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INSTALLATION INSTRUCTIONS TH350 E-SHIFT VALVE BODY (FORWARD PATTERN – PRN321) (#32015)

Thank you for purchasing a Coan Racing performance product. For over 30 years Coan Engineering has been the leader in hi-performance race transmissions and converters. Our ongoing research and development assures that you have purchased the best products available.

*** COMMITMENT * PERFORMANCE * RELIABILITY * A WINNING COMBINATION ***

The scope of these instructions will be aimed at the installation of this kit and it is assumed that the transmission will be rebuilt properly to work with this valve body. If necessary refer to a transmission manual for detailed instructions on disassembly and reassembly of the Turbo Hydramatic 350 transmission.

Step 1: Remove existing valve body from the transmission.

Step 2: Remove and discard governor screens from location (A) &/or (B) (Figure 1), and Pump screen (Figure 2)

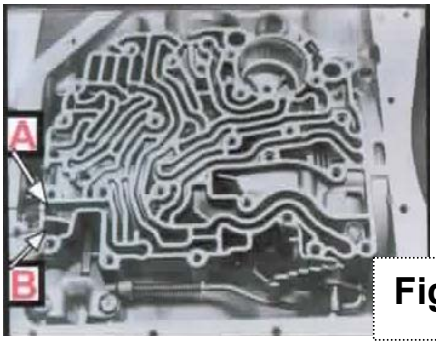

Figure: 1

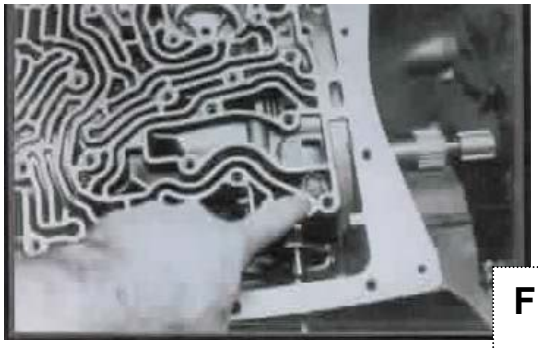

Figure: 2

Step 3: Remove Kickdown Cable Assembly from case.
Tap hole for wiring pass through connector with Special ¼" Tap enclosed. Install connector as shown (Figure 3)

Figure: 3

Step 4: Intermediate servo spring and spring seat must be installed as shown in Figure (4)

Figure: 4

Step 5: Using the supplied separator plate and gaskets, install the separator plate on the case. Be sure to only include check ball #3 as shown on Figure (5). Attach the separator plate to the case as shown in Figure (6) by installing the 2-3 performance plate between the separator plate and the stiffener plate.

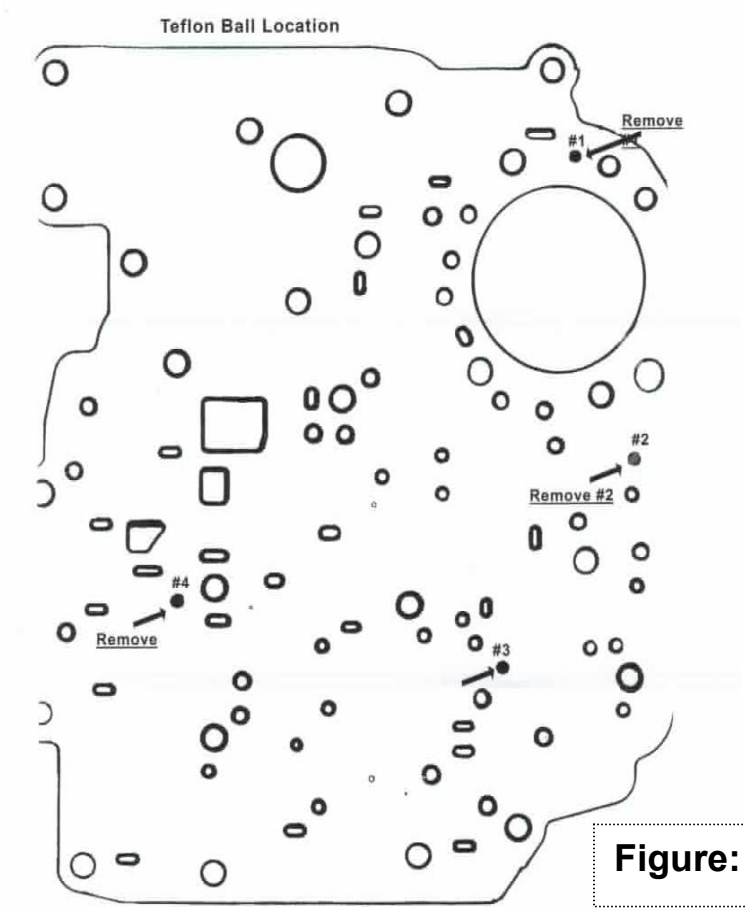

Figure: 5

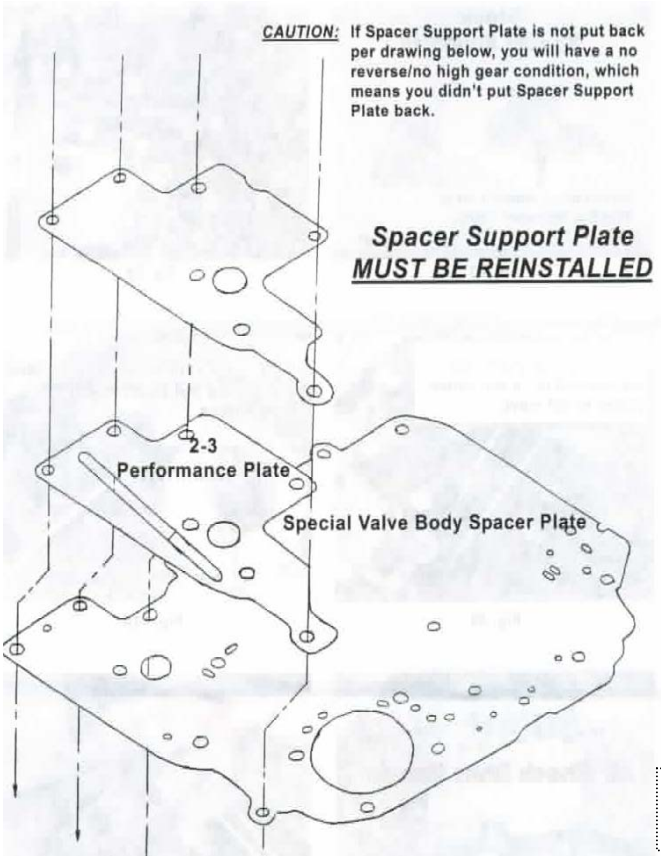

Figure: 6

Step 6: Install your existing manual valve in the valve body.

Step 7: Note position of the 1-2 & 2-3 shift holes in valve body, (Figure 7).
Be sure that you do not push tubes into valve body too deep, (Figure 8). If you do you will cause the shift valves to stick.

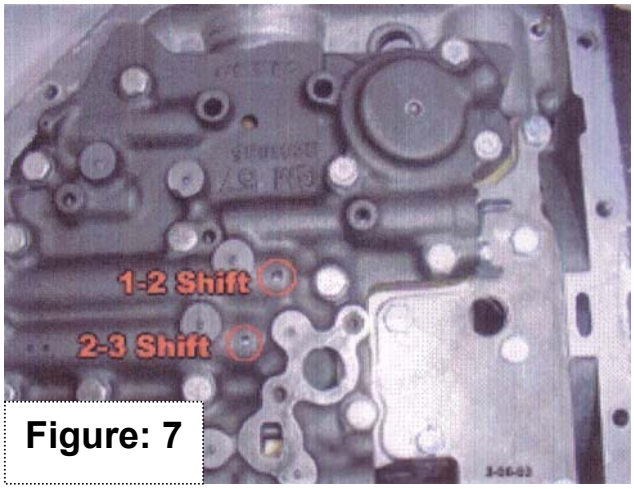

Figure: 7

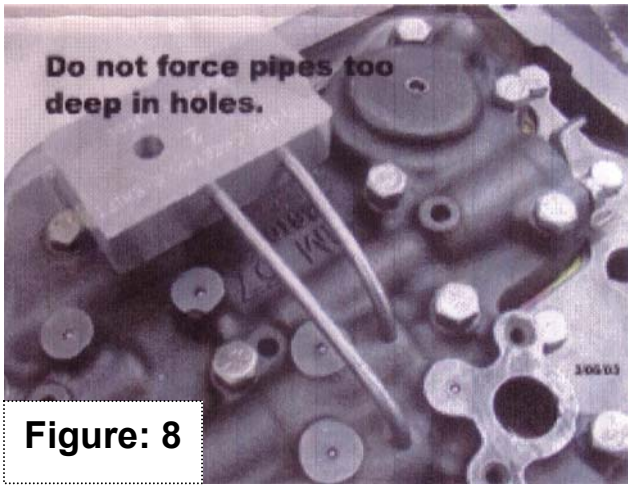

Figure: 8

Step 8: Install the two spacers between the manifold and the valve body and use the two 3" bolts along with the remaining stock bolts to attach the valve body to the case.

Step 9: If you have any doubt about the tubes, you can remove solenoids and air check, but be careful to not cut o-rings during reinstallation, (Figures 9 & 10).

Figure: 9

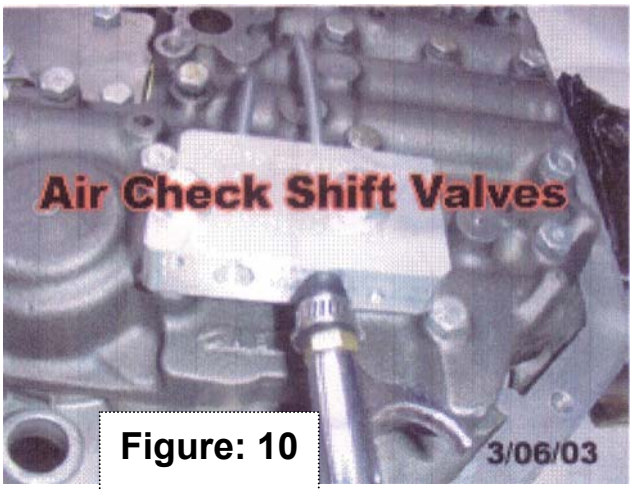

Figure: 10

Step 10: Connect shift solenoid wires to pass through case connector, (Figure 11). Note how wires are routed around the spacer to prevent interference with the dipstick. The front solenoid wire goes to the black or yellow wire from the pass though connector. This is your 1-2 shift wire connection.

Step 11: The rear solenoid wire goes to the white wire from the pass though connector. This is your 2-3 shift wire connection. (Figure 11)

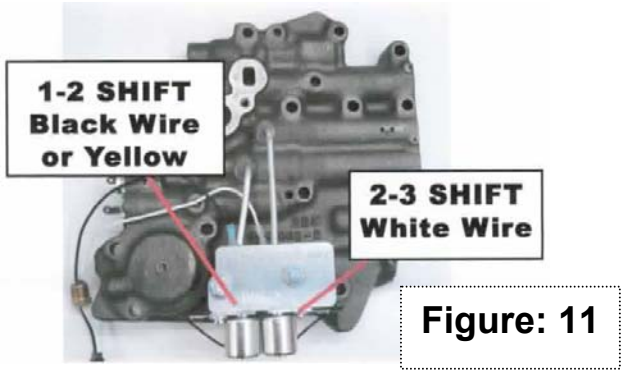

Figure: 11

Step 12: Remove and discard vacuum modulator. Leaving the modulator valve in the case, install the modulator plug with 0-ring and tighten in place using stock modulator clip.

Step 13: After assembly of transmission is completed, necessary wiring for the shift solenoids can be done. Connect the supplied pigtail to the appropriate outputs on the E-Shift controller.

Caution: Do not neutral or downshift transmission during shutdown, leave in high gear only.

Electric Shifting

This valve body has been designed to work in conjunction w/ Turbo Action's "E-Shift" shift control. Each shift will occur by applying and holding 12V to the respective shift solenoid with the transmission in "D" or Third gear position. Once 12V is applied to the 1-2 solenoid, it must remain on through the duration of the run. The 2-3 solenoid must then be applied in addition to the 1-2 to complete both shifts. Typically the programmed 1-2 shift RPM must be 300-400 lower than the desired shift RPM and 100-200 RPM lower for the 2 -3 shift.

It is possible to shift the transmission by means other then the "E-Shift" controller if it were to fail. You may electrically shift the transmission by placing the transmission in "D" or Third gear position and energizing each solenoid separately with toggle switches. You may also shift the transmission with the shifter by energizing both solenoids simultaneously and placing the trans in first gear position. Then you may move the shifter to the second and then to third and it will shift.

Burnout Procedure

All burnouts must begin in second gear and quickly shift to third.

If you have any questions regarding the proper installation and/or operation of a Coan Racing product, please call (765) 456-3957. You may also fax us at (765) 456-3960, or e-mail at coan@coanracing.com.

Warranty

Coan Engineering offers a limited warranty covering all new products for ninety days and all repair service for thirty days from the original date of purchase to be free from flaws in material and craftsmanship. The warranty is non-transferable. Under no circumstances will Coan Engineering extend its warranty to products, new or repaired, which have been abused, misused, or incorrectly installed. Disassembly of any product by means other than a Coan Engineering technician will void any potential warranty. All warranty claims must be accompanied by the original invoice and are subject to the approval of Coan Engineering.

The above stated warranty **does not include** any shipping charges or labor charges for installation or removal of any Coan Racing product.

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