Absolute Position Upgrade Installation

1.0 YE-ABS-POS-1 KIT CONTENTS

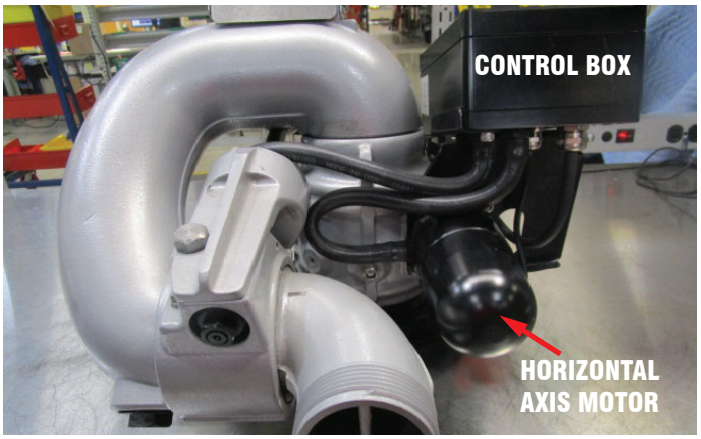
FASTENERS

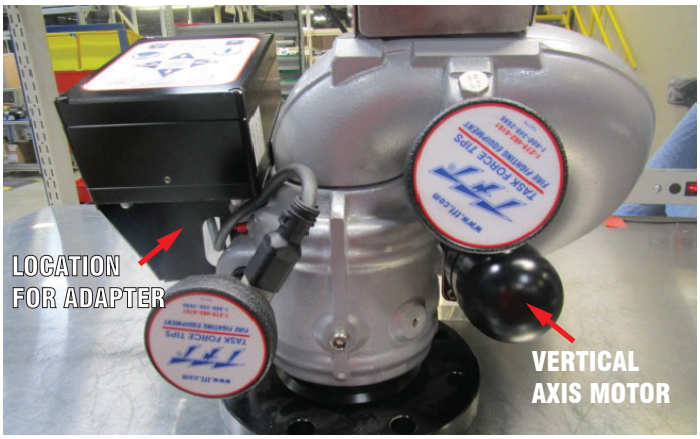
(1) 10-24 LOCK NUT (4) 8-32 x ¼" CAP SCREW
(6) ¼-28 x 1 ¾" CAP SCREW (1) 10-24 x 1 ½" CAP SCREW
(2) 1/2" WASHERS (2) CABLE TIES

2.0 TOOLS REQUIRED

3/16" Hex Wrench, 9" long
5/32" Hex Wrench
9/64" Ball End Hex Wrench
3mm Hex Wrench (for changing boards)
3/8" Box Wrench or Socket
Side-cutting Pliers

3.0 OVERVIEW



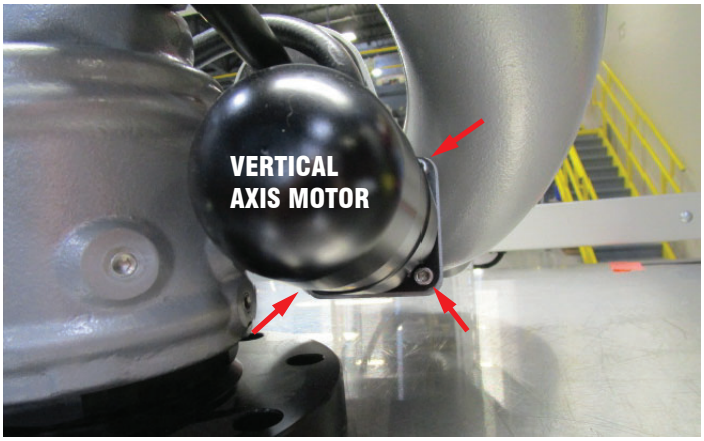


4.0 DISASSEMBLY

4.1 Position the monitor vertical axis with nozzle near lower end of travel. Remove nozzle if necessary.

4.2 Disconnect power/comm Deutsch connector from monitor.

4.3 Use 3/16" hex wrench to remove three (3) bolts that attach vertical motor. Discard bolts.



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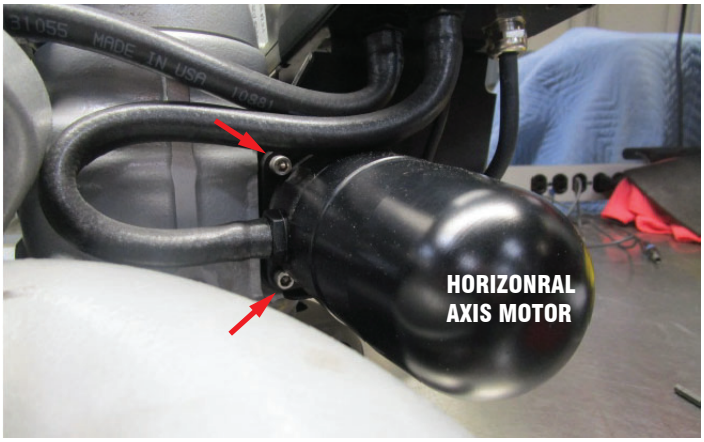
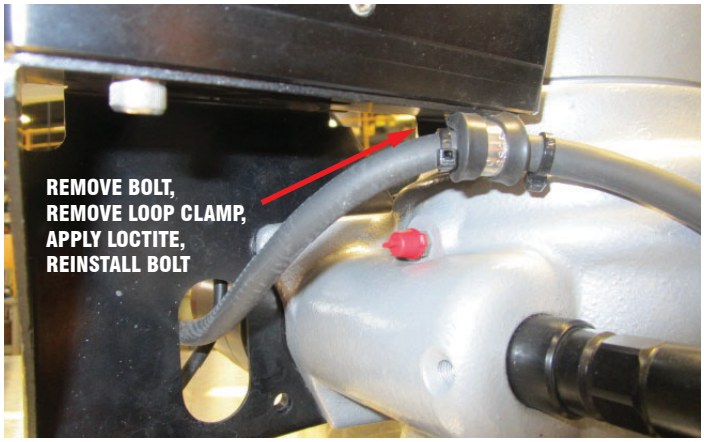
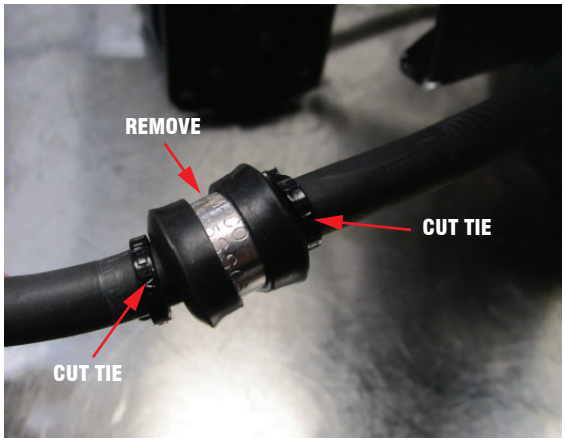
4.4 Use 3/16” hex wrench to remove three (3) bolts that attach horizontal motor & control box bracket. Gently lower & support control box in order to continue work. Use one (1) bolt below in step #5.1, discard remaining bolts.



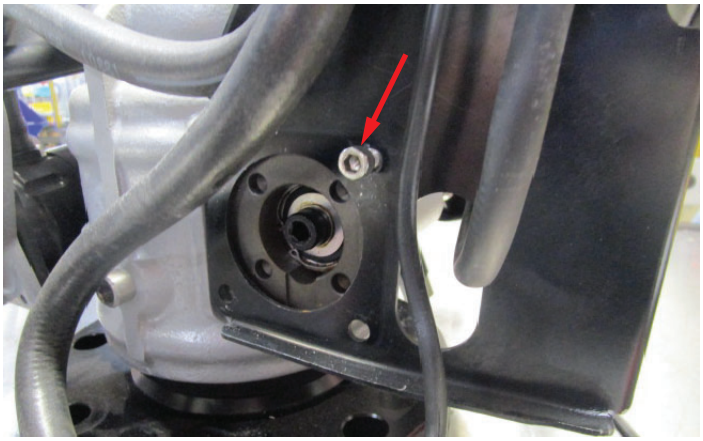
4.5 Use 3/16” hex wrench to remove control box bolt that attaches cable loop clamp. Cut wire ties and remove loop clamp. Apply drop of blue Loctite to threads and replace bolt into control box



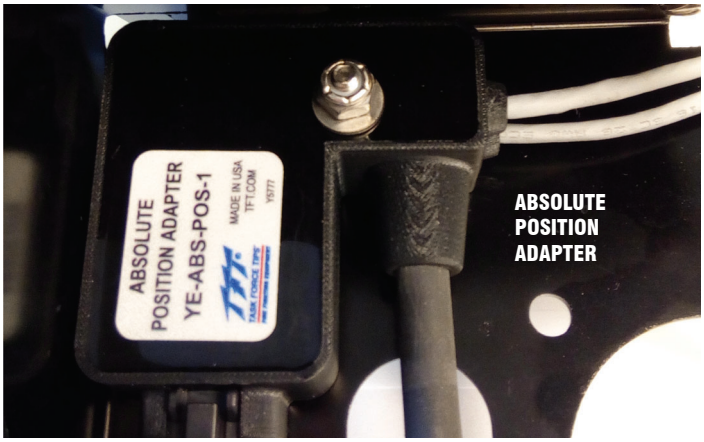


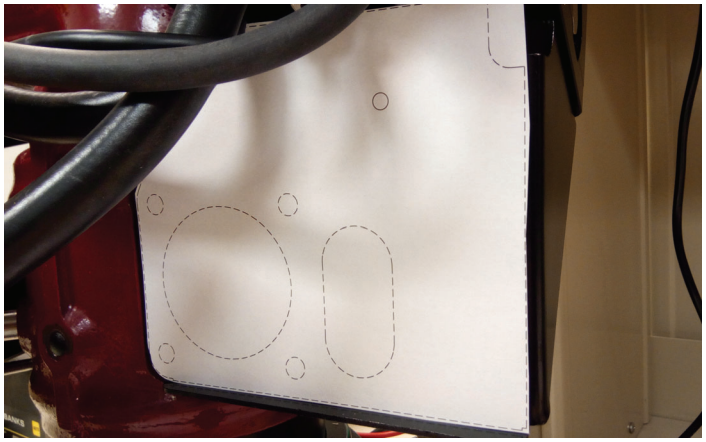
5.0 ADAPTER INSTALLATION

5.1 Temporarily install one (1) bolt in horizontal motor mount and control box bracket to hold control box in place. Pull power/comm. wire back through the control box bracket.

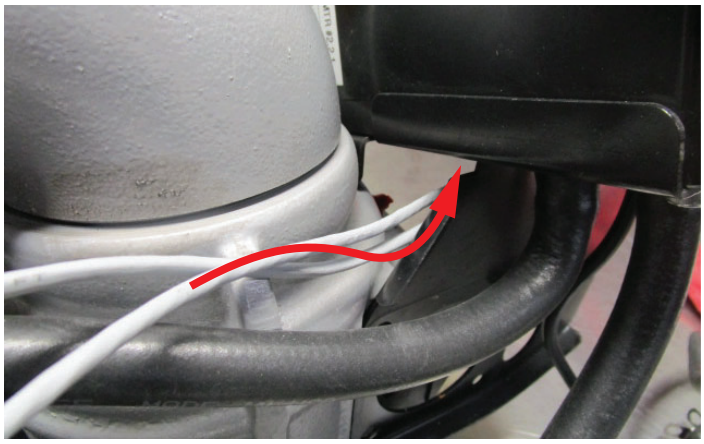


5.2 Cut out template on last page of this document and use template to mark location of mounting hole on control box bracket. Hold template tight against bracket flange. Drill 7/32” hole through control box bracket as shown below. Install adapter into place as shown below (under control box) and use 10-24 fasteners & ½” washers for mounting.



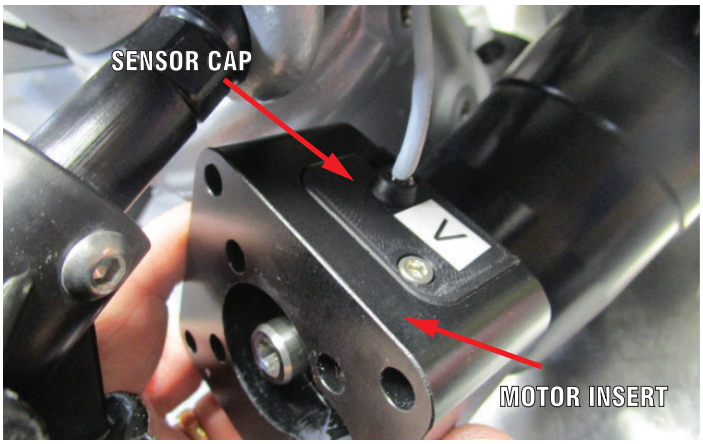


5.3 Insert horizontal & vertical sensors through corner of bracket and casting as shown below for next steps. Tip: Loosen bracket bolt to create gap to run wires through

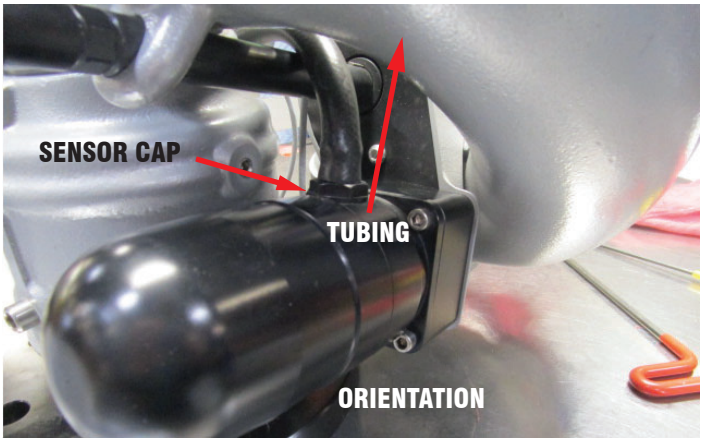


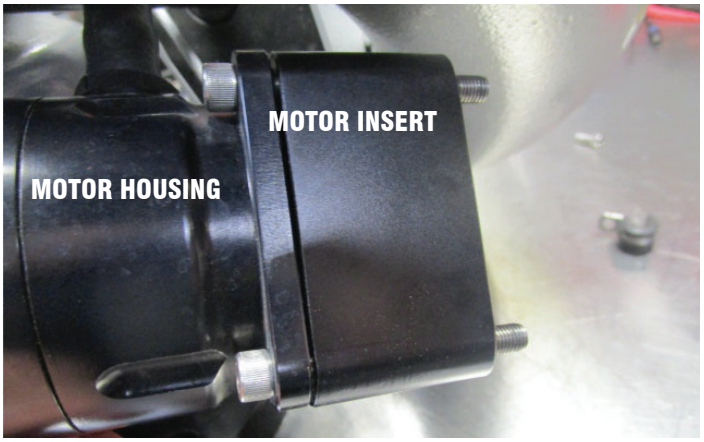
6.0 VERTICAL AXIS INSTALLATION

6.1 Insert sensor cap labeled “V” into motor insert. Apply drop of blue Loctite to two (2) 8-32 screws and install into sensor cap, tighten using 9/64” hex wrench

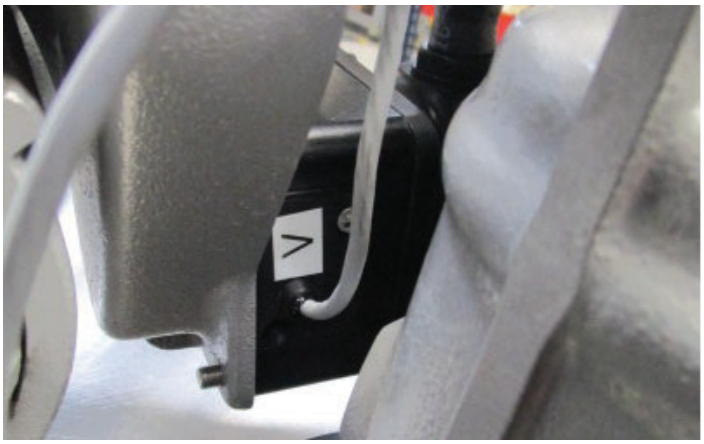


6.2 Insert three (3) 1/4-28 x 1 ¾” bolts into motor housing. Slide motor insert over bolts and mate to motor housing. Rotate shaft, if necessary, to align hex. Be sure orientation is as shown below. Apply drop of blue Loctite to bolt threads.



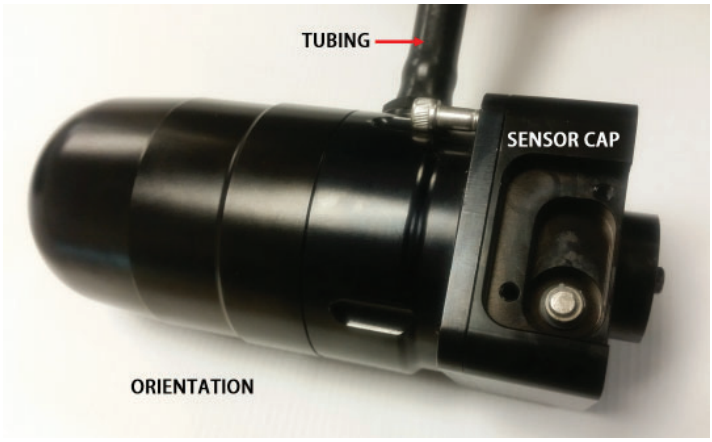


6.3 Align motor insert with casting/chain-drive assembly. Rotate override knob, if necessary, to align hex, align holes, and install bolts, tighten



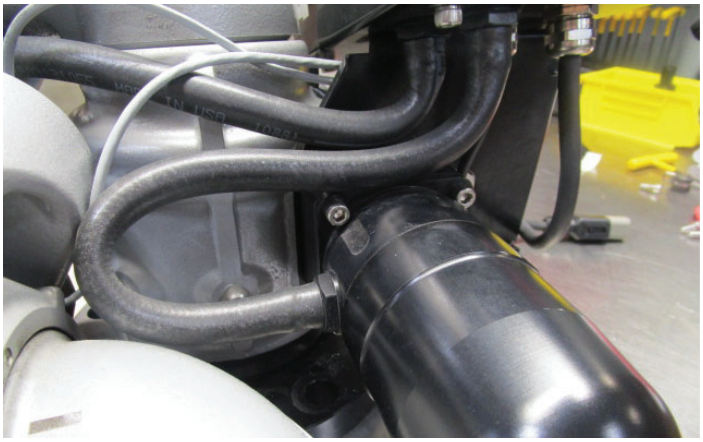
7.0 HORIZONTAL AXIS INSTALLATION

7.1 Insert three (3) 1/4-28 x 1 ¾" bolts into motor housing. Slide motor insert over bolts and mate to motor housing. Rotate shaft, if necessary, to align hex. Be sure orientation is as shown below. Apply drop of blue Loctite to bolt threads.

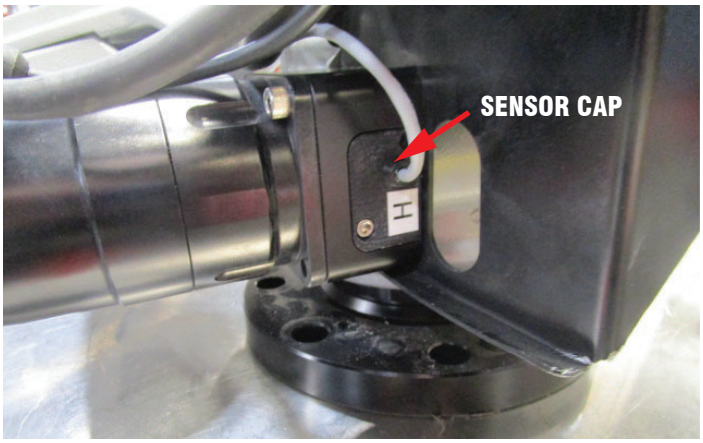


7.2 Remove the bolt temporarily holding control box in place from step #5.1. Be careful to support control box.

7.3 Align motor insert with casting and control box bracket. Rotate override knob, if necessary, to align hex, align holes, and install bolts, tighten.

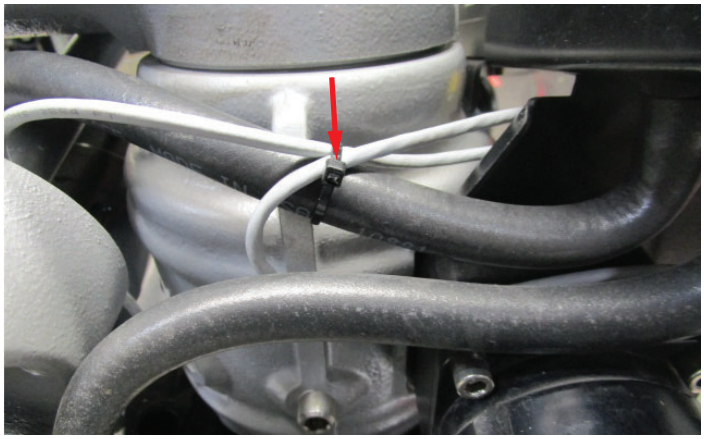


7.4 Insert sensor cap labeled "H" into motor insert. Apply drop of blue Loctite to two (2) 8-32 screws and install into sensor cap, tighten using 9/64" hex wrench.

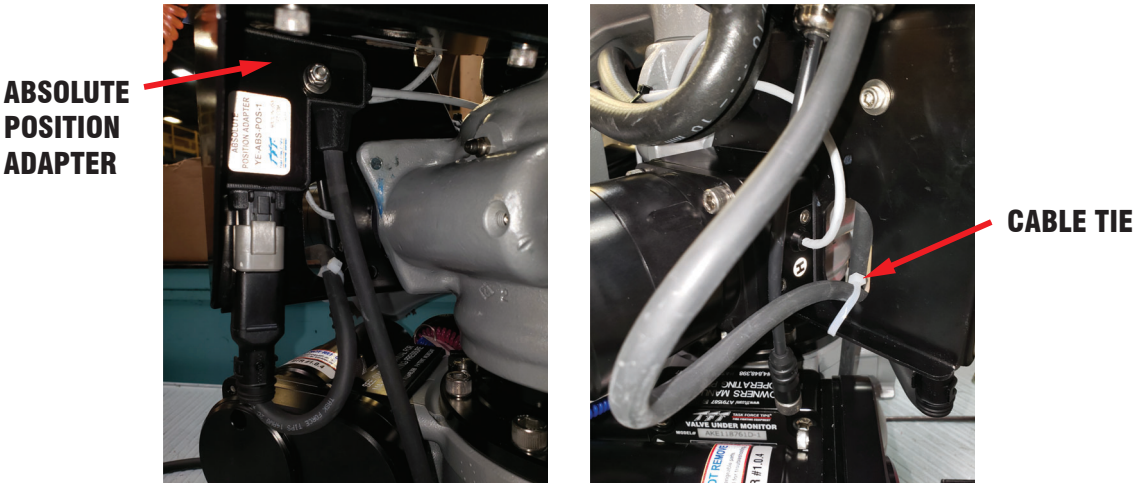


8.0 FINAL INSTALLATION

8.1 Install black cable tie around sensor wires and motor tubing



8.2 Route power/comm cable through bracket opening and connect into Absolute Position Adapter. Use cable tie to secure cable. Be sure cable clears VUM gearbox/motor.



8.3 Perform Position Retention Setup procedure per LTT-021 document

TASK FORCE TIPS®
FIRE FIGHTING EQUIPMENT

Instructions: Remote Control Monitors with Position Retention Setup

⚠ DANGER **Understand manual before use. Operating remote control monitors without understanding the manual, receiving proper training, and using appropriate personal protective equipment is a misuse of Task Force Tips equipment. This manual does not fully address safety. Additional safety information is published in LIY-500 and must also be reviewed and understood prior to use.**

Position Retention – The implementation of hardware and firmware routines to ensure monitor horizontal & vertical axis positions are known and maintained even when manual override knobs are used, for an extended period of time.

There are two separate methods of setting position retention; the CANbus Messaging Method, or the Operator Station Method. The quickest and easiest method is to use CANbus messaging. Position retention requires Y5105-B base board and Y5100-B motor boards.

Operator Station Method

NOTICE THERE IS A ONE MINUTE TIME LIMIT AFTER POWER UP TO ENTER HARD STOP MODE.

STEP 1 - ENTER HARD STOP MODE

1. Press and hold button #1.
2. While holding button #1, press button #2 two times.
3. Release both buttons. Oscillate LED #3 will blink once every two seconds to indicate active mode.

STEP 2 - MOVE MONITOR TO ALL 4 HARD STOPS.

1. Using monitor control box membrane switch, move Horizontal & Vertical axes to physical hard stop until motor current limits.
2. Wait for PARK led to blink three times after hard stop is hit.
3. Proceed to next axis/hard stop. (Order does not matter).
4. Mode exits automatically when all four hard stops are hit.

STEP 3 - ALIGN MARK POSITIONS

1. Press and hold button #1.
2. While holding button #1, press button #2 three times.
3. Release both buttons. Monitor will move to mid-travel position.
4. Verify marks are aligned.

Horizontal Axis Mark Position

Vertical Axis Mark Position

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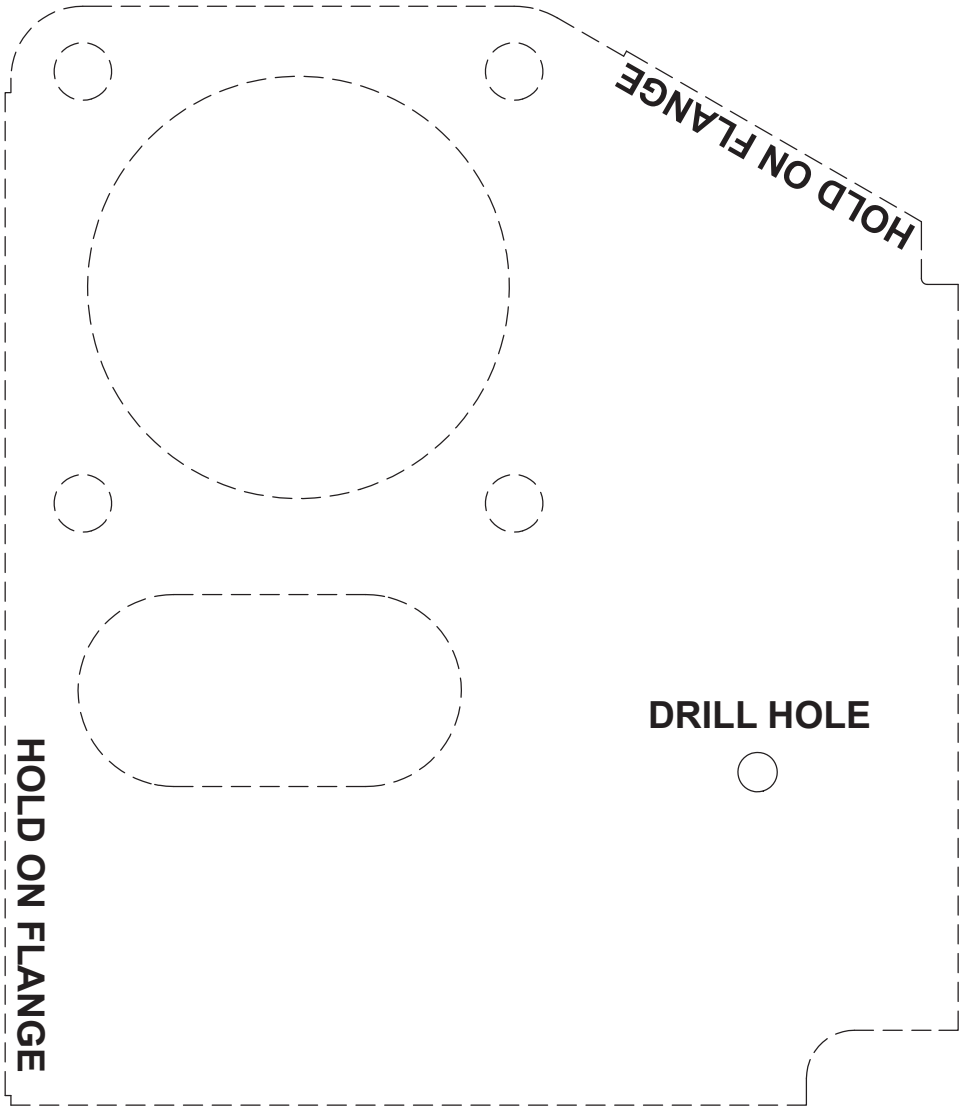
TEMPLATE CUTOUT ON BACK PAGE

9.0 TEMPLATE CUTOUT



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