

Merlin Multiplex System ©

Programmable Electronic Vehicle Control System

Features

- Controls electrical loads
- Detects load fault conditions, can automatically shut down outputs when faults are detected
- Diagnostic capabilities using real-time vehicle data
- Fully automatic load shedding and scheduling capabilities
- Easy to change vehicle operating characteristics at any point in time
- Reduces wiring complexity & volume
- Easy to read LCD display



Intelligent Switch Panel (ISP)



An ISO 9001-2000 Registered Company

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System Overview

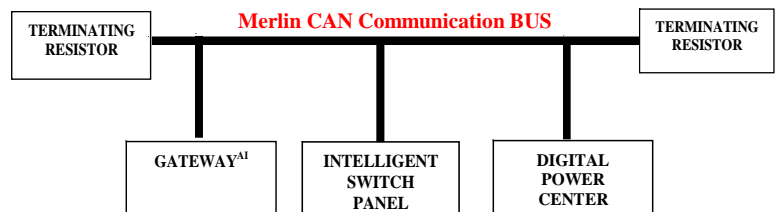
Merlin Multiplex System, when used with InterMotive's Gateway AI, provides the ability to use real-time chassis data to control loads.

Merlin Multiplex System connects electronic modules within an automotive environment on a common control network, thereby reducing overall wiring, centralizing and improving diagnostic capabilities, and sharing valuable vehicle information between modules.

The basic InterMotive Merlin Multiplex System consists of a Switch/Network Control module (ISP) and a Digital Power Center (DPC) networked on a CAN bus. Real time vehicle data can be transmitted on the Merlin network by adding InterMotive's Gateway module.

Basic Merlin Modules

The basic Merlin Multiplex System consists of two modules – the Intelligent Switch Panel (ISP) and the Digital Power Center (DPC). The ISP has two primary functions: controlling other devices attached to the Merlin Multiplex System by way of a user interface, and reporting status and diagnostic information to a central point on the network. Each ISP is custom configured using a proprietary GUI software by the OEM installing the Merlin system. The DPC's are used to control outputs and inputs on the Merlin Multiplex System. A DPC is capable of detecting numerous output load fault conditions and shutting down outputs when faults are detected.



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o Intelligent Switch Panel (ISP)

- Inputs: 9 (6 ground, 3 power)
- Controls devices attached to the Merlin network
- Provides reporting status and diagnostic information
- Programmed using a Graphical User Interface (GUI)
- Momentary contact switches
- Switches can be configured On-Off; On1, On2, Off; On1, On2, On3, Off; or momentary
- Back-lit icons for easier night-time recognition
- LCD screen for load activation and fault identification
- Dimensions: 8.5" W x 4.5" H x 1.8" D



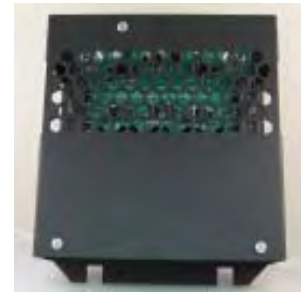
Intelligent Switch Panel (ISP)

o Digital Power Centers (DPC)

- Controls system inputs and outputs
- DPC 8: 8 power-side MOSFET (1 can be pulse width modulated)
- DPC 4: 4 power MOSFET models
- Outputs: 4 rated up to 30A; 4 loads rated up to 15A (Max. aggregate output – 100A)
- Inputs: 6 (4 ground-side and 2 power-side)
- Operating temp: minus 40°C to 85°C
- Dimensions:
DPC 8: 7.1" W x 11.3" H x 1.8" D
DPC4: 7.1" W x 8.2" H x 1.8" D



DPC8 Digital Power Center



DPC4 Digital Power Center

o Hand Held Programmer (HHP)

- USB port interface
- One-touch, 30 second downloading
- Allows for fast programming of multiple vehicles without the need for a laptop computer
- Dimensions: 2.45" W x 4.3" H x 1.1" D



HHP Hand Held Programmer

o Optional Modules

- GatewayAI – reads chassis data and retransmits using proprietary CAN communications
- Door Controller Module controls electronic door motor