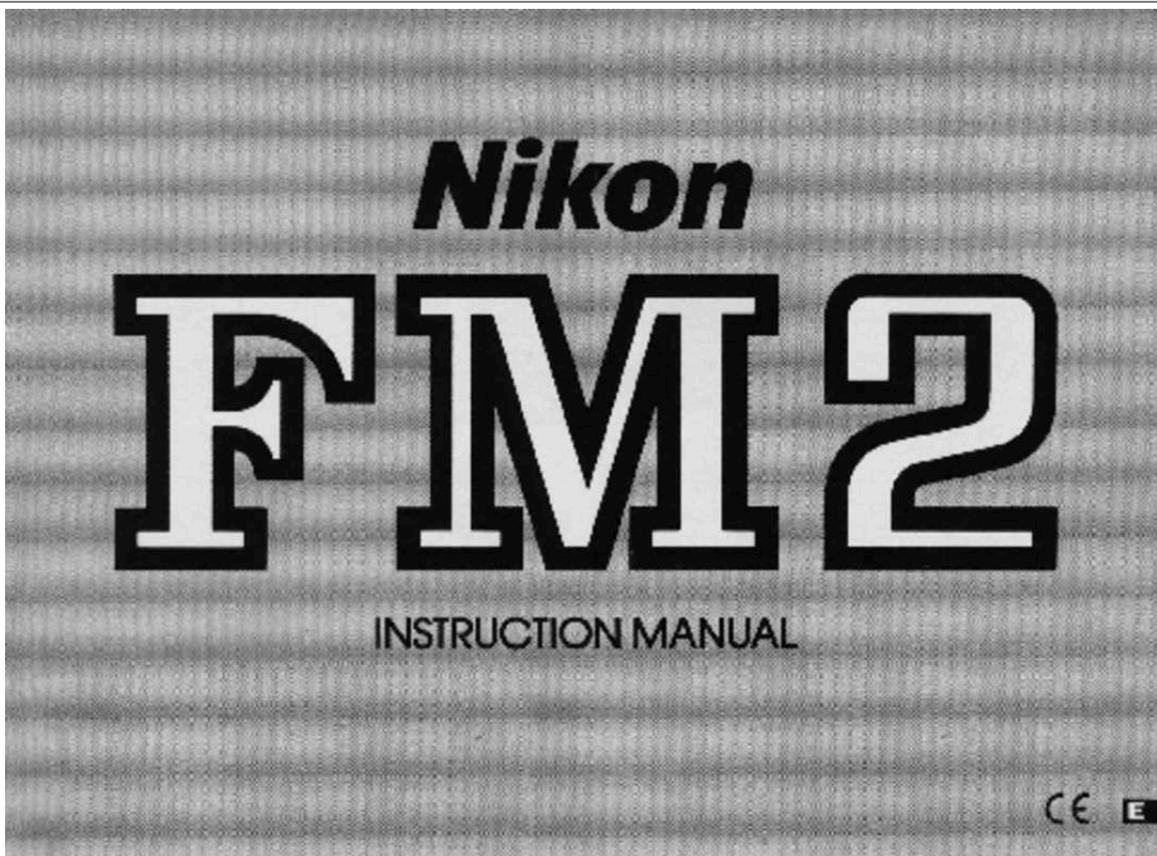




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You can read the recommendations in the user guide, the technical guide or the installation guide for NIKON FM 2. You'll find the answers to all your questions on the NIKON FM 2 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual NIKON FM 2
User guide NIKON FM 2
Operating instructions NIKON FM 2
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... @@@@The FM2 also incorporates a TTL full-aperture metering system and high-precision mechanically-controlled shutter curtains. These features enable full manual operation and mechanical control-the FM2 works without batteries at all speeds, for a wide range of purposes. Whenever you are, at home or far afield, you'll always be ready for great shooting. To obtain the best results with your FM2, be sure to keep this instruction manual handy until you've fully mastered its operation - just a few minutes to ensure many years of rewarding photography. 5 BASIC OPERATION - - - - - " 1 Remove the battery • chamber lid 58 • 2 Install the batteries. 3 Use a coin to unscrew the lid in a counterclockwise direction. • Wipe the battery terminals clean and insert the batteries, making sure that the + signs are up. Usable batteries are : • 3V lithium battery (1 unit) • 1.

55V silver-oxide batteries, 3.1V, (2 units) • 1.5V alkaline-manganese batteries, 3V, (2 units) Caution: Keep batteries away from infants and small children. In case a battery is accidentally swallowed, call a doctor immediately as the material inside the batteries can cause serious problems. Put the battery chamber • lid back in its place. Slip the battery clip back into the camera body baseplate and screw it clockwise tightly into place. Note: For more information on batteries, refer to page 45. 6 4 Pull out the film advance • lever (L) to unlock the shutter release button (G) • The film advance lever doubles as a shutter release button lock. You can unlock the shutter release button by simply pulling out the film advance lever slightly from the flush to the standoff position. Press the shutter • release button lightly to switch the exposure meter on.

The shutter release button activates the exposure meter when lightly pressed. The meter itself stays on for approx. 30 sec. after you have taken your finger off the button. 5 6 Check battery power.

• Switch the exposure meter on while looking through the viewfinder. If one or two of the red LED exposure indicator lamps inside lights up this would mean normal condition. Note: When the shutter speed dial (S) is on B (bulb), none of the exposure indicator lamps will light up. Be sure to set the dial at another position. If none of the exposure indicator lamps light up, either the battery is improperly installed in which case you should install it properly-or battery power is not sufficient, in which case you should change the battery.

7 -BASIC OPERATION-continued----- • Place the lens onto the camera, lining up the aperture/focusing index (A) on the lens with the lens mounting index (M) on the camera body. Then twist the lens mounting ring ~ counterclockwise until it clicks into place. Confirm that the aperture/focusing index is right on top. To remove: Push the lens release button (L) and turn the lens mounting ring clockwise until the lens comes off. Note: When changing lenses with film loaded in the camera, be careful not to expose the mirror box to direct sunlight. 7. Mount the lens onto the camera. 8 Open the camera back 60 • • Push the camera back lock lever (B) counterclockwise with your index finger while lifting the film rewind knob (R). The camera back will pop open. Caution: Never touch the shutter curtains.

8 • Position the film cartridge in the film cartridge chamber (C) with the film leader pointing towards the takeup spool (T), and push the rewind knob back down to secure it in place. Note: You can use any of the 35mm film cartridges available on the market. It is advisable to handle film in the shade to avoid direct exposure to sunlight. 9 Install the film cartridge. 10 Insert the film leader • In the takeup spool. Pull the leader across gently and insert it into one of the slots in the film takeup spool. Slowly rotate the takeup spool inwards with your thumb, making sure the latch in the slot engages the first or second perforation along the side of the film leader. Wind the film advance lever to advance film onto the takeup spool. 11 • Wind the film advance lever and depress the shutter release button until the film sprockets (S) engage the perforations on the edges of the film. Make sure you wind the lever fully until it comes to a stop.

9 -BASIC OPERATION-continued----- 12 • Close the camera back. 13 Take up film slack. Close the camera back until it snaps shut, making sure that the perforations are perfectly meshed with the sprockets and that the film is set between the film guide rails (G). • Fold out the film rewind crank (R) and rotate it in the direction of the arrow on the film rewind knob until it stops. Then fold the crank back in.

Make blank exposures until the frame counter (F) reaches frame 1. 14 • Press the shutter release button and wind the film advance lever until the frame counter reaches frame 1. As you wind the lever, confirm that the film rewind knob rotates counterclockwise. This indicates the film has been loaded and is being advanced correctly. If the knob fails to rotate, reload the film cartridge. 10 15 Set the ASA/ISO film • speed.



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16 Hold the camera and point it at the subject. Lift the ASA/ISO film speed ring CD and rotate it in either direction until the red ASA/ISO film speed indicator is opposite the ASA/ISO film speed indication in use. Unless the film speed is set correctly, you cannot obtain correct exposure. For film speeds not indicated in the ASA/ISO film speed dial, refer to page 18. Basic holding posture: Use your left hand to cradle the camera, with your fingers wrapped around the lens and the elbow propped against your body for support, as you look through the viewfinder. Use your right hand's index finger to depress the shutter release button and your thumb to wind the film advance lever. Wrap the other fingers of your right hand around the camera body. You can adapt this basic posture to both horizontal and vertical format shooting. To hold the camera steady, it is advisable to lean on or against something strong and stable (e.

g., a wall). Also, you can look through the viewfinder with the right or left eye, with the other eye closed or open. 11 -BASIC OPERATION-continued-----

11 Set the correct exposure. Important! Intermediate settings of lens aperture but not of shutter speed are usable. Nota: The meter reads the light over the entire focusing screen but has a distinct bias on the central 12mm-diameter area. • First, position your main subject at the center (i.e., the 12mm-diameter circle) of the field of view inside the viewfinder. Then turn the shutter speed dial and/or lens aperture ring until the LED lamp for the symbol for correct exposure 0 lights up.

12 Focus on the subject • by rotating the lens focusing ring 46 • The FM2 is provided with the Type K2 focusing screen as standard. Look through the viewfinder while turning the focusing ring until the two halves of the split image rangefinder coincide perfectly to form a single unbroken image and the image in the microprism grid appears sharp. Correct focus will then be secured. 18 13 -BASIC OPERATION-continued----- 19 Depress the shutter • release button. 20 Advance the film.

21 Look through the viewfinder, and depress the shutter release button. In depressing the shutter release button, apply light but steady pressure with the ball of your index finger to avoid camera shake that might result in image blur. • Wind the film advance lever as far as it will go to transport the film to the next frame and ready the camera for the next shot. Do not apply excessive pressure in winding the lever. You cannot wind the lever when the film is at an end-you should then rewind the film .

Press the film rewind • button '43 • After the last exposure has been made, turn the camera upside down and press the film rewind button , so that the exposed film can be rewound back into its cartridge. You don 't have to depress the button all the way. 14 22 Rewind the film. • Lift the film rewind crank and turn it in the dfor intermediate settings, such as 64, 80, etc. The illustration above gives the speeds for all intermediate settings. ASA/ISO 100 and 400 are indicated in red as they are used quite often . ASA/ISO is a numerical rating of the film 's sensitivity to a given amount of light. The higher the number, the greater the sensitivity, and vice versa. The ASA/ISO of your film is indicated on the cartridge itself. It is also printed on the film carton and on the data sheet packed inside.

Shutter speed dial 'exposure determination Setting the shutter speed To set the shutter speed, turn the shutter speed dial to the right or left until the desired shutter speed number click-stops and is aligned with the shutter speed index . The dial has indications for B (bulb) and for shutter speeds from 1 to 1/4000 sec. The 250 engraved in red indicates the fastest sync speed for an electronic flash unit. On B, the shutter curtains remain open for as long as the shutter release button is kept depressed. 1 is for indicating one second, 2 for 1/2 sec., 60 for 1/60 sec. and so on. One of the two adjoining numbers, excluding B is two times or 1/2 as much as the exposure amount of the other number. Note that shutter speeds between printed numbers (i.e .

, intermediate speeds) cannot be used . Since you can always confirm the shutter speed number inside the viewfinder, you don 't have to see the shutter speed dial as you turn it. 18 Fast shutter speed SLOW shutter speed 19 - CONTROLS IN DETAIL-continued- - - - - Setting the aperture The lens aperture determines the amount of light reaching the film plane. Generally, when you turn the aperture ring one graduation in the direction of the larger numbers, the amount is reduced by 1/2 . (This is what stopping down by one graduation means.

) On the other hand, when the aperture ring is turned one graduation in the direction of smaller numbers, the amount of light is doubled. (This is known as opening the aperture by 1 stop.) The lens aperture ring clicks at the position of the numbers engraved although intermediate lens apertures are usable continuously. Lens aperture greatly affects depth of field (see page 28). With the exception of a few special lenses, Nikkor and Nikon Series E lenses enable full-aperture light measurement even when the aperture ring is moved .

These lenses, which are said to have an automatic diaphragm, stop down to the set aperture only at the instant the shutter release button is depressed. 20 Exposure determination The amount of light reaching the film plane is determined by a combination of the shutter speed and the lens aperture. A shutter speed of 1/500 sec. lets in twice as much light as a setting of 1/1000 sec ., and only half as much light as 1/250 sec. An aperture setting of 1:11 lets in twice as much light as 1:11.6, half as much as 1:11.8. Thus, if the correct exposure for a particular picture -taking situation is 1/500 at 1:11, then 1/250 at 1:11.6 or 1:11.8 will give the same exposure. It is very convenient to know this interrelation when considering depth of field. The following table illustrates the interrelation between shutter speed and aperture. Exposure display The LED exposure indicator lamps can be seen on the right side of the viewfield frame within the viewfinder.

The shutter speed number and f-number in use are also visible. The LED exposure display indicates exposure five ways, as shown in the table below, in accordance with the conditions of each exposure. Overexposure by more than 1 stop Overexposure by 1/5 to 1 stop Correct exposure 1/4000 4 1:12000 1/1000 1/500 1:1 1/250 Underexposure by 1/5 to 1 stop 16 5.6 8 Underexposure by more than 1 stop As correct exposure is approached, the LED exposure display inside the viewfinder is liable to change rapidly and easily within the very narrow range, so it is important to turn the lens aperture ring and shutter speed dial carefully. Although intermediate shutter speeds cannot be used, intermediate lens apertures can-just turn the aperture ring for fine adjustment.



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Note: When the shutter speed dial is set at B (bulb), the LEO exposure display inside the viewfinder is turned off. 21 -CONTROLS IN DETAIL-continued-----, Metering range of exposure meter When there is a proper combination of lens aperture and shutter speed, 0 lights up, indicating correct exposure. This sign will not light up when the aperture and shutter speed combination is not suitable for correct exposure. Also, if the combination of aperture and shutter speed is improper for the brightness of the subject, the exposure meter will not give an indication for correct exposure even if you vary the neighboring settings within a very narrow range. You should try altogether different combinations of aperture and shutter speed.

If you still fail to obtain an indication for correct exposure, then subject brightness is probably beyond the metering range of the exposure meter. It is necessary to illuminate the subject or to use an NO (neutral density) filter to adjust brightness. Note that in full-aperture measurement, the range of brightness that can be measured by the meter varies with the maximum fnumber of the lens in use, as follows: With a 50mm f/1.4 lens (1 sec. at f/1.4 and 1/4000 sec. at f/16) and ASAISO 100 film, the EV range is from EV 1 to EV 18. With a 135mm f/2.8 lens (1 sec. at f/2.8 and 1/4000 sec. at f/16) and ASAISO 100 film, the EV range is from EV 3 to EV 22

Stop-down exposure measurement This exposure measurement method is used when the diaphragm on the lens does not link with the meter coupling lever on the camera body, such as when a non-AI lens or an extension ring is mounted on the camera. The procedure is as follows: 1) Set the ASA/ISO number. 2) Compose your picture and secure subject focus. 3) Press the shutter release button lightly to turn the meter on. 4) Perform exposure measurement, depending on the type of lens used: • Lens with automatic diaphragm Determine the correct exposure while pressing the depth-of-field preview lever , then take your finger off the lever and depress the shutter release button. • Lens without automatic diaphragm (PC-Nikkor lens) First, determine the correct exposure by adjusting the shutter speed and aperture. Then, focus at full aperture. Shift the lens so that you get the desired composition.

Return the aperture setting to the preset position and shoot. • Lens with fixed aperture (Reflex-Nikkor lens) Exposure cannot be changed according to the aperture because in this type of lens, the aperture is fixed. Determine the correct exposure by turning the shutter speed dial. If correct exposure is unobtainable, use an ND (neutral density) filter or change the illumination to adjust the exposure. 23 -CONTROLS IN DETAIL-continued----- Exposure measurement in special cases The exposure meter of the Nikon FM2 adopts the centerweighted exposure measurement system in which approximately 60% of the total amount of light is measured by the 12 mm-diameter circle at the center of the focusing screen. When the background of the main subject is too bright and the main subject is not centered within the frame, the result is underexposure (see Fig. 1). When the background is too dark and the main subject is too bright with the same framing as above, the result is overexposure. To compensate 1) Focus on the main subject with the composition you have in mind. 2) Move the camera to center the main subject in the viewfinder (see Fig.

2) and perform exposure measurement. 3) Move the camera back to the position described in 1) with the exposure setting described in 2) and depress the shutter release button. This way, you will be able to obtain correct exposure. o Fig. 1 Underexposure ~ I I I I I --- ~ ----- I I I I I , + ___ J 24 Fig.

2 Correct exposure I I I I I Duplication work and photomicrography In copy work, slide duplication, and photomicrography, you cannot obtain correct exposure by simply referring to the FM2's exposure meter display because these types of photography represent unusual contrast situations. Exposure compensation is required. Shown here is the table of the relationship between specific photo types and proper exposure. Since this is meant to be a guide, in practice you should make further compensation by experimentation until you achieve the proper results. Subject Photographs and pictures with continuous gradation Copy work Documents and drawings of high contrast Full-aperture or stop-down Method of exposure measurement Exposure compensation Compensation not necessary Approx. +1 to +2 stops for black letters on white background; approx. -1/2 to -1 stop for white letters on black background. Approx. +1 to +2 stops • The exposure compensation values listed below are reference data obtained when general-purpose film was used.

With color reversal film or microfilm for duplication work, it is advisable to take additional shots with \pm one-stop exposure compensation as these films have very small exposure latitude. • To avoid vibration, you can make the exposure by turning the illumination on and off. • It is advisable to use a cable release to avoid camera vibration. Required accessories Remarks Micro-Nikkor or AF Micro-Nikkor lens' Cable release For high-contrast subjects, use of an 18% reflectance gray card in determining exposure is recommended. With the card, no exposure compensation is required regardless of whether the background is black or white. General film with continuous gradation Slide duplication Film of documents and drawings photographed Stop-down Photomicrography Prepared specimen Stop-down Micro-Nikkor or AF Micro-Nikkor lens' Approx. +1-1/2 to Nikon Slide Copying + 2-1/2 stops for black When using Nikon Slide Copying Adapter PS-6, letters on white background Adapter PS-6 set the flood lamp 30cm away from its opal plate. Nikon Bellows Focusoto approx. -1/2 stop for ing Attachment PB-6 white letters on black Cable release background Generally, results come out better with more exposure in photomicrography.

The compenApprox. + 1 stop Microflex PFX sation value on the left is only a guide; determine the compensation value by test shooting. 'Set the lens' A-M ring to "M." + " more exposure; -,' less exposure 25 -CONTROLS IN DETAIL-continued-----Inside the viewfinder: 1. Fine mattel Fresnel outer field 2. Microprism colla r 3. Split-image rangefinder spot 4. 12 mm-diameter reference circle 2 3 4 V. ewflnder/vlewlng & focusing l The conventional way of securing correct focus is to turn the lens focusing ring until the image in the viewfinder appears sharp. The K2 focusing screen that comes with the camera as standard equipment has three focusing aids.

When focusing with the split image, turn the ring until the image in the two halves becomes whole. With the microprism grid, turn the ring until the shimmering image appears sharp. With the matte outer field, turn the ring until the image appears sharp.



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The split-image rangefinder works well for subjects with definite lines, contours and boundaries. The microprism collar is for focusing on fastmoving subjects or those with indistinct lines, while the matte outer field is suitable for close-ups or when using lenses with a maximum aperture smaller than f/4.5. There's another way of securing correct focus. Using the distance scale @ on the lens, set the focusing ring in accordance with the measured distance. Be sure to gauge the distance between the subject and the film plane indicator-e-@. Note: The FM2 viewfinder covers approx.

93% of the image area of the actual photograph so the actual picture comes out larger than the image in the viewfinder. Note that the picture comes out trimmed down in the case of mounted slides or service-size prints from negatives. With AF Nikkor lenses: Set the lens' A-M ring or A-M switch to "M." 26 Split-image focusing Microprism grid focusing Matte outer field focusing Out of focus In focus 27 -CONTROLS IN DETAIL-continued-----Depth-of-field preview lever @ What depth of field is When you focus on your subject at a certain aperture, you will find that not only is the subject itself in focus but objects in a certain distance range both in front of and behind it appear sharp. Objects increasingly out of this range become increasingly out of focus. This "in-focus zone" is known as "depth of field." When this zone of sharpness is large, the depth of field is said to be deep; when it is small, the depth of field is said to be shallow. The following can be said of depth of field, given the same focusing distance: 1) The smaller the taking aperture (i.e., the higher the fstop number), the deeper the depth of field, and the larger the aperture, the shallower the depth of field.

2) The farther away the subject is from the lens, the deeper the depth of field becomes; the closer to the lens, the shallower the depth of field. 3) There's greater depth of field behind the main subject than in front of it. Note, too, that in the case of lenses with different focal lengths but of the same maximum fnumber, the shorter the focal length of the lens, the larger the depth of field, and vice versa. @@The range is indicated by the distance between the lines.

@@@Getting the subject in focus is only one aspect of photography.

@@@@@Note: Be sure to press the depth-of-field preview lever fully. @@@@This can be done either before or after the film is advanced. After the self-timer has been set, press the shutter release button. @@@10 sec. @@@You can then take the picture the standard way as before.

@@@@@3) After winding the film advance lever fully, take the second shot. @@@@@@Of course, you can use the memo holder to store anything, including your name card. 32 Flash photography A Nikon electronic flash unit will prove very convenient for indoor or nighttime shooting or for use in the daytime as supplementary lighting. The FM2's built-in hot-shoe contact @ enables direct mounting of the Nikon S8-27, S8-26, S8-25, S8-24, S8-22, S8-20, S8-19 or S8-168 Speedlight, requiring no special connecting cords. When shooting with a flash unit, you should determine the aperture setting that corresponds to the shooting distance after checking the guide number of the electronic flash unit or flashbulb in use. Also, if the speed light requires the use of a connecting cord, insert the cord into the camera body's sync cord terminal @. Since the FM2's hotshoe contact becomes active only when an electronic flash unit is mounted, touching it accidentally is harmless. The use of flash units not provided with a hot-shoe contact' is not recommended because accidental firing is likely to occur due to short circuiting at the contact. When using such flash units, seal the hot-shoe contact on the camera body with vinyl tape or something appropriate to insulate it. The FM2, provided only with an X-contact for synchronization, synchronizes with the speedlight when the shutter speed set is 1/250 sec.

or slower. 'Old type flash units with metallic leaf spring on mounting portion. Synchronization Range (sec I Shutter speed 1/4000 1/2000 ' /1000 1/500 1/250 1/125 ' /60 1/30 - 1 B SpeedUghl M. FPandMF Flashbulbs [=:::J Synchronized [=:::J Cannot be used Note: When using a special electronic flash unit with provision for time lag, an electronic flash unit with long flash duration, the Medical-Nikkor 120mm f/4 IP', or the Nikon Repeating Flash Unit 58-6 at 1/12 or full output, adjust shutter speed down to 1/125 sec. or slower. With flashbulbs, set shutter speed at 1/30 sec. or slower. 'Not available in EU countries. 33 -CONTROLS IN DETAIL-continued--- - - - - II 11 111111 III ' I I I Ready-light @ When the 8B-28, 8B-27, 8B-26, 8B-25, 8B-24, 8B-22, 8B-20, 8B-19 or 8B-16B is attached to the FM2, the built-in LED ready-light tells you when the speed light is recycled and ready to fire or when the shutter speed is set outside sync range, without your having to remove your eye from the viewfinder. Before you shoot, make sure the ready-light is on. The moment the shutter is released, the speedlight will fire and the readylight will go out. If the shutter speed is set between 1/500 sec. and 1/4000 sec., the ready-light will blink when the speedlight is fully charged, to warn you that the shutter speed is outside sync range. For ready-light availability with speedlights other than the 8B-28, 8B-27, 8B-26, 8B-25, 8B-24, 8B-22, 8B-20, 8B-19 and 8B-16B, refer to page 35.

Picture taken by balancing the flash exposure with daylight. 34 Ready-Light Status Per Shutter Speed Dial Setting Shutter speed dial setting 1/4000 sec. - 1/500 sec. 1/250 sec. - 1 sec.

Combination Chart of Nikon FM2 and Nikon Speed lights Camera's I Speedlight charging I Speedlight charging complete Blinks Lights up continuously Lights up continuously incomplete Off Off Off B Notes: 1) No matter how the shutter speed dial is set, the speedlight will fire when the ready-light is on the moment the shutter release button is depressed. 2) The ready-light will function regardless of whether the camera's exposure meter is on or off. 3) When the camera's exposure meter is on, the LED exposure display inside the viewfinder shows the exposure condition of the moment regardless of whether or not the flash fires. If the shutter speed is set at B, the LED exposure display will not be activated. Caution: For flash photography, it is recommended that you use a Nikon dedicated electronic flash unit which operates at a low voltage current. Use of any other flash which operates at high voltages may damage the camera's circuitry. Any damage caused by such use is not covered by the Nikon Warranty. ready-light operates Via AS-6 couple 88-21A' Yes 88-21 8' D irect Yes Yes S B-241SB-2WB-2&SB-2 D 8 irect 88-20/S8-221S8-27 D irect Yes 88-19 D irect Yes S8-17 Via AS-6 coupler Yes S8-16A Via AS-6 coupler Yes S8-168 Direct Yes Via SC-11 sync cord No 88-11 1S8-14/S8-140 Via SC-13 sensor cord Yes Via SC-23 ill remote cord Yes S8-10 Direct Yes Via SC-6 sync cord No S8-6 Via AS-2 coupler with SC-9 N o extension cord R inglight Unil 8R-2 Via sync cord (provided) No M acro Ringlight Unit Via sync cord (provided) No SM-2 Via 2-pln sync cord SC-20 No (provided) Medical-Nikkor' 120mm f/4 1F V 3-pln sync cord 8C-22 ia Yes (provided) Speedlight Connection I Usable flash modes Manual Manual Auto, manual, repeating Auto, manual Auto Auto, manual, MD Auto, manual, MO Auto, manual, MD Auto", , manual Auto", manual M anual Auto, manual M anual Auto, manual Manual Manual .



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- Not available in E countries. U .. With S8-140, usable only for visible-light flash photography. ..., Flash output is determined by the lens' ASA/ISO ring setting. The focusing ring is coupled to the diaphragm, so as the lens is focused, the aperture is simultaneously set to provide the correct exposure. 35 ACCESSORIES----- Interchangeable focusing screens Three different types of focusing screens are usable with the Nikon FM2 . The Type K2 screen comes with the camera as a standard accessory.

Two optional focusing screens , Type B2 (matte/Fresnel with focusing spot) and Type E2 (matte/Fresnel with focusing spot and etched grid lines) are also available for the FM2 to match your particular requirements . To change focusing screens, follow this procedure: 1. Remove the lens from the camera body. 2. Slip the small tip of the special tweezers (that come with the optional screens) under the focusing screen release latch ® at the top front of the mirror box casting and pull outward to spring open the holder.

3. Take the screen out by grasping the small tab with the tweezers . 4. Carefully position another screen in place with the flat side facing down and the side with the tab facing up. 5.

Then push the front edge of the holder upward with the tweezers until it clicks into position . Note: To avoid getting smudges or fingerprints on the screen 's optical surface, do not handle the screen with your fingers. 36 Focusing Screen Selector Qulde Type I Name/style I Features Split-image range-finder/micropism system Suitable for general photography. Has micropism collar around the central split-image rangefinder spot. With PC-Nikkor or lenses having a maximum aperture slower than f/4 .5, the split-image range finder or micropism collar is dim. In this case, focus on the surrounding matte area. Works well for general photography, close-up photography and duplication work. Especially useful for people who prefer to focus on the matte focusing spot at the center of the Type K2 clear-matte screen Type K screen Matte system screen, or when it is inconvenient to use the split-image rangefinder for focusing , as is the case with telephoto lenses. Extremely useful in pictorial composition.

Consists of Type B2 matte field with etched horizontal and vertical lines. Also useful with PC-Nikkor lenses. Caution: Type K2IB2IE2 focusing screens have a notched tab. If you use the Type KIBIE screen, you must make exposure compensation. Horizontal and vertical line etched system 37 -ACCESSORIES-continued-----Close-up equipment The following are some of the accessories you can use for close-up photography. 1) Close-Up Lenses No. 0, No. 1, No. 2, No. 3T, No.

4T, No. 5T, NO. 6T. Since these lenses are attached to the front of the lens in use, metering can still be done at full aperture. 2) Auto Extension Rings PK-IIA, 12 and 13.

3) Bellows Focusing Attachment PB-6. The Auto Extension Rings and the PB-6 are attached between the lens and camera body. If one of the rings is used with an AI lens, exposure determination is at full aperture because the exposure meter is linked to the automatic diaphragm of the lens. As for the PB-6, stop-down exposure measurement is necessary because the exposure meter is not linked with the automatic diaphragm of the lens. You can change magnifications continuously by extending the bellows.

Note, too, that it is possible to use a close-up lens, ring and the PB-6 all at the same time. 4) Micro-Nikkor 55mm f/2.8, Micro-Nikkor 105mm f/2.8, MicroNikkor 200mm f/4, AF Micro-Nikkor 60mm f/2.8 0 , AF MicroNikkor 105mm f/2.8 0 and AF Micro-Nikkor ED 200mm f/4 0 IF lenses. These specially designed lenses for close-up photography offer continuous focusing from infinity down to 1/2 (Micro-Nikkor lenses) or 1/1 lifesize (AF Micro-Nikkor lenses). The closest focused distance of the lenses are 0.25m (0.82 ft.

), 0.23m (0.75 ft.), 0.41m (1.34 ft.), 0.219m (0.719 ft.), 0.314m (1.03 ft.) and 0.5m (1.64 ft.

), respectively. Note that in close-up photography, the depth of field is generally shallow. Thus, you should stop down as much as possible in photographing a subject with very little depth. Also, it is advisable to use the Type K2's matte outer field for focusing (or to change focusing screens) because it is no easy to focus with the split-Image or micropism ring. 38 Note: Non-AI extension rings such as the PK-I, 2, 3, PN-I , etc.

cannot be attached to the FM2. Auto Extension Rings Close-Up lenses Motor Drive MD-12 The use of the MO-12 motor drive unit with the FM2 enables automatic film advance when the unit's trigger button is pressed. In addition to single -frame shooting, continuous firing at the maximum rate of 3.2 frames per second is possible (i.e., when the shutter speed set is between 1/125 and 1/4000 sec.). The motor drive unit proves very convenient when shooting fastmoving subjects since the photographer does not have to wind film manually or take his eye off the viewfinder. The MO-12 can be mounted onto the FM2 by simply inserting and tightening its built-in screw into the tripod socket ® at the base of the camera body. Note that lightly pressing the MO-12's trigger activates the FM2's exposure meter.

39 -ACCESSORIES-continued-----Nikon Speed lights Nikon speed lights are convenient for shooting in dim light or taking backlit portraits, as well as for synchro-sunlight shooting . Various models are available-from speed lights for beginners to those for professionals. The Nikon 88-28, 88-27, 88-26, 88-25, 88-24, 88-22, 88-20 , 88-19, or 88-168 Speed light can be directly mounted onto the FM2's built-in hot shoe . These speed lights also activate the camera's LED ready-light inside the viewfinder which lights up when the flash unit is fully recycled and ready to fire, and blinks when the shutter speed set is outside the synchronization range-all without having to remove your eye from the viewfinder (see page 34.) 8B-16B 40 Data Back MF-16 To keep track of when photos were taken, the FM 2 accepts the slim , lightweight Data Back MF-t6. Th is back attaches in place of the FM 2's regular camera back with no sync cord required . Three imprinting modes are provided : year /month /day, day/ hour/ minute, or picture counting (up to 2000) ; each mode is displayed on the data back in clear LCD numerals and printed by LED 's, on the photo in unobtrusive red numerals. Serving as a handy clock, a quartz timer with alarm is incorporated. Note: The Nikon FM2 a/so accepts Data Back MF-12. In this case, use the cord provided with the da ta back to connect the socket contact of the MF-12 to the sync terminal/of the camera.

MF-16 41 -ACCESSORIES-continued-----Anti-Cold Battery Pack DB-2 In cold weather, use the Anti-Cold Battery Pack OB-2, which accepts two M -type batteries, as an alternative power supply to the batteries inside the camera body. Simply connect the OB-2 to the camera body, then slip the assembly inside your pocket or coat to keep it warm.



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This assures that the camera's metering system will function even in very cold temperatures. piece correction lens most suitable for you only after actually trying out various models at the camera shop. Cable Release AR-3 The screw-type AR-3 makes for vibration-free shutter release.

Right-Angle Viewing Attachment DR-3 Screws onto the viewfinder eyepiece (a) to provide a viewfinder image at a 90° angle to the camera's optical axis. Very helpful for closeup photography, duplication work and photomicrography. Eyepiece Magnifier DG-2 Attached to the viewfinder eyepiece, this accessory enlarges the image at the center of the viewfinder to assure ever precise focusing in closeup photography, duplication work and tele photography.

Rubbereyecup Attached to the finder eyepiece, this eyecup excludes strong light and helps prevent eye fatigue. Eyepiece correction lenses Accessory lenses that screw onto the viewfinder eyepiece to enable near- and farsighted photographers.

to take pictures without having to wear eyeglasses. Nine models are available, offering a choice of the following diopters : -5, -4, -3, -2, 0, +0.5, +1, +2 and +3 ; the diopters represent the combined dioptry of the viewfinder and lens, and not the dioptry of the eyepiece correction lens only. For best results , choose the eyeDR-3 DG -2 Rubber eyecup q-a- _____ AR-3 Eyepiece correction lenses ~ 42 Filters As is shown on the table, Nikon filters are broadly divided into the screw-in, drop-in, and bayonet type, Because the FM2 incorporates a TIL full-aperture metering, the filter factor can be ignored except in the case of the R60, For example, when using the R60 in daylight, set the aperture three f/stops wider than the figure indicated by the exposure meter, Notes: 1) For lens protection, the NC filter is recommended, 2) When shooting a backlit subject or if there's a bright light source in the frame, a ghost Image is likely to resuff from the use of a finer, In this case, you should take the picture without a filter, ""- Black&wni. G " .. So' 12 'hi Lenshoods Recommended to prevent extraneous light from striking the lens, Nikon 's lens hoods come in four styles : screw-in, slip-on, snap-on, and collapsible-rubber. Every lens should be fitted with the lens hood specially designed for it. Note, however, that some lens hoods can be used in common by several lenses, 43 -ACCESSORIES- continued-----Camera cases Semi-soft cases , such as the CF-27, CF-28 and CF-29, are available. The CF-27 case accommodates the FM2 mounted with a lens smaller than 50 mm f/1 .

4. The CF-28 is for the camera mounted with any lens from 50mm f/1 .2 to 105mm f/2 .5. When a motor drive is attached to the FM2, use the CF-29 case. The soft-type CS -16 case is also available. Neckstraps Available are the leather neckstrap AN-1 (black), webbed nylon neckstraps AN-4Y (yellow) and AN-4B (black), and wider webbed nylon neckstraps AN-6Y (yellow) and AN -6W (brown). Compartment cases A wide selection of six types to choose from , ranging from a compact type to a large type which can accommodate large or bulky camera equipment: FB-8, FB-11A, FB-14, FB-15, FB-16 and FB-17. 44 TIPS ON BATTERY USE • Keep batteries away from infants and small children . In case a battery is accidentally swallowed, call a doctor immediately as the material inside the batteries can cause serious problems.

- Battery power falls off in extremely cold temperatures and this may cause the camera's photometric circuit to malfunction . In this situation, use new batteries and protect the camera body from the cold. Note that battery power will be recovered as soon as the temperature becomes normal. • Should the battery be left in the battery chamber for a long period, insufficient contact may occur due to battery leakage. Thus, it is good practice to periodically clean the battery and the contact section in the battery chamber with a soft cloth .

If the battery chamber is stained with a leaking battery, remove the battery at once and clean the chamber. • If you're using a pair of batteries, change them at the same time; never mix new and old batteries. • When not using the camera for a long period, take batteries out and store them in a cool, dry place. • Never disassemble batteries or discard them in fire. • When using a pair of batteries, make sure they are of the same make.

- Always check battery power before the shooting session because battery power can become exhausted without warning. It is a good idea to have spare batteries on hand during a protracted shooting assignment. • In normal use, a battery's lifespan is about one year. The battery packed with this camera, however, is for test purposes only so its lifespan may be shorter than usual. 45 TIPS ON CAMERACARE- - - - - Although the FM 2 is a tough and durable camera, bear in mind that is a precision optical instrument , and that careless or rough handling may damage it. Observe the following tips, and the FM2 will always work as perfectly as the day you bought it. • Don't touch the reflex mirror or the focusing screen to prevent them from getting scratched . Remove dust with a blower-type brush . • Do not touch the shutter curtains. • Clean glass surfaces such as the lens or the finder eyepiece with a blower-type brush ; avoid using lens tissue as much as possible.

@@@• If the Inside of the camera body accidentally gets wet , its internal precision parts may get rusty. Take the camera right away to the nearest authorized Nikon dealer for a checkup which may require repair payment. • When not using the camera for a long time, take out the batteries and store the camera away from high temperature, high humidity, naphtha line, or camphor, 46 Caution: Please note that the use of a spray-gun type blower to clean the lens may cause possible damage to the glass (especially when ED glass is used for the front lens element), by suddenly lowering the temperature on the lens surface. To avoid damage , hold the blower upright, keep its nozzle more than 30cm (approx. 12 inches) away from the lens surface and move the nozzle around so that the stream of air is not concentrated in one spot. • Clean metallic parts with a blower-type brush or with a dry, soft cloth. • Before using the camera, it is a good practice to check it thoroughly first . xap~ \ • In a best vinyl keep salt . humid environment, it is to store the camera in a bag with a desiccant to away dust, moisture and

." (If the camera malfunctions, take it immediately to an authorized Nikon dealer or service center. • Note that storing leather cases in a vinyl bag may cause the leather to deteriorate, so exercise due care. 47 SPECIFICATIONS-----Type of camera : 35mm single-lens reflex (SLR) focal plane shutter camera Any cartridge-type 35 mm film Usable film : Picture format: 24mmx36mm Lens mount: Nikon F bayonet mount Shutter: Vertical-travel, metal focal plane shutter "" Shutter speed settings : 1 sec _ 1/4000 sec .



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, B (bulb) ; 14 fixed settings in all Self-timer: Set/cancel type provided; approx. 10-sec. shutter release delay Viewfinder : Eye-level type, with 93 % frame coverage Shutter speed, f/number, and LED Viewfinder display: exposure display for overexposure +, correct exposure 0 and underexposure Focusing screen : Split-image micropism type (Type K2) provided as standard ; matte type (B) and matte with horizontal and vertical line etchings (E) optionally available. Quick-return type Mirror: Lever provided; 30° standoff angle and 135° winding angle Automatic film advance: Possible with optional Motor Drive MD-12 Multiple exposure lever: Provided, disengages frame counter for correct count Additive type (S, 0°/36); autoFrame counter: automatically resets to S when camera back is opened By crank provided after film rewind Film rewind: button is pressed Flash synchronization: Built-in hot shoe for mounting flash unit ; sync cord terminal also provided ; 1/250 sec. sync Ready-light: Provided inside the viewfinder TTL center-weighted full aperture Exposure meter: exposure measuring system using a pair of SPD 's (silicon photodiodes) as photoelectric element ; measures from EV 1 to EV 18 at ASAISO 100 and with 50mm f/1.4 lens (i.e., from 1 sec. at f/1.4 to 1/4000 sec. at f/8) 48 ASAISO 12°/6400 Choice of one 3V lithium battery, two 1.

55V silver-oxide batteries, or two 1.5V alkaline-manganese batteries Exposure meter switch: Light pressure on shutter release button switches meter on ; meter stays on for approx. 30 sec. after finger leaves button, then automatically switches off Battery power check: LED exposure display inside viewfinder lights up when the exposure meter is switched on if there is sufficient power (i.e., the shutter speed dial should be set anywhere except B) Camera back: Pops open when the film rewind knob as the camera back lock is pushed ; detachable ; memo holder provided. Dimensions (W x H x D): Approx. 142.5mm x 90mm x 60mm (camera body only) or 5.6 x 3.

5 x 2.4 in. Weight: Approx. 540g or 19 oz. (camera body only) Film sensitivity range: Power source: Specifications are subject to change without notice. 49 IMPORTANT! The Nikon FM2 is an AI-type (Automatic Maximum Aperture Indexing) camera which performs full-aperture metering with AI -type lenses. The aperture rings of these lenses are fitted with meter coupling ridges (see illustration). Almost all lenses now manufactured by Nikon are the AI type. However, please confirm whether or not your lens is AI before using it with the FM2. Although almost all Nikkor lenses that have the Nikon F bayonet mount, as well as the Nikon Series E lenses, can be mounted on the FM2, the FM2 cannot be used with Nikkor lenses that have not yet been modified to offer the AI facility and with a few special-purpose lenses because the FM2's meter coupling ridge is fixed, and the FM2 does not have a mirror lock-up mechanism. For particulars, refer to the table below. Lens Fisheye-Nikkor 6mm 1/5.6 Fisheye-Nikkor 10mm f/5.6 OP PC -Nikkor 25mm f/4 PC-Nikkor 35mm f/2.5 Reflex-Nikkor 100mm f/1.1 Reflex-Nikkor 200mm f/1.1 Zoom-Nikkor 200 600mm f/9.5 600mm f/5.6 1200mm f/11 Zoom-Nikkor ED 150 Zoom-Nikkor ED 360 Focusing Unit AU-1 Other Nikkor lenses that have not been modified to offer the AI facility Reason Requires mirror lock-up Requires mirror lock-up Not usable Not usable Serial No. 180901 and higher usable Serial Nos. 851001 to 906200 not usable Serial No. lower than 142361 and higher than 143000 usable Remark s Hits camera's meter coupler lever Serial No. 200311 and higher usable Serial No.

300491 and higher usable Serial No. 174 167 and higher usable Serial No. 1740S8 and higher usable Not usable Not usable 50 No reproduction in any form of this manual, In whole or In part (except for brief quotation in critical articles or reviews), may be made without written authorization from NIKON CORPORATION. © Nikon, Inc. ~ NIKON CORPORATION FUJI BLDG., 2-3, MARUNOUCHI3-CHOME, CHIYODA-KU, TOKYO 100-8331, JAPAN PHONE: 81-3-3214-5311 TELEX: NIKON J22601 FAX: 81-3-3201-5856 Printed in Japan K8A 1505601 (S391).



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