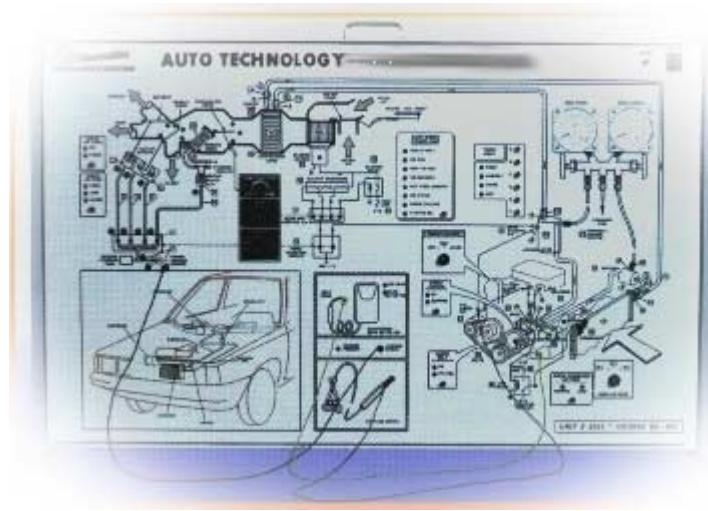


# EB-601 ENGINE STARTING



This simulator shows the fuel, cranking and ignition systems of a computer controlled gasoline engine. The system explains the operation and interaction of the electronic fuel injection and distributorless ignition system. Components, connectors, and terminals maximize training effectiveness. System components include:

- Built-in multimeter
- Battery
- Starter and starter solenoid
- Crankshaft sensor
- Throttle body electronic fuel injector
- Ignition switch
- Direct ignition assembly
- Electronic control module
- Electric fuel pump
- Engine condition status panel

The instructor is able to insert 24 common faults into simulator. Experiments and troubleshooting cover:

- Operation and function of the cranking systems: the battery, starter, & solenoid ignition switch
- Operation and function of the direct ignition systems: spark plugs, ignition coil, crankshaft, & ECM
- Operation of electronic control module: **input sensors and actuators**
- Operation and functions of the fuel system: the fuel system delivery & electronic fuel injector
- Detection and correction of open ECM fuse, burned out fuel pump or relay coil, defective fuel injector or fuel pressure regulator, and clogged fuel filter
- Identification and correction of fouled spark plugs, shorted ignition coil, defective ignition module, crankshaft sensor, and ECM
- Detection and repair of burned out solenoid coil and loose solenoid connection
- Detection and repair of loose battery ground and dirty ground cable connection
- Detection and repair of sulphated battery terminals and high internal resistance
- Detection and repair of broken starter cable and open in starter winding
- Identification and repair of dirty ignition switch contact and open in gear selector switch