

## Memo-Chip BL2

The Memo-Chip BL2 module saves relative humidity and temperature measurements for long term and short term monitoring in preset time intervals. Measurements can be downloaded and reviewed by connecting the BL2 module to a PC.

- **RH Thermo-Hygro probe** is added to measure RH / Temp / DPT / GPP / EMC.
- **MC/RH Tracker module** is added to measure RH / Temp / DPT / GPP / EMC plus moisture measurements of wood and other solid materials.

All RH probes from Lignomat can be connected to the Memo-Chip BL2. If you already have a RH probe with adapter and cable for your handheld meter from Lignomat, the same RH probe can be plugged into the Memo-Chip to record relative humidity.

The Tracker MC-RH module can also be connected to the Memo-Chip to record relative humidity and moisture measurements from 3 probes in wood, drywall and other solid materials.

## Advantages

Long and short term monitoring show moisture changes continuously, whereas handheld thermo-hygrometers just show an at-this-moment relative humidity and temperature value. Using a data logger will continuously record values, even when you are not on-site.

## Description

Before starting to use the BL2 in a test series, a free application can be downloaded from the Internet. The application allows to set up the BL2 for monitoring at desired time intervals between 30 seconds and 24 hours. A total of 32 000 data sets can be saved. Saved values can be reviewed at any time by connecting the Memo-Chip BL2 to a PC with a USB cable. After re-connecting the BL2 to the RH probe, recording will proceed onto the same log or a new log can be started.

Out of range values for humidity and temperature can be preset. Multi colored LED lights are built-in to warn of out-of-range values and serve as performance indicators. An audible alarm is also selectable to indicate out of range values.

The Memo-Chip has 2 connectors built-in:

A 3.5mm stereo jack for the RH Adapter or a RH cable to connect:

- RH Thermo-Hygro probe (RH-probe with RH adapter)
- RH BluePeg probe add cable or adapter
- MC/RH Tracker (3x moisture content, 1x RH) add cable or adapter

A USB connector for a USB cable to download measurements to a PC. While recording RH measurements, the USB cable is not connected to the BL2.

The multi-colored LED lights indicate, when measurements are above or below the preset range. The lights also indicate the function the BL2 is performing. For instance, when the RH BluePeg probe is connected, a blue LED indicates, the BL2 now starts recording.

**Out of range values:** When the Memo-Chip BL2 is set up with minimum and maximum permissible values, the red LED will be on for out-of-range values. You also have a choice whether or not to sound an audible alarm.

Applications are:

- from furniture making to wood floor installations
- from crawl space monitoring to attics
- green house moisture control
- from indoor air quality to refrigeration
- from water damage clean-up to moisture in concrete floors
- plus monitoring ambient conditions in your home or at a customer site



The Memo-Chip BL2 is supplied with:  
– BL2 module  
– USB cable to download data to PC.  
– mounting bracket for BL2  
– mounting bracket for RH BluePeg probe.



To record ambient conditions, add RH BluePeg probe with RH adapter or cable. This is the standard RH probe from Lignomat, which is also used with Lignomat's Ligno-VersaTec, Ligno-DuoTec BW, Ligno-Tec RH.



BL2-KT data logger is used to monitor acclimation for wood floors.

**Specifications**

**Memo-Chip BL2**

- Interval 30 sec – 24 hrs, 32000 data sets
- Out of range LED indicators and audible alarms, for out-of-range values
- Time stamp and date for each measurement

Lithium Battery, exchangeable, rated for 8 years  
 Size: 1"x1.25"x4" (2.5cm x 3cm x 10cm)  
 Built-in connectors for USB and RH cable or RH adapter

**RH BluePeg Probe:**

Size of RH BluePeg probe: Ø 0.5" (1.3cm), length 1.35" (3.3cm)  
 The RH BluePeg probe uses a single microchip, factory calibrated to NIST standard.  
 Applications: Measuring ambient conditions and in-situ moisture testing in concrete.

**Measuring range for relative humidity:** 0-99.9%  
 Accuracy for RH: ± 2% for 10% - 90%, ± 3% for below 10% and above 90%.

**Measuring range for temperature:** 5°F to 160°F (-15°C to 70°C).  
 Accuracy for Temperature:  
 +/-0.5°F for 32°F to 120°F (+/-0.3°C for 0°C - 50°C)  
 +/-1°F for below 32°F and above 120° F (+/-0.5°C for below 0° C and above 50° C).

Measuring range for DPT: -17.8°F to 160°F (0°F to 70°F)  
 Measuring range for GPP: 0-99.9.  
 Display indicates 3-digit individual RH probe number for keeping track of RH probes  
 Resolution for all indicated values is 0.1.

**Order Thermo-Hygrometer probe as item: RH-BA**



RH depth-adapters (# RH-DA). make RH probe longer to reach in crevices and behind walls with extended RH probe. Add RH depth-adapters Also used to read probes in sleeves over 2.4" deep.



Cable extension to measure relative humidity in hard to reach, remote places (shown with Ligno-Tec RH).

Lignomat offers 3 RH meters and the Memo-Chip BL2 and the RH-MC Tracker:  
**Ligno-Tec RH:** measures RH only  
**Ligno-DuoTec BW:** measures RH and pinless meter for wood, bamboo...  
**Ligno-VersaTec:** measures RH and pin and pinless meter for wood, bamboo...

**EMC Table**

Temp °C °F	Relative Humidity																			
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	98
-1 30	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
4 40	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.8	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
10 50	1.4	2.6	3.6	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.3	11.2	12.3	13.4	14.8	16.4	18.4	20.9	24.3	26.9
16 60	1.3	2.5	3.6	4.6	5.4	6.2	7.0	7.8	8.6	9.4	10.2	11.1	12.1	13.3	14.6	16.2	18.2	20.7	24.1	26.8
21 70	1.3	2.5	3.5	4.5	5.4	6.2	6.9	7.7	8.5	9.2	10.1	11.0	12.0	13.1	14.4	16.0	17.9	20.5	23.9	26.6
27 80	1.3	2.4	3.5	4.4	5.3	6.1	6.8	7.6	8.3	9.1	9.9	10.8	11.7	12.9	14.2	15.7	17.7	20.2	23.6	26.3
32 90	1.2	2.3	3.4	4.3	5.1	5.9	6.7	7.4	8.1	8.9	9.7	10.5	11.5	12.6	13.9	15.4	17.3	19.8	23.3	26.0
38 100	1.2	2.3	3.3	4.2	5.0	5.8	6.5	7.2	7.9	8.7	9.5	10.3	11.2	12.3	13.6	15.1	17.0	19.5	22.9	25.6
43 110	1.1	2.2	3.2	4.0	4.9	5.6	6.3	7.0	7.7	8.2	9.2	10.0	11.0	12.0	13.2	14.7	16.6	19.1	22.5	25.2
49 120	1.1	2.1	3.0	3.9	4.7	5.4	6.1	6.8	7.5	8.2	8.9	9.8	10.7	11.7	12.9	14.4	16.2	18.6	22.0	24.7

Example: For a relative humidity of 35% and a temperature of 70°F, the EMC is 6.9%. A wood floor at 6.9% moisture content is stable, if the surrounding air has a relative humidity of 35% and a temperature of 70°F. In short a floor is stable, when MC and EMC are the same.



Specifications are subject to change without notice.  
 Lignomat USA LTD, 14345 NE Morris Ct., Portland OR 97230,  
**503-257-8957, 800-227-2105,**  
**sales@Lignomat.com www.Lignomat.com**