

HIPSTER'S PRO BRAKE - INSTALLATION INSTRUCTIONS

THESE INSTRUCTIONS ARE PROVIDED FOR YOU TO HELP YOU SUCCESSFULLY INSTALL OUR RACING TRANSMISSION PRODUCTS. PLEASE BE SURE TO READ ALL INSTRUCTIONS THOROUGHLY. IF YOU ARE UNFAMILIAR WITH ANY OF THE TERMINOLOGY USED HERE, PLEASE CONSULT SOMEONE WITH RACE TRANSMISSION EXPERIENCE. YOUR SUCCESS IS VERY IMPORTANT TO US. OUR EFFORTS TO PRODUCE THESE INSTRUCTIONS ARE VOID IF THE INSTALLER FAILS TO FOLLOW THESE OUTLINED PROCEDURES. PLEASE CALL FOR TECHNICAL INFORMATION BEFORE YOU CREATE A FAILURE!

MAKE SURE THE VEHICLE IS FIRMLY & SAFELY SUPPORTED

We suggest you rent a transmission jack from a rental yard to remove the transmission, as the transmission/converter assembly is heavy.

Due to variations between different car models, exact instructions for every vehicle cannot be provided. These instructions are sufficient for all vehicle installations. You may find it necessary to disconnect and lower exhaust pipes during transmission removal.

1. Drain oil pan.
2. Remove driveshaft. Be careful not to damage the smooth bushing diameter on slip yoke models. Do not let the cups fall off the u-joint crosses. You may lose some of the needle bearings if the cups fall on the ground. It is a good idea to tape the cups to the u-joint cross, so they won't fall off. Now is a good time to clean and inspect your u-joints.
3. Disconnect shifter.
4. Disconnect oil cooler lines. Use a fitting wrench, if available, to avoid damage to compression nuts. We recommend that the oil cooler lines be flushed out to remove any foreign particles trapped in the cooler. Cooler lines should be flushed in both directions with solvent and air pressure. Aftermarket coolers should be replaced if they are contaminated due to a torque converter failure.
5. Remove dipstick and tube assembly.
6. Remove flexplate to converter bolts. Rotate engine by hand to move each bolt into position. Pry converter away from flywheel and secure to transmission with wire ties or wire.
7. Support the transmission with a jack. Remove transmission mount bolts. Raise the transmission slightly and remove the crossmember. Be sure the transmission jack supports the transmission on a wide area so you don't crush the oil pan.
8. Remove bellhousing bolts. Pull transmission back slightly away from engine. Make sure converter stays with transmission. Lower transmission/converter assembly and remove from vehicle.
9. Pull converter off the front of transmission.
10. Inspect your engine block. Make sure there are no burrs that will prevent the transmission from bolting down flat against engine. File off any burrs that may be present. Dowel pins should stick out of the engine block a minimum 1/2" for proper alignment. Insufficient dowel pin engagement can cause front seal and/or bushing failure.

11. Inspect your flexplate. Check for distortion, excessive warpage or worn/elongated bolt holes. The flexplate should not be "dished" backwards. Check condition of starter ring gear teeth. Distorted or worn flexplates should be replaced.
12. Double check spline type of converter and transmission. Do not mix PG and Turbo spline assemblies.
13. Install torque converter onto transmission. Push and rotate the converter to engage input shaft, reaction shaft and oil pump rotors. Place a straightedge across the face of the transmission bellhousing. Measure the distance from the face of the bellhousing to the face of the torque converter drive lug. Drive lug must be at least 1" inside the bellhousing. A measurement of less than 1" indicates the torque converter is not fully engaged in the transmission, except torque converters specially built for motor plate applications. (Subtract the thickness of your motor plate from the 1" dimension for proper measurement.) Continue to rotate and turn the converter to obtain full engagement. If you install the transmission without full converter engagement, you will damage the pump.
14. Place the transmission/converter assembly in position on transmission jack. Be sure the jack supports the transmission on a wide area so you don't crush the oil pan. Install transmission/torque converter against the engine. Transmission should engage dowel pins and sit flat against the engine block with hand pressure only. If the transmission will not sit flat against the engine, the converter is not installed into the transmission all the way or there is some interference problem. Do not attempt to pull the transmission up against the engine with the bellhousing bolts as this can cause transmission and/or torque converter damage.
15. Once the transmission is in position against the engine, install the transmission bellhousing bolts and tighten to 30-35 ft. lbs. At this point the torque converter should spin freely. A tight converter indicates improper engagement, badly burred crankshaft or distorted flexplate. This condition must be corrected before proceeding.
16. Inspect transmission mount. Worn, cracked or oil soaked transmission and/or engine mounts should be replaced. Raise transmission and reinstall crossmember. Tighten crossmember and transmission mount bolts securely. Install driveshaft. Make sure the driveshaft has a minimum of one inch fore and aft movement.
17. Check for proper converter clearance. Your converter should not be more than 1/8" back from flywheel surface. Use washers for spacing as needed. Double check to see if converter pilot is engaged into crankshaft.
18. Install three flexplate to converter nuts and bolts as required. If your flexplate has slotted holes rather than round holes, put a washer under the head of the bolt. After the first bolt is installed finger tight, rotate engine by hand to position each bolt location into place.
19. Adjust shifter in neutral. Transmission is forward pattern manual. Rotate shifter arm counter clockwise to low and "click" forward twice for neutral gate. Check for neutral, high, low, and then park.
20. Add four quarts of fluid. If a deep pan is used, add two more. Start engine with transmission in park, with wheels off the ground. Continue to add fluid until full. Dipstick full mark is 1/8" above pan gasket surface. Operate transmission; reverse is full pressure. This transmission has safety reverse. Transbrake will only operate in low. Ensure that transmission shifts before engaging brake. To engage reverse, place shifter in reverse and press and hold brake button.
21. Brake solenoid draw is 8 amps or less; use a switch of sufficient capacity and one you are comfortable with. Use 14 to 16 gauge wire, tight connectors and in-line fuse (10-15 amp). The solenoid has 2 wires attached to it. Wire one to transbrake switch and the other to a solid chassis ground. Sheet metal is not a good ground surface.