NIKONOS-II

(Work No. 9F2B)

REPAIR MANUAL

NIPPON KOGAKU K.K.

Tokyo, Japan

CONTENTS

Illustrations	Page 1 - 9
List of O-ring	10
Parts list	11 - 36
Subassembly list	37 - 38

NOTE:

1. In the Illustrations the types of lubricant and adhesive to be used for the parts are indicated by the markings as below;

Lubricant:

✓ Grease (for low temp.)

✓ O-ring grease

♦ Oil (for low temp.)

♦ Molybdenum disulphide grease

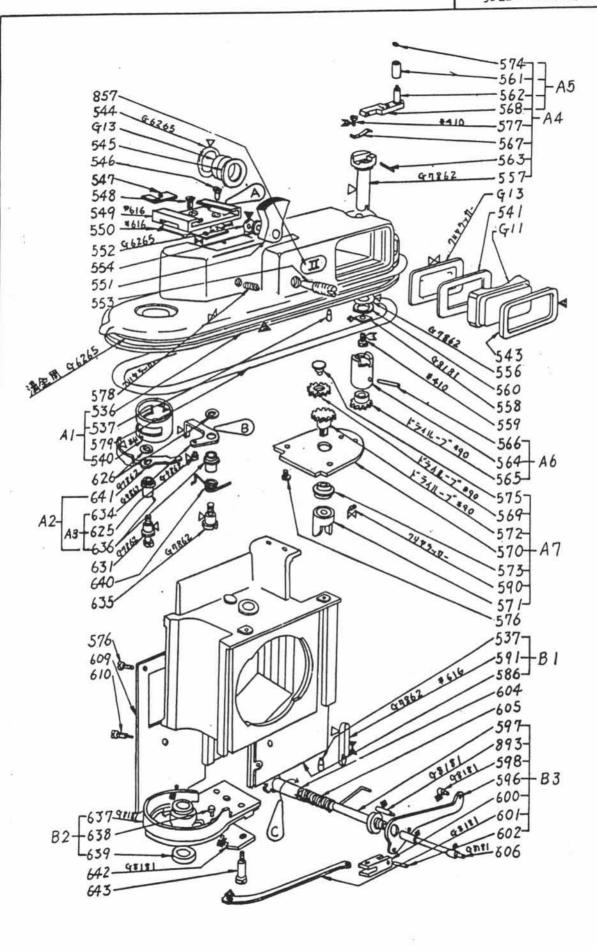
♦ Gyro-oil

Adhesive:
► Clear laquer

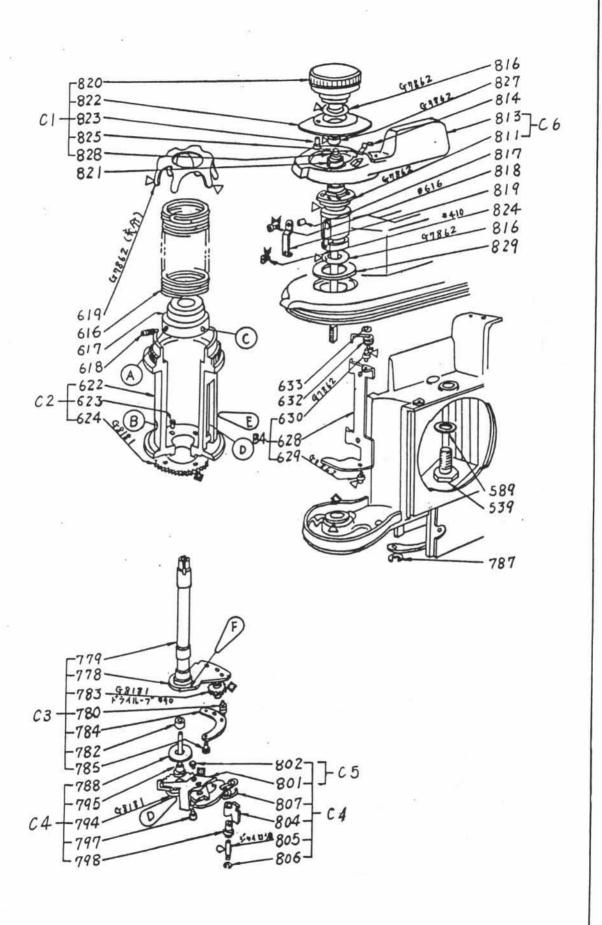
► Epoxy resin adhesive

► Synthetic rubber adhesive

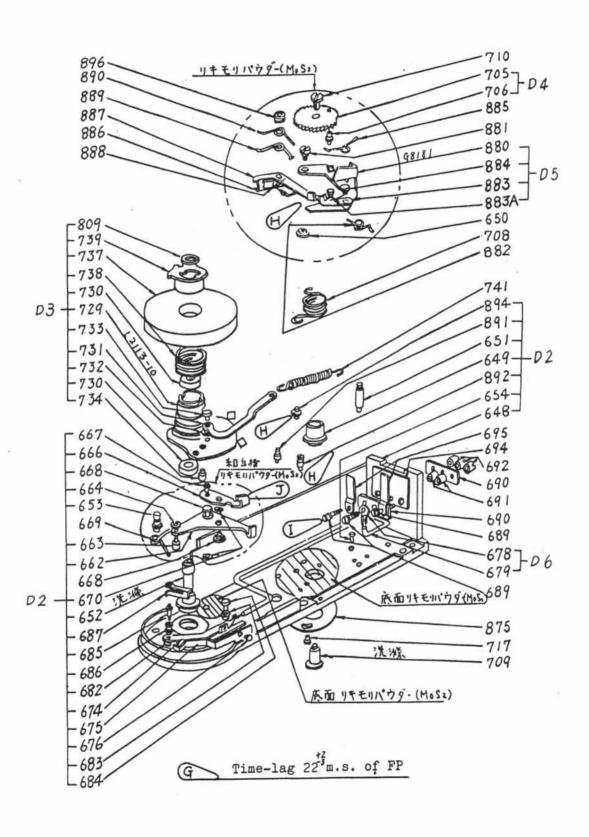
- 2. Marks in the "Term of Sale" column of the parts list are;
 - O Can be supplied individually
 - Not supplied individually but only as subassembly
 - O. Supplied either as part or subassembly
 - X Not considered as repair part
 - Delivered as a product from the Sales Department (i.e., not supplied as repair part)
- 3. The parts marked * in the column "Remarks" in the Parts List are those which can commonly be used for 9FB (NIKONOS MODEL 1).

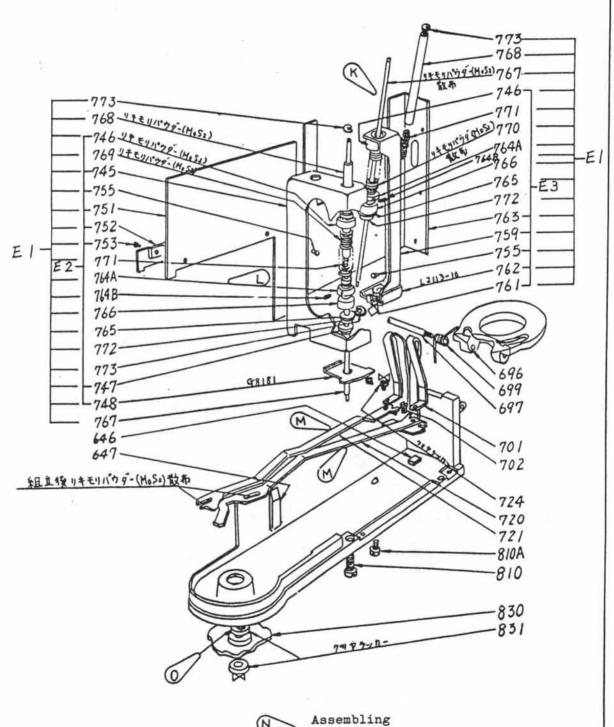


1

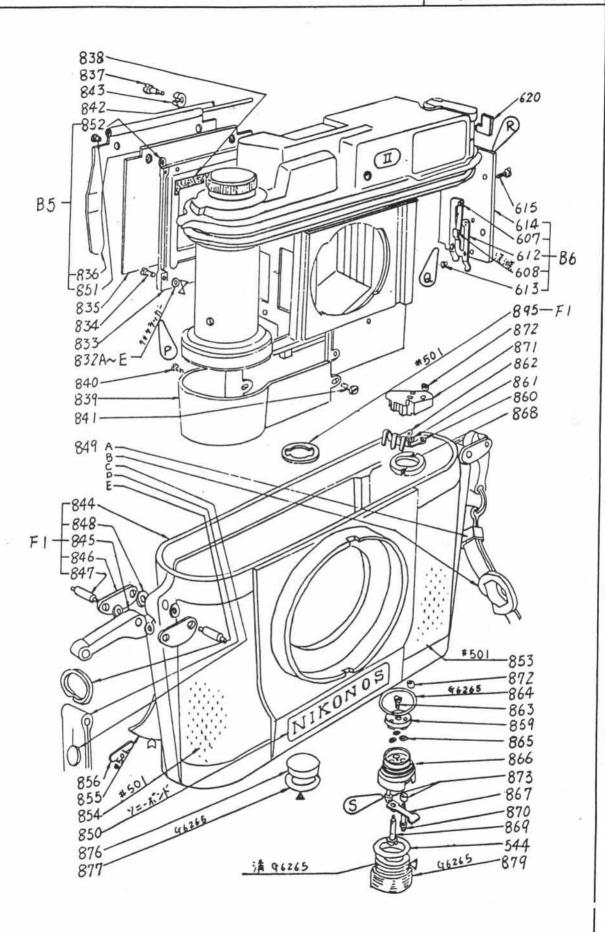


D1----全部品





(N



- Both vertical and lateral sighting directions of the accessory shoe are to be correct within 10' and the inclination within 20'.

 Use cementing agent #616.
- Make sure that #634 and #622 are disengaged from each other when the shutter speed dial is set to R. Take care of the direction of #821.
- After turning #604 a full or one and a half rotation in the direction of the arrow, set it with #610.
- Make engagement so that the punch mark on the gear #794, the center of #783 and the punch mark on the gear #642 are exactly aligned.
- Passing an L-shaped tool through the holes C and D, twist

 #622 about 3 rotations. Set #779 to the hole A through the hole B

 by means of set screw #618.
- Wind up the lever (#813) until the alignment as described in D is realized. In this position raise #794 and keep it free from gearing with #783. While closing the winding lever, draw out subassembly #794 through the cut off part of #778.
- The time-lag $22^{\frac{+2}{5}}$ m.s. of FP is a time to elapse between switching on of the FP circuit and appearance of the end of the front curtain at the start of running at 1/500 sec. shutter speed. The correct time-lag of FP contact is to be attained by smooth rotation of sub-assembly #729 #739. No oil is used.

Adjusting #894, bring the locking pawl (#887) in engagement with the third tooth from the untoothed end of the ratchet wheel #705. Through the adjustment of #892, have the driving pawl (#883) engaged with the first tooth on the ratchet (#705) as illustrated here after the adjustments make sure of the correct zero return, etc.

887

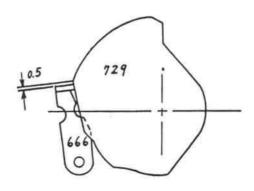
The body earthing screws, after completely screwed into #648, are to be secured with #692.

Never use oil, cementing agent, etc. which is liable to reduce the contact efficiency.

Operation of #666 is to be smooth. If necessary, lubricate the axle (#668) with lubricant #7818 (10%).

The starting position of the front curtain is to be adjusted by bending () the end of #666.

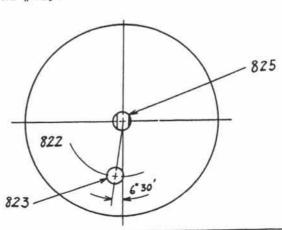
Note: Rotating slowly #729 at 1/500 sec. with your finger, make sure of the position of 0.5mm where the front curtain starts running.



- For disassembly, remove #773, draw out #768 and #771, pull upward #767, and make the bottom end free from #761. For reassembling, reverse the disassembling procedure.
- Time balance between the beginning, intermediate and ending of the shutter curtain running is adjusted by the vertical movement of #764A. The same adjusting method can be applied to the front and rear curtains.
- Distances of the pawl ends of #720 and of #721 from the bottom plate are to be 3mm and 1.8mm, respectively.
- Holding the camera upside-down with the winding lever closed, insert the shutter subassembly and then the bottom plate subassembly.

 Fitting the end of #767 to the hole in the bottom plate, engage the picture frame counter advancing stud (#893) with #880. After inserting the bottom plate completely, secure it with #810 and #810A.
- Loosen the nut (#831) found inside #830 as far as one revolution from the tightly fastened position.

 While assembling #830 and #831, apply clear lacquer. If the operation of B-setting is found unstable, check the relative positions of #822, #823 and #825.



- Lowering of contact efficiency of the x-contact may be attributed to dust or oil found inside the contact. Therefore, before assembly, wash the contact part with alcohol or the like.
- Even after #833 has been attached, #B6 can be inserted or taken out in the way illustrated here. Take care in this case not to injure the contact point.
- If the synch, contact takes in water by careless handling, insufficient insulation and corrosion may result; it is necessary to disassemble and to wash the contact. Then, make reassembly after drying.

 In this case check the insulation resistance.

NIKONOS - II (35mm/2.5) USE OF O-RING

	Part No.	Position To Be Used	Pcs.	Relating Part
	543	Finder window gasket	1	G11 - 536
8	544	Finder eyepiece and synchro	2	G13 - 536 844 - 879
	552	Safety device	1	551 - 553
	556	Rewind fork	1	536 - 557
Body	579	Fitting part of the camera top	1	536 - 844
	772	Shutter curtain stopper	2	769
	816	Winding lever and shutter dial shaft	2	536 - 811 811 - 820
	864	Synchro C-cover	1	844 - 866
	877	Exposure counter window	1 -	844 - 876
	865	Synchro contact axle	3	869, 870 - 866
	917A	Knob	2	901 - 911, 912
Lens	917B	Outer housing and fitting part of lens	1	844 - 901
	9170	Water-tight glass	1	G7 - 901

9F2B - R.0285.A Term Pcs. No. of Ref. No. of of Sale Remarks per Unit Name and Shape Fig. No. Subassembly Part 9F2B-Top cover Aì 1 1 536 Guide pin Al 00 4 1 537 Bl Bolt 539 1 2 Spring guide ring 1 ΟΔ 540 Al 1 Finder window frame 1 541 1 Finder window 0 1 1 543 gasket 0-ring 2 1 544 Finder eyepiece 1 545 1 washer Shoe screw A 2 1 546 Shoe adjusting washer 1 1 547 Shoe screw B 1 1 548 Accessory shoe 1 549 1 Shoe spring 1 1 550

55	9F2B - R.0285.A					
No. of Part	Name and Shape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 551	Safety lever	1	·	1	0	*
552	0-ring	1		1	0	*
553	Safety lever screw	1		1	0	
554	Safety lever washer	1		1	0	*
556	0-ring	1		1	0	*
557	Rewind shaft	1	A4	1	οΔ	
558	Rotating plate	1		1	0	
559	Rotating plate screw	1		1	0	*
560	Rotating plate washer	1		1	0	*
561	Crank knob	1	A4 A5	1	Δ	
562	Knob shaft	1	A4 A5	1	Δ	
563	Crank lever shaft	1	A4	1	ΟΔ	4
564	Rewind shaft coupler	1	A 6	1	Δ	*
565	Rewind A-gear	1	A 6	1	Δ	*

					9	F2B - F	1.0285.A
No. of Part	Name and Sha	pe	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 566	A-gear pin		1	A6	1	οΔ	*
567	Crank spring	To	1	A4	. 1	ΟΔ	
568	Crank lever	012	1	A4 A5	1	Δ	
569	Rewind B-gear		~1	A7	1	Δ	
570	Rewind axle base plate	000	1	A7	1	Δ	
571	Rewind fork	O.C	1	A7	1	οΔ	
572	Rewind C-gear		1	A7	ì	οΔ	
573	Rewind C-gear axle		1	A7	1	Δ	
574	Knob washer	(<u>0</u>)	1	A4 A5	1	ΟΔ	
575	Rewind B-gear axle	Op	1	A7	1	Δ	
576	Rewind axle base screw	80	3		1	0	*
577	Spring screw		1	A4	1	ΟΔ	
578	Winding lever C-scr	ew	1		1	0	
579	0-ring	0	1		ı	0	*

			¥7	9F2B - R.0285.A		
No. of Part	Name and Shape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 596	Charge lever	1	В3	1	Δ	*
597	Charge lever spindle	1	В3 -	1	Δ	*
598	Charge lever pin	1	В3	1	Δ	*
600	Joint	1	В3	1	Δ	*
601	Connecting lever	1	В3	1	Δ	*
602	Joint pin	2	В3	1	Δ	*
604	Charge lever C-sleeve	1		1	0	*
605	Charge lever spring	1		1	0	*
606	C-sleeve axle	1		1	0	*
607	Earth piece A	1	В6	5	Δ	28.
608	Contact piece	2	В6	5	Δ	
609	Rear picture frame	1		1	0	*
610	Sleeve stopper	1	a	1	0	*

No. of Part	Name and Sh	ape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B-		in the second					
612	Conducting piece	A	1	В6	. 5	Δ	
613	Conducting piece	rivet	4	В6	5	Δ	*
614	Conducting piece attaching plate		1	В6	5	Δ	
615	Attaching plate se	crew	2		5	0	*
616	Winding shaft spri	ing	1	7	2	0	
617	Spring holder		1		2	0	
618	Spring holder set	screw	1		2	0	
619	Spool spring		1		2	0	
620	Light baffle		1		5	0	
622	Spool		1	C2	2	Δ	*
623	Spool gear rivet	<u>O</u> P	3	C2	2	Δ	: *
624	Spool gear	(Osti	1	C2	2	Δ	*
625	AR lever pin	00-	1	A3	1	Δ	

			- ·	1 9	F2B - 1	R.0285.A
No. of Part	Name and Shape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 641	Rewinding release lever	1	A2	1	Δ	
642	Fixing gear	1		. 1	0	*
643	Fixing gear screw	2	n	1	0	*
	,					
646	Light baffle A	1		4	0	-
647	Light baffle B	1		4	0	
648	Bottom plate	1	D1 D2	3	Δ	*
649	E.C. spring holder	1	D1 D2	3	Δ	*
650	E.C. nut	1.	Dl	3	Δ	*
651	Fly wheel spring stud	1	D1 D2	3	Δ	*
652	Fig wheel shaft	1	D1 D2	3	Δ	*
653	Driving rod guide	1	D1 D2	3	Δ	*
654	Driving spring guide	2	D1 D2	3	Δ	*
						(1

No. of Part	Name and Sha	pe	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B-							
*					,		
674	Synchro A-contact		1~	D1 D2	3	Δ	*
675	Synchro B-contact	-	1	D1 D2	3	Δ	*
676	Contact securing r	ivet	1	D1 . D2	3	Δ	*
			*				
678	Terminal tip	É	1	D1 D6	3	Δ	*
679	Cord (black)		1	D1 D6	3	Δ	*
		I p					-
682	Insulating A-plate		1	D1 D2	3	ΟΔ	*
683	Insulating A-ring	(a)	1	D1 D2	3	ΟΔ	*
684	A-ring rivet	<u></u>	1	D1 D2	3	ΟΔ	*
685	B-ring rivet		1	D1 D2	3	ΟΔ	*

							1
No. of Part	Name and Sha	ре	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 686	Insulating B-ring		1	, D1 D2	3	οΔ	*
687	FP earth contact		1	D1 D2	3	οΔ	*
			34				
689	MX screw		_{_3} 3	Dl	3	0Δ	*
690	MX insulating plate-A	000	2	Dl	3	ΟΔ	*
691	Insulating C-ring	0	2	Dl	3	0Δ	*
692	MX nut		3	Dl	3	ΟΔ	*
¥		*		ā			
694	X insulating plate	000	1	Dl	3	ΟΔ	1
695	Contact piece		2	Dl	3	ΟΔ	1
696	Film cartridge holder		1		4	0	*
697	Cartridge holder as	cle	1		4	0	*
699	Cartridge holder sp	oring	1		4	0	*

nn t

Name and Shape	Pcs. per	No. of	Ref.	Term of Sale	Remarks
Driving spring	1	· ·	4	0	*
Driving spring screw	1		4	0	*
	,	P			
	œ				
Ratchet	1	D1 D4	3	Δ	*
E.C. return spring hook	1	D1 D4	3	Δ	***
*		E C			
E.C. return spring	1	Dl	3	οΔ	*
Exposure counter	1	Dl	3	οΔ	*
E.C. screw	1	Dl	3	ΟΔ	*
		=			
	Driving spring screw Driving spring screw Ratchet E.C. return spring hook E.C. return spring Exposure counter E.C. screw	Name and Shape Driving spring 1 Driving spring screw 1 Ratchet 1 E.C. return spring hook 1 Exposure counter 1 E.C. screw	Name and Shape Driving spring 1 Driving spring screw 1 Ratchet 1 D1 D4 E.C. return spring hook 1 E.C. return spring 1 D1 Exposure counter 1 D1 D1 D1 D1 D1 D1 D1 D1 D1	Name and Shape Per Unit Subassembly Fig. No. Driving spring 1 4 Driving spring screw 1 4 Ratchet 1 D1 3 E.C. return spring hook 1 D1 3 Exposure counter 1 D1 3 E.C. screw 1 D1 3	Name and Shape Driving spring 1

22

No. of	Name and Shape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 731	Wheel coupling lever	1	D1 D3	3	Δ	*
732	Coupling lever washer	1	D1 D3	3	Δ	*
733	Coupling lever axle	1	- D1 D3	3	Δ	*
734	Synchro conducting stud	1	D1 D3	3	Δ	*
			aso g			
737	Fly wheel	1	D1 D3	3	Δ	*
738	Fly wheel spring	1	D1 D3	3	Δ	*
739	Shutter release pawl	1	D1 D3	3	Δ	*
			×			
741	Fly wheel driving spring	1	Dl	3	ΟΔ	*
745	Front curtain bearing	1	El E2	4	Δ	*

				1		R. 0285.A
No. of Part	Name and Shape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 761	Rear curtain bearing B-sleeve	1	E1 E3	4	Δ	*
762	Rear curtain pawl	1	El E3	. 4	4	*
763	Rear curtain	1	E1	4	Δ	*
764A	Spring adjusting collar	√2	El	4	ΟΔ	*//
764B	Spring adjusting collar set screw	2	El	4	ОД	*
765	Curtain axle washer	2	El	4	ΟΔ	*
766	Guiding cylider	2	El	4	ΟΔ	*
767	Curtain axle	2	El	4	0Δ	*
768	Spring guide	2	El	4	СΔ	*
769	Front curtain spring	1	El	4	ΟΔ	*
770	Rear curtain spring	1	El	4	οΔ	*
771	Curtiain spring	2	El	4	0 Δ	*
772	0-ring	2	El	4	οΔ	*
773	Snap ring	4	El	4	ОΔ	*

9F2B - R.0285.A

					9	9F2B - R.0285		
No. of Part	Name and Shape	:	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks	
9F2B-				9				
778	Gear holder plate		1	C3	2	Δ		
779	Winding shaft-B		1	C3	2	Δ	= .	
780	Supporting stud		2	С3	2	Δ	*	
Ťi	19		S.					
782	Winding gear baearin		1	C3	2	Δ	*	
783	Planet gear	(M)	1	С3	2	Δ		
784	Winding coupling (600	1	C3	2	Δ		
785	Winding coupling pin		1	C3	2	Δ	*	
787	Snap ring	50	1		2	0	*	
788	Friction washer	2	1		2	0	*	

	9F2b - K.0285.A					
No. of Part	Name and Shape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 819	AR spring	1		2	0	
820	Shutter speed knob	1	Cl	2	Δ	
821	AR change-over cam	1	9 22.7	2	0	
822	Shutter speed dial	1.	Cl	2	Δ	
823	Speed dial stopper pin	1	Cl	2	Δ	*
824	AR spring screw	1		2	0	
825	Speed dial axle	1	Cl	2	Δ	*
				ie.		
827	Shutter speed dial bearing	1		2	0	
828	Shutter speed axle nut	1	Cl	2	Δ	
829	Winding lever washer	1		2	0	*
830	Shutter speed cam	1		4	0	*
831	Speed cam nut	2		4	0	*
832A-E	Washer	4	-	5	0	* " =
833	Picture frame	1		. 5	0	*

				1	9r2B -	R.0285.A
No. of Part	Name and Shape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 849	Neck strap A - D	1		5	0	*
850	Name plate	1		5	0	*
851	Pressure plate spring rivet	2	B5	5	Δ	
852	Rivet washer	2.	B5	5	Δ	
853	Right front leatherette	1		5	0	*
854	Left front leatherette	1		5	0	*
855	Back leatherette	1		5	0	
856	Name plate	1		5	0	
857	Mark plate	1		1	0	art.
859	Synchro B-cover	1		5	0	
860	X-contact B	1		5	0	
861	M-contact	1		5	0	J.E.
862	Earth contact	1		5	0	
863	B-cover screw	1		5	0	

					9	F2B - F	1.0285.A
No. of Part	Name and Sh	nape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- 864	0-ring		1		5	0	
865	0-ring	0	3	14	5	0	
866	Synchro C-cover	(83)	1		5	0	
867	Earth contact C		1	***	5	0	*
868	Synchro C-cover nu	it 💮	1		5	0	
869	Contact A-axle	800	1.		5	0	,
870	Contact B-axle	811111	2		5	0	it.
871	Synchro A-cover	Ę	1	Page 1	5	0	
872	Contact setting nu	t (S)	6 .		5	0	*
873	B-axle insulating	cover	2		5	0	
	R .						
875	Exposure counter		1	Dl	3	00	*
876	Counter window		1		5	0	*
877	0-ring		1		5	0	*
				v *			

	9F2B - R.0285.A							
No. of Part	Name and Shape	Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks		
9F2B- 893	Counter advancing stud	1	В3	1	ΟΔ	*		
894	Counter stopper rivet	1	D1 D2	3	οΔ	*		
895	Light baffle washer	1	Fl	5	ΟΔ	*		
896	Counter stopper lever	. 1	D1	3	ΟΔ	*		
2								
						=		
			· ·					
849A	Binding metal	1		5	0	*		
849B	Buckle	1		5	0	*		
849C	Link	2		5	0	*		
849D	Belt	1		5	×	*		
1 _{849E}	Ring .	2		5	0	*		

No. of Part	Name and Shape		Pcs. per Unit	No. of Subassembly	Ref. Fig. No.	Term of Sale	Remarks
9F2B- G11	Objective lens		1		1	0	
G12	Viewfield frame		1		1	0	
G13	Eyepiece lens		1		1	0	
290							
		ä					
	927		W				
		= (a2)			- N		
						er de	
10							
					540		
RB 1							

				912	Б - п.с	285.A ·
	No. of Sub- assembly	Name	Pcs. per Unit	Constituent Parts	Ref. Fig. No.	Remarks
	9F2B- Al	Top cover	1	*536, 537, 540	1	
	A2	Rewinding release lever	1	636, *641	1	
er	A3	AR lever	1	625, *634, 636	1	
Top cover	A4	Crank lever	1	574, 561, 562, 568, 577 567, 563, *557	1	
Tc	A5	Crank lever	1	574, 561, 562, *568	1	
	A6	Resind shaft coupler	1	566, *564, 565	1	
	A7	Rewind axle base plate	1	575, 569, 572, *570, 573 590, 571	i,	
b0	Bl	Inner camera housing	1	*586, 537, 591	1	
housing	B2	Winding shaft base	1	*637, 638, 639	1	
сашета ho	В3	Charge lever	1	*597, 893, 598, 596, 600	1	
	В4	Film advance spring	1	630, *628, 629	2	
	В5	Pressure plate	1	852, 836, 851, *835	5	
Inner	В6	Contact piece	1	*614, 607, 612, 608, 613	5	
	Cl	Shutter speed dial	1	820, *822, 823, 825, 828	2	
	C2	Spool .	1	*622, 623, 624	2	
Winding	С3	Winding shaft-B	1	*779, 778m 783, 780, 784 782, 785	2	
Wine	C4	Spool gear driver	1	795, 794, 797, 798, 802 *801, 807, 804, 805, 806	2	
	C5	Spool gear driver	ı	*801, 802	2	
ä	C6	Winding lever	1	*813, 811	2	
plate	D1	Bottom plate A		*D2, D3, D4, D5, D6, 896 890, 889, 887, 886, 888 669, 710, 885, 881, 882 650, 708, 741, 695, 694 692, 690x2, 691, 689x2 875, 717, 709	3	
Bottom p	D2	Bottom plate B		667, 666, 668x2, 664, 653 663, 662, 670, 652, 687 685, 686, 682, 674, 675 676, 683, 684, 894, 891 651, 649, 892, 654, *648	3	

	No. of Sub- assembly	Name	Pcs. per Unit	Constituent Parts	Ref. Fig. No.	Remarks
Ф	9F2B- D3	Shutter speed cam	- 1	739, 737, 738, 730x2, 733 *729, 731, 732, 734, 809	3	
plate	D4	Ratchet	1	*705, 706	3	
Bottom	. D5	Counter lever	1	*880, 884, 883, 883A	3	
Bo	D6	Cord	1	678, *679	3	
in	El	Curtain	1	E2, E3, 768x2, 769, 771 x2, 764Ax2, 764B, 766x2 765x2, 772x2, 773x4 *767x2, 770	4	
Curtain	E2	Front curtain	1	746, 745, 755, *751, 752 753, 747, 748	4	
	E3	Rear curtain	1	746, *763, 759, 755, 762 761	4	
Outer housing	Fl	Outer housing	1	848, 845, 846, 847, *844 895	. 5	