

INSTRUCTION MANUAL
MEASUREMENT PROGRAM

UVR-T2

INTRODUCTION

Thank you so much for your purchasing our product, industrial UV Checker UVR-T2.

Measurement program is the software for Industrial UV Checker UVR-T2. This program, which is installed PC, can obtain and save measurement data.

This is instruction manual for measurement program. Refer this instruction manual carefully before using.

RECOMMENDATION FOR USE

- Concurrent use of other software may impede communication with the measuring device. We recommend you close other programs while running measurement program.
- Avoid customized software and other programs not approved for general use on personal computers with the measurement program installed. Such software may cause malfunctions.
- Save Phosphorescence luminance data between measurements.

ESCAPE CLAUSES





- We are not responsible for the damages caused by various problems such as, fire, earthquake, behaviors by other persons, other accidents, intentional or negligent or wrong use of the device by the operator, and the use of the device under abnormal conditions.
- We are not responsible for incidental damages arising from the use or unavailability of the software (loss of business income, business interruption, etc.).
- We are not responsible for the damages caused by the uses other than specified in the Instruction Manual.
- We are not responsible for the damages caused by the installation or execution of the software and the malfunction of other software and PC.
- We are not responsible for the damages caused by the malfunction due to the combination with the connecting devices.

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MANUAL CONVENTIONS

This manual employs the following conventions for ease to use.

Notation	Description
[Measure] [Receive]	Square brackets are used to indicate the wording on buttons, tabs, menu item, keys on the keyboard and other similar items.
 ‘ ’	Indicates a reference to another section in this manual
 “ ”	Indicates a reference to another manual
 Request	Indicates tips to remember to ensure operations go smoothly.
 Memo	Indicates tips that are handy to know when performing an operation.

1. OUTLINE

1.1 FEATURES AND FUNCTIONS

-Feature

This software can communicate with UVR-T2, control the measuring, change settings, and operate the calibration.

-Function of obtaining measured data

This software can conduct the specified number and interval of measurements. This software can display measured data in a software window with value and graph and output to a file in the PC.

-Communication

USB 2.0


1.2 OPERATING ENVIRONMENT

Operating environment of this software are as follows;

OS	Windows® 10 Pro (32bit／64bit) Windows® 11 Pro (64bit)
CPU	Intel® Core™ i3 2.4GHz or higher ※In the 64bit, the UVPF-A2 support amd64 only
Memory	1GB or more
HDD	1GB or more
Port	USB 2.0 port (One port)
Display	1024×768 or more
Others	CD-ROM Drive
Language	English

※ Windows is trademark and registered trademark by Microsoft Corporation

※ Intel is a trademark and registered trademark of Intel Corporation.

 Request	Other software installed in the PC and PC condition may affect the communication with the instrument. When there is problem with communication, contact your dealer or TechnoOptis.
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2. PREPARATION

2.1 SOFTWARE INSTALLATION

Install the software by the following procedure.

- 1** Set the CD-ROM of this software to the CD-ROM drive.
- 2** Open the CD-ROM drive from Explorer. According to the personal computer being used, copy the “UVR-T2.exe” from file in the “[×86] (32bitOS)” or “[×64] (64bitOS)” folder within the [Measurement Program] folder.

2.2 CONNECTING TO PC

Use USB cable (Cable type: A connector – Micro B connector) to connect the UVR-T2 to PC.



Memo

- About specification of interface in PC, Refer to instruction manual of the PC.

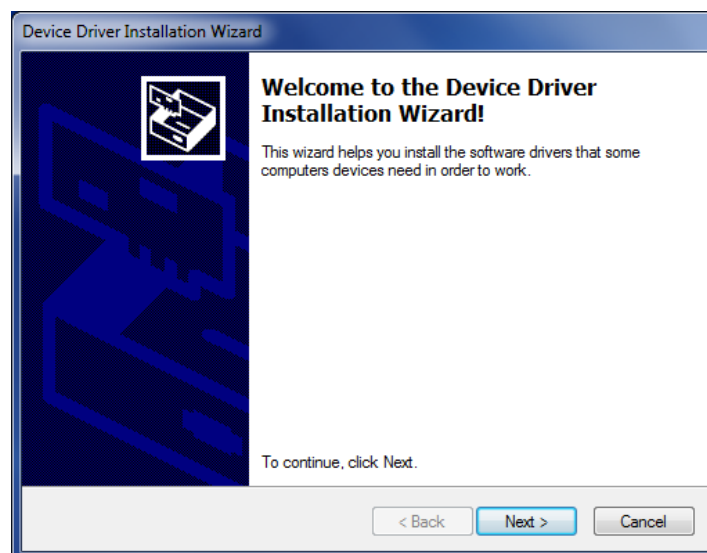
2.3 USB DRIVER INSTALLATION

Install the USB driver by the following procedure.

- 1 Set the CD-ROM of this software to the CD-ROM drive.
- 2 Select and double-click the “dpinst.exe” file in [¥USB_DRIVER¥{os name}¥x86 or x64] folder in the CD-ROM via Explorer.

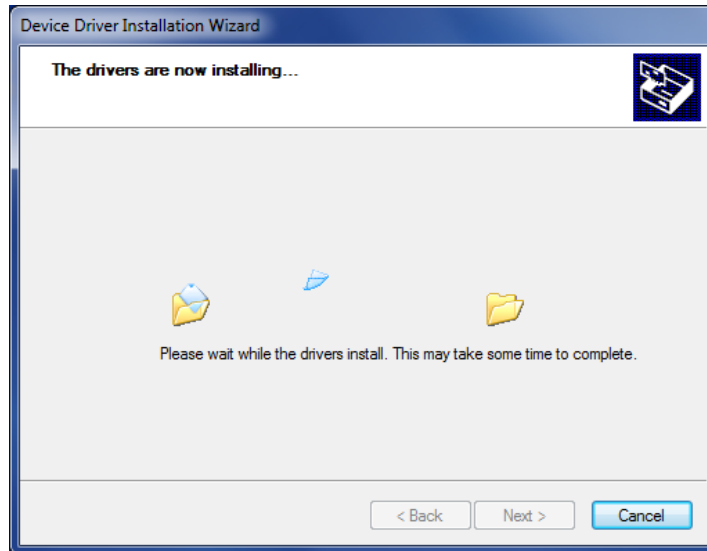
For example, in the case of Windows10/11(64bit),
it becomes [USB_DRIVER¥Windows10¥x64]

- 3 The “User account control” dialog box is displayed. Click the [Yes] button.
- 4 The “Device driver install wizard” dialog box is displayed. Click the [Next] button.

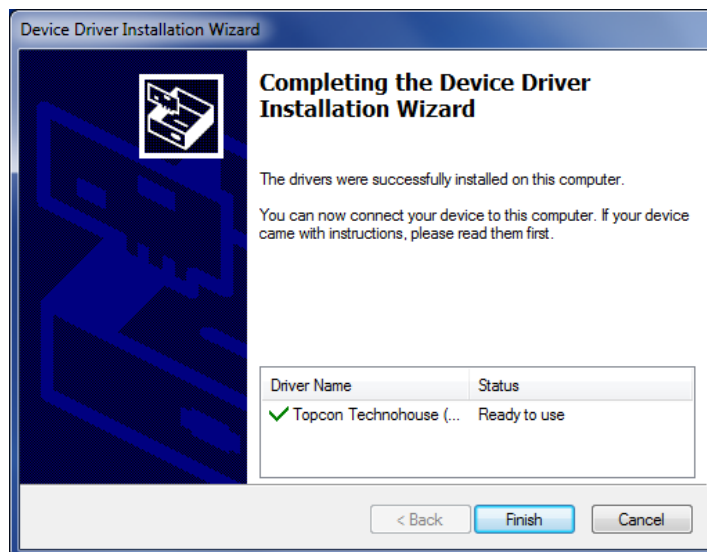


- 5 Windows security dialog may be displayed depending on OS type and security setting. If it is displayed, select [Install] and continue.

- 6 The following screen is displayed. Installation starts.




- 7 When the driver installation is completed, the following screen appears. Click the [Complete] button.

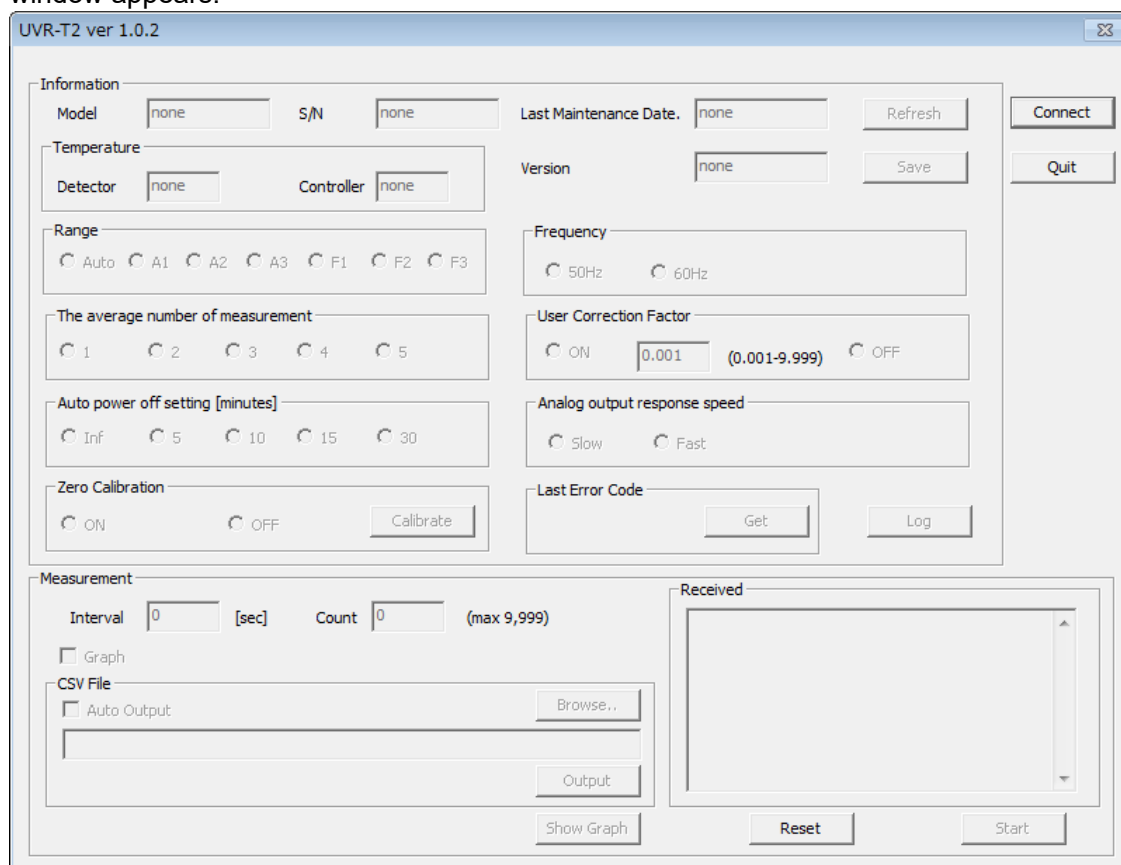


3. BEFORE MEASUREMENT

3.1 START OF SOFTWARE

To start this software, proceed as follows.

- 1 Double click UVR-T2.exe (the icon ) which you copied from CD-ROM, and then following window appears.



NOTICE

- When communicating with a measuring instrument, be sure to connect the measuring instrument with a personal computer through cables and then use this software.
- If the measuring instrument is measuring an object, be sure to stop measuring and then use this software.

- 2 Check the connection with the instrument. Click the [Connect] button.



When the connection is successful, the check message is displayed. Then, the instrument information is displayed on the initial screen.



NOTICE

- When the UVR-T2 instrument is turned off or the connectors are disconnected/connected while this software is starting, the communication with the UVR-T2 instrument is not performed.
- When this software is started under the condition that the UVR-T2 instrument is turned off and then the UVR-T2 is turned on, the software can communicate with the UVR-T2 by clicking the [Connect] button.
- If the measuring instrument is measuring an object, be sure to stop measuring and then use this software.

MEMO

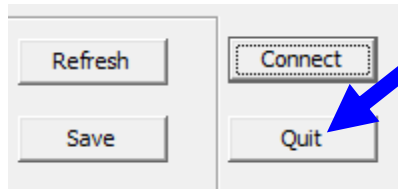
- When pressing the [Connect] button after measuring, the result of the last measurement is reset.

3.2 FINISH OF SOFTWARE

To finish this software, proceed as follows.

1 Finish

To finish the software, click the [Quit] button. The check message is displayed. Close the screen by using “Yes”. When selecting “No”, any operation is not done.



3.3 MEASUREMENT CONDITIONS

Perform measurement under the following conditions.

- Measurement range : Specified range
(Auto/A Range 1/A Range 2/A Range 3
/F Range 1/F Range 2/F Range 3)
- Measurement frequency : Specified frequency (50Hz/60Hz)
- Enabling/disabling of the measurement user zero calibration : Specified value (ON/OFF)
- Enabling/disabling of the measurement user correction factor : Specified value (ON/OFF)
- Value : Specified value (0.001 - 9.999)
- Auto power OFF : Specified value (INF (disabling)/5 minutes/10 minutes/15 minutes/30 minutes)
- Analog output response speed : Specified value (Slow/Fast)
- Average times in remote measurement : Specified value (1, 2, 3, 4, 5 times)
- Measurement times : Specified times (Maximum: 9999)
- Measurement interval : Intervals of specified time [s] (Maximum: 999 [s])
- Measurement unit : Refer to the instruction manual of the measuring instrument.

☞ “UVR-T2 Manual 4.4 Output Format”



NOTICE

- Discrepancy sometimes occurs temporarily in the time interval to output the measurement result.

1 Select the measurement range.

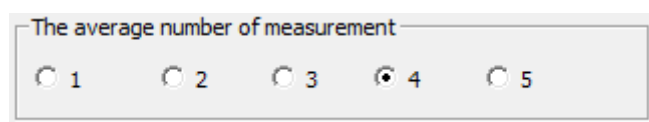
Select the desired measurement range by clicking a button in the [Range] group. “Auto” range automatically measures with the optimal range.

2 Select the measurement frequency.

Select the desired measurement frequency by clicking a button in the [Frequency] group.

3 Select the average times in remote measurement.

Select the desired average times in remote measurement by clicking a button in the [The average number of measurement] group.

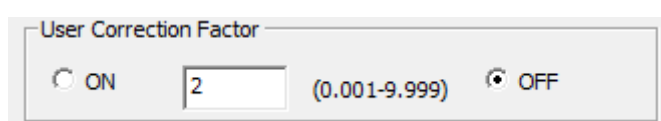


The average number of measurement

☐ 1 ☐ 2 ☐ 3 ☒ 4 ☐ 5

4 Select the user correction factor.

Select enabling/disabling of the user correction factor by clicking a button in the [User Correction Factor] group. When you want to use the user correction factor, select “ON” and enter a value of the user correction factor. (Set range: 0.001 - 9.999)

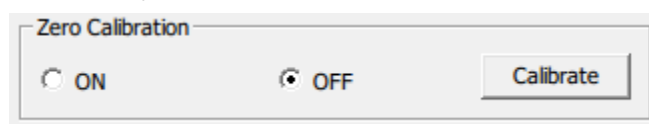


User Correction Factor

☐ ON (0.001-9.999) ☒ OFF

5 Select the user zero calibration.

Select enabling/disabling of the user zero calibration by clicking a button in the [Zero Calibration] group. When you want to execute zero calibration, click the [Calibrate] button.

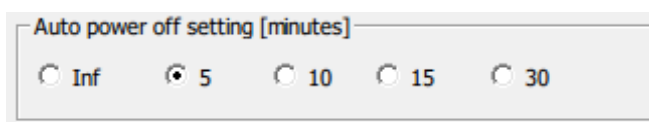


Zero Calibration

☐ ON ☒ OFF

6 Select the time of “Auto power OFF”.

Select the time of “Auto power OFF” by clicking a button in the [Auto power off setting [minutes]] group.

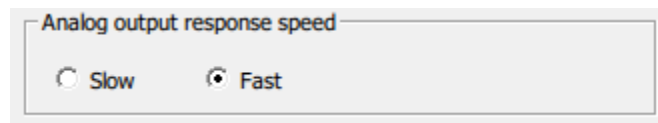


Auto power off setting [minutes]

☐ Inf ☒ 5 ☐ 10 ☐ 15 ☐ 30

7 Select the analog output response speed.

Select the analog output response speed by clicking a button in the [Analog output response speed] group.



8 Save the measurement conditions.

Click the [Save] button.

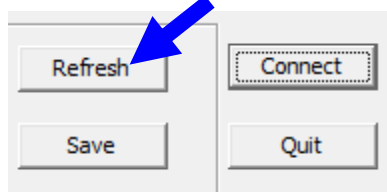


The check message is displayed. Select “Yes” to start saving. When clicking the [No] button, the measurement conditions are not saved.

The check message is displayed both when saving is successful and when it has failed.

9 Update the measurement conditions.

Click the [Refresh] button.



The software communicates with the measuring instrument and gets the newest information about the instrument and the newest measurement conditions. So the displayed data on the screen are changed.

10 Set the destination to output the result.

Just after the software has started, the check mark is not placed for [Auto Output] and the output destination path is not set.

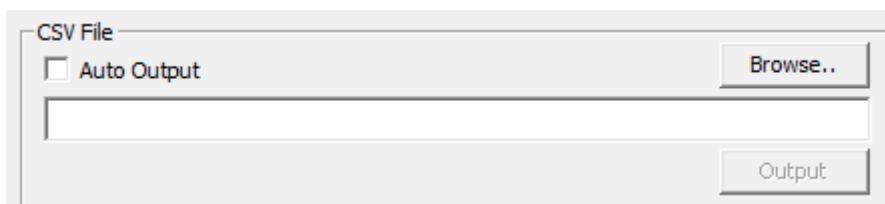
When you want to output the measurement result, place the check mark for [Auto Output] in [CSV File]. When you don't want to do so, remove the check mark from [Auto Output].

The measurement result is output to the path displayed with the CSV file format.

Click the [Browse...] button to set the output destination and the file name.

To change the path, carry out the same operation.

When you want to perform [Zero Calibration] of "4.3" mainly, the setting mentioned here is not necessary.



The screenshot shows a dialog box titled "CSV File". It contains a checkbox labeled "Auto Output" which is currently unchecked. To the right of the checkbox is a "Browse..." button. Below the checkbox is a text input field. At the bottom right of the dialog is an "Output" button.



NOTICE

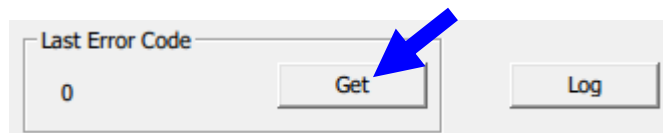
- If the measurement result is output to a folder without the writing authority, the result cannot be saved. Create a folder with the writing authority and save the measurement result into it.
- If the destination to output the measurement result is not input or if it is not possible to write data in the destination folder, an error message is displayed and the measurement result cannot be saved.
- The measurement result output depends on the checked/un-checked status of [Auto Output] just before starting measurement. You cannot change the checked/un-checked status of [Auto Output] during measurement.

MEMO

- When the existing file is specified as the measurement result output destination, the existing file is overwritten. Be careful.

11 Display of the newest error code

To display the newest error code, click the [Get] button in the [Last Error Code] group.

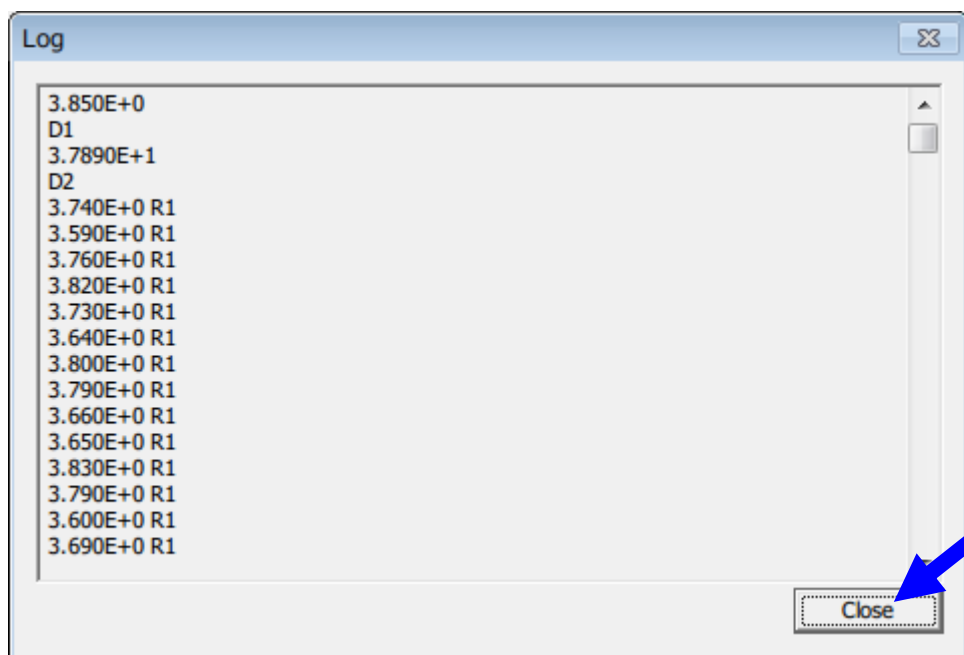
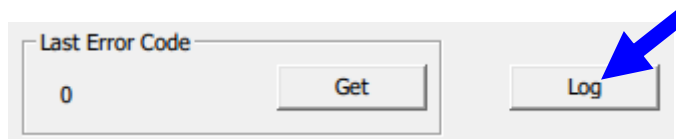


The screenshot shows a group box titled "Last Error Code". Inside the group box, there is a text field displaying the number "0". To the right of the text field is a "Get" button. A blue arrow points to the "Get" button. To the right of the "Get" button is a "Log" button.

☞ "UVR-T2 Manual 5.1 Instrument Error Code"

12 Display of the saved log

To display the log saved in the integral irradiance measurement mode, click the [LOG] button in the [Information] group. The contents of the log saved in the integral irradiance measurement mode are displayed on another screen.



Click the [Close] button on the displayed screen, and the screen is closed.

4. MEASUREMENT OPERATION

4.1 MEASUREMENT

Perform remote measurement through this software, using the measuring instrument connected with a personal computer.

When this software starts, the initial screen appears.

Click the [Connect] button to check the connection.

After checking the connection, set the measurement conditions, the measurement result output, etc.

☞ “3. BEFORE MEASUREMENT”

1 Start measurement.

Set the measurement interval and times in the [Measurement] group.

Just after the software has started, “0” is set for the measurement interval and times.

Input the time interval [s] to [Interval] and the measurement times to [Count]. Then, click the [Start] button.

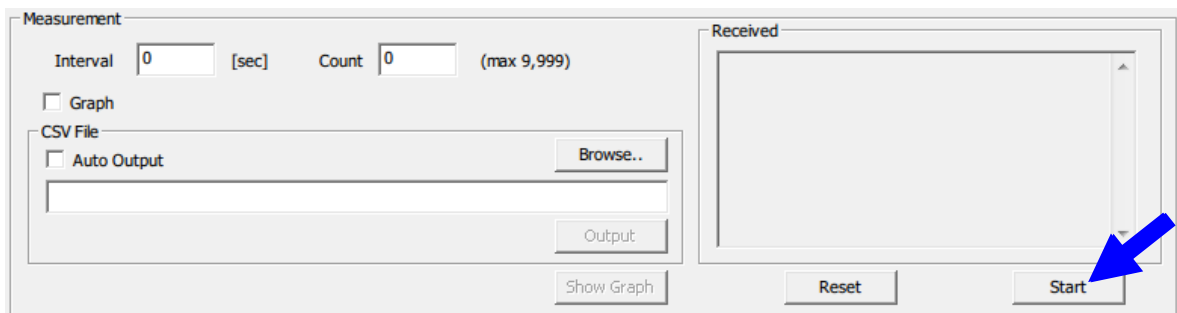
When placing the check mark for [Graph], the data being measured is displayed with a graph on another screen.


You can also start measurement with the [Start] button on the graph screen.

When measurement starts, the check message is displayed. Select “Yes” to start measurement.

When clicking the [No] button, measurement does not start.

When you want to perform [Zero Calibration] of “4.3”, performing the procedure mentioned here is not necessary.



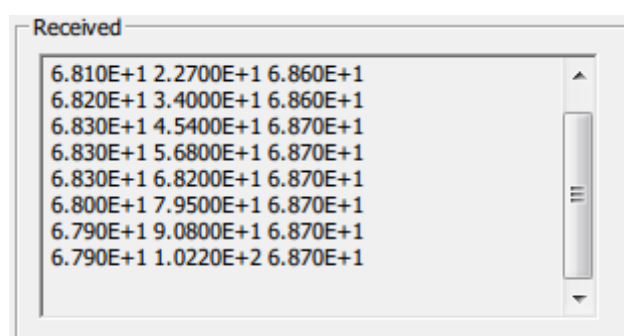
<p> NOTICE</p>	<ul style="list-style-type: none"> • If the communication with the measuring instrument is interrupted unexpectedly during measurement, measurement is stopped. • In such a case, the CSV file may not be output. • The measurement result output depends on the checked/un-checked status of [Auto Output] just before starting measurement. You cannot change the checked/un-checked status of [Auto Output] during measurement. • The speed of the measurement result output may be decreased due to the personal computer environment.
--	--

MEMO

- The range of the measurement interval is 0 to 999 [seconds]. When “0” is set, the interval is “Average times in remote measurement × 0.1 [seconds]”.
- The range of the measurement times is 0 to 9999. When “0” is set, “9999” is specified as the measurement times.
- When the measurement conditions are changed, the message to check writing is displayed at the measurement startup. Select “Yes” to save the changed measurement conditions. Then, start measurement. When clicking the [No] button, the changed measurement conditions are not saved and measurement does not start.
- When you want to stop the measurement after it has started, click the [Stop] button. The measurement is stopped.
- When you press the [Start] button again to perform the remeasurement after measurement has been finished, the last measurement result is reset at the remeasurement startup.

The measurement result is displayed at the following [Receive] column. When the check mark is placed for [Auto Output] that is provided for the measurement result output, the same measurement result is output as a file to the displayed path.

 “4.2 Measurement Output File”



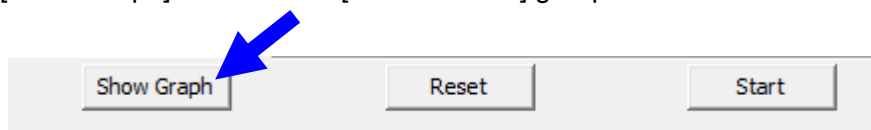
MEMO

- The newest measurement results are displayed up to 50 on the screen.

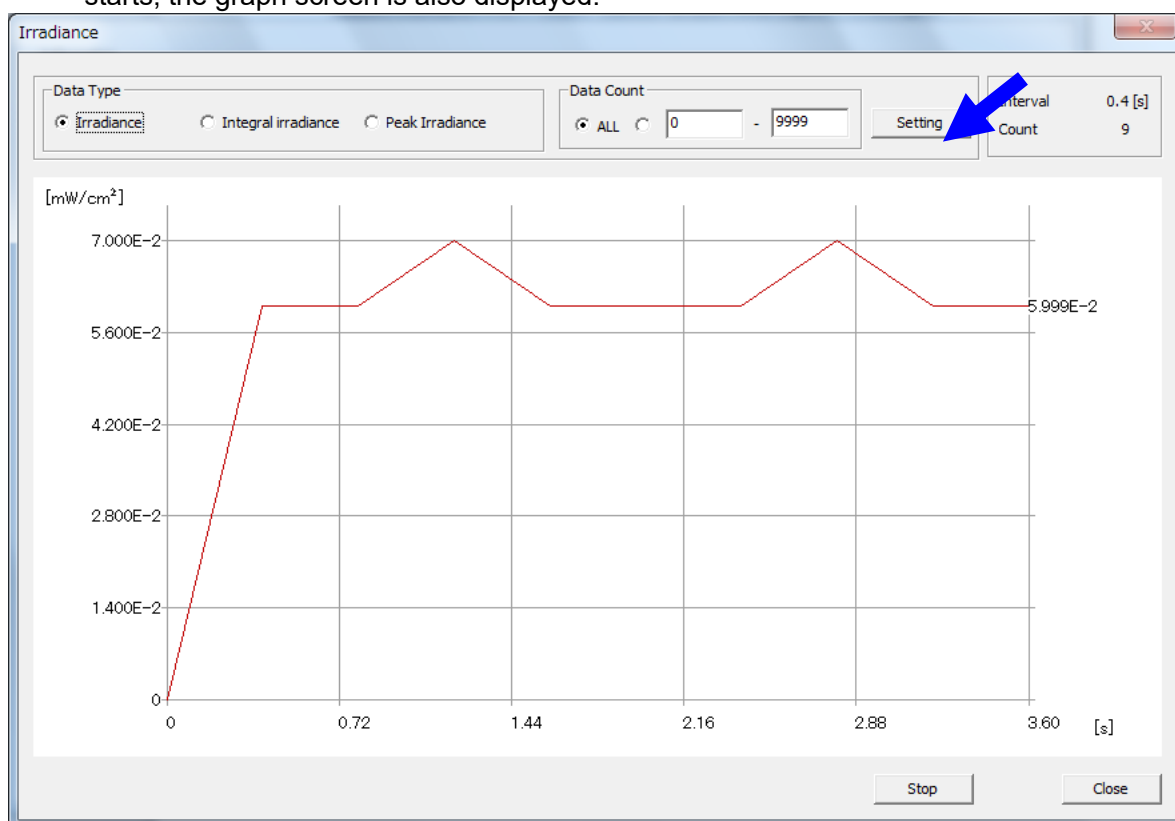
2 Graph screen

When the measurement data exists, the [Show Graph] button is usable.

Click the [Show Graph] button in the [Measurement] group.



When the check mark is placed for [Graph] in the [Measurement] group and the measurement starts, the graph screen is also displayed.



You can change the type and quantity of the displayed data by clicking the [Setting] button. The graph screen is closed with the [Close] button.

Just after the software has started, "Irradiance" is set for the data type and "ALL", for the measurement times.

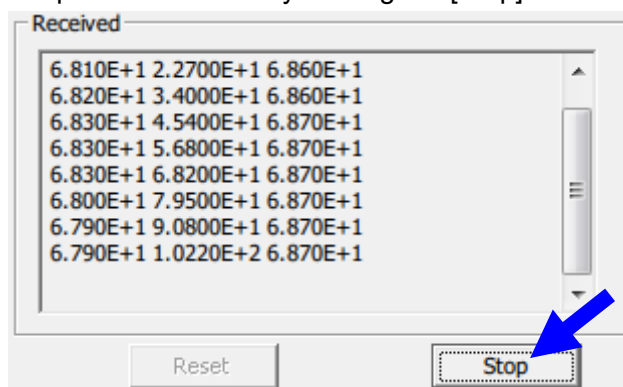
MEMO

- When "ALL" is set in the [Data Count] group, all measurement data are displayed.
- The range of the measurement times in the [Data Count] group is 0 to 9999. When the value beyond the range is specified, the measurement data up to the limit of the measurement times are displayed.
- As the maximum value of the vertical axis on the screen, the maximum value within the displayed measurement range is shown. When all the measurement data values are "0", the maximum value "1" is displayed.

3 Interruption of measurement

To interrupt measurement, click the [Stop] button in the [Measurement] group.

You can also interrupt measurement by clicking the [Stop] button on the graph screen.



After clicking the [Stop] button, measurement is stopped and the message telling the interruption is displayed. After interrupting measurement, next measurement is measured from the beginning.

4 Finish of measurement

When the instrument exceeds the specified maximum measurement times, measurement is finished and the message telling the finish is displayed.

5 Saving the result

After measurement has been performed, the [Output] button is usable.

When the check mark is not placed for [Auto Output] before starting measurement, the newest measurement data can be output as a CSV file by specifying output path and file name by clicking the [Browse..] button and clicking the [Output] button just after finishing the measurement.



MEMO

- The measurement data which is the object of output is updated each time measurement is performed.

6 Initialization of result

Click the [Reset] button in the [Measurement] group. The measurement result is initialized.



4.2 MEASUREMENT OUTPUT FILE

The CSV file format is used for the measurement output file.

The file is saved in the path displayed on the dialog box.

MEMO

- When the data is output to the existing file, the file is overwritten.
- When the contents of the output file are increased, the speed to read and write the file may be lowered.


The writing format is shown below. “_” means a space.

```
{Irradiance}_{Integral irradiance}_{Peak irradiance} (Line break)
      .
      .
      .
{Irradiance}_{Integral irradiance}_{Peak irradiance} (Line break)
```

The example of output is shown below.

```
6.790E+1 1.1300E+1 6.830E+1
6.810E+1 2.2700E+1 6.860E+1
6.820E+1 3.4000E+1 6.860E+1
```

* For the measured values, refer to the instruction manual of the measuring instrument.

 “UVR-T2 Manual 4.4 Output Format”

MEMO


- In the output file, a space on the measurement data obtained from the measuring instrument is changed to a comma.

4.3 ZERO CALIBRATION

Perform the user zero calibration as communicating with the measuring instrument.

When this software has started, the initial screen is displayed.

Click the [Connect] button to check the connection.

 NOTICE	<ul style="list-style-type: none">• When the UVR-T2 instrument is turned off or the connectors are disconnected/connected while this software is starting, the communication with the UVR-T2 instrument is not performed.• When this software is started under the condition that the UVR-T2 instrument is turned off and then the UVR-T2 is turned on, the software can communicate with the UVR-T2 by clicking the [Connect] button.• If the measuring instrument is measuring an object, be sure to stop measuring and then use this software.
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Click the [Calibrate] button on the initial screen. The check message is displayed.

When clicking the [Yes] button, two or more buttons are inactive and calibration starts.

When clicking the [No] button, calibration is not performed.

MEMO

- To prevent the detector window from light, cover the detector window. Then, perform calibration. Be careful not to stain the detector window when covering it. If the detector window is stained, the measurement error will occur. (Don't cover the detector window by your fingers.)
- It takes approx. 20 [seconds] to perform and finish calibration.

Please have the following information available when making an inquiry:

- Software Version: After starting up this software, version information is displayed in the title bar.
- Personal computer: Your personal computer model and currently installed software
- Environment: Type of measurement light source, instrument settings, measurement values, measurement status, etc.
- Description of problem: As detailed as possible.

Inquiries: Refer to the back cover of this manual.

MEASUREMENT PROGRAM

UVR-T2

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Instruction Manual

Date of issue: 1st edition October, 2015

5th edition April, 2025

Issued by TechnoOptis Co., Ltd.

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