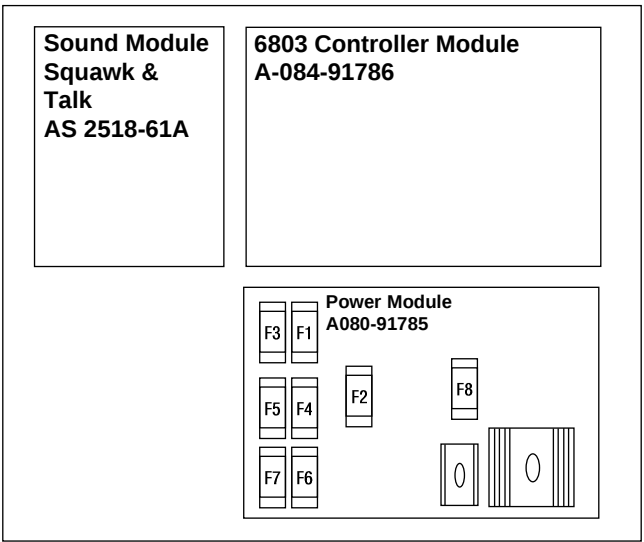


Bally/MIDWAY BEAT THE CLOCK

Fuse List

Power Module A080-91785		
F1	43V Solenoids (3 flippers)	6A, 250V
F2	230V Display Power input	0.75A, 250V
F3	5V & 12V Logic Power Input	6A, 250V
F4	20V Controlled lamps	8A, 250V
F5	20V Controlled lamps	8A, 250V
F6	6.3V General Illumination	15A, 250V
F7	6.3V General Illumination	15A, 250V
F8	190V Display Power output	0.25A, 250V
Under the Playfield fuses		
F1	Playfield Solenoids	1A, 250V, SB
Transformer Module		
F1	Main fuse	3A, 250V, SB



Coil Table

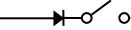
Sol. No.	Solenoid description	Solenoid Type	Wire Code	Wire Color	Connections	Driver Transistor	Solenoid Coil Type
1	Left Saucer	Momentary	29	Blu-Gry	J9-1	Q18	AO-27-1300
2	Middle (or Right) Saucer	Momentary	87	Blk-Orn	J9-2	Q19	AO-27-1300
3	Left Thumper Bumper	Momentary	75	Orn-Wht	J6-3	Q13	AN-26-1200
4	Right Thumper Bumper	Momentary	74	Orn-Grn	J6-1, J8-5	Q11	AN-26-1200
5	Middle Thumper Bumper	Momentary	87	Blk-Orn	J6-2, J8-4	Q12	AN-26-1200
6	Single Drop Target Reset	Momentary	75	Orn-Wht	J9-3	Q20	AO-27-1200
7	1-6 Drop Target Reset	Momentary	74	Orn-Grn	J9-4	Q21	N-26-1900
8	Left Slingshot	Momentary	81	Blk-Red	J8-7, J7-1	Q16	AN-26-1200
9	Right Slingshot	Momentary	96	Gry-Brn	J6-4	Q14	AN-26-1200
10	Outhole	Momentary	26	Blu-Brn	J9-8	Q39	AN-26-1200
11	Knocker	Momentary	45	Grn-Wht	J7-2, J8-2, J9-11	Q40	AR-26-1200
12	Flipper enabling relay	Continuous	--	--	--	Q7	48V Relay
13	Bright Lite 1	Momentary	82	Blk-Blu	J8-6	Q15	Lamp #912 (3 in series)
14	Bright Lite 2	Momentary	32	Yel-Red	J6-5	Q17	Lamp #912 (3 in series)
15	Not Used	Continuous			J7-3, J8-1, J9-10	Q8	--
16	Not Used	Momentary			J6-7, J7-4	Q10	--
17	Not Used	Momentary			J9-6	Q22	--
18	Not Used	Momentary			J9-7	Q38	--
19	Not Used	Continuous			J9-9	Q9	--
Flipper Circuits		Power Wire	Return Wire		Connector		Coil
	Left Flipper	Brn (60)	90	Gry	J6-9		AQ-25-500/34-4500
	Right Flipper	Brn (60)	98	Gry-Blk	J6-8		AQ-25-500/34-4500
	Upper Right Flipper	Brn (60)	95	Gry-Wht	(to lower right flipper)		AQ-25-500/34-4500

Controlled Lamps Chart

SCR	connector	lamp description	code	wire color	phase	tr type	SCR	connector	lamp description	code	wire color	phase	tr type
Q52	J13-13	2X	27	Blu-Wht	B	MCR-106	Q43	J10-11	Saucer 30K	43	Grn-Yel	B	2N5060
Q67	J13-5	3X	30	Yel	B	MCR-106	Q58	J10-19	Saucer 40K	10	Red	B	2N5060
Q36	J13-3	5X	95	Gry-Wht	B	MCR-106	Q27	J10-5	Saucer 50K	60	Brn	B	2N5060
Q33	J11-15/J12-11	Add 06/SEC	98	Gry-Blk	B	2N5060	Q44	J10-12	Saucer 100K	34	Yel-Grn	B	2N5060
Q57	J10-18	Bonus 05K	58	Wht-Blk	A	2N5060	Q28	J10-6	Saucer 10/SEC	21	Blu-Red	B	2N5060
Q26	J10-4	Bonus 10K	41	Grn-Red	A	2N5060	Q59	J10-14	Saucer Special	36	Yel-Brn	B	2N5060
Q43	J10-11	Bonus 15K	43	Grn-Yel	A	2N5060	Q23	J10-1	STOP "S"	91	Gry-Red	B	2N5060
Q58	J10-19	Bonus 20K	10	Red	A	2N5060	Q70	J10-7	STOP "T"	56	Wht-Brn	B	2N5060
Q27	J10-5	Bonus 25K	60	Brn	A	2N5060	Q55	J10-16	STOP "O"	71	Orn-Red	B	2N5060
Q44	J10-12	Bonus 30K	34	Yel-Grn	A	2N5060	Q24	J10-2	STOP "P"	45	Grn-Wht	B	2N5060
Q59	J10-14	Bonus 35K	36	Yel-Brn	A	2N5060	Q42	J10-9	Tilt	35	Yel-Wht	A	2N5060
Q28	J10-6	Bonus 40K	21	Blu-Red	A	2N5060	Q61	J11-6/J12-10	Time #1	12	Red-Blu	B	2N5060
Q45	J10-10	Bonus 45K	57	Wht-Blu	A	2N5060	Q30	J11-12/J12-14	Time #2	45	Orn-Yel	B	2N5060
Q60	J10-13	Bonus 50K	51	Wht-Red	A	2N5060	Q47	J11-11/J12-6	Time #3	13	Red-Yel	B	2N5060
Q29	J11-8	Bonus 100K	67	Brn-Orn	A	2N5060	Q62	J11-4/J12-1	Time #4	95	Gry-Wht	B	2N5060
Q46	J11-16	Bonus 200K	53	Wht-Yel	A	2N5060	Q31	J11-13/J12-13	Time 00	61	Brn-Red	A	2N5060
Q47	J11-11/J12-6	Clock Running	13	Red-Yel	A	2N5060	Q48	J11-10/J12-7	Time 05	52	Wht-Blu	A	2N5060
Q62	J11-4/J12-1	Clock Stopped	75	Orn-Wht	A	2N5060	Q63	J11-3/J12-2	Time 10	25	Blu-Wht	A	2N5060
Q50	J11-7/J12-9	Collect Bonus	81	Blk-Red	B	2N5060	Q32	J11-14/J12-12	Time 15	73	Orn-Yel	A	2N5060
Q24	J10-2	Credit	45	Grn-Wht	A	2N5060	Q49	J11-9/J12-8	Time 20	18	Red-Blk	A	2N5060
Q61	J11-6/J12-10	Double Score	12	Red-Blu	A	2N5060	Q64	J11-2/J12-3	Time 25	23	Blu-Yel	A	2N5060
Q41	J10-8	Drop Targets 50K	62	Brn-Blu	B	2N5060	Q33	J11-15/J12-11	Time 30	98	Gry-Blk	A	2N5060
Q56	J10-17	Drop Targets 100K	97	Gry-Orn	B	2N5060	Q50	J11-7/J12-9	Time 35	81	Blk-Red	A	2N5060
Q25	J10-3	Drop Targets 150K	95	Gry-Wht	B	2N5060	Q65	J11-1/J12-4	Time 40	15	Red-Wht	A	MCR-106
Q42	J10-9	Drop Targets Special	35	Yel-Wht	B	2N5060	Q34	J12-17/J13-1	Time 45	34	Yel-Grn	A	MCR-106
Q25	J10-3	Game Over	95	Gry-Wht	A	2N5060	Q51	J12-15/J13-8	Time 50	40	Grn	A	MCR-106
Q56	J10-17	High Score to Date	97	Gry-Orn	A	2N5060	Q66	J12-16/J13-6	Time 55	14	Red-Grn	A	MCR-106
Q65	J11-1/J12-4	Lane "A"	15	Red-Wht	B	MCR-106	Q35	J13-2	Time 60	78	Orn-Blk	A	MCR-106
Q34	J12-17/J13-1	Lane "B"	34	Yel-Grn	B	MCR-106	Q52	J13-13	Time 120	27	Blu-Wht	A	MCR-106
Q51	J12-15/J13-8	Lane "C"	40	Grn	B	MCR-106	Q53	J13-12	TIMER "T"	80	Blk	A	MCR-106
Q66	J12-16/J13-6	Lane "D"	14	Red-Grn	B	MCR-106	Q68	J13-10	TIMER "I"	57	Wht-Orn	A	MCR-106
Q49	J11-9/J12-8	Left Outlane	18	Red-Blk	B	2N5060	Q37	J13-4	TIMER "M"	70	Orn	A	2N5060
Q67	J13-5	Left Return Lane	30	Yel	A	MCR-106	Q54	J13-11	TIMER "E"	72	Orn-Blu	A	2N5060
Q32	J11-14/J12-12	Left Start	73	Orn-Yel	B	2N5060	Q69	J13-7	TIMER "R"	54	Wht-Grn	A	2N5060
Q55	J10-16	Match	71	Orn-Red	A	2N5060	Q30	J11-12/J12-14	Triple Score	45	Grn-Wht	A	2N5060
Q53	J13-12	Right Lane 2X	80	Blk	B	MCR-106	Q23	J10-1		91		A	2N5060
Q68	J13-10	Right Lane 3X	57	Wht-Orn	B	MCR-106	Q41	J10-8		62		A	2N5060
Q37	J13-4	Right Lane 5X	70	Orn	B	2N5060	Q70	J10-7		56		A	2N5060
Q54	J13-11	Right Lane 40K	72	Orn-Blu	B	2N5060	Q29	J11-8		67		B	2N5060
Q69	J13-7	Right Lane Special	54	Wht-Grn	B	2N5060	Q31	J11-13/J12-13		61		B	2N5060
Q64	J11-2/J12-3	Right Outlane	23	Blu-Yel	B	2N5060	Q35	J13-2		78		B	MCR-106
Q36	J13-3	Right Return Lane	95	Gry-Wht	A	MCR-106	Q45	J10-10		57		B	2N5060
Q63	J11-3/J12-2	Right Start	25	Blu-Wht	B	2N5060	Q46	J11-16		53		B	2N5060
Q57	J10-18	Saucer 10K	58	Wht-Blk	B	2N5060	Q48	J11-10/J12-7		52		B	2N5060
Q26	J10-4	Saucer 20K	41	Grn-Red	B	2N5060	Q60	J10-13		51		B	2N5060

Lamps #555 are used in phase A (Pink) wire and phase B (Violet) wire.

Switch Matrix

		strobe (ST)  return (I)					
Row	Column	STROBE 0 J4-15 Wht-Red (51) J3-15 Red-Yel (13)	STROBE 1 J4-14 Orn (70) J3-14 Red-Grn (14)	STROBE 2 J4-13 Gry-Yel (93) J3-13 Orn-Grn (74)	STROBE 3 J4-12 Wht-Yel (53) J3-12 Yel-Wht (35)	STROBE 4 J4-11 Wht-Red (51) J3-11 (not used)	STROBE 5 J4-1 Wht-Vio (511)
RETURN I 0 CJ4-10 Wht-Grn (54) CJ3-10 Red-Wht (15)		Drop Target 1 01	Coin Chute III (Right) 09	"T" Timer 17	Right Thumper Bumper 25	"S" Stop 33	Not Used 41
RETURN I 1 CJ4-9 Brn-Yel (63) CJ3-9 Brn-Wht (65)		Drop Target 2 02	Coin Chute I (Left) 10	"I" Timer 18	Middle Thumper Bumper 26	"T" Stop 34	Not Used 42
RETURN I 2 CJ4-8 Wht-Orn (57) CJ3-8 Blu (20)		Drop Target 3 03	Coin Chute II (Middle) 11	"M" Timer 19	Left Thumper Bumper 27	"O" Stop 35	Not Used 43
RETURN I 3 CJ4-7 Orn-Blk (78) CJ3-7 Blu-Red (21)		Drop Target 4 04	Lane Change 12	"E" Timer 20	Right Slingshot 28	"P" Stop 36	Not Used 44
RETURN I 4 CJ4-6 Brn (60) CJ3-6 (not used)		Drop Target 5 05	Left Return Lane 13	"R" Timer 21	Left Slingshot 29	"A" Lane 37	Single Drop Target 45
RETURN I 5 CJ4-4 Wht-Brn (56) CJ3-5 Yel (30)		Credit Button 06	Slam 14	Not Used 22	Right Start 30	"B" Lane 38	Left Saucer 46
RETURN I 6 CJ4-3 Brn-Wht (65) CJ3-4 Blk-Orn (87)		Drop Target 6 07	Tilt 15	Left Outlane 23	Left Start 31	"C" Lane 39	Middle Saucer 47
RETURN I 7 CJ4-2 Wht-Blu (52) CJ3-2 (not used)		Outhole 08	Right Return Lane 16	Right Outlane 24	Right Rollover Button 32	"D" Lane 40	Not Used 48