



PORTABLE PRECISION BALANCE

NEWTON EJ SERIES

Compact Balances



High resolution meets **value**

AND
A&D Weighing

When Your Budget Is Tight but Precision is Non-Negotiable...

Forget about those expensive electromagnetic force restoration*¹ balances. A&D's latest load cell technology employed in the EJ series now challenges their expensive offerings. A&D enables a way to spend less without compromising on precision... or functional convenience!



Breeze break with anti-static coating (for the EJ-54D2²/123/303)

Minimizes the effects of drafts and blocks static electricity from nearby objects to ensure stable weighing.

Stainless steel (SUS304) pan

Resistant to chemicals and scratches.

Spirit level and leveling feet

Helps to keep the balance level and avoid inaccurate weighing.

Security slot in the rear

Accommodates an anti-theft lock.

Clearly-visible, LCD display (16 mm character height) with backlight

Makes the weighing results easy to read even in a dimly-lit area.

High resolution (1/120,000 - 1/310,000) load cell as the weight sensor

The EJ series achieves a readability of 0.0002 g for a capacity of 22 g (lower capacity range of the EJ-54D2), 0.001 g for a capacity up to 310 g (higher capacity range of the EJ-54D2 and EJ-123/303), or 0.01 g for a capacity up to 3100 g (EJ-1202/3002).

No matter if you are a teaching lab, multi-technician production environment, gemologist/jewelry or in a field research arena; the **Newton EJ Series** offers **high resolutions solutions at a phenomenal value** to allow you to go anywhere – weigh anything!

*1 Method most commonly adopted for balances with resolutions of one over several hundred thousand or higher. It determines a mass from the amount of current required to generate the electromagnetic force on one side of a lever that equalizes with the mass placed on the other side.

*2 The breeze break of the EJ-54D2 is opened by sliding its upper surface to keep air turbulence to a minimum.

Extremely High Sensitivity – EJ 54D2



EJ-54D2



Carat Pan

The EJ-54D2, a dual range model, has two weighing ranges with different capacities and readabilities, each range extending from zero to its capacity.

The readability of the lower capacity (22 g) range is as fine as 0.0002 g (or 0.001 ct), which, for example, is ideally suited for precisely weighing/counting small pieces of precious metals/jewelries*³.

Useful Options

Data communication interfaces*⁴

- Quick USB interface (EJ-02), which allows you to send weighing data to Microsoft Excel, Word, Notepad, etc., without installing any drivers or other additional software on a PC*⁵
- RS-232C interface (EJ-03) for bi-directional communication with a PC, printer or other peripheral devices
- BT interface (EJ-27)*⁴ allows for wireless communication to PC with AD-8541-PC receiver or remote display AD-8931

Density determination kit (EJ-13)*⁶

The balance can automatically calculate a density from the sample weight in air, sample weight in water and water temperature.



EJ-13

Other Features

- Adjustable response characteristics and display hold ideal for tough weighing conditions
- Counting mode with Automatic Counting Accuracy Improvement (ACAI)
- Percent mode to display the weight value as a percentage of a reference mass
- Accumulation (M+) function to display the sum total of separate weighing results
- Density Determination EJ-13
- Multiple units of measure: g, oz, lb, ozt, ct, mom, dwt, gr, N, pcs, (counting mode) and % (percent mode), in addition to SG (density mode)*⁷
- Auto power OFF function to avoid wasting power

*³ A free carat pan is provided for the EJ-54D2 and can be used instead of the standard weighing pan. The breeze break can be easily detached for changing the pan as well as for cleaning (see below).

*⁴ Only one interface can be installed at a time.

*⁵ For transferring weighing data from the balance to a PC only. Please use the RS-232C interface with the AX-USB-9P serial/USB converter for bi-directional communication or GLP output via USB.

*⁶ For the EJ-123/303 only

*⁷ Either t (tola) or tl (tael - HK general/Singapore, HK jewelry, or Taiwan) can be added upon request, and lb is not available with the EJ-54D2/123/303.

Specifications

		EJ-54D2	EJ-123	EJ-303	EJ-1202	EJ-3002	
Capacity		22 g ^{*1}	52 g ^{*1}	120 g	310 g	1200 g	3100 g
Readability		0.0002 g ^{*1}	0.001 g ^{*1}	0.001 g		0.01 g	
Repeatability (standard deviation)		0.0004 g	0.001 g	0.003 g		0.03 g	
Linearity		±0.0006 g	±0.001 g	±0.003 g		±0.03 g	
Sensitivity drift		±20 ppm/°C (10 to 30°C/50 to 86°F)					
Operating environment		10 to 30°C/50 to 86°F, 85% RH or less (no condensation)					
Display type		7-segment LCD with backlight (character height: 16 mm)					
Display refresh rate		10 times / second					
Units of measure ^{*2}		g (gram), oz (ounce), lb (pound), ozt (troy ounce), ct (metric carat), mom (momme), dwt (pennyweight), gr (grain), N (Newton), pcs (counting mode), % (percent mode), SG (density mode)					
Counting mode	Min. unit weight ^{*3}	0.0002 g	0.001 g		0.01 g		
	No. of samples	5, 10, 25, 50 or 100 pieces					
Percent mode	Min. % display	0.01%					
	Min. 100% weight	0.02 g	0.1 g		1 g		
Power supply		AC adapter or 4 AA batteries					
Battery life		Approx. 70 hours with alkaline batteries, backlight OFF		Approx. 80 hours with alkaline batteries, backlight off			
Weighing pan size		Ø50 mm	Ø 110 mm		127 × 140 mm		
External dimensions		190 (W) × 209 (D) × 114 (H) mm	190 (W) × 211 (D) × 131 (H) mm		190 (W) × 208 (D) × 82 (H) mm		
Net weight		Approx. 1020 g	Approx. 1160 g		Approx. 1490 g		
Applicable calibration weight ^{*1}		50 g	100 g	300 g	1000 g	3000 g	
Standard accessories		Breeze break ^{*4} , AC adapter, Instruction manual					

*1 The EJ-54D2 is a dual range model having two weighing ranges with different capacities and readabilities. Each range extends from zero to its capacity.

*2 Either t (tola) or tl (tael - HK general/Singapore, HK jewelry, or Taiwan) can be added upon request, and lb is not available with the EJ-54D2/123/303.

*3 Factory setting

*4 For the EJ-54D2/EJ-123/303 only (the breeze break of the EJ-54D2 is opened by sliding its upper surface)

Accessories

AD-8127	Compact printer
AD-8541-PC	Wifi USB receiver to PC
AD-8931	Wireless remote display
AX-KO2466-200	RS-232C cable (9P-9P, 2 m)
AX-USB-9P	Serial/USB converter with cable

Options

EJ-02 ^{*1}	Quick USB interface
EJ-03 ^{*1}	RS-232C interface
EJ-13	Density determination kit
EJ-27-Kit ^{*1}	Wireless communication includes EJ-27 interface and AD-8541-PC USB receiver

*1 Only one interface can be used at a time

Standard Functions



Optional Functions



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