



DEG Provisional Data

DESIGN and SPECIFICATION

The DEG is a rugged test tool for tyre pressure monitoring devices (TPMs), designed specifically for the workshop environment. Simple to use, the main functions are operated with large keys and a friendly on-screen menu enables easy set-up. The DEG enables the operator to activate a TPM, identify that the TPM has transmitted a response, decodes the data and displays such information as identification code, pressure, temperature, status and type.

The hardware supports dual frequencies from a range of TPM suppliers, standard frequencies being 315 and 433.92 MHz. The software architecture is designed to accommodate a library of TPM types with various encoding schemes from a range of TPM suppliers.



The DEG has a download capability for updating its TPM database. This facilitates the continuing introduction to the market of new TPM devices with specific encoding algorithms. The DEG's serial communication capabilities can also be used to upload captured data for archiving in a host system or for further vehicle diagnostic applications.

Although the standard tool is described in this document, the design has been developed with customisation in mind and variations can be incorporated in customised badged units to special order.

TECHNICAL SPECIFICATION

Processor: Toshiba TPM95FY64P Processor running at 20 MHz.

Display: STN LCD fitted with electro-luminescent backlight panel switched under software control. The pixel format is 128 by 64. This provides 8 lines of 20 characters in standard text mode but optional formats in full graphics mode (as defined by the application program). Display aperture 58 mm wide by 40 mm high. The display is internally protected by a shock resistant rubber mounting.



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Keyboard: 11 button keyboard as standard. Tactile feedback provided by the metal dome technology over printed with 14 mm square box to include printed function text. Audible feedback provided by buzzer mounted inside the unit housing. One key defined for on/off function supported with software time-out from last activity.



Battery: 1800 mAh Nickel Metal Hydride pack. High speed temperature controlled charge capability from 12 volt supply (1.25 amp minimum).

Interface: USB port and serial ASCII dependant on cable or connector option.

LF activation: 125 KHz with duration and modulation software controlled in accordance with TPM type. Field strength also software controlled in accordance to TPM type.

UHF reception: 315 MHz and 433.92 MHz software selected in accordance to TPM type.

PHYSICAL SPECIFICATION

Enclosure: Made from Xenoy 5730 composite polymer in dark grey. There is an optional rubber outer case to provide additional drop resistance to 1.2 meters onto a hard surface.

Size (without rubber protection cover):

206 mm Long (8.11 inches)
95 mm Wide (3.75 inches)
50 mm Deep (1.97 inches)



Weight: 570 grams without rubber protection cover (20 ounces)
810 grams with rubber protection cover (28.5 ounces)

ENVIRONMENTAL SPECIFICATION

Operating temperature 0° C to 50° C (32° F to 122° F)
Storage temperature -20° C to 55° C (-4° to 131° F)

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