## **Nikon EM**







- Ultra-compact, lightweight design
- Full electronic exposure automation
- Exclusive 'fail-safe' features
- Matched auto flash, motor drive and lenses
- Easiest, most economical entry into Nikon System

The Nikon EM brings Nikon-quality photography within the reach of all. Smallest and lightest of all Nikon slrs, it is also the easiest to use —perfect for the beginning slr photographer, while offering system-wide capabilities (including matched motor drive, thyristor flash and compact Nikon Series E lenses) that appeal to more advanced slr users as well. Special, sophisticated Nikon-designed electronic and production technology makes it possible to offer the EM at a remarkably modest price. Yet, from silver-coated pentaprism to gold-plated motor drive contacts, it unmistakably reaffirms the heritage of quality that is paramount to the Nikon system.

### Reliable, electronic automation

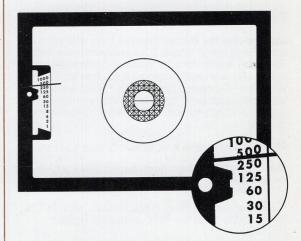
With the Nikon EM, the photographer need only focus and shoot. Instantly, the Silicon Photo Diode meter relays its exposure command to a Nikon-designed monolithic Integrated Circuit, which automatically sets the optimum shutter speed for best exposure. For ultimate accuracy, speeds are stepless and continuously controlled from 1/1000th through 1 second. Based on the proven Nikon center-weighted principle, the SPD meter features virtually instantaneous response with wide-range accuracy.

### ...with system-wide versatility

The EM's aperture-priority technology assures excellent, automatic results with all Nikon Series E lenses, Al-Nikkor, PC-Nikkor, and Reflex-Nikkor lenses, plus such important accessories as Nikon extension rings, bellows units, slide copiers, even microscopes and telescopes. At all times, the photographer enjoys maximum depth-of-field control. For special situations (backlighting, subject in shade, etc.), the EM shutter may be 'programmed' for a 2 EV exposure increase merely by pressing the exposure compensation button.

### Brilliant, data-filled finder

Silver-coated pentaprism shows exceptionally large, bright image with full-field sharpness. The Nikon 'K' screen (patterned after Nikon cameras built for U.S. astronauts) offers 3 focusing aids for fast, pinpoint sharpness control: central split-image rangefinder, surrounding microprism ring, and overall matte/ Fresnel surface. Information readouts include complete shutter speed scale, meter needle indicating automatic speed in use, under/over exposure warning zones, and special LED signal for flash photography.



### ...with exclusive SONIC™ safeguard

The unique SONIC™ system (Sound & Optical Nikon Indicator Circuits) provides a twofold alert if the automatic shutter speed is beyond best-exposure range. You hear a pulsing "beep" if the required speed is below 1/30th second (too slow for hand-held shooting), or above 1/1000th. And, you see the meter needle swing into a red warning zone at either end of the shutter speed scale. Both are activated by depressing the shutter button halfway.

Once you have been alerted—unmistakably—by the SONIC system, you simply turn the lens aperture ring until the needle points to the desired speed and the "beep" stops. It's a sure-fire safeguard against both incorrect exposures and image blur from camera movement.

## **Nikon EM**

#### Rugged metal shutter

Travels vertically for maximum efficiency, permitting X-synch at 1/90th second as well as reliable motorized operation as fast as 2 frames per second. Speeds are stepless from 1 to 1/1000th second in automatic mode. Additionally, shutter operates even without batteries at mechanically-controlled speeds of 1/90th second and 'B,' permitting manual use if the long-life silver oxide batteries should unexpectedly fail—a vital safeguard lacking in many costlier "automatics."

### Full range of advanced features:

- Constant-torque advance lever winds film and shutter and counts exposures in single 144° stroke or multiple strokes; unique folding design permits comfortable viewing through either right or left eye.
- Built-in hot shoe provides automatic X-synch speed setting and exposure data exchange with accessory Nikon SB-E electronic flash, plus cordless synch with any standard hot-shoe flash.
- Automatic meter on/off switching: turns on with slight pressure on shutter button; automatic time delay turns meter off several seconds after pressure is released to assure maximum battery life.
- Fast, easy film loading with multi-slotted take-up spool and hinged back—plus, exclusive electronic sensor automatically sets shutter to 1/1000th second until frame "1", eliminating delay in loading possible with other automatic systems.
- Self-timer with approximate 10-second delay; may be 'cancelled' prior to exposure if desired.
- · Battery tester with external LED indicator.

#### Plus

- Instant-change Nikon bayonet lens mount accepts all Nikon Series E and original manufacture Al-Nikkor lenses for total automatic exposure and automatic flash performance; also uses modified Al-Nikkor, PC-Nikkor, and Reflex Nikkor lenses for automatic exposure metering and single-aperture automatic flash control. (Refer to flash section for details)
- · Built-in film memo holder and tripod socket.
- Motor drive and auto flash capabilities (described on next page).

Nikon EM camera body in black finish, with (2) 1.5v Silver Oxide batteries (S76 or equiv.), Product No. 1700.

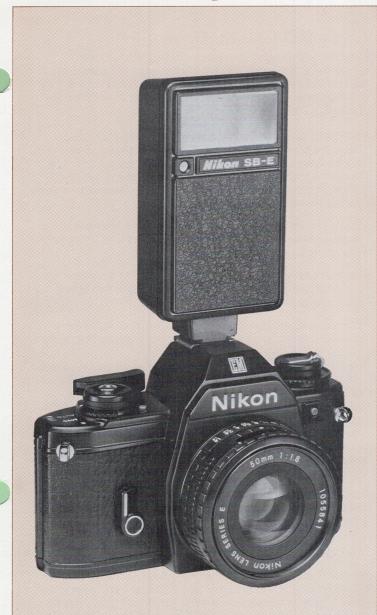
### **Technical Specifications**

- **Camera Type:** Ultra-compact automatic 35mm slr with through-the-lens Silicon Photo Diode center-weighted meter, interchangeable lenses, and accessory thyristor flash and motor drive.
- **Lensmount:** Metal Nikon bayonet accepts all reflex-viewing Nikon Series E, Al-Nikkor and non-meter-coupled special Nikkor lenses 6mm—2000mm, plus most Nikon-mount accessories; not for use with non-Al Auto-Nikkor lenses. Flange/film distance 46.5mm. Automatic diaphragm and Al (Automatic Indexing) coupling.
- **Exposure Control:** Automatic through-the-lens with aperture priority; manual control at 1/90th second and 'B' (independent of battery power).
- Meter Systems: Center-weighted Silicon Photo Diode meter concentrates major sensitivity on central area outlined by circle in finder; operates at full aperture with Nikon Series E and Al-Nikkor lenses; stopdown measurement with PC-Nikkors, Reflex-Nikkors, and other uncoupled (non-auto) lenses and accessories. Automatic maximum aperture indexing with all Series E and Al-Nikkor lenses.
- SONIC™ Exposure Alert: Automatically provides twofold warning: audible "beep" if required shutter speed is slower than 1/30th second or faster than 1/1000th, plus visible indication in finder with meter needle swinging into red zones below 1 second and above 1/1000th. Activated by pressing shutter release halfway.
- Meter Ranges: ASA 25-1600; EV 2 to 18 (with ASA 100 film and f1.8 lens). Full-aperture coupling range f1.2—f32.
- **Shutter:** Electronically-timed, vertical-travel focal plane; speeds continuously variable 1/1000th sec.—1 sec. in auto mode; shutter operates at mechanically-controlled M90 (1/90th) or B even if batteries are depleted.
- **Flash Synchronization:** 'X' synch at 1/90th second. Automatic flash synch changeover, shutter speed setting, and eyepiece LED readylight activation with accessory Nikon Thyristor Flash SB-E (or SB-10).
- Flash Contact: Built-in hot shoe with special contacts for SB-E flash data relay and shutter programming; compatible (without these special functions) with other standard ISO hot shoe units.
- Viewfinder: Silver-coated pentaprism with minus 1.0 diopter eyepiece; information display includes complete shutter speed scale with indicator for speed in use; SONIC™ Sound & Optical Nikon Indicator Circuits; under/over-exposure, and LED ready light for full automatic functions with Nikon SB-E flash or limited function with Nikon SB-10.
- **Focusing Screen:** Fixed Nikon Type K screen with 3mm-diameter splitimage rangefinder, 1mm microprism circle plus overall matte/Fresnel area; large circle denotes central metered area.
- **Reflex Mirror:** Oversize, coated instant-return-type with special damping mechanism.
- **Film Loading:** Multi-slotted take-up spool, hinged back and additive automatic exposure counter; electronic sensor programs shutter to fastest speed during loading.
- Film Transport: Ratchet-action lever advances film, winds shutter, and counts exposures in single or multiple strokes totalling 144°, may be left at 'ready' position or folded flush with camera top without affecting meter/shutter operation.
- Film Rewind: Rewind-release button on camera baseplate; fold-out rewind crank pulls up to open camera back. Operates with motor drive attached.
- **Battery Type:** Two 1.5v silver oxide batteries (Eveready S76 or equivalent) power meter, shutter, LED and SONIC signals; LED battery tester built-in.
- Other Features: Meter turned on by slight pressure on shutter release, automatically turns off approx. 20 seconds after pressure is removed; audible and visual exposure safeguards via exclusive Nikon SONIC system; built-in neckstrap eyelets; built-in cancellable self timer with approximate 10-sec. delay; memo holder on camera back stores film carton tab or other data; accepts accessory Nikon motor drive MD-E and Thyristor Flash SB-E.

**Dimensions:** Camera body, 5.3" x 3.38" x 2.13" (135mm x 86mm x 54mm).

Weight: 16.2 oz. (460g) Product No.: 1700

# **Nikon EM Major Accessories**



Actually an ultra-compact, low-cost system within a system, the Nikon EM reaches its full automatic potential with its specially designed Nikon thyristor flash, motor drive, and other unique accessories. Each is a perfect complement to the camera, with matching advanced design, low cost, and ultra-compact convenience.

### **Nikon SB-E Thyristor Flash**

Less than five ounces light, this highly sophisticated computer flash assures successful indoor and after-dark photography even for first-time electronic flash photographers. Mounted in the EM hot shoe and turned on, it *automatically* sets the camera shutter to the correct synch speed, activates the unique LED flash signal in the camera finder, and computes and delivers the precise amount of light for correct exposures. Key features:

- Automatic exposure control. SB-E's built-in sensor assures correct exposure anywhere from 24" up to twenty feet, depending on choice of *three* automatic apertures (choice of apertures depends on ASA in use). At the widest auto aperture, effective range extends to twenty feet, at median aperture to 14', and at smallest aperture to 10 feet. For critical depth-of-field control, apertures may be set between marked settings over the 3-stop range.
- Automatic data exchange. SB-E electronically receives ASA film speed and aperture information from EM camera via special contacts in the EM hot shoe. Thus, there are no dials to set or adjustments of any kind to make on the flash when using the SB-E flash and a Nikon Series E or original manufacture Al-Nikkor lens.
- Multi-function LED safeguard. Brilliant LED in finder glows continuously when flash is ready to fire at usable automatic aperture and camera is set at "Auto." LED 'blinks' rapidly if aperture is set beyond auto range or if shutter control is set to 'M90' or 'B'... and, does not light at all if unit is not turned on or flash batteries are depleted. This blinking feature operates only in conjunction with Nikon Series E or original manufacture Al-Nikkor lenses. Nikkor lenses modified for Al or lenses of other manufacture do not provide this feature.
- Extra-fast recycling. Energy-saving SB-E thyristor circuitry gives recycling times from 9 to under 1 second according to distance—ideal for continuous motorized flash photography at close range. With an ASA 100 Guide No. of 56, it delivers about 80-150 flashes per set of 4 AAA alkaline batteries (Eveready Type E90 or equivalent).

With its broad 40° x 56° coverage, the SB-E provides excellent results with Nikon system 35mm wide angle lenses as well as normal and telephoto optics. With Nikkor lenses that have been modified for Al-operation or non-automatic lenses, the unit provides single-aperture automation (f5.6 with ASA 100 film), and its own, built-in ready light. The SB-E may also be used on the Nikon FE Camera, where it provides automatic shutter synch-speed setting and ready light coupling, with automatic operation at a single aperture (f5.6 w/ASA 100), and on the Nikon FM (without auto shutter setting or viewfinder ready-light function). The unit features its own ready-light and a simple chart showing various ASA/auto aperture combinations at a glance. The Nikon SB-E flash measures 4.33" x 2.16" x 1.3" (110mm x 55mm x 33mm) and weighs 4.59 oz. (130g), less batteries.

Nikon SB-E thyristor flash. Product No. 284.

# **Nikon EM Major Accessories**







### **Nikon MD-E Motor Drive**

Lightest, smallest and most economical of all Nikon motor drives, the MD-E transforms the EM into a unified, power-packed picture-taking instrument of truly impressive capabilities—yet one that's lighter in weight and far easier to use than any conventional slr without motor!

- Single or continuous firing at 2 f.p.s. Merely by holding down the shutter release, the MD-E winds film and shutter and counts exposures at approximately 2 shots per second. This performance is achieved at shutter speeds from 1/1000th to 1/90th second! For single exposures, simply release the shutter button after each shot.
- Easy, secure mounting in a moment. Just a few turns of the large, convenient thumbwheel attaches any MD-E to any Nikon EM camera.
- Built-in LED safeguard. External LED flashes each time motor advances film, then lights continuously at end of film cartridge (as motor automatically shuts off).
- Convenient, anatomical handgrip. Unique contoured grip gives extra steadiness and comfort in motorized photography.

The MD-E powers approximately twenty 36-exposure film loads on 6 inexpensive AAA alkaline batteries (Eveready Type E90 or equivalent). In addition to its obvious advantages in sports, action, and candid photography it affords extra convenience in copying and close-ups, and does not interfere with film loading or unloading. Despite its low cost, the MD-E is built for reliable, trouble-free operation even after thousands of motorized exposures, benefitting from decades of Nikon motor drive experience.

The Nikon Motor Drive MD-E measures 5.22" x 1.24" x 1.84" 133mm x 32mm x 46m) exclusive of handgrip, and weighs just 6.53 oz. (185g), less batteries. Product No. 11(

### **Nikon CF-11 Eveready Case**

Attractive, durable, black leatherette case holds Nikon EM with Nikon Series E 35mm or 50mm lens attached; front cover folds down for extra convenience, swivels for vertical shots, may be removed if desired. Supplied with fabric neck strap. Product No. 4495

## Nikon FB-17 Compartment Case (not shown)

Uniquely small, beautifully constructed mini-compartment case holds Nikon EM with Nikon Series E 35mm, 50mm and 100mm lenses, SB-E flash, MD-E motor drive plus Nikon filters, lens hoods, film and other aids. Product No. 4496.

### Nikon EM Eyepiece Adapter

Permits use of standard Nikon 19mm eyepiece correction lenses, 2x magnifier, and right angle finder attachment. Product No. 2370.

#### **Nikon Rubber Lens Hoods**

Lens hood for 50/35mm Series E. (HR-4), Product No. 548. hood for 100mm Series E (HR-5). Product No. 549.

## **Nikon Series E Lenses**



A new generation of ultra-compact, lightweight, moderately priced lenses designed specifically for total automatic performance with the Nikon EM camera (also compatible with all other current Nikon SLRs). Nikon Series E lenses are constructed from Nikon's own optical glass, with exclusive Nikon optical coating for enhanced contrast, flare reduction and color consistency. Each accepts standard Nikon 52mm filters and delivers the spectacular sharpness, evenness of illumination, and color fidelity that have made Nikon system lenses the overwhelming choice of serious photographers worldwide.

While expressly engineered for use with the Nikon EM, Nikon Series E lenses provide full-aperture metering and automatic aperture indexing with all Nikon AI-type cameras. Each is equipped with secondary aperture scale for Aperture Direct Readout (ADR) with Nikon cameras so designed, and has built-in coupling facilities for automatic operation with Nikon F2AS cameras equipped with EE Aperture Control Unit DS-12. Additionally, Nikon Series E lenses permit stop-down exposure measurement with previous (non-AI) Nikon cameras.

### 35mm f2.5 Nikon Series E wide angle



Focal Length: 35mm Aperture Range: f2.5—f22

Angle of View: 62°

No. of Elements/Groups: 5/5
Minimum Focus: 12" (0.3m)
Diaphragm Type: Fully
Automatic Al\*

Filter Size: 52mm

Dimensions: 2.48" x 1.73" (63mm dia x 44mm long) 35mm extension from flange

**Weight:** 5.6 oz. (160g) **Product No.:** 1225

### 50mm f1.8 Nikon Series E normal



Focal Length: 50mm Aperture Range: f1.8—f22

Angle of View: 46°

No. of Elements/Groups: 6/5 Minimum Focus: 2.25' (0.6m)

Diaphragm Type: Fully Automatic Al\*

Filter Size: 52mm

Dimensions: 2.48" x 1.3" (63mm dia x 33mm long) 24mm extension from flange

Weight: 4.75 oz. (135g)
Product No.: 1230

### 100mm f2.8 Nikon Series E telephoto



Focal Length: 100mm Aperture Range: f2.8—f22 Angle of View: 24°20′

No. of Elements/Groups: 4/4
Minimum Focus: 3.5′ (1m)
Diaphragm Type: Fully
Automatic Al\*

Filter Size: 52mm

Dimensions: 2.48" x 2.28" (63mm dia x 58mm long) 50mm extension from flange

Weight: 7.75 oz. (220g) Product No.: 1235

\*Operates all automatic camera facilities with Nikon EM and other Al-type Nikon cameras. Stop-down exposure measurement with non-Al camera models.