www.art-logics.com
support@art-logics.com

BC-18-7-10
BATTERY CYCLER

OVERVIEW

The battery cycler is a fully integrated test equipment designed to run battery or battery pack endurance tests / cycling tests. The equipment includes 18 isolated channels that can run the CV, CC, CR and CP charging and discharging tests with multiple charging and discharging sequences.

All it's channels voltage, current and resistance adjustable input and output parameters can be controlled by software via CAN ISO 11898-2, Ethernet TCP and USB-C.
Each channel also includes high precision voltage and current measurement loggers with 18 wires sense lines. The measured values and accessible by software.

KEY FEATURES

- 18 independent and isolated charge / discharge channels.
- Extendable number of channels.
- Each channel has a software controlled adjustable voltage output from 0V to 7V with a resolution of 1mV.
- Each channel has a current sourcing capability of 10A.
- Each channel has a software controlled electrical load adjustable from 4 Ω to 7k Ω.
- Constant Voltage Charge and Discharge. Constant Current Charge and Discharge. Constant Power Discharge.
- Constant Resistance Discharge.
- Integrated Voltage and current measurements loggers with Instant or average measurement modes.
- Integrated 4 wire sense lines for voltage drop compensation.
- Controllable by Ethernet TCP.
- Fixible battery fixture to fit to different battery. Allow to exchange the fixture for coin or other kind of battery.

DIMENSION

L*W*H =
600cm*800cm*709cm

OPERATING TEMPERATURE

-40 ˚C ~ +55 ˚C

POWER REQUIREMENT

DC Power Supply:
24 VDC, 10 A
Working Voltage Range:
9 V – 36 V (Default 24 V)

DETAILED SPECIFICATIONS:

Charging Mode

Cell Voltage Output	Val ue	Unit
Range	0 to 7	V
Stability Precision	500	μV
Setting Precision	500	μV
Isolation Voltage	1500, Tested for 1 minute and 1mA max	V

Cell OutputCurrent	Val ue	Unit
Range	0 to 10	A
Precision	10	mA

Discharging mode
CR mode

Resistance	Val ue	Unit
Range	4 to 7k	Ω
Resolution	1	Ω

CC Mode

Current	Val ue	Unit
Range	0 to 200	mA
Resolution	16bit	mA
Reading Precision	0.1	mA

CV Mode

Current	Val ue	Unit
Range	0 to 7	V
Resolution	16bit	mV
Reading Precision	1	mV

DETAILED SPECIFICATIONS:

CP Mode

Current	Val ue	Unit
Range	0 to 70	W
Resolution	12	bit
Reading Precision	1	mW

Voltage and Current monitoring of each channel:

Channel Voltage Measurement	Val ue	Unit
Range	-7 to 7	V
Resolution	16	bit
Precision	400	µV

Low Channel Current Measurement	Val ue	Unit
Range	-1 to 1	mA
Resolution	16	bit
Precision	20	µA

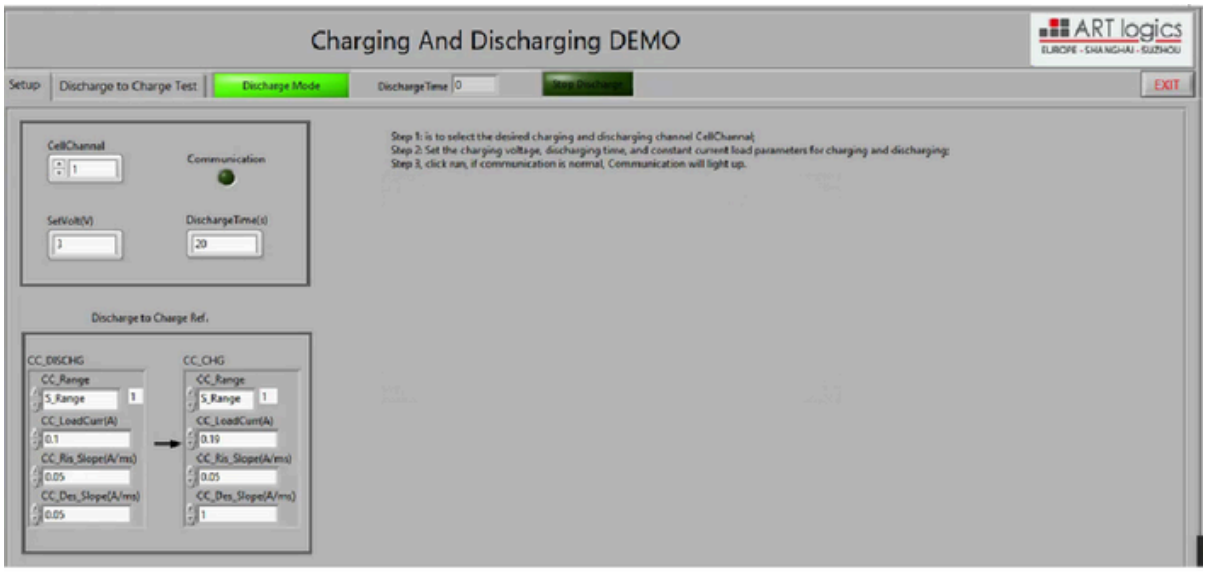
High Channel Current Measurement	Val ue	Unit
Range	-1000 to 1000	mA
Resolution	16	bit
Precision	0.1	mA

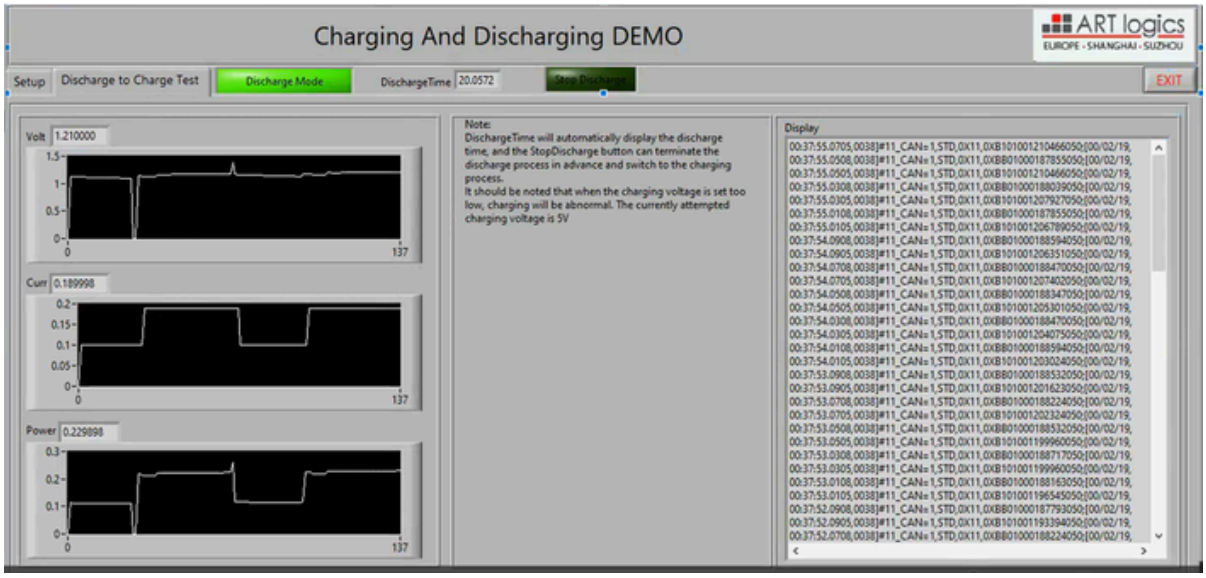
Communication interface

Communication	Parameters
Ethernet	TCP/IP 10/100 Mbps

CONTROL SOFTWARE UI

We provide the Labview drive to control the equipment. Here's the example for charge and discharge.





APLICATION EXAMPLE

Used to test battery performance parameters with configurable long operation charge and discharge cycles (various voltage, charge, discharge, modes and sequences).

Example: Test of a battery pack by using the battery cycler to run an endurance test with various voltage conditional charge modes enabeling in a single sequence several pre-charge conditions followed by full charge conditions and configurable discharge modes.

ENVIRONMENTAL

The Battery Cycler is intended for indoor use only but may be used outdoors if installed in a suitable enclosure. Refer to the manual for more information about meeting these specifications.

Operating temperature	**-40℃--+55℃**
Storage temperature	**-40℃--+85℃**
Ingress protection (IP code)	**None**
Operating humidity	**10-90% RH non condensing**
Storage humidity	**5-95% RH non condensing**

SUPPORT AND SERVICES

Calibration ART logics measurement hardware is calibrated to ensure measurement accuracy and verify that the device meets its published specifications. To ensure the ongoing accuracy of the measurement hardware, ART logics offers basic or detailed recalibration service.

ART logics
www.art-logics.com

ART Logics (Shanghai) Testing Equipment CO., Ltd
艾驰电子检测设备技术（上海）有限公司

Tel: 021-61075469
Room 105, No. 258, Chengjiaqiao Road,Shanghai, P.R. China

www.art-logics.com
support@art-logics.com