

Tyre pressure monitoring users' guide

1. Introduction

Depending on the complexity of the system fitted, the tire pressure monitoring (TPM) system, consists of the following units:

- an electronic control unit (ECU) called 14RC
- four 29EC initiator units mounted in the wheel arches
- and four or five wheel sensors mounted in each of the tires.

The system monitors the pressure and temperature within the tires and flags an alarm via an UHF radio link when the tire pressure falls below predetermined limits. The warning display forms part of the dashboard.

Two types of system are available, termed high line and low line. In the low line system the 29EC initiators are not fitted and the wheel sensors are factory fitted in active mode. In this application the sensors transmit data routinely every three minutes whether the vehicle is being driven or not. The high line system uses the initiators to transmit a low frequency signal to the wheel sensors – this activates them and this forces them to transmit. The highline system provides a faster update rate from the sensor and can provide an earlier warning of problems.

2. Operation

There are no user adjustable controls on the TPM system. All the information is communicated by the dashboard display. The display will have anywhere between two and six lamps depending on the vehicle model, these are TREAD (Transportation Recall Enhancement, Accountability and Documentation act) lamp, diagnostics lamp and four positional indicating lamps (identify actual wheel with the problem). The diagnostics lamp will light if there is a problem with the TPM system, the TREAD lamp typically comes on when any tire is 25% under inflated. When the TREAD lamp comes on, the user is expected to rectify the problem when it is safe to do so.