

# **WaterCop<sup>TM</sup>**

**Emergency Leak Detection  
And  
Water Shut-off System**

# **Owner's Manual**

# **WaterCop™**

## **Emergency Shut-off Leak Detection System**

### **System Description**

The **WaterCop™** System detects leaks in your plumbing system at predetermined locations (that you choose), and automatically shuts off the water supply to help effectively reduce the chances of major water damage associated with a leak.

### **System Components**

The **WaterCop™** System is composed of two basic parts:

- The **WaterCop™** - A motorized ball valve that houses a wireless radio receiver that automatically turns off your water supply when the **WaterHound** detects water.
- The **WaterHound** - A moisture sensor which houses a wireless radio transmitter that detects water from a leak or overflow and sends a signal to the **WaterCop** to turn off your water supply.

### **General Safety Information**

#### **Warning**

Do not apply electrical power to the unit unless the unit is fully assembled (as it shipped). Failure to do so could result in personal injury and/or damage to the unit.

#### **Warning**

Disconnect power source before working on or servicing the unit. Failure to do so could result in personal injury.

#### **Caution**

It is strongly recommended that eye protection be worn while servicing the system. Failure to do so could result in personal injury.

### **How the System Works**


The **WaterHound** communicates that water has been detected to the **WaterCop™** by transmitting a RF (radio Frequency) signal. When this signal is received by the **WaterCop™** the motor is energized closing the ball valve and shutting off the water supply. The **WaterCop™** valve will remain closed until it is manually reset.

The **WaterHound** is a battery powered device enabling it to be located anywhere a leak is likely to occur, or that water might cause damage. The **WaterCop™** requires household electrical power (common 115 VAC, grounded outlet) and will not operate in case of a power outage until power is restored to the home.

### Selection of WaterCop™ Installation Sites:

The **WaterCop™** valve should be installed in the main water line just downstream from the main shut-off valve in your home. The side of the **WaterCop™** housing with the label should be easily visible in order to see what position the valve is in (open/closed). It should also be easily accessible for resetting after a leak has been detected and the water supply has been shut off. While the **WaterCop™** is completely supported by the piping in your plumbing system when it is installed, placement of the valve should insure that the housing is protected from use as a step or other excessive loads. The **WaterCop™** requires household electrical power and the provided power cord must be plugged into a properly grounded power source(115 VAC). Do not use an extension cord.

**Local electrical and plumbing codes should be consulted to insure that the installation is in complete compliance. (See Installation section for details).**

<b>▲WARNING</b>	
	<p>To reduce risk of electrical shock, fire, or damage to property or WaterCop:</p> <p>1. Use a grounded, 115 VAC outlet The power cord must be plugged into a property grounded [3-prong] outlet.</p> <p>2. Do not use extension cords Use of extension cords can cause fires or electric shock Install WaterCop within eight feet of an outlet or, Install an outlet near the WaterCop. Comply with all local codes.</p> <p>3. Before opening case, unplug power cord When the case is open, it is possible to contact electrified components. Always unplug the power cord before opening the unit.</p>
	<p>Wear eye protection for plumbing and electrical work.</p>

<b>▲WARNING</b>	
	<p>The WaterCop case is NOT EXPLOSION PROOF. The shut-off valve must NOT be installed where it could ignite flammable vapors or explosive mixtures.</p>

## Selection of WaterHound Locations

Each **WaterCop™** can support an unlimited number of **WaterHounds**. Additional **WaterHounds** maybe added at anytime. A **WaterHound** consists of a transmitter (a rectangular box with an antenna) and a sensor (a small disc at the end of the wire, with two short silver prongs protruding from one side). The **WaterHound** should be placed in locations where leaks are likely to occur.

### Some suggested locations:

Washing Machines	Water Heaters	Toilets
Dishwashers	Automtic Humidifiers	Ice-makers/Refrigerators
Kitchen Sinks/bathroom Sinks	Pipes that are prone to freezing	

The transmitter in the **WaterHound** and receiver in **WaterCop™** communicate by radio frequency and the smaller the distance between them, the stronger the signal will be. The maximum transmission distance is somewhat dependent upon the building layout and type of construction, but will be in 150-175 foot range. The transmitter (box with batteries) must be kept dry. It is **NOT** splash proof. The **WaterHound** should never be placed outdoors. The sensor detects the water from a leak and is completely waterproof. Sensors should be placed on the floor or in areas where water would tend to accumulate rapidly in common leak or overflow situations. **Make sure that any water from a leak will drain toward the sensor, not away from it.** Avoid high traffic areas where cord or sensor could be stepped on or kicked and where children or pets may disturb it. **The sensor should be placed FLAT on the floor so water can be detected as soon as it begins to accumulate.** The sensor may be secured to the floor with adhesive tape. To avoid damage to transmitters and to provide for the strongest signal possible, the **WaterHound** transmitter should be mounted in a convenient location (on the wall, in a cabinet, closet, etc.) two to three feet above the floor. (See Installation section for details on **WaterHound** installation).

The shut-off valve must be installed

- In the main water line,
- Just downstream from the main water shut-off valve,
- In a dry location,
- Where it is accessible for checking and resetting the valve and for resetting the radio receiver code, if necessary,

- Where the case is protected from use as a step or other excessive loads.

## **WaterHound Battery Life**

High quality alkaline "AA" batteries are recommended. Under normal conditions (standby mode) the batteries should last about one year. Each transmitter has a low battery signal (audible chirp). Replace batteries at least annually or when low battery signal is detected. **Re-test each unit in its regular location (see installation manual).** If you are away from home for long periods of time, transmitters should be tested upon your return to ensure proper function.

## **Operating the WaterCop™ System**

The normal position of the valve is full open to allow full flow throughout the plumbing system. This is a full port ball valve which does not restrict the flow capacity of your plumbing system. The indicator lights on the face of the **WaterCop™** will show the position of the valve. If the valve is in the closed position (the red light will be lit) press 'open' and the valve will move to the open position (green indicator will light).

When water comes in direct contact with a **WaterHound** sensor, a RF (radio frequency) signal is transmitted to the **WaterCop™** and the valve closes, turning off the water source to protect the building from additional water damage. The red indicator light will signal that the valve is now in the closed position, and that you need to check all areas where you have placed a **WaterHound** to determine what plumbing product caused the system to activate. The valve will remain closed until the unit is reset at the **WaterCop™** valve.

After the plumbing problem is fixed, reset the **WaterCop™** by pressing 'open valve' (green circle) on the face of the **WaterCop™**. Valve will open and green indicator will be lit.

Note: If major repairs are needed to correct the plumbing system, it is recommended that the manual shut-off valve upstream of the **WaterCop™** also be closed during the repairs. Close the main water shut-off valve and unplug the **WaterCop™** before doing repairs on the plumbing system.

Note: In case of power failure, the **WaterCop™** cannot operate. If power

is out you will need to use the manual shut-off valve to turn water off in case of an emergency. When power is restored, the **WaterCop™** will remain in its last known position indicated by the red or green lights on the face of the unit.

**WaterCop™ Specifications:**

Max. working pressure ...	125 PSIG
Ambient temperature .....	35° to 105° F
Enclosure .....	Polycarbonate
Voltage .....	115, 1 Phase, 60 Hz
Current .....	2.5 Amps
Power Input:	
Standby .....	1.375 W
Holding (2.5 sec) .....	75 W
Power Cord .....	8 ft. Heavy-Duty Grounded
Valve .....	Full-Port, Brass, ¼ NPT
Valve Seals .....	PTFE

**FCC Information:**

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

The water sensors only transmit a radio signal during test and when contact is made between the probes as when water is detected. This signal is of a 2-second duration and is repeated approximately every 6 seconds while activated. This 2 second signal should be the only time potential interference could be detected. If you suspect the unit is interfering with your radio and/or television reception on a prolonged basis, remove batteries from all transmitters to determine if this unit is causing the interference. If so, please consult your dealer.