

TECHNICAL MANUAL

GENERAL SUPPORT

MAINTENANCE MANUAL

RADIO TEST SET

AN/ARM-92B

(NSN 6625-00-631-5501)

This copy is a reprint which includes current
pages from Changes 1 and 2.

HEADQUARTERS, DEPARTMENT OF THE ARMY

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**GENERAL SUPPORT MAINTENANCE MANUAL
 RADIO TEST SET AN/ARM-92B
 (NSN 6625-00-631-5501)**

REPORTING OF ERRORS

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 DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. A reply will be furnished direct to you.

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CHAPTER 1 FUNCTIONING

Section I. GENERAL FUNCTIONING OF RADIO TEST SET AN/ARM-92B

1-1. Scope

This manual contains general support maintenance instructions for Radio Test Set AN/ARM-92B. It includes instructions appropriate to these categories of maintenance for troubleshooting, testing, aligning, and repairing the equipment. The manual also lists tools, materials, and test equipment for maintenance. Detailed functions of the equipment are also covered.

NOTE

For other applicable forms and records, refer to paragraph 1-3, TM 11-6625-820-12.

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. Reporting Equipment Improvement Recommendations (EIR)

If your Radio Test Set AN/ARM-92B needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Tell us why a procedure is hard to perform. Put it on an SF 368 Form (Quality Deficiency Report). Mail it to Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. We'll send you a reply.

1-4. Block Diagram Functioning of Radio Test Set AN/ARM42B

(fig. 1-1)

a. General. Radio Test Set AN/ARM-92B pro-

vides for complete testing of Radio Receiving Sets AN/ARN-82, AN/ARN-82A, AN/ARN-82B, and AN/ARN-123(V) (receiving set) when used with external test equipment. The test set can also be used to test Radio Receiver R-1963/ARN (GS/MB receiver) and provides for flag and deviation loading. The functions of Radio Test Set AN/ARM-92B are as follows:

- (1) Power distribution
- (2) Phase shifting
- (3) Resolver signal transmission
- (4) Current measuring
- (5) Compass simulation
- (6) Self-test of control unit and functions of the test set

b. Power Distribution Circuits. Radio Set Control C-6873/ARN-82 (control unit), power relay K1, and power transformer T1 comprise the power distribution circuits. The test set connects 27.5-volt direct current (dc) from an external power source to the control unit, which applies or removes the 27.5 volts dc from the remaining power circuits. When the control unit applies this voltage to the remaining power circuits, 27.5 volts dc is applied to the radio receiver being tested, or to the GS/MB receiver, and to power relay K1. The relay then energizes and connects 115 volts, 400 Hz to power transformer T1. Transformer T1 steps the voltage down to 26 volts, 400 Hz, which is applied to the radio receiver. The control unit also supplies the tuning information required by the radio receiver or the GS/MB receiver.

c. Phase-Shifting Circuits. The phase-shifting circuits consist of precision bearing transformers T2 and T3, Course Indicator ID-1347C/ARN-82 (OBS), MODE switch S3, BEARING switch S4, and