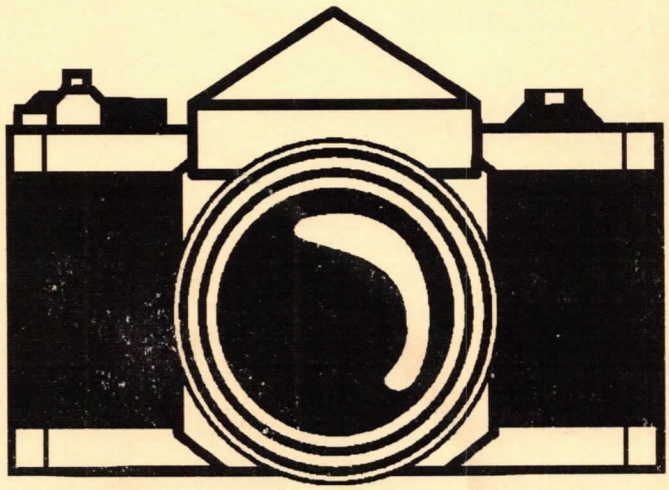
Assorted Minolta Service Notes

Minolta Service Bulletin's
etc.



MINOLTA

DATE: 12/07/83

NO: T:001

TYPE: Technical

SERVICE BULLETIN

Photographic Division

Subject:

Exposure correction factors for different combinations of focusing screens and new MD lenses when used with AE/AE-S Finder and XK/XK Motor.

In addition to information on exposure correction for MC and MD lenses, we here inform you of that for new MD lenses. Use the table for any inquiries from users.

How to use the table

1. This table is for AE-S/AE Finder using.
   Number in parenthesis is for AE Finder using.
2. • mark indicates that no correction is needed.
3. Blank spaces indicate unusable combinations.
4. Note in the table is as follows:

   1 Correction is different by lens number
   - Lens No. 8xxxxxx . . . see the number in upper column
   - Lens No. 9xxxxxx . . . see the number in lower column

   2 50mm f/2 . . . lens for outside Japan.

   3 If the lens has macro function, see the number in lower column.

   4 The number is different, depending on the macro function.
   For the lens whose macro function operates
   - at any focal length . . . see the number in upper column.
   - at longer focal length only . . . see the number in the lower column.

NEW MD LENSES

Numbers indicate compensation factors with AE-S (AE) Finder.

LENSES \ FOCUSING SCREENS		METERING METHOD	P. M. PM. G. L. H	AP	C1	C2	C3	NOTE
Fisheye	7.5mm f/4	Full-Aperture	●	2.5(2.5)	3.5(3.0)	3.5(3.0)	3.5(3.0)	
	16mm f/2.8	Full-Aperture	●	1.5(0.5)	3.0(3.0)	3.0(2.5)		
Wideangle	17mm f/4	Full-Aperture	●	1.5 (1.5)		3.0(3.0)		
	20mm f/2.8	Full-Aperture	●	1.5 (1.0)	3.0(3.0)	2.5(2.5)		
	24mm f/2.8	Full-Aperture	●	1.0 (1.5)	3.0(3.0)	3.0(2.5)		
	24mm f/2.8 V.F.C	Full-Aperture	●	1.5 (1.0)	2.5(3.0)	2.5(3.0)		
	28mm f/2	Full-Aperture	●	1.0(0.5)	2.0(3.0)	2.5(2.5)		
	28mm f/2.8	Full-Aperture	●	1.5 (1.0)	3.0(3.0)	2.5 (2.5)		①
		Full-Aperture	●	1.5 (1.0)	3.0(3.0)	3.0 (3.0)		
	28mm f/3.5	Full-Aperture	●	1.5 (1.0)	2.5(3.0)			
	35mm f/1.8	Full-Aperture	●	1.0(0.5)	1.5 (3.0)	2.0(2.5)	2.0(2.0)	
	35mm f/2.8	Full-Aperture	●	1.5 (1.0)	3.0(3.0)	2.5 (2.5)		
	35mm f/2.8 Shift	Stop-Down	●	(1.5)				
Standard	50mm f/1.2	Full-Aperture	●	●	2.5 (2.5)	2.5 (1.5)	2.0 (0.5)	
	50mm f/1.4	Full-Aperture	●	0.5(0.5)	3.0 (3.0)	2.5 (2.5)	2.5 (1.5)	
	50mm f/1.7	Full-Aperture	●	1.0 (0.5)	2.5 (2.5)	2.0 (2.0)		
	50mm f/2	Full-Aperture	●	● (0.5)	2.5 (2.5)	2.5 (2.5)		②
Telephoto	85mm f/2	Full-Aperture	●	1.5 (1.0)	2.0 (2.5)	2.5 (2.5)	2.5 (2.0)	
	100mm f/2.5	Full-Aperture	●	1.5 (1.0)	2.5 (3.0)	2.5 (3.0)	2.5 (2.5)	
	135mm f/2	Full-Aperture	●	1.0 (0.5)		2.0 (2.5)	3.0 (2.0)	
	135mm f/2.8	Full-Aperture	●	1.5 (1.0)		2.5 (2.5)	3.0 (2.5)	
	135mm f/3.5	Full-Aperture	●	1.5 (1.5)			3.0 (2.5)	
	200mm f/2.8	Full-Aperture	●	1.5 (1.5)			3.0 (2.5)	
	200mm f/4	Full-Aperture	●	1.5 (1.5)			3.0 (3.0)	
	300mm f/4.5	Full-Aperture	●	1.0 (2.0)			3.0 (3.0)	
	400mm f/5.6 Apo	Full-Aperture	●	1.5 (2.0)				
	w/2xConverter ECL	Full-Aperture	●	2.0 (2.5)				
	500mm f/8 RF	Stop-Down	●	1.0 (1.5)				
	800mm f/8 RF	Stop-Down	●	2.0 (2.5)				
	1600mm f/11 RF	Stop-Down	●	2.5 (2.5)				

LENSES \ FOCUSING SCREENS		METERING METHOD	P. M. PM. G. L. H	AP	C1	C2	C3	NOTE
Zoom	24-35mm f/3.5	Full-Aperture	●	1.5 (1.0)	3.0 (2.5)	3.0 (2.5)		
	24-50mm f/4	Full-Aperture	●	1.5 (1.0)	3.0 (3.0)	3.0 (3.0)		
	28-85mm f/3.5-4.5	Full-Aperture	●	1.5 (1.5)		3.0 (3.0)	3.0 (2.5)	
	35-70mm f/3.5	Full-Aperture	●	1.5 (1.0)	3.0 (3.0)	3.0 (2.5)		③
		Full-Aperture	●	1.5 (1.0)	3.0 (2.5)	3.0 (2.5)		
	35-105mm f/3.5-4.5	Full-Aperture	●	1.5 (1.5)			3.0 (3.0)	④
		Full-Aperture	●	1.5 (1.5)		3.0 (3.0)	2.5 (2.5)	
	35-135mm f/3.5-4.5	Full-Aperture	●	1.5 (2.0)			2.5 (3.0)	
	50-135mm f/3.5	Full-Aperture	●	1.0 (1.5)		3.0 (3.0)	3.0 (2.5)	
	75-150mm f/4	Full-Aperture	●	1.5 (1.5)			3.0 (3.0)	
	70-210mm f/4	Full-Aperture	●	2.5 (1.5)			(3.0)	
	75-200mm f/4.5	Full-Aperture	●	2.0 (2.0)			3.5 (3.5)	
	100-200mm f/5.6	Full-Aperture	●	2.0 (2.0)				
	100-300mm f/5.6	Full-Aperture	●	1.5 (2.0)			3.5 (3.0)	
	100-500mm f/8	Full-Aperture	●	2.0 (2.5)				
	100-500mm f/8 Apo	Full-Aperture	●	2.5 (3.5)				
Macro	50mm f/3.5 Macro	Full-Aperture	●	1.5 (1.5)		3.0 (3.5)		
	100mm f/4 Macro	Full-Aperture	●	1.5 (2.0)			3.0 (3.0)	
	12.5mm f/2 Bellows Micro	Stop-Down	●					
	25mm f/2.5 Bellows Micro	Stop-Down	●					
	50mm f/3.5 Auto Bellows Macro	Stop-Down	●	1.5 (2.5)				
	100mm f/4 Auto Bellows Macro	Stop-Down	●	1.5 (2.0)				

-MINOLTA PRODUCTS-
Table for power consumption (Standard)

Camera service division
Nov. 1. 1983

S.L.R

Code.No	Model	Power supply(V)	Main SW.OFF (μA : max.)	Main SW.ON (μA : max.)	At light measuring (mA : max.)
2005 SERIES	XD, XD 7, XD 11 XD5, XD-s	3	1	10 (mA : max.)	
2006 SERIES	XG-E, XG2, XG7 XG-S, XG9 XG1, XG-SE, XG-1	3	5	5	10
2013	X-7, XG-A	3	5	5	10
2019	XG-M, X-70	3	5	5	10
2017	X-700	3	2	10	12
2024	X-500, X-570	3	2	10	9.5
2023	X-600	3	2	10	60
081	XE, XE-1, XE-7 XE-5, XEb	3	0	250 (μA : max.)	
054 with 8219-200	X-1, XM, XK with AE Finder	3	1	at under range warnig LED ON 120 (μA : max.)	
054 with 8219-700	X-1, XM, XK with AE-S Fiinder	3	1	• 50 (μA : max.) • 500 (μA : max.)	

35L.S

※ Measure 1 minute after batteries insertion

Code.No	Model	Power supply (V)	Main SW.OFF (μA : max.)	At light measuring or while auto-focusing (mA : max.)	While shutter releasing (mA : max.)
461	HI-MATIC AF	3	0.5	80	30
462	HI-MATIC AF-D	3	100	50	60
463	HI-MATIC AF2	3	100	50	60
465	HI-MATIC S02	3	0.5	42	47
467	HI-MATIC S2	3	0.5	42	47
468	HI-MATIC G2	1.35	3	—	—
469	HI-MATIC GF	3	0	10	—
471	AF-C	3	Barrier SW. ON 130 OFF 3	65	45
472	HI-MATIC AF2-MC	3	※ 100	80	75
473	HI-MATIC AF2-M	3	※ 100	80	75
474	AF-S	3	※ 10	80 at voice 100	80
454, 458	HI-MATIC S, SO	3	3	20	20
168, 195	HI-MATIC F, E	2.7	1	30	60

METER

※ Includes, power consumption when ready to measure flash firing

CODE.No	MODEL	Power supply (V)	Main SW.OFF (μA : max.)	Main SW.ON (mA : max.)	At light measuring (mA : max.)	All keys Off (calculate) (μA : max.)	In-non-measuring mode with/without display (μA : max.)
1501	AUTO METER PROFESSIONAL	6	0	—	35	—	—
8033	AUTO METER II	6	0	—	10	—	—
8038	FLASH METER III	9	5	0.3	10	—	—
8039	COLOR METER II	9	—	—	12	125	25
8039 -103	FLASH COLOR RECEPTOR	9	—	—	25	120	25
8043 -100	SPOTMETER M	1.5	5	10	175	—	—
8043 -300	SPOTMETER M	6	—	—	5	100	20
8044 -100	AUTO METER III	1.5	5	10	150	—	—
8044 -300	AUTO METER III	6	—	—	3	80	15
8044 -400	AUTO METER IIIF	6	—	—	10 ※ (10)	80	20
8045	BOOSTER II	6	0.5	5	—	—	—

OTHERS

※ Measure 4 seconds after back-cover release closed

Code.No	Model	Power supply(V)	Main SW.OFF (μA : max.)	Main SW.ON (μA : max.)	At light measuring (mA : max.)
076	CLE	3	5	5	10
273	110 ZOOM SLR MARK II	3	5	5	10
283, 284, 285, 287	DISC	6	1	※ 20	—

MOTOR DRIVE, WINDER

Code.No	Model	Power supply (V)	Power consumption when winding with film	Power consumption when winding without film	Power consumption when rewinding with film	Power consumption when rewinding without film	Power consumption when auto stop	Leak current Main SW.ON	Leak current Main SW.OFF	B.C.
056	X-1, XM, XK MOTOR	15	600 (mA : max.)	400	500 (mA : max.)	130	—	—	—	400 ± 50 (mA : max.)
8740	MOTOR DRIVE 1	12	800 (mA : max.)	600	—	—	20 (mA:max)	50 (μA : max.)	10	—
8731	AUTO WINDER D,G	6	900 (mA : max.)		—	—	—	—	—	—

DATA BACK

Code.No	Model	Power supply(V)	Imprint (mA : max.)	Time mode (μA : max.)	B.C. (mA : max.)	NOTE
8744	MULTI FANC TION BACK	3	45	20	—	forX-700, X-600, X-500, X-570
8748	QUARTZ DATA BACK D,G,1	3	45	5	35	forXD, XG, X-700, X-600, X-500, X-570
8746 -200	QUARTZ DATA BACK C	3	44	3	20	forAF-C

MINOLTA

DATE: 1/27/84

NO: T-012

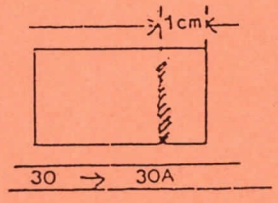
TYPE: Technical

SERVICE BULLETIN

Photographic Division

SUBJECT: Light leakage -X-700

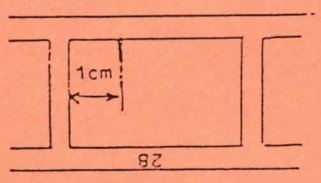
DETAILS: Light leakage as illustrated occurred.



Results of our investigation are as follows:

Symptom

On examination, it was found that the light leakage tended to occur as illustrated when taking the 25-30th frames (e.g. Frame counter shows "25-30") with a camera left under the sunshine for 20-30 minutes with ASA 400 Color film in it.



Cause

We found that the light leaked through S.L.S. shaft hole from S.L.S. window.

(Comments) There is no problem with XG because of its material (metal) of film indication filler unlike X-700 (plastic), and also its different construction.

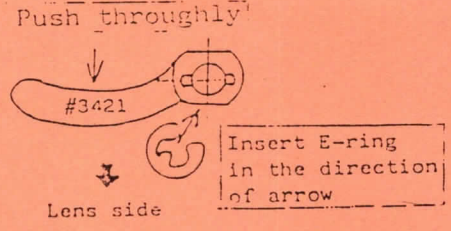
The light leakage tends to occur with ASA 400 Color film due to its spectral sensivity as compared with B & W film.

Temporary measures

We modify the direction of insertion of E-ring (9721-0150-13), as shown in the figure, so that the degree of light leakage will decrease.

Permanent measures

We are investigating permanent measures. (for example: improvement of construction of X-700)



MINOLTA

DATE: 12/16/83

NO: T-004

TYPE: Technical

2006 (XG series)

SERVICE BULLETIN

Photographic Division

- Release magnet base plate interchangeability

Release magnet base plate is available in the following 3 types:

2006-0580-04 and -05 : Used for 2006, 2007, 2009, and 2013

2019-0580-11 : Used for 2019

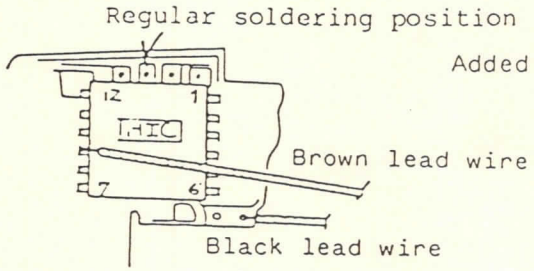
(Also used only 2013-600 and 2007)

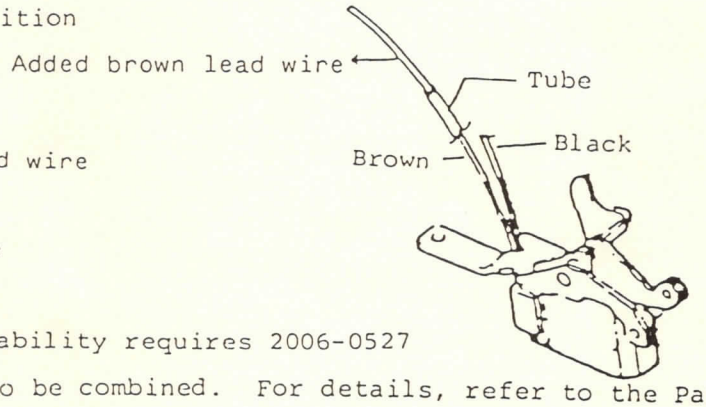
Parts interchangeability

2019-0580-11 is interchangeable with body that 2006-0580-04 and -05 are attached

When used for XG-series, soldering 2019-0580-11 at the regular place is impossible because the brown lead wire is too short. So, handle this as follows:

Connect the brown lead wire to IC-4(HIC) pin ⑨ instead of the regular place as illustrated. Be sure to insulate the soldered part with tube.



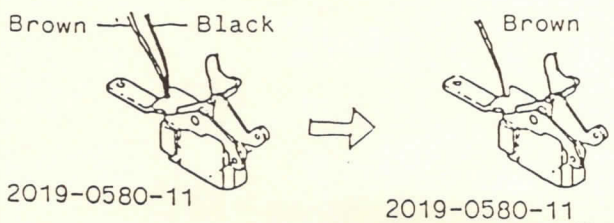


2006-0580-04 and -05 interchangeability requires 2006-0527 (release operation lever-A set) to be combined. For details, refer to the Parts Modification Notice No. 1872 and Service Bulletin No. 10-103.

2019-0580-11 can be used for all types of XG-series, it is recommended that you basically use one of the 3 types depend on the problem mentioned above.

(Additional information)

Black lead wire of 2019-0580-11 is discontinued (End of January in 1982)



Minolta Corporation 101 Williams Drive, Ramsey, New Jersey 07446 (201) 825-4000

MINOLTA

DATE: 3/08/84

NO: T-017

TYPE: Technical

SERVICE BULLETIN

Photographic Division

SUBJECT: Auto return activates with DC power supply - AF-S Series

DETAILS: The problem occurs with a camera which has no problem when batteries are used. When the flash is charged with a DC power supply (Model: BPA-20D), auto rewinding starts just before the flash ready light comes on.

ANSWER: There is no problem with actual use. When batteries are used, the problem does not occur.

CAUSE: A camera is designed to operate properly with batteries installed. If a DC power supply is used in disregard of the internal resistance of batteries, the IC can possibly mis-operate.

SERVICING MEASURES: When checking with a DC power supply, voltage adjustment is needed:

Connect DC power supply, set at 2.6V, 1.0A (max) using power supply adapter (461-1023-75)

MINOLTA

DATE: 4/05/84

NO: T-016

TYPE: Technical

SERVICE BULLETIN

Photographic Division

SUBJECT: Shutter release failure, because battery chamber cover is warped - AFC

DETAILS: We sometimes have shutter troubles when the battery chamber cover is warped. The camera operates normally when releasing the shutter while pushing the battery chamber cover. When releasing the pressure however, shutter troubles occur.

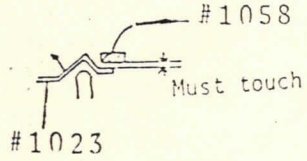
ANSWER:

CAUSE: Contact failure between #1023 (minus contact) and battery chamber cover because battery chamber cover is warped.

COMMENTS: Warpage of battery chamber cover may be caused by (#1025 (plus contact) pressure. With weak pressure, however, contact failure possibly can occur.

SERVICING MEASURES: Re-form* the battery chamber cover, or replace.

*Bend so that there will be no clearance between #1058 (contact cover) and #1023.



MINOLTA

DATE: 4/05/84

NO: T-015

TYPE: Technical

SERVICE BULLETIN

Photographic Division

Model: AF-2M

Model Code No: 0473

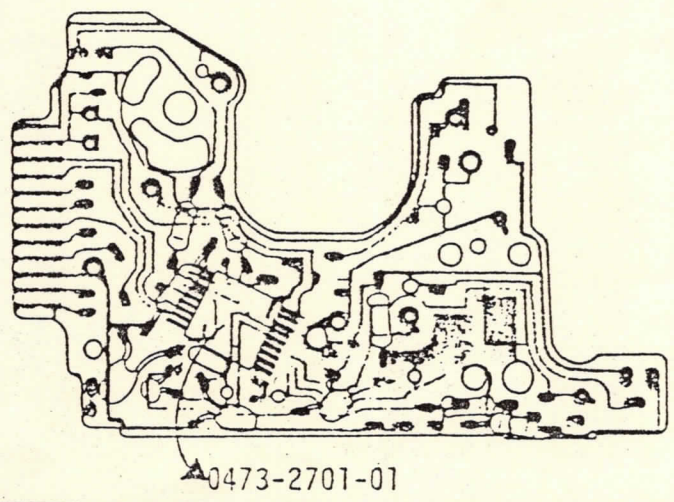
Part Name: IC101 (Seiko, IR3S04)

Subject: IC101 will be supplied as a servicing part from now on

Part Number: 0473-2701-01

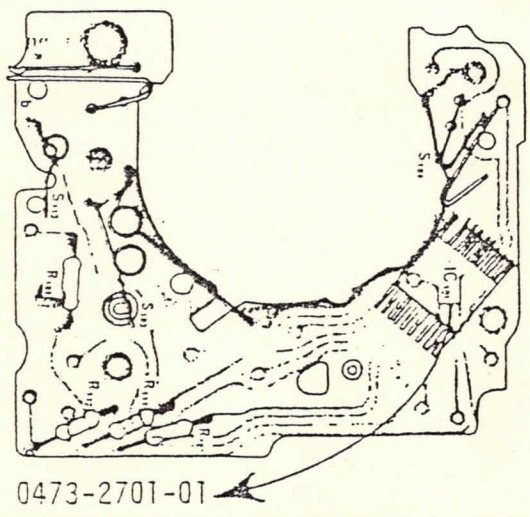
DESCRIPTION

(0473,0472)
Shutter PC board



0473-2701-01

(0471)
Shutter PC board



0473-2701-01

MINOLTA

DATE: 4/05/84

NO: T-014

TYPE: Technical

SERVICE BULLETIN

Photographic Division

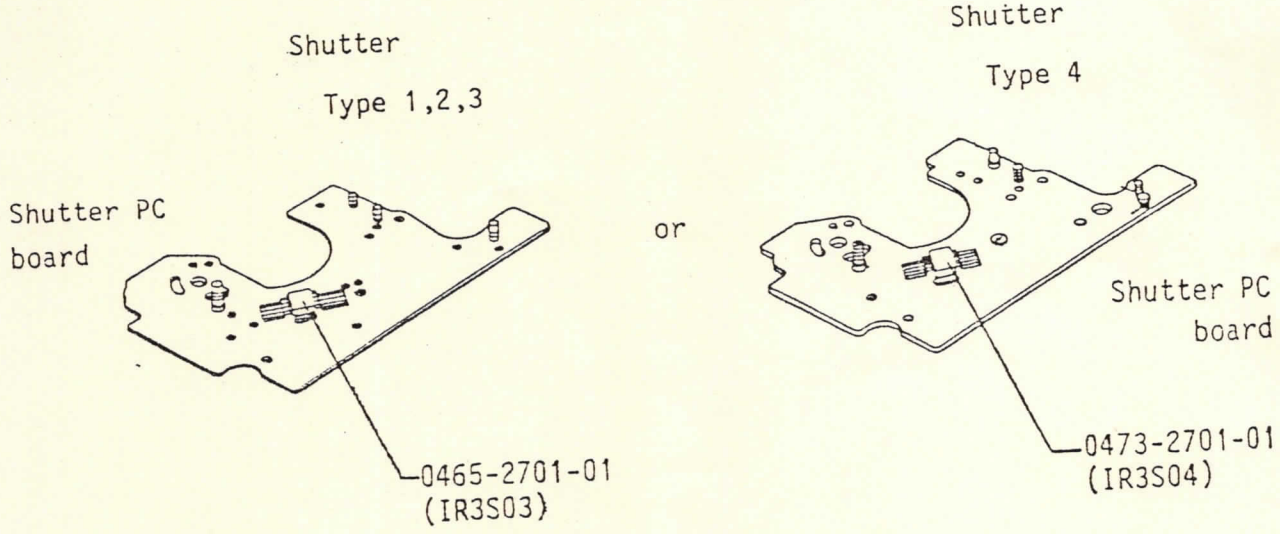
Model: Hi-Matic SD2

Model Code No: 0465

Part Name: IC101 (Seiko, IR3S04 or IR3S03)

Subject: IC101 will be supplied as a servicing part from now on

Part Number: 0465-2701-01 or
0473-2701-01



MINOLTA

DATE: 2/09/84

NO: T-013

TYPE: Technical

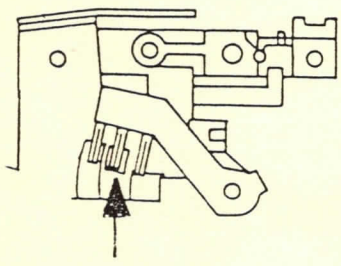
SERVICE BULLETIN

Photographic Division

SUBJECT : Frame counter stops at just before "1" AF-S Series

Cause

Contact failure of S9.



—— Frame counter base plate set ——

Measures

Modification of dimension of counter switch lever axis to have stable contact pressure ..... since December 1983 production.

Servicing measures

Bend S9 slightly to strenghten contact pressure.

After adjustment, never fail to check frame counter operation.

Otherwise, excessive bending of S9 contacts may cause operation failure of contact switch lever axis.

Minolta Corporation 101 Williams Drive, Ramsey, New Jersey 07446 (201) 825-4000

MINOLTA

DATE: 2/21/84

NO: #002

TYPE: Information

SERVICE BULLETIN

Photographic Division

I have been asked by one of our Authorized Service Centers about the HA-1 (high impendance adapter) used for checking the FET gate voltage. This piece of equipment is not available nor is it absolutely necessary for repairing our products.

We have found that during the repair of all our XD Series, and now our X700, it has not been necessary to use this adapter. In those rare cases that we may wish to check the FET gate voltage we have found it is possible to use a meter with an impedance of 20 megohms or greater. This will prevent loading down the circuit as with other meters.

I hope this information is useful to you.

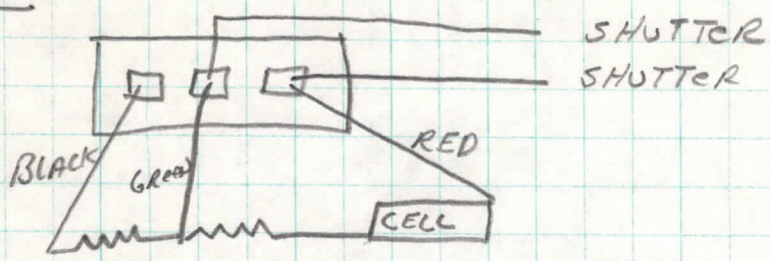
C. Hoppe
Asst. to the National Service Manager

CH/mjv
cc: S. Matsuda

MINOLTA AL

TOP COVER - REWIND SPIN OFF - SPANNER UNDER
ADVANCE LEVER DRESSING SPANNER 2 SCREWS UNDER
2 SCREWS TOP COVER - END ONE ONLY 2ND SCREW HOLDS
SELENUM CELL.
USE RUBBER FOR REMOVING DRESSING SPANNER TO
ADJUST VIEWFINDER.

METER



BOTTOM COVER
3 SCREWS UNDER LEATHER ON TRIPOD PLATE
1 SCREW LEFT SIDE - CAREFUL WHEN REMOVING COVER
SPRING + TENSION SHAFT LOOSE.

FRT. CASTING PLATE W/3 SCREWS REMOVE 2 SCREWS
UNDER - 2 SCREW OPPOSITE SIDE.