TECHNICAL MANUAL

DIRECT SUPPORT AND

GENERAL SUPPORT

MAINTENANCE MANUAL INCLUDING

REPAIR PARTS AND

SPECIAL TOOLS LIST

(INCLUDING DEPOT MAINTENANCE

REPAIR PARTS AND

SPECIAL TOOLS LIST)

VOLUME I - TROUBLESHOOTING

VOLUME II - MAINTENANCE

SIGHT, INFINITY: 8635466

(1240-00-056-4854)

VOLUME I TROUBLESHOOTING

VOLUME II MAINTENANCE

HEADQUARTERS, DEPARTMENT OF THE ARMY

JULY 1980

WARNING

NITROGEN GAS UNDER PRESSURE

DEATH

or severe injury may result if personnel fail to observe safety precautions listed in Job Performance Guide 113-091-9000R.

LIST OF EFFECTIVE PAGES

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Dates of issue for original and changed pages are:

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Technical Manual
No. 9-1240-322-34&P

HEADQUARTERS,
DEPARTMENT OF THE ARMY
Washington, D.C., 7 July 1980

TECHNICAL MANUAL

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST)

INFINITY SIGHT: 8635466
(1240-00-056-4854)

Current as of 31 July 1980.

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know.

Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual directly to:

Commander
U.S. Army Armament Materiel Readiness Command
ATTN: DRSAR-MAS
Rock Island, IL 61299

A reply will be furnished to you.

*This manual supersedes DS/GS portion of TM 9-1240-322-35, August 1964 and TM 9-1240-322-35P, January 1970, including all changes.

TABLE OF CONTENTS

HOW TO USE THIS MANUAL

This manual has two volumes of maintenance information you will need to repair and service the 8635466 Infinity Sight.

- Volume I - Troubleshooting
- Volume II - Maintenance

The organization paragraph in each volume tells you what information you can find in each chapter and appendix.

There are four ways to find any maintenance information you need:

- Index on the front cover which tells what information is contained in each chapter
- Table of contents located at the front of the manual which has a complete listing by paragraph number and page number
- Fault Symptom Index (Vol I, Chap 3) which lists the fault symptoms and shows where to look to fix them
- Maintenance Task Index (Vol II, App B) which lists major assemblies, subassemblies and paragraph numbers of all maintenance procedures

Before doing any maintenance, you should read and understand HOW TO TROUBLESHOOT on page 1-2, If you do not know the equipment well, you should read the section on description and data (Vol II, Chap 1).

Throughout the manual reference is made to a Job Performance Guide 113-091-9000R (JPG 41C) which helps you to develop skills in doing the maintenance tasks.

TECHNICAL MANUAL

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST)

VOLUME I - TROUBLESHOOTING

SIGHT, INFINITY: 8635466

CHAPTER 1

INTRODUCTION

1-1. SCOPE

This volume contains troubleshooting requirements and procedures for direct support and general support (DS/GS) maintenance of the 8635466 Infinity Sight. See Volume II for maintenance procedures.

1-2. ORGANIZATION

a. Chapter 2, Checkout Procedure, gives you flow charts to follow to check that the Infinity Sight is working right.

b. Chapter 3, Fault Symptom Index, lists the fault symptoms and where to look in this manual to fix each one.

c. Chapter 4, Fault Isolation Procedures, shows you step-by-step how to troubleshoot the fault symptoms found in Chapter 3.

d. Appendix A, Wiring Diagram, may be used to help you find the cause of a fault. The diagram can be used to trace signal flow or to find out what a voltage should be.

1-3. HOW TO TROUBLESHOOT

The following steps tell you how to troubleshoot. A diagram of these steps is on page 1-3.

(A) Do a visual check and list any faults on DA Form 2404 before making repairs. See Vol II, Chap 3 for what to check for.

(B) If you see any faults that may affect the checkout procedure, fix them now. This does not mean small things like painting scratches.

(C) Do the checkout procedure in Vol I, Chap 2 from the beginning until you find a fault symptom.

(D) When a fault is found, go to the chapter noted and follow the maintenance procedure given there. If you already know the fault, look at the fault symptom index in Chapter 3 of this volume. This will also tell you what to do.

(E) After the bad part has been repaired or replaced, do the checkout procedure in Chapter 2 again. This is to make sure the new part has fixed the problem.

(F) If all the faults are now corrected, do the maintenance tasks on DA Form 2404.

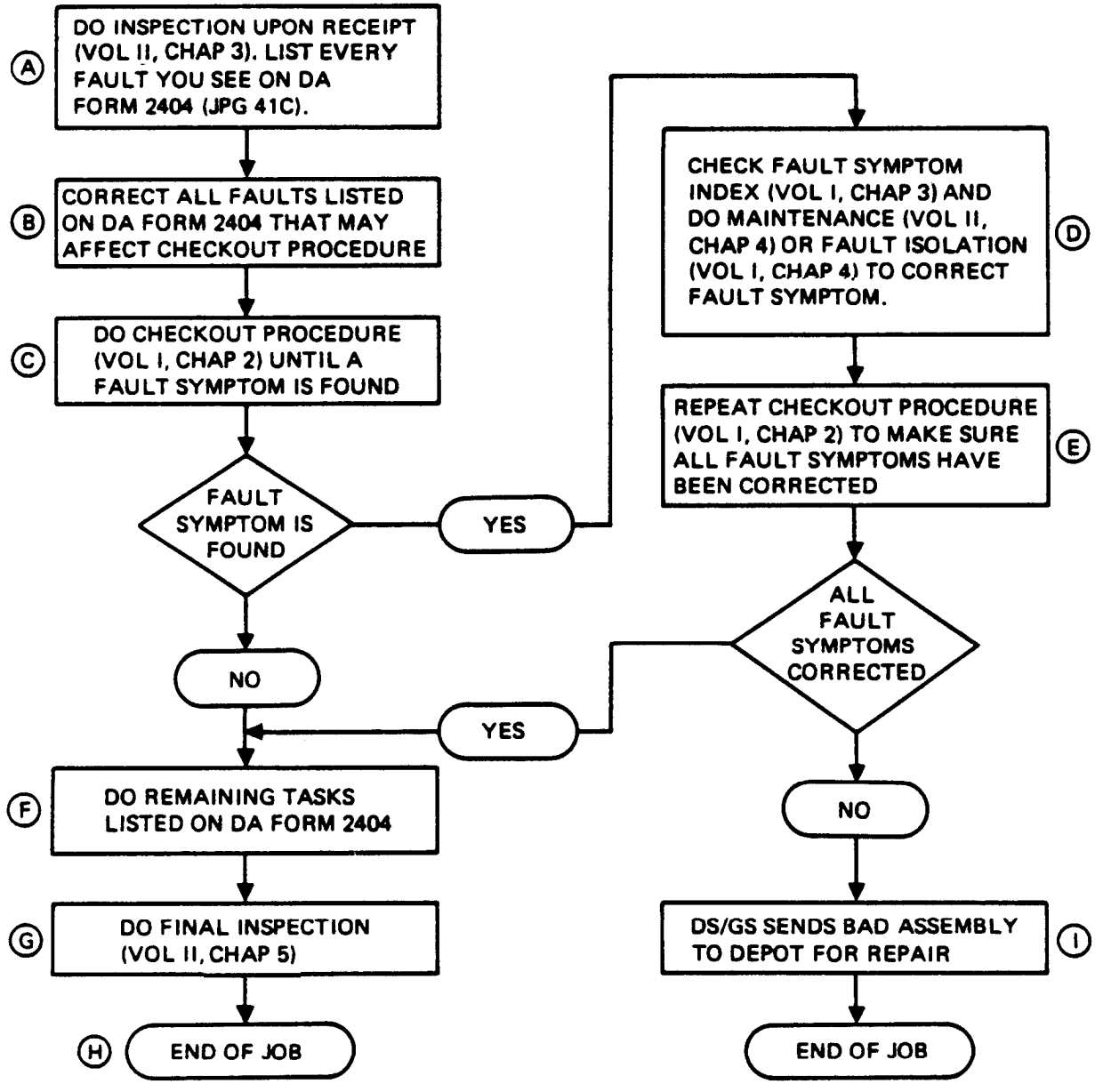
(G) Do the final inspection given in Vol II, Chap 5.

(H) The job is over and the good assembly is sent back to service.

(I) If all faults were not corrected after step E, the bad assembly is sent back to the depot for repair.

The sample fault isolation procedure (para 1-5) shows you how to use the flow charts in this volume.

1-3. HOW TO TROUBLESHOOT (CONT)



1-4. TEST EQUIPMENT

Test Equipment	National Stock Number (NSN)	Test	Reference
1. Multimeter	6625-00-964-2629	a. Resistance b. Voltage	JPG 41C
2. 0-50 VDC power supply	6130-00-435-1116	Checkout of Infinity Sight	JPG 41C

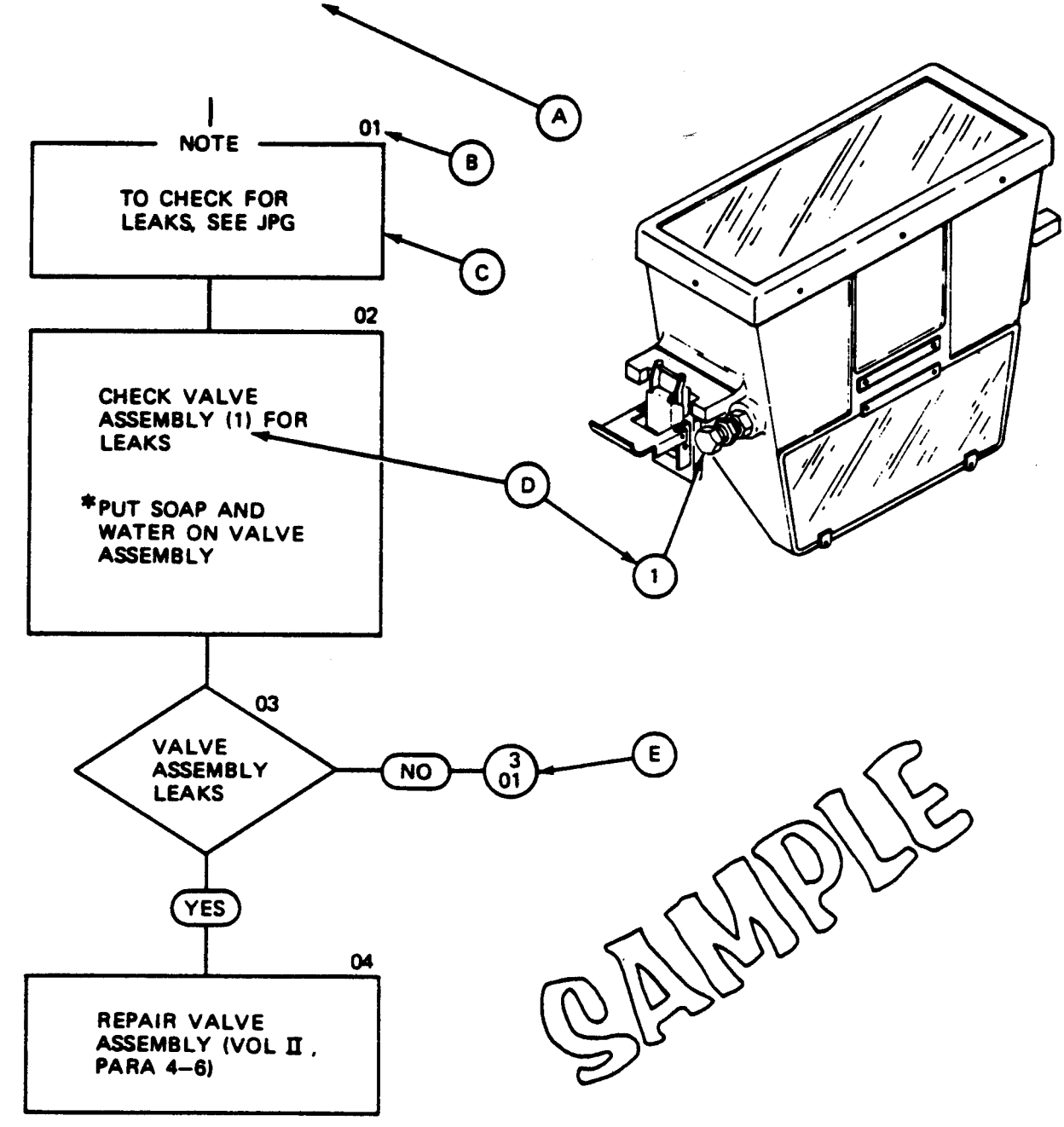
1-5. SAMPLE FAULT ISOLATION PROCEDURE

The sample fault isolation procedure tells you how to use the flow charts in Chapters 2 and 4.

Callouts	Description
A	This is the symptom shown in the Fault Symptom Index in Chapter 3.
B	Block number. Tells you the number of the block on the page. Block numbers start over at every page.
C	This is a note. It gives useful information that can help you in doing the procedure. A note will always come just before the step of the procedure that it is about. A warning will be labeled at top of block. Always follow the instruction in this kind of block carefully: If you don't you may be injured or injure someone else. A caution will also be labeled at top of block. The instructions in this kind of block tell you what to do so you will not damage equipment. Be sure you always follow caution instructions carefully.
D	Index numbers are found in the procedures and the illustration to help you find the connector, switch, knob, etc. The illustration will always be on the same or an opposite page. Remember you will never have to turn the page to find the illustration.
E	The circle is used to send you to another sheet of procedure to keep on troubleshooting. The top number in the circle tells you what sheet to go to. The bottom number tells you what block on that sheet to start with. For example: (3 / 01) means that you should go to sheet 3 block 01 to keep on the procedure.

1-5. SAMPLE FAULT ISOLATION PROCEDURE (CONT)

4-3. VIEW IS NOT CLEAR (SHEET 2 OF 3)

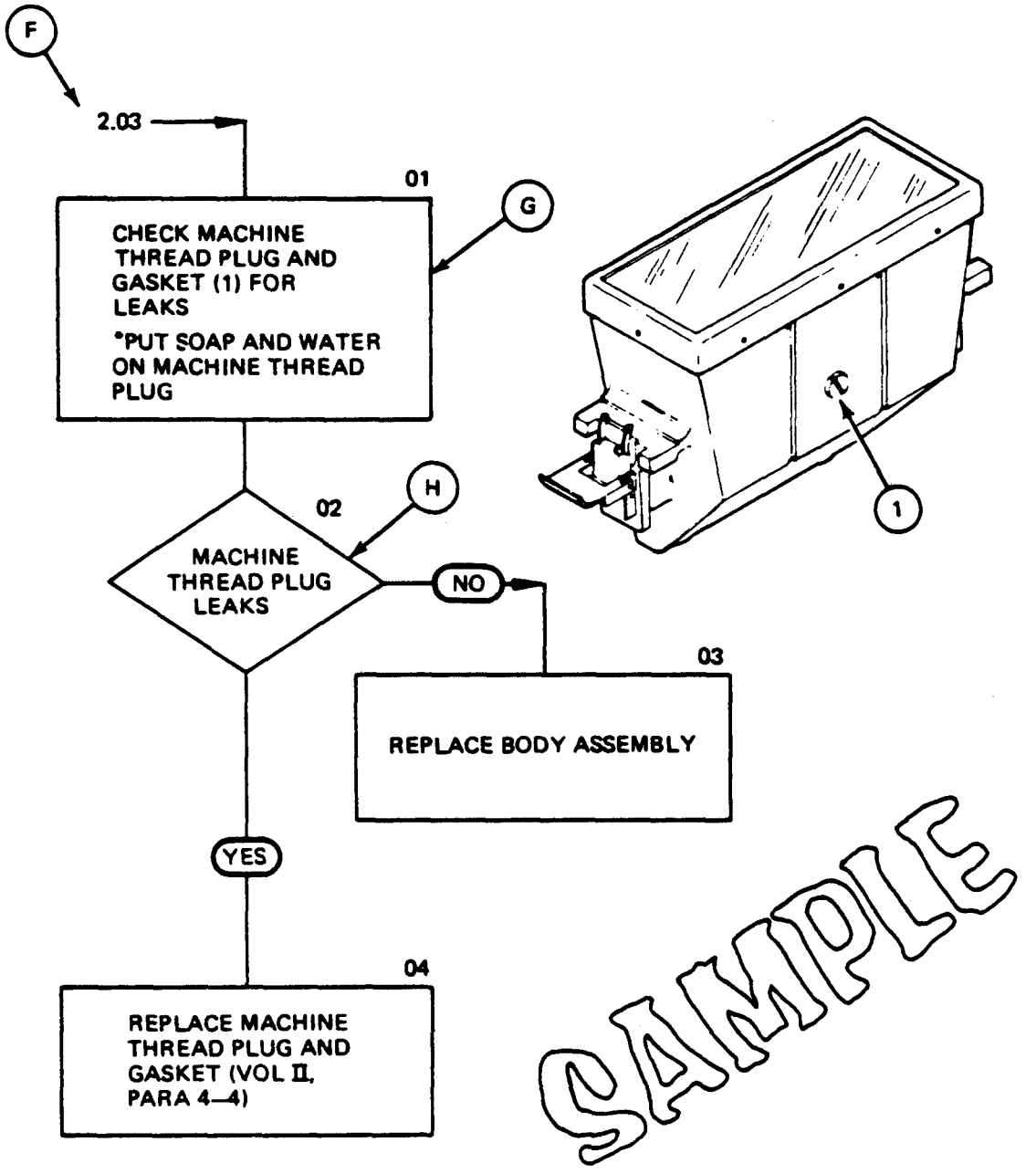


1-5. SAMPLE FAULT ISOLATION PROCEDURE (CONT)

Callouts	Description.
(F)	This tells you where you came from. For example 2.03 means you came from sheet 2, block 03.
(G)	The top part of the box tells you what to do. The bottom part tells you how to do it. After you become more skilled at troubleshooting and know more about the equipment, you may find that you only need to read the top part of the box.
(H)	This diamond shaped box is called a decision point. It asks you to answer a YES or NO question after doing the what-to-do statement. If the answer is YES, you should go down the YES branch. If the answer is NO, you should go down the NO branch.

1-5. SAMPLE FAULT ISOLATION PROCEDURE (CONT)

4-3. VIEW IS NOT CLEAR (SHEET 3 OF 3)



CHAPTER 2

CHECKOUT PROCEDURE

2-1. SCOPE

Checkout of the Infinity Sight is done by using the flow chart procedures in this chapter. You must do the checkout procedure from the beginning until a fault symptom is found. When it is, go to the fault symptom index in Chapter 3. After you have corrected the fault, start at the beginning again and do the checkout procedure until the Infinity Sight is working correctly.

2-2. CHECKOUT (SHEET 1 OF 9)

TEST EQUIPMENT: 0-50 VDC power supply
Multimeter

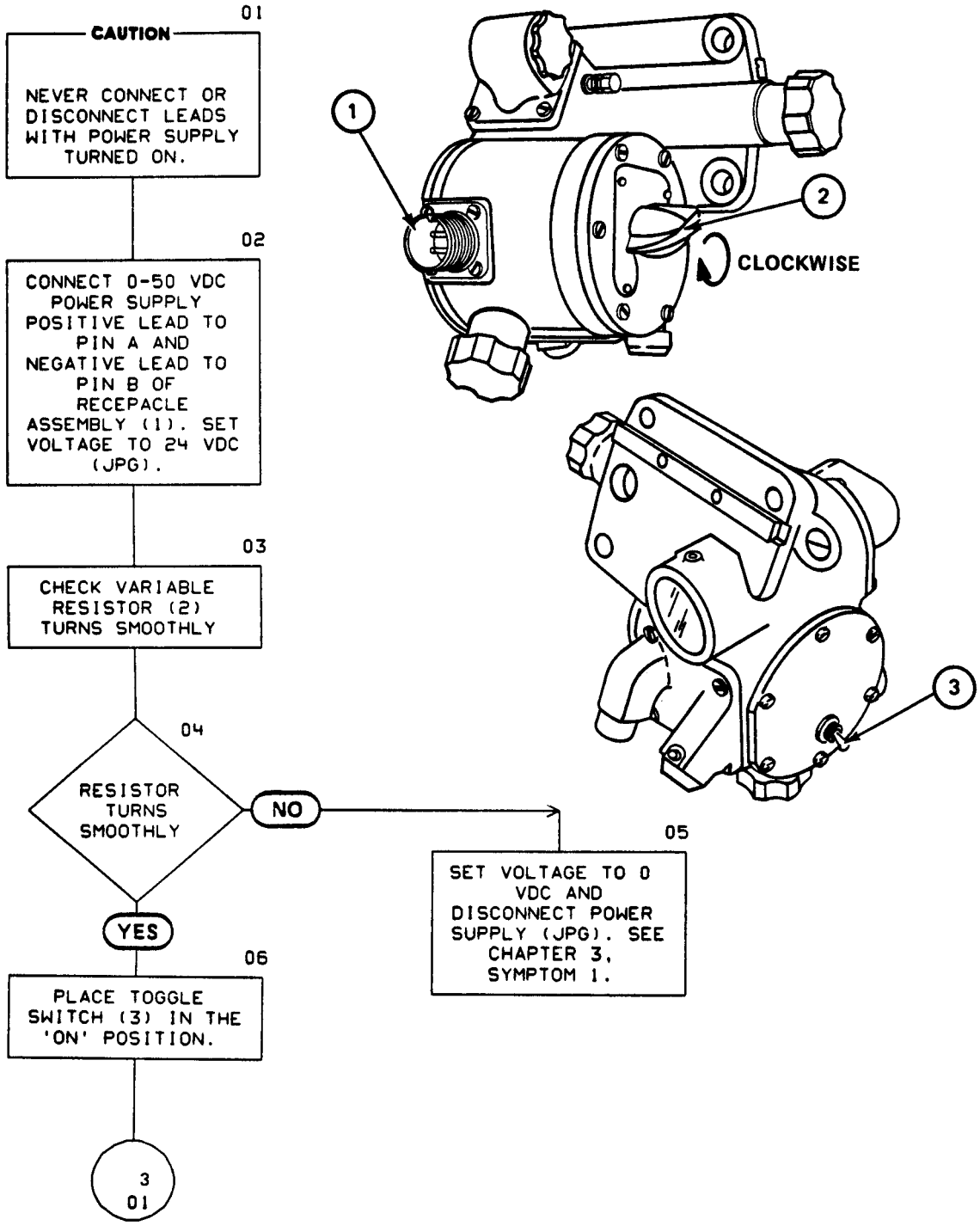
PERSONNEL One

REFERENCES: JPG 41C for: Using power supply
Using multimeter

EQUIPMENT CONDITION: Infinity sight on work bench

PRELIMINARY PROCEDURES: Do inspection upon receipt (Vol II, para 3-2)

2-2. CHECKOUT (SHEET 2 OF 9)



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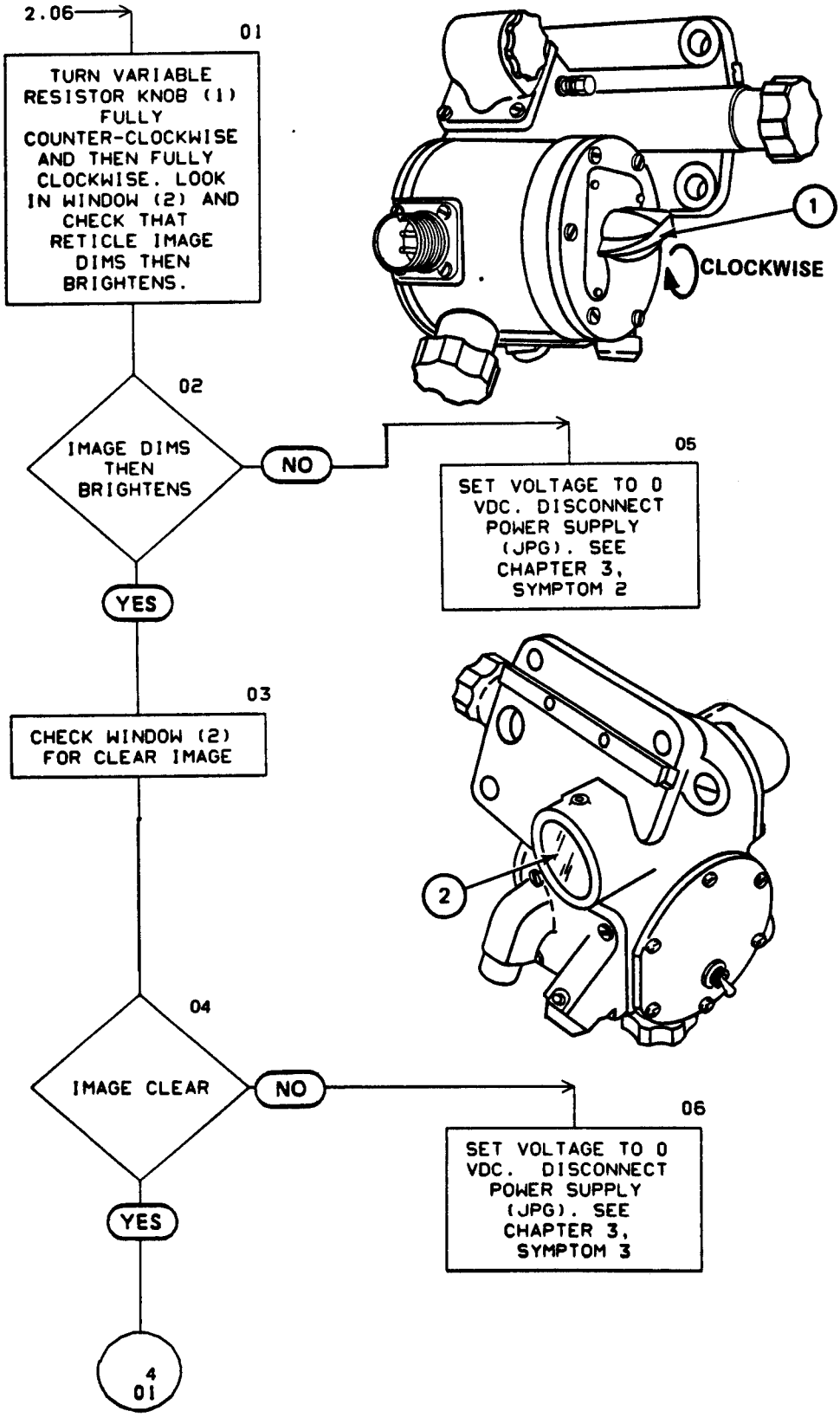
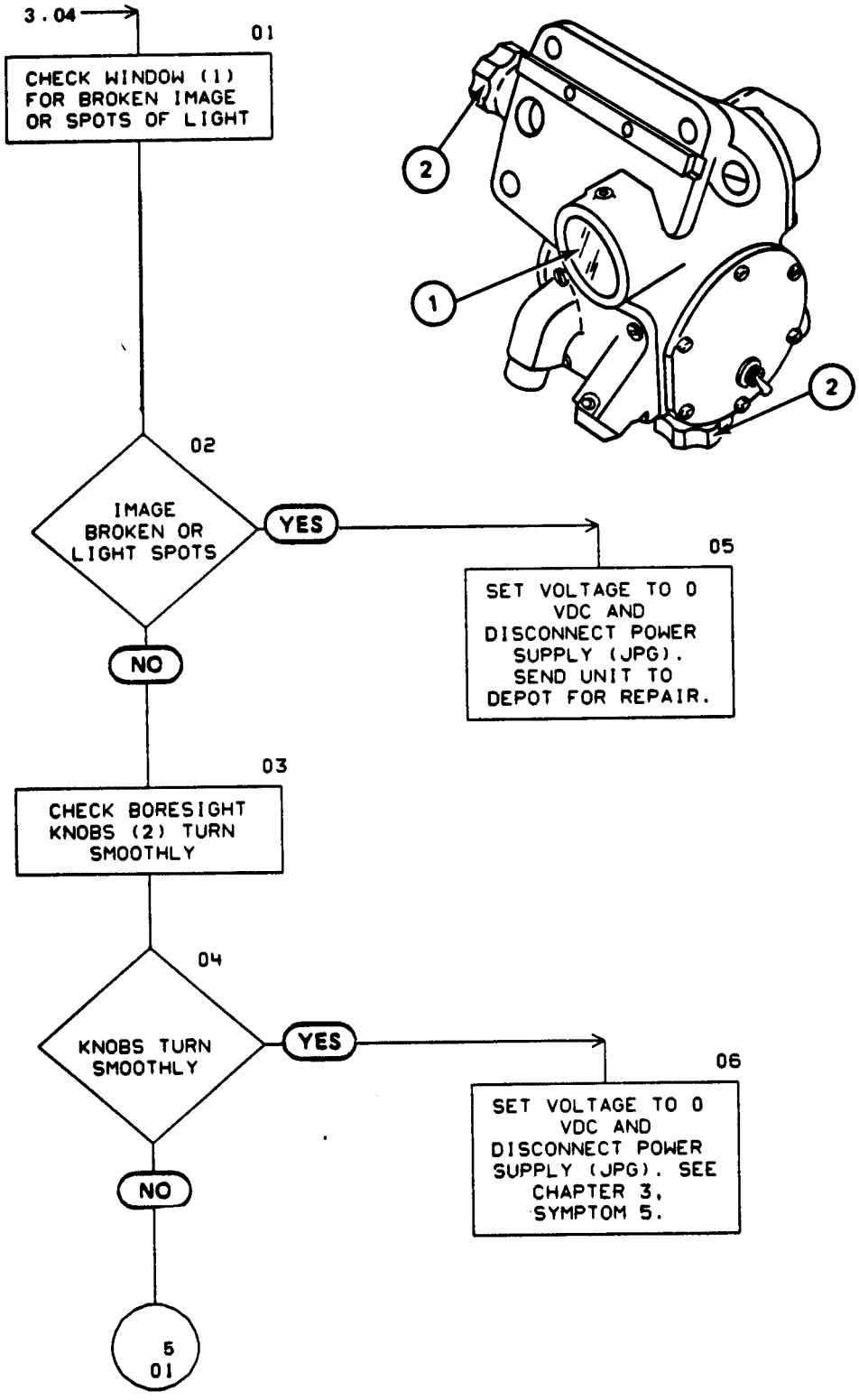
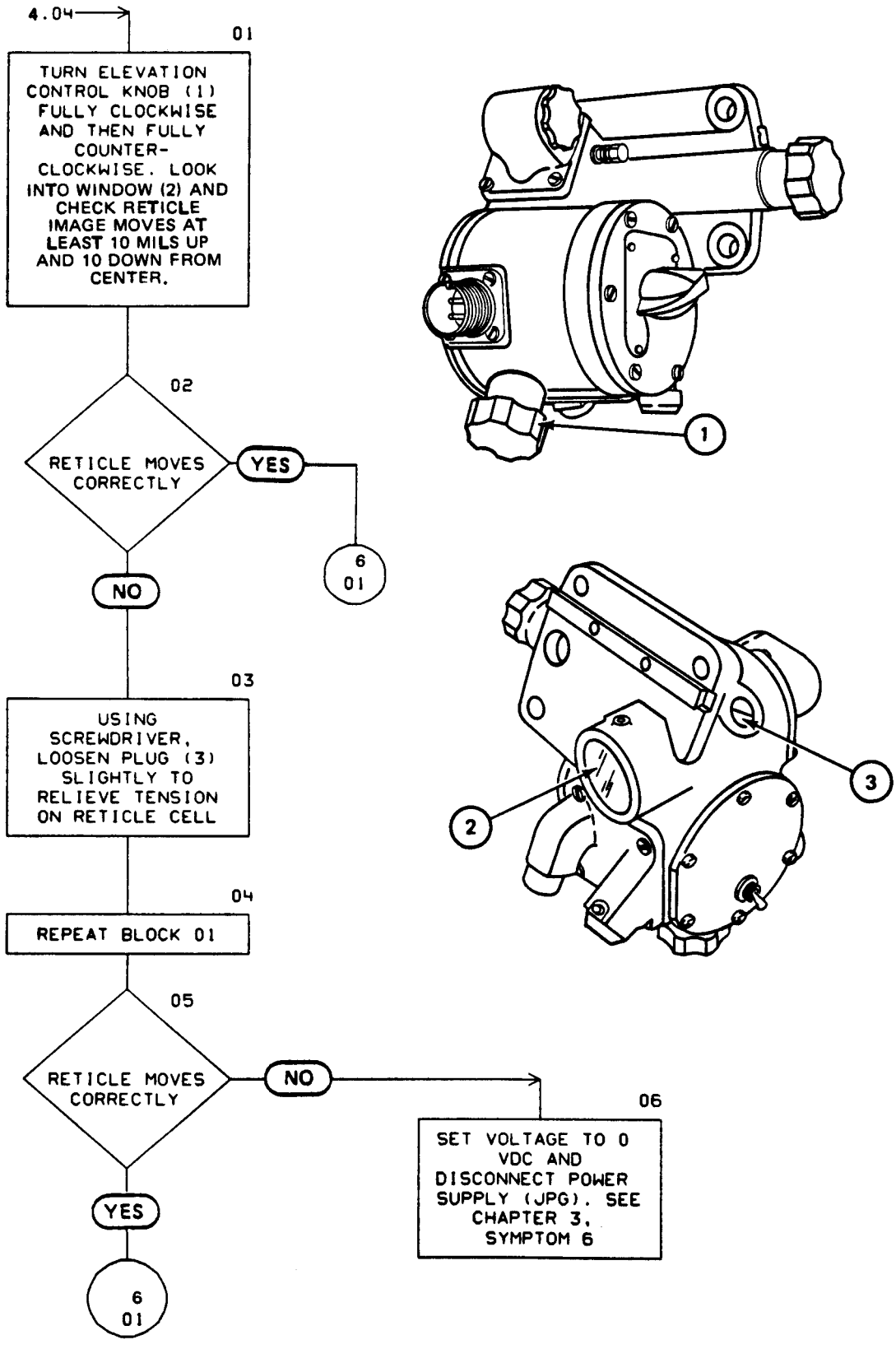


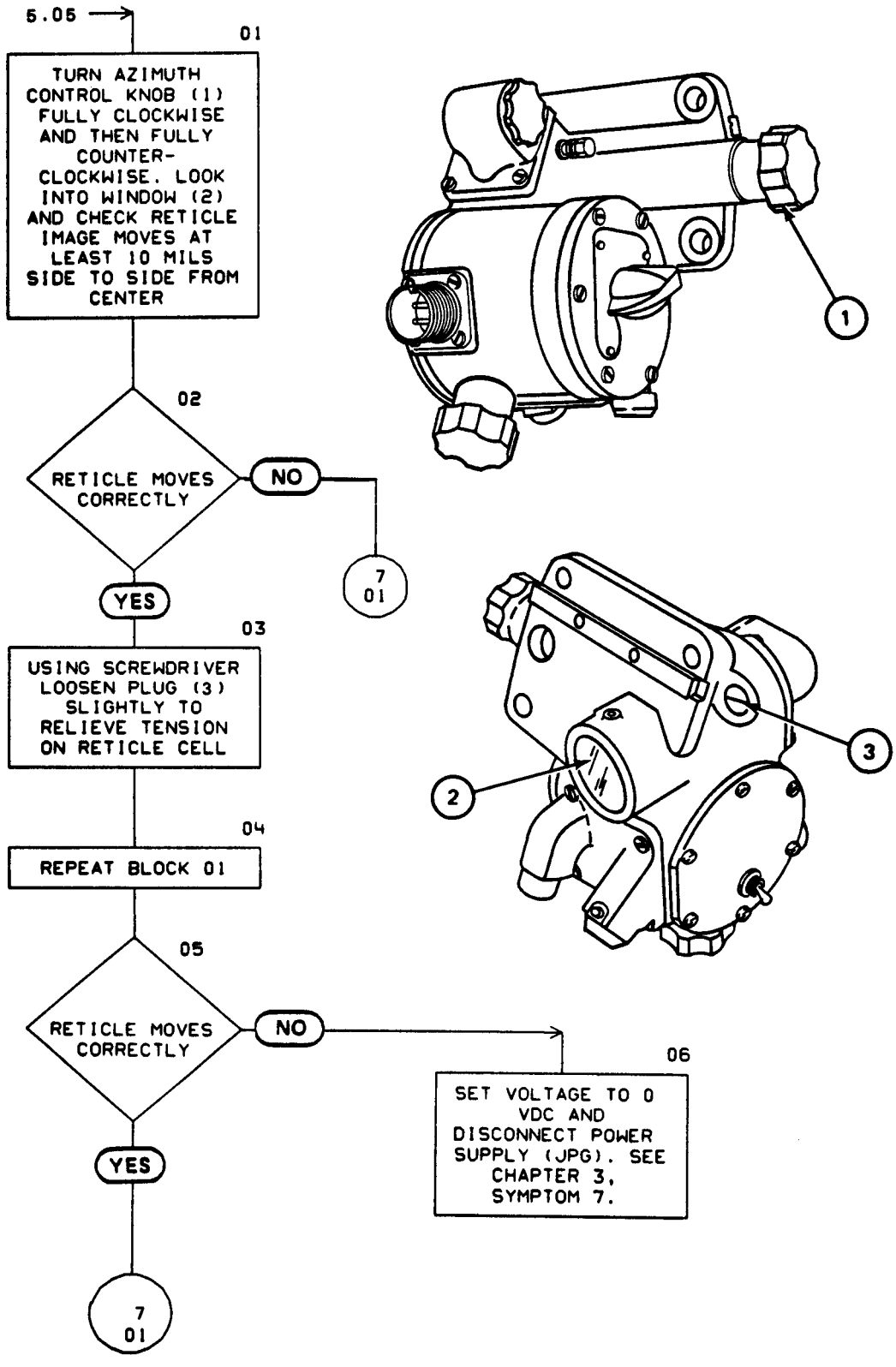
2-2. CHECKOUT (SHEET 4 OF 9)



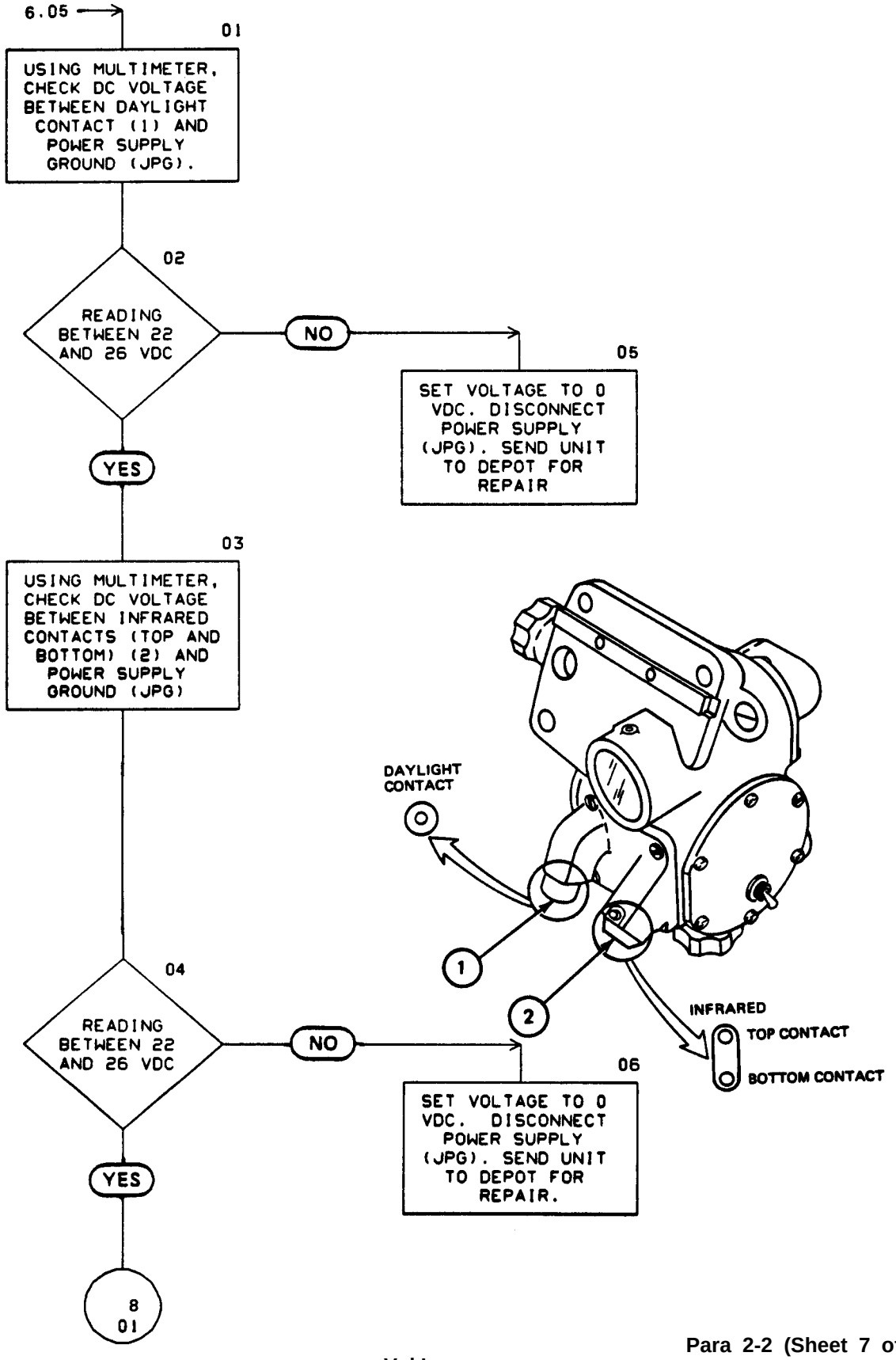
2-2. CHECKOUT (SHEET 5 OF 9)



2-2. CHECKOUT (SHEET 6 OF 9)



2-2. CHECKOUT (SHEET 7 OF 9)



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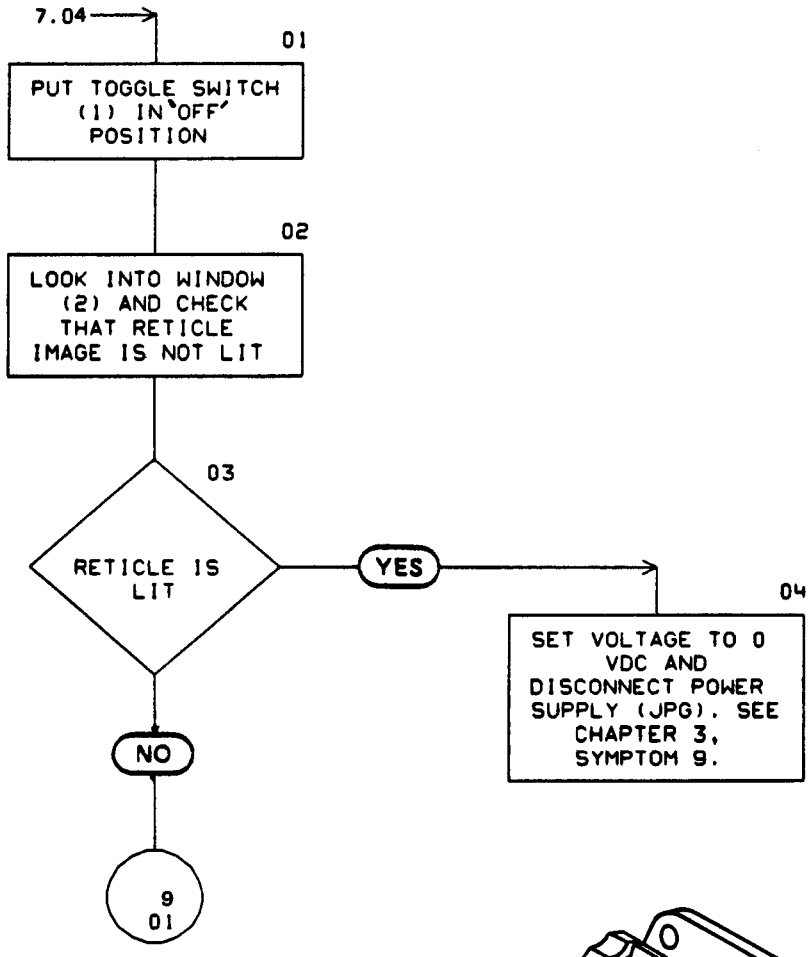
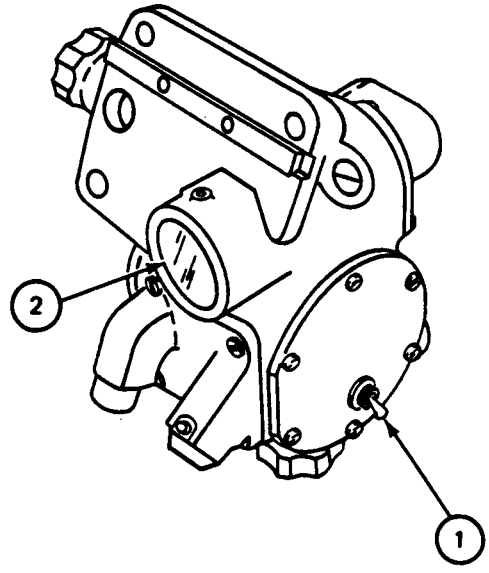
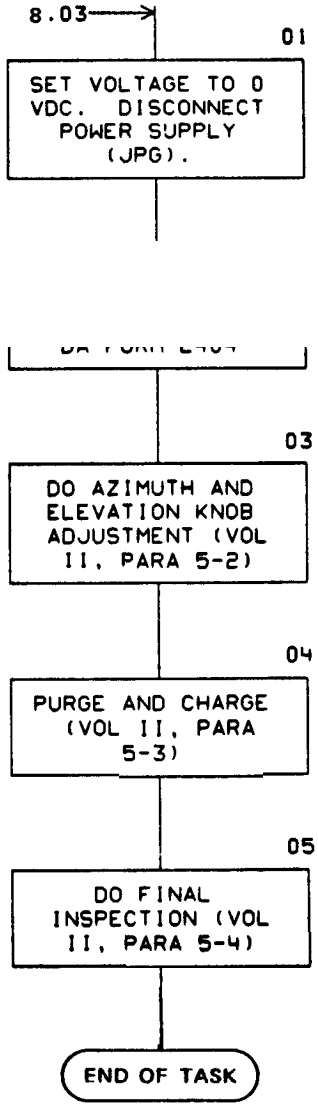




2 - 2 . CHECKOUT (SHEET 9 OF 9)



CHAPTER 3

FAULT SYMPTOM INDEX

	Symptom	Fault Isolation Procedure or Maintenance Procedure
1.	Variable resistor does not turn smoothly	Replace variable resistor (Vol II, para 4-18)
2.	Reticle image cannot be seen	Paragraph 4-2
3.	Image not clear or pressure cannot be held in unit	Purge and charge unit (Vol II, para 5-3)
4.	Image broken or spots of light	Send unit to depot for repair
5.	Boresight knobs do not turn smoothly	Disassemble and replace boresight knobs. (Vol II, para 4-30 or 4-33)
6.	Elevation knob does not move reticle image properly	Replace elevation knob (Vol II, para 4-30)
7.	Azimuth knob does not move reticle image properly	Replace azimuth knob (Vol II, para 4-33)
8.	No voltage at contacts	Send unit to depot for repair
9.	Reticle stays lit with toggle switch in “OFF” position	Replace toggle switch (Vol II, para 4-24)

CHAPTER 4

FAULT ISOLATION PROCEDURES

4-1. SCOPE

This chapter gives step-by-step procedures to troubleshoot the fault symptom found during checkout. After you correct the fault symptom, do the checkout procedure in Chapter 2 again. This is to make sure all fault symptoms are repaired.

4-2. RETICLE IMAGE CANNOT BE SEEN (SHEET 1 OF 8)

TEST EQUIPMENT 0-50 VDC power supply
Multimeter

TOOLS: #2 cross tip screwdriver (Phillips type)

SUPPLIES: Sealing compound (Item 4, App. A, Vol II)
Solder (item 5, App. A, Vol II)

PERSONNEL: One

REFERENCES: TM 9-2350-215-10 for replacing lamp
JPG 41C for: Using power supply
Cleaning terminals and contacts
Using multimeter
Putting on sealing compound
Soldering

EQUIPMENT CONDITION: Infinity sight on work bench; power disconnected

4-2. RETICLE IMAGE CANNOT BE SEEN (SHEET 2 OF 8)

01
REPLACE LAMP (TM 9-2350-215-10)

02
CONNECT 0-50 VDC POWER SUPPLY POSITIVE LEAD TO PIN A AND NEGITIVE LEAD TO PIN B OF RECEPTACLE ASSEMBLY (1). SET VOLTAGE TO 24 VDC (JPG)

03
PLACE TOGGLE SWITCH (2) IN 'ON' POSITION

04
TURN VARIABLE RESISTOR KNOB (3) FULLY CLOCKWISE. CHECK RETICLE IMAGE CAN BE SEEN.

05
IMAGE SEEN

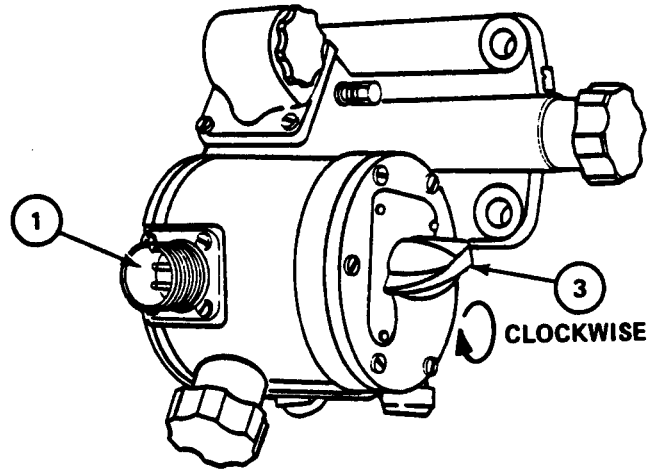
YES

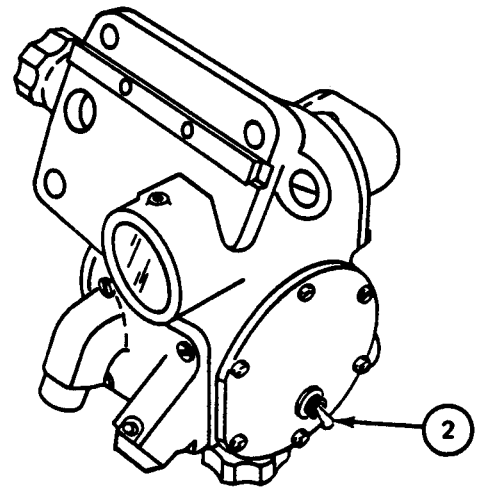
NO

06
SET VOLTAGE TO 0 VDC DISCONNECT POWER SUPPLY (JPG).

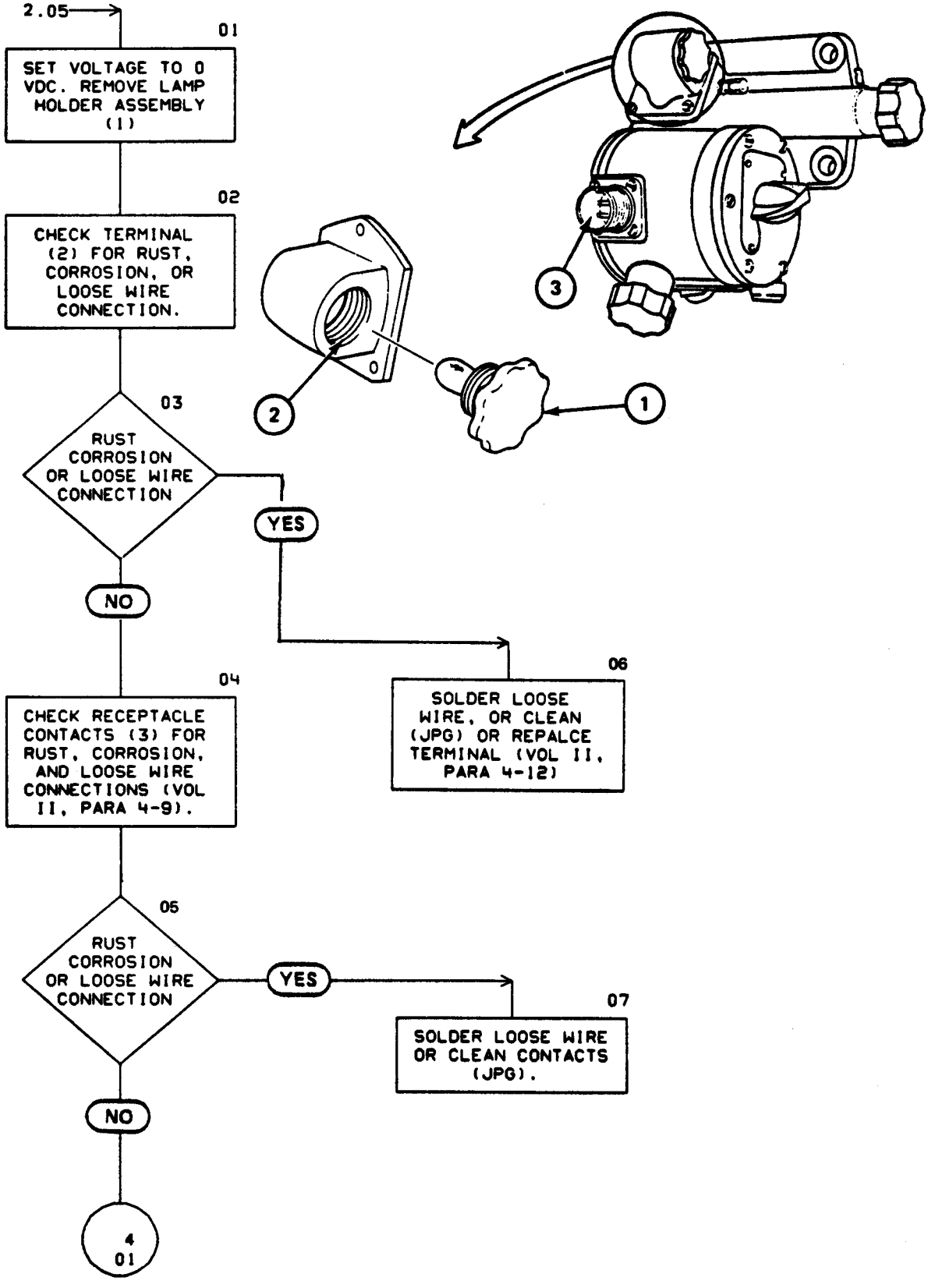
07
DO CHECKOUT (PARA 2-2)

3
01

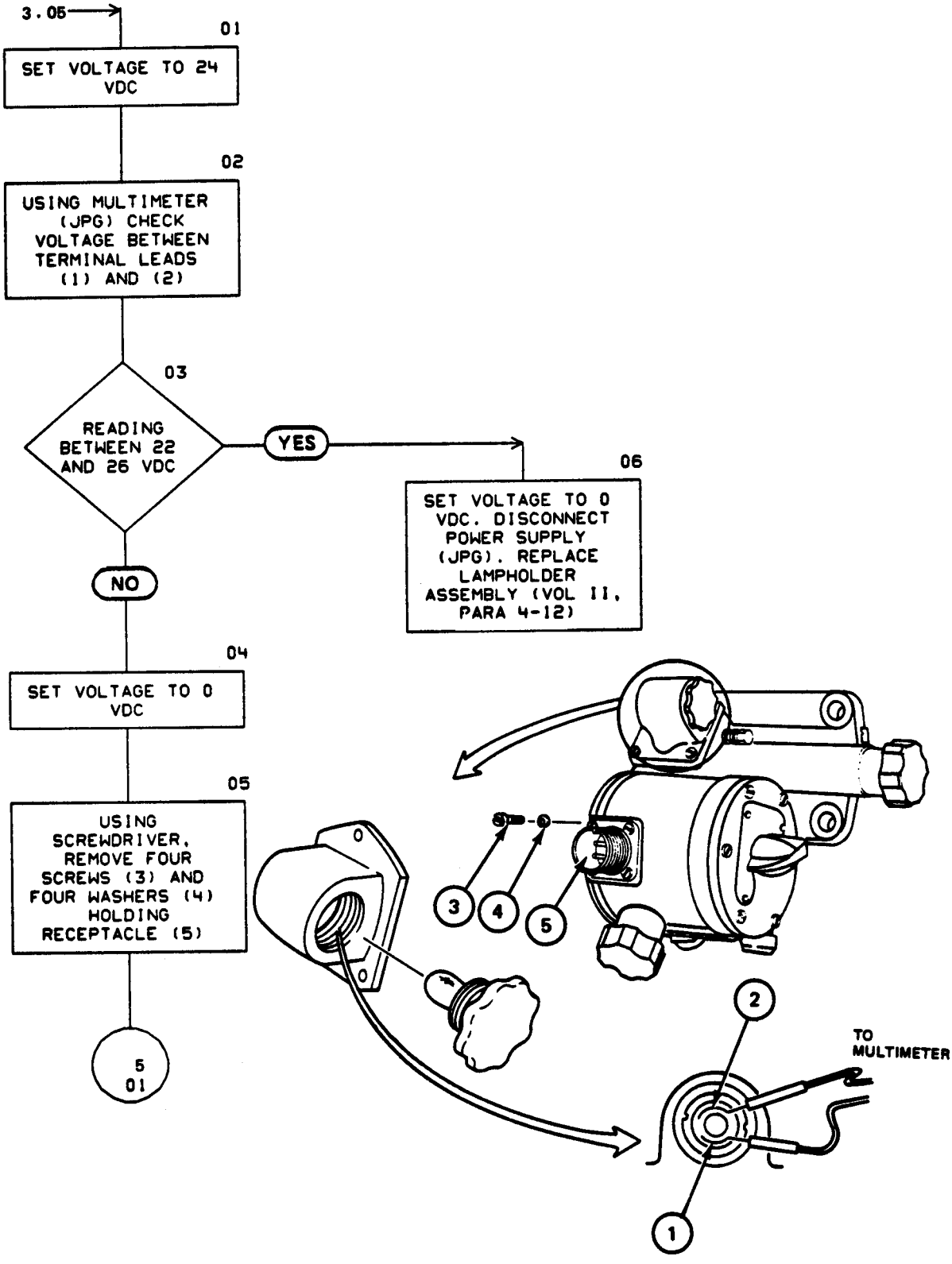




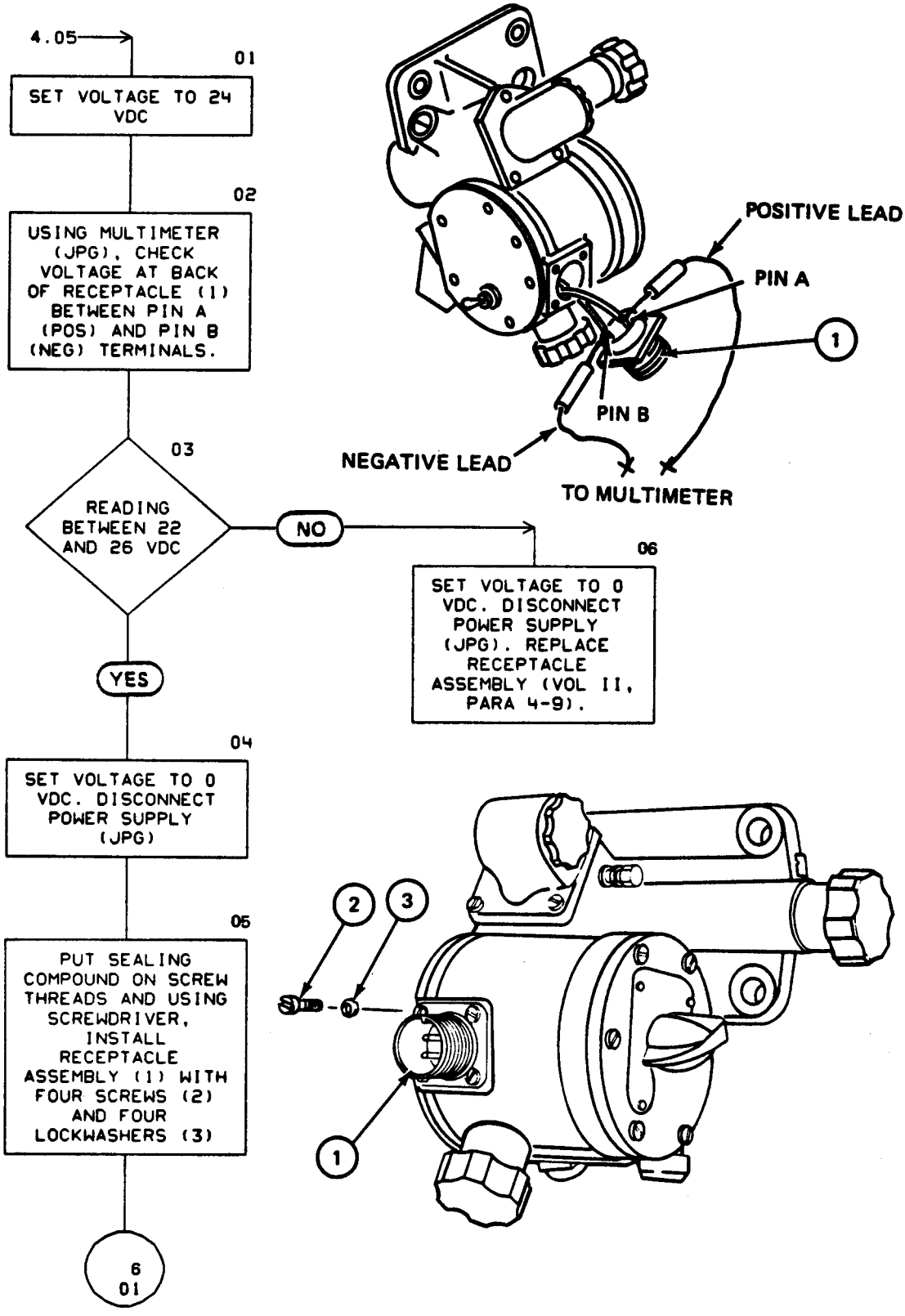
4-2. RETICLE IMAGE CANNOT BE SEEN (SHEET 3 OF 8)



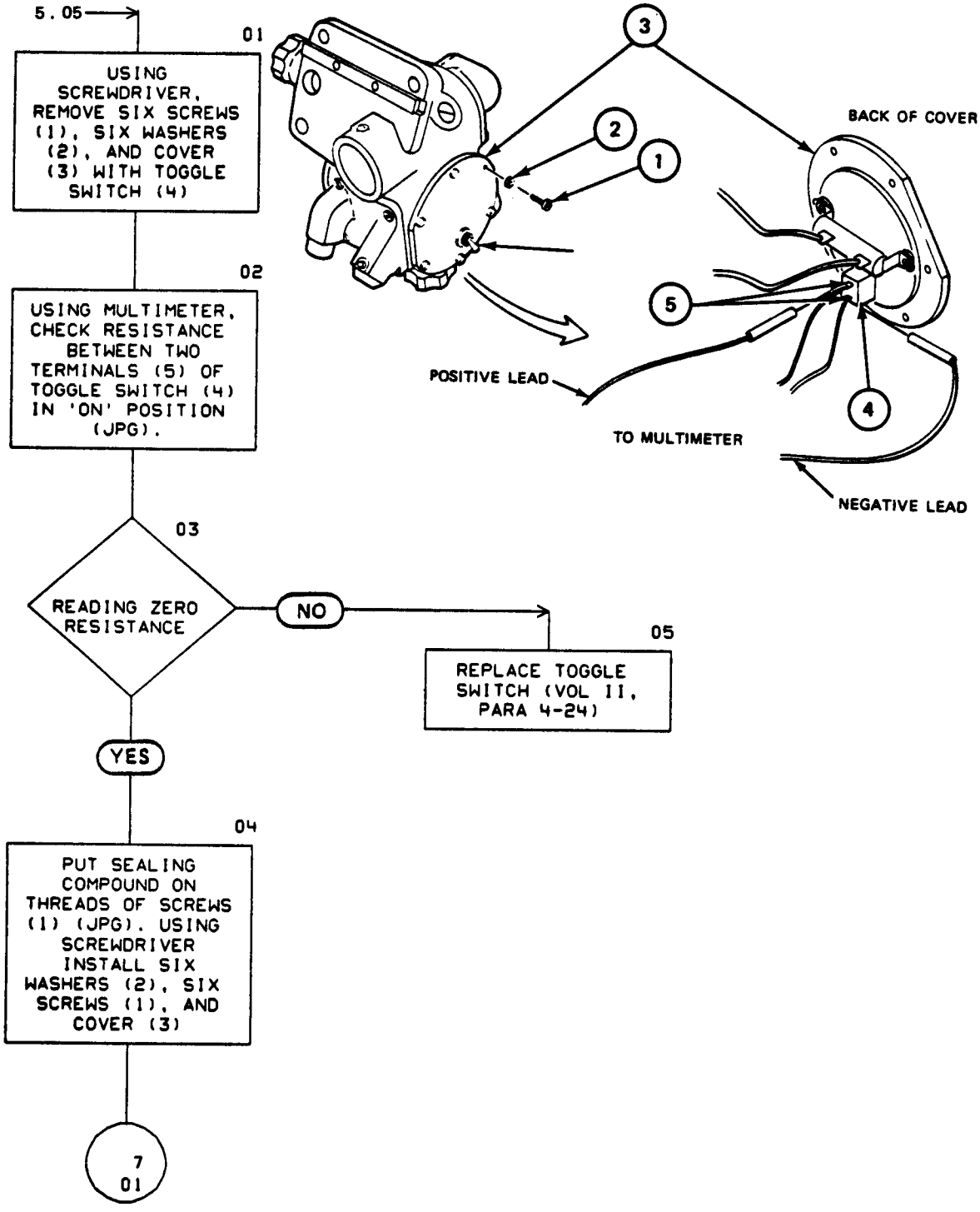
4-2. RETICLE IMAGE CANNOT BE SEEN (SHEET 4 OF 8)



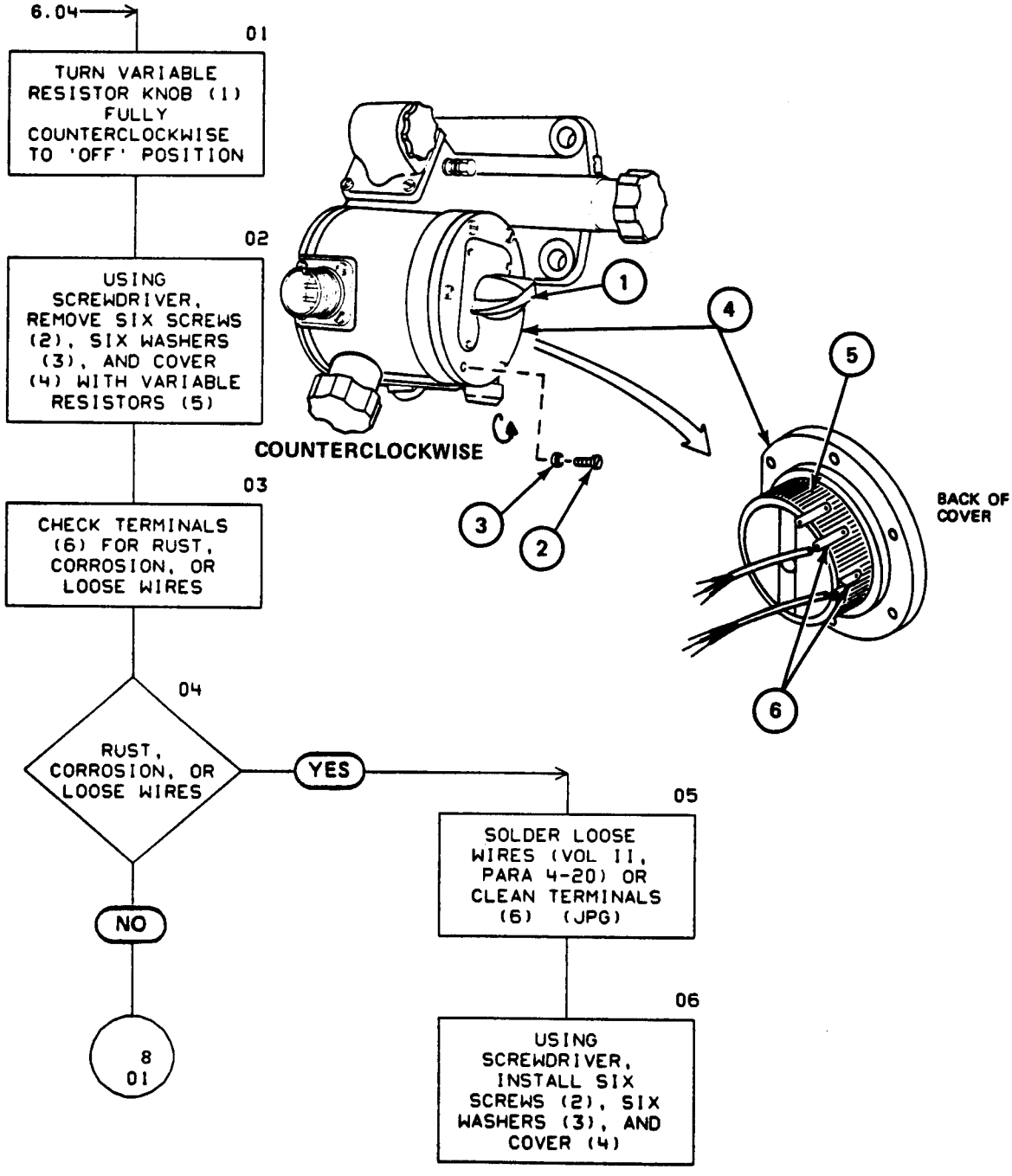
4-2. RETICLE IMAGE CANNOT BE SEEN (SHEET 5 OF 8)



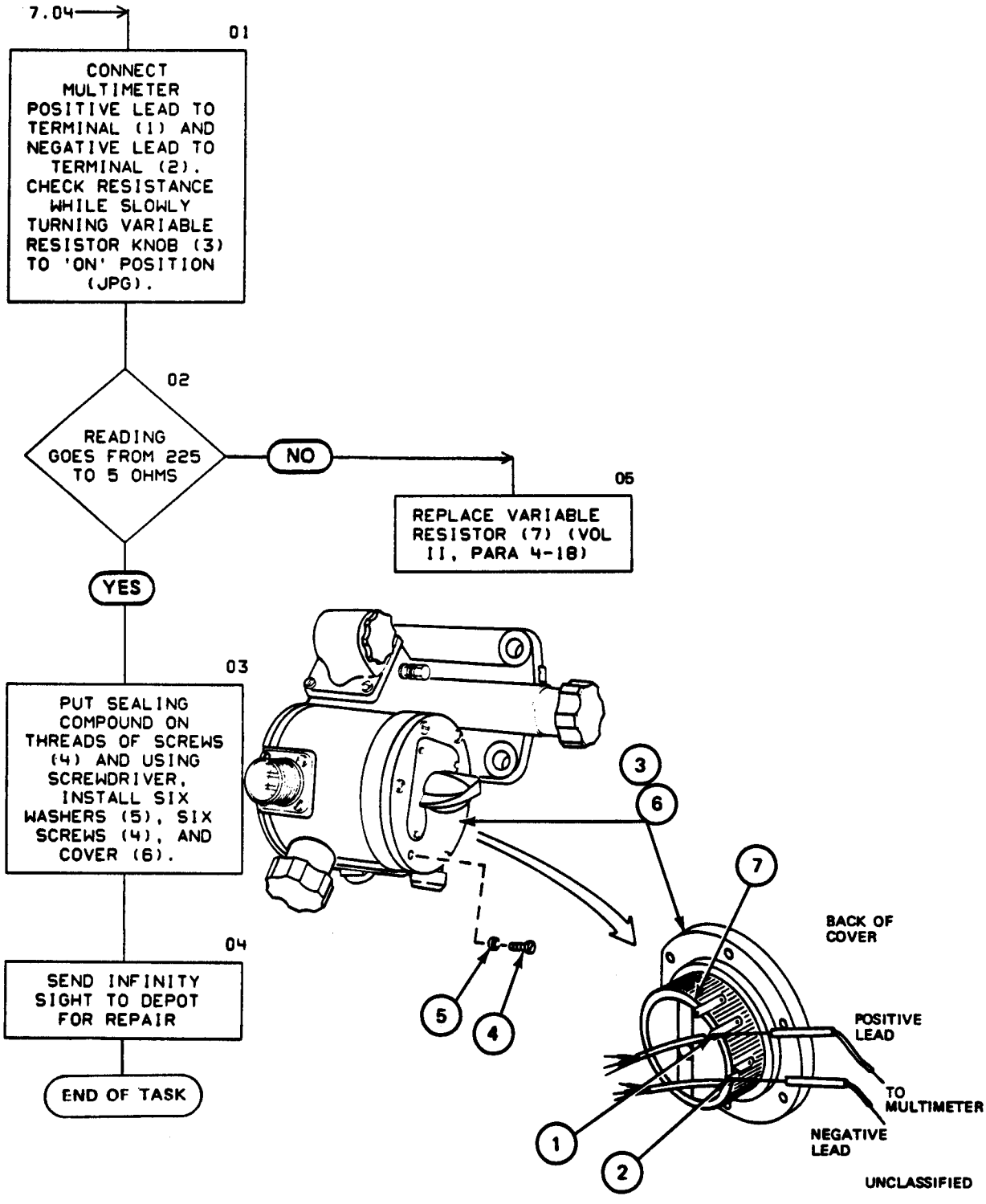
4-2. RETICLE IMAGE CANNOT BE SEEN (SHEET 6 OF 8)



4-2. RETICLE IMAGE CANNOT BE SEEN (SHEET 7 OF 8)



4-2. RETICLE IMAGE CANNOT BE SEEN (SHEET 8 OF 8)



4-3. IMAGE NOT CLEAR OR PRESSURE CANNOT BE HELD IN UNIT (SHEET 1 OF 5)

TOOLS: 5/64” socket head screw key (Allen wrench or equivalent)
#2 cross tip screwdriver (Phillips type)
3/8” flat tip screwdriver
7/16” open end wrench

SUPPLIES: Soap
Sealing compound (item 4, App. A, Vol. II)

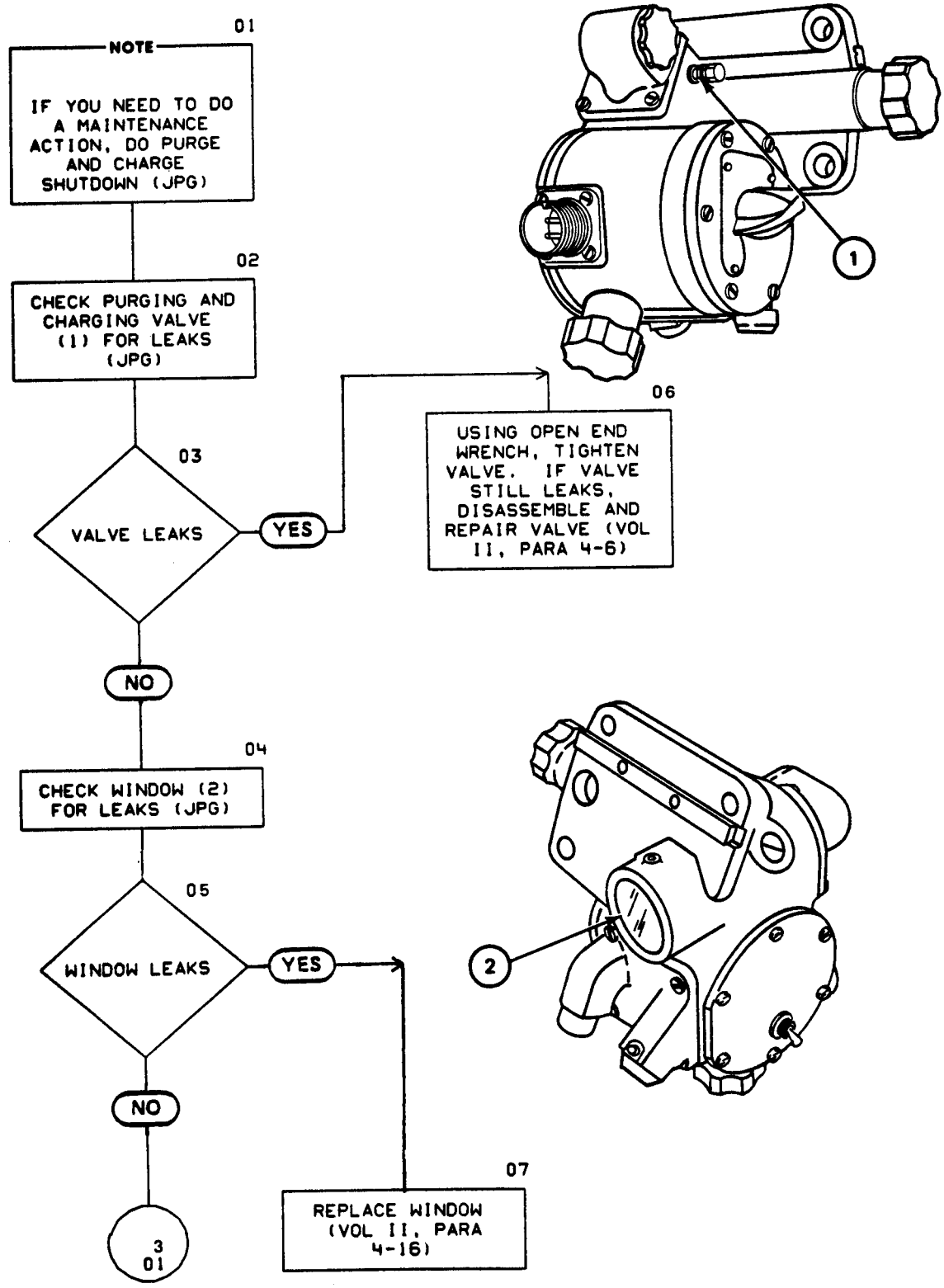
PERSONNEL: One

REFERENCES: JPG 4lC for: Checking for leaks
Sealing
Purge and charge shutdown

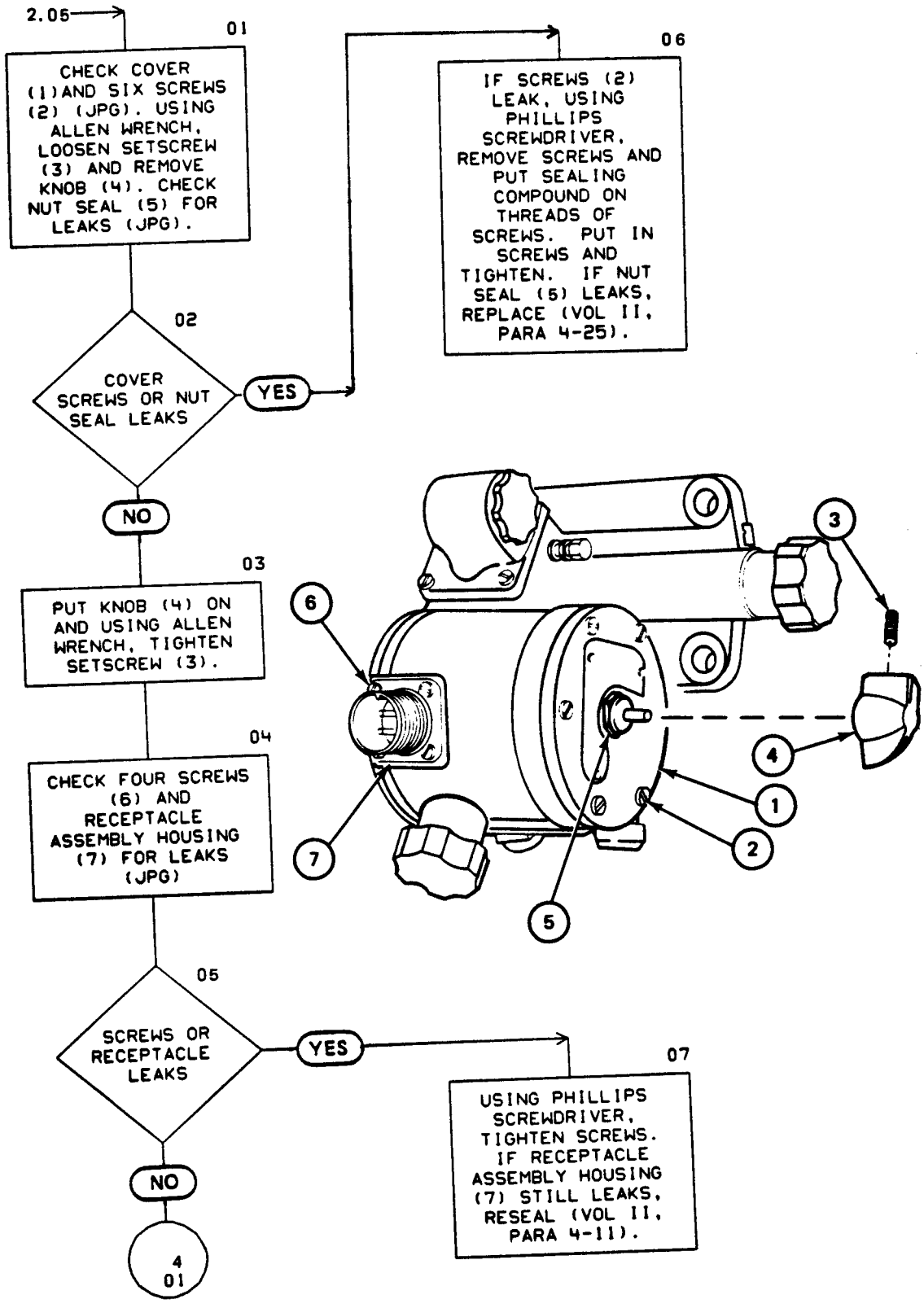
EQUIPMENT CONDITION: Infinity sight on work bench; power disconnected

PRELIMINARY PROCEDURES: Purge and charge infinity sight (Vol II, para 5-3)

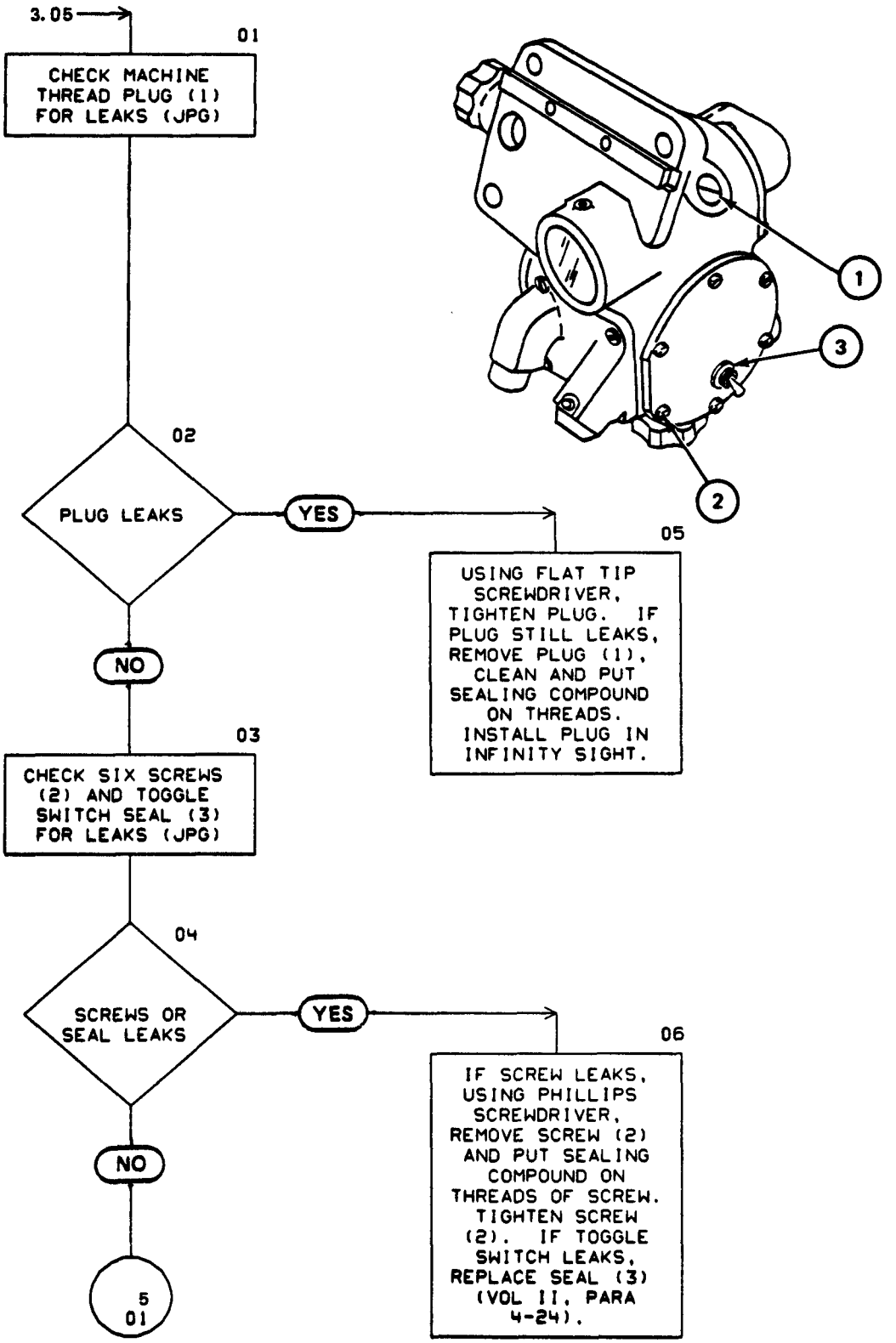
4-3. IMAGE NOT CLEAR OR PRESSURE CANNOT BE HELD IN UNIT (SHEET 2 OF 5)



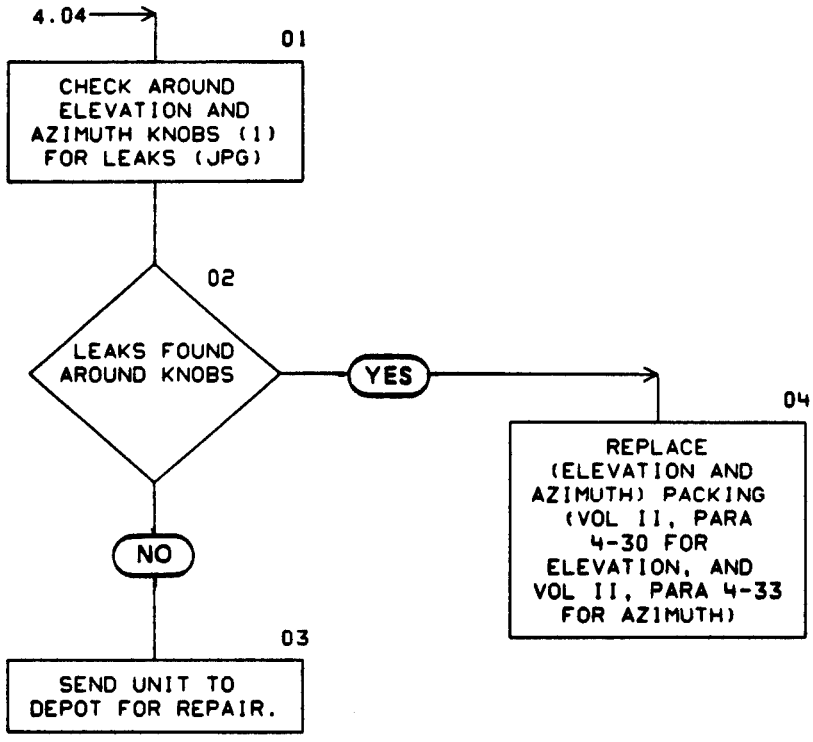
4-3. IMAGE NOT CLEAR OR PRESSURE CANNOT BE HELD IN UNIT (SHEET 3 OF 5)

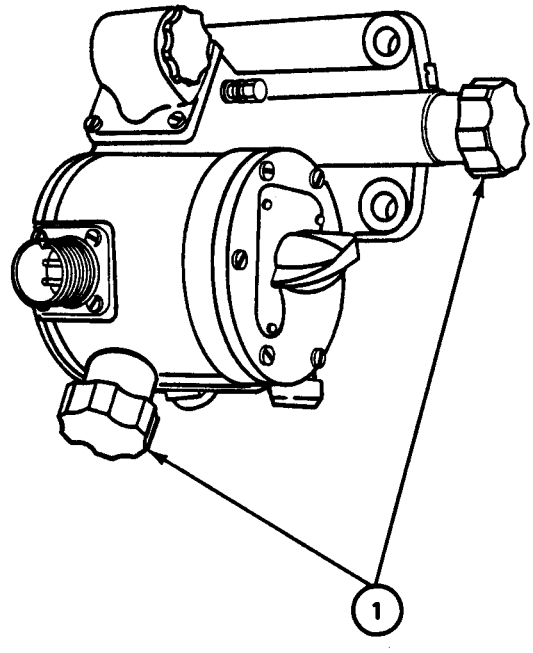


4-3. IMAGE NOT CLEAR OR PRESSURE CANNOT BE HELD IN UNIT (SHEET 4 OF 5)



4-3. IMAGE NOT CLEAR OR PRESSURE CANNOT BE HELD IN UNIT (SHEET 5 OF 5)

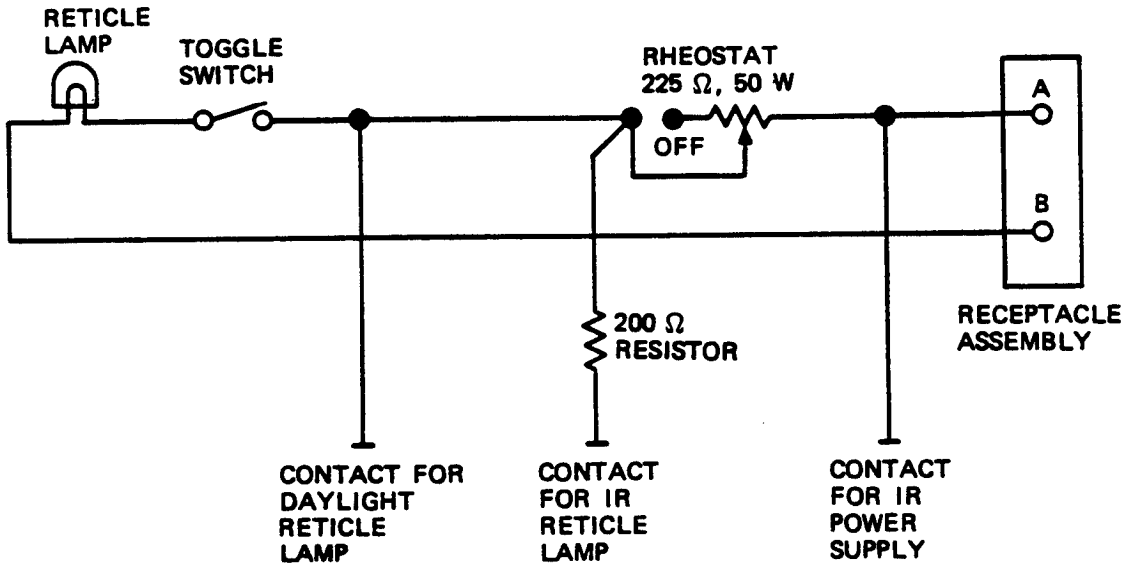




APPENDIX A

WIRING DIAGRAM

INFINITY SIGHT SCHEMATIC DIAGRAM



TECHNICAL MANUAL

DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS LIST)

VOLUME II - MAINTENANCE

SIGHT, INFINITY: 8635466

CHAPTER 1

INTRODUCTION

Section 1. GENERAL

1-1. SCOPE

This volume contains the maintenance requirements and procedures for direct support and general support (DS/GS) maintenance for the 8635466 Infinity Sight. See Volume I for troubleshooting procedures.

1-2. ORGANIZATION

a. Chapter 2, General Maintenance Information, lists the maintenance items and references other procedures that are necessary to do the maintenance in this manual.

b. Chapter 3, Inspection Upon Receipt, gives the kind of defects to look for when the Infinity Sight is returned to DS/GS. A complete inspection should be made and faults listed on DA Form 2404 before any repairs are made.

c. Chapter 4, Maintenance Procedures, give step-by-step procedures to repair faults found during inspection or troubleshooting.

d. Chapter 5, Final Inspection, gives procedures to be done after repair to make sure that the Infinity Sight works.

e. Chapter 6, Packaging, gives procedures for packaging the Infinity Sight for storage or shipment.

f. Appendix A, Expendable Supplies and Materials List, lists the supplies and materials needed to repair the Infinity Sight.

g. Appendix B, Maintenance Task Index, helps you find the necessary maintenance tasks for the Infinity Sight.

h. Appendix C, Repair Parts and Special Tools List, gives a listing of repair parts, special tools, and support equipment required for the performance of direct support, general support, and depot maintenance of the infinity sight.

Section 2. DESCRIPTION AND DATA

1-3. DESCRIPTION

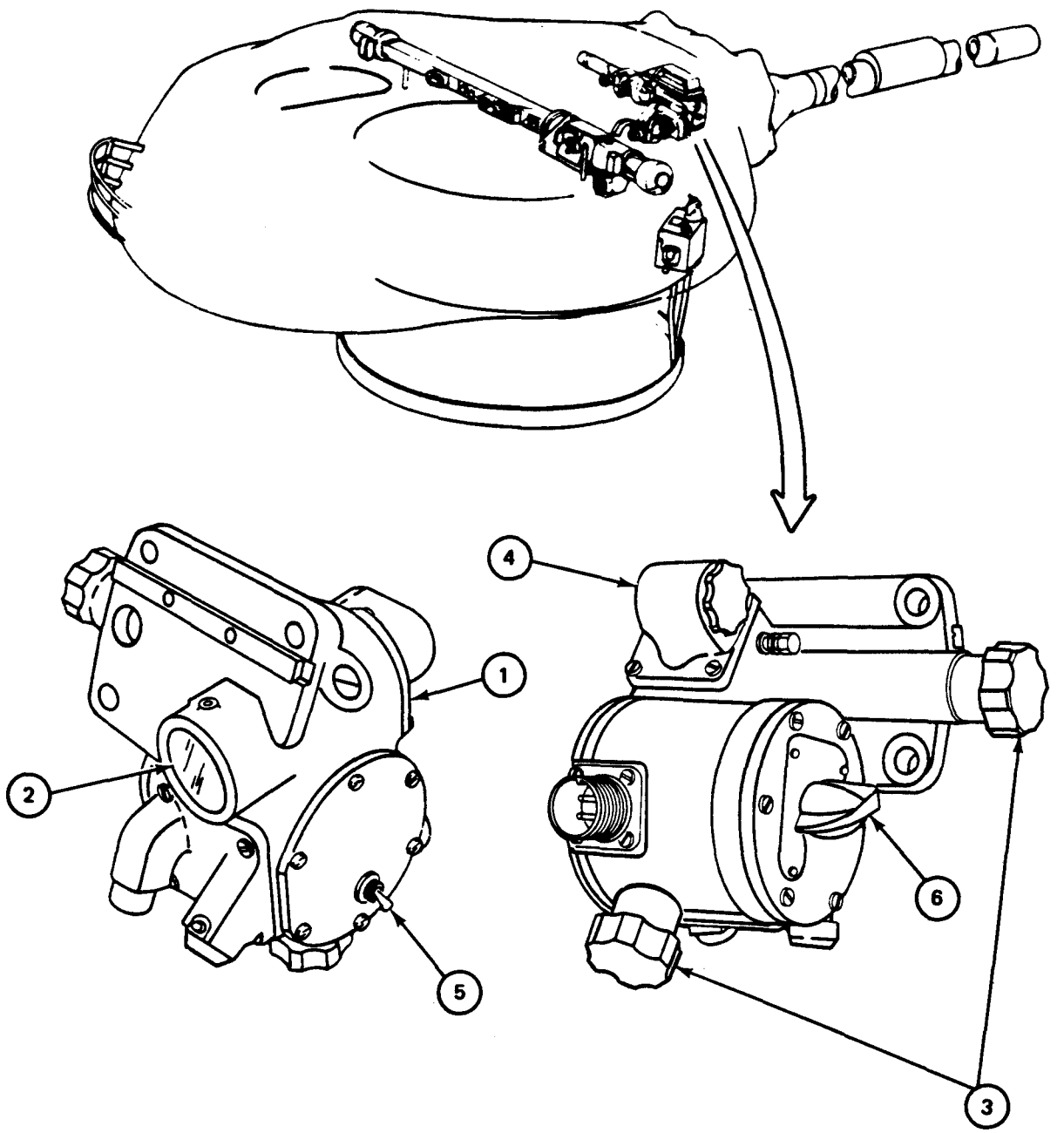
Infinity Sight 8635466 is used to project a lighted reticle image into periscope M32 and periscope M35, in the fire control system of the M60, M60A1, and M728 tanks. The reticle image is used as a sighting reference for a machine gun. The infinity sights' mounting surface attaches to the front of the Periscope Mount M118.

The optical system is contained within the base housing (1) and includes a reticle, a lens assembly, and a window (2) sealed in position to keep the infinity sight protected against dirt, dust, and moisture.

The boresight system is contained within the base housing (1). Rotation of the azimuth and elevation boresight knobs (3) causes the reticle to be adjusted in deflection and elevation.

The lighting system has a lamp assembly (4), a toggle switch (5), and a variable resistor (6). The lamp assembly (4) shines light on the reticle. The toggle switch (5) turns the power to the lamp assembly (4) on or off. The variable resistor (6) varies the power to the lamp assembly (4). Turning the variable resistor clockwise turns the lamp on and increases the amount of light on the reticle. Turning the variable resistor (6) counterclockwise decreases the amount of ligh on the reticle and turns the lamp off.

1-3. DESCRIPTION (CONT)



1-4. TABULATED DATA

Height	7 in. (approx.)
Width	7 in. (approx.)
Length	7 in. (approx.)
Weight	4-3/4 lb.
Illuminated circle	20 mils diam
Lamp voltage	24 volts dc

CHAPTER 2

GENERAL MAINTENANCE INFORMATION

Section 1. GENERAL

2-1. SCOPE

This chapter tells you what special tools and test equipment are needed to repair the Infinity Sight and where to find other information for the maintenance procedures in this volume.

Section 2. REFERENCE DOCUMENTS

2-2. GENERAL MAINTENANCE

General maintenance procedures for fire control materiel are in TM 9-254 and Job Performance Guide 113-091-9000R (JPG 41C).

2-3. CLEANING

General cleaning procedures are in JPG 41C.

2-4. PAINTING

General painting procedures are in TM 43-0139.

2-5. SEALING

General instructions for how to use sealing compounds are in JPG 4lC.

2-6. LUBRICATION

General instructions for how to use lubricants are in JPG 4lC.

Section 3. SAFETY PROCEDURES

2-7. GENERAL PROCEDURE

General safety procedures are in AR 385-40 Safety: Accident Reporting and Records.

Safety procedures for using power supplies and nitrogen tanks are in JPG 4lC.

Section 4. SPECIAL TOOLS AND TEST EQUIPMENT

2-8. TOOLS AND TEST EQUIPMENT

The following special tools and test equipment are used to repair the Infinity Sight.

Item	National Stock Number (NSN)	Part Number (FSCM)	Use
1. Purging kit, fire control	4931-00-065-1110	SC 4931-95-CL-J54	Purge and charge instruments
2. Torque Adaptor	1240-00-015-6693	8570134	Final inspection
3. Torque Wrench	5120-00-541-3001	. . .	Final inspection

CHAPTER 3

INSPECTION UPON RECEIPT

3-1. SCOPE

This chapter gives procedures to check the Infinity Sight for faults you can see when it is received in the DS/GS shop. It also tells you what part of this volume to go to for various repairs. A complete inspection should be made and all faults listed on DA Form 2404 before taking any maintenance actions.

3-2. INSPECTION UPON RECEIPT

TOOLS: 9/16", 3/8" and 7/16" open end wrench
3/8" flat tip screwdriver
.050", 9/64", 3/32" and 5/64" socket head screw key (Allen wrench or equivalent)
Valve core wrench
1 and #2 cross tip screwdriver (Phillips type)

SUPPLIES: Lens tissue (item 6, App. A)
Paint (item 2, App. A)
Primer (item 3, App. A)

PERSONNEL: One

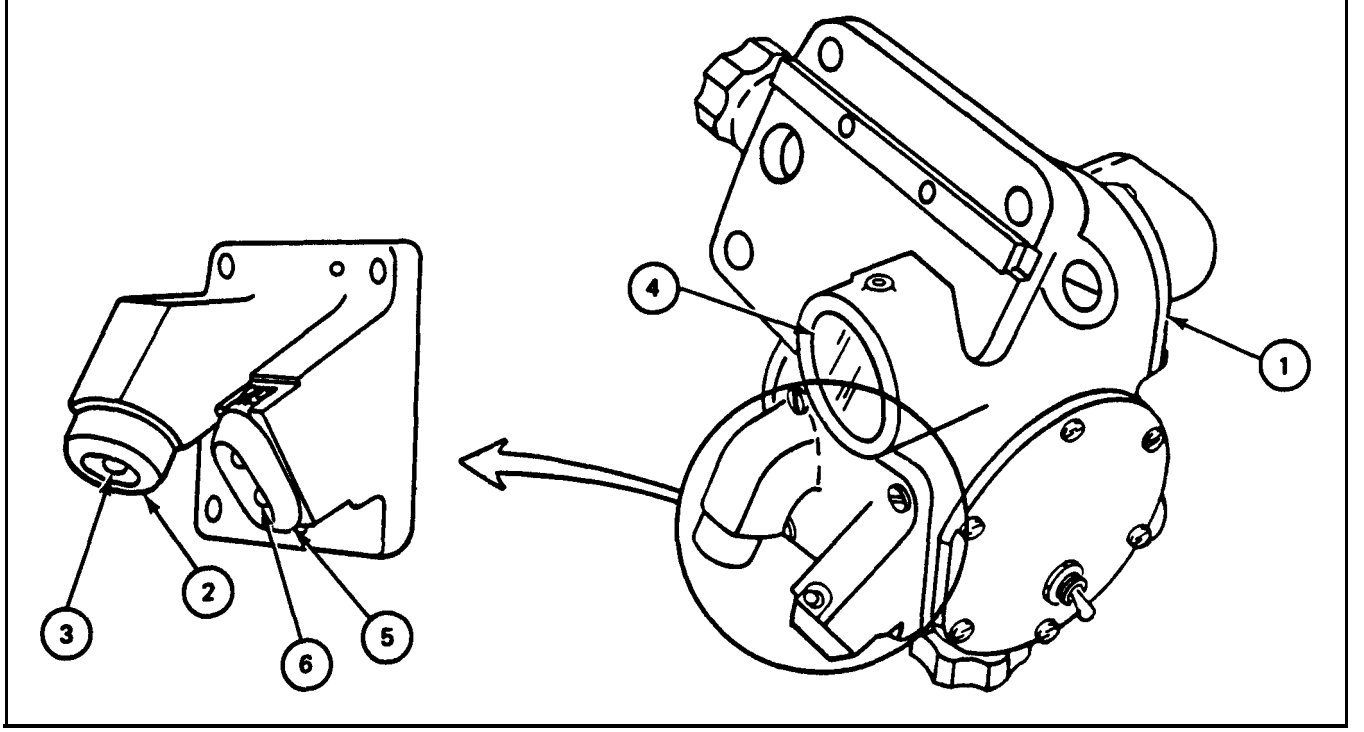
REFERENCES: TM 43-0139 for painting
JPG 41C for: Cleaning
Completing DA Form 2404

EQUIPMENT CONDITION: Infinity sight on work bench

3-2. INSPECTION UPON RECEIPT (CONT)

FRAME 1

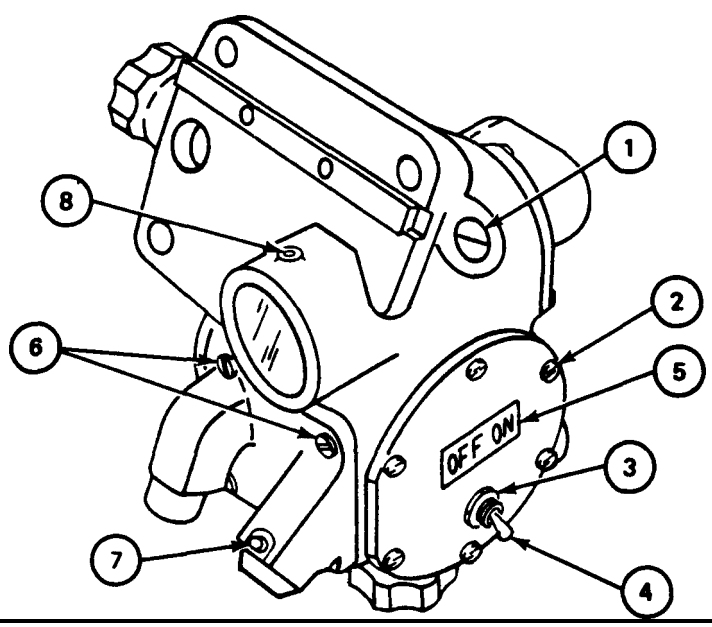
Step	Procedure	Maintenance Action	Reference
1.	Check body (1) for cracks or dents.	If cracks or dents are found, do purging and charging procedure. If leaks are present, tell your supervisor.	Para 5-3
2.	Check that rubber boot (2) is not damaged.	If damaged, tell your supervisor.	. . .
3.	Check that contact (3) is not burned or corroded.	If burned or corroded, tell your supervisor.	. . .
4.	Check window (4) for cracks, scratches, dirt, or abuse.	Using lens paper, clean dirt and lint from exterior of lens. If cracks or scratches are found, replace.	JPG 41C Para 4-15
5.	Check that rubber boot (5) is not damaged.	Replace.	Para 4-27
6.	Check that two contacts (6) are not burned or corroded.	If burned or corroded, tell your supervisor.	. . .
	GO TO FRAME 2		



3-2. INSPECTION UPON RECEIPT (CONT)

FRAME 2

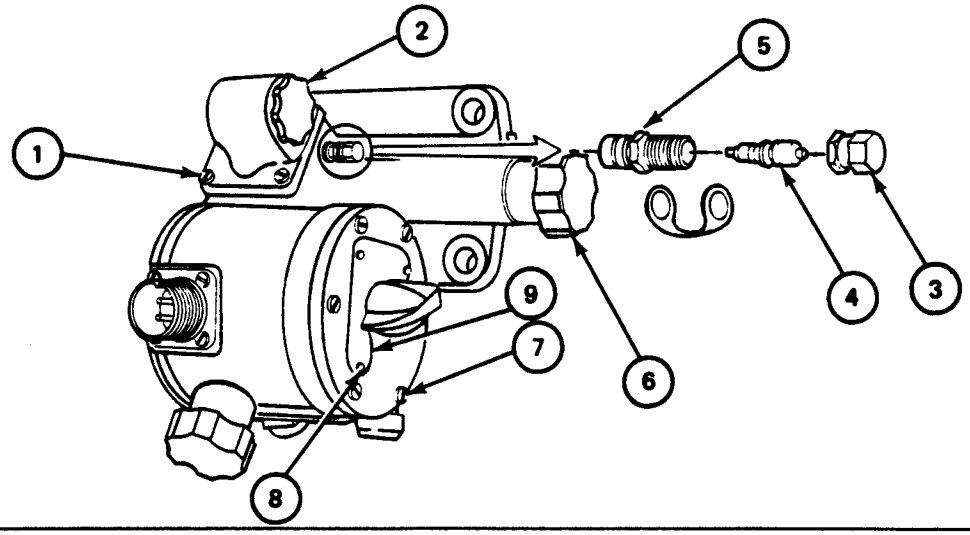
Step	Procedure	Maintenance Action	Reference
1.	Using 3/8" screwdriver, check that plug (1) is tight.	Tighten. Replace if missing.	. . .
2.	Using #2 Phillips screwdriver, check that six screws (2) are tight.	Tighten. Replace if missing.	. . .
3.	Using 9/16" open end wrench, check that nut (3) is tight.	Tighten. Replace if missing.	. . .
4.	Check that toggle switch (4) moves to ON/OFF positions without binding.	Replace switch.	Para 4-24
5.	Check that ON/OFF decal (5) can be read.	If decal cannot be read, tell your supervisor.	. . .
6.	Using #2 Phillips screwdriver, check that four screws (6) are tight.	Tighten. Replace if missing.	. . .
7.	Using #1 Phillips screwdriver, check that two screws (7) are tight.	Tighten. Replace if missing.	. . .
8.	Using .050" Allen wrench, check that setscrew (8) is tight.	Tighten. Replace if missing.	. . .
	GO TO FRAME 3		



3-2. INSPECTION UPON RECEIPT (CONT)

FRAME 3

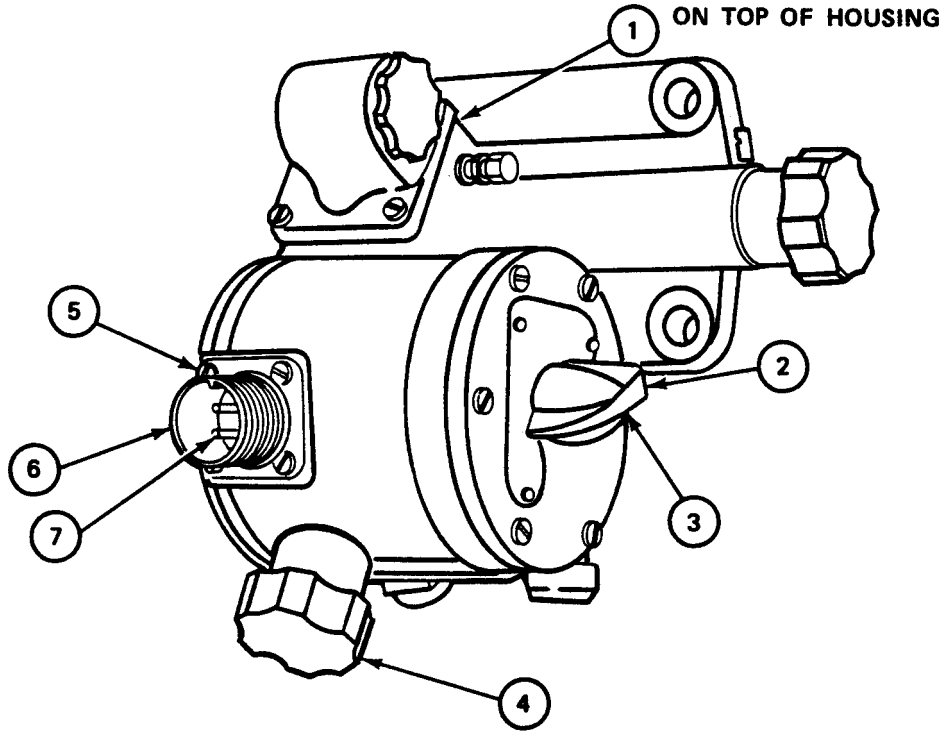
Step	Procedure	Maintenance Action	Reference
1.	Using #2 Phillips screwdriver, check that three screws (1) are tight.	Tighten. Replace if missing.	. . .
2.	Using fingers, check that lamp assembly (2) is tight.	Tighten. Replace if missing.	Para 4-12
3.	Using 3/8” wrench, remove cap (3). Using valve core wrench, check that valve core (4) is tight and seated. Valve stem should be straight. Using 7/16” wrench, check that stem (5) is tight. Using 3/8” wrench, install cap (3).	Tighten valve. If cap or valve is missing, replace. If valve stem is bent, replace. Tighten stem if loose.	Para 4-6
4.	Check that knob (6) turns from stop to stop without binding.	Replace.	Para 4-33
5.	Using #2 Phillips screwdriver, check that six screws (7) are tight.	Tighten. Replace if missing.	. . .
6.	Using #1 Phillips screwdriver, check that three screws (8) are tight.	Tighten. Replace if missing.	. . .
7.	Check that identification plate (9) can be read. GO TO FRAME 4	If identification tdate cannot be read, tell your supervisor.	. . .



3-2. INSPECTION UPON RECEIPT (CONT)

FRAME 4

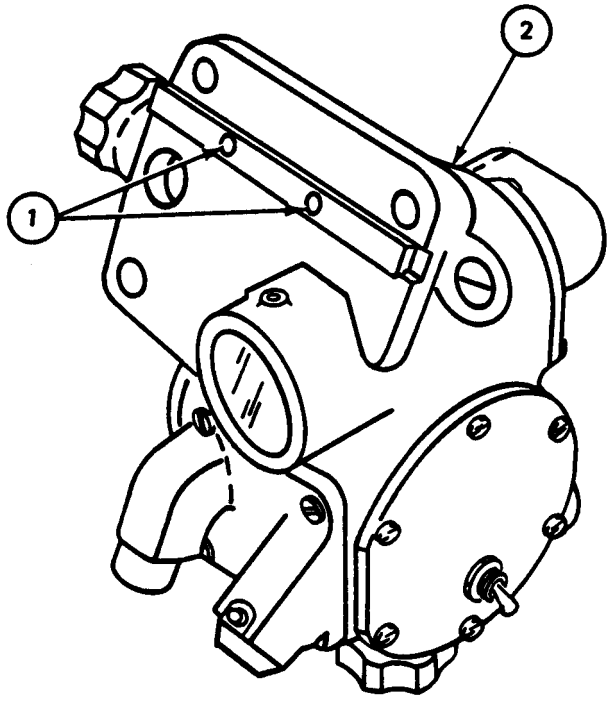
Step	Procedure	Maintenance Action	Reference
1.	Using 3/32" Allen wrench, check that setscrew (1) is tight.	Tighten. Replace if missing.	. . .
2.	Using 5/64" Allen wrench, check that setscrew (2) in knob (3) is tight.	Tighten. Replace if missing.	. . .
3.	Check that knob (3) turns from stop to stop without binding.	Replace.	Para 4-18
4.	Check that knob (4) turns from stop to stop without binding.	Replace.	Para 4-30
5.	Using #2 Phillips screwdriver, check that four screws (5) are tight.	Tighten. Replace if missing.	. . .
6.	Check receptacle (6) for dents and damaged threads.	Replace.	Para 4-9
7.	Check that two pins (7) are not burned or missing.	Replace.	Para 4-9
	GO TO FRAME 5		



3-2. INSPECTION UPON RECEIPT (CONT)

FRAME 5

Step	Procedure	Maintenance Action	Reference
1.	Using 9/64" Allen wrench, check that two screws (1) are tight.	Tighten. Replace if missing.	. . .
2.	Check body (2) for dirt, chipped or scratched paint and corrosion. **NOTE** FOLLOW-ON MAINTENANCE Correct faults listed on DA Form 2404 that may affect the checkout procedure. Do checkout procedure (Vol I, para 2-2). END OF TASK	Clean, paint if needed.	JPG 41C TM 43-0139



CHAPTER 4

MAINTENANCE PROCEDURES

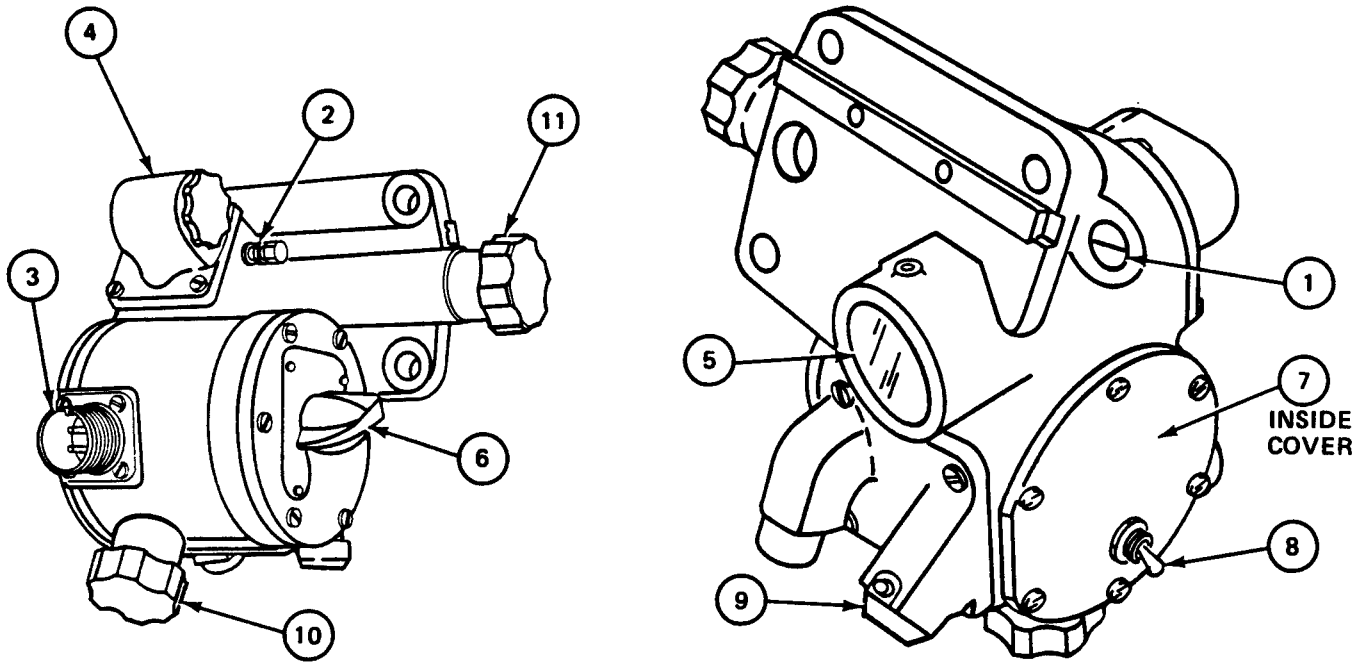
Section 1. GENERAL

4-1. SCOPE

This chapter gives maintenance procedures for the Infinity Sight.

4-2. LIST OF INFINITY SIGHT ITEMS CONTAINED IN THIS CHAPTER

Item	Figure Index No.	Reference (para)
Machine Thread Plug	1	4-3
Valve Assembly	2	4-6
Receptacle Assembly	3	4-9
Lamp Assembly	4	4-12
Observation Window	5	4-15
Variable Resistor	6	4-18
Fixed Resistor	7	4-21
Toggle Switch	8	4-24
Boot and Insulator	9	4-27
Elevation Boresight Knob	10	4-30
Azimuth Boresight Knob	11	4-33



Section 2. MACHINE THREAD PLUG

4-3. MACHINE THREAD PLUG MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Removal	4-4
Installation	4-5

4-4. MACHINE THREAD PLUG REMOVAL

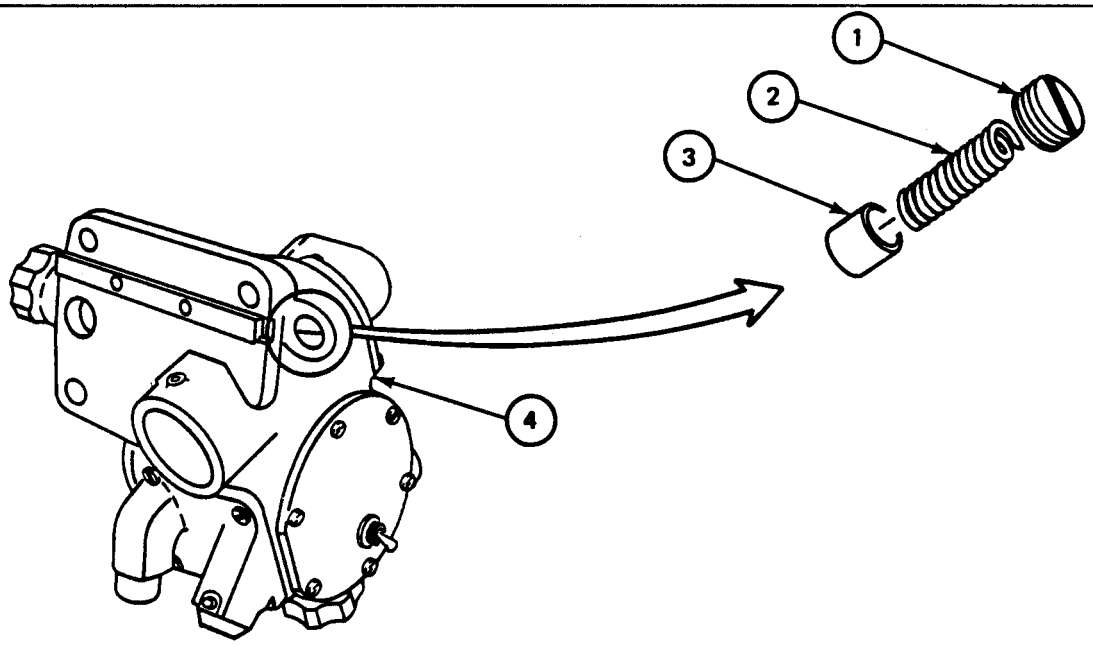
TOOLS: 3/ 8" flat tip screwdriver

PERSONNEL: One

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using screwdriver, remove plug (1), spring (2), and plunger (3) from infinity sight housing (4). END OF TASK



4-5. MACHINE THREAD PLUG INSTALLATION

TOOLS: 3/8” flat tip screwdriver

SUPPLIES: Sealing compound (item 4, App. A)

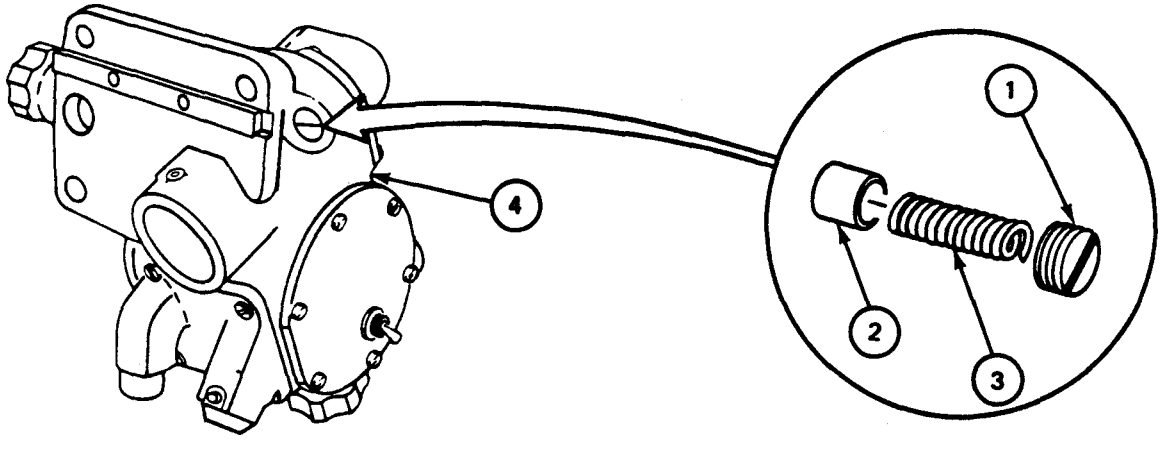
PERSONNEL: One

REFERENCES: JPG 41C for using sealing compound

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Put small amount of sealing compound on plug (1) threads (JPG).
2.	Using screwdriver, install plunger (2), spring (3), and plug (1) into infinity sight housing (4).
	NOTE
	FOLLOW-ON MAINTENANCE
	Do checkout procedure (Vol I, para 2-2).
	END OF TASK



Section 3. VALVE ASSEMBLY

4-6. VALVE ASSEMBLY MAINTENANCE PROCEDURES INDEX

Step	Procedure
Removal	4-7
Installation	4-8

4-7. VALVE ASSEMBLY REMOVAL

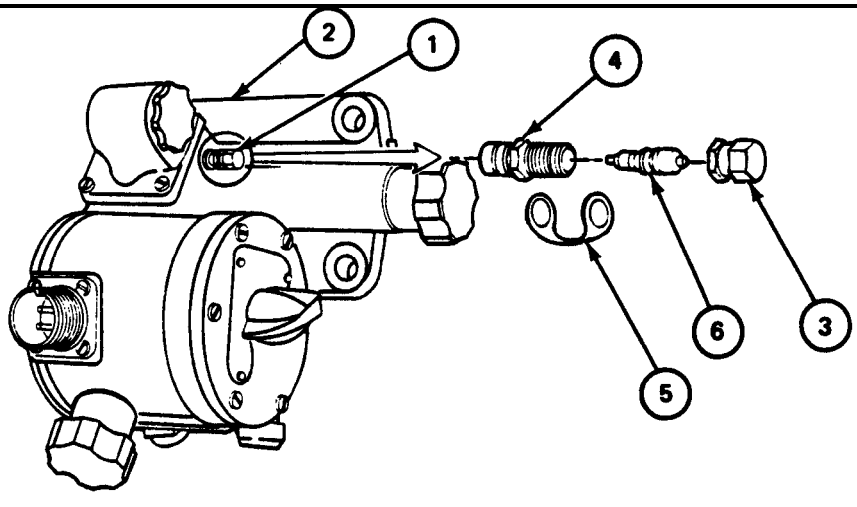
TOOLS: 3/8” and 7/16” open end wrench
Valve core wrench

PERSONNEL: One

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using 7/16" open end wrench, remove valve assembly (1) from infinity sight housing (2).
2.	Using 3/8” open end wrench, remove cap (3) from valve stem (4).
3.	Remove nylon strap (5) from cap (3) and valve stem (4).
4.	Using valve core wrench, remove valve core (6) from valve stem (4).
	END OF TASK



4-8. VALVE ASSEMBLY INSTALLATION

TOOLS: 7/16'' and 3/8'" openend wrench
Valve core wrench

SUPPLIES: Sealing compound (item 4, App. A)

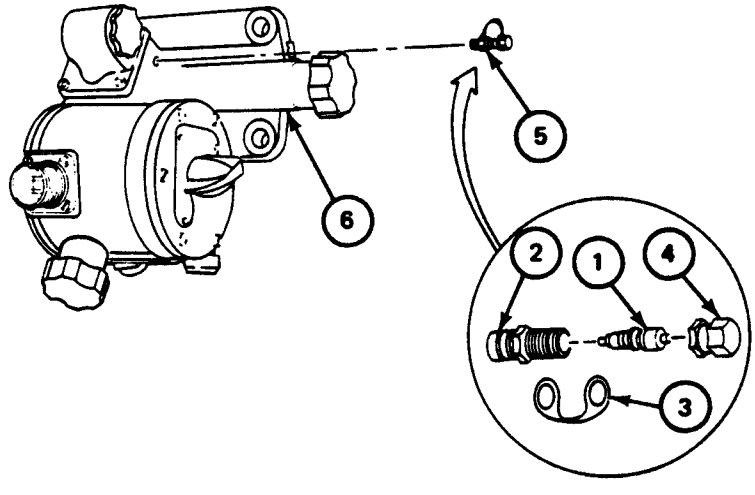
PERSONNEL: One

REFERENCES: JPG 4lC for using sealing compound

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using valve core wrench, install valve core (1) in valve stem (2).
2.	Install nylon strap (3) on valve stem (2) and cap (4).
3.	Using 3/8" open end wrench, install cap (4) on valve stem (2).
4.	Put small amount of sealing compound on threads of stem (2) (JPG).
5.	Using 7/16" open end wrench, install valve assembly (5) into infinity sight housing (6).
	NOTE FOLLOW-ON MAINTENANCE Do checkout procedure (Vol I, para 2-2). END OF TASK



Section 4. RECEPTACLE ASSEMBLY

4-9. RECEPTACLE ASSEMBLY MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Removal	4-10
Installation	4-11

4-10. RECEPTACLE ASSEMBLY REMOVAL

TOOLS: #2 cross tip screwdriver (Phillips type)
Soldering iron

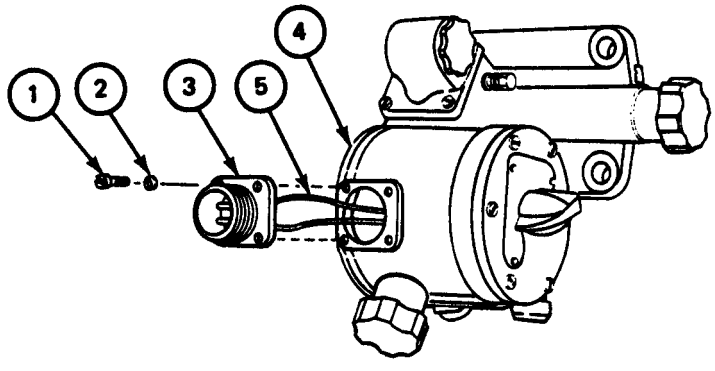
PERSONNEL: One

REFERENCES: JPG 41C for: Tagging wires
Unsoldering wires

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using screwdriver, remove four screws (1) and four washers (2) from receptacle assembly (3).
2.	Carefully remove receptacle assembly (3) from infinity sight housing (4).
3.	Tag two wires (5) connected to terminals of receptacle assembly (3) (JPG).
4.	Using soldering iron, unsolder two wires (5) from terminals of receptacle assembly (3) (JPG).
	END OF TASK



4-11. RECEPTACLE ASSEMBLY INSTALLATION

TOOLS: #2 cross tip screwdriver (Phillips type)
Soldering iron

SUPPLIES: Solder (item 5, App. A)
Sealing compound (item 4, App. A)

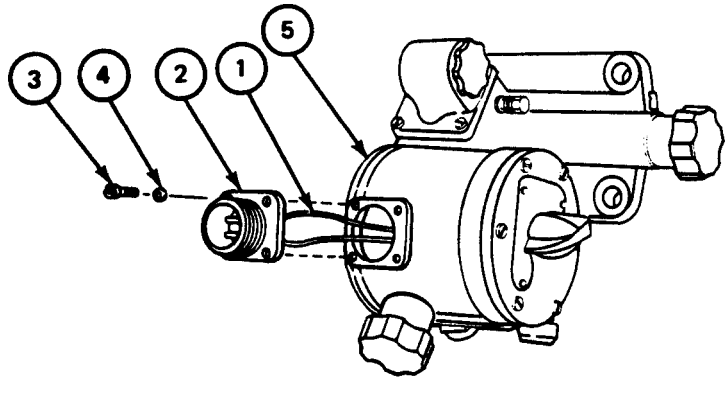
PERSONNEL: One

REFERENCES: JPG 4lC for: Soldering wires
Using sealing compound

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
	Using soldering iron, solder two wires (1) (tagged during removal procedure) to terminals of receptacle assembly (2) (JPG). Put a small amount of sealing compound on threads of four screws (3) and receptacle (2) (JPG). Using screwdriver, install four washers (4), four screws (3), and receptacle assembly (2) into infinity sight housing (5). NOTE FOLLOW-ON MAINTENANCE Do checkout procedure (Vol I, para 2-2). END OF TASK



Section 5. LAMP ASSEMBLY

4-12. LAMP ASSEMBLY MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Disassembly	4-13
Assembly	4-14

4-13. LAMP ASSEMBLY DISASSEMBLY

TOOLS: 53/64" tubular spanner wrench
#2 cross tip screwdriver (Phillips type)
Soldering iron

PERSONNEL: One

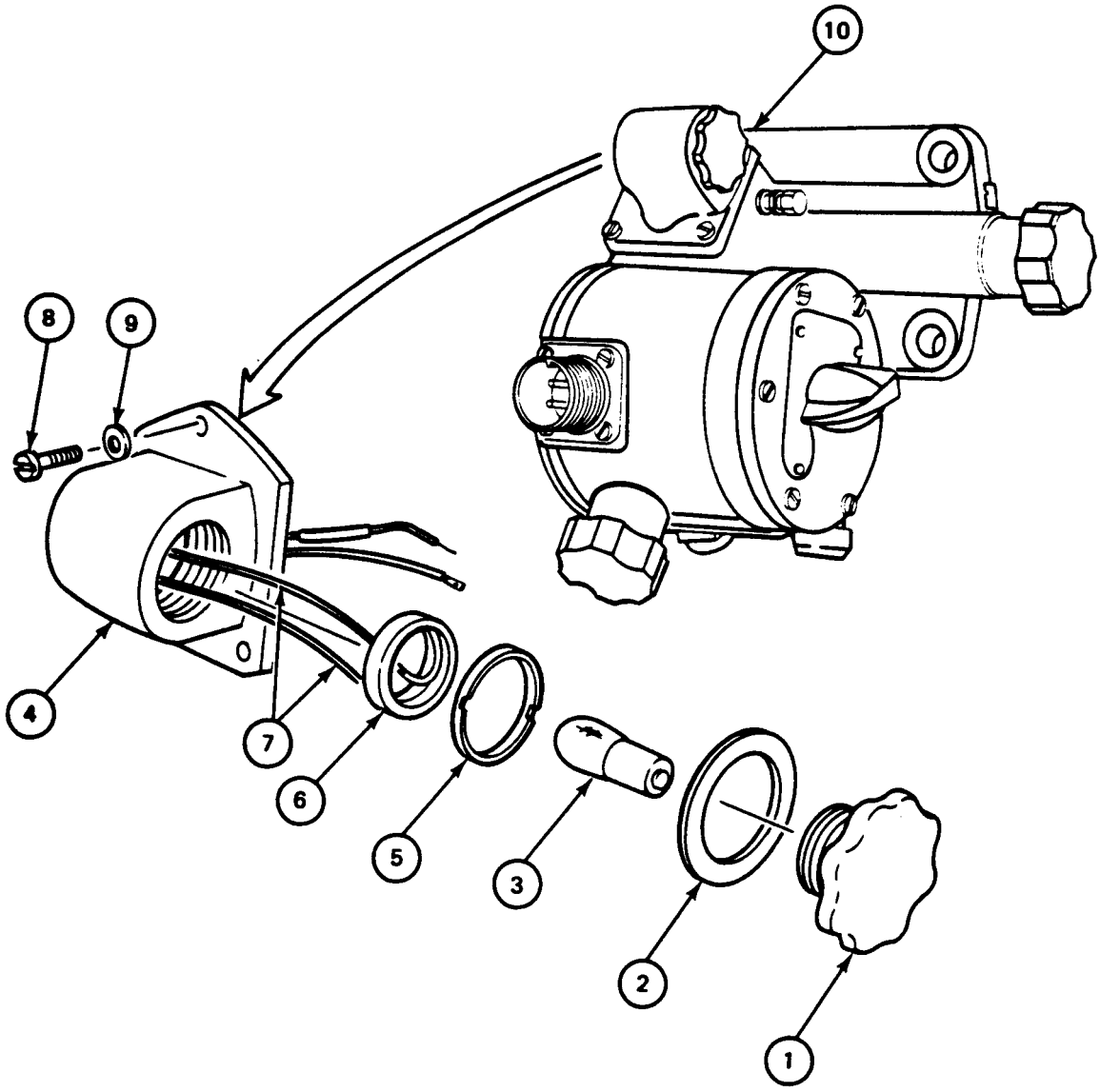
REFERENCES: JPG 41C for: Tagging wires
Unsoldering wires

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using fingers, remove lampholder assembly (1), gasket (2) and lamp (3) from lamp assembly housing (4).
2.	Using wrench, remove ring (5). Carefully pull out terminal (6) from lamp assembly housing (4).
3.	Tag two wires (7) connected to terminal (6) (JPG).
4.	Using soldering iron, unsolder two wires from terminal (6) (JPG).
5.	Using screwdriver, remove three screws (8) and three washers (9) from lamp assembly housing (4).
6.	Remove lamp assembly housing (4) from infinity sight housing (10).
	END OF TASK

4-13. LAMP ASSEMBLY DISASSEMBLY (CONT)



4-14. LAMP ASSEMBLY ASSEMBLY

TOOLS: #2 cross tip screwdriver (Phillips type)
53/64" tubular spanner wrench
Soldering iron

SUPPLIES: Solder (item 5, App. A)
Sealing compound (item 4, App. A)

PERSONNEL: One

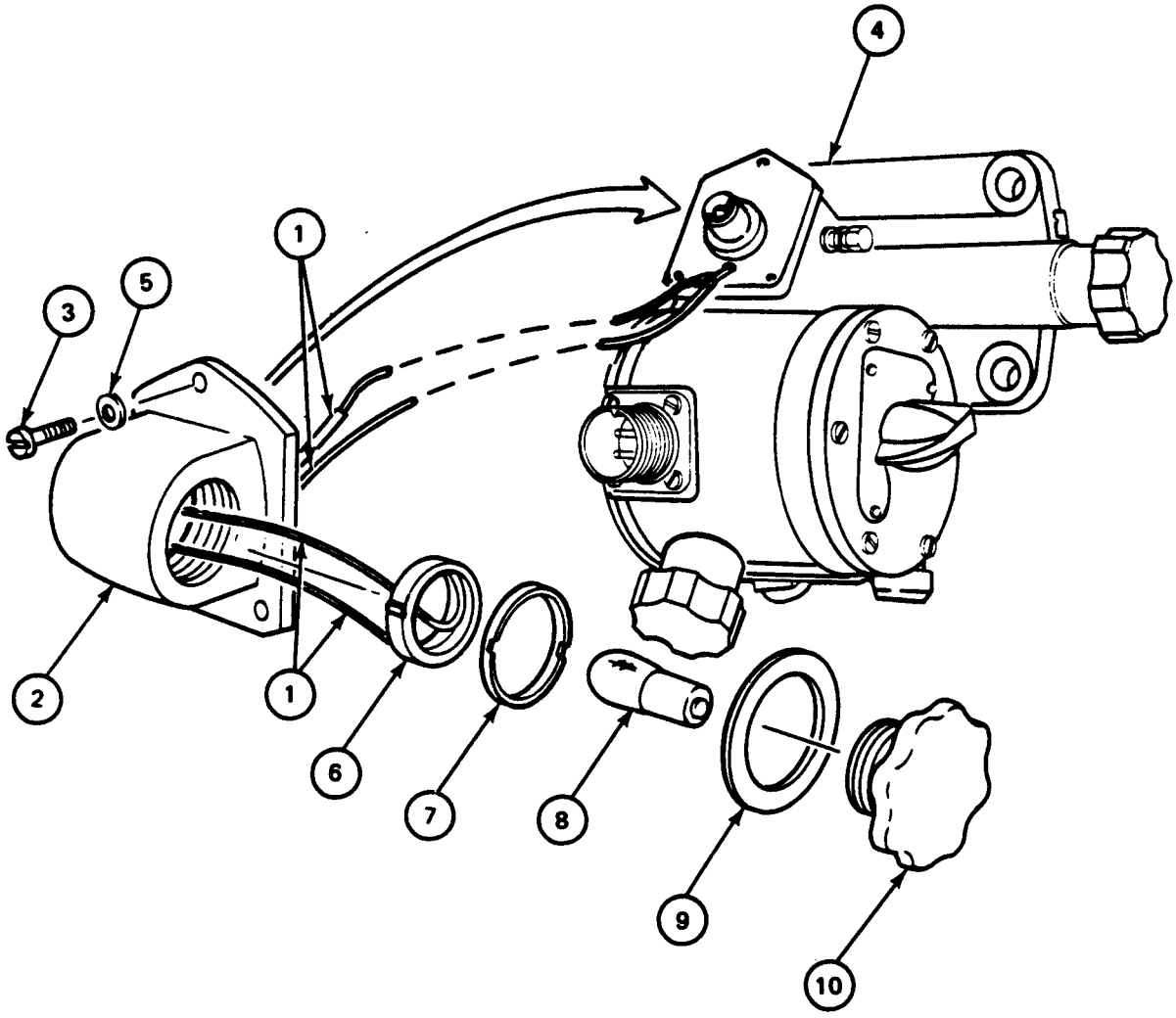
REFERENCES: JPG 41C for: Soldering wires
Using sealing compound

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Thread two wires (1) through lamp assembly housing (2).
2.	Put small amount of sealing compound on threads of three screws (3) and lamp assembly housing (2) (JPG).
3.	While holding lamp assembly housing (2) in place on infinity sight housing (4), using screwdriver, install three washers (5) and three screws (3).
4.	Using soldering iron, solder wires (1) (tagged during disassembly procedure) to terminal (6) (JPG). Align key on terminal (6) with key slot in lamp assembly housing (2). Push terminal (6) into lamp assembly housing (2). Make sure terminal seats on shoulder.
5.	Using wrench, install ring (7) into lamp assembly housing (2).
6.	Using fingers, install lamp (8), gasket (9) and lampholder assembly (10) into lamp assembly housing (2).
	NOTE FOLLOW-ON MAINTENANCE Do checkout procedure (Vol I, para 2-2).
	END OF TASK

4-14. LAMP ASSEMBLY ASSEMBLY (CONT)



Section 6. OBSERVATION WINDOW

4-15. OBSERVATION WINDOW MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Removal	4-16
Installation	4-17

4-16. OBSERVATION WINDOW REMOVAL

TOOLS: 0.597" adjustable pin-faced spanner wrench
3/16" flat tip screwdriver

PERSONNEL: One

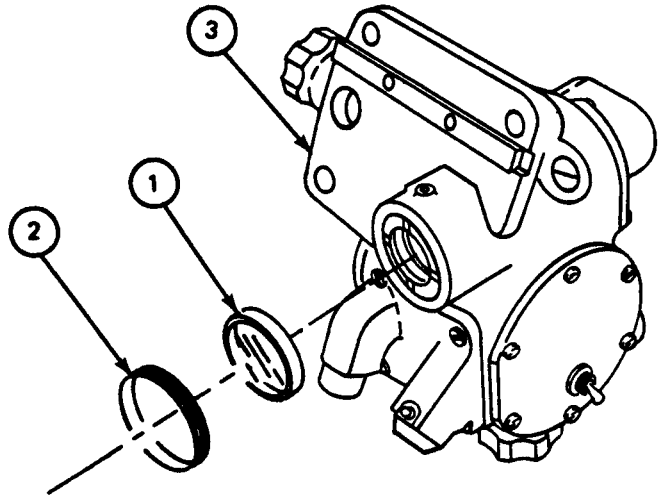
REFERENCES: JPG 4lC for care of optics

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
	CAUTION **Window (1) will break if handled rough or damaged. Handle window (1) with extreme care. Do not smear or put your hand on window (1). To keep from scratching window, do not place window (1) on rough surface.**
1.	Using wrench, remove ring (2) from infinity sight housing (3).
2.	Using screwdriver, carefully pry window (1) from infinity sight housing (3).
	END OF TASK

4-16. OBSERVATION WINDOW REMOVAL (CONT)



4-17. OBSERVATION WINDOW INSTALLATION

TOOLS: 0.597" adjustable pin-faced spanner wrench

SUPPLIES: Sealing compound (item 4, App. A)

PERSONNEL: One

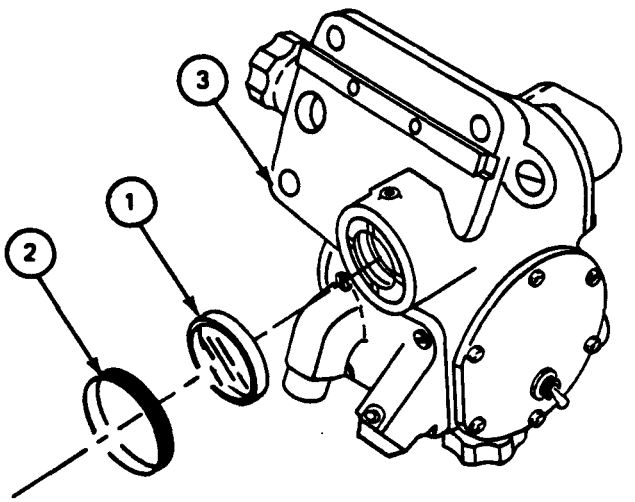
REFERENCES: JPG 41C for: Cleaning optics
Handling optics
Using sealing compound

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
	CAUTION **Window (1) will break if handled rough or damaged. Handle window (1) with extreme care. Do not smear or put your hand on window (1). To keep from scratching window, do not place window (1) on rough surface.**
1.	Clean window (1) (JPG).
2.	Apply sealing compound to the edge of window (1) (JPG).
3.	Using wrench, install window (1) and ring (2) into infinity sight housing (3).
	NOTE FOLLOW-ON MAINTENANCE Do checkout procedure (Vol I, para 2-2).
	END OF TASK

4-17. OBSERVATION WINDOW INSTALLATION (CONT)



Section 7. VARIABLE RESISTOR

4-18. VARIABLE RESISTOR MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Removal	4-19
Installation	4-20

4-19. VARIABLE RESISTOR REMOVAL

TOOLS: #2 cross tip screwdriver (Phillips type)
5/64" socket head screw key (Allen-wrench or equivalent)
5/8" open end wrench
Soldering iron

PERSONNEL: One

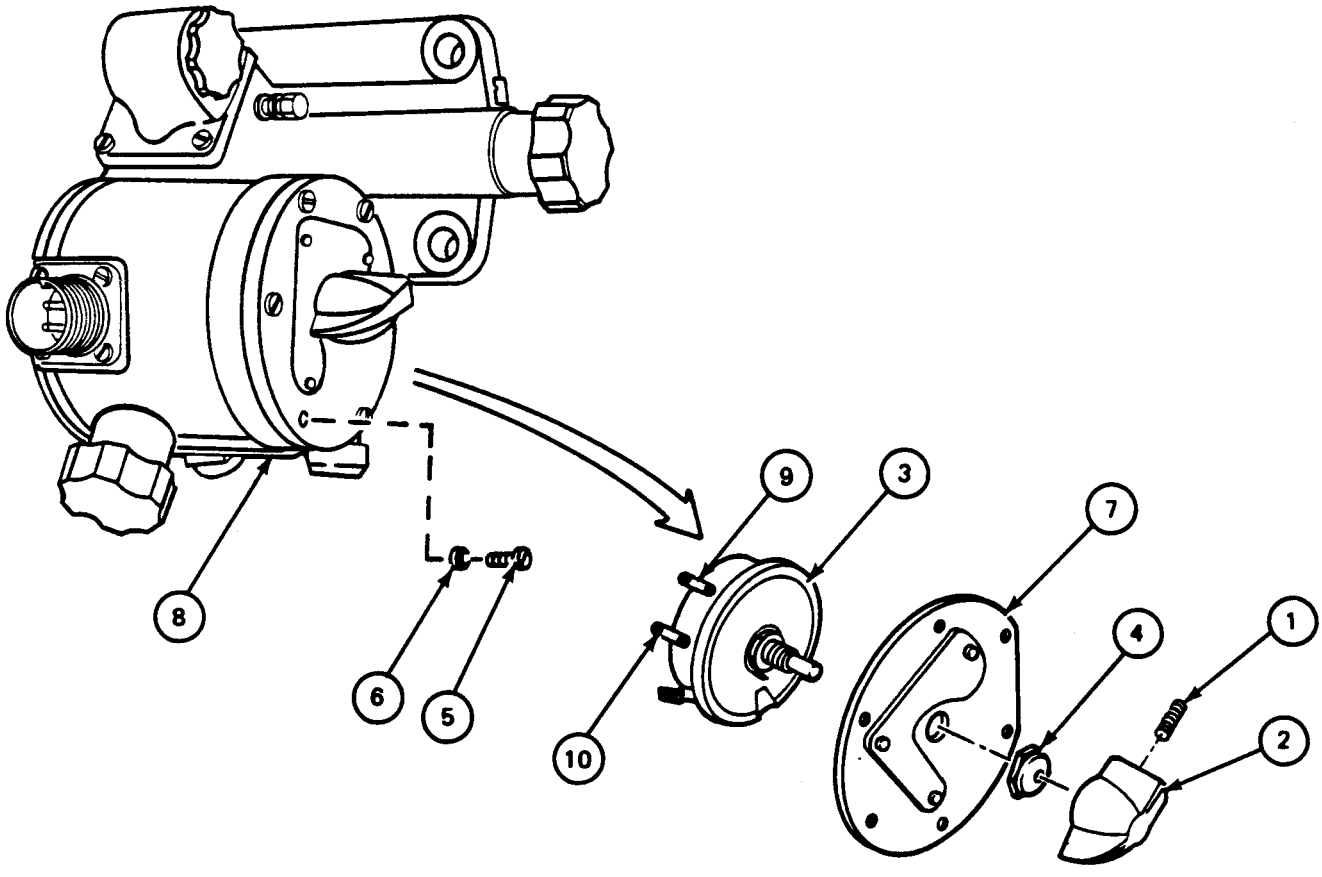
REFERENCES: JPG 41C for: Tagging wires
Unsoldering wires

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using Allen wrench, loosen setscrew (1) and remove knob (2) from variable resistor (3).
2.	Using open end wrench, remove nut (4) from variable resistor (3).
3.	Using screwdriver, remove six screws (5) and six washers (6) from cover (7).
4.	Remove cover (7) from infinity sight housing (8).
5.	Carefully lift variable resistor (3) from housing (8).
6.	Using soldering iron, tag and unsolder wires from terminal (9) (JPG).
7.	Using soldering iron, tag and unsolder wires from terminal (10) (JPG).
	END OF TASK

4-19. VARIABLE RESISTOR REMOVAL (CONT)



4-20. VARIABLE RESISTOR INSTALLATION

TOOLS: #2 cross tip screwdriver (Phillips type)
5/64" socket head screw key (Allen wrench or equivalent)
5/8" open end wrench
Soldering iron

SUPPLIES: Solder (item 5, App. A)
Sealing compound (item 4, App. A)

PERSONNEL: One

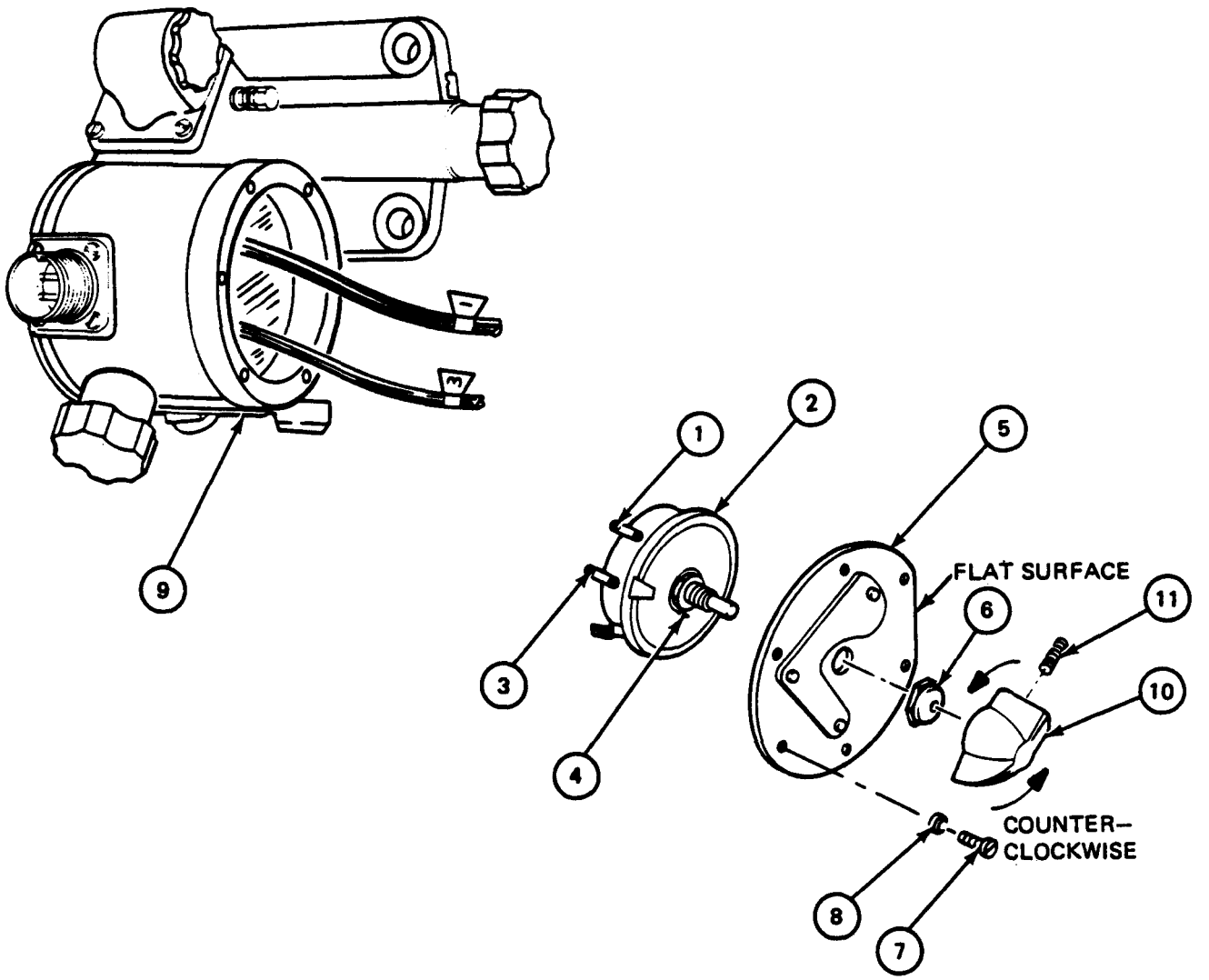
REFERENCES: JPG 4lC for: Soldering wires
Using sealing compound

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using soldering iron, solder wires (tagged during removal procedure) to terminal (1) of variable resistor (2) (JPG).
2.	Using soldering iron, solder wires (tagged during removal procedure) to terminal (3) of variable resistor (2) (JPG).
	NOTE Make sure that prong (4) is put into the hole on the back side of cover (5).
3.	Place cover (5) on variable resistor (2).
4.	Using open end wrench, install nut (6) on variable resistor (2).
5.	Put small amount of sealing compound on threads of six screws (7) and cover (5) (JPG).
6.	Using screwdriver, install six washers (8) and six screws (7) into cover (5) and infinity sight housing (9).
7.	Install knob (10) on variable resistor (2) and using Allen wrench, tighten setscrew (11).
8.	Turn knob (10) fully counterclockwise to OFF position.
	NOTE FOLLOW-ON MAINTENANCE Do checkout procedure (Vol I, para 2-2).
	END OF TASK

4-20. VARIABLE RESISTOR INSTALLATION (CONT)



Section 8. FIXED RESISTOR

4-21. FIXED RESISTOR MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Removal	4-22
Installation	4-23

4-22. FIXED RESISTOR REMOVAL

TOOLS: #2 cross tip screwdriver (Phillips type)
Soldering iron

PERSONNEL: One

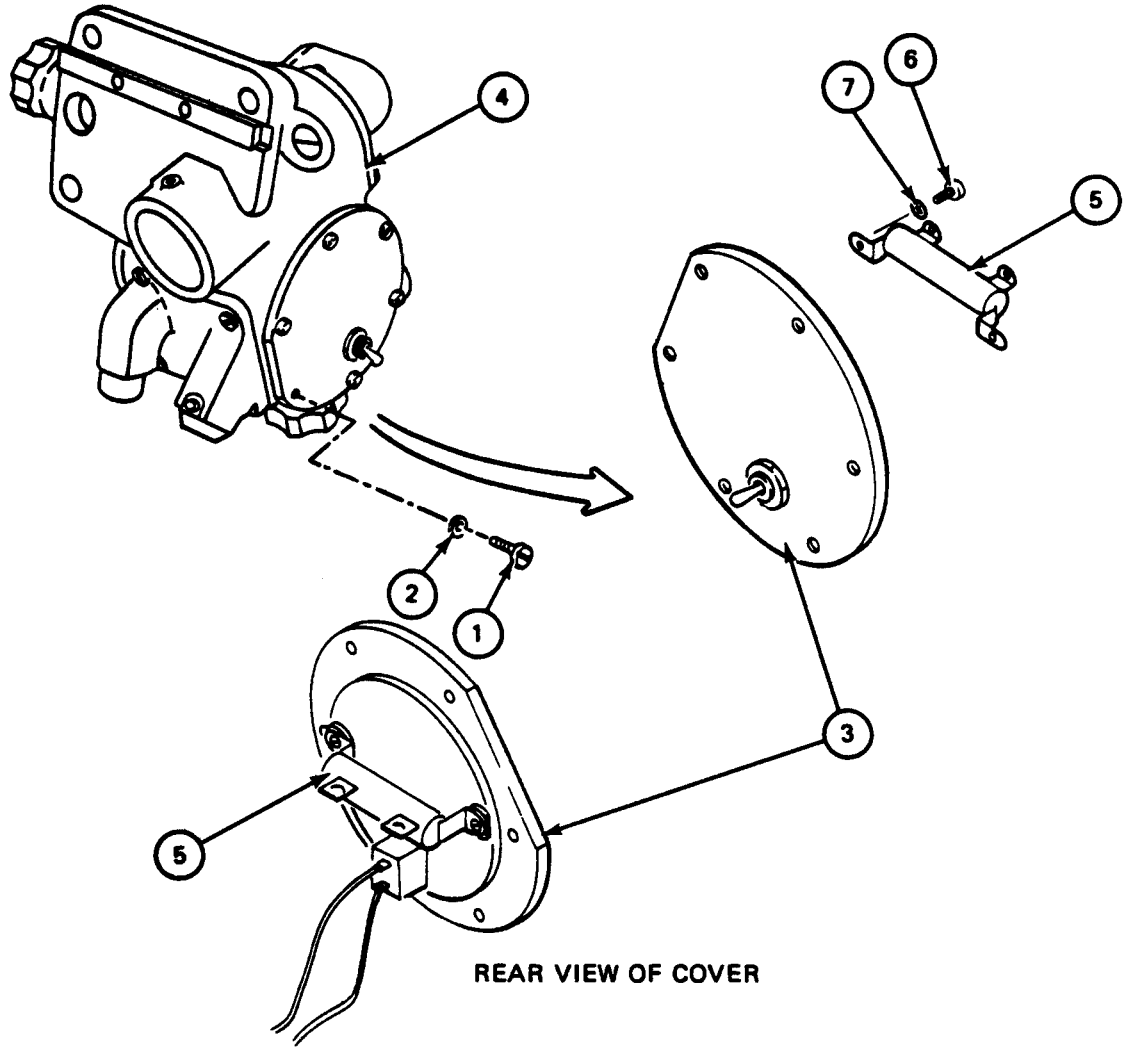
REFERENCES: JPG 41C for: Tagging wires
Unsoldering wires

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using screwdriver, remove six screws (1) and six washers (2) from cover (3).
2.	Carefully pull cover (3) from infinity sight housing (4).
3.	Using soldering iron, tag and unsolder two wires from fixed resistor (5) (JPG).
4.	Using screwdriver, remove two screws (6), two washers (7) and fixed resistor (5) from cover (3).
	END OF TASK

4-22. FIXED RESISTOR REMOVAL (CONT)



REAR VIEW OF COVER

4-23. FIXED RESISTOR INSTALLATION

TOOLS: #2 cross tip screwdriver (Phillips type)
Soldering iron

SUPPLIES: Solder (item 5, App. A)
Sealing compound (item 4, App. A)

PERSONNEL: One

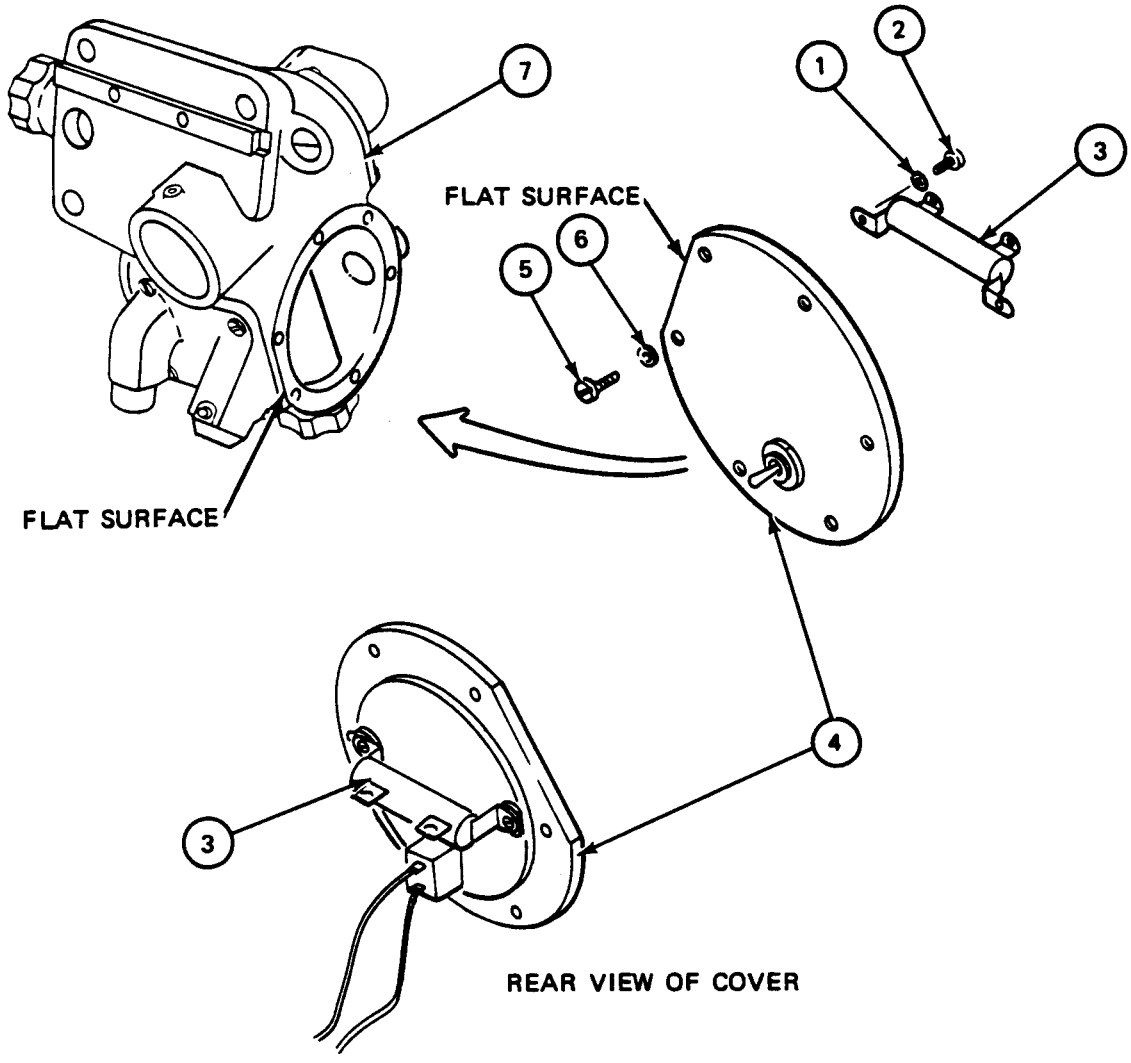
REFERENCES: JPG 41C for: Soldering wires
Using sealing compound

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using screwdriver, install two washers (1), two screws (2) and fixed resistor (3) on back of cover (4).
2.	Using soldering iron, solder two wires (tagged during removal procedure) to fixed resistor (3) (JPG).
3.	Put a small amount of sealing compound on threads of six screws (5) and cover (4) (JPG).
4.	Using screwdriver, install six washers (6) and six screws (5) while holding cover (4) in place on infinity sight housing (7) with flat surfaces lined up.
	NOTE FOLLOW-ON MAINTENANCE Do checkout procedure (Vol I, para 2-2).
	END OF TASK

4-23. FIXED RESISTOR INSTALLATION (CONT)



Section 9. TOGGLE SWITCH

4-24. TOGGLE SWITCH MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Removal	4-25
Installation	4-26

4-25. TOGGLE SWITCH REMOVAL

TOOLS: #2 cross tip screwdriver (Phillips type)
9/16" open end wrench
Soldering iron

PERSONNEL: One

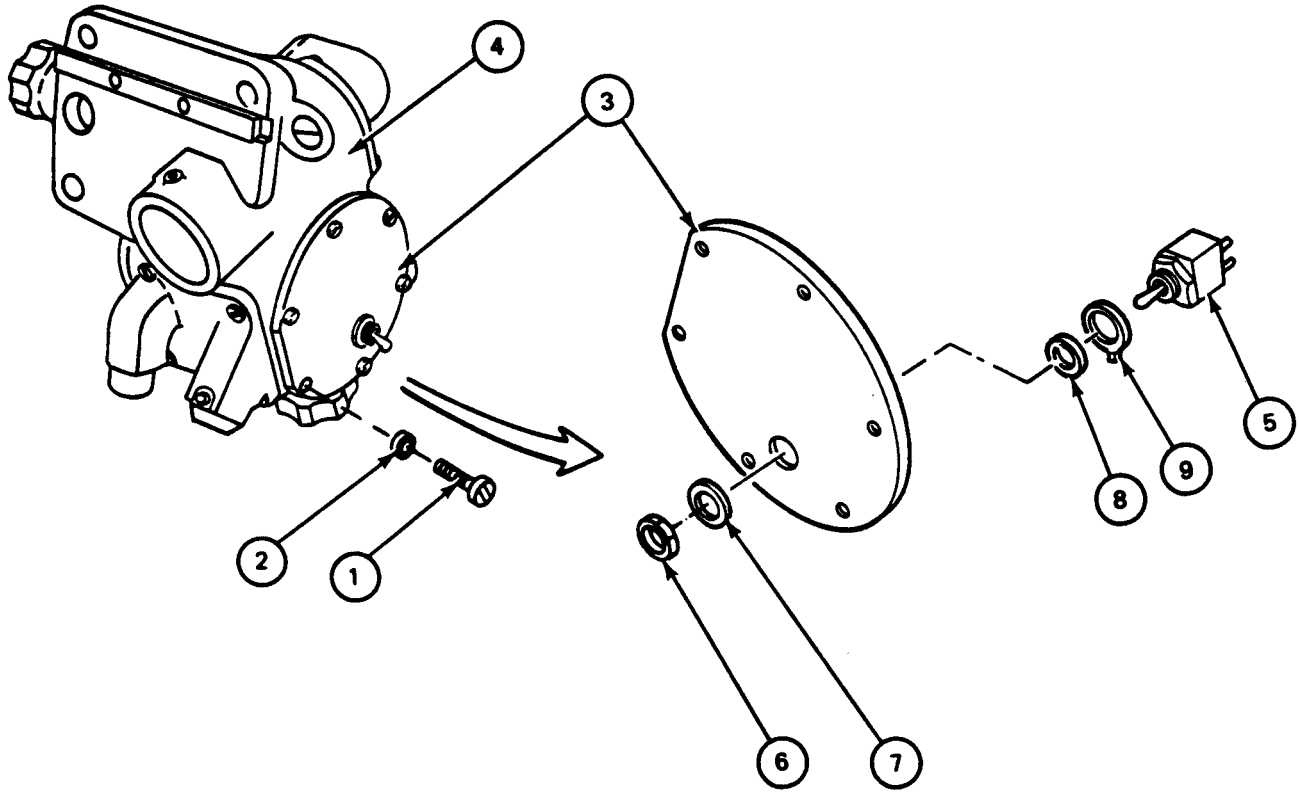
REFERENCES: JPG 41C for: Tagging wires
Unsoldering of wires

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using screwdriver, remove six screws (1) and six washers (2) from cover (3).
2.	Carefully remove cover (3) from infinity sight housing (4).
3.	Tag two wires connected to terminals of toggle switch (5) (JPG).
4.	Using soldering iron, unsolder two wires from terminals of toggle switch (5) (JPG).
5.	Using wrench, remove nut (6) and washer (7) and toggle switch (5) from cover (3).
6.	Remove toggle switch (5) from cover (3).
7.	Remove seal (8) and keyed washer (9) from toggle switch (5).
	END OF TASK

4-25. TOGGLE SWITCH REMOVAL (CONT)



4-26. TOGGLE SWITCH INSTALLATION

TOOLS: #2 cross tip screwdriver (Phillips type)
9/ 16" open end wrench
Soldering iron

SUPPLIES: Solder (item 5, App. A)
Sealing compound (item 4, App. A)

PERSONNEL: One

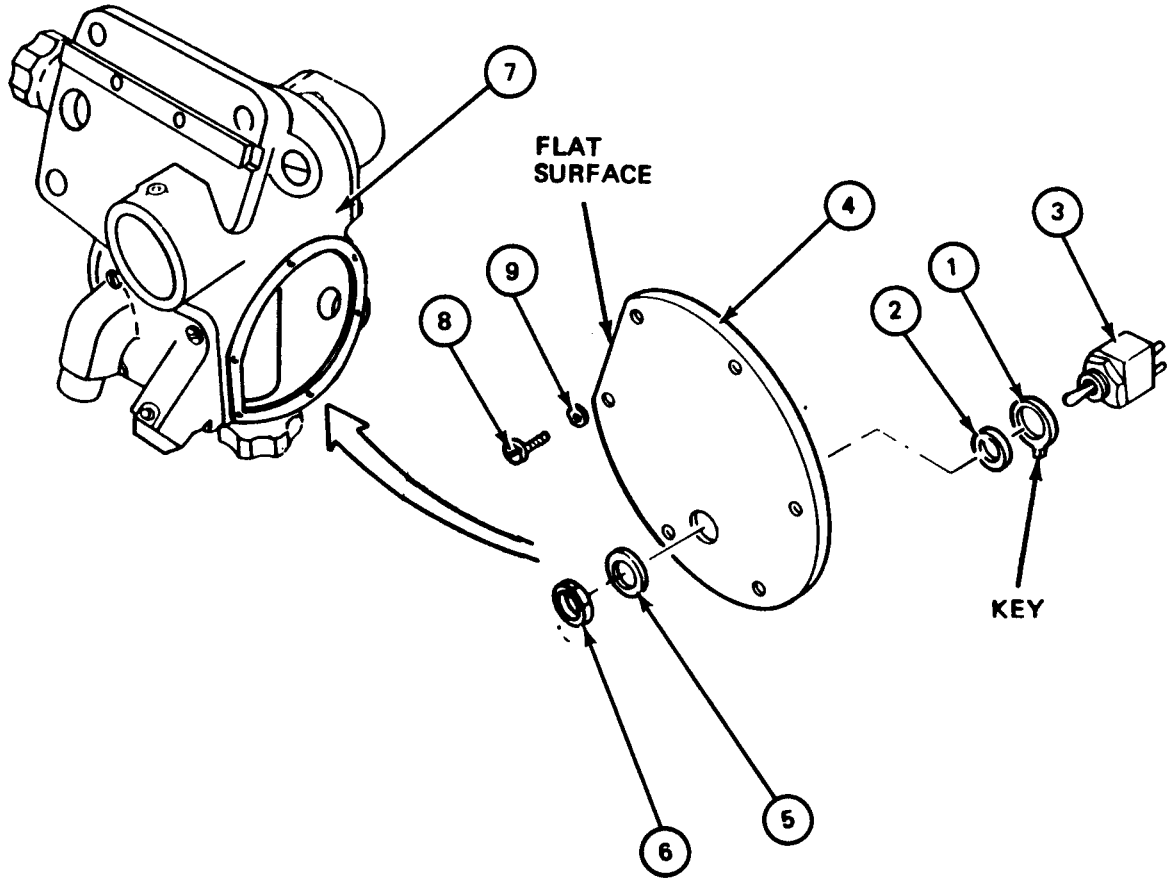
REFERENCES: JPG 41C for: Soldering wires
Using sealing compound

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Place keyed washer (1) and seal (2) on toggle switch (3).
2.	Install toggle switch (3) in hole of cover (4) and line up key of keyed washer (1) with groove in cover (4).
3.	Using wrench, install washer (5) and nut (6) while holding toggle switch (3) in place.
4.	Using soldering iron, solder two wires (tagged during removal procedure) to terminals of toggle switch (3) (JPG).
5.	Place cover (4) on infinity sight housing (7) and line up both flat surfaces.
6.	Put small amount of sealing compound on threads of six screws (8) and cover (4) (JPG).
7.	Using screwdriver, install six washers (9) and six screws (8) into cover (4).
	NOTE FOLLOW-ON MAINTENANCE Do checkout procedure (Vol I, para 2-2).
	END OF TASK

4-26. TOGGLE SWITCH INSTALLATION (CONT)



Section 10. BOOT AND INSULATOR

4-27. BOOT AND INSULATOR MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Removal	4-28
Installation	4-29

4-28. BOOT AND INSULATOR REMOVAL

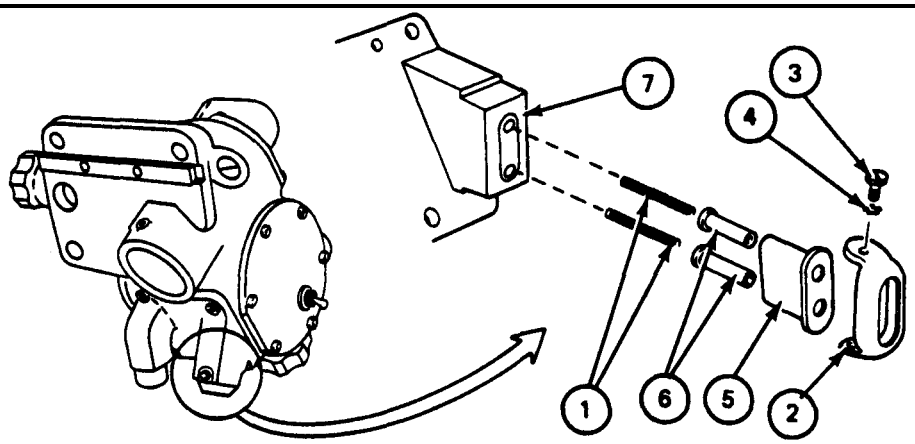
TOOLS: #1 cross tip screwdriver (Phillips type)

PERSONNEL: One

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
	CAUTION Springs (1) are pushing against eyelets (6). Be careful when removing boot (2).
1.	Using screwdriver, remove two screws (3) and two washers (4).
2.	Using fingers, remove boot (2), insulators (5), two eyelets (6), and two springs (1) from housing (7).
	END OF TASK



4-29. BOOT AND INSULATOR INSTALLATION

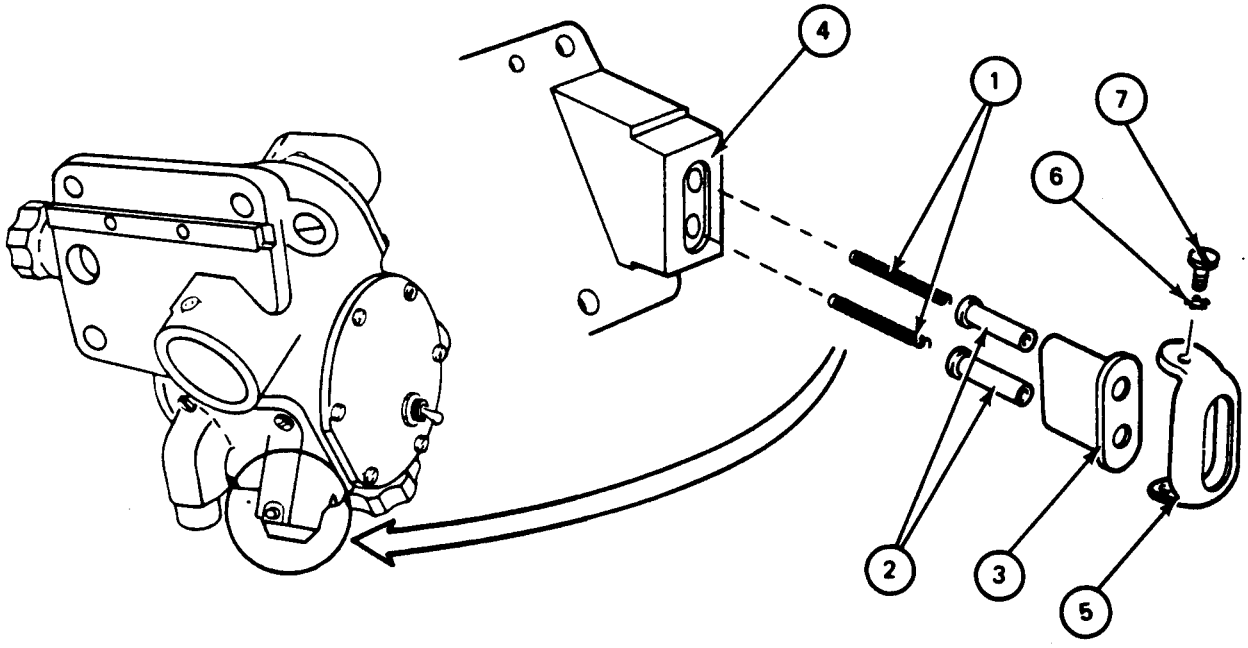
TOOLS: #1 cross tip screwdriver (Phillips type)

PERSONNEL: One

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Using fingers, put two springs (1), two eyelets (2), and insulator (3) in housing (4).
2.	Place boot (5) over end of insulator (3) and using screwdriver, install two washers (6) and two screws (7).
	END OF TASK



Section 11. ELEVATION BORESIGHT KNOB

4-30. ELEVATION BORESIGHT KNOB MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Disassembly	4-31
Assembly	4-32

4-31. ELEVATION BORESIGHT KNOB DISASSEMBLY

TOOLS: 4 oz. ball peen hammer
3/32" pin drive punch
1/4" flat tip screwdriver
Slipjoint pliers
Soft face hammer

PERSONNEL: One

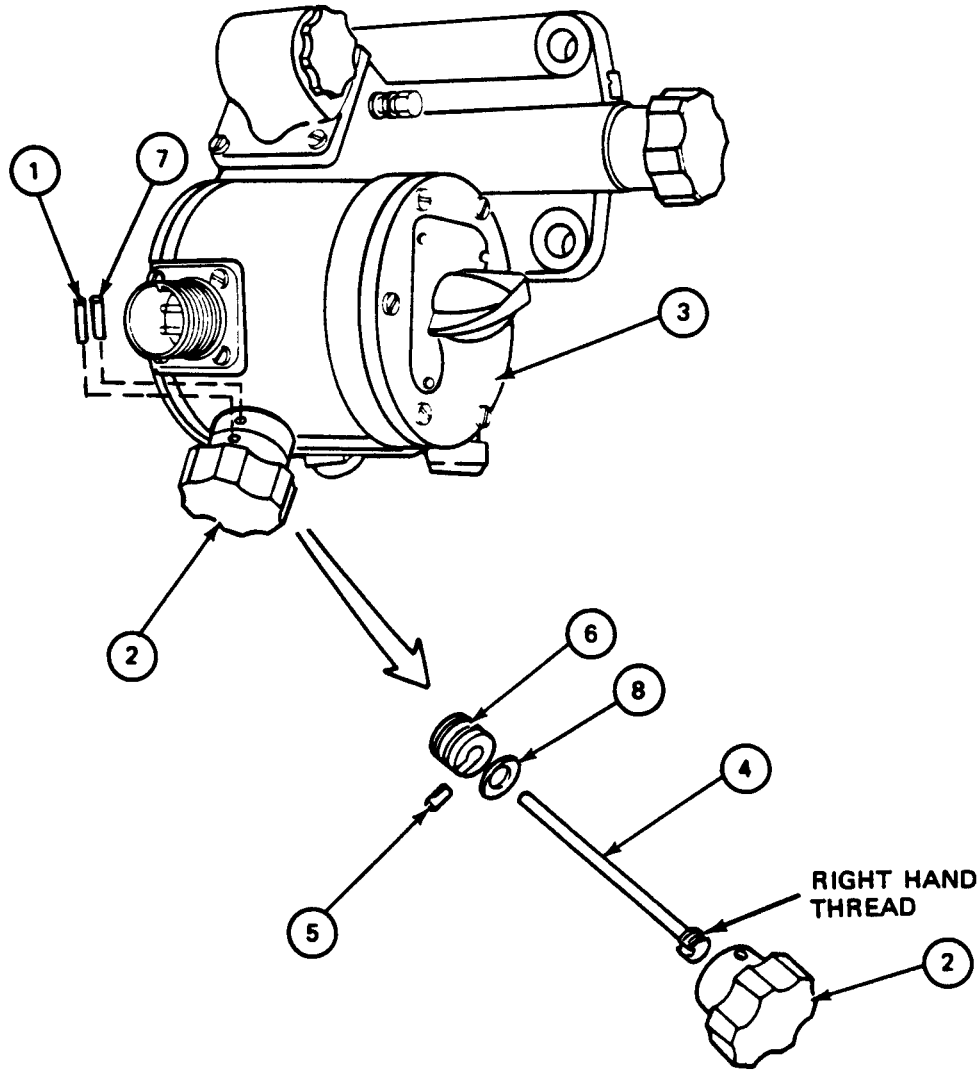
EQUIPMENT CONDITION: Infinity sight on work bench

PRELIMINARY PROCEDURES: Remove receptacle assembly (para 4-10)

FRAME 1

Step	Procedure
	NOTE The elevation boresight knob and azimuth boresight knob are not threaded the same. The azimuth boresight knob has left hand threads.
1.	Using punch and ball peen hammer, drive pin (1) out of knob (2).
2.	Using screwdriver, pry knob (2) loose from infinity sight housing (3) and ten pull knob (2) and screw (4) out of housing (3).
3.	Using fingers, remove key (5) from insert (6).
4.	Using punch and ball peen hammer, drive pin (7) out of housing (3).
5.	Using soft face hammer, loosen insert (6) and remove from housing (3).
6.	Using screwdriver, remove packing (8) from insert (6).
7.	Using pliers to hold screw (4), turn knob (2) counterclockwise to remove knob.
	END OF TASK

4-31. ELEVATION BORESIGHT KNOB DISASSEMBLY (CONT)



4-32. ELEVATION BORESIGHT KNOB ASSEMBLY

TOOLS: 4 oz. ball peen hammer
3/32" pin drive punch
Scraper

SUPPLIES: Instrument grease (item 1, App. A)
Sealing compound (item 4, App. A)

PERSONNEL: One

REFERENCES: JPG 41C for: Using sealing compound
Using lubricant

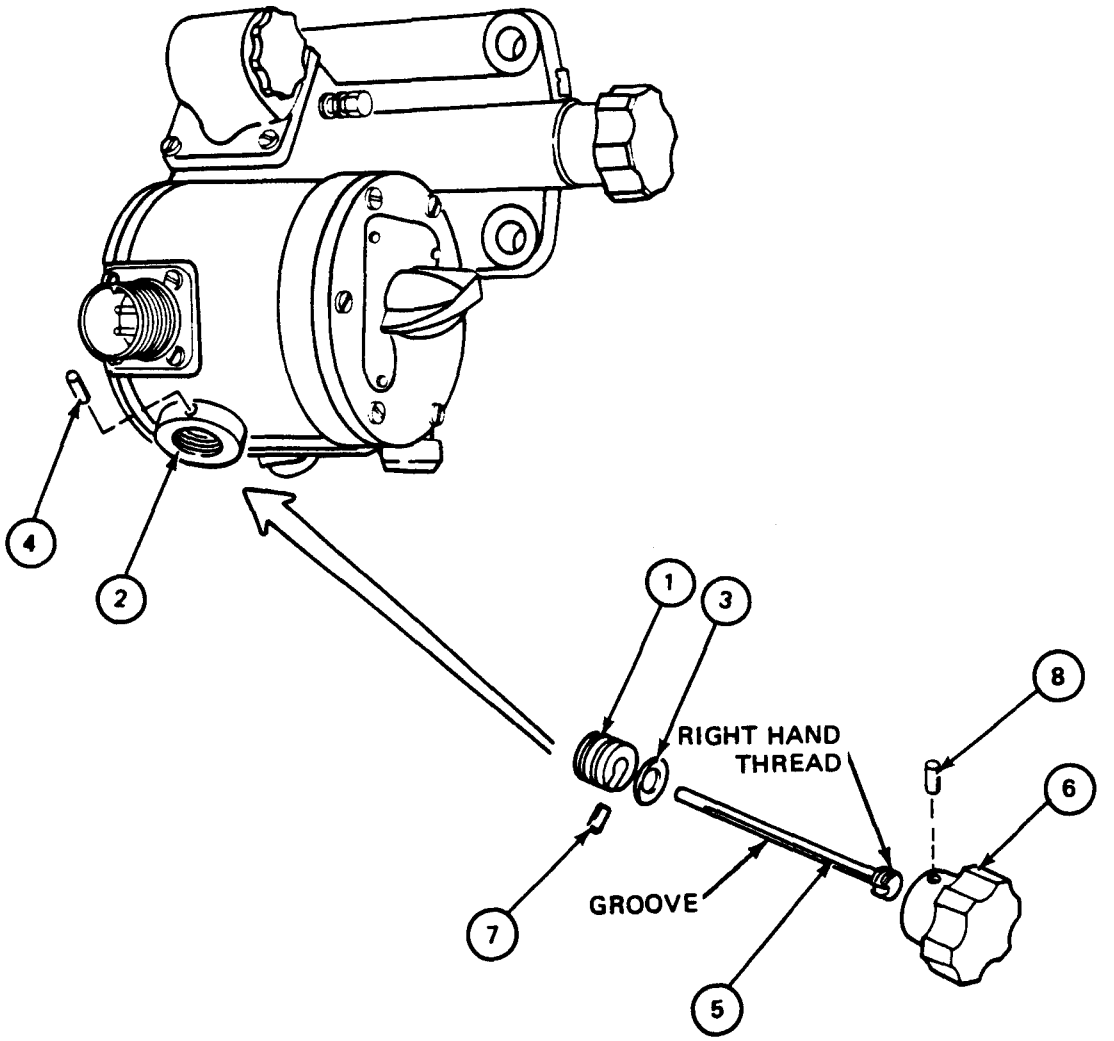
EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
	NOTE The elevation boresight knob and azimuth boresight knob are not threaded the same. The azimuth boresight knob has left hand threads.
1.	Using scraper, remove old sealing compound from insert (1) and housing (2) (JPG).
2.	Put grease on packing (3) and install packing (3) on insert (1) (JPG).
3.	Put a small amount of sealing compound on end of insert (1).
4.	Using fingers, put insert (1) into housing (2).
5.	Using hammer, install pin (4) into housing (2).
6.	Using fingers. turn screw (5) into knob (6).
7.	Using fingers, put key (7) in slot on insert (1).
8.	Put shaft of screw (5) into hole of insert (1).
9.	Push shaft (5) through insert (1) making sure key (7) is fully installed in groove of shaft (5). Push until insert (1) is seated inside of knob (6).

4-32. ELEVATION BORESIGHT KNOB ASSEMBLY (CONT)

Step	Procedure
10.	Using punch and hammer, install pin (8) in knob (6). NOTE FOLLOW-ON MAINTENANCE Install receptacle assembly (para 4-11). Do checkout procedure (Vol I, para 2-2). END OF TASK



Section 12. AZIMUTH BORESIGHT KNOB

4-33. AZIMUTH BORESIGHT KNOB MAINTENANCE PROCEDURES INDEX

Task	Reference (para)
Disassembly	4-34
Assembly	4-35

4-34. AZIMUTH BORESIGHT KNOB DISASSEMBLY

TOOLS: 4 oz. ball peen hammer
3/32" pin drive punch
1/4" flat tip screwdriver
Soft face hammer
Slipjoint pliers

PERSONNEL: One

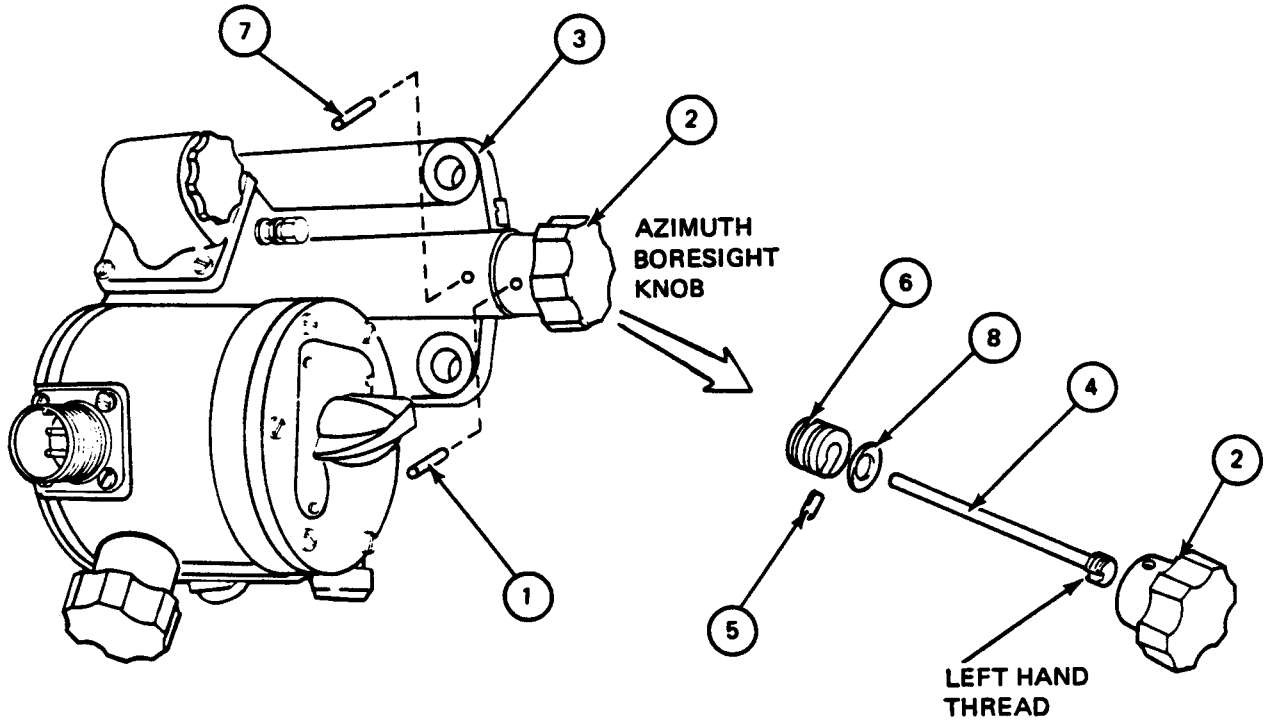
EQUIPMENT CONDITION: Infinity sight on work bench

PRELIMINARY PROCEDURES: Remove receptacle assembly (para 4-10)

FRAME 1

Step	Procedure
	NOTE Elevation boresight knob and azimuth boresight knob are not the same. Azimuth boresight knob has left handed threads.
1.	Using punch and ball peen hammer, drive pin (1) out of knob (2).
2.	Using screwdriver, pry knob (2) loose from infinity sight housing (3) and then pull knob (2) and screw (4) out of housing (3).
3.	Using fingers, take key (5) out of insert (6).
4.	Using punch and ball peen hammer, drive pin (7) out of housing (3).
5.	Using soft face hammer, loosen insert (6) and remove from housing (3).
6.	Using screwdriver, remove packing (8) off of insert (6).
7.	Using pliers to hold screw (4), turn knob (2) clockwise to remove knob.
	END OF TASK

4-34. AZIMUTH BORESIGHT KNOB DISASSEMBLY (CONT)



4-35. AZIMUTH BORESIGHT KNOB ASSEMBLY

TOOLS: 4 oz. ball peen hammer
3/32" pin drive punch
Scraper

SUPPLIES: Instrument grease (item 1, App. A)
Sealing compound (item 4, App. A)

PERSONNEL: One

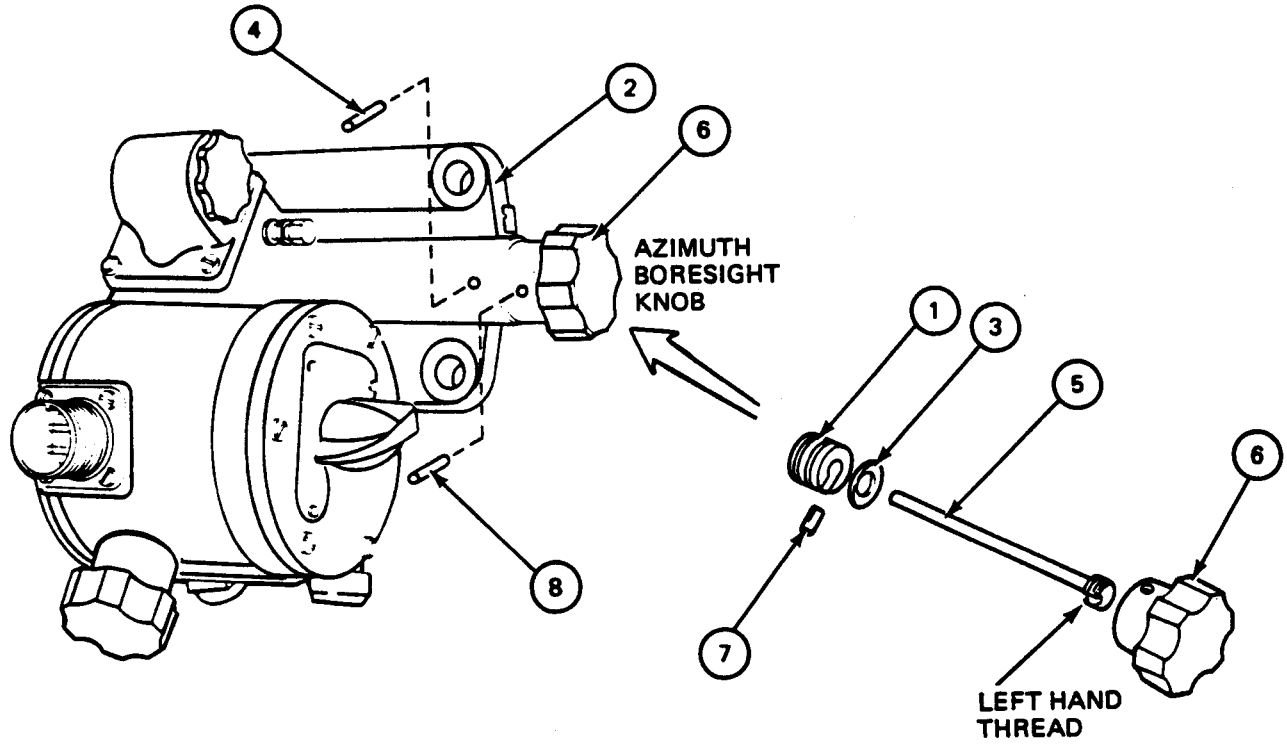
REFERENCES: JPG 4lC for: Using sealing compound
Using lubricant

EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
	NOTE Elevation boresight knob and azimuth boresight knob are not the same. Azimuth boresight knob has left handed threads.
1.	Using scraper, remove old sealing compound from insert (1) and housing (2) (JPG).
2.	Put grease on packing (3) and install packing (3) on insert (1) (JPG).
3.	Put a small amount of sealing compound on end of insert (1).
4.	Using fingers, put insert (1) into housing (2).
5.	Using hammer, install pin (4) into housing (2).
6.	using fingers, turn screw (5) counterclockwise into knob (6).
7.	Using fingers, put key (7) into slot on insert (1).
8.	Put shaft of screw (5) into hole of insert (1).
9.	Push shaft (5) through insert (1) making sure key (7) is fully installed in groove on shaft (5). Push until insert (1) is seated inside of knob (6).
10.	Using punch and hammer, install pin (8) in knob (6).
	NOTE FOLLOW-ON MAINTENANCE Install receptacle assembly (para 4-11). Do checkout procedure (Vol I, para 2-2).
	END OF TASK

4-35. AZIMUTH BORESIGHT KNOB ASSEMBLY (CONT)



CHAPTER 5

FINAL INSPECTION

5-1. SCOPE

This chapter gives final inspection and maintenance procedures to be done after repairing the infinity sight.

Task	Reference (para)
Azimuth and Elevation Knob Adjustment	5-2
Infinity Sight Purging and Charging	5-3
Final Inspection	5-4

5-2. AZIMUTH AND ELEVATION KNOB ADJUSTMENT

TOOLS: 3" bench vise
Torque adapter
Torque wrench, 0 to 60 inch-pounds

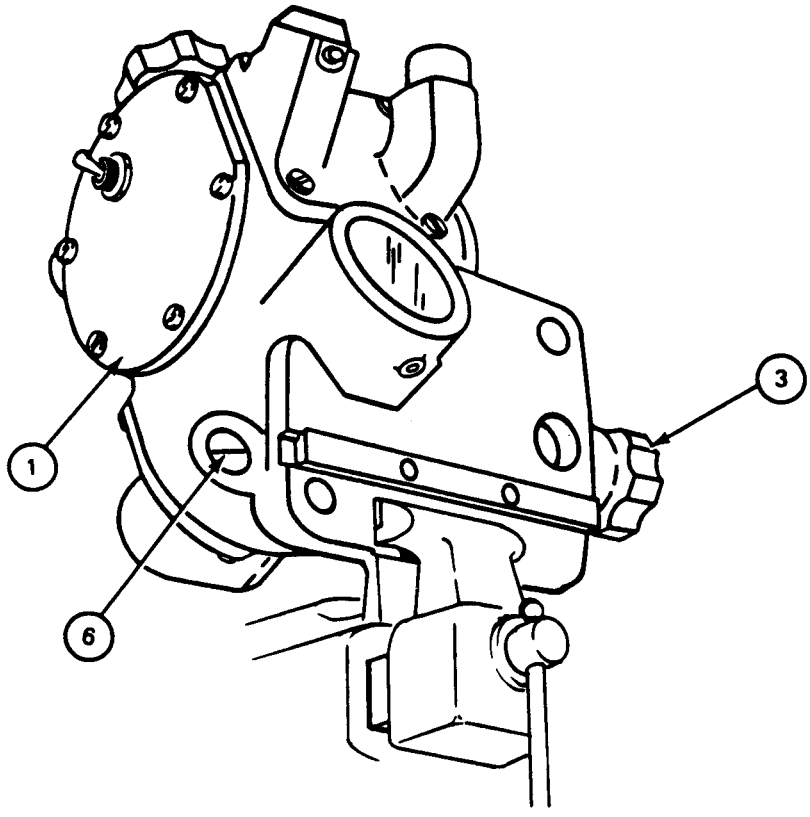
PERSONNEL: One

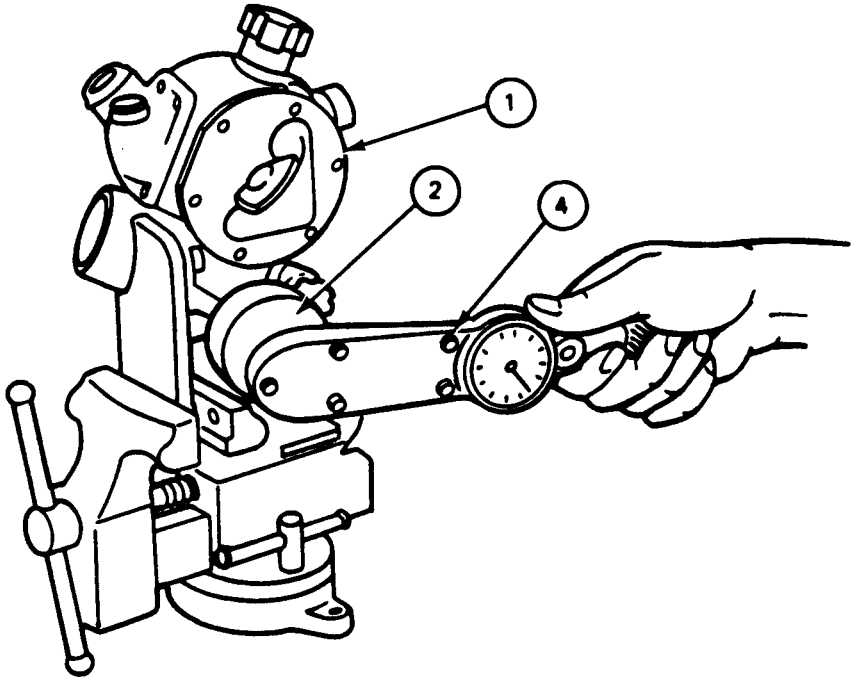
EQUIPMENT CONDITION: Infinity sight on work bench

FRAME 1

Step	Procedure
1.	Put infinity sight (1) in vise.
2.	Put torque adapter (2) on azimuth knob (3).
3.	Put torque wrench (4) on adapter (2).
4.	Turn torque wrench (4) slowly when knob (3) starts to turn, reading on torque wrench (4) must be between 2 and 5 inch-pounds.
5.	Repeat steps 2 thru 4 for elevation knob (5).
6.	If reading on torque wrench is more than 5 inch-pounds, loosen plug (6) until torque reading on wrench is 2 to 5 inch-pounds.
7.	If reading on torque wrench is less than 2 inch-pounds, tighten plug (6) until reading on torque wrench is between 2 and 5 inch-pounds.
8.	Remove sight (1) from vise.
	END OF TASK

5-2. AZIMUTH AND ELEVATION KNOB ADJUSTMENT (CONT)





5-3. INFINITY SIGHT PURGING AND CHARGING

TOOLS: 3/16" open end wrench
3/32" socket head screw key (Allen wrench or equivalent)
Fire control purging kit

SUPPLIES: Soap

PERSONNEL: One

REFERENCES: JPG 4lC for: Purging and charging setup
Purging and charging shutdown
Checking for leaks

EQUIPMENT CONDITION: Infinity sight on work bench

PRELIMINARY PROCEDURES: Do purging and charging setup (JPG)

WARNING

NITROGEN GAS UNDER PRESSURE

DEATH

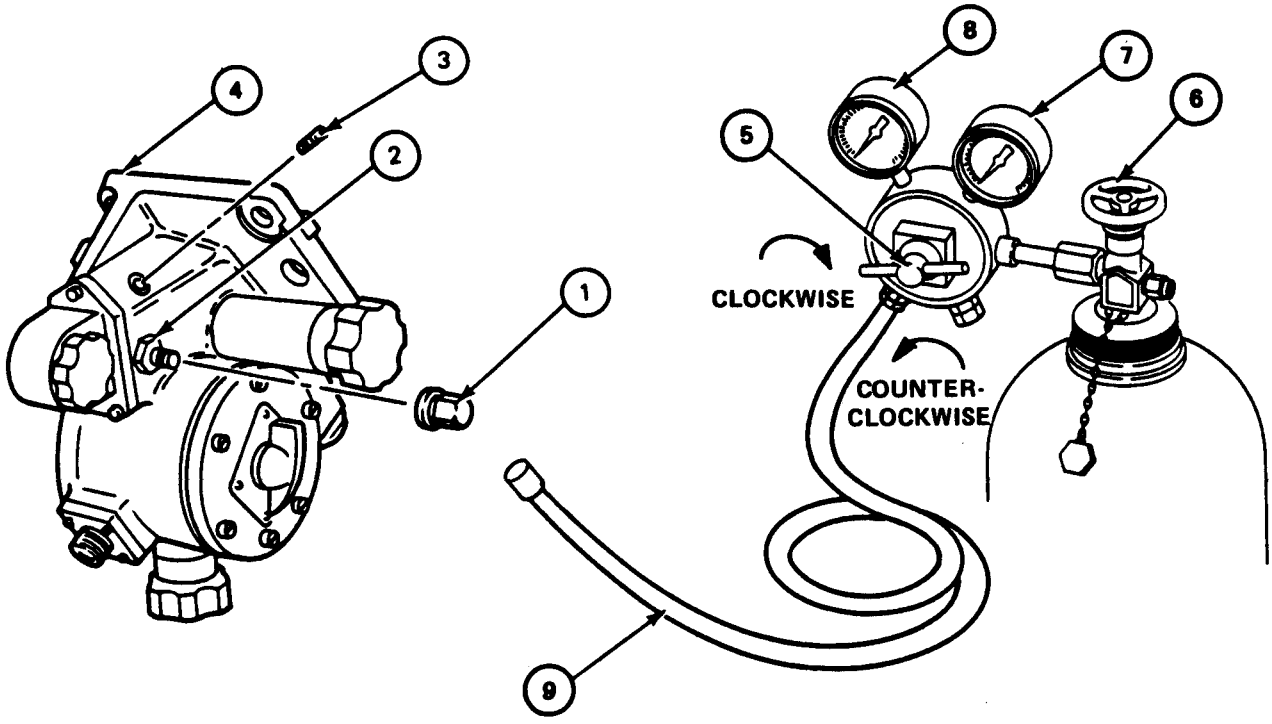
or severe injury may result if personnel fail to observe safety precautions listed in Job Performance Guide 113-091-9000R.

FRAME 1

Step	Procedure
1.	Using open end wrench, remove cap (1) from valve assembly (2).
2.	Using Allen wrench, remove setscrew (3) from infinity sight housing (4).
3.	With valve (5) closed, open valve (6) until reading on high pressure gauge (7) is greater than 100 psi (JPG).
4.	Turn valve (5) slowly clockwise until reading on low pressure gauge (8) is 5 psi.
5.	Purge with nitrogen for 5 minutes.
6.	Reduce nitrogen pressure by closing valve (8) until gauge (9) indicates .05 psi.
7.	Using allen wrench, replace setscrew (4).
8.	Use soap water to search and isolate leaks. If leaks are present fault isolate (Vol I, para 4-3). If leaks are not present remove hose adapter (9) and close valve (5).

5-3. INFINITY SIGHT PURGING AND CHARGING (CONT)

Step	Procedure
9.	Check valve (2) for leaks (JPG). If leak is found, repair valve assembly (para 4-6) and repeat purging and charging.
10.	Close valves (5) and (6) completely.
11.	Using wrench, install cap (1) on valve assembly (2).
	NOTE FOLLOW-ON MAINTENANCE Do purging and charging shutdown procedure (JPG).
	END OF TASK



5-4. FINAL INSPECTION

TOOLS: 3/8” and 7/16” open end wrench
Hose assembly

PERSONNEL: One

EQUIPMENT CONDITION: Infinity sight on work bench

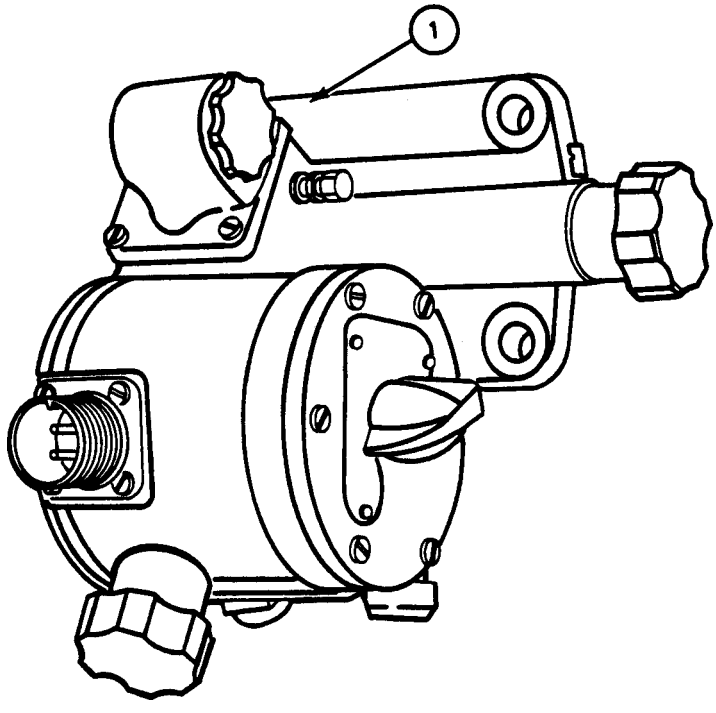
PRELIMINARY PROCEDURE: Purge and charge Infinity Sight (para 5-3)

NOTE

If you find a fault, tell your supervisor. If you do not find a fault, send the good infinity sight back to service.

FRAME 1

Step	Procedure
1.	Check infinity sight (1) is clean and free from dirt, grease and corrosion.
2.	Check that infinity sight (1) is complete with all screws and nuts installed.
	END OF TASK



CHAPTER 6

PACKAGING

6-1. SCOPE

This chapter gives information on packaging of the infinity sight for storage or shipment.

6-2. PREPARATION FOR PACKAGING OF OPTICAL COMPONENTS

Cover the windows with at least four thicknesses of neutral lens tissue and secure in place with water-resistant, pressure-sensitive adhesive tape. Cover the lens tissue with cellulose cushiorkg material and secure in place with pressure-sensitive tape.

6-3. PACKAGING OF INFINITY SIGHT

Package the infinity sight in accordance with MIL-P-14232/P8635466 and TM 9-200 instructions.

APPENDIX A

EXPENDABLE SUPPLIES AND MATERIALS LIST

Section 1. INTRODUCTION

A-1. SCOPE

This appendix lists expendable supplies and materials you will need to repair the 8635466 Infinity Sight. These items are authorized to you by CTA 50-970, Expendable Items (Except Medical, Class V, Repair Parts, and Heraldic Items).

A-2. EXPLANATION OF COLUMNS

a. Column 1 - Item Number. This number is assigned to the entry in the listing and is used in the manual to identify the material, for example, sealing compound (item 4, App. A).

b. Column 2 - Level. This column identifies the lowest level of maintenance that requires the listed item.

F - Direct Support Maintenance

H - General Support Maintenance

c. Column 3 - National Stock Number. This is the National stock number assigned to the item. Use it to request or requisition the item.

d. Column 4 - Description. This tells the Federal item name and, if needed, a description to identify the item. The last line for each item indicates the part number followed by the Federal Supply Code for Manufacturer (FSCM) in parentheses, if applicable.

e. Column 5 - Unit of Measure (U/M). This column shows how the item is measured, for example, you may see these abbreviations: ea (each), in (inches), or pr (pair). Order the smallest amount you need.

Section 2. EXPENDABLE SUPPLIES AND MATERIALS

(1) Item Number	(2) Level	(3) Specification/ National Stock Number	(4) Description	(5) U/M
1	F	9150-00-985-7246	Grease, Instrument, MIL-G-3278A, 1 lb. can	LB
2	F	8010-00-298-2287	Paint, Exterior Surface, 1 gal. can	GL
3	F	8010-00-292-1127	Primer, Paint, 1 gal. can	GL
4	F	8030-00-275-8114	Sealing Compound, MIL-S-11030 lpt. can	PT
5	F	3439-00-243-1880	Solder, 1/16" Wire, Tin 40, Lead 60 1 sl	SL
6	F	6640-00-240-5851	Paper, Lens 1 hd	H I

APPENDIX B

MAINTENANCE TASK INDEX

B-1. SCOPE

This appendix helps you find maintenance tasks for the 8635466 Infinity Sight by giving you references to the procedures.

B-2. MAINTENANCE TASK INDEX

SIGHT, INFINITY: 8635466 (1240-00-056-4854) NOMENCLATURE	MAINTENANCE TASKS: INSPECTION UPON RECEIPT (VOL II)	FINAL INSPECTION (VOL II)	CHECKOUT (VOL I)	ADJUST, ALIGN, CALIBRATE (VOL II)	TROUBLESHOOT (VOL I)	REMOVAL/INSTALLATION (VOL II)	DISASSEMBLY/ASSEMBLY (VOL II)	TOOLS AND TEST EQUIPMENT (VOL I/VOL II)	NOTES
INFINITY SIGHT	Para 3-2	Para 5-4	Para 2-2	Para 5-2	Chap 4			Para 1-4/ 2-8	
AZIMUTH BORESIGHT KNOB				Para 5-2			Para 4-34/ 4-35		
BOOT AND INSULATOR						Para 4-28/ 4-29			
ELEVATION BORESIGHT KNOB				Para 5-2			Para 4-31/ 4-32		
FIXED RESISTOR						Para 4-22/ 4-23			
LAMP ASSEMBLY							Para 4-13/ 4-14		

SIGHT, INFINITY: 8635466 (1240-00-056-4854)	MAINTENANCE TASKS								
NOMENCLATURE	INSPECTION UPON RECEIPT (VOL II)	FINAL INSPECTION (VOL II)	CHECKOUT (VOL I)	ADJUST, ALIGN, CALIBRATE (VOL II)	TROUBLESHOOT (VOL I)	REMOVAL/INSTALLATION (VOL II)	DISASSEMBLY/ASSEMBLY (VOL II)	TOOLS AND TEST EQUIPMENT (VOL I/VOL II)	NOTES
MACHINE THREAD PLUG						Para 4-4/ 4-5			
RECEPTACLE ASSEMBLY						Para 4-10/ 4-11			
TOGGLE SWITCH						Para 4-25/ 4-26			
VALVE ASSEMBLY						Para 4-7/ 4-8			
VARIABLE RESISTOR						Para 4-19/ 4-20			

APPENDIX C
DIRECT SUPPORT AND
GENERAL SUPPORT MAINTENANCE
REPAIR PARTS AND SPECIAL TOOLS LIST
(INCLUDING DEPOT MAINTENANCE REPAIR PARTS
AND SPECIAL TOOLS)

Section I. INTRODUCTION

C-1. SCOPE

This appendix lists spares and repair parts; special tools; special test, measurement, and diagnostic equipment (TMDE), and other special support equipment required for performance of direct support, and general support and depot maintenance of the Sight, Infinity, Part Number 8635466. It authorizes the requisitioning and issue of spares and repair parts as indicated by the source and maintenance codes.

C-2. GENERAL

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

a. Section II. Repair Parts List. A list of spares and repair parts authorized for use in the performance of maintenance. The list also includes parts which must be removed for replacement of the authorized parts. Parts lists are composed of functional groups in numeric sequence, with the parts in each group listed in figure and item number sequence. Bulk materials are listed in NSN sequence.

b. Section III. Special Tools List. A list of special tools, special TMDE, and other special support equipment authorized for the performance of maintenance.

c. Section IV. National Stock Number and Part Number Index. A list in National item identification number (NIIN) sequence, of all National stock numbers (NSN) appearing in the listings, followed by a list in alphameric sequence of all part numbers appearing in the listings. National stock numbers and part numbers are cross-referenced to each illustration figure and item number appearance. This index is followed by a cross-reference list of reference designators to figure and item numbers.

C-3. EXPLANATION OF COLUMNS

a. Illustration. This column is divided as follows:

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

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

b. Source, Maintenance, and Recoverability (SMR) Codes.

(1) Source Code. Source codes indicate the manner of acquiring

support items for maintenance, repair, or overhaul of end items. Source codes are entered in the first and second positions of the Uniform SMR Code format as follows:

Code	Definition
PA	-Item procured and stocked for anticipated or known usage.
PB	-Item procured and stocked for insurance purpose because essentiality dictates that a minimum quantity be available in the supply system.
PC	-Item procured and stocked and which otherwise would be coded PA except that it is deteriorative in nature.
PD	-Support item, excluding support equipment, procured for initial issue or outfitting and stocked only for subsequent or additional initial issues or outfittings. Not subject to automatic replenishment.
PE	-Support equipment procured and stocked for initial issue or outfitting to specified maintenance repair activities.
PF	-Support equipment which will not be stocked but which will be centrally procured on demand.
PG	-Item procured and stocked to provide for sustained support for the life of the equipment. It is applied to an item peculiar to the equipment which, because of probable discontinuance or shutdown of production facilities, would prove uneconomical to reproduce at a later time.
KD	-An item of a depot overhaul/ repair kit and not purchased separately. Depot kit defined as a kit that provides items required at the time of overhaul or repair.
KF	-An item of a maintenance kit and not purchased separately. Maintenance kit defined as a kit that provides an item that can be replaced at organizational or intermediate levels of maintenance.
KB	-Item included in both a depot overhaul/repair kit and a maintenance kit.
MO	-Item to be manufactured or fabricated at organizational level.
MF	-Item to be manufactured or fabricated at the direct support maintenance level.
MH	-Item to be manufactured or fabricated at the general support maintenance level.
MD	-Item to be manufactured or fabricated at the depot maintenance level.
AO	-Item to be assembled at organizational level.
AF	-Item to be assembled at direct support maintenance level.
AH	-Item to be assembled at general support maintenance level.

AD -Item to be assembled at depot maintenance level.

XA -Item is not procured or stocked because the requirements for the item will result in the replacement of the next higher assembly.

XB -Item is not procured or stocked. If not available through salvage, requisition.

XC -Installation drawing, diagram, instruction sheet, field service drawing, that is identified by manufacturer's part number.

XD -A support item that is not stocked. When required, item will be procured through normal supply channels.

NOTE: Cannibalization or salvage may be used as a source of supply for any items coded above except those coded XA and aircraft support items as restricted by AR 700-42.

(2) Maintenance Code. Maintenance codes are assigned to indicate the levels of maintenance authorized to USE and REPAIR support items. The maintenance codes are entered in the third and fourth positions of the Uniform SMR Code format as follows:

(a) The maintenance code entered in the third position will indicate the lowest maintenance level authorized to remove, replace, and use the support item. The maintenance code entered in the third position will indicate one of the following levels of maintenance:

Code	Application/Explanation
C	-Crew or operator maintenance performed within organizational maintenance.
O	-Support item is removed, replaced, used at the organizational level.
F	-Support item is removed, replaced, used at the direct support level.
H	-Support item is removed, replaced, used at the general support level.
D	-Support items that are removed, replaced, used at depot, mobile depot, or specialized repair activity only.

(b) The maintenance code entered in the fourth position indicates whether the item is to be repaired and identifies the lowest maintenance level with the capability to perform complete repair (i.e., all authorized maintenance functions). This position will contain one of the following maintenance codes.

Code	Application/Explanation
O	-The lowest maintenance level capable of complete repair of the support item is the organizational level.
F	-The lowest maintenance level capable of complete repair of the support item is the direct support level.
H	-The lowest maintenance level capable of complete repair of the support item is the general support level.

D -The lowest maintenance level capable of complete repair of the support item is the depot level.

L -Repair restricted to Specialized Repair Activity. (Not Applicable).

Z -Nonreparable. No repair is authorized.

B -No repair is authorized. The item may be reconditioned by adjusting, lubricating, etc., at the user level. No parts or special tools are procured for the maintenance of this item.

(3) Recoverability Code. Recoverability codes are assigned to support items to indicate the disposition action on unserviceable items. The recoverability code is entered in the fifth position of the Uniform SMR Code format as follows:

Recoverability Codes	Definition
Z	-Nonreparable item. When unserviceable, condemn and dispose at the level indicated in position 3.
O	-Reparable item. When uneconomically reparable, condemn and dispose at organizational level.
F	-Reparable item. When uneconomically reparable, condemn and dispose at the direct support level.
H	-Reparable item. When uneconomically reparable, condemn and dispose at the general support level.
D	-Reparable item. When beyond lower level repair capability, return to depot. Condemnation and disposal not authorized below depot level.
L	-Reparable item. Repair, condemnation, and disposal not authorized below depot/ specialized repair activity level.
A	-Item requires special handling or condemnation procedures because of specific reasons (i.e., precious metal content, high dollar value, critical material or hazardous material). Refer to appropriate manuals/directives for specific instructions.

c. National Stock Number. Indicates the National stock number assigned to the item and which will be used for requisitioning.

d. 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.

NOTE: When a stock numbered item is requisitioned, the item received may have a different part number than the part being replaced.

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

f. Description. Indicates the Federal item name and, if required, a minimum description to identify the item.

g. Unit of Measure (U/M). Indicates the standard of the 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.

h. Quantity Incorporated in Unit. Indicates the quantity of the item used in the breakout shown on the illustration figure, which is prepared for a functional group, subfunctional group, or an assembly. A "V" appearing in this column in lieu of a quantity indicates that no specific quantity is applicable, (e.g., shims, spacers, etc).

C-4. SPECIAL INFORMATION

(Not Applicable)

C-5. HOW TO LOCATE REPAIR PARTS

a. When National Stock Number or Part Number is Unknown:

(1) First. Using the table of contents, determine the functional group within which the item belongs. This is necessary since illustrations are prepared for functional groups, and listings are divided into the same group.

(2) Second. Find the illustration covering the functional group to which the item belongs.

(3) Third. Identify the item on the illustration and note the illustration figure and item number of the item.

(4) Fourth. Using the Repair Parts Listing, find the figure and item number noted on the illustration.

b. When National Stock Number or Part Number is Known:

(1) First. Using the Index of National Stock Numbers and Part Numbers, find the pertinent National stock number or part number. This index is in NIIN sequence followed by a list of part numbers in alphameric sequence, cross-referenced to the illustration figure number and item number.

(2) Second. After finding the figure and item number, locate the figure and item number in the repair parts list.

C-6. ABBREVIATIONS

(Not Applicable)

Section II

REPAIR PARTS LIST

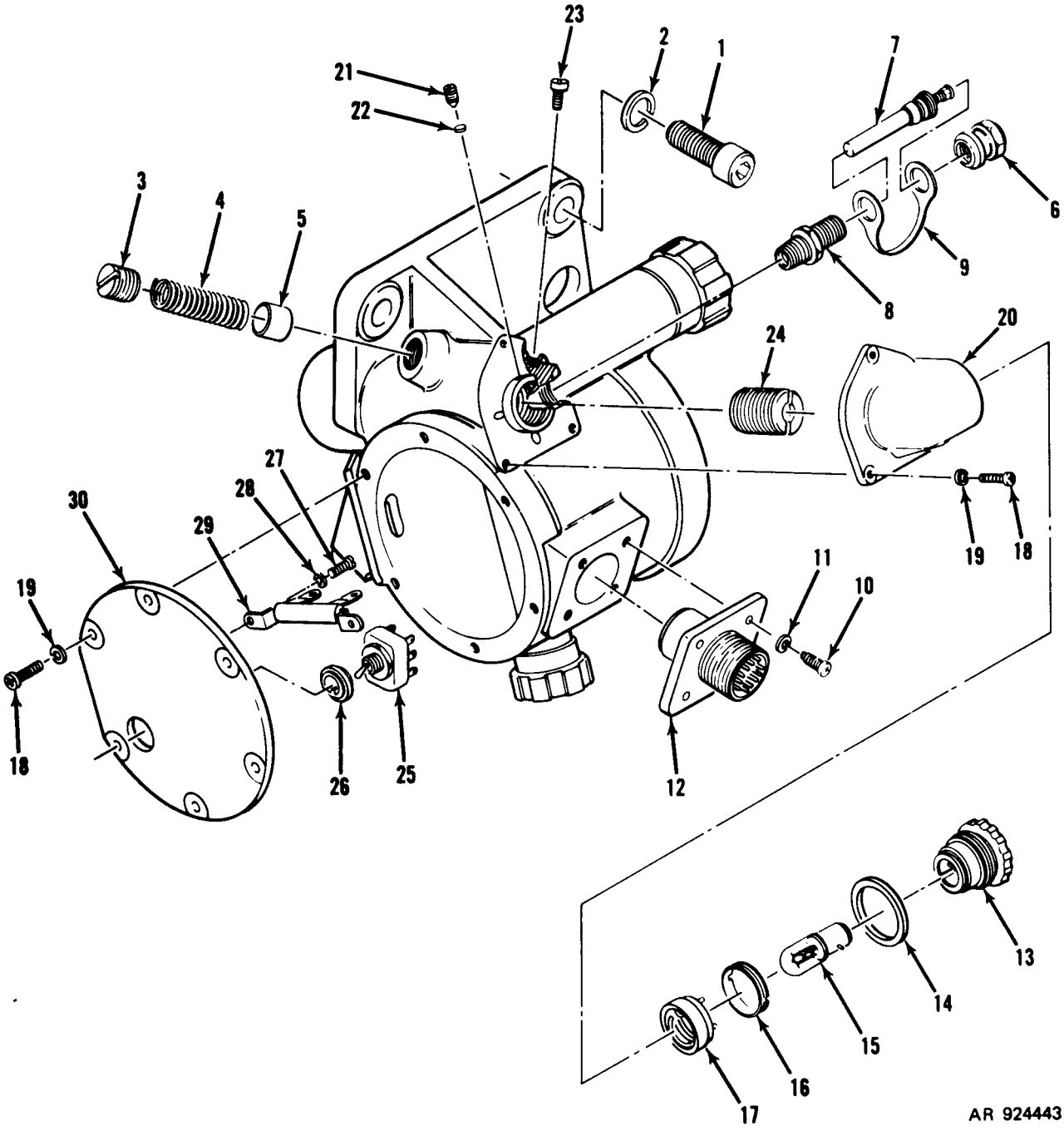


Figure 1. Infinity sight 8635466 (right view)

(1) ILLUSTRATION (a) FIG. NO.	(b) ITEM NO.	(2) SMR CODE	(3) FEDERAL STOCK	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
						USABLE ON CODE		
						GROUP 00 SIGHT, INFINITY		
						8635466 (RIGHT VIEW)		
1	1	PAFZZ	5305-00-068-8202	MS16996	96906	SCREW, CAP	EA	3
1	2	PAFZZ	5310-00-984-7042	MS35338	96906	WASHER,LOCK	EA	3
1	3	PAFZZ	5365-00-555-1158	8229037	19200	PLUG, MACHINE THREAD	EA	1
1	4	PAFZZ	5360-00-579-9525	8229039	19200	SPRING	EA	1
1	5	PAFZZ	1240-00-611-6494	8229038	19200	PLUNGER	EA	1
1	6	PAFZZ	2640-00-222-4525	MS20813	96906	CAP, PNEUMATIC VALVE	EA	1
1	7	PAFZZ	2640-00-060-3543	MS51377	96906	VALVE CORE	EA	1
1	8	PAFZZ	2640-00-114-1096	MS51607	96906	VALVE STEM, PURGING	EA	1
1	9	PAFZZ	1240-00-464-4792	1051656	19200	STRAP, VALVE CAP	EA	1
1	10	PAFZZ	5305-00-054-6653	MS51957	96906	SCREW, MACHINE	EA	4
1	11	PAFZZ	5310-00-929-6395	MS35338	96906	WASHER, LOCK	EA	4
1	12	PAFZZ	5935-00-698-3713	7720492	19200	CONNECTOR	EA	1
1	13	PAOZZ	6250-00-111-6736	1054963	19200	LAMPHOLDER	EA	1
1	14	PAFZZ	5330-00-291-5787	7652132	19200	GASKET	EA	1
1	15	PAOZZ	6240-00-155-8714	MS25231	96906	LAMP, INCANDESCENT	EA	1
1	16	PAFZZ	5365-00-200-5512	7659182	19200	RING	EA	1
1	17	PAFZZ	1240-00-235-7454	1051618	19200	TERMINAL	EA	1
1	18	PAFZZ	5305-00-054-6670	MS51957	96906	SCREW, MACHINE	EA	9
1	19	PAFZZ	5310-00-933-8119	MS35338	96906	WASHER, LOCK	EA	9
1	20	XBFZZ		8635467	19200	HOUSING	EA	1
1	21	PAFZZ	5305-00-638-1198	MS51029	96906	SETSCREW	EA	1
1	22	PAFZZ	1240-00-819-9600	8620836	19200	DISK, SOLID, PLAIN	EA	1
1	23	PAFZZ	5305-00-182-7302	1055515	19200	SCREW, MACHINE	EA	1
1	24	PAFZZ	1220-01-071-4180	1172733	19200	RETICLE ASSEMBLY	EA	1
1	25	PAFZZ	5930-00-913-3641	MS90310	96906	SWITCH, TOGGLE	EA	1
1	26	PAFZZ	5330-00-806-8769	MS25196	96906	PACKING	EA	1
1	27	PAFZZ	5305-00-054-6651	MS51957	96906	SCREW, MACHINE	EA	2
1	28	PAFZZ	5310-00-616-3555	MS35333	96906	WASHER, LOCK	EA	2
1	29	PAFZZ	5905-00-070-7822	8635157	19200	RESISTOR, FIXED,	EA	1
1	30	XBFZZ		8635448	19200	COVER	EA	1
1		MFFZZ		MILI230	81349	INSULATION (MFR FROM 5970-00-787-2321)	EA	1
1		MFFZZ		MIL-W-1	81349	WIRE (MFR FROM 6145-00-295-2810)	EA	1

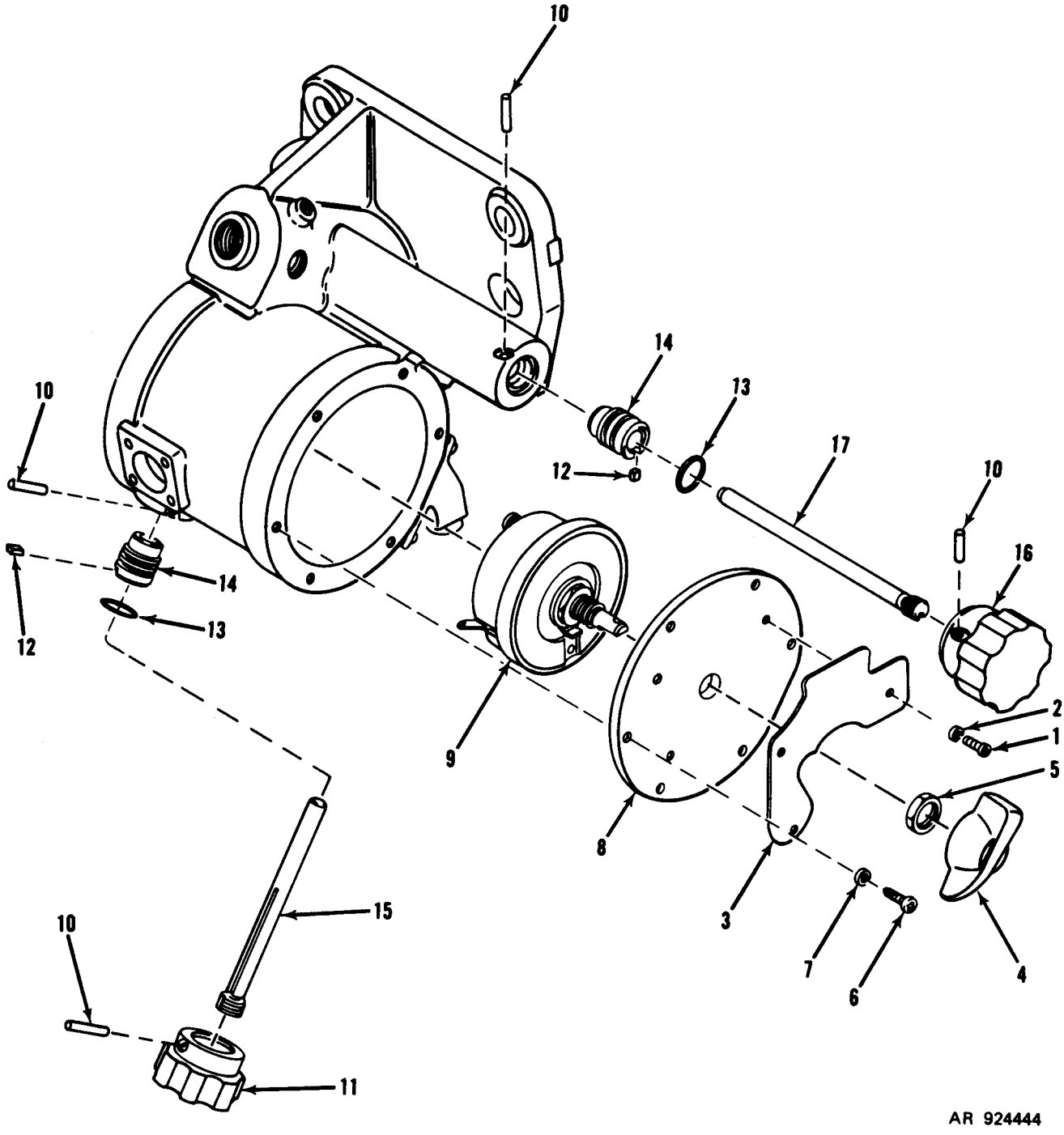


Figure 2. Infinity sight 8635466 (left view)

(1) ILLUSTRATION (a) FIG. NO.	(b) ITEM NO.	(2) SMR CODE	(3) FEDERAL STOCK	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
						USABLE ON CODE		
						GROUP 00 SIGHT, INFINITY		
						8635466 (LEFT VIEW)		
2	1	PADZZ	5305-00-054-5635	MS51957	96906	SCREW, MACHINE	EA	3
2	2	PADZZ	5310-00-928-2690	MS35338	96906	WASHER, LOCK	EA	3
2	3	XBDZZ		1172735	19200	PLATE	EA	1
2	4	PAFZZ	5355-00-068-4486	8619162	19200	KNOB	EA	1
2	5	PAFZZ	5930-00-823-0482	M5423-0	81349	BOOT, DUST AND MOIST	EA	1
2	6	PAFZZ	5305-00-054-6670	MS51957	96906	SCREW, MACHINE	EA	6
2	7	PAFZZ	5310-00-933-8119	MS35338	96906	WASHER, LOCK	EA	6
2	8	XBFZZ		8635462	19200	COVER	EA	1
2	9	PAFZZ	5905-00-070-5670	8635166	19200	RESISTOR, VARIABLE	EA	1
2	10	XBFZZ	5315-00-810-7698	MS9105-	96906	PIN, STRAIGHT	EA	4
2	11	PAFZZ	5355-00-126-9016	8635465	19200	KNOB	EA	1
2	12	PAFZZ		8229040	19200	KEY	EA	2
2	13	PAFZA	5330-00-579-7335	8204937	19200	PACKING, PREFORMED	EA	2
2	14	PAFZZ	1240-00-086-3423	8619507	19200	INSERT	EA	2
2	15	PAFZZ	1240-00-450-9683	8635444	19200	SCREW	EA	1
2	16	PAFZZ	5355-00-126-2482	8635465	19200	KNOB	EA	1
2	17	PAFZZ	1240-00-450-9684	8635444	19200	SCREW	EA	1

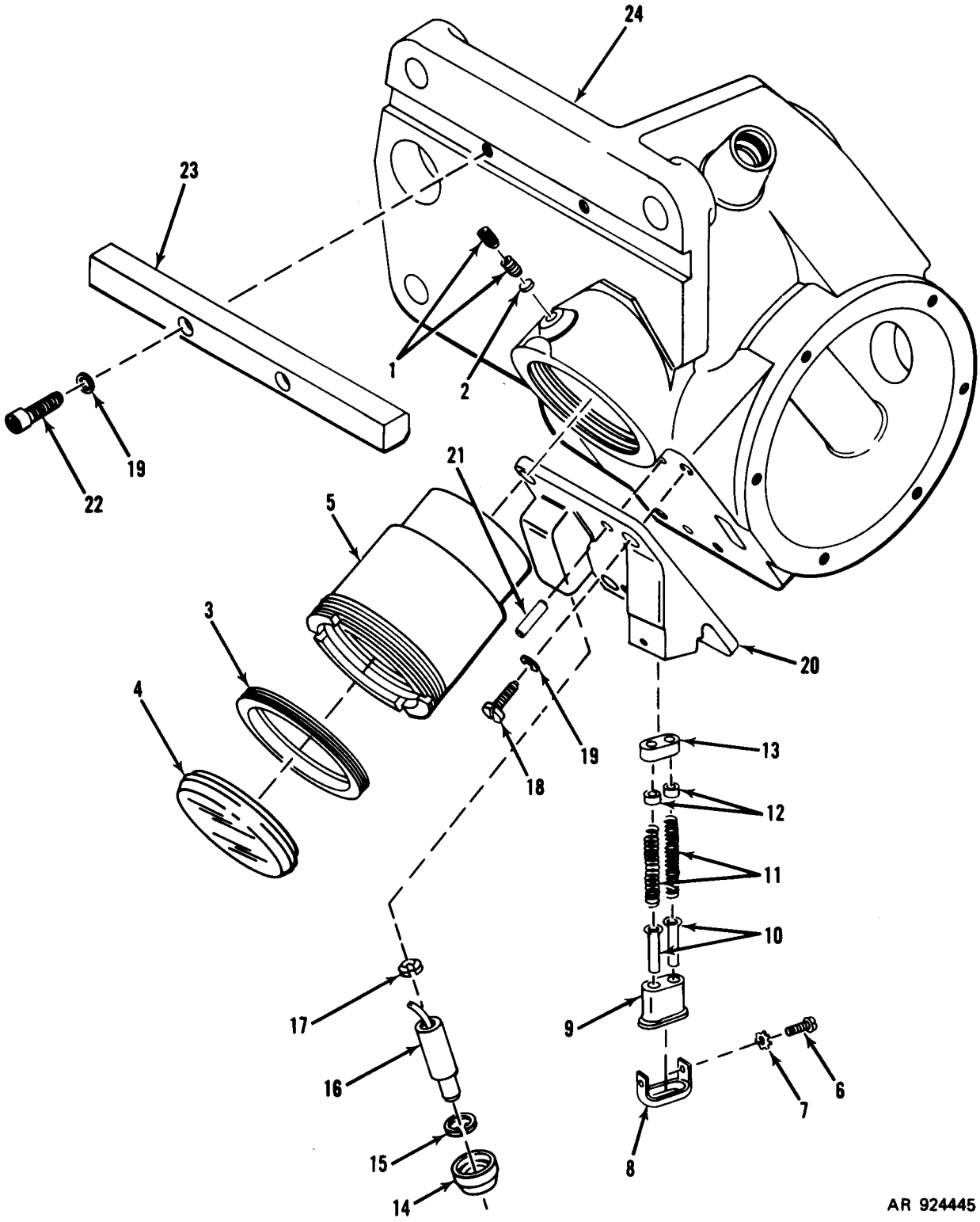


Figure 3. Infinity sight 8635466 (front view)

(1) ILLUSTRATION (a) FIG. NO.	(b) ITEM NO.	(2) SMR CODE	(3) FEDERAL STOCK	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
						USABLE ON CODE		
						GROUP 00 SIGHT, INFINITY		
						8635466 (FRONT VIEW)		
3	1	PAFZZ	5305-00-803-8232	MS51029	96906	SETSCREW	EA	2
3	2	PAFZZ	1240-00-819-9600	8620836	19200	DISK, SOLID, PLAIN	EA	1
3	3	PAFZZ	5365-00-579-7494	8229036	19200	RING	EA	1
3	4	PAFZZ	1240-00-540-6185	8229032	19200	WINDOW, OBSERVATION	EA	1
3	5	PAFZZ	1220-00-316-0265	1051613	19200	LENS ASSEMBLY	EA	1
3	6	PAFZZ	5305-00-054-5646	MS51957	96906	SCREW, MACHINE	EA	2
3	7	PAFZZ	5310-00-058-3599	MS35335	96906	WASHER, LOCK	EA	2
3	8	PAFZZ	1240-00-070-7821	8635143	19200	BOOT ASSEMBLY	EA	1
3	9	PAFZZ	1240-00-906-3188	1051661	19200	INSULATOR	EA	1
3	10	PAFZZ	1240-00-070-7819	8289337	19200	EYELET CLOSED END	EA	2
3	11	PAFZZ	5360-00-070-7820	8289338	19200	SPRING	EA	2
3	12	PADZZ	1240-00-916-5915	8635146	19200	CONTACT	EA	2
3	13	PADZZ	1240-00-916-5907	8635145	19200	INSULATOR	EA	1
3	14	PADZZ	1240-00-070-7818	8635459	19200	BOOT ASSEMBLY	EA	1
3	15	PADZZ	5365-00-804-6855	MS16625	96906	RING, RETAINING	EA	1
3	16	PADZZ	1240-00-675-1168	8289341	19200	CONTACT	EA	1
3	17	PADZZ	1240-00-906-3186	1051663	19200	SPACER	EA	1
3	18	PAFZZ	5305-00-054-6670	MS51957	96906	SCREW, MACHINE	EA	4
3	19	PAFZZ	5310-00-933-8119	MS35338	96906	WASHER, LOCK	EA	6
3	20	XBFZZ		8635456	19200	HOUSING	EA	1
3	21	XBFZZ	5315-00-721-4995	MS9105-	96906	PIN, STRAIGHT	EA	2
3	22	PAFZZ	5305-00-988-7601	MS16995	96906	SCREW, CAP	EA	2
3	23	XBFZZ		1051597	19200	KEY	EA	1
3	24	XBFZZ		1051614	19200	HOUSING	EA	1

(1) ILLUSTRATION (a) FIG. NO.	(b) ITEM NO.	(2) SMR CODE	(3) FEDERAL STOCK	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
						USABLE ON CODE		
						GROUP 99 BULK MATERIALS LIST		
BULK		PAFZZ	5970-00-787-2321	MILI230	3-5	INSULATION	FT	
BULK		PAFZZ	6145-00-295-2810	MIL-W-1	6878/4	WIRE	FT	

Section III

SPECIAL TOOLS LIST

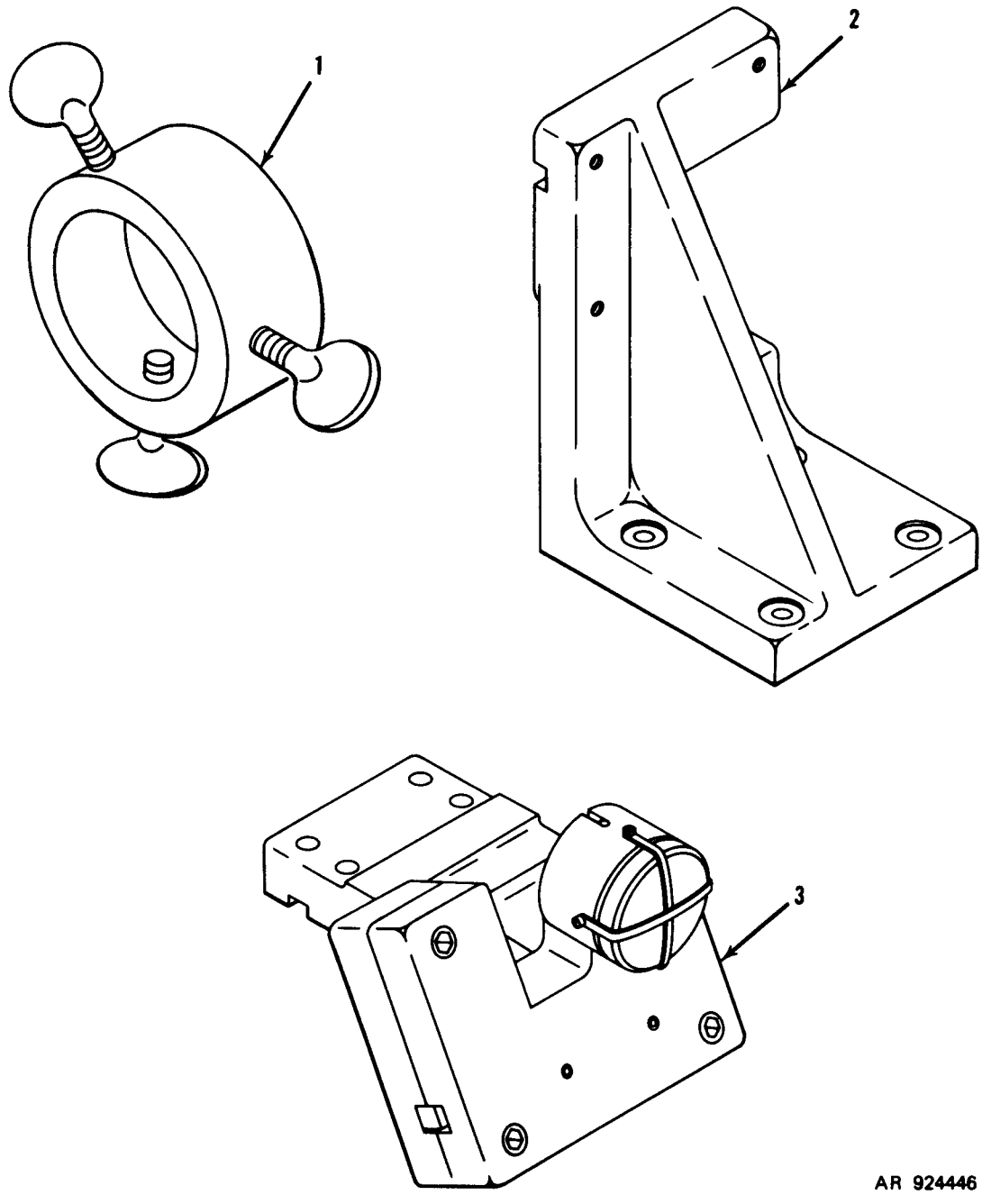


Figure 4. Special Tools

(1) ILLUSTRATION (a) FIG. NO.	(b) ITEM NO.	(2) SMR CODE	(3) FEDERAL STOCK	(4) PART NUMBER	(5) FSCM	(6) DESCRIPTION	(7) U/M	(8) QTY INC IN UNIT
						USABLE ON CODE		
						GROUP 95 SPECIAL TOOLS LIST		
4	1	PEFZZ	4931-00-015-6693	8570134	19200	ADAPTER, TORQUE	EA	1
4	2	PEDZZ	4931-00-015-6695	8570135	19200	ADAPTER, VIBRATION	EA	1
4	3	PEDZZ	4931-00-015-6692	8566569	19200	ADAPTER, INFINITY	EA	1

Section IV

NATIONAL STOCK NUMBER AND PART NUMBER INDEX

STOCK NUMBER	FIGURE NO.	ITEM NO.	STOCK NUMBER	FIGURE NO.	ITEM NO.
4931-00-015-6693	4	1	1240-00-464-4792	1	9
4931-00-015-6692	4	3	1240-00-540-6185	3	4
4931-00-015-6695	4	2	5365-00-555-1158	1	3
5305-00-054-5635	2	1	5330-00-579-7335	2	13
5305-00-054-5646	3	6	5365-00-579-7494	3	3
5305-00-054-6651	1	27	5360-00-579-9525	1	4
5305-00-054-6653	1	10	1240-00-611-6494	1	5
5305-00-054-6670	1	18	5310-00-616-3555	1	28
5305-00-054-6670	2	6	5305-00-638-1198	1	21
5305-00-054-6670	3	18	1240-00-675-1168	3	16
5310-00-058-3599	3	7	5935-00-698-3713	1	12
2640-00-060-3543	1	7	5315-00-721-4995	3	21
5355-00-068-4486	2	4	5970-00-787-2321	BULK	
5305-00-068-8202	1	1	5305-00-803-8232	3	1
5905-00-070-5670	2	9	5365-00-804-6855	3	15
1240-00-070-7818	3	14	5330-00-806-8769	1	26
1240-00-070-7819	3	10	5315-00-810-7698	2	10
5360-00-070-7820	3	11	1240-00-819-9600	1	22
1240-00-070-7821	3	8	1240-00-819-9600	3	2
1240-00-086-3423	2	14	5930-00-823-0482	2	5
6250-00-111-6736	1	13	1240-00-906-3186	3	17
2640-00-114-1096	1	8	1240-00-906-3188	3	9
5355-00-126-2482	2	16	5930-00-913-3641	1	25
5355-00-126-9016	2	11	1240-00-916-5907	3	13
6240-00-155-8714	1	15	1240-00-916-5915	3	12
5305-00-182-7302	1	23	5310-00-928-2690	2	2
5365-00-200-5512	1	16	5310-00-929-6395	1	11
2640-00-222-4525	1	6	5310-00-933-8119	1	19
1240-00-235-7454	1	17	5310-00-933-8119	2	7
5330-00-291-5787	1	14	5310-00-933-8119	3	19
6145-00-295-2810	BULK		5310-00-984-7042	1	2
1220-00-316-0265	3	5	5305-00-988-7601	3	22
1240-00-450-9683	2	15	1220-01-071-4180	1	24
1240-00-450-9684	2	17			

PART NUMBER	FSCM	FIG NO	ITEM NO	PART NUMBER	FSCM	FIG NO	ITEM NO
MILI23053-5	81349	BULK		10555157-11	19200	1	23
MILI23053-5	81349	1		11727335	19200	1	24
MILW16878-4E20NW	81349	BULK		11727357	19200	2	3
MILW16878-4E20NW	81349	1		7652132	19200	1	14
MS16625-4037	96906	3	15	7659182	19200	1	16
MS16995-25	96906	3	22	7720492	19200	1	12
MS16996-40	96906	1	1	8204937	19200	2	13
MS20813-1	96906	1	6	8229032	19200	3	4
MS25196-1	96906	1	26	8229036	19200	3	3
MS25231-313	96906	1	15	8229037	19200	1	3
MS35333-71	96906	1	28	8229038	19200	1	5
MS35335-57	96906	3	7	8229039	19200	1	4
MS35338-134	96906	2	2	8229040	19200	2	12
MS35338-136	96906	1	11	8289337	19200	3	10
MS35338-137	96906	1	19	8289338	19200	3	11
MS35338-137	96906	2	7	8289341	19200	3	16
MS35338-137	96906	3	19	8566569	19200	4	3
MS35338-141	96906	1	2	8570134	19200	4	1
MS51029-1	96906	1	21	8570135	19200	4	2
MS51029-9	96906	3	1	8619162	19200	2	4
MS51377-2	96906	1	7	8619162	19200	2	4
MS51607-1	96906	1	8	8619507	19200	2	14
MS51957-1	96906	2	1	8620836	19200	1	22
MS51957-12	96906	3	6	8620836	19200	3	2
MS51957-27	96906	1	27	8635143	19200	3	8
MS51957-29	96906	1	10	8635145	19200	3	13
MS51957-45	96906	1	18	8635146	19200	3	12
MS51957-45	96906	2	6	8635157	19200	1	29
MS51957-45	96906	3	18	8635166	19200	2	9
MS90310-221	96906	1	25	8635444-1	19200	2	15
MS9105-34	96906	2	10	8635444-2	19200	2	17
MS9105-57	96906	3	21	8635448	19200	1	30
M5423-09-02	81349	2	5	8635456	19200	3	20
10515975	19200	3	23	8635459	19200	3	14
10516131	19200	3	5	8635462	19200	2	8
10516140	19200	3	24	8635465-1	19200	2	11
10516183	19200	1	17	8635465-2	19200	2	16
10516567	19200	1	9	8635467	19200	1	20
10516614	19200	3	9				
10516636	19200	3	17				
10549636	19200	1	13				

By Order of the Secretary of the Army:

E. C. MEYER
General, United States Army
Chief of Staff

Official:

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

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PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.	
3		2		Item 10. Change illustration. Reason: Tube end shown assembled on wrong side of lever cam.
109		51		Item 3. The NSN and P/N are not listed on the AMDF nor the MCRL. Request correct NSN and P/N be furnished.
2-8			2-1	Preventive Maintenance Checks and Services. Item 7 under "Items to be inspected" should be changed to read as follows: Firing linkage and firing mechanism pawl.
12	1-6a			Since there are both 20- and 30- round magazines for this rifle, data on both should be listed.

SAMPLE

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PAGE NO.	PARAGRAPH	FIGURE NO.	TABLE NO.

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THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 Lb
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches
1 Sq Meter = 10,000 Sq Centimeters = 10.76 Sq Feet
1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles

CUBIC MEASURE

1 Cu Centimeter = 1000 Cu Millimeters = 0.06 Cu Inches
1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet

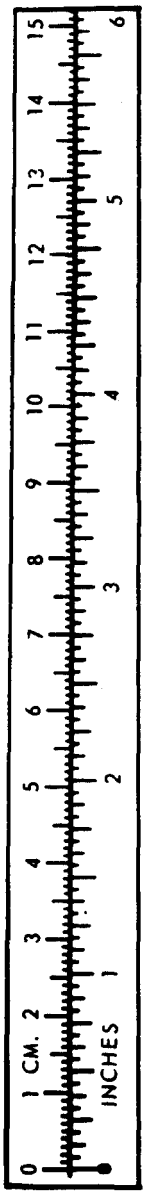
TEMPERATURE

$5/9\ (^{0}F - 32) = {}^{0}C$
212^{0} Fahrenheit is equivalent to 100^{0} Celsius
90^{0} Fahrenheit is equivalent to 32.2^{0} Celsius
32^{0} Fahrenheit is equivalent to 0^{0} Celsius
$9/5\ C^{0} + 32 = F^{0}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pound-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



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