

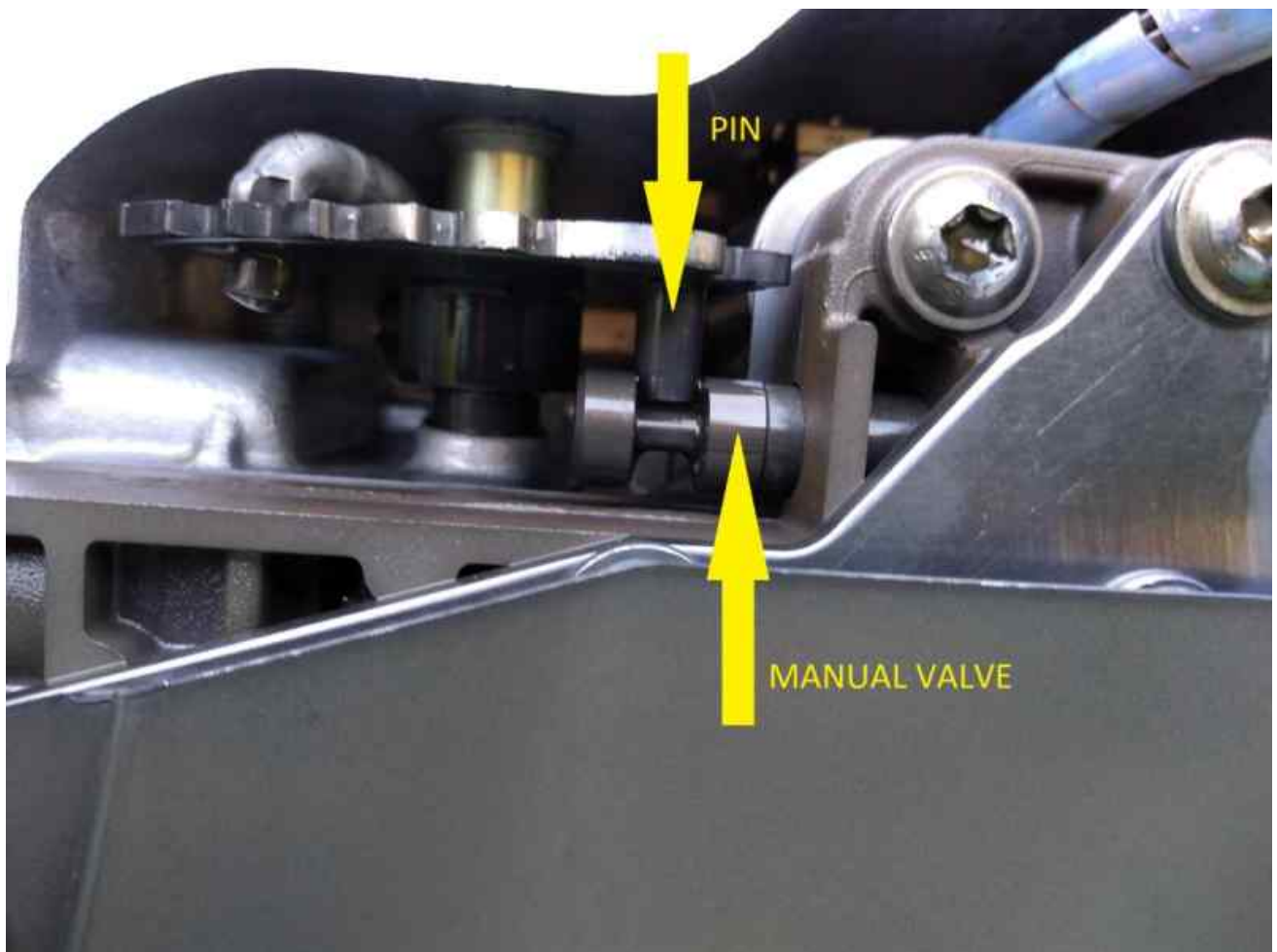
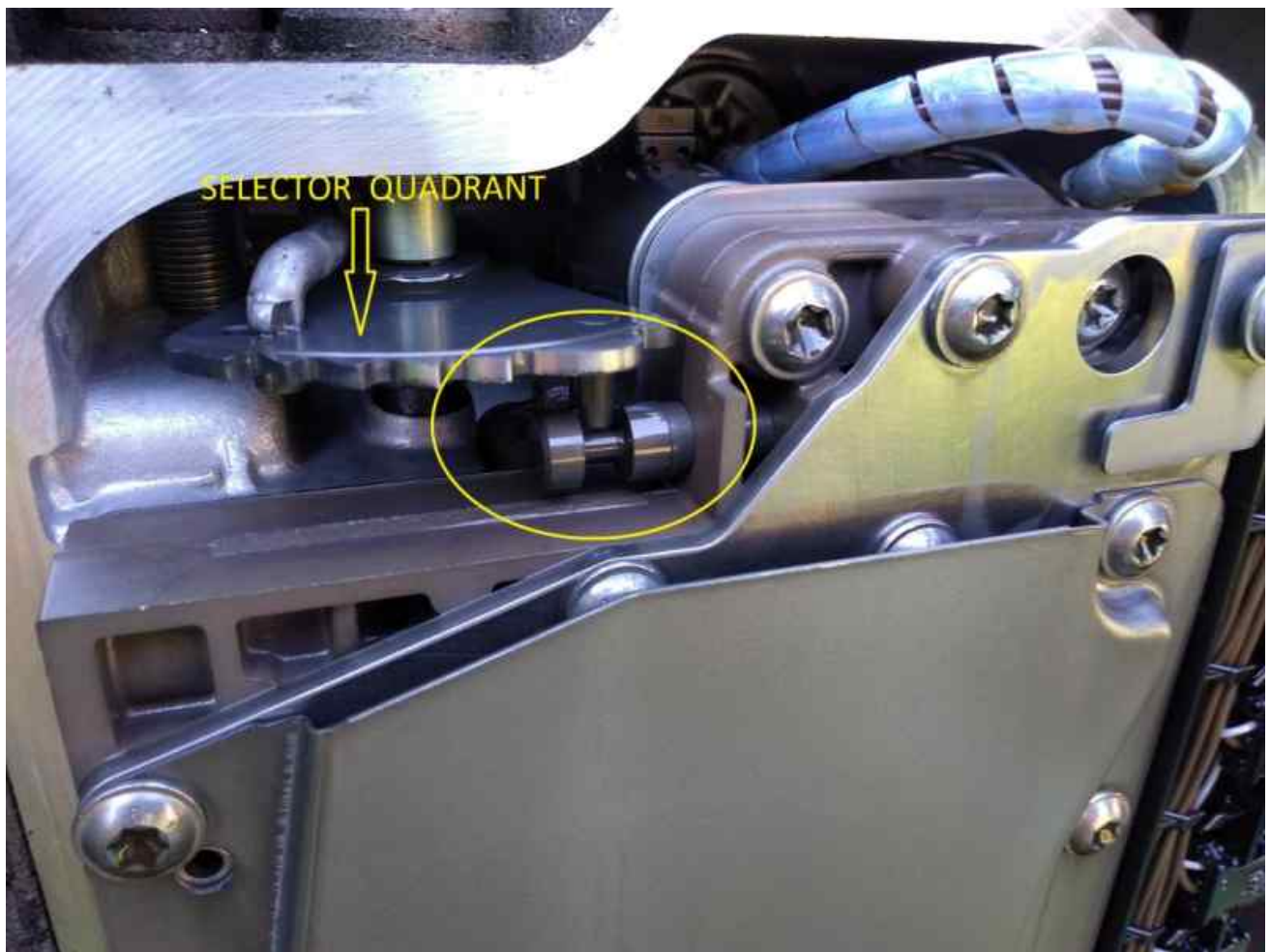
Install the cover and slide 2 of the mounting bolts back into the valve body in positions 4 & 5 .

Next we are going to install the valve body back onto the transmission.

Important: ensure the manual valve is installed and that it is around the correct way.

With the axial slot visible! refer to picture #1

Important: Install the 2 electrical connectors for the electro-valves on the back side of the valve body before installing the valve body onto the transmission.



There is a pin descending from the selector quadrant. The pin must engage in the slot around the end of the manual valve. It does not matter where the quadrant or manual valve are located at this time just that the pin is located in the groove as the valve body is installed. Screw up the 2 mounting screws but not tight just yet. OK. confidence check!!

New electro valves installed and the electro-valve mounting screws torqued up?
2 electrical connectors installed on electro-valves at the back?

Manual valve slides in and out as selector quadrant is moved backwards and forwards? Turn the selector arm on the top of the transmission to move the valve and selector quadrant. The ball joint connector will need to be removed to move the selector quadrant by hand. The quadrant will no longer "click" as the leaf spring has been removed. The action should be smooth.



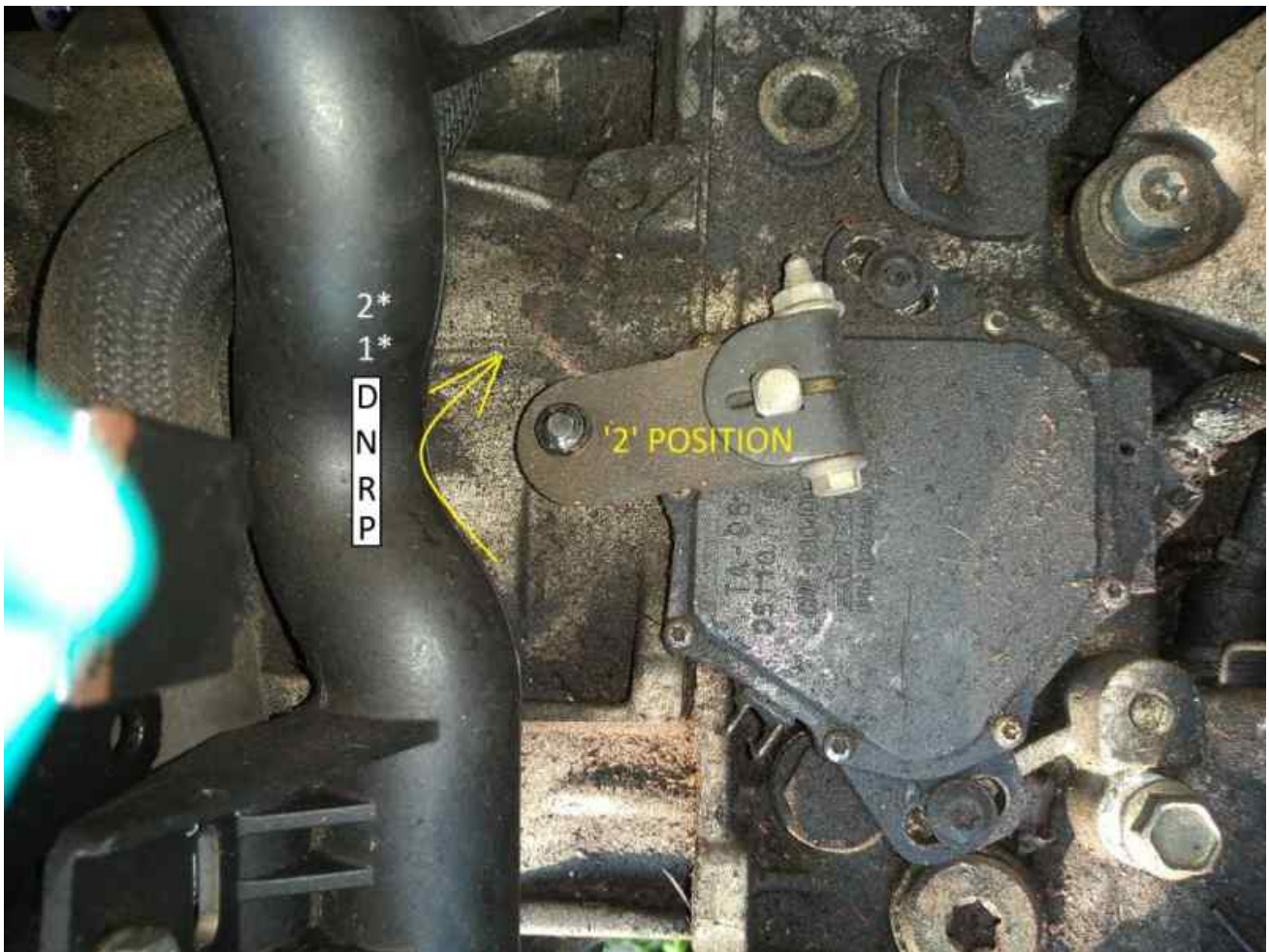
Thread the remaining 5 bolts into the the valve body. Tighten all the bolts in the numbered sequence to 9 Newton Metres. Back off the bolts but dont make them loose!! Re-torque to 7.5NM. YES, 9 then 7.5 NM!



Re-attach the 6 remaining electrical connectors.



Re-install leaf spring, 'L' shaped washer and retaining bolt. Don't worry where the spring is located at this time and don't fully tighten the retaining bolt.

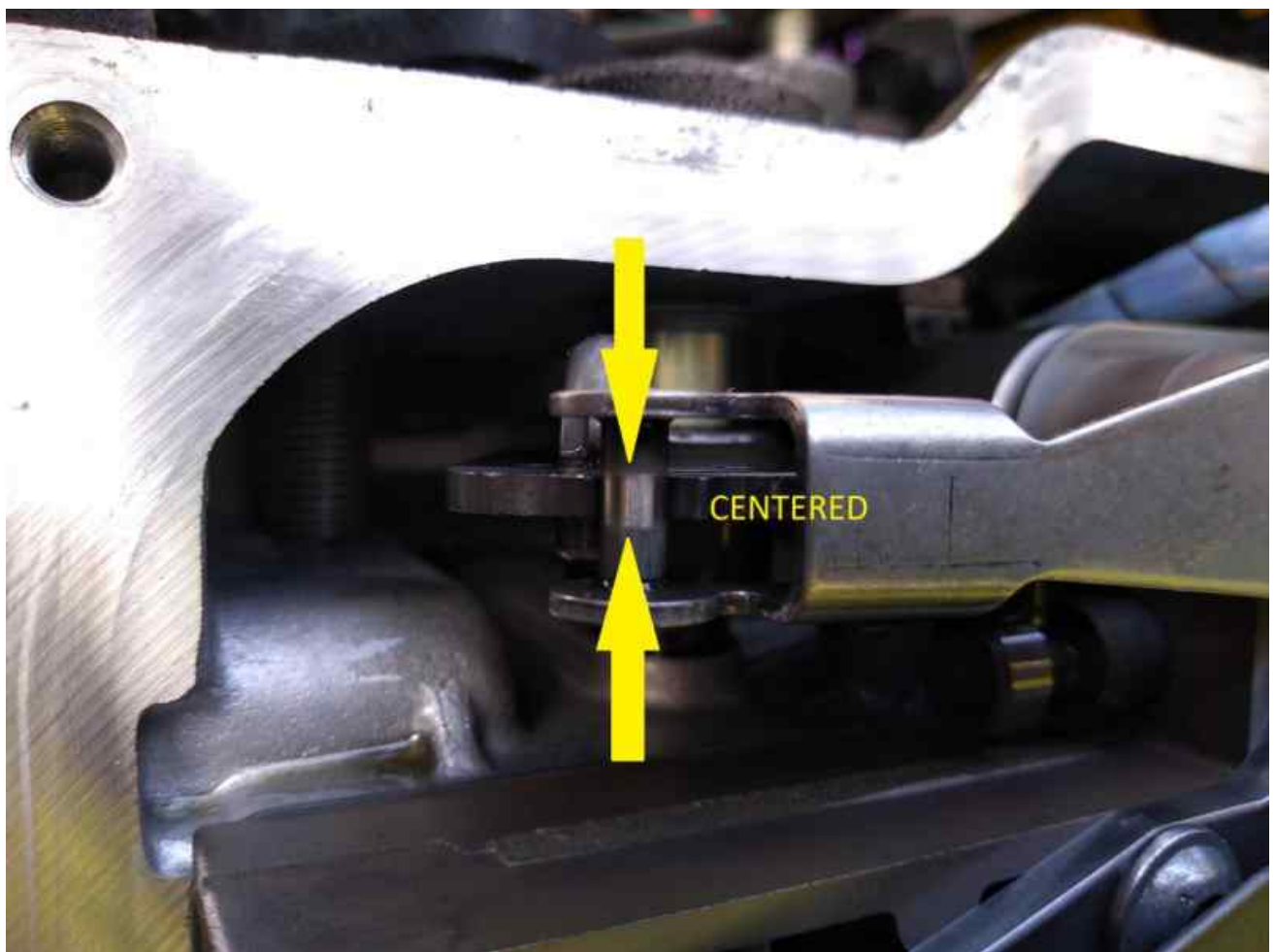


If you haven't already, pop the ball joint socket off the selector shaft. Rotate the selector arm all the way clockwise to the #2 position.

It is very difficult to explain what you need to achieve in setting up the relationship of the leaf spring and the detentes in the selector quadrant. But the selector quadrant needs to be hard up against the fully counter clockwise stop when the leaf spring locator is in the last detente of the selector quadrant.

Note: when the selector ARM on the TOP of the transmission is rotated counter clockwise, the selector quadrant inside the transmission rotates clockwise!!!!

The problem is; that as you screw down the retaining bolt for the leaf spring it tends to push the quadrant off the stop and twist the leaf spring! There is a special tool that "squashes" (preloads) the leaf spring against the valve body and holds the spring in position as you make adjustments to the location of the quadrant and locator on the spring. The "locator" is the pin in the spring jaws that locate into the detentes in the selector quadrant. See picture 025a.





The process can be done without this special tool but you need to be aware of 2 things.

- 1) the spring locator needs to be (approximately) centered on the selector quadrant. Top to bottom.
- 2) when the spring is tightened down with the retaining bolt, there is NO slop in the selector arm at the #2(fully CW) position.

It may take several goes to get the alignment right.

The tool Jagpurr made up is only partially correct. The tool also needs to push the leaf spring almost flat while centering it on the selector quadrant. His tool only centers it top to bottom.

EDIT: There is a third post in this thread (below) showing a make-shift arrangement to preload the leaf spring for adjustment.

By the way the #1 and #2 positions I have indicated on the pictures above are NOT used on the C3 but the selector is set up to the #2 position for alignment purposes. In those vehicles the #1 position is 3rd gear and the #2 position is 2nd gear. First gear is selected by a push button. Most "modern" AL4 equipped cars have a "manual mode" in the drive position to select any gear, sequentially.

At this point you can continue on with the alignment or take your chances that the shifter linkage has not moved out of alignment. Remember what I said way back in the beginning about removing the ball joint?

Rotate the selector arm on the top of the transmission to the neutral position. You can pop the ball joint back on and you can see if the alignment has been retained (only for those who don't want to do the alignment).



If (later) you put everything back together and the gear selector flashes when some positions are selected, then you will need to continue with the alignment. The quadrant and selector switch are out of alignment.

If you are going all-out, then you should perform the alignment irrespective of whether you think you haven't disturbed anything or not.

The alignment:



Make sure the gear selector in the cabin is in neutral. If necessary, rotate the selector arm on the transmission to the 'N' position.