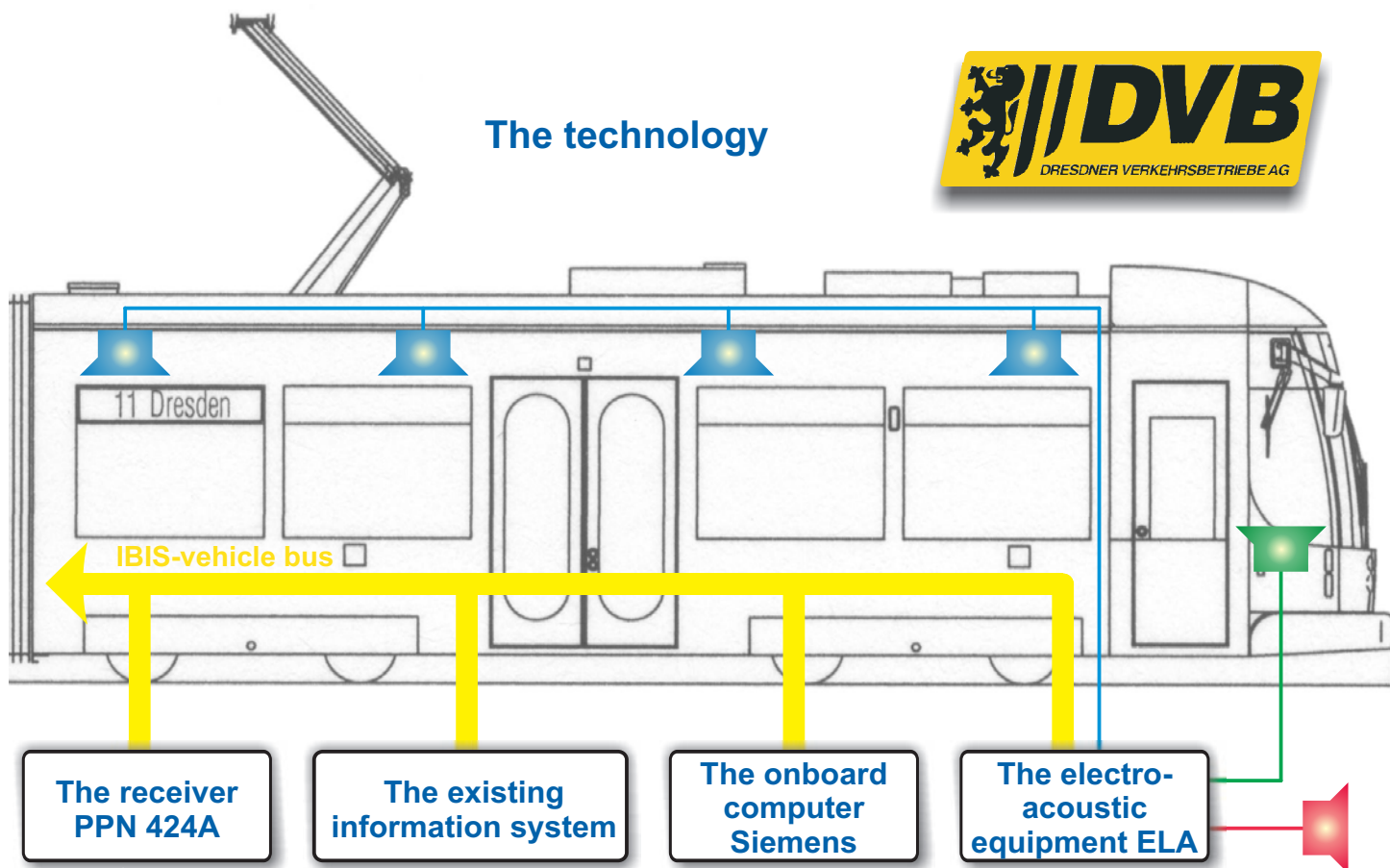




The technology



The concept

The function of the button 1: **Tram line number 3, direction WILDER MANN.**

The function of the button 2: **Attention, the passenger with limited mobility is getting on the train.**

The function of the button 3: **Next stop: Pirnaischer Platz, change to the regional transportation.**



APEX Ltd.-The radio communication systems

in cooperation with:

**The Traffic Company Dresden, Inc.
 Siemens VDO Automotive, Inc.**

Information system for visually impaired persons - TYFLOSET®

The passengers in the buses and trams of the public municipal and suburban transportation are usually informed by the optical displays and acoustic announcers about the stop, the subsequent and the terminal stops.

Many of these information are not enough accessible for the visually impaired persons. In spite of that, that this situation is known already for many years, proper attention was not dedicated to this problem in The Federal Republic of Germany.

The Transportation Company of the town Dresden, Inc. in cooperation with the companies APEX Ltd. and Siemens VDO Automotive, Inc. developed the device, which broadens out the existing passengers information system also for the needs of the visually impaired persons. By its utilization the visually impaired persons are obtaining many facilitations, major self-reliance, independence and safety during their individual travelling by the public municipal and suburban transportation.

The TYFLOSET makes it possible in the bus or in tram, which are coming to the stop, to pass on and use certain additional messages. The visually impaired passenger is using the personal command transmitter that is produced according to the requirements as the pocket device or that is installed into the grip of the blind stick. By pressing of the pertinent button of the command transmitter the visually impaired person activates the additional functions that are available in the area of the stop, where the passenger just is.

The function of the button 1: The message of the line number and the travel direction with the announcement of the terminal station.

The outside loudspeakers of the vehicle on its whole length are connected to the information system and clearly vocally inform about the line number and travel direction (terminal station) of the vehicle. ***E.g.: Tram line number 3, direction WILDER MANN.***

The function of the button 2: The wish of the entrance of the visually impaired person as the information for the driver.

The driver obtains the acoustic signal by the peep on the piezo converter over the selective output in the length of approximately 0,5 second. On the display of the onboard computer at the same time blinks the text e.g. „Attention person with the restricted ability of movement". The driver must increase his attention, open the required door and watch the safe accession.

Instead of the peep of the piezo converter a suitable melody or the message from the onboard computer can be activated

E.g.: Attention, the passenger with limited mobility is getting on the train.

The function of the button 3: The announcement of the next station, the repetition.

The system allows to activate the announcement of the next station inside the vehicle in the form of the repetition during the successive integrating of the stops into the sequence. The line regime, which automatically adjusts the announcement of the next station after the closing of the doors (now in Dresden 100 m behind the stop), must not be interrupted. If both demands for the announcement of the next stop are meeting at the same time, the requirement from the information system for the visually impaired persons is cancelled.

E.g.: Next stop: Pirnaischer Platz, change to the regional transportation.

The technology

The TYFLOSET is designed as the suitable additional equipment, the receiver VPN 424A with the aerial and the connecting cables, to the existing information system for almost all vehicles of the municipal and suburban public transportation.

The receiver PPN 424A of the system TYFLOSET cooperates as the peripheral equipment of the IBIS-vehicle bus, that is controlled by the onboard computer. It is applicable also in the configuration with the onboard instruments APEX in the unequipped vehicles.



Tel.:+420 241 090 611, 620, 640

Fax:+420 241 090 610

www.apex-jesenice.cz

E-Mail: info@apex-jesenice.cz