The PMC Output Modules 00-00969-000 and 00-00969-410 are members of Intellitec's Programmable Multiplex Control family, as well as the 160 Channel Multipoint Switching System. They work in combination with the PMC CPU or the 160 Channel IPX Master and other standard, semi-custom, or custom I/O modules.

The modules provide power fusing, switching, and distribution. They have three 20 Amp SPST relays and seven 10 amp SPST relays for switching loads to the battery. Each fuse position can be filled with a fuse or circuit breaker. The total module current should not exceed 70 Amps.
All of the output harness connections are made with AMP Mate-N-Lok connectors to reduce installation time and errors.

The approximate module dimensions are 7.0" X 6.250" X 1.875 " ( 16.2 mm X 15.9 mm X 4.8 mm ). It should be installed in a protected environment inside the vehicle.

The 969-000 and 969-410 can be set for module addresses of A-P. This allows each output of the module to be addressed for any one of 160 channels in groups of 10. Using the chart on the next page, set the dip switch to address the module.

## LATCHING VS NON-LATCHING

The 969-000 is a latching module which means that an output will turn on and latch on when it sees that it's channel has been turned on momentarily. Once the output is on, the output will turn off when it sees it's channel turn on momentarily again.
No program is necessary when used with either a PMC Central Processing Unit or the 160 Channel IPX Master.

Example: Intellitec's 10 button keypad has a button set for address B1 and a Latching Output Module 969-000 has an output set for address B1 while both are connected to an IPX Master or PMC CPU. If push button B1 is pressed momentarily, output 1 of the module will latch on. Pushing the button again will latch the output off. If a push button is set for BL/MR, pressing and holding the button for 3 seconds will cause all outputs to turn off.

When using this module with PMC you should neither check the latched switch box in the Windows set up software for the pushbutton nor should a Boolean be

written to operate the output. Setting channel P10 for 3 seconds will unlatch all latched outputs.

The 969-410 is a non-latching module, which means the output will turn on when it sees it's address but will not latch and should only be used with the PMC system. In this case, if the channel is turned on momentarily, the output will only be on while the channel is on. This module will respond to programming in the same fashion as any other PMC output module. To keep the output on, the channel must be kept on.

## DIAGNOSTIC LED INDICATORS

Next to each Mate-N-Lok output connection you will find an LED. If the output is on, the LED will be on. Should the output be on and a fuse is blown, the LED will flash. The LED will continue to flash until the fuse is replaced and the output is turned on. The 969-000 unit will also send a signal to the switch panel which will flash it's corresponding indicator LED until the switch is turned off or the fuse is replaced. The 969-410 unit will also send a signal to the switch panel which will flash it's corresponding indicator LED for 30 seconds.

Between J2 and J3, you will find an LED which illuminates RED and indicates that the multiplex communication signal is not normal.

PMC and Multipoint Switching System

## SPECIFICATIONS

| Modules | $\mathbf{0 0 - 0 0 9 6 9 - 0 0 0}$ | $\mathbf{0 0 - 0 0 9 6 9 - 4 1 0}$ |
| :--- | :--- | :--- |
| Nominal Vehicle Voltage | $\mathbf{1 2 V}$ | $\mathbf{1 2 V}$ |
| Outputs | Latching Outputs | Non-Latching Outputs |
| Module Current | $\mathbf{7 0} \mathrm{Amps}$ Max total |  |

## General Connections

| J1-1 | Communications Signal (from Master or CPU) | 18 Awg Min. |
| :--- | :--- | :--- |
| J1-2 | Communications Ground (from Master or CPU) | 14 Awg Min. |

## CHANNEL DESIGNATIONS

| Channel | Connection | Type | Name | Rating |
| :---: | :--- | :--- | :--- | :--- |
| 1 | J2-1 | Relay Output, Form A (SPST),(1) | Relay 1 Fuse 1 | 10 Amp Max |
| 2 | J2-2 | Relay Output, Form A (SPST),(1) | Relay 2 Fuse 2 | 10 Amp Max |
| 3 | J2-3 | Relay Output, Form A (SPST),(1) | Relay 3 Fuse 3 | 10 Amp Max |
| 4 | J2-4 | Relay Output, Form A (SPST),(1) | Relay 4 Fuse 4 | 20 Amp Max |
| 5 | J2-5 | Relay Output, Form A (SPST),(1) | Relay 5 Fuse 5 | 10 Amp Max |
| 6 | J2-6 | Relay Output, Form A (SPST),(1) | Relay 6 Fuse 6 | 20 Amp Max |
| 7 | J3-1 | Relay Output, Form A (SPST),(1) | Relay 7 Fuse 7 | 20 Amp Max |
| 8 | J3-2 | Relay Output, Form A (SPST),(1) | Relay 8 Fuse 8 | 10 Amp Max |
| 9 | J3-3 | Relay Output, Form A (SPST),(1) | Relay 9 Fuse 9 | 10 Amp Max |
| 10 | J3-4 | Relay Output, Form A (SPST),(1) | Relay 10 Fuse 10 | 10 Amp Max |

Note 1: Relay provides a fused source of voltage to the Load from the Battery.
J3-5 Power Ground
NOTE: Total Module current not to exceed 70 Amps

## MATING CONNECTIONS

| Designator | Function | Connector |
| :---: | :--- | :--- |
| J4 | Battery | \#10/32 Ring Term |
| J1 | Communication | 2 Pin Amp Mate-N-Lok |
| J2 | Outputs | 6 Pin Amp Mate-N-Lok |
| J3 | Outputs | 5 Pin Amp Mate-N-Lok |


| Mating Part \# | Contact,Typical |  |
| :--- | :--- | :--- |
|  | for 14-18 AWG for 10-12 AWG |  |
| $1-480698-0$ | $350919-3$ | $640310-3$ |
| $640585-1$ | $350919-3$ | $640310-3$ |
| $1-480763-0$ | $350919-3$ | $640310-3$ |

## MODULE SETTINGS

Module can be set for 1 of 16 address, A-P.
Set four dip switches per table on right. $\mathrm{X}=$ Switch OFF

| SWITCH | MODULE | SWITCH | MODULE |
| :---: | :---: | :---: | :---: |
| 4321 | Address | 4321 | Address |
| 0000 | A | X 000 | I |
| 000 X | B | $\mathrm{X} 00 \times$ | J |
| $00 \times 0$ | C | $\times 0 \times 0$ | K |
| $00 \times \mathrm{X}$ | D | $\mathrm{X} 0 \times \mathrm{X}$ | L |
| $0 \times 00$ | E | $\mathrm{x} \times 0$ | M |
| $0 \times 0 \times$ | F | $\mathrm{x} \times 0 \mathrm{X}$ | N |
| $0 \times \times 0$ | G | XXX0 | O |
| $0 \times \mathrm{XX}$ | H | X X X X | P |



