

PRESS RELEASE

Pfronstetten-Aichelau, March 28, 2023

Driving school training with handicap

The PARAVAN driving school offers a wide range of options when it comes to independent mobility - even when drivers have significant physical limitations. Thanks to the new Mercedes Sprinter, over 95 percent of complaint patterns can be mapped without extensive adaptation work.



Ralf Buhmann and Horst Hilsenbeck (from left) from the PARAVAN driving school in the Aichelau mobility park have an extremely adaptable, state-of-the-art teaching vehicle in the form of the new Mercedes Sprinter. Driving students with almost any type of complaint can use it to complete their practical driving training. Photo: PARAVAN

"The greatest reward is the beaming faces when the learner driver holds his license in his hand," says the head of the PARAVAN driving school in Aichelau Ralf Buhmann. With the new Mercedes Sprinter, the driving school, which specializes in mobility for the disabled, has a new and comprehensively equipped driving school vehicle in its fleet, with which driving instructors Ralf Buhmann and Horst Hilsenbeck can cover almost every complaint. The new teaching vehicle is equipped with a wide variety of input devices, ranging from a hand-held device for the accelerator and brake, gas ring, and light steering to the Space Drive driving and steering system, including a wide variety of input devices. "Here, the learner drivers have the opportunity to test what is the optimal solution for them," explains Buhmann. "This means we can now cover 95 percent of the complaint patterns, whether it's a lack of strength, freedom of movement or limbs, all the way to a restricted field of vision."

One of the new features in the training vehicle is a camera system with environment recognition. This means that learner drivers with a restricted field of vision or people who are unable to move their head due to a neuromuscular disease, for example, can now take driver training. Particularly in the case of visual impairments, the hurdles to driving ability are very high - despite the increasing possibilities offered by assistance systems in standard vehicles.

A prerequisite for admission to driver training is a traffic medical certificate that certifies fitness to drive under certain technical conditions. The learner drivers come to the PARAVAN driving school after completing the theory training. Here, after a trial lesson, the vehicle is adjusted and equipped accordingly. Then the training can start. A technical certificate confirms the functionality of the technical adaptations for safety in road traffic.

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In total, the PARAVAN driving school at the Aichelau mobility park has five vehicles: two Mercedes Sprinters and a Peugeot Traveller, equipped with the Space Drive driving and steering system as well as various electromechanical handheld devices and a so-called "light steering of 10 or 6 Nm" when forces are weakening but switching to joystick steering does not yet make sense. For learner drivers who are still able to move, there are also two other training vehicles, a Peugeot Rifter - slightly higher in entry - and a VW Passat with a longer seat rail for stiffened limbs or orthotic supports. Both vehicles are equipped with slide boards. Another driving instructor, Carsten Seidler runs the driving school at PARAVAN's Heidelberg branch. There, too, highly specialized driving training is possible with Space Drive and a wide variety of input devices.

The driving instructors, who have advanced training in the field of handicap, would like to pass on their knowledge to other driving instructors in the future and are planning corresponding advanced training courses. "Patience and understanding is the most important thing to have," Buhmann says. Driving instructors should definitely seek advice in advance. The situation is often underestimated, he says.

"The motivation of the learner driver during training to finally be mobile and independent again is the greatest reward," says the driving instructor. After all, in addition to being able to drive a vehicle themselves, there is a significant increase in quality of life at the end of the training. "For me, mobility means independence and equality, because the traffic rules apply to everyone - but also peace and relaxation," says Udo Holdenried, who has been mobile since last year. "Now I'm a human being and not a transport freight."

Five milestones to a driver's license

The first step is the **traffic medical assessment**. In the process, a specialized doctor checks the cognitive abilities. If there is nothing to the contrary, a **specialized driving school** with modified driving school vehicles can be sought. This involves checking which aids are needed. The end result is a **technical report** - the basis for the vehicle conversion for the disabled at the conversion company. This is followed by **driving school training**, which is concluded with **the driving aptitude test or practical driving test** for new drivers. Here, the examinee must prove that he or she can control his or her vehicle absolutely safely in road traffic with the appropriate modification measures. Subsequently, the **driver's license** is handed over. Now it is time to select a suitable basic vehicle. Depending on the case, applications for cost absorption can be made for the vehicle conversion. Further information at paravan.com



The new Mercedes Sprinter of the PARAVAN driving school offers many possibilities and can be converted very quickly, depending on requirements, from the simple mechanical slope control unit to the Space Drive electronic driving and steering system. Photo: PARAVAN

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What is the optimal input device. Extensive testing can be carried out in the PARAVAN training vehicle. The aim is to find a comfortable and, above all, fatigue-free solution. Photo: PARAVAN



Quickly and flexibly adaptable. For example, driving instructor Ralf Buhmann can connect the Space Drive driving instructor unit via a plug-in connection. This allows him to intervene immediately during driving instruction. Photo: PARAVAN



A high-resolution camera system, positioned on the car as required, provides the perfect all-round view. Monitors with the necessary environment recognition in the vehicle relay the image and show how far away people and objects are from the car, and whether they are moving. Photo: PARAVAN



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About Paravan GmbH:

PARAVAN GmbH is the world market leader for highly individual vehicle solutions for the disabled. Around 180 employees develop and produce individually adapted automobile conversions, electric wheelchairs and even specially specialized driver training. PARAVAN pursues a holistic approach with its "one-stop concept". The technological highlight is Space Drive, an intelligent digital control system based on the drive-by-wire principle. Thanks to the active redundancy of the servo motors, it is completely fail-safe and the first to be approved for road use. With the help of this innovation, severely disabled people, some without arms or legs, can drive independently and safely. It is not possible for these drivers to simply intervene in the steering wheel. Worldwide, Space Drive has proven itself on over one billion road kilometers in the last 20 years and is used by numerous industrial customers for test vehicles in the field of autonomous driving. The system is available as a retrofit kit with an open interface for all known vehicle types. <http://www.paravan.com>