



SERVO AND ELECTRONIC HOOK-UP FOR OVERDRIVE UNITS

Part #919064

Subject: Proper installation of the throttle valve cable on Factory and after-market carburetors or fuel injections.

NOTE: This cable is MANDATORY to be hooked up unlike with a T-350.

The internal transmission pressure relies heavily on the TV cable for proper rise during acceleration. Failure to hook-up the throttle cable in this way will burn up the three-four-clutch pack and void your warranty. Improper adjustment will also cause abrupt and hard downshifts. Adjusting this cable is the most important step when installing a 700R4, 4L60 or 200-4R transmissions

Make sure you have the correct TV Cable Corrector Kit which is supplied with your new ATI Street Rod Package. Follow all instructions supplied with the kit and then refer back to this page for proper adjustment.

Looking at the throttle shaft lever from the left side in the idle position, approximately 30% of the total throttle lever travel must be to the rear of the throttle shaft centerline and, at wide-open throttle, approximately 70% to the front of the throttle shaft centerline. This will be about ½ inch to the rear and 1 inch to the front of the throttle shaft centerline. The final step is to adjust the throttle valve cable. The cable must be adjusted so it is pulled fully out at wide-open throttle. To make sure, disconnect the cable, hold the throttle wide open with your left hand, pull the cable fully out with your right hand and see if the cable end lines up with the button on the throttle lever. The cable should also be pulled out 3/8" to 1/2" at idle.

NOTE: Too much preload will cause hard downshift when stopping.

The only thing that changes the shift speed or RPM is the Governor. Spring and weight kits are available if the desired shift timing is not met. The TV Cable will not help or hurt this timing.

Once the TV cable is adjusted the approximate shift points should be 15 to 18, 25 to 30 and 40 to 50 MPH at very light throttle depending on tire size and axle ratio. The full throttle 1-2 shift will usually be at a higher RPM than the 2-3 shifts.

Sometimes on a newly rebuilt 700R4 or 200-4R transmission, it may not make the 3-4 shifts when first installed. A stuck valve or some particles in the fluid, or even an air pocket, can cause this. Raise the rear wheels off the ground, chock the front tires being very careful when doing this. First try putting the car in reverse and revving the engine. This turns the governor in the opposite direction. See if you now have Overdrive. If not, place the transmission in the Overdrive position. Run the speedometer as high as 100 miles per hour, pop the throttle on and off and see if you can force a 3-4 shift. Once it makes the first 3-4 shifts, work the shift lever back and forth between drive and overdrive until the 3-4 shift works properly.

12 Volt Switched Power Supply for Converter Lock Up

The lock-up function on a 700R4 requires 12 volts to be supplied to the single black wire that is sticking out of the plug on your new transmission. This wire needs to be hooked to a switched 12-volt source. This wire is marked with a positive label.

The lock-up function is only to be used on the highway when cruising in 4th gear. If you fail to turn it off when stopping, you will prematurely fail the lock-up function of the torque converter and deposit a lot of friction material into the transmission oil. **This failure will void your warranty.** You can install a light in line with the switch as a reminder.

The lock-up function supplies 30 PSI of oil through the input shaft of the transmission into the back of the converter. This pressure pushes the clutch pack away from the internals of the converter and locks up all the internals with the friction side against the backside of the converter. When locked up, your car is being moved by a 1" wide by 10" diameter piece of material. So use it wisely on the highway.

ATI doesn't recommend or condone the use of a 4th gear pressure switch setup. The problem here is that anytime the car is in 4th gear you will have the transmission locked up. That means even cruising the strip you will be lugging your car's weight with the small friction area, plus you are not gaining any advantage.

Keep in mind the gear ratio of a 700R4 if you have never had one. A T-350 transmission has a 2.52, then 1.52, and then 1:1. So your largest gear split is only 1.00. Now a 700R4 has a 3.08 first gear, then 1.65, then 1:1 then .69. You have a very large gear split from 1st to 2nd therefore that is hard on the transmission, so proper use and care is a must.