



# UPS-SNMP-EMP

Environmental Monitoring Sensor

User & Installation Manual

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## Introduction



**UPS-SNMP-EMP**

UPS-SNMP-EMP can detect variation in temperature, humidity and presence of water. It can also be used with the following add-on devices:

1. Wireless Smoke sensor
2. Wireless Gas sensor
3. Wireless Door/Window sensor
4. Wireless Glass-Break sensor
5. Wireless InfraRed Beam detector
6. Wireless PIR sensor

When an event occurs, UPS-SNMP-EMP alarm will buzz. It can also be configured to simultaneously send an email thru UPS-SNMP. When connected to UPS-SNMP, it can then provide environment status feedback (temperature, humidity and water presence) via the internet using a standard browser.

## Features

1. Able to measure variations in temperature, humidity and presence of water.
2. Built-in radio frequency ("RF") receiver.
3. Support up to 7 individually ID'd wireless Door / Window sensor to detect unauthorized access.
4. Support Wireless Smoke or Gas sensor to trigger alarm and send notification. Only one ID is available per type. More than one unit can share the same ID.
5. Support Glass sensor.
6. Support InfraRed Beam detector.
7. Support Passive InfraRed ("PIR") for motion detection.

## Specifications

| Humidity Specification |  |
|------------------------|--|
| Detection Range        | 0 to 100% Relative Humidity non-condensing |
| Accuracy               | ±3.0% Relative Humidity                    |
| Response Time          | 10 Sec.                                    |
| Temperature Range      | -40°C to +75°C (-40°C to +75°C)            |

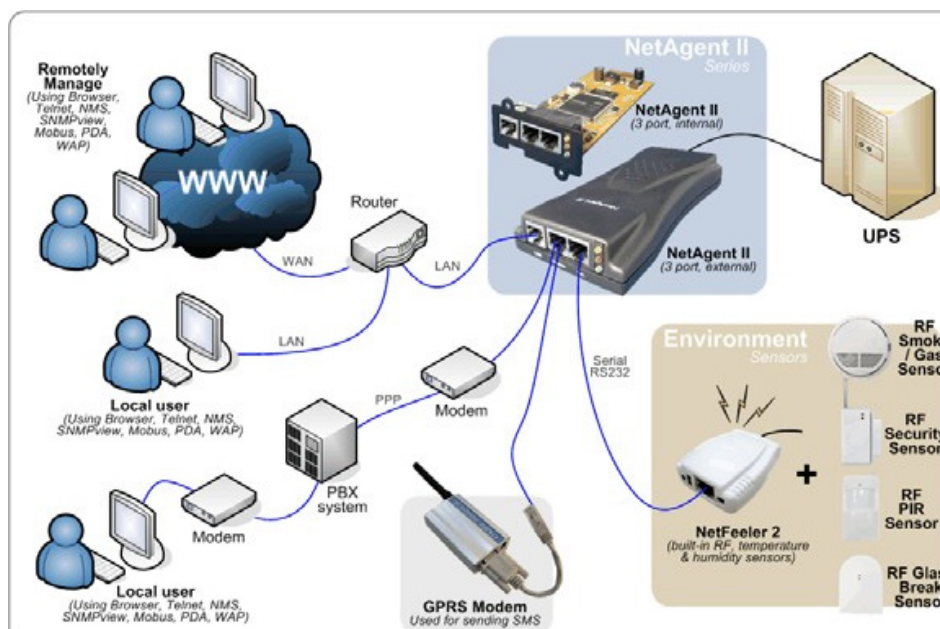
| Temperature Specification |                |
|---------------------------|----------------|
| Detection Range           | -40°C to +70°C |
| Accuracy                  | ±3°C           |
| Response Time             | 10 Sec.        |

| RF Specification |                          |
|------------------|--------------------------|
| Detection Range  | 6~10 meter visible range |
| Frequency        | 315MHZ                   |
| Sensitivity      | -105dB                   |

## Applications

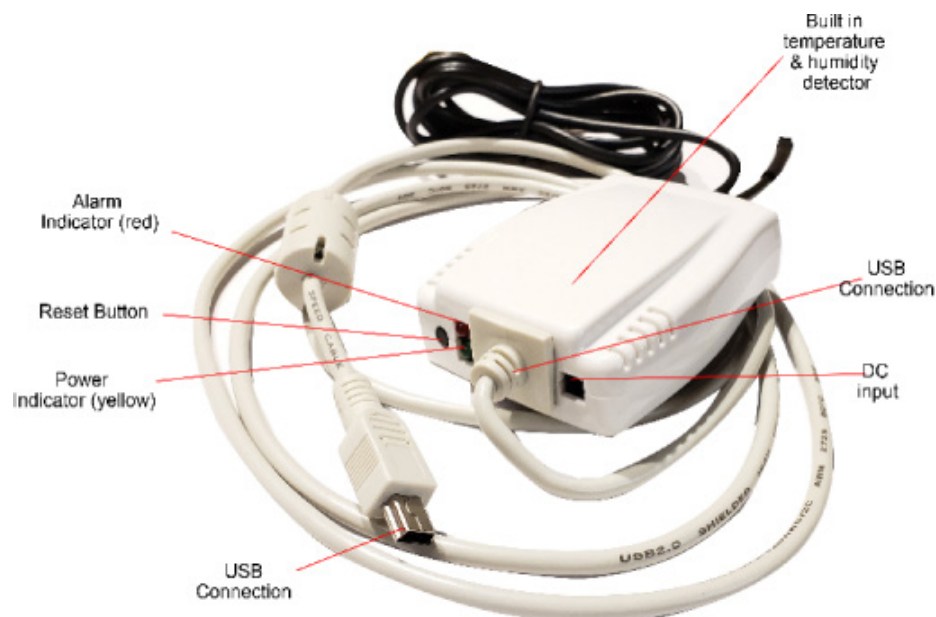
### Connect to UPS-SNMP

1. Monitor environment data via a standard web browser
2. Send Email when an event occurs
3. Powered either directly from UPS-SNMP
- 4.



Connect to UPS-SNMP

## Settings

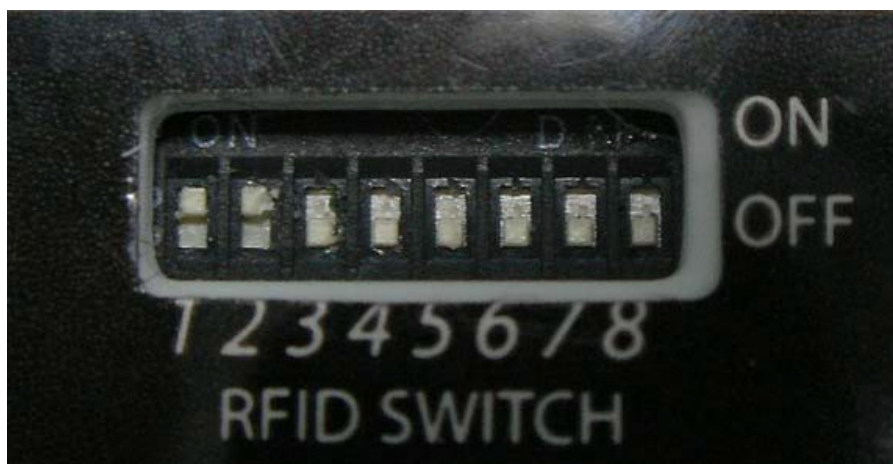


| Description  |   |
|--------------|---|
| Red LED      | Power   |
| Yellow LED   | Alarm Indicator                                     |
| Reset button | To turn off alarm                                   |
| RS232 port   | To connect to UPS-SNMP                              |
| RFID Switch  | Used for pairing UPS-SNMP-EMP with wireless devices |

### How to Set RFID

1. Set RFID switch 1 and 2: "on"
2. Set RFID switch 3 to 8: "off"

Once set, the combinations will be used to pair other wireless device to UPS-SNMP-EMP.



UPS-SNMP-EMP RFID Switch

UPS-SNMP-EMP has 9 different slots to identifying wireless device. Each is allocated a default binary or DIP equivalent settings. Only the binary reference for smoke and gas sensors are fixed. The binary reference from 1 to 7 are interchangeable.

**Where:**

“1” or “+” = short pins **H** and **N**

“0” or “-” = short pins **L** and **N**

| Default Sensor Type | Binary | Web Reference |
|---------------------|--------|---------------|
| Smoke               | 1010   | Smoke (fixed) |
| Gas                 | 0010   | Gas (fixed)   |
|                     | 1110   | 1             |
|                     | 1101   | 2             |
|                     | 1100   | 3             |
| Door / Window       | 1011   | 4             |
|                     | 1010   | 5             |
| PIR                 | 1001   | 6             |
|                     | 1000   | 7             |
| Glass               | 0101   |               |
| Beam                | 0011   |               |

### ***How to Set Wireless Smoke/Gas Sensor***

The smoke sensor is designed to detect smoke. It will produce a loud continuous buzz when is detected.

Gas sensor can detect presence of coal gas, natural gas and liquefied petroleum gas. When a leakage is detected, the gas sensor will buzz.

An external 9~12V power input is required for gas sensor.

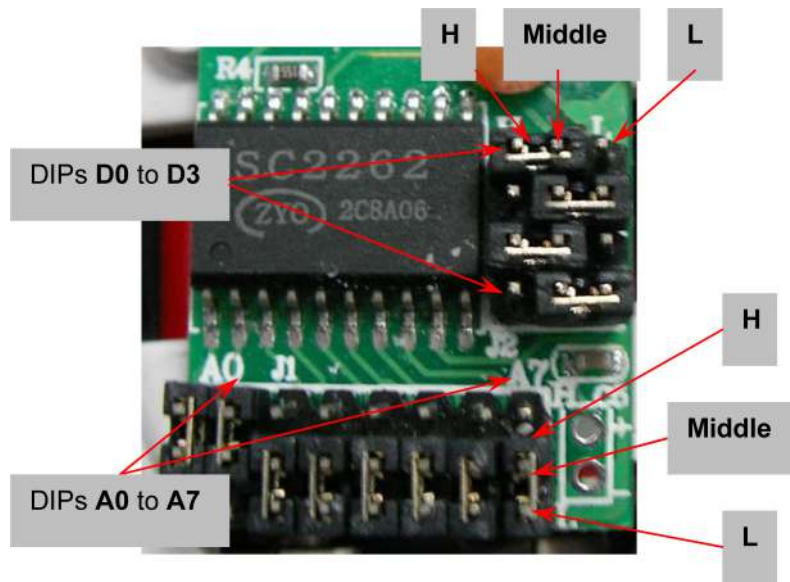


**To setup:**

1. Open the cover (top part) of Wireless Smoke/Gas sensor to reveal two sets of DIP switches.
2. The bottom (longer) DIP switch show pins A0 to A7. This set of DIP is used to pair the wireless sensor with UPS-SNMP-EMP.

**Set these DIP as follows:**

1. DIP A0 to A1: set to **"on"**  
Connect pins from row **H** with middle pin using a jumper (see illustration below).
2. DIP A2 to A7: set to: **"off"**  
Connect pins from row **L** with middle pin using a jumper.

**Wireless Smoke Sensor DIP Switch**

3. The second set of DIP switch show 4 sets of pins. This set allow UPS-SNMP-EMP to identify the type of sensor.

| Sensor Type | DIP settings |
|-------------|--------------|
| Gas         | 0010         |
| Smoke       | 1010         |

**Wireless Smoke /Gas Sensor default Code*****How to Set Wireless Door/Window Sensor***

Use the Wireless Door / Window sensor to secure the front door, balcony entrance or window. When there is an intrusion, the sensor will signal UPS-SNMP-EMP to sound an alarm.

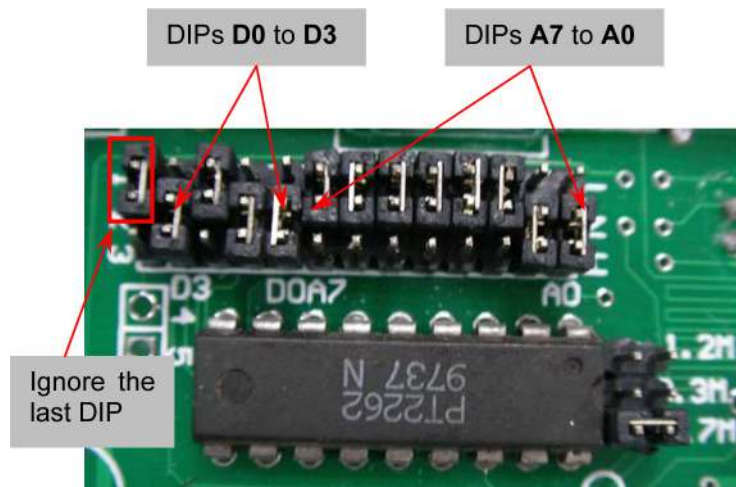


**To setup:**

Open the Door / Window sensor casing (use a flat head screwdriver and pry it open from the bottom). Inside will be one long row of DIP switches.

Set these DIP as follows:

1. DIP A0 to A1: set to "on"  
Connect pins from row H and row N using a jumper (see illustration below).
2. DIP A2 to A7: set to: "off"  
Connect pins from row L and row N using a jumper.



Wireless Door / Window sensor DIP Switch

| Sensor Type   | DIP settings |
|---------------|--------------|
| Door / Window | 1011         |

Wireless Door / Window sensor (D0 to D3)

### ***How to Set Wireless Glass-break Sensor***

The wireless glass-break sensor is used to protect against unauthorized access by breaking glass window / door. Install the sensor on the wall or ceiling next to the glass window / door. If the glass is broken, UPS-SNMP-EMP will sound an alarm.

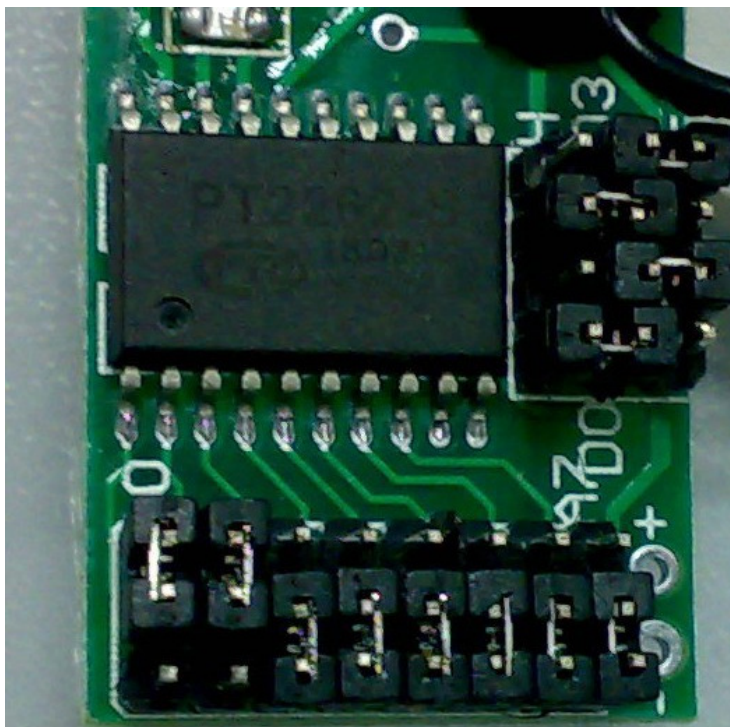
**Note:** An external 9~12V power input is required.





**To setup:**

1. Press down on the lever located top-back side of the unit to open the case.
2. Carefully flip over the smaller DIP switch PCB.
3. Set DIPs A0 to A7 the same as the wireless smoke / gas sensor in the section above.



Wireless glass sensor DIP switch

| Sensor Type | DIP settings |
|-------------|--------------|
| Glass       | 0101         |

Wireless glass sensor DIP setting

***How to Set InfraRed Beam Detector***

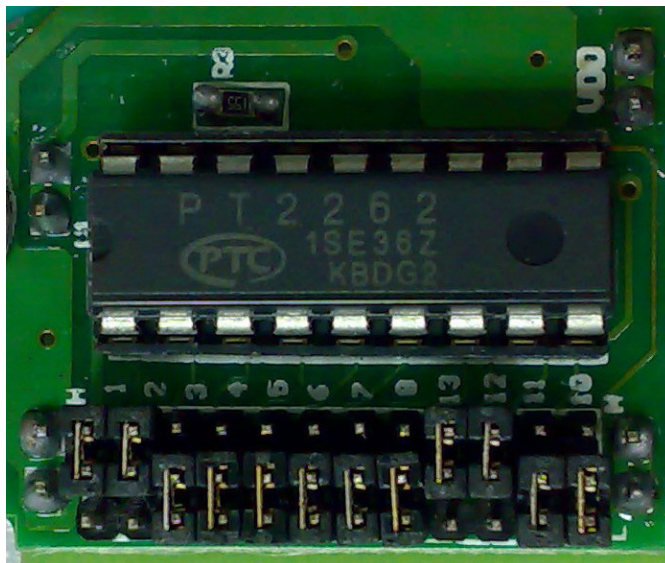
InfraRed Beam Detector can be installed on a fence, door, window, access way, corridor, balcony or where access detection is required. If the InfraRed Beam is interrupted, the detector will sound an alarm and send a signal to UPS-SNMP-EMP.

**Note:** An external 9~12V power input is required.



**To setup:**

1. Hold both caps (black) on the InfraRed Beam detector and pull in opposite direction to reveal the DIP switch.
2. Locate DIPs number 1 to 8 and set to “+ + - - - - -”
3. The next set of DIP switch on the right is labeled in reverse from 13 to 10. Set these from RIGHT to LEFT “- - + +”



**InfraRed Beam detector DIP Switch**

| Sensor Type            | DIP settings |
|------------------------|--------------|
| InfraRed Beam detector | 0011         |

**InfraRed Beam detector default Code(Right DIP Switch)**

### ***How to Set PIR Sensor***

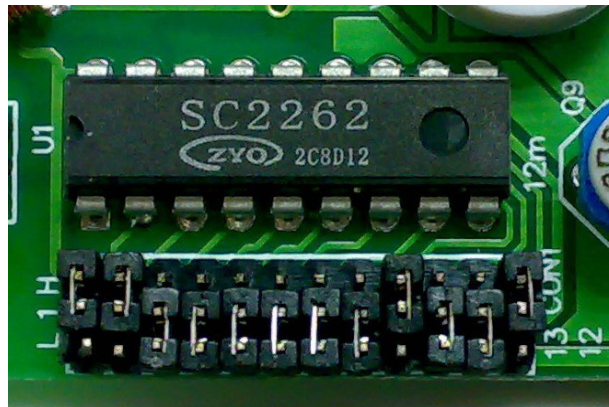
Passive Infrared (“PIR”) sensor is usually used for motion detection over an area. It is triggered by sudden changes in temperature over the detection range.

PIR sensor is normally installed in important rooms, on walls, ceiling or passageway. PIR will be triggered when there is an unauthorized access and a signal will be sent to UPS-SNMP-EMP.



**To setup the device:**

1. Open the cover by removing the screw located at the bottom of the unit.
2. Set the first 8 DIP switches (from LEFT to RIGHT) “+ + - - - - -”
3. Set the next for DIPs 13 to 10 (from RIGHT to LEFT) “+ - - +”



PIR DIP switch

| Sensor Type | DIP settings |
|-------------|--------------|
| PIR         | 1001         |

Fig. 12 PIR code (from RIGHT to LEFT DIP Switch)