

TECHNICAL MANUAL

GENERAL SUPPORT AND DEPOT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOL LISTS

TEST SET, DIRECTION FINDER SET AN/ARM-93

This copy is a reprint which includes current pages from Changes 1 and 2. The title was changed by C 2 to read as shown above. App A was superseded by TM 11-6625-821-40P, 30 Mar 73.

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GS and Depot Maintenance Manual

TEST SET, DIRECTION FINDER SET AN/ARM 93

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*This manual supersedes TM 11-6625-821-45, 1 February 1966.

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CHAPTER 1

FUNCTIONING

Section I. General Functioning of Test Set, Direction Finder Set AN/ARM-93

1-1. Scope

a. General. This manual contains general support and depot maintenance instructions for Test Set, Direction Finder Set AN/ARM-93. 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.

b. Report of Equipment Manual Improvements. Report of errors, omissions, and recommendations for improving this manual by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to DA Publications) and forwarded direct to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-ME-NMP-AD, Fort Monmouth, N. J., 07703.

Note. For other applicable forms and records, see paragraph 1-3, TM 11-6625-821-12.

c. Indexes of Publication. Refer to the latest issues of DA Pam 3104 and DA Pam 310-7 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

1-2. Functional Block Diagram Analysis (fig. 5-2)

a. General. Test Set, Direction Finder Set AN/ARM-93 checks the performance of Radio Receiver R-1391/ARN-83; Control, Direction Finder C-6899/ARN-83 (control unit); and Inverter, Power, Static CV-2128/ARN-83 *b* through *d* below provide a block

diagram description of each performance check, e provides a block diagram description of Test Fixture, Loop Antenna MT-3667/ARM-93).

b. Receiver. The test set checks the performance of the receiver by simulating the signals applied to the receiver during normal operation and by providing an indication of the receiver's response to such signals. The loop antenna signal and sense antenna signal for the receiver are produced with an external signal generator, a loop simulator, a cable simulator, and Simulator, Antenna SM-446/ARM-93 (sense antenna adapter). The external signal generator provides the radiofrequency (RF) carrier for the two signals. The RF carrier is applied directly to SENSE ANTENNA connector J10. The sense antenna signal from J10 is connected to the receiver through the sense antenna adapter, which provides an impedance match between the test set and the receiver. The RF carrier is also applied to the loop simulator through a converter. The loop simulator adds directional characteristics to the RF carrier and simulates Antenna AS-1863/ARN-83 (fixed loop antenna) normally used with the receiver. The converter enables the operator to read the field strength of the RF carrier at the simulated fixed loop antenna directly from the external signal generator output meter. The field strength to read in microvolt per meter when the signal generator output meter measures the signal generator output in microvolt. From the loop simulator, the RF carrier is applied to the cable simulator, which simulates part of the impedance of the loop cable located in