

# INSTALLATION INSTRUCTIONS

## **COUNTERWEIGHT SENSING SWITCH**

(Reference Figures 1 thru 4)

This kit has been shipped loose to be field mounted, wired, and adjusted per the procedures below. These switches are intended to turn off the motor whenever a counterweight attempts to come out the top of its guide tube during lift operation.

1. To install the counterweight sensing switch, first gain safe access to the top of the masts. There is one (1) counterweight sensing switch supplied per lift to be mounted to one of the mast beams (typically Left) near the top of the counterweight tube.
2. Assemble the sensing switch as shown in **Figure 1**. The switch is to be wired normally closed – tripped open.
  - a. Mount the switch body to the counterweight tube as shown:
    - i. Use **Figures 2a and 2b** – if the lift was installed prior to 11/2006 and/or there is no sensing switch mounting plate pre-welded to the top of the counterweight tube. Use the switch body as a template in the position shown, mark the hole position, and drill and tap as instructed to mount the switch with the hardware provided.
    - ii. Use **Figure 3** – if the lift was purchased in 11/2006 or later and/or there is already a sensing switch mounting plate pre-welded to the top of the counterweight tube. Mount the switch body as shown with the hardware provided.
  - b. Slide and/or rotate the sensing switch arm so that it is positioned over the counterweight tube as illustrated.
  - c. Tighten the switch arm, rotate upwards and confirm that the switch contacts open (listen for “click”) at 10-20 degrees of rotation. Adjust as necessary

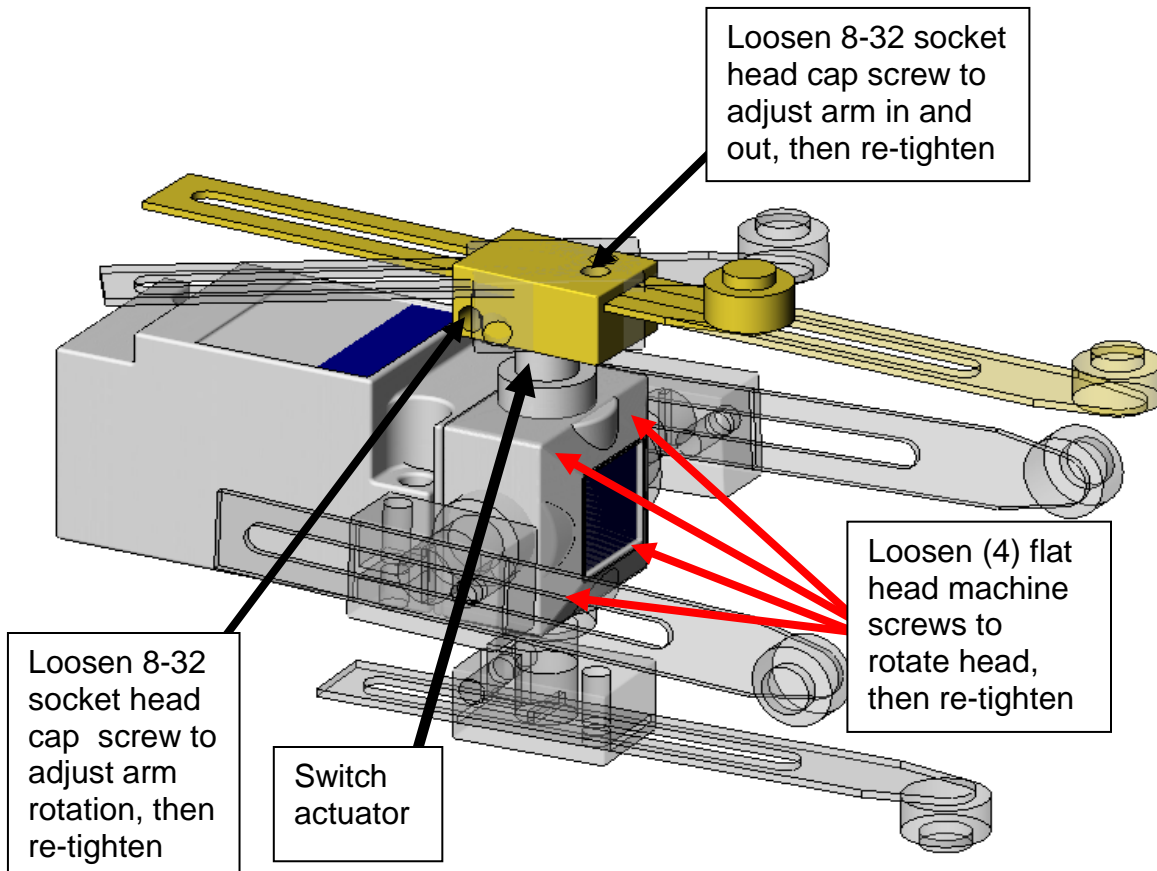
**NOTE:** To change the actuation direction of the switch, remove the switch head. Change the actuating control knob/mechanism to the desired actuation direction. (Reference Figure 1)

3. Ensure that the counterweight will in fact make contact with the switch arm as the counterweight is pulled out the top of the square tube.
4. After installing the sensing switch, a qualified electrician should, while referencing the lift’s electrical schematic, wire the sensing switch into the circuit:

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- a. Use **Figure 4** if the unit was installed prior to 11/2006 (or if not already done).
  - b. For units installed after 11/2006, please refer to your order specific electrical schematic for wiring details. The counterweight sensing switch will be shown as “CW1”.
5. The switch should then be tested to make sure it is adjusted and set correctly. Test the electrical continuity of the sensing switch inside the lift’s motor control panel to make sure that:
- a. the contacts in the switch are in the closed condition when in the running position (normal, “home” position)
  - b. The contacts in the switch are in the open condition when in the tripped/rotated position (switch arm must be rotated manually & held up during testing)

**Should you have any questions or need assistance please call Autoquip Product Support (888-811-9876).**



**Figure 1 Sensing Switch Adjustments**

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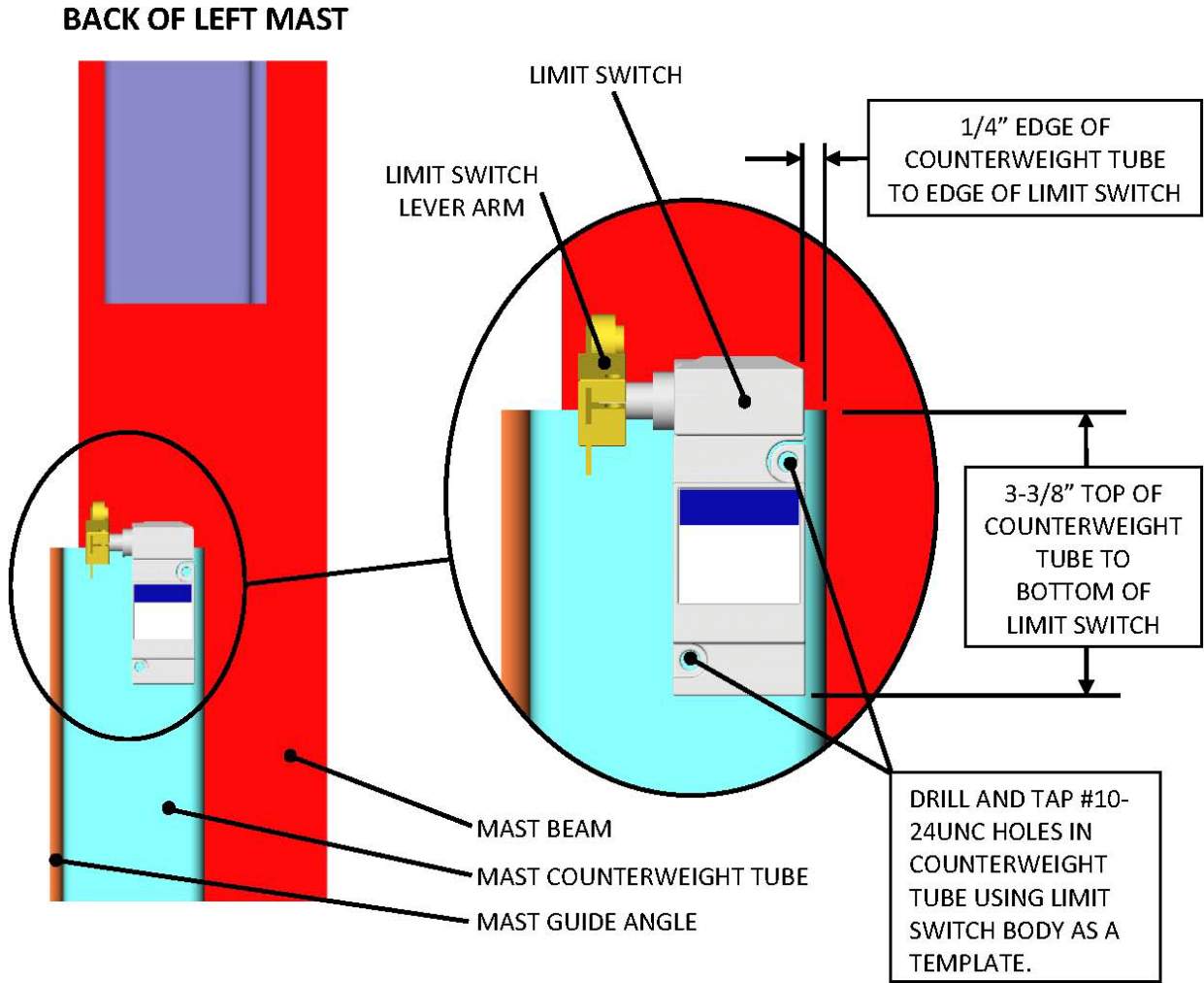


Figure 2a. Sensing Switch Installation – Lifts with No Pre-Existing Mounting Plate

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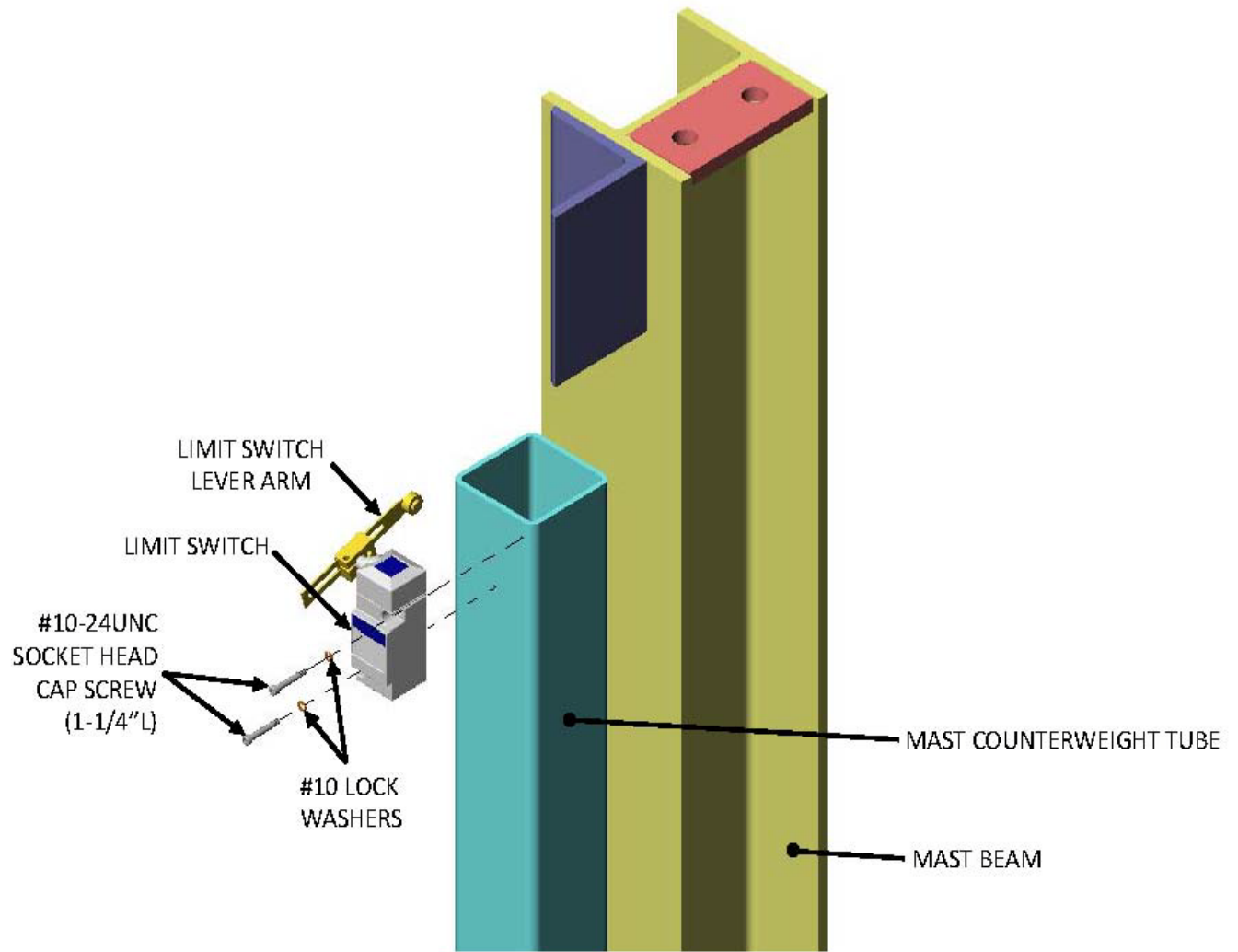


Figure 2b. Sensing Switch Installation – Lifts with No Pre-Existing Mounting Plate

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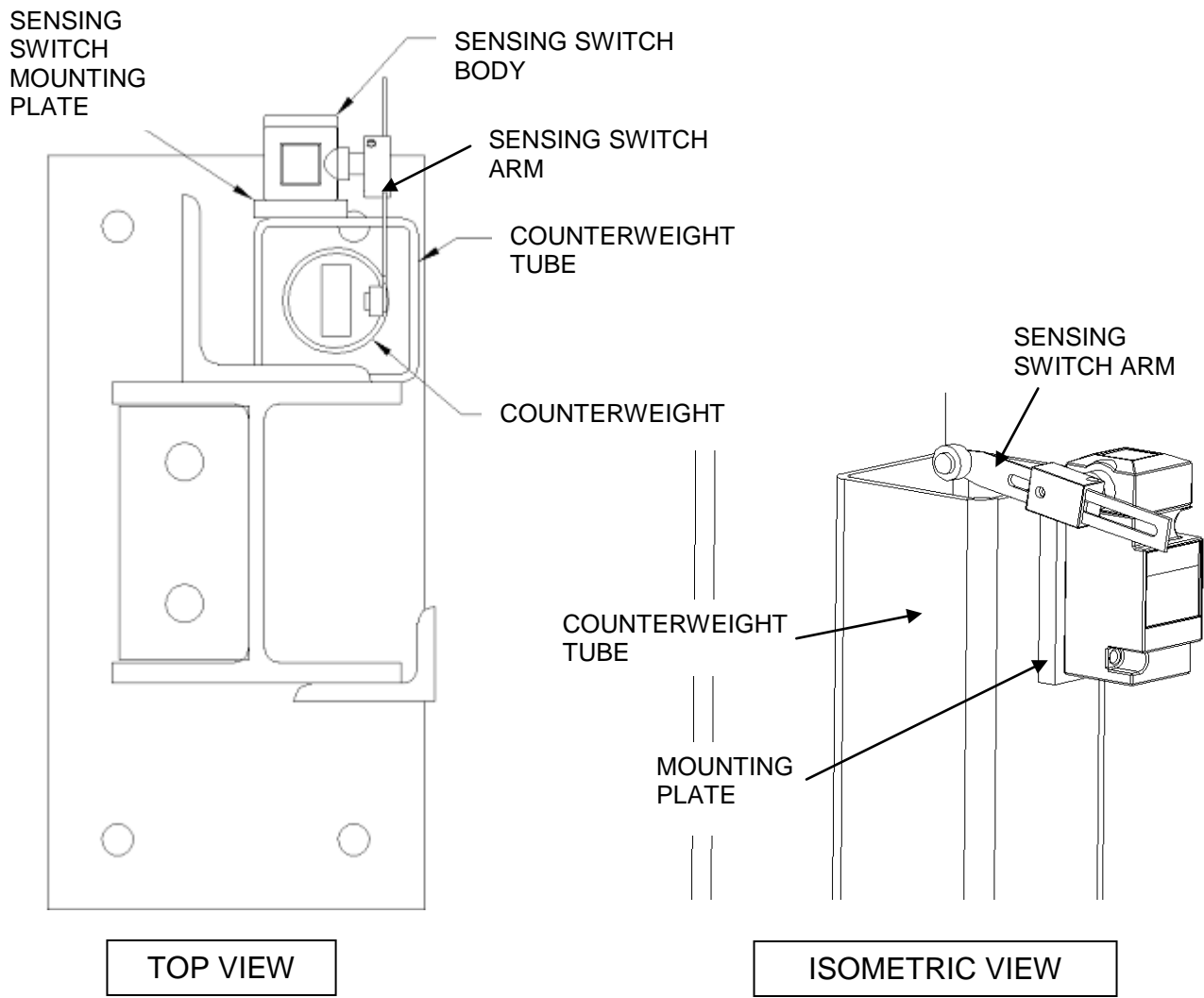
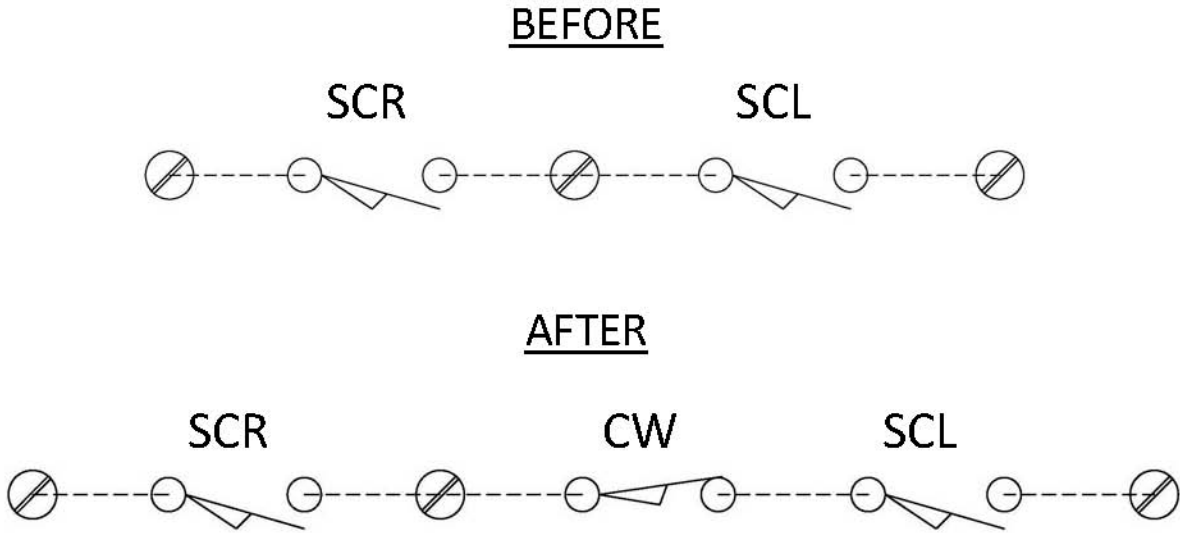


Figure 3. Sensing Switch Installation – Lifts With Pre-Existing Mounting Plate

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**LEGEND**  
SCR = SLACK CHAIN LIMIT SWITCH (RIGHT SIDE)  
SCL = SLACK CHAIN LIMIT SWITCH (LEFT SIDE)  
CW = COUNTERWEIGHT LIMIT SWITCH (LEFT SIDE)

**NOTE:** If the unit was installed prior to 11/2006 use this diagram to add the counterweight sensor into the electrical circuit.

**Figure 4. Sensing Switch Wiring into Existing Circuit**