



Public Transport Priority System KSR

Priority to Bus and Tram with Signalbau Huber

Making Public Transport More Attractive

Rising volume of traffic, especially in urban areas, constantly faces us with new challenges. Intelligent traffic management systems help to make better use of existing traffic routes and means of transport. An important starting point in achieving this goal is the optimal utilization of capacity in public transport.

This succeeds first and foremost if public transport is more attractive than individual traffic. Only if busses and trams really constitute a quick and convenient alternative, road users make the change.

The Public Transport Priority System KSR from Signalbau Huber reduces the waiting period for busses and trams at traffic lights. This shortens journey times and thus represents an important incentive to change to bus and tram. Moreover, the Public Transport Priority System KSR offers both financial benefits to public transport carriers and benefits to towns and local communities:

- higher average journey speed
- shorter times of circulation for public transport vehicles
- greater punctuality and adherence to schedule
- improved travel in urban traffic
- savings on vehicle, personnel and maintenance costs
- and thus an overall increase in the efficiency and attractiveness of public transport

Functional Principle of Public Transport Priority

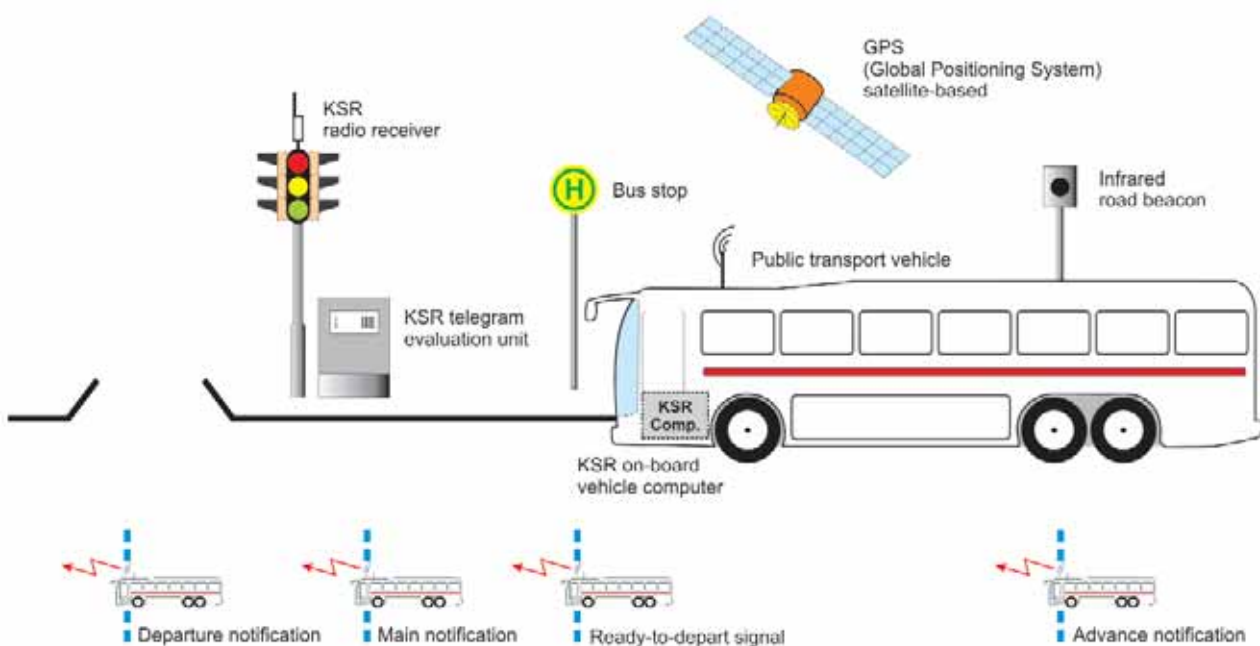
When approaching a traffic light system, the position of the public transport vehicle is physically located by synchronization.

Depending on local conditions 2 to 4 different radio data telegrams are transmitted to the traffic light system by the public transport vehicle:

- advance notification telegram
- ready-to-depart telegram
- main notification telegram
- departure notification telegram

The transmitted radio data telegrams are received by the Public Transport Priority System KSR, decoded and serially or parallel processed.

The KSR data is then provided to the traffic controller through a standardized interface. This yields the intended interaction with the control system. The traffic controller itself processes all the information contained in the radio data telegram such as signal point number, deviation from timetable and priority code number.



Methods of Traffic Light System Management

The Public Transport Priority System KSR can be used for all standard traffic light control systems based on radio data:

■ Infrared Beacon System

For positional synchronization an infrared road beacon is implemented in the approach area to the intersection. At the arrival of the public transport vehicle the signal points needed for the traffic light system request are transmitted from the beacon to the vehicle. It is now able to send the corresponding radio data telegrams at the respective signal points to the traffic light system.

■ Vehicle-autonomous Procedure

All routes and signal points are stored in the vehicle's on-board computer. The position of the vehicle is determined by means of the odometer reading and logical positional synchronization at the stops. The traffic light system requests are transmitted and stored by the vehicle's on-board computer.

■ Differential Global Positioning System (D-GPS)

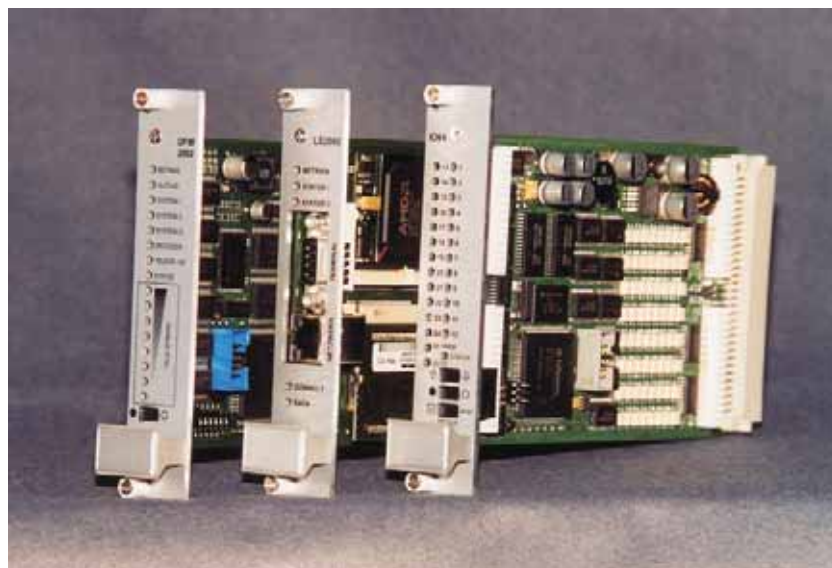
The vehicle is physically located by satellite-assisted positioning. When the vehicle arrives at the corresponding coordinates, the radio data telegrams required for traffic light system management are transmitted to the traffic controller.

Public Transport Priority System Performance Features

The Public Transport Priority System KSR from Signalbau Huber complies with the applicable VdV (Federation of German Transport Companies) regulations. It is fully compatible with all central and peripheral computer-assisted operations systems, with all types of traffic controllers as well as with all existing public transport priority systems. The KSR system is integrated into the traffic light controller cabinet or optionally in an additional housing.

- 133 MHz CPU with 16 MB Flash and 16 MB RAM (upgradeable 32/32) and CompactFlash card up to 16 GB
- Parallel input/output upgradeable
- 6 serial interfaces, 1 thereof optionally as RS 485
- Ethernet connection
- Internal or external analog radio data receiver
- Prepared for digital radio transmission via TETRA/TETRAPOL
- Mixed operation of digital and analog receiver as well as operation of several receivers
- Evaluation of all VdV telegrams R 09.xx, R 10 and other special formats
- Optional remote data supply, fault analysis as well as data evaluation via modem
- Optionally integrated remote maintenance system
- Telegram and protocol memory (min. 8,000 entries)
- Linux operating system
- User-friendly Windows software
- Modular structure
- User-defined extensibility

For testing the KSR and simulating in-vehicle transmission units a variety of testing instruments is available, e.g. public transport transmission and reception equipment.



Signalbau Huber Company Profile

For more than 50 years, Signalbau Huber has been operating in the field of traffic control and traffic guidance. We develop and implement innovative traffic management systems based on the long-time know-how of experienced and highly qualified employees. Our diversified product range enables us to provide the optimal solution for every traffic-technological requirement.

Signalbau-Huber is operating internationally and is represented in many countries.

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