



What Type of Fluid Should I Use?

Automatic transmissions use a special type of oil, called Automatic Transmission Fluid, or ATF. This fluid has a number of duties in the transmission, including lubrication, cooling and clutch application.

ATF even provides the connection between the engine and transmission, through a hydraulic coupling called a torque converter. And, when squeezed between the clutches, ATF acts as a “glue,” providing additional friction and holding capacity to drive the vehicle.

So ATF is a very versatile fluid. That’s why maintaining that fluid can be so critical to transmission life.

A few years back, there were only two types of fluid on the market: Type A and Type F. Conventional wisdom said that Type F was for Fords and Type A was for everything else. Conventional wisdom wasn’t all that accurate even back then, and today it’s completely out the window.

These days there are four main types of fluid on the market. And there are dozens of brands and styles to choose from.

So how do you know what your transmission uses? The easiest way to make sure you’re using the right type of ATF is to check the owner’s manual. It’ll tell you exactly which ATF the manufacturer recommended for your car. You may also find a recommendation on the dipstick. Either is a reasonable resource for determining the right type of fluid for your trans.

Fluid Types

Here’s a list of the different types of fluids, and the basic differences between them:

Type F — Yes, it’s still around, as a quick walk through at your local parts store will attest. The only think is, almost nothing uses it anymore. Type F was designed for Fords that used bronze clutches; the last trans made with bronze clutches was the Cruizematic, last used in the early ‘70s. Unless you’re talking about a classic car or an antique, you can be pretty sure your car doesn’t use Type F.

Dexron III/Mercon — This is one of the most common fluids on the market. Most GM and Ford units call for this type of ATF, as well as many imports. If your owners manual recommends any form of Dexron, or any Mercon — other than Mercon V — this is the fluid you want.

HFM-Style Fluids — HFM stands for Highly Friction Modified; it’s a fluid that provides different friction characteristics than Dexron III/Mercon. This fluid appears under a number of different names, including Chrysler’s ATF+ — also called 7670. Other manufacturers that use HFM ATF include:

- Honda/Acura
- Jeep/Eagle
- Hyundai
- Toyota/Lexus
- Saturn
- Sterling



Are these fluids interchangeable? They should be... logic dictates they are. But to be safe, always use the specific fluid the manufacturer calls for.

Synthetic Fluids — A number of manufacturers have begun to discontinue the use of organically-based fluids, in favor of synthetic fluids. Preliminary tests have shown that most synthetics have similar friction modification characteristics to Dexron III/Mercon, but with improved resistance to heat, cold, oxidation and shear. In simple terms, synthetics last longer.

Synthetic oils are one reason why many manufacturers are also beginning to eliminate the transmission dipstick. Their feeling seems to be the ATF will last longer, so there's no reason to let people interfere with the transmission and its operation. Will they work? Will synthetics really keep the transmission operating longer, without human intervention? Only time will tell.

CAUTION — Ford labels their synthetic fluid Mercon V, which can be a bit confusing. If the manual says Mercon V, it's calling for the synthetic fluid; if the name is Mercon without the V, that's the regular Dexron III/Mercon ATF.

Additives Alter Friction Characteristics

While there are many different types of ATF on the market, a few aftermarket chemical companies have come up with an idea to save repair shops and vehicle owners money. What they've done is develop additives that mix with standard Dexron III/Mercon, to alter the friction characteristics to match the other types of fluid.

One of the most common of these additives is the HFM additive. When added to Dexron III/Mercon, it alters the friction characteristics enough to allow you to use it in any transmission that requires HFM fluids.

This probably won't affect you for adding a quart of ATF; chances are you won't be able to get this additive anyway. They're usually only available through professional sources. If you need to add a quart of ATF to your transmission, you're probably better off using the factory recommended ATF.

But if you have your transmission serviced and the fluid replaced, the repair shop may use one of the HFM additives along with Dexron III/Mercon in your trans. That's okay; these additives work just fine for altering the fluid's friction characteristics.

However, if your transmission is still within its factory warranty, check with the dealer or a factory representative before allowing anything in your transmission besides the factory recommended ATF. Other additives or oils could affect your warranty.

Use this link to find an [ATRA Member Shop](#) in your area.

