SeaHawk Sensing Cable Care and Maintenance

Thank you for purchasing SeaHawk sensing cable. This guide outlines sensing cable care, maintenance, and troubleshooting.

If you need further assistance, please contact RLE Technologies via our website - http://www.rletech.com/ or call us at 800-518-1519, Option 2.

SeaHawk

v2.0
(08/2012)

RLE Technologies

Clean SeaHawk Sensing Cable

While SeaHawk sensing cable is engineered to resist contamination from dirt and dust, RLE does recommend periodic cable maintenance. This keeps your cable free of foreign particles and ensures the fastest, most reliable leak detection response. There are two preferred ways to clean SeaHawk sensing cable:

Clean the Cable with Isopropyl Alcohol

Cleaning the cable with alcohol allows you to clean the sensing cable without completely removing it from its installed location. You'll remove the section of cable you wish to clean from its J-clips, wipe it down, and reinstall the cable. This method will clean most contaminants from the cable, and will sufficiently clean the cable in many cases.

1. Obtain a dye-free heavy cloth rag and a bottle of isopropyl alcohol.
2. Remove the first section of cable to be cleaned from its j-clips.
3. Soak the rag with alcohol.
4. Wrap the rag around the cable and squeeze firmly while pulling the rag down the length of the cable.
5. Flip the rag every several feet. Resaturate the rag with alcohol as required.
6. Once you've reached the end of the first section of cable, place it back in the J-clips and proceed to the next section.
7. Replace the rag if it becomes too dirty.

Clean the Cable with Warm Soapy Water

If you still notice problems with your sensing cable after you've cleaned it with isopropyl alcohol, or if you believe the cable is so dirty that it requires a more intense scrubbing, clean the cable with warm soapy water. This process requires you to completely remove the cable from its installed location, submerge it in a soap and water solution, scrub it with a brush, and hang it to dry.

1. Remove the sensing cable from its installed location. To help with the reinstallation process, you may want to label the sections of cable or note their location.
2. Gather Dawn dish soap, a large bucket or plastic bin, warm water, soft-bristled scrub brushes, and clean rags.
3. Locate an area inside or outside your facility that will not be affected by water.
4. Add dish soap to a bucket of water. Use about 1 cup of detergent to 1 gallon of warm water. To determine if your solution is concentrated enough, place your finger and thumb in the water and rub them together. You should feel a slick/slimy residue. If you do not feel a residue, add more detergent to the water and gently mix to distribute the soap.
5. Submerge a section of the cable in the water.
6. Using a scrub brush or rag, scrub along the surface of the cable with firm pressure. Scrub all sides of the cable.
7. Remove the section of the cable from the soapy solution and rinse it in a bucket of clean, fresh water.
8. Ensure there are no oily deposits along the length of the cable. If the cable does not appear clean, repeat steps 6 and 7.
9. Hang up the cable to dry. Try to point the connectors down, so water cannot pool inside the connectors. The drying process may take 6 – 48 hours, depending on the room conditions.
10. Once the cable is completely dry, reinstall it in its original location.

SeaHawk Sensing Cable FAQ

Question	Response
How do I secure sensing cable to the floor?	RLE recommends the use of J-clips. J-clips are nylon cable clips with a self-adhesive backing. J-clips hold sensing cable securely in place without pinching or binding the cable, which can cause false alarms. J-Clips should be placed 5 to 6 feet apart throughout an installation, and 3 feet apart when cable is routed in front of CRAC units. Because the J-clip's adhesive backing does not work well on porous concrete floors, apply a drop of silicone or another nonconductive adhesive to help secure the J-Clip to the floor.

Question	Response
My water leak detection cable touches metal. Is this a problem or potential problem?	In general, no. The two water sensing wires are covered by a nonconductive polymer weave. This weave isolates the cable from metal surfaces. However, as with all electrical wires and cable, avoid sharp objects that can slice or pierce through the insulation and nonconductive polymer weave.
The sensing cable is routed so that it has to cross over itself. Can this cause false alarms?	Crossing sensing cables will not cause false alarms, but it can cause a false distance reading if a leak occurs at the crossover point. If the cables must cross, use a 10 foot section of non-sensing cable to jump over the section of sensing cable.
If I suspect a bad section of sensing cable, how can I verify that it is ok without sending it back to RLE for warranty evaluation?	It can be very difficult to remove sensing cable, so verify the cable is working before you attempt to remove it and return it to the manufacturer. Use either a cable tester (RLE part # LDCE) or request a Cable Break Alarm assessment document from RLE to determine which section of cable may be faulty.

My system shows an alarm condition, but a leak is not found at location shown on display. The system will not clear. It is in alarm all the time!	The most common causes for this condition includes:
	 1. Water is touching the cable in two places at the same time. The distance reading is an average of the two values. For example, if leaks are detected at 200 feet and at 100 feet, the system would register a leak at 150 feet ((200 + 100)/2 = 150). This is a common problem when, after an alarm sounds, the operator resets the system without recording the first value displayed. It is very rare that water will touch two places on the same cable at the exact same time. This situation is true for all systems which measure distance. Check the Alarm History log for the first incidence of the leak.
	 2. The cable has been exposed to high humidity, or the dew point has been reached. This is especially common when two or more air conditioners share the same under-floor space. Problems of this nature can be resolved as follows:
	    a. Fix the air conditioners. This is sometimes easier said than done as most people believe if the unit is on and cooling, it is working properly. Extensive investigation may have to be done just to prove the air conditioner is faulty.
	    b. Turn the sensitivity adjustment on the controller to its least sensitive setting - refer to Chapter 3, "Leak Settings" on page 36. This should keep the system from alarming, but will not resolve the air conditioner problem.
	    c. Move the cable at least 10' away from the front of the air conditioner.
	    d. Cover the sensing cable in front of the air conditioner with spiral wrap (plastic covering which allows water in but keeps dew point from condensing water on the cable).
	 3. A cable has been contaminated either chemically (floor sealing chemicals dissolve and damage cable), or physically (small metallic chips from filings or solder around pipes or wires from electrical installation). This requires replacement of the cable.
	 4. The cable has become damaged - most often from a floor tile being dropped on it. Damaged cable must be repaired or replaced.

Test a SeaHawk Leak Detection System

RLE Technologies recommends testing a leak detection system at least once a year, although some applications may require more frequent testing. System testing should include the following points:

- With the system powered up, ensure no alarms are present on the system.
- If you are using a distance-read controller, look at the local display or web interface and find the cable current reading. This value should be 15μA or lower. 0μA is ideal. If the value is 15μA or higher, clean the sensing cable.
- If sensing cable is installed on the floor, test the response time. Place a small puddle of water on the cable, covering a two inch area along the length of the cable. The controller should alarm within a reasonable time. This time may vary depending on controller type and the alarm time frame set within the controller. If the controller fails to alarm properly, contact RLE.
- If sensing cable is mounted to piping, test the response time in a different manner. Place a rag soaked with water on the cable, covering a two to four inch area along the length of the cable. The controller should alarm within a reasonable time. This time may vary depending on controller type. If the controller fails to alarm properly, contact RLE.
- Verify all alarms are received by the controller. You can verify this by a change of visual status, through the audible alarm, a relay closure to another device, email notification, and/or protocol updating to a master device.