

# J-Lite

## owners manual



**DELMHORST**<sup>®</sup>  
INSTRUMENT CO.

WHEN ACCURACY IS THE POINT.<sup>™</sup>

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# DELMHORST J-LITE



## J-LITE FEATURES

- ▶ Resistance technology recognized worldwide as the most accurate method for measuring moisture
- ▶ 6% to 30% moisture range
- ▶ LED readout
- ▶ Proven microcontroller circuit for increased reliability and accuracy
- ▶ Built-in calibration check
- ▶ Temperature-stable circuit
- ▶ Ergonomic case design
- ▶ Easy one-hand operation
- ▶ Includes (1) 9-Volt Battery
- ▶ Includes sturdy carrying case
- ▶ Three-year warranty
- ▶ Over fifty years of proven quality, accuracy and service

## CHECK CALIBRATION

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Press the calibration check button **2**. Meter is in calibration when the "12" lights up.

If you check the calibration and an LED other than the "12" lights up, it is likely an indication of a low battery. If this occurs, change the battery immediately. Continued use with a low battery may cause the meter to go out of calibration. If you have a fresh battery and the instrument still does not indicate a proper calibration, return it to DELMHORST for service. See "Service for Your Meter" section.

When the battery is removed and then reconnected, all the LEDs will flash for a few seconds, then the meter will turn itself off.

## TAKING A READING

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The contact pins **4** provided are best for stock up to 6/4. On stock over 6/4 or for hardwoods over 4/4 we recommend using a remote probe such as the 26-ES slide hammer electrode. Mount the 26-ES directly to the external connector **5**. See additional information under the "Pin Talk" section.

- ▶ **Remove the protective cover** to expose the pins. Check that the contact pins **4** are firmly hand tightened.
- ▶ **Align the contact pins **4**** parallel to the grain, pushing them their full penetration into the wood, if possible. Insulated pins read only at the tip and can be driven to the desired depth.
- ▶ **Press the read button **1**** and read the moisture content on the LED display.

## UNDERSTANDING YOUR READINGS

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(See Chart on page 4)

Delmhorst uses the USDA standard-Douglas Fir as the basis for all calibrations. For any species other than Douglas Fir, species adjustment should be made. See the species correction table for more information.

Since the J-Lite displays %MC in a "range" between two values, corrections for pin, temperature, and species have less impact on the accuracy of the meter readings, especially below 12%. Therefore, these corrections are not necessary. If you choose to make them, correct for temperature first, using the chart provided on page 5, then correct for species, using the chart provided at the back of the brochure.

# METER READINGS

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If the LED displays:	The %MC is:
Blinking 6%	Below 5.5%
6%	Between 5.5 and 6.0
7%	Between 6.1 and 7.0
8%	Between 7.1 and 8.0
9%	Between 8.1 and 9.0
10%	Between 9.1 and 10.0
Blinking 10% and 12%	Between 10.1 and 11.0
12%	Between 11.1 and 12.0
Blinking 12% and 15%	Between 12.1 and 13.5
15%	Between 13.6 and 15.0
Blinking 15% and 17%	Between 15.1 and 16.0
17%	Between 16.1 and 17.0
Blinking 17% and 19%	Between 17.1 and 18.0
19%	Between 18.1 and 19.0
20%	Between 19.1 and 20.0
Blinking 20% and 25%	Between 20.1 and 22.5
25%	Between 22.6 and 25.0
Blinking 25% and 30%	Between 25.1 and 27.5
30%	Between 27.6 and 30.0
Blinking 30%	Above 30%

The J-Lite can be used to test more than just wood. It will also give a relative reading on plywood, OSB, particleboard and MDF or can be fitted with a 26-ES slide hammer for specific applications.

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# TEMPERATURE CORRECTION TABLE

WOOD TEMP.		METER READINGS										
°C	°F	6	7	10	15	20	25	30	35	40	50	60
-20	0	9	11	15	22	<b>31</b>	<b>38</b>	<b>45</b>	<b>53</b>			
-10	20	8	10	14	20	28	<b>34</b>	<b>40</b>	<b>47</b>	<b>55</b>		
5	40	7	8	12	18	24	30	<b>36</b>	<b>42</b>	<b>48</b>		
15	60	6	7	11	16	21	27	<b>32</b>	<b>38</b>	<b>43</b>	<b>54</b>	
30	80	6	7	9	14	19	23	28	<b>33</b>	<b>38</b>	<b>47</b>	<b>55</b>
40	100	5	6	8	12	17	21	25	29	<b>34</b>	<b>42</b>	<b>50</b>
50	120	5	5	7	11	15	19	22	26	30	<b>38</b>	<b>44</b>
60	140	4	5	7	10	14	17	20	23	27	34	<b>40</b>
70	160	4	4	6	9	12	15	18	21	24	30	<b>36</b>
80	180	3	4	5	8	11	13	16	19	22	27	<b>33</b>
95	200	3	4	5	7	10	12	14	17	19	24	28
105	220	2	3	4	6	9	11	13	15	17	21	26

Moisture content values shown in blue are only qualitative, since they are above the fiber saturation point.

The temperature correction values shown in this chart have been rounded for easy reference.

## PIN TALK

There are two types of contact pins - uninsulated, which were provided with your meter, and insulated. When using uninsulated pins, push them in to the wood to their full length, if possible. This will give you the highest measured reading. Insulated pins read only at the tip and can be driven to a desired depth to gather shell and core (gradient) information. Additional types and lengths of both the insulated and uninsulated pins are available for specific applications.

## CARE OF YOUR METER

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To keep your meter in good working order:

- ▶ Store your meter in a clean, dry place. The protective carrying case provided is an ideal storage place when the meter is not in use.
- ▶ Change the 9-Volt battery as needed. Continued use with a low battery may cause the meter to go out of calibration.
- ▶ Change contact pins as needed. Keep contact pins hand tightened.
- ▶ Clean the meter and contact pins with any biodegradable cleaner. Use the cleaner sparingly and on external parts only. Keep cleaner out of the external connector **5**.
- ▶ Remove the battery if the meter will not be used for one month or longer.

## SERVICE FOR YOUR METER

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- ▶ Pack your meter securely. Enclose a purchase order or letter with a brief description of the problem.
- ▶ There is no need to call us for a return authorization number if you are within the U.S. Customers outside the U.S. must contact us for more specific instructions prior to returning a meter.
- ▶ Include your name, address, daytime phone and fax numbers or e-mail address. If you believe the meter is under warranty, please provide the original sales slip or invoice.
- ▶ Ship via UPS, Express Mail, Priority Mail, or any overnight courier who provides prompt service. Do not use standard parcel post.
- ▶ Insure your instrument for its full value and ship prepaid. We are not responsible for damage in transit.
- ▶ We do not accept COD shipments or cover any incoming freight or duty charges on returned merchandise
- ▶ Turnaround time on repairs is approximately two weeks.
- ▶ We will call you with an estimate if you specifically request one, or if we determine that the meter may be too costly to repair.

- ▶ Non-warranty repairs will be returned via UPS/COD unless you have already established other payment terms. There is no COD service outside the U.S. To pay by credit card, include the card number and expiration date with your repair. We accept Visa/MasterCard, American Express, and Discover.
- ▶ Warranty repairs will be returned at no charge if shipped within the U.S. via UPS Ground Service. Freight charges for expedited services (i.e., Federal Express, UPS/2 Day, UPS/1 Day, etc.) are the customer's responsibility and will be charged as per the above terms.

## WARRANTY

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Delmhorst Instrument Co., referred to hereafter as Delmhorst, guarantees its J-Lite meter for three years from date of purchase and any optional electrodes against defects in material or workmanship for 90 days. If, within the warranty period, you find any defect in material or workmanship return the meter following the instructions in the "Service for Your Meter" section. This limited warranty does not cover abuse, alteration, misuse, damage during shipment, improper service, unauthorized or unreasonable use of the meter or electrodes. This warranty does not cover batteries or contact pins. If the meter or any optional electrodes have been tampered with, the warranty shall be void. At our option we may replace or repair the meter.

Delmhorst shall not be liable for incidental or consequential damages for the breach of any express or implied warranty with respect to this product or its calibration. With proper care and maintenance the meter should stay in calibration; follow the instructions in the "Care of Your Meter" section.

Under no circumstances shall Delmhorst be liable for any incidental, indirect, special, or consequential damages of any type whatsoever, including, but not limited to, lost profits or downtime arising out of or related in any respect to its meters or electrodes and no other warranty, written, oral or implied applies. Delmhorst shall in no event be liable for any breach of warranty or defect in this product that exceeds the amount of purchase of this product.

The express warranty set forth above constitutes the entire warranty with respect to Delmhorst meters and electrodes and no other warranty, written, oral, or implied applies. This warranty is personal to the customer purchasing the product and is not transferable.

**F**or more detailed information about using a wood moisture meter, call us toll-free at 1-800-222-0638. Ask for your free copy of **“Measuring Wood Moisture Content: Straight Talk from Delmhorst”**.

Or find it on our web site at [www.delmhorst.com](http://www.delmhorst.com).

For over 50 years, Delmhorst has been the leading manufacturer of high-quality resistance moisture meters.

Today we offer the innovative KIL-MO-TROL® in-kiln monitoring system, and Loadmaster®, a fully automated weight-based kiln control system for the ultimate in accuracy. We also offer a complete line of portable moisture meters for woodworking/lumber, agriculture, construction and paper.

# METER READINGS WITH NON-INSULATED PINS

SPECIES	7	8	9	10	12	14	16	18	20	22	24
<b>ALDER</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>13</b>	<b>15</b>	<b>17.5</b>	<b>19.5</b>	<b>21.5</b>	<b>24</b>	<b>27</b>
APITONG	8	9	10	11	13	15	17	20	22	24	27
<b>ASPEN</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11.5</b>	<b>13</b>	<b>15</b>	<b>16.5</b>	<b>18</b>	<b>20</b>	<b>21</b>
ASH, WHITE	6.5	7.5	8	9	11	13	14.5	16	18	19.5	21
<b>BASSWOOD</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>10.5</b>	<b>13</b>	<b>15</b>	<b>17</b>	<b>19</b>	<b>20.5</b>	<b>22</b>
BIRCH	8	9	10	11	13	15	17	19	21.5	23.5	25.5
<b>CEDAR, EAST. RED</b>	<b>8</b>	<b>9.5</b>	<b>10.5</b>	<b>12</b>	<b>14</b>	<b>17</b>	<b>19</b>	<b>21</b>	<b>23</b>	<b>25</b>	<b>26</b>
CEDAR, INCENSE	7	8	9.5	10.5	12.5	15	17	19	21	23	25
<b>CHERRY</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>13.5</b>	<b>15.5</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>	<b>26</b>
COTTONWOOD	6	7.5	8.5	9.5	12	14	15	17	19.5	21	23
<b>CYPRESS</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>19.5</b>	<b>21.5</b>	<b>23.5</b>
ELM, AMERICAN	7	7.5	8	8.5	10	11.5	13	15	16	18	19
<b>FIR, DOUGLAS</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>24</b>
FIR, RED	7	8	9	10	12.5	15	17	19	21	23	25
<b>FIR, WHITE</b>	<b>8</b>	<b>9</b>	<b>9.5</b>	<b>10.5</b>	<b>12.5</b>	<b>15</b>	<b>17</b>	<b>19</b>	<b>21</b>	<b>23</b>	<b>25</b>
GUM, BLACK	7.5	9	10	11	13	15	16	18	19	20.5	22
<b>GUM, RED</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>12.5</b>	<b>14.5</b>	<b>16.5</b>	<b>19</b>	<b>20.5</b>	<b>22.5</b>	<b>24</b>
HEMLOCK, WESTERN	7	8	9	10.5	13	15	17	19	20.5	22	23.5

<b>HACKBERRY</b>	7	8.5	9	9.5	12	13	15	17	18.5	20	22
HICKORY	8	8.5	9	10	11	12.5	14	15.5	17	19	20.5
<b>KERUING</b>	8	9	10	11	13	15	17	20	22	24	27
LARCH	7.5	9	10	11	13	15	17	19	21	23	25.5
<b>MAGNOLIA</b>	7.5	9	10	11.5	14	16	17.5	19	21	22.5	24.5
MAHOGANY, AFRICAN (ALSO KHAYA)	8	9.5	10.5	12	15	17	19.5	22	24	26	28
<b>MAHOGANY, HOND.</b>	7	8	9	10.5	12.5	14.5	16	18	19.5	21.5	22.5
MAHOGANY, PHIL.	6	7	7.5	8	9.5	11	13	14	15.5	17	18
<b>MAPLE, HARD/SOFT</b>	8	9	9.5	10	12	14	16	18	20	22.5	25
MERANTI, DARK RED	8.5	9.5	10.5	11.5	12.5	16	18	20.5	22.5	24.5	26.5
<b>OAK, RED</b>	7	8	9	10	12	14	16	18	20	22	24
OAK, WHITE	7	8	8.5	9.5	11.5	13.5	15	17	18.5	20	22
<b>PECAN</b>	6.5	8	9.5	11	12.5	14	16	17.5	19	22	24
PINE, LONGLEAF	8	8.5	10	11	13	15.5	17.5	19.5	21	23	25
<b>PINE, PONDEROSA</b>	7.5	8.5	10	11	13.5	15.5	17.5	19.5	21	23	25.5
PINE, SHORTLEAF	7.5	9	10	11	13	15.5	17.5	19.5	21.5	23.5	25
<b>PINE, SO. YELLOW*</b>	8	9.5	10.5	12	14.5	16.5	19	21	23	25	28
PINE, SUGAR	7	8	9	10	12	15	17	19	21	23	25
<b>PINE, WHITE</b>	7	8	9	10	13	15	17	19	21	23	25.5
POPLAR, YELLOW	8	8.5	10	11	13	15.5	17.5	19.5	22	24	26
<b>RAMIN</b>	7	8	9	10	11	13	15	16	18	20	21

RADIATA PINE	10	11	11	12	14	16	18	20	23	25	27
<b>REDWOOD</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>12</b>	<b>13.5</b>	<b>15</b>	<b>17</b>	<b>19</b>	<b>22</b>	<b>24</b>
SPRUCE, SITKA	7	8	9	10	12.5	14.5	17	19	21	23.5	26
<b>SPF**</b>	<b>9</b>	<b>10</b>	<b>11.5</b>	<b>13</b>	<b>15.5</b>	<b>18</b>	<b>20.5</b>	<b>23</b>	<b>25</b>	<b>28</b>	<b>30</b>
SPF/COFI	8	9	10	11	13	15	17	19	21	23	25
<b>TEAK</b>	<b>7</b>	<b>8</b>	<b>8.5</b>	<b>9</b>	<b>11</b>	<b>12</b>	<b>14</b>	<b>15</b>	<b>17</b>	<b>18.5</b>	<b>20</b>
VIROLA	6.5	7	8	9	11	12.5	14	16	18	18.5	20.5
<b>WALNUT, BLACK</b>	<b>7.5</b>	<b>8.5</b>	<b>9.5</b>	<b>10.5</b>	<b>12.5</b>	<b>14.5</b>	<b>16</b>	<b>18</b>	<b>20</b>	<b>22</b>	<b>23.5</b>

\*Meter readings taken with 26-E 2-pin electrode. Do not apply 2-pin correction.

\*\*SPF correction based on 2-pin 26-E reading with insulated pins. It is based on USDA/Forintek data and can be used for the following species:

Lodgepole Pine

Alpine Fir



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