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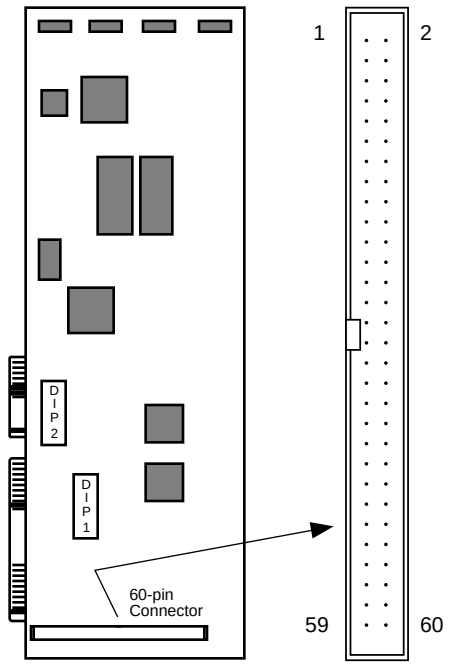
Find the *Parker / Compumotor AT6400* at our website: *Click HERE*

OEM-AT6400 Controller

Parker Automation

Connections

see also pages 6-14



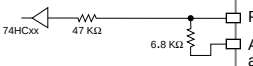
PIN OUTS FOR 60-PIN CONNECTOR

Pin	Function	Pin	Function
1	Step 1 +	2	Step 1 –
3	Direction 1 +	4	Direction 1 –
5	Step 2 +	6	Step 2 –
7	Direction 2 +	8	Direction 2 –
9	Step 3 +	10	Step 3 –
11	Direction 3 +	12	Direction 3 –
13	Step 4 +	14	Step 4 –
15	Direction 4 +	16	Direction 4 –
17	POS 1	18	+5V
19	NEG 1	20	GND
21	HOM 1	22	GND
23	POS 2	24	GND
25	NEG 2	26	GND
27	HOM 2	28	GND
29	POS 3	30	GND
31	NEG 3	32	+5V
33	HOM 3	34	AUX-P
35	POS 4	36	+5V
37	NEG 4	38	IN-P
39	HOM 4	40	+5V
41	TRIG-A	42	OUT-P
43	TRIG-B	44	OUT 1
45	TRIG-C	46	OUT 2
47	TRIG-D	48	OUT 3
49	IN 1	50	OUT 4
51	IN 2	52	GND
53	IN 3	54	GND
55	IN 4	56	GND
57	IN 5	58	SHLD
59	IN 6	60	SHLD

I/O SPECIFICATIONS AND INTERNAL SCHEMATICS

Internal Schematics

Limits & Trigger Inputs

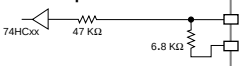


POS, NEG, HOM, or TRG-x

AUX-P (connect to +5V on the 60-pin connector, or to an external supply of up to 24VDC)

Specs: HCMOS-compatible*; voltage range = 0-24VDC.

Programmable Inputs

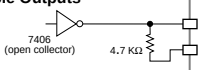


General-purpose Programmable Input

IN-P (Connect to +5V on the 60-pin connector, or to an external supply of up to 24VDC. To sink current, connect to a GND pin.)

Specs: HCMOS-compatible*; voltage range = 0-24VDC.

Programmable Outputs

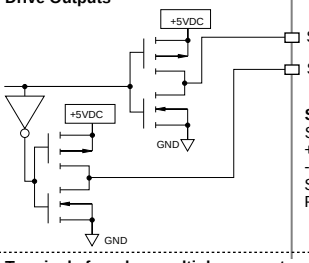


General-purpose Programmable Output

OUT-P (connect to the +5V on the 60-pin connector, or to an external supply of up to 24VDC)

Specs: Open collector output.
Max. voltage in OFF state (not sinking current) = 24V,
max. current in ON state (sinking) = 30mA.

Drive Outputs

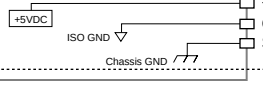


Step+ or Direction+ (pins 1, 3, 5, 7, 9, 11, 13, or 15)

Step– or Direction– (pins 2, 4, 6, 8, 10, 12, 14, or 16)

Specs: Differential line driver output.
Signal high ≥ 3.25VDC @ +30mA; signal low ≤ 1.0VDC @ -30mA.
+output for each differential driver is active high;
-output for each driver is active low.
Step pulse width is 0.3 µs to 20 µs (depends on the value of the PULSE command—default is 0.3 µs).

Terminals found on multiple connectors



+5V
GND
SHLD

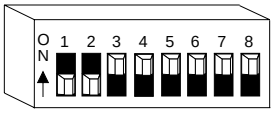
5V Load Limit (for all I/O connections): typically 1.0 A, depends on power supply of PC.

** HCMOS-compatible levels: Low ≤ 1.00V, High ≥ 3.25V.*

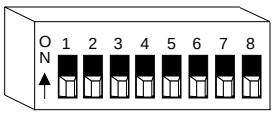
DIP Switch Factory Default Settings

DIP Switch 1 is used to set the Address and Transfer Mode.
DIP Switch 2 is used to set Interrupts.

DIP Switch 1

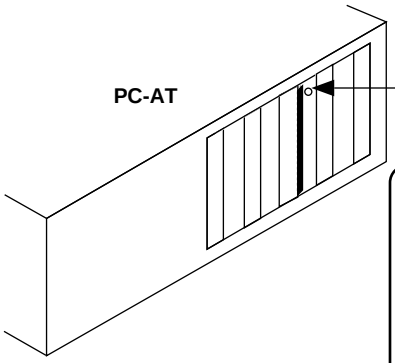


DIP Switch 2



Troubleshooting

see also pages 18 -22



After applying power, the LED will be off. After downloading the operating system, the status LED will turn green indicating the system is ready for operation. If the LED does not turn green after downloading the operating system, an error has occurred. The download program (AT6400) issues an error message if it cannot find the card or if the download operation is not successful (refer also to the Downloading Error Table provided Chapter 2).

Board Monitor Alarm (BMA): Detects un-recoverable faults in hardware and software. When the BMA detects a fault, the LED turns off. The BMA can be reset by cycling power to the PC-AT, or by re-downloading the operating system.

- LED – see illustration (above).
- Status information (see command descriptions in *6000 Series Software Reference Guide*):
  Axis status (general problem conditions)...TAS command
  Limit switches.....TLIM command
  Programmable and trigger inputs.....TIN command
  Programmable outputs.....TOUT command
- Programmable input functions (INFNC command) will not be operable until you enable input functions with the INFEN1 command.
- To help prevent electrical noise, shield all connections at one end only.
- Error messages while programming or executing programs – see the *6000 Series Programmer's Guide*.
- Download errors – see page 21.
- Address, transfer mode, and interrupt DIP switch settings – see page 4.
- Technical support – see phone numbers on inside of front cover.

We welcome your feedback on our products and user guides. Please send your responses to our email address: 6000user@cmotor.com
Direct your technical questions to your local ATC or distributor, or to the numbers printed on the inside front cover of this document.

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