

OUTPUTS

Automatic Planet Finder Spectrograph Extended I/O						
TERM	LABEL	SIGNAL NAME	BANK	FUNCTION	CONN	PIN
53	OUTC41-48	OUT COMMON FOR I/O 41-48	BANK 3	-	-	-
54	I/OC41-48	I/O COMMON FOR I/O 41-48	BANK 3	-	TERM 44	-
55	I/O40	-	BANK 2	-	-	-
56	I/O39	-	BANK 2	-	-	-
57	I/O38	-	BANK 2	-	-	-
58	I/O37	-	BANK 2	-	-	-
59	I/O36	DATA_CONV_ON grp1	BANK 2	G. CAMERA DATA CONV. POWER	J11	1
60	I/O35	IODINE_CELL_ON grp2	BANK 2	IODINE CELL POWER	J11	11
61	I/O34	G_CAMERA_ON grp1	BANK 2	GUIDE CAMERA POWER	J11	2
62	I/O33	FOUSB_ON grp2	BANK 2	FOUSB CONVERTER POWER	J11	12
63	OUTC33-40	OUT COMMON FOR I/O 33-40	BANK 2	GND (ISO5V)	TERM 73	-
64	I/OC33-40	I/O COMMON FOR I/O 33-40	BANK 2	ISO5V	TERM 74	-
65	I/O32	I/O BIT 32 ***	BANK 1	RESERVED FOR SPG	-	-
66	I/O31	I/O BIT 31 ***	BANK 1	RESERVED FOR SPG	-	-
67	I/O30	I/O BIT 30 ***	BANK 1	RESERVED FOR SPG	-	-
68	I/O29	I/O BIT 29 ***	BANK 1	DEAD MAN ACTIVATED	-	-
69	I/O28	SET_AC3_ON grp1	BANK 1	AC HEATER IN SPECTROMETER	J11	3
70	I/O27	UCAM_ON grp1	BANK 1	UCAM CONTROLLER POWER SUPPLY	J11	13
71	I/O26	IR_CAMS_ON grp2	BANK 1	IR SECURITY CAMERA POWER	J11	4
72	I/O25	DVR_ON grp2	BANK 1	IR SECURITY DVR POWER	-	-
73*	OUTC25-32	OUT COMMON FOR I/O 25-32	BANK 1	GND (ISO5V)	TERM 93	-
74*	I/OC25-32	I/O COMMON FOR I/O 25-32	BANK 1	ISO5V	TERM 94	-
75	OUTC25-32	OUT COMMON FOR I/O 25-32	BANK 1	-	-	-
76	I/OC25-32	I/O COMMON FOR I/O 25-32	BANK 1	-	-	-
77	-	-	-	-	-	-
78	-	-	-	-	-	-

Automatic Planet Finder Spectrograph Extended I/O						
TERM	LABEL	DESCRIPTION	BANK	FUNCTION	CONN	PIN
79	-	-	-	-	-	-
80	-	-	-	-	-	-
81	-	-	-	-	-	-
82	-	-	-	-	-	-
83	-	-	-	-	-	-
84	-	-	-	-	-	-
85	I/O24	-	BANK 0	-	grp1 J10	8
86	I/O23	-	BANK 0	-	grp2 J10	7
87	I/O22	RESERVED FOR HALOGEN	BANK 0	-	grp1 J10	6
88	I/O21	RESERVED FOR HALOGEN	BANK 0	-	grp2 J10	5
89	I/O20	HALOGEN2_ON	BANK 0	BACKUP HALOGEN LAMP	grp2 J10	4
90	I/O19	HALOGEN1_ON	BANK 0	MAIN HALOGEN LAMP	grp1 J10	3
91	I/O18	THORIUM2_ON	BANK 0	THORIUM LAMP #2	grp2 J10	2
92	I/O17	THORIUM1_ON	BANK 0	THORIUM LAMP #1	grp1 J10	1
93	OUTC17-24	OUT COMMON FOR I/O 17-24	BANK 0	GND (ISO5V)	TERM 73	-
94	I/OC17-24	I/O COMMON FOR I/O 17-24	BANK 0	ISO5V	TERM 74	-
95*	OUTC17-24	OUT COMMON FOR I/O 17-24	BANK 0	-	-	-
96*	I/OC17-24	I/O COMMON FOR I/O 17-24	BANK 0	-	-	-
97	-	-	-	-	-	-
98	-	-	-	-	-	-
99	-	-	-	-	-	-
100	-	-	-	-	-	-
101	-	-	-	-	-	-
102	-	-	-	-	-	-
103	-	-	-	-	-	-
104	-	-	-	-	-	-

*** RESERVED FOR SPG

***Also update web: [APF/electronics/EL3510.html](http://loel.ucolick.org/manual/Apf/schematics/APF_in_out_sh_3.pdf), [EL3501.html](http://loel.ucolick.org/manual/Apf/schematics/APF_in_out_sh_3.pdf)

REVISIONS	http://loel.ucolick.org/manual/Apf/schematics/APF_in_out_sh_3.pdf
04-01-10 ADDED GUIDE CAMERA OUTLETS # 1 & 2 TO I/O BITS 36 & 34	02-06-13 MOVED FOUSB CONVERTER POWER TO I/O BIT 33
04-29-10 ADDED ACTIVE LOW STATES TO THORIUM & HALOEN LAMPS	
05-06-10 RENAMED VARIOUS SIGNALS FOR UNIFORMITY ON ALL SCHEMATICS	
02-22-11 REASSIGNED QUARTZ LAMP OUTPUT BITS. IN NEW VERSION THERE IS ONLY ONE LAMP + SPARE	
06-02-11 ADDED IODINE CELL, SECURITY CAM< AND DVR POWER	
09-14-11 ADDED AC HEATER TO INSIDE OF SPECTROMETER (TERM 69)	
10-25-11 ADDED "grp" GROUP DESIGNATIONS TO SWITCHED AC CONTROL OUTPUTS TO DELINEATE FUSED GROUPS OF AC CONTROLLER. REMOVE POWER OUTPUT LABELS	
11-14-12 ADDED FOUSB CONVERTER POWER TO I/O BIT 23	

UNIVERSITY OF CALIFORNIA LICK OBSERVATORY		DIGITAL OUTPUTS SIGNAL ASSIGNMENTS APF SPECTROMETER	
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