

MAIN (J1)

PIN	FUNCTION	I/O	ASSIGNMENT	PIN	FUNCTION	I/O	ASSIGNMENT	PIN	FUNCTION	I/O	ASSIGNMENT
1	+AAX	I	X AUXILIARY ENCODER A+	36	+VCC	0	+5 VOLTS	75	AN1	I	ANALOG INPUT 1
2	-AAX	I	X AUXILIARY ENCODER A-	37	AMPENW	0	W AXIS AMPLIFIER ENABLE	76	AN2	I	ANALOG INPUT 2
3	+ABX	I	X AUXILIARY ENCODER B+	38	AMPENZ	0	Z AXIS AMPLIFIER ENABLE	77	AN3	I	ANALOG INPUT 3
4	-ABX	I	X AUXILIARY ENCODER B-	39	AMPENY	0	Y AXIS AMPLIFIER ENABLE	78	AN4	I	ANALOG INPUT 4
5	+AAY	I	Y AUXILIARY ENCODER A+	40	AMPENX	0	X AXIS AMPLIFIER ENABLE	79	AN5	I	ANALOG INPUT 5
6	-AAY	I	Y AUXILIARY ENCODER A-	41	LSCOM	I	LIMIT SWITCH COMMON	80	AN6	I	ANALOG INPUT 6
7	+ABY	I	Y AUXILIARY ENCODER B+	42	HOMEW	I	W AXIS HOME INPUT	81	AN7	I	ANALOG INPUT 7
8	-ABY	I	Y AUXILIARY ENCODER B-	43	RLSW	I	W AXIS FOR LIMIT SWITCH INPUT	82	AN8	I	ANALOG INPUT 8
9	+AAZ	I	Z AUXILIARY ENCODER A+	44	FLSW	I	W AXIS REV LIMIT SWITCH INPUT	83	+MAX	I	X MAIN ENCODER A+
10	-AAZ	I	Z AUXILIARY ENCODER A-	45	HOMEZ	I	Z AXIS HOME INPUT	74	-MAX	I	X MAIN ENCODER A-
11	+ABZ	I	Z AUXILIARY ENCODER B+	46	RLSZ	I	Z AXIS FOR LIMIT SWITCH INPUT	85	+MBX	I	X MAIN ENCODER B+
12	-ABZ	I	Z AUXILIARY ENCODER B-	47	FLSZ	I	Z AXIS REV LIMIT SWITCH INPUT	86	-MBX	I	X MAIN ENCODER B-
13	+AAW	I	W AUXILIARY ENCODER A+	48	HOMEY	I	Y AXIS HOME INPUT	87	+INX	I	X MAIN ENCODER INDEX+
14	-AAW	I	W AUXILIARY ENCODER A-	49	RLSY	I	Y AXIS FOR LIMIT SWITCH INPUT	88	-INX	I	X MAIN ENCODER INDEX-
15	+ABW	I	W AUXILIARY ENCODER B+	50	FLSY	I	Y AXIS REV LIMIT SWITCH INPUT	89	ANALOG GND*	I	ANALOG GROUND
16	-ABW	I	W AUXILIARY ENCODER B-	51	HOMEX	I	X AXIS HOME INPUT	90	+VCC	I	+5 VOLTS
17	GND	I	SIGNAL GROUND	52	RLSX	I	X AXIS FOR LIMIT SWITCH INPUT	91	+MAY	I	Y MAIN ENCODER A+
18	+VCC	I	+5 VOLTS	53	FLSX	I	X AXIS REV LIMIT SWITCH INPUT	92	-MAY	I	Y MAIN ENCODER A-
19	OUTCOM	0	OUTPUT COMMON (USED WITH OPTO ISOLATED OUTPUTS)	54	+VCC	I	+5 VOLTS	93	+MBY	I	Y MAIN ENCODER B+
				55	GND	I	GROUND	94	-MBY	I	Y MAIN ENCODER B-
20	ERROR	0	ERROR SIGNAL	56	INCOM	I	INPUT COMMON (FOR GENERAL INPUTS AND ABORT INPUT)	95	+INY	I	Y MAIN ENCODER INDEX+
21	RESET	I	RESET					96	-INY	I	Y MAIN ENCODER INDEX-
22	CMP	0	CIRCULAR COMPARE OUTPUT	57	XLATCH	I	INPUT 1 (USED FOR X AXIS INPUT LATCH)	97	+MAZ	I	Z MAIN ENCODER A+
23	MOCMDW	0	W AXIS COMMAND TO AMP INPUT					98	-MAZ	I	Z MAIN ENCODER A-
24	SIGNW	0	W AXIS SIGN FOR STEPPER MOTORS	58	YLATCH	I	INPUT 2 (USED FOR Y AXIS INPUT LATCH)	99	+MBZ	I	Z MAIN ENCODER B+
								100	-MBZ	I	Z MAIN ENCODER B-
25	PWMW	0	W AXIS PULSE OUTPUT FOR STEPPER MOTORS	59	ZLATCH	I	INPUT 3 (USED FOR Z AXIS INPUT LATCH)	101	+INZ	I	Z MAIN ENCODER INDEX+
26	MOCMDZ	0	Z AXIS COMMAND TO AMP INPUT					102	-INZ	I	Z MAIN ENCODER INDEX-
27	SIGNZ	0	Z AXIS SIGN FOR STEPPER MOTORS	61	IN5	I	INPUT 5	103	GND	I	SIGNAL GROUND
				62	IN6	I	INPUT 6	104	+VCC	I	+5 VOLTS
28	PWMZ	0	Z AXIS PULSE OUTPUT FOR STEPPER MOTORS	63	IN7	I	INPUT 7	105	+MAW	I	W MAIN ENCODER A+
								106	-MAW	I	W MAIN ENCODER A-
29	MOCMDY	0	Y AXIS COMMAND TO AMP INPUT	64	IN8	I	INPUT 8	107	+MBW	I	W MAIN ENCODER B+
30	SIGNY	0	Y AXIS SIGN FOR STEPPER MOTORS	65	ABORT	I	ABOUT INPUT	108	-MBW	I	W MAIN ENCODER B-
				66	OUT1	0	OUTPUT 1	109	+INW	I	W MAIN ENCODER INDEX+
31	PWMY	0	Y AXIS PULSE OUTPUT FOR STEPPER MOTORS	67	OUT2	0	OUTPUT 2	110	-INW	I	W MAIN ENCODER INDEX-
				68	OUT3	0	OUTPUT 3	111	+12V	I	+12 VOLTS
32	MOCMDX	0	X AXIS COMMAND TO AMP INPUT	69	OUT4	0	OUTPUT 4	112	-12V	I	-12 VOLTS
33	SIGNX	0	X AXIS SIGN FOR STEPPER MOTORS								
				70	OUT5	0	OUTPUT 5				
34	PWMX	0	X AXIS PULSE OUTPUT FOR STEPPER MOTORS	71	OUT6	0	OUTPUT 6				
				72	OUT7	0	OUTPUT 7				
35	ISO*	0	ISOLATED GROUND FOR OPTO-ISOLATION	73	OUT8	0	OUTPUT 8				
				74	GND	I	SIGNAL GROUND				

AUXILIARY ENCODER (J2)

PIN	FUNCTION	ASSIGNMENT
1	SAMPLE CLK	
2	RESERVED	
3	B- W	
4	B+ W	
5	A- W	
6	A+ W	
7	B- Z	
8	B+ Z	
9	A- Z	
10	A+ Z	
11	B- Y	
12	B+ Y	
13	A- Y	
14	A+ Y	
15	B- X	
16	B+ X	
17	A- X	
18	A+ X	
19	+5V	
20	GND	

ALSO SEE EL-3111

UNIVERSITY OF CALIFORNIA  
LICK OBSERVATORY

SIGNAL ASSIGNMENTS  
CRADLE CONTROLLER  
DEIMOS SPECTROGRAPH

REVISION

06-19-97 ADDED ANALOG I/O & REMOVED UNUSED SIGNALS  
03-15-00 ADDED SECOND RENISHAW ENCODER  
01-17-01 REMOVED ROTATION CONTROL SIGNALS (NOW ON LINUX PC)  
06-29-01 CORRECTED INPUT LABELS AT PINS 58, 59, AND 60

DES'N BY: B. Alcott

ORIGIN DATE: 04-05-95

DWG. NO.

NUM. 1 OF 1

DRAWN BY:

MODIFY DATE: 06-29-01

PATH: DEIMOS\SIGNALSD

REV. A

EL-3110