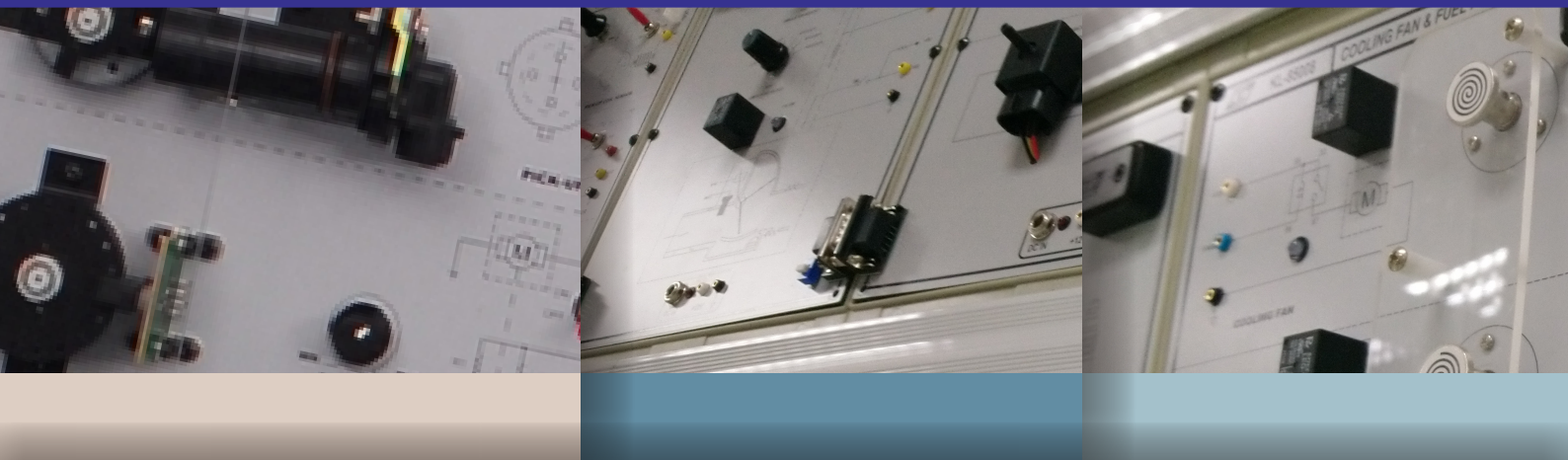
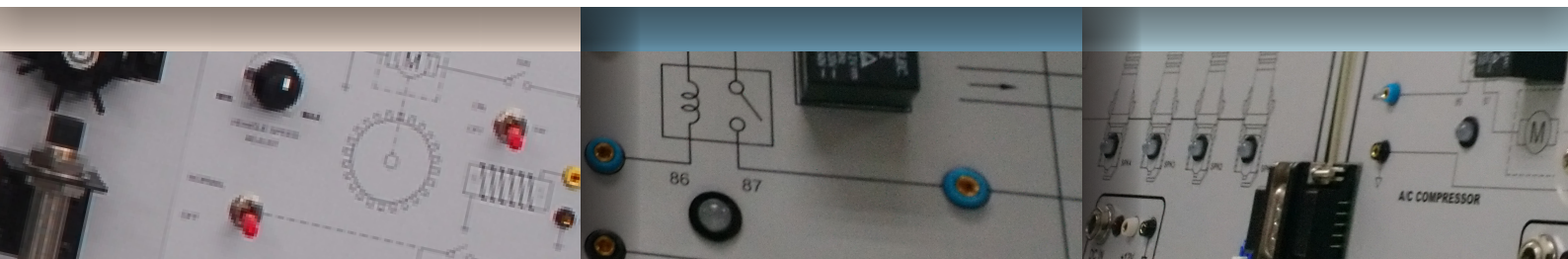




KL-800A CAN BUS Autotronic Training System



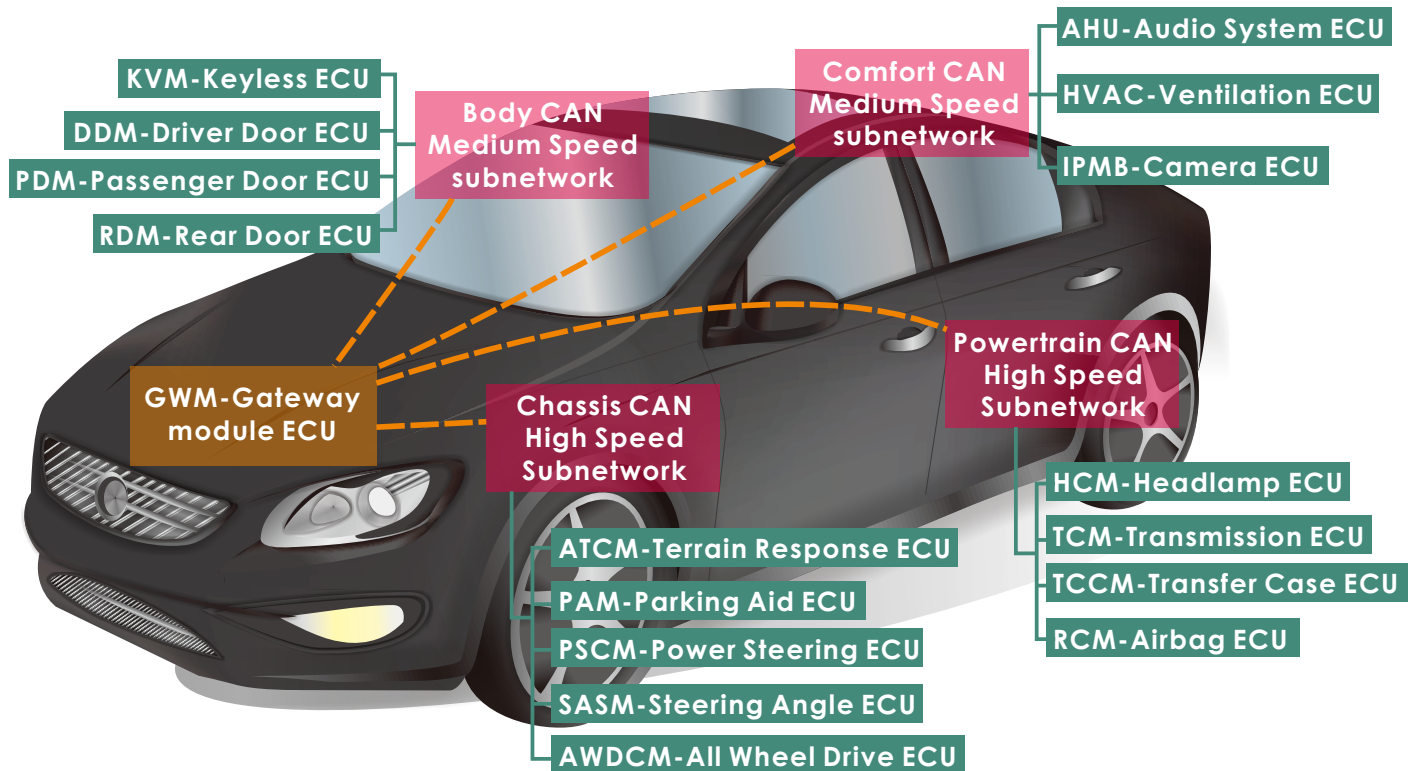
Each module of KL-800A system is an ECU or the interoperable device (node) on CAN BUS. Data transfer between modules is achieved by the microcontrollers over CAN BUS. When signals and data are sent to a personal computer, the computer monitoring system displays the current status and data of module on PC screen and turns on the warning light if something is wrong.

The KL-800A system can simulate the operation of fuel injection system, ignition system and exhaust gas control. Experiments include the characteristics and operation of various sensors and actuators used in automobiles.



What is CAN BUS

A Controller Area Network (CAN BUS) is a vehicle bus standard designed to allow microcontrollers and devices to communicate with each other without a host computer.

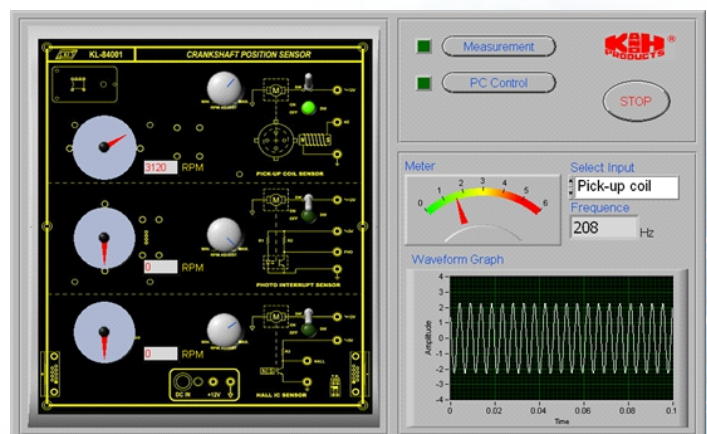


Every electronic device (node) which needs to communicate under the CAN protocol is connected with each other via a serial bus to transmit and receive messages. This can minimize the wiring connections and reduce the bulkiness and complexity of the system.

Due to the reliability and efficiency of the protocol, many industries like Railway, Aircrafts, Medical are using the CAN protocol in their systems.

Simulation Software

This software simulates the monitoring system on car computer to monitor the important data of a vehicle and also to offer a remote test which can control the status or signal of module devices on PC screen.

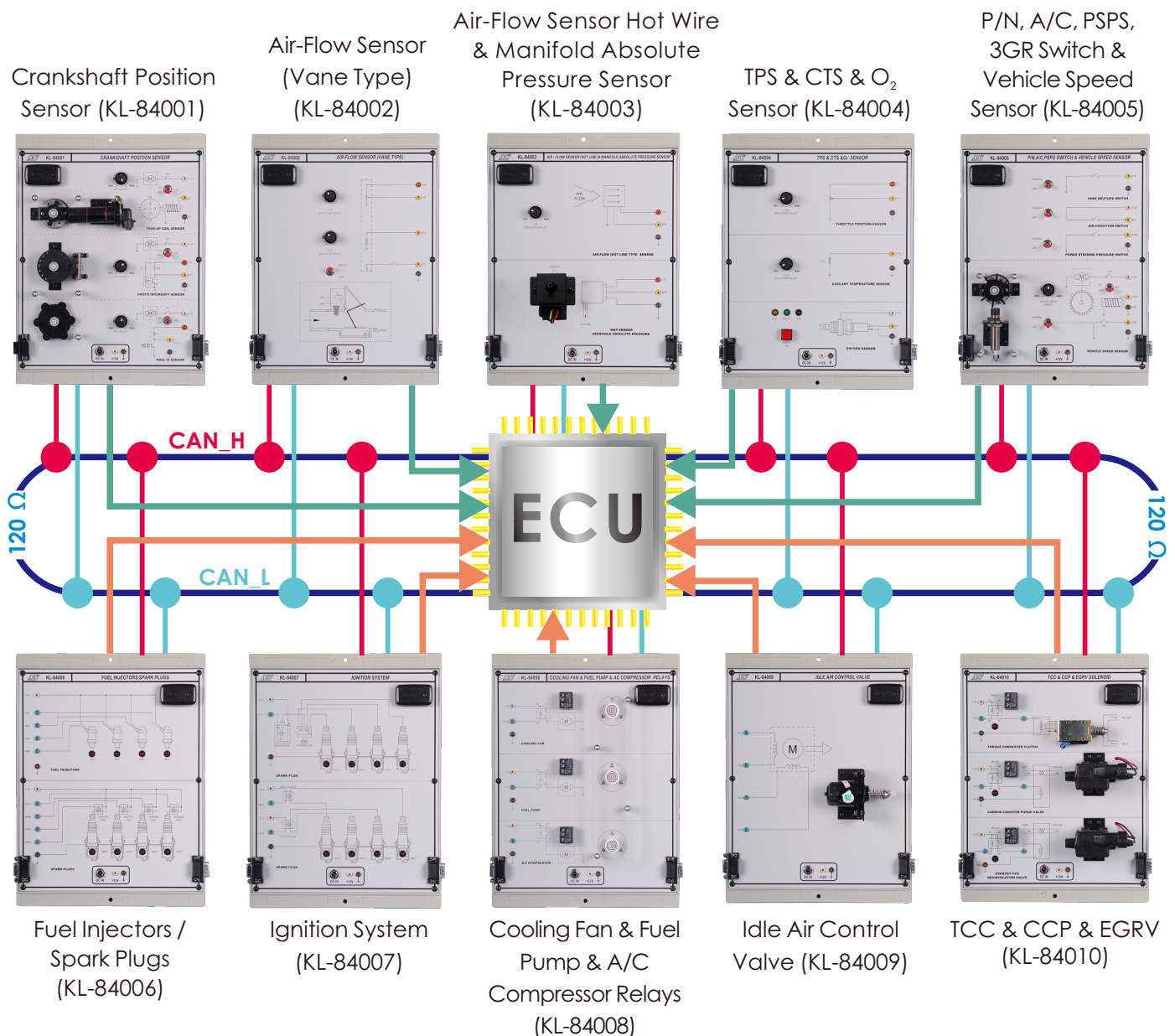


Advantages of CAN BUS

- Reliable: Excellent error detection and error handling mechanisms.
- Flexibility: CAN Nodes can be easily connected / disconnected; the number of nodes is not limited by the protocol
- Multi-master communication: Any node can access the bus
- Fault Tolerance: Faulty nodes do not disturb the communication on the system.
- Broadcast capability: Messages can be sent to one or many nodes.

KL-800A Simulation Experiment

Signals of Sensors



Actuators