

1.1 Overview

A system has been developed to monitor a vehicle's tyre pressures whilst the vehicle is in transit. This system has been specifically designed to offer automatic wheel rotation, a feature that allows the vehicle's wheels to be repositioned on the vehicle without the need to retrain the system receiver with the new location of the wheel sensors. This system has also been specifically designed to allow full communication to the vehicle ECU via the CAN bus. Four wheel pressure sensors communicate pressure data via RF to a receiver / ECU mounted in the trunk of the vehicle.

The purpose of this document is to provide the contents of the software of the TPMS receiver / ECU.

1.3 Communications Interfaces

The TPMS receiver / ECU communicates with the vehicle's ECU via the CAN bus, receives ID and pressure data from the TPMS wheel mounted pressure transmitters and sensor position data from the system's RF detectors (RFDs).

A single bi-directional line is used for communications with the CAN bus. Data is passed along this line in serial digital format. Pressure Data is received from the wheel sensors via radio signals.

1.3.1.1 ECU Connector

For the ECU the following connector shall be used:

AMP ZF 12-9

1.3.1.2 Pin Out of the ECU

The table below gives a survey of the I/O pins and the associated functions.

The pins are identified on the Rx's connector (1/6/7/12 in the appropriate corner)

Pin	Signal
1	CANS_A
2	CAN_Spare_Pin
3	Terminal 15
4	Terminal 31, battery ground
5	Left Rear RF Detector – Ground Line
6	Left Rear RF Detector – Power Line
7	Left Front RF Detector – Ground Line
8	Left Front RF Detector – Power Line
9	Right Front RF Detector – Ground Line
10	Right Front RF Detector –Power Line
11	Right Rear RF Detector – Ground Line
12	Right Rear RF Detector – Power Line
13	ECU RF Antenna (optional)*

* If due to the trunk location the onboard Antenna of the ECU will not be sufficient for data receiving, than an external antenna shall be used.

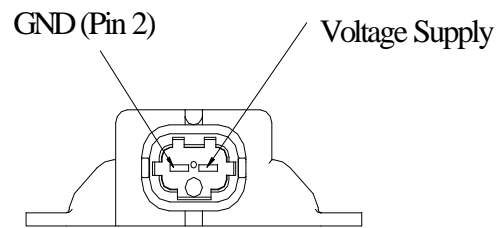
1.3.1.3 Connector of the RF-Detector

For the RF detector the following connector shall be used:

ZWF 2-128

1.3.1.4 Pin out of the RF-Detector

The RF-Detector pin out is shown by the drawing below.



RF-Detector