

# INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS- SERIES 2100, ALL SHELF MOUNT MONITORS- SM-6, SM-6(T), SM-12, SM-12(T)

Page 1 of 3

## General Description

The Series 2100 is an early warning leak detection system utilizing the latest line of Dorlen Products remote monitors and compatible SS-2100 / VR-2100 Water Alert detectors. All Series 2100 Monitors monitor, power and test the connected Water Alerts. The easily installed system is made up of only 3 separate components- 1 Monitor (7 models available), up to 40 Water Alert detectors, and Dorlen type "D" interconnect cable. Each system is characterized by the monitor used. When one or more Water Alert detects water leakage it will activate and signal the monitor. The monitor will then activate providing an audible alarm, red flashing lamp, LED indication of activated Water Alert(s) and transfer a dual set of isolated relay contacts. The Water Alerts may be located up to 2500 feet from the monitor. Monitors are available in both shelf and wall mount configuration.



SM-6(T) and SM-12(T)

## Features common to all SERIES 2100 Monitors -

- Monitors will **monitor and power** the connected Water Alerts (Water Alert Model SS-2100 or VR-2100).
- Upon Water Alert activation, monitors sound **audible alarm, flashing red lamp** and **LED indication** of which Water Alert has activated.
- Monitors are equipped with automatic **internal battery back-up** in case of line power failure, system will remain monitoring for up to 4 days without AC power... Battery self recharges upon AC return.
- **Test Capability.** This feature enables the user to test the attached detectors while at the Monitor location. By simply selecting an individual detector and pressing the TEST push button, that detector will activate, activating the monitor. This test verifies all wiring is intact, Water Alert circuitry is operating properly and the Monitor has received the Water Alert signal. This test simulates a water leak and serves as a way to "exercise" the system... thereby insuring that the system is operating properly.
- Monitors are equipped with **2-SPDT isolated relay contacts** which will transfer upon any Water Alert activation for customer use in signaling existing security panels or other equipment. (Relays rated at 1 amp, 28VDC). Optional independent relays SPST for each channel available (ILR option...see price list).
- **Extremely simple installation...** Normally carried out by company maintenance personnel with instructions furnished. ALL hardware included.
- **Ultra-reliable performance;** All products come with a **5 year Warranty...**prices shown on attached price list.



MADE IN USA

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**GENERAL:** Series 2100 Monitors are used in conjunction with Dorlen Products Water Alert SS-2100 and Oil Alert OA-2100. If you are not familiar with Series 2100, please review the catalog information sheets enclosed before proceeding.

#### 1. Preliminary set-up and system check out.

Remove from their packing box the monitor and Alerts. One of the Alerts will have a 18"- 3 conductor cable attached to it. This cable is used for test purposes only and will be discarded later. This single alert should be wired to the rear panel terminal strip, (channel 1) of the monitor, see attached drawing # A-9706. Once this is done, power can be applied. Power is applied by plugging the monitor in to a standard 120VAC outlet and the Battery switch (rear panel) turned on. The system may activate during this initial power up. Should this happen, press the RESET switch located on the front panel of the monitor. The unit is now monitoring the alert.

2. To test a **Water Alert** simply wet fingers and touch the gold plated probes, the alert should activate and then activate the monitor. **Wait 15 seconds between repeated tests of a given Water Alert.** To test an **Oil Alert**, simply install a sensing module (see Oil Alert instructions) and press the Oil Alert test push button, the alert should activate, then activate the monitor.

3. If your monitor has a **(T)** in its Model #, it is equipped with a TEST feature. Simply select channel 1 via the selector switch on the monitor and press the monitor test push button. This test simulates a leak at the alert location. The attached alert should activate, then activate the monitor. This test insures the system is operating properly.

4. Check the operation of the Silence switch. Reset (clear)\* the monitor by means of the front panel Monitoring/Reset switch.

**NOTE:** When touching wet fingers to the Water Alert, do not remove same until the Water Alert first buzz tone ceases (approximately 2-3 seconds).

5. Should line power fail, system operation should not be affected for a period of four days minimum. Lamps will be slightly dimmer and audible level is slightly lower on battery. Battery will recharge when 120VAC is reapplied.

6. In a monitoring situation, the monitor will always latch onto and indicate the first Alert which has detected liquid leakage. If other Alerts activate, these will then also be specifically indicated on the front panel.

7. The Series 2100 monitors have Relay Outputs. Additional 3-pin terminal strips are located on the rear of the enclosure bringing out 2 -SPDT contacts. In the normal condition (non-detect) terminal C is connected to terminal NC. In the detect condition terminal C is connected to terminal NO. Contact rating is .5 Amp non-inductive, 200V max. Resetting the monitor will transfer the contacts back to their normal condition. **Caution:** If voltage greater than 24V is connected to the exposed terminal strip, a protective insulating cover should be provided by the user to avoid possible electrical shock.

#### 8. Installation

System power should be removed, both AC and battery. The 18" 3 conductor cable may now be remove and discarded. Locate the monitor in its permanent location. Also locate the alerts where leak detection is desired. Run 3 conductor cable (Dorlen type "D") from each alert to the monitor, same connections as in the preliminary set-up, (see Drg. # A-9706).

9. Plug in monitor and turn battery on. RESET the monitor. The system should now be functional. Test each detector same as in preliminary set-up. Relay contact wires to signal security panels or other equipment may now be run.

10. The Series 2100 monitors when properly installed should function year-in/year-out without maintenance. In the event of problems during the initial setup, establish clearly what the system does or does not do that is improper and call Dorlen Products for technical assistance. 1-800-533-6392.

**\*NOTE:** A 5-second "no liquid sensed" condition should elapse **before** pressing the Reset switch.

### SM-6(T) AND SM-12(T) SPECIFICATIONS

Monitor Input Voltage/Current: 115VAC 10%, 60Hz, .2Amp max.

Monitor Output Voltage: 9VDC (To detectors)

Monitor Audible Alarm: 85db at 3 feet

Input: UL Listed wall adaptor

Dimensions / Wt. SM-6(T): 8.5"Wx9.5"Dx2.5"H / 7lbs

Dimensions / Wt. SM-12(T): 17"Wx12"Dx3.5H / 20lbs

Construction: All aluminum, textured oven baked finish

Panel- off white, Housing- blue.

Screw type terminal strip wire connection.

Warranty: 5 Year Limited

# Wiring of Water Alerts and Oil Alerts to Shelf Mounted SERIES 2100 Monitor.

