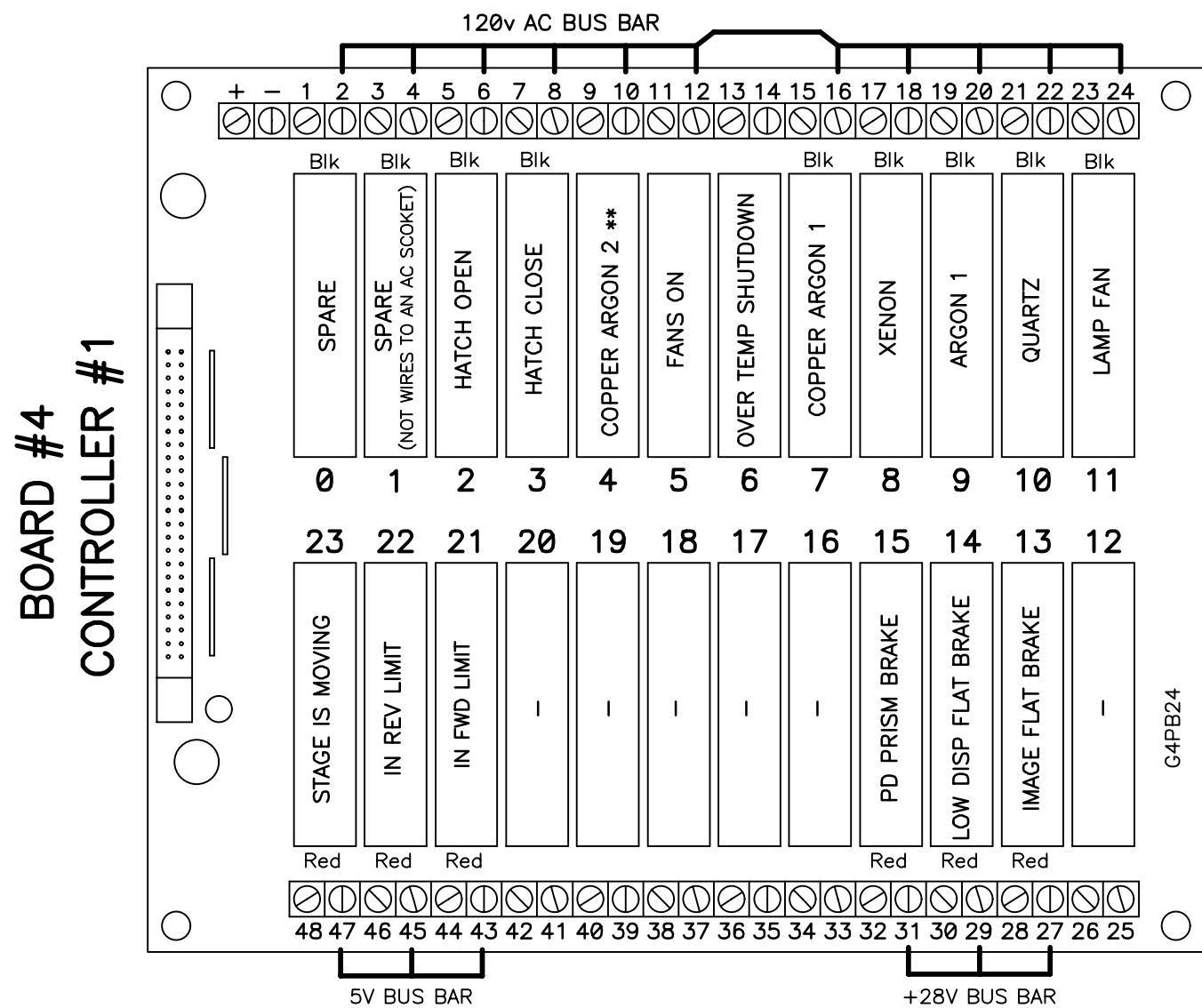


CABLE 4 OUTPUT PORTS

J4

CH	BIT	PIN	FUNCTION	CH	BIT	PIN	FUNCTION	CH	BIT	PIN	FUNCTION
0	25	47	SPARE	8	33	31	XENON	16	41	15	-
1	26	45	SPARE	9	34	29	HgNe + NEON	17	42	13	-
2	27	43	HATCH OPEN	10	35	27	QUARTZ	18	43	11	-
3	28	41	HATCH CLOSE	11	36	25	LAMP FAN	19	44	9	-
4	29	39	COPPER 2 **	12	37	23	-	20	45	7	-
5	30	37	FANS ON	13	38	21	IMAGE FLAT BRAKE	21	46	5	IN FWD LIMIT
6	31	35	OVER TEMP SHUTDOWN	14	39	19	LOW DISP FLAT BRAKE	22	47	3	IN REV LIMIT
7	32	33	COPPER 1	15	40	17	POST DISP PRISM BRAKE	23	48	1	STAGE IS MOVING

NOTE: TO USE THESE OUTPUTS USE THE GALIL COMMAND: CO 7  
 \*\* NOTE: SECOND COPPER LAMP POSITION IS RESERVED - NO WIRING DONE



BIT	PIN	OUTPUT BARRIER STRIP					
		TO	TO	TO			
25	1	AC PLUG 2	J52-13 *	PN4-4	G40AC5	SPARE LAMP	0
	2	110VAC (H)*	TBH-1 *	PN4-4	G40AC5	SPARE LAMP	1
26	3	AC PLUG 4	J52-16 *	PN4-6	G40AC5	HATCH OPEN	2
	4	PN4-2	PN4-6		G40AC5	HATCH CLOSE	3
27	5	PJ20-7	PN4-8		G40AC5**	COPPER LAMP 2**	4
	6	PN4-4	PN4-8		G40AC5	FANS ON	5
28	7	PJ20-10	PN4-10		G40AC5	OVER TEMP	6
	8	PN4-6	PN4-10		G40AC5	COPPER LAMP 1	7
29	9	PN4-8	PN4-12		G40AC5	XENON LAMP	8
	10	FANS	PN4-12		G40AC5	HgNe/Ne LAMP	9
30	11	PN4-10	PN4-16		G40AC5	QUARTZ LAMP	10
	12	J42-2			G40AC5	LAMP FAN	11
31	13	J42-4			-	-	12
	14	J42-4			-	-	13
32	15	AC PLUG 5	J52-1 *	PN4-29	G40DC24	IM FLAT BRAKE	14
	16	PN4-18	PN4-12		G40DC24	LD FLAT BRAKE	15
33	17	AC PLUG 1	J52-4 *	PN4-31	G40DC24	PD PRISM BRAKE	16
	18	PN4-16	PN4-20		-	-	17
34	19	AC PLUG 3	J52-7 *		-	-	18
	20	PN4-18	PN4-22		-	-	19
35	21	AC PLUG 6	J52-10 *		-	-	20
	22	PN4-20	PN4-24		-	-	21
36	23	AC PLUG 7	J52-19 *		-	-	22
	24	PN4-22			-	-	23
37	25	-			-	-	
	26	-			-	-	
38	27	+28V	PN4-29		G40DC5R	IN FWD LIMIT	
	28	J53-1	PN4-31		G40DC5R	IN REV LIMIT	
39	29	PN4-27	PN4-31		G40DC5R	STAGE IS MOVING	
	30	J54-1			-	-	
40	31	PN4-29			-	-	
	32	J51-1			-	-	
41	33	-			-	-	
	34	-			-	-	
42	35	-			-	-	
	36	-			-	-	
43	37	-			-	-	
	38	-			-	-	
44	39	-			-	-	
	40	-			-	-	
45	41	-			-	-	
	42	-			-	-	
46	43	GND	PN4-45		G40DC5R	IN FWD LIMIT	
	44	J19-15	PN4-47		G40DC5R	IN REV LIMIT	
47	45	PN4-43	PN4-47		G40DC5R	STAGE IS MOVING	
	46	J19-16			-	-	
48	47	PN4-45			-	-	
	48	J19-17			-	-	

120VAC LOGIC

28V LOGIC

5V LOGIC

NOTE:

- TB => TERMINAL STRIP
- PN => OPTO-22 RELAY PANEL
- J => CONNECTOR ON PANEL
- \* => USE 18 GAUGE WIRE

BOARD #4 CONTROLLER #1

UNIVERSITY OF CALIFORNIA LICK OBSERVATORY		OUTPUT PORT ASSIGNMENTS 25-48	
		DMC-1500-72 OPTO-22 I/O EXPANSION ESI SPECTROGRAPH	
DES'N BY: B. Alcott	ORIGIN DATE: 3-13-96	DWG. NO.	NUM. OF 1
DRAWN BY:	MODIFY DATE: 10-4-99	EL-3338-2D	
PATH: ES\OUT4	REVA		

REVISION

- 09-12-97 COMBINED DRAWINGS TO PRESENT ALL INFO IN ONE PLACE
- 11-19-97 ADDED HATCH SIGNALS
- 01-15-98 POST DISP PRISM NOW USES A SHAFT BRAKE.
- 01-23-98 to Updated all "PN1" to "PN4". Added J51, J53, J54. Changed "24V" to 28V". Added color labels to relays.
- 03-09-98 to Changed CH 21-CH23 to 5V bus from GND bus. Renamed J42 to J52. Moved function table names for bits 37-39 to 38-40.
- 07-24-98 to ADDED FANS AND OVER TEMP SHUTDOWN
- 12-16-98 to CORRECTED CALIBRATION LAMP CONNECTIONS
- 01-29-99 to 3 MORE CALIBRATION LAMPS PLUS ONE RESERVED LAMP
- 10-4-99 FINALIZED CALIBRATION LAMP WIRING

EL-3338-2D

BOARD #4

CONTROLLER #1

OUTPUT PORT ASSIGNMENTS 25-48