

## Smoke Leak Detector



### TECHNICAL DATA

Power source: 12V vehicle battery  
Rated voltage: DC12V  
Rated power: 100 W  
Flow control: adjustable  
Smoke flow: 15 to 20 l/min  
Pressure: adjustable  
Dimensions: 280 x 180 x 185mm  
Product weight: 3.8Kg

### ATTENTION

Read the operating instructions and all safety instructions contained therein carefully before using the product. Use the product correctly, with care and only according to the intended purpose. Non-compliance of the safety instructions may lead to damage, personal injury and to termination of the warranty. Keep these instructions in a safe and dry location for future reference. Enclose the operating instructions when handing over the product to third parties.

### INTENDED USE

This product is used to generate smoke to check hoses and pipes for leaks.

### SAFETY INFORMATIONS

- Keep children and other persons away from the working area.
- Do not allow children to play with this tool or its packaging.
- Do not use the tool if parts are missing or damaged.
- Use the tool for the intended purpose only.

### SPECIAL SAFETY INFORMATIONS

- Before first use, add 20-30ml of smoke liquid.  
Please do not add more than this amount of smoke liquid.
- If smoke generating decreases, add less than 20ml of smoke liquid.
- Please replace the internal smoke liquid regularly.
- Note: When refilling, make sure the device is turned off and cooled down, otherwise there is a risk of damage.

### ENVIRONMENTAL PROTECTION

Recycle unwanted materials instead of disposing of them as waste. Packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. Contact your local solid waste authority for recycling information.



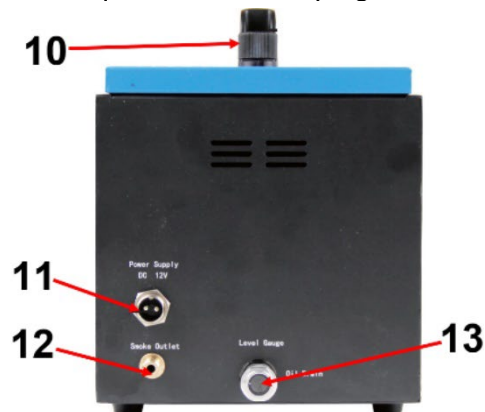
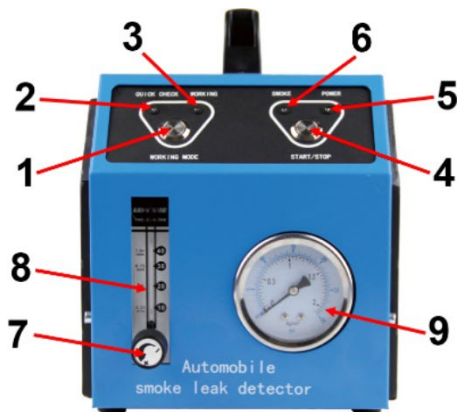
## COMPONENTS

- |                       |                      |
|-----------------------|----------------------|
| 1 Smoke generator     | 9 Power supply cable |
| 2 Fill bottle, 250 ml | 10 Vacuum hand pump  |
| 3 Fill bottle, 15 ml  | 11 Crankcase adapter |
| 4 Vent adapter        | 12 Valve tool        |
| 5 Cone plug, large    | 13 Connection hose   |
| 6 Cone plug, small    | 14 Hose clamp        |
| 7 Cone plug, medium   | 15 Sealing plug      |
| 8 Smoke outlet hose   |                      |



## CONTROL AND CONNECTION ELEMENTS

- |                                    |                              |
|------------------------------------|------------------------------|
| 1 Operating mode selection switch  | 7 Flow regulator             |
| 2 Mode indicator "Quick test"      | 8 Flow indicator             |
| 3 Mode indicator "Smoke detection" | 9 Pressure gauge             |
| 4 Operating switch                 | 10 Filling opening           |
| 5 Operation indicator              | 11 12V Socket                |
| 6 Smoke indicator                  | 12 Smoke outlet              |
|                                    | 13 Liquid level / drain plug |



## CONTROLS FUNCTION

1. Operating mode selection switch; selection between quick test and smoke detection.
2. "Quick test" mode indicator; for smoke-free and quick test from leaks.
3. "Smoke detection" mode indicator; for detecting precise leak locations.
4. Operating switch; press once to switch on, press again to switch off.
5. Operation indicator; lights up when the device is in operation.
6. Smoke indicator
7. Flow regulator; by changing it, the severity of the leak can be assessed
8. Flow indicator; to display the current air/smoke flow.
9. Pressure gauge; shows the operating pressure during the test.
10. Filling opening; for filling/refilling smoke liquid.  
Dry filling: 20-30 ml smoke liquid.  
Refilling: maximum 20 ml smoke liquid.
11. 12V socket; connect the connection cable (9) in the chapter "Components".
12. Smoke outlet; connect the smoke outlet hose (8) in the chapter "Components".
13. Liquid level window; to check whether there is liquid in the device.
13. Drain plug; to drain off residual liquid.

## USE

1. Place the device on a flat surface. Close the valve on the vacuum hand pump (10) by turning it clockwise and connect the hose of (10) to the pipe you want to check. Operate the pump rubber ball to check the pipe and make sure there is no leak.
2. Connect the smoke outlet hose (8) to the smoke outlet (12) on the device and the other end of the smoke outlet hose (8) to the pipe to be tested. Make sure there are no leaks at the connections.
3. Connect the device to the 12V vehicle battery by connecting the red clamp to the battery positive terminal and the black clamp to the battery negative terminal. If the connection is made correctly, the power indicator will light up. Attention: Do not connect the clamps in reverse.
4. Select the working mode. The "Quick test" mode is active by default. If it is already certain that there is a leak, please select the "Smoke detection" mode directly.
5. Turn on the device using the power switch (4) and the device will start working. Adjust the air/smoke flow using the flow regulator (7) and match it to the pressure capability of the system.
6. If the "Quick Test" mode is selected, the "float" in the flow indicator (8) will gradually drop to "0" after about 2 minutes of operation, which means there is no leak in the pipe. Conversely, a float that does not drop means there is a leak in the pipe system. The above operating time depends on the size of the system being tested and can be longer or shorter.
7. If the "Smoke Detection" mode is selected, the pipe will be completely filled with smoke after about 2 minutes of operation. (The lead time is longer for larger systems.)
8. Observe the state of the float in the flow indicator (8). If the float stops at the bottom, it means there is no leak in the pipe system. Conversely, if the float rises or jumps, there is a leak in the pipe system. The position of the float can be used to judge the severity of the leak: the higher the float is, the more severe the leak.
9. During the leak detection, use a lamp for illumination if necessary. The point at which smoke becomes visible is the leak location.
10. When the leak detection is complete, please store all cables and hoses properly.

- Avoid testing areas that are sensitive to smoke. When testing the EVAP system, monitor the pressure in real time and turn off the flow regulator in time.
- Each test should not exceed 20 minutes. Wait 15 minutes between two uses. The device is equipped with a protection device. When a certain limit is reached, the device will automatically turn off. In this case, please take a break before using it again.
- Please do not connect the power cable upside down. Otherwise, the protection function will be activated and the device will not work. If the power cable is frequently connected incorrectly, it may cause damage or affect the service life of the device.

- The smoke fluid will be oxidatively degraded in high temperature environments, which will affect the service life of the smoke generating element, which must be replaced regularly.
- If the device is not used for more than a week and needs to be refilled with new smoke liquid, first drain any old smoke liquid that may still be in the device via the drain plug (13).
- Replace the smoke liquid if there are a lot of water drops on the smoke outlet (12).
- It is recommended to use a special smoke liquid. If the bottle of smoke liquid has already been opened, it must be used up within a year or disposed of afterwards. Please use the plastic bottle included in the delivery to refill.

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment. Contact your local solid waste authority for recycling information or give the product for disposal to BGS technic KG or to an electrical appliances retailer.

