VIM016

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RBAU/ 03.04.98

RBAU 1074i

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions : (1) This device may not cause harmful interference and (2) this device must accept any interference received, including interference that may cause undesired operation.

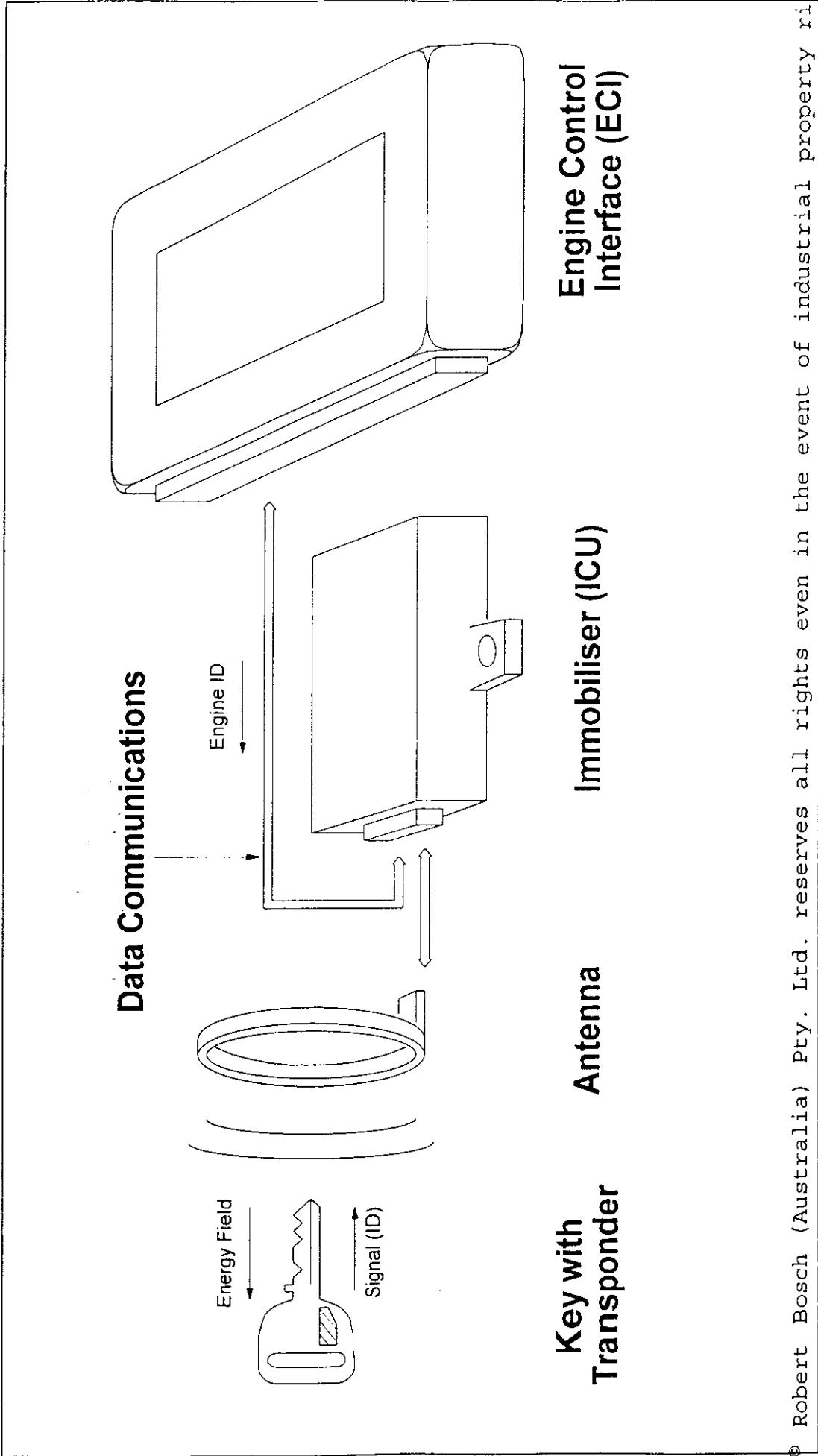**BOSCH** ⊖

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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System Overview

Data Communications

Engine ID

Energy Field

Signal (ID)

Key with Transponder

Antenna

Immobiliser (ICU)

Engine Control Interface (ECI)

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RBAU/DEC2 7.9.95

VIM016, 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.
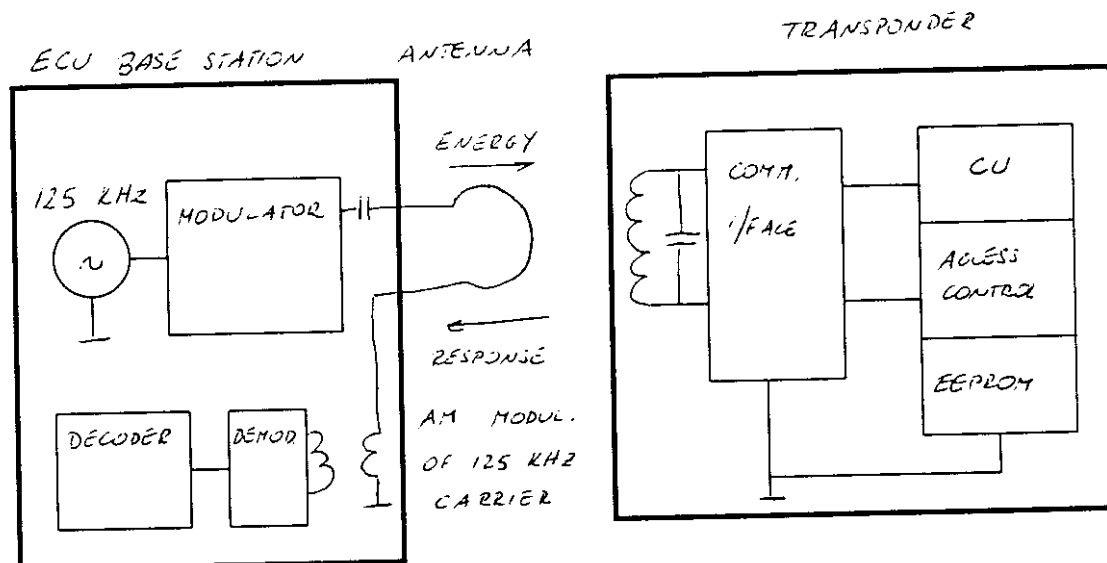
VIM016, Brief Specification

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

- LED (J1-7) is active.
- EMS communication is through W/D1 (J1-2) and W/D2 (J1-4) lines.
- Diagnostics (tester) communication in through K/D1 (J1-1) and K/D2 (J1-3) lines.

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