



# BIV 2-Stage Chain Drive (AX1692-KIT) Field Installation Procedure

## ⚠️ WARNING

It is the responsibility of service technicians to ensure the use of appropriate protective clothing and equipment. The chosen protective clothing and equipment must provide protection from potential hazards users may encounter while servicing equipment. Requirements for protective clothing and equipment are determined by the Authority Having Jurisdiction (AHJ).

## ⚠️ WARNING

After any maintenance or service, equipment must be inspected and tested for proper operation and function per:

- NFPA 1962 test procedures.
- FLOW CHARACTERISTICS and OPERATION and INSPECTION CHECKLIST in the equipment's original operator manual.

Product operating and safety information is available in the original operator manual or at [tft.com](http://tft.com).

## NOTICE

This publication is intended for those who prefer to perform service on their own equipment. Factory service is available. Factory serviced products are repaired by experienced technicians, fully tested, and promptly returned functioning to original specifications. Task Force Tips assumes no liability for damage to equipment or injury to personnel that is a result of user service.

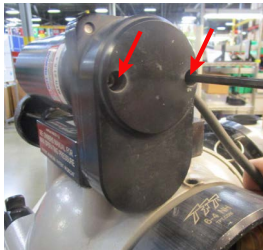
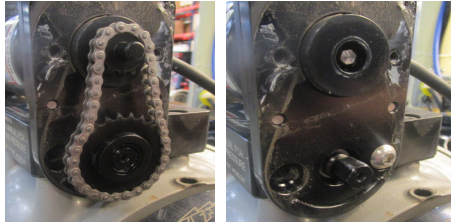
**IMPORTANT** - Installing the 2-Stage Chain Drive will cause the position indicator LEDs on the display to be non-functional until the circuit board is reprogrammed. The OPEN/CLOSE indicators and overall functionality of the valve are not affected. Contact TFT Service to arrange for circuit board reprogramming.

### 0.1 REQUIRED TOOLS

Tools (user provided)
3/16" Hex Key
7/32" Hex Key



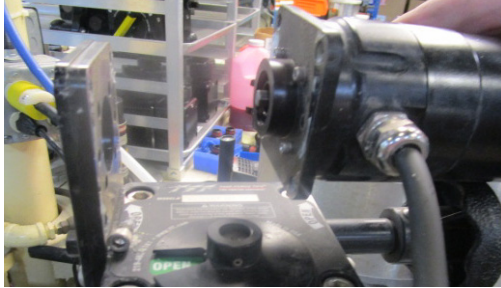
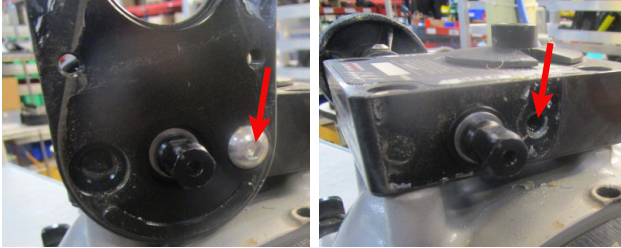
AX1692-KIT Contents			
2	A1530-Thin Washer	1	A1568-BIV Sprocket 25
1	A1564-Reducer Housing	1	A1569-28 28 Link Roller Chain
1	A1565-Reducer Cover	1	A1569-40-40 Link Roller Chain
1	A1566-Drive Sprocket	1	Molykote® 112 Grease
1	A1567-BIV Sprocket 12/18	1	VSA-125-Blue Loctite® Mini Dispenser
3	X252-Bushing (pressed into the Reducer Housing and Reducer Cover)	5	VT25-28SH750-1/4-28 X 3/4 Socket Head Screw

### 1.0 CHAIN DRIVE REMOVAL

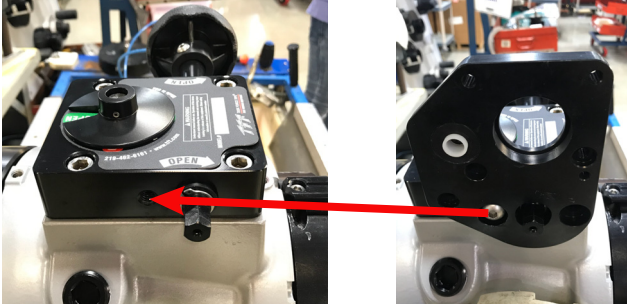
1	Using a hex key, remove (2) Socket Head screws and Reducer Cover.  Discard parts.	
2	Pull on the (2) Sprockets to remove Sprockets and chain.  It is acceptable to use a flat blade screwdriver to gently pry the sprockets loose, if necessary.  Discard parts.	

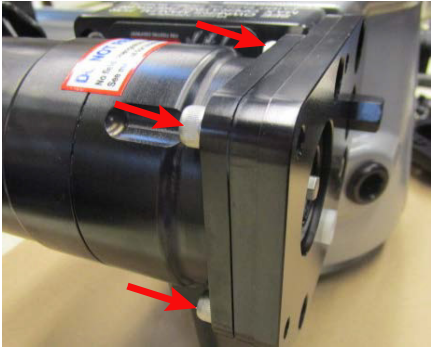


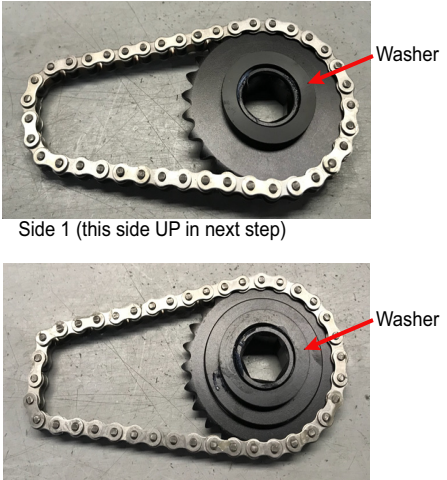
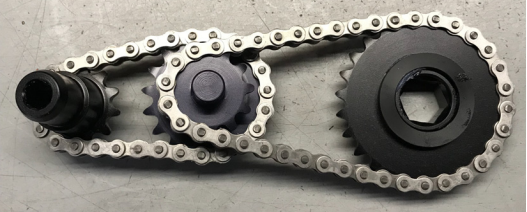
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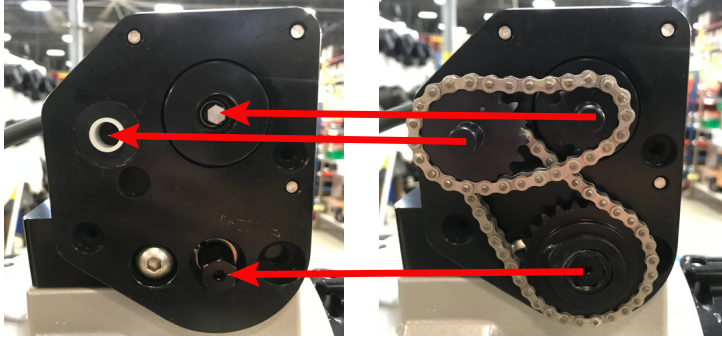

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<p>3</p>	<p>Remove the X256 Bushing from the motor shaft.</p> <p>Retain part for reinstallation.</p>	
<p>4</p>	<p>Remove (4) Socket Head screws in the corners of the Housing that are securing the motor.</p> <p>Discard screws.</p>	
<p>5</p>	<p>Remove the motor from the Housing.</p> <p>Retain the motor for reinstallation.</p>	
<p>6</p>	<p>Remove the VT37-16BH750 Button Head Screw, VW375SSLOCK Lock Washer, and Housing from the Gearbox.</p> <p>Discard the Housing.</p> <p>Retain the screw and lock washer for reinstallation.</p>	

## 2.0 2-STAGE CHAIN DRIVE INSTALLATION

<p>1</p>	<p>Install the Reducer Housing to the Gearbox using (1) VT37-16BH750 Button Head Screw and VW375SSLOCK Lock Washer saved in the previous step.</p> <p>DO NOT use Loctite.</p>	
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<p>2</p>	<p>Place the Motor subassembly in the back of the housing.</p> <p>Apply VSA-125 blue Loctite to (4) VT25-28SH750 Socket Head Cap Screws.</p> <p>Install from the back (motor) side until tight.</p>	
<p>3</p>	<p>Place X256 (saved from a previous step) over the motor shaft, counterbore side first.</p>	
<p>4</p>	<p>Place the A1566 (Drive Sprocket) on the bench with the sprocket down.</p> <p>Place the A1567 (BIV Sprocket 12/18) on the bench with the larger sprocket down.</p> <p>Loop the A1569-28 (shorter) chain over the lower teeth as shown.</p>	
<p>5</p>	<p>Apply a dab of Molykote grease to (2) A1530 washers. The grease will help keep the washers in place.</p> <p>Place (1) washer over the hole in A1568 (BIV Sprocket 25) on each side.</p> <p>Loop the A1569-40 (longer) chain over the teeth as shown.</p>	 <p>Side 1 (this side UP in next step)</p> <p>Side 2 (this side DOWN in next step)</p>
<p>6</p>	<p>Position A1568 with the side with the step in it down.</p> <p>Loop the chain over the remaining teeth on A1567 as shown.</p> <p>The side that is up will be toward the housing in the next step.</p>	

7	Carefully pick up the Gear/Chain assembly and install the gears as shown.	 <p data-bbox="1154 226 1243 258"><b>A1566</b></p> <p data-bbox="1154 289 1243 321"><b>A1567</b></p> <p data-bbox="1154 407 1243 438"><b>A1568</b></p>
8	<p data-bbox="293 510 735 541">Place the Reducer Cover over the gears.</p> <p data-bbox="293 569 727 625">Apply VSA-125 blue Loctite to (2) VT25-28SH750 Socket Head Cap Screws.</p> <p data-bbox="293 653 574 684">Install until tight to secure.</p>	

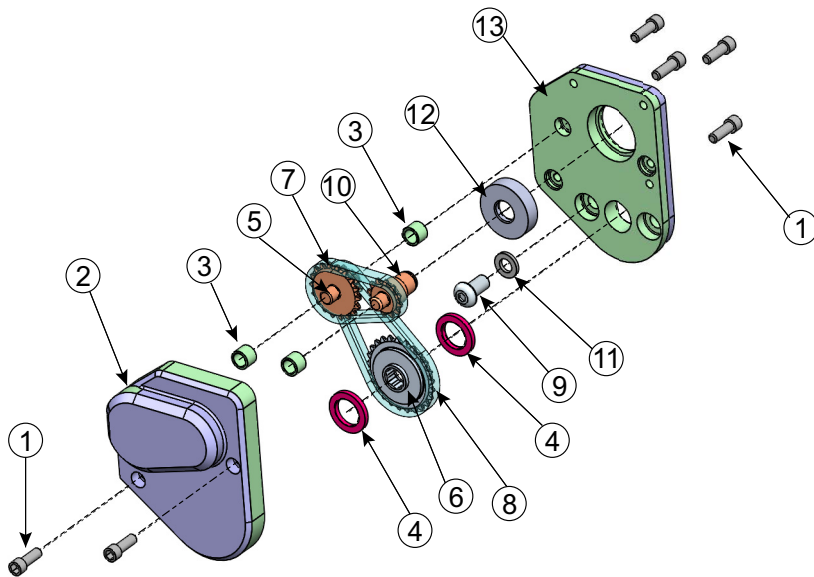
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**3.0 EXPLODED VIEW AND PART LIST**



#	PART # (DESCRIPTION)	QTY
1	VT25-28SH750 (1/4-28 X 3/4 SOCKET HEAD CAP SCREW)	6
2	A1565 (REDUCER COVER)	1
3	X252 (NYLON BUSHING INSTALLED IN A1564 AND A1565)	3
4	A1530 (THIN WASHER)	2
5	A1567 (BIV SPROCKET 12/18)	1
6	A1568 (BIV SPROCKET 25)	1
7	A1569-28 (28 LINK ROLLER CHAIN SUBASSEMBLY)	1
8	A1569-40 (40 LINK ROLLER CHAIN SUBASSEMBLY)	1
9	VT37-16BH750 (3/8-16 X 3/4 BUTTON HEAD CAP SCREW)	1
10	A1566 (DRIVE SPROCKET)	1
11	VW375SSLOCK (3/8" LOCK WASHER, STAINLESS 18-8)	1
12	X256 (BUSHING MOTOR)	1
13	A1564 (REDUCER HOUSING)	1