



MoistureNet™

Users Guide

Version 6.4

Calibration, Communication & Data Capture

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INTRODUCTION

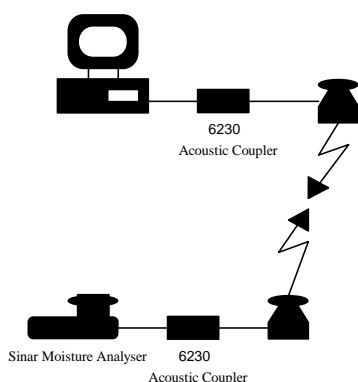
Welcome to MoistureNet,

MoistureNet is a PC based facility to network your Sinar Moisture Analyzer, remotely, over the telephone using an intelligent acoustic coupler. MoistureNet can communicate with Sinar Model 6040, 6060, 6070, 6080, 6095, 6310, 6330, 6600, 7080 & 8100 Moisture Analyzers.

MoistureNet provides the following services:

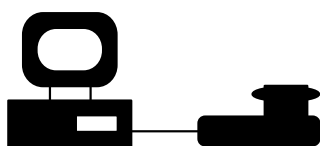
- Verification of your instruments hardware calibration and correction if so required.
- Diagnosis of measurement cell, weight balance and thermistor function.
- Review and Updating of moisture calibration data.
- Development, computation and installation of new moisture calibration data into the memory of your Moisture Analyzers.
- Data Capture of results from the analyzer
- Transfer of Calibration Curves by E mail

MoistureNet provides for subscription to your local or national Sinar Moisture Analyzer network by communication with the Model 6230 Acoustic Coupler.





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Sinar Moisture Analyser

Or though purchase of StartUp Pac you can operate your own internal network by communicating from your Personal Computer with Sinar Moisture Analyzers on or off site.

MoistureNet software is extremely versatile. For those who do not wish to communicate by a telephone link, interrogation and control of the Sinar Moisture Analyzer can be performed directly from the PC by way of the RS 232 port on the unit.

The software performs all the functions of the previous Moisture Graphics Software and will communicate with Sinar Moisture Analyses which do not contain communication software thereby eliminating the need to update the unit when a telephone link is not required.

An alternative link for internal networks, or to a remote analyzer, is by the use of email. Allowing calibrations to be exported or imported directly into unit.



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CONNECTION

Connection to your local or national network.

Connect Model 6230 Acoustic Coupler to your Sinar I Moisture Analyzer with the 5-way DIN Connecting cable provided.

Turn on Model 6230 Acoustic Coupler. The red standby light will illuminate.

Set Moisture Analyzer into remote mode by holding down function key “**F1**” or “**Temp**” key and turn on instrument. The display will show “**Remote Connection**” or “**Plug/Hi**” dependant on the Model .

To connect to MoistureNet, telephone your network provider. You will be greeted by the operator and asked what service you require. The operator will then request you to place the hand set of your telephone onto the Model 6230 Acoustic Coupler. The hand set should be set in the same orientation as the Icon on the acoustic coupler.

If the operator wishes to speak to you whilst the instrument is connected you will first hear a ringing tone from your moisture analyzer followed by a message displayed on the screen to pick up the handset and “**chat**”.

The operator may request you to perform an instrument function. Again the moisture analyzer will give a ringing tone and the required function will be displayed on the screen.

Hint/Note:

In remote mode the baud rate of the unit is automatically set to 300 baud



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These are :-

“Load” load cell with a sample.

“Unload” empty cell of sample.

When the service you have requested has been completed you will be requested to speak again to the operator who will advise you to disconnect. Turn off the Model 6230 Acoustic Coupler and Moisture Analyzer.



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Hint/Note:

Be sure to disable the "write protect" switch on your diskette otherwise setup/read functions could be effected.

SETUP

Setup your own Network.

Insert the security lock dongle into the printer port of your computer.

Install MoistureNet CD into the appropriate drive. It is recommended to copy these files to your hard drive. Create a new directory or folder named MNet. Copy the Mnet files Mnet.com; Mnet.ovl and curves.dat.

For ease of opening, create a short cut to your desktop for the Mnet.com file. Double clicking will open MoistureNet.

The MoistureNet screen will be displayed.

Enter the password "**Sinar**" and "**Enter**".

Access is now allowed to MoistureNet. If you have been unsuccessful in loading MoistureNet the following prompt will appear.

*Error: Check that 1) Dongle is plugged in.
2) Printer (if any) is switched on
3) Password is correct.
Press any key to try again.*

The **Main Menu Options** are:

- F1** - Sample Entry and Automatic Curve Fit
- F2** - Single Curve Transfer.
- F3** - Database/Log data
- F4** - Curve Set Transfer
- F5** - Remote Test and Calibration
- F6** - COM 1 Communication Test
- F7** - Curve Directory.
- F8** - Curve Set Directory



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MENU OPTIONS

F1 - Sample entry and Automatic Curve Fit.

Select Screen by depressing - **F1**.

To edit screen and enter sample data:

Use arrow keys to move cursor.

Hint/Note

To escape from programme hit **Esc** to exit.

To return to Main Menu hit **Home**.

Type

H for help screens

N enter a new crop

C enter a new curve number.

enter text into
dialogue box.

S save screen to disc

U update curve to F2
and F3 with sample
data from F1

F1 - Automatic Calibration

Curve

Crop

Dialogue Box

Sample	Oven%	Code 0	Sample	Oven%	Code 0
1	0.0	00.0	17	0.0	00.0
2	0.0	00.0	18	0.0	00.0
3	0.0	00.0	19	0.0	00.0
4	0.0	00.0	20	0.0	00.0
5	0.0	00.0	21	0.0	00.0
6	0.0	00.0	22	0.0	00.0
7	0.0	00.0	23	0.0	00.0
8	0.0	00.0	24	0.0	00.0
9	0.0	00.0	25	0.0	00.0
10	0.0	00.0	26	0.0	00.0
11	0.0	00.0	27	0.0	00.0
12	0.0	00.0	28	0.0	00.0
13	0.0	00.0	29	0.0	00.0
14	0.0	00.0	30	0.0	00.0
15	0.0	00.0	31	0.0	00.0
16	0.0	00.0	32	0.0	00.0

Calculated byte values 3 to 15, 16, to 27 underneath;

Bytes 3-15 : 160 160 160 160 160 160 160 160 160 160 160 160 160

Bytes 16- 27 : 160 160 160 160 160- 160 160 160 160 160 160 160



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Hint:

When developing new moisture calibration curves select duplicate samples at 1% moisture content change, 5-6% either side of target moisture content.

Warning:

*Updating curve in **F2** will overwrite data already registered in curve directory.*

Always ensure a new curve number is entered when changing to a new commodity

Sample Entry and Automatic Curve Fit:

To compute a new calibration curve it is necessary to have samples of known moisture content, preferably established by means of a recognized reference method such as an oven test e.g. ISO 712 for cereals.

Capacitance or Code 0 values for these known moisture content samples are also required. These can be easily obtained by reading the samples in a Sinar Moisture Analyzer. (See **Operator Instruction Manual** for procedure).

Enter both Reference Oven moisture content and Code 0 values into the **F1** screen. **Always start at the sample number 1 DO NOT jump sample numbers.**

Enter 999.9 into Code 0 value for sample 32 to link to the next curve data screen if you have sample data in excess of 32 samples.

Note: It is not necessary to have completed all 32 of the sample entry points.

The byte values in **F1** are calculated as each sample set is entered.

Data is automatically save to disk.

To update curve data in **F2** and graphic display . Press “**U**.” A dialogue box will ask you if you wish to update? Yes/No.



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Note:

Type

H for help screen

C enter a new curve number

N enter a new curve name

T enter text into dialogue box

X restores last byte value entry

K copies calibration data from another curve.

Z repeats the previous value (press enter).

D deletes curve

R restores all edits and returns to last saved values.

S saves screen to disc

F2 - Single Curve Transfer:

Select screen by depressing - **F2**

F2 - Sample Curve Transfer
=====

Curve Number: Name: Checksum:

Dialogue Box

Byte No.	Value	%	Byte No.	Value	%	
1	160		Min %	17	160	25.6
2	160	0.0	Max %	18	160	27.2
3	160	4.8	HLW +	19	160	28.8
4	160	6.4		20	160	32.0
5	160	8.0		21	160	33.6
6	160	9.6		22	160	35.2
7	160	11.2		23	160	36.8
8	160	12.8		24	160	38.4
9	160	14.4		25	160	40.0
10	160	16.0		26	160	41.6
11	160	17.6		27	160	Low f
12	160	19.2		28	0	Scale down
13	160	20.8		29	0.	do not use
14	160	22.4		30	160	% bias
15	160	24.0		31	20	temp. corr

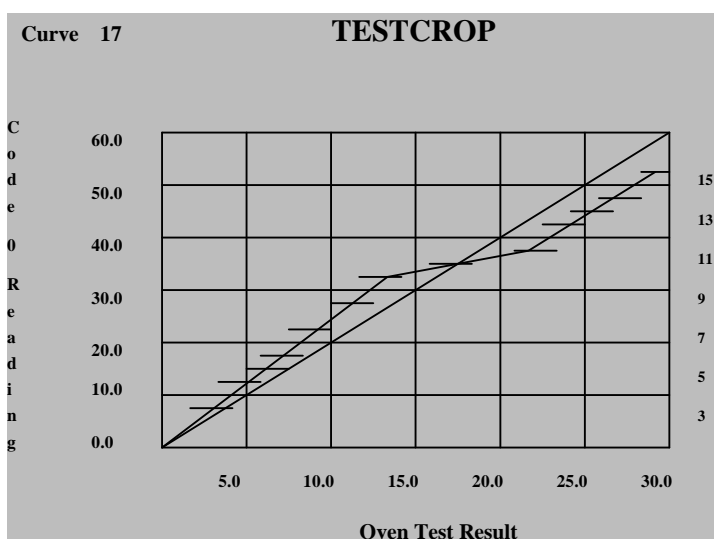
To edit F2 - Single Curve Transfer Screen use arrow keys to move cursor. To modify the curve, place cursor on the % or byte number and “**enter**” to save change.



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F2 - Graphical Display

Within the F2 function press key “**G**” to display graphical representation of the curve. The yellow intercepts represent the horizontal byte lines of 3.2 intervals of code 0 reading.



Byte 1 is a Code 0 reading of 3.2 and byte 10 is a reading of 32.

Displayed red crosses are sample points entered in F1. Changing the value of byte 30 in F2 applies a bias to the curve. A negative bias will move it to the left and a positive bias to the right.

Every change in value of 1.0 unit either side of 160 will create a bias of 0.1%. eg value of 150 gives a bias of +1% and a value of 165 gives a bias of -0.5%.

Note:

Type

H for help screen

C for curve number

X adds the sample points to the graph from the sample data in F1

To remove points **press X** again

P prints out the page

Up and down arrow keys change the code 0 reading scale between 0 -40, 0-60 and 0-80.

Page up and down shows next or previous curve.



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F3 - Data Capture

Select screen by depressing - F3

Note:

For data logging to work the analyzer must be put into the "remote or plug " mode. To do this ensure the instrument is powered down (OFF). Hold down the "Temp or F1 " key on the keypad, continue to hold down when powered up (ON). The word Remote Connection or Plug " will appear on the display. Ensure the unit is connected to your P.C COM1 or COM2 port using the connecting cable supplied.

```
300 Baud COM1      F3 - Database / Log Data      01 FEB 2004
Size { #Recs } : 0  =====
Log file name: test.LOG      Logging is Off

----- Logging Data -----
Reference %MC :      Weight of Load :
Hardness:      Dockage :
Customer:      Sample Source :
Truck Reg.No.:      Bin :

----- Logging Data -----
Record# M DayYr Hr Min Sec Bat# Cve# %MC Code0 Temp HLW Species Name
```

Data Logging can be toggled "ON" & "OFF" by pressing the space bar on your P.C. The pop-up menu will appear

Start Logging Y/N

Press "Y" to activate logging. Each time a reading is taken the data string will be sent to the Logging data screen and automatically saved.

To stop logging reverse the procedure by depressing the space bar.

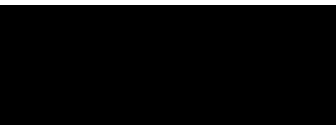
Note:

By pressing "H" at any time, the Help screen will appear. Follow the instructions as required



MoistureNet

F3 - Data Capture (cont)



Notes/Hints:

Changes to "Name" Field are not saved in LOG files.
The text is a universal change.
Changing "Name" text will effect every log file.

Press **B** to change the serial line
Baud rate between 300 and 4800.

Press **Ctrl B** to select COM1 or
COM2 serial ports

300 Baud COM1	F3 - Database / Log Data	01 FEB 2004
Size { #Recs } : 0	=====	15:53:06
Log file name: test.LOG		Logging is Off
----- Logging Data -----		
Reference %MC :	User enter data field	Weight of Load :
Hardness:		Dockage :
Customer:		Sample Source :
Truck Reg.No.:		Bin :
Name field:		
----- Logging Data -----		
Record# M DayYr Hr Min Sec Bat# Cve# %MC Code0 Temp HLW Species Name		

To enter or change the File Name press "N" the pop-up dialogue will appear:

Please enter Log File: test.LOG

Enter up to 38 characters, the .LOG will automatically be attached when pressing enter to save. To delete an existing file name simply depress the back space key and re-enter a new name. Note: Data is automatically saved to the log file.

To edit the data stored in the user entered "Logging Data" fields press "E". The "Edit Field Mode" will be displayed and the fields capable of change highlighted. The curser can be move to the appropriate log field for editing by use of the arrow keys.

Press "enter" to save a change and "Esc" to return to the normal logging mode.

To edit/change a "Name Field" press "Ctrl E", the edit field will be highlighted and the arrow keys can be used to select the field of change.



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Notes/Hints:

After collection of data, the data fields can be selected for sending to F1 for development of a calibration, weighted average %mc calculated or records printed.

Press **W** to calculate a Weighted average %MC of all selected records, followed by **P** to print the result.

Press **P** to print the page of 14 records which include the one which is highlighted, or **Ctrl P** to print the whole file

F3 - Data Capture (cont)

Selection of data:

Press **S** to go to “Select Mode “

Having previously having entered the fields of use, records can be selected by using the **Ctrl K, K, Ctrl X, X or U** commands.

Follow the instructions as shown by the pop-up menus.

Collecting data for automatic calibration development:

Select (using the appropriate routine above) the record “ Code 0” and Reference %MC . Press **V** and the selected records will be sent to the curves.dat file. The pop-up dialogue will appear:

Send selected records to F1, curve 999 Y/N

Pressing **F1** will enable the data to be viewed and automatic update of the calibration performed by pressing “**U**”.

Complete as instructed.

The calibration curve is stored in curve number 999.

Note:

All data selected is transferred to 999 to protect over writing of a curve in the library. It is therefore necessary to copy this file to an unused curve number in the database library. This can be done by using the “**K**” copy command in **F2** (page 8)



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Note/Hint:

Using Model 6320 Acoustic Coupler with Sinar Moisture Analyzer in remote mode automatically sets Baud rate to 300 Baud

Use **↑↓ arrow keys** to select highlighted area.
Enter the desired curve number for each channel of the instrument.

Use **page up** and **down** keys to give previous/ next curve set.
Press **Enter** for next curve.
Press **C**: next curve set.
Press **N**: to enter new name.
Press **K**: to copy data from another curve set.

Print Screen to print.

Units with EPROM version 4.0 or less instruments are not provided with MoistureNet communication. However with instrument set in normal communication mode and connected to the PC with the cable **ctr1 0** outputs curve and **ctr1 1** inputs curve.
Press **B**: to select either 300 or 4800 Baud rate .

F4 - Curve Set Transfer & Email transfer facility

Select by depressing **F4**.

This function enables the transfer of a curve set (up to 25 individual calibration curves) between a Sinar Moisture Analyzer and the computer.

F4 - Curve Set Transfer

=====

300 baud

Curve Number: 5 Name: Tecator Checksum: FBCE

Dialogue Box

Channel	Curve	Name	Channel	Curve	Name
1	324	Wheat	17	0	Reference
2	320	Barley	18	0	Reference
3	63	Oats	19	0	Reference
4	225	Oil Seed Rape	20	0	Reference
5	338	Linseed	21	0	Reference
6	283	Peas	22	0	Reference
7	280	Beans	23	0	Reference
8	0	Reference	24	0	Reference
9	0	Reference	25	0	Reference
10	0	Reference			
11	0	Reference			
12	0	Reference			
13	0	Reference			
14	0	Reference			
15	0	Reference			
16	0	Reference			

Curve sets can either be outputted from the computer to the moisture analyzer or inputted from the moisture analyzer to the computer.



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To make up a curve set:

Using the up and down arrows select the channel number. Enter the curve numbers required from the directory (see page F7 Curve Directory) and press **Enter**. The name of the curve will be entered automatically and the cursor will advance to the next channel.

If only a single curve is required to be either outputted or inputted it is more convenient to use the F2 mode. See page 8.

To output a curve set press **O** the following dialogue will be displayed at the bottom of the screen.

Send this curve set to Remote Unit Y/N ?

Select Y to send.

The confirmation of each curve successful transfer will be displayed.

Outputting Curve: 1 output.....

If the transfer has been unsuccessful the following will be displayed.

Curve transfer failed five times ! Output stopped



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To input a curve set from a Sinar Moisture Analyzer:

Press “I” and “Enter”.

The following dialogue will appear at the bottom of the screen.

Input Remote Unit curves into set 900 Y/N ?

Select “Y” if you wish to proceed, “N” to cancel the command.

A warning will appear;

Note!!! All curves listed will be overwritten! OK Y/N ?

Press “Y” to accept, curve numbers 901-925 will appear un-named.

The confirmation of each curve successfully transferred will be displayed

Inputting Curve: 1 Input....

and upon completion of inputting the curve set from the moisture analyzer.

Curve set Inputted correctly.



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F4 - Curve Set Transfer & Email transfer facility

It is also possible to transfer curve sets by email. To do this MoistureNet produces a mnet.cvs file.

F4 - Curve Set Transfer					
=====					
300 baud					
Curve Number: 5		Name: Tecator		Checksum: FBCE	
Channel	Curve	Name	Channel	Curve	Name
1	324	Wheat	17	0	Reference
2	320	Barley	18	0	Reference
3	63	Oats	19	0	Reference
4	225	Oil Seed Rape	20	0	Reference
5	338	Linseed	21	0	Reference
6	283	Peas	22	0	Reference
7	280	Beans	23	0	Reference
8	0	Reference	24	0	Reference
9	0	Reference	25	0	Reference
10	0	Reference			
11	0	Reference			
12	0	Reference			
13	0	Reference			
14	0	Reference			
15	0	Reference			
16	0	Reference			

The curve set is produced in the same way but instead of transferring the curve using the “O” or “I” commands the command “X” is used. The pop-up menu will appear:

Export this curve set to File Y/N?

Answering “Yes” will throw up the dialogue

Please enter name of File :



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Notes/Hints:

MoistureNet V6.4 can import a cvs file and download the file to an analyzer connected to the P.C. However, the remote unit does not have the capability to import the file without additional software.

It is not necessary to acquire a full version of MoistureNet V6.4 to obtain this feature.

Purchase Email Upgrade Part No. 19006940 (single user version) or 19006949 (net work version)

F4 - Curve Set Transfer & Email transfer facility (cont.)

Enter an appropriate name using a maximum of 8 characters. Press enter to save. The file ending .cvs will automatically be appended and saved in the MNet Directory.

To clear a file name press the return key and re-enter the new file name.

Having produced the mnet.cvs file, the file can be exported to the analyzer or sent as an attachment across the internet to a remote unit.

Download the file with the “**Ctrl X**” command. The pop-up menu appears.

Import a File Y/N?

Answering “**Yes**” will prompt the response

Please enter file name:

Enter File name and press return

Curve set imported fromcvs

will be displayed.

Please Note: The curve set is imported into curveset number 900 to prevent over writing of a curveset already stored in the library. It will be necessary to copy the curveset to a new location using the “K” copy command



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Enable functions by selection of:-

- A:** Enter User Identification
Save this text Y/N ?
- B:** Remotely read capacitance, temperature and weight of sample when loaded into cell of moisture analyzer.
- C:** Gives diagnostic check on quality of cell, thermistor and weight balance.
Satisfactory quality:-
Cell Low 2000-4000
Cell High 4000- 6000
Temp >1200
Mass >11000
- D:** Displays checksum.
- E:** Enables listed messages to be displayed on remote unit; select and press **Enter**.
- F:** Continuous display of selected function.
- G:** Activates remote unit.
- R:** Selects Recalibration Menu.
- V:** Displays EPROM version in remote unit.
- Z:** Enables the resetting of instrument password.

ESC: Exit function or return .

F5 - Remote Test & Calibration:

Depress **F5** to select.

The Remote Test & Calibration mode enables remote interrogation of a Sinar Moisture Analyzer either by direct connection to the computer using the PC Adapter cable P/N 19006917 or via the Model 6230 Acoustic Coupler using cable 10002766 supplied.

Once connected, MoistureNet can perform a number of diagnostic tests to check the performance of the instrument's hardware. Perform a hardware recalibration, if found necessary and read capacitance values of samples poured into the sample measuring cell.

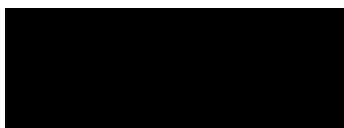
There is also a facility for sending messages to the remote moisture analyzer when MoistureNet is used with the Model 6230 Acoustic Coupler.

300 Baud	F5 - Remote Test & Calibration				date/time
=====					
A: User Identification					

B: Code 0 Reading:					
Uncorrected + Correction = Code 0		deg C. Sample Ambient		Grams	
0.0	0.0	0.0	0.0	0.0	000
C: Hardware Tests:					
Cell Low	Cell High	Temperature	Mass		
D: Checksum of all curves in Remote Unit:					
E: Display Remote Message		F: Continuous		G: Activate Remote Unit	
R: Recalibration Menu		V: Version		Z: Reset Password	



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F5 - Remote Test & Calibration: (cont):

Functions are enabled by pressing the the appropriate key.

A: User Identification:

Text can be typed into the dialogue box to identify the user, up to 80 characters maybe entered. On completion of typing user identification press “**Enter**”. You will be requested whether or not you wish to save text. Y/N ?

B: Code 0 Reading:

Firstly, fill the sample measuring cell of the Sinar Moisture Analyzer with a known calibration sample, it is recommended you use a Sinar Hardware Calibration Sample.

If you are using the Model 6320 Acoustic Coupler it will be necessary to instruct the user to fill the cell over the telephone. This is easy to do simply by selecting:-

E: Display Remote Message function.

Select the message **Fill** with the aid of the ← → arrow key and press “**Enter**”.

Accessing Remote Unit... done

The words will appear at the bottom of the screen. Should the message fail to be transmitted the following will appear

Accessing Remote Unit... Failed!



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Note:

Capacitance/Code 0 readings are corrected to a temperature of 20°C. The Uncorrected value is displayed plus the corrected value to 20°C and the resulting Code 0 calculated.

Sample Temperature is recorded and the Ambient temperature is also shown (GrainPro **ONLY**).

The MASS of the sample is weighed and recorded.

These values are then compared to the Sinar Hardware Calibration Standard and sample temperature. If the values match then the unit is correctly calibrated.

Should the Capacitance value vary by more than ± 0.3 and/or the mass and temperature be incorrect the unit will require recalibration.

With the sample cell filled press “**B**” MoistureNet will automatically operate the moisture analyzer and the result will be displayed on the screen on the PC.

300 Baud	F5 - Remote Test & Calibration		date/time
=====			
A: User Identification			
<div>Farmers Cooperative</div>			
B: Code 0 Reading:			
Uncorrected +	Correction =	Code 0	deg C. Sample Ambient Grams
30.8	-0.8	30.0	23.6 23.6 180
C: Hardware Tests:			
Cell Low	Cell High	Temperature	Mass
D: Checksum of all curves in Remote Unit:			
E: Display Remote Message	F: Continuous	G: Activate Remote Unit	
R: Recalibration Menu	V: Version	Z: Reset Password	

If upon comparing the displayed results the values are outside of the limits of the Sinar 180gram Calibration Standard recalibration will be necessary. This can be done manually by the user or automatically by MoistureNet in the remote mode.

Manual Recalibration - please refer to the **Recalibration Section** of the Sinar Moisture Analyzer's **Users Operating Manual**

Automatic Recalibration:
Select “**R**” in **F5** mode and the Recalibration menu will be displayed.



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Recalibration Menu
=====

1) Press E for Empty Calibration

2) Press T to enter calibration Temperature:

3) Press C to enter calibration Code 0:

Note : Press T and C before doing Full calibration.

4) Press F for Full Calibration.

Press A for Unload message, B for Fill

Press K for remote keypad status

Press G for 180g mass cal.

Press S for Set Temperature cal.

Press M for send message to remote unit

Press Esc to return to main menu.

date/time

Follow Recalibration Menu:

To recalibrate firstly instruct user to unload sample cell. Use the Display Remote Message function by pressing “E”.

Ensure the command has been communicated to the unit by checking the dialogue displayed at the bottom of the screen.

Enter calibration Temperature by pressing “T” and typing the correct sample temperature. Press “Enter” to access remote unit. On access the value will be displayed at position 2. in the menu.

Enter capacitance/code 0 value, as shown on Sinar Hardware Calibration Standard: e.g. 29.7, position 3 in the menu.

Hint:

Always check after accessing the remote unit that the communication has been successful. Should the Failed! display be shown refer to Appendix II Trouble Shooting in the rear of this Users Guide.



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Request User to fill cell with Sinar 180 gram

Hardware Calibration Standard by pressing "**B**".

Ensure the command has been communicated to the unit by checking the dialogue displayed at the bottom of the screen.

Allow sufficient time for User to fill cell then press "**T**" for full calibration.

To recalibrate for Mass only press "**G**" answer Y/N ?.

Ensure that Sinar Hardware Calibration Standard is a **180 gram** sample.

To recalibrate for Temperature only press "**S**" answer Y/N ?

Ensure correct Temperature has been entered into position 2) of menu before recalibrating temperature with the "**S**" command.

Should you wish to display a remote message at anytime during the procedure press "**M**" and the following dialogue box will appear:-

Use arrow keys or numbers to select message, then press enter:
Blank -HI- Chat Bye Unload Fill Open Hello

Press "**Esc**" to escape back to "**Remote Test & Calibration**" Menu.



MoistureNet



MoistureNet is able to diagnose the performance of the instrument's hardware and to ensure commodity calibration curves have been transferred correctly.

300 Baud	F5 - Remote Test & Calibration				date/time
=====					
A: User Identification					
B:	Code 0 Reading:				
	Uncorrected +	Correction =	Code 0	deg C. Sample Ambient	Grams
	30.8	-0.8	30.0	23.6	23.6 180
C:	Hardware Tests:				
	Cell Low	Cell High	Temperature	Mass	
	3880	6850	1500	14389	
D:	Checksum of all curves in Remote Unit:			BE56	
E:	Display Remote Message		F: Continuous	G: Activate Remote Unit	
R:	Recalibration Menu		V: Version	Z: Reset Password	

Press **C:** to select **Hardware Tests:**

The quality of the dual frequency measuring cell, thermistor and weight balance is digitized to enable a decision on hardware performance to be made.

These values are displayed on screen in **F5:**

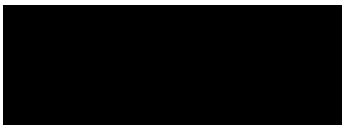
Satisfactory quality:-

Cell Low	2000-4000
Cell High	4000- 6000
Temp	>1200
Mass	>11000

To ensure commodity calibration curves are transferred correctly an alphanumeric value known as the **checksum** is assigned to all curves. Checking for this value of curves resident within the remote unit is achieved by **pressing D:** with the resultant checksum being displayed.



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F6 - COM1 Communication Tests:

Connect the computer to the Remote Unit using the Connecting cable P/N 1900 6914 or Acoustic Coupler using cable P/N 10002766. Hold down “**F1**” or “**Temp**” key on the Sinar Moisture Analyzer while turning on the instrument. You are now connected to the remote unit via the computer keyboard. Depressing select computer keys will now act like the instruments keypad.

0 to **9** enters numbers (with exception of Models 6060,6070, and 6310)

A = Clear, **B** = Mode

C = F1/Temp, **D** = F2/Aver, **E** = F3/HLW

F = F4/%mc, **G** = Enter (except on Models 6040 & 6060)

W = hold down key.

Note: on Model 6060:

A = Password, **8** = down arrow, **9** = up arrow

Note: on Model 6040

Enter = enter, **I** = up, **J** = down, **K** = linefeed

L = printer, **G** = load, **H** = unload.



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Hint:

*Press **H** for Help Screen*

*Information on how to move
around library.*

F7 - Curve Directory

Permits a library of up to 999 calibration curves to be stored in memory.

Directory is supplied blank with MoistureNet software P/N 19006309 and Start Up Pac P/N 19006340.

Libraries of Ready calibrated commodities are available as individual curves sets or a complete library of all sets maybe purchased.

Libraries available are:-

19006298	Cereals curve set
19006299	Tea, Coffee, Cocoa curve set
19006300	Dried Fruit curve set
19006301	Oilseeds curve set
19006302	Nuts curve set
19006303	Seeds curve set
19006304	Pulses curve set
19006305	Spices curve set
19006306	Food ingredients curve set
19006307	Animal feed(raw materials)
19006308	Animal feed curve set

19006229	All 11 curve sets 19006298 to
19006308	



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Hint:

*Press **H** for Help Screen*

*Information on how to move
around library.*

F8 - Curve Set Directory

Permits a library of up to 999 Curves Sets to be stored in memory.

Note:

Curve Set **0** is **Reference** i.e. an empty curve set.

It is strongly recommended this is never over written.
Use of this curve set enables moisture analyzer to be reset to standard reference curve.