

# 8-CHANNEL CONTROLLER CONTROLLER EXTENDED I/O

Hamilton Spectrograph Extended I/O – INPUTS						
BIT I/O	LABEL	SIGNAL	FUNCTION	EXT I/O	TO CONN	PIN
17	I	I/O17	5TH_MRR_IN	5th MIRROR IS RETRACTED (OUT OF BEAM)(BIMBA SWITCH)	16	J1 A
18	I	I/O18	5TH_MRR_OUT	5th MIRROR IS EXTENDED (IN BEAM) (BIMBA SWITCH)	1	J1 B
19	I	I/O19	5TH_MRR_IN_PLACE	5th MIRROR IN PLACE (IN BEAM) (HALL-EFFECT)	31	J1 C
20	I	I/O20	5TH_COV_OPEN	5th MIRROR COVER IS OPEN (BIMBA SWITCH)	17	J1 D
21	I	I/O21	5TH_COV_CLOSE	5th MIRROR COVER IS CLOSED (BIMBA SWITCH)	2	J1 E
22	I	I/O22	ROTR_IN	IMAGE ROTATOR INSERTED	32	J1 G
23	I	I/O23	ROTR_OUT	IMAGE ROTATOR RETRACTED	18	J1 F
24	I	I/O24	CELL_OUT	IODINE CELL RETRACTED (OUT OF BEAM) (BIMBA SWITCH)	3	J1 H
25	I	I/O25	CELL_IN	IODINE CELL EXTENDED (BIMBA SWITCH) (BIMBA SWITCH)	19	J1 J
26	I	I/O26	CELL_IN_PLACE	IODINE CELL IN PLACE (HALL EFFECT SW) (HALL-EFFECT)	4	J1 K
27	I	I/O27	PRESSURE_OK	AIR PRESSURE OK AT REGULATOR (PRESSURE SWITCH)	34	J1 L
28	i	I/O28	–	–	20	–
29	i	I/O29	–	–	5	–
30	i	I/O30	–	–	35	–
31	i	I/O31	–	–	21	–
32	i	I/O32	–	–	6	–

Hamilton Spectrograph Extended I/O – OUTPUTS						
BIT I/O	LABEL	SIGNAL	FUNCTION	EXT I/O	TO CONN	PIN
33	O	I/O33	5TH_MRR_IN	MOVE 5th MIRROR IN TO BEAM (PULSE)	7	BRD3 3
34	O	I/O34	5TH_MRR_OUT	MOVE 5th MIRROR OUT OF BEAM (PULSE)	37	BRD3 5
35	O	I/O35	5TH_COV_OPEN	OPEN MIRROR COVER (PULSE)	23	BRD2 7
36	O	I/O36	5TH_COV_CLOSE	CLOSE MIRROR COVER (PULSE)	8	BRD2 9
37	O	I/O37	(SPARE)	–	24	–
38	O	I/O38	(SPARE)	–	9	–
39	O	I/O39	CELL_IN	MOVE IODINE CELL INTO BEAM (PULSE)	40	BRD3 7
40	O	I/O40	CELL_OUT	MOVE IODINE CELL OUT OF BEAM (PULSE)	26	BRD3 9
41	O	I/O41	COVER_PWR	APPLIES AC POWER TO COVER RELAY RACK (LEVEL)	11	BRD1 7
42	O	I/O42	CELL_PWR	APPLIES AC POWER TO CELL RELAY RACK (LEVEL)	41	BRD1 9
43	O	I/O43	–	–	27	–
44	O	I/O44	–	–	12	–
45	O	I/O45	–	–	42	–
46	O	I/O46	–	–	28	–
47	O	I/O47	–	–	13	–
48	O	I/O48	–	–	29	–

**REVISIONS** [http://loel.ucolick.org/manual/Hamilton\\_II/schematics/HAM\\_II\\_in\\_out\\_sh\\_2.pdf](http://loel.ucolick.org/manual/Hamilton_II/schematics/HAM_II_in_out_sh_2.pdf)

10-16-09 ADDED INFO TO OUTPUT  
 10-20-09 RENAMED SIGNALS FOR CLARITY  
 08-06-12 ASSIGNED INPUT BITS 22 AND 23 TO IMAGE ROTATOR IN AND OUT RESPECTIVELY

<b>UNIVERSITY OF CALIFORNIA LICK OBSERVATORY</b>		<b>EXTENDED I/O SIGNAL ASSIGNMENTS HAMILTON SPECTROGRAPH II</b>	
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