

LEAK DEFENSE

S Y S T E M



Owner's Manual

Congratulations!

You are the owner of the most advanced system available to protect Homeowners against catastrophic loss due to water damage. The Leak Defense System monitors the flow of water into your home 24 hours a day, 7 days a week. Should a leak develop, the system will alarm, and, if the leak is not corrected, will automatically halt all water flow to the home before additional damage can occur.

System Overview

The system includes a motorized ball valve, extremely low flow sensors and a control panel with a touch screen display. If water flow to your home continuously exceeds your system settings for more than your predetermined time, the alarm will sound and the ball valve will close — shutting off water to your home and potentially preventing major water damage. So the principle of the system is continuous water flow over time. Everything in your house allows for water to start and stop. A leak is the one situation where the water does not stop. The Leak Defense System is looking for this.

System Features

- Constant monitoring of your water system (*24 hours per day, 7 days a week*)
- Leak detection with audio/visual alarm notifications
- Automatic water shut-off protection to minimize water damage
- State of the art wireless color touch screen control panel
- System retains all settings in memory, even if the electrical power is interrupted
- Simple menu driven programming
- Ability to turn water ON and OFF control from the control panel

Serial Number: _____

Installation Date: _____

Company / Person who installed
the Leak Defense System: _____

Installer Phone Number: _____

Sentinel Hydrosolutions Leak Defense System

Help Line: 1.866.410.1134

(9:00am to 4:00pm Pacific Time)

	Page
Main Screen Overview	4-5
Using home and away	
Turning the water off	
Program the system	
Partial flow feature.....	6
The alarm started sounding and I am home. What do I do?.....	6
Fine-tuning your Leak Defense System	7
Leak Defense System Limited Warranty	8



Main Screen

When the Leak Defense System Control Panel is activated, the screen lights up and the Main Screen will appear on the Touch-Screen Control Panel. From the Main Screen, the following functions are accessible:

HOME Button: Places the Leak Defense System in HOME mode.

AWAY Button: Places the Leak Defense System in AWAY mode.

STANDBY Button: Allows the user to put the system into STANDBY for up to 24 hours. WARNING, putting the Leak Defense System into STANDBY may allow a leak to go undetected as it is ignoring all water flowing.

WATER Button: Tapping the WATER button allows you to turn the water off.

STATUS Button: Tapping the STATUS button allows you to see system information.

ADJUST Button: Tapping the ADJUST button takes you to the ADJUSTMENT and SETTINGS Screen.

NUMBER Button: Tapping the NUMBER button next to HOME or AWAY allows you to set the amount of time water can flow before the Leak Defense alarms. Tapping the number button next to STANDBY allows you to set the amount of time you want the system in STANDBY.

BARGRAPH Button: While either HOME or AWAY is selected, tapping the bargraph allows you to set the TRIP RATE for each mode.

Main screen

The control panel screen will normally be dim. Touch the screen anywhere to make it light up. After a period of inactivity the panel will return to dim state. At the main screen you will see a bar graph that will indicate how much water is flowing.

HOME and AWAY

These buttons allow you to switch your Leak Defense System from **HOME** mode to **AWAY** mode when you are leaving the house. The highlighted box indicates what mode you are currently in.

When you are leaving the house, touch the screen and the Main Screen should be displayed.

- If the **HOME** button is highlighted, press the **AWAY** button.

Turn off water

This button will allow you to shut the water off to your home. Press this button and tap **TURN WATER OFF**.

Tap **MAIN** and you should see the green dot next to the **WATER** button turn red. To turn water back on, simply tap **WATER** again, to turn water on.

Program the system

Allows the user to customize the system settings. The TIME TO ALARM and TRIP RATE functions will need to be programmed in both the HOME and AWAY mode when the Leak Defense System is first activated but these settings may be changed or adjusted at any time.

With the **HOME** button highlighted you can program the TIME TO ALARM and TRIP RATE functions. These will allow you to program the time water can continuously flow when you are home and the TRIP RATE.

With the **AWAY** button highlighted you will be able to set the TIME TO ALARM and TRIP RATE. This will allow you to program the time water can continuously flow while you are away. You can also program the TRIP RATE.

Partial Flow Feature

In the Home Mode all Leak Defense Systems have a built in warning mechanism that will let you know that you have exceeded the Time to Alarm Setting and water is about to be turned off.

When you reach the Home Time to Alarm the control panel sounds a warning alarm that you have had water running for that duration. Simultaneously, the system turns the water off for 30 seconds and then re-opens the valve to check to see if water is still flowing. If the water has stopped flowing it resets the alarm clock. If water is still flowing it alarms and shuts off the water.

So, if you are running water and notice that the water stops flowing (and you may also hear the panel alarm) you will need to turn off the running water for about 90 sec. This will give the system time to turn the water back on and to confirm there is no water flow, and that there is not a leak and will return to normal, resetting the time to alarm clock. If the system still sees flow it will assume it is a leak and will turn off water completely. At any time you can go to the control panel and push the button indicating that the flow is normal and reset the system.

This warning mechanism is not available in the AWAY Mode as the system assumes no one is home and shuts the water off immediately once the time to alarm is reached. This feature is only available in the Leak Defense Systems.

The alarm started sounding and I am home. What should I do?

If the water flow is due to a routine activity that normally occurs within your household:

You may want to adjust the Leak Defense System settings. If so, you will first select "RESET" and then either:

- 1) Increase the TIME TO ALARM setting or,
- 2) Increase the TRIP RATE setting.

If you are filling your swimming pool, watering your lawn for an extended time, or running water for some other reason, do the following after selecting "RESET":

Press **STANDBY**, tap the **NUMBER** box next to STANDBY and select the amount of time desired for the system to remain in STANDBY, then tap the **YELLOW** box.

If there is nothing unexpected happening:

If you don't believe your water settings are set too conservatively, you will want to check for a leak.

Fine-tuning your Leak Defense System® to your lifestyle

Congratulations on your new Leak Defense System!

It is the most effective device available for monitoring the flow of water entering your home. The Leak Defense System cannot prevent a leak from occurring, but is designed to minimize the chance of a leak in your home from becoming a catastrophic flood by catching and stopping a leak as early as possible.

The System has two basic modes, the HOME mode and the AWAY mode. Each of these modes has two variable settings, the TRIP RATE and the TIME TO ALARM. Understanding these settings will enable you to make the correct decisions to maximize the protection of your home against water damage.

In the HOME mode the default setting for the Time to Alarm is set to 5 minutes and the Flow to Alarm (Trip Rate) is set to 10%. This means that water must flow continuously for 5 minutes above a trip rate of 10% for the system to alert. At any point when the TRIP RATE drops below 10% the clock resets.

These settings can and should be adjusted to conform to your daily water use and level of protection you desire. For instance, if you normally take a 15 minute shower you should set the time to alarm to 20 minutes or more. If you have an active home you may need to set your time to alarm to 45 minutes or longer. A key point to remember is that dishwashers and washing machines may run for an hour or more, but they only pull water for a few minutes.

One way to determine exactly where to set the flow is to partially open a faucet and then look at the bar graph to see what percentage that flow is. Continue to close the faucet and compare the flow rate at the faucet with the flow rate displayed on the bar graph. This will help you to decide where you want to set the TRIP RATE. If you are concerned with very small leaks you should set the TRIP RATE as low as possible (2 or 3%) without the system alarming.

The first few weeks after installation the system may alarm. Be aware that these are not "false alarms." If the system goes off water is/was flowing somewhere in your home. For the first time you now have the ability to know when water is flowing in your home with this system. Adjusting your Time to Alarm and TRIP RATE will allow you to optimally protect your home and not have nuisance alarms, the combination most people are looking for.

In the AWAY mode, the default setting is 5 minutes for the Time to Alarm and the TRIP RATE is 10%. Here again, if you are concerned with very small leaks you should adjust the TRIP RATE to as low as possible without the system alarming. Most people end up with a TRIP RATE of 7% or less and 3-5 minutes Time to Alarm in the AWAY mode.

If an accessory like a flow switch, relay or timer has been added to put the Leak Defense System into STANDBY mode for any reason, during that time the house is unprotected. When in the STANDBY mode, the Leak Defense System does not monitor water flowing and may allow a leak to go undetected. It is always preferred to separate pool and irrigation feeds from the house supply line. Please make sure all users and owners of the Leak Defense System are made aware of this. Contact our office if you have any questions.

Perhaps you purchased a home with a Leak Defense System and you are unsure how to change the settings to your preferences. No problem! Just give us a call and we'll happily walk you through it over the phone.

We hope these tips are helpful. Please complete your Warranty Card included with your system or complete the on-line form at www.leakdefensesystem.com/warranty if you prefer.

If you have any questions you'd like to ask our technicians:

Feel free to call us from 9am - 5pm Pacific Time at (866) 410-1134, ext. 1

LEAK DEFENSE SYSTEM LIMITED WARRANTY

Warranty Period:

The manufacturer warrants its products that are sold and installed in the United States to be free of defects in materials and workmanship under normal use and service for a period of two (2) years from the date of purchase by the end user.

Warranty Coverage:

The manufacturer's obligations shall be limited within the warranty period, at its option, to repair or replace the product or any part thereof.

In order for the warranty to apply, the Leak Defense System must be installed by a licensed plumber, licensed General Contractor or approved installer. The manufacturer shall not be responsible for dismantling and/or reinstallation charges.

**FOR WARRANTY CLAIMS, CONTACT SENTINEL HYDROSOLUTIONS AT
WWW.SENTINELHYDROSOLUTIONS.COM OR CALL 1.866.410.1134**

Items Not Covered:

Neither the manufacturer nor the seller of the Leak Defense System shall be liable for any damage or loss whatsoever whether directly, indirectly, consequentially or otherwise, caused by the malfunction of the product.

The product is not designed to prevent leaks, but rather to identify possible leaks caused by a significant variance in water flow over time. The ability to stop the water supply is reliant on proper use and installation. The manufacturer shall not be responsible for damages including but not limited to, damages for loss of profits, goodwill use or other intangible losses (even if the manufacturer has been advised of the possibility of such damages) resulting from the failure of the Leak Defense System or associated equipment.

The manufacturer does not represent that its product may not be compromised and/or circumvented, or that the product will prevent any flood or damage to property resulting from a water leak or otherwise that the product will, in all cases, provide adequate warning or protection.

User or owner EXPRESSLY UNDERSTANDS AND AGREES that neither the seller nor the manufacturer has control on the final use of this product, its good working condition and its reasonable maintenance and that consequently, a properly installed and maintained system may only reduce the risk of an event involving water damage in specific circumstances:

- Damage or operational deficiencies due to water quality issues such as sediment or scale accumulation.
- Replacement of house fuses or resetting of circuit breakers.
- Damage to the product caused by accident, fire, or acts of God.
- Damage caused after delivery.

The above is in lieu of all others warranties; guarantees, statements expressed or implied and the items listed are not intended to be all-inclusive but rather representative of items not covered. The warranty is limited to the express warranty set forth herein. No warranty whether express or implied shall apply beyond the limited warranty period outlined above. Some states do not allow limitations on whether an implied warranty applies or how long an implied warranty lasts, therefore the above limitation may not apply to you. To know what your legal remedies or rights might be, consult your local state consumer affairs office or your state's Attorney General.



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The unfailing love of the Lord never ends! By His mercies we have been kept from complete destruction. Great is His faithfulness; His mercies begin afresh each day.

Lamentations 3:22-23