

TECHNICAL MANUAL

DIRECT SUPPORT AND GENERAL SUPPORT

MAINTENANCE MANUAL

FOR

MODEM, DIGITAL

DATA MD-920 A/G

(NSN 5820-00-155-8576)

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**DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE MANUAL
FOR
MODEM, DIGITAL DATA MD-920A/G
(NSN 5820-01-057-6356)**

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CHAPTER 1 INTRODUCTION

1-1. Scope

This manual contains necessary information for troubleshooting, repair and maintenance of Modem, Digital Data MD-920A/G, hereafter referred to as the ICF modem. Chapter 2 provides a detailed explanation of circuit operation. Direct support troubleshooting and maintenance procedures for the ICF modem are provided in chapter 3 and chapter 4 provides information for general support maintenance of the ICF modem. Chapter 5 provides necessary information for the modem power supply, including functional description, maintenance, repair, and troubleshooting. Appendix A contains references, appendix B contains wire lists, and appendix C defines mnemonics used on diagrams.

NOTE

Refer to TM 38-750 for Forms and Records, TM 750-224-2 for Destruction of Army Materiel to Prevent Enemy Use, and TM 740-90-1 for Administrative Storage.

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. Equipment Designators

Throughout this manual, assemblies and subassemblies are identified by reference designation; e.g., A2A1, A2A1A1, etc. These designators are the same as those marked on the equipment. The maintenance allocation chart in TM 11-5820-804-12 and the repair parts and special tools lists in TM 115820-804-20P and 34P are, however, organized in functional group code (FGC) sequence. To facilitate use of all equipment documentation, a reference designation to functional group code cross reference index is provided in table 1-1.

Table 1-1. Reference Designation/FGC Cross Reference

<i>Reference designator</i>	<i>Name</i>	<i>Assembly number</i>	<i>Functional group</i>
	Modem, MD-920A/G.	SM-D-759601	00
A1	Control Panel	SM-D-759656	01
A1A1	Switch Assembly	SM-D-742008	0101
A1A2	Switch Assembly	SM-D-742008	0102
A2	Modem Assembly	SM-D-759658	02
A2A1	Synthesizer and Bit Sync Assembly	SM-D-759603	0201
A2A1A1A1	Counter Encoder	SM-D-742105	020101
A2A1A1A2	Programmable Divider	SM-D-742109	020102
A2A1A1A3	Reference Oscillator	SM-D-742129	020103
A2A1A1A5	Reference Divider	SM-D-742133	020104
A2A1A1A6	45 MHz Phase Lock Loop	SM-D-742113	020105
A2A1A1A8	45 MHz Amplifier	SM-D-742117	020106
A2A1A1A10	Mixer/Output Amplifier	SM-D-74125	020107
A2A1A1A11	15 MHz Amplifier	SM-D-742121	020108
A2A1A1A12	Stable Clock	SM-D-731201	020109
A2A1A1A14	Reference Divider	SM-D-742133	020110
A2A1A1A15	Digital A1 To Analog Converter	SM-D-731217	020111
A2A1A1A16	Loop Filter	SM-D-731221	020112
A2A1A1A17	Transmit Bit Detector	SM-D-742045	020113
A2A1A1A21	Line Driver	SM-D-742053	020114
A2A1A1A22	Line Driver	SM-D-742053	020115
A2A1A1A23	Line Driver	SM-D-742053	020116
A2A1A2A1	LOS/Cable Receiver and Decoder	SM-D-742089	020117
A2A1A2A2	NRZ Interface	SM-D-877791	020118
A2A1A2A3	LOS/Cable Driver	SM-D-742081	020119
A2A1A2A4	Input Interface	SM-D-742037	020120
A2A1A2A5	Coder Interface	SM-D-742049	020121
A2A1A2A6	Coder Switch	SM-D-742041	020122

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