
TECHNICAL MANUAL
OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT,
AND GENERAL SUPPORT MAINTENANCE MANUAL
FOR

RADIO SET AN/ FRC-113(V)1	(NSN 5820-00-911-7991)
RADIO SET AN/ FRC-1 13(V)2	(NSN 5820-00-911-7998)
RADIO SET AN/ FRC-1 13(V)3	(NSN 5820-00-911-7997)
RADIO SET AN/ FRC-113(V)4	(NSN 5820-00-911-7996)
RADIO SET AN/ FRC-113(V)5	(NSN 5820-00-911-7995)
RADIO SET AN/ FRC-113(V)6	(NSN 5820-00-911-8003)
RADIO SET AN/ FRC-113(V)7	(NSN 5820-00-911-8004)
RADIO SET AN/ FRC-113(V)8	(NSN 5820-00-911-8005)
RADIO SET AN/ FRC-113(V)9	(NSN 5820-00-911-8006)
RADIO SET AN/ FRC-113(V)10	(NSN 5820-00-911-8007)
RADIO SET AN/ FRC-113(V)11	(NSN 5820-00-937-9221)

NUS 6060

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DEPARTMENT OF THE ARMY
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**Operator's Organizational, Direct Support
and General Support Maintenance Manual
For**

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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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PREFACE

This manual describes the radio equipment shelter used at mainline and tributary sites. It provides installation and checkout procedures, operating instructions, theory of operation, and maintenance information, on a system basis. Theory of operation is described at the system level for the various shelter configurations and emphasizes the interrelation of the radio equipment cabinets. Part Two of this manual provides a description of the ancillary items in the radio equipment shelter, and provides calibration procedures for the translation oscillator.

The radio equipment shelter conforms to a modular concept and is maintained to the direct support (3rd echelon) level. Maintenance to this level of support is concerned with localizing trouble to a particular module in the malfunctioning equipment. When the trouble is localized, replace the defective module. For maintenance information, refer to the manual for the applicable equipment, and refer to Instruction Manual for Test Facilities Kit MK-884/FRC-81 (), TM 11-6625-647-14/1 and -14/2 for maintenance information on the modules.

The radio equipment shelter is a component equipment in the ET-A communications system. The following is a list of publications pertaining to the ET-A communications system component equipments.

<i>Manual Title</i>	<i>Manual Number</i>
Maintenance Control Group AN/GSA-99(V)1 through AN/GSA-99(V)12 (NUS 6283)	11-5820-570-14
Operator's Manual for Center, Communications Operations AN/MSQ-76(V)1 through AN/MSQ-76(V)3 and AN/GSQ-106(V)1 through AN/GSQ-106(V)3 (Console Local Equipment)	11-5820-571-10
Radio Set AN/FRC-113(V)1 through AN/FRC-113(V)11 (NUS 6060)	11-5820-572-14
Multiplexer Set AN/FCC-40 through AN/FCC-54	11-5820-573-15
Nodal Point Receiver (NUS 8021/8024)	11-5820-574-14
Console, Communication Control OA-8149/MRC-114(V) through OA-8154/MRC-114(V) (NUS 5972-5, -6)	11-5820-575-14
Console Training Facility (NUS 8423)	11-5820-576-14
Switching Set, Communications AN/MSQ-74(V)1 through AN/MSQ-74(V)10 and AN/MSQ-74(V)12 (Console Remote Equipment) (NUS 7640)	11-5820-577-14
Center, Communications Operations AN/MSQ-76(V)1 through AN/MSQ-76(V)3 and AN/GSQ-106(V)1 through AN/GSQ-106(V)3 (Console Local Equipment)	11-5820-578-24
Communication Group OA-8319/MSM (NUS 6052-23G1)	11-5820-578-14-1
Power Amplifier Group AN/MRA-15 (NUS 7561)	11-5820-579-15
Electronic Tube Cooler, ET-A Type 15-27-32.5	11-5820-579-15-1
Amplifier-Power Supply AM-4832/FRC-113(V) (NUS 6061-3)	11-5820-580-14
Transmitter (NUS 5951)	11-5820-581-14
Console, Communication Control OA-7695/GRC and OA-7696/GRC (NUS 5972-3, -7)	11-5820-582-14
Dual Receiver (NUS 5961)	11-5820-583-14
Maintenance Control Group AN/GSA-100 (NUS 6284)	11-5820-585-14
Tributary Terminal Set AN/FSC-34 (NUS 7957)	11-5820-587-15
Amplifier-Power Supply AM-14419/GRC (NUS 8013-2)	11-5820-603-14
ET-A Mainline Site Manual	11-5895-376-14-1
ET-A Tributary Site Manual	11-5895-376-14-2
ET-A Site Equipment, Towers and Antennas	11-5895-376-14-3
Test Facilities Kit MK-884/FRC-81()	11-6625-647-14

PART ONE

CHAPTER 1

INTRODUCTION

Section I. GENERAL INFORMATION

1. Scope

This manual provides information on radio equipment shelters, type NUS 6060. It includes a description, installation and checkout procedure, operating instructions, theory and maintenance information.

2. 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 (Packaging Improvement Report) as prescribed in AR 700-58/NAVSUPINST 4030.29/AFR 71-13/MCO P4030.29A, and DSAR 4145.8

c. You can help improve this manual by calling attention to errors and by recommending improvement and stating your reasons for the recommendations. Your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) should be mailed direct to Commander, US Army Electronics Command, ATTN: DRSEL-MA-Q, Fort Monmouth, N. J. 07703. A reply will be furnished direct to you.

3. Definitions

Baseband	Information, including voice channel(s), orderwire channel, pilot tone and tele-type data that modulates a carrier for transmission.
Carrier	The rf output of a transmitter, which is capable of being modulated.
CEC	Central equipment cabinet.
Diversity reception	The reception of a radio signal by using two or more antennas, each of which feeds a receiver, and combining the signals in the receivers to provide a single output.
Diversity transmission	The transmission of radio signals using two or more transmitters, each driving a separate antenna feedhorn, all on the same frequency and all modulated with a common baseband.