GOSSEN METRAWATT

QUICK SETUP GUIDE

SECULIFE IA

SECULIFE IA
ILLUMINATION | ANALYZER

GOSSEN METRAWATT
GERMANY

**SECULIFE®**

The SECU**LIFE** IA is a high-precision measuring instrument with a measuring angle of 1°. Luminance measurements at distances of 1 meter to infinity can be performed with the instrument. The SECU**LIFE** IA features mirror reflex optics with a 15° field of view, a sharply marked 1° measuring circle at the center and a focusing mechanism.

Lens with protective filter or close-up lens and baffle

Focus ring

Eyepiece with cup

USB Connector

Control panel

Battery-compartment
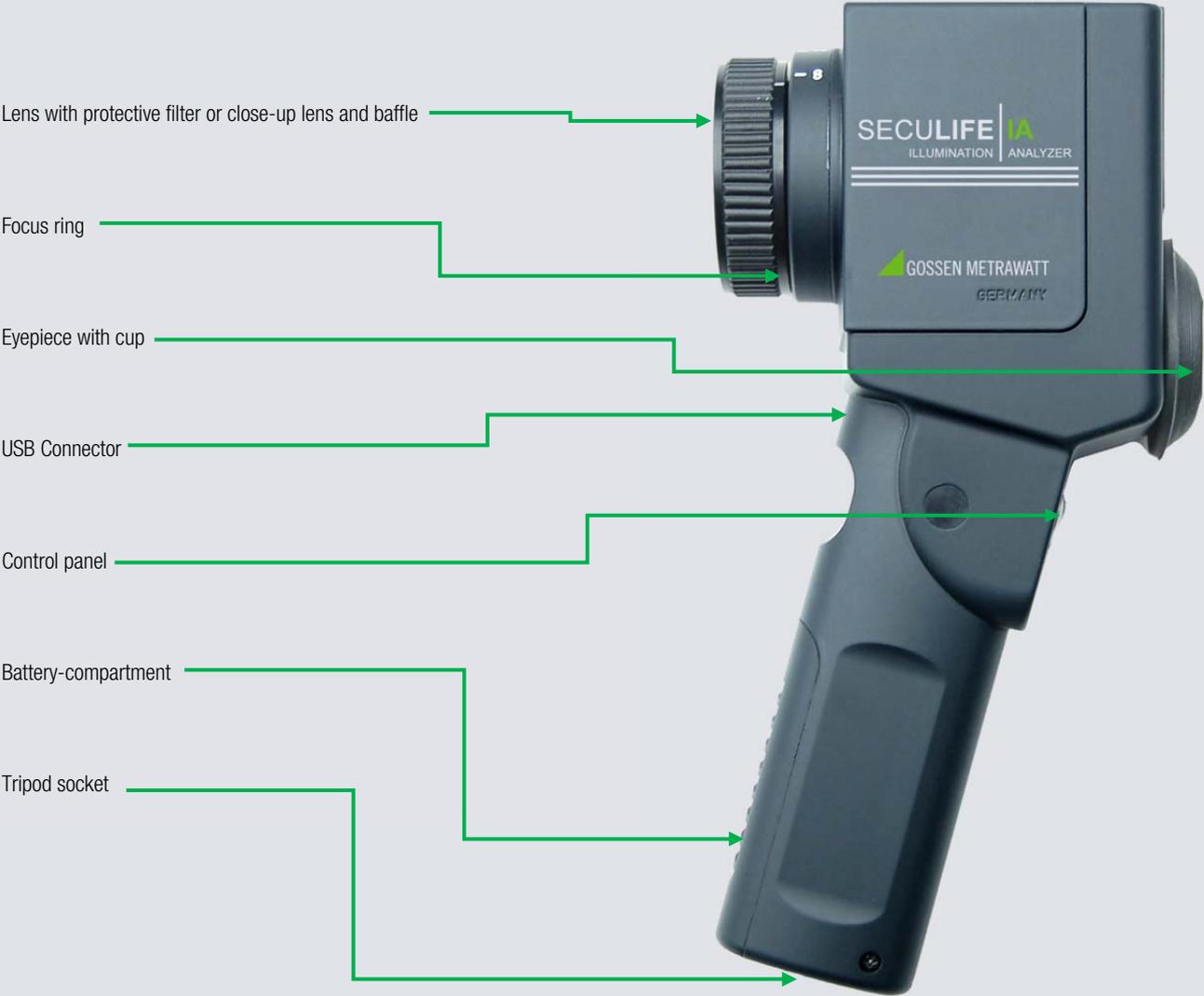
Tripod socket

Your SECU**LIFE** IA will be delivered in an aluminum case, including USB-Cable, Battery, GLUX2 Software for Data recording and the Instruction book.

Tripod socket

Close-Up Lens 1 (51 to 100cm) Close-Up Lens 2 (34 to 50cm)

Probe for contact measurement incl. Adapter disc

Reflectance standard for indirect illuminance measurement


Carrying strap

The display panel and its elements

1 Memory location display
2 Measured value and memory display
3 Unit of measure
4 Symbol for correction factors 1 and 2
5 Difference symbol
6 Ratio symbol
7 Percentage deviation symbol
8 Calculated value, memory group
9 Plus or minus sign for calculated value
10 Low battery warning display
11 USB indicator
12 Measuring function
13 Correction factor function
14 Measured value memory function
15 Ratio function
16 Percentage deviation function
17 Difference function
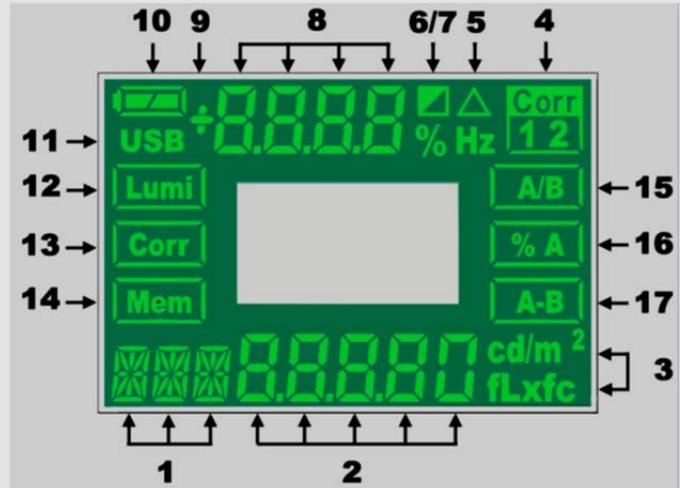
The SECU**LIFE** IA is equipped with a multiinformation display which can show you various informations. With only five function keys on the keypad you are able to perform all measurements.

Ⓑ   Measuring Key

> Function Key
(A/B - %A - A-B)

Measuring Key Ⓐ

Function Key <
(Lumi –Corr – Mem)

Multifunction Key (MFK)
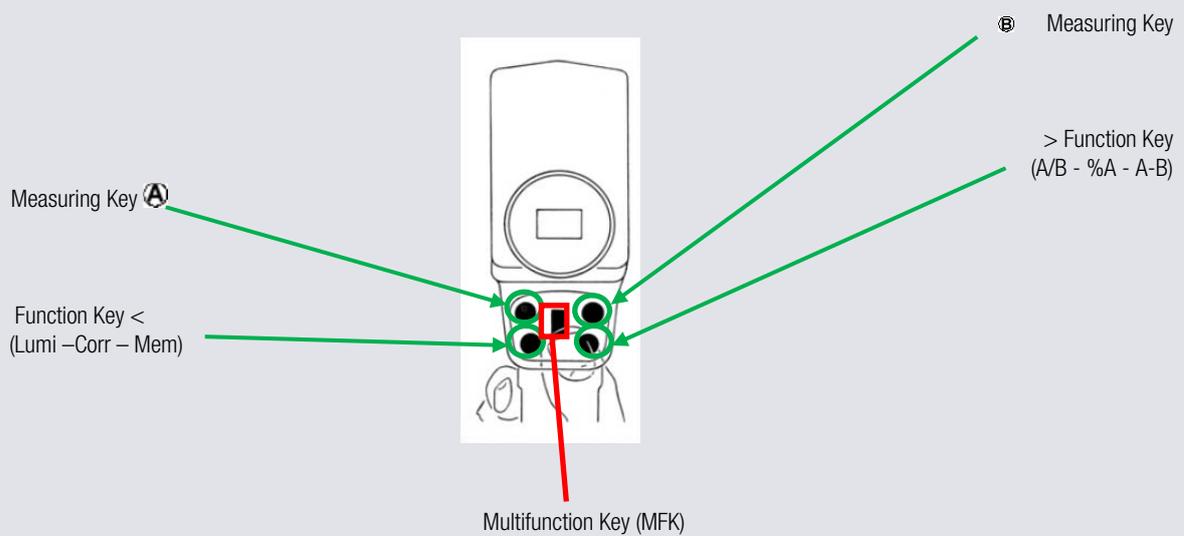
Start up

Inserting the Batteries

The battery compartment is located at the front of the grip. Push the battery compartment cover in the grip down. Remove the battery holder with the help of the tab. Replace the batteries assuring correct polarity (+ and -). Insert the battery holder into the instrument and close the battery compartment with its cover.

Approximately 5000 measurements can be performed with a new set of batteries.

Attention: Use new batteries only in accordance with IEC LR6 (2 ea. 1.5 V, AA).
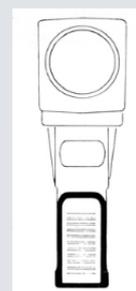
Self-Test

After inserting the batteries, the microcomputer executes a self-test. All of the elements included in the display panel appear at the display during this test. The display test can be aborted by pressing any key.

Battery Indicator

The SECU**LIFE** IA requires two 1.5 V AA batteries (alkaline manganese). The capacity display indicates the current battery power level. Measured values are retained in memory when the batteries are changed.

- ▭ = The batteries are fully charged.

- ▭ = The batteries are partially discharged – be prepared to replace them.

- ▭ = The batteries are depleted and must be replaced as soon as possible.

The Protective Filter

Screw the included protective filter or one of the close-up lenses or the attachment for contact measurements (optional accessory) onto the lens of your SECU**LIFE** IA.

Either the protective filter, a close-up lens or the attachment for contact measurements (optional accessory) must always be used.
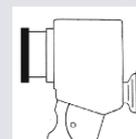
Distance Measurement

✋ Warning: Do not perform measurements with the instrument pointed towards sun.
✋Eye damage may result, and the light sensor could be damaged as well.

Press the ◀ key to select the **Lumi** function.
Look through the eyepiece on the SECU**LIFE** IA, and sharply focus your measuring field with the focusing mechanism at the lens.

Now align the measuring circle reflected into the viewfinder to the point to be measured. This point should be uniformly illuminated, and as large as possible relative to the measuring circle.

Press the Ⓐ key and read the measured value.
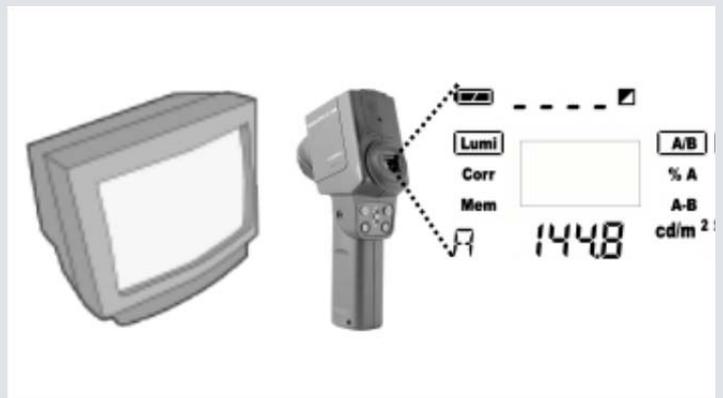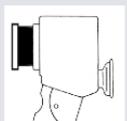
Contact Measurement

Press the ◀ key to select the **Lumi** function.
Look through the eyepiece on the SECU**LIFE** IA, and sharply focus your measuring field with the focusing mechanism at the lens.
Now align the measuring circle reflected into the viewfinder to the point to be measured. This point should be uniformly illuminated, and as large as possible relative to the measuring circle.

Press the Ⓐ key and read the measured value.
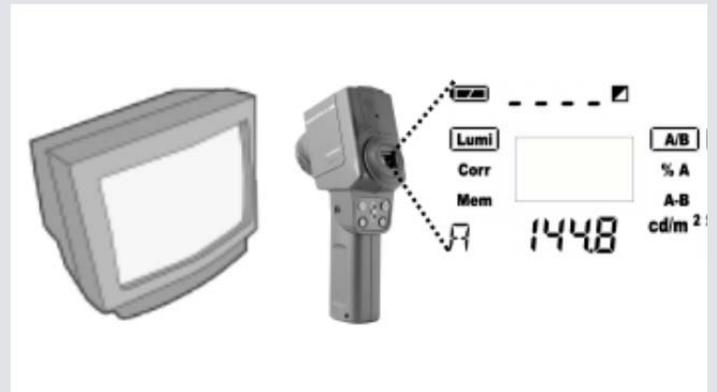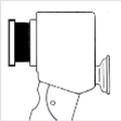
Memory Functions

In addition to its display memory, the SECU**LIFE** IA is also equipped with a measured value memory with 1000 memory locations. This function allows you to perform measurements on-site, and to read them out at a later point in time. Stored values are retained when the instrument is switched off, as well as when the batteries are replaced.
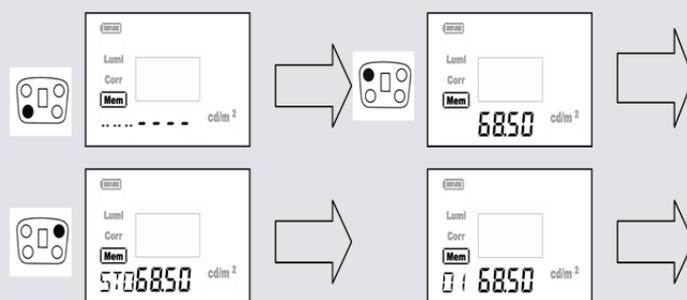
Saving Measured Values (basic function):

Press the ◁ key to select the **Mem** function.

1.   Perform measurement as described in **Distance Measurement**

2.   The display value is saved to memory by pressing the **Ⓑ** key. STO (stored) appears briefly at the memory location display.

     Each additional stored value is saved to the next successive memory location and is assigned the next consecutive location number. FULL appears at the display when measured value memory is full.

Editing Measured Values (Mem Edit):

Stored measured values can be overwritten with the **Mem** function.

- Select the memory location to be edited with the MFK.
- Press the Ⓑ key in order to freeze the memory location.
  "Edit" and the selected memory location is shown in the display Indicating that you are up to overwrite the current mem-cell
- Acquire the new measured value as described in section <u>**Distance Measurement**</u>.
- The display value is saved to memory by pressing the Ⓑ key.
- The memory location display jumps to the last stored measured value.
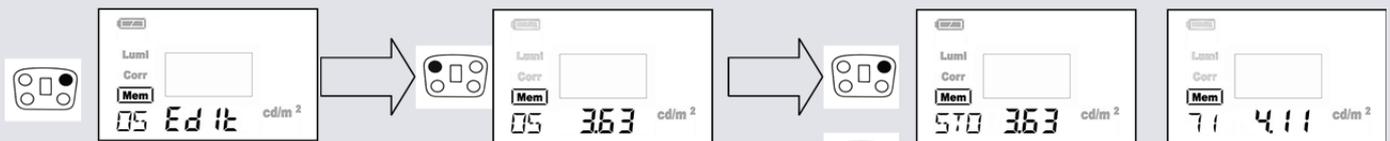
Clearing Memory:

Measured value memory can be cleared with the **Mem** function.

The entire measured value memory is cleared by simultaneously pressing and holding the Ⓐ and Ⓑ keys for at least 2 seconds. CLR appears at the display in order to acknowledge that memory has been cleared "-----" appears once again at the memory location display.
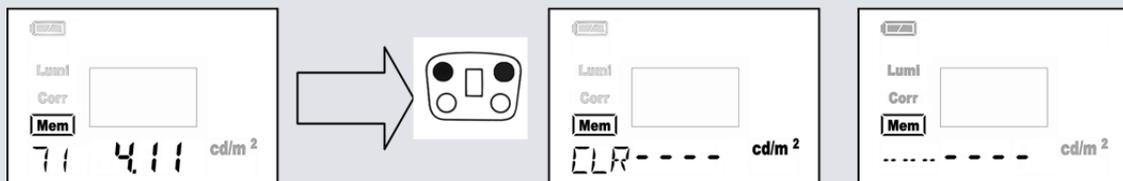
Illuminance measurement

The reflectivity of ceilings, walls and floors can be measured with the SECU**LIFE** IA in combination with the **reflection standard** (optional accessory). Estimations made with reflection or gloss panels are thus eliminated.
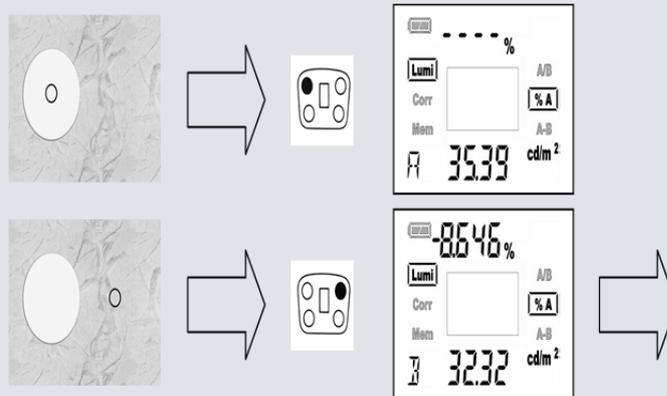
The reference value is measured against the reflection standard by pressing the Ⓐ key in order to ascertain reflectivity. Further measurements executed with the Ⓑ key indicate deviation as a percentage at the upper portion of the display.

Setting Correction Factors:

As many as two different correction factors can be entered to the SECU**LIFE** IA.
As default values, **Corr1** is set to a factor of 1.000 (no correction) and **Corr2** to a factor of 3.142.

$$E = \pi * L$$
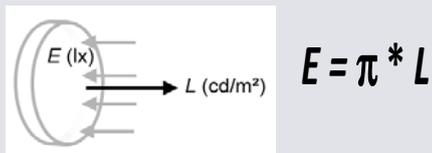
The factor 3.142 is the relationship between illuminance (E) and luminance (L) for a perfect reflecting diffuser.

Press the ◀ key to select the **Corr** function.

- Select the desired correction factor with the MFK (visible at the top of the display).

- While setting the factor, any measured value shown in the display is correspondingly adjusted (visible at the bottom of the display).

- You can switch back and forth between correction factors 1 and 2 with the ▶ key.

Qubyx (PerfectLum) Software: Calibration of high demanding professional displays

The SECULIFE IA is integrated into the software and can be used for comprehensive testing and automatic adjustment of medical monitors, in order to assure constant and consistent image reproduction.

PerfectLum include a medical monitor QA application which checks displays for conformity with medical standards such as AAPM TG18, DIN 6868-57, DIN 6868-157, JESRA X-0093 and IEC 62563-1.

1. Power on the workstation with all display(s) attached that you intend to use.

2. Check if the screen settings are correctly configured.

3. Ensure that the screen resolution is set to the native resolution of the display with color quality of 32 bit "true color" or higher.

4. Ensure that the correct graphics card display driver is installed.

5. Repeat these checks for each display attached to your system.

Important! Before commencing the installation process, please make sure that the USB photometer is NOT connected. The photometer will be added later, after PerfectLum is successfully installed.

GMC INSTRUMENTS

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CAMILLE BAUER