D E P A R T M E N T O F T H E A R M Y T E C H N I C A L M A N U A L

ORGANIZATIONAL, DS, GS,

AND DEPOT MAINTENANCE MANUAL

INCLUDING REPAIR PARTS

LIGHT, SIGNAL, SURVEYING:

5 IN. DIA. REFLECTOR; GRILLE HOUSING;

IN CARRYING CASE

(MILITARY DESIGN)

FSN 6675-641-3537

This copy is a reprint which includes current pages from Change 1.

H E A D Q U A R T E R S , D E P A R T M E N T O F T H E A R M Y

J U N E 1 9 6 5

CHANGE
No.1

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., *18 April 1973*

Organizational, Direct Support, General Support

and Depot Maintenance Manual Including Repair Parts

LIGHT, SIGNAL, SURVEYING:

5 in. DIA. REFLECTOR; GRILLE HOUSING;

IN CARRYING CASE

(MILITARY DESIGN)

FSN 6675-641-3537

TM 5-6675-239-15, 15 June 1965, is changed as follows:

Page 3. Paragraph 1 is superseded as follows:

1. Scope

a. This manual is for your use in operating and maintaining the Surveying Signal Light

b. The reporting of errors. omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to: Commander, US Army Mobility /Equipment Command. ATTN: AMSME-MP. 4300 Goodfellow Boulevard, St. Louis, Missouri 63120. A reply will be furnished directly to you.

Paragraph 3 in superseded as follows:

3. Description

The Surveying Signal Light (Figs. 1 and 2) is a portable 3.7 or 6 volt direct current light in a reflector and light weight housing, designed for mounting on the standard military survey tripod Mil. Spec. T-14091). The top and bottom of the frame have threaded holes which permit stacking of lamps one above the other. Each lamp can thus be painted at different observing stations. The unit is used as a sighting target for night surveys where long lines of site are observed as in triangulation, 0r micro-wave measured traverse. The light is provided with a focusing screw and an adjusting screw for tilting the reflector vertically to point toward the observing station. Horizontal adjustment must be done by hand using the mounting screw. Power for the light is normally obtained from dry-cell batteries or other external source with electrical capabilities of either 3.7 or 6 volt dc output.

Page 17. Appendix II is rescinded.

By Order of the Secretary of the Army:

CREIGHTON W. ABRAMS
General, United States Army
Chief of Staff

Official:

VERNE L. BOWERS
Major General, United States Army
The Adjutant General

Distribution:

To be distributed in accordance with DA Form 12-25A (qty rqr block No. 174) organizational maintenance requirements for Surveying Equipment.

TECHNICAL MANUAL
No. 5-6675-239-15

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, D.C., *15 June 1965*

ORGANIZATIONAL, DS, GS, AND DEPOT MAINTENANCE MANUAL INCLUDING REPAIR PARTS

LIGHT, SIGNAL, SURVEYING: 5 IN. DIA. REFLECTOR; GRILLE HOUSING; IN CARRYING CASE (MILITARY DESIGN) FSN 6675-641-3537

			Paragraph	Page
CHAPTER	1	INTRODUCTION		
Section	I.	General		
		Scope	1	3
		Record and report forms	2	3
	II.	Description and data		
		Description	3	3
		Identification and tabulated data	4	5
		Differences in models	5	5
CHAPTER	2.	INSTALLATION AND OPERATION INSTRUCTIONS		
Section	I.	Service upon receipt of equipment		
		Inspecting and servicing equipment	6	6
		Installation and setting-up instructions	7	6
		Equipment conversion	8	6
	II.	Movement to a new worksite		
		Dismantling for movement	9	6
		Movement	10	6
		Reinstallation after movement	11	6
	III.	Controls and instruments		
		General	12	6
		Light controls	13	6
	IV.	Operation of equipment General	14	7
		Operating instructions	15	7

			Paragraph	Page
CHAPTER	3.	OPERATOR AND ORGANIZATIONAL MAINTENANCE INSTRUCTIONS		
Section	I.	Operator and organizational maintenance tools and equipment.		
		Special tools and equipment	16	8
		Basic issue tools and equipment	17	8
		Organizational maintenance repair part	18	8
	II.	Operator's maintenance		
		General	19	8
		Reflector ring and lens	20	8
		Lamp	21	8, 9
	III.	Troubleshooting		
		General	22	9
		Lamp fails to operate	23	9
	IV.	Reflector frame and reflector		
		General	24	9
		Reflector frame, reflector and adjusting screws	25	9
	V.	Electrical system		
		General	26	11
		Housing, terminal board and switch	27	11
CHAPTER	4.	DEMOLITION OF MATERIAL TO PREVENT EMEMY USE		
		General	28	13
		Demolition to render the equipment inoperative	29	13
		Other demolition methods	30	13
		Training	31	
CHAPTER	5.	SHIPMENT AND LIMITED STORAGE		
Section	I.	Shipment within zone of interior		
		Preparation of equipment for shipment	32	14
		Loading equipment for shipment	33	14
	II.	Limited storage		
		Preparation of equipment for storage	34	14
		Inspection and maintenance of equipment in storage	35	14
CHAPTER	6.	DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE INSTRUCTIONS		
		General	36	15
APPENDIX	I.	REFERENCES		16
	II.	BASIC ISSUE ITEMS		17, 18
	III.	MAINTENANCE ALLOCATION CHART		21-23
	IV.	ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE RE-PAIR PARTS LIST		25-32

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Scope

a. These instructions are published for the use of the personnel to whom the signal light is issued. Chapters 1 through 5 provide information on the operation, daily preventive maintenance services, and organizational maintenance of the equipment, accessories, components, and attachments. This manual also provides descriptions of the main units and their functions in relationship to other components.

b. Appendix I contains a list of publications applicable to this manual. Appendix II contains the list of basic issue items authorized for initial operation. Appendix III contains the Maintenance Allocation Chart. Appendix IV contains the Organizational, Direct and General Support, and Depot Maintenance Repair Parts and Special Tool Lists.

c. Numbers in parentheses on illustrations indicate quantity. Numbers preceding nomenclature callouts on illustrations indicate the preferred maintenance sequence.

d. The direct reporting by the individual user of errors, omissions, and recommendations for improving this manual is authorized and encouraged. DA Form 2028 (Recommended Changes to DA Publications) will be used for reporting these improvements. This form will be completed using pencil, pen or typewriter and will be forwarded direct to Commanding General, U.S. Army Mobility Equipment Center, ATTN: SMOME-MM, 4300 Goodfellow Boulevard, St. Louis, Mo. 63120.

e. Report all equipment improvement recommendations as prescribed by TM 38-750.

2. Record and Report Forms

For record and report forms applicable to the operator and organizational maintenance, refer to TM 38-750.

Note. Applicable forms, excluding Standard Form 46, which is carried by the operator, shall be kept in a canvas bag mounted on the equipment.

Section II. DESCRIPTION AND DATA

3. Description

The Surveying Signal Light (figs. 1 and 2) is a portable 3.7 or 6 volt direct current light source in a reflector housing suitable for mounting upon a variety of supports. The unit is used to illuminate the surveying rod target during night surveying operations. The light is provided with a focus adjusting screw and an adjusting screw for tilting the light vertically to sight on the sliding target portion of the surveying rod. Horizontal adjustment of the light must be done by hand. Power for the light is obtained from an external source with electrical capabilities of either 3.7 or 6 V dc output.

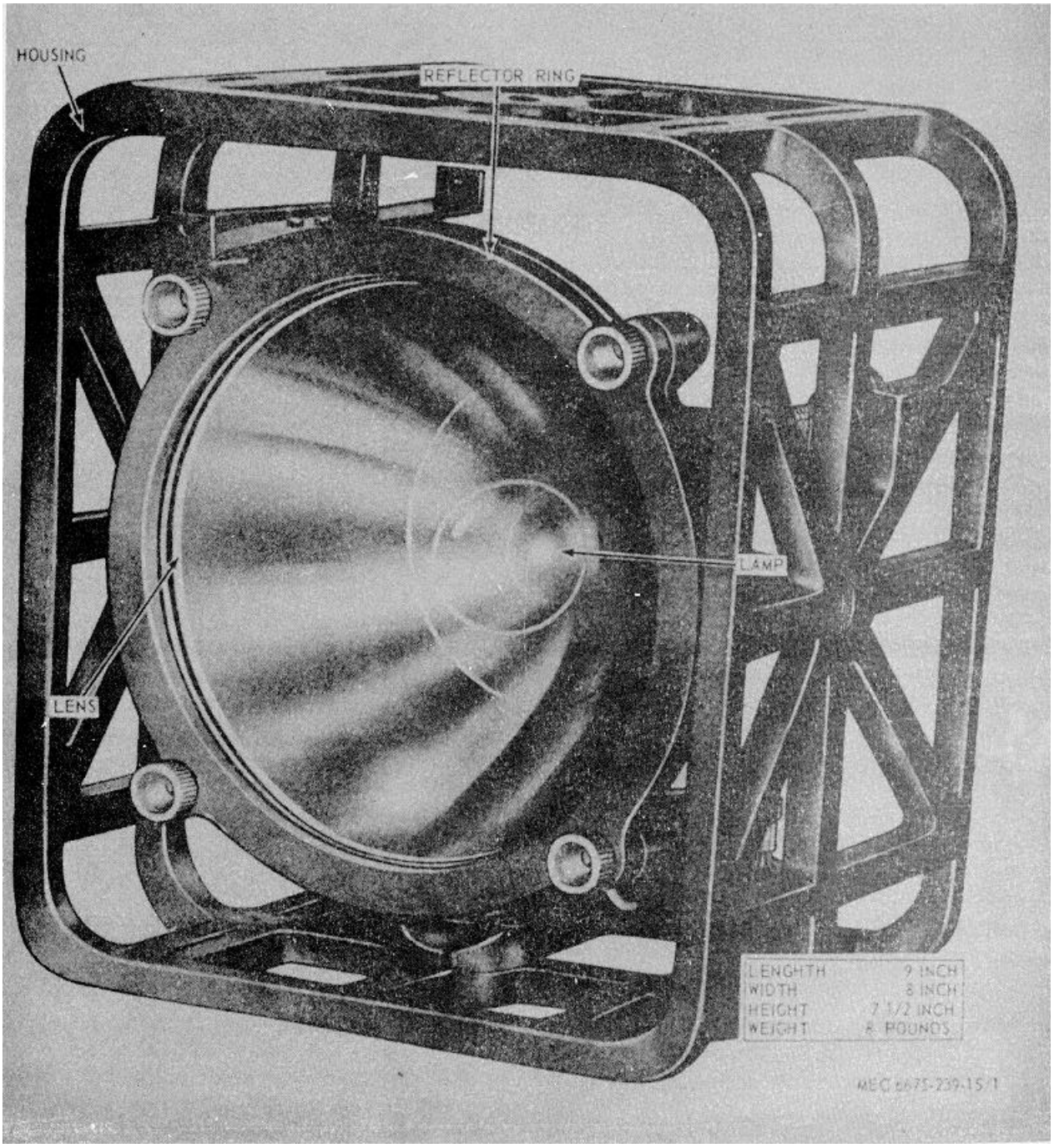


Figure 1. Surveying signal light, left front three-quarter view, with shipping dimensions.

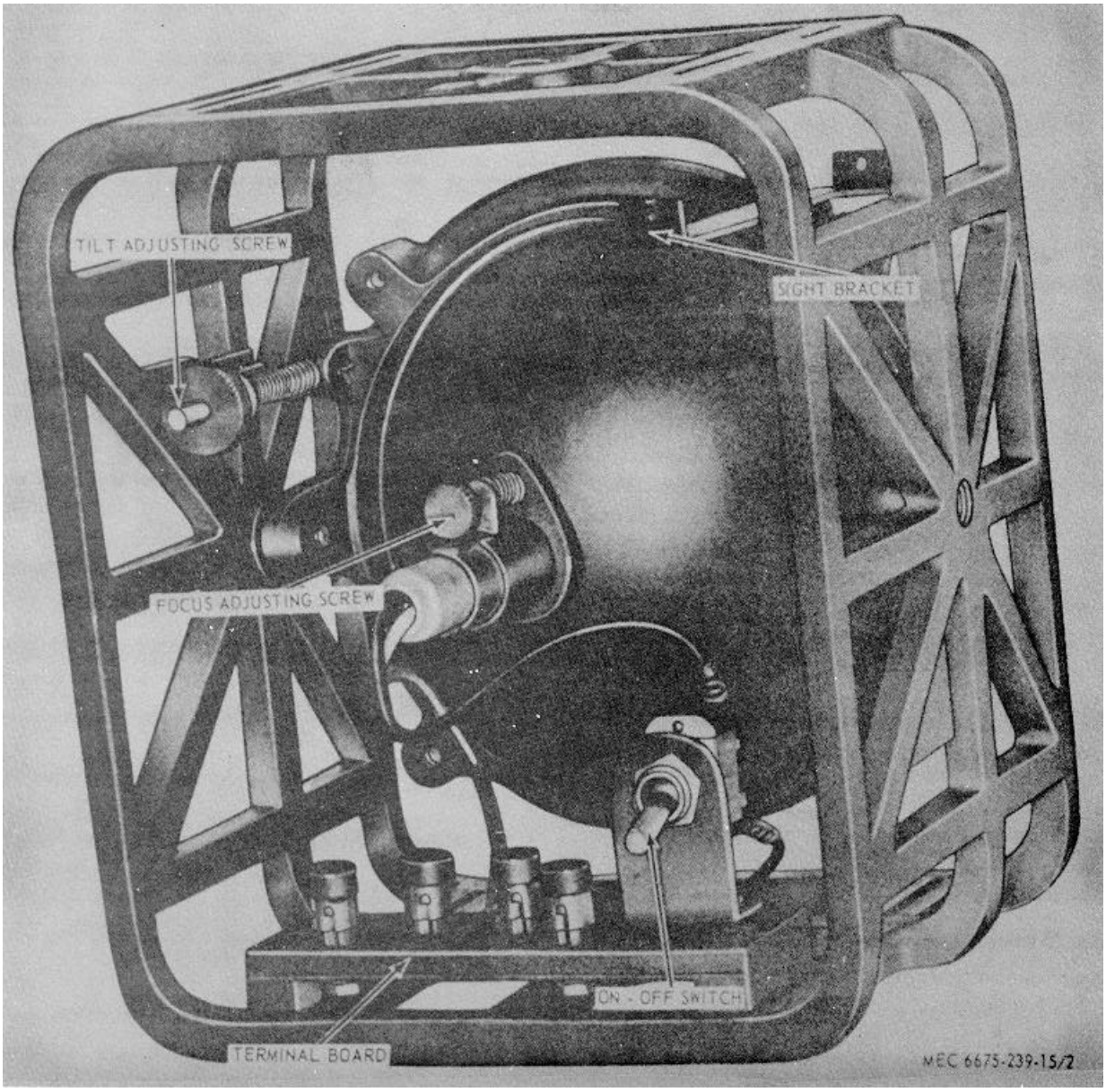


Figure 2. Surveying signal light, right rear, three-quarter view.

4. Identification and Tabulated Data

a. Identification. The unit has no identification plates.

b. Tabulated Data.

(1) General.

Manufacturer	Scientific Instruments of Wisconsin, Inc.
Model	None
Type	Parkhurst Type
Contract No	DA-11-184-AMC-339 (T)
Federal Stock Number	6675-641-3537

(2) *Dimensions and weights*

Length	9 in (inch)
Width	8 in
Height	7 ½
Weight	8 lb. (pounds)

5. Difference in Models

This manual covers only the Scientific Instruments of Wisconsin, Inc. Type PARKHURST TYPE Signal Light. No known differences exist for the type covered by this manual.

CHAPTER 2

INSTALLATION AND OPERATION INSTRUCTIONS

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

6. Inspecting and Servicing Equipment

a. Inspect the entire unit for loose or missing parts and damage.

b. Remove the reflector frame and inspect the lens and reflector for visual evidence of damage.

c. Inspect the carrying case for missing parts or damage.

7. Installation and Setting-up Instructions

a. Set up the tripod over the station with one leg of the tripod pointing toward the other station.

b. Mount the light on the tripod with the proper adapter.

c. Connect the power supply cables to the spring post.

d. Operate the light (para. 15).

8. Equipment Conversion

a. This signal light is capable of operating on two voltage ranges (3.7 and 6 volts).

***Caution*: Before connecting power supply to spring post, make certain the bulb and power supply are of the same voltage rating.**

b. Refer to figure 4 for operating instructions.

Section II. MOVEMENT TO A NEW WORKSITE

9. Dismantling for Movement

a. Remove the unit from the tripod.
b. Disconnect the power supply cables.
c. Place the light mounting adapter and the light in the carrying case.

10. Movement

a. For short distances the unit may be transported in the carrying case.

b. For long distances, the unit should be transported in a transport case.

11. Reinstallation After Movement

Refer to paragraph 7 for reinstallation instructions after movement to a new worksite.

Section III. CONTROLS AND INSTRUMENTS

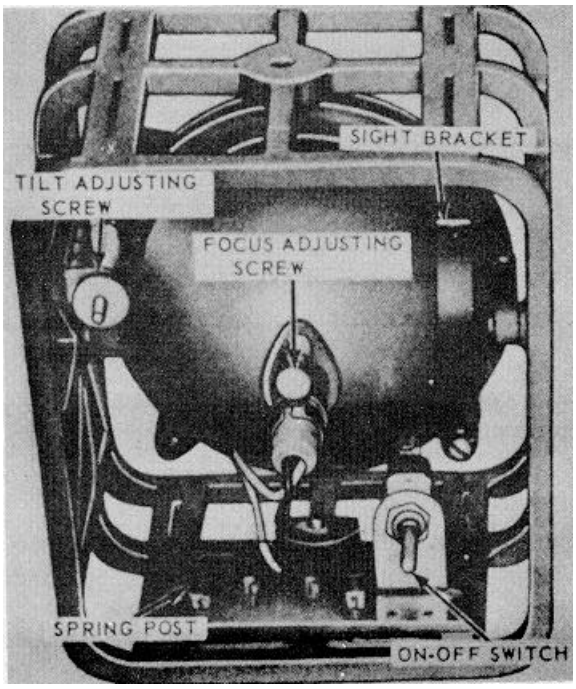
12. General

This section describes, locates, illustrates, and furnishes the operator, crew, or organizational maintenance personnel sufficient information about the various controls for proper operation of the surveying signal light.

13. Light Controls

Refer to figure 3 for the purpose and location of the controls.

Figure 3. Signal light controls.



1 CONNECT POWER SOURCE LEADS TO SPRING POST.
2 TURN ON SWITCH.
3 SIGHT THE LIGHT THROUGH THE SIGHT BRACKET.
4 FOCUS THE LIGHT WITH THE FOCUS ADJUSTING SCREW.
5 TILT THE LIGHT AS NECESSARY.

MEC 6675-239-15/4

Figure 4. Signal light operating instructions.

Section IV. OPERATION OF EQUIPMENT

14. General

a. The instructions in this section are published for the information and guidance of the personnel responsible for operation of the surveying signal light.

b. The operator must know how to perform every operation of which the surveying signal light is capable. This section gives instructions on the operation of the unit. Since nearly every job presents a different problem, the operator may have to vary given procedures to fit the individual job.

15. Operating Instructions

Refer to figure 4 for the surveying signal light operating instructions.

CHAPTER 3

OPERATOR AND ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. OPERATOR AND ORGANIZATIONAL MAINTENANCE TOOLS AND EQUIPMENT

16. Special Tools and Equipment

No special tools or equipment are required by the operator or organizational maintenance personnel for the maintenance of this surveying signal light.

17. Basic Issue Tools and Equipment

Tools and repair parts issued with or authorized for the surveying signal light are listed in the Basic Issue Items List, Appendix II of this manual.

18. Organizational Maintenance Repair Parts

Organizational maintenance repair parts are listed and illustrated in Appendix IV of this manual.

Section II. OPERATOR'S MAINTENANCE

19. General

This section contains information on the maintenance of the surveying signal light which is the responsibility of the operator. This maintenance includes the replacement of the reflector ring, lens and lamp.

20. Reflector Ring and Lens

a. Removal. Refer to figure 5 and remove the reflector ring and lens.

b. Cleaning and Inspection.

(1) Clean the reflector ring, lens and mounting gaskets with an approved cleaning solvent and dry thoroughly.
(2) Inspect for cracks, breaks, damaged threads and other damage.
(3) Replace a defective or damaged part.

c. Installation. Refer to figure 5 and install the reflector ring and lens.

21. Lamp

a. Removal.

(1) Remove the reflector ring and lens (para. 20).
(2) Refer to figure 5 and remove the lamp.

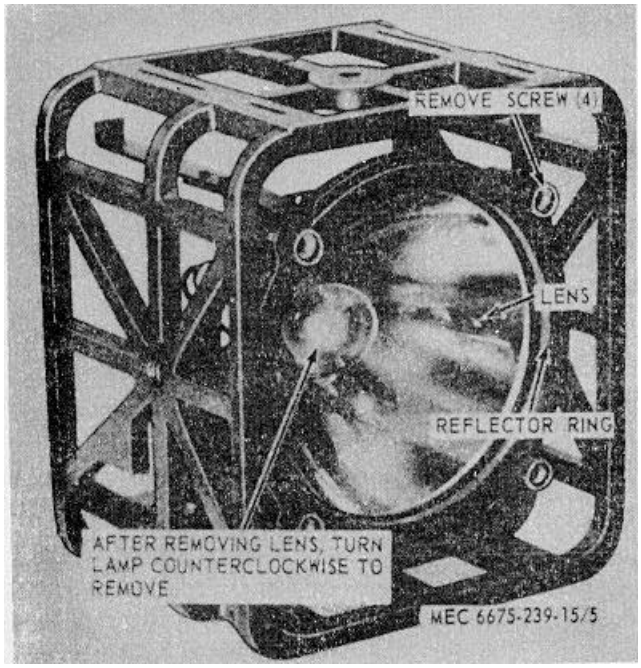


Figure 5. Reflector ring, lens, and lamp, removal and installation.

b. Cleaning and Inspection.
(1) Clean the lamp with a clear, dry, lint-free cloth.
(2) Inspect the lamp for a burned out condition.
(3) Replace a defective lamp.

c. Installation.
(1) Refer to figure 5 and install the lamp.
(2) Install the reflector ring and lens (para. 20).

Section III. TROUBLESHOOTING

22. General

This section provides information useful in diagnosing and correcting unsatisfactory operation or failure of the signal light and its components. Each trouble symptom stated is followed by a list of probable causes of the trouble. The possible remedy recommended is described opposite the probable cause. Any trouble beyond the scope of organizational maintenance shall be reported to direct support maintenance.

23. Lamp Fails to Operate

Probable cause	Possible remedy
Lamp defective	Replace lamp (para. 21).
Improper power supply ..... voltage.	Adjust power supply voltage to correspond with voltage rating of the lamp being used.
ON-OFF Switch defective.....	Replace switch (para. 27).

Section IV. REFLECTOR FRAME AND REFLECTOR

24. General

The reflector frame and reflector of the surveying gnal light is attached to the light housing and mounts the tilt adjusting screw, focus adjusting screw, and the sight bracket. This section contains information on the maintenance of these items.

25. Reflector Frame, Reflector, and Adjusting Screws

a. Removal. Refer to figure 6 and remove the reflector frame and reflector.

b. Disassembly. Refer to figure 7 and disassemble the reflector frame, reflector and adjusting screws.

c. Cleaning and Inspection.
(1) Clean all parts with a clean, dry, lint-free cloth.
(2) Inspect for cracks, breaks, damaged or stripped threads and other damage.
(3) Replace a damaged or defective part.

d. Reassembly. Refer to figure 7 and reassemble the reflector frame, reflector and adjusting screws.

e. Installation. Refer to figure 6 and install the reflector frame and reflector.

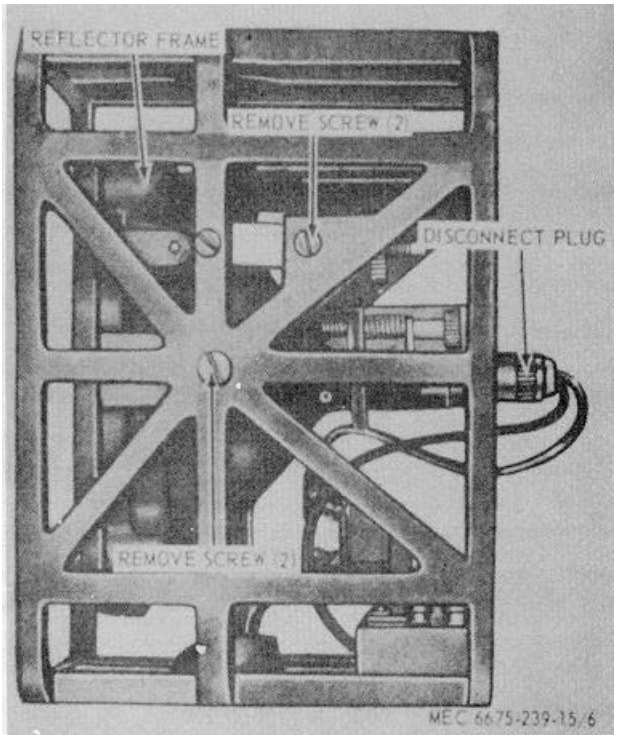
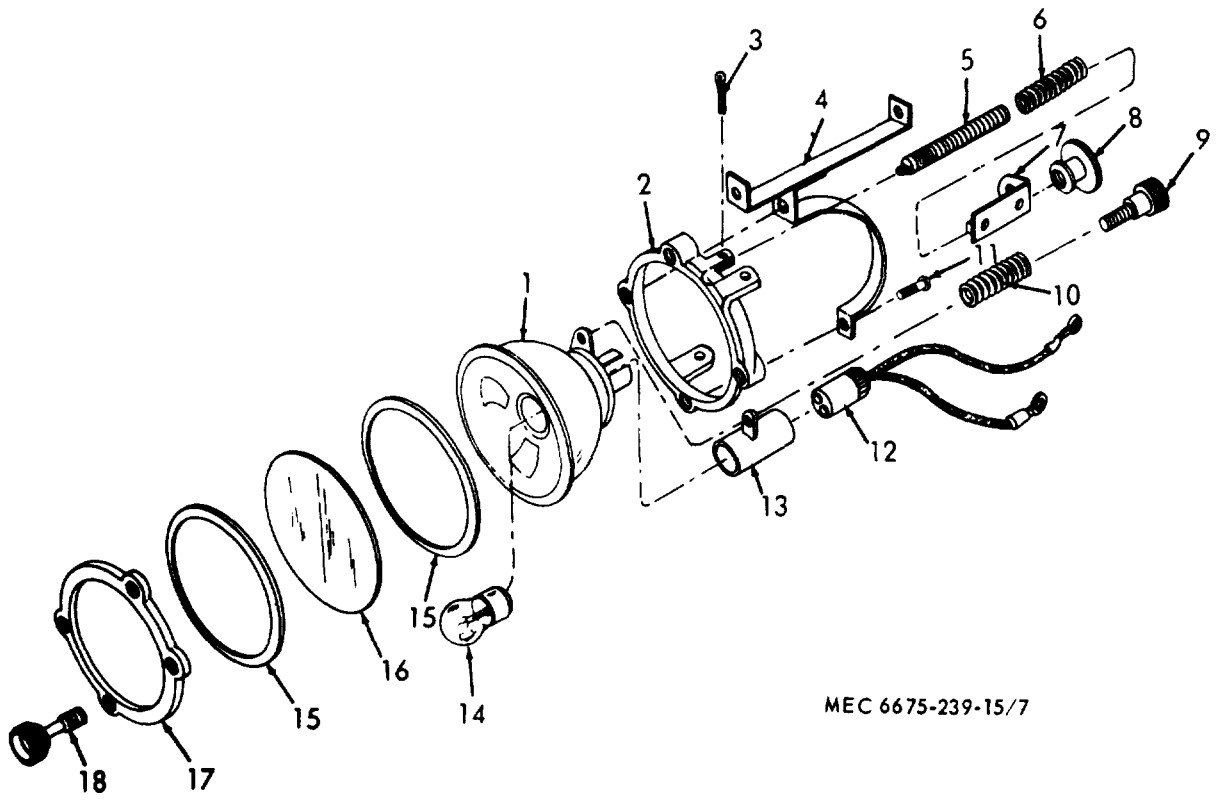


Figure 6. Reflector frame and reflector, removal and installation.



1 Reflector
2 Reflector frame
3 Pin, cotter, 1/6 in. dia., 1/2 in. lg.
4 Sight bracket assembly
5 Adjusting screw
6 Spring
7 Bracket
8 Thumb nut
9 Focusing screw
10 Spring
11 Screw, machine, No. 10-32 x 3/8 in. (2 rqr)
12 Lamp plug
13 Focusing socket
14 Lamp
15 Gasket (2 rqr)
16 Lens
17 Reflector ring
18 Ring screw (4 rqr)

Figure 7. Reflector frame, reflector and adjusting screws, disassembly and reassembly.

Section V. ELECTRICAL SYSTEM

26. General

The electrical system of the surveying signal light is attached to the light housing and mounts the terminal board and the ON-OFF switch. This section contains information on the maintenance of these items.

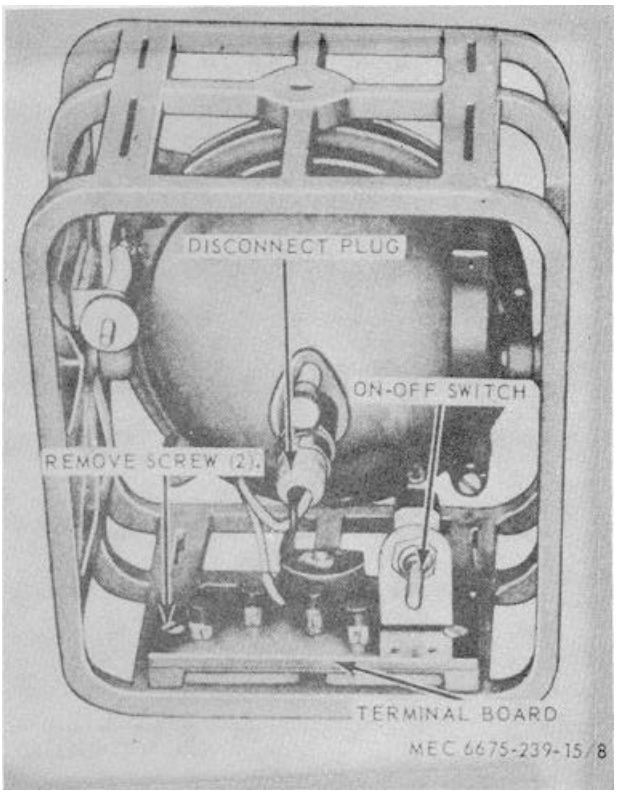


Figure 8. Terminal board and switch, removal and installation.

27. Housing Terminal Board and Switch

a. Removal.

(1) Remove the reflector frame and reflector (para. 25).

(2) Refer to figure 8 and remove the terminal board and switch.

b. Disassembly. Refer to figure 9 and disassemble the housing, terminal board and switch.

c. Cleaning and Inspection.

(1) Clean all parts with a clean, dry, lint-free cloth.

(2) Inspect the terminal board for cracks, breaks or other damage. Replace a damaged or defective terminal board.

(3) Inspect all threaded parts for damaged or stripped threads.

(4) Inspect the switch and spring post for cracks, breaks, corrosion, and other damage.

(5) Inspect the housing for cracks, breaks, damaged or stripped threads, and other damage.

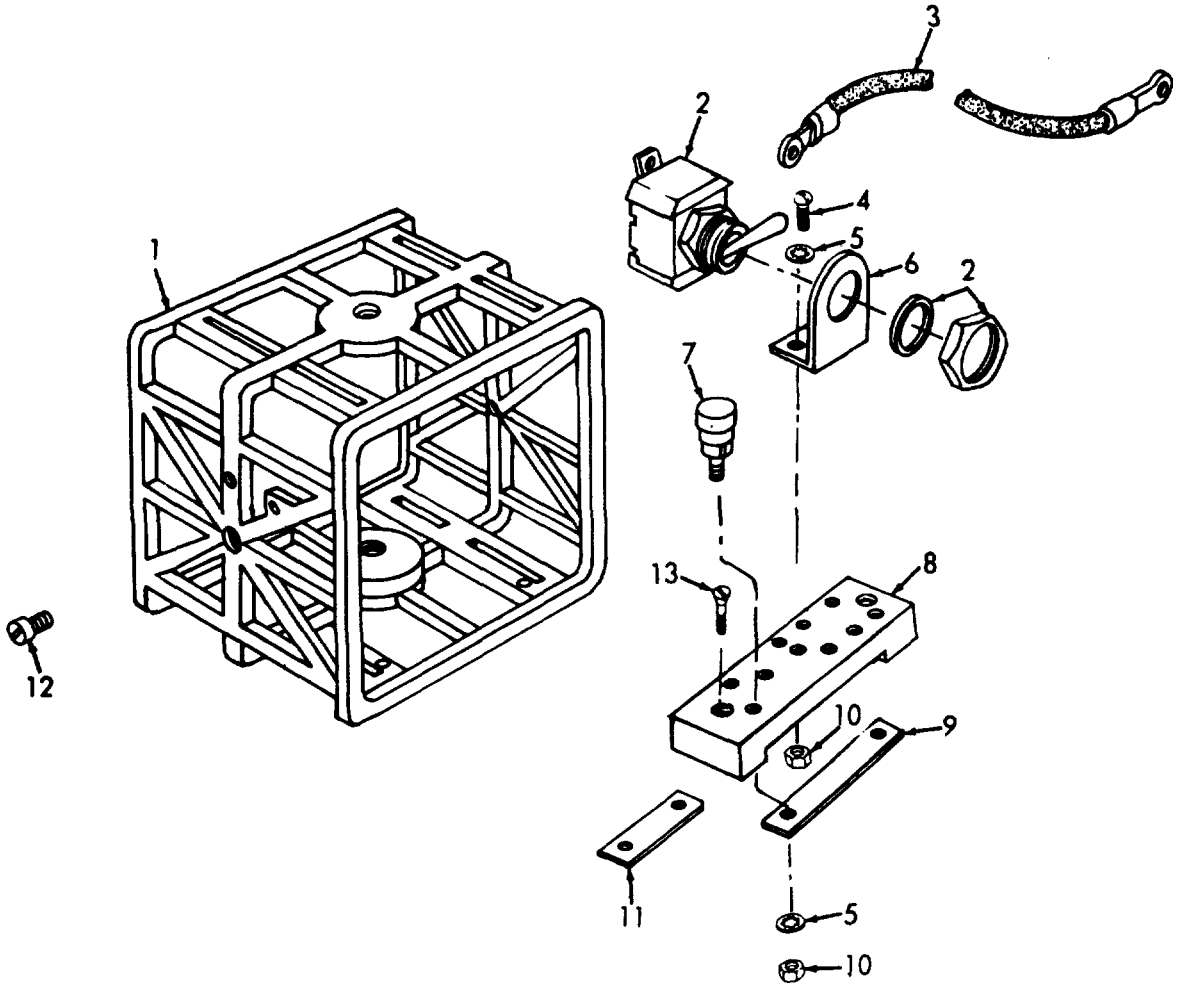
(6) Replace a damaged or defective part.

d. Reassembly. Refer to figure 9 and reassemble the housing, terminal board and switch.

e. Installation.

(1) Refer to figure 8 and install the terminal board and switch.

(2) Install the reflector frame and reflector (para. 25).



1 Housing
2 ON–OFF Switch
3 Electrical lead
4 Screw, machine, No. 6-32 x 1/2 in. (2 rqr)
5 Washer, lock, No. 6 screw size (6 rqr)
6 Bracket
7 Spring post (4 rqr)
8 Terminal board
9 Busbar
10 Nut, plain hexagon, No. 6-32 thd size (6 rqr)
11 Busbar

Figure 9. Housing, terminal board-and switch, disassembly and reassembly.

CHAPTER 4

DEMOLITION OF MATERIAL TO PREVENT ENEMY USE

28. General

When capture or abandonment of the surveying signal light to the enemy is imminent, the responsible unit commander must make the decision either to destroy the equipment or to render it inoperative.
Based on this decision, orders are issued which cover the desired extent of destruction. Whatever method of demolition is employed, it is essential to destroy the same vital parts of all surveying signal lights and all corresponding repair parts.

29. Demolition to Render the Equipment Inoperative

Use sledge hammers, crowbars, picks, axes, or any other heavy tools which may be available to destroy the surveying signal light.

30. Other Demolition Methods

a. Burning. Pack rags, clothing, or canvas under, around, and inside the surveying signal light. Saturate this packing with gasoline, oil, or diesel fuel and ignite.

b. Submersion. Totally submerge the surveying signal light in a body of water to provide water damage and concealment. Salt water will damage metal parts more than fresh water.

31. Training

All operators should receive thorough training in the destruction of the surveying signal light. Refer to FM 5-25. Simulated destruction using all methods listed above, should be included in the operator training program. It must be emphasized in training, that demolition operations are usually necessitated by critical situations when time available for carrying out destruction is limited. For this reason it is necessary that operators be thoroughly familiar with all methods of destruction of equipment, and be able to carry out demolition instruction without reference to this or any other manual.

CHAPTER 5

SHIPMENT AND LIMITED STORAGE

Section I. SHIPMENT WITHIN ZONE OF INTERIOR

32. Preparation of Equipment for Shipment

a. General. Detailed instructions for the preparation of the surveying signal light for domestic shipment are outlined within this paragraph.

b. Inspection. Equipment will be inspected for any unusual conditions such as damage, accumulation of water, rusting, and pilferage. All deficiencies will be recorded on DA Form 2404 (Equipment Inspection and Maintenance Worksheet).

c. Cleaning and Drying. Thorough cleaning and drying by an approved technique is the first essential procedure in any effective preservation process. Approved methods of cleaning and drying, types of preservatives, and methods of application are described in TM 38-230.

d. Painting. Paint all surfaces where paint has been removed or damaged. Refer to TM 9-213 for detailed cleaning and painting instructions.

e. Marking. Shall conform to MIL-STD-129.

33. Loading Equipment for Shipment

No specific instructions are required for loading the surveying signal light for shipment.

Section II. LIMITED STORAGE

34. Preparation of Equipment for Storage

a. General. Detailed instructions for preserving and maintaining the surveying signal light in limited storage are outlined within this paragraph. Limited storage is defined as storage not to exceed 6 months. Refer to AR 743-505.

b. Inspection. Equipment will be inspected for any unusual conditions such as damage, accumulation of water, rusting and pilferage. All deficiencies will be recorded on DA Form 2404 (Equipment Inspection and Maintenance Worksheet).

35. Inspection and Maintenance of Equipment in Storage

a. Inspection. When equipment has been placed in storage, all scheduled preventive maintenance services, including inspection, will be suspended and preventive maintenance inspection shall be performed as specified herein. Refer to AR 743-505.

b. Worksheet and Preventive Maintenance. Applicable forms (DA Form 2402) listed in TM 38-750 will be prepared for each major item of equipment when initially placed in limited storage and for every 90 days thereafter. Perform required maintenance promptly to make sure equipment is mechanically sound and ready for immediate use.

CHAPTER 6

DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE INSTRUCTIONS

36. General

There are no direct and general support and depot maintenance instructions required for this manual.

APPENDIX I

REFERENCES

1. Dictionaries of Terms and Abbreviations

AR 320-5	Dictionary of United States Army Terms
AR 320-50	Authorized Abbreviations and Brevity Codes

2. Painting and Preservation

TM 9-213	Painting Instructions for Field Use

3. Preventive Maintenance

AR 750-5	Organization, Policies, and Responsibilities for Maintenance Operations
TM 38-750	Army Equipment Record Procedures

4. Publication indexes

DA Pam 108-1	Index of Army Motion Pictures, Film Strips, Slides, and Phono-Recordings
DA Pam 310-1	Index to Administrative Publications
DA Pam 310-2	Index of Blank Forms
DA Pam 310-3	Index of Doctrinal, Training, and Organizational Publications
DA Pam 310-4	Index to Technical Manuals, Technical Bulletins, Supply Manuals, Supply Bulletins, Lubrication Orders, and Modification Work Orders
DA Pam 310-5	Index of Graphic Training Aids and Devices
DA Pam 310-6	Index of Supply Catalogs and Supply Manuals

5. Shipment and Limited Storage

AR 743-505	Limited Storage of Corps of Engineers' Mechanical Equipment
TM 38-230	Preservation, Packaging, and Packing of Military Supplies and Equipment

6. Training Aids

FM 21-6	Techniques of Military Instructions
FM 21-30	Military Symbols

APPENDIX II

BASIC ISSUE ITEMS LIST

Section I. INTRODUCTION

1. General

Section II lists the accessories, tools and publications required for maintenance and operation by the operator, initially issued with, or authorized for the Surveying Signal Light.

2. Explanation of Columns Contained in Section II

a. Source Codes. The information provided in each column is as follows:

(1) Materiel. This space is left blank for identification of agencies assigned supply responsibility for parts. Refer to appropriate Federal and Department of Army supply catalogs.

(2) Source. The selection status and source of supply for each part are indicated by one of the following code symbols:

(a) P-applied to high-mortality repair parts which are stocked in or supplied from supply service depot system, and authorized for use at indicated maintenance level.

(*b*) P1-applied to repair parts which are-mortality parts, stocked in or supplied from supply service depots, and authorized for installation at indicated maintenance level.

(*c*) M-applied to repair parts which are not procured or stocked but are to be manufactured at indicated maintenance level.

(*d*) X2-applied to repair parts which are not stocked. The indicated maintenance level requiring such repair parts will attempt to obtain them through cannibalization; if not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels.

(3) *Maintenance.* The lowest maintenance level authorized to use, stock, install, or manufacture the part is indicated by the use of the following code symbol:

O - Organizational Maintenance

(4) *Recoverability*. Repair parts and/or tool and equipment items that are recoverable are indicated by one of the following code symbols:

(*a*) R-applied to repair parts and assemblies which are economically repairable at direct and general support maintenance activities and normally are furnished by supply on an exchange basis.

(*b*) T-applied to 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 facilities.

(*c*) U-applied to repair parts specifically selected for salvage by reclamation units because of precious metal content, critical materials, high-dollar value reusable casings, castings, and the like.

Note. **When no code is shown in the recoverability column the part is considered expendable.**

b. Federal Stock Number. When a Federal stock number is available for a part, it will be shown in this column, and will be used for requisitioning purposes.

c. Description.

(1) The item name and a brief description of the part are shown.

(2) A five-digit Federal supply code for manufacturers and/or other supply services is shown in parentheses followed by the manufacturer's part number. This number shall be used for requisitioning purposes when no Federal stock number is indicated in the Federal stock number column.
Example: (08645) 86453

(3) The letters "GE", shown in parentheses immediately following the description, indicates General Engineer supply responsibility for the part.

d. Unit of Issue. If no abbreviation is shown in this column, the unit of issue is "each".

e. Quantity Authorized. This column lists the quantities of repair parts, accessories, tools, or publications authorized for issue to the equipment operator or crew as required.

f. Quantity Issued with Equipment. This column lists the quantities of repair parts, accessories, tools, or publications that are initially issued with each item of equipment. Those indicated by an asterisk are to be requisitioned through normal supply channels as required.

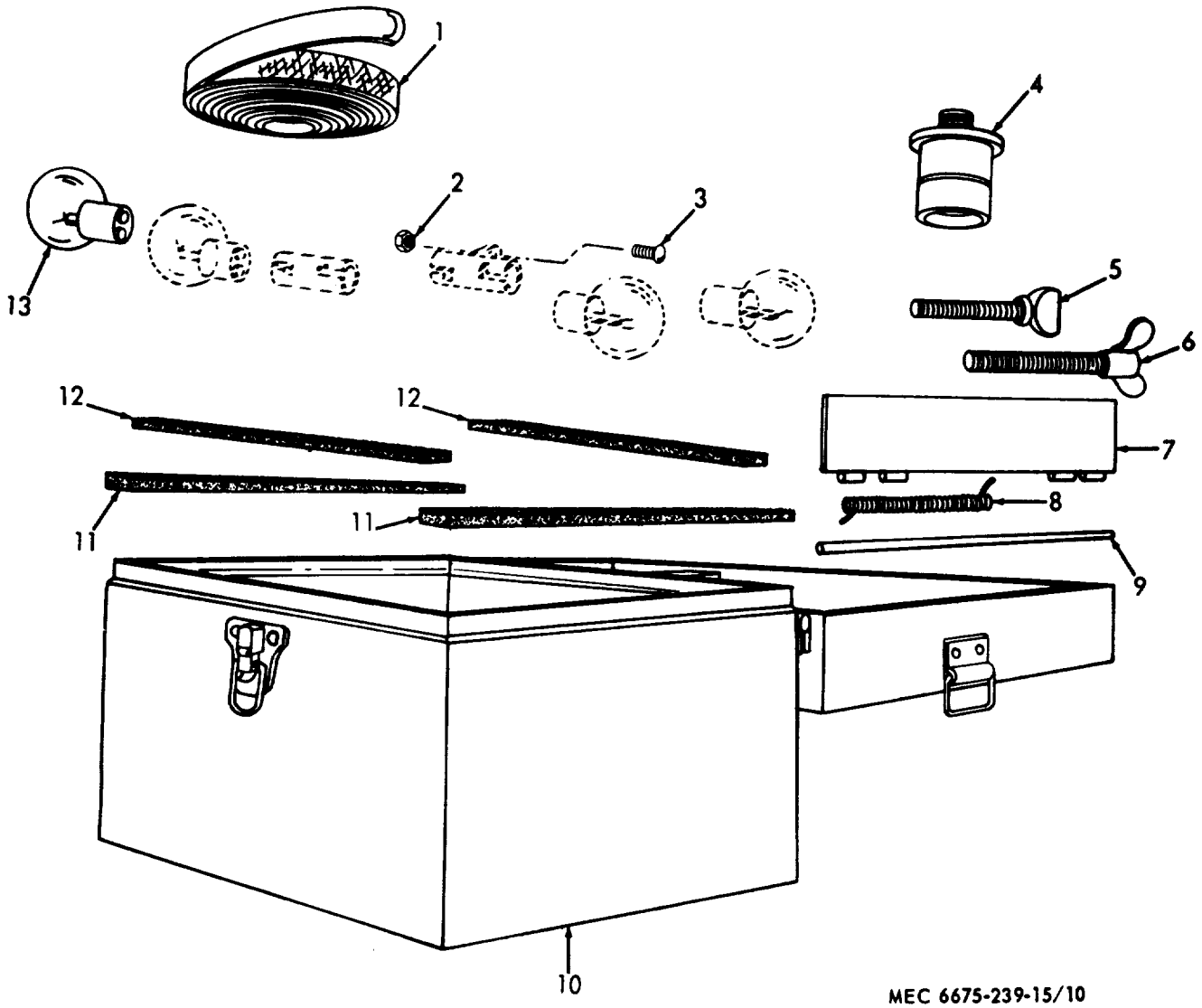
g. Illustrations. This column is subdivided into two columns which provide the following information:

(1) *Figure number*. Provides the identifying number of the illustration.

(2) *Item number*. Provides the referenced number for the parts shown in the illustration.

Section II. BASIC ISSUE ITEMS LIST

TECHNICAL SERVICE	SOURCE	MAINTENANCE	RECOERABILITY	FEDERAL STOCK NO.	DESCRIPTION	UNIT OF ISSUE	EXPENDABILITY	QUANTITY AUTHORIZED	QTY ISSUED W/EQUIPMENT	ILLUSTRATION FIG.	ILLUSTRATION ITEM
					GROUP 31 - BASIC ISSUE ITEMS, MANUFACTURER INSTALLED						
					3100 - BASIC ISSUE ITEMS, MANUFACTURER OR DEPOT INSTALLED						
	X2	0			THUMBSCREW: light mtg., 5/16-18 thd size, 1 1/4 in. lg (06444) 7124-7-5 (Repair Parts Manual Group 1808)			1	1	10	5
	X2	0			THUMBSCREW: light mtg, 5/16-18 thd size, 2 3/4 in. lg (06444) 7124-7-6 (Repair Parts Manual Group 1808)			1	1	10	6
	X2	0			STUB: light mtg (06444) 7124-7-7 Repair Parts Manual Group 1808)			1	I	10	4
12					DEPARTMENT OF THE ARMY OPERATOR, ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT, AND DEPOT MAINTENANCE MANUAL, AND REPAIR PARTS MANUAL TM5-6675-239-15			2	2		
					3100 - BASIC ISSUE ITEMS, MANUFACTURER OR DEPOT INSTALLED						
	P	0		6240-266-6229	LAMP- 6.OV, 5 amp, dc (06444) 7124-8-10 (Repair Parts Manual Group 3908)			1	1	10	13
	P	0		6240-243-8335	LAMP: 3.7 V, 6 amp, dc (06444) 7124-8-11 (Repair Parts Manual Group 3908)			4	3	10	13



REF NO.	FUNCT GROUP	ITEM NAME	REF NO.	FUNCT GROUP	ITEM NAME
1	1808	STRAP	8	1808	SPRING
2	1808	NUT	9	1808	PIN
3	1808	SCREW	10	1808	CASE
4	1808	STUB	11	1808	PAD
5	1808	THUMBSCREW	12	1808	PAD
6	1808	THUMBSCREW	13	3908	LAMP
7	1808	COVER			

Figure 10. Carrying case.

APPENDIX III

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

1. General

This appendix contains the explanations of all the maintenance and repair functions authorized the various maintenance levels.

Section II MAC (MAINTENANCE ALLOCATION CHART) designates overall responsibility for the performance of the maintenance operations.

Section III (TOOL AND TEST EQUIPMENT REQUIREMENTS) contains a list of the special tools and special test equipment required for each maintenance operation as referenced from the MAC Section II Column K. This section cross references a particular maintenance operation on the MAC when special tools and equipment are required to perform a specific maintenance task.

Section IV (REMARKS) contains supplemental instructions, explanatory notes and/or illustrations required for a particular maintenance operation. This section is cross referenced to the MAC Section II Column L.

2. Maintenance Operations

Maintenance is any action taken to keep material in a serviceable condition or to restore it to serviceability when it is unserviceable. Maintenance of material includes the following:

a. Service. Operations required periodically to keep the item in proper operating condition, i.e., to clean, preserve, drain, paint, and replenish fuel, lubricants, hydraulic, and de-icing fluids or compressed air supplies.

b. Adjust. Regulate periodically to prevent malfunction. Adjustments will be made commensurate with adjustment procedures and associated equipment specifications.

c. Aline. Adjust two or more components of an electrical or mechanical system so that their functions are properly synchronized or adjusted.

d. Calibrate. Determine, check, or rectify the graduation of an instrument, weapon, or weapons system or components of a weapons system.

e. Inspect. Verify serviceability and detect incipient electrical or mechanical failure by close visual examination.

f. Test. Verify serviceability and detect incipient electrical or mechanical failure by measuring the mechanical or electrical characteristics of the item and comparing those characteristics with authorized standards. Test will be made commensurate with test procedures and with calibrated tools and/or test equipment referenced on the MAC.

g. Replace. Substitute serviceable components, assemblies and subassemblies for unserviceable counter parts or remove and install the same item when required for the performance of other maintenance operations.

h. Repair. Restore to a serviceable condition by replacing unserviceable parts or by any other action required using available tools, equipment and skills to include welding, grinding, riveting, straightening, adjusting and facing.

i. Overhaul. Restore an end item to completely serviceable condition as prescribed by serviceability standards developed and published by hands of technical services. This is accomplished through employment of the technique of "Inspection and repair only as necessary" (IROAN). Maximum use of diagnostic and test equipment is combined with minimum disassembly during overhaul; "overhaul" may be assigned to any level of maintenance except organizational, provided the time, tools, equipment, repair parts authorization, and technical skills are available

at that level. Normally, overhaul as applied to end items, is limited to depot maintenance level.

j. Rebuild. Restore to a condition comparable to new by disassembling to determine the condition of each component part and reassemble using serviceable, rebuilt, or new assemblies, subassemblies, and parts.

3. Explanation of Columns Section II

a. Functional Group Number. The functional group is a numerical group set up on a functional basis. The applicable functional grouping index (obtained from TB 750-93-1 Functional Grouping Codes) is listed on the MAC in the appropriate numerical sequence. These indexes are normally set up in accordance with their function and proximity to each other.

b. Component Assembly Nomenclature. This column contains the functional grouping index heading, subgroups heading, and a brief description of the part starting with the noun name.

c. Essentiality. The essentiality column reflects whether or not an assembly, or repair part, is combat essential to the tactical use of the end item. The letter "E" in this column indicates the items are combat essential.

d. Maintenance Operations and Maintenance Levels. This column contains the various maintenance operations "A" through "J", service, adjust, etc.

A symbol indicating the maintenance level placed in the appropriate column in line with an indicated maintenance operation authorizes that level to perform the function. The symbol indicates the lowest level of maintenance responsible for performing the function, but does not necessarily indicate repair parts stockage at that level. Higher levels of maintenance are authorized to perform the indicated functions of lower levels. The symbol designations for the various maintenance levels are as follows:

O/C --- Operator or Crew
O --- Organizational
DS --- Direct Support
GS --- General Support
D --- Depot

e. Reference Note: This column is subdivided in two columns. Column "K" references the tool and test equipment requirements (T & TE) Section III of the MAC. Column "L" references the remarks Section IV of the MAC.

4. Explanation of Columns Section III

a. Reference Code. This column consists of a number and a letter separated by a dash. The number references the T & TE requirements column on the MAC.

The letter represents the specific maintenance operation the item is to be used with. The letter is representative of Column "A" through "J" on the MAC.

b. Maintenance Level. This column shows the lowest level of maintenance authorized to use the special tool or test equipment.

c. Nomenclature. This column lists the name or identification of the tool or test equipment.

d. Tool Number. This column lists the manufacturer's code and part number, or Federal stock number, of tools and test equipment.

5. Explanation of Columns Section IV

a. Reference Code. This column consists of two letters separated by a dash. The first letter references Column L, the second letter references a maintenance operation, Column "A" through "J" on the MAC Section II.

b. Remarks. This column lists the remarks and other information pertinent to the operation being performed as indicated on the MAC Section II.

Section II. MAINTENANCE ALLOCATION CHART

For: Light, signal, surveying: 5 IN. DIA. REFLECTOR; GRILLE HOUSING; IN CARRYING CASE (MILITARY DESIGN) FSN 6675-641-3537

Functional Group No.	Component Assembly Nomenclature	Essentiality	Maintenance operations / Maintenance levels: A Service	B Adjust	C Aline	D Calibrate	E Inspect	F Test	G Replace	H Repair	I Overhaul	J Rebuild	Note ref: K T&TE RQMT	L Remarks
18	BODY, CAB, HOOD AND HULL													
1803	Carrying Case:													
	Carrying Case Assembly	---	---	---	---	---	---	---	O	O	---	---	---	---
39	SEARCHLIGHT AND ELECTRICAL ILLUMINATING EQUIPMENT													
3901	Illuminating Light Assembly:													
	Light Assembly	---	---	---	---	----	---	---	O	O	---	---	---	---
3902	Box Assemblies and Relay Assemblies:													
	Busbar, Terminal Board	---	---	---	---	---	---	---	O	---	---	---	---	---
	Terminal Board	---	---	---	---	---	---	---	O	---	---	---	---	---
3903	Base Assemblies:													
	Housing, Light	---	---	---	---	---	---	---	O	---	---	---	---	---
3904	Control Box Assemblies:													
	Pivot Screw, Elevation	---	---	---	---	---	---	---	O	---	---	---	---	---
	Sight Bracket Assembly	---	---	---	---	---	---	---	O	---	---	---	---	---
3906	Rear Lamp Housing Assembly:													
	Reflector Frame	---	---	---	---	---	---	---	O	---	---	---	---	---
	Reflector	---	---	---	---	---	---	---	O	---	---	---	---	---
	Lens; Ring, Lens	---	---	---	---	---	---	---	O/C	---	---	---	---	---
3908	Lamp:													
	Lamps	---	---	---	---	---	---	---	O/C	---	---	---	---	---
3911	Switches:													
	Switch	---	---	---	---	---	---	---	O	---	---	---	---	---
	Spring Post	---	---	---	---	---	---	---	O	---	---	---	---	---
	Lamp Plug	---	---	---	---	---	---	---	O	---	---	---	---	---

Section III. TOOL and TEST EQUIPMENT REQUIREMENTS

For: Light, signal, surveying: 5 in. dia., reflector; grille housing; in carrying case (military design) FSN 6675-641-3537

Reference code	Maintenance level	Nomenclature	Tool No.
		No tools and test equipment required	

Section IV. REMARKS

For: Light, signal, surveying: 5 in. dia., reflector; grille housing; in carrying case (military design) FSN 675-641-3537

Reference code	Remarks
	No remarks

APPENDIX IV

ORGANIZATIONAL, DIRECT AND GENERAL SUPPORT AND DEPOT MAINTENANCE REPAIR PARTS LIST

Section I. INTRODUCTION

1. General

a. This Appendix lists repairs parts and special tools for organizational, direct and general support, and depot maintenance. It indicates the quantity of repair parts required to be stocked by organizational maintenance as their prescribed load. It indicates the guide quantity factors to be used for initial repair parts stockage by direct and general support, and recommends quantities of repair parts for depot maintenance. Information and data contained herein serve as requisitioning reference material, and as a guide to determine stockage quantities of repair parts.

b. Price information for stock-type repair parts may be obtained from applicable Federal Supply Catalogs and /or Supply Management Data and Price List (ML) of the Department of Defense Supply Agencies.

c. Repair parts lists are arranged as follows:

(1) Individual parts and major assemblies are listed alphabetically by item name within the functional groups.

(2) Assembly components and subassemblies are indented and listed alphabetically by item name under major assemblies.

d. Allowances are based on 350 hours operational per year.

2. Explanation of Repair Parts, Tools Lists, and Prescribed Load Listing (Table 1)

a. *Source Codes*. This column is subdivided into four columns. The titles and information provided in each column are as follows:

(1) *Materiel.* This space is left blank for identification of agencies assigned supply responsibility for parts. Refer to appropriate Federal and Department of Army supply catalogs.

(2) *Source*. The selection status and source of supply for each part are indicated by one of the following code symbols:

(*a*) X1-applied to repair parts which are procured or stocked, the requirement for which will be supplied by use of next higher assembly or components.

(*b*) X2-applied to repair parts which are not stocked. The indicated maintenance level requiring such repair parts will attempt to obtain them through cannibalization; if not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels.

(3) *Maintenance*.

(*a*) The lowest maintenance level authorized to manufacture, assemble, and/or install the part is indicated by one of the following code symbols:
O-Organizational Maintenance
F-Direct Support Maintenance (DS)
H-General Support Maintenance (GS)
D-Depot Maintenance

(*b*) This column is left blank when components of kits or sets are listed that are not applicable to the item of equipment, or when an item is source coded X1.

b. Federal Stock Number. When a Federal stock number is available for a part, it will be shown in this column and will be used for requisitioning purposes.

c. *Description*.

(1) The item name and a brief description of the part are shown.

(2) A five-digit Federal supply code for manufacturers and/or other supply agencies is shown in parentheses, followed by the manufacturer's part number. This number will be used for recquisitioning purposes when no Federal stock number is indicated in the Federal stock number column.
Example: (08645) 86453

(3) Repair part quantities included in kits, sets, and assemblies, that differ from the actual quantity used in this specific end item, are listed in parentheses.

(4) When repair parts are source coded "C," the manufacturer's part number will be used for local procurement.
***Note*. When a minimum stockage sufficient to repair one item and/or assembly is authorized, this quantity will be indicated in the Description column with the notation "minimum stockage of-is authorized."**

d. Unit of Issue. If no abbreviation is shown in this column, the unit of issue is "each."

e. Quantity Incorporated in Unit. The actual number of parts used in the application indicated is shown in this column. A zero (0) is shown when components of kits or sets are listed that are not applicable to this specific end item.

f. 15-Day Organizational Maintenance Allow ance. Shown for each repair part is either a quantity or an asterisk allocation which indicates the following:

(1) A guide quantity factor is shown for each repair part authorized to be stocked by organizational maintenance. This quantity is based on past experience with similar items and the latest mortality data for 350 hours operation per year. It is the average quantity required to provide one prescribed load for 1-5 and/or 6-10 items of equipment for a 15-day period under average combat conditions.
***Note*. Combat essential items which must be stocked or on order at organizational maintenance at all times, regardless of demand, will be identified in the allowance column by a quantity in parentheses.**

(2) The quantity of repair parts authorized for stockage in accordance with the number of prescribed loads authorized by the major commander are determined by using Table 1.

Table 1. Prescribed Load Listing

Federal stock No.	Description	Functional group	Minimum stockage authorization	Unit of Issue	15 days organizational maintenance allowances 1-5	6-10
6240-266-6229	LAMP, INCANDESCENT: 6.0 V, 5 amp, dc (06444) 7124-8-10	3908			(1)	(1)
6240-234-8335	LAMP, INCANDESCENT: 3.7 V, 6 amp, dc (06444) 7124-8-11	3908			(1)	(1)

(3) Table 1 is a consolidation of items quantitatively allocated in this manual. Quantities listed are one prescribed load for a 15-day period. A minimum stockage sufficient to repair one item and, or assembly is authorized (e.g., if 3 belts are required, then 3 belts are allocated as the minimum stockage). This quantity will be indicated in the minimum stockage authorization column.

(4) Units and organizations authorized more than one prescribed load will multiply the quantity listed in the appropriate end item density spread column of 1-5 or 6-10 by the number of prescribed loads.

(5) When more than 10 equipments require support, multiply the quantity listed in the 6-10 column by the number of equipments and the number of authorized prescribed loads, divide by 10, and round to the nearest whole number.
Example: If the quantity listed in the 6-10 column is 4, the number of equip ments is 17, and the number of authorized prescribed loads is 1, the following formula would be used:

$$4 \times 17 \times 1 \div 10 = 6.8$$

The resulting fraction is 0.8; therefore the authorized storage is 7.

Example: If the quantity listed in the 6-10 column is 4, the number of equipments is 17, and the number of authorized prescribed loads is 3, the following formula would be used.

4 X 17 X 3 ÷ 10= 20.4

The resulting fraction is 0.4; therefore the authorized stockage is 20.

***Note*. An exception is made for those units and organizations required to have on hand, boxed or packaged prescribed load(s) pursuant to a special mission assignment. Such prescribed load(s) will be computed or selected separately from quantities authorized for stockage at permanent station.**

(6) Repair parts required to perform organizational maintenance, which are not authorized for stockage are identified by an asterisk, and are to be requisitioned for immediate use only.

(7) Subsequent changes to allowances will be limited as follows:

(a) No decrease in the stated quantity of Combat Essential Items is authorized.

(b) No change in the range of items is authorized. If exception to the Prescribed Load Listing or revision to allowances is considered necessary, a recommendation should be forwarded to the U.S. Army Mobility Equipment Center (see para. 1.d.).

(c) Decreases in the stated quantity of items other than Combat Essential Items are authorized to a minimum quantity sufficient to repair one item and/or assembly and increases in the stated quantity are authorized for all items when justified by demand and usage experience.

Detailed procedures for performing these adjustments are prescribed in AR 735-35.

g. Guide Quantities Per 100 Equipments. Shown for each repair part applicable direct and general support, and or depot maintenance is either an allowance factor or an asterisk allocation which indicates the following:

(1) A guide quantity factor is shown for each part authorized to be stocked by direct and general support maintenance and supply support activities, and the number of repair parts recommended for depot maintenance. This factor is based on the latest mortality data for 350 hours operation per year and is the average quantity required by the various maintenance activities to provide maintenance and supply support for 100 items of equipment for a 15-day period under average combat conditions.

(2) The quantities of repair parts authorized for stockage are determined using the following mathematical formula:

Quantity of equipment to be .sup ported, multiplied by the listed allowance facto-, divided by 100.

Fractions derived from the use of the above formula will be rounded to whole numbers as follows: If the result is 1 or more and includes a fraction that is 0.5 or more, the quantity is rounded to the next higher number.

Example: If the number of equipment supported is 30 and the allowance factor for 100 equipments is 5, the following formula would be used

30 X 5 ÷ 100= 1.5

The resulting fraction is 0.5; therefore, the stockage is 2. If the result is I or more and includes a fraction of less than 0.5, the quantity is rounded to the next lower number. When the computed result is less than 0.5, no quantity is authorized for direct and general support, and depot maintenance. However, if the item is combat essential, a quantity of 1 is authorized.

Example: If the number of equipment supported is 30 and the allowance factor for 100 equipments is 28, the following formula would be used:

30 X 28 ÷ 100-- 8.4

The resulting fraction is less than 0.5; therefore, the stockage is 8.

(3) In the guide quantity columns for direct and general support maintenance, additional repair parts authorized for use but not for initial stockage, are listed without a guide quantity factor. These items are identified by an asterisk and may be added to or deleted from stock when recorded demand experience justifies a change in stockage objective.

(4) Parts that may be required for depot maintenance, in addition to those allocated, are identified by an asterisk. These parts are to be requisitioned, when required, if

not obtainable from reclamation, fabrication, or local procurement.

(5) Combat essential items of a critical nature which must be stocked at direct and general support maintenance at all times, regardless of demand are identified in the allowance column by inclosing the allowance factor in parentheses.

h. *Direct and General Support Maintenance 15-Day Level.*

(I) *Direct Support (DS*). This column lists the initial guide quantity allowance factors of repair parts authorized for initial stockage by direct support maintenance activities to provide direct support maintenance for Mobility Command equipment and to provide organizational maintenance repair parts for supported units for a 15-day period. Additional repair parts identified by an asterisk are explained in g above. Upon establishment of supply records, recorded demand experience will be used to compute stockage objectives on authorized repair parts. Review of stockage objectives will be performed in the time cycle prescribed by major commanders.

(2) *General Support (GS).* This column lists initial guide quantity allocation factors of repair parts authorized for initial stockage by general support maintenance activities to provide general support maintenance for Mobility Command equipment for a 15-day period. Additional repair parts identified by an asterisk are explained in g above. Upon establishment of supply records, recorded demand experience will be used to compute stockage objectives on authorized repair parts. Review of the stockage objectives will be performed in the time cycle prescribed by major commanders.

(3) *Units with TOE capability of performing partial or complete Direct and General Support maintenance for organic Mobility Command equipment*. Units with the TOE capability of performing partial or complete direct and general support maintenance for organic Mobility Command equipment will be authorized to stock direct and/or general support repair parts only when specific agreements are made between the commander of the designated parts supply activity, normally Direct Sup port Units (DSU) and using unit. Parts so furnished are in addition to the prescribed load and will be adjusted as demands indicate.

(4) Units with TOE Mission to provide maintenance for Mobility Command equipment of supported units. Units organized under TOE's with the assigned mission to provide direct and general support repair parts. These repair parts will be issued from the appropriate parts supply activity (parts depot and/or DSU). Such stockage is in addition to the prescribed load and will be adjusted as demand indicates.

i. *Depot Maintenance*. This column lists the quantity of repair parts recommended for depot maintenance shops (non-TOE) to provide depot maintenance for 100 equipments. Additional repair parts are allocated by an asterisk, for immediate use only. Explanation of the asterisk allowance is contained in g above.

j. Illustrations. This column is subdivided into two columns as follows:

(1) *Figure number.* Indicates the number c the illustration in which the part is shown.

(2) *Item number.* Indicates the reference number used to point out the part in the illustration.

3. Federal Stock Numbers and Manufacturer's Part Numbers

Listed alpha-numerically in the back of this manual are the requisitioning numbers shown in the Federal stock number and/or description column. The alphabetical O is listed as numerical 0 (zero). This index also lists manufacturers' codes (as applicable) and page numbers.

Example of index sequence.

A	BX5-27	38.50
AA	T295	3838-141-4957
A1/2X3	0124	388 212
A1-950	1-77	389/100.2
A1A22	2530-048-7342	389/100-18
B	2815-097-5429	2895-128-7642

4. Abbreviations

mtg	mounting
no.	number
thd	thread (ed) (s)
in	inch (es)
lg	length (long)
v	volt
amp	ampere (s)
dc	direct current

5. Federal Supply Code for Manufacturers

06444 - Scientific Instrument Co., Inc. of Wisconsin

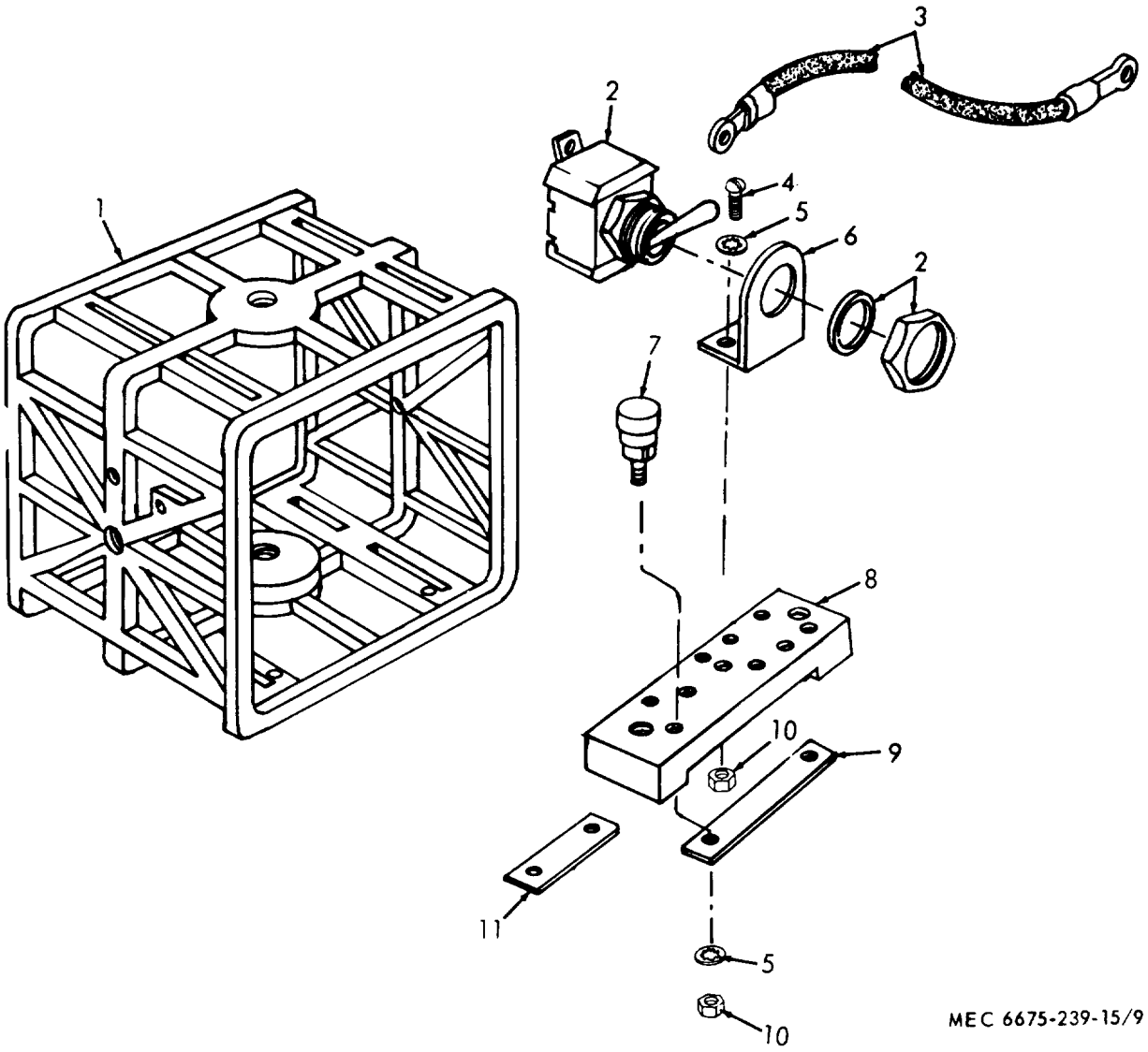


Figure 11. Housing, terminal block, switch.

SOURCE CODES				FEDERAL STOCK NUMBER	DESCRIPTION		UNIT OF ISSUE	QTY INC. IN UNIT	GUIDE QTY(S) PER MAJ EQUIPS					ILLUS	
MATERIEL	SOURCE	MAINT	RECOVERABILITY			MANUFACTURER'S			15 DAYS MAINTENANCE				DEPOT MAINT	FIG #	ITEM #
						CODE	PART NUMBER		ORGANIZATION 1 - 5	ORGANIZATION 6 - 10	DS 100 EQUIPMENTS	GS 100 EQUIPMENTS			
					GROUP 18 - BODY, CAB, HOOD AND HULL										
					1808 - STOWAGE RACKS, BOXES, S-TAPS, CARRYING CASES, CABLE REELS, HOSE REALS, ETC.										
	X20				CARRYING CASE ASSEMBLY	06444	7124-10-1		1	*	*	*	*	*	
	X20				COVER: CASE	06444	7124-11-3		1	*	*	*	*	*	10 7
	X20				SPRING, TORSION COVER	06444	7124-11-4		1	*		*	*	*	10 8
	X20				PAD: CASE	06444	7124-11-5		2	*	*	*	*	*	10 12
	X20				PAD: CASE	06444	7124-11-6		2	*	*	*	*	*	10 11
	X10				FASTENER, BUCKLE: COVER	06444	7124-11-8		2						
	X10				BUCKLE	06444	7124-11-9		2						
	X20				STRAP, CARRYING	06444	7124-11-10		1	*	*	*	*	*	10 1
	X20				PIN, HINGE	06444	7124-11-12		1	*	*	*	*	*	10 9
	X20				SCREW, MACHINE: COVER HINGE MTG, ROUND HEAD, No. 6-32 THD SIZE, 1/4 in. LG	06444	7124-12-3		4	*	*	*	*	*	
	X20				NUT, PLAIN, HEXAGON: COVER HINGE MTG, No. 6-32 (STEEL)	06444	7124-12-8		4	*	*	*	*	*	
	X20				WASHER, LOCK: COVER HINGE MTG, No. 6, INTERNAL TEETH (STEEL)	06444	7124-12-10		4	*	*	*	*	*	
	X10				BUCKLE, FASTENER: CARRYING CASE	06444	7124-10-3		1						
	X20				SOCKET, FOCUSING	06444	7124-8-9		2	SEE GRP 3904					
	X20				THUMBSCREW: 5/16-18 THD SIZE, 1 1/4 in. LG	06444	7124-7-5		1	*	*	*	*	*	10 5
	X20				THUMBSCREW: 5/16-18 THD SIZE, 2 3/4 in. LG	06444	7124-7-6		1	*	*	*	*	*	10 6
	X20				SCREW, MACHINE: FOCUSING SOCKET MTG, ROUND HEAD, No. 10-32 THd SIZE, 3/8 in. LG	06444	7124-12-2		2	*	*	*	*	*	10 3
	X20				NUT, PLAIN, HEXAGON: FOCUSING SOCKET NTO, No. 10-32 (STEEL)	06444	7124-12-7		2	*	*	*	*	*	10 2
	X20				WASHER, LOCK: FOCUSING SOCKET MTG, No. 10 (STEEL)	06444	7124-12-11		2	*	*	*	*	*	
	X20				STUB: LIGHT MT	06444	7124-7-7		1	*	*	*	*	*	10 4
	X20				CASE, CARRYING: ACCESSORIES	06444	7124-10-2		1	*	*	*	*	*	10 10
					GROUP 39 - SEARCHLIGHT AND ELECTRICAL ILLUMINATING EQUIPMENT										
					3901 - SEARCHLIGHT OR ILLUMINATING LIGHT ASSEMBLY										
	X20			6675-641-3537	LIGHT ASSEMBLY				1						
	X20				REFLECTOR: LIGHT	06444	7124-4-1		1	SEE GRP 3906					
	X20				LENS: LIGHT	06444	7124-4-2		1	SEE GRP 3906					
	X20				FRAME, REFLECTOR: LIGHT	06444	7124-5-1		1	SEE GRP 3906					
	X20				GASKET, LENS	06444	7124-7-1		1	SEE GRP 3906					
	X20				SCREW, PIVOT: LIGHT ASSEMBLY MTG	06444	7124-7-8		2	*	*	*	*	*	11 12
					3902 - BOX ASSEMBLIES AND RELAY ASSEMBLIES										
	X20				TERMINAL BOARD	06444	7124-8-1		1	*	*	*	*		11 8
	X20				BUSBAR: (1 3/8 in. LG)	06444	7124-8-2		1	*	*	*	*	*	11 11
	X20				BUSBAR: (2 5/8 in. LG)	06444	7124-8-3		1	*	*	*	*	*	11 9
	X20				SCREW, MACHINE: TERMINAL BOARD MTG; FLAT HEAD, No. 8-32 THO SIZE, 5/8 in. LG	06444	7124-12-6		2	*	*	*	*	*	11 13
					3903 - BASE ASSEMBLIES										
	X20				HOUSING, LIGHT	06444	7124-2		1	*	*	*	*	*	11
					3904 - CONTROL BOX ASSEMBLIES										
	X20				SIGHT BRACKET ASSEMBLY	06444	7124-6A		1	*	*	*	*	*	12 4
	X20				SCREW, ADJUSTING: SIGHT ASSEMBLY	06444	7124-6-5		1	*	*	*	*	*	12 6
	X20				NUT, THUMB, ADJUSTING SCREW	06444	7124-6-6		1					*	12 8
	X20				BRACKET, ADJUSTING SCREW	06444	7124-1-2		1	*	*	*	*	*	12 7
	X20				SPRING, COMPRESSION: SIGHT ADJUSTING	06444	7124-7-4		1	*	*	*	*	*	12 5
	X20				PIN, COTTER: ADJUSTING SCREW MTG; 1/16 SIZE 1/2 in. LG	06444	7124-12-14		1	*	*	*	*	*	12 3
	X20				SCREW, MACHINE: ADJUSTING BRACKET MTG; FLAT HEAD, No. 6-32 THD SIZE, 3/8 IN L	06444	7124-12-5		2	*	*	*	*	*	12 10

SOURCE CODES				FEDERAL STOCK NUMBER	DESCRIPTION		UNIT OF ISSUE	QTY INC. IN UNIT	GUIDE QTY(S) PER MAJ EQUIPS					ILLUS	
MATERIEL	SOURCE	MAINT	RECOVERABILITY			MANUFACTURER'S			15 DAYS MAINTENANCE				DEPOT MAINT	FIG #	ITEM #
						CODE	PART NUMBER		ORGANIZATION 1 - 5	ORGANIZATION 6 - 10	DS 100 EQUIPMENTS	GS 100 EQUIPMENTS			
	X20				SCREW, MACHINE: SIGHT BRACKET MTG; ROUND HEAD, NO. 10-32 -THD SIZE, 3/8 in. LG	06444 7124-12-1		2	*	*	*	*	*	12	12
	X20				SCREEN, FOCUSING	06444 7124-6-4		1	*	*	*	*	*	12	9
	X20				SPRING, COMPRESSION: Focusing SCREW	06444 7124-7-3		1	*	*	*	*	*	12	11
	X20				SOCKET, FOCUSING	06444 7124-8-9		1	*	*	*	*	*	12	14
					3906 - REAR LAMP HOUSING ASSEMBLY										
	X20				REFLECTOR: LIGHT	06444 7124-4-1		1	*	*	*	*	*	12	1
	X20				LENS: LIGHT	06444-7124-4-2		1	*	*	*	*	*	12	17
	X20				FRAME, REFLECTOR: LIGHT	06444 7124-5-1		1	*	*	*	*	*	12	2
	X20				RING: LIGHT	06444 7124-5-2		1	*	*			*	12	18
	X20				GASKET: LENS MTG	06444 7124-7-1		2	*	*	*	*	*	12	16
	X20				SCREW, RING: RING TO REFLECTOR FRAME MTG	06444 7124-6-3		4	*	*	*	*	*	12	19
					3908- LAMP, ELECTRODES, AND LAMP MECHANISM										
	P 0			6240-266-6229	LAMP, INCANDESCENT: 6.ov, 5 AMP,	DC 06444-7124-8-10		1	(1)	(1)				10	13
	P 0			6240-243-8335	LAMP, INCANDESCENT: 3.7v, 6 AMP,	DC 06444-7124-8--11		4	(1)	(1)				12	15
					3911- SWITCHES										
	X20				BRACKET: TOGGLE SWITCH	06444-7124-8-4		1	*	*	*	*	*	11	6
	X20				SWITCH, TOGGLE: LIGHT OPERATING	06444-7124-8-5		1	*	*		*	*	11	2
	X20				SPRING, POST	06444-7124-8-6		4	*	*	*	*	*	11	7
	X20				PLUG, LAMP	06444-7124-8-7		1	*	*	*	*	*	12	13
	X20				LEAD, ELECTRICAL: SWITCH TO SPRING POST	06444 7124-8-8		1	*	*	*	*	*	11	3
	X20				SCREW, MACHINE SWITCH BRACKET MTG; ROUND HEAD, NO. 6-32 THD SIZE 1/2 in. LG	06444 7124-12-4		2	*	*	*	*	*	11	4
	X20				NUT, PLAIN, HEXAGON: SWITCH BRACKET MTG; No. 6-32 THD SIZE (BRASS)	0644 7124-12-9		2	*	*	*	*	*	11	10
	X20				WASHER, LOCK: SWITCH BRACKET MTG; INTERNAL TEETH No. 6 (STEEL)	06444 7124-12-10		2	*	*	*	*	*	11	5

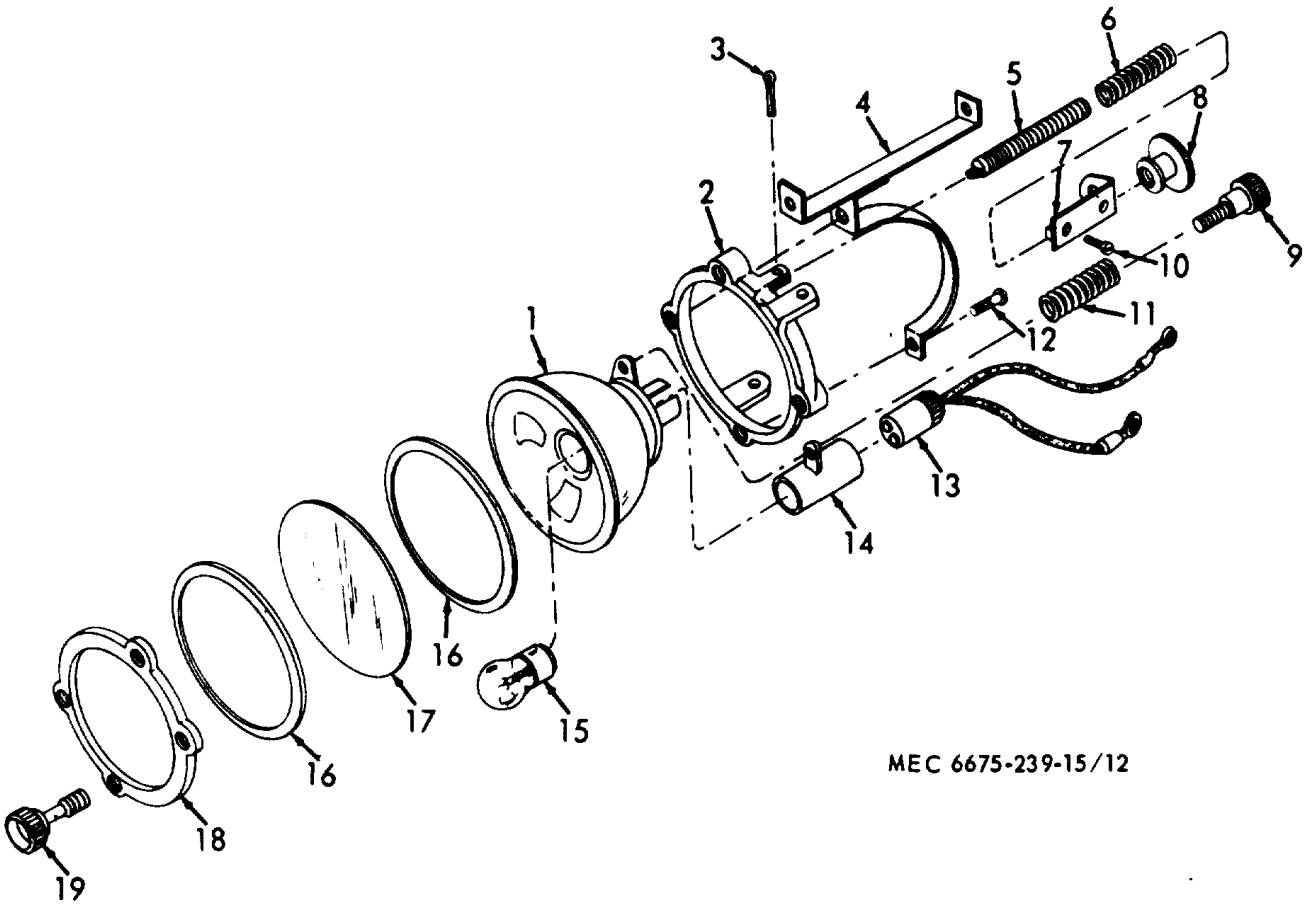


Figure 12. Light and sight.

By Order of the Secretary of the Army:

HAROLD K. JOHNSON,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

Distribution:
Active Army:
USASA (2)
ACSI (1)
DCSLOG (1)
CNB (1)
SG (1)
CofEngrs (3)
OCC-E(1)
Dir of Trans (1)
CofSptS (1)
Army Maint Bd (1)
USAARTYBD (2)
USAARMBD (2)
USAIB (2)
USAADBD (2)
USAAESWBD (2)
USAAVNBD (2)
USCONARC (3)
OS Mai Comd (5) except
USASETAF (2)
USARJ (10)
USAMOCOM (2)
USASMCOM (I)
MDW (1)
Armies (2)
Corps (2)
Div (2)
Engr Bde (1)
Svc Colleges (2)
USMA (2)
Br Svc Sch (2) except
USAES (100)
GENDEP (OS) (10)
Engr Dep (OS) (10)
Army Dep (2)
USA Tml Comd (2)
Army Tml (1)
Div Engr (2)
Engr Dist (2)
USAERDL (3)
USA Mbl Equip Cen (46)
Engr Cen (5)
USAREUR Engr Proc Cen (2)
USAREUR Engr Sup Con Agcy (!0)
Chicago Proc Ofc (10)
Engr Fid Maint Shops (2)
Fld Comd, DASA (8)
AMS (3)
USAREURCOMZ (2)
USA Corps (1)
MAAG (1)
UBUSMC (1)
Units org under fol TOE:
5-48 (2)
5-237 (5)
5-262 (5)
5-267 (1)
5-278 (5)
5.279 (2)

NG: State AG (3).

USAR: Same as Active Army except allowance is one (1) copy to each unit. For explanation of abbreviations used see AR 320--50.

*U.S. GOVERNMENT PRINTING OFFICE: 1993 - 342-421/80548

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P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
1 decimeter = 10 centimeters = 3.94 inches
1 meter = 10 decimeters = 39.37 inches
1 dekameter = 10 meters = 32.8 feet
1 hectometer = 10 dekameters = 328.08 feet
1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
1 decigram = 10 centigrams = 1.54 grains
1 gram = 10 decigram = .035 ounce
1 decagram = 10 grams = .35 ounce
1 hectogram = 10 decagrams = 3.52 ounces
1 kilogram = 10 hectograms = 2.2 pounds
1 quintal = 100 kilograms = 220.46 pounds
1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliters = .34 fl. ounce
1 deciliter = 10 centiliters = 3.38 fl. ounces
1 liter = 10 deciliters = 33.81 fl. ounces
1 dekaliter = 10 liters = 2.64 gallons
1 hectoliter = 10 dekaliters = 26.42 gallons
1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	*To*	*Multiply by*	*To change*	*To*	*Multiply by*
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29,573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

PIN: 026302-000