

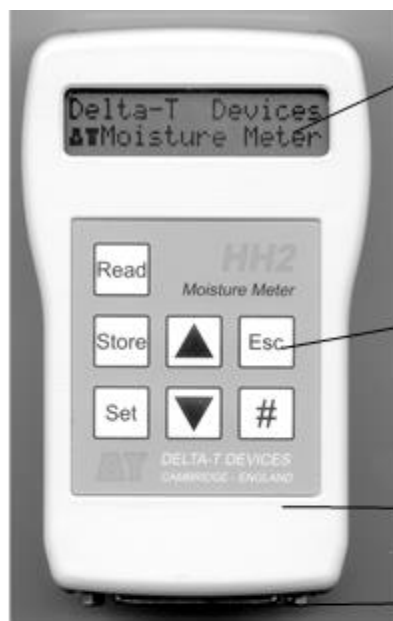
HH2

Hand Held Meter

Quick Start Guide *Version 3.0*



AT *Delta-T Devices Ltd*



LCD with 2 rows of 16 characters - used to display menus and readings

Keypad

Read	take readings
Store	save reading
Set	select menu or select option
Esc	wake meter or reject option & go back
▲▼	scroll
##	average

Splash proof case

25-pin D Connector for sensor connection or PC connection



Battery compartment - takes one PP3 battery

HH2 Moisture Meter

It collects data from:

- SM150T, SM150, SM200, & SM300 soil moisture sensors
- PR2, PR2 SDI-12 & PR1 Profile Probes
- ML1, ML2 & ML3 ThetaProbes
- EQ2 Equitensiometers
- WET Sensors

Getting Ready

Use the correct connector. Delta-T supply connectors or adapters for all these sensors, and can fit the correct plug when you order new sensors.

Check battery. A PP3 9V battery is required. Open the battery compartment at the back - it unclips - no tools needed. The battery only fits one way. Once connected, place battery in the compartment and refit the cover, making sure the wires are neatly tucked inside the case.

Taking Readings

1. Press Esc to wake the Moisture Meter if it is asleep.
2. Connect the sensor. The HH2 initially will assume it is an ML2 ThetaProbe in mineral soil unless you tell it otherwise using the Options, Device menu.
3. Press Read to read and display a result.
4. Press Store to store it (or Esc to not store it).

Averaging can be done after each reading (whether or not you stored it)

5. Press the hash # key once to display the previous cumulative average. (Initially "No Average" is displayed).
6. Press # again to update the cumulative average with the current reading (or Esc to back out).
7. Write down the final cumulative average if you wish to retain it.
8. To erase the cumulative average press Esc until you return to "Delta-T Devices".

Controls

Esc: wakes or sleeps the HH2

Set: display the main Options menu from the start screen.

Set: selects an option - this may be another, lower menu.

Once options are set the HH2 remembers them.

Esc: also rejects an option and backtracks up to the previous menu.

▲ and ▼: scrolls through menu options.

#: displays the previous cumulative average

#: updates the cumulative average with the current reading

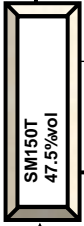
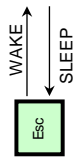
Store: saves readings.

Set: saves options

Care

Disconnect sensor if you see the low battery warning message.

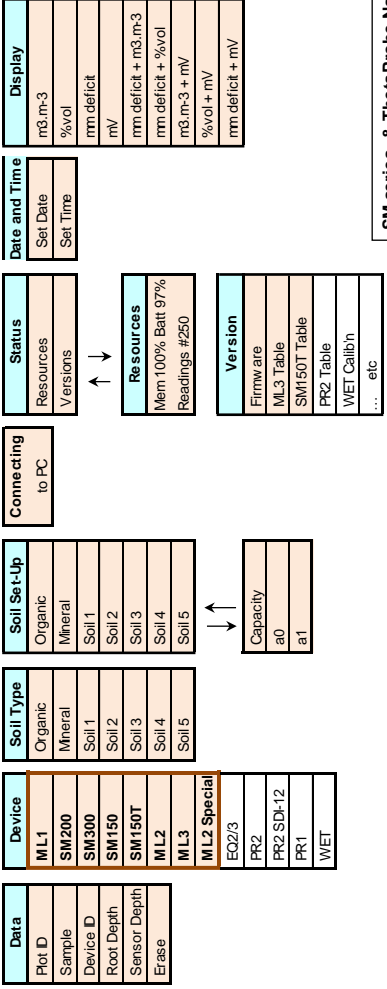
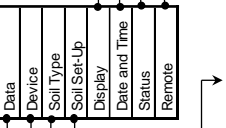
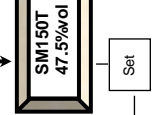
Protect the HH2 from heavy rain or immersion



Select the item
Wake or Sleep or
Escape to the previous
higher menu

Previous, current
Average

Scroll or
change value



Data
Plot ID
Sample
Device ID
Root Depth
Sensor Depth
Erase

Device
ML1
SM200
SM300
SM150
SM150T
ML2
ML3
ML2 Special
EQ2/3
PR2
PR2-SD-12
PR1
WET

Soil Type
Organic
Mineral
Soil 1
Soil 2
Soil 3
Soil 4
Soil 5

Soil Set-Up
Organic
Mineral
Soil 1
Soil 2
Soil 3
Soil 4
Soil 5

Capacity
a0
a1

Connecting to PC

Status
Resources
Versions

Resources
Mem 100% Batt 97%
Readings #250

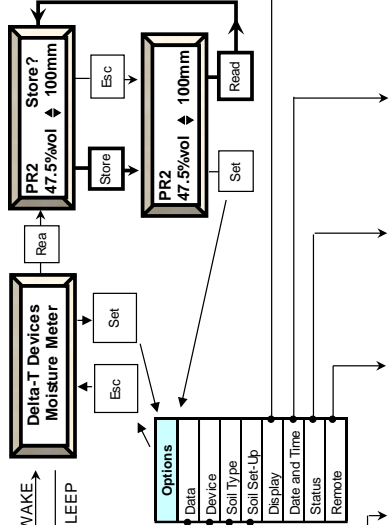
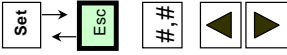
Version
Firmware
ML3 Table
SM150T Table
PR2 Table
WET Calib'n
... etc

Date and Time
Set Date
Set Time

Display
m3.m-3
%vol
mm deficit
mV
mm deficit + m3.m-3
mm deficit + %vol
m3.m-3 + mV
%vol + mV
mm deficit + mV



Select the item
Wake or Sleep or Escape to the previous higher menu
Previous, current Average
Scroll or change value



Data
Plot ID
Sample
Device ID
Root Depth
Erase

Device
ML1
SM200
SM300
SM150
SM150T
ML2
ML3
ML2 Special
EC2/3
PR2
PR2 SDI-12
PR1
WET

Soil Type
All Sensors
Sensor 1
Sensor 2
Sensor 3
Sensor 4
Sensor 5
Sensor 6

Soil Type
Organic
Mineral
Soil 1
Soil 2
Soil 3
Soil 4
Soil 5

Capacity
a0
a1

Soil Set-Up
Organic
Mineral
Soil 1
Soil 2
Soil 3
Soil 4
Soil 5

Connecting to PC

Status
Resources
Versions

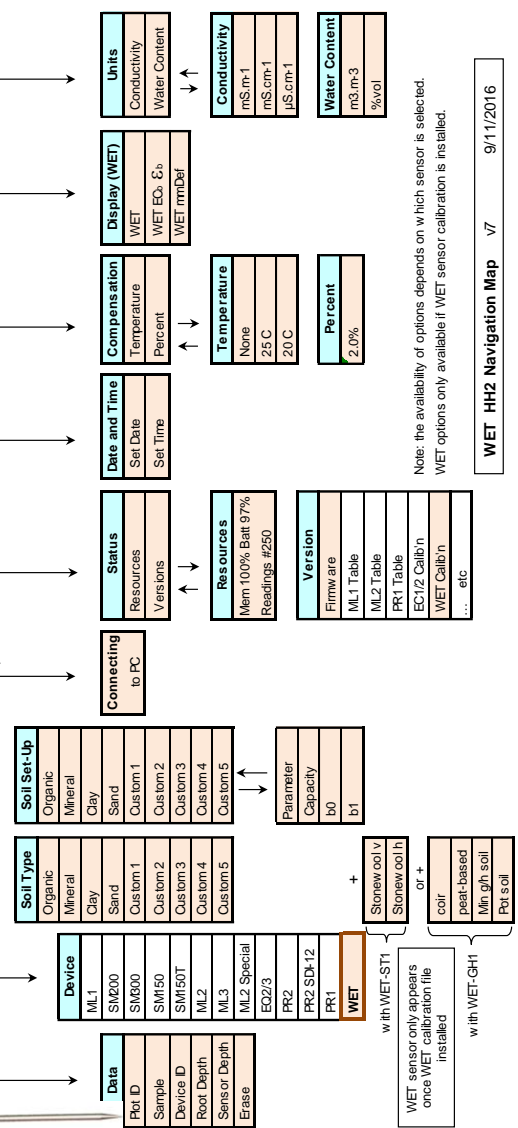
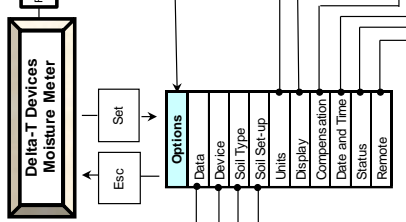
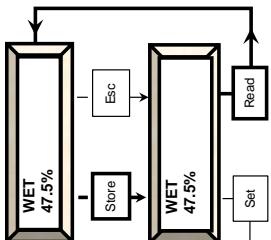
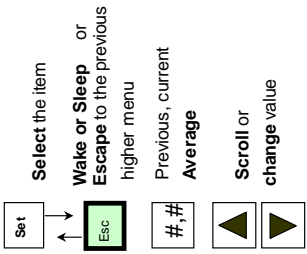
Resources
Mem 100% Batt 97%
Readings #250

Version
Firmware
ML3 Table
SM150T Table
PR2 Table
WET Calib'n
.... etc

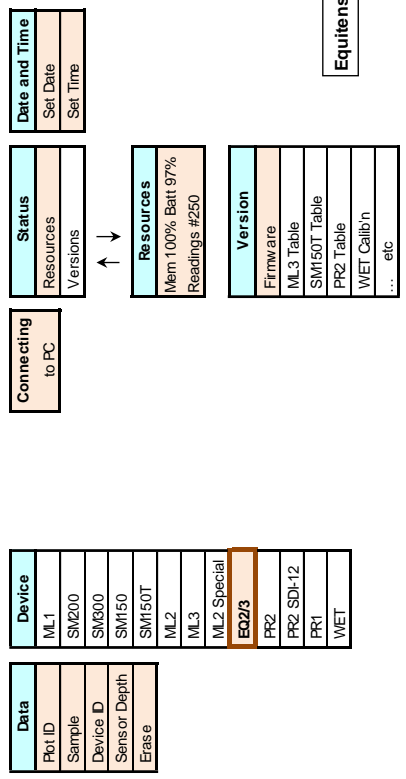
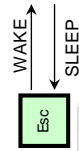
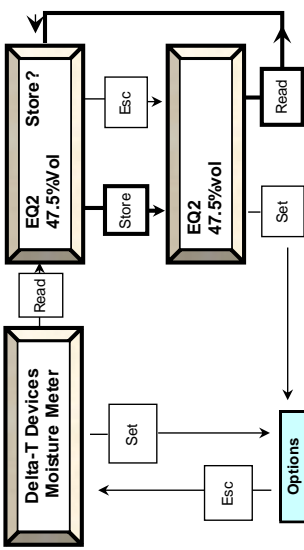
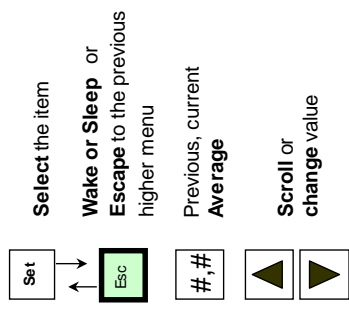
Date and Time
Set Date
Set Time

Display
m3.m-3
%vol
mV
mV
mm deficit + m3.m-3
mm deficit + %vol
m3.m-3 + mV
%vol + mV
mm deficit + mV

not available from SD-12 PR2



Note: the availability of options depends on which sensor is selected.
WET options only available if WET sensor calibration is installed.



Data	Device
Pot ID	ML1
Sample	SM200
Device ID	SM600
Sensor Depth	SM150
Erase	SM150T
	ML2
	ML3
	ML2 Special
	EQ2/3
	PR2
	PR2 SDI-12
	PR1
	WET

Connecting to PC
Resources
Versions

Status
Resources
Versions

Date and Time
Set Date
Set Time

Resources
Mem 100% Batt 97%
Readings #250

Version
Firmware
ML3 Table
SM150T Table
PR2 Table
WET Calib'n
... etc



Technical Support
Delta-T Devices Ltd
130 Low Road
Burwell
Cambridge CB25 0EJ
England (UK)

Tel: +44 1638 742922

Fax: +44 1638 743155

E-mail: tech.support@delta-t.co.uk
sales@delta-t.co.uk

Web: www.delta-t.co.uk