

PRODUCT LIST OF TRAINING EQUIPMENT



AutoEDU Automotive training equipment Website: <u>www.automotivetrainingequipment.com</u> Email: <u>info@autoedu.lt</u> | <u>office@autoedu.lt</u> 2022

No 10.0 Rev 1.



N°	Model	Description	Indicative image for reference only
1.	MSMPI1	 Engine control system MOTRONIC M 3.8.X (MPI) 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) 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 Fully functional system6010 Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
4.	MSLPG1	 LPG training board Open contacts for measuring system components and circuits To run as a functional system, MSMPI1 should be ordered together Diagnosis and programming through diagnostic socket 	
5.	MSCAN1	 CAN BUS training board 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 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 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
8.	MSABS/ASR 1	 ABS/ASR training board 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 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 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 AIRBAG SRS operation demonstration The expansion of the airbag is demonstrated by using compressed air Power supply 220V 	
12.	MSAS1	 Lighting training board Fully functional system Open contacts for measuring system components and circuits Diagnosis of dashboard through OBD 16 pole diagnostic socket 	
13.	MSAS1+Tel escopic	 Lighting training board 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 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 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 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 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 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 Fully functional system Open contacts for measuring system components and circuits Real, not simulated signals 	
20.	MSC1	 Air conditioning and climate control trainer 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 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 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 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 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 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: 6 fault simulation (hidden from students) Should be ordered together with the stand! 	
27.	MSUS1	 Ignition system training board 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 Fully functional Wabco EBS system Functional pneumatic system Diagnosis through OBD 16 pole diagnostic socket Driving simulation 6 measuring gauges Fault simulation 	



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29.	MSPS EBS E 4S/3M	 Truck trailer WABCO EBS-E 4S/3M braking system training stand 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 	
30.	MSPS ABS T	 Truck WABCO ABS air braking system training stand 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 	
31.	MSPS EBS TR	 Truck trailer ABS air braking system training stand 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 	
32.	MSTAIR-B1	 Truck Airbrake stand 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 	
33.	MSTAIR- ABS1	 Truck Airbrakes stand with ABS 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 	
34.	MSTAIR- EBS1	 Truck Airbrakes stand with EBS system 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 	

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	1		
NEW		Truck Air suspension training stand	
		Fully operational ECAS air suspension trainer	
		The system includes:	
35.		 Fully operational ECAS air suspension 	
		- Air reservoir tank	
	MSPPS1	- ECAS ECU	
		- Height sensors front and rear axle	
		-Remote control pad	
		Height adjustments	
		Diagnosis through diagnostic socket	•
		 Fault code simulations 	
		High Voltage Battery training stand	
NEW		Based on original car parts	
		 High voltage unit is ready for safe use in the training process 	Down a
36.		 Clearly visible device structure, arrangement of components, 	A BAL
		controllers, control units, battery blocks / cells and other	AUTOEDU
		elements	
	HYBBAT1	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	
		High Voltage Battery training stand on a trolley	
		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	- Marine Marine
	HYBBAT1	elements	
37.		 Battery model with high-voltage disconnect fuse is easily 	AUTOERU
		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	
VEW		High Voltage Source Safe Disconnection training stand	
2		• The stand is designed for safety training with hybrid and electric	
		cars	
38.		• The stand is designed for high voltage fuse disconnection of	
		hybrid and electric cars before starting repair or maintenance	
	MSAB1	procedures	
		The stand is designed to explain safety procedures when working with local and all static area	
		with hybrid and electric cars	
		The connection methods and precautions are marked for each thick under a disconnection and precautions	
		high voltage disconnection and connection	
		 The board is equipped with fuses from two different car manufacturers 	

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39.	MSAE1019	 High Voltage Source Safe Disconnection training stand 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 The stand is designed to explain safety procedures when working with electric cars 	
40.	MSAE1019	 High Voltage Source Safe Disconnection training stand 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 The stand is designed to explain safety procedures when working with electric cars 	
41.	MSEV1	 Electric vehicle training stand Training stand based on real Nissan vehicle The system includes: 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	 Automotive 12V Starter functional model 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	 Automotive charging system training stand 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 withe loading, charging, RPM and voltage Open contacts for a measurement 	



44.	MSAPZ1	 Headlight training stand Electric wiring diagram with for measurements and connecting or disconnecting the components High beam Low beam Turn signal Standing light Headlight switch Power supply 12V battery (not included) 	
45.	MSLV1	 Windshield wipers mechanism training stand Designed to demonstrate the principal Power supply 12V battery (not included) 	
46.	AEPWS22A	 Power supply unit For AutoEDU made training boards to use instead of 12V Batteries 13,5V/22A/100-230 V 	
47.	AEPWS37A	 Power supply unit 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 4 mm with open contacts 10 pcs in set 	A
49.	DDBP set	Dummy dual banana plug connector set 4 mm with open contacts 10 pcs in set 	
		Working engine models – passenger car	r
50.	MVMPI1	 Educational petrol engine with multipoint injection system (MPI) EURO 3 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) 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.	MVMPI3	 Educational petrol engine with direct multipoint injection system (EURO 5) Based on 4 cylinders in line engine Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
53.	MVMPI4	 Educational petrol engine with direct multipoint injection system (EURO 6) Based on 4 cylinders in line engine Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
54.	MVGDI1	 Educational petrol engine with direct injection system (GDI) EURO 3 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
55.	MVFSI1	 Educational petrol engine with direct injection system (FSI) EURO4 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
56.	MVTSI1	 Educational petrol engine with direct injection system (TSI) EURO 5 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 	
57.	MVTSI2	 Educational petrol engine with direct injection system (TSI) EURO 5 Fully functional system 4 cylinders in line, 1.2 TSI, <u>8 Valve, OHC</u> Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
58.	MVTSI3	 Educational petrol engine with direct injection system (TSI) EURO 6 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 	
59.	MVHY1	 Educational hybrid engine model Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	



60.	MVMPI LPG1	 Educational petrol engine with LPG system (MPI+LPG) EURO 3 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
61.	MVMPI LPG2	 Educational petrol engine with LPG system (MPI+LPG) EURO 4 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 	
62.	MVMPI3 + AT	 Educational petrol engine with direct multipoint injection system (EURO 5) and automatic transmission Based on 4 cylinders in line engine and automatic transmission Fully functional system Diagnosis through OBD 16 pole diagnostic socket Fault code simulations 	
63.	MVVE1	 Educational diesel engine with VE pump (TDI) EURO 2 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
64.	MVPD1	 Educational diesel engine with PD system EURO 3 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
65.	MVCR1	 Educational Diesel engine with CR (common rail) system EURO 3 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
66.	MVCR2	 Educational Diesel engine with CR (common rail) system EURO 4 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
67.	MVCR3	 Educational Diesel engine with CR (common rail) system EURO 5 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
68.	MVCR4	 Educational Diesel engine with CR (common rail), EURO 6 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 	



69.	MVCR5	 Educational Diesel engine with CR (common rail), AD Blue EURO 6 Fully functional system AD Blue EURO 6 system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits 	
70.	MVMPI+Dy no	 Fault code simulations Educational petrol engine with multipoint injection system + Dyno 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: 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 	
71.	MVTSI+ Dyno	 Educational petrol engine with direct injection system (TSI) EURO 5 + Dyno Fully functional system 4 cylinders in line , 1.2 TSI, <u>8 Valve, OHC</u> 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: 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 	
72.	AE12F –ENG	 Hidden fault simulation for engine control system 12 fault simulation (hidden from students) Closed box Should be ordered together with the stand! 	
73.	AEVAC – ENG	Vacuum measuring gauge Should be ordered together with the stand!	
74.	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>	
75.	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>	



76.	AEClutch	 Complete clutch for a working engine Clutch with the pedal and sensors installed in working engine Should be ordered together with the stand! 	
		Motorcycle engine models	
77.	MVMC1	 Educational motorcycle engine with a fuel injection system 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)	
78.	Dyno 400	 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 Should be ordered with the educational engine at once! 	
79.	Dyno 800	 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 Should be ordered with the educational engine at once! 	
80.	Dyno 1000	 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 Should be ordered with the educational engine at once! 	
		Working engine models - Truck	
81.	MVSPLD1	 Educational Truck Diesel engine with PLD system 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 	
82.	MVSVR1	 Educational Truck Diesel engine with VR type pump EDC system 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 	



83.	MVSPLD2	 Educational Truck Diesel engine with PLD system 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 	STORE TO STORE STORE
84.	MVSCR1	 Educational Truck Diesel engine with CR system (common rail) 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 	
85.	MVSCR6	 Educational Truck Diesel engine with CR system (common rail) 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 	
86.	MVSCR3	 Educational Truck Diesel engine V8 Fully functional system Diagnosis through OBD 16 pole diagnostic socket Open contacts for measuring system components and circuits Fault code simulations 	
87.	MVSCR4 AdBlue	 Educational Truck Diesel engine with CR Ad Blue system 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: Exhaust catalytic converter/filter Ad Blue (SCR)system; Turbocharger 	
88.	AE12F –ENG	 Hidden fault simulation for engine control system 12 fault simulation (hidden from students) Closed box Should be ordered together with the stand! 	
		Truck tachograph simulator	
89.	MSTACH02	 Truck tachograph simulator Fully functional system Driving speed simulation Rest and driving time modes 3 cards included: Driver Card, Workshop Card, Company Card Print driving reports Multilanguage 	
90.	MSTACH03	 Truck analogue educational tachograph simulator Fully functional system Driving speed simulation Print driving reports Multilanguage With analogue paper tachograph charts 	



		Brake rigs	
91.	MSSS01	 Brake rigs 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 	
92.	MSSS03	 Brake rigs (bench version) 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 	
93.	MSEPS1	 Electromechanical parking brake EPB stand 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	
94.	MSEVS1	 Electronic steering rig 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 	
95.	MSHVS2	 Hydraulic steering rig Fully functional system Rack and pinion type Hydraulic power steering system Power supply 220 volts Mobile, with 4 casters 	
		Engine stands	
96.	VV1	 Engine stand 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 as	sembling
97.	VIVV1	 Engines for disassembling and assembling 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 	



			1
		Petrol MPI Turbo Engine for disassembling and assembling	A starter
		Passenger donor car petrol engines with MPI type fuel supply	
		system and turbo	
98.	VIVV1 ADRT	Complete timing an auxiliary belt	A SP
		No wiring diagram or sensors	
		On manually 360° rotating stand with worm and wheel gearboxes	i i i i i i i i i i i i i i i i i i i
		Mobile, with 4 castors	
		Petrol MPI Engine for disassembling and assembling	A A A A A A A A A A A A A A A A A A A
		Passenger donor car petrol engines with MPI type fuel supply	
		system	
99.	VIVV1 ADR	Complete timing an auxiliary belt	
		No wiring diagram or sensors	1
		• On manually 360° rotating stand with worm and wheel gearboxes	
		Mobile, with 4 castors	
		Engine with GDI direct petrol injection for disassembling and assembling	
		Complete passenger donor car engine	
100.	VIVV1 GDI	 Complete timing an auxiliary belt 	
100.		 No wiring or sensors 	
		 On manually 360° rotating stand with worm and wheel gearboxes 	
		 Mobile, with 4 castors 	
		Diesel CR Turbo Engine for disassembling and assembling	
		 Passenger donor car Diesel engine with CR type fuel supply 	NTO DE
		system and turbo	
101.	VIVV1 RHX	Complete timing an auxiliary belt	-2
		No wiring diagram or sensors	
		• On manually 360° rotating stand with worm and wheel gearboxes	
		Mobile, with 4 castors	
		Turbo diesel engine with VE/ER pump for disassembling and	
		assembling	
		Passenger donor car Diesel engine with VE/VR type pump and	
102.	VIVI1	turbo	
	VETDI	Complete timing an auxiliary belt	
		No wiring or sensors	10
		On manually 360° rotating stand with worm and wheel gearboxes	
	-	Mobile, with 4 castors	
		Turbo Diesel DOHC engine in split version on rotating stand	
		Passenger donor car diesel engine in split version Gaulinders in line DOUG with the shain	1
100	IVD Split	6 cylinders in line, DOHC with the chain	
103.	•	Cutaway of 3 cylinders to chow the working order	
		 Including the Common rail pump and injector On manually 360° rotating stand with worm and wheel gearboxes 	
		 Mobile, with 4 castors 	at a
		Gearboxes for disassembling and assembling	()ph
		 Passenger donor car, automatic CVT Multitronic gearbox 	
104.	GDVV1	 On manually 360° rotating stand with worm and wheel gearboxes 	
	MULTI	Mobile, with 4 castors	2000
		Gearboxes for disassembling and assembling	
NEW		 Passenger donor car manual or automatic gearboxes in different 	
105.		configuration (4, 5, 6 – speed , automatic , DSG, multitronic,	
	GDIVV1	variable and another on customer request)	
l		• On manually 360° rotating stand with worm and wheel gearboxes	I I I I I I I I I I I I I I I I I I I
		Mobile, with 4 castors	I a standard a T
	1		



		Chassis training stands	
106.	MSVAZ1	 Wheel alignment training stand 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! 	
107.	Wheels and tires	 Wheel alignment training stand wheels and tires set Refurbished Wheels R14/R15 x 4 units (4x100) New tires 195/55 R 14/R15 x 4 units 	
		Vehicle Functional model	
108.	PMTP-01	 Toyota PRIUS II Hybrid ½ 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 	
109.	РМТРК-01	 Toyota PRIUS II Hybrid ½ (Cabrio version) 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 	
110.	PMTP-03	 Toyota PRIUS III Hybrid ½ 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 	
111.	РМТРК-05	 Toyota Prius III Petrol/Electric/LPG HYBRID ¾ 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 	
112.	РМТРК-06	Toyota Yaris HYBRID ¾ • Hybrid petrol / electric system • TOYOTA HYBRID CONTROL SYSTEM • Hybrid transmission system with a planetary reducer • Climate control system • CAN bus network • Exhaust system	



		F	
		ABS anti-lock brake system and driving stability system	
		SRS AIRBAG airbag system	
		 Integrated emergency stop button to disconnect the high voltage hatten; 	
		battery Hybrid Plug-in functional model	
NEW		Educational fully operational hybrid vehicle based on FORD C-	
113.		Max.	
		Hybrid system, Plug-in (PHEV) version	
		• Engine, Hybrid system, ABS, AC, Air BAG's and etc. diagnostics	
	AHPLIN-01	• Built in measuring box with open contacts and wiring diagram for	
		2 electronic systems (chose 2 systems PMTP-ENG /Box, PMTP-	
		AC/Box, PMTP-SRS/Box or PMTP-HY/Box)	ALD -
		 Fault code simulations for 2 electronic systems Faults on Hybrid HIGH VOLTAGE side should be ordered 	
		additionally (not included)	
		Hybrid Plug-in functional model	
NEW		Educational fully operational hybrid vehicle based on Toyota	
114.		Yaris model (2012- 2018).	
		Hybrid system, petrol/electric	
		Engine, Hybrid, ABS, AC, Air BAG's and etc. diagnostics	
	AHPLIN-02	Built in measuring box with open contacts and wiring diagram for alectronic systems (shoese 2 systems PMTP, ENG, (Pox, PMTP)	
		2 electronic systems (choose 2 systems PMTP-ENG /Box, PMTP- AC/Box, PMTP-SRS/Box or PMTP-HY/Box)	
		 Fault code simulations for 2 electronic systems 	
		Faults on Hybrid HIGH VOLTAGE side should be ordered additionally	
		(not included)	
NEW		Electrical vehicle functional model	
		Educational fully operational electric vehicle based on Nissan	
115.		 Leaf EV system, ABS, AC, Air BAG's and etc. diagnostics 	
		 Built in measuring box with open contacts and wiring diagram for 	
	AE – 01	2 electronic systems, (choose max 2 systems: <i>PMTP-ENG-EV/Box</i> ,	
		PMTP-AC/Box, PMTP-SRS/Box)	
		• Fault code simulations for 2 electronic systems: choose max 2	
		systems	
		Faults on Hybrid HIGH VOLTAGE side should be ordered	
		additionally (not included) Electrical vehicle functional model	
NEW		Educational fully operational electric vehicle based on Nissan	
116.		Leaf II	
		• EV system, ABS, AC, Air BAG's and etc. diagnostics	
	AE – 02	• Built in measuring box with open contacts and wiring diagram for	
		2 electronic systems (choose 2 systems PMTP-ENG-EV/Box,	Lean are a minute
		PMTP-AC/Box, PMTP-SRS/Box)	
		Fault code simulations for 2 electronic systems Faults on Hybrid HIGH VOLTAGE side should be ordered additionally	
		(not included)	
- ITELNI		Electrical vehicle functional model	
NEW		• Educational fully operational electric vehicle based on Nissan Leaf	
117.		II	
	AE – 02	Engine, ABS, AC, Air BAG's and etc. diagnostics	Contraction of the second
		Built in measuring box with open contacts and wiring diagram for alectronic systems	
		 2 electronic systems Fault code simulations for 2 electronic systems 	



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118.	AE FV	 Functional vehicle Educational fully operational vehicle. Cutaway of different body and internal parts 	
119.	AE HVS	 Protective tool set for working with high voltage vehicles Protective gloves Digital voltage tester Protective glasses Fencing tape 3-sided warning sign 2-sided warning sign Multimeter 	
		Optional accessories for Functional mode	ls
120.	PMTP-ENG /Box	 Built in measuring box with open contacts and wiring diagram for engine control system Should be ordered together with the car Max 2 systems per car 	
121.	PMTP- ENG/Faults	Fault simulation for engine control system (10 faults)	
122.	PMTP- AC/Box	 Built in measuring box with open contacts and wiring diagram for climate control Should be ordered together with the car Max 2 systems per car 	
123.	PMTP- AC/Faults	Fault simulation for climate control (6 faults)	00000 secore .
124.	PMTP- SRS/Box	 Built in measuring box with open contacts and wiring diagram for SRS AIRBAG Should be ordered together with the car Max 2 systems per car 	
125.	PMTP- SRS/Faults	Fault simulation for SRS AIRBAG (6 faults)	
126.	PMTP- HY/Box	 Built in measuring box with open contacts and wiring diagram for Hybrid system (no high voltage side). Should be ordered together with the car *Max 2 systems per car 	
127.	PMTP- HY/Faults	Fault simulation for Hybrid system (no high voltage side)	
128.	PMTP- HB HY/Faults	Fault simulation on Hybrid vehicle <u>HIGH VOLTAGE side</u>	00000 00000
129.	PMTP-ENG- EV/Box	 Built in measuring box with open contacts and wiring diagram for EV system (no high voltage side). Should be ordered together with the car *Max 2 systems per car 	



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NEW 130.	PMTP-ENG- EV /Faults	Fault simulation on Electric Vehicle (no high voltage side)	
131.	PMTP-ENG- EV HV /Faults	Fault simulation on Electric vehicle HIGH VOLTAGE side	
	x 2 systems per	car – when car is ordered it could be installed only two different systems,	for example PMTP-ENG /Box + PMTP-AC/Box
		Platforms for quadracycle	
132.	PKX2	 Platform for a Quadracycle 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! 	
133.	РКХ4	 Platform for a Quadracycle 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 traine	ers
134.	IVDD -CR02	 Diesel DOHC Common Rail engine ½ cutaway model For timing chain replacement training Auxiliary drive belt replacement training 4 valves per cylinder Water cooling 12V alternator 	
135.	IVDB01	Petrol DOHC engine ½ cutaway model • 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	
136.	IVOD -CR01	 Diesel OHC Common Rail engine ½ cutaway model For timing belt replacement training Auxiliary drive belt replacement training 2 valves per cylinder Water cooling 12V alternator Including the special tools for timing 	
137.	IVDB02	 Petrol DOHC MPI engine ½ cutaway model 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	
138.	AERZ65	 EV Electric vehicle junction box and electric motoreducer cutaway model The EV components mounted on aluminum frame The stand is based on Renault vehicle Electric motoreducer 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 	
139.	AEMBA170	 Diesel Common rail INJECTION + GEARBOX cutaway model 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 	
140.	AECE Guard	Additional protection for diesel engine cutaway from aluminum and plex glass from polycarbonate 8mm.	
141.	AECE Guard Full cover	Additional protection for diesel engine cutaway from aluminum and plex glass from polycarbonate 8mm.	
142.	AE1064	 Direct shift gearbox cutaway model The DSG gearbox model is mounted on the stand Manual rotation The cutaway gearbox model on aluminium base; 	
143.	IVDB1/4	 Petrol DOHC engine ¼ cutaway model DOHC twin overhead camshaft 4 valves per cylinder Piston with the rings 1 cylinder The cutaway model on aluminium base 	
144.	IVOD1/4	 Diesel engine ¼ cutaway model 2 valves per cylinder Piston with the rings 1 cylinder The cutaway model on aluminium base 	
145.	IDSS	 Membrane spring clutch cutaway functional model 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 	No.



		Dual mass flywheel with the clutch cutaway model	
146.	AE DMF	On the base	
147.	AETTC	 Truck Turbo charger cutaway model on the base 	
148.	AE410000E	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.	
149.	AE410010	 Electronic ignition system model A model showing the operating principles of the electronical 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 	
150.	AE410030	 IGNITION SYSTEM cutaway model 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 	
151.	AE410040S	 12 Volt Battery cutaway model Battery type lead / acid 	A CONTRACT OF A CONTRACT.
152.	AE410041	 12 Volt AGM Battery cutaway Battery type Absorbed Glass Matte Mostly used for Start/Stop systems 	
153.	AE410070M	 STARTER MOTOR FOR CARS cutaway model Passenger cars On the base 	
154.	AE410070M E	 STARTER MOTOR FOR CARS cutaway model Passenger cars With electrical Bendix drive (from 12V battery) On the base 	



r			
155.	AE410071M	 Starter motor with reduction gears cutaway model Passenger cars On the base 	
156.	AE410080M	ALTERNATOR SINGLE-FLOW COOLING cutaway model On the base	
157.	AE410081M	ALTERNATOR Double-FLOW COOLING cutaway model On the base 	
158.	AE410104M	CP1 BOSCH HIGH PRESSURE PUMP cutaway model • Radial-piston pump for common rail engines • Pressure up to 1350 bar • Fuel lubricated • Three plungers • Cutaway model on the base	
159.	AE410106M	 CP3 BOSCH HIGH PRESSURE PUMP cutaway model (on the base) Radial-piston pump for common rail engine Pressure up to 1600 bar Fuel lubricated Three plungers 	
160.	AE410108M	 CP4 BOSCH HIGH PRESSURE PUMP cutaway model Radial-piston pump for common rail engine, Pressure up to 2000 bar Fuel lubricated Two plungers Cutaway model on the base 	
161.	AE410110S	INJECTOR PUMP cutaway modelAccurate section of a unit injector system for commercial vehicle, where it is possible to observe:Electromagnetic valve HDPumping elementDuster, etc.Cutaway model on the base	
162.	AE410112S	Common Rail PIEZO injector cutaway model On the base 	
163.	AE410180M	Diesel injection pump with <u>6 IN-LIN</u> E cylinders and centrifugal governor cutaway model • Small piston • Cylinder • Sector gear • Rock • Camshaft • Check valve • Centrifugal governor • Manual operation • Cutaway model on the base	



		Diesel injection pump with <u>4 IN-LIN</u> E cylinders and centrifugal	
		governor cutaway model	
		Visible components:	
		Small piston	∞2.5.5.5.5.5
		Cylinder	
164.	AE410181M	Sector gear	
104.	AL41010101	Rock	Manager and and a state
		Camshaft	
		Check valve	
		Centrifugal governor	
		Manual operation	
		Cutaway model on the base	
		INJECTION PUMP WITH 6 IN-LINE CYLINDERS cutaway model	N
		Small piston, Cylinder, Sector gear, Rock, Camshaft, Check valve,	Pot
165.	AE410200M	Centrifugal governor, 2 injectors of different type, Fuel filter, Fuel	
105.	AE410200101	pump, Operated manually through a crank handle.	
		Cutaway model on the base	* +
		BOSCH INJECTION PUMP WITH 4 IN-LINE CYLINDERS + PNEUMATIC	\bigcirc
		SPEED GOVERNOR cutaway model	
		Accurate section of a pump suitable for medium displacement engine	
166.	AE410220M	(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.	
		Cutaway model on the base	
		Single cylinder injection pump cutaway model	C_
167.	AE410230M	On the base	4 # -
			10 U
		BOSCH VE rotary injection pump cutaway	
		Distributor plunger	
		Injection phase	
168.	AE410240M	Supplied complete with an indirect injector	
		Manual operation	1.1
		Cutaway model on the base	
		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	
169.	AE410250M	automatic advance regulator, the hydraulic sensor device, the fuel	
.05.	AC410230101	circuit and the pumping small piston are clearly shown. It is supplied	
		complete with an indirect injector.	
		Manual operation	
		Cutaway model on the base	
		CAV DPC injection pump cutaway model	the second second
		Cross sectioned according to the criteria to show its main parts.	
L70.	AE410260M	It is provided with an indirect injector.	
		Manual operation	
		Cutaway model on the base	
		Diesel injection VP 44 Bosch pump cutaway	
		Distributor plunger	
171.	AE410270M	Injection phase	The second secon
		Electronic control unit, etc.	
		Manual operation	\checkmark
		Cutaway model on the base	



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172.	AE410280S	 Diesel injector cutaway model Careful section of two different injectors (direct and indirect injection type) showing their internal parts and relevant operation Cutaway model on the base 	
173.	AE410300M	 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. Cutaway model on the base 	
174.	AE410305S	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.	
175.	AE410380S	 ELECTRICAL FUEL PUMP (on base) - static On the base 	
176.	AE410430M	 TURBOSUPERCHARGER WITH WASTE-GATE VALVE (on base) On the base 	
177.	AE410520S	 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. Cutaway model on the base 	
178.	AE410525S	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: • 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	
179.	AE410636	 Hydraulic shock absorber cutaway model McPherson type Complete with the damper spring On the base 	
180.	AE410638	 Gas shock absorber cutaway model On the base 	



		AIR CONDITIONING SYSTEM (on base) – manual	
		Radial piston compressor, Condenser, Filter, Expansion valve,	
181.	AE410650M	Evaporator, Electric fans, High and low pressure connecting hose	
		RACK and pinion, STEERING BOX cutaway model	8
107	AE410730M	On the base	
182.	AE410750101		
		Engine cooling system (on base) cutaway model	
		Complete Cooling System unit	
		Technical specifications:	
		Block-head canalization	
183.	AE410401S	Water pump	
105.	AL4104015	Thermostatic valve	
		Water temperature bulb	
		Expansion tank	
		Radiator	
		Connecting pipe	
		Power steering with RE-CIRCULATING BALL system cutaway model	
		A cutaway model showing the operating principles of the	
		mechanical steering system with the re-circulating ball.	0
		• Cutaway model equipped with rotating handle that simulates the	
		action of a steering wheel and ball type steering box and	
184.	AE410750	hydraulic vane type pump. Clearly visible oil filter and connecting	
		pipes	
		Original vehicles components	
		Manual operation	
		Cutaway model on the base	
		RACK POWER STEERING – training model	
		Rack type steering box	
		Hydraulic pump	1 an
185.	AE410760M	Oil tank with relevant filter	
-05.	/12/20/00/11	 Connecting pipes 	
		 For cars 	
		On base	
		Electric power assisted steering (EPS) system with suspension	
		 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 	
186.	AE410778	 Normal/city push-button 	
		Indicator lamp and voltage/current display	
		Body computer with diagnostic socket (with low speed CAN) Disingle which a support of the second s	
		Original vehicles components The model on stand with the wheels	
		The model on stand with the wheels	8
		ELECTRICAL RACK AND PINION STEERING cutaway model	
187.	AE410782M	Manual operation	
		Cutaway model on the base	
	1		



188.	AE410990M	 GEARBOX Cutaway model 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 	
189.	AE411005M	 GEARBOX cutaway model 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 	
190.	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 chromiumplated and galvanized for a longer life. 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 	
191.	AE411040M	 AUTOMATIC TRANSMISSION cutaway model Operated manually through a hand wheel Gearbox cutaway model on stand with wheels 	CORRECT
192.	AE411060M	 AUTOMATIC TRANSMISSION 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 	
193.	AE411068M	 CONTINUOUSLY VARIABLE TRANSMISSION (CVT) cutaway model 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. Operated manually through a hand wheel Gearbox cutaway model on stand with wheels 	
194.	AE411069 M	 ZF 16S ECOSPLIT GEARBOX FOR HEAVY TRUCKS 16F + 2R cutaway model 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. 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 	
		FULLER 13 SPEED GEARBOX cutaway model	
		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:	
		On the engine side there are 1st 2nd 3rd and 4th speed gears, reverse	
		speed gears and extra low ratio pick-up speed gears.	
		All these gears are mechanically controlled by the change gear lever.	the off
		In the other part of the gearbox (on the output shaft side), there are	
195.	AE411070M	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.	
		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	
-		HEAVY TRUCK GEARBOX ZF 5HP cutaway model	
		Sectioned heavy truck gearbox. Composed by:	
		Torque converter with lock-up clutch	
		Hydrodynamic retarder	
		Rotating multi-disc clutches	
196.	AE411071M	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 	
		GEARBOX WITH TRIPLE REDUCTION GEAR cutaway model	
		Heavy vehicles gearbox	
		 With possibility of selecting any speed 	
197.	AE411080M	 Operated manually through a hand wheel 	
		 Gearbox cutaway model on stand with wheels 	
		Weight approx. – 200 kg HYPPID TRANSMISSION MC (MOTOR (GENERATOR) Toyota Brive	
		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	and for the second
198.	AE411082M	effectively controls the continuously variable transmission function of	
		the transaxle and operates as the engine starter.	and the first
		 Operated manually through a hand wheel 	the second second
		 Gearbox cutaway model on stand with wheels 	
		,	
		Single disc clutch coil spring model	
		• Clutch disc, pressure plate, throw out bearing and release fork	
100	AE411110M	and pressing handle	
199.	AC411110IVI	Rotation of the clutch disk by hand	
		Clutch cutaway model on the base	P
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		HYDRAULIC CONTROL CLUTCH cutaway model	
		This panel shows the hydraulic circuit which controls a diaphragm	• • • • · · · · · · · · · · · · · · · ·
200.	AE411100S	clutch.	
		The pump, cylinder and clutch units are fully sectioned	
		CENTRIFUGAL CLUTCH cutaway model	e
201.	AE411141M	On the base	
		REAR AXLE HEAVY TRUCK WITH LOCKING DIFFERENTIAL cutaway	
		model	
		Rear axle for heavy truck with locking differential.	
		Complete section of the rear axle.	
		The main components are:	
		Bevel gear (pinion – crown)	
202.	AE411198M	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	
		REAR AXLE HEAVY TRUCK WITHOUT LOCKING DIFFERENTIAL cutaway	
		model	
		Rear axle for heavy truck with locking differential.	
		Complete section of the rear axle.	
		Bevel gear (pinion – crown)	
203.	AE411199M	Differential (satellite and planetary) with locking differential	
203.		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	
		Rear suspension model	-58
		Rear suspension with the sectioned shock absorbers, springs an brake	
204.	AE411204M	drums	
		Suspension model mounted on stand with wheels	
		Rear axle with differential (on stand with wheels) – manual	
		Rigid rear axle complete with differential unit, axle shafts and rear	
205.	AE411200M	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.	
		Sectioned Front Suspension Unit	
		McPherson Strut Type Suspension	
		Shock absorber, spring	
206.	AE411210M	 Rack and pinion steering box 	211
		 Disc brake 	
		Steering wheel	
		 Sectioned suspension mounted on the stand with wheels 	
	1		۱



		Hydraulic Brake Chassis Trainer	
		McPherson suspension	
		Shock absorber	- A
		• Spring	18
		Rack and pinion steering box	
207.	AE411220M	Disc brake	8
		Drum brake	
		Hydraulic pump	
		Brake lever	-
		Steering wheel	
		 Sectioned chassis mounted on the stand with wheels 	
		HYPOID DIFFERENTIAL cutaway model	
208.	AE411280M	• On stand	
200.	AL411200W		
		4X4 VEHICLE TRANSMISSION ASSEMBLY WITH 5 SPEED MECHANICAL	
		Gearbox: 5 forward speeds+ reverse	
		 2-Speeds reduction gear 	
		 Movement restorer with front wheel drive manual control 	
209.	AE411300M	 Drive shafts with universal joints 	
-051	/12/12/00/01	 Self-locking hypoid differentials 	
		Manual operation	
		 Sectioned transmission assembly mounted on the stand with 	
		wheels	
		DRUM BRAKE cutaway model	
		Section of a drum brake	7.2
210.	AE412010M	 The cylinder and shoes are clearly shown. 	
		 Brake cutaway model on the base 	
		DISC and DRUM BRAKE cutaway model	
		A cutaway model of a hydraulic brakes. Composed of brake master	
211.	AE412030M	cylinder, brake tank and brake lever. Caliper with the brake disc with	
	/12/12000000	the drum brake inside	
		 Sectioned brake model mounted on the base; 	
		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	
212.	AE412050M	press on brake pedal, hydraulic system start and turn on brake light	1000
		and able to see the mechanism of brake. It shows brake pressure at	
		the same time.	
		Wall mounted training unit	
		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	
213.	AE412065S	coupling joint, hydraulic control braking element, mechanical and air	
-13.	764120033	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.	
		Wall mounted training unit	
		Torque converter	
214.	AE411140S	On stand	



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215.	AE411197M	IVECO Truck disc brake with pneumatic control cutaway model – static It is mounted on a lveco Stralis truck produced from 2002.	
216.	AE41299M	 IN-LINE PISTON PUMP cutaway model Accurate section of an in-line piston pump showing: Pump head Suction and discharge valves Pistons Piston rods Bearings 	
217.	AE413092M	 ANGLE REDUCER cutaway model On stand 	
218.	AE413094M	 WORM GEAR REDUCER cutaway model On stand 	
219.	AE413096M	SINGLE-STAGE REDUCER cutaway model On stand	
220.	AE413110M	 BEVEL HELICAL REDUCER (on base) – manual On stand 	
221.	AE34500M	 Hybrid system petrol/electric system cutaway model 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. 	
222.	AE34501	 Hybrid system petrol/electric system cutaway model 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 	



223.	AE34501W M	 Hybrid system petrol/electric system cutaway model 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. The cutaway hybrid engine model mounted on the stand with the wheels 	
224.	AECE Guard	Additional protection for hybrid engine cutaway from aluminum and plex glass from polycarbonate 8mm.	
225.	AECE Guard Full cover	Additional protection for diesel engine cutaway from aluminum and plex glass from polycarbonate 8mm.	
226.	AE34400M	 MAZDA RX TWIN-ROTOR WANKEL ENGINE cutaway model Accurate section of the most common Mazda RX Wankel engine, clearly showing the following main components: 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. 	
227.	AE34800E	 16 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC 18 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC 19 IN INTERPORT IN INTITIAL INTITIALIZIA INTITIALIZIA INTITIALIZIA INTITIALIZIA INTITIALIZIA INTITIALIA INTITALIA INTITIALIA INTITIALIA	



		16 VALVE & CVUNDERS FLAT ENCINE WITH MULTI POINT FLECTRONIC	
		16 VALVE 4 CYLINDERS FIAT ENGINE WITH MULTI-POINT ELECTRONIC	
		INJECTION + GEARBOX 5 FORWARD SPEEDS + REVERSE cutaway	
		model Main technical angeificationau	The second s
		Main technical specifications:	
		 4 in-line cylinders, 2000 cm³, DOHC twin overhead camshaft M biasist algebrasis islasting 	A STATE OF THE STA
		Multipoint electronic injection	
228.	AE34805E	Vibration-damping balancing shafts	Ĩ
		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	TO
		the operation of the various mechanical parts.	
		 The engine and the gearbox cutaway model is mounted on the stored with the sub-sele 	
		stand with the wheels.	
		6 V CYLINDERS PETROL ENGINE WITH MULTI-POINT ELECTRONIC	
		INJECTION cutaway model	
		6 V cylinders Disclosure att 2000 2000 as	
		Displacement: 2000-3000 cc	
229.	AE35195M	• DOHC	
		Multi-point electronic injection	
		Centrifugal water pump	
		12V alternator	4
		Manual operation	
		• The cutaway engine mounted on the stand with the wheels.	
		6 V CYLINDERS PETROL ENGINE WITH MULTI-POINT ELECTRONIC	
		INJECTION cutaway model	
		6 V cylinders	
		Displacement: 2000-3000 cc	A LETE TO
		OHC	
230.	AE35195E	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.	
		The cutaway engine mounted on the stand with the wheels.	
		FIAT PETROL ENGINE WITH CARBURETTOR + GEARBOX cutaway model	
		Displacement: 1000/1300 cm ³ Construction Fluctuation Timing to the term	
		Camshaft in head, Carburettor, Electronic ignition, Timing belt	Mar and the
231.	AE35220 CE	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.	



232.	AE35220 IEM	 FIAT PETROL ENGINE WITH ELECTRONIC INJECTION - MONOJETRONIC + GEARBOX cutaway model 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. 	
233.	AE35222 IEE	 FIAT PETROL ENGINE WITH MULTI-POINT ELECTRONIC INJECTION + GEARBOX cutaway model 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. 	
234.	AE35230	 2 CYLINDERS PETROL ENGINE cutaway model Air cooling Displacement: 500 cu. Cm Camshaft in the crankcase Single body carburettor Overhead valves Manual operation The cutaway engine mounted on the base 	
235.	AE35245M	 SINGLE-CYLINDER 4 STROKE PETROL ENGINE AIR COOLED cutaway model (on the base) Displacement 160cc, power 6 hp Camshaft in the crankcase Overhead valves RPM regulator Oil pump, Carburettor, Air filter, Silencer, Tank Manual operation 	
236.	AE35272E	 PETROL MULTI-POINT ENGINE CHASSIS WITH ABS - chassis trainer Fiat chassis with front drive with working light system Hydraulic power searing 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 	



237.	AE35274E	 STANDARD PETROL MULTI-POINT ENGINE CHASSIS WITH WORKING LIGHT SYSTEM chassis trainer 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. 	
238.	AE35340E	 FIAT DOUBLE SHAFT (DOHC) ENGINE WITH MULTI-POINT ELECTRONIC INJECTION WITH LIGHT SYSTEM chassis trainer 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 	
239.	AE35350E	 components is mounted on the stand with the wheels. STANDARD PETROL MULTI-POINT ENGINE CHASSIS Trainer 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. 	



		16 VALVE CHRYSLER TURBO DIESEL ENGINE WITH COMMONRAIL	
		INTERCOOLER	
		• 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 	
240.	AE36010M	 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.	
		FIAT/ALFA ROMEO 8 VALVE ENGINE WITH TURBO DIESEL COMMON-	
		RAIL cutaway model	
		 4 stroke engine; 4 in-line cylinders, 2 valves per cylinder 	
		 Turbo-supercharger 	Service Contractor
241.	AE36015E	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	
		Rear drive turbo diesel engine with clutch gearbox (on stand with	
		wheels) – electrical	
		• 4 stroke engine; 4 cylinders in line	
		• Displacement: 1400/1700 cu. Cm	
		Indirect injection	
		Feeding by turbosupercharger	
		VE Bosch type rotary injection pump	
242.	AE36070E	Overhead camshaft (OHC)	
		 Distribution through a toothed belt 	
		Alternator	f
		Thermostatic valve	
		Gearbox: 4 forward speeds + reverse	
		Single-plate clutch with diaphragm	
		Water cooling	
		SECTIONED ENGINE MERCEDES ATEGO, PLD SYSTEM (INJECTION	
		PUMP) COMPLETE WITH ALL PARTS	
		NOT INCLUDED: GEARBOX	
		• 4 in-line cylinders	
		Camshaft	
		Operation of the various mechanical parts	No. Star. Calls for 199
		On stand with wheels	
	4526004	• This cutaway model is carefully sectioned for training purposes,	
243.	AE36081	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.	



		-	
 244.	AE36082	 SECTIONED ENGINE IVECO, COMMON RAIL SYSTEM (CR) COMPLETE WITH ALL PARTS NOT INCLUDED: GEARBOX 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. 	
 245.	AE36083E	 6 CYLINDERS DIESEL ENGINE TRUCK "IVECO" CURSOR WITH ELECTRONICALLY CONTROLLED PUMP INJECTORS cutaway model 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. 	
246.	AE36084E	 8 V CYLINDERS TURBO DIESEL ENGINE FOR TRUCK IVECO TURBOSTAR 190-38 CU.CM cutaway model 4 stroke, 8 cylinders, 4 valves per cylinder Displacement: 17.200 cu.cm Power: 380 hp 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. 	



		SINGLE-CYLINDER 4 STROKE DIESEL ENGINE AIR COOLED cutaway	
		model	
		 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 	
2.47	4526120	 overhead camshafts 	
247.	AE36120		
		rpm regulator	
		trochoidal oil pump	
		injection pump	
		injector	
		• silencer	
		Manual operation	
		Cutaway model on the base	
		DIRECT INJECTION 2 STROKE DIESEL ENGINE cutaway model	
		The most rational training model of a 4-stroke diesel engine sectioned	
		for training purposes. Direct injection, complete with injection pump,	
248.	AE37100M	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.	
		The cutaway engine model is mounted on the base	
		2 STROKE MOTORCYCLE PETROL ENGINE cutaway model	
		Piston displacement 48 cu. Cm	
249.	AE37400	Air cooling	and the
		Plug point and magnet flywheel ignition	
		Box carburettor	
		The cutaway engine model is mounted on the base	
		2 STROKE PETROL ENGINE cutaway model	
		Piston displacement 46 cu. Cm	
250.	AE37450M	Air cooling system	
		Electronic ignition	
		Box carburettor	-
		The cutaway engine model is mounted on the base	
		WANKEL ENGINE MODEL	
		Rotating engine model, true to the original and complete with	
254	453750014	cutaway carburettor. The rotor (triangular piston), operated by the	
251.	AE37500M	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.	
		The Wankel engine model is mounted on the base MARINE OUTBOARD ENGINE 2 STROKES cutaway model	
		 A model showing the operating principles of the marine outboard 	
252.		engine	
		 2/3 cylinders, 2-stroke engine 	
		 Water cooling system with centrifugal pump 	
	AE37900	 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.	
	1	4 wheel drive farm tractor "KUBOTA" CUTAWAY MODEL	
253.	AE38000E	 4-stroke diesel engine 20hp/ 16Kw 	
[-		 Water cooling system 	
1			



	1		1
		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	to the
		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.	
		TYRE-WHEELED FARM TRACTOR WITH DIESEL ENGINE - FIAT "La	
		Piccola" + HYDRAULIC HOIST (on stand with wheels) – electrical	
		4-stroke – 2 cylinders engine	R
		Indirect injection	
254.	AE38110E	Water cooling system	
		Overhead valves	
		In-line injection pump	1 1 1
		Globe-shaped steering box	₫. ₫
		Gearbox: 6 forward speeds + 2 reverse	
		TYRE-WHEELED FARM TRACTOR WITH DIESEL ENGINE - FIAT 25R	Δ
		CUTAWAY MODEL TRACTOR ENGINE	
		4-stroke – 4 cylinders engine	
		Displacement: 2000 cu.cm	
		Indirect injection	
		Water cooling system	N 40
		Overhead valves	
		In-line injection pump	
		Globe-shaped steering box	
255.	AE38200E	Gearbox: 4 forward speeds + reverse	
		• 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 farm tractor cutaway is mounted on the stand with the	
		wheels. MASSEY-FERGUSON"/"LANDINI" FARM TRACTOR 4 DRIVING WHEELS	
		-	
		 (on stand with wheels) - electrical 4 cylinders Perkins diesel engine 	
		direct injection	
		CAV rotary injection pump	I
256.	AE38300E		
230.	ALSOSUUE	Speed gear with reduction unit Poar bydraulic lifter with rear differential locking and insertion of	
		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.	
257.	AE38360M	 TRACKED TRACTOR TRANSMISSION 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. 	
258.	AE39260E	 OPPOSED-PISTON ENGINE Air cooling system Gear distribution with camshaft in the crankcase Ignition with magneto Single-body carburettor The opposited pistons cutaway engine model is mounted on the stand with the wheels 	
259.	AE39280E	 Radial engine (on stand wheels) – electrical Driving shaft with integral master rod and moving connection rods Air cooling system Double ignition (2 spark plugs per cylinder and 2 magnetos) 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. 	
		Fluid Mechanics & Refrigeration	
260.	AE513120S	 Cutaway hydraulic/pneumatic ball valve On the base 	
261.	AE513122S	 Cutaway steam gate valve On the base 	
262.	AE513124S	 Cutaway two-way valve with electric motor On the base 	
263.	AE513126S	 Cutaway three-way ball valve On the base 	



		Cutaway ball valve with drain OFF/COCK	
264.	AE513128S	On the base	
265.	AE513130S	 Cutaway standard bore ball valve On the base 	
266.	AE513132S	 Cutaway straight-way plug valve On the base 	
267.	AE513134S	 Cutaway gate valve On the base 	
268.	AE513136S	 Cutaway compression valve On the base 	
269.	AE513138S	 Cutaway line strainer valve On the base 	and an
270.	AE513140S	 Cutaway standard clapet full non-return valve On the base 	
271.	AE513142S	 Cutaway check valve with drain On the base 	
272.	AE513144S	 Cutaway pressure valve reducer with female connection On the base 	
273.	AE513146S	 Cutaway throttle valve On the base 	



International Market 10.0 rev. - 1

274.	AE513148S	 Cutaway circulation pump On the base 				
275.	AE513150S	Cutaway water meter • On the base				
276.	AE513152S	Cutaway filterOn the base				
277.	AE513160S	 Cutaway solenoid membrane electro valve On the base 				
278.	AE513161S	 Cutaway needle twin directional flow valve On the base 				
279.	AE513162S	 Cutaway safety valve – static On the base 				
280.	AE513163S	 Cutaway balancing valve – static On the base 	New York			
		Automotive Locktronics				
281.	AELK4500C US	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.				
282.	AELK8416 (Former AELK7629)	CAN bus systems and operation (DIN) 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.				





		Topics include:	
		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	
		CAN bus systems and operation (ANSI)	
		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.	III PARMINI
	AELK8416A	The solution includes component carriers, baseboard, power supplies	
283.	(Former	and storage trays. Curriculum, including experiments and teachers notes, is available from our resources page.	
	AELK7629A)	Topics include:	
		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	
		Electricity, magnetism and materials solution V2	
	AELK2240 (Former AELK9071- 2)	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.	100 000 000 000 000
284.		Topics students can study include:	
		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	
		Electricity, magnetism and materials solution V2 (ANSI)	
285.	AELK2240A (Former AELK9071- 2A)	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	888 800 880 889 (Marco 6 6 6 6
		courses. Curriculum, including experiments and teachers notes, is	110 Gree 100 Hann 111 Brett State 100 2010 Hend Breek Bann
		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.	





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		Electrical properties of materials	
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		Heat and magnetism	
		Basic circuit symbols	
		Current flow	
		Series and parallel circuits	
		Patterns of voltage and current	
		Electrical sensors	
		Relays and electromagnets	
		Sensors and control in automotive solution (DIN)	
		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.	
	AELK2095	Topics covered include:	
286.	(Former	DC motors with speed control	
	AELK9834-	Stepper motors	THEFT AND A DECIMAL AND A DECIMA
	2)	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	
		Sensors and control in automotive solution (ANSI)	
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		trays.	
	AELK2095A	Topics covered include:	
287.	(Former	DC motors with speed control	
	AELK9834-	Stepper motors	RAREAS BURGEN B FEELS
	2A)	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:	8-12 weeks after advanced payment (if it is not written in offer different)		
	Warranty:	12 months form factory defects only		
Company inform	nation:			
Auto EDU UAB Reg. No. 135940528, VAT No. LT100012764615		40528, VAT No. LT100012764615		
	Address:	Ateities str. 30g, Kaunas, LT - 52163, Lithuania		
	Tel./fax.:	(+370 - 37) 337842		
	E-mail:	<u>info@autoedu.lt</u>		
Bank information:				
	Bank name:	AB Swedbankas		
	Address:	Konstitucijos av.20A, 09321 Vilnius, Lithuania		
	SWIFT Code:	HABALT22		
	Account:	LT827300010158523643		

NOTES: