

ENERGY ABSORBING MECHANISM

The energy absorbing mechanism in the steering column consists of a lower bracket, breakaway bracket, intermediate shaft and energy absorbing plate. The steering column is mounted onto the instrument panel reinforcement via a lower bracket and breakaway bracket which is supported via a capsule and energy absorbing plate. The steering column and the steering gear box are connected with a contractile intermediate shaft. Operational example of this mechanism are follows.

When the steering gear box moves during a collision (primary collision), the intermediate shaft and the main shaft contracts, thus reduces the chance that the steering column and the steering wheel protrude into the cabin.

When an impact is transmitted to the steering wheel in a collision (secondary collision), the steering wheel and the driver airbag help absorb the impact. In addition, the breakaway bracket and the lower bracket separate, causing the entire steering column to move forward.

At this time, the energy absorbing plate becomes deformed to help absorb the impact of the secondary collision.

