

## **SQ1600**

### *User controls*

# 1. Using the SQ1600 controls

Your SQ1600 can be PC based but is also a self contained data logger in its own right with a built in control panel and LCD screen for local monitoring of reading, configuration of the data logger and down load capability.

You can control the SQ1600 using the display and buttons on its top cover:



The display is a 20 character, two-line LCD. During normal operation the display will be blank and unlit to conserve power. Whenever a button is pressed a menu or message will be displayed and the backlight will operate for ten seconds.

There are two pairs of buttons, one pair to move the cursor within a screen and one to navigate through screens.

To move the cursor, use the two arrow buttons:



Clicking these buttons will select either the previous or the next option within the screen currently shown on the SQ1600 display.

To navigate through screens use the **Esc** and **Enter** buttons:



The **Esc** button will close the current screen and move to the previous screen within the hierarchy. Pressing this button repeatedly will display the **Home** screen. The **Enter** button will select the currently highlighted option on the screen.

## 2. SQ1600 screens

You can access SQ1600 functions from the **Home** screen, which contains a number of options:

- Meter
- Log
- Alarms
- Status
- Config
- Off.

### Meter

Selecting this option will show any currently operating sensors and their readings. If you hold the **Enter** button, the sensors will be shown in sequence. When you release the **Enter** button, the displayed sensor will remain selected.

### Log

This option allows you to start, pause or stop a logging run. The current status is shown in the bottom right-hand corner of the display, with the available options on the top row.

### Alarms

This option shows the current status of any alarms that have been set up. If you hold the **Enter** button, the alarms will be shown in sequence. When you release the **Enter** button, the displayed alarm will remain selected.

### Status

This option allows you to view operational status details for the logger. A further screen is displayed in which you can select:

- **Logger Text**, which displays the text defined for the logger during setup
- **Run Text**, which displays the text defined for the current run during setup
- **Memory**, which shows the memory used for the current run (Internal or either of the two optional PC cards)
- **Supply**, which displays a menu allowing you to select **Backup**, **Internal** or **External**; selecting an option shows the voltage level of the selected supply
- **Runs**, which shows a list of current runs; selecting a run shows its run text, and holding the **Enter** button will delete the run from the logger
- **Copy**, which allows runs to be copied but is only displayed if logging is not in progress, the PC card option is fitted and there is a card present in at least one of the slots; the source and destination of the copy are determined automatically from the presence or absence of cards in the two PC card slots: if card 1 (upper slot) is inserted it will be the source of any copy; if card 2 (lower slot) is inserted it will be the destination of any copy; in this way it is possible to do all varieties of copy; hold the **Enter** button to copy the run selected by use of the arrow buttons
- **Version**, which displays a menu allowing you to select **Digital** or **Analogue**; selecting an option displays for **Digital** the logger model and firmware version information, and for **Analogue** the date and time of calibration and firmware version information.

## Config

This option allows you to view configuration details for the SQ1600. This will display a screen containing the following options:

- **Time**, which shows the current date and time for the logger
- **Memory**, which allows you to specify the memory to be used for logging; the current selection is shown in the bottom right hand corner
- **Language**, which allows you to change the language used for logger displays to German, French, Italian or Spanish; the default language is English
- **Battery**, which allows you to specify the type of battery used (Alkaline or Lead-Acid); the current selection is shown in the bottom right-hand corner; you can select a type using the arrow buttons and then hold the **Enter** button; note that the logger is able to determine the type of battery fitted automatically hence this function should only be used to change the type if you are certain that the automatic selection is incorrect
- **Setup**, which allows you to select one of five setup configurations for the logger; highlighting a setup will show its logger text (the message **Invalid Setup** will be displayed if the setup has not been configured); make your selection using the arrow buttons then hold the **Enter** button to load the setup.

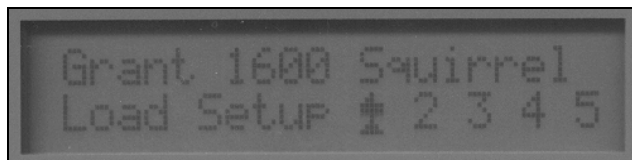
## Off

This will turn the SQ1600 off. You can then restart the logger by clicking any of the buttons or starting communication using the serial port.

### 3. Checking logger operation

The SQ 1600 data logger is supplied with an integral setup program that allows you to confirm that it is operating correctly. To perform this check:

1. Plug the K-type thermocouple wire plug supplied with the SQ 1600 into input A of the SQ1600.
2. From the SQ1600 **Home** screen, select the **Config** option to display the **Configuration** menu.
3. From the **Configuration** menu, select **Setup** to display the **Load Setup** screen:



4. Position the cursor over the number 1 then press and hold the **Enter** button as the preset program loads.
5. When the message **Finished Loading** is displayed, release the **Enter** button.
6. Press the **Esc** button twice to display the **Home** screen, and select **Meter**. The display will show channel 1 and should indicate a value of approximately room temperature.
7. Hold the end of the end of the thermocouple wire between your fingers. The indicated temperature will increase if the SQ 1600 is functioning correctly.

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