

**TECHNICAL MANUAL**

**OPERATOR'S ORGANIZATIONAL,  
DIRECT SUPPORT, AND  
GENERAL SUPPORT  
MAINTENANCE MANUAL**

**SPECTRUM ANALYZER  
HEWLETT-PACKARD MODEL 85558B**

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Technical Manual )  
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HEADQUARTERS  
DEPARTMENT OF THE ARMY  
Washington, DC, 1 January 1986

**OPERATOR'S ORGANIZATIONAL AND  
DIRECT SUPPORT, AND GENERAL SUPPORT  
MAINTENANCE MANUAL  
SPECTRUM ANALYZER HEWLETT-PACKARD MODEL 8558B  
(Includes Option 001 and Option 002)**

**SERIAL NUMBERS**

This manual applies directly to instruments with serial numbers prefixed 2147A.

With modifications described in Section VII, this manual also applies to instruments with the serial prefixes 1914A through 2145A.

For additional important information about serial numbers, see INSTRUMENTS COVERED BY MANUAL in Section I.

**REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-ME-MP, Fort Monmouth, NJ 07703-5007.

In either case, a reply will be furnished direct to you.

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## APPENDIX

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**SECTION 0.****INTRODUCTION****0-1. SCOPE**

This manual describes Spectrum Analyzer, Hewlett-Packard Model 8558B and provides instructions for operation and maintenance.

**0-2. CONSOLIDATED INDEX OF ARMY PUBLICATIONS AND BLANK FORMS**

Refer to the latest issue of DA Pam 310-1 to determine whether there are new editions, changes or additional publications pertaining to the equipment.

**0-3. MAINTENANCE FORMS, RECORDS, AND REPORTS**

a. Reports of Maintenance and Unsatisfactory Equipment. Department of the Army forms and procedures used for equipment maintenance will be those prescribed by DA Pam 738-750, as contained in Maintenance Management Update.

b. Report of Packaging and Handling Deficiencies. Fill out and forward SF 364 (Report of Discrepancy (ROD)) as prescribed in AR 735-11-2/DLAR 4140.55/ NAVMATINST 4355.73A/AFR 400-54/MCO 4430.3F.

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 4610.33C/AFR 75-18/MCO P4610.19D/DLAR 4500.15.

**0-4. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS (EIR)**

If your equipment needs improvement, let us know. Send us an EIR. You, the user, are the only one who can tell us what you don't like about your equipment. Let us know why you don't like the design. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications-Electronics Command and Fort Monmouth, ATTN: AMSEL-ME-MP, Fort Monmouth, NJ 07703-5007. We'll send you a reply.

**0-5. ADMINISTRATIVE STORAGE**

Administrative storage of equipment issued to and used by Army activities will have preventive maintenance performed in accordance with the PMCS charts before storing. When removing the equipment from administrative storage the PMCS should be performed to assure operational readiness. Disassembly and repacking of equipment for shipment or limited storage is covered in paragraph 2-23.

**0-6. DESTRUCTION OF ARMY ELECTRONICS MATERIEL**

Destruction of Army electronics materiel to prevent enemy use shall be in accordance with TM 750-244-2.

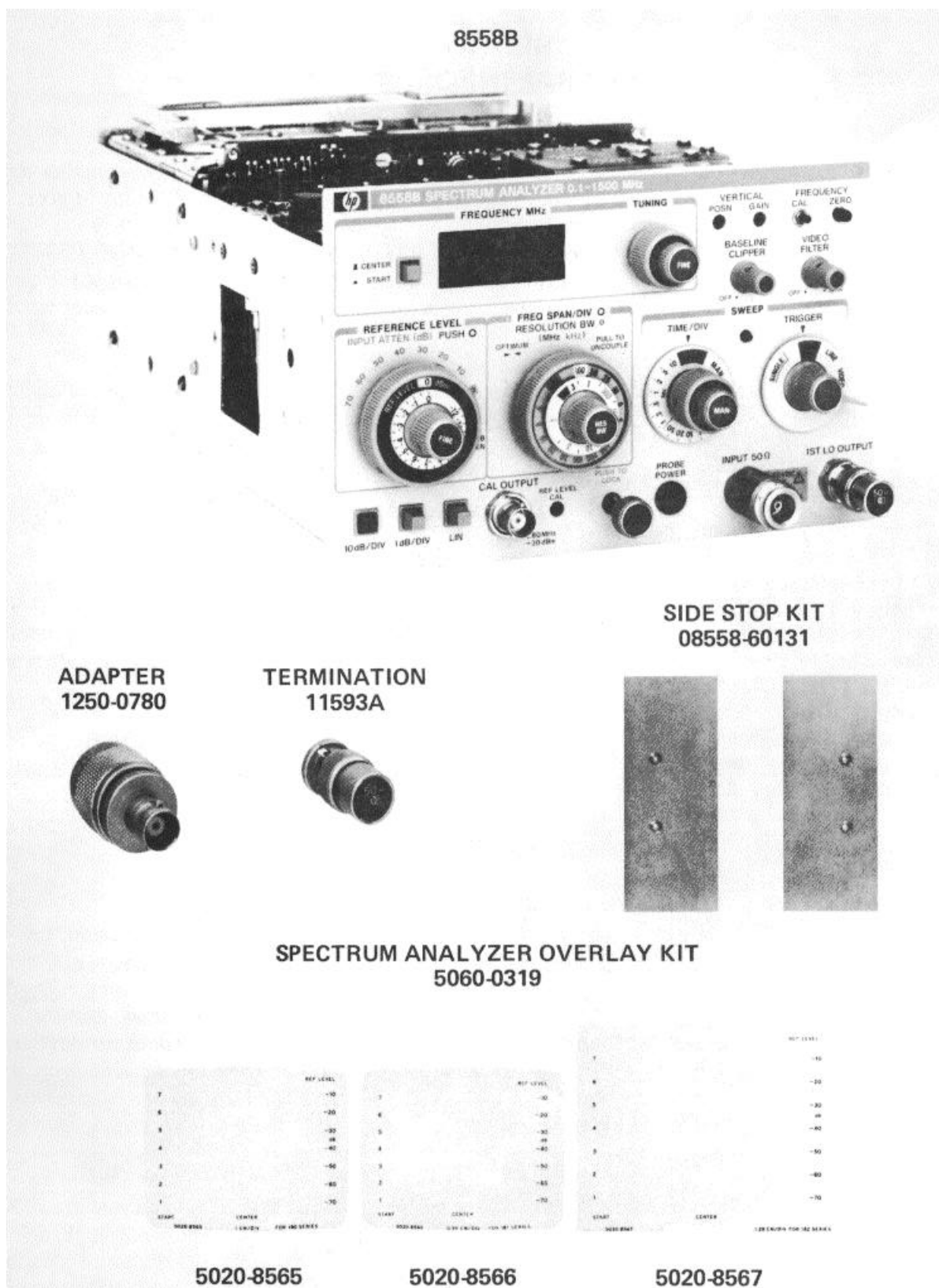


Figure 1-1. HP Model 8558B Spectrum Analyzer with Accessories Supplied

## SECTION I.

### GENERAL INFORMATION

#### 1-1. INTRODUCTION

1-2. This Operation and Service manual contains information required to install, operate, test, adjust, and service the Hewlett-Packard Model 8558B Spectrum Analyzer. Figure 1-1 shows the standard instrument and accessories supplied. This section covers instrument identification, description, options, accessories, specifications, and other basic information.

#### 1-3. DESCRIPTION

1-4. The HP 8558B displays the amplitude and frequency of each component of an input signal on a CRT. This display gives quantitative information often not available from a conventional oscilloscope. The HP 8558B is capable of measuring signals from -117 dBm to +30 dBm over a frequency range of 100 kHz to 1500 MHz.

*001: 110 dBm to + 30 dBm*

*002: 63 dBmV to + 80 dBmV*

1-5. The complete measuring system includes the HP 8558B Spectrum Analyzer plugged into a compatible Hewlett-Packard display mainframe.

#### 1-6. MANUAL ORGANIZATION

1-7. This manual is divided into eight sections as follows:

SECTION I, GENERAL INFORMATION, contains the instrument description and specifications, explains accessories and options, and lists recommended test equipment.

SECTION II, INSTALLATION AND OPERATION VERIFICATION, contains information concerning initial mechanical inspection, preparation for use, operating environment, packaging and shipping, and operation verification.

SECTION III, OPERATION, contains detailed instructions for operation of the instrument.

SECTION IV, PERFORMANCE TESTS, contains the necessary tests to verify that the electrical operation of the instrument is in accordance with published specifications.

SECTION V, ADJUSTMENTS, contains the necessary adjustment procedures to properly adjust the instrument after repair.

SECTION VI, REPLACEABLE PARTS, contains the information necessary to order parts and/or assemblies for the instrument.

SECTION VII, MANUAL BACKDATING CHANGES, contains backdating information to make this manual compatible with earlier equipment configurations.

SECTION VIII, SERVICE, contains schematic diagrams, block diagrams, component location illustrations, circuit descriptions, and troubleshooting information to aid in repair of the instrument.

1-8. On the title page of this manual, below the manual part number, is a microfiche part number. This number may be used to order 4-by 6-inch microfilm transparencies of the manual. Each microfiche contains up to 60 photo-duplicates of the manual pages. The microfiche package also includes the latest Manual Changes supplement.

1-9. Where text changes are required to reflect Options 001 and 002, these changes are shown in bold type immediately following applicable text. Notes are also included in tables and illustrations where users of Options 001 and 002 need to be informed of differences from the standard instrument. Users of the standard instrument should ignore references to Options 001 and 002.