Minolta Exposure Meters and Accessories

Minolta hand-held meters, designed for complex lighting situations that are beyond the scope of any built-in meter, are considered the most sophisticated, yet easiest to use meters ever created. A traditional leader in meter technology, Minolta has developed exposure meters which provide the professional photographer and advanced amateur with unfailing accuracy and dependability.

The Minolta Auto Meter III is the world's first direct-reading exposure meter to combine a built-in microcomputer, memory function and Liquid-Crystal Display (LCD). It offers the accuracy of a digital readout and the graphic indication of an analog scale. At the touch of a button, the meter provides all necessary exposure information. The Auto Meter III will also automatically recalculate the information when the ASA or shutter speed is changed. And the meter's memory can store and display up to two exposure readings for comparison with a third. The Auto Meter III enables photographers to even work in very complex lighting situations.

The Minolta Spotmeter M is a re-flected-light meter that measures a 1° spot on the subject through an SLR view-finder. Using the combined advantages of a built-in microcomputer, memory function and LCD, it digitally displays the exposure reading. Simultaneously, the reading is displayed on an analog f/number scale. The Spotmeter M has an exclusive expo-sure-zone calculation capability which biases the readout to give exposure prior-ity to highlight or shadow areas. Or, an average exposure, based on the two areas being measured, can be calculated at the touch of a button. It does this with extreme accuracy, providing all necessary expo-sure information required for complex or highly advanced photographic techniques.

The Minolta Auto-Spot II and Auto-Spot II Digital are sophisticated hand-held 1° spot meters especially designed to meter specific areas on the subject which are difficult to reach. The Auto-Spot II uses a motorized scale in the viewfinder to give the correct shutter speed/aperture combi-nations and EV numbers. The Auto-Spot II Digital provides LED digital readouts of EV numbers in the finder and f/stop informa-tion on the side of the meter.

The Flash Meter III, a multi-function meter with microprocessor technology and LCD, is designed to measure electronic flash and flash bulbs, as well as continu-ous light. The Flash Meter III makes pre-cise readings of incident or reflected light with assured 1/3 stop accuracy. For user convenience, the head of the Flash Meter III swivels 270°. The light receptor may be pointed in any direction while the controls and exposure information still face the user.

The Minolta Color Meter II measures a ratio of the three colors of continuous or non-continuous light sources, or a combi-nation of light sources, and then recom-mends appropriate filtration for the film type being used. This specialized meter digitally displays accurate color compen-sation and light balancing filter indexes to determine the right filters to use. With the Color Meter II the filtration for any film type can be determined easily, from any light source, at the push of a button.

Accessories for Minolta flash or incident meters include: Viewfinder 10°, Mini Recep-tor, Flat Diffuser, Spot Mask II and Booster Kit. These accessories make Minolta meters the most versatile hand-held meters available today.

Minolta Auto Meter III

World's first exposure meter with liquid-crystal digital/analog readout and memory.
Solid-state microprocessor technology assures professional reliability.

Spherical Diffuser
Standard dome-shaped diffuser for incident metering. Interchanges with 40° reflected-light attachment or accessory neutral density diffusers, spot mask, flat diffuser or 10° Viewfinder. See page E4 for additional information.

Receptor Bayonet Index
Align index dot on meter accessories with index line on receptor head bayonet mount; turn clockwise to lock into position.

Power Switch
On/off switch to power meter.

LCD Analog Scale
Pointers indicate measured and memorized exposure readings for convenient comparisons on f/number array. Indicators move to reflect ASA or shutter speed changes.

LCD Digital Readout
Displays f/numbers from 0.7 to 64.9 or EV numbers from −5 to 28.5 in 1/10 stop increments and Time/ASA settings. Readout displays an "E" if more than two readings are put into memory; if memory is cleared, "0" appears when recall key is pushed.

Memory-Clear Key
Push key to clear memory.

ASA/Exposure-Time Selector Key
Press key to alternate input of ASA settings from ASA 12 to 6400 or shutter speed settings from 1/2000 sec. to 30 min.

Accessory Receptor Jack
Receptor for connecting optional Booster Kit and Mini-Probe. See page E4 for additional information. (Not shown.)

Receptor Head
Rotatable receptor head houses silicon photo cell for instant response and precise readings in low light. Meter head and body constructed of reinforced ABS synthetic resin for durability.

Measuring Button
Press button to take an exposure reading when meter is set in "Time" mode. Meter will make continuous readings when measuring button is held in.

Increase/Decrease Keys
Push keys to raise and lower ASA or shutter speed settings.

F-Number/EV Display Key
Press key to alternate display from f/numbers to EV readouts.

Recall Key
Press for digital recall of exposure measurements stored in memory.

Memory Key
Push key to enter exposure reading in memory. Up to two readings can be stored, and will remain displayed on the analog scale.

Battery Chamber
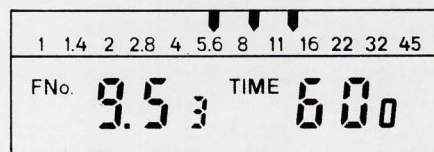Accepts one 1.5V AA-size penlight battery. (Not shown.)

ASA (ISO)/DIN and Cine Conversion Tables
Use table on back of meter to determine exposures for film-making. Converts DIN speeds to ASA (ISO) ratings. (Not shown.)

Measuring range at ASA 100:
Incident: EV−2 to 19.5
Reflected: EV1 to 22.5
Size: $5^{3}/_{16}$ x $2^{11}/_{16}$ x $4^{3}/_{16}$ in.
(132 x 69 x 31mm)
Weight: $5^{5}/_{16}$ oz. (150g)

LCD Readout

Three indicators on the analog f/number array represent two measurements stored in memory and the third comparative exposure measurement. The third reading is also displayed digitally. Memorized readings can be recalled digitally. Readouts change to reflect changes in ASA or exposure time settings.

Minolta Flash Meter III

A multiple function exposure meter for measuring continuous light and/or flash by microcomputer with liquid-crystal display.

Receptor Head

Receptor head rotates 270° for reading convenience. Silicon photo cell has 1/100,000 sec. response time. Meter head and body constructed of reinforced ABS synthetic resin for durability.

Receptor Bayonet Index

Align index dot on meter accessories with index line on receptor head bayonet mount; turn clockwise to lock into position.

Spherical Diffuser

Standard dome-shaped diffuser for incident light metering. Interchanges with 40° reflected light attachment or accessory neutral density diffusers, spot mask, flat diffuser or 10° Viewfinder. See page E4 for additional information.

LCD Display Window

Readout shows set measuring mode, f/number (f/1 to f/90.9) or EV (EV 1 to 23.2) exposure readings to within 1/3 stop and multiple flash count. On "AMBI," readout changes automatically when shutter speed is changed. Displays "O" or "E" as battery check, blinks to signal for battery replacement.

Measuring-Mode Selector

Slide switch up for f/number display, down to read exposure index (EV).

Power Switch

On/off switch to power meter.

Synch Terminal

Insert flash unit PC cord in synch terminal for metering on "cord" mode. Terminal is threaded to secure accessory Synch Cord II in place.

Battery Chamber

Accepts 6-1.5V silver-oxide batteries. (Not shown).

Accessory Receptor Jack

Receptor for connecting optional Booster Kit and Mini-Probe. See page E4 for additional information. (Not shown.)

Display-Mode Selector

Four position sliding switch sets meter for measuring ambient light ("AMBI"), cord-connected flash ("CORD"), non cord connected flash ("NON. C") or multiple flash ("MULTI").

Measuring Button

Press button for continuous ambient light measurements, for cord-connected readings or to reset meter for non-cord or multi flash exposure metering.

Shutter Speed Window

Align selected shutter speed with white index mark adjacent to window.

Shutter Speed Selector

Turn knurled dial to input shutter speeds from 30 to 1/1000 sec. for ambient light measurement; 1 to 1/250 sec. for cord, non-cord or multiple flash measurements.

Film-Speed Window

Align selected ASA with white index mark adjacent to window.

Film-Speed Selector

Press in chrome release button on back of meter to release dial for setting film speeds from ASA 12 to ASA 3200 in 1/3 stop increments.

Measuring Level Adjuster

Insert small screwdriver in slot to turn screw for adjusting the measuring level by ±1 EV. White graduation marks equal increments of 0.2 EV. (Not shown.)

Measuring Ranges at ASA 100:
Flash, Incident and Reflected: f/1.4 to 90.9
Continuous Light, Incident and Reflected: EV 1 to 18.2

Size: 1 3/16 x 2 11/16 x 6 3/16 in.
(30 x 73 x 153mm)
Weight: 8 7/16 oz. (240g.) without batteries.

AMBI

"AMBI" measuring mode for continuous light sources displays EV or f/number. Readout changes automatically to reflect shutter speed changes.
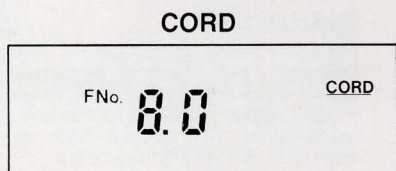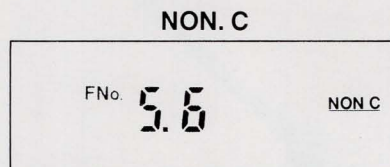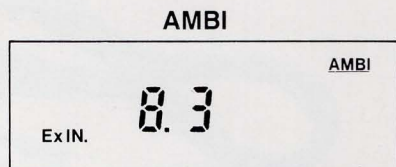
CORD

"CORD" mode for measuring cord-connected electronic flash and M-class flash bulbs; displays EV or f/number.

NON. C

"NON. C" operation for single-burst electronic flash without a PC cord connection: EV or f/number readouts. Press measuring button to reset meter.

MULTI

"MULTI" position for metering multiple or cumulative electronic flash without PC cord connection. Readout displays f/number and cumulative flash count; shows last digit of accumulations over 9 flashes.

NOTE: Specifications subject to change without notice.
See page L3 for additional information.

Minolta Auto Meter III and Flash Meter III Accessories

A system of interchangeable accesssories to expand the applications and versatility of the meters.

Spherical Diffuser

This dome-shaped diffuser (supplied with meters) attaches to receptor head for measuring incident light. Its deeply curved form assures proper integration of all photographically relevant light illuminating the subject.*

Flat Diffuser

Attach this diffuser to measure the lighting ratio between the main and auxiliary light sources for light balancing, to determine illuminance values or read incident light for flat objects. With Flash Meter III, the Flat Diffuser can also be used to determine the guide number of electronic or M-bulb flash units.*

10° Spot Attachment

Fitting in place of the incident-reading dome, this optional attachment converts the meters into spot meters with a narrow 10° angle of view. The attached optional finder allows accurate aiming for precise measurements.*

40° Reflected-Light Attachment

This flat disc makes wide area reflected light readings. It has a 40° angle of acceptance.*

Minolta Booster Kit

This optional kit greatly extends the meters' versatility. It features a (1-6V silver-oxide) battery-operated meter booster that plugs into the meter receptor head accessory jack to increase the low-light sensitivity for specialized applications. The measuring range (at ASA 100) of the Auto Meter III is extended to EV –7 to 19.5; EV –6.3 to 18.2 with the Flash Meter III. Booster Kit attachments permit metering from an SLR viewfinder eyepiece, focusing screen or view camera ground glass, 35mm film plane and microscope eyepiece. Without attachments, the booster can also be used as a conventional reflected-light meter.*

Spherical Neutral Density Diffusers

ND4X and ND8X diffusers permit making readings from extraordinary bright light sources. The ND4X dome reduces the intensity by 2 stops, the ND8X by 3 stops.*

Spot Mask II

For darkroom work, adapts the meters for use as a spot-reading, on-easel enlarging exposure meter. After test printing a reference frame to determine proper aperture setting and exposure time, the spot mask aids in obtaining similar-quality exposure values. Also fits Auto Meter II.

Mini-Receptor

The optional mini-receptor has a miniature diffuser dome at the end of a metal-shielded flexible cable for incident reading of small, hard-to-reach subject areas such as in still life and close-up work. A plug at the end of the cable connects into the meters' receptor head accessory jack.*

Synch Cord II

Permits connecting camera PC terminal, flash unit and Flash Meter III simultaneously. This allows cord-connected flash readings to be made without the chore of disconnecting and reconnecting the camera flash synch cable each time. Also fits Flash Meter II.

*Also fits Auto Meter II and Flash Meter II

NOTE: Specifications subject to change without notice.

Minolta Spotmeter M

World's first 1° spot meter with liquid-crystal digital/analog readout, memory and exposure-zone calculation capability.

Power Switch
On/off switch to power meter.

LCD Analog Scale
Pointers indicate measured and memorized exposure readings for convenient comparison on f/number array. Indicators move to reflect ASA or shutter speed changes.

Lens
Fixed-focus lens for readings from about 5 ft. to infinity.

LCD Digital Readout
Displays f/numbers from 0.7 to 64.9 or EV numbers from −4.3 to 28.5 in 1/10-stop increments and ASA/Time settings. Display changes automatically to reflect changes in ASA or shutter speed. Readout displays an "E" if exposure-zone calculations are made without memorized readings, or if more than two entries are stored; if memory is cleared, "O" appears when recall key is pushed.

Memory Clear Key
Push key to clear memory.

Measuring Button
Squeeze trigger to activate meter for continuous light measurement.

ASA/Time Display Key
Press key to alternate display and/or input of ASA settings from ASA 12 to 6400 or shutter speed settings from 1/2000 sec. to 30 min.

Display Illumination Button
Press button to illuminate digital finder display for easy viewing in dim light.

Battery Chamber
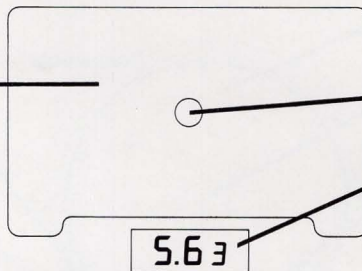Accepts one 1.5V AA-size penlight battery. (Not shown.)

Measuring Level Adjuster
Turn control inside battery chamber for fine adjustment of measuring level by ±1 EV in 0.2 EV increments. (Not shown.)

Viewing Field
Fixed-focus, through-the-lens reflex view via pellicle mirror and pentaprism with 1.4X magnification; shows 12 x 17° rectangular view.

Shadow Key
To bias exposure for dark, shadow areas, measure dark area and store in memory; press Shadow Key; meter will automatically recalculate exposure setting. See illustration below for additional information.

Highlight Key
To bias exposure for bright, highlight areas, measure bright area and store in memory; press Highlight Key; meter will automatically recalculate exposure setting. See illustration below for additional information.

Eyepiece
Built-in eyepiece is adjustable from −2.5 to +1.2 diopters.

Average Key
To calculate the average exposure of a scene, meter and memorize readings for both bright and dark areas; press Average Key; meter will automatically calculate a median exposure point. See illustration below for additional information.

F-No./EV Display Key
Press key to alternate display from f/numbers to EV numbers.

Increase/Decrease Keys
Push keys to raise and lower ASA or shutter speed settings.

Recall Key
Press for digital recall of exposure measurements stored in the memory.

Memory Key
Push key to enter exposure reading in memory. Up to two readings can be stored, and will remain displayed on the analog scale.

Tripod Socket
Threaded for standard tripod mounting screws. (Not shown.)

Measuring range at ASA 100: EV 1.0 to 22.5
Size: 1⅞ x 3⁹/₁₆ x 5⅞ in.
Weight: 8⅛ oz. (230g) without batteries
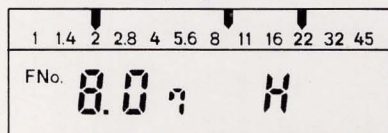
Viewfinder Information

Measuring Spot
Defines 1° angle of acceptance.

LCD Exposure Readout
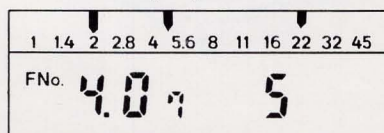Digital display shows measured f/number or EV-number. Lights when illuminator button on grip is depressed.

5.6 3

Highlight Display

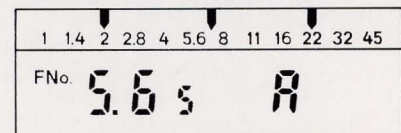1 1.4 2 2.8 4 5.6 8 11 16 22 32 45
FNo. 8.0 ₁ H

LCD shows recalculated exposure reading, biased to correctly reproduce the highlight areas of a scene. The calculated highlight readout increases exposure by 2.3 stops.

Shadow Display

1 1.4 2 2.8 4 5.6 8 11 16 22 32 45
FNo. 4.0 ₁ S

LCD shows recalculated exposure reading, biased to correctly reproduce the shadow areas of a scene. The recalculated shadow readout reduces the exposure by 2.7 stops.

Averaging Display

1 1.4 2 2.8 4 5.6 8 11 16 22 32 45
FNo. 5.6 s A

Measurements of a highlight and shadow area of a scene, stored in memory, appear on the analog scale. Press "A" key to compute the average exposure of the two readings.

NOTE: Specifications subject to change without notice.
See page L3 for additional information.

Minolta Auto-Spot II

Provides accurate 1° spot measurements via a unique flareless SLR optical system.

Battery Chamber
Accepts one 9V "transistor-type" battery.

Lens
Provides 9° circular view of the scene; Focuses to 3.3 ft.; 40.5mm filter thread accepts close-up lens adapter for readings as close as 6 in.

Lens Hood
Retractable rubber shade (supplied with meter) helps prevent glare from interfering with accurate measurements.

Focusing Grip
Waffled rubber grip provides quick, sure focusing.

Battery-Check Indicator
Lights to indicate sufficient power for meter operation.

Measuring Trigger
Squeeze trigger to activate meter for continuous measurement.

Battery-Check Button
With meter turned on, indicator lights when button is depressed for battery check.

Power Switch
On/off switch with spring-loaded "lamp" position to illuminate viewfinder scales.

Film Speed Setting Knob
Pull out and turn knob to set ASA from 3 to 25,000 in 1/3 stop increments. Release knob to lock setting. ASA readouts in viewfinder.

Handgrip
Comfortable grip with rubberized, non-slip surface for sure handling.

Eyepiece
Turn eyepiece until measuring spot in finder is clearly visible; adjustable from −4.58 to +2.73 diopters.

Tripod Socket
Accepts standard tripod mounting screw; located on bottom of handgrip.

EV-Luminance Table
Converts Exposure Values to luminance readings in foot-Lamberts (ft-L) or candelas per square meter (cd/m^2). (Not shown.)

Measuring Level Adjustor
For fine adjustment of measuring level by ±1 EV in 1/3 stop increments. (Not shown.)

ASA/DIN Conversion Table
Located on bottom of handgrip. Table converts DIN film speeds to ASA ratings.

Measuring Range at ASA 100 : EV 3 to 17 (up to 21 with accessory ND filter)

Size: $2^7/_8$ x $6^3/_8$ x $4^{11}/_{16}$ (62 x 162 x 119mm)
Weight: 19¾ oz. (560g) without battery.

Motorized Viewfinder Scale

Viewing Field
Shows Circular 9° viewing area.

Measuring Spot
Shows precise 1° angle of acceptance for metering.

Cine Scale
Use for movie cameras with 180° shutter sector for metering at 8 to 128 fps.

Time Scale
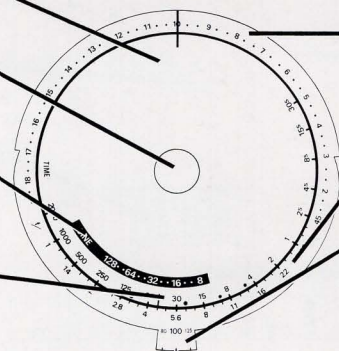Shows shutter speeds from 1/2000 to 30 seconds.

EV Scale
Shows exposure values from EV 2 to 18.

Aperture Scale
Displays f/numbers from f/1 to f/45.
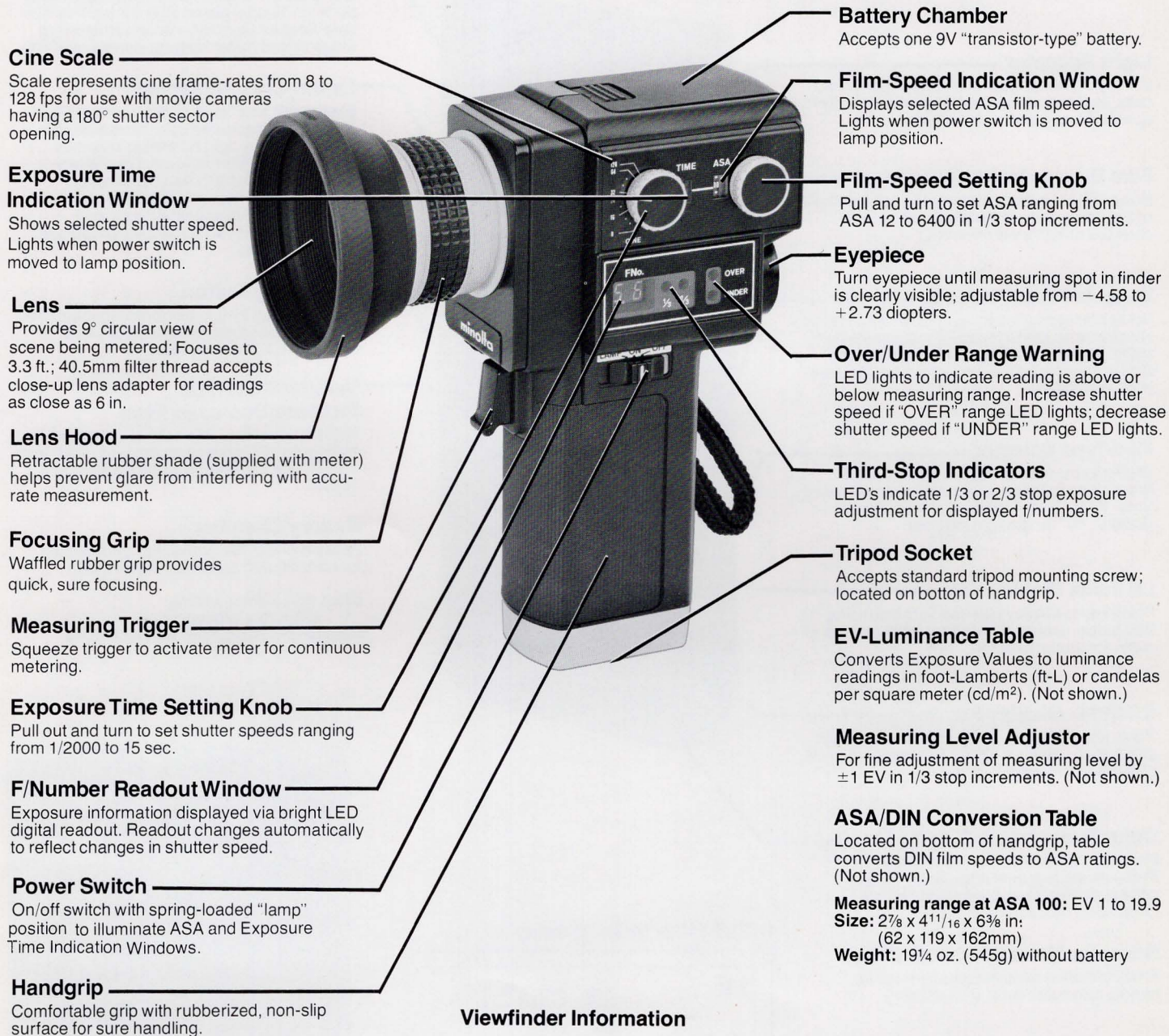
Film Speed Indication
Shows set ASA.

Minolta Auto-Spot II Digital

Highly accurate 1° spot meter with solid-state design and digital LED exposure readouts via a unique flareless SLR optical system.

Cine Scale
Scale represents cine frame-rates from 8 to 128 fps for use with movie cameras having a 180° shutter sector opening.

Exposure Time Indication Window
Shows selected shutter speed. Lights when power switch is moved to lamp position.

Lens
Provides 9° circular view of scene being metered; Focuses to 3.3 ft.; 40.5mm filter thread accepts close-up lens adapter for readings as close as 6 in.

Lens Hood
Retractable rubber shade (supplied with meter) helps prevent glare from interfering with accurate measurement.

Focusing Grip
Waffled rubber grip provides quick, sure focusing.

Measuring Trigger
Squeeze trigger to activate meter for continuous metering.

Exposure Time Setting Knob
Pull out and turn to set shutter speeds ranging from 1/2000 to 15 sec.

F/Number Readout Window
Exposure information displayed via bright LED digital readout. Readout changes automatically to reflect changes in shutter speed.

Power Switch
On/off switch with spring-loaded "lamp" position to illuminate ASA and Exposure Time Indication Windows.

Handgrip
Comfortable grip with rubberized, non-slip surface for sure handling.

Battery Chamber
Accepts one 9V "transistor-type" battery.

Film-Speed Indication Window
Displays selected ASA film speed. Lights when power switch is moved to lamp position.

Film-Speed Setting Knob
Pull and turn to set ASA ranging from ASA 12 to 6400 in 1/3 stop increments.

Eyepiece
Turn eyepiece until measuring spot in finder is clearly visible; adjustable from −4.58 to +2.73 diopters.

Over/Under Range Warning
LED lights to indicate reading is above or below measuring range. Increase shutter speed if "OVER" range LED lights; decrease shutter speed if "UNDER" range LED lights.

Third-Stop Indicators
LED's indicate 1/3 or 2/3 stop exposure adjustment for displayed f/numbers.

Tripod Socket
Accepts standard tripod mounting screw; located on botton of handgrip.

EV-Luminance Table
Converts Exposure Values to luminance readings in foot-Lamberts (ft-L) or candelas per square meter (cd/m²). (Not shown.)

Measuring Level Adjustor
For fine adjustment of measuring level by ±1 EV in 1/3 stop increments. (Not shown.)

ASA/DIN Conversion Table
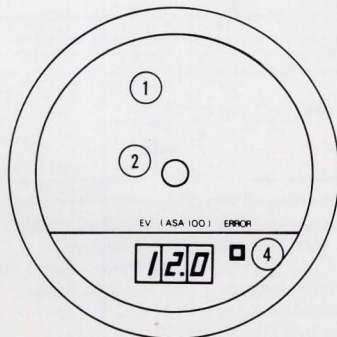Located on bottom of handgrip, table converts DIN film speeds to ASA ratings. (Not shown.)

Measuring range at ASA 100: EV 1 to 19.9
Size: 2⅞ x 4¹¹/₁₆ x 6⅜ in:
(62 x 119 x 162mm)
Weight: 19¼ oz. (545g) without battery
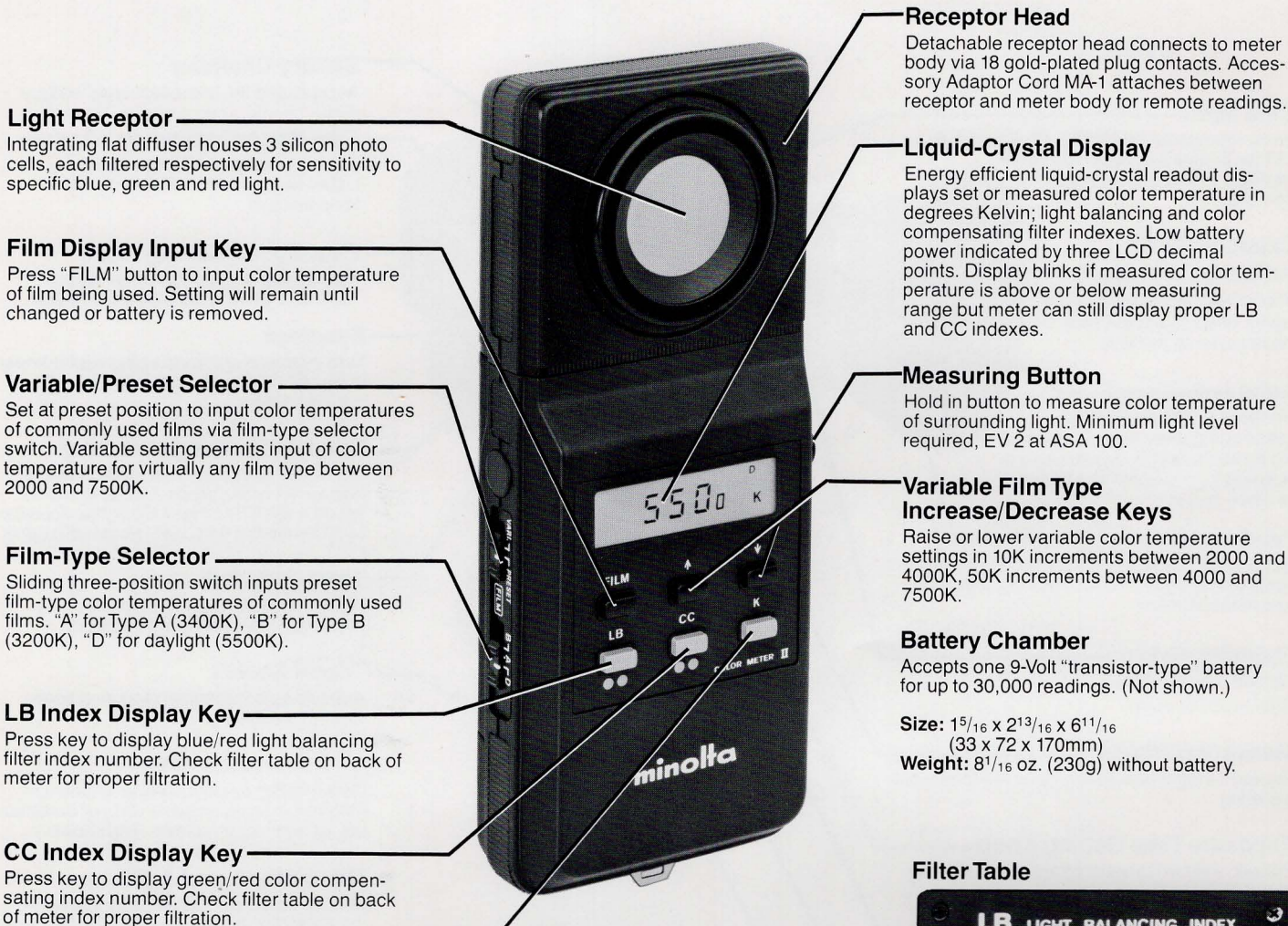
Viewfinder Information

1. Circular 9° viewing area.
2. Precise 1° measuring spot.
3. LED exposure value (EV) display.
4. Error indicator

Minolta Color Meter II

World's first digital, three-color meter provides highly accurate readings for filtering any film/light-source combination.

Light Receptor
Integrating flat diffuser houses 3 silicon photo cells, each filtered respectively for sensitivity to specific blue, green and red light.

Film Display Input Key
Press "FILM" button to input color temperature of film being used. Setting will remain until changed or battery is removed.

Variable/Preset Selector
Set at preset position to input color temperatures of commonly used films via film-type selector switch. Variable setting permits input of color temperature for virtually any film type between 2000 and 7500K.

Film-Type Selector
Sliding three-position switch inputs preset film-type color temperatures of commonly used films. "A" for Type A (3400K), "B" for Type B (3200K), "D" for daylight (5500K).

LB Index Display Key
Press key to display blue/red light balancing filter index number. Check filter table on back of meter for proper filtration.

CC Index Display Key
Press key to display green/red color compensating index number. Check filter table on back of meter for proper filtration.

Color Temperature Display Key (K)
Press key to put meter in measuring mode. Press measuring button to display metered color temperature of continuous and non-continuous light sources.

Receptor Head Release Button
Press button to remove receptor head for remote measurements. (Not shown.)

Measuring Button Lock
Locks measuring button for continuous read-outs or to prevent accidental metering. (Not shown.)

Receptor Head
Detachable receptor head connects to meter body via 18 gold-plated plug contacts. Accessory Adaptor Cord MA-1 attaches between receptor and meter body for remote readings.

Liquid-Crystal Display
Energy efficient liquid-crystal readout displays set or measured color temperature in degrees Kelvin; light balancing and color compensating filter indexes. Low battery power indicated by three LCD decimal points. Display blinks if measured color temperature is above or below measuring range but meter can still display proper LB and CC indexes.

Measuring Button
Hold in button to measure color temperature of surrounding light. Minimum light level required, EV 2 at ASA 100.

Variable Film Type Increase/Decrease Keys
Raise or lower variable color temperature settings in 10K increments between 2000 and 4000K, 50K increments between 4000 and 7500K.
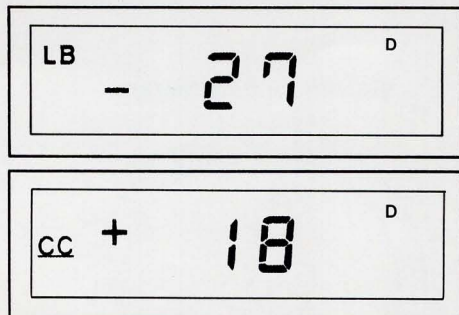
Battery Chamber
Accepts one 9-Volt "transistor-type" battery for up to 30,000 readings. (Not shown.)

Size: $1^{5}/_{16}$ x $2^{13}/_{16}$ x $6^{11}/_{16}$ (33 x 72 x 170mm)
Weight: $8^{1}/_{16}$ oz. (230g) without battery.

CC/LB Filter Index Display

Light balancing indexes from −762 to +999 mireds for blue/red light ratio; ±2 mired accuracy. Color compensating index from −99 to +99 decamireds for green/red light ratio; ±1 decamired accuracy. Provides CC and LB indexes even if color temperature is above or below measuring range.

Filter Table

LB LIGHT BALANCING INDEX					
LB+	**AMBER**	**+EV**	**LB−**	**BLUE**	**+EV**
+10	81	1/3	−10	82	1/3
+18	81A	1/3	−18	82A	1/3
+27	81B	1/3	−32	82B	2/3
+35	81C	1/3	−45	82C	2/3
+42	81D	2/3	−55	80D	1/3
+53	81EF	1/3	−81	80C	1
+81	85C	1/3	−112	80B	1 2/3
+112	85	2/3			

CC COLOR COMPENSATING INDEX					
CC+	**MAGENTA**	**+EV**	**CC−**	**GREEN**	**+EV**
+2	5M	1/3	−2	5G	1/3
+4	10M	1/3	−4	10G	1/3
+8	20M	1/3	−7	20G	1/3
+13	30M	2/3	−10	30G	2/3
+18	40M	2/3	−13	40G	2/3

Converts LB and CC indexes into standard Kodak filter designations. Positive indexes for "warming" filters, negative for "cooling" filters. If metered index number does not exactly match filter table index number, approximate to closest one. Two numbers on the table can be added together to equal the metered index number. Filter table also gives exposure factors. Other filter brands are listed in owner's manual.

NOTE: Specifications subject to change without notice. See page L3 for additional information.