



## How to verify and if necessary re set a Sinar GrainPro moisture analyser using a calibration sample (1900-6352) supplied by Sinar Technology

**Important note:** the calibration sample (part no.1900-6352) supplied by Sinar Technology is an accurately measured sample of wheat supplied for the purposes of checking and re calibrating Sinar capacitance style instruments. The weight of the sample is crucial so please take great care not to lose any of the sample which will render the sample useless.

Calibration samples form the basis of all calibration work and check routines.

Calibration samples should be stored in an airtight container in a cool dark place once opened. If stored well the sample will typically have a shelf life of two to three months dependent upon use.

This information is intended for use with the Sinar GrainPro. If you own a different instrument then please contact us for details.

### Checking the instrument using a 180g sample:

1. Turn the instrument ON.
2. Using the loading hopper, pour the 180g calibration sample into the Sinar GrainPro. Remove the hopper.
3. Use the Up and Down keys to select "0 Reference" and press Test. After approximately six seconds the results are displayed.
4. The H2O Result should be within +/- 0.5% of the capacitance value stated on the sample packet. The kg/hl reading should be 64.5 kg/hl (+/- 1kg/hl). If either of the results are out of tolerance then the instrument is out of calibration and you should proceed to the instructions for re calibrating the instrument which are detailed overleaf.
5. If the results are inconsistent, i.e. if with the 180g test sample the readings drift between tests by more than  $\pm 0.5$  kg/hl or more than 0.5% on the H2O reading then please contact Sinar Technology.

If the 'code 0' reading or the weight reading falls outside the tolerances stated, then the unit should be re-calibrated following the recalibration procedure overleaf.

# Using the 180g Wheat Sample (Part no. 1900-6352) to recalibrate a Sinar GrainPro portable unit

You will require a calibration sample (part no. 1900-6352) provided by Sinar Technology, a calibrated (certified if necessary) temperature probe or thermometer and the Perspex sample loading hopper supplied with the Sinar GrainPro

This information is intended for use with the Sinar GrainPro instrument. If you own a different Sinar instrument then please contact us for details on recalibration.

1. Turn the instrument ON.
2. Press the MODE key 3 times. The display will show "Password required for higher modes"
3. Enter the password 226 and press "Enter". The display will show "Bulk Density Menu 2"
4. Press the mode key twice to display "Hardware Menu Mode 4".
5. Select "Recal" (F2), followed by "Full" (F2) followed by Continue (F1).
6. Carry out the procedure as instructed by the instrument display.
7. Using the sample loading hopper, load the calibration sample into the silver bowl. Wait for the count down timer to reach 0.
8. Enter the 'Code 0' (capacitance or C0) value written on the sample packet using the "F" keys and press ENTER.
9. Place a temperature probe/thermometer into the grain at the front of the cell near the black block. Once the temperature reading on your thermometer has stabilised, enter the temperature value into the instrument using the "F" keys followed by ENTER.
10. Hold down F2 until the instrument displays "Complete". When the procedure is complete you are given the option to check the hardware by pressing, Yes (F1).

The displayed values should read:

M 180 ( $\pm 1$ )

T X ( $\pm 0.5$ )

C Y ( $\pm 0.3$ )

Where: X = Temperature shown on the temperature probe

Y = Capacitance value shown on the foil sample bag

11. Retest the analyser using the procedure overleaf. If any of the readings are out of tolerance after recalibration, contact Sinar Technology for assistance.