flow of sash chain through conduit. On interior walls fusible links must be located near the ceiling ion both sides of the wall. Distance between fusible links and ceiling must be 4" minimum and 12" maximum.
- D. Use turnbuckle to remove slack in sash chain.
- E. Install spring last. Hook spring end into sash chain at 4" from pulley. Stretch spring 6" to 7" toward wall and hook end into sash chain.
- F. Close all "S" hooks with pliers after installation of fire door release assembly.
- G. Release lever arm secured by Step 22.
- H. Installing a lock on reset lever assembly is recommended. Lock not included in Overhead Door hardware.
- I. Remove the Hoist Reset Tag (308186) installed by Step 9.

![](_page_24_Figure_13.jpeg)

#### P/N 307878-0005 RELEASE CHAIN ASSEMBLY, FOR HOIST W/GOVERNOR, THRU WALL REQUIRED FOR INTERIOR WALL INSTALLTION

|             | BILL OF MATERIAL |  |     |  |  |  |
|-------------|------------------|--|-----|--|--|--|
| ITEM<br>NO. | PART NUMBER      | PART DESCRIPTION                       | QTY |  |  |  |
| 1           | 080928-0001      | CHAIN, SASH, #8 (FT)                   | 24  |  |  |  |
| 2           | 605310-0001      | CONDUIT, THINWALL, .622" ID X .706" OD | 1   |  |  |  |
| 3           | 604297-1075      | SET COLLAR, 3/4" ID, 1 SSCR            | 2   |  |  |  |
| 4           | 086114-1165      | LINK, FUSIBLE, 165°F                   | 3   |  |  |  |
| 5           | 608402-0001      | SPRING, EXTENSION, CHAIN HOIST W/GOV   | 1   |  |  |  |
| 6           | 061160-0001      | PULLEY ASSEMBLY                        | 3   |  |  |  |
| 7           | 307872-0001      | ANGLE, PULLEY, MOUNTING                | 4   |  |  |  |
| 8           | 605311-009       | EYEBOLT, OPEN TYPE, 1/4-20 X 3"        | 4   |  |  |  |

| BILL OF MATERIAL |             |                                  |     |  |
|------------------|-------------|----------------------------------|-----|--|
| ITEM<br>NO.      | PART NUMBER | PART DESCRIPTION                 | QTY |  |
| 9                | 080352-0518 | NUT, HEX 5/16-18 UNC-2B          | 9   |  |
| 10               | 080321-0319 | WASHER, LOCK, 5/16" I.D.         | 5   |  |
| 11               | 080607-0010 | "S" HOOK, 1.26 LG                | 7   |  |
| 12               | 086698-0000 | TURNBUCKLE ASSEMBLY, #8-32       | 1   |  |
| 13               | 080302-5264 | WASHER, FLAT, 3/4" X 2" O.D.     | 2   |  |
| 14               | 080105-0508 | BOLT, HEX HD, 5/16-18 X 1"       | 1   |  |
| 16               | 307871-0001 | ANGLE, PULLEY, MTG, TOP OF HDPL  | 1   |  |
| 17               | 307945-0001 | RESET LEVER ASSY, FIRE MINUTEMAN | 1   |  |
| 18               | 308185-0001 | LABEL, RESET PROCEDURE           | 1   |  |

INSTALLATION PROCEDURE:

- A. Install sash chain assembly shown in Figure 23. Locate fusible link above the drive headplate and 4" to 12" below ceiling. Adjust turnbuckle to tighten sash chain.
- B. Install spring last.
- C. Hook spring end into sash chain 4" from pulley. Stretch spring 6" to 7" toward the wall and hook end into sash chain.
- D. Close all "S" hooks with pliers after installation of release chain assembly.
- E. Release lever arm secured by Step 22.

|             | BILL OF MATERIAL |                                      |     |  |  |  |
|-------------|------------------|--------------------------------------|-----|--|--|--|
| ITEM<br>NO. | PART NUMBER      | PART DESCRIPTION                     | QTY |  |  |  |
| 1           | 080928-0001      | CHAIN, SASH, #8 (FT)                 | 24  |  |  |  |
| 4           | 086114-1165      | LINK, FUSIBLE, 165°F                 | 2   |  |  |  |
| 5           | 608402-0001      | SPRING, EXTENSION, CHAIN HOIST W/GOV | 1   |  |  |  |
| 6           | 061160-0001      | PULLEY ASSEMBLY                      | 2   |  |  |  |
| 7           | 307872-0001      | ANGLE, PULLEY, MOUNTING              | 3   |  |  |  |
| 8           | 605311-0009      | EYEBOLT, OPEN TYPE, 1/4-20 X 3"      | 3   |  |  |  |
| 9           | 080352-0518      | NUT, HEX 5/16-18 UNC-2B              | 7   |  |  |  |
| 10          | 080321-0319      | WASHER, LOCK, 5/16" I.D.             | 4   |  |  |  |
| 11          | 080607-0010      | "S" HOOK, 1.26 LG                    | 5   |  |  |  |
| 12          | 086698-0000      | TURNBUCKLE ASSEMBLY, #8-32           | 1   |  |  |  |
| 14          | 080105-0508      | BOLT, HEX HD, 5/16-18 X 1"           | 1   |  |  |  |
| 16          | 307871-0001      | ANGLE, PULLEY, MTG, TOP OF HDPL      | 1   |  |  |  |

![](_page_25_Figure_8.jpeg)

#### P/N 307878-0002 RELEASE CHAIN ASSEMBLY, FOR HOIST W/GOVERNOR, EXTERIOR WALL REQUIRED FOR EXTERIOR WALL INSTALLATION

#### INSTALLATION PROCEDURE:

- A. Install sash chain assembly as shown in Figure 24 and adjust turnbuckle to tighten sash chain.
- B. Install spring last.
- C. Hook spring end into sash chain 4" from pulley. Stretch spring 6" to 7" toward the wall and hook end into sash chain.
- D. Close all "S" hooks with pliers after installation of release chain assembly.
- F. Release lever arm secured by Step 22.

# SEE FIRE SENTINEL INSTRUCTIONS FOR INSTALLATION AND RESET PROCEDURE.

| BILL OF MATERIAL |             |                                      |     |  |
|------------------|-------------|--------------------------------------|-----|--|
| ITEM<br>NO.      | PART NUMBER | PART DESCRIPTION                     | QTY |  |
| 1                | 080928-0001 | CHAIN, SASH, #8 (FT)                 | 24  |  |
| 4                | 086114-1165 | LINK, FUSIBLE, 165°F                 | 2   |  |
| 5                | 608402-0001 | SPRING, EXTENSION, CHAIN HOIST W/GOV | 1   |  |
| 6                | 061160-0001 | PULLEY ASSEMBLY                      | 2   |  |
| 7                | 307872-0001 | ANGLE, PULLEY, MOUNTING              | 3   |  |
| 8                | 605311-0009 | EYEBOLT, OPEN TYPE, 1/4-20 X 3"      | 3   |  |
| 9                | 080352-0518 | NUT, HEX 5/16-18 UNC-2B              | 7   |  |
| 10               | 080321-0319 | WASHER, LOCK, 5/16" I.D.             | 4   |  |
| 11               | 080607-0010 | "S" HOOK, 1.26 LG                    | 5   |  |
| 12               | 086698-0000 | TURNBUCKLE ASSEMBLY, #8-32           | 1   |  |
| 14               | 080105-0508 | BOLT, HEX HD, 5/16-18 X 1"           | 1   |  |
| 16               | 307871-0001 | ANGLE, PULLEY, MTG, TOP OF HDPL      | 1   |  |

![](_page_26_Figure_9.jpeg)

P/N 307878-0003 RELEASE CHAIN ASSEMBLY, FOR HOIST W/GOVERNOR, WITH FIRE SENTINEL USE WHEN SMOKE DETECTORS AND A RELEASE DEVICE ARE USED TO COMPLY WITH NFPA-80

#### INSTALLATION PROCEDURE:

- A. Install sash chain assembly as shown in Figure 25 and adjust turnbuckle to tighten sash chain.
- B. Install spring last.
- C. Hook spring end into sash chain 4" from pulley. Stretch spring 6" to 7" toward the wall and hook end into sash chain.
- D. Close all "S" hooks with pliers after installation of release chain assembly.
- E Minimum bend radius is 9". F. Release lever arm secured
- Release lever arm secured by Step 22.
- G. Remove the Hoist Reset Tag (308186) installed by Step 9.

#### SEE FIRE SENTINEL INSTRUCTIONS FOR INSTALLATION AND RESET PROCEDURE.

| BILL OF MATERIAL |             |                                      |     |  |
|------------------|-------------|--------------------------------------|-----|--|
| ITEM<br>NO.      | PART NUMBER | PART DESCRIPTION                     | QTY |  |
| 1                | 080928-0001 | CHAIN, SASH, #8 (FT)                 | 24  |  |
| 4                | 086114-1165 | LINK, FUSIBLE, 165°F                 | 2   |  |
| 5                | 608402-0001 | SPRING, EXTENSION, CHAIN HOIST W/GOV | 1   |  |
| 6                | 061160-0001 | PULLEY ASSEMBLY                      | 2   |  |
| 7                | 307872-0001 | ANGLE, PULLEY, MOUNTING              | 3   |  |
| 8                | 605311-0009 | EYEBOLT, OPEN TYPE, 1/4-20 X 3"      | 3   |  |
| 9                | 080352-0518 | NUT, HEX 5/16-18 UNC-2B              | 7   |  |
| 10               | 080321-0319 | WASHER, LOCK, 5/16" I.D.             | 4   |  |
| 11               | 080607-0010 | "S" HOOK, 1.26 LG                    | 5   |  |
| 12               | 086698-0000 | TURNBUCKLE ASSEMBLY, #8-32           | 1   |  |
| 14               | 080105-0508 | BOLT, HEX HD, 5/16-18 X 1"           | 1   |  |
| 16               | 307871-0001 | ANGLE, PULLEY, MTG, TOP OF HDPL      | 1   |  |

![](_page_27_Figure_11.jpeg)

307878-0004 RELEASE CHAIN ASSEMBLY, FOR HOIST WITH GOVERNOR, AND FIRE SENTINEL WITH FLOOR RESET OPTION DESIGNED FOR USE WITH SMOKE DETECTORS AND RELEASE DEVICES. A SMOKE DETECTOR IS REQUIRED ON BOTH SIDES OF INTERIOR WALL TO COMPLY WITH NFPA-80.

# **STEP 31** DROP TEST AND RESET INSTRUCTIONS for Figures 26, 27, 28 or 29.

All fire doors shall be drop tested annually by a trained door system technician to insure the installation has been completed properly. Two successive drop tests are required — first to demonstrate proper operation and full closure, and a second to verify that the fire door was properly set. Reference NFPA 80-2007. Retain a

written record of the drop test results including names of witnesses.

- 1. Clear the area in the path of the fire door and place barricades on each side of wall opening.
- 2. Door must be open.
- 3. Heat one fuse link until it separates to release the fire door, or unscrew turnbuckle.
- 4. The door should close to the floor in a controlled manner without rebounding to successfully complete the drop test.
- If the door fails to close, or closes faster that 24" per second, or slower than 6" per second, see the following tr oubleshooting page. Or call an Overhead Door Corporation distributor for service.
- 6. After a successful test, reset the hoist lever by the procedure on tag 308186.
- 7. Replace fusible link and reset turnbuckle.
- 8. Use hand chain hoist to open the door.
- 9. Repeat the drop test and reset procedure again.

![](_page_28_Figure_12.jpeg)

See Figure 21 on page 11 for part descriptions and installation pr ocedure.

#### NOTE: SMOKE DETECTOR REQUIRED ON BOTH SIDES OF INTERIOR WALL TO COMPLY WITH NFPA 80.

DROP TEST AND RESET INSTRUCTIONS:

- 1. The door must be open.
- 2. Press Fire Sentinel test button for 10 seconds.
- 3. The door should close to the floor in a controlled manner without rebounding to successfully complete the door test.
- 4. If the door fails to close, or closes faster than 24" per second, or slower than 6" per second, see the following troubleshooting page. Or call an Overhead Door Corp. distributor for service.
- After a successful test, reset hoist lever arm with procedure on tag 308186.
   Insert metal tab into the Fire Sentinel and reset the release chain assembly as shown.

![](_page_29_Picture_8.jpeg)

**FIGURE 27** 

See Figure 24 on page 14 for part descriptions and installation procedure.

# NOTE: SMOKE DETECTOR REQUIRED ON BOTH SIDES OF INTERIOR WALL TO COMPLY WITH NFPA 80.

#### DROP TEST AND RESET LEVER:

- 1. The door must be open.
- 2. Initiate a test alarm by one of the four methods below:
  - a. Activate your central alarm system test mode.
  - b. Depress Fire Sentinel test button for 10 seconds.
  - c. Spray "canned smoke" into smoke detector.
  - d. Turn optional keyed remote test switch to "TEST" position.
- 3. The door should close to the floor in a controlled manner without rebounding to successfully complete the drop test. If the door fails to close, or closes faster than 24" per second, or slower than 6" per second, see the troubleshooting page of instructions. Or call an Overhead Door Corp. distributor for service.
- 4. Reset the system by one of the four methods below:
  - a. See your alarm system "RESET" instructions.
  - b. Fire Sentinel resets after release of "TEST" button.
  - c. Turn smoke detector off for 10 seconds and turn back on; or see detector instructions.
  - d. Turn optional keyed remote test switch to "RUN".
- 5. Reset Fire Sentinel as follows:
  - a. Open the reset handle box door and pull hard on the "T" handle. You should feel or hear a "click" as the Fire Sentinel resets.
  - b. Use the hand chain hoist to open the door.
  - c. If the hoist does not open the door, the Fire Sentinel has not reset. Pull on the T-handle and lightly pull the hand chain to reset the Fire Sentinel mechanism.

![](_page_30_Figure_18.jpeg)

See Figure 25 on page 15 for part descriptions and installation procedure.

#### DROP TEST AND RESET INSTRUCTIONS:

- 1. The door must be open.
- 2. Remove lock from Reset Lever Assembly.
- 3. Depress the lever locking mechanism to the right and move the lever from the "RUN" position to the "TEST" position.
- 4. The door should close to the floor in a controlled manner without rebounding to successfully complete the drop test.
- If the door fails to close, or closes faster than 24" per second, or slower than 6" per second, see the troubleshooting page of instructions. Or call an Overhead Door Corp. distributor for service.
- 6. After a successful test, reset the hoist by procedure on label 308185.
- 7. Use the hand chain hoist to open the door.
- 8. Installing a lock on reset lever assembly is recommended. Lock not included in Overhead Door hardware.

![](_page_31_Figure_9.jpeg)

See Figure 22 on page 12 for part descriptions and installation procedure.

| TROUBLESHOOTING   |  |  |  |  |  |
|---|--|--|--|--|--|
| PROBLEMS:   | SOLUTIONS:   |  |  |  |  |
| 1. If door will not close when released.  | <ol> <li>Roller chain between sprockets too tight. Loosen roller chain.</li> <li>Incorrect spring tension. Decrease initial turns so door is<br/>heavy when governor is disengaged.</li> <li>Counter weights on hoist too far out on shaft.<br/>Move weights closer to hoist.</li> <li>Refer to installation instruction Step 21 for adjustment<br/>of the friction hex nut. See Figure 19.</li> <li>Check release arm to verify the arm has disengaged fully.<br/>Check sash chain routing to verify chain is slack when hoist<br/>lever arm is released. Make sure spring is installed in sash<br/>chain as shown in installation instructions.</li> </ol> |  |  |  |  |
| <ol> <li>If door closes too fast:<br/>(Door speed must be between 6" to 24" per second.)</li> </ol> | <ol> <li>Refer to installation instructions for adjusting centrifugal<br/>weights. Weights need to be moved away from governor.</li> <li>Increase initial spring tension by one notch at a time<br/>and drop test.</li> </ol>  |  |  |  |  |
| <ol> <li>If door closes too slow:<br/>(Door speed must be between 6" to 24" per second.)</li> </ol> | <ol> <li>Refer to installation instructions for adjusting<br/>centrifugal weights.<br/>Weights need to be moved closer to governor.</li> <li>Refer to installation instruction Step 21 for adjustment of the<br/>friction hex nut. See Figure 19.</li> <li>Verify initial tension on door counterbalance. Door should<br/>fall out of the head when the hoist lever arm is r eleased.</li> </ol>   |  |  |  |  |
| 4. If floor reset T-handle does not reset door and Fire Sentinel:                                   | <ol> <li>Sash chain from hoist release arm to Fire Sentinel is too tight.<br/>Loosen turnbuckle.</li> <li>Sash chain from hoist release arm to Fire Sentinel is too loose.<br/>Tighten turnbuckle.</li> </ol>  |  |  |  |  |

![](_page_33_Picture_0.jpeg)

# WARRANTY

### The Genuine. The Original.

![](_page_34_Picture_1.jpeg)

## FireKing® Series Rolling Service Fire Doors Limited Warranty

The Distributor of Overhead Door Corporation products whose name appears below ("Seller") warrants to the original purchaser of FireKing<sup>®</sup> Series 630, 631, 634 or 635 rolling service fire doors ("Product"), subject to all of the terms and conditions hereof, that the Product and all components thereof will be free from defects in materials and workmanship under normal use for the following period, measured from the date of installation:

#### • TWENTY FOUR (24) MONTHS

Seller's obligation under this warranty is specifically limited to repairing or replacing, at its option, any part which is determined by Seller to be defective during the applicable warranty period. Repair or replacement labor is included for one (1) year from the date of installation. After that, any labor charges are excluded and will be the responsibility of the purchaser.

This warranty is made to the original purchaser of the Product only, and is not transferable or assignable. This warranty does not apply to any unauthorized alteration or repair of the Product, or to any Product or component which has been damaged or deteriorated due to misuse, neglect, accident, failure to provide necessary maintenance, normal wear and tear (including the paint finish), or acts of God or any other cause beyond the reasonable control of Seller. This warranty does not apply to any damage or deterioration caused by door slats rubbing together as the door rolls up upon itself or caused by exposure to salt water, chemical fumes or other corrosive or aggressive environments, whether naturally occurring or man-made, including, but not limited to, environments with a high degree of humidity, sand, dirt or grease.

THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL SELLER BE RESPONSIBLE FOR, OR LIABLE TO ANYONE 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, loss of goodwill, loss of profits, loss of use, cost of any substitute product, interruption of business, or other similar indirect financial loss.

Claims under this warranty must be made promptly after discovery, within the applicable warranty period, and in writing to the Seller or to the authorized distributor or installer whose name and address appear below. The purchaser must allow Seller a reasonable opportunity to inspect any Product claimed to be defective prior to removal or any alteration of its condition. Proof of the purchase and/or installation date, and identification as the original purchaser, may be required.

ORIGINAL PURCHASER

INSTALLATION ADDRESS

SELLER:

SELLER'S ADDRESS:

FACTORY ORDER #: \_\_\_\_

DATE OF INSTALLATION: \_

SIGNATURE OF SELLER: \_

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Overhead Door Corporation 2501 S. State Hwy 121 Bus., Suite 200 Lewisville, TX 75067 1-800-929-3667(DOOR) www.overheaddoor.com