

TM11-6675-287-35

TECHNICAL MANUAL

**DS, GS, AND DEPOT MAINTENANCE
MANUAL (INCLUDING REPAIR PARTS
AND SPECIAL TOOL LISTS)**

**VIEWER, STEREOSCOPIC
ROLLFILM, PHOTOGRAPHIC
INTERPRETATION AR-133A**

HEADQUARTERS, DEPARTMENT OF THE ARMY
MAY 1971

WARNING

Be careful when working on the 115-volt ac line connections. Serious injury or death may result from contact with these terminals.

DON'T TAKE CHANCES!

EXTREMELY DANGEROUS VOLTAGES EXIST IN THE FOLLOWING UNITS:

High-voltage Transformer (Secondary Winding)	9,000 volts
Light Source Terminals	9,000 volts

TECHNICAL MANUAL }
 No. 11-6675-287-35 }

HEADQUARTERS
 DEPARTMENT OF THE ARMY
 WASHINGTON, D. C., 13 May 1971

**DS, GS, and Depot Maintenance Manual Including Repair Parts and
 Special Tool Lists**

**VIEWER, STEREOSCOPIC ROLLFILM,
 PHOTOGRAPHIC INTERPRETATION AR-133A**

	Paragraph	Page
CHAPTER 1. INTRODUCTION		
Scope	1-1	1-1
Reporting of equipment manual improvements	1-2	1-1
Indexes of publications	1-3	1-1
CHAPTER 2. FUNCTIONING OF VIEWER, STEREOSCOPIC ROLLFILM, PHOTOGRAPHIC INTERPRETATION AR-133A		
Section I. Mechanics		
Light table assembly	2-1	2-1
Stereoscope, lens-prism-mirror, aerial photograph interpretation AR-135A (Zoom 240)	2-2	2-2
Section II. Optics		
Zoom stereoscope optical arrangements	2-3	2-5
Microscope	2-4	2-5
Stereoscope	2-5	2-6
Section III. Electrical Circuits		
Rollfilm viewer electrical system	2-6	2-8
Light source circuit	2-7	2-8
Clutch circuit-full-wave rectifier circuit	2-8	2-9
CHAPTER 3. DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE		
Section I. General		
Scope of maintenance	3-1	3-1
Tools, test equipment, and materials required	3-2	3-1
Section II. Troubleshooting		
General instructions	3-3	3-1
Organization of general troubleshooting procedures	3-4	3-2
General operational checks	3-5	3-3
Trouble localization	3-6	3-3
Transformer and light source check	3-7	3-6
X- and Y-travel clutch assembly check	3-8	3-7
Clutch circuit check	3-9	3-7
Troubleshooting the Zoom 240	3-10	3-8
Operational check	3-11	3-8
Localizing trouble	3-12	3-8
Section III. Disassembly Repair, Cleaning, Adjustments, and Reassembly		
General replacement techniques	3-13	3-9
Considerations before disassembly	3-14	3-9
Disassembly of light table assembly	3-15	3-10
Disassembly of Zoom 240	3-16	3-23
Repair and cleaning	3-17	3-23
Lubrication	3-18	3-24
Adjustment	3-19	3-24
Reassembly of light table	3-20	3-24
CHAPTER 4. GENERAL SUPPORT TESTING PROCEDURES		
General	4-1	4-1
Test equipment, tools, and materials	4-2	4-1
Modification work orders	4-3	4-1
Light table physical lists and inspection	4-4	4-1
Light source test	4-5	4-3

		Paragraph	Page
	Zoom 240 physical and optical tests	4-6	4-5
	Test data summary	4-7	4-8
CHAPTER	5. DEPOT OVERHAUL STANDARDS		
	Applicability of depot overhaul standards	5-1	5-1
	Applicable references	5-2	5-1
	Rollfilm viewer test requirements	5-3	5-1
CHAPTER	6. FINAL ILLUSTRATIONS		
	General	6-1	6-1
APPENDIX	A. REFERENCES		A-1
	B. DS, GS, AND DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOL LIST		B-1

CHAPTER 1

INTRODUCTION

1-1. Scope

a. This manual covers direct support, general support, and depot maintenance for Viewer, Stereoscopic Rollfilm, Photographic Interpretation AR-133A (rollfilm viewer). It includes instructions for troubleshooting, testing, aligning, and repairing the equipment, replacing maintenance parts, and repairing specified maintenance parts. It also lists tools, materials, and test equipment required for these levels of maintenance.

b. The complete technical manual for this equipment includes TM 11-6675-287-12.

NOTE

Applicable forms and records are covered in TM 11-6675457-Z.

1-2. Reporting of Equipment Manual Improvements

Reporting of errors, omissions, and recommendations for improving this manual 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-EM, Fort Monmouth, N.J. 07703.

1-3. Indexes of Publications

Refer to the latest issues of DA Pam 310-4 and DA Pam 310-7 to determine whether there are new editions, changes, or additional publications pertaining to this equipment.

CHAPTER 2

FUNCTIONING OF VIEWER, STEREOSCOPIC ROLLFILM PHOTOGRAPHIC INTERPRETATION AR-133A

Section I. MECHANICS.

2-1. Light Table Assembly (figs. 2-1 and 2-2)

The light table assembly consists of the X- (a below), Y- (b below), and Z- (c below) travel axis mechanisms, the stage cam shifting assemblies (d below), the film loop accumulation mechanism (e below), and the mask assemblies (f below).

a. X-Travel Axis Mechanism. The X-travel mechanism consists of the X-travel rail assembly and the bearing housing assembly. The X-bearing housing assembly contains the preloaded recirculating ball bearings which provide smooth positive motion along the X-travel axis, a drag brake, and the brush assembly, to provide a movable electrical contact for the electrical clutch. The bearing housing assembly is attached to and driven by the chain in the rail assembly. The X-travel rail assembly contains the drive mechanism for X-travel fine adjustments and consists of a control knob, a chain assembly, and an electrical clutch to hold the rail firmly in the desired position, eliminating drift. When the ON/OFF carriage switch (mounted on the right end of the rail assembly) is at ON, and the red carriage pushbutton switch on the Z-travel adapter plate assembly is depressed, the electrical clutch is released and the X-travel is free to move to the left or right. The X-travel control knob drives the chain assembly through a worm gear, bevel gears, and sprocket. As the chain moves, the X-bearing housing assembly slides along the rail assembly on the ball bearing assemblies. A drag brake on the X-bearing housing maintains the desired drag by maintaining contact (friction) on the rail assembly. The Z-travel mechanism is attached to the X-bearing housing assembly.

b. Y-Travel Axis Mechanism. The Y-travel

mechanism consists of a control knob, chain assemblies, an electrical clutch, a drag brake, the necessary bevel gears, sprockets, and two carriage support rails. The X-travel rail assembly is attached between the two carriage support rails so that any motion in the Y-travel direction moves the complete X-travel rail assembly. When the ON/OFF carriage switch is at ON, and the red carriage pushbutton switch on the Z-travel adapter plate assembly is depressed, the electrical clutch is released and the Y-travel is free to move forward or rearward. The chain assemblies in the Y-travel are anchored to both ends of the carriage support rails and do not move as in the X-travel. The Y-travel control knob drives the sprockets which move along the stationary chain assemblies, carrying the Y-travel mechanisms in a forward or rearward direction. The sprockets are driven by the control knob, through a worm gear mechanism and the necessary bevel gears. Bearing assemblies in the Y-travel mechanisms provide smooth positive movement on the carriage support rails.

c. Z-Travel Axis Mechanism. The Z-travel mechanism consists of a support slide assembly and a support assembly. The support slide assembly is attached directly to the X-bearing housing assembly of the X-travel mechanism. The support assembly moves up and down on the support slide assembly on preloaded recirculating ball bearings which provide smooth positive motion along the Z-travel axis. The Z-travel assembly contains both a coarse motion control knob and fine feed control. The coarse motion control drives a chain within the slide assembly, through a mechanical clutch, worm gear, bevel gears, and sprockets. The fine feed control drives the same chain through a worm gear and sprocket mechanism. The difference

between the coarse and fine feeds are the ratios between the worm gears and sprockets. The fine feed has a larger ratio.

d. Stage Cam Shifting Assemblies. The stage cam shifting assemblies consist of control handles and cam mechanisms for movement of stage glass. Each viewing stage can be moved by this mechanism to open or close the stage separations.

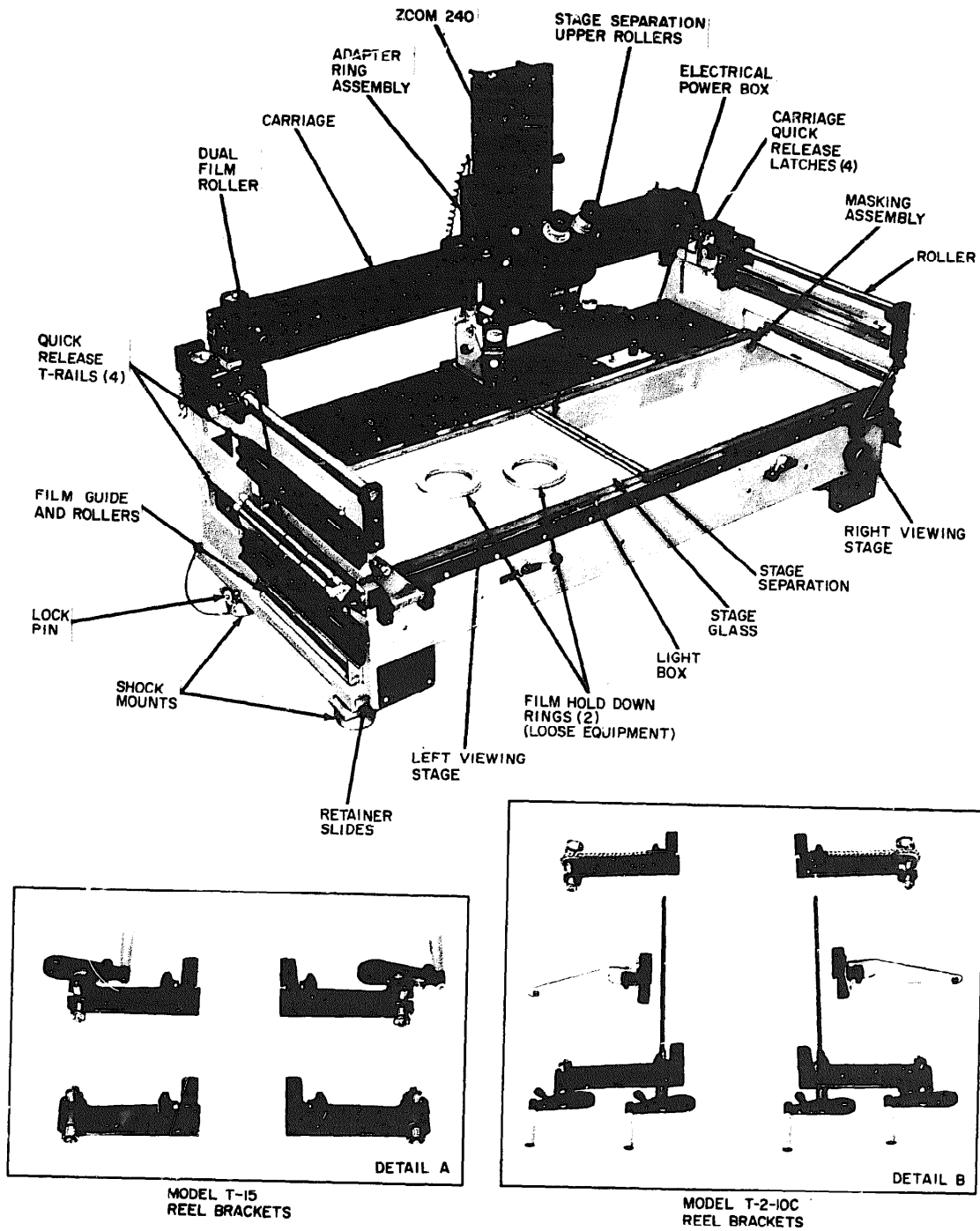
e. Film Loop Accumulator. The film loop accumulator permits viewing of adjacent film-slides spaced on the film up to 82 inches apart. This is done by looping the film down through the stage separation and looping it under two movable (traveling) rollers. The size of the loop is controlled by the distance the movable rollers are set from center, each roller being equidistant from the center at all times. The accumulator control FILM TAKEUP knob is on the front of the light table. The film loop accumulator mechanism consists of a combination of shafts, chains, magazines, chain guides, rollers, sprockets, miter gears, worm gears, couplings, and a control knob. For ease of operation, all aluminum parts in contact with drive chains have special surfacing which provides lubricity and long wear. The chains are positive driven by sprockets within their own tracks. At the left and right ends of each set of chains, an accumulator roller is attached. The chains are timed so that the accumulator rollers are equidistant from center at all times.

f. Mask Assemblies. Two masking assemblies are provided to reduce the extraneous light while viewing film of various sizes. These assemblies are located between the light grids and each viewing stage. Each masking assembly consists of a sheet of 15-x 183/8-inch, 30-gage polyester film, dyed black; and a series of cables, rollers, and spring-loaded cable accumulator spools. The mechanism is accessible when the cover is removed from the electrical power box. Handles at the end of each viewing surface operate the mask assemblies in both fore and aft directions.

2-2. Stereoscope, Lens-Prism-Mirror, Aerial Photograph Interpretation AR*135A (Zoom 240)

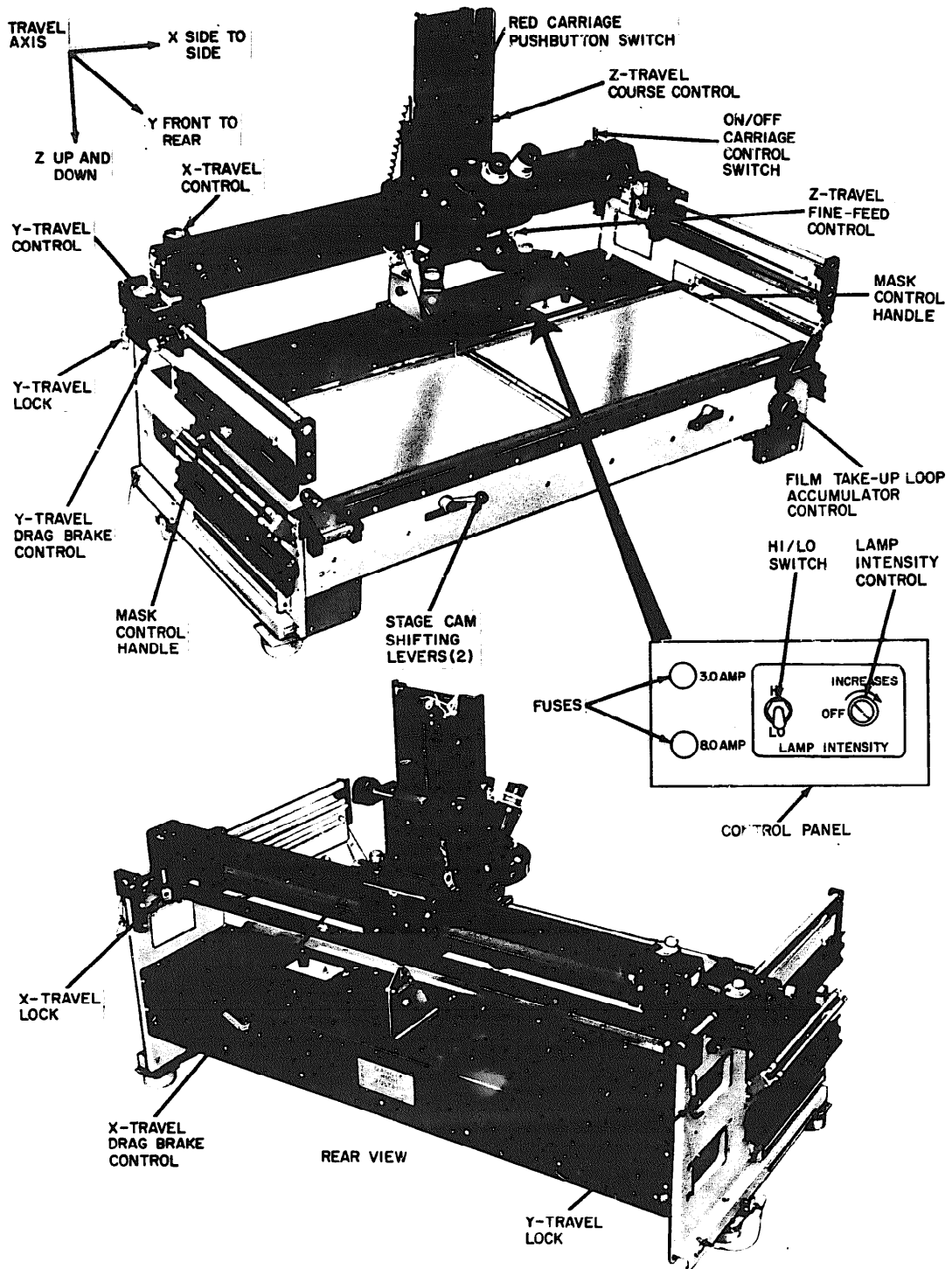
a. Simultaneous Zoom (fig. 2-3). Simultaneous variable magnification (simultaneous zoom) is controlled by the common power changer knob which varies the magnification in both the left and the right optical systems simultaneously. The common power changer knob is used when the Zoom 240 is operated as a microscope or as a stereoscope. When the common power changer knob is turned, the common drive gear on the end of the common drive gear shaft turns the driven gears. In turn, the driven gears rotate the cylindrical cams about their axes. Top and bottom lens units are mounted on the cylindrical cams. Each lens unit contains a cell mount, a cam follower, and a lens assembly. The cam follower is seated in grooves cut in the top and bottom of the cylindrical cams. The lens unit follows the path prescribed by the groove cut in the cylindrical cam surface. The distance between the top and bottom lens units is increased or decreased, depending upon which direction the common power changer knob is turned. This variable spacing moves the lens units in a nonlinear manner to give the equivalent effect of many single lenses. The lens units are further guided by guide bars; these guide bars keep the lens units aligned with the optical axis.

b. Independent Zoom. Independent variable magnification (independent zoom) is used when the Zoom 240 is operated as a stereoscope and two photographic images of different scales are being viewed. For independent zoom control of the optical systems, the common power changer knob is disengaged by setting it to 0.7X and lifting it to its uppermost limit. This action disengages the common drive gear and the driven gears, and independent control of the individual optical systems is taken over by the left and right power changer knobs. When either the left or right power changer knob is rotated, its associated drive gear turns the corresponding driven gear. The optical system then operates as described in *a* above. The difference in the spacing of the lens units of each optical system provides the independent zoom.



EL 6675-287-35-TM-1

Figure 2-1. Details of rollfilm viewer.



EL 6675-287-35-TM-2

Figure 2-2. Carriage travel axis and light table controls.

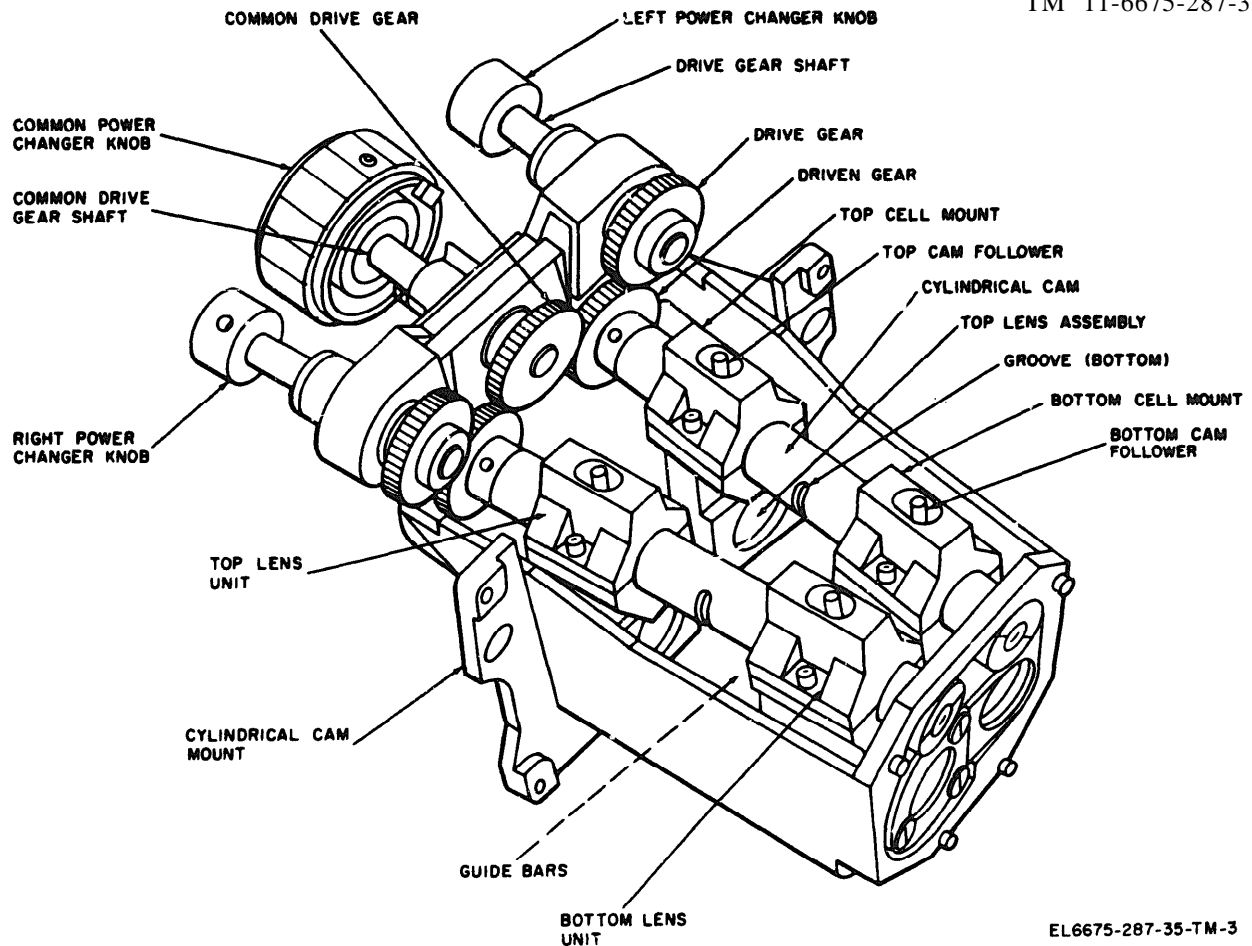


Figure 2-3. Power pod, mechanical schematic diagram.

EL6675-287-35-TM-3

Section II. OPTICS

2-3. Zoom Stereoscope Optical Arrangements

The optical functioning of the Zoom 240 used as a microscope is described in paragraph 2-4. Since the paths of the light rays through the optical systems in the power pod are identical when the Zoom 240 is operated as a stereoscope or a microscope, only the light ray path through the stereo rhomboid arms with stereo lenses is discussed in paragraph 2-4. Because of the complexities of the optical glass and the various indexes of refraction, the theoretical light ray path shown schematically is not meant to illustrate the actual light ray path.

2-4. Microscope (fig. 2-4)

a. The light rays (transmitted or reflected by

the subject being viewed) pass through the clear lens shield into the paired objective lens cells and the paired zoom lens assemblies. The combination of the objective lens cells and the zoom lens assemblies (zoom system) of each optical train provides a magnification range that is continuously variable between 0.7X and 3.0X.

b. The light rays from the zoom system are then diverted by the prism assemblies to the left and right eyepieces, respectively. The prism assemblies fold the light path, provide inclined viewing (tip the optical axis to an inclined position for comfortable viewing), and reposition the image of the subject to its normal perspective. The mechanical point of rotation of the mirror assemblies, and subsequently, the eyepiece assemblies, provides an interpupillary adjustment that does not disturb the viewed image

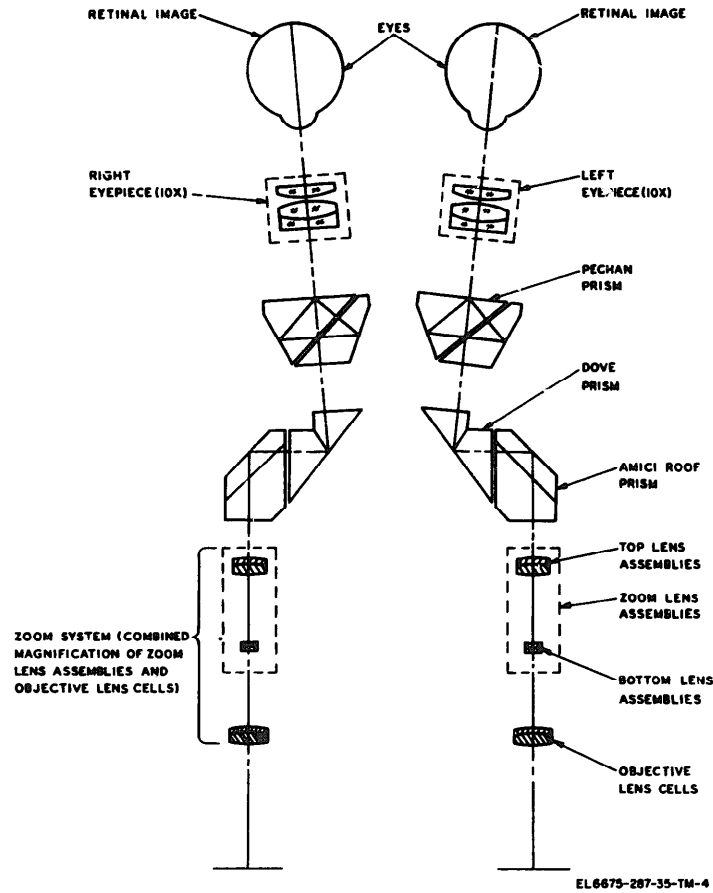


Figure 2-4. Typical microscope optical system, schematic diagram.

between the interocular distance of 60 to 72 millimeters (mm). The diverted light rays form a space image at the focal plane of the eyepiece.

c. The space images are then made visible to the eyes with the eyepieces. Two pairs of eyepieces (10X and 20X) can be used interchangeably in the optical system. When the 10X eyepieces are used, the available magnification range is from 7X to 30X. Use of the 20X eyepieces extends the range from 14X to 60X. The 0.5X lens attachment is used in place of the clear lens shield to further extend the magnification range. The 0.5X lens attachment halves the available magnification range.

d. The final retinal images formed on the retina of each eye appear to the eyes to be in a plane just above the viewed subject plane. The final retinal images are referred to as virtual

images because the light rays merely appear to come from the virtual images. The dashed lines going to the ends of these virtual images indicate that these are not actual rays of light, but merely extensions (in a downward direction) of the actual light rays. The actual light rays are shown in solid lines between the eyepieces and the eye. At about 10 inches, the virtual image is common for most observers. The virtual images of the individual optical trains lie in different planes. However, the angle of divergence is small enough to permit the eyes to accept it as a flat or nearly flat surface.

2-5. Stereoscope

(fig. 2-5)

a. The light rays (transmitted or reflected by each of the two subjects being viewed) are transmitted through the mirror and are directed through the focusing lens cells. The light rays

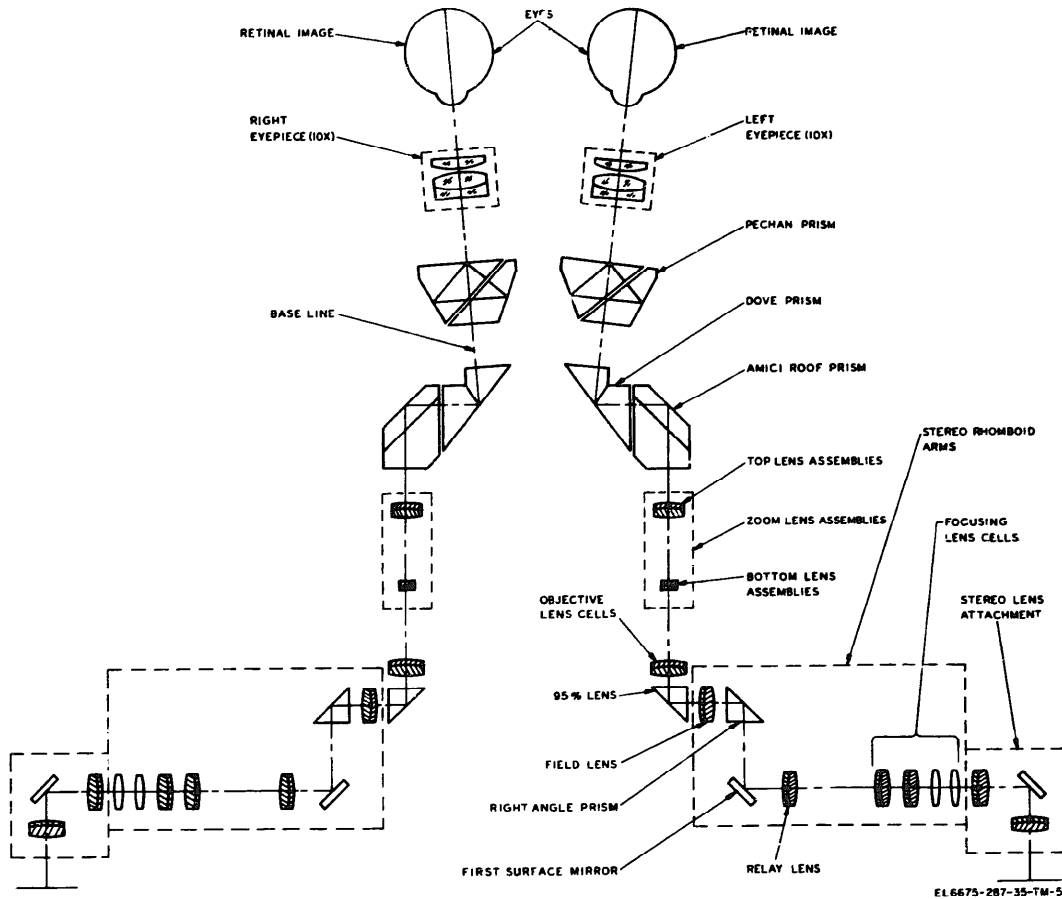


Figure 2-5. Typical stereoscope optical system, schematic diagram.

are then bent by the first surface mirror and reflected onto the prism of the arm. The rays are then reflected through the lens cells to a prism which transmits the subject to the objective lens.

b. The central rays, entering the rhomboid prisms, are perpendicular to the subject planes. Upon emerging from the prisms, the central rays remain perpendicular to the subject plane

but are displaced by a fixed amount. The line of emergence, projected to the first surface mirrors, now becomes the axis of mechanical rotation for the individual rhomboid prisms, which can be rotated individually or simultaneously. The central rays are then folded by the first surface mirrors and the triangular prism to match the separate axis of the optical system within the power pod. The central rays then enter the power pod (para 2-2).

Section III. ELECTRICAL CIRCUITS

2-6. Rollfilm Viewer Electrical System

(fig. 6-2)

The rollfilm viewer electrical system consists of a light source circuit, blower motor, fuses, two line filters, and a full-wave rectifier circuit which is used to energize the clutch circuits. The line voltage is distributed to the system through connector P1.

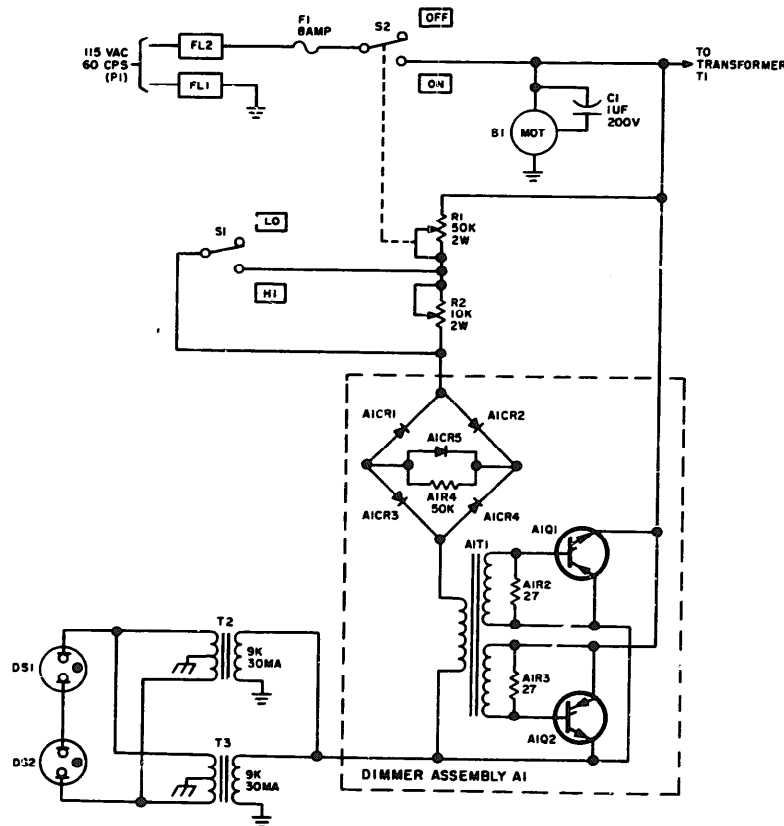
2-7. Light Source Circuit

(fig. 2-6)

a. The mercury-argon light grids (light source) provide illumination for both rollfilm viewing surfaces. Power for the light source is provided by dimmer assembly A1 which is a silicon-controlled rectifier regulated power supply.

b. Dimmer assembly A1 controls the current flowing through the primary windings of transformers T2 and TX. The secondary windings of transformers T2 and T3 supply the high voltage output necessary to operate the light source. Current flow through the transformer's primary windings is controlled by silicon-controlled rectifier A1Q1 and A1Q2.

c. At the beginning of each half-cycle, A1Q1 and A1Q2 do not conduct, and current flows through the primary windings of transformers T2 and T3, and the gating circuit. This current is not sufficient to induce a high voltage in the secondaries of T2 and T3 due to the high resistance of the gating circuit, which contains transformer A1T1, bridge rectifiers A1CR1 through A1CR4, trigger diode A1CR5, resistor A1R4,



EL 6675-287-35-TM-6

Figure 2-6. Dimmer assembly-light source circuit, simplified schematic diagram.

and variable resistors R1 and R2. Bridge rectifiers A1CR1 through A1CR4 always apply a forward bias to the outer regions of trigger diode A1CR5, regardless of the polarity of the applied voltage. The inner junction of trigger diode A1CR5 is reverse-biased, and the diode will not conduct until the voltage across it reaches a breakdown level of 32 volts.

d. When diode **A1CR5** is nonconducting, the line voltage is dropped across resistors **A1R4**, R1, and R2. The setting of variable resistor **R1** determines the voltage across the parallel combination of resistor **A1R4** and trigger diode **A1CR5**. When the critical voltage level is reached, trigger diode **A1CR5** conducts, shorting resistor **A1R4** and causing a sudden surge of current to flow through the primary winding of transformer **A1T1**. This current induces a voltage in the secondary winding of transformer **A1T1**, which gates on **A1Q1** or **A1Q2**. During the positive half-cycle, **A1Q1** is gated on; **A1Q2** is gated on during the negative half-cycle. Thus, **A1Q1** or **A1Q2** conducts for only the peak portion of a half-cycle and electrically connects the input directly across the primary of transformers **T2** and **T3**, causing maximum current to flow through the primary winding.

e. The brightness of the light source is controlled by the setting of variable resistor R1. When the resistor is set for minimum resistance, diode **A1CR5** is triggered early in the half-cycle. Rectifier **A1Q1** or **A1Q2** is gated and conducts until the end of the half-cycle. When variable resistor R1 is set for maximum resistance, trigger diode **A1CR5** is triggered late in the half-cycle and either **A1Q1** or **A1Q2** conducts for a relative short period of time. The brightness of the light source is proportional to the length of time that **A1Q1** and **A1Q2** conducts.

f. Capacitors **A1C1** and **A1C2** (fig. 6-2) are connected in series with transformers **T2** and **T3**, and in parallel with the trigger diode circuit. These capacitors shift the phase of the voltage across this circuit to delay the control voltage

by approximately 90° with respect to the line voltage. This action insures that control of the firing point begins near the end of each half-cycle during which either **A1Q1** or **A1Q2** can operate. As variable resistor R1 is adjusted to increase the brightness of light source **DS1** and **DS2**, **A1Q1** or **A1Q2** is gated on earlier during the half-cycle, allowing firing closer to the time when peak voltage appears across this circuit. In no way do the capacitors affect the operation of this circuit once **A1Q1** or **A1Q2** is gated on. With either **A1Q1** or **A1Q2** gated on, the capacitors are effectively shorted out.

g. HI/LO switch **S1** is used to select the illumination range by connecting or removing variable resistor R2 from the circuit. When the switch is set to HI, variable resistor R2 is shorted out, increasing the voltage across the primary winding of transformer **A1T1**.

2-8. Clutch Circuit-Full-Wave Rectifier Circuit

(fig. 2-7)

a. Blower motor **B1** is energized when power switch **S2** is placed to the ON position. The blower motor is used to cool all the electronic components installed in the light table. Capacitor **C1** is used to phase-shift the line voltage applied to the motor.

b. When LAMP INTENSITY control **S2** is placed to the ON position, line voltage is also applied to the primary winding of transformer **T1**. Transformer **T1** steps down the line voltage to 12 volts and applies this voltage to full-wave rectifier **CR1**. Full-wave rectifier **CR1** rectifies the 12 volts ac to pulsating dc (6 volts) which is filtered by capacitor **C2**. The dc voltage across input filter capacitor **C2** is applied to the carriage switch **S3**. When carriage switch **S3** is placed to the ON position, voltage which energizes clutch solenoids **Z1** and **Z2** is routed across capacitor **C3** and the clutch solenoids through red carriage pushbutton switch **S4**. The clutches are disengaged, allowing X- and Y-travel of the stereoscope over the light table.

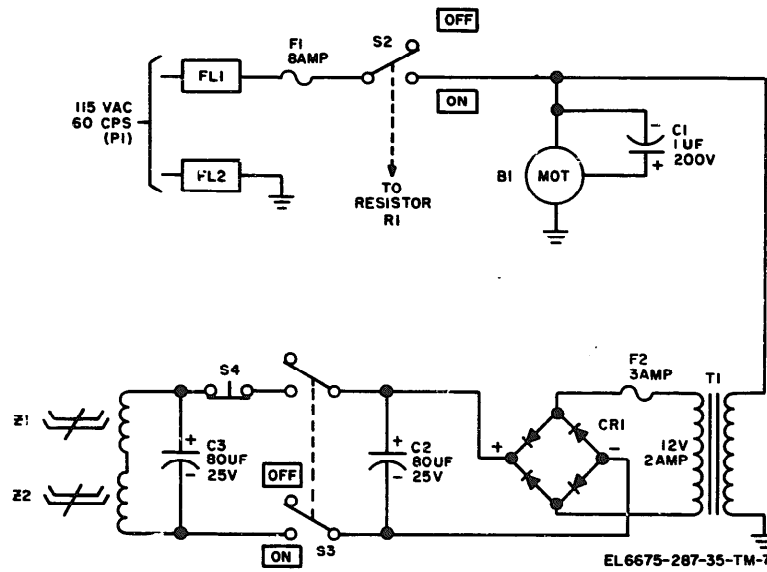


Figure 2-7. Clutch circuit-full wave rectify simplified schematic diagram.

CHAPTER 3

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE

Section I. GENERAL

3-1. Scope of Maintenance

Direct and general support maintenance duties for the rollfilm viewer are listed below, together with references to the paragraphs covering specific maintenance functions.

- a. Troubleshooting (para 3-3).
- b. General parts replacement techniques (para 3-13).
- c. Considerations before disassembly (para 3-14).
- d. Disassembly of light table assembly (para 3-15).
- e. Disassembly of Zoom 240 (para 3-16).
- f. Repair and cleaning (para 3-17).
- g. Lubrication (para 3-18).
- h. Adjustments (para 3-19).
- i. Reassembly of light table assembly (para 3-20).

3-2. Tools, Test Equipment, and Materials Required

The following tools, test equipment, and mate-

rials are required to perform direct and general support maintenance on the light table assembly.

- a. Toolkit, Photographic Repair TK-109/GF.
- b. Toolkit, Photographic Repair TK-77/GF.
- c. Multimeter TS-352/U.
- d. Oscilloscope AN/USM-81.
- e. Hand blower (air syringe) (FSN 5120-254-4612).
- f. Lens cleaner (FSN 6760-400-5175).
- g. Lens tissue (FSN 6640-393-2090).
- h. Xylene (FSN 6810-598-6610).
- i. Cleaning compound (FSN 7930-395-9542).
- j. Camel's-hair brush (FSN 8020-245-4509).
- k. Lint free cloth (FSN 8305-170-5062).
- l. Cotton swab (FSN 6515-303-8250).

Section II. Troubleshooting

WARNING

When troubleshooting or making repairs in this equipment, be extremely careful. Voltages as high as 9,000 volts are present internally. Use insulated test probes when making the required

voltage measurements. Always disconnect the power cord from the equipment before touching any of the internal parts.

3-3. General Instructions

- a. Troubleshooting at direct support, general

support, and depot maintenance categories includes all of the techniques outlined for organizational maintenance, and any special or additional techniques required to isolate a defective part. The direct support, general support, and depot maintenance procedures are not complete in themselves but supplement the procedures described in organizational maintenance. The systematic troubleshooting procedure, which begins with the operational and sectionalization checks performed at the organizational category of maintenance, must be completed by further localizing and isolating techniques. Paragraphs 3-5, 3-6, and 3-7 provide unit troubleshooting procedures which must be performed at the direct support, general support, and depot maintenance categories.

b. Troubleshooting may be performed while the equipment is operating or, if necessary, after the equipment (or parts of it) has been removed from service. When trouble occurs, certain observations and measurements can be made that will help to determine the source of trouble. Usually, when troubleshooting is performed while the equipment is operating, it is done at the organizational category (TM 11-6675-287-12). Troubleshooting at the direct support category is usually done with the component removed from the equipment with which it is normally associated. Paragraph 3-4 describes the systematic procedures to be followed which will enable the maintenance personnel to isolate the cause of the trouble and correct the fault.

3-4. Organization of General Troubleshooting Procedures

a. General. The first step in servicing a defective equipment is to sectionalize the fault. Sectionalization means tracing the fault to the major component. The second step is to localize the fault. Localization means tracing the fault to the defective section, stage, or unit. The third step, isolation, means tracing the fault to the defective part. Some faults, such as defective film transport mechanism or binding of mechanical components, 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.

(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.

(2) *Operational tests.* Operational tests frequently indicate the general location of trouble. In many instances, the tests will help to determine the exact nature of the fault. The operator's daily preventive maintenance checks (TM 11-6675-287-12) contain good operational tests. Additional operational tests are described in paragraph 3-6.

c. Localization. The tests given in (1) and (2) 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 trouble localization methods as follows:

(1) *Troubleshooting chart.* The trouble symptoms listed in this chart (para 3-6b) will aid in localizing trouble to a component part.

(2) *Optical tests,* Optical testing procedures (para 4-6) will aid in localizing troubles within the optical system.

d. Isolation.

(1) *Voltage and resistance measurements.* This equipment contains semiconductors. Observe all cautions given to prevent semiconductor damage. Make voltage and resistance measurements in this equipment only as specified. When measuring voltages, use tape or sleeving to insulate the entire test prod, except for the extreme tip. A momentary short circuit can ruin the semiconductors. Use resistor and capacitor color codes (fig. 6-1) to find the value of the components. Use voltage and resistance diagrams to find normal readings and compare them with readings taken.

(2) *Intermittent 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 tapping or jarring the equipment. Check the wiring and connections to the units of the set.

(3) *Optical troubles.* Troubles in optical systems can usually be located by following step-by-step testing procedures. Perform these tests (para 4-6) to find the normal results and compare them with the results obtained.

3-5. General Operational Checks

a. Preliminary Check.

(1) Check the rollfilm viewer for completeness.

(2) Check for broken, scratched, or chipped glass, and broken or bent controls.

(3) Check for broken, bent, or damaged power cord.

b. Carriage Mechanism Check.

(1) Check the operation of the X- and Y-carriages as follows:

(a) Turn LAMP INTENSITY switch fully clockwise.

(b) Place ON/OFF carriage switch to ON.

(c) Depress red carriage pushbutton.

(d) Move the X-carriage the length of the table vertically and the Y-carriage the length of the table horizontally.

NOTE

No binding of the carriage assemblies should be observed.

(2) Check for positive action of the X- and Y-magnetic clutches as follows:

(a) Turn LAMP INTENSITY switch fully counterclockwise to OFF.

(b) With a force of more than **10** pounds, move the X-carriage and then the Y-carriage the length of the table.

NOTE

The carriages should not move when a force of less than **10** pounds is applied.

(3) Check for positive operation of the film tension screws by tightening the screws. The crank handles should not move.

c. Light Source Check.

(1) Set the HI/LO switch to LO, and set the LAMP INTENSITY control to on.

(2) Vary the LAMP INTENSITY control and check to see that the light source intensity varies.

(3) Set the HI/LO switch to HI and check to see that light source intensity increases.

3-6. Trouble localization

a. General. If proper results are not obtained during the performance of the general operational checks (para 3-5), the trouble should be localized to the individual section of the equipment. Depending upon the nature of the operational symptoms, two different approaches may be necessary; the troubleshooting procedures given in *b* below, or the light source circuit electrical tests given in *d* below.

b. Troubleshooting Chart. The troubleshooting chart (c below) lists the symptoms which the maintenance man observes while making general operational checks. The probable cause and corrective action for each trouble symptom are also presented in the chart. This chart supplements the troubleshooting charts given in **TM 11-6675-287-12.**

c. Troubleshooting Chart.

Item No.	Symptom	Probable trouble	Correction
1	Light source does not light; fuse F1 not blown; primary power source circuit breaker tripped.	a. Defective power cord b. Defective radio frequency interference filter.	a. Remove power cord from ac outlet and check for short circuits; replace if defective (fig. 6-2). b. Remove power cord from ac outlet and check for short circuit between input terminal and case, and output terminal

Item No.	Symptom	Probable trouble	Correction
2	Light source does not light; fuse F1 blown; and primary power source operating properly.	<ul style="list-style-type: none"> a. Defective LAMP INTENSITY switch S2. b. Defective dimmer assembly A1. c. Defective resistor R2..... d. Defective grid assembly transformers T2 and T3. e. Defective light grid assemblies DS1 and DS2. 	<p>and case. Replace radio frequency interference filter if short circuit is detected.</p> <ul style="list-style-type: none"> a. Check to see if blower motor B1 is operating. If blower motor is operating, switch S2 is operational. If blower motor B1 is not operating, and clutches Z1 and Z2 are not engaged when carriage assembly switch S3 is ON with red pushbutton depressed, switch S2 is defective. Replace LAMP INTENSITY switch S2 if defective (para 3-15g). b. Test dimmer assembly (para 3-6d); replace if defective (para 3-15g). c. Remove primary power source and measure resistor R2 with ohmmeter. Resistance should be 10 K ohms; replace resistor R2 if defective (fig. 6-2). d. Test grid assembly transformers T2 and T3 (para 3-7); replace if defective (para 3-15g). e. Replace light grid assemblies DS1 and DS2 (para 3-15f).
3	Left or right side of light table does not illuminate.	Defective left or right light grid assemblies (DS1 and DS2), and left or right grid assembly transformers (T2 and T3).	<p>Light grid assemblies and their associated transformers may be checked by a process of elimination.</p> <p><i>Example:</i> if the left grid assembly will not light, exchange left and right grid high voltage wires. If the grid lights after the exchange of wires, this will indicate the left grid transformer is defective and must be replaced. If the left grid still does not light after the exchange of high voltage wires, this may indicate that the grid assembly is defective.</p>
4	Light source dim.....	<ul style="list-style-type: none"> a. Defective LAMP INTENSITY switch S2 (variable resistor R1). b. Defective dimmer assembly A1. c. Defective grid assembly transformers T2 or T3. d. Defective light grid assembly DS1 or DS2. 	<ul style="list-style-type: none"> a. Connect jumper across variable resistor R1. If light source illuminates, replace LAMP INTENSITY switch assembly (para 3-15g). b. Test dimmer assembly (para 3-6d); replace if defective (para 3-15g). c. Test grid assembly transformers T2 or T3 (para 3-7); replace if defective (para 3-15g). d. Replace light grid assembly DS1 or DS2 (para 3-15f).
5	Light source flashes (varies in intensity).	<ul style="list-style-type: none"> a. Defective (intermittent) HI/LO switch S1. b. Defective dimmer assembly A1. c. Defective grid assembly transformer T2 or T3. d. Defective light grid assembly DS1 or DS2. 	<ul style="list-style-type: none"> a. Connect jumper between contacts of HI/LO switch S1. If light source intensity is steady and illuminates LO, replace switch. If light source still flashes, remove jumper. h. Test dimmer assembly (para 3-6d); replace if defective (para 3-15g). c. Test grid assembly transformer T2 or T3 (para 3-7); replace if defective (para 3-15g). d. Replace light grid assembly DS1 or DS2 (para 3-15f).
6	Light masks do not pull out freely.	Light mask roller assembly dirty.	Clean mask assembly. Refer to TM 11-6675-287-12.
7	Drag brake does not hold.	Weak or defective drag brake spring.	Replace drag brake spring (para 3-17b).

Item No.	Symptom	Probable trouble	Correction
8	Erratic carriage movement.	<ul style="list-style-type: none"> a. Circulating ball bearing assemblies dirty. b. Ball bearings missing from circulating ball bearing assemblies. 	<ul style="list-style-type: none"> a. Clean circulating ball bearing assemblies (para 3-17a(2)). b. Replace missing ball bearings (para 3-17a(1)).
9	X- and Y-carriage fine feed controls inoperative.	<ul style="list-style-type: none"> a. Defective fuse F2..... b. Defective carriage transformer T1. c. Defective full-wave rectifier CR1 or input filter capacitor C2. d. Connector blocks not making contact. e. Dirty bus bars f. Defective ON/OFF carriage switch. g. Defective red carriage pushbutton switch. h. Defective Y-travel clutch . . . 	<ul style="list-style-type: none"> a. Replace fuse F2. Caution: Do not over fuse. Use 3AG3 amp fuse only. b. Test carriage transformer T1 using a voltmeter set on the 50-volt dc scale. Connect meter leads to red and black leads attached to the L-us bar located on the right side of the light table. With the carriage ON/OFF switch in the ON position, measure 12 volts dc. If zero volt is measured; replace carriage transformer T1 (para 3-15g). c. Measure approximately 6 volts dc across input filter capacitor C2 (fig. 6-2). If voltage is not measured, replace rectifier CR1 or capacitor C2. d. Reseat connector blocks located on the left and right side of the carriage. Adjust connector pins by removing the carriage from the light table (para 3-19a). e. Clean bus bar with a soft cloth dampened with cleaning compound (FSN 7930-395-9542). f. Connect jumper wire between posts 1 and 2 (fig. 3-1) of ON/OFF switch. If switch is defective, the fine feed controls will now operate; replace defective switch. g. Connect jumper wire between two contacts of the red carriage pushbutton switch. This pushbutton switch is located at the left rear of the Zoom 240 adapter ring assembly. If pushbutton switch is defective, the carriage will move easily. h. The Y-travel clutch is located on the left side of the Zoom 240 carriage and controls the rapid and fine feed of the Zoom 240 carriage in the Y-direction. The clutch electrical connector block, located on the left side of the table, can be reset or adjusted (para 3-19a). If clutch will not operate after adjustment, perform a continuity test with an ohmmeter across the two clutch terminals (fig. 3-2). If continuity is not measured, the clutch is defective; replace clutch (para 3-15d). If continuity is measured and clutch will not operate, a mechanical defect is indicated; replace clutch (para 3-15d).

Item No.	Symptom	Probable trouble	Correction
		i. Defective X-travel clutch . . .	i. The X-travel clutch is located on the left side of the Zoom 240 carriage and controls the rapid and fine feed of the Zoom 240 carriage in the X-direction. Test the X-travel clutch by performing a continuity test with an ohmmeter across the two clutch terminals (fig. 3-3). If continuity is not measured, the clutch is defective; replace clutch (para 3-15c). If continuity is measured and clutch will not operate, a mechanical defect is indicated; replace clutch (para 3-15c).

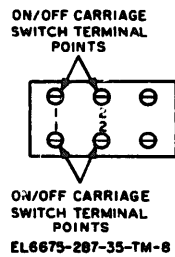


Figure 3-1. ON/OFF carriage switch, terminal points.

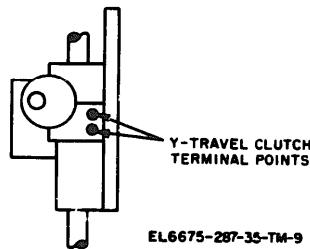


Figure 3-2. Y-travel clutch, terminal points.

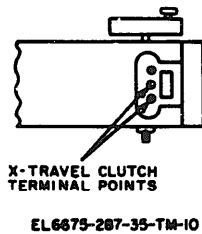


Figure 3-3. X-travel clutch, terminal points.

d. Light Source Circuit Electrical Tests.

(1) Set the LAMP INTENSITY control to OFF.

(2) Disconnect the light table from the primary power source by removing plug **P1**.

(3) Connect the oscilloscope vertical input terminals, with a voltage attenuator, across the primary winding of grid assembly transformer T2 or T3. Connect plug P1 (light table) and line cord (oscilloscope) to the primary power source.

(4) Turn the LAMP INTENSITY control until it clicks on. Using internal sync, synchronize the oscilloscope with the voltage across grid assembly transformer T2 or T3.

(5) While observing the oscilloscope, vary the LAMP INTENSITY control between the minimum and maximum positions. Check to see that the pulse displayed on the oscilloscope increases in width and amplitude, gradually assuming the shape of a sine wave as the control is turned clockwise.

(6) If the pulse displayed in (5) above is not correct, LAMP INTENSITY variable resistor R1, or dimmer circuit A?, is defective. If the pulse displayed in (5) above appears to be correct, but the light source does not operate properly, either the transformer or the light grid assembly is defective. To determine whether the transformers or the light grid assemblies are defective, perform the procedures given in paragraph 3-7.

3-7. Transformer and Light Source Check

a. Set the LAMP INTENSITY control to OFF. Disconnect the light table from the power source by removing plug **P1**.

WARNING

High voltage, up to 9,000 volts, may be present at the output terminals of transformers T2 and T3. Do not measure this voltage. Momentary contact can cause severe shock, electrical burns, or death. Check to see that power is removed from the roll-film viewer before the transformer is touched.

b. Remove the coating from transformers T2 and T3 secondary terminals, and tag and unsolder the leads. Disconnect the transformer primary leads from terminal board TB3.

c. Measure the resistance of the primary and secondary windings. The primary should measure 2.2 ohms, and the secondary should measure 23,000 ohms. If either of the two measurements is off by more than 5 percent, replace the defective transformer.

d. Reconnect the secondary (high voltage) leads to the transformers. Apply RTV coating 102 to the transformer secondary terminals before the transformers are **replaced**.

e. Connect a power cord to the primary of **either transformer T2 or T3 (be sure to use a 3-wire power cord as shown in figure 6-3), and plug the cord into a 115-volt ac convenience outlet. The light grid assembly should give off a bright light. Remove the power cord from the first transformer being tested and reconnect power cord to other transformer (T2 or T3). Plug cord into 115-volt ac convenience outlet and the second light grid assembly should give off a bright light. If either or both light grid assemblies do not illuminate, replace the defective assembly, as described in paragraph 3-15f. If both light grid assemblies (DS1 and DS2) perform satisfactorily, the trouble is in the control circuit, as indicated in paragraph 3-6d.**

3-8. X- and Y- Travel Clutch Assembly Check

a. Connect power cord P1 into a 115-volt ac convenience outlet.

b. Insure that LAMP INTENSITY switch is in the OFF position.

c. Move the carriage assembly in the X- and then the Y-travel direction with sufficient force

to overcome both clutches. The carriage shall not move with a force of less than 10 pounds in either direction.

d. Turn LAMP INTENSITY switch clockwise to on.

e. Place carriage ON/OFF switch to the ON position.

f. Depress the red carriage pushbutton and move the carriage assembly through the entire length of the X- and Y-travel. The carriage assembly shall not bind and should not require more than 3 pound8 of force for free movement.

N O T E

Make certain that the X- and Y-travel locks are released before moving the carriages.

3-9. Clutch Circuit Check

a. Connect power cord P1 into a 115-volt ac convenience outlet.

b. Turn LAMP INTENSITY switch to on.

c. Observe bloer motor B1 for cooling operation.

d. Using a voltmeter (ac scale) measure 115 volt8 ac across the primary winding of transformer T1. **Measure 12 volts ac across the secondary winding of transformer T1. If blower motor is operating and zero volt is measured across the primary winding, fuse F2 or transformer T1 is defective. Check fuse F2; if blown, replace fuse. If fuse is not blown, replace transformer T1.**

e. Using a voltmeter (dc scale), measure 6 volts dc across capacitor C2. **If 6 volts dc is not measured but 12 volts ac is measured across the secondary winding of transformer T1 (above), full-wave rectifier CR1 or capacitor C2 is defective.**

f. Place carriage ON/OFF switch S3 to the ON position.

g. Connect voltmeter (dc scale) across capacitor C3 and depress the red carriage pushbutton switch S4. **If 6 volts dc is measured, circuit test is complete. If 6 volts dc is not measured, perform the following:**

(1) Connect jumper across carriage ON/OFF switch S3; if 6 volts dc is measured, remove jumper and replace ON/OFF switch (para 3-15g).

(2) Connect jumper across red carriage pushbutton switch S4; if 6 volt8 dc is measured, remove jumper and replace pushbutton switch (para 3-15e).

(3) Place LAMP INTENSITY switch to OFF. Disconnect leads to coil of clutch Z1 and Z2. Using an ohmmeter, measure both coil8 of clutch Z1 and Z2 for continuity. If continuity is measured, replace capacitor C3. If continuity is not measured, replace clutch coil8 Z1 or Z2.

3-10. Troubleshooting the Zoom 240

Before troubleshooting the Zoom 240, perform an operational check as outlined in paragraph 3-11.

3-11. Operational Check

a. Assemble the Zoom 240 as a stereoscope and install it in the arm assembly (TM 11/6675-287-12).

b. Check the displacement of the eyepiece tubes. See that the movement of one eyepiece tube moves the other the same degree while maintaining the same horizontal axis, and that the spacing between the eyepiece tube8 remain8 a8 set until manually changed.

c. Check to see that the range of interpupillary separation is adjustable from 60 to 72 mm.

d. Place the photographic material to be viewed on the illuminated format8 under the Zoom 240.

e. Space the eyepiece tubes for correct interpupillary separation, and focus the equipment.

NOTE

After compensating for the difference in visual acuity between the eyes, set the focus and check to see that no further focus adjustment is required for various power changes. Focus to accommodate various thicknesses of photographic material by using the upper or lower focusing knobs.

f. Rotate the individual rhomboid arm8

throughout their entire range. The motion should be smooth but with a slight damping action. The minimum separation of the rhomboid arm8 is 35 mm (1.33 inch); and the maximum separation is 381 mm (15 inches) on the Zoom 240.

g. With the common power changer knob engaged for common control of the zoom lens assemblies, check to see that rotation of the common power changer knob varies the magnification of both halves of the optical system simultaneously. With the common power changer knob disengaged, check to see that the left and right power changer knob8 control the magnification of their respective optical trains.

h. Check to see that the magnification of the Zoom 240 is continuously variable from 0.7X to 60X.

i. Assemble the Zoom 240 a8 a microscope (TM 11-6675-287-12).

j. Verify that the magnification is continuously variable from 3.5X to 30X with the 0.5X lens attachment in place.

k. Rotate the common power changer knob, and check to see that the magnification of both halve8 of the optical system varies simultaneously.

3-12. Localizing Trouble

a. *General.* If the proper results are not obtained by performing the operational check8 (para 3-11), the trouble should be localized to the individual section of the component. Depending on the nature of the operational symptoms, one or more of the localizing procedure8 will be necessary.

NOTE

None of the parts of the Zoom 240 are interchangeable. Do not attempt to replace the entire Zoom 240. The defective unit must be returned to the manufacturer for repair.

b. *Use of Chart.* The troubleshooting chart is designed to supplement the troubleshooting chart in TM 11-6675-287-12 and the operational check8 (para 3-11). If operational symptoms are not known, repeat the operational checks (para

3-11) and refer to the troubleshooting chart below (d below).

c. *Zoom 240, Troubleshooting Chart.* The chart (d below) lists the symptoms which the maintenance man **observes** while making the

general operational check8 (para 3-11). The chart also indicate8 a method of localizing trouble to the individual section or component.

d. *Zoom 240 Troubleshooting Chart.*

Item No.	Symptom	Probable trouble	Correction
1	Difference in magnification when common power changer knob is at low setting.	Foreign matter restricting zoom lens assembly movement.	Remove foreign matter, if fault not corrected, replace power pod.
2	Difference in magnification at high or low setting.	Stripped gears in power pod..	Check for damaged gears; replace power pod if gears are damaged.
3	Left eyepiece focusing sleeve not effective.	Eyepiece not seated at bottom of eyepiece tube.	Reseat eyepiece tube; make sure that it is in contact with bottom of eyepiece tube.
4	Optical system completely out of focus and will not zoom.	Sheared cam follower	Check for damaged cam follower; replace power pod if cam follower is damaged.
5	No image through optical system.	Defective prism assembly	Check prism assembly; replace power pod if mirror assembly is damaged.
6	No image through one or both optical trains.	Broken triangular prism	Replace stereo rhomboid arms with stereo lenses.
7	Stereo pair cannot be brought into fusion.	a. Eyepiece tube centering defective. b. Objective lens off center c. Complete optical system out of alignment.	a. Replace power pod. h. Replace power pod. c. Replace power pod.
8	Color fringes (blue and yellow) apparent on high-contrast object matter.	Optical system not aligned	Replace power pod.
9	Viewed stereo model appears tipped.	Mirror assembly alignment defective.	Replace power pod.
10	Both images cannot be focused simultaneously.	Triangular prism out of alignment.	Replace power pod.

Section III. DISASSEMBLY REPAIR, CLEANING, ADJUSTMENTS, AND REASSEMBLY

3-13. General Replacement Techniques

Most of the part8 in the rollfilm viewer can be easily reached and replaced without special procedures. However, the optical and some mechanical part8 are precisely made and the alignment of these part8 is critical. Defective optical and mechanical part8 are returned to the manufacturer for repair.

3-14. Considerations Before Disassembly

Sectionalizing trouble in the rollfilm viewer can simplify repair by limiting the work to the defective area. Repair8 that can be made by **disassembly** of the particular part8 that operate as a group to perform a function are outlined below. Before disassembling the entire light table **assembly**, refer to paragraph8 that contain in-

structions concerning the defective area. Repair or replace the defective part or parts; then, assemble them to the light table assembly.

a. *Carriage Assembly.* The carriage assembly is composed of an X-travel carriage, a Y-travel carriage, and a Z-travel (vertical) carriage. Repair8 to the carriage assembly can be made without disassembling the entire light table assembly and without removing the light table assembly from its tracks. Refer to paragraph 3-15a for removal of the carriage assembly and paragraph 3-20f for installation of the carriage assembly. Each of the carriages (X-, Y-, and Z-travel) can be repaired individually. Before disassembling the X-, Y- or Z-travel carriages, separate them as instructed in paragraph 3-15b. Once separated, the travel carriages can be dis-

assembled as outlined in paragraphs 3-15c through e and reassembled as outlined in paragraph 3-206 through d.

b. Light Table. Repair of the light table can be made by removing the Zoom 240 (TM 11-6675-287-12) and removing the carriage assembly (para 3-15a) to permit removal of the components. Refer to paragraph 3-15f for disassembly and paragraph 3-20a for reassembly of the light table parts shown in figure 3-8.

c. Zoom 240. Do not attempt to disassemble or lubricate the Zoom 240. The defective Zoom 240 shall be returned to the manufacturer for repair. Removal of the Zoom 240 from the carriage assembly is given in TM 11-6675-287-12. Refer to paragraph 3-17d for cleaning the Zoom 240.

3-15. Disassembly of Light Table Assembly

a. Removal of Carriage Assembly (fig. 3-4). Remove the carriage assembly from the light table as follows:

(1) Remove Zoom 240 from carriage assembly. Refer to TM 11-6675-287-12 for removal instructions.

(2) Release the shipping lock on the center carriage support. Open two quick-release catches located on the outer ends of the X-travel carriage and two quick-release catches on the inner sides of the Y-travel carriage. Carefully lift the X- and Z-travel carriages away from the light table.

(3) Make certain shipping locks at both ends of the Y-travel carriage are disconnected.

(4) Remove four screws and four washers at the front of light table and four screws, four washers, and carriage spacers at rear of light table that secure the Y-travel carriage to the light table assembly and remove the Y-travel carriage.

b. Separation of the X-, Y-, and Z-Travel Carriages (fig. 3-4). Before disassembling the X-, Y-, or Z-travel carriages, separate them from each other as outlined below.

(1) Make certain shipping locks at both ends of the Y-travel carriage are disconnected.

(2) To separate the X- and Y-travel carriages from the Y-travel carriage, open two quick-release catches located on the outer ends of the X-travel carriage and two quick-release catches on the inner sides of the Y-travel carriage. Carefully lift the X- and Z-travel carriages away from the light table.

(3) To separate the Z-travel carriage from the X-travel carriage, proceed as follows:

(a) Remove two screws securing two cable clamps to the Z-travel carriage housing.

(b) Remove one screw securing one cable clamp to the X-travel carriage bearing housing.

(c) Unsolder switch cord leads from terminal block located behind the X-travel carriage bearing housing.

(d) Separate Z-travel carriage from X-travel carriage by removing four screws and four washers securing Z-travel carriage to the X-travel carriage bearing housing.

c. Disassembly of the X-Travel Carriage (fig. 3-5).

(1) Separate the X-travel carriage from the Z-travel carriage. Refer to b(3) above for separation instructions.

(2) Remove four screws (2) securing two catches (1) to the left and right X-rail support plates (59) and remove catches.

(3) Remove four screws (4) securing two terminal blocks (3) to the left and right X-rail support plates (59) and remove terminal blocks. Unsolder two wire leads from terminal blocks (3).

(4) Remove two screws (6) securing carriage control switch bracket (5) to X-travel rail assembly (61).

(5) Unsolder and tag leads from carriage switch (7) and remove carriage switch from carriage control switch bracket (5).

(6) Remove two screws (9) securing two bumpers (8) to the X-travel rail assembly (61) and remove two spacers (10) and two bumpers (8).

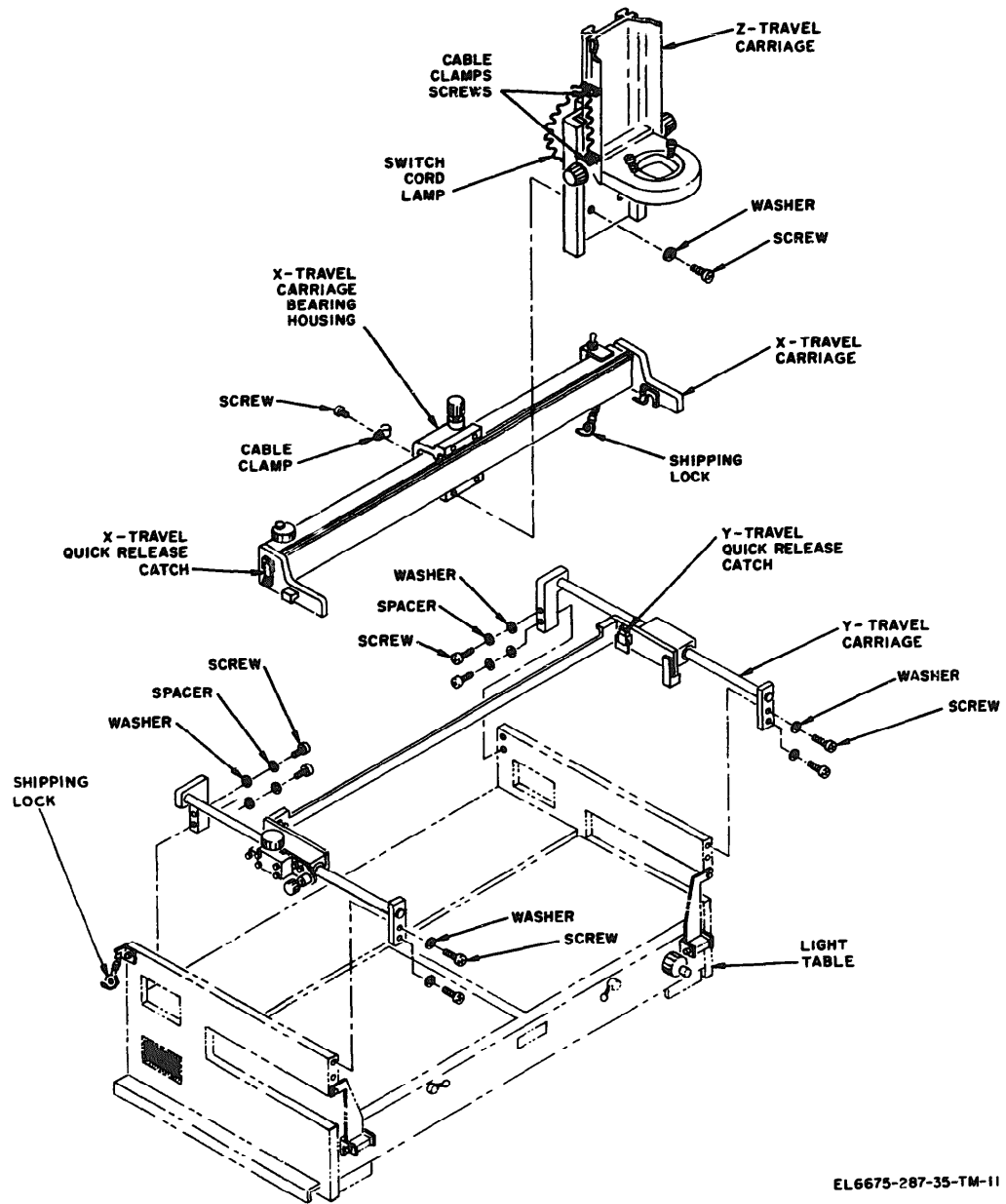
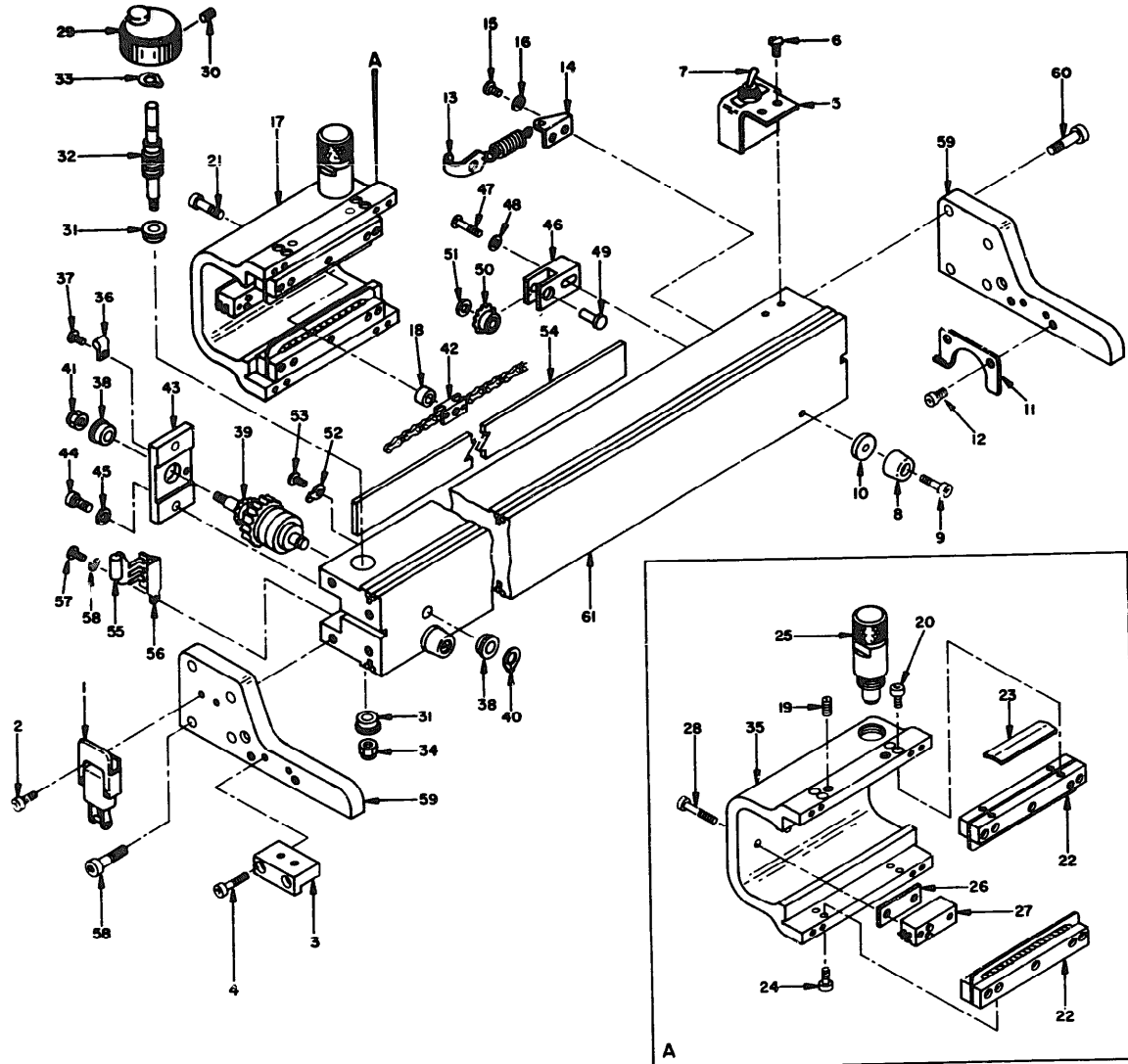


Figure 3-4. Removal and separation of carriage assembly, exploded view.



EL6675-287-35-TM-12

- | | | | |
|--|--|------------------------------------|---|
| 1 Catch (MP1 and MP2) | 15 Screw (MP30 and MP31) | 30 Setscrew (MP50) | 46 Sprocket idler block (MP70) |
| 2 Screw (MP3 through MP6) | 16 Washer (MP32 and MP33) | 31 Ball bearing (MP51 and MP52) | 47 Screw (MP71) |
| 3 Terminal block (MP7 and MP8) | 17 X-bearing housing assembly (MP34) | 32 Pinion assembly (MP53) | 48 Washer (MP72) |
| 4 Screw (MP9 through MP12) | 18 Spacer (MP35) | 33 Retaining ring (MP54) | 49 Sprocket idler shaft (MP73) |
| 5 Carriage control switch bracket (MP13) | 19 Setscrew (MP36 and MP37) | 34 Nut (MP55) | 50 Sprocket assembly (MP74) |
| 6 Screw (MP14 and MP15) | 20 Screw (MP38) | 35 X-rail bearing channel (MP56) | 51 Washer (MP75) |
| 7 Carriage switch (S3) | 21 Screw (MP39) | 36 Cable clamp (MP57) | 52 Ring tongue terminal (E1) |
| 8 Bumper (MP16 and MP17) | 22 Ball bearing assembly (MP40 and MP41) | 37 Screw (MP58) | 53 Screw (MP76) |
| 9 Screw (MP18 and MP19) | 23 Bearing backup plate (MP42) | 38 Ball bearings (MP59 and MP60) | 54 Bus bar (W2) |
| 10 Spacer (MP20 and MP21) | 24 Screw (MP43) | 39 X-travel clutch assembly (MP61) | 55 Capacitor (C1) |
| 11 X-rail support guide (MP22 and MP23) | 25 Drag lock assembly (MP44) | 40 Retaining ring (MP62) | 56 Terminal strip (TB2) |
| 12 Screw (MP24 through MP27) | 26 Backup plate (MP45) | 41 Nut (MP63) | 57 Screw (MP77) |
| 13 Catch assembly (MP28) | 27 Brush and housing assembly (MP46) | 42 Chain assembly (MP64) | 58 Washer (MP78) |
| 14 Spring shipping lock bracket (MP29) | 28 Screw (MP47 and MP48) | 43 Clutch mounting plate (MP65) | 59 X-rail support plate (MP79 and MP80) |
| | 29 Knob (MP49) | 44 Screw (MP66 and MP67) | 60 Screw (MP81 through MP88) |
| | | 45 Washer (MP68 and MP69) | 61 X-travel rail assembly (MP89) |

Figure 3-5. Disassembly of X-travel carriage, exploded view.

(7) Remove four screws (12) securing two X-rail support guides (11) to X-rail support plates (59) and remove guides.

(8) Unhook catch assembly (13) from X-bearing housing assembly (17) and the spring shipping lock bracket (14).

(9) Remove two screws (15) and two washers (16) securing spring shipping lock bracket (14) to the X-travel rail assembly (61).

(10) Remove screws (20 and 21) and two setscrews (19) and remove X-bearing housing assembly (17) and spacer (18).

(11) Remove screw (24) and remove two ball bearing assemblies (22) from the X-rail bearing channel (35) and remove bearing back-up plate (23) and two ball bearing assemblies (22).

(12) Unscrew drag lock assembly (25) from X-rail bearing channel (35).

(13) Remove two screws (28) securing back-up plate (26) and assembled brush and housing assembly (27) from the X-rail bearing channel (35).

(14) Remove setscrew (30) and lift knob (29) off pinion assembly (32).

(15) Remove retaining ring (33) and nut (34) and remove two ball bearings (31) and pinion assembly (32).

(16) Remove screw (37) securing cable clamp (36) to clutch mounting plate (43) and remove cable clamp.

(17) Unsolder and tag two white wire leads from capacitor (55).

(18) Remove retaining ring (40) and nut (41) and remove X-travel clutch assembly (39) and two ball bearings (38).

(19) Remove chain assembly (42) from sprocket assembly (50).

(20) Remove clutch mounting plate (43) by removing two screws (44) and two washers (45).

(21) Remove screw (47) and washer (48)

securing sprocket idler block (46) to X-travel rail assembly (61). Separate sprocket idler shaft (49), sprocket assembly (50), washer (51), and sprocket idler block (46).

(22) Remove ring tongue terminal (52) by removing screw (53) and disconnect wires from bus bar (54).

(23) Disconnect capacitor (55) from terminal strip (56) to X-travel rail assembly (61).

(25) Separate two X-rail support plates (59) from X-travel rail assembly (61) by removing eight screws (60).

d. Disassembly of Y-Travel Carriage (fig. 3-6).

(1) Separate the X-travel and Z-travel carriages from the Y-travel carriage. Refer to b(1) above for separation procedure.

(2) Remove two screws (3) securing two bumper spacers (2) and two bumpers (1) to the left and right front Y-rail support blocks (67). Remove bumper spacers and bumpers.

(3) Remove eight screws (5) securing two strike and catches (4) to the left and right carriage support plates (43 and 44).

(4) Remove four screws (7) securing X-carriage support guides (6) to the left and right carriage support plates (43 and 44) and remove guides.

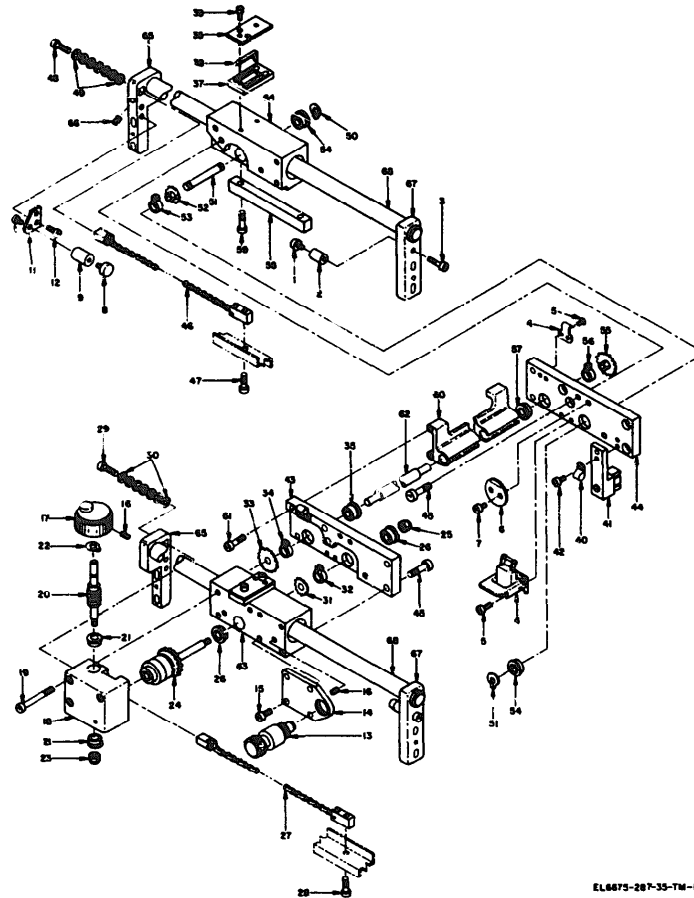
(5) Remove two screws (10) securing two bumpers (8) and two bumper standoffs (9) to bumper plates (11).

(6) Remove four screws (12) securing bumper plates (11) to the left and right shaft and chain support brackets (65), and remove bumper plates.

(7) Unscrew drag brake assembly (13) from drag brake plate (14).

(8) Remove four screws (15) securing drag brake plate (14) to Y-travel bushing housing (63) and remove drag brake plate.

(9) Remove setscrew (16) and lift knob (17) from Y-travel pinion assembly (20).



EL6675-287-35-TM-13

- | | | | |
|--|-------------------------------------|---|--|
| 1 Bumper (MP90 and MP91) | 17 Knob (MP130) | 36 Connector cover (MP 159) | 54 Ball bearing (MP195) |
| 2 Bumper spacer (MP92 and MP93) | 18 Y-fine feed housing (MP131) | 37 Connector housing (MP160) | 55 Sprocket (MP196) |
| 3 Screw (MP94 and MP95) | 19 Screw (MP132 through MP134) | 38 Contact connector angle (MP161 and MP162) | 56 Hub adjusting clamp (MP197) |
| 4 Strike and catch (MP96 and MP97) | 20 Y-travel pinion assembly (MP135) | 39 Screw (MP163 through MP166) | 57 Bail bearing (MP198 and MP199) |
| 5 Screw (MP98 through MP105) | 21 Ball bearing (MP136 and MP137) | 40 Cable clamp (MP167) | 58 Stud mounting bar (MP200) |
| 6 X-carriage support guide (MP106 and MP107) | 22 Retaining ring (MP138) | 41 Brush assembly (MP168) | 59 Screw (MP201 through MP204) |
| 7 Screw (MP108 through MP111) | 23 Nut (MP139) | 42 Screw (MP169 and MP170) | 60 Stabilizer rod support (MP205) |
| 8 Bumper (MP112 and MP113) | 24 Y-travel clutch assembly (MP140) | 43 Left carriage support plate (MP171) | 61 Screw (MP206 through MP209) |
| 9 Bumper standoff (MP114 and MP115) | 25 Nut (MP141) | 44 Right carriage support plate (MP172) | 62 Stabilizer rod (MP210) |
| 10 Screw (MP116 and MP117) | 26 Ball bearing (MP142 and MP143) | 45 Screw (MP173 through MP180) | 63 Left Y-travel bushing housing (MP211) |
| 11 Bumper plate (MP118) | 27 Chain assembly (MP144) | 46 Chain assembly (MP181) | 64 Right Y-travel bushing housing (MP212) |
| 12 Screw (MP119 through MP122) | 28 Screw (MP145) | 47 Screw (MP182) | 65 Left and right shaft and chain support brackets (MP213 and MP214) |
| 13 Drag brake assembly (MP123) | 29 Screw (MP146) | 48 Screw (MP183) | 66 Setscrew (MP215 and MP216) |
| 14 Drag brake plate (MP124) | 30 Washer (MP147 through MP153) | 49 Washer (MP184 through MP190) | 67 Left and right front Y-rail support blocks (MP217 and MP218) |
| 15 Screw (MP125 through MP128) | 31 Sprocket (MP154) | 50 Retaining ring (MP191) | 68 Ball bushing shaft (MP219 and MP220) |
| 16 Setscrew (MP129) | 32 Hub adjusting clamp (MP135) | 51 Right-hand fine feed mechanism shaft (MP192) | |
| | 33 Sprocket (MP156) | 52 Sprocket (MP193) | |
| | 34 Hub adjusting clamp (MP157) | 53 Hub adjusting clamp (MP194) | |
| | 35 Ball bearing (MP158) | | |

Figure 3-6. Disassembly of Y-travel carriage, exploded view.

(10) Remove three screws (19) securing Y-fine feed housing (18) to Y-travel bushing housing (63) and remove fine feed housing.

(11) Remove retaining ring (22) and nut (23) and lift out Y-travel pinion assembly (20) and ball bearings (21) from Y-fine feed housing (18).

(12) Remove nut (25) and pull out Y-travel clutch assembly (24) and ball bearings (26) from Y-travel bushing housing (63).

(13) Remove screw (28), screw (29), and seven washers (30) and lift chain assembly (27) off sprockets (31 and 33).

(14) Remove hub adjusting clamp (32) and pull sprocket (31) off Y-travel clutch assembly (24).

(15) Remove hub adjusting clamp (34) securing sprocket (33) to stabilizer rod (62). Remove sprocket (33) and ball bearing (35).

(16) Remove connector cover (36), connecting housing (37), and two contact connector angles (38) from the left and then from the right Y-travel bushing housings (63 and 64) by removing four screws (39). Unsolder and tag wires connected to the contact connector angles (38).

(17) Remove two screws (42) securing cable clamp (40) and brush assembly (41) to right carriage support plate (44) and remove cable clamp and brush assembly.

(18) Remove eight screws (45) securing the left and right carriage support plates (43 and 44) to the left and right Y-travel bushing housings (63 and 64), and separate left and right Y-travel bushing housings from the left and right carriage support plates (43 and 44).

(19) Remove screw (47), screw (48), and seven washers (49), and remove chain assembly (46).

(20) Remove retaining ring (50) and remove right-hand fine feed mechanism shaft (51). Disconnect hub adjusting clamp (53) and remove sprocket (52) and ball bearing (54) from right-hand fine feed mechanism shaft (51).

(21) Remove hub adjusting clamp (56) from stabilizer rod (62) and pull sprocket (55) and ball bearings (57) off stabilizer rod (62).

(22) Remove one stud mounting bar (58) from the left Y-travel bushing housing (63) and one stud mounting bar (58) from the right Y-travel bushing housing (64) by removing four screws (59).

(23) Remove four screws (61) securing stabilizer rod support (60) to the left and right carriage support plates (43 and 44) and remove stabilizer rod support (60) and stabilizer rod (62).

(24) Remove left and right shaft and chain support brackets (65) from ball bushing shafts (68) by removing setscrews (66).

e. Disassembly of Z-Travel Carriage (fig. 3-7).

(1) Separate Z-travel carriage from X-travel carriage (b(2) above).

(2) Remove stop pin (1), from screw (3); then, remove nut (2) from screw (3).

(3) Remove two screws (4) and anchor plate (5).

(4) Loosen two screws (9) to put slack in chain (49).

(5) Turn spinner knob (24) until connecting link (6) on chain (49) is accessible; then, disconnect connecting link (6).

(6) Lift chain (49) from sprocket (8); turn spinner knob (24) until chain (49) is out from between sprockets (15) and (21).

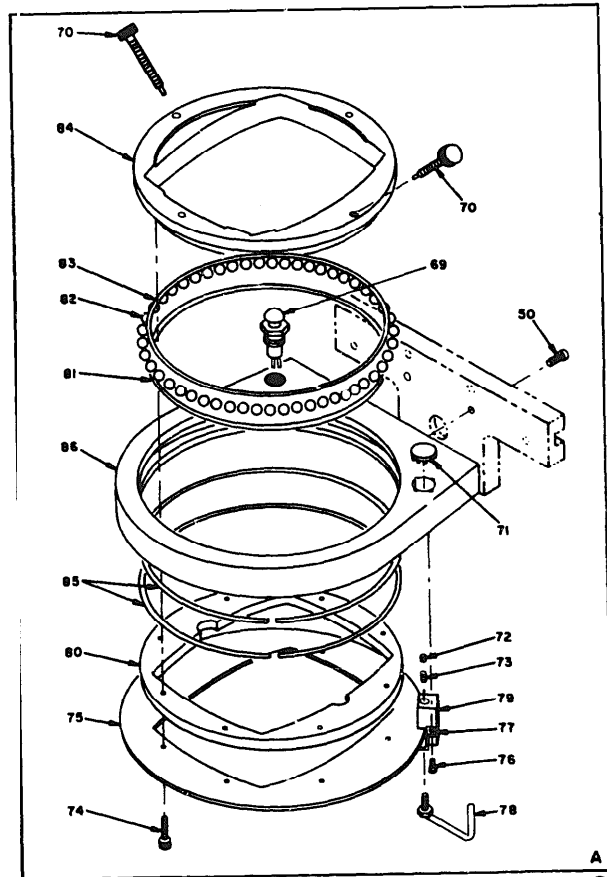
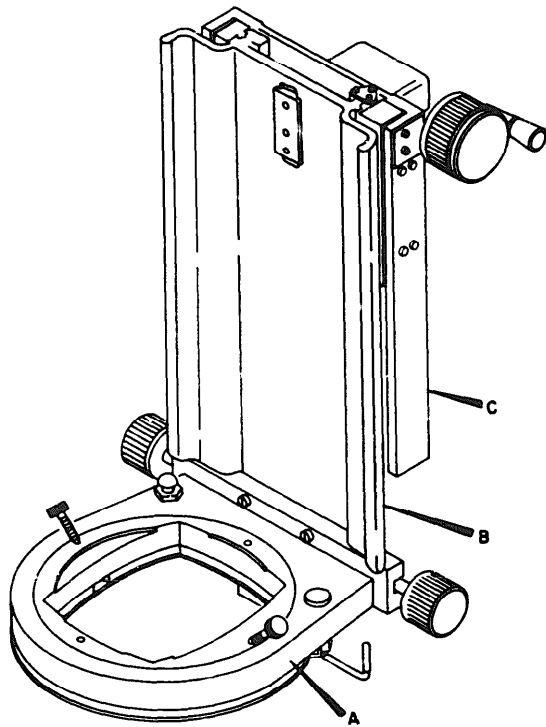
(7) Remove push nut fastener (7) from idler slide block assembly (10).

(8) Remove sprocket (8) from idler slide block assembly (10).

(9) Remove two screws (9); remove idler slide block assembly (10).

(10) Separate slide support assembly (11) from support assembly (12).

(11) Remove bearing magazine (18) from



EL6675-287-35-TM-14 (1)

- 1 Stop pin (MP223)
- 2 Nut (MP221)
- 3 Screw (MP222)
- 4 Screw (MP224 and MP225)
- 5 Anchor plate (MP226)
- 6 Connecting link (MP227)
- 7 Push nut fastener (MP228)
- 8 Sprocket (MP229)
- 9 Screw (MP230 and MP231)
- 10 Idler slide block assembly (MP232)
- 11 Slide support assembly (MP233)
- 12 Support assembly (MP234)
- 13 Screw (MP235)
- 14 Pin (MP236)
- 15 Sprocket (MP237)
- 16 Retaining ring (MP238)
- 17 Spindle (MP239)
- 18 Bearing magazine (MP240)
- 19 Screw (MP241)
- 20 Pin (MP242)
- 21 Sprocket (MP243)
- 22 Screw (MP244 and MP245)
- 23 Screw (MP246 through MP249)

- 24 Spinner knob (MP250)
- 25 Retaining ring (MP251)
- 26 Bearing (MP252)
- 27 Bracket (MP253)
- 28 Bearing (MP254)
- 29 Drive assembly housing (MP255)
- 30 Screw (MP256 through MP258)
- 31 Worm gear (MP259)
- 32 Miniclutch housing (MP260)
- 33 Miniclutch assembly (MP261)
- 34 Key (MP262)
- 35 Shaft (MP263)
- 36 Bearing (MP264)
- 37 Screws (MP265 through MP268)
- 38 Optics heel pads (MP269 and MP270)
- 39 Screw (MP271 through MP278)
- 40 Screw (MP279 through MP282)
- 41 Washers (MP283 through MP286)
- 42 Ball bearing assembly (MP287 and MP288)
- 43 Bearing shim (MP289)
- 44 Bearing backup plate (MP290)

- 45 Setscrew (MP291 through MP294)
- 46 Screw (MP295 through MP298)
- 47 Ball bearing (MP299)
- 48 Worm gear housing or ver (MP300)
- 49 Chain (MP301)
- 50 Screw (MP302 through MP305)
- 51 Knob (MP306 and MP307)
- 52 Knob sleeves (MP308 and MP309)
- 53 Screw (MP310 through MP313)
- 54 Bearing caps (MP314 and MP315)
- 55 Bearing (MP316 through MP319)
- 56 Pin (MP320)
- 57 Worm gear (MP321)
- 58 Shaft (MP322)
- 59 Ball bearing (MP323)
- 60 Worm gear housing (MP324)
- 61 Screws (MP325 through MP327)
- 62 Washers (MP328 and MP329)
- 63 Worm gear (MP330)
- 64 Sprocket (MP331)

- 65 Setscrew (MP332)
- 66 Shim (MP333)
- 67 Spacer (MP334)
- 68 Shaft (MP335)
- 69 Switch (S4)
- 70 Knurled screw (MP336 and MP337)
- 71 Button plug (MP338)
- 72 Setscrew (MP339)
- 73 Setscrew (MP340)
- 74 Screw (MP341 through MP348)
- 75 Disc brake (MP349)
- 76 Screws (MP350 and MP351)
- 77 Bearing stop spring (MP352)
- 78 Lock lever (MP353)
- 79 Optics ring lock (MP354)
- 80 Ring bearing takeup (MP355)
- 81 Lower inner bearing race (MP356)
- 82 Balls (MP357 through MP427)
- 83 Upper inner bearing race (MP428)
- 84 Inner optics ring (MP429)
- 85 Outer bearing race (MP430 and MP431)
- 86 Outer optics ring (MP432)

Figure 3-7. Disassembly of Z-travel carriage, exploded view (part I of 3).

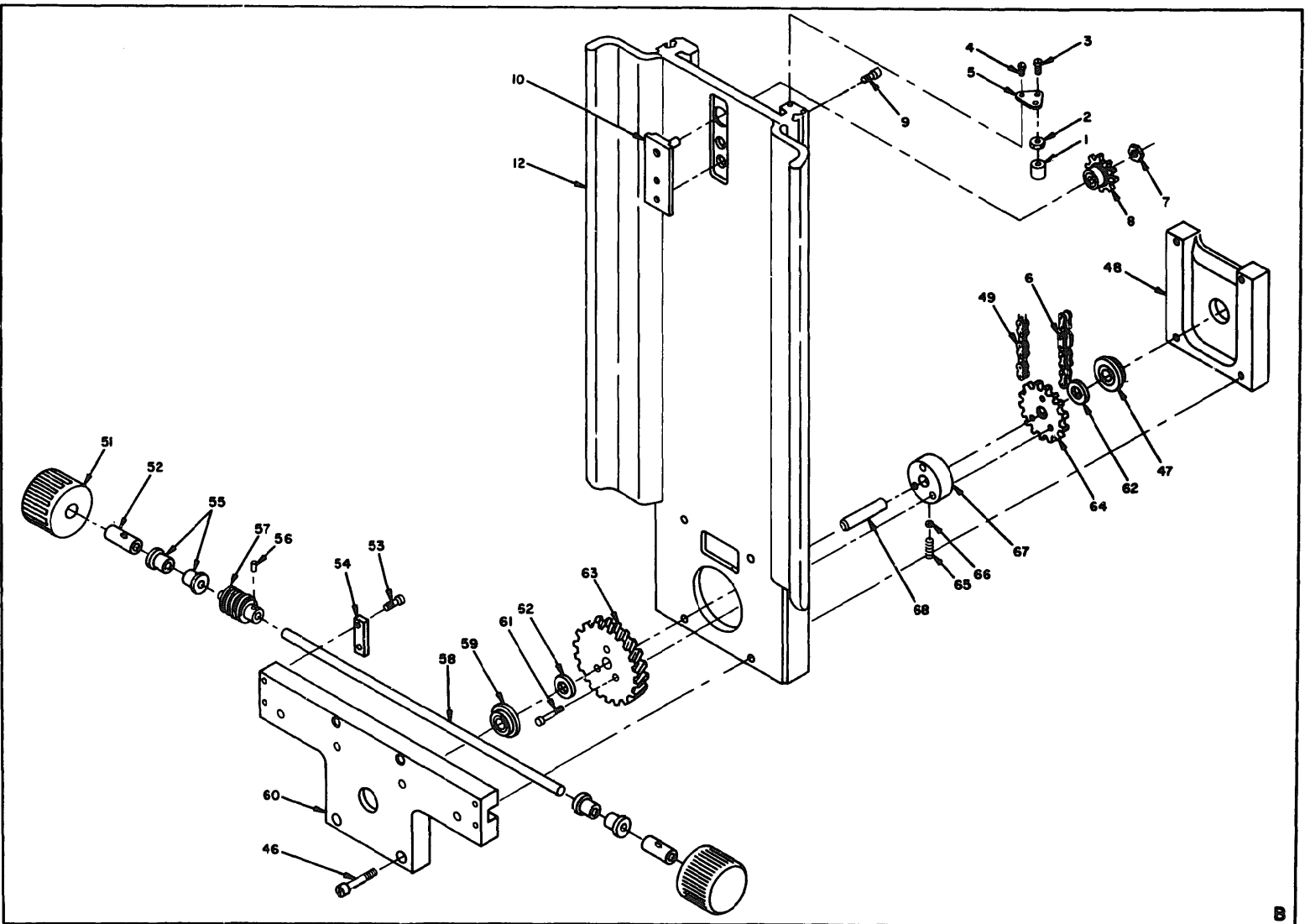
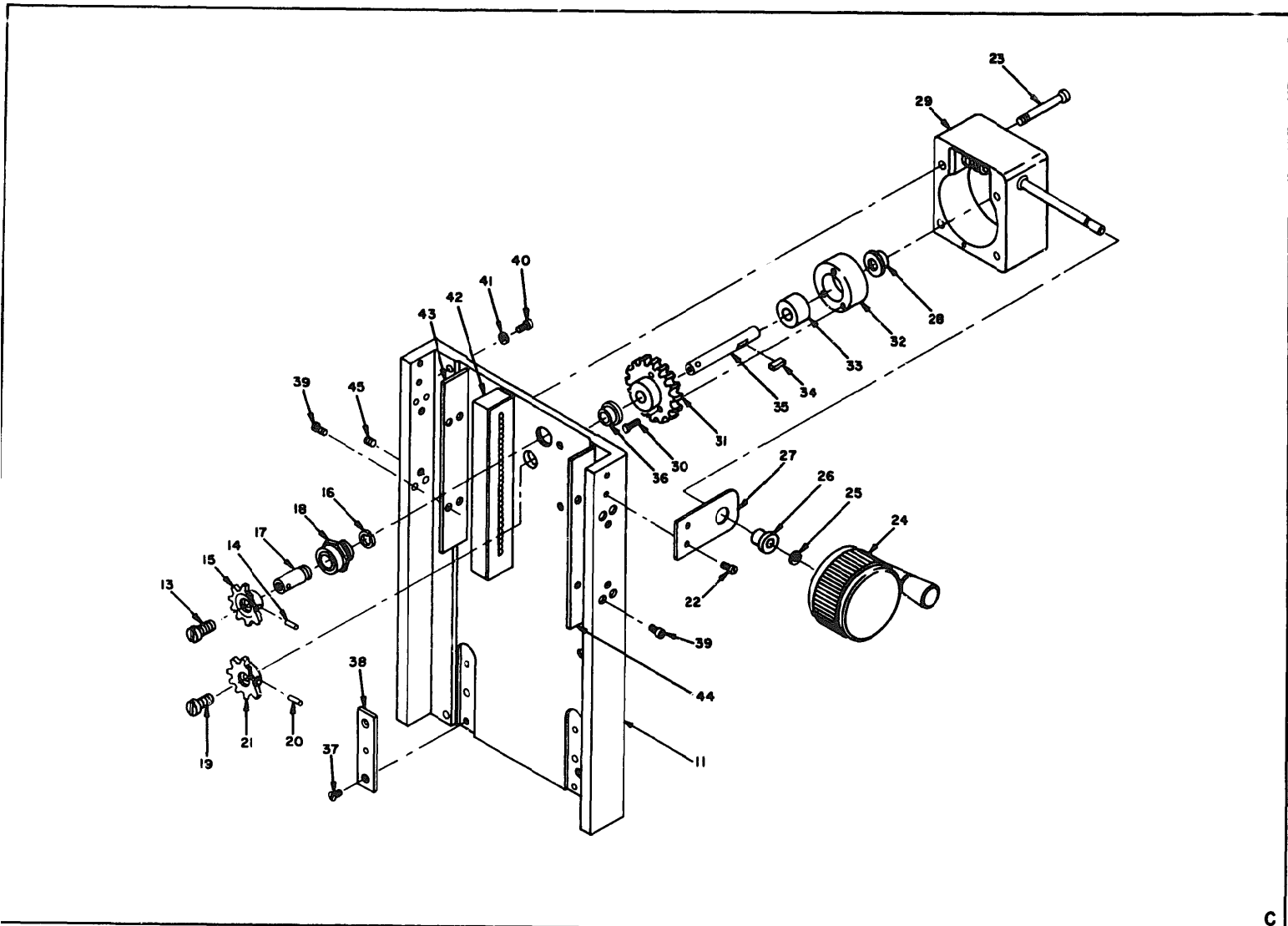


Figure 3-7. Disassembly of Z-travel carriage, exploded view (part 2 of 3).



EL6675-287-35-TM-14 (3)

Figure 3-7 (3) Disassembly of Z-travel carriage, exploded view (part 3 of 3).

slide support assembly (11); then, remove screw (13), pin (14), sprocket (15), retaining ring (16), and spindle (17).

(12) Remove screw (19), pin (20), and sprocket (21) from shaft (35).

(13) Remove two screws (22) from bracket (27).

(14) Remove four screws (23); then, remove worm gear/clutch assembly with drive assembly housing (29) from slide support assembly (11).

(15) Loosen setscrew and remove spinner knob (24) from shaft of drive assembly housing (29).

(16) Remove retaining ring (25), bearing (26), and bracket (27) from shaft of drive assembly housing (29).

(17) Remove worm gear/clutch assembly from drive assembly housing (29); then, remove bearing (28).

(18) Remove three screws (30); then, disassemble worm gear (31) and miniclutch housing (32) from shaft (35) and miniclutch assembly (33).

(19) Remove miniclutch assembly (33) and key (34) from shaft (35).

(20) Remove bearing (36) from slide support assembly (11).

(21) Remove four screws (37) and two optics heel pads (38).

(22) Remove eight screws (39), four screws (40), and four washers (41); then, remove two ball bearing assemblies (42), bearing shim (43), and bearing backup plate (44).

(23) Remove four setscrews (45).

(24) Remove four screws (46); then, remove worm gear housing cover (48), ball bearing (47), and chain (49).

(25) Remove outer optics ring (86) with worm gear housing (60) attached.

(26) Remove four screws (50) and separate

outer optics ring (86) from worm gear housing (60).

(27) Loosen setscrews in knobs (51) and remove two knobs (51) and two knob sleeves (52).

(28) Remove four screws (53), two bearing caps (54), four bearings (55), pin (56), worm gear (57), and shaft (58).

(29) Remove ball bearing (59) from worm gear housing (60).

(30) Remove three screws (61), two washers (62), worm gear (63), and sprocket (64).

(31) Remove setscrew (65), shim (66), spacer (67), and shaft (68) from support assembly (12).

(32) Remove switch (69) from outer optics ring (86).

(33) Remove two knurled screws (70) from outer optics ring (86).

(34) Remove button plug (71) and setscrews (72 and 73).

(35) Remove eight screws (74) and disc brake (75). Hold assembly together when screws (74) are removed.

(36) Remove two screws (76), bearing stop spring (77), optics ring lock (79), and lock lever (78).

(37) Turn remaining assembly over on a flat surface; then, remove ring bearing takeup (80) and lower inner bearing race (81).

(38) Turn remaining assembly on its side and remove 71 balls (82).

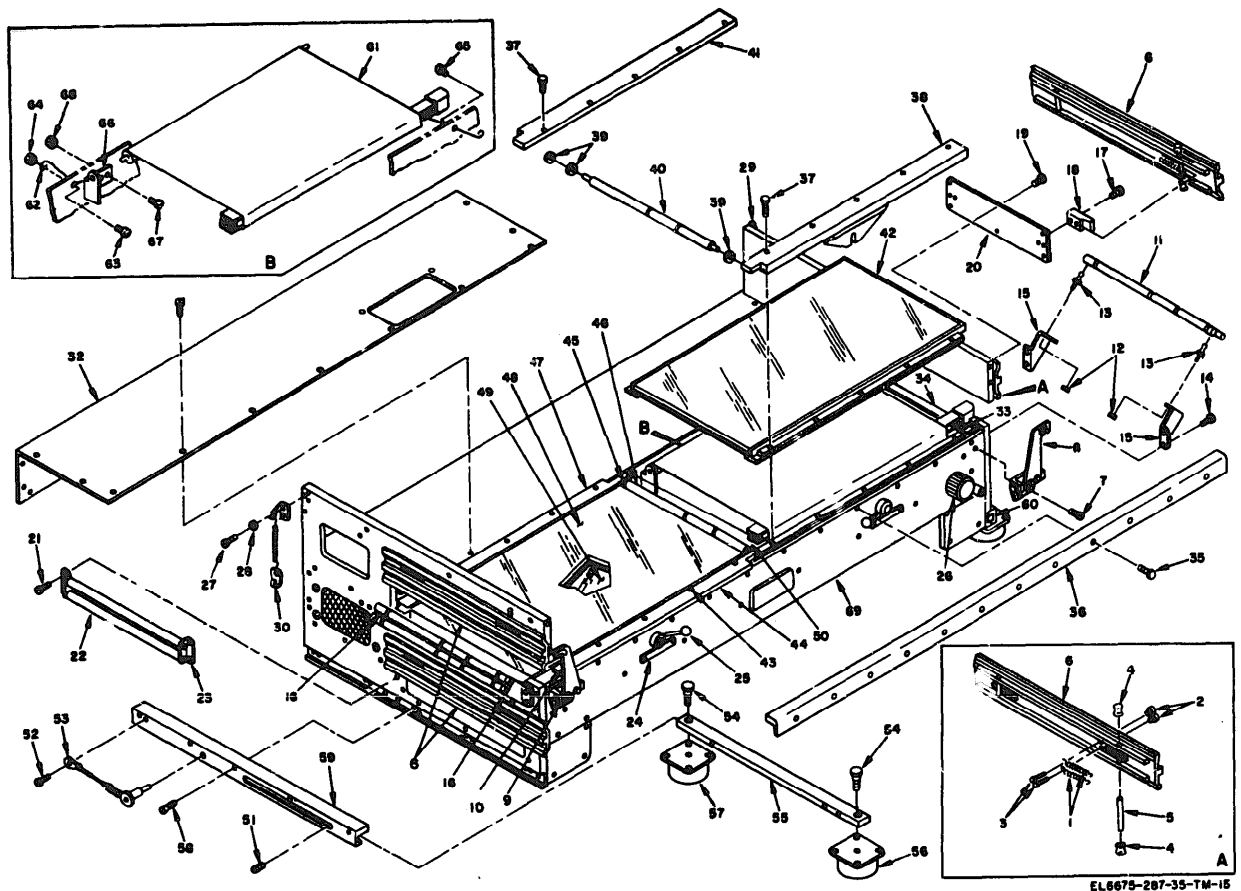
(39) Remove inner optics ring (84) and upper inner bearing race (83).

(40) Remove outer upper and lower bearing races (85) from outer optics ring (86).

f. Disassembly of Light Table (fig. 3-8).

(1) Remove X-, Y-, and Z-travel carriages from light table (61) (*a* above).

(2) Remove four quick-release T-rails (6)



- | | | | |
|---|---|---------------------------------------|--|
| 1 Spring (MP433 and MP434) | 18 Strike (MP489 through MP492) | 33 Screw (MP559 and MP560) | 50 Light grid—right (MP609) |
| 2 Screw (MP435 and MP436) | 19 Screw (MP493 through MP500) | 34 Bus bar (W1) | 51 Spring pin (MP610 and MP611) |
| 3 Spring standoff (MP437 and MP438) | 20 T-rail bracket (MP501 and MP502) | 35 Screw (MP561 through MP572) | 52 Screw (MP612 and MP613) |
| 4 Mounting knob (MP439 and MP440) | 21 Screw (MP503 through MP510) | 36 Front retainer (MP573) | 53 Quick-release pin assembly (MP614 and MP615) |
| 5 Spring pin (MP441) | 22 Lower roller (MP511 through MP514) | 37 Screw (MP574 through MP583) | 54 Screw (MP616 through MP619) |
| 6 T-rail (MP442) | 23 Roller bracket (MP515 through MP518) | 38 Front stage guide—right (MP584) | 55 Slide (MP620 and MP621) |
| 7 Screw (MP443 and MP444) | 24 Screw (MP519 and MP520) | 39 Washer (MP585 through MP587) | 56 Front shock mount (MP622 and MP623) |
| 8 Brace assembly—right (MP445) | 25 Stage shifting lever (MP521 and MP522) | 40 Roller (MP588) | 57 Rear shock mount (MP624 and MP625) |
| 9 Screw (MP446 and MP447) | 26 Knob (MP523) | 41 Rear stage guide—right (MP589) | 58 Screw (MP626 through MP635) |
| 10 Brace assembly—left (MP448) | 27 Screw (MP524 through MP527) | 42 Stage glass assembly—right (MP590) | 59 Retainer slide—left (MP636) |
| 11 Upper roller (MP449 through MP452) | 28 Washer (MP528 through MP531) | 43 Screws (MP591 through MP600) | 60 Retainer slide—right (MP637) |
| 12 Locknut (MP453 through MP460) | 29 Shipping lock assembly—right (MP532) | 44 Front stage guide—left (MP601) | 61 Left and right light table shades (MP638/MP639) |
| 13 Ball screw (MP461 through MP468) | 30 Shipping lock assembly—left (MP533) | 45 Washer (MP602 through MP604) | 62 Sheave wire (MP640/MP643) |
| 14 Screw (MP469 through MP476) | 31 Screw (MP534 through MP557) | 46 Roller (MP605) | 63 Screw (MP644/MP647) |
| 15 Roller bracket—right (MP477 and MP478) | 32 Power box cover (MP558) | 47 Rear stage guide—left (MP606) | 64 Nut (MP648/MP651) |
| 16 Roller bracket—left (MP479 and MP480) | | 48 Stage glass assembly—left (MP607) | 65 Screw (MP651/MP655) |
| 17 Screw (MP481 through MP488) | | 49 Light grid—left (MP608) | 66 Bracket (MP656/MP657) |
| | | | 67 Screw (MP658/MP665) |
| | | | 68 Nut (MP666/MP673) |
| | | | 69 Light table (MP674) |

Figure 3-8. Disassembly of light table.

and disassemble each T-rail by removing two springs (1), two screws (2), two spring standoffs (3), two mounting knobs (4), and spring pin (5) from T-rail (6).

(3) Release fastener; then, pivot brace assembly (8) away from stud on right end plate assembly.

(4) Remove two screws (7) from right brace assembly (8); then, remove right brace assembly (8).

(5) Release fastener; then, pivot brace assembly (10) away from stud on left and plate assembly.

(6) Remove two screws (9) from left brace assembly (10); remove left brace assembly (10).

(7) Remove four upper rollers (11), eight locknuts (12), eight ball screws (13), eight screws (14), two right roller brackets (15), and two left roller brackets (16).

(8) Remove eight screws (17) and four strikes (18) from T-rail brackets (20).

(9) Remove eight screws (19) and two T-rail brackets (20).

(10) Remove eight screws (21), four lower rollers (22), and four roller brackets (23).

(11) Remove two screws (24) and two stage shifting levers (25).

(12) Loosen setscrew; remove knob (26).

(13) Remove four screws (27), four washers (28), right shipping lock assembly (29) and left shipping lock assembly (30) from ends of light table (69).

(14) Remove 24 screws (31); remove power box cover (32).

(15) Remove two screws (33) and bus bar (34).

(16) Remove 12 screws (35) and front retainer (36).

(17) From right side, remove 10 screws (37), front stage guide (38), three washers (39), roller

(40), rear stage guide (41), and stage glass assembly (42).

(18) From left side, remove 10 screws (43), front stage guide (44), three washers (45), roller (46), rear stage guide (47), and stage glass assembly (48).

(19) Place mask assemblies in extreme rearward position.

(20) Disconnect wires to left light grid (49); then, remove left light grid (49).

(21) Disconnect wires to right light grid (50); then, remove right light grid (50).

(22) Remove two spring pins (51).

(23) Remove two screws (52) and two quick-release pin assemblies (53).

(24) Slide light table (69) from slides (55).

(25) Remove four screws (54); then, separate two slides (55) from two front shock mounts (56) and two rear shock mounts (57).

(26) Remove 10 screws (58), left retainer slide (59), and retainer slide (60) from light table (69).

(27) On right side of light table, remove screw (63), nut (64), and screw (65) securing sheave wire (62) to light table (69).

(28) Remove right-hand light table shade (61) by slipping end stud from bracket (66).

(29) Remove bracket (66) from light table (69) by removing two screws (67) and two nuts (68).

(30) To remove left-hand light shade (61) and associated ports, repeat steps (27) through (29) above, on left side of light table (69).

g. **Power Box.** The power box may be disassembled in any sequence. A specific procedure is not required to replace the parts shown in figure 3-9 once the cover is removed. To remove the cover, remove 24 screws (31, fig. 3-8) securing power box cover (32) to light table (69).

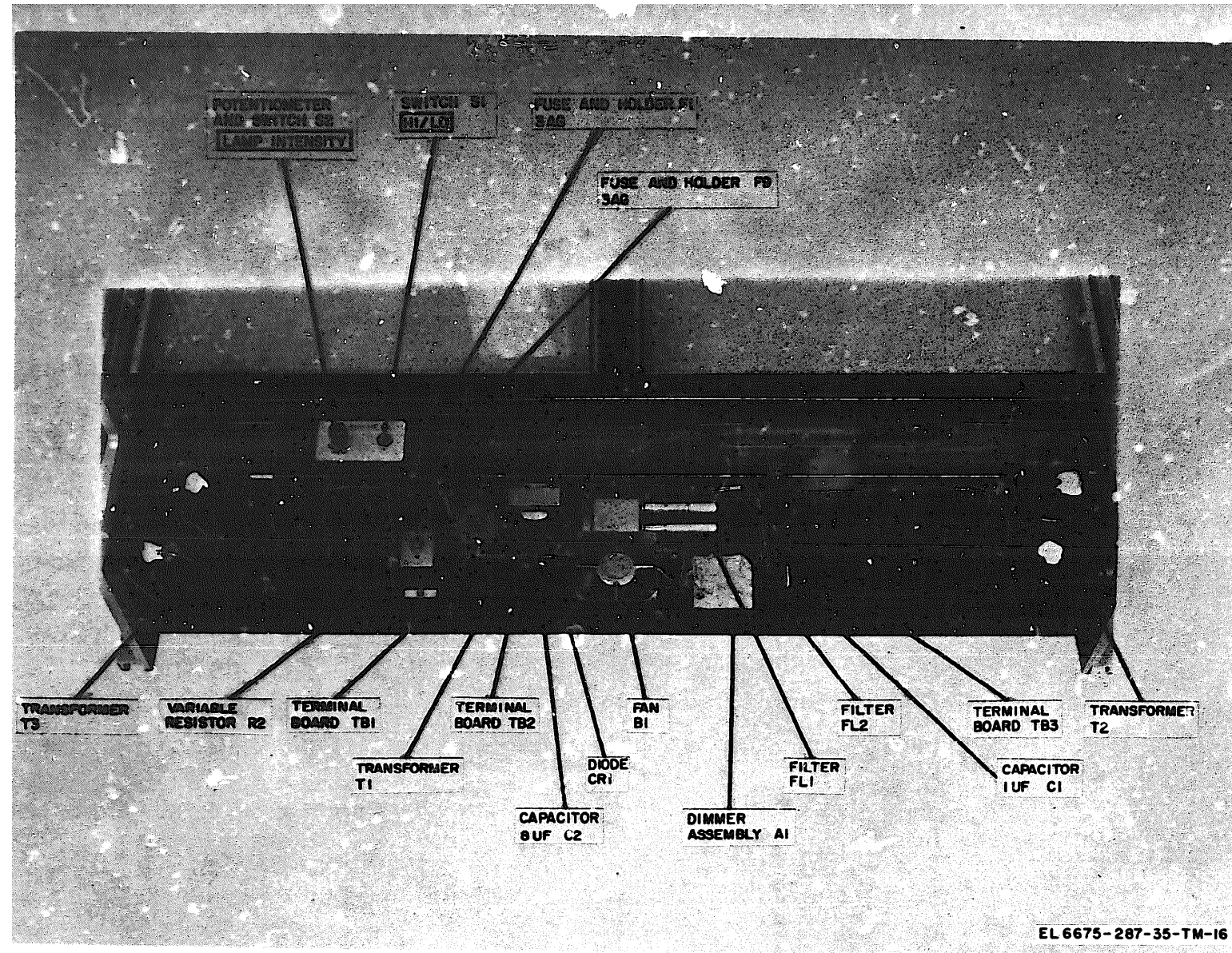


Figure 3-9. Electrical power box, location of parts.

3-16. Disassembly of Zoom 240

Do not disassemble or lubricate the Zoom 240. Return the Zoom 240 to the manufacturer for repair. Cleaning instructions are given in paragraph 3-17d.

3-17. Repair and Cleaning

a. Circulating Ball Bearing Assemblies.

(1) Replacing missing ball bearings.

(a) Remove the circulating ball bearing assembly that is missing ball bearings by disassembling the applicable carriage (para 3-15c, d, or e).

(b) Replace the missing ball bearings within the circulating ball bearing assembly by placing the replacement ball bearing along the ball bearing retainer and applying slight pressure to the ball bearing and the ball bearing retainer.

(c) Replace the circulating ball bearing assembly and reassemble the applicable carriage (para 3-20b, c, or d).

(2) Cleaning.

(a) Remove the circulating ball bearing assembly by disassembling the applicable carriage (para 3-15c, d, or e).

(b) Rinse the circulating ball bearing assembly with xylene (FSN 6810-598-6610).

CAUTION

Do not use pressurized air to blow moisture from the assemblies.

(c) Shake the circulating ball bearing assembly lightly to remove excess xylene and wipe with a clean, lint free cloth (FSN 8305-170-5062).

(d) Replace the circulating ball bearing assembly and reassemble the applicable carriage (para 3-20b, c, or d).

WARNING

Do not use cleaning compound near an open flame; an explosion may occur. Use cleaning compound only in an area which has adequate ventilation.

b. Drag Brake Spring.

(1) Disassemble the drag brake housing (25, fig. 3-5) or (13, fig. 3-6).

(2) Remove the defective spring and replace with a new part.

(3) Assemble the drag brake housing and replace the housing on the applicable carriage (para 3-20c or d).

c. *Dimmer Assembly.* Dimmer assembly A1 (fig. 3-9) is a non-repairable item. If a malfunction occurs, the entire assembly must be replaced. To replace the dimmer assembly, remove the retaining screws, and tag and disconnect all leads. Do not discard the defective dimmer assembly until the new dimmer assembly is installed; use the tags and the wiring diagram (fig. 6-3) as a guide.

d. Zoom 240 Cleaning Procedures.

(1) Use a soft camel's-hairbrush (FSN 8020-245-4509) or hand blower (FSN 5120-254-4612) and remove all loose dirt and dust from the zoom lens assembly and its respective objective lens cell.

(2) If foreign matter still remains, moisten a cotton swab (FSN 6515-303-8250) with lens cleaner (FSN 6760-408-5175). With a circular motion (starting from the edge of the glass and working toward the center) gently spread the lens cleaner over the (optical surface being cleaned).

CAUTION

Do not use a lens tissue that contains silicone to clean the optical surfaces.

Any residue left on the optical surfaces by this kind of lens tissue could affect the performance of the optics.

(3) Carefully dry the cleaned optical parts with clean lens tissue (FSN 6640-393-2090); use the same circular motion described in (2) above.

WARNING

Prolonged breathing of cleaning compound is dangerous; make sure that adequate ventilation is provided. Cleaning compound is flammable; do not use near a flame. Avoid contact with the

skin; wash off any that spills on the hands.

CAUTION

Do not get cleaning compound on the lenses since it will effect their coating of reflection-reducing film.

3-18. Lubrication

Lubrication of the rollfilm viewer can be accomplished at the organizational level. Refer to TM 11-6675-287-12.

3-19. Adjustment

a. Terminal Blocks.

(1) Separate X- and Z-travel carriages from Y-travel carriage (para 3-15b (2)).

(2) Loosen locknuts; then, adjust length of contact pins protruding from terminal blocks (3, fig. 3-5), to 11/32 plus or minus 1/32, from the base of the terminal blocks to the end of the contact pins. Tighten locknuts.

(3) Replace X- and Z-travel carriages on Y-travel carriage (para 3-20e (2)).

b. Film Loop Accumulator.

(1) Place roll film viewer in operating position.

(2) Remove 24 screws (31, fig. 3-8); then, remove power box cover (32, fig. 3-8).

(3) Rotate FILM TAKEUP knob to the extreme clockwise position until it stops.

(4) Loosen three accumulator shaft **couplings**; one in right rear of electrical power box and two under the viewing stages.

(5) Manually retract the film loop rollers to their stops.

(6) Hold the film loop rollers in their stop position and tighten three accumulator shaft couplings.

(7) Replace power box cover (32, fig. 3-8) and install 24 screws (31, fig. 3-8).

3-20. Reassembly of Light Table Assembly

a. Reassembly of Light Table (fig. 3-8).

(1) Position left bracket (66) on light table and install two screws (67) and two nuts (68).

(2) Position right bracket (66) on light table and install two screws (67) and two nuts (68).

(3) Position left light table shade (61) by slipping end stud into bracket (66).

(4) Position right light table shade (61) by slipping end stud into bracket (66).

(5) Position left sheave wire (62) capturing sheaves of light table shade (61) and install screw (65), screw (63), and nut (64) to light table (69).

(6) Position right sheave wire (62) capturing sheaves of light table shade (61) and install screw (65), screw (63), and nut (64) to light table (69).

(7) Position left retainer slide (59) on light table (61) and install five screws (58).

(8) Position right retainer slide (60) on light table (61) and install five screws (58).

(9) Place two front shock mounts (56) on slides (55) and install two screws (54).

(10) Place two rear shock mounts (57) on slides (55) and install two screws (54).

(11) Slide light table (61) on slides (55).

(12) Install two quick-release pin assemblies (53) and install two screws (52).

(13) Install two spring pins (51).

(14) Install right light grid (50) and connect wires.

(15) Install left light grid (49) and connect wires.

(16) Place left stage glass assembly (48) in position; and assemble left rear stage guide (47), left front stage guide (44) (engaging shift mechanism lever in light table (61)), three washers (45) (two washers toward the rear), and roller (46).

(17) Install 10 screws (43) to secure left stage assembly to light table (61).

(18) Place right stage glass assembly (42) in position; and assemble right rear stage guide (41), right front stage guide (38) (engaging shift mechanism lever in light table (61)), three washers (39) (two washers toward the rear), and roller (40).

(19) Install 10 screws (37) to secure left stage assembly to light table (61).

(20) Position front retainer (36) on light table (61) and install 12 screws (35).

(21) Place bus bar (34) in proper position and install two screws (33).

(22) Place power box cover (32) on light table (61) and install 24 screws (31).

(23) Install left shipping lock assembly (30) and secure with two washers (28) and two screws (27).

(24) Install right shipping lock assembly (29) and secure with two washers (28) and two screws (27).

(25) Place knob (26) in position and tighten setscrew to secure in place.

(26) Place two stage shifting levers (25) in position and install two screws (24).

(27) Place four lower rollers (22) in four roller brackets (23) and install with eight screws (21).

(28) Position two T-rail brackets (20) on light table (61) and install eight screws (19).

(29) Place four strikes (18) on T-rail brackets (20) and secure in place with eight screws (17).

(30) Install two right roller brackets (15) and two left roller brackets (16) and secure in place with eight screws (14).

(31) Install eight ball screws (13), eight locknuts (12), and four upper rollers (11).

(32) Position left brace assembly (10) on light table (61), install two screws (9); then, pivot brace assembly (10) up to engage stud on light table (61).

(33) Position right brace assembly (8) on

light table (61), install two screws (9); then, pivot brace assembly (8) up to engage stud on light table (61).

(34) Install spring pin (5), two mounting knobs (4), two spring standoffs (3), two screws (2), and two springs (1) on each T-rail (6).

(35) Install four assembled quick-release T-rails (6) on light table (61).

(36) Install X-, Y-, and Z-travel carriages on light table (61). Refer to f below.

b. Reassembly of Z-Travel Carriage (fig. 3-7).

(1) Install outer upper and lower bearing races (85) in outer optics ring (86).

(2) Install upper inner bearing race (83) on inner optics ring (84); then, place inner optics ring (84) in outer optics ring (86).

(3) Turn assembled optics rings (84 and 86) upside down; then install 71 balls (82).

(4) Install lower inner bearing race (81) and ring bearing takeup (80). Leave assembly in inverted position.

(5) Assemble lock lever (78) and optics ring lock (79), position in outer optics ring (86); then, install bearing stop spring (77) and two screws (76).

(6) Insert disc brake (75); then, install eight screws (74).

(7) Install setscrews (72) and (73); then, install button plug (71).

(8) Install two knurled screws (70) in outer optics ring (86).

(9) Install switch (69) in outer optics ring (86).

(10) Place spacer (67) on shaft (68) and secure in place with shim (66) and setscrew (65); then, place assembly in hole in support assembly (12).

(11) Place sprocket (64) and worm gear (63) on shaft (68) and install three screws (61).

(12) Place two washers (62) on each end of shaft (68).

(13) Install ball bearing (59) in worm gear housing (60).

(14) Install worm gear (57) on shaft (58) and secure in place with pin (56).

(15) Install four bearings (55) on shaft (58); then, position in worm gear housing (60) and secure with two bearing caps (54) and four screws (53).

(16) Place two knob sleeves (52) on shaft (58); then, install two knobs (51) and secure in place by tightening setscrews in knobs (51).

(17) Position outer optics ring assembly (86) and worm gear housing (60); then, secure together by installing four screws (50).

(18) Place assembly of sprocket (64) and worm gear (63) in worm gear housing (60).

(19) Place chain (49) on sprocket (64).

(20) Install ball bearing (47) in worm gear housing cover (48).

(21) Place worm gear housing cover (48) in position and install four screws (46).

(22) Install four setscrews (45).

(23) Position bearing backup plate (44), bearing shim (43), two ball bearing assemblies (42); then, secure by installing eight screws (39), four washers (41), and four screws (40).

(24) Position two optics heel pads (38) and secure with four screws (37).

(25) Install bearing (36) in slide support assembly (11).

(26) Place key (34) in shaft (35); then, install miniclutch assembly (33).

(27) Place miniclutch housing (32) and worm gear (31) on shaft (35), and secure with three screws (30).

(28) Install bearing (28) in drive assembly housing (29); then, place worm gear/clutch assembly in housing (29).

(29) **Install** bearing (26) in bracket (27); then, **place** on shaft of drive assembly housing (29) and install retaining ring (25).

(30) Place spinner knob (24) on shaft of drive assembly housing (29) and secure with setscrew in knob (24).

(31) Position assembled drive assembly housing (29) on slide support assembly (11) and install four screws (23).

(32) Position bracket (27) on slide support assembly (11) and install two screws (22).

(33) Install sprocket (21) on shaft (35); then, install pin (20) and screw (19).

(34) Assemble retaining ring (16), sprocket (15), pin (14), and screw (13) on spindle (17); then, place in bearing magazine (18).

(35) Assemble slide support assembly (11) to support assembly (12); then, remove slack by adjusting four setscrews (45).

(36) Place idler slide block assembly (10) in lowest position and loosely install two screws (9).

(37) Place sprocket (8) on shaft of idler slide block assembly (10); then, install push nut fastener (7).

(38) Place chain (49) over sprocket (8); then, feed chain (49) between sprockets (15) and (21).

(39) Connect connecting link (6) on chain (49).

(40) Pull up on sprocket (8) to remove all slack in chain (49); then, tighten two screws (9).

(41) Install anchor plate (5) and two screws (4).

(42) Place stop in (1) on screw (3); then, insert screw (3) in hole in anchor plate (5) and secure with nut (2).

(43) Install Z-travel carriage on X-travel carriage (e(1) below).

c. Reassembly of Y-Travel Carriage (fig. 3-6).

(1) Secure left and right shaft and chain support brackets (65) on ball bushing shafts (68) with setscrews (66).

(2) Secure stabilizer rod support (60) to the left and right carriage support plates (43 and 44) with four screws (61). Mount stabilizer rod (62) in stabilizer rod support (60).

(3) Secure stud mounting bars (58) to the left and right Y-travel bushing housings (63 and 64) with four screws (59).

(4) Place ball bearings (57) and sprocket (55) on right side of stabilizer rod (62) and secure with hub adjusting clamp (56).

(5) Place sprocket (52) on right-hand fine feed mechanism shaft (51) and secure with hub adjusting clamp (53).

(6) Mate left and right carriage support plates (43 and 44) to the left and right Y-travel bushing housings (63 and 64). Make certain that right-hand fine feed mechanism shaft (51) is inserted through hole in Y-travel bushing housing (64).

(7) Place ball bearing (54) on right-hand fine feed mechanism shaft (51) and secure fine feed mechanism shaft to right Y-travel bushing housing (64) with retaining ring (50).

(8) Place chain assembly (46) on sprockets (52 and 55) and secure one end of chain assembly to left and right shaft and chain support bracket (65) with seven washers (49) and screw (48).

(9) Secure the other end of chain assembly (46) with screw (47).

(10) Secure mated left and right support plates (43 and 44) to left and right Y-travel bushing housings (63 and 64), respectively, with eight screws (45).

(11) Secure brush assembly (41) and cable clamp (40) to right carriage support plate (44) with two screws (42).

(12) Correctly solder two wires to the contact connector angles (38) as indicated by tags.

(13) Secure contact connector angles (38),

connector housing (37), and connector cover (36) to the left Y-travel bushing housing (63) and then to the right Y-travel bushing housing (64) with four screws (39).

(14) Place ball bearings (35) and sprocket (33) on left side of stabilizer rod (62) and secure with hub adjusting clamp (34).

(15) Secure sprocket (31) with hub adjusting clamp (32) on Y-travel clutch assembly (24).

(16) Place chain assembly (27) on sprockets (31 and 33) and secure one end of chain assembly to left and right shaft and chain support bracket (65) with seven washers (30) and screw (29).

(17) Secure other end of chain assembly with screw (28).

(18) Insert left Y-travel clutch assembly (24) into Y-travel bushing housing (63) and secure with nut (25).

(19) Secure ball bearings (21) and pinion assembly (20) to Y-fine feed housing (18) with retaining ring (22) and nut (23).

(20) Secure Y-fine feed housing (18) to Y-travel bushing housing (60) with three screws (3).

(21) Secure knob (17) on Y-travel pinion assembly (20) with setscrew (16).

(22) Secure drag brake plate (14) to left Y-travel bushing housing (63) with four screws (15).

(23) Screw drag brake assembly (13) into drag brake plate (14).

(24) Secure bumper plates (11) to the left and right shaft and chain support brackets (65) with four screws (12).

(25) Secure X-carriage support guides (6) to the left and right carriage support plates (43 and 44) with four screws (7).

(26) Secure two strike and catches (4) to the left and right carriage support plates (43 and 44) with eight screws (5).

(27) Secure two bumpers (1) and two bumper spacers (2) to the left and right front Y-rail support blocks (67) with two screws (3).

(28) Join the Y-travel carriage to the X- and Z-travel carriages as outlined in e(2) below.

d. Reassembly of X-Travel Carriage (fig. 3-5).

(1) Secure two X-rail support plates (59) to X-travel rail assembly (61) with eight screws (60).

(2) Secure terminal strip (56) to X-travel rail assembly (61) with washer (58) and screw (57).

(3) Solder leads of capacitor (55) to terminal strip (56).

(4) Connect wires to bus bar (54) and secure ring tongue terminal (52) with screw (53).

(5) Assemble sprocket idler shaft (49), sprocket assembly (50), washer (51), and sprocket idler block (46) and secure assembled parts to X-travel rail assembly (61) with washer (38) and screw (47).

(6) Secure clutch mounting plate (43) to X-travel rail assembly (61) with two washers (45) and two screws (44).

(7) Mount chain assembly (42) on sprocket assembly (50).

(8) Assemble ball bearings (38) on X-travel clutch assembly (39). Insert X-travel clutch assembly through clutch mounting plate (43) and secure the X-travel clutch assembly to the clutch mounting plate and the X-travel rail assembly (61) with retaining ring (40) and nut (41).

(9) Solder two white wire leads to capacitor (55).

(10) Secure cable clamp (36) to clutch mounting plate (43) with screw (37).

(11) Assemble ball bearings (31) on pinion assembly (32). Secure pinion assembly to X-travel rail assembly (61) with retaining ring (33) and nut (34).

(12) Secure backup plate (26) and assembled brush and housing assembly (27) to the X-rail bearing channel (35) with two screws (28).

(13) Screw drag lock assembly (25) into X-rail bearing channel (35).

(14) Secure two ball bearing assemblies (22) and bearing backup plate (23) to X-rail bearing channel (35) with screw (23) and screws (20 and 21). Screws (20 and 21) shall be loosely tightened.

(15) Mount X-bearing housing assembly (17) on X-travel rail assembly (61) and secure with two setscrews (19). Tighten screws (20 and 21).

(1b) Secure spring shipping lock bracket (14) to X-travel rail assembly (61) with two washers (16) and two screws (15).

(17) Hook catch assembly (13) to the X-bearing housing assembly (17) and the spring shipping lock bracket (14).

(18) Secure two X-rail support guides (11) to X-rail support plates (59) with four screws (12).

(19) Secure two spacers (10) and two bumpers (8) to X-travel rail assembly (61) with two screws (9).

(20) Solder carriage switch (7) leads to terminals and mount and secure carriage switch (7) on carriage control switch bracket (5).

(21) Secure carriage control switch bracket (5) to X-travel rail assembly (61) with two screws (6).

(22) Secure two terminal blocks (3) to the left and right X-rail support plates (59) with four screws (4). Solder two wire leads to each terminal block.

(23) Secure catches (1) to the left and right X-rail support plates (59) with four screws (2).

(24) Join the Z-travel carriage to the X-travel carriage. Refer to e(1) below for joining instructions.

e. Joining of the X-, Y-, and Z-Travel Carriages (fig. 3-4). After reassembly of the individual carriages has been accomplished, join the carriages as follows:

(1) To join the Z-travel carriage to the X-travel carriage, proceed as follows:

(a) Secure the Z-travel carriage to the X-travel carriage bearing housing with four screws and four washers.

(b) Secure switch cord to Z-travel carriage housing with two cable clamps. Secure clamps to housing with two screws.

(c) Secure switch cord to back of X-travel carriage bearing housing with one cable clamp. Secure cable clamp to bearing housing with one screw.

(d) Solder two switch cord leads to terminals on terminal block located behind the X-travel carriage housing.

(2) Join the assembled X- and Z-travel carriages to the Y-carriage by carefully mounting the X-travel carriage on the Y-travel carriage and securing with two quick-release catches located on the outer ends of the X-travel carriage

and two quick-release catches on the inner sides of the Y-travel carriage.

f. Installation of Carriage Assembly (fig. 3-4). Install the carriage assembly on the light table assembly as follows:

(1) Place the Y-travel carriage in position as shown in figure 3-4. Secure the front blocks of the Y-travel carriage to the light table assembly with four screws and four washers.

(2) Secure rear brackets of the Y-travel carriage to the light table assembly with four screws, four washers, and carriage spacers as required.

(3) Join the X-travel carriage to the Z-travel carriage. Refer to e(l) above.

(4) Install the X-travel carriage and Z-travel carriage to the light table assembly by carefully mounting the X-travel carriage on the Y-travel carriage as shown in figure 3-4 and secure with two quick-release catches located on the outer ends of the X-travel carriage and two quick-release catches on the inner sides of the X-travel carriage.

(5) Perform light table tests as outlined in paragraphs 4-4 and 4-5 to determine if light table is in proper working order.

CHAPTER 4 GENERAL SUPPORT TESTING PROCEDURES

4-1. General

a. Testing procedures are prepared for use by electronics field maintenance shops and service organizations responsible for general support maintenance of electronics equipment to determine the acceptability of a repaired electronics equipment. These procedures set forth specific requirements that repaired electronics equipment must meet before it is returned to the using organization. The testing procedures may also be used as a guide for the testing of equipment that has been repaired at direct support maintenance if the proper tools and test equipment are available. A summary of the performance standards is given in paragraph 4-7.

b. Comply with the instructions preceding each chart before proceeding to the chart. Do not vary the sequence. For each step, perform all the actions required in the *Test equipment* and *Equipment under test* columns; then, perform each specific test procedure and verify it against its performance standard.

4-2. Test Equipment, Tools, and Material

All test equipment, tools, materials, and other

equipment required to perform the testing procedures given in this chapter are listed in *a* through *d* below.

- a.* Meter, Spot, Brightness Spectra LM-150A.
- b.* USAF Resolution Chart **1951**.
- c.* Aerial photographic negative.
- d.* 9½-inch aerial rollfilm.

4-3. Modification Work Orders

Perform the work specified by modification work orders (MWO) pertaining to this equipment before making the tests specified. DA Pam 310-7 lists all available MWO's.

4-4. Light Table Physical Lists and Inspection

a. Test Equipment and Materials. Two (2) 9½-inch aerial rollfilm.

b. Test Connections and Conditions. None required.

c. Procedure.

Step. No.	Control setting		Test procedure	Performance standard
	Test equipment	Equipment under test		
1	N/A	Controls may be in any position.	<ul style="list-style-type: none"> <i>a.</i> Inspect all controls and mechanical assemblies for loose or missing screws, bolts, and nuts. <i>b.</i> Inspect right and left stage glass for cracks or chips. <i>c.</i> Inspect connectors, power cord, wires, and receptacles, including fuse holders for looseness and damage. <i>d.</i> Insure that 3.0 amp and 8.0 amp fuses 	<ul style="list-style-type: none"> <i>a.</i> Screws, bolts, and nuts must be tight; none missing. <i>b.</i> Stage glass must not be scratched or chipped. <i>c.</i> No looseness or damage evident. <i>d.</i> Fuses of correct value must be installed.

Step No.	Control setting		Test procedure	Performance standard
	Test equipment	Equipment under test		
			are installed in fuse holder. e. Inspect case for damage, missing parts, and condition of finish and panel lettering.	e. No damage or missing parts evident. External surfaces intended to be painted must not show bare metal. Panel lettering must be legible.
2	N/A	LAMP INTENSITY control set to ON and carriage switch to ON.	<i>Note.</i> Touchup paint is recommended in place of refinishing whenever practicable. Screwheads, receptacles, and plated fastener parts will not be painted or polished with abrasives. Move carriage in X- and then Y-travel directions with a force sufficient to overcome magnetic clutches.	Carriage shall not move with a force less than 10 pounds in either direction.
3	N/A	LAMP INTENSITY control set to ON and carriage switch to ON.	a. Press red carriage pushbutton switch and move carriage entire length of X-travel direction. b. Press red carriage pushbutton switch and move carriage entire length of Y-travel direction. c. Move carriage entire length of X-travel direction with X-travel control knob. d. Move carriage entire length of Y-travel direction with Y-travel control knob.	a. Carriage shall not bind and shall not require more than 3 pounds of force for free movement. b. Carriage shall not bind and shall not require more than 3 pounds of force for free movement. c. Carriage must move freely without evidence of binding. d. Carriage must move freely without evidence of binding.
4	9½-inch aerial rollfilm.	Controls may be in any position.	a. Load 9½-inch aerial rollfilm in conventional film mode (TM 11-6675-287-12). b. Load film in takeup mode (TM 11-6675-287-12). Turn FILM TAKEUP loop accumulator control knob, driving retracting rollers (accumulator) to insure ease of movement of rollers to takeup and short takeup positions. c. Load two films in split vertical mode (TM 11-6675-287-12). d. Load two films with	a. Film must be easily moved forward and in reverse with crank. b. Film must be easily moved forward and in reverse in both takeup positions and rollers must move freely. c. Both films must easily move in each direction. d. Front and rear films must

Step No.	Control setting		Test procedure	Performance standard
	Test equipment	Equipment under test		
	N/A	Controls may be in any position.	a combined width less than 10 inches side-by-side in take up mode (TM 11-6675-287-12).	move independently in both directions.
6	N/A	LAMP INTENSITY control set to OFF.	a. Disengage film tension screws and operate all crank handles. b. Tighten film screws.	a. Crank handles turn freely. b. Crank handles do not turn.
7	N/A	Controls may be in any position.	a. Set HI/LO switch to HI; then, to LO. b. Turn LAMP INTENSITY control fully clockwise; then, fully counterclockwise.	a. Switch operates freely to both positions. b. LAMP INTENSITY control turns smoothly and locks positively at OFF.
8	N/A	Controls may be in any position.	Move both stage cam shifting levers to CLOSE; then, to OPEN. Move mask control handles toward front of unit so that mask covers entire viewing area.	Right and left stage glass must move freely to its open position, then to its closed position. Mask must move easily without evidence of binding through entire length of movement.

4-5. Light Source Test

a. Test Equipment and Materials. Meter, Spot, Brightness Spectra LM-150A (SBM).

b. Test Connections and Conditions. Turn on primary power source.

NOTE

Set SBM meter switch to LOW and power switch to TEST for at least **10** seconds and observe output meter. Output meter indication should be a minimum of 1 volt. If output meter indication is less than 1 volt, replace battery pack.

c. Procedure.

Step No.	Control setting		Test procedure	Performance standard
	Test equipment	Equipment under test		
1	N/A	Set HI/LO switch to LO and turn LAMP INTENSITY control clockwise. Allow 15-minute warmup time.		Light table lights.
2	N/A	N/A	Turn LAMP INTENSITY control through entire range.	Intensity of light varies as switch is turned through entire range.
3	N/A	Set HI/LO switch to HI.	Observe light table	Light intensity increases.
4	N/A	N/A	Turn LAMP INTENSITY control through entire range.	Intensity of light varies as switch is turned through entire range.
5	a. Set SBM meter switch to HIGH; operate power switch to ON.	a. N/A	a. None	a. None.

Step No.	Control setting		Test procedure	Performance standard
	Test equipment	Equipment under test		
	<p>Note: Allow 5-minute warmup time.</p> <p>b. Set SBM filter selector switch to ZERO, and range selector switch to 10K; adjust output meter to zero, using ZERO control. Repeat this adjustment with meter switch set to LOW.</p> <p>Note. If SBM meter is not completely warmed up, indicator needle will creep upward from zero setting. Wait until meter has warmed up before making final zero adjustment.</p>	b. N/A	b. Separate light source into sections, as indicated in figure 4-1.	b. None.
6	<p>set SBM meter switch to HIGH, and filter selector switch to foot-lamberts.</p>	Set HI/LO switch to HI and LAMP INTENSITY control fully clockwise (maximum).	Using SBM meter, measure light intensity 2 inches from corners in each quadrant and center of light source (fig. 4-1) for both the right and left viewing area. Check output meter.	Output meter indicates 2,200 fl minimum in each position.
7	Same as step 6	Set HI/LO switch to HI and LAMP INTENSITY control fully counterclockwise (minimum) but not to the OFF position.	Same as step 6	Output meter indicates 1,000 fl minimum in each position.
8	Set SBM meter switch to LOW, and filter selector switch to foot-lamberts.	Set HI/LO switch to LO and LAMP INTENSITY control fully clockwise (maximum).	Same as step 6	Output meter indicates 1,000 fl minimum in each position.
9	Same as step 8	Set HI/LO switch to LO and LAMP INTENSITY control full counterclockwise, minimum but not to the OFF position.	Same as step 6	Output meter indicate 810 fl minimum in each position.

Note. In steps 6 through 9 above, the minimum brightness at all test locations in the LO range shall not exceed 5 percent of the maximum brightness previously obtained in the HI range. Light intensity may go to extinction in all test locations in the LO range. The maximum intensity reading in the LO range shall overlap the minimum intensity reading in the HI range at each test location, in figure 4-1.

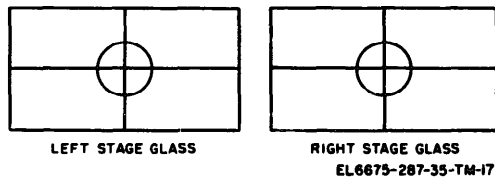


Figure 4-1. Stage glass, sectioned for test.

4-6. Zoom 240 Physical and Optical Tests

a. Test Equipment and Materials.

- (1) USAF Resolution Chart 1951.
- (2) Aerial photographic negative.

b. Test Connections and Equipment.

(1) Zoom 240 must be mounted in arm assembly on retractable arm.

(2) Zoom 240 must be set up as a microscope.

(3) Place carriage switch to ON.

c. Procedure.

Step No.	Control setting		Test Procedure	Performance standard
	Test equipment	Equipment under test		
1	N/A	Rotate LAMP INTENSITY control past INCREASE fully clockwise.	<p>a. Inspect optical elements for scratches, bubbles, dirt, lint, and scum within field of view.</p> <p>b. Inspect Zoom 240 for damage or missing parts.</p> <p><small>Note. Touchup painting is recommended in place of refinishing whenever practicable. Screwheads and plated fastener parts will not be painted or polished with abrasives.</small></p>	<p>a. There must not be any scratches, bubbles, dirt, lint, or scum in field of view.</p> <p>b. No damage or missing parts evident. External surfaces intended to be painted must not show bare metal.</p>
2	N/A	Turn right and left power changer knobs fully counterclockwise; set common power changer knob to 3.0.	<p>a. Place resolution chart on illuminated format with lines oriented horizontally and vertically.</p> <p>b. With 20X eyepieces, focus Zoom 240 over resolution chart.</p> <p>c. Without changing focus, set common power changer knob to 0.7.</p>	<p>a. None.</p> <p>b. Right and left optic trains each resolve 200 lines per millimeter.</p> <p>c. Right and left optic trains each resolve a minimum of 60 lines per millimeter.</p>
3	N/A	Check that common power changer knob is at 0.7.	<p>a. Remove resolution chart and replace it with aerial photographic negative.</p> <p>b. Focus Zoom 240.</p> <p><small>Note. Perform procedures given in c below using each eyepiece.</small></p> <p>c. While observing image, set common power changer knob to 3.0.</p> <p><small>Note. Perform procedures given in d below using each eyepiece.</small></p> <p>d. While observing image, first set common changer knob to 1.0; then, to 2.0. At each position, abruptly reverse rotation of common power changer knob.</p>	<p>a. None.</p> <p>b. None.</p> <p>c. There must not be more than one image jump at end of zoom travel.</p> <p>d. There must not be more than one image jump at each common power changer knob position.</p>

Step No.	Control setting		Test Procedure	Performance standard
	Test equipment	Equipment under test		
4	N/A	Controls may be in any position.	Replace 20X eyepieces with 10X eyepieces.	There must be no reduction in field of view.
5	N/A	Rotate common power changer knob until 2 power line is aligned with fiducial line on body.	Reverse common power changer knob so that any excessive lost motion will become evident.	Lost motion of power changer knob shall not exceed 3 line widths of engraved scale.
6	N/A	Controls may be in any position.	Rotate eyepieces to provide maximum ocular separation.	Movement must be sufficient to provide separation from 60 to 72 millimeters.
7	N/A	Controls may be in any position.	Rotate common power changer knob to extreme clockwise and counterclockwise positions.	The 0.7 and 3 line markings must be approximately aligned with markings on power pod.
8	N/A	Set common power changer knob to 3.0.	<ul style="list-style-type: none"> a. Remove aerial photographic negative and replace it with resolution chart. b. Install 0.5X lens attachment. c. Replace 10X eyepieces with 20X eyepieces. d. Focus Zoom 240 and observe resolution chart. 	<ul style="list-style-type: none"> a. None. b. None. c. None. d. Zoom 240 must resolve a minimum of 100 lines per millimeter.
9	N/A	Attach IX stereo rhomboid system to adapter plate.	Rotate rhomboids throughout their entire range.	Motion shall be smooth but with sufficient resistance to prevent free movement.
10	N/A	Check that common power changer knob is set to 3.0.	Focus Zoom 240 and observe resolution chart through 20X eyepieces.	Zoom 240 must resolve a minimum of 200 lines per millimeter.
11	N/A	Check that common power changer knob is set to 3.0.	<ul style="list-style-type: none"> a. Position rhomboid arms at maximum separation and parallel to X-travel direction. b. Position resolution chart at center of the left viewing area. c. Viewing chart through right eyepiece only, obtain best focus using mount height adjustment with right stereoscope rhomboid fine adjustment lever approximately in center of its extreme limits of travel. 	<ul style="list-style-type: none"> a. None. b. None. c. Zoom 240 must resolve a minimum of 200 lines per millimeter.
12	N/A	N/A	<ul style="list-style-type: none"> a. Position resolution chart at one of four corner areas of left viewing area. 	<ul style="list-style-type: none"> a. None.

Step No.	Control setting		Test Procedure	Performance standard
	Test equipment	Equipment under test		
13	N/A	N/A	<p><i>b.</i> View resolution chart through right eyepiece only.</p> <p>Repeat steps 11 and 12 above for remaining three comers of left viewing area and at center and four corners of right viewing area.</p>	<p><i>b.</i> Zoom 240 must resolve a minimum of 200 lines per millimeter with a maximum rotation of 50 degrees of right rhomboid fine focusing lever with respect to its original setting at center of left viewing area.</p> <p>Note. 13-degree rotation of the fine focusing lever is equivalent to a 0.006-inch vertical movement of the rhomboid.</p> <p>Zoom 240 shall resolve a minimum of 200 lines per millimeter with a maximum rotation of 50 degrees of right rhomboid focusing lever from its initial setting at center of left viewing surface in all areas.</p>
14	N/A	Set common power changer knob to 3.0.	<p><i>a.</i> Position Zoom 240 at center of left viewing area with rhomboid arms at maximum separation with Zoom 240 rotated clockwise at an approximate angle of 45 degrees with respect to .X-travel direction.</p> <p><i>b.</i> View resolution chart through right eyepiece and obtain best focus using zoom mount height adjustment in center of its extreme limits of travel.</p> <p><i>c.</i> Move resolution chart so that it may be viewed through left eye piece without moving Zoom 240.</p> <p><i>d.</i> Focus using only focusing adapter to balance acuity of observer's eye (if necessary) and left rhomboid fine focusing lever.</p> <p><i>e.</i> Rotate Zoom 240 approximately 90 degrees counter-clockwise without translation of carriage.</p>	<p><i>a.</i> None.</p> <p><i>b.</i> Zoom 240 shall resolve a minimum of 200 lines per millimeter.</p> <p><i>c.</i> None.</p> <p><i>d.</i> Left eyepiece shall resolve a minimum of 200 lines per millimeter.</p> <p><i>e.</i> None.</p>

Step No.	Control setting		Test Procedure	Performance standard
	Test equipment	Equipment under test		
15	N/A	Set common power changer knob to 3.0.	<p>f. View resolution chart through right eyepiece.</p> <p>g. Repeat e and f above for left eyepiece.</p> <p>Repeat step 14a through g above at center of right viewing area using same resolution and adjustment criteria.</p>	<p>f. Zoom 240 shall resolve a minimum of 200 lines per millimeter with a maximum rotation of 25 degrees of right rhomboid fine focusing lever with respect to its initial setting.</p> <p>g. Same as f above.</p> <p>Performance standards are same as indicated in 14a through g above.</p>

4-7. Test Data Summary

1. LIGHT SOURCE TEST

Light output at surface of left and right stage glass with controls set for maximum brightness 20-to-1 dimming ratio from a maximum level of 2,200 fl minimum.

2. ZOOM 240 TESTS

a. Resolution:

(1) Common power changer knob set to 3.0 200 lines per millimeter.

(2) Common power changer knob set to 0.7 60 lines per millimeter.

b. Zoom from 0.7 to 3.0 One image jump.

c. Reverse zoom direction at common power changer knob positions 1.0 and **2.0** One image jump at each position

d. Eyepiece separation Variable from 60 to 72 millimeters.

e. Resolution with 0.5X attachment **100 lines** per millimeter,

f. Resolution with stereo rhomboid arms with stereo lenses (all right and left stage glass viewing areas) 200 lines per millimeter.

CHAPTER 5 DEPOT OVERHAUL STANDARDS

5-1. Applicability of Depot Overhaul Standards

Viewer, Stereoscopic Rollfilm, Photographic Interpretation AR-133A must be tested thoroughly after rebuild or repair to insure that it meets adequate performance requirements for return to stock and reissue. The tests outlined in this chapter are designed to measure the performance capability of the repaired equipment. Equipment that is to be returned to stock should meet the standards given in these tests.

5-2. Applicable References

a. Repair Standards. Applicable procedures of the depots performing these tests and the general standards for repaired equipment given in TB SIG 355-1, TB SIG 355-2, and TB SIG 355-3 form a part of the requirements for testing this equipment.

b. Technical Publications. The technical publication listed below is applicable to these tests.

<i>Title</i>	<i>Number</i>
Organizational Maintenance Manual for Viewer, Stereoscopic Rollfilm, Photographic Interpretation AR-133A	TM 11-6675-287-12

5-3. Rollfilm Viewer Test Requirements

The test requirements for the depot overhaul standards are the same as the test requirements given in chapter 4. Equipment that is tested and meets the performance standards given in paragraphs 4-4 through 4-6 should be considered as having passed the depot overhaul standards.

CHAPTER 6
FINAL ILLUSTRATIONS

6-1. General

Listed below are the final illustrations which are to be used in conjunction with the maintenance procedures given in chapters 1 through 4.

<i>Figure No.</i>	<i>TM control No.</i>	<i>Title</i>
6-1	ESC-FM-4113-69	Color code marking for MIL-STD re-
6-2	EL6675-287-35-20	Rollfilm viewer, schematic diagram.
6-3	EL 6675-287-35-21	Rollfilm viewer, wiring diagram.

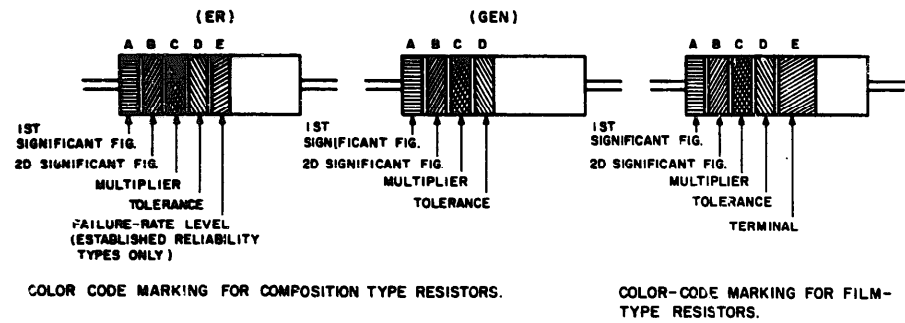


TABLE 1
COLOR CODE FOR COMPOSITION TYPE AND FILM TYPE RESISTORS.

BAND A		BAND B		BAND C		BAND D		BAND E	
COLOR	FIRST SIGNIFICANT FIGURE	COLOR	SECOND SIGNIFICANT FIGURE	COLOR	MULTIPLIER	COLOR	RESISTANCE TOLERANCE (PERCENT)	COLOR	FAILURE RATE LEVEL
BLACK	0	BLACK	0	BLACK	1			BROWN	M
BROWN	1	BROWN	1	BROWN	10			RED	P
RED	2	RED	2	RED	100			ORANGE	R
ORANGE	3	ORANGE	3	ORANGE	1,000			YELLOW	S
YELLOW	4	YELLOW	4	YELLOW	10,000	SILVER	±10 (COMP. TYPE ONLY)		
GREEN	5	GREEN	5	GREEN	100,000	GOLD	±5		
BLUE	6	BLUE	6	BLUE	1,000,000	RED	±2 (NOT APPLICABLE TO ESTABLISHED RELIABILITY).		
PURPLE (VIOLET)	7	PURPLE (VIOLET)	7						
GRAY	8	GRAY	8	SILVER	1.01				
WHITE	9	WHITE	9	GOLD	0.1				SOLDERABLE

BAND A - THE FIRST SIGNIFICANT FIGURE OF THE RESISTANCE VALUE (BANDS A THRU D SHALL BE OF EQUAL WIDTH.)

BAND B - THE SECOND SIGNIFICANT FIGURE OF THE RESISTANCE VALUE.

BAND C - THE MULTIPLIER. THE MULTIPLIER IS THE FACTOR BY WHICH THE TWO SIGNIFICANT FIGURES ARE MULTIPLIED TO YIELD THE NOMINAL RESISTANCE VALUE.)

BAND D - THE RESISTANCE TOLERANCE.

S A N D E - WHEN USED ON COMPOSITION RESISTORS, BAND E INDICATES ESTABLISHED RELIABILITY FAILURE -RATE LEVEL. ON FILM RESISTORS, THIS BAND SHALL BE APPROXIMATELY 1/2 TIMES THE WIDTH OF OTHER BANDS, AND INDICATES TYPE OF TERMINAL.

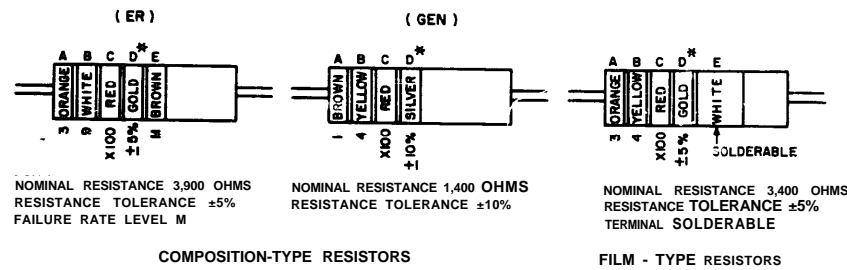
RESISTANCES IDENTIFIED BY NUMBERS AND LETTERS (THESE ARE NOT COLOR CODED)

SOME RESISTORS ARE IDENTIFIED BY THREE OR FOUR DIGIT ALPHA NUMERIC DESIGNATORS. THE LETTER R IS USED IN PLACE OF A DECIMAL POINT WHEN FRACTIONAL VALUES OF AN OHM ARE EXPRESSED. FOR EXAMPLE:

2R7 - 2.7 OHMS 10R0 - 10.0 OHMS

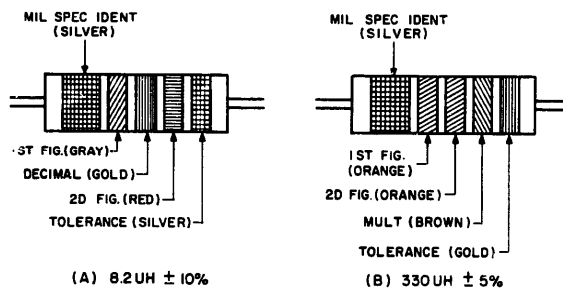
FOR WIRE-WOUND-TYPE RESISTORS COLOR CODING IF NOT USED, IDENTIFICATION MARKING IS SPECIFIED IN EACH OF THE APPLICABLE SPECIFICATIONS.

EXAMPLES OF COLOR CODING



* IF BAND D IS OMITTED, THE RESISTOR TOLERANCE IS ±20% AND THE RESISTOR IS NOT MIL-STD.

A. COLOR CODE MARKING FOR MILITARY STANDARD RESISTORS.



COLOR CODING FOR TUBULAR ENCAPSULATED R.F. CHOKES. AT A, AN EXAMPLE OF THE CODING FOR AN 8.2UH CHOKE IS GIVEN. AT B, THE COLOR BANDS FOR A 330UH INDUCTOR ARE ILLUSTRATED.

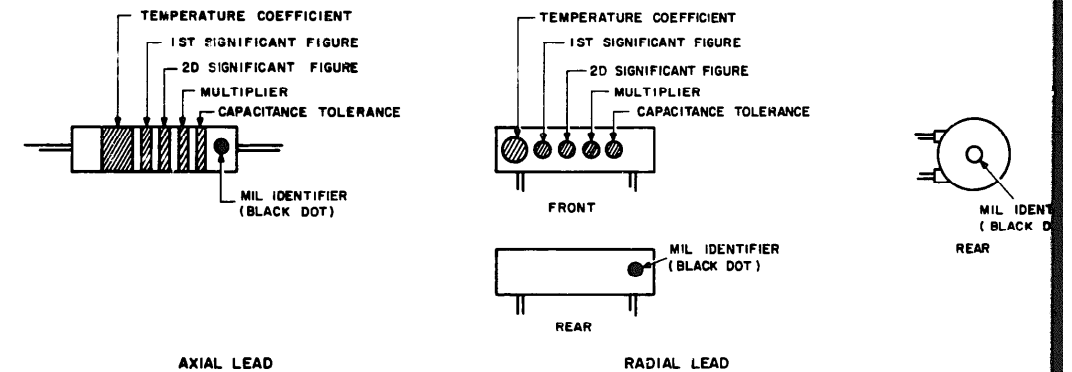
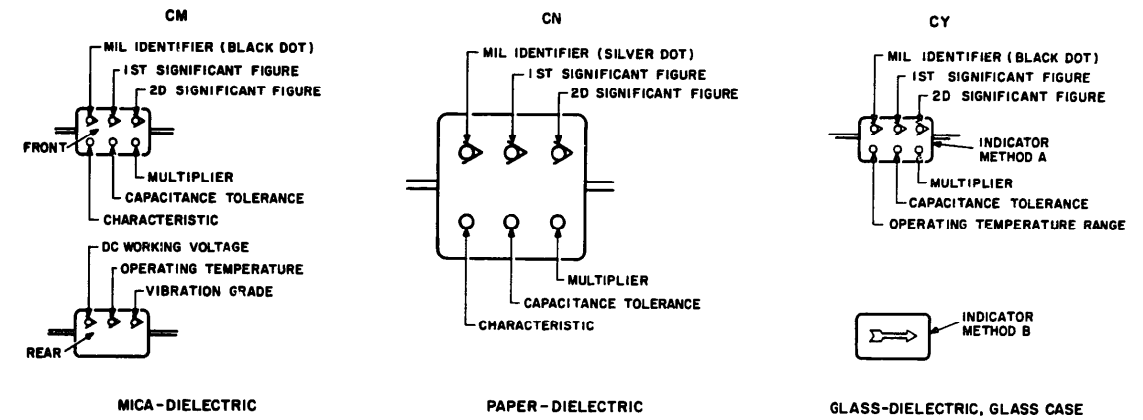
TABLE 2
COLOR CODING FOR TUBULAR ENCAPSULATED R.F. CHOKES.

COLOR	SIGNIFICANT FIGURE	MULTIPLIER	INDUCTANCE TOLERANCE (PERCENT)
BLACK	0	1	
BROWN	1	10	1
RED	2	100	2
ORANGE	3	1000	3
YELLOW	4		
GREEN	5		
BLUE	6		
VIOLET	7		
GRAY	8		
WHITE	9		
NONE			20
SILVER			10
GOLD	DECIMAL POINT		5

MULTIPLIER IS THE FACTOR BY WHICH THE TWO COLOR FIGURES ARE MULTIPLIED TO OBTAIN THE INDUCTANCE VALUE OF THE CHOKE COIL.

B. COLOR CODE MARKING FOR MILITARY STANDARD INDUCTORS.

CAPACITORS, FIXED, VARIOUS-DIELECTRICS, STYLES CM, CN, CY, AND CB.



C. COLOR CODE MARKING

Figure 6-1. Color code marking for MIL-STD resistors, inductors, and capacitors.

CAPACITORS, FIXED, VARIOUS-DIELECTRICS, STYLES CM, CN, CY, AND CB.

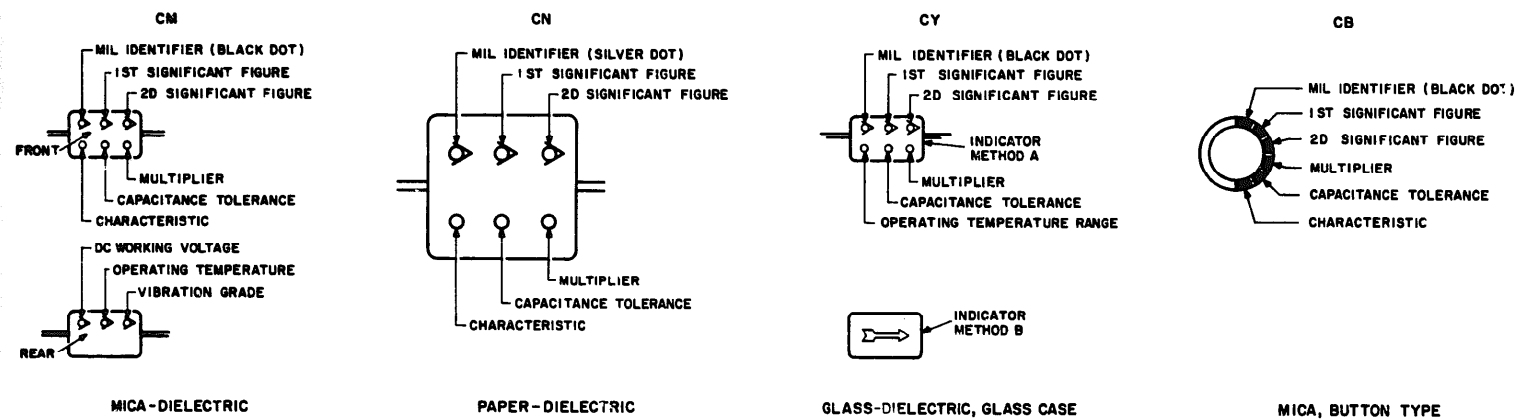


TABLE 3 - FOR USE WITH STYLES CM, CN, CY AND CB.

COLOR	MIL ID	1ST SIG FIG.	2D SIG FIG.	MULTIPLIER	CAPACITANCE TOLERANCE				CHARACTERISTIC ²			DC WORKING VOLTAGE	OPERATING TEMP. RANGE	VIBRATION GRADE	
					CM	CN	CY	CB	CM	CN	CB				
BLACK	CM, CY, CB	0	0	1					±20%	±20%	A			-55° TO +70°C	10-55 HZ
BROWN		1	1	10							B	E	B		
RED		2	2	100	±2%				±2%	±2%	C			-55° TO +85°C	
ORANGE		3	3	1,000		±30%					D		D	300	
YELLOW		4	4	10,000							E			-55° TO +125°C	10-2,000 HZ
GREEN		5	5			±5%					F			500	
BLUE		6	6											-55° TO +50°C	
PURPLE (VIOLET)		7	7												
GREY		8	8												
WHITE		9	9												
GOLD				0.1					±5%	±5%					
SILVER	CN				±10%	±10%	±10%	±10%							

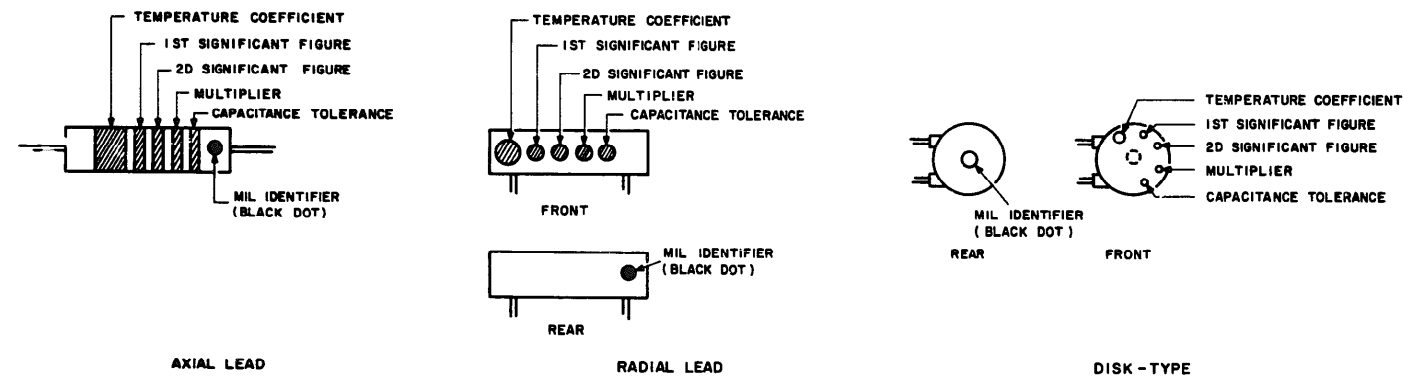


TABLE 4 - TEMPERATURE COMPENSATING, STYLE CC.

COLOR	TEMPERATURE COEFFICIENT ⁴	1ST SIG FIG.	2D SIG FIG.	MULTIPLIER ¹	CAPACITANCE TOLERANCE		MIL ID
					CAPACITANCES OVER 10 UUF	CAPACITANCES 10 UUF OR LESS	
BLACK	0	0	0	1		± 2.0 UUF	CC
BROWN	-30	1	1	10	± 1%		
RED	-80	2	2	100	± 2%	± 0.25 UUF	
ORANGE	-150	3	3	1,000			
YELLOW	-220	4	4				
GREEN	-330	5	5		± 5%	± 0.5 UUF	
BLUE	-470	6	6				
PURPLE (VIOLET)	-750	7	7				
GREY		8	8	0.01			
WHITE		9	9	0.1	± 10%		
GOLD	+100					± 1.0 UUF	
SILVER							

1. THE MULTIPLIER IS THE NUMBER BY WHICH THE TWO SIGNIFICANT (SIG) FIGURES ARE MULTIPLIED TO OBTAIN THE CAPACITANCE IN UUF.
2. LETTERS INDICATE THE CHARACTERISTICS DESIGNATED IN APPLICABLE SPECIFICATIONS: MIL-C-5, MIL-C-25D, MIL-C-11272B, AND MIL-C-10950C RESPECTIVELY.
3. LETTERS INDICATE THE TEMPERATURE RANGE AND VOLTAGE-TEMPERATURE LIMITS DESIGNATED IN MIL-C-11015D.
4. TEMPERATURE COEFFICIENT IN PARTS PER MILLION PER DEGREE CENTIGRADE.

C. COLOR CODE MARKING FOR MILITARY STANDARD CAPACITORS.

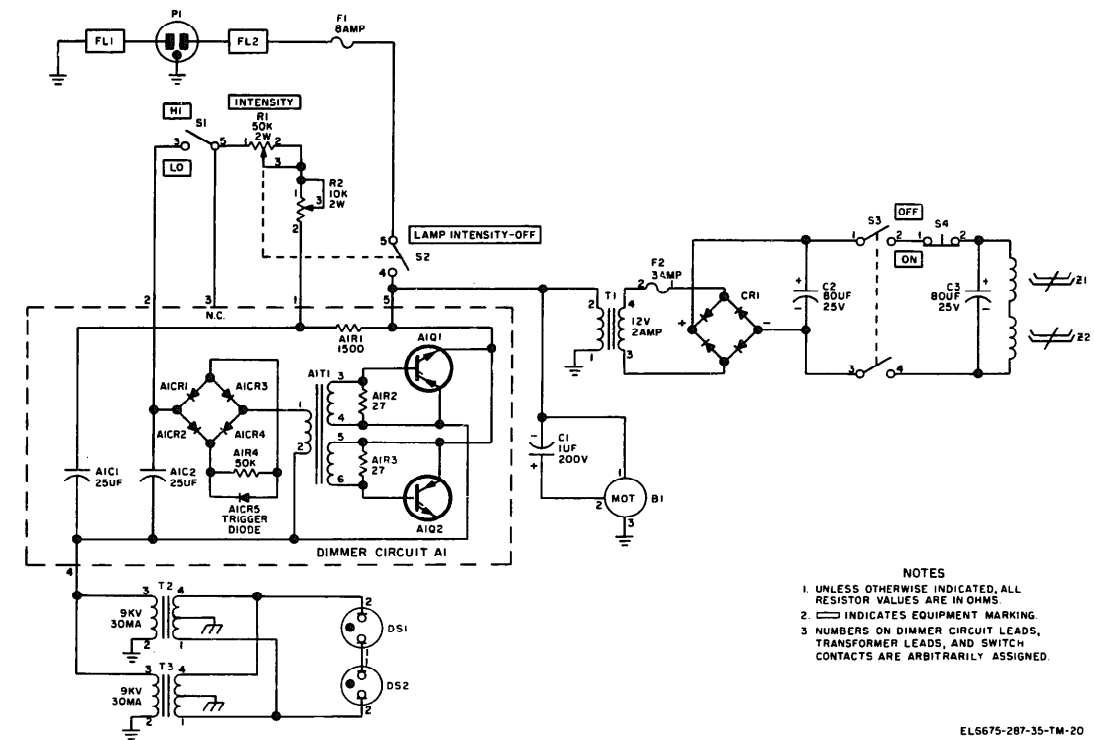
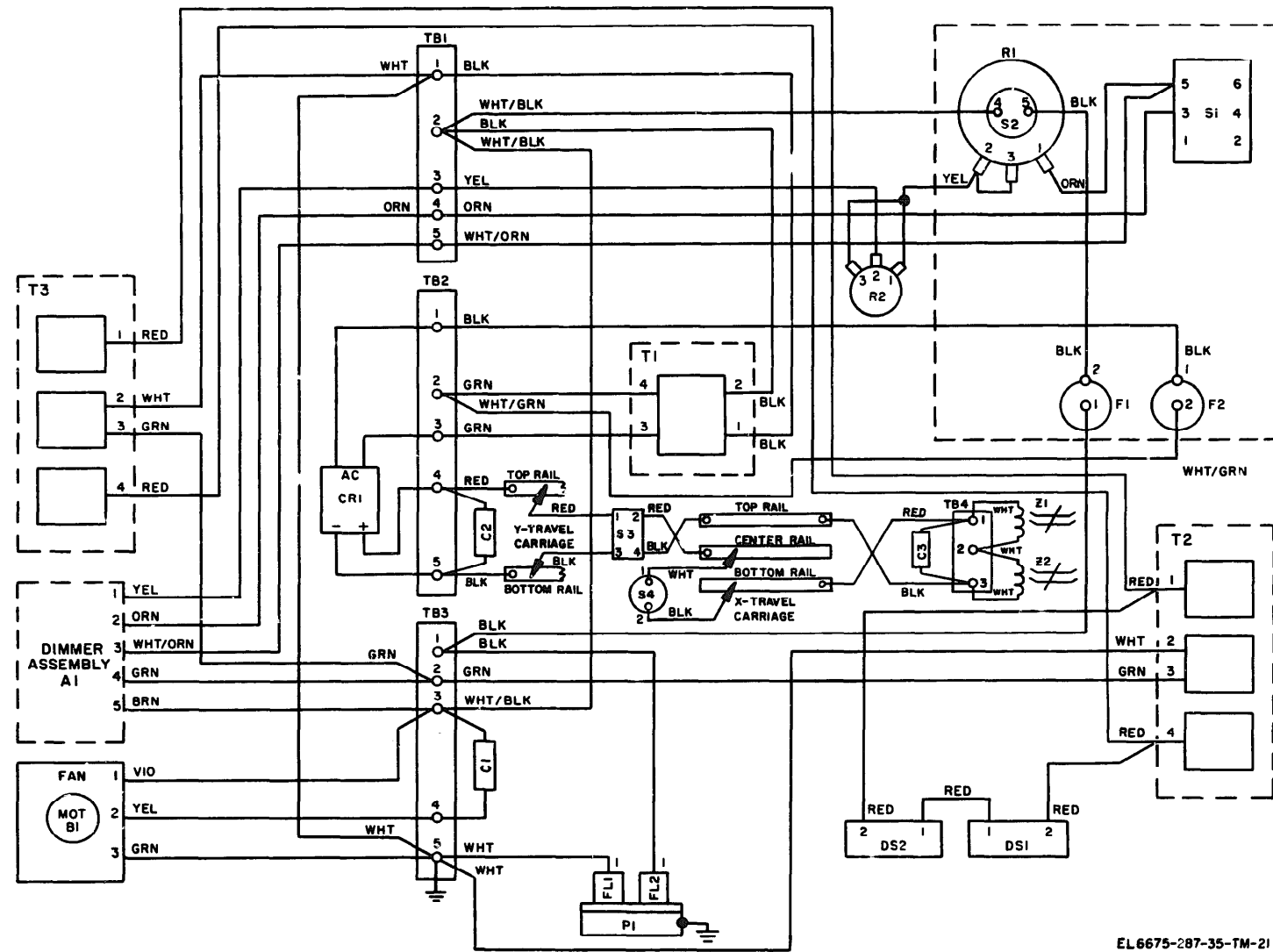


Figure 6-2. Rollfilm viewer, schematic diagram.



EL6675-287-35-TM-2I

Figure 6-3. Rollfilm viewer, wiring diagram.

**APPENDIX A
REFERENCES**

The following applicable references are available to the direct support, general support, and depot maintenance personnel of Viewer, Stereoscopic Rollfilm, Photographic Interpretation AR-133A.

DA Pam 310-4	Index of Current Mechanical Manuals, Technical Bulletins, Supply Manuals, (Types 7, 8, and 9), Supply Bulletins, and Lubrication Orders.
DA Pam 310-7	Index of Current Modification Work Orders.
TB SIG 355-1	Depot Inspection Standard for Repaired Signal Equipment.
TB SIG 355-2	Depot Inspection Standard for Refinishing Repaired Signal Equipment.
TB SIG 355-3	Depot Inspection Standard for Moisture and Fungus Resistant Treatment.
TB 746-10	Field Instructions for Painting and Preserving Electronics Command Equipment.
TM 11-5895-431-12	Organizational Maintenance Manual: Tactical Imagery Interpretation Facility AN/TSQ-43 and AN/TSQ-43A.
TM 11-5895-431-35	DS, GS, and Depot Maintenance Manual: Tactical Imagery Interpretation Facility AN/TSQ-43 and AN/TSQ-43A.
TM 11-6625-219-12	Organizational Maintenance Manual: Oscilloscope AN/USM-81.
TM 11-6675-287-12	Organizational Maintenance Manual: Viewer, Stereoscopic Rollfilm, Photographic Interpretation AR-133A.

APPENDIX B
DS, GS, 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 AR-133A.

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. Federal Stock Number and Reference Number Index-Section IV. A list of Federal stock numbers in ascending numerical sequence followed by a list of reference numbers in ascending alphanumerical sequence, cross-referenced to the item sequence number.

d. Figure and Item Number to Item Sequence Number Index-Section V. A list of figure and item numbers, in ascending numerical sequence, cross-referenced to item sequence numbers.

B-3. Explanation of Columns

The following provides an explanation of columns in the tabular lists in sections II and III.

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

(1) Source codes indicate the selection status and source for the listed item. Source codes used are-

<i>Code</i>	<i>Explanation</i>
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 supplied 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 are to be manufactured at indicated maintenance levels.
A -	Assemblies which are not procured or stocked as such, but are made up to 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.

<i>code</i>	<i>Explanation</i>
X -	Parts and assemblies which are not procured or stocked and the mortality of which normally 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.
X1 -	Repair parts which are not procured or stocked. The requirement for such items will be filled by use of the next higher assembly or component.
X2 -	Repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain same through cannibalization. Where such repair parts are not obtainable through cannibalization, requirements will be requisitioned, with accompanying justification, through normal supply channels.
C -	Repair parts authorized for local procurement. Where such repair parts are not obtainable from local procurement, requirements will be requisitioned through normal supply channels accompanied by a supporting statement of nonavailability from local procurement.
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 or GS level or returned to depot supply level.

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

<i>Code</i>	<i>Explanation</i>
O	Organizational maintenance
F	Direct support maintenance
H	General support maintenance
D	Depot maintenance

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

<i>Code</i>	<i>Explanation</i>
R -	Repair parts and assemblies which 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 casings, 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. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses. On subsequent appearances of an item, the part number and Federal supply code is replaced by "Same As" (applicable sequence number).

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

e. Quantity Incorporated in Unit, Column 5. This column indicates the quantity of the item used in the Viewer, Stereoscope, AR-133A. A "V" appearing in this column in lieu of a quantity cannot be indicated (eg., shims, spacers, etc).

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. One-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 in which the item is shown.

(2) *Item number, column 10b.* Indicates the callout number used to reference 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 one 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. Split coding such as AF, MD, PH, etc., found in the source column, indicates parts which require manufacture, assembly, or stockage at a category higher than that authorized to install the item. *For example*, an item coded MD-O denotes the source of the item to be manufactured (M) at the depot level (D) and authorized for installation at the organizational level (O).

c. The following publications pertain to AR-133A and its components.

TM 11-6675-287-12 Organizational Maintenance Manual

B-5. How to Locate Repair Parts

a. When Federal stock number or reference number is unknown-

(1) First, review the illustrations to determine if the repair part is shown for organizational maintenance and note the figure and item number, if applicable.

(2) Second, using the figure and item number cross-reference to item sequence number index (sec. V) find the figure and item number and note the item sequence number listed.

(3) Third, locate the item sequence number in the repair parts list (sec. II).

b. When Federal stock number or reference number is known-

(1) Using the Federal stock number and reference number index (sec. IV) find the pertinent number and note the item sequence number.

(2) Locate the item sequence number in the repair parts list (sec. II).

B-6. Federal Supply Codes for Manufacturers

<i>Code</i>	<i>Manufacturer</i>
00159	Acme Electric Corp., 40 Water St., Cuba, N.Y. 14727
00779	AMP Inc., P.O. Box 3608, Harrisburg, Pa. 17105
02145	The Richards Corporation, 1545 Spring Hill Rd., P.O. Drawer 340, McLean, Virginia 22101
03296	Nylon Molding Corp., 40 Brown St., Springfield, N.J. 07081
06175	Bausch & Lomb, Inc., 635 South Paul St., Rochester, N.Y. 14602
07886	National Radio Co., Inc., Commercial Products Div., 37 Washington St., Melrose, Mass. 02176
08863	Nylomatic Corp., Nolan Ave., Norrisville, Pa. 19067
14438	The Mylok Co., Division of USM Corp., 3730 W. Morse, Lincolnwood, Ill. 60645
15605	Cutler-Hammer, Inc., Milwaukee, Wis.
16428	Belden Corp. P.O. Box 341, Richmond, Ind. 47374
18321	T & B Precision Products Co., Inc., St. Petersburg, Fla.
24011	Electronized Chemical Corp., S. Bedford St., P.O. Box 57, Burlington, Mass. 01803
26002	Thompson Industries Limited, 1900 W. 144th St., Gardena, Calif. 90249
27545	Hartford Universal Co., 1022 Elm St., Rocky Hill, Conn. 06067
44560	Ohio Gear Div. of Townmotor Corp., 1333 E. 179th, Cleveland, Ohio 44110

<i>Code</i>	<i>Manufacturer</i>
56289	Sprague Electric Co., Marshall St., North Adams, Mass. 01247
70138	Aero & Corry, Div. of Aero & Flow Dynamics, Inc., 611 W. Main St., Corry, Pa. 16407
70276	Allen Mfg. Co., Box 570, Hartford, Conn. 06101
70485	Atlantic India Rubber Works, Inc., Chicago, Ill. 60607
76901	Beemer Engineering Co., Industrial Park, Fort Washington, Pa. 19034
71041	Boston Gear Works, Div. of N. American Rockwall Corp., 14 Hayward St., Quincy, Mass. 02171
71400	Bussmann Mfg. Division of McGraw & Edison Co., 2536 W. University St., St. Louis, Mo. 63017
71785	Cinch Mfg. Co., Howard B. Jones Div., 1026 S. Homan Ave., Chicago, Ill. 60624
72625	Amsted Industries, Inc., Diamond Chain Co. Div., 402 Kentucky Ave., Indianapolis, Ind. 46207
72962	Elastic Stop Nut Corp. of America, 2330 Vauxhall Rd., Union, N.J. 07083
73445	Amperex Electronic Corp., 230 Duffy Ave., Hicksville, Long Island, N.Y. 11801
73957	Groov-Pin Corp., 1125 Hendricks Causeway, Ridgefield, N.J. 07657
73975	Hamanacher Schlemmer & Co., Inc., 145 E. 57th, New York, N.Y. 10022
75495	Laminated Shim Co., 48 Union St., Glenbrook, Conn. 06906
75915	Littlefuse, Inc., 800 E. Northwest Hwy., Des Plaines, Ill. 60016
76005	Lord Mfg. Co., Lord Corp., 1635 W. 12th, Erie, Pa. 16512
77122	Palnut Co., Mountainside, N.J. 07092
78643	J. J. Tourek, 1901 S. Kilbourn Ave., Chicago, Ill. 60623
81348	Federal Specifications, Promulgated by General Services Administration
81349	Military Specifications, Promulgated by Standardization Div.

<i>Code</i>	<i>Manufacturer</i>	<i>Code</i>	<i>Manufacturer</i>
	Directorate of Logistic Services, DSA	94197	Curtiss-Wright Corp., Electronics Div., 315 Market St., East Pat- erson, N.J. 07407
81640	Controls Co. of America, Control Switch Div., 1420 Delmar Drive, Folcroft, Pa. 19032	94882	Jergens Tool Specialty Co., 19520 Nottingham Rd., Cleveland, Ohio 44110
83086	New Hampshire Ball Bearing, Inc., Peterborough, N.H. 03458	96881	Thomson Industries, Inc., 1029 Plaudome Rd., Manhasset, N.Y. 11030
83330	Herman H. Smith, Inc., 812 Sned- iker Ave., Brooklyn, N.Y. 11207	96906	Military Standards Promulgated by Standardization, Div. Direc- torate of Logistic Services, DSA
84256	Audel, Inc., 212 S. Victory Blvd., Burbank, Calif. 91503	98003	Nielsen Hardware Corp., 770 Weathersfield Ave., Hartford, Conn.
84830	Lee Spring Co., Inc., 30 Main St., Brooklyn, N.Y. 11201	99041	The Miniclutch Co., 375 Morse St., Hamden, Conn. 06514
88044	Aeronautical Standards Group, Dept. of Navy & Air Force		
92830	Wallace Barnes, Div. of Asso- ciated Spring Corp., 18 Main St., Bristol, Conn. 06012		

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					G--O-S A001	6675-235-4506	VIEWER, STEREOSCOPE, AR133A: SME689309; (94197)	EA	1					
G--O-S A002		..LIGHT TABLE ASSEMBLY, MIM5A: D18505; (02145)	EA	1										
X2-F A003		..RETAINER, SLIDE: D16919-1; (02145)	EA	1								3-8	59	
X2-F A004		..RETAINER, SLIDE: D16919-2; (02145)	EA	1								3-8	60	
A--F-S A005		..PLATE SUBASSEMBLY: D17573-2; (02145)	EA	1										
X2-F A006		..MAGAZINE, CHAIN: D17340-1; (02145)	EA	1										
X2-F A007		..MAGAZINE, CHAIN: D17340-2; (02145)	EA	1										
X2-F A008		..PLATE, CHAIN GUIDE: C17321; (02145)	EA	1										
X2-F A009		..GUIDE, CENTER: B17379; (02145)	EA	1										
X2-F A010		..GUIDE, CHAIN, UPPER: B17368; (02145)	EA	2										
X2-F A011		..GUIDE, CHAIN, UPPER: SAME AS A010	EA	REF										
X2-F A012		..GUIDE, CHAIN, LOWER: B17367; (02145)	EA	2										
X2-F A013		..GUIDE, CHAIN, LOWER: SAME AS A012	EA	REF										
P--F A014	3120-324-6424	..BEARING, FLANGED: FB46-2; (71041)	EA	3	1	3	5	1	1	1	46	27		
P--F A015	3120-324-6424	..BEARING, FLANGED: SAME AS A014	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A016	3120-324-6424	..BEARING, FLANGED: SAME AS A014	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A017	5315-844-5644	..PIN, SPRING: MS16562-194; (96906)	EA	2	1	2	3	1	1	1	33	18		
P--F A018	5305-208-4861	..SCREW, MACHINE: MS35223-27; (96906)	EA	27	2	4	7	1	1	2	83	56		
P--F A019	5305-959-1082	..SCREW, CAP, SOCKET HEAD: MS16995-18; (96906)	EA	6	2	3	6	1	1	2	83	56		
P--F A020	5305-990-6381	..SCREW, CAP, SOCKET, HEAD: MS16995-19; (96906)	EA	2	2	4	8	1	1	2	164	125		
X2-F A021		..GUIDE, CHAIN: A17426; (02145)	EA	2										
X2-F A022		..GUIDE, CHAIN: SAME AS A021	EA	REF										
X2-F A023		..GUIDE, RETRACT ROLLER: B17587; (02145)	EA	1										
X2-F A024		..PLATE, FRONT: C18349; (02145)	EA	1										
X2-F A025		..PLATE, END: D18277-1; (02145)	EA	1										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) USABLE ON CODE	(5) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS		
						(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)	
						1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION	
X2-F A026		..PLATE, END: D18277-2; (02145)		EA	1											
M--D A027		...COVER, POWER BOX: D18372; (02145)		EA	1								3-8	32		
A--O-S A028		..MOUNTING STRIP: D18503; (02145)		EA	1											
X2-F A029		..SCREW, MACHINE: 200036-6; (02145)		EA	2											
M--D A030		..STRIP, MOUNTING: D18371; (02145)		EA	1											
M--D A031		..LABEL: E18495; (02145)		EA	1											
P--F A032	5905-542-9440	...RESISTOR, VARIABLE: RV4NBYSD503A; (81349)		EA	1	*	1	2	*	1	1	16		8		
P--O A033	5355-556-0151	...KNOB: MS91528-1D2B; (96906)		EA	1	*	1	2	*	1	1	19		10		
P--F A034	5930-296-9034	...SWITCH, TOGGLE: 8363K7; (15605)		EA	1	1	3	5	1	1	1	46		30		
P--F A035	5920-892-9311	...FUSEHOLDER: FHN26G1; (71400)		EA	2	2	2	2	1	1	2	59		40		
P--F A036	5920-892-9311	...FUSEHOLDER: SAME AS A035		EA	REF	REF	REF	REF	REF	REF	REF	REF		REF		
P--O A037	5920-050-4953	...FUSE, CARTRIDGE: FO2A250V1 1-2A; (81349)		EA	1	2	6	11	1	2	3	130		100		
P--O A038	5920-280-4998	...FUSE, CARTRIDGE: 312008; (75915)		EA	1	2	6	11	1	2	3	130		100		
A--F-- A039		..CARRIAGE ASSEMBLY: D18523; (02145)		EA	1											
P2-F-S A040		...CARRIAGE ASSEMBLY, X TRAVEL: D18521; (02145)		EA	1	*	*	1	*	*	1	8		3		
X2-F A041		...RAIL ASSEMBLY, X TRAVEL: B16991-3; (02145)		EA	1									3-5	61	
P--F A042	5305-958-6517	...SCREW, CAP, SOCKET HEAD: MS16996-12; (96906)		EA	8	2	5	10	1	1	3	107	80	3-5	58	
X2-F A043		....PIN, SPIRAL: MS51923-197; (96906)		EA	4											
X2-F A044		....ROD: A18608-2; (02145)		EA	4											
X2-F A045		....ROD: SAME AS A044		EA	REF											
X2-F A046		....ROD: SAME AS A044		EA	REF											
X2-F A047		....ROD: SAME AS A044		EA	REF											
X2-F A048		....RAIL: B18370; (02145)		EA	1											
X1-F A049		...BEARING HOUSING ASSEMBLY: C18517; (02145)		EA	1									3-5	17	
X1-F A050		...CHANNEL: B18368; (02145)		EA	1									3-5	35	

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

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY GS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR AL PER 100 EQUIP CNTGCTY	(9) DEPOT MAINT AL PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P--F A051		.....CHAIN ASSEMBLY: B1694-1; (02145)	EA	1	*	*	1	*	*	1	8	3	3-5	42
X1-F A052		.....LINK: A16762; (02145)	EA	1										
X1-F A053		.....CHAIN: B1694-3; (02145)	EA	1										
P--F A054	5315-847-3735	.....PIN, SPRING: MS16562-190; (96906)	EA	2	1	2	3	1	1	1	33	16		
M--D A055		.....SPACER, SLEEVE: A16916-2; (02145)	EA	1									3-5	18
P--F A056	5305-988-7605	.....SCREW, CAP, SOCKET HEAD: MS16995-29; (96906)	EA	1	2	3	6	1	1	2	71	50	3-5	21
X2-F A057	6740-249-8801	.....PLATE, BEARING BACK UP: B12142; (02145)	EA	1									3-5	23
P--F A058	5305-959-1082	.....SCREW, CAP, SOCKET HEAD: SAME AS A019	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	3-5	20
X2-F A059		.....SETSCREW: 200545-6; (02145)	EA	2									3-5	19
P--F A060	6740-415-2567	.....LINEAR BALL BEARING ASSEMBLY: C12320-2; (02145)	EA	1	1	3	5	1	1	1	53	32	3-5	22
X2-F A061		.....SCREW, CAP, SOCKET HEAD: 4-40X1.5SST; (70138)	EA	2									3-5	24
P--F A062	5310-595-6211	.....WASHER, FLAT: MS15795-803; (96906)	EA	2	2	4	7	1	1	2	77	54		
P--F A063		.....LINEAR BALL BEARING ASSEMBLY: SAME AS A060	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-5	22
X2-F A064		.....SCREW, CAP, SOCKET HEAD: SAME AS A061	EA	2									3-5	24
P--F A065	5310-595-6211	.....WASHER, FLAT: SAME AS A062	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A066		.....SCREW, CAP, SOCKET HEAD: 6-32X7-16SST; (70276)	EA	4										
P--F A067	5360-422-1729	.....SPRING, HELICAL: A17253; (02145)	EA	2	*	1	2	*	1	1	19	10		
P--F A068	5360-422-1729	.....SPRING, HELICAL: SAME AS A067	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A069	6740-246-8013	.....DRAG BRAKE ASSEMBLY: B12139; (02145)	EA	1	*	1	1	*	1	1	13	6	3-5	25
P--F A070	6740-249-8800	.....PLUNGER: B12133; (02145)	EA	1	*	*	1	*	*	1	10	4		
X1-F A071		.....RETAINER, SPRING: B12137; (02145)	EA	1										
X1-F A072		.....HOUSING: B12138; (02145)	EA	1										
X2-F A073	5340-825-5906	.....INSERT, SCREW, THREAD: HS25020-12; (73957)	EA	1										
X2-F A074		.....THUMBSCREW: PT25; (94882)	EA	1										
X2-F A075	5340-954-1141	.....SPRING, HELICAL, COMPRESSION: LC055F3; (34830)	EA	1										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS USABLE ON CODE	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					P--F A076	5305-543-2188SCREW, MACHINE: MS35223-32; (96906)	EA	12	2			4	7	1	1	2	83	60
P--F A077		.....BRUSH ASSEMBLY: A17220; (02145)	EA	1	2	5	10	1	1	3	107	80		
XI-F A078		.....BRUSH: A17218; (02145)	EA	1										
XI-F A079		.....PIN, SPRING: 200596-12; (02145)	EA	1										
P--F A080		.....BRUSH ASSEMBLY: SAME AS A077	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
XI-F A081		.....BRUSH: SAME AS A078	EA	1										
XI-F A082		.....PIN, SPRING: SAME AS A079	EA	1										
M--D A083		.....PLATE, BACK-UP: A17272; (02145)	EA	1									3-5	26
P--F A084	5340-222-8562	.....CLAMP, LOOP 833; (83330)	EA	1	*	1	1	*	1	1	12	5		
P--F A085	5305-637-7079	.....SCREW, MACHINE: MS35223-26; (96906)	EA	1	3	7	13	1	2	3	153	120		
P--F A086	5310-167-0816	.....WASHER, FLAT: AN960-6; (88044)	EA	1	1	3	5	1	1	1	53	36		
P--F A087	5325-202-1612	.....STUD, SNAP FASTENER: MS21326-1; (96906)	EA	1	1	1	2	1	1	1	27	12		
P--F A088	6150-478-6229	.....BUS BAR: BL7266; (02145)	EA	1	*	*	1	*	*	1	10	4	3-5	54
P--F A089	5305-958-6517	.....SCREW, CAP, SOCKET HEAD: SAME AS A042	EA	8	REF	REF	REF	REF	REF	REF	REF	REF	3-5	60
M--D A090		.....PLATE: B16841; (02145)	EA	2									3-5	59
M--D A091		.....PLATE: SAME AS A090	EA	REF									3-5	59
P--F A092	5305-051-6751	.....SCREW, CAP, SOCKET HEAD: MS16995-16; (96906)	EA	4	2	3	6	1	1	2	59	40	3-5	2
P--F A093	5340-120-1881	.....CATCH: SCB83314-2SS; (98003)	EA	2	1	2	3	1	1	1	33	20	3-5	1
P--F A094	5340-120-1881	.....CATCH: SAME AS A093	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-5	1
X2-F A095		.....SCREW, CAP, SOCKET HEAD: 8-32X1-4SHSST; (70276)	EA	4									3-5	12
M--D A096		.....GUIDE: A16731-1; (02145)	EA	1										
M--D A097		.....GUIDE: A16731-2; (02145)	EA	1									3-5	11
P--F A098	5305-990-6381	.....SCREW, CAP, SOCKET HEAD: SAME AS A320	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-5	9
P--F A099	5340-209-9371	.....BUMPER, RUBBER: 381; (70485)	EA	2	2	3	6	1	1	2	59	40	3-5	8
P--F A100	5340-209-9371	.....BUMPER, RUBBER: SAME AS A099	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-5	8

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS USABLE ON CODE	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
X2-F A101		....SHAFT, SPROCKET: B16868; (02145)	EA	1								3-5	49	
P--F A102	5310-809-4058	....WASHER, FLAT: MS27183-10; (95906)	EA	1	*	*	1	*	*	1	8	3	3-5	51
P--F A103	5315-826-3251	....PIN, SPRING: MS16562-223; (96906)	EA	1	*	*	*	*	*	*	5	2		
P--F A104	53110-250-2099	....BEARING, BALL, FLANGED: SFR183PK25; (83086)	EA	4	1	3	5	1	1	1	53	32	3-5	31
P--F A105	53110-250-2099	....BEARING, BALL, FLANGED: SAME AS A104	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-5	31
P--F A106	53110-250-2099	....BEARING, BALL, FLANGED: SAME AS A104	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-5	38
P--F A107	53110-250-2099	....BEARING, BALL, FLANGED: SAME AS A104	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-5	38
P--F A108	5340-298-6564	....RING, RETAINING: MS16624-4-25; (96906)	EA	2	2	6	11	1	2	3	118	90	3-5	40
P--F A109	5305-637-7079	....SCREW, MACHINE: SAME AS A085	EA	5	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A110	5930-296-9034	....SWITCH, TOGGLE: SAME AS A034	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-5	7
M--D A111		....BRACKET, SWITCH: B16946; (02145)	EA	1									3-5	5
P--F A112	5340-103-0689	....SPACER, SLEEVE: W5712; (08863)	EA	2	*	1	1	*	1	1	13	6	3-5	10
P--F A113	5340-103-0689	....SPACER, SLEEVE: SAME AS A112	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-5	10
P--F A114		....SPROCKET ASSEMBLY: B16867-4; (02145)	EA	1	*	*	1	*	*	1		3	3-5	50
..2-F A115		....SCREW, BUTTON HEAD: SCREWDSST8-32X7-8; (70276)	EA	1									3-5	47
P--F A116	5310-685-3744	....WASHER, FLAT: AN96008; (86044)	EA	1	1	1	2	1	1	1	27	15	3-5	48
M--D A117		....BLOCK: B16761; (02145)	EA	1									3-5	46
P--F A118		....CLUTCH ASSEMBLY: B16865-3; (02145)	EA	1	*	*	1	*	*	1	8	3	3-5	39
P--F A119	5310-275-1993	....NUT, SELF-LOCKING, HEXAGON: 22NM02; (72962)	EA	1	1	2	3	1	1	1	33	20	3-5	41
X1-F A120		....SHAFT, STRAIGHT: B16808; (02145)	EA	1										
P--F A121		....GEAR ASSEMBLY: B16860; (02145)	EA	1	1	2	3	1	1	1	33	20		
X2-F A122		....WASHER, FLAT: A16765; (02145)	EA	1										
X1-F A123		....SPACER, SLEEVE: A16766; (02145)	EA	2										
X1-F A124		....SPACER, SLEEVE: SAME AS A123	EA	REF										
X1-F A125		....GEAR, MODIFIED: A16769; (02145)	EA	1										

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

(1) SNR 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			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALM PER 100 EQUIP ENTGCTY	(9) DEPOT MAINT ALM PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
X1-F A126		.....ARMATURE, CLUTCH: A16835; (02145)	EA	1										
P--F A127	3120-725-6598	.....BEARING, SLEEVE: B46-3; (71041)	EA	1	*	1	2	*	1	1	27	15		
P--F A128	5310-167-0797	.....WASHER, FLAT: AN960C3; (88044)	EA	2	1	1	2	1	1	1	27	12		
X2-F A129	5305-531-9520	.....SCREW, MACHINE: MS35233-2; (96906)	EA	2										
P--F A130	5205-068-5411	.....SCREW, CAP, SOCKET HEAD: MS16995-3; (96906)	EA	2	1	2	3	1	1	1	59	20		
M--D A131		.....BUSHING, CLUTCH: A18623; (02145)	EA	1										
X2-F A132		.....ROTOR, MODIFIED: A18381; (02145)	EA	1										
X1-F A133		.....FIELD: FG1-1022-904; (27780)	EA	1										
X2-F A134		.....WASHER, FLAT: VH6-2000-942; (27780)	EA	1										
X1-F A135		.....COLLAR, CLUTCH: FG1-1024-901; (27780)	EA	1										
P--F A136	5315-753-3892	.....PIN, SPRING: MS16562-216; (96906)	EA	1	*	*	1	*	*	1	10	4		
X1-F A137		.....SPACER, CLUTCH: A16915; (02145)	EA	1										
P--F A138	5305-988-7602	.....SCREW, CAP, SOCKET HEAD: MS16995-26; (96906)	EA	2	6	12	22	2	3	6	270	210	3-5	44
P--F A139	5310-685-3744	.....WASHER, FLAT: SAME AS A116	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-5	45
X2-F A140		.....PLATE: A16737-2; (02145)	EA	1									3-5	43
P--F A141	5355-419-1019	.....KFOB: A17165; (02145)	EA	1	1	2	3	1	1	1	33	20	3-5	29
P--F A142		.....PINION ASSEMBLY: B16874; (02145)	EA	1	*	*	1	*	*	1	8	3	3-5	32
P--F A143	5310-275-1993	.....NUT, SELF-LOCKING, HEXAGON: SAME AS A119	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-5	34
X1-F A144		.....SHAFT, STRAIGHT: B16814; (02145)	EA	1										
P--F A145	3020-640-4476	.....GEAR, WORM: HDTH; (71041)	EA	1	1	1	2	1	1	1	27	12		
X1-F A146	5315-550-5011	.....PIN, SPRING: MS16562-200; (96906)	EA	1										
P--F A147	5310-262-5076	.....NUT, PLAIN, HEXAGON: MS20341-6B; (96906)	EA	4	1	1	2	1	1	1	27	12		
P--F A148	5340-807-6638	.....CLAMP, LOOP: 1471; (83330)	EA	1	*	*	1	*	*	1	8	3	3-5	36
P--F A149	5940-283-5280	.....TERMINAL, LUG: 320561; (00779)	EA	1	*	*	1	*	*	1	8	3	3-5	52
P--F A150	5305-207-2788	.....SCREW, MACHINE: A18632; (02145)	EA	4	1	1	2	1	1	1	27	12		

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNT&CY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
M--D A151		...TERMINAL, BLOCK: B16767; (02145)	EA	2									3-5	1
M--D A152		...TERMINAL, BLOCK: SAME AS A151	EA	REF									3-5	3
M--D A153	5930-514-7576	...PLATE, DESIGNATION: 508; (83330)	EA	1										
X2-F A154		...BUTTON ASSEMBLY: A17166; (02145)	EA	1										
P--F A155		...BUTTON: A17167; (02145)	EA	1	1	1	2	1	1	1	13	6		
P--F A156	3120-662-8185	...BEARING, SLEEVE: FB35-3; (71041)	EA	1	2	4	8	1	1	2	101	75		
P--F A157	5315-402-2621	...PIN, SPRING: MS59231-196; (96906)	EA	1	1	1	2	1	1	1	27	12		
P--F A158	5310-045-4007	...WASHER, LOCK: MS35338-41; (96906)	EA	1	*	*	1	*	*	1	8	3	3-5	58
P--F A159	5940-471-8796	...TERMINAL STRIP: A17215; (02145)	EA	1	*	*	1	*	*	1	8	3	3-5	56
P--F A160	5910-241-9589	...CAPACITOR, FIXED, PAPER, DIELECTRIC: C426ARF80; (73445)	EA	1	1	1	2	1	1	1	27	12	3-5	55
X2-F A161		...SCREW, CAP, SOCKET HEAD: SCRCAPSCSST6-32X1; (70138)	EA	4									3-5	4
A--F A162		...CATCH ASSEMBLY: B18513; (02145)	EA	1									3-5	13
M--D A163		...CATCH: A18375; (02145)	EA	1										
P--F A164		...SPRING, HELICAL, EXTENSION: LE052D3; (84830)	EA	1	1	2	3	1	1	1	46	27		
X2-F A165		...BRACKET: A18376-1; (02145)	EA	1									3-5	14
P--F A166	5305-208-4861	...SCREW, MACHINE: SAME AS A018	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-5	15
P--F A167	5310-167-0816	...WASHER, FLAT: SAME AS A086	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-5	16
P--F A168	5305-988-7605	...SCREW, CAP, SOCKET HEAD: SAME AS A056	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
P2-F-S A169		...CARRIAGE ASSEMBLY, Y TRAVEL: R18522; (02145)	EA	1	*	*	1	*	*	1	8	3		
X2-F A170		...GUIDE: A16732; (02145)	EA	2									3-6	6
X2-F A171		...GUIDE: SAME AS A170	EA	REF									3-6	6
M--D A172		...COVER, CONNECTOR: A16768; (02145)	EA	2									3-6	36
M--D A173		...COVER, CONNECTOR: SAME AS A172	EA	REF									3-6	36
M--D A174		...HOUSING, CONNECTOR: B16834; (02145)	EA	2									3-6	37
M--D A175		...HOUSING, CONNECTOR: SAME AS A174	EA	REF									3-6	37

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALM PER 100 EQUIP	(9) DEPOT MAINT 100 EQUIP	(10) ILLUS. RATIOS	
					(a)	(b)	(c)	(a)	(b)	(c)	FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION		
					1-20	21-50	51-100	1-20	21-50	51-100				
M-D A176		....BAR: B18377; (02145)	EA	2								3-6	58	
M-D A177		....BAR: SAME AS A176	EA	REF								3-6	58	
P-F A178		....ROD, STABILIZER: A16564-2; (02145)	EA	1	*	*	1	*	*	1	8	3	3-6	62
M-D A179		....BUMPER PLATE: A12176; (02145)	EA	2									3-6	11
M-D A180		....BUMPER, PLATE: SAME AS A179	EA	REF									3-6	11
P-F A181		....CLUTCH ASSEMBLY: B16902; (02145)	EA	1	*	*	1	*	*	1	8	3	3-6	24
P-F A182	5310-275-1993	....NUT, SELF-LOCKING, HEXAGON: SAME AS A119	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-6	25
X1-F A183		....SHAFT, STRAIGHT: A16849; (02145)	EA	1										
P-F A184		....GEAR ASSEMBLY: B16860; (02145)	EA	1	*	1	1	*	1	1	13	6		
X2-F A185		.....WASHER, FLAT: SAME AS A122	EA	1										
X1-F A186		.....SPACER, SLEEVE: SAME AS A123	EA	2										
X1-F A187		.....SPACER, SLEEVE: SAME AS A123	EA	REF										
X1-F A188		.....GEAR, MODIFIED: SAME AS A125	EA	1										
X1-F A189		.....ARMATURE, CLUTCH: SAME AS A126	EA	1										
P-F A190	53120-725-6598	.....REARING, SLEEVE: SAME AS A127	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P-F A191	5310-167-0797	.....WASHER, FLAT: SAME AS A128	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A192	5305-531-9520	.....SCF W, MACHINE: SAME AS A129	EA	2										
P-F A193	5305-068-5411	.....SCREW, CAP, SOCKET HEAD: SAME AS A130	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
M-D A194		....SPACER, CLUTCH: A16764-1; (02145)	EA	1										
X2-F A195		....ROTOR, MODIFIED: SAME AS A132	EA	1										
X1-F A196		....FIELD: SAME AS A133	EA	1										
X2-F A197		....WASHER, FLAT: SAME AS A134	EA	1										
X1-F A198		....COLLAR, CLUTCH: SAME AS A135	EA	1										
P-F A199	53315-753-3892	....PIN, SPRING: SAME AS A136	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
X1-F A200		....HOUSING, Y FINE FEED: B16738; (02145)	EA	1									3-6	18

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

(1) SHR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCV	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					1-20	21-50	51-100	1-20	21-50	51-100				
X1-F A201		....BLOCK: B15016-2; (02145)	EA	2									3-6	67
X1-F A202		....BLOCK: SAME AS A201	EA	REF									3-6	67
P--F A203		....SPROCKET, MODIFIED: B16296-1; (02145)	EA	2	*	1	1	*	1	1	13	6	3-6	33
P--F A204		....SPROCKET, MODIFIED: SAME AS A203	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	55
P--F A205		....SPROCKET, MODIFIED: B16296-2; (02145)	EA	2	*	1	1	*	1	1	13	6	3-6	31
P--F A206		....SPROCKET, MODIFIED: SAME AS A205	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	52
A--F A207		....CHAIN ASSEMBLY: B16895; (02145)	EA	1									3-6	27
P--F A208	5305-988-7601	....SCREW, CAP, SOCKET HEAD: MS16995-25; (96906)	EA	2	5	10	18	1	3	5	220	171	3-6	28
P--F A209		....CHAIN: B16994-1; (02145)	EA	1	*	1	1	*	1	1	13	6		
M--D A210		....BLOCK: A16746; (02145)	EA	2										
M--D A211		....BLOCK: A16760; (02145)	EA	2										
P--F A212	5315-847-3735	....PIN, SPRING: SAME AS A054	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
A--F A213		....CHAIN ASSEMBLY: SAME AS A207	EA	1									3-6	46
P--F A214	5305-988-7601	....SCREW, CAP, SOCKET HEAD: SAME AS A208	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-6	47
P--F A215		....CHAIN: SAME AS A209	EA	1										
M--D A216		....BLOCK: SAME AS A210	EA	1										
M--D A217		....BLOCK: SAME AS A211	E*	1										
P--F A218	5315-847-3735	....PIN, SPRING: SAME AS A054	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A219		....BRACKET: B16695; (02145)	EA	2									3-6	65
M--D A220		....BRACKET: SAME AS A219	EA	REF									3-6	65
M--D A221		....SHAFT: B16311; (02145)	EA	1									3-6	51
X1-F A222		....HOUSING: B18367-1; (02145)	EA	1									3-6	63
X2-F A223		....PLATE: B18369; (02145)	EA	1									3-6	44
X2-F A224		....PLATE: B16291-2; (02145)	EA	1									3-6	43
P--F A225		....PINION ASSEMBLY: B16873; (02145)	EA	1	*	*	1	*	*	1	8	3	3-6	20

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALMPER 100 EQUIP CATGCTY	(9) DEPOT MAINT ALMPER 100 EQUIP	(10) ILLUSTRATIONS		
					USABLE ON CODE	(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50			(c) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F A226	5340-298-6564	....RING, PETAINGING: SAME AS A108	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-6	22
P--F A227	5310-275-1993	....NUT, SELF-LOCKING, HEXAGON: SAME AS A119	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-6	23
X1-F A228		....SHAFT, STRAIGHT: B1679; (02145)	EA	1										
P--F A229	3020-640-4476	....CFAR, WORM: SAME AS A145	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
X1-F A230	5315-550-5011	....PIN, SPRING: SAME AS A146	EA	1										
M--D A231		....BUSHING, CLUTCH: SAME AS A131	EA	1										
P--F A232	5305-959-0382	....SCREW, CAP, SOCKET HEAD: MS16995-17; (96906)	EA	1	1	2	3	1	1	1	40	24		
P--F A233	5305-990-6381	....SCREW, CAP, SOCKET HEAD: SAME AS A020	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A234	5305-043-6476	....SCREW, MACHINE: MS35221-15; (96906)	EA	4	1	1	2	1	1	1	27	12		
P--F A235		....CATCH: SAME AS A093	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-6	4
P--F A236		....CATCH: SAME AS A093	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	4
P--F A237	5340-817-5516	....BUMPER: 16; (70485)	EA	2	*	1	1	*	1	1	13	6	3-6	8
P--F A238	5340-817-5516	....BUMPER: SAME AS A237	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	8
M--D A239		....STANDOFF: A18411; (02145)	EA	2									3-6	9
M--D A240		....STANDOFF: SAME AS A239	EA	REF									3-6	9
P--F A241	5305-272-3533	....SETSCREW: MS51023-49; (96906)	EA	6	1	2	3	1	1	1	33	18	3-6	66
X2-F A242		....CLAMP, HUB: L1-6; (71041)	EA	2									3-6	32
X2-F A243		....CLAMP, HUB: SAME AS A242	EA	REF									3-6	34
P--F A244		....BEARING, BALL, FLANGED: SFR43FK25; (83086)	EA	6	1	2	3	1	1	1	40	24	3-6	26
P--F A245		....BEARING, BALL, FLANGED: SAME AS A244	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	26
P--F A246		....BEARING, BALL, FLANGED: SAME AS A244	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	35
P--F A247		....BEARING, BALL, FLANGED: SAME AS A244	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	54
P--F A248		....BEARING, BALL, FLANGED: SAME AS A244	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	54
P--F A249		....BEARING, BALL, FLANGED: SAME AS A244	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	57
P--F A250		....BEARING, BALL, FLANGED: SAME AS A104	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-6	21

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY G. MAINT ALLOWANCE			(8) 1 YR ALM PER TGO EQUIP CMTGTY	(9) DEPOT MAINT ALM PER TGO EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					1-20	21-50	51-100	1-20	21-50	51-100				
P--F A251		....BEARING, BALL, FLANGED: SAME AS A104	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	21
P--F A252	5340-298-6564	....RING, RETAINING: SAME AS A108	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-6	50
P--F A253		....KNOB: SAME AS A141	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-6	17
P--F A254	5315-841-4442	....PIN, SPRING: M816562-224; (96906)	EA	1	*	*	1	*	*	1	8	3		
P--F A255	5310-949-6284	....WASHER, SPRING TENSION: B0375-015; (92830)	EA	14	1	2	3	1	1	1	65	42	3-6	30
P--F A256	5305-988-7605	....SCREW, CAP, SOCKET HEAD: SAME AS A056	EA	6	REF	REF	REF	REF	REF	REF	REF	REF	3-6	29
P--F A257		....SCREW, CAP, SOCKET HEAD: 8-32X1-5-8888ST; (70276)	EA	3									3-6	19
P--F A258	5305-959-1909	....SCREW, CAP, SOCKET HEAD: M816996-11; (96906)	EA	8	1	2	3	1	1	1	40	24	3-6	45
P--F A259	5305-637-7079	....SCREW, MACHINE: SAME AS A085	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	3-6	5
P--F A260		....SCREW, CAP, SOCKET HEAD: 6-32X7-8888ST; (70276)	EA	2									3-6	3
P--F A261		....SHAFT, BALL BUSHING: 440CS3-4X23-1-4; (26002)	EA	2	*	1	1	*	1	1	13	6	3-6	68
P--F A262		....SHAFT, BALL BUSHING: SAME AS A261	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	68
P--F A263	5305-988-7603	....SCREW, CAP, SOCKET HEAD: M816995-27; (96906)	EA	4	4	9	16	1	2	4	164	126	3-6	59
P--F A264	5340-209-9371	....BUMPER, RUBBER: SAME AS A099	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-6	1
P--F A265	5340-209-9371	....BUMPER, RUBBER: SAME AS A099	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-6	1
P--F A266	5325-202-1612	....STUD, SNAP FASTENER: SAME AS A087	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A267	5977-478-6207	....BRUSH ASSEMBLY: B18516; (02145)	EA	1	*	*	1	*	*	1	8	3	3-6	41
P--F A268	5305-990-6381	....SCREW, CAP, SOCKET HEAD: SAME AS A020	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-6	42
XI-F A269		....BRACKET: B18361; (02145)	EA	1										
XI-F A270		....HOUSING, BRUSH: B17847; (02145)	EA	1										
P--F A271		....BRUSH ASSEMBLY: SAME AS A077	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
XI-F A272		....BRUSH: SAME AS A078	EA	1										
XI-F A273		....PIN, SPRING: SAME AS A079	EA											
P--F A274		....BRUSH ASSEMBLY: SAME AS A077	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
XI-F A275		....BRUSH: SAME AS A078	EA	1										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS USABLE ON CODE	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCV	(9) DEPOT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
X1-F A276		.....PIN, SPRING: SAME AS A079	EA	1										
P--F A277	3110-444-3832	....BUSHING, BALL: ADJ12202688; (96861)	EA	4	1	1	2	1	1	1	27	12		
P--F A278	3110-444-3832	....BUSHING, BALL: SAME AS A277	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A279	3110-444-3832	....BUSHING, BALL: SAME AS A277	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A280	3110-444-3832	....BUSHING, BALL: SAME AS A277	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A281		....ANGLE: A16770; (02145)	EA	4									3-6	38
M--D A282		....ANGLE: SAME AS A281	EA	REF									3-6	38
M--D A283		....ANGLE: SAME AS A281	EA	REF									3-6	38
M--D A284		....ANGLE: SAME AS A281	EA	REF									3-6	38
P--F A285	5305-051-6785	....SCREW, CAP, SOCKET HEAD: SAME AS A092	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	3-6	5
M--D A286		....PLATE: B18412; (02145)	EA	1									3-6	14
X1-F A287		....SUPPORT, STABILIZER ROD: B17182-2; (02145)	EA	1									3-6	60
X2-F A288		....BUTTON ASSEMBLY: SAME AS A154	EA	1										
P--F A289		....BUTTON: SAME AS A155	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A290	3120-555-7544	....BEARING, SLEEVE: FB35-2; (71041)	EA	1	*	*	1	*	*	1	8	3		
P--F A291		.....PIN, SPRING: SAME AS A157	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A292	6740-246-8013	....DRAG BRAKE ASSEMBLY: SAME AS A069	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-6	13
P--F A293	5340-954-1141	....SPRING, HELICAL, COMPRESSION: SAME AS A075	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A294	5740-249-8800	....PLUNGER: SAME AS AC7)	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
X1-F A295		....HOUSING: SAME AS A072	EA	1										
X1-F A296		....INSERT: 25020-12; (14438)	EA	1										
X1-F A297		....RETAINER, SPRING: SAME AS A071	EA	1										
X2-F A298		....THUMSCREW: SAME AS A074	EA	1										
P--F A299	5305-988-7602	....SCREW, CAP, SOCKET HEAD: SAME AS A138	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A300		....SPACER: A18413; (02145)	EA	2									3-6	2

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
M--D A301		...SPACER: SAME AS A300	EA	REF									3-6	2
P2-F-S A302		...CARRIAGE ASSEMBLY, VERT TRAVEL: D16791; (02145)	EA	1	*	*	1	*	*	1	8	3		
X1-F A303		...SLIDE SUPPORT OPTICS: C16587; (02145)	EA	1									3-7	11
X1-F A304		...SUPPORT ASSEMBLY, VERT TRAVEL: C16996; (02145)	EA	1									3-7	12
P--F A305		...RING, OPTICS, OUTER: C16590; (02145)	EA	1	*	*	1	*	*	1	8	3	3-7	86
P--F A306		...RING, OPTICS, INNER: C16583; (02145)	EA	1	*	*	1	*	*	1	8	3	3-7	84
X1-F A307		...HOUSING, ELEVATING DRIVE: C16581; (02145)	EA	1									3-7	29
P--F A308		...LINEAR BALL BEARING ASSEMBLY: SAME AS A050	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-7	42
X2-F A309		...SCREW, CAP, SOCKET HEAD: SAME AS A061	EA	2									3-7	40
X1-F A310	5310-595-6211	...WASHER, FLAT: SAME AS A062	EA	2									3-7	41
P--F A311		...LINEAR BALL BEARING ASSEMBLY: SAME AS A060	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-7	42
X2-F A312		...SCREW, CAP, SOCKET HEAD: SAME AS A061	EA	2									3-7	40
X1-F A313	5310-595-6211	...WASHER, FLAT: SAME AS A062	EA	2									3-7	41
X2-F A314		...SHIM, CIRCULATING BEARING: B15778; (02145)	EA	1									3-7	43
X2-F A315		...BLOCK, IDLER, SLIDE: B16319; (02145)	EA	1									3-7	10
X2-F A316		...PLATE, ANCHOR: A15459; (02145)	EA	1									3-7	5
X2-F A317		...DISC, BRAKE: B16675; (02145)	EA	1									3-7	75
X2-F A318		...RING, BEARING TAKE UP: B16578; (02145)	EA	1									3-7	80
X2-F A319		...RACE, BEARING: B16748-2; (02145)	EA	2									3-7	85
X2-F A320		...RACE, BEARING: SAME AS A319	EA	REF									3-7	85
X1-F A321		...HOUSING, WORM GEAR: B16588; (02145)	EA	1									3-7	60
X2-F A322		...LOCK, OPTICS RING: A16775; (02145)	EA	1									3-7	79
X2-F A323		...LEVER, LOCK OPTICS RING: A16774; (02145)	EA	1									3-7	78
M--D A324		...CAP, INSULATING: SRC3; (24011)	EA	1										
X2-F A325		...SCREW, CAP, HEXAGON HEAD: 10-32X3-BHHCDPL; (70148)	EA	1										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F A326		....SPRING, BEARING STOP: A16776; (02145)	EA	1	*	*	1	*	*	1	8	3	3-7	77
M--D A327		....CAP, BEARING: A16554; (02145)	EA	2									3-7	54
M--D A328		....CAP, BEARING: SAME AS A327	EA	REF									3-7	54
M--D A329		....SHAFT, FINE FEED: A16580; (02145)	EA	1									3-7	54
M--D A330		....SHAFT, SPROCKET: A16566; (02145)	EA	1									3-7	68
M--D A331		....COVER, WORM GEAR HOUSING: A16589; (02145)	EA	1									3-7	48
X2-F A332		....SPACER, SPROCKET: A16556; (02145)	EA	1									3-7	67
P--F A333		....GEAR: A16567; (02145)	EA	1	*	*	1	*	*	1	8	3	3-7	62
P--F A334		....SPROCKET: A16557; (02145)	EA	1	*	*	1	*	*	1	8	3	3-7	64
P--F A335		....GEAR, WORM: A16562; (02145)	EA	1	*	*	1	*	*	1	8	3	3-7	31
X2-F A336		....SHAFT, WORM GEAR: A16654; (02145)	EA	1									3-7	35
X2-F A337		....SPINDLE, SHAFT, SPROCKET: A16357; (02145)	EA	1									3-7	17
P--F A338		....SPROCKET: N14B18; (72605)	EA	1	*	1	1	*	1	1	14	6	3-7	21
X2-F A339		....SHAFT ELEVATING, FAST FEED: A16579; (02145)	EA	1										
P--F A340	5315-177-7758	....PIN, SPRING: TYPE24-3-16X3-4; (73957)	EA	1	*	*	1	*	*	1	8	3		
P--F A341	5305-959-0379	....SCREW, CAP, SOCKET HEAD: MS16995-13; (96906)	EA	8	1	3	5	1	1	1	53	35	3-7	3
X2-F A342		....PIN, "TOP" A15914; (02145)	EA	1									3-7	1
P--F A343	5305-988-1721	....SCREW, MACHINE: MS35206-277; (96906)	EA	4	1	1	2	1	1	1	27	12	3-7	9
P--F A344	5305-978-9346	....SCREW, CAP, SOCKET HEAD: MS16997-18; (96906)	EA	2	*	1	1	*	1	1	13	6	3-7	76
P--F A345	5305-978-9348	....SCREW, CAP, SOCKET HEAD: MS16997-20; (96906)	EA	16	2	3	6	1	1	2	65	45	3-7	39
P--F A346	5305-068-5276	....SCREW, CAP, SOCKET HEAD: MS16995-9; (96906)	EA	2	1	1	2	1	1	1	27	12	3-7	4
P--F A347	5305-990-6381	....SCREW, CAP, SOCKET HEAD: NAME AS A020	EA	3	REF	REF	REF	REF	REF	REF	REF	REF	3-7	61
X2-F A348		....SCREW, CAP, SOCKET HEAD: MS16995-14; (96906)	EA	4										
P--F A349	5305-068-5415	....SCREW, CAP, SOCKET HEAD: MS16995-20; (96906)	EA	4	1	1	2	1	1	1	27	12	3-7	50
P--F A350	5305-656-0320	....SCREW, MACHINE: MS35206-39; (96906)	EA	2	*	1	1	*	1	1	13	6	3-7	12

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

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALHPER 100 EQUIP CATG	(9) DEPOT MAINT ALHPER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P--P A351	5305-638-2260	....SETScrew: MS51021-34; (96906)	EA	1	*	*	1	*	*	1	8	3	3-7	65
P--P A352	5305-272-3533	....SETScrew: SAME AS A241	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-7	72
P--P A353	5305-241-3120	....SETScrew: MS51023-48; (96906)	EA	1	*	*	1	*	*	1	8	3	3-7	73
P--P A354	5305-543-2671	....SETScrew: MS51029-51; (96906)	EA	4	1	1	2	1	1	1	27	12	3-7	45
P--P A355	5310-534-9743	....NUT, PLAIN, HEXAGON: MS35649-244; (96906)	EA	1	*	*	*	*	*	*	5	2	3-7	2
P--P A356		....SETScrew: 5-16-18X3-16SS; (70138)	EA	4	1	1	2	1	1	1	27	12		
P--P A357	5315-058-9731	....PIN, SPRING: MS16562-213; (96906)	EA	2	*	1	2	*	1	1	18	9	3-7	14
P--P A358		....BALL, STAINLESS: 25; (82086)	EA	71	5	11	20	1	3	5	242	.00	3-7	82
P--P A359	5340-865-0219	....PLUG, BUTTON: 653; (83330)	EA	1	*	*	1	*	*	1	8	3	3-7	71
P--P A360		....GEAR, WORM: HW3201; (44560)	EA	1	*	*	1	*	*	1	8	3	3-7	57
P--P A361		....BEARING, BALL, FLANGED: SAME AS A244	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-7	47
P--P A362		....BEARING, BALL, FLANGED: SAME AS A244	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-7	59
P--P A363		....GEAR, WORM: HDUE; (82086)	EA	1	*	*	1	*	*	1	8	3		
P--P A364	3120-787-9013	....BEARING, SLEEVE: 7846; (71041)	EA	5	1	1	2	1	1	1	27	15	3-7	26
P--P A365	3120-787-9013	....BEARING, SLEEVE: SAME AS A364	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-7	28
P--P A366	3120-787-9013	....BEARING, SLEEVE: SAME AS A364	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-7	36
P--P A367	3120-787-9013	....BEARING, SLEEVE: SAME AS A364	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--P A368	3120-787-9013	....BEARING, SLEEVE: SAME AS A364	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--P A369	5841-221-2899	....MESH CLATCH: EUS44K; (99041)	EA	1	*	*	1	*	*	1	8	3	3-7	33
P--P A370	5315-045-2561	....KEY, WOODRUFF: MS35756-22; (96906)	EA	1	1	1	2	1	1	1	27	15	3-7	34
P--P A371		....FRACKET ASSEMBLY, MODIFIED: 216967-2; (02145)	EA	1	*	*	1	*	*	1	8	3	3-7	8
P--P A372		....FRACKET: SAME AS A335	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--P A373	3120-461-4491	....BEARING, SLEEVE: 834-3; (71041)	EA	1	*	*	1	*	*	1	8	3		
P--P A374	3110-264-1402	....FEARING MAGAZINE: 2223; (27545)	EA	1	*	*	1	*	*	1	8	3	3-7	18
P--P A375		....SCREW, SPINNER: SP0175P; (07886)	EA	1									3-7	24

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALMPER 100 EQUIP CNTG	(9) DEPOT MAINT ALMPER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION		
					1-20	21-50	51-100	1-20	21-50	51-100				
X2-F A376		....KNOB: HRIMS2D; (07886)	EA	2									3-7	51
X2-F A377		....KNOB: SAME AS A376	EA	REF									3-7	51
P--F A378		....SWITCH, PUSHBUTTON: C1129R; (81640)	EA	1	*	*	1	*	*	1	8	3	3-7	69
P--F A379	3120-662-8185	....BEARING, SLEEVE: SAME AS A156	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	3-7	55
P--F A380	3120-662-8185	....BEARING, SLEEVE: SAME AS A156	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-7	55
P--F A381	3120-662-8185	....BEARING, SLEEVE: SAME AS A156	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-7	55
P--F A382	3120-662-8185	....BEARING, SLEEVE: SAME AS A156	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-7	55
P--F A383		....CHAIN, MODIFIED: B16994-2; (02145)	EA	1	*	*	1	*	*	1	6	3	3-7	49
P--F A384	5305-637-8249	....SCREW, MACHINE: MS35223-43; (96906)	EA	2	2	3	6	1	1	2	65	45	3-7	22
P--F A385	5305-988-7603	....SCREW, CAP, SOCKET HEAD: SAME AS A263	EA	4	REF	REF	REF	REF	REF	REF	REF	REF	3-7	50
X2-F A386		....BRACKET, BEARING, FAST FEED: A16569; (02145)	EA	1									3-7	27
X2-F A387		....SLEEVE, KNOB: A16569; (02145)	EA	2									3-7	52
X2-F A388		....SLEEVE, KNOB: SAME AS A387	EA	REF									3-7	52
P--F A389	5305-419-6733	....SCREW, KNURLED HEAD: A17259; (02145)	EA	2	*	1	1	*	1	1	13	6	3-7	70
X2-F A390	6740-249-8801	....PLATE, BEARING, BACK UP: SAME AS A057	EA	1									3-7	44
X2-F A391		....FACE, BEARING: B16748-1; (02145)	EA	2									3-7	81
X2-F A392		....FACE, BEARING: SAME AS A391	EA	REF									3-7	83
P--F A393	5315-039-5563	....FIN, SPRING: MS16562-211; (96906)	EA	1	*	*	1	*	*	1	8	3		
P--F A394	5315-058-9698	....FIN, SPRING: MS16562-191; (96906)	EA	1	*	*	1	*	*	1	8	3	3-7	56
P--F A395		....LINK, CONNECTING: CA04147CLO0; (72625)	EA	1	*	*	1	*	*	1	8	3	3-7	6
P--F A396	5340-720-8064	....RING, RETAINING: MS16624-1025; (96906)	EA	1	*	*	1	*	*	1	8	3	3-7	25
M--D A397		....PAD, HEEL, OPTICS: A16944; (02145)	EA	2									3-7	38
M--D A398		....PAD, HEEL, OPTICS: SAME AS A397	EA	REF									3-7	38
P--F A399	5305-013-3359	....SCREW, MACHINE: MS35241-19; (96906)	EA	2	*	1	1	*	1	1	13	6	3-7	37
M--D A400		....COILED CORD, MODIFIED: B16971-2; (02145)	EA	1										

SECTION II REPAIR PARTS FOR DIRECT SUPPORT, 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 MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					1-20	21-50	51-100	1-20	21-50	51-100				
P--F A401	5340-998-0612	...CLAMP, LOOP: MS25281F2; (96906)	EA	2	*	1	1	*	1	1	13	6		
P--F A402	5340-998-0612	...CLAMP, LOOP: SAME AS A401	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A403	5310-167-0816	...WASHER, FLAT: SAME AS A086	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A404	5310-771-3861	...WASHER, FLAT: AN960-416L; (88044)	EA	4	1	2	3	1	1	1	40	25	3-7	62
P--F A405	5310-914-8217	...FASTENER, PUSH NUT: PS188007; (77122)	EA	1	*	*	1	*	*	1	8	3	3-7	7
M--D A406		...HOUSING, CLUTCH: A26568; (02145)	EA	1									3-7	32
M--D A407		...SHAFT, ELEVATING, FAST FEED: SAME AS A339	EA	1										
M--D A408		...SHIM, LAMINATED: A17649; (02145)	EA	3										
X--F A409		...SCREW, CAP, SOCKET HEAD: SAME AS A066	EA	8										
P--F A410		...SPROCKET: A16328; (02145)	EA	2	*	1	1	*	1	1	13	6	3-7	21
P--F A411		...SPROCKET: SAME AS A410	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-7	21
M--D A412		...PLATE: B17858; (02145)	EA	1										
P--F A413	5305-959-0382	...SCREW, CAP, SOCKET HEAD: SAME AS A232	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A414	5305-959-0379	...SCREW, CAP, SOCKET HEAD: SAME AS A341	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
Z--F A415		...REAR PLATE SUBASSEMBLY: D17580-2; (02145)	EA	1										
Z--F A416		...MAGAZINE, CHAIN: SAME AS A006	EA	1										
Z--F A417		...MAGAZINE, CHAIN: SAME AS A007	EA	1										
Z--F A418		...PLATE, CHAIN GUIDE: SAME AS A008	EA	1										
Z--F A419		...GUIDE, CENTER: SAME AS A009	EA	1										
Z--F A420		...GUIDE, CHAIN, UPPER: SAME AS A010	EA	2										
Z--F A421		...GUIDE, CHAIN, UPPER: SAME AS A010	EA	REF										
Z--F A422		...GUIDE, CHAIN, LOWER: SAME AS A012	EA	2										
Z--F A423		...GUIDE, CHAIN, LOWER: SAME AS A012	EA	REF										
Z--F A424	3120-124-4404	...BEARING, SLEEVE: SAME AS A014	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
Z--F A425	3120-124-4404	...BEARING, SLEEVE: SAME AS A014	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALM PER 100 EQUIP	(9) DEPOT MAINT ALM PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)	CNTG	EQUIP	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					1-20	21-50	51-100	1-20	21-50	51-100				
P--F A426	5315-935-3553	...PIN, SPRING: 15-250-0500; (73975)	EA	2	*	1	1	*	1	1	13	6		
P--F A427	5305-639-4777	...SCREW, MACHINL: MS35233-27; (96906)	EA	27	2	4	8	1	1	2	101	75		
P--F A428	5305-959-1082	...SCREW, CAP, SOCKET HEAD: SAME AS A019	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A429	5305-990-6381	...SCREW, CAP, SOCKET HEAD: SAME AS A020	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A430		...GUIDE, CHAIN: SAME AS A021	EA	2										
X2-F A431		...GUIDE, CHAIN: SAME AS A021	EA	REF										
X2-F A432		...GUIDE: SAME AS A023	EA	1										
A--F-S A433		...STAGE ASSEMBLY: C17611-1; (02145)	EA	1										
P--O A434		...STAGE GLASS ASSEMBLY: C17481; (02145)	EA	1	1	2	3	1	1	1	40	25	3-8	42
X1-O A435		...STRIP: B17310-1; (02145)	EA	1										
X1-O A436		...STRIP: B17310-2; (02145)	EA	1										
X1-O A437		...CAP, STAGE END: B17370; (02145)	EA	1										
X1-O A438		...GLASS, STAGE: A16658; (02145)	EA	1										
X1-O A439		...CUSHION: B17585; (02145)	EA	2										
X1-O A440		...CUSHION: SAME AS A439	EA	REF										
X1-O A441		...DIFFUSER: A16657; (02145)	EA	1										
X1-O A442		...SPACER, DIFFUSER: A17625; (02145)	EA	1										
X2-F A443		...CAM, STAGE SHIFT: B17251; (02145)	EA	1										
X2-F A444	5303-984-7360	...SCREW, CAP, SOCKET HEAD: MS35191-268; (96906)	EA	3										
P--F A445		...ROLLER: B16689-1; (02145)	EA	1	*	1	1	*	1	1	13	6	3-8	40
P--F A446		...ROLLER: B16689-2; (02145)	EA	1	1	2	3	1	1	1	40	24	3-8	40
P--F A447		...ROLLER: B16689-3; (02145)	EA	1	*	1	1	*	1	1	13	6	3-8	40
X2-F A448		...SHAFT: A16928; (02145)	EA	1									3-8	40
F--F A449	3110-640-8166	...BEARING, BALL, ANNULAR: SFP168K25; (83086)	EA	6	4	9	16	1	2	4	187	150		
P--F A450	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		

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

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALM PER 100 EQUIP	(9) DEPOT MAINT ALM PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)	CNT	CY	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					1-20	21-50	51-100	1-20	21-50	51-100				
P-F A451	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P-F A452	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P-F A453	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P-F A454	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
E-F A455		...GUIDE, STAGE: D17303-1; (02145)	EA	1								3-8	41	
E-F A456		...GUIDE, STAGE: D17303-2; (02145)	EA	1								3-8	38	
P-F A457	5305-988-7602	...SCREW, CAP, SOCKET, HEAD: SAME AS A138	EA	10	REF	REF	REF	REF	REF	REF	REF	3-8	37	
P-F A458	5310-141-1795	...WASHER, FLAT: AN960-416; (88044)	EA	3	1	3	5	1	1	1	46	27	3-8	39
F-S A459		...STAGE ASSEMBLY: C17611-2; (02145)	EA	1										
F A460		...STAGE GLASS ASSEMBLY: SAME AS A434	EA	1	REF	REF	REF	REF	REF	REF	REF	3-8	48	
F A461		...STRIP: SAME AS A435	EA	1										
F A462		...STRIP: SAME AS A436	EA	1										
F A462		...STRIP: SAME AS A436	EA	1										
F A463		...CAP, STAGE END: SAME AS A437	EA	1										
F A464		...GLASS, STAGE: SAME AS A438	EA	1										
F A465		...CUSHION: SAME AS A439	EA	2										
F A466		...CUSHION: SAME AS A439	EA	REF										
F A467		...DIFFUSER: SAME AS A441	EA	1										
F A468		...SPACER, DIFFUSER: SAME AS A442	EA	1										
F A469		...CAM, STAGE SHIFT: SAME AS A443	EA	1										
F A470	5305-984-7360	...SCREW, CAP, SOCKET HEAD: SAME AS A444	EA	3										
F A471		...ROLLER: SAME AS A445	EA	1	REF	REF	REF	REF	REF	REF	REF	3-8	46	
F A472		...ROLLER: SAME AS A446	EA	1	REF	REF	REF	REF	REF	REF	REF	3-8	46	
F A473		...ROLLER: SAME AS A447	EA	1	REF	REF	REF	REF	REF	REF	REF	3-8	46	
F A474		...SHAFT: SAME AS A448	EA	1										
F A475	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	6	REF	REF	REF	REF	REF	REF	REF			

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100	CONTCY	FIG NO.	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F A476	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A477	3110-646-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A478	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A479	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A480	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A481		...GUIDE, STAGE: SAME AS A455	EA	-									3-8	47
X2-F A482		...GUIDE, STAGE: SAME AS A456	EA	1									3-8	44
X2-F A493	5305-988-7602	...SCREW, CAP, SOCKET HEAD: SAME AS A138	EA	10									3-8	43
P--F A484	5310-141-1795	...WASHER, FLAT: SAME AS A458	EA	3	REF	REF	REF	REF	REF	REF	REF	REF	3-8	45
X2-F A485		...RETAINER, REAR, MODIFIED: C18363; (02145)	EA	1										
A--F A486		...MASK MECHANISM SUBASSEMBLY: C18469-1; (02145)	EA	1										
P--F A487		...BAR AND ROLLER SUBASSEMBLY: C18502-1; (02145)	EA	1	*	*	1	*	*	1	8	3		
X2-F A488		...SHAFT, MASK: A18069; (02145)	EA	1										
P--F A489		...BAR SUBASSEMBLY: B18501; (02145)	EA	1	*	1	1	*	1	1	13	6		
X2-F A490		...BAR, LIGHT MASK: B18066; (02145)	EA	1										
X2-F A491		...LIGHT, MASK: B18324; (02145)	EA	1										
P--F A492		...PULLEY, MODIFIED: A18073; (02145)	EA	1	*	1	1	*	1	1	13	6		
P--F A493		...SPRING, HELICAL, EXTENSION: LE03407; (84830)	EA	1	*	1	1	*	1	1	13	6		
P--F A494		...SPRING, MOTOR: B17719; (02145)	EA	1	*	1	1	*	1	1	13	6		
X2-F A495	5310-994-6964	...NUT, FLAIN, HEXAGON: MS35650-83; (96906)	EA	1										
X2-F A496	5310-167-0878	...WASHER, LOCK, INTERNAL TOOTH: AN936A10; (88044)	EA	1										
X2-F A497		...RETAINER, REAR, MODIFIED: SAME AS A485	EA	1										
A--F A498		...MASK MECHANISM SUBASSEMBLY: C18469-2; (02145)	EA	1										
P--F A499		...BAR AND ROLLER SUBASSEMBLY: C18502-2; (02145)	EA	1	*	*	1	*	*	1	8	3		
X2-F A500		...SHAFT, MASK: SAME AS A488	EA	1										

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

(1) SHR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)	CNTG	CY	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					1-20	21-50	51-100	1-20	21-50	51-100				
P--F A501		...BAR SUBASSEMBLY: SAME AS A489	EA	1	REF	REF	REF	REF	REF	REF	REF			
X2-F A502		...LIGHT MASK: SAME AS A491	EA	1										
P--F A503		...PULLEY, MODIFIED: SAME AS A492	EA	1	REF	REF	REF	REF	REF	REF	REF			
P--F A504		...SPRING, HELICAL, EXLNSION: SAME AS A493	EA	1	REF	REF	REF	REF	REF	REF	REF			
P--F A505		...SPRING, MOTOR: SAME AS A494	EA	1	REF	REF	REF	REF	REF	REF	REF			
X2-F A506	5310-994-6964	...NUT, PLAIN, HEXAGON: SAME AS A495	EA	1										
X2-F A507	5310-167-0878	...WASHER, LOCK, INTERNAL TOOTH: SAME AS A496	EA	1										
A--F A508		...ROLLER SUBASSEMBLY: C18470; (02145)	EA	1								3-8	11	
X2-F A509		...SHAFT, STRAIGHT: A16670; (02145)	EA	1										
P--F A510		...SCREW, MACHINE: A17387; (02145)	EA	1	1	1	2	1	1	1	27	12		
X2-F A511		...RELEASE: A17404; (02145)	EA	1										
X2-F A512		...SPACER, SLEEVE: A17457; (02145)	EA	1										
P--F A513		...ROLLER, RETRACT: B16688-1; (02145)	EA	1	1	1	2	1	1	1	27	12		
P--F A514		...ROLLER, RETRACT: B16688-2; (02145)	EA	1	1	1	2	1	1	1	27	12		
P--F A515		...ROLLER: SAME AS A446	EA	1	REF	REF	REF	REF	REF	REF	REF			
X2-F A516		...SETSCREW: M551023-12; (96906)	EA	1										
X2-F A517		...WASHER, FLAT: 200612; (02145)	EA	1										
P--F A518	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	6	REF	REF	REF	REF	REF	REF	REF			
P--F A519	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A520	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A521	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A522	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A523	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A524		...SHELL: S0103L; (78643)	EA	1										
P--F A525		...SPRING, HELICAL, COMPRESSION: D0230D3; (84830)	EA	1	1	1	2	1	1	1	27	12		

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCT	(9) DEPOT MAINT 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
A--F A526		...ROLLER SUBASSEMBLY: SAME AS A508	EA	1									3-8	11
X2-F A527		...SHAFT, STRAIGHT: SAME AS A509	EA	1										
P--F A528		...SCREW, MACHINE: SAME AS A510	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A529		...RELEASE: SAME AS A511	EA	1										
X2-F A530		...SPACER, SLEEVE: SAME AS A512	EA	1										
P--F A531		...ROLLER, RETRACT: SAME AS A513	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A532		...ROLLER, RETRACT: SAME AS A514	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A533		...ROLLER: SAME AS A446	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A534		...SETScrew: SAME AS A516	EA	1										
X2-F A535		...WASHER, FLAT: SAME AS A517	EA	1										
P--F A536	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	6	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A537	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A538	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A539	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A540	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A541	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A542		...SHELL: SAME AS A524	EA	1										
P--F A543		...SPRING, HELICAL, COMPRESSION: SAME AS A525	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
A--F A544		...ROLLER, SUBASSEMBLY: SAME AS A508	EA	1									3-3	11
X2-F A545		...SHAFT, STRAIGHT: SAME AS A509	EA	1										
P--F A546		...SCREW, MACHINE: SAME AS A510	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A547		...RELEASE: SAME AS A511	EA	1										
X2-F A548		...SPACER, SLEEVE: SAME AS A512	EA	1										
P--F A549		...ROLLER, RETRACT: SAME AS A513	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A550		...ROLLER, RETRACT: SAME AS A514	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		

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

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY GS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION		
					1-20	21-50	51-100	1-20	21-50	51-100				
1-F 551		...ROLLER, RETRACT: SAME AS A446	EA	1	REF	REF	REF	REF	REF	REF	REF			
2-F 552		...SETScrew: SAME AS A516	EA	1										
2-F 553		...WASHER, FLAT: SAME AS A517	EA	1										
1-F 554	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	6	REF	REF	REF	REF	REF	REF	REF			
1-F 555	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
1-F 556	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
1-F 557	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
1-F 558	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
1-F 559	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
2-F 560		...SHELL: SAME AS A524	EA	1										
1-F 561		...SPRING, HELICAL, COMPRESSION: SAME AS A525	EA	1	REF	REF	REF	REF	REF	REF	REF			
1-F 562		...ROLLER SUBASSEMBLY: SAME AS A508	EA	1								3-8	11	
1-F 563		...SHAFT, STRAIGHT: SAME AS A509	EA	1										
1-F 564		...SCREW, MACHINE: SAME AS A510	EA	1	REF	REF	REF	REF	REF	REF	REF			
1-F 565		...RELEASE: SAME AS A511	EA	1										
1-F 566		...SPACER, SLEEVE: SAME AS A512	EA	1										
1-F 567		...ROLLER, RETRACT: SAME AS A513	EA	1	REF	REF	REF	REF	REF	REF	REF			
1-F 568		...ROLLER, RETRACT: SAME AS A514	EA	1	REF	REF	REF	REF	REF	REF	REF			
1-F 569		...ROLLER: SAME AS A446	EA	1	REF	REF	REF	REF	REF	REF	REF			
1-F 570		...SETScrew: SAME AS A516	EA	1										
1-F 571		...WASHER, FLAT: SAME AS A517	EA	1										
1-F 572	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	6	REF	REF	REF	REF	REF	REF	REF			
1-F 573	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
1-F 574	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
1-F 575	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALM PER 100 EQUIP	(9) DEPOT MAINT ALM PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100	CNT&CY	EQUIP	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F A576	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A577	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
X2-F A578		...SHELL: SAME AS A524	EA	1										
P--F A579		...SPRING, HELICAL, COMPRESSION: SAME AS A525	EA	1	REF	REF	REF	REF	REF	REF	REF			
P--F A580		...LIGHT GRID ASSEMBLY: C18473-1; (02145)	EA	1	*	*	1	*	*	1	8	3	3-8	50
X2-F A581	5305-068-8431	...SCREW, CAP, SOCKET HEAD: MS16996-13; (96906)	EA	5										
P--F A582		...LIGHT GRID ASSEMBLY: C18473-2; (02145)	EA	1	*	*	1	*	*	1	8	3	3-8	49
X2-F A583	5305-068-8431	...SCREW, CAP, SOCKET HEAD: SAME AS A581	EA	5										
A--F A584		...T-RAIL ASSEMBLY QUICK RELEASE: C18504; (02145)	EA	1										
X2-F A585		...T-RAIL: C18350; (02145)	EA	1									3-8	6
X2-F A586		...KNOB, T-RAIL: A18358; (02145)	EA	2									3-8	4
X2-F A587		...KNOB, T-RAIL: SAME AS A586	EA	REF									3-8	4
P--F A588		...PIN, SPRING: A18356; (02145)	EA	1	1	1	2	1	1	1	27	12	3-8	5
X2-F A589		...PIN: A18355; (02145)	EA	1										
X2-F A590		...STANDOFF: A18354; (02145)	EA	2									3-8	3
X2-F A591		...STANDOFF: SAME AS A590	EA	REF									3-8	3
P--F A592		...SPRING, HELICAL, EXTENSION: LE02907; (04830)	EA	2	1	2	3	1	1	1	40	24	3-8	1
P--F A593		...SPRING, HELICAL, EXTENSION: SAME AS A592	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	1
X2-F A594	5305-543-5080	...SCREW, MACHINE: MS35223-2; (96906)	EA	2									3-8	2
A--F A595		...T-RAIL ASSEMBLY QUICK RELEASE: SAME AS A584	EA	1										
X2-F A596		...T-RAIL: SAME AS A585	EA	1									3-8	6
X2-F A597		...KNOB, T-RAIL: SAME AS A586	EA	2									3-8	4
X2-F A598		...KNOB, T-RAIL: SAME AS A586	EA	REF									3-8	4
P--F A599		...PIN, SPRING: SAME AS A588	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	3-8	5
X2-F A600		...PIN: SAME AS A509	EA	1										

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

(1) SHR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100	FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION		
X2-F A601		...STANDOFF: SAME AS A590	EA	2								3-8	3	
X2-F A602		...STANDOFF: SAME AS A590	EA	REF								3-8	3	
P--F A603		...SPRING, HELICAL, EXTENSION: SAME AS A592	EA	2	REF	REF	REF	REF	REF	REF	REF	3-8	1	
P--F A604		...SPRING, HELICAL, EXTENSION: SAME AS A592	EA	REF	REF	REF	REF	REF	REF	REF	REF	3-8	1	
X2-F A605	5305-543-5080	...SCREW, MACHINE: SAME AS A594	EA	2								3-8	2	
X2-F A606		...T-RAIL ASSEMBLY QUICK RELEASE: SAME AS A584	EA	REF										
X2-F A607		...T-RAIL: SAME AS A585	EA	1								3-8	6	
X2-F A608		...KROB, T-RAIL: SAME AS A586	EA	2								3-8	4	
X2-F A609		...KROB, T-RAIL: SAME AS A586	EA	REF								3-8	4	
P--F A610		...PIN, SPRING: SAME AS A588	EA	1	REF	REF	REF	REF	REF	REF	REF	3-8	5	
X2-F A611		...PIN: SAME AS A589	EA	1										
X2-F A612		...STANDOFF: SAME AS A590	EA	2								3-8	1	
X2-F A613		...STANDOFF: SAME AS A590	EA	REF								3-8	3	
P--F A614		...SPRING, HELICAL, EXTENSION: SAME AS A590	EA	2	REF	REF	REF	REF	REF	REF	REF	3-8	1	
P--F A615		...SPRING, HELICAL, EXTENSION: SAME AS A590	EA	REF	REF	REF	REF	REF	REF	REF	REF	3-8	1	
X2-F A616	5305-543-5080	...SCREW, MACHINE: SAME AS A594	EA	2								3-8	2	
X2-F A617		...T-RAIL ASSEMBLY: SAME AS A584	EA	REF										
X2-F A618		...T-RAIL: SAME AS A585	EA	1								3-8	6	
X2-F A619		...KROB, T-RAIL: SAME AS A586	EA	2								3-8	4	
X2-F A620		...KROB, T-RAIL: SAME AS A586	EA	REF								3-8	4	
P--F A621		...PIN, SPRING: SAME AS A588	EA	1	REF	REF	REF	REF	REF	REF	REF	3-8	5	
P--F A622		...PIN: SAME AS A589	EA	1										
P--F A623		...STANDOFF: SAME AS A590	EA	2								3-8	1	
P--F A624		...STANDOFF: SAME AS A590	EA	REF								3-8	3	
P--F A625		...SPRING, HELICAL, EXTENSION: SAME AS A590	EA	1	REF	REF	REF	REF	REF	REF	REF	3-8	1	

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTG	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
P--F A626		...SPRING, HELICAL, EXTENSION: SAME AS A592	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	1
X2-F A627	5305-543-5080	...SCREW, MACHINE: SAME AS A594	EA	2									3-8	2
A--F A628		...ROLLER ASSEMBLY, LOWER: C18511; (02145)	EA	1									3-8	22
P--F A629	5305-988-7602	...SCREW, CAP, SOCKET HEAD: SAME AS A138	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-8	21
P--F A630		...ROLLER, FILM: B15149; (02145)	EA	2	1	1	2	1	1	1	27	12		
P--F A631		...ROLLER, FILM: SAME AS A630	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A632		...BRACKET, ROLLER: B18300; (02145)	EA	2									3-8	23
M--D A633		...BRACKET, ROLLER: SAME AS A632	EA	REF									3-8	23
M--D A634		...SHAFT, STRAIGHT: B18323; (02145)	EA	2										
M--D A635		...SHAFT, STRAIGHT: SAME AS A634	EA	REF										
P--F A636	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A637	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A638	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A639	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A640	5310-167-0838	...WASHER, FLAT: A5960-716L; (82044)	EA	8										
P--F A641	5340-298-6564	...RING, RETAINING: SAME AS A108	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
A--F A642		...ROLLER ASSEMBLY, LOWER: SAME AS A628	EA	1									3-8	22
P--F A643	5305-986-7601	...SCREW, CAP, SOCKET HEAD: SAME AS A208	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	3-8	21
P--F A644		...ROLLER, FILM: SAME AS A630	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A645		...ROLLER, FILM: SAME AS A630	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A646		...BRACKET, ROLLER: SAME AS A632	EA	2									3-8	22
M--D A647		...BRACKET, ROLLER: SAME AS A632	EA	REF									3-6	23
M--D A648		...SHAFT, STRAIGHT: SAME AS A634	EA	2										
M--D A649		...SHAFT, STRAIGHT: SAME AS A634	EA	REF										
P--F A650	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		

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

P R E	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALM PER 100 EQUIP CNTGCT	(9) DEPOT MAINT ALM PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					1-20	21-50	51-100	1-20	21-50	51-100				
F 1	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
F 2	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
F 3	3110-640-8166	...BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
F 4	5310-167-0838	...WASHER, FLAT: SAME AS A640	EA	8										
F 5	5340-293-0564	...RING, RETAINING: SAME AS A108	EA	2	REF	REF	REF	REF	REF	REF	REF			
D 6		...BRACKET ASSEMBLY: B18515; (02145)	EA	2										
F 7	5305-983-7602	...SCREW, CAP, SOCKET HEAD: SAME AS A138	EA	2								3-8	19	
D 8		...PLATE, MOUNTING: D18296; (02145)	EA	1								3-8	20	
D 9		...STRIKE: A18444; (02145)	EA	2								3-8	18	
D 10		...STRIKE: SAME AS A659	EA	REF								3-8	18	
F 11	5305-983-7605	...SCREW, CAP, SOCKET HEAD: SAME AS A046	EA	4	REF	REF	REF	REF	REF	REF	REF	3-8	17	
D 12		...BRACKET ASSEMBLY: SAME AS A656	EA	REF										
F 13	5305-983-7602	...SCREW, CAP, SOCKET HEAD: SAME AS A138	EA	2	REF	REF	REF	REF	REF	REF	REF	3-8	19	
D 14		...PLATE, MOUNTING: SAME AS A658	EA	1								3-8	20	
D 15		...STRIKE: SAME AS A659	EA	2								3-8	18	
D 16		...STRIKE: SAME AS A659	EA	REF								3-8	18	
F 17	5305-983-7605	...SCREW, CAP, SOCKET HEAD: SAME AS A056	EA	4	REF	REF	REF	REF	REF	REF	REF	3-8	17	
D 18		...PLATE: D18301-1; (02145)	EA	1										
D 19		...PLATE: D18301-2; (02145)	EA	1										
D 20		...BRACKET: D18466-1; (02145)	EA	1										
D 21		...BRACKET: D18466-2; (02145)	EA	1										
D 22		...BOX, POWER: D18344; (02145)	EA	1										
D 23		...SLIDE: B16920; (02145)	EA	2								3-8	55	
D 24		...SLIDE: SAME AS A673	EA	REF								3-8	55	
D 25		...HANDLE, MODIFIED: B17249; (02145)	EA	2								3-8	25	

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) USABLE ON CODE	(5) UNIT OF MEAS QTY INC IN UNIT	(6) 30-DAY US MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALMPER 100 EQUIP CONTGTY	(9) DEPOT MAINT ALMPER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					X2-F A676		..HANDLE, MODIFIED: SAME AS A675		EA	REF				
P-F A677		..BUS BAR: B17264; (02145)		EA	1	*	1	1	*	1	1	5	3-8	24
M-D A678		..LABEL: B17390; (02145)		EA	1									
M-D A679		..LABEL: B17391; (02145)		EA	1									
M-D A680		..LABEL: B17392; (02145)		EA	1								3-8	24
M-D A681		..BRACKET, ROLLER: B18299-1; (02145)		EA	2								3-8	15
M-D A682		..BRACKET, ROLLER: SAME AS A681		EA	REF								3-8	15
M-D A683		..BRACKET, ROLLER: B18299-2; (02145)		EA	2									
M-D A684		..BRACKET, ROLLER: SAME AS A683		EA	REF									
M-D A685		..RETAINER: B18362; (02145)		EA	1								3-8	26
X2-F A686		..BRACKET ASSEMBLY: B18361; (02145)		EA	1								3-8	10
X2-F A687	5305-988-7602	..SCREW, CAP, SOCKET HEAD: SAME AS A138		EA	2								3-8	9
X2-F A688		..MOUNT, BRACE: B18345; (02145)		EA	1									
X2-F A689		..PIVOT, BRACE: A18347; (02145)		EA	1									
X2-F A690		..BRACE, END PLATE: A18346-1; (02145)		EA	1									
X2-F A691	5305-722-9397	..SCREW: M10192-03; (06000)		EA	2									
P-F A692	6355-988-7601	..SCREW, CAP, SOCKET HEAD: SAME AS A138		EA	2	REF	REF	REF	REF	REF	REF	REF		
X2-F A693	5311-988-7602	..MOUNT, BLAIN, REVISION: SAME AS A691		EA	2									
X2-F A694	5311-988-7601	..FASTENER: M10192-03; (06000)		EA	1									
X2-F A695		..BRACKET ASSEMBLY: B18361; (02145)		EA	1								3-8	10
X2-F A696	5311-988-7601	..SCREW, CAP, SOCKET HEAD: SAME AS A138		EA	2								3-8	9
X2-F A697		..MOUNT, BRACE: SAME AS A688		EA	1									
X2-F A698		..PIVOT, BRACE: SAME AS A689		EA	1									
X2-F A699		..BRACE, END PLATE: A18346-1; (02145)		EA	1									
X2-F A700	5311-988-7601	..FASTENER: SAME AS A694		EA	1									

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) YR ALMPER 100 EQUIP CNTG	(9) DEPOT MAINT ALMPER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F A701	5305-988-7601	...SCREW, CAP, SOCKET HEAD: SAME AS A208	EA	2										
X2-F A702	5310-934-6964	...NUT, PLAIN, HEXAGON: SAME AS A495	EA	2										
X2-F A703	5025-306-2657	...FASTENER: SAME AS A694	EA	1										
A--F A704		...CATCH ASSEMBLY: SAME AS A162	EA	1								3-8	30	
P--F A705	5305-637-7079	...SCREW, MACHINE: SAME AS A085	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8 27
X2-F A706	5310-167-0876	...WASHER, LOCK, INTERNAL TOOTH: AN936A6; (88044)	EA	1									3-8	28
M--D A707		...CATCH: SAME AS A163	FA	REF										
P--F A708		...SPRING, HELICAL, EXTENSION: SAME AS A164	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	
A--F A709		...CATCH ASSEMBLY: SAME AS A162	EA	1									3-6	30
P--F A710	5305-637-7079	...SCREW, MACHINE: SAME AS A085	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8 27
X2-F A711	5310-167-0876	...WASHER, LOCK INTERNAL TOOTH: SAME AS A706	EA	1									5-8	28
M--D A712		...CATCH: SAME AS A163	EA	1										
P--F A713		...SPRING, HELICAL, EXTENSION: SAME AS A164	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	
M--D A714		...SCREEN, AIR INTAKE: B10373; (02145)	EA	2										
M--D A715		...SCREEN, AIR INTAKE: SAME AS A714	EA	REF										
M--D A716		...GUIDE, LIGHT MASK: B18301; (02145)	EA	2										
M--D A717		...GUIDE, LIGHT MASK: SAME AS A716	EA	REF										
A--F-S A718		...WORM MECHANISM ASSEMBLY: B17572; (02145)	EA	1										
P--F A719	5305-988-7603	...SCREW, CAP, SOCKET HEAD: SAME AS A263	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	REF	
M--D A720		...SHAFT, STRAIGHT: A16660; (02145)	EA	1										
P--F A721	3120-324-6424	...BEARING, FLANGED: SAME AS A014	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	
P--F A722	3120-324-6424	...BEARING, FLANGED: SAME AS A014	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	
P--F A723	3120-324-6424	...BEARING, FLANGED: SAME AS A014	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	
P--F A724	3120-324-6424	...BEARING, FLANGED: SAME AS A014	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF	
M--D A725		...BRACKET: B17338; (02145)	EA	1										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALP PER 100 EQUIP CNTGCT	(9) DEPOT MAINT 100 ALP PER EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
					1-20	21-50	51-100	1-20	21-50	51-100				
P--F A726		...COUPLING: A17570; (02145)	EA	1	*	1	2	*	1	1	18	9		
X2-F A727		...SCREW, CAP, SOCKET HEAD: 4-40X5-16PHSST; (70138)	EA	2										
P--F A728	3020-640-4901	...GEAR, WORM: HQTH; (71041)	EA	1	*	*	1	*	*	1	8	3		
P--F A729	5315-853-0681	...PIN, SPRING: MS16562-201; (96906)	EA	1	*	*	1	*	*	1	8	3		
P--F A730		...MITER GEAR: A17410; (02145)	EA	1	1	1	2	1	1	1	27	12		
P--F A731	5315-823-8745	...PIN, SPRING: MS16562-215; (96906)	EA	1	1	1	2	1	1	1	27	12		
P--F A732	5310-771-3861	...WASHER, FLAT: SAME AS A404	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A733	5310-141-1795	...WASHER, FLAT: SAME AS A458	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A734	5315-058-9731	...PIN, SPRING: SAME AS A357	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A735		...GEAR, WORM: A17477; (02145)	EA	1	*	*	1	*	*	1	8	3		
M--D A736		...SHAFT, STRAIGHT: A17336; (02145)	EA	1										
P--F A737		...ROLLER, FILM: B16689-2; (02145)	EA	2	*	1	1	*	1	1	13	6		
P--F A738		...ROLLER, FILM: SAME AS A737	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A739		...ROLLER, FILM: SAME AS A446	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A740		...ROLLER, FILM: SAME AS A446	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A741		...ROLLER, FILM: B16689-5; (02145)	EA	2	*	1	1	*	1	1	13	6		
P--F A742		...ROLLER, FILM: SAME AS A741	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A743		...GUIDE, FILM: B18302; (02145)	EA	4										
M--D A744		...GUIDE, FILM: SAME AS A743	EA	REF										
M--D A745		...GUIDE, FILM: SAME AS A743	EA	REF										
M--D A746		...GUIDE, FILM: SAME AS A743	EA	REF										
P--F A747		...CHAIN ASSEMBLY: B17241; (02145)	EA	4	1	1	2	1	1	1	27	12		
P--F A748		...CHAIN ASSEMBLY: SAME AS A747	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A749		...CHAIN ASSEMBLY: SAME AS A747	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A750		...CHAIN ASSEMBLY: SAME AS A747	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		

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

(1) SNR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP EMRGNCY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OR REFERENCE DESIGNATION
4-D 1751		..COVER, MAGAZINE CHAIN: B17341; (02145)	EA	4										
4-D 1752		..COVER, MAGAZINE CHAIN: SAME AS A751	EA	REF										
4-D 1753		..COVER, MAGAZINE CHAIN: SAME AS A751	EA	REF										
4-D 1754		..COVER, MAGAZINE CHAIN: SAME AS A751	EA	REF										
4-D 1755		..LABEL: B17482; (02145)	EA	1										
4-D 1756		..COVER, FILTER: B18352; (02145)	EA	1										
2-F 757	5340-839-9050	..NUT, SELF-LOCKING, CLINCH: S632-2; (46384)	EA	4										
4-F 758		..BRACKET ASSEMBLY: B18553-1; (02145)	EA	1										
4-F 759	5305-988-7601	..SCREW, CAP, SOCKET HEAD: SAME AS A208	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-D 760		..BRACKET, PULLEY: A18280; (02145)	EA	1										
4-F 761		..PULLEY, NYLON: N6172; (08863)	EA	1	1	1	2	1	1	1	27	12		
4-F 762		..FASTENER, PUSHNUT: PS062032; (77122)	EA	1	1	1	2	1	1	1	27	12		
4-F 763	5315-844-5644	..PIN, SPRING: SAME AS A017	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-F 764		..BRACKET ASSEMBLY: SAME AS A750	EA	1										
4-F 765	5305-988-7601	..SCREW, CAP, SOCKET HEAD: SAME AS A208	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-D 766		..BRACKET, PULLEY: SAME AS A760	EA	1										
4-F 767		..PULLEY, NYLON: SAME AS A761	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-F 768		..FASTENER, PUSHNUT: SAME AS A762	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-F 769	5315-844-5644	..PIN, SPRING: SAME AS A017	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-F 770		..BRACKET ASSEMBLY: B18553-2; (02145)	EA	1										
4-F 771	5305-988-7601	..SCREW, CAP, SOCKET HEAD: SAME AS A208	EA	2	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-D 772		..BRACKET, PULLEY: SAME AS A760	EA	1										
4-F 773		..PULLEY, NYLON: SAME AS A761	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-F 774		..FASTENER, PUSHNUT: SAME AS A762	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF
4-F 775	5315-844-5644	..PIN, SPRING: SAME AS A017	EA	1	REF	REF	REF	REF	REF	REF	REF	REF	REF	REF

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS USABLE ON CODE	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALPH PER 100 EQUIP CNT&CT	(9) DEPOT MAINT ALPH PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)			(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100			FIG NO.	ITEM NO. OP. REFERENCE DESIGNATION
A--F A776		..BRACKET ASSEMBLY: SAME AS A770	EA	1										
P--F A777	5305-988-7601	..SCREW, CAP, SOCKET HEAD: SAME AS A208	EA	2	REF	REF	REF	REF	REF	REF	REF			
M--D A778		..BRACKET, PULLEY: SAME AS A760	EA	1										
P--F A779		..PULLEY, NYLON: SAME AS A761	EA	1	REF	REF	REF	REF	REF	REF	REF			
P--F A780		..FASTENER, PUSHNUT: SAME AS A762	EA	1	REF	REF	REF	REF	REF	REF	REF			
P--F A781	5315-844-5644	..PIN, SPRING: SAME AS A017	EA	1	REF	REF	REF	REF	REF	REF	REF			
M--D A782		..BRACKET: B18110; (02145)	EA	1										
M--D A783		..LABEL: A11471-1; (02145)	EA	1										
M--D A784		..SPACER: A18374; (02145)	EA	8										
M--D A785		..SPACER: SAME AS A784	EA	REF										
M--D A786		..SPACER: SAME AS A784	EA	REF										
M--D A787		..SPACER: SAME AS A784	EA	REF										
M--D A788		..SPACER: SAME AS A784	EA	REF										
M--D A789		..SPACER: SAME AS A784	EA	REF										
M--D A790		..SPACER: SAME AS A784	EA	REF										
M--D A791		..SPACER: SAME AS A784	EA	REF										
P--F A792		..GEAR, MITER: SAME AS A730	EA	3	REF	REF	REF	REF	REF	REF	REF			
P--F A793		..GEAR, MITER: SAME AS A730	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A794		..GEAR, MITER: SAME AS A730	EA	REF	REF	REF	REF	REF	REF	REF	REF			
M--D A795		..BLOCK: A16669; (02145)	EA	3										
M--D A796		..BLOCK: SAME AS A795	EA	REF										
M--D A797		..BLOCK: SAME AS A795	EA	REF										
M--D A798		..STRIKE, T-RAIL: SAME AS A659	EA	4										
M--D A799		..STRIKE, T-RAIL: SAME AS A659	EA	REF										
M--D A800		..STRIKE, T-RAIL: SAME AS A659	EA	REF										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGTY	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
M--D A801		. . STRIKE, T-RAIL: SAME AS A659	EA	REF										
M--D A802		. . SPACER : A17622; (02145)	EA	4										
M--D A803		. . SHAFT, STRAIGHT: A16661; (02145)	EA	2										
P--F A804		. . SPROCKET: A17412; (021145)	EA	4	1	1	2	1	1	1	27	12		
P--F A805		. . SPROCKET: SAME AS A804	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A806		. . SPROCKET: SAME AS A804	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A807		. . SPROCKET: SAME AS A804	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A808		. . SHAFT, STRAIGHT: A16652; (021145)	EA	2										
M--D A809		. . SHAFT, STRAIGHT: SAME AS A808	EA	REF										
P--F A810		. . COUPLING: SAME AS A726	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A811		. . COUPLING: SAME AS A726	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A812		. . SHAFT, STRAIGHT: A16927; (02145)	EA	2										
M--D A813		. . SHAFT, STRAIGHT: SAME AS A812	EA	REF										
P--F A814		. . ARM ASSEMBLY : A17274; (02145)	EA	2	•	1	1	•	1	1	13	6		
P--F A815		. . ARM ASSEMBLY : SAME AS A814	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
M--D A816		. . BRACKET: SAME AS A165	EA	1										
M--D A817		. . BRACKET: A18376-2; (02145)	EA	1										
M--D A818		. . SHAFT: A17337; (02145)	EA	1										
M--D A819		. . BRACKET: A18311-1; (02145)	EA	2										
M--D A820		. . BRACKET: SAME AS A819	EA	REF										
M--D A821		. . BRACKET: A18311-2; (02145)	EA	2										
M--D A822		. . BRACKET: SAME AS A821	EA	REF										
M--D A823		. . SPACER: A18312; (02145)	EA	2										
M--D A824		. . SPACER: SAME AS A823	EA	REF										
M--D A825		. . SCREEN: A18387; (02145)	EA	1										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY GS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTGCT	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F A326	5305-959-1909	..SCREW, CAP, SOCKET HEAD: SAME AS A258	EA	10	REF	REF	REF	REF	REF	REF	REF	REF	3-8	56
P--F A827	5305-068-5276	..SCREW, CAP, SOCKET HEAD: SAME AS A346	E.	2	REF	REF	REF	REF	REF	REF	REF	REF	3-8	52
P--F A828	5305-988-7602	..SCREW, CAP, SOCKET HEAD: SAME AS A138	EA	12	REF	REF	REF	REF	REF	REF	REF	REF	3-8	7
P--F A829	5305-988-7601	..SCREW, CAP, SOCKET HEAD: SAME AS A208	EA	39	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A830	5310-655-7287	..NUT, SELF-LOCKING, HEXAGON: 22F7M82; (72962)	EA	10										
P--F A831	5305-988-7603	..SCREW, CAP, SOCKET HEAD: SAME AS A262	EA	32	REF	REF	REF	REF	REF	REF	REF	REF	3-8	17
P--F A832	5305-637-8249	..SCREW, MACHINE: SAME AS A384	EA	12	REF	REF	REF	REF	REF	REF	REF	REF	3-8	35
P--F A833	5305-637-7079	..SCREW, MACHINE: SAME AS A085	EA	12	REF	REF	REF	REF	REF	REF	REF	REF	3-8	27
X2-F A834	5310-167-0876	..WASHER, LOCK: SAME AS A706	EA	7									3-8	28
X2-F A835	5305-068-5406	..SCREW, CAP, SOCKET HEAD: MS16996-15; (96906)	EA	4										
X2-F A836	5310-167-0818	..WASHER, FLAT: AN960-10; (88044)	EA	8										
P--F A837	5305-958-6517	..SCREW, CAP, SOCKET HEAD: SAME AS A042	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A838	5310-167-0816	..WASHER, FLAT: SAME AS A086	EA	7	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A839	5305-984-6189	..SCREW, MACHINE: MS35206-241; (96906)	EA	16										
X2-F A840	5305-988-7606	..SCREW, CAP, SOCKET HEAD: MS16995-30; (96906)	EA	8										
X2-F A841		..WASHER, FLAT: AN960-8L; (88044)	EA	8										
X2-F A842	5310-208-9255	..NUT, SELF-LOCKING: 79NM02; (72962)	EA	8										
X2-F A843	5305-984-4988	..SCREW, MACHINE: MS35206-228; (96906)	EA	4										
X2-F A844	5305-576-0528	..SCREW, MACHINE: MS35223-47; (96906)	EA	2										
X2-F A845	5310-605-3744	..WASHER, LOCK: SAME AS A116	EA	2										
X2-F A846	5305-988-7606	..SCREW, CAP, SOCKET HEAD: SAME AS A840	EA	2										
X2-F A847	5305-988-7602	..SCREW, CAP, SOCKET HEAD: SAME AS A138	EA	16										
P--F A848	5315-823-8745	..PIN, SPRING: SAME AS A731	EA	3	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A849	5325-202-1612	..STUD, SNAP FASTENER: SAME AS A087	EA	2	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A850		..WASHER, FLAT: 515-875; (75495)	EA	2										

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

(1) SRR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALMPER 100 EQUIP CNTGCTY	(9) DEPOT MAINT ALMPER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P-F A851	5310-141-1795	..WASHER, FLAT: SAME AS A458	EA	2	REF	REF	REF	REF	REF	REF	REF			
P-F A852		..PIN, QUICK-RELEASE: MS5914-2L10; (84256)	EA	2	*	1	1	*	1	1	1.3	6		
P-F A853	5315-823-8742	..PIN, SPRING: MS16762-252; (96906)	EA	2	*	1	1	*	1	1	1.3	6	3-8	51
C2-P A854	5305-983-7447	..SCREW, CAP, SOCKET HEAD: MS16998-72; (96906)	EA	4									3-8	54
C2-P A855		..SCREW, CAP, SOCKET HEAD: SAME AS A066	EA	4										
C2-P A856	5305-984-6191	..SCREW, MACHINE: MS35206-243; (96906)	EA	22										
C2-P A857	5305-990-6381	..SCREW, CAP, SOCKET HEAD: SAME AS A020	EA	4										
C-F A858	5305-988-7605	..SCREW, CAP, SOCKET HEAD: SAME AS A056	EA	6	REF	REF	REF	REF	REF	REF	REF	REF		
C-F A859	5310-771-3861	..WASHER, FLAT: SAME AS A404	EA	3	REF	REF	REF	REF	REF	REF	REF	REF		
C-F A860	5305-959-0382	..SCREW, CAP, SOCKET HEAD: SAME AS A232	EA	3	REF	REF	REF	REF	REF	REF	REF	REF		
C-F A861	5305-622-1509	..SCREW, MACHINE: MS35224-63; (96906)	EA	4										
C-F A862	5305-990-6381	..SCREW, CAP, SOCKET HEAD: SAME AS A020	EA	6	REF	REF	REF	REF	REF	REF	REF	REF		
C-F A863	5310-595-6211	..WASHER, FLAT: SAME AS A062	EA	12	REF	REF	REF	REF	REF	REF	REF	REF		
C-F A864	5310-934-9739	..NUT, PLAIN, HEXAGON: MS35649-242; (96906)	EA	6										
C-F A865	5305-959-1082	..SCREW, CAP, SOCKET HEAD: SAME AS A019	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
C-F A866	5340-420-7606	..CLAMP, LOOP: MS25281-4; (96906)	EA	4										
C-F A867	5340-420-7606	..CLAMP, LOOP: SAME AS A866	EA	REF										
C-F A868	5340-420-7606	..CLAMP, LOOP: SAME AS A866	EA	REF										
C-F A869	5340-420-7606	..CLAMP, LOOP: SAME AS A866	EA	REF										
C-F A870		..MOUNT, RESILIENT: UT2-35; (76005)	EA	2	*	1	1	*	1	1	1.3	6	3-8	56
C-F A871		..MOUNT, RESILIENT: SAME AS A870	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	56
C-F A872	5340-119-4791	..MOUNT, RESILIENT: UT2-50; (76005)	EA	2	*	1	1	*	1	1	1.3	6	3-8	57
C-F A873	5340-119-4791	..MOUNT, RESILIENT: SAME AS A872	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	57
C-F A874		..KNOB, SPINNER: SAME AS A175	EA	1									3-8	26
C-F A875		..BALL, JOINT: S103; (78643)	EA	8	1	2	3	1	1	1	4.0	24	3-8	13

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALM PER 100 EQUIP	(9) DEPOT MAINT ALM PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a)	(b)	(c)	(a)	(b)	(c)	(a)	(b)	(a)	(b)
					1-20	21-50	51-100	1-20	21-50	51-100	FIG NO.	ITEM NO. OR REFERENCE DESIGNATION		
P--F A876		..BALL JOINT: SAME AS A875	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	13
P--F A877		..BALL JOINT: SAME AS A875	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	13
P--F A878		..BALL JOINT: SAME AS A875	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	13
P--F A879		..BALL JOINT: SAME AS A875	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	13
P--F A880		..BALL JOINT: SAME AS A875	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	13
P--F A881		..BALL JOINT: SAME AS A875	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	13
P--F A882		..BALL JOINT: SAME AS A875	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF	3-8	38
P--F A883	5325-766-7026	..GROMMET, PLASTIC: G57NB3; (03296)	EA	4	1	1	2	1	1	1	27	12		
P--F A884	5325-766-7026	..GROMMET, PLASTIC: SAME AS A883	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A885	5325-766-7026	..GROMMET, PLASTIC: SAME AS A883	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A886	5325-766-7026	..GROMMET, PLASTIC: SAME AS A883	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A887	5325-721-7367	..GROMMET, RUBBER: M335490-L; (96906)	EA	2										
X2-F A888	5325-721-7367	..GROMMET, RUBBER: SAME AS A887	EA	REF										
P--F A889	3120-662-6787	..BEARING, SLEEVE: FB46-3; (71041)	EA	3	*	1	2	*	1	1	18	9		
P--F A890	3120-662-6787	..BEARING, SLEEVE: SAME AS A889	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A891	3120-662-6787	..BEARING, SLEEVE: SAME AS A889	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A892	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	12	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A893	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A894	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A895	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A896	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A897	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A898	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A899	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A900	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		

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

(1) SRR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALMPER 100 EQUIP CNTGCT	(9) DEPOT MAINT ALMPER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100	(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION		
P--F A901	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A902	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A903	3110-640-8166	..BEARING, BALL, ANNULAR: SAME AS A449	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F J04	3120-662-0754	..BEARING, THRUST: TB410; (71041)	EA	2	*	1	1	*	1	1	13	6		
P--F U905	3120-662-0754	..BEARING, THRUST: SAME AS A904	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F 906	5315-045-2561	..KEY, WOODRUFF: SAME AS A370	EA	4	REF	REF	REF	REF	REF	REF	REF	REF		
P--F 907	5315-045-2561	..KEY, WOODRUFF: SAME AS A370	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F 908	5315-045-2561	..KEY, WOODRUFF: SAME AS A370	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F 909	5315-045-2561	..KEY, WOODRUFF: SAME AS A370	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F 910	3120-723-6758	..BEARING, SLEEVE: FF636-2; (70901)	EA	2	*	1	1	*	1	1	13	6		
P--F 911	3120-723-6758	..BEARING, SLEEVE: SAME AS A910	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--F 912	5315-240-1014	..PIN, SPRING: MS16562-5; (96906)	EA	4										
P--F 913	5975-273-0788	..STRAIN RELIEF: SR6P1; (28520)	EA	1										
P--D 914		..POWER CORD: 174125; (16428)	EA	1										
P--F 915		..CLAMP, LOOP: MS25281-6; (96906)	EA	3										
P--F 916		..CLAMP, LOOP: SAME AS A915	EA	REF										
P--F 917		..CLAMP, LOOP: SAME AS A915	EA	REF										
P--F 918	6740-464-9198	..DIMMER ASSEMBLY: B16221; (02145)	EA	1	*	*	1	*	*	1	8	3		
P--F 919		..FAN: B16432; (02145)	EA	1	*	*	1	*	*	1	8	3		
P--F 920		..CAPACITOR, FIXED, PAPER, DIELECTRIC: C280AE; (73445)	EA	1	*	*	1	*	*	1	8	3		
P--F 921	5910-241-9589	..CAPACITOR, FIXED, PAPER, DIELECTRIC: SAME AS A160	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F 922		..DIODE BRIDGE ASSEMBLY: 10BD6A; (81348)	EA	1	*	*	1	*	*	1	8	3		
P--F 923		..FUSE, CARTRIDGE: 3AG2; (71400)	EA	1	1	2	4	1	1	1	40	25		
P--F 924		..FUSE, CARTRIDGE: 3AG3; (71400)	EA	1	3	7	13	1	2	3	164	125		
P--F 925	5915-081-4831	..FILTER: QJX29; (56289)	EA	2	*	1	1	*	1	1	13	6		

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALN PER 100 EQUIP ENTECY	(9) DEPOT MAINT ALN PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
P--F A926	'5915-081-4831	..FILTER: SAME AS A925	EA	REF	REF	REF	REF	REF	REF	REF	REF			
P--F A927	'5905-556-3350	..RESISTOR, VARIABLE: RVNAYS103A; (81349)	EA	1	•	•	1	•	•	1	8	3		
P--F A928	'5930-296-9034	..SWITCH, TOGGLE: SAME AS A034	EA	1	REF	REF	REF	REF	REF	REF	REF	REF		
P--F A929	'5905-556-4105	..RESISTOR, VARIABLE: RVNWF SD104A; (81349)	EA	1	•	•	1	•	•	1	8	3		
P--F A930	5950-648-1764	..TRANSFORMER: P8130; (97965)	EA	1	•	•	1	•	•	1	8	•		
P--F A931		..TRANSFORMER: T58354; (00159)	EA	2	•	1	1	•	1	1	13	6		
P--F A932		..TRANSFORMER: SAME AS A931	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
X2-F A933	5940-272-2906	..TERMINAL BOARD: S-170; (71785)	EA	3										
X2-F A934	5940-272-2906	..TERMINAL BOARD: SAME AS A933	EA	REF										
X2-F A935	5940-272-2906	..TERMINAL BOARD: SAME AS A933	EA	REF										
X2-F A936		..STRAP TIE: TY24M; (18321)	EA	45										
X2-F A937		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A938		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A939		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A940		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A941		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A942		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A943		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A944		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A945		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A946		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A947		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A948		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A949		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A950		..STRAP TIE: SAME AS A936	EA	REF										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE USABLE ON Text		(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALW PER 100 EQUIP CNTG	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATIONS	
						(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F A951		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A952		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A953		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A954		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A955		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A956		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A957		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A958		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A959		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A960		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A961		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A962		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A963		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A964		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A965		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A966		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A967		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A968		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A969		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A970		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A971		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A972		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A973		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A974		. . STRAP TIE: SAME AS A936		EA	REF										
X2-F A975		. . STRAP TIE: SAME AS A936		EA	REF										

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

(1) SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER & MFR. CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 30-DAY DS MAINT ALLOWANCE			(7) 30-DAY GS MAINT ALLOWANCE			(8) 1 YR ALY PER 100 EQUIP CNTGCV	(9) DEPOT MAINT ALY PER 100 EQUIP	(10) ILLUSTRATIONS	
					(a) 1-20	(b) 21-50	(c) 51-100	(a) 1-20	(b) 21-50	(c) 51-100			(a) FIG NO.	(b) ITEM NO. OR REFERENCE DESIGNATION
X2-F A976		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A977		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A978		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A979		..STRAP TIE: SAME AS A936	EA	REF										
X2-F A980		..STRAP TIE: SAME AS A936	EA	REF										
G--O-T A981		..STEREOSCOP, AR135A: SME669312GR2; (52197)	EA	1										
P2-O-T A982	6675-478-6175	..ZOOM 240: 53-70-25; (06175)	EA	1	*	1	1	*	1	1	13	6		
P--O A983		..EYEGUARD: 31-05-64; (06175)	EA	2	*	*	1	*	*	1	16	8		
P--O A984		..EYEGUARD: SAME AS A983	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--O A985	6650-986-5197	..EYEPiece, 20X: 31-05-63-02; (06175)	EA	2	*	1	1	*	1	1	13	6		
P--O A986	6650-986-5197	..EYEPiece, 20X: SAME AS A985	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P2-O-T A987	6675-478-6177	..MONO LENS, 0.5X: 53-70-32; (06175)	EA	1	*	*	1	*	*	1	10	4		
P--O A988		..EYEGUARD: 31-05-68; (06175)	EA	2	*	*	1	*	*	1	10	4		
P--O A989		..EYEGUARD: SAME AS A988	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P--O A990	6675-478-6205	..EYEPiece: 537096-220; (06175)	EA	2	*	*	1	*	*	1	10	4		
P--O A991	6675-478-6205	..EYEPiece: SAME AS A990	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		
P2-O-T A992		..ADAPTER, SLIDE: 53-70-27; (06175)	EA	1	*	*	1	*	*	1	8	3		
P2-O-T A993		..RHOMBIC, ARM: 53-70-26; (06175)	EA	2	*	1	1	*	1	1	13	6		
P2-O-T A994		..RHOMBIC, ARM: SAME AS A993	EA	REF	REF	REF	REF	REF	REF	REF	REF	REF		

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER
3020-640-4476	A145	3110-640-8166	A577	3120-662-8165	A156
3020-640-4476	A229	3110-640-8166	A636	3120-662-8165	A379
3020-640-4401	A728	3110-640-8166	A637	3120-662-8165	A380
3110-640-8166	A449	3110-640-8166	A638	3120-662-8165	A381
3110-640-8166	A450	3110-640-8166	A639	3120-662-8165	A382
3110-640-8166	A451	3110-640-8166	A650	3120-723-6758	A910
3110-640-8166	A452	3110-640-8166	A651	3120-723-6758	A911
3110-640-8166	A453	3110-640-8166	A652	3120-725-6598	A127
3110-640-8166	A454	3110-640-8166	A653	3120-725-6598	A190
3110-640-8166	A475	3110-640-8166	A892	3120-787-9013	A364
3110-640-8166	A476	3110-640-8166	A893	3120-787-9013	A365
3110-640-8166	A477	3110-640-8166	A894	3120-787-9013	A366
3110-640-8166	A478	3110-640-8166	A895	3120-787-9013	A367
3110-640-8166	A479	3110-640-8166	A896	3120-787-9013	A368
3110-640-8166	A480	3110-640-8166	A897	5305-013-3359	A399
3110-640-8166	A518	3110-640-8166	A898	5305-043-6476	A234
3110-640-8166	A519	3110-640-8166	A899	5305-051-6751	A092
3110-640-8166	A520	3110-640-8166	A900	5305-051-6751	A235
3110-640-8166	A521	3110-640-8166	A901	5305-068-5276	A346
3110-640-8166	A522	3110-640-8166	A902	5305-068-5276	A327
3110-640-8166	A523	3110-640-8166	A903	5305-068-5406	A335
3110-640-8166	A536	3110-926-1402	A374	5305-068-5411	A130
3110-640-8166	A537	3120-324-6424	A014	5305-068-5411	A193
3110-640-8166	A538	3120-324-6424	A015	5305-068-5415	A349
3110-640-8166	A539	3120-324-6424	A016	5305-068-8431	A681
3110-640-8166	A540	3120-324-6424	A017	5305-068-8431	A682
3110-640-8166	A541	3120-324-6424	A408	5305-208-4961	A018
3110-640-8166	A554	3120-324-6424	A701	5305-208-4961	A166
3110-640-8166	A555	3120-324-6424	A702	5305-272-8533	A241
3110-640-8166	A556	3120-324-6424	A703	5305-272-8533	A352
3110-640-8166	A557	3120-324-6424	A704	5305-241-3120	A383
3110-640-8166	A558	3120-555-7544	A896	5305-531-9520	A129
3110-640-8166	A559	3120-661-4991	A375	5305-531-9520	A196
3110-640-8166	A570	3120-662-0754	A904	5305-644-5188	A019
3110-640-8166	A573	3120-662-0754	A905	5305-644-5271	A014
3110-640-8166	A574	3120-662-6797	A896	5305-644-5282	A014
3110-640-8166	A575	3120-662-6797	A896	5305-644-5282	A014
3110-640-8166	A576	3120-662-6797	A896	5305-644-5282	A014

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER
5305-543-5080	A627	5305-984-7367	A444	5305-990-6381	A233
5315-550-5011	A146	5305-984-7360	A470	5305-990-6381	A268
5315-550-5011	A230	5305-988-1721	A343	5305-990-6381	A347
5305-576-0528	A244	5305-988-7601	A208	5305-990-6381	A429
5305-622-1509	A241	5305-988-7601	A214	5305-990-6381	A257
5305-637-7079	A085	5305-988-7601	A643	5305-990-6381	A862
5305-637-7079	A109	5305-988-7601	A692	5310-045-4007	A158
5305-637-7079	A259	5305-988-7601	A101	5310-141-1795	A158
5305-637-7079	A705	5305-988-7601	A759	5310-141-1795	A164
5305-637-7079	A710	5305-988-7601	A765	5310-141-1795	A733
5305-637-7079	A232	5305-988-7601	A771	5310-141-1795	A851
5305-637-8249	A254	5305-988-7601	A777	5310-167-0797	A128
5305-637-8249	A232	5305-988-7601	A829	5310-167-0797	A191
5305-638-2260	A252	5305-988-7602	A136	5310-167-0816	A086
5305-639-4777	A427	5305-988-7602	A299	5310-167-0816	A167
5305-656-8320	A350	5305-988-7602	A457	5310-167-0816	A403
5305-728-9397	A691	5305-988-7602	A482	5310-167-0816	A838
5305-722-9397	A700	5305-988-7602	A629	5310-167-0818	A836
5305-958-6517	A042	5305-988-7602	A657	5310-167-0838	A640
5305-958-6517	A086	5305-988-7602	A663	5310-167-0838	A654
5305-958-6517	A237	5305-988-7602	A687	5310-167-0876	A706
5305-959-0379	A241	5305-988-7602	A696	5310-167-0876	A711
5305-959-0379	A414	5305-988-7602	A828	5310-167-0876	A834
5305-959-0382	A232	5305-988-7602	A847	5310-167-0878	A196
5305-959-0382	A412	5305-988-7603	A263	5310-167-0878	A507
5305-959-0382	A660	5305-988-7603	A285	5310-208-9255	A842
5305-959-1082	A019	5305-988-7603	A719	5310-262-5076	A147
5305-959-1082	A028	5305-988-7603	A831	5310-275-1993	A119
5305-959-1082	A422	5305-988-7605	A056	5310-275-1993	A143
5305-959-1082	A061	5305-988-7605	A168	5310-275-1993	A182
5305-959-1909	A118	5305-988-7605	A256	5310-275-1993	A227
5305-959-1909	A222	5305-988-7605	A661	5310-595-6211	A062
5305-978-93446	A144	5305-988-7605	A647	5310-595-6211	A045
5305-978-9346	A141	5305-988-7605	A668	5310-595-6211	A310
5305-983-7447	A254	5305-988-7606	A240	5310-595-6211	A312
5305-984-4988	A242	5305-988-7606	A241	5310-595-6211	A863
5305-984-6189	A239	5305-990-6381	A000	5310-655-7287	A830
5305-984-6191	A252	5305-990-6381	A092	5310-685-3744	A116

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER	FEDERAL STOCK NUMBER	ITEM SEQUENCE NUMBER
5310-685-3744		5315-847-3735	---	5340-954-1141	
5310-685-3744	A845	5315-853-0681	A729	5340-954-1141	A293
5310-771-3861	A404	5325-202-1612	A087	5340-998-0612	A401
5310-771-3861	A732	5325-202-1612	A266	5340-998-0612	A402
5310-771-3861	A859	5325-202-1612	A849	5355-556-0151	A033
5310-809-4058	A102	5325-306-2357	A694	5841-921-8692	A369
5310-914-8217	A405	5325-306-2357	A703	5905-542-9440	A032
5310-934-9739	A864	5325-721-7367	A897	5905-556-3350	A927
5310-934-9748	A355	5325-721-7367	A888	5905-556-4105	A929
5310-994-6964	A495	5325-766-7026	A083	5910-241-9589	A160
5310-994-6964	A506	5325-766-7026	A884	5910-241-9589	A921
5310-994-6964	A693	5325-766-7026	A885	5915-081-4831	A925
5310-994-6964	A702	5325-766-7026	A886	5915-081-4831	A926
5310-949-6284	A255	5340-103-0689	A112	5920-050-4953	A037
5315-039-5563	A393	5340-103-0689	A113	5920-280-4998	A038
5315-045-2561	A370	5340-119-4791	A872	5920-892-9311	A035
5315-045-2561	A906	5340-119-4791	A873	5920-892-9311	A036
5315-045-2561	A907	5340-209-9371	A099	5930-296-9034	A034
5315-045-2561	A908	5340-209-9371	A100	5930-296-9034	A110
5315-045-2561	A909	5340-209-9371	A264	5930-296-9034	A928
5315-058-9698	A394	5340-209-9371	A265	5930-514-7576	A153
5315-058-9731	A357	5340-222-8562	A084	5940-272-2906	A933
5315-058-9731	A734	5340-298-6564	A108	5940-272-2906	A934
5315-240-1014	A912	5340-298-6564	A226	5940-272-2906	A935
5315-753-3892	A136	5340-298-6564	A252	5940-283-5280	A149
5315-753-3892	A199	5340-298-6564	A641	5950-648-1764	A930
5315-823-8742	A853	5340-298-6564	A655	6650-986-5197	A985
5315-823-8745	A731	5340-420-7606	A866	6650-986-5197	A986
5315-823-8745	A848	5340-420-7606	---	6740-246-8013	A069
5315-828-3251	A103	5340-420-7606	A868	6740-246-8013	A292
5315-841-4442	A254	5340-420-7606	A869	6740-249-8800	A070
5315-844-5644	A017	5340-720-8064	A396	6740-249-8800	A294
5315-844-5644	A763	5340-807-6638	A148	6740-249-8801	A057
5315-844-5644	A769	5340-817-5516	A237	6740-249-8801	A390
5315-844-5644	A775	5340-817-5516	A238	6740-464-9198	A918
5315-844-5644	A781	5340-825-5906	A073		
5315-847-3735	A054	5340-839-9050	A757		
5315-847-3735	A212	5340-865-0219	A359		

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			FEDERAL STOCK NUMBER			FEDERAL STOCK NUMBER		
ITEM SEQUENCE NUMBER			ITEM SEQUENCE NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
ADJ122026SS	96881	A277	A16554	02145	A328	A16760	02145	A211
ADJ122026SS	96881	A278	A16556	02145	A332	A16760	02145	A217
ADJ122026SS	96881	A279	A16557	02145	A334	A16762	02145	A052
ADJ122026SS	96881	A280	A16562	02145	A335	A16764-1	02145	A194
AN936A10	88044	A496	A16564-2	02145	A178	A16765	02145	A122
AN936A10	88044	A507	A16565	02145	A387	A16765	02145	A185
AN936A6	88044	A706	A16565	02145	A388	A16766	02145	A123
AN936A6	88044	A711	A16566	02145	A330	A16766	02145	A124
AN936A6	88044	A834	A16567	02145	A333	A16766	02145	A186
AN960-10	88044	A836	A16568	02145	A406	A16766	02145	A187
AN960-416	88044	A458	A16569	02145	A386	A16768	02145	A172
AN960-416	88044	A464	A16579	02145	A339	A16768	02145	A173
AN960-416	88044	A733	A16579	02145	A407	A16769	02145	A125
AN960-416	88044	A851	A16580	02145	A329	A16769	02145	A188
AN960-416L	88044	A404	A16589	02145	A331	A16770	02145	A281
AN960-416L	88044	A732	A16652	02145	A808	A16770	02145	A282
AN960-416L	88044	A859	A16652	02145	A809	A16770	02145	A283
AN960-6	88044	A086	A16654	02145	A336	A16770	02145	A284
AN960-6	88044	A167	A16657	02145	A441	A16774	02145	A323
AN960-6	88044	A413	A16657	02145	A467	A16775	02145	A322
AN960-6	88044	A83F	A16658	02145	A438	A16776	02145	A326
AN960-716L	88044	A640	A16658	02145	A464	A16835	02145	A126
AN960-716L	88044	A654	A16660	02145	A720	A16835	02145	A189
AN960-8L	88044	A841	A16661	02145	A803	A16849	02145	A183
AN960C3	88044	A128	A16669	02145	A795	A16915	02145	A137
AN960C3	88044	A191	A16669	02145	A796	A16916-2	02145	A055
AN960C8	88044	A116	A16669	02145	A797	A16927	02145	A112
AN960C8	88044	A139	A16670	02145	A509	A16927	02145	A813
AN960C8	88044	A845	A16670	02145	A527	A16928	02145	A448
A11471-1	02145	A783	A16670	02145	A545	A16928	02145	A474
A12176	02145	A179	A16670	02145	A563	A16944	02145	A397
A12176	02145	A180	A16731-1	02145	A096	A16944	02145	A398
A15459	02145	A316	A16731-2	02145	A097	A17165	02145	A141
A15914	02145	A342	A16732	02145	A170	A17165	02145	A253
A16328	02145	A410	A16732	02145	A171	A17166	02145	A154
A16328	02145	A411	A16737-2	02145	A140	A17166	02145	A288
A16357	02145	A337	A16746	02145	A210	A17167	02145	A155
A16554	02145	A327	A16746	02145	A216	A17167	02145	A289

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			FEDERAL STOCK NUMBER			FEDERAL STOCK NUMBER		
ITEM SEQUENCE NUMBER			ITEM SEQUENCE NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
A17215	02145	A159	A17457	02145	A512	A18355	02145	A589
A17218	02145	A078	A17457	02145	A530	A18355	02145	A600
A17219	02145	A081	A17457	02145	A548	A18355	02145	A611
A17218	02145	A272	A17457	02145	A566	A18355	02145	A622
A17218	02145	A275	A17477	02145	A735	A18356	02145	A588
A17220	02145	A077	A17570	02145	A726	A18356	02145	A599
A17220	02145	A080	A17570	02145	A810	A18356	02145	A610
A17220	02145	A271	A17570	02145	A811	A18356	02145	A621
A17220	02145	A274	A17622	02145	A802	A18358	02145	A586
A17253	02145	A067	A17625	02145	A442	A18358	02145	A587
A17253	02145	A068	A17625	02145	A468	A18358	02145	A618
A17259	02145	A389	A17649	02145	A408	A18358	02145	A609
A17272	02145	A083	A18069	02145	A488	A18358	02145	A619
A17274	02145	A814	A18069	02145	A506	A18358	02145	A620
A17274	02145	A815	A18073	02145	A492	A18358	02145	A597
A17336	02145	A736	A18073	02145	A503	A18358	02145	A598
A17337	02145	A818	A18280	02145	A760	A18374	02145	A784
A17338	02145	A725	A18280	02145	A766	A18374	02145	A785
A17387	02145	A510	A18280	02145	A772	A18374	02145	A786
A17387	02145	A528	A18280	02145	A778	A18374	02145	A787
A17387	02145	A546	A18311-1	02145	A819	A18374	02145	A788
A17387	02145	A564	A18311-1	02145	A820	A18374	02145	A789
A17404	02145	A511	A18311-2	02145	A821	A18374	02145	A790
A17404	02145	A529	A18311-2	02145	A822	A18374	02145	A791
A17404	02145	A547	A18312	02145	A823	A18375	02145	A792
A17404	02145	A565	A18312	02145	A824	A18375	02145	A793
A17410	02145	A730	A18346-1	02145	A690	A18375	02145	A794
A17410	02145	A792	A18346-2	02145	A699	A18376-1	02145	A795
A17410	02145	A793	A18347	02145	A699	A18376-1	02145	A796
A17410	02145	A794	A18347	02145	A699	A18376-2	02145	A797
A17410	02145	A804	A18354	02145	A595	A18381	02145	A798
A17412	02145	A805	A18354	02145	A591	A18381	02145	A799
A17412	02145	A806	A18354	02145	A601	A18387	02145	A805
A17412	02145	A807	A18354	02145	A602	A18411	02145	A839
A17426	02145	A021	A18355	02145	A612	A18411	02145	A840
A17426	02145	A022	A18354	02145	A613	A18412	02145	A800
A17426	02145	A430	A18354	02145	A623	A18412	02145	A801
A17426	02145	A431	A18354	02145	A624	A18414	02145	A659

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER			FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
A18444	02145	A660	B16317	02145	A221	B16767	02145	A151			
A18444	02145	A665	B16319	02145	A315	B16767	02145	A152			
A18444	02145	A666	B16432	02145	A919	B16779	02145	A228			
A18444	02145	A798	B16578	02145	A318	B16808	02145	A120			
A18444	02145	A799	B16588	02145	A321	B16814	02145	A144			
A18444	02145	A800	B16675	02145	A317	B16834	02145	A175			
A18444	02145	A801	B16688-1	02145	A513	B16841	02145	A090			
A18603-2	02145	A044	B16688-1	02145	A531	B16841	02145	A091			
A18608-2	02145	A045	B16688-1	02145	A549	B16860	02145	A121			
A18608-2	02145	A046	B16688-1	02145	A567	B16860	02145	A184			
A18608-2	02145	A047	B16688-2	02145	A514	B16865-3	02145	A118			
A18623	02145	A131	B16688-2	02145	A532	B16867-2	02145	A371			
A18623	02145	A231	B16688-2	02145	A550	B16867-4	02145	A114			
A18632	02145	A150	B16688-2	02145	A568	B16868	02145	A101			
BLS5B14SL10	84256	A852	B16689-1	02145	A445	B16873	02145	A225			
B0375-015	92830	A255	B16689-1	02145	A471	B16874	02145	A142			
B12133	02145	A070	B16689-2	02145	A737	B16894-1	02145	A051			
B12133	02145	A294	B16689-2	02145	A738	B16895	02145	A207			
B12137	02145	A071	B16689-3	02145	A446	B16895	02145	A213			
B12137	02145	A297	B16689-3	02145	A472	B16902	02145	A181			
P12138	02145	A072	B16689-3	02145	A515	B16920	02145	A673			
B12138	02145	A295	B16689-3	02145	A533	B16920	02145	A674			
B12139	02145	A069	B16689-3	02145	A551	B16946	02145	A111			
B12139	02145	A292	B16689-3	02145	A569	B16971-2	02145	A400			
B12142	02145	A057	B16689-3	02145	A739	B16991-3	02145	A041			
B12142	02145	A390	B16689-3	02145	A740	B16994-1	02145	A209			
B15016-2	02145	A2	B16689-4	02145	A447	B16994-1	02145	A215			
B15016-2	02145	A201	B16689-4	02145	A473	B16994-2	02145	A383			
B15149	02145	A630	B16689-5	02145	A741	B16994-3	02145	A053			
B15149	02145	A631	B16689-5	02145	A742	B17182-2	02145	A287			
B15149	02145	A644	B16695	02145	A219	B1724	02145	A747			
B15149	02145	A645	B16695	02145	A220	B17241	02145	A748			
B15778	02145	A314	B16738	02145	A200	B17241	02145	A749			
B16221	02145	A918	B16748-1	02145	A391	B17241	02145	A750			
B16296-1	02145	A203	B16748-1	02145	A392	B17249	02145	A675			
B16296-1	02145	A204	B16748-2	02145	A319	B17249	02145	A676			
B16296-2	02145	A205	B16748-2	02145	A320	B17251	02145	A443			
B16296-2	02145	A206	B16748-2	02145	A117	B17251	02145	A469			

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER			FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
B17264	02145	A677	B18110	02145	A782	B18508-1	02145	A686			
B17266	02145	A088	B18299-1	02145	A681	B18508-2	02145	A695			
B17310-1	02145	A435	B18299-1	02145	A682	B18513	02145	A162			
B17310-1	02145	A461	B18299-2	02145	A683	B18513	02145	A704			
B17310-2	02145	A436	B18299-2	02145	A684	B18513	02145	A709			
B17310-2	02145	A462	B18300	02145	A632	B18515	02145	A656			
B17341	02145	A751	B18300	02145	A633	B18515	02145	A662			
B17341	02145	A752	B18300	02145	A646	B18516	02145	A267			
B17341	02145	A753	B18300	02145	A647	B18553-1	02145	A758			
B17341	02145	A754	B18301	02145	A716	B18553-1	02145	A764			
B17367	02145	A012	B18301	02145	A717	B18553-2	02145	A770			
B17367	02145	A013	B18302	02145	A743	B18553-2	02145	A776			
B17367	02145	A422	B18302	02145	A744	B18634	02145	A174			
B17367	02145	A423	B18302	02145	A745	B34-3	71041	A373			
B17368	02145	A010	B18302	02145	A746	B46-3	71041	A127			
B17368	02145	A011	B18323	02145	A634	B46-3	71041	A190			
B17368	02145	A420	B18323	02145	A635	CAU4147CLOO	72625	A395			
B17368	02145	A421	B18323	02145	A648	C1129R	81640	A370			
B17370	02145	A437	B18323	02145	A649	C12320-2	02145	A060			
B17370	02145	A463	B18324	02145	A491	C12320-2	02145	A063			
B17379	02145	A009	B18324	02145	A502	C12320-2	02145	A308			
B17379	02145	A419	B18348	02145	A688	C12320-2	02145	A311			
B17390	02145	A678	B18348	02145	A697	C16291-2	02145	A224			
B17391	02145	A679	B18352	02145	A756	C16581	02145	A307			
B17392	02145	A680	B18361	02145	A269	C16583	02145	A306			
B17482	02145	A755	B18362	02145	A685	C16587	02145	A303			
B17572	02145	A718	B18367-1	02145	A222	C16590	02145	A305			
B17585	02145	A439	B18368	02145	A050	C16995	02145	A304			
B17585	02145	A440	B18369	02145	A223	C17321	02145	A008			
B17585	02145	A465	B18370	02145	A048	C17321	02145	A418			
B17585	02145	A466	B18373	02145	A714	C17481	02145	A434			
B17587	02145	A023	B18373	02145	A715	C17481	02145	A460			
B17587	02145	A432	B18377	02145	A176	C17611-1	02145	A433			
B17719	02145	A494	B18377	02145	A177	C17611-2	02145	A459			
B17719	02145	A505	B18412	02145	A286	C18296	02145	A652			
B17847	02145	A270	B18495	02145	A031	C18296	02145	A664			
B17898	02145	A411	B18501	02145	A489	C18321-1	02145	A668			
B18066	02145	A490	B18501	02145	A501	C18321-2	02145	A669			

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER			FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
C18349	02145	A024	D17340-1	02145	A416	FP636-2	70901	A911			
C18350	02145	A585	D17340-2	02145	A007	FG1-1022-904	27780	A133			
C18350	02145	A596	D17340-2	02145	A417	FG1-1022-904	27780	A196			
C18350	02145	A607	D17573-2	02145	A005	FG1-1024-901	27780	A135			
C18350	02145	A618	F17580-2	02145	A415	FG1-1024-901	27780	A198			
C18363	02145	A485	D18277-1	02145	A025	FRM26G1	71400	A035			
C18363	02145	A497	D18277-2	02145	A026	FRM26G1	71400	A036			
C18366-1	02145	A670	D18344	02145	A672	FO2A250V1	81349	A037			
C18366-2	02145	A671	D18371	02145	A030	G57NB3	03296	A883			
C18469-1	02145	A486	D18372	02145	A027	G57NB3	03296	A884			
C18469-2	02145	A498	D18503	02145	A028	G57NB3	03296	A885			
C18470	02145	A508	D18505	02145	A002	G57NB3	03296	A886			
C18470	02145	A526	D18521	02145	A040	HDTM	71041	A145			
C18470	02145	A544	D18523	02145	A039	HDTM	71041	A229			
C18470	02145	A562	FB35-2	71041	A290	HDTM	71041	A229			
C18473-1	02145	A580	FB35-3	71041	A156	HDTM	71041	A229			
C18473-2	02145	A582	FB35-3	71041	A379	HDTM	71041	A229			
C18502-1	02145	A487	FB35-3	71041	A380	HDTM	71041	A229			
C18502-2	02145	A499	FB35-3	71041	A381	HS25020-12	73957	A073			
C18504	02145	A584	FB35-3	71041	A382	HU54A4K	99041	A369			
C18504	02145	A595	FB46	71041	A364	HW3201	44560	A360			
C18504	02145	A606	FB46	71041	A365	LC032D3	84830	A525			
C18504	02145	A617	FB46	71041	A366	LC032D3	84830	A543			
C18511	02145	A628	FB46	71041	A367	LC032D3	84830	A561			
C18511	02145	A642	FB46	71041	A368	LC032D3	84830	A579			
C18517	02145	A049	FB46-2	71041	A014	LC055F3	84830	A075			
C223	27545	A374	FB46-2	71041	A015	LC055F3	84830	A293			
C280AE	73445	A920	FB46-2	71041	A016	LE029CT	84830	A592			
C426ARF80	73445	A16C	FB46-2	71041	A424	LE029CT	84830	A593			
C426ARF80	73445	A921	FB46-2	71041	A425	LE029CT	84830	A603			
D16791	02145	A302	FB46-2	71041	A721	LE029CT	84830	A604			
D16919-1	02145	A003	FB46-2	71041	A722	LE029CT	84830	A614			
D16919-2	02145	A004	FB46-2	71041	A723	LE029CT	84830	A615			
D17303-1	02145	A455	FB46-2	71041	A724	LE029CT	84830	A625			
D17303-1	02145	A481	FB46-3	71041	A889	LE029CT	84830	A626			
D17303-2	02145	A456	FB46-3	71041	A890	LE034CT	84830	A493			
D17303-2	02145	A492	FB46-3	71041	A891	LE034CT	84830	A504			
D17340-1	02145	A000	FP636-2	70901	A910	LE055D3	84830	A164			

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER			FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
LE055D3	84830	A708	MS16995-10	96906	A341	MS16995-26	96906	A687			
LE055D3	84830	A713	MS16995-10	96906	A414	MS16995-26	96906	A696			
LI-6	71041	A242	MS16995-14	96906	A348	MS16995-26	96906	A828			
LI-6	71041	A243	MS16995-16	96906	A092	MS16995-26	96906	A847			
MS15795-803	96906	A062	MS16995-16	96906	A285	MS16995-27	96906	A263			
MS15795-803	96906	A065	MS16995-17	96906	A232	MS16995-27	96906	A385			
MS15795-803	96906	A310	MS16995-17	96906	A413	MS16995-27	96906	A719			
MS15795-803	96906	A313	MS16995-17	96906	A860	MS16995-27	96906	A831			
MS15795-803	96906	A863	MS16995-18	96906	A019	MS16995-29	96906	A056			
MS16562-190	96906	A054	MS16995-18	96906	A058	MS16995-29	96906	A168			
MS16562-190	96906	A212	MS16995-18	96906	A428	MS16995-29	96906	A256			
MS16562-190	96906	A218	MS16995-18	96906	A865	MS16995-29	96906	A661			
MS16562-191	96906	A394	MS16995-19	96906	A020	MS16995-29	96906	A667			
MS16562-194	96906	A017	MS16995-19	96906	A098	MS16995-29	96906	A858			
MS16562-194	96906	A763	MS16995-19	96906	A233	MS16995-3	96906	A130			
MS16562-194	96906	A769	MS16995-19	96906	A268	MS16995-3	96906	A193			
MS16562-194	96906	A775	MS16995-19	96906	A347	MS16995-30	96906	A840			
MS16562-194	96906	A781	MS16995-19	96906	A429	MS16995-30	96906	A846			
MS16562-200	96906	A146	MS16995-19	96906	A857	MS16995-9	96906	A346			
MS16562-200	96906	A230	MS16995-19	96906	A862	MS16995-9	96906	A827			
MS16562-201	96906	A729	MS16995-20	96906	A349	MS16996-11	96906	A258			
MS16562-211	96906	A393	MS16995-25	96906	A009	MS16996-11	96906	A826			
MS16562-213	96906	A357	MS16995-25	96906	A214	MS16996-12	96906	A042			
MS16562-213	96906	A734	MS16995-25	96906	A643	MS16996-12	96906	A089			
MS16562-215	96906	A731	MS16995-25	96906	A692	MS16996-12	96906	A837			
MS16562-215	96906	A848	MS16995-25	96906	A701	MS16996-13	96906	A581			
MS16562-216	96906	A136	MS16995-25	96906	A759	MS16996-13	96906	A583			
MS16562-216	96906	A199	MS16995-25	96906	A765	MS16996-15	96906	A835			
MS16562-223	96906	A103	MS16995-25	96906	A771	MS16997-18	96906	A344			
MS16562-224	96906	A254	MS16995-25	96906	A777	MS16997-20	96906	A345			
MS16562-252	96906	A853	MS16995-25	96906	A829	MS16998-73	96906	A854			
MS16562-5	96906	A912	MS16995-26	96906	A138	MS20341-6B	96906	A147			
16624-1025	96906	A396	MS16995-26	96906	A299	MS21326-1	96906	A087			
16624-4025	96906	A108	MS16995-26	96906	A457	MS21326-1	96906	A266			
16624-4025	96906	A226	MS16995-26	96906	A483	MS21326-1	96906	A849			
16624-4025	96906	A252	MS16995-26	96906	A629	MS21332-11	96906	A694			
16624-4025	96906	A641	MS16695-26	96906	A657	MS21332-11	96906	A703			
16624-4025	96906	A655	MS16995-26	96906	A663	MS25281-4	96906	A846			

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER			FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
MS25281-4	96906	A867	MS35338-41	96906	A158	N6172	08863	A779			
MS25281-4	96906	A868	MS35490-4	96906	A887	PS062032	77122	A762			
MS25281-4	96906	A869	MS35490-4	96906	A888	PS062032	77122	A768			
MS25281-6	96906	A915	MS35649-242	96906	A864	PS062032	77122	A774			
MS25281-6	96906	A916	MS35649-244	96906	A355	PS062032	77122	A780			
MS25281-6	96906	A917	MS35650-83	96906	A495	PS188007	77122	A405			
MS25281P2	96906	A401	MS35650-83	96906	A506	PT25	94882	A074			
MS25281P2	96906	A402	MS35650-83	96906	A693	PT25	94882	A298			
MS27183-10	96906	A102	MS35650-83	96906	A702	P8130	97965	A930			
MS35191-268	96906	A444	MS35756-32	96906	A370	RV4NBYS103A	81349	A927			
MS35191-268	96906	A470	MS35756-32	96906	A906	RV4NBYS104A	81349	A929			
MS35206-228	96906	A843	MS35756-32	96906	A907	RV4NBYS503A	81349	A032			
MS35206-241	96906	A839	MS35756-32	96906	A908	RL8522	02145	A169			
MS35206-243	96906	A856	MS35756-32	96906	A909	SC83314-288	98003	A093			
MS35206-277	96906	A343	MS51021-34	96906	A351	SCB83314-288	98003	A094			
MS35221-15	96906	A234	MS51023-12	96906	A516	SCB83314-288	98003	A235			
MS35223-2	96906	A594	MS51023-12	96906	A534	SCB83314-288	98003	A236			
MS35223-2	96906	A605	MS51023-12	96906	A552	SCRBTWHDST8-32X7-8	70276	A115			
MS35223-2	96906	A616	MS51023-12	96906	A570	SRCAPSCB8ST6-32X1	70138	A161			
MS35223-2	96906	A627	MS51023-48	96906	A353	SFR168K25	83086	A449			
MS35223-26	96906	A085	MS51023-49	96906	A241	SFR168K25	83086	A450			
MS35223-26	96906	A109	MS51023-49	96906	A352	SFR168K25	83086	A451			
MS35223-26	96906	A259	MS51023-53	96906	A691	SFR168K25	83086	A452			
MS35223-26	96906	A705	MS51023-53	96906	A700	SFR168K25	83086	A453			
MS35223-26	96906	A710	MS51029-51	96906	A354	SFR168K25	83086	A454			
MS35223-26	96906	A833	MS51923-197	96906	A043	SFR168K25	83086	A475			
MS35223-27	96906	A018	MS59231-196	96906	A157	SFR168K25	83086	A476			
MS35223-27	96906	A166	MS59231-196	96906	A291	SFR168K25	83086	A477			
MS35223-32	96906	A076	MS91528-1D2B	96906	A033	SFR168K25	83086	A478			
MS35223-39	96906	A350	NPS1782LE	07886	A374	SFR168K25	83086	A479			
MS35223-43	96906	A384	NPS1782LE	07886	A874	SFR168K25	83086	A480			
MS35223-43	96906	A832	N14B18	72525	A338	SFR168K25	83086	A518			
MS35223-47	96906	A844	N14B18	72625	A372	SFR168K25	83086	A519			
MS35224-63	96906	A861	N5712	08863	A112	SFR168K25	83086	A520			
MS35233-2	96906	A129	N5712	08863	A113	SFR168K25	83086	A521			
MS35233-2	96906	A192	N6172	08863	A761	SFR168K25	83086	A522			
MS35233-27	96906	A427	N6172	08863	A767	SFR168K25	83086	A523			
MS35241-19	96906	A399	N6172	08863	A773	SFR168K25	83086	A536			

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			FEDERAL STOCK NUMBER			FEDERAL STOCK NUMBER		
ITEM SEQUENCE NUMBER			ITEM SEQUENCE NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
SPR168K25	83086	A537	SPR1883PK25	83086	A105	TY24M	18321	A941
3PR168K25	83086	A538	SPR1883PK25	83086	A106	TY24M	18321	A942
3PR168K25	83086	A539	SPR1883PK25	83086	A107	TY24M	18321	A943
3PR168K25	83086	A540	SPR1883PK25	83086	A250	TY24M	18321	A944
3PR168K25	83086	A541	SPR1883PK25	83086	A251	TY24M	18321	A945
4PR168K25	83086	A554	SPR43PK25	83086	A244	TY24M	18321	A946
4PR168K25	83086	A555	SPR43PK25	83086	A245	TY24M	18321	A947
4PR168K25	83086	A556	SPR43PK25	83086	A246	TY24M	18321	A948
4PR168K25	83086	A557	SPR43PK25	83086	A247	TY24M	18321	A949
4PR168K25	83086	A558	SPR43PK25	83086	A248	TY24M	18321	A950
4PR168K25	83086	A559	SPR43PK25	83086	A249	TY24M	18321	A951
4PR168K25	83086	A572	SPR43PK25	83086	A361	TY24M	18321	A952
4PR168K25	83086	A573	SPR43PK25	83086	A362	TY24M	18321	A953
4PR168K25	83086	A574	SM689309	94197	A001	TY24M	18321	A954
4PR168K25	83086	A575	SM689312GR2	94197	A981	TY24M	18321	A955
4PR168K25	83086	A576	SRC3	24011	A324	TY24M	18321	A956
4PR168K25	83086	A577	SR6P1	28520	A913	TY24M	18321	A957
4PR168K25	83086	A636	S01C3L	78643	A524	TY24M	18321	A958
4PR168K25	83086	A637	S0103L	78643	A542	TY24M	18321	A959
4PR168K25	83086	A638	S0103L	78643	A560	TY24M	18321	A960
4PR168K25	83086	A639	S0103L	78643	A578	TY24M	18321	A961
4PR168K25	83086	A650	S0103	78643	A875	TY24M	18321	A962
4PR168K25	83086	A651	S103	78643	A876	TY24M	18321	A963
4PR168K25	83086	A652	S103	78643	A877	TY24M	18321	A964
4PR168K25	83086	A653	S103	78643	A878	TY24M	18321	A965
4PR168K25	83086	A892	S103	78643	A879	TY24M	18321	A966
4PR168K25	83086	A893	S103	78643	A880	TY24M	18321	A967
4PR168K25	83086	A894	S103	78643	A881	TY24M	18321	A968
4PR168K25	83086	A895	S103	78643	A882	TY24M	18321	A969
4PR168K25	83086	A896	S632-2	46384	A757	TY24M	18321	A970
4PR168K25	83086	A897	TB410	71041	A904	TY24M	18321	A971
4PR168K25	83086	A898	TB410	71041	A905	TY24M	18321	A972
4PR168K25	83086	A899	TYPE24-3-16X3-4	73957	A340	TY24M	18321	A973
4PR168K25	83086	A900	TY24M	18321	A936	TY24M	18321	A974
4PR168K25	83086	A901	TY24M	18321	A937	TY24M	18321	A975
4PR168K25	83086	A902	TY24M	18321	A938	TY24M	18321	A976
4PR168K25	83086	A903	TY24M	18321	A939	TY24M	18321	A977
4PR168K25	83086	A104	TY24M	18321	A940	TY24M	18321	A978

SECTION IV INDEX-FEDERAL STOCK NUMBER & REFERENCE NUMBER CROSS-REFERENCE
TO ITEM SEQUENCE NUMBER (Continued)

FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER			FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER			FEDERAL STOCK NUMBER			ITEM SEQUENCE NUMBER		
REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.	REF. NO.	MFG. CO.	ITEM SEQ. NO.
TY24M	18321	A979	31-05-63-02	06175	A985	8-32X1-4SHSST	70276	A095									
TY24M	18321	A980	31-05-63-02	06175	A986	8-32X1-5-BSHSST	70276	A257									
T58354	00159	A931	31-05-64	06175	A983	833	83330	A084									
T58354	00159	A932	31-05-64	06175	A984	8363K7	15605	A034									
UT2-35	76005	A870	31-05-68	06175	A988	8363K7	15605	A110									
UT2-35	76005	A871	31-05-68	06175	A989	8363K7	15605	A928									
UT2-50	76005	A872	312008	75915	A038												
UT2-50	76005	A873	320561	00779	A149												
VH6-2000-942	27780	A134	381	70485	A099												
VH6-2000-942	27780	A197	381	70485	A100												
10-32X3-8HHCDFL	70138	A325	381	70485	A264												
10BD6A	81348	A922	381	70485	A265												
1471	83330	A148	4-40X1SHSST	70138	A061												
15-250-0500	73975	A426	4-40X1SHSST	70138	A064												
16	70485	A237	4-40X1SHSST	70138	A309												
16	70485	A238	4-40X1SHSST	70138	A312												
174125	16428	A914	4-40X5-16 SST	70138	A727												
200036-6	02145	A029	440CS3-4X23-1-4	26002	A261												
200545-6	02145	A059	440CS3-4X23-1-4	26002	A262												
200596-12	02145	A079	5-16-18X3-16SST	70138	A356												
200596-12	02145	A082	5-170	71785	A933												
200596-12	02145	A273	5-170	71785	A934												
200596-12	02145	A276	5-170	71785	A935												
200612	02145	A517	508	83330	A153												
200612	02145	A535	515-875	75495	A850												
200612	02145	A553	53-70-25	06175	A982												
200612	02145	A571	53-70-26	06175	A993												
22NKTMB2	72962	A830	53-70-26	06175	A994												
22NMO2	72962	A119	53-70-27	06175	A992												
22NMO2	72962	A143	53-70-32	06175	A987												
22NMO2	72962	A182	537096-220	06175	A990												
22NMO2	72962	A227	537096-220	06175	A991												
25	83086	A358	6-32X7-16SHSST	70276	A066												
25020-12	14438	A296	6-32X7-16SHSST	70276	A409												
3AG3	71400	A924	6-32X7-16SHSST	70276	A855												
3AG8	71400	A923	6-32X7-8SHSST	70276	A260												
3JX29	56289	A925	653	83330	A359												
3JX29	56289	A926	79NMO2	72962	A842												

**SECTION V INDEX-FIGURE & ITEM NUMBER
CROSS REFERENCE TO ITEM SEQUENCE NUMBER**

FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER	FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER	FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER
3-5	1	A093	3-5	42	A051	3-6	21	A251
3-5	1	A094	3-5	43	A140	3-6	22	A226
3-5	10	A112	3-5	44	A138	3-6	23	A227
3-5	10	A113	3-5	45	A139	3-6	24	A181
3-5	11	A097	3-5	46	A117	3-6	25	A182
3-5	12	A095	3-5	47	A115	3-6	26	A244
3-5	13	A162	3-5	48	A116	3-6	26	A245
3-5	14	A165	3-5	49	A101	3-6	27	A207
3-5	15	A166	3-5	5	A111	3-6	28	A208
3-5	16	A167	3-5	50	A114	3-6	29	A256
3-5	17	A049	3-5	51	A102	3-6	3	A260
3-5	18	A055	3-5	52	A149	3-6	30	A255
3-5	19	A059	3-5	54	A088	3-6	31	A205
3-5	2	A092	3-5	55	A160	3-6	32	A242
3-5	20	A058	3-5	56	A159	3-6	33	A203
3-5	21	A056	3-5	57	A042	3-6	34	A243
3-5	22	A060	3-5	58	A158	3-6	35	A246
3-5	22	A063	3-5	59	A090	3-6	36	A172
3-5	23	A057	3-5	59	A091	3-6	36	A173
3-5	24	A061	3-5	60	A089	3-6	37	A174
3-5	24	A064	3-5	61	A041	3-6	37	A175
3-5	25	A069	3-5	7	A110	3-6	38	A281
3-5	26	A083	3-5	8	A099	3-6	38	A282
3-5	29	A144	3-5	8	A100	3-6	38	A283
3-5	3	A151	3-5	9	A098	3-6	38	A284
3-5	3	A152	3-6	1	A264	3-6	4	A235
3-5	31	A104	3-6	1	A265	3-6	4	A236
3-5	31	A105	3-6	11	A179	3-6	41	A267
3-5	32	A142	3-6	11	A180	3-6	42	A268
3-5	34	A143	3-6	13	A292	3-6	43	A224
3-5	35	A050	3-6	14	A296	3-6	44	A223
3-5	36	A148	3-6	17	A253	3-6	45	A258
3-5	38	A106	3-6	18	A200	3-6	46	A213
3-5	38	A107	3-6	19	A257	3-6	47	A214
3-5	39	A118	3-6	2	A300	3-6	5	A259
3-5	4	A161	3-6	2	A301	3-6	5	A285
3-5	40	A108	3-6	20	A225	3-6	50	A252
3-5	41	19	3-6	21	A250	3-6	51	A221

SECTION V INDEX-FIGURE & ITEM NUMBER
CROSS REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER	FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER	FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER
3-6	52	A206	3-7	25	A396	3-7	54	A329
3-6	54	A246	3-7	26	A364	3-7	55	A379
3-6	54	A248	3-7	27	A386	3-7	55	A380
3-6	55	A204	3-7	28	A365	3-7	55	A381
3-6	57	A249	3-7	29	A307	3-7	55	A382
3-6	58	A176	3-7	3	A341	3-7	56	A394
3-6	58	A177	3-7	31	A335	3-7	57	A360
3-6	59	A263	3-7	32	A406	3-7	59	A362
3-6	6	A170	3-7	33	A369	3-7	6	A395
3-6	6	A171	3-7	34	A370	3-7	60	A321
3-6	60	A287	3-7	35	A336	3-7	61	A347
3-6	62	A178	3-7	36	A366	3-7	62	A404
3-6	63	A222	3-7	37	A399	3-7	63	A333
3-6	65	A219	3-7	38	A397	3-7	64	A334
3-6	65	A220	3-7	38	A398	3-7	65	A351
3-6	66	A241	3-7	39	A345	3-7	67	A332
3-6	67	A201	3-7	4	A246	3-7	68	A330
3-6	67	A202	3-7	40	A309	3-7	69	A378
3-6	68	A261	3-7	40	A312	3-7	7	A405
3-6	68	A262	3-7	41	A310	3-7	70	A389
3-6	8	A237	3-7	41	A313	3-7	71	A359
3-6	8	A238	3-7	42	A308	3-7	72	A352
3-6	9	A239	3-7	42	A311	3-7	73	A353
3-6	9	A240	3-7	43	A314	3-7	75	A317
3-7	1	A312	3-7	44	A390	3-7	76	A344
3-7	10	A315	3-7	45	A354	3-7	77	A326
3-7	11	A303	3-7	46	A349	3-7	78	A323
3-7	12	A304	3-7	47	A361	3-7	79	A322
3-7	13	A350	3-7	48	A331	3-7	8	A371
3-7	14	A357	3-7	49	A383	3-7	80	A318
3-7	17	A337	3-7	5	A316	3-7	81	A391
3-7	18	A374	3-7	50	A385	3-7	82	A358
3-7	2	A355	3-7	51	A376	3-7	83	A392
3-7	21	A338	3-7	51	A377	3-7	84	A306
3-7	21	A410	3-7	52	A387	3-7	85	A319
3-7	21	A411	3-7	52	A368	3-7	85	A320
3-7	22	A384	3-7	54	A327	3-7	86	A305
3-7	24	A375	3-7	54	A328	3-7	9	A343

**SECTION V INDEX-FIGURE & ITEM NUMBER
CROSS REFERENCE TO ITEM SEQUENCE NUMBER (Continued)**

FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER	FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER	FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER
447	1	A690	447	21	A693	448	4	A696
447	1	A691	448	22	A698	448	4	A698
447	1	A692	448	23	A642	448	4	A609
448	1	A694	448	23	A630	448	4	A619
448	1		448	24	A633	448	4	A620
448	1	A695	448	23	A646	448	40	A448
448	1	A696	448	23	A647	448	40	A449
448	1	A697	448	24	A650	448	40	A447
448	11	A698	448	25	A675	448	40	A448
448	11	A699	448	26	A676	448	41	A450
448	11	A700	448	26	A674	448	42	A451
448	11	A701	448	27	A705	448	43	A452
448	11	A690	448	27	A710	448	44	A453
448	13	A705	448	27	A723	448	45	A454
448	13	A706	448	28	A726	448	46	A471
448	14	A707	448	28	A711	448	46	A470
448	14	A708	448	28	A734	448	46	A472
448	14	A709	448	28	A700	448	47	A481
448	14	A710	448	28	A701	448	48	A482
448	14	A711	448	28	A702	448	49	A502
448	14	A712	448	28	A717	448	50	A522
448	14	A713	448	28	A718	448	51	A599
448	14	A714	448	28	A719	448	52	A610
448	14	A715	448	28	A724	448	53	A611
448	14	A716	448	28	A725	448	54	A620
448	14	A717	448	28	A726	448	55	A674
448	14	A718	448	28	A727	448	56	A675
448	14	A719	448	28	A728	448	57	A676
448	14	A720	448	28	A729	448	58	A677
448	14	A721	448	28	A730	448	59	A678
448	14	A722	448	28	A731	448	60	A679
448	14	A723	448	28	A732	448	61	A680
448	14	A724	448	28	A733	448	62	A681
448	14	A725	448	28	A734	448	63	A682
448	14	A726	448	28	A735	448	64	A683
448	14	A727	448	28	A736	448	65	A684
448	14	A728	448	28	A737	448	66	A685
448	14	A729	448	28	A738	448	67	A686
448	14	A730	448	28	A739	448	68	A687
448	14	A731	448	28	A740	448	69	A688
448	14	A732	448	28	A741	448	70	A689
448	14	A733	448	28	A742	448	71	A690
448	14	A734	448	28	A743	448	72	A691
448	14	A735	448	28	A744	448	73	A692
448	14	A736	448	28	A745	448	74	A693
448	14	A737	448	28	A746	448	75	A694
448	14	A738	448	28	A747	448	76	A695
448	14	A739	448	28	A748	448	77	A696
448	14	A740	448	28	A749	448	78	A697
448	14	A741	448	28	A750	448	79	A698
448	14	A742	448	28	A751	448	80	A699
448	14	A743	448	28	A752	448	81	A700
448	14	A744	448	28	A753	448	82	A701
448	14	A745	448	28	A754	448	83	A702
448	14	A746	448	28	A755	448	84	A703
448	14	A747	448	28	A756	448	85	A704
448	14	A748	448	28	A757	448	86	A705
448	14	A749	448	28	A758	448	87	A706
448	14	A750	448	28	A759	448	88	A707
448	14	A751	448	28	A760	448	89	A708
448	14	A752	448	28	A761	448	90	A709
448	14	A753	448	28	A762	448	91	A710
448	14	A754	448	28	A763	448	92	A711
448	14	A755	448	28	A764	448	93	A712
448	14	A756	448	28	A765	448	94	A713
448	14	A757	448	28	A766	448	95	A714
448	14	A758	448	28	A767	448	96	A715
448	14	A759	448	28	A768	448	97	A716
448	14	A760	448	28	A769	448	98	A717
448	14	A761	448	28	A770	448	99	A718
448	14	A762	448	28	A771	448	100	A719

SECTION V INDEX-FIGURE & ITEM NUMBER
CROSS REFERENCE TO ITEM SEQUENCE NUMBER (Continued)

FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER	FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER	FIGURE NUMBER	ITEM NUMBER	ITEM SEQUENCE NUMBER
124	1	A111						
124	1	A112						
124	11	A114						
124	7	A115						
124	7	A116						
124	1	A117						
124	9	A118						

Order of the Secretary of the Army:

W. C. WESTMORELAND,
General, United States Army,
Chief of Staff.

at:

W. L. BOWERS,
General, United States Army,
Adjutant General.

Station:

United States Army:
 USASA (2)
 CNGB (1)
 AC3C-E (2)
 Dir of Trans (1)
 CofEngrs (1)
 CofSptS (1)
 USACDC (2)
 USACDC Agcy (1) except
 USACDCINTA (5)
 USAMB (10)
 USAMC (1)
 CONARC (5)
 ARADCOM (2)
 ARADCOM Rgn (1)
 OS Maj Comd (4)
 LOGCOMD (5)
 USAPA (5)
 USAESC (70)
 USAIIC (5)
 MDW (1)
 Armies (2)
 Corps (2)
 Div (2)
 SigFLDMS (1)
 ATS (1)
 USAERDAA (2)
 USAERDAW (2)
 USACCREL (2)
 Jvc Colleges (2)
 JSAINTS (40)
 JSAOC&S (10)
 JSASCS (10)
 JSASESS (5)
 JSAAESWBD (5)
 JSACDCEC (10)
 Lt Holabird (10)
 Lt Gordon (10)
 Lt Huachuca (10)
 VSMR (5)
 Lt Carson (10)
 Army Dep (1) except
 LBAD (10)
 SAAD (10)
 TOAD (10)

LEAD (7)
 ATAD (5)
 GENDEP (2)
 Sig Sec GEND&P (5)
 Sig Dep (6)
 Units org under fol TOE:
 (1 cy ea unit)
 1-78
 1-102
 1-128
 6-401
 6-575
 11-96
 11-127
 11-158
 11-226
 11-237
 11-500 (AA-AC)
 17-15
 17-51
 29-134
 29-136
 29-427
 30-5
 30-6
 30-7
 30-14
 30-17
 30-18
 30-25
 30-26
 31-105
 31-107
 51-1
 52-1

NG: None.

USAR: None.

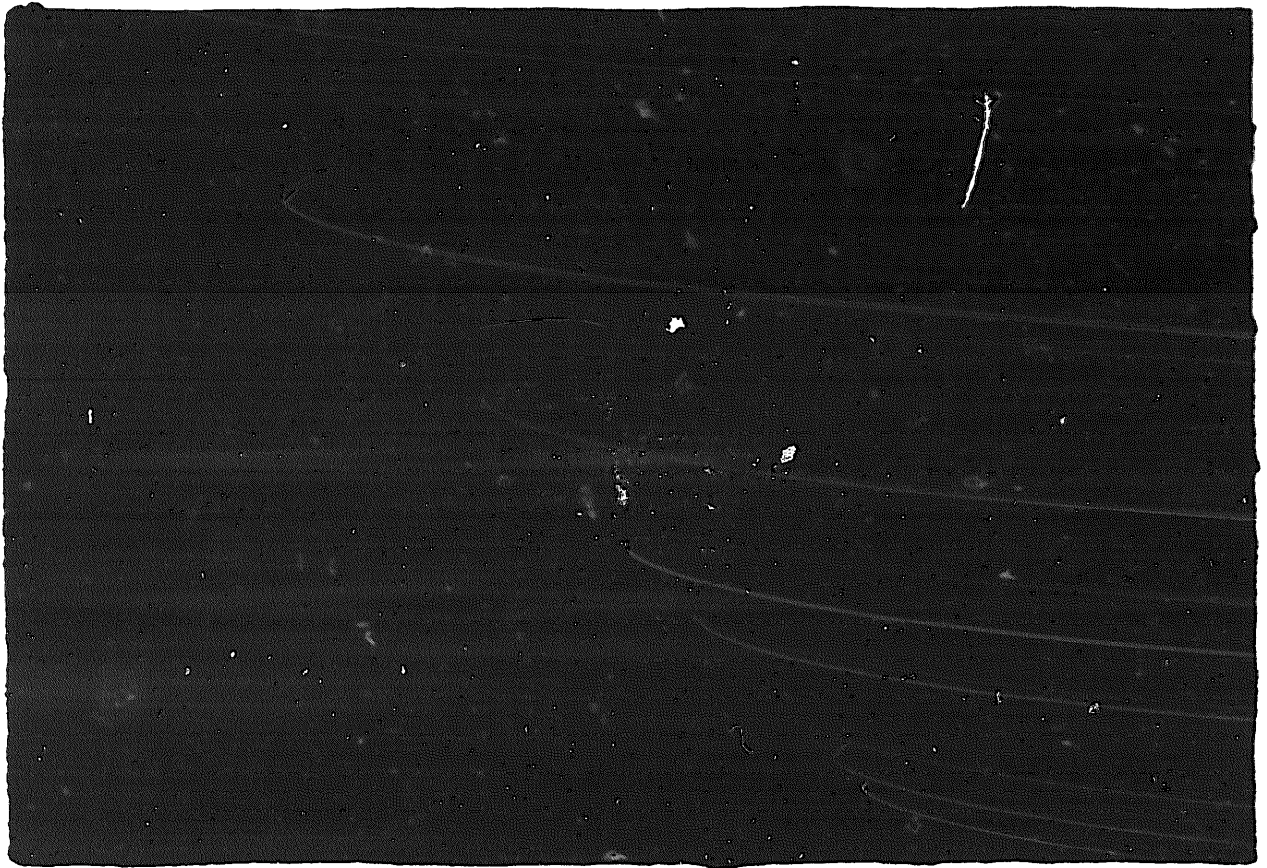
For explanation of abbreviations used, see AR 310-50.

END

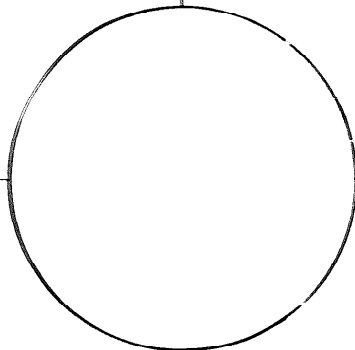
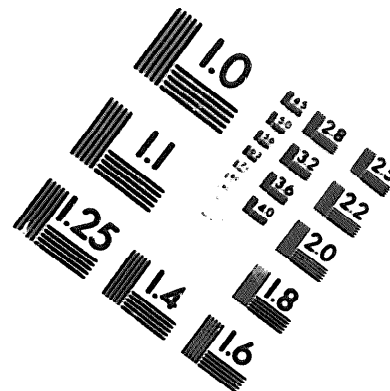
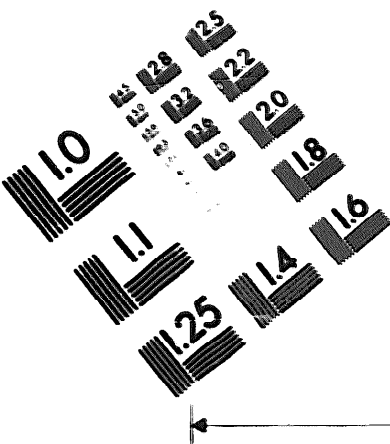
01-07-83

DATE





DEPARTMENT OF THE ARMY
MICROFORM
TEST TARGET



150 MM

1.0 mm (e= 40 μm)

ABCDEFGHIJKLMN OPQRSTUVWXYZ 1234567890
abcdefghijklmnopqrstuvwxyz \$%&'/%# 1/2 1/4 ---+ x&@*

1.5 mm (e= 1.09 mm)

ABCDEFGHIJKLMN OPQRSTUVWXYZ 1234567890
abcdefghijklmnopqrstuvwxyz \$%&'/%# 1/2 1/4 ---+ x&@*

2.0 mm (e= 1.37 mm)

ABCDEFGHIJKLMN OPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 \$%&'/%# 1/2 1/4 ---+ x&@*

2.5 mm (e= 1.77 mm)

ABCDEFGHIJKLMN OPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 \$%&'/%# 1/2 1/4 ---+ x&@*

1.0 mm (e= 81 μm)

ABCDEFGHIJKLMN OPQRSTUVWXYZ 1234567890
abcdefghijklmnopqrstuvwxyz \$%&'/%# 1/2 1/4 ---+ x&@*

1.5 mm (e= 1.09 mm)

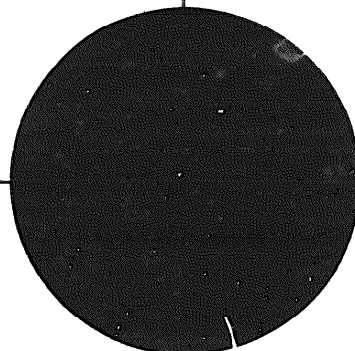
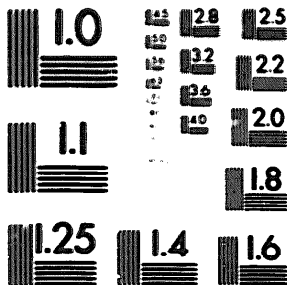
ABCDEFGHIJKLMN OPQRSTUVWXYZ 1234567890
abcdefghijklmnopqrstuvwxyz \$%&'/%# 1/2 1/4 ---+ x&@*

2.0 mm (e= 1.37 mm)

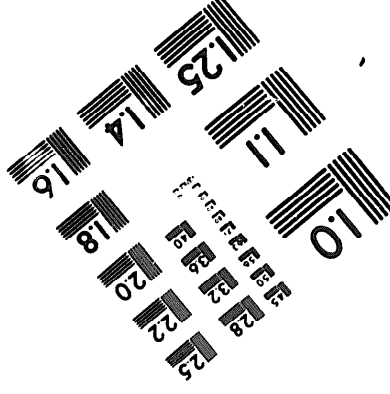
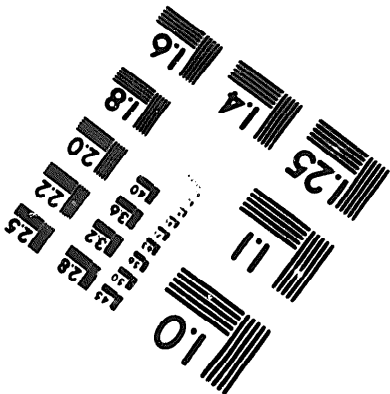
ABCDEFGHIJKLMN OPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 \$%&'/%# 1/2 1/4 ---+ x&@*

2.5 mm (e= 1.77 mm)

ABCDEFGHIJKLMN OPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 \$%&'/%# 1/2 1/4 ---+ x&@*



200 MM



250 MM