

TECHNICAL MANUAL

OPERATOR, ORGANIZATIONAL, DS, GS, AND DEPOT MAINTENANCE MANUAL

FOR

MARCONI INSTRUMENTS OA2090 WHITE NOISE TEST SET

**HEADQUARTERS, DEPARTMENT OF THE ARMY
MAY 1971**

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This technical manual is an authentication of the manufacturer's commercial literature and does not conform with the format and content specified in AR 310-3, Military Publications. This technical manual does, however, contain available information that is essential to the operation and maintenance of the equipment.

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A. INTRODUCTION

A.1. Scope

This manual describes Marconi Instruments QA2090 White Noise Test Set. It includes installation and operations instructions, and covers operator, organizational, direct support (DS), general support (GS), and depot maintenance.

A.2. Indexes of Publications

a. 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. Refer to DA Pam 310-7 to determine whether there are Modification Work Orders (1MWO's) pertaining to the equipment.

A.3. Forms and Records

a. Reports of Maintenance and Unsatisfactory Equipment. Use equipment forms and records in accordance with instructions in TM 38-750.

b. Report of Packaging and Handling Deficiencies. Fill out and forward DD Form 6 (Report of Packaging and Handling Deficiencies) as prescribed in AR 700-58 (Army)/NAVSUP PUB 378 (Navy)/AFR 71-4 (Air Force)/ and MCO P4030.29 (Marine Corps).

c. Discrepancy in Shipment Report (DISREP) (SF361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF361) as prescribed in AR 55-38 (Army)/NAVSUP PUB 459 (Navy) /AFM 75-34 (Air Force)/ and MCO P4610.19 (Marine Corps).

d. Reporting of Equipment Manual Improvements. Report of errors, omissions, and recommendations for improving this equipment 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: ANSEL-ME-NMP-EM, Fort Monmouth, New Jersey 07703.

1 GENERAL INFORMATION

1.1 FEATURES

White Noise Test Set OA 2090 permits the measurement of intermodulation products and noise in multi-channel telephone link equipment. A noise signal generated by the instrument is used to simulate full traffic conditions in any number of channels up to 2700. This signal is applied to the baseband circuit of the equipment under test and the noise in a narrow slot is compared in the loaded and unloaded states.

The instrument consists of two units: a Noise Generator type TF 2091 and a Noise Receiver TF 2092. The

generator includes a selection of high-and low-pass filters to restrict the noise to the required bandwidth and band-stop filters to create a slot within the band. The receiver has a selection of narrow band-pass filters corresponding to the generator slots and a meter and attenuator to measure the relative noise level as the generator slot is switched in and out.

OA 2090R is a rack-mounting version of the test set comprising Noise Generator type TF 2091R and Noise Receiver TF 2092R.

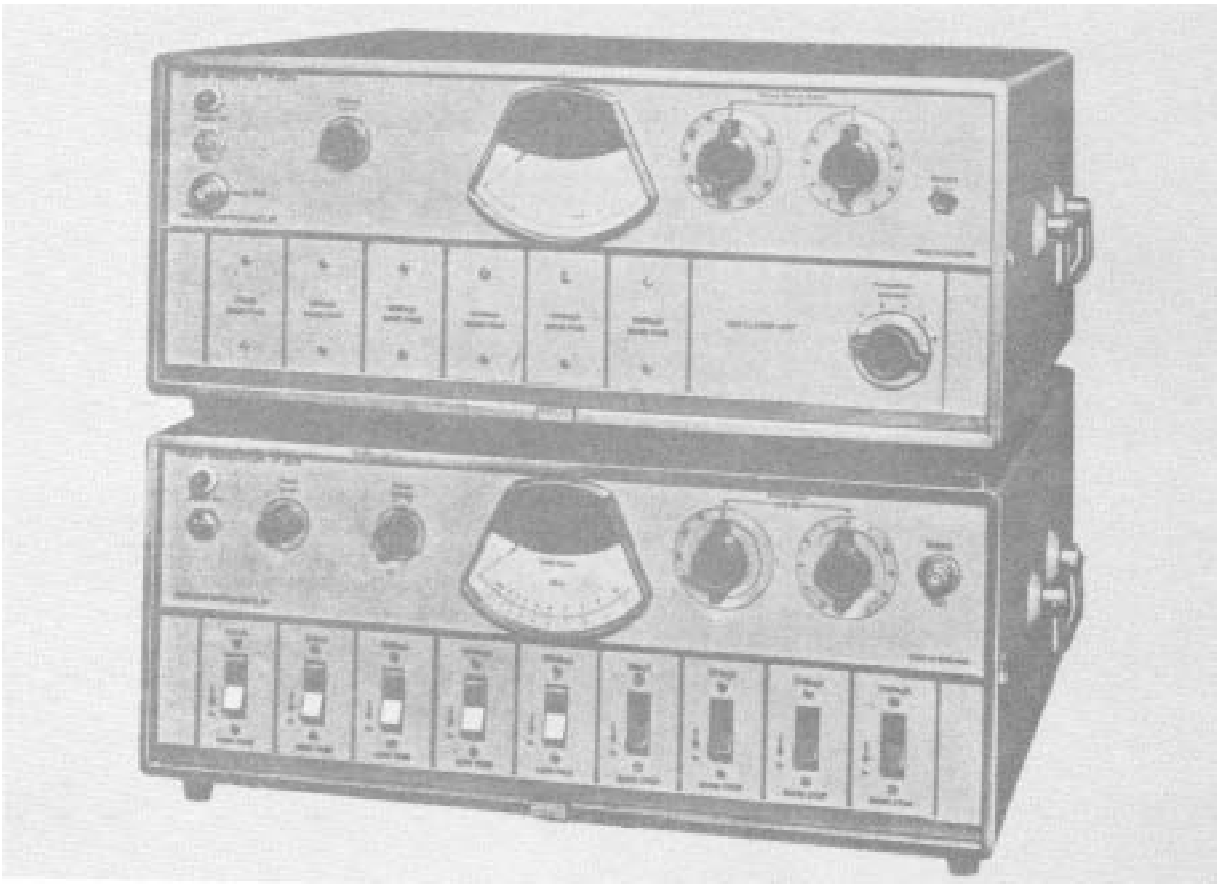


Fig. 1.1 White Noise Test Set OA 2090