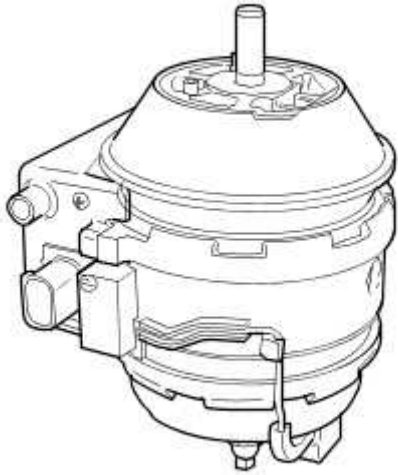


Active Engine Mounts



E67630

The function of the engine mounts is to support the engine, whilst also isolating vibrations transmitted from the engine to the vehicle body.

The active engine mounts are functional only when the engine is at idle, as this is when the engine high frequency vibrations are the dominant vibrations noticeable to the vehicle's occupants.

The mechanical construction of the active engine mounts is similar to the passive hydraulic engine mounts, but with the added element of an internal shaker mechanism. The shaker mechanism of the active engine mounts works on the same concept as a speaker diaphragm to move the top section of the active engine mounts to oppose the vibrations generated by the engine. The active engine mounts mechanism estimates the vibration caused by fluctuations in the engine crank rotation and isolates these vibrations by generating additional vibrations through the internal shaker mechanism. The result gives vibration isolation and reduction of chassis vibration.

To ensure accurate vibration suppression the active engine mounts have an electronic control module attached to the body and an accelerometer attached to the base.