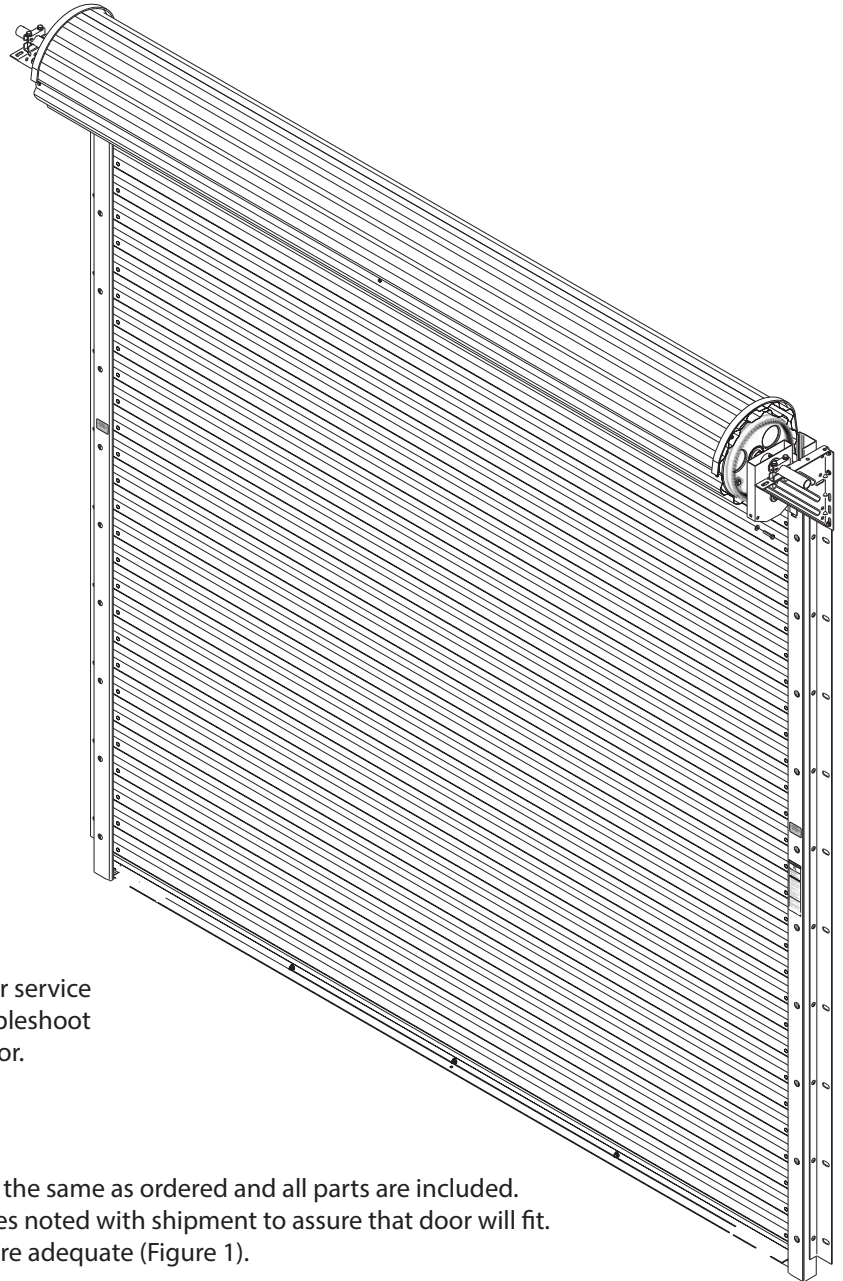


Installation Instructions for **ROLLING SERVICE DOOR** **Series 780 CD/790 CW**

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⚠ CAUTION

USE PROPER LIFTING EQUIPMENT AND
CORRECT LIFTING PROCEDURES TO
AVOID INJURY

This installation manual provides the owner or service person information required to install, troubleshoot and maintain a Rolling Service Door.

IMPORTANT

- CHECK for shipping damage.
- CHECK door against packing list to make sure door is the same as ordered and all parts are included.
- CHECK width and height of door opening against sizes noted with shipment to assure that door will fit.
- CHECK to make sure headroom and side clearances are adequate (Figure 1).

Read these instructions completely before attempting to install this door.
WARRANTY VOID IF DOOR IS NOT INSTALLED ACCORDING TO INSTRUCTIONS.
DO NOT CUT OR REMOVE RETAINING BANDS UNTIL INSTRUCTED TO DO SO.
CHECK WARNING LABELS ON DOOR FOR PROPER INSTALLATION PROCEDURE.

READ COMPLETE INSTRUCTIONS BEFORE INSTALLING DOORS.

This document also refers to the following other documents or specifications;
Installation Instructions, Cast Gear Drive Chain Hoist 308042
Chain Hoist Assemblies and Operation 300951

SAFETY INFORMATION

OVERVIEW OF POTENTIAL HAZARDS

READ THIS SAFETY INFORMATION

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 trained door system technician.

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

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

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

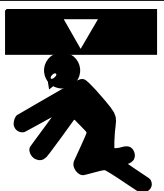


▲ CAUTION indicates a potentially hazardous situation which, if not avoided, may result in injury or property damage.

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

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

SAVE THESE INSTRUCTIONS

Potential Hazard	Effect	Prevention
 <p>MOVING DOOR</p>	<p>▲ WARNING</p> <p>Could result in Death or Serious Injury</p>	<p>Keep people clear of opening while Door is moving.</p> <p>Do NOT allow children to play with the Door Operator.</p> <p>Do NOT operate a Door that jams or one that has a broken spring.</p>
 <p>ELECTRICAL SHOCK</p>	<p>▲ WARNING</p> <p>Could result in Death or Serious Injury</p>	<p>Turn OFF power before removing operator cover.</p> <p>When replacing cover, make sure wires are NOT pinching or near moving parts.</p> <p>Operator must be fully grounded.</p>
 <p>HIGH SPRING TENSION</p>	<p>▲ WARNING</p> <p>Could result in Death or Serious Injury</p>	<p>Do NOT try to remove, install, repair or adjust springs or anything to which door spring parts are fastened, such as, wood blocks, steel brackets, cables or other like items.</p> <p>Installations, repairs and adjustments must be done by a trained door system technician using proper tools and instructions.</p>

Key Drawing

Rolling Service Door with parts.

Right hand door is illustrated. In a left hand door the barrel and both brackets are reversed. Guides for masonry jambs shown.

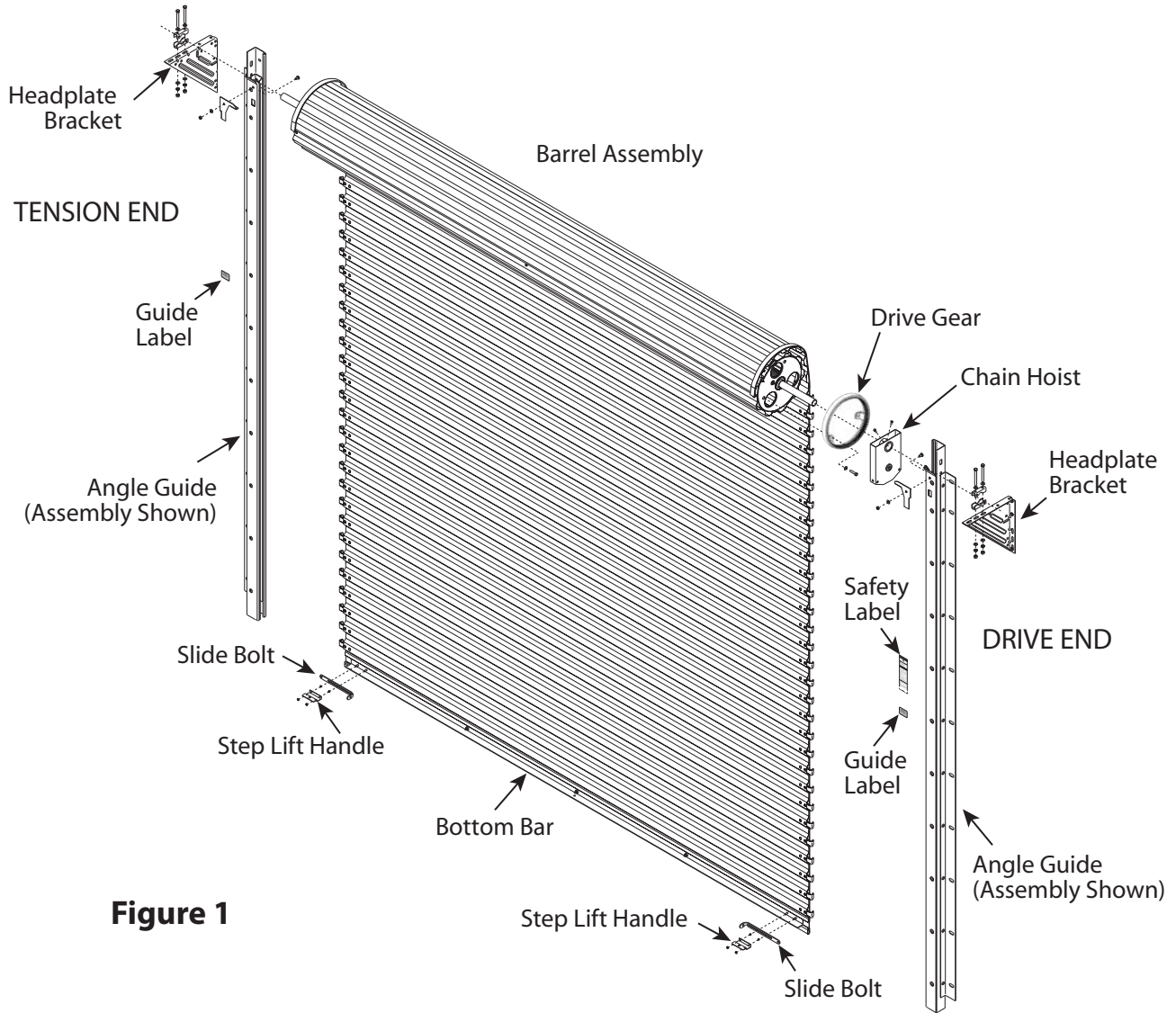
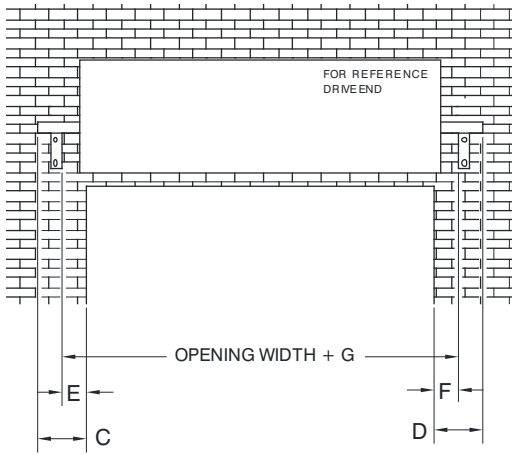


Figure 1

Please note that components and component locations are shown here for REFERENCE ONLY. Your unit installation and component locations may be different.

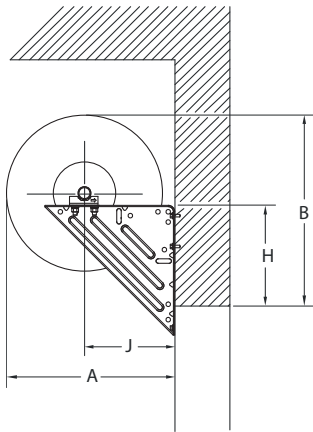


Operation	Door Type	C*	D*	E	F**	G
Push Up	790	10"	10"	6"	6"	12"
	780	10"	10"	4"	4"	8"
Reduced Chain Drive	790	10"	10"	4"	6"	10"
	780	10"	10"	4"	8"	12"
Operator	790	10"	10"	4"	4"	8"
	780	10"	10"	4"	6"	10"

*Excess shaft may be cut off of non-drive sides of doors for additional clearance. It is recommended that at least 1" of shaft be retained past the headplate to facilitate spring tension adjustment.

**Dimension "F" applies to Drive End only. RH shown, LH opposite.

Figure 2



Opening Height		Head Plate Height		Axle Setting		Back Room	
		H		J		A	
Over	Up To	Recommended	Minimum	Recommended	Minimum	Recommended	Minimum
-	7' 8"	10"	8"	9 1/8"	Same	18 1/8"	Same
7' 9"	9' 4"	10 1/2"	8 1/2"	9 1/8"	Same	18 3/8"	Same
9' 5"	11' 0"	11"	10"	10 1/4"	Same	19 3/4"	Same
11' 1"	12' 8"	11 1/2"	10 1/2"	10 1/4"	Same	20 1/4"	Same
12' 9"	14' 3"	12"	11"	10 1/2"	Same	20 1/2"	Same
14' 4"	16' 0"	13"	12"	10 1/2"	Same	21"	Same

Figure 3

NOTE: Bracing may be required to prevent light weight building jambs from twisting.

INSTALLATION

1. Locate headplates per dimensions F, (or approximately 5" above top of guide, if headroom allows) E, H and G (Figure 1).
2. Hold headplates in mounting position. Using a water level, check to make sure tops of headplates are level. Mark mounting hole locations on header. See Table 1 for supplied fasteners. Thru-bolts are recommended for brick or stone walls or hollow Concrete Masonry Unit (CMU) wall. **DO NOT** install fastener in a void in the wall. If this condition exists then use Thru-bolt. Fasten headplates to wall using three fasteners. Use top hole in headplates.

Opening Height		Head Room	
		B	
Over	Up To	Recommended	Minimum
-	7' 8"	20 1/4"	18 1/4"
7' 9"	9' 4"	21"	19"
9' 5"	11' 0"	21 3/4"	20 3/4"
11' 1"	12' 8"	22 3/4"	21 3/4"
12' 9"	14' 3"	23 1/4"	22 1/4"
14' 4"	16' 0"	24 3/4"	23 3/4"

3. IF DOOR IS CHAIN DRIVEN: (See page 9 for illustration)

- A. Slide 6:1 chain hoist onto door shaft. (Page 7)
- B. Align small gear of chain hoist with large ring gear mounted to curtain assembly.
- C. Secure two chain hoist bolts onto door shaft.
- D. Thread hand chain thru chain guide slots, over chain wheel and connect ends.

NOTE: Make sure chain is not twisted.

Table 1 - Headplate Fasteners

Jamb	Doors	Fastener	Drill Size	Fastener Specifications
Steel	All	3/8" bolt	7/16"	
Concrete/Masonry	All	3/8" exp. anchor	3/8"	Use ANSI B95.12 carbide tipped drill bit
Wood	All	3/8" Lag	5/16"	

*Drill size for supplied fasteners. For others, refer to manufacturer's specified installation method. See Page 4 For illustration

4. Curtain assembly counterbalance springs will have to be wound during the installment procedure. It is essential that the curtain bottom bar be positioned correctly when placing curtain assembly on headplates. A reference point marked on the curtain ring and door shaft is required to neutralize the spring before clamping the door shaft. See Table 3, Page 9, for the initial turns required to wind counterbalance springs, then locate bottom bar accordingly. (**NOTE:** Incorrect number of turns will affect door operation. See directions on sheet 7 for adjusting spring tension. **EXAMPLE:** If the number of initial turns is 1 and ½, locate bottom bar at the ½ turn position (Figure 4). Step 8 will explain the winding procedure.

5. Position curtain assembly on headplates according to dimension J in Figure 3. Curtain must be centered on door opening.
6. Install saddle clamps at both ends of door shaft as shown in Figure 5 and securely tighten saddle clamps to headplates.
7. Position guides to opening as shown in Figure 6. Clearance between curtain and inside of guides is shown in Figure 7. Adjust curtain or guides as necessary to achieve this spacing. Secure guides to jambs with supplied fasteners. See Table 2.
8. Curtain assembly counterbalance springs must now be wound for the number of initial turns required to set spring tension. As explained in Step 4, use the initial turn setting to wind counterbalance springs. **EXAMPLE:** If initial turn setting is 1 and ½ use the following procedures:
 - A. Starting at the ½ turn position, rotate curtain assembly on door shaft 1 and ½ turns in the "CLOSE" direction (See Figure 4).
 - B. Bottom bar should stop at the FULL TURN position.
9. Secure bottom bar or hand chain to prevent curtain from unwinding and remove retaining bands.
10. Lower bottom bar into guide openings and lower curtain to the floor.
11. Install bottom bar stops as shown in Figure 8. Make certain the head of the bolt is on the inside of the guides for proper door operation.
12. Check both guides to insure the clearance shown in Figure 7 is maintained along the full length of the guides. Adjust both guides for clearance if necessary and secure.
13. Make sure radius at top of guides leads curtain into guides smoothly. If necessary, bend radius to adjust.

NOTE

DO NOT LUBRICATE GUIDES.

DOOR SHOULD OPEN AND CLOSE WITH EQUAL EFFORT.

If door is easy to close but hard to open-

INCREASE SPRING TENSION

If door is easy to open but hard to close-

DECREASE SPRING TENSION

Table 2 - Guide Fasteners

Jamb	Doors	Width	Fastener	Spacing
Steel	780CD	Up to 16'	1/4" Screw	Every other hole
	790CW	Up to 20'	1/4" Screw	Every hole
Concrete/ Masonry	780CD	Up to 16'	1/4" Masonry Screw (3/16" Drill Size, 2-1/4" Deep)*	Every other hole
			Optional 1/4" Expansion Anchor (1/4" Drill Size)	
	790CW	Up to 16'	3/8" Expansion Anchor	Every hole
		Over 16' to 20'	1/2" Expansion Anchor	Every hole
Wood	780CD	Up to 16'	1/4" Lag Screw	Every other hole
	790CW	Up to 16'	3/8" Lag Screw	Every hole
		Over 16' to 20'	1/2" Lag Screw	Every hole

*Use ANSI B95.12 carbide tipped drill bit and drill sizes for supplied fasteners. For all others, refer to manufacturer's supplied installation method.

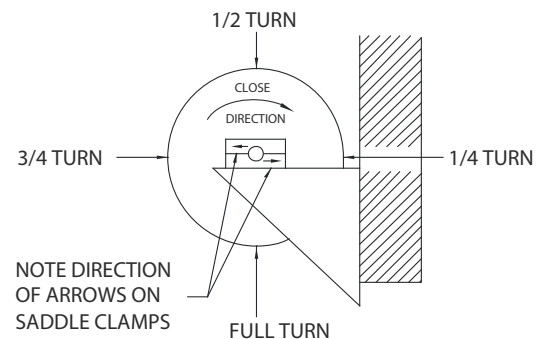


Figure 4

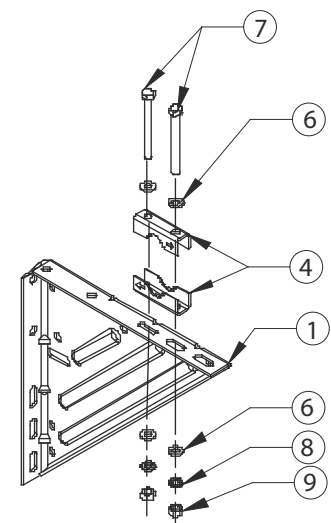


Figure 5

⚠ WARNING

Excessive Spring Tension can result in damage to the bottom bar and door stop and if used while in such a damaged state can cause serious injury.

TO ADJUST SPRING TENSION:

13. (continued)

- A. Raise curtain to fully OPEN position.
- B. Loosen set screw on chain hoist, if present.
- C. Adjust spring tension (Figure 9) according to the following procedure:
 - AA. Apply torque to door shaft using a pipe wrench.
 - BB. Loosen saddle clamp bolt nuts at both ends of the door shaft.
 - CC. Adjust spring tension as desired.
- DD. Tighten saddle clamp bolt nuts at both ends of door shaft.
- E. Tighten set screw on chain hoist, if present.
- F. Check door operation. Readjust spring tension if necessary.

14. Install slide locks to bottom bar as shown in Figure 10.

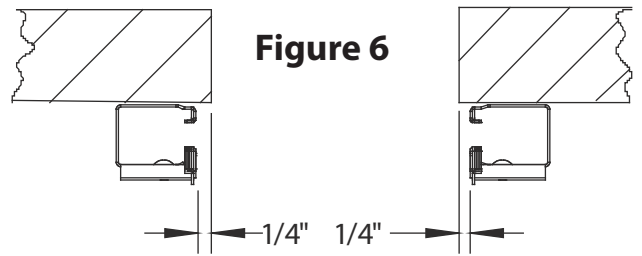


Figure 6

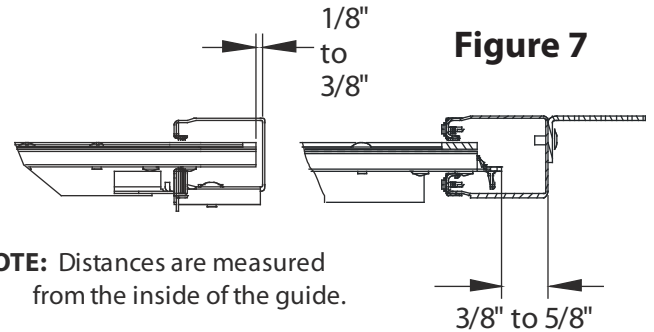


Figure 7

NOTE: Distances are measured from the inside of the guide.

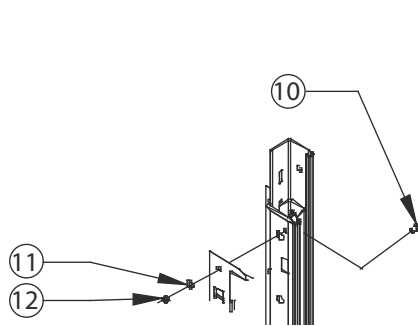


Figure 8

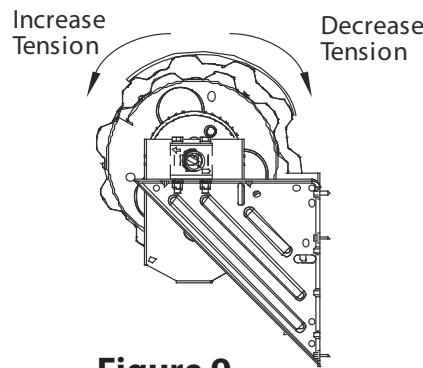


Figure 9

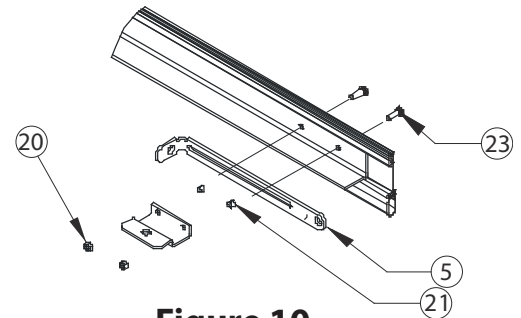


Figure 10

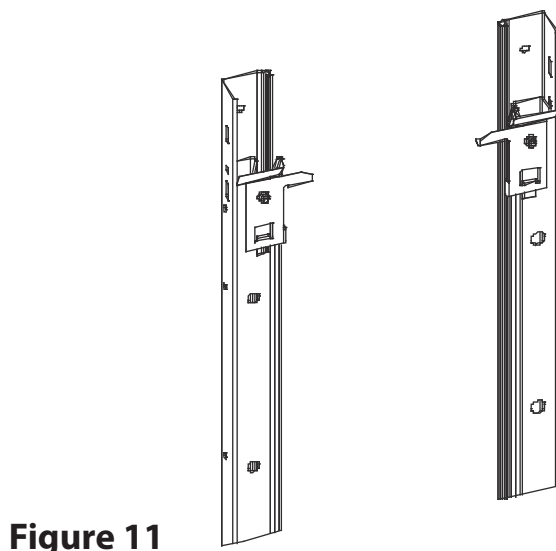


Figure 11

Jamb Type	780CD	790CW
Masonry	All Sizes	
Wood	All Sizes	
Steel	All Sizes	Up to 15'

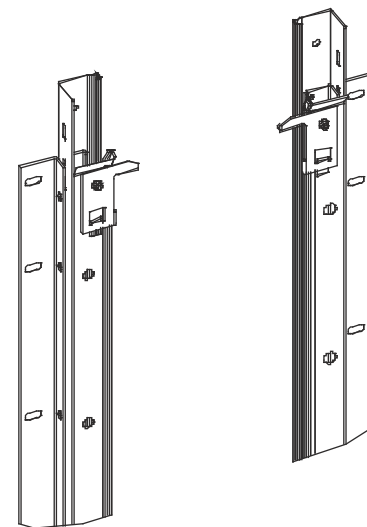


Figure 12

Jamb Type	790CW
Masonry	All Sizes
Wood	All Sizes
Steel	Over 15'

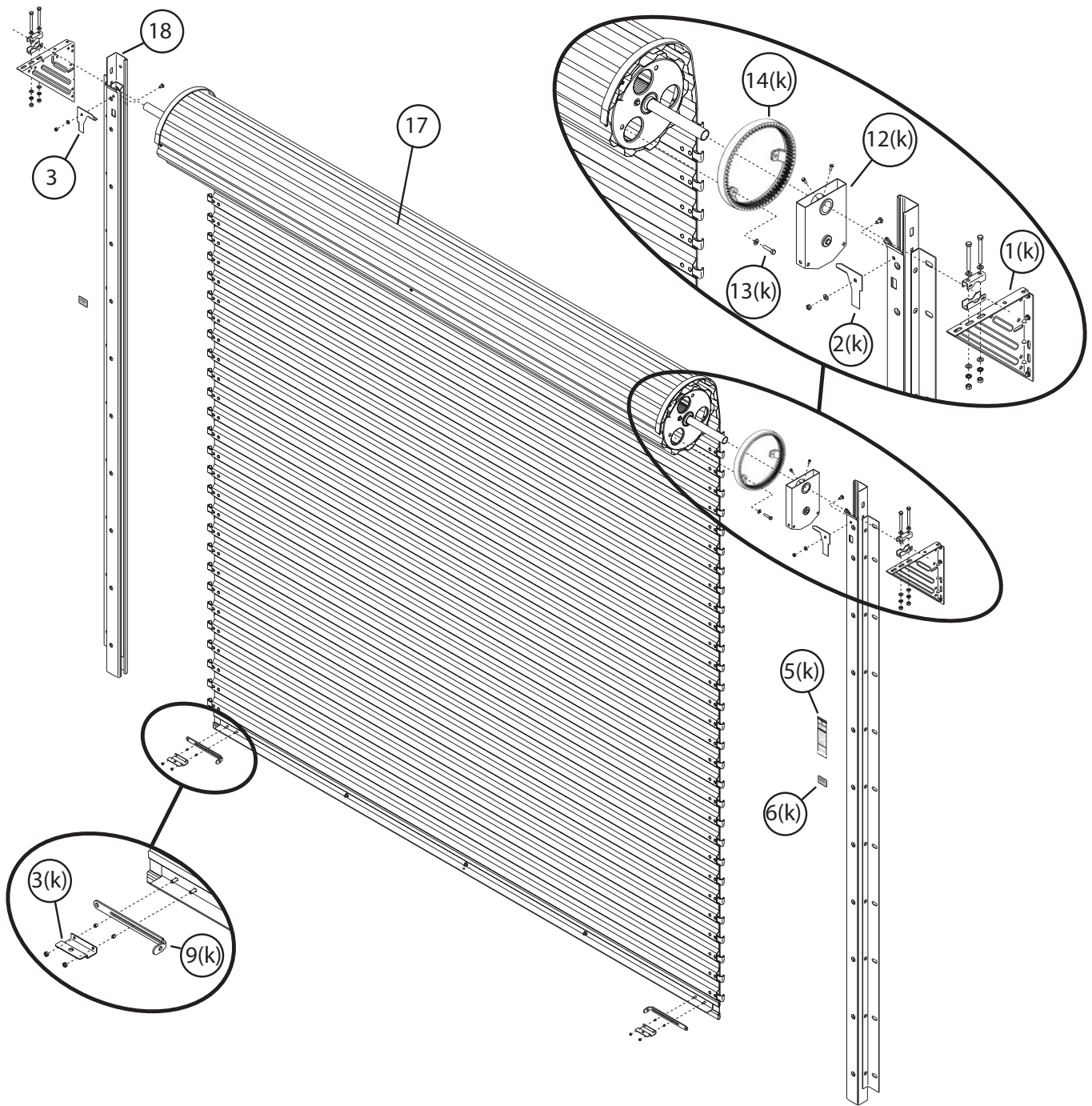


Figure 13

See page 8 for Bill of Materials

(Callouts with (k) refer to the 6:1 CHAIN HOIST KIT Bill of Material)

STANDARD DOOR HARDWARE			
ITEM	PART NUMBER	PART DESCRIPTION	QTY
1	202023-0002	BRACKET, HEADPLATE	2
2	220154-0002	STOP, BOTTOM BAR, RH	1
3	220154-0001	STOP, BOTTOM BAR, LH	1
4	202157-0001	SADDLE CLAMP, SHAFT	4
5	306973-0002	SLIDEBOLT, 1" wide x 11-1/4" long	2
6	080302-2832	WSHR, FLAT, PLD, 3/8" x 1" OD	8
7	080105-0628	BOLT, HH, NC, 3/8" x 3-1/2" LG	4
8	080322-0382	WASHER, LOCK, 3/8"	4
9	080352-0616	NUT, HEX, PLD, 3/8-16 NC	4
10	086420-0505	BOLT, CARRIAGE, SQ NECK, RND HD 5/16" x 5/8"	2
11	080302-2222	WSHR, FLAT, PLD, 5/16" x 11/16" OD	4
12	080352-0518	NUT, HEX, PLD, 5/16-18 NC	2
20	086480-1620	NUT, HEX, W/LK WSHR, 1/4-20	2
21	061239-0000	SPACER, ROLLED, 1/4" x 1/4"	4
23	086420-0408	BOLT, CARRIAGE, SQ NECK, RND HD 1/4" x 1"	2
24	205938-0001	STEP / LIFT HANDLE	2
1	220141-0007	6:1 CHAIN HOIST KIT	1
1	220076-0005	KIT, FSTNR, WALL, STL	1
	220076-0011	KIT, FSTNR, WALL, STL	1
	220082-0001	KIT, FSTNR, HDW, COML	1
2	080807-0005	ROPE, POLY, BULK, #8, 1/4"DIA	6
3	205938-0001	STEP LIFT HANDLE	2
4	220153-0004	INS, INSTL, COML, SHTDR, NO BRAND	1
5	308579-0001	WARNING, LABEL, ROLLING DOORS	2
6	604729-0001	DECAL	2
7	606853- 0014	BOX	1
8	202023-0002	BRKT, HDPL, .120" THK	2
9	306973-0002	SLIDEBOLT, 1" W x 1-1/14" L, DADE	2
11	220154-0001	STOP, BOTTOM BAR, SHTDR, LH	1
	220154-0002	STOP, BOTTOM BAR, SHTDR, RH	1
12	220205-0001	6:1 CHAIN HOIST	1
13	220207-0001	SCREW	3
14	220206-0001	GEAR	1

Table 3

15' 6" up to 16' 5"	2.75
14' 6" up to 15' 5"	2.50
13' 6" up to 14' 5"	2.50
12' 6" up to 13' 5"	2.50
11' 6" up to 12' 5"	2.50
10' 6" up to 11' 5"	2.50
9' 6" up to 10' 5"	2.50
8' 6" up to 9' 5"	2.25
6' 6" up to 7' 5"	2.25
5' 6" up to 6' 5"	2.25
4' 6" up to 5' 5"	2.00
3' 6" up to 4' 5"	2.00
2' 6" up to 3' 5"	2.00

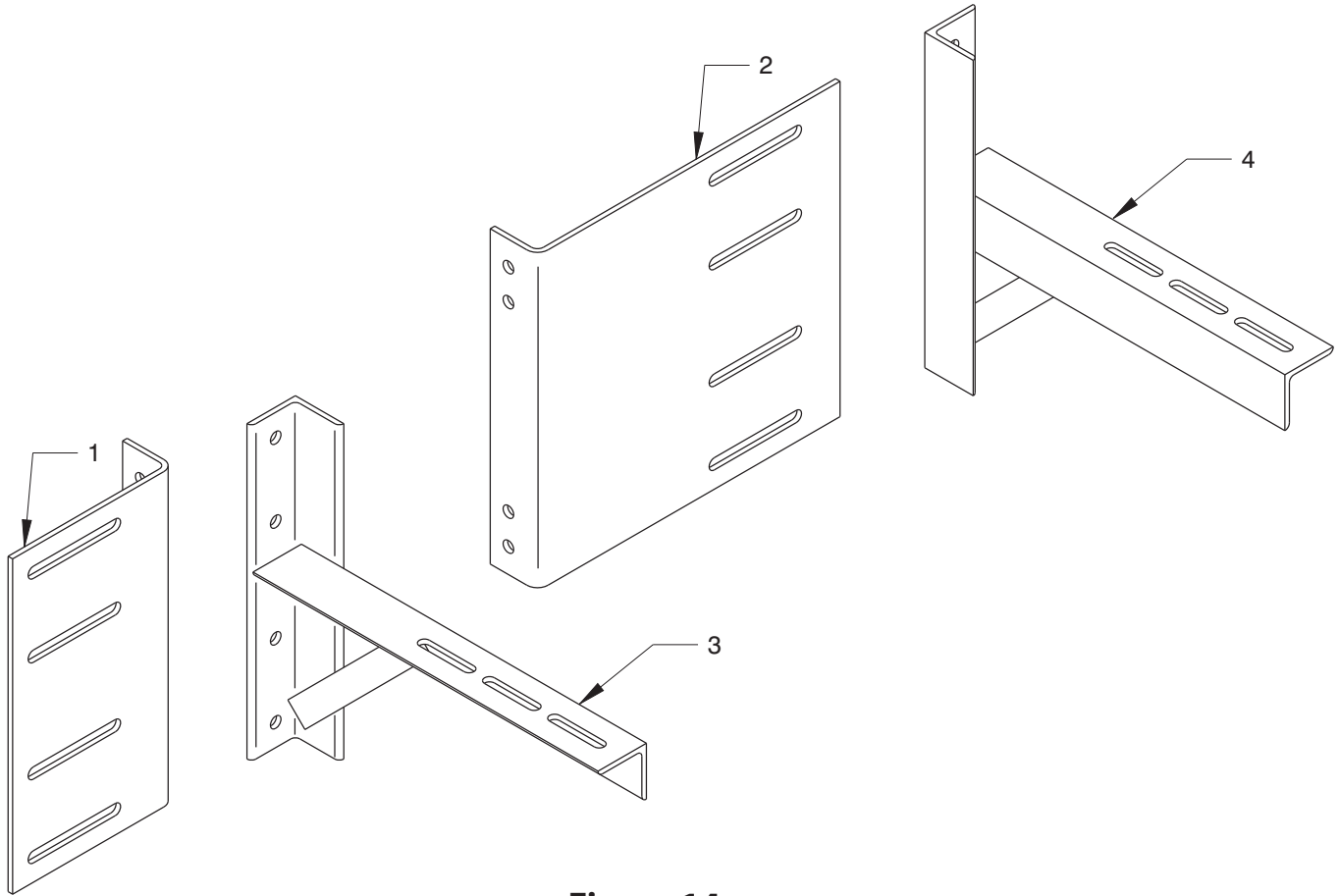


Figure 14

ITEM	PART NUMBER	PART DESCRIPTION	QTY
1	204215-0002	JAMB EXTENSION - IDLE END	1
2	204214-0002	JAMB EXTENSION - DRIVE END	1
3	205981-0005	MOUNTING BRKT., .188 THK, LH	1
4	205981-0006	MOUNTING BRKT., .188 THK, RH	1

STEP 17

PRODUCT SAFETY INSTRUCTIONS

The door installer has the following responsibilities:

- Find labels in hardware box.
- Attach "Warning" Label 308579-0001, FIGURE 16, at a readable height on door drive side guide or jamb.
- Attach "Do Not Lubricate" Label 604729 to wall at eye level, Figure 15.
- Demonstrate to the door user the correct way to control the closing speed of the 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 requirements from ANSI Z535.4: "Product safety labels should be periodically inspected and cleaned by the product user as necessary to maintain good legibility." The product user should order replacement safety labels from the door manufacturer as required to maintain legibility.
- Inform the door user that electric operators must be installed on the door in accordance with the instructions from the manufacturer of the operator.

STEP 18

- Attach chain keeper to wall or door guide assembly. Instruct door users to wrap hand chain as shown in Figure 17.
- Tie rope to bottom bar.

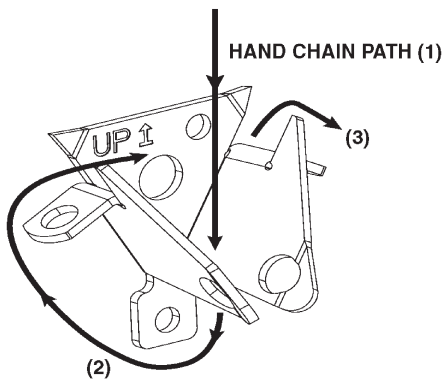


Figure 17

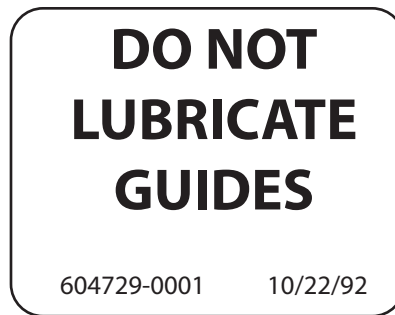


Figure 15



MOVING door could result in death or serious injury.
Do NOT close door until doorway is clear.
SAFETY INSTRUCTIONS
1. Control the speed of the door during manual operation. 2. Do not stand or walk under moving door. 3. Keep doorway clear and in full view while operating door. 4. Do NOT permit children to play on, near, or with door or to operate controls. 5. Unlock door before opening door. 6. Sensing devices on motor operated doors should be tested frequently. 7. Adjustments or repairs must be made by a trained door systems technician using proper tools and instructions. 8. Visually inspect door and hardware monthly for worn and/or broken parts and check to see if door operates freely. DO NOT operate a door with a broken spring.
Place label at a readable height on door drive side guide or jamb.
Do NOT remove, cover, or paint over label.
This label should be inspected periodically for legibility, and a replacement label should be ordered from the door manufacturer as needed.
08/27/2015 308579-0001

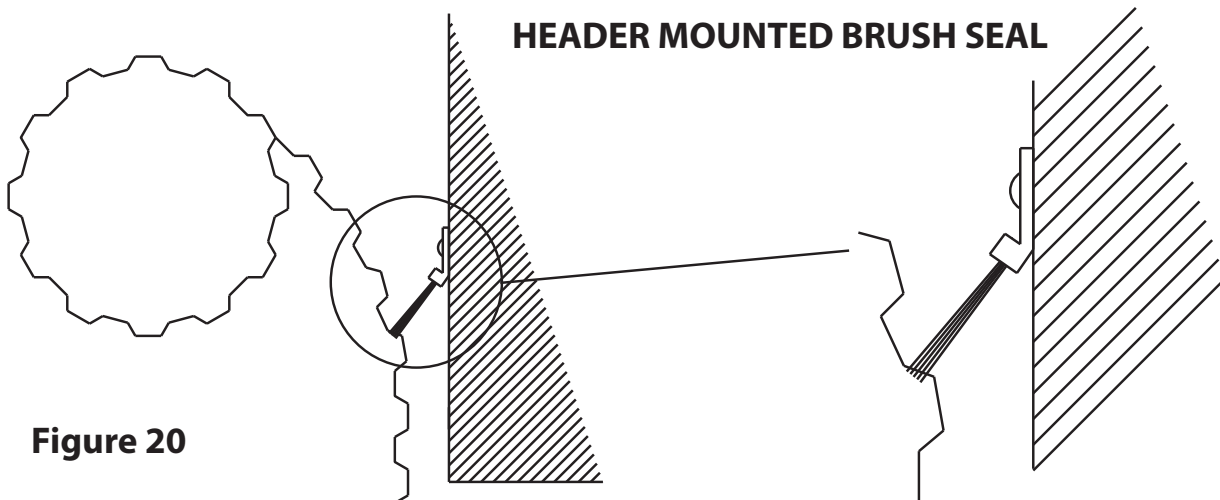
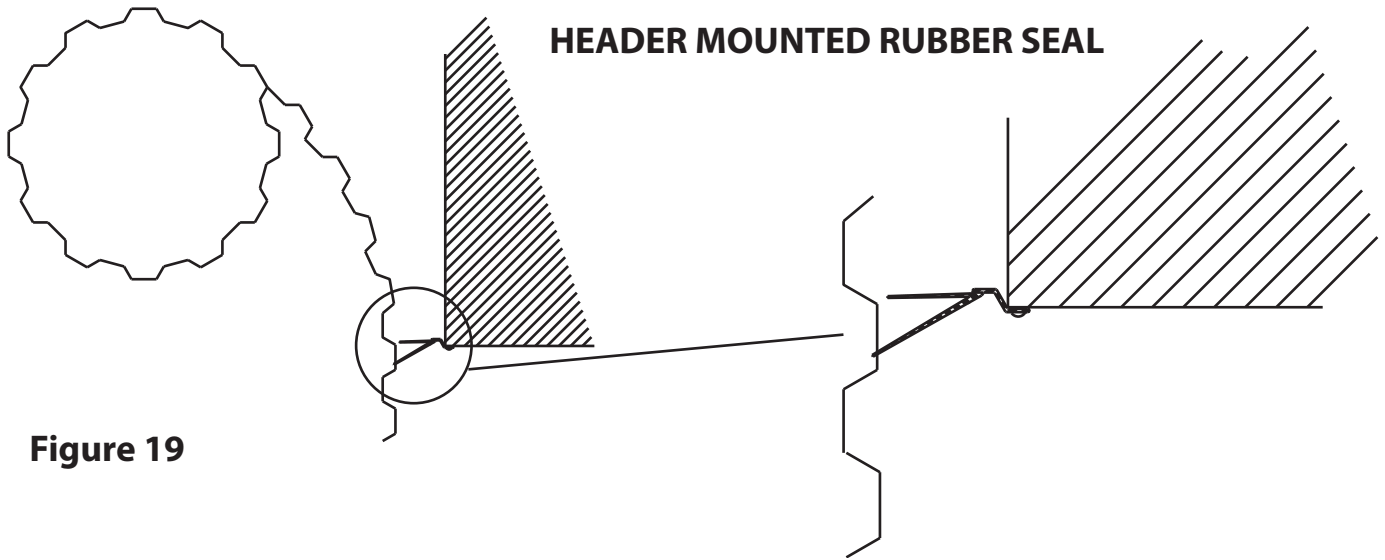
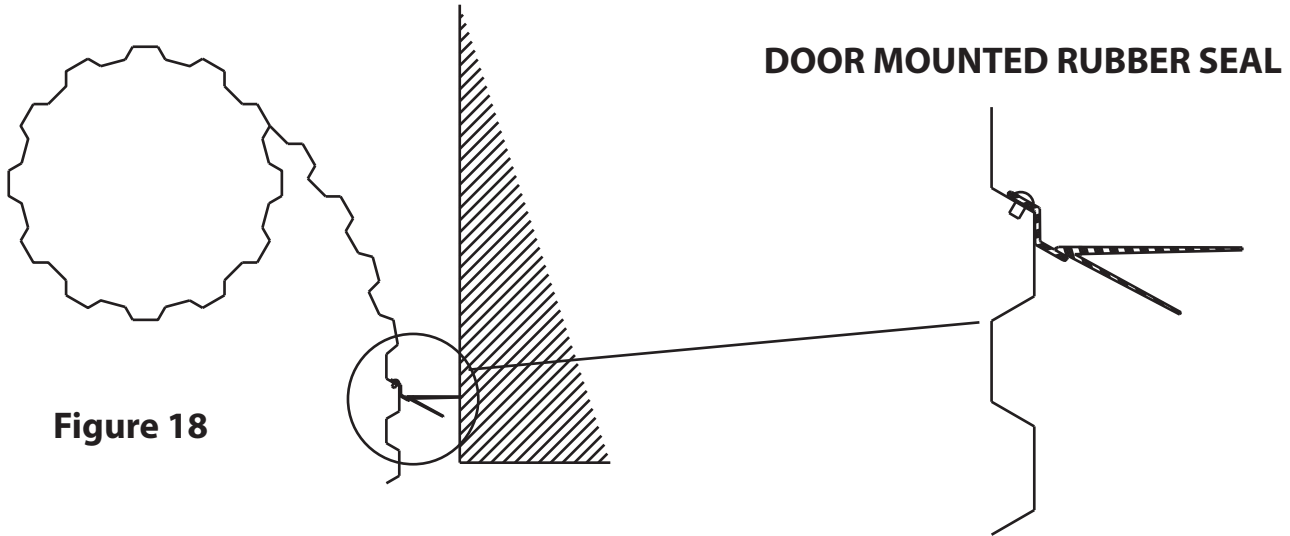
Figure 16

Troubleshooting

SYMPTOM	POSSIBLE CAUSE
1. Door is easy to close, but hard to open...	<ul style="list-style-type: none">- Insufficient spring tension.\
2. Door is easy to open, but hard to close...	<ul style="list-style-type: none">- Excessive spring tension.
3. Door is hard to operate...	<ul style="list-style-type: none">- Mounting brackets are not level.- Curtain assembly is not parallel to opening.- Door assembly incorrect distance from wall.- Guide leads are improperly adjusted. (Adjustment must be made with door fully closed).- Guides may be damaged.- Insufficient clearance between curtain and inside of guide. (Check Figure 7 for required clearance on both sides).- Mounting brackets too low. Check Figures 1 & 2 for proper location.
4. Bottom weatherseal does not contact floor evenly...	<ul style="list-style-type: none">- Floor is not level.- Mounting brackets are not level.- Guides are not plumb.- Spring tension too high. See Page 6, Figure 7 for tension Adjustment procedures.
5. Door telescopes or rolls up unevenly...	<ul style="list-style-type: none">- Mounting brackets are not level, or are too low.- To straighten door curtain:<ul style="list-style-type: none">A. Adjust mounting brackets to the correct position (Figures 1 & 2).B. While positively retaining door curtain to prevent unwinding of spring, remove guides from jambs.C. Lower curtain to floor, and carefully raise, to square the curtain back up on the barrel. (DO NOT remove positive hold on curtain until guides are back in place). Repeat as necessary.D. Replace guides and bottom bar stops.
6. Door operates stiffly or curtain rattles over guide leads...	<ul style="list-style-type: none">- Guides are too long.- Door assembly is mounted too far from opening.<ul style="list-style-type: none">A. Adjustment must be made with door fully open.B. Loosen saddle clamp bolts on one end.C. Push curtain assembly toward header until correct setting has been obtained. See dimension "J" - Figure 2 - Page 4.D. Retighten saddle clamp bolts.E. Repeat procedure for other end of curtain. Assembly MUST BE parallel with header.- Add shim behind top guide attachment to wall.- Mounting brackets to low:<ul style="list-style-type: none">A. Raise brackets, orB. Cut track from bottom. (Door will hang in opening).

OPTIONAL HEADER SEAL

1. With door closed, mark attachment point for header seal on curtain (Figure 18).
2. Raise curtain until attachment point is accessible holes for rivets on 12" centers using a number 29 drill.
3. Hold header seal along attachment point and drill.
4. Secure header seal to curtain using 1/8" diameter, large flange rivets.



770-SS, 780-CD 790-CW
Roll-Up Sheet Door
Limited Warranty

Overhead Door Corporation ("Seller") warrants to the original purchaser of the Series 790-CW, 780-CD or 770-SS Rolling Sheet door identified below (the "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(s), measured from the date of installation:

- **ONE (1) YEAR ON ALL PARTS AND COMPONENTS**

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 for any defective Product part or component is included for a period of 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, 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 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 specifically excludes any damage resulting from scratching, abrasion or impact by any hard object, and any fading or color change which may not be uniform due to unequal exposure of the curtains to sunlight or other elements. Wearing away of the painted surfaces of the Product is a common occurrence resulting from the curtain repeatedly coiling upon itself and uncoiling during normal usage (See DASMA #274), and is specifically excluded from this warranty.

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: _____

