TM 11-6625-1733-12

TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOL LISTS

TEST SET, OPTICAL ALIGNMENT AN/AAM-36

HEADQUARTERS, DEPARTMENT OF THE ARMY

JULY 1970

WARNING

DEATH or SERIOUS INJURY may result from hazards in this equipment. READ and OBSERVE the following warnings.

WARNING

The fumes of trichloroethane are toxic. Provide thorough ventilation whenever used. DO NOT use near an open flame. Trichloroethane is not flammable, but exposure of the fumes to an open flame converts the fumes to highly toxic, dangerous gases.

WARNING

Be extremely careful with explosives and incendiary devices. Use these items only when the need is urgent.

WARNING

Two men are required to lift the optical alignment test set.

TM 11-6625-1733-12
C-3

CHANGE
No. 3

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, *30 May 1978*

Operator and Organizational Maintenance Manual
Including Repair Parts and Special Tool Lists
TEST SET, OPTICAL ALIGNMENT AN/AAM-36
(NSN 6625-00-408-5040)

TM 11-6625-12, 7 July 1970, is changed as follows:
1. Title of Manual is changed as shown above.
2. A vertical bar appears opposite changed material.
3. Remove and insert pages as indicated in the page list below:

Remove	*Insert*
i and ii	i and ii
1-1 and 1-2	1-1 and 1-2
3-3 and 3-4	3-3 and 3-4
4-2 and 4-4	4-3 and 4-4
C-1 through C-6	C-1 through C-5

4. File this change sheet in the front of the manual for reference purposes.

By Order of the Secretary of the Army:

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General, United States Army
Chief of Staff

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Distribution:

Active Army, ARNG: To be distributed in accordance with DA Form 12-36A, Section II, organizational literature requirements for AN/AAM-36.

CHANGE No. 2

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 12 *August 1974*

Operator and Organizational Maintenance Manual Including Repair Parts and Special Tools Lists

TEST SET, OPTICAL ALIGNMENT AN/AAM-36

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Remove	*Insert*
i and ii	*i and ii*
1-1 and 1-2	*1-2 and 1-2*
B-1 through B-4.1	*B - 1*

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TM11-6625-1733-12
C 1

CHANGE
No. 1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., *27 April 1972*

Operator's and Orgnizational Maintenance Manual
Including Repair Parts and Special Tool Lists
TEST SET, OPTICAL ALIGNMENT AN/AAM-36

TM11-5625-1732-12, dated 7 July 1970, is changed as follows:

1. Remove old pages and insert new pages as indicated below.

Remove pages	Insert pages
	Warning page
iv through vi	iv through vi
1-1 through l-13	1-1 through 1-13 (reverse blank)
3-1 through 3-3	3-1 through 3-3 (reverse blank)
4-1 through 4-4	4-1 through 4-5
A-l	A-1
B-1 through B-1	B-1 through B-4
C-3 through C-6	C-1 through C-6
D-1 through D-5	D-1 through D-5 (reverse blank)

2. Changes or additions to text or illustrations are indicated by a vertical bar in the margin.

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TECHNICAL MANUAL
No. 11-6625-1733-12

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 7 July 1970

Operator and Organizational Maintenance Manual Including Repair Parts and Special Tool Lists
TEST SET, OPTICAL ALIGNMENT AN/AAM-36 (NSN 6625-00-408-5040)

LIST OF ILLUSTRATIONS

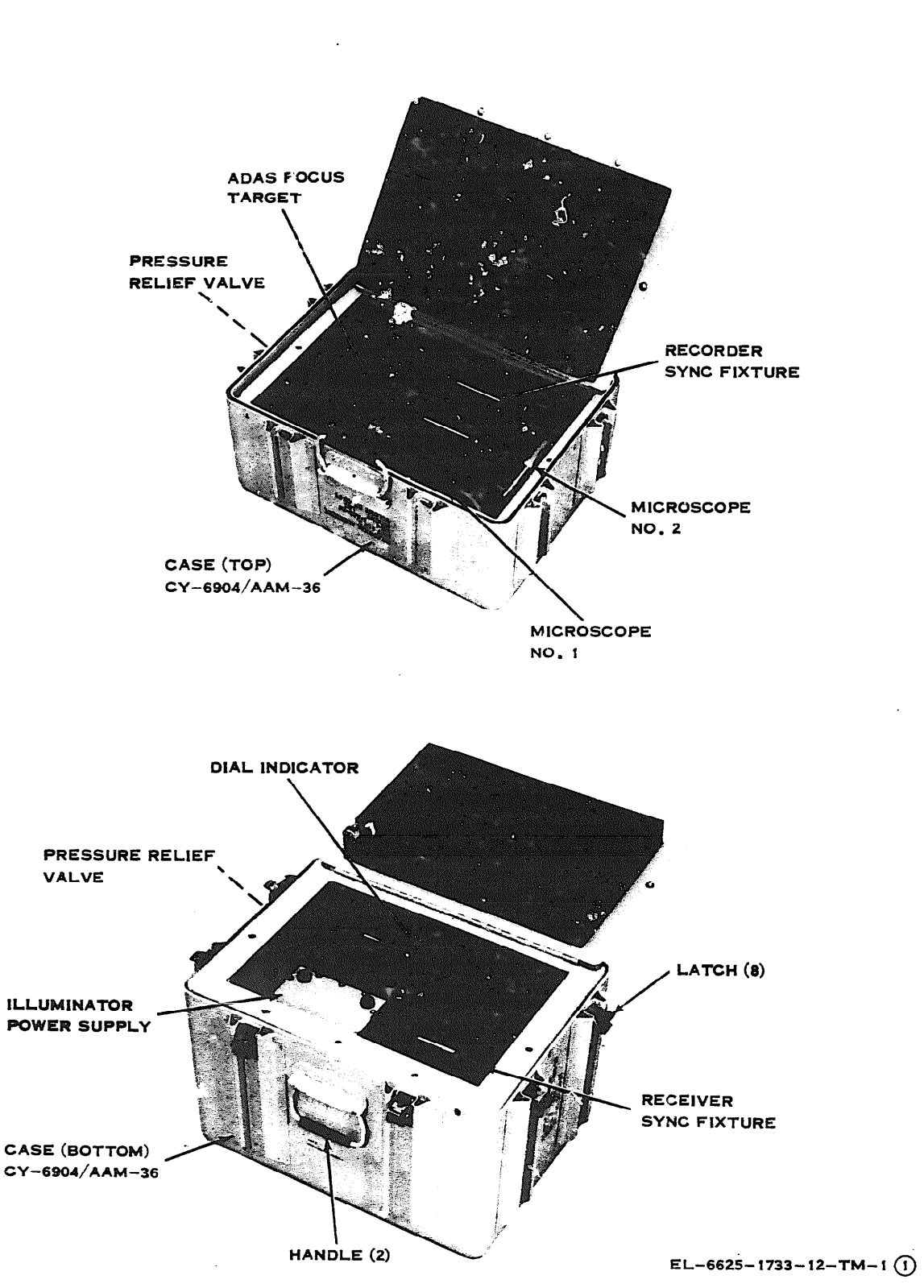


Figure 1-1.(1) Test Set. Optical Alignment AN/AAM-36 case NO.1 (part 1 of 3).

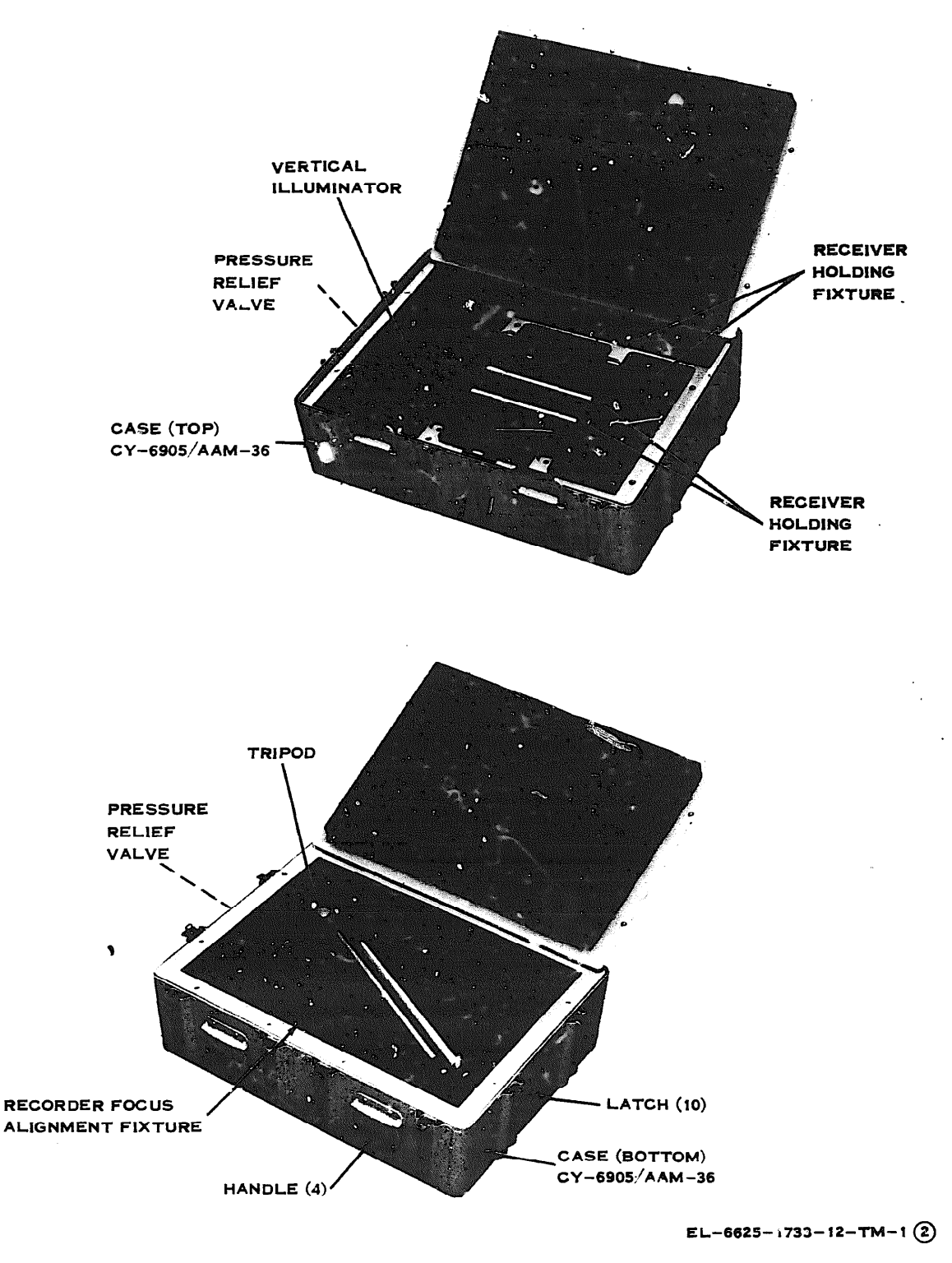


Figure 1-1 .Test Set, Optical Alignment AN/AAM-36 case No. 2 (part 2 of 3).

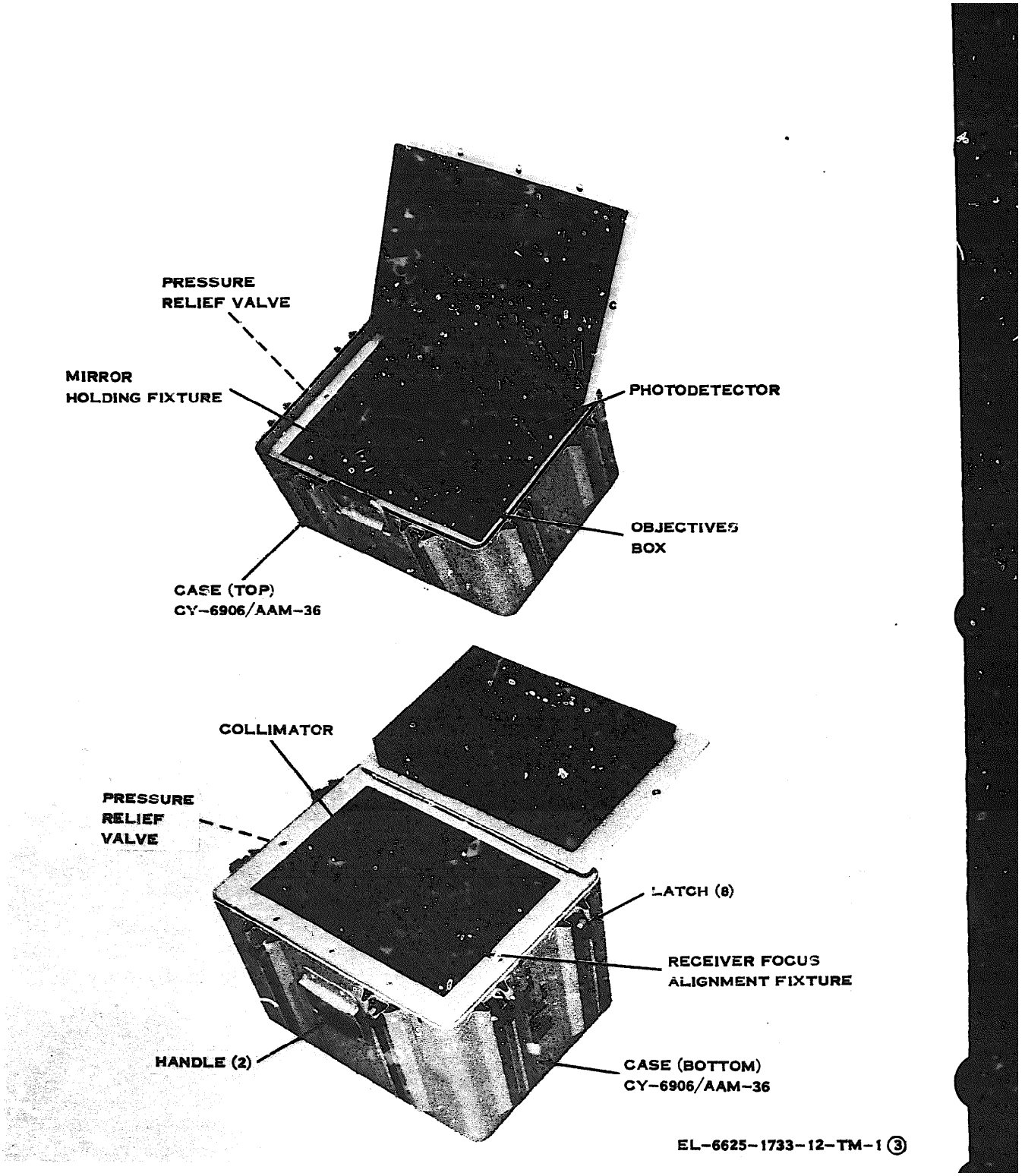


Figure 1-1.③. Test Set. Optical Alignment AN/AAM-36 case No. *3 (part 3 of 3).*

CHAPTER 1
INTRODUCTION

Section I. General

1-1. Scope of Manual

A. This manual describes Test Set, Optical Alignment AN/AAM-36 (optional alignment test set) and covers installation, operation, and organizational maintenance. Instructions for operation under unusual conditions, performing preventive and periodic maintenance services and replacement of parts available to organizational repair men are provided.

b. Instructions for using Test Set, Optical Alignment AN/AAM-36 in testing components of Detecting Set, Infrared AN/AAS-24 are contained in (C) TM 11-5850-241-34/2.

c. Appendix A contains references; appendix B contains the basic issue items list and items troop installed or authorized list; appendix C contains the maintenance allocation chart; and appendi:: D contains the organizational repair parts and special tools list.

NOTE

The AN/AAM-36 is unit 1, all reference designations should be prefixed with 1A1 for completeness.

1-2. Indexes of Publications

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

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

1-3. Forms and Records

a. Reports of Maintenance and Unsatisfactory Equipment. Maintenance forms, records, and reports which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed by TM 38-750.

b. Report of Packaging and Handling Deficiencies. Fill out and forward DD Form 6 (Packaging Improvement Report) as prescribed in AR 700-58/NAVSUPINST 4030.29/APR 71-13/MCO P4030.29A, and DLAR 4145.8.

c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33B/AFR 75-18/MCO P4610.19 C and DLAR 4500.15.

1-3.1. Reporting of Errors

The reporting of errors, omissions and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forwarded direct to Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-MA-Q, Fort Monmouth, New Jersey 07703.

1-3.2. Reporting Equipment Improvements Recommendations (EIR)

EIR's will be prepared using DA Form 2407, Maintenance Request. Instructions for preparing EIR's are provided in TM 38-750, The Army Maintenance Management System. EIR's should be mailed direct to Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-MA-Q, Fort Monmouth, New Jersey 07703. A reply will be furnished direct to you.

1-3.3. Destruction of Army Electronics Material

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM *750-244-2.*

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. Test Set, Optical Alignment AN/AAM-36 provides the capability for checking the focus and alignment of Detecting Set, Infrared AN/AAS-24 optics.

b. Focus and alignment performed using Test Set, Optical Alignment AN/AAM-36 includes-

(1) Receiver Infrared R-1615/AAS-24.
  (a) Optical focus and alignment.
  (b) Synchronizer
(2) Recorder Magazine OA-8511/AAS-24.
  (a) Microscope objective focus, angle and track alignment.
  (b) Airborne Data Annotation System (adas) AN/AYA-10 focus and alignment.
  (c) Synchronizer alignment.
  (d) Light emitting diode balance.

1-5. Technical Characteristics

a. Input power to illuminator power supply +28, -4.0, +0.5 vdc, 3.6 amps max.

b. Input power to photodetector.
  (1) +13±0.1-vdc, 0.5 amp max.
  (2) -13±0.1-vdc, 0.5 amp max.

1-6. Items comprising an operable Equipment

FSN	QTY	Nomenclature part No., and mfr code	Wt. (lbs)	Dimensions (in) Height	Depth	Width	Fig. No.
6625-408-5040	1	Test Set, Optical Alignment AN/AAM-36 Consisting of:					1-1
		NOTE The part number is followed by the applicable 5-digit Federal supply code for manufacturers (FSCM) identified in SB 708-42 and used to identify manufacturer, distributor, or Government agency, etc.					
6625-433-2379	1	Test Set No. 1: 692555-1 (96214) (1MP2), consisting of:	5.0	22.2	16.8	21.8	1-1
6625-408-5046	1	Fixture, Alignment MX-8778/AAM-36 (1MP2MP2)		7.4	5.9	6.4	1-6
6625-408-5016	1	Fixture, Alignment MX-8779/AAM-36 (1MP2MP3)	2.5	2.3	7.0	5.6	1-4
5210-403-5825	1	Indicator, Dial ID-1745/AAM-36 (1MP2MP4)	0.7	9.4	2.7	2.7	1-7
6650-182-7790	1	Microscope, Optical SU-59/AAM-36 (1MP2MP5)	0.8	2.4	7.5	2.4	1-2
6650-182-7791	1	Microscope, Optical SU-60/AAM-36 (1MP2MP6)	0.8	2.4	7.6	2.4	2-3
	1	Test Set No. 2: 694292-1 (96214) (1MP3), consisting of:	135.0	20.0	27.0	35.0	1-1
6625-408-5015	1	Fixture, Alignment MX-8780/AAM-36 (1MP3MP3)	13.7	3.3	8.0	18.0	1-13
6625-408-5026	1	Fixture, Alignment MX-8781/AAM-36 (1MP3MP2)	0.6	1.75	43.0	1.75	1-12
6625-407-7257	1	Maintenance Fixture, Receiver MT-4298/AAM-63 (1MP3MP4)	21.0	20.1	12.6	21.9	1-10
5850-252-5771	1	Tripod, Collimator MT-4299/AAM-36 (1MP3MP5)	7.5	32.5	30.0	30.0	1-11
	1	Test Set No. 3: 696036-1 (96214) (1MP4), consisting of:	61.0	20.9	15.2	20.2	1-1
6625-408-5027	1	Accessory Kit, Optical Equipment MT-1515/AAM-36 (1MP4MP1)	1.0	2.5	5.2	7.0	1-16
6625-408-5029	1	Fixture, Alignment MX-8782/AAM-36 (1MP4MP3)	2.7	4.5	7.3	4.8	1-18
6625-408-5030	1	Fixture, Alignment MX-8783/AAM-36 (1MP4MP4)	1.8	2.8	7.1	7.2	1-15
5860-408-5029	1	Detector, Light Intensity IM-223/AAM-36 (1A1)	1.0	2.4	8.8	8.8	1-14
6625-408-5018	1	Power Supply PP-6507/AAM-36 (1A2)	2.5	4.0	8.5	5.9	1-8
6625-408-5028	1	Light, Optical Alignment MX-8784/AAM-36 (1A3)	4.9	111.9	4.9	4.9	1-9
6625-408-5031	1	Simulator, Target SM-590/AAM-36 (1A4)	0.6	1.75	43.0	1.75	1-5
6625-407-7104	1	Collimator, Recorder SU-61/AAM-36 (1A5)	8.6	2.8	2.8	16.5	1-17
6625-408-5026	1	Cable Assembly, Power, Electrical CX-12408/U (1W1)	0.5	96(lg)			1-8

1-6.1. Expendable Consumable Supplies and Materials

Expendable Consumable Supplies and Materials are listed in table 1-1.

Table 1-1. Expendable Consumable Supplies and Materials

The supplies and materials listed in this table are required for operation of this equipment and are authorized to be requisitioned by SB 700-50.

The FSN for the applicable unit of issue required can be found in appropriate supply catalogs. The FSCM is used as an element in item identification to designate manufacturer or distributor or Government Agency, etc., and is identified in SB 708-42.

Item	Description	Ref No. and FSCM	FSC
1	Cleaning Compound		5810
2	Lubricating Oil, General Purpose, Preservative (PL-Special)		9150
3	Insulation Type, Electrical, (Pressure Sensitive Adhesive Plastic Tape)		5970
4	Fine Sandpaper		5350

NOTE

Various cases that accompany Text Set, AN/AAM-36 are listed in appendix B.

1-7. Common Names

The common names are listed in table 1-2.

1-8. Reference Designators

The reference designators are listed in table 1-3.

Table 1-2. Common Names

Nomenclature	Common Name
Test Set, Optical Alignment AN/AAM-36	Optical alignment test set.
Receiver, Infrared R-1615/AAS-21	Receiver.
Recorder Group, Infrared OA-8511/AAS-24	Recorder-magazine
Case, Test Set CY-6904/AAM-36	Case No. 1
(Top)	
Microscope, Optical SU-59/AAM-36	Microscope No. 1
Microscope, Optical SU-60/AAM-36	Microscope No. 2
Fixture, Alignment MX-8779/AAM-36	Recorder sync fixture.
Simulator, Target SM-590/AAM-36	ADAS focus target.
(Bottom)	
Fixture, Alignment MX-8778/AAM-36	Receiver sync fixture.
Indicator, Dial ID-1745/AAM-36	Dial indicator.
Power, Supply PP-6507/AAM-36	Illuminator power supply.
Case, Test Set CY-6905/AAM-36	Case No. 2.
(Top)	
Light, Optical Alignment MX-8784/AAM-36	Vertical illuminator.
Maintenance Fixture, Receiver MT-4298/AAM-36	Receiver holding fixture.
(Bottom)	
Tripod, Collimator, MT-4299/AAM-36	Tripod.
Fixture, Alignment MX-8781/AAM-36	Parabola fixture.
Fixture, Alignment MX-8780/AAM-36	Recorder focus alignment fixture.
Cable Assembly, Special Purpose Electrical CX-12408/U-(8ft).	Cable W1.
Case, Test Set CY-6906/AAM-36	Case No. 3.
(Top)	
Detector, Light Intensity IM-223/AAM-36	Photodetector.
Fixture, Alignment MX-8783/AAM-36	Mirror holding fixture.
Accessory Kit, Optical Equipment, MK-1515/AAM-36	Objectives box.
(Bottom)	
Collimator, Recorder SU-61/AAM-36	Collimator.
Fixture, Alignment MX-8782/AAM-36	Receiver focus alignment fixture.

Table 1-3. Reference Designators

Reference designator	Nomenclature	Manufacturer's part No.
1	Test Set, Optical Alignment AN/AAM-36	692526-1
1MP2MP1	Case, Test Set CY-6904/AAM-36	695936-1
	(Top)	
1MP2MP5	Microscope, Optical SU-59/AAM-36	694670-1
1MP2MP6	Microscope, Optical SU-60/AAM-36	694671-1
1MP2MP3	Fixture, Alignment MX-8779/AAM-36	694668-1
1A4	Simulator, Target SM-590/AAM-36	694293-1
	(Bottom)	
1MP2MP2	Fixture, Alignment MX-8778/AAM-36	694665-1
1MP2MP4	Indicator, Dial IP-1745/AAM-36	694662-I
1A2	Power, Supply PP-6507/AAM-36	694672-1
1MP3MP1	Case, Test Set CY-6905/AAM-36	695937-1

Table 1-3. ***Reference*** Desiginator-Continued

	Nomenclature	*Manufacturer's part No.*
	(Top)	
1A3	**Light, Optical Alignment MX-8784/AAM-36**	694669-1
1MP3MP4	**Maintenance, Fixture MT-4298/AAM-36**	696232-1
	(Bottom)	
1MP3MP5	**Tripod, Collimator, MT-4299/AAM-36**	694667-1
1MP3MP2	**Fixture, Alignment MX-8781/AAM-36**	694675-1
1W1	**Cable Assembly, Special Purpose Electrical, CX-12408/U-(8 ft)**	692144-1
1MP3MP3	**Fixture, Alignment MX-8780/AAM-36**	694666-1
1MP4MP2	**Case, Test Set CY-6906/AAM-36**	696037-1
	(Top)	
1A1	**Detector, Light Intensity IM-223/AAM-36**	694673-1
1MP4MP4	**Fixture, Alignment MX-8783/AAM-36**	694671-1
1MP4MP1	**Accessory Kit, Optical Equipment, MK-1515/AAM-36**	694663-1
	(Bottom)	
1A5	**Collimator, Recorder SU-61/AAM-36**	694661-1
1MP4MP3	**Fixture, Alignment MX-8782/AAM-36**	694664-1

1-9. Description of Test Set, Optical **Alignment AN-AAM-36**

The optical alignment test set (cases No. 1,2, and 3, figs. l-l ① **through 1–1 ③) is contained in three** portable carrying cases. Each case is provided with carrying handles. Cases No. 1, 2, and 3 each contain the assemblies shown in the following illustrations :

a. Case No. 1. The following items comprise case no. 1 of the optical alignment test set. The items are illustrated in the figures indicated.

(1) Microscope No. 1 (fig. l-2).

(2) Microscope No. 2 (fig. 1-3).

(3) Recorder sync fixture (fig. l-4).

(4) Adas focus target (fig. l-5).

(6) Receiver sync fixture (fig. l-6).

(6) Dial indicator (fig. l-7).

(7) Illuminator power supply (fig. l-8 ①).

b. Case No. 2 The following items comprise case No. 2 of the optical alignment test set. The items are illustrated in the figures indicated.

(1) Vertical illuminator (fig.. l-9).

(2) Receiver holding fixture (fig. l-10).

(3) Tripod (fig. l-11).

(4) Parabola fixture (fig. 1-12).

(6) Recorder focus alignment fixture (fig. 1-13).

(6) Cable Wl (fig. l-8.②).

c. Case No. ***a.*** The following items comprise case No. 3 of the optical alignment test set. The items are illustrated in the figures indicated.

(1) Photodetector (fig. 1-14).

(2) Mirror holding fixture (fig. 1-16).

(3) Objectives box (fig. l-16).

(4) Collimator (fig. 1-17).

(6) Receiver focus alignment fixture (fig. 1-18).

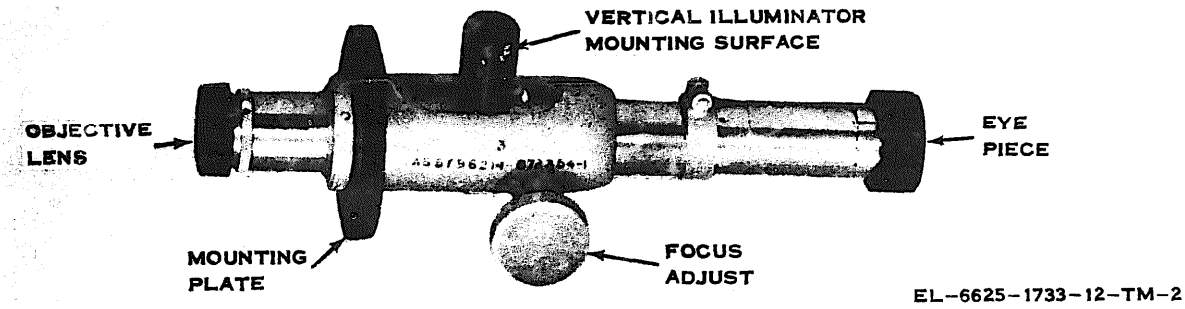


*Figure 1-2. Microscope No. **1.***

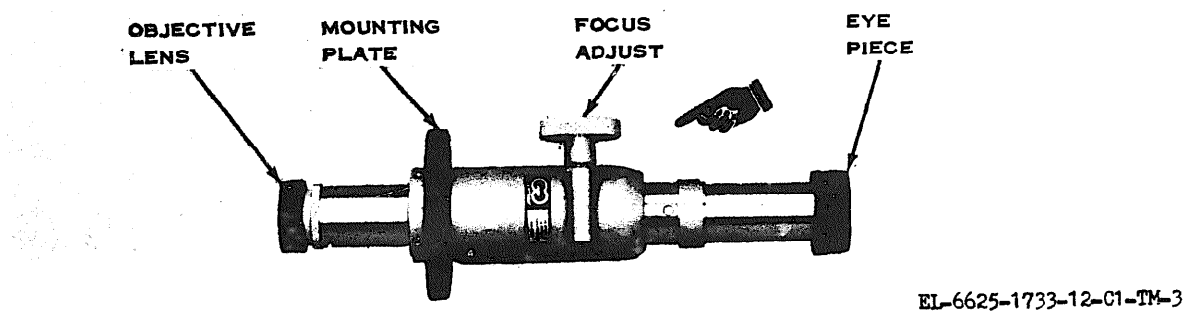


Figure 1-3. Microscope No. 2.

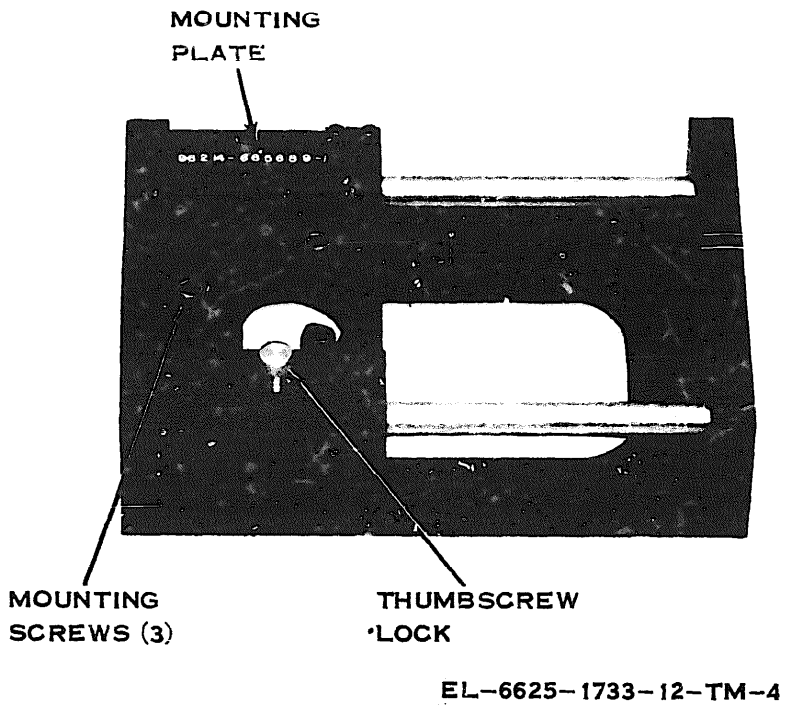


Figure 1-4. Recorder sync fixture.

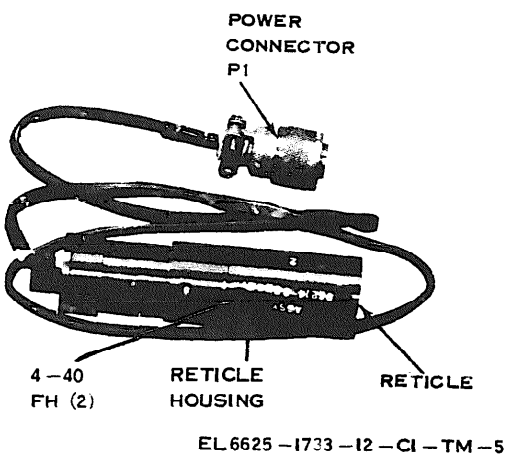


Figure 1-5. Adas focus target.

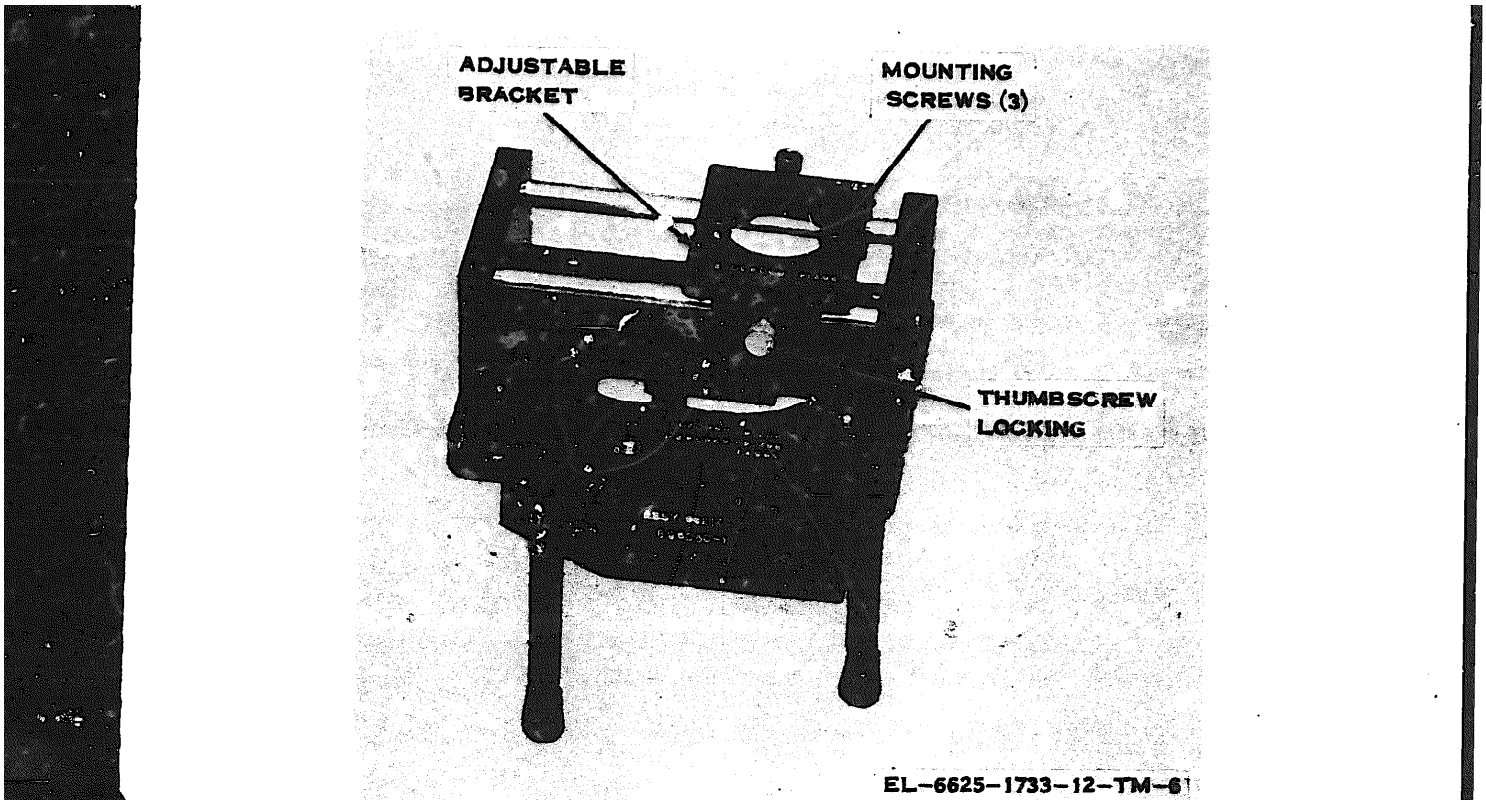


Figure 1-6. Receiver sync fixture.

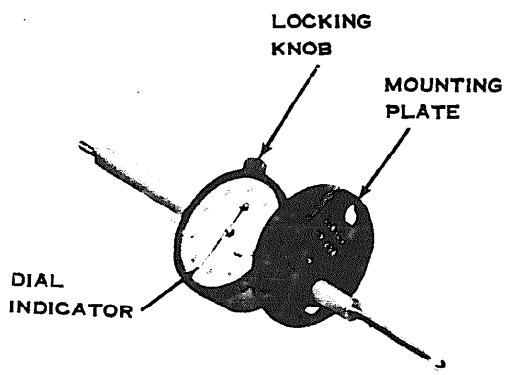


Figure 1-7. Dial indicator and mounting plate.

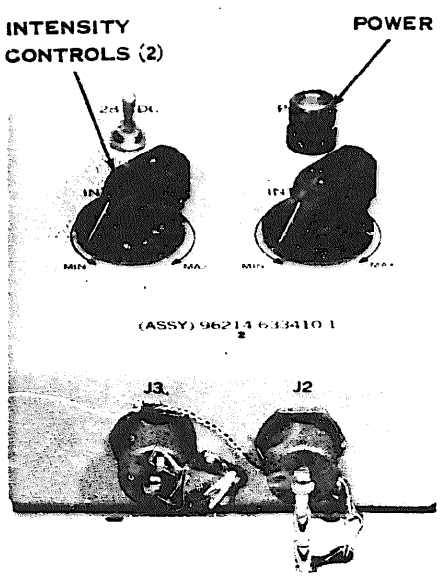


Figure 1-8①. Illuminator power supply.

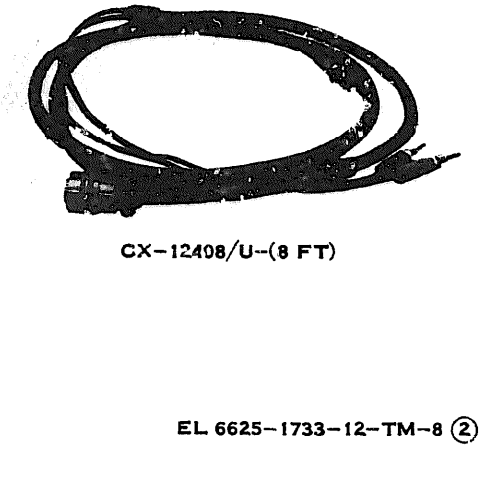


Figure 1-8②. Cable assembly W1.

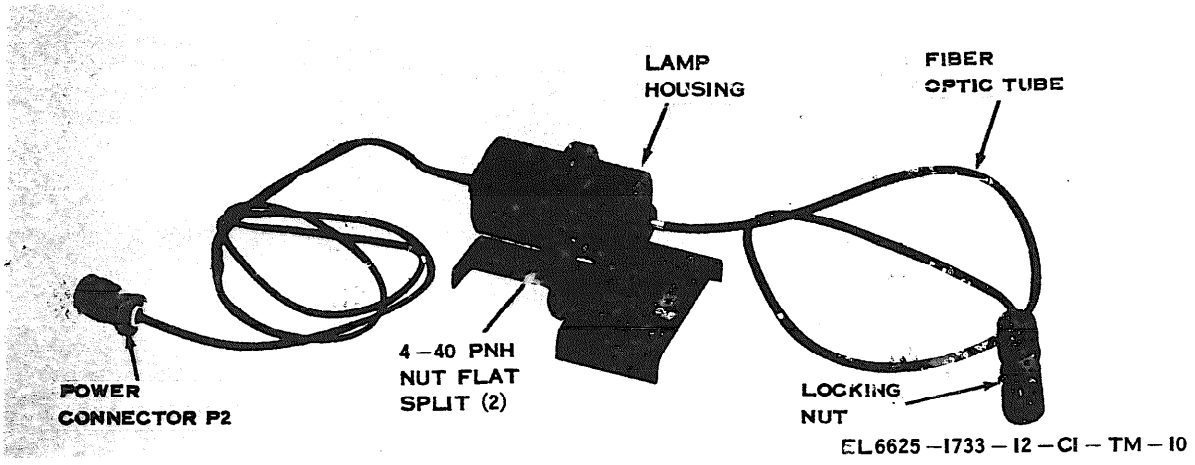


Figure 1-9. Vertical illuminator.

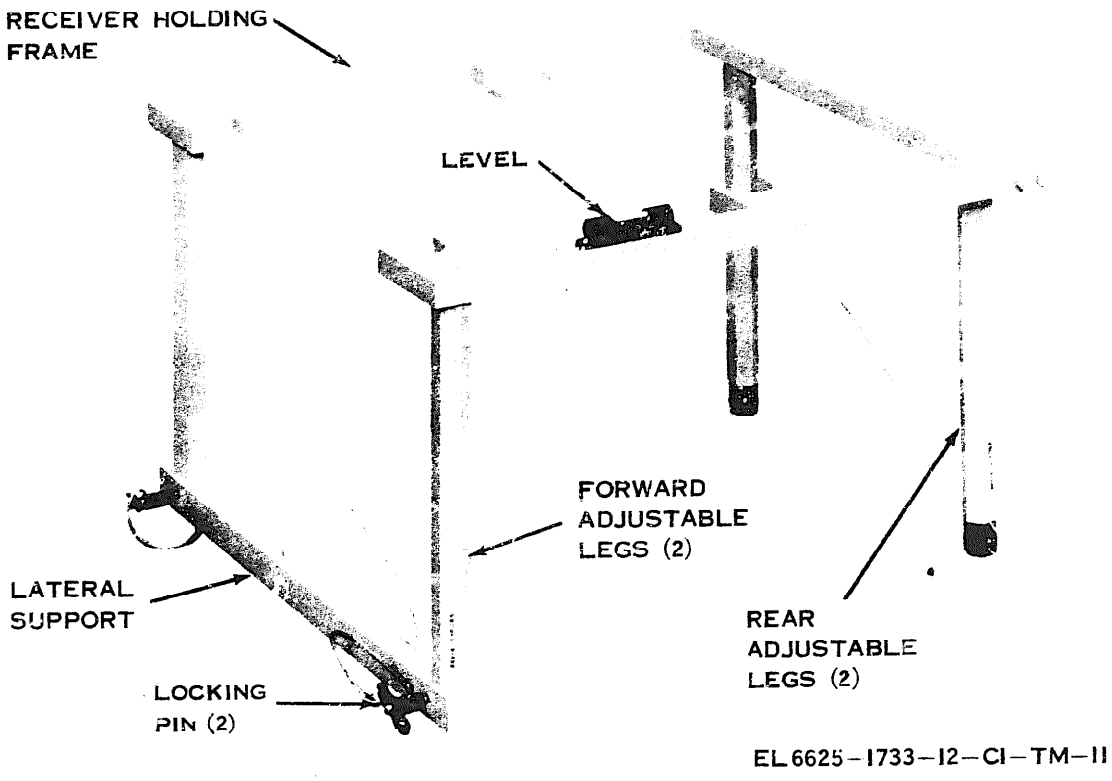


Figure 1-10. Receiver holding fixture.

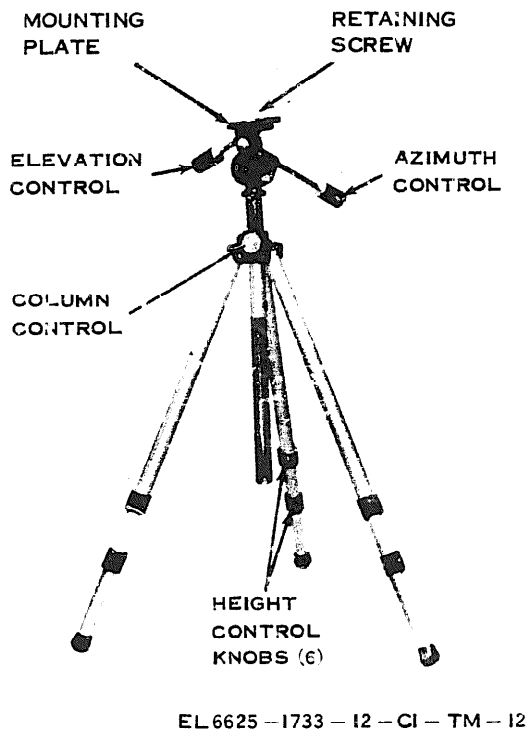


Figure 1-11. Tripod.

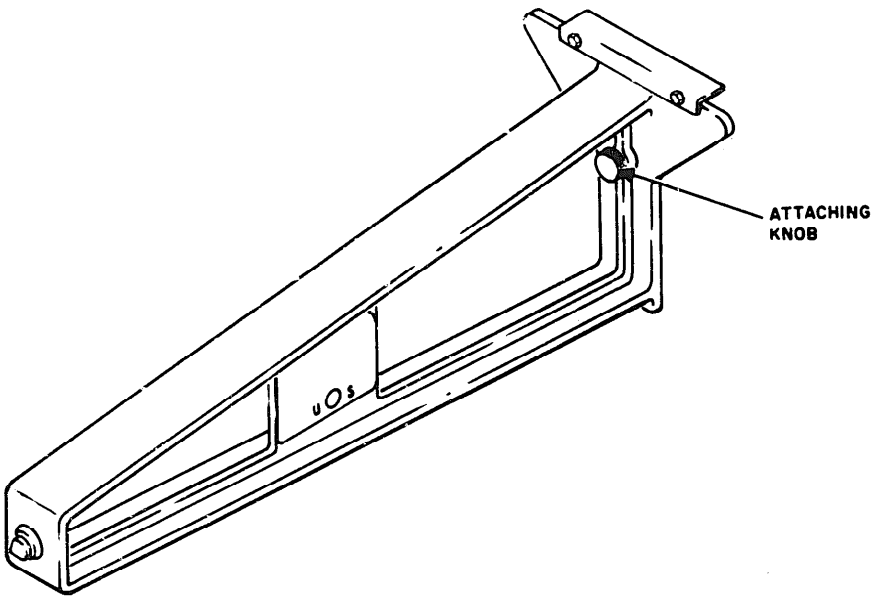


Figure 1-12. Parabola fixture.

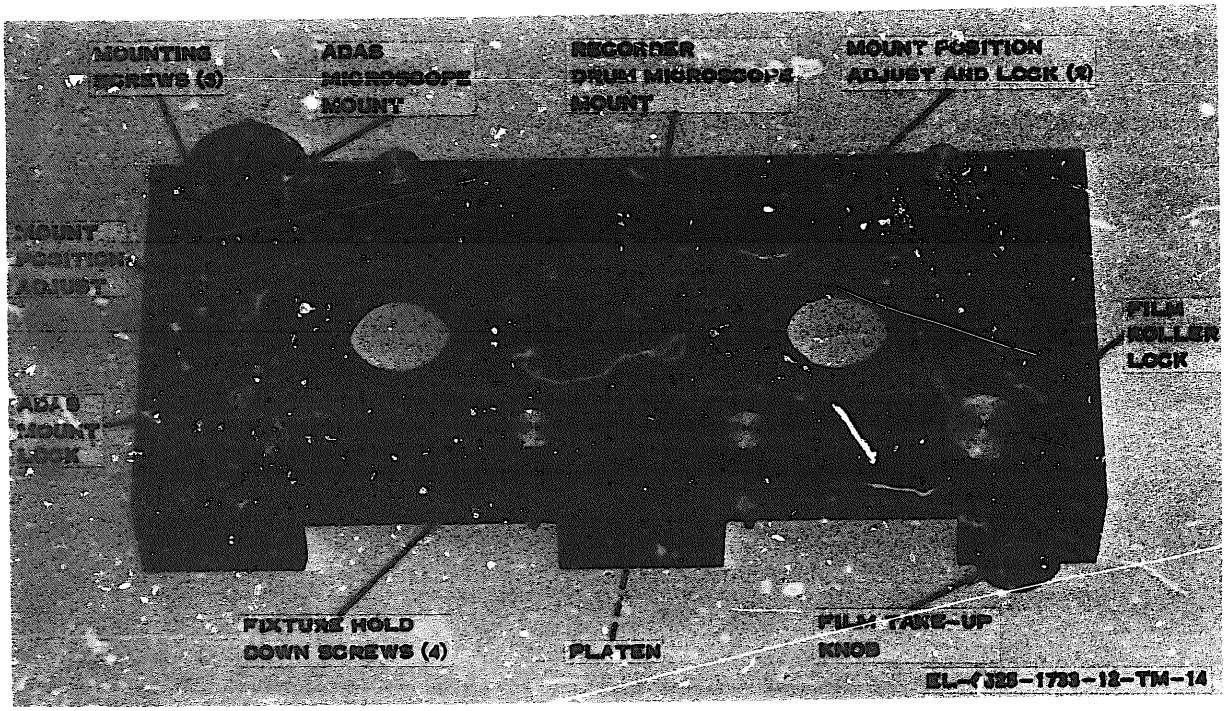


Figure 1-13. Recorder focus alignment fixture.

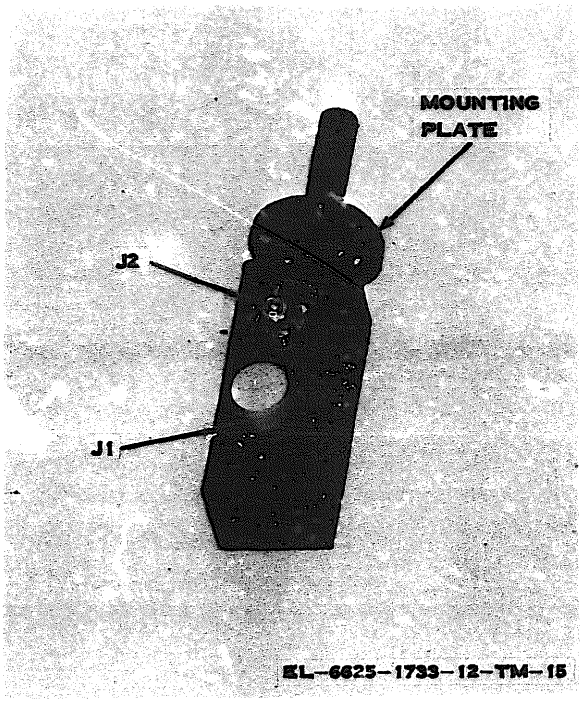


*Figure **1-14.** Photodetector.*

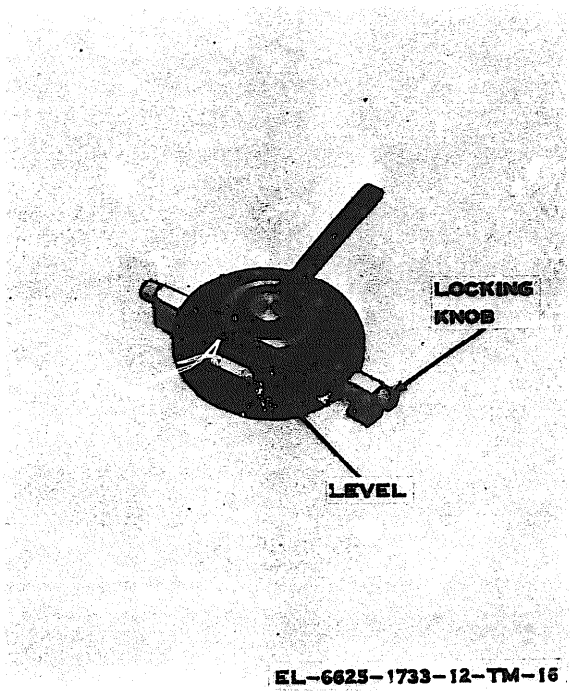


*Figure **1-15.** Mirror holding fixture.*

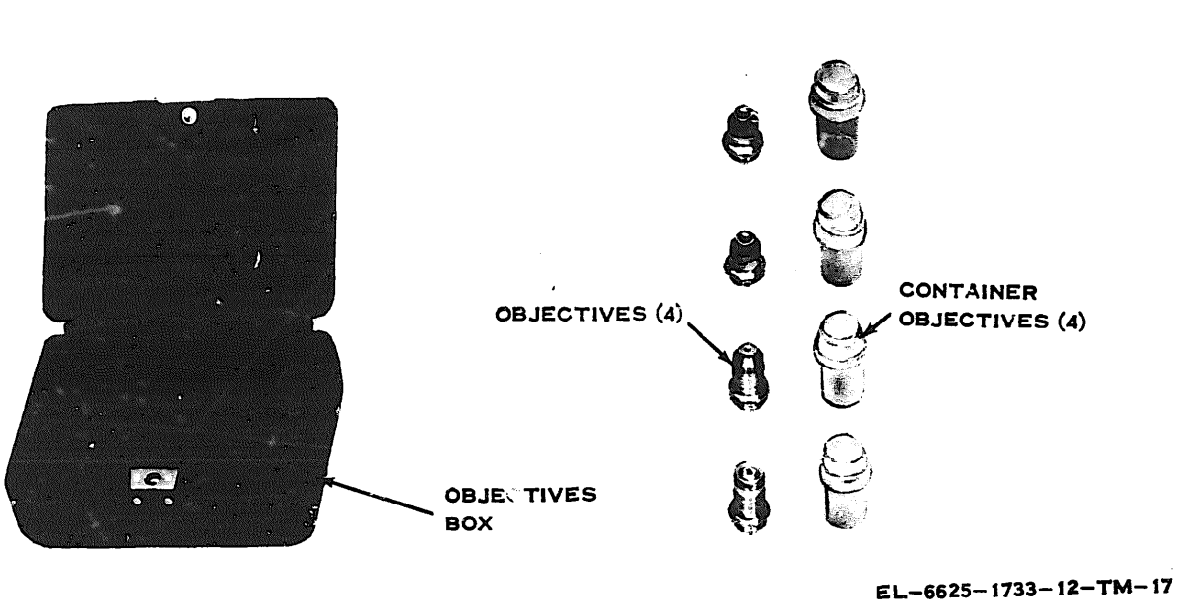


Figure 1-16. Objectives box and containers.

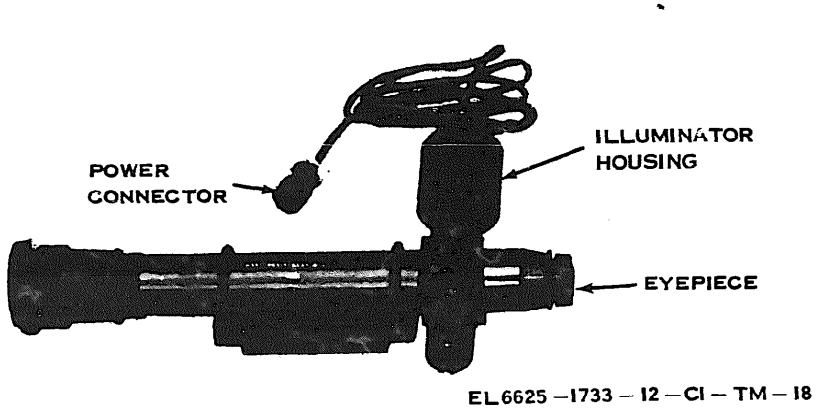


*Figure **1-17.** Collimator.*

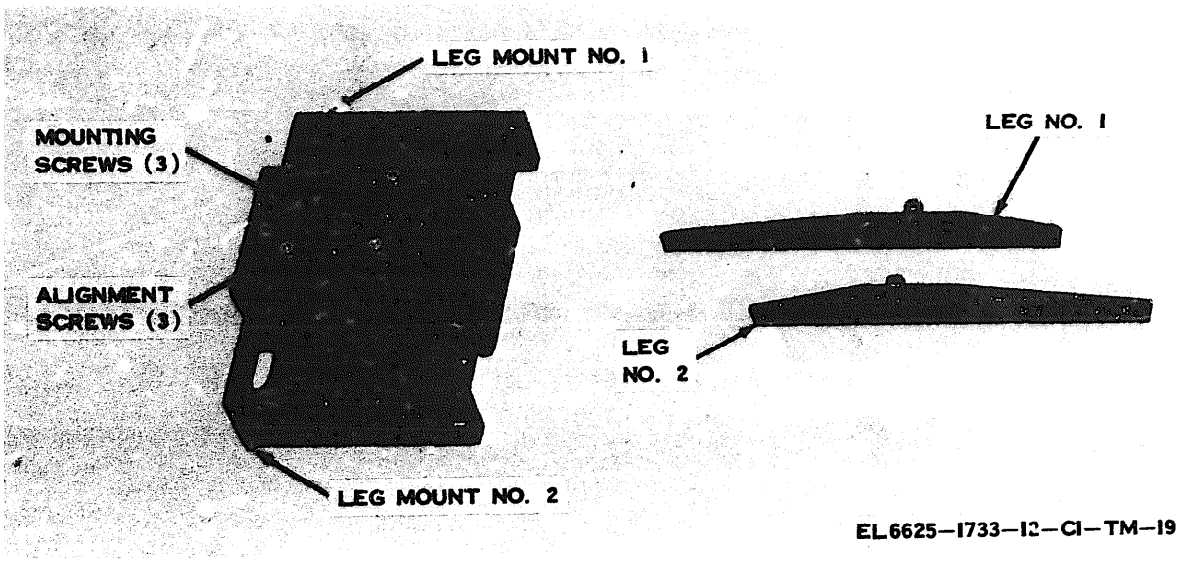


Figure 1-18. Receiver focus alignment fixture.

1-10. Additional Equipment Required

The additional equipment listed in table 1-4 is used with the optical alignment test set, to test Detecting Set, Infrared AN/AAS-24.

Table l-4. Additional Equipment Required

Equipment	*Applicable publication*
Digital Voltmeter (Nonlinear Sytems model X-2) with dual function converter and ac converter.	
Oscilloscope AN/USM-281A.	TM11-6625-1703-15
Test Set, -Recorder-Film Magazine AN/AAM-32.	TM11-6625-1827-12
Test Set, Receiver-Detecting Set Subassembly AN/AAM-31.	TM11-665-1828-12

CHAPTER 2

INSTALLATION

2-1. General

This chapter contains instructions for unpacking, checking upon receipt, power connections, and preoperational checks of Test Set, Optical Alignment AN/AAM-36.

2-2. Packaging Data (fig. 2-1)

The optical alignment test set (three cases) is shipped in three separate shipping containers with all assemblies packed within the transit cases. Cases No. 1 and No. 3 are packed separately in cleated plywood containers measuring 27¼ by 22¼ by 28 inches. Case No. 1 weighs 90.0 pounds and case No. 3 weighs 100.0 pounds. Both occupy a volume of approximately 11.0 cubic feet. Case No. 2 is packed in a single cleated plywood container, measuring 42½ by 34½ by 27 inches, weighs 135.0 pounds and occupies a volume of approximately 22.0 cubic feet.

2-3. Unpackaging the Equipment

To remove the optical alignment test set from the shipping containers, proceed as follows :

a. Place the three shipping containers on a suitable, clean work area, making certain that the top of the shipping containers are facing up.

b. Cut the tape securing the top of the optical alignment test set cases No. 1 and No. 3 and lift the optical alignment test set cases No. 1 and No. 3 from the containers.

c. Remove the top from optical alignment test set case No. 2 container and lift it from the container.

d. Remove the protective covering from the optical alignment test set case and place the three cases on the workbench.

e.. Depress pressure relief valves (fig. l-l) to vent pressure from the optical alignment test set cases.

f. Replace covers on the plywood shipping containers and retain all three shipping containers for future use (ground storage or reshipment).

2-4. Checking Unpacked Equipment

a. Inspect the equipment for physical damage that may have occurred during shipment. If the equipment has been damaged, fill out and forward DD Form 6 (para 1-3b).

b. Check to see that the equipment is complete as listed on the packing slip. If a packing slip is not available, check the equipment against the basic issue items list (app. B). Report all discrepancies in accordance with T M38-750. The equipment should be placed in service even though a minor assembly or part that does not affect proper functioning of the equipment is missing.

c. Check the latest issue of DA Pam 310-4 to determine if you have the latest issue of all applicable maintenance literature.

2-5. lnstallation Instructions

Initial installation of the optical alignment test set requires only the connection of the dc power cable between the illuminator power supply and the proper 28 vdc input power source.

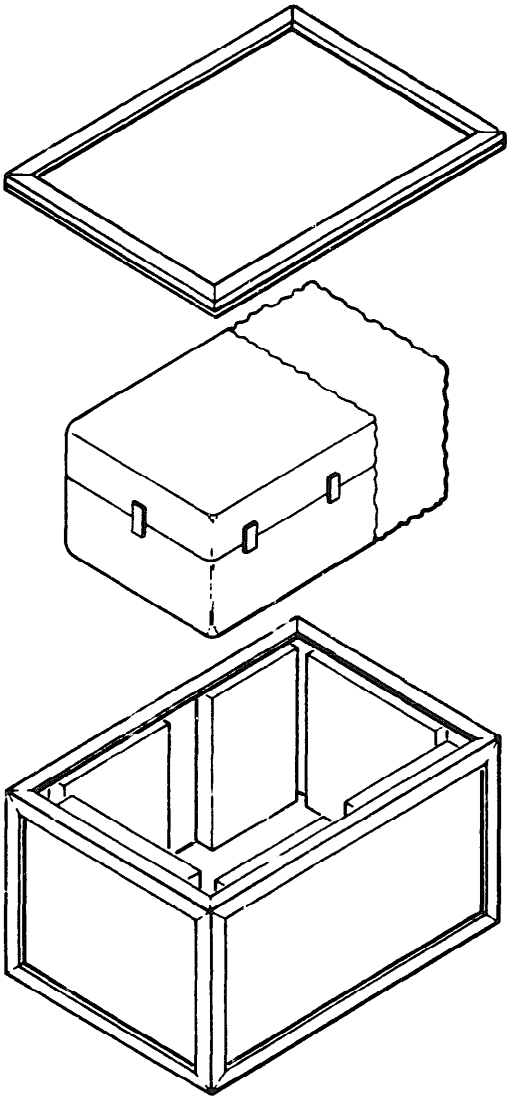
a. Set circuit breaker 28 VDC switch on illuminator power supply to OFF.

b. Turn both INTENSITY potentiometers to MIN.

c. Connect cable Wl between Jl on illuminator power supply and 28 vd source.

2-6. Initial Checking of Equipment

Upon completion of installation, the optical alignment test set illuminator power supply will be given an initial checkout by performing the preliminary starting procedure (pars 3-4) and the stopping procedure (para 3-5).



EL6625-1733-12-TM-20

Figure 2-1. Optical alignment test set packaging.

CHAPTER 3

OPERATION

Section I. OPERATOR'S CONTROLS, INDICATORS AND CONNECTORS

3-1. Controls and Indicators

The controls and adjustment screws of the optical alignment test set are described in table 3-l.

Table 3-1. Controls or Indicator

Control or indicator	*Function*
Microscope No. 1 (fig. 1-2) :	
Focus adjust	Adjusts focus of microscope.
Microscope No. 2 (fig. l-3) :	
Focus adjust	Adjusts focus of microscope.
Recorder sync (fig. l-4) :	
Thumbscrew lock	When loosened, allows movement of microscope or dial indicator in horizontal direction.
Mount screw	Provides for attachment of the microscope or dial indicator to the fixture.
Focus target (fig. l-5) :	
Pl (connector)	Connects ADAS focus target to illuminator power supply.
Receiver sync fixture (fig. l-6) :	
Thumbscrew, locking	Prevents microscope assembly bracket from slipping once adjusted.
Adjustable bracket	Permits movement of the bracket in the horizontal axis.
Mounting screw	Provides for attachment of the microscope to the receiver sync fixture.
Dial indicator (fig. l-7) :	Measures distance between two reference points.
Docking knob	Holds dial indicator pointer in place.
Mounting plate	Attaches to recorder sync fixture.
Illuminator power supply (fig. l-8 ①) :	
Jl (connector)	Connects dc power to illuminator power supply from **+28** vdc source.
J2, J3 **(connectors)** --	Used to connect operating voltages to vertical illuminator, ADAS focus and collimator.
28 VDC (2-position toggle switch)	*Sw Pos* — *Action* ON — Applies +28 vdc power to power supply. **OFF** — *Removes* +28 vdc power from power supply.
INTENSITY 1 (potentiometer)	**MAX** ---Supplies maximum power to **the** applicable illuminator attached. **MIN** --------Reduces power applied **to** the **attached illuminator.**
INTENSITY 2 (potentiometer)	MAX -------Supplies maximum power to the applicable illuminator attached. **MIN** --------Reduces power applied to the attached illuminator.
POWER	Indicates +28 vdc power.
Cable assembly W1 (fig. 1-8 ②) -	Connects +28 **vdc** to the illuminator power supply.
Verticle illuminator fig. l-9) :	Holds illuminator in place when connected to the **microscope.**

Table 3-1. Controls or Indicator-Continued

Control or indicator	Function
P2 (connector)	Connects dc power to vertical illuminator assembly from illuminator power supply.
Fiber optic tube	Caution. Do not bend FIBER OPTIC TUBE sharply, as nonrepairable damage may result.
Receiver holding fixture (fig. l-10) :	
Locking pin	Permits adjustable leg to rotate.
Adjustable legs	Permits leveling of the unit under test.
Level	Indicates when the fixture is setting on a level plane.
Tripod (fig. l-11) :	
Mounting plate	Support collimator.
Azimuth control	Provides for 360 rotation of tripod column.
Retaining screw	Secures collimator.
Elevation control	Permits operator to elevate platform.
Column control	Permits adjustment of the platform in the vertical axis.
Height control knobs	Allows for individual adjust of each tripod leg separately.
Parabola fixture (fig. 1-12) :	
Attaching knob	Provides a holding function when attached to the unit under test.
Recorder focus alignment fixture (fig. 1-13) :	
Fixture holddown screws	Provides for attachment of the alignment fixture to the recorder-magazine.
Film takeup knob	Moves film in the horizontal axis.
Film roller lock	Locks the film takeup knob in the desired position.
Recorder drum microscope mount	Provides for attaching of the microscope.
Mount position adjust and lock	Permits movement and locking of the recorder microscope mount.
Adas microscope mount	Provides for attaching of the microscope.
Mount position adjust	Permits movement of the ADAS mount.
Adas mount, lock	Provides for locking of the mount in the selected position.
Platen	The platen acts as a guide when the film is placed in the fixture.
Photodetector (fig. 1-14) :	
Jl (connector)	Connects photodetector assembly to the recorder-film magazine test set.
J2 (connector)	The high frequency output of the photodetector board is present in this connector.
Mirror holding fixture (fig. 1-15) :	
Locking knob	Attaches the holding fixture to the receiver.
Level	Indicates when the fixture is setting on a level plane.
Objective box (fig. 1-16):	
Optics container	All microscope objectives are contained in this box.
Collimator (fig. 1-17) :	
Connector	Connects power from the illuminator power supply to the collimator.
Receiver focus alignment fixture (fig. l-18) :	
Alignment screws	Provides alignment capability for microscope.
Mounting screws	Attaches the microscope to the alignment fixture.

Section II. OPERATING UNDER USUAL CONDITIONS

3-2. Operating Procedures

To operate the optical alignment test set, perform the following procedures :

a. Preparation for use (para 3-3).

b. Preliminary starting. procedure (para 3-4).

c. Test procedure for unit under test (TM ll-5850-241-34).

d. Stopping procedure (para 3-5).

3-3. Preparation for Use

a. Place the optical alignment test set on the bench ready for use.

b. Remove the covers from the three cases.

c. Remove the equipment contained in optical alignment test set cases No. 1, 2, and 3.

d. Set optical alignment test set illuminator power supply circuit breaker 28 VDC to OFF.

e. Attach cable W1 connector PI to J1 on illuminator power supply.

f. Connect cable W1 connector P2 to +28 vdc supply.

g. Attach the receiver holding fixture, rear adunstable legs (two) to the receiver holding frame (fig. 1-10). Rotate the legs clockwise until secure.

h. Attach the forward adjustable legs (two) to the lateral support by inserting the notched end of each leg into the lateral support and affixing the locking pins (two). The legs an still turn freely in the lateral support.

i. Attach the forward adjustable legs (two) to the receiver holding frame. Rotate the legs clockwise until secure.

j. Place the collimator (fig. 1-17) on the tripod mounting plate (fig. 1-11) so the collimator eyepiece extends over, and aligns with, the tripod azimuth control.

k. Secure the collimator by turning the tripod retaining screw clockwise until secure.

l. Attach, receiver focus alignment fixture (fig. 1-18) leg number 1 to leg mount number 1 and leg number 2 to leg mount number 2.

3-4. Preliminary Starting Procedure

a. Set illuminator power supply circuit breaker *28* VDC to ON.

b. Verify that illuminator power supply POWER lamp lights.

c. Connect the adas focus target (fig. 1-5) connector P1 to the illuminator power supply connector J2.

d. Vary INTENSITY 2 pot to verify that adas focus target reticle illuminates.

e. Disconnect the adas focus target connector P1 from the illuminator power supply connector J2.

f. Connect the vertical illuminator (fig. 1-9) connector P2 to the illuminator power supply connector J2.

g. Vary INTENSITY 2 not to verify that vertical illuminator lamp lights.

h. Disconnect the vertical illuminator *connector* P2 from the illuminator power supply connector J2.

i. Connect the collimator illuminator assembly (fig. 1-17) power connector to the illuminator power supply connector J2.

j. Vary INTENSITY 2 pot to verify that illuminator assembly lamp lights by observing the objective end.

k. Disconnect the illuminator assembly power connector from the illuminator power supply connector J2.

3-5. Stopping Procedure

a. Set illuminator power supply circuit breaker *28* VDC to OFF.

b. Verify that indicator lamp extinguishes.

Section III. OPERATION UNDER UNUSUAL CONDITIONS

3-6. Operation at I low Temperatures

Temperature extremes of freezing or subfreezing temperatures affect the efficient use of the optical alignment test set. Extreme changes from cold to warm areas, such as movement of the optical alignment test set into a heated area, will cause condensation. To maintain operating efficiency under these conditions, exercise the following precautions :

a. Operate the optical alignment test set in a heated area.

b. When a cold optical alignment test set is brought into a warm area, allow the equipment to reach room temperature. Wipe condensation off with a clean, dry cloth before putting the optical alignment test set into operation.

3-7. Operation in Tropical Climates

In tropical climates, moisture conditions are more acute than normal. Ventilation in closed areas is usually very poor, and the high relative humidity causes condensation of moisture on the equipment. Wipe all parts of the optical test set with a clean, dry cloth.

3-8. Operation in Desert Climates

a. When operated in desert climates, sand, dust, or dirt will reach the moving parts of the optical alignment test set, causing binding of controls and switches. Foreign particles in connectors may cause faulty operation and test results. Make the operation area as dustproof as possible with available materials. If the optical alignment test set is installed in a tent, secure the sidewalls with sand to prevent their flapping in the wind. When the equipment is not in use, secure the removable cover to the equipment.

b. A drastic fall in temperature at night often

causes condensation. To prevent condensation, cover the optical alignment test set and the optical maintenance kit with a tarpaulin or similar covering material.

c. Wipe off accumulated, sand, dust, dirt, or condensation with a clean, dry cloth. Inspect connectors and clean as necessary before making test connections.

Chapter 4

MAINTENANCE INSTRUCTIONS

Section I. OPERATOR'S MAINTENANCE

4-1. Scope of Operator's Maintenance

The maintenance duties assigned to the operator of the optical alignment test set are listed below, together with a reference to the paragraphs COVering the specific maintenance functions. The materials required for operator's maintenance are listed in paragraph 4-2. Maintenance of the optical maintenance kit requires only that the items comprising the kit be kept clean and in serviceable conditions.

a. Operator's daily preventive maintenance checks and services (para 4-5).

b. Cleaning (para 4-6).

c. Operator's weekly preventive maintenance checks and services (para 4-7).

4-2. Materials Required for Operator's Maintenance

The following materials are required to perform operator's maintenance of the optical alignment test set :

a. Cleaning compound, trichloroethane (app. B).

b. Cleaning cloth.

c. Cleaning brush.

d. Cotton SW

4-3. Preventive Maintenance

Preventive maintenance is the systematic care, servicing, and inspection of equipment to prevent the occurrence of trouble, to reduce downtime, and to insure that the equipment is serviceable.

a. ***Systematic*** Care. The procedures given in paragraphs 4-5, 4-6, and 4-7 cover routine systematic care and cleaning essential to proper upkeep and operation of the equipment.

b. Preventive Maintenance Checks and Services. The preventive maintenance checks and services charts (paras 4-5 and 4-7) outline functions to be performed at specific intervals. These checks and services are to maintain Army equipment in a serviceable condition; that is, in good general (physical) condition; and in good operating condition. To assist operators in maintaining serviceability, the charts indicate what to check, how to check, and the normal conditions; the reference column lists the paragraph that contains additional information. If the defect cannot be remedied by the operator, higher category of maintenance is required. Records and reports of these checks and services must be made in accordance with the requirements set forth in TM 33-750.

4-4. Preventive Maintenance Checks and Services Periods

Preventive maintenance checks and services of the optical alignment test set are required on a daily and weekly basis.

a. Paragraph 4-5 specifies the checks and services of the optical alignment test set are required on a daily and weekly basis.

b. Paragraph 4-7 specifies additional checks and services that must be performed weekly.

4-5. Operator's Daily Preventive Maintenance Checks and Services

The operator daily checks and services to be performed, are listed below.

Sequence No.	Item	Procedure	Reference
1	Exterior surfaces.	Clean exterior surfaces and optical lenses. Clean inside storage area of removable cover.	Para **4-6.**
2	Connectors	Check connectors on equipment and cables for security of attachment, proper fit, and cleanliness.	Para 4-6c.
3	Controls and Indicators.	During operation of equipment (sequence No. 4), observe that each control and indicator functions properly. Mechanical action of each knob, dial, and switch should be smooth and free of external or internal binding. Tighten loose controls as required.	None.
4	Operation _____	When operating equipment (ch. 3), be alert for any unusual performance *or* condition.	None.

4-6. Cleaning

Inspect the exterior of the optical alignment test set. The exterior surfaces should be free of dust, dirt, grease, and fungus.

a. Remove dust and loose dirt with a clean, soft cloth.

WARNING

The fumes of trichloroethane are toxic. Provide thorough ventilation whenever used. DO NOT-use near an open flame. Trichloroethane is not flammable, but exposure of the fumes to an open flame converts the fumes to highly toxic, dangerous gases.

b. Remove grease, fungus, and ground-in dirt from the transit case; use a cloth dampened (not wet) with cleaning compound.

c. Remove dust or dirt from plugs and connectors with a brush.

d. Clean the illuminator power supply control panel; use a soft, clean cloth. If dirt is difficult to remove, dampen the cloth with water; use mild soap if necessary.

4-7. Operator% Weekly Preventive Maintenance Checks and Services

The operator weekly checks and services to be performed, are listed below.

Sequence No.	Item	Procedure	Reference
1	Cables _____	Inspect cable assembly (fig. 1–1) for signs of mechanical damage, such as chafed, cracked, or frayed insulation. Refer damaged cables to higher category of maintenance for repair.	None.
2	Gaskets _____	Inspect gaskets of transit case for looseness, deterioration, or damage. If gaskets require replacement, refer to higher category of maintenance.	None.

Section II. ORGANIZATIONAL MAINTENANCE

4-8. Scope of Organizational Maintenance

a. This section contains instructions covering organizational maintenance of the optical alignment test set. It includes instructions for performing preventive and periodic maintenance services, troubleshooting, and repair functions to be accomplished by the organizational repairman.

b. Organizational maintenance of the optical alignment test set includes-

(1) Organizational monthly preventive maintenance checks and services (para 4-12).

(2) Organizational quarterly preventive maintenance checks and services (para 4-14).

(3) Touchup painting (para 4-16).

(4) Troubleshooting (para 4-17).

(5) Replacement of defective lamps (pars 4-18)

4-9. Tools and Materials Required

Authorized organizational maintenance repair parts are listed in appendix D. The tools and materials required for organizational maintenance are listed below:

a. Tools. Toolkit, Electronic Equipment TK 101/G.

b. Materials. The materials required are listed in table 4-1.

4-10. Organizational Preventive Maintenance

a. Preventive maintenance is the responsibility of all categories concerned with the equipment and includes the inspection, testing, and repair or replacement of parts, subassemblies, or units that inspection and teats indicate would probably fail before the next scheduled periodic service. Preventive maintenance checks and services of the optical alignment test set at the organization category are made at monthly and quarterly intervals unless otherwise directed by the commanding officer.

Table 4-1. Material Required

Material	*Federal stock No.*
Trichloroethane cleaning compound (1 p&t)	6810-664-0273
Cleaning cloth	
Lubricating oil, general purpose preventive (PL-Special)	9150-185-0529
Insulation tape, electrical (pressure sensitive adhesive plastic tape)	5970-644-2636
Paint brush (1 inch).	

b. Maintenance forms and records to be used and maintained on this equipment are specified in TM 38-750.

4-11. Organizational Monthly Maintenance

Perform the maintenance functions indicated in the organizational preventive maintenance checks and services chart (para 4-12) once each month. A month is defined as approximately 30-calendar days of g-hour-per-day operation. If the equip ment is used more often or under adverse conditions, the monthly preventive maintenance checks and services should be performed at 15- or 20-day intervals. Adjustment of the maintenance interval must be made to compensate for any unusual op erating conditions. Equipment maintained in a standby (ready for immediate operation) condition must have monthly preventive maintenance checks and services performed on it. Equipment in limited storage (requires service before operation) does not require monthly preventive maintenance.

4-12. Organizational Monthly Preventive Maintenance Checks and Services

The organizational monthly checks and services to be performed, are listed below.

Sequence No.	Item	Procedure	Reference
1	Cables _____	Inspect cable assembly (fig. 1–1) for cuts or other damage. Repair cut insulation by covering cut with plastic tape.	None.
2	Handles, latches, and screws.	Inspect handles, latches, hinges, screws, and other such hardware for looseness. Tighten or replace as required.	None.
3	Metal surfaces.	Inspect exposed metal parts of equipment for rust and corrosion. Clean and touchup paint as required. If equipment is operated in tropical climate, dampen cloth with oil (PS–special) and apply light film of oil to metal parts and surfaces.	Para 4–15.

4-13. Organizational Quarterly Maintenance

Quarterly preventive maintenance checks and *services* on the optical alignment test set are required. Periodic weekly and monthly services constitute a part of the organizational quarterly preventive maintenance checks and services (para 4-14) and must be performed concurrently. All deficiencies or shortcomings will be recorded in accordance with the requirements of TM 38-750.

4-14. Organizational Quarterly Preventive Maintenance Checks and Services

The quarterly checks and services to be performed are listed below.

Sequence No.	Item	Procedure	Reference
1	Publications	Check to see that all are complete, and serviceable.	DA Pam 310–4 and app. A.
2	Modifications	Determine whether new applicable MWO's have been published. ALL URGENT MWO's must be applied. All NORMAL MWO's must be scheduled (TM 38–750).	DA Pam 310.7.
3	Completeness	Check to see that equipment is complete.	App. B.
4	Paint	Inspect equipment for condition of paint. If surfaces bear only slight scratches, retouch these with paint. If surfaces bear many scratches, turn equipment in for higher category maintenance painting.	Para 4–15.
5	Operation	*a.* Prepare optical alignment test set illuminator power supply, adas focus target, vertical illuminator and collimator illuminator assembly.	*a.* Para 3–3.
		b. Apply power to illuminator power supply, adas focus target vertical illuminator, and collimator illuminator assembly.	*b.* Para 3–4*a*.
		c. Perform stopping procedure.	*c.* Para 3–5.

4-15. Touchup Painting

Remove rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin coats of paint (only on those parts meant to be painted) on the bare metal to protect it from further rust or corrosion. Refer to the applicable cleaning and refinishing practices specified in TB 746-10. Refer to SB 1 .3 for paint to be used.

4-16. Lubrication

None required.

Section III. TROUBLESHOOTING

4-17. Preliminary Troubleshooting

Troubleshooting of the test set illuminator power supply, the adas focus target, the vertical illuminator, and the collimator illuminator assembly is limited to the operational check contained in the organizational quarterly preventive maintenance checks and services chart. To troubleshoot these units, perform sequence numbers in the organizational quarterly preventive maintenance checks and services chart (para 4-14) and verify the unit's lamps light If the lamps do not light and lamp replacement (para 4-18) does not correct the trouble, higher category maintenance is required.

4-18. Lamp Removal and Replacement

a. Illuminator power supply (fig. 1-8).

(1) Unscrew the metal lampholder counterclockwise until free.

(2) Grasp the lamp base at its rim and pull from the lampholder.

(3) Press new lamp into the holder and screw the holder into panel socket.

b. Adas focus target (fig. 1-5).

(1) Loosen the two 4-40 flathead screws located on the reticle housing.

(2) Rotate the reticle housing counterclockwise and remove from the adas focus target assembly to gain access to the lamp.

(3) Grasp the lamp at its rim and pull it from the lampholder.

(4) Press the new lamp into the holder.

(5) Replace the reticle housing. Secure by rotating clockwise until tight.

(6) Tighten the two 4-40 flathead screws.

c. Vertical illuminator (fig. 1-9).

(1) Loosen the two 4-40 set *screws* from the lamp housing.

(2) Pull the lamp housing apart to gain access to the lamp.

(3) Grasp the lamp at its rim and pull it from its lampholder.

(4) Press the new lamp into the holder.

(5) Replace the lamp housing.

(6) Tighten the two 4-40 set screws.

d. Collimator illuminator assembly (fig. 1-17).

(1) Grasp the illuminator housing with both hands and rotate counterclockwise to gain access to the lamp.

(2) Grasp the lamp at its rim and pull it from the lampholder.

(3) Press the new lamp into the lampholder.

(4) Put the illuminator housing together and rotate clockwise until secure.

CHAPTER 5

SHIPMENT, LIMITED STORAGE, AND DEMOLITION TO PREVENT ENEMY USE

Section I. SHIPMENT AND LIMITED

5-1. Repackaging for Shipment and Limited Storage

a. Repackaging of equipment for shipment or extended storage normally will be performed at a packaging facility or by a repackaging team. Should emergency packaging be required, select the materials from those listed in SB 38-100. Package the equipment in accordance with the original packaging insofar as possible, using available materials.

b. The exact procedure for repackaging depends upon the materials available and the conditions under which the equipment is to be stored or shipped. In most cases, the original shipping container will be available for repackaging; however, if this container is not readily available, use the packaging procedures outlined in TM 38-230 and paragraph 5-2b.

c. The optical alignment test set and optical maintenance kit may be stored for limited periods in their cases with the covers closed.

5-2. Packaging Procedure

a. Original Container Available.

(1) Remove cover from plywood shipping container.

(2) Place three test set cases in containers as shown in figure 2-1, making certain that polyurethane foam cushioning material is in place on bottom of container and along sides.

(3) Place cushioning material (4 pieces) on top of three optical alignment cases, replace and secure container covers.

b. Original Plywood Container Not Available.

(1) Select a cleated plywood box, conforming to Military Specification MIL-601, of the approximate size of the original container (para 2-l). If a plywood container is not available, use a suitable wooden box.

(2) Cut 3-inch polyurethane foam cushioning material (MIL-P-26514) to proper size to provide cushioning for the top, bottom, and four sides of the container (fig. 2-l).

(3) Place foam inside container on bottom and four sides, using Adhesive MIL-A-140, if necessary, to hold in place.

NOTE

If container is slightly larger than original container, it may be necessary to provide additional cushioning material to insure proper fit of test set case in container.

(4) Place optical alignment test set case NO. 2 in container, making certain that cushioning material is in place along sides.

(5) Place cushioning material on top of test set case.

(6) Place cover on container and secure in place with nails, spaced sufficiently close together to insure that cover is securely attached to container.

Section II. DEMOLITION TO PREVENT ENEMY USE

5-3. Authority for Demolition

The demolition procedures given in paragraph 5-4 will be used to prevent the enemy from using or salvaging this equipment. Demolition of the equipment will be accomplished only **upon** the order of the commander.

5-4. Methods of Destruction

Any or all of the methods of destruction given below may be used. The time available for destruction will be the major factor in determining the method to be used. The tactical situation will also determine the manner of destruction.

a. ***Smash.*** Use sledges, axes, hammers, crowbars, or any other heavy tools available to smash all components.

b. Cut. Cut cables, cording, and component wiring. Use any available sharp instruments.

c. Burn. Burn as much of the equipment as possible. Use gasoline, oil, or flamethrowers. Burn the instruction literature first. Pour gasoline on the cut cables and component wiring and ignite them. Use incendiary grenades to complete the destruction of unit interiors.

WARNING

Be extremely careful with explosives and incendiary devices. Use these items only when the need is urgent.

d. Explode. Use explosives to complete demolition, or to cause maximum damage, when time does not permit other means. Powder charges and grenades are usually most effective for destruction of small parts and wiring.

e. ***Dispose.*** Bury or scatter destroyed parts or throw them into nearby waters.

5-5. Priorities for Destruction

Destroy the equipment and documents in accordance with the priorities listed below when lack of time prevents complete destruction of the equipment:

a. **Destroy confidential equipment and confidential documents before unclassified equipment and unclassified documents.**

b. **Destroy essential parts and the same parts** on all like equipment before nonessential parts.

c. Apply the priorities for destruction of component parts of major item also to destruction of similar components in repair parts storage areas.

d. Destroy the equipment types in accordance with table 5-l.

Table 5-l. Priorities for *Destruction*

Priority	Equipment type
1	Parabola fixture
2	Optical alignment test set maintenance manuals
3	Microscope No. 1
4	Microscope No. 2
5	Recorder sync fixture
6	ADAS focus
7	Receiver sync fixture
8	Recorder focus alignment fixture
9	Photodetector
10	Mirror holding fixture
11	Receiver focus alignment fixture
12	Collimator:
13	Receiver holding fixture
14	Recorder sync fixture

APPENDIX A

REFERENCES

The following publications contain information applicable to the operation and maintenance of Test Set, Optical Alignment AN/AAM-36 :

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8, and 9), Supply Bulletins, and Lubrication Orders.
DA Pam 310-7	U. S. Army Equipment Index of Modification Work Orders.
SB 11-573	Painting and Preservation Supplies Available for Field Use for Electronics Command Equipment.
SB 38-100	Preservation, Packaging, Packing, and Marking Materials, Supplies and Equipment Used by the Army.
TB 746-10	Field Instructions for Painting and Preserving Electronics Command Equipment.
TM ll-5850-241-12(C)	Operator and Organizational Maintenance Manual Including Repair Parts and Special Tools Lists for Detecting Set, Infrared AN/AAS-24(U).
TM 11-5850-241-34/1(U)	DS and GS Maintenance Manual for Detecting Set, Infrared AN/AAS-24 (Volume 1 of 2) (U).
TM ll-5850-241-34/2(C)	DS and GS Maintenance Manual for Detecting Set, Infrared AN/AAS-24 (Volume 2 of 2) (U).
TM 38-230	Preservation, Packaging, and Packing Military Supplies and Equipment : Preservation and Packaging.
TM 38-750	The Army Maintenance Management Systems (TAMMS).

APPENDIX B

BASIC ISSUE ITEMS LIST (BILL) AND ITEMS TROOP INSTALLED OR AUTHORIZED LIST (ITIAL)

Section I. INTRODUCTION

B-1. Scope.

This appendix lists only basic issue items required by the crew/operator for installation, operation, and maintenance of the Test Set, Optical alignment AN/AAM-36.

B-2. General

This Basic Issue Items and Items Troop Installed or Authorized List is divided into the following sections:

a. Basic Issue Items List-Section II. A list, in alphabetical sequence, of items which are furnished with, and which must be turned in with the end item.

*b. Items Troop Installed or Authorized List-*Section III. Not applicable.

B-3. Explanation of Columns

The following provides an explanation of columns found in the tabular listings:

a. Illustration. This column is divided as follows:

(1) *Figure Number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item Number.* The number used to identify each item called in the illustration.

b. Federal Stock Number. Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description. Indicates the Federal item name and a minimum description required to identify the item.

(1) *Part Number.* Indicates the primary number used by the manufacturer (individual, company, firm, corporation, or Government activity), which controls the design and characteristics of the item by means of its engineering drawings, specifications standards, and inspection requirements, to identify an item or range of items.

(2) Federal Supply Code for Manufacturer (FSCM). The FSCM is a 5-digit numeric code used to identify the manufacturer, distributor, or Government agency, etc., and is identified in SB 708-42.

d. Unit of Measure (U/M). Indicates the standard of basic quantity of the listed item as used in performing the actual maintenance function. This measure is expressed by a two-character alphabetical abbreviation, (e.g., ea, in., pr, etc.). When the unit of measure differs from the unit of issue, the lowest unit of issue that will satisfy the required units of measure will be requisitioned.

e. Quantity Furnished with Equipment (Basic Issue Items Only). Indicates the quantity of the basic issue item furnished with the equipment.

Section II. BASIC ISSUE ITEMS LIST

Illustration		(2) Federal Stock Number	(3) Description	(4) Qty Furn With Equip
(a) Fig. No.	(b) Item No.		Part Number & FSCM — Usable on code	
1-1	1M2MP1	6625-408-5017	CASE, TEST SET CY-6904/AAM-36	1
1-1	1MP3M	6625-408-5014	CASE, TEST SET CY-6905/AAM-36	1
1-1	1MP2 MP1	6625-408-5025	CASE, TEST SET CY-6906/AAM-36	1

Code	*Explanation*
	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. The abbreviation "w/e." when used as a part of the nomenclature, indicates the Federal stock number includes all armament, equipment, accessories, and repair parts issued with the item. A part number to other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses. Repair parts quantities included in kits, sets, and assemblies are shown in front of the repair part name.

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, e.g., ft, ea, pr, etc.

e. Quantity Incorporated in ***Unit, Column*** **5.** This column indicates the quantity of the item used in the unit.

f. ***Quantity Furnished With Equipment, Column*** 6. This column indicates the quantity of an item furnished with the equipment.

g. ***Illustration, Column*** 7. This column is divided as follows:

(1) ***Figure number, column 7a.*** Indicates the figure number of the illustration in which the item is shown.

(2) Item number, column 7b. Indicates the callout number used to reference the item in the illustration.

B-4. Explanation of Columns in the Tabular List of Maintenance and Operating Supplies

a. Component *Application,* **Column 1.** This column identifies the component application of each maintenance or operating supply item.

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 item name and brief description.

d. *Quantity Required* ***for*** *Initial Operation.* **Column 4.** This column indicates the quantity of each maintenance or operating supply item required for initial operation of the equipment.

e. Quantity Required for 8 Hours Operation, Column **5.** This column indicates *the* estimated quantities required for an average 8 hours of operation.

f. Notes, Column 6. This column indicates informative notes keyed to data appearing in a preceding column.

B-5. Special Information

Not applicable.

B-6. Abbreviations.

Not applicable.

B-7. Federal Supply Code for Manufacturers

Code	*Manufacturer*
02622	American Optical Co.
08806	General Electric Co., Miniature Lamp Dept.
82084	Geier and Bluhm, Inc.
84256	Avdel, Inc.
96214	Texas Instruments, Inc. Apparatus Div.
96906	Military Standards

SECTION II BASIC ISSUE ITEMS

(1) SEQ. NO./ SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER AND MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) QTY FURN WITH EQUIP	(7) ILLUSTRATIONS (A) FIG NO.	(7) ILLUSTRATIONS (B) ITEM NO. OR REFERENCE DESIGNATION
A001	6625-408-5040	TEST SET, OPTICAL ALIGNMENT AN/AAM-36	EA	1		1-1	1
A005 G--O-S	6625-433-2379	TEST SET, NO. 1: 692555-1 (96214)	EA	1		1-1	1MP2
A006 G--O-S	6625-408-5017	CASE, TEST SET CY-6904/AAM-36	EA	1		1-1	1MP2MP1
A036 G--O-S	6625-408-5046	FIXTURE, ALIGNMENT MX-8778/AAM-36	EA	1		1-1	1MP2MP2
A079 G--O-S	6625-408-5016	FIXTURE, ALIGNMENT MX-8779/AAM-36	EA	1		1-1	1MP2MP3
A096 P--O-S	5210-403-5825	INDICATOR, DIAL ID-1745/AAM-36	EA	1		1-1	1MP2MP4
A104 P--O-S	6650-182-7790	MICROSCOPE, OPTICAL SU-59/AAM-36	EA	1		1-1	1MP2MP5
A119 P--O-S	6650-182-7791	MICROSCOPE, OPTICAL SU-60/AAM-36	EA	1		1-1	1MP2MP6
A126 G--O-S	6625-408-5018	POWER, SUPPLY PP-6507/AAM-36	EA	1		1-1	1A2
A158 G--O-S	6625-408-5031	SIMULATOR, TARGET SM-590/AAM-36	EA	1		1-1	1A4
A180 G--O-S		TEST SET, NO. 2: 694292-1 (96214)	EA	1		1-1	1MP3
A185 P--O-S	6625-196-2844	CABLE ASSEMBLY, POWER, ELECTRICAL CX-12408/U-(8 FT)	EA	1		1-1	1W1
A191 G--O-S	6625-408-5014	CASE, TEST SET CY-6905/AAM-36	EA	1		1-1	1MP3MP1
A220 MD-H--	6625-408-5026	FIXTURE, ALIGNMENT MX-8781/AAM-36	EA	1		1-1	1MP3MP2
A234 G--O-S	6625-408-5015	FIXTURE, ALIGNMENT MX-8780/AAM-36	EA	1		1-1	1MP3MP3
A276 P--O-S	6625-408-5028	LIGHT, OPTICAL ALIGNMENT MX-8784/AAM-36	EA	1		1-1	1A3
A315 G--O-S	6625-407-7257	MAINTENANCE FIXTURE, RECEIVER MT-4298/AAM-36	EA	1		1-1	1MP3MP4
A316 MD-H--		BAR, BASE, FRAME: 696069-2 (96214)	EA	1		1-1	1MP3MP4MP1
A328 MD-H--		LEG, HOLDING, FIXTURE, NO. 1: 696065-1 (96214)	EA	2		1-1	1MP3MP4MP5
A329 MD-H--		LEG, HOLDING, FIXTURE, NO. 1: 696065-1 (96214)	EA	REF		1-1	1MP3MP4MP6
A330 MD-H--		LEG, HOLDING, FIXTURE, NO. 2: 696066-1 (96214)	EA	2		1-1	1MP3MP4MP7
A331 MD-H--		LEG, HOLDING, FIXTURE, NO. 2: 696066-1 (96214)	EA	REF		1-1	1MP3MP4MP8
A346 G--O-S	5850-252-5771	TRIPOD, COLLIMATOR MT-4299/AAM-36	EA	1		1-1	1MP3MP5
A349 G--O-S		TEST SET NO. 3: 696036-1 (96214)	EA	1		1-1	1MP4
A350 G--O-S	6625-408-5027	ACCESSORY KIT, OPTICAL EQUIPMENT MK-1515/AAM-36	EA	1		1-1	1MP4MP1
A363 P--O--	6650-231-7784	CELL, ASSEMBLY, OPTICAL ELEMENT: 1076 (02622)	EA	2		1-1	1MP4MP1MP2
A364 P--O--	6650-231-7784	CELL. ASSEMBLY, OPTICAL ELEMENT: 1076 (02622)	EA	REF		1-1	1MP4MP1MP3

SECTION II BASIC ISSUE ITEMS- CONTINUED

(1) SEQ. NO./ SMR CODE	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION REFERENCE NUMBER AND MFR CODE / USABLE ON CODE	(4) UNIT OF MEAS	(5) QTY INC IN UNIT	(6) QTY FURN WITH EQUIP	(7) ILLUSTRATIONS (A) FIG NO.	(7) ILLUSTRATIONS (B) ITEM NO. OR REFERENCE DESIGNATION
A365 P--O--	6650-231-7794	CELL, ASSEMBLY, OPTICAL ELEMENT: 1116 (02622)	EA	1		1-1	1MP4MP1MP4
A367 X2-O--		EYEGUARD, AUTOCOLLIMATOR: 633702-1 (96214)	EA	1		1-1	1MP4MP1MP6
A368 X2-O--		EYEGUARD, MICROSCOPE: 633705-1 (96214)	EA	2		1-1	1MP4MP1MP7
A369 X2-O--		EYEGUARD, MICROSCOPE: 633705-1 (96214)	EA	REF		1-1	1MP4MP1MP8
A372 G--O-S	6625-408-5025	CASE, TEST SET CY-6906/AAM-36	EA	1		1-1	1MP4MP2
A401 G--O-S	6625-407-7104	COLLIMATOR, RECORDER SU-61/AAM-36	EA	1		1-1	1A5
A456 G--O-S	8560-195-0927	DETECTOR, LIGHT INTENSITY IM-223/AAM-36	EA	1		1-1	1A1
A568 G--O-S	6625-408-5029	FIXTURE, ALIGNMENT MX-8782/AAM-36	EA	1		1-1	1MP4MP3
A595 X2-O--		SUPPORT, NO. 1: 695987-2 (96214)	EA	1		1-1	1MP4MP3MP6
A598 X2-O--		SUPPORT, NO. 2: 695990-2 (96214)	EA	1		1-1	1MP4MP3MP7
A601 G--O-S	6625-408-5030	FIXTURE, ALIGNMENT MX-8783/AAM-36	EA	1		1-1	1MP4MP4

SECTION III MAINTENANCE AND OPERATING SUPPLIES

(1) COMPONENT APPLICATION	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION	(4) QTY REQD FOR INITIAL OPERATION	(5) QTY REQD FOR 8 HOURS OPERATION	6 NOTES
TEST SET, OPTICAL ALIGNMENT AN/AAM-36	6810-664-0273	CLEANING COMPOUND	1 PT	1 PT	USE CLEANING COMPOUND FOR GENERAL CLEANING OF COMPONENTS.
	9150-185-0629	LUBRICATING OIL, GENERAL PURPOSE, PRESERVATIVE (PL-SPECIAL)	1 QT	1 QT	APPLY LIGHT FILM OF LUBRICATING OIL TO METAL PARTS AND SURFACES (IN HUMID CLIMATES).
	5970-644-2636	INSULATION TAPE, ELECTRICAL, (PRESSURE SENSITIVE ADHESIVE PLASTIC TAPE)	1 ROLL	1 ROLL	USE INSULATION TAPE AS REQUIRED WHEN PERFORMING ELECTRICAL REPAIRS.
	5350-235-0124	FINE SANDPAPER	1 PKG	1 PKG	USE FINE SANDPAPER FOR CONDITIONING SURFACE PRIOR TO PAINTING.

APPENDIX C
MAINTENANCE

Section I. INTRODUCTION

C-1. General

This appendix provides a summary of the maintenance operations for AN/AAM-36. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

C-2 Maintenance Function

Maintenance functions will be limited to and defined as follows:

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical, and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and to detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (decontaminate), to preserve, to drain, to paint, or to replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

d. Adjust. To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to the specified parameters.

e. *Align. To* adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipments used in precision measurement. Consists ofcomparisons of two instruments, one of which is a certified standard of known accuracy to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Install. The act of emplacing, seating, or fixing into position an item, part, module (component or assembly) in a manner to allow the proper functioning of the equipment or system.

h. Replace. The act of substituting *a* serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services (inspect, test, service, adjust, align, calibrate, replace) or other maintenance actions (welding, grinding, riveting, straightening, facing, remachining, or resurfacing) to restore serviceability to an item by correcting specific damage fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j. *Overhaul.* That maintenance effort (service/action) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (i.e., DMWR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to a like new condition.

k. *Rebuild.* Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours, miles, etc.) considered in classifying Army equipments/components.

C-3. Column Entries

a. Column 1, Group, *Number.* Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. Column 2, Component/Assembly. Column 2 contains the noun names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the functions to be performed on the item in column 2. When items are listed without maintenance functions, it is solely for purpose of having the group numbers in the MAC and RPSTL coincide.

d. Co1umn 4, Maintenance Category. Column 4 specifies, by the listing of a "worktime" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform that maintenance function at the indicated category of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance categories, appropriate "worktime" figures will be shown for each category. The number of task-hours specified by the "worktime" figure represents the average time required to restore an item (assembly, subassembly, compo-

nent, module, end item or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. Subcolumns of column 4 are as follows:

C-Operator/Crew
O-Organizational
F-Direct Support
H-General Support
D-Depot

e. Column 5, Tools and Equipment. Column 5 specifies by code, those common tool sets (not individual tools) and special tools, test, and support equipment required to perform the designated function.

f. Column 6, Remarks. Column 6 contains an alphabetic code which leads to the remark in section IV, Remarks, which is pertinent to the item opposite the particular code.

C-4. Tool and test Equipment Requirements (sect III)

a. Tool or Test Equipment Reference Code. The numbers in this column coincide with the numbers used in the tools and equipment column of the MAC. The numbers indicate the applicable tool or test equipment for the maintenance functions.

b. Maintenance Category. The codes in this column indicate the maintenance category allocated the tool or test equipment.

c. Nomenclature. This column lists the noun name and nomenclature of the tools and test equipment required to perform the maintenance functions.

d. National/NATO Stock Number. This column lists the National/NATO stock number of the specific tool or test equipment.

e. *Tool* Number. This column lists the manufacturer's part number of the tool followed by the Federal Supply Code for manufacturers (5-digit) in parentheses.

C-5. Remarks (sect IV)

a. Reference Code. This code refers to the appropriate item in section II, column 6.

b. Remarks. This column provides the required explanatory information necessary to clarify items appearing in section II.

SECTION II MAINTENANCE ALLOCATION CHART
FOR
TEST SET, OPTICAL ALIGNMENT AN/AAM-36

(1) GROUP NUMBER	(2) COMPONENT ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY C	O	F	H	D	(5) TOOLS AND EQPT.	(6) REMARKS
00	TEST SET, OPTICAL ALIGNMENT AN/AAM-36	Inspect		0.16					
		Test				0.5		4	
		Service		0.25				3	
		Install		0.25					
		Replace		0.25					
		Repair				0.25		2	
01	TEST SET GROUP NO. 1	Replace		0.25				3	
		Repair				0.3		2	
0101	FIX[illegible]NMENT MX-8778/AAM-36	Service		0.25				3	
		Replace		0.25					
		Repair				0.3		2	
0102	FIXTURE, ALIGNMENT MX-8779/AAM-36	Service		0.25				3	
		Replace		0.25					
		Repair				0.3		2	
0103	INDICATOR, DIAL ID-1745/AAM-36	Test				0.3		2	
		Replace		0.25				3	
		Repair				0.5		2	
0104	MICROSCOPE, OPTICAL SU-59/AAM-36	Service		0.25				3	
		Replace		0.25				3	
		Repair				0.5		2	
0105	MICROSCOPE, OPTICAL SU-60/AAM-36	Service		0.25				3	
		Replace		0.25				3	
		Repair				0.5		2	
0106	CASE, TEST SET CY-6904/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
02	TEST SET GROUP NO. 2	Replace		0.25				3	
		Repair				0.3		2	
0201	FIXTURE, ALIGNMENT MX-8780/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
0202	FIXTURE, ALIGNMENT MX-8781/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
0203	MAINTENANCE FIXTURE, RECEIVER MT-4298/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
0204	TRIPOD, COLLIMATOR MT-4299/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
0205	CASE, TEST SET CY-6905/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
03	TEST SET GROUP NO. 3	Replace		0.25				3	
		Repair				0.3		2	
0301	ACCESSORY KIT, OPTICAL EQUIPMENT MK-1915/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
0302	FIXTURE, ALIGNMENT MK-8782/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
0303	FIXTURE, ALIGNMENT MX-8783/AAM-36	Replace		0.25				3	
		Repair				0.5		2	
0304	DETECTOR, LIGHT INTENSITY IM-223/AAM-36	Test				0.3		1,2,4,7,8	
		Replace		0.25					
		Repair				0.5		1,2,4,5,6	
030401	DETECTOR PRINTED CIRCUIT BOARD	Test					0.5	1,2,4,7,8	
		Replace				0.3		2	
		Repair					0.75	1,2,4,7,8	

SECTION II MAINTENANCE ALLOCATION CHART
FOR
TEST SET, OPTICAL ALIGNMENT AN/AAM-36

(1) GROUP NUMBER	(2) COMPONENT/ASSEMBLY	(3) MAINTENANCE FUNCTION	(4) MAINTENANCE CATEGORY					(5) TOOLS AND EQPT.	(6) REMARKS
			C	O	F	H	D		
0305	POWER SUPPLY PP-6507/AAM-36	Test				0.5		2,4,6	
		Replace		0.25				3	
		Repair				0.5		2,4,6	
0306	LIGHT, OPTICAL ALIGNMENT MX-8784/AAM-36	Test				0.5		2,4	
		Replace		0.25				3	
		Repair				0.5		2,4	
0307	SIMULATOR, TARGET SM-590/AAM-36	Test				0.5		2,4	
		Replace		0.25				3	
		Repair				0.5		2,4	
0308	COLLIMATOR, RECORDER SU-61/AAM-36	Service		0.25				3	
		Replace		0.25				3	
		Repair				0.5		2	
0309	CABLE ASSEMBLY, POWER ELECTRICAL CX-12408/U	Inspect		0.08					
		Test		0.16				3	
		Replace		0.25				3	
		Repair				0.5		2,4	
0310	CASE, TEST SET CY-6906/AAM-36	Replace		0.25				3	
		Repair				0.5		2	

SECTION III TOOL AND TEST EQUIPMENT REQUIREMENTS FOR

TEST SET, OPTICAL ALIGNMENT AN/AAM-36

TOOL OR TEST EQUIPMENT REF CODE	MAINTENANCE CATEGORY	NOMENCLATURE	NATIONAL NATO STOCK NUMBER	TOOL NUMBER
1	H,D	OSCILLOSCOPE AN/USM-281C	6623-000-186-9622	
2	H,D	TOOL KIT, ELECTRONIC EQUIPMENT TK-105/G	5180-00-610-8171	
3	D	TOOL KIT, ELECTRONIC EQUIPMENT TK-101/G	5180-00-064-5172	
4	H,D	MULTIMETER TS-352B/U	6625-00-553-0142	
5	H	TEST SET, RECORDER-FILM MAGAZINE AN/AAM-32	6625-00-403-1065	
6	H,D	DIGITAL VOLTMETER AN/AAM-61B (WITH A PLUG-IN 6625-00-137-8166 AND COVER 6625-00-137-8182)	6625-00-022-7894	
7	D	TEST SET, INFRARED DETECTING SET AN/AAM-36	6625-00-459-3402	
8	-	GENERATOR, SIGNAL AN/USM-26A	6625-00-935-4714	

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APPENDIX C

MAINTENANCE ALLOCATION

Section I. INTRODUCTION

C-1. General

This appendix provides a summary of the maintenance operations covered in the equipment literature for Test Set, Optical Alignment AN/AAM-36. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

C-2. MAINTENANCE FUNCTIONS

Maintenance functions will be limited to and defined as follows :

a. *Inspect.* To determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.

b. Test. To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment such as gages, meters, etc. This is accomplished with external test equipment and does not include operation of the equipment and operator type tests using internal meters or indicating devices.

c. Service. To clean, to preserve, to charge, and to add fuel, lubricants, cooling agents, and air. If it is desired that elements, such as painting and lubricating, be defined separately, they may be so listed.

d. Adjust. To rectify to the extent necessary to bring into proper operating range.

e. Align. To adjust two or more components or assemblies of an electrical or mechanical system so that their functions are properly synchronized. This does not include setting the frequency control knob of radio receivers or transmitters to the desired frequency.

f. Calibrate. To determine the corrections to be made in the readings of instruments of test equipment used in precise measurement. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared with the certified standard.

g. Install. To set up for use in an operational environment such as an encampment, site, or vehicle.

h. Replace. To replace unserviceable items with serviceable like items.

i. Repair. To restore an item to serviceable condition through correction of specific failure or unserviceable condition. This function includes, but is not limited to welding, grinding, riveting, straightening, and replacement of parts other than by the trial and error replacement of running spare type items such as fuses, lamps, or electronic tubes.

j. Overhaul. Normally, the highest degree of maintenance performed by the Army to minimize time work in process and is consistent with quality and economy of operation. It consists of that maintenance necessary lo restore an item to completely serviceable condition as prescribed by maintenance standards in technical publications for each item of equipment. Overhaul normally does not return an item to like new, zero mileage, or zero hour condition.

k. Rebuild. The highest degree of material maintenance. It consists of restoring equipment as nearly as possible to new condition in accordance with original manufacturing standards. Rebuild is performed only when required by operational considerations or other paramount factors and then only at the depot maintenance category. Rebuild reduces to zero the hours or miles the equipment, or component thereof, has been in use.

l. Symbols. The uppercase letter placed in the

APPENDIX D

ORGANIZATIONAL MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST

Section I. INTRODUCTION

D-1. Scope

This appendix lists repair parts and special tools required for the performance of organizational maintenance of the Test Set, Optical Alignment AN/AMM-36.

D-2. General

This repair parts and special tools list is divided into the following sections:

a. Prescribed Load Allowance (PLA)-Section II. A composite listing of the repair parts, special tools, test and support equipment having quantitative allowances for initial stockage at the organizational level.

b. Repair Parts--Section III. A list of Test Set, Optical Alignment AN/AAM-36 repair parts authorized for the performance of maintenance at the organizational level in figure and item number sequence.

c. Special Toots,* Test *and Support Equipment. Not applicable.

D-3. Explanation of Columns

The following provides an explanation of columns:

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

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

Code	Explanation
P -	Repair parts which are stocked in or supplied from the GSA/DSA, or Army supply system and authorized for use at indicated maintenance categories.
-	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 of two or more units. Such component units carry individual stock numbers and descriptions, are procured and stocked separately and can be assembled to form the required assembly at indicated maintenance categories.
X l -	Repair parts whih 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.
G-	Major assemblies that are procured with PEMA funds for initial issue only as exchange assemblies at DSU and GSU level. These assemblies will not be stocked above DS and GS level or returned to depot supply level.

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

CO&	Explanation
C	------Crew or operator maintenance.
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-

Code	*Explanation*
R	-Repair partes and assemblies which are economically reparable at DSU and GSU activities and are normally furnished by supply on an exchange basis. When items are determined by a GSU to be uneconomically reparable, 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 casing 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, Columns 3. This column indicates the Federal item name and any additional description of the item required. The abbreviation "we/e," when used as a part of the nomenclature, indicates the Federal stock number includes all armament, equipment, accessories, and repair parts issued with the item. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses. Repair parts quantities included in the kits, sets, and assemblies are shown in front of the repair part name. Material required for manufacture or fabrication is identified.

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

e. Quantity Incorporated in Unit, Column 5. This column indicates the quantity of the item used in the unit. A "V" appearing in this column in lieu of a quantity indicates that a definite quantity cannot be indicated (e.g., shims, spacers, etc.).

f. ***15-Day Organizational Maintenance Allowance, Column 3.***

(1) The allowance columns are divided into four 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 letter "REF" in the 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 organizational level of maintenance represents one initial prescribed load for a 15-day period for the number of equipments supported. Units and organizations authorized additional prescribed loads will multiply the number of prescribed loads authorized by the quantity of repair parts reflected in the density column applicable to the number of items supported to obtain the total quantity of repair parts authorized.

(3) Organizational units providing maintenance for more than 100 of these equipments shall determine the total quantity of parts required by converting the equipment quantity to a decimal factor by placing a decimal point before the next to last digit of the number co 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.

(4) Subsequent changes to allowances will be limited as follows: No change in the range of items is authorized. If additional items are considered necessary, recommendation should be forwarded to the Maintenance Directorate, AMSEL- . . Fort Monmouth, N.J., for exception or revision to the allowance list. Revisions to the range of items authorized will' be made by the Maintenance Engineering Directorate based upon engineering experience, demand data, or TAERS information.

g. Illustration, Column 7. This column is divided as follows :

(1) ***Figure number, column 7a.*** Indicates the figure number of the illustration in which the item is shown.

(2) ***Item number, column 7b.*** Indicates the callout number used to reference the item in the illustration.

D-4. Special Information

a. Parts which require manufacture or assembly at a category higher than that authorized for installation will indicate in the source column the higher category.

b. For end items authorized mandatory stockage of repair parts by the Department of the Army, on a case by case basis, the mandatory stockage items are indicated by a plus "+" sign as the first character in the end item density columns of both the repair parts list and the prescribed load allowance for each such authorized allowance quantity.

D-5. How to Locate Repair Parts

Locate the sequence number in the ***Repair Parts List Sequence Number/SMR Code*** column, which is in ascending alphanumeric order, to find the repair part.

D-6. Abbreviations

Not applicable.

Supply Codes for Manufacturers

Code	*Manufacturer*
00141	Pic Design Corp.
02622	American Optical Co.
08806	General Electric Co., Miniature Lamp Dept.
82084	Geier and Bluhm, Inc.
96214	Texas Instruments, Inc., Apparatus Div.
96906	Military Standards

SECTION II PRESCRIBED LOAD ALLOWANCE

(1) FEDERAL STOCK NUMBER	(2) DESCRIPTION	USABLE ON CODE	(3) 15-DAY ORG. MAINT. ALLOWANCE (A) 1-5	(B) 6-20	(C) 21-50	(D) 51-100
5210-403-5825	INDICATOR,DIAL ID-1745/AAM-36		*	*	*	2
6650-182-7790	MICROSCOPE, OPTICAL SU-59/AAM-36		*	*	*	2
5355-985-6888	KNOB, CONTROL: MS91528-2M2B (96906)		*	*	*	2
6625-196-2844	CABLE ASSEMBLY, POWER, ELECTRICAL CX-12408/U-(8 FT)		*	*	*	2

SECTION III REPAIR PARTS FOR ORGANIZATIONAL MAINTENANCE

(1) SEC. NO./ SMR CODE	2 FEDERAL STOCK NUMBER	3 DESCRIPTION REFERENCE NUMBER AND MFR CODE	USABLE ON CODE	4 UNIT OF MEAS	(5) QTY INC IN UNIT	(6) 15-DAY ORGANIZATIONAL MAINTENANCE ALW (A) 1-5	(B) 6-20	(C) 21-50	(D) 51-100	(7) ILLUSTRATIONS (A) FIG NO.	(B) ITEM NO. OR REFERENCE DESIGNATION
A096 P--O-S	5210-403-5825	INDICATOR, DIAL ID-1745/AAM-36		EA	1	*	*	*	2	1-1	1MP2MP4
A104 P--O-S	6650-182-7790	MICROSCOPE, OPTICAL SU-59/AAM-36		EA	1	*	*	*	2	1-1	1MP2MP5
A111 P--O--	5340-470-4349	DUST COVER, MICROSCOPE, EYEPIECE: 633710-1 (96211)		EA	1	*	*	*	*	1-1	1MP2MP5MP3
A119 P--O-S	6650-182-7791	MICROSCOPE, OPTICAL SU-60/AAM-36		EA	1	*	*	*	*	1-1	1MP2MP6
A144 P--O--	5355-985-6888	KNOB, CONTROL: MS91528-2M2B (96906)		EA	2	*	*	*	2	1-1	1A2MP9
A145 P--O--	6355-985-6888	KNOB, CONTROL: MS91528-2M2B (96906)		EA	REF	REF	REF	REF	REF	1-1	1A2MP10
A160 P--O--	5340-480-4484	CAP, DUST, ADAS: 672612-1 (96214)		EA	1	*	*	*	*	1-1	1A4MP2
A185 P--O-S	6625-196-2844	CABLE ASSEMBLY, POWER, ELECTRICAL CX-12408/U-(8 FT)		EA	1	*	*	*	2	1-1	1W1
A314A P--O-S	6625-408-5028	LIGHT, OPTICAL ALIGNMENT MX-8784/AAM-36		EA	1	*	*	*	*	1-1	1A3
A363 P--O--	6650-231-7784	CELL ASSEMBLY, OPTICAL ELEMENT: 1076 (02622)		EA	2	*	*	*	*	1-1	1MP4MP1MP2
A364 P--O--	6650-231-7784	CELL ASSEMBLY, OPTICAL ELEMENT: 1076 (02622)		EA	REF	REF	REF	REF	REF	1-1	1MP4MP1MP3
A365 P--O--	6650-231-7794	CELL ASSEMBLY, OPTICAL ELEMENT: 1116 (02622)		EA	1	*	*	*	*	1-1	1MP4MP1MP4
A366 P--O--	6650-231-7843	CELL ASSEMBLY, OPTICAL ELEMENT: 1077 (02622)		EA	1	*	*	*	*	1-1	1MP4MP1MP5
A411 P--O--	5340-470-4350	CAP, DUST: 665807-1 (96214)		EA	1	*	*	*	*	1-1	1A5MP5
A419 P--O--	5340-470-4348	DUST CAP, AUTOCOLLIMATOR: 672516-1 (96214)		EA	1	*	*	*	*	1-1	1A5MP10
A420 P--O--	5340-480-4483	DUST COVER, AUTOCOLLIMATOR: 665647-1 (96214)		EA	1	*	*	*	*	1-1	1A5MP11
A421 P--O--	6625-433-2377	END, CAP: 665724-1 (96214)		EA	1	*	*	*	*	1-1	1A5MP12

By Order of the Secretary of the Army:

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