

CONNECTION	DESCRIPTION
J1 +	This pin should be connected to the positive output of the power source. The maximum applied voltage should not exceed +50 VDC.
J1 -	This pin should be connected to the negative output of the power source.
J4 +	The analog command for solenoid –1 should be connected to this pin. The range of the input signal is 0 to +5 VDC. For signals with a range of 0 to +10 VDC a 5.6 KOhm resistor should be added to R15.
J4 -	This pin may be used as the return for CMD1.
J6 +	The position feed back for solenoid – 1 should be connected to this pin. The range of the input signal is 0 to +5 VDC. For signals with a range of 0 to +10 VDC a 5.6 KOhm resistor should be added to R16.
J6 -	This pin may be used as the return for CMD2.
J2 +	This pin should be connected to one terminal of solenoid-1.
J2 -	This pin should be connected to the other terminal of solenoid-1
J3 +	This pin should be connected to one terminal of solenoid-2.
J3 -	This pin should be connected to the other terminal of solenoid-2.
J7 +	+5 VDC Output. Maximum usable current should be limited to 250 mAmps.
J7 -	Return for +5 VDC.
JP4-2	Optical Encoder Position Feedback—Phase A
JP4-3	Optical Encoder Position Feedback—Phase A
J5 +	Connect J5 + to J5 - to select Optical Encoder Position Feedback
J5 -	Connect J5 + to J5 - to select Optical Encoder Position Feedback

Closed Loop Solenoid Position Control Module Pin Assignment and Description



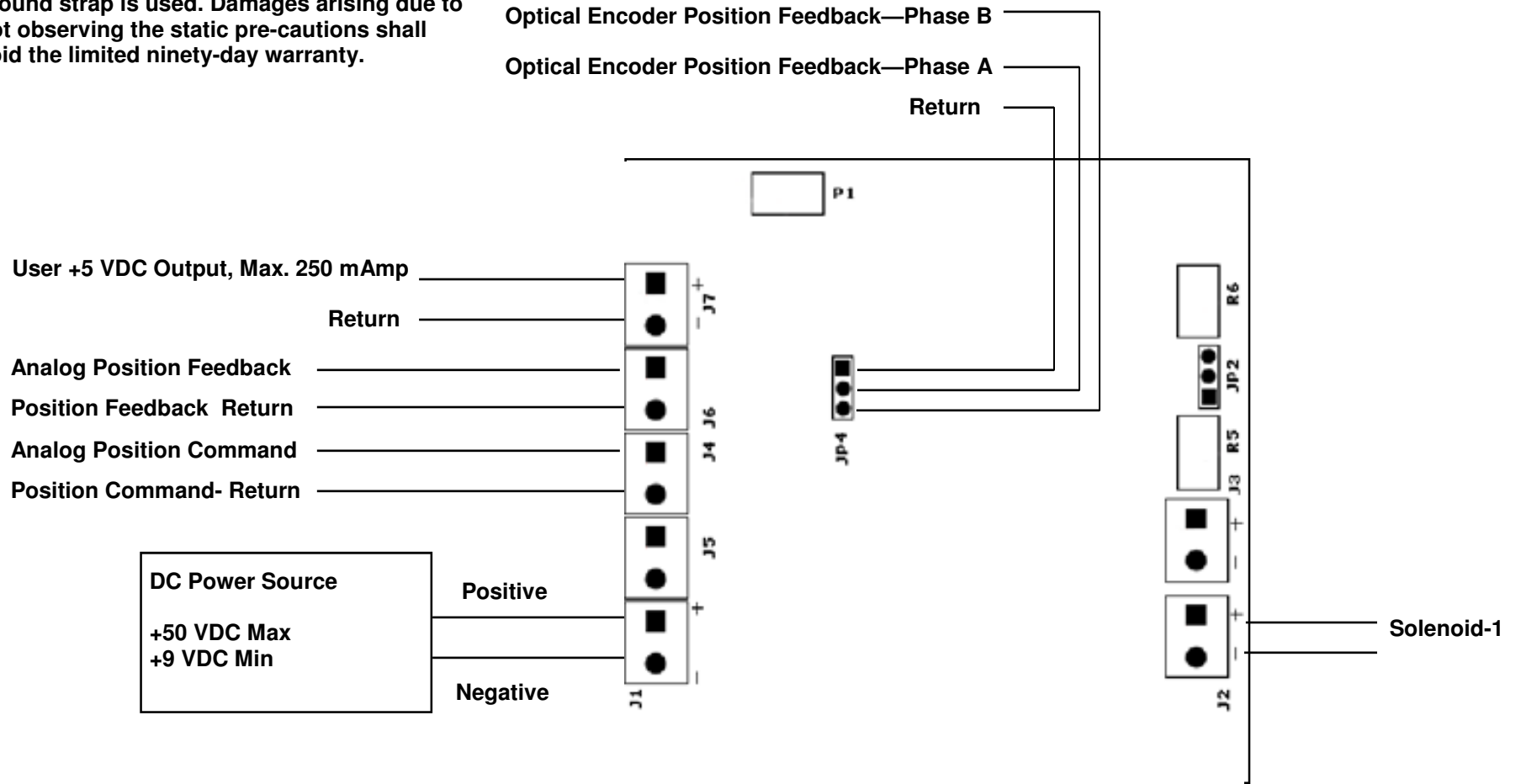
Optimal Engineering Systems, Inc.
6901 Woodley Avenue
Van Nuys, California 91406 U.S.A.
www.oes-site.com

+1 (818) 222-9200
FAX +1 (818) 436-0446
E-mail oes@oes-site.com

Warning:

Handling this electronic module shall be performed in a static safe environment while a ground strap is used. Damages arising due to not observing the static pre-cautions shall void the limited ninety-day warranty.

The R5 potentiometer adjusts the proportional (P) term of the PID filter.
 The R6 potentiometer adjusts the derivative (D) term of the PID filter.
 The P1 potentiometer adjusts the integral (I) term of the PID filter.



CLSP-01 Wiring Diagram for a Solenoid with External Return Force



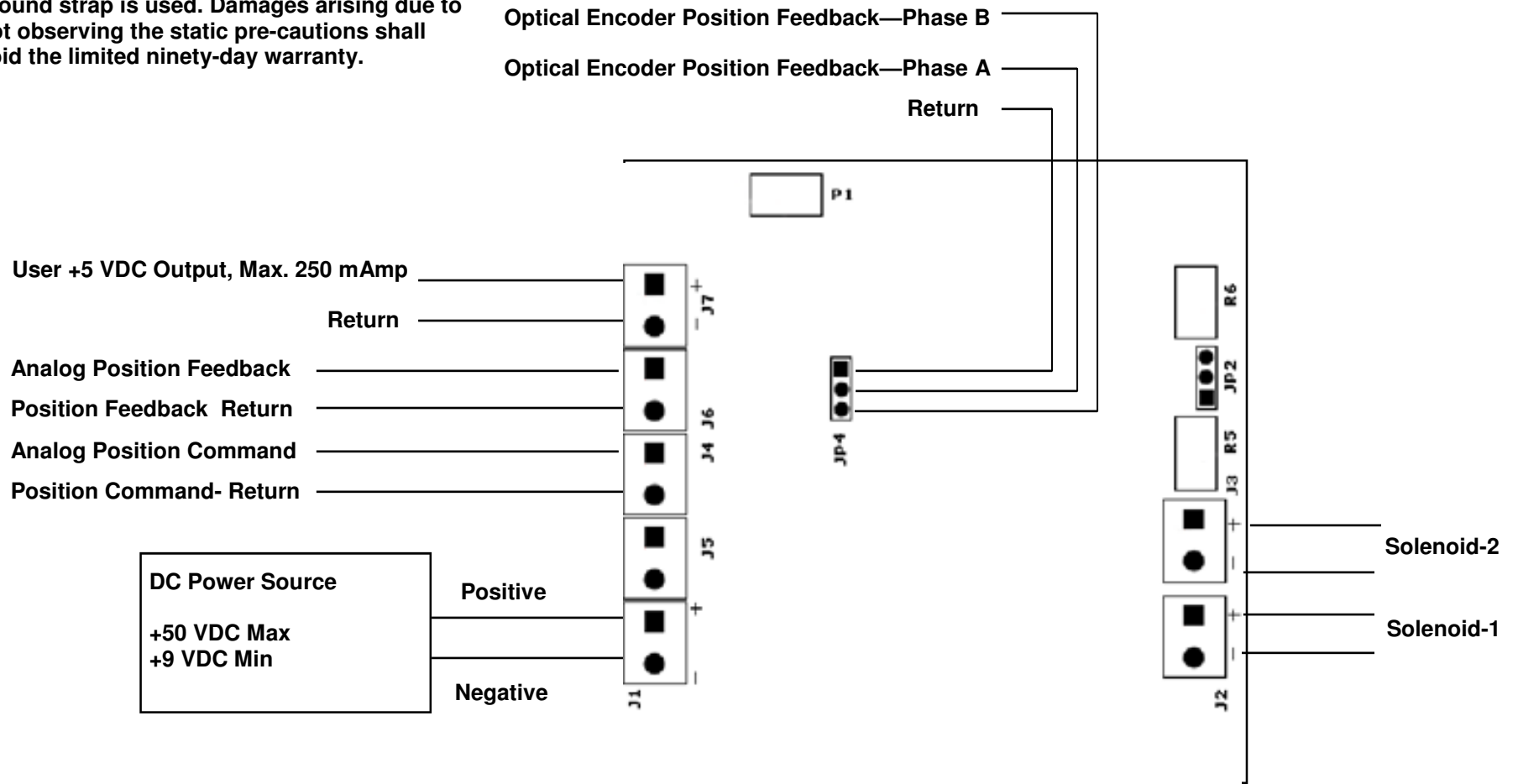
Optimal Engineering Systems, Inc.
 6901 Woodley Avenue
 Van Nuys, California 91406 U.S.A.
 www.oes-site.com

+1 (818) 222-9200
 FAX +1 (818) 436-0446
 E-mail oes@oes-site.com

Warning:

Handling this electronic module shall be performed in a static safe environment while a ground strap is used. Damages arising due to not observing the static pre-cautions shall void the limited ninety-day warranty.

The R5 potentiometer adjusts the proportional (P) term of the PID filter.
 The R6 potentiometer adjusts the derivative (D) term of the PID filter.
 The P1 potentiometer adjusts the integral (I) term of the PID filter.



CLSP-01 Wiring Diagram for a two Solenoids in Push-Pull Mode



Optimal Engineering Systems, Inc.
 6901 Woodley Avenue
 Van Nuys, California 91406 U.S.A.
 www.oes-site.com

+1 (818) 222-9200
 FAX +1 (818) 436-0446
 E-mail oes@oes-site.com

Limitation of Liability

Optimal Engineering Systems, Inc. (OES) hardware and software are not intended for use in any manner where human life or safety is at risk. OES' products are not intended for life support equipment.

In no event shall Optimal Engineering Systems, Inc. be liable to any customer for costs or damages, including lost profits, lost savings or other incidental or consequential damages arising out of the use or inability to use such products even if Optimal Engineering Systems, Inc. or an authorized Optimal Engineering Systems, Inc. representative has been advised of the possibility of such damages, or for any claim by any other party. In any event, Optimal Engineering Systems liability arising in any manner in connection with the products, whether based in contract, product liability or tort, shall not exceed the purchase price of the product.

Limited Ninety-Day Warranty

Optimal Engineering Systems, Inc. warrants to the original purchaser that this product to be free from defects in material or workmanship for a period of ninety days from date of purchase. Optimal Engineering Systems, Inc. agrees to repair any such defect or exchange the product with a new or equal replacement. Defective product must be returned to Optimal Engineering Systems, Inc. postpaid. This warranty is void for any product that has been modified by the customer in any way. If failure of the Product has resulted from accident, abuse, or miss-application, Optimal Engineering Systems, Inc. shall have no responsibility under this Ninety-day Warranty.



Optimal Engineering Systems, Inc.
6901 Woodley Avenue
Van Nuys, California 91406 U.S.A.
www.oes-site.com

+1 (818) 222-9200
FAX +1 (818) 436-0446
E-mail oes@oes-site.com