

Operating Instructions for Memo-Chip BL2

Software at: <http://www.lignomat.com/bl2/>



Connection between
BL2 and BluePeg Sensor via Adapter
RH Monitoring ambient conditions



Connection between
BL2 and BluePeg Sensor via RH
Cable. Monitoring drying of
insulation behind sheetrock wall

The Memo-Chip BL2 records

- Relative Humidity
- Temperature
- GPP and Dew Point
- EMC

Optional add MC Tracker:

- 3 wood or drywall moisture readings

For all applications where the material moisture content should be measured, the Tracker can be connected. Wood moisture and relative humidity are recorded simultaneously.



Checking floor moisture
and ambient conditions

Applications include:

- Monitoring warehouses and other storage areas
- Monitoring floor installations
- Monitoring lumber during transportation
- Monitoring drying processes

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Important!

First install the software, then connect the Memo-Chip BL2 to the PC.

Get software from: <http://www.lignomat.com/bl2/>

PC Requirements:

- Windows XP, Windows Vista or Windows 7 PC
- Microsoft Excel 2000 or newer, optional

1. Installing the Software

Software and updates can be downloaded at any time from the Lignomat website. Type in the address bar:

<http://www.lignomat.com/bl2/>

Follow the on-screen directions. The setup for the software is completed after you click finish to exit the program.

2. Installing the Hardware

Connect the BL2 device to the PC using the USB cable. Make sure the RH BluePeg sensor is not connected.

↳ For Windows Vista or 7: Windows will install the driver automatically. Watch for a popup message alerting you that the hardware has been installed successfully.

↳ For Windows XP: The Found New Hardware Wizard window will appear. Make sure "Install the software automatically" is selected". Click Next.

Please wait while the wizard searches. Click Next, and wait until the Wizard is done.

The Hardware Installation window will appear. Click Continue Anyway to proceed with installing the hardware.

Please wait while the wizard installs the software. Click Next once the wizard is done.

Finally the Found New Hardware Wizard window will appear again, announcing that the wizard has finished installing the software. Click finish to close the wizard.

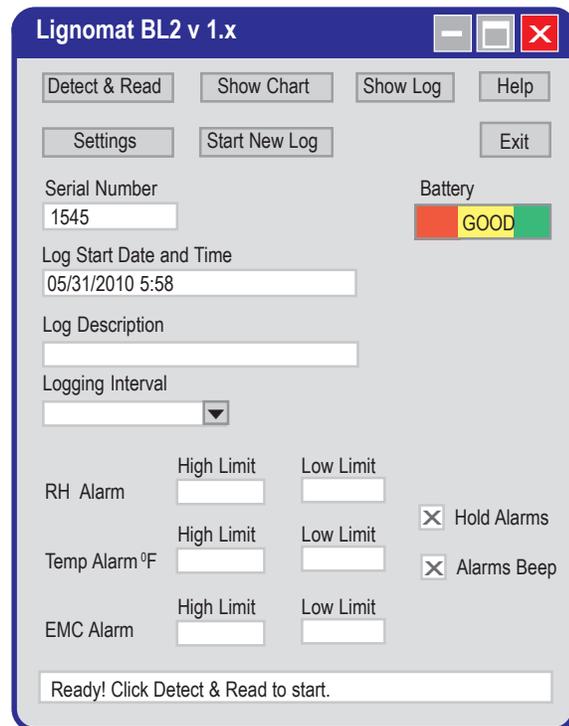
The hardware has been installed successfully. To start a log continue with step 3 on the next page.



3. Start a Log.

- **Connect** the BL2 to the PC via USB cable. Make sure the RH BluePeg sensor is not connected.

- **Start** the program from the BL2 icon on your PC desk top. (See #1 and #2) The Lignomat BL2 window appears.



The screenshot shows the Lignomat BL2 v 1.x software window. The window has a blue title bar and standard Windows window controls. The main area is light gray and contains several sections of controls. At the top, there are buttons for "Detect & Read", "Show Chart", "Show Log", and "Help". Below these are "Settings", "Start New Log", and "Exit" buttons. The "Serial Number" field displays "1545". To the right, a "Battery" indicator shows a green bar and the word "GOOD". The "Log Start Date and Time" field shows "05/31/2010 5:58". The "Log Description" field is empty. The "Logging Interval" is shown as a dropdown menu. Below this are three rows of alarm settings: "RH Alarm", "Temp Alarm °F", and "EMC Alarm". Each row has "High Limit" and "Low Limit" input fields. To the right of these are checkboxes for "Hold Alarms" and "Alarms Beep", both of which are checked. At the bottom, a status bar says "Ready! Click Detect & Read to start."

- **Click Detect & Read.** The Serial Number from the BL2 device and the Log Start Time from the last test series are displayed.

- Enter the Logging Interval from the drop down box and choose the Alarm Limits. Click Hold Alarm, if the BL2 should indicate an alarm condition even if the values have dropped back within the set parameters.

Starting a new log, updates the Log Start Date and Time and deletes all data from the previous log. You will be prompted to confirm that **all data from the previous log will be erased from the BL2.** When you click the Detect & Read button, the data is automatically saved on the PC.

4. Measurements: Disconnect the BL2 from the PC. Install the RH BluePeg sensor and connect the BL2 with the black cable (long reach) or the Adapter H (short reach). Measurements will now be recorded at the pre-set time intervals.

5. Download and Save Measurements:

- Disconnect the BL2 from the RH BluePeg sensor.
- Start the program from the BL2 icon.
- Connect the BL2. The empty Lignomat BL2 window appears.
- Push the "Detect and Read" button. All settings are displayed, indicating the BL2 is communicating with the PC.
- All readings are saved automatically in a log file on the PC.

6. Save and Review Measurements Repeatedly Without Starting a New Log

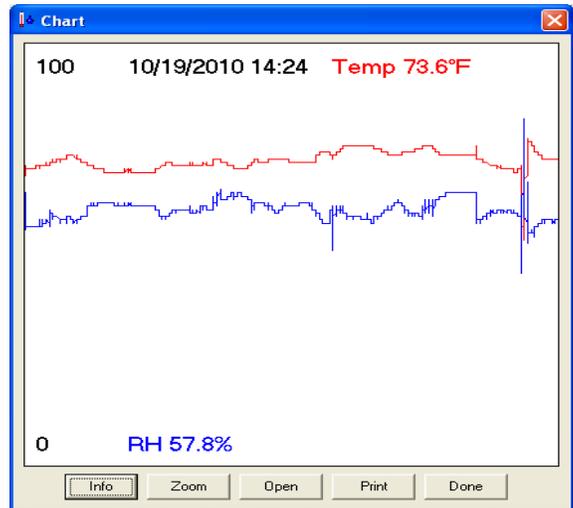
If you want to review measurements while a test is still running, unplug the RH sensor from the BL2. Follow the steps described in #5. When finished reconnect the BL2 to the RH sensor. New data will be added with the correct time stamp. No data will be overwritten. The log file on the PC will also be updated.

7. Review Log Files

A. Chart

Click the Show Chart button and the Chart window appears. If you want to review previous log files see step 7C.

The Chart window shows temperature, RH, GPP, EMC and MC data. Temperature trace and values are in red. Relative Humidity trace and values are in blue. Date and time is in black. Click anywhere on the traces to see the readings at that time.



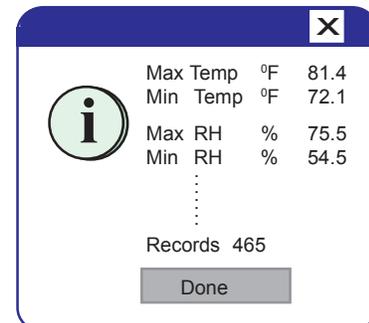
The “Info” button will open the Log Info window, showing min/max values. These are not the pre-set min and max limits, but the actually measured maximum and minimum values.

The “Zoom” button cycles through four different zoom zones. After four clicks the original graph is shown again.

The “Open” button will show the Log File Library and allow access to review previous logs.

The “Print” button will send the chart to your default printer.

The “Close” button will return to the main Lignomat BL2 window.



B. Log

Click the “Show Log” button. If the BL2 is not connected and you want to review previous log files see 7 C on back of page. All measurements are listed with a time stamp. For button functions see step 7A above.

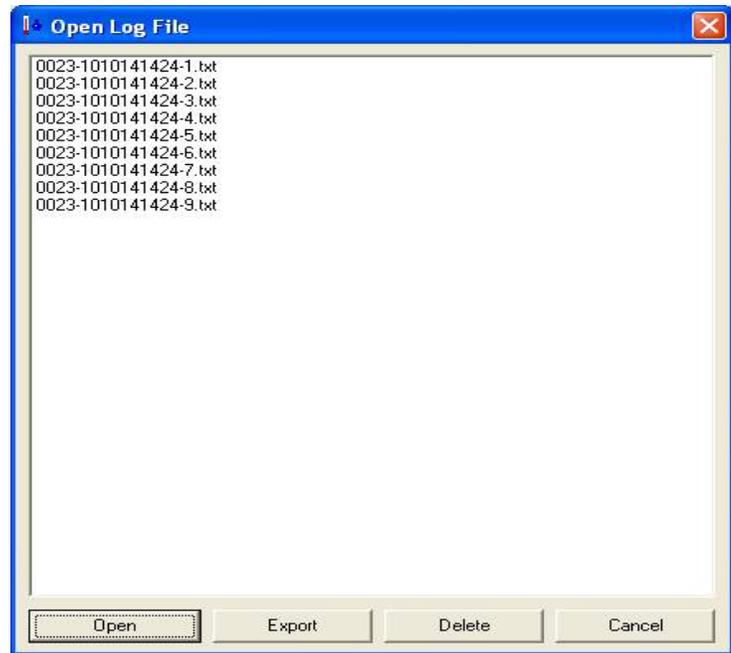
The Lignomat BL2 window displays a table of log data:

Time	Temp °F	RH %
10/19/2010 18:27	73.1	58.0
10/19/2010 18:28	73.1	58.6
10/19/2010 18:30	73.1	59.8
10/19/2010 18:31	73.1	60.4
10/19/2010 18:32	73.3	60.4
10/19/2010 18:33	73.4	60.3
10/19/2010 18:34	73.5	60.4
10/19/2010 18:35	73.5	60.2
10/19/2010 18:36	73.6	59.6
10/19/2010 18:37	73.6	59.9
10/19/2010 18:39	73.6	59.8
10/19/2010 18:40	73.8	60.2
10/19/2010 18:41	73.8	59.8
10/19/2010 18:42	73.8	60.3
10/19/2010 18:43	73.9	60.0
10/19/2010 18:44	73.9	59.6
10/19/2010 18:45	73.9	59.3
10/19/2010 18:47	73.9	59.2
10/19/2010 18:48	74.0	59.4
10/19/2010 18:49	74.1	59.4
10/19/2010 18:50	74.1	59.5
10/19/2010 18:51	74.1	60.0
10/19/2010 18:52	74.2	59.6

Buttons for 'Info', 'Open', 'Print', and 'Done' are at the bottom.

7C. Open Log File Library Review Saved Log Files

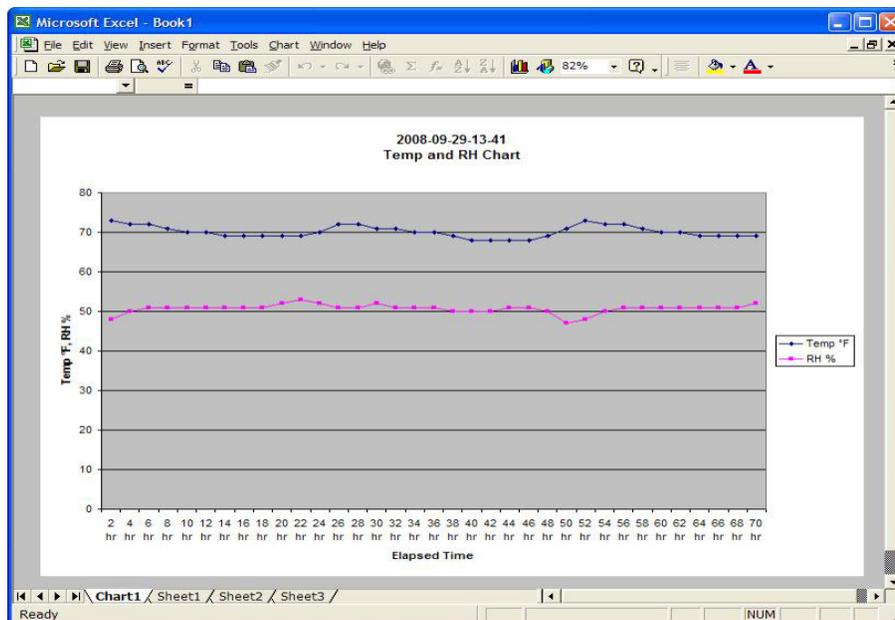
- Start the program from the BL2 icon. The empty Lignomat BL2 window appears. Connect the BL2 and click Detect and Read.
- Click the Show Chart or Show Log button.
- Click the Open button
- Select the file to review and click Open again.
- The Chart or Log are displayed.
- Click Close to return to the main BL2 Lignomat window.



8. Export Data to Microsoft Excel

Any BL2 data log file can be exported to be included in reports and other documentation. Open Log File Library as described in 7C above, select the file and click Export. This requires Microsoft Excel 2000 or newer to be on the PC.

The program will start Excel and export the data to an Excel sheet and chart. This may take a few seconds depending on the speed of your PC.



Important: The Excel workbook is not automatically saved. Make sure to save the workbook. before closing Excel.

9. LED Indicators and Alarms

BL2 to PC:

Yellow steady light for connection established red light for low battery

BL2 to RH:

First blink blue for device active. Red light for low battery.

Second blink green for sensor ok. Red light for sensor error.

Third blink green for RH within limits. Red light for RH Alarm.

Fourth blink green for Temp. within limits. Red light for Temp. Alarm.

The LED indicators are not always lit to save battery power. If you are on site to check if the limits have been exceeded, unplug the RH BluePeg sensor from the BL2 and plug the sensor back in. This starts the light sequence listed above.

If Hold Alarms has been selected, the alarms (LED and audible) will continue even if the over the limit condition has gone away.

If Alarms Beep has been selected, an alarm will sound when any one of the selected ranges low or high has been exceeded.

10. Specifications: RH BluePeg Sensor:

1/2" by 1 3/4"

Accuracy of Humidity Readings: +/-2% for 10% to 90%,
up to +/-3% below 10% and above 90%.

Accuracy of Temperature Readings: +/-1°F for 32°F to 120°F,
up to +/-1.8°F for 5°F to 32°F and 120°F to 160°F.

Memo-Chip BL2: 4 LEDs indicate active, low battery and out of range for RH and Temperature. Up to 16000 readings of relative humidity and temperature. Battery: 3.6V Lithium Battery, replaceable.

Contents:

- BL2 unit
- RH BluePeg Sensor with mounting bracket
- 6 ft RH Cable black
- short connector (RH Adapter)
- 3 ft USB Cable
- Manual