The JA-60G Wireless Gas Leak Detector

The JA-60G detects mixtures of air and combustible gases or fumes (Natural Gas, Methane, Propane, Butane).

The mains-powered detector indicates a gas leakage optically, and acoustically, and transmits alarm signals wirelessly via radio protocol of Jablotron 6x systems.

Installation

- Installation shall only be undertaken by technicians holding a certificate issued by an authorized distributor. **Warning:** this device is connected to the mains.
- Fix the detector on the wall. For gases lighter than air (natural gas, city gas etc.) install it close to the ceiling (max. 15 cm under it) or directly on the ceiling and on the place expected to have gas leakage. For gases heavier than air (propane, butane, etc.) install it close to the floor or on the lowest place of the room. The detector should not be located close to any obstacles preventing natural air circulation.
- The detector should not be located close to any obstacles preventing natural air circulation. It should also not be located in a draft or close to a cooker (cooking smells and other fumes can have a bad influence on gas detection)
- Connect the wires, set the detector's features using its DIP switches and close its cover.
- **Before you connect power,** switch the control panel (receiver) to enrollment mode. The detector transmits enrollment signals when its power is connected.

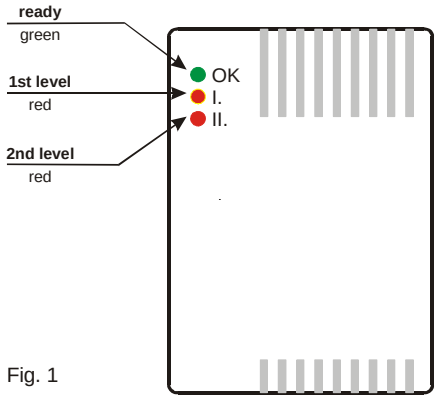

Fig. 1

Power terminals

Route the power cable to the terminals marked 230V AC. The power inlet should be fused with an external fuse (max. 10A). Do not open the detector cover if the power is on.

Output relay terminals

There is a dry relay switch-over contact available (max. 5A/230V AC)

C - common contact
NO - normally open contact
NC - normally closed contact

This relay output could be used for example to shut down the gas inlet if there was a gas leak (by means of a suitable electric gas valve).

Warning: *The mains relay output does not provide mains isolation for safety!*

DIP switches

There are two DIP switches in the detector to set its features:

No.	OFF	ON
1	relay is triggered if the 1st level of gas concentration is exceeded	relay is triggered if the 2nd level of gas concentration is exceeded
2	indication of gas leakage will stop after the concentration drops down	indication of gas leakage will last until the detector power is switched off (memory function)

Function

After switching the power on, the detector transmits its enrollment signal and the green LED flashes for about 90 seconds while the detector warms up. When the green LED lights constantly, the detector is ready for operation.

If the gas concentration reaches the 1st level, short beeps sound and the first red LED lights.

If the gas concentration reaches the 2nd level, long beeps sound and the second red LED lights.

The output relay reacts depending on DIP switch #1's setting.

A fire alarm signal is transmitted wirelessly at the same moment as the detector's relay reacts (depends on DIP switch #1's setting).

The JA-60G detector does not regularly check communication with the control panel (receiver), so the system will not indicate a lost detector during power dropouts.

Warning - If there is a gas alarm, don't operate any switches or electrical devices. Open the windows, and stop the gas leak, if practical. Call the fire department immediately, but do not use a phone inside.

LED indicators		
Green	• **OFF** • **flashes** • **ON**	the gas detector is off warming up ready for a gas alarm
Red I.	• **ON**	1st level of gas concentration
Red II.	• **ON**	2nd level of gas concentration
Red II. Green	• **Alternating flashes**	sensor error

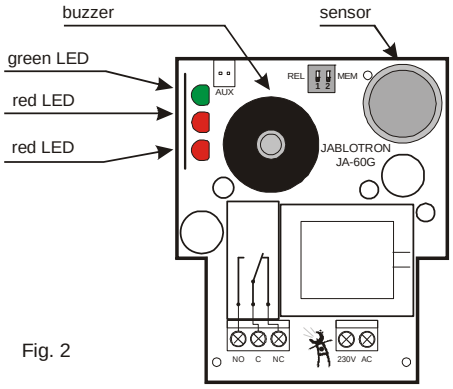

Fig. 2

Maintenance and testing

Keep the detector clean, it is important that its grids should not be blocked with dust.

Use a gas cigarette lighter without the flame lit, to test the gas detector's reaction. The detector will react within 15 seconds.

Professional recalibration of the detector should be done at least every 1 year. Contact your distributor for more details.

Specifications

Sensitivity (gas concentration):

	Methane	*Propane*
Level 1	*10±3% LEL (0.50% vol. conc.)*	*18±3% LEL (0.30% vol. conc.)*
Level 2	*18±3% LEL (0.80% vol. conc.)*	*30±3% LEL (0.50% vol. conc.)*

	Iso-butane
Level 1	*23±3% LEL (0.30% vol. conc.)*
Level 2	*40±3% LEL (0.50% vol. conc.)*

LEL = Lower Explosive Limit (100 %) according to EN 60079-20-1:
*for **methane** 4,4 % vol. conc., for **prophane** 1,7 % vol. conc., for **iso-buthane** 1,3 % vol. conc., calibrated by iso-butane*

Power supply	*230V(-15% to+10) / 50Hz, 2 W, protection class II*
Detection method	*hot platinum filament*
Buzzer sound level	*94dB/0.3m*
Relay output	*optional for 1st or 2nd level, max.230V AC/5A*
Alarm memory	*selectable*
Response time	*10 s*
Warm up time	*approximately 90 s*
Communication band	*433.92 MHz*
Communication range	*approx. 50m (open area)*
Working environment	*indoor use, -10 to +40°C, IP30*
Complies with	*EN 50194-1, EN 60079-29-1, EN 50130-4, EN 55022, EN 60950-1, ETSI EN 300220*

For non-explosive areas. Zone 2 according to EN 60079-10.
Can be operated according to ERC REC 70-03
Certified by VVUÚ, cert. body No. 3076

Complies with the essential requirements of: EMC Directive 1999/5/EC concerning electromagnetic compatibility when used for its intended purpose. The original of the conformity assessment can be found at www.jablotron.com, Technical Support section.

Note: Although this product does not contain any harmful materials we suggest you return the product to the dealer or directly to the manufacturer after use.

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