PoE Troubleshooting Guide

This guide outlines common troubleshooting guidelines for the 24V-POE-Kit, which can be used with RLE's LD1500, LD2100, LDRA6, WiNG-MGR, and WiNG-MGR v2.

Before you work with your PoE device, consult rletech.com to ensure you're working with the most recent version of documentation available. If you need further assistance, please contact RLE Technologies at support@rletech.com.

v02.22

RLE Devices and PoE

RLE's Engineering team researched and tested a wide variety of PoE devices and has approved the 24V-POE-Kit, which can be used with RLE's LD1500, LD2100, LDRA6, WiNG-MGR, and WiNG-MGR v2.
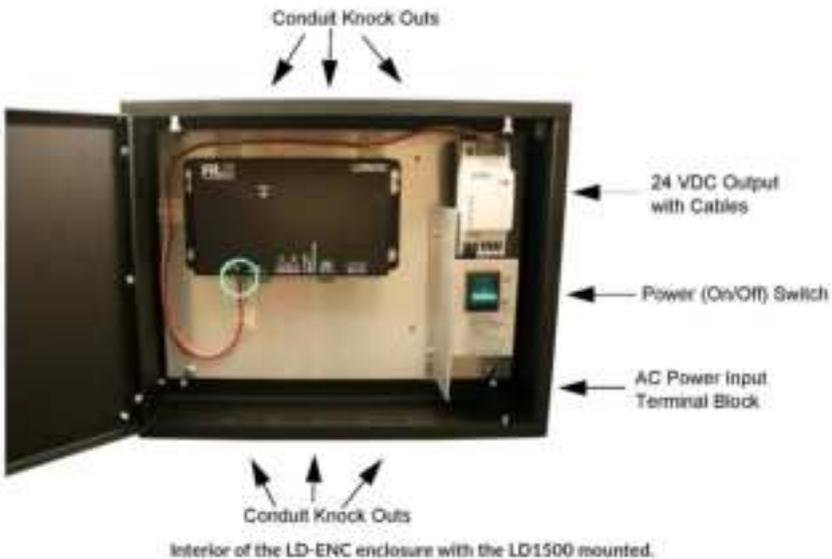
The 24V-POE-Kit has been tested and verified to provide isolated power, so you can be sure your leak detection devices will work correctly.

Our Engineering Team emphasizes one very important point regarding PoE switches and RLE products:
Due to the power requirements of RLE devices you must make sure your PoE switch is PoE+ (802.3at) compliant. The PoE+ standard allows for up to 25 watts of power delivery to end devices. If your switch is not PoE+ compatible you will not be able to power RLE's controllers using a PoE splitter.

PoE FAQ

Question	Response
I'm having issues getting my Cisco switch to work with PoE+ devices.	Review this document from PoE Texas: Configuring Cisco Enterprise for PoE to USB-C - PoE Texas - https://www.poetexas.com/cisco-configuration-for-usbc/ Many Cisco switches support PoE+ but have it disabled by default. If the port is only negotiating 15.4W then it is time to check the switch configuration settings.
I'm having issues with power budgeting on my PoE+ switch - devices fail to power up, two devices work well but adding a third causes problems.	While many switches support PoE and PoE+ they will not have enough power available to supply the full wattage required to all ports simultaneously. Exceeding this power budget causes problems with your PoE devices. Read the specifications for your switch to determine how many devices can be powered at a single time and the total available wattage. Leave yourself a buffer to take into account the power required by the PoE splitters and for power loss in the cable.
I'm using another PoE splitter and I'm having issues powering the device or detecting leaks.	Verify the splitter supports POE+ and is isolated. If the PoE+ splitter is isolated, the input and output grounds cannot be connected. RLE leak controllers cannot detect leaks correctly with a non-isolated power supply. Non-isolated power supplies can cause inaccurate leak distance readings, leak distance readings beyond the length of the sensing cable, or failure to detect a leak altogether. The 24V-POE-Kit has been tested and verified to provide isolated power, so you can be sure your leak detection devices will work correctly with that specific PoE solution.

Question	Response
I'm using an LD-ENC and PoE splitter with my leak controller.	Only one power source should be used at a time. When using PoE, the built-in supply on the LD-ENC is not needed. Make sure to disconnect the 24V wires from the terminal block of the controller before connecting power from the PoE splitter.

Conduit Knock Outs

24 VDC Output with Cables

Power (On/Off) Switch

AC Power Input Terminal Block

Conduit Knock Outs

Interior of the LD-ENC enclosure with the LD1500 mounted.

Question	Response
I'm still having issues.	It may be time to reach out to the vendor of the PoE splitter and/or PoE switch. Our support team will always be available to help but there are many nuances to PoE installation; the manufacturers of the PoE equipment may be best suited to answer some questions.