WL-IOG

General Inputs/Outputs Wireless Transceiver

English

IwD
Israel *wireless* Devices

Installation Instructions

1. INTRODUCTION

The WL-IOG is a two-way wireless transceiver which comprises two general purpose inputs, two general purpose outputs (PGM) and an on-board magnetic sensor (reed-switch).

Each of the two general purpose inputs can be remotely configured as 'Normally-Closed', 'Normally-Open', 'End-of-Line' or 'Double-End-of-Line' input.

The general purpose outputs are designed for controlling apparatuses having dry-contact control inputs. These general purpose outputs can withstand up to 15VDC (OFF state, open loop) and are capable of sinking up to 1A (ON state, close loop).

The device is tamper protected, both front cover tamper and back mounting tamper.

Operating power is obtained from an on-board 3V Lithium battery. The battery voltage is monitored and reported when low battery conditions are detected.

CAUTION! Risk of explosion if battery is replaced by an incorrect type. Dispose used battery according to manufacturer's instructions

2. ENROLLMENT

1. Device Enrollment - associating a (parent) device with a Zone number

Step 1	Step 2	Step 3	Step 4	Step 5
In the control-panel: Log into: **INSTALLER MODE** Scroll and select: **02:ZONES/DEVICES**	Select: **ADD NEW DEVICES**	Press the 'ENRL' button for about 2 seconds, until green & red LEDs turn on When green & red LEDs are on, release the button quickly OR: Enter the device ID	Scroll and select a desired zone number	Proceed to define: **LOCATION** **ZONE TYPE** **SET CHIME** **DEV SETTINGS**

INSTALLER MODE ⇨ ADD NEW DEVICES ⇨ ENROLL NOW or / ENTR ID:XXX-XXXX ⇨ z01:Contact+IOs / ID No. 105-1234 ⇨

02:ZONES/DEVICES

2. PGM Enrollment - associating an output (01/02) with a PGM number

Step 1	Step 2	Step 3	Step 4	Step 5
Under ZONES/DEVICES scroll and select: **ADD PGM OUTPUT** Select: **CONTACT SENSORS**	Find and select the desired parent device: **Z01: Contact+IOs** **ID NO. 105-1234**	Scroll and select the desired pin number (01/02): **PGM PIN #01**	Scroll and select a desired PGM number	Proceed to define: **LOCATION**

ADD PGM OUTPUT ⇨ z01:Contact+IOs / ID No. 105-1234 ⇨ PGM PIN #01 ⇨ P02:PGM on ZONE / ID No. 073-0101 ⇨

CONTACT SENSORS

3. Wired Sensor Enrollment - associating an input (01/02) with a Zone number

Step 1	Step 2	Step 3	Step 4	Step 5
Under ZONES/DEVICES scroll and select: **ADD WIRED SENSOR** Select: **CONTACT SENSORS**	Find and select the desired parent device: **Z01: Contact+IOs** **ID NO. 105-1234**	Scroll and select the desired pin number (01/02): **HW INPUT PIN #01**	Scroll and select a desired zone number	Proceed to define: **LOCATION** **ZONE TYPE** **SET CHIME** **DEV SETTINGS**

ADD WIRED ⇨ z01:Contact+IOs / ID No. 105-1234 ⇨ HW INPUT PIN #01 ⇨ z02:Wired Sensor / ID No. 053-0101 ⇨

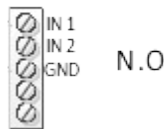CONTACT SENSORS

3. Wiring

1. Inputs Wiring

Each of the two general purpose inputs can be remotely configured as 'Normally-Closed' (N.C), 'Normally-Open' (N.O), 'End-of-Line' (E.O.L) or 'Double-End-of-Line' (D.E.O.L) input

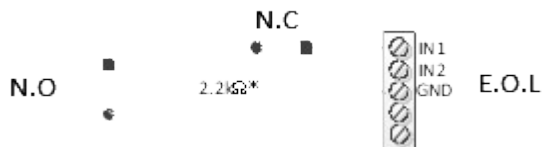Note: the diagrams below show the wiring of IN1 input. Same wiring diagrams apply for IN2 input

If an input is configured as N.C type, series connected N.C sensor contacts must be used exclusively. An alarm message is transmitted once the loop is opened

If an input is configured as N.O type, parallel connected N.O sensor contacts must be used exclusively. An alarm message is transmitted once the loop is closed

If an input is configured as E.O.L type, N.C **OR** N.O sensor contacts can be used, as shown in the figure below. 2.2kΩ* resistor must be wired at the far end of the zone loop. An alarm message is transmitted once the loop is opened or short circuited

If an input is configured as D.E.O.L type, two N.C sensor contacts can be used as shown in the figure below. Two 2.2kΩ* resistors must be wired at the far end of the zone loop. An alarm message is transmitted once the Alarm switch is opened. A Tamper message is transmitted once the loop is opened or short circuited
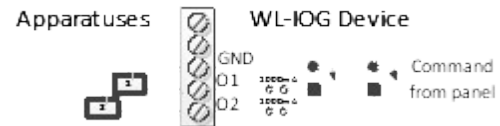

Note (*) - the inputs can be calibrated to work with end-of-line resistors different from 2.2kΩ (any value between 1kΩ and 10kΩ):

1. Make sure the device is enrolled and configured properly
2. Check that all inputs are properly wired and the edge sensors are set to their normal state (N.C sensor is close, N.O sensor is open)
3. Press the 'ENRL' button for about 6 seconds, until green LED turns on. When green LED is on, release the button quickly
4. If inputs are calibrated successfully, the green LED flashes 3 times. Otherwise, red LED flashes (if this happens, go back to step 1 and run the procedure again)
5. Note that whenever the inputs are reconfigured (e.g. setting is changed from N.C to E.O.L), the calibration value goes back to its factory settings (i.e. 2.2kΩ external resistors)

2. Outputs Wiring

The general purpose outputs are designed for controlling apparatuses having dry-contact control inputs

These general purpose outputs can withstand up to 15VDC (OFF state, open loop) and are capable of sinking up to 1A (ON state, close loop)
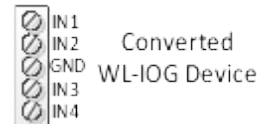

1. Check apparatuses specifications for maximum port voltage and maximum load current
2. Disconnect the battery
3. Connect the apparatus to the device as described in the figure above
4. Fasten the connector screws properly
5. Insert battery

3. Adding Inputs

The WL-IOG has by default two inputs and two outputs. The two outputs can be converted to two additional inputs. After the conversion, the WL-IOG functions as described in the figure below:

To covert a WL-IOG device from 2 inputs and 2 outputs to a 4-input device:

1. Press the 'ENRL' button for about 10 seconds, until red LED turns on. When red LED is on, release the button quickly
2. If the device has been converted successfully to a 4-input device, the red LED flashes 3 times
3. The device is now ready to be enrolled as 4-input device. The converted device is shown in the panel as **'Contact+4in'** and gets an identification prefix of **106**-1234 (instead of **105**-1234)

To convert the device back to 2 inputs and 2 outputs device:
1. Press the 'ENRL' button for about 10 seconds, until red LED turns on. When red LED is on, release the button quickly
2. If the device has been converted back successfully to 2 inputs and 2 outputs device, the green LED flashes 3 times

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SPECIFICATIONS
Communication Protocol: PowerG

Battery: CR123A Lithium battery
    3 years for 2 inputs + 2 outputs configuration (typical use)
    5 years for 4 inputs configuration (typical use)

Reed Switch: detection range of at least 10mm in all directions

Inputs: 1kΩ-10kΩ supervision resistors (field calibrated), up to 100Ω wire resistance
    Up to 1nF wire capacitance (typically 15m for 2-wire 22 AWG cable)

Outputs: Up to 15VDC (OFF state, open loop, ~20uA leakage current)
    Up to 1A (ON state, close loop, ~0.25V terminals dropout)

Operating Temperature: 0-50°C

Dimensions (LxWxD): 81 x 34 x 25 mm (3-3/16 x 1-1/4 x 1 in.)

Weight (including battery): 53g (1.9 oz)

Standards: EN300220-2 V2.4.1;
    EN 301 489-1V1.9.2; EN 301 489-3 V1.6.1;
    EN 60950-1:06+A11:09 + A1:10 + A12:11 +A2:13;