VersaProbe Pro™

Operating Instruction

Contents:

1229 W. Cortland St. · Chicago, IL 60614-4805 · Phone: 1-800-621-1296 ·
Fax: 1-800-99FAXUV · Email: info@uvps.com

1. Description

VersaProbe Pro™

+ UV-intensity mW/cm²
+ UV-peak intensity mW/cm²
+ UV-dose mJ/cm²
+ 30 sec permanent or triggered scan
+ re-chargeable Accu-Pack

The CON-TROL-CURE® VersaProbe Pro™ is a self-contained, high quality UV measuring instrument. It is designed to measure and display UV intensity in mW/cm². An additional function is the scan of the peak value of UV-intensity in mW/cm² and to measure the UV dose in mJ/cm² within a pre-set period of 30 seconds.

In the standard version it is equipped with one UV sensor for the measuring of:

Full UV spectral area 250 – 410 nm (Standard)

Due to its UV sensor and the integrated microprocessor the CON-TROL-CURE® VersaProbe Pro™ can measure and display the peak UV-intensity of the full UV spectrum (mW/cm²).
Additionally, this CON-TROL-CURE® VersaProbe Pro™ is calculating the UV-dosage (mJ/cm²) of the UV energy supplied during the time of exposure of one measuring cycle. The UV-dosage is calculated as the total Integral of UV-dosage over the full UV spectral bands.

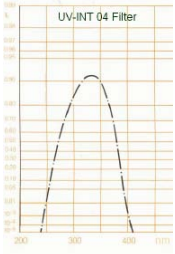
The removable, probe-type sensor is connected to the base unit by a cable of approx. 1 meter (40") length. In the function "Direct" the actual UV-intensity in mW/cm² supplied to the sensor is measured. The function "Scan" will start a 30 second measuring cycle of both, UV-intensity and UV-dose. After completion of the measuring cycle the measuring results can be scrolled through on the built in 2 x 16 digit LCD display.
A special AUTO-OFF feature that turns off the unit automatically after one minute serves as energy saving and extension of the battery service life.

The CON-TROL-CURE® VersaProbe Pro™ is available in four different measuring ranges:

(Please state upon order)

M007-155 Full-UV	250 – 410 nm
M007-156 UV-A	315 – 400 nm
M007-157 UV-B	280 – 315 nm
M007-158 UV-C	230 – 280 nm

In the standard version
it is measuring an integral
in the spectral range
from 250-410 nm,
with a peak
at the area of 330 nm.



2. Technical Data

Spectral range:	UV 250 – 410 nm (Standard) or other
Max. Power Input	0 to 5,000 mW/cm^2
Display:	LCD, 2x16 digits
Display range:	0 to 60,000 mJ/cm^2
Measuring range:	0 to 2,000 mW/cm^2
Sampling rate:	0.005 sec (200/sec)
Recording cycle:	30 sec.
Power source:	7.4 V LiPo Accu-Pack, re-chargeable
Power consumption:	20 µA
Accu service life:	approx.: 1,000 charges
Dimensions:	5.5” (120 mm) x 3” (75 mm) x 0.4”(10 mm)
Weight:	approx. 6 ounce (150 g)
Dimensions of probe:	Ø 1.5” (40 mm) x 0.4” (10 mm)
Length of probe cable:	approx. 40” (1 meter)
Operating temperature:	32 to 113° F / 0 to 45° C
Base Accuracy:	± 5 %

While measuring, the metal-housed probe of the CON-TROL-CURE® VersaProbe Pro™ can withstand max. 230° F / 110° C for up to 10 seconds.
Because of uneven radiation distribution of the UV light source and different type of construction of the measuring devices by different manufacturers, different readings may appear under the same measurement conditions.

Calibration:

In order to keep its full function and precision it is recommended to have re-calibration done once per year. Re-calibration will also be necessary after change of battery. PTB traceable calibration with certificate

Attention:

1. Please avoid shaking the CON-TROL-CURE® VersaProbe Pro™.
2. Do not expose to excessive heat.
3. UV-light is hazardous to your health. Avoid direct UV-light to your eyes and to your body.

Warranty: 2 years from the date of purchase

3. Instructions for use

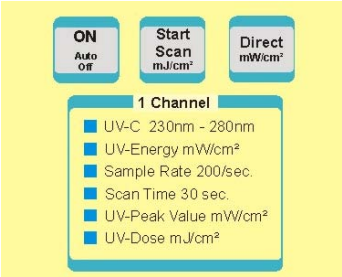
3.1. Reload of stored values:

Prior to the execution of a new measuring cycle the internally stored measuring values of the last measuring scan can be reloaded and displayed.

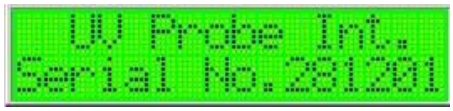
Please note:
The storing of the values of the latest measuring scan will overwrite all internally stored values.

3.1.1. Booting Sequence

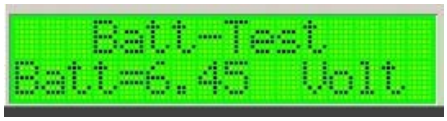
Turn on the CON-TROL-CURE® VersaProbe Pro™ by pressing the „ON“ button left.



Within the 5 second booting sequence the following information will appear in short sequence in the display:



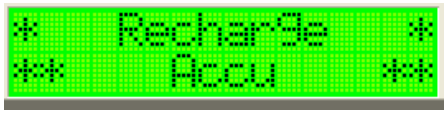
Starting display with serial number (example)



Remaining voltage of Accu-Pack (example)

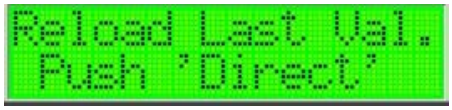
Attention:

If the voltage of the accu-pack drops below 6.4 Volt the following indication shows up in the display and it is necessary to re-charge the accu-pack (s. 4.0 charging of the accu-pack p. 12)

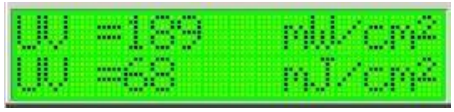


Please note:

In order to read the stored measuring values of the last measuring sequence, please press the "**Direct**" button during this 5 sec. booting sequence.



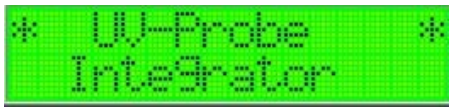
Reload Last Value: Push: "Direct"



stored measuring values of the last measuring cycle (example)

Please note:

If no further action is taken, after 10 seconds the starting display appears again.



Starting display

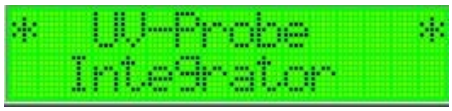
The CON-TROL-CURE® VersaProbe Pro™ allows to take two different measuring methods:

- **Direct measuring of UV-intensity in mW/cm²**
  (please refer to 3.2. on page 6)

- **Integration measuring of the UV-energy in mJ/cm² over a defined period**
  (permament scan or triggered)
  (please refer to 3.3. on pages 8ff)

3.1.2. Preparation for a measuring cycle:

If, during the booting sequence, no action is taken (e.g. reload of the last values) the display of the CON-TROL-CURE® VersaProbe Pro™ automatically changes to the starting display:



Starting display

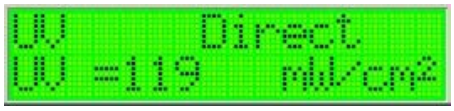
3.2. Direct measuring of UV-intensity in mW/cm²

Connect the sensor with the base unit.

After turn on the CON-TROL-CURE® VersaProbe Pro™ and after passage of the starting sequence press the „Direct“ button right, in order to enter the menu direct measuring of UV-intensity .

The following information appears in the display:

Place the sensor under the UV-light to the desired position for the measuring.
The display shows exactly the corresponding UV value of this particular position in mW/cm²



UV-intensity in mW/cm² (sample value)

Please note:

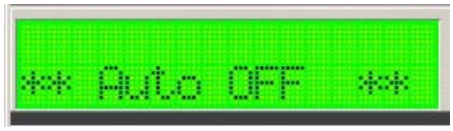
For physical reasons the distribution of the UV-intensity underneath a UV-lamp is not homogeneous.
By moving the sensor within the measuring area the actual UV-energy of the respective location will be measured and displayed.

For the execution of a new measuring proceed as described above.

Please note:

AUTO OFF
In order to save battery energy and thus extend life-time the CON-TROL-CURE® VersaProbe Pro™ features an AUTO-OFF function that will turn of the instrument automatically if for more than one minute no action is taken.

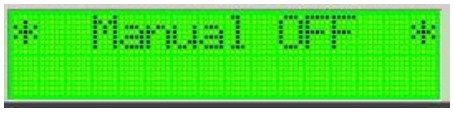
Right before turn-off the display shows:



MANUAL OFF
Furthermore, it is possible to turn off the CON-TROL-CURE® VersaProbe Pro™ manually.

Please note:

Pressing the ON button while the instrument is ON will turn off the CON-TROL-CURE® VersaProbe Pro™ . Right before turn-off the display shows:

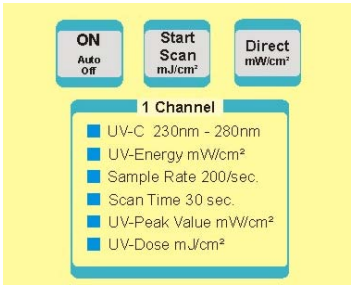


3.3. Integration measuring of the UV-energy in mJ/cm² (permanent scan or triggered scan)

3.3.1. Integration measuring of the UV-energy in mJ/cm² (permament scan)

Connect the sensor with the base unit.

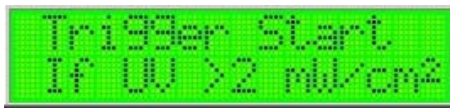
Place the sensor under the UV-light to the desired position for the measuring. After turn on the CON-TROL-CURE® VersaProbe Pro™ and after passage of the starting sequence press the „Start Scan mJ/cm²„ button in the middle, in order to enter the menu Integration measuring of UV-dose .

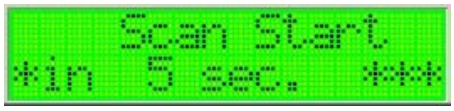


The instrument starts a 5 seconds sequence for booting in order to prepare the measuring.

Please note:

During this period two different display indications appear in short sequence. To do a triggered scan please press the “Direct” button within these five seconds. If no action is taken, the instrument is starting the permanent scan for the pre-set time.



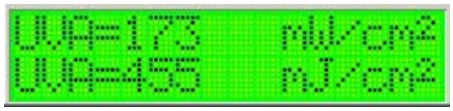


The display is counting down to Zero until the Scan start.

During the 30 seconds measuring cycle the actual UV-values are displayed and can be viewed directly in mW and mJ.
In the course of the measuring cycle the highest measuring value of the UV-intensity will be recorded and frozen as peak value in mW/cm², while the integration of the UV-energy goes on until the end of the measuring cycle.

In the course of the measuring cycle the highest measuring value of the UV-energy will be recorded and “frozen” as peak value in mW/cm², while the integration of the UV-energy goes on until the end of the measuring cycle.

After termination of the 30 seconds measuring cycle, the integrated measuring result (UV-dose) in mJ/cm² as well as the measured peak value of the UV-intensity in mW/cm² will be displayed as follows.



scan values for UV-A (mW and mJ) – sample values –

Please note:
By pressing the scan function the internally stored measuring values of the last measuring cycle are automatically overwritten with the present measuring values.

The measuring results are stored internally and can be recalled any time by pressing again the “ON“ button and viewing the starting sequence as described above.

Attention:

The 30 seconds measuring cycle can be stopped anytime by pressing the „Start Scan mJ/cm²“ button a second time. The measuring values recorded up to this moment are calculated and displayed as the final measuring result.

To start a new measuring cycle please proceed as described above.

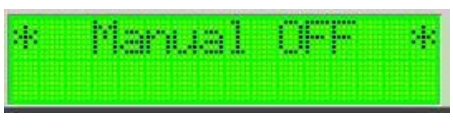
Please note:

AUTO OFF
In order to save battery energy and thus extend life-time the CON-TROL-CURE® VersaProbe Pro™ features an AUTO-OFF function that will turn of the instrument automatically if for more than one minute no action is taken.

Right before turn-off the display shows:

MANUAL OFF
Furthermore, it is possible to turn off the CON-TROL-CURE® VersaProbe Pro™ manually.

Pressing the ON button while the instrument is ON will turn off the CON-TROL-CURE® VersaProbe Pro™ . Right before turn-off the display shows:



3.3.2. Integration measuring of the UV-energy in mJ/cm² (triggered scan)

The CON-TROL-CURE® VersaProbe Pro™ offers a special feature. In the triggered scan mode, the instrument will only start its scan if the UV-Intensity is above 2 mW/cm²
If the UV-Intensity drops below 2 mW/cm² the triggered scan will stop.

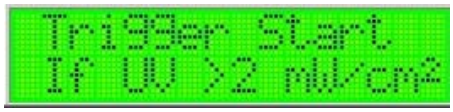
In order to execute a triggered scan please proceed as follows:

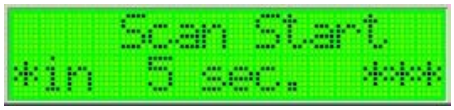
Connect the sensor with the base unit.

Place the sensor under the UV-light to the desired position for the measuring.
After turn on the CON-TROL-CURE® VersaProbe Pro™ and after passage of the starting sequence press the „Start Scan mJ/cm²„ button in the middle in order to enter the menu Integration measuring of UV-dose .

The instrument starts a 5 seconds sequence for booting in order to prepare the measuring.

During this period two different display indications appear in short sequence.





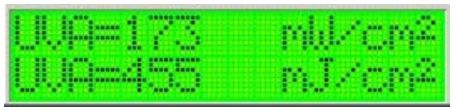
Important note:

To do a triggered scan you must press the “Direct” button within these five seconds of the booting sequence.

If no action is taken, the instrument is starting the permanent scan for the pre-set time.

In the course of the measuring cycle the highest measuring value of the UV-intensity will be recorded and “frozen” as peak value in mW/cm², while the integration of the UV-energy goes on until the end of the measuring cycle.

After termination of the triggered scan, the integrated measuring result (UV-dose) in mJ/cm² as well as the measured peak value of the UV-intensity in mW/cm² will be displayed as follows:



scan values for UV-A (mW and mJ) – sample values –

Please note:

By pressing the scan function the internally stored measuring values of the last measuring cycle are automatically overwritten with the present measuring values.

The measuring results are stored internally and can be recalled any time by pressing again the “ON“ button and viewing the starting sequence as described above.

Attention:

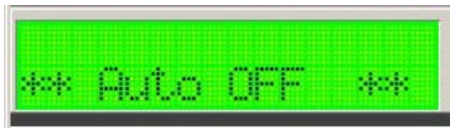
The triggered scan can be stopped anytime by pressing the „Start Scan mJ/cm²“ button a second time. The measuring values recorded up to this moment are calculated and displayed as the final measuring result.

To start a new measuring cycle please proceed as described above.

Please note:

AUTO OFF
In order to save battery energy and thus extend life-time the CON-TROL-CURE® VersaProbe Pro™ features an AUTO-OFF function that will turn of the instrument automatically if for more than one minute no action is taken.

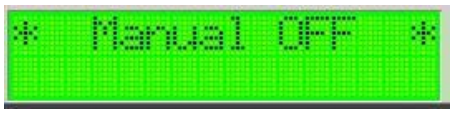
Right before turn-off the display shows:



MANUAL OFF
Furthermore, it is possible to turn off the CON-TROL-CURE® VersaProbe Pro™ manually.

Please note:

Pressing the ON button while the instrument is ON will turn off the CON-TROL-CURE® VersaProbe Pro™ . Right before turn-off the display shows:



4. Re-charge of the Accu-Pack

The CON-TROL-CURE® VersaProbe Pro™ is equipped with a 7.4 V LiPO re-chargeable Accu-Pack.
A special designed battery charging unit is included.

Please note:

Due to locally various types of mains sockets the battery charging unit requires a suitable connection cable

battery charging unit LZUSDO2004
(sample picture, may vary according to availability)

CAUTION:

To prevent hazard of electrical shock please check your local power supply and check the compatibility with your Battery Charging Unit LZUSDO2004 .

The Battery Charger is designed for indoor use only.

Do not use any tools and do not try to open the battery charger!

Low Voltage Indication

During the booting sequence of the CON-TROL-CURE® VersaProbe Pro™ (please refer to 3.1.1. on page 4) the remaining voltage of the Accu-Pack is shown in the display

Sample value 6.45 Volts (sample)

If the voltage of the Accu-Pack has dropped to 6.4 Volts or lower, it need to be re-charged.

Attention:

In order to prevent damages to the CON-TROL-CURE® VersaProbe Pro™ please use the Battery Charging Unit, originally supplied with the CON-TROL-CURE® VersaProbe Pro™, only.

Charging procedure of the Accu-Pack:

To charge the Accu-Pack, first connect the Battery Charger supplied, (e.g.) LZUSDO2004 with the CON-TROL-CURE® VersaProbe Pro™ as shown in the picture below.

Then connect the Battery Charging Unit (LZUSDO2004) of the CON-TROL-CURE® VersaProbe Pro™ with a suitable connection cable to your local mains power supply (100 – 240 V/ 50-60 Hz)

CAUTION:

Do not use any tools!

Do not use force!

Attention:

The Accu-Pack consists of modern, high quality LiPO rechargeable accumulators which do not have the “memory effect” known from older type accumulators. However, in order to extend the life-time of the Accu-Pack, it should not be re-charged if not indicated and necessary.

Do not over-charge the Accu-Pack.

The maximum recommended charging time is 10 hours.

5. Certificate of Calibration and Guarantee Card

1229 W. Cortland St. · Chicago, IL 60614-4805 · Phone: 1-800-621-1296 ·
Fax: 1-800-99FAXUV · Email: info@uvps.com