

**Intellitec**

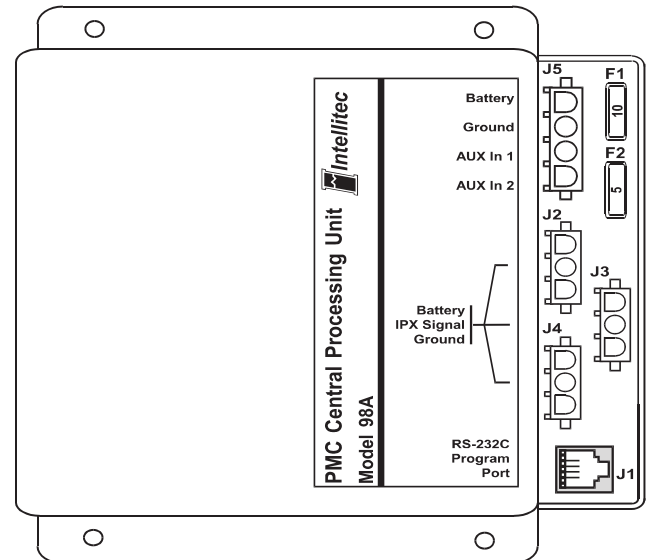
131 Eisenhower Lane N., Lombard, IL 60148  
630 268 0010 800 251 2408  
www.intellitescvs.com

## 160 Channel PMC CPU 00-00620-021 Central Processing Unit

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.

The CPU has three, 3-pin, Amp Mate-N-Lok connectors which are used to communicate to the Input/Output modules. One pin is the multiplex signal, another is multiplex Ground, and the third is fused power to operate remote switch panel backlighting.

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.



The CPU can communicate with up to 16 modules. Each module can have a combination of up to 10 inputs or outputs, with a single CPU controlling up to 160 inputs/outputs. If your system requires more than 160 I/O points, CPU 00-00800-021 can be used.

The CPU also has 10 timers built-in, which are setup by the Windows software. These timers can function as on/delay, off/delay, and interval timers. PMC can replace flasher modules, mirror heat timers, wiper delays, or any other timer function.

The CPU RS-232C communications ports is used to setup, or program the vehicle specific requirements. The port can also be used to perform system diagnostics; *however*, 99% of the diagnostics can be easily performed on the multiplex communication wires with the use of a commonly available 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, which communicates to the output modules, switches all the way from ground to the battery 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 PMC 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 desired, Intellitec can ship CPU modules to the OEM with their program already loaded.

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.

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.*

**Intellitec**131 Eisenhower Lane N., Lombard, IL 60148  
630 268 0010 800 251 2408  
www.intellitcsve.com**160 Channel PMC CPU**  
**00-00620-021 Central Processing Unit**

<b>SPECIFICATIONS</b>			
Part Number		00-00620-021	
Nominal Vehicle Voltage		+12 Volt or +24 Volt system	
Voltage Range		+10 Volts to 36 Volts	
<b>SYSTEM CAPACITY</b>		<b>COMMUNICATIONS</b>	
Program Memory	EPROM	CPU/Module	PMC two wire 4KHZ
User Memory	Non Volatile flash	EMI/RFI	High Immunity
Module Capacity	16	User PC Program	RS-232C
I/O per Module	10		
Total I/O Control	160		
Virtual Channels	10		
Timer Channels	10		

**CONNECTOR PIN DESIGNATIONS**

J1	RS-232C	PC Communications ( <i>Note 1</i> ) (All three connectors identical) Fuse F2 5 Amps Max. 16 awg Min. ( <i>see Chapter 3 of the Users Guide</i> ) 14 awg Min. ( <i>see Chapter 3 of the Users Guide</i> ) Fuse F1 10 Amps Max.
J2-J4	PMC Communications	
Pin 1	Fused Power for remote backlighting	
Pin 2	Multiplex Signal	
Pin 3	Multiplex Ground	
J5-1	Battery	
J5-2	Ground	
J5-3	Aux In 1 (+12V disables sleep mode)	Sleep Mode 4.7K Input Impedance
J5-4	Aux In 2 (+12V disables sleep mode)	Sleep Mode 4.7K Input Impedance

**MATING CONNECTIONS**

Designator	Function	Connector	Mating Part #	Contact, Typical
J1	RS-232C		RJ11	( <i>Note 1</i> )
J2	PMC Com	3 Pin Amp Mate-N-Lok	1-480700-0	350919-3 for 14-18 AWG
J3	PMC Com	3 Pin Amp Mate-N-Lok	1-480700-0	350919-3 for 14-18 AWG
J4	PMC Com	3 Pin Amp Mate-N-Lok	1-480700-0	350919-3 for 14-18 AWG
J5	Power	4 Pin Amp Mate-N-Lok	1-480702-0	350919-3 for 14-18 AWG

Note 1: Communications to PC is accomplished via Cable and Program Key, included in the programming kit.