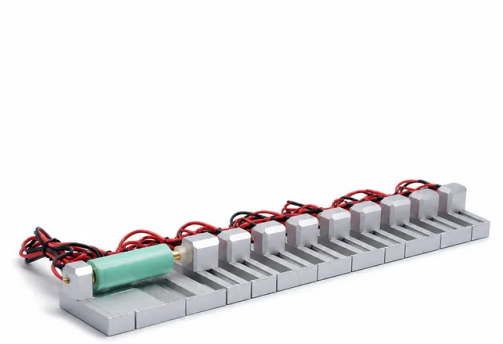
Extended Four Wire Cnc Aluminum Battery Test Fixture Holder Dual Self Locking 60A

Item Number: JA05



Introduction

Engineered for high current electrochemical analysis, this extended CNC aluminum four wire battery fixture features dual self locking mechanics, zero screw adjustment, and 60A continuous rating to eliminate contact resistance during precision cylindrical cell testing across demanding battery research environments.

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Application	Description	Key Benefit
High-Rate Cell Formation & Grading	Continuous high-current charge and discharge cycling (up to 60A) for sorting and binning cylindrical battery cells.	Minimizes thermal rise and prevents false contact-voltage drops, ensuring consistent capacity grading across large cell batches.
DC Internal Resistance (DCIR) Testing	Milliohm and microohm internal resistance profiling via pulsed current excitation at variable state-of-charge levels.	True 4-wire Kelvin terminal contacts eliminate lead-wire resistance, delivering laboratory-grade DCIR measurement repeatability.
Electrochemical Impedance Spectroscopy (EIS)	Wide-frequency AC impedance characterization of advanced anode/cathode materials and electrolyte formulations.	Ultra-low parasitic fixture inductance and noise-free contact interfaces preserve high-frequency impedance response fidelity.
Temperature Chamber Thermal Characterization	High- and low-temperature performance profiling inside environmental test chambers across -40°C to +80°C ranges.	CNC aluminum structural stability avoids thermal warping or loss of contact pressure common in conventional plastic fixtures.
Next-Generation Large Format Cell R&D	Testing large-diameter and extended-length cylindrical prototypes (e.g., 4680, 32140, extended custom lengths up to 118mm).	Extended clamping envelope handles high-capacity next-generation cells without requiring custom fabrication or fixture modification.
Production Line QA/QC Incoming Inspection	Rapid verification of incoming raw cells and vendor batches prior to module pack assembly.	Tool-less dual self-locking carriage accelerates cell swap cycles to under three seconds, significantly enhancing inspection throughput.

Parameter	Specification (JA05-Standard)	Specification (JA05-Extended)
Product Item Number	JA05-STD	JA05-EXT
Structural Material	CNC Machined Aluminum Alloy	CNC Machined Aluminum Alloy
Electrode Configuration	4-Wire True Kelvin Connection	4-Wire True Kelvin Connection
Maximum Rated Current	60 A continuous	60 A continuous
Clamping Mechanism	Tool-Free Dual Self-Locking (Front/Rear, Up/Down)	Tool-Free Dual Self-Locking (Front/Rear, Up/Down)
Fixture Dimensions (L × W × H)	137 mm × 24 mm × 44 mm	172 mm × 30 mm × 45 mm
Finished Product Weight	200 g	200 g
Maximum Compatible Cell Length	Up to 75 mm	Up to 118 mm
Maximum Compatible Cell Diameter	Up to 35 mm (Supports No. 1 / D-size cells)	Up to 35 mm (Supports No. 1 / D-size cells)
Supported Standard Cell Form Factors	18650, 21700, 26650, 32650, D-Size	18650, 21700, 26650, 32650, 32140, 4680, Extended Cells
Fastener Requirements	Zero screw locking required for slide action	Zero screw locking required for slide action