

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

DS, GS, AND DEPOT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOL LISTS
FOR

PERISCOPE, TANK: XM47
6650-788-5464)

This copy is a reprint which includes current
pages from Changes 1 through 3.

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TECHNICAL MANUAL



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PERISCOPE, TANK: XM47

(6650-906-7944)

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CHAPTER 1 INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This publication contains instructions for the repair of periscope, tank M47, 6650-788-5464, and associated equipment, by direct support (DS), general support (GS), and depot shops.

b. These instructions are used in conjunction with and are supplementary to those in the operator's and organizational maintenance manual for armored reconnaissance-airborne assault vehicle, M551. Instructions for operation, lubrication, and operator's maintenance (including installation and removal procedures, as well as tests and adjustments after installation) are contained in TM 92350-230-12. It may be necessary to refer to this manual for complete procedures.

1-2. Comments

Report errors, omissions, and recommendations directly to the Commanding Officer, Frankford, Arsenal, ATTN:

AMSWE-MAF W3100, Philadelphia, Pa. 19137 on DA Form 2028.

1-3. Maintenance Allocation and Parts

The maintenance allocation chart in TM 9-2350230-12 and repair parts and tools listed in appendix II allocates maintenance responsibilities.

1-4. Forms, Records, and Reports

a. Authorized Forms. The forms are listed in DA Pamphlet 310-2 and TM 38-750.

b. Report of Accidents. The necessary reports are prescribed in AR 385-40.

c. Equipment Improvement Recommendations (EIR). Use the Equipment Improvement Recommendation section of DA Form 2407.

Section II. DESCRIPTION AND DATA

1-5. Description

a. General. Periscope M47 (figs. 1-1 and 1-2) is a unity-power daylight periscope that provides a 50-degree horizontal and 14-degree vertical field-of-view. Periscope M47 is used in conjunction with the M551 Vehicle and consists of head assembly 6650-9067941 and body assembly 10513620. A functional description and operating instruction for periscope are provided in TM 92350-230-12.

b. Optical Scheme. Two prisms and an optical instrument window (fig. 1-3) comprise the optical components of periscope XM47. Prism 8599693 is located in head assembly 6650-906-7941 and deflects a forward line of sight through optical instrument window 6650-902-9741 of body assembly 10613620 to prism 8599694. Prism 8599694 displays the field-of-view to the operator.

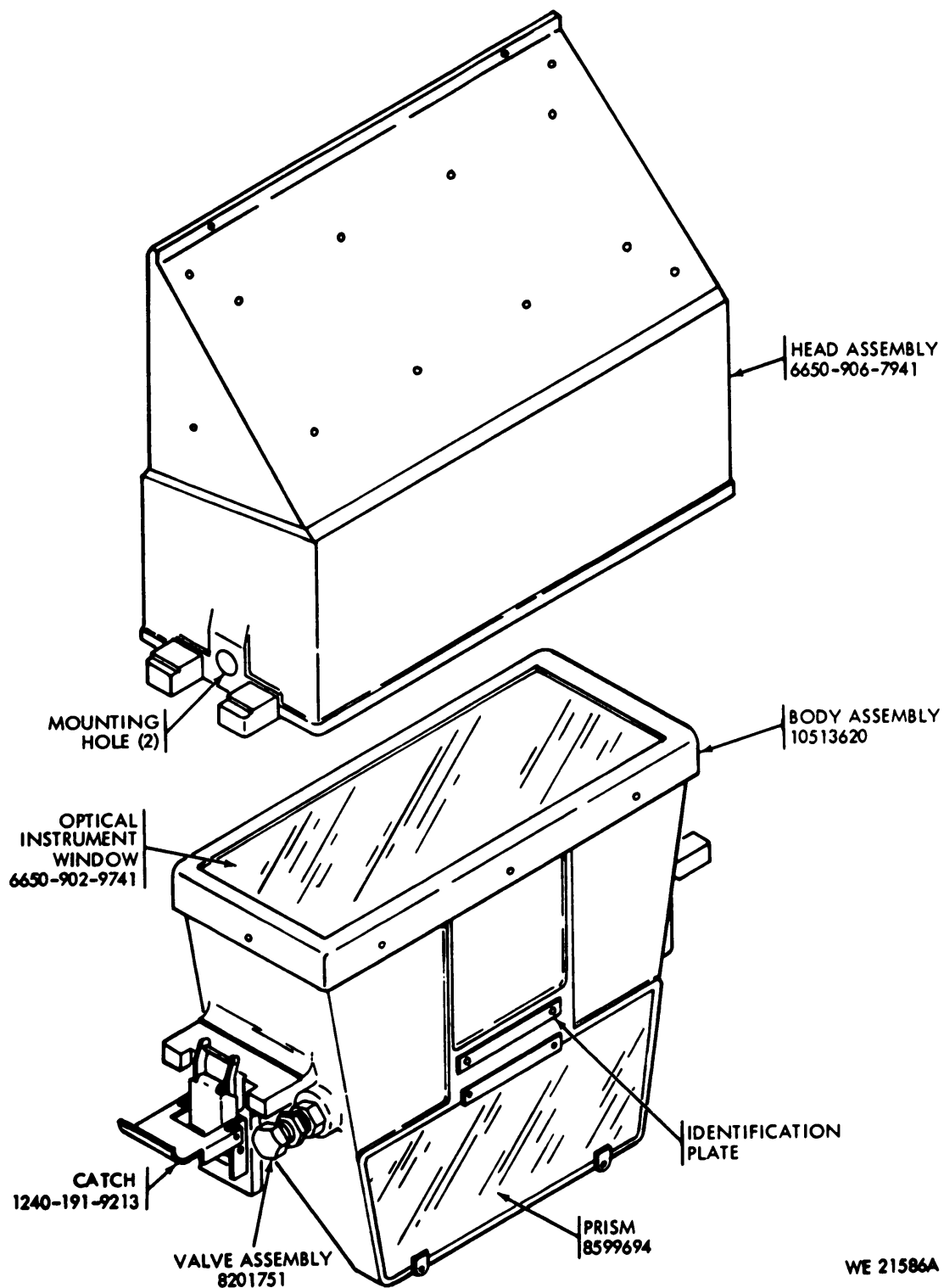
c. Head Assembly 6650-906-7941.

(1) Head assembly 6650-906-7941 contains prism 8599693 (fig. 1-2) which is mounted in the head and sealed against water penetration. The bottom the head is open but is provided with a gasket for sealing when joined with body assembly 10613610.

(2) Two mounting holes (fig. 1-2) are provided on the head for engaging the plungers of mount assembly 6650-906-7944. Mount assembly 6650906-7944 is required for assembling head assembly 6650-906-7941 to body assembly 10513620.

d. Body Assembly 10513620.

(1) Body assembly 10513620 is a sealed unit, filled with nitrogen gas, that receives the reflected line-of-sight from the head assembly 6650-9067941. Optical instrument window 6650-902-9741 (fig. 1-1) is enclosed in a sealed frame and is mounted on the top of the body.



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Figure 1-1. Periscope, tank, M47, 6650-788-5464.