



MFG

Misfire Generator

Misfire Generator for Engineering and Emissions conformity testing in the Automotive Industry

What is the Misfire Generator?

The MFG is a compact, handheld misfire generator designed for use by manufacturers and government agencies to demonstrate misfire as part of in-use testing and misfire strategy development

Hardware

- Bespoke PCB designed in-house, capable of handling logic levels for ignition trigger between 0 and 6V. (higher range on request)
- Support for modern coil on plug ignition systems. (Wasted spark support available on request)
- Battery backup prevents engine shutdown if power to the unit is lost.
- Alarm warns user of power loss to the unit.

What it does

- Causes misfire in coil on plug ignition systems.
- Achieved by intercepting the ignition trigger signals from the ECU to the coils.
- Provides accurate quantities of misfire shown as a percentage of all firings.
- Used to demonstrate, test or develop a vehicles ability to detect misfire.
- Conforms to relevant standard for misfire generation algorithm. (SAE J2901)
- Provides an easy to use graphical interface that allows simple configuration of required tests.
- Is capable of learning the correct firing order and number of cylinders further reducing setup time.

Enclosure

- Aluminium billet housing with Melinex and Autoflex fascia allows for compact and ruggedly simple construction.
- IP 54 for foreign object and water ingress protection. (up to 67 on request)
- Lemo® Connectors ensure easy and secure connectivity and long service life.

Features

- Choice of two misfire timing algorithms; event based timing, for development purposes; and the SAE J2901 Stipulated Cycle based timing algorithm, for emissions standards conformance testing.
- Cylinders may be selected/deselected from a particular run of rated misfire, for example a rated misfire could be set on only cylinders 2(B), 4(D) and 5(E).
- Constant misfire on any cylinder, including multiple cylinders at the same time.
- Principle of least astonishment (POLA) Interface Design considerations mean that the MFG system can be intuitively and effectively navigated, resulting in reduced testing times.
- In use session settings may be saved and recalled later, even after the unit loses power.
- Support for up to 8 cylinders as standard.
- Support for up to 16 cylinders available using two units . (on request)
- Ignition Fire signal replication. (on request)
- System can learn fire order.



Contact

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