

TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, GENERAL SUPPORT
AND DEPOT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LISTS

TEST FACILITIES KITS
MK-980/PPS-5 (NSN 6625-00-933-9980)
AND
MK-980A/PPS-5 (NSN 6625-00-453-5667)

**This copy is a reprint which includes current
pages from Changes 1 through 12.**

HEADQUARTERS, DEPARTMENT OF THE ARMY
MAY 1967

OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, GENERAL SUPPORT AND
DEPOT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST

TEST FACILITIES KITS
MK-980/PPS-5 (NSN 6625-00-453-5667)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

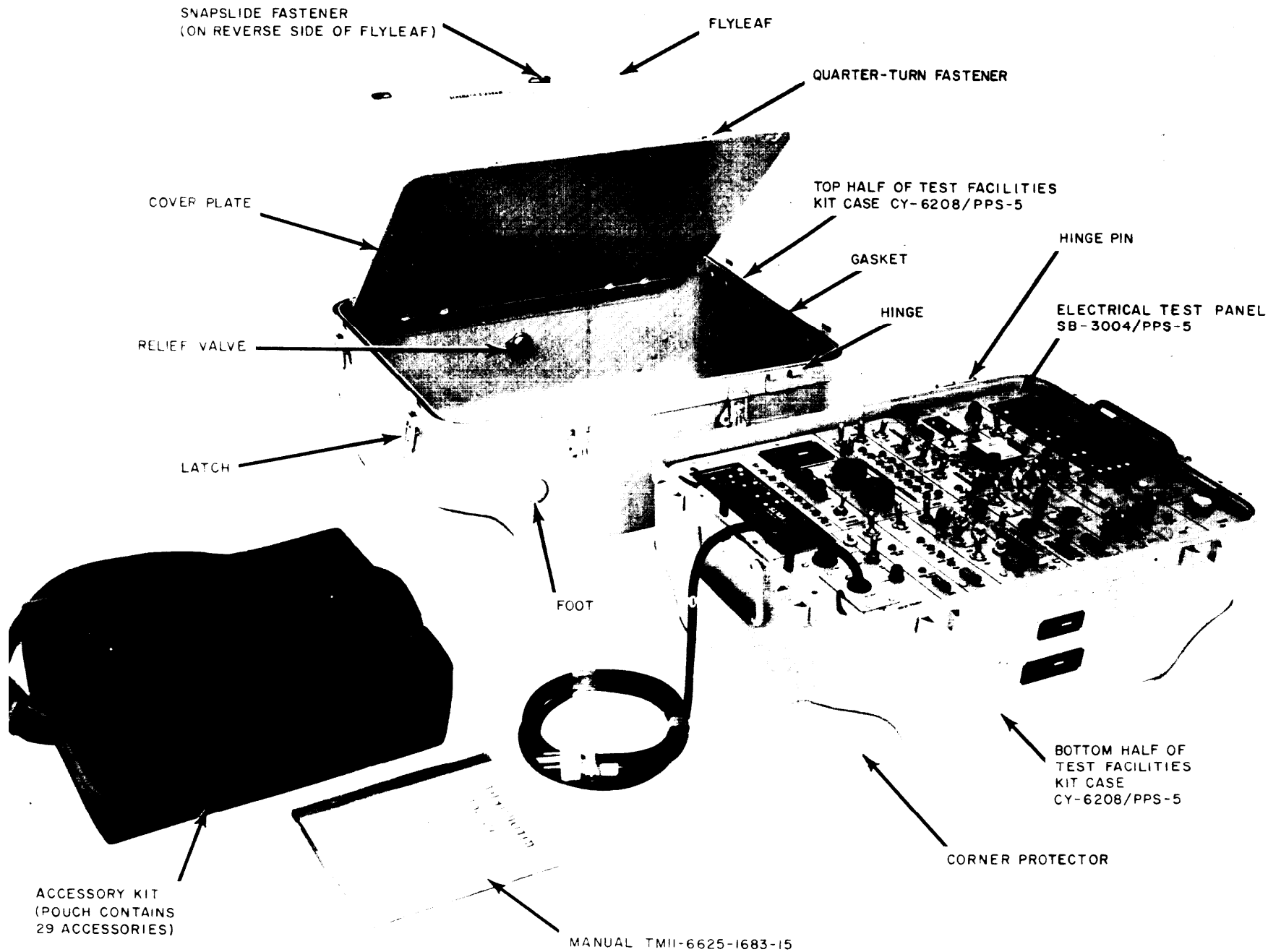
You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter, or DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Communications-Electronics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

For Navy, mail comments to the Commander, Naval Electronics Systems Command, ATTN: ELEX 8122, Washington, DC 20360.

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

Table of Contents

Chapter	1. INTRODUCTION	1-1-1-10	1-1
	2. Installation	2-1-2-4	2-1
	3. OPERATING INSTRUCTIONS		
Section	I. Operator's controls and Indicators	3-1-3-22	3-1
	II. Operation under usual conditions	3-23-3-25	3-11
	III. Operation under unusual conditions	3-26-3-28	3-11
CHAPTER	4. ORGANIZATIONAL MAINTENANCE	4-1-4-14	4-1
	5. FUNCTIONING	5-1-5-28	5-1
	6. TROUBLESHOOTING		
Section	I. General troubleshooting information	6-1-6-3	6-1
	II. Troubleshooting Electrical Test Panel SB-3004/PPS-5	6-4-6-10	6-3
CHAPTER	7. REPAIRS AND ADJUSTMENT		
Section	I. Repairs	7-1,7-2	7-1
	II. Adjustment	7-3,7-4	7-7
	III. Cable repair	7-5-7-32	7-8
CHAPTER	8. GENERAL SUPPORT TESTING PROCEDURES.....	8-1-8-14	8-1
	8.1 DEPOT OVERHAUL STANDARDS	8.1-1-8.1-26	
	9. SHIPMENT AND LIMITED STORAGE AND DEMOLITION TO PREVENT ENEMY USE		
Section	I. Shipment and limited storage	9-1-9-3	9-1
	II. Demolition of materiel to prevent enemy use,	9-4-9-6	9-3
Appendix	A. REFERENCES		A-1
Appendix	B. BASIC ISSUE ITEMS LIST (BIIL) AND ITEMS TROOP INSTALLED OR AUTHORIZED LIST (ITIAL)		
Section	I. Introduction		B-1
	II Basic Issue items list		B-2
	III. Items troop installed or authorized list (Not applicable)		
	C. MAINTENANCE ALLOCATION,.....		C-1
	D. ORGANIZATIONAL MAINTENANCE REPAIR PARTS		D-1
Index			I-1



Change 12 1-0

Figure No. 1-1

CHAPTER 1 INTRODUCTION

NOTE

Test Facilities Kit MK-980/PPS-5 is similar to Test Facilities Kit MK-980A/PPS-5. Information in this manual applies to both equipments unless otherwise indicated. Refer to paragraph 1-11 for differences in the equipments.

1-1. Scope

a. This manual describes Test Facilities Kit MK-980/PPS-5 (fig. 1-1) and provides instructions for its operation and maintenance. It includes operation under usual and unusual conditions, cleaning and inspection of the equipment, replacement of parts, and repair. It also includes a maintenance allocation charge (App C), and Repair Parts (App D).

b. Refer to the detailed operating procedures for using Test Facilities Kit MK-980/PPS-5 or similar radar sets (radar set) in the testing procedures for those equipments.

1-2. 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.

1-3. 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 Pam738-750, 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) (SF361) as prescribed in AR55-38/NAVSUPINST 4610.33C/AFR75-18/MCO P4610.19D/DLAR 4500.15.

1-3.1. Reporting Equipment Improvement Recommendations [EIR]

If your Test Facilities Kit MK-980/PPS-5 or MK-980A/PPS-5 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: DRSEL-ME-MP, Fort Monmouth, New Jersey 07703. We'll send you a reply.

1-3.3. Destruction of Army Electronics Materiel

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

1-4. Purpose and Use

a. Test facilities Kit MK-980/PPS-5 is a portable test set designed specifically to simplify the troubleshooting of Radar Set AN/PPS-5 and similar radar sets by providing test signals, input voltages, and jacks for connecting the radar set to standard test equipment. By using the MK-980/ PPS-5, many of the plug-in circuits of the radar set can either be tested individually while they are operating as part of the radar, or be removed from the radar set and tested individually on the bench.

b. The cable assemblies of the MD-980/PPS-5 can also be used independently: they can be used to make the plug-in circuits more accessible for testing. A plug-in circuit, for example, can be removed from the radar set, one of test cables can be plugged into the connector on the cable. The radar set can then be turned on, and the parts of the circuit can be tested under conditions almost like those under which it operates in the radar set.

c. The MK-980/PPS-5 can be plugged into a 115-volt alternating current (at) line, or it can be powered by either Battery Box CY-3871/PPS-5 or Power Supply PP-4450/PPS-5, which are part of Radar Set AN/PPS-5.

1-5. Technical Characteristics

Input power	115 volts ac \pm 10 percent, 50 to 1,000 Hz, 0.9 ampere (amp) or 6 volts direct current (dc) \pm 10 percent, 9 ampere.
outputs:	
Dc voltages . . .	+2KV (+0 -400), -2KV (+0 +400), -600 (+30 -30), +300V (-0) +20), +110V (+6 -16, +35V (+10-10, +12V (+0-4), -12V (-0 +4), +V (+0.3 -0.9, -6V (-0.3 +0.9), -5V (+0.3 -0), +0.9), -5V (+0.3 -0), +39V (+0 -0.2), and -3.9V (-0 +0.2).
Sync4,000-Hz, 75 volts (+25 -30) amplitude, pulse with 5 to 25 usec.
Trigger4,000-Hz, 10 volts (+1 -1) amplitude, pulse width 2 usec,
Power supply sync.4,000-Hz, 8 volts (+1 -1) amplitude, pulse width 2 usec.
Environmental requirements	
Operating temperature range	0° to 55°, for continuous operation; 0°C to 71°C, for Intermittent operation.
Storage temperature range	-62°C to +85°C.
Altitude range	0 to 10,000 feet (operating); 0 to 50,000 feet (not operation).
Watertightness	Leakproof under 3 feet of water when the cover is on and latched.
	NOTE
	When the cover is unlatched, the control panel is not waterproof or rainproof.
Explosion	This equipment is not to be operated in an explosive-type atmosphere, it is not sealed, and its switches are not sealed.
Weight	55 pounds