

PROTIMETER HAMMER PROBE

For wood moisture meters

SAFETY: The plastic pin cover should be left in place whenever the hammer is not in use. It is designed to protect the probe pins from damage and the user from injury. Spare covers are available from VERUS.

HAMMER PROBE: The Protimeter hammer probe is supplied by VERUS for use with Protimeter moisture meters using the integral 90cm lead fitted with a 3.5mm plug. The hammer probe is particularly useful for deep readings in timber where it is impossible to achieve the required penetration of the pins with the standard probe. It is also fitted with pins having insulated shafts so that the moisture measurement is made between the tips of the needles only. This makes it possible to measure moisture content at different depths in the wood up to the total length of the needles and to obtain readings within the wood which are independent of surface moisture or finishes that are current conductive.



To insert the pins into the measured timber, use both hands and strike until they are deep enough for the reading, up to a maximum of around 1/3 the total depth of the timber. Take care to hammer in and out perfectly straight (dense specimens may not permit desired depth being entered). Readings may be taken as the probe is entered to establish the moisture gradient, unless the timber is kiln dried or old a moisture gradient increasing towards the centre is expected.

PROBE PINS: The Protimeter is fitted with two insulated pins 65mm length overall which enable readings in timber up to a maximum 35mm deep. The diameter of the pins entering the timber is 3.0mm. The insulated pins are made of the finest materials; nevertheless it is possible to break them if care is not taken to hammer them in and out perfectly straight. Never apply leverage to remove pins, use **small** successive hammer blows, replacement pins are available from VERUS. *When not in use keep the protective cap over the pins to prevent injury or damage.*

TO REPLACE PINS: Remove the two black knurled retaining nuts by turning anticlockwise then pull the front end of the plastic pin housing moulding away from the assembly. Next remove the pins by turning to assist loosening. To insert new pins protect hands and use soft-faced pliers to avoid damage to the insulating coating, then replace the front-end of the housing and replace the knurled retaining nuts and tighten.

Sudden fluctuations in readings associated with movement of the operator's hands may indicate a continuity fault in the cable/probe assembly, connecting plug or socket. Use a Checkbox/Calibrator which holds readings rock-steady to establish if a fault has arisen.

METER CALIBRATION: Periodic checking of your moisture meter should include checking the hammer probe assembly, calibration readings taken with the hand or integral probe should be repeated and compared with those of the hammer by using the VERUS Universal Model IIIu Checkbox/Calibrator shown here. Never attempt to push the pins fully home into the Checkbox sockets, just rest in position. At no time is pressure needed to obtain a reading, if pressure is needed, it is likely that hammer pins are corroded. Increasing or decreasing pressure on *clean pins and sockets* will not change the reading.



If using the VERUS Checkbox to check the hammer is operational use the 14% value, where probes go diagonally between the two sockets as shown right. To check 27% value, probes go between lower sockets. At each reading observe the display for several seconds to detect any change. 'Rock-steady' readings are obtained if the meter, lead and hammer probe are operating correctly. The hammer probe should give identical readings to the hand probe; if this is not the case investigate further.



For ISO 9000 accredited companies, or companies in EPAL, Kitemark or Trussed Rafter Quality schemes, a VERUS Checkbox kept in annual external calibration is the most practical way of achieving traceability and accuracy.

The information contained in this leaflet is given in good faith. As the method of use of the instrument (and its accessories) and the interpretation of the readings are beyond the control of the supplier, we cannot accept responsibility for any loss, consequential or otherwise, resulting from its use.

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