Other Tests

The Smoke 1 can be used to find leaks in almost any closed system. The optional cap plug set, and adapter cone can be used to introduce smoke and seal numerous vehicle systems.

The Smoke1 can find hard to locate leaks in the passenger compartment areas.

Method.

Set the blower to maximum ensuring the it is not set to recirculate, this will pressurise the cabin. Introduce smoke around any suspect areas. Look for any turbulence in the smoke output caused by air leaking from the cabin. This will indicate the area of concern. This test must be carried out in a draught free location.

The Smoke 1 can also be used to find leaks in cooling systems, engines, transmissions, EGR valves, exhaust systems, vacuum systems and many others.

Troubleshooting

No smoke	• Check power supply>12.5V • Check correct polarity • Check power cable for continuity
Power LED on	• Check for click from PCB switch when pressing start/stop button • Check for air pressure • Check for correct smoke fluid and level
Poor or erratic smoke delivery	• Battery must be fully charged 12.5~14.5V • Oil residue build up in smoke tube, remove and blow through

Specification:	3230001
Power supply:	12.4~14.5V
Flow rate:	10 l/min
Flow control:	N/A
Pressure control:	N/A
Auto-off:	5 minutes
Smoke tube:	2.5 metre
Power cables	2.3 metre's
Smoke fluid:	Pharmaceutical grade mineral oil 95% Organic solution with fluorescent Dye 5%

CE FC RoHS

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LAUNCH UK

Smoke 1
User Manual

Pro series

Diagnostic leak Detector

V3.01EN

Part #3230001

www.**launchtech**.co.uk

Package contents

1. Smoke 1 main unit
2. ABS casing
3. Pressure gauge
4. Transport/hanging hook
5. Universal bladder
6. Power cables
7. Smoke tube
8. User manual
9. Smoke fluid 100ml
10. Smoke fluid filler funnel

Optional accessories and spare parts

1. Cap blanking set
2. Adapter cone 2cm – 7cm Ø
3. Inspection light white LED
4. UV Lamp 365mn output + yellow goggles
5. Smoke fluid 250ml





Commissioning the Smoke 1 for first use

1) Fit the power cables (6) to the power inlets (A) note: the red plug should be fitted to the red socket and the black plug to the black socket

2) Fit the smoke tube (7) to smoke outlet port (B) first removing the transit sealing cap. Retain the cap for storage or further transit

3) Mount the transit hook (4) to the Smoke 1. This can be used to transport the Smoke 1, or to hang it when in use.

4) The Smoke1 is supplied with a system pressure gauge. To fit remove the screw securing the blanking cover over the pressure gauge port (1) Install the pressure gauge (3), the fitting is 1/8 BSP parallel thread.

5) Open the smoke fluid filler port (E) carefully pour smoke oil into the reservoir, approx. 20ml, ensure the level does not exceed the max line on the fluid level indicator sight glass (D). First time fill: readjust level after five minutes.

USE OF THE UNIVERSAL BLADDER

The universal bladder is used to seal openings in systems under test, such as throttle bodies, air intakes etc. it will seal openings between 6cm and 14cm in diameter, it will also seal irregular shaped openings.

Please ensure there are no sharp edges, and the opening is clean. Place the bladder in the opening and close the relief valve (a) next to the hand pump, inflate the bladder until the opening is tightly sealed. Introduce air or smoke by plugging the feed tube opening (D) with the smoke tube nozzle. After testing release the inflated bladder by opening the relief valve.

Please note: the bladder is sensitive to sharp objects, before using make sure the inner wall of the opening is suitable.

Test Run

1) Connect the power clamps to a fully charged 12V battery power supply, ensure the polarity is correct, red to +positive black to – ground

2) Press the stop/start button (h) both status LED's will illuminate.

3) Under power the on-board compressor will produce pressurised air. Temporarily block the end of the smoke tube and note the pressure reading. The system pressure should be 10~12psi

4) The unit will start to produce smoke when both LED's are lit. There is an automatic five-minute cycle during which smoke is produced, to stop the unit manually at any time simply press the start/stop button.

Basic Testing Method

Note: All testing is carried out with the engine and ignition off.

1) Connect the universal bladder or smoke tube to the system under test.

2) Connect the power cables to a charged 12v battery power source. If using the vehicle battery Connect the black -ve cable to the vehicle ground.

3) The unit will now start to generate a pressurised air flow. Wait 30 seconds for the test system to pressurise and observe the pressure gauge. If the system pressure is maintained there is no leak, a drop-in pressure indicates a leak.

4) To introduce smoke, press the start/stop button the unit will start generating smoke for an auto-stop cycle of 5 minutes. The system will be ready for a leak check in 2 minutes. Use a bright white light to look for exiting smoke. A UV light used with yellow goggles will find the fluorescent dye left at the exit point of a leak.

5) Smoke testing should not be used on oil sensitive components such as headlamp housings.