

# AT-5001

### **Autotronics**

## Main Panel

Multipoint injection demonstrator

Electronic injection demonstrator

ABS 4 channel system demonstrator

Engine controls & sensors simulator

Car air-conditioning & climate control simulator

Suspension simulator

Transmission simulator

Safety systems simulator

Automotive electrical accessories

Diesel Electrical Wiring Simulator

Diesel Starting & Charging Simulator

Hydraulic Brakes Demonstrator

Smart Gasoline Car Fault Insertion system

Smart Truck Fault Insertion system

Smart Tractor Fault Insertion system

Smart Motorcycle
Fault Insertion system

Common Rail Injection

Main Panel

Multipoint Fuel Injection

**Emission Control** 

Airbag Systems

Electronic Stability Program

Hybrid Vehicle Systems

#### Advanced Autotronics Simulator

Degem's unique AT-5000 training system houses five different plug-in simulator modules and a central control module, which comprises a 19" color LCD monitor and several push buttons and rotary controls. The function of each control is dynamically set by the system software according to the specific needs of each lesson. Interactive courseware supplies the required theory and diagnostic procedure. Application software controls the modules under test to emulate the required vehicle operating conditions to be simulated. Virtual instruments, such as a digital multimeter and oscilloscope are simulated on the LCD monitor and provide realistic diagnostic measurement facilities.

All of these provide the ideal learning environment for valuable true-to-life diagnostic exercises.



# **Specifications**

#### DESCRIPTION

- Provides all support functions for the entire family of plug-in simulator modules
- Expensive test equipment is not required
- Computer software offers enhanced diagnostic tools for student exercises
- Quick & easy setup for plug-in modules
- Unique learning platform provides a safe and efficient learning environment
- Inherent expansion and upgrade capability
- Realistic troubleshooting exercises
- USB data communication to PC
- Fully documented operating instructions in courseware

#### MAIN PANEL

The main panel contains the following:

- Digital control module
- Houses five 300 x 365 mm plug-in simulator modules
- USB2 communications interface to PC
- USB to VGA converter
- USB hub for 5 plug-in modules, digital control module and LCD display
- Overall dimensions: 1240 x 864 x 100 mm
- Power supply for 100-250 VAC, 50-60Hz.
- Power on-off switch
- Power consumption 150 VA maximum

#### DIGITAL CONTROL MODULE

The digital control module contains the following:

- 19" LCD display
- 14 push buttons
- 4 rotary controls
- 6 4-mm virtual instrument measurement jacks:
  - DMM (+), DMM (-)
  - Oscilloscope CH1, GND1
  - Oscilloscope CH2. GND2
- 6 virtual measurement probes with 4 mm plug for connecting to control module and 2mm plug to connect to plug-in module test points.

- The LCD screen is divided into 3 sections:
- Top section for virtual measuring equipment
- Middle section for animations
- Bottom section for displaying the function for the dynamic controls

#### MODULE COMPARTMENTS

Each of the 5 module compartments contains the following to allow convenient insertion and removal of any plug-in simulator module:

- Securing magnets for quick module change
- Detachable cable(s)

#### REQUIRED ACCESSORIES

Personal computer

#### MINMUM COMPUTER CONFIGURATION

- Intel Pentium Dual Core 2.0 GHz:
- 2048 MB RAM
- 40 X CD
- USB-2 port
- SVGA graphics board
- Color monitor
- Keyboard and mouse
- Operating System: Windows XP
- Microsoft Internet Explorer 6 or 7

#### OPTIONAL ACCESSORIES

- Local area network (consult factory for details)
- CML or CLEMS learning management system

#### COURSEWARE

The courseware was written by pedagogical experts in state-of-the-art automotive technology. The procedure for each experiment is clearly written to allow the students to easily complete each experiment.