

PRICE LIST

EFFECTIVE AUGUST 1, 1948



laboratory instruments
FOR SPEED AND ACCURACY

HEWLETT-PACKARD COMPANY
395 PAGE MILL ROAD • PALO ALTO, CALIFORNIA

FUNCTION	MODEL	FREQUENCY	CHARACTERISTICS	PRICE	Each
HARDWARE	10		Binding Post	Quant. 1-99	\$.20
	14		Flexible coupler, ceramic insulated; permits misalignment of 1/32" and/or 5°	100 and over	.15
LOW FREQUENCY STANDARDS	100A	100 kc, 10 kc, 1 kc, 100 cps	Accuracy 3 cps per mc per degree Centigrade	Quant. 1-9	1.50
	100B	100 kc, 10 kc, 1 kc, 100 cps	Temperature controlled; accuracy 0.001%	10-99	1.35
FREQUENCY DIVIDER	110	100 to 10 cps	Controlled by 100A or 100B. Multipliers also available up to 1 mc	100 and over	1.25
RESISTANCE-TUNED OSCILLATORS	200A	35 to 35,000 cps	Output 1 watt into 500 ohms; 1% distortion		120.00*
	200B	20 to 20,000 cps	Output 1 watt into 500 ohms; 1% distortion		120.00*
	200C	20 to 200,000 cps	Output 10 volts into 1,000 ohms; 1% distortion		150.00*
	200D	7 to 70,000 cps	Output 10 volts into 1,000 ohms; 1% distortion		175.00*
	200H	60 to 600,000 cps	Output 10 mw into a 100 ohm load; 3% total distortion		350.00*
	200 I	6 to 6,000 cps	Frequency setting closer than 1%; output 10 volts into 1,000 ohms; 1% distortion		225.00*
	201B	20 to 20,000 cps	Output 3 watts at 1% and 1 watt at 1/2% distortion into 600 ohms		250.00*
	202B	1/2 to 1,000 cps	For low frequency studies. Output 10 volts into 1,000 ohms; 1% distortion		350.00†
	202D	2 to 70,000 cps	Output 10 volts into 1,000 ohms; 1% distortion		275.00*
	204A	2 to 20,000 cps	Portable, battery-operated; output 5.0 volts to 10,000 ohm load; 1% distortion		175.00
AUDIO SIGNAL GENERATORS	205A	20 to 20,000 cps	Output 5 watts, 1% distortion into impedances of 50, 200, 600, 5,000 ohms. Output VTVM and 110 db attenuator, 1 db steps		390.00†
	205AG	20 to 20,000 cps	Same as 205A, plus separate VTVM for complete gain measurements		425.00†
	205AH	1 to 100 kc	Output 5 watts, 3% distortion into 50, 200, 500, 5,000 ohm impedances. Output VTVM and 110 db attenuator, 1 db steps		550.00†
SQUARE WAVE GENERATOR	206A	20 to 20,000 cps	Output +15 dbm with less than 0.1% distortion into 50, 150, 600 ohm impedances. Output VTVM and 111 db attenuator in 0.1 db steps		550.00†
	210A	20 to 10,000 cps	Output 50 volts peak to peak; 1,000 ohm internal impedance; 70 db attenuator, 5 db steps		150.00*
WAVE ANALYZER	300A	30 to 16,000 cps	Variable selectivity; measurement range 1 mv to 500 volts; 5% accuracy		625.00†

Prices complete with tubes F.O.B. Palo Alto, California. Data and prices subject to change without notice.

FUNCTION	MODEL	FREQUENCY	CHARACTERISTICS	PRICE
DISTORTION ANALYZERS	320A	400 cps and 5 kc	Measures total distortion as low as 0.1%. 70 db attenuator, 1 db steps for comparison	\$ 75.00*
	320B	50, 100, 400 cps and 1, 5 and 7.5 kc	Same as 320A	150.00*
	325B	30, 50, 100, 400, 1,000 cps; 5, 7.5, 10 and 15 kc	Measures total distortion as low as 0.1%. Input amplifier and complete VTVM each usable separately	350.00†
	330B	Any frequency 20 to 20,000 cps	Similar to 325B but measures at any frequency and includes AM detector	425.00†
	330C	Any frequency 20 to 20,000 cps	Similar to 330B, no AM detector. Meter has VU characteristics to meet FCC requirements for FM broadcasting	425.00†
FM BROADCAST MONITOR	335B	88 to 108 mc	FCC approved. Monitors carrier frequency and modulation. High fidelity output for aural monitoring	935.00†
ATTENUATORS	350A	Max 100 kc	110 db, 1 db steps; 5 watts, 500 ohm level. Bridged T type. Accuracy 1 db in 50 db at 100 kc	50.00*
	350B	Max 100 kc	Same as 350A but 600 ohm level	50.00*
VACUUM TUBE VOLTMETERS AND ACCESSORIES	400A	10 cps to 1 mc	Nine ranges 0.03 to 300 volts full scale. Accuracy $\pm 3\%$ to 100 kc, $\pm 5\%$ to 1 mc. Average reading. Calibrated in rms.	185.00*
	400B	2 cps to 100 kc	Same as 400A with response flat to 2 cps. 10 megohm input impedance	195.00*
	400C	20 cps to 2 mc	Twelve ranges 0.001 to 300.0 volts full scale; accuracy $\pm 3\%$ to 100 kc, $\pm 5\%$ to 2 mc; 10 megohm input impedance; average reading; calibrated in rms volts; may be used as 54 db amplifier	200.00
	404A	2 to 50,000 cps	Portable, battery-operated; eleven ranges; 0.003 to 300 volts full scale; accuracy $\pm 3\%$ to 20 kc; 10 megohm input impedance	185.00
	410A	20 cps to 700 mc	AC: six ranges 1 to 300 volts. DC: seven ranges 1 to 1,000 volts. Resistance: seven ranges 0.2 ohm to 500 megohms	245.00
	415A	300 to 2,000 cps	Standing Wave Indicator for use with a bolometer or crystal rectifier; standard frequency 1000 cps, others on special order	200.00
	455A	to 1,000 mc	Connects probe of 410A across 50 ohm transmission line. Type N fittings	35.00
	458A	to 1,000 mc	Connects probe of 410A to open end of 50 ohm transmission line. Type N fittings	17.50
AMPLIFIERS	450A	10 to 1,000,000 cps	40 db and 20 db stabilized gain. Input impedance 1 megohm shunted by approximately 15 uuf.	140.00*
ELECTRONIC FREQUENCY METER	500A	5 cps to 50 kc	Ten ranges, $\pm 2\%$ accuracy. Input 0.5 to 200 volts	210.00*
ELECTRONIC TACHOMETER	505A	300 to 3,000,000 rpm	Ten ranges, $\pm 2\%$ accuracy	300.00*
	505B	5 to 50,000 rps	Same as 505A except calibrated in rps	300.00*
SIGNAL GENERATORS	610A	500 to 1,350 mc	Calibrated output 0.1 microvolt to 0.1 volt. Internal pulse modulation. Direct calibration	925.00
	616A	1,800 to 4,000 mc	Direct reading. Pulse modulation, CW and FM. Calibrated output 0.1 microvolt to 0.2 volts	2500.00
	650A	10 cps to 10 mc	Direct reading. Six bands. Output 3 volts to 600 ohm load. VTVM and output attenuator	475.00†
POWER SUPPLY	710A		Any dc voltage 180 to 360 for 0 to 75 ma load; approximately 1% regulation. Also 6.3 volts, 5 amps ac.	85.00

*Available in rack mounting at \$5.00 additional.

†Available in rack mounting; no extra cost. Other instruments available in cabinet mounting only. Standard color is H-P Grey; other colors at \$5.00 additional.

SUGGESTIONS FOR ORDERING

Order by Model Number . . . Always order by catalog model number and name of instrument desired. For example, "Model 206A Audio Signal Generator." Whenever possible mention frequency range or other significant specifications to prevent misunderstanding. Also mention features such as special color, special frequency range, non-standard power line voltage, etc., and whether cabinet or rack mounting style is desired.

Most Hewlett-Packard instruments are available in either cabinet or rack mounting. Rack mounting styles are designated by adding an "R" after the model number. For example, "200BR." An asterisk in the price list indicates that rack mounting style is available at an additional cost of \$5.00. A dagger indicates that rack mounting style is available at no extra cost.

Orders should be sent direct to the factory and addressed to Hewlett-Packard Company, 395 Page Mill Road, Palo Alto, California. All orders are subject to final acceptance by the Hewlett-Packard Company.

Shipments . . . Unless specifically requested otherwise, shipments are made by express. This policy is born of experience. Delicate instruments require the careful handling received in express shipment, and over a long period of time this method has proved most satisfactory. On request, shipments will be made by air freight or by truck. We do not recommend shipment by parcel post or by freight, and shipments will not be made by this type of carrier without specific instructions from the customer and the understanding that safe arrival is his entire risk.

Terms . . . 30 days net. Unless credit has already been established, shipments will be made c.o.d. All prices are quoted f.o.b. Palo Alto.

Sales Representatives . . . Sales representatives are maintained in principal cities as a service to our customers. Customers are invited to contact the nearest representatives at any time. They will gladly supply technical information, help prepare your order and, if desired, forward order to the factory. Orders should be made out to the Hewlett-Packard Company and are subject to final acceptance by the Company in Palo Alto. Sales representatives and their addresses are shown in the price list. Export sales are made through Frazer and Hansen, Ltd., 301 Clay Street, San Francisco 11, California.

Repairs . . . When returning instruments for repairs, recalibration, or any other reason, please contact the Hewlett-Packard Company for shipping instructions. Give model number, type number, and serial number and as much information as possible concerning reason for return.

Repairs are made by the Hewlett-Packard Company at actual cost of labor and materials. Customers are invited to make full use of this service to insure maximum benefit from their instruments.

Repair Parts . . . When ordering repair parts please describe carefully parts required. Give model number, type number, serial number of the instrument and date of original purchase. Identify parts on the wiring diagram if possible, giving date shown on the circuit wiring diagram.

These -hp- Representatives Are At Your Service

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