NADA SCIENTIFIC

BATTERY CHARGE / DISCHARGE SYSTEM

N600-HJ1001SD8

Manual of Operations

IMPORTANT!
Read the following before using this equipment:
Carefully follow all instructions and observe all precautions given in this manual

Version2.0.JL031816

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Battery Charge / Discharge System offers various function-specific models applicable to various measurements for Battery basic research, Life test and Evaluation test. The HJ-SD8 Series can provide the half-cell measurement by 3-electrode method using the reference electrode and can provide characteristics evaluation test on positive and negative material (on ndependent four terminals and realizing the high input impedance). Minimum Discharge Voltage can be set to -2V and can conduct the complete discharge test. The PC connected to HJ series can perform multi-channel simultaneous test and various battery characteristics data analysis.

FEATURES:

1. Independent 8-channel charge and discharge control.
2. Minimum data sampling time interval is 10ms.
3. Equipped with transient recorder function that collects the transient data at 10ms.
   (at a moment of switching to discharge mode from charge mode during long-hour measurement.)
4. Equipped with CC/CV operation which has digital control for minimum overshoot.
5. Auto-select for current range.
6. The digital filter reduces noise. (It can function at the setting of more than 500ms data saving time interval.)
7. Equipped with Constant Power Control mode and Constant Resistance Control mode.
8. The system status, measurement progress and preset measurement conditions can be seen on screen.
9. Capability to program maximum 20 steps and 50 patterns
10. Equipped with jump function which repeats the continuous flow patterns.
11. Equipped with High speed multi-step function: 1 step - 20 stages(max) and 1 stage can set at 10ms(minimum)
12. Capability to control the maximum 16 units (128 channels) by using the server PC and client PC.
    Note : One PC System can control 6 units (48 channels) maximum.

Type		Specifications for HJ1001SD8
Channel	Number	8 channels
	Setting	Independent setting for each channel
Control	Voltage	-2 ~ 10V
	Current	0~±1A
	Step Time	0.1s ~ 100 days (Resolution 0.1s)
Range	Voltage	10V
	Current	1A, 100mA, 10mA, 1mA, 100μA, AUTO
Control Method		CC, CC/CV, CP, CR (at discharge mode)
Communication		Connect to PC by Ethernet
Control Accuracy	Voltage	±0.05% of control ±1mV
	Current	±0.05% of control ±0.05 F.S. (over 10% of F.S.)
	Voltage	±0.05% of reading ±1mV
	Current	±0.05% of reading ±0.05% F.S.
Protective Circuit		Overvoltage / Overcurrent / Voltage line disconnection detection
Power Voltage		AC100 ~ 240V single phase
Power Consumption		350VA
Dimensions		500 x 434 x 225mm (L x W x H)
Weight		19kg

SOFTWARE FUNCTION SPECIFICATIONS:

Control and Monitoring Screen

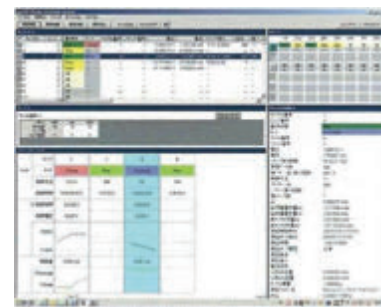All the basic operations can be performed from this screen. The screen consists of:
• Environment of each Monitor and Unit
• Channel details showing the operating condition of each charge and discharge unit.
• Environment of each Sequence and Pattern showing the measuring conditions
   preset to each channel.
The trend graph indication, graph/dump and measurement conditions setup are
performed by clicking the button in a screen.

Measuring Condition Setting Function

The step and pattern include change conditions created. The step-finalizing
conditions, pattern-finalizing conditions and measurement-finalizing conditions are
included in the changeover conditions. The created conditions can be collectively
copied to other channels by copy/paste operation.

Trend Graph

The trend graph of voltage / current / electric-power can be displayed at intervals of 1 second.

Dump Indication

It can do the 'dump indication' showing the selected items from the saved data.
All measured data can be outputted in a text file.