



Technical Service Information

VW \ AUDI "E" MODE

Those of us who have been working with foreign automatics are probably familiar with the "E" mode position on the detent of some VW-Audi transmissions installed in diesel-engine-equipped vehicles or diesel and gas in VW's. The economy mode automatic transmission is a modified version of the Model 010 transmission.

With the selector placed in the "E" position on the quadrant (PRDED21), the forward clutch will disengage whenever the accelerator pedal is released. The forward clutch will re-engage when the accelerator pedal is depressed. With the selector in the "D" position, the operation will be the same as in the regular Model 010 units, meaning that the forward clutches will stay applied. So, keep in mind that in the "E" mode, the forward clutches will disengage when the vehicle is stopped at a traffic light or while you lift your foot from the accelerator pedal when coasting down a hill.

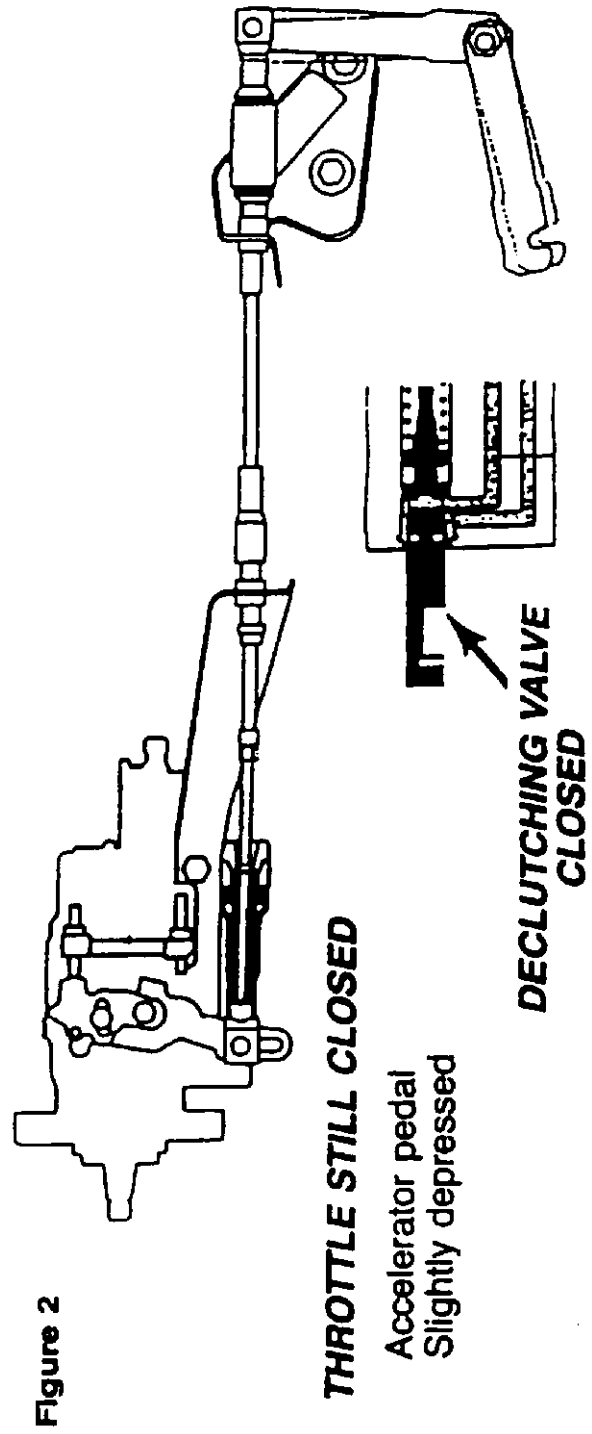
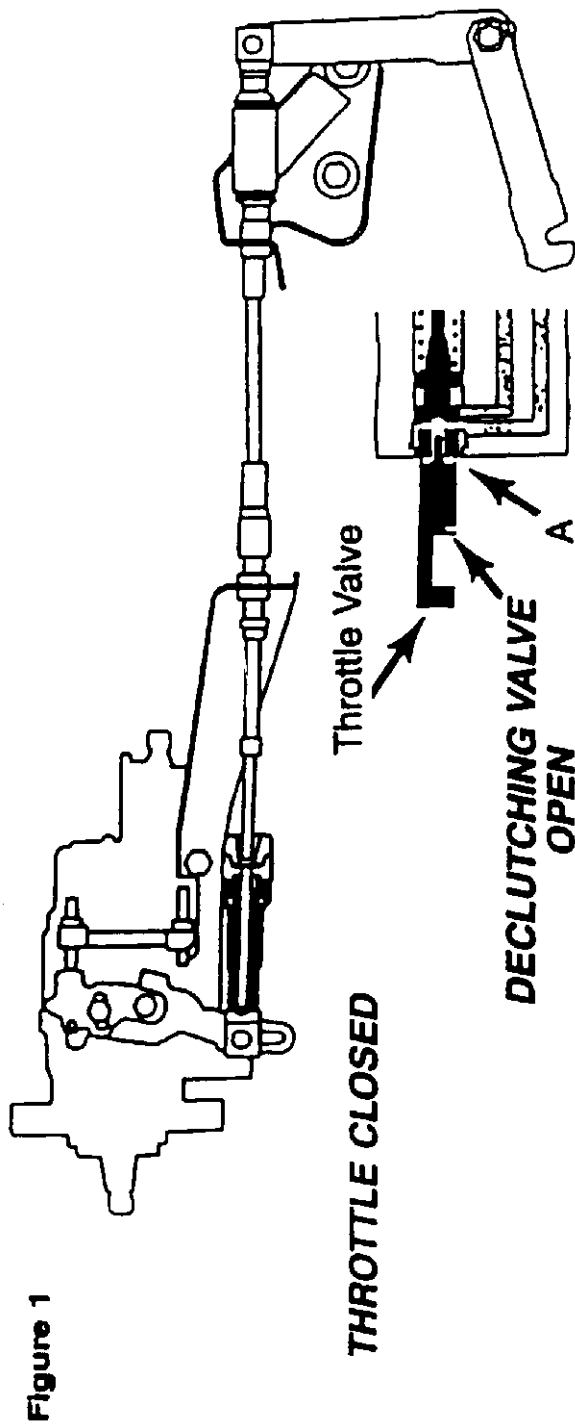
The apply and release of the forward clutches are controlled by a de-clutch valve. This valve is located in the throttle valve train. (See Figures 1 and 2, which illustrate the position of the valve in both the closed and open throttle position.)

When the accelerator is released, the de-clutch valve opens, allowing the forward clutch to release. This constant apply and release of the forward clutch leads to wear of the linings in this component.

The cable adjustment must be properly set. Mis-adjustment, where the engine RPM increases before the forward clutch is fully applied, can cause clutch failure. To adjust the cable, you will need someone under the car while you watch the carburetor or injector linkage. He can watch the de-clutch valve move slowly as the accelerator pedal moves off idle position. The de-clutch valve must move inward and seal before the throttle plate moves.

Figure 1 shows a second, smaller valve in the throttle-valve line-up. With this valve open, oil entering through the main valve exhausts through Port "A". In Figure 2, the de-clutch valve is closed so that the oil cannot exhaust, and the forward clutch can apply. It would be a good idea to explain to the customer to operate the transmission in the "drive" position to prevent the "premature failure of the forward clutch assembly."

The "E" mode of the Model 010 unit can be disabled, using the following procedure (as outlined in Figure 3). Remove the spring from the forward clutch-release valve, and install a slightly stronger spring on the opposite side of the valve. This valve is located in the main section of the valve body. Then, take the spring out of the forward clutch engagement valve and install a slightly stronger spring on the other side of this valve. Leave the spring guide in its original location. This valve is located in the lower section of the channel plate in the valve body. After making this modification, the vehicle can be driven in either the "E" or "D" position and the unit will perform without the releasing of the forward clutch assembly. Adjust the TV cable for shift feel.



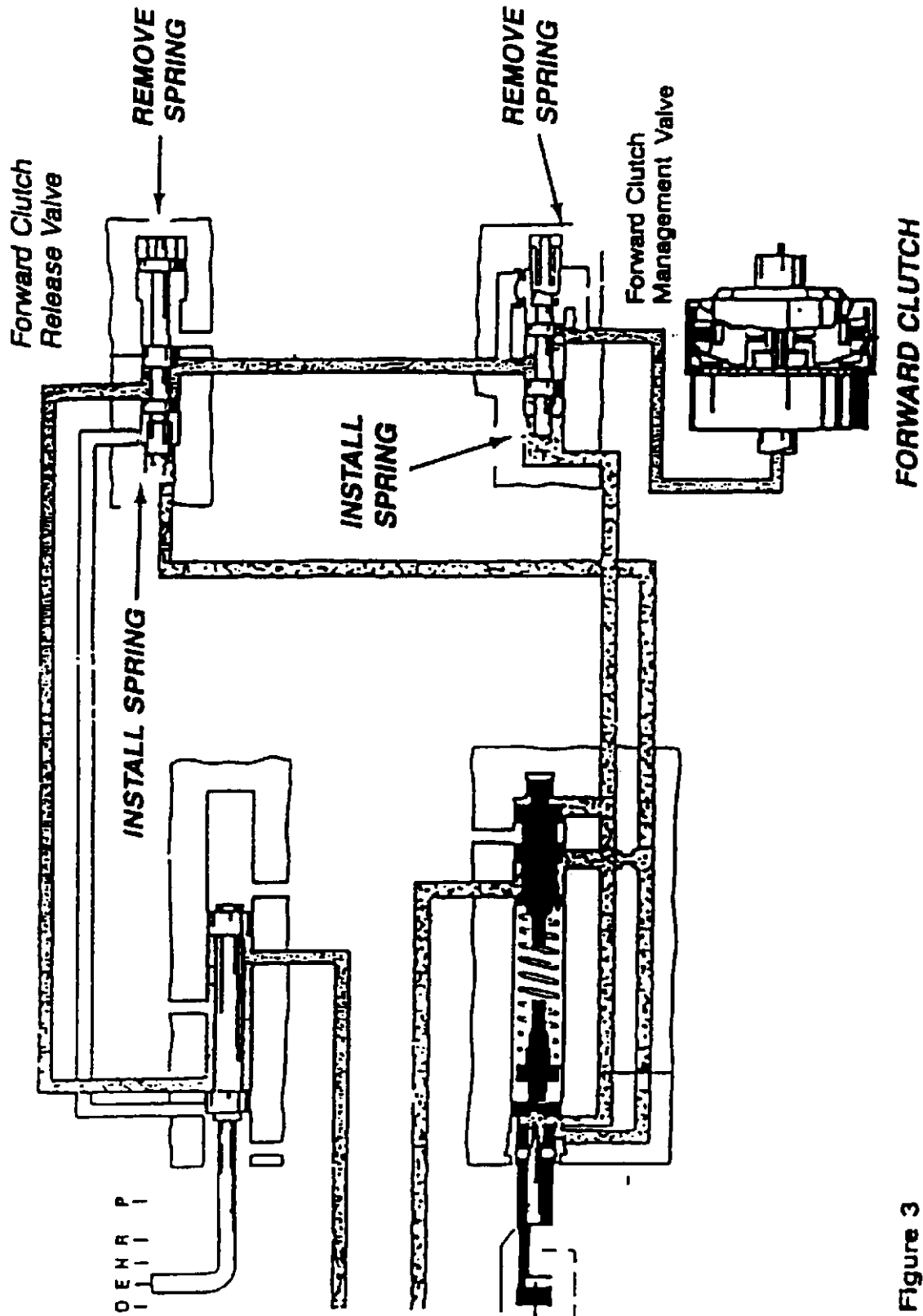


Figure 3

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Figure 2