



PROTIMETER

Balemaster[®]

User Instructions

The Protimeter Balemaster[®] (GRN6150) consists of a hand-held battery powered instrument with a liquid crystal display and a stainless steel probe. It is used to measure the moisture level of baled products such as straw and hay. The instrument is calibrated for wheat straw and may be used to take relative measurements in other baled products.



1. Moisture Measurement in Bales

Measure moisture in bales as follows:

Note: Before using the stainless steel probe, be sure it is thoroughly clean and dry. The probe must not be wet when measuring moisture.

1. Connect the *Bale Probe* to the instrument and switch **ON** by pressing  button.
2. Push the *Bale Probe* into the bale to the required depth. Note the reading on the display.

Note: When assessing the moisture content (mc) of whole bales, it is recommended that the average value is obtained from numerous readings taken from different sides and at different depths.

3. To obtain the correct average values, use the following moisture measurement ranges as a guideline:
 - Less than 15% mc: bales are in a safe condition for storage
 - Greater than 15% mc: bales are not in a safe condition or storage
 - Additional drying is recommended
4. After use, switch the instrument **OFF** by pressing and holding the  button for 2 seconds, or leave the instrument to switch **OFF** automatically.



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2. Set-up Mode

The Protimeter Balemaster® is set up to switch **OFF** automatically after 1-minute to conserve battery life. To change this default setting, do the following:

1. Enter the set-up mode by pressing the  and  buttons simultaneously and then release. A series of numbers will scroll across the display, finishing with the code **0=0**.
2. Press  button twice to display **2=0**, then press  button successively to set the auto switch OFF time (between 1 to 9 minutes).
3. Finally, press the  button again to confirm the setting.

3. Balemaster Specifications

The Balemaster specifications are as follows:

Calibration: Wheat Straw

Nominal Measurement Range: 8.5% to 40% mc

Batteries: 1.5V AA/LR x 2

Bale Probe Lengths: 600mm (standard), 300mm (short)

Note: *The smaller of the sockets on the right-hand side of the instrument is for use with an optional temperature probe. For further details of this option please contact Martin Lishman Ltd.*

4. Care and Maintenance

When the Protimeter Balemaster® is not in use, keep it in the pouch provided. Clean and dry the probe and wrap it in the bubble wrap, then store the probe for later reuse. Replace the batteries when the low battery power symbol appears on the display, or remove the batteries if the instrument is not going to be used for extended periods.

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 manufacturers, they cannot accept responsibility for any loss, consequential or otherwise, resulting from its use.

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