

The PMC CPU is the main component of Intellitec's Programmable Multiplex Control family. It controls remote I/O modules through Intellitec's multiplex communications system (Pat. No. 4,907,222 and 6,011,997). This multiplex system allows the CPU, I/O Modules and switch panels to be wired together with two wires.

This CPU has two identical, 4-pin, Amp Mate-N-Lok connectors. Pin 1 provides a fused 12 volt power source to power things like switch back lighting. Pins 2 and 3 are the multiplex signals (two loops of 160 channels each) which communicate instructions to and from each of the I/O modules, Pin 4 is multiplex communication ground.

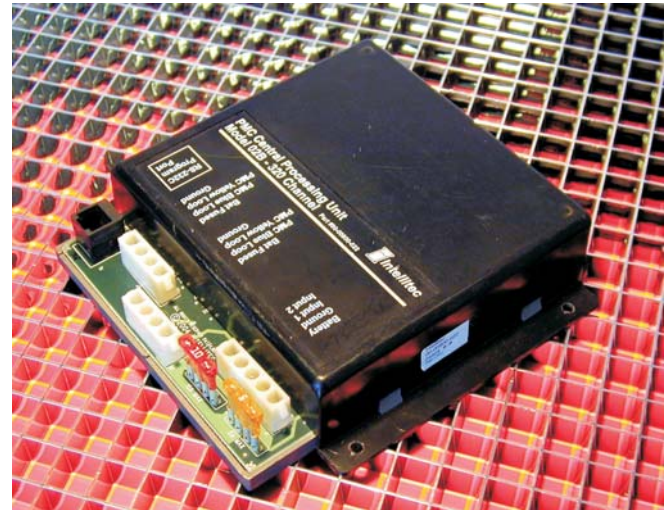
A system can be as small as one CPU and one I/O module, or it can communicate with up to 32 I/O modules. Each module can have a combination of up to 10 inputs, or outputs.

Multiple modules can be wired to a single connector. 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 (pins 2 and 3).

This CPU also has 160 timer channels built-in. The timers are setup by the Windows software. These timers can function as on/delay, off/delay, flasher and interval timers. PMC eliminates the need for special flasher modules, mirror heat timers, wiper delays, load managers, etc. In addition there are also 160 virtual channels which provide the capability to write very complex logic relationships between the channels.

The CPU RS-232C communications port and Windows software is used to setup or program the vehicle specific requirements. The port can also be used to perform system diagnostics. If a lap top isn't available most diagnostics can be performed with a volt meter.

The PMC system communicates continually at a relatively slow rate of 4 kHz. Each input/output is updated every .040 seconds. The multiplex signal, communicates to the output modules with a large change in signal voltage. This slow communications rate and large signal voltage change makes the PMC system extremely resistant to interference from EMI and RFI. Because of the low communications frequency and large signal change, communication can take place without fear of interference over any economical wire and eliminates the need for special cables and connectors. Four high speed channels are available to control elements requiring a higher speed.



The CPU includes a sleep mode. The sleep mode reduces the overall system operating current, allowing the system to be constantly live with insignificant drain on the vehicle battery.

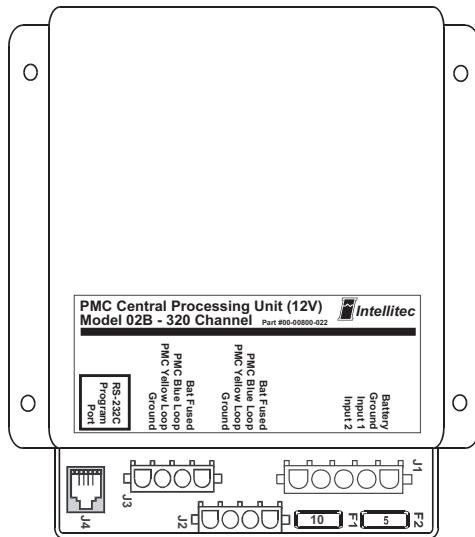
Through the use of Intellitec's WinPMC II Windows based software program and the connection of a PC to the RS-232C port, the user can easily set up the relationships between the switch inputs, timers and outputs.

If your customer needs a modification, a CPU can be programmed at your desk and shipped overnight. The plugs are designed so that the CPU can only be plugged in one way. The CPU may also be reprogrammed over and over again. In the PMC system, the only module that needs programming is the CPU. This program resides in non-volatile memory and is retained when power is removed from the CPU.

All the harnesses are connected with AMP, Mate-N-Lok connectors to reduce installation time and errors. Combine the Programmable Multiplex Control Central Processing Unit with the Intellitec standard, semi-custom or custom modules, and you can create the exact system configuration that you want, from basic to all encompassing. The approximate module dimensions are 6.375" X 6.250" X 1.875" (16.2mm X 15.9mm X 4.8mm). The module should be installed in a protected environment inside of the vehicle.

SPECIFICATIONS

Part Number	00-00800-022	00-00800-240
Voltage	12V	24V
Voltage Range	up to +16 Volts	+10 Volts to 36 Volts



SYSTEM CAPACITY	
Program Memory	EPROM
User Memory	Non Volatile
Module Capacity	32
I/O per Module	10
Total I/O Control	320
Virtual Channels	160
Timer Channels	160
COMMUNICATIONS	
CPU/Module	PMC two wire 4KHZ
EMI/RFI	High Immunity
User PC Program	WinPMCI

CONNECTOR PIN DESIGNATIONS

J4	RS-232C
J2-J3	PMC Communications
Pin 1	Fused Power for remote backlighting
Pin 2	Multiplex Signal Blue Loop
Pin 3	Multiplex Signal Yellow Loop
Pin 4	Communications Ground
J1-1	Battery
J1-2	Ground
J1-3	Aux In 1 (+12V disables sleep mode)
J1-4	Aux In 2 (+12V disables sleep mode)

PC Communications (*Note 1*)
 (All three connectors identical)
 16 awg Min. Fuse F2 5 Amps Max.
 16 awg Min. (*see Chapter 3 of the Users Guide*)
 16 awg Min. (*see Chapter 3 of the Users Guide*)
 14 awg Min. (*Make no other connections*)
 Fuse F1 10 Amps Max.

Sleep Mode	4.7K Input Impedance
Sleep Mode	4.7K Input Impedance

MATING CONNECTIONS

Designator	Function	Connector	Mating Part #	Contact, Typical
J1	CPU Power	5 Pin Amp Mate-N-Lok	1-480763-0	350919-3 for 14-18 AWG
J2	PMC Com	4 Pin Amp Mate-N-Lok	1-480702-0	350919-3 for 14-18 AWG
J3	PMC Com	4 Pin Amp Mate-N-Lok	1-480702-0	350919-3 for 14-18 AWG
J4	RS-232C		RJ11	(<i>Note 1</i>)