

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR AND ORGANIZATIONAL
MAINTENANCE MANUAL

INCLUDING REPAIR PARTS AND SPECIAL TOOL LISTS

TEST SET, RECEIVING SET,
RADAR DATA
A/GKM-2A

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

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**OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOL LISTS
TEST SETS, RECEIVING SET, RADAR DATA AN/GKM-2A
(NSN 6625-00-906-3325) AND AN/GKM-2B (NSN 6625-00-926-4393)**

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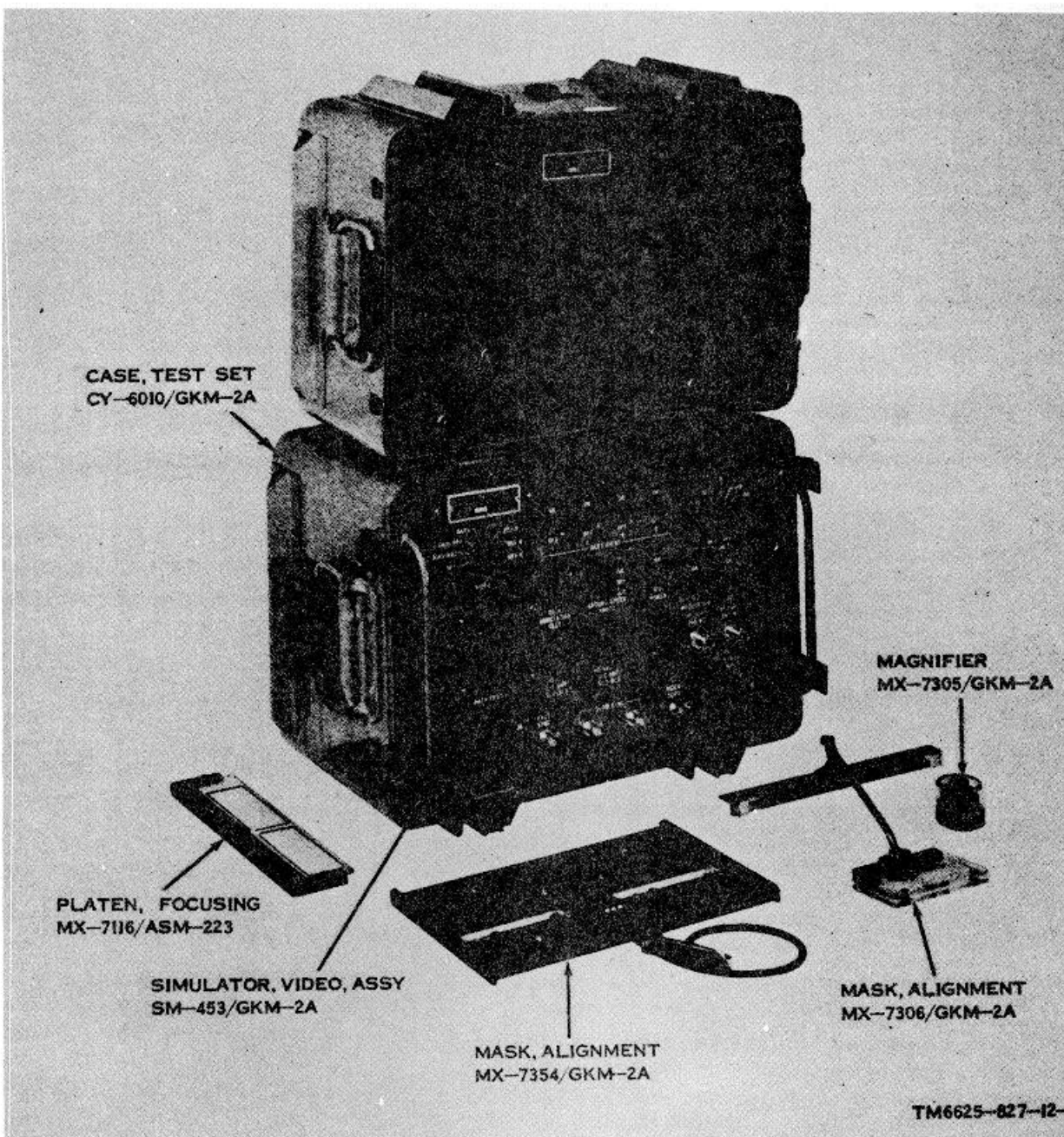


Figure 1-1. Test Set, Receiving Set, Radar Data AN/GKM-2A, less minor components and running spares.

CHAPTER 1 INTRODUCTION

Section I. GENERAL

1-1. Scope

This manual describes Test Set, Receiving Set, Radar Data AN/GKM-2A (fig. 1-1) and provides instructions for installation, operation, operator and organizational maintenance, and demolition. It includes instructions for cleaning and inspection of the equipment and replacement of parts available to the operator and organizational repair technician. This manual applies equally to the AN/GKM-2B, except where indicated. Refer to appendix E for detailed differences.

1-2. Indexes of Publications

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

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

1-3. Forms and Records

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

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

c. *Discrepancy in Shipment Report (DISREP) (SF 361).* Fill out and forward Discrepancy in Shipment

Report (DISREP) (SF 361) as prescribed in AR 5538/NAVSUPINST 4610./ AFR 76-18/MCO P4610.19B and DSAR 4500.15.

1-3.1. Reporting of Errors

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

1-3.2. Reporting Equipment Improvement Recommendations (EIR)

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

1-3.3. Administrative Storage

Administrative storage of equipment issued to and used by Army activities shall be in accordance with TM 740-90-1.

1-3.4. Destruction of Army Electronics Materiel

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

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. Test Set, Receiving Set, Radar Data AN/GKM-2A provides a means for testing, aligning, and adjusting Receiving Sets, Radar Data AN/TKQ-1 and AN/TKQ-2. Simulator, Video, Assembly SM-453/GKM-2A generates signals to simulate those composite signals normally re-

ceived by Receiving Sets, Radar Data AN/ TKQ-1 and AN/TKQ-2, thus permitting these equipments to be checked for operational accuracy. Mask, Alignment MX-7354/GKM-2A; Mask, Alignment MX-7306/GKM-2A; Platen, Focusing MX-7116/ASM-223; and Magnifier

MX-7305/GKM-2A provide means for accurately aligning or adjusting the video display components of Receiving Sets, Radar Data AN/TKQ-1 and AN/TKQ-2.

b. When the use, the SM-4531GKM-2A video simulator is connected to components of AN/ TKQ-1 or the AN/TKQ-2. The video simulator generates signals used to align components of the AN/TKQ-1 and AN/TKQ-2 as well as variable drift angle signals, groundspeed signals, data annotation signals (AN/TKQ-2 only), aircraft identification signals, and video signals normally received by the particular equipment under test. In response to these signals, the AN/TKQ-1 or the AN/TKQ-2 produces a test film that shows its performance characteristics. The test film enables the operator to determine any need for equipment

adjustment or alignment. The video simulator also provides rf outputs that are used for confidence testing of the Receiver, Radio R-1335/G unit.

c. The MX-7354/GKM-2A alignment mask and the MX-7305/GKM-2A magnifier are used for adjusting the cathode-ray tube (crt) traces of Indicator, Radar Target IP-541/TKQ-1 or Indicator, Radar Target IP-795/TKQ-2. The MX-7306/GKM-2A accessory mask provides a means of adjusting the video display on the film used in Recorder-Processor-viewer, Radar Mapping RO-1661UP. It is also used for adjusting the travel speed of the film. The MX-7116/ASM-223 focusing platen provides a means of observing the RO-166/UP present position display (ppd) readout when the AN/TKQ-2 is being tested or aligned.

Change 3 1-2