

The Mega Module 00-01039-000 is a member of Intellitec's Programmable Multiplex Control family. It works in combination with our PMC multiplex system and the new IPLC Control plus standard, semi-custom, or custom I/O modules. The module can be used on either 12 or 24 volt systems.

The module provides power switching, with electronic over-load protection, and distribution. Switching is accomplished via long life, field effect transistors. The technical characteristics are detailed on the back side of this bulletin. The total module current (*sum of output channels from connectors J1, J2, J5, and J6*) is limited to 80 Amps total. Each output channel is programmable to respond to any of the 160 channels on a PMC loop. They can be paralleled to provide greater output capability.

MODULE PROGRAMMABILITY

A number of parameters of the module are programmable, by the user, to provide a great deal of flexibility in its application. These parameters are set using a GUI on a PC and loaded into the module through an on-board port. Each output channel is preset from the factory to an anticipated minimum load value. There are a total of 38 FET output channels in the Flex module. Typically, the FET output channels will supply the following output current:

- + **Low Current Output** (<3Amps), total of 24 channels
- + **Medium Current Output** (>3 Amps < 10 Amps), total of 12 channels
- + **High Current Output** (>10 Amps, Max is 20 Amps), total of 2 channels.

The programmable parameters include the following:

- channel allocation for each output
- channel allocation for under current warning
- channel allocation for over current warning
- channel allocation for each input

NOTE:

The summed current values of all the output channels can not Exceed 80 Amps.

OVER-LOAD/UNDER LOAD PROTECTION

The module includes load level detection and protection. If the load falls below the programmable, minimum current, the module will "report" that low current situation on the **Diagnostic Display** which will display the channel number and the type (over load / under load) and status(On, Off, * Under*, *Over*, or *Short*) for each output channel. The information from each module can be transmitted to a display panel used to alert the driver or service personnel.

The module includes electronic over-load protection. The module will monitor the current and shut down if the current is higher than the output rating.



To reset the output, the signal to that channel must be turned off and back on again.

LCD DIAGNOSTIC DISPLAY

The Module includes a section of on-board LCD diagnostic display to aid in the servicing of the associated system. These sections include an LED for each of the following:

- + **Input Channels:** total of 24, 18 of which are configured as High side inputs and the remaining 6 are configured as low side inputs.

+ **Output Channels:** total of 38. If the output is on, a message will be displayed on the **Diagnostic Display** module. If the output is off because of an over load, a message will be displayed on the **Diagnostic Display** module.

+ **Communication Fault:** the LCD panel will indicate that a PMC COMM fault is active.

OUTPUT CURRENT READOUT

The module has the ability to measure the actual current being supplied to each load. This analog data is available to be read out via the computer connection used for programming.

The approximate module dimensions are 10.25" X 6.75" X 2.25" (184mm X 121mm X 57mm).

Module Set Up

There are a number of operating parameters that need to be set up in the module. They are set using a program on a PC with a GUI. This program is available from the Intellitec web site (www.Intellitec.com). An adapter harness for programming is available from Intellitec (part no 11-01039-000).

SPECIFICATION

Module Part number **00-01039-000**

Vehicle Voltage 8V to 31V

Max Module Current 80 Amps Maximum

PIN Connections		Type	PIN Connections		Type	18 AWG Wire Required	
J1-1	Output 4		J2-1		Output 16		
J1-2	Output 3		J2-2		Output 15		
J1-3	Output 2		J2-3		Output 14		
J1-4	Output 1		J2-4		Output 13		
J1-5	Output 8		J2-5		Output 20		
J1-6	Output 7		J2-6		Output 19		
J1-7	Output 6		J2-7		Output 18		
J1-8	Output 5		J2-8		Output 17		
J1-9	Output 12		J2-9		Output 24		
J1-10	Output 11		J2-10		Output 23		
J1-11	Output 10		J2-11		Output 22		
J1-12	Output 9		J2-12		Output 21		
J1-13		Input 1	J2-13		Input 13	20 AWG Wire Required	
J1-14		Input 2	J2-14		Input 14		
J1-15		Input 3	J2-15		Input 15		
J1-16		Input 4	J2-16		Input 16		
J1-17		Input 5	J2-17		Input 17		
J1-18		Input 6	J2-18		Input 18		
J1-19		Input 7	J2-19		Input 19		
J1-20		Input 8	J2-20		Input 20		
J1-21		Input 9	J2-21		Input 21		
J1-22		Input 10	J2-22		Input 22		
J1-23		Input 11	J2-23		Input 23		
J1-24	Output 25		J2-24		Output 31	16 AWG Wire Required (Outputs)	
J1-25	Input 12		J2-25		Input 24		
J1-26	Output 26		J2-26		Output 32		
J1-27	CANL		J2-27		CANH		
J1-28	Output 27		J2-28		Output 33		
J1-29	NC		J2-29		NC		
J1-30	Output 28		J2-30		Output 34		
J1-31	Ground		J2-31		Ground		
J1-32	Output 29		J2-32		Output 35		
J1-33	IPX +		J2-33		RX (RS-232)	20 AWG Wire Required (Comm)	
J1-34	IPX -		J2-34		TX (RS-232)	20 AWG Wire Required (Comm)	
J1-35	Output 30		J2-35		Output 36		
J5	Output 37				14 AWG Wire Required		
J6	Output 38				0.250 Tab Terminal, Faston		

Mating Connectors (35 Pin Amp Conectors, Black and Gray color insert)

	AMP Mating Connector	Color	Pins	Plugs
J1	776164-1	Black	770854-1	770678-1
J2	776164-4	Gray	770854-1	770678-1
Battery	5/16" Ring Terminal			

Flex Module I/O

Input / Output	Polarity	Pin Location
Input 1	Pos Input	J1-13
Input 2	Pos Input	J1-14
Input 3	Pos Input	J1-15
Input 4	Pos Input	J1-16
Input 5	Pos Input	J1-17
Input 6	Pos Input	J1-18
Input 7	Pos Input	J1-19
Input 8	Pos Input	J1-20
Input 9	Pos Input	J1-21
Input 10	Pos Input	J1-22
Input 11	Pos Input	J1-23
Input 12	Pos Input	J1-25
Input 13	Pos Input	J2-13
Input 14	Pos Input	J2-14
Input 15	Pos Input	J2-15
Input 16	Pos Input	J2-16
Input 17	Pos Input	J2-17
Input 18	Pos Input	J2-18
Input 19	Neg Input	J2-19
Input 20	Neg Input	J2-20
Input 21	Neg Input	J2-21
Input 22	Neg Input	J2-22
Input 23	Neg Input	J2-23
Input 24	Neg Input	J2-25
Output 1	3A	J1-4
Output 2	3A	J1-3
Output 3	3A	J1-2
Output 4	3A	J1-1
Output 5	3A	J1-8
Output 6	3A	J1-7
Output 7	3A	J1-6
Output 8	3A	J1-5
Output 9	3A	J1-12
Output 10	3A	J1-11
Output 11	3A	J1-10
Output 12	3A	J1-9
Output 13	3A	J2-4
Output 14	3A	J2-3
Output 15	3A	J2-2
Output 16	3A	J2-1
Output 17	3A	J2-8
Output 18	3A	J2-7
Output 19	3A	J2-6
Output 20	3A	J2-5
Output 21	3A	J2-12
Output 22	3A	J2-11
Output 23	3A	J2-10
Output 24	3A	J2-9
Output 25	10A	J1-24
Output 26	10A	J1-26
Output 27	10A	J1-28
Output 28	10A	J1-30
Output 29	10A	J1-32
Output 30	10A	J1-35
Output 31	10A	J2-24
Output 32	10A	J2-26
Output 33	10A	J2-28
Output 34	10A	J2-30
Output 35	10A	J2-32
Output 36	10A	J2-35
Output 37	20A	J5
Output 38	20A	J6