INSTALLATION & MAINTENANCE Coiling Fire Door Instructions

Model: _____ Contract No. _____

Size:

Retain This Booklet For Future Reference





Table of Contents

Introduction and Opening Preparation
Safety Information
Before You Begin
Installation Preparation5
Installing the New Door
Installation Procedure6
Check the Opening6
Check the Hand of Operation
Installing the Wall Angles6
Installing the Shaft Assembly8
Installing the Curtain Assembly
Installing the Guides11
Adjusting Spring Counterbalance
Installing the Operator
Manual Lift Doors
Chain Hoist Doors
Crank Operated Doors
Motor Operated Doors
Installing the Hood
Installing Fusible Links and Routing the Drop Out Chain
Installing the Express Release Device14
Installing the Quartzoid Release Device15
Installation of Optional Guide Weather Stripping (or Smoke Seals)
Adjusting the Starter Bolt15
Drop Testing the Door16
Finishing Steps17
Final Installation Check List 17
Troubleshooting/Maintenance/Part List

Troubleshooting/Maintenance/Part List

Preventative Maintenance Schedule	. 18
Troubleshooting Guide	. 19
Fire Door Parts List	. 20

Safety Information

IMPORTANT!

To Protect Yourself From Injury You Must Carefully Read The Following Safety Information And Warnings Before Installing or Operating the Door

This manual is not intended to direct "take-down" procedures of existing doors. Consult a qualified door service person if this is required before new doors are to be installed.

Before you begin, read the installation and maintenance instructions thoroughly. To protect vourself from injury, carefully read all safety information and warnings before installing the new door.

This document's primary function is to assist the qualified door service person in correctly mounting doors with due regard for safety, operation, and sound construction practices. Reference should be made to construction codes in your area. If there are any questions about any of the ivmic procedures, do not perform the work. Instead contact the Atlas Door™ Customer Service Department for clarification.



In the interest of safety this symbol means WARNING or CAUTION. Personal injury and/or property damage may occur unless instructions are followed carefully.

This document should be attached to the wall in close proximity to the door for future reference. It is provi



Installation, repairs to, and removal of, a spring counterbalanced door CAN BE dangerous. Only qualified door service people should perform such work.

The following instructions are intended to be a guide for professional installers. Lack of adequate knowledge or training can pose a threat of serious injury or death.

To avoid injury, do not hang on, or suspend anything from the hand chain. Doing so may result in chain or gear disengagement, causing the door to unexpectedly drop if unbalanced.

To avoid injury, keep hands away from the gears and sprockets while door is being operated.

To avoid injury, operate the door only when properly adjusted and free of obstructions. Avoid standing in the path of the door while door is moving.

Do not permit children to play with the door or the electrical controls. The child could get caught between the door and floor causing fatal

Avoid installing door on windy days. The door could fall causing an accident or injury.

Wear the proper safety clothing and protective safety gear as needed.

IMPORTANT: If repairs to your door are ever required, safe and trouble-free operation can be assured by using only original replacement parts.

IMPORTANT: To avoid door failure, use only the fasteners and hardware provided with the door.

Atlas Door[™] and Clopay Building Products Company disclaim all liability for any installation that is not in compliance with applicable state, county, or local building codes.

Before You Begin

Upon receipt of shipment, immediately check that you have received the correct number of pieces, and that the entire shipment is intact and complete. **Any damage or shortages should be noted on the carrier's bill of lading before signing for the shipment.** If there is no visible damage, sign the shipper's bill: "Received subject to further internal inspection for hidden damage."

Should damage or shortages be found after the shipment has been accepted, notify the delivering carrier at once and confirm such notification in writing to them.

Call the Atlas DoorTM Customer Service Department for pricing to replace or repair the items in question and submit this information to the carrier *in writing*. This forms the basis for a freight claim.

All shipments are made FOB (Freight On Board) factory, freight allowed. It is the purchaser's responsibility to file all freight claims. Atlas Door™ will provide any necessary back-up paperwork to substantiate your claim, but we cannot file these claims for you, as ownership of the shipment determines who must file the claim.

IMPORTANT: If the motor operator is an Atlas Door[™] "auto resettable fire door" type (FireSet[™] Series Operators) refer to that manual (supplied with the operator) for the door installation process.

Installation Preparation

Read the entire installation instructions first to become familiar with door components and their relationship to each other. It is necessary for the installer to determine the following:

- The dimensions for the opening width, height, head room, and side room. (FIG. 1)
- The "hand" of operation (left or right) as determined from the coil side of the door. (FIG. 3)
- The type of mounting (face mounted E or Z style guides). (FIG. 4)
- The type of jamb (steel, masonry, or non-masonry) to which the door guides mount.
- The method of operation (manual push up, chain hoist, crank, or motor).

Review the supporting documentation supplied with the shipment (found in the hardware bag). Each door is identified by a code letter under "Atlas Code" on the documentation. Doors of identical size and hand have the same code letter. All door components are identified with the contract number and the code letter (excluding bolts, nuts and other miscellaneous hardware).

A typical door will have the following components:

- A curtain with interlocking slats and bottom bar.
- Two guide assemblies (one left and one right hand) bolted together with guide hardware.
- One counterbalancing pipe shaft.
- Two steel bracket plates (one adjusting side and one drive side).
- One hood,
- An operator assembly (if selected).
- A hardware bag with fasteners, supporting documentation, installation instructions, and warning labels.

NOTE: It is recommended that the door be unpacked prior to leaving for the job site, if possible, to verify that all components are present.

Check to ensure that all door components are present and review the following:

- Does the barrel hand of operation match the required hand? (See Installation Procedure for details.)
- Are all options included (i.e., sensor edge, weather stripping, etc.)?

If any components are missing, or "no" is the answer to any of the above questions, stop and check with the Atlas Door[™] Customer Services Department for clarification before proceeding.

The installer(s) should be familiar with the fire door industry installation guidelines in NFPA 80. Crew chiefs should also consider using a two-person (or more) crew for larger chain or motor operated fire doors.

Installation Procedure

Check the Opening

Check the opening width and the opening height and compare with the supporting documentation to be sure the opening is the proper size for the door. Small variations in the actual opening width or height, or plumbness of the jambs can be ignored when installing the wall angles and guides. Verify that adequate clearances are available. (FIG. 1)



Check the Hand of Operation

Separate the material into groups forming complete doors using the Atlas Door[™] code letter and determine the "hand" of each door. "Hand" is determined by the location of the drive side bracket plate (manual, chain, crank, or motor) when looking at the opening from the side on which the hood will be mounted. A right hand door will therefore have the operator on the right with the adjusting bracket plate on the left side. The adjusting bracket plate can be identified as the one with the charge wheel and drop out arm(s) as shown in Figure 2.



Inspect the pipe shaft assembly. The adjusting side of the shaft assembly is fitted with a rotating inner shaft and bearing. The shaft hand should also be verified. If the shaft has three screws, around the diameter, approximately 3" from the bearing end, it is a right hand shaft. (FIG. 3) Left hand shafts will have these screws located towards the middle of the pipe.



It is critical that the "hand" of doors is verified correctly, Failure to do so may result in incorrect installation, causing possible damage to the springs within the pipe shaft by winding it backwards. This may lead to damage to other parts of the door or to serious injury to installation personnel and/or passersby.

Installing the Wall Angles

Check the documentation supplied, for the required **between bracket plate dimension**. The bracket plates will be mounted to the outboard face of the wall angles. This is an **extremely critical dimension and must be held to** $\pm 1/8$ " accuracy the entire length of the wall angle.

Unbolt the guide angles from the wall angle. Install the wall angles as shown in Figure 4 making sure that they are plumb and that the exact distance between guides is maintained at the top and bottom. Both wall angles may rest on the floor (provided that it is level). Shim the wall angles if necessary. The hardware used to mount the wall angles will depend on the type of door jamb construction. Unfilled concrete block and soft brick jambs are to use through wall threaded rod mounting. Filled concrete block and hard-fired brick jambs are to use sleeve type expansion anchors. Solid concrete jambs are to use wedge type anchors. Steel jambs are to use machine bolt mounting. Use only these fasteners supplied in the hardware bag.

The wall angle bolts must be mounted uniformly to allow for thermal expansion during a fire. Reference Figure 5 for bolt placement locations. Check to ensure that the top bolt holes, in both wall angles, are on same level line. Use 4'0" level (minimum) or a "clear tubing level" to check levels.

NOTE: The bracket plate mounting holes must be absolutely level to obtain a level curtain assembly.



Door may fall out of track if the wall angles are improperly located or aligned.

NOTE: The welding of wall angles is approved for UL Labeled Fire Doors only.

The wall angles can also be welded to steel jambs provided the installation follows the procedures in this manual. Each weld is to achieve the equivalent strength of each omitted bolt. Use minimum 60XX electrodes. All welding is to be done "vertical up" (i.e., starting from the base of an individual weld and working upwards) in accordance with ASTM procedures. Refer to Figure 6 for approved welding method to steel jambs.

IMPORTANT: Failure to exactly follow these instructions may cause the door to be inoperable.

IMPORTANT: Double check all wall angle dimensions and locations prior to performing welding operations.



Installing the Shaft Assembly



Bracket and curtain assemblies on larger doors, particularly with an operator, can be extremely heavy. Persons with back problems or other physical conditions which may limit them from lifting heavy objects should not perform the next step.

Remove the adjustment wheel, swing stop, and washers from the adjusting end of the pipe shaft. Slide the adjusting side bracket plate onto the inner pipe shaft. Be certain that the bracket plate is mounted to the correct "hand side." (FIG. 3) Reinstall the swing stop and washers per Figure 7. The swing stop should rotate freely on the bronze bushing protruding through the bracket plate. Reinstall the adjusting wheel onto the inner pipe shaft using the fasteners provided with the pipe shaft.

Slide the operating side bracket plate onto the inner pipe shaft. Install the appropriate drive side hardware and governor to the inner pipe shaft at this time. (FIG. 8) Some motor operated doors will require a driven sprocket on the inner shaft depending on the fire release mechanism. Very small doors may not require a governor. Reference Figures 9A - 9D for various drive side configurations.



Larger fire doors may use a "compound type drive" in which the viscous governor is mounted on a separate shaft. This governor shaft has a 3" gear which is driven by the larger gear located on the operator side inner shaft. This assembly, which is mounted in the upper corner of the bracket plate, will need to be partially disassembled to install the driven gear. The 3" gear is to be laterally adjusted to mate with the drive gear by moving the spacer washers from one side to the other. Check to ensure that the stop arm engages the governor when the fusible link chain is released. Reference Figure 10 for assembly details.

Check to ensure that the drive gear meshes properly with the driven gear, and that it turns freely. Tighten all fasteners on the gears, sprockets, and bearings to lock the bracket plate onto the inner shaft. Please note that the drive side inner shaft components may need to be adjusted later on.

Hoist the assembly up by using a safe mechanical means. Position the assembly at the required coil height and bolt the bracket plates to the wall angles using the bolts, nuts, and washers supplied.

NOTE: Between jamb configurations will require an additional clearance above for the operator and/ or adjusting wheel. A pocket is also required in the wall to permit the drop out mechanisms to operate interference free.

NOTE: The bracket plates are to be mounted to the **outboard face of the wall angles.** The bolt heads are to be located on the wall angle side. (FIG. 11)

Tighten all bracket plate bolts to the wall angle. Check to ensure that the shaft will move freely by rotating the assembly by hand. It should turn on the bearings without a lot of resistance. Check to ensure the bracket plates are square with the wall. Adjust if necessary.

NOTE: Check all drop out mechanisms for interference-free operation to ensure proper automatic closing action during the fire mode.

NOTE: The shaft assembly **must be absolutely level** to ensure that the curtain will roll up evenly.



Installing the Curtain Assembly

Place the coiled curtain under the shaft assembly above. Position the curtain so that the outside of the door will unroll towards the opening. Lift the coiled curtain up by using a safe mechanical means. Position the curtain about 18" below the shaft assembly with the top slats exposed facing up. Care must be used to prevent damage to the door.

IMPORTANT: Distribute the load evenly. Do not support the entire weight of the assembly under the curtain at one point. This may cause permanent slat damage.

Install heavy rope slings around the curtain and the shaft assembly. The installer must use a sufficient number of slings, evenly distributed, to prevent the curtain from being deformed during this process (one every three feet is recommended). (FIG. 12) Turn the shaft assembly by hand, or with the drive mechanism, so that the slings carry the top slats upward to the pipe shaft. Line up the holes in the top slats with the holes on the shaft assembly. **Verify that the curtain is centered between the bracket plates.** Slide the outermost top slats firmly against the curtain's endlocks of the slat directly below them. This will help to prevent curtain movement from side to side, during normal operation of door.

IMPORTANT: Use only the curtain mounting bolts supplied by the manufacturer.

If the shaft assembly is configured with **barrel rings**, the top slats are inverted with the flat outer side resting on the barrel ring mounting surface. Fasten the top slat to the shaft barrel ring using **only the** $3/_8$ -16 x $1/_2$ " large flange hex head bolts supplied. (FIG. 13)

If the shaft assembly is configured with **weld nuts** (i.e., no barrel rings), the inside of the top slat is to rest over the weld nut. Fasten the top slat to the shaft weld nut using **only the** $1/2-13 \times 1/2$ " **button** head bolts supplied. (FIG. 14)

Wind the curtain onto the shaft assembly. Stop winding the curtain when it is completely wound on shaft, and the bottom bar is about 1" below the bottom of the bracket plates. Do not remove the slings. Secure the rolled up curtain in place using a large rope or safety strap in the center of the coil or clamp the bottom bar to the wall angle



WARNING

Do not let the curtain rotate in free fall. No tension has yet been applied to the springs. A free falling curtain could strike someone causing severe injury or death.

Installing the Guides



WARNING

The guides can be extremely heavy. Persons with back problems or other physical conditions which may limit them from lifting heavy objects should not perform the next steps.

Fasten a bellmouth stop to the top of the each guide before mounting it to the wall angle. Use only the fasteners supplied with the door in the hardware bag. (Do not use hex head fasteners here.) (FIG. 15)



Fasten the guides to the wall angles beginning with the center slotted hole in the guide. The center bolt should be placed at the top of its slot. The remaining bolts should be inserted in the same manner. This allows for expansion of the guides during a fire. Large steel washers are to be placed under each nut before tightening. (FIG. 5)

IMPORTANT: Use only the bolts supplied by the manufacturer.

Adjusting Spring Counterbalance



WARNING

SPRING TENSION IS DANGEROUS! A sudden release of the springs could result in severe injury or death. Proceed with caution, following these instructions carefully.



WARNING

Do not use loose fitting wrenches or winding tools that could slip and cause severe injury or death. Always stand to one side — never wind the spring directly in front of you.



Always wind tension when the door is in the up position. The springs are under the least amount of tension at this point.

The next steps typically require two persons. One person should apply the spring tension, while the other person should lock it in place. Adjust the

spring tension by turning the adjusting wheel in the direction shown in Figure 16. Springs will exert a large force on the wheel that must be held securely to avoid an accident. Turn the adjusting wheel one "recess notch" at a time. When taking a new grip, maintain the adjusting wheel position by raising the drop out arm (via the fusible link chain), into the tension lock bar that engages the adjusting wheel.



Exercise extreme caution when increasing or decreasing spring counterbalance. Never permit the adjusting wheel to rotate rapidly when releasing spring counterbalance. Contact with a rapidly rotating adjusting wheel or expelled winding tool can cause severe injury or death.

Continue to adjust the spring tension until the curtain bottom bar slowly rotates upward against the bellmouth stops. The number of adjusting wheel turns to achieve optimum counterbalance, will vary with each door size. Apply only enough tension to hold the door in the up position against the stops. This is typically the optimum setting. Lock the charge setting in place by securing the fusible link chain. Test the door for proper balance. Do not over charge the spring. After the door counterbalance has been properly adjusted, carefully remove all safety ropes, straps or wall angle clamps.

IMPORTANT: Increasing the initial tension will reduce the lift effort but can prevent the door from completely closing to the floor. Over charging the door may result in premature spring failure.



Installing the Operator

Depending on the type of fire door and the options selected, the unit will be supplied with the materials for either a manual lift door, a chain hoist operated door, a crank operated door, or a motor operated door.

Manual Lift Doors

Manual lift doors are supplied with a locking collar for the drive side shaft. From previous steps, the collar should be located on the inner shaft. Adjust the governor and lock it in position using the collar and set screw provided.



WARNING

The locking collar must be installed to insure that the viscous governor will be engaged by the governor arm. Failure to do so may result in the door dropping at a high rate of speed, which may cause damage to the door, damage to the operator, serious injury, or death.

Chain Hoist Doors



WARNING

Gears and mechanisms move freely and quickly. To avoid severe injury or death, keep hands, arms, and clothing, free of moving mechanisms and meshing gears.

Chain operated doors are supplied with a romovable hoist assembly that is to be bolted onto the bracket plate. Depending on the size and type of door, one of three different gear ratio assemblies will be supplied. Mount the hoist assembly onto the studs provided on the bracket plate, below the main drive gear, using the hardware provided. Some configurations may require the use of a spacer channel, under the hoist assembly, to keep the gears properly aligned. If a spacer channel is required, it will be supplied with the door. (FIG 17)

From previous steps, the main drive spur gear should be located on the driven shaft. Adjust the gear (if necessary) to line up with the chain hoist gear below. Tighten the set screws securely. Install the hand chain over the pocket wheel and adjust it to the proper length (3' from the floor) if necessary.



IMPORTANT: Before operating the door, be sure that all drop out mechanisms are engaged and the fusible link chain is secured.

Crank Operated Doors

WARNING

Gears and mechanisms move freely and quickly. To avoid severe injury or death, keep hands, arms, and clothing, free of moving mechanisms and meshing gears.

Crank operated doors are supplied with the components mounted to the bracket plate. From previous steps, the large diameter spur gear should be located on the driven shaft. Adjust the gear (if necessary) to line up with the crank gear below. Tighten set screws securely.

Motor Operated Doors



To reduce the risk of injury to persons, use only Atlas Door™ operators on this fire door.

Motor operated doors are supplied with the motor assembly which is packaged in a separate carton. The motor assembly and mounting brackets (if required) are to be fastened together using the four $^{3}/_{8}$ -16 x 1¹/₄" bolts, nuts, and washers provided with the door. When motor operators are furnished, check the documentation supplied for the correct mounting arrangement.



Doors equipped with motor operators can cause serious injury or death if not properly adjusted, installed, or operated. Refer to the motor operator manual for specific warnings.

IMPORTANT: If the door is now, or later becomes, electrically operated, any locking devices must be disengaged or electrically interlocked.

The motor mounting bracket is to be fastened to the two studs on the outside edge of the drive side bracket plate using two ¹/₂-13 nuts and washers provided. From previous steps, the chain sprocket should be located on the driven shaft. Adjust the door sprocket to line up with the drive sprocket located on the motor assembly. Tighten the set screws securely. Using the mounting bracket, adjust the location of the motor so that proper roller chain tension is obtained. Use half links for fine adjustment if necessary.

IMPORTANT: The motor should be diagonally braced to the adjacent wall construction by the installer if sideways movement is present. The bracing is to be of sufficient strength to prevent movement of the bracket plate and motor when the door is operating. Bracing should not interfere with the proper operation of the door. Bracing is to be supplied by the installer.



WARNING

Failure to adequately brace the bracket plate and motor operator may result in chain disengagement, causing the door to unexpectedly drop if unbalanced, which could cause serious injury or death

Wiring of the motor operator is to be performed only by qualified personnel. Reference the wiring diagram located inside the operator control box.

Set the operator limit switches per the "Limit Switch Adjustment for Motor Operators" sheet included with the Motor Operator.

If the motor operator is not yet electrified, the limit switches must be temporarily adjusted to avoid override in case of accidental operation with power, prior to the final setting of the limit switches. Lower the door bottom bar to within two feet of the upper bellmouth stops. Push down on the pressure plate and move the "open groove nut" until it contacts its micro switch. Lower the door to within two feet of the floor. Push down on pressure plate and move the "close groove nut" until it contacts its micro switch.

On "M" and "H" series motor operators the emergency hand chain is engaged by pulling another separate lighter chain. This lighter chain is held by a lock lever which must be mounted on the wall with the bracket provided in the motor box. Lock the lever in the down position and attach it to the lighter chain. Pull the chain so that it engages the manual operator. Holding the chain taut, bolt the lever bracket to the wall at about four feet from the floor. Release the lever and check that the manual operator has disengaged.

Installing the Hood

The hood should be installed to ensure the structural integrity of the door and operator as well as providing proper fire protection. If an internal hood support is supplied, it should be installed prior to installing the hood. Exterior hood supports may be supplied if a flame baffle is attached to the inside of the hood.

Place the hood across the coil of the door, resting it on the hood bands located on the inside of the bracket plates. The hood must fit flush with the wall at the top of the coil. Fasten it to the wall first by drilling through the hood, into the wall, and using the 1/4" expansion shields provided. Fasten the ends of the hood to the bands located on the bracket plates using the self tapping number 14 x 1/2" screws provided (Use 5 per side). Thoroughly caulk the hood and all covers.

If a fascia is provided, hold it in position on the ends of the bracket plates. If it is to be bolted under the lintel, drill holes for 1/4" bolts or expansion shields in the upper flange of the fascia using a hole spacing of 24" on center maximum. Bolt the fascia into position using the 1/4" bolts and washers. On some doors, clips may be provided to hold fascia in place.

Installing Fusible Links and Routing the Drop Out Chain

Fusible links should be placed where they are most exposed to possible fire. A chain is to connect the fusible links to all release mechanisms, and should be free to move smoothly. The fusible links and chain shall be installed and routed so that the failure (or melting) of any single fusible link shall permit the door to drop. One fusible link must be within 12" of the ceiling. All wall mounted eye bolts must be completely threaded into wall. When all routings and door mechanisms are set, check to ensure that all fuse link chains are taut. (FIG. 18)

NOTE: Some types of drop out mechanisms may have more than one chain coming from the bracket plate. These must not be looped together until each chain has been run at least 12" away from the bracket plate.

NOTE: Through-wall fusible links are not required when the door is mounted on the interior side of an exterior wall of the building.

tension disc and lock in place via tightening the locking screw. (FIG. 19) Run the fusible link chain to the bracket holding the two fingers in place and attach via "s-hook." Mount the eye bolt L-Bracket to the motor using the hardware supplied. Route the fusible link chain through the eye bolt. Be sure the eye bolt is positioned properly in front of the s-hook so that the fusible link chain is set at 90 degrees to the bracket plate. Remove the plastic shipping clip (near the s-hook) prior to drop testing.

Attach the end of the express release fusible link chain to the fusible link chain that engages the governor device. Check to ensure that the chain is taut, the tension disc set screws are tight, and that the eye bolt and mounting arm will not interfere with the governor engagement mechanism when it is released. Attach the motor drive chain between the drive sprocket on the operating end of the shaft and the express release device. Be sure the chain is tensioned properly.





If the door was supplied with an express release device, continue on with this section. Install the express release device only on the motor operator output shaft via the two set screws supplied with the assembly. Adjust the two "fingers" against the



IMPORTANT: To provide proper separation of the release device, the drive chain must be mounted as shown in Figure 20 with a half (1/2) inch offset between sprockets.



Installing the Quartzoid Release Device

If the door was supplied with a Quartzoid Release Device, continue on with this section. Install the Quartzoid Release Device only on the motor operator output shaft via set screws. Attach the motor drive chain between the driven sprocket on the operating end of the shaft, and the quartzoid release device. Be sure the drive chain is tensioned properly. (FIG. 21)



IMPORTANT: To provide proper separation of release device, drive chain must be mounted as shown in Figure 20 with a one (1/2) inch offset between sprockets.

Installation of Optional Guide Weather Stripping (or Smoke Seals)

The guide weather stripping is typically shipped in the carton space between the guide angles. There are two primary types of weather stripping. The first is the brush type which typically screws onto the outside guide edge. The second type is an all vinyl construction that is to be firmly pressed on to the outside guide edge, with the flexible lip towards the flat face of the curtain. If the weather stripping can not be seated on the edge by hand, use a small mallet and a block of wood to lightly tap the material in place. Open the door to the full open position to install these components. Snip off the top corner of the flexible portion of weather strip down at a 45° angle. Open and close the door to ensure no interference is present.

Adjusting the Starter Bolt

WARNING

SPRING TENSION ADJUSTMENTS CAN BE DANGEROUS! A sudden release of the springs could result in severe injury or death. Adjustments should only be made by a qualified door service person. Proceed with caution, following these instructions carefully.

Due to variations between fire door sizes and spring rates, the proper amount of "spring release," which is used to start the door's descent, changes from door to door.

In order to set the starter bolt, some background information may be useful. The fusible links hold up the drop out arm that engages the tension lock bar holding the adjusting wheel. (FIG. 2) When the fusible links melt during a fire (at 165° F), the drop out arm and tension lock bar drop out. With no means to hold the spring force, the shaft (to which the adjusting wheel is pinned) begins to rotate rapidly, releasing spring tension. This action forces the pipe to turn, and the door to close. In order to allow only a portion of the spring force to be used to automatically close the door, a "starter bolt" is to be located in one of several positions on the face of the adjusting wheel. As the adjusting wheel rotates, the end of the starter bolt strikes the swing stop, behind the adjusting wheel. Both components rotate together until they are restricted by the stop bar welded to the bracket plate.

First, make sure that the door is properly balanced. Place a chalk mark on the adjusting wheel and the bracket plate so that the adjusting wheel may be returned to the same position after each test drop.



WARNING

Failure to perform the next procedure correctly may result in the door dropping too fast. This may lead to door damage and/or to serious injury to installation personnel and/or passersby.

To adjust the drop rate correctly, it is best to start by "under-releasing" spring charge, and then increase the amount until the door drops at the correct rate. (Adjustments to the spring balance charge are typically not necessary.) The spring release adjustment is made by changing the location of the starter bolt, in the face of the adjusting wheel. Please note that the adjusting wheel starter bolt hole configuration may vary depending on the door size.

IMPORTANT: Make sure that the starter bolt is completely installed and tightened before performing a drop test.

Refer to Figure 22 for the following steps. If the stop bar on the bracket plate is located at the 1 o'clock position (right hand doors—as shown) and the starter bolt is located at approximately 8 o'clock (after the swing stop located at 6 o'clock) both will rotate until they meet the stop bar, releasing approximately ¹/₃ turn of spring force. If the starter bolt is located at 12 o'clock, approximately ²/₃ turn of spring force will be released. If the starter bolt is located at 4 o'clock, approximately 1 turn of spring force will be released. The maximum amount of charge that can be released is approximately 1²/₃ turns.



Drop Testing the Door

Prior to drop testing the door, a few precautionary steps should be taken. The door area should be roped off on both sides. Check to ensure that all fire release mechanisms operate freely.



Failure to check all mechanisms for proper operation, including the governor system, may result in the door dropping too fast. This may lead to door damage and/or to serious injury to installation personnel and/or passersby.

After all adjustments have been made, test-drop the door by releasing the fusible link chain. The door should lower gradually to the floor. Reference local fire door codes for descent rate. If no local codes are applicable, all testing should be in accordance with NFPA 80 in which the door descent rate is between 6 and 24 inches per second. After a successful test drop, return the adjusting wheel to the chalk marked position and reconnect the fusible links to the chain(s). All disconnect levers must be fastened to the fusible link chains. Under no circumstances should disconnect levers be fastened to bracket plates or walls without having a fusible link in the line.

IMPORTANT: It is the responsibility of the installer to ensure that the door is operating properly, and that it has been successfully test dropped, and documented, before leaving the job site. Be sure to have the facility manager, or end user, witness the drop test.

IMPORTANT: Use an industry standard "Fire Door Inspection and Drop Test Form" to document all customer approval signature(s). If there is a problem, notify Atlas Door[™], in writing, immediately.

Finishing Steps

Apply all warning labels in the appropriate locations. Reference the label mounting instruction sheet included in the bolt bag for details.

Double check all bolts and hardware for tightness.

Install the hand chain lock on the wall if furnished.

Install all bracket plate covers supplied with the door.

The door guides should be adequately greased, and thoroughly lubricate all gears and drive mechanisms with WD-40°, silicone spray lubricant, graphite grease, lithium grease, or similar material.



Never place hands or fingers between gears, or chain and sprockets, while the door is being operated. Doing so may result in crush injuries, broken bones or serious lacerations.

Locate this manual near the door.

Final Installation Check List

e property help In order to assure the customer that the door has been installed correctly, and in a safe manner, please check the following before leaving the job site.

- Check to see that all warning labels are mounted in the appropriate locations.
- □ Make certain that the proper amount of tension has been applied to the springs to properly counterbalance the weight of the curtain. The door should raise and lower with ease, and remain open (in the upper position) when resting against the stops.

- □ Check to see that the adjusting wheel is securely fastened in place.
- □ Inspect all sprockets and gears requiring keys, to ensure that they are installed and seated properly.
- □ Recheck all set screws (one over the key the other located at 45° from the key) in each sprocket or gear for tightness.
- □ Check all fasteners holding guides to the building structure as well as those used in assembling the door components are secure.
- □ Check the area for any extra parts, and be sure these were not omitted during the installation process.
- □ Instruct the customer or their representative in the proper method of operating the door. Be sure to demonstrate any optional equipment, show the location of the bottom bar contract number label, and inform them of the preventative maintenance schedule before leaving the job site.

Instruct the customer to read the IMPORTANT **SAFETY INFORMATION** section of this document.

- □ Have the customer or their representative sign off on the installation, and exchange all documentation at this time.
- Be sure that this manual is located near the door or given to the customer.
- Be sure not to leave a mess. Clean up the area and make sure it is secure if you are the last one to leave.

Your input on this product is welcomed. Please report in writing any issues or recommendations that would improve the product or installation method. These comments should be forwarded to the Atlas Door™ Customer Services Department or call 1-800-959-9559.

Preventative Maintenance Schedule

Atlas Door™ Coiling Fire Doors have been engineered to provide years of trouble free service under normal use. A visual inspection of the door should be performed quarterly to determine if any components are malfunctioning, damaged, or missing. To ensure the longest possible life from your door, the following maintenance guidelines should be implemented.

- Lubrication is the most important maintenance to be performed on the door. Apply grease to the guides quarterly (or more frequently if high usage or dusty conditions are present). Failure to do this may void warranty claims in the area of slat wear. Lubricate all moving mechanisms
- Check the guides for proper opening spacing. Adjust if necessary
- Check all wall angle and guide angle bolts to ensure that they are secure. Tighten if necessary.
- Check the pipe shaft for signs of wear around the bearing and bracket plate areas. Fix or replace worn components if necessary.
- · Check the bracket plates for secure attachment to the wall angles. Tighten if necessary.

- Check all drop out components for loose or missing hardware, and proper operation. Fix or replace components if necessary.
- Check the fuse link chain for tautness. Tighten if necessary.
- Check all gears, sprockets, and chains drives for proper alignment and/or tautness. Adjust if necessary.
- Check all fasteners and bolted connections to ensure they are secure. Tighten if necessary.

As stated in NFPA 80, the door should be drop tested at least once a year by a qualified door service person to ensure proper operation.

Contact a qualified door service person for any repairs. Use only Atlas Door™ replacement parts.

Troubleshooting Guide

The chart below is a list of possible problems associated with the operation of coiling fire doors. This table covers the most common issues, and is not meant to include all possibilities. Other factors may be involved due to the large variety of product combinations and the field conditions.

PROBLEM	PROBABLE CAUSE	REMEDY
Door raises hard, closes easily or will not stay open	Insufficient counterbalance	Increase spring tension 1 notch
Door drifts down from stops	Insufficient counterbalance	Increase spring tension 1 notch
Door closes hard, raises easily	Too much counterbalance	Decrease spring tension 1 notch
Door jumps up from floor	Too much counterbalance	Decrease spring tension 1 notch
Curtain runs to one side	Shaft not level	Check and level shaft
	Broken endlocks	Check and straighten or replace
Door sticks when closing	Bent guide angle(s)	if necessary
	Guide angle distance incorrect	Adjust width of guide angles
Door coil makes cracking sound	Bent slats	Inspect, remove and straighten or replace
Door squeaks when operating	Tight guides	Check alignment and distance between guides
15 50	Dirty guides	Inspect and clean inside of guide
umentublicont	Insufficient lubrication	Grease guides or spray mechanisms with WD-40 [®] or similar lubricant
Motor runs, door does not operate	Curtain jammed	Inspect and remove obstruction
This led a Pell	Emergency hand chain engaged	Disengage emergency hand chain
orovite	Insufficient counterbalance	Increase spring tension ¹ / ₂ turn (3 notches)
Door drops too slow	Insufficient spring release	Increase stop bolt position 1 hole
Door drops too fast	Too much spring release	Decrease stop bolt position 1 hole

Fire Door Parts List

The following parts list contains components or assemblies commonly referred to.

Part Number	Description	Where Used
6006023	Chain Hoist Kit - FD Simple/Basic	Bracket Plate, DS
6006024	Chain Hoist Kit - FD Single Compound	Bracket Plate, DS
6006223	Chain Hoist Kit - FD Double Compound	Bracket Plate DS
6000013	Endlock - Cast - Flat Slat	Curtain
6000974	Endlock - Cast - Crown Slat - RH	Curtain
6000975	Endlock - Cast - Crown Slat - LH	Curtain
6000018	Motor Clip - Stamped	Between motor and BP
6000957	Motor Clip - Cast	Between motor and BP
6001305	Motor Clip - M30 Series Only	Between motor and BP
6001211	Bellmouth Stop - RH	Top of guides
6001212	Bellmouth Stop - LH	Top of guides
6001871	Bearing, 1.00" - Encapsulated Type	Bracket Plate, Shaft
6000170	Bearing retainer for 1.00" Encapsulated Type	Bracket Plate, Shaft
6001873	Bearing, 1.00" - Stamped Flangette Type	Bracket Plate, Shaft
6001874	Bearing, 1.00" - Cast Flange Type	Bracket Plate, Shaft
6001878	Bearing, 1.25" - Encapsulated Type	Bracket Plate, Shaft
6000171	Bearing retainer for 1.25" Encapsulated Type	Bracket Plate, Shaft
6000032	Bearing, 1.25" - Stamped Flangette Type	Bracket Plate, Shaft
6001877	Bearing, 1,25" - Cast Flange Type	Bracket Plate, Shaft
6001880	Bearing, 1.50" - Cast Flange Type	Bracket Plate, Shaft
6001881	Bearing, 1.75" - Cast Flange Type	Bracket Plate, Shaft
6001882	Bearing, 2.00" - Cast Flange Type	Bracket Plate, Shaft
6001623	Pull hook	Manual doors
6003724 🎸	Express release device	On Motor Operator
Special Order	Bracket plate, drive (Contract No. Required)	Holds shaft
Special Order	Bracket plate, adjustment (Contract No. Required)	Holds shaft
Special Order	Curtain slat (Contract Number Required)	Curtain
Special Order	Bottom bar assembly (Contract Number Required)	Curtain
Special Order	Guide assembly (Contract Number Required)	Mounts to opening
Special Order	Hood (Contract Number Required)	Covers curtain coil
Special Order	Shaft assembly (Contract Number Required)	Supports curtain coil

<u>atlas door</u>™ **Ξ**(

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