TM 11-6720-239-35

TECHNICAL MANUAL

DS, GS, AND DEPOT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS

CAMERA SET, STILL PICTURE

KS-101A

HEADQUARTERS, DEPARTMENT OF THE ARMY

JANUARY 1971

TECHNICAL MANUAL

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WASHINGTON, D. C., 5 January 1971

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CHAPTER 1
FUNCTIONING

Section I. GENERAL

1-1. Scope

a. This manual covers direct support, general support, and depot maintenance for Camera Set, Still Picture KS–101A. It includes instructions appropriate to direct support, general support, and depot maintenance for troubleshooting, testing, and repairing the equipment. It also lists tools, materials, and test equipment authorized for direct support, general support, and depot maintenance. Detailed functions of the camera set are covered in the theory section.

b. The complete technical manual for this camera set includes TM 11–6720–239–12.

c. Appendix B current as of 10 August 1970.

NOTE

For applicable forms and records, refer to paragraph 1-3, TM 11-6720–239-12.

1–2. Indexes of Publications

a. Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. Refer to the latest issue of DA Pam 310–7 to determine whether there are modification work orders (MWO'S) pertaining to the equipment.

1–3. Reporting of Equipment Publication Improvements

The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL–ME–NMP–AD, Fort Monmouth, N.J., 07703.

Section II. FUNCTIONING MECHANISMS

1-4. General

The camera mechanisms include the lens and shutter assembly and the focusing mechanism (coupling between shutter and finder assembly). Paragraphs 1–5 through 1–8 describe the functioning of the camera mechanisms and flash operation. Paragraphs 1–9 and 1–10 describe the functioning of the finder assembly and the electrical circuits.

1-5. Shutter Assembly

The shutter assembly contains both electronic circuits and mechanical components. The electronic circuits adjust the shutter speed in accordance with the selected film speed and aperture opening, and the intensity of the light from the subject striking the photocell. The functional operation of the electronic circuits are discussed in section III of this chapter. The mechanical components are covered in the remainder of this section.

1-6. Function of Shutter Assembly Manual Controls

a. Film Speed Control and Lighting Selector Control (fig. 1–1). The FILM SPEED Control (aperture wheel) and the lighting selector control set the aperture opening (on the aperture wheel) and the timing circuit (determining the operating limits of the photocell), respectively. The photocell's operaing limits are controlled by the selected timing network that is in series with the photocell. The photocell, however, controls the shutter speed by varying the resistance of the timing circuit. The resistivity of the photocell is controlled by the light reflected upon it.

For each four of the FILM SPEED dial settings of the aperture wheel a bright (large) or dull

(small) opening in the aperture wheel is positioned directly in line with the lens and shutter. The aperture opening used is determined by the position of the lighting selector control.

A spring loaded detent block is connected to the actuator arm of the lighting selector control, and rides the toothed ratchet of the aperture wheel. The openings in the aperture wheel are oriented to the teeth on the ratchet.

The larger openings are slightly offset from the crest of the tooth. When the detent block is in the raised position and cradled in the trough between teeth, the larger opening to the left of the top tooth is directly in line with the lens. As long as the detent block is in the raised position, only the larger openings will be selected as the FILM SPEED dial settings of the aperture wheel are changed.

The smaller openings in the aperture wheel are slightly offset from the trough between teeth. When the detent block is in the lowered position, and cradled in the trough between teeth, the smaller opening to the left of the top tooth is directly in line with the lens.

The position of the detent block is shifted by the lighting selector control. When the lighting selector control is in the extreme left (dull) position, the detent block is in the lowered position and the tab at the top of the readout actuator assembly is against the right stop. In this position, only the smaller aperture openings are selected and the lighting selector indicator will be to the far right. When the lighting selector control is in the extreme right (bright) position, the detent block is in the raised position and the tab at the top of the lighting selector actuator assembly is against the left stop. In this position, only the larger aperture openings are selected and the readout indicator will be to the far left.

b. Shutter Cocking Arm 3 (fig. 1-2). The shutter is cocked by depressing shutter cocking lever 3. As the lever is depressed, the following actions pertinent to shutter cocking occurs:

(1) As shutter cocking lever 3 travels in a downward direction it pulls the cocking slide, and spring loaded opening blade, to the right.

(2) As the opening blade travels from left to right it carries the spring loaded closing blade with it.

(3) When the latch pin on the opening blade strikes the spring loaded blade latch, it travels up the forward edge of the blade latch and forces the blade latch down.

(4) When the latch pin clears the shoulder of the blade latch, the blade latch snaps back up locking the latch pin, and opening and closing blades, in the cocked position.

(5) As the blade latch snaps back up, it releases spring loaded timing switch S2. As the blade latch was being forced downward, it opened timing switch S2. When the blade latch snaps backup, it closes timing switch S2.

c. Shutter Release Button 2 (fig. 1-3). The cocked shutter is released when shutter release button 2 is depressed. Shutter release button 2 is connect ed to the shutter assembly by a cable assembly. When shutter release button 2 is de-

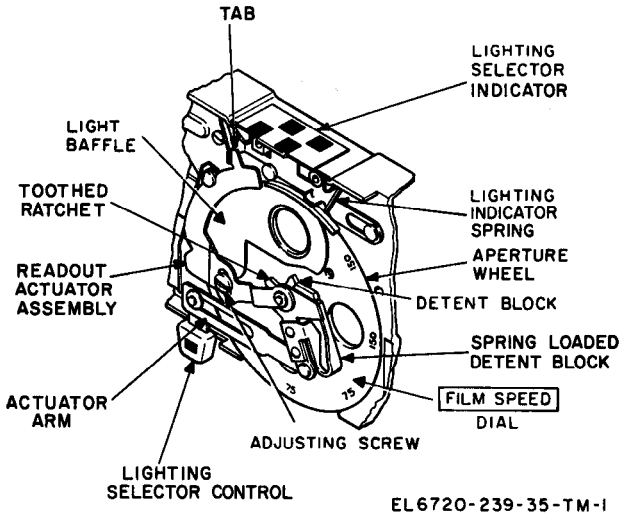


Figure 1-1. Aperture wheel and lighting selector control.

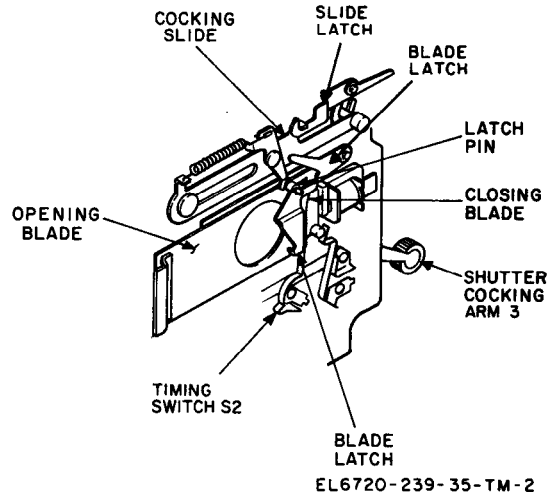


Figure 1-2. Shutter cocking mechanism,

pressed, the following actions pertinent to the shutter release occur:

(1) Force exerted on shutter release button 2, transmitted through the cable assembly to the shutter release tip, forces the shutter release tip up.

(2) As the shutter release tip travels upward, it forces normally open battery switch S1 to close, and trips the slide latch.

(3) Closing battery switch S1 completes a circuit which energizes the electromagnet. The electromagnet now holds the closing blade in its cocked position.

(4) When the slide latch is tripped, the cocking slide is released and snaps back to its original position.

(5) As the cocking slide returns to its original position, a roller on the slide strikes a tab on the blade latch, forcing the blade latch down.

(6) As the blade latch is forced down, it releases the opening blade, allowing it to snap forward. Light now passes through the aperture and the hole in the opening blade to expose the negative.

(7) As the blade latch releases the opening blade, it also opens timing switch S2. The timing circuit now begins to operate.

(8) When the average scene light has allowed the photocell to pass the correct amount of current through the timing circuit, the electromagnet is deenergized and the closing blade snaps shut.

1-7. Focusing Mechanism

a. General. The camera focusing mechanism is operated by the use of focus button 1 (right) and focus button 1 (left). The two buttons are attached to opposite sides of the focus bar assembly. The focus bar assembly is connected to the inner frame (top) by a detent slide. The inner frame (top), in turn, is connected by a shutter shaft sleeve to the shutter assembly. The inner frame (bottom) is attached to the camera body and the shutter assembly by track guides. The U-frame assembly attaches both the top and bottom inner frames by means of link pivots. The three components in turn serve to hold the shutter assembly in

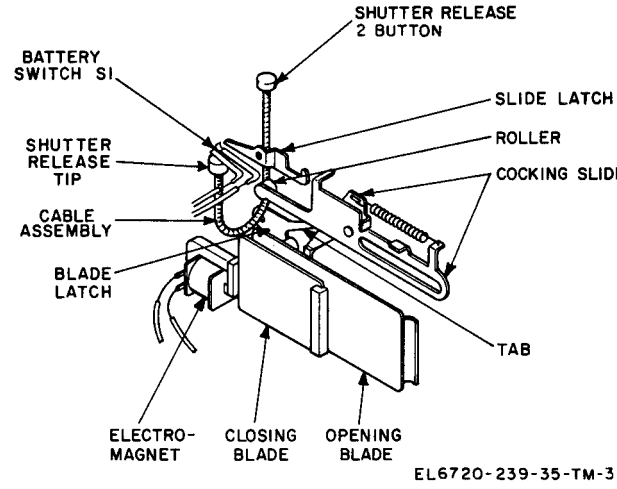


Figure 1-3. Shutter release mechanism.

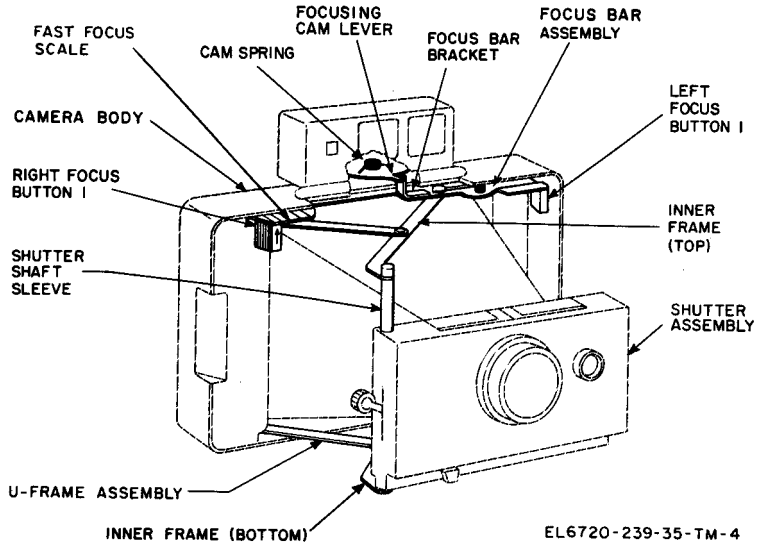


Figure 1–4. Focusing mechanism.

place. The focusing operation is accomplished as follows:

(1) When focus button 1 (right) is pushed, the focus bar assembly slides to the left, and Pulls the attached end of the inner frame (top) with it. The shutter assembly is drawn toward the camera body and the focal distance is reduced.

(2) When focus button 1 (left) is pushed, the focus bar assembly slides to the right, and pulls the attached end of the inner frame (top) with it. The assembly is pushed away from the camera body, and the focal distance is increased.

b. Focusing Mechanism. The focusing mechanism is mechanically coupled to the finder assembly by a focusing cam lever. As the focus bar assembly slides to the right, the focus bar bracket moves the focusing cam lever to the right, causing the lever to exert a strain on the cam spring. As the focus bar assembly slides to the right, the cam spring forces the focusing cam lever to the right, so that the lever is in constant contact with the focus bar bracket. The focusing cam lever is connected to the rangefinder mechanisms in the finder assembly. Refer to section III of this chapter for detailed functioning of the finder assembly.

c. *Fast Focus Mechanism.* The fast focus mechanism is used under certain conditions for fast (coarse) focusing. The fast focus scale is mounted on the focus bar bracket above focusing button 1 (right). When the focus bar bracket moves, it slides the fast focus scale past the fast focus indicator. Fiducial marks on the fast focus scale indicate approximate distance from camera to subject.

1-8. Flash Operation (fig. 1-5)

a. Flash Circuit. The mechanical components of the flash circuit are the flash switches S3, S4, S9, and S10 and the shutter sync outlet. The mechanical components operate as follows:

(1) Before the shutter is cocked, the flash switch S3 is open and the make pin on the opening blade is holding flash switch S4 closed.

(2) As the opening and the closing blades are moved toward the cocked position, flash switch S4 opens.

(3) As the two blades reach the cocked position, the break pin on the closing blade causes flash switch S3 to close and thus the closing blade is held by the electromagnet.

(4) When the shutter is tripped, the opening blade snaps forward and the make pin closes flash switch S4.

(5) Both switches are now closed. If a flashgun is plugged into the shutter sync outlet, the flash circuit is completed and the flashbulb fires,

(6) When the exposure is completed, the closing blade is released by the electromagnet thus allowing flash switch S3 to return to its normally open position. The flash circuit is now open, and the mechanical operating cycle is completed.

b. Flash Compensation. Flash compensation switch S6 is used to set the timing circuit for flash operation. Flash compensation switch S6 is normally closed, and acts as a bypass switch for two resistors in the timing circuit. When the sync connector plug of the flashgun is plugged into the shutter sync outlet, a plastic pin on the sync connector plug forces flash compensation switch S6 to open, placing the two resistors into the timing circuit. The resistors increase exposure time to compensate for the intense light from the flashbulb. Refer to paragraph 1–10 for functioning of the timing circuit.

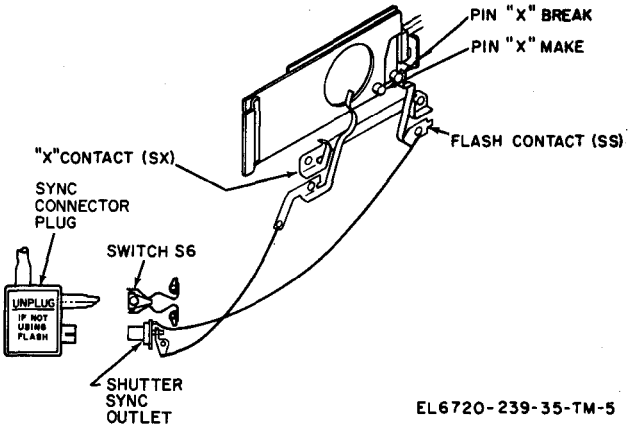


Figure 1-5. Flash operation, functioning of.

Section III. FUNCTIONING OF FINDER ASSEMBLY AND ELECTRICAL CIRCUITS

1-9. Finder Assembly (fig. 1-6)

a. Rangefinder. The light reflected from the subject strikes the objective lens and rangefinder lens simultaneously. The image projected through the objective lens and beam splitter to the eye lens

is a real, fixed image. The image striking the rangefinder lens is movable and is shifted from left to right to coincide with a portion of the fixed. image projected on the eye lens. The movable image is shifted by the focusing mechanism. This is accomplished by turning the turret assembly, upon which the movable image lens is mounted, through a small radius of arc so that the image striking the mirror is shifted to the left or right. As the range finder is focused, the following actions take place:

(1) The image passing through the rangefinder lens is inverted by the movable image lens and strikes the mirror.

(2) The inverted movable image striking the mirror is reversed by the mirror and projected through the small opening in the movable image aperture plate to the amber colored center of the magnifying frame.

(3) The movable image passing through the center of the magnifying frame is again inverted, but not reversed, and projected onto the beam splitter.

(4) The image striking the beam splitter is reversed, resulting in a real image, and projected onto the eye lens. The movable image, projected onto the eye lens is smaller than the fixed image derived through the objective lens. The fixed image occupies the entire eye lens area. The movable image occupies a small amber square superimposed on the center of the fixed image.

b. Viewfinder. The fixed image formed on the eye lens through the action of the objective lens and beam splitter, is also the viewfinder image. The Albator line, dotted amber line framing the fixed image, is formed by light passing through the sliding mask assembly. The sliding mask assembly is comprised of two movable masks which are linked together. As the camera is focused from infinity to 3½ feet, the Albator line contracts, to compensate for the reduced image size, and moves down and to the left to compensate for parallex. As the camera is focused, the following actions take place in the viewfinder.

(1) Light passes through the frosted glass and sliding mask assembly to form the Albator image.

(2) The Albator image is projected to the edge of the movable image aperture plate and reflected through the outer edge of the amber colored magnifying frame.

(3) After passing through the magnifying frame, the Albator image is reflected off the beam splitter onto the eye lens.

1–10. Electrical Circuits (fig. 1-7)

a. Shutter Circuit. Prior to taking a picture, the operator must first set the FILM SPEED dial of the aperture wheel and lighting selector control. This action closes certain contacts of light selector switch S5, located on the aperture wheel. The contact selected is determined by the position of the aperture wheel, which in turn is a function of the combined operation of the aperture wheel and lighting selector control. The closed contacts of S3 connect one of the four RC timing circuits (C1 through C4 and R4 through R8) in series with photocell V1. When the shutter is cocked battery B1 is not connected. Depressing the shutter release button causes the shutter release tip to close battery switch S1, applying battery B1 power to the magnet L1 hold and capacitor bypass circuits. In the magnet hold circuit, current flows from the positive (+) side of the battery, through battery switch S1 to one side of the coil of electromagnet L1, and through variable resistor R1 to the base of transistor Q2. As soon as the current at the base of Q2 is high enough to trigger Q2, current flows through the coil of electromagnet L1, the collector and emitter of Q2, and potentiometer R3 to the negative (-) side of the battery. The energized electromagnet holds the closing blade in its open position. In the capacitor bypass circuit, current flows from the positive side of the battery, through battery switch S1, photocell V1, resistor R6 and timing switch S2, to the negative side of the battery. Timing switch S2 bypasses the timing capacitors (C1 through C4) and resistors (R4, R5, R7, R8). Shortly after closing battery switch S1, the shutter release tip trips the slide latch releasing the opening blade and opening timing switch S2. The film is now being exposed to light, and the timing circuit is brought into operation. Opening timing switch S2 breaks the capacitor bypass circuit and the battery current is applied to timing capacitor C1, and through the applicable contacts of light selector switch S5 to the previously selected combination of timing capacitors (C2, C3, C4) and resistors (R4, R5, R7, R8). Current now flows from the positive side of the battery through battery switch S1, photocell V1, and the selected timing capacitors or capacitor/resistor combinations to the negative side of the battery. The selected capacitors now begin to charge at a rate determined by photocell V1. The photocell acts as a variable resistor which is controlled by the light shining on it. If the light shining on the photocell is bright, its resistance will be lower,

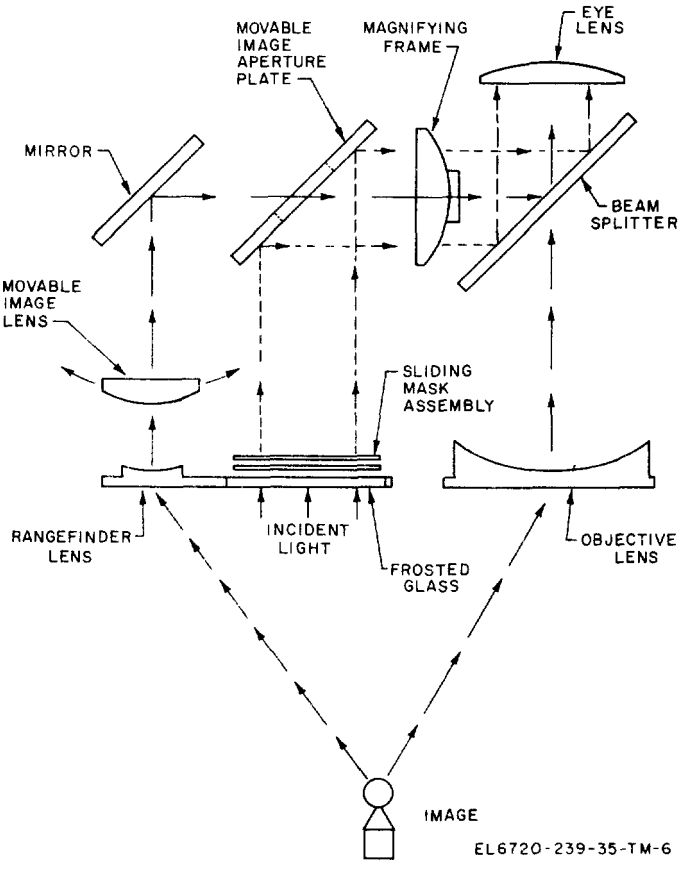


Figure 1-6. Finder assembly, optical schematic diagram.

and it will pass more current. When the selected capacitors are fully charged, the excess current is diverted through resistors R6 and R2 to the base of transistor Q1. When the current at the base of Q1 builds up to a high enough level, Q1 is triggered. Current now flows from the battery, through battery switch S1, variable resistor R1, the collector and emitter of Q1, and potentiometer R3 to the negative side of the battery. Since the collector of transistor Q1 and the base of transistor Q2 are connected (at the junction of resistor R1), Q1 draws the base current of Q2. When the current at the base of Q2 has been sufficiently reduced, Q2 is cut off. The magnet hold circuit is now broken, and electromagnet L1 is deenergized. The closing blade is released, and snaps closed. The light exposing the negative is cut off, and a picture has been taken. When the pressure on the shutter release button is removed, battery switch S1 opens, and all current is removed from the circuit. When the shutter is re-cocked, timing switch S2 is closed. The timing capacitors discharge through timing switch S2, and the shutter circuits are ready for another exposure.

b. Shutter Flash Circuit. Operation of the shutter flash circuit is controlled by flash switches S3 and S4. When the shutter is uncocked, flash switch S4 *is* held closed by the make pin on the opening blade and flash switch S3 is held open. As the shutter is cocked, flash switch S4 is released, and opens. The break pin on the closing blade forces flash switch S3 to close. When the shutter is tripped, the opening blade slides forward, and the make pin strikes flash switch S4, forcing it to close. Flash switch S3 is held closed by the break pin on the closing blade which is in the grip of the electromagnet. Thus the flash circuit is completed and will cause an attached flashgun (c below) to fire. When the closing blade is released by the electromagnet, flash switch S3 opens, and breaks the flash circuit. Since the flash circuit is only closed while the film is being exposed, there is no danger of an accidental firing of the flashgun. When a flashgun is plugged into the shutter, flash

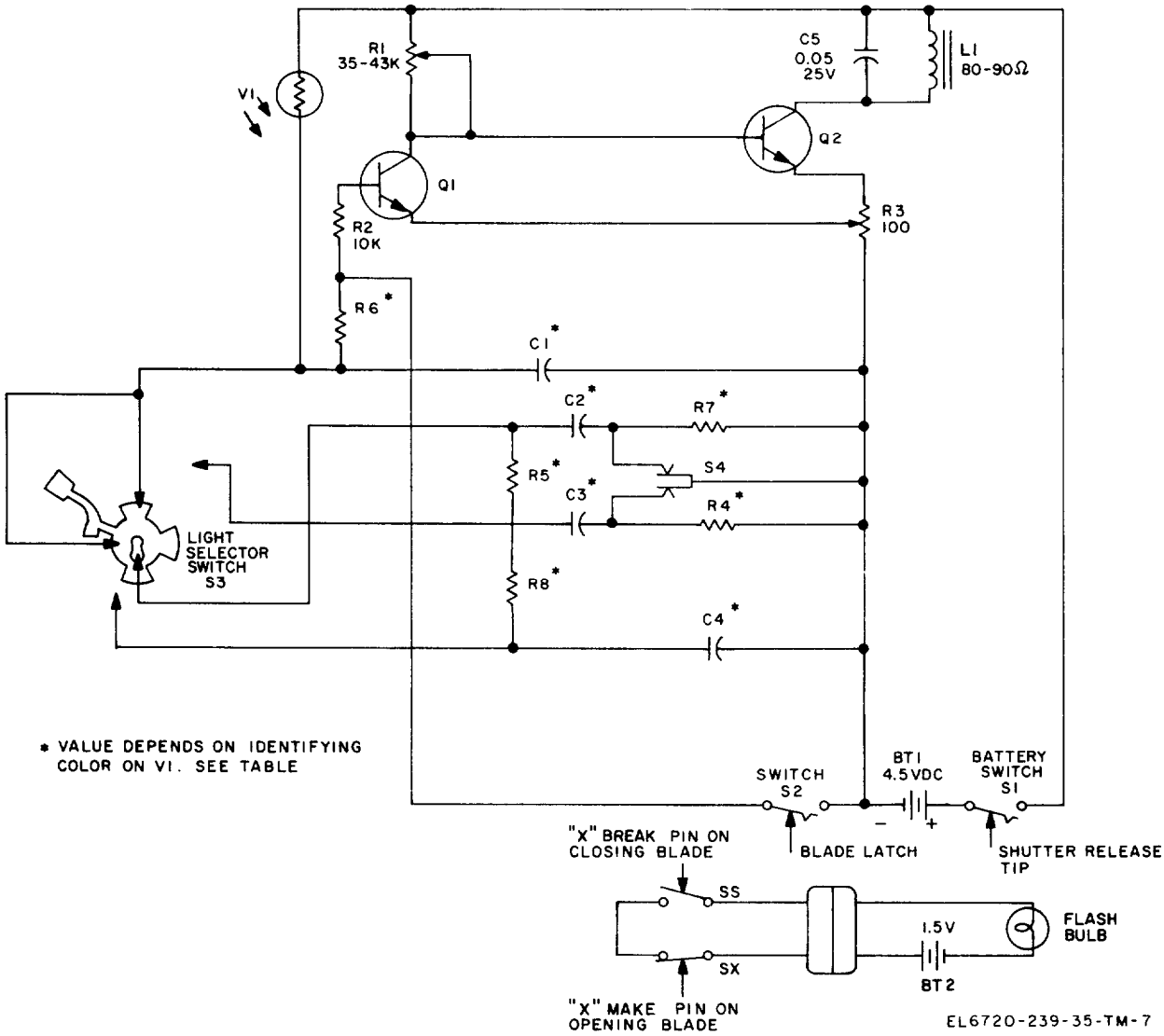


Figure 1-7. Shutter assembly, schematic diagram.

compensation switch S6 is forced open, placing resistors R4 and R7 into the timing circuit. These two resistors increase the charging time of capacitors C3 and C2. Without resistors R4 and R7 in the circuit, the intense light from the flashgun would cause photocell VI to pass too much current to the capacitors, causing them to charge too soon, and, in turn, close the shutter too soon.

c. Flashgun. The flashgun receives power from the self.-contained 1.5 volt battery B2. Current flows from the positive (+) side of battery B2 to the center terminal of the flashbulb socket. Current flows from the flashbulb socket side terminal, through the shutter connecting cable to the sync connector plug. When the flashgun is being used, the sync connector is plugged into the camera's shutter sync outlet, which is connected to the shutter flash circuit (*b* above). From the flash circuit, current flows through the shutter sync outlet, the sync connector plug and the shutter connecting cable to the negative (-) side of the flashgun battery B2.

CHAPTER 2
TROUBLESHOOTING

Section 1. GENERAL TROUBLESHOOTING INFORMATION

2-1. General Instructions

a. Troubleshooting at DS, GS, and depot maintenance levels include all the techniques outlined for organizational maintenance and any special or additional techniques required to isolate a defective part. The DS, GS, and depot maintenance procedures are not complete in themselves but supplement the procedures described in operator and organizational maintenance. The systematic troubleshooting procedure, which begins with the operational and sectionalization checks performed at an organizational level, must be completed by further localizing and isolating techniques. Paragraphs 2-5, 2-6, and 2-7 of this chapted provide unit troubleshooting procedures which must be performed at the DS, GS and depot maintenance levels.

b. Troubleshooting may be performed while the camera is fully assembled or, if necessary, after the assemblies have been removed. When trouble occurs, certain observations and operational checks can be made that will help to determine the source of the trouble. When troubleshooting is performed while the camera is fully assembled, it is usually done at the organizational level (TM 11–6720–239–12). Troubleshooting at the DS, GS, and depot levels is usually done with the assemblies removed. Paragraphs 2–3 and 2–4 describe the systematic procedures to be followed in order to isolate the cause of the trouble and correct the fault.

2–2. Organization of General Troubleshooting Procedures

a. General. The first step in servicing a defective camera set is to sectionalize the fault. Sectionalization means tracing the fault to the major assembly. Localization means tracing the fault to the defective subassembly. The third step, isolation, means tracing the fault to the defective part. Some faults, such as poor shutter response, or binding of mechanical subassemblies, can often be isolated by sight, touch, or hearing. The majority of faults, however, must be isolated by detailed electrical, mechanical, and optical checks.

b. Sectionalization Check. After the trouble has been sectionalized, make a general operational test of the suspected assembly. The general operational test serves as a check of the sectionalizing test.

(1) *Visual inspection.* The purpose of visual inspection is to locate faults without testing or measuring circuits or components. All visual signs should be analyzed to help localize the fault to a particular subchassis, stage, or unit. Mechanical faults are most often localized through visual inspection.

c. Localization. These tests listed below will aid in localizing the trouble. First, localize the trouble to a section or unit. Then isolate the trouble within that section or unit by electrical, mechanical, or optical checks as required. Use the following methods of trouble localization:

(1) *Troubleshooting charts.* The trouble symptoms listed in these charts will act as a guide in isolating the trouble in the camera component.

(2) *Optical tests.* Optical testing procedures will aid in localizing troubles within the optical system.

d. Isolation.

(1) *lntermittent troubles.* In all tests, the possibility of intermittent troubles should not be overlooked. If present, this type of trouble often may be made evident by gentle tapping or jarring the equipment. Check the wiring in the camera set for damage and/or loose connections.

(2) *Optical troubles.* Troubles in optical systems can usually be located by visually inspecting the equipment following step-by-step testing procedure. Perform the checks (2-5 *b*) and compare the results obtained with the normal.

2–3. General Troubleshooting Procedures

a. General. The troubleshooting charts list the

symptoms of, and remedies for, the most common troubles that may be encountered in the camera.

b. Preliminary Check. Before disassembling any parts of the camera, conduct a thorough and practical test to determine the conditions that might exist. Examine the section believed to be causing the trouble and note the following, where applicable:

(1) Response of shutter action.

(2) Operational test for accuracy of the optical system.

(3) Binding of mechanical components.

c. Sluggish or Stiff Operation. Sluggishness in the mechanism may be caused by foreign matter lodged in the mechanism. Stiffness in the operating controls may be caused by dust or dirt on the bearing surfaces.

2-4. Special Test Equipment and Tools Required

a. General. The chart in *b* below lists the special tools and test equipment required for troubleshooting Camera Set, Still Picture KS-101A. If a tool listed in the chart is not on hand, and the means for making it are available, refer to figure 4-3 for general information concerning such tools.

b. Special Tools and Test Equipment.

Tools and test equipment	*Mfr part No.*	*Used to*	*Figure 4-3, key*
Oscilloscope-Tektronics or equivalent	502A	Check proper shutter speed action	None
Universal riveter	113931	Fasten metal rivets	A
Cover brace guide anvil	120509	Brace rivet end during fastening	B
RF./VF. pin inserter and remover	169451	Insert and remove rangefinder hinge pins	C
Pivot stud remover and inserter	169455	Affix and remove the pivot studs	D
Shutter screwdriver	169448	Remove shutter screws and cable release cover	E
Rear lens remover	169456	Unscrew rear lens and retainer	F
Front lens remover & focusing tool	169446	Expand bezel rings & retainers for lens removal	G
Shutter release bezel remover	169449	Remove bezel from camera body	H
Bellows pliers & pad	169447	Bend tabs on camera back frame	J
Focus bar rivet remover	169454	Remove offset rivets on focus bar assembly	K
Focus bar rivet inserter	169442	Insert & round focus bar rivets	L
Link pivot remover	159450	Remove link pivots from erecting assembly	M
Link pivot inserter	169489	Insert & round the link pivots	N
Go-no-Go gauge	169453B	Check proper travel distance of components Eg: shutter release button	P

Section II. TROUBLESHOOTING CHARTS

2-5. Camera Set Troubleshooting

a. General. Usually, the general area of trouble will be obvious from the normal operation of the camera. Use the chart (*b* below) as a guide to help sectionalize or localize the trouble.

b. Camera Troubleshooting Chart.

Symptom	*Probable trouble*	*Corrections*
Bent, broken, or cracked parts. --------	Damage to an assembly ----------	Refer to troubleshooting chart for assembly.
Bellows light leaks ----------	Damaged bellows . . . . . ----------	Replace bellows (para 3-7 and 3-14).
	Defective light seal _____	Replace light seal. Refer to instructions for assembly in which obviously defective light seal is located.
Inoperative shutter _____	Dead or leaking battery Be_____	Replace B1.
	Corroded battery terminals _____	Clean battery terminals (para 3-10).
	Defective shutter --------- _____	Refer to shutter troubleshooting chart (para 2-6).
Inoperative flashgun --_,----------	Dead or leaking battery Be-- _ . . ._.. __	Replace battery B2.
	Defective flashgun ----------	Refer to flashgun troubleshooting chart (para 2-5 *c*).
	Defective shutter ----------	Refer to shutter troubleshooting chart (para 2-6).

Symptom	*Probable trouble*	*Corrections*
Incorrect focusing	Lens not properly focused	Collimate lens (para 4-7).
	Defective rangefinder mechanism in finder assembly.	Refer to finder assembly troubleshooting chart (para 2-7).

c. Flashgun Troubleshooting Chart.

Symptom	*Probable trouble*	*Corrections*
Open flash circuit	Dirty or corroded battery contacts	Clean battery contacts (para 3-10).
	Broken or cold-soldered connection	Resolder defective connection.
	Defective or broken flash connector plug.	Replace flash connector plug.
	Defective flashbulb socket	Replace flashbulb socket.

2-6. Shutter Assembly Troubleshooting

a. General. If the shutter is performing erratically, make a complete visual inspection (para. 2-2) to determine the extent of the malfunction, and to correct minor faults. If the trouble persists after the visual inspection and preliminary corrective measures have been completed, perform the complete operational test given in paragraph 4-5. Refer to the troubleshooting chart (*b* below) after performing the operation test.

b. Shutter Assembly Troubleshooting Chart.

Symptom	*Probable trouble*	*Corrections*
Both blades close together on all FILM SPEED dial settings.	*a.* Rust or foreign matter on magnet, keeper or blades.	*a.* Clean or replace dirty or rusted components (para 3-10).
	b. Magnet and keeper misaligned	*b.* Adjust magnet to realign it with the keeper (para 3-19).
	c. Bent cocking latch pin	*c.* Straighten pin or replace cocking latch para 3-12 and 3–19).
	d. Switch S1 or S2 out of adjustment	*d.* Adjust switch S1 or S2 (para 3-19).
	e. Photocell V1 shorted.	*e.* Replace photocell V1 (para 3-19 and 3-20).
	f. Open switch S1	*f.* Clean switch contacts (para 3-10).
	g, Open circuit between white battery contact and S1 contact or between S1 contact and magnet coil.	*g.* String a jumper wire between the affected contacts.
	h. Open or defective magnet coil	*h.* Replace magnet coil (para 3-6).
	i. Open circuit between bottom magnet contact and Q2 collector or between top magnet contact and positive (+) photocell contact.	*i.* String jumper wires between affected contacts.
	j. Open circuit between screw side of switch S2 and common contact of switch S6 or between S2 breaker and R6-R2 common point.	*j.* String jumper wire between affected contacts.
	k. Defective transistor Q1 or Q2	*k.* Replace Q2.
	l. Defective variable resistor R1 potentiometer R3.	*l.* Replace R1 or R3.
Closing blade stays open on all speeds	*a.* Timing switch S2 out of adjustment.	*a.* Adjust timing switch S2. (para 3-19).
	b. Second blade spring disengaged	*b.* Reattach spring to blade.
	c. Defective transistor Q1 or shorted capacitor C1.	*c.* Replace transistor Q1 or capacitor C1 (para 3-6).
	d. Open or cold-soldered Resistor R6 or R2.	*d.* Resolder or replace resistor R6 or R2.
	e. Defective potentiometer R3	*e.* Replace potentiometer R3.
	f. Open circuit between Q1 emitter and R3 wiper or Q1 collector and resistor R1 or between resistor R1 and photocell V1.	*f.* String jumper wire between affected contacts.

Symptom	*Probable trouble*	*Corrections*
Blade stays open on all speeds except 3000 when lighting selector control is set to left (dull) position.	Defective capacitor C2 . -. ---------	Replace capacitor C2.
150 Dull very fast, on 75 Dull one stop fast.	Open circuit between positive (+) C2 contact and selector switch (S5), C2 contact.	Repair connection between affected contacts.
	Dirty or defective selector switch S5 --	Clean switch rotor and contacts, adjust contacts to touch rotor.
	Defective capacitor C2	Replace capacitor C2 (para 3-6).
All speeds either too fast or too slow. -.	Incorrect trigger voltage --	Adjust potentiometer R3 or replace photocell V1 or both. (para 3-19 and 3-20).
FILM SPEED dial of aperture wheel 150 or 300 dull too fast or too slow or erratic.	Switch S2 out of adjustment-	Adjust S2 (para 3-19).
	Mechanical binding of blades --------	Replace blades. (para 3-6).
	Mechanical binding of cocking slide---	Lubricate cocking slide with lubricating wax.
	Rust or foreign matter on magnet or keeper.	Clean magnet and keeper.
	Dirty switch S6 contacts .- -.	Clean S6 contacts with fine file.
75 dull too fast, all other speeds normal.	Open circuit between positive (+) C3 contact and selector switch (S5) C3 contact.	String jumper wire between affected contacts.
	Defective capacitor C3 ----------	Replace caparitor C3 (para 3-6).
	Open Contact between S4 center contact and S4 contact connected to R4.	Clean and adjust S4 contacts.
	Open circuit in selector switch S5 between C3 contact and common contact.	Clean and adjust switch S3 contacts.
75 dull too slow . . ___	Defective capacitor C3__	Replace capacitor C3. (para 3-6).
3000 dull too fast or too slow- ----	Defective capacitor C1 ___	Replace capacitor C1. (para 3-6).
	Defective Photocell V1 --------	Replace Photocell V1. (para 3-6).
Blades close together on 3000 dull only.	Cold-soldered capacitor C1 -------	Resolder capacitor C1.
	Defective capacitor C1 __--	Replace capacitor C1. (para 3-6).
F-stop meter does not repeat within ±0.15 F-stops after inserting and removing flash plug.	Dirty or maladjusted switch S6 _	Clean and adjust switch S6.
F-stop meter varies from specified ¼ to ½ inch rise with flash plug inserted.	Defective or cold-soldered resistor R4 or R7.	Replace or resolder resistor R4 or R7, or both.
Flash test bulb does not fire_ .	Open connection in flash circuit-	String jumper wires between flash safety switch and outside contact of flash jack or between flash switch SX and inside contact of flash, jack, or both.
	Dirty or defective flash switches S3 and or S4.	Clean or replace flash switches S3 and/or S4 as required.
75/50 dull does not conform to specifications.	Incorrect trigger voltage _____	Adjust potentiometer R3 or replace photocell, or both, (para 3-19).
75/50 dull 15 only one stop fast	*a.* Defective capacitor C2 or C3 --- .	a. Replace C2 or C3 (para 3-6).
	b. Open circuits between C2 or C3 and their respective S3 contacts on light selector switch S5.	b. String jumper wires between C2 or C3 and their respective S3 contacts on switch S5.
75/50 bright and 75/300 bright too fast or too slow.	Defective capacitor C4 .. ---- ___ -----	Replace capacitor C4. (para 3-6).
75/50 bright and 75/800 bright too fast only.	*a.* Defective capacitor C4 _- --- _____	Replace capacitor C4. (para 3-6).
	b. Open circuit between positive (+) side of C4 and its contact on light selector switch S5.	String jumper wires between positive (+) side of C4 and its contact on switch S5.
75/800 dull too fast or too slow --------	Timing switch S2 out of adjustment_ ---	Adjust timing switch S2. (para 3-19).

2-7. Finder Assembly Troubleshooting

a. General. Most of the finder assembly troubles will be obvious and can be localized during normal operation. Use the chart (*b* below) as a guide in isolating trouble.

b. Finder Assembly Troubleshooting Chart.

Symptom	*Probable cause*	*Correction*
Viewfinder image, superimposed image, or albator image missing.	Broken optical component ----------	Replace broken component (para 3-9).
Line across image ----------	Cracked optical component ----------	Replace damaged component.
Rangerfinder and movable mask inoperative.	*a.* Broken cam lever ----------	*a.* Replace cam lever (para 3-9).
	b. Broken cam spring ----------	*b.* Replace cam spring (para 3-9).
Rangefinder only inoperative	Broken cantilever, cantilever spring, tunet, or tunet spring.	Replace broken component.
Mask assembly only inoperative --------	*a.* Sliding mask lever or spring broken--	*a.* Replace broken component (para 3-9) .
	b. Bent movable mask ----------	*b.* Replace movable mask.

CHAPTER 3
PARTS REPLACEMENTS AND REPAIRS

Section I. DISASSEMBLY

3–1. Parts Replacement Techniques

The parts in the camera body, bellows assembly, and back cover can be easily replaced without special procedures. The finder and shutter assemblies are much more fragile and must be handled accordingly.

a. When working on the finder assembly, be extra careful to avoid damage to lenses and polished mirror surfaces, Many parts in the finder assembly are held in place by epoxy. Be sure that all epoxy has been removed before attempting to remove a part; check carefully for pieces of epoxy on contact surfaces before replacing any parts.

b. When disassembling an assembly or subassembly, group associated mechanical parts, hardware, and springs together. To facilitate reassembly procedures, arrange the parts in the order in which they were removed.

c. The shutter is transistorized. Use a pencil type soldering iron with a 25-watt maximum capacity. If the iron must be used with ac, use an isolating transformer between the iron and the line. Before using a soldering iron, check the iron for shorts to the tip. Do not use a soldering gun or damaging voltages may be induced in circuit components. Use a heat sink (such as long nosed pliers) when soldering transistor leads.

d. Several plastic parts are held in place by heat seals. To attach or remove these parts, use a pencil type soldering as mentioned in the preceding paragraph.

CAUTION

Excessive heat will cause distortion of plastic parts.

3–2. Considerations Before Disassembly and Reassembly

Disassemble the equipment only as far as it is necessary to reach a defective part. Use the troubleshooting procedures (chap 2) to trace the trouble to an assembly and then refer to the paragraph containing disassembly instructions for the defective assembly.

Complete disassembly of the equipment is rarely required. However, the complete disassembly procedure is given in paragraphs 3-2 through 3-9 for use when needed. Reassembly procedures are given in paragraphs 3-12 through 3-18. Disassemble cemented, heat sealed, and/or riveted parts only when it is absolutely necessary. Be extremely careful, when performing this type of disassembly, not to damage adj scent parts.

a. Base Block and Electronic Block Mounting Assemblies. The base block and electronic mounting block assemblies, located inside the shutter assembly, are accessible while the shutter assembly is attached to the camera. To gain access to the base block and electronic mounting block assembly, refer to paragraphs 3-5 and 3-6.

b. Back Cover. Most back cover repairs can be made while the back cover is attached to the camera body.

3–3. Removing Camera Subassemblies (fig. 3-1)

a. Before disassembly, open the camera. as follows :

(1) Open the camera cover (1) by gently lifting the cover flap and allow the cover to hang down from body assembly (2).

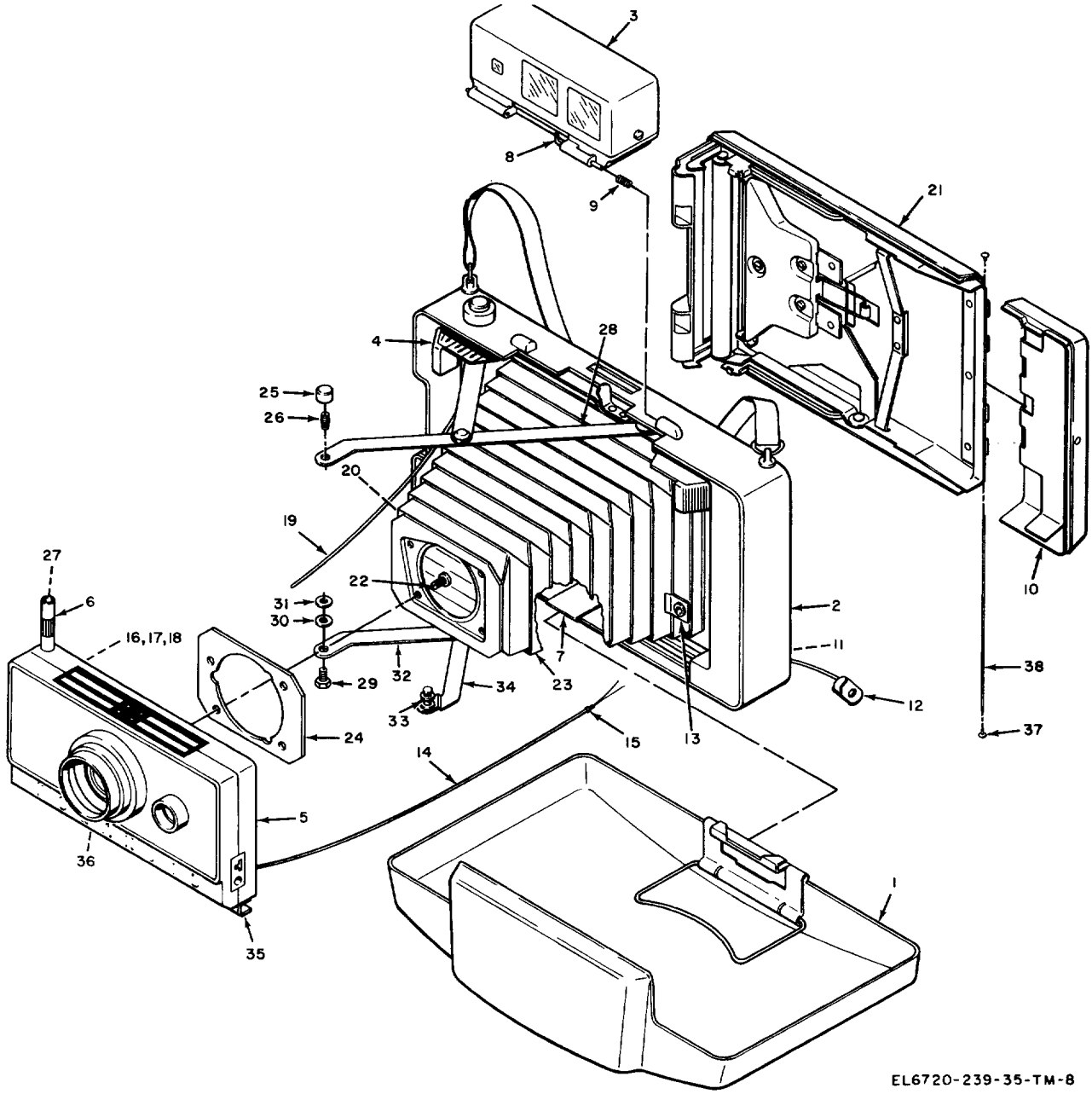
(2) Raise the finder assembly (3) io its upright position.

(3) Gently lift up on the focus button (right) (4) to release the shutter assembly (5) from the body assembly (2).

(4) Extend the bellows assembly (23) by pulling the shutter shaft sleeve (6) outward.

b. Lift the mounting clip hinge (7) and pull off front cover assembly (1).

c. Fold the finder assembly (3) down.



1 Front cover assembly (camera cover) (All)
2 Body assembly (A4)
3 Rangefinder/viewfinder (finder) assembly (A32)
4 Focus button (right) (MP28)
5 Shutter assembly (A42)
6 Shutter shaft sleeve (MP194)
7 Mounting clip hinge (MP37)
8 Hinge pin-left (H62)
9 Rangefinder body spring (H144)
10 Rear cover assembly (A15)
11 Battery interlock assembly (A27)
12 Positive battery terminal (BT1-1)
13 Flash wire tab assembly (A3)
14 Battery wire assembly (A58)
15 Banding clip (H44)
16 Release cover screws (H137)
17 Shutter fastening screws (H138)
18 Cable release cover (MP185)
19 Shutter release casing
20 Cable release wire tab (MP3)
21 Rear door assembly (A15)
22 Bellows screws (H1)
23 Bellows assembly (bellows) (A2)
24 Front frame light seal (MP1)
25 Detent (MP195)
26 Detent stud (H145)
27 Shutter shaft (MP188)
28 Inner frame top (MP31)
29 Shutter shaft screw (H147)
30 Bowed washer (H144)
31 Flat washer (H146)
32 Inner frame bottom (MP15)
33 Shutter mount spring rivet (H22)
34 U-frame assembly (A9)
35 Shutter mount (MP186)
36 Shutter mount spring (MP187)
37 Hinge plug (H29)
38. Hinge pin (H28)

Figure 3-1 . Camera set disassembly.

d. Using the rangefinder/viewfinder remover and inserter tool, disengage the left hinge pin (8).

e. Slide the finder assembly to the left and lift it off of the body assembly (2).

f. The rangefinder body spring (9) is now disengaged and can be removed.

g. Open the rear cover assembly (10), slightly collapse the bellows assembly by pressing the inner frame top (28) down and pushing inward on the shutter assembly (5).

h. Gently pull the positive battery terminal wire (12) (white) and simultaneously work the battery wire assembly (14) through the body assembly (2) into the battery compartment until the banding clip (15) is accessible. Remove the banding clip (15) from the wire end.

i. Unsolder the negative battery terminal wire (black) from the battery interlock assembly (11).

j. Clip -the white wire of the battery wire assembly (14) approximately 1½ inches from the positive battery terminal (12). Pull the battery wire assembly (14) through the hole in the body assembly (2) and the flash wire tab assemblies (13).

k. Loosen the two release cover screws (16) and the one shutter fastening screw (17) enough to slip the shutter release casing (19) from under the cable release cover (18).

l. Pull the shutter release casing (19) through the cable release wire tab (20).

m. Open the rear door assembly (21) and remove the four bellows screws (22) which secure the bellows assembly (23) to the shutter assembly (5).

n. The front frame light seal (24) is now loose and should be removed.

o. Remove the detent (25) and the detent stud (26) from the shutter shaft (27).

p. Remove the inner frame top (28) from the shutter shaft (27).

q. Remove the shutter shaft screw (29) and move the inner frame bottom (32) to one side. Bowed washer (30) and flat washer (31) are now loose and can be removed.

r. Slide the shutter mount spring rivet (33) along the slot in shutter mount (35) to elongated hole.

s. Slip off shutter mount spring (36) and drop the U-frame assembly (34) through the elongated hole in the shutter mount (35).

t. The shutter assembly (5) is now separated from the body assembly (2).

u. Remove the two hinge plugs (37).

v. Push out the hinge pin (38) and lift off the rear door assembly (21) and the rear cover assembly (10).

3-4. Disassembling the Front Cover (fig. 3-2)

a. Remove the two latch plate screws (1) and lift off the latch plate (2).

b. Using a 1/16-inch drift pin, push out the mounting plate hinge pin (3) and lift off the mounting clip hinge (4).

c. If it is necessary to remove the mounting plate hinge (8), grasp the clip (6) to hold clip spring (7) in place and remove two mounting plate hinge rivets (5), Carefully lift the clip (6), the clip spring (7), and the mounting plate hinge (8) off of the front cover assembly (9).

3–5. Disassembling the Shutter Assembly (fig. 3-3)

a. Remove the two shutter fastening screws (1) and the one long shutter fastening screw (2) ; carefully separate the shutter front casting assembly (3) from the shutter rear casting assembly (4).

b. Carefully peel off the top etch plate (5).

c. Remove the two base block mounting screws (6&7) and the two module mounting screws (8).

d. Lift off the base block and electronic mounting block assembly (9) and front casting light seal (10).

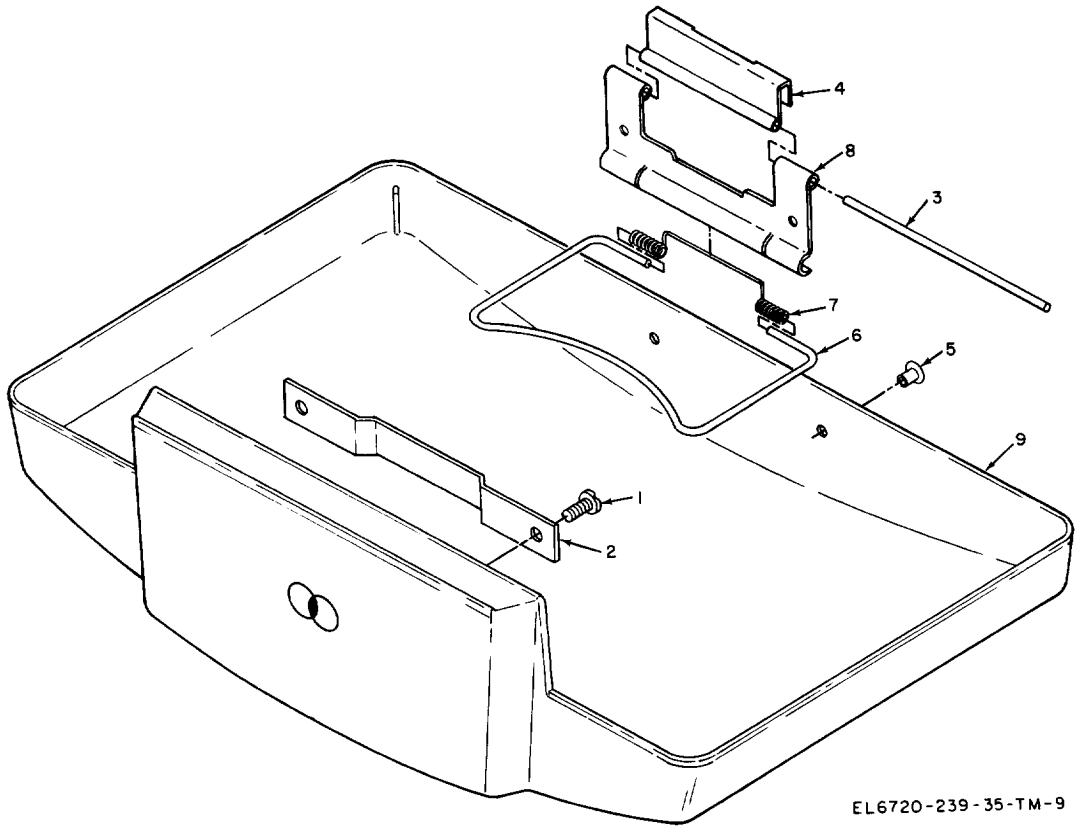
e. Insert a small jeweler's screwdriver over the lip of the shutter front casting assembly (3) and under the edge of the front decorative plate (11).

f. Carefully pry off the front decorative plate (11).

g. Lift off the bezel friction spring (12) and the bezel assembly (13 through 17).

h. Set the bezel assembly (13 through 17) face down on a table and hold down firmly.

i. Using a screwdriver, pry up the three tabs on the bezel cap (13).



1 Latch plate screws (H27)
2 Latch plate (MP39)
3 Mount plate hinge pin (H25)
4 Mounting clip hinge (MP37)
5 Mounting plate hinge rivet (H26)
6 Clip (H24)
7 Clip spring (MP36)
8 Mounting plate hinge (MP38)
9 Front cover assembly (All)

Figure 3-2. Front cover disassembly.

j. Slowly release the tension on the bezel spring (16) and lift bezel cap (13), the center ring (14), the outer ring (15), and the bezel spring (16) off of the bezel (17).

k. Using the front lens remover and focusing tool, unscrew the f rent lens mount assembly (18).

l. Insert a small jeweler's screwdriver into the serrations on the inside of the cell lens retainer (19) and carefully pry up.

m. Remove the cell lens (20).

n. Carefully pry off the retaining ring (21) and remove the actuator arm spring (22).

o. If necessary drill out the two shoulder rivets (23) and remove the actuator arm pivot pin (24).

p. Lift off the cell wedge (25) and the flash filter actuator assembly (26).

q. If it is necessary to remove the cell lens mount (27), use a soldering iron, soften the plastic seal on the cell lens mount (27) and lift off the cell lens mount (27) and the wave washer (28).

r. Lift out the shutter shaft sleeve (29) and the shutter shaft (30), The shutter mount spring (31) will drop off.

s. Remove the two release cover screws (32) and remove the cable release cover (33).

t. If it is necessary to remove the release block retainer (34) and the shutter release block (35) use a soldering iron and carefully soften the plastic heat seal on the shutter release block (35).

u. Remove the shutter gasket (36) and the electronic mounting board insulator (37).

v. Using the rear lens remover tool, carefully remove the lens retainer (38) and the rear positive lens (39).

w. Remove the shutter mount screw (40) and lift off the shutter mount (41).

3-6. Disassembling the Base Block and Electronic Mounting Block Assemblies

a. Base Block Assembly (fig. 3-4). Separate the base block assembly from the electronic mounting block assembly as follows:

(1) Unsolder the flexible circuit assembly (17, fig. 3-5) from the battery switch S1 contacts (56 and 58, fig. 3-4), magnet terminals (59), timing switch S2 contacts (65 and 70), and the flash contact (72).

(2) Remove the retaining rings (1 and 2) securing the lighting selector assembly (readout actuator assembly (3 through 13)) and the aperture wheel assembly (15). Lift off the readout actuator assembly.

(3) If necessary, remove the two rivets (9) and lift off the aperture detent (10) and aperture detent block (11).

(4) Remove the scene selector slider pivot (12) ; separate the scene selector slider (3), the aperture detent mounting arm (13), and the aperture wheel spacer (14).

(5) Remove the aperture wheel adjusting screw (7) and lift off the lockwasher (8) and the readout actuator (6).

(6) Remove the two screws (18) and lift off front light baffle (19), aperture wheel assembly (15), and the rear light baffle (20).

(7) If necessary carefully pry the capacitor switch (16) off of the aperture wheel (15).

(8) Remove the retaining ring (21) and disconnect the cocking arm spring (23). Lift off the cocking arm (22), the cocking arm spring (23), the cocking arm bushing (24) and, if necessary, the cocking arm pivot (25).

(9) Manually cock the shutter by moving the cocking slide (32) to the left.

(10) Remove the stop bracket cap (26) and if necessary, using a 1/16-inch drift pin, drive out the rivet (27).

(11) Slide out the closing blade stop bracket assembly (28). If necessary the stop block (30) and the shock pad (29), which are glued to the closing blade stop bracket assembly (28) may now be removed.

(12) Trip the shutter; remove the retaining pin (31) and lift out the cocking slide (32). Component parts of the cocking slide assembly (32-39) can now be disassembled as necessary.

(13) Remove the oval head rivet (40), the blade spring retaining washer (41), and the opening blade spring (42).

(14) Manually lowering the blade latch (51), raise the flash make "X" contact (73) and slide the opening blade (43) and the closing blade (44) out of the base block (98).

(15) After disengaging the cocking slide latch spring (46), carefully remove the retaining ring (45) and the cocking slide latch spring (46) ; lift off the cocking slide latch (47) and attached cocking slide latch bushing (48). If necessary the cocking slide latch pivot (49) can now be removed.

(16) Disengage the blade latch spring (53). Carefully remove the retaining ring (50) and lift off the blade latch (51) (with attached blade latch bushing (52), the blade latch spring (53), and, if necessary, the blade latch pivot (54)).

(17) If necessary drive out the oval head rivet (55) and separate the top contact (56), the switch insulator (57), and the bottom contact (58).

(18) Remove the two magnet screws (59) and magnet nuts (60). Lift off the assembled parts (61, 62, and 63). If necessary, carefully bend one of the bobbin terminals (61) and slide the bobbin (63) off of the magnet (62).

(19) Carefully remove the oval head rivet (64) and lift off the breaker contact (65).

(20) Unsolder the electrical connection on the adjustable contact (70) and disengage the adjustable contact spring (67). Remove the insulator (66) and the adjustable contact spring (67), and the flat insulator (68). If necessary drive out the rivet (69) and remove the adjustable contact (70) and the adjustable contact screw (71).

(21) If necessary, remove the flash contact-break (72).

(22) If necessary, remove the contact (73).

(23) If necessary, remove the connector strip insulator (74) and the connector strip (75).

(24) If necessary, remove the oval head rivets (76) and lift off the capacitor contact light seal (77), the capacitor outer-contact (78), and the insulator (79).

(25) If necessary, remove the bumper eyelet (80) and the bumper (81).

(26) If necessary, remove the rivets (82) and lift off the spring adjustment stop (83)

(27) Drive out the two readout indicator slide pins (84) and remove the readout indicator (85) and readout indicator spring (86).

(28) If necessary, remove the oval head rivet (87) and lift off the blade spring retaining washer (88) and the closing blade spring (89).

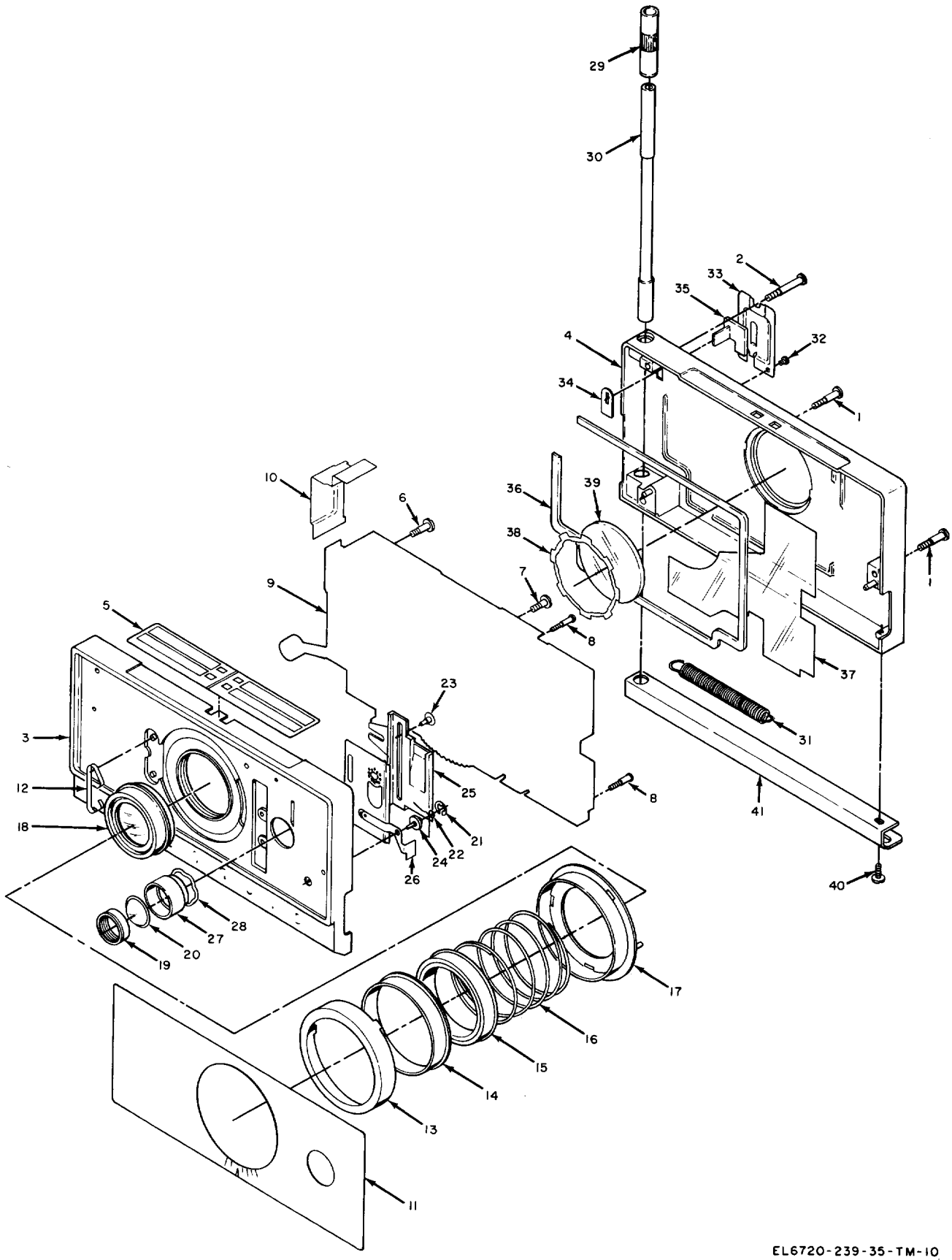


Figure 3-3. Shutter disassembly.

1 Shutter fastening screws (H138)
2 Shutter fastening screw (long) (H139)
3 Shutter front casting assembly (A61)
4 Shutter rear casting assembly (A65)
5 Top etch plate (MP115)
6 Base block mounting screw (H135)
7 Base block mounting screw (short) (H136)
8 Module mounting screws (H132)
9 Base block and electronic mounting block assembly (A43)
10 Front casting light seal (MP114)
11 Front decorative plate (MP173)
12 Bezel friction spring (MP172)
13 Bezel cap (MP175)
14 Center ring (MP177)
15 Outer ring (MP178)
16 Bezel spring (MP176)
17 Bezel (MP174)
18. Front lens mount assembly (A64)
19 Cell lens retainer (MP171)
20 Cell lens (MP169)
21 Retaining ring (H118)
22 Actuator arm spring (MP180)
23 Shoulder rivets (H134)
24 Actuator arm pivot pin (MP179)
25 Cell wedge (MP181)
26 Flash filter actuator assembly (A63)
27 Cell lens mount (MP170)
28 Wave washer (H133)
29 Shutter shaft sleeve (MP194)
30 Shutter shaft (MP188)
31 Shutter mount spring (MP187)
32 Release cover screws (H137)
33 Cable release cover (MP185)
34 Release block retainer (H142)
35 Shutter release block (MP193)
36 Shutter gasket (H143)
37 Electronic mounting board insulator (E16)
38 Lens retainer (MP189)
39 Rear positive lens (MP190)
40 Shutter mount screw (H140)
41 Shutter mount (MP186)

Figure 3-3. Shutter disassembly-Continued.

(29) If necessary, drill out the rivets (90) and lift off the actuator detent spring (91).

(30) If necessary, remove the actuator detent pin (92) and lift off the actuator detent roller (93).

(31) If necessary, remove the oval head rivet (94) and lift off the capacitor inner contact (95).

(32) If necessary, remove the oval head rivet (96) and lift the capacitor common contact away from base block (98).

b. Electronic Mounting Block Assembly (fig. 3–5). All electronic components are readily accessible, and can be removed individually without special techniques. When soldering or unsoldering components, observe the precautions listed in paragraph 3-1 *c.* To completely disassemble the electronic mounting block assembly, proceed as follows :

(1) Carefully unsolder and remove the electronic components (1 through 16).

(2) Lift off the flexible circuit assembly (17), flexible circuit insulator (18), and the electronic mounting board insulator (19).

(3) If necessary, remove the three oval head rivets (20), and lift the flash compensating common contact (21), flash compensating upper contact (22), and flash compensating lower contact *(23)* from electronic mounting block (24).

3-7. Disassembling the Body/Bellows Assembly

(fig. 3-6)

a. Disassemblg, Stage 1.

(1) Using bellows pliers tool, lift up the 14 tabs on the back frame of the bellows assembly (1) and lift the bellows assembly off of the body assembly (2).

(2) The bellows light seat (3) is now loose, and can be removed.

(3) Using the shutter release bezel remover tool pull off the shutter release bezel (4).

(4) Lift out the shutter release bushing assembly (5) and outer frame top spacer (6).

(5) Cut off the shutter release tip (7).

(6) Lift off the shutter release knob (8) and the shutter return spring (9).

(7) Using the link pivot remover tool, remove the two link pivots (12) and remove two link pivot spacers (13) and U-frame assembly (14).

(8) Lift off the outer frame bottom spacer (10) and the spring washer (11).

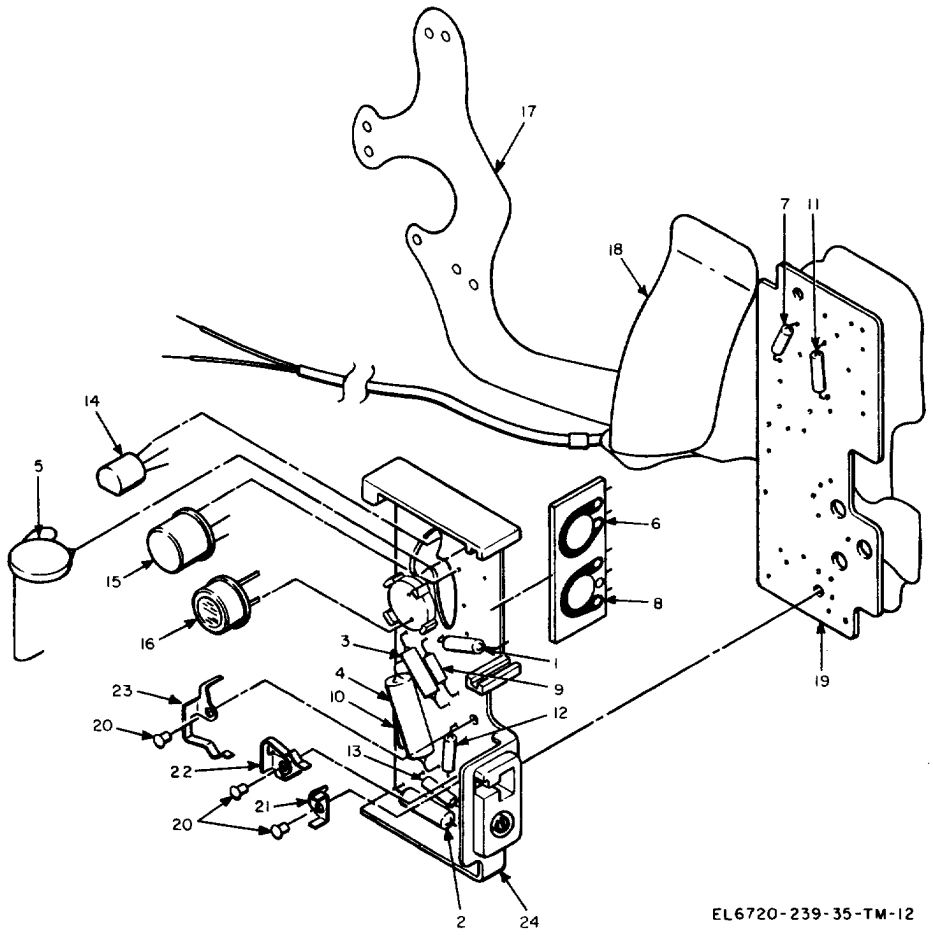
(9) Pivot the inner frame bottom (15) to the right and lift it out.

(10) If necessary, drill out the rivet (16) and remove track guide (17).

(11) If necessary, drill out the brake rivet (23) and remove the brake washer (24), the brake sleeve (25), and the brake spring (26).

Figure 3-4. Baseblock disassembly.

Located in back of manual.



1 Capacitor (C1)
2 Capacitor (C2)
3 Capacitor (C3)
4 Capacitor (C4)
5 Capacitor (C5)
6 Variable resistor (R1)
7 Resistor (R2)
8 Variable resistor (R3)
9 Resistor (R4)
10 Resistor (R5)
11 Resistor (R6)
12 Resistor (R7)
1 3 Resistor (R8)
1 4 Transistor (Q1)
1 5 Transistor (Q2)
1 6 Photocell (V1)
1 7 Flexible circuit assembly (A60)
1 8 Flexible circuit insulator (P/O A60)
1 9 Electronic mounting board insulator (E16)
2 0 Oval head rivets
2 1 Flash compensating common-contact (P/O S6)
2 2 Flash compensating upper-contact (P/O S6)
2 3 Flash compensating lower-contact (P/O S6)
2 4 Electronic mounting block (MP167)

Figure 3–5. Electronic mounting block disassembly

(12) Drill out the two focus bar rivets (18), and lift out the focus bar assembly (27 through 38).

(13) Remove the right focus bar sleeve (19) and the right focus bar washer (20).

(14) Remove the left focus bar sleeve (21) and the left focus bar bushing (22).

(15) Slide off the detent slide spring (27).

(16) If necessary, drill out the detent slide rivet (28) and remove the detent slide (29) and the inner frame top (30).

(17) If it is necessary to remove the right and left focus buttons (34 and 35), lift off the zone focus plate (31) and focus bar plate (32) and drill out the two focus buttons rivets (33).

(18) If necessary, drill out the two rivets (36) and lift the focus bar bracket (37) off of the focus bar (38).

Figure 3-6. Body/Bellows disassembly.

Located in back of manual.

(19) If necessary, carefully pull off the two flash wire tab assemblies (39) and the one cable release wire tab assembly (40).

(20) If necessary, drill out the shutter mount spring rivet (41) and remove the shutter mount bushing (42).

b. Disassembly, Stage 2 (fig. 3-6).

(1) Using a screwdriver, carefully push out the slot cover (43).

(2) Remove the two D-rings (44), and lift off the neck strap assembly (45).

(3) Remove the magnet pivot (46), and lift off the two pole pieces (47), the magnet (48), and the magnet spring (49).

(4) Disconnect and remove the battery (50) ; remove the battery clip screw (51) and lift out the battery clip (52).

(5) Remove the rear cover latch screw (53) and lift out the rear cover latch (54) and the center retainer (55).

(6) Remove the two guard fasteners (56), and lift off the left guard (57).

(7) If necessary, drill out the spring contact rivet (58) and lift out the battery interlock assembly (59).

(8) If necessary, drill out the four rivets (64) and lift off the light seal assembly (65).

(9) If necessary drill out the three rivets (66), and lift off the stationary hinge (67).

(10) If necessary, drill out the two spring stop rivets (60) and lift off the left and right fillers (61 and 62) and spring stop (63).

(11) Using pin punch, push out the right guard (68).

(12) Remove the screw (69) ; drop the release arm (70) down and remove it.

(13) Lift out the release latch (71) and the release latch spring (72).

(14) Remove the latch pivot (73) from the release latch (71).

(15) Remove the two tab strip bar screws (74) and lift off the tab strip bar (75).

(16) If necessary drill out the outer frame bottom pivot pin (76), the two strap lugs (77), and the two pivot pads (78).

(17) If necessary drill out the two rivets (79), and lift off the mounting plate spring (80).

3-8. Disassembling the Back Cover

(fig. 3-7)

a. Using the pivot stud remover and inserter tool, remove the two exit door pivot studs (1). Remove the spring (2) and lift off the exit door assembly (3).

b. Drill out the four rivets (4), and lift off the roll latch (5) and the rear door (6).

c. Remove the three rivets (7), and lift off the rear door hinge (8).

d. Remove the two rivets (9), and lift off the door spring (10).

e. Remove the two rivets (11), and detach the two roll frame springs (12).

f. Remove the three screws (13). Twist the slide block cover (14) one-half turn in either direction and lift it off. Lift off the slide block link (15).

g. Remove the camera body shaft (16) and lift off the two springs (17), and the edge control bar assembly (18).

h. Release and remove the slide block spring (19) and the slide block assembly (20).

i. Remove the four rivets (21) and lift off the two side plates (22).

j. Remove the three rivet (23) and lift off the exit cover frame assembly (24).

k. Detach and remove the rear roller (25) as follows :

(1) Grasp the tab on roller support frame (32) with the left hand, with the thumbs resting against the f rent roller (26).

(2) Grasp the rear roller (25) with the right hand and pull it to the front and up, to release and remove the rear roller.

l. Detach and remove the front roller (26) as follows :

(1) Grasp the front roller (26) and the left front roller support (27).

(2) Pull the front roller and the left front roller support in opposite directions, applying equal force in both directions. Lift the end of the front roller and its bushing out of the roller support.

(3) Lift out the front roller (26).

m. Remove the roller bushings (27) from each end of the rear roller (25) and the f rent roller (26).

n. Remove the two spread roller springs (28) as follows :

(1) Grasp the roller support frame (32),

with the forefingers resting on the two spread roller springs (28).

(2) With the forefingers, compress the springs and push them away from the roller support frame. Once the springs are clear of their retainer tabs, the ends of the springs will pop up.

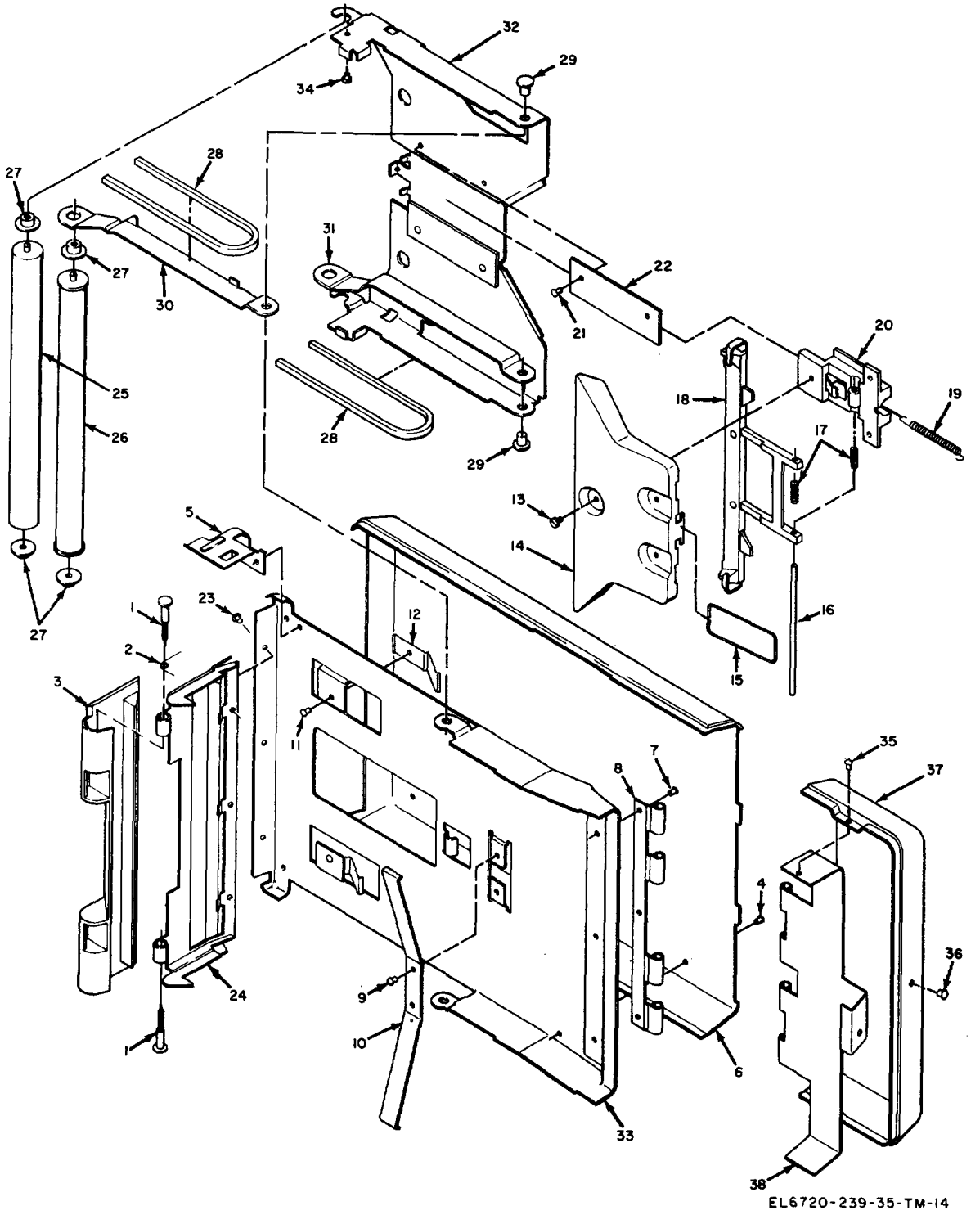


Figure 3-7. Rear door and rear cover disassembly.

1 Exit door pivot stud (H34)
2 Exit door pivot spring (MP48)
3 Concealed door 4 exit door assembly (A19)
4 Rivet (H31)
5 Roll latch (MP43)
6 Rear door (MP42)
7 Rivet (H32)
8 Door hinge (MP45)
9 Rivet (H32)
10 Door spring (MP50)
11 Spring stop rivet (H35)
12 Roll frame spring (MP51)
13 Screw (H36)
14 Slide block cover (MP66)
15 Slide block link (MP67)
16 Camera body shaft (MP62)
17 Locating spring (MP63)
18 Edge control bar assembly (A16)
19 Slide block spring (MP64)
20 Slide block assembly (A21)
21 Rivet (H32)
22 Slide plate (MP54)
23 Rivet (H33)
24 Exit cover frame assembly (A18)
25 Rear roller (MP58)
26 Front roller (MP60)
27 Roller bushing (MP59)
28 Spread roller spring (MP61)
29 Spread roller rivet (MP57)
30 Right front roller suport (MP55)
31 Left front roller suport (MP56)
32 Roller support frame (MP52)
33 Rear door spider (MP44)
34 Latch pin (MP53)
35 Rivet (H30)
36 Rivet (H31)
37 Rear cover assy. (A15)
38 Rear cover spider (MP41)

Figure 3-7. Rear door and rear cover disassembly-Continued.

(3) Successively grasp each spring by its radius. Pull downward, pivoting the spring out of the roller support frame (32).

o. Remove the two spread roller pivots (29) and lift off the right front roller support (30) and the left front roller support (31).

p. Lift the roller support frame (32) off of the rear door spider assembly (33).

q. Remove the latch pin (34).

r. If necessary, the rear cover assembly (35 through 38) can be disassembled by removing the rivets (35 and 36) and separating the rear cover (37) from the rear cover spider (38).

3-9 Disassembling the Finder Assembly (fig. 3-8)

a. Remove the two cover screws (1) from the cover (2), and lift off the cover.

b. Remove the two screws (3) from the cover plate (4), and lift off the cover plate.

c. Remove the three screws (5) from the base plate (6), and drop the base plate down.

d. Push out the base plate slot plug (7), and the two hinge pins (8 and 9).

e. Remove the retaining ring (10), and drop down cam (11), cam spring (12), and cam guide (13).

f. Remove the retaining ring (14), and drop the cantilever subassembly (15) and the bushing (25) down.

g. Remove the retaining ring (16), and lift off the movable image lens spring (17).

h. Remove the adjusting screw (18) and lift off the spring (19) and the roller (20).

i. Remove the three screws (21), and lift lens (22) off lens holder (23). Remove the adjusting screw (24).

j. Remove the E-ring (26) and the sliding mask lever (27) (with the screw (28), and the sliding mask lever spring (29), the retaining ring (30), and the sliding mask interlock (31) attached).

k. Remove the retaining ring (30) and lift off the sliding mask interlock (31).

l. Carefully remove the epoxy and loosen the adjusting screws holding the rangefinder lens (32) in place. Lift out the rangefinder lens and the two spring shims (33).

m. Remove the two screws (34), and lift off the two eccentric bushings (35 and 36), the sliding mask subassembly (37), and the parallax mask subassembly (38).

n. If necessary, carefully remove the epoxy and loosen the adjusting screws holding the objective lens (39) in place. Lift out objective lens and two spring shims (40).

o. If necessary, carefully remove the epoxy and loosen the adjusting screws holding the beam splitter (41) in place. Lift out the beam splitter and the beam splitter spring (42).

p. If necessary, carefully remove the epoxy and loosen the adjusting screws holding the eyelens (43) in place. Lift out the eyelens (41) and the spring shim (44).

q. If necessary, carefully remove the epoxy and loosen the adjusting screws holding the magnifying lens (45) in place. Lift out the magnifying

lens (45), the spring shim (46), and the cover plate (47).

r. If necessary, carefully remove the tube (48) from the magnifying lens (45).

s. If necessary, carefully remove the epoxy holding the movable image aperture plate (49) in place. Lift out the movable image aperture plate (49) and the spring (50).

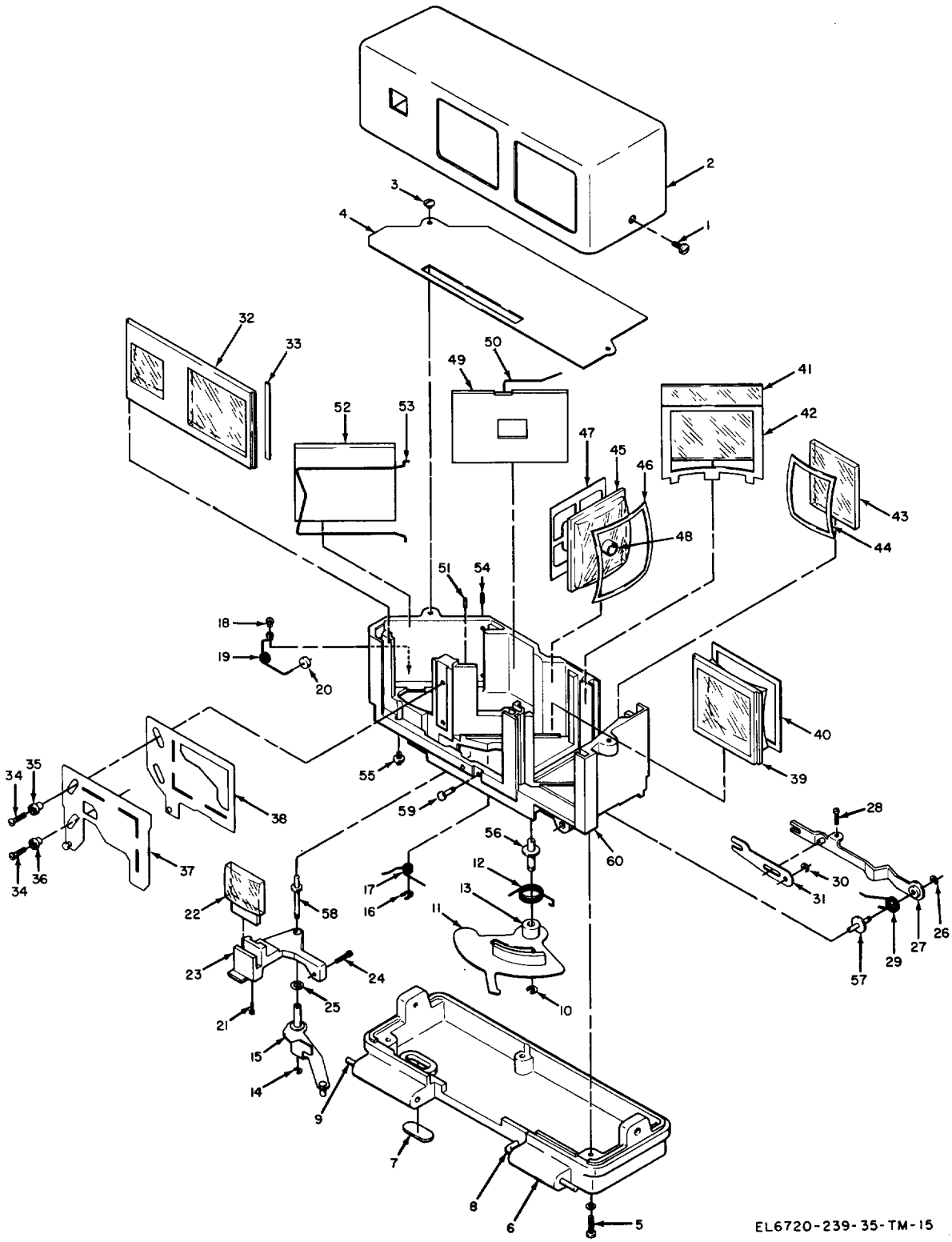


Figure 3-8 Finder assembly, exploded view.

1 Cover screws (H63)
2 Cover (MP84)
3 Screw (H64)
4 Cover plate (MP86)
5 Screw (H88)
6 Base plate (MP89)
7 Baseplate slot plug (H90)
8 Left hinge pin (H62)
9 Right hinge pin (H61)
10 Retaining ring (H81)
11 Cam (MP103)
12 Cam spring (MP104)
13 Cam guide (MP105)
14 Retaining ring (H81)
15 Cantilever subassembly (A39)
16 Retaining ring (A73)
17 Movable image lens spring (MP100)
18 Adjusting screw (H69)
19 Spring (MP97)
20 Roller
21 Screw (H74)
22 Adjustable lens (MP95)
23 Lens holder (MP96)
24 Screw
25 Bushing
26 Retaining ring (H81)
27 Sliding mask lever (MP106)
28 Screw (H82)
29 Sliding mask lever spring (MP108)
30 Retaining ring (H81)
31 Sliding mask interlock (MP107)
32 Rangefinder lens
33 Spring shim (MP93)
34 Screw (H77)
35 Eccentric bushing (H76)
36 Eccentric bushing (H78)
37 Sliding mask subassembly (A37)
38 Parallax mask subassembly (A38)
39 Objective lens (MP90)
40 Spring shims (MP88)
41 Beam splitter (H65)
42 Beam splitter (MP89)
43 Eyelens (MP87)
44 Spring shim (MP88)
45 Magnifying lens (MP91)
46 Spring shim (MP93)
47 Cover plate (MP94)
48 Tube (MP92)
49 Movable image aperture plate (MP98)
50 Spring (MP99)
51 Adjusting screws (H72)
52 Mirror (MP101)
53 Mirror spring (MP102)
54 Screws (H74)
55 Adjusting screw (H69)
56 Pivot stud
57 Pivot stud (H80)
58 Spring post
59 Post
60 Finder assembly housing (MP 85)

Figure 3–8. Finder assembly, exploded view-Continued.

t. If necessary, carefully remove the epoxy and loosen the adjusting screws holding the mirror (52) in place. Lift off the mirror and mirror spring (53).

u. Remove three screws (54) and one adjusting screw (55).

v. If necessary, drill out the two pivot studs (56 and 57), spring post (58), and post (59) from the finder assembly housing (60).

Section II. REPAIR, CLEANING, AND LUBRICATION

3-10. Repair and Cleaning

a. Repair. Repair of the camera is limited to minor straightening where original strength or function of parts is not impaired and to refinishing painted surfaces. Replace any parts that are worn or damaged to such an extent that they cannot be repaired as indicated above. If there is any doubt about the repair, replace the defective part.

b. Cleaning. Clean disassembled camera parts as follows:

(1) To clean metallic surfaces, use a clean, lint-free cloth dampened with cleaning compound. Dry the cleaned parts thoroughly. Use another clean, lint-free cloth or a gentle blast of compressed air.

(2) Dust the bellows and plastic parts. Use a brush or a clean, dry, lint-free cloth.

(3) Give special attention to the contacts in battery compartment. Clean the contacts by wiping them with a cloth dampened in water. Dry the cleaned contacts thoroughly; use a gentle blast of compressed air or a clean, soft, lint-free cloth.

(4) Clean optical surfaces with lens tissue.

(5) Clean rollers thoroughly. Use a clean, lint-free cloth dampened with water. Dry cleaned rollers with a clean, dry, lint-free cloth.

3–11. Lubrication

The camera requires no special lubrication. If any sliding parts do not move freely, a small amount of lubricating wax may be used to correct the problem. Do not use any lubricating compound that could cause damage to coated optical surfaces, or to the film.

Section III. REASSEMBLY

3-12. Reassembling the Electroinc Mounting Block and Base Assemblies

a. Electronic Block Assembly (fig. 3-5).

(1) If removed, position the flash compensating common contact (21) on the inside of the electronic mounting block (24), with the prong inserted through the hole and broad edge flush against wall of the electronic mounting block (24). Secure the contact in position with a single rivet.

(2) If removed, position the flash compensating upper and lower contacts (22 and 23) on the inside of the electronic mounting block, with the prong inserted in the hole and end of the spring contacts on the outside of each common contact. Secure each of the flash contacts in position with a single rivet.

(3) If removed, press the electronic mounting board insulator (19) onto the nibs on the back of the mounting block (24). Cut out portions in the center of the mounting block (24) and the electronic mounting board insulator (19) should line up.

(4) Mount the electronic components (1 through 16) on the inside of the electronic mounting block (24), in the positions indicated; make sure that the leads protrude through the electronic mounting block and the electronic mounting board insulator (19).

(5) Trim the leads of each of the electronic components so that tip of the lead protrudes out of mounting board insulator (19) approximately 1 16 inch, and bend the end of each of the contacts over onto copper area of flexible circuit (17). Observe the precautions outlined in paragraph 2-7 *c* and apply a small spot of solder to tip of each lead.

CAUTION

Make certain that the solder does not run from one copper area, across the brown insulated area, into another copper area.

b. Reassembling Base Block Assembly, Stage 1 (fig. 3-4). To reassemble the components on the back of the base block (98), place the base block (98) face down, with the elongated slot in the upper right corner, and proceed as follows:

NOTE

The following procedures assume that the two pivot pins (49 and 54) at the upper right corner of the block have not been removed from the base block and remain in tact. If this is not the case, these pins must be installed before proceeding.

(1) Press the connector strip (75) and the connector strip insulator (74) onto the two horizontal nibs just below the large opening in the center of the block. Position of the connector strip (75) is indicated in outline on the base block. The spring contacts should point upward. Heat seal both of the parts into place.

(2) Press the contact (73) onto the single nib just below right end of connector strip (75). The prong of the contact (73) should fit through the hole in the bottom of the base block. The spring contact should point upward, and be positioned to the left of the connector strip (75) contact.

(3) Attach the adjustable contact (70) and the flat insulator (68) to the base block (98) with the rivet (69).

(4) Place the adjustable contact spring (67) on the rivet (69) with open ends of spring facing right and bent end at the bottom. Adjust cable contact screw (71) should be in place. Press the insulator (66) over the adjustable contact spring (67).

(5) Anchor the top end of the adjustable contact spring (67) to the prong at the far right of the adjustable contact (70) and secure it with a spot of solder. Using long nose pliers, push the bent end of the adjustable spring contact (67) through the hole in the base block (98) (located just below soldered end of spring) and bend the end over on other side of the base block.

(6) Position the spring adjustment stop (83) in the lower right corner of the base block, below and to left of flash contact-break (72), and secure it with the two rivets (82).

(7) Position the breaker contact (65) on the base block so that spring contact placement is between the insulator (66) and the adjustable contact screw (71). The breaker contact (65) should now be to right and touching the top of the adjustable contact terminal. Secure the breaker contact (65) in position with a single oval head rivet (64).

(8) Position the assembled magnet and bobbin (62 and 63) in the recess provided in the base block and secure the assembly with the two screws (59). Make sure that the bobbin is positioned on the magnet so that the square card is on the open end.

(9) Mount the blade latch spring (53), the assembled blade latch and blade latch bushing (51 and 52) on the blade latch pivot (54) ; secure the mounted parts with the retaining ring (50). The U-bend portion of the blade latch spring (53) is secured in the V-slot of the blade latch and free end of spring is tucked under lip of the slot in the upper right corner of the base block. The tip of the latch should rest on the end of the spring terminal of the breaker contact (65) when the blade latch is pressed downward.

(10) Position bottom contact-battery switch (58), insulator (57), and top contact-battery switch (56) in upper right-hand corner of base block (98), and secure with rivet (55).

(11) Mount cocking slide latch bushing (48) on cocking slide latch (47).

(12) Mount cocking slide latch (47) on pivot (49) with hook to left and facing up.

(13) Secure cocking slide latch (47) in position with slide latch spring (46) and retaining ring (45). Short length of spring should fit against lip at top of block. Longer end of spring should be against top on lower right end of cocking slide latch (47).

(14) Fit opening and closing blade (43 and 44) assemblies together so that closing blade is on bottom, with end pins and metal block facing up and cradled into recess at right end of opening blade (43).

(15) Slide assembled opening and closing blades (43 and 44) in track in upper left half of block. Cut out end of opening blade (43) should be to right. Slide both the opening and closing blade assemblies all the way to left.

(16) Glue stop block (29) to closing blade stop bracket (28).

(17) Position shock pad (30) and closing blade stop bracket (28) at the left end of the blade track, and secure in position with rivet (27).

(18) Rivet bumper (81) to base block (98) with bumper eyelet (80).

(19) Attach roller (39) and roller bearing (38) to front side of cocking slide (32) with slide pin (37).

(20) Attach spacer (35) and overtravel arm (34) to cocking slide (32) with overtravel arm pivot (33).

(21) Hook one end of overtravel arm spring (36) into the hole in the upper left corner of cocking slide (32).

(22) Orient assembled cocking slide assembly (32 to 39) so that slotted end is to left and spring is on top. Position assembled cocking slide assembly in track at top of block. Position cocking slide assembly so that right edge of overtravel arm (34) is resting against left side of upper post on the closing blade (44). Check that roller (38) on right end of cocking slide (32) rests on top of high point of blade latch (51). In this position the blade latch (51) is depressed and causes S2 breaker contact (65) to open.

(23) Press retaining pin (31) into place to hold cocking slide assembly (32 to 39) in place.

(24) Hook the free end of spring (36) into the hole on the top of overtravel arm (34).

(25) Assemble capacitor outer-contacts (78), insulator (79), and capacitor contact light seal (77) in order given. Insulator (79) should be sandwiched in between capacitor contacts (73). Rounded ends of capacitor outer-contacts (78) should be facing down. Straight ends should be facing up and positioned on left and right sides of light seal (77).

(26) Position assembled capacitor outer-contacts (78), insulator (79), and capacitor contact light seal (77) in lower left corner of block and secure with two rivets (76).

(27) Press “X” contact, (73) onto nibs to right of light seal (77). Spring contact should be pointing upward, should pass to right of left terminal of “X” connector strip (75), and rest on the left side of the bottom post of the opening blade (43). Heat seal in place.

(28) Place opening blade spring (42) over round post molded into bottom center of block. Position spring so spring ends point up, and left end rests on right side of post. in center of opening blade.

(29) Place retaining washer (41) over blade spring (42) and secure with a single rivet (40).

(30) Insert right end of spring in first notch on spring adjustment (83).

c. Reassembling Base Block Assembly, Stage II. To reassemble the components on the front of the base block assembly, proceed as follows:

NOTE

This procedure assumes that the aperture wheel pivot pin (17), and two pivot pins (25 and 5) in lower left corner, have not been removed and are intact. If this is not the case, these pins must, be installed before proceeding,

(1) Mount common capacitor contact (97) to right of aperture wheel pivot pin (17). Prong must be inserted in hole at right and contacts should be positioned at top and bottom of aperture wheel pivot pin (17). Secure common capacitor contact (97) in this position with a single rivet (96).

(2) Mount inner capacitor contact (95), with prong inserted in hole, in slot below and to left of common capacitor contact (97), and secure with a single rivet (94).

(3) Position roller (93) over hole in top of actuator detent spring (91) and secure in place with pin (92).

(4) Position actuator detent spring (91) on the lower left of base block (98), and secure in position with two rivets (90).

(5) Assemble the readout indicator (85) and readout indicator spring (86) with the flat center area of the spring in the notch under the indicator face. The small loop end of the spring should be facing the slot end of the readout indicator (85), and the long loop end of the spring positioned beyond the opposite end of the readout indicator.

(6) Mount the readout indicator assembly (85 and 86) in cutout area at top of block. Spring ends should go around outside of molded standoffs, with the tips on the outside of the bent edges on the readout indicator (85).

(7) Secure the readout indicator assembly (85 and 86) in position with a single rivet (84) in the elongated slot at the right.

(8) Press the left end of the readout indicator (85) against the left molded standoff, and place a second rivet (84) under the lower edge of the readout indicator. Readout indicator should be free to slide from left to right.

(9) Mount closing blade spring (89) on standoff molded in block to left of inner capacitor contact (95). Long arm of spring should face upward and to the right. Short arm of spring should be positioned in cutout area in lower left corner of block.

(10) Put retaining washer (88) over closing blade spring (89) and secure with a single rivet (87).

(11) With opening and closing blade assemblies (43 and 44) in far right position, manipulate long arm of spring (89) so that it rests against left side of post in center of closing blade (44).

(12) Place rear light baffle (26) in position, aligning tabs with cutouts in base block and snap into place.

(13) Position cocking arm spring (23) over pivot (25), and insert the angled end of the spring into its allotted hole in base block (98).

(14) Slide the forked end of cocking arm (22) onto the slide pin (37) at the end of the cocking arm (32, rear view). Position the cocking arm (22) over pivot (25), and secure in place with retaining ring (21).

(15) Latch the hooked end of spring (23) onto cocking arm (22).

(16) Cement capacitor switch S3 (16) in depression on back of aperture wheel (15).

(17) Position aperture wheel (15) and spacer (14) on pivot (17).

(18) Position scene selector slider button (4) in the hole at the angled end of scene selector slider (3), and heat seal in place.

(19) Attach aperture detent spring (10) to aperture detent mounting arm (13) with two rivets (9).

(20) Position the rounded end of aperture detent mounting arm (13) over the rounded end of scene selector slider, and secure together with rivet (12). Aperture detent mounting arm (13) should be free to pivot.

(21) Insert screw (17) through lockwasher (8), the elongated hole in readout actuator (6) and the aperture detent mounting arm (13) and tighten. Make sure that the two holes in readout actuator (6) are aligned with the two holes in aperture detent mounting arm (13).

(22) Insert detent block (11) into aperture detent spring (10).

(23) Mount f rent light baffle (19) on top of aperture wheel (15) and secure with two screws (18) provided.

(24) Mount readout actuator assembly (3, 4, 6 through 13) on aperture wheel pivot pin (17), and secure with retaining ring (1).

(25) Secure elongated slot of lighting selector slider (3) to pivot pin (5) with retaining ring (2).

3-13. Reassembling the Shutter Assembly (fig. 3-3)

a. Position shutter rear casting assembly (4) with elongated slot in upper left corner.

b. Mate shutter mount (41) to bottom of the shutter rear casting assembly (4), with open end facing away from you and elongated slot on bottom.

c. Secure shutter mount (41) to right end of shutter rear casting assembly (4) with the shutter mount screw (40).

d. Install the rear positive lens (39) and rear lens retainer (38) in opening provided in shutter rear casting assembly (3).

e. Using rear lens remover tool, lock lens (39) in position by turning retainer (38) in a clockwise direction.

f. Check that electronic mounting board insulator (37) and shutter gasket (36) have not been removed from inside of shutter rear casting assembly (4) or damaged. If either item has been removed or damaged, a new item must be glued in its place.

g. Mount the shutter release block (35) on the back of the shutter rear casting assembly (4), in upper right corner, with flat post protruding through the elongated slot in the rear shutter casting.

h. Slip release block retainer (34) over end of post and heat seal in place. Make certain the shutter release block (35) is free to slide up and down in the elongated slot after heat seal has cooled.

i. Mount cable release cover (33) over shutter release block (35) and secure with screws (32) provided.

j. Insert short shoulder of shutter shaft (30) through holes in top and bottom of shutter rear casting assembly (4) and shutter mount (41).

k. Withdraw shutter shaft (30) enough to permit the hook of the shutter mount spring (31) to be passed over the short shoulder of the shutter shaft (30). Anchor end of spring (31) on end of shutter shaft (30) by pressing shutter shaft down until it protrudes below shutter mount approximately 1/8 inch.

l. Mount cell lens mount (27) on front of f rent shutter casting (3).

m. Mount wave washer (28) on rear of cell lens mount (27) and heat seal in position.

n. Place plastic cell wedge (25) on back of flash filter actuator assembly (26) in position shown.

o. Position the plastic cell wedge (25) and the flash filter actuator assembly (26) on back of the shutter front casting assembly (3).

NOTE

Elongated slots should be to the right, and actuating arm should be to the left. Two rivet holes should be visible through the elongated slot.

p. Using the universal riveter tool, secure the plastic cell wedge (25) and the flash filter actuator assembly (26) to the shutter front casting assembly (3) with the two rivets (23). Rivets should not impede the sliding plastic cell wedge (25).

g. Using the universal riveter tool, install the thick end of the actuator arm pivot pin (24) through actuating arm and into the hole provided in the shutter front casting assembly (3).

v. Position the actuating arm spring (22) on the other end of the pivot pin (24) so that the bent end of the spring rests against the tab on the flash filter actuator (26), and the straight end is against the raised block on the shutter front casting (3). Secure with the retaining ring (21).

s. Place the cell lens (20) into the lens mount (27) with the shallow convex surface facing out, and press the cell lens retainer (19) into cell lens mount (27).

t. Using front lens remover and focusing tool, screw front lens assembly (18) into shutter front casting assembly (3).

u. Assemble bezel (17), bezel spring (16), outer ring (15), center ring (14), and bezel cap (13) in that order.

v. Carefully depress the bezel cap (13) until the bezel spring (16) is fully compressed, and the tabs on the bezel cap (13) pass through the slots on the bezel (17), Bend the tabs on the bezel cap over.

w. Position the bezel assembly (13 through 17) over the f rent lens (18). The key on back of the bezel (17) should pass through the slot in the shutter front casting assembly (3), and fit into the forked extension of the plastic cell wedge (25).

x. Fit the bezel friction spring (12) in the recess provided in the front shutter casting. The ends of the spring should press against the bottom edge of the bezel (17).

CAUTION

Make certain glue does not get on bezel (17). Check that bezel assembly can be turned freely.

y. Glue the f rent decorative plate (11) onto the shutter f rent casting assembly (3).

z. Attach the base block and the electronic mounting block assemblies (9) to the rear of the shutter front casting assembly (3) with the four screws provided (6, 7, 8).

aa. Mount the front casting light seal (10) in the upper right corner of the shutter front casting assembly (3).

ab. Thread the battery wire assembly which is attached to the base block and the electronic mounting block, through the hole in the left lower corner of the shutter rear casting assembly (4).

ac. Assemble the shutter front casting assembly (3) to the shutter rear casting assembly (4) and secure with two shutter fastening screws (1) provided.

ad. Replace shutter fastening screw-long (2) but do not tighten securely at this time.

ae. Glue top etch plate (5) in place. Etch plate (5), if new, will have self-adhesive backing.

af. Place shutter shaft sleeve (29) over top of shutter shaft (30).

3-14. Reassembling the Body/Bellows Assembly

(fig. 3-6)

a. Reassembly, Stage 1.

CAUTION

When riveting components to the camera body, use care not to crack camera body.

(1) Using universal riveter tool, attach mounting plate spring (80) to camera body (2) with two rivets (79).

(2) Secure two R. F.-V. F. pivot pads (78) to camera body (2) with Bipax Tra-Con epoxy.

(3) Position two strap lugs (77) in holes at extreme left and right rear edge of camera body (2). Secure lugs by peening lug pins from underneath the top lip of camera body.

(4) Attach tab strip bar (75) to camera body with two screws (74).

(5) Press latch pivot (73) onto release latch (71) and install release latch spring (72).

(6) Position release latch (71) with latch pivot (73) inserted in hole top right of camera body (2).

(7) Insert release arm (70) so that it engages the lower end of the release latch (71). Insert screw (69) into release arm (70) and tighten.

(8) Apply glue to right front side of camera body (2), using care to keep holes clear of glue, and attach right hand guard (68).

(9) Using universal riveter tool-

(a) Attach stationary hinge (67) on light seal assembly (65) with three rivets (66).

(b) Position the spring stop (63) on the light seal assembly (65) and attach with two rivets (60).

(c) Mount light seal assembly (65) on camera body (2) with four rivets (64).

(10) Set left and right fillers (61, 62) in place behind spring stop (63).

(11) Using universal riveter tool, mount battery interlock assembly (59) on camera body (2) in position shown with rivet (58).

(12) Secure left-hand guard (57) to camera body (2) with two hand guard fasteners (56).

(13) Position the center retainer (55) and rear cover latch (54) on left-hand guard (57) with screw (53).

(14) Secure battery clip (52) to left-hand guard (57) with screw (51).

(15) Snap battery B1 (50) into battery clip (52).

(16) Position magnet spring (49), magnet (48) and two pole pieces (47) in slot in top of camera body (2) and secure with magnet pivot (46).

(17) Attach neck strap assembly (45) to strap lugs (77) with D-rings (44).

(18) Activate glue on slot cover (43) by applying MEK or Ethyl Acetate, Glue slot cover (43) in slot in bottom left of camera body (2).

b. Reassembly, Stage 2.

(1) Using universal riveter tool, mount shutter mount bushing (42) on U-frame (14) with spring rivet (41).

(2) If cable release wire tab (40) and two flash wire tabs (39) have been removed, glue into place on bellows (1).

(3) Using universal riveter tool-

(a) Mount focus bar bracket (37) to focus bar (38) with two rivets (36).

(b) Mount focus buttons (34 and 35) on focus bar (38) with two rivets (33).

(4) Activate glue on focus bar plate (32) and zone focus plate (31) by applying MEK or Ethyl Acetate. Glue focus bar plate (32) and zone focus plate (31) into place.

(5) Using universal riveter tool, mount inner frame top (30) and detent slide (29) on focus bar (38) with rivet (28).

(6) Position detent slide spring (27) under shoulder of detent slide (29).

(7) Press right focus bar sleeve (19), right focus bar washer (20), left focus bar sleeve (21), and left focus bar bushing (22) into place on focus bar (38). Make sure that all parts go into their respective slots on focus bar (38).

(8) Position focus bar assembly (27 through 38) in camera body (2).

CAUTION

When performing steps (9) and (10), be careful not to crack the camera body (2).

(9) Using focus bar rivet inserter:

(a) Insert one rivet (18) through top of camera body (2), right focus bar sleeve (19), right focus bar washer (20), focus bar (38), and into camera body (2).

(b) Insert the other rivet (18) through top of camera body (2), left focus bar bushing (22), left focus bar sleeve (21) and focus bar (38) into camera body (2).

(10) Using universal riveter tool-

(a) Insert brake sleeve (25) into small end of spring (26). Position the two between focus bar (38) and top of camera body (2). Insert brake rivet (23) from beneath focus bar assembly, through brake washer (24), brake sleeve (25), brake spring (26), into top of camera body (2) and secure.

(b) Snap track guide (17) into inner frame bottom (15) and fasten with rivet (16).

(11) Insert inner frame bottom (15) so that track guide (17) slides along the slot on the bottom of camera body (2).

(12) Set spring washer (11) and U-frame bottom spacer (10) onto pivot pin (76).

(13) Set U-f rame (14) in place over bottom spacer (10) in camera body (2).

(14) Set U-f rame top spacer (6) into position.

(15) Slip bezel (4) onto shutter release bushing assembly (5).

(16) Slip shutter release bushing assembly (5) down through camera body (2), U-frame top spacer (6), and hole in U-frame (14), and drive into position with a ¼-in. pin punch.

(17) Slip return spring (9) onto shutter release knob (8), with the large end of spring toward the knob.

(18) Insert the wire on shutter release knob (8) through the hole in shutter release bushing assembly (5).

(19) Depress shutter release knob (8) until the top of the knob is 1/8 in. above the top of bezel (4). Attach shutter release tip (7) to wire on shutter release knob (8), and crimp into place with wire cutters.

(20) Using link pivot inserter tool, secure inner frame top (30) and inner frame bottom (15) to U-frame (14) with two link pivots (12) and two link pivot spacers (13).

(21) Position light seal (3) inside bellows (1).

(22) Carefully position the bellows (1) in the camera body (2) and check for proper fit.

(23) Using bellows pliers tool and pad, carefully bend the fourteen tabs on the back frame of bellows (1) onto camera body (2).

3-15. Reassembling the Back Cover

(fig. 3-7)

a. Position the rear cover spider (38) on the rear cover (37).

b. Using universal riveter tool, secure spider (38) to cover (37) with two rivets (35 and 36).

c. Position right and left front roll supports (30 and 31) and roller support frame (32) on rear door spider (33).

d. Using universal riveter tool, secure front roll supports (30 and 31) and roller support frame (32) to rear door spider (33) with two spread roll rivets (29).

e. Install left spread roll spring (28) as follows :

(1) With stenciled side of roller support frame (32) facing away from you, insert open ends of spring (28) around tab on left front roll support (31).

(2) Turn roller support frame (32) around so that stenciled side is facing you.

(3) Support base of spring (28) with index finger, and simultaneously press ends of spring (28) upward with thumb and forefinger until ends of spring snap into place under tabs at top of roller support frame (32).

f. Mount two slide plates (22) on roller support frame (32), and secure with four rivets (21) using the universal riveter tool.

g. Mount door spring (10) on rear door spider (33), and secure with two rivets (9) using universal riveter tool.

h. Mount two roll frame springs (12) on rear

door spider (33), and secure with two rivets (11) using universal riveter tool.

i. Mount exit cover frame assembly (24) to rear door spider (33) with three rivets (23) using universal riveter tool.

j. Mount rear door hinge (8) to rear door spider (33) and secure with three rivets (7) using universal riveter tool.

k. Mount rear door spider assembly (33) and roll latch (5) on rear door (6), and secure with four rivets (4).

l. Mount exit door assembly (3) and spring (2) on exit cover frame assembly (24) as follows:

(1) With exit door assembly (3) facing you, insert spring (2) around pivot (1). Hold spring (2) with short end away from you.

(2) Using pivot stud remover and inserter tool, press both pivot studs (1) into exit door assembly (3).

(3) Hook short end of spring (2) under exit door assembly (3). Long end of spring (2) is tensioned against exit cover frame assembly (24).

m. Using tweezers, hook end of spring (19) over end of slide block assembly (20) where two screw holes are located.

n. Position slide block assembly (20) so spring (19) is under assembly, and free end of spring is towards tab at front of roller support frame (32).

o. Hook free end of spring (19) into hole in tab at f rent of roller support frame (32), carefully draw slide block assembly (20) back until tracks on slide block assembly (20) can be slipped under slide plates (22), and let spring (19) pull slide block assembly (20) forward along slide plates (22). Make certain slide block assembly (20) rides freely back and forth.

p. Position edge control bar (18) so that control bar is away from you with tabs at end of bar facing up, and center portion nearest you.

q. Insert shaft (16) partially into hole in right arm of edge control bar (18), place one spring (17) over shaft, and drive shaft (16) through hole in center of slide block assembly (20).

r. Place second spring (17) over shaft (16), and drive shaft (16) through corresponding hole in left arm of edge control bar (18). Center shaft (16) so approximately ¼ inch of shaft protrudes from each arm of edge control bar (18).

s. Hook closed edge of slide block link (15) over flange at center of narrowest edge of slide block cover (14).

t. Turn slide block cover (14) over so that slide block link is on bottom.

u. Hook open end of slide block link (15) under flange in center of rear door spider assembly (32).

v. Place slide block cover (14) over slide block assembly (20) and edge control bar (18) so that holes in cover are in line with holes in slide block assembly (20).

w. Secure slide block cover (14) to slide block assembly (20) with three screws (13).

x. Raise roller support frame (32) to upright position.

y. Turn back cover around so stenciled side of roller support frame (32) faces you.

z. Insert two roller bushings (27) onto ends of front roller (26).

aa. Insert left end of front roller (26) in socket at top of left f rent roller support (31).

ab. Spread right front roller support (30) until right end of front roller (26) snaps into hole on top of left front roller support (31).

ac. Turn rear door assembly so that stenciled side of roller support frame is facing away from you.

ad. Place roller bushing (27) on both ends of rear roller (25).

ae. Insert left end of rear roller (25) in hole at top of left side of roller support frame (32).

af. Press rear roller (25) forward and down until right end of rear roller (25) snaps into hole at top of right side of roller support frame (32).

3–16. Reassembling the Finder Assembly

(fig. 3-8)

NOTE

Before reassembly, remove all epoxy residue from parts.

a. Using anvil and universal riveter tool, mount spring post (58, 59) and two pivot studs (56, 57) in positions indicated.

b. Insert adjusting screw (55), and six adjusting screws (51 and 54) into holes provided in housing (60) but do not tighten.

c. Insert mirror (52) and mirror spring (53) into channels indicated in housing (60).

d. Carefully slide movable image aperture plate (49) into channel indicated.

e. Hook one end of spring (50) into hole in aperture plate (49). Bring other end of spring (50) through hole in floor of housing (60) and anchor to underside of housing.

f. Carefully install tube (48) in magnifying lens (45).

g. Insert magnifying lens cover plate (47), magnifying lens frame spring (46), and magnifying lens (45) into channels indicated.

h. Insert eyelens (43) and shim spring (44), into channels indicated.

i. Insert beam splitter (41) and beam splitter spring (42) into channels indicated.

j. Insert objective lens (39) and two spring shims (40) into channels indicated.

k. Mount parallax mask subassembly (38), sliding mask subassembly (37), and two eccentric bushings (35 and 36) on rangefinder/viewfinder housing (60) and secure with two screws (34).

l. Insert rangefinder lens (32) and two spring shims (33) into channels indicated.

m. Mount sliding mask interlock (31) on mount spring post (59) and secure with retaining ring (30).

n. Mount sliding mask lever (27) and sliding mask lever spring (29) on pivot stud (57) and secure with retaining ring (26).

o. Fit long end of lever spring (29) under sliding mask lever (27).

p. Install adjusting screw (24) in lens holder (23).

q. Position adjustable lens (22) in lens holder (23) and secure with three screws (21).

r. Position lens holder (23) on pivot stud (58).

s. Position movable image lens spring (17) on the bottom of range finder/viewfinder housing (60) so that the curved end of the spring is against the rear wall of the range finder/viewfinder housing, and the straight end is against the post on the bottom of lens holder (23). Secure lens spring (17) in position with retaining ring (16).

t. Slip bushing (25) and cantilever subassembly (15) onto pivot stud (58), and secure with retaining ring (14):

u. Attach cam guide (13) to cam (11), and set cam spring (12) over guide (13), with the curved end of the spring hooked on the edge of the slot in cam (11).

v. Slip cam (11) over pivot stud (56), so that the pin on cantilever assembly (15) protrudea through the slot on cam (11). Secure cam (11) to pivot stud (56) with retaining ring (10).

w. Slip roller (20) onto the straight end of spring (19).

x. Position spring (19) so that roller (20) rests in the groove on the bottom of lens holder (23). Secure the curved end of spring (19) to the side of rangefinder/viewfinder housing (60) with adjusting screw (18).

y. Tension the straight end of cam spring (12) against the rear screw hole on the bottom of rangefinder/viewfinder housing (60).

z. Press two hinge pins (8 and 9) and plug (7) into place.

aa. Position baseplate (6) on bottom of rangefinder/viewfinder housing (60) with hinge pins (8 and 9) toward f rent and secure with three screws (5).

ab. Position cover plate (4) on top of rangefinder/viewfinder housing (60) and secure with two screws (3).

ac. Place rangefinder/viewfinder cover (2), with the three lens openings toward front, over rangefinder/viewfinder housing (60) so that cover (2) fits tightly against lip of baseplate (6). Secure cover (2) with two screws (1).

3-17. Reassembling the Front Cover (fig. 3-2)

a. Attach clip spring (7) to clip spring assembly (6) and set both parts into slot on mounting plate hinge (8).

b. While holding clip spring (7) and clip spring assembly (6) firmly in place, carefully position mounting plate hinge (8) on front cover (9).

c. Using universal riveter tool, secure mounting plate hinge (8) to cover (9) with two rivets.

d. Grasp clip spring (7) firmly and tension the clip spring. (7) by pulling up on clip spring assembly (6).

e. Attach and hold mounting clip hinge (4) to mounting plate hinge (8) by sliding mounting plate hinge pin (3) into slots.

f. Attach catch plate (2) to front cover (9) and secure with two screws provided (1).

3-18. Reassembling Camera Component Subassemblies

a. Attach rear cover assembly (10) and rear door assembly (21) to camera body (2), using hinge pin (38).

b. Insert the two hinge plugs (37).

c. Insert the bottom of U-frame (34) into the elongated hole of the shutter mount (35) and slide into the slot.

d. Attach the loose end of shutter mount spring (36) to shutter mount spring rivet (33) on the bottom of U-frame (27).

e. Insert the shutter shaft screw (29) through inner frame bottom (32), flat washer (31), and bowed washer (30) into the bottom of the shutter shaft (27) and tighten.

f. Place the inner frame top (28) over the shutter shaft (27) and secure in position with detent stud (26).

g. Snap detent (25) over detent stud (26).

h. Place front frame light seal (24) into position over the four screw holes on front of bellows (23).

i. Insert four bellows screws (22) through the holes in bellows (23) and light seal (24) into the shutter assembly and tighten.

j. Loosen the two release cover screws (16) and shutter fastening screw (17) on cable release cover (18) enough to slide the shutter release casing (19) into position.

k. Retighten release cover screws (16) and shutter fastening screw (17).

l. Slip battery wire assembly (14) through two flash wire tabs (13) and hole in camera body.

m. Clip banding clip (15) onto battery wire assembly (14).

(1) Solder the black battery wire to the battery interlock terminal (11).

(2) Solder the white battery wire to the positive battery terminal (12).

n. Set spring (9) and rangefinder/viewfinder assembly (3) into position.

o. Using range finder/viewfinder remover and inserter tool, re-engage hinge pin (8) to secure rangefinder/viewfinder assembly (3) in place.

p. Snap front cover (1) into place so that spring (7) is engaged.

q. Press down on inner frame top (24) and push shutter assembly (5) in until it locks in the closed position.

r. Gently fold rangefinder/viewfinder assembly (3) into the closed position.

s. Swing cover (1) up to the closed position.

Section IV. ADJUSTMENTS

3-19. Base Block Assembly and Electronic Mounting Block Assembly

(1) Cock the shutter. The nib of battery switch S1 (fig. 3-9) should be visible below cocking slide latch, If not, bend pin on the cocking slide latch down.

(2) Slowly depress shutter cocking lever 3 until the pin on the opening blade rests on the blade latch. At this point, timing switch S2 should start to open. Switch S2 may be adjusted by turning the adjusting screw. After adjustment, cover screw with clear cementing varnish.

(3) Inspect the magnet poles and keeper on the closing blade for foreign matter and rust. Clean parts with a dry cotton swab. Replace rusted parts.

(4) Depress shutter cocking lever 3 until pin on the opening blade is held by blade latch. Check to see that the edge of the keeper is parallel to the edge of the closing blade and magnet poles. Adjust the position of the keeper as required.

(5) Observe the action of flash switches SX and SS (fig. 3-9). When the shutter is uncocked, switch SX is closed and switch SS is open. When the shutter is cocked, the reverse is true, Adjust the switches by bending the contacts as required.

(6) Select the largest opening on the aperture wheel and check to see that the left side of the opening lines up with the left side of the front light baffle. If not, loosen the aperture wheel adjusting screw and position front light baffle as required. When adjustment is completed, tighten aperture wheel adjusting screw and cover with clear cementing varnish.

(7) Uncock shutter and sight through the ap-

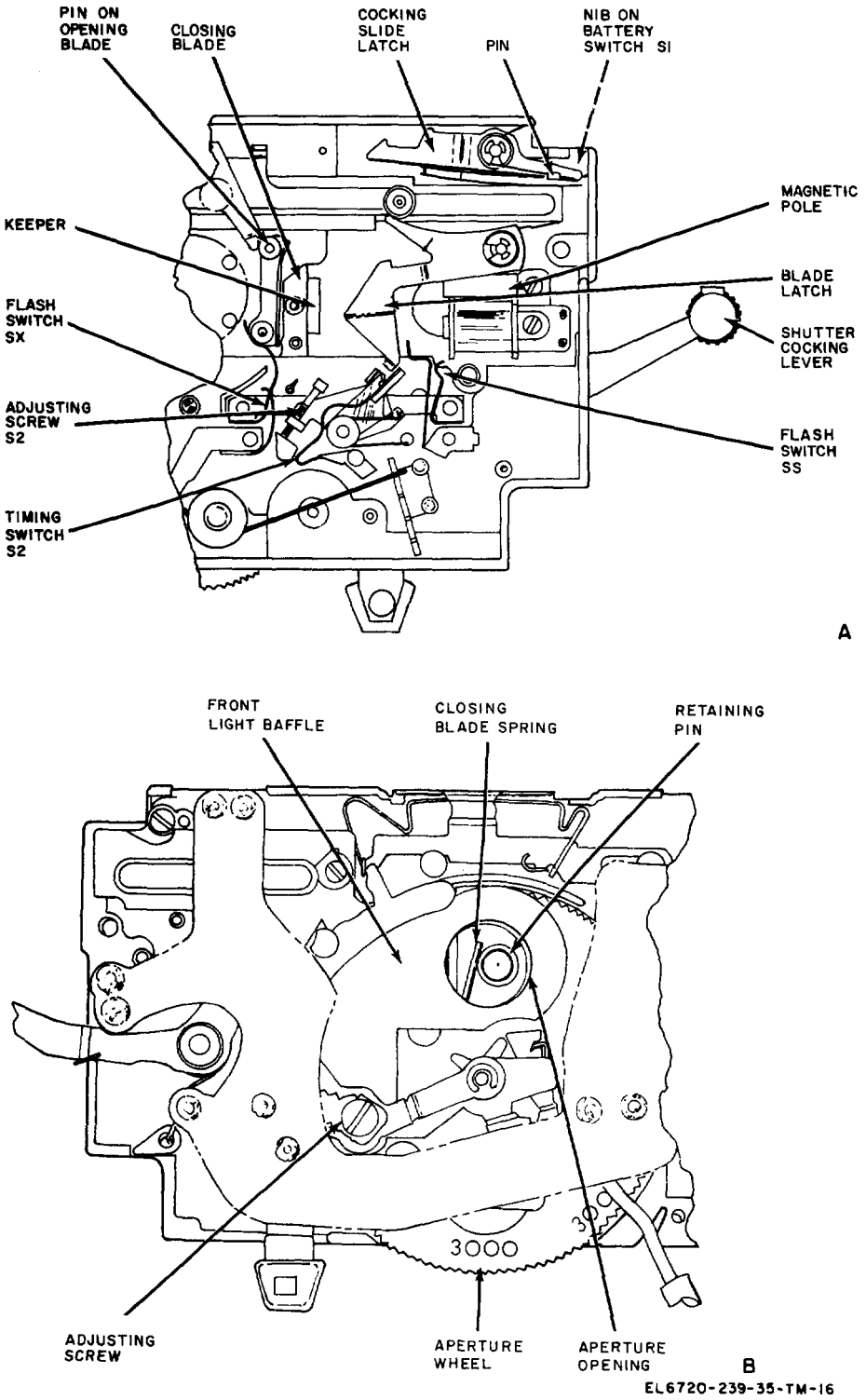


Figure 3-9. Baseblock assembly adjustment diagram.

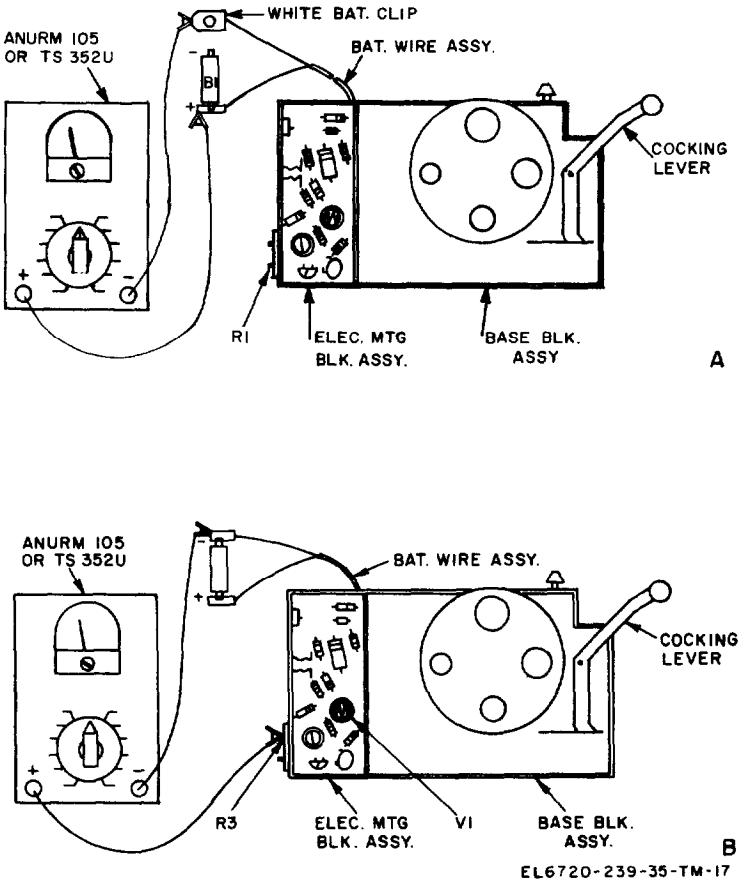


Figure 3-10. Electronic mounting block adjustments.

erture opening. The end of the closing blade spring should rest on the retaining pin.

b. Electronic Mounting Block Assembly Adjustment.

(1) General. To adjust the electronic mounting block assembly, first make all shutter electrical connections.

(2) Adjust top potentiometer R1 on the electronic mounting block (fig. 3-10) as follows:

(a) Disconnect the white battery clip from battery B1 (fig. 3-10).

(b) Connect the negative (-) lead of a multimeter to the white battery clip.

(c) Connect the positive (+) lead of the multimeter to the positive (+) terminal of the battery.

(d) Cock the shutter and set electronic mounting block face down on the workbench.

(e) Set the multimeter to a scale higher than 20 ma DC.

(f) Trip the shutter and read the meter. The reading should be 20 ± 1 MA.

(g) Must R1 (6) as necessary to obtain required reading.

CAUTION

This adjustment affects all shutter speeds. To insure accurate shutter performance, after the R1 adjustment has been made, a complete shutter assembly operational test (para. 4-4) must be performed.

(3) Adjust the bottom potentiometer (R3) on the electronic mounting block (fig. 3-10) as follows :

(a) Connect the negative (-) lead of a multimeter to the negative (-) terminal of battery B1.

(b) Connect the positive (+) lead of the multimeter to the wiper arm of R3.

(c) Cock and trip the shutter. The meter should indicate 0.75 vdc or more.

(d) If the meter indicates less than 0.75 vdc, replace photocell V1 with a photocell from the next lower color group.

3-20. Electronic Mounting Block Color Code/ Value Table

a. General. If, in the course of testing the base block assembly, an electronic component is found to be defective or in need of change for shutter speed calibration, the following color should be strictly adhered to. The value of the resistors and capacitors listed is dependent upon the color code dot painted on the photocell (V1).

b. Color Code Table.

PHOTOCONDUCTIVE CELL (VI)-
Values in kilo-ohms

Color	*Resistance Range*
Blue	15.11-17.2
Black	13.20-15.10
Red	11.50-13.19
Yellow	10.00-11.49
Green	8.70- 9.99
White	7.60- 8.69
Orange	6.60- 7.59

RESISTORS-Values in ohms ±10%

Color	*RR2*	*R4*	*R5*	*R6*	*R7*	*R8*
Blue	10K	1800	68K	120	3300	120K
Black	10K	1500	56K	100	3300	120K
Red	10K	1200	47K	91	2700	100K
Yellow	10K	1200	47K	82	2200	82K
Green	10K	1000	39K	68	2200	82K
White	10K	820	33K	62	1800	68K
Orange	10K	680	27K	51	1500	56K

CAPACITORS-Values in Microfarads

Color	*C1*		*C2 & C3*		*C4*	
	Min.	*Max.*	*Min.*	*Max.*	*Min.*	*Max*
Blue	.191	.220	2.03	2.33	14.0	16.0
Black	.220	.252	2.33	2.68	16.0	18.5
Red	.252	.290	2.68	3.07	18.5	21.2
Yellow	.290	.332	3.07	3.53	21.2	24.3
Green	.332	.382	3.53	4.05	24.3	27.9
White	.382	.440	4.05	4.65	27.9	32.1
Orange	.440	.504	4.65	5.34	32.1	36.9

3-21. Preliminary Adjustment of Finder Assembly

Preliminary adjustments must be made before the range finder/viewfinder assembly is mounted on the camera. The final adjustments (para. 3-23) are made after the range finder/viewfinder assembly is mounted on the camera.

a. Place the rangefinder/viewfinder assembly on a flat surface at eye level.

b. Sight through the eyelens and check that the Albator (the yellow dotted line used to frame the image) is parallel to the image seen through the eyelens.

NOTE

The Albator is controlled by the movable image aperture plate, which in turn, is controlled by three adjusting screws. The top outside adjusting screw moves the Albator line up and to the right (in) or down and to the left (out). The bottom outside adjusting screw moves the Albator line up (in) or down (out). The inside adjusting screw moves the Albator to the left (in) or right (out).

c. Using the three adjusting screws, position the Albator so that it appears square when the finder assembly is level. Shellac the movable image aperture plate and adjusting screws in Position.

d. To make a topside adjustment, proceed as follows :

(1) Set the finder on a flat surface and sight on an object 1 mile away.

(2) Loosen the turret assembly locking screw.

(3) Tighten the turret assembly adjusting screw located on the underside of the turret assembly.

(4) To lower the movable image, tighten the two Allen screws on the underside of the turret assembly.

(5) To raise the movable image, loosen the same two Allen screws.

(6) Adjust the position of the movable image in the eyelens until it is aligned with the fixed image. If the images will not superimpose, set them as close as possible and proceed with step 7.

(7) Tighten turret assembly locking screw and apply shellac to the two Allen screws and turret assembly adjusting screw on the underside of the turret assembly.

(8) Secure the movable image lens in the turret assembly with shellac.

(9) If further adjustment is required, use the top left-hand image adjusting screw. Turn the screw in to raise the image, and out to lower the image.

e. To make a range adjustment, proceed as follows :

(1) Set the finder assembly on a flat surface and sight on an object located about a mile away.

(2) Adjust the movable image by turning the locking screw at the rear of the turret assembly. When the image is approximately correct, shellac the screw in place.

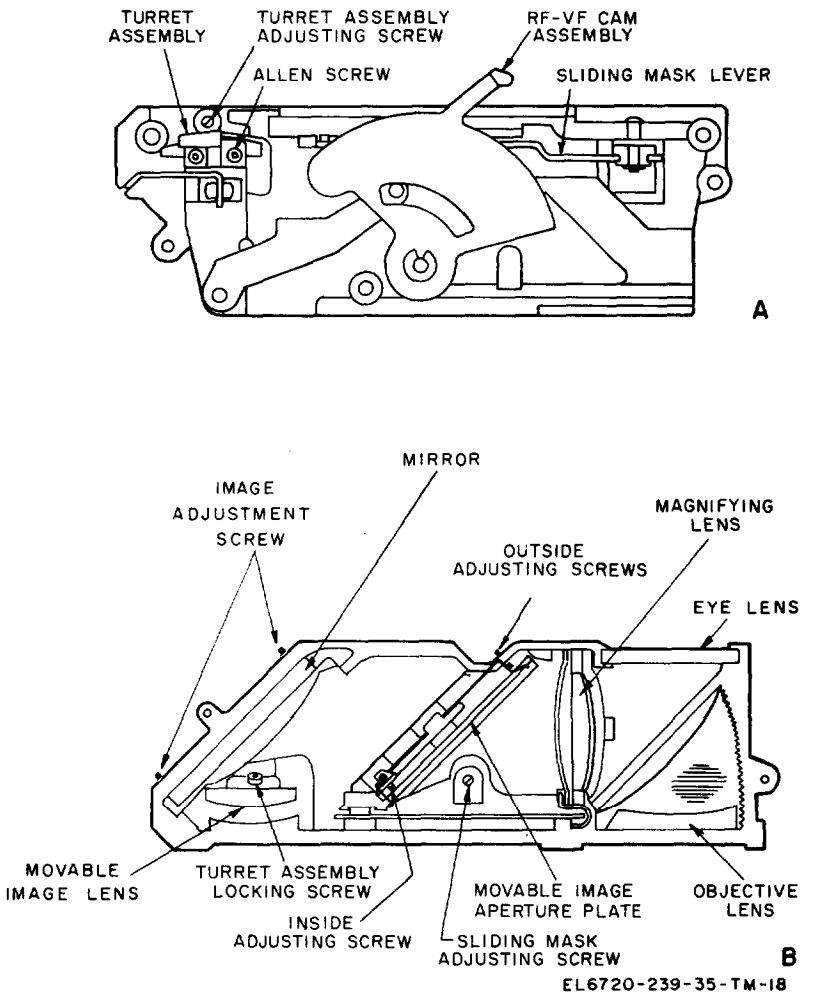


Figure 3–11. Finder assembly, adjustments.

(3) If further adjustment is required, turn the right-hand image adjusting screw at the rear of the mirror. Turning this screw in will move the image to the right, and turning screw out will movethe image to the left.

f. Shellac all lenses, except the mirror, into position.

3-22. Shutter Cable Release Installation and Adjustment

a. General. The shutter release cable must be the correct length to allow proper tripping action, without being so long that the shutter release knob can be accidentally tripping.

b. Operational Camera Check.

(1) Open camera and cock the shutter.

(2) Place the small radial end of "Go-No-Go" gauge against the shutter release knob.

(3) When gauge is fully depressed, shutter should trip.

(4) Re-cock the shutter. Center the recessed end of "Go-No-Go" gauge over shutter release knob.

(5) When gauge is fully depressed, shutter should not trip.

c. Installation and Adjustment of Shutter Cable Release.

(1) Insert shutter release return spring and shutter release knob into shutter release bushing.

(2) Depress shutter release knob until the bottom edge is even with the top edge of the shutter release bezel.

(3) Position shutter release tip on the opposite end of the cable and crimp in place.

(4) Insert shutter release cable assembly into camera body. Shutter cocking arm should be in the up or uncocked position.

(5) Feed shutter release cable through wire tab on the bellows assembly.

(6) Position the shutter release knob so that the printed numeral is upright when camera is held in the normal operating position.

(7) Slip shutter release cable under cable release cover and fit it loosely against the end slot on the shutter release block.

(8) Center shutter release cable firmly under release cover tab and tighten the three screws.

(9) Check the shutter release action per *b* above. If the shutter release action is improper, loosen the cable release cover and adjust the position of the cable to provide faster or more delayed tripping action.

3-23. Final Adjustment of Finder Assembly

Final adjustment is performed after the preliminary adjustments have been made and the finder assembly has been mounted on the camera.

a. Mounting the Finder Assembly.

(1) Attach base plate to the finder assembly housing with three screws provided.

(2) Set spring over left hinge pin, and position finder assembly and camera body.

(3) Using the finder assembly removal and insertion tool, force the left hinge pin into place to secure the finder assembly to camera body.

b. Maximum Distance Check. Place the camera on a flat surface and focus on an upright object at least a mile away. With the focusing mechanism set at infinity, the movable image and the fixed image must be superimposed. Adjust as indicated in step *d*.

c. Minimum Distance Check. Focus on an object 3½ feet away. With the focusing mechanism set at minimum range, the movable image and the fixed image must be superimposed. Adjust as indicated in step *d*.

d. Vertical and Horizontal Adjustments.

(1) To make a horizontal adjustment, turn the top left-hand image adjusting screw at the rear of the mirror (fig. 3-11).

(2) To make a vertical adjustment, turn the top fight-hand image adjusting screw at the rear of the mirror. If further adjustment is required, bend the focus bar bracket as needed.

(3) Vertical and horizontal adjustments should hold true on all ranges from 3½ feet to infinity.

(4) When all adjustments are completed, shellac the image adjusting screws at the rear of the mirror.

e. Parallax Adjustments.

(1) Frame a subject and take a picture.

(2) To adjust the Albator images, turn the sliding mask adjusting screw located behind the sliding mask assembly.

(3) Take another picture and proceed on a trial and error basis until adjustment is complete.

f. Procedures Following Adjustment.

(1) Cover all adjusting screws with shellac.

(2) Attach cover plate to range finder/viewfinder housing with two screws provided.

(3) Attach cover to range finder/viewfinder housing with three screws provided.

CHAPTER 4
DEPOT OVERHAUL STANDARDS

4-1. Applicability of Depot Overhaul Standards

Camera Set, Still Picture KS–101A, must be tested thoroughly after rebuilding or repair to insure that it meets adequate performance requirements for return to stock and reissue. Use the tests described in this chapter to measure the performance of the repaired camera equipment. It is mandatory that repaired equipment that is to be reissued, or returned to stock for reissue, meet all of the performance standards given in this chapter.

4-2. Applicable References

a. Repair Standards. Applicable procedures of the Signal Corps depots performing this test and its general standards for repaired Signal equipment form a part of the requirements for testing this equipment.

b. Technical Publications. The technical publications listed below are applicable as indicated.

Equipment and subject	*Publication*
Operator and Organizational Maintenance Manual Including Repair Parts and Special Tool Lists: Camera Set, Still Picture KS-101A.	TM 11-6720-239-12
Field and Depot Maintenance Manual: Camera Set, Still Picture KS-17A.	TM 11-6720-211-35

c. Modification Work Orders. Perform the work specified by Modification Work Orders pertaining to this equipment before making the test specified. DA Pam 310–7 lists all available MWO'S.

4-3. Test Facilities Required

The following test equipment, or suitable equivalents, will be used in determining compliance with the requirements of these inspection standards.

Equipment	*Federal stock No.*	*Quantity required*
Flashgun	Part of Camera Set	1 ea.
M3 flash bulbs	----------	1 box
Film/pack	6750-775-8835	1 ea.
Light source probe	----------	1 ea.
Test stand	----------	1 ea.
Light source	----------	1 ea.
Phototube/camera adapter	----------	1 ea.
Phototube, type 1P39	Polaroid Part No. 1P39	1 ea.
Oscilloscope, Tektronic type 502A	6625-228-2201	1 ea.
110 vac variable transformer	5950-235-2086	1 ea.
Eastman Kodak target	----------	1 ea.
Rear lens adapter unit	----------	1 ea.
10 VDC stepdown transformer	----------	1 ea.
90-volt battery	----------	1 ea.
Lamp, type 1493 or 1594	Polaroid Part No. 1493 or 1594	1 ea.
Light meter (50 to 800-foot candles)	6697-641-5083	1 ea.

4-4. General Operational Test for Camera Set KS-101A

a. Visually examine the overall appearance of the camera body. Note any obvious defects.

b. Extend the bellows and look for obvious defects.

c. Examine batteries B1 and B2 for leakage or corrosion. Replace defective batteries.

d. Cock and trip the shutter. Note obvious defects in shutter locking and tripping mechanism.

e. Look through the lens and at the same time observe the operation of the opening and closing blades.

f. Inspect the rollers as follows:

(1) Open the rear door.

(2) Lift the roll latch and swing out the rollers.

(3) Inspect rollers for damage, misalignment, or dirt.

g. Plug in and operate the flashgun. Use a G. E. No. EEK test bulb or a regular M-3 flashbulb. Check to see that test bulb fires.

h. Perform the bellows light leak test in a light tight room; use a light leak probe and carefully inspect the bellows for holes.

i. Insert a film pack into the camera and take several pictures. Carefully examine the prints for defects.

4-5. Shutter Assembly Operational Test (fig. 4-1)

a. Preliminary Connections.

(1) Set the L/D control to normal and focus for infinity.

(2) Mount the camera on the test stand with the lens and photocell flush against the corresponding openings in the light source box.

(3) Open the back of the camera and insert the phototube/camera adapter; make sure that the phototube is installed and connected as shown.

(4) Apply power to the oscilloscope, 90-volt power supply, and 110-vac variable transformer. Allow equipment to warm up for approximately 10 minutes.

(5) Set the oscilloscope controls as follows:

(a) Set UPPER BEAM control to AC-DC.

(b) Set SYNC control to UPPER DC.

(c) Set MODE SELECT control to NORMAL.

(d) Set SENSITIVITY control to 4 CM.

NOTE

Time is measured from ½ open to ½ closed shutter.

(6) Carefully inspect the light seals between the shutter and the light source box, and between the camera back and the phototube/camera adapter.

b. Test Procedures. For each test setting in step *c*, proceed as follows:

(1) Make the necessary light source and camera settings.

(2) Cock and trip the shutter.

(3) Read the oscilloscope and record the results.

c. Test Settings.

Light source setting	*Camera settings*	*Correct oscilloscepe indication*
50 cdls/ft²	150 dull	10.5ms to 16 ms
	150 bright	145ms to 98ms
800 cdls/ft²	150 dull	0.63ms to 1.2ms
50 cdls/ft²	75 dull	22ms to 35ms
3.125cdls/ft²	3000 dull	10.5ms to 20ms

d. Performance Standards for Camera Shutters. The camera shutter must perform within the indicated limits at every test setting. If any oscilloscope indication is outside the required limits, the camera is not acceptable for reissue.

4-6. Finder Assembly Operational Test

a. Inspect for obvious damage to optical components.

b. Focus on an object about a mile away. Check to see that the movable image is superimposed on the fixed image.

c. Focus on an object 3½ to 4 feet away. Check to see that the movable image is superimposed on the fixed image.

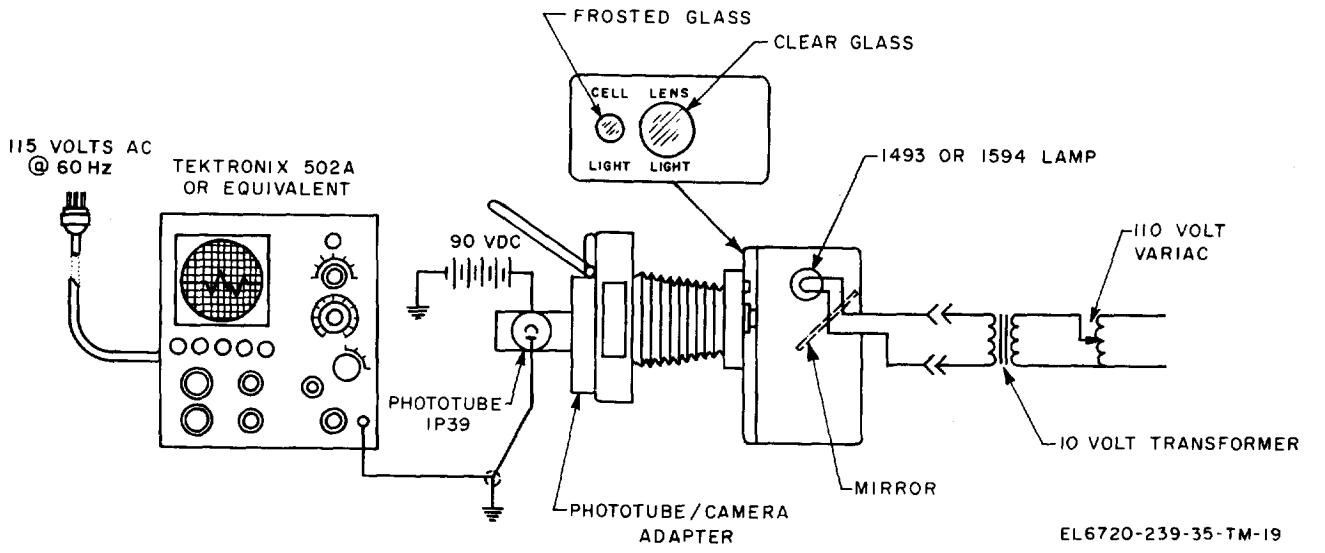


Figure 4–1. Shuter assembly operational test.

d. Frame an object and take a picture. Check to see that the parallax compensation is correct.

4-7. Lens and Finder Assembly Collimation

a. Preliminary Connections.

(1) Raise the finder assembly (fig. 4-2) to an upright position, open the camera, and fully extend the bellows.

(2) Set the L/D control all the way to the left (closest to FILM SPEED dial).

(3) Set the FILM SPEED dial to 3000.

(4) Open the back of the camera; attach the camera to the test stand (fig. 4-1).

(5) Snap the rear lens adapter unit into position on the rear of the camera.

(6) Place the opaque mask over the photocell lens.

(7) Apply power to the collimator and the lamp illuminating the 4-foot target.

(8) Calibrate the collimator to provide an optimum target of 56 lines/millimeter at a focal distance of 17¼ inches.

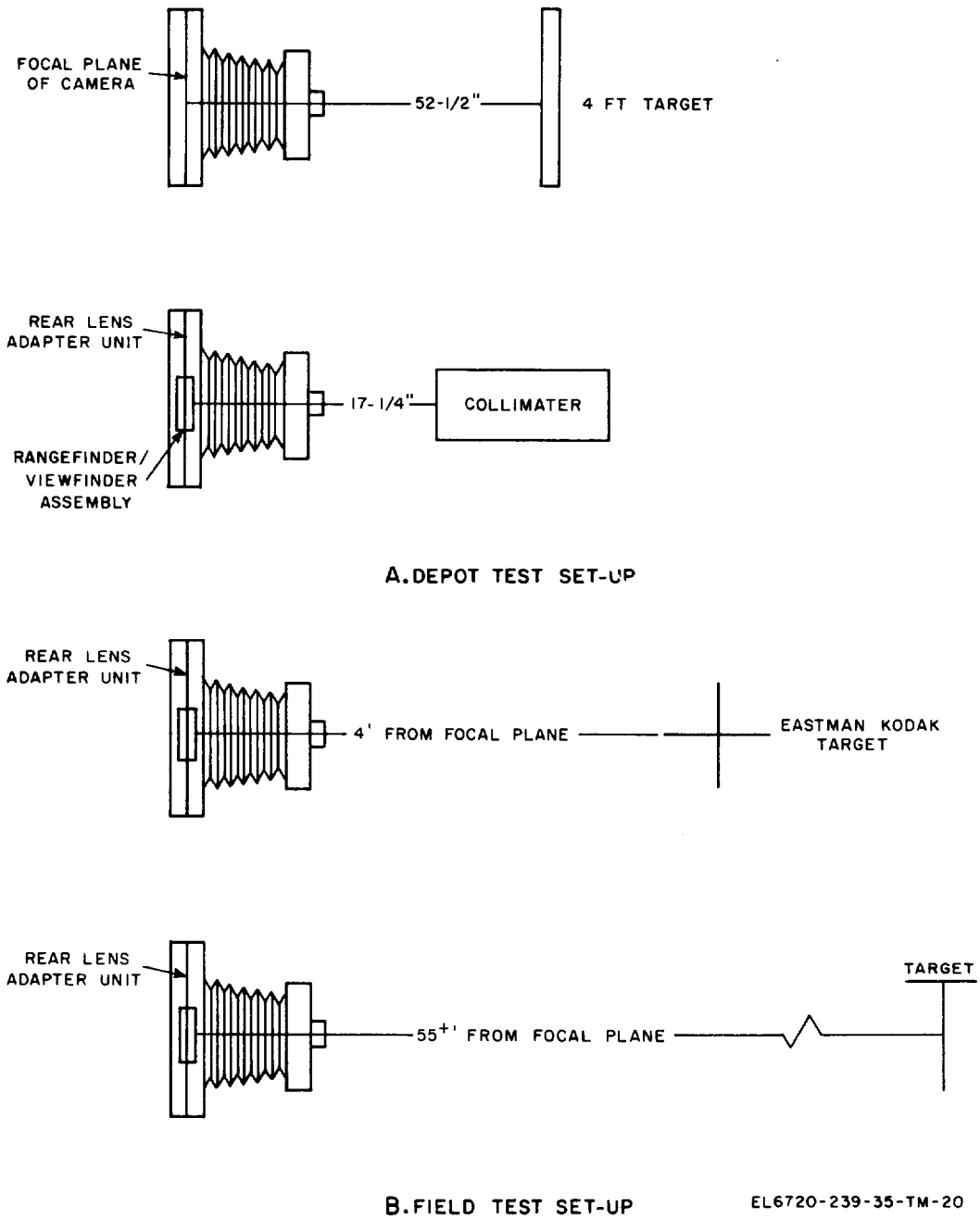


Figure 4-2. Collimation test.

b. Test Procedures.

(1) Focus the finder assembly on the 4-foot target.

(2) Holding a finger over the photocell, cock the shutter and depress and hold the SHUTTER RELEASE BUTTON.

(3) Check the image projected on the rear adapter unit.

(4) Focus the finder assembly on the collimator target.

(5) Check the image projected on the rear lens adapter unit.

c. Test Settings.

Camera setting	*Correct indication*
Finder assembly focused on 4-foot target.	26 to 28 lines/millimeter projected on rear lens adapter unit.
Finder assembly focused on collimator target.	Same as above.

d. Perfornuznce Standards for Collimation. When the finder assembly is focused on either the 4-foot target or the collimator target, a projected image of 26 to 28 lines/millimeter should be visible on the rear lens adapter unit. If not, the front element of the lens must be loosened, using the front lens remover and focusing tool, and adjusted. The position of the front lens is adjusted to provide the minimum projected image on the rear lens adapter unit for both the 4-foot target and the collimator target. Once this is accomplished the lens must be cemented into this position.

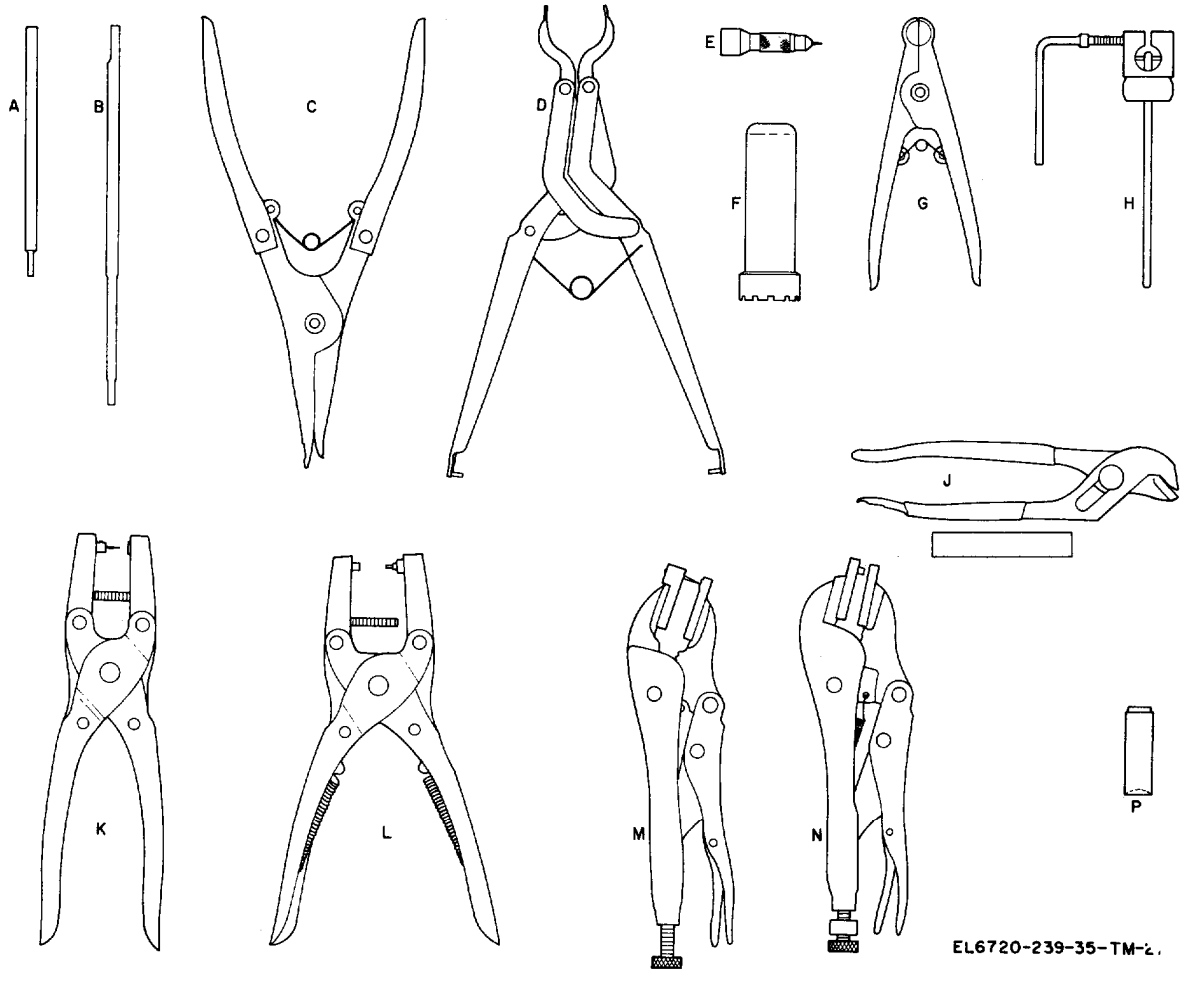


Figure 4-3. Tools for camera disassembly/reassembly.

APPENDIX A

REFERENCES

The following is a list of applicable references which are available to the field and depot maintenance personnel of Camera Set, Still Picture KS-101A.

TM 11-401	Elements of Signal Photography
TM 11-662-366-1	Organizational, DS, GS, and Depot Maintenance Manual: Multimeter TS-352B/U.
TM 11-6720-234-15	Operator, Organizational, DS, GS, and Depot Maintenance Manual: Camera Set, Still Picture Polaroid Model 100.
TM 11-6720-239-12	Operator and Organizational Maintenance Manual Including Repair Parts and Special Tool Lists: Camera Set, Still Picture KS-101A.

APPENDIX B

DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section 1. INTRODUCTION

B-1. Scope

This appendix lists repair parts and special tools required for the performance of direct support, general support, and depot maintenance of the KS-101A.

B-2. General

This Repair Parts and Special Tools List is divided into the following sections:

a. Repair Parts—Section II. A list of repair parts authorized for the performance of maintenance at the direct support, general support, and depot level.

b. Special Tools, Test and Support Equipment —Section III. Not applicable.

c. Index—Federal Stock Number Cross-Reference to Figure and Item Number or Reference Designation Index—Section IV. A list of Federal stock numbers in ascending numerical sequence followed by a list of reference numbers in ascending alpha-numeric sequence, cross-referenced to illustration figure number and reference designation.

d. Index—Reference Designation Cross-Reference to Page Numbers—Section V. A list of reference designations cross-referenced to page number.

B-3. Explanation of Columns

The following provides an explanation of columns in the tabular lists.

a. Source, Maintenance, and Recoverability Codes (SMR), Column 1.

(1) Source code indicates the selection status and source for the listed item. Source codes are—

Code	*Explanation*
P	-Repair parts which are stocked in or supplied from the GSA/DSA, or Army supply system, and authorized for use at indicated maintenance categories.
P 2	—Repair parts which are procured and stocked for insurance purposes because the combat or military essentiality of the end item dictates that a minimum quantity be available in the supply system.
P 9	—Assigned to items which are NSA design controlled: unique repair parts, special tools, test, measuring and diagnostic equipment, which are stocked and suppled by the Army COMSEC logistic system, and which are not subject to the provisions of AR 380-41.
P 10	—Assigned to items which are NSA design controlled: special tools, test, measuring and diagnostic equipment for COMSEC support, which are accountable under the provisions of AR 380-41, and which are stocked and supplied by the Army COMSEC logistic system.
M	—Repair parts which are not procured or stocked, but have to be manufactured in indicated maintenance levels.
A	—Assemblies which are not procured or stocked as such, but are made up of two or more units. Such component units carry individual stock numbers and descriptions, are procured and stocked separately, and can be assembled to form the required assembly at indicated maintenance categories.
X	—Parts and assemblies which are not procured or stocked and the mortality of which is below that of the applicable end item or component. The failure of such part or assembly should result in retirement of the end item from the supply system.
X 1	—Repair parts which are not procured or stocked. The requirement for such

Code	Explanation
	items will be filled by use of the next higher assembly or component.
X	2-Repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain same through cannibilization. Where such repair parts are not obtainable through cannibalization, requirements will be requisitioned, with accompanying justification, through normal supply channels.
G	—Major assemblies that are procured with PEMA funds for initial issue only as exchange assemblies at DSU and GSU level. These assemblies will not be stocked above DS and GS level or returned to depot supply level.

(2) Maintenance code indicates the lowest category of maintenance authorized to install the listed item. The maintenance level codes are—

Code	Explanation
C	Operator/crew
O	Organizational maintenance
F	Direct support maintenance
H	General support maintenance
D	Depot maintenance

(3) Recoverability code indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are—

Code	Explanation
R	—Repair parts and assemblies that are economically repairable at DSU and GSU activities and are normally furnished by supply on an exchange basis.
S	—Repair parts and assemblies which are economically repairable at DSU and GSU activities and which normally are furnished by supply on an exchange basis. When items are determined by a GSU to be uneconomically repairable, they will be evacuated to a depot for evaluation and analysis before final disposition.
T	—High dollar value recoverable repair parts which are subject to special handling and are issued on an exchange basis. Such repair parts normally are repaired or overhauled at depot maintenance activities.
U	—Repair parts specifically selected for salvage by reclamation units because of precious metal content, critical materials, or high dollar value reusable castings or castings.

b. Federal Stock Number, Column 2. This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description, Column 3. This column indicates the Federal item name and any additional description of the item required. The index number has been included as a part of the description to aid in the location of "same as" items. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses.

d. Unit of Measure (U/M), Column 4. A 2-character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based; e. g., ft, ea, pr, etc.

e. Quantity Incorporated in Unit, Column 5. This column indicates the quantity of the item used in the KS–101A. Subsequent appearances of the same item in the same assembly are indicated by the letters "REF".

f. 30-Day DS/GS Maintenance Allowances, Columns 6 and 7.

NOTE

Allowances in GS column are for GS maintenance only.

(1) The allowance columns are divided into three subcolumns. Indicated in each subcolumn, opposite the first appearance of each item, is the total quantity of items authorized for the number of equipments supported. Subsequent appearances of the same item will have the letters "REF" in the applicable allowance columns. Items authorized for use as required, but not for initial stockage, are identified with an asterisk in the allowance column.

(2) The quantitative allowances for DS/GS levels of maintenance will represent initial stockage for a 30-day period for the number of equipments supported.

(3) Determination of the total quantity of parts required for maintenance of more than 100 of these equipments can be accomplished by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number to indicate hundredths, and multiplying the decimal factor by the parts quantity authorized in the 51–100 allowance column. *Example,* authorized allowance for 51-100 equipments is 40; for 150 equipments multiply 40 by 1.50 or 60 parts required.

g. 1-Year Allowances Per 100 Equipments/Contingency Planning Purposes, Column 8. This column indicates opposite the first appearance of each item the total quantity required for distribution and contingency planning purposes. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for 1 year.

h. Depot Maintenance Allowance Per 100 Equipments, Column 9. This column indicates opposite the first appearance of each item, the total quantity authorized for depot maintenance of 100 equipments. Subsequent appearances of the same item will have the letters "REF" in the allowance column. Items authorized for use as required, but not for initial stockage, are identified with an asterisk in the allowance column.

i. Illustration, Column 10. This column is divided as follows:

(1) *Figure number, column 10a.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item number or reference designation, column 10b.* Indicates the reference designation used to identify the item in the illustration.

B-4. Special Information

a. Repair parts mortality is computed from failure rates derived from experience factors with the individual parts in a variety of equipments. Variations in the specific application and periods of use of electronic equipment, the fragility of electronic piece parts, plus intangible material and quality factors intrinsic to the manufacture of electronic parts, do not permit mortality to be based on hours of end item use. However, long periods of continuous use under adverse conditions are likely to increase repair parts mortality.

b. Dry batteries shown are used with the equipment but are not considered part of the equipment. They will not be preshipped automatically but are to be requisitioned in quantities necessary for the particular organization, in accordance with SB 11-6.

c. Alternate items (sequence numbers A410 through A469) are items that might possibly be shipped as substitute items instead of regular items. Use these items if required.

B-5. Location of Repair Parts

a. This appendix contains two cross-reference indexes (sec. IV and sec. V) to be used to locate a repair part when either the Federal stock number, reference number (manufacturer's part number), or reference designation is known. The first column in each index is prepared in numerical and/or alpha-numeric sequence in ascending order. Where a Federal stock number is not listed, refer to the reference number (manufacturer's part numbers) immediately following the Federal stock number.

b. When the Federal stock number is known, follow the procedures given in (1) and (2) below.

(1) Refer to the index of Federal stock numbers (sec. IV) and locate the Federal stock number. The FSN is cross-referenced to the applicable figure and reference designation.

(2) When the reference designation is determined, refer to the reference designation index (sec. V). The reference designations are listed in alpha-numeric ascending order and are cross-referenced to the page number on which they appear in the repair parts list (sec. II). Refer to the page number noted in the index and locate the reference designation (col. 10b). If the word "REF" appears in the allowance column for the repair part, note the Federal stock number (col. 2) or manufacturer's part number (col. 3). Refer to the FSN index and note the reference designation for that FSN or part number. Refer to the reference designation index and note the page number given for the reference designation. Refer to the page noted in the RPSTL (sec. II) and locate the reference designation in column 10b of the repair parts list.

c. When the reference designation is known, follow the procedures given in *b* (2) above.

d. When neither the FSN nor reference designation is known, identify the part in the illustration and follow directions given in *c* above or scrutinize column 3 of the repair parts list (sec. II).

B-6. Federal Supply Codes for Manufacturers

Code	*Manufacturer's Name*
06400	Joint Photographic Type Designation System
47904	Polaroid Corp
67144	Zeiss Carl Inc

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF EAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE a) -20	b) -50	(c) -10	(7) GS MAI b) -5	c) -10	(8) YR PER QUIP TGCY	(9) EPOT MAINT MAN PER 100 QUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO., OR REFERENCE DESIGNATI
	720-935-381	A001 CAMERA SET, STILL PICTURE KS-101A: (This item is nonexpendable)												
G-O-R	720-935-379	A001A CAMERA, STILL PICTURE: (This item is nonexpendable)		EA	1									
X2-F		A002 BODY ASSEMBLY, BELLOWS: 188603 (47904)		EA	1								3-1	A1
P-F	720-880-536	A003 BELLOWS ASSEMBLY: 196378 (47904)		EA	1								3-6	A2
X2-F	5305	A004 SCREW, BELLOWS: 76188 (47904)		EA	4								3-1	A2H1
X2-F	5720-498-247	A005 LIGHT SEAL, BE LLOWS: 157805 (47904)		EA	1								3-6	A2MP2
X2-F	720-498-642	A006 LIGHT SEAL , FRAME, BELLOWS: 160547 (47904)		EA	1								3-1	A2MP1
X2-F	720-498-642	A007 FLASH WIRE TAB ASSEMBLY: 204010 (47904)		EA	2								3-6	A3
P-F	5760-554-476	A008 CABLE RELEASE , WIRE TAB: 204008 (47904)		EA	1	*	*	2					3-6	A3MP3
X2-F	6720	A009 BODY ASSEMBLY: 188604 (47904)		EA	1								3-6	A4
P-F	5340-933-394	A010 LATCH, RELEASE: 146674 (47904)		EA	1	*	*	2					3-6	A4MP4
X2-F	5305	A011 SCREW: 121180 (47904)		EA	1								3-6	A4H2
X2-F	6720	A012 MAGNET: 188090 (47904)		EA	1								3-6	A4E1
P-F	5340-933-518	A013 PIVOT , LATCH: 157899 (47904)		EA	1	*	*	2					3-6	A4MP5
X2-F	6720	A014 PIVOT , MAGNET: 185640 (47904)		EA	1								3-6	A4MP6
X2-F	6720	A015 PIVOT PAD, R. F.-V. F.: 149710 (47904)		EA	2								3-6	A4MP7
X2-F	5999	A016 POLE PIECE: 188089 (47904)		EA	2								3-6	A4MP8
P-F	5720-911-34	A017 RELEASE ARM/ NOT THREADED: 149610 (47904)		EA	1	*	*	2					3-6	A4MP9
X2-F	5305	A018 SCREW: SAME AS A011		EA	1								3-6	A4H2A
P-F	5720-911-34	A019 SLOT COVER: 149556 (47904)		EA	1	*	*	2					3-6	A4MP10
X2-F	6720	A020 SPRING, MAGNET: 195194 (47904)		EA	1								3-6	A4MP11
P-F	5340-918-80	A021 SPRING, MOUNTING PLATE: 157923 (47904)		EA	1	*	*	2					3-6	A4MP12
P-F	5320-914-74	A022 RIVET: 121741 (47904)		EA	2	*	*	2					3-6	A4H3

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF EAS	(5) QTY C IN NIT	(6) 10-DAY DS MAINT ALLOWANCE a) 20	b) -50	c) 10(	(7) O-D a) 20	GS MAI b) -5(	IT c) 10(	(8) YR PRI TGC1	(9) POT INT PER IO IIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-F	5340-933-525(	A023 SPRING, RELEASE LATCH: 160416 (47904)		EA	1									3-6	A4MP13
P-F	5340-917-607(	A024 RING, DEE: 160455 (47904)		EA	2							3		3-6	A4H4
P-F	6720-911-391(	A025 STRAP LUG: 157804 (47904)		EA	2									3-6	A4H5
P-F	6720-614-6329	A026 BAR, TAB STRIP: 163085 (47904)		EA	1									3-6	A4MP14
P-F	5305-917-7042	A027 SCREW, THB, STRIP BAR: 160465 (47904)		EA	2									3-6	A4H6
X2-F	6720-490-569	A028 INNER FRAME BOTTOM ASSEMBLY: 154575 (47904)		EA	1									3-6	A5
X2-F	6720	A029 INNER FRAME BOTTOM: 149601 (47904)		EA	1									3-6	A5MP15
X1-F		A030 TRACK GUIDE: 149550 (47904)		EA	1									3-6	A5MP16
X1-F		A031 RIVET: 157876 (47904)		EA	1									3-6	A5H7
X2-F	6760-554-470	A032 BUSHING ASSY, SHUTTER REL: 155117 (47904)		EA	1									3-6	A6
X2-F	6720-491-054	A033 BEZEL, SHUTTER RELEASE: 153234 (47904)		EA	1									3-6	A6MP17
P-F	5355-498-246	A034 KNOB, SHUTTER RELEASE: 146689 (47904)		EA	1									3-6	A6MP18
X2-F	6720	A035 PIVOT PIN, OUTER FRAME BOTTOM: 149553 (47904)		EA	1									3-6	A6MP19
X2-F	6720-498-641	A036 SPACER, OUTER FRAME BOTTOM: 153235 (47904)		EA	1									3-6	A6H8
X2-F	6720-490-570	A037 SPACER, OUTER FRAME TOP: 149554 (47904)		EA	1									3-(	A6H9
P-F	5360-498-646	A038 SPRING, RETURN: 149551 (47904)		EA	1							0		3-(	A6MP20
P-F	6720-490-570	A039 TIP, SHUTTER RELEASE: 155106 (47904)		EA	1							0		3-(	A6MP21
X2-F	5310-239-608	A040 WASHER, SPRING: 160460 (47904)		EA	1									3-(	A6H10
P-F	6720-490-570	A041 FOCUS BAR ASSEMBLY: 196372 (47904)		EA	1									3-(	A7
X2-F	5320-238-934	A042 RIVET, BRAKE: 154565 (47904)		EA	1									3-(	A7H11
X2-F	6720-490-567	A043 SLEEVE, BRAKE: 154560 (47904)		EA	1									3-(	A7H22
X2-F	5360-498-644	A044 SPRING, BRAKE: 155120 (47904)		EA	1									3-(	A7MP23
X2-F	5310-236-063	A045 WASHER, BRAKE: 154562 (47904)		EA	1									3-	A7H12
X2-F	6720	A046 BUSHING, FOCUS BAR, LEFT: 155121 (47904)		EA	1									3-	A7H13
X2-F	5320-498-245	A047 RIVET, FOCUS BAR: 154564 (47904)		EA	2									3-(	A7H14

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE a) -20	b) -50	c) -10	30- a) -20	GS WAI b) -5	NT (c) -10	(8)	(9)	ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATI
X2-F	6720	A048 SLEEVE, FOCUS BAR, LEFT: 154563 (47904)		EA	1									3-6	A7MP24
X2-F	6720-912-1614	A049 SLEEVE, FOCUS BAR, RIGHT: 154561 (47904)		EA	1									3-6	A7MP25
X2-F	6720-912-1633	A050 WASHER, FOCUS BAR, RIGHT: 154558 (47904)		EA	1									3-6	A7H15
X2-F	6720-912-1632	A051 BRACKET, FOCUS BAR: 154559 (47904)		EA	1									3-6	A7MP26
X2-F	5320-917-9865	A052 RIVET, FOCUS BAR: 82760 (47904)		EA	2									3-6	A7H16
P-F	6720-498-2472	A053 FOCUS BUTTON, LEFT: 196439 (47904)		EA	1									3-6	A7MP27
P-F	6720-496-9741	A054 FOCUS BOTTON, RIGHT: 196438 (47904)		EA	1									3-6	A7MP28
P-F	5320	A055 RIVET : 157860 (47904)		EA	2									3-6	A7H17
P-F	6720-912-0807	A056 FOCUS BAR PLATE: 157919 (47904)		EA	1									3-6	A7MP29
P-F	6720-933-4037	A057 PLATE, ZONE FOCUS: 146684 (47904)		EA	1									3-6	A7MP30
X2-F	6720-498-6421	A058 INNER FRAME TOP: 149567 (47904)		EA	1									3-6	A7MP31
X2-F	6720-498-6419	A059 DETENT SLIDE: 149566 (47904)		EA	1									3-6	A7MP32
X2-F	5320-498-2459	A060 RIVET : 149516 (47904)		EA	1									3-6	A7H18
P-F	5360-236-0640	A061 SPRING, DETENT SLIDE: 157869 (47904)		EA	1									3-6	A7MP33
P-F	6760-554-4771	A062 NECK STRAP ASSEMBLY: 163016 (47904)		EA	1									3-6	A8
X2-F	6720	A063 BUCKEL: 157824 (47904)		EA	1									3-6	A8H19
X2-F	6720	A064 KEEPER: 157821 (47904)		EA	1									3-6	A8H20
X2-F	6720	A065 NECK STRAP BAND: 160573 (47904)		EA	1									3-6	A8H21
X2-F	6720-490-5693	A066 U-FRAME ASSEMBLY: 149545 (47904)		EA	1									3-6	A9
X2-F	6730-760-6152	A067 BUSHING, SHUTTER MOUNT: 157857 (47904)		EA	1									3-6	A9MP34
X2-F	6720-490-5706	A068 LINK PIVOT: 149581 (47904)		EA	2									3-6	A9MP35
X2-F	5320-497-9788	A069 RIVET, SPRING, SHUTTER MOUNT: 162912 (47904)		EA	1									3-6	A9H22
X2-F	6720-490-5705	A070 LINK PIVOT SPACER: 149552 (47904)		EA	2									3-6	A9H23
G-O	6760-880-5263	A071 CASE ASSEMBLY, PHOTOGRAPHIC: 322 (47904)		EA	1										A10
P-F	6720-490-5704	A072 COVER ASSEMBLY, FRONT: 163313 (47904)		EA	1									3-2	A11
X2-F	6720	A073 CLIP SPRING ASSEMBLY: 160549 (47904)		EA	1									3-2	A12

SECTION II REPAIR PARTS FOR DIRECT SUPPO GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	4) UNIT OF MEAS	5) QTY INC IN UNIT	(6) 30-DAY DS/GS ALLOWANCES a) 1-20	(b) 21-50	c) 51-100	(7) 1-YR ALW a) 1-20	b) 21-50	c) 51-100	8) 1-YR ALW PER 100 EQUIP CGY	9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	720	A074	CLIP: 157951 (47904)	EA										3-2	A12H24
X2-F	6720	A075	CLIP SPRING: 157950 (47904)	EA										3-2	A12MP36
P-F	6720	A076	COLD CLIP: 163047 (47904)	EA											A13
P-F	340-919-5255	A078	HINGE, MOUNTING CLIP: 157933 (47904)	EA										3-2	A13MP37
P-F	340-919-5254	A079	HINGE PIN, MOUNTING PLATE: 160450 (47904)	EA										3-2	A13H25
X2-F	720	A080	HINGE, MOUNTING PLATE: 157934 (47904)	EA	1									3-2	A13MP38
X2-F	5320	A081	RIVET: 160449 (47904)	EA	2									3-2	A13H26
X2-F	6720	A082	LATCH PLATE: 160439 (47904)	EA	1									3-2	A13MP39
X2-F	5305	A083	SCREW: 160550 (47904)	EA	2									3-2	A13H27
P-F	720-908-9080	A084	DOOR ASSEMBLY, REAR: 146860 (47904)	EA	1		*							3-1	A14
P-F	315-403-7694	A085	HINGE PIN: 149526 (47904)	EA	1		*							3-1	A14H28
P-F	315-181-6251	A086	HINGE PLUG: 157887 (47904)	EA	2		*							3-1	A14H29
X2-F	6720	A087	COVER ASSEMBLY, REAR: 155318 (47904)	EA	1									3-1	A15
X2-F	6720	A088	REAR COVER: 146835 (47904)	EA	1									3-7	A15MP40
X2-F	6720	A089	REAR COVER SPIDER: 155312 (47904)	EA	1									3-7	A15MP41
X2-F	5320	A090	RIVET : 157830 (47904)	EA	1									3-7	A15H30
X2-F	5320	A091	RIVET: 157897 (47904)	EA	1									3-7	A15H31
P-F	6720-496-973	A092	EDGE CONTROL BAR ASSEMBLY: 163154 (47904)	EA	1	*	*							3-7	A16
X2-F	6720	A093	DOOR, REAR: 146834 (47904)	EA	1									3-7	A16MP42
X2-F	6720	A094	ROLL LATCH: 161121 (47904)	EA	1									3-7	A16MP43
X2-F	5320	A095	RIVET : SAME AS A091	EA	4									3-7	A16H31
X2-F	6720	A096	REAR DOOR SPIDER ASSEMBLY: 155503 (47904)	EA	1									3-7	A17
X2-F	6720	A097	REAR DOOR SPIDER: 149766 (47904)	EA	1									3-7	A17MP44
X2-F	6720	A098	HINGE, DOOR: 146688 (47904)	EA	1									3-7	A17MP45
X2-F	5320-914-740	A099	RIVET : SAME AS A022	EA	3									3-7	A17H32
X2-F	6720	A100	EXIT COVER FRAME ASSEMBLY: 155282 (47904)	EA	1									3-7	A18
X2-F	5320-914-740	A101	RIVET : SAME AS A022	EA	3									3-7	A18H32
X2-F	6720	A102	COVER FRAME: 146871 (47904)	EA	1									3-7	A18MP46

SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	30- (a) -20	DS LOW (b) 1-5C	NT (c) -10	(7) (a) 0	GS MAIN (b) -5(	NT (c) -10	(8) YR PEI QUI TGC	(9) POT INT PER DO UIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	3720	A103 GUIDE BAR, EXIT : 155340 (47904)		EA	1									3-7	A18MP47
X2-F	5320	A105 RIVET: 160402 (47904)		EA	3									3-7	A18H33
P-F	720-914-589	A106 EXIT DOOR ASSEMBLY: 157932 (47904)		EA	1									3-7	A19
P-F	360-498-646	A107 SPRING, PIVOT, EXIT DOOR: 157894 (47904)		EA	1									3-7	A19MP48
P-F	307-933-380	A108 STUD, PIVOT, EXIT DOOR: 157895 (47904)		EA	2							0		3-7	A19H34
X2-F	720-933-403	A109 PLATE, EXIT COVER: 146678 (47904)		EA	1									3-7	A19MP49
X2-F	3720	A110 DOOR SPRING: 157904 (47904)		EA	1									3-7	A19MP50
X2-F	320-914-740	A111 RIVET : SAME AS A022		EA	2									3-7	A19H32
X2-F	3720	A112 SPRING, ROLL FRAME : 157992 (47904)		EA	2									3-7	A19MP51
X2-F	320-933-488	A113 RIVET, SPRING STOP: 76121 (47904)		EA	2									3-7	A19H35
X2-F	3720	A114 FRAME ROLLER SUPPORT ASSY: 146753 (47904)		EA	1									3-7	A20
X2-F	3720	A115 FRAME ROLLER SUPPORT: 149755 (47904)		EA	1									3-7	A20MP52
X2-F	5315	A116 LATCH PIN: 160532 (47904)		EA	1									3-7	A20MP53
X2-F	6720	A117 PLATE , SLIDE: 157842 (47904)		EA	2									3-7	A20MP54
X2-F	320-914-740	A118 RIVET : SAME AS A022		EA	4									3-7	A20H32
X2-F	6720	A119 ROLL SUPPORT, FRONT, RIGHT: 155321 (47904)		EA	1									3-7	A20MP55
X2-F	6720	A120 ROLL, SUPPORT , FRONT, LEFT : 155322 (47904)		EA	1									3-7	A20MP56
X2-F	6720	A121 PIVOT , SPREAD ROLL: 157809 (47904)		EA	2									3-7	A20MP57
P-F	720-911-350	A122 ROLLER, FRONT : 149613 (47904)		EA	1	*	2					2		3-7	A20MP58
P-F	720-933-252	A123 BUSHING, ROLLER: 149517 (47904)		EA	2	*	2					8		3-7	A20MP59
P-F	720-911-382	A124 ROLLER, REAR: 149612 (47904)		EA	1	*	2					2		3-7	A20MP60
P-F	720-933-252	A125 BUSHING, ROLLER: SAME AS A123		EA	2	RE	RE	RE	E	E	E	RE	EF	3-7	A20MP59A
P-F	720-913-066	A126 SPRING, SPREAD ROLL : 155287 (47904)		EA	2	*	*					0		3-7	A20MP61
P-F	720-911-382	A127 SLIDE BLOCK ASSEMBLY: 155330 (47904)		EA	1	*	*							3-7	A21
P-F	720-914-589	A128 SHAFT , CAMERA BODY: 157838 (47904)		EA	1	*	*							3-7	A21MP62
P-F	340-919-525	A129 SPRING, LOCATING: 149574 (47904)		EA	2	*	*							3-7	A21MP63

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION / REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) a) -20	(6) b) -50	(6) c) -10	(7) a) -20	(7) b) -50	(7) c) -10	(8)	(9)	(10) ILLUSTRATIONS a) FIG NO.	(10) b) ITEM NO. OR REFERENCE DESIGNATION
P-F	340-933-462	A130 SPRING, SLIDE BLOCK: 157841 (47904)		EA	1									-7	A21MP64
X2-F	3720	A131 SLIDE BLOCK: 155329 (47904)		EA	1									-7	A21MP65
P-F	720-914-619	A132 COVER, SLIDE BLOCK: 163151 (47904)		EA	1									-7	A21MP66
P-F	305-917-990	A133 SCREW: 157837 (47904)		EA	3							)		-7	A21H36
P-F	720-914-589	A134 LINK, SLIDE BLOCK: 157839 (47904)		EA	1									-7	A21MP67
P-O-R	760-900-829	A135 FLASH GUN ASSEMBLY: 268 (47904)		EA	1							)			A22
P-O	720-490-570	A136 FLASH CONNECTOR & CORD ASSY: 161172 (47904)		EA	1							)			A23
X2-O	3135	A136A CONTACT, BATTERY: 146766 (47904)		EA	1										A23MP68
X1-O		A137 SCREW, SHELF TAPPING, LH THD: 220463 (47904)		EA	1										A23H37
X1-O		A138 MOUNTING FOOT ASSEMBLY: 146897 (47904)		EA	1										A24
X1-O		A139 SCREW: 157849 (47904)		EA	2										A24H38
X1-O		A140 SPRING: 157911 (47904)		EA	1										A24MP69
X1-O		A141 RELEASE LEVER, MOUNTING FOOT: 155358 (47904)		EA	1										A24MP70
X1-O		A142 PIVOT, MOUNTING FOOT: 160468 (47904)		EA	1										A24MP71
X1-O		A143 COLLAR: 155342 (47904)		EA	1										A24H39
X1-O		A144 HOUSING: 143851 (47904)		EA	1										A24MP72
X1-O		A145 EJECTOR BUTTON: 146765 (47904)		EA	1										A24MP73
X1-O		A146 INSULATOR, .026 IN. THICK: 154524 (47904)		EA	1										A24E2
X1-O		A147 BATTERY CUP: 155326 (47904)		EA	1										A24MP74
X1-O		A148 PLATE, MOUNTING: 155332 (47904)		EA	1										A24MP75
X1-O		A149 SCREW: 154525 (47904)		EA	2										A24H40
	3135	A150 BATTERY, 1.5 VOLT: 144866 (47904)		EA	1										A24BT2
P-O	720-490-569	A151 REFLECTOR ASSEMBLY: 143866 (47904)		EA	1										A25
X1-O		A152 REFLECTOR: 155300 (47904)		EA	1										A25MP76
X1-O		A153 REFLECTOR SHIELD: 155328 (47904)		EA	1										A25MP77
X1-O		A154 HINGE PIN, REFLECTOR SHIELD: 157852 (47904)		EA	1										A25H41

SMR CODE	FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF EAS	(5) QTY IC IN NIT	(6) 30-DAY DS MAINT ALLOWANCE (a) 20	(b) 1-50	(c) 101	0-DAY GS ALLOWAI (a) 20	(b) 51	T (c) 10(	(8) YR PE UII GC'	(9) POT INT PERR NO JIP	(10) ILUSTRATIONS (a) IG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X1-O		A155 SOCKET ASSEMBLY: 146893 (47904)		EA	l										A26
X1-O		A156 SPACER, DETENT: 160597 (47904)		EA	l										A26H42
X1-O		A157 SPRING, DETENT: 155216 (47904)		EA	l										A26MP78
X1-O		A158 RETAINER: 163048 (47904)		EA	l										A26H43
X1-O		A159 BATTERY ASSEMBLY 4. 5 VOLT: 155285 (47904)		EA	1									-6	A26BT1
X1-O		A160 BATTERY TERM. ARM , POS. LEAD: 160406 (47904)		EA	1									-1	A26BT1-1
X1-F		A161 C LIP, BANDING: 130501 (47904)		EA	1									-1	A26H44
X1-F		A162 SOCKET: 155116 (47904)		EA	1										A26H45
X1-F		A162A EYELET: 160409 (47904)		EA	1										A26H46
P-F	5940	A163 BATTERY CLIP: 155426 (47904)		EA	1							)		-6	A26H47
P-F	305-917-990	A164 SCREW: 162914 (47904)		EA	1							)		-6	A26H48
P-F	6720-912-131	A165 BATTERY INTERLOCK ASSEMBLY: 157918 (47904)		EA	1							)		-6	A27
X2-F	6720	A166 SPRING, CONTACT : 155177 (47904)		EA	1									-6	A27MP79
X2-F	6320 -917-986	A167 RIVET , SPRING CONTACT: 157877 (47904)		EA	1									-6	A27H49
X2-F	5970	A168 INSULATING BLOCK ASSEMBLY: 160407 (47904)		EA	1									-6	A28
X2-F	5970	A169 INSULATOR BLOCK: 160400 (47904)		EA	1									-6	A28E3
X2-F	5305	A170 SCREW, INSULATOR BLOCK: 160561 (47904)		EA	1									-6	A28H50
X2-F	6720	A171 CONTACT, INTERLOCK: 160404 (47904)		EA	1									-6	A28MP80
X2-F	6720-490-569	A172 LEFT HAND GUARD ASSEMBLY: 155316 (47904)		EA	1									-6	A29
X2-F	6720-490-569	A173 FASTENER, HAND GUARD, LEFT: 162940 (47904)		EA	2									-6	A29H51
X2-F	6720-913-047	A174 RETAINER , CENT ER: 160431 (47904)		EA	1									-6	A29H52
X2-F	672 0-912 -10(	A175 LATCH, REAR COVER: 146752 (47904)		EA	1									-6	A29MP81
X2-F	5305-919-520	A176 SCREW: 160591 (47904)		EA	1									-6	A29H53
X2 -F	5940-554-470	A177 BATTERY TERMINAL ARM ASSEMBLY: 157920 (47904)		EA	1									-6	A30
X2-F	6720-914-589	A178 BATTERY TERM. ARM, NEG. LEAD: 160405 (47904)		EA	1									-6	A30E4

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	REFERENCE NUMBER & MFR. CODE	DESCRIPTION	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30 DS LOW (a) -20	(6) (b) 1-50	(6) NT (c) -100	(7) 30-I GS WAI (a) -20	(7) (b) -50	(7) NT (c) -10	(8) 1 YR W PEI QUII TGCY	(9) POT INT W PEF 00 UIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
X2-F	307-933-334!	A179	STUD: 155115 (47904)		EA	1									3-6	A30H54
X2-F		A180	EYELET: SAME AS A162A		EA	1									3-6	A30H46
X2-F	6720	A181	CONTACT: 155178 (47904)		EA	1									3-6	A30H55
X2-F		A182	EYELET: SAME AS A162A		EA	1									3-6	A30H46
X2-F	6720	A183	LEFT HAND GUARD: 146840 (47904)		EA	1									3-6	A30MP82
P-H	720-911-3671	A184	LIGHT SEAL ASSEMBLY: 155118 (47904)		EA	1									3-6	A31
X2-H	320-916-606!	A185	RIVET : 76175 (47904)		EA	4									3-6	A31H56
X2-H	340-933-352!	A186	HINGE , STATIONARY: 146687 (47904)		EA	1									3-6	A31H57
P-F	320-914 -740(	A187	RIVET: SAME AS A022		EA	1	RE	RE	RE F	REI	RE I	REI	RE F	EF	3-6	A31H3
X2-H	340-937-971'	A188	SPRING STOP: 149520 (47904)		EA	1									3-6	A31MP83
X2 -H	320-933-488!	A189	RIVET, SPRING STOP: SAME AS A113		EA	2									3-6	A31H58
X2-F	720-496-973!	A190	FILLER, LEFT: 157915 (47904)		EA	1									3-6	A31H59
X2-F	720-914-589!	A191	FILLER, RIGHT: 157916 (47904)		EA	1									3-6	A31H60
P-H	720-496-976(	A192	RANGEFINDER VINE - FINDER ASSY: 20-1518-00-000 (67144)		EA	1							0		3-1	A32
X2-H	5315	A193	HINGE PIN, RIGHT: 20-1518-02-001 (67144)		EA	1									3-8	A32H61
P-H	340-919-534!	A194	HINGE PIN, LE FT : 20-1518-02-002 (67144)		EA	1									3-8	A32H62
X2 -H	3720	A195	COVER: 20-1518-00-001 (67144)		EA	1									3-8	A32MP84
X2-H	5305	A1 96	SCREW, COVER: 20-1518-00-003 (67144)		EA	2									3-8	A32H63
X2-H	3720	A197	RANGEFINDER HOUSING ASSEMBLY: 20-1518-01-000 (67144)		EA	1									3-8	A32MP85
X2-H	3720	A197A	COVER PLATE: 20-1518-01-025 (67144)		EA	1									3-8	A32MP86
X2-H	5305	A197B	SCREW: 20-1518-01-026 (67144)		EA	2									3-8	A32H64
X2-H	3720	A198	EYELENS: 20-1518-01-001 (67144)		EA	1									3-8	A32MP87
X2 -H	3720	A199	SHIM, EYELENS: 20-1518-01-005 (67144)		EA	6									3-8	A32MP88
X2-H	3720	A200	BEAM SPLITTER: 20-1518-01-002 (67144)		EA	1									3-8	A32H65
X2-H	3720	A201	SPRING, BEAM SPLITTER: 20-1518-01-004 (67144)		EA	1									3-8	A32MP89
X2-H	3720	A202	LENS, OBJECTIVE: 20-1518-01-006 (67144)		EA	1									3-8	A32MP90

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INCL IN UNIT	(6) 30- DS OWA a) 20	(6) DS OWA b) -50	(6) IT c) 10	(7) 10-C a) 20	(7) IS IAN b) -50	(7) T c) 10	(8) YR PER UIP GCY	(9) QTY PER END ITEM	(10) ILLUSTRATIONS (a) FIG NO.	(10) ILLUSTRATIONS (b) ITEM NO. OR REFERENCE DESIGNATION
X2-H	5305	A203 SCREW: KV20-1518-3 (67144)		EA										3-8	A32H66
X2-H	3720	A204 MAGNIFYING LENS FRAME ASSEMBLY: 20-1518-01-175U (67144)		EA										3-8	A33
X2-H	3720	A204A MAGNIFYING LENS: 20-1518-01-076 (67144)		EA										3-8	A33MP91
X2-H	3720	A204B TUBE: 20-1518-01-077 (67144)		EA										3-8	A33MP92
X2-H	3720	A204C SHIM: ZIN2351MS (67144)		EA										3-8	A33H67
X2-H	5305	A205 SCREW: KV20-1518-8 (67144)		EA										3-8	A33H68
X2-H	3720	A206 SPRING, MAGNIFYING LENS FRAME : 20-1518-01-008 (67144)		EA										3-8	A33MP93
X2-H	6720	A207 COVER PLATE, MAGNIFYING LENS: 20-1518-01-009 (67144)		EA										3-8	A33MP94
X2-H	6720	A208 MOVABLE IMAGE LENS HOLDER AS SY: 20-1518-01-100U (67144)		EA										3-8	A34
X2-H	6720	A209 ADJUSTABLE LENS : 20-1518-01-014 (67144)		EA										3-8	A34MP95
X2-H	6720	A209A LENS HOLDER: 20-1518-01-101 (67144)		EA										3-8	A34MP96
X2-H	5305	A210 SCREW, ADJUSTING: 20-1518-01-015 (67144)		EA										3-8	A34H69
X2-H	5305	A210A SCREW, ADJUSTING: ZIN2282-5S (67144)		EA										3-8	A34H70
X2-H	6720	A211 SPRING: 20-1518-01-016 (67144)		EA										3-8	A34MP97
X2-H	5305	A212 SCREW: 20-1518-01-031 (67144)		EA										3-8	A34H71
X2-H	6720	A213 MOVABLE IMAGE APERTURE PLATE: 20-1518-01-010 (67144)		EA										3-8	A34MP98
X2-H	5305	A214 SCREW, ADJUSTING: 20-1518-01-030 (67144)		EA										3-8	A34H72
X2-H	6720	A215 SPRING: 20-1518-01-011 (67144)		EA										3-8	A34MP99
X2-H	6720	A216 SPRING, MOVABLE IMAGE LENS: 20-1518-01-022 (67144)		EA										3-8	A34MP100
X2-H	5340	A217 RING, RETAINING : 2ZIN2363 (67144)		EA	1									3-8	A34H73
X2-H	6720	A218 MIRROR: 20-1518-01-012 (67144)		EA	1									3-8	A34MP101
X2-H	5305	A219 SCREW, ADJUSTING: 20-1518-01-102 (67144)		EA	3									3-8	A34H74
X2-H	6720	A220 SPRING, MIRROR : 20-1518-01-013A (67144)		EA	1									3-8	A34MP102

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY IN UNIT	(6) 30- (a) -20	Y DS LOWAN (b) -50	INT (c) -10	30- (a) -20	GS DWAI (b) -5	NT (c) -10	(8)	(9)	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-H	5305	A221 SCREW: KV20-1518-7 (67144)		EA	1									3-8	A34H75
X2-H	6720	A222 BUSHING, ECCENTRIC : 20-1518-01-017 (67144)		EA	1									3-8	A34H76
X2-H	6720	A223 SHIM: SAME AS A204C		EA	1									3-8	A34H67
X2-H	5305	A224 SCREW: ZIN2511-5S (67144)		EA	1									3-8	A34H77
X2 -H	6720	A225 BUSHING: 20-1518-01-018 (67144)		EA	1									3-8	A34H78
X2-H	6720	A226 SHIM: SAME AS A204C		EA	1									3-8	A34H68
X2-H	5305	A227 SCREW: SAME AS A224		EA	1										A34H77A
X2-H	6720	A228 R. F. -V. F. CAM SUB-ASSEMBLY: 20-1518 -01-120U (67144)		EA	1									3-8	A35
X2 -H	6720	A229 CAM: 20-1518-01-121 (67144)		EA	1									3-8	A35MP103
X2-H	6720	A230 CAM SPRING: 20-1518-01-021 (67144)		EA	1									3-8	A35MP104
X2-H	6720	A231 BUSHING: 20-1518-01-122 (67144)		EA	1									3-8	A35H79
X2-H	6720	A232 CAM GUIDE : 20-1518-01-123 (67144)		EA	1									3-8	A35MP105
X2-H	6720	A233 SLIDING MASK LEVER SUB-ASSY: 20-1518 -01-080U (67144)		EA	1									3-8	A36
X2-H	5307	A234 PIVOT STUD: ZIN1312 (67144)		EA	1									3-8	A36H80
X2-H	5340	A235 RETAINING RING: DIN6799 (67144)		EA	3									3-8	A36H81
X2-H	6720	A236 LEVER: 20-1518-01-081 (67144)		EA	1									3-8	A36MP106
X2-H	6720	A236A BUSHING: 20-1518-01-082 (67144)		EA	1									3-8	A36H83
X2-H	5305	A237 SCREW: 20-1518-01-083 (67144)		EA	1									3-8	A36H82
X2-H	5320	A238 ECCENTRIC RIVET: 20-1518-01-084 (67144)		EA	1									3-8	A36H84
X2 -H	6720	A239 SLIDING MASK SUB-ASSEMBLY: 20-1518 -01-090U (67144)		EA	1									3-8	A37
X2-H	6720	A239A INTERLOCK, SLIDING MASK: 20-1518 -01-023 (67144)		EA	1									3-8	A37MP107
X2-H	6720	A240 SPRING, SLIDING MASK: 20-1518-01-020A (67144)		EA	1									3-8	A37MP108
X2-H	6720	A241 SLIDING MASK: 20-1518-01-091 (67144)		EA	1									3-8	A37MP109
X2 -H	5320	A242 RIVET: 20-1518-01-092 (67144)		EA	1									3-8	A37H85
X2 -H	5307	A243 PIVOT STUD: SAME AS A234		EA	1									3-8	A37H80

(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION EFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) NIT OF EAS	(5) QTY IC IN NIT	(6) 30- a) 20	(6) DS OMA b) -50	(6) NT c) 10(	(7) 10-(a) 20	(7) GS MAN b) -50	(7) NT c) -10	(8) YI V PE QUI TGC	(9) POT INT (PEI IO UIP	(10) LLUSTRATIONS (a) IG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
720	.244 PARALLAX MASK SUB-ASSEMBLY: 20-1518 -01-095U (67144)		EA	1									I-8	A38
720	.245 PARALLAX MASK: 20-1518-01-096 (67144)		EA	1									I-8	A38MP110
320	.246 RIVET: 20-1518-01-097 (67144)		EA	1									I-8	A38H86
307	.247 PIVOT STUD: SAME AS A234		EA	1									I-8	A38H80
720	.248 CANTILEVER SUB-ASSEMBLY: 20-1518-01-105U (67144)		EA	1									I-8	A39
720	.249 CANTILEVER: 20-1518-01-106 (67144)		EA	1									-8	A39MP111
720	.250 POST: 20-151 8-01-108 (67144)		EA	1									-8	A39MP112
320	.251 RIVET: 20-1518 -01-107 (67144)		EA	1									-8	A39H87
720	.252 BASEPLATE ASSEMBLY: 20-1518 -02-000 (67144)		EA	1									-8	A40
305	.252A SCREW ASSY: ZIN2085 -5S (67144)		EA	3									-8	A40H88
720	.253 BASEPLATE SUB-ASSEMBLY: 20-1518-02 -030U (67144)		EA	1									-8	A41
720	.254 BASEPLATE: 20-1518-02-031 (67144)		EA	1									-8	A41MP89
720	.255 SLOT PLUG, BASEPLATE: 20-1518 -20-005 (67144)		EA	1									-8	A41H90
720	.256 PLATE, MAGNET: 20-151 8-02-032 (67144)		EA	1									-8	A41MP113
307	.257 PIVOT STUD: SAME AS A234		EA	2									-8	A41H91
720	.258 SHUTTER ASSEMBLY: 198744 (47904)		EA	1									-8	A42
720	.259 LIGHT SEAL, FRONT CASTING: 163301 (47904)		EA	1									-8	A42MP114
720-490-569	A260 ETCH PLATE, TOP: 196034 (47904)		EA	1	*	*	2	*	*	2	10	1	-8	A42MP115
5720	A261 BASE BLK & ELEC MTG BLK ASSY: 188608-1 (47904)		EA	1	*	*	2	*	*	2	8	3	-8	A43
6720	A261A BASE BLK & ELEC MTG BLK ASSY: 188608-2 (47904)		EA	1	*	*	2	*	*	2	8	3		A43A
6720	A261B BASE BLK & ELEC MTG BLK ASSY: 188608-3 (47904)		EA	1	*	*	2	*	*	2	8	3		A43B
6720	A261C BASE BLK & ELEC MTG BLK ASSY: 188608-4 (47904)		EA	1	*	*	2	*	*	2	8	3		A43C
6720	A261D BASE BLK & ELEC MTG BLK ASSY: 188608-5 (47904)		EA	1	*	*	2	*	*	2	8	3		A43D

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30- a) -20	(6) DS .OWA b) -5C	(6) NT c) -10	(7) 30-I a) -20	(7) GS WAN b) -5(	(7) NT c) -10	(8) I YR W PEI QUIF ITGCY	9) POT INT V PE DO UIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P-F	6720	A261E BASE BLK & ELEC MTG BLK ASSY: 188608-6 (47904)		EA	1										A43E
P-F	6720	A261F BASE BLK & ELEC MTG BLK ASSY: 188608-7 (47904)		EA	1										A43F
X2-H	6720	A262 BASE BLOCK ASSEMBLY: 188610 (47904)		EA	1									3-4	A44
X2-H	6720	A263 BASE BLOCK: 143878 (47904)		EA	1									3-4	A44MP1 16
X2-H	6720	A264 BUMPER: 149869 (47904)		EA	1									3-4	A44H92
X2-H	5325	A265 BUMPER EYELET: 160562 (47904)		EA	1									3-4	A44H93
X2-H	6720	A266 PIVOT , APERTURE WHEEL: 149842 (47904)		EA	1									3-4	A44MP117
X2-H	6720	A267 PIVOT, BLADE LATCH: 149841 (47904)		EA	1									3-4	A44MP118
X2-H	6720	A268 PIVOT , COCKING ARM: 149839 (47904)		EA	1									3-4	A44MP119
X2-H	6720	A269 PIVOT, COCKING SLIDE LATCH: 149840 (47904)		EA	1									3-4	A44MP120
P-H	5315	A270 RETAINING PIN COCKING LATCH: 168169 (47904)		EA	1									3-4	A44H94
X2 -H	5315	A271 SLIDE PIN, SCENE SEL. SLIDER: 149851 (47904)		EA	1									3-4	A44MP121
P-H	5930	A272 SWITCH CONTACT, BATTERY-BOTTOM: 163028 (47904)		EA	1									3-4	A44S1-1
P-H	5930	A273 SWITCH CONTACT. BATTERY-TOP: 163027 (47904)		EA	1									3-4	A44S1-2
P-H	5970	A274 INSULATOR , SWITCH: 160598 (47904)		EA	1									3-4	A44E5
P-H	5320	A275 RIVET, OVAL HEAD: 162907 (47904)		EA	1									3-4	A44H95
X2-H	6720	A276 ACTUATOR DETENT SPRING ASSEMBLY: 149780 (47904)		EA	1									3-4	A45
X2 -H	5320	A277 RIVET: 155155 (47904)		EA	1									3-4	A45H96
X2-H	6720	A278 STOP, SPRING ADJUST - MENT : 149642 (47904)		EA	1									3-4	A45MP122
X2-H	5320	A279 RIVET: 155156 (47904)		EA	2									3-4	A45H97
X2 -H	6720	A280 SPRING, ACTUATOR DETENT: 146761 (47904)		EA	1									3-4	A45MP123
X2 -H	6720	A281 ROLLER, ACTUATOR DETENT: 155167 (47904)		EA	1									3-4	A45MP124
X2 -H	5315	A282 PIN, ACTUATOR DETENT : 155166 (47904)		EA	1									3-4	A45H98
P-H	5910	A283 CAPACITOR CONTACT- INNER: 1 52502 (47904)		EA	1							3		3-4	A45E6

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INCL IN UNIT	(6) 3D (a) -2(	(6) Y DS LOWA (b) 1-5(	(6) INT (c) -1(	(7) 3D- (a) -20	(7) GS OWA (b) 1-5	(7) AINT (c) 31-10	(8) L YR ALW PE EQUIP CNTGCY	(9) EPOT AINT LW PE OOD QUIP	(10) ILLUSTRATIONS (a) FIG NO.	(10) (b) ITEM NO. OR REFERENCE DESIGNATION
P-H	5320	A284 RIVET, OVAL HEAD: SAME AS A275		EA	1				REI	RE	REI	RE F	REF	3-4	A45H99
X2 -H	5910	A285 CAPACITOR CONTACT-COMMON: 149624 (47904)		EA	1									3-4	A45E7
P -H	5320	A286 RIVET, OVAL HEAD: SAME AS A284		EA	1				REI	RE	REI	REF	REF		A45H99A
P-H	6720	A287 X CONNECTOR STRIP (P/O S3 and S4): 149626 (47904)		EA	1						2	8		3-4	A45MP125
P-H	5970	A288 INSULATOR, X CONNEC - TOR STRIP: 155292 (47904)		EA	1						2	8		3-4	A45E9
P-H	5910	A289 CAPACITOR CONTACT-OUTER: 149621 (47904)		EA	2						2	10		3-4	A45E8
X2-H	5910	A290 CAPACITOR CONTACT LIGHT SEAL: 157927 (47904)		EA	1									3-4	A45MP126
X2-H	5320	A291 RIVET, OVAL HEAD: 160574 (47904)		EA	2									3-4	A45H100
P-H	5999 -496-977	A292 FLASH CONTACT-BREAK: 149623 (47904)		EA	1						2	6		3-4	A45E10
P -H	5720	A293 ADJUSTABLE CONTACT ASSEMBLY: 155248 (47904)		EA	1						2	6		3-4	A45S2
P-H	5320	A294 RIVET: 153263 (47904)		EA	1						2	6		3-4	A45H101
X2 -H	5970	A295 FLAT INSULATOR : 160413 (47904)		EA	1									3-4	A45E11
X2 -H	5720	A296 S-2 BREAKER CONTACT: 155305 (47904)		EA										3-4	A45S2-1
X2 -H	5320	A297 OVAL HEAD RIVET : 160425 (47904)		EA	1									3-4	A45H102
P -H	5999-496-977	A298 X CONTACT (P/O S4) : 149627 (47904)		EA	1						2	6		3-4	A45E12
P -H	5720	A299 SPRING S-2 ADJ CONTACT: 168167 (47904)		EA	1						2	6		3-4	A45MP12 7
P -H	5970	A300 S-2 INSULATOR: 155138 (47904)		EA							2	6		3-4	A45E13
P-H	5720	A301 S-2 ADJUSTABLE CONTACT : 149736 (47904)		EA							2	6		3-4	A45S2-2
P-H	5305	A302 S-2 ADJUSTABLE SCREW: 154881 (47904)		EA							2	6		3-4	A45H103
P-H	5720	A303 READOUT INDICATOR: 195916 (47904)		EA							2	6		3-4	A45MP128
P-H	5720	A304 READOUT INDICATOR SPRING: 157928 (47904)		EA							2	6		3-4	A45MP129
P-H	5720	A305 READOUT INDICATOR SLIDE PIN: 153259 (47904)		EA							2	3		3-4	A45H104
P-H	5720-490-569	A306 COCKING SLIDE LATCH ASSEMBLY: 149649 (47904)		EA							2	3		3-4	A46
P-H	5720-490-568	A307 COCKING SLIDE LATCH SPRING: 152501 (47904)		EA							2	3		3-4	A46MP130

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE a) -20	b) -5	c) -10	30-DAY GS ALLOWA a) -20	b) -5	NT c) -10	(8)	(9)	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-H	5340	A308 RETAINING RING: 155175 (47904)		EA	1									3-4	A46H105
X2-H	6720	A308A COCKING SLIDE LATCH: 152500 (47904)		EA	1									3-4	A46MP131
X2-H	6720	A308B BUSHING, COCKING SLIDE LATCH: 149861 (47904)		EA	1									3-4	A46H106
P-H	1760-554-476	A309 CLOSING BLADE ASSEMBLY: 146714 (47904)		EA	1									3-4	A47
X2-H	6720	A310 CLOSING BLADE: 152504 (47904)		EA	1									3-4	A47MP132
X2-H	6720	A311 BLADE SPRING PIN ROLLER: 149835 (47904		EA	1									3-4	A47MP133
X2-H	6720	A312 BLADE SPRING PIN: 149852 (47904)		EA	1									3-4	A47H107
X2-H	5315	A313 X BREAK PIN: 157861 (47904)		EA	1									3-4	A47E14
X2-H	6720	A314 COLLAR: 157863 (47904)		EA	1									3-4	A47H108
X2-H	6720	A315 CLOSING BLADE LIGHT SEAL: 155163 (47904)		EA	1									3-4	A47MP134
X2-H	6720	A316 CLOSING BLADE LHT. SEAL RETR: 155215 (47904)		EA	1									3-4	A47H109
X2-H	6720	A317 KEEPER: 152505 (47904)		EA	1									3-4	A47H110
X2-H	5315	A318 KEEPER PIN: 149853 (47904)		EA	1									3-4	A47H111
P-H	1760-554-472	A319 OPENING BLADE ASSEMBLY: 146715 (47904)		EA	1									3-4	A48
X2-H	6720	A320 OPENING BLADE: 152506 (47904)		EA	1									3-4	A48MP135
X2-H	6720	A321 ROLLER, OPENING BLADE SPRING: 160417 (47904)		EA	1									3-4	A48MP136
X2-H	5315	A322 BLADE SPRING PIN: SAME AS A312		EA	1									3-4	A48H112
X2-H	6720	A323 LIGHT SEAL BLOCK: 152515 (47904)		EA	1									3-4	A48MP137
X2-H	6720	A324 STOP BLOCK, LIGHT SEAL: 146780 (47904)		EA	1									3-4	A48MP138
X2-H	6720	A325 BLADE STIFFENER: 157908 (47904)		EA	1									3-4	A48MP139
X2-H	6720	A326 BLADE LATCH PIN SPACER: 160451 (47904)		EA	1									3-4	A48H113
X2-H	5315	A327 BLADE SATCH PIN: 149843 (47904)		EA	1									3-4	A48MP140
X2-H	5315	A328 X MAKE PIN: 157862 (47904)		EA	1									3-4	A48E15
X2-H	6720	A329 COLLAR: SAME AS A314		EA	1									3-4	A48H114
X2-H	6720	A330 CLOSING BLADE STOP BRDT. ASSY: 149782 (47904)		EA	1									3-4	A49

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS ALLOW (a) -20	(b) -5(	INT (c) -10	30- (a) -20	GS -DWAI (b) -5(	INT (c) -1C	(8) 1 YR LWP EQUIP (MTGC)	(9) DEPOT MAINTENANCE WORK REQUIREMENT	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-H	5320	A331 RIVET: 149844 (47904)		EA	1									3-4	A49H115
X2-H	6720	A332 CLOSING BLADE STOP BRACKET: 149742 (47904)		EA	1									3-4	A49MP141
X2-H	6720	A333 STOP BLOCK: 155141 (47904)		EA	1									3-4	A49MP142
P-H	6720-498-641	A334 SHOCK PAD: 155133 (47904)		EA	1				*	*	2	6	L	3-4	A49H116
X2-H	6720	A335 COCKING SLIDE ASSY-DESIGN 2: 161113 (47904)		EA	1									3-4	A50
X2-H	6720	A336 COCKING SLIDE-DESIGN 2: 161112 (47904)		EA	1									3-4	A50MP143
X2-H	6720	A337 OVERTRAVEL ARM PIVOT -DESIGN 2: 160599 (47904)		EA	1									3-4	A50MP144
X2-H	6720	A338 APERTURE WHEEL SPACER: 160433 (47904)		EA	1									3-4	A50H117
X2-H	6720	A339 OVERTRAVEL ARM SPRING-DSGN 2: 163026 (47904)		EA	1									3-4	A50MP145
X2-H	6720	A340 OVERTRAVEL ARM: 163029 (47904)		EA	1									3-4	A50MP146
X2-H	5315	A341 SLIDE PIN: 149858 (47904)		EA	1									3-4	A50MP147
X2-H	6720	A342 ROLLER: 149859 (47904)		EA	1									3-4	A50MP148
X2-H	6720	A343 ROLLER BEARING: 149860 (47904)		EA	1									3-4	A50MP149
X2-H	6720	A345 SPRING, COCKING ARM: 149864 (47904)		EA	1									3-4	A50H118
P-H	5340	A346 COCKING ARM ASSEMBLY: 161131 (47904)		EA	1						2	3		3-4	A51
P-H	5340	A347 RING, RETAINING: 155161 (47904)		EA	1						2	3		3-4	A51MP150
P-H	6720	A348 SPRING, CLOSING BLADE: 149643 (47904)		EA	1						2	3		3-4	A51MP151
P-H	5310	A349 WASHER, RETAINING, 149868 (47904)		EA	1						2	3		3-4	A51H119
P-H	5320	A350 RIVET, OVAL HEAD: 1 60432 (47904)		EA	1						2	3		3-4	A51H120
P-H	2360-498-647	A351 SPRING, OPENING BLADE: 149641 (47904)		EA	1						2	3		3-4	A51MP152
P-H	5310	A352 WASHER, RETAINING, BLADE SPR: SAME AS A349		EA	1				REF	REF	REF	REF	REI		A51H119A
P-H	5320	A353 RIVET, OVAL HEAD: SAME AS A350		EA	1				REF	REF	REF	REF	REI		A51H120A
P-H	6720-498-246	A354 REAR LIGHT BAFFLE: 155382 (47904)		EA	1						2	3		3-4	A51MP153
X2-H	6720	A355 COCKING ARM: 163111 (47904)		EA	1									3-4	A51MP154
X2-H	6720	A356 COCKING ARM BUSHING: 149683 (47904)		EA	1									3-4	A51H121

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) -20	(b) 1-50	(c) 1-10	30-DAY GS MAINT ALLOWANCE (a) -20	(b) 21-50	(c) 1-10	(8) 1 YR MW PER EQUIP NTGCY	(9) DEPOT MAINT MW PER 100 EQUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-O	6720	A357 COCKING ARM BUTTON: 172607 (47904)		EA	1	*	*	2	*	*	2	10	4	3-4	A51MP155
P-O	5320	A358 COCKING ARM RIVET: 168078 (47904)		EA	1	*	*	2	*	*	2	10	4	3-4	A51H122
P-H	720-498-641	A359 APERTURE WHEEL ASSEMBLY: 221339 (47904)		EA	1				*	*	2	8	3	3-4	A52
X2 -H	6720	A360 FRONT LIGHT BAFFLE : 146862 (47904)		EA	1									3-4	A52MP156
P-H	5305	A361 SCREW, FRONT LIGHT BAFFLE: 160464 (47904)		EA	2				*	2	2	8	5	3-4	A52H123
X2-H	6720	A362 SPACER, APERTURE WHEEL: SAME AS A338		EA	1									3-4	A52H124
P-H	720-498-641	A363 DETENT BLOCK, APERTURE: 157929 (47904)		EA	1				*	*	2	6	3	3-4	A52MP157
X2-H	6720	A363A APERTURE WHEEL: 204758 (47904)		EA	1									3-4	A52MP158
X2-H	5930	A364 CAPACITOR SWITCH: 146773 (47904)		EA	1									3-4	A52S5
P-H	6720	A364A SPRING, BLADE LATCH: 152513 (47904)		EA	1				*	*	2	6	3	3-4	A52MP159
P-H	6720	A365 BLADE LATCH ASSEMBLY: 149645 (47904)		EA	1				*	*	2	6	3	3-4	A53
P-H	5340	A366 RING RETAINING: SAME AS A308		EA	1				REI	REI	REI	REF	REF	3-4	A53H125
X2-H	6720	A367 BLADE LATCH: 152510 (47904)		EA	1									3-4	A53MP160
X2-H	6720	A368 BLADE LATCH BUSHING: 149862 (47904)		EA	1									3-4	A53H126
P-H	720-498-641	A369 MAGNET ASSEMBLY: 149640 (47904)		EA	1				*	*	2	6	4	3-4	A54
P-H	5305	A370 SCREW, MAGNET: 160545 (47904)		EA	2				*	*	2	6	3	3-4	A54H127
P-H	5310	A370A NUT, HEX: 160546 (47904)		EA	2				*	*	2	6	3	3-4	A54H127A
X2-H	6720	A371 MAGNET: 149845 (47904)		EA	1									3-4	A54E1
X2-H	6720	A372 TERMINAL -BOBBIN: 149873 (47904)		EA	2									3-4	A54L1-1, A54L1
X2 -H	6720	A373 BOBBIN ASSEMBLY: 152509 (47904)		EA	1									3-4	A55
X2-H	6720	A374 BOBBIN: 152503 (47904)		EA	1									3-4	A55L1
P-H	6720	A375 READOUT ACTUATOR ASSEMBLY: 178472 (47904)		EA	1				*	*	2	6	3	3-4	A56
P-H	5340	A376 RING, RETAINING: SAME AS A347		EA	1				REI	REI	REI	REF	REF	3-4	A56H118
X2-H	6720	A377 READOUT ACTUATOR: 149721 (47904)		EA	1									3-4	A56MP161
X2 -H	5310	A378 WASHER, LOCK: 160551 (47904)		EA	1									3-4	A56H128
X2-H	5305	A379 SCREW, ADJ. APERTURE WHEEL: 153260 (47904)		EA	1									3-4	A56H129

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(7) a) -20	(7) b) -50	(7) c) -10	(8)	(9)	(10) ILLUSTRATIONS a) FIG NO.	(10) ILLUSTRATIONS b) ITEM NO. OR REFERENCE DESIGNATION
-H	5340	A380 RING, RETAINING : 155160 (47904)		EA	1						-4	A56H130
2 -H	6720	A381 APERTURE DETENT MOUNTING ARM: 149723 (47904)		EA	1						-4	A56MP162
2 -H	6720	A382 APERTURE DETENT: 154062 (47904)		EA	1						-4	A56MP163
2-H	5320	A383 RIVET: 155159 (47904)		EA	2						-4	A56H131
2-H	6720	A384 SCENE SELECTOR SLIDER ASSEMBLY: 178473 (47904)		EA	1						-4	A57
-H	5340	A385 RING, RETAINING: SAME AS A347		EA	1				EF	EF	-4	A57H118
2-H	6720	A386 SCENE SELECTOR SLIDER PIVOT: 153261 (47904)		EA	1						-4	A57MP164
2-H	6720	A387 SCENE SELECTOR SLIDER: 154063 (47904)		EA	1						-4	A57MP165
-H	720-496-974	A388 SCENE SELECTOR SLIDER BUTTON: 196248 (47904)		EA	1						-4	A57MP166
-H	6135	A389 BATTERY WIRE ASSEMBLY: 204007 (47904)		EA	1						-1	A58
-H	6720	A390 ELECTRONIC MTG BLOCK ASSEMBLY: 153309-1 (47904)		EA	1						-3	A59
-H	6720	A390A ELECTRONIC MTG BLOCK ASSEMBLY: 153309-2 (47904)		EA	1							A59A
-H	6720	A390B ELECTRONIC MTG BLOC K ASSEMBLY: 153309-3 (47904)		EA	1							A59B
-H	6720	A390C ELECTRONIC MTG BLOCK ASSEMBLY: 153309-4 (47904)		EA	1							A59C
-H	6720	A390D ELECTRONIC MTG BLOCK ASSEMBLY: 153309-5 (47904)		EA	1							A59D
-H	6720	A390E ELEC TRONIC MTG BLOCK ASSEMBLY: 153309-6 (47904)		EA	1							A59E
-H	6720	A390F ELECTRONIC MTG BLOCK ASSEMBLY: 153309-7 (47904)		EA	1							A59F
-H	5305	A391 SCREW: 149817 (47904)		EA	2						-3	A59H132
2 -H	6720	A392 ELECTRONIC MOUNTING BLOCK: 143865 (47904)		EA	1						-5	A59MP167
-H	6720	A393 FLEXIBLE CIRCUIT ASSEMBLY: 153325 (47904)		EA	1						-5	A60
2 -H	5905	A394 RESISTOR, VARIABLE: 146777 (47904)		EA	2						-5	A60R1
2-H	5905	A395 RESISTOR, VARIABLE: SAME AS A394		EA	RE 1						-5	A60R3

SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE a) -20	b) -50	c) -10	30-DAY GS ALLOWAN a) -20	b) -50	c) -10	(8) YR PER QUIP TGCY	(9) POT INT PER NO QUIP	(10) ILLUSTRATIONS a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-H	5720	A396 PHOTOCELL, CAD SULPHIDE-BLUE: 155249-1 (47904)		EA	1									-5	A60V1
X2-H	5905	A397 RESISTOR, 10K: 155153-1 (47904)		EA	1									-5	A60R2
X2-H	5905	A398 RESISTOR, 1.8K: 155149-1 (47904)		EA	1									-5	A60R4
X2-H	5905	A399 RESISTOR, 68K: 155150-1 (47904)		EA	1									-5	A60R5
X2-H	5905	A400 RESISTOR, 120 OHMS: 155151-1 (47904)		EA	1									-5	A60R6
X2-H	5905	A401 RESISTOR, 3.3K: 155152-1 (47904)		EA	1									-5	A60R7
X2-H	5905	A402 RESISTOR, 120K: 160408-1 (47904)		EA	1									-5	A60R8
X2-H	5910	A403 CAPACITOR: 155145-1 (47904)		EA	1									-5	A60C1
X2-H	5910	A404 CAPACITOR: 155146-1 (47904)		EA	1									-5	A60C2
X2-H	5910	A405 CAPACITOR: 155147-1 (47904)		EA	1									-5	A60C3
X2-H	5910	A406 CAPACITOR : 155148-1 (47904)		EA	1									-5	A60C4
X2-H	5910	A407 CAPACITOR: 155162 (47904)		EA	1									-5	A60C5
X2-H	5961	A408 TRANSISTOR: 152553 (47904)		EA	1									-5	A60Q1
X2-H	5961	A409 TRANSISTOR: 152552 (47904)		EA	1									-5	A60Q2
X2-H	5720	A410 PHOTOCELL, CAD SULPHIDE-BLACK (ALT. FOR A60V1): 155249-2 (47904)		EA	1									-5	
X2-H	5905	A411 RESISTOR, 1.5K (ALT. FOR A60R4): 155149-2 (47904)		EA	1									-5	
X2-H	5905	A412 RESISTOR, 56K (ALT. FOR A60R5): 155150-2 (47904)		EA	1									-5	
X2-H	5905	A413 RESISTOR, 100 OHMS: (ALT. FOR A60R6) 155151-2 (47904)		EA	1									-5	
X2-H	5905	A414 RESISTOR, 3.3K: (ALT. FOR A60R7) 155152-2 (47904)		EA	1									-3	
X2-H	5905	A415 RESISTOR, 120K: (ALT. FOR A60R8) 160408-2 (47904)		EA	1									-5	
X2-H	5910	A416 CAPACITOR : (ALT. FOR A60C1) 155145-2 (47904)		EA	1									-5	
X2-H	5910	A417 CAPACITOR: (ALT. FOR A60C2) 155146-2 (47904)		EA	1									-5	

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE (a) -20	(b) -5(	(c) -1(	(7) 30-I (a) -20	GS WAR (b) -5(	NT (c) -10	(8) 1 YR WPEI QUIR ITGC)	(9) POINT PER 00 UIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
K2 -H	5910	A418 CAPACITOR: (ALT. FOR A60C3) 155147-2 (47904)		EA	1									3-5	
K2-H	5910	A419 CAPACITOR: (ALT. FOR A60C4) 155148-2 (47904)		EA	1									3-5	
K2-H	6720	A420 PHOTOCELL, CAD SULPHIDE-RED: (ALT. FOR A60V1) 155247-3 (47904)		EA	1									3-5	
K2-H	5905	A421 RESISTOR, 1. 2K: (ALT. FOR A60R4) 155149-3 (47904)		EA	1									3-5	
K2 -H	5905	A422 RESISTOR, 47K: (ALT. FOR A60R5) 155150-3 (47904)		EA	1									3-5	
K2-H	5905	A423 RESISTOR. 91 OHMS: (ALT. FOR A60R6) 155151-3 (47904)		EA	1									3-5	
K2-H	5905	A424 RESISTOR, 2. 7K: (ALT. FOR A60R7) 155152-3 (47904)		EA	1									3-5	
K2 -H	5905	A425 RESISTOR, 100K: (ALT FOR A60R8) 160408-3 (47904)		EA	1									3-5	
K2-H	5910	A426 CAPACITOR: (ALT. FOR A60C1) 155145-3 (47904)		EA	1									3-5	
K2 -H	5910	A427 CAPACITOR: (ALT. FOR A60C2) 155146-3 (47904)		EA	1									3-5	
K2-H	5910	A428 CAPACITOR: (ALT. FOR A60C3) 155176-3 (47904)		EA	1									3-5	
K2-H	5910	A429 CAPACITOR: (ALT. FOR A60C4) 155148-3 (47904)		EA	1									3-5	
K2 -H	6720	A430 PHOTOCELL, CAD SULPH. -YELLOW: (ALT. FOR A60V1) 155249-4 (47904)		EA	1									3-5	
K2-H	5905	A431 RESISTOR, 1. 2K: (ALT. FOR A60R4) 155149-4 (47904)		EA	1									3-5	
K2-H	5905	A432 RESISTOR, 47K: (ALT. FOR A60R5) 155150-4 (47904)		EA	1									3-5	
K2-H	5905	A433 RESISTOR, 82 OHMS: (ALT. FOR A60R6) 155151-4 (47904)		EA	1									3-5	
K2-H	5905	A434 RESISTOR, 2. 2K: (ALT. FOR A60R7) 155152-4 (47904)		EA	1									3-5	
K2 -H	5905	A435 RESISTOR, 82K: (ALT. FOR A60R8) 160408-4 (47904)		EA	1									3-5	

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(1) SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS ALLOW (a) -20	(b) 1-5(	INT (c) -1(	30- (a) -20	GS MAN (b) -5(	NT (c) -10(	(8) 1 YR WPEI QUIF (TGC)	(9) EPOT AINT WPE 100 QUIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
K2-H	5910	A436 CAPACITOR: (ALT. FOR A60C1) 155145-4 (47904)		EA	1									3-5	
K2-H	5910	A437 CAPACITOR: (ALT. FOR A60C2) 155146-4 (47904)		EA	1									3-5	
K2-H	5910	A438 CAPACITOR: (ALT. FOR A60C3) 155147-4 (47904)		EA	1									3-5	
K2-H	5910	A439 CAPACITOR: (ALT. FOR A60C4) 155148-4 (47904)		EA	1									3-5	
K2-H	6720	A440 PHOTOCELL, CAD SULPHIDE-GREEN (ALT. FOR A60V1) 155429-5 (47904)		EA	1									3-5	
K2-H	5905	A441 RESISTOR, 1K: (ALT. FOR A60R4) 155149-5 (47904)		EA	1									3-5	
K2-H	5905	A442 RESISTOR, 39K: (ALT. FOR A60R5) 155150-5 (47904)		EA	1									3-5	
K2-H	5905	A443 RESISTOR, 68 OHMS: (ALT. FOR A60R6) 155151-5 (47904)		EA	1									3-5	
K2-H	5905	A444 RESISTOR, 2. 2K: (ALT. FOR A60R7) 155152-5 (47904)		EA	1									3-5	
K2-H	5905	A445 RESISTOR: (ALT. FOR A60R8) 160408-5 (47904)		EA	1									3-5	
K2-H	5910	A446 CAPACITOR: (ALT. FOR A60C1) 155145-5 (47904)		EA	1									3-5	
K2-H	5910	A447 CAPACITOR: (ALT. FOR A60C2) 155146-5 (47904)		EA	1									3-5	
K2-H	5910	A448 CAPACITOR: (ALT. FOR A60C2) 155147-5 (47904)		EA	1									3-5	
K2-H	5910	A449 CAPACITOR: (ALT. FOR A60C4) 155148-5 (47904)		EA	1									3-5	
K2-H	6720	A450 PHOTOCELL, CAP SULPHIDE-WHITE: (ALT. FOR A60V1) 155249-6 (47904)		EA	1									3-5	
K2-H	5905	A451 RESISTOR, 820 OHMS: (ALT. FOR A60R4) 155149-6 (47904)		EA	1									3-5	
K2-H	5905	A452 RESISTOR, 33K: (ALT. FOR A60R5) 155150-6 (47904)		EA	1									3-5	
K2-H	5905	A453 RESISTOR, 62 OHMS: (ALT. FOR A60R6) 155151-6 (47904)		EA	1									3-5	

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	DESCRIPTION / REFERENCE NUMBER & MFR. CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE a) 20	b) -50	c) -10	(7) MAINT a) 20	c) -10	(8) TYPE EQUIP TGC	(9) POINT USAGE CODE	(10) ILLUSTRATIONS a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-H	5905	A454 RESISTOR, 1.8K: (ALT. FOR A60R7) 155152-6 (47904)	EA	1								3-5	
X2-H	5905	A455 RESISTOR, 68K: (ALT. FOR A60R8) 160408-6 (47904)	EA	1								3-5	
X2-H	5910	A456 CAPACITOR: (ALT. FOR A60C1) 155145-6 (47904)	EA	1								3-5	
X2-H	5910	A457 CAPACITOR: (ALT. FOR A60C2) 155146-6 (47904)	EA	1								3-5	
X2-H	5910	A458 CAPACITOR: (ALT. FOR A60C3) 155147-6 (47904)	EA	1								3-5	
X2-H	5910	A459 CAPACITOR: (ALT. FOR A60C4) 155148-6 (47904)	EA	1								3-5	
X2-H	6720	A460 PHOTOCELL, CAD SULPHIDE-ORANGE (ALT. FOR A60V1) 155249-7 (47904)	EA	1								3-5	
X2-H	5905	A461 RESISTOR, 680 OHMS: (ALT. FOR A60R4) 155149-7 (47904)	EA	1								3-5	
X2-H	5905	A462 RESISTOR, 27K: (ALT. FOR A60R5) 155150-7 (47904)	EA	1								3-5	
X2-H	5905	A463 RESISTOR, 51 OHMS: (ALT. FOR A60R6) 155151-7 (47904)	EA	1								3-5	
X2-H	5905	A464 RESISTOR, 1.5K: (ALT. FOR A60R7) 155152-7 (47904)	EA	1								3-5	
X2-H	5905	A465 RESISTOR, 56K: (ALT. FOR A60R8) 160408-7 (47904)	EA	1								3-5	
X2-H	5910	A466 CAPACITOR: (ALT. FOR A60C1) 155145-7 (47904)	EA	1								3-5	
X2-H	5910	A467 CAPACITOR: (ALT. FOR A60C2) 155146-7 (47904)	EA	1								3-5	
X2-H	5910	A468 CAPACITOR: (ALT. FOR A60C3) 155147-7 (47904)	EA	1								3-5	
X2-H	5910	A469 CAPACITOR: (ALT. FOR A60C4) 155148-7 (47904)	EA	1								3-5	
P-H	6720-496-97	A470 SHUTTER FRONT CASTING ASSY: 188609 (47904)	EA	1								3-3	A61
X2-H	6720	A471 SHUTTER CASTING FRONT: 143870 (47904)	EA	1								3-3	A61MP168
X2-H	6720-911-52	A472 CELL LENS: 154071 (47904)	EA	1								3-3	A61MP169

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	30 DS MAINT MAINTENANCE a) -20	b) -50	c) -10	(7) 30-I a) -20	GS MAN b) -50	NT c) -10	(8) YR PEF QUIF TGCY	(9) POT INT PE CO UIP	(10) ILLUSTRATIONS (a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-H	6720-912-130	A473 CELL LENS MOUNT: 154856 (47904)		EA	1									3-3	A61MP170
X2-H	6720-912-130	A474 CELL LENS RETAINER: 154857 (47904)		EA	1									3-3	A61MP171
X2-H	5310-917-990	A475 WASHER, WAVE: 155179 (47904)		EA	1									3-3	A61H133
P-H	6720	A476 BEZEL ASSEMBLY: 204354 (47904)		EA	1									3-3	A62
P-H	5340-918-803	A477 BEZEL FRICTION SPRING: 152525 (47904)		EA	1									3-3	A62MP172
X2-H	6720-496-9740	A478 FRONT DECORATIVE PLATE: 188375 (47904)		EA	1									3-3	A62MP173
X2-H	6720	A479 BEZEL: 204133 (47904)		EA	1									3-3	A62MP174
X2-H	6720	A480 BEZEL CAP: 204131 (47904)		EA	1									3-3	A62MP175
P-F	5340-917-610	A481 BEZEL SPRING: 149813 (47904)		EA	1									3-3	A62MP176
P-F	6720-933-252	A482 CENTER RING: 149809 (47904)		EA	1									3-3	A62MP177
P-F	6720	A483 OUTER RING: 204407 (47904)		EA	1									3-3	A62MP178
X2-H	6720	A484 FLASH FILTER ACTUATOR ASSY: 153311 (47904)		EA	1									3-3	A63
X2-H	5315	A485 ACTUATOR ARM PIVOT PIN: 149829 (47904)		EA	1									3-3	A63MP179
X2-H	6720	A486 ACTUATOR ARM SPRING: 149831 (47904)		EA	1									3-3	A63MP180
P-H	5340	A487 RING, RETAINING: SAME AS A347		EA	1				[E]	[E]	[E]	[E]	[E]	3-3	A63H118
P-H	6720-496-973	A488 CELL WEDGE : 220796 (47904)		EA	1									3-3	A63MP181
P-H	5320	A489 RIVET , SHOULDER: 149838 (47904)		EA	2							10		3-3	A63H134
X2-H	5315	A490 ACTUATOR ARM FILTER PIN: 149830 (47904)		EA	1									3-3	A63MP182
X2-H	6720	A491 FLASH FILTER: 146710 (47904)		EA	1									3-3	A63MP183
X2-H	6720	A492 FLASH FILTER ACTUATOR ARM: 149628 (47904)		EA	1									3-3	A63MP184
P-H	6720-933-403	A493 MOUNT ASSEMBLY, FRONT LENS: 155235 (47904)		EA	1									3-3	A64
X2-H	6720-496-973	A494 SHUTTER REAR CASTING ASSY: 153310 (47904)		EA	1									3-3	A65
X2-H	5305	A495 MOUNTING SCREW: 149865 (47904)		EA	1									3-3	A65H135
X2-H	5305	A496 SCREW, SHORT MOUNTING: 157866 (47904)		EA	1									3-3	A65H136

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INCL IN UNIT	(6) 30- a) -20	(6) DS LOWA b) -50	(6) NT c) -10	(7) 30-D a) -20	(7) GS WAI b) -5	(7) NT (c) -10	(8) YR PER QUIP TGCY	(9) POINT MPE OD UIP	(10) ILLUSTRATIONS a) FIG NO.	(10) ILLUSTRATIONS b) ITEM NO. OR REFERENCE DESIGNATIO
P-H	305-917-990	A496A SHUTTER FASTENING SCREW: 149828 (47904)		EA							2	0		1-3	A65H138
P-H	305-917-990	A496B SHUTTER FASTENING SCREW-TOP: 149822 (47904)		EA	1						2			1-3	A65H139
X2-F	720-912-166	A497 CABLE RELEASE COVER: 149740 (47904)		EA	1									1-3	A65MP185
P-F	305-933-525	A498 SCREW, RELEASE COVER: 154870 (47904)		EA	2	*	2		*		2	6	3	1-3	A65H137
P-H	720-933-403	A499 SHUTTER MOUNT: 132498 (47904)		EA	1				*		2	3	3	1-3	A65MP186
P-H	720-498-641	A500 SHUTTER MOUNT SPRING: 172320 (47904)		EA	1				*		2	3	3	1-3	A65MP187
P-H	305-917-700	A501 SCREW, SHUTTER MOUNT: 149538 (47904)		EA	1				*		2	3	3	1-3	A65H140
P-H	720-496-974	A502 SHUTTER SHAFT: 168098 (47904)		EA	1				*		2	3	3	1-3	A65MP188
P-H	720-913-046	A503 SLEEVE, SHUTTER SHAFT: 168099 (47904)		EA	1				*		2	3	3	1-3	A65MP194
P-H	310-917-989	A504 BOWED WASHER: 160442 (47904)		EA	1				*		2	3	3	1-1	A65H144
P-H	720-912-105	A505 DETENT : 157949 (47904)		EA	1				*		2	3	3	1-1	A65MP195
P-H	5307	A506 DETENT STUD: 160473 (47904)		EA	1				*		2	3	3	1-1	A65H145
P-H	5310	A507 FLAT WASHER: 160440 (47904)		EA	1				*		2	3	3	1-1	A65H146
P-H	5305	A508 SCREW: 149570 (47904)		EA	1				*		2	3	3	1-1	A65H147
P-H	720-496-974	A509 BLOCK, SHUTTER RELEASE: 146722 (47904)		EA	1				*		2	3	3	1-1	A65MP193
P-H	720-496-973	A510 RETAINER, RELEASE BLOCK: 152521 (47904)		EA	1				*		2	3	3	1-1	A65H142
X2-H	6720	A511 CASTING, REAR SHUTTER: 143871 (47904)		EA	1									1-1	A65MP192
X2-H	5305	A512 DOWEL PIN: 149821 (47904)		EA	2									1-1	A65H141
P-H	6720	A513 GASKET , SHUTTER: 155331 (47904)		EA	1				*	*	2	8	3	1-1	A65H143
X2-H	5970	A514 INSULATOR, ELECTRONIC MTG. BD: 157939 (07904)		EA	1									1-1	A65E16
X2-H	1760-554-47	A515 LENS , REAR POSITIVE : 155242 (47904)		EA	1									1-1	A65MP190
X2-H	6720	A516 RETAINER, LENS: 154046 (47904)		EA	1									1-	A65MP189
X2-H	6720	A517 PLUG , RELEASE COVER: 160445 (47904)		EA	2									1-	A65MP191
P-F	6720	A518 SPRING, R. F. BODY: 149528 (47904)		EA	1	*	*	2	*	*	2	8	3	1-	A65H144

SECTION rv INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE

TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5305-917-7003	3-3	A65H140
5305-917-7043	3-6	A4H6
5305-917-9902	3-7	A21H36
5305-917-9903	3-3	A65H139
5305-917-9906	3-6	A26H48
5305-917-9908	3-3	A65H138
5305-919-5202	3-6	A29H53
5305-933-5252	3-3	A65H137
5307-933-3349	3-6	A30H54
5307-933-3802	3-7	A19H34
5310-236-0639	3-6	A7H12
5310-239-6083	3-6	A6H10
5310-917-9899	3-1	A65H144
5310-917-9909	3-3	A61H133
5315-181-6251	3-1	A14H29
5315-403-7694	3-1	A14H28
5320-238-9349	3-6	A7H11
5320-497-9788	3-6	A9H22
5320-498-2458	3-6	A7H14
5320-498-2459	3-6	A7H18
5320-914-7406	3-6	A4H3
5320-914-7406	3-7	A17H32
5320-914-7406	3-7	A18H32
5320-914-7406	3-7	A19H32
5320-914-7406	3-7	A20H32
5320-914-7406	3-6	A31H3
5320-916-6069	3-6	A31H56
5320-917-9865	3-6	A7H16
5320-917-9867	3-6	A27H49
5320-933-4882	3-7	A19H35
5320-933-4882	3-6	A31H58
5340-917-6078	3-6	A4H4
5340-917-6101	3-3	A62MP176
5340-918-8036	3-3	A62MP172
5340-918-8058	3-6	A4MP12
5340-919-5254	3-2	A13H25
5340-919-5255	3-2	A13MP37
5340-919-5256	3-7	A21MP63
5340-919-5348	3-8	A32H62
5340-933-3522	3-6	A31H57
5340-933-3942	3-6	A4MP4
5340-933-4622	3-7	A21MP64
5340-933-5186	3-6	A4MP5
5340-933-5255	3-6	A4MP13
5340-937-9717	3-6	A31MP83
5355-498-2466	3-6	A6MP18
5360-236-0640	3-6	A7MP33
5360-498-6467	3-7	A19MP48
5360-498-6468	3-6	A7MP23
5360-498-6469	3-6	A6MP20
5360-498-6470	3-4	A51MP152
5940-554-4704	3-6	A30
5999-496-9771	3-4	A45E12
5999-496-9772	3-4	A45E10
6720-490-5679	3-6	A7H22
6720-490-5689	3-4	A46MP130
6720-490-5690	3-3	A42MP115
6720-490-5691	3-4	A46
6720-490-5693	3-6	A9
6720-490-5695	3-6	A5
6720-490-5696	3-6	A29H51
6720-490-5697	3-6	A29
6720-490-5699		A25
6720-490-5703		A23
6720-490-5704	3-2	A11
6720-490-5705	3-6	A9H23
6720-490-5706	3-6	A9MP25
6720-490-5707	3-6	A7
6720-490-5708	3-6	A6MP21
6720-490-5709	3-6	A6H9
6720-491-0549	3-6	A6MP17
6720-496-9734	3-3	A65
6720-496-9735	3-6	A31H59
6720-496-9737	3-7	A16
6720-496-9738	3-3	A63MP181
6720-496-9739	3-3	A65H142
6720-496-9740	3-3	A62MP173
6720-496-9741	3-6	A7MP28
6720-496-9742	3-3	A65MP193
6720-496-9743	3-3	A65MP188
6720-496-9744	3-3	A61
6720-496-9745	3-4	A57MP166
6720-496-9760	3-1	A32
6720-498-2468	3-4	A51MP153
6720-498-2470	3-6	A2MP2
6720-498-2472	3-6	A7MP27
6720-498-6413	3-6	A6H8
6720-498-6414	3-4	A54
6720-498-6415	3-4	A52MP157
6720-498-6416	3-4	A52
6720-498-6417	3-4	A49H116
6720-498-6418	3-3	A65MP187
6720-498-6419	3-6	A7MP32
6720-498-6420	3-6	A3
6720-498-6421	3-6	A7MP31
6720-498-6422	3-1	A2MP1
6720-614-6329	3-6	A4MP14
6720-880-5368	3-6	A2
6720-908-9080	3-1	A14
6720-911-3475	3-6	A4MP10
6720-911-3495	3-6	A4MP9
6720-911-3501	3-7	A20MP58
6720-911-3671	3-6	A31
6720-911-3821	3-7	A20MP60
6720-911-3825	3-7	A21
6720-911-3912	3-6	A4H5
6720-911-5291	3-3	A61MP169
6720-912-0807	3-6	A7MP29
6720-912-1054	3-1	A65MP195
6720-912-1064	3-6	A29MP81
6720-912-1306	3-3	A61MP170
6720-912-1307	3-3	A61MP171
6720-912-1310	3-6	A27
6720-912-1614	3-6	A7MP25
6720-912-1632	3-6	A7MP26
6720-912-1633	3-6	A7H15
6720-912-1669	3-3	A65MP185
6720-913-0465	3-3	A65MP194
6720-913-0477	3-6	A29H52
6720-913-0660	3-7	A20MP61
6720-914-5891	3-7	A21MP62
6720-914-5892	3-7	A21MP67

6720-914-5893	3-6	A31H60
6720-914-5894	3-7	A19
6720-914-5895	3-6	A30E4
6720-914-6192	3-7	A21MP66
6720-933-2520	3-7	A20MP59
6720-933-2520	3-7	A20MP59A
6720-933-2523	3-3	A62MP177
6720-933-4033	3-3	A65MP186
6720-933-4034	3-3	A64
6720-933-4035	3-7	A19MP49
6720-933-4037	3-6	A7MP30
6720-935-3799		
6720-935-3818		
6760-554-4706	3-6	A6
6760-554-4725	3-4	A48
6760-554-4768	3-6	A3MP3
6760-554-4769	3-4	A47
6760-554-4771	3-6	A8
6760-554-4772	3-3	A65MP190
6760-760-6152	3-6	A9MP34
6760-880-5263		A10
6760-900-8297		A22

Reference No.	Mfg. Code	Fig. No.	Ref. Desig.
DIN6799	67144	3-8	A36H81
KV20-1518-3	67144	3-8	A32H66
KV20-1518-7	67144	3-8	A34H75
KV20-1518-8	67144	3-8	A33H68
ZIN1312	67144	3-8	A36H80
ZIN1312	67144	3-8	A37H80
ZIN1312	67144	3-8	A38H80
ZIN1312	67144	3-3	A41H91
ZIN2085-5S	67144	3-8	A40H88
ZIN2282-5S	67144	3-8	A34H70
ZIN2351MS	67144	3-8	A33H67
ZIN2351MS	67144	3-8	A34H67
ZIN2511-5S	67144	3-8	A34H77
ZIN2511-5S	67144	3-8	A34H77A
121190	47904	3-6	A4H2
130501	47904	3-1	A26H44
143851	47904		A24MP72
143865	47904	3-5	A59MP167
143870	47904	3-3	A61MP168
143871	47904	3-3	A65MP192
143871	47904	3-4	A44MP116
144866	47904		A24BT2
146688	47907	3-7	A17MP45
146710	47904	3-3	A63MP183
146753	47904	3-7	A20
146761	47904	3-4	A45MP123
146765	47904		A24MP73
146766	47904		A23MP68
146773	47904	3-4	A52S5
146777	47904	3-5	A60R1
146777	47904	3-5	A60R3
146780	47904	3-4	A48MP138
146834	47904	3-7	A16MP42
146835	47904	3-7	A15MP40

Reference No.	Mfg. Code	Fig. No.	Ref. Desig.
146840	47904	3-6	A30MP82
146862	47904	3-4	A52MP156
146871	47904	3-7	A18MP46
146893	47904		A26
146897	47904		A24
149528	47904	3-1	A65H144
149550	47904	3-6	A5MP16
149553	47904	3-6	A6MP19
149570	47904	3-1	A65H147
149601	47904	3-6	A5MP15
149621	47904	3-4	A45E8
149624	47904	3-4	A45E7
149626	47904	3-4	A45MP125
149628	47904	3-3	A63MP184
149643	47904	3-4	A51MP151
149642	47904	3-4	A45MP122
149645	47904	3-4	A53
149683	47904	3-4	A51H121
149710	47904	3-6	A4MP7
149721	47904	3-4	A56MP161
149723	47904	3-4	A56MP162
149736	47904	3-4	A45S2-2
149742	47904	3-4	A49MP141
149755	47904	3-7	A20MP52
149766	47904	3-7	A17MP44
149780	47904	3-4	A45
149782	47904	3-4	A49
149817	47904	3-3	A59H132
149821	47904	3-3	A65H141
149829	47904	3-3	A63MP179
149830	47904	3-3	A63MP182
149831	47909	3-3	A63MP180
149835	47904	3-4	A47MP133
149838	47904	3-3	A63H134
149839	47904	3-4	A44MP119
149840	47904	3-4	A44MP120
149841	47904	3-4	A44MP118
149842	47904	3-4	A44MP117
149843	47904	3-4	A48MP140
149844	47904	3-2	A49H115
149845	47904	3-4	A54E1
149851	47904	3-4	A44MP121
149852	47904	3-4	A47H107
149852	47904	3-4	A48H112
149853	47904	3-4	A47H111
149858	47904	3-4	A50MP147
149859	47904	3-4	A50MP148
149860	47904	3-4	A50MP149
149861	47904	3-4	A46H106
149862	47904	3-4	A53H126
149864	47904	3-4	A50H118
149865	47904	3-3	A65H135
149868	47904	3-4	A51H119
149868	47904	3-4	A51H119A
149869	47904	3-4	A44H92
149873	47904	3-4	A54L1-1
149873	47904	3-4	A54L1-2
152500	47904	3-4	A46MP131

Reference No.	Mfg. Code	Fig. No.	Ref. Desig.
152502	47907	3-4	A45E6
152503	47904	3-4	A55L1
152504	47904	3-4	A47MP132
152505	47904	3-4	A47H110
152506	47904	3-4	A48MP135
152509	47904	3-4	A55
152510	47904	3-4	A53MP160
152513	47904	3-4	A52MP159
152515	47904	3-4	A48MP137
152552	47904	3-5	A60Q2
152553	47904	3-5	A60Q1
153259	47904	3-4	A45H104
153260		3-4	A56H129
153261	47904	3-4	A57MP164
153263	47904	3-4	A45H101
153309-1	47904	3-3	A59
153309-2	47904		A59A
153309-3	47904		A59B
153309-4	47904		A59C
153309-5	47904		A59D
153309-6	47904		A59E
153309-7	47904		A59F
153311	47904	3-3	A63
153325	47904	3-5	A60
154046	47904	3-3	A65MP189
154062	47904	3-4	A56MP163
154063	47904	3-4	A57MP165
154524	47904		A24E2
154525	47904		A24H40
154563	47904	3-6	A7MP24
154881	47904	3-4	A45H103
155116	47904		A26H45
155121	47904	3-6	A7H13
155138	47904	3-4	A45E13
155141	47904	3-4	A49MP142
155145-1	47904	3-5	A60C1
155146-1	47904	3-5	A60C2
155147-1	47904	3-5	A60C3
155138-1	47904	3-5	A60C4
155149-1	47904	3-5	A60R4
155150-1	47904	3-5	A60R5
155151-1	47904	3-5	A60R6
155152-1	47904	3-5	A60R7
155153-1	47904	3-5	A60R2
155155	47904	3-4	A45H96
155156	47904	3-4	A45H97
155159	47904	3-4	A56H131
155160	47904	3-4	A56H130
155161	47904	3-4	A51MP150
155161	47904	3-4	A56H118
155161	47904	3-4	A57H118
155161	47904	3-3	A63H118
155162	47904	3-5	A60C5
155163	47904	3-4	A47MP134
155166	47904	3-4	A45H98
155167	47904	3-4	A45MP124
155175	47904	3-4	A46H105
155175	47904	3-4	A53H125
155177	47904	3-6	A27MP79
155178	47904	3-6	A30H55
155215	47904	3-4	A47H109
155216	47904		A26MP78
155248	47904	3-4	A45S2
155249-1	47904	3-5	A60V1
155282	47904	3-7	A18
155285	47904	3-6	A26BT1
155292	47904	3-4	A45E9
155300	47904		A25MP76
155305	47904	3-4	A45S2-1
155312	47904	3-7	A15MP41
155318	47904	3-1	A15
155321	47904	3-7	A20MP55
155322	47904	3-7	A20MP56
155326	47904		A24MP74
155328	47904		A25MP77
155329	47904	3-7	A21MP65
155331	47904	3-3	A65H143
155332	47904		A24MP75
155340	47904	3-7	A18MP47
155342	47904		A24H39
155358	47904		A24MP70
155426	47904	3-6	A26H47
155503	47904	3-7	A17
157809	47904	3-7	A20MP57
157821	47904	3-6	A8H20
157824	47904	3-6	AH19
157830	47904	3-7	A15H30
157842	47904	3-7	A20MP54
157849	47904		A24H38
157852	47904		A25H41
157860	47904	3-6	A7H17
157861	47904	3-4	A47E14
157862	47904	3-4	A48E15
157863	47904	3-4	A47H108
157863	47904	3-4	A48H114
157866	47904	3-3	A65H136
157876	47904	3-6	A5H7
157897	47904	3-7	A15H31
157897	47904	3-7	A16H31
157904	47904	3-7	A19MP50
157908	47904	3-4	A48MP139
157911	47904		A24MP69
157927	47904	3-4	A45MP126
157928	47904	3-4	A45MP129
157934	47904	3-2	A13MP38
157939	47904	3-3	A65E16
157950	47904	3-2	A12MP36
157951	47904	3-2	A12H24
157992	47904	3-7	A19MP51
160400	47904	3-6	A28E3
160402	47904	3-7	A18H33
160404	47904	3-6	A28MP80
160406	47904	3-1	A26BT1-1
160407	47904	3-6	A28
160408-1	47904	3-5	A60R8
160409	47904		A26H46

Reference No.	Mfg. Code	Fig. No.	Ref. Desig.
160409	47904	3-6	A30H55
160409	47904	3-6	A30MP82
160413	47904	3-4	A45E11
160417	47904	3-4	A48MP136
160425	47904	3-4	A45H102
160432	47904	3-4	A51H120
160432	47904		A51H120A
160433	47904	3-4	A50H117
160433	47904	3-4	A52H124
160439	47904	3-2	A13MP39
160440	47904	3-1	A65H146
160445	47904	3-3	A65MP191
160449	47904	3-2	A13H26
160451	47904	3-4	A48H113
160464	47904	3-4	A52H123
160468	47904		A24MP71
160473	47904	3-1	A65H145
160532	47904	3-7	A20MP53
160545	47904	3-4	A54H127
160546	47904	3-4	A54H127A
160549	47904	3-2	A12
160550	47904	3-2	A13H27
160551	47904	3-4	A56H128
160561	47904	3-6	A26H50
160562	47904	3-4	A44H93
160573	47904	3-6	A8H21
160574	47904	3-4	A45H100
160597	47904		A26H42
160598	47904	3-4	A44E5
160599	47904	3-4	A50MP144
161112	47904	3-4	A50
161113	47904	3-4	A50
161121	47904	3-7	A16MP43
161131	47904	3-4	A51
162907	47904	3-4	A44H95
162907	47904	3-4	A45H99
162907	47904		A45H99A
163026	47904	3-4	A50MP145
163027	47904	3-4	A44S1-2
163028	47904	3-4	A44S1-1
163029	47904	3-4	A50MP146
163047	47904		A13
163048	47904		A26H43
163111	47904	3-4	A51
163301	47904	3-3	A42MP114
168078	47904	3-4	A51H122
168167	47904	3-4	A45MP127
168169	47904	3-4	A44H94
172607	47904	3-4	A51MP155
178472	47904	3-4	A56
178473	47904	3-4	A57
185640	47904	3-6	A4MP6
188089	47904	3-6	A4MP8
188090	47904	3-6	A4E1
188603	47904	3-1	A l
188604	47904	3-6	A4
188608-1	47904	3-3	A43
188608-2	47904		A43A
188608-3	47904		A43B
186608-4	47904		A43C
188608-5	47904		A43D
188608-6	47904		A43E
188608-7	47904		A43F
188610	47904	3-4	A44
195194	47904	3-6	A4MP11
195916	47904	3-4	A45MP128
198744	47904	3-1	A42
20-1518-00-001	67144	3-8	A32MP84
20-1518-01-001	67144	3-6	A32MP87
20-1518-01-002	67144	3-8	A32H65
20-1518-00-003	67144	3-8	A32H63
20-1518-01-004	67144	3-8	A32MP89
20-1518-01-005	67144	3-8	A32MP88
20-1518-01-006	67144	3-8	A32MP90
20-1518-01-008	67144	3-8	A33MP93
20-1518-01-008	67144	3-8	A33MP94
20-1518-01-011	67144	3-8	A34MP99
20-1518-01-010	67144	3-8	A34MP98
20-1518-01-012	67144	3-8	A34MP101
20-1518-01-013A	67144	3-8	A34MP102
20-1518-01-014	67144	3-8	A34MP95
20-1516-01-015	67144	3-8	A34H69
20-1518-01-016	67144	3-8	A34MP97
20-1518-01-017	67144	3-8	A34H76'
20-1518-01-018	67144	3-8	A34H78
20-1518-01-020A	67144	3-8	A37MP108
20-1518-01-021	67144	3-8	A35MP104
20-1518-01-022	67144	3-8	A34MP100
20-1518-01-023	67144	3-8	A37MP107
20-1618-01-025	67144	3-8	A32MP86
20-1518-01-026	67144	3-8	A32H64
20-1518-01-030	67144	3-8	A34H72
20-1518-01-031	67144	3-8	A34H71
20-1518-01-076	67144	3-8	A33MP91
20-1518-01-077	67144	3-8	A33MP92
20-1516-01-080U	67144	3-8	A36
20-1518-01-081	67144	3-8	A36MP106
20-1518-01-082	67144	3-8	A36H83
20-1518-01-083	67144	3-8	A36H82
20-1518-01-084	67144	3-8	A36H84
20-1518-01-090U	67144	3-8	A37
20-1516-01-091	67144	3-8	A37MP109
20-1518-01-092	67144	3-8	A37H85
20-1518-01-095U	67144	3-8	A38
20-1518-01-096	67144	3-8	A36MP110
20-1518-01-097	67144	3-8	A38H86
2O-1518-01=100U	67144	3-8	A34
20-1518-01-101	67144	3-8	A34MP96
20-1518-01-102	67144	3-8	A34H74
20-1518-01-105U	67144	3-8	A39
20-1518-01-106	67144	3-8	A39MP111
20-1518-01-107	67144	3-8	A39H87
20-1518-01-108	67144	3-8	A39MP112
20-1518-01-120U	67144	3-8	A35
20-1518-01-121	67144	3-8	A35MP103
20-1516-01-122	67144	3-8	A35H79
20-1518-01-123	67144	3-8	A35MP105
20-1518-01-175U	67144	3-8	A33

Reference No.	Mfg. Code	Fig. No.	Ref. Desig.
20-1518-02-000	67144	3-8	A40
20-1518-02-001	67144	3-8	A32H61
20-1518-02-005	67144	3-8	A41H90
20-1518-02-030U	67144	3-8	A41
20-1518-02-031	67144	3-8	A41MP89
20-1518-02-032	67144	3-8	A41MP113
204007	47904	3-1	A58
204131	47904	3-3	A62MP175
204133	47904	3-3	A62MP174
204354	47904	3-3	A62
204407	47904	3-3	A62MP178
204758	47904	3-4	A52MP158
220463	47904		A23H37
2ZIN2363	67144	3-8	A34H73
76188	47904	3-1	A2H1

Reference No.	Mfg. Code	Fig. No.	Ref. Desig.

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A4MP12	B-4	A15MP41	B-7	A26BT1	B-10
A4MP13	B-5	A16	B-7	A26BT1-1	B-10
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A5	B-5	A16MP42	B-7	A26H43	B-10
A5H7	B-5	A16MP43	B-7	A26H44	B-10
A5MP15	B-5	A17	B-7	A26H45	B-10
A5MP16	B-5	A17H32	B-7	A26H46	B-10
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A6H9	B-5	A18	B-7	A26MP78	B-10
A6H10	B-5	A18H32	B-7	A27	B-10
A6MP17	B-5	A18H33	B-8	A27H49	B-10
A6MP18	B-5	A18MP46	B-7	A27MP79	B-10
A6MP19	B-5	A18MP47	B-8	A28	B-10
A6MP20	B-5	A19	B-8	A28E3	B-10
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A7H11	B-5	A19H35	B-8	A29	B-10
A7H12	B-5	A19MP48	B-8	A29H51	B-10
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Sig Sec Gen Dep (5)
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ATS (1)
MAAG (1)
USARMIS (1)
Units org under fol TOE
(2 cys each unit):
11-35
11-39
11-56
11-95
11-96
11-127
11-147
11-158
11-215
11-216
11-226
11-237
11-500 (AA-AC, FJ, FK, FL)
29-134

NG: None.

USAR: None.

For explanation of abbreviations used, see AR 310-50.

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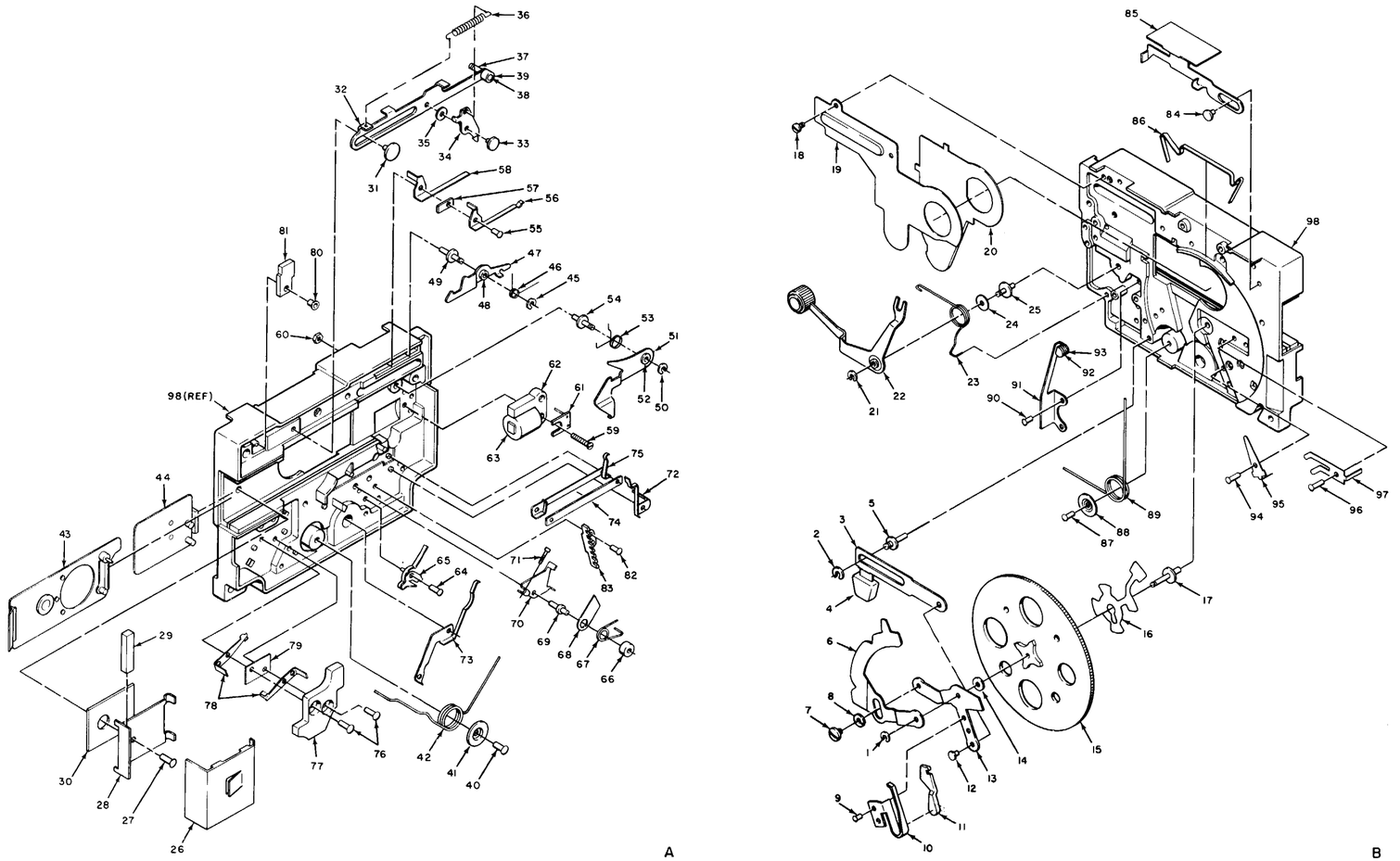

Figure 3–4. Baseblock disassembly.

1 Retaining ring (H130)
2 Retaining ring (H118)
3 Scene selector slider (MP165)
4 Scene selector slider button (MP166)
5 Slide pin (MP121)
6 Readout actuator (MP161)
7 Aperture wheel adjusting screw (H129)
8 Lock washer (H128)
9 Rivets (H131)
10 Aperture detent (MP163)
11 Aperture detent block (MP157)
12 Scene selector slider pivot (MP164)
13 Aperture detent mounting arm (MP162)
14 Aperture wheel spacer (H117)
15 Aperture wheel assembly (A52)
16 Light selector switch (S5)
17 Aperture wheel pivot (MP117)
18 Front light baffle screw (H123)
19 Front light baffle (MP156)
20 Rear light baffle (MP153)
21 Retaining ring (H118)
22 Cocking arm (MP154)
23 Cocking arm spring (MP150)
24 Cocking arm bushing (H121)
25 Cocking arm pivot (MP119)
26 Stop bracket cap
27 Rivet (H115)
28 Closing blade stop bracket assembly (A49)
29 Shock pad (H116)
30 Stop block (MP142)
31 Retaining pin (H94)
32 Cocking slide (MP143)
33 Over travel arm pivot (MP144)
34 Over travel arm (MP146)
35 Spacer (H117)
36 Over travel arm spring (MP145)
37 Slide pin (MP147)
38 Roller bearing (MP149)
39 Roller (MP148)
40 Oval head rivet (H120)
41 Blade spring retaining washer (H119)
42 Opening blade spring (MP152)
43 Opening blade (MP135)
44 Closing blade
45 Retaining ring (H105)
46 Cocking slide latch spring (MP130)
47 Cocking slide latch (MP131)
48 Cocking slide latch bushing (H106)
49 Cocking slide latch pivot (MP120)
50 Retaining ring (H125)
51 Blade latch (MP160)
52 Blade latch bushing (H126)
53 Blade latch spring (MP159)
54 Blade latch pivot (MP118)
55 Oval head rivet (H95)
56 Top contact (P/O battery switch (S1))
57 Switch insulator (E5)
58 Bottom contact (P/O battery switch (S1))
59 Magnet screws (H127)
60 Magnet nut (H127A)
61 Bobbin terminals (A54L1–1 & 2)
62 Magnet (A54E1)
63 Bobbin (A55L1)
64 Oval head rivet (H102)
65 Breaker contact (P/O S2)
66 Insulator (E13)
67 Adjustable contact spring (MP127)
68 Flat insulator (E11)
69 Rivet (H101)
70 Adjustable contact (P/O S2)
71 Adjustable contact screw (H103)
72 Flash contact-break (E10) (P/O S3)
73 Contact (E12) (P/O S4)
74 Connector strip insulator (E9)
75 Connector strip (MP125) (P/O S3 and S4)
76 Oval head rivets (H100)
77 Capacitor contact light seal (MP126)
78 Capacitor outer-contact (E8)
79 Insulator
80 Bumper eyelet (H93)
81 Bumper (H92)
82 Rivets (H97)
83 Spring adjustment stop (MP122)
84 Readout indicator slide pin (H104)
85 Readout indicator (MP128)
86 Readout indicator spring (MP129)
87 Oval head rivet (H120)
88 Blade spring retaining washer (H119)
89 Closing blade spring (MP151)
90 Rivets (H96)
91 Actuator detent spring (MP123)
92 Actuator detent pin (H98)
93 Actuator detent roller (MP124)
94 Oval head rivet (H99)
95 Capacitor inner-contact (E6)
96 Oval head rivet (H99)
97 Capacitor common-contact (E7)
98 Base block (MP116)

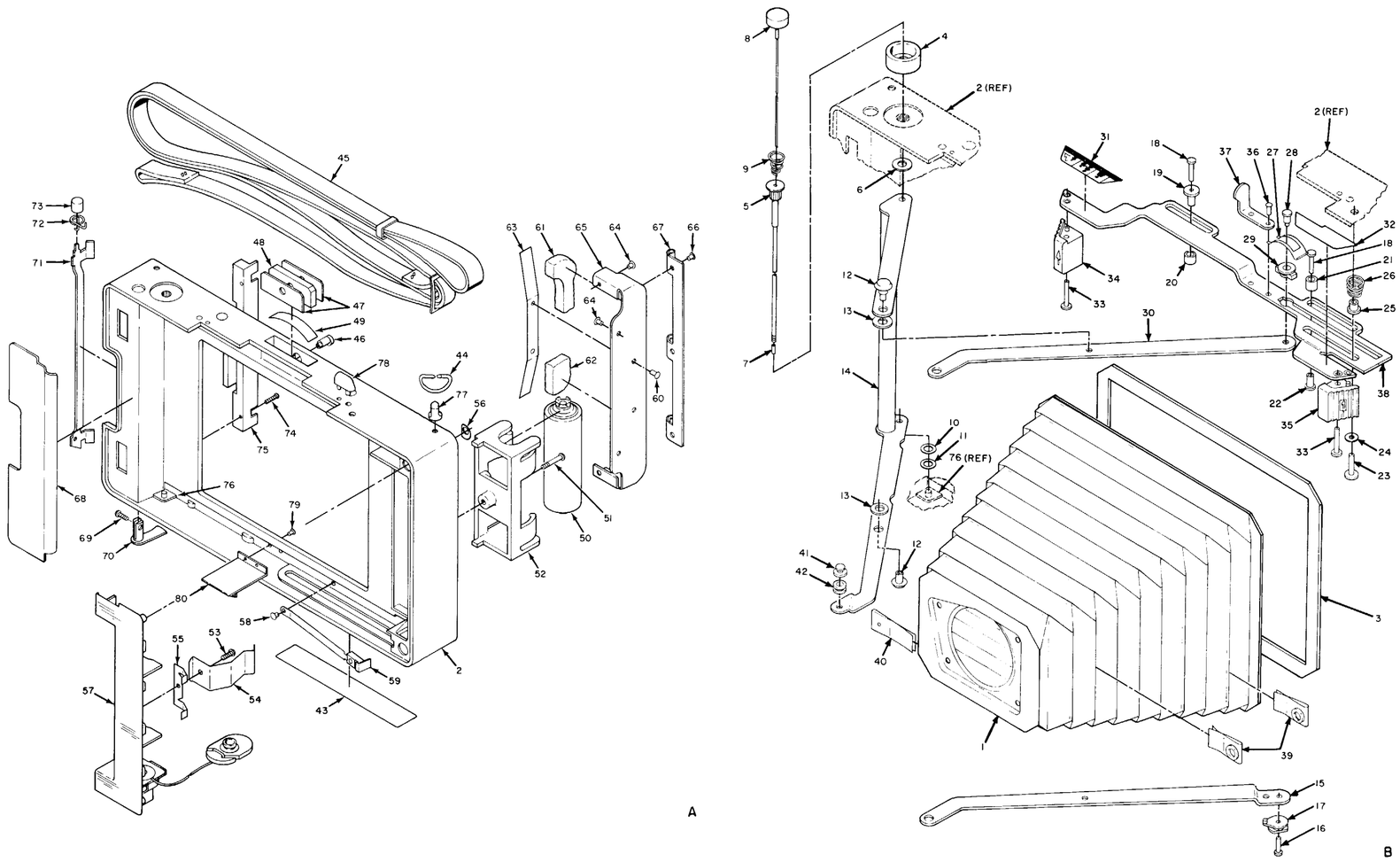

Figure 3-6. Body/bellows disassembly.

1 Bellows assembly (A2)
2 Body assembly (A4)
3 Bellows light seal (MP2)
4 Shutter release bezel (MP17)
5 Shutter release bushing assembly (A6)
6 Outer frame top spacer (H8)
7 Shutter release tip (MP21)
8 Shutter release knob (MP18)
9 Return spring (MP20)
10 Outer frame bottom spacer (H8)
11 Spring washer (H10)
12 Link pivot (MP25)
13 Link pivot spacer (H23)
14 U-frame assembly (A9)
15 Inner frame bottom (MP15)
16 Rivet (H7)
17 Track guide (MP16)
18 Focus bar rivet (H14)
19 Right focus bar sleeve (MP25)
20 Right focus bar washer (H15)
21 Left focus bar sleeve (MP24)
22 Ieft focus bar bushing (H13)
23 Brake rivet (H11)
24 Brake washer (H12)
25 Brake sleeve (H22)
26 Brake spring (MP23)
27 Detent slide spring (MP33)
28 Detent slide rivet (H18)
29 Detent slide (MP32)
30 Inner frame top (MP31)
31 Zone focus plate (MP30)
32 Focus bar plate (MP29)
33 Focus button rivet (H117)
34 Focus button—right (MP28)
35 Focus button—left (MP27)
36 Focus bar bracket rivet (H16)
37 Focus bar bracket (MP26)
38 Focus bar
39 Flash wire tab assembly (A3)
40 Cable release wire tab (MP3)
41 Shutter mount spring rivet
42 Shutter mount bushing (MP34)
43 Slot cover (MP10)
44 D-ring (H4)
45 Neck strap assembly (A8)
46 Magnet pivot (MP6)
47 Pole piece (MP8)
48 Magnet (E1)
49 Magnet spring (MP11)
50 Battery (BT1)
51 Battery clip screw (H48)
52 Battery clip (H47)
53 Rear cover latch screw (H53)
54 Rear cover latch (MP81)
55 Center retainer (H52)
56 Guard fastners (H51)
57 Left guard (MP82)
58 Spring contact rivet (H49)
59 Battery interlock assembly (A27)
60 Spring stop rivet (H56)
61 Left filler (H59)
62 Right filler (H60)
63 Spring stop (MP83)
64 Rivet (H56)
65 Light seal assembly (A31)
66 Rivet (H56)
67 Stationary hinge (H57)
68 Right guard
69 Screw (H2)
70 Release arm (not threaded) (MP9)
71 Release latch (not threaded) (MP4)
72 Release latch spring (MP13)
73 Latch pivot (MP5)
74 Tab strip bar screw (H6)
75 Tab strip bar (MP14)
76 Outer frame bottom pivot pin (MP19)
77 Strap lug (H5)
78 R. F.–V. F. pivot pad (MP7)
79 Rivet (H3)
80 Mounting plate spring (MP12)