



Installation Manual

RS-092

Operation and Installation Instructions for FloodMaster RS-092-MK1 & RS-092-MK2 Water Leak Detection Alarm/Shut-Off Systems

The RS-092 series of Water Leak Detection and Shut-Off Systems is designed to monitor and respond to water leaks. When the sensing rope comes in contact with a small amount of water (or any other conductive liquid), it will automatically sound an audible alarm and close the valve to shut down the water feed line, thus mitigating damage caused by an undetected water leak. The unit also provides output signal capabilities (SPDT Relay Output Contact) for connection to a home security panel or for use with an appropriate relay to control a secondary device, such as a pump or electric motor.



Output signal connections:

Normally Closed Circuit – Terminal Pins 3 & 4

Normally Open Circuit – Terminal Pins 4 & 5

The kit includes the receiver with on-board audible alarm, a full port lead-free shut-off valve, (2) 3/8" compression fittings (male and female), leak detection wire rope with lead wire, and either a 120 VAC wall wart (MK1) or 120, 208 or 240 VAC to 24 VAC step-down transformer (MK2).

OPERATION:

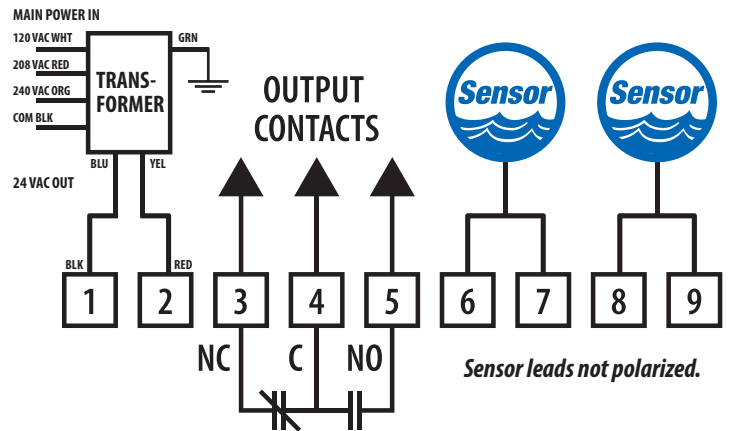
In the event the system activates, locate the source of the leak, remove the sensor from the water and dry. (Tip: A hair dryer may be used to expedite the drying time.) Correct the problem causing the leak, and replace the sensor in the desired leak detection location. Press and release the reset button on the receiver to open the valve and resume the flow of water.

INSTALLATION INSTRUCTIONS:

(FloodMaster recommends that installations be completed by a licensed plumber and/or electrician to ensure that all local code requirements are followed.)

- Turn off the water supply feed line.
- Thread the 1/2" NPT x 3/8" fittings to either end of the valve body. Apply Teflon® tape to the NPT threads and tighten.
- Install the valve body with fittings in the desired location. Mount the compression fitting on the supply pipe and then mount the hose line compression fitting to the male fitting.
- The receiver connector comes pre-wired with basic connections to the power supply and the sensor. Using an appropriate screwdriver, make any additional desired electrical connections for output contacts or additional sensors per the diagram provided. *(Note: Additional sensors can be connected to either 6 & 7 or 8 & 9, as wiring space allows.)*
 - Snap the terminal wiring block into the receiver housing at the mating slot provided.
- Secure the valve body in one hand and snap the receiver into place on the valve body mounting pad.

(Note: Improper alignment of the valve stem may interfere with proper receiver mounting. If any resistance is encountered, confirm that the witness mark on the valve stem is in alignment with the ports of the valve. Use an appropriate hand tool, such as a pliers, to clamp down on the valve stem and turn in the appropriate direction until the desired position is achieved.)
- For RS-092-MK1 Kit – Plug the wall wart into a 120 VAC wall outlet. The green Power indicator light on the receiver will turn on. Proceed to Step 8.
- For RS-092-MK2 Kit – Turn off the main power. Wire the blue and yellow wires (24 VAC output) to the plenum wire that is prewired to the power input of the receiver contact plug. Wire the appropriate inputs to the main power source – refer to TRANSFORMER WIRING and TRANSFORMER MOUNTING INSTRUCTIONS for more details. Turn on the power. The green Power indicator light on the receiver will turn on.



(Continued – See reverse.)



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8. Function Test the system as follows:

- a. Apply a wet 4" section of paper towel to the wire rope sensor.
- b. The audible alarm will sound and the valve will rotate to the closed position.
- c. The red Valve Closed LED will turn on when the valve is completely closed (approximately 45-second cycle time).
- d. Remove the wet paper towel, dry the wire rope sensor and place it in the desired location (under the dishwasher, around the water filtration system, in a catch pan, etc.).
- e. Press and release the Reset Button on the receiver to open the valve and resume water flow (approximately 45 seconds to fully open position).

TRANSFORMER WIRING INSTRUCTIONS:

The supplied transformer has multiple input taps to accommodate different line voltages. If the existing line voltage you have at your facility is:

120 VAC – The **WHITE** wire from the transformer should be connected to the hot leg of the input voltage and the black wire to the neutral leg.

208 VAC – The **RED** wire from the transformer should be connected to the hot leg of the input voltage and the black wire to the neutral leg.

240 VAC – The **ORG** wire from the transformer should be connected to the hot leg of the input voltage and the black wire to the neutral leg.

The **GREEN** wire in all cases must be connected to **EARTH GROUND**.

Each wiring combination as stated above yields the same 24 VAC output across the **BLUE** and **YELLOW** wires of the secondary winding of the transformer.

TRANSFORMER MOUNTING INSTRUCTIONS:

The kit contains a cover plate for a standard junction box. The cover has a hole or knock out in the center of it. The cover plate is designed such that the transformer can be mounted to it and then screwed into the junction box.

1. In order to mount the transformer to the cover, carefully route the primary wires of the transformer through the hole in the cover.
2. Tilt the cover so that the head of the retaining screw on the transformer is over the cover.
3. Back the screw out until the cover slips under the threaded end of the retaining screw.
4. Tighten the screw until the transformer is secured on the cover. The threaded end of the screw is designed to press against the cover to hold the transformer in place.

MAINTENANCE:

We recommend an annual test of the unit to ensure proper function. See Function Test instructions above. At a minimum, users should exercise (press and release) the reset button on the receiver annually to ensure correct operation and to maintain product warranty status.

EMERGENCY MANUAL OPERATION OF THE VALVE:

The unit is equipped with an emergency feature for the manual rotation of the valve. This can be accomplished by disengaging the actuator from the valve and manually changing the valve to open or closed as follows:

1. Turn off the main power to the transformer.
2. Stabilize the water feed line by grabbing it in one hand near the valve. While grasping the actuator housing in the other hand, pull the actuator housing away from the water feed line.
3. Using an appropriate hand tool, such as a pliers, clamp down on valve stem and turn in the appropriate direction until the desired position is achieved. Note the top of the stem is slotted to indicate valve position (in line with water flow would indicate open valve; slot across water line would indicate closed valve).
4. Before remounting the actuator, return the valve to the original position prior to the manual rotation.
5. Remount the actuator and restore the main power to the transformer.
6. Test for correct operation per the *Function Test* listed above.



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