SECTION I
GENERAL INFORMATION

1-1 DESCRIPTION

1-2 This power supply, Figure 1-1, is completely transistorized and suitable for either bench or relay rack operation. It is a compact, regulated, Constant Voltage/Current Limiting supply. The output voltage can be continuously adjusted throughout the output voltage range. The power supply is fully protected from overloads by a fixed current limit which is set by means of an internal adjustment. The current limit circuit permits series and parallel connection of two or more supplies when greater voltage or current is desired.

1-3 Either the positive or negative output terminal may be grounded or the power supply can be operated floating at up to a maximum of 300 volts off ground.

1-4 A single meter is used to measure either output voltage or output current in volts and milliamps, respectively. The voltage or current range is selected by the METER switch on the front panel.

1-5 SPECIFICATIONS

1-6 Detailed specifications for the power supply are given in Table 1-1.

1-7 OPTIONS

1-8 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
28	230Vac, 50-400Hz, Single-Phase Output: Factory modification consists of reconnecting the input transformer for 230Vac operation. Refer to Section II for further details.

1-9 ACCESSORIES

1-10 The accessories listed in the following chart may be ordered with the power supply or separately from your local Hewlett-Packard field sales office (refer to list at rear of manual for addresses).

HP Part No.	Description
14521A	3½" High Rack Kit for mounting up to three BENCH supplies. (Refer to Section II for details.)
14522A	7" High Rack Kit for mounting up to six BENCH supplies. (Refer to Section II for details.)

1-11 INSTRUMENT/MANUAL IDENTIFICATION

1-12 Hewlett-Packard power supplies are identified by a three-part serial number tag. The first part is the power supply model number. The second part is the serial number prefix, which consists of a number-letter combination that denotes the date of a significant design change. The number designates the year, and the letter A through L designates the month, January through December respectively. The third part is the power supply serial number.

1-13 If the serial number prefix on your power supply does not agree with the prefix on the title page of this manual, change sheets are included to update the manual. Where applicable, backdating information is given in an appendix at the rear of the manual.

1-14 ORDERING ADDITIONAL MANUALS

1-15 One manual is shipped with each power supply. Additional manuals may be purchased from your local Hewlett-Packard field office (see list at rear of this manual for addresses). Specify the model number, serial number prefix, and HP stock number provided on the title page.

Table 1-1. Specifications

INPUT:
105-125Vac, single phase, 50-400Hz.

OUTPUT:
0-50Vdc, 0-200mA.

LOAD REGULATION:
Less than 4mV for a full load to no load change in output current.

LINE REGULATION:
Less than 4mV for any line voltage change within the input rating.

RIPPLE AND NOISE:
Less than 200μV rms/1mV p-p (dc to 20MHz).

TEMPERATURE RANGES:
Operating: 0 to 55°C. Storage: -40 to +85°C.

TEMPERATURE COEFFICIENT:
Less than 0.02% plus 1mV per degree Centigrade.

STABILITY:
Less than 0.10% plus 5mV total drift for 8 hours after an initial warm-up time of 30 minutes at constant ambient, constant line voltage, and constant load.

INTERNAL IMPEDANCE AS A CONSTANT VOLTAGE SOURCE:
Less than 0.03 ohms from dc to 1KHz.
Less than 0.5 ohms from 1KHz to 100KHz.
Less than 3.0 ohms from 100KHz to 1MHz.

TRANSIENT RECOVERY TIME:
Less than 50μsec for output recovery to within 10mV following a full load current change in the output.

OVERLOAD PROTECTION:
A fixed current limiting circuit protects the power supply for all overloads including a direct short placed across the output terminals in constant voltage operation.

METER:
The front panel meter can be used as either a 0-60V voltmeter or as a 0-250mA ammeter.

OUTPUT CONTROLS:
Coarse and fine voltage controls set desired output voltage. Meter switch selects voltage or current.

OUTPUT TERMINALS:
Three "five-way" output posts are provided on the front panel. All power supply output terminals are isolated from the chassis and either the positive or negative terminal may be connected to the chassis through a separate ground terminal located on the output terminal strip.

COOLING:
Convection cooling is employed. The supply has no moving parts.

SIZE:
5¼"/13,34cm W x 3¼"/8,26cm H x 7"/17,78cm D. Using a Rack Mounting Kit, three units can be mounted side by side in a standard 19" relay rack.

WEIGHT:
5.25 lbs./2,38 kg net; 7 lbs./3,17 kg shipping.

FINISH: Dark Gray.

POWER CORD:
A three-wire, five-foot power cord is provided with each unit.