

## Cooler Bypass Valve Kit

**Part No.**  
**36605-02K**

- T-Valve
- Spring
- Checkball
- O-Ring, Small
- O-Rings, Medium (2)
- O-Rings, Large (2)
- O-Rings, Extra Large (2)      1 Extra

**NOTE:** Fits '97-later units with either style outboard fitting.

## Ford 4R100, E40D



### 1. Disassembly

- a. Remove banjo fitting from return end of cooler bypass line.



**NOTE:** If banjo fitting cannot be removed from cooler line, place fitting in vice (**Figure 1**). Insert appropriately sized open-end wrench between fitting and line as shown, then carefully lever backward to separate the two.

- b. Remove and discard OE spring and T-valve.
- c. Remove OE checkball and set aside, to be used during step 2, "Ball Seating".
- d. Remove and discard the three banjo fitting O-rings.
- e. Remove and discard O-ring from internal threads of return cooler fitting.
- f. Remove and discard both O-rings from outboard cooler fitting.

### 2. Ball Seating



**WARNING:** A poor ball seat in the return fitting will allow leakage. The seat must be reformed to seal properly!

- a. Secure return fitting in a vice.
- b. Set OE checkball into fitting.
- c. Using hammer and punch, strike the checkball two or three times to reform ball seat area.
- d. Discard OE checkball.



**TECH TIPS:**

- a. Ensure the cooler system is properly back-flushed. Use dry compressed air to remove excess solvent.
- b. Torque fittings according to OE specifications! If cooler line case fittings are overtightened, rubber-coated sealing washers and/or cooler line case fittings can be damaged, causing a transmission fluid leak.
- c. Use synthetic ATF, especially in cold climates.

### 3. Installation & Assembly

- a. Ensure there are no restrictions or debris in cooler bypass line.
- b. Install Sonnax O-rings onto outboard cooler fitting, return cooler fitting bolt, and banjo fitting (**main photo**).
- c. Install Sonnax checkball, T-valve and spring into banjo fitting and bypass line as shown.
- d. Lubricate O-rings and complete assembly.