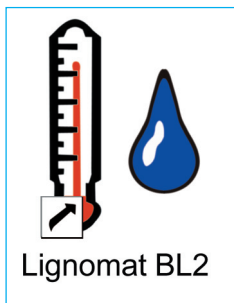


**Operating Instructions for
Memo-Chip BL2
to record
relative humidity and
temperature measurements**



Contents:

- CD with Software
- BL2 unit
- RH BluePeg Sensor with mounting bracket
- 6 ft RH Cable black
- 3 ft PC Cable gray
- Manual

Lignomat USA Ltd

14345 NE Morris Ct. Portland OR 97230 USA
800 227 2105 - 503 257 8957

Important!

Install the software first, before connecting the Memo-Chip BL2.

PC Requirements:

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

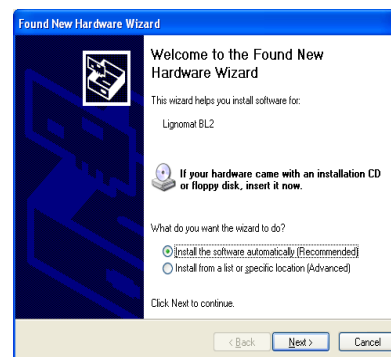
1. Installing the Software

Insert the Lignomat CD. The installation program should start automatically. If auto-start is disabled on your PC, find the Lignomat CD icon on your PC and start it manually by clicking on the setup BL2 icon. 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 gray 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 will appear. Make sure "Install the software automatically is selected". Click Next.

Please wait while the wizard searches. Click Next once the Wizard is done.

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



installs the software. Click Next once the

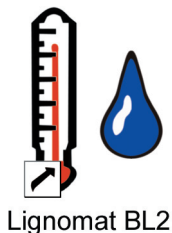
re Wizard window will appear again, finished installing the software. Click

ed successfully. To start a log continue

3. To start a new log, setup log intervals and high/low limits

3A. Connect the BL2 device to the PC using the gray cable. Make sure the RH BluePeg sensor is not connected.

3B. Start the program from the BL2 icon on your desk top.



Lignomat BL2

The Lignomat BL2 window appears.

- Click Detect & Read. The Serial Number from the BL2 device, Log Description and Start Time from the previous test series are displayed.
- Enter a new Log Description and 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 BL2 from PC. Install RH BluePeg sensor and connect the BL2 with the black cable. Measurements will now be recorded at the pre-set time intervals.

5. Download and Save Measurements:

- Disconnect BL2 from RH BluePeg sensor.
- Start the program from the BL2 icon.
- Connect the BL2 to the PC. 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.

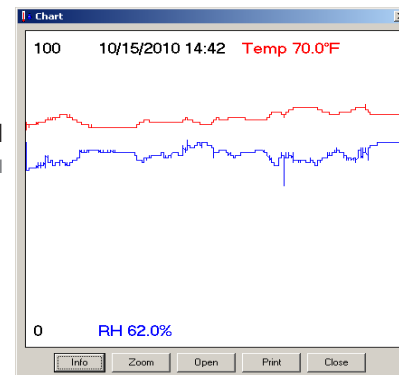
6. Save and review measurements repeatedly without starting a new log

If you want to review measurements while a test is still running, unplug the RH sensor from the BL2. Follow the steps described in the previous paragraph. 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 7 C back of page.



The Chart window shows temperature and RH 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.

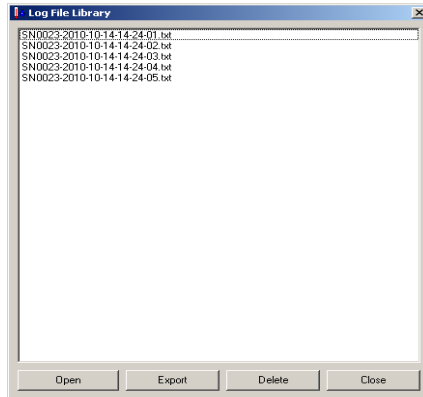
B. Log

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 functions of buttons see list above.

Time	Temp °F	RH %
10/18/2010 23:00	73.4	64.7
10/18/2010 23:01	73.4	64.7
10/18/2010 23:02	73.3	64.7
10/18/2010 23:03	73.3	64.7
10/18/2010 23:04	73.3	64.7
10/18/2010 23:06	73.3	64.7
10/18/2010 23:07	73.3	64.7
10/18/2010 23:08	73.3	64.7
10/18/2010 23:09	73.3	64.7
10/18/2010 23:10	73.3	64.7
10/18/2010 23:11	73.3	64.7
10/18/2010 23:12	73.3	64.7
10/18/2010 23:14	73.2	64.7
10/18/2010 23:15	73.3	64.7
10/18/2010 23:16	73.3	64.7
10/18/2010 23:17	73.3	64.7
10/18/2010 23:18	73.3	64.7
10/18/2010 23:19	73.2	64.7
10/18/2010 23:20	73.3	64.7
10/18/2010 23:21	73.3	64.7
10/18/2010 23:23	73.3	64.7
10/18/2010 23:24	73.3	64.7
10/18/2010 23:25	73.3	64.9

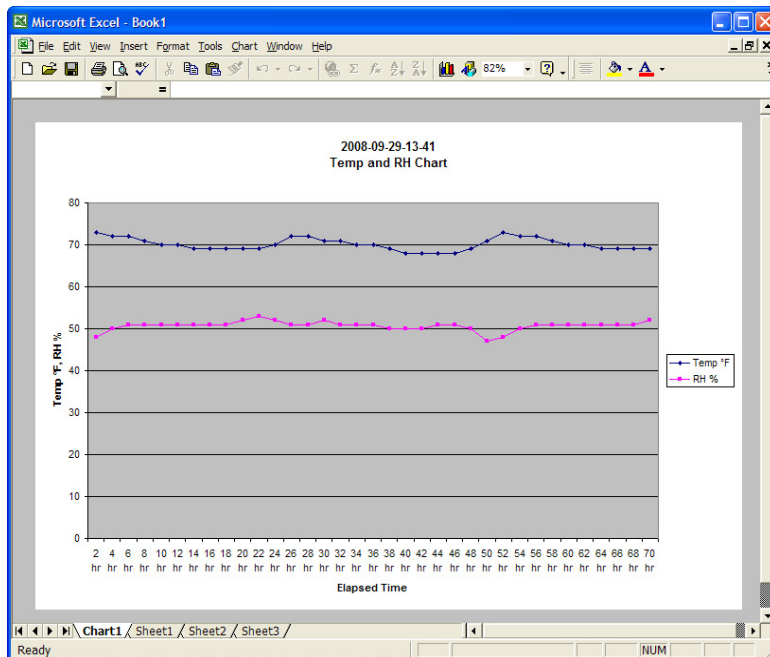
7C. Review saved Log Files

- Start the program from the BL2 Icon. The empty Lignomat BL2 window appears.
- Click Show Chart or Show Log button.
- Click the Open button
- Select the file to review and click Open again.
- 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. This requires Microsoft Excel 2000 or newer to be installed on the PC.



The data log files are saved in a comma separated values text file. These files can be also opened directly using a variety of other programs.

Exporting the file:

First open the Log File Library as described in 6D. Select the log file you want to export and click the “Export” button. 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.

At this point you can format the data with other documentation as needed for your application.

Important: the Excel workbook is not automatically saved. Make sure to save the workbook before closing Excel. Any BL2 data log file can be exported to include in reports and other documentation. This requires Microsoft Excel 2000 or newer to be installed on the PC.

9. LED Indicators

BL2 to PC: orange 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 Temperature within limits
red light for Temperature 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.

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, exchangeable.