



Installation Manual

FM-094

Operation and Installation Instructions for FloodMaster Water Heater Leak Detection Alarm/Shutoff Systems – Model FM-094

The FM-094 series of Feed Water (Water Heater) Leak Detection and Shut Off Systems is designed to monitor and respond immediately to water leaks. When a sensor comes in contact with as little as 1/16th of an inch 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.

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 (NSF/ANSI 61 Annex G) shut-off valve, 110 VAC power supply, leak detection sensor and a screw driver. Additional sensors can be added where a wider area of leak detection is required (additional sensors sold separately).

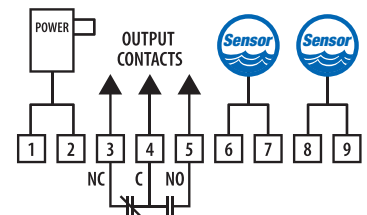


Operation:

In the event the system activates, locate the source of the leak, remove the sensor from the water and dry the metal contacts on the bottom. Correct the problem causing the leak and replace the sensor in the desired leak detection location once again as required. Press and release the reset button on the receiver to open the valve and begin the flow of water again. The green Power indicator light on the receiver will flash once to confirm the reset.

Installation Instructions: *(FloodMaster recommends that installations be completed by a licensed plumber to ensure that all local code requirements are followed).*

1. Turn off the water supply feed line to the water heater.
2. Thread the valve body into the feed water line after the manual shut-off. Apply pipe sealant or Teflon® tape to the NPT threads and tighten.
3. The receiver connector comes pre-wired with basic connections to the power supply and the sensor. Using the screwdriver provided, make any additional electrical connections as may be desired 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.
4. 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 the witness mark on the valve stem is in alignment with the ports of the valve. Use an appropriate hand tool, such as pliers, to clamp down on the valve stem and turn in the appropriate direction until the desired position is achieved).*
5. Plug the power transformer into a 120VAC wall outlet; the green Power indicator light on the receiver will turn on.
6. **Function Test the system as follows:**
 - a. Place the sensor on a wet paper towel.
 - 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). Open a hot water faucet and inspect for absence of water flow. There should be no flow.
 - d. Remove the sensor puck from the paper towel, dry the contact points and place the sensor puck back in the desired location on the floor.
 - e. Press and release the Reset Button on the receiver to open the valve and begin the flow of water again (approximately 45 seconds to fully open position). The green Power indicator light will flash once to indicate the reset process has begun.
 - f. Open a hot water faucet and inspect for water flow.



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. Unplug the unit from the 120VAC wall outlet.
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 plug into 120 VAC wall outlet.
6. Test for correct operation per the *Function Test* listed above.





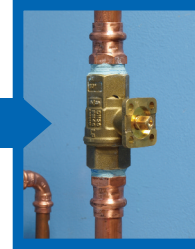
FM-094 QUICK-START GUIDE

Water Heater Leak Detection + Automatic Shut-Off System

1 Manually shut off the water feed line to the water heater.

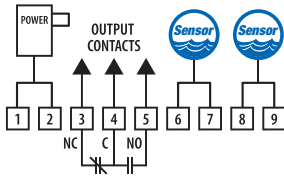


2 Install the FloodMaster shut-off valve on the feed line.



3 Make any additional wiring connections.

Wiring Diagram



4 Mount the actuator to the valve.



5 Snap the wiring block into the receiver and plug into a wall outlet.

6 Test the sensor with a wet paper towel.



7 Reset the system.



8 Place the sensor on the floor next to the tank.



Congratulations – your FloodMaster system is ready to go!

For more detailed instructions, please reference your FM-094 Installation Manual.
Call FloodMaster toll-free at 888-771-4929 for assistance.