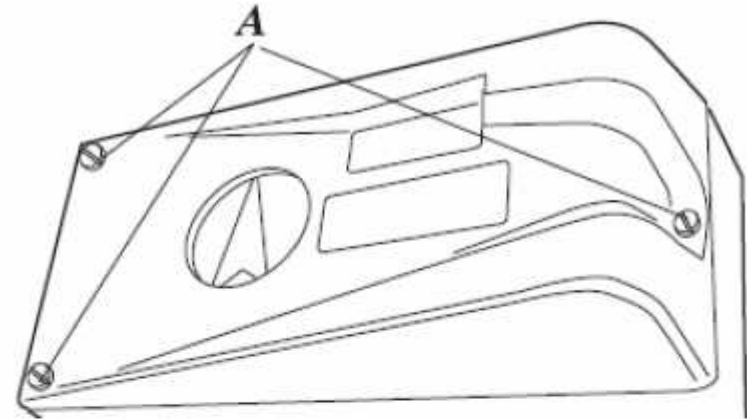


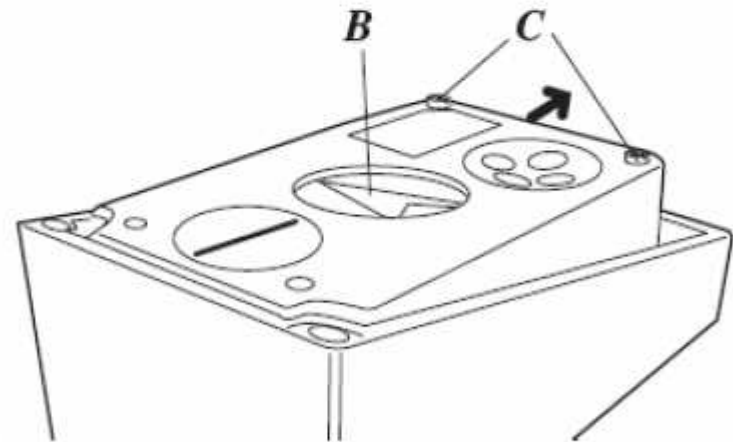
# PMV D3 Procedures

How to repair D3 positioner if spindle is shoved up inside the housing.

Remove the screws (A) and  
remove the main D3 cover



Remove the arrow indicator  
(B) and two screws (C) and  
pick up slightly on the cover  
on the right side then slide to  
the right



Note: If there is a transmitter  
or switch card, it must be  
removed as well. See main  
D3 IOM

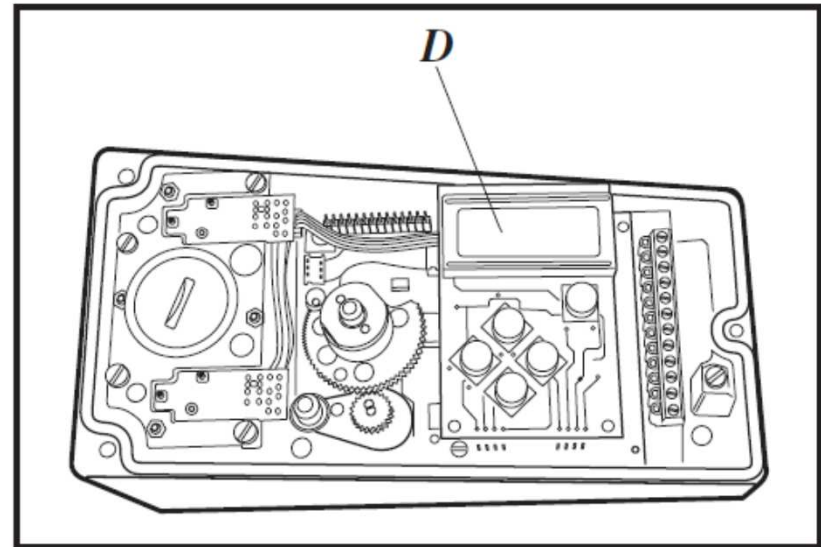
## Remove LCD Display

### Circuit boards (pcb)

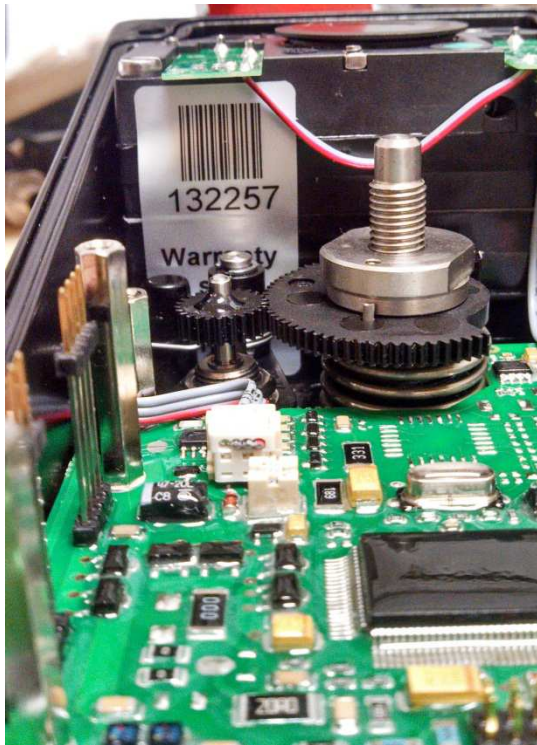


**Disconnect or switch off the electric power supply before starting any work.**

- Lift off the display pcb.



# Verify Whether Spindle Gear & Pot Gear Are Engaged



Should look like this



Not like this



Slide potentiometer lock to the side using a small screwdriver to allow the pot to disengage the spindle gear. Pot is now free to pull down, away from spindle gear towards housing side wall.

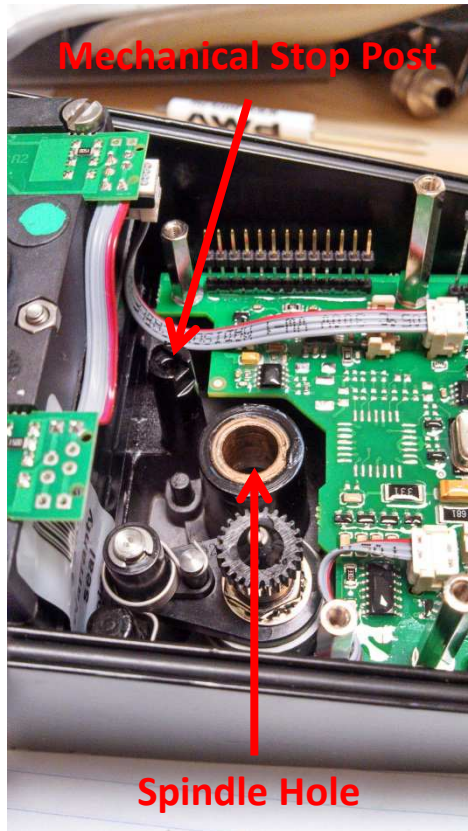


**Locked**



**Unlocked**

**Shown with spindle removed**



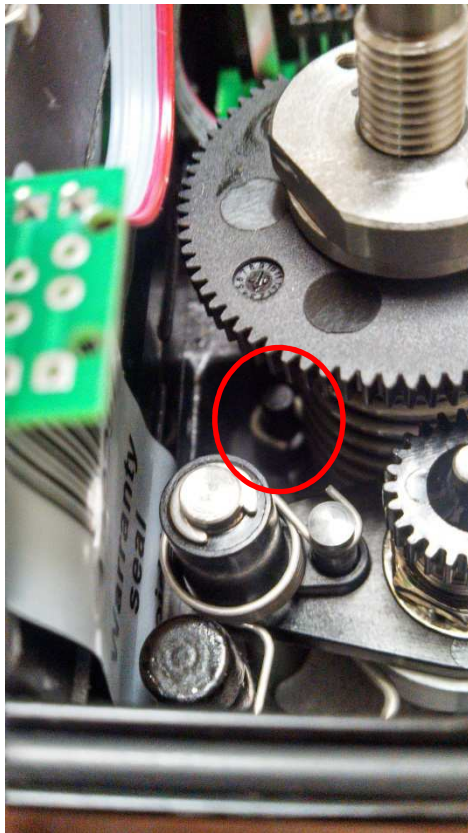
**Grab spindle with spring attached & press into spindle hole.**



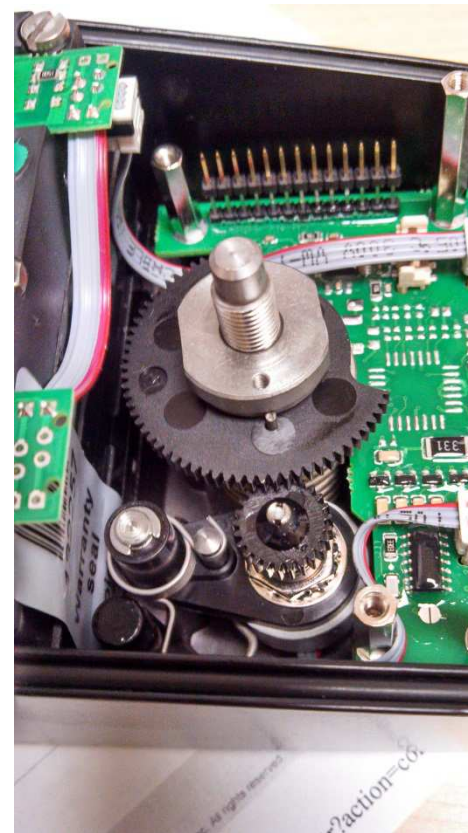
\* If spindle is already in the hole, then press it down until the gear wheel hits the top of the mechanical stop post.



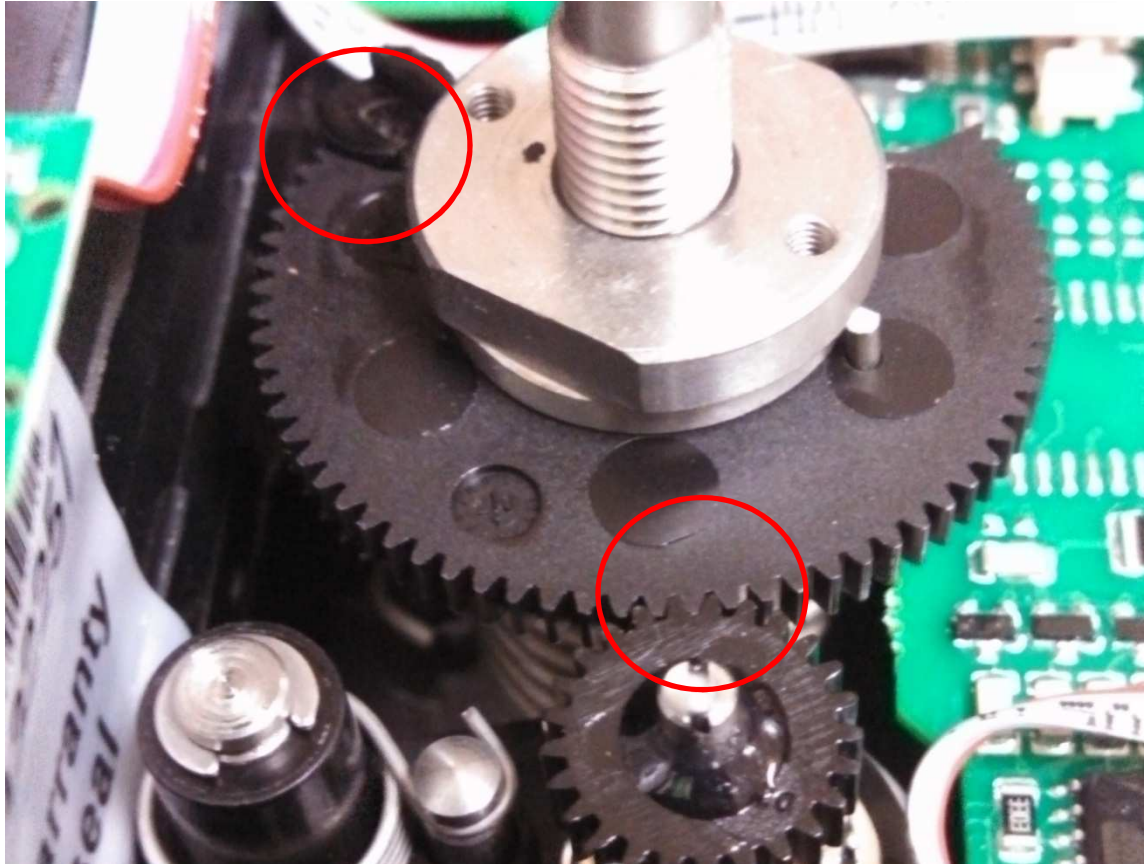
**Make sure the hook of the spring is around the bottom post**



**Put finger on top of pot and pull it out of the way so you can rotate the spindle gear CCW (against spring tension) until it clears the mechanical stop post. Press spindle down into place and let pot go to engage spindle gear.**



**Spindle gear and pot gear should now look like this...**



Spindle gear wheel's left flat is up against mechanical stop post.

Pot gear is firmly engaged with spindle gear wheel.

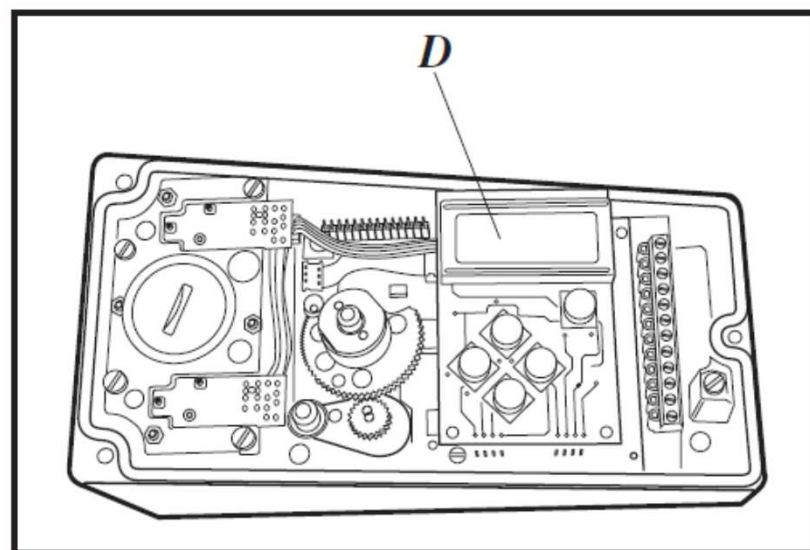




Replace the washer and then the split ring to hold the spindle in place.

\* Might need to use needle nose pliers to close the split ring if it has bent out of shape and doesn't hold the spindle tight.

## Replace LCD Display



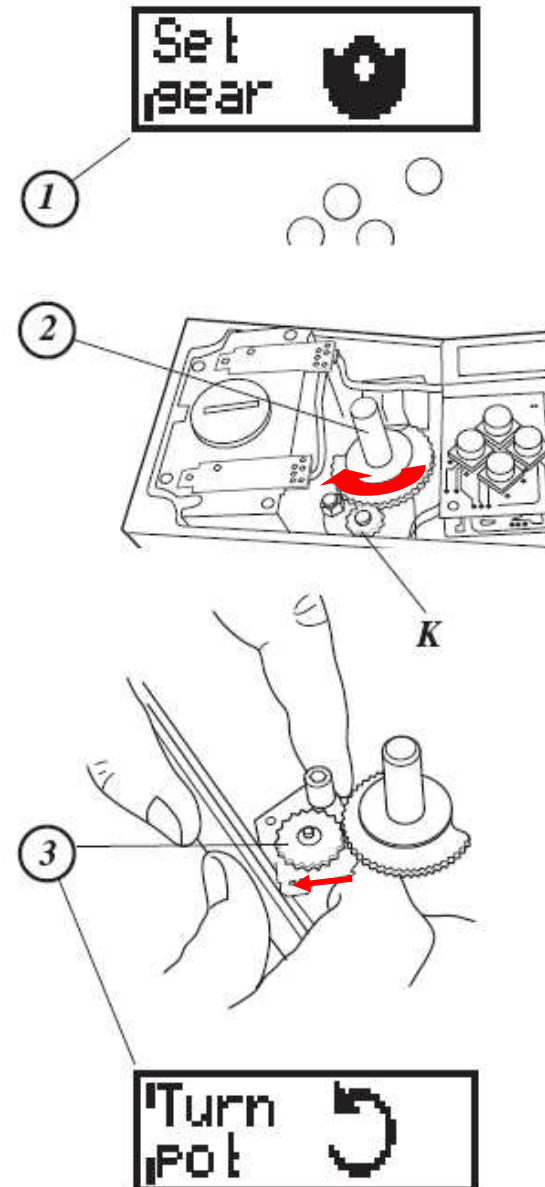
# Calibrating the Potentiometer

Setting the spindle and pot gear

1. With power applied to the D3, use the key pad and navigate to **CALIBRATE > EXPERT CAL > POT.** The D3 menu should now read like 1.

2. Spindle gear should look like gear shown on LCD display. Press the Up or Down arrow key until the gear (2) is correct (like picture 1 above). Press the **OK** button once the gear is correct.

3. Disengage the pot gear from the spindle gear by pulling down towards the housing wall (3). Once the two gears are disengaged, turn the pot gear in the direction the display says. Once the pot gear is correct, 'POT OK' will be displayed. Allow the pot gear to engage the main gear and then press **OK**.



Slide potentiometer lock back to the locked position.



**Locked**



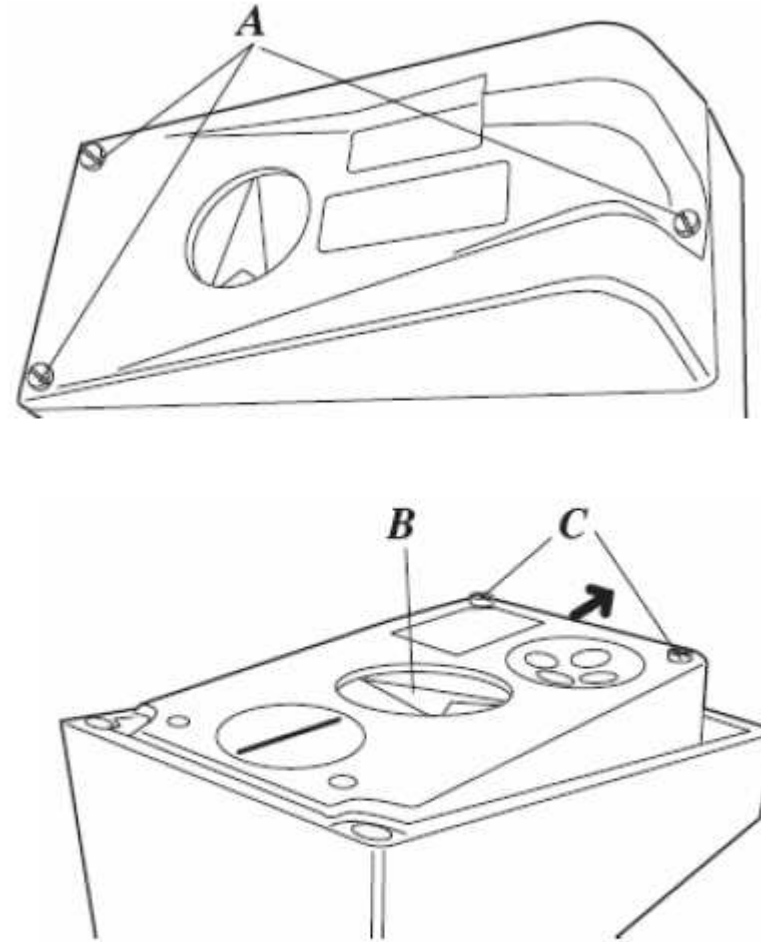
**Unlocked**



If transmitter or switch card was removed then install back into D3. See IOM for details.

Replace inner black plastic cover. Make sure all buttons are through the holes and not stuck under the cover. Replace the arrow indicator on top of the spindle shaft. Replace outer cover.

You are now good to install the positioner and calibrate it as usual.



Contact [pmvsales@flowserve.com](mailto:pmvsales@flowserve.com) for additional information