Water Sensor Valve Instructions

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This device is intended to be used in areas where access to leaking waterlines or faucets is not easily accessible. When the device’s probes encounter water or a conductive liquid, the device will alarm and close the water valve, preventing water damage to the surrounding area. Included in this package are the following contents:

|  |  |  |
| --- | --- | --- |
|  | **Item** | **Description** |
| 1x | Wall adapter | 12V, 6W AC-DC Wall Adapter |
| 1x | Water Sensor Device | Water Sensor Device |
| 1x | Solenoid Valve | 12V, 250mA Normally Closed (NC) Valve |
| 1x | Water Probe | Water Sensor Probe, 2mm Gap |
| 5x | Sensitivity Jumpers | Sensitivity Selector Jumpers |

# Easy Setup Instructions

## Ensure the normal operation of the device

1. Locate a nearby wall outlet nearest to the desired location and plug-in the wall adapter.
2. Connect the barrel jack into the device and the green light should light to indicate that the device is powered-on and working normally.
3. Connect the valve into the device before installing the water valve in place.
4. Connect the water probe into the device and keep the probe’s sheaths on.
5. If not connected, connect a single Sensitivity Jumper in **position 1** (*Fig. 1*).

## Test the Device

1. Remove the probe’s rubber sheath and test the probe by dipping it into water or by wetting one’s finger tips and squeezing the probe.
2. The device’s normal LED should turn-off and the alarm LED should turn-on.
3. The valve should close and the alarm should sound.
4. The alarm will sound for approximately 1 second and turn-off for 3.5 seconds.
5. If this sequence is not heard, continue to sensitivity tuning is properly done before continuing troubleshooting.

## Sensitivity Tuning

This device is intended to operate in a wide variety of conditions. For instance, placing this device in a damp and cool place may cause a misoperation due to very high air humidty. To ensure proper functionality, please follow these steps:

1. Start with a single Sensitivity Jumper in **position 1** (*Fig. 1*)
2. Test the probe by dipping it into water or squeezing between wet fingers.
3. Continue to move the single Sensitivity Jumper up into the next position until the device does not function properly.
   1. If you reach position 5 and the device still operates, please refer sensitivity chart (*Fig. 2*) and move up to make the device more sensitive. If the device does not operate after moving up to the top of the chart please refer to the support line and a custom custom solution will be created to suite your needs.
4. If you have reached a position where the device does not operation, you should note position that did not yield proper functionality.
5. From this position, you can refer to the sensitivity chart and move down the chart until the device operates again.
6. When the device operates again, please add sensitivity or security to one’s desired effectiveness and continue to test until the desired outcome is achieved.

## Sensitivity Chart

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **5** | **4** | **3** | **2** | **1** | **Resistance (Ω)** |
| Configuration 15 | 1 | 1 | 1 | 1 | 1 | 16174.68 |
| Configuration 14 | 1 | 1 | 1 | 1 | 0 | 16887.89 |
| Configuration 13 | 1 | 1 | 1 | 0 | 0 | 18085.64 |
| Configuration 12 | 1 | 1 | 0 | 0 | 0 | 21088.84 |
| **Configuration 11** | 1 | 0 | 0 | 0 | 0 | 31600.00 |
| Configuration 10 | 0 | 1 | 1 | 1 | 1 | 33135.16 |
| Configuration 9 | 0 | 1 | 1 | 1 | 0 | 36273.34 |
| Configuration 8 | 0 | 1 | 1 | 0 | 0 | 42288.86 |
| **Configuration 7** | 0 | 1 | 0 | 0 | 0 | 63400.00 |
| Configuration 6 | 0 | 0 | 1 | 1 | 1 | 69412.86 |
| Configuration 5 | 0 | 0 | 1 | 1 | 0 | 84777.48 |
| **Configuration 4** | 0 | 0 | 1 | 0 | 0 | 127000.00 |
| Configuration 3 | 0 | 0 | 0 | 1 | 1 | 153079.93 |
| **Configuration 2** | 0 | 0 | 0 | 1 | 0 | 255000.00 |
| **Configuration 1** | 0 | 0 | 0 | 0 | 1 | 383000.00 |

How to Read:

By default, the device is shipped with a jumper in **position 1.** In this position, the device is most sensitive. “Moving up” in the chart means decreasing sensitivity and increasing security. To do so, one must either remove or add additional jumpers into corresponding positions to achieve the next setting in the chart.

Example:

Moving from Configuration 1 to Configuration 9.

1. Remove the jumper from position 1 and place the jumper into position 2.
2. Place additional jumpers into positions 2, and 3.
3. The result should match the figure below (*Fig. 3*).
4. The new configuration is now less sensitive and more secure. This configuration might be used in very damp climates where AC is not provided to the room where this device will operate.