

***Installation Instructions,  
CONTROLGARD™  
Braking Chain Hoist for  
Retrofit***

**Section 1 – Table of Contents**

**Section 2 - Safety Check List** 2

**Section 3 - Retrofitting Existing CornellCookson Hand Chain** 3

**Section 4 - Single Hand Chain Assembly** 4

**Section 5 - Retrofitting ControlGard Hand Chain with Kit** 5

## Section 2 – Safety Check List

Rolling doors are large, movable objects. They move with the help of electric motors or manual operators (chain, crank, push up, etc), and most have springs under high tension. These items and their components can cause injury. In order to avoid injury to yourself and others, please follow the instructions in this manual.

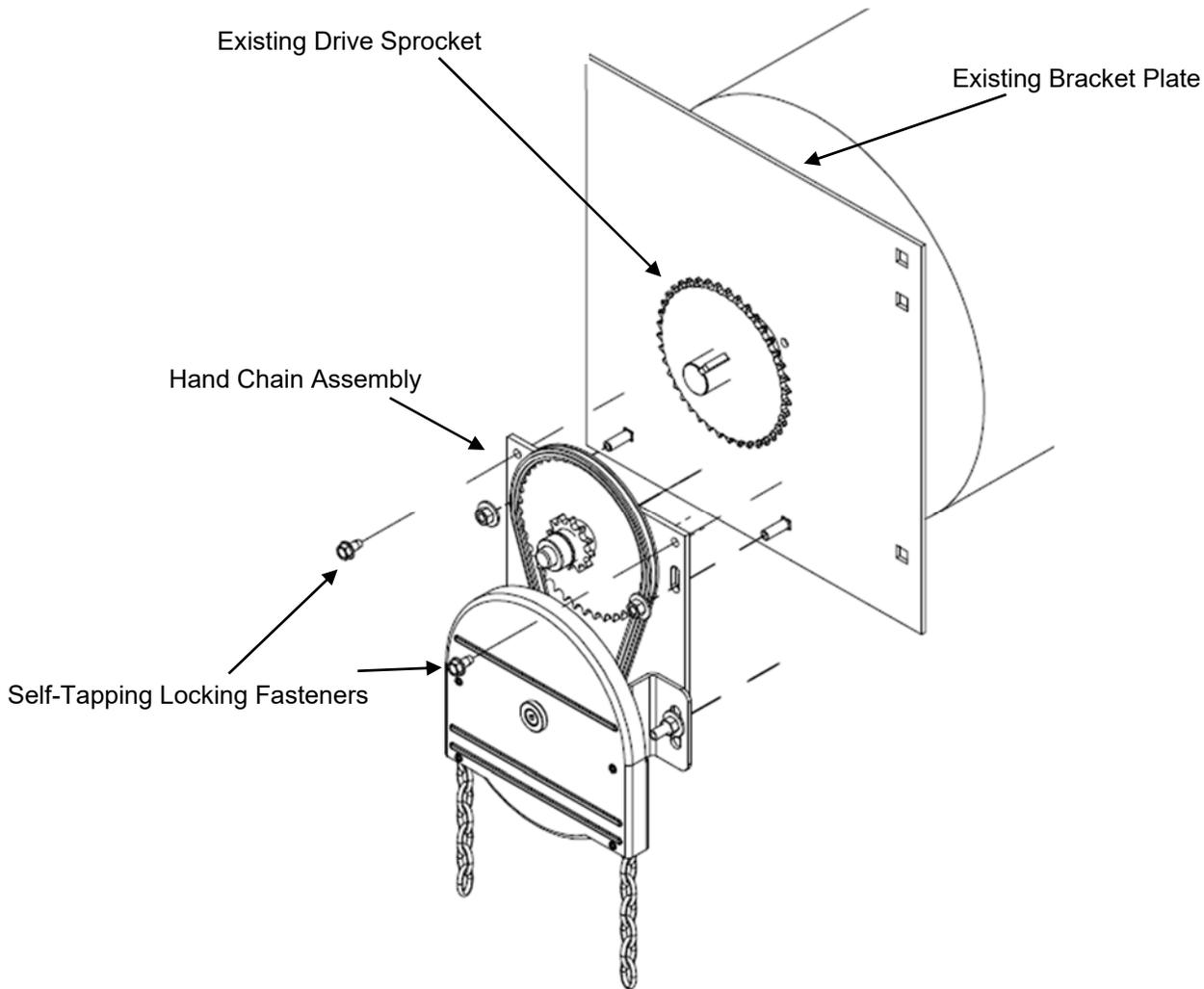
- **Review the potential hazards and preventative measures listed below:**

**Table 2.1 - Potential Hazards and Preventative Measures**

Potential Hazard	Preventative Measure	
	<p style="text-align: center;"><b>⚠ DANGER</b></p> <p style="text-align: center;"><b>Pinned or crushed by closing door.</b></p>	<ul style="list-style-type: none"> <li>• Keep yourself and others clear of opening while door is in motion.</li> <li>• Do not allow children to play near or operate door.</li> <li>• Do not operate if door becomes jammed or broken.</li> </ul>
	<p style="text-align: center;"><b>⚠ WARNING</b></p> <p style="text-align: center;"><b>Struck by adjusting wheel bar while applying spring turns.</b></p>	<ul style="list-style-type: none"> <li>• Be sure bar is adequate in strength and long enough to allow installer to apply the necessary torque.</li> <li>• Make sure bar is fully seated into the adjusting wheel slot before applying pressure.</li> <li>• Use two bars while applying turns to the adjusting wheel.</li> </ul>
	<p style="text-align: center;"><b>⚠ WARNING</b></p> <p style="text-align: center;"><b>Electrical shock.</b></p>	<ul style="list-style-type: none"> <li>• Make sure electrical operator is properly grounded.</li> <li>• Turn off source power completely prior to servicing the motor.</li> <li>• Make sure wires are clear of any moving or potentially moving parts.</li> <li>• Avoid pinching wires when installing the motor cover.</li> </ul>
	<p style="text-align: center;"><b>⚠ WARNING</b></p> <p style="text-align: center;"><b>Pinched by moving components.</b></p>	<ul style="list-style-type: none"> <li>• Make sure the motor is turned off and unplugged before working with moving parts such as roller chain and sprockets, drop-out mechanisms, adjusting wheels, etc.</li> <li>• Locate the possible pinch-points of the unit (Drive chain, coil area, bottom bar, etc.) Do not operate the door while someone is near these areas.</li> </ul>

- **Check the following during installation and before leaving the job site:**
  - a. If the unit has tension springs, be sure the proper amount of tension is applied to the torsion springs, in order to properly counterbalance the weight of the curtain.
  - b. Securely fasten the tension adjusting wheel in place with the appropriate hardware provided.
  - c. Check that the keys and/or cotter pins have been set in place and fit properly at all sprockets or gears.
  - d. Check that the setscrews in each sprocket or gear (one over the key and one offset from the key) have been tightened properly.
  - e. Check all fasteners holding the unit to the building structures.
  - f. Check all fasteners used to assemble the components of the unit together.
  - g. Instruct owner or representative in the proper method of operating the door.

### Section 3 - Retrofitting Existing CornellCookson Hand Chain

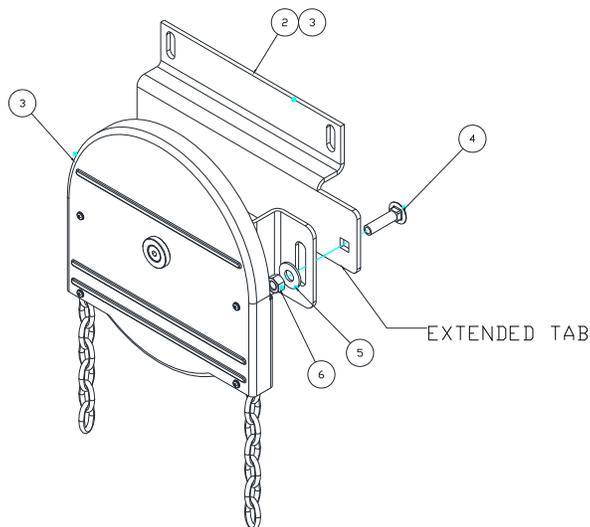


1. Remove ControlGard hand chain assembly from box.
2. Verify that assembly received matches current chain operator assembly (single reduction, compound reduction (shown), double compound reduction)
3. With door in the closed position remove current hand chain operator from unit, retaining hardware for use with new operator.
4. Bolt ControlGard hand chain assembly in place of old operator using retained hardware.
5. Verify sprocket alignment, replace drive chain, tension properly and tighten carriage bolts to 20 ft-lbs
6. \*Once the drive chain is tensioned and carriage bolts are tight, use a 9/32" drill bit and drill pilot holes through the top locking fastener holes into the bracket plate.
7. \*Install the two 5/16" self-tapping screws through the chain operator adapter plate into the bracket plate.
8. Operate unit to ensure proper operation.

\*Only perform these steps on compound and double compound chain operators.

## Section 4 - Single Hand Chain Assembly

**\*\* If this instruction is being used for retrofitting a single reduction ControlGard hand chain to a door currently without a CornellCookson hand chain do these steps first.**

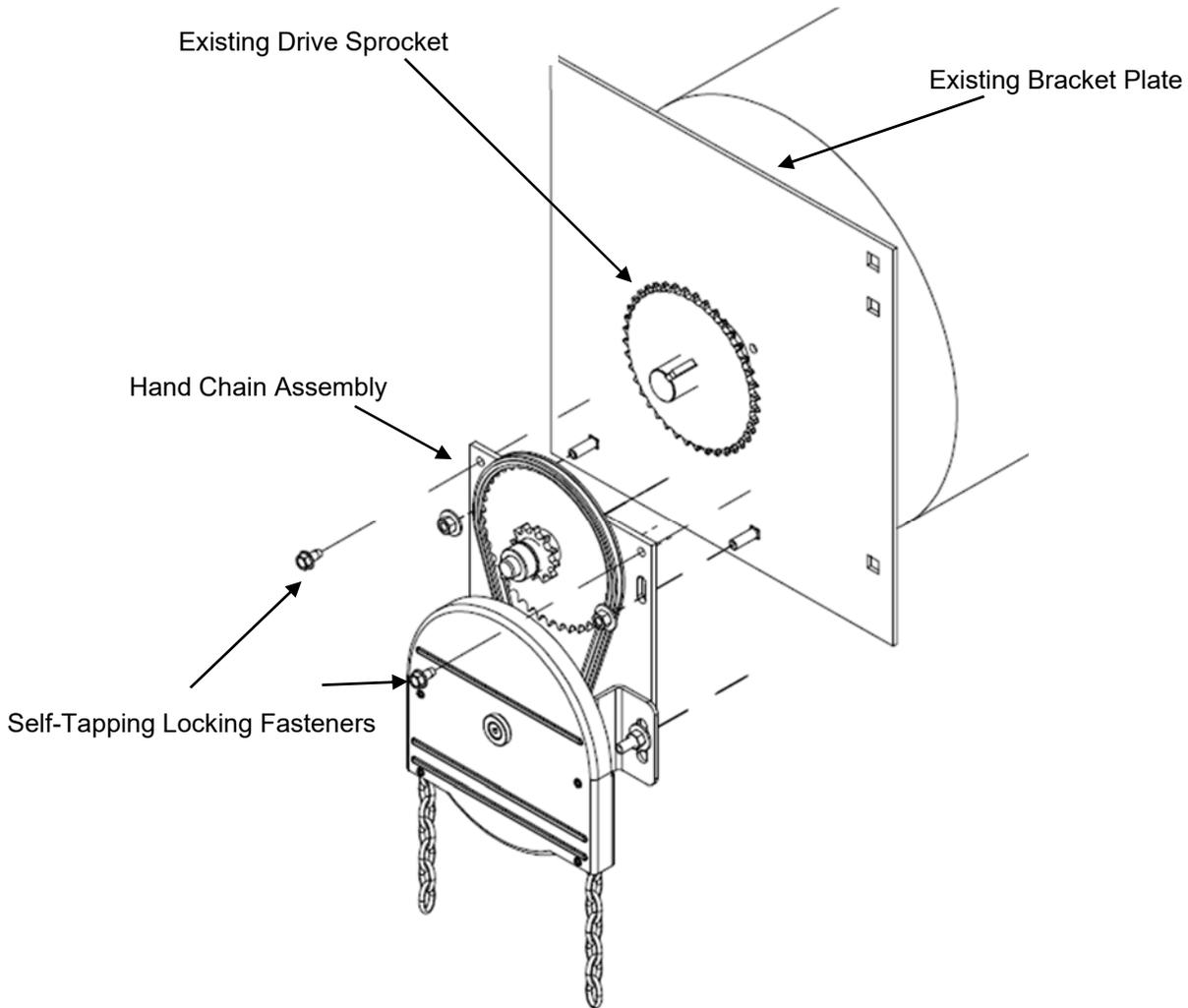


1. Remove all components from box. Check against list below to ensure proper components have arrived. This List only applies to the Single ControlGard Hand Chain Retrofit Kit.

Item	Description	Qty.
1	ControlGard Hand Chain Operator	1
2	ControlGard Single Adapter Plate (Right Hand)	1
3	ControlGard Single Adapter Plate (Left Hand)	1
4	3/8X1.25 Carriage Bolt	4
5	3/8 Flat Washer	4
6	3/8 Hex Nut	4
7	#41 Roller Chain, 92 pitches	1
8	#41 Connecting Link	1
9	41B60 Sprocket	1

2. Select appropriate adapter plate for the unit. Do this by verifying what hand the current chain operator is located on (Left Hand or Right Hand). When looking at the adapter plate the extended tab will be towards the right for right hand units and to the left for left hand units (SEE DIAGRAM ABOVE).
3. Using (2) of the 3/8 carriage bolt, nuts, and washers attach the ControlGard unit to the adapter plate in the square punched holes.
4. Follow steps 2 thru 8 of "Section 5 – Retrofitting ControlGard Hand Chain with Kit" of this instruction.

## Section 5 – Retrofitting ControlGard Hand Chain with Kit



1. Remove retrofit hand chain kit from packaging. Check against list below to ensure proper components have arrived. (This may already be completed if retrofitting a single reduction ControlGard kit)

Item	Description	Qty.
1	ControlGard Hand Chain Assembly	1
2	3/8X1.25 Carriage Bolt	2
3	3/8 Flat Washer	2
4	3/8 Hex Nut	2
5	*5/16-18 Self-Tapping Flange Head Bolts	2
6	Drive Chain	1
7	Connecting Link	1
8	Drive Sprocket	1

2. Check driven sprocket bore matches door shaft diameter. With door in the closed position remove current hand chain operator and driven sprocket from the door.

\*Compound and Double Compound chain operators only

## Section 5 – Retrofitting ControlGard Hand Chain with Kit

3. Place new driven sprocket on door shaft. Do not tighten set screws as sprocket alignment will need to be done later.
4. Bolt new chain operator to bracket using provided 3/8-16 carriage bolts, make hand tight.
5. Align driven sprocket on shaft with drive sprocket of chain operator.
6. Secure driven sprocket in place.
7. Replace drive chain.
8. Tension the drive chain properly and tighten carriage bolts to 20 ft-lbs
9. \*Once the drive chain is tensioned and carriage bolts are tight, use a 9/32" drill bit and drill pilot holes through the top locking fastener holes into the bracket plate.
10. \*Install the two 5/16" self-tapping screws through the chain operator adapter plate into the bracket plate.
11. Operate door to ensure proper installation.

\*Only perform these steps on compound and double compound chain operators.