

## VIM Variants, Differences

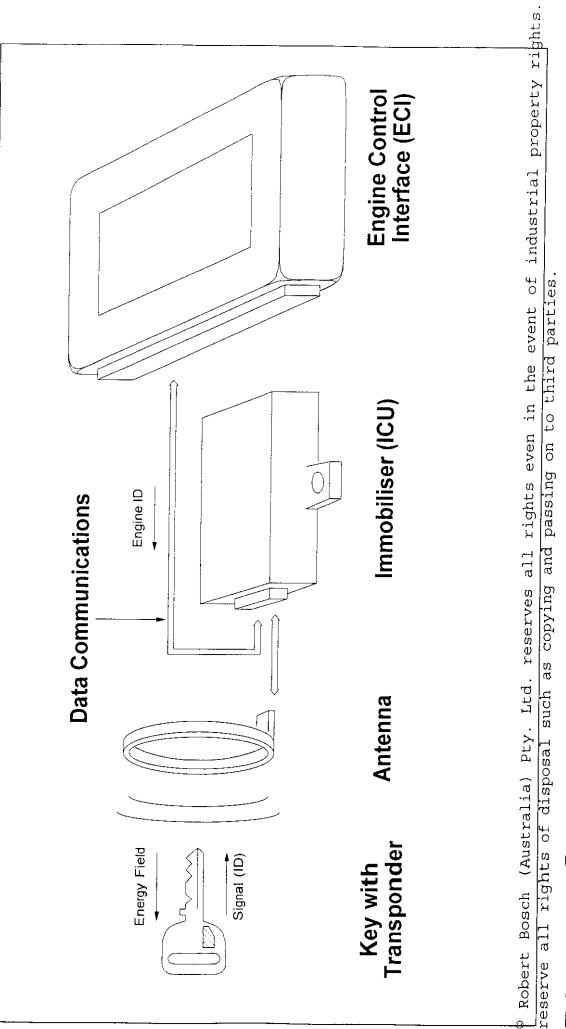
**VIM014** and **VIM015** have the same front end circuitry (RF part of the board) but different communication protocol to Engine Management System.

**VIM016** has different RF circuitry in terms of components values and different communication protocol.

VIM0208 has the same circuit as VIM015 but different communication protocol.

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# BOSCH VSS System Overview



BOSCH



# VIM014, Brief Specification

#### **Functionality**

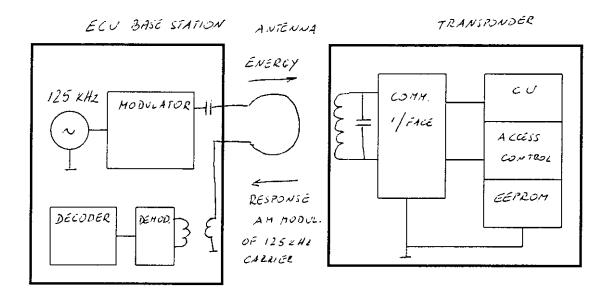
Transponder derives its power supply from the magnetic component of the RF radiation which is generated by the Base station (located inside the Immobiliser ECU). Data is transmitted by modulating RF radiation.

Transponder is a passive component that operates within high electromagnetic field in a close proximity, typically between 10mm to 30mm from the antenna.

With power on and ignition off, the microprocessor **COP888GG** is in the sleep (low power) mode, it wakes itself up, monitor ignition line and goes off again.

When power and ignition are on, the following steps will occur:

- 1. Power up the antenna.
- 2. Attempting for Transponder validation (300ms and after that antenna is turned off).
- 3. With the valid EMS request the Immobiliser ECU will respond to EMS with start on or not start on permission.
- 4. After 2 seconds from ignition the Immobiliser ECU will listen for diagnostic communication.



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## VIM014, Brief Specification

If Transponder is authenticated successfully, ECU outputs are as follows:

- LED (J1-7) is active.
- Fail lamp (J1-1) inactive.
- EMS communication is through "Verlog" line (J1-4).
- Diagnostics (tester) communication in through J1-3 line.

With power on and ignition on after 2 seconds ECU constantly communicates through the "Verlog" line.

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