
multitronic

The continuously variable multitronic is an option for many Audi models with a longitudinal engine and front-wheel drive. Like all transmissions from Audi, it offers outstanding features such as low internal friction, a wide gear-ratio spread and high efficiency. The smooth multitronic nearly always allows the engine to operate in its optimal efficiency range. For dynamic drivers, it offers a sport program with closer gear ratios and a manual mode with eight stepped gears.

The heart of the multitronic is the variator. A narrow, compact link chain bathed in oil transfers force between two variable conical pulleys supported on the drive shaft and output shaft. The chain, which consists of more than 1,000 individual links, runs along the wedge-shaped gaps between the conical disks. One disk at a time can be moved on the shaft. Each time the conical pulleys are pushed apart or pulled closer together, the chain runs on new radii. The speed at which the output shaft rotates with respect to the drive shaft changes, changing the gear ratio along with it.

The second essential component of the multitronic is an electronically controlled hydraulic multi-plate clutch. When the car is stationary, it decouples the transmission from the engine. This prevents creep momentum from being transferred, helps to reduce fuel consumption and ensures dynamic, eager starting performance. The multitronic also harmonizes with the start-stop system from Audi.

Status: 2011