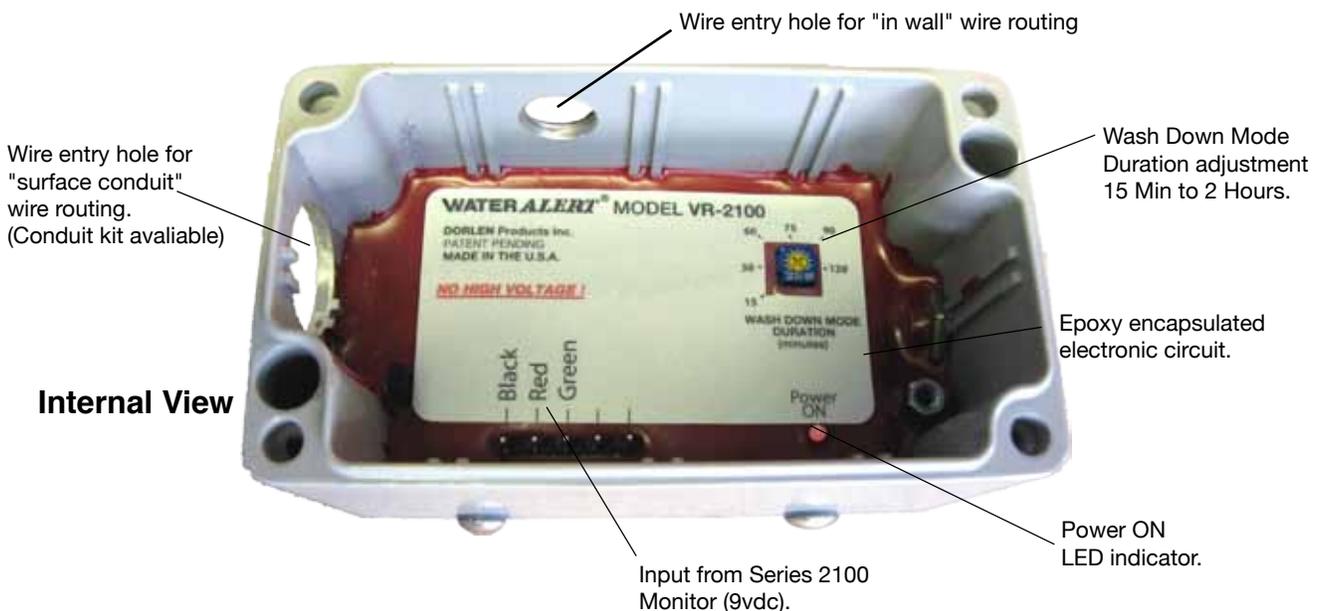
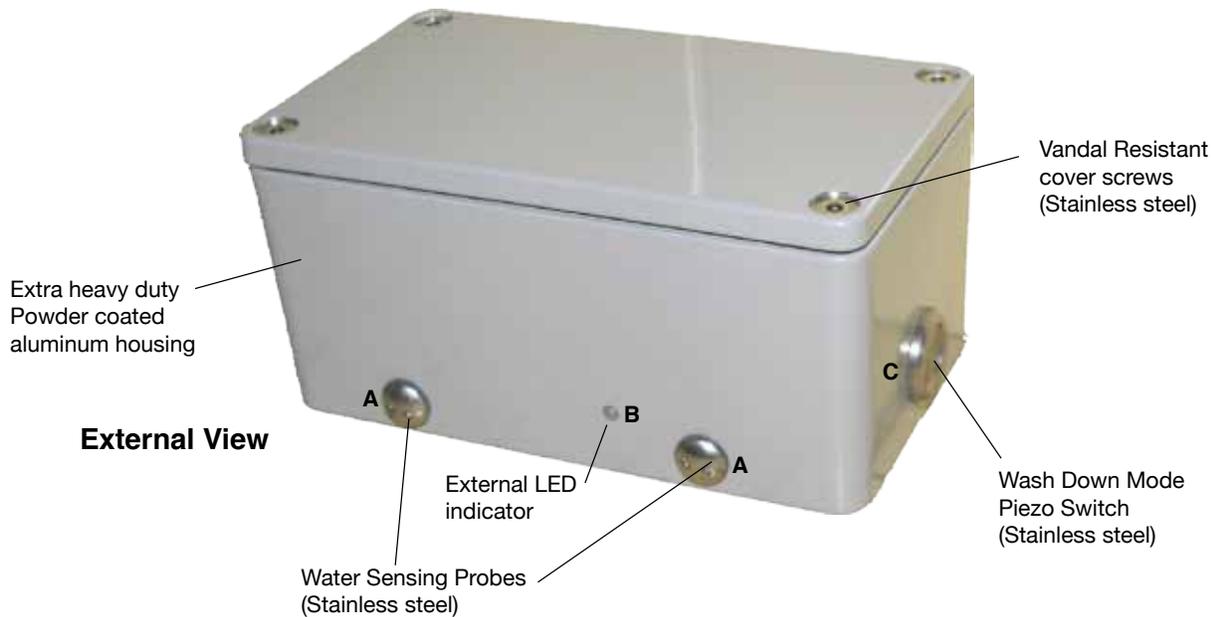


# Instructions for Model **VR-2100** Water Alert<sup>®</sup>

## **PRINCIPLE OF OPERATION**

The VR-2100 is activated by water or any conductive fluid bridging the sensors (**A & A**). Upon activation the external LED indicator (**B**) will light RED and the unit will signal the remote Series 2100 Monitor. Once the liquid is removed, the VR-2100 will self re-set. The VR-2100 is also equipped with a "Wash Down Mode". This feature allows the area to be cleaned with water without activating the VR-2100. The Wash Down Mode can be set from 15 minutes to 2 hours. During this time the sensing circuit in the VR-2100 is disabled. Once the Wash Down Mode times-out, the VR-2100 will automatically resume sensing liquid. To activate the Wash Down Mode, the cleaning personnel simply pushes the external piezo switch (**C**). This switch has no moving parts and is touch sensitive. The external LED (**B**) will light Green, indicating the VR-2100 is now in Wash Down Mode.



# Instructions for Model **VR-2100** Water Alert<sup>®</sup>

## Steps for proper installation:

- 1) Find a good location for the Water Alert
- 2) Route the connection wires
- 3) Drill wire entry Hole (In-wall Installation)
- 4) Drill Mounting holes in Floor. (optional)
- 5) Make wire Connections and Test
- 6) Mount the Water Alert to floor.

### Included Parts List:

Qty.	Description:
1	VR-4 Water Alert
1	Screw type terminal block
1	Wire Entry Tube (1/4-18 IPS)
2	Nylon Washers (1/2" ID)
2	1/4-18 IPS -Thin wall nuts
4	SS M4-Tamper Cover screws
2	#8 x 1 1/2" SS Mounting Screws
1	#8 x 1 3/4" SS Mounting screw
1	Tamper Proof Screw bit
1	1/8 Masonry drill bit
1	Liquid Nails Epoxy 6g.
1	11/16" Open Ended Wrench

### VR-4 Specifications

Operating voltage: 9vdc  
Max. current draw: 25 mA.  
**Voltage Output - 9vdc to Monitor**

Dimensions: 4.6"W x 2.6"D x 2.3"H  
Weight: 1lb.  
Warranty: 5 Year Limited  
MADE IN THE USA.

## 1) Finding a location:

*Placement of the VR-2100 Water Alert, especially in a public or employee restroom is critical.*

Serious consideration should be used when deciding where in the room the detector is mounted. Some of these considerations should include the following. 1) The VR-2100 can be wired with in-wall entry or surface wire entry (non-metallic conduit). Where you have access to run the wires should be considered. 2) The VR-2100 should be mounted in a corner of a room or slightly under a countertop and against a wall, **places where the unit will not be a tripping hazard.** 3) The unit should be placed in an out of the way spot, but still accessible to custodial workers (to activate the Wash Down Mode). Do not "hide" the detector as the custodial worker may not see the unit and this may lead to false activations due to the worker not seeing the detector and forgetting to activate the Wash Down Mode. 4) Do not locate the detector under toilets as this may lead to false alarms from a sweaty toilet tank. Do not locate the unit near urinals as this may invite the occasional false alarm from people who feel the need to urinate on the unit. Good locations are always against a wall in a corner, or against a wall, slightly under a countertop.

## 2) Routing the wires: In-Wall or Surface Conduit

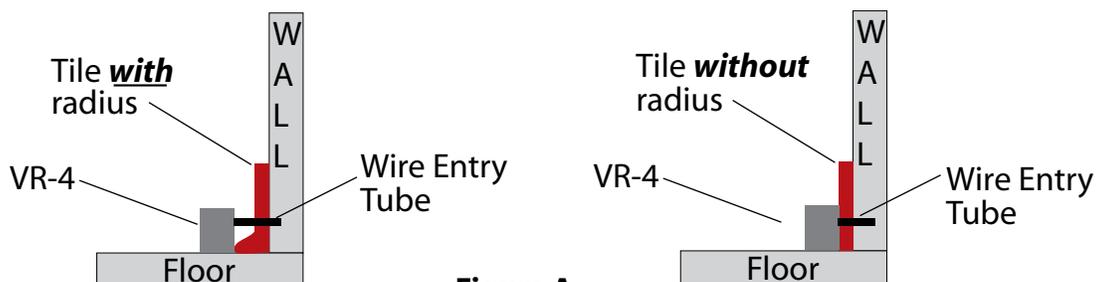
Once a location has been decided upon, routing the connection wires can now take place.. All hardware for an in-wall wire run installation is included with the unit. If surface conduit is going to be used instead of in-wall, a "conduit Kit" is available from Dorlen Products. Model- **VR-KIT** . Included in this kit is 25 feet of non-metallic 3/8" inch conduit, a 90 degree conduit fitting, Qty.4 - Stainless steel conduit "straps" and Qty.8 - Tamper resistant stainless steel screws.

It is recommended that a 3 conductor, #22 AWG be used (Shielding not required) to install the VR-2100, (Dorlen Type "D"). The 3 conductor cable should be run to the location of the detector at this time. (Prior to installing the detector).

**Do not make wire connections at this time.**

## 3) Drilling wire entry hole: (for in-wall wire runs)

Remove plastic hole plug from housing to gain access to the in-wall wire entry hole. Place the detector on the floor where desired. IF the wall tile has a radius that protrudes from the wall, you will need to install the Wire Entry Tube at this time, if there is no radius on the tile and the VR-2100 can be mounted flush against the wall, you will NOT need to install the Wire Entry Tube at this time. See **Figures A and B.**



# Instructions for Model **VR-2100** Water Alert<sup>®</sup>

## Drilling wire entry hole: (for in-wall wire runs)

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**With Radius**- Adjust the Wire Entry Tube so that the detector can get as close to the wall as possible. Thread the Wire Entry Tube so that it touches the wall. With a pencil, mark the wall around the circumference of the Wire Entry Tube.

**Without Radius** - Place the detector in desired location and use a scribe or pencil to mark the wall for the hole for the Wire Entry Tube.

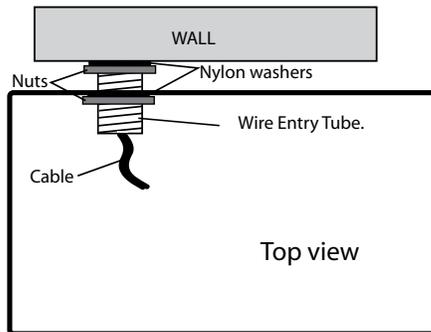


Figure B

Drilling- Using a 1/2" masonry drill bit, find the center of the scribed wire entry hole and drill wire entry hole. **Extreme care should be used to make sure you are drilling parallel to the floor and that the drill does not "walk" off center.**

Once that hole is drilled, install the Wire Entry Tube into the housing of the VR-2100. The Housing of the detector should sit flat on the floor.

## 4) Drilling mounting holes:

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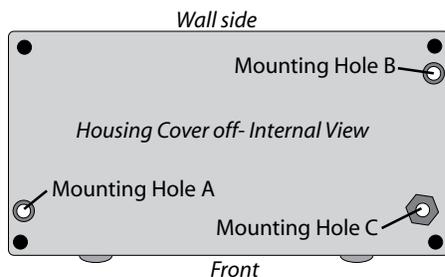


Figure C

**NOTE- Porcelain** Floor tiles can not be drilled into. Use the Liquid Nails epoxy supplied to mount the detector to the floor in these applications.

### For ceramic tile and masonry floors:

Locate the detector as close to the wall as possible, with the Wire Entry Tube in the wall. There are 3 mounting holes in the housing of the detector, Hole A, B and C. If possible, use holes A and B for mounting to the floor. Hole B may be too close to the wall to allow clearance for your hand drill. If this is the case, use holes A and C. Use a scribe to mark the location of the mounting holes on the floor. Using the 1/8" masonry drill bit supplied, drill the holes in the floor.

**DO NOT fasten the detector to the floor until all the wires are run and the unit is tested for proper function.** See **Figure C**

## 5) Connecting wires and testing:

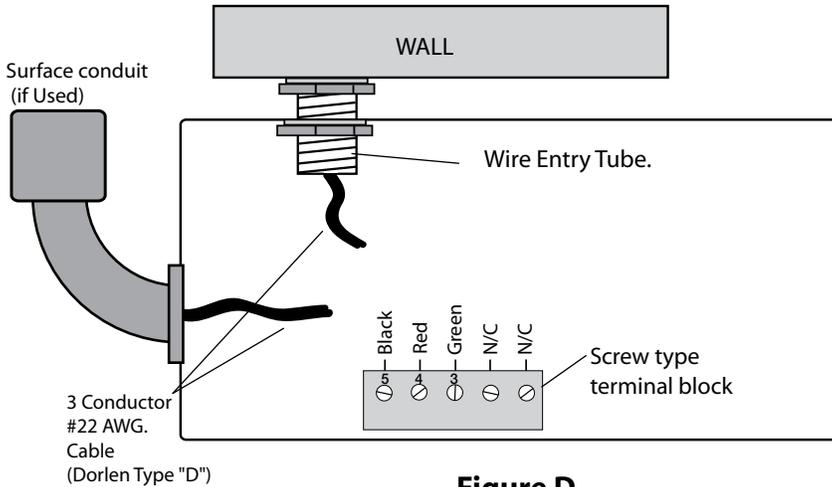
For in-wall wire runs, install Wire Entry Tube. For surface conduit wire runs, install 90 degree conduit fitting.

Once the wires are run into the VR-2100 and connected to the screw type terminal block, testing can begin. (See **Figure D**).

Apply power to the Series 2100 Monitor by turning on both the AC and Battery switches, then reset the monitor. Upon power-up, the internal "Power ON" LED in the VR-2100 should light. The external L.E.D. should not light. If the External L.E.D. indicator does illuminate Green (signifying Wash Down Mode) OR Red (signifying water), simply remove power for a few seconds and reconnect. The external L.E.D. should now be off. Using a WET sponge, touch the sensing probes on the detector. The external L.E.D. indicator should light RED and the Series 2100 monitor should activate. Once this is confirmed, then testing of the Wash Down Mode can begin. Remove the wet sponge and the detector will reset. (The Series 2100 monitor will have to be manually reset). Now press the Wash Down Mode switch, although there are no moving parts to this switch, and it is touch sensitive, firm pressure is required. The external L.E.D. indicator will now light green, indicating the Wash Down Mode is active. Using the wet sponge, touch the sensing probes. The Series 2100 Monitor should not activate and the external L.E.D. should stay green. (The only way to de-activate the Wash Down Mode is to disconnect power for 2 seconds). Once the unit has completed this testing procedure and is operating properly, you will now be able to fasten the detector to the floor.

# Instructions for Model **VR-2100** Water Alert<sup>®</sup>

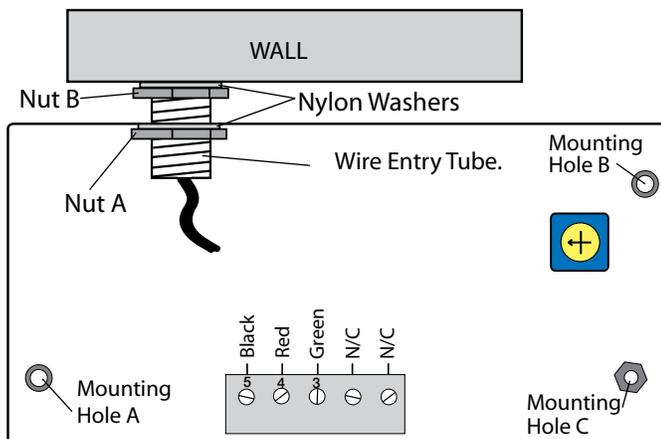
## 5) Connecting wires and testing:



The Black, Red and Green Wires from the Series 2100 Monitor can now be connected to the Screw type terminal block as shown in Figure D.

**Figure D**

## 6) Mounting to the Floor/ Wall:



**Figure E**

Adjust the Wash Down Mode to desired duration. (1 hour is typical). If false activations happen after the area has been cleaned, the Wash Down Mode duration may have to be increased to allow for further drying time.  
Using the "Screw bit" included with the unit install the four Tamper resistant cover screws.

### For ceramic tile and masonry floors:

Mounting holes A and B will require a 1 1/2" screw and mounting hole C will require a 1 3/4" screw. ( All supplied). The Wire Entry Tube must be installed in the housing prior to mounting the VR-2100 to the floor. Nuts A and B, (keep loose) along with the Nylon washers must also be installed. Now the VR-2100 can be screwed down to the floor using the included hardware. Once the VR-2100 is securely mounted to the floor, Nut A can be tightened (just snug), then Nut B can be tightened (just snug). If surface conduit is used instead of the "in-wall" Wire Entry Tube, *the 90 degree conduit fitting MUST be installed BEFORE mounting the detector to the floor!*

### For Porcelain floors:

Once the Wire Entry Tube is properly fitted or the surface conduit installed and the VR-4 sits flat on the floor, you can now disconnect and using the epoxy supplied, glue the detector to the floor. Make sure the floor surface is clean and dry.



**Dorlen Products**

6615 West Layton Avenue, Milwaukee, WI. 53220

Phone: 414-282-4840 Fax: 414-282-5670 E-Mail: Dorlen@execpc.com

**[www.wateralert.com](http://www.wateralert.com)**

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