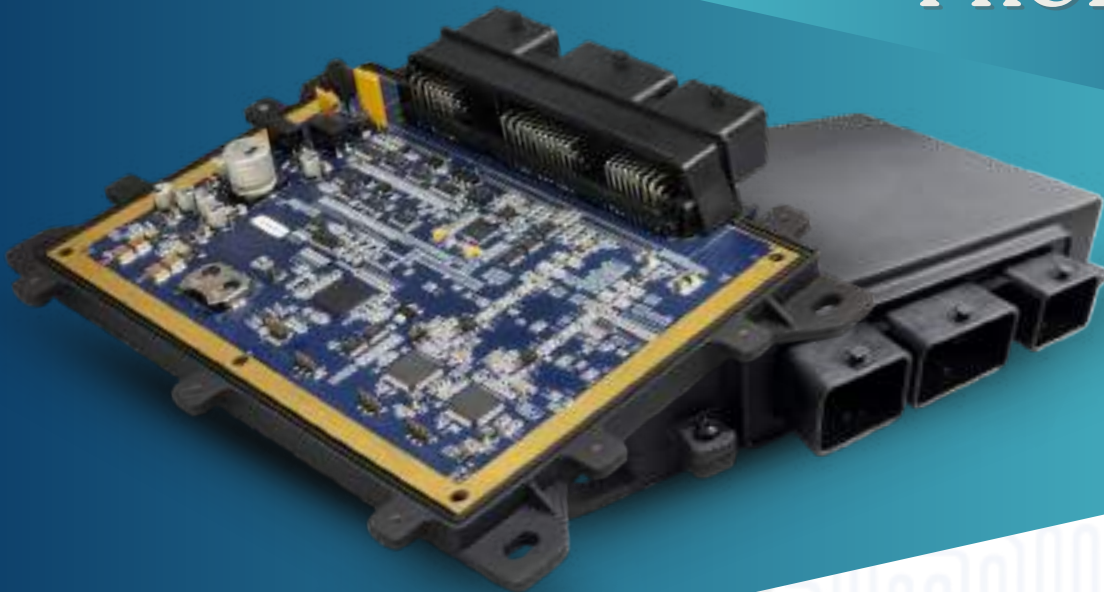




Rennova Solutions

Indigenous innovation in electronics product development

RENNOVA SOLUTIONS PRODUCTS



Automotive Electronic Products

Electronic control units including Telematics ECU, Auto Headlamp Controller, Fire suppression system, Proximity sensing system, Vehicle data logger, etc,



Electric Vehicle (EV) Products

Comprehensive EV solutions including VCU, BMS, Battery Cell Simulator, Battery capacity tester.



Elevator Electronics Products

Elevator products such as Voice announcement system, Dot matrix displays, Elevator Intercom, Access control system, etc,



Automated Test Equipment

Computer-controlled systems using hardware and software to automatically test the functionality and performance of electronic devices.



ABOUT

Rennova Solutions, an **ISO certified** and **Government of India recognized start-up company**, driven by a vision to deliver innovative and reliable electronic solutions that anticipate and exceed the evolving needs of our customers. From pioneering Automated Test Equipment to advancing EV technology, we are committed to being a catalyst for progress in the electronics industry.

Our strength

- **Driven by Innovation:** We invest heavily in research and development, ensuring our solutions are at the forefront of technology.
- **Quality and Reliability:** Our ISO certification underscores our commitment to rigorous quality standards in design, manufacturing, and service.
- **Indigenous Expertise, Global Vision:** We deliver innovative and cost-effective solutions by integrating local design and manufacturing excellence with globally recognized standards.
- **End-to-End Solutions:** We offer comprehensive capabilities, from concept design and development to manufacturing and support.

Our Mission

To engineer intelligent, cost-effective, and reliable automated test equipment using indigenous components and smart design. We collaborate with OEMs across the elevator, automotive, EV, defence, aerospace, and EMS sectors to bring their electronic visions to life. Through continuous innovation, we strive to enhance the quality and affordability of our solutions—empowering industries and improving lives.

Our Vision

To be a globally recognized leader in crafting innovative electronic solutions that shape the future.

Battery Cell Simulator



Our battery cell simulator delivers precise cell voltage simulation.

Features:

- Simulates battery cells and temperature sensors
- Battery cell and pack fault simulation
- Variants: Open loop, Closed loop
- Specifications: No. of Cells - Standard 24 cells (stackable); Power Input-240V, 5A; Max Current output per cell - 500mA; Voltage output per cell - 0 to 5V;

Portable Battery Discharger and Cyclers (CDC)



Our portable CDC offer flexible and efficient testing/conditioning for EV battery packs.

Features:

- support 48V, 60V, 72V battery packs
- Power handling of 1.5KW (standard) with customization options
- Battery pack capacity measurement in Ampere-hours (Ah)
- Standalone, portable, and cost-effective design
- Ideal for EV dealers/service stations
- Assists in battery replacement claim decisions
- CAN ready system for BMS communication
- PC interface for test result storage

Vehicle Control Unit (VCU)



Our VCU is the central controller in EV & Futuristic vehicles that manages and coordinates various subsystems to ensure safe, efficient, and optimized vehicle operation.

Features:

- High level for DC fast charging (CSS), CHAdeMO, GBT
- controls major subsystems: powertrain, braking, thermal management, etc.
- Manages motor controller, battery management system (BMS), and inverter.
- Implements fail-safe strategies and safety protocols (ASIL compliance).
- Adjust vehicle behaviour (acceleration, regeneration, and energy usage) per mode.

High Capacity Battery Pack & Charge - Discharge Cycler (CDC)

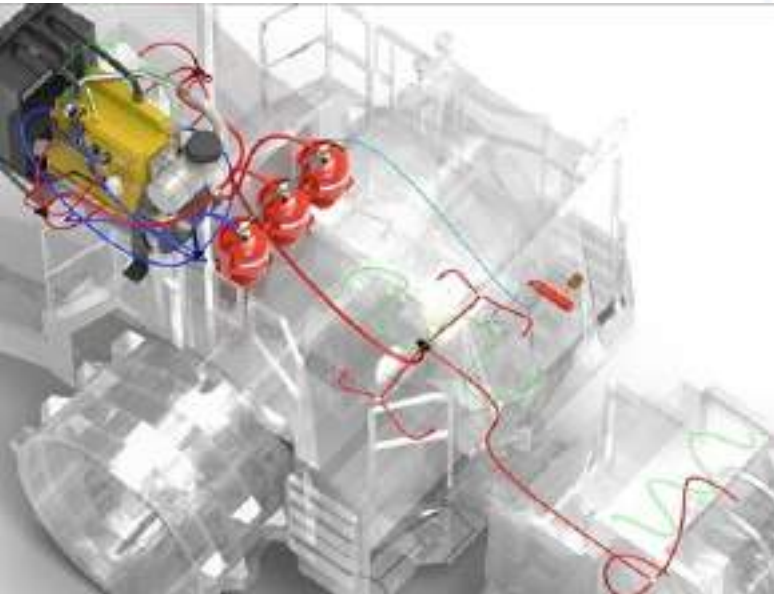


Our high-capacity CDC systems validate the thermal and electrical performance of EV battery packs during charging and discharging.

Features:

- Thermal runaway detection
- Cell-level voltage and temperature validation
- BMS calibration
- Battery module assembly validation
- CAN ready system for BMS communication
- Battery wiring connection validation
- Historical data storage and traceability
- High current handling capacity (up to 1000 Amps)
- Compliance with AIS156 standards

Automatic Fire Detection & Suppression System



AFDSS is an intelligent, high-speed safety system designed to detect and extinguish fires in critical equipment and vehicles—automatically and instantly. It's engineered for environments where fire risks are high and response time is crucial.

Key Features

- **Detection System:** Uses heat-sensitive sensor cables or flame detectors to identify fire within milliseconds.
- **Control Unit:** Processes signals and activates suppression automatically.
- **Suppression Mechanism:** Discharges extinguishing agents (like dry chemical or clean gas) to eliminate fire rapidly.
- **Nozzles & Cylinders:** Strategically placed to cover high-risk zones like engine compartments, hydraulic systems, and fuel tanks.
- Uses clean agents, foam, powder, or water mist depending on vehicle type.
- Agents used are non-corrosive, non-conductive, and safe for electronics, making them suitable for EV batteries and engine bays.

Applications

- Mining vehicles (dumpers, excavators)
- Defence vehicles (tanks, armoured carriers)
- Public transport and logistics fleet
- EV Vehicles

Auto Dipping System



The Auto Dipping System is an intelligent automotive safety feature that automatically switches a vehicle's headlights from high beam to low beam when it detects oncoming traffic or vehicles ahead. It enhances nighttime driving safety by reducing glare and improving visibility for all road users.

Features:

- Will dip only when low beam work
- Lamp diagnostic feature to avoid black-out condition
- Automatic Beam Adjustment
- Sensor-Based Intelligence
- Fast Response Time
- Robust Design
- Plug-and-play installation
- DGMS and ECE certified

U-Shape Photoelectric sensor



A U-Shaped Photoelectric Sensor integrates both the transmitter and receiver into a single U-shaped frame. It emits a light beam across the gap, and when an object interrupts the beam, the sensor triggers a signal. This design ensures high precision, fast response, and easy installation.

Features:

- PNP & NPN output
- High speed detection
- Work at high ambient lux level

Features:

- Position Detection
- Speed Detection
- Glass Lift fitted outside the build

CAN Data Logger



A CAN Data Logger is a compact, standalone device that records communication data from a CAN bus digital nervous system used in vehicles and industrial machines. It captures raw CAN frames from Electronic Control Units (ECUs) and stores them for diagnostics, performance monitoring, and predictive maintenance.

Features:

- Protocol-Independent Logging
- Support CAN, CAN FD, Non CAN signals
- Multiple file formats, BLF, MDF4, etc,
- Secure Internal Storage
- Real-Time Clock
- USB Interface
- EV performance monitoring

Radar Based Proximity Sensor



Radar-based proximity sensors use radio waves to detect the presence, movement, and distance of objects. Unlike infrared or ultrasonic sensors, radar sensors actively emit electromagnetic waves and analyze their reflections to determine object location, speed, and direction even through obstacles like fog, dust, or walls.

Features:

- When the sensor detects an object, it sends a warning signal to the driver.
- Sensor Sensitivity and response time can be adjusted using Software tool.

Automated Test Equipment



Automated Test Equipment (ATE) refers to computer-controlled systems used to test electronic devices for functionality, performance, and defects. These systems are essential in industries like semiconductors, aerospace, automotive, and consumer electronics.

Types of ATE

- AI Based Vision Tester
- Hardware In Loop (HIL) Tester
- In Circuit Tester (ICT)
- Functional Circuit Tester (FCT)
- Radio Frequency (RF) Tester
- Wiring Harness Tester

Key Features

- Communication interface validation (CAN, CAN-FD, LIN, RS422, etc.)
- Industry 4.0 compliant systems (MES server update, component traceability, cloud update)
- Boundary conditions testing (over current, short circuit, fault simulations)
- High-speed, high-precision testing.
- AI/ML integration for predictive diagnostics.
- Modular and scalable architecture.
- Cloud-based analytics and remote monitoring.
- Support for multiple device types and protocols.
- Improved Accuracy and Consistency.
- Automation minimizes human error and ensures standardized, repeatable results.
- ATE helps detect defects and ensures products meet stringent quality and performance standards before release.

Elevator Special Message Announcer



Elevators have a requirement of voice announcements for various scenarios like Door Open, Emergency, Power Failure, ARD in Operation, Overload, etc. Our Special Message Announcers make these announcements in English and other Indic languages.

Features:

- Voice Announcements in Indic languages like Hindi, Telugu, Tamil, Kannada, Malayalam, Marathi, Bengali, etc.
- Multiple Announcements and Single Announcement options available.
- Elevator door open buzzers

Elevator Floor Announcer



The Floor Annunciator is an elevator accessory designed to provide clear floor announcements in a pleasant human voice. In addition to floor indications, it also delivers important audio messages.

Features:

- Multiple Background Music
- Special Message announcements like Power Failure, ARD activation, Lift Overload, etc,
- Dual volume controls for background music and voice announcements

Elevator Access Control System



The system is designed to restrict elevator access to unauthorized persons and allows only authorized person to the elevator. The access is given by RFID (Radio Frequency Identification) and biometric data (Fingerprints) identification.

Features:

- **RFID Access control systems:** This system utilizes a RFID key/card to gain access to the elevator. The system allows authorized users to operate or call the lift.
- **Biometric access control:** The system uses fingerprints to identify individuals to provide access to the elevator.
- **Unique floor access:** The system allows the users to operate the lift only to their designated floors. Users authorized for one floor cannot operate the lift to other floors. Unique access can be done by both RFID and Biometric access control.

Elevator Intercom System



A lift intercom is a communication system installed in a lift that allows passengers to communicate with someone outside of the elevator car in case of an emergency or other situation where assistance is needed.

Applications of Elevator Intercom

- Emergency communication
- Security monitoring
- Maintenance and repair

Devices

- Car & Lobby Handset
- Handsfree unit
- Control unit
- Battery backup (optional)

Our Clients



Rennova Solutions



R&D Centre

#14, Ground Floor & 1st Floor,
Gangothri Colony, Krishnagiri Road,
Hosur 635 109,
Tamil Nadu

Manufacturing Facility

No. 2/257-A1, Survey# 174/2,
T.T Industrial Business Park,
Adhiyaman Bypass Road, NH 844, Sogathur Post,
Dharmapuri - 636 809, Tamil Nadu

Support Centre

F#206, Capital City,
Opp. to Mahindra Manufacturing Plant Gate1,
Phase IV, Chakan MIDC,
Chakan Taluka, Khed, Pune 410501

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