## **Essential Maintenance** for Optimum Shifting

With more drivers choosing automatic transmissions over manual when purchasing a new car, the number of vehicles equipped with automatic transmissions on the road has significantly increased. This shift presents workshops with greater opportunities to service and maintain these transmissions, which may require oil changes as frequently as every 40,000 miles (65,000 km) or less, depending on the model.

Direct-shift, continuously variable, automated manual and traditional torque-converter automatic transmissions are all engineered to give seamless gear changes to make driving easier. By making the decision of when to change gear, the driver is left to concentrate on traffic and road conditions. These sophisticated transmissions require quality oil to keep the operating systems running smoothly and its computer-controlled control unit operating within very fine engineering tolerances.



The various automatic transmission types that are available are designed to control and optimise gear-shift quality and 'feel', with the transmission oil - now regarded as a very important component - playing a major part in this.

This allows the gear shift to operate completely smoothly and efficiently - made possible by using sophisticated 'additive packs' within the base oil.

However, over time the fluid and additives deteriorate, causing carefully engineered friction coefficients and viscosity to alter. This can lead to harsh engagements and rough or slipping shifts as the critical, controlled clutch slip no longer responds as designed.

Ultimately without essential maintenance, premature and expensive transmission failure is likely. Therefore, to ensure a transmission's long life and smooth operation, febi recommends that regular transmission oil and filter replacement be carried out according to the vehicle/transmission manufacturer's recommended intervals, subject to the operating conditions in which the vehicle is used.

Transmission oil is not just a lubricant - it is a vital component which optimises gear-shift quality and 'feel', providing excellent friction behaviour thanks to its thermal stability. It also gives ideal ageing resistance - ensuring great wear protection in all operating conditions and guaranteeing the best possible corrosion defence.

Special oils for automatic transmission units must satisfy additional requirements to oils for manual gearboxes. As well as lubricating tooth surfaces, planet gears and the bearing sliding

surfaces, the oil is also used for operating brake bands and clutches. The transmission of torgue from the pump to the turbine impeller is also a task of the transmission oil.

Selecting the correct replacement oil specification is vitally important to safeguarding your transmission operation as designed, and to maintain its performance throughout the lifetime of the vehicle.

febi has the right oil for your vehicle, regardless of type of transmission. Enhanced protection is provided to all moving parts, enabling longer transmission life.

The Main Purpose of an Automatic Transmission Filter - is to keep the oil clean of contaminants. This includes wear debris and impurity elements which can be harmful to the transmission. At the same time, the transmission oil must freely pass through the filter, ensuring the necessary transmission flow capacity.

Through the optimal filtration of wear inducing substances, such as metal swarf caused by abrasion, the transmission filter extends the service life of the transmission and improves performance.

Each febi transmission filter meets the specific requirements of its application and its intended service life.

The filtration efficiency is fine-tuned to match each transmission's fluid cleanliness requirements, to help ensure transmission durability, throughout its intended life cycle.

The filter media strength is tested to withstand the most extreme "debris" loads under extreme wear conditions, at elevated temperatures, and is engineered to maintain fluid flow rates even as wear debris accumulates.

The filter housings are constructed from advanced fibre reinforced temperature-resistant polymers or a combination of polymers and stamped steel.



febi Transmission Oil and Filter Service Repair Kits - not only save time and money, they also remove the need to order the individual parts separately, simplifying the process by enabling a full set of replacement components to be ordered with a single reference number.

Each kit contains all of the necessary components required for an efficient and complete oil change, including high quality transmission oil, filters, seals and installation materials, offering the perfect maintenance solution for every

Accurate Procedures for Transmission Maintenance - Gone are the days when checking transmission oil with a dipstick was sufficient. Today, each vehicle and transmission variant require specific procedures to ensure proper care. Before performing an oil and filter change, it is essential to:

- Review the manufacturer's recommended draining and filling procedures.
- Locate all filters and ensure correct installation.

Follow the exact steps for refilling to prevent issues such as incorrect fluid levels or contamination.

By adhering to these maintenance best practices and using high-quality febi transmission oils and filters, workshops can help ensure smooth transmission performance, prevent premature wear and extend the life of automatic transmissions.

Rely on tested, OE matching guality replacement parts from febi. The entire range of Transmission Oil and Filter Service Kits can be found at: partsfinder.bilsteingroup.com.

The febi brand is part of the bilstein group, the umbrella organisation for several other strong brands. Further information is available at: www.bilsteingroup.com.





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