

TECHNICAL MANUAL

DIRECT SUPPORT AND

GENERAL SUPPORT

MAINTENANCE MANUAL

VOLUME I - TROUBLESHOOTING

VOLUME II - MAINTENANCE

PERISCOPE, TANK:

M36 (1240-00-980-9291)

M36E1 (1240-00-348-8441)

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No. 9-1240-380-34

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| REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>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.</p> <p>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:</p> <p>Commander<br/>U.S. Army Armament, Munitions and Chemical Command<br/>ATTN: AMSMC-MAS<br/>Rock Island, IL 61299-6000</p> <p>A reply will be furnished to you.</p> |

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## VOLUME II MAINTENANCE

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## HOW TO USE THIS MANUAL

This manual has two volumes of maintenance information you will need to repair and service the M36 and M36E 1 Periscopes.

- 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 1-3. 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 41 C) which helps you to develop skills in doing the maintenance tasks.

TECHNICAL MANUAL

DIRECT SUPPORT AND  
GENERAL SUPPORT  
MAINTENANCE MANUAL

VOLUME I - TROUBLESHOOTING

PERISCOPE, TANK:

M36  
M36E1

## CHAPTER 1

### INTRODUCTION

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#### **1-1. SCOPE**

This volume contains troubleshooting requirements and procedures for direct support and general support (DS/GS) maintenance of the M36 and M36E1 Periscopes. See Volume II for maintenance procedures.

#### **1-2. ORGANIZATION**

a. Chapter 2, Checkout Procedure, gives you flow charts to follow to check that the periscopes are 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 Diagrams, may be used to help you find the cause of a fault. They can be used to trace signal flow or to find out what a voltage should be.

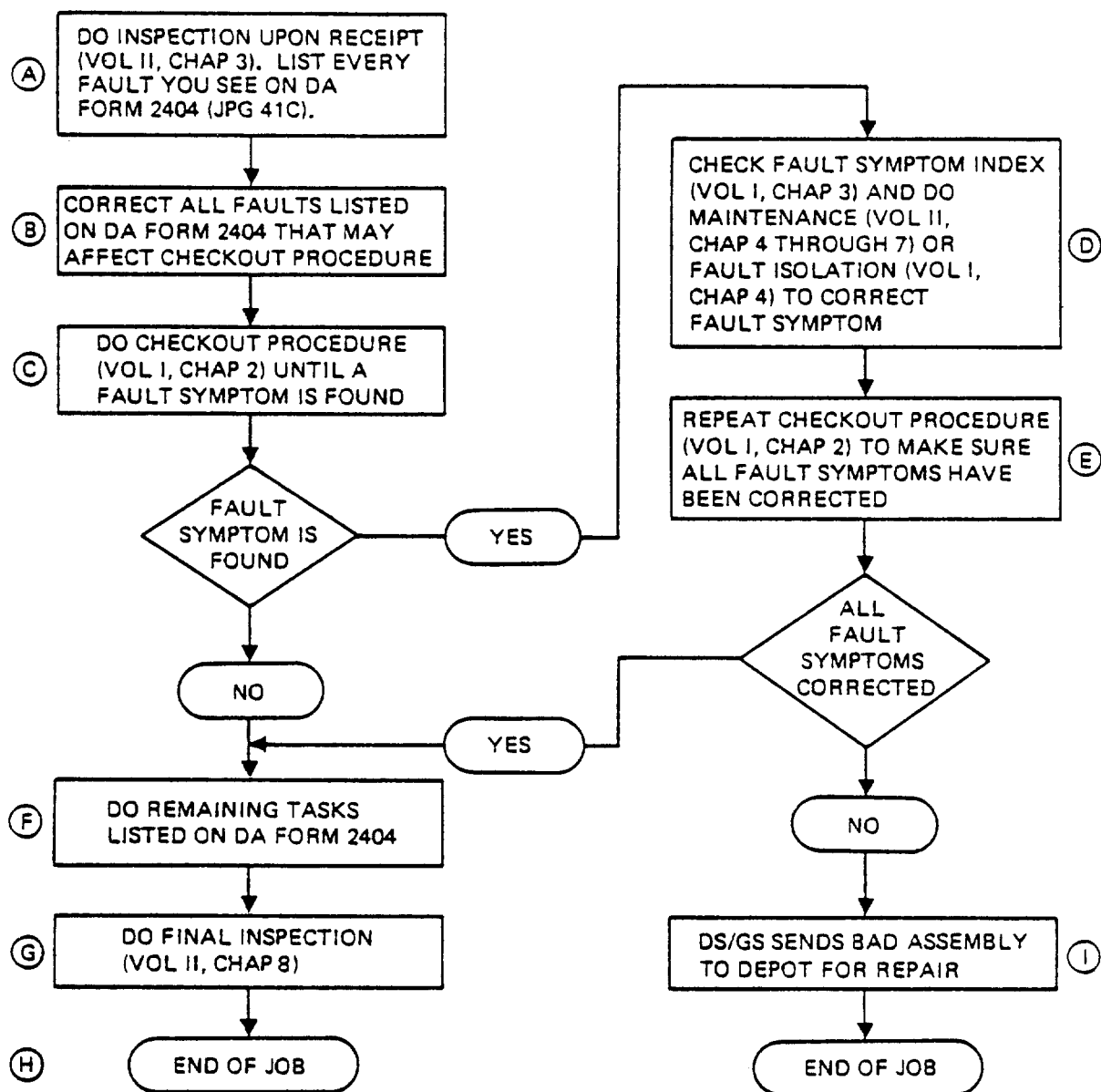
### 1-3. HOW TO TROUBLESHOOT

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

- Ⓐ 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.
- Ⓑ If you see any faults that may affect the checkout procedure, fix them now. This does not mean small things like painting scratches.
- Ⓒ Do the checkout procedure in Vol I, Chap 2 from the beginning until you find a fault symptom.
- Ⓓ When a fault symptom is found, go to the chapter noted and follow the maintenance procedure given there. If you already know the fault symptom, look at the fault symptom index in Chapter 3 of this volume. This will also tell you what to do.
- Ⓔ After the fault symptom has been corrected, do the checkout procedure in Chapter 2 again. This is to make sure that all fault symptoms have been corrected.
- Ⓕ If all fault symptoms are now correct, do the remaining maintenance tasks on DA Form 2404.
- Ⓖ Do the final inspection given in Vol II, Chap 9.
- Ⓗ The job is over and the good assembly is sent back to service.
- Ⓘ If all fault symptoms 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. Light Source Control | 1240-00-980-9292            | Checkout Body Assembly                                         | JPG 41C   |
| 2. Multimeter           | 6625-00-395-0587            | Checkout Body Assembly                                         | JPG 41C   |
| 3.0-36 VDC Power Supply | 6130-00-435-1116            | Checkout Body Assembly, Infrared Body Assembly, Elbow Assembly | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>A</b> | This is the symptom shown in the Fault Symptom Index in Chapter 3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>B</b> | Block number. Tells you the number of the block on the page. Block numbers start over at every page.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>C</b> | <p>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.</p> <p>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.</p> <p>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.</p> |
| <b>D</b> | 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.                                                                                                                                                                                                                                                                                                           |
| <b>E</b> | <p>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:</p> <p><b>3</b><br/><b>01</b></p> <p>means that you should go to sheet 3 block 01 to keep on the procedure.</p>                                                                                                                                                                                                             |

# 1-5. SAMPLE FAULT ISOLATION PROCEDURE (CONT)

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

