Transmission Cooling - 6-Speed Automatic Transmission - 6F55 - Transmission Cooling - Overview

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Description and Operation

The transmission fluid cooling system consists of the following:

- An oil-to-air transmission fluid cooler integrated with the A/C (air conditioning) condenser
- A transmission fluid cooler bypass valve
- If equipped, a transmission fluid warmer
- Tubes to all fluid to flow to the various components

The transmission fluid flows from the transmission to the cooler bypass valve. When the transmission fluid is below normal operating temperature, the bypass valve directs the flow back to the transmission. When the transmission fluid is at or above normal operating temperature, the bypass valve directs the flow through the transmission fluid cooler, which transfers heat from the fluid to the air passing over the cooler. The transmission fluid then returns to the transmission.

The transmission fluid warmer optimized transmission fluid temperature. The transmission fluid warmer transfers heat either from the coolant to the transmission fluid or from the transmission fluid to the coolant. If equipped, the transmission fluid flows through the warmer. When the coolant is warmer than the transmission fluid, heat is transferred from the coolant to the transmission fluid, warming the transmission fluid quickly to improve efficiency. When the transmission fluid is warmer than the coolant, heat is transferred from the transmission fluid to the coolant, providing additional transmission fluid cooling.