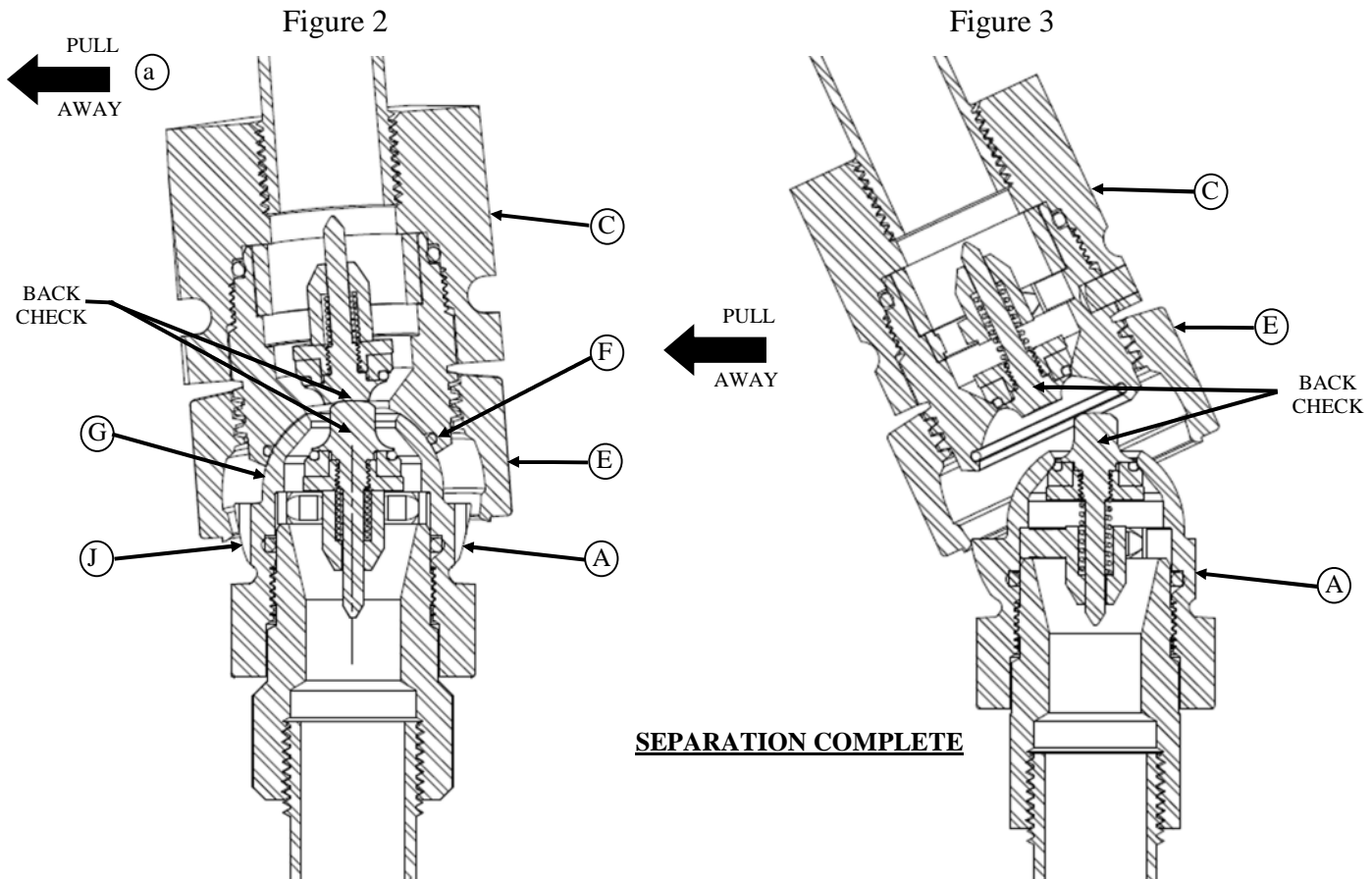




## OPERATION INSTRUCTIONS Cont.

The center section of the Tri Pod contains two spring loaded back checks (K) and (L). They hold each other open in connected operation and are suspended in the flow stream by back check support members (M) and (N) which have thin legs to support the back check valves yet allow flow to occur around the stem supports.

The mechanical operation of the Tri Pod during release is shown in Figure 2. A release is initiated when a horizontal force at point (a) (Due to pull away) over comes the frictional forces at both the inner and outer ball sockets G and J respectively. The amount of frictional force present was determined by the tightness of the Catch Nut (E).



As the Tri Pod Upper Housing pivots, the catch nut will rotate out of contact with one or two of the three Tri Pod legs (J). While rotation is occurring the O-Ring (F) on the Inner Ball Socket (G) maintains the product seal until release occurs. After a maximum rotation of 25 degrees, the Tri Pod Upper Housing (C) and Catch Nut Assembly (E) will separate from the Lower Housing Assembly (A).

After release occurs the two all stainless steel spring assisted Back Check Valves, will close very quickly to minimize product release (4 cc approx.) as shown in Figure 3. The Back Check's seat, provides a pressure tight seal. The Tri Pod Upper Housing (C) and Catch Nut with the Back Check closed, remains attached to the vapor hose and follows the pull away vehicle until stopped. After proper bleed down of the system as described under the "Operating Instructions", the Upper Housing (C) and hose (check for damage) can quickly be reconnected to the Lower Housing Assembly (A) returning the fill station to operation.

## INSTALLATION INSTRUCTIONS

Before starting installation, close the liquid and vapor main shut off valves and vent all lines.

The TP0 Tripod is designed to provide protection against gas escape at motor fuel dispensers, should a vehicle pull away with the hose connected. Back checks in both halves are designed to close when tripods separates protecting both the dispenser and the vehicle.

Dispenser Tripods are designed to provide protection between the dispenser and the storage tank. Back checks in both halves are designed to close when tripod separates protecting both the dispenser and the storage tank.

Model	Flow Capacity	Application
TP0	25 GPM at 10 PSI Differential	Vapor/Liquid Line

### ABOVE GROUND INSTALLATION

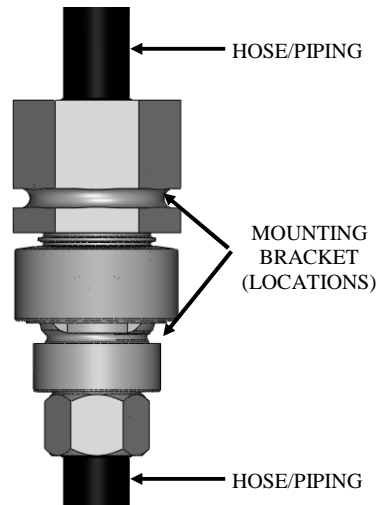
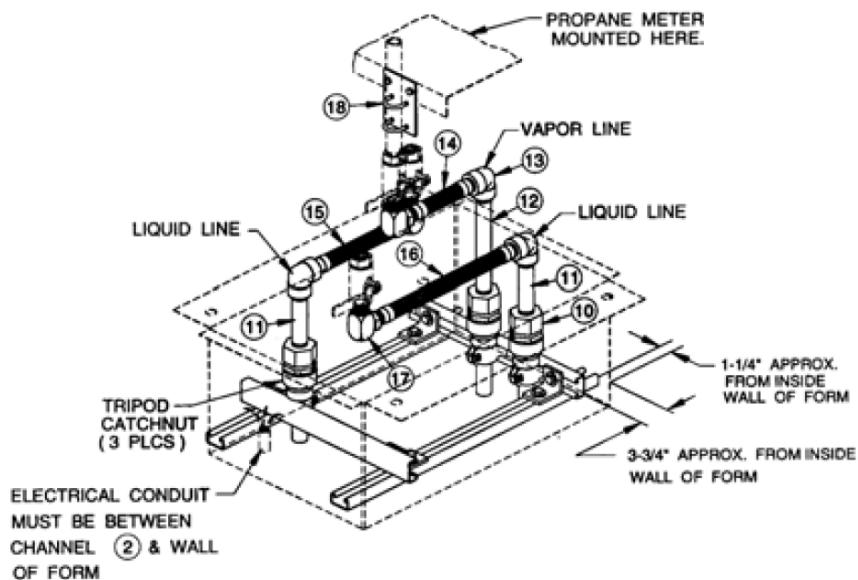


Figure 4

### BELOW GROUND INSTALLATION



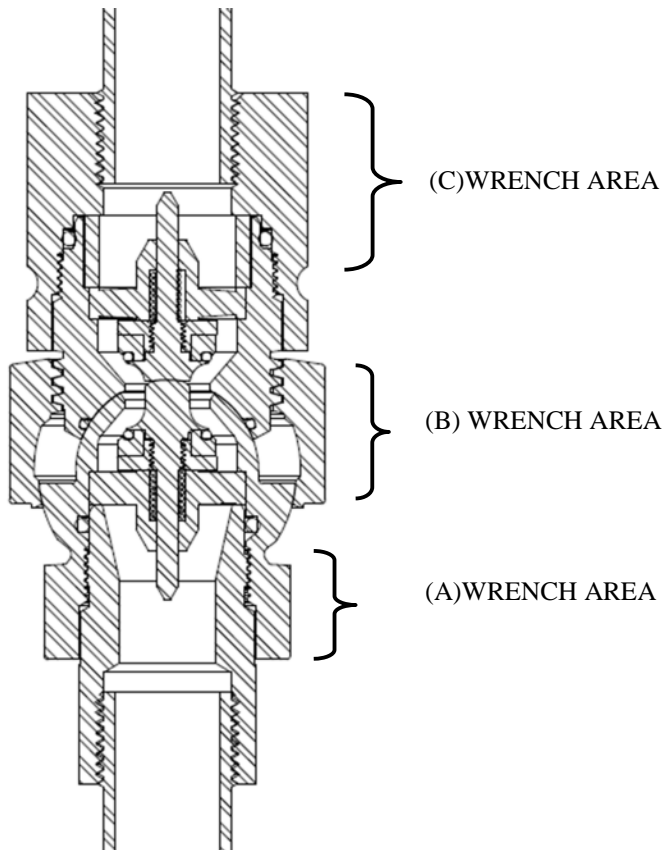
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## INITIAL INSTALLATION

Properly installed piping must have an excess flow valve installed to protect the liquid and vapor lines.  
The flow capacity of a Tri Pod installed to protect a line must exceed the rating of the excess flow valve protecting that line.

1. Screw the lower housing assembly . Tighten at location ④ in Figure 5 with a wrench.
2. Attach the hose or coupling to the Upper Housing (C).

Figure 5



3. Screw the catch nut down (off) until the internal threads are slightly exposed. (see B in Figure 6).

NOTE: The Catch Nut is screwed down to this position so the back checks will not interfere with each other when the Upper Housing (C) is placed on the Lower Housing (A).

**CAUTION: Check that the hoses connected to the Tri Pod will pull free in the event of a pull-away in all possible directions.**

4. Set the Catch Nut and Upper Housing over the Lower Housing Legs. While holding the Upper Housing in position, tighten the Catch Nut firmly by hand.

NOTE: Be sure to hold the Upper Housing in a vertical position while tightening the Catch Nut or the Lower Housing will disengage.

5. Tighten the Catch Nut 1/8" turn with a pipe wrench ⑤ on its wrench area as shown in Figure 5.

**CAUTION: Do not over tighten the Catch Nut. It must be tight enough to not disengage with normal hose handling but should not be tightened past that point.**

6. Grab the hose fitting by hand and try to move the Tri Pod Upper Housing . If it can be moved by hand, tighten the Catch Nut 1/16 turn or less and try again.

NOTE: Striking the hose fitting with the heel of your hand to see if it will move, is also a technique that can be used.

NOTE: If a hose is used, simply test what you have done by whipping the hose around to simulate handling and then pull on the hose to test the ease of disconnect. Reconnect, tighten and do a manual pull-away as many times as needed. No harm is done by operating the Tri Pod.

7. Make sure the Tri Pod Upper Housing (C) is straight to the eye with the Lower Housing (A). If not, loosen the Catch Nut by turning it counter clock wise. Tap it straight and retighten the Catch Nut to its previous point.

NOTE: If the Lower and Upper Housing A and C are not aligned properly there will be a flow restriction across the ball socket orifices.

#### RECONNECTION AFTER PULL AWAY

1. Close the liquid and vapor main shut off valves.
2. Close the hose end valves.

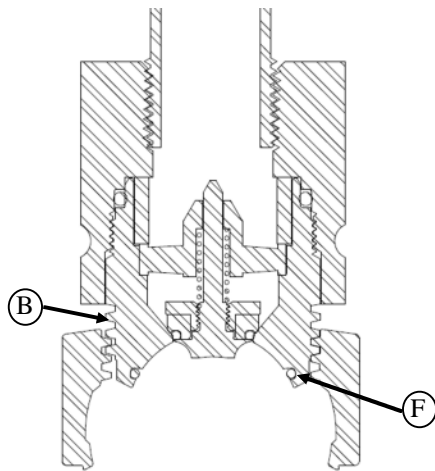
**CAUTION: Both the liquid and vapor lines are full of product which must be safely bled off.**

3. Bleed down the product trapped in the line.

**CAUTION: Leave bleeders and hose end valves open until after the Tri Pod reconnection.**

4. Inspect hose end valves, and hose, for signs of damage or cracking.

Figure 6



5. Inspect for the presence of the sealing O-Rings (F) in FIGURE 6. If they are missing or cut, replace them.

NOTE: On a disconnect, it is not unusual for the sealing O-Ring to blow out of the ring groove.

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