

Controlled Boarding

Your most powerful weapon to fight fare evasion



More and more transport authorities are introducing controlled boarding as an effective measure in their efforts to reduce the level of fare evasion and to guarantee income from the sale of tickets.

In close cooperation with our partner company Systemtechnik GmbH, Sömmerda, we offer a comprehensive “controlled boarding” system solution, which consists of a mobile unit inside the vehicle and a background system.

Inside the vehicle, a universal card reader is combined with the IBISplus on-board computer and the MDT mobile data terminal to form an integrated functional unit, which allows fast and reliable checking all tickets.

Depending on the individual intermediate results, the checks are carried out at different levels: A check is made against the positive and negative lists stored in the vehicle. The details of the checked ticket as well as the overall card content can be downloaded and displayed to drivers on their terminals.

Seamless integration of the “controlled boarding” solution in the overall system enables the existing infrastructure to be used for data exchange between the mobile components and the background system. This means that the checklists are renewed in the vehicle on a daily basis and the check data is transferred to the background system at the end of service. This solution also supports the marking of tickets found in the negative list.

The readers support common card standards and of course also the VDV core application. This benefits especially multi-agency transport organizations using different card standards.

The rugged design of the card readers stands up to heavy-duty use in day-to-day operations. The advantage for the transport authority: very low maintenance requirements.

Through visual and audible feedback during ticket checking, passengers and drivers are immediately informed of the outcome of the check.

By introducing the “controlled boarding” system solution, public urban transport authorities are sending a clear message to anyone thinking of dodging a fare: “If you don’t pay, you don’t go”.

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TECHNICAL DATA

Card reader

- Non-contact read/write reader ISO 14443 A/B
- 16-bit card controller with 128k Flash, internal
- 512k Flash external, 512k SRAM
- 4 SAM slots (automatic detection; every slot can be individually selected and timed differently)
- Reading time < 700 ms
- Optimized antenna

Main processor

- Intel PXA270 (32Bit)
- 64 MB RAM, 32 MB Flash on board
- Real time clock

Operating system

- MS Windows CE.NET 5.X

Interfaces

- Serial RS-422 or RS-232
- Ethernet 10/100 MBit
- Optional WLAN interface
- Loudspeaker
- LED indicator
- SD card slot

Display

- Fully graphic 5" TFT display
- QVGA > 64,000 colors

Operating temperature

- -25 °C to +80 °C

Power supply

- 24 V (12V)

Dimensions (W×H×D)

- 116 × 275 × 115 mm

Weight

- 2.7 kg

Protection rating

- IP54

EMC conformity

- CE guidelines 2004/108/EC

Standards

- ISO 14443 A/B and 15693
- Mifare Classic, Ultralite, DesFire
- Infineon SLE55RXX (MY-D)
- Calypso
- Legic advant

Application for ticket checking on boarding terminals

- Secured/non-secured reading of tickets
- Blocking list alignment and marking of tickets
- Time- and space-based checking
- Visualization of results on the terminal
- Transfer of information