

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS- SERIES 2100 WM-6, WM-6(T), WM-12, WM-12(T)

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.



WM-6(T) and WM-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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5-12
M-9951

1. Preliminary set-up and system check out.

Remove from their packing box the monitor and Alerts. Locate the equipment near a 120VAC outlet for this "PRELIMINARY SET-UP". The monitor has been equipped with a "Plug-in" power cord for use in this preliminary set-up only, this cord will be removed and discarded later. Open the monitor(w/standard blade screw driver) and lay flat on desk or bench. One of the Alerts will have a 18"- 3 conductor cable attached to it. This cable is used for Preliminary set-up only and will be discarded later. This single alert should be wired to the Alert input terminal strip - (channel 1) of the monitor, see 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 AC SWITCH and BATTERY SWITCH turned ON. The system may activate during this initial power up. Should this happen, reset the monitor via the RESET KEY SWITCH. 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. Check the operation of the SILENCE SWITCH. Reset (clear)* the monitor by means of the RESET KEY SWITCH.

4. 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.

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 LED panel.

7. The Series 2100 monitors have Relay Outputs. Additional 3-pin terminal strips located on the internal panel 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 SWITCHES turned OFF. The 18" 3 conductor cable connected to the alert and the power cord can be removed and discarded.

Remove the cover from the channel duct work. Slide the channel on to the monitor fitting, tighten screws A-A (see DRG.#A-9710). Carefully locate the monitor and wire duct against the wall at the proper height, (leaving 1" space between floor and channel, for Alert wire entry). Making sure the monitor is in its final position, use a pencil to mark the 4 mounting holes of the monitor (B-holes) and the 2 mounting holes of the channel duct work (C-holes), see DRG.#A-9710.

Using a 9/32 drill, carefully drill all six holes and press-in the Brown plastic inserts. Re-locate monitor against the wall and using the screws supplied, fasten the monitor and duct work in place.

9. 120VAC can now be connected to the monitor. A 15' length of 2 conductor armored cable has been supplied. This cable will be run in the channel duct to the 120VAC terminal strip on the internal control panel. It can be connected to 120VAC junction box below a sub-floor or 1/2 conduit can be run and connected to the channel wire duct with fittings furnished (see Drg.#A-9710). Once 120VAC is wired to the monitor, the AC switch can be turned ON. The Green LED on the door cover of the monitor should be flashing.

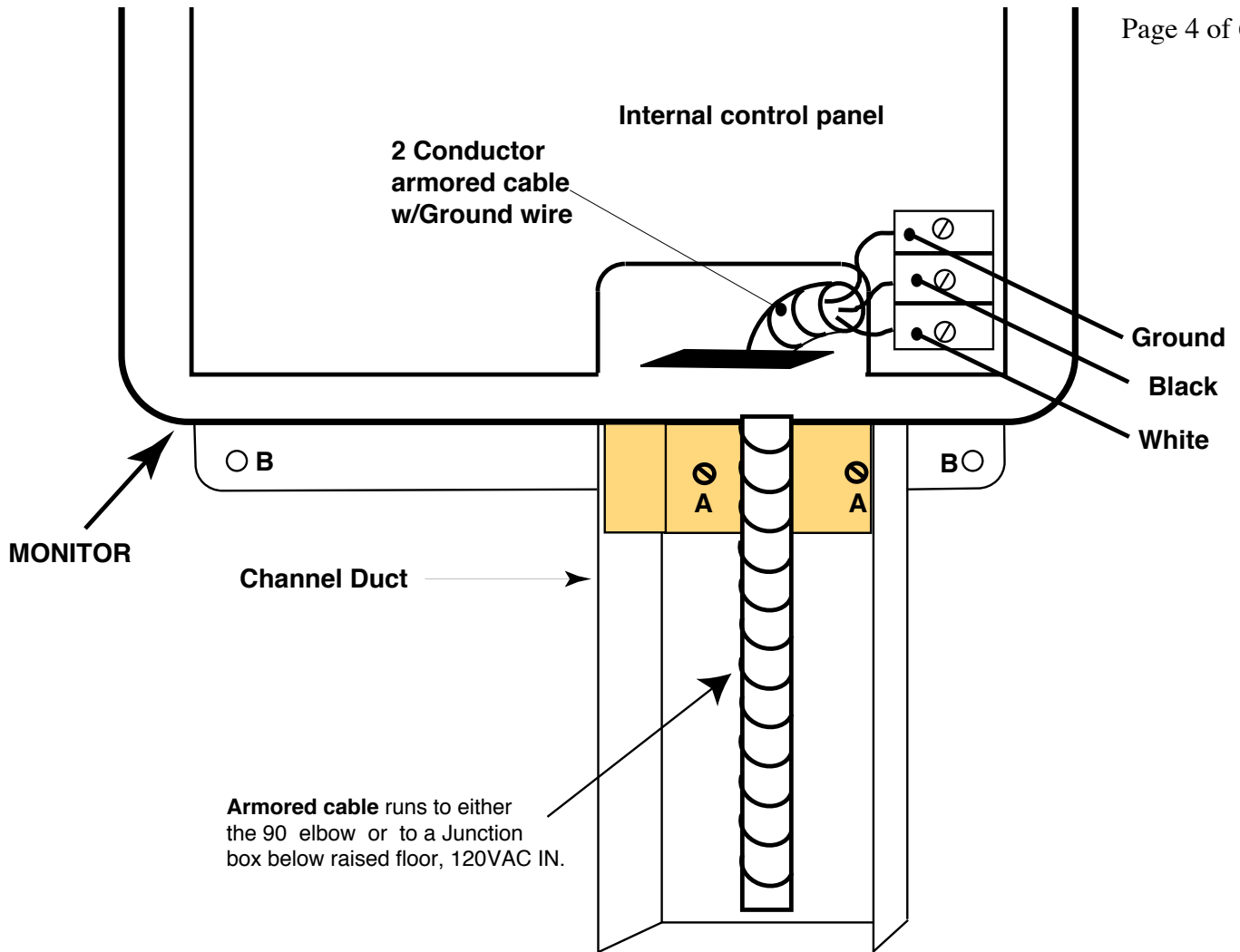
10. Turn the AC and BATTERY switches OFF. Locate Alerts where leak detection is desired. Wire each Alert to the monitor individually with 3 conductor cable, see Alert instructions and Drg.#A-9706. Once all Alerts are wired in, turn both the AC and BATTERY switches ON. RESET the monitor and test all Alerts same as in preliminary set-up.

11. The Series 2100 monitors come with 2 -SPDT RELAY contacts for your use in signaling main alarm panels or other equipment. The relays are rated at 1 Amp. at 28VDC. Now that your system is functioning properly, the relay wires can be run per your needs, see Drg.#A-9711.

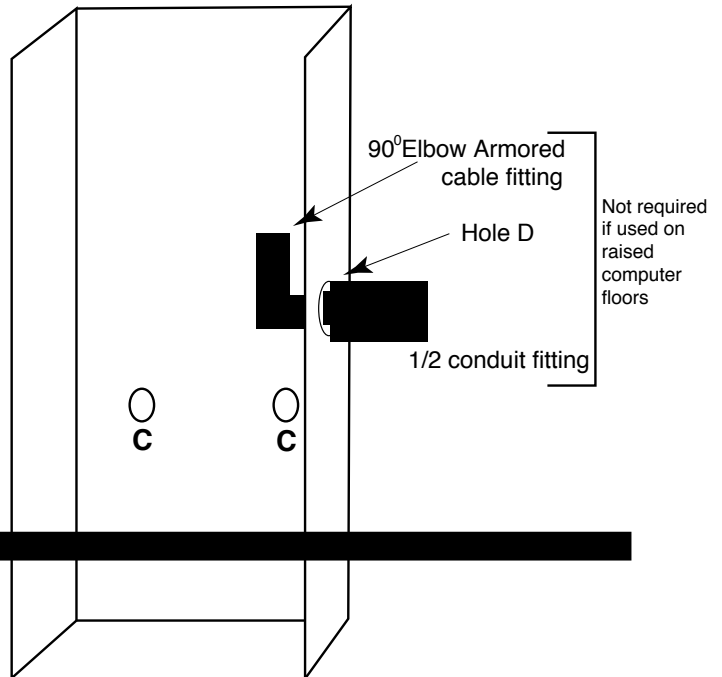
12. Check all functions of the system to insure proper installation... All visual and audible alarms work, all Alerts activate, relays transfer and the system resets properly. Once the system is completely wired and tested the channel duct cover can be installed. The system is now complete. Should there be any problems technical or otherwise please contact Dorlen Products at 1-800-533-6392.

13. The SERIES 2100 leak detection system once installed requires virtually no maintenance. If your monitor has a "T" in its model#, it is capable of testing the Alerts. This test simulates a leak at each selected Alert. This test only takes a few minutes to test all the Alerts and insures the system is operating properly. Dorlen Products recommends monthly tests of the system to insure no wire runs were inadvertently tampered with and all Alerts are functioning properly. If this is done, your system will monitor for leakage day in and day out, for years of service.

If your system does not have the test feature Dorlen Products recommends a semi-annual test of the system by manually activating each Alert (see Alert instructions).



DRG. A-9710 120VAC WIRING



Raised floor installation

Channel duct penetrates floor ~ 2" (Armored cable runs to Junction box Below Raised floor, 120VAC)

Concrete floor installation

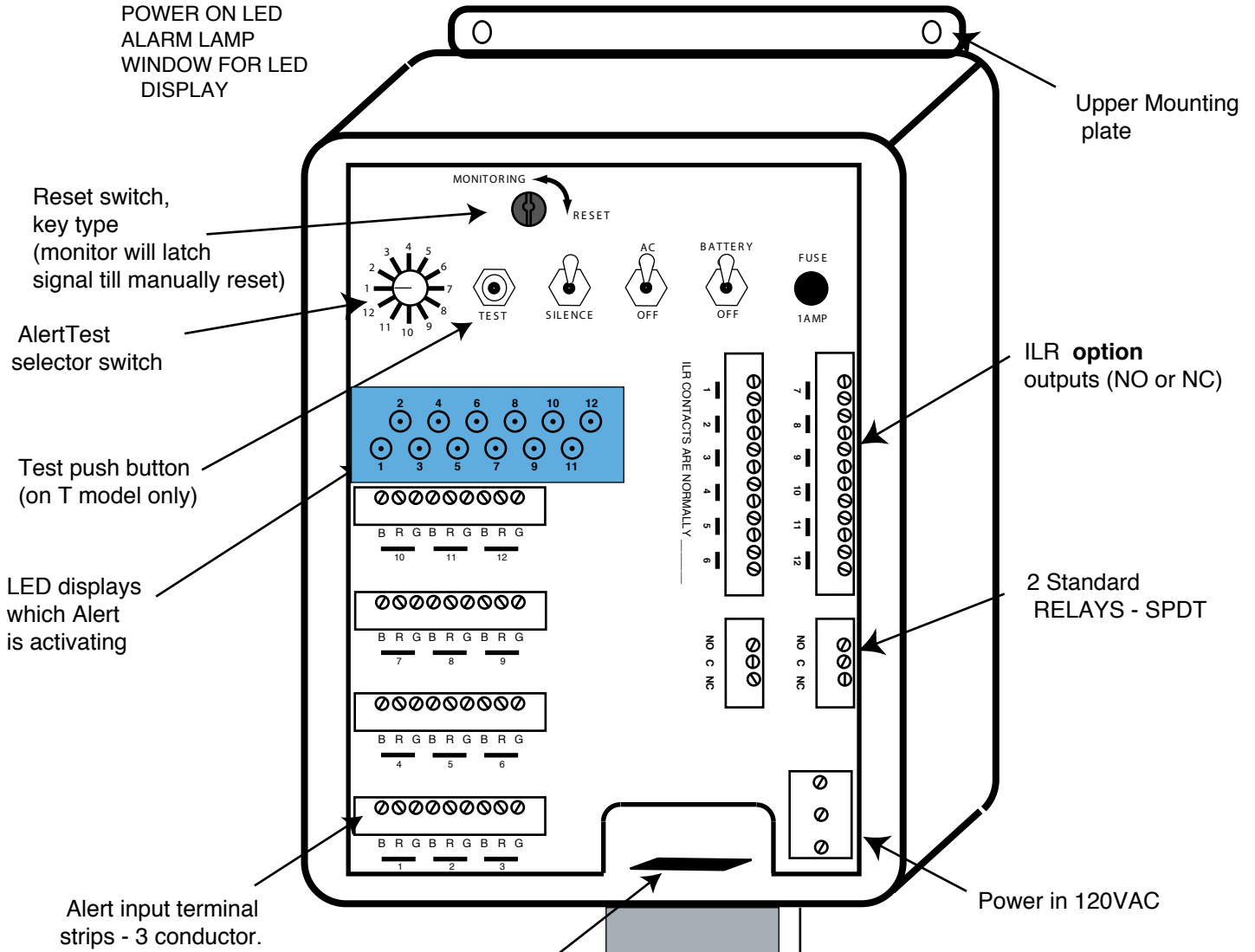
Channel duct stops above floor ~1" (Armored cable runs to elbow supplied, Hole D, 1/2 conduit entry 120VAC)

SERIES 2100 -Wall Mount

INTERNAL VIEW-

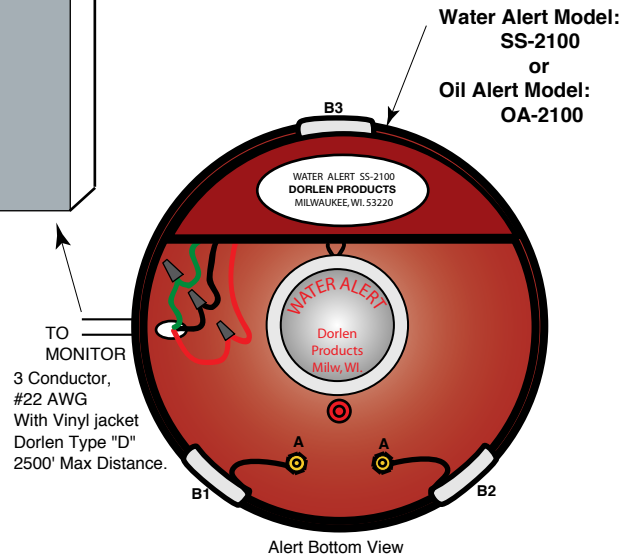
(door not shown)

DOOR HAS: AUDIBLE ALARM
POWER ON LED
ALARM LAMP
WINDOW FOR LED
DISPLAY



Wiring Duct
(5' furnished)

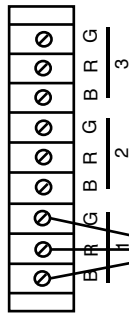
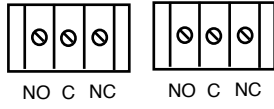
DRG.#A-9711



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

SERIES 2100 MONITOR terminal strips

RELAY CONTACTS:
 NO= Normally open
 C= Common
 NC= Normally closed

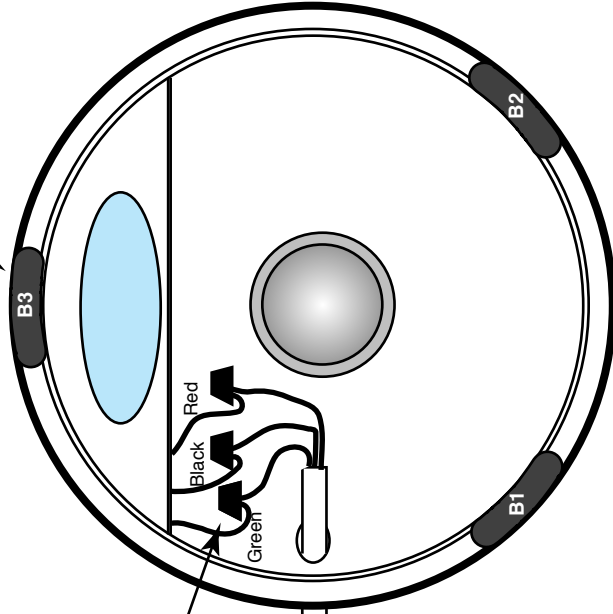


Wire all channels similarly...

2500'
Max.

3 conductor, #22 AWG
 Dorian type "D"
 If wire is shielded, tie shield
 to "B" lead at the Monitor
 location.

Water Alert Model:
 SS-2100
 or
 Oil Alert Model:
 OA-2100



Wire Nuts

Alert
 Bottom View