On-line camera manual library
This is the full text and images from the manual. This may take 3 full minutes for the PDF file to download.

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This will allow me to continue to buy new manuals and pay their shipping costs.
It'll make you feel better, won't it?
If you use Pay Pal or wish to use your credit card,
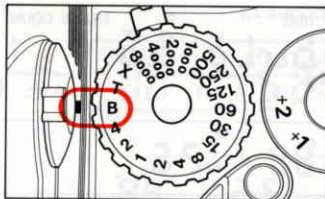click on the secure site on my main page.
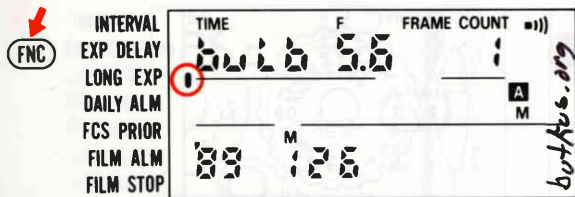
LONG TIME EXPOSURE FUNCTION
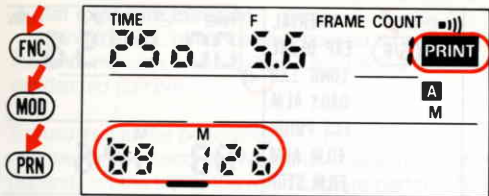
To imprint data during Long Time Exposure operation:

Select desired display using FNC and MOD buttons, then push PRN button so Data Imprint set indicator appears. Releasing the shutter while PRINT is showing causes data selected in Between-Frames and/or In-Frame Data Imprint function to be imprinted, even when the function indicator does not appear.
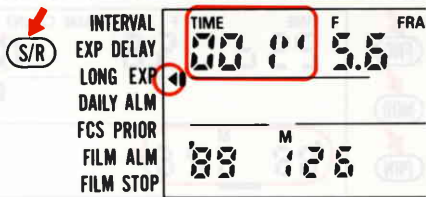
• Data is imprinted as soon as Long Time Exposure operation starts. In other words, the date and/or time of the *start* of the Long Time Exposure Operation will be imprinted, not the end.

1. Set shutter speed on the camera to 'B' (manual or shutter-priority auto exposure mode).

INTERVAL	TIME	F	FRAME COUNT ◼)))
EXP DELAY	bulb 5.6		1
LONG EXP			
DAILY ALM			Ⓐ
FCS PRIOR			M
FILM ALM	89 M 126		
FILM STOP			

🔴 (FNC)

2. Push FNC button so Long Time Exposure function indicator appears.

INTERVAL	TIME	F	FRA
EXP DELAY	00 1" 5.6		
LONG EXP			
DAILY ALM			
FCS PRIOR			
FILM ALM	89 M 126		
FILM STOP			

🔴 (S/R)

3. Push S/R button.
Long Time Exposure set indicator and numerical indicator for exposure duration appear in LCD.

68   www.orphancameras.com
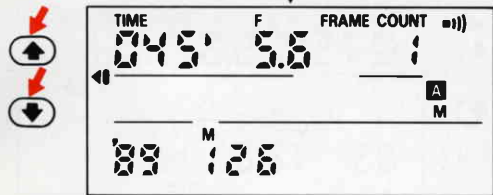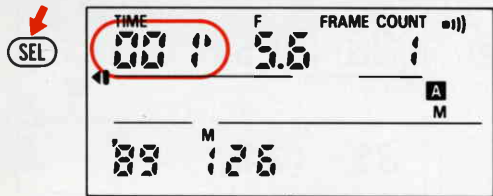
4. Set exposure duration.

Using the SEL button, select desired time unit (second, minute or hour). Then, using adjust buttons, set desired number.

Exposures can be performed for up to 999 hours, 999 minutes or 999 seconds. Note that exposure duration depends on the life of the main camera battery (Nikon Battery Pack MB-20 with alkaline-manganese batteries, approx. 4 hours; Nikon High Speed Battery Pack MB-21 with alkaline-manganese batteries, approx. 6 hours; with NiCd batteries, approx. 3 hours; with Nikon External Power Regulator MB-22, approx. 40 hours.)
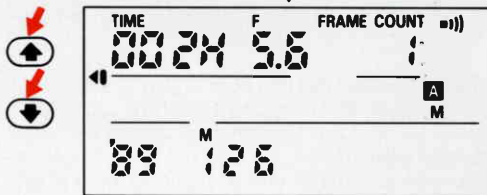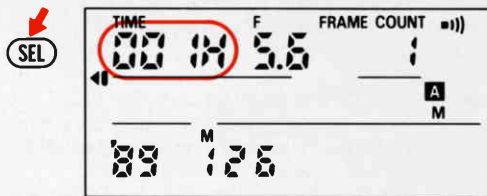
- Data to be imprinted can be changed or set after setting Long Time Exposure. Push FNC button to select Data Imprint function, then change and/or set data as desired.
- Exposure duration cannot be imprinted, even when displayed in the LCD.
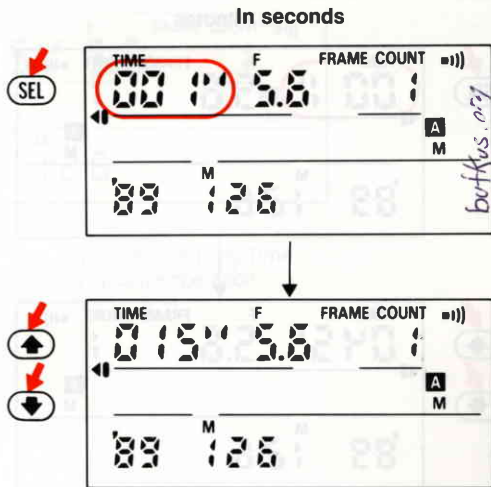
In seconds

69

In minutes

SEL — TIME `001'` F `5.6` FRAME COUNT `1` A / M — `89` `126`

↓

↑ ↓ — TIME `045'` F `5.6` FRAME COUNT `1` A / M — `89` `126`

In hours

SEL — TIME `001H` F `5.6` FRAME COUNT `1` A / M — `89` `126`

↓

↑ ↓ — TIME `002H` F `5.6` FRAME COUNT `1` A / M — `89` `126`

INTERVAL
EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP

TIME   F   FRAME COUNT ■))
015" 5.6   1

A
M

89 126
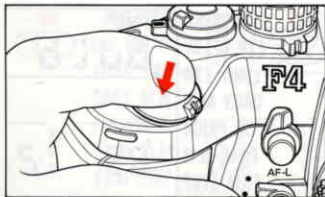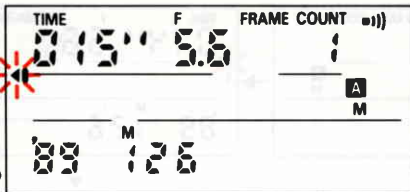
5. Start Long Time Exposure operation.

Depress camera's shutter release button to start Long Time Exposure. The Long Time Exposure set indicator blinks for as long as you are in Long Time Exposure operation.
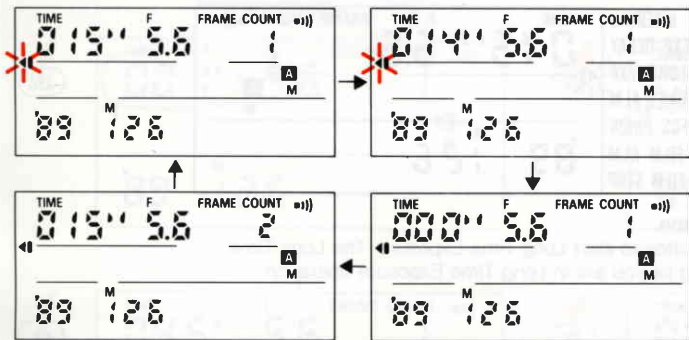
During operation, exposure duration display counts down until it reaches 0. When shutter closes to complete the Long Time Exposure, the exposure duration display reverts to your previously set time and Long Time Exposure set indicator stops blinking.
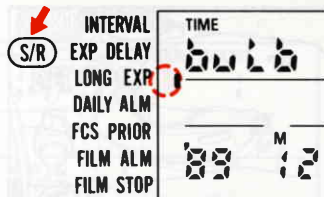
6. Push S/R button to cancel Long Time Exposure set.
Long Time Exposure set indicator turns off.

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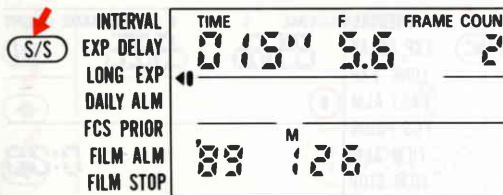
To stop exposure before preset time:
Push S/S button. Shutter closes and Long Time Exposure set indicator stops blinking. Exposure duration display reverts to your previously set time.

- If you start a Long Time Exposure by depressing the camera's shutter release button but hold the button down longer than the duration you have set, the shutter will remain open as long as you hold the button, regardless of setting.
- Shifting camera shutter speed from 'bulb' to another setting cancels the Long Time Exposure set.

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DAILY ALARM

The Daily Alarm function lets you set the alarm to sound every day at a given time.
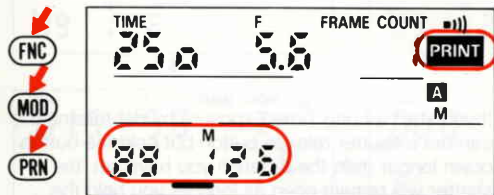
To imprint data during Daily Alarm operation:
Select display using FNC and MOD buttons, then push PRN button so Data Imprint set indicator appears. Releasing the shutter while PRINT is showing causes data selected in Between-Frames and/or In-Frame Data Imprint function to be imprinted, even when the function indicator does not appear.
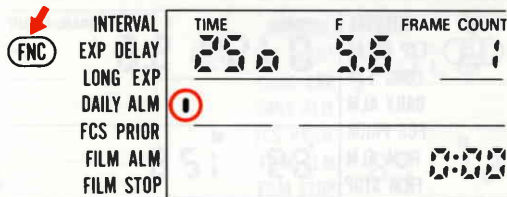
1. Push FNC button so LCD shows Daily Alarm indicator.

2. Set the time for alarm.

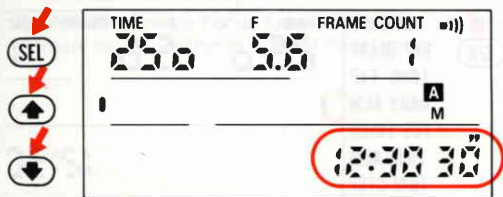For practice, set time to 12:30:30. Using SEL and adjust buttons, set display to the desired time using the same method described for setting date and time (pages 26 to 33).
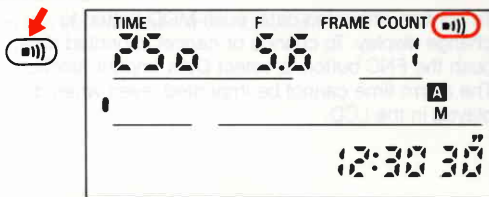
3. Confirm alarm indicator.

If it does not appear in the LCD, push the alarm button.
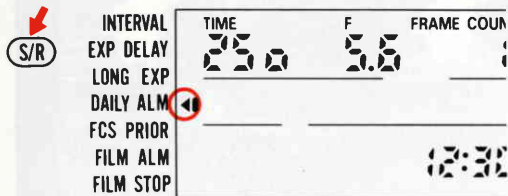
4. Push S/R button to complete Daily Alarm setting.

Daily Alarm set indicator appears.

- To confirm imprinted data, push MOD button to change display. To change or cancel imprinted data, push the FNC button to select Data Imprint function.
- The alarm time cannot be imprinted, even when displayed in the LCD.

6. Push S/R button to cancel Daily Alarm set.
Daily Alarm set indicator disappears.
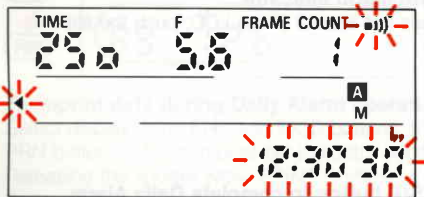
5. Alarm will sound at the time set.
And continue for approx. 20 seconds.

- To stop the alarm, push Alarm button.

FREEZE FOCUS (FOCUS PRIORITY) FUNCTION

The MF-23's Freeze Focus function automatically releases the shutter when the subject is in a preset focus position in manual focus mode.
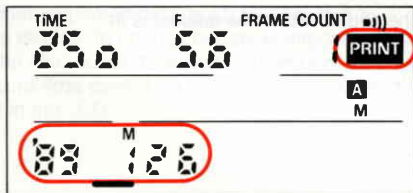
To imprint data during Freeze Focus operation:
Select desired display using FNC and MOD buttons, then push PRN button so Data Imprint set indicator appears. Releasing the shutter while PRINT is showing causes data selected in Between-Frames and/or In-Frame Data Imprint function to be imprinted, even when the function indicator does not appear.
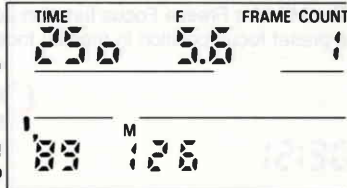

1. Push FNC button so Freeze Focus function indicator appears in LCD.
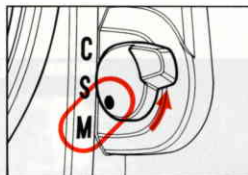
2. Set camera's focus mode selector to M.
Use a lens that enables manual focus with the electronic rangefinder. If lens has an A-M switch, set to M.

3. Push S/R button to set Freeze Focus function.
Freeze Focus set indicator appears.

• Data to be imprinted can be changed or set after setting Freeze Focus function. Push FNC button to select Data Imprint function, then change and/or set data as desired. Freeze Focus set indicator will remain on.
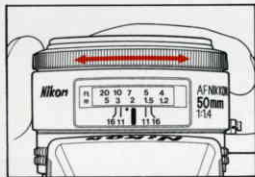
4. Rotate focus ring manually to set focus position at desired distance.
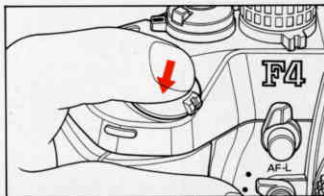
5. Depress shutter release button.
Shutter will be released when subject enters a preset focus position.

• With camera's film advance mode selector at S, shutter will be released each time you depress the shutter release button.
• With camera's film advance mode selector at CH, CL or CS, shots are taken continuously as long as the shutter release button remains depressed.
• Freeze Focus shooting cannot be performed when the camera's film advance mode selector is set at the self-timer (☉) position.

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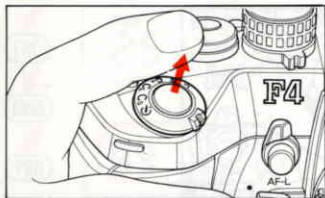
6. Remove finger from shutter release button to stop Freeze Focus shooting.

• Optional cable release and remote cords are available for remote control operation. The maximum duration for a single shooting in remote operation depends on the life of the main camera battery. (For Nikon Battery Pack MB-20 with alkaline-manganese batteries, approx. 5 hours; for Nikon High Power Battery Pack MB-21 with alkaline-manganese batteries, approx. 7 hours; with NiCd batteries, approx. 4 hours.)

7. Push S/R button to cancel Freeze Focus set.
Freeze Focus set indicator turns off.

• With shutter release button depressed, rotate focus ring. When in-focus indicator (●) appears, shutter will be released.
• Autofocus mode cannot be selected, even when using an AF Nikkor lens. If the focus mode selector is set to S or C, the Freeze-Focus set indicator blinks twice and turns off, and the alarm sounds (if set).

FILM ALARM

With Film Alarm active, when film reaches a preset frame number, the alarm will sound.

FNC

MOD

PRN
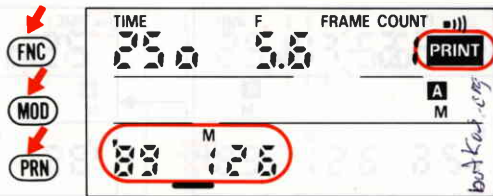
To imprint data when Film Alarm is set:
Select desired display using FNC and MOD buttons, then push PRN button so Data Imprint set indicator appears. Releasing the shutter while PRINT is showing causes data selected in Between-Frames and/or In-Frame Data Imprint function to be imprinted, even when the function indicator does not appear.

FNC

INTERVAL
EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP
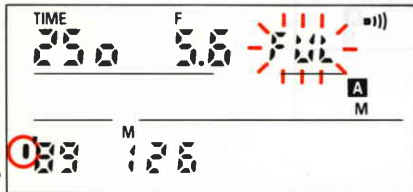
1. Push FNC button so LCD shows Film Alarm indicator.
Frame count indicator disappears and 'FUL' or frame number blinks.
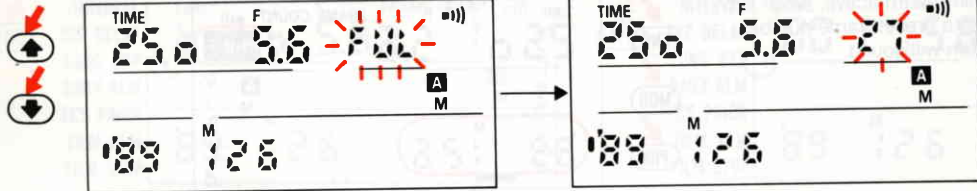
2. Set the number of frames.

Using adjust buttons, set display to desired number.

- Pushing MOD button changes display to FRAME COUNT.
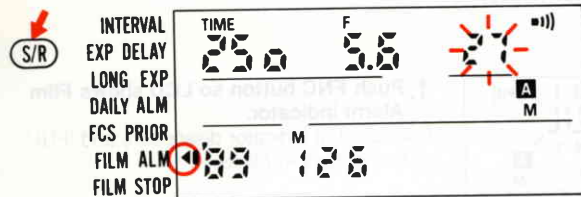
3. Push S/R button.

Film Alarm set indicator appears.
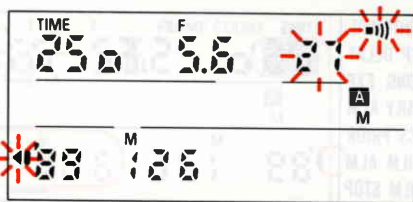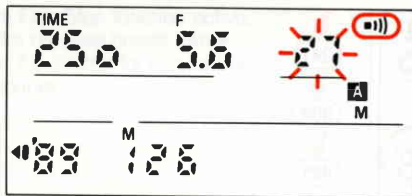
4. Confirm alarm indicator.
If it does not appear, push alarm button.

- Data to be imprinted can be changed or set after setting Film Alarm. Push FNC button to select Data Imprint function, then change and/or set data as desired. Film Alarm set indicator remains on.

5. Alarm sounds when frame count reaches specified preset number.
Film Alarm set indicator, frame number and alarm indicator blink. Alarm continues for approx. 20 seconds.

- To stop the alarm, push Alarm button or S/R button.
- You can release the shutter while alarm sounds.

INTERVAL
EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP

S/R

TIME F
25 o **5.6** ■))
2 -
A
M
M
89 126
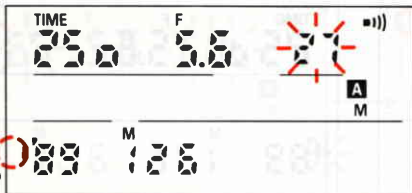
6. Push S/R button to cancel Film Alarm set.
   Film Alarm set indicator disappears.

FILM STOP

With the Film Stop function active, when film reaches preset frame number, the shutter locks and the alarm sounds.

(FNC)
(MOD)
(PRN)
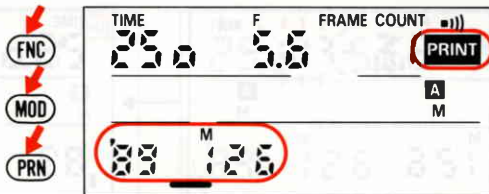
To imprint data while Film Stop is set:
Select desired display using FNC and MOD buttons, then push the PRN button so Data Imprint set indicator appears. Releasing the shutter while PRINT is showing causes data selected in Between-Frames and/or In-Frame Data Imprint function to be imprinted, even when the function indicator does not appear.

(FNC)

INTERVAL
EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP
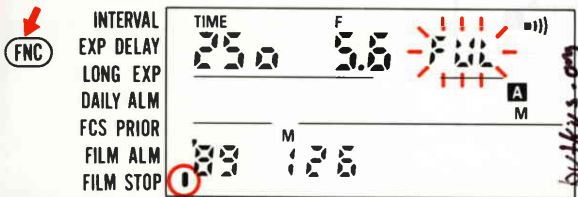
**1. Push FNC button so LCD shows Film Stop indicator.**
Frame count indicator disappears and 'FUL' or frame number blinks.
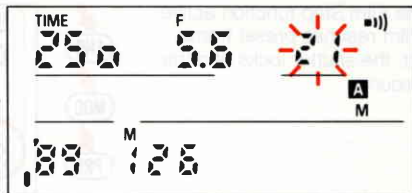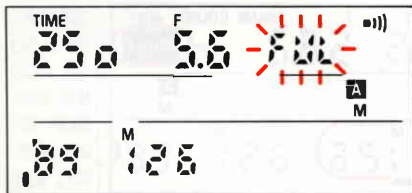
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2. Set the number of frames.
  Using adjust buttons, set display to desired number.

• Pushing MOD button changes display to FRAME COUNT.

3. Push S/R button.
  Film Stop set indicator appears.
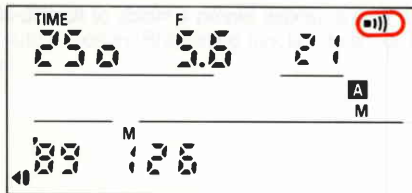
INTERVAL
EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP

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4. Confirm alarm indicator.

If it does not appear, push alarm button.

• Data to be imprinted can be set after you set Film Stop function. Push FNC button to select Data Imprint function, then change and/or set data as desired. Film Stop set indicator remains on.
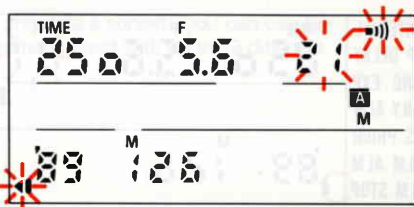
## 5. Alarm sounds and shutter locks when frame count reaches preset number.

Film Stop set indicator, frame number and alarm indicator blink. Alarm continues to sound for approx. 20 seconds.

• To stop alarm, push Alarm button or S/R button.
• To unlock shutter, cancel Film Stop set.

INTERVAL
(S/R) EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP

TIME   F
25_0 5.6 $2C$ ●)))
                        A
                        M

89 126 M

6. Push S/R button to cancel Film Stop set.
Film Stop set indicator disappears.

AUTO EXPOSURE BRACKETING

When it is difficult to obtain a proper exposure (i.e., when shooting a sunset), you can use the MF-23's Auto Exposure Bracketing function to shoot the same subject with up to 19 different exposures.

To select the number of frames to be shot, choose any odd number from 3 to 19; for exposure compensation degree, choose any setting from 0.3 to 2 EV (0.3, 0.5, 0.7, 1.0, 1.3, 1.5, 1.7, or 2.0 EV). The center value for exposure compensation can also be selected from 0 to ±7-2/3 EV.

Depending on the exposure compensation and center value set, the number of frames available may be limited.

Be sure to set exposure compensation so it meets the following conditions:

1. Number of frames at either + side or − side should not exceed 9.

2. (Absolute value of center value) +

$$(\frac{\text{No. of frames} - 1}{2} \times \text{Degree}) \leqq 8 \text{ EV}$$

If it does not meet *both* conditions, the number of frames will be automatically reset to 3.

Maximum Number of Frames with Each Combination of Center Value and Compensation Degree

Compensation degree (EV) \ Center value (±EV)	0	0.3	0.5	0.7	1.0	1.3	1.5	1.7	2.0	2.3	2.5	2.7	3.0	3.3	3.5	3.7	4.0	4.3	4.5	4.7	5.0	5.3	5.5	5.7	6.0	6.3	6.5	6.7	7.0	7.3	7.5	7.7
0.3	19	17	15	15	13	11	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	7	5	3
0.5	19	17	17	15	15	13	13	11	11	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	7	7	5	5	3	3	×
0.7	19	17	17	17	15	15	13	13	13	11	11	11	9	9	9	9	9	9	9	9	9	9	7	7	7	5	5	5	3	3	×	×
1.0	17	15	15	15	15	13	13	13	13	11	11	11	11	9	9	9	9	7	7	7	7	5	5	5	5	3	3	3	3	×	×	×
1.3	13	11	11	11	11	11	9	9	9	9	9	9	7	7	7	7	7	5	5	5	5	5	3	3	3	3	3	3	×	×	×	×
1.5	11	11	11	9	9	9	9	9	9	7	7	7	7	7	7	5	5	5	5	5	5	3	3	3	3	3	3	×	×	×	×	×
1.7	9	9	9	9	9	9	7	7	7	7	7	7	7	5	5	5	5	5	5	3	3	3	3	3	3	×	×	×	×	×	×	×
2.0	9	7	7	7	7	7	7	7	7	5	5	5	5	5	5	5	5	3	3	3	3	3	3	3	3	×	×	×	×	×	×	×

×: Setting is impossible

After setting center value, compensation degree and number of frames according to the above chart—

1) If you try to shift the center value or compensation degree and the earlier setting for number of frames exceeds the maximum number possible for your new combination, the number of frames will be automatically reset to 3.

2) If you try to shift the center value to within the × zone, the number of frames will be automatically reset to 3 and the compensation will be reset to the maximum degree possible for your chosen center value.
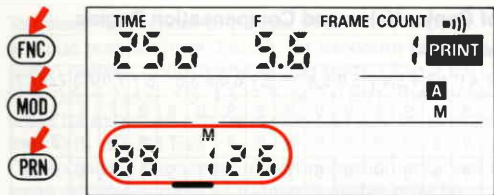
To imprint data during Auto Exposure Bracketing operation:

Select desired display using FNC and MOD buttons, then push PRN button so Data Imprint set indicator appears. Releasing the shutter while PRINT is showing causes data selected in Between-Frames and/or In-Frame Data Imprint function to be imprinted, even when the function indicator does not appear.
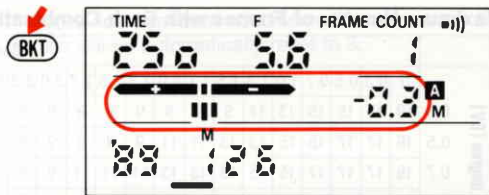
1. Push BKT button so Auto Exposure Bracketing displays appear in the LCD.

Exposure compensation mark appears in the camera's viewfinder.
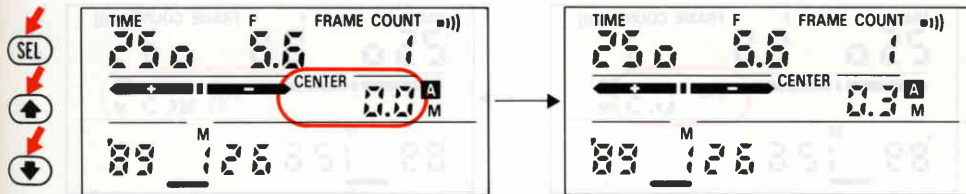
2. Set center value, compensation degree and number of frames.

Push SEL button so CENTER and center value appear. Using adjust buttons, select desired value.

The value changes as follows:

0.0—0.3—0.5—0.7—1.0—......—7.5—7.7— −7.7— −7.5—......−0.7— −0.5— −0.3
—0.0
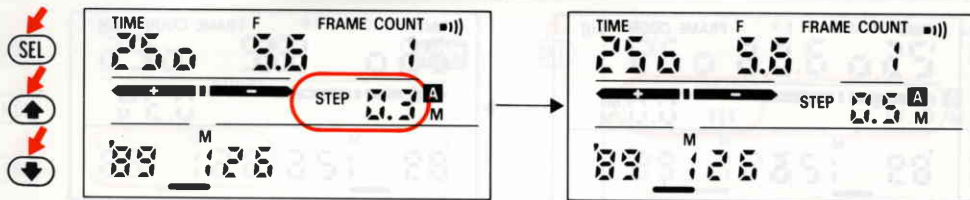
Push SEL button again so STEP and compensation degree appear. Using adjust buttons, select desired value.

The value changes as follows:

0.3—0.5—0.7—1.0—......—2.0—0.3
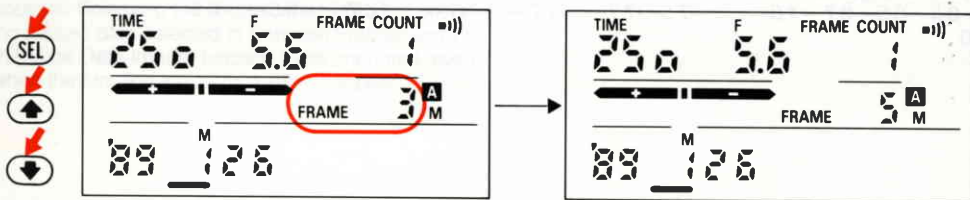
Push SEL button again so FRAME and frame number appear. Using adjust buttons, select desired number.

The number changes as follows:

3—5—7—9—......—17—19—3

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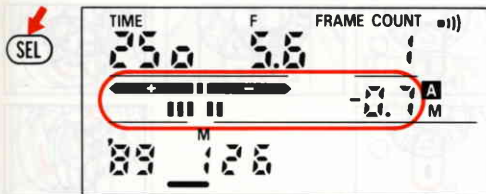
3. Push SEL button to complete Auto Exposure Bracketing setting.

Indicators showing number of frames, compensation range, and compensation value for first frame will appear.

- Once Auto Exposure Bracketing function is selected, the SEL and adjust buttons cannot be used to set imprinted data. To change data to be imprinted, push BKT button to cancel Auto Exposure Bracketing, then use SEL and adjust buttons. After adjusting, push BKT button again to activate Auto Exposure Bracketing function. (Previous setting will appear.)
- By selecting the Auto Exposure Bracketing function, you can imprint the exposure compensation value of each frame *between* frames. Select Between-Frames Data Imprint function and push the MODE button so the LCD shows the exposure compensation value.

95
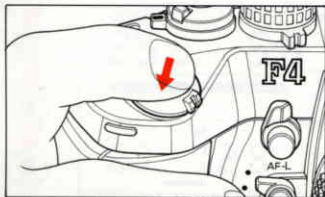
4. Depress F4/F4s shutter release button to release shutter and start Auto Exposure Bracketing operation.

The operation progresses from underexposed to over-exposed. With each release of the shutter, the frame indicators disappear one by one and the compensation value is displayed. When all shots are taken, display will revert to previous setting.
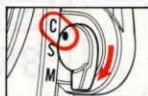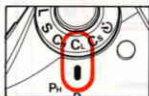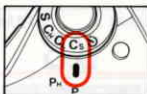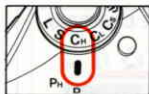
With camera's film advance mode at CH, CL or CS and focus mode at manual or continuous servo autofocus:

Depressing the shutter release button triggers as many shots as the number of frames set. When the set number of shots are taken, remove finger from shutter release button to prepare for the next shooting. If you remove your finger from the shutter release button before the set number of shots are taken, the operation does not stop.

96
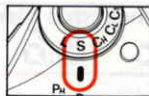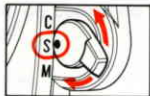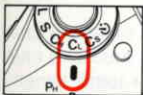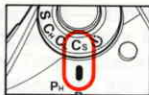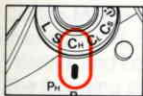
With camera's film advance mode at CH, CL or CS and focus mode at single servo autofocus:
When an in-focus image is obtained for the first shot, depressing the shutter release button and holding it in triggers as many shots as the number of frames set. If you remove your finger from shutter release button before the set number of shots are taken, the operation stops. To take the remaining shots, depress and hold the shutter release button again.

With camera's film advance selector at S:
Camera takes as many shots as set—one shot each time you depress the shutter release button.

TIME   F   FRAME COUNT   ■))
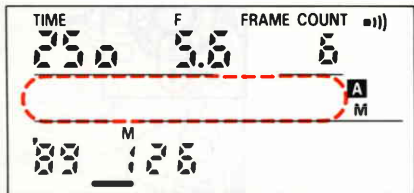
5. Push BKT button to cancel Auto Exposure Bracketing set.
Auto Bracketing display turns off.

- If Auto Exposure Bracketing is used with exposure compensation on the F4/F4s and/or SB-24 Speedlight, any compensation value can be added.
- With camera's shutter speed at 'B' or 'T,' you cannot use Auto Exposure Bracketing. 'buLb' or '--' will blink and the alarm will sound (if set). Setting to 'B' or 'T' cancels the Auto Exposure Bracketing setting.
- With camera's exposure mode at M for manual, exposures will not be compensated. However, you will still be able to take as many shots as the number of frames set.

- In TTL auto flash photography, exposure will shift within the amount of light available from flash output. In single servo autofocus, shots will not be taken when the subject is out of focus.
- Be sure to set the number of frames so it does not exceed the number of frames remaining on the film in the camera. If film reaches end of roll during shooting, push BKT button to stop operation and rewind film using power rewind. Opening the camera back to change film automatically cancels Auto Exposure Bracketing setting. To resume operation after loading a new film, push BKT button. Previous setting will appear.

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COMBINE MF-23'S FUNCTIONS

Certain MF-23 functions—Auto Exposure Bracketing, Interval Timer, Exposure Delay, Freeze Focus (Focus Priority), and Long Time Exposure—can be combined. The following combinations are possible:

Auto Exposure Bracketing + Interval Timer
Auto Exposure Bracketing + Exposure Delay
Interval Timer + Freeze Focus (Focus Priority)
Interval Timer + Long Time Exposure
Interval Timer + Freeze Focus (Focus Priority) +
    Long Time Exposure
Exposure Delay + Freeze Focus (Focus Priority)
Exposure Delay + Long Time Exposure
Exposure Delay + Freeze Focus (Focus Priority) +
    Long Time Exposure
Freeze Focus (Focus Priority) + Long Time Exposure

Interval Timer/Auto Exposure Bracketing Combination
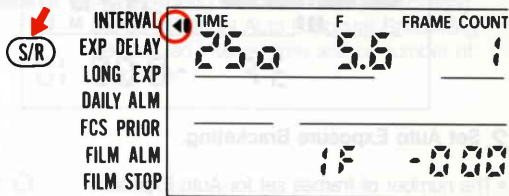
1. **Set Interval Timer.**
   Interval Timer set indicator will appear.
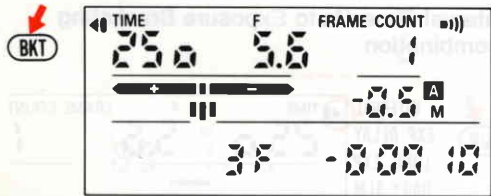
2. Set Auto Exposure Bracketing.

• The number of frames set for Auto Exposure Bracketing has priority over the number set for Interval Timer. Pushing the Auto Bracketing button causes the Interval Timer set indicator to blink twice, indicating frames set for Interval Timer have been automatically canceled.
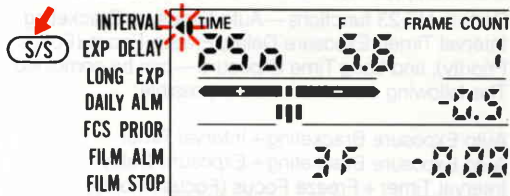
3. Push S/S button to start operation.

Auto Exposure Bracketing shootings are performed for as many frames as desired, as often as set, at the intervals you set.

Interval Timer set indicator blinks throughout the operation. After all shootings are complete, the operation stops automatically and the Interval Timer set indicator stops blinking.

• When shutter cannot be released for approx. 8 seconds after the set time, the MF-23 omits that shooting and resumes operation from the next shooting time.

INTERVAL		INTERVAL	
S/S			
INTERVAL	TIME	INTERVAL	TIME
EXP DELAY	25.0	EXP DELAY	25.0
LONG EXP		LONG EXP	
DAILY ALM		DAILY ALM	
FCS PRIOR		FCS PRIOR	
FILM ALM		FILM ALM	
FILM STOP		FILM STOP	

To change Interval Timer settings during operation:
Push S/S button so Interval Timer set indicator stops blinking. Next, push Auto Bracketing button to cancel Auto Exposure Bracketing. Set desired interval time and/or number of shootings.

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BKT

TIME	F	FRAME COUNT
25₀	5.6	31

-0.5 A / M

3F   -00000

→

TIME	F	FRAME COUNT
25₀	5.6	31

A / M

1F   -00000

S/R
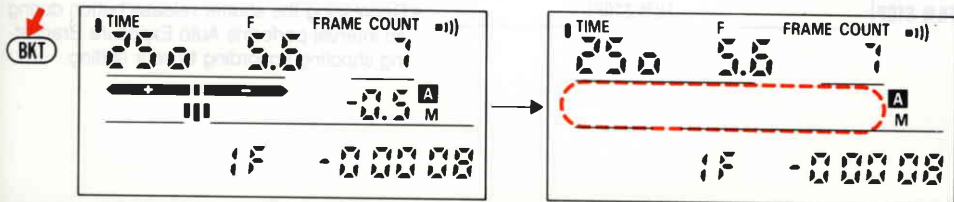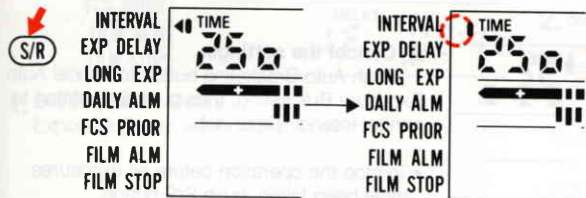
INTERVAL	TIME
EXP DELAY	25₀
LONG EXP	
DAILY ALM	—
FCS PRIOR	—
FILM ALM	
FILM STOP	

→

INTERVAL	TIME
EXP DELAY	25₀
LONG EXP	
DAILY ALM	—
FCS PRIOR	—
FILM ALM	
FILM STOP	

4. Cancel the settings.

Push Auto Bracketing button to cancel Auto Exposure Bracketing, then push S/R button to cancel Interval Timer set.

• To stop the operation before all exposures have been taken, push S/S button.
• Depressing the shutter release button during an interval performs Auto Exposure Bracketing shooting according to your setting.

Auto Exposure Bracketing/Exposure Delay Combination
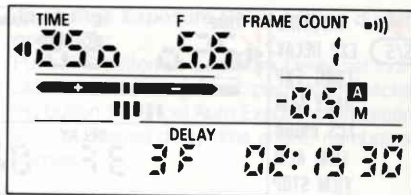
INTERVAL
EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP

1. Set Exposure Delay.
Exposure Delay set indicator appears.

2. Set Auto Exposure Bracketing.

- The number of frames set for Auto Exposure Bracketing has priority over the number set for Exposure Delay. Pushing the Auto Bracketing button causes the Exposure Delay set indicator to blink twice, indicating the number of frames set for Exposure Delay has been automatically canceled.

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INTERVAL
S/S EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP

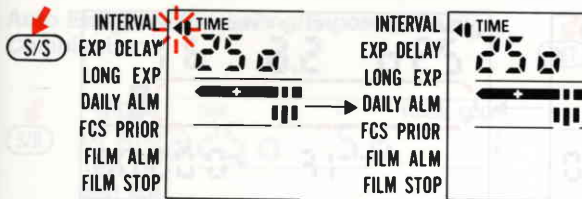| TIME	F	FRAME COUNT
25.6	5.6	1

+ —
-0.5 **A** **M**
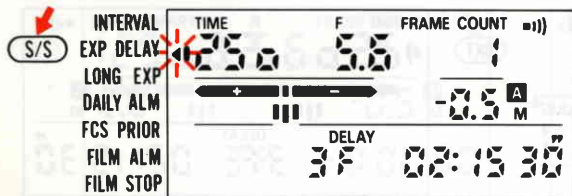
DELAY
3F 02:15 30

3. Push S/S button to start the operation.

Auto Exposure Bracketing shootings are performed for as many frames as desired, when delay time reaches 00:00:00.

Exposure Delay set indicator blinks throughout the operation. After all shootings are complete, operation automatically stops and Exposure Delay set indicator stops blinking.
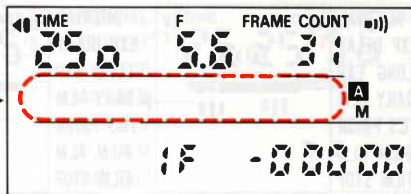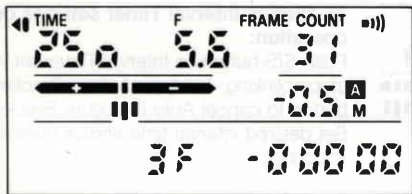
105

(BKT)

(S/R)

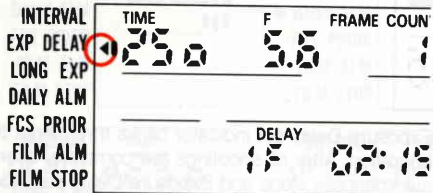| INTERVAL		INTERVAL	
EXP DELAY		EXP DELAY	
LONG EXP		LONG EXP	
DAILY ALM		DAILY ALM	
FCS PRIOR		FCS PRIOR	
FILM ALM		FILM ALM	
FILM STOP		FILM STOP	

4. Cancel the settings.

Push Auto Bracketing button to cancel Auto Exposure Bracketing, then push S/R button to cancel Exposure Delay set.

• To stop the operation before all exposures have been taken, push the S/S button.

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Interval Timer/Freeze Focus (Focus Priority) Combination

1. Set Interval Timer and Freeze Focus as desired.
Interval Timer set indicator and Freeze Focus set indicator appear.

- Shifting camera shutter speed to 'B' or 'T' cancels Interval Timer setting.
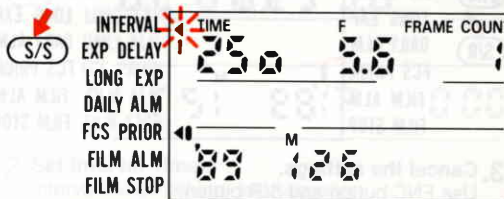
2. Push S/S button to start operation.
Freeze Focus shootings are performed between each of the intervals set.

The Interval Timer set indicator blinks throughout the operation. After all shootings are complete, the operation automatically stops and Interval Timer set indicator stops blinking.

INTERVAL	◄ TIME	F
EXP DELAY		
LONG EXP	25ₒ	5.6
DAILY ALM		
FCS PRIOR		M
FILM ALM	89	127
FILM STOP		

INTERVAL	TIME	F
EXP DELAY		
LONG EXP	25ₒ	5.6
DAILY ALM		
FCS PRIOR		
FILM ALM	START	
FILM STOP	- -	
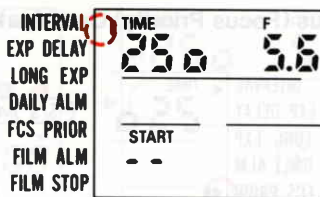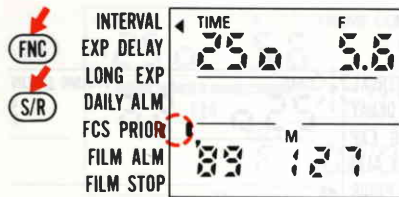
3. Cancel the settings.

Use FNC button and S/R button.

- To stop the operation before all exposures have been taken, push the S/S button.
- Depressing the shutter release button during intervals triggers Freeze Focus shooting according to your setting.
- If subject does not enter the preset focus position within approx. 8 secs., the MF-23 omits that shooting and resumes normal operation from the next shooting time.
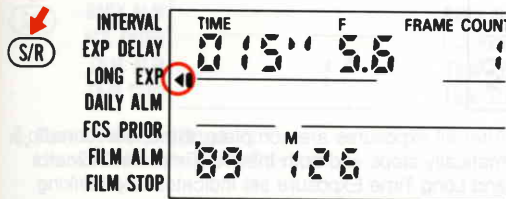
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Interval Timer/Long Time Exposure Combination

1. Set Long Time Exposure function as desired.
Long Time Exposure set indicator appears.
Be sure to set Long Time Exposure prior to setting Interval Timer.
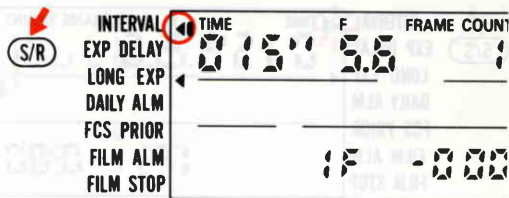
2. Set Interval Timer.
Interval Timer set indicator appears.

- Shifting camera shutter speed to a speed other than 'B' cancels the Long Time Exposure setting.
- If the interval time set for Interval Timer does not exceed the exposure duration set for Long Time Exposure by more than three seconds, the Interval Timer will be canceled.

INTERVAL · TIME · F · FRAME COUNT · ɔ))
S/S · EXP DELAY · 015" 5.6 1
LONG EXP
DAILY ALM · A · M
FCS PRIOR
FILM ALM · 1F -00012
FILM STOP
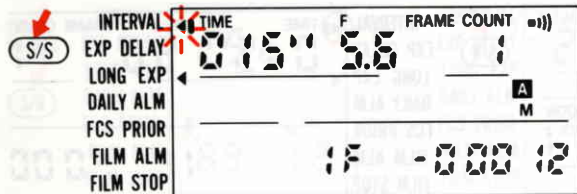
3. Push S/S button.

Long Time Exposures can be set for as many frames as you desire, with as many intervals as you choose to set.

Interval Timer set indicator blinks throughout the operation; Long Time Exposure set indicator blinks each time shutter opens.

After all exposures are complete, the operation automatically stops and both Interval Timer set indicator and Long Time Exposure set indicator stop blinking.

INTERVAL	TIME	F
EXP DELAY	015" 5.6	
LONG EXP		
DAILY ALM		
FCS PRIOR		
FILM ALM	1F	
FILM STOP		

INTERVAL	TIME	F
EXP DELAY	buLb 5.6	
LONG EXP		
DAILY ALM		
FCS PRIOR		
FILM ALM	89 M 1 27	
FILM STOP		
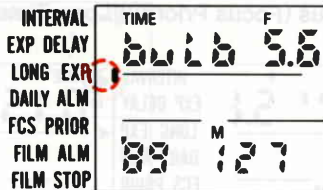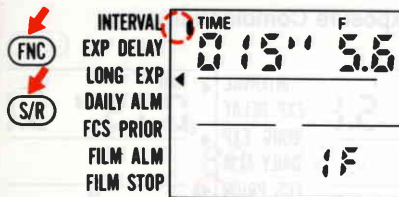
4. Cancel the settings.

Use FNC button and S/R button.

- If Long Time Exposure is canceled first, 'buLb' appears in the LCD and Interval Timer is canceled.
- To stop the operation before all exposures have been taken, push the S/S button twice.
- Depressing the shutter release button during intervals triggers a Long Time Exposure at the duration set.

Interval Timer/Freeze Focus (Focus Priority)/Long Time Exposure Combination

1. Set Long Time Exposure, Interval Timer and Freeze Focus as desired.

Be sure to set Long Time Exposure prior to setting Interval Timer. The three following indicators will appear: Long Time Exposure set indicator, Interval Timer set indicator and Freeze Focus set indicator.

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S/S	INTERVAL	TIME	F	FRAME COUNT	◼)))
	EXP DELAY				
	LONG EXP				
	DAILY ALM				
	FCS PRIOR				
	FILM ALM				
	FILM STOP				

Display shows: INTERVAL TIME **015" 5.6** F FRAME COUNT **1**, **A**, **M**, **89 126**
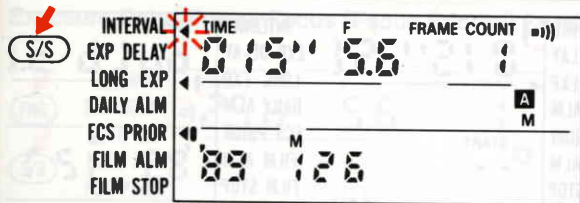
2. Push S/S button.

Long Time Exposures can be performed during freeze focus operation with any number of shootings at set intervals, for any number of frames set.

Interval Timer set indicator blinks throughout the operation; Long Time Exposure set indicator blinks each time the shutter opens.

After all exposures are complete, the operation automatically stops and Interval Timer set indicator and Long Time Exposure set indicator stop blinking.

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FNC

S/R

INTERVAL	`015" 5.I`
EXP DELAY	
LONG EXP	
DAILY ALM	
FCS PRIOR	
FILM ALM	`89  M  127`
FILM STOP	

INTERVAL	`015" 5.I`
EXP DELAY	
LONG EXP	
DAILY ALM	
FCS PRIOR	
FILM ALM	START `- -`
FILM STOP	

INTERVAL	`bulb 5.I`
EXP DELAY	
LONG EXP	
DAILY ALM	
FCS PRIOR	
FILM ALM	`89  M  127`
FILM STOP	

3. Cancel the settings.

Use FNC button and S/R button. Be sure to cancel the Interval Timer setting before canceling the Long Time Exposure setting.

- To stop the operation before all exposures have been taken, push the S/S button twice.
- Depressing shutter release button during intervals will trigger the Long Time Exposure as set, if the subject is in focus.
- If subject does not enter the preset focus position within approx. 8 seconds, camera will omit that shooting and resume operation from the next shooting time.

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Exposure Delay/Freeze Focus (Focus Priority) Combination

FNC
S/R

INTERVAL	TIME	F	FRAME COUNT
EXP DELAY	◀ 25ₒ	5.6	1
LONG EXP			
DAILY ALM			A
FCS PRIOR			M
FILM ALM		DELAY	
FILM STOP		3F 02:15 3	

INTERVAL	TIME	F	FRAME COUNT
EXP DELAY	◀ 25ₒ	5.6	1
LONG EXP			
DAILY ALM			A
FCS PRIOR	◀		M
FILM ALM	89	M 126	
FILM STOP			
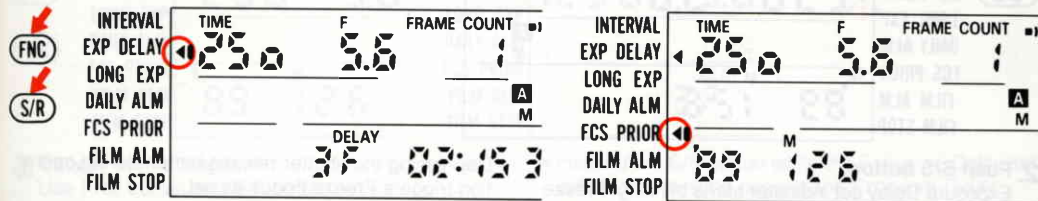
1. Set Exposure Delay and Freeze Focus as desired.

Exposure Delay set indicator and Freeze Focus set indicator appear.

• Shifting the camera shutter speed to 'B' or 'T' cancels the Exposure Delay setting.

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	TIME	F	FRAME COUNT	■))
INTERVAL				
EXP DELAY	⁙25₀	5.6	1	
LONG EXP				
DAILY ALM			A	
FCS PRIOR	◀▌—————————————	M		
FILM ALM	89	M 126		
FILM STOP				
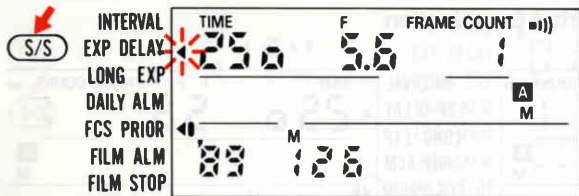
2. Push S/S button.

Exposure Delay set indicator starts blinking. Freeze Focus shootings are performed for as many frames as desired, when the delay time reaches 00:00:00.

After all exposures are complete, the Exposure Delay set indicator stops blinking.

• Depressing the shutter release button during operation triggers Freeze Focus as set.

	INTERVAL	TIME		F
FNC	EXP DELAY			
	LONG EXP			
S/R	DAILY ALM			
	FCS PRIOR			
	FILM ALM			
	FILM STOP			
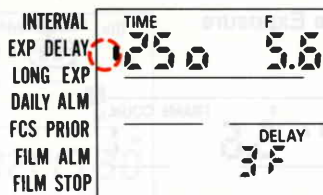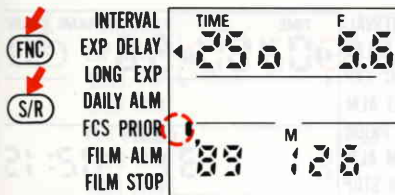
3. Cancel the settings.

Use FNC button and S/R button.

- Pushing the S/S button while the Exposure Delay set indicator is blinking cancels the Exposure Delay shooting that was set.
- If subject does not enter the preset focus position within approx. 8 sec., shutter cannot be released.

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Exposure Delay/Long Time Exposure Combination
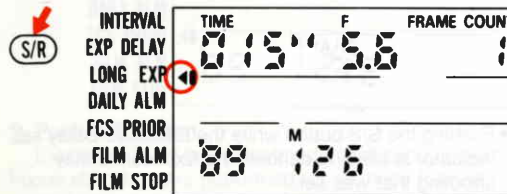
1. Set Long Time Exposure function as desired.
Long Time Exposure set indicator will appear.
Be sure to set Long Time Exposure prior to setting
Exposure Delay.
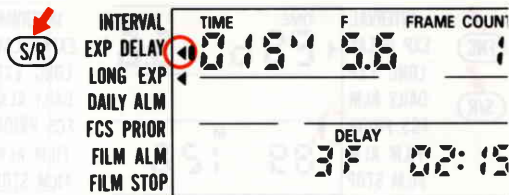
2. Set Exposure Delay.
Exposure Delay set indicator will appear.

• Shifting camera shutter speed to a setting other
than 'B' cancels the Long Time Exposure setting.

```
        INTERVAL     TIME        F       FRAME COUNT  ))
 S/S    EXP DELAY    15"    5.6            1
        LONG EXP
        DAILY ALM                                    A
                                                     M
        FCS PRIOR              DELAY
        FILM ALM             3F   02:15 30
        FILM STOP
```

3. Push S/S button.

Long Time Exposures are performed for as many frames as desired, when the delay time reaches 00:00:00.

Exposure Delay set indicator blinks throughout the operation; the Long Time Exposure set indicator blinks each time the shutter opens.

After all exposures are complete, the operation automatically stops and both Exposure Delay set indicator and Long Time Exposure set indicator stop blinking.

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INTERVAL			INTERVAL		
EXP DELAY	TIME	F	EXP DELAY	TIME	F
LONG EXP	015"	5.6	LONG EXP	buLb	5.6
DAILY ALM			DAILY ALM		
FCS PRIOR		DELAY	FCS PRIOR		M
FILM ALM		3F	FILM ALM	'89	126
FILM STOP			FILM STOP		

4. Cancel the settings.

Cancel settings using the FNC and S/R buttons.

- To stop the operation before all exposures have been taken, push the S/S button twice.
- Depressing the shutter release button during the operation triggers a Long Time Exposure at the duration set.
- If Long Time Exposure is canceled first, 'buLb' appears in the LCD and Exposure Delay is canceled.

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Exposure Delay/Freeze Focus (Focus Priority)/Long Time Exposure Combination
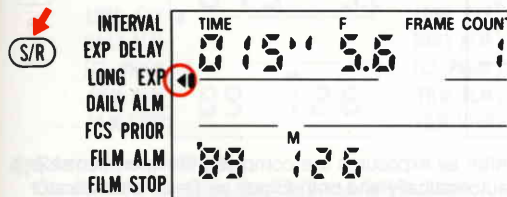
1. Set Long Time Exposure function as desired.
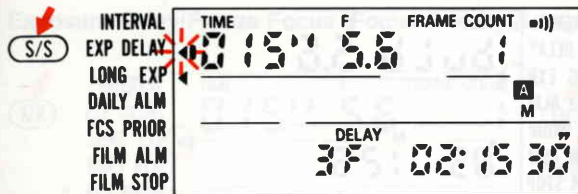
Long Time Exposure set indicator appears.
Be sure to set Long Time Exposure prior to setting Exposure Delay.
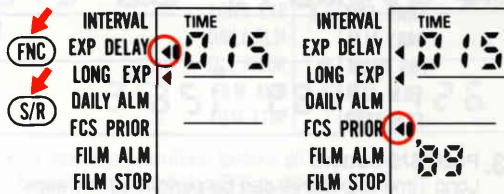
2. Set Exposure Delay and Freeze Focus.

Exposure Delay set indicator and Freeze Focus set indicator appear.

• Shifting camera shutter speed to a setting other than 'B' cancels the Long Time Exposure setting.

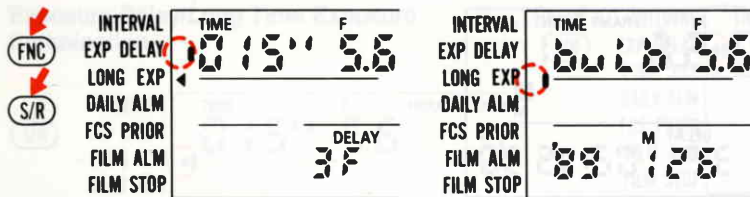|	TIME	F	FRAME COUNT ■)))
INTERVAL			
EXP DELAY	*0 15'' 5.6		1
LONG EXP			A
DAILY ALM			M
FCS PRIOR			
FILM ALM	89 126		
FILM STOP			
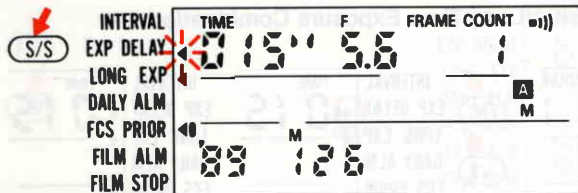
3. Push S/S button.

Long Time Exposures can be performed in freeze focus function for any number of frames set, when the delay time reaches 00:00:00.

Exposure Delay set indicator blinks throughout the operation; Long Time Exposure set indicator blinks each time the shutter opens.

After all exposures are complete, the operation stops automatically and both Exposure Delay set indicator and Long Time Exposure set indicator stop blinking.

INTERVAL
EXP DELAY
LONG EXP
DAILY ALM
FCS PRIOR
FILM ALM
FILM STOP

FNC
S/R

4. Cancel the settings.

Cancel settings using the FNC and S/R buttons.

- To stop the operation before all exposures have been taken, push the S/S button twice.
- Depressing the shutter release button during the operation triggers a Long Time Exposure at the duration set, if subject is in focus.
- If Long Time Exposure is canceled first, 'buLb' appears in the LCD and Exposure Delay is canceled.
- If subject does not enter the preset focus position within approx. 8 sec., shutter cannot be released.

Long Time Exposure/Freeze Focus (Focus Priority) Combination
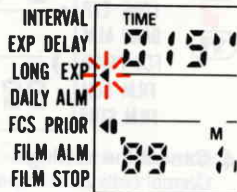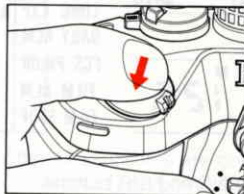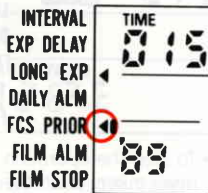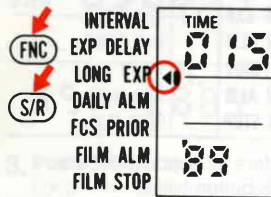
1. Set Long Time Exposure and Freeze Focus as desired.

Long Time Exposure set indicator and Freeze Focus set indicator appear.

• Shifting camera shutter speed to a setting other than 'B' cancels the Long Time Exposure setting.
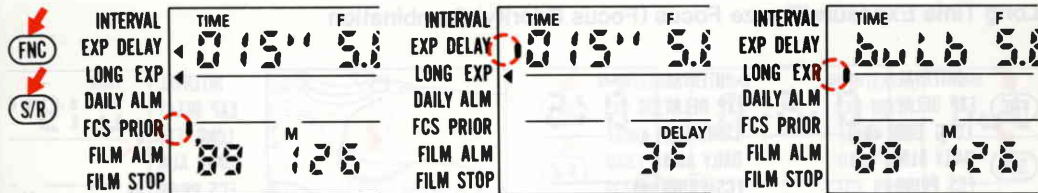
2. Start the operation.

Start the operation by depressing the camera's shutter release button. The Long Time Exposure set indicator blinks throughout Long Time Exposure operation.

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```
        INTERVAL    TIME              INTERVAL    TIME
FNC     EXP DELAY   0 1 5             EXP DELAY   b u t
        LONG EXP ◄                    LONG EXP
S/R     DAILY ALM                     DAILY ALM
        FCS PRIOR                     FCS PRIOR
        FILM ALM    8 9               FILM ALM    8 9
        FILM STOP                     FILM STOP
```

With the camera's shutter release button depressed, when subject enters the preset focus position, the shutter opens for a Long Time Exposure. Note that shutter remains open for as long as you hold the shutter release button down.

When shooting is complete, the Long Time Exposure set indicator stops blinking.
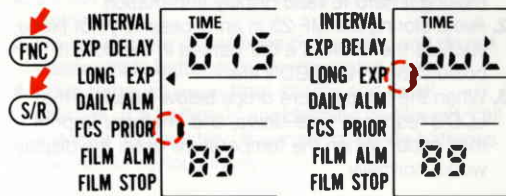
3. Cancel the settings.
Cancel settings using the FNC and S/R buttons.

• Pushing S/S button while Long Time Exposure set indicator is blinking cancels the Long Time Exposure shooting set.

LIQUID CRYSTAL DISPLAY (LCD)

1. Avoid using the MF-23 at high temperatures (60°C/140°F or above); the entire display turns black, making it hard to read display information.
2. Avoid storing the MF-23 in an excessively hot place, such as the trunk of a car parked in the sun; it could shorten the LCD's life.
3. When the temperature drops below freezing, the LCD's response time slows, and improper imprint may occur. When the temperature rises, the display works normally.
4. The MF-23's LCD is of the highest quality. After seven to ten years of normal use, however, contrast may deteriorate and display information may begin to fade. Should this occur, contact an authorized Nikon dealer or service facility to have the display replaced at a nominal charge.

CHANGING BATTERIES

If the MF-23's LCD begins to blink, the batteries must be replaced with a fresh set. After replacing the battery, reset data. At temperatures of $-10°C$ (14°F) or colder, the LCD may blink, even with new batteries, due to insufficient battery strength. When temperature rises, batteries return to normal capacity.

1. Do not use any battery other than the 1.55V SR-44 type silver-oxide battery.
2. Do not install batteries in strong sunlight or bright illumination.
3. Do not dispose of batteries by burning, and do not disassemble batteries when disposing of them.
4. Keep batteries away from infants and small children. If a battery is accidentally swallowed, call a doctor immediately; the material inside batteries can cause serious injury.

TIPS ON MF-23 CARE

1. Do not subject the MF-23 to shocks or apply any sort of pressure to the LCD panel.
2. Do not use cleaning fluids to clean the MF-23.

ACCESSORIES

Camera Case Base Portions CF-41/CF-42/CF-43
When the MF-23 is attached to the Nikon F4/F4s, use the CF-41/CF-42/CF-43 in place of the standard lower part of the camera case.

SPECIFICATIONS

Usable camera	Nikon F4/F4s	**Imprint area**	0.7mm (height)×4.0mm (width) (in frame)
Attachment method	Hinges to camera in place of standard camera back		0.65mm (height)×9.4mm (width) (between frames)
Usable film speed	ISO 25~3200	**Data imprint option**	By pushing PRN button
Imprint exposure adjustment	4 steps provided; automatically adjusted according to film speed in use (with color film); manual adjustment also available	**Interval Timer function**	Intervals can be set for up to 99 hours 59 minutes and 59 seconds; up to 99999 shots can be taken between intervals, up to 99999 times
Data imprint type	7-segment, 8-digit LED (between frames), 7-segment, 6-digit LED (in frame)	**Long Time Exposure function**	Exposure durations available from 1 to 999 seconds, 1 to 999 minutes or 1 to 999 hours, with camera's shutter speed set at 'B' (may depend on life of main camera battery)
Imprinted data	Between frames: Year/Month/Day, Day/Hour/Minute/(Second), Fixed Number, Frame Count, Shutter Speed/Aperture, Exposure Compensation Value	**Freeze Focus (Focus Priority) function**	Controls camera's shutter release with focus signals from camera (with camera's focus mode set at M)
	In frame: Year/Month/Day, Month/Day/Year, Day/Month/Year, Day/Hour/Minute, Hour/Minute/Second, Frame Count, Sequence Number, Fixed Number		

Auto Exposure Bracketing function	Up to 19 frames can be taken of the same subject using a variety of exposures (increments of 1/3 to 2 EV between frames, with a maximum compensation range of ±8 EV)	**Data imprint signal**	Transferred by camera body contacts
		Power source	Two 1.55V silver-oxide (SR-44 type) batteries
Exposure Delay function	Remaining time before exposure can be set for up to 99 hours 59 minutes 59 seconds; takes up to 99999 shots	**Battery life**	Approx. 10 months* at 20°C (68°F) *May vary depending on extent of data imprint use, film speed and functions.
Daily Alarm function	Alarm can be set to sound at a given time every day (hour/minute/second)	**Timing accuracy**	Within ±30 seconds a month (20°C/68°F)
Film Alarm function	Alarm sounds when film reaches a preset number of frames	**Temperature**	−10°C (14°F)~ +40°C (104°F) for usage; −20°C (4°F)~ +55°C (131°F) for storage
Film Stop function	Locks shutter and sounds alarm when film reaches a preset number of frames	**Dimensions**	Approx. 160mm(W)× 56mm(H)×30mm(D)
Speedlight charge control	For Interval Timer or Exposure Delay operation, turn on speedlight (with standby switch) 30 seconds before releasing shutter	**Weight**	Approx. 120g (without batteries)

Specifications and design are subject to change without notice.