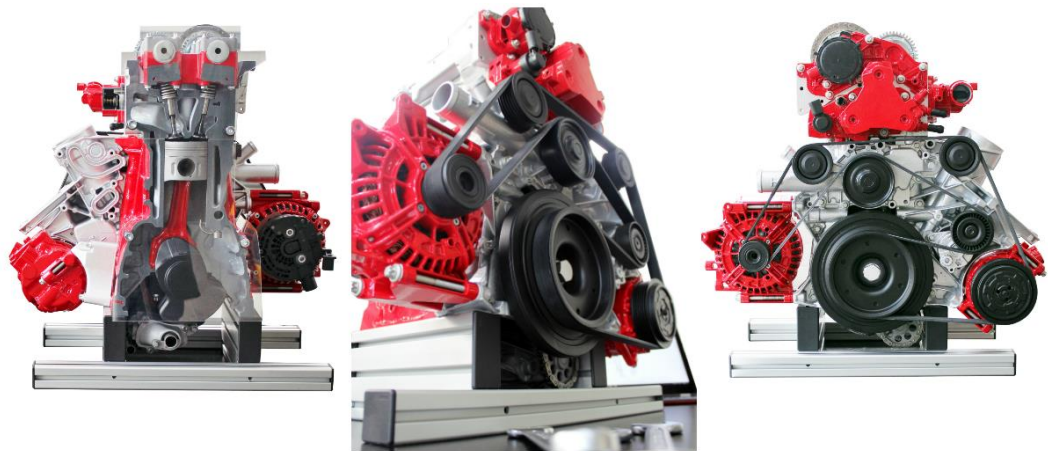


PRODUCT LIST OF TRAINING EQUIPMENT



AutoEDU Automotive training equipment









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2021








No 10.0 Rev 1.







Valid from 2020 June 1






N°	Model	Description	Indicative image for reference only
1.	MSMPI1	Engine control system MOTRONIC M 3.8.X (MPI) <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
2.	MSFSI1	Engine control system BOSCH MOTRONIC MED 7.5.10 (FSI) <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
3.	MSCR1	Diesel engine control system CR/EDC 15 <ul style="list-style-type: none"> Fully functional system 6010 Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
NEW 4.	MSLPG1	LPG training board <ul style="list-style-type: none"> Open contacts for measuring system components and circuits <u>To run as a functional system, MSMPI1 should be ordered together</u> Diagnosis and programming through diagnostic socket 	
5.	MSCAN1	CAN BUS training board <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
6.	MSCAN2	CAN BUS training dashboard <ul style="list-style-type: none"> Fully functional system with dashboard Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring CAN bus signals Activations by sending commands via CAN network 	
7.	MSABS1	Anti-Lock Braking system BOSCH ABS 5.3 training board <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
8.	MSABS/AS R1	ABS/ASR training board <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	






N°	Model	Description	Indicative image for reference only
9.	MSSRS1	SRS BOSCH AB 8.4 (AIRBAG) training board <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
10.	MSSRS2	SRS SIEMENS III (AIRBAG) training board <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
11.	MSAIRB1	CAR AIRBAG SRS demonstration stand <ul style="list-style-type: none"> AIRBAG SRS operation demonstration The expansion of the airbag is demonstrated by using compressed air Power supply 220V 	
12.	MSAS1	Lighting training board <ul style="list-style-type: none"> Fully functional system Open contacts for measuring system components and circuits Diagnosis of dashboard through OBD 16 pole diagnostic socket 	
13.	MSAS1+T telescopic	Lighting training board <ul style="list-style-type: none"> Fully functional system Open contacts for measuring system components and circuits Diagnosis of dashboard through OBD 16 pole diagnostic socket Adjustable telescopic legs 	
14.	MSAS1+ T7pin	Lighting training board <ul style="list-style-type: none"> Fully functional system Open contacts for measuring system components and circuits Diagnosis of dashboard through OBD 16 pole diagnostic socket Trailer 7-pin socket package (ISO1724)	
15.	MSAS1+ T13pin	Lighting training board <ul style="list-style-type: none"> Fully functional system Open contacts for measuring system components and circuits Diagnosis of dashboard through OBD 16 pole diagnostic socket Trailer 13-pin socket package (ISO11446) 	









16.	MSAS2	Lighting training board <ul style="list-style-type: none"> Fully functional system with CAN and LIN Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
17.	MSAS2+ T7pin	Lighting training board <ul style="list-style-type: none"> Fully functional system with CAN and LIN Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations Trailer 7-pin socket package (ISO1724)	
18.	MSAS2+ T13pin	Lighting training board <ul style="list-style-type: none"> Fully functional system with CAN and LIN Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations Trailer 13-pin socket package (ISO11446)	
19.	MSD1	Sensors and actuators training board <ul style="list-style-type: none"> Fully functional system Open contacts for measuring system components and circuits Real, not simulated signals 	
20.	MSC1	Air conditioning and climate control trainer <ul style="list-style-type: none"> Air-conditioning system trainer System with an <u>orifice tube</u> Electronic climate control system CLIMATRONIC Fully functional system with R134a refrigerant Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring of system's components and circuits Fault code simulations 	
21.	MSC2	Air conditioning and climate control trainer <ul style="list-style-type: none"> Air-conditioning system trainer System with an <u>expansion valve</u> Electronic climate control system CLIMATRONIC Fully functional system with R134a refrigerant Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring of system's components and circuits Fault code simulations 	
22.	MSC3-B	Dual zone Air conditioning and climate control trainer with auxiliary heater <ul style="list-style-type: none"> Air-conditioning system trainer With auxiliary petrol heating unit Electronic climate control system CLIMATRONIC Fully functional system with R134a refrigerant Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring of system's components and circuits Fault code simulations 	

23.	MSC3-D	Dual zone Air conditioning and climate control trainer with auxiliary heater <ul style="list-style-type: none"> Air-conditioning system trainer With auxiliary diesel heating unit Electronic climate control system CLIMATRONIC Fully functional system with R134a refrigerant Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring of system's components and circuits Fault code simulations 	
24.	MSC4-R1234yf D	Dual zone Air conditioning and climate control trainer with R 1234yf gas <ul style="list-style-type: none"> Air-conditioning system trainer With auxiliary diesel heating unit Electronic climate control system Fully functional system with R1234yf refrigerant Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring of system's components and circuits Fault code simulations 	
25.	MSC4-R1234yf-B	Dual zone Air conditioning and climate control trainer with R 1234yf gas <ul style="list-style-type: none"> Air-conditioning system trainer With auxiliary petrol heating unit Electronic climate control system Fully functional system with R1234yf refrigerant Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring of system's components and circuits Fault code simulations 	
26.	AE6F – ENG	Hidden fault simulation for air conditioning and climate control trainer: <ul style="list-style-type: none"> 6 fault simulation (hidden from students) <u>Should be ordered together with the stand!</u>	
27.	MSUS1	Ignition system training board <ul style="list-style-type: none"> Fully functional system 3 different types of systems Open contacts for measuring system components and circuits 	
28.	MSPS EBS D	Truck trailer WABCO EBS D 2S/2M braking system training stand <ul style="list-style-type: none"> Fully functional Wabco EBS system Functional pneumatic system Diagnosis through OBD 16 pole diagnostic socket Driving simulation 6 measuring gauges Fault simulation 	
29.	MSPS EBS E 4S/3M	Truck trailer WABCO EBS-E 4S/3M braking system training stand <ul style="list-style-type: none"> Fully functional Wabco EBS system with 4 ABS sensors Functional pneumatic system Diagnosis through OBD 16 pole diagnostic socket Driving simulation 6 measuring gauges Fault simulation 	







N°	Model	Description	Indicative image for reference only
NEW 30.	MSPS ABS T	Truck WABCO ABS air braking system training stand <ul style="list-style-type: none"> Fully functional Wabco Truck ABS system Functional pneumatic system Based on original components Diagnosis through diagnostic socket Driving speed simulation 3 measuring gauges Fault simulation 	
NEW 31.	MSPS EBS TR	Truck trailer ABS air braking system training stand <ul style="list-style-type: none"> Fully functional Wabco Trailer ABS system Functional pneumatic system Based on original components Diagnosis through diagnostic socket Driving speed simulation 4 measuring gauges Fault simulation 	
NEW 32.	MSTAIR-B1	Truck Airbrake stand <ul style="list-style-type: none"> Fully functional system based on the real components Functional pneumatic system truck and trailer 6 measuring gauges for truck lines and 3 for a trailer Number of the pneumatic component same like on the real vehicles 	
NEW 33.	MSTAIR-ABS1	Truck Airbrakes stand with ABS <ul style="list-style-type: none"> Functional pneumatic braking system truck and trailer Functional truck and trailer ABS system based on the real WABCO components 6 measuring gauges for truck lines and 3 for a trailer Number of the component same like on the real vehicles ABS sensors on track and trailer Diagnostics and faults simulation *Indicative picture	
NEW 34.	MSTAIR-EBS1	Truck Airbrakes stand with EBS system <ul style="list-style-type: none"> Functional pneumatic braking system truck and trailer Functional truck and trailer EBS system based on the real WABCO components 6 measuring gauges for truck lines and 3 for a trailer Number of the component same like on the real vehicles ABS sensors on track and trailer Diagnostics and faults simulation *Indicative picture	
NEW 35.	MSPPS1	Truck Air suspension training stand Fully operational ECAS air suspension trainer <ul style="list-style-type: none"> The system includes: <ul style="list-style-type: none"> Fully operational ECAS air suspension Air reservoir tank ECAS ECU Height sensors front and rear axle Remote control pad Height adjustments Diagnosis through diagnostic socket Fault code simulations 	









N°	Model	Description	Indicative image for reference only
36.	HYBBAT1	High Voltage Battery training stand <ul style="list-style-type: none"> Based on original car parts High voltage unit is ready for safe use in the training process Clearly visible device structure, arrangement of components, controllers, control units, battery blocks / cells and other elements Battery model with high-voltage disconnect fuse is easily accessible for training purposes Based on battery Ni Mh Training board is designed for safe preparation, repair and maintenance procedures of hybrid or electric high voltage cars Training board is designed for safe fuse on/off demonstration and training 	
37.	HYBBAT1 TR	High Voltage Battery training stand on a trolley <ul style="list-style-type: none"> Based on original car parts High voltage unit is ready for safe use in the training process Clearly visible device structure, arrangement of components, controllers, control units, battery blocks / cells and other elements Battery model with high-voltage disconnect fuse is easily accessible for training purposes Based on battery Ni Mh Training stand is designed for safe preparation, repair and maintenance procedures of hybrid or electric high voltage cars Training board is designed for safe fuse on/off demonstration and training 	
38.	MSAB1	High Voltage Source Safe Disconnection training stand <ul style="list-style-type: none"> The stand is designed for safety training with hybrid and electric cars The stand is designed for high voltage fuse disconnection of hybrid and electric cars before starting repair or maintenance procedures The stand is designed to explain safety procedures when working with hybrid and electric cars The connection methods and precautions are marked for each high voltage disconnection and connection The board is equipped with fuses from two different car manufacturers 	
39.	MSAE101 9	High Voltage Source Safe Disconnection training stand <ul style="list-style-type: none"> The stand is designed for safety training with electric cars The stand is designed for high voltage fuse disconnection of electric cars before starting repair or maintenance procedures <p>The stand is designed to explain safety procedures when working with electric cars</p>	
40.	MSAE101 9	High Voltage Source Safe Disconnection training stand <ul style="list-style-type: none"> The stand is designed for safety training with electric cars The stand is designed for high voltage fuse disconnection of electric cars before starting repair or maintenance procedures <p>The stand is designed to explain safety procedures when working with electric cars</p>	









41.	MSEV1	<p>Electric vehicle training stand Training stand based on real Nissan vehicle</p> <p>The system includes:</p> <ul style="list-style-type: none"> • Electric motor • Electric controller • Electric battery • Electric Air conditioner compressor • Electric steering column • All systems and components are connected by high voltage cables • All components covered with protective plexiglass for safety reasons • All components are mounted on an aluminium frame with castors. • Diagnosis through OBD 16 pole diagnostic socket • High voltage unit is ready for safe use in the training process • Battery with high-voltage disconnect fuse is easily accessible for training purposes 	
42.	AVS1	<p>Automotive 12V Starter functional model</p> <ul style="list-style-type: none"> • Starter model on the aluminum base • Complete with the bendix drive, ignition switch, protection plexiglass, connection cables • Real automotive components • Starter running without the load 	
43.	MSMSG1	<p>Automotive charging system training stand</p> <ul style="list-style-type: none"> • Fully functional system with the 12V alternator in light aluminum frame Real automotive components • Battery charging/discharging with the alternator • Alternator loading simulation • Negative terminal fault simulation • Adjustable rotation speed of the alternator • Information panels with the loading, charging, RPM and voltage • Open contacts for a measurement 	
44.	MSAPZ1	<p>Headlight training stand</p> <ul style="list-style-type: none"> • Electric wiring diagram with for measurements and connecting or disconnecting the components • High beam • Low beam • Turn signal • Standing light • Headlight switch <p>Power supply 12V battery (not included)</p>	
45.	MSLV1	<p>Windshield wipers mechanism training stand</p> <ul style="list-style-type: none"> • Designed to demonstrate the principal <p>Power supply 12V battery (not included)</p>	




46.	AEPWS22 A	Power supply unit <ul style="list-style-type: none"> For AutoEDU made training boards to use instead of 12V Batteries 13,5V/22A/100-230 V 	
47.	AEPWS37 A	Power supply unit <ul style="list-style-type: none"> For AutoEDU made training boards to use instead of 12V Batteries 12V/37,5A/100-230 V 	
48.	DBP set	Dual Banana Plug Connector set <ul style="list-style-type: none"> 4 mm with open contacts 10 pcs in set 	
49.	DDBP set	Dummy dual banana plug connector set <ul style="list-style-type: none"> 4 mm with open contacts 10 pcs in set 	
Working engine models – passenger car			
50.	MVMPI1	Educational petrol engine with multipoint injection system (MPI) EURO 3 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
51.	MVMPI2 Toyota (engine)	Educational petrol engine with multipoint injection system (MPI) (EURO 4-5) <ul style="list-style-type: none"> Based on Toyota engine 4 cylinders in line Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
52.	MVGDI1	Educational petrol engine with direct injection system (GDI) EURO 3 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
53.	MVFSI1	Educational petrol engine with direct injection system (FSI) EURO4 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	





54.	MVTSI1	Educational petrol engine with direct injection system (TSI) EURO 5 <ul style="list-style-type: none"> Fully functional system 4 cylinders in line , 1.4 TSI Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
55.	MVTSI2	Educational petrol engine with direct injection system (TSI) EURO 5 <ul style="list-style-type: none"> Fully functional system 4 cylinders in line, 1.2 TSI, 8 Valve, OHC Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
56.	MVTSI3	Educational petrol engine with direct injection system (TSI) EURO 6 <ul style="list-style-type: none"> Fully functional system 4 cylinders in line, 1.2 – 2.0 TSI Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
57.	MVHY1	Educational hybrid engine model <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
58.	MVMPI LPG1	Educational petrol engine with LPG system (MPI+LPG) EURO 3 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
59.	MVMPI LPG2	Educational petrol engine with LPG system (MPI+LPG) EURO 4 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations on engine management system 	
60.	MVVE1	Educational diesel engine with VE pump (TDI) EURO 2 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
61.	MVPD1	Educational diesel engine with PD system EURO 3 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
62.	MVCR1	Educational Diesel engine with CR (common rail) system EURO 3 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	

63.	MVCR2	Educational Diesel engine with CR (common rail) system EURO 4 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
64.	MVCR3	Educational Diesel engine with CR (common rail) system EURO 5 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
 65.	MVCR4	Educational Diesel engine with CR (common rail), EURO 6 <ul style="list-style-type: none"> Fully functional system EURO 6 system (No AdBlue) Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
 66.	MVCR5	Educational Diesel engine with CR (common rail), AD Blue EURO 6 <ul style="list-style-type: none"> Fully functional system AD Blue EURO 6 system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
67.	MVMPI+D yno	Educational petrol engine with multipoint injection system + Dyno <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations Educational engine connected with the engine dynamometer complete with: <ul style="list-style-type: none"> Eddy current brake Frame on 4 wheel, with the protection guards Assembly flange at flywheel of the engine Drive shaft with coupling PC based software compatible with Win 7, 8 Eddy current brake controlling device with information screen Emergency stop button 	
68.	MVTSI+ Dyno	Educational petrol engine with direct injection system (TSI) EURO 5 + Dyno <ul style="list-style-type: none"> Fully functional system 4 cylinders in line , 1.2 TSI, 8 Valve, OHC Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations Educational engine connected with the engine dynamometer complete with: <ul style="list-style-type: none"> Eddy current brake Frame on 4 wheel, with the protection guards Assembly flange at flywheel of the engine Drive shaft with coupling PC based software compatible with Win 7, 8 Eddy current brake controlling device with information screen Emergency stop button 	



69.	AE12F – ENG	Hidden fault simulation for engine control system <ul style="list-style-type: none"> 12 fault simulation (hidden from students) Closed box <u>Should be ordered together with the stand!</u>	
70.	AEVAC – ENG	Vacuum measuring gauge <u>Should be ordered together with the stand!</u>	
71.	AEPRES – P - ENG	Fuel pressure gauge The pressure gauge in the <u>low fuel supply line</u> for petrol engine (systems with the fuel pump in tank only) <u>Should be ordered together with the stand!</u>	
72.	AEPRES – D - ENG	Fuel pressure gauge The pressure gauge in the <u>low fuel supply line</u> for diesel engines (systems with the fuel pump in tank only) <u>Should be ordered together with the stand!</u>	
Motorcycle engine models			
73.	MVMC1	Educational motorcycle engine with a fuel injection system <ul style="list-style-type: none"> Fully functional system based on 2/4 cylinders motorcycle engine With ignition, injection and exhaust system Diagnosis through diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
Eddy current brake (Dynamometer)			
74.	Dyno 400	Eddy current brake <ul style="list-style-type: none"> Frame on 4 wheel, with the protection guards Assembly flange at flywheel of the engine Drive shaft with coupling PC based software compatible with Win 7, 8 Eddy current brake controlling device with information screen Emergency stop button <u>! Should be ordered with the educational engine at once!</u>	
75.	Dyno 800	Eddy current brake <ul style="list-style-type: none"> Frame on 4 wheel, with the protection guards Assembly flange at flywheel of the engine Drive shaft with coupling PC based software compatible with Win 7, 8 Eddy current brake controlling device with information screen Emergency stop button <u>! Should be ordered with the educational engine at once!</u>	
76.	Dyno 1000	Eddy current brake <ul style="list-style-type: none"> Frame on 4 wheel, with the protection guards Assembly flange at flywheel of the engine Drive shaft with coupling PC based software compatible with Win 7, 8 Eddy current brake controlling device with information screen Emergency stop button <u>! Should be ordered with the educational engine at once!</u>	










Working engine models - Truck			
77.	MVSPDL1	Educational Truck Diesel engine with PLD system <ul style="list-style-type: none"> Fully functional system 4 cylinders in line Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
78.	MVSVR1	Educational Truck Diesel engine with VR type pump EDC system <ul style="list-style-type: none"> Fully functional system 4 cylinders in line Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
79.	MVSPDL2	Educational Truck Diesel engine with PLD system <ul style="list-style-type: none"> Fully functional system 6 cylinders in line Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
80.	MVSCR1	Educational Truck Diesel engine with CR system (common rail) <ul style="list-style-type: none"> Fully functional system 4 cylinders in line Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
81.	MVSCR6	Educational Truck Diesel engine with CR system (common rail) <ul style="list-style-type: none"> Fully functional system 6 cylinders in line Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
82.	MVSCR3	Educational Truck Diesel engine V8 <ul style="list-style-type: none"> Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
83.	MVSCR4 AdBlue	Educational Truck Diesel engine with CR Ad Blue system <ul style="list-style-type: none"> Fully functional system 4 cylinders in line Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations Equipped with: <ul style="list-style-type: none"> Exhaust catalytic converter/filter Ad Blue (SCR) system; Turbocharger 	
84.	AE12F – ENG	Hidden fault simulation for engine control system <ul style="list-style-type: none"> 12 fault simulation (hidden from students) Closed box Should be ordered together with the stand!	
Truck tachograph simulator			


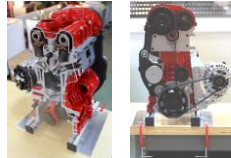




85.	MSTACHO 2	Truck tachograph simulator <ul style="list-style-type: none"> Fully functional system Driving speed simulation Rest and driving time modes 3 cards included: Driver Card, Workshop Card, Company Card Print driving reports Multilanguage 	
86.	MSTACHO 3	Truck analogue educational tachograph simulator <ul style="list-style-type: none"> Fully functional system Driving speed simulation Print driving reports Multilanguage With analogue paper tachograph charts 	
Brake rigs			
87.	MSSS01	Brake rigs <ul style="list-style-type: none"> Fully functional system with ABS Brake booster, front and rear discs with calipers, cross diagonal hydraulic circuit, hand brake Diagnosis through OBD 16 pole diagnostic socket Driving simulation 4 measuring gauges Mobile, with 4 casters 	
88.	MSSS03	Brake rigs (bench version) <ul style="list-style-type: none"> Fully functional system with ABS Brake booster, front and rear discs with calipers, cross diagonal hydraulic circuit, hand brake Diagnosis through OBD 16 pole diagnostic socket Driving simulation 4 measuring gauges 	
89.	MSEPS1	<div>NEW</div> Electromechanical parking brake EPB stand <ul style="list-style-type: none"> Functional electromechanical parking brake complete with the brake disc, brake caliper, multi stage gear mechanism, electric motor Two electrical buttons for press and release brake pads The brake operates electrically at 12V/ 220 volts Cutaway of multi stage gear mechanism 	
Steering system trainers			
90.	MSEVS1	Electronic steering rig <ul style="list-style-type: none"> Fully functional system Rack and pinion type Electro hydraulic power steering system Diagnosis through OBD 16 pole diagnostic socket Driving simulation Mobile, with 4 casters 	
91.	MSHVS2	Hydraulic steering rig <ul style="list-style-type: none"> Fully functional system Rack and pinion type Hydraulic power steering system Power supply 220 volts Mobile, with 4 casters 	










Engine stands			
92.	VV1	Engine stand <ul style="list-style-type: none"> Allows 360° rotation of engine or gearbox Reducer with worm gear for engine rotation Adjustable mounting brackets easily fit to engine block or gearbox 4 adjustable supports for braking and stability Mobile, with 4 casters Stainless steel drain pan 	
Engines and gearboxes for disassembling and assembling			
93.	VIVV1	Engines for disassembling and assembling <ul style="list-style-type: none"> Passenger donor car diesel or petrol engines with different fuel supply systems (MPI, FSI, GDI, CR, VE and another on customer request) On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	
94.	VIVV1 ADRT	Petrol MPI Turbo Engine for disassembling and assembling <ul style="list-style-type: none"> Passenger donor car petrol engines with MPI type fuel supply system and turbo Complete timing an auxiliary belt No wiring diagram or sensors On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	
95.	VIVV1 ADR	Petrol MPI Engine for disassembling and assembling <ul style="list-style-type: none"> Passenger donor car petrol engines with MPI type fuel supply system Complete timing an auxiliary belt No wiring diagram or sensors On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	
96.	VIVV1 GDI	Engine with GDI direct petrol injection for disassembling and assembling <ul style="list-style-type: none"> Complete passenger donor car engine Complete timing an auxiliary belt No wiring or sensors On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	
97.	VIVV1 RHX	Diesel CR Turbo Engine for disassembling and assembling <ul style="list-style-type: none"> Passenger donor car Diesel engine with CR type fuel supply system and turbo Complete timing an auxiliary belt No wiring diagram or sensors On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	
98.	VIVI1 VETDI	Turbo diesel engine with VE/ER pump for disassembling and assembling <ul style="list-style-type: none"> Passenger donor car Diesel engine with VE/VR type pump and turbo Complete timing an auxiliary belt No wiring or sensors On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	










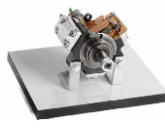
99.	IVD Split	Turbo Diesel DOHC engine in split version on rotating stand <ul style="list-style-type: none"> Passenger donor car diesel engine in split version 6 cylinders in line, DOHC with the chain Cutaway of 3 cylinders to show the working order Including the Common rail pump and injector On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	
100.	GDVV1 MULTI	Gearboxes for disassembling and assembling <ul style="list-style-type: none"> Passenger donor car, automatic CVT Multitronic gearbox On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	
101.	GDIVV1	Gearboxes for disassembling and assembling <ul style="list-style-type: none"> Passenger donor car manual or automatic gearboxes in different configuration (4, 5, 6 – speed , automatic , DSG, multitronic, variable and another on customer request) On manually 360° rotating stand with worm and wheel gearboxes Mobile, with 4 castors 	
Chassis training stands			
102.	MSVAZ1	Wheel alignment training stand <ul style="list-style-type: none"> Suspension angles modification on front and rear axles Toe angle modification on front and rear axles Camber angle modification on front and rear axles Caster angle modification, cradle adjustment, steering rack modification All suspension components are visible and easily adjustable Wheels and tyres should be ordered separately!	
103.	Wheels and tires	Wheel alignment training stand wheels and tires set <ul style="list-style-type: none"> Refurbished Wheels R14/R15 x 4 units (4x100) New tires 195/55 R 14/R15 x 4 units 	
Vehicle Functional model			
104.	PMTP-01	Toyota PRIUS II Hybrid ½ <ul style="list-style-type: none"> Educational fully operational vehicle. Electrical system with the front end fully functional Alternative to complete vehicle - space saving version, complete front end with complete back electrical part, the bumper and tail light Two front wheels and rear mounted rollers for movement Engine, ABS, AC, Air BAG's and etc. diagnostics 	
105.	PMTPK-01	Toyota PRIUS II Hybrid ½ (Cabrio version) <ul style="list-style-type: none"> Electrical system with the front end fully functional Alternative to complete vehicle - space saving version Two front wheels and rear mounted rollers for movement Engine, ABS, AC, Air BAG's and etc. diagnostics 	



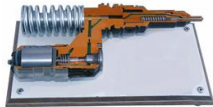




106.	PMTP-03	Toyota PRIUS III Hybrid ½ <ul style="list-style-type: none"> Educational fully operational vehicle. Electrical system with the front end fully functional Alternative to complete vehicle - space saving version, complete front end with complete back electrical part, the bumper and tail light Two front wheels and rear mounted rollers for movement Engine, ABS, AC, Air BAG's and etc. diagnostics 	
107.	PMTPK-05	Toyota Prius III Petrol/Electric/LPG HYBRID ¾ <ul style="list-style-type: none"> Hybrid petrol / electric system TOYOTA HYBRID CONTROL SYSTEM – III (THS-III) and LPG system Hybrid transmission system with a planetary reducer Climate control system CAN bus network Exhaust system ABS anti-lock brake system and driving stability system SRS AIRBAG airbag system Integrated emergency stop button to disconnect the high voltage battery 	
108.	PMTPK-06	Toyota Yaris HYBRID ¾ <ul style="list-style-type: none"> Hybrid petrol / electric system TOYOTA HYBRID CONTROL SYSTEM Hybrid transmission system with a planetary reducer Climate control system CAN bus network Exhaust system ABS anti-lock brake system and driving stability system SRS AIRBAG airbag system Integrated emergency stop button to disconnect the high voltage battery 	
109.	AHPLIN-01	Hybrid Plug-in functional model <ul style="list-style-type: none"> Educational fully operational hybrid vehicle based on FORD C-Max. Hybrid system, Plug-in (PHEV) version Engine, ABS, AC, Air BAG's and etc. diagnostics Built in measuring box with open contacts and wiring diagram for 3 electronic systems Fault code simulations for 3 electronic systems 	
110.	AE – 01	Electrical vehicle functional model <ul style="list-style-type: none"> Educational fully operational electric vehicle based on Nissan Leaf Engine, ABS, AC, Air BAG's and etc. diagnostics Built in measuring box with open contacts and wiring diagram for 3 electronic systems Fault code simulations for 3 electronic systems 	
111.	AE – 02	Electrical vehicle functional model <ul style="list-style-type: none"> Educational fully operational electric vehicle based on Nissan Leaf II Engine, ABS, AC, Air BAG's and etc. diagnostics Built in measuring box with open contacts and wiring diagram for 2 electronic systems Fault code simulations for 2 electronic systems 	
112.	AE FV	Functional vehicle <ul style="list-style-type: none"> Educational fully operational vehicle. Cutaway of different body and internal parts 	











113.	AE HVS	Protective tool set for working with high voltage vehicles <ul style="list-style-type: none"> Protective gloves Digital voltage tester Protective glasses Fencing tape 3-sided warning sign 2-sided warning sign Multimeter 	
Optional accessories for Functional models			
114.	PMTP-ENG /Box	Built in measuring box with open contacts and wiring diagram for engine control system <ul style="list-style-type: none"> Should be ordered together with the car Max 2 systems per car 	
115.	PMTP-ENG/Faults	Fault simulation for engine control system (10 faults)	
116.	PMTP-AC/Box	Built in measuring box with open contacts and wiring diagram for climate control <ul style="list-style-type: none"> Should be ordered together with the car Max 2 systems per car 	
117.	PMTP-AC/Faults	Fault simulation for climate control (6 faults)	
118.	PMTP-SRS/Box	Built in measuring box with open contacts and wiring diagram for SRS AIRBAG <ul style="list-style-type: none"> Should be ordered together with the car Max 2 systems per car 	
119.	PMTP-SRS/Faults	Fault simulation for SRS AIRBAG (6 faults)	
Platforms for quadracycle			
120.	PKX2	Platform for a Quadracycle <ul style="list-style-type: none"> Platform with the fixing points for a quadracycle (ATV) 2 wheels drive Mobile on 4 wheels Possible to use in workshop or in classroom Exhaust ventilation not included! 	
121.	PKX4	Platform for a Quadracycle <ul style="list-style-type: none"> Platform with the fixing points for a quadracycle (ATV) 4x4 wheels drive Mobile on 4 wheels Possible to use in workshop or in classroom Exhaust ventilation not included! 	






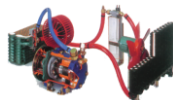


Timing belt and chain replacement trainers			
122.	IVDD - CR02	Diesel DOHC Common Rail engine ½ cutaway model <ul style="list-style-type: none"> For timing chain replacement training Auxiliary drive belt replacement training 4 valves per cylinder Water cooling 12V alternator 	
123.	IVDB01	Petrol DOHC engine ½ cutaway model <ul style="list-style-type: none"> For timing belt replacement training Auxiliary drive belt replacement training DOHC twin overhead camshaft 4 valves per cylinder Water cooling 12V alternator Including the special tools for timing 	
124.	IVOD - CR01	Diesel OHC Common Rail engine ½ cutaway model <ul style="list-style-type: none"> For timing belt replacement training Auxiliary drive belt replacement training 2 valves per cylinder Water cooling 12V alternator Including the special tools for timing 	
125.	IVDB02	Petrol DOHC MPI engine ½ cutaway model <ul style="list-style-type: none"> For timing chain replacement training Auxiliary drive belt replacement training DOHC twin overhead camshaft 4 valves per cylinder Water cooling, 12V alternator 	
Cutaway and other educational models			
126.	AERZ65	EV Electric vehicle junction box and electric motored reducer cutaway model <ul style="list-style-type: none"> The EV components mounted on aluminum frame The stand is based on Renault vehicle Electric motored reducer manual rotation Internal electric and electronic components covered with the plexiglass This cutaway model is carefully sectioned for training purposes, painted with different colors to better differentiate the various parts 	
127.	AEMBA170	Diesel Common rail INJECTION + GEARBOX cutaway model <ul style="list-style-type: none"> 4 in-line cylinders Camshaft Gearbox 5 forward speeds + reverse The engine operates electrically at 220 volts and runs at a reduced speed. Operation of the various mechanical parts The cutaway engine model on aluminium stand with the wheels 	








128.	AECE Guard	Additional protection for diesel engine cutaway from aluminum and plex glass from polycarbonate 8mm.	
129.	AECE Guard Full cover	Additional protection for diesel engine cutaway from aluminum and plex glass from polycarbonate 8mm.	
130.	AE1064	Direct shift gearbox cutaway model <ul style="list-style-type: none"> The DSG gearbox model is mounted on the stand Manual rotation The cutaway gearbox model on aluminium base; 	
131.	IVDB1/4	Petrol DOHC engine ¼ cutaway model <ul style="list-style-type: none"> DOHC twin overhead camshaft 4 valves per cylinder Piston with the rings 1 cylinder The cutaway model on aluminium base 	
132.	IVOD1/4	Diesel engine ¼ cutaway model <ul style="list-style-type: none"> 2 valves per cylinder Piston with the rings 1 cylinder The cutaway model on aluminium base 	
133.	IDSS	Membrane spring clutch cutaway functional model <ul style="list-style-type: none"> On the base Complete with the flywheel, clutch disc, pressure plate, throw out bearing and release fork and pressing handle Rotation of the clutch disk by hand The cutaway clutch model on aluminum base 	
134.	AE DMF	Dual mass flywheel with the clutch cutaway model <ul style="list-style-type: none"> On the base 	
135.	AETTC	Truck Turbo charger cutaway model <ul style="list-style-type: none"> on the base 	
136.	AE410000 E	Ignition & Charging System A plastic-plated wooden base is the support of the main components of the coil ignition of a 4-stroke engine: battery, spark coil, coil, spark plugs. Rotating the flywheel, it shows the operation of the whole unit (the action of the platinum points and of the distributor can be observed through the section) and the spark flashing in the respective spark plugs is shown as well.	






137.	AE410010	Electronic ignition system model <ul style="list-style-type: none"> A model showing the operating principles of the electronic ignition system for four cylinders, four-stroke engine. Original vehicles components: sparkplugs, distributor, ignition coil, ignition wirings and etc. A plastic-plated wooden base is the support of the main components of the system Clearly visible components Manual operation by hand 	
138.	AE410030	IGNITION SYSTEM cutaway model <ul style="list-style-type: none"> A model showing the operating principles of the mechanically timed ignition system for four cylinders four-stroke engine. Original vehicles components: sparkplugs, distributor, ignition coil, ignition wirings and etc. Clearly visible components Manual operation by hand Cutaway model on the base 	
139.	AE410040 S	12 Volt Battery cutaway model <ul style="list-style-type: none"> Battery type lead / acid 	
140.	AE410041	12 Volt AGM Battery cutaway <ul style="list-style-type: none"> Battery type Absorbed Glass Matte Mostly used for Start/Stop systems 	
141.	AE410070 M	STARTER MOTOR FOR CARS cutaway model <ul style="list-style-type: none"> Passenger cars On the base 	
142.	AE410070 ME	STARTER MOTOR FOR CARS cutaway model <ul style="list-style-type: none"> Passenger cars With electrical Bendix drive (from 12V battery) On the base	
143.	AE410071 M	Starter motor with reduction gears cutaway model <ul style="list-style-type: none"> Passenger cars On the base 	
144.	AE410080 M	ALTERNATOR SINGLE-FLOW COOLING cutaway model <ul style="list-style-type: none"> On the base 	
145.	AE410081 M	ALTERNATOR Double-FLOW COOLING cutaway model <ul style="list-style-type: none"> On the base 	
146.	AE410104 M	CP1 BOSCH HIGH PRESSURE PUMP cutaway model <ul style="list-style-type: none"> Radial-piston pump for common rail engines Pressure up to 1350 bar Fuel lubricated Three plungers Cutaway model on the base 	








147.	AE410106 M	CP3 BOSCH HIGH PRESSURE PUMP cutaway model (on the base) <ul style="list-style-type: none"> Radial-piston pump for common rail engine Pressure up to 1600 bar Fuel lubricated Three plungers 	
148.	AE410108 M	CP4 BOSCH HIGH PRESSURE PUMP cutaway model <ul style="list-style-type: none"> Radial-piston pump for common rail engine, Pressure up to 2000 bar Fuel lubricated Two plungers Cutaway model on the base 	
149.	AE410110 S	INJECTOR PUMP cutaway model Accurate section of a unit injector system for commercial vehicle, where it is possible to observe: <ul style="list-style-type: none"> Electromagnetic valve HD Pumping element Duster, etc. Cutaway model on the base 	
150.	AE410112 S	Common Rail PIEZO injector cutaway model <ul style="list-style-type: none"> On the base 	
151.	AE410180 M	Diesel injection pump with 6 IN-LINE cylinders and centrifugal governor cutaway model <ul style="list-style-type: none"> Small piston Cylinder Sector gear Rock Camshaft Check valve Centrifugal governor Manual operation Cutaway model on the base 	
152.	AE410181 M	Diesel injection pump with 4 IN-LINE cylinders and centrifugal governor cutaway model Visible components: <ul style="list-style-type: none"> Small piston Cylinder Sector gear Rock Camshaft Check valve Centrifugal governor Manual operation Cutaway model on the base 	
153.	AE410200 M	INJECTION PUMP WITH 6 IN-LINE CYLINDERS cutaway model Small piston, Cylinder, Sector gear, Rock, Camshaft, Check valve, Centrifugal governor, 2 injectors of different type, Fuel filter, Fuel pump, Operated manually through a crank handle. <ul style="list-style-type: none"> Cutaway model on the base 	








154.	AE410220 M	BOSCH INJECTION PUMP WITH 4 IN-LINE CYLINDERS + PNEUMATIC SPEED GOVERNOR cutaway model Accurate section of a pump suitable for medium displacement engine (FIAT, Mercedes) with pneumatic speed governor (rock rod or acceleration rod controlled by a diaphragm connected to the suction collector). It is provided with a feeding pump. <ul style="list-style-type: none"> • Cutaway model on the base 	
155.	AE410230 M	Single cylinder injection pump cutaway model <ul style="list-style-type: none"> • On the base 	
156.	AE410240 M	BOSCH VE rotary injection pump cutaway <ul style="list-style-type: none"> • Distributor plunger • Injection phase • Supplied complete with an indirect injector • Manual operation • Cutaway model on the base 	
157.	AE410250 M	CAV DPA-DPS ROTARY INJECTION PUMP cutaway model Careful section of a CAV rotary pump for training purposes, showing all its operating parts. The transfer pump, the speed governor, the automatic advance regulator, the hydraulic sensor device, the fuel circuit and the pumping small piston are clearly shown. It is supplied complete with an indirect injector. <ul style="list-style-type: none"> • Manual operation • Cutaway model on the base 	
158.	AE410260 M	CAV DPC injection pump cutaway model Cross sectioned according to the criteria to show its main parts. It is provided with an indirect injector. <ul style="list-style-type: none"> • Manual operation • Cutaway model on the base 	
159.	AE410270 M	Diesel injection VP 44 Bosch pump cutaway <ul style="list-style-type: none"> • Distributor plunger • Injection phase • Electronic control unit, etc. • Manual operation • Cutaway model on the base 	
160.	AE410280 S	Diesel injector cutaway model Careful section of two different injectors (direct and indirect injection type) showing their internal parts and relevant operation <ul style="list-style-type: none"> • Cutaway model on the base 	
161.	AE410300 M	DIESEL COMMON-RAIL (on base) – manual Accurate cross-section of the high pressure (1600 bar) fuel system known as Common-rail. This circuit consists of a radial piston pressure pump, one delivery manifold and an electro-injector, all connected via high pressure hoses. <ul style="list-style-type: none"> • Cutaway model on the base 	
162.	AE410305 S	Diesel Common Rail injector with solenoid valve cutaway model Section of electro injector for modern diesel engines. The main interesting components from the educational point of view are displayed.	
163.	AE410380 S	ELECTRICAL FUEL PUMP (on base) - static <ul style="list-style-type: none"> • On the base 	











164.	AE410430 M	TURBOSUPERCHARGER WITH WASTE-GATE VALVE (on base) <ul style="list-style-type: none"> On the base 	
165.	AE410520 S	LPG FUEL CIRCUIT (on base) – static Layout of a car LPG fuel system with single-body type carburettor for educational purposes included: Filler Plug, LPG tank, Level gauge, LPG solenoid valve, Petrol solenoid valve, Vaporizer reduction gear, Carburettor. <ul style="list-style-type: none"> Cutaway model on the base 	
166.	AE410525 S	LPG TIMED SEQUENTIAL INJECTION FOR ELECTRONIC INJECTION ENGINES (wall-mounted) – cutaway training model LPG timed sequential injection for petrol engine with multi-point electronic injection, complete with the following components: <ul style="list-style-type: none"> ECU Injection rail L.P.G. solenoid valve Reducer – vaporizer Pressure sensor Pressure stabilizer Switch commutator Nozzles for manifold Water temperature sensor Gas temperature sensor Refuelling valve Level indicator 	
167.	AE410636	Hydraulic shock absorber cutaway model <ul style="list-style-type: none"> McPherson type Complete with the damper spring On the base 	
168.	AE410638	Gas shock absorber cutaway model <ul style="list-style-type: none"> On the base 	
169.	AE410650 M	AIR CONDITIONING SYSTEM (on base) – manual Radial piston compressor, Condenser, Filter, Expansion valve, Evaporator, Electric fans, High and low pressure connecting hose	
170.	AE410730 M	RACK and pinion, STEERING BOX cutaway model <ul style="list-style-type: none"> On the base 	
171.	AE410401 S	Engine cooling system (on base) cutaway model Complete Cooling System unit Technical specifications: <ul style="list-style-type: none"> Block-head canalization Water pump Thermostatic valve Water temperature bulb Expansion tank Radiator Connecting pipe	

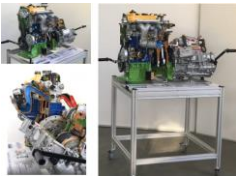




172.	AE410750	Power steering with RE-CIRCULATING BALL system cutaway model <ul style="list-style-type: none"> A cutaway model showing the operating principles of the mechanical steering system with the re-circulating ball. Cutaway model equipped with rotating handle that simulates the action of a steering wheel and ball type steering box and hydraulic vane type pump. Clearly visible oil filter and connecting pipes Original vehicles components Manual operation Cutaway model on the base 	
173.	AE410760 M	RACK POWER STEERING – training model <ul style="list-style-type: none"> Rack type steering box Hydraulic pump Oil tank with relevant filter Connecting pipes For cars On base 	
174.	AE410778	Electric power assisted steering (EPS) system with suspension <ul style="list-style-type: none"> A model showing the operating principles of the electronic power assisted system in a working condition with the operational McPherson suspension Adjustment of the steering effort directly on the rack Vehicle speed simulation from 0 to 120 km/h Normal/city push-button Alternator simulation Indicator lamp and voltage/current display Body computer with diagnostic socket (with low speed CAN) Original vehicles components The model on stand with the wheels 	
175.	AE410782 M	ELECTRICAL RACK AND PINION STEERING cutaway model <ul style="list-style-type: none"> Manual operation Cutaway model on the base 	
176.	AE410990 M	GEARBOX Cutaway model <ul style="list-style-type: none"> 5 speed forward and one reverse With possibility of selecting any speed Operated manually through a hand wheel Gearbox cutaway model on stand with wheels 	
177.	AE411005 M	GEARBOX cutaway model <ul style="list-style-type: none"> 5 speed forward and one reverse With the differential With possibility of selecting any speed Operated manually through a hand wheel Gearbox cutaway model on stand with wheels 	
178.	AE411030	GEARBOX WITH CLUTCH 5 FORWARD SPEEDS + REVERSE cutaway model This cutaway model is carefully sectioned for training purposes, professionally painted with different colors to better differentiate the various parts and cross-sections. Many parts have been chromium-plated and galvanized for a longer life. <ul style="list-style-type: none"> Dry single-plate clutch with spring and diaphragm. The clutch is operated mechanically by means of a foot pedal for training purposes. Operated manually through a hand wheel Gearbox cutaway model on stand with wheels 	






179.	AE411040 M	AUTOMATIC TRANSMISSION cutaway model <ul style="list-style-type: none"> Operated manually through a hand wheel Gearbox cutaway model on stand with wheels 	
180.	AE411060 M	AUTOMATIC TRANSMISSION <ul style="list-style-type: none"> Rear drive 4 Forward + reverse Rotation manually, by handle Casing Torque converter Oil pump Stationary plate clutch Rotary plate clutch Planetary gear train Hydraulic circuit valve; Centrifugal regulator The gearbox cutaway model is mounted on the stand with wheels 	
181.	AE411068 M	CONTINUOUSLY VARIABLE TRANSMISSION (CVT) cutaway model <p>Special gearbox that can change continuously through an infinite number of effective gear ratios between maximum and minimum values. There are two V-belt pulleys that are split perpendicular to their axes of rotation, with a V-belt running between them.</p> <ul style="list-style-type: none"> Operated manually through a hand wheel Gearbox cutaway model on stand with wheels 	
182.	AE41106 9M	ZF 16S ECOSPLIT GEARBOX FOR HEAVY TRUCKS 16F + 2R cutaway model <p>The gearbox is composed of a central box containing 4 forward speeds gearings and 2 reverse speeds gearings, epicyclic unit for selecting the speed-gears mounted on the base and over-gear on top. The over-gear allows to divide each gear into slow or fast obtaining 16 forward gears which can be inserted and geared down in sequence.</p> <ul style="list-style-type: none"> Heavy vehicles gearbox With possibility of selecting any speed Operated manually through a hand wheel; Gearbox cutaway model on stand with wheels; Weight approx. – 400 kg 	
183.	AE411070 M	FULLER 13 SPEED GEARBOX cutaway model <p>Quick change gear box used in 300/400HP heavyweight vehicles with mechanical and pneumatic control. It is a non-synchronized gearbox, the box is divided in 2 parts:</p> <p>On the engine side there are 1st 2nd 3rd and 4th speed gears, reverse speed gears and extra low ratio pick-up speed gears.</p> <p>All these gears are mechanically controlled by the change gear lever. In the other part of the gearbox (on the output shaft side), there are the standard, low ratio and semi low ratio speed gears, pneumatically controlled by the pre-selectors provided on the gear lever. This gearbox is made very sturdy by the presence of 2 auxiliary shafts sharing stress to an equal degree.</p> <ul style="list-style-type: none"> Heavy vehicles gearbox With possibility of selecting any speed Operated manually through a hand wheel Gearbox cutaway model on stand with wheels Weight approx. – 400 kg 	






184.	AE411071 M	HEAVY TRUCK GEARBOX ZF 5HP cutaway model <ul style="list-style-type: none"> Sectioned heavy truck gearbox. Composed by: Torque converter with lock-up clutch Hydrodynamic retarder Rotating multi-disc clutches Fixed-position multi-disc brakes Oil cooler with oil-water exchanger Electro- valves Operated manually through a hand wheel Gearbox cutaway model on stand with wheels Weight approx. – 350 kg 	
185.	AE411080 M	GEARBOX WITH TRIPLE REDUCTION GEAR cutaway model <ul style="list-style-type: none"> Heavy vehicles gearbox With possibility of selecting any speed Operated manually through a hand wheel Gearbox cutaway model on stand with wheels Weight approx. – 200 kg 	
186.	AE411082 M	HYBRID TRANSMISSION MG (MOTOR/GENERATOR) Toyota Prius The Motor Generator 1 (MG1) operates as the control element for the power splitting planetary gear set. It recharges the HV battery and also supplies electrical power to drive Motor Generator 2 (MG2). MG1 effectively controls the continuously variable transmission function of the transaxle and operates as the engine starter. <ul style="list-style-type: none"> Operated manually through a hand wheel Gearbox cutaway model on stand with wheels 	
187.	AE411110 M	Single disc clutch coil spring model <ul style="list-style-type: none"> Clutch disc, pressure plate, throw out bearing and release fork and pressing handle Rotation of the clutch disk by hand Clutch cutaway model on the base 	
188.	AE411100 S	HYDRAULIC CONTROL CLUTCH cutaway model This panel shows the hydraulic circuit which controls a diaphragm clutch. The pump, cylinder and clutch units are fully sectioned	
189.	AE411141 M	CENTRIFUGAL CLUTCH cutaway model <ul style="list-style-type: none"> On the base 	
190.	AE411198 M	REAR AXLE HEAVY TRUCK WITH LOCKING DIFFERENTIAL cutaway model <ul style="list-style-type: none"> Rear axle for heavy truck with locking differential. Complete section of the rear axle. The main components are: <ul style="list-style-type: none"> Bevel gear (pinion – crown) Differential (satellite and planetary) with locking differential Axle shafts Reducer and planetary on the hub Brakes with jaws/drum Double air brake element Operated manually Truck axle cutaway model on stand with wheels 	




N°	Model	Description	Indicative image for reference only
191.	AE411199 M	REAR AXLE HEAVY TRUCK <u>WITHOUT LOCKING</u> DIFFERENTIAL cutaway model <ul style="list-style-type: none"> Rear axle for heavy truck with locking differential. Complete section of the rear axle. Bevel gear (pinion – crown) Differential (satellite and planetary) with locking differential Axle shafts Reducer and planetary on the hub Brakes with jaws/drum Double air brake element Operated manually Truck axle cutaway model on stand with wheels 	
192.	AE411204 M	Rear suspension model Rear suspension with the sectioned shock absorbers, springs and brake drums <ul style="list-style-type: none"> Suspension model mounted on stand with wheels 	
193.	AE411200 M	Rear axle with differential (on stand with wheels) – manual Rigid rear axle complete with differential unit, axle shafts and rear drum brakes, carefully sectioned to show the operation of the differential unit where planetary gears, the ring gear and the pinion are clearly displayed. A brake drum and a cylinder are sectioned too.	
194.	AE411210 M	Sectioned Front Suspension Unit <ul style="list-style-type: none"> McPherson Strut Type Suspension Shock absorber, spring Rack and pinion steering box Disc brake Steering wheel Sectioned suspension mounted on the stand with wheels 	
195.	AE411220 M	Hydraulic Brake Chassis Trainer <ul style="list-style-type: none"> McPherson suspension Shock absorber Spring Rack and pinion steering box Disc brake Drum brake Hydraulic pump Brake lever Steering wheel Sectioned chassis mounted on the stand with wheels 	
196.	AE411280 M	HYPOID DIFFERENTIAL cutaway model <ul style="list-style-type: none"> On stand 	
197.	AE411300 M	4X4 VEHICLE TRANSMISSION ASSEMBLY WITH 5 SPEED MECHANICAL <ul style="list-style-type: none"> Gearbox: 5 forward speeds+ reverse 2-Speeds reduction gear Movement restorer with front wheel drive manual control Drive shafts with universal joints Self-locking hypoid differentials Manual operation Sectioned transmission assembly mounted on the stand with wheels 	





198.	AE412010 M	DRUM BRAKE cutaway model <ul style="list-style-type: none"> Section of a drum brake The cylinder and shoes are clearly shown. Brake cutaway model on the base 	
199.	AE412030 M	DISC and DRUM BRAKE cutaway model A cutaway model of a hydraulic brakes. Composed of brake master cylinder, brake tank and brake lever. Caliper with the brake disc with the drum brake inside <ul style="list-style-type: none"> Sectioned brake model mounted on the base; 	
200.	AE412050 M	Hydraulic Dual Circuit Brake with Servo Brake training unit Cut-away model used for training on servo double circuit mechanism hydraulic circle. Real parts of a car installed on a panel. When we press on brake pedal, hydraulic system start and turn on brake light and able to see the mechanism of brake. It shows brake pressure at the same time. <ul style="list-style-type: none"> Wall mounted training unit 	
201.	AE412065 S	Pneumatic Air Brake Trainer Wall panel showing the hydro-pneumatic braking elements of a truck (tractor-trailer) complete with: air compressor, triplex distributor with adjusting and control unit, pressure brake booster, tractor-trailer coupling joint, hydraulic control braking element, mechanical and air control braking element for parking braking, servo-distributor valve for the trailer, no. 4 air reservoirs (3 for the tractor). All elements are connected with rubber pipes of different colours to distinguish the various circuits. <ul style="list-style-type: none"> Wall mounted training unit 	
202.	AE41114 OS	Torque converter <ul style="list-style-type: none"> On stand 	
203.	AE41299 M	IN-LINE PISTON PUMP cutaway model Accurate section of an in-line piston pump showing: <ul style="list-style-type: none"> Pump head Suction and discharge valves Pistons Piston rods Bearings 	
204.	AE413092 M	ANGLE REDUCER cutaway model <ul style="list-style-type: none"> On stand 	
205.	AE413094 M	WORM GEAR REDUCER cutaway model <ul style="list-style-type: none"> On stand 	
206.	AE413096 M	SINGLE-STAGE REDUCER cutaway model <ul style="list-style-type: none"> On stand 	
207.	AE413110 M	BEVEL HELICAL REDUCER (on base) – manual <ul style="list-style-type: none"> On stand 	




208.	AE34500 M	Hybrid system petrol/electric system cutaway model <ul style="list-style-type: none"> • 4 in-line cylinders, 1500 cm³ • Toyota hybrid system (THS) • VVT-I system (Variable Valve Timing) • Multi point injection • Engine + Electrical motors • Transmission with the differential group • The engine and the generator could be rotated manually • The Engine and the generator can operate together or separately. • The cutaway hybrid engine model mounted on the stand with the wheels. 	
209.	AE34501	Hybrid system petrol/electric system cutaway model <ul style="list-style-type: none"> • 4 in-line cylinders, 1500 cm³ • Toyota hybrid system (THS) • VVT-I system (Variable Valve Timing) • Multi point injection • Engine + Electrical motors • Transmission with the differential group • The engine and the generator operates electrically at 220 volts and runs at a reduced speeds. • The Engine and the generator can operate together or separately. • The cutaway hybrid engine model mounted on the stand with the wheels 	
210.	AE34501 WM	Hybrid system petrol/electric system cutaway model <ul style="list-style-type: none"> • 4 in-line cylinders, 1500 cm³ • Toyota hybrid system (THS) • VVT-I system (Variable Valve Timing) • Multi point injection • Engine + Electrical motors • Transmission with the differential group • The engine and the generator operate electrically at 220 volts and runs at a reduced speed. • Show the working modes with the LED lights of the hybrid system and petrol engine • The Engine and the generator can operate together or separately. <p>The cutaway hybrid engine model mounted on the stand with the wheels</p>	
211.	AECE Guard	Additional protection for hybrid engine cutaway from aluminum and plex glass from polycarbonate 8mm.	
212.	AECE Guard Full cover	Additional protection for diesel engine cutaway from aluminum and plex glass from polycarbonate 8mm.	





213.	AE34400 M	MAZDA RX TWIN-ROTOR WANKEL ENGINE cutaway model Accurate section of the most common Mazda RX Wankel engine, clearly showing the following main components: <ul style="list-style-type: none"> • Drive shaft with flywheel • Twin-rotor • Suction and exhaust channels • Chain-driven oil pump • Water pump with thermostatic valve • Electronic injection • Twin-spark ignition • The Twin Rotor Wankel cutaway engine mounted on the stand with the wheels. 	
214.	AE34800E	16 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC INJECTION cutaway model Main technical specifications: <ul style="list-style-type: none"> • 4 in-line cylinders, DOHC twin overhead camshaft • Displacement: 2000 cu. Cm • Multipoint electronic injection with ignition- integrated control unit • Vibration-damping balancing shafts • Manual operation • The cutaway engine model mounted on the stand with the wheels. 	
215.	AE34805E	16 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC INJECTION + GEARBOX 5 FORWARD SPEEDS + REVERSE cutaway model Main technical specifications: <ul style="list-style-type: none"> • 4 in-line cylinders, 2000 cm³, DOHC twin overhead camshaft • Multipoint electronic injection • Vibration-damping balancing shafts • Gearbox 5 forward speeds + reverse • The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. • The engine and the gearbox cutaway model is mounted on the stand with the wheels. 	
216.	AE35195 M	6 V CYLINDERS PETROL ENGINE WITH MULTI-POINT ELECTRONIC INJECTION cutaway model <ul style="list-style-type: none"> • 6 V cylinders • Displacement: 2000-3000 cc • DOHC • Multi-point electronic injection • Centrifugal water pump • 12V alternator • Manual operation • The cutaway engine mounted on the stand with the wheels. 	
217.	AE35195E	6 V CYLINDERS PETROL ENGINE WITH MULTI-POINT ELECTRONIC INJECTION cutaway model <ul style="list-style-type: none"> • 6 V cylinders • Displacement: 2000-3000 cc • OHC • Multi-point electronic injection • Centrifugal water pump • 12V alternator • The engine operates electrically at 220 volts and runs at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. 	

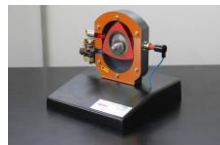




		<ul style="list-style-type: none"> The cutaway engine mounted on the stand with the wheels. 	
218.	AE35220 CE	FIAT PETROL ENGINE WITH CARBURETTOR + GEARBOX cutaway model <ul style="list-style-type: none"> 4 in-line cylinders Displacement: 1000/1300 cm³ Camshaft in head, Carburettor, Electronic ignition, Timing belt distribution Gearbox: 5 forward speeds + reverse with differential The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts The cutaway engine mounted on the stand with the wheels. 	
219.	AE35220 IEM	FIAT PETROL ENGINE WITH ELECTRONIC INJECTION - MONOJETRONIC + GEARBOX cutaway model <ul style="list-style-type: none"> 4 in-line cylinders, Displacement: 1000/1300 cm³ Camshaft in head, injection system, electronic ignition, Timing belt distribution Gearbox: 5 forward speeds + reverse with differential The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts The cutaway engine mounted on the stand with the wheels. 	
220.	AE35222 IEE	FIAT PETROL ENGINE WITH MULTI-POINT ELECTRONIC INJECTION + GEARBOX cutaway model <ul style="list-style-type: none"> 4 in-line cylinders, Displacement: 1000/1300 cm³ Camshaft in head, electronic injection, Electronic ignition, Timing belt distribution Gearbox: 5 forward speeds + reverse with differential The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts The cutaway engine mounted on the stand with the wheels. 	
221.	AE35230	2 CYLINDERS PETROL ENGINE cutaway model <ul style="list-style-type: none"> Air cooling Displacement: 500 cu. Cm Camshaft in the crankcase Single body carburettor Overhead valves Manual operation The cutaway engine mounted on the base 	
222.	AE35245 M	SINGLE-CYLINDER 4 STROKE PETROL ENGINE AIR COOLED cutaway model (on the base) <ul style="list-style-type: none"> Displacement 160cc, power 6 hp Camshaft in the crankcase Overhead valves RPM regulator Oil pump, Carburettor, Air filter, Silencer, Tank Manual operation 	





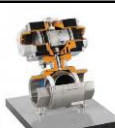
223.	AE35272E	<p>PETROL MULTI-POINT ENGINE CHASSIS WITH ABS - chassis trainer</p> <ul style="list-style-type: none"> Fiat chassis with front drive with working light system Hydraulic power steering 4 cylinders, 1200 cm³, petrol Electronic injection MPI (Multipoint) Gearbox: 5 forward speeds + reverse+ differential Hydraulic power steering with double-jointed steering column; Brake system with 4 sensors ABS This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life. The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. The chassis trainer and the cutaway components is mounted on the stand with the wheels 	
224.	AE35274E	<p>STANDARD PETROL MULTI-POINT ENGINE CHASSIS WITH WORKING LIGHT SYSTEM chassis trainer</p> <ul style="list-style-type: none"> Fiat chassis with front drive 4 cylinders, 1200 cm³, petrol, electronic injection MPI (Multi-point) Gearbox: 5 forward speeds + reverse+ differential Double circuit brake system with servo brake Front-disc brake, Rear-drum brake, Working front and rear light system controlled by a dashboard This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life. The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. The chassis trainer and the cutaway components is mounted on the stand with the wheels. 	
225.	AE35340E	<p>FIAT DOUBLE SHAFT (DOHC) ENGINE WITH MULTI-POINT ELECTRONIC INJECTION WITH LIGHT SYSTEM chassis trainer</p> <ul style="list-style-type: none"> 4-stroke petrol engine 4-cylinders Displacement 2000 cu Cm Gearbox: 5 speeds + reverse Differential with hypoid crown wheel and pinion Twin overhead camshaft driven by a toothed belt Electronic ignition Dual braking circuit McPherson front suspension Rack steering box, Rear leaf spring suspension Working front and rear light system controlled by a dashboard This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life. The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. The chassis trainer and the cutaway components is mounted on the stand with the wheels. 	

226.	AE35350E	STANDARD PETROL MULTI-POINT ENGINE CHASSIS Trainer <ul style="list-style-type: none"> Fiat chassis with front drive 4 cylinders 1200 cm³, petrol, electronic injection MPI (Multi-point) Gearbox: 5 forward speeds + reverse+ differential Double circuit brake system with servo brake Front-disc brake, Rear-drum brake This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc. Many parts have been chromium, plated and galvanized for a longer life. The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. The chassis trainer and the cutaway components is mounted on the stand with the wheels. 	
227.	AE36010 M	16 VALVE CHRYSLER TURBO DIESEL ENGINE WITH COMMONRAIL INTERCOOLER <ul style="list-style-type: none"> 4 stroke engine; 4 in-line cylinders; 4 valves per cylinder Displacement: 2500/2800 cu. Cm Power: 150-170 hp At 4000 RPM Twin overhead camshaft (DOHC) with timing belt Vibration-damping balancing shafts Common rail-type direct injection with electro-injectors Turbo-supercharger with air-air intercooler Alternator-oil filter-oil pump The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts The cutaway engine model components is mounted on the stand with the wheels. 	
228.	AE36015E	FIAT/ALFA ROMEO 8 VALVE ENGINE WITH TURBO DIESEL COMMON-RAIL cutaway model <ul style="list-style-type: none"> 4 stroke engine; 4 in-line cylinders, 2 valves per cylinder Turbo-supercharger Alternator-oil filter-oil pump The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts 	
229.	AE36070E	Rear drive turbo diesel engine with clutch gearbox (on stand with wheels) – electrical <ul style="list-style-type: none"> 4 stroke engine; 4 cylinders in line Displacement: 1400/1700 cu. Cm Indirect injection Feeding by turbosupercharger VE Bosch type rotary injection pump Overhead camshaft (OHC) Distribution through a toothed belt Alternator Thermostatic valve Gearbox: 4 forward speeds + reverse Single-plate clutch with diaphragm Water cooling 	

230.	AE36081	<p>SECTIONED ENGINE MERCEDES ATEGO, PLD SYSTEM (INJECTION PUMP) COMPLETE WITH ALL PARTS NOT INCLUDED: GEARBOX</p> <ul style="list-style-type: none"> • 4 in-line cylinders • Camshaft • Operation of the various mechanical parts • On stand with wheels • This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc. • The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts • The truck cutaway engine is mounted on the stand with the wheels. 	
231.	AE36082	<p>SECTIONED ENGINE IVECO, COMMON RAIL SYSTEM (CR) COMPLETE WITH ALL PARTS NOT INCLUDED: GEARBOX</p> <ul style="list-style-type: none"> • 4 – 6 in-line cylinders • Camshaft • Operation of the various mechanical parts • This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc. • The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts • The truck cutaway engine is mounted on the stand with the wheels. 	
232.	AE36083E	<p>6 CYLINDERS DIESEL ENGINE TRUCK "IVECO" CURSOR WITH ELECTRONICALLY CONTROLLED PUMP INJECTORS cutaway model</p> <ul style="list-style-type: none"> • Displacement: 7790/10380 cu Cm. according to what is available • 4 stroke; 6 in-line cylinders, 4 valves per cylinders • maximum power 310/450hp according to what is available • water cooling • turbo-compressor • pump injectors electronically controlled • pre-heating device • Operation of the various mechanical parts • This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc. • The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts • The truck cutaway engine is mounted on the stand with the wheels. 	
233.	AE36084E	<p>8 V CYLINDERS TURBO DIESEL ENGINE FOR TRUCK IVECO TURBOSTAR 190-38 CU.CM cutaway model</p> <ul style="list-style-type: none"> • 4 stroke, 8 cylinders, 4 valves per cylinder • Displacement: 17.200 cu.cm • Power: 380 hp 	







		<ul style="list-style-type: none"> • Direct injection • Bosch type in-line injection pump with mechanical governor • Intercooler water-oil • Camshaft in the crankcase • 2 turbo-superchargers • Geared distribution • This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc. • The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts • The truck cutaway engine is mounted on the stand with the wheels. 	
234.	AE36120	<p>SINGLE-CYLINDER 4 STROKE DIESEL ENGINE AIR COOLED cutaway model</p> <ul style="list-style-type: none"> • A model showing the operating principles of the 4 stroke diesel air cooled engine. • displacement 210cc • power 4 hp direct injection • camshaft in the crankcase • overhead camshafts • rpm regulator • trochoidal oil pump • injection pump • injector • silencer • Manual operation • Cutaway model on the base 	
235.	AE37100 M	<p>DIRECT INJECTION 2 STROKE DIESEL ENGINE cutaway model</p> <p>The most rational training model of a 4-stroke diesel engine sectioned for training purposes. Direct injection, complete with injection pump, injector, pre-chamber, preheating glow plug, cooling system, distribution circuit, etc. Operated manually through a crank handle. In order to simulate the active stage of the cycle a small bulb lights up during the expansion phase.</p> <ul style="list-style-type: none"> • The cutaway engine model is mounted on the base 	
236.	AE37400	<p>2 STROKE MOTORCYCLE PETROL ENGINE cutaway model</p> <ul style="list-style-type: none"> • Piston displacement 48 cu. Cm • Air cooling • Plug point and magnet flywheel ignition • Box carburettor • The cutaway engine model is mounted on the base 	
237.	AE37450 M	<p>2 STROKE PETROL ENGINE cutaway model</p> <ul style="list-style-type: none"> • Piston displacement 46 cu. Cm • Air cooling system • Electronic ignition • Box carburettor • The cutaway engine model is mounted on the base 	


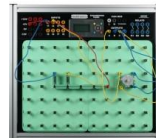

238.	AE37500 M	WANKEL ENGINE MODEL Rotating engine model, true to the original and complete with cutaway carburettor. The rotor (triangular piston), operated by the driving shaft, rotates inside the stator thus clearly showing the different phases. During the compression phase a small bulb lights up to simulate the petrol ignition. Light metal construction. <ul style="list-style-type: none"> The Wankel engine model is mounted on the base 	
239.	AE37900	MARINE OUTBOARD ENGINE 2 STROKES cutaway model <ul style="list-style-type: none"> A model showing the operating principles of the marine outboard engine 2/3 cylinders, 2-stroke engine Water cooling system with centrifugal pump Mechanical type converter The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. The cutaway engine model components is mounted on the stand with the wheels. 	
240.	AE38000E	4 wheel drive farm tractor "KUBOTA" CUTAWAY MODEL <ul style="list-style-type: none"> 4-stroke diesel engine 20hp/ 16Kw Water cooling system Lubrication of trochoid pump In-line injection pump Dry single-disc clutch Gearbox: 6 speeds + 2 reverse with gear reducer 2 speed power take-off Rear differential with mechanical locking Possibility of disengaging the front drive Rear drum brakes Sector steering gear box; Hydraulic lifter The Kubota tractor engine cutaway model operates electrically at 220V and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts. The farm tractor cutaway is mounted on the stand with the wheels. 	
241.	AE38110E	TYRE-WHEELED FARM TRACTOR WITH DIESEL ENGINE - FIAT "La Piccola" + HYDRAULIC HOIST (on stand with wheels) – electrical <ul style="list-style-type: none"> 4-stroke – 2 cylinders engine Indirect injection Water cooling system Overhead valves In-line injection pump Globe-shaped steering box Gearbox: 6 forward speeds + 2 reverse 	
242.	AE38200E	TYRE-WHEELED FARM TRACTOR WITH DIESEL ENGINE - FIAT 25R CUTAWAY MODEL TRACTOR ENGINE <ul style="list-style-type: none"> 4-stroke – 4 cylinders engine Displacement: 2000 cu.cm Indirect injection Water cooling system Overhead valves In-line injection pump Globe-shaped steering box Gearbox: 4 forward speeds + reverse This cutaway model is carefully sectioned for training purposes, professionally painted with different colours to better differentiate 	




		<p>the various parts, cross-sections, Lubricating circuits, fuel system, cooling system etc.</p> <ul style="list-style-type: none"> The engine operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts The farm tractor cutaway is mounted on the stand with the wheels. 	
243.	AE38300E	<p>MASSEY-FERGUSON"/"LANDINI" FARM TRACTOR 4 DRIVING WHEELS (on stand with wheels) - electrical</p> <ul style="list-style-type: none"> 4 cylinders Perkins diesel engine direct injection CAV rotary injection pump Single-disc clutch Speed gear with reduction unit Rear hydraulic lifter with rear differential locking and insertion of the front drive The MASSEY-FERGUSON farm tractor engine cutaway model operates electrically at 220 volts and run at a reduced speed to let the student easily understand and observe the operation of the various mechanical parts The farm tractor cutaway is mounted on the stand with the wheels. 	
244.	AE38360 M	<p>TRACKED TRACTOR TRANSMISSION</p> <ul style="list-style-type: none"> Clutch unit Gearbox Pinion gear – ring gear Steering clutch Final reducer The transmission is operated manually through a crank handle. The tractor transmission cutaway model is mounted on the stand with the wheels. 	
245.	AE39260E	<p>OPPOSED-PISTON ENGINE</p> <ul style="list-style-type: none"> Air cooling system Gear distribution with camshaft in the crankcase Ignition with magneto Single-body carburettor The opposed pistons cutaway engine model is mounted on the stand with the wheels 	
246.	AE39280 E	<p>Radial engine (on stand wheels) – electrical</p> <p>Driving shaft with integral master rod and moving connection rods</p> <ul style="list-style-type: none"> Air cooling system Double ignition (2 spark plugs per cylinder and 2 magnetos) <p>This kind of engine was largely used in aeronautic before the introduction of reaction engines. As it is mechanically simple and sturdy, it is used for tanks, hovercrafts, etc.</p>	
Fluid Mechanics & Refrigeration			
247.	AE51312 OS	<p>Cutaway hydraulic/pneumatic ball valve</p> <ul style="list-style-type: none"> On the base 	





248.	AE51312 2S	Cutaway steam gate valve <ul style="list-style-type: none"> On the base 	
249.	AE51312 4S	Cutaway two-way valve with electric motor <ul style="list-style-type: none"> On the base 	
250.	AE51312 6S	Cutaway three-way ball valve <ul style="list-style-type: none"> On the base 	
251.	AE51312 8S	Cutaway ball valve with drain OFF/COCK <ul style="list-style-type: none"> On the base 	
252.	AE51313 0S	Cutaway standard bore ball valve <ul style="list-style-type: none"> On the base 	
253.	AE51313 2S	Cutaway straight-way plug valve <ul style="list-style-type: none"> On the base 	
254.	AE51313 4S	Cutaway gate valve <ul style="list-style-type: none"> On the base 	
255.	AE51313 6S	Cutaway compression valve <ul style="list-style-type: none"> On the base 	
256.	AE51313 8S	Cutaway line strainer valve <ul style="list-style-type: none"> On the base 	
257.	AE51314 0S	Cutaway standard clapet full non-return valve <ul style="list-style-type: none"> On the base 	





258.	AE51314 2S	Cutaway check valve with drain <ul style="list-style-type: none"> On the base 	
259.	AE51314 4S	Cutaway pressure valve reducer with female connection <ul style="list-style-type: none"> On the base 	
260.	AE51314 6S	Cutaway throttle valve <ul style="list-style-type: none"> On the base 	
261.	AE51314 8S	Cutaway circulation pump <ul style="list-style-type: none"> On the base 	
262.	AE51315 0S	Cutaway water meter <ul style="list-style-type: none"> On the base 	
263.	AE51315 2S	Cutaway filter <ul style="list-style-type: none"> On the base 	
264.	AE51316 0S	Cutaway solenoid membrane electro valve <ul style="list-style-type: none"> On the base 	
265.	AE51316 1S	Cutaway needle twin directional flow valve <ul style="list-style-type: none"> On the base 	
266.	AE51316 2S	Cutaway safety valve – static <ul style="list-style-type: none"> On the base 	
267.	AE51316 3S	Cutaway balancing valve – static <ul style="list-style-type: none"> On the base 	


Automotive Locktronics			
268.	AELK2839	CAN bus systems and operation with Engineering panel (DIN) <ul style="list-style-type: none"> Advantages of CAN ECU action and function CAN message structure Start up routines Wiring in CAN bus systems Intelligent design CAN bus diagnosis Scan tool use in fault diagnosis and release 	
269.	AELK2839 A	CAN bus systems and operation with Engineering panel (ANSI) <ul style="list-style-type: none"> Advantages of CAN ECU action and function CAN message structure Start up routines Wiring in CAN bus systems Intelligent design CAN bus diagnosis – Scan tool use in fault diagnosis and release 	
270.	AELK4221 -2	An introduction to digital electronics solution <ul style="list-style-type: none"> Analogue vs Digital The NOT function The AND function The OR function The NAND function The NOR function Programmable logic and microcontrollers 	
271.	AELK4221 -2A	An introduction to digital electronics solution (ANSI) <ul style="list-style-type: none"> Analogue vs Digital The NOT function The AND function The OR function The NAND function The NOR function Programmable logic and microcontrollers 	
272.	AELK4500 CUS	Automotive Combination kit This kit provides a comprehensive set of experiments for learning AC principles, motors, generators and hybrid basics and an introduction to digital electronics.	
273.	AELK6483	Hybrid automotive principles on engineering panel (DIN) The Hybrid demonstrator includes a Hybrid engine, a battery and an Electronic Control Unit, several meters showing power flow between the units, a brake switch and a potentiometer mimicking the accelerator pedal. The ECU controls the system to show students how the power is routed in a hybrid depending on the State of Charge of the Battery, and to allow them to make measurements on the engine performance under different load conditions. The system can also be used to show the effects of regenerative braking. Investigation experiments include: <ul style="list-style-type: none"> Discovering hybrid modes of operation Regenerative braking Assisted acceleration SOC and battery voltage SOC and decision making 	

274.	AELK6483 A	<p>Hybrid automotive principles on engineering panel (ANSI)</p> <p>The Hybrid demonstrator includes a Hybrid engine, a battery and an Electronic Control Unit, several meters showing power flow between the units, a brake switch and a potentiometer mimicking the accelerator pedal. The ECU controls the system to show students how the power is routed in a hybrid depending on the State of Charge of the Battery, and to allow them to make measurements on the engine performance under different load conditions. The system can also be used to show the effects of regenerative braking. Investigation experiments include:</p> <ul style="list-style-type: none"> • Discovering hybrid modes of operation • Regenerative braking • Assisted acceleration • SOC and battery voltage • SOC and decision making 	
275.	AELK6491 -2	<p>Sensors and control for automotive with panel (DIN)</p> <p>This solution provides an introduction to the role of an Electronic Control Unit. Students use a number of pre-written programs for the MIAC Electronic Control Unit (ECU) to enable them to construct a wide variety of Input - Process - Output circuits using sensors and actuators typically found in vehicles. Curriculum, including experiments and teacher's notes, is available from our resources page. The solution includes component carriers, base board, a power supply, and storage trays and is based on our rugged Engineering panel.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • DC motors with speed control • Stepper motors • Temperature sensor • Light sensor • Potential dividers and their use • Transistors as switches • Use of relays • ECU action and function • Automotive control systems • Sensor and actuator waveforms and signals • Sensor and motor faults 	
276.	AELK6491 -2A	<p>Sensors and control for automotive with panel (ANSI)</p> <p>This solution provides an introduction to the role of an Electronic Control Unit. Students use a number of pre-written programs for the MIAC Electronic Control Unit (ECU) to enable them to construct a wide variety of Input - Process - Output circuits using sensors and actuators typically found in vehicles. Curriculum, including experiments and teacher's notes, is available from our resources page. The solution includes component carriers, base board, a power supply, and storage trays and is based on our rugged Engineering panel.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • DC motors with speed control • Stepper motors • Temperature sensor • Light sensor • Potential dividers and their use • Transistors as switches • Use of relays • ECU action and function • Automotive control systems • Sensor and actuator waveforms and signals • Sensor and motor faults 	

277.	AELK7444	<p>An Intro to motors, generators & hybrid solution (DIN)</p> <p>This solution allows students to investigate the electrical principles behind motors and generators and is designed to support the teaching of a range of automotive units. Students who need to understand how hybrid vehicles function will need to go through the experiments in this solution. Curriculum, including experiments and teachers notes, is available from our resources page.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • Motor principles • The electric motor • Generator principles • A closer look at generators • Transformer principles • Practical transformers • Half wave rectifier • Full wave rectifier • Zener diodes 	
278.	AELK7444 A	<p>An Introduction to Motors and Generators solution (ANSI)</p> <p>This solution allows students to investigate the electrical principles behind motors and generators and is designed to support the teaching of a range of automotive units. Students who need to understand how hybrid vehicles function will need to go through the experiments in this solution. Curriculum, including experiments and teachers notes, is available from our resources page.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • Motor principles • The electric motor • Generator principles • A closer look at generators • Transformer principles • Practical transformers • Half wave rectifier • Full wave rectifier • Zener diodes 	
279.	AELK7629	<p>CAN bus systems and operation (DIN)</p> <p>This kit allows a fully functioning CAN bus system, mimicking vehicle operation, to be set up using 4 MIAC Electronics Control Units representing Instrument panel, Front ECU, Powertrain control, and Rear ECU. A fifth MIAC is used for system diagnosis, releasing faults and viewing CAN bus messages. Students are tasked with setting up a fully working CAN bus system, inserting faults and using hardware and software tools to understand fault diagnosis procedures and practice. The solution includes component carriers, baseboard, power supplies and storage trays. Curriculum, including experiments and teachers notes, is available from our resources page.</p> <p>Topics include:</p> <ul style="list-style-type: none"> • Advantages of CAN • ECU action and function • CAN message structure • Start up routines • Wiring in CAN bus systems • Intelligent design • CAN bus diagnosis • Scan tool use in fault diagnosis and release 	

280.	AELK7629 A	<p>CAN bus systems and operation (ANSI)</p> <p>This kit allows a fully functioning CAN bus system, mimicking vehicle operation, to be set up using 4 MIAC Electronics Control Units representing Instrument panel, Front ECU, Powertrain control, and Rear ECU. A fifth MIAC is used for system diagnosis, releasing faults and viewing CAN bus messages. Students are tasked with setting up a fully working CAN bus system, inserting faults and using hardware and software tools to understand fault diagnosis procedures and practice. The solution includes component carriers, baseboard, power supplies and storage trays. Curriculum, including experiments and teachers notes, is available from our resources page.</p> <p>Topics include:</p> <ul style="list-style-type: none"> Advantages of CAN ECU action and function CAN message structure Start up routines Wiring in CAN bus systems Intelligent design CAN bus diagnosis – Scan tool use in fault diagnosis and release 	
281.	AELK8222	<p>AC Principles for Automotive Technicians solution (DIN)</p> <p>This course provides an introduction to AC electrical principles that underpins many automotive units. A comprehensive set of curriculum worksheets and supporting documentation deliver experiments to illuminate the theory behind much of automotive electrical technology. To complete this course you will need an AC power supply. To complete exercise 7 and 8, you will need an AC signal generator.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> Auto electrics AC vs DC Diodes Half wave rectifier Full wave rectifier Ripple voltage Inductors Capacitors 	
282.	AELK8222 A	<p>AC Principles for Automotive Technicians solution (ANSI)</p> <p>This course provides an introduction to AC electrical principles that underpins many automotive units. A comprehensive set of curriculum worksheets and supporting documentation deliver experiments to illuminate the theory behind much of automotive electrical technology. To complete this course you will need an AC power supply. To complete exercise 7 and 8, you will need an AC signal generator.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> Auto electrics AC vs DC Diodes Half wave rectifier Full wave rectifier Ripple voltage Inductors Capacitors 	
283.	AELK9071 -2	<p>Electricity, magnetism and materials solution V2</p> <p>This kit provides a comprehensive range of practical assignments into electricity and magnetism and is ideal for those who are studying science and electricity within a wide variety of academic or vocational courses. Curriculum, including experiments and teachers notes, is</p>	

		<p>available from our resources page and covers the electrical properties of materials, electricity and electrical circuits. The solution includes component carriers, baseboard, power supply and storage trays. Suitable for Science in the UK at Key Stages 3 and 4.</p> <p>Topics students can study include:</p> <ul style="list-style-type: none"> • Electrical properties of materials • Simple circuits • Heat and magnetism • Basic circuit symbols • Current flow • Series and parallel circuits • Patterns of voltage and current • Electrical sensors • Relays and electromagnets 	
284.	AELK9071 -2A	<p>Electricity, magnetism and materials solution V2 (ANSI)</p> <p>This kit provides a comprehensive range of practical assignments into electricity and magnetism and is ideal for those who are studying science and electricity within a wide variety of academic or vocational courses. Curriculum, including experiments and teachers notes, is available from our resources page and covers the electrical properties of materials, electricity and electrical circuits. The solution includes component carriers, baseboard, power supply and storage trays. Suitable for Science in the UK at Key Stages 3 and 4.</p> <p>Topics students can study include:</p> <ul style="list-style-type: none"> • Electrical properties of materials • Simple circuits • Heat and magnetism • Basic circuit symbols • Current flow • Series and parallel circuits • Patterns of voltage and current • Electrical sensors • Relays and electromagnets 	
285.	AELK9813	<p>CAN bus systems and operation make-up kit without PSU (DIN)</p> <p>The LK9813 CAN bus make up kit allows you to transform 5 Sensors and control in automotive solutions into a CAN bus systems and operations solution.</p>	
286.	AELK9813 A	<p>CAN bus systems and operation make-up kit no PSU (ANSI)</p> <p>The LK9813 CAN bus make up kit allows you to transform 5 Sensors and control in automotive solutions into a CAN bus systems and operations solution.</p>	
287.	AELK9834 -2	<p>Sensors and control in automotive solution (DIN)</p> <p>This solution provides an introduction to the role of an Electronic Control Unit. Students use a number of prewritten programs for the MIAC Electronic Control Unit (ECU) to enable them to construct a wide variety of Input - Process - Output circuits using sensors and actuators typically found in vehicles. Curriculum, including experiments and teachers notes, is available from our resources page. The solution includes component carriers, baseboard, a power supply and storage trays.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • DC motors with speed control • Stepper motors • Temperature sensor • Light sensor 	

		<ul style="list-style-type: none"> • Potential dividers and their use • Transistors as switches • Use of relays • ECU action and function • Automotive control systems • Sensor and actuator waveforms and signals • Sensor and motor faults 	
288.	AELK9834 -2A	<p>Sensors and control in automotive solution (ANSI) Sensors and control in automotive solution (DIN)</p> <p>This solution provides an introduction to the role of an Electronic Control Unit. Students use a number of prewritten programs for the MIAC Electronic Control Unit (ECU) to enable them to construct a wide variety of Input - Process - Output circuits using sensors and actuators typically found in vehicles. Curriculum, including experiments and teachers notes, is available from our resources page. The solution includes component carriers, baseboard, a power supply and storage trays.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • DC motors with speed control • Stepper motors • Temperature sensor • Light sensor • Potential dividers and their use • Transistors as switches • Use of relays • ECU action and function • Automotive control systems • Sensor and actuator waveforms and signals • Sensor and motor faults 	

All the automotive training equipment goes with the HS 90230010 CODE FOR Customs

Remarks:

Package: Not included in the price (if it is not written in offer different)
 Delivery time: 4-10 weeks after advanced payment (if it is not written in offer different)
 Warranty: 12 months form factory defects only

Company information:

Baltijos automobilių diagnostikos sistemos UAB

Address: Ateities str. 30g, Kaunas, LT - 52163, Lithuania
 Tel./fax.: (+370 - 37) 337842
 E-mail: info@autoedu.lt , office@autoedu.lt

Bank information:

Bank name: AB Swedbankas
 Address: Konstitucijos av.20A, 09321 Vilnius, Lithuania
 SWIFT Code: HABALT22
 Account: LT347300010103927281

Company information:

Auto EDU UAB Reg. No. 135940528, VAT No. LT100012764615
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 E-mail: info@autoedu.lt

Bank information:

Bank name: AB Swedbankas
Address: Konstitucijos av.20A, 09321 Vilnius, Lithuania
SWIFT Code: HABALT22
Account: LT827300010158523643

NOTES:
