SEKONIC FLASH METER

model L-256

INSTRUCTION BOOK

SEKONIC

Read this instruction booklet on the Sekonic Flash Meter L-256 carefully. With proper application of these techniques, you will be able to evaluate the improvement in your first roll of film.

Contents:

FACTS ABOUT YOUR SEKONIC L-256 FLASH METER

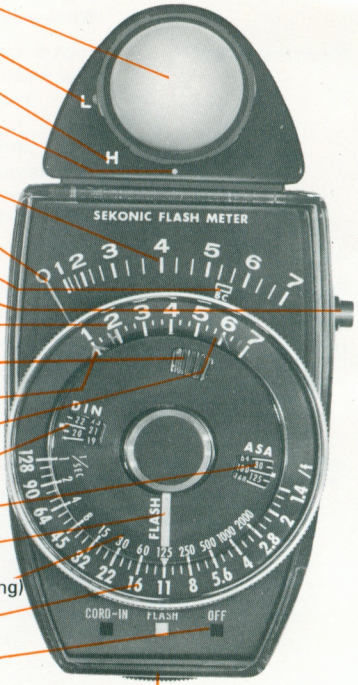
1. The Sekonic Flash Meter is an advanced model of the famous Sekonic Studio Meter Series. It is designed for easy instantaneous flash metering.
2. The Flash Meter is a durable meter designed for years of reliable service. It contains superior electronic components and circuits for greater reliability.
3. The Flash Meter contains a silicon diode light sensor for instantaneous response to light (10 micro-sec.), greater stability and extreme accuracy in light measurement.
4. This meter is not only designed for flash metering, but can also be used for incident light and reflected light metering.
5. The meter works with or without a sync-cord. Wireless measurement makes operation very easy and you can work without the restrictions of limited cord distance. Of course, you can use a sync-cord wherever you so desire.
6. The meter pointer will hold the light reading for a two minute duration. It then will automatically cancel the reading for the next light measurement.
7. For special applications, this meter works as a slave unit for your additional electronic flash.

SPECIFICATIONS

Measuring system:	Incident & Reflected Light Wireless & Wired measurement
Measuring range:	High & Low range convertible for electronic flash Incident light: 21.52 – 44,073 Lux Sec. 2 – 4,096 Foot-candle Sec. Reflected light: 2 – 4,194 Candle Sec./m^2 for daylight & tungsten-light Incident light: EV 10 – EV 21 at ASA 100 Reflected light: EV 11 – EV 22 at ASA 100
Accuracy:	± 0.3 EV (± 1/3 stop)
Repeatability of readings:	± 0.1 EV (± 1/10 stop)
Meter Sensor Light receptacle element:	Silicon photo diode
Scale:	ASA 6 – 12,000 DIN 9 – 42 f/stop 1.4 – 128 Exposure Time 1 sec. – 1/2000 sec. (only for normal daylight and studio light measurement)
Power Source:	Mercury battery 5.6 volts (Mallory)
Pointer lock:	Pointer needle "locks" into position the instant the flash is fired. It remains locked automatically for approximately two minutes. The meter is also equipped with a manual release switch.
Calibration factor:	C = 270 K = 12.5
Battery Check:	Built in
Accessories:	Lumisphere, Lumidisc, Reflected-light filter, Sync-cord, Neck cord and Leather case.
Dimensions:	5.36 x 2.56 x 1.74 inch (136 x 65 x 44mm)
Weight:	11.3 oz. (320 g)

NAME OF PARTS

(1) Lumisphere
(2) L Mark
(3) H Mark
(4) White dot mark
(5) Light Scale
(6) Meter pointer
(7) Battery check mark
(8) Measurement switch
(9) Dial light scale
(10) Ridges for film speed
(11) Calculator dial ΔH mark
(12) Calculator dial ΔL mark
(13) DIN scale
(14) ASA scale
(15) FLASH INDICATOR
(16) SHUTTER scale (for normal exp. reading)
(17) f/number
(18) Slide switch marks
(19) Slide switch



Lumidisc

Reflected-light filter

Sync-terminal (20)

Battery chamber cover (21)

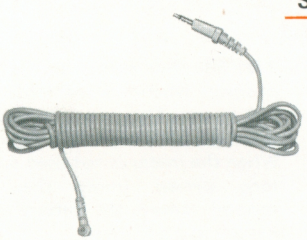
Battery check switch (22)

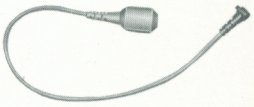
Zero adjustment screw (23)

Tri-pod threading (24)

Neck strap ring (25)

Sync-cord





Polarization alternating cord

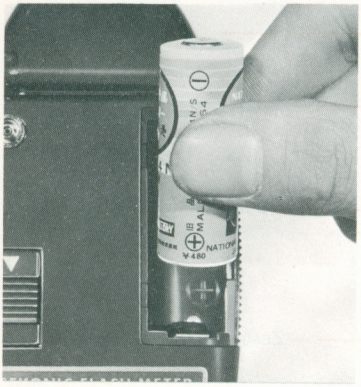
GETTING THE FLASH METER READY FOR OPERATION

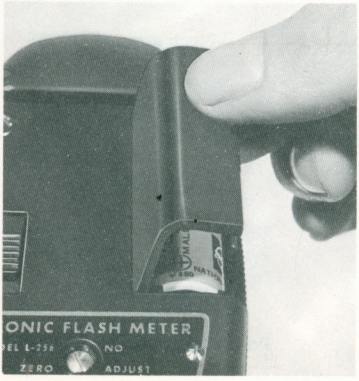
1. How to put the battery in

The meter requires one Mallory TR-164 or Eveready E-164 Mercury battery.

To insert the battery, place your finger in the notch and lift the cover off. Place the battery into the compartment with the (+) and (—) as indicated in the battery chamber. Replace the cover by inserting the notch into the slot of the meter — pushing it gently.

Insert a battery in position indicated.





PROPER CARE OF THE METER

1. Turn the slide switch to the off position whenever the meter is not in use. This prevents excess drainage of the battery power. When the meter is not used for a long period (more than a month) remove the battery and keep it in a dry place.

2. Check the Battery

Check the battery before you use the meter. A weak battery with low voltage will not give correct light readings.

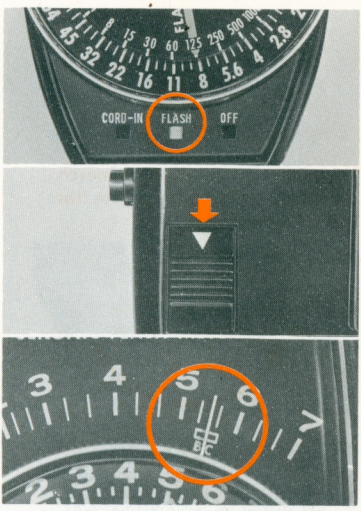
How to check the battery

(a) Turn the slide switch to the FLASH or CORD-IN position.

(b) Push the "BATTERY CHECK" switch on the back of the meter in the direction of the white arrow.

(c) The meter needle will point to the battery check mark on the light scale. If the needle fails to reach the mark, the battery is weak and should be replaced by a new one.

Move the slide switch to FLASH or CORD-IN. Push the battery check switch down.

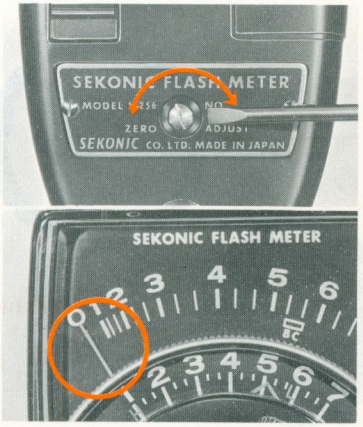


3. Zero setting adjustment

When the slide switch and measurement switch are in the OFF position, the pointer should be at zero. If it isn't, turn the zero adjustment screw on the back until the position is on zero.

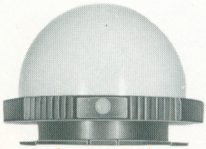
To Adjust — Turn gently with a screw driver until the pointer comes to the zero position.

Adjust the pointer to zero by turning the screw.

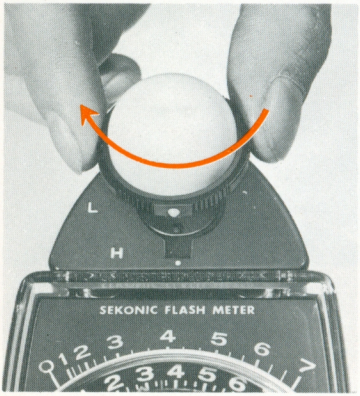


ACCESSORIES

Lumisphere



To mount the lumisphere match the white cleft to the white dot and turn clockwise.



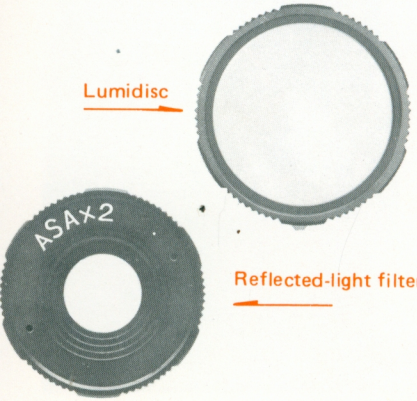
Use the lumisphere when you wish to measure incident light. How to insert the lumisphere:

(a) Match the indented white dot of the sphere to the white dot on the meter.
(b) Insert the sphere into the meter so that the base of the sphere comes in direct contact with the meter body.
(c) Turn the sphere clockwise until it stops at the first detent – the "H" mark.
(d) The "H" mark on the meter is for high light measurement. Line up the white dot of the sphere with the "H" mark.
(e) The "L" mark on the meter is for low light measurement. Move the white dot of the sphere clockwise to the "L" position.
(f) To remove the sphere, reverse the procedure stated above.

2. Lumidisc

Use the Lumidisc for illumination measurement in lux units and for measurement of illumination contrast. Follow the same procedure to attach or detach the disc as indicated for the Lumisphere.

Lumidisc



Reflected-light filter

3. Reflected-light Filter

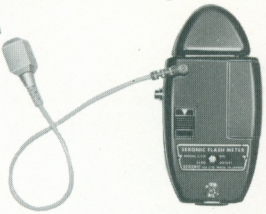
Use the reflected-light filter for reflected light measurement.

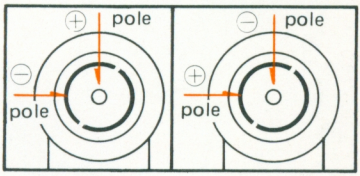
Follow the same procedure to attach or detach the filter as you do for the lumisphere.

4. Sync-Cord.

Use the accessory cords for wired measurement. The meter comes with one 20 foot sync-cord and two polarization alternate cords (in black and red).

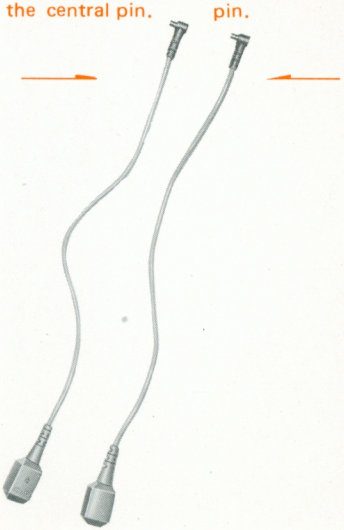
Connect the polarization alternating cord to the sync-cord.





Red cord has (+) pole on the central pin.

Black cord has (—) pole on the pin.

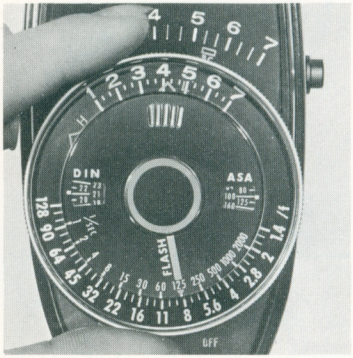


REMARKS

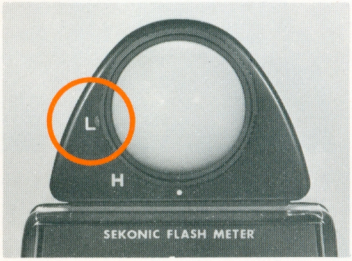
* The external sleeve of the flash meter sync terminal is the negative pole (—) and the inside recepter is the positive pole (+).
* If the polarization of the sync-cord and the flash unit do not match, the flash will not go off when you push the measurement switch of the meter. (See page 12 for operational instruction)
* Use the polarization alternate cords when your flash unit has reversed polarization to the meter terminal.
* If the flash unit has the positive pole (+) on the inside receptor and negative (—) on the external sleeve, use the red alternating cord connected with the 20 foot sync-cord. Or if your flash unit has the negative pole on the inside receptor and the positive pole on the external sleeve, use the black alternating cord connected with the 20 ft. sync-cord.
* When the polarization of your flash unit is unknown, try both alternating cords and use the one that works.

INCIDENT LIGHT MEASUREMENT

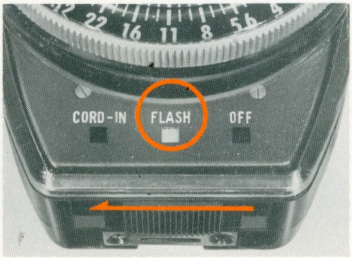
Hold the calculator dial and turn film sensitivity set dial by the ridges for film speed.



"L" Range may cover most of the measurement with lumisphere.



Set the slide switch to FLASH.



1. Wireless measurement

Incident light metering with the lumisphere is the primary function of this meter. Here's how it works:

(a) Set the ASA number by holding the calculator dial and then turning the inside ASA dial by the ridges so that the ASA number desired appears at the white line of the ASA (DIN) Window. The illustration indicates ASA 100 (DIN 21).

(b) Set the slide switch to flash.

(c) Position the flash meter at the subject so that it is pointing the lumisphere toward the camera and fire the flash.

(d) The meter pointer will hold the flash reading for approximately two minutes. It then releases it automatically, for the next reading.

(e) Turn the slide switch to "OFF" whenever you would like to return the pointer to the zero position to prepare the meter for the next reading in less than two minutes. However, don't forget to return the slide switch to FLASH.

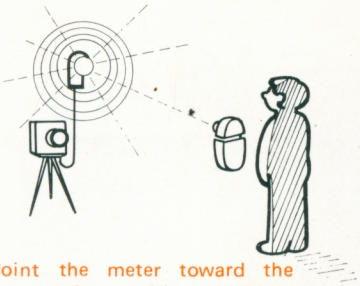
(f) Transfer the meter reading to the calculator dial after you fire the flash unit.

* When you use the "L" range on the lumisphere, match the green "L" mark of the dial to the read-out numbers.
* When you use the "H" range on the lumisphere, match the red Δ"H" mark of the dial to the read-out numbers.

(g) Flash indicator opposite the △ marks designates the correct f/number to use.

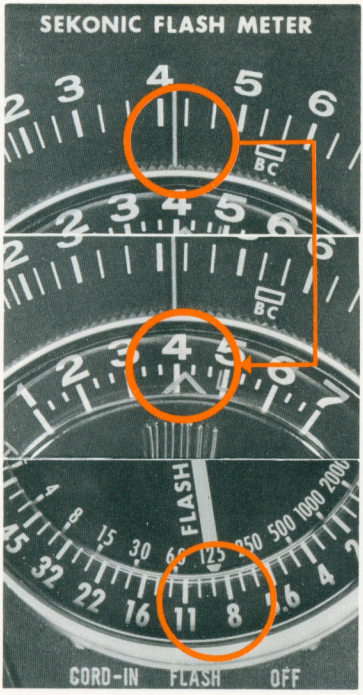
(h) Don't be confused by the number 125 which falls at the base of the flash indicator. This shutter speed number is for normal exposure meter readings.

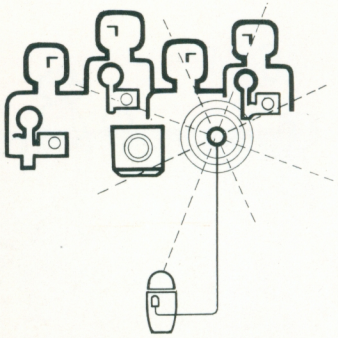
(i) For best light metering remember to place the meter as close to the subject as possible and point the meter toward the camera. Keep the lumisphere clean by washing with luke warm water when it gets dirty.



Point the meter toward the camera from subject position. Fire the flash for measurement.

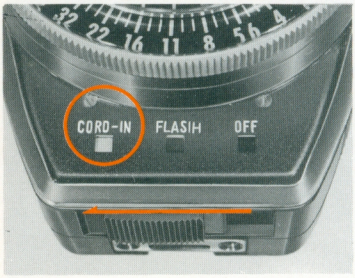
Transfer the read out number on the light scale to the calculator dial and read the number on the other side of the dial.



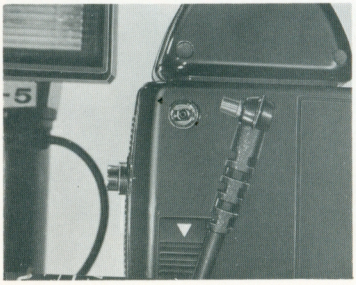


When your meter receives unnecessary flash lights or you have to fire the flash from a distance, use the sync-cord.

Set the slide switch to cord in.



Connect the meter and flash unit with sync-cord.



2. Wired Incident Light Metering

Use the sync-cord when in bright day light. The meter will not operate in the FLASH position without the sync-cord.

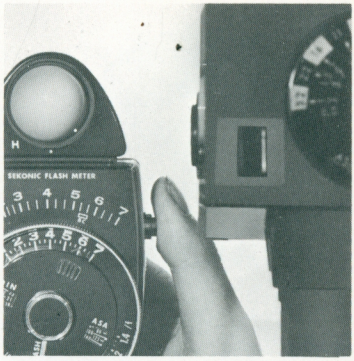
How to measure the light

(a) Set the ASA film speed.
(b) Mount the lumisphere on the meter.
(c) Put the slide switch to CORD-IN.
(d) Connect the meter and your flash unit with the accessory sync-cord.
(e) Point the meter toward the camera from the subject position. Push the measuring switch. Your flash will fire synchronizing you with the meter to measure only the light flashed.
(f) The meter pointer holds the reading as long as you hold the measuring switch. Keep the measuring switch depressed while you read the light scale. Release the measuring switch to return the pointer to the zero position.

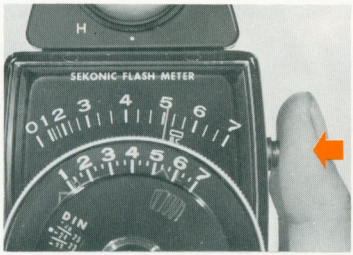
(g) To hold the reading automatically for 2 minutes, move the slide switch from CORD-IN to FLASH while depressing the measuring switch.

(h) Read the meter using previous instructions.

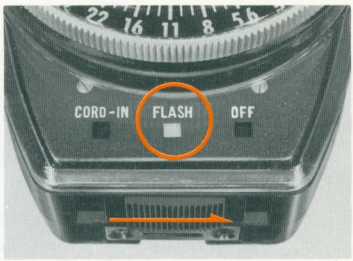
Push the measurement switch for firing flash and simultaneous reading of the exposure.



Meter holds the pointer until you release the measurement switch.



While you push the measurement switch, move the slide switch to FLASH position to hold pointer automatically for 2 minutes.

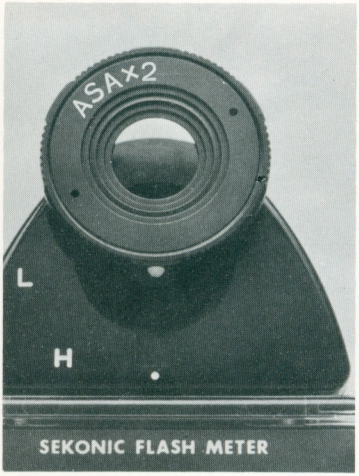


NOTE:

Don't be concerned if your flash unit should go off when you connect the sync-cord to the meter or when you move the slide switch to CORD-IN from OFF while the cord is connected. There is nothing wrong with your flash unit or the meter.

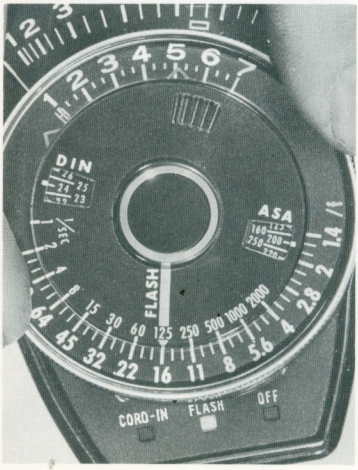
REFLECTED LIGHT MEASUREMENT

Mount the reflected-light filter to the meter.



Use the REFLECTED-LIGHT FILTER for reflected light measurement. The procedure is the same as for incident light measurement with or without sync-cord.

Set the ASA number twice the ASA rating of the film.



HOW TO MEASURE THE LIGHT

(a) Match the white mark of the reflected-light filter to the meter dot mark. Insert the filter and turn clockwise until it stops at the detent.

(b) Set the filter to the "H" or "L" mark depending upon the light level. (Don't mount the filter between the two detents. It may cause a measurement error.)

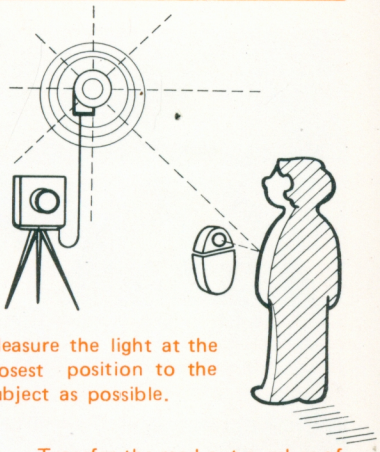
(c) Set the ASA film sensitivity scale twice the number as indicated in your film rating. For example: Set the ASA on 200 if your film has an ASA rating of 100. (In the case of DIN, add 3 to the rated speed. Therefore, set it at 24 DIN when you use 21 DIN film.)

(d) Position the meter as close to the subject as possible and read the reflected light. Avoid casting a shadow on the subject while taking a reading.

(e) Transfer the reading to the calculator dial. When you use the "L" range, match the green △ "L" mark of the dial to the read out number. When you use the "H" range, match the red "H" mark of the dial to the read out numbers.

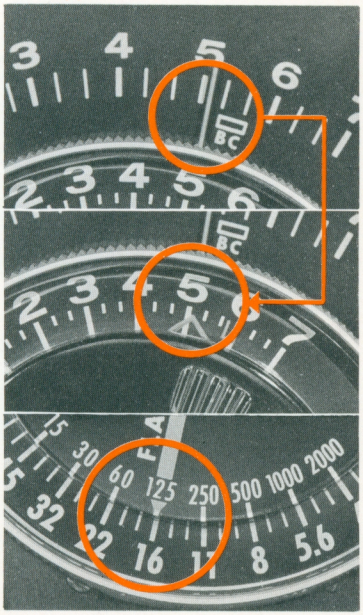
(f) Flash indicator opposite the △ mark indicates the correct f/ number to use.

(g) Don't be confused by the number 125 which falls at the base of the flash indicator. This shutter speed number is for normal, non-flash exposure meter reading.

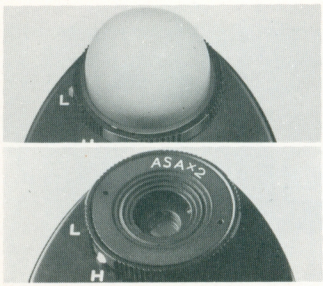


Measure the light at the closest position to the subject as possible.

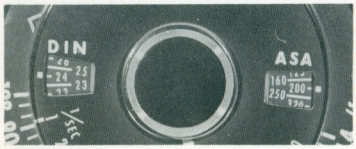
Transfer the read out number of the light scale to the calculator dial. Read the f/number on the opposite side of the dial.



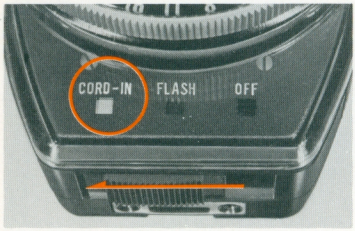
AS A NORMAL EXPOSURE METER FOR INCIDENT & REFLECTED LIGHT



Lumisphere for incident light measurement.
Reflected-light filter for reflected light measurement.



Set ASA twice as high as film rating.



Set the slide switch to CORD-IN.

Push the measurement switch for exposure reading.

Measuring light as a normal exposure meter

Mount the lumisphere for incident light reading and the reflected-light filter for reflected light reading. Remember with reflected light measuring to set the film sensitivity twice as high as the film rating ASA.

HOW TO MEASURE THE LIGHT

(a) Set the slide switch to CORD-IN. Don't attach the cord.

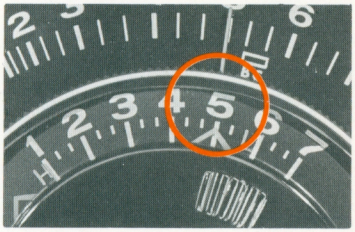
(b) Push the measurement switch for light reading. The meter will react instantly.

(c) Read the number the pointer shows and hold the measuring switch until you read the number or the pointer will return to zero. (To hold the pointer automatically switch the slide switch to FLASH right after metering. The pointer will hold the reading for approximately 2 minutes.)

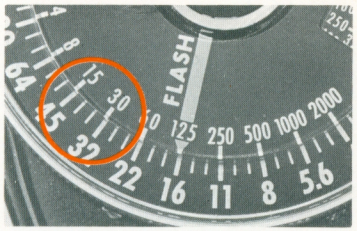
(d) Transfer the reading to the calculator dial. Match the mark according to the lumisphere or reflected-light filter mark.
Match the "L" mark when the sphere or filter is set to "L" and match the "H" mark when the sphere or filter is set to "H" mark.

(e) Read out the shutter f/number combinations at the bottom of the calculator dial.

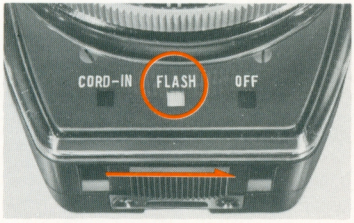
Read out the number pressing the measurement switch.



Transfer the read out number to the calculator dial.



Read the combination of the shutter speed and f/numbers.



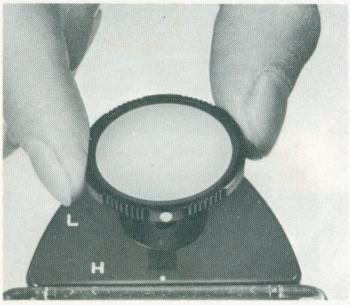
Move the slide switch to FLASH to hold the pointer.

NOTE:

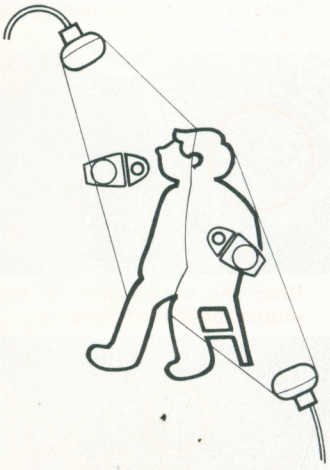
Don't be confused by the flash indicator arrow. 1/125th sec represents one of the shutter speeds you can use with the combination of f/numbers. You have a choice of shutter f/numbers combinations from 1 second to 1/2000 sec and f/1.4 to 128.

ILLUMINATION & CONTRAST MEASUREMENT

Mount the lumidisc for contrast measurement.



You can measure the illumination contrast between the main light and fill-in light to control the illumination contrast. (With the use of the lumidisc)



Take the ratio of the reading at the high light and shadow.

HOW TO MEASURE ILLUMINATION CONTRAST

(a) Mount the LUMIDISC to the meter body, following the same procedure for the Lumisphere or the reflected-light filter.

(b) Meter operation with or without the sync-cord is the same as incident light measurement.

ILLUMINANCE MEASUREMENT

How to measure the illuminance (lux) with the LUMIDISC. The meter can be used as an illuminance meter with Lumidisc.

MEASUREMENT PROCEDURE

(a) Mount the LUMIDISC to the meter.

(b) Put the slide switch to CORD-IN. Face the meter directly toward the light source and press the measurement switch. (Do not use cord for this measurement).

(c) Read out the light scale number. Then convert into illuminance units or lux from the table below:

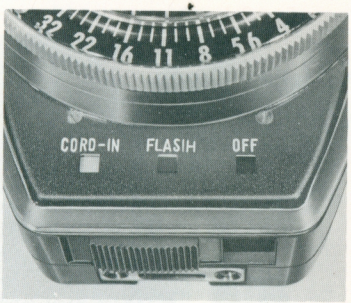
(d) When using "L" mark, read the figure directly off the table. Then multiply by 1/125 and you get the Lux-sec.

(e) When you set the LUMIDISC to the "H" mark multiply the results on the table by 32. Then multiply by 1/125 and you get the Lux-sec.

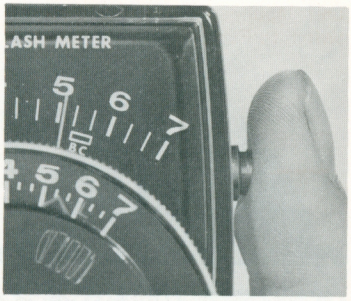
Meter Scale	1	2	3	4
Lux	2,700	5,400	10,800	21,500

Meter Scale	5	6	7	—
Lux	43,000	86,000	172,000	—

Set the slide switch to CORD-IN for illumination measurement with lumidisc.



Face the meter to the light and push the measurement switch for metering.

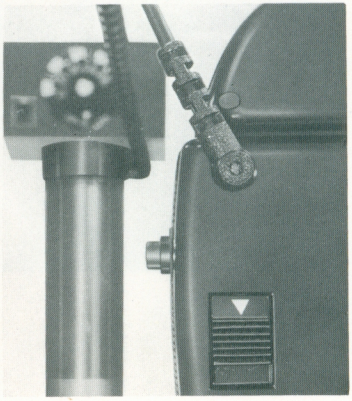


SPECIAL APPLICATIONS

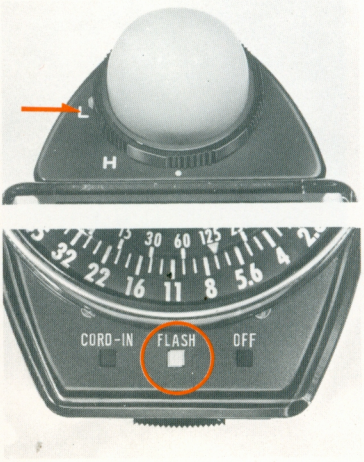
1. As a slave unit

This meter works as a slave unit for your additional flash to synchronize it to the main flash unit.

The meter sets off the additional flash unit synchronizing to the FLASH unit.



Use the lumisphere for slave unit application setting slide switch to FLASH.

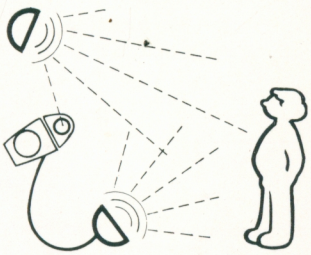


How to apply

(a) Mount the lumisphere to the meter.
(b) Set the slide switch to FLASH or CORD-IN.
(c) Connect the meter and additional flash unit with sync-cord.
(d) When you fire the main flash unit, the additional flash unit fires simultaneously.

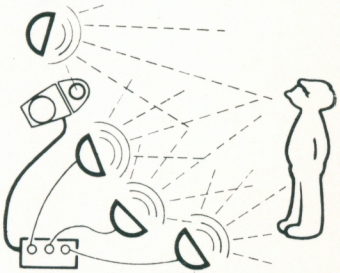
EXAMPLE OF SPECIAL APPLICATION

(a) Connect the meter to the additional flash unit with sync-cord.



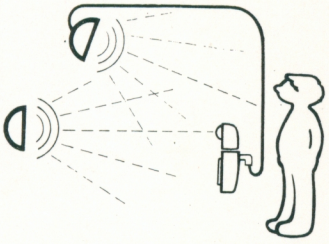
The meter synchronizes the additional flash unit to the main FLASH unit.

(b) Connect the meter to the sync terminal of the powerpack of the additional flash units. Then you can use many electronic flash units simultaneously.



By using the powerpack, the flash meter fires many flash units simultaneously.

(c) Put the meter at the subject position connecting to the additional flash unit. Then you can read the exposure of all the lights simultaneously. In this case, set the slide switch to FLASH.

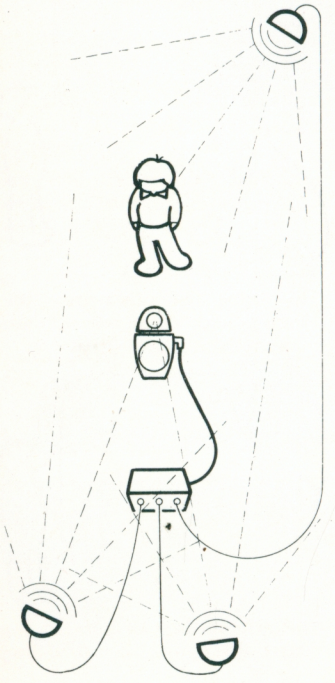


The flash meter measures all the light simultaneously, including the slave unit.

2. SIMULTANEOUS EXPOSURE READ OUT OF THE MULTIPLE FLASH ILLUMINATION

When you use more than two flash units, connect the meter to the universal (or multiple) synchronizer outlets. Then you can measure as many lights as you want simultaneously.

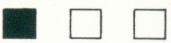
By plugging all the flash units and the flash meter into the powerpack, the units will fire simultaneously and the meter will measure all the light.



How to measure

(a) Connect all flash units that you use with one universal outlet.
(b) Connect the meter to the universal outlet.
(c) Set the slide switch to CORD-IN.
(d) Push the measurement switch of the meter. All flash units go off and you can read the exposure at once. (The procedure of meter operation is the same as other measurement procedures.)

SUMMARY OF ALL OPERATIONS

	Flash lighting	Normal lighting
Incident light measurement	Lumisphere	
Reflected light measurement	Reflected-light filter	
As normal exp. meter		Lumisphere or reflected-light filter
Contrast measurement	Lumidisc	Lumidisc
Illuminate measurement		Lumidisc
Wireless measurement	FLASH 	CORD-IN  Push on measurement switch
Wired measurement	CORD-IN  Fire on Pushing measurement switch	

* Hold the measurement switch while you read the meter scale.
* To hold the pointer for two minutes, switch the slide switch to FLASH position while depressing the measurement switch.

Do's & Dont's of Equipment Care

(1) Store the meter in a dry place.
(2) Keep the lumisphere and lumidisc clean. When dirty, wash them with soap in lukewarm water.
(3) Avoid storage with metals, electrical parts or chemicals.
(4) Avoid shocking the meter.

When your meter fails to function properly bring it to a Copal Service Station.

When you return a meter for repair, pack it with special packing materials to protect it.

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