

# Continuous Variable Transmission (CVT)

A continuously variable transmission, or CVT, is a type of automatic transmission that provides more usable power, better fuel economy and a smoother driving experience than a traditional automatic.

Leonardo DaVinci sketched the first CVT in 1490. A Dutch automaker first started using CVTs in their cars in the late 1950's, but early automotive CVTs were unsuitable for engines with more than 100 horsepower until recently. Advanced technology has made the CVT much more robust, and as a result many manufacturers are now using CVT technology in their cars. CVTs use very few components and have a simplistic design. They use a pulley and belt system to provide an unlimited range of gear ratios. It is different from the automatic transmission which has a set number of gear ratios.

The infinite ratios help in maintaining a steady cruising speed. It also works to keep the engine in its optimum power range, increasing gas mileage and fuel efficiency. CVT also provides faster acceleration than a conventional automatic.

Although quite different in design from a normal automatic transmission, a CVT shares some of the same service requirements. Vehicles equipped with a CVT will require a transmission service with a filter change. However service intervals on a CVT are typically higher than a normal automatic transmission. Some other differences with the CVT are the use of a special transmission fluid and often the inability to check the fluid level on your own without a special tool.

The CVT should not have a fluid flush or fluid evacuation performed on them. CVT transmission fluid is a special blend of base oils, friction modifiers and other additives that are designed to aid in the operation of a CVT transmission. The CVT fluid should not be mixed with "normal" transmission fluid, and most businesses performing transmission service do not have a CVT only flush machine. (For further information about automotive transmission fluid evacuation, refer to FMC Technical Service Bulletin 98-2.)

The Filter Manufacturers Community urges everyone to dispose of all used filters properly.

### FOR ADDITIONAL INFORMATION, CONTACT:

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