



MCR – TRIOGAS – GAS DETECTOR FOR MOTORHOMES



Built and certified according to current regulations:
CONFORMITY 72/245/EEC (2006/28/EC)(2014/35/EU)
(2014/30/EU) EN50194-2:2017 EN50291-2:2019 EN62479:2011
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Technical certification tests carried out by: TOVRheinland
MCR sas Via S. Martino 3 - 20834 - Nova Milanese (MB) tel. 0362/40407

READ THIS MANUAL CAREFULLY AND KEEP IT FOR FUTURE REFERENCE
NB WE RECOMMEND INSTALLATION BY A QUALIFIED TECHNICIAN

GENERAL DESCRIPTION

TRIO - GAS multicontrol is an electronic device designed for use on 12 V recreational vehicles.
It is suitable for detecting the presence of LPG - CARBON MONOXIDE - NARCOTIZING GASES (ether and derivatives) in anomalous concentrations, in any case lower than the danger threshold (LIE), signaling with a visual (LED) and acoustic (BUZZER) alarm.

TRIO-GAS has 3 LEDs, a test button, a switch and an acoustic signal.

GREEN LED = Power on - activated via the on – off switch located on the side of the appliance

YELLOW LED = Circuit fault or anomaly

RED LED = GAS presence alarm - activates simultaneously with the acoustic signal

TEST = Test the functionality of the signaling circuit

The heart of the system consists of a Motorola microprocessor and a latest generation sensor.
Fundamental characteristics of the sensor are low consumption, high sensitivity and speed answer.

The microprocessor carries out an important self-diagnosis function of all the components, also accurately processing the signal coming from the sensor.

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PRODUCER: MCR sas Via S. Martino 3 - 20834 - Nova Milanese (MB)

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GENERAL DESCRIPTION

TRIO-GAS is equipped with an "Open Collector" type output which is activated in an alarm condition.

It can be configured as "Static or Impulsive" via the Jumper located on the board as shown in the drawing.

It is used to operate accessories such as: Manual reset valves. Aerators etc...

The maximum current flow rate is 500 mA which is sufficient to activate a relay that can drive a possible higher load.

TECHNICAL FEATURES

POWER SUPPLY 10 + 16Vdc

ABSORPTION 50 mA.

OPERATING TEMPERATURE from + 5° C to + 50° C

Open Collector type OUTPUT max 500 mA

CASING Self-extinguishing ABS

DIMENSIONS 65 mm x 72 mm x 26 mm

CONNECTION INSTRUCTIONS

F = Services battery negative

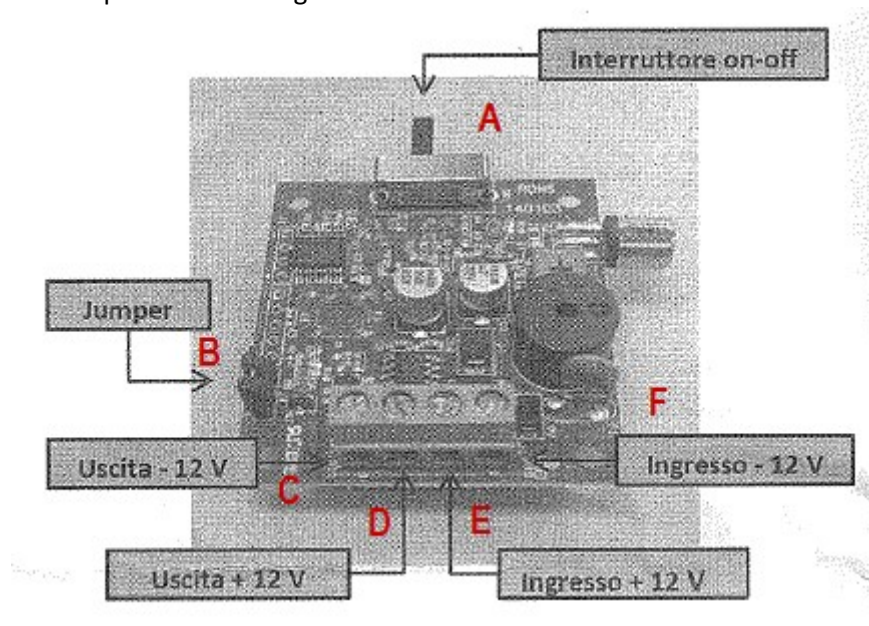
E = Services battery positive

D = Positive for any accessory or relay

C = Negative of any accessory or relay

A = Ignition switch

B = Jumper for alarm output mode setting



CALIBRATION : the calibration of the intervention threshold is carried out in the factory.

If it is necessary to refine it, rotating the TRIMMER on the device counterclockwise will increase the sensitivity while clockwise it will decrease.

NB The control unit is delivered with the jumper for the alarm output in a static position (see photo). **Move the jumper only if installing a gas valve with manual reset.**

To obtain adequate detection of the three types of gas, position the TRIO-GAS approximately 50 cm above the floor. and 1 meter.

If you install the TRIO-GAS at a height between 20 and 50 cm from the floor. you will have greater protection from LPG GAS and NARCOTIC GAS.

If you install the TRIO-GAS at a height between 1.20 and 1.7 meters from the floor you will have greater protection from CARBON MONOXIDE and NARCOTIZING GAS.

OPERATION

The TRIO-GAS must be turned on using the switch only when the vehicle is parked **and not during the journey** , to avoid premature exhaustion of the sensitive element (probe) which has a minimum duration of 5 years under normal conditions of use.

When the TRIO-GAS is turned on, the microprocessor first carries out a self-diagnosis phase to verify the correct functioning of all its components.

The YELLOW and RED LEDs will then flash for approximately 2 minutes, the time necessary for sensor calibration.

Once the flashing phase is over, the TRIO-GAS is perfectly functional, at this point it is advisable to check the operation of the alarm by pressing the TEST button.

NOTE: do not bring lighters or other sources of gas such as perfume sprays, disinfectants etc. near it.

The direct use of sprays containing gas or alcohol on the sensor WILL IRREMEDIATELY DETERIORATE THE SENSOR!

The TRIO - GAS provides continuous monitoring of the air quality level. If there is a malicious introduction of narcotic sprays or the LPG GAS and CARBON MONOXIDE concentration levels exceed the minimum danger threshold, the alarm signal will be activated and the RED LED will light up.

The alarm condition remains until the conditions that caused it are resolved. To reset the alarm early, simply turn off the control unit using the switch.

If the YELLOW LED lights up at the same time as an intermittent acoustic signal, it does not correspond to a gas leak but rather to **a fault in the circuit and probe** (contact a technician).

BEHAVIOR IN THE EVENT OF ALARM

In the event of an alarm, proceed as follows:

turn off all fuel-burning appliances

close the LPG cylinder tap

open doors and windows to ventilate the room

do not turn lights on and off and do not operate appliances



electrically powered
check that no narcotic sprays have been released

If the cause that caused the alarm is due to the presence of LPG GAS or CARBON MONOXIDE, we recommend contacting a qualified technician to resolve the problem.
It is also advisable to contact a doctor if you experience symptoms such as migraines, nausea, etc. which may be due to carbon monoxide poisoning or narcotic substances.

IMPORTANT WARNINGS

To guarantee the correct functioning of the device and avoid premature deterioration of the probes, we recommend:

do not use solvents, alcohol or detergents, to clean the appliance use a damp cloth
the presence of silicone substances, detergent fumes, solvents, insecticides and other sprays can interfere with the functioning of the probes, causing false alarms and altering their sensitivity.

WARRANTY

The TRIO - GAS is guaranteed free from defects in materials and workmanship for 2 years from the date of purchase under normal conditions of use and maintenance.

INFORMATION TO USERS

Pursuant to art. 13 of the legislative decree of 25 July 2005, n° 151
"Implementation of Directives 2002/95/EC, 2002/96/EC and 2003/108/EC,
relating to the reduction of the use of hazardous substances in equipment
electrical and electronic equipment, as well as waste disposal".

The crossed-out wheeled bin symbol indicates that at the end of its useful life the product must be collected separately from other waste in compliance with the legal regulations in force, or returned to the retailer when purchasing a new equivalent product on a one-to-one basis.