

RSA-360-200 Repeater Operation & Installation Instructions

Use the RSA-360-200 Wireless Signal Repeater to boost signal performance between wireless sensors and the receiver in Reliance RS-360 Wireless Plumbing Leak Protection Systems.

A number of construction and environmental factors can be responsible for weak signal strength in wireless networking. Much like a cell phone signal, the wireless sensor communication can be blocked by cement walls, metal panels and close proximity to devices that generate electromagnetic fields (such as motors, contactors or variable frequency drives). The RSA-360-200 Wireless Signal Repeater provides the same advanced user interface cues as the RSA-360's wireless sensors:

- Easy push-button pairing and unpairing into and out of the network
- Visual indication of wireless signal strength for ease of installation
- Visual indicators for low battery and lost communication that take the guesswork out of system security and maintenance

The RSA-360-200 repeater works off of a standard wall outlet (120 VAC power) and (2) AA batteries (included) that provide on-board battery backup to maintain the integrity of the system during a power outage. Attempting to run the repeater on battery power as a normal operating condition is not recommended and will result in reduced battery life and inadvertent lost communication errors within the system. The RS-360 can accommodate a single RSA-360-200 per receiver.



**Exclusively for use with
Reliance model
RS-360 Wireless Plumbing
Leak Protection Systems**

Wireless Signal Repeater Installation Instructions

The exact placement of the RSA-360-200 repeater must be addressed on a case-by-case basis due to the wide variety of construction and environmental factors that could affect the wireless signal path

It is assumed that a repeater is being deployed due to poor wireless signal indication exhibited by one or more wireless sensors. A general rule of thumb would be to first test the wireless signal strength of the repeater at a centralized midpoint between the low-performing sensor signal location(s) and the receiver, with final placement determined by adjusting the location of the repeater to achieve optimum performance.

Consider the following when testing potential repeater locations:

- Wireless repeaters may need to be positioned a floor above or below the dead signal zone.
- Signal strength may also be improved by repositioning the receiver.
- Wireless repeaters may need to be positioned so that the signal can “bounce back” toward the receiver to go around an obstruction such as a fireplace, elevator shaft, large metal panel, etc.

Repeater installation instructions continue on page 2.



To determine a good location for the Wireless Signal Repeater:

1. First, confirm that the RS-360 receiver is plugged in and “on” at the desired location.
2. Confirm that the repeater’s PAN ID matches that of the wireless sensors. Adjust the repeater switches until they are in sync with the system sensors.
3. Install (2) AA batteries in the repeater.
4. Pair the RSA-360-200 to the RS-360 system network:
 - a. Press and hold the Receiver Pairing button for 5 seconds, or until the System Indicator LED flashes green.
 - b. Press and hold the Repeater User Interface button for 5 seconds, until it flashes green.
 - c. Press and release the Repeater User Interface button to enter Range Find mode. The light on the repeater will flash to indicate communication strength with the receiver:
 - Quick green flash = Excellent communication
 - Slow green flash = Good communication
 - Slow red flash = Less than optimal communication
 - Solid red = No communication
5. Walk the repeater to the desired location (the midpoint between the receiver and the sensors that are experiencing communication trouble). Be sure to close all interior doors as you move through the house or facility.
6. Observe the repeater light at the potential installation location. Place the sensor(s) into Range Find mode as well, per step 4c above, and observe their lights. If any solid red lights are observed, change the repeater location until the solid red light is replaced by flashing lights. A quick green flash on all sensors is ideal, but is not necessarily required.
7. When you are satisfied with the repeater location, press and release the Repeater Interface button and each Sensor Interface button to exit Range Find mode and return to normal monitoring state.
8. Plug the repeater into any nearby wall outlet.
9. Test sensor and repeater performance by placing a damp paper towel under the sensor and observing the system/receiver response. Remove the sensor from the paper towel and clear the water fault by pressing and releasing the Sensor Interface Button. Clear the fault at the receiver by pressing the Valve Reset button.



Do not hold or stand within 5 feet of the repeater or sensor(s) when testing.



Be creative with repeater placement. Higher placement on tabletops or countertops is always optimal. Placement under basement floor joists or hung on a wall will often work as well.

Note: If, for whatever reason, the repeater does not resolve your installation issue, please refer to our additional wireless sensor options (such as the RSA-360-810 Satellite Sensor Wire Rope Kit). Or, contact Reliance Detection Technologies, LLC for additional installation assistance:

Phone: 888-771-4929

Email: info@reliancedetection.com

OPERATION GUIDE

Power Requirement: The repeater requires 120 VAC power and (2) AA batteries for normal operation. In the event of an electrical power outage, the repeater will function for up to 48 hours on AA battery power. Batteries are rated for 2 years of service under normal operating conditions. If the home or facility is used seasonally or is vacant for long periods of time, users may want to consider changing out the batteries more frequently in order to ensure system continuity when the structure is unoccupied.

FCC & Industry Canada Compliance Statement:

To comply with FCC and Industry Canada RF radiation exposure limits for general population, the antenna(s) used for this transmitter must be installed such that a minimum separation distance of 20cm is maintained between the radiator (antenna) and all persons at all times and must not be co-located or operating in conjunction with any antenna or transmitter.

SIGNAL FAULTS

Low Battery: The repeater will continuously flash a red LED when a Low Battery power status is detected. The RS-360 receiver will respond immediately to the low battery status by sounding an audible chirp to indicate trouble. Replace the batteries in the repeater, and press and release the Repeater User Interface button to reset the device. Press and release the Receiver Valve Reset button as well to clear the alarm.

Lost Communication: In the event that the repeater misses a scheduled check-in with the RS-360 receiver (approx. every 15 minutes), it will begin to continuously flash a red LED until communication is restored. If communication between the repeater and the receiver is lost for more than 120 minutes (2 hours), the receiver will escalate the situation by sounding an audible alarm and closing the valve. Once communication has been restored, press and release the Receiver Valve Reset button to open the valve and begin water flow once again.

This system and its wireless accessories (sensors and repeaters) include the following:

Contains Transmitter Module FCC ID: TFB-SIFLEX2

Contains Transmitter Module IC: 5969A-SIFLEX2