

Ligno-Scanner D and S

Gravity Range: 0.3 - 1.0

Measuring Depth:

D-Model 3/4" (20mm)

S-Model 1/4" (7mm) - The wood must be at least as thick as the measuring depth. See page F2.

71 Wood Groups for gravities between 0.3 to 1.0 are available. (#30-100) For example: #42 is for woods with a specific gravity of 0.42. See Wood Group Chart or check Internet*.

Ligno-Scanner SD:

Gravity Range: 0.3 - 1.0

Selectable Measuring Depth:

3/4" (read 3 4) or 1/4" (read 1 4)
[20mm (read 20) or 7mm (read 7)]

71 Wood Groups for gravities between 0.3 to 1.0 are available. (#30-100) For example: #42 is for woods with a specific gravity of 0.42. See Wood Group Chart. or check Internet*.

*To find gravity on Internet, enter: Specific Gravity and Wood Species.

B1

Check / Change Settings

Check / Change Wood Group Setting: Press SET Button to check. While setting is displayed, values can be changed by pushing ▲ or ▼ Button repeatedly. For fast forward hold ▲ or ▼ Button depressed.

Check / Change Measuring Depth: Press Set Button until " : " Sign appears on left side of display. While setting is displayed, values can be changed by pushing ▲ or ▼ Button.

Change Measuring Depth from Inches to Millimeters: Press Set Button until " : " Sign appears on left side of display. While setting is displayed, change from Inches to Millimeters by depressing ▲ and ▼ Button at the same time.
3 4(") ↔ 20 (mm)
1 4(") ↔ 7 (mm)

B2

Operation Scanner S, D, SD

First check settings. Then press MC Button. Place meter on wood in the direction of the grain and press down slightly, holding outer sides of meter. Meter will indicate % MC for approx. 1min.

To obtain accurate readings:

- Wood must be big enough to cover both sensor plates.
- Wood surface must be smooth and flat.
- Wood must be at least as thick as the Measuring Depth.

The Scanner cannot read any deeper than the Measuring Depth. Moisture readings are too low for wood thinner than the Measuring Depth. To avoid inaccuracies for thin wood, make a stack of wood.

The moisture range for the Ligno-Scanners depends on the specific gravity of the wood. Example: For Pine (specific gravity 0.5) the moisture range is 5.4% to 61.2%

B3

If the wood is too dry for a reliable reading, the meter will show the lowest possible reading with a flashing decimal point.

If the wood is too wet for a reliable reading, the meter will show the highest possible reading with the value flashing.

Calculation of Specific Gravity: If the Heights, Width and Depth of a sample piece are available in Inches and the Dry Weight in Ounces the following formula will allow you to determine the Specific Gravity:

$(\text{Weight} \times 1.73) / (W \times L \times H)$
(Specific Gravity of water is 1)

For SD-Model only

While taking MC-readings, the Measuring Depth can be checked / changed instantly. Press ▲ Button and 3/4" is set Press ▼ Button and 1/4" is set. Value appears briefly. [Same for 20mm and 7mm]

B4

Functional Description of all pin-less Ligno-Scanners

All Ligno-Scanners are capacitance-type meters, using a relationship between the dielectric properties and the moisture content. The sensors on the back of the Ligno-Scanner emit and pick up very low powered electro-magnetic signals that are affected by the material placed under the meter.

The MC readings generated by the Ligno-Scanners are an average value of the moisture contents from the entire area between the surface and the maximum depth of penetration. Moisture closer to the surface has a greater effect on the average value than the moisture close to the maximum depth of penetration.

All Ligno-Scanners internally check and adjust the calibration. Therefore manual recalibration is neither needed nor possible.

F1

The Measuring Depth of the Ligno-Scanners is crucial. Moisture readings are inaccurate, when the Ligno-Scanner is placed on wood thinner than the Measuring Depth. And the Ligno-Scanner cannot read any deeper than the Measuring Depth. Therefore we offer 3 different Ligno-Scanners
S: Measuring Depth 1/4" (7mm)
D: Measuring Depth 3/4" (20mm)
SD: Dual Depths 1/4" and 3/4".

Both sensor plates must be entirely in contact with the wood requiring a smooth and flat surface. Size of Sensor Plate: 2 1/2" L x 1 1/2" W (65mm x 40mm)

Battery: One 9Volt Battery. To change Battery slide battery cover off on back of instrument.

Warranty: All instruments have a one-year warranty, battery excluded.

F2

Lignomat's Pin Meters

Any one of Lignomat's pin meters can be a great complementary tool for your Ligno-Scanner: Pin meters measure the electrical resistance between 2 pins. Differences between core and surface moisture can be measured easily by using insulated pins or by cutting the wood. Essential for the detection of unevenly dried lumber.

In general pin meters are more versatile: Scanners only give the average moisture content for the entire measuring area and do not allow comparison between surface and core moisture. Scanners also require a flat, smooth surface to cover the measuring pad. With the appropriate electrode one pin meter can measure from veneer to thick logs (up to 4 1/2" with Pins #EL). All surface textures and shapes are possible as long as both pins can be inserted.

F3

User Instructions for pin-less Ligno-Scanner S Ligno-Scanner D Ligno-Scanner SD

Lignomat USA Ltd
14345 NE Morris Ct
Portland OR 97230 USA

Tel: 1-800-227-2105
FAX: 1-503-255-1430

E-mail: sales@lignomat.com
www.lignomat.com