

TROUBLESHOOTING

- **LEDs:**
  - POWER** ..... 120VAC power is applied
  - STEP** ..... Flashes green with each step pulse.
  - OVER TEMP** ..... Max. drive temp limit (131°F, 55°C) exceeded.
  - MOTOR FAULT** ..... Short circuit in motor windings, motor cable is disconnected or shorted, or INTERLOCK jumper is disconnected or extended.
- **Status information (see command descriptions in 6000 Series Software Reference):**
  - General status information** ..... TASF, TSSF, TSTAT
  - Limits (end-of-travel, home)** ..... TASF, TLIM
  - P-CUT input** ..... TINO (bit #6)
  - Programmable inputs and TRG-A/B** ..... TIN, INFNC
  - Programmable outputs and OUT-A** ..... TOUT, OUTFNC
  - Motor fault** ..... TASXF (bit #1)
  - Low voltage fault** ..... TASXF (bit #2)
  - Over temperature fault** ..... TASXF (bit #3)
- **V<sub>I/O</sub> must be connected to 5-24VDC for the P-CUT, HOM, NEG, POS, & TRG-A/B inputs to work.**
- **NEG & POS inputs must be grounded to GND terminal to allow motion (or disable with LHØ command).**
- **P-CUT input must be grounded to GND terminal to allow motion.**
- **To help prevent electrical noise, shield all connections at one end only.**
- **Error messages while programming or executing programs – see 6000 Series Programmer's Guide.**



Product Type: OEMZL6104 Step Motor Drive/Controller

The above product is in compliance with the requirements of directives

- 72/23/EEC Low Voltage Directive
- 93/68/EEC CE Marking Directive

**Additional Information:**

For complete user documentation, please refer to the Compumotor web site ([www.compumotor.com](http://www.compumotor.com)) where User Guides can be found on-line or hard copies requested.

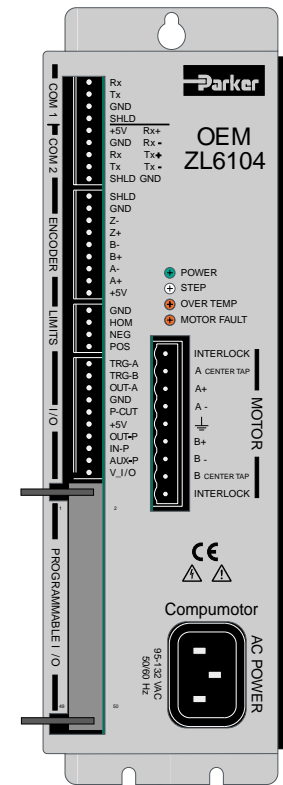
*For questions, please contact:*

Technical Assistance, Applications Engineering Department (e-mail [tech\\_help@compumotor.com](mailto:tech_help@compumotor.com) or call 800-358-9070 North America, 707-584-7558 International).

The following table describes which User Guides are applicable to the OEMZL6104:

Part Number	Title
88-014027-01	<u>ZETA4 User Guide</u> Note: All information contained within this user guide is applicable with the exception of the Active Damping feature. All references to this feature should be ignored.
88-015920-01	<u>ZETA4 Drive and ZETA6104 Indexer/Driver User Guide Addendum LVD Installation Instructions</u> Note: All information contained within this document is applicable to the OEMZL6104.
88-015436-01	<u>EMC Installation Guide</u> Note: Refer to the Step Motor Drives section of this document for applicable information

# Quick Reference Guide



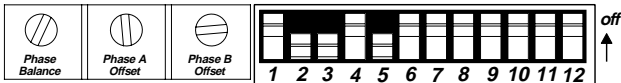
## OEMZL6104 Drive/Controller

Compumotor Division  
Parker Hannifin Corporation  
p/n 88-018140-01 A  
September 1, 1999



## DIP SWITCH SETTINGS

Access through the top of the chassis (loosen screws, move cover plate)



### Motor matching

Motor Current	Amps	1	2	3	4	5
	0.14	off	off	off	off	off
	0.26	off	off	off	off	on
	0.39	off	off	off	on	off
	0.51	off	off	off	on	on
	0.64	off	off	off	on	off
	0.76	off	off	on	off	on
	0.89	off	off	on	on	off
	1.01	off	off	on	on	on
	1.14	off	on	off	off	off
ES21BS	1.26	off	on	off	off	on
	1.38	off	on	off	on	off
ES22BS	1.51	off	on	off	on	on
	1.63	off	on	on	on	off
ES23BS	1.76	off	on	on	off	on
	1.88	off	on	on	on	off
	2.01	off	on	on	on	on
	2.14	on	off	off	off	off
ES31BS	2.26	on	off	off	off	on
ES21BP	2.38	on	off	off	on	off
	2.51	on	off	off	on	on
	2.63	on	off	on	off	off
	2.76	on	off	on	off	on
ES32BS	2.88	on	off	on	on	off
	3.01	on	off	on	on	on
ES21BS	3.13	on	on	off	off	off
	3.26	on	on	off	off	on
	3.38	on	on	off	on	off
ES23BP	3.50	on	on	off	on	on
	3.63	on	on	on	off	off
	3.75	on	on	on	off	on
	3.88	on	on	on	off	off
ES31BP, ES32BP, ES33BP	4.00	on	on	on	on	on

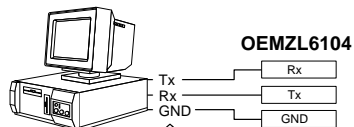
For additional motor information refer to Compumotor's website at [www.compumotor.com](http://www.compumotor.com)

AutoBaud	enabled	on	off
	default	→ disabled	off off
Address	default	→ 0	off off off off
	1	off off off off	on
	2	off off off on	off
	3	off off on off	off
	4	off off on off	off
	5	off off on off	off
	6	on	on
	7	on	on
	8	on	on
	9	on	on
	10	on	on
	11	on	on
	12	on	on

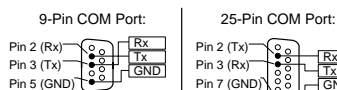
(Binary Weighted)

TIP: The ADDR command allows you to automatically establish addresses for multiple units in a daisy-chain or multi-drop (ADDR address overrides the DIP switch setting).

## RS-232C CONNECTION

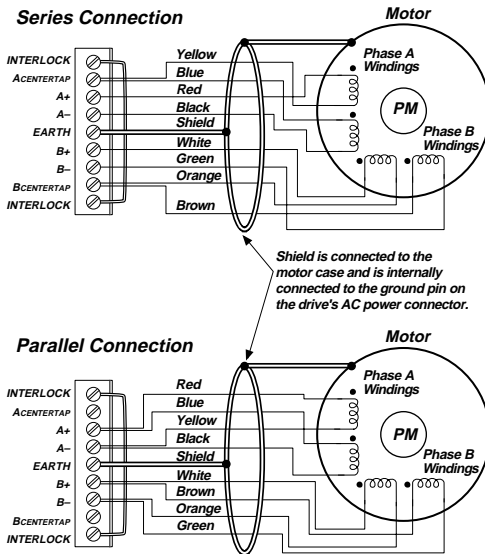


### Serial Port Connection on PC

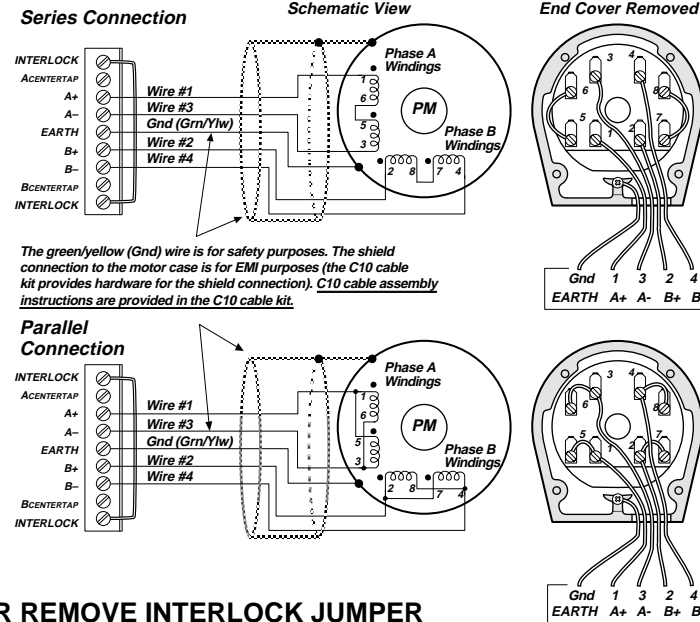


## MOTOR CONNECTIONS

### ES AND OS MOTORS



### RS AND TS MOTORS



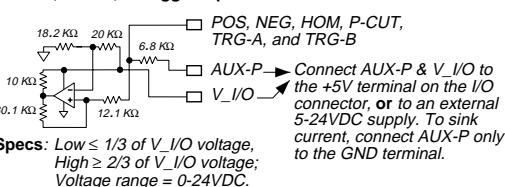
**DO NOT LENGTHEN OR REMOVE INTERLOCK JUMPER**

## I/O SPECIFICATIONS & INTERNAL SCHEMATICS

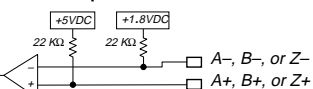
AC Input ..... 95-132VAC, 50/60Hz, single phase

Serial Com .... RS-232C 3-wire; RS-485 4-wire (change jumpers JU1-JU6 to position 1, set JU7 to position 3 if you need 2-wire, select termination resistors). Up to 99 units in a daisy chain or multi-drop. 9600 baud 8 data bits; 1 stop bit; no parity.

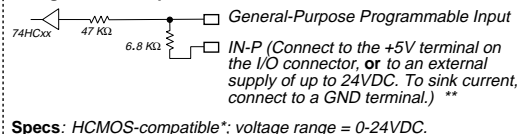
### Limits, P-CUT, & Trigger Inputs



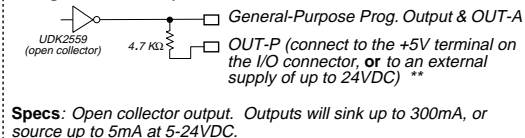
### Encoder Inputs



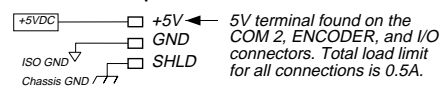
### Programmable Inputs



### Programmable Outputs



### Terminals found on multiple connectors



\* HCMOS-compatible levels: Low ≤ 1.00V, High ≥ 3.25V.  
\*\* Disconnect from +5V terminal BEFORE connecting an external 5-24VDC supply.

## PROGRAMMABLE I/O

Pin	Function
1	Input #16 (MSB of inputs)
3	Input #15
5	Input #14
7	Input #13
9	Input #12
11	Input #11
13	Input #10
15	Input #9
17	Output #8 (MSB of outputs)
19	Output #7
21	Output #6
23	Output #5
25	Input #8
27	Input #7
29	Input #6
31	Input #5
33	Output #4
35	Output #3
37	Output #2
39	Output #1 (LSB of outputs)
41	Input #4
43	Input #3
45	Input #2
47	Input #1 (LSB of inputs)
49	+5VDC

Even numbered pins connected to common logic ground.

## STATUS LEDS

POWER	Green when power is on
STEP	Green when drive receives step; Green in auto test
OVER TEMP	Red indicates over temp fault
MOTOR FAULT	Red when drive detects short circuit in motor or motor cable; Red if interlock is open