# Intellitec's Programmable Multiplex Control

is a communications and switching system designed for use primarily on speciality vehicles to make the design and manufacture of the vehicles easier and less expensive. It is very flexible in its implementaion allowing it to be easily used for most signaling and switching functions on the vehicle.


Windows Setup Screen
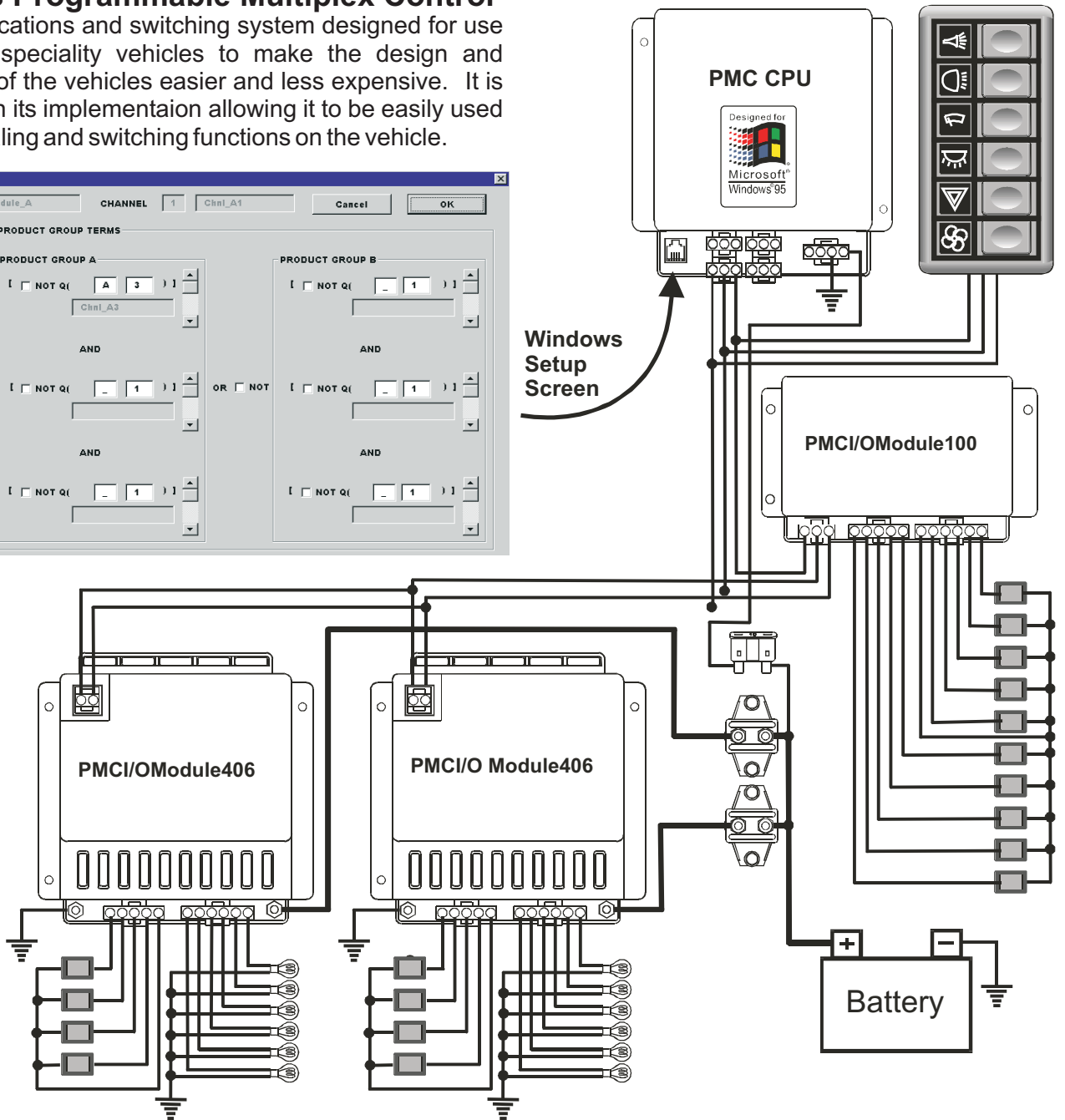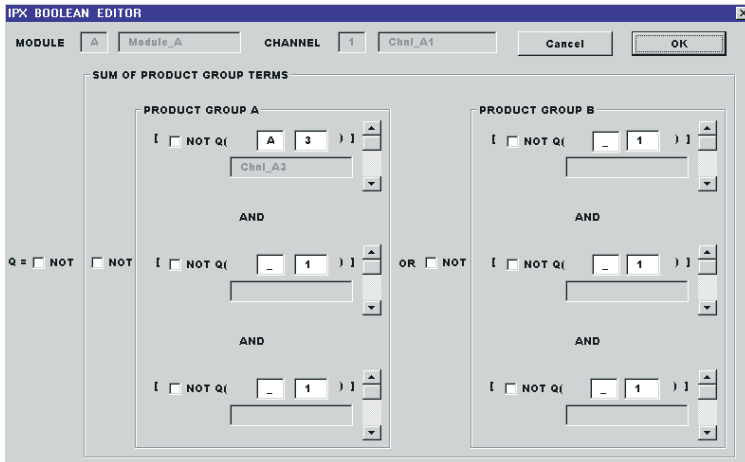
A principle advantage of the PMC system is the total flexibility it offers the user, both at the point of design and later in the field when the vehicle needs functional updates. Since most electrical functions of the vehicle are available on the multiplex bus, nearly unlimited numbers of interactions can be accomplished simply through the programming of the system.

The modules of the system "communicate" with each other using Intellitec's proprietary multiplex scheme (U.S. Patent No. 4,907,222 and other Pat. Pend.). A multiplex system is one that allows the transmission of multiple "bits" of information down a single wire. This can save significant amounts of wire and connections, lowering costs and weight and improving reliability. There are many different methods of multiplexing. It is not a new idea, but has been in use for more than fifty years. Multiplexing is used in everything from aircraft to the desktop computer. The advent of low cost, solid state electronics, and the demand for control of more electrical and electronic loads has made it become attractive for more and more applications. It is now the practical solution for the increasing wiring problems in today's modern vehicles.

PMC CPU 98A
Central Processing Unit

PMC CPU, is the main component of Intellitec's **Programmable Multiplex Control** family.   It controls remote I/O modules through Intellitec's unique multiplex communications system (Pat. No. 4,907,222 and other Pat. Pend.). This multiplex system allows the **CPU**, I/O Modules and switch panels to be wired together with two small gauge wires. All input or switch information is gathered through the remote modules and directly communicated to the **CPU**.   The **CPU** then interprets the inputs, determines the states of all outputs and communicates that information to the remote modules via the PMC communications link.
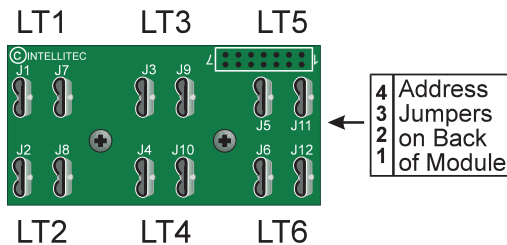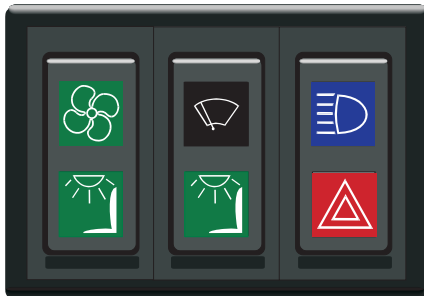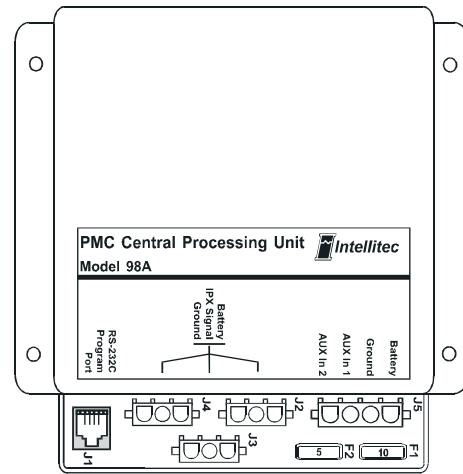
PMC Warning Light Adapter 806/816
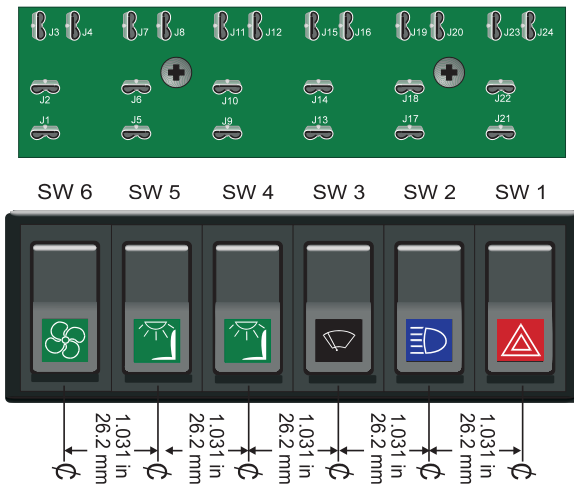## 6 Warning Light Direct Plug-In Adaptor

ITT warning lamps (also know as SWF, Britax, or Sprague) plug directly into the **806 or 816** Adapter, eliminating the need for a harness or separate wiring to each lamp. The lamps are controlled by the central PMC CPU via the two wire PMC communications link. The third wire provides power to the lamps. The PMC connection is made with an AMP Mate-N-Lok connector to reduce installation time and errors.

PMC I/O Module 406/416
4 point DC Input / 6 point Relay Output

The **406** provides power fusing, switching, and distribution in one module. It has two 15 amp SPST relays and four 10 amp SPST relays for switching loads to the battery. In addition there are four input connections for rocker, limit, or sensor switches. Each individual input can be configured as either a switch to ground, or a switch to battery. All input information is directly communicated to the CPU and all the relays are controlled by the CPU via the PMC communications link. All the output harnesses are connected with AMP Mate-N-Lok connectors to reduce installation time and errors.
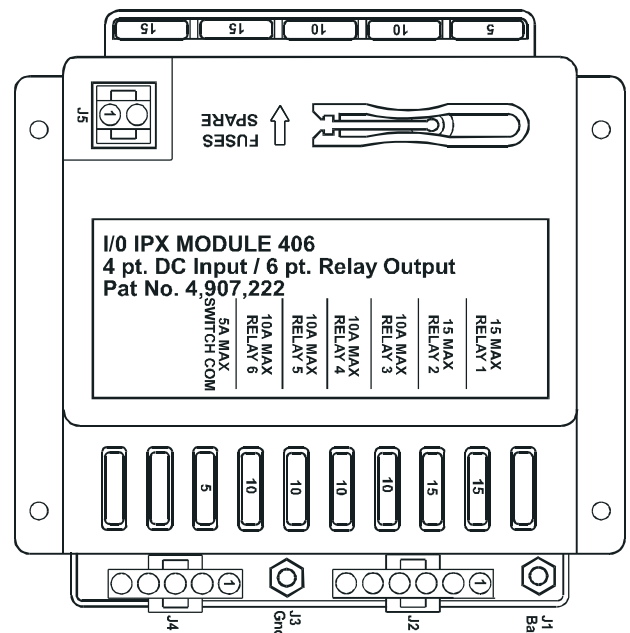
PMC Rocker Switch Adapter 906/916
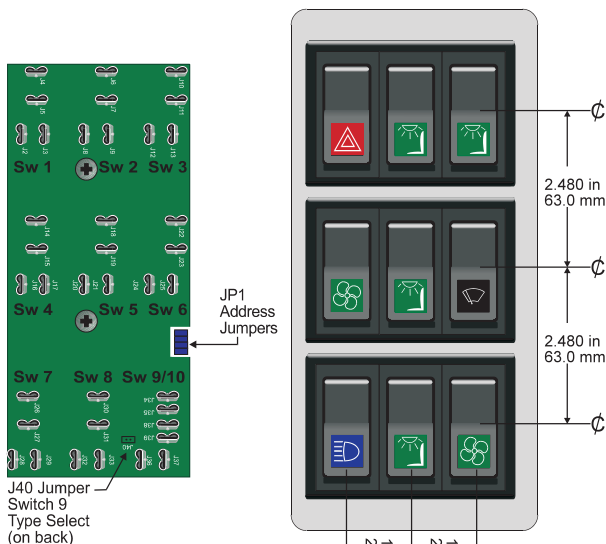### 6 Rocker Switch Direct Plug-In Adaptor

ITT rocker switches (also know as SWF, Britax, or Sprague) plug directly into the **906 or 916** Adapter, eliminating the need for a harness or separate wiring to each switch. All switch information is directly communicated to the PMC CPU via the two wire PMC communications link. The switch indicator lamps are controlled directly on the adaptor. When the switch is off, half of the battery voltage is supplied to the lamp for backlighting. When the switch is turned on, full battery voltage is applied to the lamp.

The switches do not control the loads or functions directly, they simply communicate information to the **PMC CPU.** Due to this fact, the switches do not have to be complex, eliminating the need for multiple poles or multiple throws. The switches can be more simple and less expensive, with the overall reduction of different types of switches.

PMC I/O Module 100/110
10 point DC Input

There are ten input connections for rocker, limit, or sensor switches. Each individual input can be configured as either a switch to ground, or a switch to battery. All input information is directly communicated to the **CPU** via the **PMC** communications link. The CPU utilizes this information to control other **PMC** output modules All the output harnesses are connected with AMP Mate-N-Lok connectors to reduce installation time and errors.

PMC Rocker Switch Adapter 909/919
9 Rocker Switch Direct Plug-In Adaptor

The switch indication lamps are controlled directly on the adaptor. When the switch is off, half of the battery voltage is supplied to the lamp for backlighting. When the switch is turned on, full battery voltage is applied to the lamp.
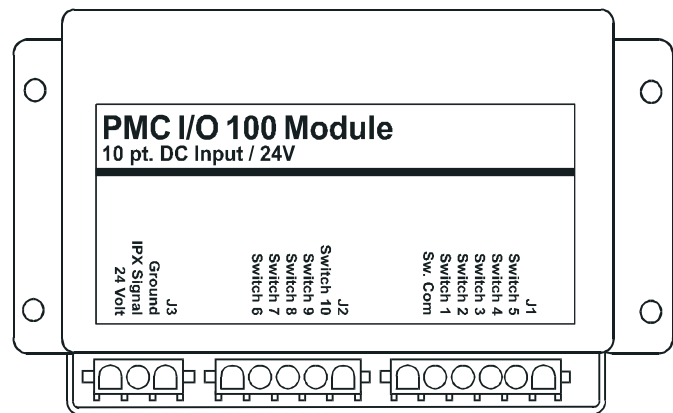
ITT rocker switches (also known as SWF, Fritax, or Sprague) plug directly into the 909 or 919 Adapter, eliminating the need for a harness or separate wiring to each switch. All switch information is directly communicated to the PMC CPU via the two wire PMC communications link.

Intellitec

Programmable Multiplex Control Modules

Model Part No.	Description	Vehicle Voltage	Function

Central Processing Units

CPU 00-00620-971	Central Processing Unit	+12/24V	

Input Modules

100 00-00622-100	10 point DC Input	+24V	10 DC Pos or Neg
110 00-00622-110	10 point DC Input	+12V	10 DC Pos or Neg

Low Wattage Output Modules

300 00-00XXX-300	10 Low Watt Output Module	+24V	0.5A Ouput, 5 Pos 5 Neg
310 00-00XXX-310	10 Low Watt Output Module	+12V	0.5A Ouput, 5 Pos 5 Neg

Relay Output Modules

406 00-00621-406	4 point DC Input / 6 point Relay Out Pos or Neg, 6 SPST Relay	+24V	4DCin
416 00-00621-416	4 point DC Input / 6 point Relay Out Pos or Neg, 6 SPST Relay	+12V	4DCin
400 00-00XXX-400	10 point DC In / 10 point Relay Out Pos, 2DCin Neg,8 SPST Relay	+24V	8DCin
410 00-00XXX-410	10 point DC In / 10 point Relay Out Pos, 2DCin Neg,8 SPST Relay	+12V	8DCin

Remote Backlit Rocker Switch Modules

700 00-00645-700	10 Rocker Switch Module	+24V	Remote Switches w/backlight
710 00-00645-710	10 Rocker Switch Module	+12V	Remote Switches w/backlight

Warning Lamp Direct Plug-in Adapters

806 00-00644-806	6 Warning Lamp Adapter	+24V	Plugs to 3 by 2 Britax Panel
816 00-00644-816	6 Warning Lamp Adapter	+12V	Plugs to 3 by 2 Britax Panel

Rocker Switch Direct Plug-in Adapters

906 00-00643-906	6 Rocker Switch Adapter	+24V	Plugs to 6 by 1 Britax Panel
916 00-00643-916	6 Rocker Switch Adapter	+12V	Plugs to 6 by 1 Britax Panel
909 00-00656-909	9 Rocker Switch Adapter	+24V	Plugs to 3 by 3 Britax Panel
919 00-00656-919	9 Rocker Switch Adapter	+12V	Plugs to 3 by 3 Britax Panel
902 00-00XXX-902	12 Rocker Switch Adapter	+24V	Plugs to 6 by 2 Britax Panel
912 00-00XXX-912	12 Rocker Switch Adapter	+12V	Plugs to 6 by 2 Britax Panel

Complete Switch Panel Assemblies

012 00-00623-012	6 Switch Panel	+24V	6 Momentary Switch Panel
024 00-00623-012	6 Switch Panel	+12V	6 Momentary Switch Panel