# **SEKONIC** DIGI MASTER L-718

**Operating Instructions** 

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# **Parts Designations**







22 Lumidisc 23 Reflected-Light Filter



# Liquid Crystal Display





### Mode Selection and Operation Reference Table



| Mode display  | Ambient light   |  |  |  |  |
|---|---|--|--|--|--|
| Key operation                                       | No symbol display & cine mode   |  |  |  |  |
| Power switch ON                                     | b.c. and dot symbol marks are displayed for   |  |  |  |  |
| Slide MODE selection key                            | Mode displa   |  |  |  |  |
| Press UP(▲) or DOWN(▼) key while depressing ISO key |   |  |  |  |  |
| Press UP(▲) or DOWN(▼) key                          | T-priority : shutter speed or cine scale is set<br>(30min. $\sim$ 1/8000sec. or 8fps. $\sim$ 128fps.)<br>F-priority : F-stop value is set (f/1 $\sim$ f/90) |  |  |  |  |
| Press F/T selection key                             | When switching from T to F, f/5.6 is automatica<br>When switching from F to T, 125 (1/125sec.) is<br>automatically displayed                                |  |  |  |  |
| Press F/EV selection key                            | Measurement for EV value is acceptable (only in light mode)   |  |  |  |  |
| Press Multi-measurement key                         |   |  |  |  |  |
| Press Measuring switch                              | Measured value is displayed (running-lock functio<br>continuous reading is built in)  |  |  |  |  |
| Press Memory key                                    | The measured F-stop values (upto 2 times) are indicated in bar dot symbol(only in T-priority mod  |  |  |  |  |
| Press Memory-off key                                |   |  |  |  |  |
| Press Display-light key                             | Display illumination ligh   |  |  |  |  |
|   |   |  |  |  |  |

|           |  | <mode></mode>                             |  |  |  |  |
|-----------|--|---|--|--|--|--|
|           |  | Cumulative measurement (wireless)         |  |  |  |  |
| Cumulat   | tive measurement   | Cumulative measurement (wired)            |  |  |  |  |
| Single me | easurement   | Wireless (cordless) measurement           |  |  |  |  |
| ŕ         | Synchro cord Memory  | Wired measurement                         |  |  |  |  |
| T-priorit | ly   | Measurement for F-stop value              |  |  |  |  |
| F-priorit | ly   | Measurement for shutter speed             |  |  |  |  |
| -         |  | Measurement for EV value                  |  |  |  |  |
|           | Flash  | light                                     |  |  |  |  |
|           | Wired measure  | Wireless (cordless) measurement           |  |  |  |  |
| oout 0.5s | sec. to indicate the battery level, and auton  | natically changed to mode display         |  |  |  |  |
| change    | d corresponding to the key position  |   |  |  |  |  |
| Film spe  | ed is set (ISO 3 ~ ISO 8000)   |   |  |  |  |  |
|           | Shutter speed is set   | (1sec. ~ 1/500sec.)                       |  |  |  |  |
| isplayed  |  |   |  |  |  |  |
| mbient    |  |   |  |  |  |  |
|           | Cumulative measurement for flash light is acceptable                                     |   |  |  |  |  |
| r         | Flash the connected electronic flash unit and measure its light "ready for measurement") |   |  |  |  |  |
|           | The measured F-stop values (upto 2 time<br>in single measurement mode)                   | es) are indicated in bar dot symbol (only |  |  |  |  |
| Mer       | nory function is released  |   |  |  |  |  |
| p while t | the key is depressed (only when the powe   | r switch is ON)                           |  |  |  |  |
|           |  |   |  |  |  |  |

#### 1. Lumisphare

Use Lumisphare when you wish to measure incident light for portraits and three-dimensional subjects.

#### < Mounting >

Match the red dot on the Lumisphare frame to the setting mark on the swivel head. Gently rotate the sphare clockwise until it clicks securely into place. To remove, rotate the sphare counter-clockwise.

#### < Taking measurements >

Point the Lumisphare accurately toward the camera from the subject position. Swivel head is rotatable 270° horizontally and 90° upward.

#### 2. Lumidisc

Use Lumidisc when you wish to measure lighting contrast and lux as well as the exposure of singledimensional subjects.

#### < Mounting >

Same as for the Lumisphare.

#### < Taking measurements >

Hold the meter at the subject position and point the Lumidisc accurately toward the light source. When measuring the exposure of twor dimensional subjects, point the Lumidisc toward the camera from the subject position.





#### 3. Reflected-light filter

Use Reflected-light filter when you wish to measure the reflected light (brightness) of subject. Use it to calculate the relative brightness ratio (illumination contrast of subject) for adjusting lighting balance, or when it is difficult to take incident light measurement.

#### < Mounting >

Same as for the Lumisphare.

#### < Taking measurements >

Point the reflected-light filter accurately toward the subject. When you wish to measure some part of the subject, do so as close to the subject as possible.

#### 4. Viewfinder 5° (sold separately)

Use Viewfinder in the same way as the reflected-light filter to measure reflected light. With a light acceptance angle of 5° you can make a spot measurement of distant subjects.

#### 5. Synchro cord (sold separately)

Synchro cord connects the meter to the flash unit for measuring flash light in wired measurement mode. Synchro cord, 5 meters length, has 3 plugs so that it can simultaneously synchronize the meter with the flash unit and the camera. The terminal on the meter has a locking mechanism to ensure a secure connection. To disconnect the cord, simply pull the ring attachment toward you to release the locking mechanism.





Flash

# Preparing the Meter for Operation

#### 1. Insert the batteries

DIGI MASTER requires 2 pcs. of AA size pen-light battery (1.5V  $\times$  2).

- (1) Open the battery chamber cover by sliding it in the direction of arrow.
- (2) Insert the batteries carefully aligning
   (+) and (-) polarities as indicated inside the chamber.
- (3) Replace the cover by sliding it and inserting its notch into the slot of the meter.

#### <NOTE>

- After changing the batteries, please switch the meter ON once, and then OFF. It prevents the unexpected battery consumption that may occur depending on the status of electric circuit of the meter.
- When not using the meter, for a week or more, remove the batteries from the meter. It prevents any internal damage arising from battery leakage.

#### 2. Checking the batteries

Check the battery capacity before using the meter. A weak battery does not assure the correct light readings.

- Slide the power switch to ON position. Then b.c. and dot symbol marks are displayed for about 0.5sec. to indicate the battery level (Fig. 1). If the battery is too weak to give a correct light reading, the b.c. mark flashes.
- (2) After checking (for about 0.5sec.), the display is automatically changed to the measuring mode (Fig. 2). If you wish to keep the b.c. and dot marks indicating, switch the meter ON while depressing ISO key. The marks keep indicating until you stop depressing the ISO key.





(3) DIGI MASTER is equipped with auto shutt-off function. If you leave the meter inactive for about 5 minutes, the power is automatically switched off. If you wish to use the meter again, slide the power switch back to OFF position once and then switch the meter on again.

#### 3. Selecting measuring mode

 Power on and slide the mode selection key to the position you wish to use;

> wireless (cordless) measurement for flash light **\$**,

wired measurement for flash light ;, or ambient light measurement ;

(2) In the flash measurement mode ( f or ic), the single flash measurement or the cumulative flash measurement can be selected by pressing the multi-measurement key (Fig's. 3 and 4 or Fig's. 5 and 6).



- (3) In the ambient light mode,
  - (a) T-priority measurement or F-priority measurement can be selected by pressing the F/T selection key (Fig. 7).



(b) EV measurement can be selected by pressing the F/EV selection key in the F-priority mode (Fig. 8).



#### 4. Setting ISO sensitivity

Press either side of UP/DOWN key while depressing ISO key. Film speed (ISO sensitivity) can be set within the range of ISO 3  $\sim$  ISO 8000 (**Fig. 9**).

The set value of ISO sensitivity is memorized even if the meter is switched off or the measuring mode is changed.



#### 5. Setting shutter speed

Press either side of UP/DOWN key. The display of shutter speed can be changed within the range of 30min. ~ 1/8000sec. for ambient light measurement, and 1sec. ~ 1/500sec. for flash light measurement (**Fig. 10**).

After the display of 1/8000sec. the cine scale is indicated (8, 16, 24, 32, 64 and 128fps.). In this case the symbol C is displayed **(Fig. 11)**.

The set value of shutter speed (including cine scale) is memorized even if the meter is switched off.



1 1.4 2 2.8 4 5.6 8 11 16 22 32 45 64 90

#### 6. Display lighting

DIGI MASTER is equipped with a background illumination for LCD. Electro luminescence "ECLAT" illuminates the LCD while the display-light key (D.L.) is depressed (Fig. 12).

#### 1 1.4 2 2.8 4 5.6 8 11 16 22 32 45 64 90 ISO MEMORY MEMORY MOFF DL. O F/T F/EV MULTIO

T

4

F

(Fig. 12)

ISO 400

125

#### 7. Running-lock for continuous reading

The measuring switch can be locked for continuous reading for ambient light.

- (1) Switch the meter ON.
- (2) Rotate the switch knob clockwise until the slit on the knob matches to the white dot while depressing the knob.
- (3) Release the locking function after the reading is over. While the measuring switch is locked, auto shut-off function does not work.

#### <NOTE>

 Running-lock is only usable for ambient light measurement, not for flash light.



#### Wireless (cordless) Measurement using Electronic Flash Unit

In case the photographing subject is too far to use synchro cord, or in case the synchro cord disturbs photographing, flash light can be measured without connecting the cord.

- (1) Switch the meter ON and set the mode selection key at the position
   f. The symbol of f is indicated on the display (Fig. 13).
- (2) Set the film speed (ISO) and shutter speed (T) as shown in the paragraphs for "Preparing the Meter for Operation".
- (3) Point the Lumisphare accurately toward the camera from the subject position, and press the measuring switch. The symbol of f on the display starts flashing (Fig. 14).
- (4) While the symbol is flashing (for about 90sec.), fire the flash unit by pressing its test button.
- (5) The appropriate F-stop value is displayed on the meter. The measured value is indicated in dual display by F-stop number with bar symbols and bar-dot symbol marks (Fig. 15).
- (6) If the symbol of since is not flashing, the meter can not accept wireless flash measurement. Press the measuring switch again to make the meter ready for measurement.

#### <NOTE>

- If the measuring range is exceeded, the digital F-stop number on the display is replaced with either mark of E.u. (and <sup>1</sup>) for underexposure or E.o. (and <sup>5</sup>) for overexposure (Fig. 16).
- The display continues to indicate the measured value for about 5 minutes after measurement unless the following measurement is made. After this period of time the auto shut-off circuit operates and turns the display off.



# Wired Measurement using Flash Unit with Synchro Cord

Wired measurement is recommendable when you measure the flash light from the subject position, or when the meter fails to register flash light in wireless (cordless) measurement; for example, close to a fluorescent lamp, or in high ambient condition, and so forth.

- Switch the meter ON and set the mode selection key at the position to. The symbol of to c is indicated on the display (Fig. 17).
- (2) Set the film speed (ISO) and shutter speed (T) as shown in the paragraphs for "Preparing the Meter for Operation".
- (3) Connect the synchro cord to the synchro terminal of meter and the flash unit.
- (4) Point the Lumisphare accurately toward the camera from the subject position, and press the measuring switch to fire the flash.
- (5) The appropriate F-stop value is displayed on the meter (Fig. 18). For repeat measurement, press the measuring switch again.







#### <NOTE>

 The notes for wireless measurement are also applicable to wired measurement. When you are unable to obtain sufficient illumination with a single flash or you try for special effects using a multiple exposure technique, there may be cases that you wish to use your flash repeatedly.

In such cases, you should set the meter to the cumulative measurement mode. Cumulative measurement is usable for both wireless (cordless) and wired measurements for flash light.

- Before pressing the measuring switch, set the cumulative measurement mode by pressing the multi-measurement key. The symbol of M0 is indicated on the display (Fig. 19).
- (2) Measure the flash light as shown in the paragraphs for "Wireless (cordless) Measurement using Electronic Flash Unit" or "Wired Measurement using Flash Unit with Synchro Cord".
- (3) The reading and the number of cumulative frequency are displayed automatically each time the flash is fired (Fig. 20). The maximum possible cumulative flashes is 9. If the flash is fired 10 or more times, the number of cumulative flashes is replaced by E mark (Error) and no further reading is possible (Fig. 21).
- (4) To repeat the cumulative measurement, press the multimeasurement key once to release the current reading. And press the multi key again to prepare the fresh reading.

In case of wireless (cordless) measurement, pressing the measuring switch can also release the current reading.

#### <NOTE>

 Memory display function (refer to page 20) is not usable if the meter is used in the cumulative measurement mode.



**1** 1.4 2 2.8 4 5.6 8 11 16 22 32 45 64 90

(Fig. 21)

# **Ambient Light Measurement**

Measuring ambient light, whether it is daylight or standard electric light, is a fairly simple matter using either incident or reflected light method.

- Set the mode selection key to the position ☆. No symbol is indicated on the display (Fig. 22).
- (2) Set the film speed (ISO) and shutter speed (in T-priority mode) as shown in the paragraphs for "Preparing the Meter for Operation". When you use the meter in F-priority mode, set the film speed (ISO) and F-stop value.
- (3) Press the measuring switch. The appropriate F-stop value (or shutter speed) is displayed on the meter (Fig. 23).
- (4) If the measuring switch is kept depressed, the display gives a continuous reading of the changes in brightness.
- (5) When the measuring range is exceeded, E.u. (underexposure) or E.o. (overexposure) mark is displayed (Fig. 24).







(Fig. 24)

(Fig. 22)

#### <NOTE>

 F-priority and T-priority can be converted by pressing F/T selection key (Fig. 25)



 F and EV measurement can also be converted by pressing F/EV selection key (Fig. 26)



# **Memory Display Function**

DIGI MASTER is equipped with a memory function for measured 2 F-stop values. This function is usable for both wireless (cordless) and wired measurements for a single flash light as well as ambient light measurement in T-priority mode, but not for cumulative flash measurement.

 After measurement, press the memory key. The measured F-stop value is memorized and displayed in bar dot symbol (Fig. 27).



(2) The number of measurement to be memorized is limited upto 2 (Fig. 28).

(3) If you press the memory key after 2 dots have been displayed, the third dot starts flashing (Fig. 29). After 2 or 3 sec., flashing stops and the third dot is also remaining on the display. This third dot is not a display of memorized value, and will be replaced by the following measurement.





(Fig. 29)

(4) Memory mode is released by pressing the memory-off key (Fig. 30).



# **Post-Measurement Calculation**

 Post-measurement calculation by changing ISO sensitivity : By changing ISO sensitivity the measured F-stop value is automatically changed to the appropriate one corresponding to the changed ISO value (Fig. 31).

This calculation is applicable to all measuring modes, both flash and ambient light measurement.



(2) Post-measurement calculation by changing T value :
By changing the set shutter speed
(T) the measured F-stop value is automatically changed to the appropriate one corresponding to the changed T value (Fig. 32).

This calculation is applicable only for ambient light measurement in T-priority mode.



(3) Post-measurement calculation by changing F-stop value : By changing the set F-stop value the measured shutter speed is automatically changed to the appropriate one corresponding to the changed F-stop value (Fig. 33).

This calculation is applicable only for ambient light measurement in F-priority mode.



# **Contrast Metering for Lighting Balance**

When calculating a desired lighting balance, DIGI MASTER can be used to measure the brightness of main and fill-in lightings from the subject position.

- Mount the Lumidisc instead of Lumisphare for usual incident light measurement.
- (2) Select the measuring mode, and set the ISO sensitivity and shutter speed (T) as shown in the paragraphs for "Preparing the Meter for Operation".
- (3) Point the center of Lumidisc accurately toward the center of axis of the main lighting source from the subject, and measure the light according to the measuring method for the respective mode.
- (4) Using the same procedure, measure the fill-in light(s). In this case, be sure that the meter is held so that it is not influenced by the main lighting source.
- (5) The F-stop difference between the main and fill-in lighting sources is lighting contrast ratio (Table 1).

#### <NOTE>

 In case of the measurement for Fstop value, memory display function (refer to page 20) is useful for this metering.

| Difference in exposure reading | Contrast ratio |
|--------------------------------|----------------|
| 1                              | 2:1            |
| 11/2                           | 3 : 1          |
| 2                              | 4 : 1          |
| 3                              | 8 : 1          |
| 4                              | 16:1           |
| 5                              | 32 : 1         |

(Table 1)

## Illuminance (Lux) Measurement

DIGI MASTER can be used as an expendient Lux meter when used with the Lumidisc in ambient light measurement mode.

- Mount the Lumidisc and slide the mode selection key to the position ☆.
- (2) Set the ISO sensitivity to ISO 100.
- (3) Press the F/EV selection key and select EV mode.
- (4) Hold the meter so that the Lumidisc is parallel to the plane to be measured, and press the measuring switch.
- (5) The measured EV value can be converted to the corresponding Lux value using the (Table 2).

|                   | -1   | 0    | 1    | 2     | 3     | 4     | 5      | 6      | 7      | 8      |
|-------------------|------|------|------|-------|-------|-------|--------|--------|--------|--------|
|                   | 1.25 | 2.5  | 5    | 10    | 20    | 40    | 80     | 160    | 320    | 640    |
| - <u>-</u>        | 1.75 | 3.5  | 7    | 14    | 28    | 56    | 112    | 225    | 450    | 900    |
|                   | 9    | 10   | 11   | 12    | 13    | 14    | 15     | 16     | 17     | 18     |
|                   | 1280 | 2560 | 5120 | 10240 | 20480 | 40960 | 81900  | 164000 | 328000 | 656000 |
| 2 <sup>11</sup> - | 1800 | 3600 | 7200 | 14400 | 28900 | 57800 | 116000 | 232000 | 464000 | 928000 |

(Table 2)

EV number

LUX number

While every effort has been made to ensure the most accurate standard calibrations as applied by SEKONIC for your DIGI MASTER, provision has been made for an adjustment of approximately  $\pm$  1EV by correcting the setting of the dial on the underside of the swivel head. It is recommended that you test the meter fully in actual photographic

conditions before adjusting it to suit you preference.

- Carefully apply a screwdriver to the slot in the dial on the underside of the swivel head and turn it gently.
- (2) If you turn the dial clockwise, you can increase the index which reduces exposure when photographing.
- (3) If you turn the dial counter-clokwise, you can reduce the index which increases exposure when photographing.

#### <NOTE>

Do not touch this dial unless you make an adjustment.





DIGI MASTER is a high-precision instrument containing delicate electronic parts and components, and you are recommended to handle the meter with due care.

- Avoid dropping or shocking the meter.
- Don't store the meter in high temperature or high humidity locations.
- Keep Lumisphare and Lumidisc clean and free from scratches.
- To avoid unnecessary battery drain, keep the meter switched off unless actually in use. When not using the meter for a week or more, remove the batteries from the meter in order to prevent any internal damage arising from battery leakage. *However note that the memory settings are lossed when the battery is removed.*
- Operating temperature : 0°C ~ (+)40°C
- Storage temperature :  $(-)20^{\circ}C \sim (+)60^{\circ}C$

In the event that servicing is required, contact your nearest service agency. When you send the meter to service agency by ordinary mail, it should be carefully packen in a carton box using some shock-absorbing material at least 3cm in thickness.

# Specifications

| Measuring system :   | Incidnt and reflected light type for both flash and ambient light  |
|--|--|
| Measuring range :  | $f/1.4 \sim f/90+0.9AV / ISO 100$ (for flash light)<br>EV(-)1 ~ EV19.9 / ISO 100 (for ambient light<br>measurement)  |
| Repeat metering<br>accuracy<br>Calibration constants :<br>Light receiving part<br>Sensor :<br>Swivel head :<br>Attachments : | ±0.1EV<br>C=340 K=12.5 (for Lumidisc : C=250)<br>Silicon Photodiode<br>270° horizontally and 90° upward rotatable<br>Lumisphare and Lumidisc for incident light, Reflected-light<br>filter (acceptance angle 54°) and Viewfinder 5° (sold<br>separately) |
| Display<br>Measuring mode :  | Wired and wireless measurements for flash light, wired and wireless cumulative flash measurements, ambient light measurement, cine scale and EV measurement  |
| Film speed :<br>Shutter speed :  | ISO 3 ~ 8000 at 1/3 SV unit<br>1sec. ~ 1/500sec. for flash light<br>30min. ~ 1/8000sec. for ambient light<br>cine scale : 8, 16, 18, 24, 32, 64 and 128fps.  |
| f/stop :   | 1.4 $\sim$ 90+0.9AV for flash light<br>1.0 $\sim$ 90+0.9AV for ambient light   |
| EV scale:<br>Other display:  | $(-)6 \sim 25.9$<br>E.u. (underexposure), E.o. (overexposure) and battery check  |
| Display illumination :   | Electro Luminescence ("ECLAT" manufactured by Elix Co., Ltd., subsidiary of Sekonic)   |
| Power sourse :<br>Standard accessories :   | 2 × AA pen light battery (1.5V × 2)<br>Lumisphare, Lumidisc, Reflected-light filter, neck strap,<br>2 batteries and case   |
| Dimensions and weight :  | 157 × 68 × 28mm<br>about 190 grams (excl. batteries)   |

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