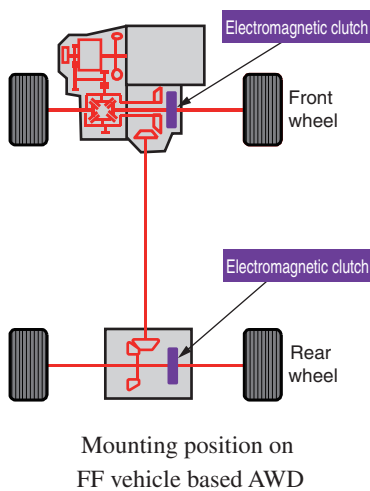


Electromagnetic Clutch for New AWD System



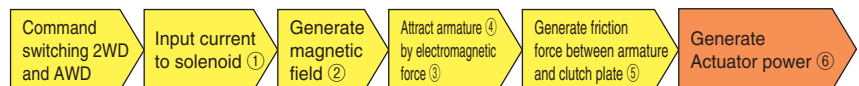
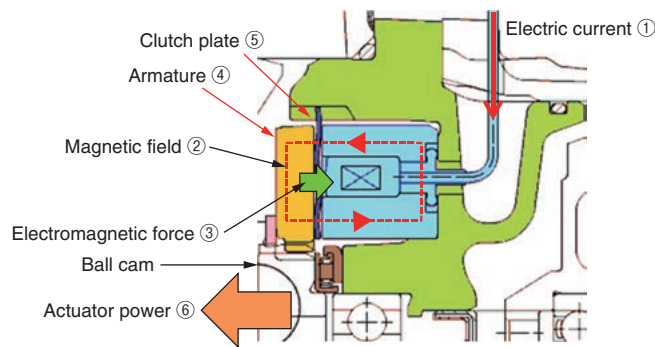
JTEKT developed an electromagnetic clutch for new AWD disconnect system adopted to FF vehicle based crossover SUVs. Disconnect system for AWD cuts off the rotation of the propeller shaft when AWD is unnecessary in order to reduce the fuel consumption. The developed electromagnetic clutch controls torque in response to electric current to operate the disconnect system smoothly.

Mounting Position



Operating Principle

Electromagnetic clutch function: Operates the disconnect mechanism's ball cam



Features

- ①Excellent mountability
 - Locating the components on the same axis as the driveline realized compact and light weight compared with the motor drive system and electric hydraulic pump drive system that do not locate components on the same shaft.
- ②High responsiveness
 - Optimized oil discharging performance of the clutch sliding surface shortens the torque response time when electric current is applied.
 - The wavy clutch plate shortens the torque disengage time.
- ③Low drag loss
 - One clutch sliding surface with appropriate clearance reduces the drag loss of the clutch.

(Driveline System Engineering Dept. 2 , Driveline Systems Business Unit)