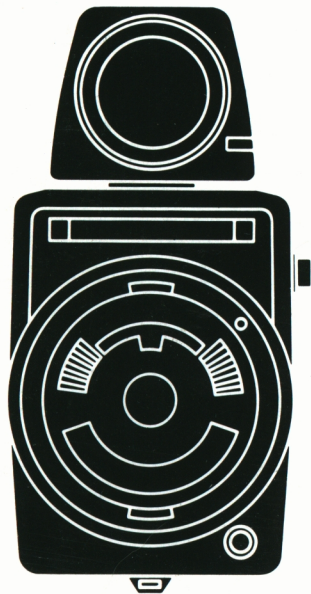


# MINOLTA AUTOMETER PROFESSIONAL



OWNER'S MANUAL



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## FEATURES

- Your Minolta Autometer Professional features effortless one-hand operation with a battery-powered, moving scale that gives instant direct readings completely automatically — no needle reading or manual dial alignment necessary.
- This Prometers sensitive CdS cell and high-grade integrated circuit give both incident- and reflected-light readings with high accuracy over an unusually high range.
- The light, sturdy unit features automatic over- and underexposure warning lamps that flash when light is above or below acceptable range.

## SPECIFICATIONS

Type: Special high-sensitivity CdS-cell incident-light measuring type that also measures reflected light with attachment and gives instant direct readings from a scale-dial that moves itself continuously and automatically by battery power

Measuring range: Incident: Low range -3EV to 7EV; high range 7EV to 17EV  
Reflected: Low range 0EV to 10EV; high range 10EV to 20EV

Light receptors: Incident with spherical diffuser  
Reflected light attachment with 10° angle of acceptance

Scale ranges: Film speeds: ASA 6 to 25,000, DIN 9 to 45

Apertures: F1 to F90

Cine frame speeds: 8 to 128fps

EV: -7 to 25

Shutter speeds: 1/8000sec. to 2hr.

Power source: One 6v silver oxide battery, Eveready No.544, Mallory No.PX-28, or equivalent

Size: 42 x 67 x 131mm (1-5/8 x 2-5/8 x 5-1/8 in.)

Weight: 300g (10.4 oz.)

Accessories: Reflected light attachment with 10° angle of acceptance

Disk-type diffuser for illuminance readings

Spot mask attachment for enlarger exposure

Fiber-optics-type pinpoint receptor

Others: Over-and underexposure warning lamps

Battery check button and indicator lamp

Rotating receptor head

EV, Lux, ft-c conversion table on back of body

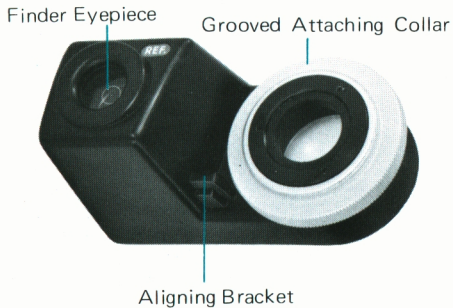
# NAMES OF PARTS

- Measuring Button
- High Measuring Range Setting
- Rotating Light Receptor Head
- Guide Notch for Reflected Light
- Measuring Attachment
- Overexposure Warning Lamp
- Underexposure Warning/  
Battery Check Lamp
- ASA Film Speed Scale
- Low Measuring Range Setting
- High/Low Range Indicator
- Reference Number Scale  
for Accessories
- EV Number Scale
- Film Speed Setting Disk Grip
- Cine Scale
- Shutter Speed Scale
- Lens Aperture Scale
- DIN Film Speed Scale
- High/Low Range Selector Dial
- Incident/Reflected  
Setting Indicator Window

EV, lux, ft-c Conversion  
Table  
Incident/Reflected  
Function Selector



## Reflected Light Attachment (optional)



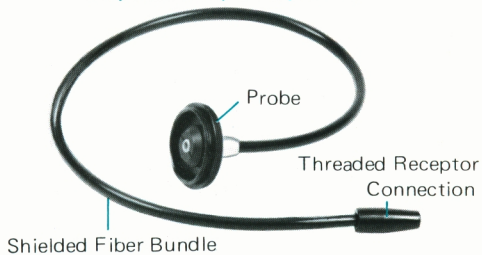
## Spot Mask Attachment (optional)



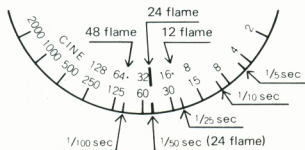
## Disk-Type Diffuser (optional)



## Pinpoint Receptor (optional)



## Explanation of Scale Marks

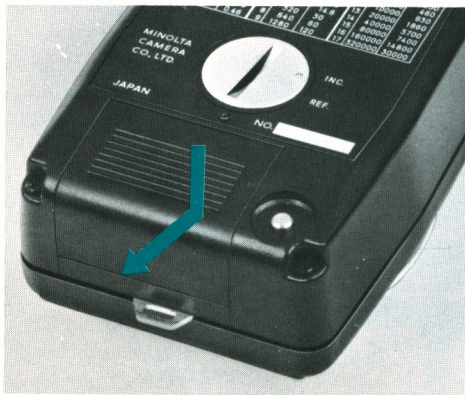


## BEFORE USE

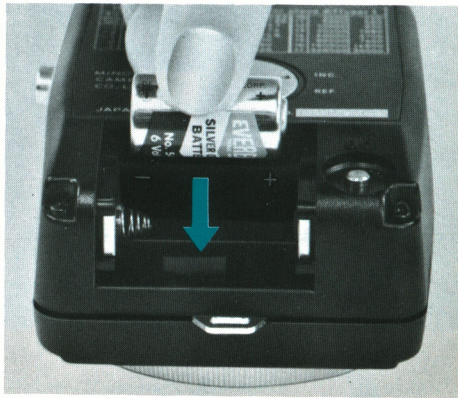
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### Inserting Battery

1. Slide off battery chamber cover as indicated.



2. Insert a 6v silver oxide battery (Eveready No.544, Mallory No.PX-28, or equivalent) as indicated by + and - symbols.
3. Replace cover securely.



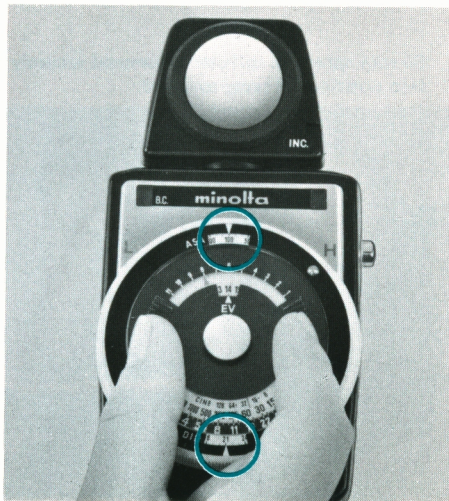
## Checking Battery

While depressing measuring button, push battery check button on back of meter. If battery check lamp lights, battery is serviceable.



## Setting Film Speed

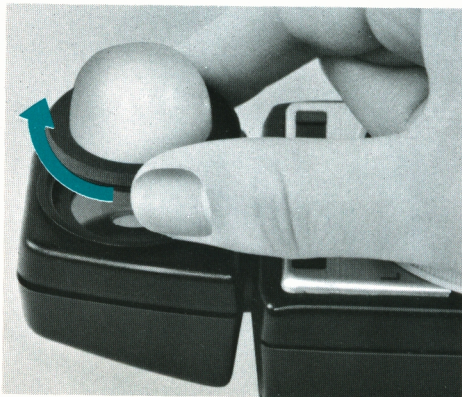
Use molded lucite grips to turn film speed setting disk until desired film speed graduation line is set opposite ASA or DIN scale index.



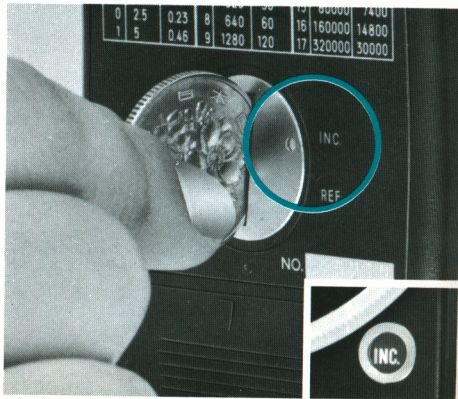
## HOW TO USE For Normal Photographic Incident Light Measurement

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1. Be sure spherical diffuser is screwed securely into position on receptor head.

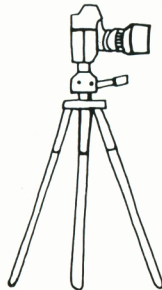


2. Be sure incident/reflected function selector on back of meter is set to INC position. INC should appear in incident/reflected setting indicator window on front of meter. Selector can be turned with a coin or other implement.



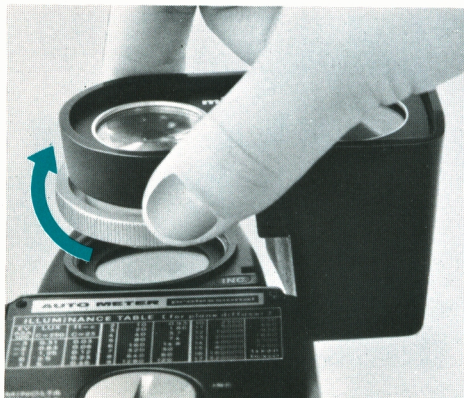


3. With spherical diffuser turned toward and receiving total illumination of light source(s) from subject position, push measuring button. If either under- or overexposure warning lamp light, adjust as indicated. If neither lamp lights, simply read indicated exposure from scale desired when dial stops moving.

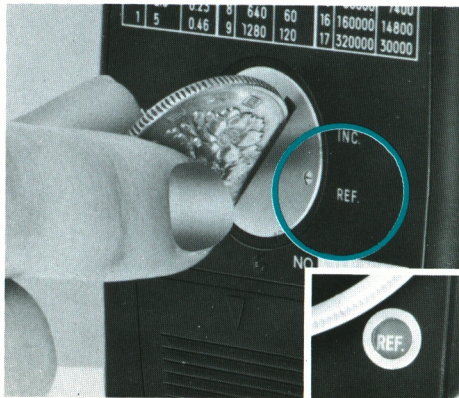


## For Reflected Light Measurement

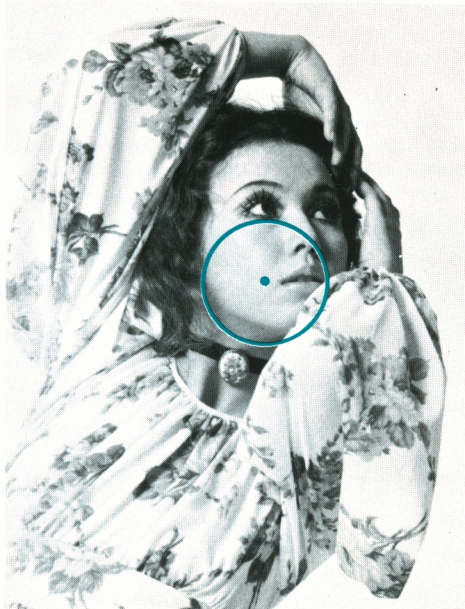
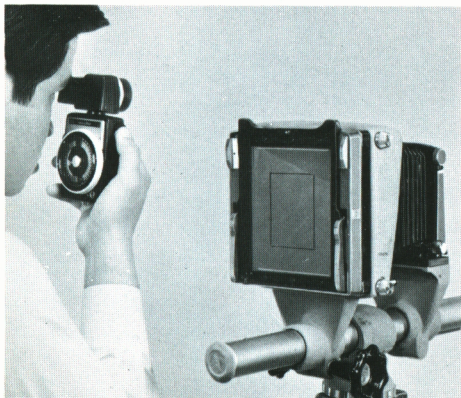
- 8 1. Attach reflected light measuring attachment by aligning bracket on attachment with notch provided on head and turning the grooved collar to screw securely into receptor socket.



2. Be sure incident/reflected function selector on back of meter is set to REF position. REF should appear in incident/reflected setting indicator window on front of meter. Selector can be turned with a coin or other implement.



3. With receptor head turned to desired position, look through viewfinder and locate subject area to be measured within bright circle and push measuring button. If neither under- or overexposure warning lamp lights, adjust as indicated. If neither lamp lights, release measuring button after dial has stopped moving, and read indicated exposure from scale desired.



## Under- and Overexposure Warning Lamps and High and Low Range Settings

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If underexposure lamp lights with high/low range indicator set at H (high range) position, turn high/low range selector dial until indicator boss is aligned with L (low range position) and measure again.



Lighting of overexposure lamp with meter set in high range indicates a light volume above meter's response range.



If overexposure lamp lights with high/low range indicator set at L (low range) position, turn high/low range selector dial until indicator boss is aligned with H (high range position) and measure again.



### CAUTION:

When aligning high/low indicator with H or L setting, always be sure high/low range selector dial is rotated as far as it will go in either direction.

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Lighting of underexposure lamp with meter set in low range indicates a light volume below meter's response range.



## USE OF ACCESSORIES

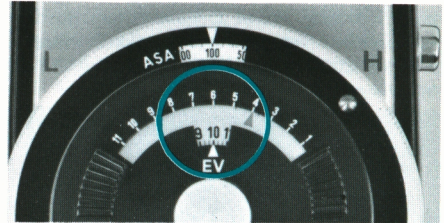
### Disk-Type Diffuser for Illuminance Measuring

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1. Screw diffuser into place on light receptor head.
2. Set function selector to INC.
3. Set a film speed of ASA 100.
4. With diffuser disk in desired position, push measuring button.
5. Read value indicated on EV scale.



6. Convert reading to desired units by referring to scale on back of meter (e.g., an indicated value of EV10 converts to 2500 luces or 230 foot-candles.)



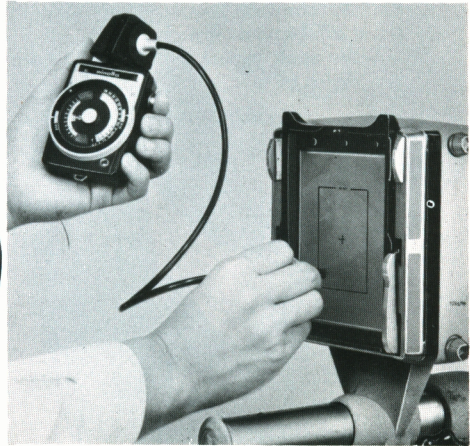
## Pinpoint Receptor for Measuring Light on Groundglass

### General

1. Screw threaded end of receptor into place on meter head (function selector may be at either INC or REF; film speed may be at any setting).



2. Place receptor probe perpendicularly in contact with groundglass over parts of image to be measured.
3. Push measuring button.



## To Determine (Subject or Lighting) Contrast Ratios

- 14
1. Use probe to measure areas as desired.
  2. Find the number of steps' difference between readings on reference number scale. (If a reading off one end of the scale is indicated, continue counting steps with index at other end of scale.)
  3. Determine approximate contrast ratio from the following table:

Steps' Difference on Reference Scale	Approx. Brightness Ratio of Brighter Area to Darker One
1	2:1
1-1/2	3:1
2	4:1
3	8:1
4	16:1
5	32:1
and so on.	

## To Read Exposure for Small Areas (Down to approx. 3mm in diameter)

1. Calibrate for transmission of each different groundglass to be used.
  - A. Use probe to measure brightness of groundglass image of a solid-color, medium-brightness surface (such as a neutral-color wall or most preferably a standard gray card of 18 percent reflectance).
  - B. Preferably on color reversal film, make 5 trial exposures, first at the exposure indicated by the meter (e.g., F8 at 1/15 sec.) with each succeeding one only half as great, i.e., 1 EV number less (e.g., F8 at 1/30, 1/60, 1/125 and 1/250, successively).
  - C. After film has been processed, determine the most satisfactory trial frame and the number of stops' less exposure it received than that directly indicated by the reading with the probe (e.g., 3 stops if best exposure was F8 at 1/125 when meter indicated F8 at 1/15).



2. After making each subsequent reading with probe on same groundglass, find correct exposure by moving scale to set opposite index a guide number that is larger than the one indicated by a number of stops' difference determine; under 1C above (e.g., 3 steps to the left from guide number 3 to 6 to indicate an exposure of F8 at 1/60 if uncorrected reading is F8 at 1/8).

The appropriate number of stops' corrective adjustment can of course be set using the EV scale or directly on the aperture and shutter speed scales if desired.

#### CAUTION:

It is important to ensure that extraneous light from back or side does not influence readings through groundglass when using pin-point receptor.



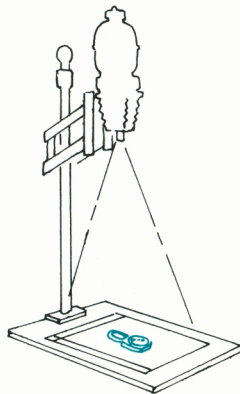
## Spot Mask to Determine Enlarging Exposure

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1. Screw mask into place on light receptor head (function selector may be set at either INC or REF).
2. To calibrate, make a satisfactory test enlargement without meter and set aperture and time used to make it on meter by turning film speed setting disk.



3. Then project each following negative on easel and, after adjusting image size and focus and setting lens to aperture to be used for exposure, place spot on easel under a medium-density area.
4. Push measuring button.
5. Read exposure time opposite aperture-scale F-stop number at which enlarger lens is set.



## CARE AND STORAGE

- Do not touch receptor surfaces; keep them clean by using a soft brush from time to time. If they become soiled, remove loose matter with a blower brush, then wipe gently with a soft cloth.
- Do not subject your Autometer Professional to vibration or shocks.
- The unit should never be placed or left in glove compartment or other places in motor vehicles or elsewhere in which it may be subject to relatively high temperatures. Further, do not store it in humid places or near corrosive chemicals.
- If the Prometer is left unused for more than a month, be sure to remove the battery.
- When the unit is to be stored for a long time, it should ideally be placed in its original package and sealed in an air-tight container with an appropriate quantity of a dehumidifying agent such as silica gel.

If you have any questions, ask your Minolta dealer. He is knowledgeable in all aspects of photography, and he can help you with all of your photographic needs.

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