




SERVERSCHECK NODE-LW-1P Wireless Hub and Wireless Node User Guide

[Home](#) » [ServersCheck](#) » **SERVERSCHECK NODE-LW-1P Wireless Hub and Wireless Node User Guide** 



**NODE-LW-1P Wireless Hub and Wireless Node
User Guide**

Contents

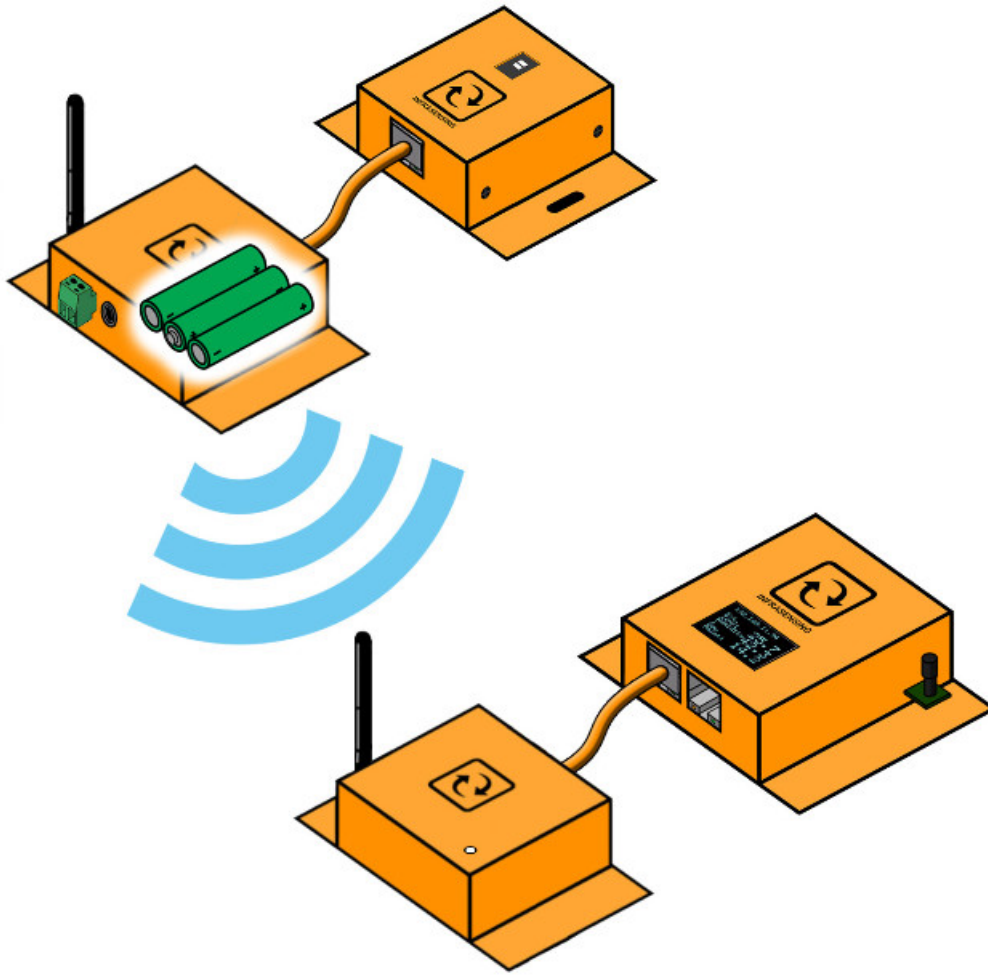
- [1 Sensor Overview](#)
- [2 What you need](#)
- [3 Installation](#)
- [4 Unpairing Nodes](#)
- [5 Documents / Resources](#)
- [6 Related Posts](#)

Sensor Overview

By default our InfraSensing sensors are connected with an RJ45 cable to the base unit, But with the Wireless hub (EXP-LWHUB) and Node (NODE-LW-1P), any sensor can be connected wirelessly.

It works when we connect our wireless hub to our base unit (BASE-WIRED) then any of our sensor to one of the nodes, The node then transmits sensor data over a wireless communication protocol to the Wireless Hub.

The wireless protocol used is called LoRa, a long range and low power communication protocol in the free spectrum.



What you need

EXP-LWHUB



BASE-WIRED



NODE-LW-1P



Ethernet Cable

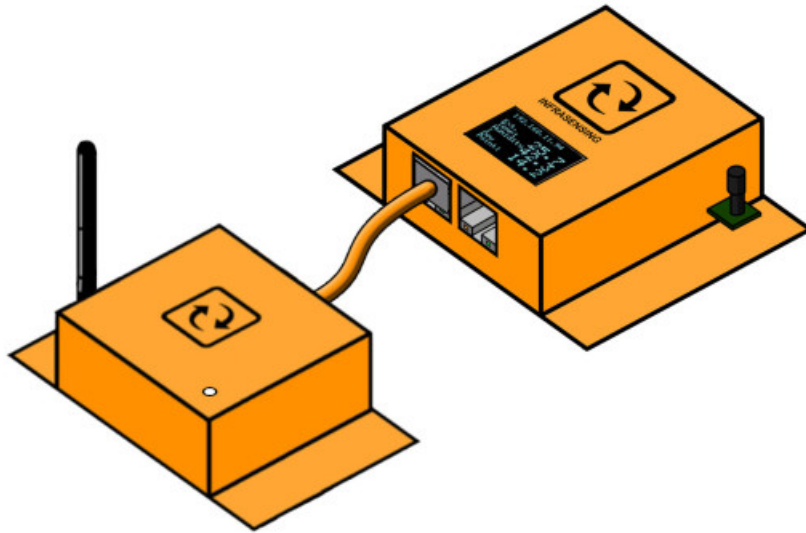


Sensors

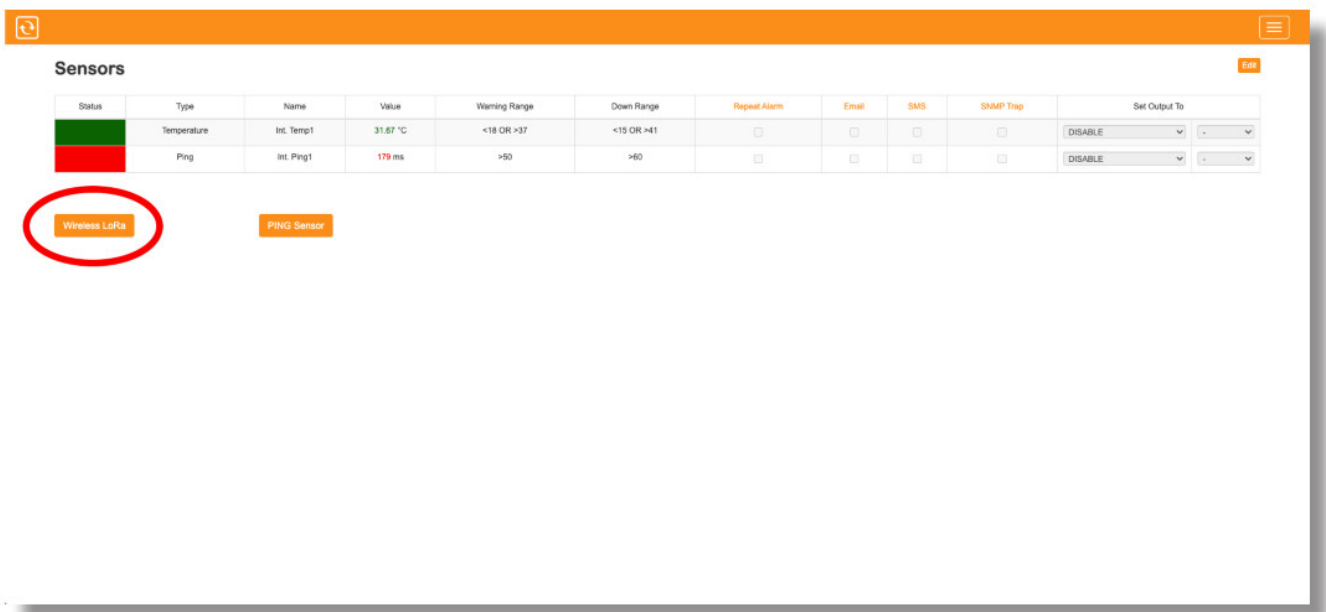


Installation

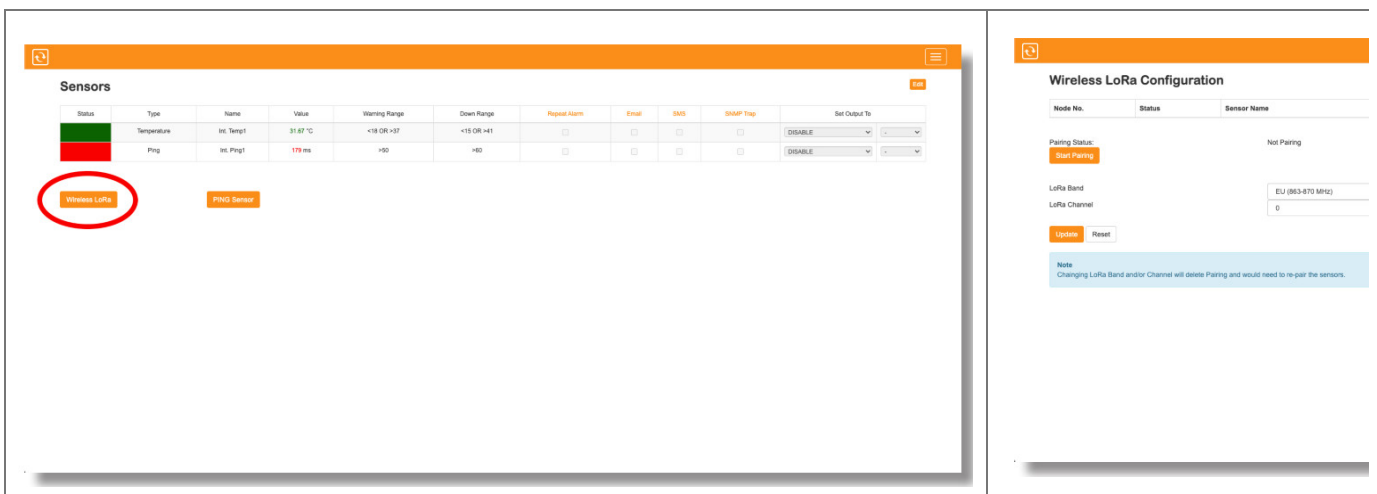
1. Connect the Wireless Hub to the SensorGateway via ethernet cable.
The SensorGateway should be running firmware version 8.9.



Wireless LoRa should appear in the SensorGateway GUI.

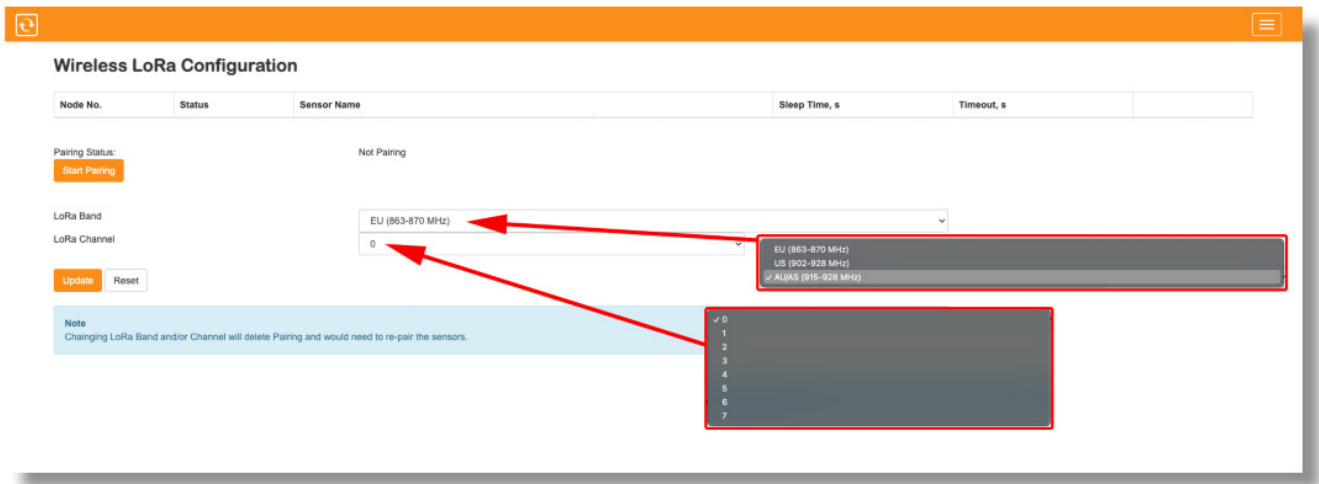


2. On the SensorGateway GUI, click on Wireless LoRa and you will be taken to the Wireless LoRa Configuration page.



3. Setup your Band and Channel prior to connecting nodes. After choosing your desired band and channel, click on “Update”. Changing the band and channel will disconnect any previously connected nodes and re-pairing them would be required.

It is a good practice to keep adjacent hubs in different channels to avoid wireless congestion.

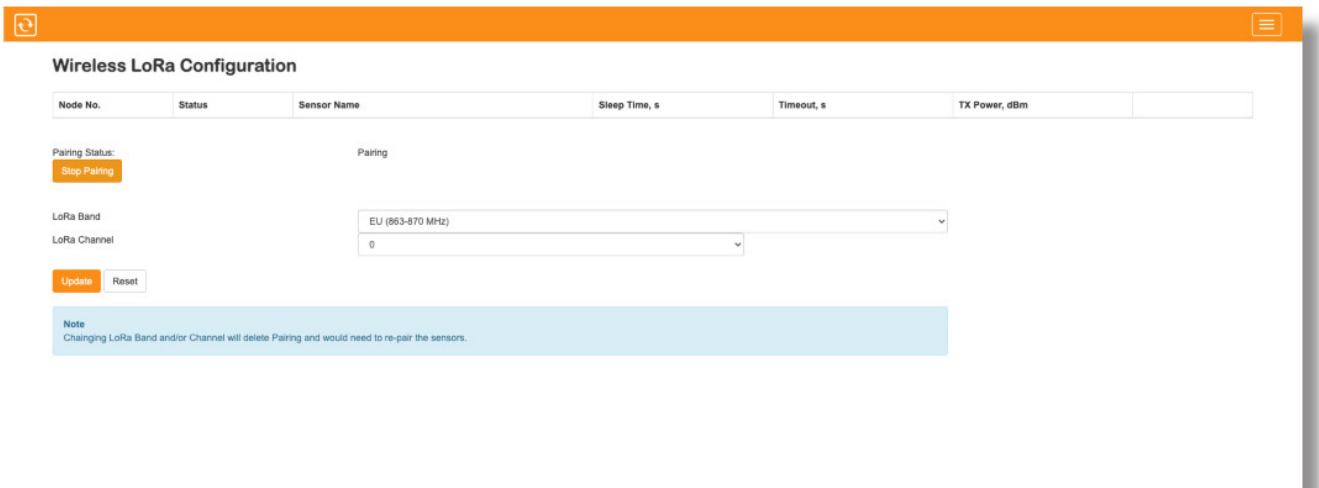


NOTE:

When adding a new node to an existing group of paired nodes, please note that all previously connected nodes will also be unpaired and have to be repaired again. This is done by design.

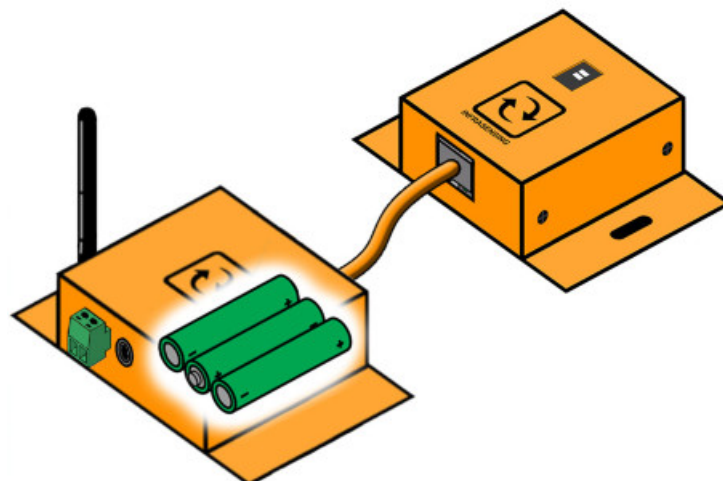
- To start the pairing process, on the Wireless LoRa Configuration page, click on start pairing. The LED on the LoRa hub will blink red and green which indicates pairing mode is active.

The pairing status will also show “Pairing” when in pairing mode



- To pair a node, you would need to power it up and see the LED blink once, that means that the node is paired successfully. If the LED stays ON for more than 10 seconds it would mean that the pairing failed and we would need to start over. To avoid a pairing miss we need to power and pair each node one at a time.

The node can be powered via 24v DC with a terminal block, 12v DC with a barrel jack for an AC/DC adapter, – 5v DC with a USB-C connector or 3x AAA batteries.



NOTE:

-You can pair the node even without a sensor connected.

-Up to 16 nodes can be connected

6. Click on “Stop Pairing” when done. Refresh the page and the list will populate with the connected nodes.

The screenshot shows the 'Wireless LoRa Configuration' interface. At the top, there is a table with columns: Node No., Status, Sensor Name, Sleep Time, s, Timeout, s, and an Apply button. Two rows are visible: Node 1 and Node 2. The Status column for both nodes is highlighted in red. Below the table, there is a 'Pairing Status' section with a 'Start Pairing' button and the text 'Not Pairing'. Underneath, there are dropdown menus for 'LoRa Band' (set to 'AU/AS (915-928 MHz)') and 'LoRa Channel' (set to '0'). There are 'Update' and 'Reset' buttons. A blue note box at the bottom states: 'Note: Changing LoRa Band and/or Channel will delete Pairing and would need to re-pair the sensors.'

7. After pairing, the sensor connected to the wireless node should be ready to go. You may then setup the timeout and Sleep time for your Nodes.

To ensure no data is lost when transmitting, The minimum Polling Time for the SensorGateway is 5 seconds when connected to a Wireless Hub.

The Sleep Time should always be the SensorGateway’s Polling time minus 4 seconds. (example: if the polling time is 10 seconds, the sleep time should be 6 seconds.) Higher sleep times would result in better power savings

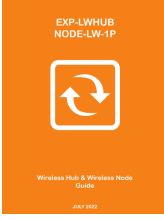
This screenshot is similar to the previous one but shows the nodes after pairing. The 'Status' column for both Node 1 and Node 2 is now highlighted in green. The 'Sensor Name' column contains 'Air Flow1' for Node 1 and 'H2 Sensor1' for Node 2. The 'Sleep Time, s' and 'Timeout, s' columns have input fields with '0' and '1.8' respectively. The 'Apply' buttons are still present. The 'Pairing Status' section shows 'Start Pairing' and 'Not Pairing'. The 'LoRa Band' and 'LoRa Channel' dropdowns are the same. The 'Update' and 'Reset' buttons are also present. The blue note box at the bottom remains the same.

Unpairing Nodes

To unpair connected nodes, click on “Start Pairing” then click “Stop Pairing”, this will disconnect all previously connected nodes on the hub. To start the pairing process again, please proceed to “Step 3” of this document.



Documents / Resources

	<p>SERVERSCHECK NODE-LW-1P Wireless Hub and Wireless Node [pdf] User Guide NODE-LW-1P Wireless Hub and Wireless Node, NODE-LW-1P, Wireless Hub and Wireless Node, Wireless Node, Node, Wireless Hub, Hub</p>
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Manuals+