

2-2 Advanced Battery Tester

Combining charge-discharge power supplies and a test area within a single structure, the Advanced Battery Tester marks a new style in charge-discharge testing.

Select an optimal system based on battery capacity, shape, number, and other requirements.

Features

● Card edge connectors

Power supply to battery connection is completed simply by setting batteries in a battery holder equipped with a card edge connector, and inserting the connector into the slot at the back of the inner chamber.

● Even temperature distribution with batteries in position

Taking into consideration factors like battery holder position and battery arrangement, the test area is designed to create an even temperature environment with air circulating horizontally - air blows in from the side in stacked-chamber models and from the back in single-chamber models.

● Battery holders match battery shapes for easy setup

Battery holders are available for coin, cylindrical, rectangular, and laminated cells, as well as to suit charge-discharge conditions.

● Parallel control supports high-rate testing

By increasing current using the power supply's parallel control function, high-rate tests can be performed with a single piece of equipment. Using dedicated battery holders for parallel control, the tester can be expanded to support 2- or 4-unit parallel connections.

● Impedance measurement (option)

When the tester is in a standby state during the charge-discharge cycle, it is possible to perform impedance measurement (sweep measurement/fixed point measurement).

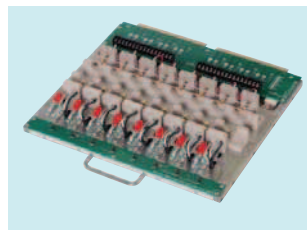
As it is possible to make continuous measurements without moving batteries, highly reliable data can be obtained.



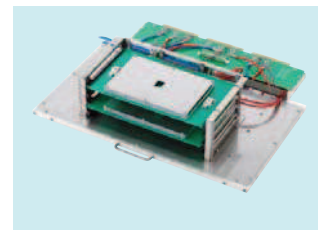
Single-chamber type

Three-chamber type

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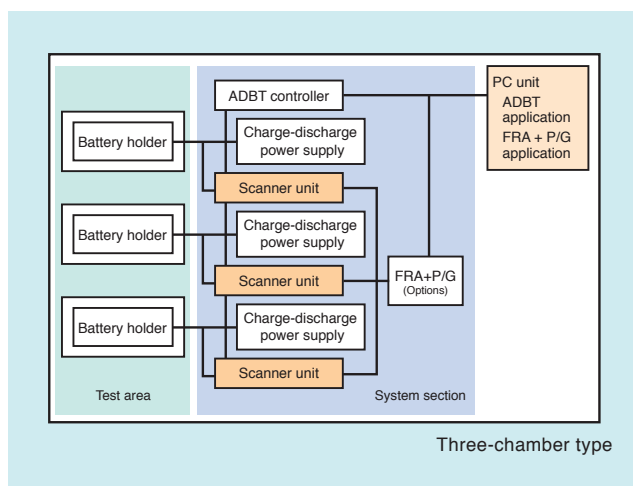


Battery holder for cylindrical cells



Battery holder for laminated cells

System configuration



Three-chamber type

Options

- Test area safety specifications
 - Heat detector
 - Smoke detector
 - Signal tower
 - CO₂ fire extinguisher
 - Pressure discharge vent, etc.
- Impedance measurement function
- Auto calibration board

System types

Type	Three-chamber	Two-chamber	Single-chamber	Wide single-chamber
Interior dimensions (mm)	W 510 H 400 ×3 chambers D 400	W 510 H 400 ×2 chambers D 400	W 640 H 850 D 660	W 1110 H 850 D 560
5V,1A (Range : 1mA/10mA/ 100mA/1A)	72ch (24ch/chamber)	48ch (24ch/chamber)	72ch	144ch
5V,10A (Range : 100mA/1A/10A)	72ch (24ch/chamber)	48ch (24ch/chamber)	72ch	144ch
5V,10A, 2-unit parallel control (Range : 100mA/1A/10A Max16A)	36ch (12ch/chamber)	24ch (12ch/chamber)	36ch	72ch
5V,10A, 4-unit parallel control (Range : 100mA/1A/10A Max32A)	18ch (6ch/chamber)	12ch (6ch/chamber)	18ch	36ch
5V,50A (Range : 5A/50A)	24ch (8ch/chamber)	16ch (8ch/chamber)	24ch	48ch
5V,50A, 2-unit parallel control (Range : 5A/50A Max80A)	12ch (4ch/chamber)	8ch (4ch/chamber)	12ch	24ch
5V,50A, 4-unit parallel control (Range : 5A/50A Max160A)	6ch (2ch/chamber)	4ch (2ch/chamber)	6ch	12ch

Example of customized specifications

Model		ADBT-5-1	ADBT-5-10	ADBT-5-50
Test area	Control range	-40°C to +100°C		
	Temperature distribution	±1.5°C		
Output voltage	Setting range	0 to 5000mV		
	Output accuracy	±0.1% of F.S.		
Output current	Setting range	0 to 1mA/0.001mA 1 to 10mA/0.01mA 10 to 100mA/0.1mA 100 to 1000mA/1mA	0 to 100mA/0.1mA 100 to 1000mA/1mA 1000 to 10000mA/10mA	500 to 5000mA/1mA 5000 to 50000mA/10mA
	Output accuracy	±0.1% of F.S.		
Output power	Setting range	0 to 55W	0 to 50W	0 to 250W
	Output accuracy	±0.2% of F.S.		
Parallel connection function	2 units/4 units	—	16A / 32A	80A / 160A
Measurement points	Current/Voltage	Current: 1 point per channel / Voltage (specimen edge): 1 point per channel		
	Temperature	1 point per channel		2 points per channel

* Requires separate battery holder for use with parallel connection.

* Consult ESPEC regarding applications over 160A.

* High-power battery testers for modules/pack batteries are also available.