

8-CHANNEL CONTROLLER MAIN CONTROLLER I/O

Hamilton Spectrograph Onboard I/O							
BIT	I/O	LABEL	SIGNAL	FUNCTION	I/O A-D	CONN	PIN
1	I	LATCH X/INPUT 1	ERROR_A	GUIDE CAMERA FOCUS ST5-S DRIVER ERROR	2	J11	N
2	I	LATCH Y/INPUT 2	ERROR_B	DEWAR HEIGHT ST5-S DRIVER ERROR	32	J12	N
3	I	LATCH Z/INPUT 3	ERROR_C	GUIDE CAMERA FILTER ST5-S DRIVER ERROR	18	J13	N
4	I	LATCH W/INPUT 4	ERROR_D	SLIT STAGE ST5-S DRIVER ERROR	3	J14	N
5	I	INPUT 5	-	(SPARE INPUT 1)	33	J3	A
6	I	INPUT 6	-	-	19	-	-
7	I	INPUT 7	-	(SPARE INPUT 2)	4	J3	C
8	I	INPUT 8	-	(SPARE INPUT 3)	34	J3	D
					I/O E-H		
9	I	INPUT 9	ERROR_E	DECKER STAGE ST5-S DRIVER ERROR	2	J15	N
10	I	INPUT 10	ERROR_F	SCIENCE FILTER WHEEL ST5-S DRIVER ERROR	32	J16	N
11	I	INPUT 11	ERROR_G	CALIBRATION LAMP STAGE ST5-S DRIVER ERROR	18	J17	N
12	I	INPUT 12	ERROR_H	(UNASSIGNED STAGE ST5-S DRIVER ERROR)	3	J18	N
13	I	INPUT 13	Th_MIR_IN	ThAr LAMP MIRROR IN BEAM - ACTIVE HIGH	33	J3	F
14	I	INPUT 14	Th_MIR_OUT	ThAr LAMP MIRROR OUT OF BEAM - ACTIVE HIGH	19	J3	G
15	I	INPUT 15	QTZ_OUT	POLAR QUARTZ LAMP OUT OF BEAM - ACTIVE HIGH	34	J3	J
16	I	INPUT 16	QTZ_IN	POLAR QUARTZ LAMP IN BEAM - ACTIVE HIGH	4	J3	I

Hamilton Spectrograph Onboard I/O							
BIT	I/O	LABEL	SIGNAL	FUNCTION	I/O A-D	CONN	PIN
1	O	OUTPUT 1	24DISABLE_A	GUIDE CAMERA FOCUS +24V DISABLE	41	J2	C
2	O	OUTPUT 2	24DISABLE_B	DEWAR HEIGHT +24V DISABLE	27	J2	A
3	O	OUTPUT 3	24DISABLE_C	GUIDE CAMERA FILTER +24V DISABLE	12	J2	D
4	O	OUTPUT 4	24DISABLE_D	SLIT STAGE +24V DISABLE	42	J2	C
5	O	OUTPUT 5	24DISABLE_E	DECKER STAGE +24V DISABLE	28	J2	G
6	O	OUTPUT 6	24DISABLE_F	SCIENCE FILTER WHEEL +24V DISABLE	13	J2	F
7	O	OUTPUT 7	24DISABLE_G	CALIBRATION LAMP +24V DISABLE	43	J2	I
8	O	OUTPUT 8	24DISABLE_H	(UNASSIGNED)	29	J2	H
					I/O E-H		
9	O	OUTPUT 9	AC1	TURNS ON AC SOCKET 1 - POLAR QUARTZ LAMP	41	AC_J1	1
10	O	OUTPUT 10	AC2	TURNS ON AC SOCKET 2 - ThAr LAMP	27	AC_J1	2
11	O	OUTPUT 11	AC3	TURNS ON AC SOCKET 2 - ThAr MIRROR	12	AC_J1	3
12	O	OUTPUT 12	AC4	TURNS ON AC SOCKET 4 - IODINE TEMP. CTRL	42	AC_J1	4
13	O	OUTPUT 13	-	-	28	-	-
14	O	OUTPUT 14	-	-	13	-	-
15	O	OUTPUT 15	-	-	43	-	-
16	O	OUTPUT 16	-	-	29	-	-

REVISIONS http://loel.ucolick.org/manual/Hamilton_II/schematics/HAM_II_in_out_sh_1.pdf

- 10-20-09 RENAMED SIGNALS FOR CLARITY
- 10-29-09 ADDED SHEETS 4 AND 5 FOR 4-CHANNEL CONTROLLER
- 02-04-10 ADDED +24V DISABLE SIGNAL. THESE ALLOW THE GALIL TO RESET EACH OF THE APPLIED MOTION DRIVERS INDIVIDUALLY.
- 06-08-10 ADDED ThAr MIRROR AND IODINE TEMP. CONTROLLER SIGNALS TO OUTPUT BITS 11 AND 12
- 09-23-10 ADDED POLAR QUARTZ AND ThAr MIRROR INPUT SIGNALS - ALL ARE ACTIVE HIGH
- 11-01-10 SWAPPED GRATING TILT & DEWAR FOCUS WITH GUIDE CAMERA FOCUS AND FILTER STAGES TO ALLOW USE OF CN1,-1 ON HARDY AND CN1,1 ON LAUREL.
- 11-03-10 SWAPPED POLAR QUARTZ STAGE SENSE BITS (IN15 & IN16)

UNIVERSITY OF CALIFORNIA LICK OBSERVATORY		INPUT/OUTPUT SIGNAL ASSIGNMENTS HAMILTON SPECTROGRAPH II	
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