

## **EV-XL28 (EV CAR BATTERY MANAGEMENT SYSTEM TRAINER)**

### **PRODUCT DESCRIPTION**

Adopt BYD-E5(EV-628)original power battery pack, It is composed of battery management main controller, high voltage control box and power battery sampling line; The main functions of the battery management controller include charge and discharge management, contactor control, power control, battery abnormal state alarm and protection, self-inspection and communication functions; The main functions of battery information collector are battery voltage sampling, current collection, temperature sampling, sampling line and abnormal detection of high voltage insulation; Original charging system;It truly presents the connection control relationship, installation position and operation parameters between the



core components of the lithium power battery pack, Train students' ability to analyze and deal with power battery pack faults.

### **PRODUCT FUNCTION**

- The main components are installed on the platform. The electrical connection mode is the same as the real car. It can be easily disassembled after power off.

- The main functions of battery management controller are charge and discharge management, contactor control, power control, battery abnormal state alarm and protection, self-check and communication function, switch control protection (single line break, short circuit, overvoltage, overvoltage, over current, overtemperature), communicate with the charger CAN, control the vehicle charger through BMS, estimate the SOC (charge state), etc.
- The module supply power source to other modules, and the connection cable is matched for the original car, which is connected in the same way as the original car.
- The 10-inch fault terminal can be used for fault generation, and the number of faults can be more 10, help student to facilitate troubleshooting exercises.
- The port diagram of the battery management system is distributed on the panel. The measuring terminals are installed on the colour spray-painted aluminium-plastic plate to facilitate the detection of component parameters.

## SPECIFICATION

Product size (mm)	2000*1200*1600 (L*W*H)
Work voltage	DC12V
Battery type	ternary lithium battery
Battery Capacity	60.48 KWh

## EXPECTED EFFECT OF THE TRAINER

Through the training of the training platform, students should master the following contents:

- Voltage level and capacity of single power battery.
- Power battery pack composition, voltage level and capacity.
- Distributed battery management system BMS composition and functions.
- How the BMS collects the power battery pack pressure difference.
- How the BMS collects the temperature difference between the power battery pack.
- Battery management system (BMS) working principle.
- Power battery pack in various states of logic control relationship, grasp the current, voltage, battery pressure difference, battery temperature and other parameters change law.

- High pressure system operation safety precautions, learn the high voltage connector plug and plug method.
- Power battery pack (BMS) fault phenomenon, and according to the logical control relationship, to find out the cause of the fault.

## **PRODUCT COMPONENT**

Lithium power battery pack, battery management system BMS, maintenance switch, removable platform and detection teaching board.