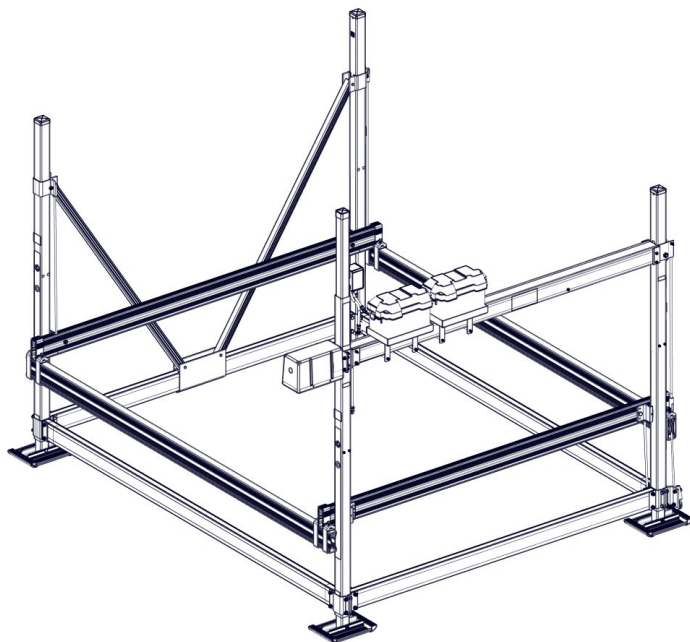


# FLOE VSD AC STAR BRAKE REPLACEMENT

## INSTRUCTIONS

KIT P/N 511-00011-00



\* LIFT & DRIVE KIT NOT INCLUDED

### TOOLS REQUIRED

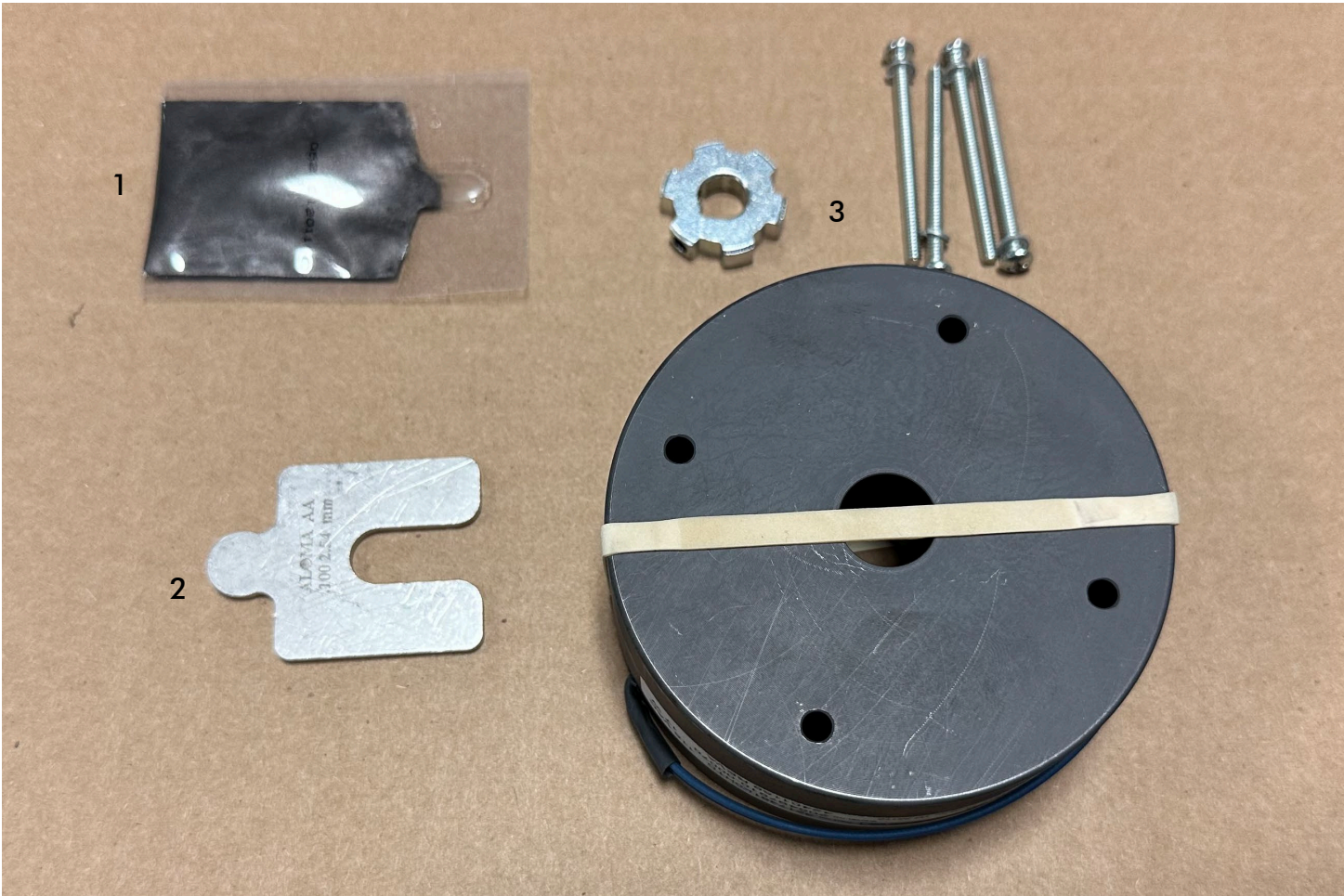
- (2) 9/16" WRENCHES
- 3/16" FLAT TIP SCREWDRIVER
- 1/4" FLAT TIP SCREWDRIVER
- 5/16" FLAT TIP SCREWDRIVER
- #2 PHILLIPS SCREWDRIVER
- SIDE CUTTERS
- 5/32" HEX BIT/ALLEN WRENCH  
(VSD3800/5000 LIFTS)
- 1/4" HEX BIT/ALLEN WRENCH  
(VSD6000-10000 LIFTS)
- TORQUE WRENCH

### **VERY IMPORTANT!!!**

**LIFT MUST BE LOWERED ENTIRELY  
BEFORE REMOVING THE DRIVE UNIT.  
FAILURE TO ADHERE MAY RESULT IN  
SEVERE INJURY OR DEATH.**

**BILL OF MATERIALS/EXPLODED VIEW**

P/N 511-00011-00		BRAKE, AC VSD MOTOR STAR	
<u>NO.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	006-04000-00	ANTI-SEIZE	1
2	007-03929-00	SPACER, STAR BRAKE INSTALLATION GAUGE	1
3	007-03988-00	BRAKE, ELECTRIC 120V AC 2021 (INCLUDES SCREWS, LOCK WASHERS, AND NUT)	1

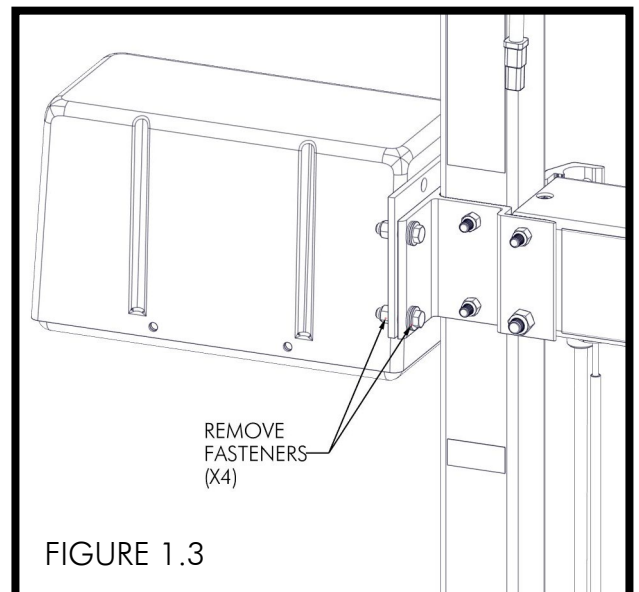
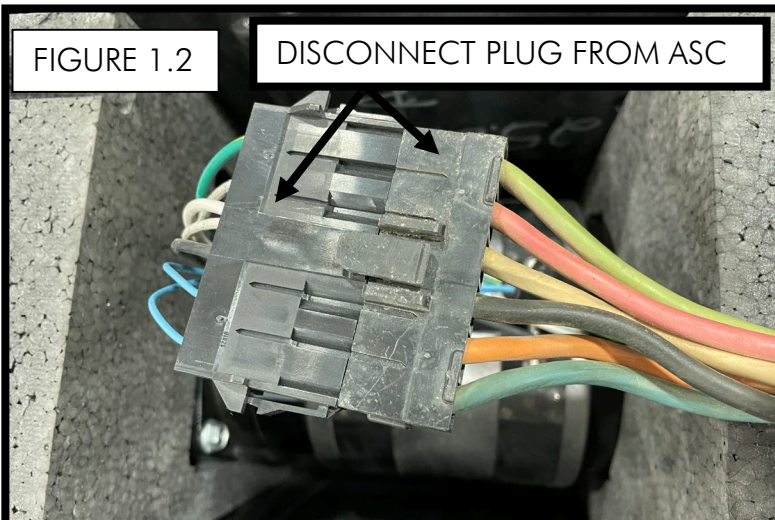




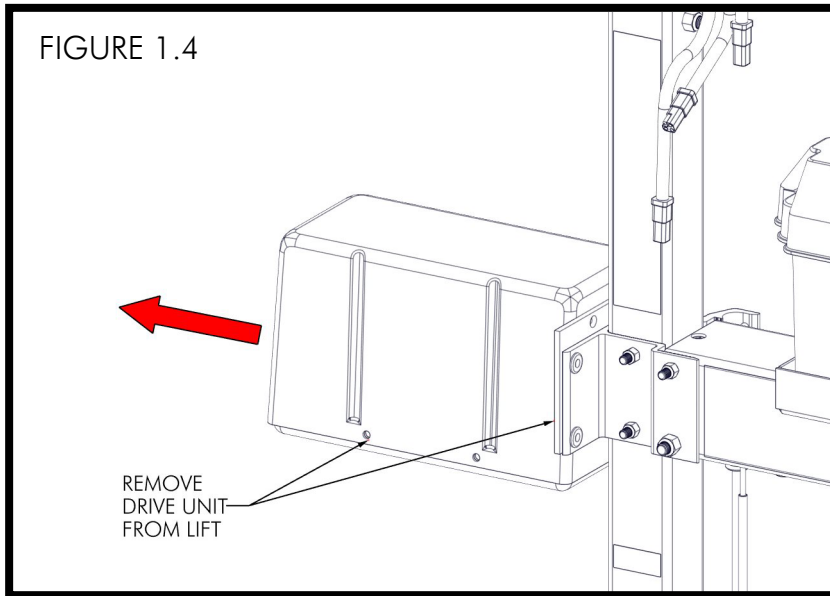
## STEP 1

**LOWER THE LIFT UNTIL THE CRADLE HAS REACHED THE LOWER LIMIT SWITCH AND THE WEIGHT OF THE BOAT IS NO LONGER ON THE LIFT. THERE MUST BE NO LOAD ON THE CRADLE/LIFT, AS THE DRIVE UNIT WILL BE REMOVED FROM THE LIFT. IDEALLY, THE BOAT WILL BE REMOVED FROM THE LIFT AND TIED TO THE DOCK. IF THE LIFT IS NOT COMPLETELY LOWERED, THE DRIVE UNIT WILL SPIN EXTREMELY FAST UNTIL THE CRADLE REACHES THE FRAME BEAMS.**

**IMPORTANT: UNPLUG THE POWER CORD FROM THE ASC BEFORE PROCEEDING.** REMOVE (2) SCREWS FROM THE BOTTOM OF THE MOTOR COVER (FIGURE 1.1). PULL THE COVER DOWN AND DISCONNECT THE MOTOR PLUG FROM THE ASC (FIGURE 1.2). REMOVE THE FASTENERS SECURING THE DRIVE UNIT TO THE BALL SCREW CLAMP (FIGURE 1.3).

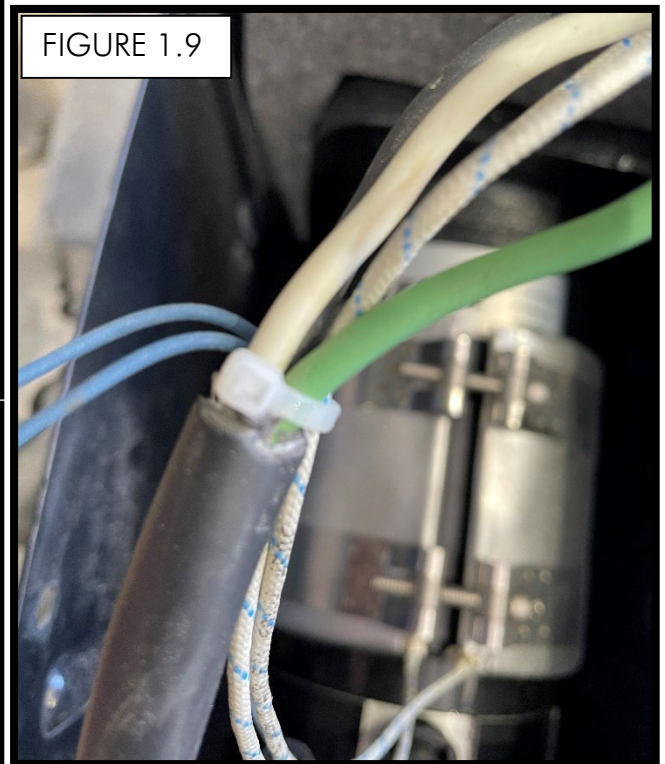
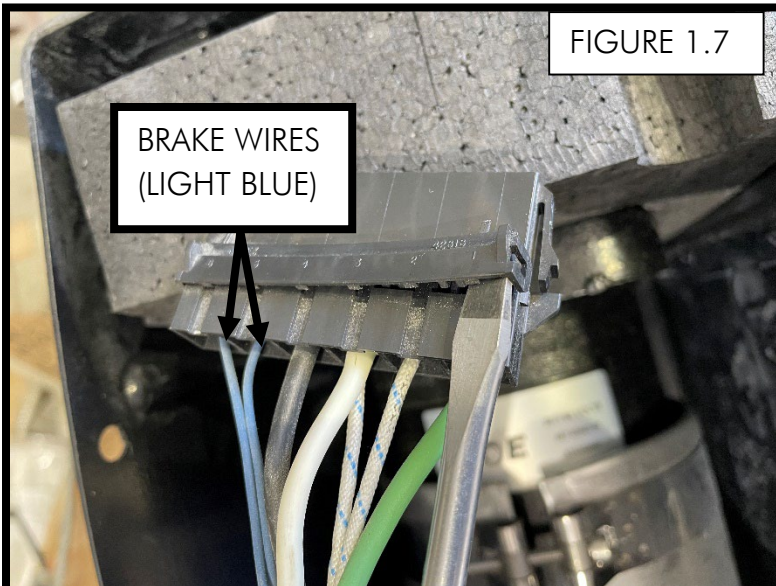


PULL THE MOTOR OUT OF THE END OF THE BALL SCREW (FIGURE 1.4). REMOVE THE REMAINING (2) SCREWS FROM THE COVER (FIGURE 1.5). REMOVE THE COVER AND THE FOAM INSERTS (FIGURE 1.6).





REMOVE THE CLIP RETAINING THE WIRES INTO THE PLUG. NOTE THAT THE BRAKE WIRES ARE THE TWO LIGHT BLUE ONES (FIGURE 1.7). PUSH THE PINS OUT OF THE PLUG USING A SCREWDRIVER. **DO NOT PULL ON THE WIRES** (FIGURE 1.8). CAREFULLY CUT THE WHITE ZIP TIE SECURING THE WIRES TOGETHER TO AVOID DAMAGING THE OTHER WIRES (FIGURE 1.9).



INSERT THE NEW BRAKE WIRE PINS INTO THE SAME LOCATIONS IN THE PLUG AS THE OLD BRAKE. **PLACEMENT DOES NOT MATTER** (FIGURE 1.10). PUSH THE PINS UNTIL THEY ARE FULLY SEATED IN THE PLUG (FIGURE 1.11). RE-INSTALL THE RETAINING CLIP.

FIGURE 1.10

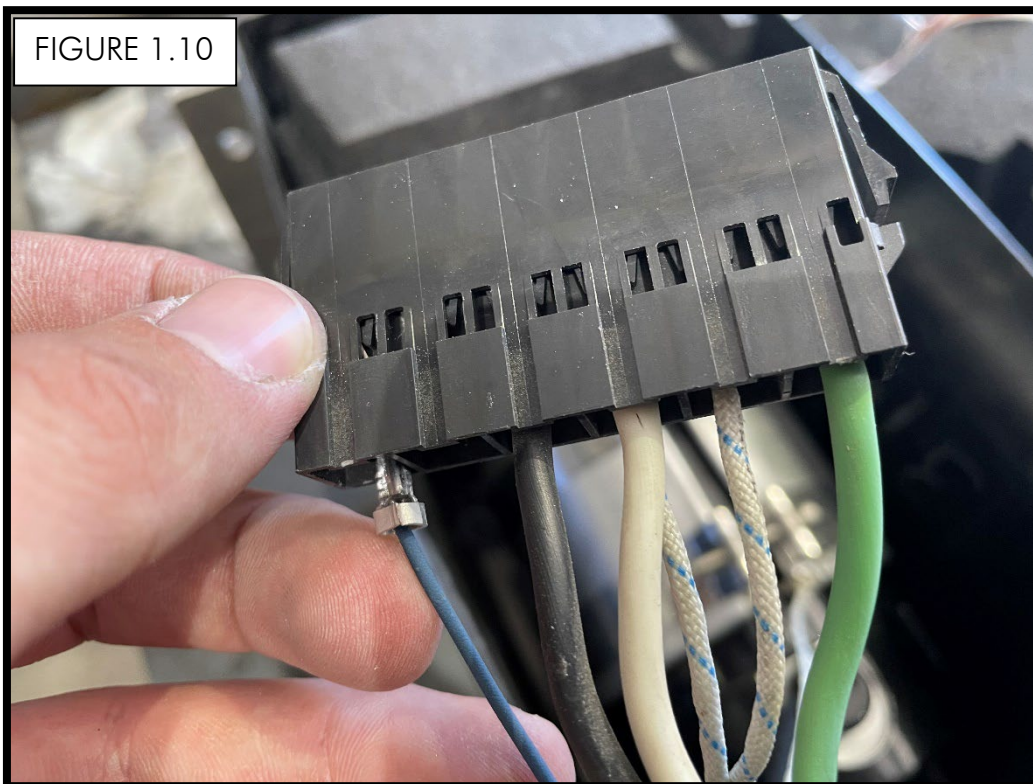
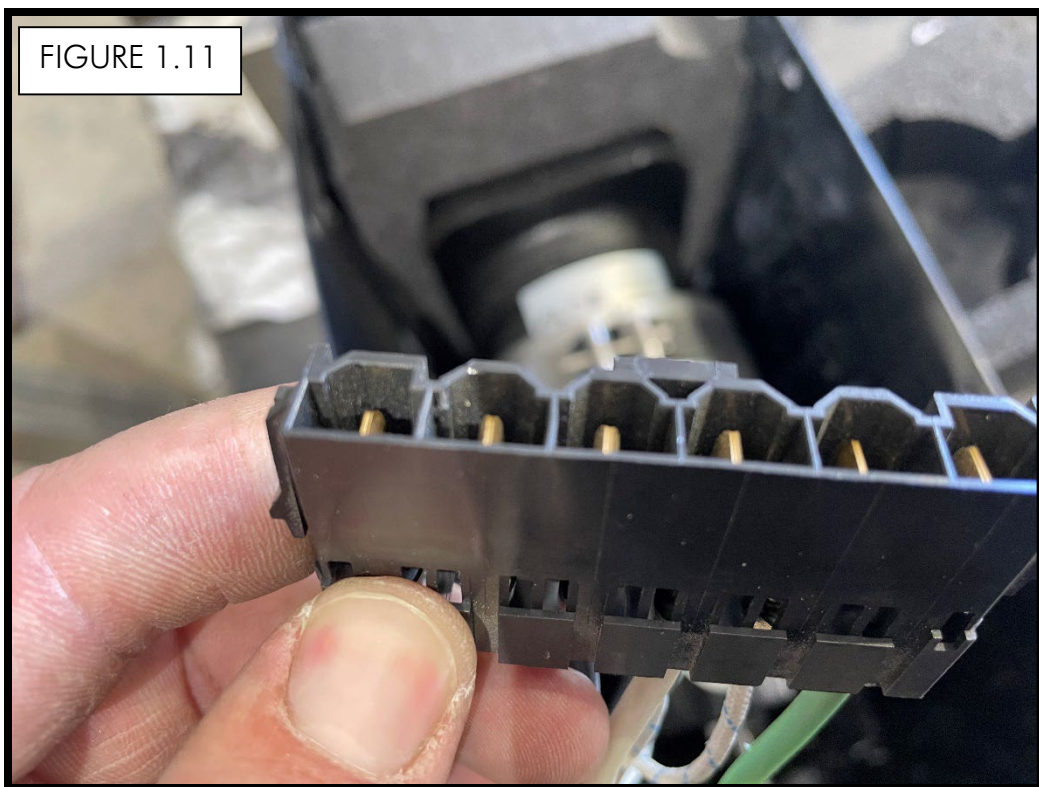
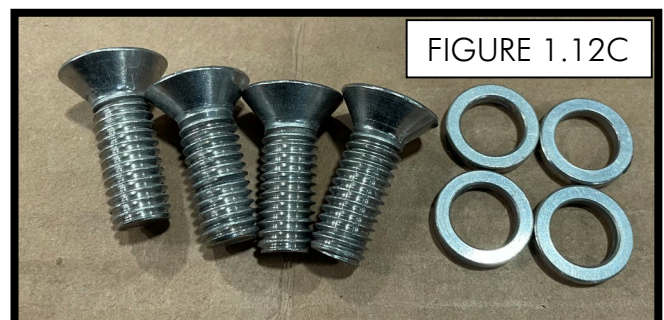
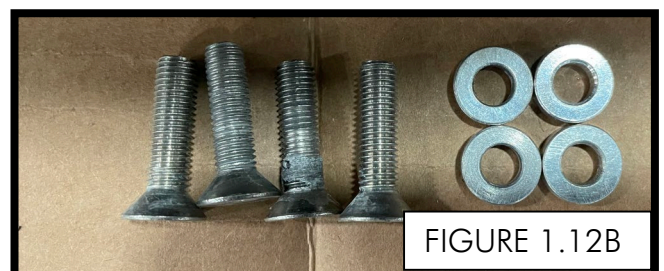
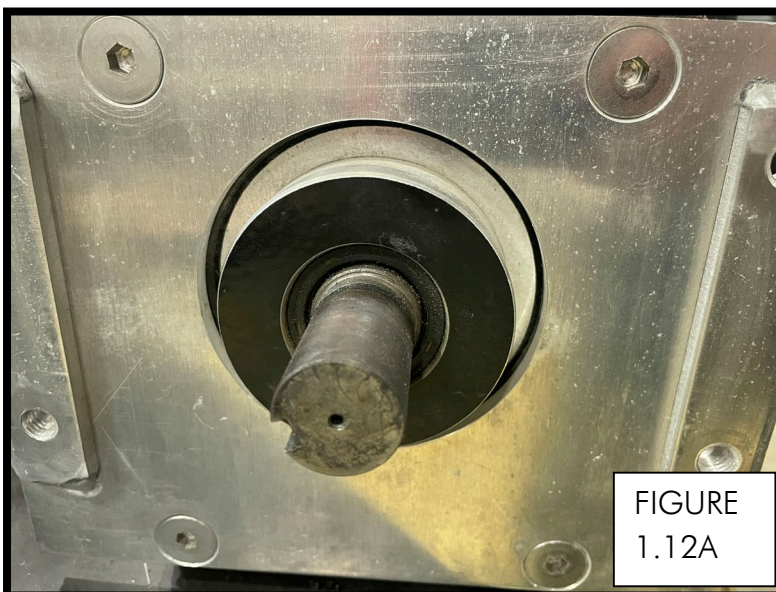
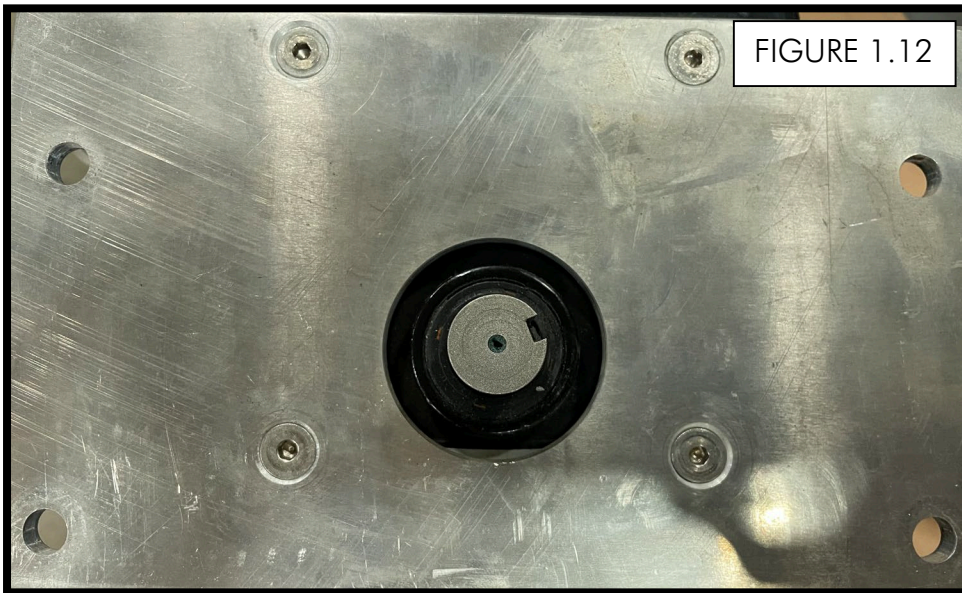


FIGURE 1.11

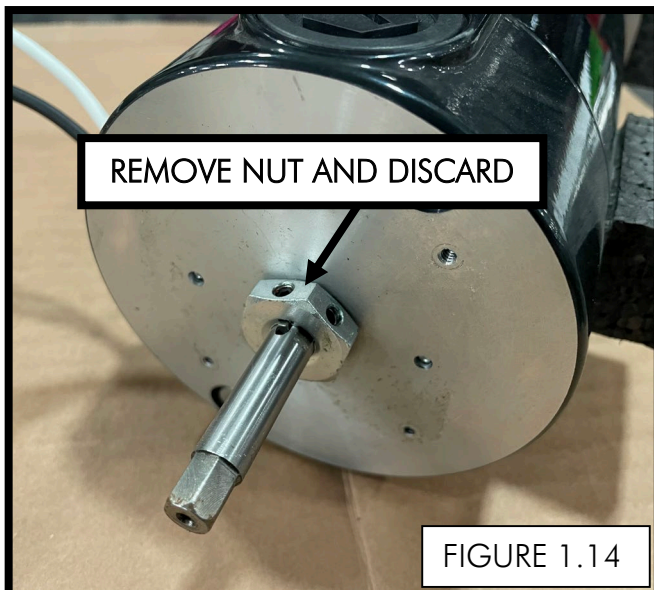
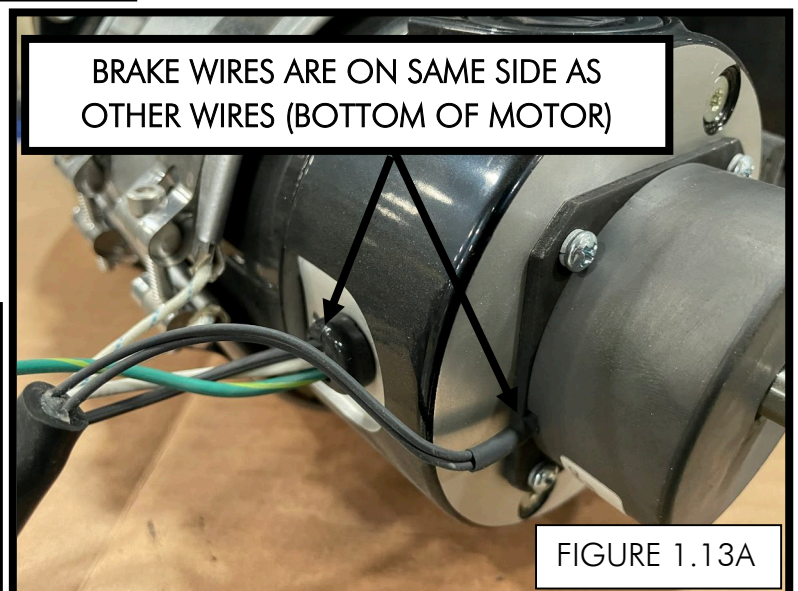
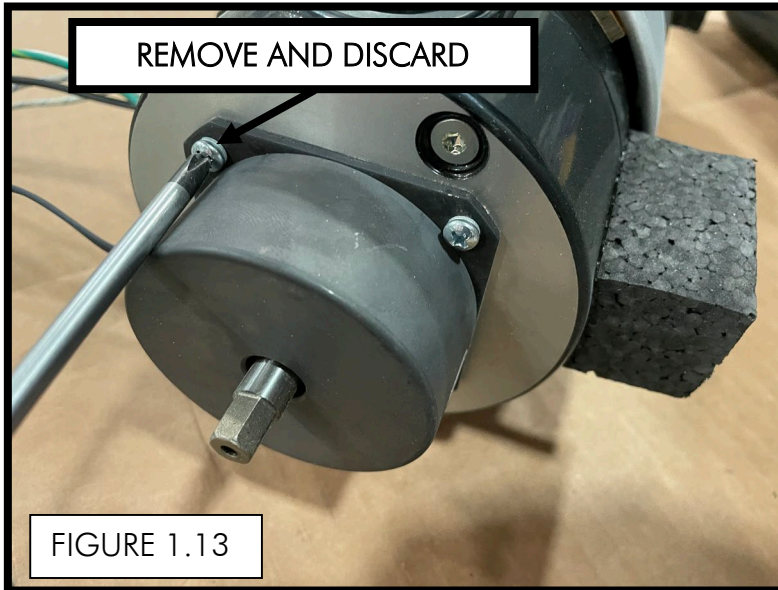




REMOVE THE (4) FASTENERS SECURING THE MOUNT FROM THE COVER. FOR VSD3800/5000 LIFTS, USE A 5/32" HEX BIT/ALLEN WRENCH TO REMOVE THE BOLTS (FIGURE 1.12). FOR VSD6000-10,000 LIFTS, USE A 1/4" HEX BIT/ALLEN WRENCH TO REMOVE THE BOLTS (FIGURE 1.12A). **NOTE: THERE ARE (4) SPACERS UNDERNEATH THE PLATE THAT NEED TO BE RETAINED FOR REASSEMBLY (FIGURE 1.12B & 1.12C).**

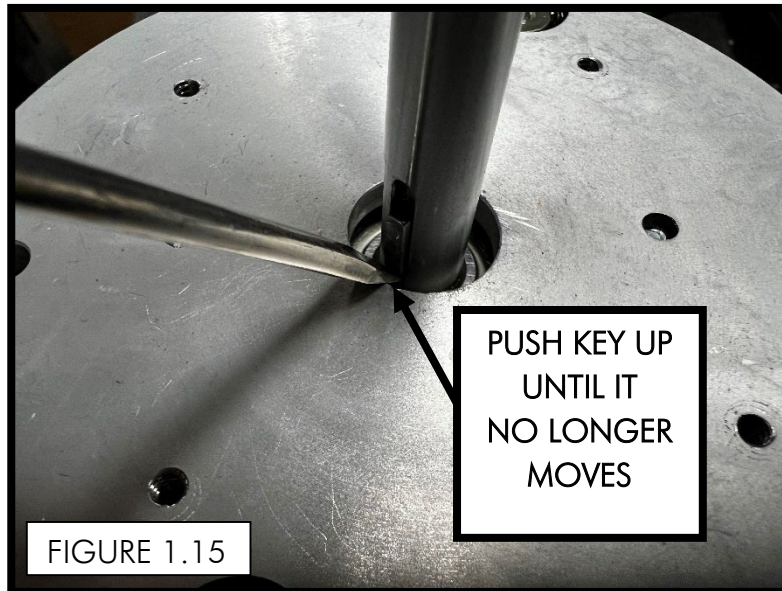


ONCE THE MOTOR IS REMOVED FROM THE COVER, REMOVE THE (4) SCREWS AND (4) WASHERS SECURING THE BRAKE TO THE MOTOR. THEY WILL NOT BE RE-USED (FIGURE 1.13). NOTE THE ORIENTATION OF THE WIRES BEFORE REMOVING THE BRAKE (FIGURE 1.13A). REMOVE THE NUT SHOWN AND DISCARD (FIGURE 1.14).

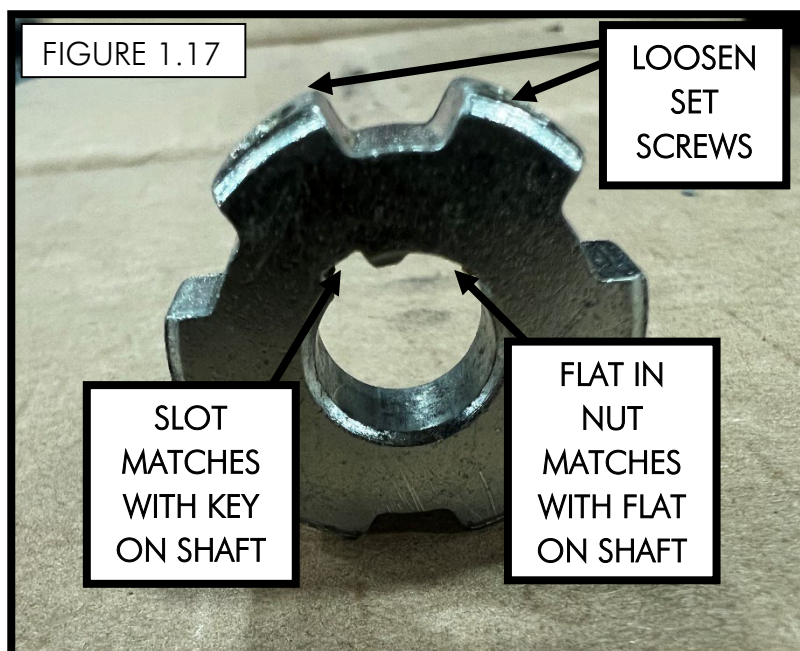
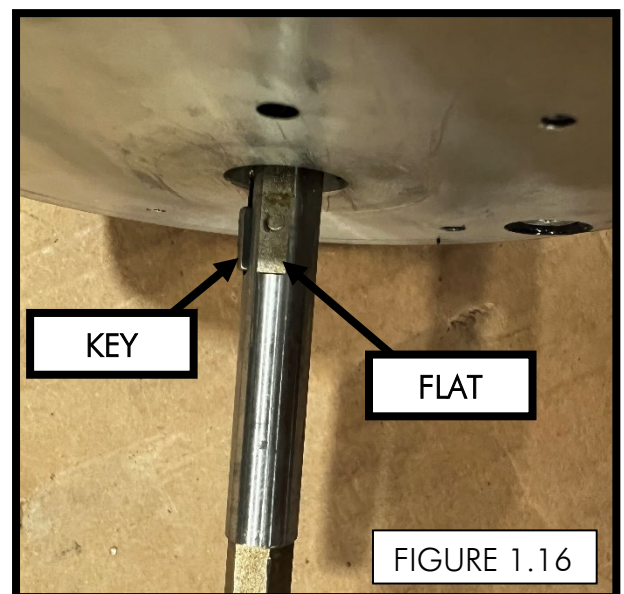




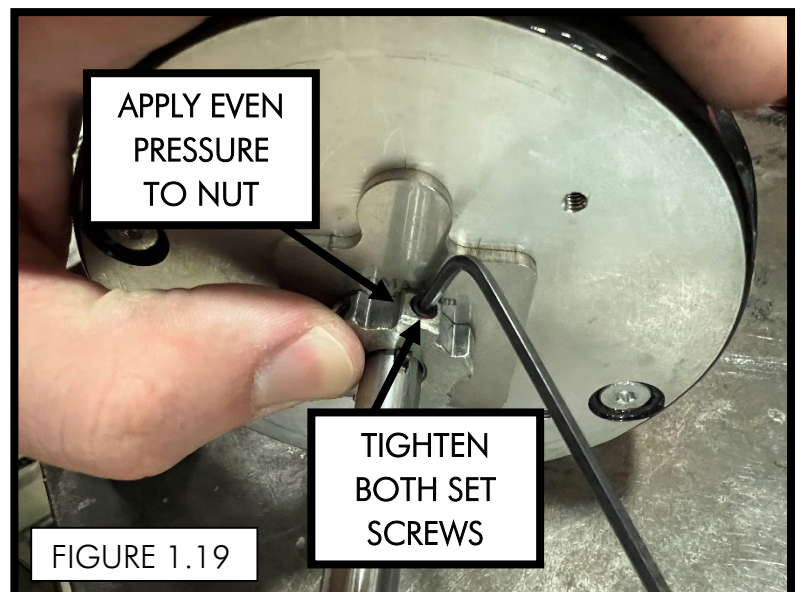
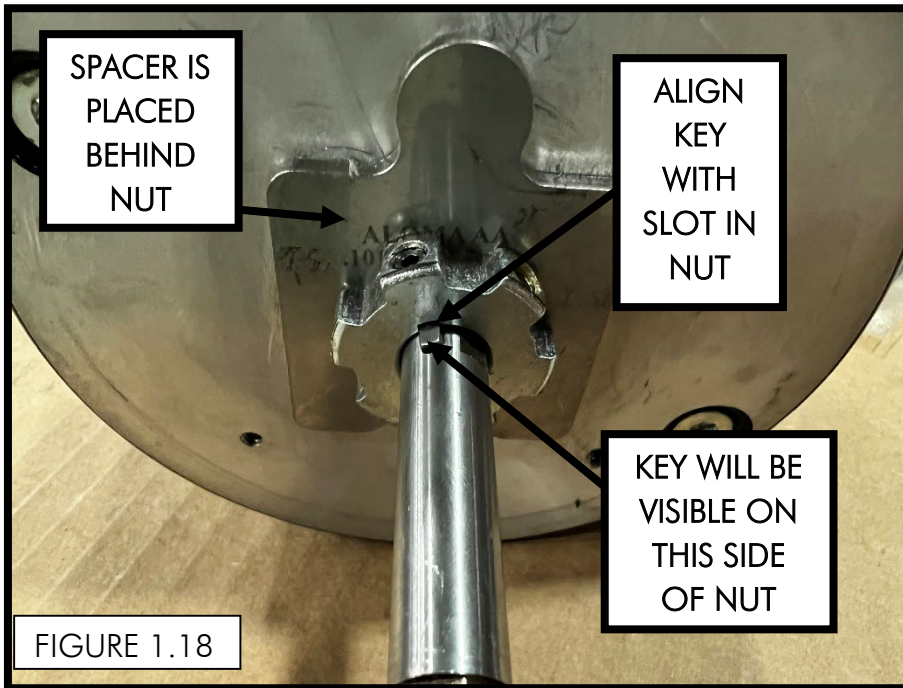
ONCE THE OLD NUT IS REMOVED, SLIDE THE KEY IN THE SHAFT UP WITH A FLAT TIP SCREWDRIVER (3/16" BLADE). SLIDE KEY UNTIL IT NO LONGER MOVES. **BE CAREFUL TO NOT LET THE KEY FALL OUT OF THE SHAFT** (FIGURE 1.15). NOTE THAT THERE IS A MACHINED FLAT IN THE SHAFT THAT MATCHES WITH THE NEW NUT AND A KEYWAY IN THE NUT THAT MATCHES WITH THE KEY ON THE SHAFT. LOOSEN THE SET SCREWS IN THE NUT, BUT **DO NOT REMOVE** (FIGURES 1.16 & 1.17).



REPLACEMENT KEY P/N:  
007-03970-00



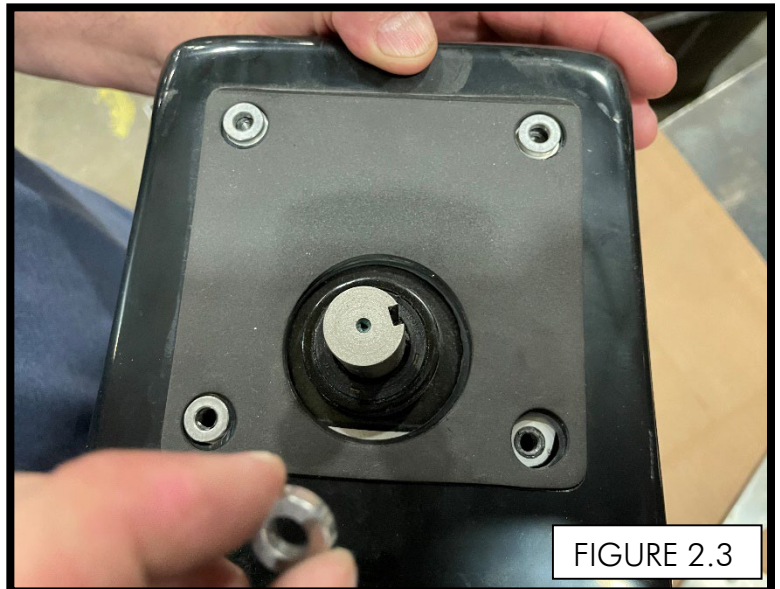
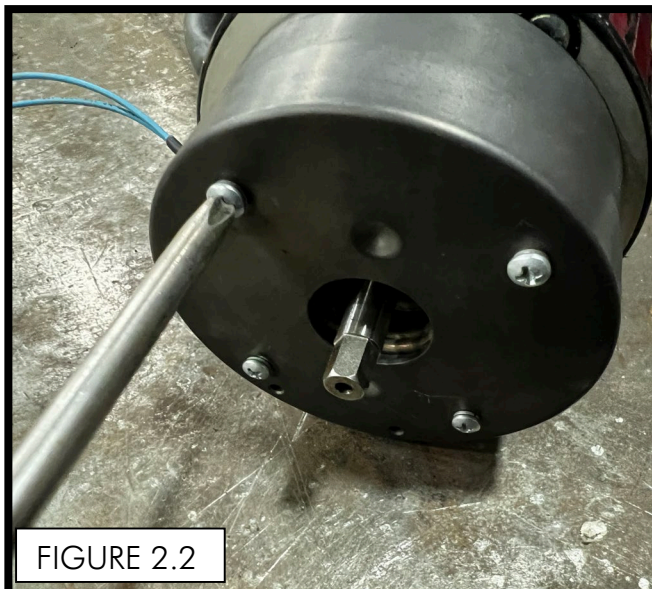
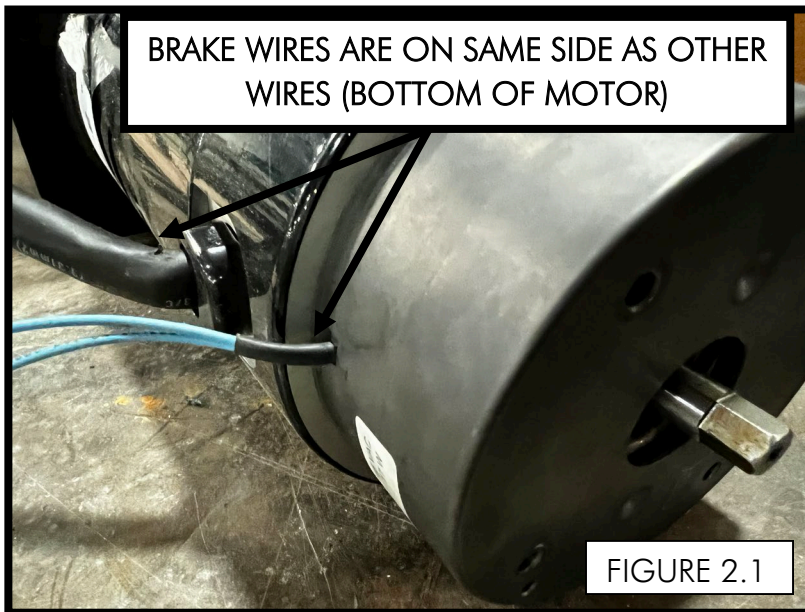
ALIGN THE KEYWAY IN THE NUT ONTO THE KEY ON THE MOTOR SHAFT AND ALIGN THE FLAT ON THE NUT WITH THE FLAT ON THE SHAFT. PLACE THE INCLUDED SPACER BETWEEN THE NUT AND THE MOTOR HOUSING (FIGURE 1.18). WHILE **EVENLY** HOLDING (BY HAND OR WITH A TUBE THAT FITS OVER THE SHAFT AND ONTO THE NUT) THE NUT AGAINST THE SPACER, TIGHTEN THE SET SCREWS UNTIL SNUG (APPROXIMATELY 10 IN-LB). ONCE TIGHTENED, REMOVE THE SPACER. THE SPACER WILL HAVE SOME RESISTANCE WHEN REMOVED WHEN THE NUT IS PROPERLY INSTALLED (FIGURE 1.19).





## STEP 2

PLACE THE BRAKE ONTO THE END OF THE MOTOR WHILE ALIGNING THE MOUNTING HOLES (FIGURE 2.1). PLACE THE COVER BACK ONTO THE MOTOR WHILE ALIGNING THE MOUNTING HOLES IN THE MOTOR AND COVER. ATTACH USING THE INCLUDED SCREWS AND WASHERS (FIGURE 2.2). REPLACE THE PREVIOUSLY REMOVED SPACERS AS SHOWN (FIGURE 2.3).





REPLACE THE MOTOR PLATE AND THE PREVIOUSLY REMOVED BOLTS (FIGURE 2.4). TORQUE TO 10 FT-LB (FIGURE 2.5). REPLACE THE FOAM INSERTS (FIGURE 2.6) AND REPLACE THE COVER (FIGURE 2.7).

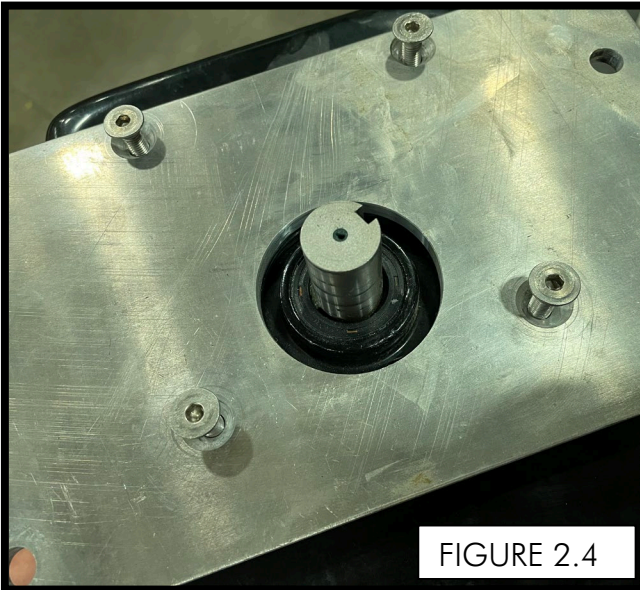


FIGURE 2.4

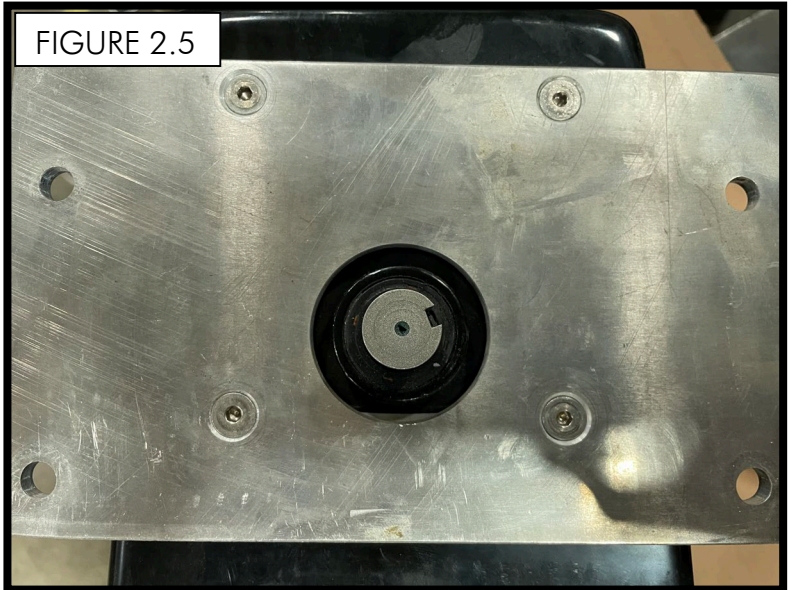


FIGURE 2.5



FIGURE 2.6

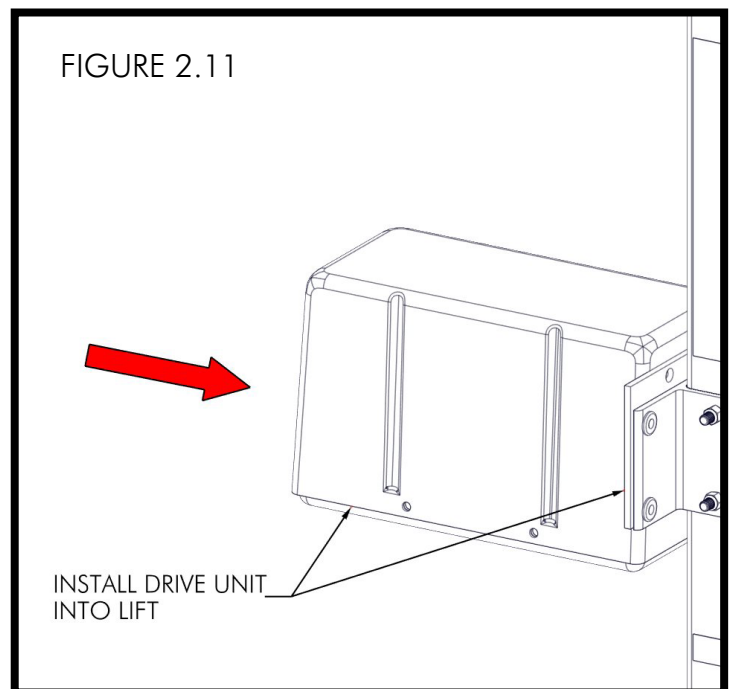
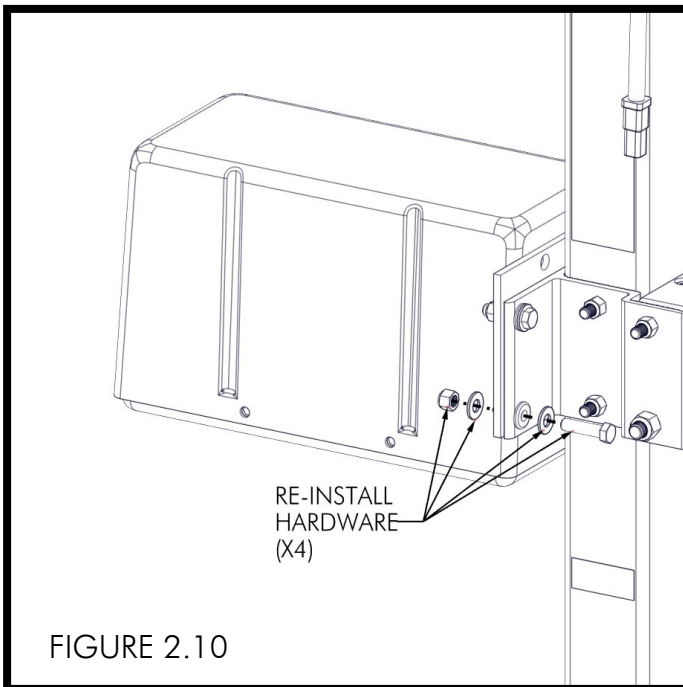
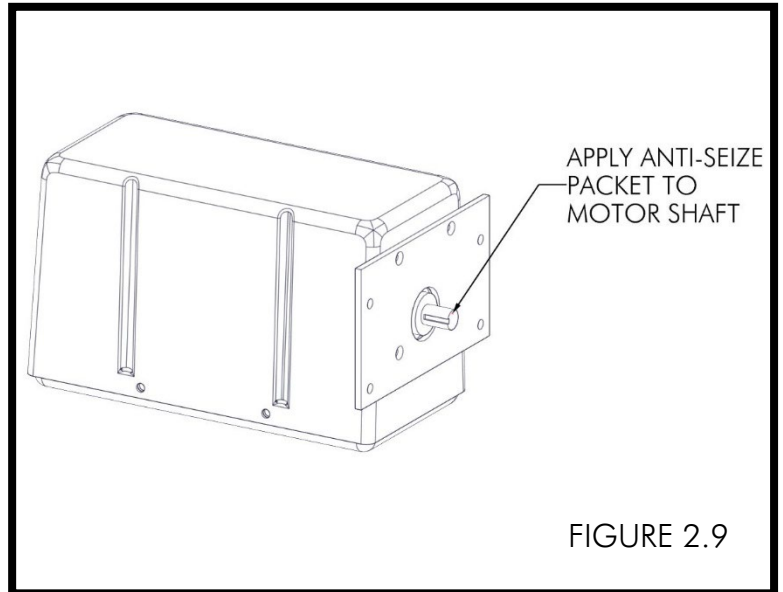
KEEP  
FOAM  
INSERTS  
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HEATER  
BAND



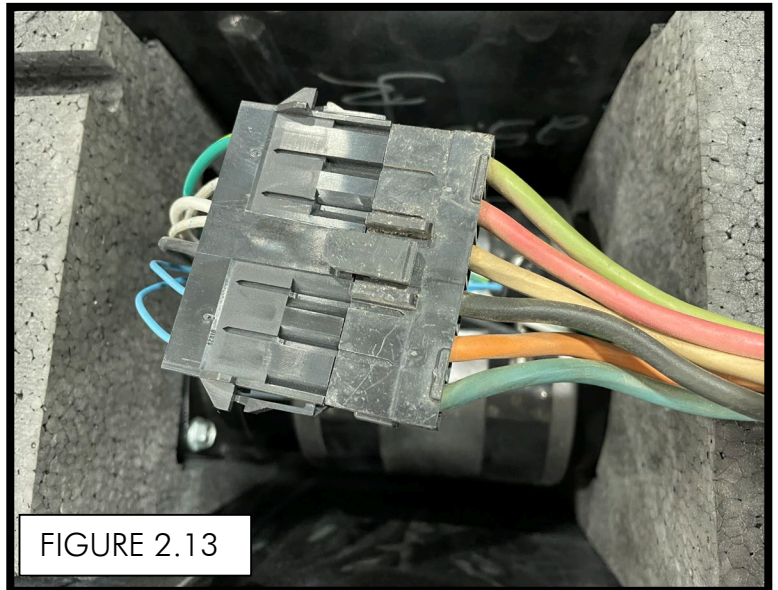
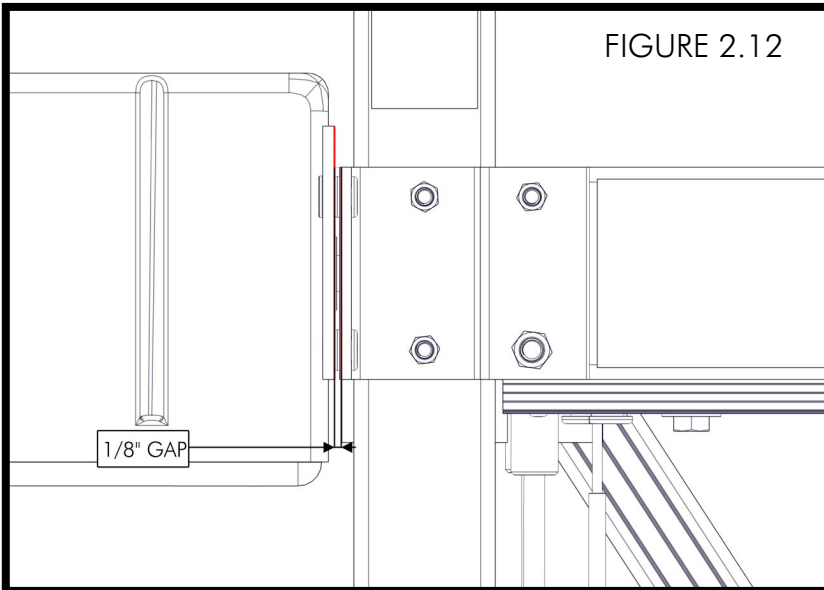
FIGURE 2.7



INSERT (2) SCREWS TO SECURE THE BOTTOM OF THE COVER (FIGURE 2.8). APPLY THE ENTIRE CONTENTS OF THE ANTI-SEIZE PACKET TO THE MOTOR SHAFT (FIGURE 2.9). INSTALL THE MOTOR ONTO THE END OF THE BALL SCREW (FIGURE 2.10). RE-INSTALL THE PREVIOUSLY REMOVED FASTENERS TO SECURE THE MOTOR TO THE BALL SCREW CLAMP (FIGURE 2.11).



TIGHTEN FASTENERS UNTIL THERE IS A 1/8" GAP BETWEEN THE MOTOR PLATE AND BALL SCREW CLAMP (FIGURE 2.12). RE-ATTACH THE MOTOR PLUG TO THE ASC AND ROUTE THE WIRES UNDER THE COVER (FIGURE 2.13). INSTALL THE REMAINING (2) SCREWS TO THE BOTTOM OF THE MOTOR COVER (FIGURE 2.14). PLUG THE POWER CORD BACK INTO THE ASC.





**NOTES**

