

# H2O SOS

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## SHUT OFF SYSTEMS

Installation and Operation Manual



**WATER DAMAGE**  
**PREVENTION SYSTEMS LLC**

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Designed by Water Damage Prevention Systems LLC, the H2O SOS™ (Shut Off System) protects all types of buildings from water damage caused by faulty plumbing leaks or accidental overflows. Hardwired or wireless sensors are placed in areas where a leak or overflow may occur. When water contacts a sensor, an electronic signal is sent to the H2O SOS™ Control Panel. The Control Panel immediately sends an electronic signal to the H2O SOS™ Water Shut Off Valve. Within seconds of receiving the signal from the Control Panel the Valve closes and the water supply to the building is turned off. An audible alarm is emitted from the Control Panel announcing the Valve is closed.

## **Suitable Locations for your H2O SOS™ Components**

- Install the H2O SOS™ Control Panel in an area that is easily accessible
- Install the H2O SOS™ Shut Off valve in on the main water line where it enters the building before it branches off. If all the interior water goes through the Water Softener the valve may be installed directly in front of the water softener.
- Locate sensors throughout the building where the possibility for water leaks or overflows may occur.
- Areas include all sinks, toilets, washing machine, water heaters, icemakers and refrigerators with water, dishwasher and Reverse Osmosis Systems.
- Install the Wireless Receiver (optional) in an area that is easily accessible.
- Install the Wireless Receiver (optional) as high as possible for the optimal radio range.
- Install the Wireless Transmitters (optional) in areas that easily accessible.
- All equipment, excluding Wireless Transmitters, will require a power supply. Receptacles for these components should be easily accessible.
- If possible, use a dedicated circuit for all equipment requiring a plug.

## **DO NOT**

- Connect any equipment to electrical outlets that are controlled by timers or wall switches.
- Connect any equipment to electrical outlets to circuits that control large appliances or equipment.
- Install any equipment in areas of direct sunlight or in areas that are exposed to moisture or dust.
- Install wireless equipment (optional) where interference may reduce the radio range between the Wireless Transmitters Receiver.

## Items Needed Prior to Beginning Installation

- 18/3 and 22/2 gauge wire, stranded and unshielded.
- Properly sized crimp type splices, wire nuts.
- # 8 screws for mounting Water Sensors.
- Properly sized mounting boxes.
- Assortment of screw drivers.
- Wire strippers and crimpers.
- Drill and bits.
- Wire staples and zip tie

## Prewire of Hardwire Sensors

- Determine location of Control Panel, Water Sensors and Shut Off Valves.
- Use a 2 gang electrical box to house Control Panel.
- Install a single gang electrical box close to valve location.
- Run 22/2 gauge wire, stranded and unshielded, from sensor locations to Control Panel location.
- Run 18/3 gauge wire, stranded and unshielded, from valve location (single gang box) to Control Panel location.
- Use marking numbers to separate sensor wires.
- When running wires, try to run as high as possible away from all other wiring in the structure.
- Staple and secure wires to framing.
- Terminate sensor wires for sinks by wrapping around plumbing drain and secure wire electrical tape.
- Terminate sensor wires for toilets on bottom plate of framing. Determine finish height of floor before securing. Drill a ¼" hole at an angle through bottom plate. Drive a nail into plate, wrap wire around tape and secure with tape.
- Determine areas to plug equipment in to wall plugs.

## H2O SOS™ Valve Installation

- Make certain that the water supply is turned off at the meter and that no power supplies for the system are plugged in.
- The H2O SOS™ Valve must be installed on the main water line and downstream from any of the following: the primary shut valve (water meter, the pressure regulator, irrigation line or fire suppression system line).
- Ideal locations for the Shut Off Valve include: in the garage, basement or crawl space, on the water softener loop (before the water softener).
- If the building is on a slab (no basement) the valve can be installed outside. However, the valve should be located no less than 12" above grade and it must be protected from direct sunlight, moisture and freezing conditions with an appropriate water proof enclosure.
- Install the valve in a location is always accessible.
- The H2O SOS™ Shut Off Valve may be installed horizontally or vertically (90-degree angle).
- To install the valve a length of pipe must be removed to accommodate the valve/flow body assembly and any connectors.
- All common methods of pipe connections including unions and treaded pipe can be used
- When necessary consult with a Licensed Plumber to verify local plumbing codes.

## H2O SOS™ Control Panel Installation

- The Control Panel is designed to be mounted on a two-gang electrical box, either a new construction box or a retro-fit box.
- Use the supplied screws to mount the Control Panel (after making connections)
- Connect as shown using the directions on the next page.

## H2O SOS™ Single Zone Control Panel Wiring

### Control Panel Wiring Harness

Connect **Blue** wire from Valve to 1 **Green** and to 24 VAC Power Supply

Connect **Brown** wire from Valve to other **Green** and **Red** from Control Panel and 24 VAC

Connect Black wire from Valve to **Brown** from Control Panel

Connect the 2 White Wires (Water Probes) from Control Panel to the incoming wires from the Water Sensors and /or the Wireless Receiver (OPTIONAL). Connect all the Reds to one side (WHITE) and all the Blacks to the other side (WHITE).

### Valve Operation

Before making the connection shown above unplug the 24VAC Power Supply from the Control Panel.

1. Once the connections to the valve have been made Short (wet) across the H2O SOS™ Water Sensor. The Green LED will turn off, the Red LED will begin flashing and the Audible Sounder will turn on and the Valve will close.
2. Press the Black Push Button once to silence the alarm. If the sensor is wet the Red LED will turn Steady ON and the Valve will be closed.
3. Once the sensor has dried the Green LED will come back on. Press the Black Button to open the valve to restore the water service.
4. To OVERRIDE the valve (Red LED on only) Press and hold the Black Push Button in until the Amber LED comes on and the Red LED goes off. DO NOT LEAVE IT ON OVERRIDE IF SOMETHING IS LEAKING!!!!

### Maintenance of valve

These electric actuators do not need any formal maintenance. The internal lubrication is sufficient for the life of the actuator.

In case of damage or a problem in operation please contact:

#### **Water Damage Prevention Systems LLC**

PO Box 86

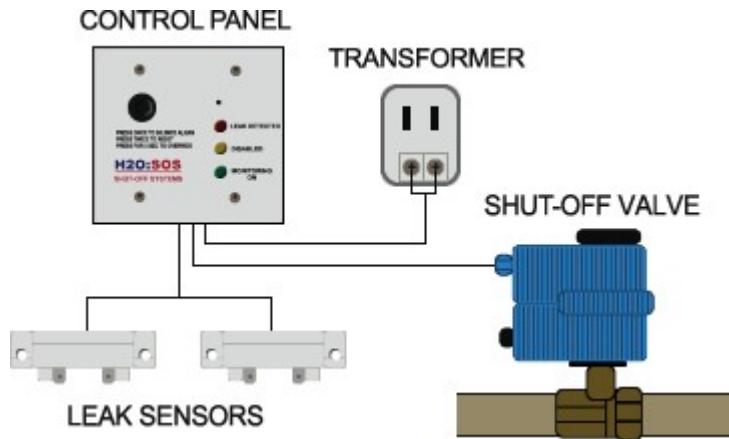
Converse, TX 78109-0086

210-566-4446



# H2O SOS™ Schematic

## Hardwired System



## Wireless sensors and hardwired receiver

