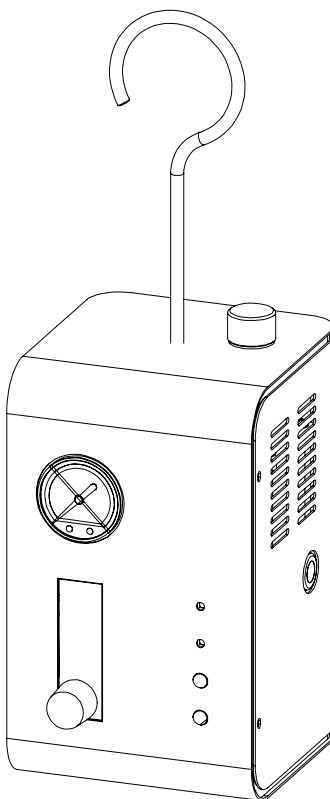


# SD203 Diagnostic Leak Detector

## User Manual



This Automotive Diagnostic Leak Detector is designed for test leak in vehicle pipe systems. It could be used on all cars, motorcycles, snowmobiles, ATV, light trucks

# Inside the Package You Could Find

A.Main Unit\*1

F.Inflatable Adaptor \*1

B.Power Cords\*1

G.Air drum rubber\*1

C.Smoke Tube\*1

H.Intake Adaptor Cone

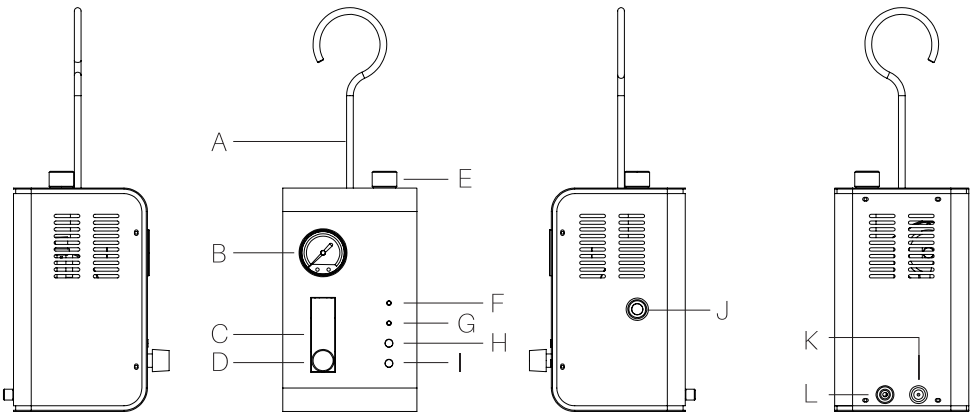
D.Hook\*1

I.Cap Stoppers (23pcs)\*1

E.Funnel\*1

J.User Manual

## Overview



A. Hook	B. Pressure gauge
C. Leakage indicator	D. Smoke volume adjustment
E. Fill port	F. Power indicator
G. Air/Smoke mode indicator	H. Air/Smoke mode switch key
I. Run /Stop key	J. Oil level window
K. DC12v input	L. Smoke outlet port

This Automotive Diagnostic Leak Detector is designed for test leaks in vehicle pipe systems. It could be used on all cars, motorcycles, snowmobiles, ATV, light trucks, boats, etc.

## Overview

- 1.Mount the Power Cords to the Power Inlets.
- 2.Mount the Smoke Tube to the Smoke Outlet, and lock it with the quick clamp.
- 3.Open the Oil Filler Port, fill smoke oil into the reservoir, note the Oil Level Indication Window, make sure the oil level do NOT exceed the Max line. If the smoke oil

is overfilled, turn the unit upside down to drain some oil out.

4.Open the smoke volume adjustment.

5. Now the unit is ready to use.

1.Mount the Power Cords to the Power Inlets.

2.Mount the Smoke Tube to the Smoke Outlet, and lock it with the quick clamp.

3.Open the Oil Filler Port, fill smoke oil into the reservoir, note the Oil Level Indication Window, make sure the oil level do NOT exceed the Max line. If the smoke oil

## Test Run

1.Connect 12V vehicle battery with the clamps on the Power Cords. The Power Indicator will be ON.

**Note: red clamp to positive (+), and black clamp to negative (-).**

2.Turn the Flow Dial to max, the Flow Gauge will indicate the flow rate.

3.Set the smoke mode by press Air/Smoke mode switch key.

Green: air mode. Red: smoke mode.

4.Press Run /Stop key, the float in the leakage indicator will located at the top.

5.Block off the smoke nozzle on the Smoke Tube with fingertip, the Pressure Gauge will indicate the real time output pressure.

6.Press the Air/Smoke mode switch key to set smoke mode. The unit will start producing smoke.

## Generic Operation

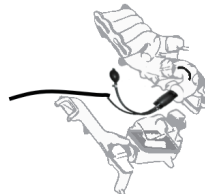
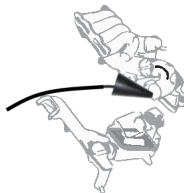
1.Turn OFF the ignition of the vehicle. LEAK TEST OF VEHICLE SYSTEMS REQUIRE THE ENGINE TO BE OFF.

2.Unmount the Air Filter, and the Throttle connections.

3.Clean the opening and avoid sharp objects before put the adaptor in.

4.Put the Intake Adaptor Cone (or the Universal Intake Adaptor) into the opening.

As bellows:



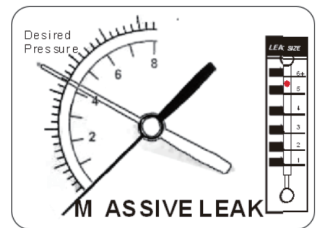
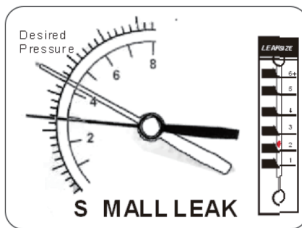
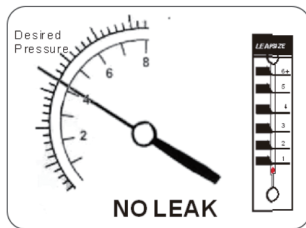
5.Connect Power Cords to 12V vehicle battery. For best performance, the vehicle battery shall be fully charged. Do NOT use a DC12V switch power supply.

6.Now the unit shall generates pressurized air flow.

7.Turn the Flow Dial to max, then introduce the smoke nozzle into the system via the Intake Adaptor Cone (or the Universal Intake Adaptor).

8.Wait for about 2 minutes for the system to be pressurized.

9.Observe the Flow Meter and the Pressure Gauge for leak status. As bellows:



10.Judging the size of leakage according to the Flow Meter and the Pressure Gauge.

11.If there's leak in the system, switch on the smoke mode, the unit will start generating smoke.

12.Pull off the smoke nozzle, and plug it back again when there's obvious smoke coming out of the smoke nozzle.

13.The system will be ready for leak check in 2 minutes. Use a bright light torch or working lamp to assist.

14.After leak test, collect the Power Cords and Smoke Tube with the Velcro Strap, clean the Intake Adaptor Cone (or the Universal Intake Adaptor) before storage.

#### Note:

- 1.Cap Stoppers could be used to block off various opening, if test on partial of the whole system is required.
- 2.Cap Stoppers also could be used to block off the intake, and smoke nozzle connect to the system via other opening available.
- 3.Smoke method can NOT be used on testing leak of oil-sensitive parts, e.g. lamp housing.
- 4.ONLY 12V vehicle battery are allowed to be used as power supply for the machine.

## Equipment protection

The device can work continuously for 10 minutes. The equipment adopts variable frequency operation technology, even under high temperature protection, it can meet the testing requirements.

Do not fill oil as working.

## Air mode / Smoke mode

Air mode: It can help you confirm if there are any leaks.

Smoke mode: It can help you find out where the leak point being.

You can set the Air/Smoke mode by press mode switch key whether before or during operation.

## EVAP Leak Test

You should need to choose the model and kit for EVAP testing.

Generic OBD EVAP related codes: P0443~0457/P0465~0469.

1. Locate EVAP Access Port (Green cap in engine compartment).
2. Remove the Schrader Valve, by using the Schrader Valve Tool.  
Note: The valve is left-hand thread.
3. Mount the EVAP Service Port Adaptor.
4. Connect the smoke nozzle to the EVAP Service Port Adaptor, Introduce pressurized air into the system, and turn the Flow Dial to max, check the status of Pressure Gauge and Flow Meter to confirm if there is a leak.
5. If there's leak in the system, press the Start/Stop Button, the unit will start generating smoke for an auto-stop 5 minutes working cycle.
6. Pull off the smoke nozzle, and plug it back again when there's obvious smoke coming out of the smoke nozzle.
7. In 2 minutes, the system will be ready for leak check. Use a bright light torch or working lamp to assist.
8. After leak test, collect the Power Cords and Smoke Tube with the Velcro Strap, clean the Intake Adaptor Cone (or the Universal Intake Adaptor) before storage.

## Chemical

ADVISE use the special smoke oil.

Also this unit can use Baby Oil as smoke oil, available in supermarket or pharmacy.

Overfill: Turn the unit upside down to drain some oil out.

## Product Information

Power Supply: 12V Vehicle Battery

Flow Rate: about 16L/Min

## Warranty

1. The main unit entitled free warranty since the date of purchasing up to 12 months.
2. For warranty issue concerning the accessories, please make inquiry to the distributor.
3. Any damage to the machine caused by misuse, or improper operation, is not covered by warranty.

