

Wheels: We received an E-mail question from a reader who wants to know what problem would cause him to add automatic transmission fluid every week.

Halderman: Without knowing what brand or year of vehicle is involved makes this a little difficult but here goes - there are two possible reasons for the automatic transmission to require fluid:

- an external leak
- fluid being drawn into the engine through the vacuum modulator

The first one is relatively easy to determine. Look for evidence of a leak after the vehicle has sat for several hours. If in doubt, place a section of cardboard or paper under the vehicle and look for evidence of leakage. Automatic transmission fluid is red in color when new and will turn to a brown color if the transmission has been overheated or has been in service for a long time.

Leaks can occur due to failure of a seal or gasket. Some leaks are easy and inexpensive to repair and others require that the transmission be removed from the vehicle. In this case, the labor cost will be the major expense and the seal cost will be relatively minor. If the transmission has to be removed, then think about having the transmission rebuilt at the same time.

The other possible cause of the transmission needing fluid is a fault in the vacuum modulator used on many older General Motors Corp and Ford Motor Co. vehicles. The vacuum modulator uses a vacuum hose from the transmission to the intake manifold of the engine. The vacuum signal is used by the transmission to control the shifting of the transmission as follows:

- When the vacuum is high, the load on the engine is light and the shifts occur earlier.
- When the vacuum is low, the load on the engine is high and the shifts are delayed.

If there is a hole in the rubber diaphragm of the vacuum modulator, automatic transmission fluid can be drawn into the engine through the vacuum hose. The automatic transmission fluid is then burned in the engine and “disappears.” In severe cases, the fluid the exhaust will blow white smoke. If the modulator is defective, the shift points may be more delayed than usual and be harsher (firmer) than normal. The downshifts when slowing to a stop may likely be harsher than normal also.

