

Schematics, Wiring & Printed Circuit Boards

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Use the below **Coils Detailed Chart Table** in conjunction with **Sec. 5, Chp. 1, Backbox I/O Power Driver Board Detailed Wiring Diagram (I/O Board Connectors J6, J7, J8 & J9) and Backbox Board Layout Wiring Diagram:**

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	▲ I/O Power Driver ▼	YEL-VIO	J10-P9/10	50v DC	BRN-BLK	J8-P1	26-1200 ∪ 090-5044-00-ND
#2	AUTO LAUNCH	Q2		YEL-VIO	J10-P9/10	50v DC	BRN-RED	J8-P3	23-800 ∪ 090-5001-00-ND
#3	TOP CENTER VUK	Q3		YEL-VIO	J10-P9/10	50v DC	BRN-ORG	J8-P4	26-1200 ∪ 090-5044-00-ND
#4	CHEST LID	Q4		YEL-VIO	J10-P9/10	50v DC	BRN-YEL	J8-P5	27-1400 ∪ 511-5031-00
#5	RAISE SAILS	Q5		YEL-VIO	J10-P9/10	50v DC	BRN-GRN	J8-P6	26-1200 ∪ 500-7051-00
#6	PLUNDER DISK MOTOR	Q6		BROWN	J10-P9/10	20v DC	BRN-BLU	J8-P7	Motor 12V 511-5024-04
#7	NOT USED	Q7			J10-P9/10		BRN-VIO	J8-P8	
#8	NOT USED	Q8			J10-P9/10		BRN-GRY	J8-P9	

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	▲ I/O Power Driver ▼	YEL-VIO	J10-P9/10	50v DC	BLU-BRN	J9-P1	26-1200 ∪ 090-5044-00-ND
#10	RIGHT BUMPER	Q10		YEL-VIO	J10-P9/10	50v DC	BLU-RED	J9-P2	26-1200 ∪ 090-5044-00-ND
#11	BOTTOM BUMPER	Q11		YEL-VIO	J10-P9/10	50v DC	BLU-ORG	J9-P4	26-1200 ∪ 090-5044-00-ND
#12	NOT USED	Q12			J10-P9/10		BLU-YEL	J9-P5	
#13	NOT USED	Q13			J10-P9/10		BLU-GRN	J9-P6	
#14	NOT USED	Q14			J10-P6/7		BLU-BLK	J9-P7	
#15	LEFT FLIPPER (50v RED/YEL)	Q15		GRY-YEL-3A Fuse-RED-YEL	J10-P6/7	50v DC	ORG-GRY	J9-P8	23-1100 ∪ 090-5030-00-ND
#16	RIGHT FLIPPER (50v RED/YEL)	Q16		BLU-YEL-3A Fuse-RED-YEL	J10-P6/7	50v DC	ORG-VIO	J9-P9	23-1100 ∪ 090-5030-00-ND

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	NOT USED	Q17	▲ I/O Power Driver ▼		J7-P1		VIO-BRN	J7-P2	
#18	POP BUMPER EJECT	Q18		BROWN	J7-P1	20v DC	VIO-RED	J7-P3	26-1200 ∪ 090-5044-00-ND
#19	CHEST KICKER	Q19		BROWN	J7-P1	20v DC	VIO-ORG	J7-P4	26-1200 ∪ 090-5044-00-ND
#20	FLASH: CHEST	Q20		ORANGE	J7-P1	20v DC	VIO-WHT	J7-P6	#89 Bulb 165-5000-89
#21	SHIP MOTOR	Q21		BROWN	J7-P1	20v DC	VIO-GRN	J7-P7	Motor 24V 041-5101-00
#22	FLASH: REAR CENTER (X2)	Q22		ORANGE	J7-P1	20v DC	VIO-BLU	J7-P8	#89 Bulb 165-5000-89
#23	PLUNDER PIN	Q23		BROWN	J7-P1	20v DC	VIO-BLK	J7-P9	22-900 ∪ 090-5020-20-ND
#24	OPTIONAL COIL	Q24		RED	J16-P4>8	5v DC	VIO-GRY	J7-P10	Opt. 5v

Diode On Terminal Strip (if noted)

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	LEFT SLINGSHOT	Q25	▲ I/O Power Driver ▼	BROWN	J6-P10	20v DC	BLK-BRN	J6-P1	23-800 ∪ 090-5001-00-ND
#26	RIGHT SLINGSHOT	Q26		BROWN	J6-P10	20v DC	BLK-RED	J6-P2	23-800 ∪ 090-5001-00-ND
#27	SHIP MOTOR RELAY	Q27		BROWN	J6-P10	20v DC	BLK-ORG	J6-P3	Relay PCB 511-5024-03
#28	LOWER SAILS LATCH	Q28		BROWN	J6-P10	20v DC	BLK-YEL	J6-P4	29-1400 ∪ 500-7052-00
#29	SHIP PIN [UP POST]	Q29		BROWN	J6-P10	20v DC	BLK-GRN	J6-P5	26-1200 ∪ 090-5044-00-ND
#30	FLASH: BACK RIGHT [X3]	Q30		ORANGE	J6-P10	20v DC	BLK-BLU	J6-P6	#89 Bulb 165-5000-89
#31	FLASH: BACK LEFT	Q31		ORANGE	J6-P10	20v DC	BLK-VIO	J6-P7	#89 Bulb 165-5000-89
#32	FLASH: SHIP	Q32		ORANGE	J6-P10	20v DC	BLK-GRY	J6-P8	#89 Bulb 165-5000-89

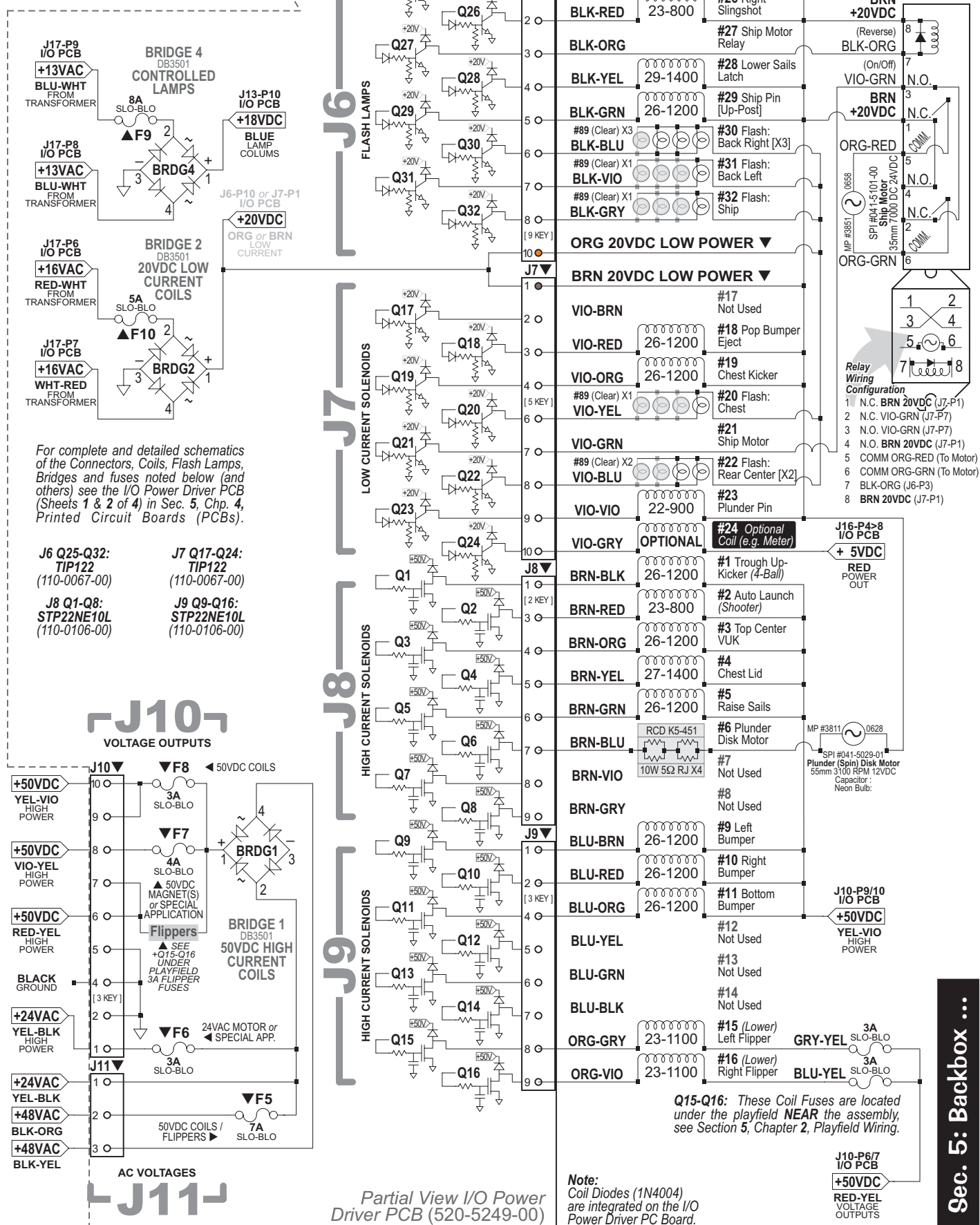
Note: In Test Flash Lamps Menu ("Flash" Icon), Flashers tested are all Flash Lamps located between Q1-Q32 (This Game: Q20, Q22, Q30, Q31 & Q32)

∪ Coil Note: ∪ -ND means 'No Diode'. -00B or -00T can be used for coil replacements, but the diode must be removed. Call for more info.

Sec. 5: Schematics...



Backbox I/O Power Driver Board (Coils Q1-Q32) Detailed Wiring Diagram



For complete and detailed schematics of the Connectors, Coils, Flash Lamps, Bridges and fuses noted below (and others) see the I/O Power Driver PCB (Sheets 1 & 2 of 4) in Sec. 5, Chp. 4, Printed Circuit Boards (PCBs).

- J6 Q25-Q32:**
TIP122
(110-0067-00)
- J7 Q17-Q24:**
TIP122
(110-0067-00)
- J8 Q1-Q8:**
STP22NE10L
(110-0106-00)
- J9 Q9-Q16:**
STP22NE10L
(110-0106-00)

Q15-Q16: These Coil Fuses are located under the playfield NEAR the assembly, see Section 5, Chapter 2, Playfield Wiring.

Sec. 5: Backbox ...



