Nikon

AI Lens Modification Program
Consumer Information Sheet–May 1980

AI, ADR
WHAT IT IS, AND
PROCEDURES FOR HAVING
AUTO-NIKKOR LENSES MODIFIED

AUTOMATIC MAXIMUM APERTURE INDEXING (AI)–WHAT IT IS!

A new camera meter/lens coupling system which considerably simplifies the picture-taking process, including easier lens mounting and interchange. Called **Automatic Maximum Aperture Indexing** or **AI** for short, this system has been applied to the following Nikon cameras (F3, F2A photomic, F2AS photomic, FE, FM, EM, EL2, and Nikkormat FT3) and AI Nikkor lenses, as well as to the new PK and PN-series extension rings, **without changing the traditional Nikon bayonet mount.** This ensures that similar, earlier Nikon equipment including interchangeable viewfinders and built-in meters, are **not** rendered obsolete. In fact owners of earlier Nikkor lenses, in particular, can take advantage of the benefits of the new AI coupling system by having most such lenses modified.

WHAT IS ADR?

ADR stands for **Aperture-Direct-Reading.** When an AI Nikkor lens is used with the Nikon F3, F2A photomic, F2AS photomic, FE or FM cameras, the aperture in use is shown in the viewfinder via a direct readout from the secondary aperture scale at the rear of the lens.

CAN AI LENSES BE USED WITH EARLIER NIKON AND NIKKORMAT CAMERAS?

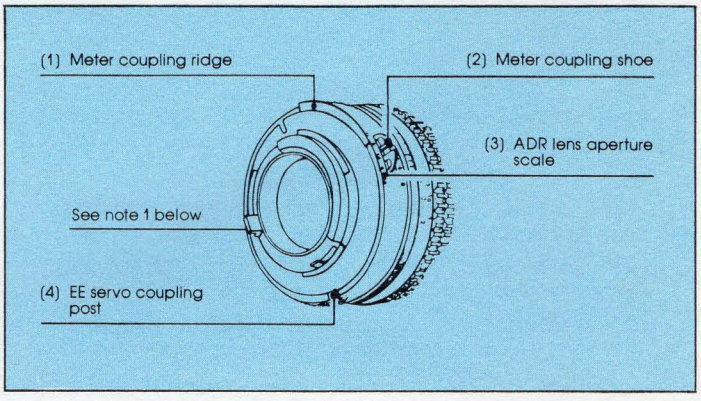
Yes. **The time-tested Nikon bayonet mount remains unchanged.** When an AI lens is used on an earlier model Nikon SLR or Nikkormat body, it will mount and operate in the same way as a meter-coupled non-AI Nikkor lens.

CAN LENSES WITHOUT AI BE USED WITH THE NEW NIKON AI CAMERAS?

Yes, Nikkor lenses without AI can be used with the new AI cameras by employing stop-down metering (in the same manner that any non-meter coupled lens would be used). And, almost all Auto-Nikkor lenses not more than about 12 years old can be modified to provide the auto-indexing and full-aperture metering features. **(Refer to the AI Modification Chart.)**

WHAT IS A NIKKOR LENS AI MODIFICATION?

Most Nikkor lenses with an automatic diaphragm and a meter coupling shoe, dating to as far back as approximately 12 years, can now be modified for AI operation. Like the new AI-type Nikkor lenses, modified Nikkor lenses will have the following features: **(1) meter coupling ridge** to enable automatic indexing of the lens' maximum aperture with the meter of any AI-type camera for full-aperture exposure measurement; **(2) meter coupling shoe** to enable full-aperture exposure measurement with any earlier non-AI-type Nikon or Nikkormat cameras. In this case, manual indexing is required as before; **(3) ADR lens aperture scale** to enable aperture-direct-readout (ADR) of the precise lens aperture set in the viewfinder of the new Nikon F3, F2A Photomic, Nikon F2AS Photomic, Nikon FM, and Nikon FE, and **(4) EE servo coupling post** to enable EE servo-controlled metering with a Nikon F2AS Photomic equipped with the DS-12 EE Aperture Control Unit.



Notes: 1. Modified AI Nikkor lenses will not include the "Aperture Indexing Post for SB-E flash." Owners or prospective owners of Nikon EM will want to consider this before requesting AI modification for their current lenses.

2. Each of the new AI camera's metering systems contains a meter-coupling lever which must be locked up to permit exposure measurement via the stop-down method. Should a lens without AI or any non-meter-coupled lens (of any brand) be forced onto the camera when the coupling lever is not locked up, damage can result. The instruction book provided with each camera gives details of procedures for stop-down metering.)

3. The AI index coupler on the EM is not moveable. Therefore, do not attempt to "force" lenses which do not easily mount.

WHAT WILL MODIFICATION COST?

There are three categories of modification (as indicated on the chart). The majority of lenses will cost $18.50; some will cost $33.50, and the balance $43.00. These prices include the cost of return postage and handling. These charges are based on our basic costs for labor, parts, and handling and have been calculated to keep modification expenses as low as possible.

HOW TO OBTAIN AN AI MODIFICATION FOR YOUR LENS.

Modification of Nikkor lenses will be handled initially at Nikon's three main service locations in the United States. Additional locations may be added as time goes by. **Please note that Nikkor lenses should not be sent to any Nikon service location for AI modification until the following procedure is completed.**

1 The serial numbers of non-AI Auto-Nikkor lenses should be checked against the AI-Modification Chart. **If they are listed, they probably can be modified.**

Please use the supplied postcard on the last page for steps 2 & 3.

2. The Auto-Nikkor lens or lenses for modification should be listed with the following information for **each** lens:

a) focal length
b) maximum aperture
c) serial number
d) the modification category (either 1, 2 or 3) as shown on the AI Modification Chart.

3. The complete list should be sent along with your name and address to:

AI-Modification Service
Nikon Incorporated
P.O. Box 390
Mineola, New York 11501

4. Upon receipt and review of your Nikkor lens list Nikon will return a Lens Report to you indicating.

a) Which lens(es) can be modified to AI.
b) The cost of modifying each lens, including any applicable tax (city, state).
c) The Modification Center(s) to which the lens(es) should be sent.
d) A Reservation Number and the date when the lens(es) should arrive at the designated Modification Center.

NOTE: No lenses should be sent for AI modification prior to receipt of a reservation number. Lenses received without a reservation number may be returned at owner's expense.

5. When the Lens Report is received from Nikon, only those lenses which the report indicates can be modified to AI should be shipped to the Modification Center(s) indicated on the report.

NOTE: Not all lenses will be modified at all Centers. You may be asked to divide up your lenses and send them to different locations.

6. Lenses should be packed in a sturdy box, using front and rear lens caps and enclosing each lens in a plastic bag. They should be surrounded with plenty of foam rubber, newspaper or other shock-absorbing material. For added security, we suggest placing the box containing the lenses within a slightly larger box padded with foam rubber or newspaper. The package should then be sealed with wide, heavy-duty tape.

7 The lenses being sent for modification should be checked off on the Nikon Lens Report and any information requested should be filled in. **The Lens Report along with a check or money order for the full amount due should be enclosed in an envelope and taped to the exterior of the package. DO NOT SEND CASH.** The package should then be clearly addressed and mailed – **prepaid and insured** – to the Nikon Modification Center indicated on the report. A clearly printed return address should also be on the package and one should also be enclosed with the lens.

8. Only Nikkor lenses can be modified by Nikon Inc. All other brand lenses should be referred to the original manufacturer or distributor.

All Nikon Modification Centers will make every effort to return lenses as quickly as possible. As there are literally millions of Nikkor lenses in use in the United States, it appears almost inevitable that some delays will occur. Nikon asks for your understanding and cooperation should you be affected by such unavoidable delays.

Nikkor lenses that can be modified to AI and ADR

COST OF LENS MODIFICATION PER CATEGORY		$18.50	$33.50	$43.00
LENS	SERIAL NUMBERS	CATEGORY 1	CATEGORY 2	CATEGORY 3
13mm f5.6	175021 – and higher			x
15mm f5.6	321001 – and higher			x
18mm f4	173111 – and higher		x	
20mm f3.5	421241 – and higher	x		
20mm f4	103001 – and higher	x		
24mm f2.8	242821 – and higher	x		
28mm f2	280001 – and higher	x		
28mm f2.8	382011 – and higher	x		
28mm f3.5	195531 – 301010 625611 – and higher	x		
35mm f1.4	350001 – and higher		x	
35mm f2	717011 – and higher	x		
35mm f2.8	255311 – 920110	x		
50mm f1.4	532011 – and higher	x		
50mm f2	741111 – and higher	x		
55mm f1.2	184711 – 970110	x		
85mm f1.8	219901 – and higher	x		
105mm f2.5	234011 – and higher	x		
135mm f2	175011 – and higher	x		
135mm f2.8	189311 – and higher	x		
135mm f3.5	111111 – 720100 831211 – 904080	x		
180mm f2.8	312011 – and higher		x	
200mm f4	304411 – and higher	x		
300mm f4.5	326511 – and higher	x		
300mm f4.5 ED	173101 – and higher		x	
400mm f5.6	256031 – 260000		x	
400mm f5.6 ED	260001 – and higher		x	
6mm f2.8	628001 – and higher			x
8mm f2.8	230011 – and higher			x
16mm f3.5	272281 – and higher			x
45mm f2.8 GN	710101 – and higher		x	
† 55mm f3.5 Micro	238011 – and higher	x		
†105mm f4 Micro	174011 – and higher		x	
28-45mm Zoom f4.5	174011 – and higher		x	
43-86mm Zoom f3.5	438611 – and higher		x	
50-300mm Zoom f4.5	740101 – and higher		x	
80-200mm Zoom f4.5	101911 – and higher		x	
85-250mm Zoom f4	184711 – and higher		x	

†New AI extension rings (PK-13 for 55mm Micro Nikkor lens. PN-11 for 105mm Micro Nikkor lens), available as accessories must be used for full aperture meter operation in 1:2-1:1 range. Original rings may be used with stopdown metering. *Modification of previous PK and PN-series extension rings is not available.*

Camera/Lens Compatibility Chart

CAMERA	*AUTO-NIKKOR (NON-AI)	*AI NIKKOR	*MODIFIED AI NIKKOR	*NON METER COUPLED NIKKOR
Nikon F Series				
Nikon F (eye level prism)	×	×	×	×
Nikon F Photomic	×	×	×	×
Nikon F Photomic T	×	×	×	×
Nikon F Photomic TN	×	×	×	×
Nikon F Photomic FTN	×	×	×	×
Nikon F2 Series				
F2 (eye level prism)	×	×	×	×
F2 Photomic	×	×	×	×
F2A Photomic	●	×	×	×
F2S Photomic	×	×	×	×
F2SB Photomic	×	×	×	×
F2AS Photomic	●	×	×	×
Nikon F3	●	×	×	×
Nikon FM	●	×	×	×
Nikon FE	●	×	×	×
Nikon EM	●	×	○	*
Nikkormat EL	×	×	×	×
Nikkormat EL W	×	×	×	×
Nikon EL-2	●	×	×	×
Nikkormat Series				
FS	×	×	×	×
FT	×	×	×	×
FTN	×	×	×	×
FT2	×	×	×	×
FT3	●	×	×	×
EE Servo				
DS-1	×	×	×	■
DS 2	×	×	×	■
DS 12	■	×	×	■

***NOTE: DEFINITION OF LENS TYPES:**

1 An Auto Nikkor (Non AI) lens features automatic diaphragm, Nikon F bayonet mount and meter coupling shoe.

2. An AI Nikkor has all features of an Auto Nikkor plus
1) Meter coupling ridge for AI
2) Aperture Direct Readout scale
3) Meter coupling shoe with special holes to allow full illumination of ADR scale
4) EE servo coupling post for use with DS-12 servo.

3. A Modified AI Nikkor is an Auto Nikkor, which has had the four items listed in paragraph #2 above added and will operate with the following cameras: Nikon F3, F2A Photomic, F2AS Photomic, FM, FE, EL2, and Nikkormat FT3 as well as earlier Nikon and Nikkormat models.

NOTE. Modified AI Nikkor lenses will not provide the blinking ready-light feature when used with the Nikon EM and SB-E flash. All other metering functions remain with the EM/modified AI combination.

4. A Non Meter Coupled Nikkor is any Nikkor lens which does not incorporate either AI or the traditional meter coupling shoe. These lenses may have preset or automatic diaphragm and require stop down metering. There is basically no difference between earlier and currently produced non-meter coupled Nikkor lenses.

X – Can be used without any loss in performance from original specifications.
● – Requires stop down metering, but retains automatic diaphragm operation.
■ – Servo may be left on the camera, but metering must be done manually.
○ – No loss in metering performance. Will not operate flash ready feature.
* – See note on page 1.

1 PLEASE PRINT ALL INFORMATION ON THIS REQUEST FOR MODIFICATION CARD.

2. CLIP OUT.

3. ADD FIRST CLASS POSTAGE.

I am interested in having the following Nikkor Lens(es) modified for AI operation. Please send me a Lens Report and a reservation number.

*** MUST BE COMPLETED AND MAILED BY LENS OWNER ***

LENS MODEL	SERIAL NUMBER	CATEGORY
_____mm/f_____		
_____mm/f_____		
_____mm/f_____		
_____mm/f_____		

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

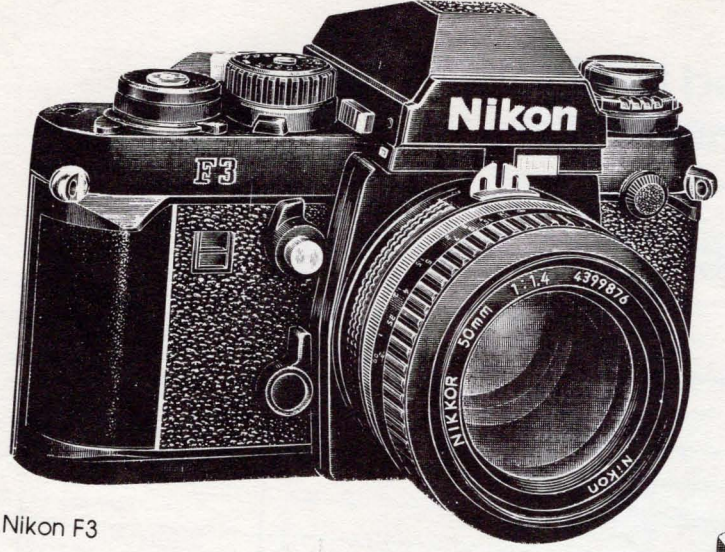
RETURN ADDRESS

FIRST CLASS

PLACE
POSTAGE
HERE

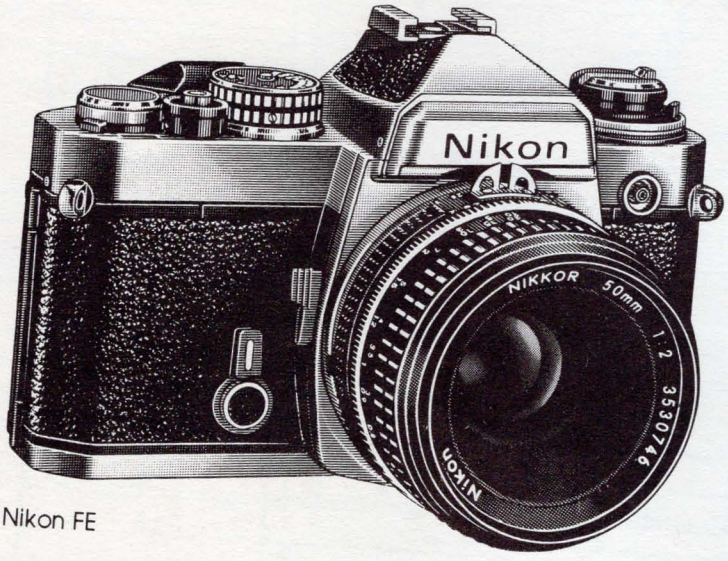
AI MODIFICATION SERVICE
NIKON INC.
P.O. BOX 390
MINEOLA, N.Y. 11501

CURRENT NIKON CAMERAS FEATURING "AI"

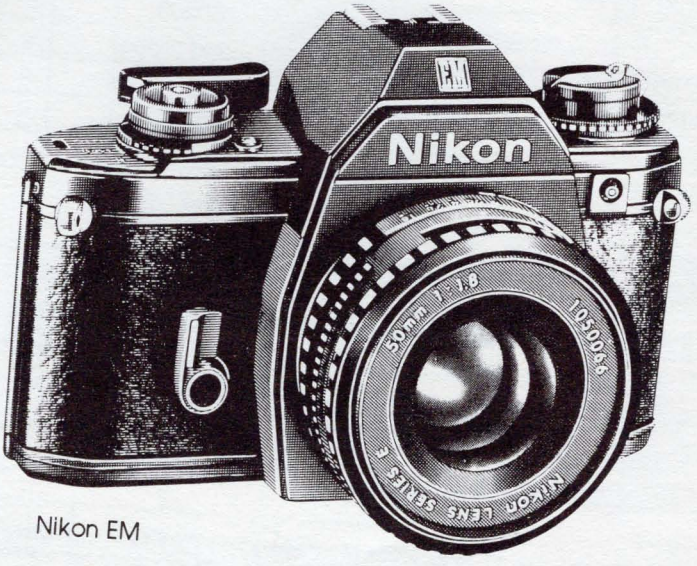


Nikon F3

Nikon FM



Nikon FE



Nikon EM

NIKON INC. Subsidiary of Ehrenreich Photo-Optical Industries, Inc.
623 STEWART AVENUE, GARDEN CITY, N.Y. 11530