TEST OSCILLATORS

Pushbutton or rechargeable battery operation

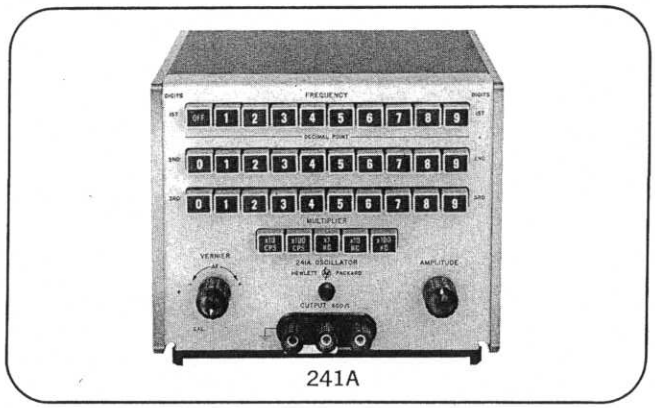
Models 241A, 208A

Pushbutton Oscillator (241A)

Frequency response is flat ±2% over the entire range at any attenuator setting. This is obtained by using special, fixed-precision resistors and large amounts of negative feedback in a unique biased-diode control circuit. A front-panel control adjusts the bridged-tee attenuator for output levels of −30 dBm to +10 dBm presenting a constant output impedance of 600 ohms.

Specifications 241A

Frequency range: 10 Hz to 1 MHz, 5 ranges, 4500 frequency increments with vernier overlap.
Calibration accuracy: ±1%.
Frequency response: ±2% into rated load.
Output impedance: 600Ω.
Distortion: 1% maximum.
Hum and noise: .05% of output.
Output: +10 to −30 dBm into 600Ω (2.5 V maximum).
Power: 115 or 230 V, 50 to 400 Hz, 1 W.
Dimensions: standard ½ module 7¾″ wide, 6¼″ high (without removable feet), 8″ deep (197 x 159 x 203 mm).
Weight: net 7¾ lbs (3,5 kg); shipping 10 lbs (4,5 kg).
Accessory furnished: detachable power cord, NEMA plug.
Accessories available: HP 11000A Cable, 44″ long, dual banana plugs, $5.00. HP 11002A Test Leads, 60″ long, dual banana plug to alligator clips, $8.00. HP 11004A, Line Matching Transformer, (5 kHz to 600 kHz) balanced output for 135 or 600Ω, $65. HP 11005A Line Matching Transformer (20 Hz to 45 kHz), balanced output for 600Ω, $85.
Price: HP 241A, $490.



241A

Any frequency between 10 Hz and 999 kHz can be selected to three significant figures by simply pushing the three appropriate frequency pushbuttons and one of five decade multipliers. These pushbuttons control 900 base frequencies in increments of 0.1 Hz from 10.0 to 99.9 Hz, providing 4500 discrete frequency settings. Infinite resolution is provided by a vernier control, extending the upper frequency to 1 MHz.

Since each discrete frequency setting is a digital function effectively isolated from every other setting, a high degree of calibration dependability is achieved—a major advantage for user convenience. Accuracy is within ±1% of selected value on any range.

Test Oscillator (208A)

Rechargeable Battery Operation

The solid-state design, light weight modular construction, and battery operation of this oscillator contribute to its portability. Rapid attenuation selection and monitored oscillator levels ideally suit the 208A Oscillator to transmission line work, production line tests and similar situations where output levels must be known.

Specifications 208A

Frequency range: 5 Hz to 560 kHz in 5 ranges. 5% overlap between ranges, vernier control.
Dial accuracy: ±3%.
Frequency response: ±3% into rated load.
Output: 10 mW nominal 2.5 V rms (+10 dBm) into 600Ω.
Output impedance: 600Ω.
Output attenuator
Meter scale value: 0.01 mV to 1 V full scale (6 steps).
Multiplier: 2.5 multiplier, concentric with Meter Scale Value switch, to obtain 0.025 mV to 2.5 V.
Output attenuator accuracy: 5 Hz to 100 kHz, error is <±3% at any step. From 100 kHz to 560 kHz, error is <5% at any step. Specifications include multiplier accuracy.
Output monitor: transistor voltmeter monitors level at input to attenuator and after set level. Accuracy ±2% of full scale into 600Ω.
Set level: continuously variable bridged "T" attenuator with 10:1 voltage range.
Distortion: <1%.
Hum and noise: <0.05% at maximum output.
Operating temperature range: 0°C to +50°C.
Power source: 4 rechargeable batteries (furnished); 30 hr operation per recharge. Oscillator may be operated during recharge from ac line (115 V or 230 V ±10%, 50 to 400 Hz, 3 W).
Dimensions: 7-25/32″ wide, 6¼″ high (without removable feet), 8″ deep (197 x 155 x 203 mm).
Weight: net 8¼ lbs (3,5 kg); shipping 11 lbs (5 kg).
Price: HP 208A, $565.

208A

208A option 001

(same as 208A except)

Output attenuator: 0 to 110 dB in 1 dB steps.

Accuracy, 10 dB section: from 5 Hz to 100 kHz, error is <±0.125 dB at any step; from 100 kHz to 560 kHz, error is <±0.25 dB at any step.

Accuracy, 100 dB section: from 5 Hz to 100 kHz error is <±0.25 dB at any step; from 100 kHz to 560 kHz error is <±0.5 dB at any step.

Output monitor: solid-state voltmeter monitors level at input to attenuator and after set level; scale calibrated −10 dBm to +11 dBm; accuracy ±0.25 dB at +10 dBm into 600Ω.

Set level: continuously variable bridged "T" attenuator with 20 dB minimum range.

Price: HP 208A, option 001, add $10.