

# Agility™ Wireless I/O & X10 Expander



## Introduction

RISCO Group's 2-Way Wireless I/O & X10 Module is an extension module enabling wired devices to be connected to the Agility Wireless system.

The Wireless I/O Module supports 4 hardwired zones, 4 outputs and controls up to 16 X10 devices.

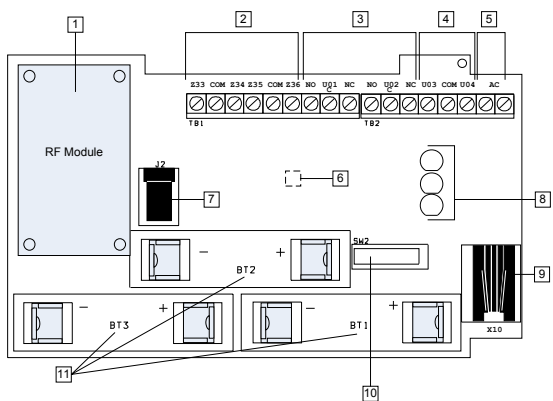
Each output or X10 device can be operated in a response to a wide variety of system events. For detailed information regarding the programming options of the Wireless I/O Module refer to the installation manuals of the Agility.

## Main Features

- ⊗ Bi-directional wireless communication
- ⊗ 2 Relay Outputs (3Amp)
- ⊗ 2 Transistor Outputs (500 mA)
- ⊗ 4 Inputs (NO, NC, EOL)
- ⊗ Fully supervised
- ⊗ Dual tamper protection (Box & Wall)
- ⊗ X10 adapter, up to 16 X10 devices




## Wireless I/O Module - Main Components

1. RF Module
2. Input Terminals
3. Relay Output Terminals
4. Transistor Output terminals
5. AC Power terminals  
(parallel connection to J2)
6. Back/Wall tamper (not visible)
7. J2 Power socket
8. 3 LED indication
9. RJ11 connector (X10 connection)
10. Box tamper switch
11. Battery holders



**Figure 1: Wireless I/O Module Main Components**

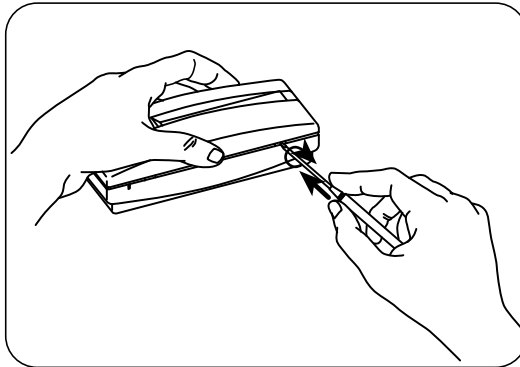
## LED Indications

LED		State	Description
 (Red)	Power	On	AC and batteries OK
		Flashing	AC trouble or Low battery (below 3.1 VDC)
		Off	Power not present
 (Yellow)	X10	On	X10 Connected to the Wireless I/O Module
		Off	X10 Disconnected
 (Green)	Communication	On	The I/O expander is communicating with the Agility
		Off	No communication is taking place

## Mounting the Wireless I/O Module

Select a mounting location near an AC power supply in proximity to the Agility main panel

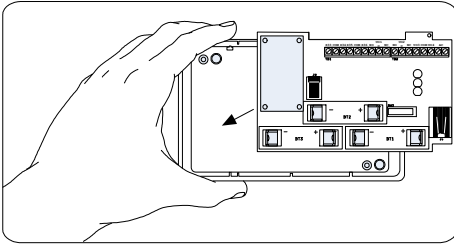
1. Open the cover by twisting a screwdriver in the slots on the bottom or top of the case (Figure 2).



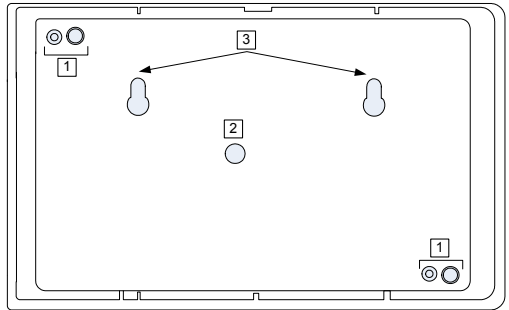
**Figure 2: Opening the Cover**

2. Remove the circuit board (Figure 3) and open knockouts for the entry of the power wires (1, Figure 4) and for the back tamper (2, Figure 4).

3. Mount the receiver on the wall using the installation holes (3, Figure 4) and reinstall the circuit board. Make sure that that you hear a "click" when attaching the tamper spring to the wall.



**Figure 3: Circuit Board Removal**



**Figure 4: Knockouts and Installation Holes**

4. Connect the power source wire plug to the J2 power jack on the PCB or to the AC terminals on the PCB. The polarity is not important. *Do Not* plug the transformer into the wall outlet at this point.
5. Optional back-up batteries: Plug in three rechargeable batteries (size AA NiMH 2300 mAh) into the battery holders. Pay attention to the correct polarity (+) (-).



**NOTE:**

Rechargeable batteries should be charged for at least 24 hours.



**IMPORTANT:**

When replacing the batteries be sure to use the same type. Failure to comply with this instruction may result in damage to personnel and/or equipment. Dispose of used batteries according to local regulations.

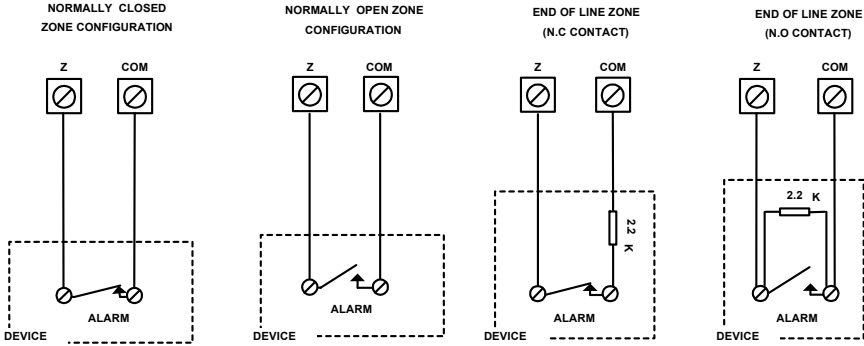
6. Set all inputs and output wiring, as described below.

## Wiring the Wireless I/O module

### Inputs wiring

The **Agility** supports 4 hardwire zones (defined in the Agility system as zones 33-36) that can be defined as Normally Open, Normally Closed or End of Line Zones.

The following diagram illustrates the various zone connections:



### Utility Outputs wiring

The **Agility** includes 4 utility outputs (2 x 24VDC 3Amp relays and 2 x 13.8 VDC 500 mA transistor outputs). These outputs can operate external devices in response to a number of system activities. For detailed information regarding the programming of the utility outputs refer to the Agility Installer Guide.

### To wire Relay Outputs (UO1, UO2)

Wire the devices that you want to activate to the outputs, as follows:

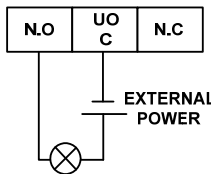


**NOTE:**

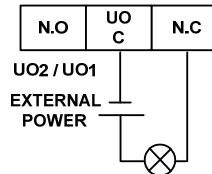
UO1 and UO2 connections are identical.

NC: Normally closed contact  
C: Common contact  
NO: Normally open contact

#### NORMALLY OPEN OUTPUT CONFIGURATION



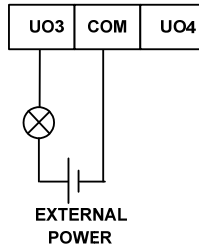
#### NORMALLY CLOSED OUTPUT CONFIGURATION



*UO1/UO2 behave as dry contacts*

## To wire Transistor Outputs (UO3-UO4)

Connect the device between the positive connection of the external power and the **UO3** or **UO4 (+)**. Connect the negative connection of the external power to the **COM (-)** terminal.



## X10 Connection

The wireless I/O expander enables the Agility to control X10 devices. The I/O expander converts the information sent from the programmable utility output into the X10 protocol. Up to sixteen X10 devices can be activated. These are recognized in the system as outputs 5 to 20.

### To connect the X10

Connect the X10 controller cable to the RJ11 connector located on the Wireless I/O module PCB.

## Transmitter/Receiver Communication Setup

To set up the communication with the receiver, the I/O expander should identify itself to the system's receiver in the same way as setting communication to a wireless zone.



### **IMPORTANT:**

Before proceeding with the steps below, plug the AC transformer into the wall outlet.

1. Set the security panel to Learn mode.
2. Send a WRITE message within 15 seconds after I/O expander power up, by pressing the Wall and Cover tampers switches simultaneously for at least 3 seconds (when the PCB IS installed ONLY the cover tamper has to be pressed).
3. Verify that the I/O expander has been identified by the security panel.
4. Install the Wireless I/O Module front cover back in its place. Lock screw located at the top of the unit.

## Programming

### Changing Default Settings

Via the Agility panel you can define the Inputs, Outputs and X10 parameters settings according to your requirements.

For more information refer to the Agility Installer Manual.

## Diagnostics

You can perform diagnostic tests and check the status of the Inputs, Outputs connected to the Wireless I/O Module and the communication between the module and the Agility. The diagnostics can be performed locally from a keypad or remotely from the Configuration Software.

## Technical Specifications

Electrical Characteristics	
<b>Power Supply</b>	14.4VDC/0.5A minimum or 9VAC/0.5A minimum
<b>Current Consumption</b>	0.35A maximum
<b>Backup Batteries</b>	3 x size AA NiMH cylindrical cell 1.2V 2300 mAH
<b>Relay Outputs</b>	2 x 3 Amps 24 VDC programmable
<b>Transistor Outputs</b>	2 x 500mA transistors (Open Collector)
<b>Operating Temperature</b>	-10°C to 40°C (32°F to 131°F)
<b>Storage Temperature</b>	-20°C to 60°C (-4°F to 140°F)
Physical Characteristics	
<b>Dimension</b>	14.5 cm x 9.0 cm x 4.0 cm (5.7 x 3.54 x 1.57 inch)
<b>Weight (with batteries)</b>	0.24 Kg (0.52lb)
Wireless Characteristics	
<b>RF immunity</b>	According to EN 50130-4
<b>Frequency</b>	868.65 MHz or 433.92 MHz
Compliance	
	EN50131-1, EN50131-3 Grade 2
	EN50130-5 Environmental class II
	EN50131-6 Type A

## Ordering Information

Model	Description
Agility 132IO	2-Way Wireless I/O & X10 Module, 868.65/433.92 MHz



**CAUTION:** Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to local regulations.

## **FCC Note**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- a) Reorient or relocate the receiving antenna.
- b) Increase the separation between the equipment and receiver.
- c) Connect the equipment to an outlet on a circuit different from that to which the Receiver is connected.
- d) Consult the dealer or an experienced radio/TV technician.

FCC ID: JE4AGILITY

IC: 6564A-AGILITY

## **FCC Warning**

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

## **RISCO Group Limited Warranty**

RISCO Group and its subsidiaries and affiliates ("Seller") warrants its products to be free from defects in materials and workmanship under normal use for 24 months from the date of production. Because Seller does not install or connect the product and because the product may be used in conjunction with products not manufactured by the Seller, Seller can not guarantee the performance of the security system which uses this product. Sellers' obligation and liability under this warranty is expressly limited to repairing and replacing, at Sellers option, within a reasonable time after the date of delivery, any product not meeting the specifications. Seller makes no other warranty, expressed or implied, and makes no warranty of merchantability or of fitness for any particular purpose. In no case shall seller be liable for any consequential or incidental damages for breach of this or any other warranty, expressed or implied, or upon any other basis of liability whatsoever. Sellers obligation under this warranty shall not include any transportation charges or costs of installation or any liability for direct, indirect, or not be compromised or circumvented; that the product will prevent any persons; injury or property loss by intruder, robbery, fire or otherwise; or that the product will in all cases provide adequate warning or protection. Buyer understands that a properly installed and maintained alarm may only reduce the risk of intruder, robbery or fire without warning, but is not insurance or a guaranty that such will not occur or that there will be no personal injury or property loss as a result. Consequently seller shall have no liability for any personal injury, property damage or loss based on a claim that the product fails to give warning. However, if seller is held liable, whether directly or indirectly, for any loss or damage arising from under this limited warranty or otherwise, regardless of cause or origin, sellers maximum liability shall not exceed the purchase price of the product, which shall be complete and exclusive remedy against seller. No employee or representative of Seller is authorized to change this warranty in any way or grant any other warranty.

WARNING: This product should be tested at least once a week.

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## **RTTE Compliance Statement**

Hereby, RISCO Group declares that this equipment is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. For the CE Declaration of Conformity please refer to our website: [www.riscogroup.com](http://www.riscogroup.com).

## **Contacting RISCO Group**

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