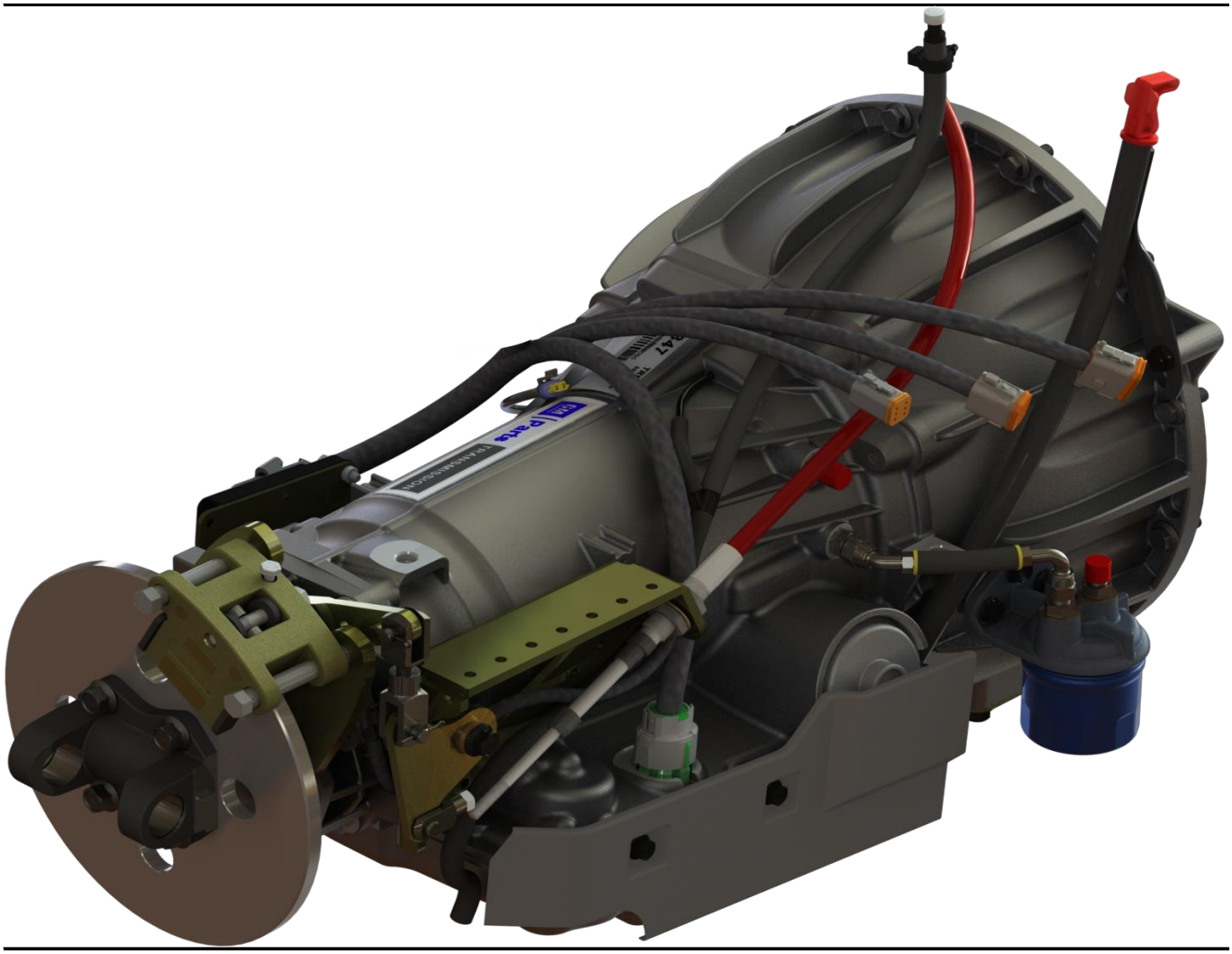
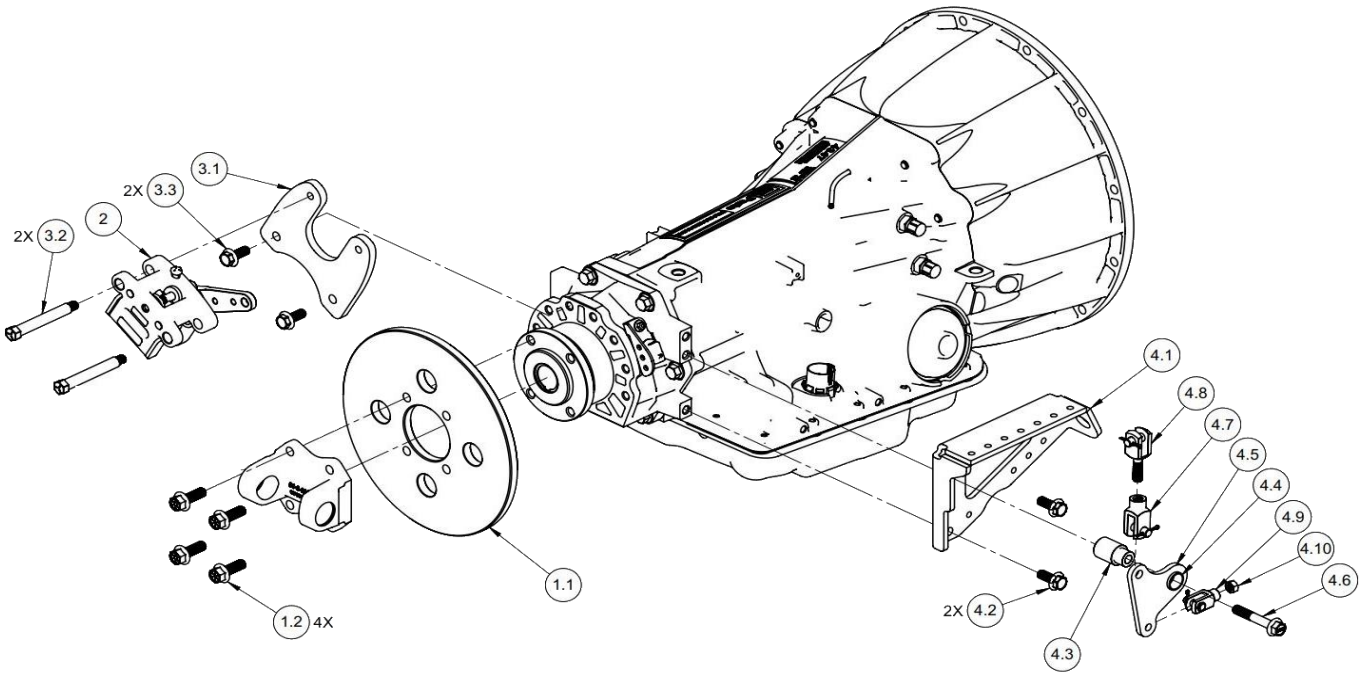
POWERTRAIN CONTROL SOLUTIONS
Engineering the future of driveline control.

4LHD DISC BRAKE LINKAGE SETUP GUIDE (BRK2050 / 2052)

The purpose of this setup guide is to assist in proper parking brake linkage actuation, ensuring that the system is fully disengaged and fully engaged in their respectable parking-brake-lever positions. The intended users should be authorized and trained technicians, vehicle / tractor operators should not be adjusting these components or the associated push-pull cables. Please notify PCS Engineering of any errors or additional tips/tricks that may be beneficial to the accuracy and effectiveness of this document.



Failure to properly install / adjust the static parking brake system may result in premature pad wear and premature transmission clutch wear, or alternatively inadequate clamping / holding force (leading to potential equipment damage and/or operator safety hazards).

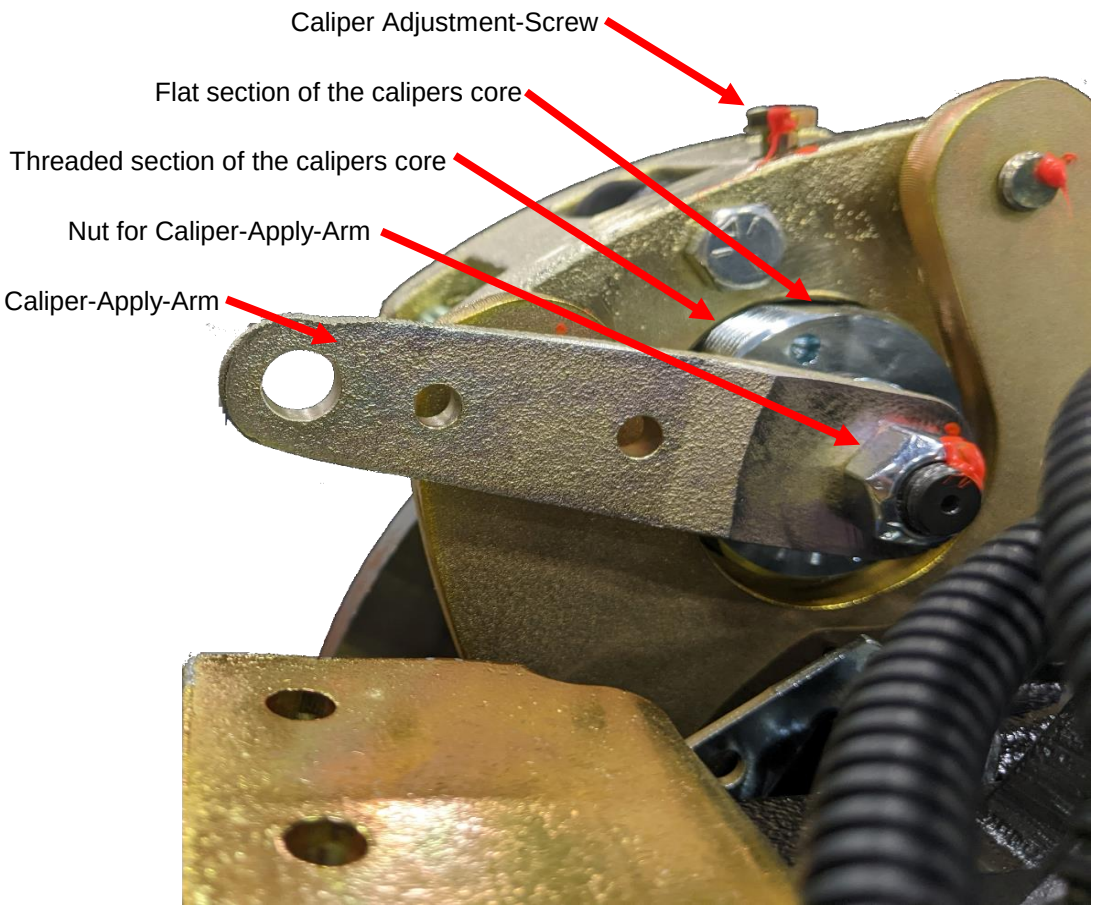


1. Install the driveshaft (not PCS supplied), brake-disc (1.1), and driveshaft-bolts (1.2, QTY-4). Threadlocker required, torque to 60-70 N*m. Marking torqued bolts with a paint-pen is a recommended practice.
   If driveshaft installation is not able to be accomplished at this time during the vehicle or powertrain assembly process, use shorter 7/16-14" bolts to hold the brake-disc flat against the output-yoke temporarily.

2. Mount and torque the Brake-Cable-Bracket (4.1) to the side of the extension-housing. Bolts (4.2 QTY-2) torque to 50-55 N*m, threadlocker recommended. Marking torqued bolts with a paint-pen is a recommended practice.

3. Mount and torque the Caliper-Bracket (3.1) to the extension housing. Bolts (3.3 QTY-2) torque to 50-55 N*m threadlocker recommended. Marking torqued bolts with a paint-pen is a recommended practice.

4. Mount and torque the Caliper (2) to the caliper-bracket (3.1), using the two Shoulder-Bolts (3.2, QTY-2). Threadlocker highly recommended to be carefully applied on the two shoulder-bolt threads, clean any that may end up on the shoulder area. Anti-Seize also highly recommended to be applied to the shafts of the shoulder-bolts. Torque to 55-60 N*m, marking torqued bolts with a paint-pen is a recommended practice.

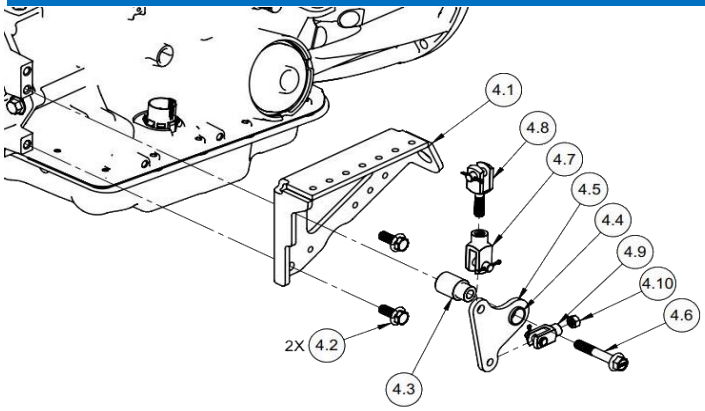


5. Hand rotate the caliper's "core" clockwise into the caliper "body" until the pads are snug against the disc.

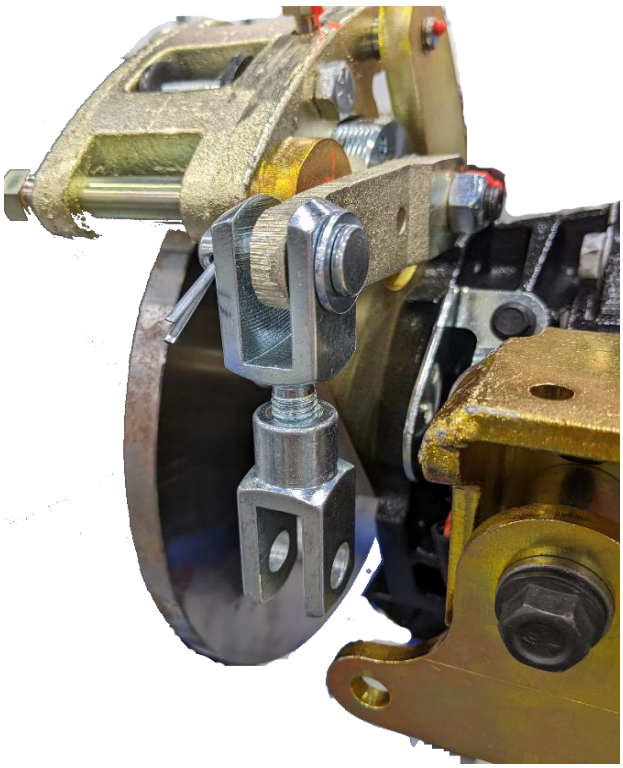
6. Backup the caliper's "core" counterclockwise, so that the caliper's adjustment-screw lines up perpindicular with the **next prior flat** section of the calipers core.

7. Torque the caliper's adjustment-screw onto the flat. Warning: overtightening and shearing the adjustment-bolt is possible.

8. Install the Caliper-Apply-Arm onto the splined shaft of the caliper, **so the arm is horizontal** with the floor. Tighten / torque the distorting-locknut.

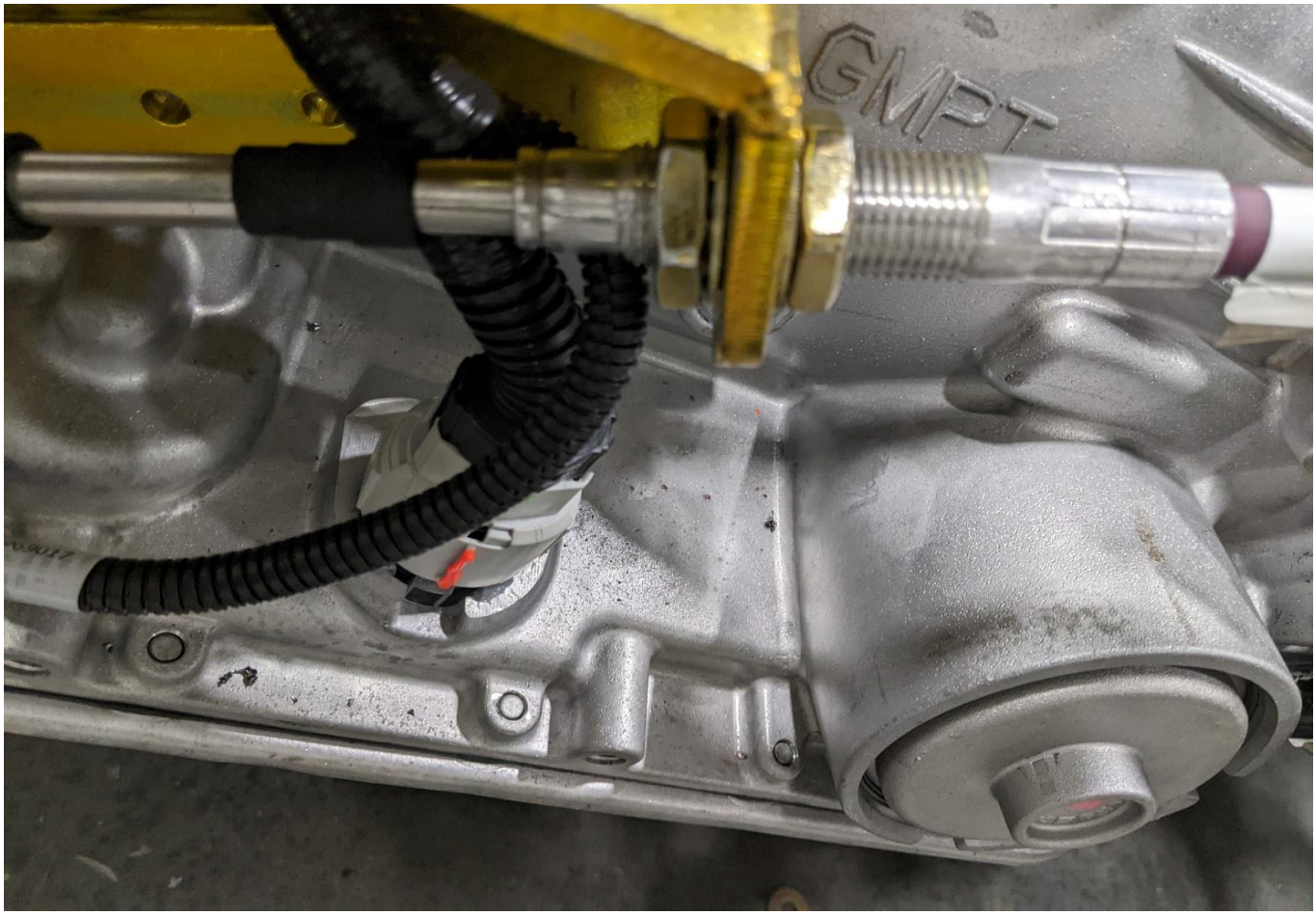


9. Install and torque the Apply-Arm (4.4 / 4.5, with preinstalled bushing), spacer/sleeve (4.3), and bolt (4.6). Torque to 50-55 N*m, threadlocker recommended. Marking torqued bolts with a paint-pen is a recommended practice.



10. Screw together and install the two M10-Clevis' as shown above (4.7 & 4.8). The 2-3 threads should be protruding through the bottom clevis as shown, without touching the apply-arm. Install and secure the clevis-pins.

11. Ensure the brake-lever is installed in the cab, and in the "fully-disengaged" position (normally all of the way down towards the floor for most vehicle models). If this lever has a rotating adjustment feature for tightening the brake, ensure this portion is rotated to extend the cable as far outwards as possible.

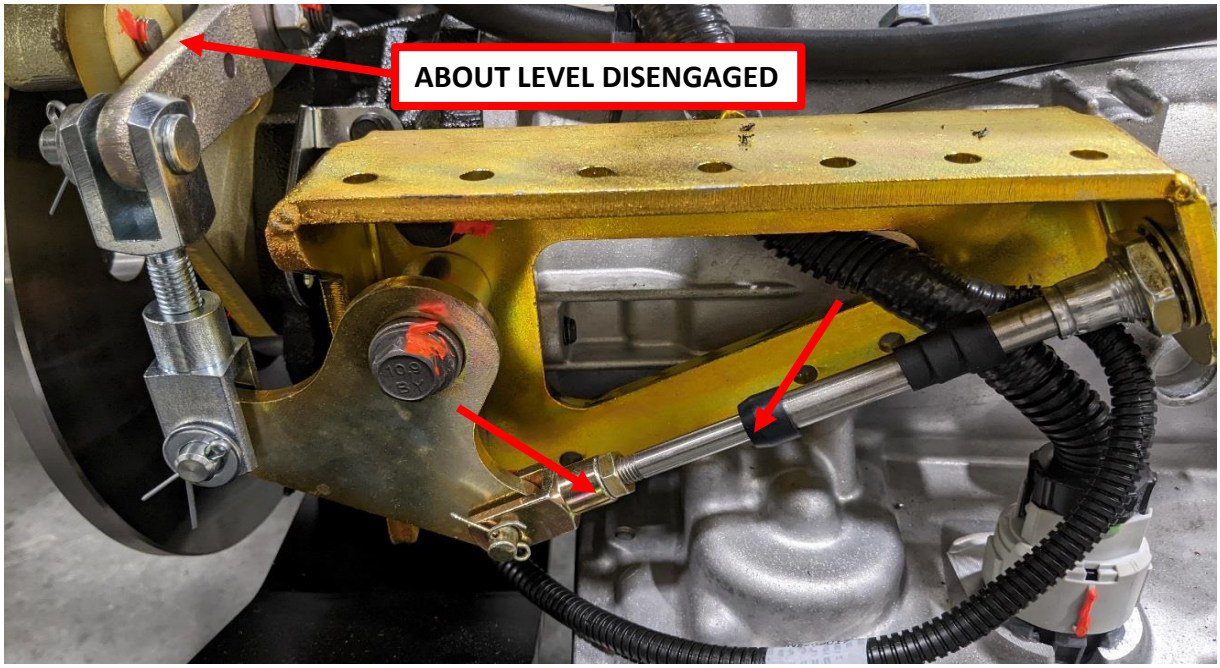


12. Install the push-pull cable and hardware (2x nuts and lockwashers) to the brake-cable-bracket, do not tighten this hardware yet. Shown above. PCS does not manfacture or supply these cables.

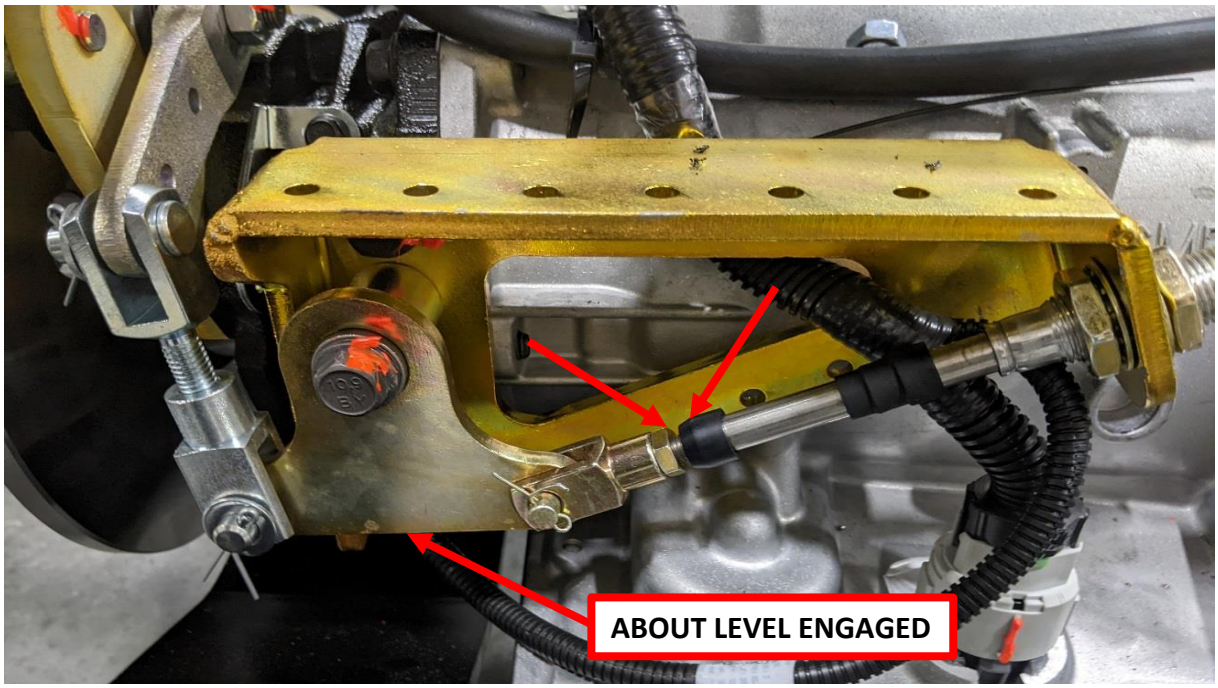
13. Install the cable's clevis and locknut (4.9 & 4.10) to the end of the push-pull cable, the cable's threads should be at least fully engaged with the clevis, but not contacting the Apply-Arm.

14. Ensure the caliper-apply-arm is still in a horizontal position to the ground. Connect the push-pull cable to the apply-arm. Adjust the cable's two adjustment nuts as necessary during this process. Tighten locknut.

15. Tighten the cable's hardware (2x nuts and lockwashers).



16. Ensure proper functionality of the Parking Brake, part-1. While Disengaged the caliper should be loose on the caliper-bolts and bracketry should also be loose (no tension). An additional cable-return-spring may be necessary if the weight of the cable and caliper components are not allowing a full disengagement.



17. Ensure proper functionality of the Parking Brake, part-2. While Engaged the Parking Brake Lever should take a good solid pull to apply.