



Description

– This system is to optimize driving performance through distributing the driving force to the front and rear wheels actively depending on the road condition and driving condition.

① Distribution of electronically controlled driving force

- The magnitude of the driving force transmitted to the front wheel is variably controlled by fine-tuning the assembling torque on the electronic AWD transfer case (Multi disk) through recognizing the road condition and driving state from the sensor signals input to the AWD ECU.

② Mutual controlling with the related driving control system

- It acquires the best performance in car driving through mutual controlling with brake system such as ABS and VDC.
- The driving force transmitted from the engine and transmission to the transfer case is transmitted to the rear differential through the propeller shaft. It is transmitted to the front differential through the propeller shaft when the operation of AWD is required.

1. Structure of transfer case

- The AWD ECU distributes the driving force to the front/rear wheel through controlling the multi plate clutch on the AWD transfer case by analyzing the input information, i.e. the wheel speed, accelerator and steering angle depending on the road condition and driving state.