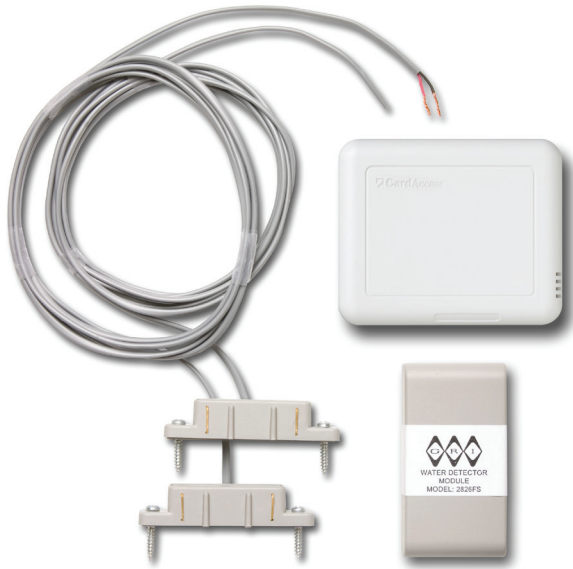# Water Leak Detection Package
Installation Guide

Package contents

Water Leak Detection Package, Line Powered (ZCA-ILD10B-L-ZP)

- 1 Wireless Contact Switch
- 2 AA batteries
- 1 North American 12VDC external power supply
- 1 G.R.I. 2600T including:
  - 1 line-powered relay switch
  - 2 leak detection probes

Water Leak Detection Package, Battery Powered (ZCA-ILD10B-B-ZP)

- 1 Wireless Contact Switch
- 2 AA batteries
- 1 G.R.I. 2826FS including:
  - 1 battery-powered relay switch
  - 2 leak detection probes
  - 1 custom battery module

> **Note:** The Water Leak Detection Packages have been tested and are designed to work with Control4 OS 1.3.2 and later. All necessary drivers for the package are included in these Control4 versions.

Introduction

Water leaks generate more home insurance claims than fires, storms, or thefts. In a Control4 automated home, the Water Leak Detection Package delivers an all-in-one solution that makes it quick and easy to add water detection equipment and events to a Control4 system.

Easy installation

The Water Leak Detection Package is designed for quick installation with high reliability. The Wireless Contact Switch installs quickly. The two water leak sensor options install easily and are then connected to the Wireless Contact Switch. An entire automation package can easily be installed by experienced installers in as little as 30 minutes.

Applications

There isn't much that's worse than arriving home and finding a basement full of water from a broken pipe or a failed sump pump. Now the Water Leak Detection Package eliminates this worry for Control4 homeowners. When this package is used in Control4 systems, homeowners can monitor their homes for water leaks from miles away.

Use the Water Leak Detection Package in primary and secondary residences (such as cabins) under kitchen sinks, water chillers, ice makers, garbage disposals, dishwashers, bathroom sinks, toilets, washing machines, water beds, water heaters, water supply and return lines, drains prone to clogging, basement foundation walls, air conditioners, aquariums, indoor water features, skylights, operable windows, sliding glass doors, and drip pans (to mention just a few applications).

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Features

Wireless Contact Switch

The key component in both Water Leak Detection Packages is the Control4 Wireless Contact Switch. The Wireless Contact Switch operates on either two AA batteries or a low-voltage power supply (included in the line-powered version). This single, small device combines up to three contact switches, two temperature sensors, and—when line-powered—a ZigBee repeater.

Figure 1: Key Leak Detection Package Component: Wireless Contact Switch (ZCA-WCS10A)

Important: The Wireless Contact Switch included in this package runs for one year (on average) when running on two AA non-rechargeable alkaline or lithium batteries. It also provides Battery Low and Battery Critical variables to use in Control4 for programming events, dealer or homeowner e-mail notification of battery states, and more.

Key differences in line-powered and battery-powered versions

Line-powered version

The line-powered version includes the G.R.I. 2600T 12VDC Water Sensor. The 2600T used in conjunction with the Wireless Contact Switch can detect and report the presence of water and provide a relay output for signal or control events in the Control4 system. The sensor operates on 12VDC and functions as a Normally Closed sensor for a closed loop system. The 2600T provides a method of detecting water in difficult-to-monitor locations, such as under carpets, hot water tanks, washing machines, and drop ceiling panels. One or more sensor probes can be mounted in various locations around the area to be monitored, and the probe wires are run to the terminal screws on the 2600T.

Figure 2: The G.R.I. 2600T 12VDC Water Sensor

Note: The 2600T has four wires. All four of the wires must be connected to the Wireless Contact Switch for proper function, as specified in the table below:

Lead Color	Function
Red	+12 volts DC
Black	Ground
Green	Relay Contact
White	Relay Contact

Note: The 2600T operates on 12VDC. The red wire is connected to the positive side of the auxiliary 12V supply and the black wire is connected to the negative. See the table below:

Power Requirements	Power Values
Operating Voltage	+12 volts DC
Operating Current	10 mA
Max Power	.35 VA

Battery-powered version

The battery-powered version includes the G.R.I. 2826FS Liquid Level Detector. Use the battery-powered version in remote or hard-to-reach locations where there is no viable low-voltage power source. The 2826FS sensor, used in conjunction with the Wireless Contact Switch, can detect and report the encroachment of non-volatile liquids into an isolated, sensitive location and provide signal or control events to Control4. Relay contacts are latched in an open or closed position based on the conductivity measured between the sensors. One or more sensor probes can be mounted in various locations around the area to be monitored, and the probe wires are run to the terminal screws on the 2826FS.

Figure 3: The G.R.I. 2826FS Liquid Level Detector

Note: The 2826FS includes a battery-powered relay switch and two probes. The device's contact ratings are documented in the table below:

Contact Rating Parameter	Values
Max Switching Power	250mW
Max Switching Voltage	30VDC
Max Switching Current	500mA
Max Number Sensor Probes	10
Max Wire Length for Detector to Probe	100 ft.

The 2826FS has an on-board battery with a useful life of about four years and has failsafe capabilities to notify the homeowner when the on-board battery is depleted.

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✅ **Important:** Unlike the Wireless Contact Switch, the 2826FS's on-board battery failsafe mode does *not* provide Battery Low and Battery Critical values as variables for use by Control4 in programming events.

Instead, when the 2826FS's on-board battery expends the last of its power (three to five years under normal conditions), the 2826FS automatically places itself in a safe mode to help prevent danger to devices, property, and people.

This failsafe mode sends a continuous contact event to the Wireless Contact Switch. The Wireless Contact Switch does *not* receive a different signal from the 2826FS in this failsafe mode, so it will see this failsafe mode state as a leak event (as you have programmed in the system). The intent is to cause the homeowner or installer to physically inspect the 2826FS and replace the battery to resume normal operation.
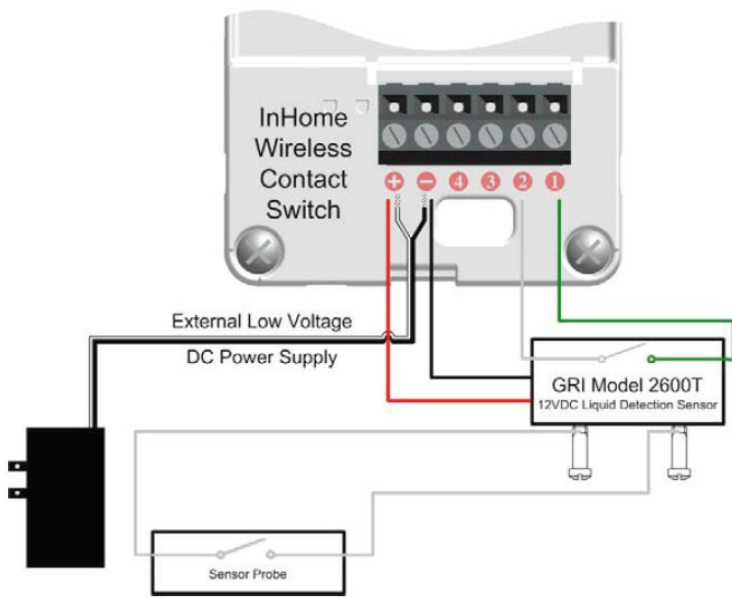
Installing the line-powered version

Figure 4: Line-powered version wiring diagram

To install the line-powered version:

1 Add one Wireless Contact Switch to the Composer project and create the proper bindings. (Refer to the *Wireless Contact Switch Installation Guide*.)

2 Connect the Wireless Contact Switch to the 2600T:

   a Wire the green wire from the 2600T's switch (the component with the two screw terminals) to the IWCS Tray Assembly's Pin 1.

   b Wire the white wire from the 2600T's switch to the IWCS Tray Assembly's Pin 2.

   c Wire the black wire from the 2600T's switch to the IWCS Tray Assembly's – Pin 4.

   d Wire the red wire from the 2600T's switch to the IWCS Tray Assembly's + Pin 5.

   e Connect an appropriate (9-24VDC) power supply to the IWCS Tray Assembly's + and - Pins. (NOTE: you must match polarity.)

3 Connect at least one of the 2600T's sensor probes (two are included) to the 2600T switch's screw terminals per the instructions included with the unit.

4 Using the included mounting screws and wall anchors, mount the Wireless Contact Switch to a location near the area where you want to detect liquids (but not in the area where the leak may actually take place).

5 Using the included mounting screws and wall anchors, attach the sensor probes in the locations where you want to detect liquids by using the screws and insulators included in the 2600T's packaging.

📝 **Note:** For detailed instructions about how to use the sensor probes, refer to the instructions inside the 2600T packaging.

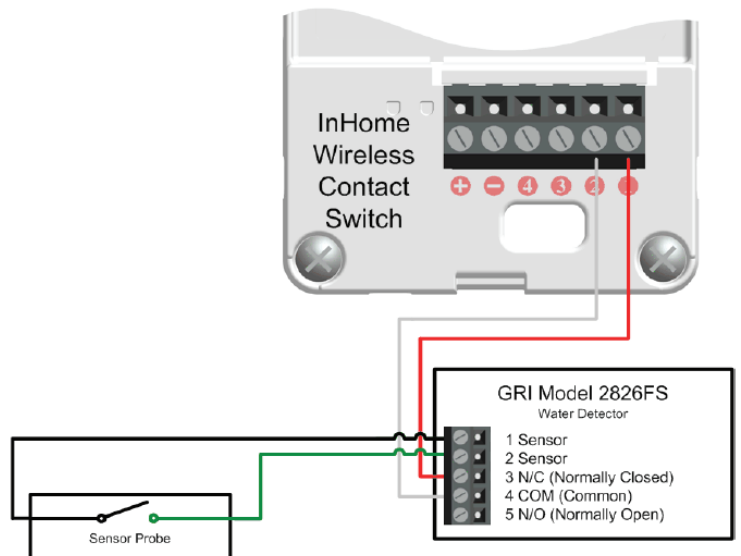## Installing the battery-powered version

Figure 5: Battery-powered version wiring diagram

To install the battery-powered version:

1 Add one Wireless Contact Switch to the Composer project and create the proper bindings (refer to the *Wireless Contact Switch Installation Guide* for additional installation details.)

2 Using two AWG 16-28 gauge jumper wires, connect the Wireless Contact Switch to the 2826FS (the component containing the two screw terminals and on-board battery):

   a Wire a red wire from the 2826FS's Pin 3 to the IWCS Tray Assembly's Pin 1.

   b Wire a white wire from the 2826FS's Pin 4 to the IWCS Tray Assembly's Pin 2.

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3 Connect the 2826FS's sensor probes to the 2826FS's Detector Relay Switch:

    a Wire the green wire on the sensor probe (two are included with the 2826FS) to the 2826FS's Detector Relay Switch Pin 1.

    b Wire the black wire on the sensor probe (included with the 2826FS) to the 2826FS's Detector Relay Switch Pin 2.

4 Using the included mounting screws and wall anchors, mount the Wireless Contact Switch to a location near the area where you want to detect liquids (but not in the area where the leak may actually take place).

5 Using the included mounting screws and wall anchors, place and attach the sensor probes in the locations where you want to detect liquids by using the screws and insulators included in the 2826FS packaging.

Programming events

1 Using Composer Pro, add events around the detection of a leak. Ideas for events include:

- Continuously playing a pre-recorded message over the home's audio zones reporting the detection of a water leak. A suggested audio message might include the occurrence of a leak and the location where the leak is being detected. For example: "There has been a water leak detected by the water heater."
- Changing the color on specific Control4 LED Keypad buttons to indicate an alert condition signaling the detection of a water leak.
- Turning lights on and off in an area of the home to indicate the detection of a water leak.
- Sending an e-mail to the homeowner indicating the detection of a water leak.

> **Note:** For detailed instructions about how to use the sensor probes, refer to the instructions inside the 2600T and 2826FS Liquid Level Detector packaging.

Additional resources

The following resources are available for additional support:

- Control4 Knowledgebase and forums
- Control4 Technical Support
- Control4 website: *www.control4.com*
- Composer documentation available at *ctrl4.co/docs*.

For the latest version of this document, open this URL or scan the QR code on a device that can view PDFs.

MOST RECENT VERSION

ctrl4.co/**waterleak-ig**

Regulatory/Safety information

To review Regulatory information for your particular Control4 products, see the information located on the Control4 website at *ctrl4.co/reg*.

Patent information

Applicable patents are available at *ctrl4.co/patents*.

Warranty

Visit *ctrl4.co/warranty* for details.

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