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A261

Nikon Motor Drive

MD-15

Instruction Manual

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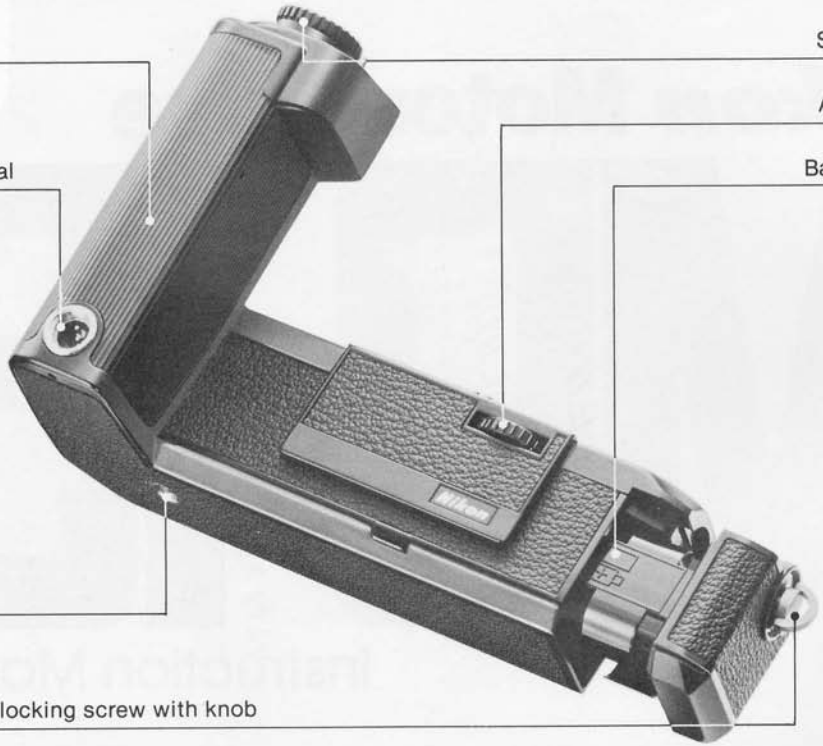
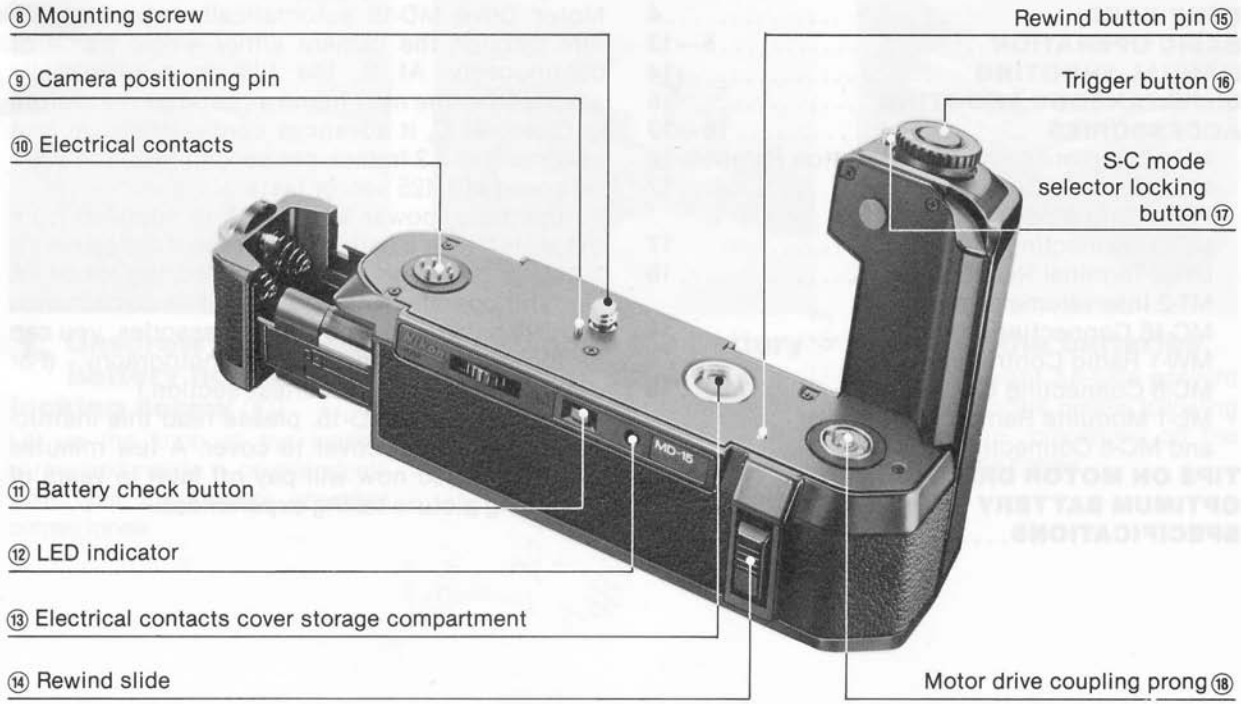
NOMENCLATURE




⑧ Mounting screw
⑨ Camera positioning pin
⑩ Electrical contacts
⑪ Battery check button
⑫ LED indicator
⑬ Electrical contacts cover storage compartment
⑭ Rewind slide
Rewind button pin ⑮
Trigger button ⑯
S-C mode selector locking button ⑰
Motor drive coupling prong ⑱
MD-15

CONTENTS

FOREWORD

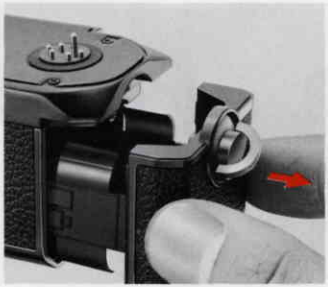
Designed as a companion unit for the Nikon FA, Motor Drive MD-15 automatically advances the film through the camera either single frame or continuously. At S, the film is automatically advanced to the next frame as soon as the picture is taken. At C, it advances continuously up to a maximum of 3.2 frames per second (with the shutter speed at 1/125 sec. or faster.)

Furthermore, power for the FA is supplied from the motor drive's batteries, so even if the camera's batteries are completely exhausted, the Nikon FA can still operate. And when used in combination with Nikon's remote control accessories, you can perform totally unmanned photography. (For details, see the "Accessories" section.)

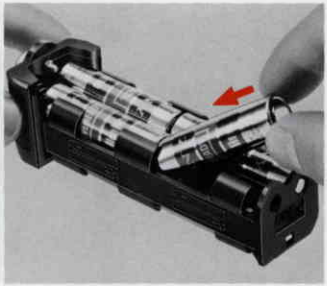
Before using the MD-15, please read this instruction manual from cover to cover. A few minutes wisely invested now will pay off later in years of rewarding picture-taking experiences.

1. Unscrew the battery holder locking screw ④.

Lift up the knob of the locking screw and rotate it counterclockwise until the battery chamber comes loose.



2. Remove the battery holder MS-4 ⑦.

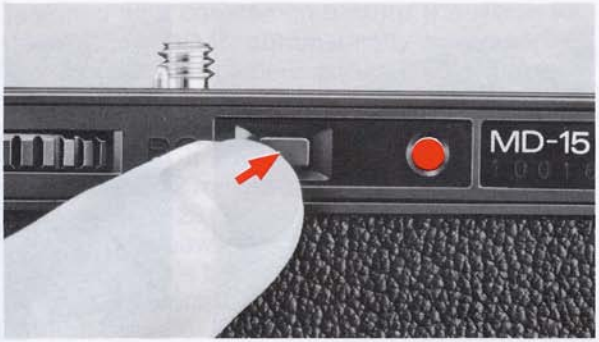


3. Load the batteries.

Install eight AA-type penlight batteries into the holder following the + and – indications on the outside of the holder.

4. Install the battery holder.

Insert the holder back into the chamber. While applying gentle pressure to the holder, tighten the locking screw by rotating it clockwise; then return the knob of the locking screw to its original position.



5. Check battery power.

Push the battery check button ⑪. If the LED indicator ⑫ lights up, the batteries have been loaded properly and their power is sufficient. If the LED does not light up, see if the batteries are installed properly or replace them with a fresh set.

- *When checking battery power with the MD-15 attached to the Nikon FA, make sure to set the MD-15's S-C mode selector ⑤ to L. At S or C position, the film might be automatically advanced and the shutter accidentally released. As soon as the battery check button is depressed, Nikon FA's exposure meter is turned on and the LCD appears in the viewfinder. But, it will automatically disappear 16 seconds after you remove your finger.*

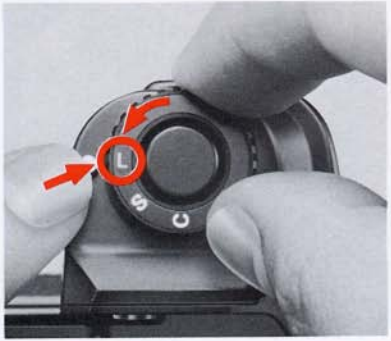
6. Dismount the camera's handgrip.

To dismount the handgrip, first insert a coin into the slot and turn the screw counterclockwise until it loosens. Then slide it down until it separates from the camera body.

7. Unscrew the camera's electrical contacts cover.

Turn the camera upside down and use a coin to unscrew the cover by rotating it counterclockwise.

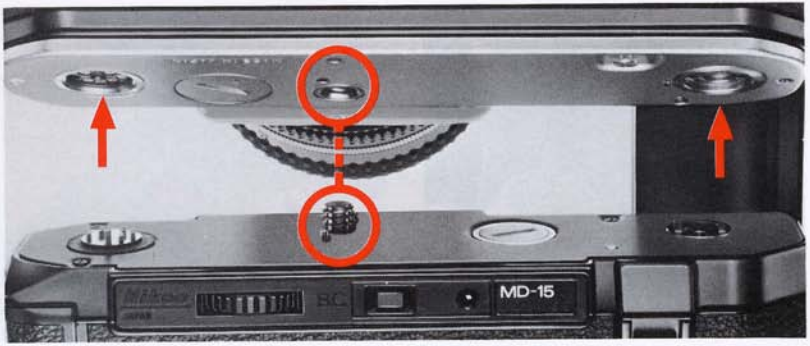
8. Screw the FA's electrical contacts cover in the MD-15's electrical contacts cover storage compartment ⑬.



9. Confirm that the MD-15's S-C mode selector is set at L.

If it is not, depress the S-C mode selector locking button ⑰ as you turn the S-C mode selector to L.

- *The MD-15's S-C mode selector doubles as a power switch for the MD-15. When the S-C mode selector is set at L, the MD-15 is automatically turned off and its trigger button is locked. But, even in this case, the power supply for the camera body is still supplied.*



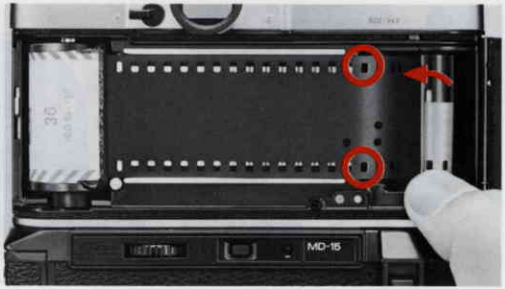
10. Attach the camera body to the motor drive.

Place the camera body on top of MD-15 so that the MD-15's mounting screw ⑧ lines up with the camera's tripod socket and the MD-15's camera positioning pin ⑨ is aligned with the motor drive positioning hole in the camera body.

11. Secure the MD-15 to the camera body.

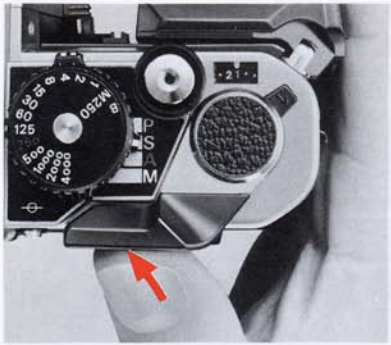
Turn the attachment wheel ⑥ counterclockwise until the two units are screwed tightly together.

- *When attaching or detaching the MD-15, make sure the S-C mode selector is set at L and the camera's film advance lever is completely cocked to prevent inadvertent shutter release.*



12. Load film into the camera and make blank exposures.

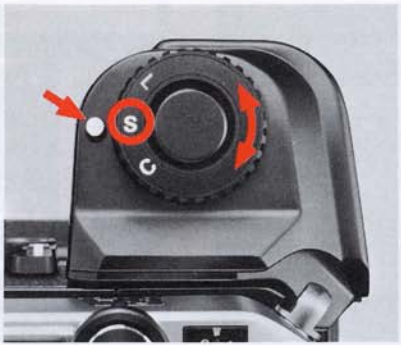
Load film following the camera's instruction manual; then make blank exposures with the camera's shutter release button or with the MD-15 set at S.

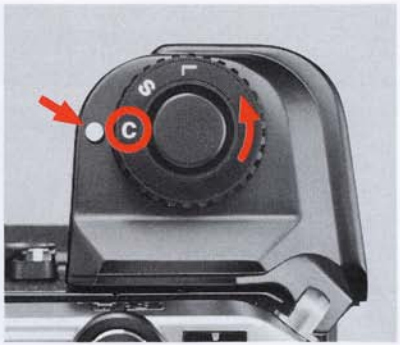


13. Return the camera's film advance lever to its original position.

If you used the lever during film loading, make sure to push it back in.

- *With the camera's film advance lever left at the standoff position, the shutter will be released as soon as the trigger button is pushed, but the film will not be advanced to the next frame. To advance the film with the MD-15, simply return the film advance lever to its original position.*





14. Set the S-C mode selector at either S or C.

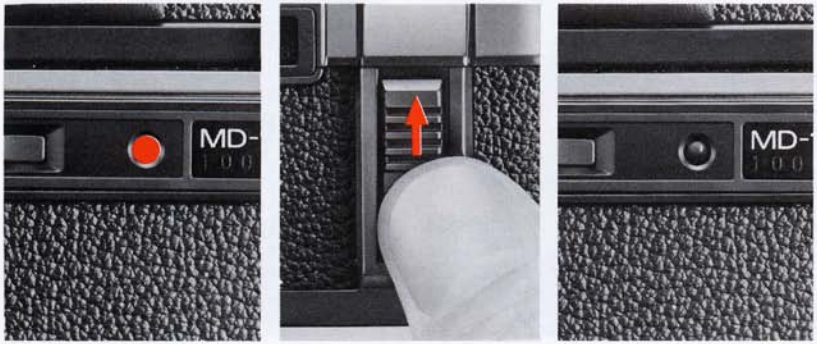
While depressing the locking button ⑰, set the S-C mode selector to either S for single-frame or C for continuous shooting.

15. Take the picture(s).

Depress the motor drive's trigger button halfway to switch on the meter. If you are satisfied with the LCD reading, push the button all the way down to shoot.

At S, the motor drive trips the shutter and winds the film in a single sequential step; at C, shots will be taken rapidly in succession at a maximum of 3.2 frames per second (with the shutter speed at 1/125 sec. or faster) as long as the trigger button is depressed. Then, when you release your finger from the button, the film is wound and the motor drive stops.

- *If the shutter speed dial is set to M250 or B, the motor drive will not operate even if you push the trigger button.*
- *LCD information will automatically disappear 16 seconds after you remove your finger from the trigger button.*
- *When you are not taking pictures, be sure to set the S-C mode selector at L to prevent unintentional meter operation or accidental shutter release.*



16. Push up the rewind slide ⑭.

When the end of the roll of film is reached, the motor drive automatically stops and the LED lights up. Once again confirm that the film is at an end by checking the camera's frame counter; then push the rewind slide up and immediately the LED will go out.

- *After the LED lights up, push up the rewind slide as soon as possible to conserve battery power.*
- *When the end of the roll is reached, do not depress the trigger button or the camera's shutter release button, because the film might be cut. Especially after the motor drive's rewind slide is pushed up, there is a possibility that not only the film might be cut but that the last few frames will be double exposed.*
- *While the LED is lit, do not attempt to move the camera's film advance lever back to the flush position even if it is at the standoff position; also do not move the S-C mode selector to L and then back again to S or C, as either of these two operations might cause the film to be cut.*
- *After the end of the roll is reached, it takes a short time for the LED to come on; however, this does not indicate a malfunction.*
- *If the motor drive's rewind slide is difficult to operate, detach the motor drive from the camera body first; then push in the camera's film rewind button manually.*

17. Rewind the film with the camera's film rewind crank.

18. Remove the film cartridge.

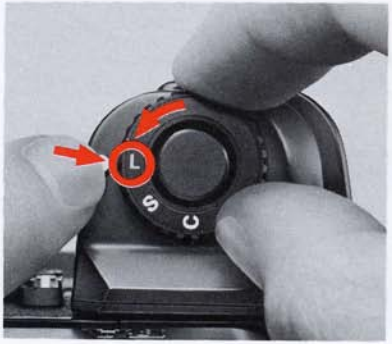
Unload the film in the normal manner, avoiding direct sunlight.

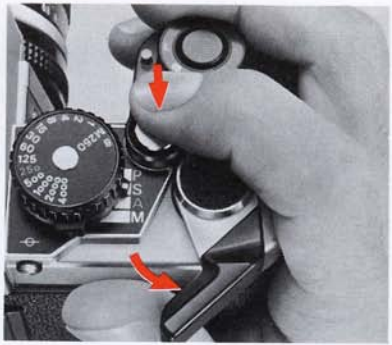
19. Detach the motor drive from the camera body.

Set the motor drive's S-C mode selector at L first; then turn the attachment wheel clockwise to remove it from the camera body.

- *After detaching the motor drive, be sure to reattach the camera's electrical contacts cover and the handgrip.*
- *Do not attempt to turn the MD-15's coupling prong or touch the electrical contact pins with your fingers, as this might cause a malfunction.*

MANUAL SHOOTING





When you want to advance the film manually with the motor drive attached, follow this procedure:

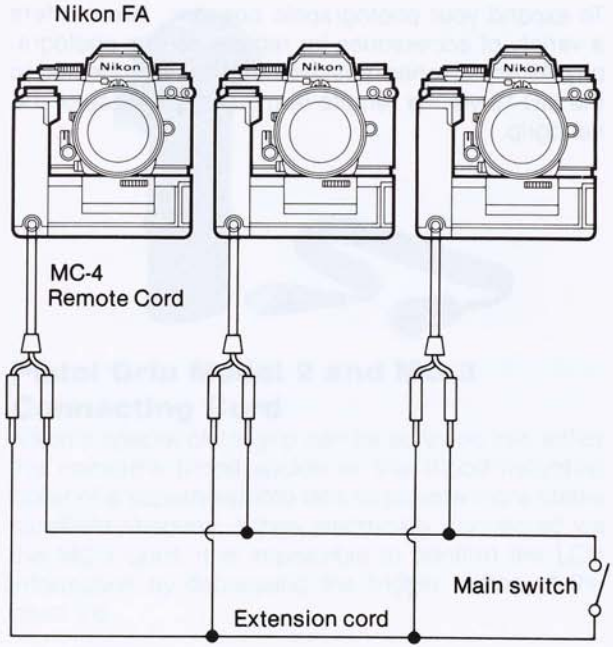
1. Set the S-C mode selector to L.
2. Pull out the camera's film advance lever to the standoff position.
3. Release the shutter by depressing the camera's shutter release button.
4. Wind the film via the camera's film advance lever.

To return to normal motor drive operation, return the film advance lever to its original position after releasing the shutter or winding the film fully. If you return the film advance lever to its original position without winding the film, the film will automatically be advanced to the next frame as soon as the S-C mode selector is moved from L to S while the meter is on. However, if you move the S-C mode selector from L to S or C after the camera's meter has turned off, the film can be advanced to the next frame by depressing the trigger button halfway.

SIMULTANEOUS SHOOTING

To fire several motor-driven cameras at the same time, the Remote Cord MC-4 with plus and minus banana plugs is available as an accessory.
Follow the diagram for proper parallel connection and make sure to reduce the length of the connecting cord from each motor drive to the main switch, so that the total resistance is less than 100 ohms. If more length is required, use a relay. In addition, if a change of batteries is required, exchange all batteries for fresh ones at the same time.

- *When connecting the MC-4's plugs in parallel, arrange each terminal (+ positive and – negative) so they face the same direction. Otherwise, this might cause a malfunction or damage each unit.*



ACCESSORIES

To expand your photographic horizons, Nikon offers a variety of accessories for remote control photography. All accessories must be electrically connected to the MD-15 via the remote terminal at the base of the handgrip.

MC-12 Remote Control with Button Release

For remote control up to 3 meters away, the MC-12 has a handgrip and trigger button for convenient operation. Depressing the button halfway turns on the camera's exposure meter; depressing it further releases the shutter. With the button depressed, the meter stays on for 16 sec., automatically turning itself off to conserve battery power. In addition, the MC-10 Remote Cord is also usable with the MD-15, but it is impossible to confirm the LCD information via the remote cord's trigger button.

MC-4 Remote Cord

With plus and minus banana plugs, the MC-4 Cord can be used to fire up to several motor-driven cameras simultaneously.

Pistol Grip Model 2 and MC-3 Connecting Cord

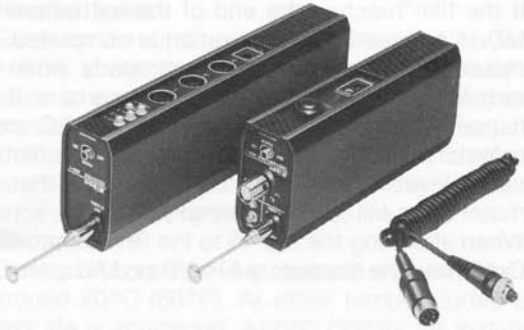
Nikon's special pistol grip can be screwed into either the camera's tripod socket or the tripod mounting collar of a supertelephoto lens to provide more stable handheld shooting. When electrically connected via the MC-3 Cord, it is impossible to confirm the LCD information by depressing the trigger button of the pistol trip.

MR-2 Terminal Release

Allows the MD-15 to be triggered with the AR-2 Cable Release. Viewfinder display of shutter speed is not provided when the button is depressed halfway.

MT-2 Intervalometer and MC-16 Connecting Cord

MT-2 is Nikon's latest intervalometer featuring quartz timing control for utmost accuracy. It provides time lag shooting with the Nikon FA camera. You can trigger the motor drive for time-lapse exposures by connecting an intervalometer or similar device to the trigger circuit in place of the ON/OFF switch. In this case, there will be a slight time delay between the moment the trigger circuit is closed and the shutter is released.



MW-1 Radio Control Set and MC-5 Connecting Cord

Provides interference-free remote control up to 0.7km. Three separate channels allow three motor-driven cameras to be operated automatically. Easy to handle.

ML-1 Modulite Remote Control Set and MC-8 Connecting Cord

Utilizes modulated light to control up to two motor-driven cameras automatically. Compact and easy to handle. Can be used up to 60 meters away.

TIPS ON MOTOR DRIVE CARE

1. When the MD-15 is attached to the camera body, the camera takes all its power from the batteries in the motor drive. So, even with depleted batteries or none loaded in the camera, the FA still operates. If you plan to keep the MD-15 attached for a long time, remove the batteries from the camera body.
2. When not actually taking pictures, the MD-15 should be turned off to conserve battery power.
3. Always keep the motor drive's connecting parts (electrical contacts ⑩, coupling prong ⑱, etc.) clean, as dust or smudges might prevent the motor drive from operating properly.
4. Do not attempt to turn the motor drive coupling prong with your fingers, as this might cause a malfunction.
5. In case the MD-15 fails to operate after attachment, detach it and trip the shutter using the camera's shutter release button. Then before manually advancing the film to the next frame, reattach the MD-15.
6. If the film reaches the end of the roll before the MD-15's film-advance operation is completed, the motor drive may not operate properly when the next film cartridge is loaded into the camera. If this happens, first set the motor drive's S-C mode selector at L and then use the camera's film advance lever to wind the film initially; after that, the motor drive will operate normally.
7. When attaching the MD-15 to the PF-4 Repro-Copy Outfit, use the accessory AH-2 Tripod Adapter.

OPTIMUM BATTERY PERFORMANCE

1. **New batteries**
   Between manufacture and first use, all batteries exhibit some drain. Therefore, care should be taken to purchase the newest (and freshest) ones possible. To help you do this, some manufacturers stamp the date of manufacture on the bottom of each battery. Ask your camera dealer for assistance in interpreting the codes.
2. **Temperature**
   Battery life ratings are based on operation at around 20°C (68°F). At other temperatures, battery life is shortened. At 0°C (32°F), for instance, battery life is shortened by as much as two-thirds. Spare batteries should therefore be kept available if operation in low temperatures is anticipated.
3. **Continuous use**
   Batteries are drained much more quickly by continuous use than by intermittent use.
4. **Storage**
   When not in use, the batteries should be removed to prevent damage from leakage. To minimize drain during the period of disuse, store the batteries in a cool, dry place.
5. **Battery brands**
   Do not use mixed brands of batteries, nor batteries with different model numbers. Also, avoid mixing new and old batteries since proper performance will not be obtained and battery leakage into your MD-15 may occur.
6. **Disposal**
   Do not dispose of batteries by burning. Also, for safety's sake, never attempt to disassemble batteries.
7. **Polarity**
   When installing batteries, observe the voltage polarities carefully. Reversal of the positive (+) and negative (−) terminals may result in leakage. If leakage should occur, clean carefully or take your MD-15 to your authorized dealer or nearest Nikon service facility.

SPECIFICATIONS

Usable camera:	Nikon FA
Attachment method:	By turning attachment wheel after removing camera's electrical contacts cover.
Shooting modes:	Choice of single-frame (S) or continuous (C) firing via S-C mode selector; lock (L) position also provided
Firing rate:	Maximum 3.2 fps at shutter speeds of 1/125 sec. or faster; single-frame operation also possible at S position
Usable shutter speeds:	From 1 to 1/4000 sec. except M250 and B in programmed, shutter-priority, aperture-priority, or manual mode of Nikon FA
Power source:	Eight 1.5V AA-type penlight batteries or A A-type Ni-Cd batteries*
Battery check:	Via LED indicator by depressing battery check button
Battery life:	Approx. 50 rolls in continuous shooting with new manganese batteries; approx. 70 rolls with new alkaline-manganese batteries
LED indicator:	Lights up when film reaches end of roll
Power switch:	Via S-C mode selector; off when set at L position
Manual film advance:	By setting S-C mode selector at L position and using camera's film advance lever
Rewind slide:	Couples to camera's film rewind button; turns off LED indicator when pushed up
Metering switch:	Turns camera's exposure meter on when trigger button is depressed halfway; LCD stays on for 16 seconds after taking finger off trigger button
Remote control terminal:	Accepts various accessories for remote control operation
Dimensions:	Approx. 147.5mm (W)×99mm (H)×73mm (D) Approx. 147.5mm (W)×42mm (H)×47rnm (D) (excluding handgrip)
Weight:	Approx. 390g (without batteries)

*Data using Ni-Cd batteries may vary according to the perfomance or recharged condition of the batteries marketed.

Note: *All performance data is at normal temperatures [25°C (77°F)].*

Subject to change without notice.