



Installation Instructions

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T-350 MANUAL VALVE BODY FORWARD PATTERN

Part #353300

PACKING LIST

- | | |
|---|--|
| <input type="checkbox"/> Compu-Flow Valve Body | <input type="checkbox"/> 353240 Support Plate (ATI modified) |
| <input type="checkbox"/> 353110 Separator Plate | <input type="checkbox"/> 353489 Check Ball, 1/4" |
| <input type="checkbox"/> 353250 Gaskets (2) | <input type="checkbox"/> 353336 Spring, Governor Plug |
| | <input type="checkbox"/> 353337 Governor Plug |
| | <input type="checkbox"/> 407010 Modulator Plug with O-ring |
| | <input type="checkbox"/> 972010 Cup Plug, 29/64" |
| | <input type="checkbox"/> 972030 Cup Plug, 5/16" |
| | <input type="checkbox"/> Valve Body Decals (2) |
| | <input type="checkbox"/> Instruction Sheet |

Packed By: _____

NOTE! - This valve body is not a cure for a worn out or broken transmission. It is advisable to start with a fresh or known good unit. Please read all instructions, start to finish, before attempting the installation. If you are not comfortable working with automatic transmissions, refer to an experienced trans builder.

This valve body can be installed with the transmission remaining in the vehicle. Some applications may require lowering the rear of the transmission for access to the governor. Note – Automatic transmissions operate at temperatures that exceed 180° F. Allow cool-down time to avoid burns. Be prepared for fluid to drip from wherever possible.

TRANSMISSION PREPARATION

Raise and properly support the vehicle. Drain the fluid by removing the pan. Remove the filter. Remove the valve body (make note of the linkage hook-up). Remove the support plate. Remove the separator plate and gaskets. There are 4 check balls in the transmission. These should fall out or be on top of the separator plate as it is removed. They may be discarded.

TRANSMISSION MODIFICATIONS

Plug the Governor - The governor is behind the round tin cover near the tailhousing. Remove the governor retaining wire and cover. Remove and discard the oem governor. Install the ATI governor plug and spring and reinstall the cover and retainer. (Figure 1)

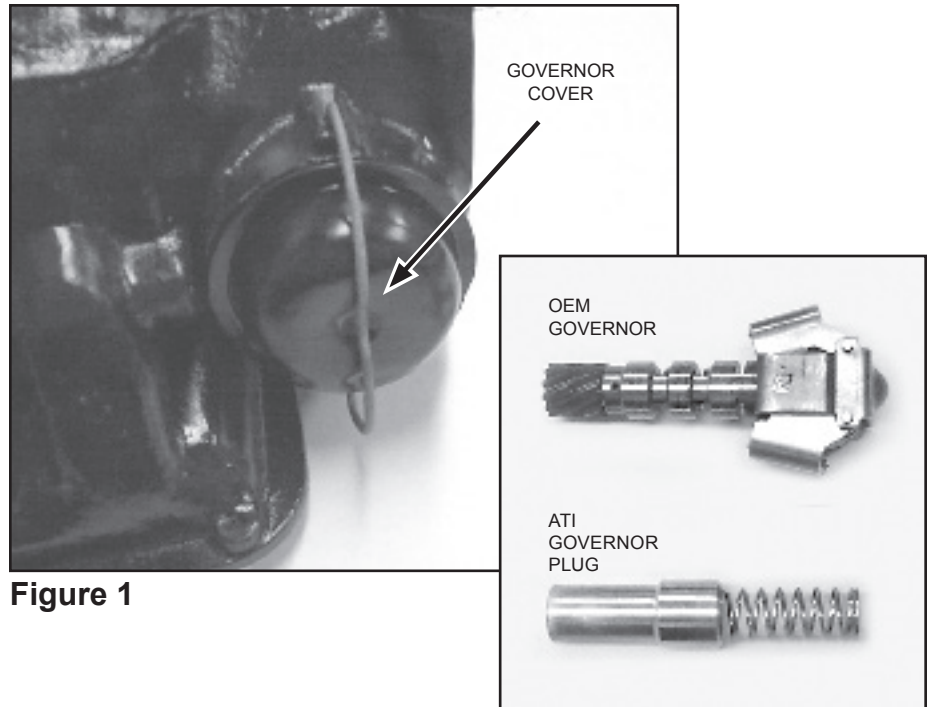


Figure 1

Detent Cable -

Trans in car - The cable may be left on the transmission. It will not be hooked up to the engine or the valve body. Simply coil it up above the trans. Removing the cable will create a fluid leak.

Trans on bench - Plug the Detent Cable bore - Remove the OEM detent cable from the case. Drive the 29/64" cup plug into the bore with a suitable blunt tool. Drive it in to just below flush.

Plug the Modulator - Remove the oem vacuum modulator and discard. The valve **must** remain in the case. Install the gold modulator plug and o-ring.

Plug the Low/Rev case bore - Drive the 5/16" cup plug into the bore with a suitable blunt tool. (Figure 2). See Special Note. Drill a 1/8" bleed hole into the case as shown in the figure. Use a center punch to insure the hole is in line with the bore that is being plugged. Drill only far enough to intersect the bore (about 1/8").



Low/Rev Special Note - *This valve body and instructions were written and designed for this transmission to have 2nd gear engine braking only. First gear engine braking is hard on the driveline and can be hazardous driving. It's like downshifting a stick car into 1st. ATI does not recommend 1st gear engine braking. However, if you positively must have 1st gear engine braking, do not plug the Low/Rev case bore or drill the bleed hole.*

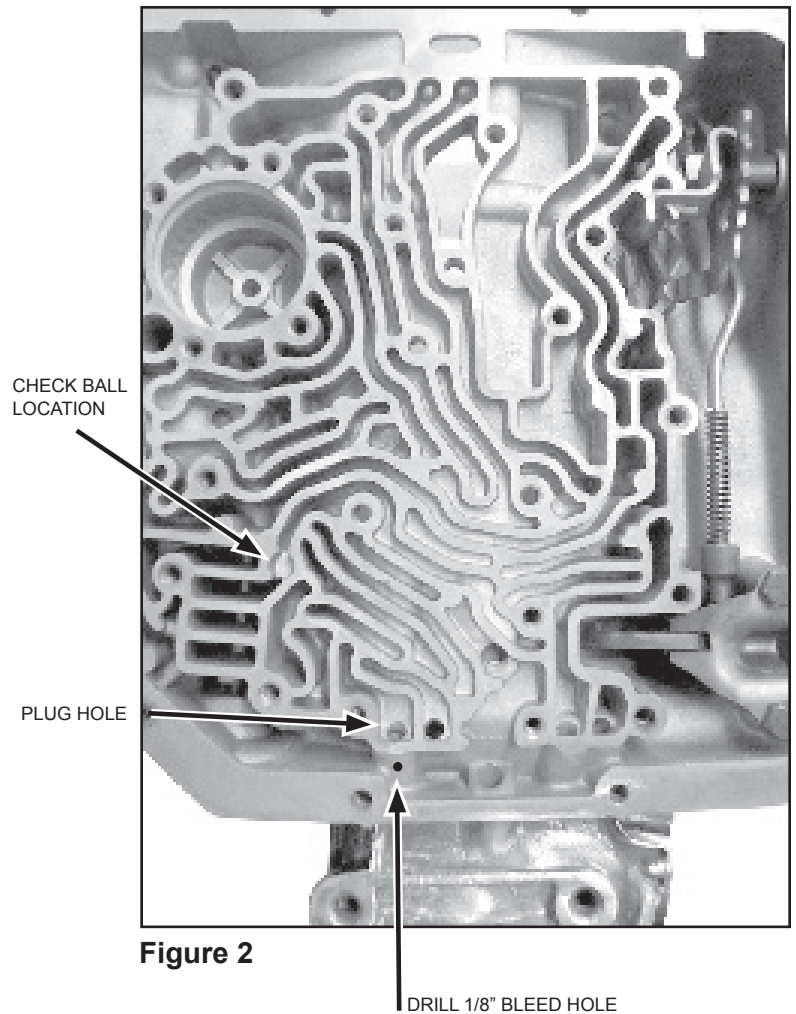
OPTIONAL: If the transmission has been disassembled...

Leave the center lip seal out of the high gear drum. This will improve the 2-3 shift.

ATI 355682 Heavy Duty Direct Drum w/36 element sprag - This part will eliminate the failure of the 1-2 roller clutch (the number one oem part prone to breakage).

VALVE BODY INSTALLATION

Install the supplied ¼" check ball into the case at the ball location nearest the modulator. (Figure 2.) This can be done working overhead by cleaning the check ball area and using a small glob of Vaseline to hold it in place. Stack up the gaskets and the separator plate. Line up the bolt holes and install the ATI support plate to hold the plate, gaskets and check ball in place. **Do not tighten the bolts at this time!** Remove the manual valve from the oem valve body and install it in the ATI valve body. Line up the linkage and re-use the "S" link. Install the valve body. Do not tighten any bolts until they have all been started. Snug all bolts. Tighten all bolts to 130 in/lb in a sequence starting in the center and working out. Be sure to tighten the support plate. Install the filter and trans pan. Fill with Dexron ATF. Do not overfill. Check for proper shifter adjustment.



Other available Options

- ATI 353500 Aluminum Deep Pan
- ATI 356490 Locking Dipstick and Tube, Chevy