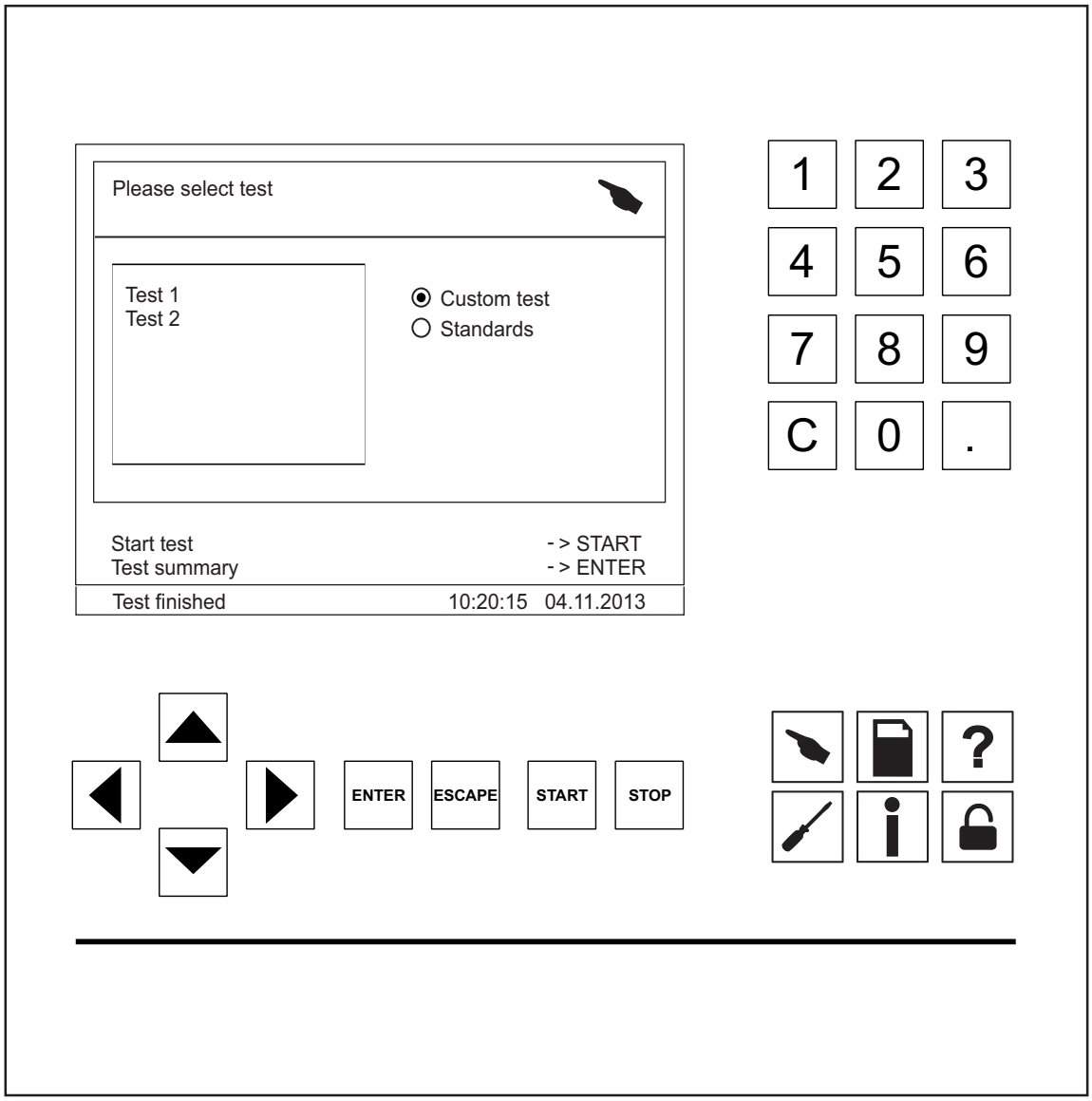
ATLAS
MATERIAL TESTING SOLUTIONS

Software-Documentation
Version 3.2

Controller XenoTouch

Software-Documentation



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1 Safety instructions

This software documentation describes the operation of weathering test instruments equipped with a touch screen.

It is assumed that use of this software documentation will be by individuals who have a working knowledge of the functions and operation of the equipment to which this software documentation applies. The following instructions should be observed in order to avoid accidents and prevent damage to the instrument or other property.

- The instrument should only be operated by properly trained, authorized personnel
- Settings on the instrument should only be defined or modified by individuals who are familiar with the operating instructions and who, in addition, possess a good basic understanding of the test methods involved
- The contents of this software documentation are subject to modification at any time and without prior notification
- With regard to translations into other languages, the German version of these instructions remain binding
- Store this software documentation with the operating instructions in a secure location in the vicinity of the instrument for quick reference to safety notes and other relevant information.

1.1 Explanation of the symbols

Symbols used in this software documentation:

CAUTION!
Failure to observe the associated information can result in data loss or impair the functionality of the instrument.

NOTE
This provides general tips on applications and other useful information.

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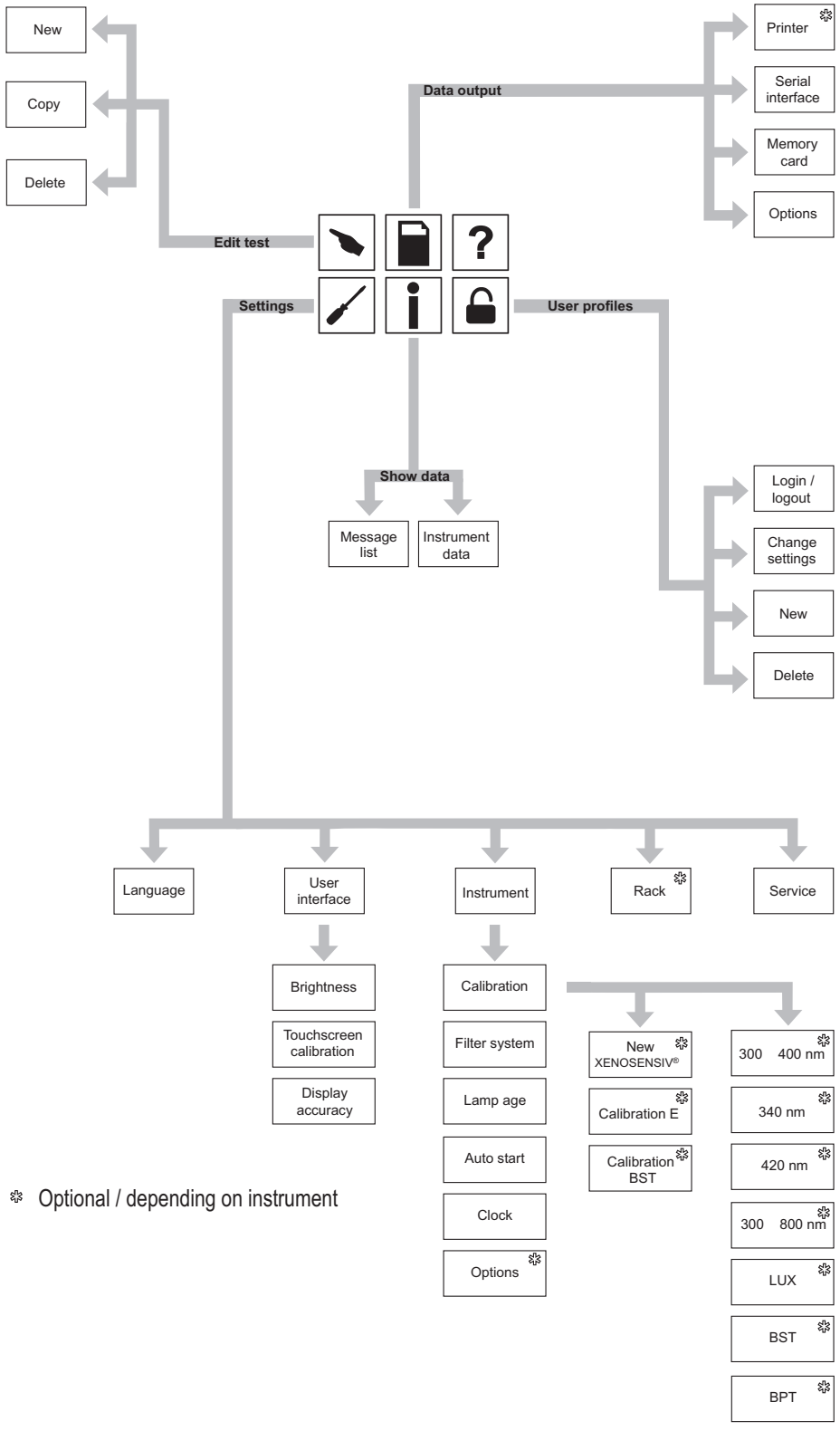
2 Software description

The software documentation describes the structure and operation of the XenoTouch controller for the weathering instruments Xenotest® Beta+, Xenotest Beta+ FD, Xenotest Alpha+, Xenotest 150 S+, Xenotest 220+, Xenotest 440, SEPAP MHE, SUNTEST XXL+ device family and SUNTEST XLS+..

3 General operating instructions

3.1 Menu structure Fig. 3.1

Fig. 3.1: Overview of the menu structure or the main menus and their associated submenus.



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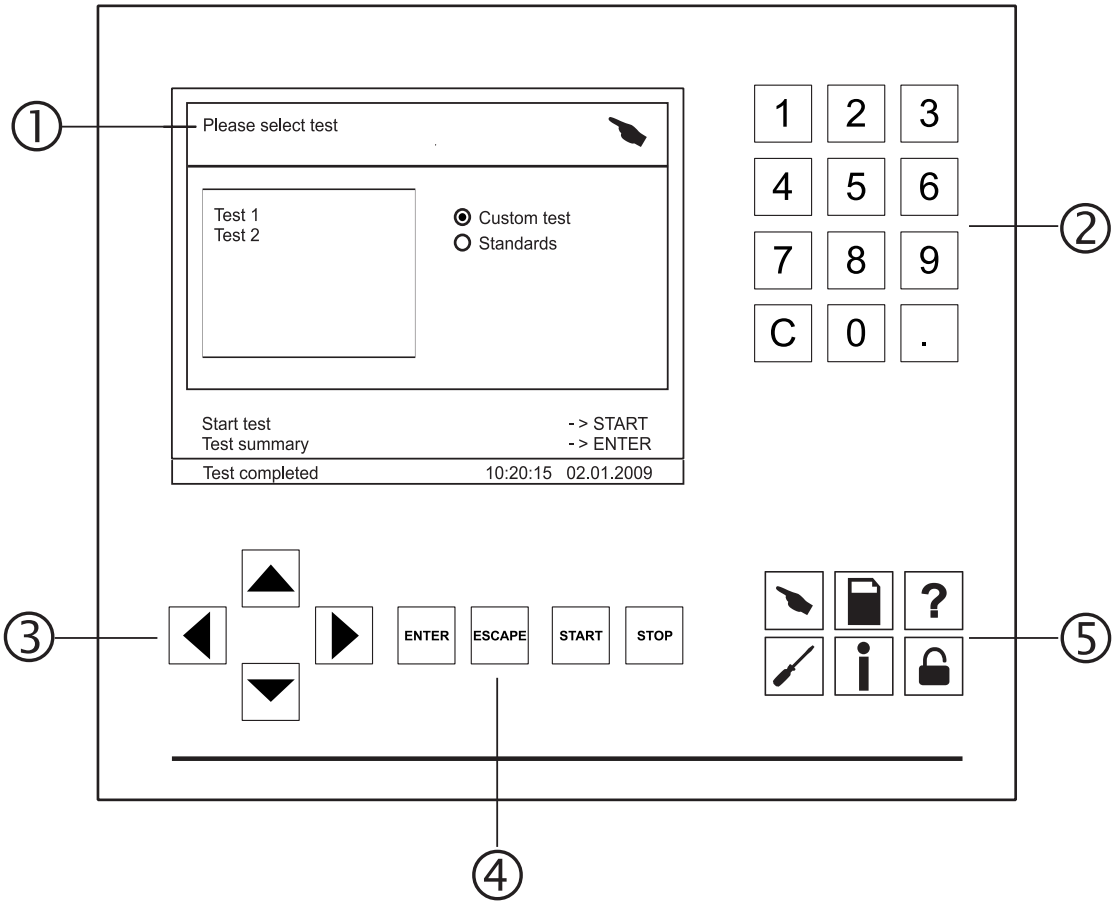
3 General operating instructions

3.2 Touch screen layout

Instrument controls are activated via the touch screen, either with a finger or with a touch pen.

Fig. 3.2: Touch screen Overview:
① Display to show the dialog window
② Numeric keypad to enter values
③ Arrow buttons for navigation
④ Function buttons to activate basic functions
⑤ Menu buttons

Fig. 3.2



3 General operating instructions

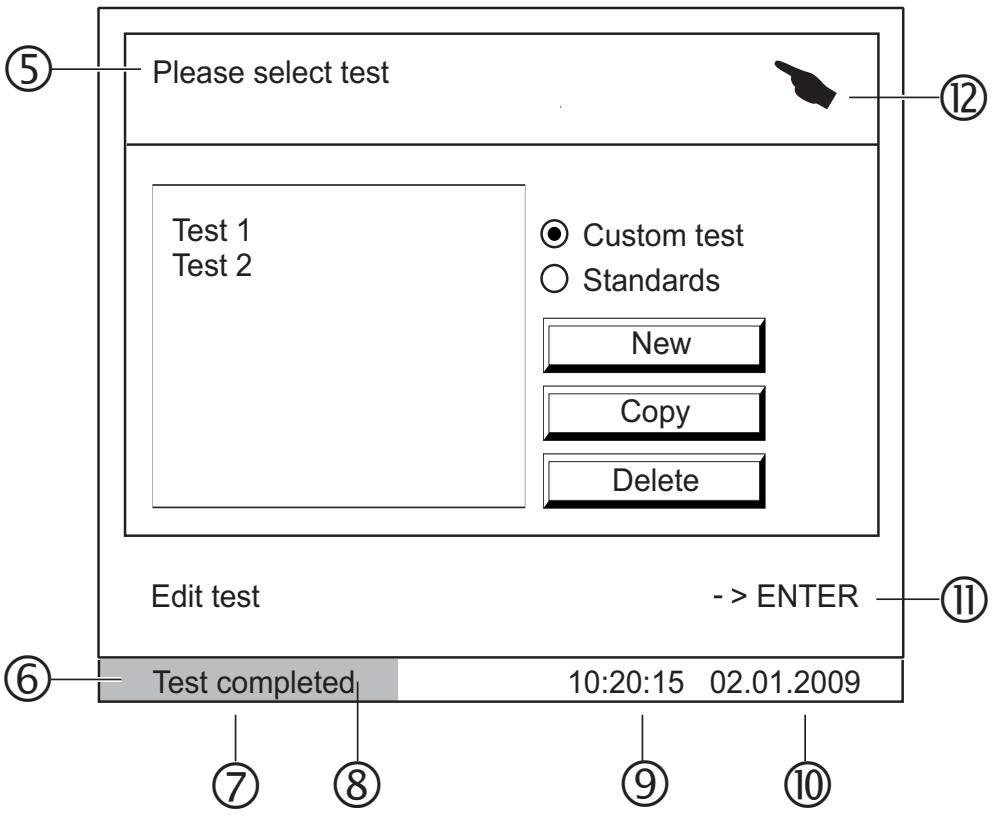
3.2.1 Screen structure

Each window contains information regarding user functions or task steps as well as information concerning an initiated action or general, higher level instruction.

Fig. 3.3: Screen structure:
⑤ Description of the dialog window
⑥ Status bar, with indicators:
- ⑦ Test information: test running / interrupted / complete
- ⑧ Color progress indicator (while a test is running)
- ⑨ Time
- ⑩ Date

⑪ Indication of the next possible task steps which can be performed
⑫ Symbol identifying the currently activated menu

Fig. 3.3



3 General operating instructions

3.2.2 Numeric keypad

The numeric keypad is used to input numeric values.

3.2.3 Arrow buttons

The arrow buttons are used to select items within a specific selection list:

- ▲ Moves the selection **up**
- ▼ Moves the selection **down**
- ◀ Moves the selection or scrolls to the **left**
- ▶ Moves the selection or scrolls to the **right**

3.2.4 Function buttons

The function buttons are used to control the basic functions:

- ENTER Confirm or accept an entry
- ESC Cancel current action or return to the previously selected menu
- START Start programmed process
- STOP Interrupt programmed process

3.2.5 Menu buttons

The instrument controller is equipped with 6 menu buttons with the following function:

- Enter / Edit tests
- Data output
- Help
- Settings
- Show data
- User profiles

The currently activated menu is indicated on the display by the associated symbol together with a frame in the corresponding symbol color.

4 Basic functions

4.1 Turning the instrument on and off

Turning the instrument on:
Once the instrument has been turned on (main power switch moved to position "**I**"), the controller is initialized. The boot process is indicated by a startup display. Once initialization has been successfully completed, either the "Please select a test." or "Continue test" dialog window opens.

Turning the instrument off:
The instrument can be immediately turned off once a test program has been completed or has been interrupted (at the end of the lamp cool-down time or in an emergency). To turn the instrument off, simply move the main power switch to the "**0**" position.

CAUTION – Possible lamp damage!
The cool-down phase is required in order to provide the lamps sufficient time to cool off, thus increasing their service life. Failure to allow the lamps to complete their full cool-down cycle can result in damage to the lamps.

4.2 Starting a test

After the instrument is started, a test can be selected and started. The program control permits access to:

- **Custom Test:** Tests programmed and stored by the user.
- **Standard Test:** Will change to standard test in the documentation and software.

Selecting and starting a test:
1. After initialization, the message "Please select a test" appears in the dialog window.

2. Select either one of your own tests or a preprogrammed standard test.
   - Custom test
   - Standard test

3. Select the desired test:
   - Use the ▲ or ▼ buttons.

4. View the test overview list:
   - Press the ENTER button.

Continued on the next page

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4 Basic functions

4.2 Starting a test (continued 4.2)

5. Start the test:
   - Press the START button.

Once the test starts, the current status data of the test procedure (setpoint/actual value display, progress diagram, shut-down criterion, parameter monitoring) is displayed. Use the arrow buttons to scroll through the test report.

- Press the ◀ or ▶ button.

6. Interrupt an ongoing test:
   - Press the STOP button.

The test running time, irradiance time and radiant exposure are displayed.

4.3 Modifying the shutdown criteria for an ongoing test:

1. Interrupting a test and entering data:
   - Press the STOP button.
   - Press the **"Change Criteria"** button.
   - Modify the desired parameter and press the ENTER button.
2. Continue the test:
   - Press the START button.

5 Menu buttons

5.1 Enter / edit test

☞ **NOTE – device configuration**
Depending on your instrument features/options, some test conditions and test parameters cannot be selected on the screen.

Press the  menu button.

The program controller allows up to 10 custom tests **(Custom Tests)** to be programmed and the selection of the standardized tests **(Standard Test)** that are preprogrammed at the factory.
Depending on your instrument features/options, the following test conditions can be defined for the **Custom Tests**

- Light or dark, phase-by-phase
- Irradiance regulation
- Black standard temperature regulation
- Chamber air temperature regulation
- Humidity regulation
- Cyclic water spray or back spray

The configuration of a custom test can either be developed from scratch or an existing test can simply be copied and edited as required. We recommend the latter method where only a few parameters in test programs require modification.

☞ **NOTE – Editing tests:**
Only custom tests can be edited. To edit existing values, use the ENTER button to scroll through the available submenus.

Creating a new test:
The procedures for configuring a new test and for editing a copied test are basically identical. You can select between:

- Creating a new test
- Copying a test (and saving it under a different name)
- Deleting a test or
- Editing an existing test

Creating your own test:

- Select the **Custom Tests** category
- Press the **New** button

The following information must be provided for a “new test”:

- Test name
- Shutdown criterion
- Filtration
- Irradiance regulation
- Fan speed
- Phase parameters
- Parameter monitoring

5 Menu buttons

5.1 Enter / edit test (continued 5.1)

1. Enter a test name:

   - Enter the desired designation for the test via the screen buttonboard and save the name:
   - Press the [ENTER] button.
   - Work your way through the individual configuration steps in the test input dialog window.

2. Select a shut-down criterion:

   The specification of a shut-down criterion is required for a controlled interruption of a test procedure, i.e. to check the samples.

   - Select the shutdown criterion – run time, irradiance time, or radiant exposure – and enter the desired value in the associated input field. The second value must always be greater than the preceding one. You can switch to minutes entry with the comma button on the numeric keypad after entering the hours. To select the shutdown criterion input fields:
   - Press the [▼] or [▲] button.

3. Specify the required filter type.

4. Specify the type of irradiance regulation. If the irradiance is regulated by means of a light sensor, the irradiance is specified in “nm.” If unregulated, it is specified in “%.”

5. Enter the desired fan speed (refer to the technical specifications in the operating instructions).
   To access the fan speed input field:

   - Press the [◀] or [▶] button.

   The fan speed specification is only used for regulation if no black standard temperature regulation is specified.

   - Press the [ENTER] button.

Continued on the next page

5 Menu buttons

5.1 Enter / edit test (continued 5.1)

6. Defining the phase parameters:
   A test can be subdivided into several phases. The test conditions for each phase can be defined separately. The phases are processed in numeric sequence. If only a single phase is programmed, it will be repeated once the defined phase time has expired.

   Specifying the test parameters:
   The values for the test parameters can either be entered as a “0” value (no regulation) or as a value within a range. If unregulated, the irradiance is set as a percentage value of the lamp power, “P.”
- Chamber air temperature (CHT): The value range depends on the specific instrument in question
- Black Standard Temperature (BST): The value range depends on the specific instrument in question (no regulation during the spray or dark phase).
- Relative humidity (RH): The value range depends on the specific instrument in question (no regulation during the spray phase).

Optionally, spraying or sample cooling can also be activated.

- Press the ENTER button.

7. Define parameter monitoring:
   A monitoring function with a different tolerance can be activated for each individual test parameter.

☞ **NOTE – Setting the monitoring function:**
The deviation from the setpoint can be specified as a “0” value (no monitoring) or as a value within the specified range. If the measured values for the parameter being monitored remain outside the specified tolerance range for the entire duration of the shutdown time, the instrument will be turned off in order to protect the samples.

☞ **NOTE – Warm-up time:**
In order to adjust to the desired setpoint, the instrument requires a warm-up time of 15 minutes. Should one of the parameters lie outside the specified tolerance range, the timer only starts once this period has passed.

☞ **NOTE – Maximum BST:**
If the black standard temperature rises above the specified maximum value, the instrument will be turned off immediately in order to protect the samples.

☞ **NOTE – Specimen Spray Monitoring (not available for all instruments):**
For test methods where a spray cycle follows a light cycle, the specimen spray results in a significant reduction of black standard temperature and a simultaneous increase of relative humidity (if humidity monitoring/control is available in the instrument). When the Specimen Spray Monitoring function is activated, the instrument interrupts the test if that feature is not functioning properly. The error message “Specimen Spray failure” is displayed. Valid test methods are ISO 4892-2 and methods with similar parameter settings, which have at least one dry and one wet cycle.

Valid parameter settings:

Dry cycle:	phase time	>= 60 min
	BST	>= 60 °C
	RH	<= 55%
	CHT	<= 45 °C
Wet cycle:	phase time	>= 6 min
	CHT	same as in dry cycle

5 Menu buttons

5.1 Enter / edit test (continued 5.1)

8. Activate parameter monitoring:

   If parameter monitoring is activated, the appropriate input fields will become available to enter the required data, depending on the instrument type in question, the type of irradiance regulation, and the configuration of the test.

   • Enter the values with the numeric keypad.

9. Save your settings:

   • Press the ENTER button.

5.2 Data output

Press the menu button.

The instrument is equipped with four interfaces for exchanging data with external systems. Depending on the particular instrument in use, the current data for a test process may also be output to an optional printer (only Xenotest® instruments).

Thermal printer activation (only Xenotest instruments):
The optional printer can be activated from the data output dialog window.

Network connection ① (page 17, fig 5.1):
Using the “integrated fast Ethernet controller” protocol (3C905C-TX compatible), the test instrument can be integrated in a network.

Serial interface ② (page 17, fig. 5.1):
The RS232 interface permits measurement data to be transferred to a computer while a test program is running. These data can then be recorded using a terminal program (e.g., Windows Hyperterm). For interface specifications please see section 9.1.

5 Menu buttons

5.2 Data output (continued 5.2)

USB interface ③:
Inactive

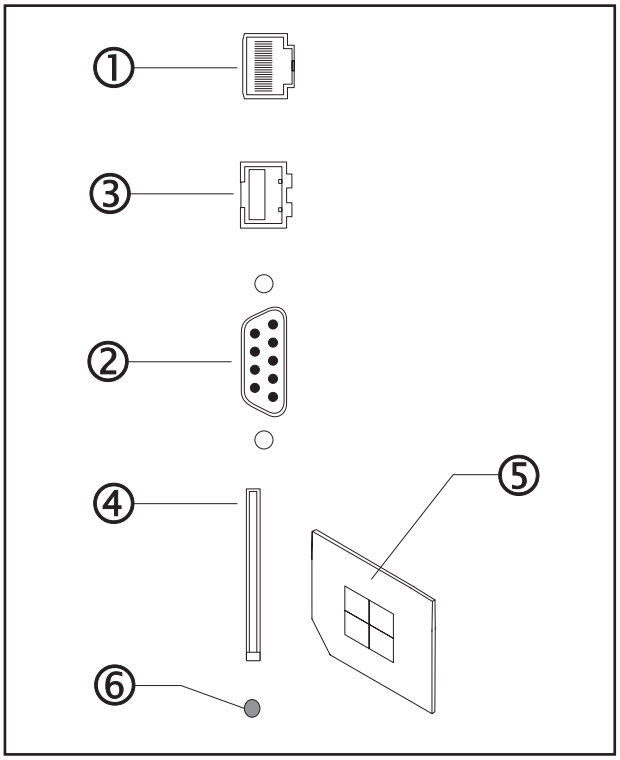
Socket ④ for Memory Card ⑤:
Here, output takes place in the same way as at the serial interface, except that the data are saved directly to the smart card. The data are saved in .csv format and can be subsequently processed on a PC, e.g., using MS Excel. Please note that, due to Microsoft Office configurations, the file cannot be opened from Windows Explorer by double-clicking on it, but must instead be opened using the "Open File" command in Excel.
Please also make sure to only remove the memory card by using the eject button on the instrument and if the "REC" button is not illuminated.
The **light emitting diode (LED)** ⑥ illuminates when transferring data to the memory card. When data is being transferred, do not pull the card out of the slot!

CAUTION
Pulling out the card while transmitting data might lead to data loss!

Activate data output:
You can activate the data output for each interface separately.

Options:
It is possible to adjust, whether a comma or a dot should be used as decimal separator.

Fig. 5.1



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5 Menu buttons

5.3 Help

Press the [?] button.

The dialog window provides you with an overview of the menus and their meanings. In addition, detailed information regarding the currently installed software version can be viewed.

5.4 Settings

Press the [ ] menu button.

The settings menu is where you can modify the following instrument settings:

5.4.1 Language

1. Press the **Language** button.
2. Mark the desired language in the language selection list.
3. Press the [ENTER] button.

The user interface is displayed immediately in the selected language.

5.4.2 User interface

- Press the **User Interface** button.

5.4.2.1 Adjusting the brightness

1. Press the **Brightness** button.
2. Use the scroll bar to adjust the display brightness.
   - **Scroll bar** to the right: increased brightness.
   - **Scroll bar** to the left: decreased brightness.
3. Save your settings:
   - Press the [ENTER] button.

5 Menu buttons

5.4 Settings (continued 5.4)

5.4.2.2 Adjusting the touch screen

1. Press **Touch Screen Calibration**

2. The calibration function:
   Calibrating the touch screen resets the association between the point of contact and the information on the display. To do this, two measurements for calculation and one control measurement are performed. If the control measurement is successful the new calibration is saved. If it is not, the original setting will continue to be used. The procedure can be repeated.

3. Save your settings:

   • Press the ENTER button.

5.4.2.3 Adjusting the display accuracy

1. Press the **Display Accuracy** switch

The display accuracy relates to the output of values, e.g., the number of decimal places.

2. You can select one of two settings:
   • High
   • Low

3. Save your settings:

   • Press the ENTER button.

5 Menu buttons

5.4 Settings (continued 5.4)

5.4.3 Instrument

5.4.3.1 Adjustments

Zur Justierung ihres Prüfgerätes, folgen Sie bitte den Anweisungen in Ihrer Bedienungsanleitung.

5.4.3.1.1 XENOSENSIV® (only Xenotest)

The serial number, sensor type, and the date and factor of the last adjustment are displayed.

New XENOSENSIV (device without XENOSENSIV RC)
When replacing the XENOSENSIV sensor, enter the new serial number and the sensor type here.

XENOSENSIV RC (device with XENOSENSIV RC)
The data of the used XENOSENSIV RC are displayed.

- **Changing frequency**
  The transmission frequency of the XENOSENSIV RC can be adjusted. This may be necessary if the frequency used is also in use by other devices, such as WLAN, and this causes interference in the data transmission. Before making any changes, please check which frequency is not or only seldom used. (See Chapter 7.1 Troubleshooting “XENOSENSIV RC: No connection”)

- **Assigning sensor**
  This function assigns a new sensor to the device. This requires that the magnet must be held onto the sensor for approx. 2 seconds after pressing the button. (See Chapter XENOSENSIV RC in the operating instructions of device)
  After assigning the new sensor, it transmits on the After assigning, the new sensor transmits on the 2.410 GHz frequency.

Adjusting E/BST/BPT
The adjustment can be carried out here, or the adjustment factor can be deleted.

5.4.3.2 Filter system

1. Specify the filter system:
   The filter system selected must be the same as the installed system, otherwise the instrument controller will use incorrect reference values. Select the filter system installed in your instrument from the list.

2. Save your input / selection:

   - Press the ENTER button.

5.4.3.3 Lamp(s) (depending on device type)

1. Enter the lamp age:
   The instrument controller keeps track of the number of hours the installed lamps are operational. This value must be reset to zero each time a lamp is replaced. The number of input fields depends upon the number of lamps with which the instruments operates.

   - Use the numeric keypad to enter the age of the lamp (for Xenotest® 440 and SEPAP MHE see section 5.4.3.3.1).

5 Menu buttons

5.4.3.3. Lamp(s) (depending on device type) (Continued)

☞ **NOTE – Lamp lifetime:**
The recommended maximum lamp lifetime is 1500 hours of operation.

2. Save your input:

   • Press the ENTER button.

5.4.3.3.1 Lamp set/lamp (depending on device type)

Useful life
The unit controller counts the operating hours of the installed lamp set bzw. der eingebauten Lampe. The counter must be reset to zero every time the lamp is changed.

For devices with XenoLogic, the remaining useful life is calculated depending on the filter system, wavelength, and irradiance. The consumption of the lamp set is displayed in percent.

New lamp set/lamp
If a new lamp set was installed, the useful life of the lamp must be reset with this function. To do so, the SD card provided with the new lamp set must be inserted (see device operating instructions).

Save lamp data
The data of the installed lamp set can be saved on the SD card with this function (see device operating instructions).

5.4.3.4 Auto start

This menu item offers you the option of defining the following settings in case of a power failure:

- Continue the test once power is restored
- Do not continue the test if power is lost for more than (1 – 9999) minutes. You can specify the desired number of minutes here

5.4.3.5 Clock

This dialog window allows you to change date and time.

1. Press the **Clock** switch.

2. Select either the top or bottom row of input fields:

   • Press the ▼ or ▲ arrow buttons.

   Select an input field within the row:

   • Press the ◀ or ▶ arrow buttons.

   Use the numeric keypad on the touch screen to enter the desired value.

3. Save your settings:

   • Press the ENTER button.

5 Menu buttons

5.4 Settings (continued 5.4)

5.4.3.6 Options

The **Option** function is only available for the SUNTEST® XLS+ instrument.
Please select the accessory device that will be operated together with the SUNTEST XLS+.
You have the following choices: SunSpray, SunFlood and SunCool.

5.4.3.7 Add-ons

After choosing this page, a table with available software Add-ons is displayed. The default status of an Add-on is inactive. An Add-on can be activated by entering an activation code which can be ordered from Atlas. Please check our accessory price list for details.
To order this code, the following information is required (see below example):

Instrument type: SUNTEST XXL+
Serial number: 0909099
Add-ons: Remote Control, E-Mail Service, Online Monitoring

The instrument information can be displayed using Show data / Instrument data (section 5.5.2).
When ordered, you will receive an activation file “ActCode.txt,” containing the order information and the activation code.

For example:

ActCode.txt
Atlas MTT GmbH
Do not change this file!
This file contains the activation code for:
Instrument: SUNTEST XXL+
Serial number: 0909099

These options are enabled:
+ Remote Control
+E-Mail Service
+Online Monitoring
Activation code: 8557 : 2069 : BF53 : ECBC : 7F39 : 4C72 : 9EA6 : BB02

Please verify this information with your instrument data.

5.4.3.7.1 Activating demo mode

Select “Settings/Instrument/Add-ons/Enter Code.”
Type “DE004” and press ENTER.

The add-on table now shows the remaining demo time.

NOTE
In order to activate the network functions, the device must be switched off and on again.
To configure the network settings, please refer to Chapter “5.4.3.8 Ethernet” in the software documentation.

CAUTION
The demo mode can only be activated once. After 100 operating hours, the add-ons that are activated in this manner are no longer available.

5 Menu buttons

5.4 Settings (continued 5.4)

5.4.3.7.2 Automatic activation

Insert the SD card with the activation code. Switch on the instrument and the desired Add-on(s) will be activated automatically.

5.4.3.7.3 Manual activation

To perform the manual activation choose “Settings/Instrument/Enter Add-ons Activation Code.” You can now enter the activation code (32 characters) or use “Load activation file” to load it from the SD card. After pressing ENTER, the code will be verified. After the code is verified, the status of the selected add-on(s) will change to “Active” and activation will be completed. The instrument needs to be restarted (power off and on).

5.4.3.8 Ethernet

(Only available in XenoTouch controller with SD card interface)
We recommend that you contact your network administrator for assistance before connecting the instrument to your network.

5.4.3.8.1 IP address

An Internet Protocol (IP) address is a numerical label that is assigned to the instrument. It must be unique within the computer network, where your instrument is connected.

This page displays the following information:

MAC address
The Media Access Control address is a unique identifier assigned to the network adapters of your instrument.

Host Name
The host name can be changed as required. Up to 18 characters can be entered. We recommend that you leave the standard setting. This avoids duplicate host names.
You can choose between DHCP and Fix IP.

DHCP
The Dynamic Host Configuration Protocol is a network application protocol used by devices (DHCP clients) to obtain configuration information like the IP address. This protocol reduces system administration workload, allowing networks to add devices with little or no manual intervention. The disadvantage is that the IP address used can change during runtime.

Assigned IP
IP address received from the DHCP server.

Fix IP
Using a fix IP address requires some additional settings. Please ask your network administrator before entering the IP address, subnet mask, DNS and gateway address.

5 Menu buttons

5.4 Settings (continued 5.4)

5.4.3.8.2 SMTP

The **S**imple **M**ail **T**ransfer **P**rotocol (SMTP) is an Internet standard for electronic mail (E-Mail) transmission across Internet Protocol (IP) networks. A SMTP client is implemented in your instrument. To send E-Mails, a SMTP server is required. When an external SMTP server is used, the internet access should not be blocked by a firewall.

SMTP server
Enter the address of the SMTP server. You can use the server name (for example: mail.arcor.de) or the IP address. If the server name exceeds 24 characters, the IP address must be entered instead.

User name
Enter the user name which is required to log in on the SMTP Server.

Password
Enter the password which is required to log in on the SMTP Server.

Sender name
This name will be shown as sender name in the E-Mail. We recommend using a name which helps to identify the instrument (for example: instrument type and serial number “SUNTEST XXL+ 0909099”).

Sender E-Mail
This E-Mail address will be shown as the sender E-Mail address. We recommend using an address which indicates that you should not respond to this address. Some SMTP servers utilize their own domain name (for example: noreply@arcor.de). It may be necessary to use the E-Mail address from the user which is given by the user name.

5.4.3.8.3 E-Mail Service

Sending E-Mail notification can be enabled or disabled. A notification will be sent, when an error message or warning is displayed. When enabled, you can enter three E-Mail addresses to send the notification to by touching the corresponding edit field. Use “Test Settings” to send a test E-Mail in order to test the IP, SMTP and E-Mail settings.

5.4.3.8.4 Remote Control

The VNC Server can be enabled or disabled. After enabling or disabling, the instrument needs to be restarted (power off and on). When enabled, the password can be entered or changed for VNC access.

5 Menu buttons

5.4 Settings (continued 5.4)

5.4.4 Rack

The **Rack** function is only available for the Xenotest® instruments and SEPAP MHE.

1. If you wish to rotate the carousel while the instrument is not operating:
   - Press the **Rack** button.
2. If you wish to stop the carousel while the instrument is operating:
   - Press the **Rack** button.

5.4.5 Service

This function is only available for the Atlas Technical Service.

5 Menu buttons

5.5 Show data

Press the  button.

Using the associated buttons, the following information can be called up from the data display menu:

5.5.1 Message list

A chronological listing of messages output by the instrument controller.

5.5.2 Instrument data

Serial number and information pertaining to the number of hours of operation and radiant exposure (irradiance).

5.5.3 Service file

Saves all service-relevant data on the SD card allowing for the creation of an improved error analysis in case of error.

5.6 User profiles

Depending on your safety requirements, the instrument can be protected against unauthorized access by using user profiles. If no user is logged in, the operator can only view parameters and data. To start or stop a test or to change any settings, a user with appropriate rights has to log in.

If you do not need protection against unauthorized access, you can define a user with the highest access rights, without a password and uncheck “Logout after 30 min.” Thus, this user will remain logged in until performing a manual log out and will have full access without a log in procedure.

Press the  menu button.

An individual authorized by the customer to act as the administrator can use this menu to create and edit user profiles. Users can be assigned various access privileges. If no user is defined, the operator can select, start and stop a test.

NOTE – Setting up an administrator:
At the time of initial startup, Atlas Technical Service sets up a user who has the right to set up additional users or to change user access privileges. The name of this user is freely selectable and can be subsequently changed. This user is given all privileges required to operate the instrument. (Refer to the table.) If the password for this user is lost or forgotten, only Atlas Technical Service can set up a new access.

For your password:

Name	Password

5 Menu buttons

5.6 User profiles (continued 5.6)

5.6.1 Login / logout

Please select the user and enter the PIN code. Please use the button LOGOUT to sign off. Only one user can be logged in. The user who is currently logged in, must logout, if he/she does not have the necessary rights to complete an action. Afterwards, an authorized user must login.

5.6.2 Change settings

You can change user settings with the **Change Settings** button (see section 5.6.3).

5.6.3 New

Please use the switch **New** to create a new user with a corresponding PIN code and user rights.

1. Allocate a user name and confirm with ENTER.

2. Dialogue window:
   - Enter a new PIN code and repeat the PIN code in the lower input field for security reasons.
   - Allocate access rights

Please activate the corresponding:

View Data
The user has the right to view parameters of a running test and view instrument data.

Operate Instrument
The user has all previous rights and the right to select, start, interrupt or terminate a test.

Edit Settings
The user has all previous rights and the right to enter and change test data, data output and instrument settings (calibration, etc.).

Edit User
The user has all previous rights and the right to generate, change or delete a user profile.

- Web server access
  The user has access to the web server (see section 6.3 Web server).
- Logout after 30 min:
  The assigned access right can be linked to an automatic logout. The user will be logged out 30 minutes after the last action, or after switch off and switch on.

5.6.4 Delete

A user can be deleted using the button **Delete**.
Please confirm with the **Yes** button.

6 Add-ons

Add-ons are optional software components that significantly supplement or enhance the functionality of the instrument. Add-ons require activation prior to use (see section 5.4.3.7 Add-ons).

6.1 Add-on 1 “Remote Control“ (ID Nr. 56078995)

(Only available in XenoTouch controller with SD card interface)
Remote Control operates via a Virtual Network Computing (VNC) Server. A VNC Server is a graphical desktop sharing system to remotely and independently control another computer platform. It transmits the keyboard and mouse events from one computer to another, relaying the graphical screen updates back and forth over a network.

Your instrument utilizes the VNC server which requires a VNC client (viewer) to access the server. It is recommended to use the VNC viewer from RealVNC. This is free software and is distributed under the terms of the GNU Public License. The current version of the VNC software can be downloaded from the website below. Please note when visiting this website that the viewer is available for different platforms.

http://www.realvnc.com

☞ **NOTE – You will find a certified and approved version on the SD card**
To connect to your instrument, start the VNC viewer on your desktop and enter the IP address and the password of your instrument (see section 5.4.3.8.4 Remote Control). When connected, you can remotely control your instrument. For security and safety purposes, all users are logged off automatically. To operate the instrument, operators must log in again. When a VNC connection is established, the IP address of the VNC client will be shown in the status bar of the instrument.

The window name of the VNC client is the host name of the instrument (instrument type and the serial number for example: “SUNTEST XXL+ 0909099”).

6.2 Add-on 2 “E-Mail Service“ (ID Nr. 56078996)

(Only available in XenoTouch controller with SD card interface)
To send E-Mails, a SMTP server must be provided by the customer. When properly configured, the instrument sends an E-Mail when an error or warning occurs or when the test ends (see section 5.4.3.8.2 SMTP and section 5.4.3.8.3 E-Mail Service).

6.3 Add-on 3 “Online Monitoring“ (ID Nr. 56078997)

(Only available in XenoTouch controller with SD card interface)
Online monitoring is available through an embedded web server. The web server can be accessed from any PC within the local network via a browser such as Internet Explorer or Firefox. The web page shows information about the current status of the instrument.

To connect the web server, enter the IP address of your instrument in the address line of the browser window (see section 5.4.3.8.1 IP Address). An authentication with user name and PIN is required (see section 5.6 User profiles).

This authentication scheme is a non-secure method of filtering unauthorized access to the web server, because the user name and password are passed over the network as clear text. It is based on the assumption that the connection between the client and the server can be regarded as a trusted carrier (local network).

7 Troubleshooting

Problem	Solution
Test chamber door open. Please close!	Close the door
The water tank is empty. Please refill!	Refill the water reservoir
Housing cover open. Please close!	Close the housing cover
The water level in the humidifier is low.	Check the hose connection Check the immersion pump Check that the unit is level
Lamp won't ignite	Check that the xenon lamp is installed properly Check the xenon lamp fuse Check the age of the xenon lamp and replace it as required
Parameter monitoring: Irradiance exceeds acceptable tolerance	Check the test parameters The maximum permissible program parameter tolerance value has been set too low Insufficient time before error message output specified Clean or replace filter system Check that the correct filter system is being used Check that the correct filter system is programmed Check the age of the xenon lamp
Parameter monitoring: The chamber temperature exceeds the acceptable tolerance	Check the test parameters The maximum permissible program parameter tolerance value has been set too low Insufficient time before error message output specified Check or replace the air filter Ambient temperature too high
Parameter monitoring: BST/BPT exceeds the acceptable tolerance	Check the test parameters The maximum permissible program parameter tolerance value has been set too low Insufficient time before error message output specified Check the age of the xenon lamp
Parameter monitoring: The RH exceeds the acceptable tolerance	Check the test parameters The maximum permissible program parameter tolerance value has been set too low Insufficient time before error message output specified
Parameter monitoring: The BST/BPT exceeds the maximum limit	Check the test parameters Maximum black standard temperature setting too low Check the age of the xenon lamp
Parameter monitoring: Specimen spray failure.	Check the connections of the spray rod Clean nozzle Check position of the BST/BPT sensor
The setpoint of irradiance can't be reached.	Check or replace the filter system Check that the correct filter system is being used Check that the correct filter system is programmed Check the age of the xenon lamp Clean the unit
Abnormality of light sensor detected. Please perform calibration.	Clean the unit and filter system, perform customer calibration

7 Troubleshooting

Problem	Solution
The recommended lifetime of the lamp has been exceeded	Replace the xenon lamp
Rack is blocked	Remove the obstruction
Side door is open. Please close!	Close the side door
The immersion unit is not ready for operation. Please check main switch, water fill level and temperature sensor	Check main switch, fill level and temperature switch.
The spray unit is not ready for operation. Please check main switch and water level	Check main switch and fill level.
Lamp cassette not properly installed!	Please check the lamp cassette.
Abnormality of light sensor detected. Please perform calibration.	Clean device Clean or replace filter system Check age of the xenon lamps Check whether right filter system is used Calibrate light sensors
XENOSENSIV® RC: No connection	No radio contact can be made with the sensor. Insert new battery in XENOSENSIV RC Insert XENOSENSIV RC in the test chamber. Assign XENOSENSIV RC to the device Check whether the radio connection in the 2.4 GHz band is possibly disrupted by a WLAN or other radio transmissions. A WLAN sniffer such as InSSIDer from Metageek can be used for this purpose. The frequency used by the XENOSEN-SIV RC can be set at the device control. (See Chapter 5.4.3.1. b XENOSENSIV RC)
XENOSENSIV RC: The battery will no longer hold a charge.	The battery voltage has dropped below 2.8 V. Insert new battery in XENOSENSIV RC
XENOSENSIV RC: Sensor is not in the chamber!	Insert XENOSENSIV RC in the test chamber
Change lamp! The life of the lamp has expired. Proper operation of XenoLogic is no longer guaranteed.	Install new lamp set
Over temperature at left lamp	Contact Technical Service
Over temperature at center lamp	Contact Technical Service
Over temperature at right lamp	Contact Technical Service
Over temperature at heater	Contact Technical Service
Over temperature at lamp power supply	Contact Technical Service
Over temperature at lamp cooling system	Contact Technical Service

7 Troubleshooting

Problem	Solution
Turning mode gear unit failure	Contact Technical Service
Air vent drive unit failure	Contact Technical Service
NVRAM and Checksum do not have spaces	Contact Technical Service
NVRAM memory missing	Contact Technical Service
No connection to the I/O board Please call service	Contact Technical Service
The maximum chamber temperature has been exceeded	Contact Technical Service
The maximum surface temperature has been exceeded.	Contact Technical Service
The chamber fan is not working properly	Contact Technical Service
No water flow in spray nozzle.	Contact Technical Service

8 Instrument software update

Device control update
The memory card is included in the standard equipment delivery. It is used for transmitting data to the device, particularly if the device is not connected to a network. In general, updates for the device control are sent via E-Mail from Atlas to the user. These updates are copied to the memory card to be implemented in the device control.

CAUTION – File names!
The file names of the update software version that is mailed (or sent via E-Mail) are always identical. It is not possible to identify the program version from the file names. Upon delivery of the device, the factory installed version is stored on the memory card. Prior to starting an update routine, make sure that a backup copy of the currently used program version exists.

CAUTION – Data Loss!
When updating your software, instrument test data might get lost. Therefore, we recommend that you make note of the instrument and customer specific data, i. e. your own specific programs, operating hours and calibration data. In addition, an ongoing test should be terminated or the user should wait until the test has completed before performing the update.

NOTE
An ongoing test should be terminated before performing an update.

To carry out an update:
1. Store the file UPDATE.BIN and INSTALL.BIN sent via E-Mail on the memory card.
2. Switch the device off.
3. Insert the memory card into the slot.
4. Switch the device on.
5. Activate the function START SOFTWARE UPDATE in the display and follow the information on the screen.

NOTE – Restart:
Upon completion of an update, the device must be powered up.

- Remove the memory card from the slot.
- Switch the device off.
- Switch the device on again.

NOTE – Identifying the software version:
Details about the currently installed software version can be requested in the Help dialog window.

9 Device interfaces

RS 232 interface:

1. Bits per second: 19,200
2. Data bits: 8
3. Parity: none
4. Stop bits: 1
5. Flow control: none

Interface at touch screen (9-pole plug)			Personal Computer (9-pole plug)
TxD	2	⟷	2 RxD
RxD	3	⟷	3 TxD
GND	5	⟷	5 GND

Description cable:
Sub D connector, 1:1
9 pol., socket/plug

Example of a data output via the serial interface. There may be deviations depending on the instrument and configuration.

TIME	PN	PZ	CHT	BST	RH	IRR	…
14:45:00	01	0060t	30.0	80.0	50.0	0.0	…
14:46:00	01	0059t	30.0	80.0	50.0	0.0	…
14:47:00	01	0058t	30.0	80.0	50.0	0.0	…

PN = phase number
PT = phase time
CHT = chamber temperature in °C
BST = black standard temperature in °C
RH = relative humidity in %
IRR = irradiance in W/m²
... = other instrument-specific data

USB interface:

- inactive

Network card:

- Integrated Fast Ethernet Controller (3C905C-TX compatibel)

9 Device interfaces

Memory Card:

- For software updates and data acquisition

Example of a data output to the SD card. There may be deviations depending on the instrument and configuration.

Date	Time	Phase nr	Water	Phase value	Phase type	CHT	BST	RH	300-400 nm	…
13.11.2014	13:53:32	01	Off	0121	time	39.5	49.0	26.6	0.0	…
13.11.2014	13:54:32	01	Off	0120	time	39.5	48.9	26.6	0.0	…
13.11.2014	13:55:32	01	Off	0119	time	39.1	56.8	45.8	89.4	…
13.11.2014	13:56:32	01	Off	0118	time	41.1	70.8	43.1	75.6	…
13.11.2014	13:57:32	01	Off	0117	time	44.0	79.3	40.0	74.7	…
13.11.2014	13:58:32	01	Off	0116	time	47.5	86.2	36.1	74.6	…

CHT = chamber temperature in °C
BST = black standard temperature in °C
RH = relative humidity in %
300-400 nm = irradiance in W/m² @ 300nm -400nm
... = other instrument-specific data

10 Notes

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