

# SeaHawk LD2100 Quick Start Guide



Thank you for purchasing a SeaHawk LD2100 distance-read leak detection controller. This guide outlines basic installation and configuration. Additional support information, including the User Guide, is available on our website - [www.rletech.com](http://www.rletech.com). Before you install a LD2100, check the website to ensure you are using the most recent version of our documentation.

If you need further assistance, contact RLE Technologies at [support@rletech.com](mailto:support@rletech.com).



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## Installation Supplies

### Included with the LD2100

- LD2100 controller
- Wall mount kit
- 15 foot (4.57m) leader cable
- End-of-line terminator (EOL)

### Available from RLE, Sold Separately

- SeaHawk sensing cable - up to 5,000 feet (1,524m)
- Isolated RLE power supply, DC (PSWA-DC-24) or AC (WA-AC-24)

### Optional Supplies

- Crossover network cable

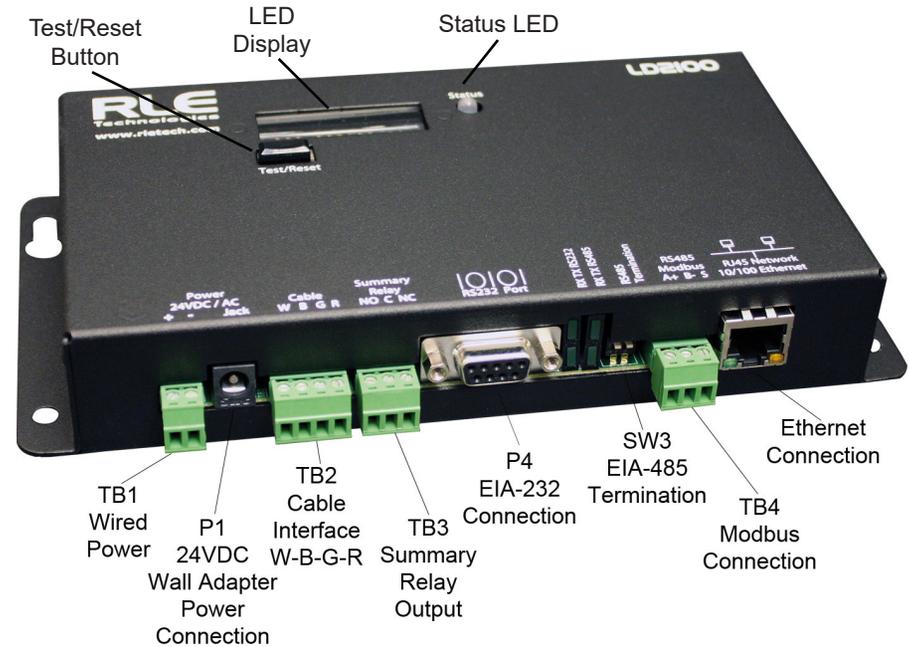
### Network Communications Information

Consult your IT administrator and determine the following LD2100 network settings:

- IP Address \_\_\_\_\_
- Subnet Mask \_\_\_\_\_
- Default Gateway \_\_\_\_\_

## Mount the Device

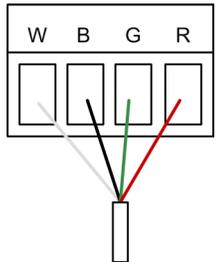
THE LD2100 is a panel mounted device. Use the included wall mount kit and mount the controller in a convenient location.



## Install the Sensing Cable

Leader cable is included with the device and is used to connect sensing cable to the LD2100, since sensing cable cannot connect directly to the controller.

1. Insert the four stripped wires of the leader cable into the appropriate slots in the 4-pin terminal block connector - from left to right: white, black, green, and red. Tighten the screws on the terminal block connector to secure the leader cable. Thread the leader cable through a knockout on the bottom of the enclosure and plug the terminal block connector into TB2.
2. Unscrew the EOL from the end of the leader cable.
3. Attach the first length of sensing cable to the leader cable.
4. Route the sensing cable according to your cable layout diagram.
5. Secure the EOL to the unoccupied end of the sensing cable.



## Apply Power to the LD2100



### The LD2100 requires an isolated power supply.

A power supply is not included with the LD2100, but isolated DC (PSWA-DC-24) and AC (WA-AC-24) power supplies are available from RLE.

1. Run an isolated power supply to the location of the unit and plug it into P1. If you're wiring power directly, insert the wires into TB1 as noted.
2. Apply power. The device will boot. No alarms should be present. If an

alarm is present, verify sensing cable is connected to the unit, and the end-of-line terminator is connected to the end of the sensing cable. If the alarm is still present, consult the LD2100 User Guide.

## Set the LD2100's IP Address

The LD2100 will not communicate properly over your network until you set the IP address. Use a crossover network cable and a computer to set the IP address. (If you wish to configure the IP through the EIA-232 connection, consult the user guide for alternate directions.)

1. Plug one end of the crossover cable into the ethernet port on the LD2100. Plug the other end into your computer. This cable is NOT intended to plug into a network hub, and won't work if plugged into a network hub.
2. Write down the computer's IP address, subnet mask, and default gateway. Temporarily change the computer's IP address to one that will allow it to communicate with the LD2100 - the LD2100's default IP is 10.0.0.188, so if you set the computer to 10.0.0.190, they will be able to communicate.
3. Open the computer's web browser and access the LD2100 - type it's default IP address - 10.0.0.188 - into the browser's address bar and press enter.
4. You'll be prompted to enter a user name - ld2100 (case sensitive) and a password. By default, there is no password configured. Leave the password field blank and press the enter button.
5. Click the Configuration link and then the Network/IP link.



6. Change the IP address, subnet mask, and default route to those provided by your network administrator. Press the Submit Changes button. The LD2100 will save the new IP address and reboot.

The image shows the 'IP Configuration' page in the SeaHawk web interface. At the top is a blue bar with the text 'IP Configuration'. Below it is a 'Submit Changes' button, which is circled in red. Below the button is a warning message: 'Warning: Changing these parameters will cause the network interface to operate differently, only change parameters if you are sure the changes are correct.' Below the warning are several input fields: 'MAC Address: 00-90-5B-09-06-7A', 'IP Address: 69.15.184.122', 'Net Mask: 255.255.255.240', and 'Def Route: 69.15.184.113'. These three fields are circled in red. Below these fields are two radio buttons for 'Tcp Max Seg Size' (1436 and 536) and two radio buttons for 'Disable Network Watchdog' (No and Yes).

7. Reset your computer to its original IP address and subnet mask.
8. The computer and LD2100 are now configured to communicate over the network. Remove the crossover cable and properly connect the PC and LD2100 to your network. Type the LD2100's new IP address in the

computer's browser and verify you can access the unit.

9. If the LD2100 is not accessible:
  - Verify all cables are firmly connected to the correct ports.
  - Verify that you entered the correct (new) IP address for the LD2100.
  - Verify the LD2100's status LED is green.
10. If the LD2100 is still not accessible, consult the LD2100 User Guide for advanced configuration and troubleshooting information.

## Test the System

If the LD2100 is already connected to a BMS or NMS, notify monitoring personnel before you begin testing the system.

1. Using a sketch or mechanical drawing of the facility, add the cable routing, connection points, and any accessories used. Record the distance marker when the cable changes direction and in between connectors.
2. The more details you show, the greater the benefit later when you are locating leaks and troubleshooting the system
3. To verify the LD2100's functionality, test three points within the length of sensing cable - one at the beginning, one in the middle of the length, and another near the end of the length of cable.
4. There are a variety of ways to simulate a leak.
  - Pour a small puddle of water on the cable while it rests on the floor.
  - Dunk the cable in a cup of water.
  - Soak a paper towel or rag and wrap it loosely around the cable. This is popular if the cable is used in pipe applications. Be careful to wrap the wet cloth loosely around the cable. Do not put pressure on the cable.

IMPORTANT - To avoid inaccurate readings, do not grip the cable with your hand.

5. Verify that the LD2100 reports the leaks within a few feet of their actual physical location. If the leaks are reported in the approximate location, but not precisely at the actual location of the leak, you may wish to calibrate the system. Consult the LD2100 User Guide to calibrate the cable's resistance, which will provide the most accurate distance readings.
6. Remove all simulated leak sources and return the system to its normal operating state.
7. To test the cable fault alarm, remove the end-of-line terminator (EOL) from the end of the sensing cable. This will cause a cable break, which should be reported appropriately by the LD2100. Once the cable break alarm is verified, reapply the EOL and ensure the system returns to its normal operating state.