

This Body Controller Module (BCM) incorporates a Passive Entry Passive Start (PEPS) Systems which allows the vehicle user to automatically unlock and lock the vehicle doors by touching the any of the vehicles door handles, and start the engine by pushing the Start Stop button without the need of taking the Key fob out of users pockets or hand bags...etc. Also included in one variant of this system is a UHF Receiver used for receiving Tire Pressure Monitoring sensor and/or Keyfob transmissions.

The system consists of the following components

- 1- Vehicle mounted Ferrite core LF antennae (Continental Model KV-ANTENNA)
- 2 - Sensors on Doors Handles used as Locking and Unlocking triggers and Start/Stop Push Button used as Vehicle Start Trigger
- 3- 315MHz Integral RF receiver (one variant only).
- 4- BCM which contains the LF Driver (125 kHz)

The PEPS system works as follows:

- 1- Once system is triggered by any of the user inputs, an LF challenges is sent to the Key Fob by the LF driver. The LF challenges with a key fob wake up and data (4Kbaud modulated data )
- 2- If the Key fob is in the presence of the LF field created by the LF antennae, it sends its response to the BCM RF receiver (if integral) or a separate receiver in the vehicle. Key fob sends RF (315MHz) data which is received by the RF receiver. Receiver sends key fob data to the BCM.
- 3- If the Key Fob is authenticated, the BCM will activated door lock / vehicle start outputs based on the user intention (trigger).