

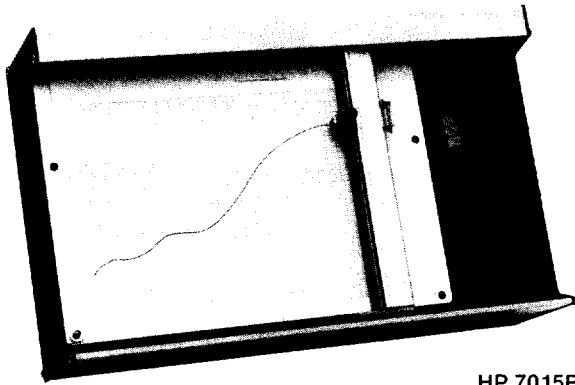
PLOTTERS & RECORDERS

Low-Cost, General Purpose X-Y Recorders, Time Base

Models 7015B, 7035B, 17108A

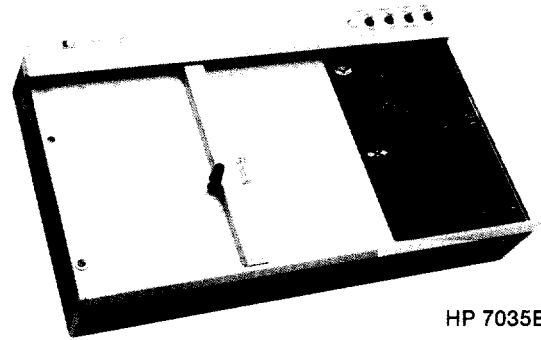


- Full capability



HP 7015B

- Precision recording



HP 7035B

For 35 years, the Hewlett-Packard family of X-Y recorders has been bringing performance, reliability, and service to lab environments all over the world. These recorders are manufactured in the HP tradition of quality, and designed to help you make recordings easily and accurately.

HP 7015B: a low-cost recorder for applications that require high dynamic performance, medium sensitivity, and A4/A-size output.

HP 7035B: a general purpose laboratory recorder for applications that require low dynamic performance, medium sensitivity, and A-size output.

HP 7045B and 7046B: high performance recorders for applications that require very high dynamic performance, high sensitivity, and A4/A- or A3/B-size output.

All HP X-Y recorders have electrostatic holddown for silent, trouble-free grip. And they use disposable pens for crisp, clean traces and one-step replacement of ink, tip, and color.

Model 7015B X-Y Recorder

The HP 7015B is a low-cost, one-pen X-Y recorder that allows charting on paper sizes up to ISO A/4 or 216 x 280 mm (8.5 x 11 in.). The unit is mounted in a sturdy case made from a single casting, assuring mechanical alignment and long life, even in rugged environments. The HP 7015B provides recording for a wide range of laboratory uses where there is a need for full capability at a reasonable cost.

The HP 7015B has a full complement of capabilities. The standard features include an internal time base with sweep selections from 5 seconds to 15 minutes. The time base provides automatic pen control and accepts remote triggering from sweep start and reset.

Also included are matched input filters, remote pen lift, and TTL-level remote control. The HP 7015B accepts TTL-level and low current (5mA) contact closure for easy interface with external equipment.

Model 7035B X-Y Recorder

The HP 7035B is the ideal recorder for general lab use. Compact in design, the HP 7035B is well adapted to rack mounting with the addition of only two optional wing brackets. It features floating guarded

inputs to help eliminate the common mode voltage effects that are troublesome when recording from low-level sources.

Input connectors on the HP 7035B accept both open wire and plug-type connectors. In addition, the recorder provides five calibrated ranges (0.4 mV/cm to 4 V/cm) for each axis; signal scaling for full-scale deflection, and high-impedance (1 megohm, except for the first two ranges).

Model 17108A Time Base

The HP 17108A is a self-contained time base that operates on either axis of the HP 7035B. By simply plugging in the HP 17108A, the HP 7035B is provided with five sweep seconds from 0.2 s/cm to 20 s/cm (0.5 to 50 s/in.). This module, powered by a single self-contained battery, is controlled by its own six-position range switch and three-position mode switch.



HP 17108A Option 002 mounted on recorder.

HP 17108A Specifications

Sweep seconds: 0.2, 0.4, 2, 4, 20 s/cm (0.5, 1, 5, 10, 50 s/in.)

Accuracy: 5% of recorder full scale

Linearity: 0.5% of full scale (20°C to 30°C)

Output voltage: 0 to 1.5 V

Power: replaceable mercury battery (100 h)



PLOTTERS & RECORDERS

Low Cost, General Use X-Y Recorder (cont'd)

Models 7015B, 7035B

HP 7015B and 7035B Specifications

Performance Specifications

	HP 7015B	HP 7035B
Type of input	Floating binding posts or circuit board rear connector	Floating guarded signal pair; rear connector
Input ranges	5, 50, 500 mV/cm (0.01, 0.1, 1 V/in.)	0.4, 4, 40, 400 mV/cm; 4 V/cm (1, 10, 100 mV/in.; 1 V/in.)
Input resistance	1 M Ω constant on all ranges	100 k Ω on 4 mV/cm (10 mV/in.) and potentiometric or essentially infinite at null on 0.4 mV/cm (1 mV/in.)
Source resistance	10 k Ω maximum on all ranges	20 k Ω maximum on most sensitive range; no restrictions on other ranges
Accuracy	$\pm 0.3\%$ of full scale on most sensitive range (includes linearity and resettability) plus $\pm 0.2\%$ of deflection when on other ranges; temp. coefficient $\pm 0.02\%$ per $^{\circ}\text{C}$	$\pm 0.2\%$ of full scale
Deadband Common mode rejection	$\pm 0.2\%$ of full scale 100 dB dc, 90 dB ac with 1 k unbalanced in HI terminal CMR decreases 20 dB per decade step in attenuation	130 dB dc, 100 dB ac with 1 k Ω between the negative input and guard connection CMR decreases 20 dB per decade step in attenuation
Normal mode rejection	Greater than 50 dB at 60 Hz (40 dB/decade rolloff above 60 Hz)	Greater than 30 dB at 60 Hz; then 18 dB/octave

Dynamic Performance Specifications

Slewing speed	Greater than 50 cm/s (20 in./s)	50 cm/s (20 in./s) nominal at 115V
Acceleration peak Y-axis X-axis	2.5 g's (2540 cm/s ² or 1000 in./s ²) 1.3 g's (1270 cm/s ² or 500 in./s ²) (with internal filters switched out)	Not specified
Maximum overshoot	2% of full scale	Not specified

Offset Specifications

Zero offset	Zero may be placed anywhere on the writing area or electrically off scale up to one full scale from zero index
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Time Base Specifications

Time base	Six speeds: 0.1, 0.5, 1, 5, 10, 50 s/cm (0.5, 1, 5, 10, 50, 100s/in.) remote sweep start and reset via TTL level or contact closure	Optional external time base (HP 17108A)
TIME BASE ACCURACY	1.5% ± 0.1 per $^{\circ}\text{C}$	$\pm 5\%$ of recorder full scale

General Specifications

Power	Switch selectable for 100, 120, 220, 240 Vac $\pm 5 - 10\%$; 47.5 to 440 Hz; 70 VA maximum	115 or 230 V $\pm 10\%$; 50 to 60 Hz; approx. 45 VA
Pen lift	Electric (remote via TTL level or contact closure)	Electric pen lift capable of being remotely controlled
Writing area	18 x 25 cm (7 x 10 in.)	
Weight	Net 7.2 kg (16 lb)	Net 8 kg (18 lb)
Size	267 H x 432 W x 135 mm D (10.5 in. x 17 in. x 5 in.)	265 H x 445 W x 121 mm D (10.5 in. x 17.5 in. x 4.8 in.)

HP 7015B Options

001 Metric calibration
908 Rack Mount

Price

N/C
\$30

HP 17108A Options

002 HP 17108A Metric calibration

N/C

Ordering Information

HP 7035B Options

001 Metric Calibration
908 Rack Mount

N/C
\$35

HP 7015B Lab X-Y recorder
HP 7035B General Purpose X-Y recorder
HP 17108A Time base plug-in

\$2200

\$2500

\$490