

TM 11-6625-2965-14&P

TECHNICAL MANUAL

**OPERATOR'S ORGANIZATIONAL
DIRECT SUPPORT AND GENERAL SUPPORT
MAINTENANCE MANUAL
[INCLUDING REPAIR PARTS
AND SPECIAL TOOLS LISTS]**

**POWER SUPPLY PP-7548/U
(HEWLETT-PACKARD MODEL 6205B)
[NSN 6625-00-437-4861]**

**HEADQUARTERS, DEPARTMENT OF THE ARMY
25 FEBRUARY 1980**

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HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 25 February 1980

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REPORTING OF ERRORS

You can improve this manual by recommending improvements using DA Form 2028-2 located in the back of the manual. Simply tear out the self-addressed form, fill it out as shown on the sample, fold it where shown, and drop it in the mail.

If there are no blank DA Forms 2028-2 in the back of your manual, use the standard DA Form 2028 (Recommended Changes to Publications and Blank Forms) and forward to the Commander, US Army Communications and Electronics Materiel Readiness Command, ATTN: DRSEL-ME-MQ, Fort Monmouth, NJ 07703.

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

This manual is an authentication of the manufacturer's commercial literature which, through usage, has been found to cover the data required to operate and maintain this equipment. Since the manual was not prepared in accordance with military specifications, the format has not been structured to consider levels of maintenance.

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SECTION O
INSTRUCTIONS

0-1. SCOPE

This manual applies directly to Power Supply PP-7548/U (Hewlett-Packard Model 6205) having serial prefix number 7L2301 and up. For serial prefixes below 7L2301 refer to Appendix E. For serials above 7L4450 check for inclusion of change page.

0-2. 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 (MWOs) 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 described by TM 38-750, The Army Maintenance Management System,

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 71-12/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.

0-4. REPORTING EQUIPMENT IMPROVEMENT RECOMMENDATIONS(EIR)

If your Power Supply PP-7548/U (HP-6205) 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. Tell us why a procedure is hard to perform. Put it on an SF 368 (Quality Deficiency Report). Mail it to Commander, US Army Communications and Electronics Materiel Readiness Command and Fort Monmouth, ATTN: DRSEL-ME-MQ, Fort Monmouth, New Jersey 07703. We'll send you a reply.

0-5. ADMINISTRATIVE STORAGE

Administrative storage of equipment issued to and used by Army activities shall be in accordance with paragraph 2-5.

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.

1-1 DESCRIPTION

1-2 This power supply, Figure 1-1, is completely transistorized and suitable for either bench or relay rack operations. The dual supply consists of two independently controlled dual range sections; both identical to the other. Each section can furnish either a 0-40 Volt output at 300mA or a 0-20 Volt output at 600mA. Each section has its own front panel meter and operating controls. The operating modes (40V or 20V) are selected by means of the front panel RANGE switches. The VOLTAGE controls permit each output voltage to be continuously adjusted throughout either output range.

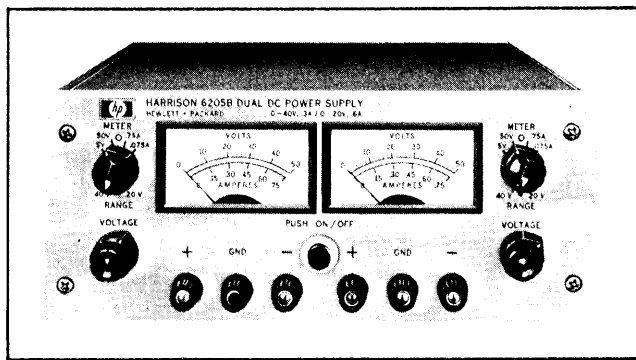


Figure 1-1. DC Power Supply, Model 6205B

1-3 Both sections of the supply are of the regulated, Constant Voltage/Current Limiting, type. Each section is fully protected from overloads by the fixed current limit which is set by means of an internal adjustment.

1-4 Both front and rear terminals are available for each section. Either the positive or negative terminals may be grounded or the supply can be operated at up to a maximum of 300 Volts off ground. Each meter can be used to measure either output voltage or output current in one of two ranges. The voltage or current ranges are selected by the applicable METER switch on the front panel.

1-5 Two sets of programming terminals, located at the rear of the unit, allow ease in adapting to the many operational capabilities of the supply. A brief description of these capabilities is given below:

a. Remote Programming, The power supply

may be programmed from a remote location by means of an external voltage source or resistance.

b. Remote Sensing. The degradation in regulation which would occur at the load because of the voltage drop which takes place in the load leads can be reduced by using the power supply in the remote sensing mode of operation.

c. Series and Auto-Series Operation, Power supplies may be used in series when a higher output voltage is required in the voltage mode of operation or when greater voltage compliance is required in the constant current mode of operation, Auto-Series operation permits one knob control of the total output voltage from a "master" supply.

d. Parallel and Auto-Parallel Operation, The power supply may be operated in parallel with a similar unit when greater output current capability is required. Auto-Parallel operation permits one knob control of the total output current from a "master" supply.

e. Auto-Tracking. The power supply may be used as a "master" supply, having control over one (or more) "slave" supplies that furnish various voltages for a system.

1-6 SPECIFICATIONS

1-7 Detailed specifications for the power supply are given in Table 1-1.

1-8 OPTIONS

1-9 Options are factory modifications of a standard instrument that are requested by the customer. The following options are available for the instrument covered by this manual, Where necessary, detailed coverage of the options is included throughout the manual.

| Option No. | Description |
|------------|--|
| 07 | <u>Voltage 10-Turn Pot</u> : A single control that replaces both coarse and fine voltage controls and improves output nettability. |
| 11 | <u>Overvoltage Protection "Crowbar"</u> : A completely separate circuit for protecting delicate loads against power supply failure or operator error. This independent device monitors the output voltage and within 10µsec imposes a virtual short-circuit (crowbar) across the power supply output if the preset |