

1-Zone Alarm - Model VA01B
Part Numbers - 7991 and 7992

Operation, Maintenance and Installation Manual

Introduction of Installation



Before proceeding with the installation or operation of the product, read all instructions thoroughly, as well as complying with all federal, state and local codes, regulations, and practices. The product must be installed by qualified personnel familiar with all applicable local electrical and mechanical codes. Refer to the National Electrical Code (NFPA 70). Failure to properly install and test this product can result in personal injury or equipment malfunction.

Safety Guidelines

1. DISCONNECT ALL ELECTRICAL SERVICE BEFORE INSTALLING OR WORKING ON THE PRODUCT.
2. DO NOT USE WITH FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS GASOLINE, FUEL OIL, KEROSENE, ETC. DO NOT USE IN EXPLOSIVE ATMOSPHERES.
3. ALARM PANEL AND RECEIVER MUST BE MOUNTED INDOORS. FOR OUTDOOR APPLICATIONS CONSULT FACTORY.

Description of Operation

The 1-Zone Wireless Versa'larm™ alarm panel is powered by 120 VAC coming from standard wall outlets and is transformed to 9-11.1 VDC. Installing a 9 Volt battery provides battery backup during power outages. The power LED (green) will illuminate when powered. The Wireless Versa'larm™ is a multipurpose alarm panel used in a variety of applications such as: septic tanks, sumps, holding tanks, pump chambers, water tanks, flow, pressure, condensate, temperature, and any others where a "dry contact" can be connected to the alarm panel.

When the liquid level rises, a switch (signaling device) contact "closes" which will activate the transmitter and sends a signal to the alarm/receiver activating the alarm system. The buzzer will annunciate, alarm LED (red) will illuminate, and the built in auxiliary contacts will be activated. The auxiliary contacts can be used to connect to an Alderon Industries Auto Dialer, an existing security system, or building automation system (BAS).

Pressing the "Alarm Silence" pushbutton will silence the buzzer and the alarm LED (red) remains on. When alarm condition is cleared, the system automatically resets itself for the next alarm cycle. Part number 7991 includes an indoor rated high water alarm panel, indoor wireless receiver, outdoor rated wireless transmitter and float switch. Part number 7992 includes all items in the 7991 alarm system, plus a riser connection kit and mounting post (actual riser not included).

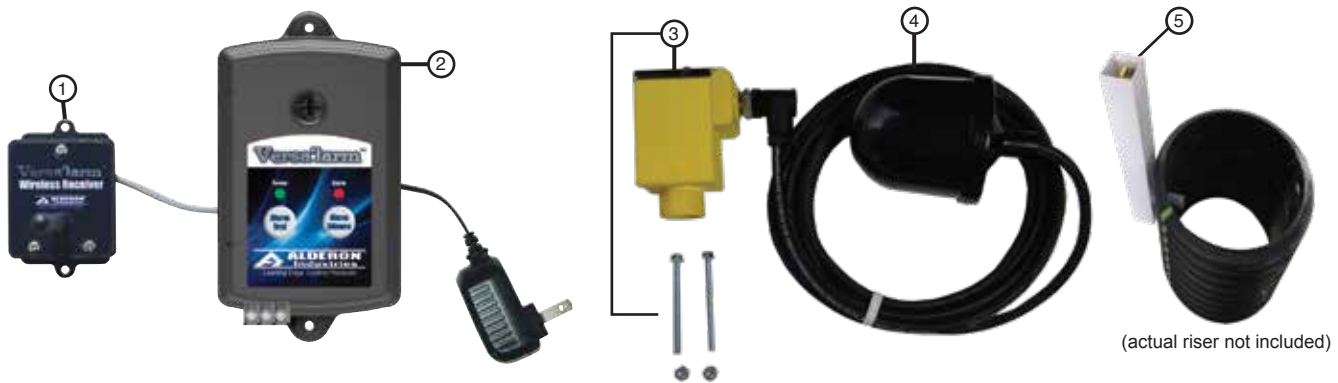
Tools, Supplies and Requirements for Installation - Not Included

1. Phillips screw driver
2. Drill and 3/16" drill bit
3. 3/8" Wrench
4. (Qty 4) #6 self tapping screws
5. Access to 120 VAC power receptacle
6. Optional - Plastic anchors (#8; Qty 4) if mounting to sheet rock (alarm and wireless receiver)
7. Optional - 9V battery (used for battery backup during power outages)
8. Optional - Wire stripper (used if you need to strip wire to connect to a BAS or SCADA system)
9. Optional - Needle nose pliers if using auxiliary contacts
10. Optional - 3" screws if mounting wireless receiver without mounting kit (plastic anchors for sheet rock; Qty 2)

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Alarm System Product Overview



Electrical Ratings

- Single Phase
- 120VAC/9-11.1 VDC
- 50/60 Hz

Indoor Components

- ① Indoor Mounted Wireless Receiver
- ② Indoor Mounted Alarm Panel/Power Supply

Alarm Features:

- Alarm Buzzer
- Green Power and Red Alarm LEDs
- Auxiliary Contacts
- Auto Reset Function

Outdoor Components

- ③ Wireless Transmitter with Mounting Screws
- ④ Float Switch
- ⑤ 4-Foot Post and 2" Riser Connection Kit (7992 only)
(Actual Riser Not Included)

Pretest the Alarm System and Testing Alarm Panel

1. The wireless transmitter and receiver are both programmed in the factory and do not need to be adjusted or programmed. Important! - Allow 10 minutes after the Versa'larm™ is powered up to establish a communication link with the float switch and wireless transmitter. Wait at least 10 minutes before attempting to test the system.
NOTE: THE WIRELESS TRANSMITTER CAN BE ACTIVATED BY OPENING THE COVER AND PRESSING THE BLACK BUTTON FOR FIVE SECONDS.
 - a. Pretest the system before mounting wireless transmitter, float switch, wireless receiver, and alarm panel.
 - b. Plug the alarm panel into a power outlet (120 VAC, 50/60 Hz).
 - c. Attach the float switch (black) to the wireless transmitter (yellow) using the screw in quick connect/disconnect.
 - d. Tilt the float switch above horizontal to activate the alarm panel (keep above horizontal through step 3). Press and hold the "Alarm Test" pushbutton to test system weekly after installation or when testing the battery backup feature.
2. Once the float switch activates the alarm panel, the buzzer should annunciate and alarm LED (red) should illuminate.
3. Press the "Alarm Silence" pushbutton, the buzzer should silence while the alarm LED (red) remains on.
4. Tilt the float switch below horizontal to deactivate the alarm panel, the alarm LED (red) should turn off. If performing the weekly test or testing battery backup, release pressure from the "Alarm Test" pushbutton.
5. The "Auto Reset" function will reset the system after alarm condition is cleared for the next alarm cycle.
6. Repeat a couple times to ensure proper system operation prior to installing the product and weekly after installation.

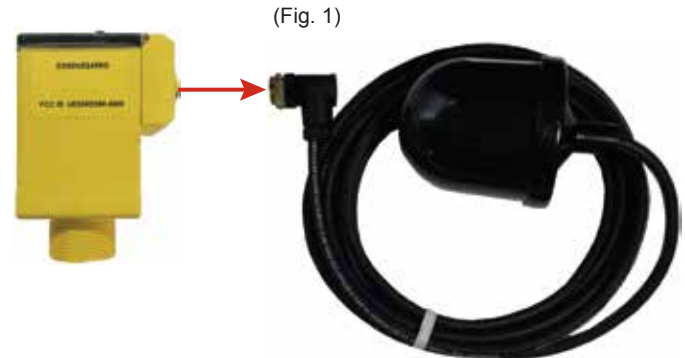
If the alarm panel and wireless receiver are properly communicating with the float switch and wireless transmitter, disconnect all power sources before moving on to the steps for installation. If not, call the factory for troubleshooting assistance.

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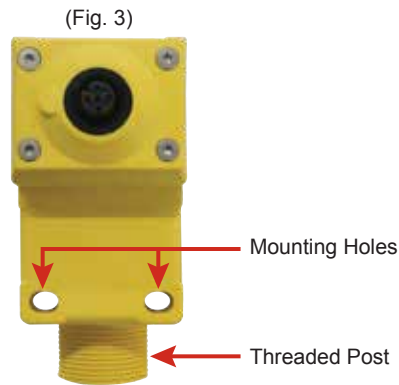
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Installation of the Wireless Transmitter and Float Switch

1. Disconnect all power sources for the wireless transmitter, float switch, wireless receiver and alarm panel. Unscrew the float switch (black) from the wireless transmitter (yellow) using the quick connect/disconnect (Fig. 1).



2. Determine a mounting location for the wireless transmitter. The included mounting kit has a washer, black threaded locking nut, bolts, and nuts (Fig. 2) which can be used with the threaded post or mounting holes on the transmitter (Fig. 3). Note: If drilling into a post or bracket using the provided bolts, nuts, and mounting holes in transmitter, a drill with 3/16" bit and 3/8" wrench are required (not included). The transmitter can also be mounted to a wall or permanent structure with user provided screws, minimum size of 3" to securely fasten (use plastic anchors if mounting to sheet rock, not included).

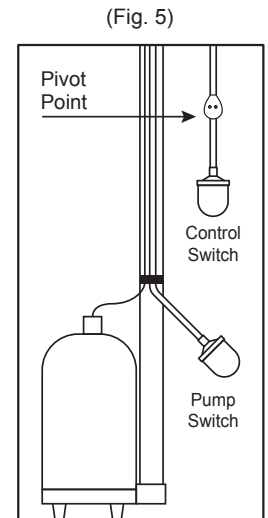
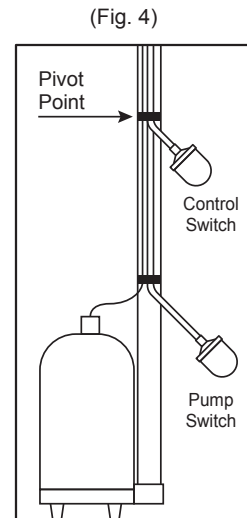


3. Mount the float switch, product comes with both a stainless steel pipe clamp and cast iron cable weight.

a. For pipe clamp models, determine desired activation level (Fig. 4), then mount the pipe clamp at desired location and tether float switch cable to approximately four inches.

b. For cable weight models, determine desired activation level (Fig. 5), then suspend the float switch cable with weight at desired location and tether cable to approximately six inches.

Note: Wireless Versa'larm™ system (7991 and 7992) is used as a high level alarm. Alderon normally open float switches activate at 5 degrees above horizontal and deactivate at 5 degrees below horizontal. Check installation by cycling the float switch on and off to ensure proper operation for desired activation range after installation is complete.



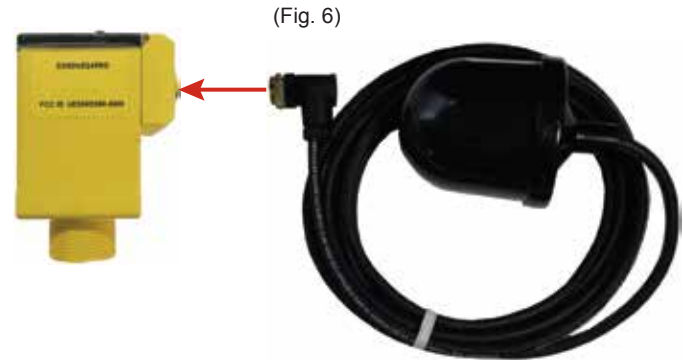
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Installation of the Wireless Transmitter and Float Switch Continued

4. Connect the float switch to the wireless transmitter (yellow) using the screw in quick connect/disconnect (Fig. 6).

CAUTION: Hand tighten only while attaching the float switch to the wireless transmitter. Overtightening or using tools will cause irreversible damage to the product.



Installation of the Alarm Panel and Wireless Receiver

1. The maximum line of sight distance between the wireless transmitter and wireless receiver is 3,250 feet (990.6 meters). Many factors will reduce this range, some of which include: hills, trees, buildings, etc. Before permanently mounting the alarm panel and wireless receiver (step 3), plug into the intended wall outlet and perform another pretest of the system as described on page 2 of these instructions. If the alarm activates, disconnect all power sources before proceeding to step 3 for permanent mounting of the alarm panel and wireless receiver.

Note: If the alarm does not activate, choose another wall outlet that is closer to your wireless transmitter. If moving alarm panel and wireless receiver closer does not work, remove the wireless receiver from the alarm panel and splice cable, add up to 100 feet maximum of 18 gauge 3-conductor cable. See step 2 example.

2. If normal installation does not work, use example below (Fig. 7) to increase the signal strength. The alarm panel and wireless receiver must be mounted indoors.

- Remove the wireless receiver from the alarm panel.
- Splice the 3-conductor 18 gauge wire to a maximum of 100 feet. Consult factory for further distances.
- Position the antenna on the wireless receiver to communicate the alarm panel with the wireless transmitter.



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Installation of the Alarm Panel and Wireless Receiver Continued

3. Determine the mounting location for the alarm panel and wireless receiver. Make sure power outlet (120 VAC, 50/60 Hz) is within 5-feet of the alarm panel (Fig. 8). The power outlet should be on a separate circuit breaker from any other device and not on a switched receptacle to maintain power integrity. Mount the alarm panel and wireless receiver using two #6 self-tapping screws (not included/Fig. 9) for both devices. Use two #8 plastic anchors (not included/Fig. 10) for both devices if mounting the alarm panel and wireless receiver to sheet rock.

(Fig. 8)



(Fig. 9)



(Fig. 10)



4. To install/replace the battery for the backup power feature, remove the access cover (Fig. 11) and install 9 VDC battery (Duracell model MX 1604B2 / Fig. 12). After installing battery, the green power LED should illuminate, then press and hold the "Alarm Test" pushbutton (Fig. 13) to activate the alarm and make sure the battery is working properly. The buzzer should annunciate and the alarm LED should illuminate. If using the auxiliary contacts, leave the access cover off until step 5 is completed. If the auxiliary contacts are not used, replace the access cover (Fig. 14).

(Fig. 11)



(Fig. 12)



(Fig. 13)



(Fig. 14)



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Installation of the Alarm Panel and Wireless Receiver Continued

5. If connecting to an existing alarm security system or building automation system (BAS), leave Terminals “+” and “-” open and use 18 gauge 2-conductor wire to connect the existing product to Terminals 1A and 1B (Fig. 15). When connected, replace the access cover and pull wire(s) through the knockout(s) on the access cover (see step 6). The alarm panel is factory wired with knockout for wireless receiver, use additional knockouts for auxiliary contacts. **CATUION!** - Route all wires away from sharp objects and internal components when installing wires.

AUXILIARY CONTACTS:

Terminals “+” and “-”

“+” Not Used

“-” Factory Wired (green)

Terminals 1A and 1B

Normally Open

Class 2, 24 VDC/VAC (50/60 Hz)

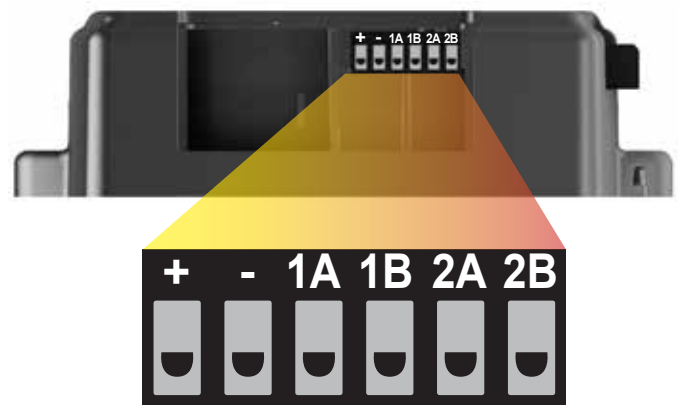
100 Milliamps Maximum

Terminals 2A and 2B

2A Factory Wired (black/red)

2B Factory Wired (red/red)

(Fig. 15)



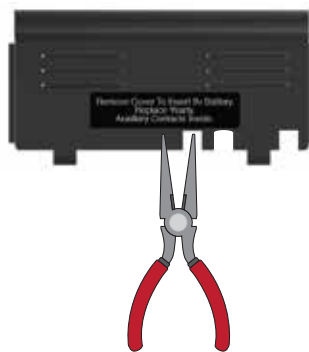
Note: The auxiliary contacts 1A and 1B of the alarm panel are Normally Open only.

6. After the access cover has been removed from the alarm panel (Fig. 16), use a needle nose pliers (not included) to remove the desired “break away tabs” from the access cover, lightly pull and twist off tab(s) (Fig. 17). Replace the access cover and run wire(s) through the knockout(s) (Fig. 18).

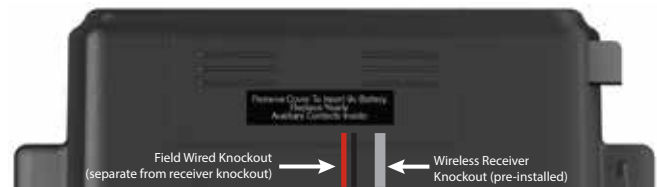
(Fig. 16)



(Fig. 17)



(Fig. 18)



Testing and Maintenance

1. Plug the alarm panel power supply into a 120 VAC, 50/60 Hz standard wall outlet and the green “Power” LED should illuminate. Test by pressing and holding the “Alarm Test” pushbutton or activating the “Signaling Device” (float switch). The buzzer should annunciate and the alarm LED should illuminate. Press the “Alarm Silence” pushbutton and the buzzer should silence while the alarm LED remains on. After you remove pressure from the “Alarm Test” pushbutton or deactivate the “Signaling Device”, the “Auto Reset” feature reactivates the alarm panel for the next alarm cycle. Test product weekly to ensure system integrity. Refer to step-by-step testing instructions on page 2 for further details.

Transmitter Maintenance: The transmitter is a waterproof unit that comes with an internal lithium battery (BWA-BATT-006) which has an approximate battery life of 5 years under normal operating conditions. Consult the factory for ordering a replacement battery.