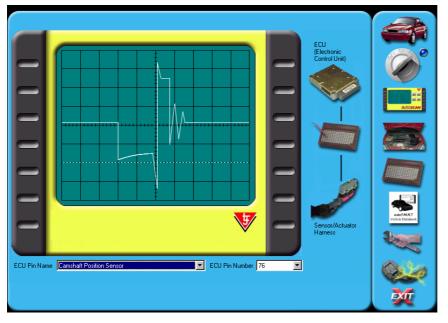
AutoLAB Automotive Technology Program – FACT SHEET

ALF2020 Fault Diagnosis Simulation Software



This is a PC based suite of simulated diagnostic tools and tests. It includes the following features:

Symptom and Road Test Report

On the insertion of a fault a note is generated to indicate an initial symptom. After performing a video based road test the user is given more detailed information in the form of a road test report. This includes exhaust gas analyzer information.

Scantool

The virtual scantool allows the simulated clearing and retrieval of OBDII fault codes. Simulated live OBDII data may also be viewed.

Engine Bay

Within the engine bay the user can carry out tests on over 30 sensors and actuators. A schematic representation of each sensor/actuator measurement allows the student to compare the measurement with the expected values contained within the supplied vehicle databook. For each test a video is shown indicating the testing procedure. The tests include:

- In-Circuit Voltage Test
- Isolated Sensor/Actuator Resistance
 Test
- Isolated Wiring Harness Voltage Test
- Wiring Harness Continuity Test
- Wiring Harness to Ground Resistance Test

Breakout Box

This allows the monitoring of waveforms on the ECU pins. All measurements may be made with the ignition off, ignition on, engine running (cold and warm).

Fault Control

Up to 24 individual faults may be inserted into the system. Sensor circuit faults include engine coolant temperature, throttle position, crankshaft position and oxygen sensor. Actuator circuit faults include idle air control valve, cooling fan, fuel pump and injectors.

A random fault facility is also available.

Repair

To complete the troubleshooting process three repair options are available. They are:

- Replace Sensor/Actuator
- Repair/Replace Wiring Harness
- Replace ECU

A successful repair/replacement will remove the fault from the system.

Databook

A vehicle databook is supplied in a paperbased format and on screen. This is used by the student for comparative measurements.

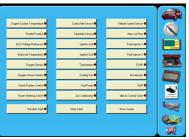
It includes an explanation of the simulated system and a schematic to aid troubleshooting.

The items supplied with this instructional module include:

- AutoFAULT Installation CD
- User Manual
- Vehicle Databook

Additional items required:

PC



Fault Insertion Screen



Engine Bay Screen



Road Test Report Screen



LJ Technical Systems Web site: www.ljgroup.com