

### 3 | Check LEDs

After you have installed the batteries the LED will begin to blink. This indicates that the Node is attempting to establish a network connection. The LED will cease blinking when a connection is made.

Status LED		
Data	Solid ON	Module startup initialization, approx. 10 sec.
	Slow Blink (1 per sec.)	Attempting to establish connection with SmartMesh IP network.
	Fast Blink (10 per sec.)	Firmware Update in progress.
	OFF	Unit is connected to wireless network.

### 4 | Install the Wzzard App on your Handheld Device

Install the Wzzard app on your Android handheld device. Your handheld device must be compatible with Bluetooth LE 4.0. The Wzzard app can be downloaded from the Google Playstore.

Search store for “**Wzzard Sensor Application.**”

1. Open the Wzzard App.
2. Press the “Configuration’ button on the Node to wake up Bluetooth.
3. Select the device you would like to view from the list. Note that the list may take a few moments to populate. (This screen lets the user view Bluetooth advertisements from the Nodes.)
4. Press the “Configure Device” button.
5. Pair with the device. Defaults are admin/admin.

6. Press the “Radio Setup’ button to set the Network ID and Network Join Key. (These must be the same values that you enter in the corresponding network gateway.)
7. Press the ‘Save’ button to save the new settings.

### Wiring for Units with Conduit Connectors and Attached Wiring Harness

MODEL	1 Brown	2 Red	3 Pink	4 Yellow	5 Green	6 Blue	7 White	8 Gray
WSD2CTJ	3.3V					DO2	GND	GND
WSD1CTJ	3.3V					DO2	GND	GND
WSD2CTK	3.3V					DO2	GND	GND
WSD1CTK	3.3V					DO2	GND	GND
WSD2CA2	3.3V	AIN1	GND	AIN2	GND	DO2	3.3REF	GND
WSD2CJA	3.3V	AIN1	GND	AIN2	GND	DO2	3.3REF	GND
WSD1CA2	3.3V	AIN1	GND	AIN2	GND	DO2	3.3REF	GND
WSD2CD2	3.3V	DIN1	DIN2	D01	D02	GND	GND	GND
WSD1CD2	3.3V	DIN1	DIN2	D01	D02	GND	GND	GND
WSD2CA3	3.3V	AIN1	GND	AIN2	GND	AIN3	GND	GND
WSD1CA3	3.3V	AIN1	GND	AIN2	GND	AIN3	GND	GND

### Wiring for Units with M12 Connectors and B+B M12 Accessory Cable

MODEL	1 White	2 Brown	3 Green	4 Yellow	5 Gray	6 Pink	7 Blue	8 Red
WSD2MA2	3.3V	AIN1	GND	AIN2	GND	DO2	3.3REF	GND
WSD1MA2	3.3V	AIN1	GND	AIN2	GND	DO2	3.3REF	GND
WSD2MD2	3.3V	DIN1	DIN2	D01	D02	GND	GND	GND
WSD1MD2	3.3V	DIN1	DIN2	D01	D02	GND	GND	GND
WSD2MA3	3.3V	AIN1	GND	AIN2	GND	AIN3	GND	GND
WSD1MA3	3.3V	AIN1	GND	AIN2	GND	AIN3	GND	GND

### Wiring Chart Abbreviations

3.3V = 3.3V Power Input  
3.3REF= 3.3V Output Reference  
AIN1= Analog Input #1  
AIN2= Analog Input #2  
AIN3= Analog Input #3  
DIN1= Digital Input #1  
DIN2= Digital Input #2  
D01= Digital Output #1  
D02= Digital Output #2  
GND= Ground Input

### 5 | Configure the Node

Refer to the Intelligent Edge Nodes User Manual for further details and the Wzzard Bluetooth Application Configuration Manual for detailed configuration instructions.

### 6 | Mount the Node

#### Flange Mounting

Wzzard nodes may be mounted via their mounting ears. (M5, #10)

#### Magnetic Mounting

Wzzard nodes contain a powerful, internal mounting magnet. (Pull force 4.7 lbs, 2.13 kg) The magnet is in the base of the Wzzard node.

Apply the anti-skid disk to the bottom of the unit for extra grip.

## Product Overview



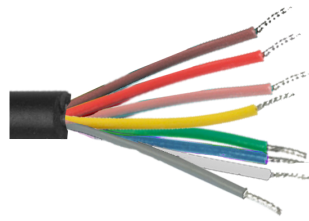
## 1 | Connect your Sensor

Remove the (4) black screws that hold the top of the node in place. Connect your sensor.

It is best practice that wiring is done prior to installing batteries or powering up the device.

### Conduit Models: Analog and Digital

Thread the included wire harness through the conduit and into the node. Plug it into the circuit board inside the node.



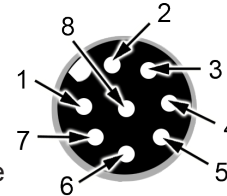
- 1 Brown
- 2 Red
- 3 Pink
- 4 Yellow
- 5 Green
- 6 Blue
- 7 White
- 8 Gray

Connect your sensor to the wires running from the node's conduit. Consult the chart on the other side of this page for wiring instructions.

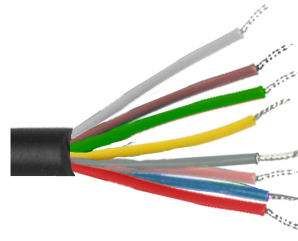
### M12 Models: Analog and Digital with Accessory Cable

You can use your own M12 cable or order B+B SmartWorx accessory #WSCAM12-6.

Consult the chart on the other side of this page for wiring instructions.



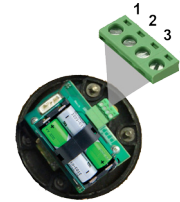
### M12 Accessory Cable Detail (from B+B SmartWorx)



- 1 White
- 2 Brown
- 3 Green
- 4 Yellow
- 5 Gray
- 6 Pink
- 7 Blue
- 8 Red

### Terminal Block Connections: Thermocouple

Thread the thermocouple wires through the conduit and attach them to the terminal block.



- 1 = Thermocouple input #1 positive (+)
- 2 = Thermocouple input #1 negative (-)
- 3 = Thermocouple input #2 positive (+)
- 4 = Thermocouple input #2 negative (-)

## 2 | Install your Batteries

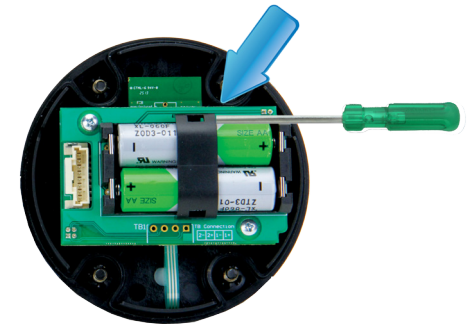
Use (2) 3.6V 2400 mAH Lithium Thionyl Chloride AA batteries.

In most installations, you will only need to place the batteries in the battery holder.

But, in high vibration environments, you should also use the optional battery retaining clip.

**TIP:** Do not use excessive force while placing or removing the clip, as you can break it.

The best way to remove the clip is to insert a small flathead screwdriver between the batteries and the clip, parallel to the batteries, and give the screwdriver a gentle twist. This will remove the clip without damage.



Replace the cover. Tighten the (4) top screws to maintain IP67 rating. Torque each screw to 5 to 8 in-lb ( 0.6 to 0.9 Nm). This is equivalent to 1/4 to 1/2 turn after screw makes contact.

Information – UL Class 1 Division 2

Wzzard Intelligent Edge Nodes

- 1. SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C AND D HAZARDOUS LOCATIONS, OR NONHAZARDOUS LOCATIONS ONLY.
- 2. **WARNING - EXPLOSION HAZARD** SUBSTITUTION OF ANY COMPONENT MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2.
- 3. **WARNING - EXPLOSION HAZARD** DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS.
- 4. The unit is to be connected to a Class 2 power source via the terminal block.
- 5. Field wiring conductor minimum insulation rating - 80°C.
- 6. Use Copper Conductors Only or equivalent.
- 7. See Instruction Manual for additional information.

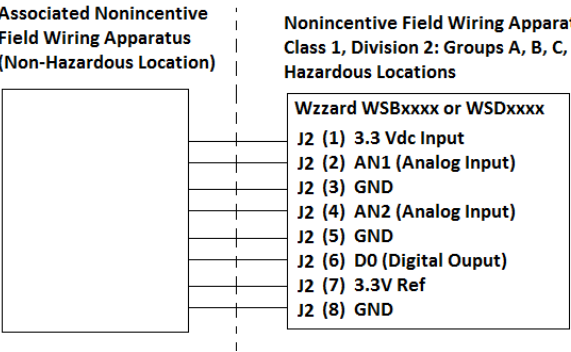
Batteries

- 1. **WARNING:** Risk of Fire and Burns. Do Not Recharge, Open, Crush, Heat Above 100°C, or Incinerate the Batteries.
- 2. Batteries are not user replaceable, only a qualified technician should replace the batteries.

Nonincendive Field Wiring Apparatus Control Drawing  
(Document # 260-10194-00)

The following are UL limitations for the application of customer I/O wiring to the indicated B+B products. These limitations involve the maximum inductance, capacitance and resistance that may be connected to I/O lines, current and power maximums that can be drawn from the I/O lines, and the maximum output voltage from the I/O lines.

Customer I/O wiring is on the left; the B+B product is on the right in the drawing below:

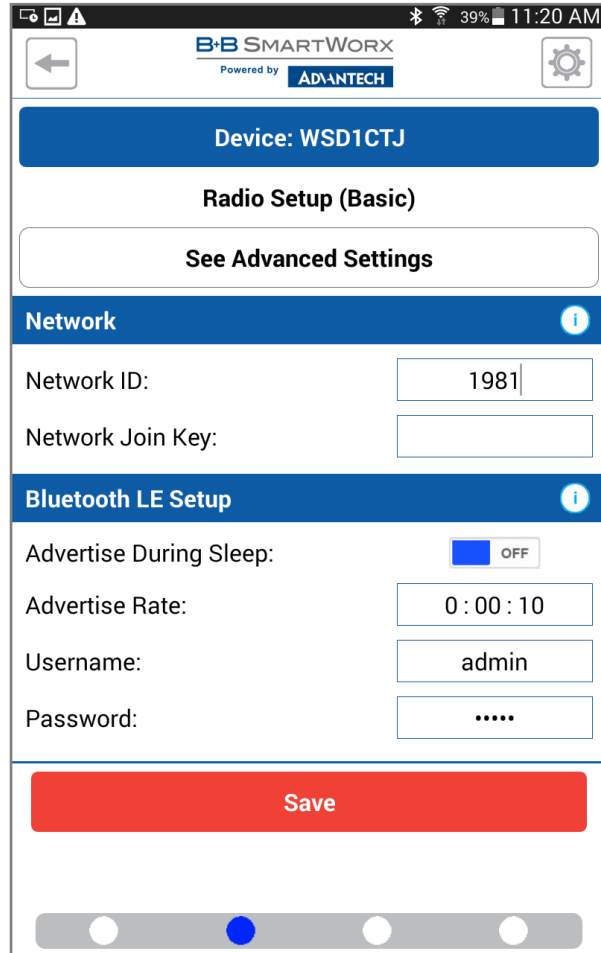


## 7 | Resetting the Node

When you press and hold the “Configuration” button on the Node for more than 5 seconds, it will:

- Restore the BLE login and password.
- Restart the device.

It will not reset the device back to factory settings.



## 8 | Radio Equipment Directive (RED) Statement

Hereby, B+B SmartWorx, Inc. declares that the radio equipment type “Wzzard Wireless Mesh” is in compliance with Directive 2014/53/EU.

The full text of the EU Declaration of Conformity is available at the following internet address:  
[www.advantech-bb.com](http://www.advantech-bb.com)



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## + QUICK START GUIDE



**Wzzard™**

Intelligent Edge Node  
with SmartMesh IP and Bluetooth LE

**Before you begin, be sure you have the following:**

- + Wzzard Intelligent Edge Node
- + Wire Harness
- + 2 Lithium Thionyl Chloride AA Batteries
- + External Antenna (some models)
- + Anti-skid Disk

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