

Option units for ET-999

You can add extra units to ET-999: ET-67 for the hard-of-hearing, ET-68 extra anaesthetic/gas sensor, or ET-69 CO (Carbon Monoxide) gas sensor.

ET-67 is the extra sound and light alarm unit which in addition to the sound alarm comes with a white LED light flash alarm to warn the hard-of-hearing. The white flash is also known to discourage a possible intruder. ET-67 should be mounted over the bed directly over the sleeping person.

ET-68 is equipped with the same type of gas sensor element as ET-999. ET-68 must also be placed low (max. 50 cm over the floor). ET-68 is designed to be placed in the children sleeping area or close to a unit that is running on gas (kitchen area).

ET-69 is the CO (Carbon Monoxide) gas sensor. It must be mounted under the ceiling because CO gas is lighter than air. The ET-69 has a calibration time of 5 minutes, so the first 5 minutes the orange LED will be on. After 5 minutes only the green LED is on. If CO gas is detected, the alarm will sound and the RED LED light will light up.

ET-69 is testing for CO gas at intervals: 1 minute testing (green LED on), 1½ minute resting (green LED flashing)
The ET-69 uses less power in the resting mode therefore the two figures in the power consumption.

When an option unit (ET-67, ET-68, or ET-69) is connected to ET-999, you must switch off the ET-999 before you add the new unit. After connecting the new unit you switch on ET-999 allowing the microprocessor to identify the new unit that has been connected to ET-999.

Warning!

- ET-999 must only be connected to a true 12VDC voltage "direct voltage"
- The option unit(s) (ET-67, ET-68 or ET-69) must always be connected to the ET-999 in the designated sockets of ET-999. If not connected correctly, you will damage not only ET-999 but also the option unit(s).

ET-999

Anaesthetic/gas alarm with voltage guard Instructions & technical manual

ET-999 is designed specially for protection of caravans, auto campers, and boats to detect and warn against an escape of anaesthetic (narcotic) gasses and other known gasses like propane, butane, methane, ethanol, LPG as well as other anaesthetic or combustible gasses. The gas alarm does not react to smoke, CO and CO₂ gas.

CO gas sensor (ET-69) can be added to ET-999

ET-999 is extremely sensitive to above gasses. Also it is very stable and requires only a minimum of maintenance and no calibration.

ET-999 has a built-in voltage guard alarm that activates if the power to ET-999 is cut and warns by voltage disruption.

The voltage guard alarm also activates if the DC voltage is too low or if the voltage of the 9 volt battery is below 7,0 volt.

The gas sensor in ET-999 and ET-68 is a high quality element that is normally used only in professional gas detectors. This gas sensor was chosen to ensure the very best safety and highest reliability with a minimum of service and no calibration.

Advantages:

- ✓ Special gas sensor element against aesthetic (narcotic) and combustible gasses
- ✓ Voltage guard built-in alarm for voltage disruption
- ✓ The gas sensor has a high sensitivity and short response time
- ✓ Good stability and long life time
- ✓ Built-in indicator for backup battery
- ✓ Alarm for power cut
- ✓ Alarm for interruption of contact to ET-68 or ET-69

Instructions:

1. **"Alarm"** - Gas warning RED: Light diode (LED) flashes twice per second, together with "bib- bib" sound warning. If the gas concentration increases, the sound warning changes from "bib- bib" to constant warning sound.
2. **"Fault"** – YELLOW: The light diode (LED) flashes once per second as long as ET-999 is malfunctioning. Switch off and restart ET-999.
3. **"Fault"** – YELLOW: The light diode (LED) lights up when ET-999 is switched on and continues for the first 180 seconds while ET-999 starts up.
4. **"Battery"** – Battery warning: shows the main power for ET-999 has been cut. The light diode (LED) flashes and the alarm sounds once every 10 sec.
5. **"Power"** – GREEN: The light diode (LED) lights up constantly when ET-999 is connected to 12 volt DC main power.

Installation and use:

- 1) Install ET-999 as close as possible to sleeping accommodations or kitchen area.
- 2) Insert a 9 volt battery into the battery box (place the battery as indicated).
- 3) Connect 12 volt DC from a 12 volt DC power source: car battery, 12V accumulator, or other 12V DC converter.
- 4) Switch on the side of the alarm: UP = ON, down = OFF
- 5) When ET-999 is connected to 12volt DC and is switched on, the "Power" light diode lights up and the alarm is in "warming up" mode for 180 seconds. During the first 180 seconds the FAULT diode is on (yellow LED). When the FAULT light diode is out, ET-999 is ready and active.
- 6) If the main power (12V) is cut off, the battery light diode lights up and the voltage guard alarm sounds 'bib' every 10 sec.
- 7) By normal use the battery light diode flashes once per minute showing battery status. If the voltage of the 9 volt battery drops to 7,0 volt, the battery guard alarm sounds (change battery).
- 8) Always install ET-999/ET-68 at the floor (max. 50 cm above the floor) as anaesthetics as well as combustible gasses are heavier than air.
- 9) Do not place the gas alarm where it can be exposed to cooking grease or smoke.
- 10) 12volt DC connection, - (minus) black cable, + (plus) black/white cable.

- 11) Do not use ET-999/ET-68 for measuring corrosive gasses or in areas with corrosive gasses.
- 12) Do not test the gas alarm by high gas concentration.
- 13) Do not place the alarm in areas with high concentration of petrol, pesticides, or paint vapours for an extended period of time.
- 14) Do not expose the gas alarm to caustic or corrosive gasses.
- 15) Do not open ET-999
- 16) Do not forget to keep ET-999 clean and wipe the surface regularly to avoid dust and grease.

Test

Simple test:

ET-999 can be tested with lighter gas (Butane gas).

Hold a gas lighter in front of ET-999 or ET-68 and turn on the gas. If ET-999 sounds alarm, the alarm is OK.

You should do this test at least once a year.

Technical data:

Voltage: 12volt DC -15/+25% (10,5V -15,0V)

Backup battery: 9 volt, Alkaline type 6LR61

Alarm area:

Anaesthetic (narcotic) gasses: 60 ppm

Butane, Propane, LPG gas: 10% LEL (2000ppm)

CO (Carbon Monoxide): 150ppm ±50ppm (only if ET-69 is connected)

Warming up time: 180 seconds

Response time: < 50 seconds

Resumption time: < 30 seconds

Power consumption:

ET-999: typ. 95mA @ 12VDC

ET-999 with ET-68: typ. 170mA @ 12VDC

ET-999 with ET-69: typ. 150/260mA @12VDC

ET-999 with ET-68 and ET-69: 210/330mA @ 12VDC

Low battery alarm (9 Volt battery): 7,0 Volt

Temperature: -10°C ~ +50°C

Humidity: 95 % RH

Pressure: 1 Atm + 10 %

Size: 16,9 x 8,9 x 3,8 cm