# Quad "H" Bridge Output Module 00-00916-120 PMC Output Modules

The Quad "H" Bridge Module is a member of Intellitec's Multiplex Control family. It works in combination with the PMC CPU and other standard, semi-custom, or custom I/O modules.

The 916-120 provides power fusing, switching, and distribution all in one module. It would typically be used to operate reversible motor loads. This module has eight, 10 amp SPDT relays connected in four "H" bridge configurations. When a channel is activated, it connects one end of the load to the Battery, while the other end is connected to Ground. Each of the four "H" bridges is fed from a fuse position that can be filled with a fuse, or circuit breaker. The total module current should not exceed 20 Amps.

The Quad "H" Bridge Module includes 9 diagnostic LED's. One indicates the loss of the communication signal and the others indicate the activation of the individual outputs.

Each of the first eight channels will turn on one of the relays in the four "H" bridges. A channel 9 signal will turn on all the odd numbered channel relays and channel 10 signal will turn on all the even channels. This allows simultaneous operation of the four motor loads with a single input.

Each of the outputs can also be used as individual outputs with the understanding that the load will be grounded when turned off. This allows the module to power up to 8 individual loads.



PAT NO. 4,907,222 & 6,011,997

All of the output harnesses are connected with AMP Mate-N-Lok connectors to reduce installation time and errors.

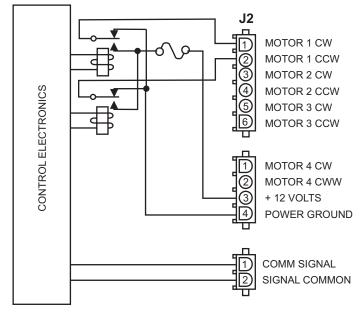
The approximate module dimensions are: 5.8" X 5.0" X 1.45" (147mm X 127mm X 36mm).

The module should be installed in a protected environment, inside the vehicle.

TRUTH TABLE EXAMPLE						
PMC CH 1			PMC CH 10	MOTOR 1	J2-1	J2-2
OFF	OFF	OFF	OFF	OFF	GND	GND
ON	OFF	OFF	OFF	CW	BAT+	GND
OFF	ON	OFF	OFF	CCW	GND	BAT+
ON	ON	OFF	OFF	OFF	BAT+	BAT+
OFF	OFF	ON	OFF	CW	BAT+	GND
OFF	OFF	OFF	ON	CCW	GND	BAT+

Repeat for motors 2,3 and 4 Channels 9 & 10 affect all motors

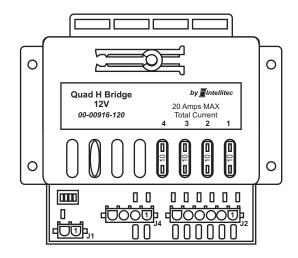
## NOTE: Only one output circuit shown



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#### **SPECIFICATIONS**

<b>General Connections</b>		00-00916-120
Nominal Vehicle Voltage	е	12V
Module Current		20 Amp Max
J4-3	+ 12 Volts	
J4-4	Ground	
J1-1	PMC Signal	18 awg Min
J1-2	PMC Ground	14 awg Min



#### **CHANNEL DESIGNATIONS**

Channel	Relay	Connection	Туре	Fuse	Rating
1	Relay 1	J2-1	Relay Output, Form C (SPDT)	Fuse 1	10 Amp Max
2	Relay 2	J2-2	Relay Output, Form C (SPDT)	Fuse 1	10 Amp Max
3	Relay 3	J2-3	Relay Output, Form C (SPDT)	Fuse 2	10 Amp Max
4	Relay 4	J2-4	Relay Output, Form C (SPDT)	Fuse 2	10 Amp Max
5	Relay 5	J2-5	Relay Output, Form C (SPDT)	Fuse 3	10 Amp Max
6	Relay 6	J2-6	Relay Output, Form C (SPDT)	Fuse 3	10 Amp Max
7	Relay 7	J3-1	Relay Output, Form C (SPDT)	Fuse 4	10 Amp Max
8	Relay 8	J3-2	Relay Output, Form C (SPDT)	Fuse 4	10 Amp Max
9	All Odd I	Number Relays C			·
10	All Even	Number Relays	ON		

#### NOTE:

The relays provide a fused source of voltage to the Load from the Battery when ON and Ground when OFF.

#### **MATING CONNECTIONS**

Designator	Function	Connector	Mating Part #	Contact, Typical
J1	PMC/Com	2 Pin Amp Mate-N-Lok	1-480698-0	350919-3
J2	Outputs	6 Pin Amp Mate-N-Lok	640585-1	350919-3
J4	Outputs/Power	4 Pin Amp Mate-N-Lok	1-480700-0	350919-3

#### **MODULE SETTINGS**

WODULL SETTINGS	DID OW	MODIU 5	D/D 014/	MODILLE
Module can be set for 1 of 16 address.	DIP SW 4 3 2 1	MODULE Address	DIP SW 4 3 2 1	MODULE Address
Set four position dip switch per table	0000	Α	X 0 0 0	I
to the right.	0 0 0 X	В	X00X	J
V 0 '' 1 0FF	0 0 X 0	С	X 0 X 0	K
X = Switch OFF	0 0 X X	D	X 0 X X	L
	0 X 0 0	Ε	XX00	M
	0 X 0 X	F	XX0X	Ν
	0 X X 0	G	XXX0	0
	0 X X X	Н	XXXX	Р