



Southwest
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Automatic Transmission Maintenance

Automatic transmissions work by transmitting power from the engine to the wheels through a fluid medium (transmission fluid). This fluid also lubricates moving parts and cools the transmission.

Do I need to service or change the fluid in my transmission?

As transmission fluid ages:

- Contaminates build up including metal shavings from the transmission.
- Viscosity (the ability to lubricate) breaks down.
- Heat transfer capabilities of the fluid are reduced. Transmissions are cooled by passing the transmission fluid through special tanks built into your car's radiator.

The benefits of transmission fluid servicing include:

- New fluid resists oxidation and the formation of sludge.
- Higher viscosity prevents wear or scoring of the gears, bands, and discs.
- Promotes smooth shifting
- Minimizes risk of premature transmission failure.
- Improves heat transfer, helping cool the transmission. Every 20 degrees heat reduction can double the life of the transmission fluid.

How frequently should I have my transmission fluid changed?

The first recommendation is to follow your auto manufacturer's recommendation for your specific vehicle. Manufacturer recommendations for different models range from 12,000 miles to 60,000 miles and from yearly to once every 3 to 5 years.

How should the transmission fluid be changed?

There are generally three methods to change transmission fluid one of which depends on the design of your car.

Most Asian cars have a "drain and fill" automatic transmission. The transmission has a drain plug in the bottom of the pan. This plug is removed and the fluid in the pan is emptied. Because this does not remove the fluid in the transmission torque converter, only about a third of the fluid is removed. The plug is replaced and new fluid is added. Because only a third of the fluid is removed these cars tend to have recommendations for more frequent (every 15,000 miles) changes. The cost of this fluid change is substantially less than other types of fluid changes.

Most American cars and trucks can have their fluid changed by removing the transmission pan. Like the "drain and fill" transmissions only about a third of the fluid is removed, most of the fluid remains in the torque converter. In addition to the fluid the filter/screen is also replaced.

An alternative method for both types of vehicles is to use a specially designed machine to exchange the transmission fluid. This machine will remove nearly 100% of the fluid, including fluid in the torque converter, and replace it with new, fresh transmission fluid. Because this method removes almost all of the fluid it is generally preferred.



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Which method should I use?

- If you have a car with a “drain and fill” capability you should use this method. If you have not changed fluid in an excessively long time you may want to use the exchange method so that all old contaminated oil is removed. Then get on a regular schedule of “drain and fill” fluid changes.
- If you have a car that is not a “drain and fill” (American cars) and if your transmission pan gasket is not leaking then the exchange fluid change process is preferred.
- If you have a car that is not a “drain and fill” and if your transmission pan gasket is leaking or if you have not changed fluid in an extremely long time you should use the process that removes the pan, replaces the gasket, and replaces the screen. You may also want to use the fluid exchange process in order to have a clean start with 100% new fluid, a new gasket, and a new screen. Then get on a regular schedule of transmission service.

I have heard that if I have never changed transmission fluid and I have lots of miles (100,000) I should not change my fluid?

Per Tom and Ray Magliozzi of CarTalk (radio and .com)

“This myth is based on the belief that the transmission has gotten used to its old, dirty fluid. And if you drain out that loving, old, comfortable, familiar fluid and introduce new, clean, uncaring, unfamiliar fluid, the transmission will be upset and won’t remember how to work right. This, of course, is complete horse-droppings. A transmission fluid change is never harmful, no matter how many zillions of miles you have on the car or how many fish scales you have in there.”