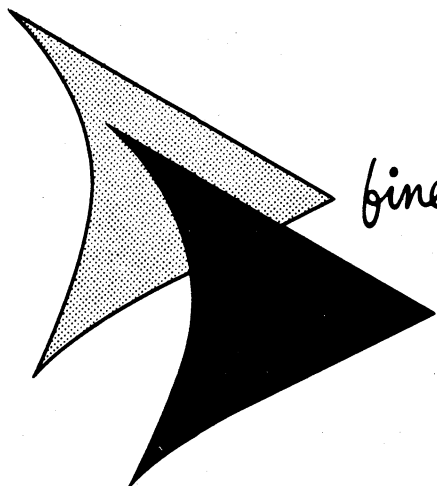


# SERVICE INSTRUCTIONS

## T D C

STEREO PROJECTORS  
STEREO CAMERAS



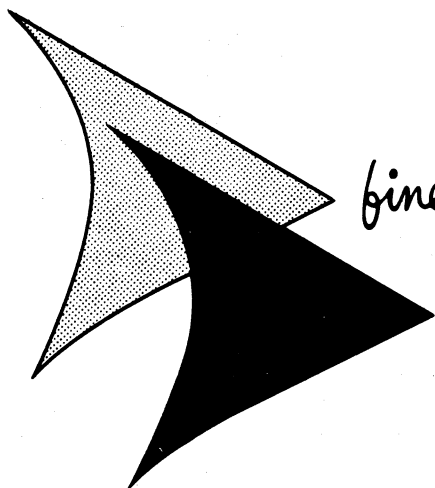
*finer products through imagination*

**Bell & Howell**

# SERVICE INSTRUCTIONS

## T D C

STEREO PROJECTORS  
STEREO CAMERAS



*finer products through imagination*

**Bell & Howell**

**SECTION II**  
**SERVICE INSTRUCTIONS**

**Bell and Howell TDC Stereo Projectors and Cameras**

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# Introduction

This service manual covers various models in the Bell and Howell TDC line of Stereo cameras and projectors. It has been prepared to serve as a guide and reference for those interested in the care and servicing of this equipment and as an ordering reference when new component parts are required.

The quality of service work performed will depend, to a large extent, upon the ability and ingenuity of the serviceman. Proper tools must be used during disassembly and reassembly procedures and care must be exercised to avoid scratching or marring of the equipment being serviced.

In this manual servicing information has been set forth in a step-by-step procedure which reflects the correct and approved method of disassembly, cleaning, repair, reassembly and adjustment of the equipment. Exploded views in the catalog portions of the manual have been indexed in the order of their disassembly; thereby providing a simplified method of removing or installing component parts of the equipment in proper sequence. The probability of a necessity for complete disassembly is slight -

however, complete information is given and the serviceman should eliminate the steps not required for reaching and repairing or correcting a part in question.

Read the manual through thoroughly before starting a repair job; becoming familiar with the general trouble shooting information. Use the manual as a guide during the actual servicing of the equipment.

The illustrations show the recommended procedures and, while they do not necessarily represent accurate dimensions, these sketches point out the relationship of one part with another and identify that portion of the unit being discussed.

It is important to remember the order of disassembly and it has been found helpful to replace screws and nuts after a part is removed. This prevents loss or erroneous replacement of attaching parts, since many screws are of identical diameter but of different lengths.

## Trouble Shooting Chart

### STEREO VIVID DELUXE PROJECTORS Models #716G and 716A

Trouble	Probable Cause	Remedy
Projector fan or blower not operating.	Defective switch. Line cord open. Ventilation motor defective. Loose motor leads. Fan blades binding. Low line voltage.	Repair or replace switch. Repair or replace line cord. Repair or replace ventilation motor. Tighten motor leads. Readjust fan blades. Check line voltage.
Fan operates but lamp does not light.	Lamp bulb burned out. Defective lamp switch. Loose wiring.	Replace lamp bulb. Repair or replace switch. Check and repair wiring.
Projected image dim.	Optical system dirty. Optical element reversed. Lamp alignment improper. Underexposed slide.	Clean optical system. Reverse element. Correct lamp alignment. Discard and replace.
Lamps require replacement after short time.	High line voltage. Insufficient air circulation. Alignment incorrect.	Check line voltage, use 120 v. lamps. Check ventilation. Correct alignment.

# Disassembly

The proper order of disassembly is shown in the order of listing in the List of Parts. This is indicated by the Index Number shown on the left hand side of the parts lists.

## Service Instructions

### LAMP POSITIONING.

The lamp position is pre-set and no adjustment is required. If the socket is properly aligned, the top of the socket should be flush with the top of the holding bracket, with the notch in the socket top directly forward.

### GUIDE ROD ADJUSTMENT.

Apply a thin coating of grease to guide rods before remounting front assembly on projector. Then mount focusing assembly. Now turn focus control fully clockwise permitting the guide rods to align

themselves into the casting and tighten the guide rod set screws (Figure 6-44) securely.

### FOCUSING ADJUSTMENT.

Insert a slide in the projector and seat the left (from projector operator's view) lens securely into its mounting. Switch "ON" the left lamp and adjust the focus control for the left lens to project a sharp picture when viewed on a flat, silver screen (be sure the screen is a silver type - not matte or beaded). Then switch "OFF" the left lamp and switch "ON" the right lamp being very careful not to move the position of the projector or the adjustment of the focus control. Adjust the right lens for the sharpest picture.

## Trouble Shooting Chart

STEREO PROJECT-OR-VIEW  
Models #732G and #761G or A

Trouble	Probable Cause	Remedy
Excessive fan noise.	Motor shaft not aligned. Fan support bracket not aligned. Oillite bearing dry.  Upper motor bearing not mounted on springs.	Reposition motor. Adjust upper fan bracket screw.  Apply a thin coat of lubriplate grease to inside of oillite bearing. Remount bearing on springs.
Either lamp not lit.	Broken circuit wire or connection. Burned out lamp.	Repair circuit break.  Replace both lamps.

## Disassembly

To disassemble the Project-Or-View, first rotate the focus control fully counter-clockwise, remove the two shroud retaining thumbscrews (Figure 8-6) and lift off the shroud (Figure 8-5). Then remove the viewer screen bracket screws, lift out the brackets (Figure 8-8) and remove the viewer screen (Figure

8-10). Next, lay the unit face down on a soft pad and remove the four screws (Figure 8-115) along the front of the base plate. Release the two springs (Figure 8-16) located just below the viewer screen housing and in the same section of the unit remove the four screws (Figure 8-21) which retain the viewer

screen portion of the projector. At this point the main frame assembly may be pivoted to rest on the viewer screen housing section. Then, by removing the two #2-12 screws, the clip rods (Figure 8-23) may be removed and the two main assemblies separated. For most repairs and servicing the unit need not be disassembled completely; from either of the two main assemblies, the sub-assembly requiring attention may be removed without disturbing the balance of the machine. (NOTE: Do not disassemble the tilt mirror and/or the linkage system unless it is absolutely necessary; if the 45° mirror must be removed, take note of the position of the mirror mounting brackets shown in Figure 8 as 101 and 104 - one embossed, the other plain - so that they can be reinstalled with the same relationship.)

In the removal, servicing or reinstallation of component parts of the main assemblies, the following notes will be found helpful and of time-saving value:

(1) Lamp sockets should be mounted at the rear of the slots in the base plate.

(2) Correct fan position is at the end of the fan shaft, even with the surface of the oilite bearing in the upper bracket, and with the fan hub flush with the step in the fan shaft. (NOTE: Do not oil the upper fan bearing.)

(3) Correct projection lens assembly position (see Figure 1, Initial Focus) is  $27/32$ " from the lens barrel crown to the lens mount. Set each lens assembly into its mount and turn each in to achieve the proper dimension.

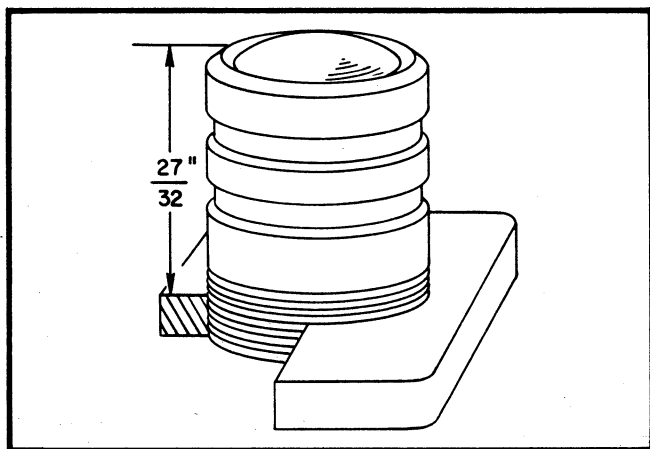


Figure 1. Proper Lens Assembly Position (Initial Focus)

(4) To reinstall the interocular assembly, place it in position so that it engages the picture separation gear; then turn the knob through its entire range to be sure that there is no binding.

(5) When installing the cotter pin (Figure 8-26) on the focusing shaft, be sure to bend in its ends

so that they do not protrude and strike against the interocular spring assembly during movement.

(6) Be sure to turn right and left control knob fully into the main casting before installing the side knobs. This will permit the control shafts to travel through their entire adjusting range.

(7) Correct procedure for reinstalling tilt mirrors and linkage system into the main frame (see Figure 2) requires careful attention to these instructions. First insert the straight shaft into the main frame from the slots in the brackets, attaching the mirror assembly cams and corrective bracket assembly in position. The grooved end of the shaft must protrude from the right hand side (viewed from the rear of the unit). One spring (Figure 8-16) must be attached on each end of the shaft, from the shaft to its retaining screw in the bracket. Then lock the shaft in place by placing an "E" ring (Figure 8-20) in each of the two grooves in the shaft (one on each side of the left hand bracket). Next, place the straight bracket assembly (Figure 8-108) on the right hand side of the shaft - with the hub of the bracket flush with the end of the shaft. Now, install the correction bracket and shaft (Figure 8-102) from the left hand side of the unit so that it engages the bracket (Figure 8-109) which was previously attached to the straight shaft; lock in place with "E" rings in grooves provided on each side of the right hand bracket. Be sure that the mirror cam linkages are in opposite directions. Hold the tilt mirrors parallel to each other; then, lock the straight bracket and shaft assemblies by tightening the set screws of the cams, brackets and correction bracket.

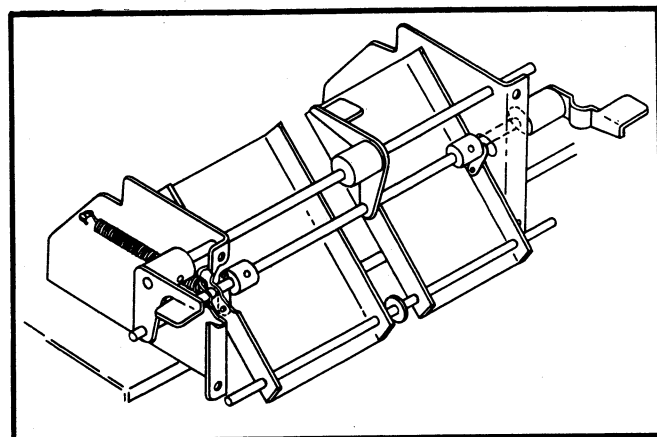


Figure 2. Correct Installation of Tilt Mirror Assembly

(8) If the polaroid glass is to be replaced, view a light source through the polaroid glass while wearing stereo glasses. If the polaroid glass has been correctly installed the light source should appear to be very dark blue. If incorrectly installed the light source will appear light blue; reverse position until correct.

# Reassembly

In reassembling the main assemblies, the procedure should be just reverse of the disassembly procedure. There are, however, certain methods of handling which will make reassembly easier and quicker if followed. First, place the main casting (viewer screen section) face down on a soft pad on the table. Then set the main frame (the other main assembly) upside down on top of the main casting. Seat the mirror rod in its recesses in the main frame and install the clip rods which hold it in place, using the two screws (Figure 8-24). At this time, tip the main frame up to a position of right angle with the main casting and install the four screws (Figure 8-22) which attach the two assemblies together. Apply one spring (Figure 8-16) on the left (the other on the right) side of the mirror mounting brackets connecting each spring from its mirror mounting bracket to its notch on the underside of the main frame. Now check the tilt mirrors; they should be parallel to each other when the side control knobs are halfway through their ranges. If adjustment is required, the brackets 108 and 109 in Figure 8 can be readjusted to permit the tilt mirrors to become parallel to each other. Install the polaroid assembly, insert the slide changer assembly and replace the shroud and test the projector before replacing in service.

## FOCUSING ADJUSTMENT.

In adjusting the focus control the following procedure is advisable: (1) Turn the focus control knob fully clockwise until the turning tension begins to feel snug. (2) At this point turn the knob counter-clockwise two complete turns. (3) Using a glass-mounted slide, switch on lamp #1 and notice the focus on the screen - if not sharp, turn the projector off to make the next adjustment. (4) Turn

the #1 lens left or right (either by hand or by use of the lens adjusting clamp tool #S-732-F-1 shown in Figure 3). Then switch on lamp #1 again and recheck the lens focus. (5) Repeat steps 3 and 4 until a sharp focus is obtained. (6) Switch off lamp #1 and switch on lamp #2. (NOTE: Do not make use of the control knob to achieve a sharp focus at this time.) (7) Repeat all steps as given above, using lamp #2. (8) The projector is now sharply focused.

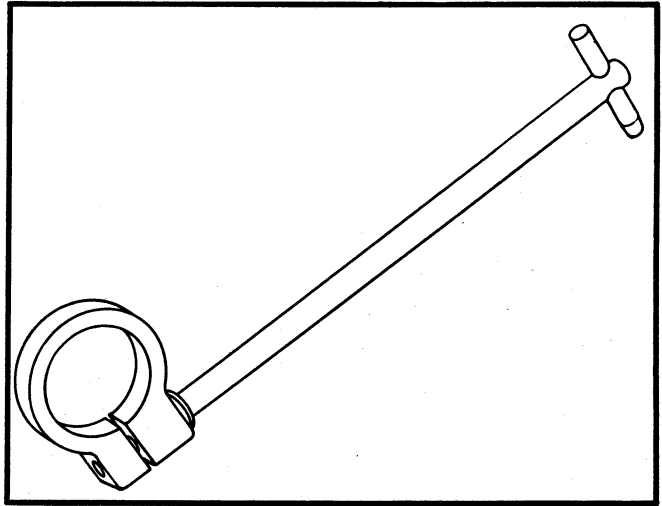


Figure 3. Focusing Adjustment Tool

## CENTERING PICTURE.

To accomplish picture centering in a horizontal plane, gently bend the slide carrier screw bracket in the required direction.

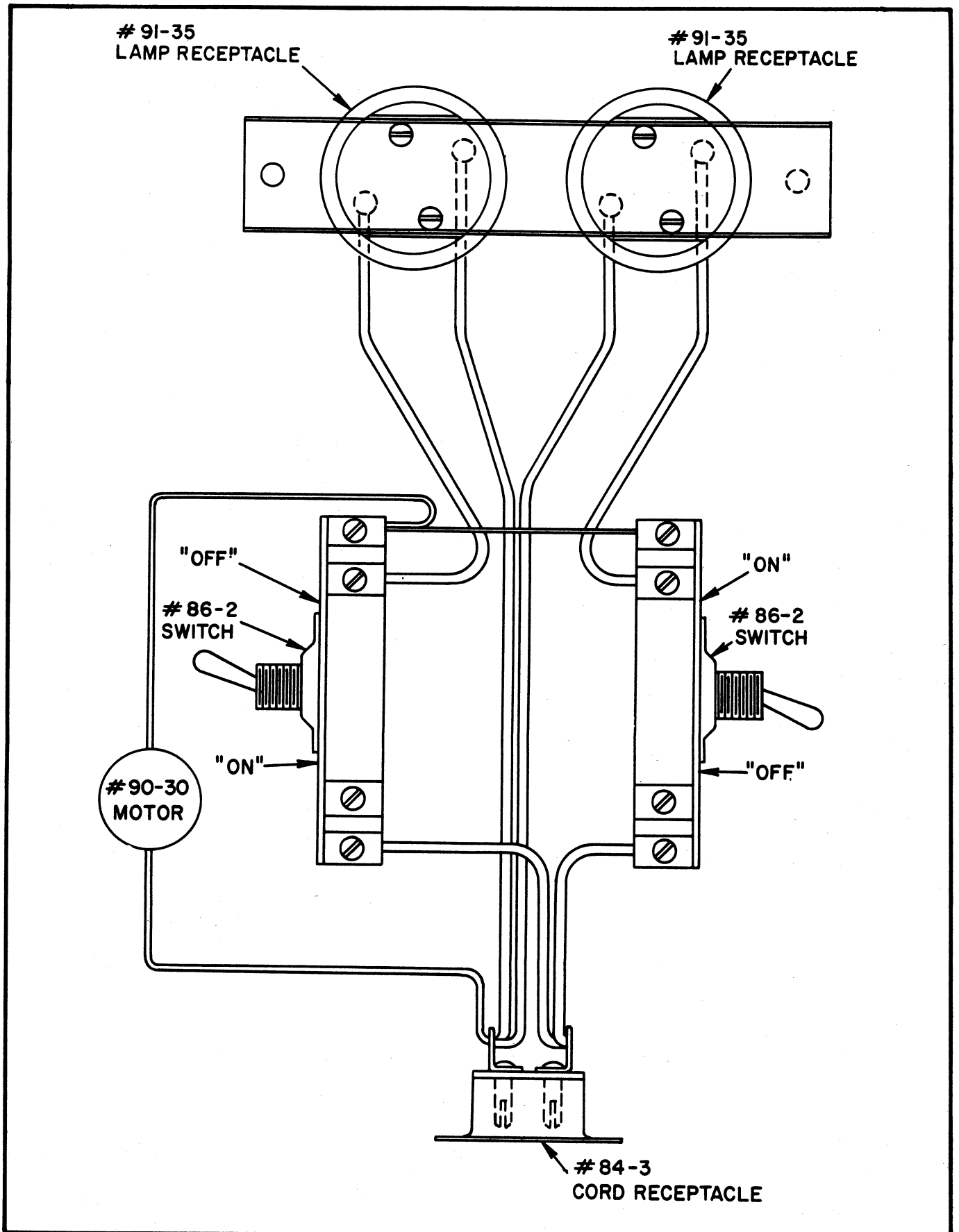


Figure 4. Wiring Diagram for Model 716G



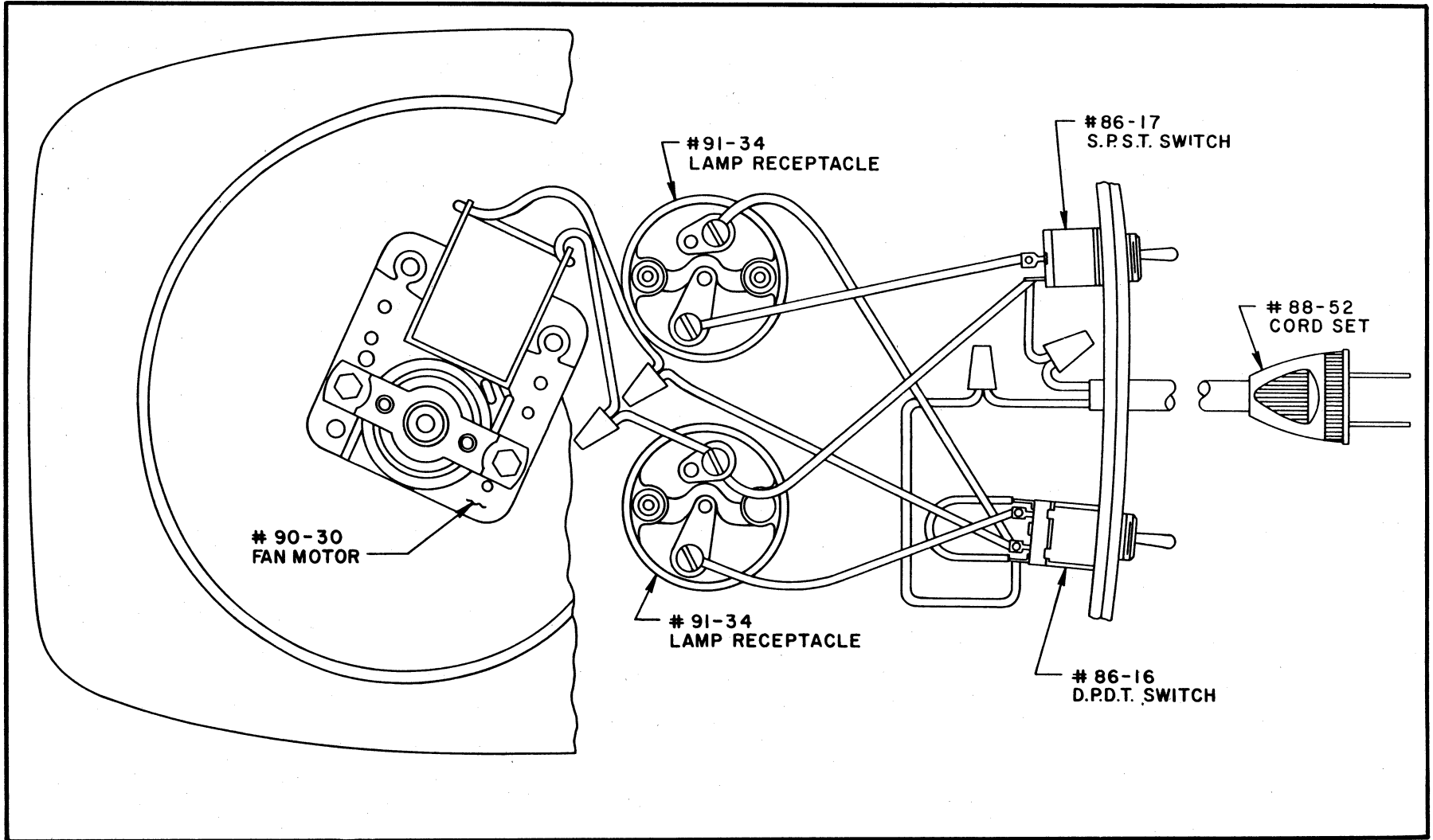


Figure 5. Wiring Diagram for Model 716A

# Parts Replacement

## LIST OF PARTS

FIG. & INDEX NO.	PART NO.	DESCRIPTION							NO. REQD.	USABLE ON CODE
		1	2	3	4	5	6	7		
6	716G5	STEREO VIVID PROJECTOR 500 w . . . . .							1	A
	716A5	STEREO VIVID PROJECTOR 750 w . . . . .							1	B
1	132-S-100	. STEREO SLIDE CHANGER . . . . .							1	AB
2	88-4	. CORDSET, power . . . . .							1	A
3	116-S-14	. PROJECTION LENS ASSY, 5" F3.5, 6-4 or A-5 or . . . . .							2	AB
	116-S-15	. PROJECTION LENS ASSY, 4" F3.5, 6-4 or A-4 . . . . .							2	AB
4	116-S-9	. FOCUSING MOUNT ASSY . . . . .							1	AB
5	116-201	. . SPRING, vertical adjusting . . . . .							1	AB
6	10-1	. . SCREW, spade mounting . . . . .							1	AB
7	116-173	. . KNOB, focus adjustment . . . . .							1	AB
		(ATTACHING PARTS)								
8	41-2	. . SCREW, set socket, No. 8-32 x 1/4 . . . . .							1	AB
9	67-1	. . WASHER, spring . . . . .							1	AB
10	116-171	. . SCREW, focusing adjustment . . . . .							1	AB
		----*----								
11	116-S-11	. . HORIZONTAL SCREW ADJUSTING ASSY . . . . .							1	AB
12	116-161	. . BUTTON, horizontal adjusting . . . . .							1	AB
13	116-S-12	. . VERTICAL ADJUSTING SCREW ASSY . . . . .							1	AB
14	54-2	. . NUT, elastic stop . . . . .							1	AB
15	116-S-16	. . VERTICAL & HORIZONTAL ADJUSTMENT PLATE ASSY . . . . .							1	AB
16	116-187	. . SPRING, horizontal adjustment . . . . .							1	AB
17	116-S-23	. . HORIZONTAL ADJUSTMENT PLATE ASSY, right . . . . .							1	AB
18	60-6	. . . SCREW, drive, rd hd, No. 4 x 5/16 . . . . .							1	AB
		(ATTACHING PARTS)								
19	116-169	. . . SCREW, shoulder . . . . .							1	AB
20	67-1	. . . WASHER, spring . . . . .							2	AB
		----*----								
21	116-S-22	. . . HORIZONTAL ADJUSTMENT PLATE ASSY, left . . . . .							1	AB
22	60-6	. . . SCREW, drive, rd hd, No. 6 x 5/16 . . . . .							1	AB
		(ATTACHING PARTS)								
23	116-167	. . . SCREW, shoulder (with stud) . . . . .							1	AB
24	67-1	. . . WASHER, spring . . . . .							2	AB
		----*----								
25	116-S-24	. . . PLATE ASSY, vertical adjustment . . . . .							1	AB
26	116-189	. . . SCREW, lens mount pivot . . . . .							1	AB
27	116-12	. . . PLATE, vertical adjustment . . . . .							1	AB
28	116-241	. . MOUNT, focusing . . . . .							1	AB
29	116-S-81	. COVER ASSY . . . . .							1	AB
		(ATTACHING PARTS)								
30	105-103	. SCREW, special thumb . . . . .							2	AB
		----*----								
31	116-S-18	. . COVER BAFFLE ASSY . . . . .							1	AB
32	116-65	. . LOUVRE . . . . .							1	AB
		(ATTACHING PARTS)								
33	17-3	. . SCREW, pan hd, No. 8-32 x 5/16 . . . . .							2	AB
		----*----								
	116-249	. . NAMEPLATE, cover . . . . .							1	B
34	116-195	. . NAMEPLATE, cover . . . . .							1	A
		(ATTACHING PARTS)								
35	60-11	. . SCREW, drive, rd hd, No. 2 x 1/4 . . . . .							2	AB
36	116-111	. . SCREW, slide changer thump . . . . .							1	AB
		----*----								
37	116-143	. . SPRING, slide . . . . .							1	AB
		(ATTACHING PARTS)								
38	82-8	. . "E"-RING . . . . .							1	AB
	4-3	. . SCREW, fil hd, No. 8-32 x 5/8 . . . . .							1	B

FIG. & INDEX NO.	PART NO.	DESCRIPTION	NO. REQD.	USABLE ON CODE
		1 2 3 4 5 6 7		
	51-15	. . NUT, hex, lock, No. 8-32 . . . . .	1	B
		-----*		
39	116-235	. . COVER, lamp house . . . . .	1	AB
40	87-16	. . LAMP, 500 w, 120 v (T-10) . . . . .	2	A
	87-20	. . LAMP, 750 w, 120 v (T-10) . . . . .	2	B
41	116-S-53	. BRACKET & ORNAMENTAL HOOD ASSY . . . . .	1	AB
		(ATTACHING PARTS)		
42	51-5	. NUT, hex, No. 10-32 . . . . .	2	AB
		-----*		
43	116-157	. ROD, focusing mount guide . . . . .	2	AB
		(ATTACHING PARTS)		
44	41-3	. SCREW, set socket, No. 10-32 x 1/2 . . . . .	2	AB
		-----*		
45	116-S-7	. POLAROID FILTER ASSY . . . . .	1	AB
46	116-S-19	. . POLAROID FRAME & DUCT ASSY . . . . .	2	AB
47	4-2	. . SCREW, fil hd, No. 6-32 x 1/4 . . . . .	4	AB
		(ATTACHING PARTS)		
48	51-4	. . NUT, hex, No. 6-32 . . . . .	4	AB
		-----*		
49	116-313	. . POLAROID . . . . .	2	AB
50	89-1	. FOOT, rubber . . . . .	3	AB
		(ATTACHING PARTS)		
51	6-6	. SCREW, truss hd, No. 8-32 x 1-1/4 . . . . .	2	AB
52	16-2	. SCREW, truss hd, No. 8-32 x 1/2 . . . . .	1	AB
		-----*		
53	116-165	. SPACER, foot . . . . .	2	AB
54	116-S-10	. FOOT ADJUSTING ASSY . . . . .	1	AB
55	116-S-4	. BASE PLATE & FAN ASSY . . . . .	1	AB
		(ATTACHING PARTS)		
56	2-2	. SCREW, fl hd, No. 10-32 x 4-1/2 . . . . .	2	AB
57	2-3	. SCREW, fl hd, No. 10-32 x 5-5/8 . . . . .	2	AB
		-----*		
58	116-S-17	. . BLOWER INLET & GRILLE ASSY . . . . .	1	AB
		(ATTACHING PARTS)		
59	18-2	. . SCREW, hex hd, self tap, No. 8-32 x 1/4 . . . . .	6	AB
60	95-X3	. . FAN, rotor with set screw . . . . .	1	AB
61	116-212	. . BUSHING, shaft . . . . .	2	AB
62	90-30	. . MOTOR . . . . .	1	AB
		(ATTACHING PARTS)		
63	2-14	. . SCREW, fl hd, No. 6-32 x 1/4 . . . . .	2	AB
64	2-15	. . SCREW, fl hd, No. 6-32 x 2-1/4 . . . . .	1	AB
65	66-1	. . WASHER, countersunk internal tooth lock, No. 8 . . . . .	3	AB
66	51-4	. . NUT, hex, 6-32 . . . . .	1	AB
		-----*		
67	116-211	. . SPACER . . . . .	2	AB
68	116-8	. . BASE PLATE . . . . .	1	AB
69	116-69	. BRACKET, cover mounting . . . . .	2	AB
		(ATTACHING PARTS)		
70	7-2	. SCREW, sems, No. 10-32 x 1/2 (with washer) . . . . .	2	AB
		-----*		
71	116-S-39	. OPTICAL CAGE ASSY . . . . .	1	AB
		(ATTACHING PARTS)		
72	3-8	. SCREW, rd hd, self tap, No. 4 x 1/4 . . . . .	4	AB
		-----*		
73	96-3	. . REFLECTOR . . . . .	2	AB
74	116-309	. . SUPPORT, rod condenser . . . . .	2	AB
75	96-4	. . CONDENSER . . . . .	6	AB
76	116-S-47	. . CONDENSER HOLDER ASSY . . . . .	1	AB
77	96-36	. . FILTER, heat . . . . .	2	AB
78	116-S-45	. . REFLECTOR BAFFLE ASSY . . . . .	1	AB

FIG. & INDEX NO.	PART NO.	DESCRIPTION							NO. REQD.	USABLE ON CODE	
		1	2	3	4	5	6	7			
		(ATTACHING PARTS)									
79	13-5	.	.							4	AB
		-----*-----									
80	116-S-41	.	.							1	AB
81	116-S-1	.	.							1	A
		(ATTACHING PARTS)									
82	1-6	.	.							2	A
83	51-1	.	.							2	A
84	64-3	.	.							2	A
85	51-2	.	.							2	A
86	7-2	.	.							2	A
		-----*-----									
88	116-151	.	.							1	A
89	91-35	.	.							2	A
		(ATTACHING PARTS)									
90	1-4	.	.							4	A
		-----*-----									
91	116-33	.	.							1	A
92	86-2	.	.							2	A
93	84-3	.	.							1	A
94	116-237	.	.							1	A
*	116-S-55	.	.							1	B
*	88-52	.	.							1	B
	83-7	.	.							1	B
	116-251	.	.							1	B
*	86-16	.	.							1	B
*	86-17	.	.							1	B
	51-2	.	.							2	B
	85-22	.	.							4	B
	116-33	.	.							1	B
		(ATTACHING PARTS)									
*	7-2	.	.							2	B
		-----*-----									
	91-34	.	.							2	B
		(ATTACHING PARTS)									
*	1-4	.	.							4	B
		-----*-----									
	116-257	.	.							1	B
	132-S-200	.	.							1	B
	733-S-733	.	.							1	B

\* Refer to wiring diagram Figure 5.

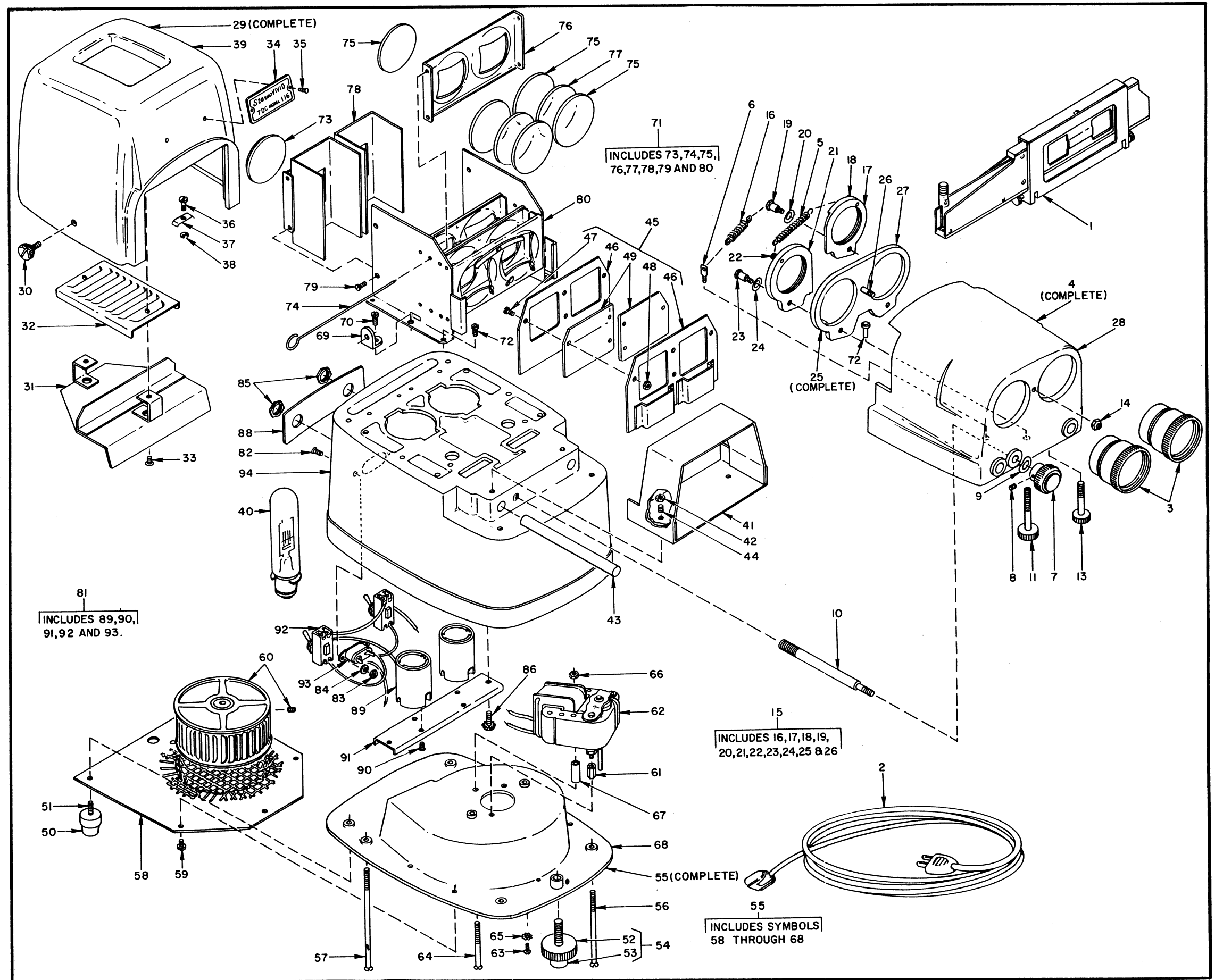


Figure 6. Exploded View Model 716G Stereo Projector

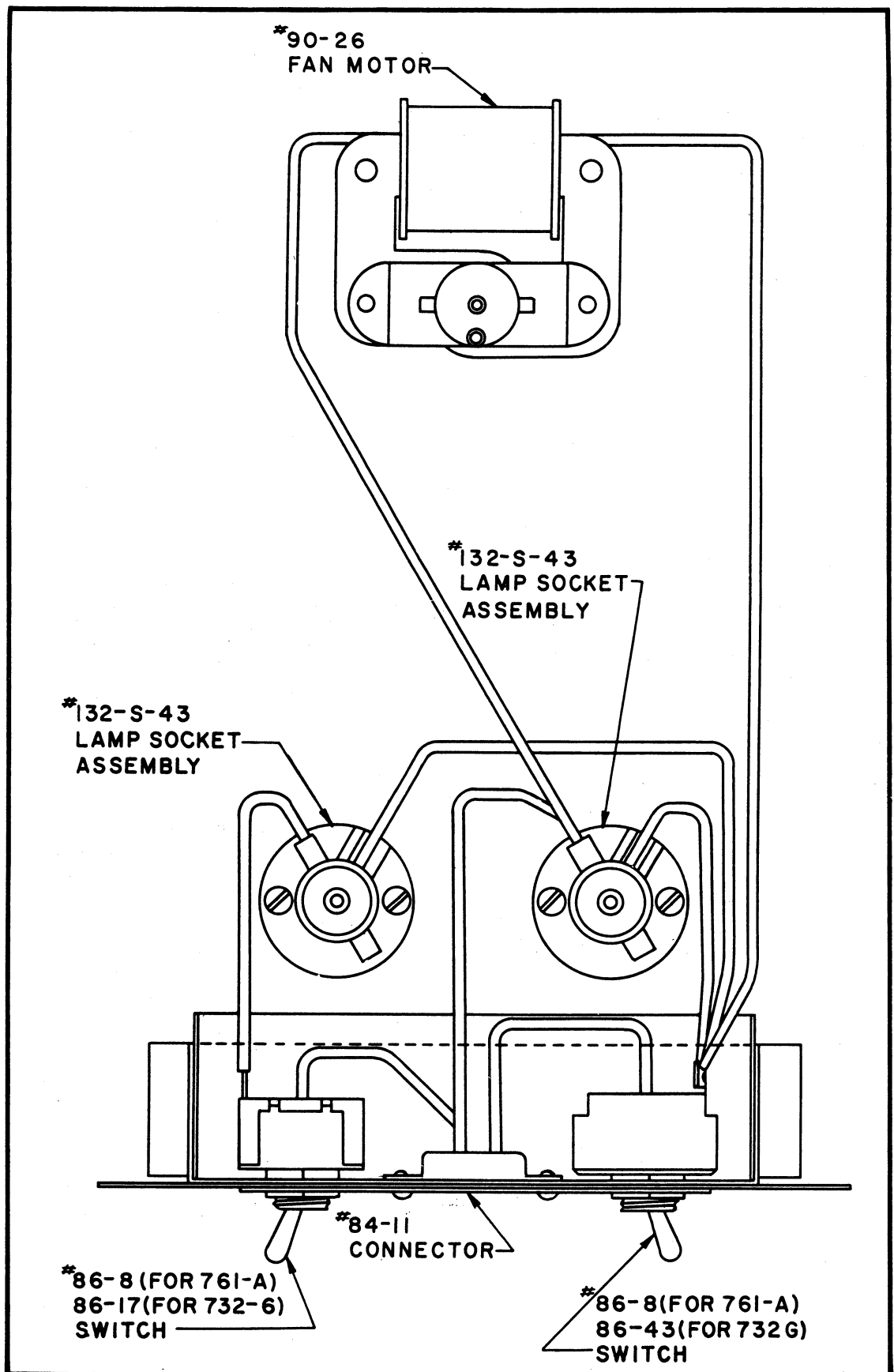


Figure 7. Wiring Diagram of Models 732G and 761A

FIG. & INDEX NO.	PART NO.	DESCRIPTION	NO. REQD.	USABLE ON CODE
		1 2 3 4 5 6 7		
8	732G	STEREO PROJECT OR VIEW	1	A
	761A	STEREO TABLE VIEWER	1	B
1	132-S-100	. STEREO SLIDE CHANGER	1	AB
	132-120	. COVER, polyethylene bag	1	AB
3	88-24	. CORDSET, power	1	AB
4	132-105	. SCREW, slide changer	1	AB
5	132-2	. SHROUD, stereo viewer	1	AB
		(ATTACHING PARTS)		
6	132-111	. SCREW, thumb	2	AB
7	54-33	. NUT, Tinnerman	2	AB
		-----*		
8	132-35	. BRACKET, screen	2	AB
		. BAND, rubber (Wide World Products, size No. 532)	2	AB
		(ATTACHING PARTS)		
9	1-9	. SCREW, rd hd, No. 8-32 x 1/4	4	AB
		-----*		
10	132-5	. SCREEN, viewer	1	AB
11	132-117	. GASKET, screen (1-1/2" strips)	4	AB
12	132-106	. STRIP, support	1	AB
		(ATTACHING PARTS)		
13	1-9	. SCREW, rd hd, No. 8-32 x 1/4	1	AB
14	89-5	. FOOT, rubber	4	AB
15	3-18	. SCREW, bd hd, No. 6-32 x 1/2	4	AB
		1	B	
		-----*		
16	132-65	. SPRING, bracket	2	A
17	132-115	. WIRE, latch	1	AB
18	132-S-10	. POLAROID HOLDER ASSY	1	AB
19	132-6	. POLAROID	2	AB
20	82-5	. "E"-RING	1	AB
21	3-4	. SCREW, bd hd, No. 6-32 x 1/4	4	AB
22	4-11	. SCREW, fil hd, No. 8-32 x 1/4	4	AB
23	132-40	. CLIP	2	AB
		(ATTACHING PARTS)		
24	2-12	. SCREW, flat hd, No. 8-32 x 1/4	2	AB
		-----*		
25	132-S-6	. PROJECTION PLATE ASSY	1	A
	132-S-7	. PROJECTION PLATE ASSY	1	B
		(ATTACHING PARTS)		
26	58-1	. PIN, cotter, 1/16 x 1/2	1	AB
27	61-9	. WASHER, 265 x 1/2 x .030 (as needed)	1	AB
28	61-4	. WASHER, 1/4 x 1/2 x .060 (as needed)	2	AB
		-----*		
29	132-S-9	. CONVERSION LENS ASSY	1	A
		(ATTACHING PARTS)		
30	82-6	. "E"-RING	1	A
31	67-1	. WASHER, spring	2	A
		-----*		
32	132-S-8	. CONVERSION LENS-HOLDER ASSY	1	A
33	96-54	. LENS, correction (glued in)	1	A
34	132-S-32	. INTEROCULAR SPRING ASSY	1	AB
35	132-30	. STRAP, spring	2	AB
36	132-63	. SPRING, interocular coil	2	AB
37	132-82	. ROD, guide	2	AB
		(ATTACHING PARTS)		
38	3-10	. SCREW, bd hd, No. 10-32 x 1/4	2	AB
39	132-80	. NUT, focusing	1	AB
40	51-18	. NUT, hex, 3/8-24	1	AB
41	61-84	. WASHER, 3/8 x 1/2 x .032	1	AB
		-----*		
42	132-26	. CHANNEL, lens mount	1	AB

FIG. & INDEX NO.	PART NO.	DESCRIPTION							NO. REQD.	USABLE ON CODE
		1	2	3	4	5	6	7		
										(ATTACHING PARTS)
43	51-4	.	.	NUT, hex, No. 6-32					2	AB
44	132-100	.	.	SPACER, lens mount					4	AB
45	3-18	.	.	SCREW, bd hd, No. 6-32 x 1/2					2	AB
46	3-4	.	.	SCREW, bd hd, No. 6-32 x 1/4					2	AB
				-----*-----						
47	132-S-2	.	.	PROJECTION LENS ASSY					2	AB
48	132-S-1	.	.	LENS, projection, 2.85" F2.9					1	AB
49	132-3	.	.	MOUNT, lens					1	AB
50	132-179	.	.	SPRING, gear segment					1	AB
51	132-S-5	.	.	GEAR SECTOR & PLATE ASSY					1	AB
52	96-53	.	.	MIRROR 45°					1	AB
				(ATTACHING PARTS)						
53	1-9	.	.	SCREW, rd hd, No. 8-32 x 1/4					4	AB
				-----*-----						
54	132-39	.	.	BRACKET, mirror					1	AB
55	132-55	.	.	BRACKET, mirror (embossed)					1	AB
56	132-67	.	.	SPRING, mirror					2	AB
57	132-59	.	.	KNOB, focusing					1	AB
58	132-181	.	.	SHAFT, focusing					1	AB
				(ATTACHING PARTS)						
59	82-6	.	.	"E"-RING					2	AB
60	67-12	.	.	WASHER, spring					1	AB
				-----*-----						
61	132-66	.	.	KNOB, picture separation					1	AB
62	132-S-11	.	.	PINION & SHAFT ASSY					1	AB
				(ATTACHING PARTS)						
63	82-6	.	.	"E"-RING					1	AB
64	67-12	.	.	WASHER, spring					1	AB
				-----*-----						
65	132-60	.	.	KNOB, side					2	A
									1	B
66	132-102	.	.	SHAFT, left control					1	AB
				(ATTACHING PARTS)						
67	82-35	.	.	RING, snap, 1/4"					1	AB
				-----*-----						
68	132-95	.	.	SHAFT, right control					1	A
				(ATTACHING PARTS)						
69	82-35	.	.	RING, snap, 1/4"					1	A
				-----*-----						
70	132-61	.	.	NAMEPLATE ("STEREO")					1	A
	761-13	.	.	NAMEPLATE ("STEREO")					1	B
71	132-1	.	.	VIEWER, front					1	A
	761-3	.	.	VIEWER, front					1	B
72	132-S-30	.	.	REAR DOOR & MIRROR ASSY					1	A
	761-S-21	.	.	REAR DOOR & MIRROR ASSY					1	B
				(ATTACHING PARTS)						
73	72-12	.	.	RIVET, 1/8 x 5/32					4	AB
				-----*-----						
74	96-51	.	.	MIRROR					1	AB
				(ATTACHING PARTS)						
75	132-73	.	.	CLIP, rear mirror					1	AB
				-----*-----						
76	132-19	.	.	FRAME, rear mirror					1	AB
				(ATTACHING PARTS)						
77	51-21	.	.	NUT, hex, No. 5-40 x 1/4					2	AB
78	3-2	.	.	SCREW, bd hd, No. 5-40 x 1/4					2	AB
79	132-99	.	.	STUD, mirror (bottom)					2	AB
80	132-98	.	.	STUD, mirror (top)					2	AB
81	3-28	.	.	SCREW, bd hd, No. 5-40 x 3/8					2	AB
82	3-2	.	.	SCREW, bd hd, No. 5-40 x 1/4					2	AB
				-----*-----						



FIG. & INDEX NO.	PART NO.	DESCRIPTION							NO. REQD.	USABLE ON CODE
		1	2	3	4	5	6	7		
83	132-S-29	. .	DOOR & ARM ASSY						1	A
	761-S-23	. .	DOOR & ARM ASSY						1	B
84	132-17	. .	COVER, lamp						1	AB
			(ATTACHING PARTS)							
85	132-111	. .	SCREW, thumb						2	AB
			-----*-----							
86	87-59	. .	LAMP, 300 w (T8-1/2)						2	A
	87-7	. .	LAMP, 200 w (T-8)						2	B
87	415-29	. .	CAP, lamp						2	A
	115-133	. .	CAP, lamp						2	B
88	132-110	. .	BAFFLE, light						1	AB
			(ATTACHING PARTS)							
89	4-3	. .	SCREW, fil hd, No. 8-32 x 5/8						2	AB
			-----*-----							
90	89-5	. .	FOOT, rubber						2	AB
91	132-S-23	. .	UPPER MOTOR BEARING ASSY						1	AB
			(ATTACHING PARTS)							
92	51-15	. .	NUT, hex, No. 8-32						2	AB
93	6-7	. .	SCREW, truss hd, No. 8-32 x 3/4						2	AB
			-----*-----							
94	132-116	. .	SPRING, motor						2	AB
95	95-64	. .	FAN, 5"						1	AB
96	132-85	. .	SHAFT, fan						1	AB
			(ATTACHING PARTS)							
97	17-1	. .	SCREW, pan hd, No. 6-32 x 1/4						2	AB
			-----*-----							
98	132-88	. .	ROD, mirror						1	AB
99	61-20	. .	WASHER, No. 8 x 7/16 x .036						1	AB
100	96-52	. .	MIRROR, tilt						2	AB
101	132-68	. .	BUFFER, tilt mirror						2	AB
	761-S-1	. .	CORRECTION BRACKET & SHAFT ASSY						1	B
102	132-S-26	. .	CORRECTION BRACKET & SHAFT ASSY						1	A
			(ATTACHING PARTS)							
103	82-5	. .	"E"-RING						1	AB
104	132-S-28	. .	STRAIGHT BRACKET & SHAFT ASSY						1	A
			(ATTACHING PARTS)							
105	82-5	. .	"E"-RING						2	A
			-----*-----							
106	41-6	. .	SCREW, set, No. 8-32 x 3/16						1	A
107	132-96	. .	SHAFT, tilt						1	A
108	132-S-27	. .	STRAIGHT BRACKET ASSY						1	A
109	132-S-25	. .	CORRECTION BRACKET ASSY						1	A
110	132-S-35	. .	ECCENTRIC ASSY, left frame						1	A
111	132-S-37	. .	ECCENTRIC ASSY, right frame						1	A
	761-S-29	. .	ECCENTRIC & FRAME ASSY, right						1	B
	132-18	. .	HOLDER, tilt mirror						1	B
112	132-64	. .	COIL SPRING, mirror						2	A
	761-21	. .	COIL SPRING, mirror						1	B
			(ATTACHING PARTS)							
113	11-6	. .	SCREW, rd hd, self tap, No. 4 x 1/4						2	A
			-----*-----							
114	132-S-22	. .	MAIN FRAME ASSY						1	A
	761-S-13	. .	MAIN FRAME ASSY						1	B
			(ATTACHING PARTS)							
115	3-4	. .	SCREW, rd bd, No. 6-32 x 1/4						10	AB
116	54-25	. .	NUT, Tinnerman, C-6278-632-6-4						2	AB
			-----*-----							
117	132-S-21	. .	BASE PLATE ASSY						1	A
	761-S-5	. .	BASE PLATE ASSY						1	B
118	132-S-16	. .	CONDENSER ASSY						1	A
	761-S-3	. .	CONDENSER ASSY						1	B

FIG. & INDEX NO.	PART NO.	1	2	3	4	5	6	7	DESCRIPTION	NO. REQD.	USABLE ON CODE
									(ATTACHING PARTS)		
119	1-8	.	.	.	.	.	.	.	SCREW, rd hd, No. 4 x 1/4	4	AB
120	54-26	.	.	.	.	.	.	.	NUT, Tinnerman	4	AB
									-----*-----		
121	96-34	.	.	.	.	.	.	.	REFLECTOR	2	AB
122	96-30	.	.	.	.	.	.	.	CONDENSER, large	2	AB
123	132-S-14	.	.	.	.	.	.	.	FILTER HOLDER ASSY	1	A
									(ATTACHING PARTS)		
124	11-6	.	.	.	.	.	.	.	SCREW, self tap, No. 4 x 1/4	4	A
									-----*-----		
125	96-39	.	.	.	.	.	.	.	FILTER, heat	2	A
126	96-33	.	.	.	.	.	.	.	CONDENSER, small	2	A
	96-31	.	.	.	.	.	.	.	CONDENSER, heat filter	2	B
127	132-S-15	.	.	.	.	.	.	.	CONDENSER FRAME ASSY	1	AB
128	132-S-20	.	.	.	.	.	.	.	SWITCHBOX ASSY	1	A
	761-S-7	.	.	.	.	.	.	.	SWITCHBOX ASSY	1	B
									(ATTACHING PARTS)		
129	1-8	.	.	.	.	.	.	.	SCREW, bd hd, No. 10-32 x 5/8	2	AB
130	51-4	.	.	.	.	.	.	.	NUT, hex, No. 6-32 x 5/16 x 7/64	2	AB
									-----*-----		
	86-8	.	.	.	.	.	.	.	SWITCH, 2 position	2	B
131	84-11	.	.	.	.	.	.	.	CONNECTOR, male cord	1	AB
132	90-26	.	.	.	.	.	.	.	MOTOR	1	AB
133	132-S-18	.	.	.	.	.	.	.	LAMP SOCKET ASSY (plain terminal)	1	AB
134	132-71	.	.	.	.	.	.	.	SPACER, lamp	2	AB
135	107-S-1	.	.	.	.	.	.	.	SOCKET, bayonet assy	1	AB
136	132-S-43	.	.	.	.	.	.	.	LAMP SOCKET ASSY (blue insulated terminal)	1	AB
137	107-S-3	.	.	.	.	.	.	.	SOCKET ASSY	1	AB
138	132-11	.	.	.	.	.	.	.	PLATE, base	1	AB
									(ATTACHING PARTS)		
139	89-51	.	.	.	.	.	.	.	GROMMET, rubber	2	AB
140	3-11	.	.	.	.	.	.	.	SCREW, bd hd, No. 10-32 x 5/8	2	AB
141	51-21	.	.	.	.	.	.	.	NUT, hex, No. 5-40 x 1/4	4	AB
142	1-6	.	.	.	.	.	.	.	SCREW, bd hd, No. 5-40 x 3/8	4	AB
143	72-31	.	.	.	.	.	.	.	RIVET, 1/8 x 9/64	2	AB
144	51-8	.	.	.	.	.	.	.	NUT, switch	2	AB
									-----*-----		
145	132-56	.	.	.	.	.	.	.	PLATE, data	1	A
	761-1	.	.	.	.	.	.	.	PLATE, data	1	B
146	132-62	.	.	.	.	.	.	.	BAFFLE, cord	1	AB
147	132-44	.	.	.	.	.	.	.	SWITCHBOX	1	AB
148	132-108	.	.	.	.	.	.	.	INSULATOR, switchbox	1	AB
149	132-S-19	.	.	.	.	.	.	.	WIRING ASSY	1	A
	761-S-19	.	.	.	.	.	.	.	WIRING ASSY	1	B
150	86-43	.	.	.	.	.	.	.	SWITCH, dpdt	1	A
151	86-17	.	.	.	.	.	.	.	SWITCH, spst	1	A

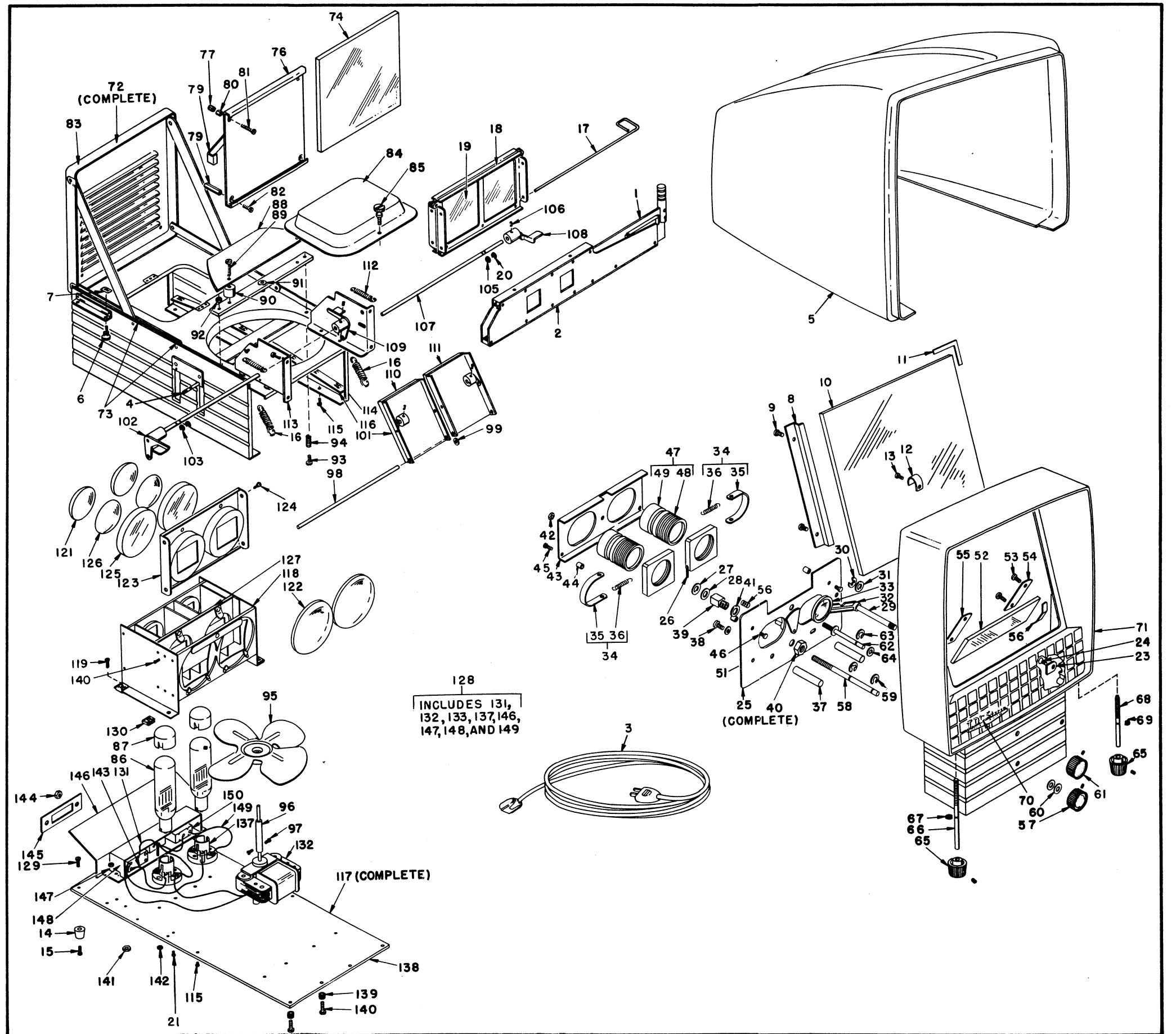


Figure 8. Exploded View of Model 732G

# Service Instructions

## STEREO VIVID CAMERA

### REMOVAL OF THE BOTTOM PLATE (DISASSEMBLY).

1. Remove short screw (Figure 9) from bottom plate, noting location.
2. Remove seven screws (Figure 9) from bottom plate.
3. Lift off bottom plate (Figure 12-1).

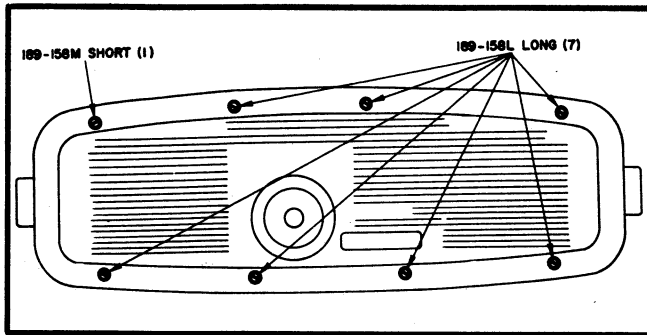


Figure 9. Bottom Plate Screw Arrangement

### REMOVAL OF FRONT COVER ASSEMBLY (DISASSEMBLY).

1. Set the diaphragm to f 16 to permit access to two screws (Part 189-158).
2. Loosen two screws (Figure 12-16) two full turns. (Do not remove completely.)
3. Turn camera face down.
4. Remove four screws (Figure 12-17).
5. Turn camera face up.
6. Lift front cover assembly off evenly to prevent scratching of top assembly.

### REMOVAL OF SHUTTER (DISASSEMBLY).

1. Remove complete lens assembly.
2. Lift shutter blades off carefully to prevent bending.

### REPLACING LEVEL (FIGURE 12-33).

1. Use 3M Brand No. EC1184 Adhesive to re cement level to the casting if the unit was removed for any reason.

### FOCUSING (REASSEMBLY).

1. Use cable release (with lock) to keep shutters in open position during adjustment.
2. Place ground glass in position over film channel.
3. Mount the camera firmly, 6 feet away from measured focusing point. Set the lens at 6 ft. and at f 3.5 positions.
4. Adjust Allen screws (Figure 10) for sharpest focus.

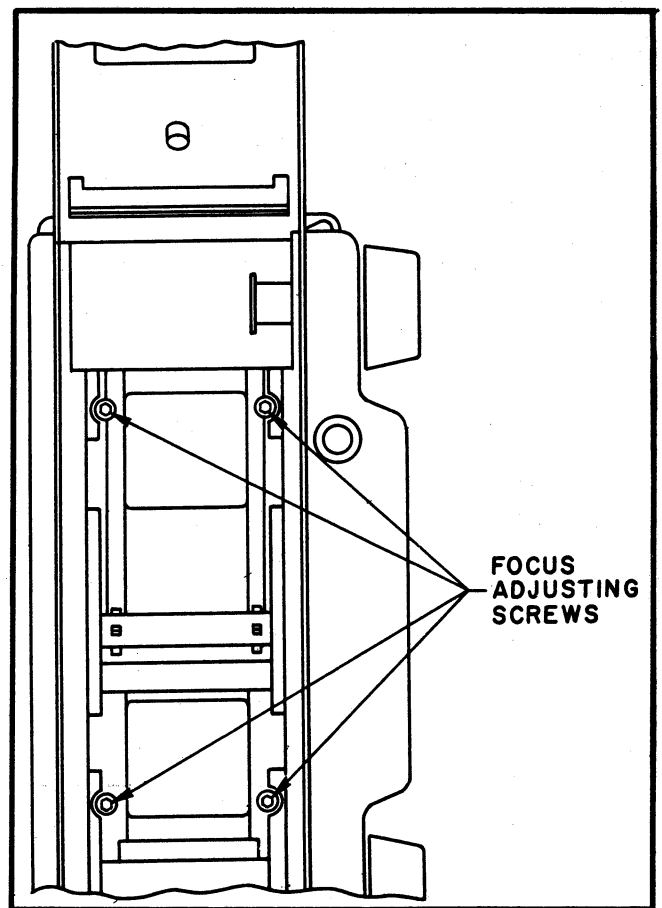


Figure 10. Adjustment of Allen Screws for Focus

5. Shoot and develop a test roll of film at various speeds and distances as a final test after repairs have been made.

# Service Instructions

## STEREO COLORIST I AND II CAMERAS

### COMPLETE VISUAL CHECK.

1. Check overall appearance of the camera for scratches, nicks and dents.

2. Open the camera door and move Diaphragm Knob (on front of camera) back and forth while watching the diaphragm openings through the back of the camera to be sure that they are functioning properly.

3. Cock the shutter by rotating the film sprocket with the thumbs. Observe the Film Counter Wheel in operation as the shutter is cocked; it should advance one number each time the shutter is cocked.

4. Fire the shutters several times to be sure that the tripping mechanism is functioning properly.

5. Check for film spool slippage by placing the thumb of the right hand against the plastic film spool while turning the winding knob. The plastic spool should turn with the turning of the winding knob. **NOTE:** Be careful not to put so much pressure on the plastic spool that it breaks.

6. Check the flash contact shoe to see that it is tight against the camera top.

7. Check the shutter speed with an Interval Timer such as a Potter Instrument Co., Flushing, N. Y. Model #451A. If no Interval Timer is available, an alternate method is a visual check. Set the shutter speed at 1/10 and, through the back of the camera, watch the shutters open and close as the shutter release is fired. Then set the shutter speed at 1/25 and repeat the procedure. From visual observation judgement may be formed as to a 2 to 1 ratio of the two shutter speeds. It is at these two speeds where shutters of this type generally develop trouble if at all.

8. Set the shutter speed at 1/50 and place a battery powered test flash unit on the camera. The test light in the flash unit should light when the shutter is fired.

### TOP REMOVAL (DISASSEMBLY).

1. Loosen set screws (Figure 13-2) in winding and rewind knobs (Figure 13-1) and remove both knobs.

2. Remove two screws (Figure 13-4) holding the strap holders (Figure 13-5).

3. Remove strap holders from camera top.

4. Turn the camera front down, facing the base.

5. Loosen the top from the camera body. (Do not force the top off.)

6. With a small screwdriver, depress the spool lock release lever (Figure 13-37).

7. The camera top may now be raised approximately 1/8" to 1/4".

8. Insert a small screwdriver under the top and engage it under the collar of the counter wheel off its shaft. The camera top may now be removed from the camera body. If the counter wheel assembly (Figure 13-8) is not removed in this way, the wheel is likely to break off from its collar.

9. **NOTE:** When the top of the camera is removed, the front viewing glass and frame are loose and will fall out.

### TOP REPLACEMENT (REASSEMBLY).

1. Place camera front up, facing the top.

2. Replace the viewing glass frame in its place in the plastic viewer housing, being sure that the curved edges are down.

3. Place viewing glass (Figure 13-6) on top of the viewing glass frame, with its flat side uppermost.

4. Holding the camera top in one hand, insert the counter wheel into its slot in the camera top. Place the index finger of the right hand on the counter wheel to hold it in place.

5. Place top partially on camera; this will hold viewing glass and frame in place.

6. Turn camera with top uppermost.

7. Look under the top and align counter wheel collar with its shaft.

8. With a small screwdriver, depress spool lock release lever so that it clears the edge of the camera top.

9. Gently push down and camera top will snap into place.

10. Replace strap holders in proper slots.

11. Replace the strap holder screws.

12. Replace wind and rewind knobs, making sure that the knob set screws are properly aligned with the corresponding holes in the wind and rewind shafts. (Although the shaft for the wind knob is grooved, a hole is provided for the set screw.) The knobs are identical and interchangeable so that either knob may be used on either shaft.

## LENS REMOVAL (DISASSEMBLY).

1. Remove camera top as previously explained, using prescribed method.

2. Cock the shutters by rotating the sprocket wheels with the thumbs. (Lens may only be removed with shutters in a cocked position.)

3. Remove the screw (Figure 13-18) holding flash ground wire to plastic viewer housing.

4. Remove the wire which is held to viewer housing by a 1/8" hex nut.

5. Set shutter speed at 1/50.

6. Set diaphragm opening at f-8.

7. Set focus at 6 feet.

8. Remove the four screws (Figure 13-67) which hold the front plate to the camera body; the front plate (Figure 13-66) may then be removed.

9. With the front plate removed, four screws (Figure 13-71) may be seen. Remove these screws and carefully lift out the lens and shutter assembly. (This is only possible with the shutter in a cocked position.)

**NOTE:** The lens shutter and base plate assembly is supplied, assembled and pre-set from the factory; a defective assembly must be replaced complete - do not attempt to disassemble or repair it. Installation of new lens and shutter is discussed later in this manual.

## REMOVAL OF BASE (DISASSEMBLY).

1. Place camera front down, facing the base.

2. Remove the two screws securing the base and base nameplate to the camera.

3. Base may now be removed and the shutter release spring will be free.

## REPLACING BASE (REASSEMBLY).

1. Insert the shutter release spring in the base of the shutter release tube.

2. Holding the base nameplate and base together, depress the release spring (making sure that the spring remains straight as it is compressed) and place the nameplate and base in their proper position.

3. Replace the two screws which secure the nameplate and base.

## REMOVAL OF BACK DOOR ASSEMBLY.

1. Pry up fabric along hinge side of front casting.

2. Remove the four door screws.

**NOTE:** If fabric is removed, use (B. & H. specification 566) Toluol to remove the old cement. Then use B. F. Goodrich Volcalock to recement the fabric.

## FOCUSING (COLORIST I).

1. Set camera at 6 foot focus adjustment.

2. Remove mounting ring assembly.

3. View image (at 6 foot distance and at f 3.5) through the ground glass, adjusting each lens for sharpest picture.

4. Reinstall mounting ring assembly in 6 foot position.

# Installation of New Lens and Shutter Assembly

## COLORIST II

New sets of lenses are received from the factory with the lens rings in place but not coupled together. (This permits one lens to be rotated for focusing without rotating the other lens.)

Carefully remove the lenses from their packing of tissue paper and cellophane. Notice that the coupling has not been attached and also that the lens plate is not straight. The lens plate will flatten out when the lenses are screwed into place.

Remove the lens rings from the lens assembly, then turn the lens rings upside down so that the ring with the footage settings is on the left so that later

when the coupling has been put on and the rings turned back right side up - the footage setting ring will be on the right. Then remove the shoulder screw and install the coupling bar to the rings.

Place the lenses in the camera (with the shutters in a cocked position). The diaphragm setting may be moved to permit access to the screw holes if the coupling bar is in the way. Then install and tighten the four screws which hold the lens assembly in place, making sure that the gear teeth edges of the lenses do not bind against the camera body casting. After the new lens assembly has been installed, it may be necessary to reset the adjustable

shutter cocking link (Figure 13-24) so that it functions properly with the new lens.

Replace the camera top assembly. Then set the diaphragm at f 3.5 and the shutter speed at "B." Place the front plate over the lens assembly.

Notice the small, black diamond shaped reference mark on the depth of field scale. With a pencil point, lightly mark the edge of the camera top at the reference point.

Remove the front plate assembly and install a locking type cable release. Cock the shutter and lock it in the open position.

Mount the camera firmly to the bench at a point six feet away from a focusing target. View the tar-

get with the aid of a ground glass (size 1-7/32" X 5") seated on the film plane.

Rotate the lenses individually to obtain the sharpest focus of the target.

Then remove the ground glass and set the camera face-up on the bench. With the six foot mark in line with the pencil mark, place the lens rings on the lens. Tighten the three lens ring retaining screws on each lens.

Check focus ring for freedom of movement through entire range of travel. Then install the front plate and remove the cable release.

It is suggested that a roll of film be exposed in the camera after reassembly and that pictures be taken at different distances to test the operation of the camera and the focusing of the lens.

# Trouble Shooting Chart

## STEREO COLORIST CAMERA I AND II

Trouble	Probable Cause	Remedy
Film winding knob will wind, but the plastic film spool will not.	Plastic notch cast into the upper half of film spool broken off.	Replace plastic film spool, or rebuild the plastic film spool. See page 24 for instructions.
Film knob winds film without stopping; shutter can be tripped. (See Figure 11-A.)	Pawl (Figure 13-32) drops into notch but does not lock and climbs out under turning pressure.	Remove camera top (see dismantling instructions).  1. Facing the front of the camera and with the top up, look for the lip of the stop pawl (Figure 13-32) which drops into the notch of the steering disc assembly (Figure 13-29). Using a pair of needle-nosed pliers, and being careful to hold the pliers level, bend the lip of the pawl to the right. Be careful to hold the rest of the pawl straight and not to bend the lip too far.  2. Cock the shutter several times to be sure that the pawl now operates properly under winding pressure.
Film knob winds film without stopping. (See Figure 11-B.)	Loose gear on steering disc (Figure 13-29).	Replace steering disc.
Film sprocket springs back when loading (may also jam film). (See Figure 11-C.)	Tension spring (Figure 13-11) has slipped out of place between pin and head on shoulder pin.	Place tongue of spring behind and under the lip of the shoulder pin. It may be necessary to straighten out the spring tongue for length to do this. (Then cock the shutters several times as a test to be sure that spring has been corrected.)

**TROUBLE SHOOTING CHART**  
**STEREO COLORIST CAMERA I AND II**

Trouble	Probable Cause	Remedy
<p>Complete jam; nothing can be moved (shutters may be jammed either open or closed). (See Figures 11-E, and 11-F.)</p>	<p>The flat spring (Figure 13-21) which holds shutter cocking yoke in engagement is bent permitting cocking yoke to become completely disengaged from shutter pin.</p>	<p>Remove bent spring by removing one screw (Figure 13-18) which holds spring to camera. Move shutter cocking yoke toward rewind end of camera - relieving jammed cocking yoke - and moving shutter pin to normal uncocked position. Engage shutter cocking yoke with shutter pin and replace flat spring (new). Test operation by cocking shutter several times.</p>
<p>Shutter opens and closes when film is transported. (See Figure 11-G).</p>	<p>Adjustable shutter cocking link (Figure 13-24) is improperly set.</p>	<p>Loosen screw (Figure 13-25) in slide rail (Figure 13-23) and reset link by moving either toward wind or rewind end of camera. When correctly set, seal the screw with cement.</p>
<p>Left shutter in open position, right shutter closed.</p>	<p>Loose shutter coupling linkage, permitting left shutter to remain open after shutters are tripped.</p>	<p>Facing the base of the camera, turn it face up. Then remove the front plate (see dismantling instructions). Now the shutter coupling linkage may be seen near the camera base. The linkage assembly is perforated and assembled by two tiny black screws. These screws have become loose. To repair - hold the link attached to the closed shutter with one finger, and with a tiny screwdriver push the other part of the assembly to the right as far as possible to close the open shutter. Then CAREFULLY tighten the two black screws. Do not exert too great a pressure on the linkage as a bent coupling could result. Seal the screws with cement. Then cock and trip the shutters several times to be sure that they function properly and together.</p>
<p>Shutters will cock and camera mechanism operates but shutters will not open and close when shutter tripping button is depressed. (See Figure 11-D.)</p>	<p>Shutter tripping button is not engaging the shutter trigger properly.</p>	<p>Remove the front plate (see dismantling instructions); loosen the four screws holding the lens assembly to the camera body. Then facing the camera base, with the cam face up, move the lens to the left and retighten the four screws. This should properly engage the tripping button with the shutter firing pin. BE SURE THAT THE GEAR TOOTHED EDGES OF THE LENS DO NOT PRESS AGAINST THE BODY CASTING.</p>



TROUBLE SHOOTING CHART

STEREO COLORIST CAMERA I AND II

Trouble	Probable Cause	Remedy
<p>Right shutter in open position, but left shutter closed.</p>	<p>Shutter coupling arm for left shutter has become disengaged from the right shutter firing mechanism.</p>	<p>Remove the front plate (see dismantling instructions) and remove the lens from the camera. Now it may easily be seen where this part of the linkage has become disengaged; replace the disengaged part of the linkage to its proper position, being careful not to bend it.</p>
<p>Flash functions properly only intermittently.</p>	<p>Flash shoe on camera top has become loosened.</p>	<p>Place a small metal block under the camera top, directly beneath the three rivets which secure the shoe to the camera top. Then, with a small screwdriver having a blade to match the groove in the rivet heads, carefully reset the rivets by lightly tapping the screwdriver.</p> <p>At this time, while the camera top is off, check the flash synchronization. Use an Ohmmeter for this test. Place one Ohmmeter test prod on the ground wire at the base of the viewer housing, the other on the small hex nut. The flash on the Colorist is synchronized at 1/50 of a second only (the flash must also function at slower speeds). Set the shutter speed at 1/50 and trip the shutter. The Ohmmeter gives a rapid "shorted" indication. If, when contact is made with the test prods, the Ohmmeter still reads "shorted" the camera flash circuit is defective (usually in the wires where they extend from the shutter mechanism). This may be remedied by removing the front plate and pressing the wires away from each other. If the "short" still exists, the lens and shutter assembly should be replaced.</p>
<p>Flash does not function properly and flash shoe on camera top is tight.</p>	<p>In some cases cameras from factory shipments are found to have the flash shoe on the camera top insulated by paint.</p>	<p>Remove the camera top (see dismantling instructions). Using a small penknife, scrape the paint from the underside of the camera top around the holes and slots. Then, using the penknife, cut a notch in the camera top (from the underside) at the hole from which the insulated flash contact projects, making sure that some metal is forced into the crack separating the flash shoe from the camera top. (The notch must not be made too large or the camera top will not set properly on the camera body.) Make a continuity check to be sure a circuit now exists be-</p>

**TROUBLE SHOOTING CHART**

**STEREO COLORIST CAMERA I AND II**

Trouble	Probable Cause	Remedy
<p>Flash does not function properly and flash shoe on camera top is tight.</p>	<p>Contact pin not making firm contact.</p>	<p>tween the flash shoe and the camera top.</p> <p>Replace the camera top and recheck the contact. (Keep an extra flash attachment on hand for testing doubtful units.) If the flash is still inoperative, the shutter may be faulty. Check and replace if required.</p> <p>Drill present pinhole in viewfinder housing (Figure 13-17) .035" deeper. (Use a #5 drill.)</p>
<p>The film knob winds film without stopping; shutter cannot be tripped.</p>	<p>The shutter tripping button is not flush or below the casting surface, which prevents pawl from engaging the trip lock.</p>	<p>Strap arm spacer (Figure 13-10) not screwed down all the way.</p> <p>The slots in the top of the strap holders (Figure 13-5) are cut too low (causing the top to set too high to hold the tripping button in the proper position).</p>
<p>Spool lock release lever (Figure 13-37) is not visible from outside of camera; or, spring tension holding lever against gears is gone.</p>	<p>Spool lock release lever Spring is entangled in the gears or is damaged.</p>	<p>Remove the camera top (see dismantling instructions) and replace the spring by removing small "E" ring which holds spring to casting.</p>
<p>Insulated flash contact in the center of the flash shoe does not make contact with the flash gun.</p>	<p>Contact has been pushed or jammed out of proper position.</p>	<p>Remove camera top (see dismantling instructions). Then remove small hex nut on the side of the viewer housing, and the wire which it holds. Next remove a second hex nut and take out the spring, screw and flash contact button from inside the viewer housing. Reset the spring to reposition the contact button at the correct height. (The viewer housing may be removed from the camera body to make this repair.)</p>

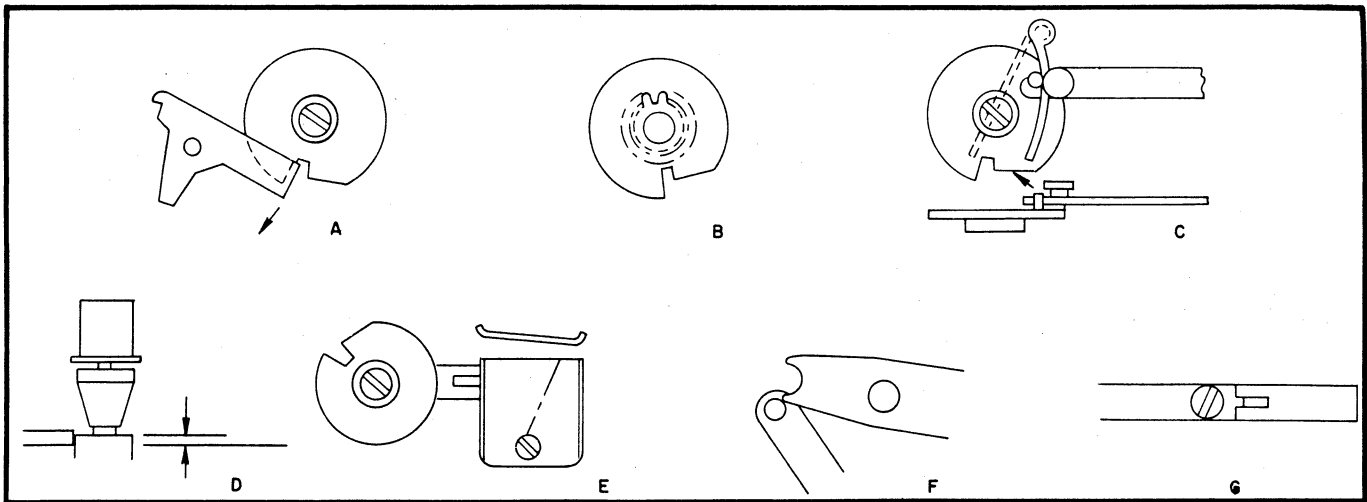


Figure 11. Illustrations of Trouble Shooting Procedures

### REBUILDING PLASTIC SPOOL

1. Remove camera top (see dismantling instructions).

2. Remove strap armspacer (Figure 13-10) on the spool side of camera.

3. Carefully remove the lock lever spring (Figure 13-39) from top of gear by moving the spring to the opposite side of film spool shaft. ("E" ring holding lock lever and lock lever spring does not have to be removed.)

4. Remove camera base (see dismantling instructions). When the camera is placed top side down (with top off) care should be taken that the sprocket shaft (Figure 13-46) is not permitted to fall out. A finger or a piece of tape should be used to hold it in place.

5. Remove "E" ring and spring washer at the base of the film spool shaft (Figure 14-89).

6. Remove the shoulder screw (Figure 13-61) which holds the door stop in place and remove the door stop.

7. Place the camera top up and lift up the film spool shaft and gear (Figure 14-89). (Be careful not to lose the washer under the gears.)

8. The plastic film spool may now be removed from the camera.

9. Remove the outer half of the film spool from the inner half. (Do not lose the small coil spring inside the spool.)

10. Scribe a center line down the shaft of the larger half of the spool, directly opposite the film groove and white arrow.

11. With the point of the scriber, CAREFULLY mark for drilling a hole on the center line approximately 1/4" from each end.

12. Reassemble the plastic film spool, making sure that the spring is in the proper position and that the notch in the base of the larger half is engaged with the projection of the smaller half.

13. Drill the two holes with a No. 56 drill, being careful to penetrate only the upper portion of the spool.

14. Then tap the two holes with a 1/72 tap. (Because of the nature of plastic, the drilled hole is smaller than the tapped size as the plastic will "give" when tapped.)

15. Countersink the two holes to match the 1/72 screw (B&H Part #12131) which are used to attach the spool. (Use a 1/8" drill ground to match the screw heads - only sink the screws far enough to make them flush with the surface of the film spool.)

16. Replace the film spool in the camera in the proper position. (Film groove and white arrow toward the camera base.)

17. Replace the "E" ring and spring washer to hold the spool in place (again care being taken not to lose the sprocket shaft - if previously taped, remove the tape).

18. Align the groove in the film spool shaft with the tapped holes. Put a drop of glue in each hole and insert the 1/72 screws, being careful not to strip the threads.

19. Replace the Strap Arm Spacer.

20. Replace the Lock Lever Spring in its original position.

21. Replace the Door Stop.

22. Replace the Camera Base. (See Reassembly instructions.)

23. Replace Camera Top. (See Reassembly instructions.)

24. Load film in the camera to be sure that it functions correctly.

# Parts Replacement

## LIST OF PARTS

FIG. & INDEX NO.	PART NO.	DESCRIPTION	NO. REQD.	USABLE ON CODE
		1 2 3 4 5 6 7		
12	135G	STEREO VIVID CAMERA . . . . .	1	A
1	171-106	. PLATE, base . . . . . (ATTACHING PARTS)	1	A
2	189-158-M	. SCREW, No. 1-72 . . . . . ----*----	1	A
3	189-111	. PLATE, instruction guide . . . . .	1	A
4	189-593	. REAR COVER ASSY . . . . .	1	A
5	171-181	. . FABRIC, rear cover . . . . .	1	A
6	189-150	. SPRING . . . . .	2	A
7	189-555	. LINK, shutter reset long . . . . . (ATTACHING PARTS)	1	A
8	82-5	. "E"-RING . . . . . ----*----	1	A
9	189-095	. GUIDE, shutter reset link . . . . . (ATTACHING PARTS)	1	A
10	189-158-N	. SCREW, No. 1-72 . . . . . ----*----	2	A
11	189-149	. SPRING, reset lever latch . . . . .	1	A
12	189-101	. SPACER . . . . .	1	A
13	189-096	. LATCH, reset lever . . . . .	1	A
14	189-594	. FRONT COVER ASSY . . . . . (ATTACHING PARTS)	1	A
15	118-122	. SPRING . . . . .	1	A
16	189-158	. SCREW, No. 2-56 . . . . .	2	A
17	189-158	. SCREW, No. 1-72 . . . . . ----*----	4	A
18	189-055	. . PLATE, switch . . . . . (ATTACHING PARTS)	1	A
19	189-158-X	. . SCREW, No. 2-56 x 1/4 . . . . . ----*----	2	A
20	189-558-Y	. . BLADE, grounded . . . . .	1	A
21	189-054-Y	. . STACK, insulator . . . . .	1	A
22	189-557	. . HEAVY ADJUSTING BAR ASSY . . . . .	1	A
23	189-656	. . . BAR, heavy adjusting . . . . .	1	A
24	171-144	. . . RETAINER, flash pin . . . . .	1	A
25	189-558-X	. . BLADE, hot . . . . .	1	A
26	189-054	. . INSULATOR . . . . .	1	A
27	171-143	. . STRIP, flash insulating . . . . .	1	A
28	171-141	. . PIN, flash . . . . .	1	A
29	171-142	. . SLEEVE, insulating . . . . .	1	A
30	171-218	. . NAMEPLATE, front . . . . .	1	A
31	189-051-X	. . FABRIC, left . . . . .	1	A
32	189-051-Y	. . FABRIC, right . . . . .	1	A
33	118-223	. . LEVEL . . . . .	1	A
34	171-125	. . CASTING, front cover . . . . .	1	A
35	181-548	. COVER LOCK ASSY . . . . .	1	A
36	189-560	. RELEASE BUTTON ASSY . . . . .	1	A
37	171-185	. PIN, cable release . . . . .	1	A
38	189-104	. SCREW, winding knob, fl hd, No. 2-56 . . . . .	1	A
39	189-585	. KNOB, focus . . . . . (ATTACHING PARTS)	1	A
40	171-174	. SCREW, No. 1-72 x 5/32 . . . . . ----*----	1	A
41	118-268	. WASHER, shim (as required) . . . . .	1	A
42	189-511	. POINTER ASSY . . . . .	1	A
43	189-596	. TOP ASSY . . . . .	1	A

FIG. & INDEX NO.	PART NO.	DESCRIPTION	NO. REQD.	USABLE ON CODE
		1 2 3 4 5 6 7		
		(ATTACHING PARTS)		
44	189-158-S	. SCREW, rd hd, No. 2-56 . . . . .	1	A
45	189-158-T	. SCREW, fl hd, No. 2-56 x 1/4 . . . . .	1	A
		-----*-----		
46	171-169	. . PLATE, light seal . . . . .	1	A
47	189-158-G	. . SCREW, No. 1-72 x 1/8 . . . . .	2	A
		(ATTACHING PARTS)		
48	118-184	. . NUT, No. 1-72 x 5/32 . . . . .	2	A
		-----*-----		
49	189-543	. . MIRROR LEVER ASSY . . . . .	1	A
50	171-199	. . SPRING, mirror lever . . . . .	1	A
51	171-150	. . MIRROR . . . . .	1	A
52	171-196	. . PLATE, exposure . . . . .	1	A
		(ATTACHING PARTS)		
53	181-195	. . SCREW, No. 0-80 . . . . .	4	A
		-----*-----		
54	189-522	. . BRACKET & MIRROR ASSY . . . . .	1	A
		(ATTACHING PARTS)		
55	189-158-R	. . SCREW, rd hd, No. 2-56 x 1/8 . . . . .	1	A
		-----*-----		
56	171-149	. . . MIRROR, dichroch . . . . .	1	A
57	171-156-B	. . . BRACKET . . . . .	1	A
58	189-070	. . WHEEL, counter . . . . .	1	A
		(ATTACHING PARTS)		
59	171-135	. . SCREW, special . . . . .	1	A
		-----*-----		
60	189-521	. . GEAR ASSY, exposure counter . . . . .	1	A
61	189-520	. . GEAR & LINK ASSY . . . . .	1	A
62	118-517	. . CAM FOLLOWER YOKE ASSY . . . . .	1	A
		(ATTACHING PARTS)		
63	189-159-J	. . "E"-RING . . . . .	1	A
		-----*-----		
64	118-053	. . SPRING . . . . .	2	A
65	189-561-X	. . RANGE FINDER LENS BRACKET ASSY . . . . .	1	A
		(ATTACHING PARTS)		
66	189-158-Y	. . SCREW, No. 1-72 x 1/8 . . . . .	1	A
67	118-184	. . NUT, No. 1-72 x 3/8 . . . . .	2	A
		-----*-----		
68	171-236	. . SLEEVE, exposure indicator hair spring . . . . .	1	A
69	118-268	. . WASHER, hair spring . . . . .	1	A
70	118-303	. . SCREW, film speed dial, No. 0-80 . . . . .	1	A
71	171-167	. . DIAL, A.S.A. film speed . . . . .	1	A
72	171-166	. . DIAL, bright sun . . . . .	1	A
73	118-056	. . WASHER, exposure indicator . . . . .	1	A
74	118-545	. . PINION GEAR & HAIR SPRING ASSY . . . . .	1	A
75	118-262	. . . SPRING, hair . . . . .	1	A
76	118-048	. . . GEAR, pinion . . . . .	1	A
77	171-147	. . SQUARE, objective . . . . .	1	A
78	171-154	. . RETAINER, objective square . . . . .	1	A
79	171-192	. . APERTURE, objective square . . . . .	1	A
80	171-151	. . WINDOW . . . . .	1	A
81	171-155	. . RETAINER, window . . . . .	1	A
82	171-065	. . KNOB, rewind . . . . .	1	A
		(FOR FURTHER DISASSEMBLY OF 189-596 LESS ABOVE PARTS, MUST BE RETURNED TO THE FACTORY.)		
83	118-122	. . SPRING, reset lever . . . . .	1	A
84	189-501-X	. . FILM SPOOL DRIVE GEAR & SHUTTER COCKING ASSY . . . . .	1	A
85	189-501-W	. . FILM SPOOL TAKE-UP ASSY . . . . .	1	A
86	171-503-W	. . DEPTH OF FIELD CAM ASSY . . . . .	1	A
87	189-595	. . MOVEMENT ASSY, complete . . . . .	1	A
		(ATTACHING PARTS)		
88	*189-158-H-I	. . SCREW, No. 1-72 . . . . .	3	A

FIG. & INDEX NO.	PART NO.	1 2 3 4 5 6 7	DESCRIPTION	NO. REQD.	USABLE ON CODE
89	*189-158-O-P	.	SCREW, No. 2-56 . . . . .	2	A
90	*171-234-X-Y	.	SPACER . . . . .	2	A
			-----*		
91	189-554	.	SHUTTER MOVEMENT BOTTOM PLATE ASSY . . . . .	1	A
			(ATTACHING PARTS)		
92	189-158-F	.	SCREW, rd hd, No. 1-72 . . . . .	1	A
			-----*		
93	171-235-A	.	SPACER, movement plate . . . . .	2	A
94	118-520	.	SHUTTER BRACKET ASSY . . . . .	1	A
95	118-509	.	GEAR, shutter bracket . . . . .	1	A
96	118-317	.	ROLLER, shutter sector . . . . .	1	A
97	118-102	.	SPRING, floating lever . . . . .	1	A
98	189-219	.	SPRING, drive lever . . . . .	1	A
			(FOR FURTHER DISASSEMBLY OF 189-554 LESS ABOVE PARTS, RETURN TO FACTORY)		
99	189-545	.	LENS & MOUNTING BRACKET ASSY (COMPLETE) . . . . .	1	A
			(ATTACHING PARTS)		
100	189-158-Q	.	SCREW, No. 2-56 x 5/16 . . . . .	8	A
101	171-211	.	BUSHING, lens mounting . . . . .	8	A
			-----*		
102	171-194	.	BLADE, secondary shutter . . . . .	1	A
			(ATTACHING PARTS)		
102	189-203	.	SPRING, shutter . . . . .	1	A
			-----*		
104	171-195	.	BLADE, primary shutter . . . . .	1	A
105	189-203	.	SPRING, shutter . . . . .	1	A
106	171-204	.	PIN, mirror lever push . . . . .	1	A
107	171-184	.	SPRING, depth of follower . . . . .	1	A
108	118-212	.	SPRING, sprocket lock . . . . .	1	A
109	189-112	.	SPRING, film advance sprocket latch . . . . .	1	A
110	189-539	.	SPROCKET LOCK ASSY . . . . .	1	A
			(ATTACHING PARTS)		
111	189-158-J	.	SCREW, No. 1-72 x 3/32 . . . . .	1	A
112	189-105	.	WASHER . . . . .	1	A
			-----*		
			(FOR FURTHER DISASSEMBLY OF CAMERA RETURN UNIT TO FACTORY FOR REPAIR AND/OR ADJUSTMENT.)		

NOTE: \*Suffix letters denote characteristics of parts: H = fil hd, I = rd hd, O = 1/8" long, P = 5/8" long, X = .426 length and Y = .178 length.

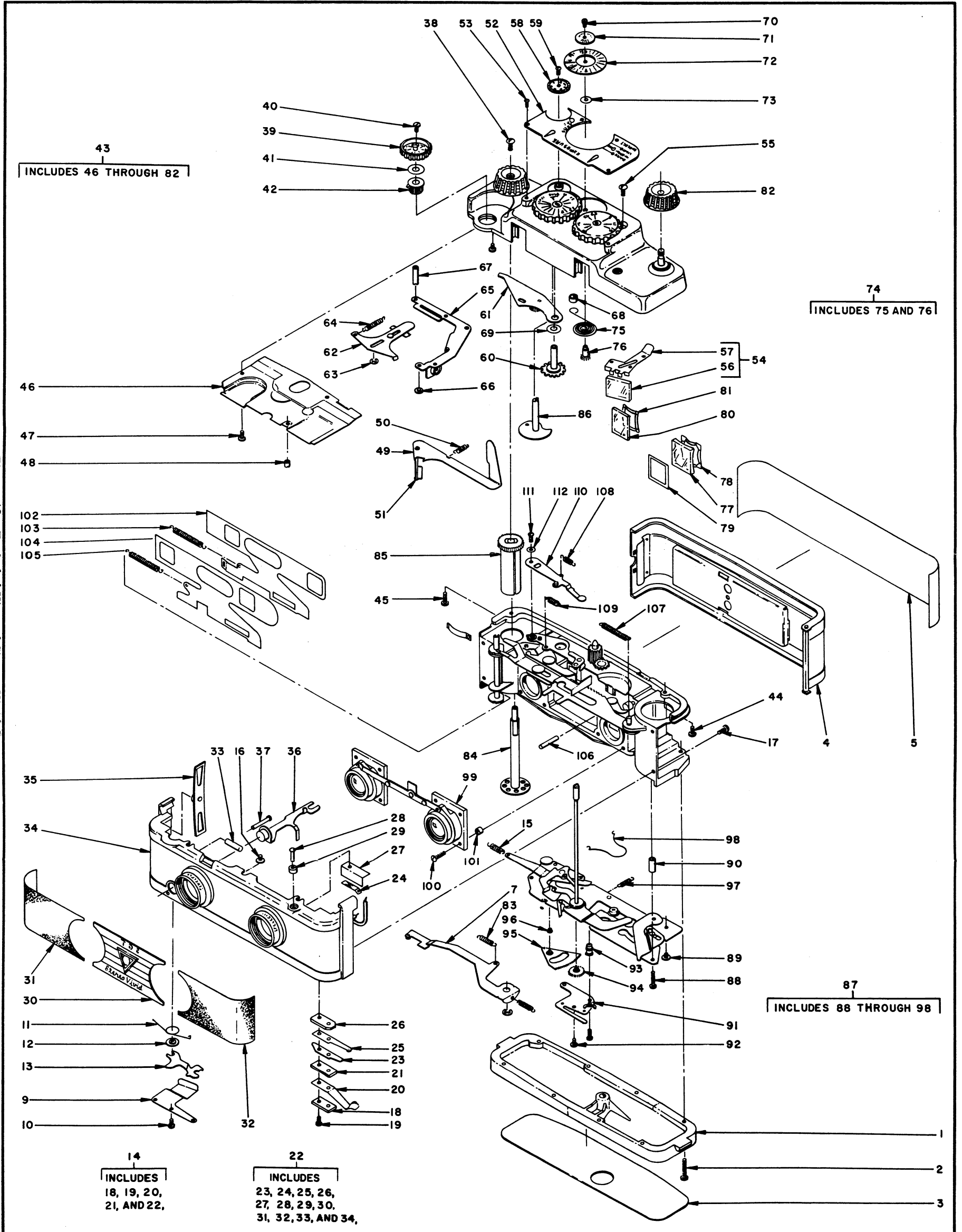


Figure 12. Exploded View of Stereo Vivid Camera

FIG. & INDEX NO.	PART NO.	DESCRIPTION							NO. REQD.	USABLE ON CODE
		1	2	3	4	5	6	7		
13	739G	STEREO COLORIST I CAMERA . . . . .							1	A
1	139-43	. KNOB . . . . .							2	A
		(ATTACHING PARTS)								
2	139-9	. SET SCREW, special . . . . .							2	A
		----*----								
3	139-S-25	. TOP COVER ASSY . . . . .							1	A
		(ATTACHING PARTS)								
4	139-5	. SCREW, special . . . . .							2	A
		----*----								
5	139-41	. HOLDER, strap . . . . .							2	A
6	139-53	. OBJECTIVE . . . . .							1	A
7	139-134	. SPRING, objective retaining . . . . .							1	A
8	139-S-31	. EXPOSURE COUNTER ASSY . . . . .							1	A
9	139-S-1	. RELEASE BUTTON ASSY . . . . .							1	A
10	139-S-29	. SPACER, strap arm . . . . .							2	A
11	139-33	. SPRING, arm tension . . . . .							1	A
12	139-55	. EYEPIECE . . . . .							1	A
13	139-132	. PIN, contact . . . . .							1	A
		(ATTACHING PARTS)								
14	139-27	. NUT, hex hd, special . . . . .							2	A
15	139-5	. SCREW, special . . . . .							1	A
		----*----								
16	139-133	. SPRING, contact . . . . .							1	A
17	139-S-27	. HOUSING, view finder . . . . .							1	A
		(ATTACHING PARTS)								
18	139-5	. SCREW, special . . . . .							3	A
19	139-74	. WASHER, flat shim . . . . .							1	A
		----*----								
20	139-S-7	. CONNECTOR, link assy . . . . .							1	A
21	193-31	. SPRING, flat shutter . . . . .							1	A
		(ATTACHING PARTS)								
22	139-5	. SCREW, special . . . . .							1	A
		----*----								
23	139-S-21	. SHUTTER COCKING LINK ASSY . . . . .							1	A
24	139-121	. . LINK, adjustable shutter cocking . . . . .							1	A
		(ATTACHING PARTS)								
25	139-19	. . SCREW, special . . . . .							1	A
		----*----								
26	139-123	. . YOKE, shutter, cocking . . . . .							1	A
		(ATTACHING PARTS)								
27	139-110	. . RIVET, slide rail . . . . .							1	A
		----*----								
28	139-122	. . RAIL, slide . . . . .							1	A
29	139-S-19	. STEERING DISK ASSY . . . . .							1	A
		(ATTACHING PARTS)								
30	139-11	. SCREW, special . . . . .							1	A
		----*----								
31	139-S-5	. FILM COUNTER ASSY . . . . .							1	A
32	139-125	. PAWL, stop . . . . .							1	A
		(ATTACHING PARTS)								
33	139-23	. "E"-RING . . . . .							1	A
		----*----								
34	139-37	. SPRING, lock . . . . .							1	A
35	139-124	. LEVER, release . . . . .							1	A
		(ATTACHING PARTS)								
36	139-23	. "E"-RING . . . . .							1	A
		----*----								
37	139-95	. LEVER, spool lock release . . . . .							1	A
		(ATTACHING PARTS)								
38	139-23	. "E"-RING . . . . .							1	A
39	139-97	. SPRING, spool lock lever release . . . . .							1	A
		----*----								



FIG. & INDEX NO.	PART NO.	DESCRIPTION							NO. REQD.	USABLE ON CODE
		1	2	3	4	5	6	7		
40	139-129	.	KEY, rewind . . . . .						1	A
41	139-S-33	.	COMPLETE DOOR ASSY . . . . .						1	A
			(ATTACHING PARTS)							
42	139-15	.	SCREW, hinge . . . . .						4	A
43	139-13	.	SCREW, door stop special . . . . .						1	A
			----*----							
44	139-65	.	FABRIC, door . . . . .						1	A
45	139-94	.	BAR, door stop . . . . .						1	A
46	139-S-3	.	SPROCKET SHAFT ASSY . . . . .						1	A
47	139-105	.	PIN, sprocket shaft . . . . .						1	A
48	139-101	.	SHAFT, sprocket . . . . .						1	A
49	139-S-15	.	DRIVE GEAR ASSY . . . . .						1	A
50	139-99	.	SPROCKET, film . . . . .						2	A
51	139-79	.	COVER, door lock . . . . .						1	A
			(ATTACHING PARTS)							
52	139-7	.	SCREW, special . . . . .						2	A
			----*----							
53	139-47	.	LEVER, door lock . . . . .						1	A
54	139-49	.	SPRING, door lock lever . . . . .						1	A
55	139-145	.	NAMEPLATE, bottom . . . . .						1	A
			(ATTACHING PARTS)							
56	139-7	.	SCREW, special . . . . .						2	A
			----*----							
57	139-144	.	COVER, bottom . . . . .						1	A
58	139-39	.	SPRING, release . . . . .						1	A
59	139-51	.	NUT, tripod seat . . . . .						1	A
			(ATTACHING PARTS)							
60	139-15	.	SCREW, special . . . . .						1	A
			----*----							
61	139-13	.	FILM SPOOL SHAFT ASSY . . . . .						1	A
			(ATTACHING PARTS)							
62	139-21	.	"E"-RING . . . . .						1	A
			----*----							
63	139-85	.	SPRING, brake . . . . .						1	A
64	139-89	.	SHIM . . . . .						1	A
65	139-S-11	.	FILM SPOOL ASSY . . . . .						1	A
66	139-S-9	.	FRONT PLATE ASSY . . . . .						1	A
			(ATTACHING PARTS)							
67	139-7	.	SCREW, special . . . . .						4	A
			----*----							
68	139-67	.	KNOB, adjusting . . . . .						2	A
69	139-139	.	NAMEPLATE, TDC . . . . .						1	A
70	139-S-23	.	LENS ASSY COMPLETE, F3.5 . . . . .						1	A
			(ATTACHING PARTS)							
71	139-5	.	SCREW, special . . . . .						4	A
			----*----							
72	139-80	.	MOUNTING RING ASSY (with screws) . . . . .						1	A
73	139-137	.	LINKAGE, mounting ring . . . . .						1	A
74	139-126	.	SHAFT, shutter release . . . . .						1	A
75	139-59	.	FABRIC, hinge side . . . . .						1	A
76	139-61	.	FABRIC, lock side . . . . .						1	A
77	139-73	.	PLATE, cover (less serial number) . . . . .						1	A
78	139-71	.	BAR, film slide . . . . .						2	A
			(ATTACHING PARTS)							
79	139-5	.	SCREW, special . . . . .						2	A
			----*----							
80	139-130	.	SLEEVE, rewind . . . . .						1	A
81	139-131	.	SPRING, rewind . . . . .						1	A
82	139-69	.	FRAME, camera . . . . .						1	A

Figure 13. Exploded View of Stereo Colorist I Camera

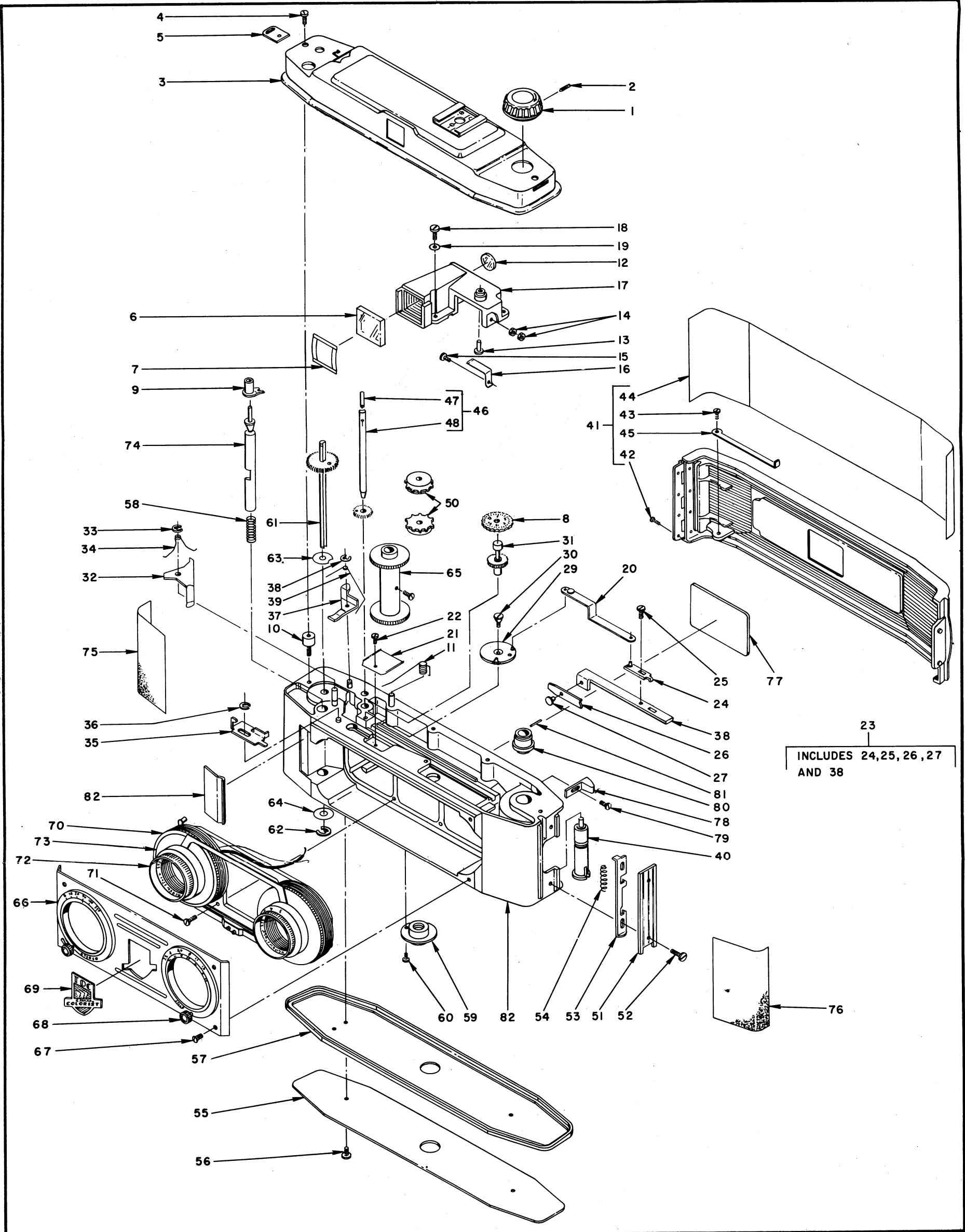


FIG. & INDEX NO.	PART NO.	DESCRIPTION	NO. REQD.	USABLE ON CODE
		1 2 3 4 5 6 7		
14	739B	STEREO CAMERA COLORIST II	1	A
1	139-217	. LENS, focus knob	1	A
2	139-S-51	. FRONT PLATE (ATTACHING PARTS)	1	A
3	139-7	. SCREW, special ----*----	4	A
4	139-255	. INSULATION, tube	1	A
5	139-239	. KNOB, rewind	1	A
6	139-239	. KNOB, wind (ATTACHING PARTS)	1	A
7	139-9	. SCREW, special ----*----	2	A
8	139-163	. COUNTER DISK (ATTACHING PARTS)	1	A
9	139-261	. SCREW, special ----*----	1	A
10	139-165	. WASHER, counter spring	1	A
11	139-S-53	. TOP COVER ASSY (ATTACHING PARTS)	1	A
12	139-5	. SCREW, special ----*----	2	A
13	139-41	. STRAP HOLDERS (ATTACHING PARTS)	2	A
14	139-259	. SCREW, special (flash holder) ----*----	1	A
15	139-241	. NAMEPLATE, TDC	1	A
16	139-S-1	. RELEASE ASSY, shutter	1	A
17	139-S-57	. RANGE FINDER ASSY (ATTACHING PARTS)	1	A
18	139-5	. SCREW, special	3	A
19	139-257	. SCREW, stud ----*----	1	A
20	139-S-43	. STEERING DISK ASSY (ATTACHING PARTS)	1	A
21	139-11	. SCREW, special ----*----	1	A
22	139-S-41	. FILM COUNTER GEAR ASSY (ATTACHING PARTS)	1	A
23	139-21	. "E"-RING ----*----	1	A
24	139-195	. COVER, range finder (ATTACHING PARTS)	1	A
25	139-263	. SCREW, special ----*----	2	A
26	139-247	. SLEEVE, contact	1	A
27	139-249	. PIN, contact	1	A
28	139-251	. SPRING, contact	1	A
29	69-17	. WASHER, contact insulating fiber	1	A
30	139-301	. WINDOW	1	A
31	139-203	. SPRING, range finder	1	A
32	139-291	. MIRROR, first surface	1	A
33	139-293	. MIRROR, dichroch	1	A
34	139-295	. EYEPIECE	1	A
35	139-209	. HOLDER, front objective (ATTACHING PARTS)	1	A
36	139-5	. SCREW, special	4	A
37	139-285	. WASHER ----*----	4	A
38	139-299	. LENS, objective	2	A
39	139-245	. SPRING, range finder lever	1	A
40	139-207	. LEVER, retaining spring	1	A

FIG. & INDEX NO.	PART NO.	1	2	3	4	5	6	7	DESCRIPTION	NO. REQD.	USABLE ON CODE
									(ATTACHING PARTS)		
41	139-7	.	.						SCREW, special . . . . .	3	A
									-----*-----		
42	139-201	.	.						LEVER, range finder . . . . .	1	A
43	139-205	.	.						SPRING, thrust . . . . .	1	A
44	139-197	.	.						MOVEABLE LENS CARRIER . . . . .	1	A
45	139-297	.	.						CONDENSER, lens . . . . .	1	A
46	139-193	.	.						HOUSING, range finder . . . . .	1	A
47	139-S-47	.	.						SHUTTER, cocking link assy . . . . .	1	A
48	139-171	.	.						COCKING LINK . . . . .	1	A
49	139-279	.	.						SLIDE SCREW . . . . .	4	A
50	139-213	.	.						SLIDE . . . . .	1	A
51	139-277	.	.						SPRING, tension . . . . .	1	A
52	139-211	.	.						COUPLING, range finder . . . . .	1	A
53	139-S-29	.	.						STRAP, arm spacer . . . . .	2	A
54	139-S-45	.	.						DRIVE GEAR ASSY . . . . .	1	A
55	139-183	.	.						PAWL, stop . . . . .	1	A
									(ATTACHING PARTS)		
56	139-185	.	.						LOCK SPRING . . . . .	1	A
57	139-23	.	.						"E"-RING . . . . .	1	A
									-----*-----		
58	139-95	.	.						LEVER, spool lock release . . . . .	1	A
59	139-97	.	.						SPRING, spool lock release . . . . .	1	A
									(ATTACHING PARTS)		
61	139-23	.	.						"E"-RING . . . . .	1	A
									-----*-----		
62	139-181	.	.						LEVER, release . . . . .	1	A
									(ATTACHING PARTS)		
63	139-275	.	.						SCREW . . . . .	1	A
									-----*-----		
64	139-S-33	.	.						DOOR ASSY, complete . . . . .	1	A
65	139-15	.	.						HINGE SCREW, special . . . . .	4	A
									(ATTACHING PARTS)		
66	139-13	.	.						SCREW, door stop . . . . .	1	A
									-----*-----		
67	139-65	.	.						FABRIC, door . . . . .	1	A
68	139-64	.	.						BAR, door stop . . . . .	1	A
69	139-S-39	.	.						SPROCKET SHAFT ASSY . . . . .	1	A
70	139-89	.	.						SHIM, sprocket shaft assy . . . . .	1	A
71	139-99	.	.						SPROCKET . . . . .	2	A
72	139-129	.	.						KEY, rewind . . . . .	1	A
73	139-79	.	.						DOOR LOCK COVER PLATE . . . . .	1	A
									(ATTACHING PARTS)		
74	139-7	.	.						SCREW, special . . . . .	2	A
									-----*-----		
75	139-47	.	.						DOOR LOCK LEVER . . . . .	1	A
76	139-49	.	.						DOOR LOCK LEVER SPRING . . . . .	1	A
77	139-S-23 II	.	.						LENS ASSY, complete . . . . .	1	A
									(ATTACHING PARTS)		
78	139-5	.	.						SCREW, special . . . . .	4	A
									-----*-----		
79	139-223	.	.						GUIDE RING, left . . . . .	1	A
80	139-225	.	.						GUIDE RING, right (with footage scale) . . . . .	1	A
81	139-187	.	.						SHAFT, shutter release . . . . .	1	A
82	139-39	.	.						SPRING, shutter release shaft . . . . .	1	A
83	139-73	.	.						COVER PLATE . . . . .	1	A
84	139-71	.	.						BAR, film guide . . . . .	2	A
									(ATTACHING PARTS)		
85	139-5	.	.						SCREW, special . . . . .	2	A
									-----*-----		
86	139-144	.	.						COVER, bottom . . . . .	1	A
87	139-145	.	.						NAMEPLATE . . . . .	1	A



Figure 14. Exploded View of Stereo Colorist II Camera

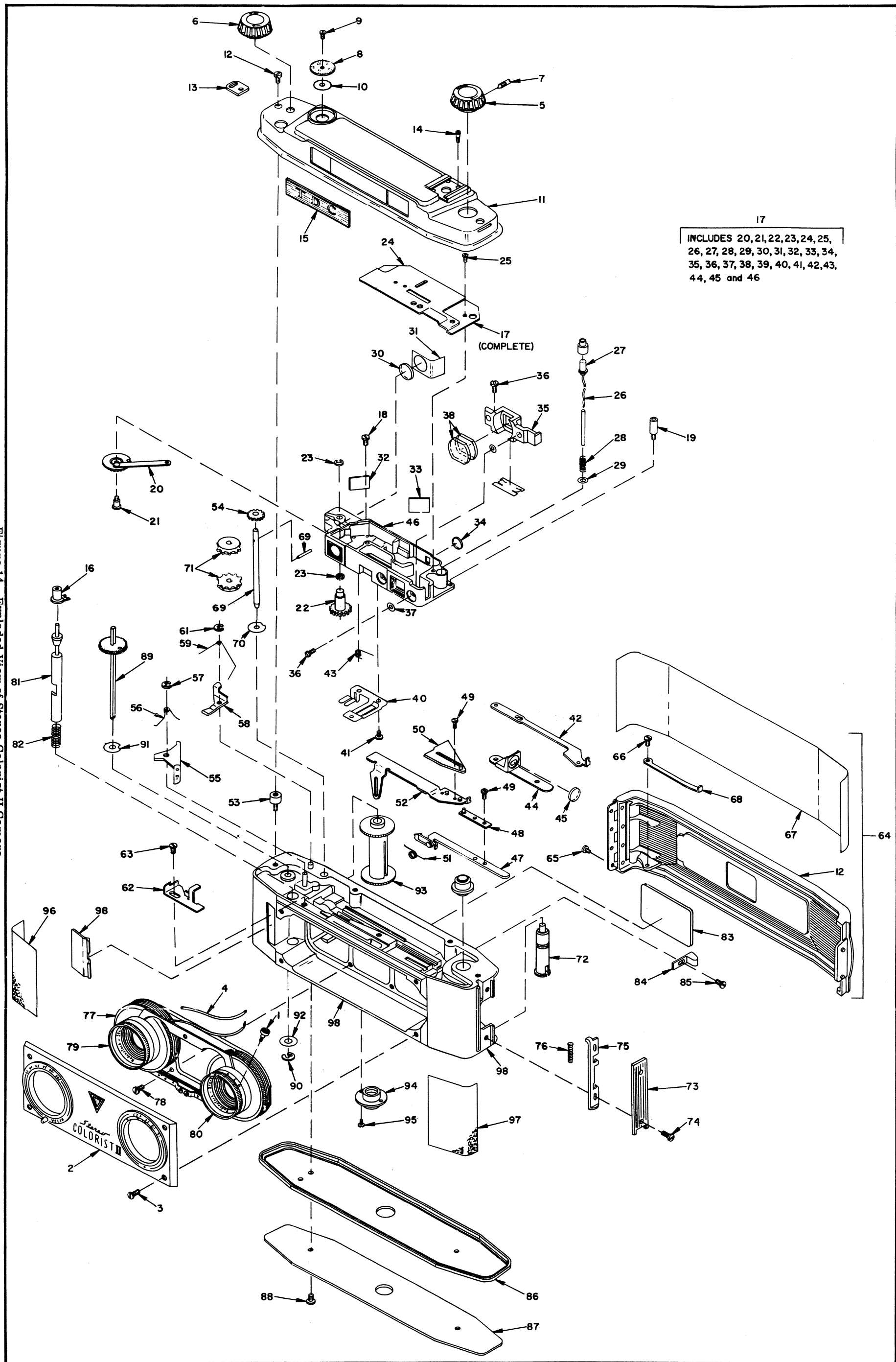


FIG. & INDEX NO.	PART NO.	DESCRIPTION							NO. REQD.	USABLE ON CODE
		1	2	3	4	5	6	7		
42	703-29	.	.	.	.	HOUSING, planetary gear			1	A
43	703-S-19	.	.	.	TRAY HOLDER & FRAME ASSY			1	A	
44	703-S-5	.	.	.	ELECTRIC SHUTTER ASSY			1	A	
45	703-S-12	.	.	.	ARM, slider (ATTACHING PARTS)			1	A	
46	4-106	.	.	.	SCREW, fil hd, No. 5-40 x 1/4 -----*			2	A	
47	703-32	.	.	.	ARM, pusher			1	A	
48	703-19	.	.	.	KNOB, manual			1	A	
49	703-S-11	.	.	.	COVER PLATE ASSY (ATTACHING PARTS)			1	A	
50	7-106	.	.	.	SCREW, pan hd, No. 5-40 x 1/4 -----*			3	A	
51	703-S-1	.	.	.	GEAR & RATCHET ASSY			1	A	
52	128-41	.	.	.	BALL, index			1	A	
53	128-27	.	.	.	SPRING, index			1	A	
54	703-36	.	.	.	TRACK, upper			1	A	
55	703-37	.	.	.	TRACK, lower			1	A	

NOTE: If the TRAY HOLDER & FRAME ASSY (703-S-19) requires further disassembly, return unit to factory.

56	103-S-13	.	.	SELECTRAY ASSY - DELUXE			1	A
57	103-13	.	.	SELECTRAY, deluxe			1	A
58	103-100	.	.	COVER, selectray (plastic)			1	A
19-1	765-S-111	.	.	PUSH BUTTON ASSY - REMOTE CONTROL			1	A
2	84-43	.	.	PLUG, remote control			1	A
3	165-293	.	.	CAP, remote control			1	A
4	165-291	.	.	BUTTON, remote control			1	A
5	61-96	.	.	WASHER, .468 x .875 x .031			1	A
6	86-37	.	.	SWITCH, indexing			1	A
7	83-28	.	.	BUSHING			1	A
8	88-79	.	.	CORD, push button			1	A
9	88-120	.	.	INSULATION, Temflex 105			1	A
10	165-205	.	.	HOUSING, remote control			1	A

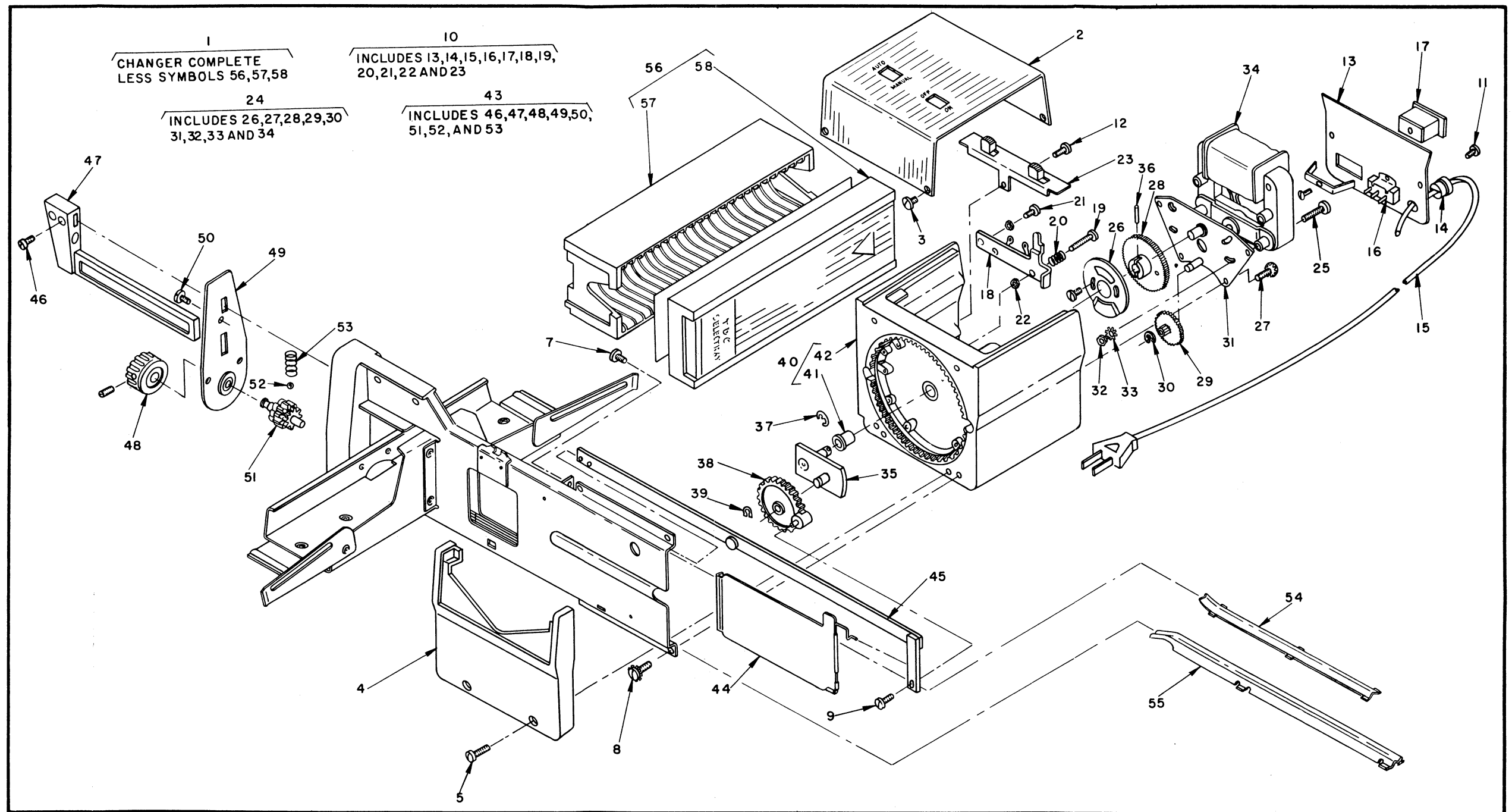


Figure 18. Exploded View of Model 703E Electric Slide Changer

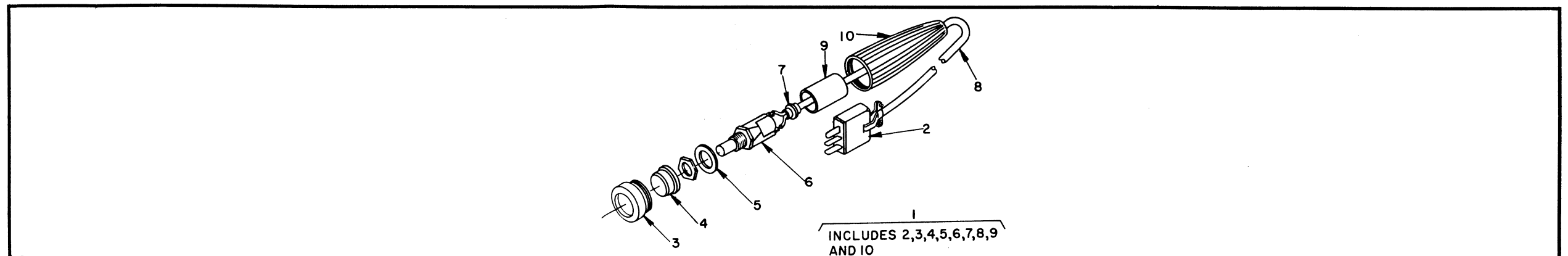


Figure 19. Exploded View of Model 765S Remote Control Push Button Assembly