# Protimeter Grainmaster Mk.IIIA Operating Instructions

## Contents:

- Instrument
- Compressor (for compressing the grain sample)
- Grain Cup (aluminum tube)
- Quick-Check test cup
- Flat black plastic disc for use when testing oilseed rape
- Hand Grinder
- A handle for the Grinder (which also fits the Compressor)
- Calibration Chart
- Carrying pouch

## 1. CHECKING INSTRUMENT:

Before you start, use Quick-Check to ensure instrument is reading correctly electronically.

## 2. CHOOSING CALIBRATION:

Choose correct scale. For crops for which Reader Scale is not to hand, take reading on Wheat scale, and convert using Calibration Chart.

## 3. CELL:

Place grain cup (aluminum tube) on electrode to form cell.

#### 4. PREPARING SAMPLE:

- 4.1 For Ground Sample: Place grinder over sample cell. Locate on the three screw heads around the sample cell. Grind sample, cell should be at least 2/3 full. Remove grinder.
- **4.2 For Whole Sample:** Pour grain into sample cell. Convert to "whole" calibration using the Calibration Chart.

## 5. COMPRESSING SAMPLE:

Unscrew compressor anti-clockwise sufficiently to enable you to place over sample cell. Locate on three screw heads around sample cell. Tighten compressor by turning clockwise until several clicks and slips are felt.

## 6. READING RESULT:

Please switch to  $H_2O$ . Battery light should show. Take reading. If Automatic Temperature Compension is not required, press "ATC off" switch at same time as pressing  $H_2O$  switch, take reading and correct for temperature.

7. Remove compressor (turning anti-clockwise). Discard sample, and brush electrode clean.

## 8. BATTERY REPLACEMENT:

When battery light does not show when instrument is switched on, replace 9v battery located in compartment on underside of instrument.

## 9. TO MEASURE TEMPERATURE IN STORED GRAIN:

Plug probe into instrument. Press switch to °C.

#### Never use compressed sample more than once. Always store the meter in a dry place.

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