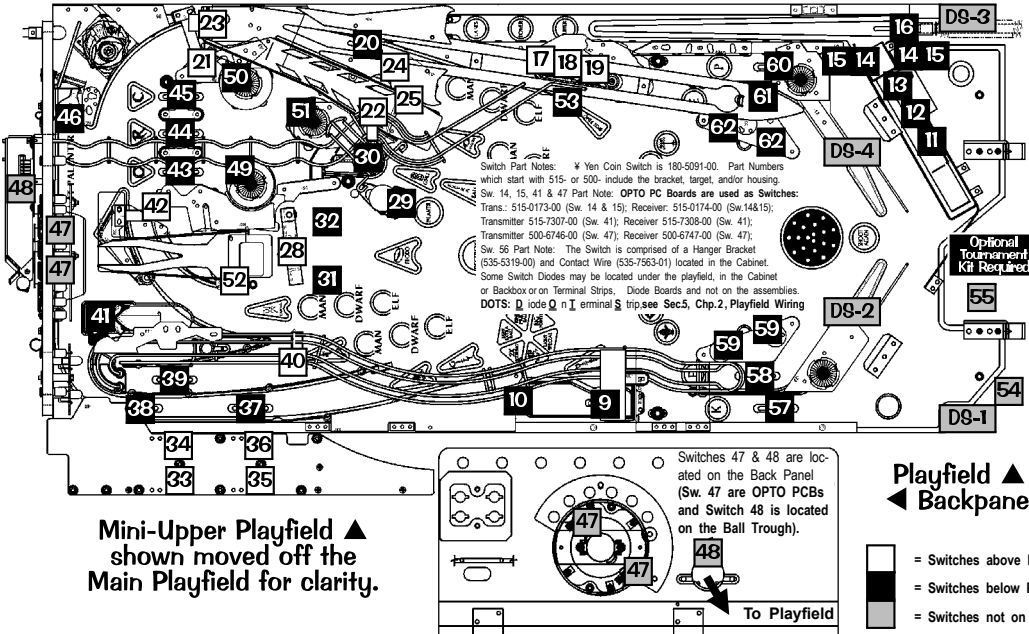




SWITCH MATRIX GRID, DEDICATED SWITCHES & LOCATIONS

Column (Drive)	1: Q1	2: Q2	3: Q3	4: Q4	5: Q5	6: Q6	7: Q7	8: Q8	GROUND	GROUND
Row (Return)	GRN-BRN CN5-P1	GRN-RED CN5-P3	GRN-ORG CN5-P4	GRN-YEL CN5-P5	GRN-BLK CN5-P6	GRN-BLU CN5-P7	GRN-VIO CN5-P8	GRN-GRY CN5-P9	10: U206 INPUTS	BLK CN6-P1, -P11
1: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
2: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
3: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
4: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
5: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
6: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
7: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
8: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
9: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side
10: U400	1 Cabinet Side	2 Cabinet Side	3 Cabinet Side	4 Cabinet Side	5 Cabinet Side	6 Cabinet Side	7 Cabinet Side	8 Cabinet Side	9 Cabinet Side	10 Cabinet Side



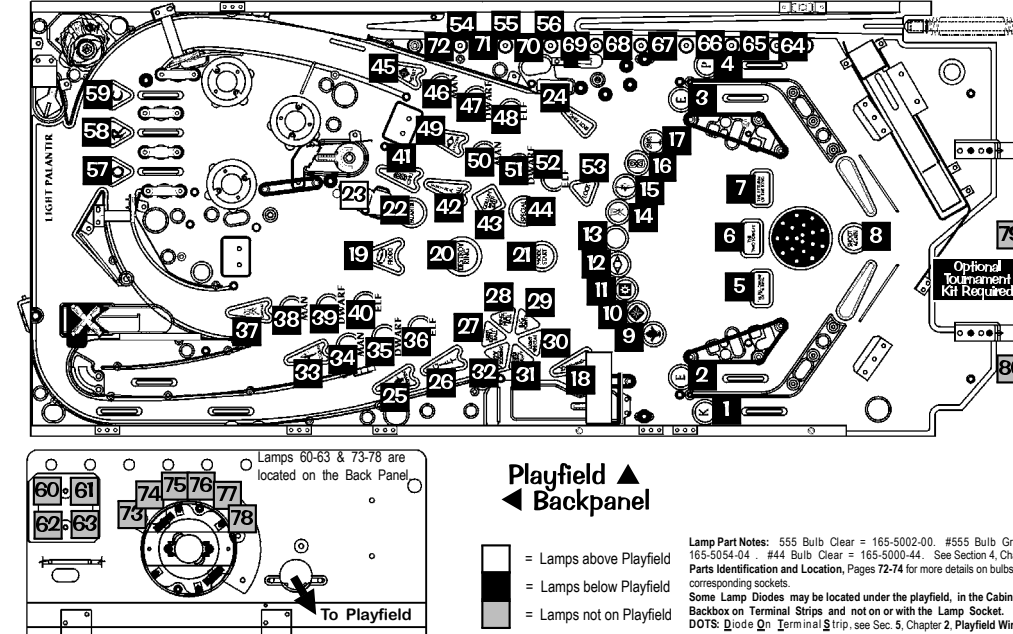
COILS DETAILED CHART TABLE

High Current Coils Group 1	Drive Transistor	Driver Output Board	Power Line Color	Power Line Connection	Power Voltage	Drive Transistor Control Line Color	D.T. Control Line Connect	Coil GA-Turn or Bulb Type
#1 TROUGH UP-KICKER	Q1		BRN-BLU	J10-P4/5	50v DC	BRN-BLK	J8-P1	26-1200 U 090-5044-00T
#2 AUTO LAUNCH	Q2		BRN-BLU	J10-P4/5	50v DC	RED-BRN	J8-P3	24-940 U 090-5036-00T
#3 LEFT VUK	Q3		BRN-BLU	J10-P4/5	50v DC	BRN-ORG	J8-P4	26-1200 U 090-5044-00B
#4 TOP VUK	Q4		BRN-BLU	J10-P4/5	50v DC	BRN-YEL	J8-P5	26-1200 U 090-5044-00B
#5 RIGHT VUK	Q5		BRN-BLU	J10-P4/5	50v DC	GRY-BLK	J8-P6	26-1200 U 090-5044-00B
#6 RING MAGNET	Q6		VIO-YEL	J10-P3	50v DC	BRN-BLU	J8-P7	20-480 U 090-5044-02
#7 RIGHT TOWER	Q7		BRN-BLU	J10-P4/5	50v DC	BRN-VIO	J8-P8	23-800 U 090-5044-00L
#8 LOOP DIVERTER	Q8		GRY-YEL-3A Fuse-BRN-BLU	J10-P1/2	50v DC	BRN-GRY	J8-P9	22-1080 U 090-5032-00T
Diode On Terminal Strip (DOTS) if noted								
High Current Coils Group 2	Drive Transistor	Driver Output Board	Power Line Color	Power Line Connection	Power Voltage	Drive Transistor Control Line Color	D.T. Control Line Connect	Coil GA-Turn or Bulb Type
#9 LEFT BUMPER	Q9		BRN-BLU	J10-P4/5	50v DC	GRY-YEL	J9-P1	26-1200 U 090-5044-00T
#10 RIGHT BUMPER	Q10		BRN-BLU	J10-P4/5	50v DC	BLU-RED	J9-P2	26-1200 U 090-5044-00T
#11 BOTTOM BUMPER	Q11		BRN-BLU	J10-P4/5	50v DC	BLU-ORG	J9-P4	26-1200 U 090-5044-00T
#12 OPTIONAL SHAKER MOTOR	Q12					BLU-YEL	J9-P5	
#13 ORBIT PIN	Q13		YEL-BLU	J7-P1	20v DC	BLU-GRN	J9-P6	26-1200 U 090-5044-00B
#14 NOT USED NC J9-P7	Q14					BLU-BLK	J9-P7	
#15 LEFT FLIPPER (50v YEL/BLK)	Q15		GRY-YEL-3A Fuse-YEL-BLK	J10-P1/2	50v DC	ORG-GRY	J9-P8	22-900 U 090-5020-20T
#16 RIGHT FLIPPER (50v YEL/BLK)	Q16		BLU-YEL-3A Fuse-YEL-BLK	J10-P1/2	50v DC	BRN-ORG	J9-P9	22-900 U 090-5020-20T
Low Current Coils Group 1	Drive Transistor	Driver Output Board	Power Line Color	Power Line Connection	Power Voltage	Drive Transistor Control Line Color	D.T. Control Line Connect	Coil GA-Turn or Bulb Type
#17 LEFT SLINGSHOT	Q17		YEL-BLU	J7-P1	20v DC	VIO-BRN	J7-P2	23-800 U 090-5020-10T
#18 RIGHT SLINGSHOT	Q18		YEL-BLU	J7-P1	20v DC	VIO-RED	J7-P3	23-800 U 090-5020-10T
#19 TOP SAUCER	Q19		YEL-BLU	J7-P1	20v DC	VIO-ORG	J7-P4	26-1200 U 090-5044-00B
#20 BALROG MOTOR RELAY	Q20		YEL-BLU	J7-P1	20v DC	VIO-YEL	J7-P6	DC Relay 520-5066-00
#21 SWORD LOCK RELEASE	Q21		YEL-BLU	J7-P1	20v DC	VIO-GRN	J7-P7	27-1500 U 090-5004-00T
#22 BALROG MOTOR	Q22		YEL-BLU	J7-P1	20v DC	VIO-BLU	J7-P8	Motor 041-5028-01
#23 FLASH: HELMS DEEP LT	Q23		YEL-ORG	J6-P10	20v DC	VIO-BLK	J7-P9	#906 Bulb 165-5004-00
#24 OPTIONAL COIL (KNOCKER)	Q24		RED	J16-P7	5v DC	VIO-GRY	J7-P10	Opt. 5v
Low Current Coils Group 2	Drive Transistor	Driver Output Board	Power Line Color	Power Line Connection	Power Voltage	Drive Transistor Control Line Color	D.T. Control Line Connect	Coil GA-Turn or Bulb Type
#25 FLASH: POPS X3	Q25		YEL-ORG	J6-P10	20v DC	BLK-BRN	J6-P1	#906 Bulb 165-5004-00
#26 FLASH: RING	Q26		YEL-ORG	J6-P10	20v DC	BLK-RED	J6-P2	#906 Bulb 165-5004-00
#27 FLASH: BACK PANEL	Q27		YEL-ORG	J6-P10	20v DC	BLK-ORG	J6-P3	#906 Bulb 165-5004-00
#28 FLASH: HELMS DEEP RT	Q28		YEL-ORG	J6-P10	20v DC	BLU-BLK	J6-P4	#906 Bulb 165-5004-00
#29 FLASH: RINGWRAITH	Q29		YEL-ORG	J6-P10	20v DC	BLK-GRN	J6-P5	#906 Red 165-5004-02
#30 FLASH: SWORD	Q30		YEL-ORG	J6-P10	20v DC	BLK-BLU	J6-P6	#906 Bulb 165-5004-00
#31 FLASH: DESTROY THE RING	Q31		YEL-ORG	J6-P10	20v DC	BLK-VIO	J6-P7	#89 Bulb 165-5000-89
#32 FLASH: BALROG	Q32		YEL-ORG	J6-P10	20v DC	BLK-GRY	J6-P8	#89 Bulb 165-5000-89
Note: In Test Flash Lamps Menu ("Flash" Icon), Flashers tested are all Flash Lamps located between Q1-Q32 (This Game: Q14, Q23 & Q25-Q27, Q29-Q32)								
Auxiliary (UK ONLY)	Drive Transistor	Driver Output Board	Power Line Color	Power Line Connection	Power Voltage	Drive Transistor Control Line Color	D.T. Control Line Connect	Coil GA-Turn
AUX 1: LEFT UP/DOWN POST	Q1	UK 3X Trans. Driver Board	BRN	J7-P1	20v DC	WHT	J2-P3	26-1200 U 090-5044-00T
AUX 2: CENTER UP/DOWN POST	Q2		BRN	J7-P1	20v DC	RED	J2-P4	23-1100 U 090-5030-00T
AUX 3: RIGHT UP/DOWN POST	Q3		BRN	J7-P1	20v DC	ORG	J2-P7	26-1200 U 090-5044-00T



LAMP MATRIX GRID & LOCATIONS

Column (Row)	1: U17	2: U16	3: U15	4: U14	5: U13	6: U12	7: U11	8: U10
Row (Ground)	YEL-BRN J13-P3	BLK-YEL J13-P8	GRN-ORG J13-P7	YEL-BLK J13-P6	GRY-BLK J13-P5	GRY-RED J13-P4	BLU-WHT J13-P3	YEL-GRY J13-P1
1: Q33	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
2: Q34	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
3: Q35	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
4: Q36	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
5: Q37	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
6: Q38	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
7: Q39	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
8: Q40	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
9: Q41	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb
10: Q42	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb	#555 Bulb



Switch Matrix, Coils Detailed Chart Table, Lamp Matrix, Playfield Maps, Switch, Coil & Lamp Wiring & Schematics, and Bulb Types

SPI Nr. 755-5310-80

