

#### GENERAL NOTE:

- The terms “fire door”, “fire doors”, “door” and “doors”, apply generally to Fire Doors and Counter Fire Doors. If an instruction refers to a specific type, it will be noted as such.

#### OPERATION INSTRUCTIONS



**WARNING!** – A fire door could close rapidly at any time and cause death or serious injury. **Do NOT stand in the doorway.**



**WARNING!** – A moving door can cause death or serious injury.

**Keep clear** of the doorway while the door is moving.

- Operate the door only when the doorway is clear of people and obstructions.
- Do NOT allow children to play on, near, or with the door, or operate the door.



**WARNING!** – Releasing the door operator brake, or loosening or removing any part of the drive system, can cause the door to move uncontrolled and cause death or serious injury.

- Do NOT release the brake, or loosen or remove any part of the drive system, unless the barrel is secured to prevent rotation.

**NOTE:** If the door is provided with a locking device, make sure locks are disengaged before opening the door.

- **Slide lock at each end of the bottom bar:** Slide the bent locking bar away from the door guide until it is fully retracted and clear of the door guide.
- **Cylinder or thumb turn near the center or each end of the bottom bar:** Insert the key and rotate it or rotate the thumb turn until the spring activated L-handle returns to the unlocked position and the locking bar is retracted and clear of the door guides.

**NOTE:** Depending on the size and type of door, and the method of operation, it is not unusual for the door curtain to feel “heavier” as it travels from nearly closed to nearly open, and to “spring up” near the closed and open positions.

**Push-up operated door:** Lift the door curtain to open – pull down the door curtain to close.

*There may be lifting handles or recessed lifts on the bottom bar to aid in the process. Exercise caution when operating the door and maintain control of it. The bottom bar may want to raise up from the sill when the door is closed and it may be necessary to hold the bottom bar down while engaging the locks (when provided).*

**Chain operated door:** Pull the hand chain to open – pull the release cable, or unlock and turn the handle release if provided, to close.

*Use a hand-over-hand motion when pulling on the hand chain to open. Exercise caution when pulling on the hand chain and maintain control of it. When the hand chain is not being used, it should be inserted in the chain keeper adjacent to the door guide. The chain keeper may be padlocked.*

**Crank operated door:** Insert the crank handle onto the crank gear box. Turn the crank handle to open – pull the release cable, or unlock and turn the handle release if provided, to close.

*Use one hand to hold the crank handle and the other hand to turn it. Exercise caution when turning the crank handle and maintain control of it. When the crank handle is not being used, it should be removed from the crank gear box and stored in a safe and secure location.*

**Motor operated door:** Activate the “OPEN” or “UP” control to open – activate the “CLOSE” or “DOWN” control to close. Use the “STOP” control to stop travel of the door curtain between the open and closed positions.

*(Push the button or insert and turn the key to move the door curtain in the direction indicated.)*

- 1) *Most push-button control stations and key stations include a “STOP” button. If not, the control station should be wired to require maintained pressure on the “OPEN” and “CLOSE” control for the door curtain to move. Letting go of the button or key will stop the travel of the door curtain between the open and closed positions.*
- 2) *Per the requirements of UL Standard 325, a door (motor) operator must be provided with an actuating device (push-button control station, key station, etc.) requiring constant pressure to close the door. As an alternative, the door may be provided with a monitored sensing device that will reverse the door upon sensing an obstruction during closing. If a fault in the monitored sensing system is detected, the door will either stay in or return to the open position if closing. (The process of closing a door in response to a fire condition will override this function.) Depending on the operator design, the operator may revert to a constant pressure close function to allow temporary operability of the door until the fault condition is corrected.*
- 3) *In the event of a loss of power, motor operators that are equipped with an auxiliary chain hoist will allow for emergency manual operation of the door by pulling on the hand chain in one direction to open the door and in the opposite direction to close the door. When not in use, the hand chain is intended to be stored in the chain bag attached to the motor operator (when provided). Exercise caution when operating the door and maintain control of it.*

## **MAINTENANCE INSTRUCTIONS**



**WARNING!** – Components under **extreme spring tension** can cause death or serious injury. Adjustments and repairs must be made by a trained door systems technician using proper tools and instructions.

**NOTE:** Chain, crank and motor operated fire doors have counterbalance springs that are adjusted during installation to allow the door to close automatically upon activation of the door operator release mechanism without requiring a loss of spring tension. With certain operators, there may not be a counterbalance spring. Releasing the door operator brake, or loosening or removing any part of the door operator drive system, can cause the door to close if open.



**WARNING!** – **Releasing the door operator brake, or loosening or removing any part of the drive system, can cause the door to move uncontrolled** and cause death or serious injury. Do NOT release the brake, or loosen or remove any part of the door operator drive system, unless the barrel is secured to prevent rotation.

**Lubrication:** Bearings are grease-packed and sealed, requiring no further maintenance. Guides do not require lubrication, but may be coated with a light lubricant (such as “Slip-it”) to reduce friction and noise. Some operating systems utilize roller chain and sprockets,

which periodically may require a light lubricant. Other components should not normally require lubrication.

*The use of heavy oil or grease as a lubricant is not recommended because they are likely to attract dirt and debris that can result in a build-up, and potentially worsen the condition lubrication was supposed to resolve.*

**NOTE:** NFPA 80<sup>1</sup> and building codes require that:

- Fire doors be inspected and tested at least annually
- Fire doors be inspected and tested after completion of any maintenance work
- Rolling fire doors be inspected and tested by a trained rolling steel fire door systems technician
- A record of all inspection and testing be signed by the inspector and kept for the authority having jurisdiction (AHJ)

*Fire door inspection and test forms and labels are available from Lawrence Doors.*

**Inspection:** At least annually, doors must be visually inspected from both sides to assess overall condition. Depending upon factors such as a door's age, exposure to environmental conditions, and frequency of usage, more frequent inspections may be justified. Doors are to be inspected for anything that might impair operation, compromise performance in a fire condition, or pose a hazard, such as but not limited to:

- Loose bolts and screws
- Damaged, worn, or missing parts
- Misaligned, loose, or worn operating or closing system components
- Door or closing system components blocked or wedged, or conditions that otherwise prevent the door from closing
- Binding or obstructed movement of the curtain in the guides
- Out of balance (push-up operated door heavy to lift or closes rapidly)

Also verify:

- Condition and locations of fusible links and related hardware
- Proper function of any related equipment (controls, accessories, release devices, etc.)
- Sensing devices, when provided, are tested frequently
- Warning labels are attached the door as follows:
  - L70011 Guide Label is attached to the guide at eye level on the operating side of the door (or to the wall if the guides are concealed)
  - L70020 Fire Door Label is attached to the guide at eye level on the operating side of the door (or to the wall if the guides are concealed)
  - L70010 Spring Label is attached to the tension bracket
  - L70027 Operator Label is attached to the operating bracket (this label is not provided if the door is push-up operated)
- Inspection and test record label is attached to the guide at eye level on the operating side of the door (or to the wall, or to the bottom bar, if the guides are concealed)

**NOTE:** NFPA 80<sup>1</sup> requires that fusible links that are painted, or coated with dust, grease, or any other materials, or fusible link cables or chains that are kinked, pinched, twisted or inflexible, be replaced. Do not attempt to clean fusible links.

**Operational check:** Following a visual inspection, open and close the door in normal operation to check for proper balance and free movement of the door. If the door does not operate properly, evaluate to determine if repairs are necessary before a drop test.



**WARNING!** – Components under **extreme spring tension** can cause death or serious injury. Adjustments and repairs must be made by a trained door systems technician using proper tools and instructions.

**NOTE:** Push-up operated doors have closing systems that release spring tension and require mechanical reset.

**Drop test:** Following a visual inspection and operational check, doors must be drop tested at least annually – once to verify proper operation and full closure, and a second time to verify that the automatic closing device was reset correctly. The door must close at an average rate of no faster than 24 inches per second and no slower than 6 inches per second. The bottom bar must come to rest on the floor/sill. After successful drop testing, the door must be reset, tested and reset again.

**NOTE:** NFPA 80<sup>1</sup> requires that testing include closing a door by all means of activation. This typically includes, but may not be limited to:

- Separating fusible links from the fusible link cable on both sides of the wall
- Activating local detector(s)
- Activating an alarm system (this may require coordination with an alarm company – as an alternate, activate door closing from the alarm contact points in the alarm release if acceptable to the AHJ)
- or as otherwise required by the AHJ

**Defective conditions:** Any defective conditions that are found during inspection or testing must be corrected. If any warning labels are missing or not legible, contact Lawrence Doors for replacement labels.

**Adjustments and repairs:** If adjustments and repairs become necessary, they must be made by a trained door systems technician using proper tools and instructions.

**NOTE:** NFPA 80<sup>1</sup> requires that:

- Fire doors work properly at all times
- Repairs must be made, and defects that could interfere with operation must be corrected, without delay

**Replacement parts:** Replacement parts are available from Lawrence Doors through an authorized dealer and often available from stock.

**NOTE:** NFPA 80<sup>1</sup> requires that:

- Doors be repaired with parts obtained from the original manufacturer
- If doors cannot be repaired, they must be replaced

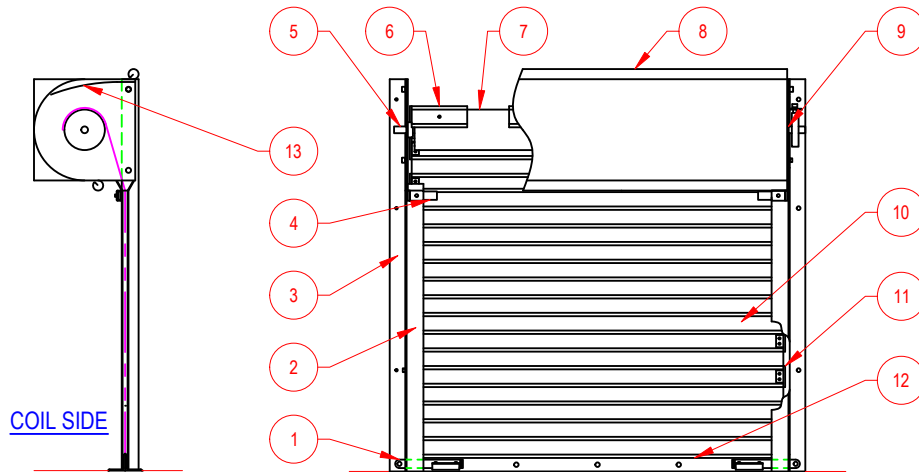
**NOTE:** If excessive wear or damage to any component(s) is observed, a trained door systems technician must evaluate the condition and perform all necessary adjustments and repairs.

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<sup>1</sup> NFPA 80 *Standard for Fire Doors and Other Opening Protectives* regulates the general requirements for installation, care and maintenance of fire doors, including inspection and testing. Its companion document, NFPA 105 *Standard for Smoke Door Assemblies and Other Opening Protectives*, also applies to fire doors with S-Labels.

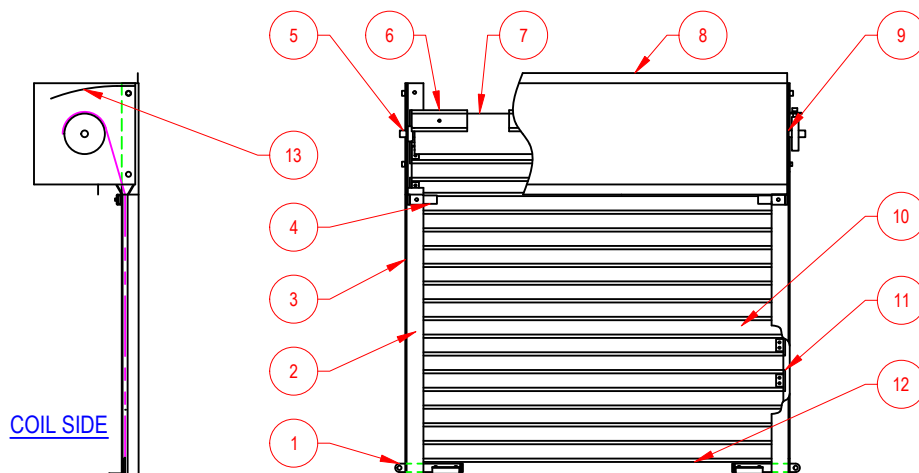
FOLLOWING ARE ILLUSTRATIONS OF TYPICAL PRODUCT CONFIGURATIONS - ACTUAL CONSTRUCTION MAY VARY

## FIRE DOORS



NO.	DESCRIPTION
1	SLIDE LOCK
2	GUIDE
3	WALL ANGLE
4	CURTAIN STOP
5	DRIVE BRACKET
6	STARTER SLAT
7	BARREL
8	HOOD
9	TENSION BRACKET
10	SLAT CURTAIN
11	ENDLOCK
12	BOTTOM BAR
13	BAFFLE (WHEN PROVIDED)

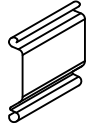
## COUNTER FIRE DOORS



NO.	DESCRIPTION
1	SLIDE LOCK
2	GUIDE
3	WALL ANGLE
4	CURTAIN STOP
5	DRIVE BRACKET
6	STARTER SLAT
7	BARREL
8	HOOD
9	TENSION BRACKET
10	SLAT CURTAIN
11	ENDLOCK
12	BOTTOM BAR
13	BAFFLE (WHEN PROVIDED)

## SLAT TYPES

**FOR MODELS:**  
SL



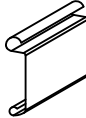
Type 'C' Curved Slat  
3 1/4" x 9/16"

**FOR MODELS:**  
ML, CL



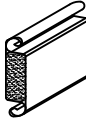
Type 'F' Flat Slat  
2" x 9/16"

**FOR MODELS:**  
HL



Type '3' Flat Slat  
2 1/2" x 3/4"

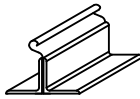
**FOR MODELS:**  
IL



Type '33' Insulated Slat  
2 1/2" x 7/8"

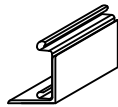
## BOTTOM BARS

**FOR MODELS:**  
SL, ML, HL, IL

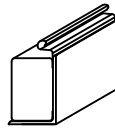


Double Angle Bottom Bar

**FOR MODELS:**  
CL



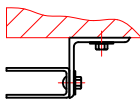
Single Angle Bottom Bar



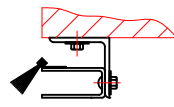
Tubular Bottom Bar  
(Optional)

## GUIDES

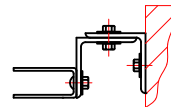
**FOR MODELS:**  
SL, ML, HL, IL



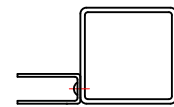
Type 'Z' Guide



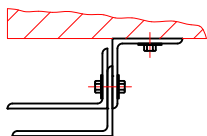
Type 'E' Guide  
(Shown With Brush Seal)



Between Jamb Guide

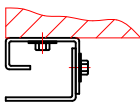


Tube Mount  
(Optional)

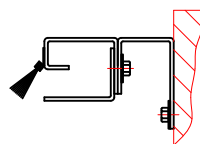


3pc. Angle Guide  
(Doors Over 24' Wide,  
Z-Guide Shown, Other Types Similar)

**FOR MODELS:**  
CL

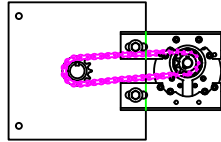


Face Mount



Between Jamb Mount  
(Shown With Brush Seal)

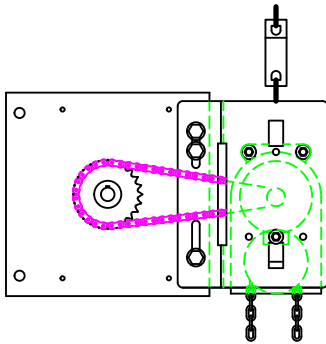
## PUSH-UP BRACKETS



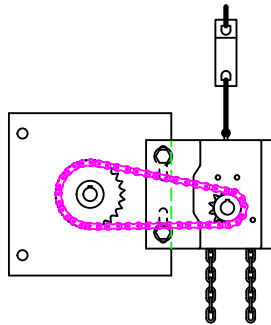
DSG Governor  
(Chain cover not shown for clarity)

## CHAIN HOIST BRACKETS

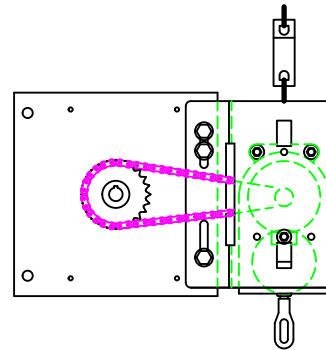
## AWNING CRANK BRACKETS



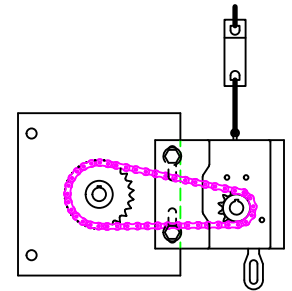
Type FHC



Type FHCM

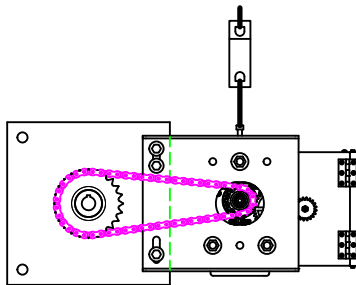


Type FHK

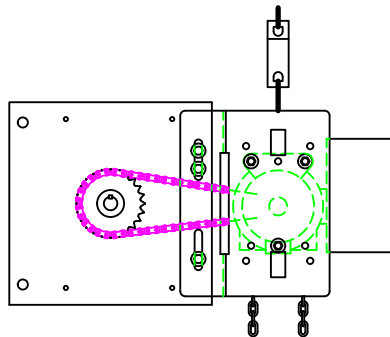


Type FHKM

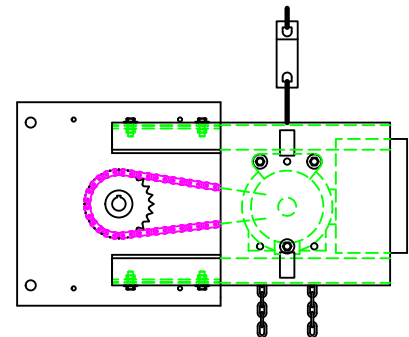
## MOTOR BRACKETS



Straight Mounting Plate

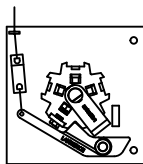


Bent Mounting Plate

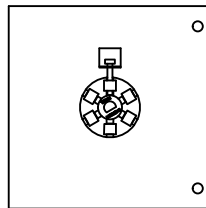


Heavy Duty Mounting Plate

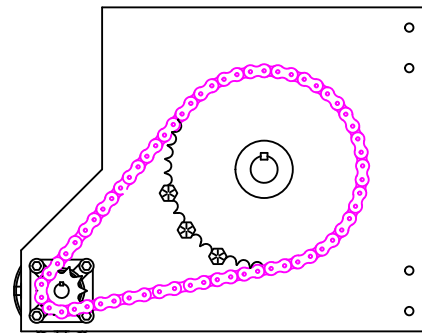
## TENSION BRACKETS



Push-Up Tension Bracket



Standard Tension Bracket



Compound Tension Bracket