# MAXIMIZE THE LIFE AND PERFORMANCE OF NEW SHOCK ABSORBERS

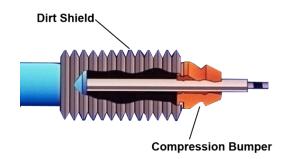
## Always install new Protection Kits with new shock & struts

Installing new shock absorbers & struts can bring significant benefits to any vehicle, including increased handling precision, improved comfort, greater stability and reduced braking distance. But it is important to think about protecting the shocks themselves. In fact, the shock & strut replacement job is not complete without the installation of a new Protection Kit for each new shock & strut.

This article will focus on the importance of Protection Kits, including their purpose, benefits and the potential risks that can come with reusing old kit components.

### What is a Protection Kit?

A Protection Kit features two important components for each new shock & strut: a robust dirt shield and a compression bumper. These parts help extend shock life by shielding the shock & strut's piston rod from corrosion and physical damage caused by dirt, water, rocks and other debris. The compression bumper plays an equally important role controlling and limiting roll, pitch and dive movements of the vehicle when turning, accelerating or braking. At the same time, Protection Kits play an important role preventing mechanical damage of the strut during extreme spring compressions such as when the vehicle hits a deep , a road object, a speed limiter or is turning on a closed curve at high speed.





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#### **Dirt shield**

The Protection Kit's dirt shield is designed to protect the piston rod and internal oil seal from corrosion and damage that can occur in everyday driving situations.



Constructed from a high-strength thermoplastic polyurethane elastomer, this shield helps protect the shock's & strut's smooth, chrome-finished piston rod from corrosive elements found on every road – dirt, water, salt, small rocks, hot asphalt and other debris. An unprotected piston rod can quickly become scratched and pitted. When this occurs, the rod's finish can abrade the shock & strut's internal oil seal, eventually leading to a loss of the oil that is used to provide the shock's damping force.

#### **Compression bumper**

The compression bumper is made from high-quality, closed cell, microcellular polyurethane. This bumper is placed at the top of the piston rod, above the dirt shield. Its primary purpose is to prevent extreme vertical movement of the piston rod during the strut's compression stroke. In extreme conditions, such as when the vehicle hits a curb or extremely deep hold, the resulting suspension movement can cause the shock to violently compress. When this occurs, the compression bumper can protect the strut from mechanical damage by absorbing much of the resulting inertial force.





The compression bumper also helps limiting a Shock & strut's stroke movement, providing an extra measure of stability around curves. A worn-out compression bumper's strokelimiting ability is reduced, meaning the vehicle might not hold the road as well when turning.



#### Inspection and replacement

The working life of a protection kit is approximately 80.000 km. To ensure optimal performance, Monroe recommends thorough inspections of shock absorbers and their protection kit elements every 20.000 kilometers and replacing a protection kit immediately if damage is identified.

By the way, re-using an old protection kit on a new shock or strut is never a good idea, as tiny holes, cuts and other damage can be difficult to see. Additionally, the proper dynamic action of these parts can be lost as their materials age and are exposed to harsh driving conditions.

#### Always choose Monroe protection kits



When the time for replacement comes, your first choice should be a genuine Monroe protection kit. These kits are built using original equipment-quality materials and designs, engineered to provide outstanding protection against dirt, debris and other contaminants and prevent mechanical damage to your shock absorbers due to high-impact compression.

Monroe protection kits also work in tandem with Monroe shocks to reduce pitch, dive and roll movements for a smooth,

comfortable ride. By matching new Monroe shocks with Monroe protection kits and, when applicable, Monroe mounting kits, drivers can expect levels of comfort, handling and reliability they experienced when their vehicles were brand new.



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