C SYSTEMS PVT LTD

WATER LEAK DETECTION SYSTEM

WLD4800

USER MANUAL

Design & Engineering By   **E mail: sales@csystemsindia.com**
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INTRODUCTION:

     The Water Leak Detection System is used to detect the leak alarm from Water Leak Detection Modules and displays that information in a 4 x 20 alphanumeric LCD display. The events can be received by the third party BMS through RS485 (MODBUS protocol) communication. This system supports up to 8 Water Leak Detection Modules.

INSTALLATION:

     The Water Leak Detection System panel shall be mounted on the wall. The panel has inbuilt 12 Volts / 2 Amps power supply (SMPS).

Use 2Core x 1.5 sq mm cable to extend the connection from Water Leak Detection System to Water Leak Detection Modules.
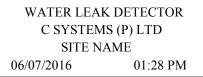
WIRING CONNECTION:

➢ Connect the Water Leak Detection System Panel to 230 V AC power source.
➢ Connect 2core x 1.5 sq mm cable between PCB connector named **PN-COMM** in Water Leak Detection Module and corresponding input connector (named **ZONE 1** to **ZONE 8)** in Water Leak Detection System master panel (WLD4800).

OPERATATION:

     The WLD4800 panel continuously gathers information from all modules and updates that data in LC Display and also to BMS system through RS485 (MODBUS protocol). This system can monitor and report alarms up to 8 Water Leak Detection Modules.

     In the Main screen, the display shows following information.

```
WATER LEAK DETECTOR
  C SYSTEMS (P) LTD
      SITE NAME
06/07/2016        01:28 PM
```

➢ The display shows current date & time and name of the site.
➢ The display shows the healthy or fault message of each module for every 2 seconds.
➢ To commission WLD4800 panel, enable the zones which are going to be used.
➢ The date & time, site name and zone name are programmable.
➢ There are 10 potential free output to indicate the status of fault and alarm and one potential relay output (12 Volts) for hooter.

Operation of Relays:

➢ Relay 1 (Zone 1 alarm relay)
➢ Relay 2 (Zone 2 alarm relay)
➢ Relay 3 (Zone 3 alarm relay)
➢ Relay 4 (Zone 4 alarm relay)
➢ Relay 5 (Zone 5 alarm relay)
➢ Relay 6 (Zone 6 alarm relay)
➢ Relay 7 (Zone 7 alarm relay)
➢ Relay 8 (Zone 8 alarm relay)
➢ Fire relay
➢ Fault relay

     To activate the hooter, dedicated hooter terminals are provided with 12V & ground, which can be connected to hooter directly.

     When anyone of the module triggers an alarm, the hooter relay, fire relay and corresponding zone alarm relay will be activated. The display shows the alarm message with Zone number and Zone name. For multiple leaks, the display shows the alarm message of each module for every 2 seconds. After the successful location of leak is addressed & source of leak is identified, the sensor cables shall be cleaned with clean dry cloth.

     The fault relay and internal buzzer will be activated for the occurrence of following condition.
➢ Sensor cable which is connected to Water Leak Module becomes open or disconnected.

> ➢ Two core cable which is connected between Water Leak Detection System and Water Leak Module is damaged or disconnected.

Operations of Mute and Reset key:

To silence the Hooter, **MUTE** key shall be pressed. To reset the Alarm condition, after clearing the leak and cleaning the sensor cable, **RESET** key shall be pressed.

To enable zones, follow the procedure given below:

1. Press **ENTER** key to go to menu page. There are four options.
2. Press **2** key to go to zone configuration page.
3. Press **1** key to go to zone enable/disable edit page.
4. Press **1** key to go to zone 1 selection page.
5. Press **UP** or **DOWN** to navigate through zone 1 selection page to zone 8 selection.
6. Press **1** key to enable corresponding zone on zone selection page.
7. Press **2** key to disable corresponding zone on zone selection page.

To enter site name, follow the procedure given below:

1. Press **ENTER** key to go to menu page. There are four options.
2. Press **1** key to go to site information page.
3. Press **1** key to go to site name edit page.
4. Press **UP** key for upper case letters.
5. Press **DOWN** key for lower case letters.
6. Press **ENTER** key to save the site name or press **EXIT** key to escape from site name edit page without saving.

To enter zone name, follow the procedure given below:

1. Press **ENTER** key to go to menu page. There are four options.
2. Press **2** key to go to zone configuration page.
3. Press key '**2**' to go to zone name showing page.
4. Press **UP** or **DOWN** to navigate through zone 1 name page to zone 8 name page.
5. Press **ENTER** key to go to zone name edit page of corresponding zone name showing page.
6. Press **UP** key for upper case letters.
7. Press **DOWN** key for lower case letters.
8. Press **ENTER** key to save the zone name or press **EXIT** key to escape from zone name edit page without saving.

To set date and time, follow the procedure given below:

1. Press **ENTER** key to go to menu page. There are four options.
2. Press **3** key to go to clock settings page.
3. Press key '**1**' to go to date edit page. We can edit date, month and year in this page.
4. Press key '**2**' to go to time edit page. We can edit hour, minute, seconds and meridian in this page.
5. Use numeric keys to edit date and time and use '**A**' and '**P**' keys to edit meridian.
6. Press **ENTER** key to save date or time or press **EXIT** key to escape from date edit page or time edit page without saving.

To set slave device ID for WLD2400 (communication with BMS), follow the procedure given below:

1. Press **ENTER** key to go to menu page. There are four options.
2. Press **1** key to go to site information page.
3. Press key '**2**' to go to device ID edit page.
4. Press **ENTER** key to save device ID or press **EXIT** key to escape from device ID edit page without saving.

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