

## Memo-Chip BL2 Package

The Memo-Chip BL2 package serves as data logger for relative humidity and temperature for long term and short term monitoring in preset time intervals.

- RH Thermo-Hygro probe is connected for RH / Temp / DPT / GPP / EMC
- MC/RH Tracker module can be added to measure RH / Temp / DPT / GPP / EMC plus moisture measurements of wood 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

Package comes with Memo-Chip BL2 module, RH Thermo-Hygro probe, RH cable and hardware to install BL2 module and RH probe.

Before starting to use the data logger, 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 BL2 to the PC with a USB cable.

The Memo-Chip does not have an internal relative humidity probe built-in. The RH BluePeg probe included in the package has to be connected with the RH adapter or the RH cable. The external RH probe with RH cable allows measuring in-wall, in-depth, remote and hard-to-reach areas.

Another advantage of the external RH probe is, that the probe and cable can be left in place, while the BL2 is dis-connected to review data on the PC. After re-connecting the BL2 to the RH cable and RH probe, recording will proceed automatically adding measurements to the same log or a new log can be started. Example, measuring moisture conditions inside a wall, while insulation is being dried out.

The Memo-Chip BL2 module has 2 connectors built-in:

A 3.5mm stereo jack is on one end for a RH adapter or RH cable to connect:

- RH BluePeg probe
- MC-RH Tracker (3x moisture content, 1x RH)

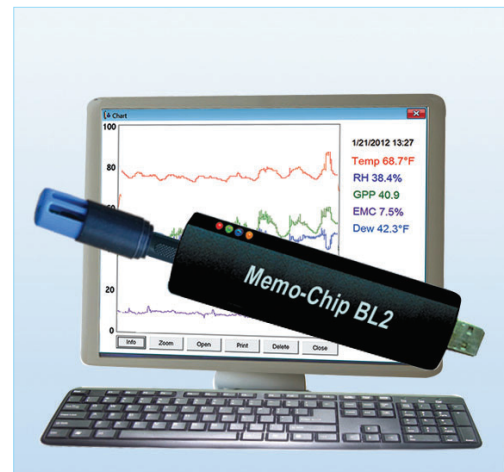
A USB connector is on the other end for a USB cable to download measurements to a PC. While recording RH measurements, the USB cable is not connected to the BL2.

The multi-colored LED lights indicate the function the BL2 is performing. For instance, when you connect the RH BluePeg probe, a blue LED light indicates that the BL2 now starts to record.

**Out of range values** When the BL2 is set up with minimum and maximum permissible values, a 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:

- working with wood, from drying to furniture making to wood floor installations
- crawl space and attic monitoring
- green house moisture control
- from indoor air quality to refrigeration
- from water damage clean-up to moisture in concrete floors
- monitoring ambient conditions in homes, offices, workshops or at a customer site.



Accurate, sturdy and reliable. The BL2 Memo-Chip records:

- Relative Humidity / Temperature
- GPP and DPT and EMC



Memo-Chip BL2 includes:

Memo-Chip BL2 module, RH Thermo-Hygro probe, RH cable, USB cable and hardware to mount BL2 and RH probe.



BL2 Memo-Chip with RH Thermo-Hygro probe used to monitor acclimation of a wood floor.

## Specifications

### 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 RH and Temp: 0.1% and 0.1°F.

**Connection** between BL2 module and RH BluePeg probe is done by a RH adapter with 3.5mm plug or a RH cable. Standard cable length is 6ft, we custom cut **longer cables** if needed.

### Memo-Chip BL2 module:

- Interval 30 seconds to 24 hours
- 32000 data sets
- 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)



RH depth-adaptors (#RH-DA) make RH probe longer to reach into crevices and behind walls. Also used when measuring concrete (ASTM F2170) for sleeves over 2.4" long.



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

Lignomat offers 3 hand-held RH meters plus the data logger BL2 and 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.

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