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AutoEdu

Vehicle Engine Trainer



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Engine Trainers

These engine trainers are designed to illustrate basic structure and working principle as startup, speedup, slowdown and other actions of engines. The dynamic detection, and debugging of the engine electronic control system can be achieved by means of various devices on the panel. It is easy to operate, safe and reliable to teach and learn. These engine trainers are idea tools to meet the training and practice operating of the structure of engine and its working principle, fault setting, diagnoses and troubleshooting in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.



Highlights:

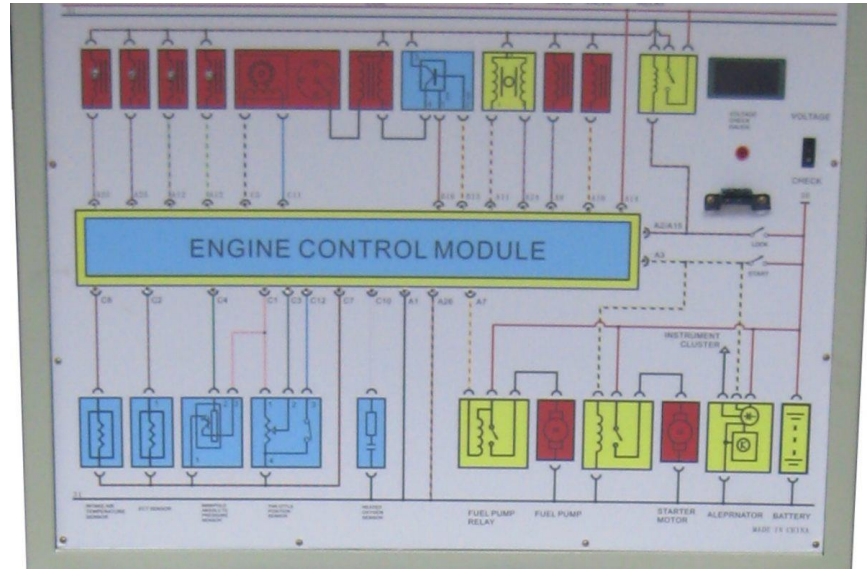
- 1.Operation functions: Based on complete engine and equipment with kinds of the auxiliary system.
- 2.with schematic board, various pressure meters, sensors and actuators.
- 3.Display: Real time dynamics and static signal parameters of the engine can be displayed through combination of the original car engine instrument.
- 4.There are circuit terminal ports, diagnosis seat and faults switches on the panel to provide detection and analysis, meanwhile, teaching and testing function can be switched between each other flexibly.

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5. It can be used for basic debugging operations.

6. With a movable wheel bench, the whole bench is used on a rigid steel structure and its surface is processed by high-temperature spray paint with good anti-corrosion.



Typical Training Contents

1. Basic operation of an automotive decoder;
2. Basic matching and calibrating of automotive engine electronic control system
3. Diagnosis of executive components in automotive engine electronic control system;
4. Data flow analysis of automotive engine electronic control system;
5. Comprehensive training of automotive engine electronic control system
6. Diagnosis and troubleshooting of common faults in automotive engine electronic control systems.

Models and specifications

SKU	Engine Trainers
0403020260	Volkswagen EA211 Gasoline Engine Trainer
0403020280	Santana AJR Gasoline Engine Trainer
0403020290	Santana BKT Gasoline Engine Trainer
0403020300	Santana Carburetor Trainer

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Models and specifications

SKU	Engine Trainers
0403020330	Jetta SDI Diesel Engine Trainer
0403020340	Jetta ATK Gasoline Engine Trainer
0403020341	Jetta 1.6L Gasoline Engine with Automatic Transmission Integrated Trainer
0403020342	Jetta Dual-Fuel Engine Trainer
0403020350	Passat 1.8T Gasoline Engine Trainer
0403020351	Passat 1.8T Gasoline Engine with Automatic Transmission Integrated Trainer
0403020352	Passat 1.8T Gasoline Engine With Air Conditioning Integrated Trainer
0403020370	Audi A4 Gasoline Engine Trainer
0403020371	Audi A6 Gasoline Engine Trainer
0403020373	Buick Verano 1.8L Gasoline Engine Trainer
0403020080	Buick Excelle Electronic-controlled Engine Trainer
0403020800	Buick 3.0 Gasoline Engine Trainer
0403020801	Buick 3.0 Gasoline Engine with Automatic Transmission Integrated Trainer
0403020410	Volkswagen Sportline TDI Diesel Engine Trainer
0403020420	Volkswagen Sportline Gasoline Engine Trainer
0403020430	Volkswagen Magotan TSI Gasoline Engine Trainer
0403020432	Skoda 1.4T Gasoline Engine Trainer
0403020433	Benz S320 Gasoline Engine Trainer
0403020434	BMW 525 Gasoline Engine Trainer

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Models and specifications

SKU Engine Trainers

0403020435 Toyota 5A 1.5L Gasoline Engine Trainer

0403020450 Toyota 7A Gasoline Engine Trainer

0403020500 Toyota 8A-FE Gasoline Engine Trainer

0403020510 Toyota 8A-FE Gasoline Engine with Automatic Transmission Integrated Trainer

0403020520 Toyota 5A-FE Gasoline Engine Trainer

0403020530 Toyota Crown 2JZ-GE Gasoline Engine Trainer

0403020540 Toyota Crown 2JZ-GE Gasoline Engine with Automatic Transmission Integrated Trainer

0403020550 Lexus LS400 Gasoline Engine Trainer

0403020551 Lexus LS400 Gasoline Engine with Automatic Transmission Integrated Trainer

0403020560 Toyota Corolla 2ZR-FE Gasoline Engine Trainer

0403020570 Toyota Corolla 2ZR-FE Gasoline Engine with Automatic Transmission Integrated trainer

0403020580 Toyota Corolla 2ZR-FE Gasoline Engine with Automatic Transmission and Automatic Air Conditioner Integrated Trainer

0403020587 Toyota Prius Gasoline-Electric Hybrid Engine Trainer

0403020620 Honda Accord F22B Gasoline Engine Trainer

0403020630 Honda Accord FB22 Gasoline Engine with Automatic Transmission Integrated Trainer

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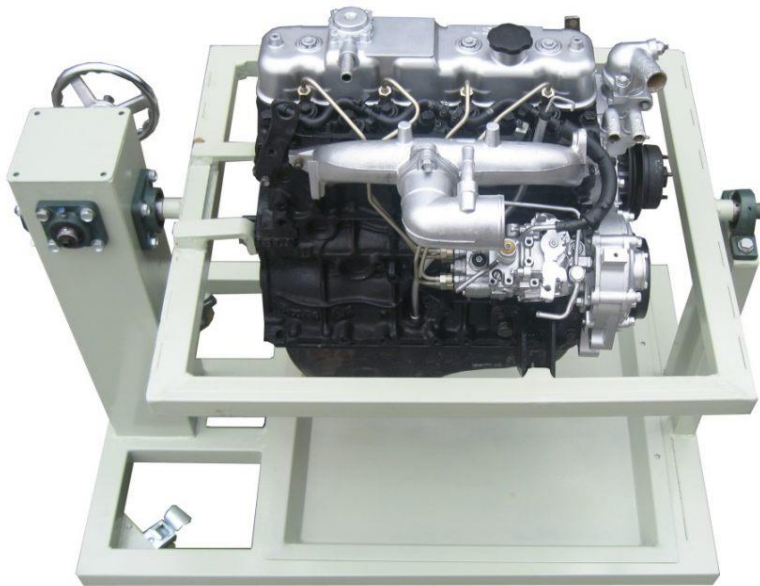
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Models and specifications

SKU	Engine Trainers
0403020640	Honda Accord 2.4L Gasoline Engine Trainer
0403020641	Honda Accord 2.4L Gasoline Engine with Automatic Transmission Integrated Trainer
0403020642	Honda Accord 2.4L Gasoline Engine With Air Conditioning Trainer
0403020650	Honda Fit Gasoline Engine Trainer
0403020660	Honda Fit Gasoline Engine with Automatic Transmission Integrated Trainer
0403020760	Nissan Teana Gasoline Engine Trainer
0403020770	Nissan Bluebird SR18 Gasoline Engine Trainer
0403020780	Nissan Tiida SR16 Gasoline Engine Trainer
0403020782	Chevrolet Cruze 1.6L Gasoline Engine Trainer
0403020670	Great Wall Hover 2.8TC Common Rail Diesel Engine Trainer
0403020690	Isuzu 4JBI Diesel Engine Trainer
0403020694	Suzuki 1.6L Gasoline Engine Trainer
0403020790	Mitsubishi V6 Gasoline Engine Trainer
0403020700	Yuchai Common Rail Diesel Engine Trainer
0403020710	Brilliance 491Q Gasoline Engine Trainer
0403020711	EQ1120 Common Rail Diesel Engine Training Trainer

Engine Disassembly and Assembly Trainer with Swivel Support

This engine disassembly and assembly trainer with swivel stand is designed to study the engine inner structure, and to operate engine's disassembly, assembly and maintenance training. The whole process of engine's disassembly, assembly, debugging and inspection can be completed by this device. The engine and related elements are installed on an independent disassembly bench, and the disassembly process can make engine 360-degree rotation, and it can be locked at any degree, safe and reliable. A large oil drip pan is placed at the bottom for small elements. With movable wheel bench, the whole beach is used rigid steel structure and its surface is processed by high-temperature spray paint with good anti-corrosion.



This engine disassembly and assembly trainer with swivel stand can meet the training and practice teaching courses of inner engine structure, engine maintenance, engine working principle in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.

The main composition includes engine assembly and accessories, swivel support, speed reducer, oil drip pan, movable wheel bench.

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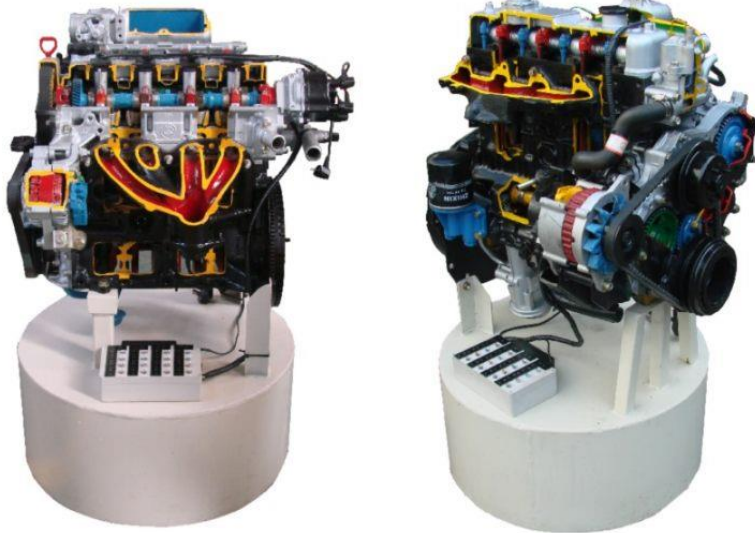
Models and specifications

SKU	Engine Disassembly and Assembly Trainer with Swivel Stand
0403020281	Santana AJR Gasoline Engine Disassembly and Assembly Trainer with Swivel Support
0403020331	Jetta SDI Diesel Engine Disassembly and Assembly Trainer with Swivel Support
0403020343	Jetta 1.6L Gasoline Engine Disassembly and Assembly Trainer with Swivel Support
0403020353	Passat 1.8T Gasoline Engine Disassembly and Assembly Trainer with Swivel Support
0403020802	Buick 3.0 Gasoline Engine Disassembly and Assembly Trainer with Swivel Support
0403020511	Toyota 8A-FE Gasoline Engine Disassembly and Assembly Trainer with Swivel Support
0403020581	Toyota Corolla 2ZR-FE Gasoline Engine Disassembly and Assembly Trainer with Swivel Support
0403020781	Hyundai Elantra Disassembly and Assembly Trainer with Swivel Support
0403020691	Isuzu 4JB1 Diesel Engine Disassembly & Assembly Trainer with Swivel Support
	Or other models based on the requirements of customers

Engine Section Demo Model

The engine section demo model is designed to demonstrate the internal and external mechanic structure and working principle of engines with a cross section vehicle engine. It is suitable for vehicle engine fundamental and mechanical structure teaching, directly show engine working process, operation, structure and installation. The engine section demo model can meet the training and practice teaching courses of inner engine structure, engine maintenance, engine working principle in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.

Highlights:



1. The engine is sectioned to show engine interior structure, including crank structure, gas distribution structure, lubrication structure, cooling system, gas supply system.
2. Driven by motor, to make sectioned model can operate normally, demonstrate crank, cam axle rotation, piston work; gas valve opens and closes, for timed gas distribution and ignition.
3. The different elements are painted with different colors.
4. All sectioned elements can carry out normal mechanical operation; to show interior detailed structure and mechanical positions; distinguish various gas, oil and water systems in various colors.

5. with movable wheel bench, the whole bench is used rigid steel structure and its surface is processed by High-temperature spray paint with good anti-corrosion.

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Typical Training Contents

- 1.To study the structure and function of sensors and actuators in automotive electronic control system
- 2.To detect the signal of sensors of automotive electronic control system
- 3.To detect the working voltage of actuators automotive electronic control system
- 4.To detect and diagnose circuits of automotive electronic control system
- 5.Fault diagnosis, testing, reading and clearing fault codes, matching.

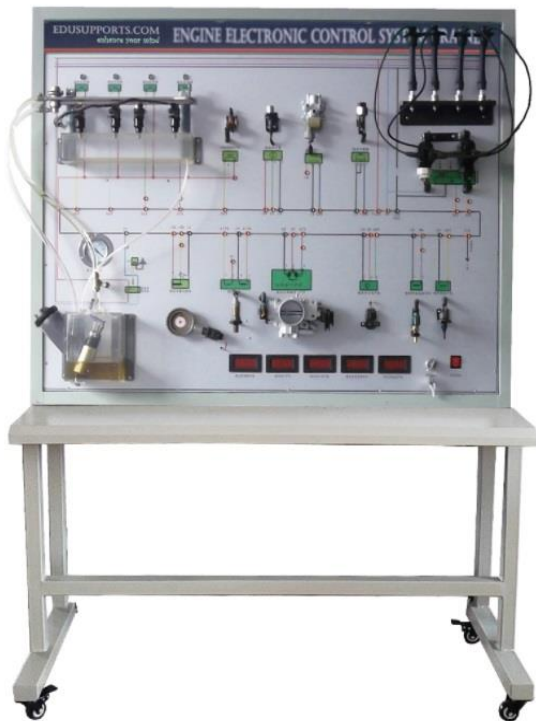
Models and specifications

SKU	Engine Section Demo Model
0403020282	Santana AJR Gasoline Engine Section Demo Model
0403020332	Jetta SDI Diesel Engine Section Demo Model
0403020344	Jetta1.6L Gasoline Engine Section Demo Model
0403020354	Passat 1.8T Gasoline Engine Section Demo Model
0403020431	Volkswagen Magotan TSI Gasoline Engine Section Demo Model
0403020512	Toyota 8A-FE Gasoline Engine Section Demo Model
0403020582	Toyota Corolla 2ZR-FE Gasoline Engine Section Demo Model
0403020590	Toyota Prius Gasoline-Electric Hybrid Engine Section Demo Model
0403020643	Honda Accord 2.4L Gasoline Engine Section Demo Model
0403020692	Isuzu 4JB1 Diesel Engine Section Demo Model
0403020693	Isuzu 4JBI Diesel Engine Section Demo Model

Or other models based on the requirements of customers

Engine Electronic Control System Training Panel

The engine electronic control system training panel is designed to demonstrate the structure and working condition of engine's electronic control system with physical elements of engine's electronic control system including engine computer board, ignition system, gas throttle and so on, combining instruments, sensors, actuators and movable wheel bench. It is suitable for the training and practice teaching courses of engine electronic control system maintenance in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.



Highlights:

1. with engine's electronic control system circuit diagram board, to lay sensors and actuators, and to show engine electronic control system.
2. To simulate engine fuel injection and ignition process in various statuses.
3. With terminals, faults setting switches, easy to detect, learn electronic system elements functions, diagnoses and troubleshooting.
4. With diagnosis seat and terminals, can carry out encoding and data flow reading.
5. with movable wheel bench, the whole beach is used rigid steel structure and its surface is processed by High-temperature spray paint with good anti-corrosion.

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Typical Training Contents

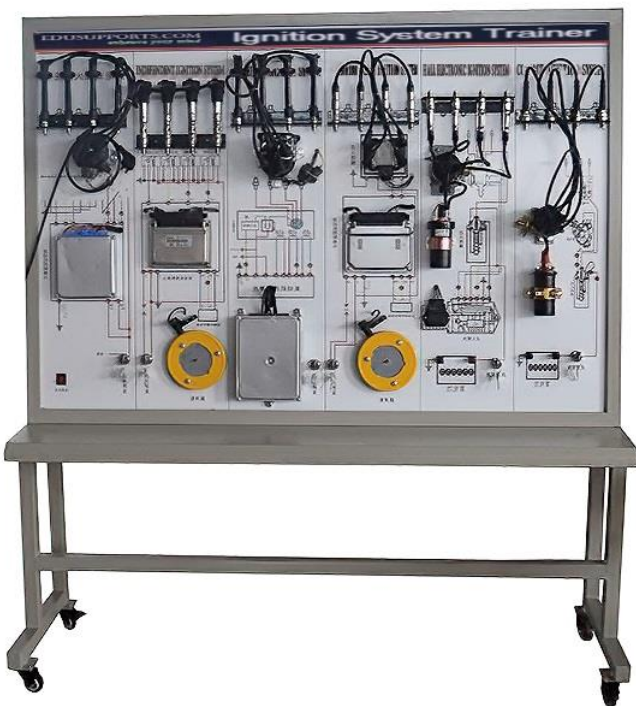
- 1.To study the structure and function of sensors and actuators in automotive electronic control system
- 2.To detect the signal of sensors of automotive electronic control system
- 3.To detect the working voltage of actuators automotive electronic control system
- 4.To detect and diagnose circuits of automotive electronic control system
- 5.Fault diagnosis, testing, reading and clearing fault codes, matching.

Models and specifications

SKU	Engine Section Demo Model
0403020283	Santana Gasoline Engine Electronic Control System Training Panel
0403020346	Jetta Gasoline Engine Electronic Control System Training Panel
0403020356	Passat 1.8T Gasoline Engine Electronic Control System Training Panel
0403020583	Toyota Corolla 2ZR-FE Gasoline Engine Electronic Control System Training Panel
	Or other models based on the requirements of customers

Ignition System Training Board

The ignition system training board is designed to illustrate the structure and working process of engine ignition system with six ignition systems including the contact-controlled ignition system, Hall electronic ignition system, magnetic induction ignition system, photoelectric sensing ignition system, distributorless MPI ignition system, and distributorless independent ignition system, which are independent to each other. It is suitable for the training and practice teaching courses of ignition system maintenance in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.



Highlights:

1. with 6 ignition systems, independent to each other.
2. Circuit diagram with terminals, faults setting switches.
3. Faults setting switches, terminals; to show ignition system working process, detect faults.
4. Instruments real-time detection.
5. The 220V AC power supply is converted into a 12V DC power supply through internal circuit voltage transformation, and the 12V DC power supply has a short-circuit prevention function.
6. with movable wheel bench, the whole beach is used rigid steel structure and its surface is processed by High-temperature spray paint with good anti-corrosion.

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Main Technical Parameters

Dimension: 1870×700×2380mm

Power supply: 220V AC 50HZ

Working voltage: DC 12V

Weight: 60±10kg

Working temperature:- 40~50°C

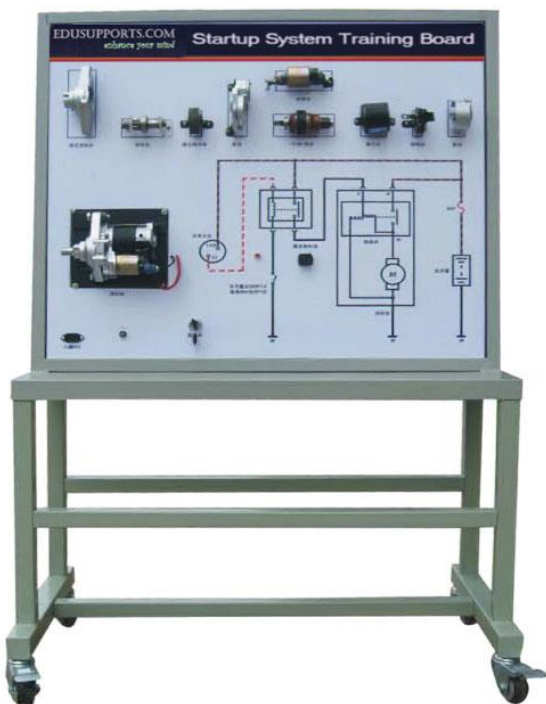
Models and specifications

SKU	Ignition System Training Board
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0403020372	Ignition System Training Panel
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Startup System Training Board

The startup system training board is designed to study the structure and working process of vehicle startup system with physical elements of startup system. It is suitable for the training and practice teaching courses of startup system maintenance in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.



Highlights:

1. Different parts are marked with different colors and names
2. A colored circuit schematic diagram on the board
3. An ignition switch to start up the motor
4. With external detection terminals
5. With components of the starter assembly
6. Working voltage: DC 12V

7. with movable wheel bench, the whole bench is used rigid steel structure and its surface is processed by High-temperature spray paint with good anti-corrosion.

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Typical Training Contents

- 1.To understand the structure of the starter
- 2.To study startup system components
- 3.To understand the working principle of the startup system
- 4.To study the inspection and maintenance of the startup system

Models and specifications

SKU	Startup System Training Board
0403020357	Volkswagen Passat B5 Startup System Training Board
0403020586	Toyota Corolla 1.8L Startup System Training Board
0403020720	Startup System Training Board
	Or other models based on the requirements of customers

Engine Immobilizer System Training Board

The engine immobilizer system training board is designed to study the structure and working process of engine immobilizer system. It is suitable for the training and practice teaching courses of engine immobilizer system maintenance in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.

Highlights:



2. Dynamically illustrate the signal of sensors and the structural of switches;

3. The circuit diagrams and detection terminals for detection of electric signals such as resistance, voltage, frequency, pulse width, current, conductivity of circuit components in the engine immobilizer system;

4. The LED light can indicate the strength and frequency changes of circuit signals;

5. With a diagnosis socket for connecting a dedicated or universal automobile decoder to read and clear fault codes, check ECU codes, read data streams, set parameters, test component, and matches keys on the engineer control unit (ECU);

6. With fault setting system.

7. with movable wheel bench, the whole bench is used rigid steel structure and its surface is processed by High-temperature spray paint with good anti-corrosion.

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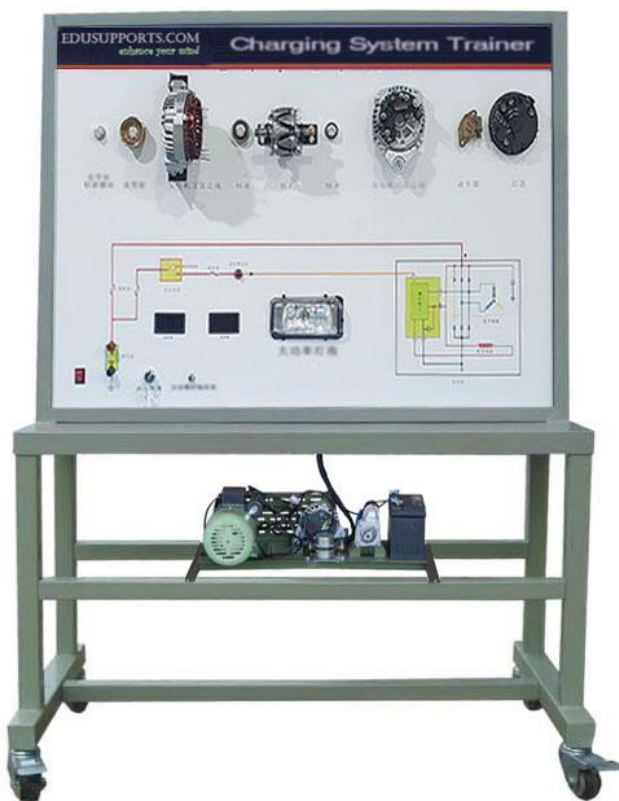
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Models and specifications

SKU	Engine Immobilizer System Training Board
0403020345	Jetta1.6L Engine Immobilizer System Training Board
0403020355	Passat 1.8T Engine Immobilizer System Training Board
0403020584	Toyota Corolla 1.8L Engine Immobilizer System Training Board
	Or other models based on the requirements of customers

Charging System Training Board

The charging system training board is designed to study the structure and working process of the charging system. It is suitable for the training and practice teaching courses of charging system maintenance in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions. The device includes generator assembly, three-phase drive motor, generator disassembly components, battery, ignition switch, voltmeter, movable bench, etc. This trainer includes generator disassembly components, charging indicator light, ignition switch, ammeter, voltmeter, three-phase motor, generator assembly, battery, dedicated multimeter, movable wheel bench, etc.



Highlights:

1. A realistic and operational charging system that dynamically demonstrate the composition and structure of the charging system.
2. Turn on the ignition switch, the three-phase motor drive the generator to work, and the charging indicator lamp is off, meanwhile, the accumulator voltage increases. This process demonstrates the working of the charging system. The ammeter and voltmeter on the board display the charging current and accumulator voltage respectively.
3. The colorful circuit diagram and schematic diagram enable visually understanding the working principle of the charging system.

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4. There are detection terminals charging indicator light, ammeter, and voltmeter installed on the board, which can directly detect the electrical signals of various circuit components of the charging system, such as resistance, voltage, current, waveform signals, etc.

5. With movable wheel bench, the whole bench is used rigid steel structure and its surface is processed by High-temperature spray paint with good anti-corrosion.

Typical Training Contents

1. Teaching Generator Structure, Principle, and Assembly.
2. Dynamic simulation working of charging system.
3. Using an oscilloscope to observe the three-phase AC waveform and phase.
4. Charging system troubleshooting

Models and specifications

SKU	Charging System Training Board
0403020358	Charging and Startup System Training Board
0403020585	Toyota Corolla 1.8L Charging System Training Board
	Or other models based on the requirements of customers

Diesel Engine Fuel System Training Board

The diesel engine fuel system training board is designed to demonstrate the structure and working process of the diesel engine fuel injection system. It is suitable for the training and practice teaching courses of diesel engine fuel system in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.



Highlights:

- 1.To simulate the working condition and principle of the diesel engine fuel injection system.
- 2.The color circuit diagram and schematic diagram enable intuitively understand the working principle of the diesel engine fuel injection system.
- 3.The amount and frequency of fuel injection vary depending on the speed of the engine.
- 4.The liquid used for fuel injection is non flammable and non volatile.
- 5.There are detection terminals installed on the board, which can directly detect the electrical signals of diesel engine fuel injection system, such as resistance, voltage, current, frequency signals, etc.
- 6.Foot operated throttle.

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7.The main drive is equipped with a speed regulating motor that can display simulated engine speed.

8.The rotating part of the trainer is equipped with a protective cover to ensure safety during the operation.

9.The 220V AC power supply is converted into a 12V DC power supply through internal circuit voltage transformation, and the 12V DC power supply has a short-circuit prevention function.

Main Technical Parameters

Dimensions: 1220x600x1680MM

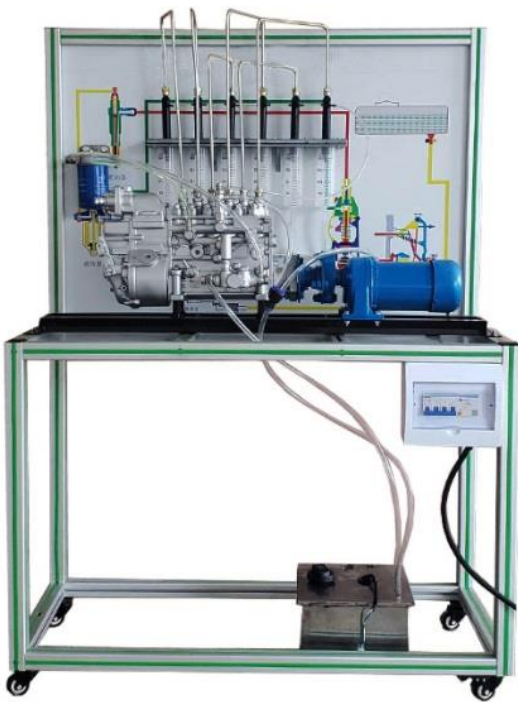
External power supply: AC 220V \pm 10% 50HZ

Working voltage: DC 12V

Working temperature: -40 °C ~ +50 ° C

Diesel Common Rail System Training Board

The diesel common rail system training board is designed to demonstrate the structure and working process of the diesel common rail system. It is suitable for the training and practice teaching courses of diesel common rail system in intermediate and higher vocational schools, polytechnic colleges and automobile maintenance training institutions.



Highlights:

1. Fully demonstrate the structure and working process of the diesel common rail system.
2. Equipped with a three-phase electric motor to drive the crankshaft and high-pressure oil pump.
3. Equipped with a frequency converter, it can demonstrate the working status of the system at different speeds.
4. Equipped with digital displays, it can display real-time changes in engine sensor parameters.
5. With color circuit diagram.

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6. Equipped with detection terminals, it can directly detect the electrical signals of various sensors, actuators, and engine control unit pins on the panel, such as resistance, voltage, current, frequency signals, etc.

7. Equipped with a fault setting system, one or more common faults can be set to simulate the circuit faults of the diesel common rail system.

8. Equipped with a diagnostic socket, it can be connected to a dedicated or universal car decoder to read fault codes, clear fault codes, and read data streams for the diesel common rail system.

9. With movable wheel bench, the whole bench is used rigid steel structure and its surface is processed by High-temperature spray paint with good anti-corrosion.

Main Technical Parameters

Dimensions: 1250x610x1680MM

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

Working voltage: DC 12V

Working temperature: -40 °C ~ +50 °C