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DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL MAINTENANCE MANUAL

AUDIO OSCILLATORS TS-421/U AND TS-421A/U



HEADQUARTERS DEPARTMENT OF THE ARMY

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OPERATOR'S AND ORGANIZATIONAL MAINTENANCE MANUAL AUDIO OSCILLATORS TS-421/U AND TS-421A/U (NSN 6625-00-669-0228)

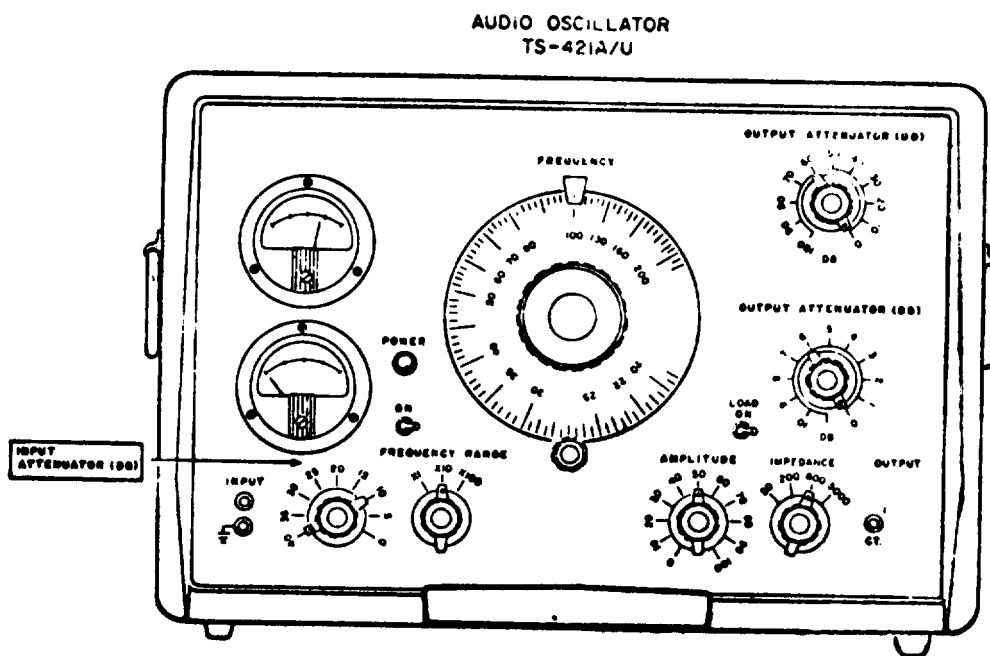
REPORTING OF ERRORS

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 Publication and Blank Forms) and forwarded 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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*This manual supersedes TM 11-6625-355-12, 17 August 1960, including change 2, 27 September 1963; and so much of TM 11-2649, 1 October 1945, as Pertains to Operator and Organizational Maintenance.

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Figure 1-1. Audio Oscillator TS-421A/U less running spares.

CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual describes Audio Oscillator TS-421(*)/U and covers the installation, operation, and operator's and organizational maintenance of these equipments. It includes operation under usual conditions, and replacement of parts available to the organizational repair technician.

b. Official nomenclature including(*) is used to designate all models of the equipment item covered by this manual. Thus Audio Oscillator TS-421(*)/U represents Audio Oscillators TS-421A/U and TS-421/U. Throughout this manual Audio Oscillator TS-421(*)/U will be referred to as the Audio Oscillator.

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 4030.29/AFR 71-13/MCO P4030.29A, and DLAR 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 55-38/NAVSUPINST 4610.33B/AFR 75-18/MCO P4610.19C and DLAR 4500.15.

1-3.1. 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 Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703. A reply will be furnished direct to you.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. Audio Oscillator TS-421(*)/U is a general purpose instrument that is used for measurement of audio amplifier gain, frequency response, distortion measurements, broadcast transmitter audio response, and loudspeaker response.

b. Two voltmeters are built into Audio Oscillator TS-421(*)/U. One voltmeter measures the audio oscillator output, and the other voltmeter measures the input from the device under test.

1-5. Technical Characteristics

Frequency range:

Band X1 20 Cps to 200 Cps.

Band X10 200 cps to 2 kc.
 Band X100 2 kc to 20 kc.
 Frequency stability $\pm 2\%$ over extended periods.
 Output impedance
 TS-421A/U 5 watts maximum into resistive loads of 50, 200, 600, or 5,000 ohms. Output circuit is either balanced or unbalanced (single-ended).
 TS-421/U 5 watts maximum into resistive loads of 50, 200, 500, or 5,000 ohms. Output circuit is either balanced or unbalanced.
 Distortion Less than 1% at frequencies above 30 cps.
 Hum level 60 db below the output voltage.

Change 2 1-1