



LAZ

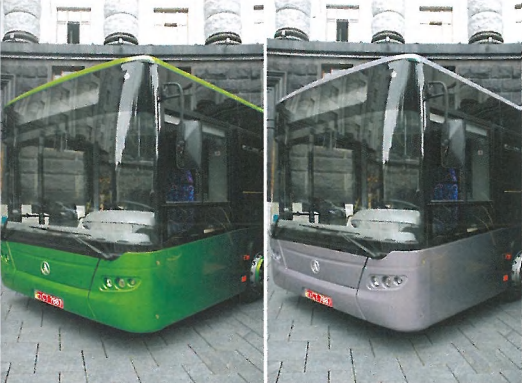


City LAZ





City LAZ





Igor Churkin

President of LAZ Holding

«To be a leader in today's world – more than ever, full engagement and dedication are required. Therefore we are continuously investing in innovative technologies, research and development.

Our company has new look, new quality and everlasting values».

history

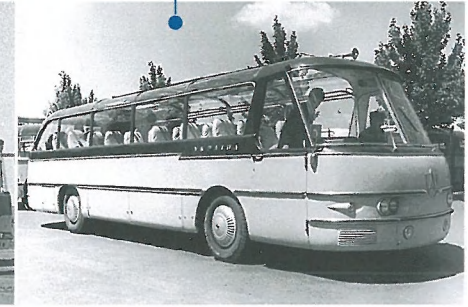
1945



1961



1970



T

The history of the world-famous brand LAZ started in the previous century. Founded in 1945, LAZ company began producing busses in the early 50's. LAZ set high standards and tradition to develop innovative design and engineer solutions, creating know-how ideas in bus manufacturing.

1945 The Foundation of LAZ company. 1949 The production of small 3 ton cranes begins. 1950 The first LAZ bus is released. 1958 The first 1000 buses of the model «LAZ-695-B» are released. Model «LAZ-695-B» is awarded a diploma and a golden medal at the World Exhibition in Brussels, as the Europe best bus. 1961 The models of coaches: «Ukraine-1» and «Ukraine-2» are created. LAZ begins mass production of the tourist bus «LAZ-697-E». In 1961 Yuri Gagarin (the first human in the outer space) and his team, chooses LAZ bus 695 to take him aboard the spaceship Vostok 3KA-3 at the time of launching. 1970 The production of buses «LAZ-695 M» and «LAZ-697 M» begins. 1974 LAZ celebrates its 100,000th bus to leave the assembly line. 1978 The first city bus with a diesel engine is made (LAZ-4202). 1985 «LAZ-4207», the first sample of the inter-city bus is created. 1988 LAZ hits a record in number of buses produced in one year– 14,646. 1991 The production of a large city bus «LAZ-52523» with the Renault engine begins. 1992 The first sample of the trolley bus is made («LAZ-52522»). 1994 The «Lviv Bus Plant» begins assembling large intercity buses «LAZ-5207». This period of rapid growth led to the creation of a new range of buses (11 new models) 1997. On September the 19th, the Law № 353/97-VR «On stimulating the production of vehicles in Ukraine» was adopted which became a regulatory framework of automobile building in Ukraine.

2001 The company goes private with collective ownership and joint stock company «Lviv Bus Plant» was created. 2003 On July 17, the Cabinet of Ministers adopted a decree № 1100 on the establishment of Joint-Stock Company «Lviv Automobile Plant» and approved the investment program of production of trucks, buses, components and spare parts to a joint stock company «Lviv Automobile Plant» which was signed by Ukrainian Prime Minister Viktor Yanukovich. A new stage of development begins. Big money is being invested in technology, design, equipment and staff training of LAZ company. 2003 New model LAZ-5208 is developed. The new luxury coach «NeoLAZ» supremely meets European standards and its serial production begins.

In 1961 Yuri Gagarin (the first human in the outer space) and his team, chooses LAZ bus 695 to take him aboard the spaceship Vostok 3KA-3 at the time of launching.

2004 The mass production of urban low-floor bus «CityLAZ» (A183) and airport low-floor bus «AeroLAZ» (AX183) begins. 2005 The first model of the trolleybus «ElectroLAZ-12» (E183) - 12 meter long, is created. 2006 A new model of the trolleybus «ElectroLAZ-20» (E301) - 18 meter long and 18.8 meter long, with 1 and 2 traction motors, on the IGBT transistors, is launched. 2007 A new model range of buses CityLAZ is enlarged with «CityLAZ-10» (A152) and «CityLAZ-20» (A292). 2008 LAZ celebrates the production of its 365000th bus. LAZ receives a certificate of Guinness World Records, «The biggest number of buses produced by one company in the world». 2009 LAZ begins the production of the entire range of city buses with the emission level Euro 4, Euro 5 and EEV in accordance with new European regulations. 2010 LAZ celebrates its 65th anniversary since company's foundation and rises to the next level of development. Rebranding of the company.

January - wins the tender for the supply of 84 city buses to Macedonia. March - signs a memorandum with the Cabinet of Ministers of Ukraine for the supply of 2,050 buses and trolley buses to Ukraine in the framework of preparation for the Football championship Euro-2012 which will take place in Ukraine and Poland.

concept

LAZ –
new look,
new quality
and everlasting
values



Modern high expectations for the transport reflect the progress and the diversity of the world we live in. This rhythm of constant movement encourages engineers and designers to join in unique cooperation to develop pioneering innovations with smart designs.

The line of urban low-floor buses CityLAZ offer the fastest passenger flow for busy inner-city routes. The low floor city buses CityLAZ are available with different length options: 10; 12; 13,5 and 20 meters. All lengths being are maximum standardized, allowing to operate simultaneously buses of different sizes, using a unified maintenance and service support.

The outstanding design of LAZ buses comprises harmonious combination of modern materials and the latest ideas in the automobile of the twenty-first century.

Commercial, harmonious and perfect silhouette of CityLAZ animates the panorama of contemporary urban streets and gives them the dynamic nature of business city center.

No steps at the entrance to the bus offer passengers effortless and fast entrance and exiting.

Flat and obstruction-free floor throughout the length of the bus compartment allows convenient and smooth movement from one end of the passenger compartment to another. Comfortable working conditions are created by comfortable driver's seat with the possibility of separate adjustment. An adjustable steering column and ergonomic instrument panel in combination with excellent visibility makes it possible to fully focus on managing the bus and confidently monitor the situation on the road. The driver easily controls the operation of all systems, which is the result of an accurately calculated and optimally balanced interaction of the basic mechanisms: a powerful engine, automatic transmission and air suspension which all contribute to a comfortable ride.

The passenger compartment of CityLAZ is cozy, bright and roomy. It contains 24-36 seats. The front and middle doors create a cumulative space which make it easy to enter and exit. All buses are equipped with a ramp for wheelchairs, and baby strollers. There is a specially designed place for the placement of the wheelchairs and strollers. Large panoramic windows make the interior well illuminated. The large windows also visually enlarge the space. It is made to turn bus rides into joyful experiences.

Buses LAZ - have original smart design and pioneering innovations, strength of the body structure and driveline reliability, ease and safe driving management and passenger comfort.



interior



Ramp

Features

- Mechanical
- Huebner, model RAVITE ® HK EVOLUTION
- Made of aluminum and stainless steel
- Polyurethane border over the perimeter platform
- Lightweight
- Slip coating
- Load-carrying ability: 350 kg
- Development according to EG 2001/85

Benefits

- Reliable German supplier
- Seamlessly integrated into the concept of the vehicle
- Resistant to impact and scratch
- Makes urban transport available for people with disabilities

Seats

Benefits

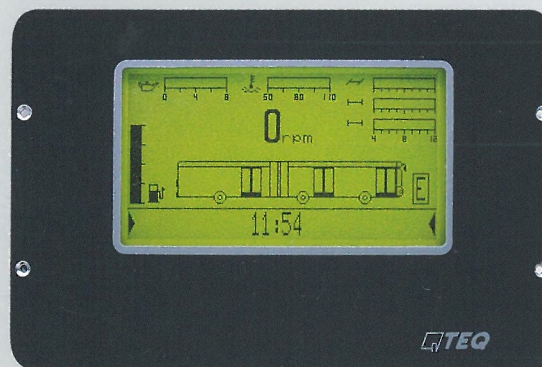
- Easy and fast seating
- Comfortable
- Pleasant for the eye
- Long life
- Prevents vandalism
- Practical strong fabric
- Great variety of choice to meets customer taste and matches the city colors
- Pleasant atmosphere on the interior



Features

- Convenient location
- Ergonomic seats
- Anti-vandal fabric
- Original, bright design of the fabric
- Wide range of bright fresh colors to chose

Toolbar and graphical display



Features

- Made by TEQ (Switzerland)
- Superior control system
- Graphical display
- Monitor displays important data: level of fuel in the tank; engine oil pressure; temperature of engine coolant; level of AdBlue; air pressure in the brake circuit; transmission status; voltmeter, etc.



Benefits

- Superior Control
- Significantly improved functionality
- Good knowledge about the current situation
- Reduced chances of unexpected break down
- Convenient

drive line

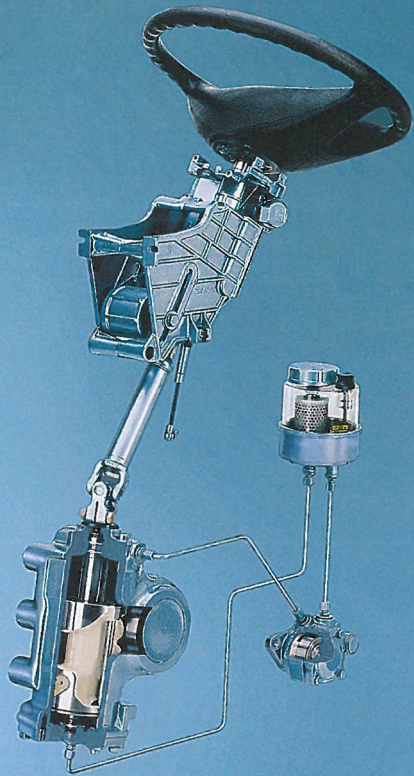
Steering

Features

- created under the integral scheme
- a single steering box contains a rotor-type hydraulic distributor and an actuating cylinder with a variable gear ratio
- In comparison with the mechanisms with constant gear ratio, ZF-Servocom has in a position close to neutral, a higher ratio than at turning of the steering wheel. Due to this factor the vehicle stability during a linear driving is improved
- keeping a linear direction and maintains control of the steering wheel with minimal force.
- while parking and during increase of the angle of turning of the wheels low ratio creates higher hydraulic torque at the steering arm shaft

Benefits

- High level of comfort
- Easy to control
- Easy to drive
- Safe



Axles

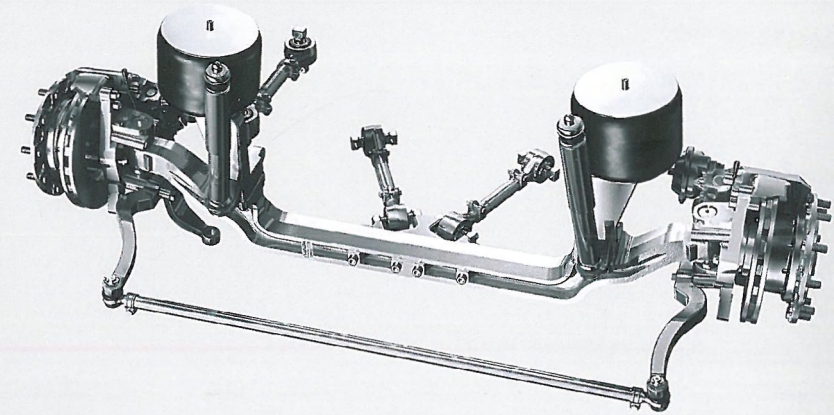
Features

- Superior control system
- Compliance with requirements of environmental protection
- Design and manufacturing process are developed with high precision
- Constant development and optimization of individual components and entire systems of axels
- Comprehensive examination
- Exclusive constructions
- Low floor level
- Low noise level

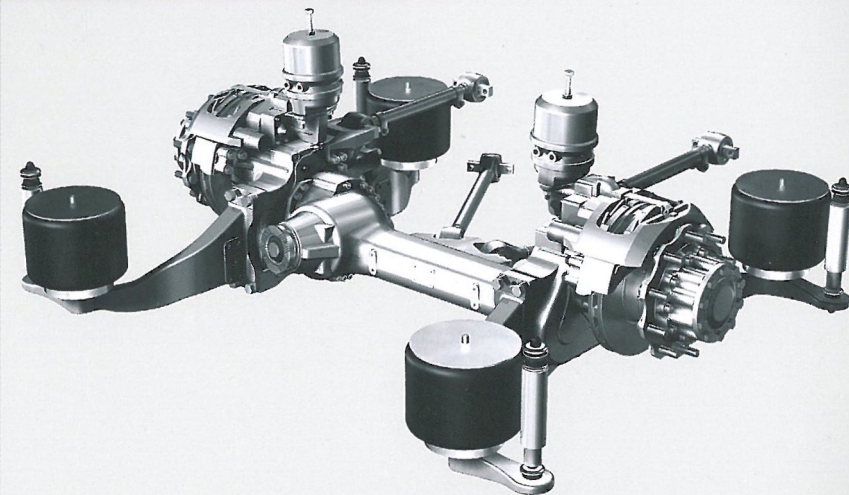
Benefits

- High level of comfort
- Gentle ride
- Dynamic safety
- Low maintenance cost
- High efficiency

Front axle ZF RL85



Rear driving axle ZF AV132



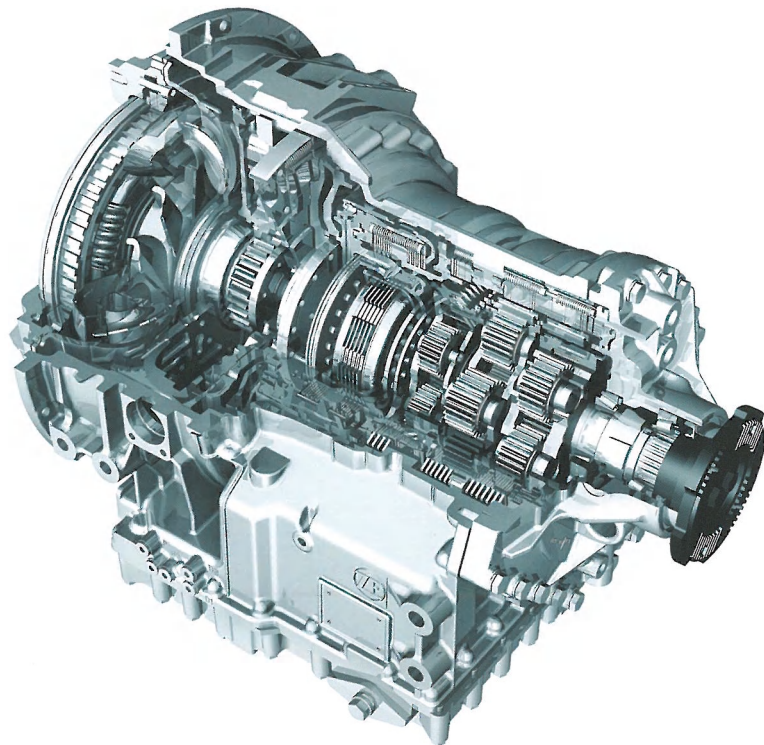
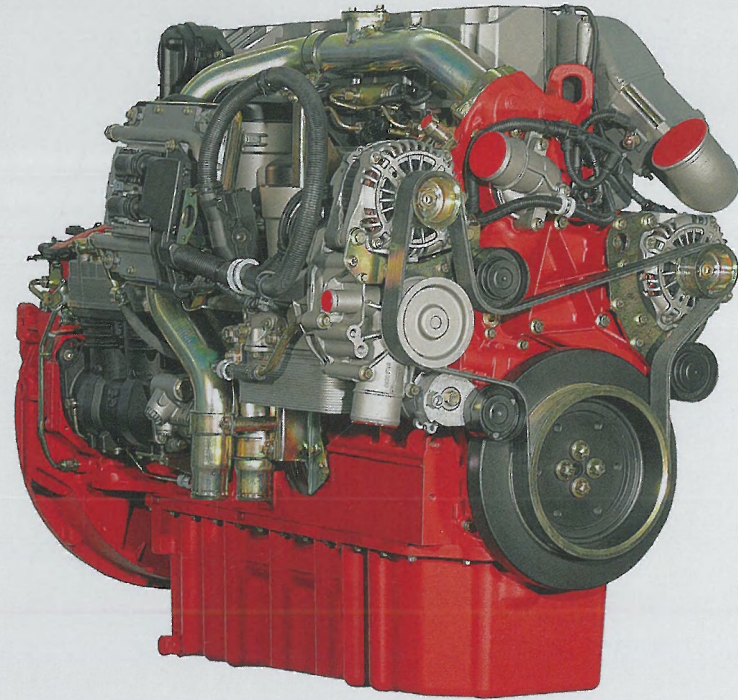
Engine

Features

- Deutz Engine (Germany)
- Battery system DEUTZ Common-Rail-System, combined with a system of neutralization of exhaust gases
- Unit power up to 33 kW / L
- Compact size
- Best power/mass ratio
- Easy access to all components requiring maintenance
- Increase of the load capacity of the bus
- High torque and power
- Standard engine options

Benefits

- Deutz - Reliable German supplier
- Economic in exploitation
- Long service intervals
- Allows acceleration even at a full load
- Meets all the requirements for the city-busses
- Low fuel consumption



Transmission

Features

- ZF Ecomat (ZF, Germany)
- Advantages at all stages of use: during starting, acceleration and driving the bus, at braking and stopping
- Ideal for "Stop-and-go" mode
- The best to overcome rises, has longer driving periods with slight pressure on the gas pedal, as well as less engine revolutions at the same speed
- higher tractive force
- better acceleration
- short time of torque converter usage

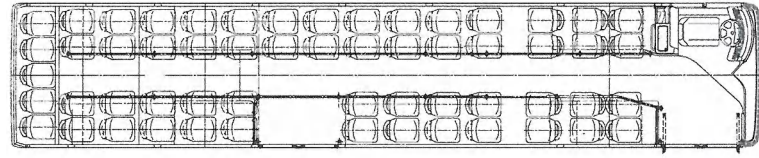
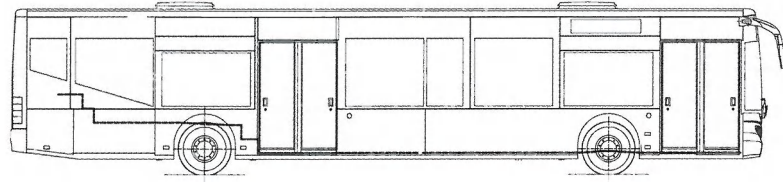
Benefits

- ZF - Reliable German supplier
- Economical
- Low fuel consumption
- Low pollution
- Low noise level

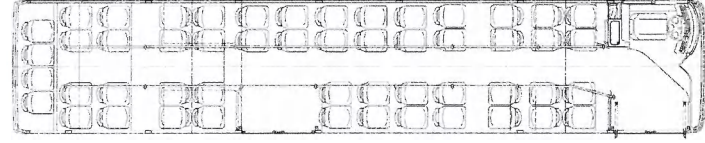
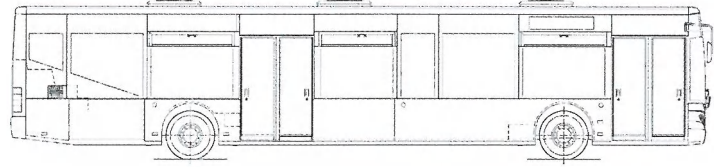
Technical Characteristics		CityLAZ10LE *	CityLAZ-12LE *	CityLAZ-13.5LE *	CityLAZ12LF *	CityLAZ13.5LF *	CityLAZ20LF *
Overall dimensions, mm:	length	10000	12000	13205	12000	13205	18750
	width	2550	2550	2550	2550	2550	2550
	height	3000	3060	3060	3060	3060	3060
Doors		1-2-1 or 1-2-0	2-2-2 or 2-2-0	2-2-2 or 2-2-0	2-2-2	2-2-2 or 2-2-0	2-2-2-2
Passenger's capacity:	full	89	100	110	100	110	182
	seats	27-35	35-45	48-52	28-32	45	47
Weight of the bus, kg:	laden	9 200	11 200	11 800	11 200	11 800	16 500
	gross	13 300	18 000	18 500	18 000	18 500	29 000
Floor level, m		0,35 in the front and middle part / 0,92 - in the rear part of the compartment			0,35 along the whole compartment		
Engine		DEUTZ TCD2013L04 4V - Euro 5	DEUTZ TCD2013L06 4V - EEV	DEUTZ TCD2013L06 4V - EEV	DEUTZ TCD2013L06 4V - EEV	DEUTZ TCD2013L06 4V - EEV	DEUTZ TCD2013L06 4V - EEV
Capacity, kW (HP)		158 (215) MAN D0834 LOH - (Euro 5) 132 (180)	213 (290) MAN D0836 LOH 64 - (Euro 5) 213 (290)	213 (290) MAN D0836 LOH 64 - Euro 5 213 (290)	213 (290) MAN D0836 LOH 64 - Euro 5 213 (290)	213 (290) MAN D2066 LOH 27 - EEV 265/(360)	213 (290) MAN D2066 LOH 27 - EEV 265/(360)
Transmission		Manual ZF 6S 1000	Manual ZF 6S-90	Manual ZF 6S-90	Automatic ZF 6HP-502	Automatic ZF 6HP-502	Automatic ZF 6HP-502
Fuel system		High pressure fuel pump BOSCH PFM 1 P 00S					
Suspension (front, rear)		Pneumatic					
Front axle		Dependent	ZF RL-85A, dependent	ZF RL-85A, dependent	ZF RL-85A, dependent	ZF RL-85A, dependent	ZF RL-85A, dependent
Middle axle							ZF AVN 132
Rear driving axle		ZF	ZF AV-132/80	ZF AV-132/80	ZF AV-132/80	ZF AV-132/80	ZF AV-132/80
Shock absorbers		ZF Sachs (Germany)					
Pneumatic bellows		Vibracoustic (Germany)					
Brake system		Pneumatic, double-circuit with electronic control and disc brakes Wabco (Germany)					
Tires		275/70 R22.5					
Steering		ZF Servocom 8098 with hydro-booster					
Driver's work place		Equipped with display for control of components and systems condition					
Driver's seat		Adjustable, with headrest and safety belt					
Passengers' seats		Plastic, semi-soft, with anti-vandalism fabric					
Ventilation		Ventilation natural, through roof hatches and vents in the lateral windows					
Heating systems		liquid heating by convectors Eberspaecher (Germany) using the heat of engine cooling system and additional heater					
Electrical equipment		2x12 V, 190A/h					
Body		Carriage type, carcass, single-decker bus, self-supporting, monocoque, aluminum engine compartment, stainless steel wing arches, full anti-corrosion protection					
Internal illumination		General & driver's cabin					
Windshield		Antireflective, monolithic triplex, Gerom (Romania)					
Lateral windows		Safe, hardened, bonded into the body, toned (30%)					
Maximum speed, km/h		100	100	100	100	100	100
Ramp for wheelchairs		Mechanical					
Fuel consumption at 60 km/h, L/100km		14	24	25	24	25	30
Options		Air-conditioner, kneeling, driver cabin's barrier, electronic route-indicators					

*LE – low entry, LF – low floor

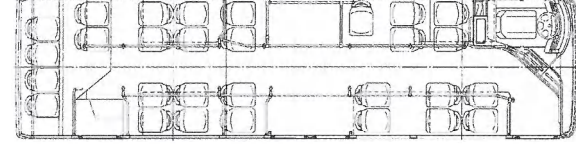
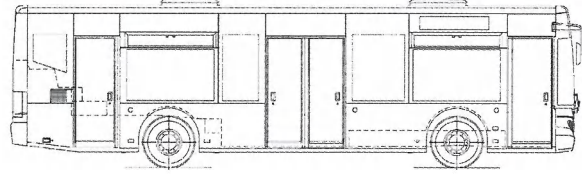
CityLAZ 13,5LE



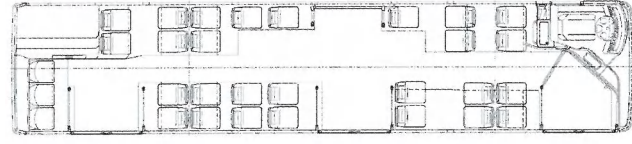
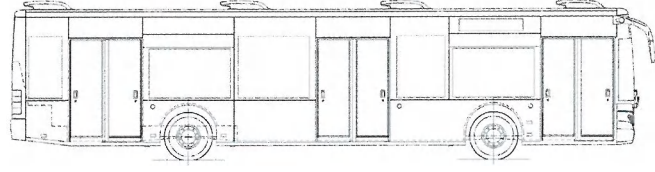
CityLAZ 12LE



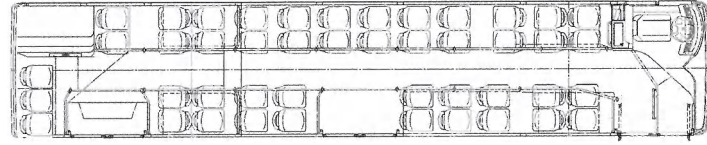
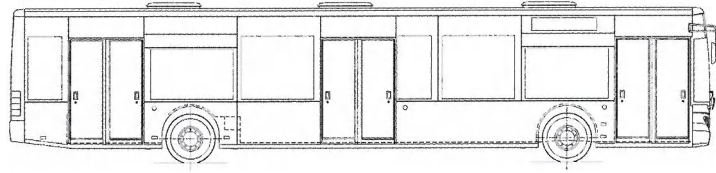
CityLAZ 10LE



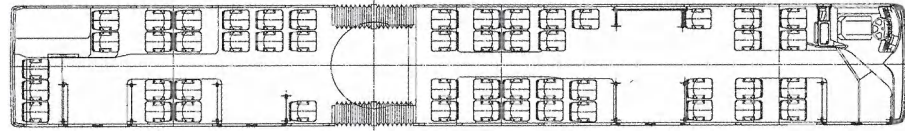
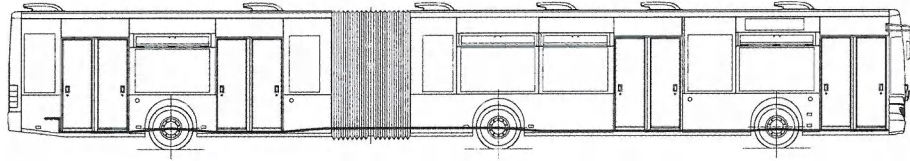
CityLAZ 12LF



CityLAZ 13,5LF



CityLAZ 20LF

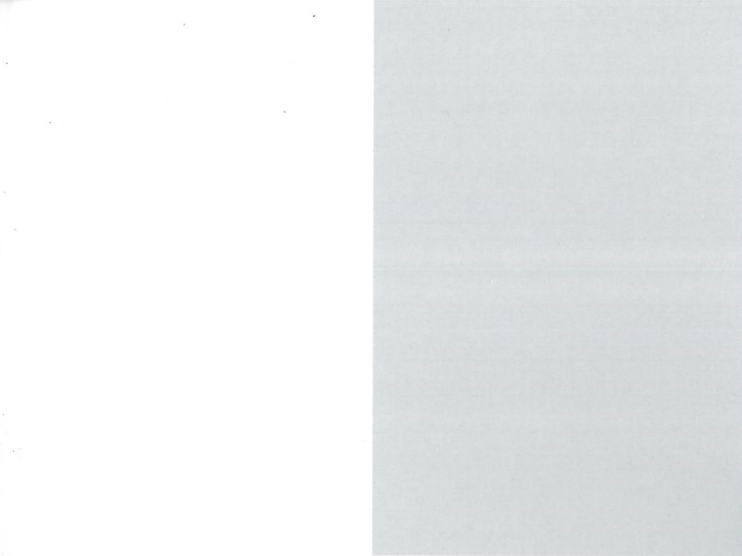




LAZ



City LAZ







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«Great business is ahead of us»



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