



# DIAGNOSTIC SMOKE MACHINE

A professional diagnostic machine to help locate vacuum leaks on fuel evaporative systems, intake/induction systems exhaust systems & more!

**TO90206**

## SMOKE MACHINES ARE THE PERFECT TOOL TO IDENTIFY AIR LEAKS ON A MODERN ENGINE

Emission-controlled engines use an O2 sensor to measure the oxygen level in the exhaust after the combustion. A well-tuned engine will have a perfect air/fuel ratio of Lambda 1. To achieve this the engine ECU will monitor the airflow using the Air Flow Meter (AFM), older generation vehicles, or the Air Mass Meter (AMM), newer generation vehicles.

Using the AFM or AMM, the O2 sensor and other sensors on the engine, including engine temperature sensor, the engine ECU can calculate the correct amount of fuel for the cylinder to mix with the correct amount of air to ensure an efficient combustion and burn and achieve perfect Lambda.

This will also mean the Catalytic convertor will be able to do its job and reduce the CO2 levels emitted from the vehicle and you will have a well running engine. It is critical to ensure that there is NO air leaking into the engine between the AFM/AMM and the O2 sensor in the exhaust.

If you do have a leak this will be unmetered air, which will cause the air/fuel ratio to be incorrect and as such poor combustion/poor running and the MIL to be illuminated. You can often detect too much oxygen in the exhaust by monitoring the O2 sensor using diagnostic equipment, but often the problem is finding where the air is leaking in. This is where a smoke machine becomes the MUST HAVE kit to identify where the leak is located.



### WIDE RANGE OF APPLICATIONS

For detecting the leakage of pipe systems on cars, motorcycles, snowmobiles, off-road vehicles, ATVs, light trucks & speedboats. Suitable for all car models.

### POWERFUL & EASY TO OPERATE

This tool has its own air pump, so it does not have to rely on other air machines. Connect the detector with DC12V battery, it can output heaps of smoke within 30 seconds after turning on.





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**T090206**



The T090206 Afi Diagnostic Smoke Machine features a flow meter and pressure gauge. The air pressure is adjustable between 0-15psi to suit multiple test situations, for example higher pressure for turbo systems, lower pressure for crankcase breather testing.

On turbocharged vehicles, where the air intake is pressurised, the leak may not present itself until the system is under pressure. Not only is the Afi Diagnostic Smoke machine used for testing air intakes for leaks, in can be used to check for leaks on fuel systems, cooling systems, cabin water leaks plus much more.

Powered via the vehicles 12v battery, this unit quickly and accurately can locate the physical fault. The Afi Diagnostic Smoke Machine has its own air pump, it does not rely on shop air, great for mobile Techs.

## WHAT'S IN THE BOX:

- Afi Diagnostic Smoke Machine Unit | Hook with hand tighten nuts
- Rubber stopples with serial specifications | Smoke output tube
- 250mL smoke machine oil | Taper stopple & pipe | Power cord

