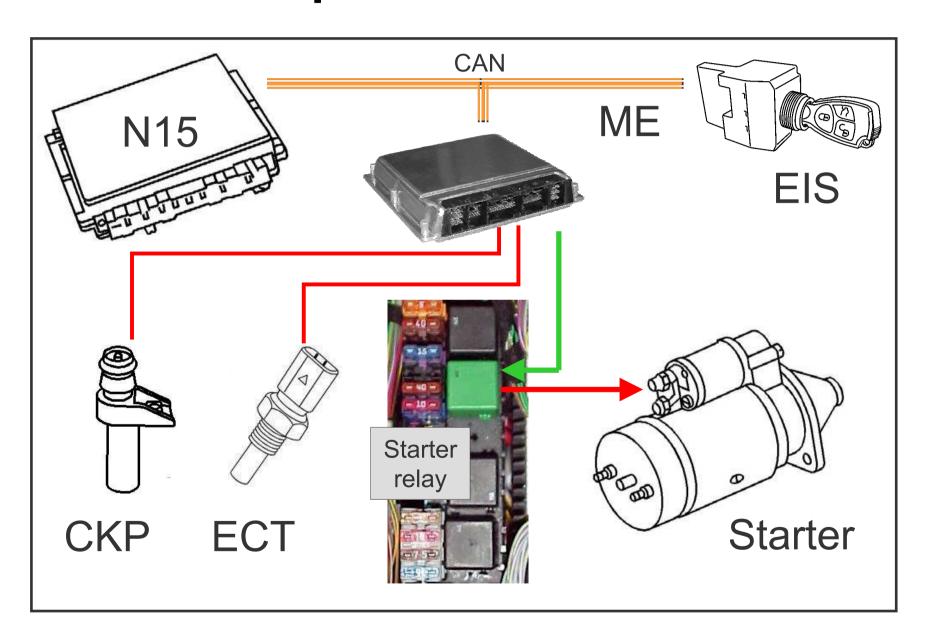
## Tip Start

#### Advantages

- Customer convenience.
- Protect the flywheel.
- Protect the starter motor.
- Will ensure to a point that the engine will start on the first attempt.

### Tip Start Activation



- 1. DAS
  authorized
  start signal,
  circuit 50 ≥
  60mS
- 2. Coolant temp, RPM and P/N evaluated
- 3. Start relay activated

# Tip Start Relays

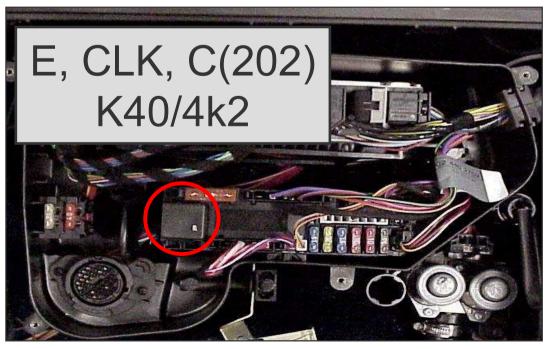


Location varies with application:

Fuse/relay area

Module box

Separate control module





### Tip Start Deactivation

- When the ignition is switched off.
- When the engine control module recognizes the engine is running. (Engine speed of 400 to 600 RPM is reached.)
- When the maximum starting time limit is exceeded.
   (Temperature dependent.)