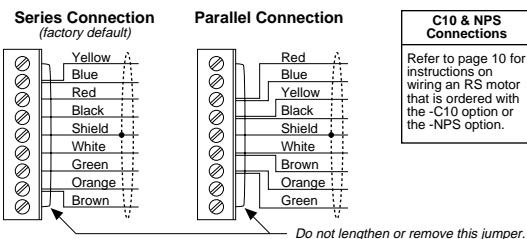


Setup

ZETA, OS & RS MOTOR CONNECTIONS (see also pages 9 & 10)



C10 & NPS Connections
Refer to page 10 for instructions on wiring an RS motor that is ordered with the -C10 option or the -NPS option.

MOTOR MATCHING & CURRENT; ADDRESS (see also page 4)

Access through the top of the ZETA6104 chassis (loosen screws, move cover plate).



Motor matching – see page 22.

Motor Current	Amps	1	2	3	4	5
Zeta57-51(S)	1.26	off	on	off	off	on
Zeta57-83(S), OS2HB(S)	1.51	off	on	off	on	on
Zeta57-102(S)	1.76	off	on	on	on	on
OS21B(S)	1.88	off	on	on	on	off
OS22B(S)	2.14	on	off	off	off	off
Zeta83-62(S), RS31B(S)	2.26	on	off	off	off	on
Zeta57-51(P)	2.38	on	off	off	on	off
Zeta83-93(S), RS32B(S)	2.88	on	off	on	on	off
OS2HB(P)	3.01	on	on	off	on	on
Zeta57-83(P)	3.13	on	on	off	off	off
Zeta57-102(P)	3.50	on	on	off	on	on
Zeta83-135(S), RS33B(S)	3.75	on	on	on	off	on
OS21B(P)	4.00	on	on	on	on	on
Zeta83-xxx(P)						
OS22B(P), RS3xB(P)						

(S) = Series (P) = Parallel
Non-Compumotor motor current settings – see page 4.

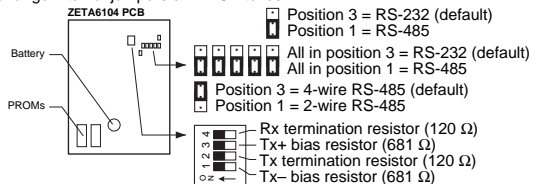
AutoBaud (see page 4)	enabled	on	off
default → disabled	disabled	off	off

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

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-485 CONFIGURATION (see also pages 5 & 8)

1. Change internal jumpers & DIP Switches:



DIP switch: ON selects the resistor. Alternative: Set the switches to OFF and connect your own external resistors (see page 8 for calculations).

2. Execute the PORT2 and DRPCHK0 commands to change the COM 2 port.

SOFTWARE-BASED SETTINGS (see also page 30)

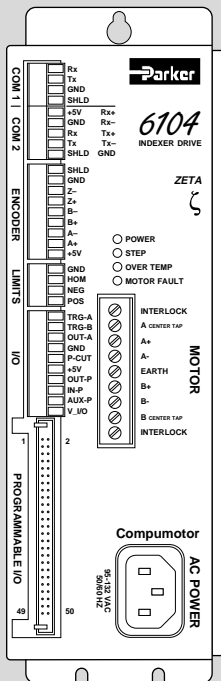
Setting	Factory Default	Command
COM 1 Port Function	RS-232	PORT & DRPCHK
COM 2 Port Function	RP240	PORT & DRPCHK
Electronic Viscosity **	Disabled	DELVIS
Active Damping **	Disabled	DACTDP
Anti-Resonance	Enabled	DAREN
Auto Current Standby	Disabled	DAUTOS
Waveform	-4% 3rd harmonic	DWAVEF
Motor Inductance *	≥ 20 mH	DMTIND
Motor Static Torque *	36-100 Oz-in (0.26-0.72 N-m)	DMTSTT

* Inductance and static torque are configured for ZETA motors ONLY if you ordered your ZETA6104 and ZETA motor together as a "system." A configuration procedure (part of matching) is provided on page 27.

** These features work best if you "match the ZETA6104 to the motor" (see matching procedure on page 22).
Active Damping configuration procedure – see page 26.
Electronic Viscosity configuration procedure – see page 29.

Connections

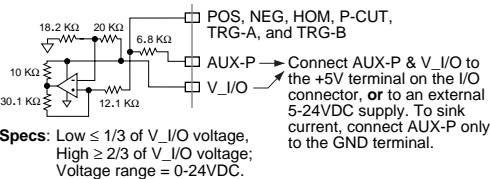
See also pages 7-19



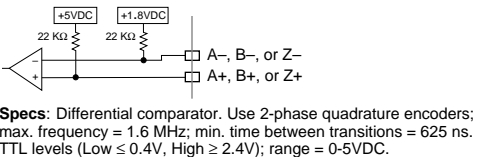
I/O SPECIFICATIONS & INTERNAL SCHEMATICS

- AC Input** 95-132VAC, 50/60Hz, single phase (peak power requirement – see page 18).
- 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 (or use AutoBaud feature – see page 4); 8 data bits; 1 stop bit; no parity;
- Motors** Compumotor motors (ZETA, OS and RS motors): Torque, inertia, bearings, weight – see page 3; Speed/torque curves – see page 10. Non-Compumotor motors – see page 43.

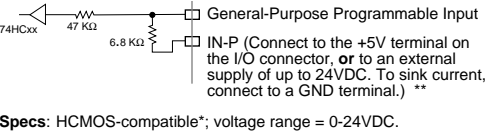
Limits, P-CUT, & Trigger Inputs



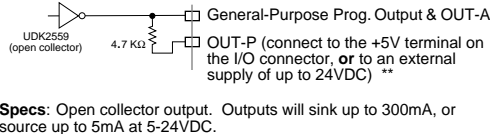
Encoder Inputs



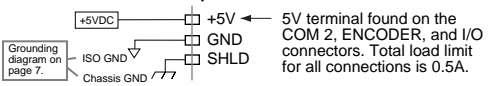
Programmable Inputs



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.

Troubleshooting

See also pages 33-37

- 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)
- P-CUT input must be grounded to GND terminal to allow motion.
- NEG & POS inputs must be grounded to GND terminal to allow motion (or disable with LH0 command).
- V_{I/O} must be connected to 5-24VDC for the P-CUT, HOM, NEG, POS, & TRG-A/B inputs to work.
- 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.
- Technical support – see phone numbers on inside of front cover, and the HELP command response.