433 Input/Output Module Installation Sheet

IMPORTANT SAFETY INFORMATION. READ ENCLOSED WARNINGS AND SAFETY INFORMATION.

Introduction

The IO module allows you to link a wired application to your wireless security system using two open collector outputs.

The I/O module is only intended for the 2 applications as described in this manual.

The I/O module and its batteries are located inside the tamper protected housing. Opening of this housing is reported to the panel as a tamper condition.

You can program the triggering event for each of the two available outputs, set the time the output is on (in minutes or seconds, or until the user code is entered), and assign user permissions to activate outputs.

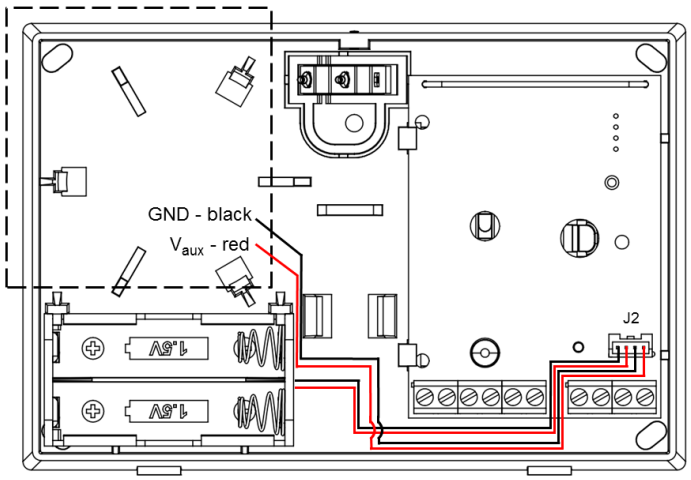
For programming information refer to **Programming** section and security panel manual. IO module outputs can be also triggered by keyfob buttons or from the alarm system's keypad.

Caution: You must be free of static electricity when handling electronic components. Touch a grounded bare metal surface before touching a circuit board or wear a grounded wrist strap.

Mounting

- Mount base with four 3.5 x 25 mm pan head screws
- Use wall anchors as required (only four provided, not to be used with tamper)
- Use 3.5 x 32 mm pan head screw in tamper hole
- Tamper screw to be installed into stud
- Use 2.8 x 9.5 mm flat head screw to hold cover to base

Drill holes as required in sides or back of enclosure for wire access. The drill area is marked by dotted lines below.



Programming

For specific programming information refer to the security panel manual.

Enrolling the Device:

- Place the security panel in enrollment mode.
- Power up the module with the tamper switch (or equivalent) open.
- Wait for module LEDs to blink on, then off.
- Close and reopen tamper switch (or equivalent), all within 5 seconds. Switch should be closed for more than 400 ms to ensure proper tamper state detection.
- After enrollment, refer to the security panel manual to complete the configuration of the I/O module.

Test the device after being enrolled into the panel, and after the sensor and panel has been mounted in a permanent location.

Testing the Device

Signal quality can be discovered during the walk test or by using the UltraSync application. The LED indicators of signal strength are as follows:

GREEN – Excellent
YELLOW – Good
RED – Fair - Poor
OFF – Not Functioning

Wiring Diagrams

Figure 1 shows the I/O module configured as an arm/disarm indicator. See the security panel manual for arming indication programming. Voltage must be applied to the V_{aux} wires for the arming LEDs to operate.

Figure 1

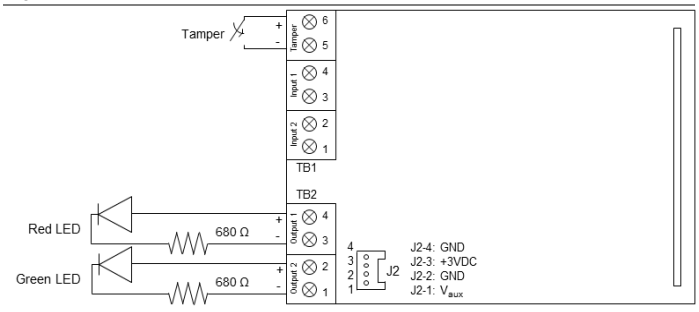
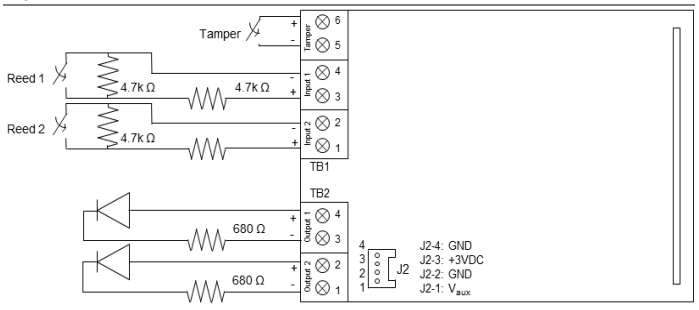


Figure 2 shows the configuration as a general I/O controller.

Figure 2



Wiring Information

Use the following specifications for wiring the input and output terminal blocks:

- Maximum wire length: 30 m
- Stranded wire, Ø0.4-0.8 mm (26-20 AWG), is to be used for all use cases.
- Any end-of-line (EOL) resistors used should be 4.7 kΩ.
- EOL resistors should be wired as shown in Figure 2.
- For the Input/Output use case hermetically sealed external switches (sealed reed switch) that supply a minimum 500 milliseconds open or close on alarm are to be used.

Battery Replacement

⚠ **Caution:** Small parts like batteries and screws present a choking hazard. Keep away from small children. Batteries can explode or cause burns when recharged, incorrectly (dis)assembled, or exposed to fire or high temperatures.

When the system indicates that the sensor battery is low, replace it immediately. Use the recommended replacement batteries (see Specifications) or contact technical support for more information.

To replace batteries, please remove the AA batteries from the battery holder. Only replace the batteries with Duracell™ AA batteries. Do not use a different type of battery. Always use batteries that are from the same batch, and always replace all batteries with fresh ones simultaneously.

Dispose of used batteries according to battery directive instructions and/or as required by local laws.

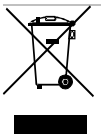
Specifications

Model number	RF-IO100-K4
Frequency	433 MHz
Compatibility	Interlogix 433 MHz security panels/receivers with 80Plus protocol
Battery type	4 x AA size, 1.5V, primary cell, 5600 mAh
Recommended batteries	Duracell 1.5 V AA Alkaline, MN1500
V_{aux}	3 – 15 VDC, Max 3 Amps
Estimated battery life	3 years
Supervisory interval	Less than 20 minutes
Standby current @ 3Vdc	2.5 uA
Maximum current @ 3Vdc	70 mA
Minimum voltage	1.9 VDC
Nominal voltage	3.0 VDC
Maximum voltage	3.3 VDC
Battery low warning	2.1 VDC
Operating temperature	-10°C to 55°C
Storage temperature	-34°C to 60°C
Relative humidity	0 to 93% non-condensing
Dimensions (LxWxD)	159 x 109 x 45 mm
Weight	320 g

Warranty Information

To the extent permitted by law, UTC hereby disclaims all warranties and representations, whether express or implied, statutory or otherwise including (but not limited to) any warranties of merchantability or fitness for a particular purpose with respect to the 433 products and related software. UTC does not warrant that the 433 products and software (i.) will not be hacked, compromised and/or circumvented, or (ii.) will prevent or provide adequate warning or protection from break-ins, burglary, robbery, fire or (iii.) will work properly in all environments and applications. UTC shall not be liable towards you or any third party for any damages whatsoever (including, without limitation, those resulting from lost profits, lost data or other loss of economic advantage) arising out of the use, inability to use, or the results of use of or in any way linked to the 433 Products and Software, whether based on warranty, contract or tort. In no event shall UTC be liable towards you or any third party for any amount in excess of the amount actually received by UTC for the 433 Product and/or Software.

Regulatory Information

Manufacturer	UTC Climate, Controls & Security 1275 Red Fox Rd., Arden Hills, MN 55112-6943 USA
Authorized EU manufacturing representative	UTC Fire & Security B.V. Kelvinstraat 7, 6003 DH Weert, Netherlands
Means of conformity CE	We declare under our sole responsibility that this product is in conformity with Directive 93/68/EEC (Marking), 2011/65EU and 2014/53/EU (R&TTE) which covers 2014/30/EU (EMC) and 2014/35/EU (LVD) and complies to the essential requirements and all other relevant provisions of the Directive based on test results using (non)harmonized standards in accordance with the Directives mentioned.
	2002/96/EC (WEEE directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: www.utcfssecurityproducts.eu/recycle/

Contact Information

For contact information, visit us online at www.interlogix.com.
For technical support, see www.interlogix.com/support.

Copyright

Trademarks

Interlogix is a registered trademark of United Technologies Corporation. Interlogix is part of UTC Climate, Controls & Security, a unit of United Technologies Corporation.