

**Product Name :**  
Fuel Injection System

**Product Code :**  
TK664



**Description :**

Fuel Injection System

**Technical Specification :**

This simulation panel allows to study engine operation, engine sensors and controls and electronic fuel injection. The simulator takes into consideration all these aspects by performing the following functions:

Ignition phase  
Heating phase  
Lambda regulation  
Quick acceleration/deceleration phases  
Cut-off phase  
Regulation of the injection time  
Regulation of the advance angle  
Regulation of the rpm  
Regulation of the knock  
Limitation of the rpm

In particular, also the following components are analyzed:

Rpm/reference point sensors  
Level sensor  
Inertial sensor  
Electro-pump  
Idle actuator  
Electro-injectors and coils.

#### Main Characteristics

The simulator covers the following topics:

Oxygen sensor, temperature sensor, MAP sensor, MAF sensor, knock sensor, operation.

Pressure, flow, position sensors.

Injection time - calculation.

Ignition pulses effect on main switch, ignition timings.

Engine efficiencies, horsepower and engine torque, valve position switch output signals and valve position sensor output signals.

Signal analysis, injector activation signal at various conditions, air injection control, injection duration at various speeds, temperatures and engine loads.

Air temperature effect on the quantity of injected fuel.

Fuel cut-off, relationship between the duration of injector opening to the quantity of injected fuel.

Solenoids open and close loop controls and exhaust gas circuit.

This vertical frame bench-top trainer is specially designed to show to students how automotive systems work.

The simulator consists of a panel operated by the support of a computer with a colored silk-screen diagram that clearly shows the structure of the system and allows the location of the components on it. The trainer is supplied with a CAI Software and the supported documentation guides the students to the study and the performance of the simulation exercises.

#### General Characteristics:

Dim. mm (Height x Length x Width): 700x1000x150 - (470 with the base)

Weight kg 25

Input power supply: AC 220V $\pm$ 10% 50 Hz

Working temperature: -40 $^{\circ}$ C ~ +50 $^{\circ}$ C.

## Naugralabequipments

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