



Positronic Industries  
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# POSITRONIC INDUSTRIES' **DEVICE ACCESS BOX CONCEPT**

The Network provides access to an "Electronic Highway" on which information travels and becomes available to all devices on the network. The network also makes available, at access points, the power needed by onboard devices. The network is cost effective, easy to install and compact.

The Vehicle Area Network Cabling Standard also specifies the "Electronic Language" or communication protocol that is to be used. This is necessary so that all devices on the Network are able to communicate with one another. The communication protocol that has been chosen is outlined in SAE J1708 "Serial Data Communications between Microcomputer Systems in Heavy Duty Vehicle Applications." This specification was selected because of the successful use over time by parts of the transit industry's vehicle logic unit which coordinates and records device functions. A RF radio unit can be incorporated to send real time data to a central location. The network cabling supports on board use of devices and functions such as:

- Vehicle Control Head
- Vehicle Signage
- Door Status Units
- Unit Inventory
- Fare Collection
- Route Adherence Unit
- Vehicle Turntable
- Smart Card Unit
- ITS Technologies
- Vehicle Logic Unit
- Vehicle Location Units
- Automatic Annunciators
- Trip/Event Recorders
- Passenger Counters
- Mobile Data Terminals
- Vehicle Identification
- Silent Alarms
- Vehicle Status Point Monitors

The Network allows these devices and functions to operate independently or together. This creates unlimited possibilities in managing Transit Vehicles.

The Vehicle Area Network Cabling Standard is currently in use and has been incorporated by many transit authorities in upgrade and new vehicle specifications. As the 21st century dawns, the ITS' efforts to better manage Transit Resources becomes ever more clear. The Vehicle Area Network Cabling Standard is an important part of the effort.