SAF-T-LOG®
HACCP RECORDING THERMOMETER



Operating Instructions

Product code:

292-701

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INTRODUCTION

The Saf-T-Log is an intelligent thermometer which can be set up and downloaded via a PC. A list of items to be measured is created in checklist form using the Saf-T-Log software and subsequently downloaded to the Saf-T-Log thermometer. Each reading that is stored on the Saf-T-Log includes the date, time, measured value, high and low target values, Pass/Fail or
Yes/No result, optional corrective action and user name of the person who recorded the temperature reading.

Please install the software on the PC BEFORE connecting the Saf-T-Log to the PC via the USB lead.

TERMINOLOGY

Checklist	- A list of up to 300 Items and up to 25 Users created in the PC software. The checklist is stored in the Saf-T-Log during the 'sync operation'.
Footnote	- Additional information can be typed into this section at the end of the report.
Temperature item	- User definable checklist parameter which can have individual 'high' and 'low' temperature limits assigned. Used for temperature measurements.
Yes/No item	- User definable checklist parameter which will prompt for a Yes/No answer. Used for non-temperature related checks.
Note	- A short message can be added against each individual report line, if required, to explain anomalies in data.
Corrective Action	- An optional list of up to 10 actions that can prompt the user as a result of a 'Fail' or a 'No'.
Report	- The document created to store the readings sent back from the Saf-T-Log during the 'sync' operation. Can be customised by the user.
Sync	- Synchronisation of the Saf-T-Log device to the PC and vice versa.
User	- A user definable checklist parameter to assign operators.

SAF-T-LOG INSTRUMENT

On/Off button

The instrument is turned on by pressing the ON/OFF (Backlight) button. Pressing and holding the ON/OFF (Backlight) button for 3 seconds at start-up shows the date/time, user, checklist name and device name.
The instrument is turned off by pressing and holding the ON/OFF (Backlight) button for approximately 3 seconds or until the display blanks.

Menu

The instrument menu is accessed by pressing the up (▲) and down (▼) buttons together. Scroll through the menu items 'Saved Readings', 'Change User', 'Change Auto-Off' and 'Instrument Info' using the up (▲) or down (▼) button. To exit the menu select the 'Exit Menu' item and press the REC button.

Saved Readings Screen

Press the REC button to show the last saved reading. Use the up (▲) or down (▼) buttons to scroll the saved readings list. Press the REC button to return to the menu.

Change User Screen

Press the REC button to show the current user and use the up (▲) or down (▼) buttons to scroll the user list. Select a user by pressing the REC button.

Change Auto-Off Screen

Use the up (▲) or down (▼) button to scroll 'AutoOff DISABLED' or 'AutoOff ENABLED' and press the REC button to select.

Instrument Information Screen

Use the up (▲) or down (▼) button to show date/time, firmware version, instrument name, checklist name, calibrated date and trim. Press the REC button to return to the menu.

Backlight

The backlight is switched on by pressing the ON/OFF (Backlight) button while the instrument is turned on. It will automatically turn off after 20 seconds.

Auto-off

Auto-power off will occur 10 minutes after the last button press. This may be disabled for the current session only by pressing and holding the up (▲) arrow button while turning the instrument on ('Auto-off Disable' will be displayed momentarily) or in the menu. After the Saf-T-Log is powered off the unit will return to the default setting and auto-power off 10 minutes after the last button press.

User list

The 'User' list is in the instrument menu, accessed by pressing the up (▲) and down (▼) buttons together. Use the up (▲) or down (▼) button to scroll to 'Change User' and press the REC button to enter the user list. The current user is displayed. Use the up (▲) or down (▼) button to scroll through the user list. Press the REC button to select the displayed user and return the 'Exit Menu' page. Press the REC button again to exit to measurement mode.

Temperature display

The temperature unit display (°C or °F) can be changed by using the Saf-T-Log software. See section entitled 'Changing Saf-T-Log Temperature Units' below. The Saf-T-Log will display the temperature format set in the current checklist. 'Err' will be shown if a probe is not connected or the probe is faulty.

Items list

In measurement mode the up (▲) or down (▼) buttons are used to scroll through the 'Checklist Items'. The current 'item name' will be displayed in the alpha/numeric portion of the LCD display. If the item name is longer than 16 characters, an arrow will appear in the right most character to indicate a longer name.

For a 'Temperature Item' the corresponding temperature limits (HI) and (LO) are displayed in the upper left portion of the display. 'PASS' will be displayed if the temperature being measured is between the high and low limits. 'FAIL' will flash if the temperature being measured is outside the high and low limits. For a 'Yes/No Item', 'Yes or No' is displayed in the upper left corner of the display.

Up to 300 checklist items can be used in one checklist, and up to 250 checklist items if sending more than one checklist to the Saf-T-Log.

Record

For a 'Temperature Item' pressing the REC button saves the current numbered temperature reading, together with date and time, user, item name that is currently displayed, PASS/FAIL status and limits to memory. If a delay time has been set for the item, the display will show 'Delay *time*' and count down until the recording takes place. The screen will then prompt to select a remedial action if applicable. Use the up (▲) or down (▼) buttons to scroll to the required corrective action and press the REC button to record.

For a 'Yes/No Item' pressing the REC button displays 'Yes' or 'No' in the large digits. Use the up (▲) or down (▼) buttons to scroll to the required answer and press the REC button to record. The screen will then prompt to select a corrective action if applicable. Use the up (▲) or down (▼) buttons to scroll to the required corrective action and press the REC button to record.

When a reading is recorded the reading number is displayed as 'Recorded # *number*'. The unit can store up to 1000 readings and then will display 'Memory Full'.

SAF-T-LOG SOFTWARE

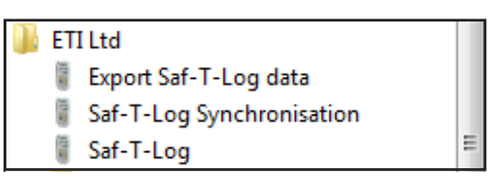
The Saf-T-Log software consists of two parts. When the software is installed 2 icons are added to the computer desktop.



An icon on the desktop is used to access the main Saf-T-Log software.



A synchronisation icon is placed in the system tray on the right hand end of the Windows taskbar. This may be in the 'Hidden Icons' section ( ) on Windows 7 and above.

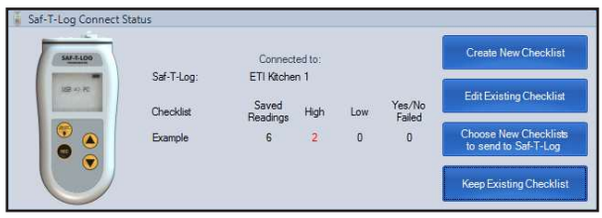


3 items are also installed in the 'start menu'.

SYNCHRONISATION (SYNC)

When the Saf-T-Log instrument is connected to the PC via the supplied USB lead the software automatically starts the data transfer from the Saf-T-Log instrument to retrieve the data stored in the device. The 'Saf-T-Log Connect Status' windows opens automatically.

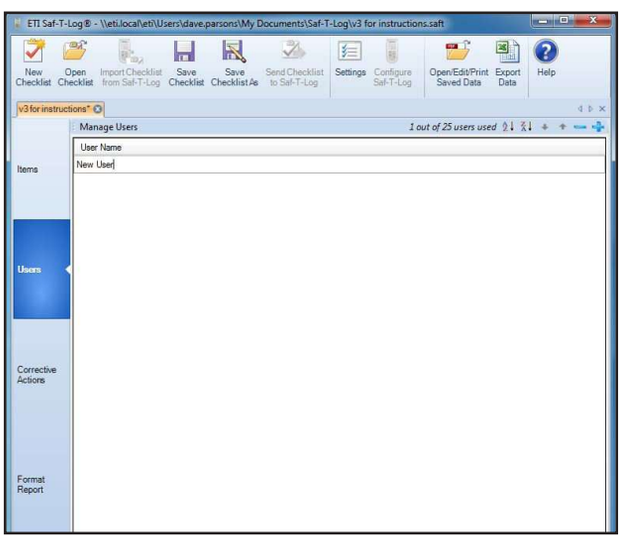




Note: the buttons 'Create New Checklist', 'Edit Existing Checklist', 'Choose New Checklist to send to Saf-T-Log', and 'Keep Existing Checklist' are only displayed on the 'Saf-T-Log Connect Status' window after the 'Add Notes and Corrective Actions' window is closed or there are no recorded values in the Saf-T-Log

MAIN

The main Saf-T-Log software has the commands along the top and an area for editing the checklist below:

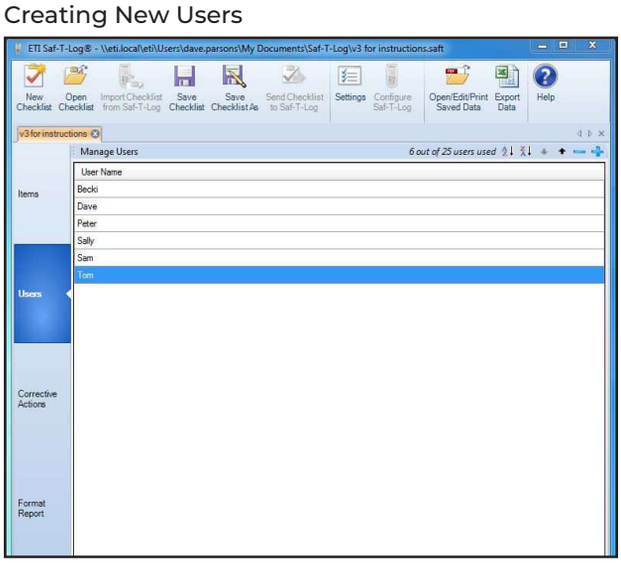


The 'New Checklist' button opens a new checklist.
The 'Open Checklist' button opens an existing checklist.
The 'Import Checklist from Saf-T-Log' button imports an existing checklist from the Saf-T-Log.
The 'Save Checklist' button saves the current checklist.
The 'Save Checklist As' button allows you to save the current checklist with a different name.
The 'Send Checklist to Saf-T-Log' button opens the 'Choose checklist to use' window, which allows you to send up to seven checklists from different locations.
The 'Settings' button configures the application settings.
The 'Configure Saf-T-Log' button configures the connected Saf-T-Log.
The 'Open/Edit/Print Saved Data' button allows you to open/edit/print a set of saved data.
The 'Export Data' button allows you to export data from a number of saved checklists to a suitable Excel format.
The 'Help' button provides help and information.

THE CHECKLIST

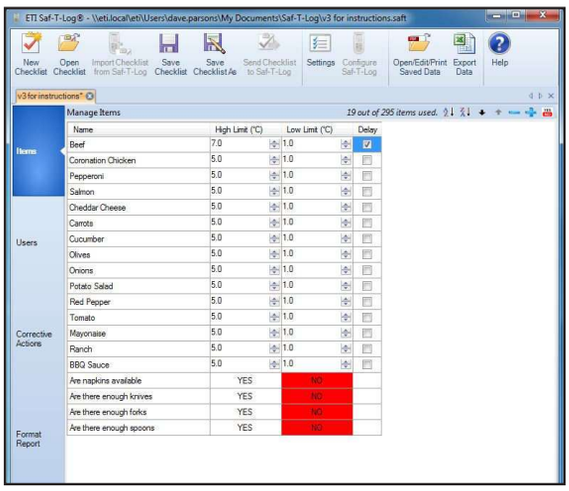
Click the 'New Checklist' button to open the editing window.
The tabs on the left sidebar allow items and users to be added to the checklist as well as format the data report from temperature readings that will be downloaded.

Creating New Users



In the 'Users' tab click the plus '+' or double click 'New User' and type in the required name (Maximum 16 characters). Click the plus '+' to add another 'User' up to a maximum of 25. The 'User' names can be sorted in ascending or descending order by clicking the 'A to Z' or 'Z to A' buttons. To move a 'User' up or down the list highlight and click the up '🡅' or down '🡇' buttons. The order in which they appear in the PC software is the order they appear on the Saf-T-Log thermometer. To delete a 'User' highlight it in the list and click the minus '-' button. You can delete more than one user at a time using the 'shift' or 'control' key.

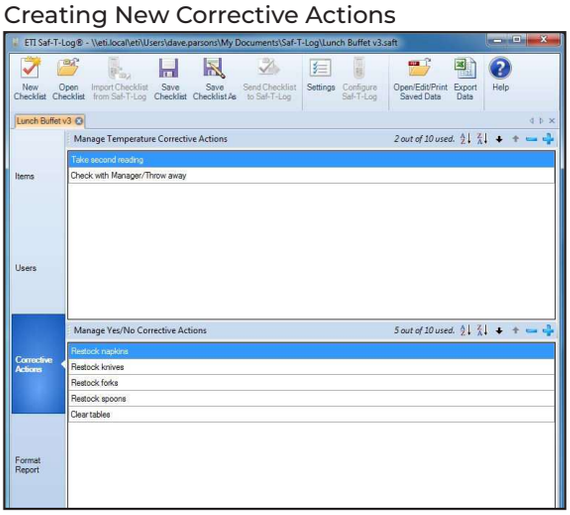
Creating New Items



In the 'items' tab, click 'New Item' and type in the required name (maximum of 32 characters - characters 17 to 32 will cause the item name to scroll in the instrument display).
Click the High or Low Limit temperatures to type in a new temperature value or use the 'up/down' buttons in the relevant box to scroll the temperature in one degree steps. The High Limit cannot be set equal to or lower than the Low Limit and vice versa.
Click the plus '+' to add another 'Item' up to a maximum of 300. (16 character item names). If an item has a name longer than 16 characters it will reduce the number of items available by an extra one. If entering all items with names longer than 16 characters only 150 items will be available to use.
If an 'Item Delay' has been selected in the 'Format Report' tab, all temperature items will have a delay box displayed. To activate the delay for a temperature item tick the 'Delay' box.

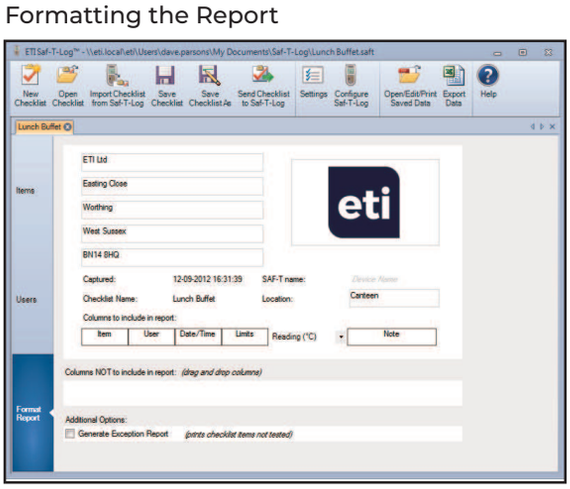
The 'Item' names can be sorted in ascending or descending order by clicking the 'A to Z' or 'Z to A' buttons.
The 'Item' names can also be moved up and down the list so that more commonly used items can be grouped near each other using the up '↑' and down '↓' buttons. The order in which they appear in the PC software is the order they appear on the Saf-T-Log thermometer. To delete an 'Item' highlight it in the list and click the minus '-' button. You can delete more than one item at a time using the 'shift' or 'control' key.

Creating New Corrective Actions



The 'Corrective Actions' tab has 2 sections to allow 10 'Corrective Actions' for 'Temperature Items' and 10 'Corrective Actions' for 'Yes/No' items.
In the 'Corrective Actions' tab click the plus '+' and type in the required action (maximum 30 characters). Click the plus '+' to add another 'Corrective action' up to a maximum of 10. The 'corrective actions' can be sorted in ascending or descending order by clicking the 'A to Z' or 'Z to A' buttons. To move a 'Corrective action' up or down the list highlight and click the up '↑' or down '↓' buttons. The order in which they appear in the PC software is the order they appear on the Saf-T-Log thermometer. To delete a 'Corrective action' highlight it in the list and click the minus '-' button. You can delete more than one corrective action at a time using the 'shift' or 'control' key.

Formatting the Report



In the 'Format Report' tab, the report heading can be amended with some user defined information to suit the individual application. Up to 5 'Custom Information Lines' can be used for appropriate contact details. A company logo can be entered in the box at the top right of the report by double clicking the box. Select an
image (colour or black and white) and it will automatically be scaled to fit the box. A descriptive name can be added to the 'Device Location' box.
By default the report will contain all the available columns. Unwanted columns can be removed from the report by clicking and dragging to the 'Columns NOT to include in report' area.
The Saf-T-Log thermometer reading units can be changed by clicking the down arrow '▼' in the 'Reading (°C)' header and selecting the appropriate units.
By ticking the 'Generate Exception Report' box an extra page is added to the report showing any items that have not been recorded. If an 'Item Delay' is selected any temperature item can be assigned this delay in the 'Items' tab. Select '0 seconds' to disable the 'Item Delay'.
Before the checklist can be used it must be saved using the 'Save Checklist' or 'Save Checklist As' button.

Changing the Saf-T-Log Temperature Units (°C or °F)

To change the temperature units on the Saf-T-Log, open the Saf-T-Log software and open a checklist to be saved to the Saf-T-Log thermometer. In the editing window, click the 'Format Report' tab along the left sidebar. Select 'Reading (°C)' or 'Reading (°F)' from the drop down field in the centre of the 'Format Report' screen to select the desired temperature scale. The Saf-T-Log thermometer is updated with the desired temperature units when the selected checklist is sync'd to the Saf-T-Log by connecting it to the PC via the USB lead and clicking 'Send Checklist to Saf-T-Log'.

Editing an Existing Checklist

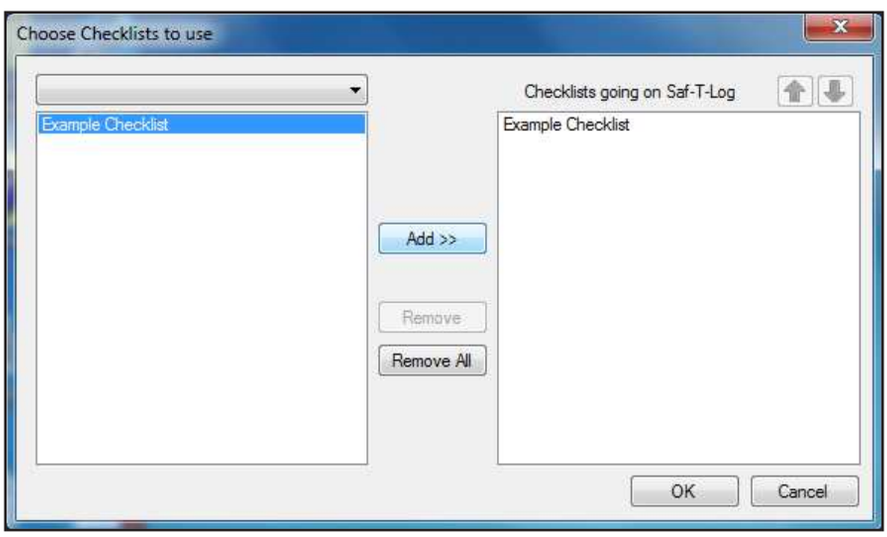
Click the 'Open Checklist' button to open the editing window and edit an existing checklist. Select the checklist to be edited from the directory where it was previously saved. Once all changes have been made, remember to save the checklist by clicking the 'Save Checklist' button to keep the same checklist name, or 'Save Checklist As' to assign a new name to the checklist. Multiple checklists can be viewed and edited in the editing window and displayed in tabs across the top of the edit box. An asterisk will appear at the end of the checklists name if it requires saving.

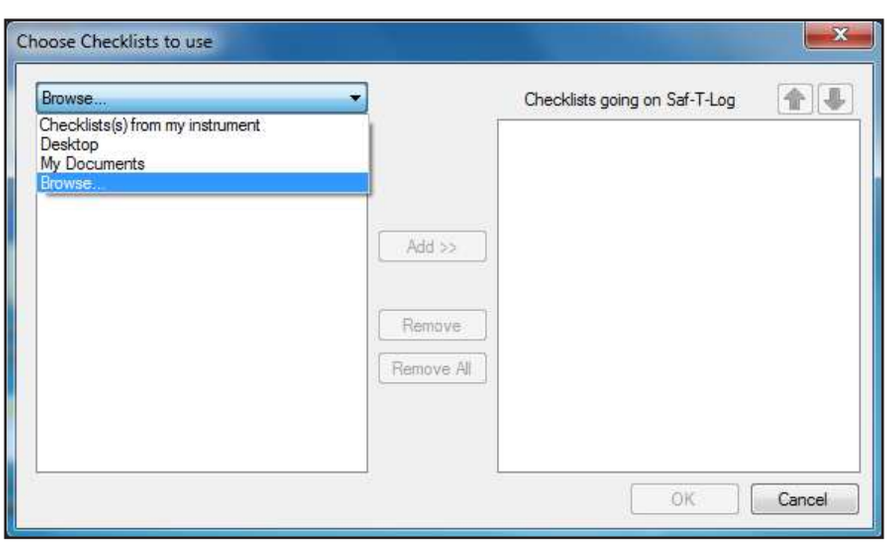
Importing a Checklist from the Saf-T-Log Device

To import an existing checklist from the Saf-T-Log thermometer, connect the Saf-T-Log unit to the PC and click 'Import Checklist from Saf-T-Log'. Single checklists will import automatically and multiple checklists prompt the 'choose checklist to import' window, this allows you to choose which checklists to import. The checklist can now be edited and saved for future use.

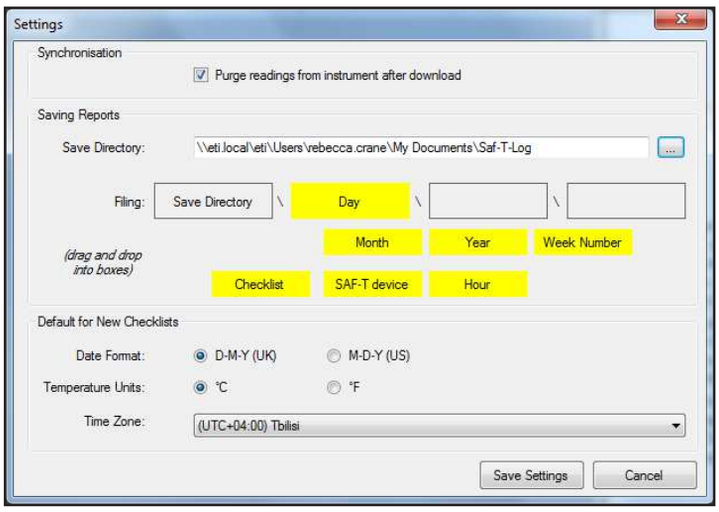
Loading a Checklist onto the Saf-T-Log Thermometer

After a checklist has been created and is ready to use on the Saf-T-Log thermometer open the checklist so it is currently displayed in the editing window. Click 'Send Checklist to Saf-T-Log' and the 'choose checklist to use' window will pop up, this will allow you to send a single or multiple checklist to the device. The drop down box on the left will allow you to load checklists from your PC as well as your Saf-T-Log, allowing you to make simple changes to the device without having to find the original checklists. The order the checklists are sent in is how they will appear on the Saf-T-Log.





SETTINGS



'Settings' allows the user to choose the location of the saved reports on the PC. Dragging and dropping the yellow boxes containing 'Day', 'Month' etc. into the empty boxes above will create a sub structure within the save directory. Up to 3 levels of sub structure can be defined in this way.

If for instance you select 'Day' (as seen left) a new sub folder will be created whenever a report is saved on a new day. If 'Checklist' or 'Saf-T-Log device' is used the reports will be filed according to matching checklists or Saf-T-Log devices.

'Settings' also allows the user to opt in or out of purging the readings from the Saf-T-Log during the automatic synchronising.

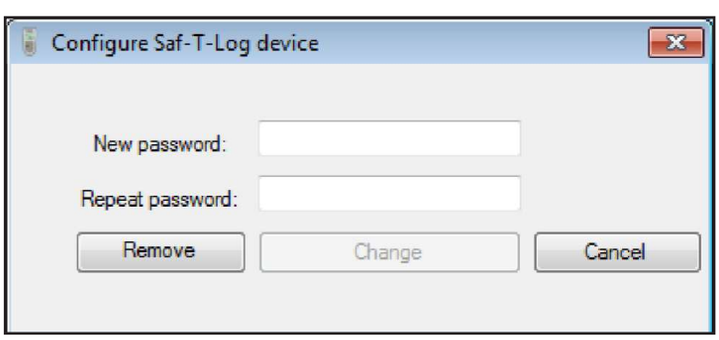
Defaults for UK or US time format, °C or °F temperature units and time zone can also be adjusted here for new checklists that may be created. Click 'Save Settings' to keep the changes. Click 'Cancel' to discard changes.

CONFIGURE SAF-T-LOG



Click 'Configure Saf-T-Log' to assign a name or ID tag to a Saf-T-Log thermometer or adjust ('Sensor Trim') the Saf-T-Log. The serial number of the Saf-T-Log thermometer that is connected is displayed at the top of this window. Once the desired settings are completed, click 'Update' to immediately update the connected Saf-T-Log thermometer.

NOTE: It is NOT recommended to adjust the 'Sensor Trim' value without appropriate temperature standards and experience. Call ETI Technical Sales on 01903 202151 for more details.

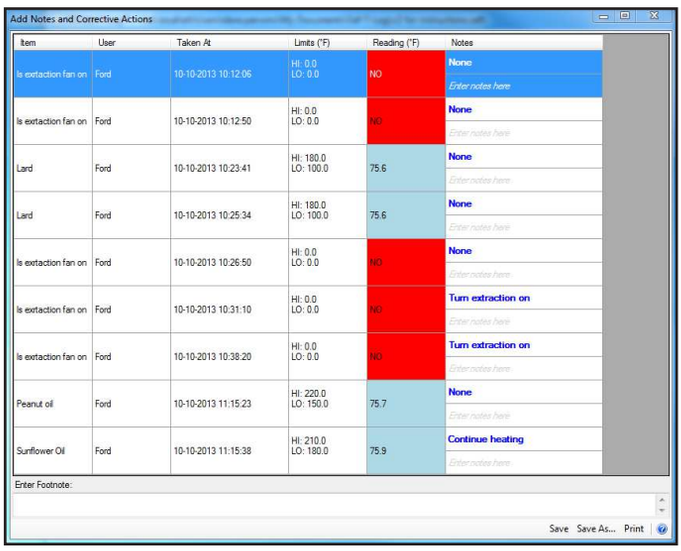


The 'Configure Saf-T-Log device' window can be password protected to lock users from accessing this window. A password can be created by clicking the 'Password Protection' button.

DOWNLOADING, EDITING & PRINTING DATA

Downloading Readings from the Saf-T-Log

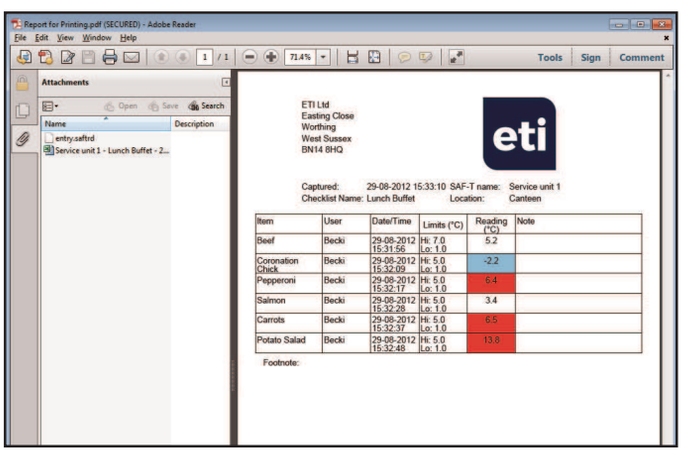
After the checklist readings are stored to the Saf-T-Log for the current session, readings can be downloaded to the PC and a report/s generated and/or printed. Connect the Saf-T-Log to the PC using the supplied USB cable, 'USB>PC' will be displayed on the Saf-T-Log. The 'Saf-T-Log connect status' window will appear automatically (as seen on page 5 – Synchronisation) and readings will start to download. The 'Add Notes and Corrective Actions' window will appear and allow you to record any relevant additional information, print and save the data. If no additional information is required, you may simply close the window and the file/s will be saved to the directory set up in the 'settings' window.



Editing & printing saved data

Click 'Open/Edit/Print Saved Data' to open an existing data report in the editing window. Select the data report from the file menu to open in the 'Add Notes and Corrective Actions' window. Notes and/or corrective actions can be stored as well as a footnote before saving or printing.

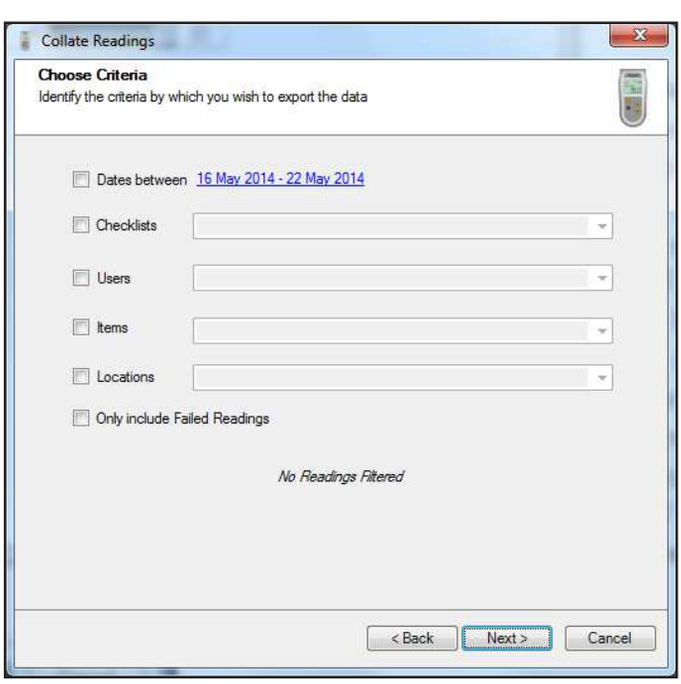
Click 'Print' to create a PDF document which can be printed with suitable PDF reader software.



In the PDF viewer it is possible to open an embedded Microsoft Excel file containing the data from the PDF file. Click on the paper clip symbol to the left of the document to expand the 'Attachments' section and then double click on the Excel file name.

If your PDF reader does not allow the opening of non PDF file attachments check the trust manager settings in preferences and select 'Allow opening of non-PDF file attachments with external applications'.

The data in the embedded Excel file can be analysed and graphed but any changes will not affect the original, secured, PDF file.



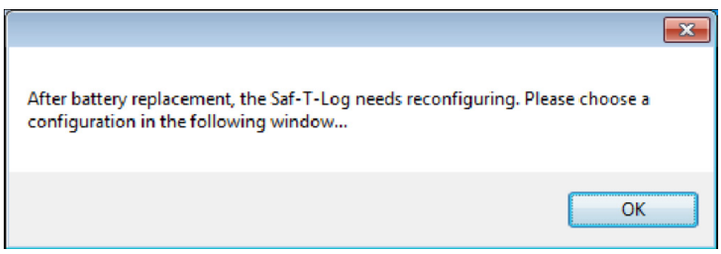
Exporting Data to Excel

The **Export Data** button creates an Excel spread sheet containing the data from Saf-T-Log reports. The software takes the user through selection options using the 'Next>' button to progress through a series of steps. The data from more than one Saf-T-Log report can be combined into one Excel file. The first step is to select a directory in which to look for the reports. Various options can be used to select the reports to combine such as 'Checklist', 'User', 'Item', 'Location' or reports with dates in a specified range. The data can be sorted by also selecting one of the options 'Date', 'Checklist', User', 'Item', 'Location' or 'Failed readings'. The final step is to select a directory for the saved export file.

MAINTENANCE

Changing batteries in the Saf-T-Log thermometer

A battery power indicator is located in the upper right corner of the display. When the battery indicator shows only one bar it is recommend to replace the batteries in the Saf-T-Log. When the batteries are completely exhausted, the Saf-T-Log will power off and display 'Flat-Shut down' momentarily. Unscrew the six screws on the back of the Saf-T-Log device and remove the rear case half to replace the three AAA batteries. Replace the rear case half taking care to ensure the rubber seal is correctly located before the screws are tightened. Tighten the screws hand-tight. Do not over tighten the screws as damage may occur.



After new batteries have been fitted, the instrument must be connected to a computer to configure the date and time. The user will be prompted by the message 'Configure via PC' in the display until the USB cable is plugged in. The Saf-T-Log's memory is non- volatile and it will automatically download any data stored in the device when connecting after a battery replacement. You will be prompted to choose a configuration. Click 'OK' and then reload a suitable checklist file (.saft) to the Saf-T-Log thermometer.

Product Care

It is recommended to clean the Saf-T-Log instrument with cleaning wipes. Do not submerse the instrument in liquid for cleaning. Keep water and liquids from collecting around connectors at the top end of the instrument and use the silicone bung attached to protect the USB when not in use.

WARNING: IPA and other solvents may cause damage to the case and screen of this instrument.

Software & Firmware updates

Saf-T-Log updates and enhancements to software and the handheld unit are offered to customers free of charge and can be updated remotely for your convenience. Updated features and instructions can be found on the ETI website: etiltd.com.

PLEASE NOTE: Due to regular software updates, please visit the download page on our website etiltd.com/downloads to ensure you have the latest version.



Manufactured by
Electronic Temperature Instruments Ltd
Worthing · West Sussex · BN14 8HQ
01903 202151 · sales@etiltd.com · etiltd.com

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