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WPLD Water Pipe Leak Detection Installation and Operation Manual



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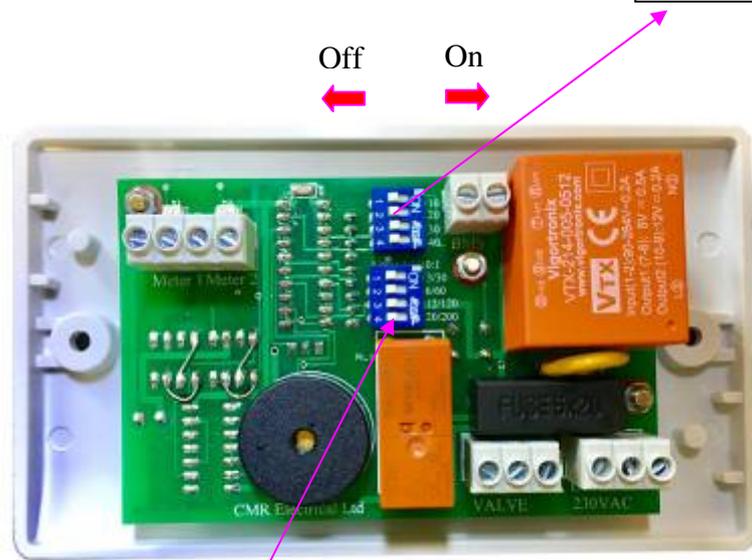
1) Setting up the system

Two four way slid switches have been provided one to set the number of acceptable missing litres, the other to set the monitored time period. The principle of operation being that the unit will monitor the flow of water through each meter, one at each end of the pipe run, over a set period of time. If the difference between the two meter exceeds the selected setting within the selected time period the unit will go into alarm. For example, if the system is set to 3 missing litres within a 10 minute period, and the unit records 2 missing litres within that time period, no alarm will be raised. However if 3 or more missing litres are recorded the unit will go into alarm. Maximum continuous leak detection security would be 3 missing litres over a 40 minute period i.e. a 75ml leak (3000ml/40m =75mL), the minimum security would be 20 or more missing litres over a 10 minute period i.e. a two Litre leak (20,000ml/10m =2000mL)

ONLY ONE SWITCH ON AT ANY ONE TIME

Set Time period

| Switch Number | Minutes |
|---------------|---------|
| 1 | 10 |
| 2 | 20 |
| 3 | 30 |
| 4 | 40 |



ONLY ONE SWITCH ON AT ANY ONE TIME

Set acceptable missing litres

| Switch Number | No. of missing litres |
|---------------|-----------------------|
| 1 | 3 |
| 2 | 6 |
| 3 | 12 |
| 4 | 20 |

2) Normal Operation

In normal mode with no alarms, the audible warning device will be OFF, and green lamp will be ON.

3) Leak Detected Alarm

When the system detects a leak the audible warning device will start, the BMS alarm relay will close and the lamp will start flashing between green and red. To stop the audible warning press the “Mute Alarm” button. On muting, the lamp will stop flashing and remain permanently red, indicating an acknowledged alarm. The system will remain in this state until reset (see ITEM 4) when the lamp will turn green and BMS alarm relay turn OFF.

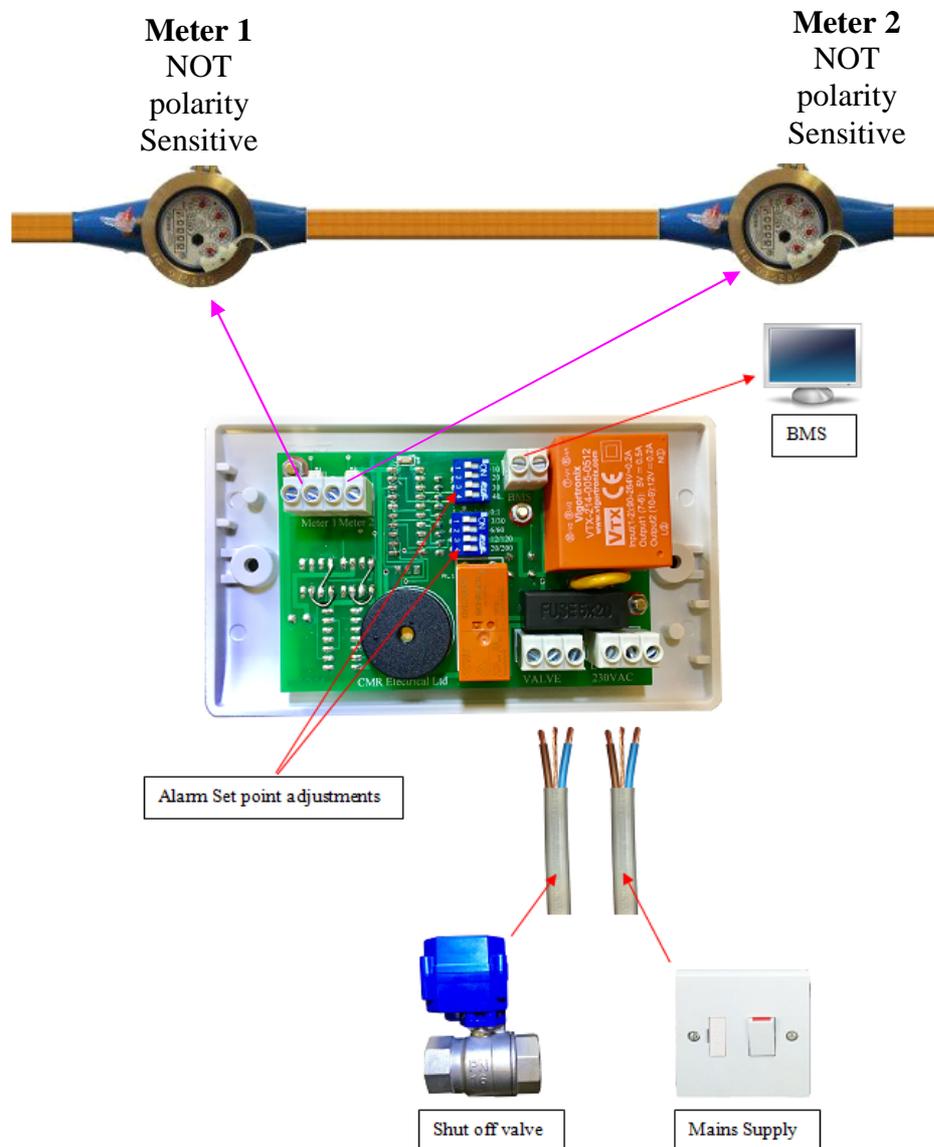
4) Reset an alarm

To reset an alarm, press and keep pressed the “MUTE” push button. Wait until the Beeping stops and the red alarm lamp turns Green.

5) Water Shutdown Valve

A 230VAC supply has been provided from the terminal block marked “Valve” to power a solenoid valve fitted to the water feed pipe. If a water leak is detected by the unit, this supply will be removed thereby shutting the valve.

7) Installation



THIS EQUIPMENT SHOULD ONLY BE CONNECTED AND WORKED ON BY A QUALIFIED ELECTRICIAN.

A suitably rated 230VAC power cable supply should be run from a fused spur to the unit and terminated to the internal terminal block marked 230VAV “L”, “E” & “N”. The fuse within the fused spur should be rated at 5 Amps.

9) *Commissioning*

Having connected the unit as described above, turn on the mains power to the unit. The lamp should illuminate green. With the water flowing through the meter check that both meters are recording the number of litres, also check that the green LEDS located on the back of the PCB above Meter 1 & 2 connection terminals flash. Both LEDS wont necessarily flash at the same time. Set up the number of acceptable missing litres and time period as described in ITEM 1 above. When setup, let the system run for the set time period to ensure no alarm are generated. Once the first test has been completed (wait for set time period with no alarms) disconnect one of the meter wires. The system should go into alarm after the set number of acceptable litres has been exceeded. Replace the disconnected meter wire and reset the system as described in ITEM 4 above