The Chassis OC 500 LE.
One platform. Many options.

Mercedes-Benz
The standard for buses.
Beside integral buses like the Citaro and Tourismo the chassis are also a real success story: bus chassis account for two thirds of Daimler Buses’ production worldwide. The chassis with the star covers the entire spectrum of widely different requirements and applications. The close partnership between Mercedes-Benz and body manufacturers in all regions of the world ensures that passengers on all continents can enjoy the ride comfort and safety of the Mercedes-Benz brand.

Underneath is always a true Mercedes-Benz.

There are chassis. And there are Mercedes-Benz chassis. In today’s tough competition, the Star makes the difference. It gives you a decisive edge – and the good feeling of having made the best choice for your company.

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OC 500 RF highlights.

Surprisingly flexible, superior quality throughout, consistently economical: designers around the world value the OC 500 LE chassis for public service buses as the basis of their project ideas. The Euro VI generation brings further convincing arguments.

The very best in technology. Mercedes-Benz has traditionally been a pioneer in the development of environmentally friendly, innovative drive technologies. With BlueEfficiency Power technology, Mercedes-Benz has once again set new standards. The top-class technology from complete bus development is now also being used in the OC 500 LE and ensures fewer emissions and greater economy, because thanks to the efficient, powerful BlueTec® engines, fuel consumption has not increased, despite Euro VI, and the life and maintenance intervals have been extended. This provides particularly high overall economy throughout the life of the bus.

The basis for your ideas. Passenger-friendly low-floor comfort from the front to the second entrance in connection with innovative Mercedes-Benz drive technology in the rising rear: The OC 500 LE enables you to implement low-entry concepts reliably in accordance with your individual plans. The secret to the practically unlimited options is the modularity of the chassis. As a result, you can realise public service buses between 2.50 to 2.60 m wide, and up to 13.20 m in length. To realise your individual ideas, the engine is available in two performance levels and the drive axle with two transmission ratios. Even the driver’s workstation, instrument panel and second door can be arranged in various ways. With the OC 500 LE, your project ideas become reality.

The result of good partnership. The OC 500 LE is the result of a close partnership between Mercedes-Benz and body manufacturers. Shared experience and requirements have been included in the development of the chassis and are reflected in a sophisticated vehicle concept. For example, uniformly defined interfaces ensure the straightforward and fast connection of the body electronics. The transport module ensures easy and safe handling. Attention was paid to the details, as they facilitate day-to-day work. And if a problem should arise, the Mercedes-Benz body consultants are available to provide you with expert support.

Your technical advantage
| Blue-Efficiency Power technology
| Powerful BlueTec® engines
| Lower emissions, greater economy
| Various engine variants
| Different transmission types and ratios

A good basis
| Realisation of customer-specific coachwork solutions
| Body widths from 2.50 to 2.60 m
| Body lengths up to 13.20 m
| Variable arrangement of driver’s workstation, instrument panel, and second door
| Different fuel tank sizes

Down to good collaboration
| Close partnership between Mercedes-Benz and body manufacturers
| transport module ensures easy and safe handling
| Quick integration of body electronics thanks to use of standard interfaces
| Body consultancy from Mercedes-Benz
Configure buses to the current state-of-the-art. The front axle module of the OC 500 LE offers you innovative components from Mercedes-Benz that have already been tried and tested in the complete bus.

The buggy centre section connects the rear and front components for transportation. It protects the individual components, while at the same time ensuring that transfer costs are kept as low as possible.

The drive axle of the OC 500 LE has already earned top marks in the complete bus. It is not only particularly robust and reliable, but also impresses with its exceptional ride quality.

Low operating and maintenance costs are an important argument for the subsequent bus operators. With the OC 500 LE you will be establishing the foundation for consistent economy.
Driver’s platform.
Build a driver’s platform as you want it. With its extraordinary flexibility the OC 500 LE makes it easy for you to have a cockpit constructed which is precisely tailored to your particular requirements.

Five modules. More flexibility.

The modular concept of the OC 500 LE from Mercedes-Benz, based on a mature, tried and tested vehicle design, allows great flexibility, thereby ensuring variant diversity. With a gross vehicle weight rating of 19 t, the chassis can meet quite different market requirements, ensuring maximum flexibility with various body solutions, widths and lengths.

The 500 LE chassis is provided with efficient, powerful, reliable, and proven engines to the Euro VI emission standard. A large number of tried and tested bus transmissions, and a new drive axle complete the power train.

In addition, the OC 500 LE impresses with its low fuel consumption, long maintenance intervals, and wide range of applications. The active safety technologies (ABS, ESP®, ASR), and comfort provided for the driver by new display instrumentation and for passengers by the level control system complete the chassis.

Not one kilogramme too heavy. Lower emissions do not need to mean added weight: Mercedes-Benz has been able to implement Euro VI without increasing the vehicle weight. The new rear axle is one of many measures taken by the development engineers to compensate for the unavoidable additional weight of Euro VI. Additional savings are achieved by the lighter water retarders, engine encapsulation, more lightweight and powerful alternators and, not least, the use of high strength steels for the optimised frame. The result: not one kilogramme too heavy – but just as stable.
Mercedes-Benz OM 936
Ensure your competitive edge.

Now more than ever, economy is a key argument for bus operators. With the Mercedes-Benz chassis OC 500 LE with Euro VI, you establish the foundation for maximum efficiency – and ensure your bus has a decisive competitive edge.

A milestone in engine development. Development of the chassis generation focused on the new drive train for Euro VI, which was achieved with the new BlueEfficiency Power engines from Mercedes-Benz. The drives, which already meet the Euro VI emission class in all performance levels, do not just impress through their high environmental compatibility, but also through extremely high economy. No increase in fuel consumption in spite of Euro VI.

Clean performance. On the road, the new OM 936 is highly efficient with its 220/260 kW (299/354 bhp). The particularly compact and lightweight in-line six-cylinder engine combines impressive driving performance with forceful acceleration even at low speeds and very quiet running with low consumption as well as exemplary protection of the environment. The strict requirements were achieved by combining Common Rail injection, on-demand exhaust gas recirculation, downstream oxidation catalytic converter, particulate filter and SCR technology with AdBlue injection for exhaust gas treatment.

Less is more. Mercedes-Benz has not only been able to keep fuel consumption at the usual low level, but also to reduce the AdBlue consumption by up to 40 % as well as oil consumption by up to 50 %. With 45 litres of AdBlue, your customers will be able to travel even longer distances in the future. And the diesel particulate filter has change intervals of up to 240,000 km, depending on deployment or after 2 years.

Comfortable in all gears. The OC 500 LE is equipped with the converter automatic transmission as standard. Its characteristics enable extreme comfort and fuel economy for urban and overland deployments. The intelligent shift program recognises different driving resistances and selects the appropriate driving programs in a continuously variable manner. Gear shifts are fluid and the transmission always operates in the optimum range. For a relaxed and smooth journey that driver and passenger can enjoy equally.

Integrated brake on costs. The weight-saving retarder integrated with the transmission housing is also available as standard. Depending on the topography it is switched automatically and continuously. It is completely sufficient for braking at low speeds. It reduces the load on the service brake, reduces wear and lowers maintenance costs. It also spares the driver’s nerves.
Build on ride quality.

Ride quality is a top priority at Mercedes-Benz. The OC 500 LE provides you with an excellent basis for coach designs that impress both drivers and passengers.

**Progress on two axles.** With the OC 500 LE you ensure your customers have an advanced ride quality. The front axle provides discriminating low-floor comfort in the front end. It stabilises your body against rolling motion, keeps the bus safely on track and permits particularly large steering angles. A 21 m turning circle on a 12 m long two-axle vehicle (depending on design) speaks for itself. Because thanks to a further improved axle location, it provides highly efficient drive power on the road, and with smooth and quiet running ensures top-class ride comfort.

**Driving flexibility.** The chassis is equipped as standard with electronic level regulation, thus ensuring maximum protection from damage to the underside of the vehicle. With its ‘kneeling’ function, passengers can board and exit with ease. Driving over obstacles or sudden roadway transitions is therefore easy. The optional kneeling system makes it easier for passengers to enter and exit the vehicle by lowering the vehicle.

**Free rein in design.** The combination of the low-floor concept in the front end with the raised-floor technology in the rear means the floor is higher after the second entrance. The OC 500 LE gives you largely free rein in balancing the height difference between the two areas in the floor design. Yet more evidence of its extraordinary practicability and user friendliness.
Make no compromises.

The flexibility of the OC 500 LE makes it even easier to incorporate individual requirements seamlessly.

**Ease of steering.** Drivers need buses that make their job as easy as possible. The steering gear with variable steering ratio in the OC 500 LE meets this requirement. It reacts more effortlessly the harder the driver turns the steering wheel. As a result, the vehicle can be steered easily, directly and safely. This means greater driving safety, and particularly high economy, because the steering does not have to be lubricated, meaning it is practically maintenance-free.

**Concentrated intelligence.** The OC 500 LE is also superior to other chassis with regard to the electronics, because it has a central “brain”: an IES-CAN (Integrated Electronic System-Controller Area Network), within which all electronic components are integrated. With the help of the IES onboard diagnostic system, you can quickly check all the control units. In the event of maintenance or repair, faults can therefore be found quickly and in a targeted way, which later reduces the idle and maintenance times, and therefore costs, for the bus operator.

**Uniform interfaces.** The uniform interfaces for your electronic equipment and a modular electrical compartment on the driver’s workstation with standardised slots are further advantages of the chassis. All systems are subdivided into code numbers so the chance of confusion is very low. You can therefore connect up the electrical equipment of your body flexibly and seamlessly - and at the same time have free choice regarding the location and installation of your electronic components.

**Time is money.** The buggy centre section has also been further improved, so that you save valuable time and transfer costs even before the first work step. The transport module makes the OC 500 LE capable of being manoeuvred and steered with its own drive, protects the valuable components against damage during transportation and enables simple and safe handling. Quick release couplings on the cable lines ensure that you can start construction quickly.
A safe workplace. The cockpit of the new OC 500 LE chassis generation is now even more attractive. It has the same non-slip and aesthetic multifunction steering wheel as the complete buses from Mercedes-Benz. It can be supplied in diameters of 450 mm and 500 mm as required. The modern, easy-to-read instrument panel is also new. Adapted to the electronics architecture and information requirements of Euro VI, it can, if required, also support the driver with enhanced information such as route data or fuel consumption. The driver therefore has everything safely under control at a glance.

A host of options. The driver’s workstation in the OC 500 LE is fully functional and can be easily adapted to your own specific requirements. It can be variably set up in three levels. The height and inclination of the steering column and instrument panel can also be adjusted. The button switch for the automatic transmission is easy to reach and easy to operate. This places less stress on the driver who can then concentrate fully on the road ahead - an important contribution to driving safety.

A real comfort zone. In a coach, appearance is important, but inner qualities are even more crucial. The OC 500 LE has a lot to offer in this respect. For example, electronic level control means that passengers are comfortable the moment they start boarding, because it ensures that the entrance height of the vehicle is always the same, regardless of the load. The low-noise drive axle makes the journey much more relaxing for passengers. There is good reason why it has already earned top marks for use in the complete bus.
Safer workstation
- Driver’s workstation can be set at three levels
- Automatic transmission button switch easy to reach
- Makes driver’s job easier
- Greater driving safety

New cockpit
- Multifunction steering wheel
- Steering column adjustable for height and tilt
- New instrument panel
- Enhanced information; e.g. route data and fuel consumption

Electronic level control
- Automatic vehicle height adjustment at each wheel
- Entry height always the same

Low-noise drive axle
- Interior pleasantly quiet
- Proven technology from the complete bus

The bus is seen as one of the safest and most comfortable forms of transport in the world. Innovations from Mercedes-Benz have played a decisive part in this – and also make the OC 500 LE a pioneer on the roads.

We are the standard bearers for the safety of buses and coaches. Many of the safety features which come as standard today were first launched in a vehicle bearing the Star. For example, the Anti-lock Braking System (ABS), or the Electronic Stability Program (ESP®).

Responsibility is a serious matter. That is why we at Mercedes-Benz pursue the vision of accident-free driving with the integral safety concept. The concept covers all phases of automotive safety to systematically meet this striving for safety: from driving safety and safety in hazardous situations, protection in the event of an accident, through to minimising the consequences of accidents.

**A safe brake system.** Safety has traditionally been a priority at Mercedes-Benz. A fast-reaction, electronically controlled brake system with disc brakes is therefore just as natural for all bus chassis as the anti-lock braking system (ABS) and brake assist system (BAS) as standard. In emergency braking situations, it builds up maximum braking power in fractions of a second and therefore allows a shorter stopping distance. The Electronic Stability Program ESP® with ASR (acceleration slip regulation) helps you deal with dynamic driving situations. With guardian angels everywhere, your bus is safe in urban and interurban traffic.

**A good feeling.** Of course, Mercedes-Benz has subjected the new chassis to intensive testing. These include endurance tests or the testing of components on the Hydropuls rig, such as axles or tanks. And the engines have also been tested under the harshest conditions, from the icy polar circle to the heat and dust of South Africa for use in complete buses and for operation in commercial vehicles with a total traction weight of up to 40 t. The tests also involved maximum loads that would never occur in actual public service bus use. All with one goal: to give you a good feeling, a safe basis for your demanding, economic and environmentally friendly city and interurban buses.
The ABS (Anti-lock Braking System) distributes the braking forces acting on the individual wheels so that even in an emergency braking situation no wheel is locked for any length of time, and the steerability of the bus is largely maintained.

An unanticipated obstacle on the road. Thanks to the Electronic Stability Program the evasive manoeuvre is successful without the bus swerving.

The ASR (acceleration skid control) prevents wheelspin when driving away on a slippery surface. It provides no more power than the drive wheels are able to transfer to the road surface.
Important for you. Important for us. Technical data stored in the vehicle.

Electronic vehicle components (e.g. Airbag Control Unit, Engine Control Unit) contain data storage for vehicle Technical Data, including but not limited to Diagnostic Trouble Codes in the event of a malfunction, vehicle speed, braking force, or operating conditions of the Restraint System and Driver Assistance Systems in case of an accident (no audio and no video data recording). The data is either stored volatile, punctual as snapshot e.g. Diagnostic Trouble Codes, over a short period of time (a few seconds only) e.g. in case of an accident or in aggregated form e.g. for component load evaluation. The data can be read using interfaces connected to the vehicle. Trained technicians can process and utilize the data to diagnose and repair possible malfunctions. The manufacturer can use the data to analyze and improve vehicle functions. When requested by the customer, Technical Data can form the basis of additional optional services. In general, data from the vehicle is transferred to the manufacturer or a third party only according to legal allowance, or based on a contractual customer consent in accordance with data protection laws. Further information regarding storage of vehicle Technical Data is provided in the vehicle Owner’s Manual. Mercedes-Benz Buses and Coaches naturally handles customer data confidentially.

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