






INSTALLATION INSTRUCTIONS FOR KIT AP-308049, TRANSFER CASE MOUNTED PARKING BRAKE

	NOTICE Read instructions completely before installing this product. Refer back to the instructions frequently during installation.		CAUTION Flying Object Hazard. Fluid Splash Hazard. Wear safety glasses at all times when working on vehicle.
 WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov			



1. Disconnect the rear driveline by removing the (4) bolts holding the rear driveline to the transfer case rear output flange. Using a chisel, unstake the output flange nut. Loosen the output flange nut and remove the nut, washer, and output flange from the transfer case.



AP-308049-INS

2. Remove the dust cover from the back side of the output flange and then assemble the provided brake rotor onto the output flange/dust shield assembly removed in Step 1. The brake rotor should be on the transfer case side of the flange.



3. Ensure that the appropriate bolt pattern on the rotor and output flange are aligned. This bolt pattern will be the same bolt pattern used on the yoke of the rear driveline. It helps to mark the rotor and output flange at this point to make them easy to align later.



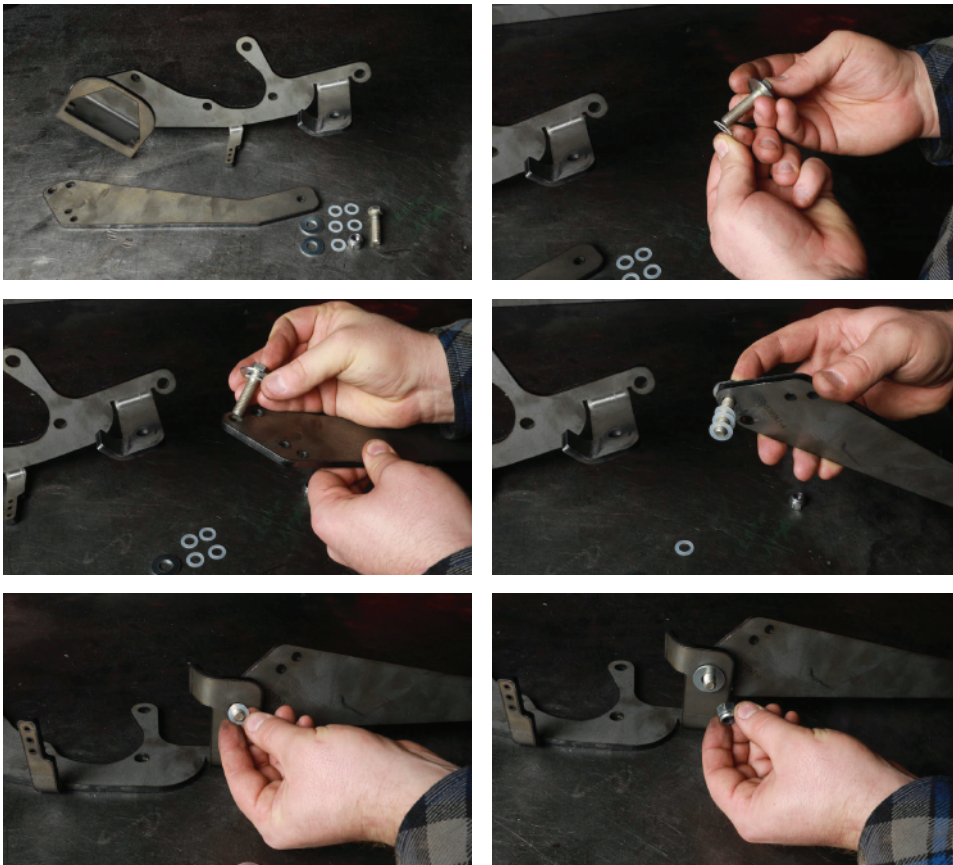
4. Slide the flange assembly onto the rear output shaft of the transfer case and apply Loctite thread locking compound to the output shaft threads. Reinstall the output flange washer and nut. Torque the nut to the appropriate torque spec as found in the vehicle's service manual. Stake the nut.



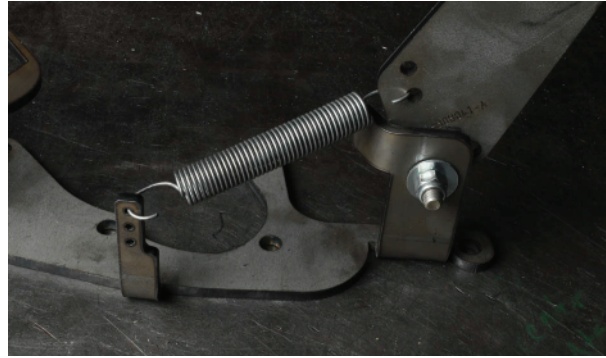
5. Align the holes in the driveshaft with the holes in the output flange and the brake rotor. Install the (4) provided M10x35MM long bolts, lock washers, and nuts as shown. Gradually tighten the bolts ensuring that there are no gaps between the driveshaft yoke, output flange, and rotor when you are done.



6. Bolt the E-brake arm to the main mounting bracket as shown using the provided 3/8" hardware and plastic spacer washers. It is important to place (1) plastic spacer washer between the metal 3/8" washers and the arm/mounting bracket. The remaining (3) plastic spacer washers should be installed between the E-brake arm and the main mounting bracket. Tighten the lock nut until the arm is snug against the mounting bracket but you are still able to rotate the arm freely.



7. Attach one end of the arm return spring to the E-brake arm and the other end to one of the spring holes in the mounting bracket as shown. Multiple holes are provided to adjust the tension of the return spring. When the spring is hooked on both ends the arm should be fairly easy to move but should easily rotate until it contacts the tab that is bent upwards on the mounting bracket.



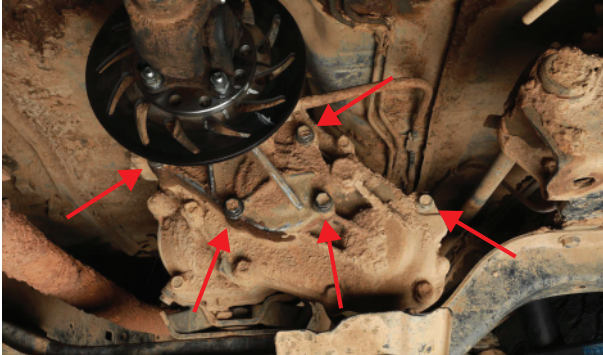
8. Assemble the brake caliper, all thread rod, jam nuts, and clevis joints as shown. It may be necessary to switch the side of the brake caliper lever to the side shown. If necessary, consult the Caliper Lever Reorientation instructions available on the All-Pro Off-Road website. Adjust the length of the all thread rod until there is about 3.5" between the two jam nuts. Do not tighten the jam nuts yet.



9. Attach the free clevis joint to the E-brake arm as shown. Slide the caliper into the mounting slots of the main mounting bracket. Loosen the lock nut on the adjustment screw of the brake caliper and then unscrew the adjustment screw until there are only a few threads of the screw in the caliper.



10. Remove the (5) bolts as shown from the transfer case.



11. Take the caliper, E-brake arm, and mounting bracket assembly to the underside of the vehicle. With the whole mounting bracket on the transfer case side of the rotor slide the brake caliper over the rotor and then align the mounting holes in the bracket with the holes in the transfer case.



12. Install the (4) supplied M10x45MM long bolts and the (1) M10x100MM with the supplied lock and flat washers. Insert the supplied spacer between the back of the mounting bracket and the transfer case as shown. Once all the bolts are started into the transfer case, tighten the bolts to the appropriate torque spec as found in the vehicle's service manual.



13. Make sure that the all thread rod is loose between the brake caliper and the E-brake arm. If there is tension on the all thread rod it may be necessary to disconnect one of the clevis joints and extend or shorten the all thread rod. With the brake caliper lever rotated fully downward (clockwise), finger tighten the adjustment screw of the brake caliper until the screw compresses the pads against the rotor. While holding the adjustment screw in place, tighten the adjustment screw lock nut against the brake caliper.

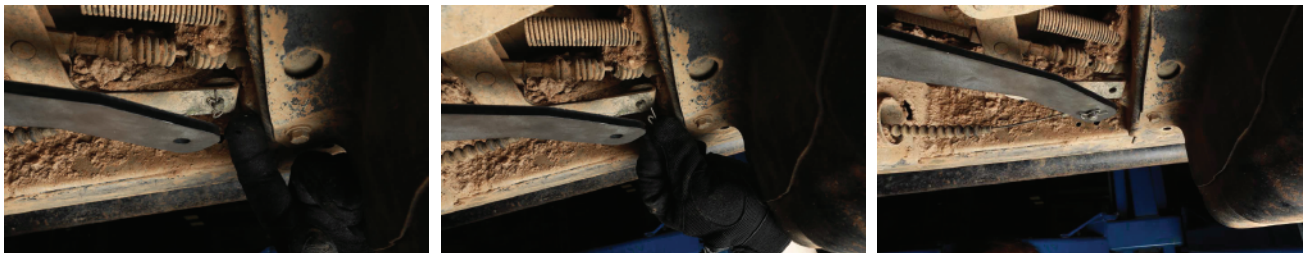


14. Verify that the driveshaft and the rotor can freely rotate with minimal drag from the brake caliper. If you cannot rotate the driveshaft by hand loosen the adjustment screw on the brake caliper and check again.

15. Verify again that the linkage is loose between the brake caliper and the E-brake arm. If the linkage is not putting any pressure on the caliper tighten the jam nuts on the all thread rod.



16. Remove the factory locking clip and E-brake pin from the factory E-brake mechanism. Remove the pin from the factory mechanism and then install the E-brake cable, pin, and locking clip onto the new E-brake arm as shown.



17. Test the E-brake by pulling the E-brake handle in the cab. It should only take 2-3 clicks before the E-brake is tight. Start the vehicle, put the transmission in first gear (or drive for an automatic transmission), and the transfer case in 2WD high range. For a manual transmission, when you let off the clutch the engine should stall. For an automatic transmission, when you let off the brake the vehicle should stay stationary. If the vehicle moves a large amount tighten the adjustment screw on the brake caliper and retest.

