


NOTES

TABLE OF CONTENTS

1.0	Short instruction manual	2
1.1	List of calibration curves	
1.2	Measuring Value	
1.3	Water content	
1.4	Wood Moisture	
1.5	Sort of wood	
1.6	Valid measuring Range	
2.0	View of the instrument	5
3.0	Menu level overview	6
4.0	Running the instrument	7
4.1	Overview of other instrument functions	
5.0	Transfer saved data to the PC	8
6.0	Using a USB-RS232 adapter with the data link cable to transfer data to a PC	9
7.0	Print saved data	10
8.0	Changing the batteries	10
9.0	Liability	11
10.0	Technical data	11
11.0	Care Instructions	12
12.0	Common reasons for incorrect measurements	12
13.0	Optional Accessories	13
14.0	Warranty	14

1.0 SHORT INSTRUCTION MANUAL

Inside of the ram electrode is a temperature sensor, which measures the temperature of the wood. Let the sensor assimilate to the temperature of the wood, because the measured temperature is used for the internal material compensation.



To switch on the device, press the  key for 3 seconds. If a menu item is shown, press the left key ( Exit) until the measuring window appears.

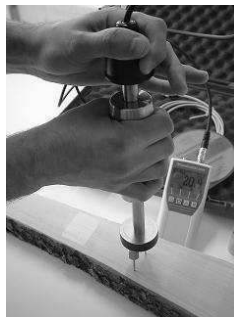
With the standard nails the wettest part over the whole measuring depth will be measured. If you need the water content in a defined measuring depth, you should use the isolated green nails (Art. No: 11426), cause they are only measuring at the point.

Important: You have to remove the bark before you can start to measure.

The measuring depth should be a quarter of the wood diameter. In the worst case you have to cut away a part of the diameter. Choose a part of the wood, WITHOUT knots, pitch pockets or cracks and drive the ram electrode in the right angle to the grain into the wood. Hold the top of the electrode with one hand, take the handhold with the other hand and push down the handhold with active force. Drive the nails about 2 cm deep into the wood.

Tip: Statistically, the spot that matches the average moister in the wood most, is about 20% from the edge to the total wood length.

Plug in the sensor cable to the right connector (see at picture) and select by pressing the up  or down  key the correct kind of wood. (see table on site 4.) Now you can see the actually measuring value and the temperature on the display



NOTES

14.0 WARRANTY




Electromatic Equipment Co., Inc. (Electromatic) warrants to the original purchaser that this product is of merchantable quality and confirms in kind and quality with the descriptions and specifications thereof. Product failure or malfunction arising out of any defect in workmanship or material in the product existing at the time of delivery thereof which manifests itself within one year from the sale of such product, shall be remedied by repair or replacement of such product, at Electromatic's option, except where unauthorized repair, disassembly, tampering, abuse or misapplication has taken place, as determined by Electromatic. All returns for warranty or non-warranty repairs and/or replacement must be authorized by Electromatic, in advance, with all repacking and shipping expenses to the address below to be borne by the purchaser.

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Now you can save the measurement by pressing the  key in the saving level. Press the  (Rolling Menu) key to enter the saving level. When the digit in front of the disk symbol  increases, the saving was successfully.






Tip: Take a few logs on different positions of each piece of wood you intend to measure, and the humimeter will calculate automatically the average value of the series.

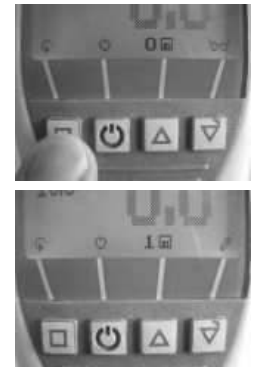
If you press the  key, you can add extra information to the active log series.

Push out the ram electrode of the wood.

Attention!! Risk of injury

1.1 List of calibration curves

Pressing the  or  key in the measuring for at least 3 seconds and a list with all available sorts will appear. Select your sort by pressing  or  and confirm it with the  key. The measurement will continue automatically

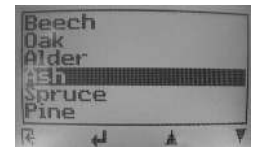


1.2 Measuring Value

The measure value which is shown at the display of your humimeter BLW, represents the "water content" of the wood. So there is no conversion from the "wood moisture" into "water content" for use. It is also possible to change the value into "wood moisture". If you need this, contact Electromatic.

1.3 Water content

The water content is declared as the amount of water in a wood, which stands in relationship to the whole weight of the wood. For example: You have 1kg Wood with 40% water content; the wood consist of 0,4kg water and 0,6kg wood.



1.4 Wood Moisture

The wood moisture is declared as the amount of water in a wood, which stands in relationship to the weight of the dried wood. The same example: You have 0,6kg Wood with 0,4kg water; the 0,6kg wood represents 100%, so the 0,4kg water will be 66,7% wood moisture .

1.5 Sort of wood

Main Group	Sub groups							
Beech	Rubber							
Oak	Mahogany	Wenge						
Alder	Acacia	Alstonia	Birch	European chestnut	Horse chestnut	Cherry Tree	Walnut	Okan
Ash	Keruing							
Spruce								
Pine	Balsa	Yew Tree	Stone Pine					
Larch	Maple	Douglas Fir	Hemlock	Cotton Wood	Elm			
Fir	Ceiba	Linden						
Willow	Pear	Hickory	Olive wood	Ramin	Teak			

Declaration: The main group of wood is the wood sort, which is shown on the measurement display of your humimeter BLW. Do you want to measure wood, which isn't in the list of the main group, you should search it at the sub groups in the table above. Then use the wood of the main group for the measuring. For example: If you want to measure "Cherry Tree", you have to choose the "Alder" wood at you device.

1.6 Valid measuring Range

If the measure value is blinking, the valid measuring range is exceeded (limits see Table). In this case the accuracy will be decreasing.



Beech	32%
Oak	32%
Alder	40%
Ash	35%
Spruce	40%
Pine	35%
Larch	32%
Fir	37%
Willow	40%

13.0 OPTIONAL ACCESSORIES

Isolated Nails: for measuring through the bark of the wood

Interface for printing out saved data on a portable printer and/or transferring data to PC via data link cable

Portable measurement value printer – Battery powered direct thermal printer.

Humimeter LogMemorizer data recording and analysis software for Windows®-PCs based on a database: for recording data, direct analysis of measurement values in the program, numerous export functions.

11.0 CARE INSTRUCTIONS

Do not drop the instrument or expose it to excessive temperatures. Clean it only with fuzz-free, dry cloth. The device is not waterproof.

For more information concerning the treatment of the device, see www.checkline.com.

The frequency for technical check of the instrument depends on the use and required level of accuracy.

For a fee, we can also carry out a calibration at the factory. In this case you will receive a calibration certificate.

12.0 COMMON REASONS FOR INCORRECT MEASUREMENTS

- **Product temperature out of application range**

Material below 0°C resp. above +40°C (32 to 104 °F) may cause faulty measurements. The storage of cold material in a warm storage area usually creates condensed water which may lead to major measuring errors.

- **Not adjusted temperature of the device**

Let your humimeter BLW adjust to the surrounding temperature of the pellets for approx. half an hour.

A very high temperature difference has a negative effect on the stability of the measurement results.

- **Measuring through the bark.**

The accuracy is sinking rapidly (also with the isolated nails)

- **Wrong wood type**

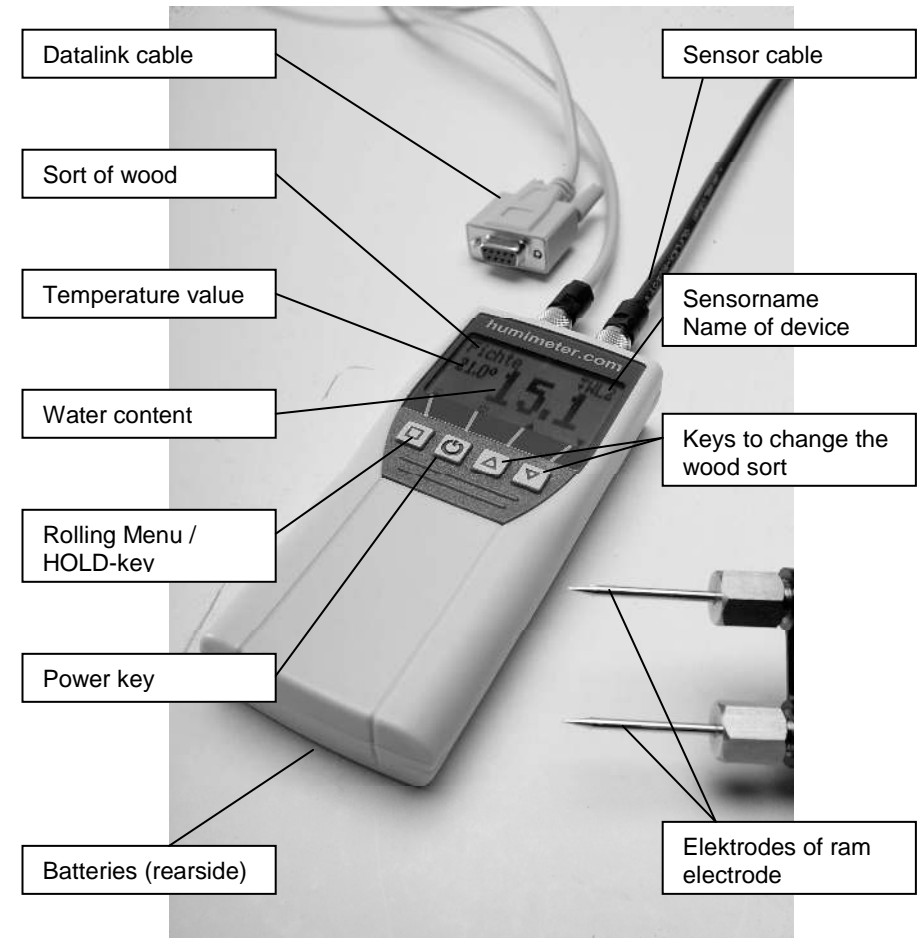
Before you measure your sample, double check the correct selection of the chosen wood type.

- **Direct sun radiation.**

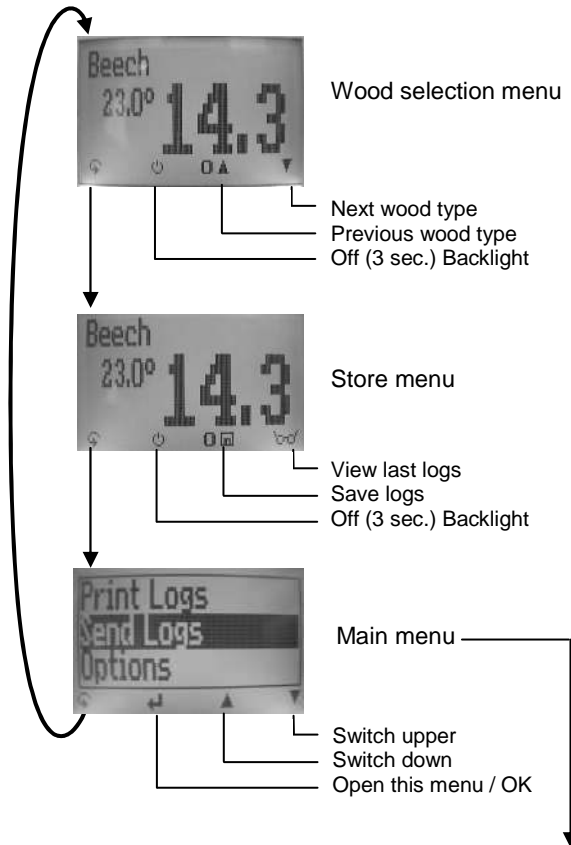
- **Frozen, mouldy or bug damaged wood**

The accuracy is sinking rapidly (also with the isolated nails)

2.0 VIEW OF THE INSTRUMENT



3.0 MENU LEVEL OVERVIEW



Keypad symbols

Measuring window:

- Rolling Menu
- Power ON / OFF
- Switch upper
- Switch lower
- Save
- Hold
- Watch the saved data
- Suppliers data can be added

Menu:

- Enter
- Switch upper
- Switch lower
- Exit
- Enter numbers
- Enter letters
- Next or right
- Left
- Yes
- No
- Shift
- OK

<i>Edit Logs</i>	<i>Options</i>
Manual Logs	Date / Time
Clear Logs	Log Time
<i>Print Logs</i>	Language
Last Log	Unlock
All Logs	°C / °F
Clear Logs	o Userlevel
<i>Send Logs</i>	BL On Time
Manual Logs	Auto Off Time
Clear Logs	Materialcalib.
<i>Options</i>	Password
<i>Status</i>	Reset

9.0 LIABILITY

The manufacturer is not liable for any incorrect measurements and resulting damages. As this rapid measurement procedure is influenced by product specific conditions, we recommend to carry out a plausibility check on the measurement results. Each instrument has a serial number and warranty seal. If this is broken, we cannot provide warranty. If the instrument is defective, contact us via www.checkline.com.

10.0 TECHNICAL DATA

Measuring:	Measuring range / Resolution
Water content:	
Water content :	12 to 60% / 0,1%
Temperature KTY °C:	-10 to +60°C / 0,1°C
Temperature °F:	14 to 140°F / 0,3°F
Operating temperature range	-0°C to 50°C / 14 to 122°F
Storage temperature range	-20°C to 60°C / -4 to 140°F
Temperature compensation	automaticaly
Value storage	ca 10.000 Measuring Values
Languages	German, English, French, Italian
Power supply	4 pieces 1,5Volt AA Alkaline Batteries (ca. 1000 measuring cycles)
Power off time	selectable, standard 4 min.
Power consumption	50 mA (with LED-Backlight)
Display	128 x 64 Matrixdisplay, with LED-Backlight
Dimensions: Cover	145 mm x 65 mm x 27 mm
Weight (incl. Batt.)	230g
Weight Ram electrode	1500g
Protection Category	IP 40
Scope of delivery	Plastic case, ram electrode, measuring cable, Short instruction manual 4 x 1,5Volt AA Alkaline Batteries, nails for reserve

7.0 PRINT SAVED DATA



To print your saved logs, connect the printer to the humimeter serial interface using the cable that was delivered with your device.




To switch on the printer, press the ON/OFF-button.

If the printer is correctly switched on, the green LED blinks regularly. If it does not, replace the batteries and try again.



Press the -key until you reach the menu (see image on the right). Then choose „Print Logs“ from the menu and confirm with .



Now you can choose if you want to print only the last log or all recorded logs. Confirm with  again. The selected logs will be printed out.

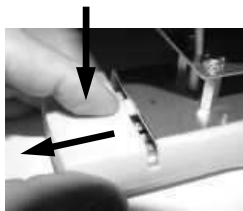


8.0 CHANGING THE BATTERIES


Use a finger to press the arrow on the battery cover and pull it back.

Remove the empty batteries and replace them with four new 1,5 Volt AA Alkaline Batteries. Take care of the correct polarisation when you put in the batteries.




Press down the batteries so you can close the cover.




4.0 RUNNING THE INSTRUMENT


Switch on the device: Press the  key for 3 seconds.

Change the kind of wood: Press the  or  key.

Set the clock: press 3 times the  key - Options – Date / Time Here you set the date and the time by pressing **0..9** (YY.MM.DD). When you entered the Year push the  key to get to the month and to the day. Press the  key again to get to the time. If you entered date and time confirm it by pressing **OK**.

Hold the measure value: Press the  key in the save mode (Function must be activated in the Datalog Time menu)

Display-Background lighting: Press the  key; Backlight will turn off automatically after 20 seconds. Backlight will be activated by pressing any key. Furthermore the Power off time is reset to 4 minutes. (Both times can be modified in the options menu)

Power off: Press the  key 5 Seconds in the measuring window; the device will be switched of when you leave the key. The device also switched off automatically, when no key is pressed for 4 minutes. (Time can be changed.)

4.1 Overview of other instrument functions

- Manual saving of single measurement values in a measurement series.
- Display of the measuring series and measurement values directly on the instrument.
- Print out of the saved measuring series (when device is equipped with RS232 interface)
- Transfer and saving of the measuring series on a PC (when device is equipped with RS232 interface) .
- Display of the memory and battery status
- Selection of the menu language (DE, EN, FR, IT)
- Temperature in degrees Celsius or degrees Fahrenheit
- Activation of an simple user operation

5.0 TRANSFER SAVED DATA TO THE PC

To send your saved logs to your PC, connect the humimeter-device to your PC using the cable that was delivered with your device. You can either connect it directly to a serial port on your PC or use the enclosed serial-USB adapter.

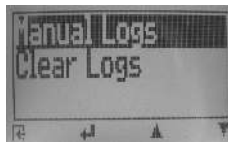
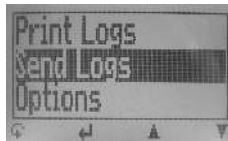
Start the LogMemorizer software on your PC.

For installation and the required settings, please have a look at the separate LogMemorizer manual.

Press the **↶**-key until you reach the menu (as in the image on the right). Then choose „Send Logs“ from the menu and confirm with **↵**.

Now you can choose “Manual Logs” and confirm with **↵** again. The selected Logs will be sent to your PC.

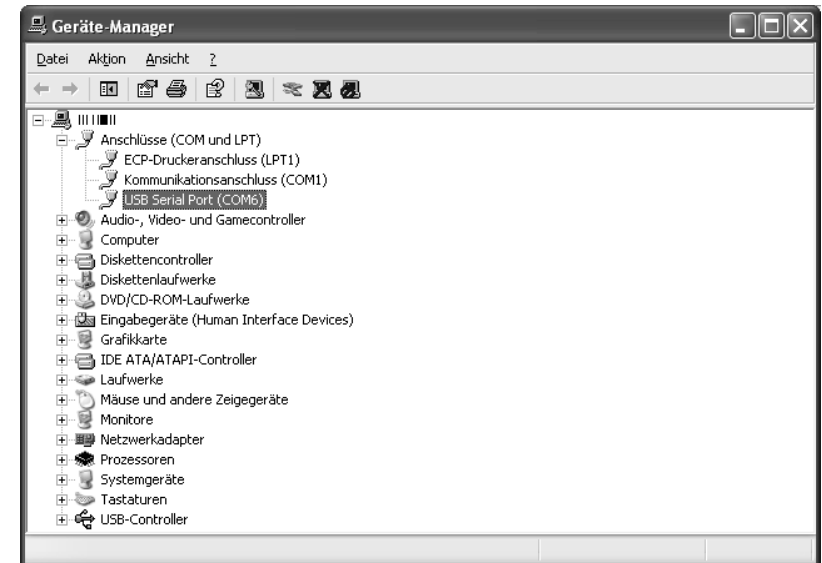
If no transmission is performed, please check your cable connection and the LogMemorizer settings and try again.



6.0 USING A USB-RS232 ADAPTER WITH THE DATA LINK CABLE TO TRANSFER DATA TO A PC

Connect the USB-RS232 adapter to your PC. In Windows XP and Vista the adapter for the operating system is automatically recognized. Follow the instructions of the operating system.

In order to adjust the correct connection of the humimeter LogMemorizer you have to know the port number (COM1-COMx). You can find this setting in the device manager, directory ports (COM & LTP) - see print screen below.



The shown port number in the device manager COMx (in our example COM6) for the USB-RS232-adapter has to be selected in the software humimeter LogMemorizer, directory Extras – Settings – Device. Close the dialog using the button OK.



BLW & BLW-RS232 WOOD CHIP MOISTURE METER

