sonnax®

REMANUFACTURED VALVE BODIES

Instructions

48RE Converted Valve Body

Part No. CHR135

- Converted Valve Body
- Detent Ball .363" dia.
- Manual Valve

Patent No. 10,060,526

NOTE: If using in a 46/47RE application, a triple-plate converter must be used.

NOTE: A 46RE, 47RE or 48RE core is a suitable return for full credit.

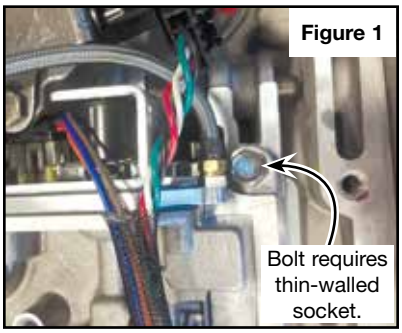

Figure 1

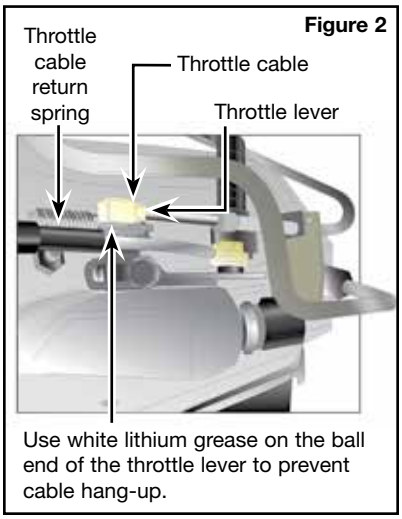

Figure 2

Use white lithium grease on the ball end of the throttle lever to prevent cable hang-up.

1. Assemble supplied Sonnax components onto Sonnax valve body along with the rooster comb and seal, park rod, TV lever, flat washer and E-clip from original valve body.
2. Install Sonnax valve body onto case.
3. Starting at the four bolts around the governor solenoid, torque valve body-to-case bolts to 100 in-lb (12 Nm).

NOTE: The bolt beside the converter clutch solenoid (**Figure 1**) will require a thin-walled socket for proper installation and torquing.

4. Verify the park position locks the output shaft before installing pan.

Throttle Adjustments

NOTE: Sonnax valve body works on TV cable-controlled or TTVA type (motor-controlled).

TV Cable-Controlled:

Throttle lever (**Figure 2**) and throttle valve should move simultaneously when throttle pedal is depressed. Adjust throttle cable (**Figure 3**) for desired shifts.

TTVA Controlled:

The distance between the bracket and the inside edge of the adjustment bolt head (**Figure 4**) should be .905". The TTVA motor will re-calibrate to this setting at every start up.

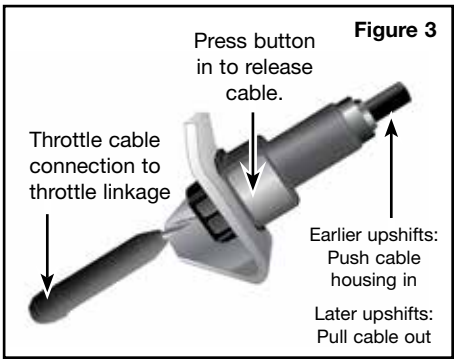

Figure 3

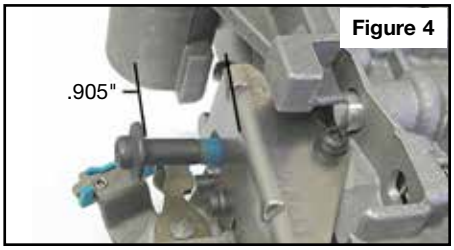

Figure 4

48RE Transmission Throttle Valve Actuator Codes

In 2005 Dodge began using a Transmission Throttle Valve Actuator (TTVA) on 48RE diesel 2500 and 3500 Ram trucks, instead of the T.V. cable. The TTVA is mounted to the case above the throttle valve shaft. It has a DC motor that is controlled by the ECM, and two potentiometers as inputs to the ECM. The bottom of the TTVA shaft has a "D"-shaped opening that fits onto the throttle shaft to control transmission throttle pressure.

There are no adjustments for the TTVA. The TTVA will need to be initialized when replaced or removed and reinstalled. To initialize, turn the ignition to the "on" position for 30 seconds. This is the amount of time the ECM needs to perform the internal calibration procedures and find the current "zero" position. Every time the ignition is cycled on, the ECM performs the internal calibration procedure to find the current "zero" position.

During the calibration procedure, the ECM is looking for at least 48 degrees of movement from minimum to maximum span and a minimum range. Both of these parameters can be affected by the throttle shaft adjustment bolt on the pressure regulator spring retaining bracket. The distance between the bracket and the inside edge of the adjustment bolt head should be .905". Some of the cable-activated throttle valve brackets have as little as .820" between the bracket and the inside of the adjustment bolt head. Using the cable-type bracket without changing the setting on the adjustment screw can set P1751 and/or P1752.

NOTE: Sonnax remanufactured valve body CHR135 is already adjusted correctly and ready to use. Using the OE throttle pressure adjustment gauge will NOT result in proper setting due to internal valve specifications.

Figure 5

Transmission Throttle Valve Actuator Code List

- P1749 – Transmission Throttle Valve Position Sensor Circuit Low.
- P1750 – Transmission Throttle Valve Position Sensor Circuit High.
- P1751 – Transmission Throttle Valve Position Minimum Range Perf.
- P1752 – Transmission Throttle Valve Span Performance.
- P1753 – Transmission Throttle Valve Mechanical Performance.
- P1754 – Transmission Throttle Valve Actuator Stuck.
- P1755 – Transmission Throttle Valve Control Circuit.

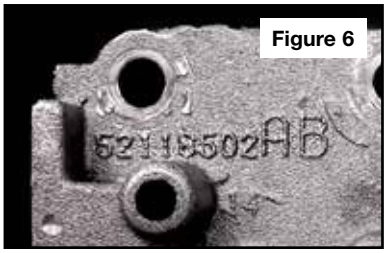

Figure 6

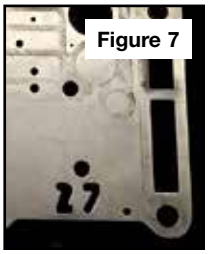

Figure 7

48RE Core Identification

The following chart is for 48RE core identification. **A 48RE core must be returned to your distributor for proper credit.**

Upper Valve Body (PR) Casting #	Channel Casting #	Lock-Up Casting #	Number Stamped in Main Plate
4617003	52854129AA	52118502AB	27

NOTE: See **Figures 5, 6** and **7** for proper core identification numbers and locations.

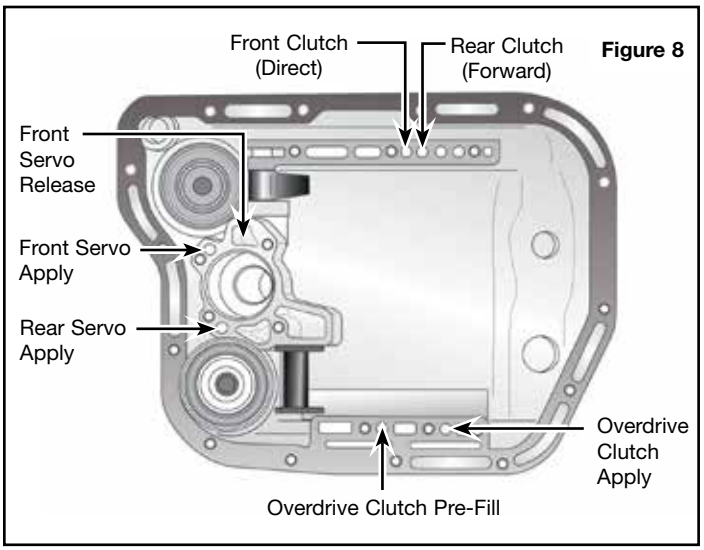

Figure 8

Tech Tip

This family of transmissions commonly exhibits the symptom of late shifting into 3rd gear. Recommend air-testing front clutch circuit to verify there are no leaks before replacing valve body for this concern (**Figure 8**). Historically, many technicians have replaced valve bodies unnecessarily for this issue when in fact there was a leak somewhere in the front clutch circuit that was responsible.