



NeuLog RF Communication Module Guide RF-201



NeuLog RF communication module RF-201

The RF communication module allows for remote operation of all NeuLog sensors. The RF modules communicate wirelessly with one another – acting similarly to a very long cable between the sensor and a computer to stream data to the NeuLog application in real time. The working range of the RF module is up to 20 meters (65 feet) which adds a large amount of flexibility to truly customize your experiments to your specific needs. The computer does not need to have Bluetooth or Wi-Fi capabilities; everything required is built directly into the RF communication module. The RF modules will work with any computer which has a USB port to connect the USB module into it.

Using NeuLog RF modules

Materials needed:

- 2 RF-201 communication modules (minimum 2 or more)
- USB module (USB-200)
- Battery module (BAT-202)
- Any NeuLog sensor

Note:

The new BLT-202 (Bluetooth module) can be used instead of the USB-200 or the BAT-202.

Setting the RF ID number:

For your RF modules to properly work they must be set to the same ID channel (paired) so they can "speak" with one another directly. This is done very easily using the NeuLog application. Keep in mind, if you have multiple pairs of RF modules in the same area they must be set to different RF ID values (1 through 9) to prevent interference.

1. Connect the USB module into your computer using the included USB to micro-USB cable.
2. Connect both of the RF modules into the USB module.
3. Open the NeuLog application.
4. Click on the "NeuLog Tools" button located at the top of the screen.
5. Click on "Set ID"
6. Select an ID number (1 through 9) and make note of your selection.
7. **Note:** To pair your RF modules, set the ID of each RF to the same value (1 through 9).

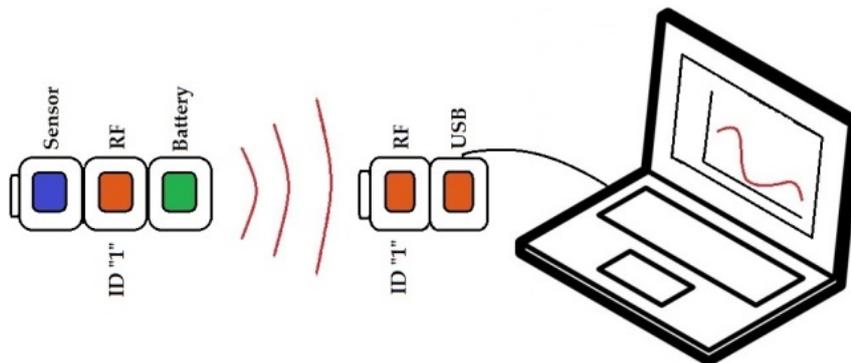
8. Click on "Set RF ID".
9. Both of your RF communication modules are now set to your chosen value (paired).
10. **Note:** This setup is not required prior to every use as long as you keep modules with similar ID's paired for experimentation.

Connecting sensors using RF modules:

Connect the USB module into a computer using the included USB to mini USB cable.

1. Connect one of the paired RF modules to the left side of the USB module.
2. Separately, connect the second RF module into the left side of a charged battery module. **Note:** press and hold the button on the front of the battery module: if a light comes on, than the battery has sufficient power. If no light comes on, than you must charge the battery some more.
3. Connect whichever sensors you wish to use into the left side of the second RF module (which is connected into the battery). Note: You can conduct experiments with up to 5 NeuLog sensors using the RF modules.
4. Open the NeuLog application. It will automatically search for sensors.
5. Once your sensors are detected you are ready to begin collecting data wirelessly!

For reference, the image below demonstrates roughly how your setup should appear.



Specifications	
Frequency	433 MHz DSSS (Direct-sequence spread spectrum)
Bit Rate	1 Mbps
Maximal distance of use	9-12 meters even in a none-open space

Included in package

- NeuLog General Guide.
- Two NeuLog RF communication modules.

Maintenance and storage

- Never submerge the NeuLog plastic body in any liquid.
- Store in a box at room temperature out of direct sunlight.

Warranty

We promise to deliver our module free of defects in materials and workmanship for a period of 2 years from the date of purchase. Our warranty does not cover damage of the product caused by improper use, abuse, or incorrect storage. Sensors with a shelf life such as ion selective probes have a warranty of 1 year. Should you need to act upon the warranty please contact your distributor. Your module will be repaired or replaced.

Thank you for using NeuLog.